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TRANSLATIONS ON USSR MILITARY AFFAIRS

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CIVIL DEFENSE ACTIVITIES IN THE ESTONIAN SSR

Tallin SOVETSKAYA ESTONIYA in Russian 8 Sep 77 pp 2-3

[Interview with A. D. Sutankin, ESSR civil defense chief of staff for propaganda by V. Grigor'yev: "Everyone's Sacred Duty"]

[Text] Our reporter, V. Grigor'yev, interviews A. D. Sutankin, ESSR civil defense deputy chief of staff for propaganda.

[Question] Today it would seem that there is no point in talking about the enormous importance of civil defense for protecting socialism's achievements. Every Soviet person is vitally interested in strengthening our homeland's defense capabilities and in strengthening peace. Nevertheless, don't you think, Aleksandr Dmitriyevich, that a certain segment of the populace somewhat underestimates the importance of universal civil defense training?

[Answer] Your question is to the point. As is well-known, reactionary circles in the West--using the uproar around a fabricated "Soviet military threat" for cover--are increasing ideological diversions against the socialist countries, instilling the populace with the idea of the inevitability of war and are maintaining the arms race in every way possible. The hypocrisy of detente's enemies knows no bounds. They are preaching about their desire for peace, while bringing a new, fearful weapon of mass destruction--the neutron bomb--into the inventory and advertising it as a "humane" weapon since it does not destroy things which are materially useful while killing people.

Our party's basic policy for preserving peace meets the aspirations of all mankind. But, we must consider the imperialist's dangerous plans. Therefore, our common duty is to strengthen the country's defensive might in every way possible and in the

event of a possible war--to protect the populace and industrial and other facilities. For this, it is specifically necessary to train people in the methods and means of individual and collective defense against modern weapons and in operations as members of civil defense formations. When necessary, these formations have to efficiently and skillfully conduct rescue and emergency restoration duties in contaminated areas. In peacetime--as practice has shown--civil defense formations can successfully fight massive fires and clean up after natural disasters, industrial accidents and catastrophes.

Concerning the underestimation of its importance... I am convinced that those who remember the Great Patriotic War have a most serious attitude toward civil defense. In general, a lot here depends on the level of military patriotic indoctrination and the combined propaganda work of CD staffs, party and Soviet agencies, Komsomol, trade union and other public organizations.

[Question] You cited the experience of the Great Patriotic War...

[Answer] Both the Great Patriotic War--when the unity of the Armed Forces and the people was especially vividly demonstrated--and the entire 45-year history of USSR civil defense.

During the war 85 million workers, employees and students were trained in the means and methods of chemical defense (ACD) [air and chemical defense]. By the spring of 1942 the formations and self-defense groups of local air defense (LAD) already numbered over six million people. Suffice it to say that during the past war the fascists conducted over 30,000 bombing raids and dropped about 600,000 high explosive and almost a million incendiary bombs on our cities, facilities and populated areas.

During those grim days the LAD medical, firefighting and emergency restoration services detachments displayed the utmost in selflessness. Thus, the emergency restoration detachments kept the down time of bombed enterprises to a minimum: it did not exceed six hours on the average throughout the country. During the war 430,000 high explosive and incendiary bombs and approximately 2.5 million mines were disarmed and destroyed.

Over 2,000 LAD soldiers were awarded government decorations for valor and courage.

During the Great Patriotic War the Soviet people displayed the highest esprit de corps which was distinguished by our Marxist-Leninist ideology and socialist social and governmental system.

Communist moral fiber, conviction and whole-hearted love for the homeland led the Soviet people to victory.

Question Judging by everything, under the conditions of a possible modern war with nuclear missiles, the importance of a person's moral, political and psychological training will immeasurably increase?

Answer Absolutely. It is especially important here not to underestimate nor to overestimate the strength of nuclear weapons. The first leads to carelessness and the second to pessimistic arguments: they say there is no defense against atomic weapons. The entire history of warfare attests to the fact that each new type of weapon also gives rise to new means of defense. No matter what destructive and harmful power nuclear weapons possess, their effectiveness can be significantly reduced by observing civil defense requirements.

Every war brings difficult trials with it. That is why the task of propagandizing civil defense knowledge is one of ensuring that everyone will have a concept of modern warfare which is as close as possible to reality, will be psychologically prepared for any trials and will know his personal task in the civil defense system: he will have efficiently mastered the rules for conduct at evacuation assembly points, while boarding vehicles, enroute and in the settlement area.

The psychological factor has been of enormous significance in every war. For example, during the Second World War over a million soldiers in the armies of the capitalist states were hospitalized due to psychological disorders; 500,000 of them turned out to be unfit for further duty. It is understandable that a person who was paralyzed by fear and who was exposed to panic is not able to overcome great difficulties and ceases to be a true soldier.

Let's recall the vandalous atomic bombing of Hiroshima. There were 78,000 killed and 84,000 wounded out of the city's population of 300,000. Plus 20,000 who died in the following 4 months from wounds, burns and radiation sickness. It is necessary to add to this the thousands who died as a result of panic. The bomb was dropped on a defenseless population. If a city's residents used even elementary means of defense and the simplest methods of partial personal cleansing in a similar situation, then the number of casualties would have been immeasurably fewer.

And now I will cite another case, closer in time. The war in Vietnam lasted for 12 years. During its last seven years the

American Air Force plastered the long-suffering country with over six million bombs. This is the equivalent of 450 Hiroshima bombs. During just 10 days in December 1972, 100,000 bombs were dropped on Hanoi, Haiphong and other cities. As a result of this massive, barbarian bombing, 1,318 people were killed. The civil war in Vietnam was at its height. The efficient warning service, collective and individual shelters, efficient realization of plans for evacuation and dispersal--all played their part. All of this was combined with the population's high level of discipline and fearlessness.

This example again convincingly demonstrates how important are a knowledge of means and methods for defense against modern weapons, the readiness to operate in complex situations and the ability to overcome fear. Finally, it is also necessary to know the relationship between the potential and the actual capabilities of means of destruction under various conditions. For example, a bullet weighing just nine grams snuffs out a man's life. At the same time, several tons of metal were expended in past wars to destroy one "live unit"...

/Question/ All of this is important and interesting data... But, can we change the course of the conversation to concrete civil defense propaganda experience among the people and discuss its means, forms and methods?

/Answer/ With pleasure. An established system for training the populace has been formed throughout the country at present. This continuous process encompasses schools and VTS's /vocational-technical schools/ tekhnikums and VUZ's, enterprises and farms and groups of apartments.

We devote a great deal of attention to oral propaganda in the republic. This is scientific-applied conferences, seminars, lectures and topical evenings... Today, CD propaganda sections are in operation at Znaniye society departments.

The republican and local press--including SOVETSKAYA ESTONIYA--television and radio, film releases and Tallin Film are also our friends and helpers. Almost 16,000 people--the collectives of 266 enterprises, institutions and educational institutes--took part in the quiz contest organized by the newspaper MOLODEZH' ESTONII. Over 550,000 people watched movies on civil defense last year. And Tallin Film shot a two-part movie "A Facility Multi-Theme Exercise" to our order.

Let's also add the civil defense days, weeks and months to these impressive figures and facts. By the way, they are conducted well in Kokhtla-Yarve and in Narva; in Paydeskiy, Pyl-

vaskiy and Rakvereskiy rayons and also in the Morskoy Rayon of Tallin. Today, visitors of the Echo and Space movie theaters are greeted by interesting, well-designed displays.

I must also mention the collectives of the BBA [Ball Bearing Association] imeni V. Klementi, the Tallin Machine Building Plant imeni I. Lauristan, the Baltic Ship Repair Facility, the Kalev Factory, the kolkhozes imeni S. M. Kirov, the Ninth of May, Allika, etc. Full-scale training areas, training villages, classrooms and rooms are not built here for the sake of appearances.

[Question] And what are the ties between CD staffs and public organizations?

[Answer] We would not be able to do anything without them. Trade unions, the Komsomol and DOSAAF are our most active assistants. It is not by accident that an important spot is allocated to improvement of civil defense in labor collective localities today. We are gladdened by the widespread dissemination of the initiative of the workers and employees of the Tartu Furniture Combine who developed a competition in the civil defense system. The republic's CD services, the ministries and departments, the rayons of the city of Tallin and rural rayons are also competing. The Estonian Shale Association, the Ministry of the Timber and Wood Processing Industry, the city of Kokhtla-Yarve, the Oktyabr'skiy Rayon of the city of Tallin and Paydeskiy and Vil'yandiskiy rayons are in the front ranks of those competing.

Party agencies and organizations--from the Estonian Communist Party Central Committee to the local organizations--are rendering invaluable assistance and constant support to the CD staffs. For example, the Tallin City Committee of the Estonian Communist Party and the gorispolkom ratified the Statute on Suitable Socialist Competition Between Rayons and they instituted a challenge pennant and monetary awards.

Young people joining civil defense is especially worth mentioning. I would like to recall here the words of comrade L. I. Brezhnev from his speech at the Kremlin reception in honor of military academy graduates: "It is also necessary to constantly improve defense work among the populace, to strengthen the civil defense system and to more widely disseminate military knowledge, especially among young people." The Estonian Komsomol Central Committee and all the republic's Komsomol members are devoting unabated attention to the military patriotic indoctrination of the young generation and to continuing and enriching the glorious combat traditions of their fathers

and older brothers. Komsomol members are aggressively passing the RLD /Ready for Labor and Defense of the USSR/ norms tests and they are participating in construction of training centers and villages. Many of them are formation commanders and they are coping with this mission in an outstanding manner.

/Question/ Of course, Aleksandr Dmitriyevich, the main tenor of our conversation does not mean there are no shortcomings in this business.

/Answer/ I would not like to create such an impression. And here's why. The qualitative analysis of work accomplished is not at the required level everywhere; from my point of view, it does not always receive a conscientious party rating. I named the leaders, but there are also laggards. There are enterprise and farm managers who think that high production statistics "erase" their inadequate attention to civil defense.

We have a lot of civil defense enthusiasts and activists. But, unfortunately, their experience is not propagandized enough at the local level and these people are poorly encouraged. At the same time, far from all managers believe it is necessary to personally take part in civil defense propaganda.

Multi-theme facility, rayon and city exercises demand the greatest (I would even say--special) concern. They develop the ability and skills and the moral-psychological qualities of the trainees. The level of party political work--both during training and in the course of the exercises themselves--determines their success to a great extent.

I want to stress once again in conclusion: civil defense is the affair of each and every one of us. This is dictated by life, the CPSU Central Committee has set this mission and we will continue to accomplish it this way in the future.

9001
CSO: 1801

TURKESTAN M. D. COMMANDER CITES UNITY OF NATIONALITIES

Ashkhabad TURKMENSKAYA ISKRA in Russian 1 Nov 77 p 2 LD

[Article by Col Gen S. Ye. Belonozhko, commander of the Red Banner of Turkestan Military district and deputy of the USSR Supreme Soviet: "The People and the Army Are United"]

[Text] On the eve of the 60th anniversary of Great October an extremely important event has occurred in the life of our state--the extraordinary Seventh Session of the USSR Supreme Soviet of the ninth convocation has adopted the new constitution of our country, the fundamental law of the society of developed socialism. The very profound meaning of this supremely important state act and its epochal significance were extensively and graphically revealed by Comrade L. I. Brezhnev, general secretary of the CPSU Central Committee and chairman of the USSR Supreme Soviet Presidium, in his comprehensive report and concluding speech at the USSR Supreme Soviet session.

Each article of the new constitution reflects the historic gains of our people in the 60 heroic years of Soviet power. It also sets out the lofty mission of the Soviet armed forces. Article 31 says: "It is the duty of the armed forces before the people to reliably protect the socialist fatherland and to be in a state of constant combat readiness to guarantee an immediate rebuff to any aggressor."

Our army is the flesh and blood of our people. It shares with them the same intentions, thoughts and aspirations. Leonid Ilich Brezhnev has described it as a school of endurance and discipline--a school which gives technical and vocational knowledge and political training to the young people who have entered the family of soldiers. The Soviet Army has been such a school for the defenders of the socialist motherland since it was first created. It has been a hard school, demanding complete effort and selfless love for the motherland. And always--in peacetime training and in the terrible war years--the Soviet soldier has matched his pace with that of the people. It is precisely this indestructible unity which is the main source of our strength and invincibility.

For every soldier, whatever his nationality, there is a single, equally dear motherland. It is the same socialist motherland which was created by more than 100 nations and nationalities of our country.

How is it possible to cherish, care for and guard such a motherland! And this is the concern of all its sons. Here, on the southernmost boundaries of our fatherland, the soldiers of the Red Banner Turkestan Military district--one of the oldest in the country--are reliably standing guard. Their brothers-in-arms, the soldiers of other districts, are vigilantly watching over the fatherland's northern, eastern and western frontiers.

The 25th CPSU Congress noted that our army is educated in the spirit of profound devotion to the socialist motherland and the ideas of peace, internationalism and the friendship of peoples. It is precisely in this way that the Soviet Army differs from bourgeois armies. It is precisely for this reason that the Soviet people love their army and are proud of it. Created by the great Lenin and our party, it is the combat alliance of all the nationalities of the USSR, the bearer of friendship and brotherhood among peoples and a united friendly family of soldier-patriots and internationalists.

The years of service in the army form firm internationalist beliefs in people. Whoever has passed through the army school values highly the friendship, comradeship and mutual assistance and for all his life is a champion of internationalism and the friendship of peoples.

In the conditions of the Red Banner Turkestan Military district, whose troops are deployed on the territories of the two union republics of Uzbekistan and Turkmenistan, where the representatives of many nationalities live and work in a united friendly family, the education of soldiers in the spirit of friendship, fraternity and solidarity has particular significance. Let us take, for instance, the military unit which is performing its difficult service at the country's very southernmost point--the Red Banner Kushka. The representatives of 30 nationalities and peoples of the Soviet Union are carrying out their service there. They are a friendly combat family and a single combination of fraternity and internationalism. The qualities of the soldiers, sergeants, warrant officers and officers there--whatever nationality they belong to--are judged from their service, actions, political activity and competence in military work.

The unit in question is no exception in this sense but is one among equals in the district, and everywhere the main condition which helps to resolve successfully the complex tasks of combat and political training is the firm friendship of soldiers who are representatives of different nationalities and the sacred ties of troop comradeship. This is how military radar operators, for instance, describe their service in a letter to the editorial office of the district newspaper: "Day and night the pilots keep a combat shift. And that is also true of us 'earthbound creatures.' From take-off to landing the soldiers of our subunit provide the pilots with the stable and reliable working of radiotechnical means of communication. We are

Russian Junior Sergeant V. Selichev, Turkmen Private First Class A. Goylyyev, Tartar Private E. Miseratov, Uzbek Private First Class N. Madaminov, Armenian Private First Class V. Kazaryan and Buryat Private V. Dagbayan... We are a united combat collective, in which mutual assistance and friendship have long since been the main force strengthening the subunit's combat readiness and improving the skills of every one of us. It is precisely friendship which helps us to learn the military work in the proper way and proceed with confidence from one success to another."

Party political work in the district's units and subunits in accordance with the main principles of ideological activity elaborated by V. I. Lenin contribute to a great extent to the cohesion of such combat collectives. One of these is the education of Soviet soldiers in the spirit of fraternal friendship among peoples and in the spirit of proletarian internationalism.

There are many forms and methods of such work. Lectures are presented on a systematic basis among the troops and there are theoretical conferences, talks, radio broadcasts and cinema festivals devoted to the impressive achievements of the union republics and their successes in implementing the historic decisions of the 25th CPSU Congress, as well as meetings with notable city and rural workers.

Much is being done to strengthen in each soldier the awareness of belonging to the united socialist motherland. The combat traditions of our armed forces, the glorious history of the Red Banner Turkestan Military district and its units and the revolutionary and labor traditions of the working class, party and people are extensively and comprehensively exploited for this purpose.

And these traditions are extremely rich. The soldiers of the Turkestan Military district and all the fraternal republics made a worthy contribution to the great victory of the Soviet people over fascism. Hundreds of thousands of inhabitants of Turkmenia fought heroically on the fronts of the great patriotic war. Some 19,000 of them were presented with combat awards of the motherland and 76 of them honored with the title of hero of the Soviet Union. Many did not return home, having given up their lives for the freedom and happiness of their united multinational Soviet fatherland. In their honor many dozens of monuments, museums, rooms, corners and clubs of combat glory were created in the republic's cities and villages. The monuments to the heroes are history in bronze. The obelisks with the names of the dead can be quite correctly described as a book narrating the military prowess and great brotherhood of all our peoples who defended the same great home of the Soviet motherland. Meetings between young soldiers and veterans of the great patriotic war and wreath-laying at the monuments and obelisks are organized.

Such remarkable people as heroes of the Soviet Union Pena Reczhepov and Ivan Vailevich Bogdanov from Ashkhabad and full bearer of the Orders of Glory Chary Nazarov from Mugabskiy Rayon, Marynskaya Oblast are well-known to the soldiers of our district.

In the small, remote garrisons, where there are no former frontline soldiers, the commanders and political workers write letters to the veterans whose sons and nephews are spending their service in those subunits, asking them to describe themselves and the frontline brotherhood which was strengthened by the blood spilt on the fields of battle. The letters of avowal and parting words are read out on parade.

When speaking of the sources of the victory of the Soviet people in the great patriotic war, propagandists note that the Soviet people have elevated international brotherhood and the love of person for person and compatriot--which has made us invincible--to the highest level. In every matter--small or great--we consider it a sacred law to help a comrade and support each other.

The strength of fraternal friendship will never weaken. Fortified by the blood spilt on the fields of battle, this friendship can achieve miracles. The strength of fraternal friendship is not only manifested in enemy combat or under enemy fire. Let us recall the recent destructive earthquake at Gazli. The first to arrive to help the oil extraction workers were soldiers. In a few days they had erected about 1,000 tents and organized lessons in schools and the work of kindergartens. And what about 6 months ago, when violent flooding swept over Fergana? The soldiers, who included representatives of all the nations of our motherland, displayed just as much courage and fortitude in the struggle against the elements!

But these are examples of mass heroism. Individual feats are accomplished daily by the soldiers of the district. Private Musayev came to the rescue of Lieutenant Tryukas in a critical situation. Private Rikhsivey Gafurov fell seriously ill at a radar station high in the mountains. An immediate operation was required. His comrades carried him bodily for 22 hours through snow and down cliffs and rocky slopes to the valley.

But these instances are exceptional. In their everyday life and service soldiers of different nationalities help each other to acquire military skills, master related specialities and increase their political knowledge.

Spring water is pure, the color of roses is beautiful and steel is strong, as the national wisdom says, but the friendship of the Soviet peoples is purer than water, more beautiful than colors and stronger than steel. It finds its embodiment in every military collective and helps soldiers to actively increase their efforts in the struggle to achieve new successes in combat and political training and to assimilate modern weapons and combat equipment.

The 25th CPSU Congress set the armed forces the clear task of guaranteeing the security of the creative labor of the people and being a bulwark of world peace. Soviet soldiers are carrying out their patriotic and international duty with a sense of high responsibility. They are vigilantly standing guard over peace and socialism. The fraternal friendship and unity of the army and people are helping to successfully resolve all the tasks they have been set by the party and the motherland--a unity to which the entire life of the armed defenders of the motherland is welded.

CSO: 1801

'CAREFUL, COMPREHENSIVE' IDEOLOGICAL WORK NEEDED IN NAVY

Moscow KRASNAYA ZVEZDA in Russian 30 Oct 77 p 2 LD

[Article by Adm V. Grishanov, member of the Military Council and chief of the USSR Navy Political Directorate: "Ideological Conviction"]

[Text] The adoption of the new USSR Constitution--a document of worldwide historic significance, the manifesto of the epoch of building communism--was a powerful stimulus for enhancing the sociopolitical and combat activeness of the servicemen of the Soviet armed forces. At meetings and gatherings they have unanimously supported the new fundamental law and have fervently assured the party and the people that they will worthily fulfill their constitutional duty: To reliably defend the socialist fatherland and to be in a state of constant combat readiness which insures an immediate rebuff to any aggressor.

The common feature which has typified all generations of fighters for communism--right from the first days of the Great October Revolution--is manifested vividly in this determination of the servicemen to fulfill their duty to the end. This is the mighty strength of ideological conviction and of high political maturity.

1. Vladimir Ilich Lenin, when elaborating the doctrine of the defense of the socialist fatherland, substantiated the principles and class orientation of the education of Soviet servicemen. He stressed that their conviction as to the correctness of their struggle and their awareness that they are fighting for radiant ideals, for the power of the working people and for the happiness of the people elevates morale, makes them endure unheard-of difficulties and inspires them to mass heroism and the greatest self-sacrifice.

The correctness of this is confirmed by the entire historic career of our glorious armed forces. Immediately after the October Revolution, they successfully beat off a military onslaught by 14 imperialist states, which threw massed forces armed to the teeth against the Republic of the Soviets. There has been no threat in history more ominous than that with which Hitlerite fascism assailed mankind. And it was our people, our armed forces,

that broke its back and secured a great victory in a struggle of unparalleled scale and ferocity.

What, above, all, impressed and still impresses those who participated in the last war and who view its battles from the vantage point of the present day? The magnanimity of the Soviet servicemen, their readiness to give their lives for the people and for the sacred cause of communism, which was for them a dear and vital cause. Our people and their armed forces amazed the world with the heroism of the multimillion-strong masses, with the steely cohesiveness of their ranks and with their selfless readiness to fight to the end, to victory!

Our revolution is 60 years old! In this brief historical period the party of the great Lenin has managed not only to considerably boost the economy and defense capability of the country, but also to nurture a person of a new cast and new mentality--a person of lofty communist awareness and ideological conviction. In the report to the 25th CPSU Congress, Comrade L. I. Brezhnev called this one of the greatest results of the past 60 years.

2. The communist education of the Soviet people and the moral-political training of the armed forces' personnel are carried out in inseparable unity. Guided by the instructions of the 25th Party Congress and the CPSU Central Committee, and proceeding from the tasks facing the Army and Navy, the military councils, commanders, political organs and party organizations are devoting much effort, energy and creativity to the cause of the ideological tempering of the servicemen and to forming in them a Marxist-Leninist world outlook and high ideological-political qualities.

This work has received great additional impetus in connection with the adoption of the new Soviet Constitution and with the approaching 60th anniversary of the Great October Revolution. We derive ideological inspiration from the revolutionary past and present of our own dear party and the people. The USSR Constitution is the concentrated result of the 60-year development of our socialist state. At the same time it reveals the imposing prospects of communist building. All this is a vivid expression of the immortal nature of Lenin's ideas. This is why the broad, painstaking work of the party organizations in propagandizing this outstanding document of the present time and explaining each of its provisions and articles, and the concern for developing in the servicemen a profound understanding of their rights and obligations and a desire to strictly fulfill the demands of the constitution, can be called, with every reason, a great school of communist moral fiber.

The 60th anniversary of the Great October Socialist Revolution, the decisions of the CPSU Central Committee October (1977) Plenum and of the extraordinary seventh session of the USSR Supreme Soviet, the propositions and conclusions contained in Comrade L. I. Brezhnev's report and in his speeches at the session, and the country's new constitution together

constitute the central theme of the ideological-educational measures which are being conducted with the communists and all the personnel of the Navy. Much has already been done, but lengthy work lies ahead and the political organs and party organizations are required to give it careful thought and to impart to it a comprehensive nature.

The communists are fully aware that the standard of combat readiness of the subunits, units, ships and formations depends on the efficiency and quality of the party organizations' entire multiform ideological work. Therefore, they are working with a great sense of responsibility, equipping the personnel with communist ideology and with a profound understanding of the policy of the party and government, of the USSR's state interests, and of the essence and nature of war in defense of the socialist fatherland. By enhancing the political awareness of the servicemen, the party organizations are helping the commanders to mobilize the men for more dogged work on mastering military skills, strengthening discipline and enhancing vigilance and combat readiness.

Today the moral fiber of the Soviet sailor, it may be said, is increasingly frequently an object of close scrutiny by hundreds and thousands of people beyond the borders of our motherland. In recent years, when the Soviet Union's Navy has emerged in the expanses of the world's oceans, when our ships are visiting, as guests, many ports of the capitalist and developing states, questions of the ideological maturity and moral-political tempering of each member of a ship's crew naturally assume special significance. Our sailors, petty officers, warrant officers and officers worthily represent the Soviet people and their armed forces. Simply by their high moral fiber, culture, moral purity, friendliness and kindness they are genuine propagandists of the Soviet way of life.

Our communists are aware that the exacerbation of the ideological antagonism between the two socio-economic formations--socialism and capitalism--together with the heightened activity of bourgeois propaganda, which stops at nothing, and the frantic "psychological war" which the defenders of capitalism have mounted against us require the intensification of all our work of the ideological front. It is particularly important to remember political vigilance and to teach servicemen to assess all events and phenomena from class positions.

The enhancement of the party organizations' attention toward questions of the ideological-political tempering of the personnel is also demanded by the very process of the development of military matters, the flood of complex equipment which the ground forces and naval forces are acquiring, and the growth of the power of modern weapons. At the same time, as Marshal of the Soviet Union D. F. Ustinov, USSR defense minister, stressed at the scientific-paractical conference of leading political workers of the army and navy, "Our advantage has always been, and still remains, an advantage in the moral fiber and consciousness of the men and in their high socialist patriotism." The commanders and party organization of the big antisubmarine

ship "Marshal Timoshenko" understand this deeply. Here, questions of the education of the men are always at the focus of attention. The communists impart to any educational measure a precise political, class orientation. They realize very well that very heart of the communist education of Soviet people, of army and navy servicemen, is the formation in them of a communist world outlook and education in the ideas of Marxism-Leninism. On this ship the fulfillment of this requirement can be clearly traced in everything--in how seriously the communists treat the ideological and organizational standard of the theoretical training for officers and of the political study sessions involving sailors, petty officers and warrant officers; and in the broad dissemination of such forms of work as theoretical conferences, Leninist readings and lessons, and political quizzes. Sailors are enthusiastically studying the works of V. I. Lenin on their own initiative, and the party organization is giving them constant assistance in this. In the period of the nationwide discussion of the draft new USSR Constitution and now that it has been adopted and has entered into force, the party organization implemented, and is implementing, the following principle: When the personnel studies each section of the fundamental law and all its fundamental provisions, it is essential to clarify in a well-reasoned way those fundamentals of the theory of Marxism-Leninism and of the practice of communist building on which these provisions are based.

Undoubtedly, this approach requires special skill, constant questions and persistence in the realization of set tasks and one's own creative schemes.

3. Marxism-Leninism is an eternally living and developing doctrine. The propaganda and study of it, and its linking with a person's specific practice is also a living and creative process.

The party organizations must constantly remember this and must seek to insure that the communists master in Marxist-Leninist teaching increasing depth and that they keep pace with the development of the theory and practice of communism. After all, it is the communists above all who are the ideological mentors of the servicemen, and their depth of knowledge and personal competence in education work with the men is an indispensable condition of its success.

The party organization are also called upon to take constant pains to insure that communists master the Leninist art of political education and persuasion and the scientific foundations of propaganda and agitation. The skillful use of the whole varied range on forms and methods of ideologically influencing people must also be an object of constant concern on the part of the party organizations. Meanwhile, in certain party collectives due significance is not being attached to this and the creative quest for vivid and effective mean of propaganda and agitation is considered something of secondary importance. Hence, the declarative nature of certain political speeches, their alienation from real life and the monotonous uniformity in the whole system of mass agitation work. All these are symptoms of formalism about which the party organizations are called upon to

speak out plainly and against which they must struggle resolutely, because imperfections in this sphere hinder the growth of success in combat and political training.

From the rostrum of its 25th Contress the party proclaimed a course toward efficiency and quality, stressing that this concerns all spheres of our life. This course was also confirmed by subsequent CPSU Central Committee resolutions on questions of ideological work. In a word, our party organizations are armed with a comprehensively elaborated program for the education of the Soviet person. The question naturally arises: How best can this program be put into practice?

This question has also worried the communists of the submarine "Ulyanovskiy komsomolets." Subcommander, A. Kolovchenko, the submarine's commander, and Lt Comdr Engr A. Strakhov, secretary of the party organization, have done much to insure that the proposition that rang out at the 25th Congress about the fact that "communist moral fiber is an amalgam of knowledge, convictions and practical action," becomes a permanent point of reference in educational work. At one of their meetings, the communists observed that measures have begun to be prepared better and have begun to evoke greater interest among the servicemen. However, the party organization has not stopped there. The question of the need to conduct ideological-educational work on a comprehensive basis has been placed on the agenda once again. The desire to examine as an entity the men's knowledge, convictions and actions has entailed the need to improve socialist competition more actively. The process of the adoption of pledges and summing up of results has been filled with new content, and the propaganda of the victors' achievements and experience has become more vivid and concrete. The main thing is that the ideological-moral motives of the labor of those participating in the competition is now being taken more fully into account, and consequently the educational role of competition is increasing. The collective has honorably fulfilled its jubilee socialist pledges.

As a result of the pre-jubilee competition of our combat collectives we can see a manifestation of the high moral fiber and active position in life of the armed defenders of the Great October Revolution.

Profound communist conviction is the main source of the Soviet servicemen's unshakable loyalty to the cause of the party, the cause of the people. It is the guarantee of new successes in the forthcoming training year--the year of the 60th anniversary of the country's armed forces. As loyal sons of their socialist fatherland, the Soviet servicemen are vigilantly standing guard over the great revolutionary gains.

CSO: 1801

PROCEEDINGS AT MILITARY THEORETICAL CONFERENCE

Moscow KRASNAYA ZVEZDA in Russian 1 Nov 77 pp 1, 3 LD

[Unattributed report: "Mighty Shield of the Socialist Fatherland"]

[Text] A military theoretical conference entitled "The Soviet Armed Forces Standing Guard Over the Achievements of October," devoted to the 60th anniversary of the Great October Socialist Revolution, was held in Moscow yesterday at the USSR Defense Ministry. The participants in the conference were leading personnel of the USSR armed forces, workers of scientific institutions, professional and teaching staff of the military academies, and representatives of the press.

At 0900 hours, places in the presidium were occupied by Marshal of the Soviet Union N. V. Ogarkov, Marshal of the Soviet Union V. G. Kulikov, Army General A. A. Yepishev, Army General S. L. Sokolov, CPSU Central Committee Section Chief Ye. M. Tyazhelnikov, Army General V. F. Tolubko, Army General I. G. Pavlovskiy, Marshal of the Soviet Union P. S. Kutakhov, Admiral of the Fleet of the Soviet Union S. G. Gorshkov, Marshal of the Soviet Union K. S. Moskalenko, Army General S. K. Kurkotin, Army General A. T. Altunin, Engineers Col Gen N. N. Alekseyev, Engineers Marshal A. V. Gelovani, CPSU Central Committee Section Deputy Chief V. I. Drugov, USSR Academy of Sciences Vice President P. N. Fedoseyev, and Army General I. N. Shkalov.

Army General A. A. Yepishev, chief of the Soviet Army and Navy Main Political Directorate, opened the conference with an introductory speech.

Army General S. L. Sokolov, USSR first deputy defense minister, delivered a report on "The embodiment of Lenin's ideas on the defense of the achievements of October in the building and strengthening of the Soviet armed forces."

The victory of the Great October Socialist Revolution, the speaker said, was the main event of the 20th century. For 60 years now the world has been developing under the mighty, growing influence of the all-conquering ideas of October. The heroic achievements of the Soviet people who, under

the leadership of Lenin's party, built history's first society of mature, developed socialism, is a real triumph for these ideas.

Comrade L. I. Brezhnev called the new USSR Constitution, adopted on the eve of the October jubilee, the constitution by which the Soviet people and their internal component--the USSR Armed Forces--are living and working, the concentrated result of the entire 60-year development of the Soviet state.

Revolutionary practice and the entire course of post-October development, the speaker noted, have brilliantly confirmed the correctness of Lenin's theory of socialist revolution and the vital force of all its components, including the teaching on the defense of the socialist fatherland. The creative application of this teaching by our party and the fraternal parties of the socialist states is one of the most important factors in the consolidation of socialism and its victorious march in our country, and in the formation and strengthening of the world socialist system.

Army General S. L. Sokolov then dwelled on the objective need to defend the socialist fatherland. He stressed that, in leading the organization and strengthening of the country's defense, military building, and the improvement of the armed forces, the CPSU is invariably guided by Lenin's instructions. The principles of consistent struggle for peace and readiness to rebuff resolutely any aggressor are dialectically fused in its policy based on an all-round consideration of the correlation of class forces in the world, and the features and trends in the development of the international situation.

The key propositions of Lenin's teaching on the defense of the socialist fatherland are of permanent significance for the elaboration of our party's policy in the sphere of military building. These are the propositions on the sociopolitical essence of wars in the modern era, and the unchanging aggressive nature of imperialism. These are the propositions concerning the need for the country's all-round--economic, moral-political, and scientific and technical--preparation for defense. These are the propositions on the military organization of the socialist state--an army of a fundamentally new, socialist type. These are the propositions on the decisive role of man, his ideological tempering, his morale in achieving victory in war. These are the propositions on the leading role of the Communist Party in all spheres of military building.

V. I. Lenin's ideas lay at the foundation of the building of the Red Army. The party created the military organization of the socialist state, relying on the historical revolutionary creation of the working class and working masses. The defenders of October utterly defeated the forces of internal counterrevolution and foreign intervention, and demonstrated staunchness and courage, selflessness and cohesiveness, the highest military skill, and unrivalled mass heroism. The feat of the Soviet people and the Soviet servicemen in the Great Patriotic War will never fade in

mankind's grateful memory. They not only defended the freedom and independence of their motherland, but also made a decisive contribution to the salvation of European and world civilization from destruction by the fascist barbarians.

Now Lenin's ideas about the defense of the socialist fatherland have been enriched with new content. These ideas have been broadly developed in the documents of the CPSU and the works of Comrade L. I. Brezhnev. Soviet people link with the name of Comrade L. I. Brezhnev the impressive successes of the active peace-loving foreign policy course of our party and state, and the achievements in strengthening the might of the Soviet Union and all countries of the socialist community, and in insuring their reliable defense.

The speaker examined in detail the main directions along which the creative development of Lenin's ideas on the defense of the socialist fatherland has been and continues to be implemented, and noted that these ideas have been reflected in the new USSR Constitution. The constitution clearly indicates the historical function of the Soviet armed forces, which were created to defend the socialist achievements and peaceful labor of the Soviet people and the state's sovereignty and territorial integrity. Their duty to the people is to defend the socialist fatherland reliably, and to be in a state of constant combat readiness, guaranteeing an immediate rebuff to any aggressor.

Alongside the development and enrichment of the theoretical propositions of Lenin's teaching on the defense of the socialist fatherland, our party displays constant concern for its practical implementation. The Soviet armed forces are at a level of development fully according with present-day requirements. They are a single sociopolitical organism. They have everything necessary to fulfill their task--the defense of socialism and communism. We say with confidence: The Soviet people's peaceful labor is reliably safeguarded today and always.

The growth of the Soviet armed forces combat might is insured, thanks to the CPSU's daily attention to the cause of consolidating the country's defense and to questions of military building. There is very probably no sphere of military matters in which the guiding and mobilizing role of the party, its Leninist Central Committee, and the Central Committee Politburo headed by Comrade L. I. Brezhnev has not been manifested.

Our armed forces are keeping abreast of scientific and technical progress. The armed forces' new weapons, and their consequently increased combat potential, are inevitably and necessarily introducing fundamental changes to the method and forms of combat operations. Demands on the moral qualities of the personnel and on their training and education are increased.

One of the main tasks stemming from the requirements of the USSR Defense Ministry is the persistent search for ways of making the most effective

use of the high combat potential of modern armaments, and the constant improvement of the tactical arsenal, and preparing and conducting operations. Combat training is all the more effective, and its quality and results all the higher, the more fully the combat potential of the formation, unit, or ship is realized. To train the troops in the most complex and tense situation, under conditions close to combat conditions, using their energies to the full, using all their weapons' firepower, and maneuvering capability and leading methods of conducting combat operations--that is the urgent law of high combat readiness, and it must be strictly observed.

Army General S. L. Sokolov dwelled on the tasks in maintaining the high combat readiness of the armed forces. Above all, he said, we must insure the rapid commissioning and assimilation of new weapons and combat equipment, and their maintenance in good repair and in a state of constant readiness for action. The task consists in teaching the personnel to extract from the weapons and combat equipment as much as they can give. The entire personnel must be made aware of the irrefutable truth that the further raising of the armed forces' combat readiness depends directly on all servicemen's skillful mastering of the weapons and combat equipment entrusted to them.

The speaker paid great attention to problems of the development of military theory. Soviet military science, he stressed, is developing in accordance with the practical requirements of the consolidation of the country's defense and the raising of the combat might of the armed forces. The present-day situation has given military theoretical thought and military practice many complex new problems. While developing constantly, military science must produce the greatest results with the least expenditure of funds and time, and be as close as possible to the troops' requirements.

The speaker dwelled on the international aspects of the defense of the socialist fatherland. He noted that the creation of the Warsaw Pact organization in May 1955 was a further development of Lenin's ideas on the international nature of the defense of socialism. This organization has been in existence for over 22 years. In a comparatively brief historical period, it has shown itself to be an effective means of insuring the security of the socialist countries, reliably defending their revolutionary achievements, and preserving world peace. The leading activity of the communist parties of the fraternal socialist countries is of decisive significance for the consolidation of the Warsaw Pact.

Our party, Army General S. L. Sokolov said in conclusion, regards the consolidation of the motherland's defense capability and the maintenance of the high degree of combat readiness of the Soviet armed forces as one of the main conditions for the successful solution of the tasks of communist building. This is one of the main conclusions of the past 60 years of the Soviet state.

Army General A. A. Yepishev, chief of the Soviet Army and Navy Main Political Directorate, delivered a report on "The Leadership of the CPSU Is the Very Foundation of Soviet Military Building and the Source of the Might of the Soviet Armed Forces."

The two outstanding tasks of the present day--the adoption of the new constitution of the land of the Soviets, and the imminent 60th anniversary of Great October--now determine the entire social life of our people, army and navy, and Soviet people's thoughts and feelings, Army General A. A. Yepishev said. It is natural that our conference is also taking place under the decisive influence of these historic events.

The materials of the CPSU Central Committee October (1977) plenum, and the extraordinary session of the USSR Supreme Soviet, and the report of Comrade L. I. Brezhnev, general secretary of the party Central Committee, chairman of the USSR Supreme Soviet Presidium, and chairman of the Constitutional Commission, "On the Draft Constitution (Fundamental Law) of the USSR and the Results of Its Nationwide Discussion," are of a policy-making nature. They prompt us to examine comprehensively the urgent tasks of Soviet military building in the light of the party's requirements.

Determining the line of the USSR's domestic and foreign policy and leading the Soviet people's creative activity, the CPSU is also fully implementing its leadership of all aspects of the defense of the fatherland. The 60-year history of our state shows that only constant, firm and consistent party leadership was able to insure, and did insure the creation, consolidation and development of the armed forces, and was the main source of their historic victories on the fronts of the civil and Great Patriotic wars.

In resolving the entire complex of questions of Soviet military building, the party and its Central Committee are firmly implementing Lenin's principle of the unity of political and military leadership. The activity of the Defense Council during the civil war and the State Committee for Defense during the Great Patriotic War serve as examples of the consistent implementation of this principle. The creative development of this principle at the present stage is graphically expressed in the activity of the USSR Defense Council headed by Marshal of the Soviet Union Comrade L. I. Brezhnev, general secretary of the CPSU Central Committee and chairman of the USSR Supreme Soviet Presidium.

On the basis of Marxist-Leninist teaching on the defense of the socialist fatherland, the CPSU is resolving creatively the tasks of strengthening the combat might of the army and navy. Uniting in its activity the functions of political leader, organizer and educator of the masses, it links together the elaboration of theoretical propositions concerning Soviet military building and their practical implementation. The party is thus arming the cadres with the Leninist methodology of understanding and resolving the problems of defending socialism's gains. This promotes the

elaboration of unified views of the tasks of training the armed forces, and the improvement of the material and spiritual elements of their combat might.

Then Army General A. A. Yepishev dwelled in detail on an examination of the economic nature of the growth of the leading role of the party in our society and in the armed forces. We are witnessing, the speaker said, the expansion of the party's activity in the scientific leadership of the country's defense, in the elaboration and implementation of military policy, in the selection, placement, and education of military cadres, and in the improvement of forms and methods of party-political work with the personnel.

Under conditions where the danger of war remains, the insuring of the defense of October's gains, and resistance to the aggressive plans of the reactionary forces, emerge as a matter of paramount importance. The party stresses the increased responsibility of the armed forces to the people for the security of the motherland. It insures the growing influence of economic and sociopolitical factors on the consolidation of the country's defense might.

The high degree of maturity of social relations, the rapprochement of classes and social groups, the assertion of communist ideology, socialist patriotism and internationalism, and a sense of Soviet people's national pride among the masses--all these processes taking place in our society, the society of developed socialism, directly affect the consolidation of the state's defense might.

Having shown, on the basis of examples and facts, the qualitative changes in the nature of the young reinforcements joining the army and navy, Army General A. A. Yepishev stressed that these make heightened demands on military cadres, and on the art of training and educating their subordinates, and require the further improvement of party-political work.

Party-political work in the army and navy, the speaker said, is characterized today by its organic link with all the major political events which the party and our people are experiencing in the jubilee year. The main content of the varied ideological and organizational activity of the military councils, commanders, staffs, political organs and party and Komsomol organizations has been determined and continues to be determined by the explanation and implementation of the decisions of the 25th party congress, the CPSU Central Committee resolution on preparation for the 60th anniversary of Great October, the decisions of the CPSU Central Committee October (1977) plenum, and the extraordinary session of the USSR Supreme Soviet, the conclusions and propositions of Comrade L. I. Brezhnev's report at the session, and the new USSR Constitution.

The high patriotic enthusiasm of the personnel engendered by the major political events has helped to improve the quality of combat and political

training in the past training year. People's ability to combine the tasks of the day with state interests is vividly expressed in the results of combat and political training.

The party directs party-political work in such a way that it increasingly helps to enhance the exactingness, competence and strictness of the cadres in resolving questions of the personnel's field, air and naval training, and the improvement of the armed forces' combat readiness.

The problems to which the party and the Central Committee constantly draw the attention of the military cadres include the steady consolidation of military discipline and the improvement of educational work.

Army General A. A. Yepishev paid great attention to that important sphere of party-political work--the organization and leadership of socialist competition in the army and navy. In recent years, the servicemen's patriotic movement has been acquiring an increasingly comprehensive, all-encompassing nature. The distinctive features of the branches of the armed forces and categories of troops, potential for making the most efficient use of equipment, and for fulfilling norms and training and combat tasks, the enhancement of the reliability of tactical control and of the rational use of modern training equipment and stores have begun to be taken more fully into consideration when organizing socialist competition. As the year's results show, the servicemen of the army and navy have fulfilled their socialist pledges in honor of the 60th anniversary of the Great October Revolution.

The CPSU is pointing the way to enhancing the efficiency of all ideological measures--the comprehensive approach to the whole task of educating the servicemen. It is important to conduct political and moral education in close unity with military and legal education and to back up explanatory work, as the USSR defense minister is demanding, by the strengthening of organization and order and by concern for satisfying the men's requirements.

All this, Army General A. A. Yepishev stressed, acquires particularly profound meaning under conditions of the further exacerbation of the ideological struggle in the world arena. In this struggle, there is no room nor can there be room for neutralism and compromise. Active, efficient, flexible and convincing propaganda work and the prompt rebuffing of the enemy's ideological sabotage is necessary here. A decisive precondition for increasing our ideological and moral superiority is the tempering of the servicemen in a spirit of communist ideals and the nurturing in them of irreconcilability toward views and ethics that are alien to our society.

The constant growth of the militancy of the party organizations, and of the activeness and responsibility of the communists, Army General A. A. Yepishev went on to say, constitutes a most important condition for the

steady enhancement of the efficiency of organizational and ideological work in the army and navy. The party organizations of the army and navy are the force which bind the military collectives together.

We have before us important and crucial tasks, Army General A. A. Yepishev said at the conclusion of the report. There is no doubt that our conference, and the examination at it of topical problems of Soviet military building, will promote an improvement of party-political work among the troops, the attainment of new successes in fulfilling the decisions of the 25th CPSU Congress, and of the party Central Committee's demands, and the enhancement of the combat readiness of the army and navy, and of the defensive capability of the motherland of the October Revolution.

Speeches by conference participants began after the report.

Army General S. P. Vasyagin, member of the Military Council and chief of the Ground Forces' Political Directorate, took the rostrum. He devoted his speech to revealing the experience of the activity of commanders, political organs and party organizations in further enhancing the efficiency of party political work among the troops in the light of the decisions of the 25th CPSU Congress.

Aviation Chief Marshal P. S. Kutakhov, commander in chief of the air force, described the role of the air forces in defending the socialist gains of the Soviet people, and CPSU measures for enhancing the amount of equipment they have on hand, and also for enhancing combat readiness.

Admiral of the Fleet of the Soviet Union S. G. Gorshkov, commander in chief of the navy, gave an account of the heroic history of our motherland's navy and of its combat strength, which has been placed at the service of the cause of defending the maritime borders of socialism.

Col Gen S. A. Bobylev, member of the Military Council and chief of the Political Directorate of the PVO Strany troops, spoke in his address of the improvement of the work of commanders, political organs, staffs and party organizations on nurturing in the personnel high moral-political and combat qualities.

The speech delivered by Lt Gen Ye. F. Nikitin, deputy chief of the V. I. Lenin Military-Political Academy, was devoted to criticism of bourgeois falsifiers of the historical experience of the Great October Revolution and of the CPSU's military policy.

Marshal of Signal Troops A. I. Belov, chief of communications of the USSR armed forces, dealt in his speech with questions of the development at the present stage of the armed forces' control systems and facilities.

Topical problems of Soviet military science were examined in the speech delivered by Col Gen M. M. Kozlov, first deputy chief of the USSR Armed Forces General Staff.

Army General I. A. Gerasimov, commander of the Kiev Military District, give an account in his speech of the historical experience of transferring troops from a peacetime footing to a war footing, and its significance under contemporary conditions.

Col Gen I. S. Mednikov, member of the Military Council and chief of the Political Directorate of the Group of Soviet Forces in Germany, devoted his speech to an examination of topical questions of party-political work on enhancing the troops' combat readiness.

Lt Gen M. I. Druzhinin, member of the Military Council and chief of the Political Directorate of the Far East Military District, dwelled in his speech on questions of the moral-political and psychological training of personnel under modern conditions.

Army General A. A. Yepishev delivered some concluding remarks at the conference.

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CIVIL DEFENSE TRAINING ACTIVITIES

In a Civil Defense Military Unit

Moscow VOYENNYE ZNANIYA in Russian No 9, Sep 77 signed to press 10 Aug 77 pp 16-17

{Article by Lt Col V. Shevelev, supernumerary correspondent:
"Those Who Set the Pace"}

{Text} The soldiers of X CD unit are greeting the glorious jubilee with high marks in combat and political training. Komsomol members are setting the pace in socialist competition. They are fighting to sign the CPSU Central Committee's Leninist Komsomol Report.

Accurate Firing

A Komsomol meeting took place in the subunit on the eve of the field firing exercises.

"We are coming into the straight stretch before the finish line," said PFC O. Nyukhin, the Komsomol organization secretary.

"Things are going good in all areas. And, if we do an excellent job firing tomorrow, then we can count on first place in the competition."

The Komsomol members promised to carry out all firing drills with a rating of "outstanding." And, they supported their pledge with

deeds. The marksmen--Jr Sgts S. Makulov and N. Neplyuyev, Sr Sgt V. Kozhushko, Pvts A. Spirtov and V. Nesterov--together with the Komsomol organization secretary took the young soldiers under their tutelage: as their teachers, they conducted training with them and thoroughly worked on methods of preparing for and conducting firing.

For example, S. Makulov helped the young soldier, Sh. Matyakubov. Not everything was going well for the novice in weapons training, especially while firing the submachine gun. He was scared on the firing line. Makulov helped him get rid of this shortcoming. After all, everybody in his squad is a qualified rifleman and this squad is considered the leading squad in the company. It appears that Matyakubov was holding it back.

How much effort and patience are required to train a soldier to aim coolly--without jerking the trigger--and to not be afraid of firing. And he was successful in inculcating these skills. Matyakubov accomplished the drill with a rating of "good" at range practice.

"And now work for better results," the commander advised him.

And at that Komsomol meeting, the young soldier pledged: to achieve an outstanding rating at the range.

Komsomol member A. Spirtov--the best marksman in the subunit who won the title of unit champion in rifle competitions--took an entire group of novices under his tutelage. Of course, the champion had something to share with the still inexperienced riflemen. He organized an original competition among them on the norms; this increased their level of weapons training. During exercises and drills, Spirtov's wards competed in carrying out the various firing methods which were demonstrated with virtuosity by the expert marksman. And each one adopted many of his methods.

...PFC Oleg Nyukhin moved to the firing line first. As befits the Komsomol leader: to set the example. Now he is conducting reconnaissance. He made out a camouflaged "enemy" machine gun

on the hillock covered with yellowed grass. Its as though the target melts into the background.

Submachine gun bursts break the silence. The target was destroyed with the first burst.

"Gas!" rang out the command before the second drill.

Nyukhin quickly put his gas mask on. It is hard to observe the battlefield through the eyepieces of the helmet-mask. However, his trained eye quickly noticed the attacking group. And, Oleg destroyed this target with two short bursts! Outstanding!

Sgt Yu. Vinokurov, Pvt A. Spirtov and Jr Sgt S. Makulov finished firing with the same results.

The young soldiers' turn has arrived. Naturally, their teachers are nervous: they hope they won't miss! But, everything turned out okay. Matyakubov, Berdnikov, Panevin and the others-- who were nursed along so diligently by the Komsomol activists-- really fired in an outstanding manner.

Agitator Yu. Vinorukov and O. Nyukhin immediately put out a combat leaflet. "The pledges are fulfilled," it reported. "We congratulate the young soldiers on their accurate fire!"

When the Teacher is Alongside

Pvts I. Galkin and A. Sarkisov--young fire engine drivers-- did not manage to accomplish the norms within the established time at first. One was too slow and the other too fussy.

N. Brovashov, an experienced driver and qualified specialist, saw it all. It was the same with him a year ago. He acquired the driver's specialty in the DOSAAF automotive school. Before entering the Army, he worked for awhile as a truck driver in a convoy {avtokolonna}. So, he arrived at the CD firefighting subunit with some skills. But, it turned out that they were not enough for a fire engine driver. Besides the ability to

drive a vehicle, special speed, skill and accuracy at work are required. And, Vladimir Bezborodov helped Brovashov cultivate these qualities before his transfer to the reserve.

Now, while watching the young soldiers, Brovashov decided to take Galkin and Sarkisov under his tutelage. He began with mastery of the norms, with repeated repetition of the same procedures, striving so that each movement would become automatic. Preparing the vehicle for movement, starting the engine, shelter and camouflage, technical maintenance--all the norms must be accomplished within the specified time.

Gradually, the young soldiers mastered them. While diligently training under Brovashov's guidance, they decreased the normative time step by step and they acquired solid skills for driving a fire engine and for servicing and maintaining the equipment. And at the Komsomol meeting, the teacher promised to help Pvts Galkin and Sarkisov become qualified specialists.

Shortly afterwards, a special arms tactical exercise took place. This was the day for a real inspection of each person's combat training level. After a motor march, the subunit--based on the situation--had to prepare shelters for personnel and equipment. Brovashov--having taken only two-thirds of the time specified by the norm--was the first to finish this work. Pvts Galkin and Sarkisov--who also broke the norm--were not far behind him.

"Good work!" their teacher praised them.

Komsomol member A. Lykov--the subunit agitator and an initiator of many undertakings during the October watch--has perfectly mastered the specialty of hoseman (the third member of the fire engine crew).

Things were not going smoothly for Pvt O. Khozeyev in laying the hose; this complex operation demands skill, speed and dexterity. Lykov came to his assistance. First of all--as a qualified sportsman--he recommended that Khozeyev seriously engage in physical training since a hoseman's work is connected with a great deal of physical effort, especially under extreme conditions. After many combined exercises, Khozeyev acquired the

necessary skills and began to accomplish all the procedures and operations--while staying within the normative time--along with his more experienced comrade.

Anatoliy Lykov tells about the progress in fulfilling pledges and about the leaders of socialist competition in conversations with soldiers of the subunit and also in his articles which are published in the combat leaflet and wall newspaper.

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In a Novosibirsk Institute

Moscow VOYENNYE ZNANIYA in Russian No 9, Sep 77 signed to press 10 Aug 77 p 17

{Article by Docent N. Yanchenkov: "The Themes of Reports are Expanding"}

{Text} From year to year, the student scientific conferences on civil defense at the Novosibirsk Institute of Railroad Transportation Engineers are attracting greater and greater numbers of students--future specialists in the different sectors of railroad transportation.

And now the fifth conference is dedicated to the 60th anniversary of Great October. The range of speakers has expanded even more.

In opening the conference, Professor M. Akhmetzyanov, the assistant director for scientific work and doctor of engineering sciences, pointed out that the student scientific conferences on civil defense have become a tradition at the institute. Each year civil defense permeates the educational process more deeply; it serves as a theme for practical lessons and seminars and sometimes as the goal of pregraduation training; it is always an integral part of the graduation project.

Interesting reports were given by the chief of the military department, Col I. Kondrat'yev, on the topic "Civil Defense in Modern Warfare" and by the institute civil defense chief of staff, V. Ivushkin, on the topic "Using Visual Aids for the Civil Defense Plan of a Railroad Facility."

Further work proceeded in the sections. The greatest interest was aroused by the reports of the fourth-year maintenance students: Yu. Zhemerov, A. Solov'yeva and T. Ovchinnikova, who recommended a new technique for partial decontamination of diesel locomotives, passenger, mail and baggage cars when using portable railroad decontamination equipment (PRDE); N. Sergeyeva and V. Tsel'ko, who told about a new method of decontaminating covered rolling stock--empty and loaded--by using a network of decontamination centers on through lines and spurs; Ye. Vasil'yeva and Ye. Kochenkov, who explained the problems of efficiently organizing the work of railroad stations under conditions of radioactive and chemical contamination; R. Bol'shakova and O. Demidova on planning shelters and the requirements for them.

Fourth-year student M. Bratchikova told about up-to-date methods for fighting peat and forest fires; T. Kamina--about the most efficient methods for preventing accidents in water and sewage systems; L. Bakina and T. Loboda--on up-to-date methods of protecting and decontaminating water and methods of supplying water for emergency rescue work in centers of contamination.

Teachers of the "Civil Defense" course--V. Khodov and N. Koshel'nik and also training expert V. Fugenfirov--did a lot of organizational work in preparing and conducting the conference.

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Komsomol CD Participation in Irkutskaya Oblast

Moscow VOYENNNYYE ZNANIYA in Russian No 9, Sep 77 signed to press 10 Aug 77 p 18

{Article by A. Orlov, first secretary of the Irkutsk Komsomol obkom: "With Komsomol Enthusiasm"}

{Text} Under the leadership of the oblast party organization, the Komsomol organizations of Irkutskaya Oblast are always helping the civil defense staffs train the populace and personnel of non-militarized units in defense against modern weapons and in popularizing CD among the young people.

The Komsomol organizations of the city of Angarsk (Ye. Solov'yanov, secretary of the Komsomol gorkom) are the most active in this area. At one of their meetings, the gorkom bureau considered the issue "Participation of Komsomol Organizations in Civil Defense Measures"; they clearly established the tasks and ratified written instructions on CD "For Committees and Local Organizations of Angarsk."

When organizing the military sports games Zarnitsa and Orlenok and meetings of participants in the outings to places of revolutionary, combat and labor fame of the Soviet people, the Komsomol gorkom traditionally includes civil defense competitions in these measures. Young people who are vacationing at the military sports summer camps study the elements of CD without fail.

Last year the Komsomol gorkom--in conjunction with the city's CD staff and the DOSAAF gorkom--held a defense evening "Come on Lads!"; the program included civil defense competitions. It was interesting and promoted the widespread popularization of civil defense among young people. The oblast CD staff and the Komsomol obkom disseminated the Angarsk residents' experience. Now similar evenings are held in many of the oblast's cities, including Irkutsk, Bratsk, Usol'ye-Sibirsk, Zheleznogorsk-Ilimskiy and at enterprises, schools and vocational-technical schools.

The Komsomol members of the APOSMA {Angarsk Petro-Organic Synthetic Materials Association} (P. Dubovoy, Komsomol committee secretary) are setting the example in helping with CD measures at facilities. CD problems are systematically discussed in all the Komsomol groups here. At one of their

great deal of credit for the fact that all the exercise participants received good and outstanding ratings goes to the Komsomol group.

The widespread socialist competition at the association in honor of the 60th anniversary of Great October has become a good stimulus for improving CD skills and knowledge. All Komsomol members are participating in it. Among the leaders are Valya Sycheva, Galina Solomenskaya, Tat'yana Stal'nikova, Aleksandr Simekopenko, Sergey Kuznetsov and others. Many of them were awarded diplomas and monetary rewards.

It is worth noting that--based on the initiative of Komsomol members--amateur film makers of the association shot a short movie on practical training of non-militarized formations and on the workers' and employees' participation in it. The film took first place at the military district film festival. It was duplicated and now it is being shown not only at the association's enterprises but also in the city. It was also shown on oblast television.

Civil defense propaganda is organized in an outstanding manner at the Angarsk Electromechanical Plant. Nineteen Komsomol activists are civil defense propagandists in the shops here, and based on the recommendation of the party committee, Anatoliy Reutov, the Komsomol committee secretary, was confirmed as the supernumerary assistant for propaganda to the plant's CD chief of staff. There is no doubt that this organization's work experience deserves wide dissemination.

The Komsomol organization of the Angarsk Chemical Reagent Plant (Sergey Kuznetsov, Komsomol committee secretary) is no less active in its work. Kuznetsov's deputy, young communist Leonid Bobeshko, is an assistant for propaganda to the plant's CD chief of staff; he conducts lectures and discussions on civil defense. Local radio broadcasts and visual propaganda are well utilized at the plant for propaganda purposes. Comrade Bobeshko was entered on the plant's Board of Honor for his initiative in conducting CD measures.

It can be said without exaggeration that the energetic activity of the Komsomol organizations rendered a great deal of assistance to the CD staffs of national economic facilities and to the city of Angarsk as a whole; based on the results of the socialist competition on CD for the past training year, the city was awarded first place and was presented the challenge Red Banner of the Irkutsk oblispolkom. The Angarsk Komsomol members can be proud of this. This was their worthy contribution to the cause of strengthening our homeland's defense.

Things are going well for the Komsomol members of the city of Shelekhov. They are taking a most active part in civil defense exercises at the aluminum and cable plants. Many of them are formation commanders, political leaders of medical detachments and active CD propagandists. Based on a decision of the Komsomol gorkom, non-regulation Komsomol organizations--based on Angarsk's example--were created in all formations where there are no less than three Komsomol members; they render assistance to formation commanders and their deputies for political affairs in training formation personnel. Many Komsomol members are propagandists in the formations and they are responsible for putting out the combat leaflets.

Komsomol members at a number of the oblast's institutes are demonstrating valuable initiative in creating and improving CD training facilities. Thus, 30 Komsomol members headed by Arkadiy Gnusin, the Komsomol committee secretary, spent several days of their free time this year equipping a CD training center.

A great deal of organizational work in mobilizing Komsomol members for active participation in civil defense measures is also being conducted by the Komsomol committees of the cities of Bratsk and Cheremkhovo, of Kuytunskiy and Nizhneilimskiy rayons and also of the Leninskiy and Kirovskiy rayons of Irkutsk. It is not by accident that at the second oblast meeting for RLD {Ready for Labor and Defense of the USSR} badgeholders, first place on the overall CD command examination went to the Leninskiy Rayon of Irkutsk, second went to Angarsk, third--to the Kirovskiy Rayon of Irkutsk, and fourth--to Kuytunskiy Rayon.

However, everything mentioned above is just the contribution of the best organizations. There are still Komsomol committees which are not conscientiously carrying out the requirements of higher Komsomol agencies for intensifying their help on civil defense measures. To begin with, this applies to the Tulunskiy Komsomol gorkom and to Ekhirit-Bulagatskiy and Slyudyanskiy Komsomol raykoms.

The Irkutsk Komsomol obkom Plenum--which considered this problem--pointed out their poor contact with CD staffs to the above organizations and it demanded that all the oblast's Komsomol organizations take a more active part in the accomplishment of civil defense measures and in its popularization among young people.

Today we see our Komsomol duty as one of constantly and effectively helping the CD staffs of cities, rayons and national economic facilities in organizing and conducting lessons, in preparing visual aids, in equipping training centers, classrooms and display cases and in conducting CD competitions and propaganda through the press, radio and television. Our duty is to inculcate young people with a feeling of responsibility, discipline and the ability to confidently function in a difficult situation--which can arise in the event the imperialists unleash a nuclear missile war. We are mobilizing Komsomol members for this and we are teaching this to the Komsomol activists. Knowledge is the strength of organizational work.

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In a Timber Industry Complex in the Komi ASSR

Moscow VOYENNNYYE ZNANIYA in Russian No 9, Sep 77 signed to press 10 Aug 77 pp 20-21

{Article by P. Gorbunov: "Businesslike Efficiency"}

{Text} At the Komi ASSR CD Staff a lot of kind words were said about the businesslike qualities of the director of the Syktyvkarskiy

Timber Industry Complex (TIC), N. Balin, as the civil defense chief of this huge national economic facility. The employees of the party gorkom described the activity of this enterprise's party committee in managing civil defense in a positive manner. V. Vaneyev, the party committee secretary, and T. Talykova, his deputy, are putting a lot of work into training the collective and the non-militarized formation for operations under special conditions and they are rendering the necessary assistance to the staff.

Modern industrial buildings stretch along the bank of the northern river Vychegda. An entire city has grown up near them; it has now become a rayon of Syktyvkar. The workers and employees of TIC live in well-built, multi-story apartment houses.

The training village--which was built near the enterprise--is evidence that civil defense is held in high esteem here. It is considered a first in the republic--a first class training facility where practical exercises and special arms tactical exercises are held. The village is constantly being improved and new full-scale training areas are being added.

Facility managerial personnel, services chiefs and non-militarized formation commanders work at the CD training center according to a strict schedule. It is equipped with all the necessities. There are enough visual and other aids and diverse training equipment. M. Filatov, the chief of staff, acquaints us with the training plan and tells us how it is fulfilled at all the factories, shops and divisions and how the socialist competition unfolded in honor of the 60th anniversary of the Great October Socialist Revolution.

I am leafing through the record book for the lessons of the first training group of managerial and command personnel.

The director himself conducted commander's training with the group. He put the grades in front of the trainees' names on the topics covered.

"Nikolay Nikolayevich conducts the lessons in a skilled and knowledgeable manner," says Filatov. "As a former military man, a naval officer, he does not lack erudition. He makes high demands on all the trainees. He unfailingly links the training problems to the enterprises' current affairs."

Mikhail Petrovich remembered an incident which describes the CD chief's work style. It was necessary to inspect the seal of the gasmasks and to make sure they provided reliable protection. First of all, the director decided to check on how the shop and division chiefs had prepared for this. He led them to the gas chamber and asked: "Well, who's first?" There was a slight hesitation. Evidently there was a psychological factor at work. Then Balin put on his gasmask and entered the chamber. The others followed him.

Several comrades still inhaled some gas. The director calmly remarked: "If you can't fit your gasmasks yourselves, what can you ask of an ordinary worker? I want you to select helmet facepieces in your size and check them again in the chamber."

Everybody remembered this lesson for a long time.

Filatov previously worked in a tekhnikum as a military instructor. But, he has headed the staff at TIC for three years now. In their first conversation, the director told him:

"I trust you, Mikhail Petrovich. Consider the staff's orders my orders; everybody has been notified about this. And, if you encounter any difficulties, report them to me immediately; drop in any time. I hope we will work well together..."

And they worked well together. The director--busy with production matters--also finds time to guide the staff and he supports all its undertakings.

The first multi-theme facility exercise was being prepared. In order for it to be instructive, it would be necessary to train command personnel, formations and the entire labor collective well. This issue was repeatedly discussed at party committee meetings and at the director's operational meetings. The training village was not empty for a single day. Training, practical exercises, special arms tactical exercises with the formations, norms testing--everything was firmly scheduled on a chart. That year, the training plans were fulfilled significantly ahead of time and with a high level of quality.

Later we dropped in on the party committee with the chief of staff; everybody turned out to be in their places. Vaneyev, the party committee secretary, immediately began talking about the help he received at the republican CD courses where he studied together with other party workers in accordance with the decision of the CPSU obkom.

"I thought I knew everything," Vladlen Nikolayevich remarked, as though he were joking about himself. "But it didn't turn out that way."

They say that after the training Vaneyev was enthused about the idea of making a training film based on local material.

"Our people, our lessons and exercises. Do you know how great that would be!" was his argument to the director and chief of staff. "A training and educational effect, right here."

They unanimously approved the party committee secretary's idea. Balin assured them he would spare neither effort nor resources in this matter.

I asked Tamara Vasil'yevna Talykova how civil defense propaganda and indoctrination work with the soldiers of the non-militarized formations are conducted at the facility and how socialist competition is organized for a high level of training quality.

While talking about propaganda work, she informed us that the director tapped all the enterprise's social organizations and cultural institutions for this. For example, citizens are shown civil defense movies and reports and lectures are organized in the Bumazhnik Palace of Culture. A training center was set up here for all members of workers' and employees' families who are not engaged in production or services; methodological and other assistance is rendered to study leaders in housing managements.

The advanced experience in training and in direct party political work in the formations and training groups is skillfully propagandized in the pages of the large-circulation newspaper OGNI VYCHEGDY and in the broadcasts of the facility radio station. Photographer-reporter S. Antip'yev is deservedly considered the best civil defense propagandist. He can frequently be seen at practical exercises and special arms tactical exercises in the training village; afterwards, photographs, sketches and feature stories on those who excel--the winners in socialist competition--appear in the newspaper; they form illustrated newspapers. During the multi-theme facility exercise, the activists organized publication of satirical leaflets with caricatures of those who tolerated a lack of discipline.

"During the exercise, we were even successful in arranging amateur talent shows by making use of the short pauses," says Tamara Vasil'yevna. "A great deal of the credit for this goes to our Palace of Culture..."

While talking about the organization and effectiveness of socialist competition, comrade Talykova pointed out that inspection-contests have received wide dissemination at the facility. Their results are evaluated annually. The HEPP {heat and electric power plant} collective (A. Skorokhodov, chief) is now in first place in the CD competition; the shop for high voltage networks and substations (Ye. Popov, chief) is in second place; and the design division (V. Bezborodov, chief designer) is in third.

Tamara Vasil'yevna puts a lot of effort into indoctrinating people in a spirit of high vigilance, Soviet patriotism and wholehearted service to the homeland. The strengthening of civil defense in every way possible has become an obsession for her. And this is not by accident. She had a hard childhood during the war. She was deprived of her parents early. Her father died in the war. The young girl was evacuated to the Siberian city of Leninsk-Kuznetskiy--away from the bombings of the fascist buzzards--where she was raised in a boarding school. Of course, all of this left its mark in her memory.

And, now, when her daughter Lyuda--a laboratory technician at PIC--comes home from work, her mother asks in a slightly jocular tone:

"Well, how are things, medic?"

It turns out that Lyudmilla is a member of one of the facility's medical detachments and every year this detachment occupies one of the top places.

"We trained today, mom..."

"It's about time. After all, the competitions are just around the corner."

Tamara Vasil'yevna likes to attend these competitions. And, since she's only human, she wants her daughter's medical detachment to be first. Her husband, Nikolay Ivanovich--a driver, is also a formation soldier. It turns out that the entire family is participating in civil defense.

This is what I wanted to say about these managers who possess a valuable gift--businesslike efficiency.

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MARSHAL BATITSKIY ON ROLE OF AIR DEFENSE FORCES

Moscow VOYENNIYE ZNANIYA in Russian No 10, Oct 77 signed to press 12 Sep 77
pp 6-8

[Article by Mar SU P. Batitskiy, Deputy Minister of Defense USSR, Commander of National Air Defense Forces, Hero of the Soviet Union: "Troops of Constant Combat Readiness"]

[Text] Dear editors: We, future servicemen, are dreaming of service with the National Air Defense Forces. Could you publish an article about this service of the Armed Forces?

V. Samsonov, V. Lapin, draftees (Perm')

We are satisfying the request of our readers.

The Soviet country and the entire world today are at the threshold of the 60th anniversary of the Great October Socialist Revolution. The victory of October was the main event of the 20th century. The workers of our country and the men of the army and navy are moving toward the jubilee with tremendous political and labor enthusiasm. The national discussion of the draft of the new Constitution of the USSR, a significant place in which is occupied by questions of the defense of the socialist Fatherland, has caused the still great scope of socialist competition in honor of the celebration.

What is profoundly symbolic is that only three months after this anniversary we will mark the 60th anniversary of the Armed Forces of the USSR. Their creation and combat establishment are inseparably linked with the name of the socialist revolution's leader and founder of the first state of workers and peasants in the world, V. I. Lenin, and with the activity of the party of communists.

The National Air Defense Forces, which today are one of the basic branches of service of the Soviet Armed Forces, inscribed many brilliant pages in the heroic chronicle of our brilliant victories over the Motherland's enemies. Together with the entire Armed Forces, they are always ready to accomplish their duty for the people and are ready, as is written in the draft Constitution of the USSR, "to reliably defend the socialist Fatherland and be in constant combat readiness which guarantees the immediate repulse of any aggressor."

The history of the AD [air defense] of the Soviet state has rich and glorious traditions. The Stal'naya Antiaircraft Battalion, from which our Forces take their genealogy, was born in the first days of Soviet power.

The first AD subunit received its baptism of fire on 29 October 1917 on a firing position at Pskov. The personnel of the Putilova armored train, which received the designation of the 2d Antiaircraft Battery, subsequently especially distinguished themselves. Its commander was communist N. Romanov, and its commissar was worker V. Malukha.

The battery travelled a great combat path. It was sent to the Transcaucasus right behind the troops of the 11th Army where it marked the beginning of today's Red Banner Baku AD District's creation. Converted to a separate antiaircraft artillery battalion, and later to an antiaircraft artillery regiment, this unit arrived in Moscow in July 1939 and joined the capital's air defense system.

In the years of the Great Patriotic War, the personnel of the regiment inscribed new, brilliant pages in the heroic chronicle of the air defense. In only eight months of combat actions, the antiaircraftmen shot down more than 100 fascist bombers.

Now, just as in the fiery years of past wars, the Guards Antiaircraft Missile Putilova-Kirov Order of Lenin AD Regiment is in combat formation. The missilemen are sacredly protecting and multiplying the traditions of their hero-predecessors and are vigilantly guarding the Motherland's peaceful sky.

It should be said that the entire combat history of the National AD Forces is rich with the most brilliant examples of bravery and heroism. The majesty of the exploit by fighter pilot V. Talalikhin, the first one in the history of aviation to accomplish night ramming, will never fade in the memory of the people. Another of our famous aces, B. Kovzan, rammed enemy aircraft four times. During the terrible days of the defense of Moscow, the antiaircraft artillerymen of the battery headed by Lieutenant G. Volnyanskiy and political instructor M. Sizov immortalized their names. They stood to the death in the fierce and uneven battle on the approaches to Tula, repelling the attack of 20 fascist tanks. And the enemy did not pass.

The selflessness of our pilots, artillerymen, balloon personnel, searchlight operators and other specialists, including women, and the skillful control of combat operations ensured the successful accomplishment of the missions assigned to the AD Forces.

The CPSU and the Soviet government value their services highly. For combat exploits at the fronts during the years of the last war, 3 AD large units and 26 AD units earned the title of "Guards." More than 80,000 men, commanders, and political officers were awarded orders and medals, 92 men were awarded the title of Hero of the Soviet Union, and fighter pilot Captain A. Karpov was awarded it twice. The glorious names of 34 of our fallen combat comrades are entered forever on the rosters of the troop units.

One more high evaluation of the combat services of the Forces' personnel and national recognition of the special importance of the peacetime missions which they are accomplishing was the institution of an annual holiday--National AD Forces' Day--in 1975.

For more than 30 years the Soviet people, in fraternal unity with the peoples of other socialist countries, are engaged in peaceful labor. This became possible thanks to the steady growth in the economic and defensive might of our Motherland and thanks to the fact that the party, as Comrade L. I. Brezhnev stated at the 25th Congress, always "devoted proper attention to the strengthening of our country's defensive capability and the improvement of the Armed Forces."

But in connection with the aggressive aspirations of the West's reactionary circles and imperialists of every stripe, the highest vigilance and further raising of the Soviet Fatherland's defensive capability are required of us. "A citizen of the USSR is required to guard the interests of the Soviet state and further the strengthening of its might and authority," it says in the draft Constitution of the USSR.

Considering that in their military preparations the imperialists are placing main reliance on the development of new offensive means of air attack, the CPSU and the Soviet government are devoting unremitting attention to improving the National Air Defense Forces and their technical equipping. It is namely on us that a mission of state importance has been placed--to defeat the enemy's attack from the air and prevent surprise strikes against defended objectives

The national air defense is ensured by the close coordination of various combat arms including the three basic ones--antiaircraft missile, fighter aviation, and radio. It will be not without interest for the young readers of the journal VOYENNYE ZNANIYA to learn in greater detail about the specifics of their combat activity.

The anti-aircraft missile troops (ZRV) possess the greatest firepower and high firing precision against aerial targets. Their armament includes various types of anti-aircraft missile complexes which are able to defeat reliably any enemy means of attack in the entire range of their flight altitudes and speeds, at great distances from the defended objectives, regardless of the weather conditions and time of day. In coordination with fighter aviation the ZRV ensure the insurmountable anti-aircraft defense of the country's most important objectives. This is attained by constant combat readiness, outstanding ability, high moral-political and combat qualities of the personnel, and irreproachable military discipline and organization. The ZRV subunits and units are manned by officers, warrant officers [praporshchik], sergeants, and soldiers who are ideologically mature and know their business, many of whom underwent primary military training in schools, PTU [vocational and technical schools], and technical schools and received special training in the DOSAAF training organizations.

Contemporary missile weapons are weapons for collective employment. Therefore, the unconditional accomplishment of combat missions by ZRV units and subunits depends not only on the capabilities and condition of the equipment, but also, first of all, on the state of training and the coordination of the personnel. Together with the officers and warrant officers, soldiers and sergeants of different specialties are ensuring victory in battle: operators of surveillance radars, missile-guidance radars, members of launch sections, drivers of transporter-loaders, plotters, and electricians. Each of them is personally responsible at his post for the successful outcome of the duel with the aerial enemy.

The daily training of the missilemen encompasses a broad and varied range of problems. Its goal is to develop and maintain among the men a high level of skill, vigilance, spiritual steadfastness, and the ability to endure any tests and maintain combat activity and unshakeable will for victory under the most difficult conditions. The ZRV personnel are persistently improving their knowledge and skills on lessons, drills, and tactical exercises with live firing and are learning what is necessary in war.

Fighter aviation is the most maneuverable arm of the National Air Defense Forces. It is intended for the destruction of the means of aerial attack, primarily on the distant approaches to the covered objectives. It is armed with supersonic all-weather fighters with powerful missile weapons and capable of attacking and destroying targets in a broad range of altitudes, under any weather conditions, at any time of day, up to the line where the missile-carrying aircraft launch air-to-ground guided missiles.

The central figure in fighter aviation is the pilot. In a group or alone, he intercepts and destroys the enemy and, with the fire of his own weapons, accomplishes the most important task in the great and difficult labor of many aviators who are participating in the organization and support of the battle. The AD aerial fighter is characterized by political maturity, loyalty to duty, bravery, the ability to pilot the aircraft excellently and master its armament, high tactical skill, speed of reaction to a change in the situation, and physical endurance.

The successful interception of an aerial target and flight safety are ensured on the ground. Our engineers and technicians, mechanics for armament, the aircraft and engine, radar equipment, and other aviation specialists among whom there are many pupils of the defense society are performing their service duties selflessly at the airfields and in the service subunits.

In the postwar period, imperialist intelligence has often tried to send its spies into our air space. But any attempt to violate the borders of the Motherland was stopped by the air defense aviation. This is what happened, for example, when an American RB-47 aircraft penetrated our sky above the Barents Sea. The valiant pilot, A. Polyakov, skillfully attacked the violator. Both in this and in all other cases the success in interception was ensured by the clear and coordinated work of the aviators' large collective.

The radio troops (RTV) of the national air defense are accomplishing important missions on the radar reconnaissance of air attack means in flight and the output of information about them which is necessary for controlling the combat actions of the ZRV and fighter aviation.

The radio units and subunits are equipped with the latest contemporary radars which embody the best achievements of Soviet science and technology. Regardless of meteorological conditions and jamming, at any time of the year and day our radars are able to detect means of aerial attack at great distances and at all altitudes, determine their exact coordinates, provide target indication to the ZRV, and ensure the guidance of friendly fighters to the target.

The personnel of the RTV--station operators, plotters, electricians, and other specialists--are highly conscientious, well-trained, tempered servicemen who are continuing the glorious combat traditions of the older generation in a worthy manner. The men of the RTV have a special need for vigilance brought to the highest limits. It is not by chance that they are called forward-looking. Being on the front line of the air defense, they are the first to detect the enemy and send target data to the weapons.

A characteristic feature in the development of the Air Defense Forces in recent years is the introduction and broad use of electronic equipment and automated control systems, which reduced considerably the times for putting weapons into action and increases the effectiveness of their combat employment. At the same time, this does not mean a reduction in the role of man who uses and services the combat equipment. On the contrary, today higher demands are being imposed on the personnel, especially on the officers. In the National Air Defense Forces today up to 60 percent are engineers and technicians. The specialization of the personnel is constantly being increased.

The most competent youth is being called up to the National Air Defense Forces. Among the young replacements up to 70 percent are soldiers with a higher and secondary education and prior to call-up more than half of them worked in industry and transportation. The cementing force of our troops' personnel are the communists and Komsomols who make up 90 percent of the total number of servicemen.

All the military educational institutions of the National Air Defense Forces are now training officer personnel only with a higher education. They are pilot-engineers, navigator-engineers, engineers in radio engineering, electronics, and aviation equipment, and political officers.

The National Air Defense Forces are troops of constant combat readiness. Even in peacetime, they perform combat duty round-the-clock and are able to repel an aerial enemy's surprise blow at any moment. We have established the strictest order for preparation for combat duty and going on it. It begins with a solemn ceremony. The combat sections stand in a precise formation and the unit Battle Flag is carried out to the sound of a band. The order is announced: "On combat duty to protect the aerial boundaries of our Motherland--the Union of Soviet Socialist Republics--go!" The men move to their battle stations in a solemn march.

The Motherland has assigned honorable and important missions to the air defense personnel. Their soldierly labor is not easy. Often they must perform their service under the most difficult conditions--in inaccessible mountains and arid deserts, in the Far North and the burning south, far from populated places. The continuous and vigilant combat duty requires of each AD fighter high political consciousness and profound knowledge of the equipment, the great straining of physical and moral strength, a developed sense of personal responsibility for the assigned matter, and bold, initiative actions. And the AD men are worthy of the confidence of the party and the people and ready for the accomplishment of a combat mission in any situation.

The personnel of the National Air Defense Forces, in a single formation with all Soviet servicemen and with our fellow combat soldiers in the Warsaw Pact are dependably defending the state interests of their Motherland and the entire socialist commonwealth. They are preparing a worthy greeting for the 60th anniversary of the Great October Socialist Revolution and the anniversary of the Soviet Armed Forces.

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QUALITY OF BASIC MILITARY TRAINING IN SECONDARY SCHOOLS

Moscow VOYENNNYYE ZNANIYA in Russian No 9, Sep 77 signed to press
10 Aug 77 pp 29-30

[Article by A. Averin, chief of the division of elementary military training of the USSR Ministry of Education: "An Important Job for the School"]

[Excerpts] Soviet people are celebrating the anniversary of Great October with outstanding advances in the struggle to fulfill the historic decisions of the 25th CPSU Congress. They are participating today with enormous political enthusiasm in discussion of the draft of the new USSR Constitution, which will serve to strengthen the Soviet state and be one more testimony to the superiority of the most just system of the current age, the socialist system. The draft has a special chapter entitled "Defense of the Socialist Fatherland" as well as articles which define the duties of citizens in bolstering Soviet might and prestige. "Military service in the ranks of the USSR Armed Forces is the honorable duty of Soviet citizens," Article 63 of the draft of the Constitution reads. Giving young people outstanding preparation to perform this constitutional duty is an important job for the school.

Ten years have passed since adoption of the USSR Law on the Universal Military Obligation, which introduced elementary military training at secondary schools.

Together with the system of military-patriotic indoctrination EMT [elementary military training] has a beneficial influence in strengthening discipline and organization, drill smartness, and precision in secondary students. The quality of preparation of young men for service in the Armed Forces has improved in recent years. The number wishing to enter military schools has grown significantly. The reports received at schools from military commanders and political workers are convincing testimony that EMT is playing a large part in the development of young soldiers.

The chief figure in improving teaching in EMT, of course, is the military leader at the school. Some three fourths of them are reserve officers,

often veterans of the Great Patriotic War with extensive military knowledge. They are ideologically conditioned and staunch men with great experience of life. With a great sense of responsibility and real skill they carry on EMT, instill the students with the spirit of Soviet patriotism and socialist internationalism, the spirit of continuity in the glorious traditions of the Soviet people and their army, and strive to prepare young men well for their military service.

At most schools the necessary physical facilities for EMT have been established, military offices are well-equipped, and the necessary texts and graphic aids are available. Credit for this goes above all to the military leaders who are assisted in their work by the administration and party, Komsomol, and DOSAAF organizations.

Lessons in the topics of combined arms training are distinguished by a very practical approach. The five-day field training periods for ninth graders are usually held for all schools of a rayon or city using the training facilities of sponsoring military organizations or military sports camps. The teaching of civil defense has improved, including that offered in the second and fifth grades. Experience has been gathered in training members of medical aid teams.

The military leaders receive many letters from their former students now serving in the army. They express gratitude for their training.

Yes, a great deal has been done. All the same, we cannot ignore the shortcomings, difficulties, and unsolved questions. Physical facilities for EMT need considerable improvement. Even today many schools do not have enough training weapons, radiation and chemical reconnaissance instruments, and other regulation training gear, especially for military-technical and medical aid team training. By no means all schools have rifle ranges. The furnishings in military offices must be brought up to date and improved.

The progressive know-how of schools in the Ukraine, Belorussia, and Kaliningradskaya Oblast in setting up EMT training complexes and conducting inspections of training facilities has not found application in many oblasts and republics. The know-how of the Leningraders in tying EMT in to other general educational subjects is not always used. This applies particularly to the relationship between sections of the program "The Soviet Armed Forces Guard the Homeland" and the corresponding topics in the history and social science programs, relating drill training to physical education, fire training to physics and mathematics, civil defense to chemistry and biology, and military topography to geography and drafting.

At some schools preparation of young men for military service is mainly limited to EMT lessons. There is very little extracurricular work. They have few military study circles and meetings in them are only talk with no practical study of the equipment and weapons. The military-sports games Zarnitsa and Orlenok become active only just before the finals.

Further improvement in the quality and effectiveness of EMT depends directly on the qualifications and pedagogical skills of the military leaders. In some schools, however, especially rural ones, they do not have the essential military and pedagogical skills. For example, at rural schools in the Kazakh SSR, Krasnoyarskiy Kray, Permskaya Oblast, and the Kalmyk ASSR many military leaders are reserve sergeants and even privates and have no real military education or experience in pedagogical work. They need very much to improve their qualifications and receive methodological assistance. Public educational agencies should be concerned about this above all.

In recent years a definite system for raising the qualifications of military leaders has taken shape. They have all gone through month-long fundamentals assemblies. Many have completed study at institutions for advanced study by teachers. Broad exchange of experience in teaching and indoctrination is carried on, open lessons are conducted, and short methodologies on the key topics of the program are discussed at training periods at rayon methodological associations.

Meaningful work is being done at the Leningrad, Gor'kiy, Volgograd, Vitebsk, Rovno, and other institutes for advanced study by teachers to raise the qualifications of military leaders and give them methodological assistance. Unfortunately, there are still some institutes who devote very little attention to this matter.

The EMT course has many aspects and requires broad knowledge and serious, prolonged preparation for training periods on the part of the military leaders. The leader is above all a pedagogue, a teacher. His paramount duty is to pass on solid, profound knowledge of the fundamentals of military affairs and give young men comprehensive preparation for service in the Soviet Army. But in many places the military leader is looked on as a kind of deputy director. People try to burden him with various organizational, administrative, and other assignments that have little to do with military affairs. This has a bad effect on the quality of training and indoctrination work.

While emphasizing the responsibility of the military leader for EMT we should also mention the duties of the school director in this important state mission. They generally have considerable experience in pedagogical and administrative work. Many of them were in the army and navy in their day and have experience in military and combat training. Even if they do not, they can and must keep checks on EMT and give the leaders qualified help. Most school directors do this.

Elementary military training is successfully organized in those places where the military leader is highly qualified, where his initiatives are supported and aided by the director, and where the entire pedagogical collective takes part in military-patriotic indoctrination. Unfortunately, in some places proper contact between the director and the military leader in their work does not occur. Certain school directors, considering their competence in military matters inadequate,

remove themselves entirely from leadership of elementary military training.

The military leader has the key role in assuring good elementary military training and military-patriotic indoctrination of students and giving young men thorough preparation for service in the Armed Forces. This obligates public educational agencies and school directors to show constant concern for raising the qualifications of military leaders, giving them methodological help, organizing their difficult labor correctly, and creating the necessary conditions for them to work productively.

In the new training year, the year of the 60th anniversary of Great October and the 60th anniversary of the Soviet Army and Navy, the pedagogical collectives of the schools, and above all the thousands of military leaders, should make every effort to continue improving the quality and effectiveness of elementary military training and military-patriotic indoctrination of secondary students.

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NAVY DAMAGE CONTROL TRAINING DESCRIBED

Moscow VOYENNYYE ZNANIYA in Russian No 9, Sep 77 signed to press
10 Aug 77 p 33

[Article by Capt 1st Rank-Engr (Res) V. Dem'yanov: "The Fight for Ship Survival"]

[Text] While carrying out the combat missions posed by the command, ships must not only deliver attacks against the enemy but also withstand enemy counterattacks. Therefore, the hull of the ship and its weapons and technical equipment must be sufficiently strong and resistant to mechanical and other effects and personnel must be thoroughly trained to fight for ship survival.

The glorious combat history of our navy and the priceless experience of the Great Patriotic War provide many brilliant examples to confirm this.

A ship's fighting effectiveness and survival capability are closely interrelated: one is impossible without the other. The term "survival capability" of a ship means its ability to withstand battle and accidental damage, keeping its fighting effectiveness. In turn, this is defined as the ability of a ship to inflict damage on the enemy while maintaining survival capability regardless of enemy counterattack.

This close interdependence is taken into account in designing ships. The design necessarily envisions that the ship will be divided into a certain number of watertight compartments in such a way that even the flooding of two of them will not lead to a loss of buoyancy and stability. The ship has a power and survival post, a kind of headquarters for the fight against damage; all battle posts and living quarters are equipped with the necessary means to put out fires, stop punctures in the hull, and restore weapons, mechanisms, power supply systems, and control and communications equipment. All energy consumers that are important from a fighting effectiveness point of view have a reserve power supply.

Ships have highly productive water bailing equipment, both permanent and portable, which can be used successfully in any compartment,

as well as heavy-duty firefighting equipment: water, carbon dioxide, and foam. In short, a ship's unsinkability, explosion resistance, and fire safety are built into the design.

But design measures alone are not enough to insure survival capability. Organizational-technical steps are also needed. This means precise organization of work on the ship, constant maintenance of all technical means that insure survival capability, periodic testing of this equipment in operation, and much more.

It is absolutely essential that every member of the crew without exception have profound knowledge and solid practical skills. It is no accident that Navy Regulations emphasize that all ship personnel must see that no one violates measures to support survival capability.

How is this demand met in practice?

Before entering upon performance of regular duties every officer, petty officer, and seaman appointed to a ship must study its layout, the equipment used in the fight for survival, its location, rules for use, maintenance, and testing. Then he studies the compartment to which he is assigned on battle alert in such detail that he could find the necessary valve, switch, or control button in complete darkness.

Commanders use quizzes to check how firmly the particular specialists have assimilated the general requirements for maintaining survival capability, rules of behavior on ship, and personal obligations in the fight for survival. This examination is not a formality; the commander must have complete confidence that everything has been grasped.

It is not difficult to find out if one visits the training and drill station or the firefighting area. The training at these places is not a game; the fire really burns and the water is not joking. But it is very hard to stop a puncture with water pouring through it at a pressure of several atmospheres. If one does not act quickly, skillfully, and in an organized way the water will toss aside spars, stoppers and patches, and knock men off their feet...

It is not easy to fight fire either. Like a real fire the training fire occurs unexpectedly, a complete surprise to the trainees, and this immediately creates emotional impact. If the men are slow to act their situation will become more difficult. Things often take such a turn that there is nothing to do but run; that is the price of failure to act quickly and skillfully.

After being put in a complex situation several times all members of a battle team learn to value time and acquire an extremely valuable trait, the ability to act without haste (unhurriedly), boldly and with self-control, knowing the colossal power of the survival equipment available on the ship and confident of the effectiveness of well-organized collective work.

Seamen continue studying the fight for survival throughout their military service: day and night, summer and winter, at sea and on shore. Many hours of drill, training periods and exercises are devoted to this. The entire system of education on board ship, military and political, serves this end because without serious moral-political and psychological training one cannot be a knowledgeable, decisive, bold, and dedicated fighting man.

What conclusions should the future soldier or sailor draw for himself from all this? How should he prepare to perform such important missions, ones demanding great courage? First of all learn the main thing: success is secured by harmonious collective efforts; one cannot stand alone at sea. Without confidence in the commander, in one's comrades and combat equipment, there can be no victory. Nothing can make up for mistakes in fighting the elements or battle damage to the ship. Therefore, in critical situations the knowledge and training level of the men is especially important. The greater their knowledge, initiative, and resourcefulness, the more hope there is for success.

The knowledge, abilities, and skills acquired by a future seaman before naval duty are very important. Good technical training and experience in working with machines, mechanisms, technical devices, and various other equipment is a great help in combat training and the development of the future seaman-operator. It must be emphasized that not only labor but also athletic skills are needed. The better a young man's physical condition is the better he will master the required movements and find his place in the battle order.

Good volitional training is extremely important. Sports and touring help here, especially collective and military-applied types of sport. Every young man coming into the navy must develop in himself the characteristic traits of a collectivist who is always ready to come to the aid of a comrade, no matter what difficulties and deprivations this may involve. A feeling of friendship and comradely mutual assistance are traditional in the navy. By their smooth, selfless actions Soviet seamen have always been victorious in their battles against the enemy and in the fight against the elements.

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CHARACTERISTICS OF MILITARY MOTOR VEHICLES DESCRIBED

Moscow VOYENNYE ZNANIYA in Russian No 9, Sep 77 signed to press
10 Aug 77 pp 39-40

[Article* by Lt Col-Engr V. Kovalev: "Motor Vehicles With Improved
Off-Road Capability"]

[Text] Dear Editors!

At military-training periods it is fairly difficult to explain to the boys how the military vehicle differs from the conventional vehicle (topic 2). I would like to read an article in the journal on this subject.

Yu. Shalimov,
Military Leader, Kurskaya Oblast

Other readers join in this request

It is hardly possible today to picture any sector of the national economy without various motor vehicles. They are used extensively in our Armed Forces as well.

Army vehicles (the characteristics of some are given in the table on the following page) carry personnel and food, ammunition, fuel, and lubricants. Missiles, launchers, crossing and landing means, equipment for servicing and repairing tanks, aircraft, and artillery under field conditions, and other similar units are mounted on wheeled vehicle frames.

Military vehicles are usually used in bad road conditions or off roads (in mountainous, swampy, or sandy desert terrain), and therefore their engines, frames, cabins, and bodies differ in design from standard vehicles.

* This article is recommended for use in military-technical training periods.

Technical Specifications	GAZ-66	ZIL-131	Ural-375	KrAZ-255B	UAZ-469
Load Capacity, Tons	2	3.5	4.5	7.5	0.6
Weight of Towed Trailer, Tons	2	4.0	5.0	10.0	-
Base, Millimeters	3300	3350+1250	2500+1400	4600+1400	2380
Wheel Spacing, Millimeters	1800	1820	2000	2160	1448
Type of Engine	Carburetor V-Shape				Carburetor, in-line
Number of Cylinders	8	8	8	8	4
Greatest Horsepower	115	150	175	240	75
Electrical Equipment	12-Volt, Shielded				12-Volt. Shielded
Ignition System	Standard	Sealed		Standard	
Top Speed, Km/hr	95	80	75	71	100
Wheel Formula	4x4	6x6	6x6	6x6	4x4
Type of Tires	12.00-18	12.00-20	14.00-20	1300x530x533	8.40-15
Brake Controls	Hydraulic, with hydrovacuum amplifier	Pneumatic	Pneumo-hydraulic	Pneumatic	Hydraulic
Minimum Road Clearance, Millimeters	310	330	340	360	300
Fording Depth, Millimeters	800	1400	1500	1000	-
Location of Winch	Front	Front	Rear	Behind Cab	-

Table. Characteristics of Primary Military Motor Vehicles

Many of the engines are equipped with special devices which make it possible to heat up the cooling system and oil in the crankcase before starting the engine in cold weather. Such a warmer usually consists of a boiler (heat exchanger), fuel tank with fuel regulator, electric fan, a spark plug, tubing, and a guide housing. There is also a special control panel.

When the heater is turned on the fan forces the air into the boiler combustion chamber. A lock device opens and the fuel runs by gravity from the fuel tank into the boiler where it is atomized by the stream of air. At first the working mixture is ignited by a glow plug switched on from the control panel. When stable burning is established in the chamber the plug is switched off and the moisture ignites itself from the flame already burning.

The cooling fluid in the boiler jacket heats up and on the principle of the thermosiphon begins to circulate through the jacket of the cylinder block, warming the engine. The hot gases escape from the boiler into the guide housing which sends them to the engine crankcase. The oil there is warmed at the same time.

The ignition systems of the ZIL-131, Ural-375, and some other vehicles are sealed. This is one of the design concepts that makes it possible to increase the fording depth to 1.4 and 1.5 meters respectively.

The generator relay regulator, distributor, ignition coil, high voltage wires, and spark plugs are sources of intensive radio interference which can make operation of radio devices in the vehicle or near it difficult or even impossible. That is why shielded electrical equipment is installed in many military vehicles.

The output terminals of the generators, relay regulators, and other assemblies are adapted to connect to shielded wires. A reliable contact between the metallic braiding of the wire and the body of the assembly is envisioned. Damping resistors are installed on the ignition wires leading to the spark plugs. The plugs are set in metal screens connected to the block at the appropriate places. There are special inductive-capacitor radio interference filters in the electrical testing circuits between the relay regulator and ignition switch and the ignition coil and supplementary capacitor.

For concealed movement at night army vehicles have light-camouflaging devices, lights under the body, various types of light reflectors, and night vision instruments.

The camouflaging device has several modes (open, partially closed, and completely closed) and consists of hoods over the headlights and taillights, installing camouflaging parking lights and dome lights, and putting in a switch and wire.

The lights under the body help orient the drivers of vehicles coming behind. A light is mounted on the crosspiece of the frame under the body. A conical shade allows the light to strike only the crankcase of the rear axle and a small spot of road between the rear wheels. From the front, sides, and overhead the light cannot be seen.

Night vision instruments are more complex in design. One of them includes a source of infrared light and an electronic optical convertor in which the reflected infrared rays are amplified and converted into a stream of electrons, and a special screen on which a panorama of the road sector is displayed. There are also night vision instruments without additional illumination.

Under difficult road conditions resistance to movement is much greater than on a well-built highway, so military vehicles have an auxiliary gearbox. It can be used to increase the overall gear ratio of the transmission as a result of which the torque and tractive force on the drive wheels increase. The auxiliary gearbox usually has two gears: high which is used on good roads and low for roadless conditions.

Designers envision two supplementary units in the transmission of army vehicles: a transfer case and a power take-off device. The transfer case, which is usually combined with the auxiliary gearbox in a single assembly, transfers the torque from the drive shaft of the gearbox through the gimbal gears to the drive axles of the vehicle. The front drive axle is disengaged on hard-surface roads. In this way wear on its parts is reduced, fuel is saved, and the service life of the front tires increases.

Sometimes the vehicle transmission will contain one more unit, an inter-axle differential which allows the wheels of the front and rear axles to turn at different angular velocities. For example, when traveling on a hilly road the front wheels roll over a bump while the rear wheels are traveling on a level segment. Naturally, the front wheels will cover a greater distance than the rear ones and their velocity of rotation should be greater. If there is no interaxle differential and the wheels of the front and rear axles are rigidly connected through transmission aggregates there will inevitably be a loss of power to overcome the friction between the wheels and the road and greater tire wear.

The power take-off unit is used to transfer torque from the vehicle engine to supplementary equipment mounted on the frame or in the bed (winch, generator, refueling pumps, and the like). Thus, the power take-off unit for the winch of the GAZ-66 vehicle is secured on the right side of the gear box and has two gears: for winding cable onto the winch drum and for playing it out.

The winch is used to pull out stuck vehicles (including the vehicle on which it is mounted), for putting heavy loads on trailers, for hoisting them using blocks and tripods, for pulling trailers up steep ascents, and so on.

Travel is often hindered by the low carrying capacity of the ground. The wheels cut deep into the soil and experience considerable resistance. In snow and on swampy or sandy terrain the axles of the vehicle may touch the ground and the usual vehicle will then get stuck. Therefore many army vehicles have a special regulation system which can change the pressure in the tires depending on the nature of the road surface and speed of travel. It can also be used to feed air continuously into tires when they have punctures or minor damage.

The layout of the equipment and method of engaging it are coordinated with the type of brake controls being used. On vehicles with hydraulic controls (the GAZ-66 and others) the system for pressure regulation in the tires is autonomous, while on the ZIL-131, Ural-375, and KrAZ it is usually included in parallel in the pneumatic brake controls.

The regulation system includes a compressor, one to three receivers, a valve to restrict drop in pressure (on vehicles with pneumatic brake controls), an automatic regulation device or control valve (GAZ-66, ZIL-131, Ural-375), the block of tire valves, air delivery units, wheel shut-off valves, and control instruments.

The valve which prevents a drop in pressure makes it possible to maintain the supply of compressed air necessary for emergency brake use in the receivers. The tires can only be pumped up when the pressure in the receivers is more than 4.5-5.0 kilograms per square centimeter. To prevent air seepage from the tires through loose tubing connections and gaskets it is recommended that wheel shut-off valves be closed during extended stops.

How does the system work? Compressed air passes from the compressor to the receiver which has a safety valve, a valve to remove air for servicing the vehicle, and a valve for the removal of condensate. Then the air is conducted to the control tap which has a slide valve that can be in three positions: pump up tires, neutral, and remove air from tires. When the tap control knob in the vehicle cab is in the "pump up tires" position air passes through the open wheel valves into the tubes.

Air is usually put into the tires of army vehicles from the inner side of the wheels. Air passage channels are drilled in the immobile trunnion and rotating semiaxle of the GAZ-66, Ural-375, and ZIL-131 vehicles. These parts are packed with two seals and a ring. The seals are held by spiral springs.

Tires with regulated air pressure differ from ordinary toroidal tires. They have a broader cross-section, 1.5-3-fold lower internal pressure, a less rigid shell, and greater tread elasticity. The lugs on the tread are 20-30 millimeters deep.

Some trucks, for example the KrAZ-255B, are given broad cross-section tires which are 10-15 percent lighter than ordinary dual tread tires.

Their use makes it possible to reduce resistance to the vehicle's rolling, cut fuel expenditure, and improve off-road capability (owing to the tread's wider running part and fuller contact with the road) and stability. The tread pattern is 25-35 millimeters deep. The wide cross-section tires have their descriptions inscribed on the side: 1200x500x508, 1400x550x533, and so on. The first number is the outside diameter of the tire, the second is the width of the cross-section, and the third is the rim diameter (all figures are in millimeters).

Ribbed tires are a seasonal means of increasing the off-road capability of military vehicles. They are 2-2.5 times larger in cross-section than toroidal tires. The depth of the tread pattern is chosen in the range 30-60 millimeters, the spacing of lugs is from 100 to 250 millimeters, and their angle of inclination is 45 degrees. Ribbed tires are tubeless, but they have a sealing layer 2-3 millimeters thick on the inside. The large area covered on the ground and the big lugs make it possible to drive a vehicle confidently through forest-swampy and sandy terrain.

The driving safety of army vehicles is improved when double-cavity tires are put on a vehicle. The parts of such tires are an outer shell (like a tubeless tire), a sealing layer, and a core installed inside it. The cavity of the core is filled with air through the valve and the cavity bounded by the outer shell is filled through a valve in the core. If there is a puncture and air escapes from the outer shell the double-cavity tire will continue to work almost as well.

On army vehicles frequently used on terrain with significant numbers of holes, bumps, and the like road clearances and the angles of the front and rear overhang are increased and the longitudinal radius of cross-country ability is decreased. There are also other design differences.

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PHYSICAL TRAINING FOR NAVY COMBINED-EVENT COMPETITION DESCRIBED

Moscow VOYENNNYYE ZNANIYA in Russian No 9, Sep 77 signed to press
10 Aug 77 pp 39-45

[Article by M. Ovchinnikov, chief coach for the naval combined-event competition, Central Committee of USSR DOSAAF: "And Physical Training"]

[Text] Heavy drilling has become a characteristic feature of the training of highly qualified athletes in recent years. For example, participants in the navy combined-event competition now have five training sessions a day and cover a total of 20-30 kilometers (depending on the period of training). In addition, they spend a great deal of time on drills in firing and sailing racing.

This makes it essential for every athlete to be thoroughly developed and tough. This is the purpose of general and special physical training. The former involves improving endurance, strength, speed, and agility, comprehensive development of the organism, training the will, and accelerating recovery processes after great exertion in training and competition. The latter develops and refines the special qualities of movement typical of each type of sport, strengthens muscle groups and the bone-joint apparatus in the performance of specific exercises, and helps improve the functional capabilities of the athlete's organism.

This trend toward a steady increase and intensification of training forces us to introduce additional means of general physical training such as skis, sports games, elements of weight-lifting, and so on.

Practical work experience with leading military-technical athletes in our country has confirmed the great importance of these means. I will explain this using the example of the training process for the naval combined-event competition.

At the present time the so-called two-cycle system of planning is used in this period. Therefore, it is advisable to carry on general physical training exercises during the first and second preparatory period and, partially, during the first competitive period. General developmental exercises, cross-country running and skiing, sports games, combined

drills using burdens, and long-distance swimming are used to improve the general physical condition of the athletes. Varied physical training is an essential condition to increase the athlete's skill.

Nonetheless, despite the necessity of general physical training drills, one must not be carried away with them when working with highly qualified athletes. They need thoroughly specialized, purposeful development of the physical qualities characteristic of their type of sport. This is provided by special physical training.

In the physical training of master athletes special importance is attached to the development of qualities such as endurance, strength, agility, and dexterity. Let us consider them.

Endurance is divided into general and special. General endurance is the ability to make muscular efforts of comparatively low intensity for a period of between 3-5 and 30-40 minutes (the power range). We should note that the level of overall endurance is determined by what are called the organism's aerobic capabilities. The main index of them is maximum consumption of oxygen (in liters per minute). The larger the amount of oxygen consumed by an athlete in a unit of time, the greater the amount of energy produced by the athlete and, consequently, the greater the work done. This index increases as the qualifications of the athlete grow.

Special endurance is the ability to produce high speed and work capability for exertion in the submaximal power zone, from 20-30 seconds to 3-5 minutes. Its biological basis is the anaerobic capabilities of the organism in which energy is developed through the capability of the organism to produce part of the energy under anaerobic conditions (without oxygen). The oxygen deficit increases significantly here, reaching 14-17 liters in qualified athletes and replaced after completion of the effort. At the same time, the products of decay, lactic acid and others, accumulate in the organism.

Like the aerobic capabilities of the organism, its anaerobic capabilities are an energy index of the athlete's work capability. But converting this into general or special endurance depends on the efficiency with which the energy formed in the organism is used. Therefore, the primary methods of training to develop general or special endurance are the even, variable, repetitive, and interval methods.

Strength is determined by the magnitude of the physiological cross-section of the muscle, the number of muscle strands involved in the work, the frequency of nerve pulses reaching the muscle, and the degree of synchronization of the efforts of all muscle units taking part in the exertion of the muscle. The methodology for developing strength envisions prolonged activity with significant and steadily growing muscle exertion. The primary means for developing strength are exercises with burdens (one's own weight, lifting weights, stuffed balls, various block devices, and the like).

The following methods are used to develop strength qualities. To develop absolute strength the most effective exercises involve overcoming the resistance of maximum, limiting, and near-limit exertions with two-minute pauses for rest between; to develop strength endurance it is recommended that exercises involving repeatedly overcoming a non-limiting resistance until the point of fatigue with 1-2 minute pauses for rest be used. Isometric (static) exercises are also used in strength training for athletes. They differ from dynamic exercises in that they do not involve movement.

Speed (speed qualities) is defined by the following factors: speed as the maximum speed of particular movements; reaction speed (to the starting signal); speed as an essential characteristic of the rate of movements. The development of these qualities depends on the mobility of nerve processes.

Cyclical movements are a combination of the stimulation and inhibition of one group of muscles and relaxing and stimulating the antagonist-muscles. Special training somewhat increases the speed of muscle transition from the state of stimulation to the state of inhibition. The faster this happens the more time the muscles have for rest.

Speed of movement is developed by means of strength and speed-strength exercises performed on an expected or unexpected command; ability to maintain a high pace is developed by means of short (10-20 seconds) series of exercises performed at a maximum tempo.

Agility or the mobility of the joints is very important for swimming. It makes it possible to perform exercises with considerable amplitude and helps master the technique of movements more rapidly and correctly. Exercises for agility increase the elasticity of the ligaments of the joint and stretch the muscles passing through it, thus developing their strength and work capability. Agility is improved through exercises with a constantly increasing amplitude of movements; these are done only after good warm-up.

Dexterity is the ability to correctly make various movements, coordinating them accurately in space, time, and effort applied. Dexterity makes it possible to learn new movements quickly and perform them with minimal expenditure of energy and to master correct technique more quickly and efficiently. Sports and moving games, gymnastic exercises, and acrobatics are the most common means of improving dexterity.

A high level of development of these qualities in military-technical athletes and ability to employ them alone and together guarantees success in athletic competition.

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CIVIL DEFENSE TRAINING, RELATED ACTIVITIES

In the Ukrainian SSR

Moscow VOYENNNYYE ZNANIYA in Russian No 10, Oct 77 signed to press
12 Sep 77 pp 18-19

[Article by Maj Gen P. Dubrova, deputy chief of staff for political affairs of Ukrainian SSR Civil Defense: "A Common Concern"]

[Text] Soviet people remember and unconditionally follow Lenin's teaching concerning the necessity of being constantly ready to defend the socialist fatherland and they give unanimous support to party policy aimed at further bolstering the country's defensive capability. As written in our Basic Law, this is the "most important function of the state, the work of all the people."

In connection with this the role of civil defense (CD) and DOSAAF organizations increases. Their contacts expanded and deepened markedly after the 8th Congress of the Society. Today CD headquarters work in close cooperation with DOSAAF committees and primary organizations on military-patriotic indoctrination and civil defense propaganda, mobilizing the population to greet the 60th anniversary of Great October in a worthy fashion.

A great deal of experience in this has been accumulated in Cherkasskaya Oblast. The chairman of the DOSAAF committee in the city of Umani is Lt Col (Res) V. Novoselov, an active participant in all CD activities. In the city he enjoys a reputation not only as an expert in military affairs and an organizer of military-patriotic indoctrination for young people, but also as a skillful civil defense propagandist. He is a member of the Znaniye Society and one of the competent lecturers in the oblast on defense subjects. But while he gives lecture propaganda its due, Novoselov does not neglect practical training methods. That is exactly why he often visits formation competitions or CD exercises, correctly believing that in such places he can see for himself how high the level of practical personnel training is and how effective the help given civil defense activists by DOSAAF organizations is proving.

Lt Col (Res) N. Yurchenko, CD chief of staff, always invites him to such activities because his opinion is valued. Without interfering in the work of the judging team, Novoselov will find an occasion to tactfully express his own attitude, for example, with respect to the training of reconnaissance teams and he will share his impressions of how the men handle radiation and chemical reconnaissance instruments, carry out the search for "victims," and cooperate with rescue workers. Everyone knows that these judgements are being made by a person who has a vital interest in improving public training for defense against modern weapons.

"We at the committee believe," Novoselov says with conviction, "that civil defense is our common concern. Look at the participants in competition. They are all members of the Defense Society who are performing their patriotic duties in CD formations at the same time."

Indeed, the missions of DOSAAF coincide in large part with those of civil defense. Business-like cooperation dictated by common interests and aspirations strengthens both organizations and creates favorable conditions for jointly solving defense problems. This cooperation developed long ago. The city CD headquarters invariably receives support and assistance from the DOSAAF committee in carrying out all its activities. In their turn, DOSAAF organizations rely on civil defense activists who participate in preparing young men for service in the Soviet Armed Forces and in military-patriotic indoctrination of young people.

The plan of joint activities made annually encompasses all aspects of mass defense work. Suppose a young person who has passed the requirements of the GTO [Ready for Labor and Defense] test in military-applied sports cannot get past the section on civil defense. Usually he will be tested on these requirements by masters of production training from the civil defense schools.

Practical cooperation is also reinforced organizationally. N. Yurchenko has been elected a member of the presidium of the city DOSAAF committee and V. Novoselov is a volunteer leader of one of the departments of CD headquarters.

Each year in Umani there are meetings of defense activists, month-long campaigns of mass defense work and civil defense propaganda, competitive inspections for best physical facilities for training, and so on. Socialist competition between installations for best results in training people in defense against weapons of mass destruction is well-organized.

They decided to hold a joint science-practice conference on civil defense propaganda in the city. The city committee of the Ukrainian Communist Party supported this initiative. During preparation the state of CD propaganda at installations, housing complexes, and schools was studied in detail. The conference was opened by city civil defense chief A. Koloskov. Novoselov and Yurchenko gave reports which thoroughly analyzed CD propaganda practices at the vitamin plant, the cannery, and secondary school No 7, which was awarded a certificate from the Central

Committee of DOSAAF for well-organized mass defense work and military-patriotic indoctrination. More than 500 people attended the conference, from older secondary students to graying veterans of war and labor.

We told about the experience of the Umanians through the press and republic radio. After this similar conferences were held in other cities of the country with active participation by DOSAAF committees and other public organizations.

The 8th All-Union Congress of DOSAAF directed the attention of committees and organizations of the Defense Society to the need to continue actively promoting civil defense activities, to bolster practical cooperation with civil defense executive bodies, and to take part in propagandizing knowledge and preparing workers in the common technical occupations in the interests of civil defense. Many representatives of CD headquarters at all levels have been elected to membership on oblast, city, and rayon DOSAAF committees. In their turn, employees of the city and rayon committees are taking part in the activities of CD headquarters. For example, following a decision by the Zhitomirskaya Oblast committee of the Ukrainian Communist Party the volunteer position of assistant CD chief of staff for propaganda was introduced in the cities and rayons. In the city of Korosten' Lt Col (Res) V. Ipanov, an instructor in the city DOSAAF committee, was nominated for this position, and in many rural rayons employees of the rayon DOSAAF committees and reserve officers have filled it. As a result CD propaganda there has been revitalized and become more purposeful; it is improving the quality of training for personnel in paramilitary formations and education of the public.

The DOSAAF committees of Ovruchskiy, Novograd-Volynskiy, and Bogunskiy (city of Zhitomir) rayons are helping CD headquarters by every means. This work is well-organized in the primary DOSAAF organizations of the Zhitomir Furniture Combine, the Novograd-Volynskiy Motor Vehicle Repair Plant, and the Strizhavskoye Mine Administration.

At the Korosten' Khimmash Plant imeni 50-Letiya Velikogo Oktyabrya an installation exercise was recently held. To help headquarters workers prepare for it DOSAAF committee chairman B. Petrauskas held several discussions, and presented a lecture on civil defense to production and office workers. V. Pechenkin, chairman of the DOSAAF committee of the Zhitomir Motor Vehicle Repair Plant, also showed himself to be an active propagandist. He gave his lecture entitled "Mastering Civil Defense Knowledge Is the Duty of Every DOSAAF Member" in numerous shops.

It has become an established tradition in Zhitomirskaya Oblast for the presidium of the oblast DOSAAF committee to hear reports from the chairman of the rayon DOSAAF committees concerning their assistance to installation CD headquarters in civil defense propaganda. The oblast committee recently passed a special decree entitled "Bolstering Civil Defense Propaganda in DOSAAF Organizations of the Oblast."

Another example of business-like cooperation is the joint work of Lt Col (Res) N. Kovtuk, chief of civil defense headquarters at Khmel'nitskiy Garment Factory, and P. Pisarenko, chairman of the DOSAAF committee. Through their combined efforts they set up a training classroom at the factory. Some of the graphic agitation there is dedicated to the history of the Defense Society while the rest deals with civil defense. During the days of preparation for and conduct of the comprehensive installation exercise members of the DOSAAF committee held discussions on civil defense in the shops, helped the headquarters make up diagrams and posters, and published "operational news sheets" giving publicity to those who distinguished themselves in the exercises.

Many forms of mass work with the population, especially young people, are being used successfully in Sumskaya Oblast. Lectures, discussions, topical evening meetings, question and answer evening meetings, meetings with veterans of war and labor, and competition in military-applied sports and passing civil defense requirements are among them. The oblast and city DOSAAF committees and civil defense headquarters have involved the most qualified reserve and retired officers and generals in lecture propaganda. Among them are Heroes of the Soviet Union F. Dudnik, Ye. Bogotskiy, and P. Ivanov, war veterans A. Vinogradov, V. Dotsenko, and N. Dokashenko, and Hero of Socialist Labor B. Gnivush. They explain the orders of the 25th CPSU Congress concerning further strengthening the country's defense capability, carry on aggressive agitation and propaganda with true party passion, and expose the plundering nature of imperialism, its attempts to increase tension in international relations and spur on the arms race. The lecturers speak convincingly and knowledgeably of the missions of civil defense and call on Soviet people to be ready to come to the defense of the socialist homeland at any minute.

More than 730 evening meetings on defense topics have been held in the oblast recently. Preparations for them are usually made by employees of cultural-educational institutions with active participation by DOSAAF committees, CD headquarters, and rural and urban intelligentsia. Experienced lecturers present short reports at the meetings. Former soldiers tell draftees about their experiences while serving in the Soviet Army or Navy. Selections from movies are specially chosen to illustrate the topic of the evening. Amateur artistic collectives also construct their programs with due regard for the topic of the evening. Clubs and Houses of Culture compete for best preparation for such evening meetings. The main things are that no one be bored, that everyone feel like a participant in what is happening at the meeting.

Civil defense days have come to occupy an important place in military propaganda in Sumskaya Oblast. They are conducted as mass defense work holidays with a ceremonial formation of CD formations, competition, and demonstrations. At the club lecturers, propagandists, and agitators speak on such days and films are shown. Party committees consider it very important to conduct these days in an organized manner. Plans are drawn up according to party orders and recommendations and public organizations are involved in this. A considerable part of this work

falls to the installation headquarters and the DOSAAF committees cooperating with them.

During the past winter CD days were held at 106 kolkhozes and sovkhoses of the oblast. Needless to say, the CD headquarters and DOSAAF committees could only accomplish this working together.

It is gratifying to see that in this anniversary year mass defense work in Pioneer and youth labor camps has improved markedly. Representatives of DOSAAF committees and CD headquarters and schools are participating in organizing military-sport games, trips to sites of combat and labor glory of our people, and conducting quizzes. Many activists have been drawn from reserve officers to work with children and adolescents, especially in Vinnitskaya, Zhitomirskaya, Kiev, Krymskaya, and Cherkasskaya oblasts. Many of them have become true friends to the children. They teach them how to shoot guns, use individual protective gear, and build simple defensive structures.

As we see, contacts between organizations of the Defense Society and CD headquarters are expanding and growing stronger. But there are still many unsolved questions, some of them organizational matters, particularly with respect to the training of specialists by DOSAAF organizations for civil defense needs and developing physical facilities for training periods. Further improvement in cooperation and coordination of efforts among public organizations will make it possible to achieve more palpable results in preparing Soviet people to defend themselves against weapons of mass destruction. This is now the object of the creative energy of republic workers in civil defense and DOSAAF who intend to celebrate the 60th anniversary of Great October with new advances in labor and bolstering the country's defense.

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Importance of CD Training Plans Stressed

Moscow VOYENNYE ZNANIYA in Russian No 10, Oct 77 signed to press
12 Sep 77 pp 20-21

[Article by Col F. Roshchupkin: "The Plan Is the Beginning of Everything"]

[Text] The 25th CPSU Congress devoted a great deal of attention to the problems of working out plans on a scientific basis. "It is essential first of all," said Comrade L. I. Brezhnev in the Accountability Report of the Central Committee, "to insure a major improvement in planning."

This applies in full to planning training activity, which is done in the civil defense system before the new training year based on a thorough analysis of existing conditions.

Planning should meet the requirements of programs for training the population with due regard for the degree of civil defense training achieved and should encompass all questions of preparing installations, paramilitary

formations, production workers, office workers, kolkhoz members, and the unemployed population for actions under exceptional circumstances. As in past years, plans for the new training year are being worked out during the fall with the intention of beginning organized training on 1 December. During this same period the executives and command personnel of national economic installations should be involved in analyzing the results of the past year and setting challenges for the new training year. There should be demonstration tactical-special exercises in training periods and study of normative and teaching methods documents and new issues of civil defense theory and practice. At the same time training for training leaders is being organized on the basis of the universal compulsory minimum knowledge program, essential teaching methods documents are being developed, and physical facilities for training are being prepared.

Outstanding plans lead to success. An example of this might be the Uzhgorod Machine Plant imeni 25 S'yezda KPSS (civil defense chief D. Ploskina, chief of staff K. Yaskin). Thoroughly thought-out planning for the training of paramilitary formations and production and office workers and high-quality performance of all activities allows the plant to steadily improve its civil defense.

In the new training year the three-year cycle of comprehensive installation exercises is being completed everywhere, with primary attention directed to significantly improving the level of organization and effectiveness. For small installations which are connected by production, administrative, and other ties or are located in the same region it is advisable to plan comprehensive exercises together as is done in the Kazakh, Lithuanian, and other Union republics. In these cases the senior officer directs the exercise.

Command-staff exercises with executive and leadership personnel and battle drill exercises with paramilitary formations should be planned to insure good comprehensive exercises at the installations. But in the case of battle drill exercises the topics of general and special training must be completed first. Plans call for production workers, office workers, and kolkhoz members who do not belong to paramilitary formations to study the questions being dealt with during comprehensive installation exercises.

Perhaps the main thing in the plans for the new training year will be the question of training the leaders at the installations where comprehensive exercises are to be held. The civil defense schools of the Lithuanian SSR are showing initiative here. Managers of installations there, in addition to training in school courses, receive methodological help in preparing for and conducting comprehensive exercises right at the installation. Masters of production training conduct training periods with formation commanders and service chiefs for about three days. This will make it possible for each one of them to be better prepared for the comprehensive exercise with due regard for the conditions of the installation's production activity. The main emphasis here is on conducting practical training periods.

Good training for leadership and command personnel at CD installations will help raise the organization, methodology, and effectiveness of all training activities to a higher level. Therefore it should be envisioned both at civil defense schools and right at national economic sites.

As in past years, two training groups must be set up. Group No 1 is headed by the CD chief of the installation and should include the deputy directors, CD chief of staff, service chiefs, main specialists, and commanders of general-purpose paramilitary formations. Group No 2 is headed by the CD chief of staff of the installation. Commanders of all other paramilitary formations are trained in it.

The training programs for these groups are worked out on the basis of the special features of the installation and the training level of the trainees. The point is for the leaders in these categories to be directly involved in training the production and office workers of the installation. They should have a solid knowledge of current requirements on all civil defense questions. Within the leadership training system and on their own they are obliged to thoroughly study the manuals, regulations, and other normative documents and methodological aids. All this should be planned in such a way as to preclude breaks in training periods and insure that they are conducted well.

Plans must also be made to train training period leaders in the program of the general mandatory minimum knowledge right at national economic installations or at civil defense schools and training points. The first thing is to develop their ability to work through the actual standards and actions for trainees following civil defense signals because this is the foundation of population training.

Regardless of whether comprehensive exercises are being held at the particular installation or not, more time in the training of paramilitary formations and all population categories is being given to work on the most important actions after thoroughly grasping the topics of the program of the general mandatory minimum of knowledge. For example, this means maintenance and preparation of defensive structures; the order of entry and rules of behavior in them; the construction of primitive shelters and outfitting various underground areas for human shelters; making very simple means to protect the respiratory organs; procedures for using individual first aid kits and antichemical packages. This time must also be planned for training people in methods of firefighting at their installations and fighting large fires; drills on spending prolonged periods in gas masks and respirators while performing regular jobs in production; studying methods of caring for the sick and wounded, and so on.

Experience shows that in regions that have suffered from natural disasters not only paramilitary formations but all the population must receive practical training in rules of behavior for disasters typical of the given area and procedures for cleaning up after them. The recent natural disasters in the southern part of Kirgizia demonstrated once

again that civil defense control agencies, paramilitary formations, and all labor collectives should be ready to fight a disaster and clean up its consequences, be able to use technical equipment, and have mastered methods and procedures of performing rescue and recovery work.

The program for training paramilitary formations in the new training year does not differ fundamentally from that of past years. At all special tactical training periods and exercises special attention should be devoted to coordinating and practicing cooperation among paramilitary formations of different designations during the performance of civil defense jobs. During exercises and especially in the practical work of cleaning up after natural disasters and production accidents new methods in the tactics of formations and new procedures for effective use of modern equipment must be sought and applied actively.

These matters, with application to local features, must be envisioned by training plans and worked on during special tactical training periods and exercises.

Party political work with soldiers and commanders to develop high moral-political and fighting qualities and a conscious attitude toward performance of service duty in them is of paramount importance. Therefore, it should be precisely planned for the entire training year.

One of the tasks which must be envisioned in the plan is universal (the entire population) study of civil defense signals and practicing actions following them.

During the course of these training periods special attention should be given to practicing actions following the signals "Air Alert," "Danger of Radioactive Contamination," "Radioactive Contamination," and "Chemical Attack." The training must be done in such a way that people know what to do for all signals in different situations: at work and at home, in public places and at schools, in means of transportation and at work in the fields.

It is advisable to plan training periods in the program of the general mandatory minimum of knowledge during the first six months, until the period of large-scale vacations and summer agricultural jobs. This same time should be used to complete testing of the population on requirements for defense against weapons of mass destruction.

Civil defense days should be an established part of the methodology for public training. Good activities for them include extensive demonstrations of the actions of CD forces and means, competition for best paramilitary formation, administering tests (including the test for the "Civil Defense" section of the All-Union Physical Training Set "Ready for Labor and Defense of the USSR"), exhibits of equipment, instruments, and protective gear, and showings of films and slide shows on CD topics.

Experience confirms that precise planning, proper organization of work, and strict controls insure effective training for the population and paramilitary formations in methods of defense against modern weapons.

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Medical Aid Team Training Problems Discussed

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12 Sep 77 pp 22-23

[Article: "The Cost of Mistakes — Following Up Two Unpublished Letters"]

[Text] In early May group competitions among medical aid teams were held in Kazan'. Two of the teams sent complaints to the editors.

The medical aid team from the Kazan' Serp i Molot Plant had gone through all the stages successfully and was already waiting for the results to be totalled when it was suddenly announced that they had been removed from the competition. The team of judges led by A. Shchelkonogov explained that the medical aid team had an "illegal" participant, a woman who had graduated from a humanities college and received there corresponding medical training. This is not permitted by the statute on medical aid team competition.

But why, the authors of the letter from the plant asked, did the judges fail to check the other medical aid teams on this point of the Statute?

The medical aid team members from the city of Zelenodol'sk, winners of the republic competition the previous year (1975), stated their objections. One of the judges at a certain stage violated the rule and revealed the identity of the team which, in conformity with the Statute, was working with a number only. Another judge thought up his own requirement and demanded that they meet it: put gas masks on themselves and the "victim" in 16 seconds. A third judge shouted at team members to hurry up and enter the fire area, not giving them time to put their rubber gloves on properly, and then penalized them for it.

Responding to the editors, V. Nesterenko, deputy chairman of the Central Committee of the RSFSR Red Cross Society, reported that the complaints had been investigated at the site by O. Sidorov, chief of the division of medical defense work. The facts set forth in the letters were found to be true. A check of the lists of members of all the medical aid teams taking part in the competition demonstrated that the team from Vakhitovskiy Rayon also had three members with medical education while the team from the Biryulinskiy Fur Sovkhoz in Vysokogorskiy Rayon had two veterinary specialists. Substantial shortcomings were noted in the training and work of the team of judges, in particular revealing the identity of participants and failing to give commanders lists of judges at the proper time.

The presidium of the Tatar ASSR committee of the Red Cross Society decreed that the results of the group competitions would be cancelled and the event held over together with the republic competition.

L. Akhmadullina, chairwoman of the republic committee of the Red Cross Society, was ordered to take a more responsible approach toward the organization of competition and selection of judges.

V. Lintavarev, CD chief of staff of the Tatar ASSR, also responded to the editors. He reported that the republic minister of health had ordered the CD medical service headquarters of the Tatar ASSR to see that judges were better trained.

Surely all will agree that the costs of the mistakes made by the organizers of the competition on the moral and material levels were too great.

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Activities of CD Instructors Described

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12 Sep 77 pp 22-23

[Article by G. Svetsitskaya, Bryansk: "They Cannot Imagine Any Other Life"]

[Text] Many things bring them together: similarity of military biographies and service records, a long-standing and close friendship, and their present work together. Some time back, with the same rank of lieutenant colonel, they both went into the reserve and asked themselves the very same question, "What next?"

Former military unit commanders S. Monakhov and N. Palagin joined the Bryanskaya Oblast civil defense school. It is not unusual for reserve officers who do not want more peaceful work to take the demanding positions of master of production training or military leader at a secondary school. And these two friends had no intention of locking up their knowledge and experience. Although it is said that a person accumulates "baggage" to the age of 30, but after that only loses it, they are past 50 now and still accumulating. The reason is simple: character, spiritual makeup, and the active life to which they have become accustomed. They cannot imagine any other life for themselves.

But at first the work was completely new to them both. They did not have systematized knowledge for teaching a subject new to them. But they found their way, each according to his inclination: one for theory, the other for practice.

Several years have now passed and Monakhov and Palagin are mentioned among the best, most experienced workers at the school.

Their duties seemed to distribute themselves and now, working together, in a common cause, they complement one another. The knowledge which Monakhov gives his students in lectures is expanded and reinforced at Palagin's practical training periods.

They have the most varied categories of trainees, from the directors and specialists of large industrial and agricultural enterprises to commanders of medical aid teams and school teachers. And for each one they have their own special approach.

At the first training period Sergey Ivanovich Monakhov meets the students. This is already an established pattern; he introduces the new group to the course of study and gives a basic lecture. It is interesting to attend his lectures, to see a person who is truly carried away by his work, and to learn what enormous moral satisfaction and creative pleasure is experienced by a person engaged in work he loves.

Everything about Monakhov fixes one's attention: his appearance, smart, almost elegant, and his style of handling the class. No one misses a word from such a lecturer. His voice is loud and resonant and he pronounces his phrases with emphatic clarity, as if dictating, and identifying the main things by intonation. It is easy to take notes, and everybody acknowledges that the notes make up a clear, comprehensive outline. He does not allow distraction; he is the complete master of the class's attention. There is perhaps no question that would surprise or upset such a lecturer; he is so confident and fluent with his material, so secure in his knowledge, and so natural with audiences. He forces his listeners not to just follow his thoughts but to think along with him.

It is no surprise that at the end of the period Monakhin is surrounded by students asking questions that go far beyond the framework of the regular program. That is how it was this time too.

"I would like to know more details about the ethnic weapon [sic], winged missiles, the new American B-1 bomber..."

Monakhov takes his notebook and names articles in journals and newspapers.

"It is a shame that our time is limited and the program is so strictly defined," he says, "but if you want we will organize an additional lecture for you at the end of the assemblies. And for the future, comrades, please keep in mind that among our activists are many non-staff lecturers who are specialists in many fields of knowledge. Turn in requests to the school and we will make plans and send them out to your installation and we ourselves often visit you."

In the last days of the assemblies Monakhov and the other teachers will study the remaining topics of the program with the regular group, visit leading installations for civil defense together with them, show them the best way to outfit CD areas in shops and set up outdoor areas and training sites for taking practical tests and holding special tactical training periods and exercises with formations, familiarize them with exemplary documents, work, new literature, new slides and movies, and so on. In other words, they will offer them the amount of knowledge envisioned by the assembly program.

And not a single group will bypass the training point assigned to the school; they come here for group training periods with simulation equipment. And the man in charge here is Nikolay Sergeyevich Palagin.

He has applied the hand of an artisan to everything in the classrooms at the training point. And in every new group of trainees, whether they are directors or chief specialists from installations, he is likely to meet friends, representatives from those enterprises in the Bryansk region which help the school and Palagin personally establish and equip the classroom or at whose installation he himself worked setting up training facilities.

The current group also contains friends. R. Krasil'nikova, chief engineer of the industrial rubber goods factory, says:

"We sent in models of various types of protective suit. Our best Komsomol girls made them; they copied real suits exactly, reduced four times, and skillfully sewed and glued on all the tiny parts. The girls worked hard, they used their own free time. But now you see how much space in the windows and displays our exhibits have made it possible to save?"

The students arranged themselves around the trainer, which occupies almost the entire classroom. It is an enormous table with a porolon bed that moves on rollers. On the bed are models of populated points, roads, power transmission lines, reservoirs, bridges, forests, valleys, and the like. The trainer is electrified which makes it possible to complicate the changing situation. Mounted around the table are communications equipment and reconnaissance and monitoring instruments. Palagin controls all the actions of the trainees from his "command post."

Nikolay Sergeyevich is usually friendly and a great joker; one would not recognize him now. He is concentrated, demanding, sometimes almost harsh with those who have come to his room to show what they have learned in a week at the school. Certainly, there are different kinds of people among these students. And here, at the trainer or the Ogonek monitoring instrument it is not difficult to distinguish those who are studying civil defense seriously at their installations from those who consider their duties to be tedious.

Unfortunately, there are such comrades. And among all those present Palagin immediately identifies their superficial knowledge, forcing the indifferent ones to take serious thought.

"So, comrades," he declares, "we will see how well you know your functional duties, whether you can control subordinate formations in a difficult situation."

This statement put them on guard and conversation died out. Palagin switched on the equipment, the lights on the instruments flashed an

alert, and a soft hum filled the room. The panel of the trainer slowly began moving. Situation data sounded over the tape recorder, demanding military inputs.

"Now," Palagin stressed, "we are the leadership and command personnel of an installation."

The training period leader assigned students to the roles of civil defense chief, deputies, and chiefs of the various services and put all the others at back-up instruments.

"Please take note of your mistakes and errors. That is why we are here, to learn to make correct decisions..."

The participants in the drill were extremely concentrated and attentive. Any one of them could receive an input. Some were smiling to conceal their agitation, as if it were play, purely hypothetical. But no one wanted to look poorer than the others.

The drill got moving. The situation changed swiftly. According to an input one participant was operating during the summer, while another had to work in the winter or night. And we must admit there were some problems: some were slow to make decisions, stumbled, gave orders unclearly. Palagin corrected the mistakes, called the back-up students to help, and was able to make remarks in passing too:

"Remember, comrades, our time is precious. Therefore, I firmly advise anyone who is going to conduct comprehensive installation exercises to practice all actions at them in which you feel a lack of confidence."

After the training period the excited students exchanged impressions. Those who did poorly received friendly kidding. Jokes and laughter were heard. The general mood made it plain that such a drill was both unexpected and useful for many of them. They would have some things to work on when they returned to the installation after the assembly.

That is how the communists Monakhov and Palagin, representatives of the harmonious teaching collective of the Bryanskaya Oblast CD school, work to get their students to understand the program as well as possible. They teach them to act intelligently and boldly in a complex situation, to think independently, and to be responsible for their decisions. They both consider it a duty not only to train people but also to indoctrinate them, to inspire in installation leaders a sense of responsibility for all the civil defense duties that are assigned to them.

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CIVIL DEFENSE TRAINING, RELATED ACTIVITIES

CD Radio Broadcast Material

Moscow VOYENNNYYE ZNANIYA in Russian No 10, Oct 77 signed to press 12 Sep 77 p 24

[Unattributed: "Fidelity to Duty"]

[Text] On 4 October 1932, 45 years ago, the USSR Council of Peoples' Commissars approved the "Decree on the Air Defense of USSR Territory." In this manner the foundation was laid for the activities of a centralized all-union organization called USSR Local Air Defense (MPVO), which was changed in 1961 to Civil Defense.

MPVO appeared in the forward ranks of the battle against the Hitlerite occupiers from the very first days of the Great Patriotic War. Striving to disorganize the work of our rear services and sow panic among the Soviet people, the fascist command implemented massive air raids against the country's cities and villages, against various installations. However, the enemy did not succeed in accomplishing his insidious intent. Industrial enterprises, kolkhozes, and sovkhozes continued without let-up to provide production for the front, transportation operated punctually, and the spirit of the people remained unbowed. And MPVO had a great part to play here. Its formations and self defense teams and groups fulfilled their duty honorably under the most difficult conditions.

MPVO personnel were models of courage and valor during the past war. MPVO soldiers, sergeants, and officers, staff workers and employees, as well as units [chast'], services, and formations worked selflessly.

The enemy dropped hundreds of high-explosive and thousands of incendiary bombs on the Kirov Plant in Leningrad and the tractor plant in Stalingrad and these enterprises were subjected to repeated artillery shelling. However, the workers and the fighting men of installation MPVO formations rapidly repaired the damage, extinguished fires, and continued to work at the machines, ignoring the danger.

Commanders and the fighting men of medical-sanitary formations fearlessly worked everywhere to save people in centers of destruction. They searched for victims, extricated them from rubble and burning buildings, provided first aid, and evacuated the wounded.

The feat of Soviet women patriots, workers, and fighters will remain forever in

the memory of the people. The representation of a woman from Leningrad appears on the medal "For the Defense of Leningrad" along with a soldier and a sailor. We note that 85 percent of the personnel in Leningrad MPVO were women and girls. MPVO medical orderly Raya Butrova rescued 95 wounded and provided assistance to them. In doing so she was seriously wounded and her leg was amputated. But, she remained on the job until the end of the war, working as a telephone operator at the MPVO command post. Raya Butrova was awarded the Order of the Red Banner.

The fascist air force succeeded in setting transport ablaze at the dock of Rybnyy Port in Murmansk. But medical orderly Shura Turova did not abandon the ship. She rescued wounded Soviet and foreign sailors but an enemy bomb took her life. This courageous girl was posthumously awarded the Order of Lenin.

In Moscow, fighting men of the MPVO fire fighting service defended hundreds of residences, plants, hospitals, schools, and clubs against fire. They were able to save our national pride -- the Tret'yakov Gallery, the V. I. Lenin State Library, and the museum estate of L. N. Tol'stoy. Residence and installation fire fighting teams disarmed 40,000 incendiary bombs and extinguished 2,000 fires.

Teenagers and children fought fires along with their elders. During an enemy raid on Sevastopol', Vitya and Vera Snitko extinguished 15 incendiary bombs while saving their school. The Black Sea Fleet Military Council awarded the brave youths medals "For Combat Merit."

The actions of courageous explosive ordnance demolition [EOD] specialists deserve special mention.

Colonel (Reserve) I. Kharchenko lives in Kiev. Commanding an explosive ordnance demolition company during the war, he followed a glorious combat path. Risking his own life on every occasion, he personally disarmed 1,245 aerial bombs and 42,500 mines and shells. I. Kharchenko was awarded the title Hero of the Soviet Union.

More than 100 high-explosive bombs equipped with "booby-trap" fuses were dropped on Leningrad on 7 November 1941. One landed next to the Leningrad Post Office. Private A. Belavin from an MPVO troop unit saved the post office from destruction at the price of his own life. He and a crew of EOD specialists succeeded in directing the explosion of the bomb with its timing mechanism away from the post office by detonating it via an extended ditch. Belavin was killed by the blast. For courage and valor he was awarded the Order of Lenin and entered forever on the rolls of one troop unit.

Komsomol member Private P. Okorkov disarmed 547 aerial bombs during the war years. He perished attempting to disarm an unidentified bomb at Rovno Station. This fearless EOD specialist was posthumously awarded the Order of the Red Banner and entered forever on the rolls of his unit.

A warm love for the Motherland and burning hatred for the German occupiers brought a large group of women into the ranks of the MPVO EOD specialists. Thus, three friends, A. N. Kovaleva, M. A. Medvedeva, and Ya. P. Urbanovich, voluntarily chose this dangerous profession in Leningrad at the beginning of the war. As

MPVO EOD platoon commanders, they personally disarmed hundreds of bombs, shells, and mines, for which they received high governmental awards.

More than 2,000 MPVO troops got governmental awards for successful accomplishment of governmental missions to liquidate the aftermath of enemy air attacks and for demonstrating courage and valor in so doing. More than 300,000 fighting men from installation formations and self-defense groups were awarded medals for the defense of hero cities.

MPVO combat experience during the years of the Great Patriotic War remind us of the necessity for insuring that the populace is trained in a corresponding manner in the event of special conditions.

Integrated installation exercises have recently become the most viable form of attracting the workers to practical CD training.

The requisite CD forces, which undergo severe tests in peacetime as well, have been created to accomplish the difficult and important missions in centers of destruction and areas of natural disasters. They participated in the struggle with the mudslides in Kirgiziya, Tadzhikistan, and Kazakhstan, with landslides and cave-ins in the Caucasus, Crimea, and Carpathians, with floods in Moldaviya and in Brestsaya and Rostovskaya Oblasti, with hurricanes on the Pacific coast, and with earthquakes and forest fires in various parts of the country.

Many years have passed since the war's end but the deep scars it left have not been wiped away to this day. CD EOD specialists are always on the alert. Young officer N. Kruglov recently disarmed a powerful aerial bomb discovered at the Velikiye Luki Locomotive Repair Plant. This is the 24th bomb he has to his credit. The party and government highly value the selfless labor of CD personnel. During the postwar period, many hundreds of soldiers, sergeants, and officers from troop units and fighting men from non-militarized formations have received orders and medals of the Soviet Union for courage and valor while destroying dangerous explosive objects, in the struggle against natural disasters, and when liquidating their aftermath.

The Communist Party and Soviet government are paying continual attention to strengthening the combat might of the Soviet Armed Forces and to bolstering CD. They are indoctrinating the Soviet people in a spirit of readiness at any moment to come to the defense of their Motherland. Our Fundamental Law also demands this: "The defense of the socialist Fatherland is the most important function of the state, the cause of all the people."

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Methods for Psychological Training Described

Moscow VOYENNYE ZNANIYA in Russian No 10, Oct 77 signed to press 12 Sep 77
pp 25-26

[Article by Col (Res) A. Kostrov: "Steadfastness is Found in This Way"]

[Text] The basic military training program for students in schools, PTU [vocational training schools], and tekhnikums, especially the CD section, provides

military instructors with great possibilities for the moral-political and the psychological indoctrination of the students. These two aspects of training are closely linked and mutually stipulated as an integrated process of indoctrination.

Moral-political training envisages the goal-oriented indoctrination of young Soviet students in the spirit of a Marxist-Leninist world outlook, communist ideals, and Soviet patriotism. It is called upon to form the moral principles of a young person's conduct which would guarantee his conscious, brave, and courageous actions in any difficult situation.

Psychological training has as its goal to instill those qualities which would bolster this capability of a person to decisively carry out all missions assigned to him and to undergo severe tests and heavy physical loads while retaining self-control, consistency, and steadfastness.

Ways of forming such qualities during the training process are varied and depend both on the level of the military instructor's methodological mastery as well as on the condition of the training facilities at the school, PTU, or tekhnikum. At the foundation of these methods lies the principle of employing during the lessons the elements of stress, surprise, danger, and risk, i. e., everything inherent in the situation which can unfold in a center of nuclear destruction. Attention, memory, and keen wits are required for the training so that lessons are conducted in a situation of vitality and creativity.

The goal is to force the students to think independently, to get to the essence of the material studied, to impel them to make conclusions ("why?", "how does one explain that?", "what follows from this?", "what does this lead to?", etc.). After all, creative use of the resultant knowledge signifies reasoned, goal-oriented actions.

A sense of confidence in the reliability of protection plays an especially big role in the psychological training of students at CD lessons. We are discussing not only the correct mastery of individual and collective means of protection. A clear convincing discussion by the military instructor of the might and the capabilities of our Armed Forces who are standing on guard over the interests of the Soviet state must be the base line. This discussion ought to precede the shift to studying specific drills and rules for use of gas masks, protective clothing, and of blast and fallout shelters.

A great deal depends in the psychological plan on skillful demonstration during the lessons of all protective means and a discussion of their reliability, but the main thing is repeated training in putting on sound inspected gas masks, respirators, and the organized occupation of protective structures.

Practical mastery of all these drills and protective measures is also a proven way to the development of a person's sense of confidence and consequently to a guarantee of his proper conduct at the moment of danger.

We will examine psychological training drills for students based upon examples from separate lessons on the CD theme.

Thus comrade Markov, a military instructor in one school, while conducting the first lesson on theme 2, describing penetrating radiation and methods of protecting against it, assigned homework to the students. Determine to what extent a covered shelter with a 30-, 50-, and 80-cm thick layer of dirt (the half-value thickness of earth is 14 cm) reduces the dose of penetrating radiation and determine what radiation dose does a person in the open and in the shelter receive, given a radiation dose of 500 r [roentgens]. ("Grazhdanskaya oborona." Uchebnoye posobiye dlya srednikh spetsial'nykh i professional'no-tekhnicheskikh uchebnykh zavedeniy. Vysshaya shkola, M., 1973. [Civil Defense. Textbook for Secondary Special and Vocational Training Educational Institutions. Vysshaya shkola, Moscow, 1973], pp 19-20).

At the next lesson, he asked the kids to make a conclusion as to "what follows from this?" The following conclusions were reached. Even the slightest presence in the open will lead to radiation sickness, whereas the simplest shelter (covered) significantly attenuates the radiation dose. An 80-cm layer of earth practically completely protects against ionizing radiation. In case of the threat of enemy attack and the absence of prepared shelters, all able-bodied persons must immediately participate actively in building them.

Just such independent calculations, discussions, and conclusions and subsequent practical participation in laying out shelters, as well as drills during non-classroom time when preparing for the Orlenok [Eaglet] military sports game convinces students of the reliability of protective means infinitely more than simply reading the applicable portions of a school textbook.

In another example where the kids studied the destructive effects of the shock wave, they received homework requiring them to determine what percent of the total area of the center of destruction was encompassed by the zones of complete, heavy, moderate, and slight destruction. The 9th graders found the initial data for this problem and how to solve it in the aforementioned textbook (on page 24). The solution is as follows. The area of the zone of complete destruction is 12.7 percent, heavy 11.3, moderate 13.4, and slight destruction 62.6 percent.

The homework was checked in class and the kids' discussion was earnest. One of them even diagrammed the solution, which even more convincingly affirmed the conclusions that the zones of complete and heavy destruction, those most dangerous to the unprotected populace, make up only 24 percent of the total area. And, if personnel in these zones are reliably sheltered in protective structures, there is a possibility to save lives. In the remaining area (74 percent), the life and health of an individual depends not only on the presence of collective means of protection, but also on the skillful, able actions of each person, on his reasoned conduct, his psychological tempering.

Solution of similar problems and subsequent analysis of the answers provide the students a correct representation of the destructive factors of a nuclear burst while again and again convincing them of the availability of realistic possibilities for protection.

It is difficult to overestimate in the psychological plane the significance of drills in rapidly and properly putting on the gas mask and on the duration that

it is worn. But in our view, military instructors who usually announce the drill in advance, forming the students up in the corridor or in the school yard, are using the wrong approach. Drills must be unexpected, during breaks between classes or during lessons on drill or tactical training, for example. And, to do so, the students at several lessons must have their gas mask in the marching position.

Or let's take wearing the gas mask for a long time. This is tied into the known stress of moral and physical forces and, although they act upon the person's mentality, at the same time they develop in him self control and agility. For this reason, it is advisable to conduct part of the CD lessons involving practical work with radiation and chemical reconnaissance instruments and the reconnaissance of centers of destruction with the personnel wearing their gas masks.

Military instructors make one absolutely unforgivable yet very widespread error. They issue students gas masks with torn straps, bent canisters, or they conduct lessons in an unequipped messy protective structure. That certainly does not facilitate the indoctrination of even an adult with confidence in the reliability of means of protection and can lead to the opposite result.

The most effective gas mask training is achieved if the kids check them (and their own bravery) in the smoke chamber. These must be used in those areas where they are available, this being at vocational training schools, tekhnikums, and schools which have large enterprises as patrons. In this event, training time can even be allotted for this purpose and applied as the second lesson in theme 3.

The Orlenok military sports game lays firm foundations for indoctrination of will. Its program includes a CD relay race in which participation builds steadfastness and courage. In this regard, know-how acquired by GPTU No. 5 [State Vocational Training School] in Ashkhabad is interesting and deserving of dissemination. A special obstacle course has been built there and it includes a "burning tunnel."

And of course, a military instructor gets the most opportunities for student psychological training during integrated installation CD exercises. They are now underway at many educational institutions and military instructors must put them to maximum use.

An integrated installation exercise is the highest form of goal-oriented molding of the requisite psychological qualities in its participants. It is possible here to check out, as if in a unified whole, the knowledge, skills, moral-political, and the psychological qualities of the students, which they have acquired in the training and indoctrination process.

Here is an example from an integrated installation exercise conducted in one PTU. The training problem worked out was an evacuation using the combined method. On the march the situation arose whereby a pedestrian column moving at an average speed of 4 kilometers per hour reached a deep forested ravine. Further along the route 7 kilometers away was a sovkhos farm where reconnaissance data indicated there was a root cellar adapted as a fallout shelter with a protection factor of 100. Suddenly an input was received. "There is the threat of radioactive contamination, the radioactive cloud is approaching and is expected to arrive in 1 hour."

The exercise director assembled the platoon commanders (students), explained the

situation to them, and required them to report how they propose to act. One of them suggested that everyone immediately take shelter in the ravine.

"That is an incorrect decision," the director explained, "the ravine does not reduce the danger of the radiation."

Other commanders considered that they had to run the remaining distance and take shelter in the root cellar. Demonstrating great patience and comradely mutual assistance, the kids made the run, not in 1 hour but in 50 minutes instead.

The exercise director dwelled on this episode at length during the critique.

Or take this example. During an integrated installation exercise at a school, according to the input, the building was partially destroyed after an "enemy" strike and several students were "wounded." Mannequins representing the casualties were hidden in a full-scale section in the school yard in rubble made of reinforced concrete structurals. The rescue group began to remove them from the rubble. The medics provided first aid. The nurses were well trained. But, in the past, they had bandaged their comrades, who had not only groaned but had smiled as well. And suddenly they were confronted by silent, dirt-covered "lifeless" mannequins. At first the nurses were quite taken aback. And only after a second order, having overcome the "psychological barrier," did they set to work. True, onlookers then noted that they recovered so rapidly that they began to treat the mannequins like dolls. For convenience, they even stood them on their heads in order to wrap them. These shortcomings were noted at the critique and were written up.

We have attempted to describe only several drills (methods) to form the requisite psychological qualities in students. Military instructors are thinking, probing individuals who undoubtedly have know-how in solving similar problems. We invite them to share this know-how and to discuss their quests and discoveries in the plane of the moral-political and psychological training of students. Recommendations that have been substantiated and checked out in practice, in particular those involving psychological tempering, will undoubtedly be accepted with interest and will be of great utility.

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Activities of Chief of CD in Industrial Plant Described

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pp 26-27

[Article by special correspondent V. Mironov: "His Difficult Post"]

[Text] Lieutenant Colonel Konstantin Alekseyevich Yelenetskiy was exactly 50 years old when he was transferred to the reserves 6 years ago. Behind him lay the front-line paths of the Great Patriotic War replete with severe tests, his training in the Moscow Red Banner School, the Military Institute of the USSR MVD [Ministry of Internal Affairs]

He has been a party member since 1950. Konstantin Alekseyevich devoted the last 20 years to MPVO [Local Air Defense], then to civil defense [CD].

For 5 months he "made a mental note" of the mysteries of methodology in the VTsOK [Higher Central Officers' Courses] of USSR Civil Defense.

When he returned, he had to suffer through the process of setting up training facilities of the courses. There were no textbooks, no literature, not even any space. But that did not stop him. He had to organize the work of the courses, find the teachers, put together their study and methodological training, monitor this process, himself prepare to conduct lessons and to monitor plan fulfillment locally. But the main problem was the constant worry over equipment, where to acquire this piece of gear, how to get that one. You can't train your students with just your bare hands. He had to really put his shoulder to the wheel but he got things started.

And then. . . time to say good-bye to service life. But he had no chance to rest in the sunshine. Several days later he got a call from the general director of a well-known plant, who offered him the post of chief of the CD staff at the installation. Konstantin Alekseyevich did not waver. He has the knowledge and the know-how. Why bury them? And he was familiar with the situation, since he had personally more than once hinted to the director about the "holes" in the CD program. It was more difficult in the courses when he started with zero.

The director was not mistaken about him. He acquired a trusted aide and organizer. Setting to work, Yelenetskiy was convinced that he had to improve the CD planning at the plant, get the protective structures into order, improve the equipment of the non-militarized formations, but mainly, get the people to look upon CD positively.

For a start he launched a "trial balloon," he organized a staff practical training session. The results were not very comforting. The notification system did not work as it was supposed to and several production commanders clearly do not know their jobs. They must be taught. Lessons for the new training year were carefully planned. The chiefs of services were tasked with preparing the requisite documentation first off. They were not accustomed to this and they grumbled, but the director supported his chief of staff. It was not disastrous that results were not immediately obtained from all of them.

Yelenetskiy also put the protective structures in order. He supplied them with all required items. A classroom with beautifully formulated displays, diagrams, plans and tables, moulages, and mock-ups was set up in one structure and a small-arms range was built in another.

During one of the staff practical training sessions the director invited the production commanders to the classroom. "Do you recall what used to be here?" he asked them. "Do you see how things have been put in order here? This is how it must be everywhere."

Shop exercises also began to be held in full volume. This also was an innovation for the plant. Initially, the chief engineer tore his hair. "You are wreaking havoc with my plan," he said to Yelenetskiy. "You will ruin production." However, at the time many at the plant, first among them the director, understood that production and defense tasks must be accomplished in an integrated manner, without their being separated. The plant party committee also helped. A plan

for the party-political and organizational work was developed. All the public organizations at the installation -- the plant committee, DOSAAF and Red Cross committees, and the Komsomol organization -- participated in plan accomplishment. They all oriented personnel during the preparation for and conduct of the exercises in a conscious creative attitude towards CD responsibilities.

Goal-oriented political-indoctrinational work and moral-political and psychological training aided in mobilizing the collective for successful accomplishment of CD measures and raising each individual's responsibility for the results of his labor. And when they believed in their efforts and in the reliability of the means of protection, the people began to participate in the defensive measures more actively and in a more organized way. Masters and chiefs of sections, technologists, and other engineering and technical workers frequently visited the installation CD staff for advice on ways to improve the lessons conducted with their subordinates. It became noticeable that people try hard when their shop or section chief conscientiously approaches CD matters. There was an instance where a chief, quoting the "urgency" of the plan, requested forbearance. But life showed that, having received it, the "requestor" still could not cope with the task. And, the opposite case, where the leader was able to mobilize the collective and, as a rule, the plan was overfulfilled the day the CD measures were employed. Thus, severity in solving economic problems and CD disciplines, organizes people.

Now you cannot find a person at the plant who has not completed the 20-hour program and who has not improved his training in the special program. Many have already passed the practical norms. The non-militarized formations have been brought up to strength and equipped with everything necessary.

But this is not enough for Yelenetskiy. He is achieving cooperation in the activities of all links and the close coordination of all services so that there is clarity everywhere, so that every leader, worker, and employee knows what he has to do and how he has to do it when CD signals are issued. CD corners have been and are being set up in all shops, sectors, and sections. The workers and employees know what to do in response to CD signals, where to shelter themselves, evacuation and dispersal procedures.

But even here a check showed that not everything had been completely thought out. How are people notified, for instance, on their day off? How do you find them? How are they gathered together and where? Or are they immediately dispatched to the outer zone? A kind of sociological study had to be made.

The peoples' interest in the results of CD training is growing. Socialist competition unfolded at the installation greatly facilitates this. This is especially viable in this, the jubilee, year. The administration and the plant committee decreed that a contest be conducted to identify the best CD shop (section) in honor of the 60th anniversary of Great October and to improve the state of CD, training of non-militarized formations, and the quality training of workers and the employees, as well as increasing the responsibilities for this matter on the part of leaders and public organizations.

The deputy general director heads the contest commission and Yelenetskiy is his deputy. Contest progress is carefully monitored by the administration and by the

party committee. Progress is depicted on a special display and is commented on via the installation radio and the multiple edition ZA UDARNYY TRUD. In noting competition leaders, Konstantin Alekseyevich also sounds the alarm, pointing out the laggards, calls upon society to assist them.

And many workers and engineering-technical workers sensed the invigorating force of competition. For it not only develops production initiative but also forms amazing qualities such as labor and sociopolitical vitality, collectivism, mutual support and demandingness, organization and ideological maturity, a desire for self improvement. This is also facilitated by the skillfully established work involving the military-patriotic indoctrination of young workers at the installation. Yelenetskiy eagerly conducts this work along with other front-line soldiers and labor veterans and along with DOSAAF organizations.

CD matters at the plant have noticeably gone up in the world with Yelenetskiy's arrival on the scene. The director and the party committee guide his work. He has reliable support in the form of the plant committee and the committees of DOSAAF, the Komsomol, and the Red Cross.

The positive results in accomplishing CD measures are now not only visible to the installation collective. They are also rated highly in the oblast'. The plant is rightly ranked as the oblast' leader as far as CD is concerned. For successes in accomplishing CD missions, Konstantin Alekseyevich was awarded the "Otlichnik of USSR Civil Defense" badge. Many chiefs of installation CD staffs come to him for know-how and advice. The training facilities set up at the plant and the organization of worker and employee training will serve as a sort of school for enterprise directors. Oblast' teachers of the CD courses often use this collective as an example at lessons conducted with command and supervisory personnel.

Diligent preparation for the new training year, for the integrated exercise as an examination in maturity, is underway now at the plant. Preparing for this, polishing evacuation and dispersal problems, Yelenetskiy made a note to include in this, along with the evacuation committee and the "cybernetics people," the automatic production control system section. "So that everything goes just like the script says."

This is how Konstantin Alekseyevich Yelenetskiy, communist, veteran, and reserve officer, is fulfilling his patriotic duty.

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CD Personnel Assist in Natural Disaster in the Kirgiz SSR

Moscow VOYENNNYYE ZNANIYA in Russian No 10, Oct 77 signed to press 12 Sep 77 pp 28-29

[Article by Col A. Volynskiy, Deputy Chief of the CD Staff for Political Affairs, Kirgiz SSR: "According to the Laws of Courage"]

[Text] Greeting the glorious jubilee -- the 60th anniversary of the Great October socialist revolution, the miners from the city of Kyzyl-Kiya in Kirgiziya are hoisting hundreds of tons of high-quality coal in excess of the plan. Their

increased pledges involve fulfilling the jubilee year plan before 7 November. All other enterprises are also working at a shock pace.

After all, it was just several months ago that the city lived through a serious natural disaster. It was unexpectedly struck by an enormous mudslide.

In Defiance of Disaster

The Dzhal, a small river 2-3 meters wide, flows through Kyzyl-Kiya, which is located at the foot of high mountains. In early spring young lads launch their hand-made little boats in the bed of the say (river).

Then the Dzhal overflowed its banks and began to rage. Heavy showers fell in the mountains. Flowing into the upper reaches of the Dzhal, the water formed a mudslide up to 300 meters wide and 8 meters high. And, this avalanche of water, dirt, and rocks rushed downwards with a roar, uprooting ancient trees. Having broken through the dams, the avalanche struck the reinforced concrete bridge. One span collapsed. The stream "on its trip" seized about 2,000 cubic meters of lumber from the lumber yard and headed with fury towards the city buildings. The lumber struck walls, forming high logjams on the streets. A significant portion of the city was under water in a short time.

The great tragedy of the situation was that it occurred in the evening. People sought shelter in the upper stories of buildings, in tall trees, and on roofs. Everyone able provided assistance to the children, women, and the elderly. And, all this was done from the very outset of the suddenly striking disaster. Not due to any order but due to the call of the heart, due to the duty of the Soviet people.

Petr Chechuyev, Komsomol member and student at the city's vocational training school, headed for his mother's home. Reaching the bridge he saw that the Dzhal had left its banks and he heard cries for help. Without stopping to ponder, he dove into the raging stream and saved three women. An old man was drowning, caught up in the murky water. Again Petr went to help but, saving the old man, he did not see a log bearing down on him. There was a blow and the young hero's life was snatched away.

Chechuyev's classmates from the school under the guidance of their mentors carried on the selfless struggle against nature on another sector. They swam in small groups to flooded homes and, standing on each other's shoulders there, removed the victims from the roofs and trees. Then they ferried the people to safe haven.

Students V. Bobrov, A. Bortsov, N. Khaydarov, G. Galiyev, K. Umarkulov, and others saved people, while young nurse Ol'ga Ryabova provided first aid to the injured. In all, students from this PTU [vocational training school] rescued more than 100 persons.

Demonstrating in the clash with nature high volitional qualities, many thousands of inhabitants of Kyzyl-Kiya operated in accordance with the laws of courage. Students from the mining tekhnikum, wrapping a flexible hose around themselves, formed a living dam in the path of the water and aided the victims in reaching

the shore. Komsomol member and deputy of the city Soviet V. Ilyukhin, chauffeur A. Deryukhin, and many others went to the aid of people who suffered disaster. As a rule, the people in the forefront were the communists and Komsomol members, the fighting men of CD and members of the Defense Society.

Communist Ye. Khokhlov, veteran of the Great Patriotic War and cavalier of combat awards, left his wife and nephew on the shore. He then saved a drowning woman, provided assistance to others, then went back into the water. But the element did not forgive this courageous person. He died a hero.

T. Ismailov, an electric fitter in the Mine imeni the Lenin Komsomol and member of the gorkom bureau, demonstrated that he is a skillful rescue work organizer. At home, he heard shouts outside. He ran out to the street and saw that an entire lake had formed beyond the bridge. The current had swept away several houses standing on the bank. The water was just about to get to his house too.

"Quickly gather the kids and all of you go to the hill!" he shouted to the neighbors.

The adults and children succeeded in getting away from the danger area. Aiding his comrades, Ismailov remembered the Shaykhutdinov family. They had not gotten away since the mudslide had struck the house earlier. The Shaykhutdinov family had grabbed an apple tree, from which they were saved by the rescue crew formed at the time by Ismailov. While this was going on, the raging current destroyed the home and carried off the belongings accumulated over the years, including the new Zhiguli that electric fitter Ismailov had just gotten.

At the Headquarters of the Struggle Against the Elements

A plan of the city took up the entire width of a table in the office of Anatolyy Mikhaylovich Malov, first secretary of the gorkom. Conventional signs denoted flooded streets and blocks, as well as those places threatened with danger. The secretary had done the plotting himself. This was a familiar task to him, a former artilleryman and participant in the Great Patriotic War.

The gorkom members stood around the table. Of course, not all of them by far. Many, as was the case with T. Ismailov, were already at the front lines of the struggle against the elements. A short report by Sabira Omurkulova on the situation in the city. Proposals prepared by Anbardzhan Saydumarov, chief of the CD staff. The bureau makes an immediate decision. Concise accurate wordings, reminiscent on the paragraphs of a combat order.

Concentrate efforts on sectors of the streets near the Dzhal-say -- Ulitsy Krasnopartizanskaya, Dzhabula, Toktogula, Dzhal'skaya, and others. The main task is to rescue the people. Take measures to protect rolling stock, and the buildings and tracks at the railroad station, do not allow damage to the oil storage facilities at the cargo vehicle depot. All communists and Komsomol members consider themselves mobilized for the struggle against the elements and assigned to head rescue groups and teams.

It should be noted that the CD chief and the city staff rapidly notified all installations, services, and formations of the danger, assigned them missions in a timely manner. Rescue operations acquired an organized character.

The Services Excelled

M. Sultanov, chief of the CD vehicle transportation service and director of the cargo vehicle depot, felt uneasy as soon as he heard the rumbles of the thunder in the mountains. He had earlier ordered the drivers just finishing the shift not to go home and for vehicles scheduled out to remain at the depot. He called his staff together at 1840 hours and ordered them to bring the service to readiness.

Taking his chief of staff N. Kokorev with him, Sultanov left to conduct reconnaissance in two powerful KrAZ [Kremenchug Automobile Plant] with five drivers in each. Accomplishing their missions, they warned people of the danger and, when the mudslide was on the verge of reaching the city, they initiated rescue operations. Thus, driver V. Kalinin drove directly along the water to the store and removed the sales personnel from the roof. Drivers Yu. Mamedov and Sh. Rakhmanzhanov and operations chief Kh. Gafurov took children off the roof of the kindergarten. Drivers M. Sergeyev and V. Kalinin drove right into the mudslide, loaded the suffering into the truck bed, and carried them to safety.

But the main test remained ahead. The mudslide reached the tank farm and was threatening to smash the POL [petroleum, oil, and lubricants] tanks. Sultanov and his subordinates defended them. The situation deteriorated when a gas tank caught fire. The transportation workers began to battle the fire in coordination with fire service formations and the service for maintaining civil order. Firemen from the neighboring Kolkhoz imeni M. I. Kalinin and from Fergana and Kuvasay arrived to assist. Evgeniya Peredirova, senior instructor from the fire fighting unit, stood out. She worked on a par with the males doing the heavy physical work. The fire retreated from the peoples' courage after an hour.

The service for maintaining public order also operated well. Militia workers were to be found everywhere. They rescued people, helped to fight fires, directed traffic, searched for injured, did not permit panic to develop, and conducted explanatory work among the populace along with public organizations.

The actions of the CD engineering and communal-technical services also deserve praise. Their non-militarized formations confidently accomplished rescue and urgent emergency-restoration work.

The water supply was rapidly reestablished. A great deal was done in this regard by masons communists V. Aliyev and T. Ergeshev, Komsomol member Sh. Garipov, brigadier of carpenters Hero of Socialist Labor Ye. Chernyshev. The water supply was placed in operation in 3 hours (under normal conditions construction norms require this to be done in 15 hours).

Excavator operator V. Rublev and dump truck driver M. Zhaimbekov worked three consecutive 18-hour days and crane operator N. Bareyev never even went home for the initial period.

Formations from the municipal enterprises combine insured that the city received drinking water and sanitation services until the water supply was reestablished. Communists M. Kurivov and R. Ibatulin and Komsomol members V. Setyabov, K.

Taylanov, and others regularly delivered water to residences and to the tent city where the victims were quartered.

Side By Side With the Troops

The elements raged for less than 2 hours. But the losses were great. Hundreds of buildings were destroyed and industrial enterprises, schools, stores, and other installations were damaged. Rubble consisting of wood, rocks, and dirt was strewn throughout the city.

Emergency-restoration work began immediately after the water level fell. The first to take active part was the city combined CD team under the direction of communist I. Andreyev. In coordination with the district military subunits [podrazdeleniye] which had arrived, the team removed the worst of the rubble, clearing the transportation arteries.

For example, a 20-meter high pile of debris had been formed near the railway station. The combined team and a military subunit were assigned the mission of removing it as first priority. Along with political workers, the commanders carefully evaluated the situation. In their decision, they carefully determined the sequence of operations and the deployment of personnel and equipment. The deputies for political affairs coordinated their plans for political-indoctrinational work.

Andreyev's main job is chief of a repair and construction administration. At the same time, Ivan Maksimovich skillfully trains a non-militarized formation for operations under special conditions. Almost all the fighting men and the commanders are communists and Komsomol members. This year they successfully completed the training program. And now, they were in essence taking the exam on eliminating the aftermath of a disaster.

Communist I. Kazachkin, a veteran of the Great Patriotic War, is Andreyev's deputy for political affairs. Together they have indoctrinated a harmonious collective capable of accomplishing complex missions. Suffice it to say, the personnel worked 12 or more hours a day to remove the debris. As a rule, the established norms were overfulfilled.

Socialist competition for the fastest accomplishment of the assigned missions unfurled between the fighting men of the team and the troops from the subunit commanded by officer V. Zhukov. The subunit deputy for political affairs, officer Ye. Kurbachev, and I. Kazachkin from the formation carried out explanatory work in accordance with a joint plan not only among the personnel, but among the populace as well. It happened that the draft of the new USSR Constitution was published at that time in the press. They made the wide-scale propaganda and discussion of the draft the foundation of all party-political work.

Communists K. Kadyrov, A. Myagkov, and K. Saparov and party group organizers N. Kryatov, N. Kalashnikov, and S. Nasyrov set an example of industry and skill while accomplishing rescue and urgent emergency-restoration work, held discussions with the fighting men and the populace, and published combat leaflets.

The combined team deputy for political affairs talked about the city of Kyzyl-Kiya

and its famous people and he shared his know-how in the training of his formation. In turn, the subunit deputy for political affairs familiarized the fighting men of the team with the life and with the combat and political training of the troops.

Thus grew the friendship of two collectives which, assisting each other, had during the entire period of their joint operations overfulfilled the daily missions by 100 percent and stood the test on steadfastness.

The medical team from the medical institute operated as a component of the joint team. It was led by R. Van'kina, secretary of the Komsomol organization. Along with political instructor A. Atabekova, she not only skillfully directed the work of the medical team personnel, but also actively conducted medical propaganda among the populace. Medical personnel manned medical posts and monitored the medical environment in areas where emergency-restoration operations were in progress.

The mudslide destroyed homes and structures. But, it was unable to smash the will of the Soviet patriots, indoctrinated by the Communist Party. Mass-scale heroism demonstrated in the mining city of Kyzyl-Kiya is just one more bright example of the indestructible friendship of peoples of different nationalities.

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COMBAT HELICOPTER DEVELOPMENT DISCUSSED

Moscow VOYENNNYYE ZNANIYA in Russian No 10, Oct 77 signed to press 12 Sep 77
pp 37-38

[Article by N. Grigor'yev based on materials in the foreign press: "Combat Helicopters"]

[Text] The idea of creating a flying vehicle whose lift would arise from a rotor (helicopter) was born several centuries ago and it was expressed by Leonardo da Vinci. And in 1754 M. V. Lomonosov presented to the Russian Academy of Sciences the first flying model of a heavier-than-air craft which was intended for the study of the atmosphere's upper layers.

However, the problem proved to be so difficult that despite the abundance of test designs, right up to 1930 a reliable machine could not be created. Priority in the solution of this problem belongs to Soviet designers. In 1930, a group of personnel of TsAGI [Central Institute of Aerodynamics] constructed a single-rotor single-place helicopter, the 1-EA, which rose to an altitude of 605 meters. Let us note that in 1975 female pilot G. V. Rastorguyeva and navigator L. A. Polyanskaya in a Mi-10 helicopter reached an altitude of 6,000 meters in 7 minutes 43 seconds--a world rate-of-climb record.

Helicopters have occupied a firm place in the arsenals of contemporary armies.

In the armies of the capitalist countries they are divided into combat (fire support of the troops, antisubmarine warfare, troop-carrier), combat support (reconnaissance, communication, artillery fire adjustment, layers of minefields, refueller helicopters), and for auxiliary purposes (medical, training, flying cranes, and so forth).

At first, the idea of employing helicopters on the battlefield was evaluated as unpromising by many foreign military specialists. The basis for this were primarily the speculative conclusions concerning the extreme vulnerability of rotary-wing machines. However, the necessity to increase the mobility of the troops and achievements in the field of technology stimulated the development of the new weapon. Initially, transport helicopters were employed as combat helicopters. Then the production of helicopters having the direct purpose of accomplishing fire missions was begun.

At minimum possible altitudes the helicopters, utilizing folds in the terrain for screening, approach the target covertly and attack from ambushes. They are not tied to airfields and can be based directly in the troop combat formations.

During the conduct of assault operations the helicopter gunships destroy and neutralize weapons emplacements to include antiaircraft weapons on the flight routes, on the flanks, and in the landing areas. Among the other missions which are accomplished by the helicopter gunships the foreign press discriminates the neutralization of strong points, the destruction of personnel and equipment in assembly areas and on the march, direct support of the attack, and combating tanks and airborne assaults.

At any time, helicopters can withdraw from battle and impose it on the enemy again. During withdrawal, they displace quickly from line to line, attack from any direction, and contain the advance of the armored and motorized infantry subunits which have broken through.

Contemporary helicopter gunships, as is noted in the foreign press, are equipped with stationary and moveable weapons systems to include small arms and cannon, free and guided missiles, bombs and tanks with incendiaries, and grenade launchers.

Armor which protects some assemblies and the pilots is widely used in the construction of rotary-wing aircraft. Thus, the weight of the armored protection of one of the American helicopters is 77 kilograms. The crew members wear special armored vests and armored chest protectors while the windows of the cabins are made of transparent armor. Self-sealing fuel tanks are installed, thanks to which they become invulnerable for bullets up to 12.7 mm in caliber. Great attention is being devoted to improving systems to rescue the helicopter crew in an emergency situation. According to reports in the foreign press, one of these systems provides for the separation of the cabin with its subsequent lowering by parachute.

So-called multipurpose helicopters are most widely used now. According to data in the foreign press the inventory of the U.S. Army alone includes more than 4,000 of them. A typical craft of this class is the American "Iroquois" helicopter. It is armed with two 7.62-mm machineguns and containers with 36 free 70-mm rockets. The helicopter takes 14 assault troops or 6 wounded (on stretchers) with an aid man. The rescue winch lifts a load of up to 270 kg in weight. A cross-country vehicle of the Jeep type can be transported on an external suspension.

Two new multipurpose tactical transport helicopters of the next generation are now undergoing evaluation tests in the United States. As reported in the foreign press, one of them should enter the inventory in 1978. Its basic purpose is to ensure the tactical mobility of the army. Named among the missions to be accomplished are those such as the assault landing of infantry subunits, their supply in battle, the evacuation of wounded, and the transfer of reserves.

For now it is planned to purchase 1,107 helicopters. Nine companies began the struggle for the titbit. Two reached the finish line: Boeing-Vertol and Sikorsky. The results of tests which are being conducted will show which of them turns out to be the winner.

The main advantage of the new helicopters over the "Iroquois" is the greater power-to-weight ratio. Instead of one engine, two more powerful engines are installed on them. Reliability, degree of combat readiness, and operational qualities are improved. The helicopters must satisfy flight conditions at an altitude of 1,200 meters at a temperature of 35°C with three crew members and 11 soldiers on board and with a full fuel supply. The basic requirements for flight characteristics are: takeoff weight 7,600 kg, cruising speed 270-325 km per hour, vertical rate of climb 2.3-2.8 meters per second, and flight duration 2.3 hours.

The helicopters will transport 3,180 kilograms of cargo on an external suspension and will have a collapsible tail boom and rotor blades (for transportation in an airplane). Each of the companies presented three test helicopters for tests. They all have four-blade main and tail rotors and a wheeled landing gear. Two engines are installed in the upper part of the fuselage along its sides (in nacelles). However, the design solutions of individual assemblies differ from each other in many respects. Thus the helicopter of the Boeing-Vertol firm has a rigid main rotor without lag and flapping hinges. It is believed that such a rotor provides high control sensitivity, increases the range of possible alignments of the helicopter, and permits accomplishing takeoffs and landings in gusts of wind up to 110 km per hour. Shock-absorbing elements of the cabin absorb the energy of the shock against the surface (with a drop at a rate of up to 13 meters per second). The seats maintain a constant position relative to the cabin floor. This is attained by cushioning their suspension against the ceiling. The reliability of such a design was checked by dropping the helicopter from a height of 15 meters.

The firm tried to satisfy the requirements for helicopter survivability. It is ensured by double redundancy of the control system, triple redundancy of the hydraulic system, and duplication of the transmission lubrication system. The helicopter's vulnerability to different types of small arms has been reduced. Thus, flight can continue with a considerable reduction in the strength of the fiber glass blade after being fired on by shells of 20 and 30-mm caliber.

In addition to multipurpose helicopters, improved helicopter gunships created under the AAN program are undergoing tests. It is costing the taxpayers 3.3 billion dollars. The struggle to obtain this big order is being waged by the Bell and Hughes firms.

In accordance with the requirements of the program, the power plant of the new helicopter gunship should consist of two engines. The maximum takeoff weight is 7,000 kilograms. The ferrying flight range with external fuel tanks is 1,800-1,850 kilometers. The crew consists of two men. The main armament of

the helicopter gunship will be eight "Tow" antitank rockets and a 30-mm cannon with a rate of fire of 500-700 rounds per minute. The unit of fire is 800 rounds.

In conclusion, we should dwell in greater detail on one of the missions being accomplished by contemporary helicopter gunships.

As foreign military specialists believe, tanks correspond to the nature of contemporary war to the greatest degree. However, notes the journal INTERNATIONAL DEFENSE REVIEW, the tank now has a strong enemy in a fight with which it loses in the majority of cases. This is the helicopter armed with antitank guided missiles (ATGM).

The ATGM complexes which are installed on helicopters have a maximum range of fire of 3,000-4,000 meters, armor penetrability of 500-600 mm, and missile speed of 200-280 meters per second. Guidance is accomplished by a semiautomatic system with the use of an infrared coordinator or by wires. In the opinion of foreign specialists, the most effective ATGM fire is ensured when the helicopters operate out of ambushes from an "upward jump." Gaining an altitude of 100-150 meters in 10-15 seconds, they launch the missiles at the target and take cover behind natural obstacles and then, under cover of local objects and folds in the terrain, they move on to the next target.

Abroad, evaluations of helicopter ATGM complexes were conducted using the simulation of combat operations and during exercises. In studying "tank-antitank helicopter" operations, military specialists came to the conclusion that in the case of conducting fire from a distance of 2,500 meters the ratio of losses is approximately 9:1. In this regard, if fire is opened from a distance of 3,000 meters the helicopter supposedly is virtually invulnerable to the fire of ground weapons. However here, as a rule, the possibility of destroying helicopters by the aviation and fire of other combat arms was not considered and, as the experience of the war in Vietnam shows, losses of helicopters from their fire are rather considerable. Furthermore, the cost of the objectives was not taken into account, either. At present the ATGM helicopter complexes are three to five times more expensive than the tanks in the inventory.

The last fact tells us once again about one thing: the bosses of the military departments in the imperialist states and military-industrial complexes are ready to take new billions from the pockets of the workers to initiate an arms race which is inhibiting the process of detente.

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DUTIES OF NAVAL MINE-LAYING PERSONNEL DESCRIBED

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[Article by Engr-Capt 1st Rank V. Beloshitskiy: "Naval Mine Personnel"]

[Text] "A terrible and invisible enemy"--this is what the mine was called during the last war. During detonation a mine strikes the most vulnerable, underwater part of a ship and destroys its hull. As a result, even the biggest ship may perish.

During the war years mines were laid secretly at our own shores and, for a long time, reliably protected the approaches to friendly bases against enemy ships. They were also laid on the most likely directions of enemy movement, in narrow straits and channels, in the open sea, and far in the ocean on important routes of communication.

The combat properties of mine weapons permit accomplishing many missions in war at sea, especially in coordination with other contemporary means of armed conflict.

At the beginning of the Great Patriotic War, despite the fact that fascist Germany had various models of mine weapons and German airplanes, submarines, and surface ships accomplished mass layings of mines on seas and rivers, they did not succeed in disorganizing navigation and neutralizing the combat activity of our Navy. And this is to the credit of the valiant mine-laying seamen who accomplished many exploits in the accomplishment of combat missions.

The naval mineman is an honorable specialty. It requires firm theoretical knowledge and high skill. In the course of combat training the mineman must participate in the preparation and laying of mines and mine-sweeping gear, in retrieving mine-sweeping gear, in the preparation and conduct of demolition work, and so forth.

The work of the mineman is difficult; it is connected with great risk. As they say, the mineman errs but once. The slightest error may lead to the explosion of a mine.

In the war years, our minemen conducted the active laying of mines. Ships of the Soviet Navy often went to sea and laid mines in the enemy's waters and on his communications.

The combating of the mine danger assumed the most intense character from the first days of the war. The Hitlerites counted on achieving the greatest effect by surprise in employing mine weapons and the scale of mine layings. They hoped that the Soviet seamen, not knowing the construction of their mines, would be demoralized for some time. Influence mines were widely employed (magnetic, acoustical, magnetic-acoustical). And to hinder sweeping, the fascists used antisweep mines, anticountermining devices, antisweeping devices, laid mines at shallow depths, and so forth.

Therefore, one of the primary missions of the fleet minemen in combating the mine danger was the search for and destruction of new mines. And to the honor of our mine personnel, it should be said they quickly learned to solve the enemy's technical stratagems and procedures in laying mines and they acquired great experience in antimine defense.

On the Black, Barents, and Baltic Seas and on the Volga the fleet's minemen disarmed many thousands of enemy mines, each time risking their lives in the name of victory over the enemy.

To eliminate the possibility of disarming them new, more cunning anticountermining devices which entailed terrible danger for the mine personnel were installed in the German mines. These devices detonated the mines not only during their disarmament, but even during attempts to raise them from the bottom to the surface or simply to shift them.

In 1942 the enemy wanted to interrupt the communication of besieged Sevastopol' with the mainland by sea by any means and he laid mines of unknown models. Electromagnetic sweeps did not pick them up and acoustical sweeps did not act on them either.

The minemen were assigned a difficult mission: to find a new mine and disarm it in order to know how to combat it.

A mine was discovered by divers while investigating the bottom of the sea. But how was it to be disarmed? In the attempt to raise the mine an explosion occurred and the test minemen perished. Then the decision was made to disarm the mine under the water. The accomplishment of this mission was assigned to a mineman of the Black Sea Fleet, Captain-Lieutenant G. Okhrimenko. And he began the work together with the divers. Okhrimenko had to descend to a depth of 20 meters many times and conduct single combat with a mine which could explode at any moment. Enemy artillery fired on the diving boat and it was hit by several shells. However, Okhrimenko continued to perform his dangerous work. Soon the mine was disarmed and the construction of the German magnetic-acoustical mine ceased to be a riddle for Soviet seamen.

From the first days of the war Soviet scientists came to the aid of the Navy. In Sevastopol', a group of physicists under the direction of future Academicians A. P. Aleksandrov and I. V. Kurchatov developed methods to protect ships against enemy magnetic influence mines. In the Black Sea Fleet acoustics scientists under the direction of Academician N. N. Andreyev worked out recommendations for the effective use of acoustic sweep gear. Knowledge of the construction and operating principles of enemy mines permitted our minemen to combat them effectively.

During the period of the Soviet Army's offensive the fleet mine personnel intensified active mine-laying in enemy waters, supported the operations of our fleets on sea communications, and conducted important mine-sweeping work in liberated naval bases. Hundreds of enemy ships and vessels were blown up on the mines which they laid.

The combat activity of the minemen did not even stop with the end of the war. The danger of mines at sea remained for many more long years. The miners were assigned the mission to clear the mines from our waters to ensure safe navigation on sea and river routes.

It was difficult for the minemen; a great number of mines were torn from their anchors by storms and floated on the sea freely. There still were unknown minefields. It was necessary to sweep virtually the entire water surface, and many times. Thus, for example, in the Gulf of Finland alone 15,415 anchored mines were swept up. Just as in the days of the war, the minemen displayed exceptional bravery when removing mines from channels and ports.

In examining the experience of the World Wars and local conflicts and considering the development of mine weapons and the tactics for their employment, many foreign specialists are coming to the conclusion that great attention will also be devoted to them in the future.

In the postwar period the tactics of combat sweeping were improved.

The Soviet fleet mine personnel are constantly improving their combat skill and tirelessly mastering mining and sweeping equipment. The glorious combat traditions are also continuing to live today. The Soviet seamen, loyal to their international duty, are assisting the people of the state of Bangladesh in eliminating the danger of mines in the port of Chittagong. The operation on the removal of mines from the Gulf of Suez was a genuine test of bravery, combat ability, and endurance. The Soviet seamen passed this test with honor and demonstrated high moral steadfastness. In accomplishing these missions and being alongside terrible danger, our seamen often risked their lives. Their bravery was evaluated highly by the people. The order of the Minister of Defense USSR instituted the chest badge, "For Combat Mine-Sweeping," which was awarded to the personnel who participated in live mine-sweeping.

However, knowledge of equipment alone is not enough; it is necessary to have skills in the practical use of one's weapons. And the minemen are learning to use the equipment.

The Soviet Navy has modern antimine ships which are equipped with all means for combating the mine danger. The fleet mine personnel are displaying constant concern for improving their combat skill and, by their selfless labor and training, are adding to the glorious traditions of our fleet.

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BRIEFS

LETTER FROM KERCH'--With each passing day, business-like contacts are expanding between the Leninskiy Rayon CD staff and public organizations. Workers from the raykoms of the Komsomol, DOSAAF, Red Cross, and sections of the Znaniye [Knowledge] Society, as well as clubs and libraries are helping conduct CD propaganda. A group of lecturers is working, movies on defense themes are shown, and showcases containing literature on CD questions are constantly updated. Competitions have been held on multiple events with fulfillment of the norms of the GTO [Ready for Labor and Defense] complex and of the CD norms. N. Korolev sent in this letter. [Text] [Moscow VOYENNYE ZNANIYA in Russian No 10, Oct 77 signed to press 12 Sep 77 p 19] 7869

LETTER FROM MOLDAVIA--N. Gerasimov, CD chief at an oil depot, writes that the collective from the Rybnitsa Oil Depot successfully completed the CD training year. All workers and employees passed the norms and acquired practical skills in use of the means of protection and conduct of rescue operations. They equipped a classroom for the lessons in a protective structure. Practical training sessions with fulfillment of norm 3 (duration of time working with gas mask on) are often conducted at the work place. And recently, an integrated installation exercise was held at which acquired knowledge and skills were bolstered. The non-militarized formations commanded by N. Pashko and G. Rybnikov especially distinguished themselves. [Text] [Moscow VOYENNYE ZNANIYA in Russian No 10, 1977 signed to press 12 Sep 77 p 19] 7869

BRAVERY--Major (Res) A. Valuyskiy writes that the weather forecasting service in Ferganskaya Oblast' provided timely reports on the threat of a mudslide. Therefore, CD staffs were able to notify the populace and bring to readiness the nonmilitarized formations in the regions threatened. During the duel with the flooding, a fire broke out suddenly at Pobeda Kolkhoz in Akhundbabayevskiy Rayon due to a short circuit in the electric wiring. The fire threatened the livestock husbandry farm. The fire fighting formation led by its commander N. Kazakov was the first to battle the fire. Operating bravely and skillfully, they did not allow the misfortune to spread. The fire was quickly extinguished. T. Yuldashev, A. Akramov, T. Ergashev, V. Khasimov, and fire engine driver B. Yuldashev especially distinguished themselves. Meanwhile

other formations operating in coordination with the firemen saved the cattle and the feed. Here is another example of courage and steadfastness. Water cut the Fergana Oil and Fats Combine off from the city. Communications were cut and so was the electricity. But the back-up power installation was placed in operation at the order of M. Aliyev, installation director and the CD chief. The installation rescue team under the direction of T. Kamalov, the deputy for political affairs, rescued persons struck by the mudslide. Group commander A. Mamazhanov, fighting man N. Andreyev, and N. Moiseyev, commander of the emergency-technical team, acted with special skill. The fighting men in the antiradiation and antichemical defense group (commander E. Chalbash, deputy for political affairs Ye. Kiryushkin) under special conditions saved the supplies of toxic agents and removed them to a safe place. [Text]
[Moscow VOYENNYE ZNANIYA in Russian No 10, Oct 77 signed to press 12 Sep 77 p 28] 7869

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