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JPRS 83661

13 June 1983

# **USSR** Report

MILITARY AFFAIRS

No. 1773

# 19980609 094

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# MILITARY AFFAIRS

## No. 1773

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#### STEAMBATHS DISGUISED AS TRAINING FACILITIES

Moscow KRASNAYA ZVEZDA in Russian 9 Apr 83 p 2

[Satirical article by Col A. Drovosekov: "Steam Room with Program Control"]

[Text] If we confine ourselves to the testimony of eyewitnesses to the event, everything began with someone tossing out an idea. It is impossible to determine now whether this was a person from outside or one of their own from among the officers of the Saratov Higher Military Engineering School of Chemical Defense. The essence of the idea was to build a training point for practicing topics on the practical use of breathing apparatus.

The idea found fervent approval in the school's leadership circles and construction soon was under way. When the work was finished, however, the point turned out to be surprisingly similar to a luxurious bathhouse, to the great astonishment of people who were not given to know the fine points of chemistry. It appeared before the eyes as a separate building with individual boiler room and hothouse for flowers at the entrance. Within the building was a room with two pools (one small one just to take a dip and another considerably larger one in which it was also possible to swim), a steam room, shower room, dressing room and lounge. Construction materials were selected tastefully and knowledgeably and everything was done conscientiously and without imperfections, and this with very compressed time periods for construction!

The training point also produced a favorable impression on the school leadership, with just one wish expressed: Couldn't the name be changed? "Training point" was not in tune with the times. It had to be something else.

And a name was found. Now the sign on the facade of the structure says "Training Complex." In a letter sent to the editors, however, it was stated that this was no complex at all, but a bathhouse where arriving guests were indulged. What was to be believed? The sign or the letter?

"This is no bathhouse, it's a complex," I was told by school training department chief Col V. Tkachev. "We work certain topics here. For example, we use the steam room as a heat room."

"And do you also use the lounge, where everything is provided for drinking tea, for training purposes?"

Vladimir Grigor'yevich faltered only for a second, then clarified:

"The complex was built before my arrival at the school."

Lt Col G. Ovsyannikov, acting chief of the chair which is in charge of this facility, said almost the very same as the training department chief:

"We use the complex for training and scientific purposes."

It can't be helped, science requires expenditures, but whether or not they are always justified is the question. The fact is that if the pool included in the complex is needed for training cadets, it is only 36 hours a year, but its construction and finishing cost a pretty penny. And why, one asks, finish a training location so luxuriously when it can be set up at any reservoir? Didn't the former school chief, now Maj Gen Tech Trps (Res) N. Shcherbakov, really pay attention to the excesses on familiarizing himself with the estimate?

"The estimate was compiled after the end of construction, in December of last year," said Maj M. Radaykin, chief of the school's billeting section.

His statement generated a counterquestion:

"Was there a plan?"

"Of course, here it is," and the major extended me a folder with drawings marked: "Bathhouse for Ten Persons." A bathhouse and not any kind of complex.

The bathhouse was built two years ago using local resources. Col B. Samodurov, appointed to the position of deputy chief of school for logistical support in the fall of 1981 (he replaced Col I. Nagornyy, released to the reserve), came across a paradoxical fact: The facility was there and at the same time it was as if it was not there because it was not mentioned in any documents. The uncertainty lasted more than a year until it dawned on Samodurov to give the illegitimate offspring the right of citizenship and place it on the balance sheet of the garrison KECh [billeting unit]. The idea was approved by the new school chief, so it was then that an estimate was needed for construction of the complex, and this was sent by prior agreement to the Volga Military District KEU [billeting directorate]. The facility was given a number and it was accepted by a state acceptance commission appointed by the district KEU in which Col Samodurov simultaneously acted as chairman, general contractor and representative of the operating organization.

Although calculations were rather approximate, the estimated cost of the facility was 53,781 rubles. There is no persuasive answer to the questions of how construction was financed and where the materials came from. A special investigation is required here, as is customarily said. Therefore we can only build suppositions based on study of an analog, and we have such an analog, and also in the Chemical Troops.

In contrast to the bathhouse discussed above, this is not hiding under the mask of a training complex. There are two steam rooms here, one of the

Finnish type and the other of the Russian type. With regard to the pool, there are provisions for oxygenating the water. The second floor of the bathhouse has been set aside as a gymnasium.

So as not to take up space for a description of all the bathhouse's merits I will say briefly that it was constructed at a contemporary technical level and it stands like this tower set with woodcarvings on the shore of a marvelous forest lake, and gladdens the eye with its beauty and quality. What is remarkable is that the construction was done by eye.

"There was of course a blueprint," clarified Lt Col V. Aliyev during our discussion. During the construction he played the part of the chief foreman. "I personally drafted it."

"And what was the cost of the structure?"

Valeriy Mikhaylovich scratched his head:

"Who knows... We didn't figure it up because the bathhouse wasn't included in the capital construction plan. We built it on instructions of the chief in place of one that burned down."

"How were supplies acquired?"

"We earned them..."

Valeriy Mikhaylovich could not say how many people were assigned to nearby enterprises and for how many days. Col L. Bondarenko, training department chief, also could not say inasmuch as there was no such record. In general, they worked as much as was necessary, and it was not simply the privates who worked, but cadets--future warrant officers and sergeants of the Chemical Troops, for the unit is a training unit.

Now a staff of two persons is maintained at the bathhouse, which is not in any documents. Jr Sgt V. Mitrofanov, listed in the unit rolls as a vehicle commander, works as senior stoker-operator. Orderlies are assigned as junior stoker-operators. Overall management is the responsibility of WO I. Tarnarutskiy, who, although he is listed as a chemical instructor, never held any classes with cadets. On the other hand he had gained a little experience in setting tables for persons arriving to take a steam bath.

This apparently is the very time to share impressions evoked by the tour of the bathhouses described above. While they are inferior to the famed Roman towers in architecture, they considerably surpass them in the engineering level. For example, if you had the urge to contact a friend or give instructions to a subordinate, even if the latter is in the most far off spot, a telephone is at hand. If you wish to have whatever temperature you like in the steam room, no problem. You've programmed the necessary conditions and calmly get up on the shelf: The automatic equipment will not err even a degree. If you have the urge to indulge yourself with a little tea, the samovar always is in a ready position. And here it would appear to be impossible not to mention the position of certain chiefs who are great lovers of steam baths. For some reason the question doesn't arise in their minds why bathhouses crop up in place of training facilities which are really needed, what funds are used to build them and who pays for the fuel, water, electricity and compressed oxygen cylinders. They also don't think about the moral losses connected with the modern towers.

But in truth they should think about it.

6904 CSO: 1801/281

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6904 CSO: 1801/283 EDITORIAL ON STRICT OBSERVANCE OF FLIGHT REGULATIONS

Moscow KRASNAYA ZVEZDA in Russian 18 Jan 83 p 1

[Editorial: "Follow Flight Regulations Strictly"]

[Text] Airfields are living a strenuous life these days. Aviators are perfecting air schooling under difficult weather conditions and learning to hit air, ground and waterborne targets expertly while making maximum use of the tactical capabilities of aviation missile systems. Socialist competition under the motto "Increase vigilance and reliably assure the Motherland's security!" is contributing to the successful accomplishment of combat training missions. Accidentfree flight operations are an important condition for complete, high-quality performance of training plans and socialist pledges.

Flight regulations set forth in appropriate guidance documents are strict. They require that each person who flies and who services and supports flights have professional expertise, technical competency, and the strictest of discipline, composure and execution.

These demands have gained particular acuteness in the present stage of development of aviation technology where third-generation aircraft are in the inventory of units of the Air Force, Air Defense Forces Aviation and the Navy. Their combat power and tactical and technical capabilities have risen many times over. These aviation missile systems are reliable in operation and capable of accomplishing all the diverse operational training missions day and night and under difficult tactical and weather conditions successfully. At the same time they place higher demands on flight personnel and ground service specialists. Aviators are constantly required to have a responsible attitude toward work, professional competency and high moral-psychological conditioning. This guarantees the performance of flight training plans without flying accidents or preconditions therefor.

Where combat training is arranged with consideration of the higher demands and where, in working with people, we attune them to an active struggle for perfecting military proficiency, stable, high indicators are achieved in military work. For example, there have been no flying accidents for many years in the air regiment commanded by Col A. Shestakov. What is the secret of success here? Above all, the fact that the unit has created an atmosphere of exactingness and intolerance toward any displays of carelessness. The regiment performs regular work to prevent flying accidents. Not one instance of a

violation of flight regulations is ignored. Disciplinary measures are combined capably with day-to-day purposeful political indoctrination work with the aviators. An atmosphere which precludes a display of negligence or a contemptuous attitude toward the requirements of documents spelling out aviators' work has been created in the unit through efforts of the commander and party organization. The commander, who himself sets an example of strict observance of the regulations of flying duty, sets a tone of high exactingness and execution. Col Shestakov relies in his work on the staff and the unit party and Komsomol organizations. Questions of ensuring flight safety are examined regularly at methods council sessions, which thoroughly analyze deficiencies, adopt foremost experience and boldly introduce it to the training process.

An analysis of flying accidents and preconditions therefore shows that the reasons for their appearance most often are poor professional training, poor discipline of flight personnel and some aviation specialists, and insufficient supervision over their work. Some pilots from among leadership personnel do not pay proper attention to improving their own theoretical and practical skills, which cannot help but be reflected on the quality of flying.

Carelessness and negligence in performing official duties and setting hopes on the old store of knowledge sooner or later lead to deviations from the instructions, methods recommendations and other documents. This in turn is fraught with serious consequences. For example, Maj A. Korobov was controlling flights at night under difficult meteorological conditions in one of the air units of the Turkestan Military District. Instructions came from the superior command post to halt the flights due to expected worsening of the weather. The flight controller also was warned of the sharp increase in humidity and possibility of fog appearing by the duty weatherman, but Maj Korobov ignored the warnings and sent off the next crew on a flight. He did not take account of the pilot's level of training. The latter, unprepared professionally and psychologically for working under the conditions at hand, performed the flight with a violation of the power setting, which resulted in an inadmissible loss of speed on the glide path.

The Air Force inspectorate is given a large role to play in the prophylactic work of preventing violations in organizing and conducting flights. Officers of the flight safety service are called upon to stand guard over the laws and regulations of flight activities, take a fundamental approach to evaluating the work of leadership personnel and take timely steps to stop the slightest deviations from document requirements. The inspectors are obligated to set an example themselves of high air schooling and precise fulfillment of the requirements of guidance documents, teach the other aviators to do this and monitor their execution.

Socialist competition unfolded in the Army and Navy contributes to accidentfree flight work and a growth in tactical proficiency. Commanders, political officers, and the party and Komsomol organizations have to develop competitiveness among servicemen and direct their efforts at improving class ratings and the expert, effective use of weapons and equipment. The combat motto of Army and Navy personnel: "A higher level of mastery for new equipment!" must become the heart of this work.

The fight against flying accidents and preconditions for them must be constantly in the field of view of political entities and party organizations. They are called upon to develop a responsible attitude by party members and all officials toward their duties and create an atmosphere of exactingness, principle and intolerance of deviations from the regulations of flight duty in the units and subunits.

Faultless air schooling, technical competency, efficiency and high military discipline--those are the most important conditions allowing successful accomplishment of a mission of state importance--flying without accidents or crude preconditions for them.

6904 CSO: 1801/272

#### MISSILE LAUNCH TRAINING EXERCISE DESCRIBED

Moscow KRASNAYA ZVEZDA in Russian 19 Jan 83 p 1

[Article by Lt Col P. Soyko: "Competing with the Initiators"]

[Text] The entire flying area had a solid, ten-point cloud cover. The Red Banner Bomber Air Regiment commanded by Col V. Demidov was flying at full strength, as permitted by the crews' high professional schooling. All airship commanders and navigators in the unit have a high class rating.

The supersonic missile-armed aircraft flown by Maj M. Suzdalev taxis to the starting line. He is one of the best pilots in the regiment. The crew he heads received the high title of "sniper," and performs the overwhelming majority of missile and bomb strikes for a grade of outstanding. Today the aviators are performing an exercise in tactical missile launches. The powerful turbines of the jet engines carry the aircraft from the starting line. In a few instants after take-off the craft disappears in the clouds and now all the time along the long route takes place out of sight of the ground.

The target is far ahead, but the on-board radar already detected it long ago. The navigator performed the aiming and pressed the missile launch button at the prescribed range. Decoding of objective monitoring materials showed that the target was hit with high accuracy.

The crew headed by Maj B. Tikhachev also returned from the tactical launch with the same result. There were basically outstanding grades for the other competing pairs as well. The crews headed by majors G. Teryukhov and V. Vasil'yev and by captains S. Vlasov and S. Razin are even with each other, which makes the struggle more intense and acute in the attempt to outdo a rival.

This flying day also was no exception. When Lt Col Vladimir Alekseyevich Demidov summed up results of the flight section he remarked with satisfaction that the average grade the crews received in navigation and tactical application was 4.7. The regimental commander also gave high praise to the work of technical personnel. There was not one malfunction of systems or instruments. Party member Sr Lt Tech Serv M. Vil'ichenko, party committee member Sr WO F. Volynenko and others serviced the aircraft excellently without criticism. Praise also fell on TECh [technical maintenance unit] specialists although they do not prepare aircraft for each sortie, but the quality of periodic technical servicing they perform affects the outcome of any flight. The TECh aviators realize their responsibility full well. For example, the collective of the aircraft and engine periodic technical servicing group where Capt Tech Serv V. Polyakov is the chief proposed to work under the motto "Everything done in the TECh is done in an outstanding way." All specialists of the outstanding subunit are now guided by this. They are making a perceptible contribution toward ensuring flight safety. There have been no accidents in the unit for over eight years now.

The collective of the Red Banner Air Regiment is proud of its combat traditions. The Prize imeni Jr Lt Aleksandr Belousov, a countryman who repeated the immortal exploit of Nikolay Gastello, was instituted in the unit. At the beginning of the training year this prize was presented to the best unit crew, the commander of which is Capt N. Pashkelev, party bureau secretary of a foremost squadron, and the navigator is Sr Lt V. Onchulenko. Maj (Res) P. Nesterov, a veteran of the regiment and a Great Patriotic War participant, presented the prize.

When the guards aviators, initiators of socialist competition in the Air Force, were deciding who to challenge to competition, they unanimously named the collective of the Red Banner Bomber Air Regiment commanded by Col Demidov as their worthy rival. This selection presumed a high intensity of struggle among the competitors because the rivals concede hardly anything to each other--they are close in all indicators. The initiators were not wrong: Their challenge was readily accepted and from the very first days of the training year a determined struggle developed between the collectives.

Now it is the second month of combat training. The weather has not favored flying but the regiments have attempted to make full use of any opportunity to advance in the fulfillment of training plans and socialist pledges. Aviators of both units have taken great strides forward in the difficult weather conditions, especially in preparing pilots and navigators to take tests for improving class ratings. In comparing the basic indicators of the regiments it is easy to conclude that the rivals are persistently assaulting new heights of tactical proficiency. For now the regiment commanded by Col Demidov is ahead in some indicators.

6904 CSO: 1801/272 AIR FORCES

#### LOSS OF SKILLS AFFECTS FLYING ABILITY

Moscow KRASNAYA ZVEZDA in Russian 16 Mar 83 p 2

[Article by Lt Col V. Snegirev, senior inspector-pilot, 1st Class military pilot: "For Flight Safety: If Skills Are Lost"]

[Text] The combat fighters and the pair of training aircraft had been taking off and landing for several hours now after mission accomplishment. Flight controller lst Class military pilot Maj M. Chanyshev would diligently mark a bold "B" in the planning table after each landing, which signified "flight accomplished," and calmly lean back in the chair. There was no cause for concern. Aces were flying.

When the next pilot request for a landing came over the dynamic loudspeaker he quickly looked over the runway and, squinting, located a dark spot, the aircraft, on the horizon and placed the microphone to his lips:

"Permission to land!"

From that moment right until the aircraft left the runway the flight controller's sharp and tenacious eyes watched the fighter. Noting the missile-armed aircraft's position on the glide path as was his custom, Chanyshev always was ready to come to the pilot's assistance.

Timokhin also noticed his mistake and the fighter slipped vigorously downward, but then came the flight controller's command:

"Do not descend!"

The aircraft soared upward a bit, showing the lower part of the fuselage for an instant, then again lowered its nose--the pilot was following instructions from the ground.

"Easy... On the rpm... Watch the speed!"

Soon the fighter's main wheels touched the runway, denoting this by a bluish haze. The brake parachute filled and rocked behind the aircraft like a taut sail.

Chanyshev made an entry in the observations log: "Maj Timokhin. Loss of altitude on the glide path." Then Marat Ismagilovich delayed the pencil above the column "Reason." Why had the 1st Class pilot made crude deviations in flying techniques? The air situation and weather conditions were rather simple and could not be the reason for such a mistake. It is true that Maj Timokhin had had an interruption in flying...

Some time back Capt Med Serv B. Dudka suggested checking out pilots who had a break in flying on a trainer with special gear connected for testing the psychophysiological condition of flight personnel. At that time they had brushed aside the proposal. It turns out that it was for nothing. Use of this gear would have allowed a more thorough determination of the pilots' level of preparedness to perform an assignment in the psychophysiological sense. The first tests showed that this instrument easily determines a person's conditions which are not manifested outwardly such as tension, excitation and delayed reaction. The physician found no support and a good initiative died. They encased the apparatus solidly ("so it wasn't an eyesore") in the preflight examination room and as before the check of pilots' readiness was limited to the stroke of the senior commander's pen in the workbook.

Theoretically Maj Timokhin was ready for flying. After the lengthy interruption he had performed a check flight rather well. "One is enough," decided the inspector, not noticing that the pilot emerged from the aircraft in a jacket wet with sweat. No one at that time thought about his psychological mood, but how about the pilot himself?

There is a well-known feeling of false shame. Aviators try to rid themselves of it, but one of them rarely gathers the boldness to admit that inwardly he is not yet ready for a solo flight and that it would do no harm to go up again and again in a trainer aircraft with an instructor aboard. And the officer bashfully hides deep within his awareness the vague sense of uncertainty as to his abilities. The pilot does not wish to admit even to himself that during the time of the interruption his acuteness of reaction has dulled and the so-called feeling for the combat craft has degraded.

But this immediately makes itself known in the air. What was performed automatically during regular flying forces one to ponder after the interruption and lose valuable seconds for clarifications. The pilot can't keep the instrument needles in his field of vision and familiar reference points in the vicinity of the airfield somehow are seen differently. It suddenly begins to appear to him that an outside noise has appeared in the engine's operation and in general everything is not going as it should. A premature fatigue caused by nervous tension appears in the pilot. Errors which usually merge later into crude mistakes build up involuntarily. It has been established that they occur in the most responsible sectors of the flight.

In my line of duty I have had occasion to look over flight recorder material. In comparing the films from one and the same pilot before a leave and afterward the difference between them immediately hits the eye. It is apparent that control of the fighter becomes coarse, seemingly nervous after a break.

Of course each pilot has his own degree of loss of flight skills during a break. This depends on the pilot's experience and individual qualities, but all aviators without exception are subject to this. Experience shows that the higher a commander is in position, the greater the extent to which he is subject to a loss of flying skills. Here is why. For example, a lieutenant who has arrived in the regiment tries to learn and be capable of everything. He senses strict supervision of himself on the part of senior comrades. But the squadron commander who is engaged in a large amount of various urgent affairs is satisfied most often merely with reliance on his abundant experience in his personal preparation for flying. He may fly only on occasion, periodically: Either the regimental commander is gone or his deputy has no time. In short I rarely saw where after a leave the commanders would restore their lost skills using simulator equipment. Relying on experience, they go up after an interruption in flying and make mistakes.

I myself am judging this not from hearsay: I have flown some 2,000 hours in fighters. I admit honestly that at times I also scorned a simulator flight, relying on my solid period of duty, and once I paid for this.

It happened in the first year of my work as senior inspector-pilot. I arrived in the regiment after a certain break in flying and instead of beginning with simple exercises I decided to make an intercept flight into the stratosphere right away.

But the flight brought no satisfaction and turned out to be a "dud." It was not the equipment which let me down. The sight and radar equipment functioned serviceably and the missile-armed aircraft's controls were obedient, but it was only that I felt like an outsider in its cockpit. I didn't have enough attention and reaction to execute all commands of the ground controlled intercept officer precisely and competently. I had lost skills during the break and proved unprepared to perform an advanced assignment.

It is embarrassing for a 1st Class pilot to return to an airfield without a record film, but my self-confidence and overestimation of my abilities and capacities received an instructive punishment.

Pilots have a good rule: Do it fast but don't hurry. Haste at the airfield in restoring lost skills in flying techniques leads to no good. It cannot be forgotten that a break in flying will be reflected above all on a pilot's psychological readiness for going up and working in a quickly changing situation. In authorizing a solo sortie for a pilot after a break a commander has to be watchful to ensure that he has not concealed uncertainty behind an external bravado as was the case with Maj Timokhin...

Before giving permission for the next aircraft to take off Chanyshev entered in the log: "Incompetent restoration of skills in flying techniques." And he noted to himself: "Discuss it at the methods council."

6904 CSO: 1801/272 AIR FORCES

#### IMPORTANCE OF FIRM KNOWLEDGE OF TACTICS STRESSED

Moscow KRASNAYA ZVEZDA in Russian 14 Dec 82 p 2

[Article by Gds Lt Col A. Telyatnik, fighter-bomber regiment commander: "The Commander and Modern Combat: Teach Tactics Concretely"]

[Text] Some time ago our regiment noticeably became younger. The lieutenants fervently wished to fly. In planning to place them in formation we took account of the young pilots' desire to become independent as quickly as possible and at that time showed concern above all that each one had good mastery of flying techniques. We succeeded in achieving this, but then the time came for the flights for tactical application. Here it turned out that many young pilots when they are over the range do not feel themselves to be daring, capable fighting airmen striving to outwit the enemy and perform the mission under all conditions but, to put it mildly, as air sportsmen.

I recall one of those sorties by the pair including Gds Lt A. Tsukanov. It was a difficult situation in the ground forces' area of operation. Penetration of a very saturated air defense and the search and destruction of small mobile targets had to be done from different altitudes. To avoid damage from the "enemy" surface-to-air missile system it was necessary to alter the departure course from the range, then avoid an encounter with interceptors which were in a tactically more favorable position. In short the pair had to work strenuously.

After the landing I asked the wingman how he evaluated what occurred on the ground and in the air from a tactical standpoint. It turned out Tsukanov had not succeeded in noticing or evaluating anything. He simply repeated the leader's actions mechanically. He flew without thinking of what determined each maneuver or what was dictated by the ground and air situation at any particular moment.

This fact forced me to ponder long and hard. It turns out that after mastering aviation equipment and learning to fly rather well and orient themselves over the flying area many lieutenants did not realize fully that this was not enough for victory in combat. Success in a duel is achieved by the person who is able not only to fly well, but above all to estimate what is occurring on the ground and in the air in a tactically competent manner, anticipate events and make nonstandard decisions. That ability clearly was lacking in the young pilots and this was hardly their fault alone. In striving to give the young pilots wings more quickly we allowed a gap between their flight and tactical training. It cannot be said that tactical matters were omitted entirely in the process of the lieutenants' combat training. For example, the officers heard lectures on such general matters as the purpose of fighter-bomber aviation and the primary methods by which it conducted combat actions. But we commanders, by the way, taught them insufficiently how to conduct themselves in a particular concrete situation. We put off this important matter until later. The fact is, however, that the airman's tactical maturity is a comprehensive concept which comes when the pilot masters not some individual element out of which tactical proficiency forms, but the entire set of requisite knowledge and skills. If a pilot has taken a missile-armed aircraft up and has flown it to the combat area, he has to be a pilot, tactician and master of weapons employment in combat.

The unit methods council headed by Gds Lt Col V. Shabarov took account of this. We studied the experience of the foremost units. The methods council suggested a system of teaching the young people tactical proficiency not in general, but as applicable to the missions being accomplished by the regiment, concretely for each sortie being planned.

We began to include without fail in preliminary training such matters as working up a ground situation map, analyzing a target diagram with the construction of probable maneuvers for their reliable destruction, determination of optimum combat formations in approaching targets and while over them, and possible individual actions during retargeting or the group's unforeseen break-up. Capabilities of preflight training also were used actively to improve tactical proficiency.

Not everyone liked this approach to matters at first. To some this painstaking work seemed superfluous. Views were given: Let the combined-arms commanders work so scrupulously with the ground situation map, we "can see everything from above" without it. The young pilots' attention had to be drawn to frontline experience and meetings arranged with air aces of the war years. In particular the role of tactical maturity in aerial combat was revealed in an interesting way and with examples by well-known frontline pilot A. Kalyuzhnyy, who visited our regiment. Experienced officers tried to instil in the lieutenants that although it was difficult to anticipate all the complications of combat and its possible initiation and course, it is very important to plan the most probable variants of actions and the procedure for maneuvering, reforming and exiting from an attack depending on a specific situation and play through the entire complex of a flight in advance.

Other changes were made in the arrangement for training flight personnel based on the method council's recommendation. In planning flights the squadron and flight commanders began to include on a mandatory basis in the pilots'assignments elements requiring independent tactical decisions. Gds Lt Col G. Shevchenko, for example, does it as follows. A young pilot is given the mission of approaching a target and hitting it from the move or with a simple maneuver. Then a narrative problem is received in the air: There is an "enemy" SAM system in the target area. It becomes necessary to make a more complicated maneuver and make an independent decision in the air on how to hit the target more surely.

Such surprises often lie in wait for the pilots in group flights as well. For example, the narrative problems at times place the wingman face to face with the need to perform the leader's role, orient himself in a situation that arises suddenly without prompting from the senior man, analyze the air and ground situation, make nonstandard decisions, perform reconnaissance and arrange fire coordination.

Pilots prepare thoroughly on the ground for accomplishing missions arising suddenly in the air. This is facilitated by a practice we instituted where each pilot, in addition to preparing for the performance of his own assignment, also accomplishes other missions. Let's say that in preparing for the possible role as group leader he determines the expedient alignment of the combat formation, the approach route to the range, methods of penetrating air defense, possible kinds of combat maneuvers and the procedure for departing from the combat area. The pilots' opinions clash here, which contributes to developing independence of tactical thinking and generates initiative.

In making it easier for oneself to get a high grade it is possible to repeat one and the same flight route, method of penetrating air defense, maneuver and dive angle day in and day out. But in flying along a customary "path" and performing type exercises by the identical method you do not become a pilot with wide-ranging thought in the tactical sense. Realizing this, our masters—those from whom the young people take an example—excluded oversimplification and stereotypes from their own practice. Each sortie for tactical application of, let's say, a squadron or flight commander or an instructor, is a model in the display of tactical proficiency.

I'll refer to a recent example. A group led by military pilot-sniper Gds Lt Col M. Kukushkin encountered heavy opposition from mobile air defense weapons. After estimating the situation quickly and reporting his decision to the flight controller Kukushkin changed the altitude and course of the in-flight and the dive angle. An accurate strike was delivered unexpectedly for the "enemy."

This fact was extensively generalized in the flight critique. Several other variants of possible group actions in the situation at hand were suggested by critique participants, but an analysis of the opinions showed that the leader chose the only correct method. In all other cases the group would have acted less effectively and would have suffered "losses."

We have given up a procedure which formed at some time of speaking in passing about tactics in a flight critique: Such-and-such a pilot acted in a tactically competent manner and such-and-such the opposite. Now we pose a concrete question: Why did he act that way and not otherwise? It is the pilot's right to argue, persuade and defend his opinion. It cannot be otherwise. Accomplishment of one of the chief missions--maximum use of the tactical-technical specifications of aviation equipment and weapons--depends on the airman's depth of tactical thinking and outlook.

Previously we had occasion to hear justifications from some pilots of the following nature: I didn't hit the target very effectively because I was

searching against the sun. Not one such justification was left without a proper analysis. Flight and squadron commanders would try to find out on the spot why the pilot acted incompetently and why he didn't request permission to change a bombing run established in advance. They concluded that the reason for incomplete use of the missile-armed aircraft's capabilities over the battlefield was due to a pilot's tactical imprudence. Now the young pilots do not make such mistakes.

The regimental staff and services do a great deal for a constant improvement in the aviator's tactical proficiency and for developing in them what I would call a taste for creativeness in this area. Gds Maj V. Kabachenko, chief of air-weapons and tactical training, is active in assuring that tactical matters are reflected constantly in planning flight operations. Because of this a majority of flights now take place against a complicated tactical background. In particular, a target situation is set up at the range which corresponds most fully and accurately to the nature and training methods missions of such flights.

In examining results of missions accomplished by the lieutenants in the last short tactical training problem I directed attention to the following detail. In modeling a given flight for tactical application each pilot envisages many variants that were difficult but realistic in a combat situation which quite recently he had been avoiding. This includes completing a flight with a minimal fuel remainder, making a landing approach without radiotechnical means, and landing from low altitude from the move. That means the young people's attachment to a stereotype is disappearing and combat daring is originating. The young pilots are becoming tacticians. Relying on the present positive experience, we are striving to perfect their tactical schooling even more purposefully in the new training year so that each pilot in the regiment can employ weapons and equipment in various kinds of combat with maximum effect.

6904 CSO: 1801/272

#### GROUND FORCES

HELICOPTER COMBAT SUPPORT FOR GROUND TROOPS

Support for Motorized Rifle Units in Desert

Moscow KRASNAYA ZVEZDA in Russian 1 Jan 83 p 1

[Article by Lt Col (Res) V. Vozovikov: "Poppies of the 'Red Desert'"]

[Text] A warm southerly wind blew as before, the sun was driving the snow from the nearby passes and the December day was glittering almost as brightly as it glittered in April somewhere near the source of Kuz'michev's native Urals stream of Vishery, but the sense of an impending holiday was quenched in a flash in Sr Lt Kuz'michev's soul as if he had flown into a damp, icy fog. Having performed their missions in the exercise, the helicopter pilots were returning home when suddenly an order came to place the squadron's second flight at the disposal of a motorized rifle unit commander for supporting the march of a troop column.

Kuz'michev was excited least of all by the approach of the New Year. He took any service falling specifically on him on holidays as proper--he still was the youngest among the experienced pilots, and without a family at that. Even now he secretly would have been proud that the responsible assignment had been entrusted to their flight had it not been for a special incident in his life. Were Kuz'michev to explain the situation to the commander, the latter probably would relieve him of the assignment, but Pilot Kuz'michev was among that rare category of people who are incapable of refusing a job assigned them under any circumstances. Learning for the first time in the quarter-century of his life what burning sparks are struck in the soul by the clash of two great human feelings--love and duty--Kuz'michev merely cursed fate and his confounded character and set about preparing the crew for the sortie.

In the motorized rifle unit headquarters the pilots learned that they were faced by no simple route reconnaissance. The unit's subunits were making a march in anticipation of a meeting engagement on parallel routes and the helicopter personnel were to become their aerial scouts right up until the return to post. The flight commander remarked in a half-joking manner that they were really lucky: The New Year probably would have to be celebrated among nature, in the friendly family of brothers in arms and if he were single like some of his subordinates he would consider himself a rare, lucky person. It was then, either in a fit of vexation or frankness that Kuz'michev took a photograph from his pocket. "Who's this?" asked the captain seriously, looking at the photograph of a severe-looking girl.

"My wife." And noticing how the commander's brows crept upward in astonishment, Kuz'michev clarified: "More precisely, still my fiancee. For now... She arrives tomorrow."

"Then why were you silent before? Or do you consider yourself an irreplaceable pilot?"

Kuz'michev looked down and the captain sighed:

"I see. Principles. And what if she has her principles? A girl comes to see her fiance' in a strange city and no one meets her, and what is she to do? In her place I would get a return ticket. All right, 'lad of principle,' thanks at least for what you have presumed to say. What's her name?"

"Natal'ya Grigorevna..."

"Grigor'evna," grinned the captain, returning the photo. "Go and assign the mission to the crew, 'irreplaceable pilot'."

Tactical work immediately took Kuz'michev's attention. Their flight already had flown over this area and the senior commander's choice of course was no accident: A novice would have a difficult time here. But even while unraveling the labyrinths of broken mountain spurs, the hills with distended slopes, narrow valleys and rocky plateaus, Kuz'michev was not able to quiet the anxiety in his soul. The commander had to pour oil on the fire!

It probably was because Kuz'michev loved his Natal'ya seriously that even after two years of knowing her she remained a riddle to him. Once he inadvertently insulted her with a rash word and had to spend almost his entire leave dispelling her resentment and mistrust. They decided to get married as soon as Natasha finished studies. She received her diploma two months ago and Kuz'michev insistently called for her to come inasmuch as his next leave was far off. The girl responded evasively, then angrily hinted that at all times men would go for their fiancee's and not vice versa. Kuz'michev resigned himself and suddenly came this letter to expect her on New Year's.Day. She already had gotten a ticket a half-month in advance, but would she come? Perhaps another letter or telegram awaited him at home. And he would be a fine one were the commander to relieve him of combat work "for personal reasons." Kuz'michev even grew angry at himself for being open with the flight commander: Just so he didn't think that his subordinate was patting himself on the back for personal sacrifice, wishing to show that he was ready to give up everything for the sake of service and it was not for nothing that Kuz'michev was considered the first candidate for commander.

But when Natasha came she would understand. She had to if she really loved him. A loving fiancee or wife could not be jealous of service...

Making out a rocky plateau crowded between the spurs from high up, Kuz'michev had the thought that people with a refined imagination are encountered everywhere. Someone had dubbed this lonely place the "Red Desert." Flying around the rockpiles where an ambush could be hidden, Kuz'michev saw a clearance detachment moving quickly from behind a spur onto the plateau. The combat engineers functioned boldly and quickly under cover of the combat helicopter. The next obstacle would be cleared from the path while the BMP's [infantry fighting vehicles] and tanks came up. The battalion had not yet had any forced stops. Kuz'michev sensed that there on the ground people trusted in their crew and were attentive to every signal, and he cherished this more than anything. No matter what gnawed on his soul, he did not allow himself to relax for an instant.

The "enemy" had not yet revealed his presence in any way. Although Kuz'michev had the thought that the exercise director had warned of a probable meeting with the "enemy" figuring to increase tension on the march and draw up the people, he still kept increasing his attention...

The distant mountain chains were lost in the cold, grayish winter stormclouds. It was now winter there beyond the great ridge, with night frost and a morning crust of ice underfoot, for cold winds from his native north were blowing there across the enormous expanses of open steppe and desert. Here high in the mountains it also was winter, but below it was either a protracted autumn or spring. Winter does not occur in the valleys here every year, but still the air today smelled of needles as it does before the new year in all areas where fate had taken Kuz'michev...

"Commander, what's that --- a ditch or a ravine?" the voice of the pilot-operator came sharply in the headset.

Kuz'michev himself had managed to spot the long, broken crack interdicting the crosscountry route and he pressed the helicopter to the ground in attempting to make out the new obstacle better. There was no doubt that the trace of a stream was before him, but it was very likely that the water had been directed here especially from a low place on a plateau terrace. The spot of disturbed loam in front of the washout, discernible only to the experienced eye, suspiciously resembled a minefield. Kuz'michev immediately reported his observations to the battalion commander, who ordered him to take a better look at the ridge cutting across the plateau far ahead. The helicopter already had climbed, but a vague alarm forced Kuz'michev to make another circle.

Had it not been for this ditch on the crosscountry path, clearly built with the participation of human hands, he would not have paid attention to the meandering ridge near the far edge of the terrace from which the water ran. He suddenly remembered from past flights over this space between the mountains that the depression beyond it was deceptive: It only seemed from far off that it could be viewed throughout. Of course it was doubtful that the "enemy" had arranged an ambush on this plateau, when numerous mountain gorges created enormously better conditions for a surprise attack. Nevertheless a scout must leave no doubt for himself--pilots know this ancient rule of warfare well. Kuz'michev turned the helicopter decisively...

The helicopter flew at a height of less than 100 m and before even reaching the sinuous crest at the end of the terrace Kuz'michev put the helicopter in a steep, dizzying bank. Artillery and mortar positions were located straight

ahead beyond the crest and "enemy" subunits were deployed in combat formation in the ravine, facing toward the crosscountry route. The old truth was reaffirmed: An ambush is the most dangerous where it is not expected. Kuz'michev almost had overlooked it and had the battalion's subunits come onto the plateau and been delayed in front of the obstacle, the surprise flank attack threatened great unpleasantness.

But still he had not overlooked it!

The battalion commander did not answer Kuz'michev's call—he had just spoken with the helicopter crew and did not expect new reports now. The lead company already had appeared on the open space of the mountain depression and it was necessary to warn his troops of the danger immediately by any means. Every minute lost when a fight begins threatens disaster. While the battalion was hanging over the flank of the ambush it could wipe it out in a single blow by deploying the lead company. Everything would change in a few minutes when the fast-moving subunit would be in front of the "enemy," who was ready for combat...

"Signal flares!" Kuz'michev ordered the pilot-operator. "Prepare for attack!"

The red traces burned through the air of the mountain depression and filled it with alarm. The helicopter moved onto a combat run from a steep turn. Kuz'michev saw out of the corner of his eye that in the distance the infantry fighting vehicles were dispersing into a fan-shaped line and that tanks were advancing swiftly from the depth of the march column, and he realized that his signal had been received in time. The "enemy" was no longer hiding...

Later Kuz'michev noticed that the fight lasted 5½ minutes. The helicopter personnel, observing the fight from high up and protecting their own against possible new surprises, could easily see the results of the attack from the line of march against the "enemy" flank. The "enemy" was trying to reform the combat formation, but by the end of the attack only had placed his ranks in full disorder. In preparing for a surprise attack the ambush commander apparently had not prepared for his part for a sudden turn of events and one pays fiercely for this in combat...

The battalions linked up in a spacious valley in the afternoon. The flight commander's helicopter already was standing here on a grassy area near the headquarters location. Hardly having refueled the helicopters, the pilots were summoned to the chief of staff's APC.

"We functioned rather well with you, Comrades," began the officer, "but still it will be better without you in an hour or two."

"What do you mean?" said the flight commander, who even took offense.

"I mean the weather is not subordinate to headquarters. The passes may be covered and then you will not be our assistant, but a great burden. It has been ordered to send you immediately to your airfield. Congratulations on the upcoming New Year and I wish you a clear sky..."

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On the way to the helicopter pad the captain said:

"You won't make it to the train, but don't be dejected. Yesterday I sent a radio message directly to the political officer. They will meet her."

"You shouldn't have, Comrade Captain!" Gratitude for the commander merged in Kuz'michev's soul with awkwardness and a slight alarm: What if Natasha really did change her mind. People would be taken from work because of my purely personal affairs...

"Never mind, 'irreplaceable pilot'," interrupted the captain. "Better to have said thanks."

A matter of minutes remained until take-off when a ubiquitous UAZ [Ul'yanovsk Motor Vehicle Plant] vehicle with flexible, willowy antennas on the sides appeared at the pad and Kuz'michev recognized among the officers who had arrived the commander and chief of staff of the battalion which he had escorted on the march.

"We made it!" said the battalion commander happily. "We just found out you were leaving and I think we can at least say thank-you--you really helped us handle the ambush today."

"You didn't say anything!" The flight commander who had come up to them began to introduce himself to the arrivals.

"Comrades we have a small request of you," began the battalion commander again. "It will be on your way from the airfield. Give the post duty officer these letters."

"We'll do it," said the captain firmly. Kuz'michev suddenly had a feeling of unexplainable guilt before these people with wind-blown faces who still were awaited by mountain roads, ambushes in the gorges and assaults on the steep, rocky crests. No matter how his heart yearned to go home, were Kuz'michev given a choice now to depart or remain with them, he would have remained.

"Thanks." The battalion commander turned to the driver. "Ibragimov! Bring the pilots the present."

Ibragimov brought something wrapped in an officer's poncho and the pilots couldn't believe their eyes when he opened it.

"Tulips? Or poppies?"

"Both. Do you know why the place where we fought the ambush is called the 'Red Desert'? Go there in March and you'll see that there's a flower beneath each rock. Now apparently an early frost deceived them and so the most impatient ones jumped out at the warmth. It happens with us near Voronezh that in late November the apple trees bloom... It's not July now and you'll get them back alive..."

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In the evening right on New Year's Eve the bell rang in one of the apartments in "X." The woman who opened the door saw a girl and a young military pilot.

"Does Maj Parfenov live here?"

"Yes, I'm his wife. But he ... "

"I know," said the pilot. "He asked that you be congratulated on the holiday and given this." The pilot extended to the woman a bouquet of small dark-red and rose-colored flowers.

"Heavens, where are they from? But he..."

"Yes, yes," smiled the pilot. "They're not from a store, they're from the 'Red Desert,' where there are loads of them."

"Come in! I'll fix some tea for you and you can tell me plainly."

"Thanks, but we still have a few stops. Everything is fine with your people. They'll return soon..."

The steps fell silent on the stairs and the woman still stood in the open door pressing the flowers to her breast and trying to imagine this mysterious "Red Desert" where tulips and poppies burn like scarlet flames in late December.

#### Support for Tank Units

Moscow KRASNAYA ZVEZDA in Russian 14 Jan 83 p 1

[Article by Capt I. Vakhnov, Order of Lenin Moscow Military District: "In Close Coordination"]

[Text] Maj V. Komayko, commander of a flight of fire support helicopters, received a combat mission of delivering a strike against the "enemy" and thus supporting the successful advance of a tank subunit.

Taking advantage of folds in the terrain the helicopters approached the target stealthily at extremely low altitude and struck them with missile salvos on the first pass. The mission was accomplished successfully and the tank subunit pushed forward.

The helicopter personnel's skilled work and close coordination with the tankmen is the result of well organized preflight training. Before taking off for the assignment the flight personnel under Maj Komayko's direction carefully studied the terrain where they were to perform the operational training mission, studied the reference points and made a breakdown of time along the route. The tactical situation was plotted on maps. Such thorough preparation ensured the flight's success.

#### Support for Airborne Assault

Moscow KRASNAYA ZVEZDA in Russian 14 Jan 83 p 1

[Article by Gds WO Yu. Malenko, Southern Group of Forces: "Through Bad Weather"]

[Text] The helicopter crews took their places in the cabins on command. Today we were taking airborne personnel with their weapons and equipment in the cargo compartment.

A biting north wind drove dark clouds over the sky. Today's take-off was no simple matter, and the flight itself would have to be made in difficult weather conditions, but we were attuned only for victory. As usual my commander, Gds Maj N. Naumov, was imperturbable and calm. Well, the first class military pilot had many years of experience behind him and I felt his confidence being transmitted more and more to all of us.

We prepared seriously for this assignment, taking account of experience gained during combat training in the year of the USSR's 60th anniversary. The commander held a class with us by the "dismounted flight training" method. Joint drills with motorized riflemen and comprehensive practices where pilots practiced actions of controlling the rotary-wing craft in the appropriate flying regime and the flight mechanics worked with airborne assault equipment proved especially valuable. We flight radio operators for our part provided communications under conditions of heavy jamming.

Then we were taking off and heading along the given route. The combat formation held precisely to the estimated flight data. I observed the craft flown by Gds Capt V. Bogza through the porthole. The crew headed by this officer has not been in the squadron long but from the first days of winter combat training it was among the competition leaders, already having shown its outstanding tactical and air schooling more than once. Now the helicopter was heading on a precise course as if along an invisible thread. Yes, this crew was a serious rival for us in competition.

Then we also felt the accuracy of the weather forecast. The wind rose sharply and a damp snow began to lash the cabin walls and portholes. The jolting began which of course is not a pleasant sensation. Helicopter personnel already have become accustomed to it, but how do the motorized riflemen feel? No, I don't see a shade of anxiety on their faces, which means they have faith in us, the crew, and my heart fills with pride because of this.

We pass the turning point on the route and I inform the command post of the helicopter's coordinates using short radio messages. I hear the sharp crackle of atmospheric electricity in the headset, and the whine of varying tonality, at times some of the most unbelievable sounds... I catch myself with the hidden desire to toss off the helmet headset. The "enemy" and bad weather generate such interference. But in practices it has been even worse. I tune off successfully and communications is not interrupted. The helicopter performed evasive action at a calculated line on approaching the front line, then we descend to a given altitude. Ahead along the course is a broad forest clearing, which is where the assault force is to be landed.

Hardly has the undercarriage touched down when the flight mechanics begin untying the cargo with the help of the motorized riflemen. Then the airborne personnel rushed through the open flaps of the helicopter compartment. In a few minutes the dull rumble of the attack could be heard outside.

Soon we set a course for our own airfield, where we were awaited by the joyous news that the squadron aviators' capable actions had been evaluated with the highest grade.

Support for Motorized Rifle Unit in Mountains

Moscow KRASNAYA ZVEZDA in Russian 25 Jan 83 p 1

[Article by Maj V. Timoshchenko, Order of Lenin Transbaikal Military District: "Duels in the Mountains"]

[Text] The beginning of service in a position new to Gds Sr Lt Ye. Sysoyev-that of antiaircraft artillery battery commander--shaped up poorly. The subunit barely "stretched" the very first tactical field fire exercise to a satisfactory grade.

That time the air defense personnel had to perform combat work on unfamiliar terrain in the mountains, and the hitches in their actions began back while they were making the march. They were late in detecting low-flying "enemy" aircraft and opened fire on them late. Moreover their fire proved ineffective. As a result the motorized riflemen whom the battery was screening against air attack on their route "took losses."

Gds Sr Lt Sysoyev himself did not function in the best manner in the exercise. He made a poor choice of a firing position in the assembly area. The angle of crest clearance, which turned out to be large, did not allow prompt detection of "enemy" helicopters which appeared from behind the hills and gave the motorized riflemen much unpleasantness.

In short the battery did not fully assure accomplishment of the mission assigned it. Gds Sr Lt Sysoyev had to listen to many rebukes addressed to him and his subordinates. But he must be given credit that he did not lose heart, and drew correct conclusions from the instructive lesson. The unit commander also inspired confidence.

"I don't doubt," he said, "that you are capable of remedying these deficiencies by your own resources. Should difficulties arise we'll help."

Immediately after the end of the tactical exercise the battery commander analyzed the organization of combat training and competition in the platoon more exactingly. An analysis showed that not all the officers and warrant officers were making effective use of trainer-simulator equipment or holding classes and practices in a methodologically correct manner. It was decided to conduct an exchange of experience among class instructors and adopt the best in specialist training methodology. At the initiative of party members the air defense personnel struggled for effective use of every training minute. They took as their basis the experience of foremost personnel and the active use of methods innovations.

For example, in studying tactical training topics they used various short training problems containing lessons for various categories of servicemen. Practices began to be held more often on mountainous terrain and each time their conditions became more complicated. Battery officers began to teach subordinates more objectively in visual recognition of the types of aircraft and helicopters. To this end they used special boards made with their own resources, the outside of which showed silhouettes of aircraft and helicopters and the inside had the range cards for firing against them.

It is important to be able to predict the possible nature of air "enemy" actions in the mountains as nowhere else. To this end one must have a good knowledge of his operating tactics, capabilities of aviation equipment and features of its use under mountain conditions. The battery commander regularly arranged meetings between subunit officers and aviators for this purpose. During the meetings the air defense personnel and aviators shared experience in combat work, which of course contributed to an increase in their tactical schooling.

Time passed, filled with strenuous military routine, and then the antiaircraft artillery battery again left for a mountain area for an exercise. A more difficult mission was assigned to the subunit in comparison with the past: In addition to repulsing the air "enemy," provide for "destruction" of APC's and self-propelled artillery mounts of the opposing side.

The situation became complicated with the first minutes of the exercise. Hardly had the column begun to make the march when "enemy" helicopters appeared from behind a nearby hill. An attack by motorized infantry in APC's came almost simultaneously with this, but the air defense personnel were on guard. They opened fire without delay and hit several targets with the very first rounds. Personnel of the platoon commanded by Gds Lt A. Yakupov functioned especially cohesively.

At an intense moment of combat several specialists were put out of action according to a narrative problem of the senior commander, but this did not discourage the air defense personnel. The places of those "disabled" were immediately taken by colleagues. Battery first sergeant Sr Sgt S. Nekrasov, for example, replaced the commander of a platoon of self-propelled antiaircraft mounts and confidently coped with the officer's duties. By the way, it is not the first time Nekrasov has performed in this role. Before assignment to the position of battery first sergeant he was deputy platoon commander and in addition to the primary specialty he mastered four related ones. He had had more than one occasion to function in the officer's place and always coped confidently with the duties even in critical situations.

The battery devotes primary attention to matters of interchangeability and an ability to work one level higher than one's position. Here in the exercise
this affected the results of the air defense personnel's actions. They won all the duels with the air and ground "enemy" and received an outstanding grade.

Success inspired the subunit personnel. They are improving military proficiency and learning to hit targets with the first volleys with even greater intensity.

NAVAL FORCES

### COMMUNICATIONS TO BRIDGE OF SUBORDINATE SPECIALISTS

Moscow KRASNAYA ZVEZDA in Russian 7 May 83 p 2

[Article by Captain 1st Rank K. Burkovskiy: "A Specialist Recommends" under the heading: "The Commander in Modern Combat".]

[Text] The large antisubmarine ship "Kerch'" was carrying out a rocket firing. The sailors had spotted the fast airborne target running on a course to the ship at maximum range and tracked it confidently. A few seconds remained before rocket launch. And suddenly the situation became sharply complicated.

In these minutes the ship's commander was unshaken. He quickly took the only correct decision to change over to the alternative firing, thanks to which the target was neatly hit. But, in noting the tactical skill, decisiveness, and strength of mind of the commander, one must also give proper due to one of his subordinates - the commander of the rocket and gunnery department, Captain 3rd Rank K. Dobrynin. During that very tense moment when the situation was still completely unclear, his confident voice was heard. The officer gave sharp and proven suggestions on the possible utilization of the rocket weapon in the changing circumstances. In many respects those suggestions enabled the ship's commander to find a way out of the complicated situation.

There is high value in such timely and competent recommendations by warship specialists to their commanders in combat. The modern ship is a most complex organism. Whatever the task it is doing, tens of specialists of very different backgrounds participate, working at various battle stations and servicing the different weapon systems and equipment. How is the commander on the bridge possibly to comprehend the multiplicity of problems with which his subordinates are occupied, and how is he alone to evaluate and take into account all the nuances of the status of affairs on the ship as well as the dynamic, quickly changing combat situation? Of course, he cannot. No matter how thoroughly trained the commander, no matter how surely he controls the crew, he cannot manage without his feedback communication. That communication is not passive, but active, offering not only reports about the execution of orders and instructions but also the presentation to the bridge of information useful in making command decisions and of constructive proposals. Here, appropriately, it will be emphasized that the production of such proposals and recommendations in a combat situation is not the business of the personal initiative of just any specialist. This is one of the important elements of the combat organization specified and regulated in appropriate documents. For many officials on a ship, let us say - the senior assistant, the battle station commanders, the watch officer, and other sailors - this is a direct service duty.

Some, unfortunately, forget about this. Sometimes it is necessary to watch such a picture. Combat training is going on. The tactical situation is constantly changing. The commander of the ship is compelled to work with maximum intensity. And at this very time, on the basis of an estimate from the main control station and other combat calculations, instead of doing as instructed everything possible to aid the commader in the evaluation of the situation and in working out a solution, someone keeps silent and waits for some supplementary indication. That is, the commander literally has to knock out the information he needs for the solution of minor problems and to waste time on additional inquiries. All this, naturally, is a detriment to the quality of doing combat training.

But how does one acquire subordinates who work actively, who do not conceal themselves behind the commander's back, and who strive to bring their own useful contributions to tactical creativity and to the search for ways to use the combat capabilities of the ship's weapons and equipment most effectively? This is not simple. Properly, only a highly trained specialist, having gotten to know his business to a nicety, can give a competent and useful recommendation. But this alone is not enough. You see, one can possess a strong special knowledge, but, along with it, be able to see nothing, so to speak, beyond the nuts and bolts. So it is necessary to teach people to carry out their obligations intelligently, to develop by themselves a clear understanding of their roles in the solution of each problem, and an ability always to see the whole-ship basis in the fulfillment of their service obligations.

That is precisely what the leading warship commanders strive to enlist. Take, for instance, Captain 3rd Rank A. Mel'nikov. He conducts every training session in warship antisubmarine calculations creatively. He endeavors in the process of it not only to elevate the practical training of the sailors, but also to develop their tactical thinking. Here one constantly hears the persistent command requirement for subordinates to think, to take an active part in the working out of the calculation, and to develop, based on the development of the situation, specific recommendations. As a result, people quickly become reliable assistants to the commander in his activities in controlling the ship in combat.

An example of this relationship, with the commander of the hydroacoustic group, is characteristic. This officer arrived on the ship not so long ago. But, already, in the first periods of his professional development, Mel'nikov began to teach him to play an active role in the collective work of the assembly and analysis of combat information and to work out practical recommendations of his own. The young officer's first efforts in this were hesitant and timid. But each time Mel'nikov skilfully found a rational grain in these proposals and gave the subordinate to understand that his work was not for naught and is being taken into consideration by the commander in the adoption of a solution. Such an approach inspired the lieutenant and developed his initiative. And recently the young officer distinguished himself in a time when the ship was carrying out a critical problem in the search for an "enemy" submarine. In a tense moment when contact with the target suddenly was lost, he proposed to conduct the search for it in a new sector. Thanks to this, contact was quickly reestablished and the completion of the combat training problem was brought to a victorious conclusion.

At the VIth All-Army conference of the secretaries of the primary Party organizations, Marshal of the Soviet Union D. F.Ustinov, the USSR minister of defense, identified among the qualities which are now most necessary to Soviet military leadership, the ability to note in time and to support initiative, and to mobilize the volition and energy of personnel. An attentive and thoughtful command attitude toward the recommendations of subordinates is one of the specific indications of this quality.

But, unfortunately, you encounter commanders who underestimate and then simply refer scornfully to suggestions made during combat training and cruises by subordinates. This extinguishes subordinates' creative frame of mind and converts them into indifferent implementers without initiative. As a result, the worse the commander himself functions, the range of his tactical creativness unavoidably grows narrower and the probability of errors in making decisions is increased.

So it came to pass, by way of illustration, with the former commander of the large antisubmarine ship "Nikolayev", Captain 3rd Rank V. Korenkov. Acting at sea in a complex situation, he exhibited self-assurance, ignored an important recommendation of his helmsman and, in the end, made an incompetent decision on a maneuver.

Of course it is necessary to treat exactingly any proposal of a warship specialists, to evaluate its actual use, reasonableness, and trustworthiness strictly. Nothing can justify the commander who thoughtlessly proceeds on doubtful or simply erroneous recommendations. He bears full responsibility for his decision regardless of who among the specialists proposed what to him. But also, nothing can justify the commader who acts erroneously without any reasons while rejecting recommendations that are true, useful, and needed. In my opinion, by the way, there is a definite governing law. Subordinates send erroneous, incompetent, or simply careless information to the bridge of that commander who himself takes this matter thoughtlessly and carelessly.

Properly, far-sighted commanders of ships constantly look after the fostering of the sensitivity of subordinates to their high responsibility for each of their recommendations and reports in combat. For this purpose, critiques are used of exercises and practice firings, of study in the system of command training, and of the summing up of socialist competition. However, such responsibility is taught not only by measures, it also is taught in everyday living. Many large and small questions daily confront an officer commanding a warship crew. Questions connected with the organization of the training process on the ship, with assuring the safety of navigation, with the maintenance of weapons and equipment, and, administratively, with housekeeping cares, are a dynamic fleet fact of life. Of course a commander can make decisions about them personally, not consulting any of the subordinates, but it is better, nevertheless, when he strives to consult as much as possible.

It needs to be said especially how important the form is in which warship specialists express their recommendations and proposals in combat. You see, it can sometimes be that an officer reports about some doors, portholes, lights, etc. during combat training, and he does this so clumsily and uncertainly that his proposal simply is difficult to interpret. To avoid its being done that way in actual combat, we must pay much attention today to the development of the command habits of sailors, to the development in them of the ability to express their thoughts concisely and clearly in giving the substance of their proposals. Here, everything is important including the intonation with which it is communicated to the bridge.

Proposals about the most effective use of weapons and equipment in combat are an important aid to a commander, assisting him to dependably retain in his hands the threads of control over the crew. We must constantly look after this so that every warship specialist, into whose obligations this enters, is able actively and competently to express them, so that in a combat situation the crew can work on the same creative wave with the commander, and so that he, in turn, in conducting the search for ways to achieve victory, will be able to be guided by the knowledge and initiative of subordinates.

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TRAINING AT LENINGRAD OPTICAL MECHANICAL PRODUCTION CENTER

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 16-17

[Article by N. Skobtsov, senior engineer for civil defense, LOMO: "...And a Good Word"]

[Text] The collective of our three-time Order of Lenin Leningrad Optical-Mechanical Production Association imeni V. I. Lenin (LOMO) is greeting the glorious jubilee of the 60th anniversary of the USSR's formation with great patriotic enthusiasm. Along with production matters, much attention is also being devoted to improving civil defense. In the course of the pre-celebration watch, socialist competition has been initiated widely in all shops for effectiveness and quality of instruction in the methods and means of protection against weapons of mass destruction and for raising the readiness of non-militarized formations for the conduct of rescue and urgent emergency-restoration work.

It should be said that socialist competition in the association's civil defense [CD] system has already been practiced for many years. It is important to note that it takes place in a close tie with production tasks. In summing up the results of the accomplishment of production plans for the month, quarter, half year, and year the quality of the measures conducted in the shops, departments, and the association as a whole in improving civil defense is also considered.

In this jubilee year, competition in all subelements of the association and directly in the non-militarized formations is distinguished by special activity and high effectiveness. As a rule, the obligations are accomplished successfully. Among the obligations adopted by the collective are: accomplishment of the plan for training leader and command-management personnel and specialists at the CD courses and at the installation and the timely and quality instruction of all personnel of formations as well as the remaining workers and employees; passing the practical standards with a grade of "good" and "excellent"; and observance of the schedule of special tactical exercises.

In the course of the competition, great attention is devoted to political-indoctrination work and the propagandizing of civil defense and to improving the training-material base. Here, the condition of CD corners in shops, training classrooms, training grounds and the CD training center is considered.

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Significant successes were attained by the collective of the shop where the CD chief of staff is lathe hand B. Molochnikov, a reserve officer and veteran of the Great Patriotic War. This shop has occupied first place in the association for several years in a row and is also coping confidently with production tasks and with the accomplishment of civil defense measures. The collective has won the challenge pennant, a certificate of honor, and has been awarded prize money.

Here is what B. Molochnikov relates:

"We created 15 training groups and selected and trained well the lesson leaders and their assistants. They all went through training-methods assemblies with the association's CD headquarters and many studied at rayon and city courses. We discussed our socialist obligations at a general meeting of the shop collective. Therefore, all workers and employees, especially those who are in the formations, had a good picture of their tasks and, in turn, assumed individual obligations in the jubilee competition."

The civil defense lessons were concluded with the taking of a test and passing the standards. The majority of the workers received grades of 'good' and 'excellent'." To a great extent, this success is the result of a conscientious attitude toward their duties by the lesson leaders and their assistants--engineer G. Shik, foreman V. Bystrov, lathe hand T. Forsyuk, grinder A. Tret'yakov, and others.

The program in special training of the non-militarized CD formations has been completely accomplished in the subunit, which was actively assisted by the shop administration. The work of the sectors was organized in such a way that the lessons proceeded successfully and did not affect the accomplishment of the production plan. Two special-tactical exercises were a check of the formations' readiness. The personnel demonstrated good knowledge of their duties on them. Team commanders V. Belisov, I. Kryshkin, E. Davydov, and V. Lipatov operated confidently. Talks and lectures on civil defense often take place in the shop. The wall press is widely used. This is to the great credit of CD propagandist, metalworker, and reserve officer A. Tverdokhleb. In his work, he relies on the support of the shop's party bureau. Purposeful political-indoctrinational work conducted by the party organization (secretary of the party bureau V. Kononchuk) and widely initiated socialist competition permit the collective to attain significant successes and to be the best in the association for civil defense.

It is important to note that the leaders in the competition help the lagging shops and transmit their experience to them. Communist N. Smirnov, who headed the civil defense staff here, came to one such shop. Working earlier with Comrade Molochnikov, he borrowed much from his experience. From his very first steps in the role of shop CD chief of staff, he stressed the initiation of socialist competition for effectiveness and quality of training. He was rendered comprehensive support by the party organization which is headed by metalworker-electrician A. Ivanov, especially in the conduct of political-indoctrinational work with the collective. And here, for the last two years the shop occupies second place in the association for the accomplishment of CD measures.

Work in the shop which is directed by A. Mitrofanov (CD chief of staff N. Sverdlov) is also proceeding in the same key. Here they are engaged seriously and thoroughly with questions of socialist competition in civil defense. The collective

successfully combines the accomplishment of production tasks with the deep study of the means and methods for protection against weapons of mass destruction. Practical lessons are supplemented by talks and the showing of training films. A CD corner is well equipped in the shop. The training groups which are led by senior foreman Yu. Garbuz and foreman M. Nikolayev became the winners in the competition. They conduct practical lessons regularly and in a methodologically competent manner and organize testing in the standards.

To increase the effectiveness of the competition, it is necessary to ensure its broad publicity and the possibility for the recurrent repetition of favorable experience. For it is one of the Lenin principles for the organization of competition. And we are trying to implement it. For this purpose, the plant newspaper ZNAMYA PROGRESSA [Banner of Progress] regularly illuminates the experience in organizing competition in the leading shops. The secretary of the shop party organization, A. Ivanov, and the shop CD chief of staff, B. Molochnikov, published such materials in the plant newspaper. Local radio organizes broadcasts with the participation of civil defense activists and competition leaders. Such a form for exchanging experience as the visiting of each other's lessons has proven to be excellent.

The association's collective knows well the winners in the socialist competition in civil defense. Photographs of the experts in training are displayed in the shop CD corners. The awarding of badges "Expert of Civil Defense of the USSR," challenge pennants, and badges "Winner of Socialist Competition" takes place in a ceremonial environment. All this has great indoctrinational significance.

We cannot fail to mention one more form of moral incentive which, perhaps, is the most widespread. This is a good word addressed to those who skillfully accomplish their civil defense duties. The CD chiefs of staffs and services and chiefs of shops and departments employ this form with us widely. We were convinced: one should not be stingy with a good word with either large or small successes, especially on competitions and exercises, and really, unconditionally, on regular lessons.

Recently the association's CD chief of staff, V. Smurov, attended lessons of a voluntary aid detachment. They were conducted by nurse V. Lebedeva. By the end of the first hour it became clear that Valentina Aleksandrovna was teaching in a methodologically correct manner and interestingly and was solving practical problems confidently. During a break, the chief of staff praised the nurse and approved the methods which she employed. There can be no doubt that the approval of the experienced, knowledgeable comrade served as a good stimulus in the activist's further civil defense work.

The success of socialist competition in civil defense depends to a great degree on the effectiveness of work with people. This is why such serious attention is devoted to its most varied forms in the association. This permits us to hope that the glorious jubilee--the 60th anniversary of the USSR's formation-- will be greeted by the association's collective with new successes in the improvement of civil defense.

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CIVIL DEFENSE

## TRAINING AREA CONSTRUCTED AT POULTRY FACTORY

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 16-17

[Article by S. Klimenko, civil defense chief of Chervonoprapornaya poultry factory, and N. Perebeynos, civil defense chief of staff of poultry factory, Voroshilovgrad Oblast: "With Consideration of Past Mistakes"]

[Text] A mandatory condition for training the workers of the village and the entire population for the motherland's defense is the acquisition of civil defense [CD] knowledge and skills. National in its essence and content, civil defense pursues the most humane and noble goal--the protection of the population from contemporary means of attack. This also explains the constant attention to mass-defense work which is displayed by our party organization and the leadership of the poultry factory.

We will begin, if you like, with the fact that we are conducting planned and persistent work on the creation and improvement of the training base. A training ground has been constructed at the installation and a control post, special classroom, and civil defense corner have been set up. They are used completely and effectively when conducting lessons.

In preparing for the new training year, it is mandatory that we sum up the results of the training of the labor collective and formations and disclose and thoroughly analyze omissions. So here and now we checked to see whether we have done everything to prevent the repetition of shortcomings. And there were many of them formerly: planned lessons were postponed, skills in the use of individual protective equipment proved to be weak, and the trainees knew poorly the civil defense warning signals, acted unclearly on them, and simplifications and conventionalities were permitted. However, in the past training year we succeeded in deepening the knowledge of the trainees and raising their practical ability. In the course of the lessons the workers and employees and the personnel of the formations worked out actions on CD warning signals, mastered the procedures and methods for the conduct of rescue and emergency restoration work, learned to occupy protective structures in short times and without fuss, and improved their fighter qualities: resourcefulness and the ability to make an estimate of the situation quickly and adopt the correct decisions. We also began to use motion pictures on CD more often. Some of them such as "Civil Defense--a National Matter" and "Facing Danger" do not simply tell about the significance of civil defense and its basic measures, but they convince people of the importance and necessity for their strict accomplishment. We show excerpts from some of the films directly on the lessons. We show individual pictures completely to consolidate material which has been studied or to repeat what has been covered. The factory CD staff jointly with the chief of the Palace of Culture, R. Tsykalov, drew up schedules for showing the films for each month which were disseminated to the lesson leaders.

In the course of the instruction, by all available means we try to mold in people the correct notion of situations which may arise in stricken areas and in the order of operations. Especially helpful in this is the training ground where everything is worked out in practice, including CD standards.

This year we conducted a combined installation exercise. In the course of it, it seems to us, each participant deeply understood and keenly felt the responsibility which lays on him under special conditions and learned what should be done in rescuing victims and the timely conduct of other work, and what may be encountered as a practical matter in a center of combined damage. People were convinced of how important are their high state of discipline and activity, confidence and ability, and the straining of all physical and moral strength. On the exercises we were not carried away by listening to subordinates on various questions but we attained the effective and complete use of formations and all types of equipment in the conduct of rescue and urgent emergency restoration work and required the practical accomplishment of functional duties by all officials.

In our view, something else is even more important. It is necessary to see that in the village each CD measure also "works" on raising the stability of agricultural production. And this, you see, is one of its main tasks which also has a direct influence on the accomplishment of the Food Program.

For example, we conducted a practical lesson with the personnel of the non-militarized formation for the protection of the animals, "Rendering veterinary assistance to agricultural animals," on a special area of the first department. The leader of the lessons, chief veterinarian of the factory Anatoliy Taran, organized the processing of the animals in such a way that now all our workers understood that, it turns out, the accomplishment of CD duties not only permits preparing for defense against contemporary weapons but also has great value for the economy. People learn how to care correctly for livestock and fowl and made the premises better and more comfortable for them. Feed began to be kept more carefully for them and they expended it more economically. Especially great successes in this were attained by Department No 1 (manager V. Ryzhenko) and the central department (manager B. Kozulin).

The high consciousness of our people and their active participation in CD measures are the result of effective political-indoctrinational work on lessons and exercises. But, of course, far from everything has been done. We have few transmissions of local broadcasting on CD subject matter. It is necessary to improve the training-material base even more. We are not only to create new things, but also to protect reliably what we have and use each training installation with the greatest return.

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CIVIL DEFENSE

## 'ZNANIYA' SOCIETY'S CIVIL DEFENSE EFFORTS DESCRIBED

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) p 20

[Article by Col (Ret) K. Kotlukov, member of commission on propagandizing civil defense questions, Moscow: "The Time Requires"]

[Text] At the annual meeting of lecturers of the All-Union "Znaniye" [Knowledge] Society and of those who speak on military-patriotic subjects, the chairman of the section for the propagandizing of military knowledge and military-patriotic indoctrination, Admiral V. Grishanov, stressed that during the time which has elapsed since the 26th CPSU Congress the propagandists achieved notable successes. They are giving lectures more and more often directly at the enterprises, in institutions, educational institutions, kolkhozes, sovkhozes, and in Houses of Culture and clubs at places of residence. The quality of these presentations also improved.

In characterizing the work of the various subunits which make up a section, the chairman noted that the commission on propagandizing civil defense questions is accomplishing its tasks most consistently and effectively. The evaluation is complimentary and fully deserved. In fact, our commission (a section until the recent past) has existed for about 15 years. Today, it unites more than 25 people in its ranks. These are competent, highly trained specialists. Many of them have gone through severe soldierly service in the Armed Forces or are in their ranks now and are working in the headquarters and services of Civil Defense [CD], DOSAAF organizations, and scientific and educational institutions and are activists of civil defense and the "Znaniye" Society. Propagandists and personnel of the USSR Civil Defense Headquarters are directing the work of the commission jointly with the board of the All-Union "Znaniye" Society.

All this has a favorable effect on practical matters. First of all, one should note the fact that the members of the commission participated directly in elaborating the "Statute on Sections for Propagandizing Questions of Civil Defense with the boards of the "Znaniye" Society Organizations." The detailed document opened up broad opportunities to make more active the work of lecture personnel in the republics, krays, oblasts, cities, and rayons and introduced order in the structure and principles of activity of local sections.

They also did their ponderable bit in the publication of materials on civil defense to assist the lecture personnel. This consists of the book "Grazhdanskaya oborona vchera i segodnya" [Civil Defense Yesterday and Today] and 10 pamphlets among which

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are "Measures for Increasing the Operating Stability of Installations of the National Economy in Wartime," "Civil Defense Forces and the Principles for their Training," "Means and Methods for Protection Against Bacteriological (Biological) Weapons," and "Typical Subject Matter for Lectures, Reports, and Talks on Civil Defense." The latter contains a list of basic subjects, a typical plan for them, and recommended literature.

Unquestioned value will be brought to the propagandists by the methodological materials published by the USSR CD Staff for the 50th anniversary of Civil Defense. Members of our commission also participated in their preparation.

An important place in the commission's activity is occupied by the study, generalization, and dissemination of the favorable work experience of local sections in propagandizing civil defense. For example, the work experience of the Lithuanians, Muscovites, and Zhitomirites is instructive. It is widely described in a specially prepared survey and has become the property of all organizations of the "Znaniye" Society, CD staffs, and lecturers-propagandists.

One of the commission's specific concerns is assisting the creative training and indoctrination of the lecture activists. For these purposes, the work experience of the permanently operating seminar of lecturers on problems of Moscow's civil defense was studied and generalized jointly with the propaganda department of USSR Civil Defense. It proved to be instructive for many organizations of the "Znaniye" Society and staffs.

Of course, these and other measures are the result of well-thought-out and clear planning. All work plans are drawn up in close coordination with the propaganda department of USSR Civil Defense and are discussed in detail at sessions of the commission. In these, each time measures, times for their conduct, and responsible executors are determined. Commission members report periodically on their activity, which has great practical significance. As a rule, a principled conversation takes place at the commission sessions, favorable aspects are noted, shortcomings are criticized, and ways for their elimination are outlined. One who is passive and does not accomplish the planned measures on time especially catches it.

In the reports of commission members, one can often hear that sections for propagandizing civil defense are still not working fruitfully everywhere and in some places CD staffs and the boards of the "Znaniye" Society render them assistance poorly. Consequently, neither should the central commission and, especially, the local sections rest content with what has been attained but should achieve a rise in the quality and effectiveness of propaganda measures.

Today the commission, its members, and all lecturers see their task in intensifying propaganda activity in connection with the 60th anniversary of the USSR's formation and contributing even more to the patriotic and international indoctrination of the Soviet people. In lectures, talks, meetings, and presentations on television and radio they try to show clearly, convincingly, in a well reasoned manner, and intelligibly the organizing, directing, and leading role of the Communist Party of the Soviet Union in strengthening the defensive capability of the socialist fatherland, the tremendous achievements of our country in economic, social, and cultural development, and the specific concern of the party and the state for the Soviet man, and to disclose more deeply the tasks of USSR Civil Defense and ways for their accomplishment. It is the sacred duty of the lecturer-propagandists to propagandize the peace-loving Leninist policy of the CPSU and to help Soviet people to raise vigilence in every possible way and learn the truth about the aggressive essence of American imperialism and its NATO allies.

In lecture propaganda, today it is important to tie together skillfully questions of the heroic-patriotic indoctrination of the workers, especially of the youth, with the revolutionary, combat, and labor traditions of the party and the Soviet people and, using specific examples, to tell the students about the heroic deeds of the fighters and commanders of local air defense formations in the years of the Great Patriotic War as well as of civil defense personnel in days of peace. Suffice it to say that many officers, sergeants, soldiers and fighters of non-militarized formations have been cited with high rewards of the motherland for bravery and heroism in the war years and in peacetime. Not so long ago Central Television, in the program, "I Serve the Soviet Union," acquainted the viewers with the exploits of the personnel of civil defense subunits during mine-clearing and the disarming of a large quantity of ammunition left on our soil by the German-fascist aggressors in the years of the Great Patriotic War. Anyone who succeeded in seeing this broadcast could not remain indifferent to the courage of the soldiers. This is why it is very important to see that a story about each exploit finds a place in a lecture and talk and at a meeting with the youth and the personnel of staffs, services, units, and formations.

In short, lecturers who are propagandizing civil defense questions have broad possibilities to mark in a worthy manner the 60th anniversary of the USSR's formation. The time itself requires this of us.

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### COMPREHENSIVE EXERCISE AT DNEPROPETROVSK PLANT

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 22-23

[Article by P. Pleshakov, civil defense assistant chief of staff for propaganda, Dneprepetrovsk Oblast: "On a Comprehensive Installation exercise"]

[Text] A comprehensive exercise was conducted recently at the Nikopol'sk-Yuzhnotrub plant. The aerial alert signal sounded while the shift was in full swing. Without losing time, the workers switched off the equipment, left the shop without fuss and in an organized manner, and took cover in the shelter.

In accordance with the situation, the plant fell into a zone of weak and heavy destruction. Fires broke out in several shops. The entrances and emergency exits proved to be blocked in the shelters of shops 1, 3, and 5. The threat of people's death was created in the shelters of other shops. All this was skillfully simulated on the plant training ground which, by the way, is located directly on the territory.

The plant rescue detachment (commander A. Yastrebov) operated dexterously on the exercise, employing the equipment skillfully. The scouts were the first to arrive at the stricken area. Very little time passes and the commander of the scout group, master of the specialized pipe tool shop V. Tsyba, reports by radio to the detachment commander about the radiation levels, the condition of the shelters and people, the nature of destruction to structures, and the locations of obstructions and fires.

Now, when the picture in the stricken area had been clarified, rescue work can be begun. The firemen went to work. And a real fire blazes on the simulation area. Overturned "motor vehicles" and wooden structures are burning. The fighters of the plant fire-fighting team, Elyapishev and G. Guz', beat the flame down by skillfully directing foam jets at the fire.

Meanwhile, the teams of the rescue detachment--mobile groups--enter the stricken area. They disperse over the installation at a run. Priority is given to who got into trouble. And here, by now, voluntary aid detachment members I. Zipa and V. Buchak are giving first aid to a "casualty" and placing him on a stretcher. And alongside the fighters of the rescue formations, the workers of the technological equipment repair shop, V. Sukhobok and S. Dubrovin, are removing people from a trench "filled with dirt." At a buried entrance to a shelter metalworkers of the pipe casting shop V. Kruglenko, N. Chernyy, and others are handling crowbars and shovels. The entrance is thoroughly buried, but the men of the rescue formations clear away the obstruction persistently, without sparing their strength.

Finally, all obstacles have been overcome. The fighting men of the rescue detachment carry the "wounded" from the shelter through the door which has been unearthed.

A difficult task faced the drill operator of the technological equipment repair shop, M. Musykhin. He had to lower a "casualty" to the ground from the second story of a destroyed, burning building. The fighting man fearlessly climbed up to the story along the sheer wall and, with the aid of comrades who arrived in time, accomplished the mission successfully.

Saving people, the fighters of the detachment simultaneously eliminated secondary stricken areas: they cut off destroyed sectors of the electric network and gas line, cut off the gate valves on the water supply line and heat network, and placed stoppers and plugs on damaged pipes. A worker from the motor transport shop, I. Nosik, cleared away obstructions with a bulldozer.

The engineer-technologist of the specialized shop for personal pipe tools, Valentina Kantsur--political deputy detachment commander--worked alongside the fighters of the formations. The plant administration and party committee directed political work to-ward instilling in the personnel high activity, valor, and courage and the inflexible resolve to accomplish the assigned missions and toward maintaining lofty moral-combat and psychological qualities in the fighting men.

The combined exercise at the plant proceeded successfully. The practical ability of all formations was raised.

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CIVIL DEFENSE

# NIGHT TRAINING FOR FIRST AID TEAMS DESCRIBED

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 24-25

[Letter by L. Popova, commander of voluntary aid detachment No 8, Moscow, and M. Repnikova, political instructor, and commentary on letter by P. Kurtsev, chief of administration for medical-defense and medical-sanitation work of Ispolkom of Union of the Red Cross and Red Crescent Societies (USSR) [not translated], published under the common title: "Under Night Conditions"]

[Excerpt] City competitions of the voluntary aid detachments in Moscow were an important examination both for the participants and for the medical personnel who trained us. This time, the formations operated under more difficult conditions, at night. The competitions basically pleased us: each member of the detachment could check herself, evaluate her capabilities, and disclose shortcomings in training.

However, to improve such a form of training as competitions under complicated conditions even further, it is necessary to avoid the shortcomings which occurred.

Thus, the organizers of the competitions did not provide equal conditions for all detachments in the "centers of mass destruction." Some of the detachments operated during the light time of day, and the others--in impenetrable darkness.

The competitions showed that there can be no getting by with six flashlights: while the team commander with the light reads the tag on the "Casualty" the others are actually inactive. There clearly are not enough rubber gloves in the organic equipment and, you see, one should not work in chemical stricken areas with bare hands.

It seems to us that the question of organizing first aid in nuclear or chemical stricken areas has not been thought through. Before entering the stricken area, the entire detachment is given the assignment to search for and give first aid to 15 casualties. However the judges, standing near "their" group of casualties, for some reason require that both first aid and the carrying of casualties to the loading point be accomplished by the detachment members of one section. They had a disapproving attitude toward the fact that the voluntary detachment members of other sections helped one section.

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The system for awarding points at the degassing and decontamination sites where one section is operating is not very clear: the number of penalty points obtained by one member of a voluntary aid detachment is multiplied by four. Following this logic, it can be said that if one section operates incorrectly, this means that the entire detachment is also operating incorrectly. And then the penalty points must be multiplied by 23. It is not at all clear from where these points will be taken. For each year we do not receive penalty points for degassing and decontamination at installation and rayon competitions. Evidently, the different levels of training of the judges and the noncoordination of their actions is felt here.

We should like to say that the qualification training of some judges is clearly insufficient. As was learned when summing up the results, some of them did not even read the textbook for voluntary aid detachments and asked questions which are not found there and which are impossible to answer without a medical education.

In summing up the results, it was also learned that there are instances of violations of the Regulations on Competitions. Individual detachments did not participate in rayon competitions but prepared immediately for city competitions. This was the case, in particular, with the detachment of the "Emitron" plant which took first place.

And more about one circumstance. Our detachment proved to be the only one which included male as well as female voluntary aid detachment members, which immediately attracted a watchful attitude. Only by this can we explain the prejudice which we encountered everywhere. In the course of the competitions we often heard from the judges that with such members we have no reason to participate in city competitions. But you see, there is no such prohibiting point in the Regulations on Competitions. And in general, we should like to wish that the judges were kinder.

Competitions under night conditions create additional difficulties for the participants. They also impose increased requirements on the judges and organizers. Unfortunately, this time no one was concerned about hot food or about creating elementary everyday conveniences for the participants. It is very sad that they did not permit a photographer in the "centers of mass destruction"; civil defense propaganda suffered from this.

We do not believe that we know more than the judges or organizers of the competitions. And we are responsible for our mistakes. But all the shortcomings which have been mentioned unquestionably lowered the quality of conduct of an important, necessary, and useful measure.

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#### CIVIL DEFENSE

#### IMPROVED TRAINING FOR ADULTS URGED

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 26-27

[Article by G. Prikazchikova: "Do Adults Need Games?" passages rendered in all capital letters printed in boldface in source]

[Text] "Here is information for you to reflect upon," noted the installation civil defense [CD] chief of staff. "Each year we teach in accordance with the civil defense program and we repeat the same thing many times. But tell me, why is it that at times that which should be known literally like a multiplication table is poorly mastered and poorly remembered? Here not long ago I asked one worker in our factory which gas mask she needs and she could not answer. But you see, she had studied all this, and many times and she had put on the gas mask more than once. Here you may not want to, but think about it."

Well, it is never superfluous to think, especially if the question concerns such an important matter as instruction in civil defense. In fact, over a number of years we adults pursued the 20-hour program. The subject of study remained the very same: means and methods of protection against weapons of mass destruction. Just why is it that the QUANTITY of lessons conducted annually was far from always transformed into the QUALITY of acquired knowledge and skills? Let us try to understand this.

Pedagogy asserts that learning (and, consequently, the state of training as its final result) occurs where the actions of a person are controlled by the CONSCIOUS GOAL to assimilate specific knowledge, skills, and abilities. A clearly recognized goal engenders INTEREST in the material being studied. Under the influence of cognitive interest learning proceeds more easily and rapidly and with more ponderable results. Are we always successful in achieving such interest on civil defense lessons? As an example--a small picture from life.

A lesson is taking place in a shelter on the subject, "Collective means of protection." There are primarily women, the elderly, and somewhat younger people in the study group. They listen attentively to the story of how shelters served as reliable protection in the years of the Great Patriotic War. It would appear to be familiar material and known facts, but here new words have been found which received a response and summoned interest. This means that it is just the time to change from history to today's tasks. Encouraged by the audience's attention, the lesson leader begins the presentation of the next training problems. He talks with enthusiasm as formerly, but the atmosphere of the lesson changes noticeably. Conversations are heard, at first in a small whisper, and then a little louder. And although he succeeds in restoring order, all the subsequent time the group behaves passively and remains inattentive. The former contact between the leader of the lessons and the audience has disappeared.

I could mention with an accuracy down to the minute the time when the necessary binding thread was broken and interest in what occurs on the lesson was extinguished. It was the moment of telling about the shelter's filtering-ventilation system. And isn't it strange, the reason was the superfluous details which the lesson leader cited. The explanation was given in such detail as if the women who were present here were soon to install or, at least, to check this system themselves. Seeing no meaning for themselves in such details they ceased to understand the GOAL of the instruction in general and lost INTEREST in it.

The lesson leader did not notice the changes in the audience's attitude in time or did not attach significance to it. He continued conscientiously to present everything prescribed by the program and, perhaps, a little more, not sensing that the return from such instruction equals zero.

It happens that in selecting training material the lesson leader proceeds not from what namely this training group should master, but from his own personal store of knowledge. He operates in accordance with the principle: I will teach what I know myself. As a result, he becomes lost in details, often unneeded, which actually should be known as two times two, and the main thing is that interest in the subject being studied is lost.

The program of the general mandatory minimum of knowledge is common for all. But this by no means signifies that the very same subject should be presented in the same way in groups consisting, for example, of weavers, foundry workers, and associates of scientific research institutes. If we want to achieve actual success in training the population in civil defense, adjustments are necessary for any most improved program with its realization under specific conditions. In particular, adjustments dictated by the special features of the audience. Here is one more example in confirmation of this.

One day on lessons on civil defense, they were carried away by the presentation of facts which testify to the might of contemporary weapons and their destructive action. In this way they tried to stress the serious nature of the tasks facing the entire population and each person--to master the means and methods for protection against these weapons. Later, a turn was noted in a direction which was directly opposite: they tried to speak of protection almost not mentioning the weapons against which it is necessary to protect themselves.

In the end, as should have been expected, the truth was discovered somewhere in the middle. But in connection with this fact, I should like to return again to questions of pedagogy.

The fact is that both sooner and later the most attentive personnel of the civil defense staffs and lesson leaders noted a certain regularity. Depending on the nature of the audience, the same narration about the injury-causing action of contemporary weapons caused an absolutely different reaction. For training groups with primarily a female composition, it not only did not become a stimulating motive for more serious study of the means and methods of protection against weapons but, on the contrary, at times caused directly the opposite reaction. Males received the same material differently, strived to learn a little more, and were interested in such details as the performance characteristics of various types of weapons, their comparative characteristics, and so forth. Evidently, army experience acquired during years of active duty and in wartime had an effect. Can we fail to consider such details in organizing and conducting lessons in accordance with a program which is common for all?

In order constantly to maintain cognitive interest in the training group, it is necessary to to ensure a sufficiently high level of the instruction itself and a pedagogically expedient organization of cognitive activity. In pedagogy, this is attained through the varied structuring of lessons, the introduction of new types of activity and elements of competition, games, and so forth.

Unfortunately, the principle of problem instruction and practical games which presented themselves in such a good light in the system for raising qualifications are not employed with instruction in accordance with the civil defense program. Meanwhile, they permit avoiding satisfactorily those difficulties which arise with the inevitable repetition of the training cycle. In a practical game, situations are created which require of each participant activity in the form of the most expedient decisions which are adopted in a given specific situation. Therefore, previously accumulated knowledge serves not as a brake, but as a necessary condition for successful work at a lesson. It is known that active, independent work of thought begins when a problem or question arises for a person. It is just such a situation which develops in the course of a practical game.

Practical games have still another advantage which offers virtually unlimited possibilities for varying situations with consideration of the special features of a training group, installation where the lesson is taking place, and so forth. They permit abandoning the mechanical repetition of material which, as practice shows, does not provide the proper effect. The conversation presented above can serve as proof.

It is believed that with correct organization practical games or some of their elements would be an effective addition to the forms of training in civil defense which are now being practiced and have already justified themselves.

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SOURCES, USES OF DECONTAMINANTS DESCRIBED

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 28-29

[Article: "If There Is No Organizational Equipment"; passages rendered all in capital letters printed in boldface in source]

[Text] Local disinfectant materials\* for the accomplishment of civil defense tasks are easily found in each populated place and in any region of our country.

Dry pulverized CLAY which can easily be obtained in large quantities at brickyards and other plants having the appropriate equipment can serve for the degassing of hard road surfaces with contamination with droplet chemical [CW] agents. A road can be sprinkled with it using sand-spreading machines or manually from hand-barrow sieves and, after 10-15 minutes, it is sprinkled with water. One square meter of contaminated surface requires 1-2 kilograms of clay and 1.5 liters of water. The slurry which is formed is thoroughly rubbed by brushes of sweepers or by regular brooms. Then the slurry is washed away with water using machines or is swept away (scraped off) with brooms (shovels).

The use of dry clay for degassing is based on its ability to soak up drops of toxic agents and absorb their vapors. Drops of toxic agents enter into interaction with substances of an alkali and oxidizing nature which the clay contains. With the rubbing of the clay with water, the toxic agents are destroyed more rapidly and the degassing time is reduced. This method of disinfecting is effective with a positive air temperature.

Clay can also be used in its regular form, for example, to make a passage through a contaminated sector. For this damp, but not waterlogged, clay is scattered in a layer of 5-8 centimeters. After leading people through the passage, the clay is collected and carried beyond the limits of the populated place and poured together at the designated place for natural degassing. The passage which has been freed from the clay must then be degassed just as all the remaining contaminated territory.

ASHES, just as sand, gravel, slag, sawdust, and other porous materials, can be used to insulate a surface contaminated with toxic agents. In addition, it is a good

\* See No 8, 1982, for organizational disinfectants.

disinfecting means. The ashes contain an alkaline solution which possesses disinfecting properties as regards pathogenic microbes and toxins. To obtain it, it is necessary to boil the ashes in water for two hours. Two liters of water are required for one kilogram of ashes. After sedimentation, the solution is carefully decanted and is used in this form.

Slaked and unslaked LIME is a means for degassing and disinfecting various surfaces. Prior to employment the lime is slaked with an amount of water equal in weight. Then the disinfecting solution is prepared on the basis of a bucket of lime to two buckets of water. It is applied to the surface by brushes. With contamination by spore-forming forms of agents this operation is repeated three times.

At many industrial enterprises there are liquid industrial WASTE PRODUCTS, the majority of which can also be used for decontamination, degassing, and disinfection. Such waste products, which contain substances of an alkali nature, are formed when removing acids and sulfur compounds from petroleum products, when purifying gases in the gas industry, at factories for the production of viscose fiber, and when processing cotton.

Waste products which contain substances with an oxidizing and oxidizing-chlorinating action are obtained when dyeing part-wool fabrics, bleaching cotton materials and cellulose, and with production of chlorine and nitrogen fertilizer. At enterprises of the textile industry and chemical cleaning plants waste products contain surfaceactive substances which possess decontaminating properties. It is not difficult to determine the suitability of such substances for disinfecting in a plant laboratory and to create the necessary supplies.

The most accessible means for decontamination is WATER. Radioactive dust can be removed from contaminated surfaces with it. To increase effectiveness when processing small objects, aqueous solutions of cleansing agents are used.

Kerosene, gasoline, and organic solvents are suitable for removing toxic agents from contaminated surfaces. It is only necessary to observe precautionary measures: for in dissolving toxic agents these subjects themselves become dangerous. It should also be kept in mind that using these substances, toxic agents can be removed from contaminated surfaces which do not absorp the solvents, for example, from metal parts of machines. But here, it is not recommended that they be used to degas the wooden bodies of motor vehicles: the solvents which contain the toxic agents are absorbed into the boards which will represent a danger to people for a certain time.

Naturally, local decontaminants are less effective than organizational ones and fewer active substances are contained in them. For example, bleaching powder which is a product from the processing of slaked lime with vaporous chlorine contains 32-36 percent active chlorine. It is considerably less in the slaked lime itself. This is why the standard of consumption of bleaching powder per square meter is 0.5 kilograms, and of local lime, ash, and soil materials 1-2 kilograms. However, local decontaminants have their own advantages, first of all accessibility and simplicity of employment.

The procedure for the accumulation of decontaminants, places for their storage, and method of use are determined in each specific case by local civil defense staffs.

It should be stressed that the use of local decontaminants requires the observance of certain safety measures. Thus, protective equipment can be removed on a territory subjected to degassing by dry pulverized clay no sooner than half an hour after completion of the work. Special danger is presented by objects contaminated by toxic agents of the sarin or V-gas types. In all cases, the moment of complete safety of objects is determined by the chemical scouts.

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OUTLINE FOR STUDY: 'THE RADIATION AND CHEMICAL OBSERVER'

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 28-29

[Article by M. Frolov: "Observation Post"]

[Text] Two lessons are allotted to the subject, "Radiation and Chemical Observation Post"--a one-hour theoretical lesson and a two-hour practical lesson. But not all military instructors use the allotted hours productively. Unjustifiably much time is spent on the explanation of theoretical questions at the expense of a reduction in the times for the practical working out of actions by the post personnel. They often select the narration as the basic method on lessons, which does not contribute to making more active the training-cognitive activity of the students and the generation of the necessary abilities and skills in them. Meanwhile, the lOth subject offers greater possibilities not only for instruction, but also for indoctrination, in particular of such qualities as the ability not to become flustered in a difficult and rapidly changing situation and the ability to interact with comrades.

In disclosing the actions of the post's personnel, one should rely on the knowledge, ability, and skills obtained by schoolchildren when studying preceding subjects. It is important to be concerned ahead of time about the training-material base. To supplement equipment which is lacking (DP-5 and VPKhR [chemical agent detector]), the program recommends using the equipment of the base (patron) enterprise and civil defense courses. The military instructor often also has recourse to mutual assistance for this purpose.

Lesson 1. Mentioning the subject and goal of the lesson, the military instructor discloses the concept of "reconnaissance." Here, it should not be forgotten that the schoolchildren received some information about it when studying the subject, "Rescue operations in nuclear stricken areas." The students can be given the question of what they know about reconnaissance, then its definition can be given and basic tasks can be formulated. First of all, this is determining the areas and installations which have been subjected to the effects of means of destruction or natural disasters and the aftereffects of the outbreak of damage and catastrophes; the disclosure of the degree of destruction and contamination in mass stricken areas; determining the condition of routes of movement and protective structures and the conditions for rendering assistance to casualties; and observation and the laboratory monitoring of the degree of contamination of the air, water, and so forth by radioactive and toxic agents and bacterial means. Next, the military instructor explains that depending on the nature of the missions being accomplished, reconnaissance is subdivided into general and special, and depending on the personnel and equipment involved--into aerial, river (sea), and ground.

Mentioning the basic requirements imposed on reconnaissance (continuity, activity, purposefulness, and reliability), he can propose that the students comment on them. This makes the lesson noticeably more active and will further the accomplishment of the indoctrinational tasks.

Subsequently, the lesson is organized so as to prepare the students for the practical performance of the duties of radiation and chemical observation post personnel.

This formation conducts special reconnaissance. Its mission is the timely detection of radioactive and chemical contamination on the territory of the installation and in places where workers and employees are located in the out-of-town area. The composition of the post includes a chief and two observers (scout-dosimetrist and chemical scout). The military instructor stresses that each of the students should be ready to accomplish the duties of all the indicated persons.

On the first lesson, the schoolchildren become acquainted with the post's equipment (filtering gas masks, the IPP-8, AI-2, means for protecting the skin, and instruments for radiation and chemical reconnaissance and dosimetric monitoring of irradiation). In addition, the post should have an observation log, compass, clock, sketch of reference points, table of warning signals, binoculars, means for giving signals, and means for wire (radio) communication. If any of the items of equipment cannot be obtained or made, they should at least be simulated.

Special attention should be paid to the form of the log and the procedure for filling it out. The following columns should be presented on the odd-numbered pages: place of measurement or coordinates of measurement point; radiation level, time of measurement (hours, minutes), to whomand when reported, and on the even-numbered pages-type of toxic agent; means of employment; place of employment (coordinates) or detection; dimensions (length and width in meters) of the contaminated sector; time of employment or detection (hours, minutes); to whom and when reported. The students will fill out a log on the next lesson.

In beginning to explain the actions of the post personnel, the military instructor stresses that the mission is assigned by the civil defense [CD] chief of staff or the chief of the PR [radiation defense] and PKhZ [chemical defense] service of the installation. He will step forth in this role himself on the lessons. After this, he indicates the location of the post and its equipment, area of observation and tasks of the personnel, procedure for operations upon detection of radioactive and chemical contamination, warning signals and procedure for reporting the results of observation, and the location of adjacent posts.

The chief of the post is responsible for its equipping and improvement, for the good working order and fitness for work of the instruments, communication with the in-stallation command post, and the work of the observers.

The duty observer performs his tasks in individual equipment for protection of the skin, having the gas mask in the "ready" position. He also continues to conduct

observation after the signal "Air alert," when everyone except him takes off for cover. With a nuclear burst, he takes measures for protection against the shock wave and thermal radiation. After the shock wave passes, he turns on the radiation reconnaissance instrument. He determines the type of nuclear burst from external signs and its direction (azimuth) from the sketch of reference points, and he establishes the direction of movement of the radioactive cloud. He reports on the results to the chief of the post and continues observation. With the fallout of radioactive precipitation, he uses instruments to determine the radiation level at the start and the end of fallout, reports on this to the post chief at the established times, and on his command gives the signal "Radiation danger."

If the radiation level increases, with the permission of the post chief the observer takes off under cover and from there he follows the change in the radiation situation, considering the attenuation factor of ionizing radiation. The latter is determined by two measurements of radiation levels--on open terrain and under cover. The ratio of the first measurement to the second comprises the attenuation factor. Multiplying the radiation level under cover by the attenuation factor, we obtain the radiation level on the terrain.

Detecting signs of the enemy's employment of chemical weapons, the duty observer immediately gives the warning signal, converts the protective equipment to the combat status, and reports to the post chief; next he operates in accordance with his instructions. When investigating the territory, using the VPKhR he determines the type of toxic agent and its concentration on various sectors, and he sets out boundary markers.

The chief of post reports to the installation's CD chief of staff concerning all changes in the situation and he makes entries in the observation log.

It is important that already on the first lesson the students clearly master the procedure for the post personnel's work and understand the difference in the sequence of the observer's actions with radioactive and chemical contamination. This will help them to prepare for the second lesson more successfully.

As part of such preparation, it is expedient to organize a viewing of the film strip, "Reconnaissance of nuclear stricken areas," during time not devoted to lessons.

Lesson 2 (two hours)--this is the practical working out of actions by the personnel of the radiation and chemical observation post. It is best to conduct it on the territory of the training ground. Practice shows that it is expedient to create four training sites, to equip them appropriately, and to select places for the observers and cover for the personnel. The squad leaders, who ensure the operation of each post, should be briefed ahead of time.

The following training problems are worked out in a practical manner on the lesson: the assignment of tasks to the observers by the post chief; actions of the personnel on the signal "Air alert;" actions of the duty observer on the flash of a nuclear burst and when detecting radioactive, chemical, and bacteriological contamination. After posts of three men are formed at each training site, the students put on the equipment to protect the skin and bring the gas masks to the "ready" status. The military instructor, in the role of installation CD chief of staff, assigns the tasks. The squad leaders organize the work of their subordinates at their training sites. Here, each pupil in turn functions in three roles: chief of post, scoutdosimetrist, and chemical scout. At each training site, the change of posts is conducted after the personnel of one formation adopt a decision in accordance with several special situations. The first variation of the special situations is worked at with the personnel of all posts assigned to the given training site.

We will present several examples of special situations and decisions in accordance with them.

"You are the post chief. The installation CD chief of staff assigned the mission. Bring it to the attention of the personnel."

The student in the role of post chief assigns the task to the duty observer, indicating the area of observation and pointing out what should receive special attention, the frequency of turning on the instruments, the operating procedure with a nuclear burst and the detection of radioactive and chemical contamination, warning signals, and the relief procedure. He issues instructions on the procedure and times for setting up cover and he designates one of the observers as his deputy. Then he reports to the installation CD chief of staff (military instructor) that the post has begun to accomplish its mission and he makes the appropriate entry in the observation log.

"You, the observer-dosimetrist, see that on the DP-5A instrument with the position 'X1000' the needle of the microammeter was deflected to the figure 0.5. What are your actions?"

The student who steps forth in the role of observer-dosimetrist reports to the chief of post and on his command he gives the sound or light signal warning of radioactive contamination, brings the individual protective equipment to the combat status, and continuously watches the instrument readings.

"You, the duty observer, are under cover. The instrument shows a radiation level of 1.5 R/hour. The attenuation factor equals 40. What entry do you make in the log?"

The answer is as follows. The value of the radiation level outside the cover should be entered in the log. It is 60 R/hour (1.5 x 40 = 60).

"You are the chief of post. The radiation level in the cover dropped to 0.01 R/hour. Can you send the scout-dosimetrist to investigate the territory outside the cover?"

The pupil answers that with a drop in radiation to the given level the observer can leave the cover periodically and investigate the territory of the installation.

The actions of the post personnel on the signal "Air alert," the flash of a nuclear burst, with an increase in the radiation level, with the detection of signs of chemical contamination, and so forth are worked out with approximately the same procedure and with the use of special situations.

At the end of the lesson the military instructor conducts a critique of the pupils' actions and cites those who adopted a decision quickly and correctly and reported clearly. With the good organization of the lesson, each one can receive a grade because all the pupils in the class participate in the work.

Recommended literature and training aids: "Nachal'naya voyennaya podgotovka" (Primary Military Training), Moscow, Voyenizdat, 1980, 1981; N. P. Olovyanishnikov, "Grazhdanskaya oborona. Uchebnoye posobiye dlya professional'no-tekhnicheskikh uchebnykh zavedeniy" [Civil Defense. Textbook for Vocational and Technical Educational Institutions], Moscow, Vysshaya shkola Press, 1979; "Grazhdanskaya oborona" [Civil Defense] edited by N. P. Olovyanishnikov, Moscow, Vysshaya shkola Press, 1979; "Uchebnoye-methodicheskoye posobiye po nachal'noy voyennoy podgotovke" [Training-Methods Textbook for Primary Military Training], Moscow, Prosveshcheniye Press, 1981; "Tablitsy po grazhdanskoy oborony dlya IX klassa" [Civil Defense Tables for the 9th Grade], Moscow, USSR DOSAAF Publishing House, 1978, sheet 14.

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# DOSAAF AND MILITARY COMMISSARIATS

# DOSAAF ROLE IN FOOD PROGRAM DISCUSSED

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 6-7

[Article by V. Sysoyev: "A Place in the Common Formation"]

[Text] Inspired by the decisions of the May (1982) plenum of the CPSU Central Committee, the Soviet people have begun realization of the USSR Food Program with tremendous enthusiasm and great interest. Reports are arriving from all corners of the country on the first successes in the advance to the planned positions. Many workers of the cities and villages, competing for a worthy greeting for the 60th anniversary of the USSR's formation, are confidently exceeding planned assignments and are making their feasible contribution to the further development of the economy, the strengthening of the country's defensive capability, and raising the well-being of the Soviet people.

The goal of the Food Program is indicated in the plenum's documents--to reliably provide the population with food products in the shortest possible time. This is not only a primary economic task, but also an urgent socio-political task. The satisfaction of the constantly growing vital demands of the Soviet people was and remains our party's most important program requirement.

The adoption of the Food Program, of course, was not caused by any extreme circumstances or crisis phenomena in our agriculture as some foes of the Soviet state are trying to construe this.

In his speech, Comrade L. I. Brezhnev convincingly showed that as a result of the persistent implementation of the party's contemporary agrarian policy Soviet agriculture has taken a tremendous step forward. Its material-technical base has been renovated qualitatively. Entire new branches which service agriculture have been created. The professional and cultural level of the kolkhoz farmers and sovkhoz workers has increased. The efficiency in cultivating agricultural lands has been increased and specialized animal-husbandry complexes and big poultry plants with industrial production technology have been put into operation.

The entire appearance of the village has changed in many regions of the country. As a result, despite all the whims of nature gross agricultural production increased by an average annual rate of 50 percent in the 10th Five-Year Plan in comparison with the 7th Five-Year Plan. This permitted raising the per capita consumption of meat,

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milk, eggs, vegetables, sugar, vegetable oil, and other food products by 25-40 percent during the last 15 years.

Each citizen personally feels the successes of our agriculture each year. The overwhelming majority of the people have begun to feed themselves considerably better. However, under the condition of the steady growth in the overall well-being and, in particular, of the population's monetary income, the demand for meat and milk products in still not satisfied in a number of regions, there are not enough vegetables and fruits, and there are interruptions in the sale of food commodities. Shortcomings have accumulated in the matter of the procurement, storage, transportation, and processing of agricultural produce.

The Soviet Food Program is also called upon to eliminate the difficulties and disproportions which have arisen, to ensure a rapid growth in the efficiency of agriculture and the entire agro-industrial complex, and to satisfy the growing requirements of the country for food products.

Accomplishment of the program is intended for a number of years, prior to 1990. Its special feature is the fact that it personifies a goal-oriented integrated approach to the solution of the food problem and embraces the entire totality of problems from the cultivation of the soil to trade in agriculture produce. Realization of the Food Program and implementation of the decrees of the CPSU Central Committee and the USSR Council of Ministers which are connected with it are, in essence, the task of all branches and departments and a matter for the entire people. The DOSAAF organizations, of course, are also called upon to contribute their mite to the preparation of the national pie.

For the duration of its entire history, the Defense Society has actively joined in the accomplishment of state tasks. It is firmly holding to this noble tradition even now. The DOSAAFites have made a deep study of the documents and materials of the May (1982) plenum of the CPSU Central Committee and they unanimously support and ardently approve its historic decisions and the instructions and recommendations of the General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet, Comrade L. I. Brezhnev. The Society's committees and training and sports organizations tried to determine their place in the common formation and to outline specific tasks for participation in the accomplishment of the Food Program.

The DOSAAF organizations are concentrating their main efforts on the training of technical specialists. Their contribution may be most ponderable and tangible on this direction. The defense Society has a wide network of well-organized training organizations and a large number of trained instructor-teacher personnel. They have fair experience in training machine operators for the village. The schools and sports-technical clubs of DOSAAF of the Ukraine, Georgia, Krasnodarskiy kray, and Omsk Oblast which are engaged in teaching rural residents the specialties of vehicle driver, tractor operator, and combine operator have received praise from the corresponding party and soviet organs and leaders of sovkhozes and kolkhozes for many years. Much that is useful is also being done in a number of other organizations.

But it is completely obvious that the experience on hand and the practice which has developed cannot satisfy contemporary requirements; they can be considered only as a springboard for the initiation of important, purposeful work. The first practical step, probably, should be improvement in the planning of the training of technical specialists for the village. Life clearly reveals the unreality of plans which have been compiled on the basis of data on the actually conducted work in the preceding planned period. The determining positions of both current and long-range planning, as is known, are first of all the requirement for various personnel and the presence of human reserves and then already the capabilities of the DOSAAF organizations. Since the plans for training specialists for the village touch the interests of the kolkhozes and sovkhozes, they must be coordinated with the corresponding organizations. The practice of assigning the volumes and times for the training of rural machine operators in DOSAAF organizations on a contract basis with various farms by the decisions of competent soviet organs also justifies itself.

The specific nature of the village compels the persistent search for new methods in training specialists in addition to the active use of traditional forms for this work and moving instruction closer to the people. At one time, we conducted a decisive struggle against various types of branches of training organizations. And this was correct. The majority of the branches did not have the necessary equipment and most often private, insufficiently qualified teachers worked in them. Now the picture has changed sharply. The DOSAAF organizations have become considerably richer. A broad network of sports-technical clubs has been created and the park of training equipment and the number of graphic aids, cut-away operating assemblies, units, and instruments increased while mobile motor-vehicle classrooms have appeared. The ranks of the instructor-teacher personnel have expanded. All this permits reaching the individual sovkhoz, kolkhoz, and separate brigade. And the DOSAAF organizations should make the most complete use possible of these favorable possibilities.

Also deserving of every type of support is such a form of work as the instruction of city-dwellers who are involved in the conduct of rural-farming work and secondary specialties. For many years already, for example, many workers and employees of Rostov, Taganrog, Bataysk, and Novocherkassk enterprises and institutions are mastering the skills in driving motor vehicles, tractors, and combines at DOSAAF courses and in the STK [sports-technical clubs] of Rostov Oblast. This is providing tangible results. City-dwellers who have undergone training in DOSAAF are working on kolkhoz fields and farms with the greatest return.

In the opinion of many practical workers, the time has come to solve the problem of reducing the age qualification for entry in the courses for rural machine operators. The tremendous craving of 14- and 15-year-old youngsters for equipment is noted almost everywhere. Unfortunately, these desires of theirs are often smashed against against the paragraphs of instructions issued ages ago. It is believed that the corresponding organs, including the Administration for Training Personnel for the National Economy of the USSR DOSAAF Central Committee, should find a favorable solution for this suggestion. Now the majority of the 15- and 16-year-old boys and girls are stalwart, physically strong, serious youngsters. With proper monitoring and the observance of safety techniques, they can be completely entrusted with the driving of a motor vehicle, tractor, or combine. It is also important to maintain the striving of rural teenagers for equipment because the love for the profession of machine operator and for labor in the village is consolidated more strongly at this age.
It appears expedient to think about training flying personnel in the aero clubs of the Defense Society for agricultural aviation. Young people who have taken to the sky with the aid of sport often become good professional pilots after brief retraining. Unquestionably, the best sportsmen-flyers could become worthy replacements for MGA[Ministry of Civil Aviation of the USSR] subunits which work agricultural lands.

As formerly, a subject of constant concern is the task of raising the quality of training specialists, especially their practical training. The reserves for this consist of the strict observance of the instruction procedure and the strengthening of attention to generating in the future machine operators firm skills in the operation and elimination of malfunctions of machines, instruments, and assemblies. In a number of organizations, primarily in sports-technical clubs, there is a need for strengthening the training-material base. The problem of further stabilization of the instructor-teacher personnel is not being removed from the agenda.

DOSAAF organizations of Moscow and Kazakhstan have determined specific measures for the more efficient use of lands alloted for airfields and vehicle driving grounds, firing ranges, and other training and sports fields. The raising of perennial succulent grasses continues to remain the dominant direction here. But substantial corrections have been introduced into this usual, what would appear to be simple matter. People stopped relying only on the kindness of nature. They intend to achieve an increase in yield with the aid of agricultural science.

However, it would premature to be finished with this. The DOSAAF organizations for the country as a whole occupy a considerable area of high-quality land. In the next few years its amounts should increase even more. New aero clubs and motor vehicle and technical schools are to be opened. But individual committees have not yet learned to have a thrifty attitude toward the land and they have a too narrow approach to its utilization. This situation can no longer be tolerated.

Leaders and the public of individual training organizations and production enterprises of the Defense Society pursued the working out of measures for the improvement and further development of auxiliary and kitchen farms. Their efforts are directed primarily toward raising the style for the management of the farm--a rise in the intensity of production and ensuring the established procedure for the expenditure of the output obtained.

They approach the solution of this problem reliably in the organizations of the Armenian SSR. Responding to the decisions of the May plenum of the CPSU Central Committee, the DOSAAF personnel and activists planted more than 3,000 fruit trees. At the training-sports base, 150-200 swine are being kept for fattening. This farm almost completely covers the requirements for meat of the training and sports-training assemblies conducted by the Society's republic committee. Now the republic's DOSAAF Central Committee is completing the working out of a long-range plan for the development of auxiliary and kitchen farms.

Along with all city-dwellers, the personnel of training and sports organizations, institutions, and production enterprises of DOSAAF are taking a feasible part in various work in the village. The Society's big organizations have permanent patronized farms. Such practice developed long ago. It has its own history, traditions, and experience. However, under the influence of the decisions of the May plenum of the CPSU Central Committee, the city-dwellers' attitude toward work in the village is changing. Now the majority of the workers and employees perceive work in the fields and on the farms as their vital matter. Participating in the gathering of the harvest, for example, they do not say that they are working for someone; they understand perfectly that this is work for themselves, for the good of the beloved motherland.

The Society's organizations have the opportunity to contribute their mite (even if tiny) to the transportation support of the Food Program, too. The DOSAAF schools and clubs have a quite good fleet of motor vehicles. And here if, following the experience of the Uzbekistan motor vehicle schools, the routes of all the training trips were laid out with consideration of the interests of the agro-industrial complex, the DOSAAF students could transport a considerable qualtity of food cargoes and accelerate their delivery to the consumers.

The DOSAAF organizations are called upon to play an important role in questions of the social development of the village and in improving the cultural and domestic conditions of the rural population. Our party is consistently conducting a policy which is directed toward erasing the social differences between the city and the village. In the Food Program, it is pointed out that this line will be implemented on an even greater scale in forthcoming years.

Proceeding from the spirit and letter of the decisions of the May CPSU Central Committee plenum, many DOSAAF committees have determined practical actions for a further rise in the activity of the Society's rural organizations and are trying to pull their work up to the level of the best city collectives. Here, special attention is being devoted to the development of technical and applied-military types of sport as an important means for accustoming the rural youth to equipment and as an attractive form of leisure time. What a pity that not all committees as yet have stood on these positions. Some continue to sway to and fro. Others resigned themselves to the lagging of kolkhoz and sovkhoz organizations and do not see approaches to the rectification of the situation which has been created. And meanwhile, there are ways for this, and these are reliable and proven ways.

The experience of Latvia, Stavropol' and the Vitebskites shows convincingly that with the proper concern of DOSAAF committees strong, capable collectives of the Society can occur in the kolkhozes and sovkhozes and motorcycle, motor vehicle, marksmanship, water-motor, radio, and other technical and applied-military types of sport can be rather widely cultivated there. In rural terrain, it is even simpler than in cities to lay out routes for automotocrosses, to organize motorboat races and flights on hang gliders as well as "fox hunts," and to construct an obstacle course. The fleet of mopeds, motor vehicles, motorcycles, motorboats and radio stations is increasing with each passing year in the towns and villages. And as regrads the desire of the peasant youth to measure themselves in skill and dexterity in controlling the "steel horse," there is no shortcoming in it. It is only necessary to focus themselves and direct themselves in the necessary channel as is done, for example in the "Lachplesis" kolkhoz of the Ogrskiy rayon of the Latvian SSR. There the DOSAAF organization is a noticeable social force. Its work is in sight: lectures and reports are given for the kolkhoz farmers on the behests of V. I. Lenin, the requirements of the Soviet constitution on the defense of the socialist fatherland, and on the combat traditions of the Soviet Armed Forces; meetings with war veterans are organized and motocrosses and competitions for teenagers for the "Golden Moped" prize are conducted.

Kolkhoz sportsmen participate in all-union and republic competitions. The strongest of them win the titles of champions of the USSR and the Latvian SSR. And what is most important, the DOSAAF members are shock workers on their sectors and are standing watch with enthusiasm in honor of the 60th anniversary of the USSR's formation and are striving to achieve the greatest results even this year in the accomplishment of the Food Program.

The task now is to raise the work of all rural defense organizations to the proper level. For this, the DOSAAF committees are required to put all levers into operation at full power, to use available reserves, to display greater initiative and purposefulness, to persistently generalize and introduce leading experience, to practice more widely the patronage of the best city collectives, to utilize more completely the favorable economic conditions being created by the development of agrotechnical complexes, to maintain closer ties with the Komsomol and sports organizations, to rely more strongly on trade unions and administrators, and to consult more often with party organs. It is impossible to solve this matter by fits and starts; it requires a thoughtful approach and systematic, unremitting attention.

"In order for our creative plans to be realized," Comrade L. I. Brezhnev pointed out, "we need to preserve peace." Therefore, our party and our state are continuing persistently and purposefully the struggle for strengthening the cause of peace and for the relaxation of international tension--political and military detente. At the same time, the CPSU and the Soviet government will maintain the country's defensive capability at the proper level in the future, too.

Our Armed Forces are standing vigilant guard over the peaceful labor of the Soviet people. The twice order-bearing Defense Society is their reliable assistant and reserve. Active assistance in the strengthening of the country's defensive capability and the training of the workers for the defense of the multinational socialist fatherland--this is DOSAAF's main contribution to the national cause of the struggle for realization of the Food Program. And this contribution will be more ponderable the more the DOSAAF organizations will devote attention to work with the youth, its training for service in the Armed Forces, the broad attraction of boys and girls to the study of the principles of military affairs, to their passing of the standards of the complex "Ready for Labor and Defense," and to pursuits in technical and applied-military types of sport. Contemporary conditions require the defense organizations to display special activity in military-patriotic work and to be constantly concerned about raising the political vigilance of the Soviet people.

The Defense Society's participation in the carrying out of the Soviet Food Program, unquestionably, will find its reflection in the work of the forthcoming 9th DOSAAF Congress. The Congress will sum up the first results and define in detail the role and place of the Society's collectives in this important national matter and the forms and methods for their practical activity for the next decade.

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## MILITARY PATRIOTIC TRAINING IN MIDDLE SCHOOLS DESCRIBED

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) p 39

[Article by A. Averin, chief of Department of Primary Military Training, USSR Ministry of Education: "A Single Process of Instruction and Education Is Being Accomplished in the Schools of Tula Oblast"]

> [Text] In the decisions of the 26th CPSU Congress and the decree of CPSU Central Committee, "On further improvement of ideological and political-indoctrinational work," great attention was devoted to the military-patriotic indoctrination of the youth. Recently, the board of the USSR Ministry of Education examined and approved the experience of the schools of Tula Oblast in the training and indoctrination of the motherland's future defenders. This is discussed in the article being published.

First of all, I should like to call attention to the fact that work on the militarypatriotic indoctrination of pupils in the schools of Tula Oblast is conducted in accordance with combined plans which are drawn up by associates of organs of popular education, principals of secondary schools and their deputies, teachers, and military instructors for each training year. These plans are coordinated with oblast, rayon, and city military commissariats, Komsomol and DOSAAF committees, patronizing troop units, enterprises, sovkhozes, and kolkhozes.

Current planning in the schools is accomplished by training quarters. We also note that individual plans are also created in connection with the most important events and dates in the life of the country. For example, in 1981 special plans of measures on preparation for the celebration of the 40th anniversary of the routing of the fascist-German aggressors at Moscow and Tula and the 60th anniversary of the USSR's formation were approved.

A good help in the indoctrination of schoolchildren is the training-material base for primary military training: all secondary schools have military offices, and many of them--classrooms for civil defense and medical-sanitation training, and they have weapons, instruments, equipment, and technical means of instruction authorized by the tables. Forty-three museums and 92 rooms, 48 halls, and 247 corners of combat glory have been created.

The organs of popular education and the oblast advanced training institute for teachers (IUU) regularly study and disseminate leading experience, in particular of the Donskiy and Shchekino city departments of popular education, the Teplo-Ogarevskiy rayon department of popular education, many principals, military instructors, and teachers of medical-sanitation training. Oblast, rayon, and city mass media tell about them and the oblast department of popular education together with the oblast military commissariat issue special information bulletins which tell about the leaders. For successes attained in primary military training and militarypatriotic and mass defense work the best pedagogical collectives, teachers and military instructors, and leaders of school public organizations are awarded challenge red banners, pennants, cups, certificates of honor, and memorial gifts. The schoolchildren are stimulated by excursion trips to the places of revolutionary, combat, and labor glory of the Soviet people. Questions of military-patriotic work are considered regularly at pedagogical councils, seminars of class leaders, and Komsomol meetings and, in a number of schools, in lecture bureaus for parents.

The basis of the military-patriotic indoctrination of the pupils in the oblast secondary schools is the profound explanation of the decisions of the 26th Party Congress and the decrees of the CPSU Central Committee and the Soviet government on questions of domestic and foreign policy, the strengthening of the country's defensive capability, the Lenin teaching on the defense of the socialist fatherland, and the revolutionary, combat, and labor traditions of our people. The tasks of military-patriotic indoctrination are defined in the programs of all training disciplines. The majority of the teachers are implementing these requirements successfully and are stressing the attention of the schoolchildren to the significance of the knowledge which they are receiving for the accomplishment of their civic duty.

The broad use of materials collected by the schoolchildren themselves by the teachers on the lessons furthers the rise in the role of humanitarian disciplines in the ideological-political and moral-psychological training of the pupils for the defense of the motherland to a great extent. These are documents, letters, recollections of participants in the Great Patriotic War, and relics found at the locations of battles.

On lessons on mathematics, physics, chemistry, biology, and others the teachers stress the priority of the scientists and inventors of our country in the development of science and technology and they show, using specific examples, how these achievements contributed to the strengthening of the motherland's economic and defensive might. Thus, in practice, inter-subject ties with primary military training are set up. It is also necessary to note that much attention is devoted to the physical hardening of the youths in the Tula schools.

Unquestionably, the central place in the military-patriotic indoctrination of the pupils is occupied by NVP [primary military training]. For its direct and immediate task is the training and indoctrination of future servicemen.

The majority of the military instructors are coping well with their difficult duties. Let us refer to the example of the military instructor of Secondary School [SS] No 25 of the city of Tula, V. Batishchev. He sees that the boys and girls feel deeply and understand the thought expressed at the 26th Party Congress: "The firm alloying of high technical equipping, military skill, and invincible morale--this is the

combat potential of the Soviet Armed Forces." On lessons, he makes wide use of materials on participants in the war, Tula heroes, and men who accomplished exploits in battles for the liberation of Tula Oblast from the fascist aggressors, phonograph records of speeches by V. I. Lenin and L. I. Brezhnev, motion picture films, and articles from newspapers and journals.

Tasks of military-patriotic indoctrination are being accomplished purposefully and effectively in the process of studying the course for primary training of the youth by military instructors V. Mel'nikov (SS No 6, Tula), I. Danilov (SS No 33, Tula), V. Sidorov (SS No 13, Shchekino), K. Soshnikov (SS No 1, Plavska), V. Proshchalykin (SS No 14, Bogoroditska), A. Yerokhin (Revyakinskaya SS, Yasnogorodskiy rayon), S. Zaychikov (Rovenskaya SS, Belevskiy rayon), and I. Yakovlev (Shilovskaya SS, Yefremovskiy rayon). Here, great attention is devoted to talks, political information sessions, reports, lectures, and thematic soirees ("V. I. Lenin and the CPSU on the defense of the socialist fatherland," "The Soviet Armed Forces--the reliable guard of socialism," "Your honorable duty," "The battle standards tell," and "No one forgets and nothing is forgotten," as well as to readers' conferences on the books by L. I. Brezhnev, "Malaya Zemlya," "Tselina" [Virgin Land], and "Vospominaniya" [Recollections] and to meetings with participants in the Great Patriotic War, veterans of the party, Armed Forces, and labor, and graduates of the schools of prewar and postwar years. Ceremonial parades devoted to the Day of the Young Antifascist Hero, months of mass defense work, soirees of memory, contests in political songs, olympiads, and quiz games are conducted.

On the days for celebrating the 40th anniversary of the routing of the German-fascist hordes at Moscow and Tula, lessons of courage were conducted in all schools on the subjects, "Our kray in the years of the Great Patriotic War," "The hero-city Tula," and "A word about an exploit," and special lessons were conducted which were devoted to the 40th anniversary of the cities' liberation and exploits of fellow-townsmen heroes and former students.

The pedagogical collectives and primary Komsomol and DOSAAF organizations of the Tula schools attach much significance to trips to places of revolutionary, combat, and labor glory in a fully substantiated manner. Last year alone, more than 25,000 pupils participated in these trips which took place where, at one time, fierce battles took place; they found and put in order dozens of common graves, became acquainted with many participants in the war, and looked for rich materials on the history, culture, and nature of their native kray. The youngsters are actively participating in the creation of the "Chronical of the Great Patriotic War." In many schools, the search is being conducted under the slogans, "A veteran alongside" and "An order in your home." About 1,000 expeditionary detachments have been created and are operating on the oblast's territory. They established hundreds of names of Soviet soldiers who fell in the defense and liberation of their native places.

The Komsomols and Pioneers of SS No 14 of Bogoroditska (principal V. Tkachev) are patrons for 245 veterans of the Great Patriotic War who reside nearby. The same work is also conducted in SS No 1 of Tula (principal V. Alifanova), SS No 12 of Donskoy (principal G. Golovleva), the Zhukovskiy eight-year school of Belevskiy rayon (Principal Ye. Balabolkina) and others.

The relics which are collected on the trips become exhibits of museums and rooms, halls, and corners of combat glory. They are genuine centers of military-patriotic indoctrination, in which regard, in a number of places not only of their own pupils, but also of all the youths of the village, settlement, and city. Thus, the school museum of the Volkhonshchinskaya SS, Plavskiy rayon, whose exhibits are devoted to the exploits of the men of the 10th Army and the defenders of the Brest Fortress, has already been visited by more than 10,000 people.

A significant contribution to the training of the motherland's defenders is being made by military-patriotic youth associations, for example, the inter-rayon "Club of the Future Serviceman" in Tula and the club "Young Artilleryman" with the Tula Higher Artillery Engineering School imeni the Tula Proletariat. Measures within the framework of the "Zarnitsa" and "Orlenok" military sports games also enjoy tremendous popularity among the youngsters.

Lessons in DOSAAF study groups and sections for military-technical types of sport substantially supplement primary military training. And their number in the schools is approaching 900. They encompass about 20,000 pupils. We note that along with military instructors and instructor-activists of the Defense Society, the lessons are conducted by hundreds of teachers, war veterans, and servicemen.

Military-patriotic indoctrination has a favorable influence on the training and discipline of the schoolchildren and contributes to the development of their public activity, realization of their responsibility for the fate of socialism, and the security and flourishing of the motherland. This compels the senior pupils to have a more serious attitude toward the course in primary military training which, unquestionably, influences the service of the Tulaites in the ranks of the Armed Forces. There are numerous comments from commanders and political officers of troop units which state that yesterday's pupils are successfully mastering difficult military equipment and armament and are becoming experts of combat and political training and rated specialists in short times. Each year, many graduates of the Tula secondary schools enter military-educational institutions.

Nor can we fail to mention the contribution which the schools of the oblast are making to the accomplishment of the Food Program. With the assistance of the DOSAAF organizations, last year alone hundreds of machine operators who are now working successfully in the kolkhozes and sovkhozes, in particular, were trained in them.

The organs of popular education and the pedagogical collectives of the Tula Oblast secondary schools are adopting measures for the further improvement of the militarypatriotic and international indoctrination of the student youth, now directing basic efforts toward a worthy greeting of the 60th anniversary of the USSR's formation and the 40th anniversary of the outstanding victories of the Soviet people and their Armed Forces in the Great Patriotic War.

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# DOSAAF TRAINING IN ARMENIAN SSR DESCRIBED

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) p 42

[Article by Maj Gen A. Kazar'yan, military commissar of Armenian SSR, Hero of the Soviet Union: "Under the Direction of the Military Commissariat"]

[Text] In accomplishing creative tasks in accordance with the program lines of the 26th CPSU Congress, at the same time the Soviet Union is conducting a strained, difficult struggle to maintain peace under conditions of a difficult international situation and growing opposition and frankly hostile actions on the part of the most aggressive forces of imperialism, first of all the United States and the other NATO countries. They are undertaking attempts for a frontal attack against the world of socialism and are trying to undermine the military-strategic balance which has formed and achieve military superiority over the USSR and the states of the Warsaw Pact, thereby attaining the possibility to dictate their will to other countries and peoples.

The anticommunism and anti-Sovietism of the West's reactionary circles and, first of all, of the United States as well as its accomplices are making the military danger the stern reality of our time. Under these conditions, the CPSU and the Soviet state are undertaking energetic efforts to restrain the arms race and overcome international tension. The situation which has developed in the world requires of the Soviet people high vigilance and the maintenance of the country's defensive capability at the proper level.

One of the conditions for ensuring the motherland's defensive capability and the combat effectiveness of its Armed Forces is the quality training of the youth for military service. Much attention is devoted to this in our republic. In which regard, the entire complex of measures connected with the training and indoctrination of the future soldiers and seamen is accomplished under the direction of party and soviet organs by military commissariats and DOSAAF committees.

The military commissariats are directing their efforts to seeing that the youth called up from the Armenian SSR, upon arriving with the troops, can master in the shortest time and to perfection difficult combat equipment and contemporary weapons and replenish the ranks of experts in combat and political training. We see that primary military training in the secondary schools, vocational and technical schools, and technical schools and the training of specialists in DOSAAF schools are organized most efficiently and exclude losses of training time. Personnel of the republic,

city, and rayon military commissariats check the quality of the lessons and devote great attention to the selection of military instructors and their raising of special and methodological training.

We try to recommend to the posts of military instructors basically reserve officers, primarily with a higher military or pedagogical education, and sergeants (master sergeants) of the reserve--recent rated specialists and experts of combat and political training. We consider the professional and political qualities of a person and the level of his military knowledge.

We understand, of course, that it is not enough to select military instructors from questionnaires and to have a talk with them prior to their appointment to the post. They need assistance, and the military commissariats render it. We send newly appointed military instructors to development assemblies at a troop unit. There, the comrades are acquainted with equipment and weapons, with the procedure for the conduct of lessons on subjects of the primary military training program, and so forth.

Each year, all military instructors are involved in five-day training-methods assemblies and three-day seminars. There the results of the work are analyzed, new tasks are planned, lectures are given, and so forth. The military instructors supplement their knowledge.

We place special stress on instructor-methods lessons. They are of great value, especially for young teachers, significantly accelerating their pedagogical growth. The military commissariats conduct such lessons monthly, as a rule on the eve of the study of new subjects. Such a practice completely justifies itself since it helps raising the methodological training of the military instructors and, naturally, the quality of instruction of the youth.

For the work on increasing the knowledge and methodological skills to be conducted productively, it has become our rule to send a certain number of military instructors each year to courses to raise their qualifications with the advanced training institute for teachers. In the republic, methodological councils are operating with the military commissariat of the Armenian SSR, Ministries of Higher and Secondary Special Education and Education, and with the rayon (city) military commissariats.

The thorough organization of measures which are called upon to assist the military instructors in improving methodological skill also furthers a rise in the quality of primary military training. For example, five-day training-methods assemblies on the base of the Dilizhanskiy radio-technical technical school proceeded interestingly and instructively. The military instructors learned much that was new and attended demonstration lessons on the most difficult subjects of the program.

It is not by chance that the assemblies were conducted on the base of this technical school. Its military instructor, Lieutenant Colonel (Reserve) N. Prokhorenko, was able to lead the educational institution up among the leaders in all aspects of primary military instruction in a short time.

Another colleague who is also an army veteran--the military instructor of Secondary School No 3 in the city of Leninakan, Lieutenant Colonel (Reserve) A. Drobnyy--is a match for him. He enjoys great respect among the youngsters and can mobilize them for the accomplishment of any task. Together with them he created a good training base and a museum of revolutionary and combat glory which bears the name of S. Shaumyan. It is important to stress that the principal of the school, S. Khaladzhyan, a former Kovpak partisan, completely supports the military instructor and participates personally in the military-patriotic indoctrination of the pupils.

In monitoring the course of primary military instruction, the military commissariats turn attention to the use of technical means of instruction, motion pictures and film strips in the training process and they disseminate leading experience. Thus, on one of the seminars the military instructor of Secondary School No 2 in the city of Echmiadzin, Major (Reserve) V. Vartanyan, told how films help to save lesson time and, at the same time, to raise its quality.

One of the best in the republic is the military instructor of Yerevan Secondary School No 32, Hero of the Soviet Union and Colonel (Retired) A. Manukyan. Many of his alumni entered military schools and became officers.

Great successes in primary military instruction and in military-patriotic indoctrination of the youth were attained by Leninskiy rayon of the city of Yerevan which was awarded the Challenge Red Banner of the Komsomol Central Committee for this work. The rayon's military commissar, Colonel L. Karapetyan, and an officer of the military commissariat, G. Mnatsakanyan, devote much attention to these problems. The same can be said of the military commissars of Echmiadzinskiy rayon, Lieutenant Colonel E. Khechoyan, and of Abovyanskiy rayon, Lieutenant Colonel V. Pogosyan.

The military commissariats and military instructors are conducting considerable work on the professional orientation of the youth. In the educational institutions there are displays which tell about military schools and the conditions for acceptance in them. Meetings with veterans of the war and the army and with officer candidates are conducted. The officers of the military commissariats give lectures in schools and technical schools about our Armed Forces and about the difficult and honorable profession of officer.

In this work, just as in the entire complex of measures on indoctrination of the youth, the military commissariats cooperate closely with DOSAAF committees. And really, it cannot be otherwise. For having an excellent technical base, the organizations of the Defense Society are training specialists for the Armed Forces and are bringing them up in a spirit of love for the motherland and as patriot-internation-alists.

As we see, there are successes in the activity of the military commissariats. But, unfortunately, there are also shortcomings. In particular, not all draftees master the Russian language in sufficient measure.

There are also other shortfalls. To eliminate them in the immediate future and give the country's Armed Forces excellent replacements is the most important task of the republic's military commissariats. And we are accomplishing it.

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# LECTURE ON 100MM MT-12 ANTITANK GUN

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) p 43

[Article by Col-Engr V. Knyaz'kov: "The MT-12 100mm Antitank Gun"]

[Text] This gun is intended for combating tanks and for the destruction of enemy self-propelled guns, armored personnel carriers, and other armored weapons. It can be used for firing against armored turrets and embrasures of pillboxes and earth-andtimber strongpoints, and for the destruction of personnel.

The structural arrangement of the gun is accomplished in accordance with the classical scheme: the tube with the breechblock is placed on a carriage. We will speak a little later about the differences which are not noticeable externally but which influence the combat capabilities of this model.

The barrel consists of a smoothbore tube of a monobloc with a muzzle brake on the barrel, breech ring, and yoke. The gun carriage includes: the cradle, counter-recoil mechanism, upper carriage, laying mechanisms, equilibrator, lower carriage with spring suspension, trails, wheels, gun shield, and sights.

The cradle is a cast cylindrical ring It is intended for directing the tube during recoil and counterrecoil. It rests reliably in the cradle and "rocks" together with it, as the artillerymen say, when angles of elevation and depression are given to the tube.

The counterrecoil mechanisms have recoil and counterrecoil buffers. They absorb the recoil energy, as a result of which the effect of the round on the carriage is reduced and the stability of the gun during firing is attained. They return (counterrecoil) the tube and other parts to the initial position and hold them in this position with all possible angles of elevation in the intervals between rounds and on the march.

The upper carriage is the base for the swinging part of the gun. The laying mechanisms (lifting and turning) and equilibrator as well as the gun shield are placed on it.

The breechblock is intended for locking the bore and firing the round. On this model the breechblock is semiautomatic (opening is accomplished manually only initially and then it opens automatically after each round) and of the wedge type. The wedge is a massive prism weighing 55 kilograms, the front face of which is slightly tapered. Therefore, the breech end of the barrel closes more and more tightly with the movement of the wedge. When the wedge is completely in place, that is, it occupies the uppermost position, the breech reliably closes the bore of the tube. The powder gases which are formed in the tube during firing no longer break through to the rear but will perform useful work, accelerating the shell to muzzle velocity.

Point-blank range of the MT-12 gun with a target height of up to 2 meters reaches 1,880 meters. It should be considered that the antitank gun conducts flat-trajectory fire, that is, it was created for the conduct of direct fire which is the most accurate and most effective.

Artillery rounds with various shells are employed for firing from the gun: armorpiercing subcaliber, shaped charge-fragmentation, and fragmentation-high explosive. Fixed artillery rounds are employed to increase the rate of fire.

Just what is an artillery round? It is the aggregate of a shell, fuze, powder charge, case, and igniter. Artillery rounds for this gun are joined into a single whole using the case and are therefore called fixed. Obviously, an analogy with the assault-rifle or pistol cartridges is appropriate here: the same form in principle but the dimensions are increased dozens of times. It is very convenient to load the gun with such rounds--in one procedure. Therefore, it is not surprising that the gun's highest rate of fire is 14 rounds per minute. The aimed rate of fire is somewhat less--six rounds per minute.

Now, let us become better acquainted with the ammunition. Let us examine, for example, the construction of a fragmentation-explosive shell. It is original. Let us recall that it was pointed out earlier that the gun barrel is a smoothbore tube. We stress: smoothbore, within the tube the traditional rifling which is inherent in the classical artillery piece is absent. Thanks to the rifling, a rotational motion is given to the shell, it does not tumble along the trajectory and, in the final analysis, the range of fire and its close pattern of shooting are increased.

How is the problem of stable projectile flight solved for this gun? Here, it is appropriate to recall the mortar. It also has a smoothbore tube, but the mortar round flies along the trajectory stably. It does not tumble because it is supplied with a stabilizer. The designers adopted the same solution when developing the shell for the 100mm antitank gun.

The fragmentation-explosive shell consists of a steel casing, stabilizer, nose fuze, and tracer. On the casing is a copper obturating band and three positioning bands. The obturating band fixes the position of the shell in the case mouth during chambering. There is an annular groove beneath the band. Its purpose makes great sense: when the case mouth is crimped, thanks to the groove the shell is firmly connected with the case.

During firing, when the shell moves in the gun bore, the blades of the stabilizer are kept in a folded position. As soon as the shell flies out of the muzzle end face, they open out and stabilize flight.

The fragmentation-explosive shell can hit a target at a range of up to 8,200 meters. The weight of the round with the shell is about 29 kilograms, and the weight of the shell itself is about 17 kilograms. The fuze can be set for fragmentation effect, explosive effect, and delayed explosive effect. Depending on this, it explodes on the surface of the obstruction or in its depth and destroys both targets disposed in the open or under cover.

This is a tracer shell, that is, it is equipped with a tracer. In general, a simple detail, but it performs an important function. The tracer is intended for observation of the shell's flight trajectory. When burning, it provides a fiery trace which can be clearly observed at any time of day.

In artillery there is the concept--maneuver of fire; sometimes they say--maneuver of trajectories. This is the gun's ability to change the direction of fire quickly within the broadest possible limits, in which regard, from one "point," without reemplacing or turning the gun. And in practice, this means shifting fire quickly from one target to another. Therefore, great significance is had here by the traverse. Thus, the horizontal traverse of the gun is 53-54 degrees, the maximum elevation is 19-21, and the maximum angle of depression--6-7 degrees.

The gun's authorized prime movers are the MT-L and MT-LB tracked prime movers. They easily transport a gun with a weight of 3,100 kilograms cross-country since the gun has an excellent suspension of the torsion type, and the clearance which this permits equals 380 millimeters.

We mentioned the torsion-type suspension of the gun. Briefly about its construction. The purpose of any leaf-type springs is obvious. Their "packets" can be seen beneath the body of every motor vehicle. But the 100mm antitank gun has no such leaf springs. And despite this, it can be transported under conditions of absolute crosscountry with a speed of up to 15 kilometers per hour. What is the secret? Instead of cumbersome leaf-spring "packets" steel bars with splines "concealed" within the lower mounting are used. The bars operate on torsion. The wheels of the gun roll over rough spots in the ground and all shocks are transmitted to the torsion bars which, twisting and untwisting, suppress the shocks and soften them. This permits increasing considerably the speed of towing the gun.

The gun can leave the firing position very quickly. Where does it begin? The section should prepare the gun for the march. The time to bring it from action position to march position is one minute. Over a good road, the maximum speed for towing the gun behind a prime mover may reach 70 kilometers per hour.

However, anything can happen under combat conditions. At times it is necessary to change firing position not when it is wanted, but when it is ordered. And it is necessary to move not only over highways, but also over soaked clay country roads, over virgin snow, or across a swamp. In order not to get stuck, a ski unit is used--metal welded construction with the broad runners of skis.

The use of the ski unit is extremely simple. The artillery section rolls the gun onto the skis with the wheels. Each wheel is fastened by slip-on chains. It is also important to be able to conduct fire from the skis. However, the section should keep in mind that in this case the horizontal traverse is decreased somewhat. When necessary, and if terrain conditions permit, the gun can be rolled on the battlefield by hand. For this purpose, placed under the trail is a small metal wheel which is usually fastened with a lock on the left trail.

On the whole, the MT-12 100mm antitank gun is a powerful artillery gun and a reliable means for destroying various armored targets in contemporary battle.

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### LECTURE ON NEW MARITIME NAVIGATION SIGNS

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) p 44

[Article: "New Navigation Signs"]

[Text] "System A," which envisions the introduction of new navigation signs, has now begun to operate at sea. Students of the DOSAAF naval schools, especially future steersmen-signalmen, must know them. They are divided into five groups.

The first group includes the so-called lateral signs. They are set out in accordance with the principle of guarding the sides of the channel. The port or starboard side of the channel is the name given to that side which is respectively on the left or the right of the vessel which is moving along the channel from the sea. The sides are protected by buoys or stakes. Numbers or letters can be placed on the bodies of the buoys. The numbering of the buoys (designation with letters) is conducted from the direction of the sea. Red signs are set out on the port side. The shape--the buoys are cylindrical or columnar or stakes. The topmark is a red cylinder. The light is red. The signs on the starboard side are painted green. The shape--the bouys are conical or columnar or stakes. The topmark is a green cone with the apex upward. The light is green.

Lighted and unlighted buoys and stakes serve as floating warning signs. In addition, signs emplaced on the ground are used. Depending on their purpose, floating warning signs are given certain shapes, colorings, and type of light. Buoys, signs, and stakes may have topmarks of a specific shape and color. Floating signs warn the seafarer of the presence of danger, forbid movement in its direction, and indicate a safe route.

The second group includes cardinal signs. They show the direction from which a guarded danger should be bypassed relative to the cardinal points of the compass; they are set out in one, several, or all sectors. The shape--the buoys are columnar or stakes. The topmarks are two black cones one above the other. In the northern sector, to the north of the danger: the topmarks are with the apexes upward; the coloring of the buoys--black on top, yellow on bottom. In the eastern sector, to the east of the danger: the topmarks are with their bases together: the coloring of the buoy is black with a wide yellow horizontal stripe. In the southern sector, to the south of the danger: the topmarks are with the apexes downard; the coloring of the buoys is yellow on top and black on bottom. In the western sector, to the west of the danger: the topmarks have the apexes together; the coloring of the buoy with a wide black horizontal stripe. The third group consists of signs which guard individual insignificant dimensions of the danger. They are set out directly over the danger. The coloring of the buoy is black with a wide red horizontal stripe. The shape--the buoys are columnar or stakes. The topmarks--two black spheres one above the other. The signs which guard individual insignificant dimensions of the danger can be bypassed from any direction.

The signs of the fourth group mark the initial points and axis of the waterway (channel) and the middle of the passage. The coloring--red and white vertical stripes. The topmark is a red sphere. The shape--the buoys are spherical or columnar or stakes.

Special-purpose signs are part of the fifth group. They are employed to mark or guard special areas or objects. The coloring is yellow. The shape--any buoys which are accepted in System A are barrels or stakes. The topmark is a yellow oblique cross.

The interpretation of the term "new dangers" is given in System A. This term is applied to dangers which have appeared or have been discovered, are not yet shown on the charts, and are not described in the sailing directions. The new dangers include natural or artificial obstacles (cliffs, banks, sunken vessels, and so forth). New dangers are guarded by cardinal or lateral signs. Set out on dangers which represent a serious threat to navigation is a backup sign which may be equipped with a radio beacon--a responder with the code signal "W" with a length of one mile on the radar scope. The backup sign may be removed after the receipt of sufficiently complete information about the danger.

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# LECTURE ON FUNDAMENTALS OF COMBAT OPERATIONS

Moscow VOYENNYYE ZNANIYA in Russian No 11, Nov 82 (signed to press 11 Oct 82) pp 44-45

[Article by Col N. Yendovitskiy: "The Foundations of Combat Operations"; passages rendered in all capital letters printed in boldface in source]

[Text] The military instructor begins the first lesson with the definition: what is contemporary battle, and what are its goals. Then he explains why contemporary battle which the Ground Forces conduct is called combined-arms. On a terrain model he can show the subunits of the sides and their actions (with conventional signs) and the showing of several excerpts from a motion picture (film strip) will also be extremely instructive.

During the years which have elapsed since the conclusion of World War II, the pattern of battle has undergone significant changes. Now it is characterized by the following basic features: resoluteness, intensity, fluidity, rapid and sudden changes in the situation, and nonuniformity of development frontally and in depth. In contemporary war the winner is only the one who masters all procedures and methods for its conduct to perfection, knows his weapons excellently and employs them skillfully, and operates actively, sparing neither moral not physical strength.

The military instructor should say that nuclear and conventional means of destruction or conventional means of destruction alone may be employed in contemporary battle. On a poster, he shows the students how the machinegun, grenade launcher, tank, gun, and so forth are designated conventionally.

After this, it is recommended that he name the basic types of battle: the offense and defense. However, the complete destruction of the enemy is attained only as a result of a decisive offense. It begins with the breakthrough of the defense or during a meeting engagement.

Using a previously prepared tactical situation on a terrain model (diagram), the military instructor sequentially explains the essence of the offense and defense and the methods and conditions for their assumption. In no small degree, success in offensive battle is determined by the high offensive spirit of the men, and in defensive battle--by their steadfastness, stubbornness, and self-control.

Prior to the attack, the squad receives the mission in which the attack objective (for example, an infantry group in a trench) and the direction of further advance are indicated. In the defense, a position is marked for the squad and an entrenchment is developed on it.

The second lesson is devoted entirely to the conditions which guarantee the successful accomplishment of the combat missions. First of all, the military instructor speaks of CONSTANT COMBAT READINESS which is ensured by the lofty political-moral condition and firm military discipline of the subunits; their complete manning; the presence and good working order of of armaments, combat equipment, and property; the necessary supplies of ammunition, fuel, and food; and the excellent state of training and coordination of the men. As Comrade L. I. Brezhnev stressed, "concentrated in the combat readiness of the troops, as in focus, are the tremendous efforts and material expenditures of the people to equip the army, the consciousness, combat training, and discipline of all servicemen, the skill of command personnel in controlling the troops, and much more. This, in the final analysis, is the crown of the troops' combat skill.in peacetime and the key to victory in war."

A no less important condition is COMPREHENSIVE KNOWLEDGE OF THE ENEMY. For this, constant reconnaissance is conducted with the goal of obtaining reliable and accurate data, and it is necessary to know the organization, combat capabilities, and tactics of the enemy's operations and his strong and weak sides.

DESTRUCTION OF THE ENEMY BY FIRE creates conditions for the successful accomplishment of the combat mission. The military instructor directs the attention of the students to the fact that neither movement nor maneuver can be accomplished without fire. If the influence of fire on the foe is stopped, initiative is lost and the advance is stopped.

The strength and effectiveness of fire are in the surprise of its opening, high accuracy, and the ability of the men to destroy the target with the first round. In telling about this, at the same time the military instructor should show on a terrain model that flanking and cross fire are the most effective.

The next important condition for the attainment of victory in battle is the SURPRISE AND DECISIVENESS OF OPERATIONS. Why? The military instructor poses this question for the students and they try to answer it independently. Having listened to them, their answers should be supplemented by examples from the Great Patriotic War. In particular, he should recall the first employment of the "katyushas" at Orsha and then should say that surprise is attained through secrecy and the speed and boldness of actions and by the ability to destroy the enemy by fire instantaneously and accurately, overcome the most difficult obstacles, impose one's will on the enemy, and employ tactical procedures hitherto unknown to him.

One more condition is MANEUVER IN BATTLE. It is recommended that the military instructor first relate that famous Russian military leaders, Peter I, Suvurov, and Kutuzov, constantly taught the soldiers to combine bravery with well-considered maneuver in battles and, on a terrain model, he should demonstrate how a maneuver of fire, forces, and weapons is executed. Its essence is outwitting and destroying the enemy. For this, the soldier continuously conducts observation, moves covertly, and conducts accurate fire. On the battlefield, there can be no victory without COORDINATION. It is necessary for the military instructor, on the basis of an example, to show the consequences which may result even from a brief disruption of coordination and to inform the trainees how important it is to know reference points and signals for its maintenance.

In the same methodological sequence, also explained to the future servicemen are the conditions which ensure the successful accomplishment of combat missions such as SKILLFUL ACTIONS AT NIGHT, THE STRUCTURE OF THE COMBAT FORMATION, and DEFENSE AGAINST INCENDIARY WEAPONS.

The third lesson is devoted to the march and combat formations and supporting combat operations.

Discussed first is the march formation. The military instructor provides its definition and shows on a diagram how it is organized and he lists the requirements which are imposed on it. Here, it is noted that the squad's march formation in single file is also its approach-march formation. It is very important that the trainees understand the place of each soldier in dismounted formation and in the infantry fighting vehicle.

Then he should provide a definition of a combat formation, should show it on a diagram, and explain how each soldier takes his place after restructuring from a march (approach-march) formation to a combat formation. The students remember that intervals of 6-8 meters between the men in a skirmish line ensure coordination between soldiers and voice control of the squad.

The military instructor shows the combat formation in the defense on a terrain model: the position and the squad entrenchment developed on it and the firing position of the infantry fighting vehicle (armored personnel carrier). The procedure for engineer improvement of the position is not disclosed. The trainees' attention is directed to the emplacement of the men who, with their fire, should destroy the enemy on the approaches to the FEBA [forward edge of the battle area], on the FEBA, and when penetrating the defense.

The goal of supporting combat operations is to prevent a surprise attack by the ground and aerial enemy and to give the subunits the opportunity to enter battle on time and in an organized manner and to wage it in any situation. It includes reconnaissance, protection against weapons of mass destruction, security, camouflage and concealment, and engineer, rear-services, and technical support.

After this introduction, the military instructor explains sequentially and briefly each form of combat support, at the same time confirming his words with the showing of posters, the creation of various situations on a terrain model, and by examples from the experience of the Great Patriotic War and exercises.

The most important type of support is RECONNAISSANCE which is constantly conducted under any conditions. Its data should be timely and reliable, especially information on the location of weapons of mass destruction. Therefore, the personnel assigned to reconnaissance should operate covertly and boldly and display resourcefulness, initiative, and military cunning. PROTECTION AGAINST WEAPONS OF MASS DESTRUCTION. It is attained through the skillful use of individual protective equipment, the protective properties of the terrain, and its engineer improvement. All men are required to know the warning signals.

CAMOUFLAGE AND CONCEALMENT conceals the true position of the subunits from the enemy and deceives him. It is used to attain the surprise of combat operations and preserve combat readiness. It is ensured by the strict keeping of military secrets, the correct adaptation to the camouflage properties of the terrain, and by the observance of camouflage discipline.

The role of ENGINEER SUPPORT has increased significantly in contemporary battle. The measures included in it permit creating advantageous conditions for the actions of subunits in battle, reduce the results from the employment of weapons of mass destruction (OMP), and hamper the enemy's maneuver. For this, the men are required to dig in quickly and competently, improve the position, overcome obstacles, and accomplish work in eliminating the aftereffects of the enemy's employment of weapons of mass destruction.

REAR SERVICE AND TECHNICAL SUPPORT contribute to maintenance of the subunits' high combat readiness. When necessary, each man participates in carrying up ammunition; he is required to have the skills for rendering self- and mutual assistance, know the entrusted equipment to perfection, and to be able to service it and eliminate malfunctions which have been disclosed.

On the fourth lesson, the trainees are acquainted with the control of the squad and with the duties of the soldier in battle.

First, the military instructor announces that success in battle depends on the clarity and continuity of control and he provides a definition of its essence. After telling about the content of the squad leader's work in organizing the battle, it should be stressed that the adoption of a decision is the most difficult and important moment in control. It requires wise initiative and the readiness to assume a certain risk and, the main thing--speed, for success will depend on this to a great extent. Marshal of the Soviet Union M. Tukhachevskiy said not without reason that in battle the decision which is late in being adopted is worthless and incompetent although it would have been ideally competent three hours ago.

On a terrain model (diagram) the military instructor shows the place of the squad leader in the attack and in the defense and he explains that he is located in the combat formation in the immediate proximity of the machinegunner and grenade launcherman. In this way, he assigns missions to them in time. Control is accomplished by voice or signalling means. To obtain commands (signals) from the platoon leader, an observer is appointed and a messenger is sent out.

Convinced that this question has been understood and mastered, the military instructor dwells briefly on fire control and shows on a model how it is accomplished. Then he moves on to the duties of the soldier in battle and, in particular, he reminds the trainees that in contemporary battle the role of man, his moral and spiritual qualities, and his ability and physical preparedness have grown immeasurably. The duties of the servicemen are clearly defined in the Combat Regulations of the Ground Forces. The military instructor reads aloud from them and explains them. For example,

having told about the duty "to know the combat mission of the platoon and squad and their own missions, the combat capabilities of the enemy's tanks, combat vehicles, and antitank weapons, and their strong and weak aspects," he can give the following questions to the students: "What does it mean? Why should the soldier know the mission of the squad and even of the platoon?"

In summing up the results of what has been said by the trainees, it should be noted that only an understanding of the assigned mission permits the serviceman to display initiative, sharpness, military cunning, and resourcefulness in battle, to attain success despite all sudden changes in the combat situation and unexpectedly arising difficulties and obstacles, and in case the commander is put out of action, to assume his duties boldly.

"In the course of battle, to conduct observation attentively and, having detected the enemy, immediately report this to the commander"---this obligation means first of all that one should be vigilant always and in everything.

In explaining the duty "to operate boldly and decisively in the attack and to defend steadfastly and stubbornly," the military instructor should present examples of the resolve, steadfastness, and stubbornness of the Soviet servicemen in the years of the Great Patriotic War.

"To destroy the enemy with all methods and means and display bravery, initiative, and resourcefulness." Mentioning this duty, the trainees can be offered the opportunity to tell how they personally perceive it.

In continuing the narration, the military instructor directs the attention of the pupils to the fact that for the successful accomplishment of all duties the soldier stubbornly masters his combat specialty, drills persistently, generates lofty moral-combat qualities within himself, and raises his physical tempering and endurance.

In conclusion, we advise calling on the trainees to study thoroughly the duties of the soldier in battle and to improve them on practical and field exercises.

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#### CHANGES IN DOSAAF REGULATIONS

Moscow SOVETSKIY PATRIOT in Russian 17 Apr 83 p 2

[Editorial comment on DOSAAF Charter changes]

[Text] The editors often receive letters asking us to discuss the changes made in the DOSAAF Charter by the 9th All-Union DOSAAF Congress and explain some of its provisions. The following is our first discussion of the Charter.]

The requirements of the Charter are DOSAAF's guiding principles. The Charter was adopted by the 5th All-Union Congress (1962). Guided by the goals set forth by the Party congresses, the CPSU Central Committee plenums, the directive of the CPSU Central Committee and the USSR Council of Ministers dated 7 May 1966, the Universal Military Service Regulation, the directives of the new USSR Constitution and other guiding documents, the 6th (1967), 7th (1971), 8th (1977) and 9th All-Union DOSAAF Congresses made changes in the Charter. These changes were directed primarily toward further development of the democratic principles in the activity of the DOSAAF organizations and their executive bodies.

In the article of the Charter on general principles it is emphasized that DOSAAF is guided in all its activities by the principles of the CPSU program and the directives of the Communist Party and the Soviet government concerned with strengthening the defense capability of the USSR and its armed forces, and that DOSAAF adheres to the USSR Constitution and Soviet laws.

The obligations of the DOSAAF organizations are spelled out more clearly in the modified Charter than in the previous version. It has been noted that the provisions of the Charter clarify for the DOSAAF members the precepts of V. I. Lenin, the requirements of the CPSU, the principles of the USSR Constitution on defense of the socialist homeland, and that they outline DOSAAF's role in active collaboration in strengthening the defensive capability of the nation and in preparing the workers for defense of the socialist homeland.

In accordance with the USSR Universal Military Service Regulation, in its educational organizations DOSAAF prepares specialists for the USSR armed forces, acquaints young people with the Soviet servicemen's way of life and with the equipment and armament of the various military units, organizes academic and field training of the pre-inductees and inductees and the conduct of para-military activities. DOSAAF exercises training and procedural manageemnt of the initial military preparation of the inductees at the training stations and provides assistance to the training schools in organizing the initial military preparation of the inductees.

It is established in the Charter that the DOSAFF committees select, train and indoctrinate the staff personnel, develop the initiative and independence of action of the DOSAAF members and encourage participation by the community activists in the DOSAAF efforts.

With the objective of further development of the technically-oriented and paramilitary forms of sports activities, DOSAAF organizes the operations of the sport federations, sections, collectives and teams, conducts "spartakiads" and sports competitions, displays and contests, and also other sports activities. Together with the Komsomol organizations and the sports organizations, DOSAAF prepares and disseminates to the general public the GTO [Ready for Work and Defense] plan standards.

The work carried out by the DOSAAF organizations is directed toward increasing the effort involved with creating and strengthening the material and technical infrastructure. This is one of the important Charter requirements and must be implemented by all the DOSAAF organizations.

In performing its tasks DOSAAF establishes and strengthens its relationship with the community organizations, ministries, and state committees and departments. Together with the trade unions and Komsomol, DOSAAF supervises socialist competition in its organizations.

The changes made by the 9th All-union Congress in the Charter strengthened certain principles relating to the rights and obligations of the DOSAAF members.

The Charter states that the guiding principle in the organization and activity of DOSAAF is democratic centralism.

The highest executive bodies of the DOSAAF organizations are: for the primary organizations--general assembly of their members or conferences; for the rayon, city, okrug, oblast, kray and autonomous republic organizations--corresponding congresses; for the DOSAAF organizations of the union republics--congresses; for DOSAAF--All-Union Congress.

The Charter directive stating that the committees of the corresponding organizations are elected for managing the day-to-day activity of the DOSAAF organizations was modified. Audit commissions of the corresponding organizations are elected to monitor the financial and economic activity of the committees, the promptness and correctness of the resolution of claims, demands and complaints, and the organization of the reception of visitors.

At the present time, in accordance with the changes made by the 9th All-Union Congress, the elections of the committees (presidents and their deputies) and

audit commissions (auditors) not only of the primary, rayon, city and okrug organizations but also of the oblast, kray and republic DOSAAF organizations, and also the elections of delegates to the higher-level conferences, the congresses of the union republics and the All-Union DOSAAF Congress, are conducted by open voting.

The elections of the USSR DOSAAF Central Committee and the Central Audit Commission of USSR DOSAAF are carried out by closed (secret) voting.

At the discretion of the assemblies, conferences or congresses the voting may be conducted for each office individually or by ticket. Candidates for whom more than half the participants of the assembly, conference or congress vote are considered elected.

The rights and obligations of the USSR DOSAAF Central Committee and of the other committees of the DOSAAF organizations were modified with account for the present-day requirements.

It was established that the plenums of the okrug, oblast and kray DOSAAF committees and of the DOSAAF Central Committees of the union republics are convened no less than once a year. The plenums of the rayon and city DOSAAF committees are convened no less than twice a year.

For management of the day-to-day operation of the DOSAAF organizations the corresponding committee elects a presidium, which is convened at established intervals, but no less than once every three months.

For management of the day-to-day activity of organizational and executive nature the presidiums of the oblast and kray DOSAAF committees and the DOSAAF Central Committees of the union republics elect from their membership bureaus in a number determined by the presidiums of these committees.

With the objective of increasing the role of the members of the USSR DOSAAF Central Committee and the DOSAAF Central Committees of the union republics and the members of the kray, oblast, okrug, city and rayon DOSAAF committees in carrying out the resolutions of the congresses, conferences, plenums, and for studying the urgent problems and developing proposals relating to the basic directions of DOSAAF activity the congress made a change in the Charter, calling for the creation of permanent commissions of these committees. They are approved by the plenums for the period of authority of the corresponding DOSAAF committee. The commission president and his deputy (deputies) are elected from the members of the commission.

Exceptionally important are the Charter provisions establishing the primary organizations as the foundation of DOSAAF. They are created at the place of work or training of the DOSAAF members: in the enterprises, on the state and collective farms, in the establishments and educational institutions, and in the housing management and housing operation offices if there are at least ten DOSAAF members. The directives relating to the DOSAAF committees of the primary organizations having no fewer than 3000 DOSAAF members were rewritten. At the discretion of the oblast and kray DOSAAF committees and the DOSAAF Central Committees of the union republics these committees [of the large primary organizations] may be given the rights of a rayon DOSAAF committee. The Charter states that for the management of the day-to-day operation of such organizations the corresponding committee elects a presidium consisting of the committee president and his deputy and presidium members in a number determined by the committee itself.

The presidium of the committees in the forementioned organizations is convened at intervals established by the presidium itself, but no less than once a month, and the committee plenum is convened no less than twice a year.

Reports and elections of the primary organization committees with the rights of a rayon DOSAAF committee are held once every two or three years.

The general assembly of the DOSAAF members is the highest governing body of the primary organization. Conferences may be held in the primary organizations having more than 200 DOSAAF members.

An important place in the DOSAAF activity is assigned to the audit commissions. They are elected by the corresponding congresses, conferences and assemblies and operate under the guidance of the superior DOSAAF committee.

The audit commissions (auditors) check the financial and economic activity of the corresponding DOSAAF committees and the directly subordinate thereto enterprises and organizations in the manner and to the extent prescribed by the Instructions for the Conduct of Audits in the DOSAAF System, they monitor the promptness and correctness of the resolution of claims, demands and complaints and the organization of the reception of visitors in the DOSAAF committee system.

The audit results and the practical suggestions relating to elimination of the identified deficiencies are submitted for review by the corresponding committee.

The Charter establishes the sources of financial support of USSR DOSAAF and the procedure for the expenditure of the funds in accordance with the approved (following the established procedure) financial plans (budgets) for the conduct of volunteer defense work; construction and outfitting of buildings and structures; acquisition, maintenance and operation of hardware and property; support of the DOSAAF committees and organizations, and also expenditures on incentive payments to the DOSAAF activists and on other measures in accordance with the Charter and applicable legislation.

An important task of the DOSAAF committees is to explain in depth to the DOSAAF members the provisions of the Charter and ensure undeviating adherence to the Charter, and to ensure further increase of the effectiveness and quality of the volunteer defense effort.

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DEP C-IN-C GROUND FORCES ON NEED FOR IMPROVEMENT IN TRAINING QUALITY

Moscow KRASNAYA ZVEZDA in Russian 16 Apr 83 p 2

[Article by Colonel General Kh. Ambaryan, deputy commander-in-chief of ground forces for higher educational institutions and commandant, ground forces VUZ's: "Our Main Reserve, VUZ's: Quality of Instruction"]

[Text] Practical experience itself has set the Soviet military school the task of raising the professional training of its graduates to a new level of quality. Commanders, political personnel and instructors are looking for ways to improve the practical skills of our future officers and to insure on their part a more thorough mastery of tactics, combat equipment and weapons. Recent years have seen no little accomplished in the way of achieving a rational distribution of time resources between training disciplines. A substantially greater proportion of this time-to no detriment, of course, to the theoretical aspects of trainee instruction-has been devoted to problem solving on site in the field and to exercises involving the actual use of weapons and equipment. Thanks to more detailed elaboration of training plans and schedules, students in today's higher combined-arms, armor and artillery command schools are receiving more tactical and specialized training than their predecessors. New possibilities are now available to our instructors: they are able to combine theory and practice more intimately and organically and place future officers more frequently in situations approximating those of actual combat. While it is still too early to be drawing far-reaching conclusions, the comments coming in from our troops indicate convincingly that corrections made in the training and education program intended to reorient it in a more practical direction are facilitating and accelerating the training of our young officers as future commanders.

The search for new and more effective methods of instruction and of improving the field training of our students has been particularly productive where instructors and commanders of trainee subunits (podrazdeleniye) take a unified approach to work with their people. Sources of great satisfaction have been check exercises conducted in the trainee battalions commanded by Colonel V. Yepishkin (Leningrad Higher Combined-Arms Command School imeni S. M. Kirov) and Major I. Aslanov (Baku Higher Combined-Arms Command School imeni Supreme Soviet of the Azerbaijan SSR). Of the results here we can say in a nutshell that these future officers have demonstrated a high state of field training.

People here demonstrate a concern for strict adherence to training plans, for insuring that each instruction session and exercise is supported with all required facilities and equipment, for effective correlation between practical exercise and classroom study

and for insuring an integral role for training norms in all drills and exercises. With the aid of subunit commanders, instructors are achieving high degrees of involvement on the part of trainees and developing in them a conscious attitude toward enrichment of their own personal funds of professional expertise. Training here is characterized by a rigid discipline, which is also to be found reflected in the education of these future officers. It occurs as no coincidence that these battalions are distinguished by cohesion, tight discipline and strict adherence to the requirements of combined-arms regulations.

The increase in the number of field exercises and in the amount of time devoted to tactics and special disciplines is an important step. But this in and of itself will not solve the problem. A great deal depends upon the use we make of each hour, each minute. There are instances in which we will find a well-organized, skillfully conducted two-hour training session of greater benefit to trainees than a poorly planned, inadequately supported 24-hour field exercise.

We have analyzed a number of combat vehicle driving exercises conducted at the Omsk Higher Combined-Arms Command School imeni M. V. Frunze and the Chelyabinsk Higher Armor Command School imeni 50-th Anniversary of Great October and come to the conclusion that the time losses here were substantial. They were due to poorly equipped tank training areas and attempts to bring methodological techniques characteristic of classroom instructional setting out into the field, prolonged explanations of various theoretical questions among others. In one particular six-hour exercise, for example, each trainee spent 20-25 minutes actually driving a vehicle, that is, they put a total of 7 per cent of the training time available to the use for which the exercise was directly intended. And this was all because only half the required number of vehicles was allocated for the exercise. Plans called for one thing, but they turned out entirely differently. We speak about efficient, economical use of the minutes, but then fritter away whole hours in idleness. In the meantime, the exercise looked well-organized as far as mere external appearances were concerned: our future officers were right there out in the tank training area just like they were supposed to be and just as if they were actually accomplishing training missions.

Today as never before we need to undertake thoroughgoing, principled analysis of the training process and an ability and a desire to get to the heart of things, to spot still untapped reserves. I recall one other exercise in this particular connection, a tactical training exercise in this case. Lieutenant Colonel V. Prisyazhnyuk was in charge of it. The instructor was trying, and the trainees were trying. Senior personnel who had been given responsibility for monitoring performance make their entries. But a good number of the students spent this exercise period doing absolutely nothing. In the period of an hour an instructor prepared an operational order with one of them who had been designated by the company commander. During the same period of time the rest of the students "studied" the terrain, neither exerting themselves mentally nor experiencing any sense of responsibility for the correctness of the decisions they made.

I had occasion to observe a similar situation on the occasion of a field fire exercise at the Ordzhonikidze Higher Combined-Arms Command School imeni Marshal of the Soviet Union A. I. Yeremenko. Since it was known that inspectors would be on hand, the people there had made particularly thorough preparations for the exercise. Specialists spent all evening and morning working on the range systems and equipment, but all to no avail: the automatic system wouldn't work. But Lieutenant Colonel Yu. Chaykovskiy decided to go ahead with the firing anyway. He assigned one group of trainees to monitor the time it took their comrades to accomplish their exercise mission. The exercise proceeded at not too swift a pace, and there was a nervousness in the air. The fact to be remembered here is that we are teaching our future officers not only good marksmanship, but also providing them models of exercise organization, methodological skill and strict training discipline. They should always have before them an example worthy of emulation.

When discussions get around to the subject of training our young officers you frequently hear people say we should be giving more attention to training them in the organization of combat operations and cooperation, things that constitute the core of their professional expertise. You hear the same thing in military educational institutions, at party meetings, service conferences, conferences on science and practice. You find complete agreement on this point, because these attitudes are conditioned by developments in the field of military affairs and by the demands of practical experience. But what do people mean when they say they think we ought to be giving more attention to one thing or another? Occasionally we incline a little more in the direction of giving more time to tactical, fire and technical training or to motor vehicle driver training. But the potential here is not unlimited. The graduate of our school who becomes responsible for the training and education of his subordinates will also need breadth of political knowledge, culture, knowledge of military pedagogy and psychology, high levels of general educational achievement and good general technical competence. So when it comes to exploiting still untapped reserves, we need to look for them in the area of intensifying our training and improving its quality.

Of decisive importance here become the methodological competence of our instructors, their continuous creative interaction with trainee subunit commanders and closecommunication with the troops. Progress in the area of publicizing and introducing new ideas and experience, unfortunately, is still poor. There is no system to our efforts here. Specialists within the ground forces system of military educational institutions, for example, have expended no little effort studying and generalizing from the fund of experience accumulated by our best command schools and leading departments and subunits. As investigation has revealed, however, not all instructors are taking advantage of it, and those that do will occasionally be found attempting to apply it without taking local conditions into account.

Monitoring of the quality of training on the part of commandants of military educational institutions, political organs and training departments is ineffective in a number of schools. A lot of training doesn't achieve its objective as a result. Training plans and schedules will be only partially implemented; a lot of time will consequently have to be spent in independent study and preparation to make up for these disruptions in the training schedule, which also involves an organization as a whole in crash efforts to catch up. All this inevitably creates gaps in the knowledge and skills of our graduates and entails certain moral losses.

To raise the professional training they provide their students to a new level of quality is now the foremost task of our military schools. Accomplishment of this task will require more rigorous, exacting analysis of what has been achieved, continuous improvement in the ideological and scientific level of the instruction they provide and the development in our military instructors of a keen nose for the new and innovative and a desire to turn all their students into politically mature, competent officers devoted to their duty.