MEMORANDUM FOR: The Director of Central Intelligence

FROM: John N. McMahon
Deputy Director for Operations

SUBJECT: MILITARY THOUGHT (USSR): The Problem of Restoring the Combat Effectiveness of an Army in an Offensive Operation

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article contains three separate articles dealing with various aspects of restoring the combat effectiveness of an army. The authors of the first part discuss the problem of preparing and launching missiles on contaminated terrain, and also of maintaining continuous control. For the latter, they propose setting up two equivalent control posts which can be moved up and deployed in sequence and from either of which control can be carried out as the situation requires. The second part discusses the importance of restoring reconnaissance forces and means in order to assess enemy capabilities relative to their own, and thereby determine the appropriate actions to be taken, while the third part deals with the problem of replenishing losses in materiel as a result of nuclear strikes, and examines the role of the war services in this. This article appeared in Issue No. 3 (79) for 1966.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned [Redacted].

John N. McMahon
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Intelligence Information Special Report

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SUBJECT
MILITARY THOUGHT (USSR): The Problem of Restoring the Combat Effectiveness of an Army in an Offensive Operation

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Summary:
The following report is a translation from Russian of an article which appeared in Issue No. 3 (79) for 1966 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The authors of the first part of this article are Colonel K. Kushch-Zharko and Colonel I. Velenets, of the second part, Colonel V. Volobuev, and of the third part, Lieutenant Colonel A. Goroshkov. This article contains three separate articles dealing with various aspects of restoring the combat effectiveness of an army. The authors of the first part discuss the problem of preparing and launching missiles on contaminated terrain, and also of maintaining continuous control. For the latter, they propose setting up two equivalent control posts which can be moved up and deployed in sequence and from either of which control can be carried out as the situation requires. The second part discusses the importance of restoring reconnaissance forces and means in order to assess enemy capabilities relative to their own, and thereby determine the appropriate actions to be taken, while the third part deals with the problem of replenishing losses in materiel as a result of nuclear strikes, and examines the role of the rear services in this.

Comment:
The SECRET version of Military Thought was published three times annually and was distributed down to the level of division commander. It reportedly ceased publication at the end of 1970.
The Problem of Restoring the Combat Effectiveness of an Army in an Offensive Operation

by

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Maintaining the constant combat readiness of combined-arms and tank formations in the course of an offensive operation is one of the most complex problems of operational art. Therefore, the article of Colonel N. POPOV on this topic is of some interest.∗

The restoration of the army's combat effectiveness after the first nuclear strike of the enemy acquires paramount significance for the success of an army offensive operation. This is explained by the fact that replenishing its losses in a short time by drawing on the reserves of the front will hardly be possible in this period. Naturally, the army may not have at its disposal, as the author asserts, three divisions capable of entering immediately into a decisive offensive. However, this does not at all mean that it loses its significance as an operational formation in this case and that it will be incapable of advancing with its remaining forces and means into the depth of enemy territory in order to take advantage of the results of our first nuclear strike. This is even more the case, as the opposing grouping of the enemy, obviously, will also incur no fewer losses and will not have advantages over the advancing troops, and in a number of cases it may find itself in an even more catastrophic situation.

The experience of exercises shows that missile units and large units that happen to be on terrain contaminated by radioactive substances cannot carry out missile launches for several hours, since the exit of personnel from the prepared shelters will lead to their heavy irradiation. It is

possible to compensate for the loss of combat effectiveness of the rocket troops under such conditions only by drawing on the aviation allocated for support of combat operations of the army. However, it is necessary to say frankly that this problem cannot be fully resolved until such time as missile units have the capability of operating in zones of radioactive contamination.

At the present time there is a situation which is difficult to account for. As is known, the decisive role in destroying the enemy belongs to the rocket troops. And at the same time they are the least protected not only from weapons of mass destruction but also from conventional bullets and fragmentation shells. It seems to us that the time has come to think about how to ensure the preparation and launch of missiles while the personnel of the rocket troops are working from shelters, and also how to increase the protection of launchers and other assemblies of the ground support equipment. Evidently this can be achieved by setting up fully automated and reliably protected missile systems and special vehicles for missile subunits. Missile equipment must cross water obstacles by organic means, have high cross-country capability on any terrain, and permit carrying out missile launches while it is on terrain with high levels of radiation.

One cannot agree with the assertion of the author that an effective way of restoring the fire power of any given grouping of the army is the maneuver of separate missile battalions drawn from the composition of the large units of the second echelon (reserve) of the army to reinforce large units of the first echelon. The divisions of the second echelon will be located at an average distance of 80 to 100 kilometers from the troops of the first echelon, and not less than five to six hours will be necessary for moving up missile battalions. In this time the situation can change drastically, requiring commitment of a second echelon division to battle on a new axis, and it may find itself without means of delivering nuclear weapons. Clearly, it is best for the commander of the army to assume the task of destroying the enemy with nuclear weapons in the zone of advance of divisions which have lost their missile launchers.

It will not always be possible or feasible, as the author proposes, to carry out the reorganization of missile subunits and establish out of the survivors one on the scale of an army, since this will take a lot of time. Besides that, even if only one surviving launch battery is left in each of the divisions, they will still be able to fulfill missile launching tasks. On the basis of them, it will be easier to restore the battalion than to form it anew.
We fully share the author's opinion that replenishing the losses of large units and units in personnel should be carried out at once with previously formed subunits. However, it seems to us that one cannot dismiss the replenishment of these with independent teams, especially of tank drivers and driver-mechanics. The requirement for them, as is known, will now be very great.

The author's recommendation to have a reserve (training) battalion for training drivers in the divisions and a reserve of crews (teams) in regiments appears tempting at first glance. In the last war, as is known, there were training battalions for training NCO and driver personnel in regiments and divisions. They justified themselves until we were conducting active offensive operations. But with the beginning of the advance of troops these subunits broke off training and marched behind the advancing units.

Under present-day conditions, during the conduct of highly mobile combat operations with high rates of troop advance, the training battalions will always have to be on the move behind the advancing troops. Besides that, being under constant enemy action, they will also incur losses. Therefore, the basic way to solve this problem should be considered to be the constant replenishment of troops with such specialists from front and army reserve units.

The ways recommended by the author to restore disrupted control deserve attention, however, some of them should be dwelt on in more detail. When the command post is taken out of action, control of troops of the army should undoubtedly be given to the forward command post. However, the forward command post cannot immediately take over control of all the large units of the army itself, since its available means of communications ensure reliable control of only two to three divisions of the main grouping, a missile brigade, and a few reserves. To ensure reliable control of all large units of the army from the forward command post, it is necessary to develop at it a second location for the communications center of the command post. Depending on the situation, this may take about two or three hours.

At crucial moments of an operation, and in particular after a first nuclear strike, loss of control for a few hours can lead to serious consequences. Therefore, we recommend that at the present time it has become necessary to set up two equivalent control posts in the army which can be achieved without a significant increase in communications means by allocating them more efficiently. These control posts can be moved and
deployed in sequence in the course of an operation; transferring the command personnel for control of the army from one post to another can be accomplished with the aid of helicopters.

Recently, there has been expressed in print the recommendation of establishing in the army, large units, and units nonorganic special detachments that are called upon to fulfill a number of tasks in restoring the combat effectiveness of troops. Such a method, in our opinion, is unacceptable for the following reasons. In order to successfully accomplish their tasks, the special detachments must be equipped with means for extinguishing fires, evacuating damaged equipment, breaking passages through obstacles, etc. But at the present time troops do not have at their disposal the forces and means to form such detachments. Thus, in a division and a regiment there are only five armored recovery vehicles apiece, and there are no fire engines. At the same time the establishment of nonorganic detachments will lead to the disruption of a significant number of engineer units, subunits for means of evacuation, and chemical and radiation reconnaissance subunits from accomplishing tasks in support of combat operations. Because of the insignificant speed of individual models of engineer equipment, which does not exceed 10 to 12 kilometers per hour, the detachments have poor maneuverability. Besides that, they are utterly unsuited to eliminating the aftereffects of an enemy nuclear attack on terrain contaminated by radioactive substances. Calculations show that at centers of air nuclear bursts, the detachments can begin operating in roughly four to six hours. They will not be able to approach individual centers of contamination at all because the technical equipment and clothing do not protect the personnel from penetrating radiation.

The elimination of the aftereffects of nuclear attack is connected with the performance of specific tasks in centers of fires, obstructions, and radioactive contamination of the terrain. Therefore, personnel must be specially trained beforehand, made cohesive and prepared in a morale sense for activities under such complex conditions. All this bespeaks the necessity of establishing organic components in units, large units, and an army.
There is no need to demonstrate that if the reconnaissance capabilities of an army are not maintained at a definite level in the course of an offensive that this will hinder and even prevent in individual cases the full utilization of the remaining (restored) nuclear strength and striking force of troops.

Considering that reconnaissance units and subunits will be operating in small groups dispersed over a considerable area and in direct contact with the enemy, and also on the flanks and in his dispositions, their losses may be up to 30 to 40 percent. In this context, control, communications with reconnaissance aircraft, the system of radio direction finding (radiotechnical fixing), and radio intercept may be completely or partially disrupted, and the reserves for special, deep, and combined-arms reconnaissance may be taken out of action. Incidentally, radio direction finding (radiotechnical fixing) becomes extraordinarily difficult and often even impossible when one of the radio direction finding (radiotechnical) posts is taken out of action, and radio intercept is disrupted when the first echelon platoons of the radio and radiotechnical reconnaissance companies of the divisions and the intercept centers of the separate OSNAZ radio battalions of the army are taken out of action. It should also be kept in mind that the personnel of reconnaissance units and subunits operating in zones of radioactive contamination in light armored vehicles, amphibious tanks, and special vehicles are two and one-half to three times more vulnerable to the effects of penetrating radiation and radioactive dust than the personnel of tank subunits.

All this can lead to a sharp reduction in a battle of these limited reconnaissance capabilities of the army right at that time when the greatest demands are being made on reconnaissance for timeliness, accuracy, and reliability of information which will ensure fulfillment of combat tasks with the minimum expenditure of forces and means. From what has been said, it follows that restoration of reconnaissance forces and means is one of the first priority tasks in the system of measures for restoring the nuclear strength and striking force of the troops of the army.

In our view, the optimal level of restoration of reconnaissance forces and means may be considered that which in a given operational situation allows timely and high quality fulfillment of the especially necessary set of reconnaissance tasks that provide the commander of an army with an objective evaluation of the enemy in making the most suitable decision for
inflicting destruction by fire on the most important targets and completing
the destruction of his ground grouping with forces and means that are
available at the given time. In other words, the capabilities of the
reconnaissance forces and means of the army must at any moment correspond
to the army's capabilities to use its nuclear means and troops effectively.

In the first phase of restoring the combat effectiveness of the army,
reconnaissance must ensure the delivery of single nuclear strikes by the
remaining missile means of the army and the exploitation of the results of
these strikes by the troops. In this phase the forces and means of
reconnaissance are restored fundamentally by measures carried out by the
army. Subsequently they must be restored in full (including measures
carried out by the front), since only in this case can the effective
utilization of fully restored nuclear strength and the build-up of efforts
of the army troops be ensured.

The times for restoring the forces and means of reconnaissance should
be determined with regard for the fact that, before the time for nuclear
means to be ready to deliver a grouped strike and the troops to exploit its
results, reconnaissance could obtain the necessary information about enemy
targets of destruction and the command could organize the appropriate
actions. In so doing, the time for restoring reconnaissance forces and
means can be regarded as the difference between the time required for
restoring full nuclear strength, necessary for reconnaissance and
transmission of its results, and the time spent by the commander on the
organization of destruction by fire.

Investigations carried out in this district show that the time to
restore the combat effectiveness of an army can take eight to ten hours for
restoration of nuclear strength, six to eight hours for restoring the troop
groupings (including the formation of composite divisional detachments);
two to three hours for the reconnaissance of enemy targets, and up to one
hour for the organization of destruction by fire by missile means. Taking
into account these calculations, it is possible to determine that
reconnaissance forces and means of the army must be fully restored in up to
five to six hours.

If one considers that the reconnaissance forces and means of divisions
will be fully restored in this same time, then by the time the forming of
the composite divisional detachments is finished, they will have the
capability to move reconnaissance efforts to a depth of up to 30 to 50
kilometers, which will have a positive effect on the use of the tactical
nuclear means and the composite detachments of the divisions.
At the start it is necessary to restore control of reconnaissance forces and means. Upon disruption of radio communications in the shortwave band as a result of high-altitude air nuclear bursts, it is advisable to switch to radio communications over radio sets in the ultra-shortwave band, and also to use messenger means of communications and helicopters. With the radio communications means at control posts being taken out of action, the army chief of intelligence can use the communications center of the command post of the separate OSNAZ radio battalion or the surviving reconnaissance control post of one of the divisions.

The experience of a number of tactical exercises and the materials of experimental games conducted in the academies in recent years show that such methods of restoring communications can have positive results if they are provided for in advance by army staffs, and the appropriate documentation on communications is worked out in advance for all lower detachments. Organization of radio communications on this principle with identical reconnaissance tables, orientation system, and coding charts can provide quicker restoration of communications between the reconnaissance section of the army and surviving (operating) reconnaissance subunits of divisions in the event that their control posts are taken out of action.

In place of receivers that have been taken out of action, it is possible under certain conditions to use the reserve radio sets having the appropriate frequency band of the separate OSNAZ radio battalion.

During the restoration of control and communications, reconnaissance has the opportunity to ascertain the level of the loss to its forces and means of their own capabilities, and to determine and carry out the steps which require immediate accomplishment. Falling into this category may be: immediate withdrawal of reconnaissance forces and means from zones of dangerous radioactive and chemical contamination; setting up of composite organs (mobile groups) out of the surviving reconnaissance subunits; elimination of the aftereffects of an enemy nuclear (chemical) strike, reallocation of reconnaissance tasks among the operating and newly formed reconnaissance organs; dissemination of reconnaissance data to users; restoration of a reserve of reconnaissance forces and means.

Withdrawal of reconnaissance forces and means from zones of dangerous radioactive and chemical contamination will be carried out in accordance with the army commander's decision for the continuation of combat operations. The sequence of withdrawal may be as follows. If radio direction finders and radiotechnical sets of peripheral subunits in the separate OSNAZ battalion of the army (in radio and radiotechnical
reconnaissance companies of divisions) are destroyed, then it is advisable to withdraw radio and radiotechnical subunits into the areas marked out for positioning of the main control posts of the army (division). If the system of radio direction finding (radiotechnical fixing) is not disrupted, then only the radio intercept means, the command post of the separate OSNAZ battalion, and groups to process the reconnaissance data of the radio and radiotechnical reconnaissance companies of the divisions are withdrawn into the areas. Here the radio direction finders (radiotechnical posts) or peripheral companies (platoons) are deployed into the new deployment areas. In the case where service radio communications between the radio reconnaissance subunits are carried out over ultra-shortwave sets, it is advisable to deploy the separate OSNAZ radio battalion on a shortened base-line (40 to 50 kilometers). Such a base-line will ensure stable control and direction finding of operating radio sets for the full depth of the battle formation of an opposing enemy grouping the size of an army corps. For intercept of ultra-shortwave and radio-relay communications at greater depth (to 80 to 120 kilometers) a special helicopter of the separate OSNAZ radio battalion may be used.

Special-purpose reconnaissance groups of the army which are in reserve at the command post are withdrawn from the zone of contamination along with the command post. It is advisable to move deep reconnaissance reserve groups, as well as reconnaissance groups of divisions and regiments, depending on the degree of losses incurred by them, into the areas of formation of divisional and regimental composite detachments (with losses that require reformation), or into future location areas of command posts of divisions (with insignificant losses which afford the possibility of being quickly replenished).

In new areas, fully replenishing the losses in reconnaissance specialists in the required time intervals by drawing on the means of the army itself is evidently not possible; neither in the army nor in the divisions are above-T/O communications officers, radio direction finder operators, computer operators, etc. Therefore, it is necessary to set up composite mobile groups of reduced strength from the remaining means of radio and radiotechnical reconnaissance, branch arms reconnaissance and special troops reconnaissance.

Restoration of deep reconnaissance groups of the divisions can be accomplished by filling them out with reconnaissance personnel of companies left without equipment. Here it is necessary to keep in mind that the group should be headed by a deep reconnaissance officer. Restoration of special reconnaissance forces and means of an army intended for drop by

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plane in search areas according to this principle is unacceptable, though, since the personnel of this special-purpose reconnaissance group (RGSN) must have parachute training. Evidently, here the special-purpose reconnaissance group has to be reduced to three or four members.

From the remaining reconnaissance forces and means of regimental companies, armored reconnaissance vehicle companies of reconnaissance battalions of divisions and reconnaissance Platoons of regiments, it is necessary to form composite reconnaissance organs headed by intelligence officers, with special attention given to providing them with means of communications. In some cases, reconnaissance groups of divisions and regiments can be formed by drawing on tank and motorized rifle subunits. This method of restoring reconnaissance was widely used and justified itself in the years of the Great Patriotic War.

In the course of restoring control of reconnaissance forces and means, withdrawing them from zones of contamination, and reorganizing them, measures are carried out to eliminate the aftereffects of enemy nuclear and chemical attack: decontamination treatment of personnel, radiation (chemical warfare) decontamination and running repairs of reconnaissance apparatus and equipment, rendering of medical assistance to victims.

In the process of restoring forces and means, the intelligence department, on the basis of directives of the commander (chief of staff) of the army, reallocates reconnaissance tasks among the divisions and reconnaissance means of army subordination in accordance with their actual capabilities. In so doing, part of the tasks that were previously accomplished by reconnaissance forces and means of army subordination may be entrusted to divisions that have incurred the fewest losses and are capable of beginning to fulfill the tasks in the situation which has arisen.

Full restoration of the reconnaissance capabilities of an army is possible only through measures carried out in its support by the front. In our opinion, it is advisable for this purpose to have in the front a reserve of aerial, special, radio and radiotechnical reconnaissance.

Taking on special significance is the prompt utilization of the aerial reconnaissance reserve in support of the army operating out of contact with the remaining forces of the front. Use of reconnaissance aircraft in this case will quickly compensate for the partial loss of the reconnaissance capabilities of the army for timely, uninterrupted acquisition of reliable information about the enemy. Positive results can also be obtained from immediate reinforcement of the army, which has been subjected to an enemy
nuclear strike, with helicopters, part of which can be used to carry out steps to restore reconnaissance capabilities. The use of helicopters to transfer airmobile reconnaissance subunits will permit accomplishment of a larger number of tasks with fewer forces, and in a short time. In so doing, the possibility emerges of switching reconnaissance efforts to new axes (areas) to uncover the most important enemy targets prior to the time required by the commander, staff, and fire means of the army to preempt the enemy in delivering strikes.

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In his article "The Matter of Restoring the Combat Effectiveness of an Army in an Offensive Operation," Colonel N. POPOV justly notes that the combat effectiveness of troops depends on their all-around operational, combat, and rear services support.

Fully agreeing with such a viewpoint, we shall try to dwell in somewhat more detail on the measures of this support in restoring the combat effectiveness of troops of an army.

Replenishing losses in materiel is one of the important tasks that arise after massed nuclear action by the enemy against army troops. It is necessary to discover quickly the requirements of all units and existing composite detachments and then, with the forces of the tactical, army, and front rear services, to furnish them with everything necessary for further fulfilment of assigned combat tasks.

It is possible that as a result of enemy nuclear strikes there will be complete destruction not only of materiel reserves but also of the rear services units and subunits of any given divisions, which will significantly reduce the divisions' combat effectiveness. From the quantity of its own mobile reserves, the rear services of the army can allocate the basic materiel -- ammunition and fuel -- to two divisions of the first echelon. This will provide them the capability of conducting combat operations for two days.

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Replacement of tactical rear services subunits that have lost their combat effectiveness can be accomplished by drawing on rear services organs of the army, second echelon divisions, surviving rear services subunits of regiments that have totally lost their combat effectiveness, and also composite rear services organs established from a number of seriously stricken rear services units and subunits. Naturally, in this case, as well as with the loss of combat effectiveness of the rear services organs of an army in the front chain of command, it is necessary to take immediate steps to reinforce the army with rear services units and restore the rear services of the army. To replace the army rear services that have been taken out of action or to reinforce some of its levels, it is advisable to have, in the composition of the front rear services, reserve rear services units and subunits. Not excluded is the alternative where a branch of a forward front base has to be attached completely to an army as an army base. In order to move army rear services units quickly and in organized fashion to replace stricken subunits of the tactical rear services, it is advisable to form groups of 30 to 40 vehicles each with all the basic materiel while moving the rear services columns of the army. Experience of exercises indicates that replacement of the destroyed rear services of divisions by employing army means requires about five hours if the forward army base is a distance of 60 kilometers from the troops.

With the disruption of delivery by ground transportation lines, air transport may become one of the main, and under certain conditions the only, type of transport on which the degree and timeliness of materiel support of the army troops will depend. Material delivered by air will be forwarded by forces of the front. For the landing of transport aircraft, airfields which have been seized from the enemy and prepared for combat aviation cooperating with the troops of the army should be used primarily, but specially prepared landing strips should be used as well.

To deliver "basic materiel" by air transport to three divisions operating on axes in the amount of their average daily requirement (2,500 to 2,700 tons) from rear services front bases, that is, at a distance of 500 to 1,200 kilometers, requires carrying out 200 to 250 sorties of AN-12 aircraft or two sorties of a military-transport air division. The main task of the rear services of the army in this case is the quick pick-up of the materiel being delivered by aviation. The experience of the Great Patriotic War showed that, because of the small number of loading and unloading teams and the lack of a sufficient quantity of vehicles at the loading airfields, aircraft delivering materiel sometimes stood empty for several hours. Such an abnormal situation was observed, for example, in the supply of the mechanized cavalry group of the First Belorussian Front.
in 1944, the First Cavalry Corps of this front in January, 1945, and the
Sixth Guards Tank Army in the Khingan-Mukden operation in 1945. Such a
situation under modern conditions is intolerable. Therefore, it is
advisable in some cases to transport by air materiel which has been loaded
on motor vehicles. This will somewhat reduce the full utilization of the
cargo capacity of the aircraft, but it will shorten times of distributing
cargoes to troops and make up for the troops' motor transport losses.

The experience of exercises shows that, with good organization of
loading materiel and picking up cargoes, its delivery by air can be
accomplished in eight to 12 hours, depending on the distance from the
airfields.

Under modern conditions, obviously, it is useful to have permanent air
transport komendaturas in the composition of the army rear services which
will ensure the selection, rapid preparation and servicing of temporary
airfields, and, what is very important, flight control of transport
aircraft in the area of these airfields.

The special nature of combat operations of units and large units along
axes, the deep maneuvering, and frequent change of the axis of operations
all give rise to the need for the army rear services to have their own
transport aviation: about 25 to 30 MI-6 helicopters which would have the
daily capability of delivering materiel to two divisions in the amount of
their average daily requirement.

In connection with the disruption of ground supply routes and the
complexity of delivering cargoes in large volume by air, it is necessary to
make thorough and effective use of local economic resources. Under certain
conditions of the situation they may be an important and sometimes basic
source of materiel support to troops and of partial restoration of the
combat effectiveness of the rear services. Therefore, it is very important
to investigate the economy of the theaters of military operations and the
possible utilization by troops of some particular resources. For instance,
analysis of the distribution and productivity of pipelines in the Central
European Theater of Military Operations shows that, in the course of an
offensive operation of our troops, up to 1,000 kilometers of pipelines may
be found in the zone of an army, and up to 20 to 40 fuel depots with a
total capacity up to 200 thousand cubic meters. Therefore, local fuel
resources may serve as a substantial supplementary source of supply for
army troops, and the widely developed network of pipelines in territory of
the NATO countries as a workable reserve for the transporation of fuel.
Another important measure of rear services support for the purpose of restoring the combat effectiveness of army troops is its participation in the elimination of the aftereffects of nuclear strikes, particularly in carrying out evacuation and medical measures.

To carry out medical-evacuation work in areas of the most massive employment of enemy nuclear weapons, the army can be reinforced with a few separate medical detachments (OMD) and other medical units and facilities transferable by helicopter.

The experience of exercises and the calculations performed show that one separate medical detachment can be transferred in 18 MI-4 helicopters.

To shorten the times of transferring detachments into the desired area it is advisable to use helicopters with greater cargo capacity or aircraft. But if air means are few, a reduced strength separate medical detachment should be transferred (a triage-evacuation section, dressing station for the seriously wounded, means of partial decontamination of personnel, a dispensary unit, and the administrative section with equipment and a supply of rations for one or two days). The separate medical detachments, reserves, as well as front mobile hospitals (500 to 1,000 beds each) and subunits of the ambulance battalion of the front should free the separate medical detachments of the army for support of further offensive combat operations.

The means of rapid evacuation of wounded and casualties from centers of enemy nuclear strikes will be first of all the aircraft and helicopters of the separate medical transport air regiment of the front. Their cargo capacity for one trip is 150 to 200 persons. In the course of a day the regiment can carry out three to four flights and evacuate up to 800 wounded. In addition, evacuation of wounded and casualties will be carried out by the military transport air group delivering materiel to the troops of the army.

Calculations show that on the return trips of military transport aircraft delivering materiel to one division in the amount of its daily requirement, 1,800 to 2,400 wounded and casualties can be evacuated. For this purpose the medical service of the army should develop evacuation reception stations in areas of airfields (landing strips).

We have examined part of the problems of restoring the combat effectiveness of an army and its rear services in the course of conducting combat operations. But it is necessary to keep in mind that also in
peacetime, for the purpose of raising the combat effectiveness of the army rear services, a number of questions must be resolved. For example, it is very important to equip the rear services in a timely fashion with means of transport offering the personnel a higher degree of protection from the casualty-producing factors of nuclear weapons, particularly from penetrating radiation, to increase the capabilities of the rear services to conduct radiation, chemical, and bacteriological reconnaissance of terrain and installations, as well as to carry out independent treatment with group and individual kits. It is necessary to have in the T/O of the army rear services a detachment which is equipped with high-speed engineer vehicles with cross-country capability which, until it is called upon for rescue work in eliminating the aftereffects of nuclear strikes, should fulfil engineer servicing functions for the rear services units and facilities of the army.

The possibility of using local resources in support of the army troops obligates the tactical rear services, in the course of combat training, to master the methods of exploiting the rear installations of the enemy and the equipment used at them and methods of restoring enemy pipelines and connecting our own pipelines to them.

For more effective use of local resources and capture of supplies of materiel by troops in the course of an offensive operation, it is necessary to conduct economic reconnaissance, having previously trained officer specialists in the field of military economics for this.

In increasing the tactical mobility of the army rear services and restoring their combat effectiveness, the organization of well-defined control of the rear services and in particular the organization of communications plays an important role. For this it is extremely important to introduce into the rear control post of the army special command-staff vehicles (based on the armored personnel carrier BTR-60P) to increase the range of communications from vehicles on the move three- to fivefold and ensure round-the-clock communications between the rear control post of the army and rear control posts of the divisions.