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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

20 June 1978

MEMORANDUM FOR: The Director of Central Intelligence
FROM : John N. McMahon
Deputy Director for Operations
SUBJECT : MILITARY THOUGHT (USSR): Combat Against
Enemy Nuclear Weapons in a Front
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". The article is actually two separate articles on the same subject. The first part states that Soviet rocket troops in a front offensive operation simply do not have enough nuclear warheads to destroy the enemy means of nuclear attack. Therefore, in addition to nuclear means the author advocates the use of chemical and conventional weapons along with improved aerial reconnaissance techniques. Dealing with the same problem in the second section of the article, the author believes that a reserve of reconnaissance means and of missile/nuclear weapons should be kept in constant readiness to augment the initial strike in a front offensive. Other solutions he proposes are the improvement of fire means and the establishment of specialized missile units or large units in the rocket troops. This article appeared in Issue No. 4 (65) for 1962.

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

John N. McMahon

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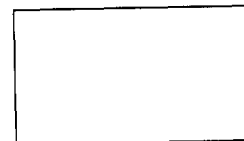
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Intelligence Information Special Report

Page 3 of 16 Pages

COUNTRY USSR

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DATE OF INFO. Mid-1962

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SUBJECT

MILITARY THOUGHT (USSR): Combat Against Enemy Nuclear Weapons in a Front Offensive Operation

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 4 (65) for 1962 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The article is actually two separate articles by two different authors writing on the same subject. The first portion, written by Colonel A. Lasenin, states that Soviet rocket troops in a front offensive operation simply do not have enough nuclear warheads to destroy the enemy means of nuclear attack. Therefore, in addition to nuclear means he advocates the use of chemical and conventional weapons along with improved aerial reconnaissance techniques. Dealing with the same problem in his section of the article, General-Major of Artillery F. Gorlenko believes that a reserve of reconnaissance means and of missile/nuclear weapons should be kept in constant readiness to augment the initial strike in a front offensive. Other solutions he proposes are the improvement of fire means and the establishment of specialized missile units or large units in the rocket troops.

End of Summary

[Redacted] Comment:

[Redacted] The articles referred to were disseminated as [Redacted] both in the IRONBARK series.

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Combat Against Enemy Nuclear Weapons in a
Front Offensive Operation

by

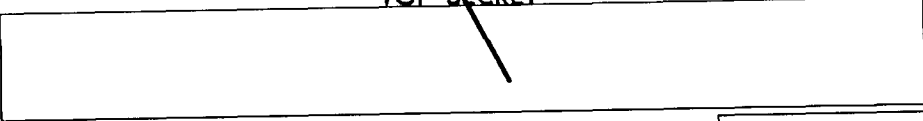
Colonel A. LASENIN

General-Major of Artillery F. GORLENKO

The articles of Chief Marshal of Artillery S. VARENTSOV and Colonel B. STRELCHENKO* raised the exceptionally important problem of combating enemy nuclear means in offensive operations. One can hardly overestimate the importance of this problem, since the success of front and army offensive operations will depend on the timely detection and destruction of the nuclear weapons of the enemy.

It is eminently clear that the task of combating the nuclear weapons of the enemy cannot be successfully carried out by any one branch of the armed forces or branch arm. Nevertheless, throughout all of the articles on this subject, as well as in the operational games and exercises which have been conducted in recent years, one cannot help but notice the tendency to have this task carried out primarily by the forces of the rocket troops with the employment of nuclear warheads. We must mention that in the articles and materials on the exercises there are indications of the need to allocate other forces and means to fulfil this task, but all the same, calculations are mainly being made for employing missile/nuclear weapons alone. This trend can hardly be regarded as correct because, in the first place, a front will not have an amount of nuclear warheads at its disposal which would be sufficient to accomplish the tasks which confront it in an operation, and, in the second place, it is more expedient to deliver strikes employing chemical and conventional means of destruction against certain enemy nuclear attack installations.

* Collection of Articles of the Journal "Military Thought", No. 5 (60), 1961.

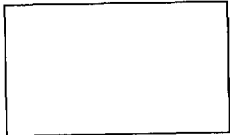


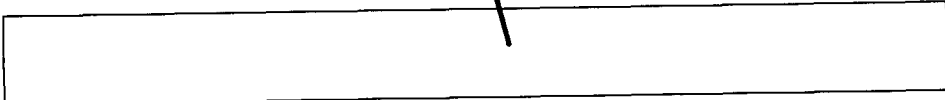
As a matter of fact, our probable enemy may have approximately 240 nuclear installations in the offensive zone of a front. If we assume that the majority of these consist of from three to four independent targets each, then the overall number of targets reaches 600. It is completely obvious that it is pure fantasy to calculate the destruction of such a number of targets with nuclear weapons alone.

Striving to carry out tasks of combating enemy means of nuclear attack mainly with missile/nuclear weapons leads certain authors to a rather unsound conclusion about the need to sharply increase the number of rocket troops in the composition of a front, army and division. For example, Colonel B. STRELCHENKO proposes setting up missile divisions in a front and army and increasing the number of tactical missiles two- to threefold in motorized rifle and tank divisions in order to raise the effectiveness of combating enemy nuclear means and unite it under a single command, as well as reduce the gap which exists between our army and the US army in the number of means for delivering nuclear warheads to target. We feel that the proposed reorganization of the rocket troops will not provide any advantages whatsoever over the existing organization, but on the contrary, it will lead only to an unnecessary increase in the number of launchers and personnel of the rocket troops.

~~It seems to us that the number of missile launchers can be different for each front, and can apparently be determined by the capability of delivering massed nuclear strikes for the purpose of carrying out the main tasks of a front offensive operation. During the pre-war period the number of rocket troops in a border military district (group of forces) can be determined by the need to deliver an effective initial nuclear strike. If the number of rocket troops ensures the successful fulfilment of this task, then in the majority of cases this same number will also be fully sufficient for a front to fulfil tasks during the course of an offensive operation.~~

The question arises as to whether we should compete with the Americans in increasing the number of means for delivering nuclear warheads to target. We feel that this is not necessary. In the course of an offensive operation a front will lack nuclear warheads more often than launchers. It is another matter that the rocket troops must be maximally protected from the strikes of

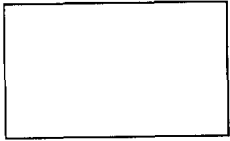


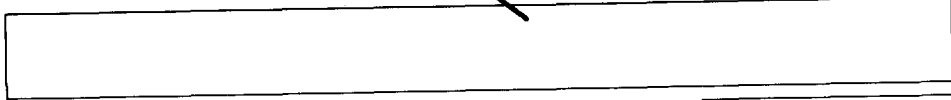


the enemy, for which they should be well-camouflaged, dispersed, and concealed in the ground as much as possible, and it is also necessary to skilfully set up a network of dummy launching sites.

□ All means of destruction employed by the rocket troops, artillery, aviation, tanks, airborne assault landing forces and diversionary forces must be utilized in combating the nuclear weapons of the enemy. For delivering strikes it is most expedient to allocate those forces and means which are capable of fulfilling the task most successfully with the least expenditure of materiel and in the shortest time limits.

X In the course of offensive operations, when from 30 to 40 percent of the time is spent moving the rocket troops of both sides to areas of new launching sites, and a large part of these are detected mainly while the march is being carried out, front aviation is designated to play an extremely important role in the reconnaissance and destruction of enemy missile/nuclear means which are in transit. It can also very effectively destroy his missile means and nuclear artillery in launch and fire positions by employing conventional means of destruction. Thus, for example, ~~approximately the following number of modern fighter-bombers are needed to destroy nuclear means by missile and gun fire:~~ for a battalion of Honest John or Lacrosse missiles (four launchers and one control post) -- six; for a battalion of Corporal missiles (two launchers and two radar control sites) -- four; for a group of Matador cruise missiles (six launchers) -- ten; and for a battery of nuclear artillery (two guns) -- four. For neutralizing the specified targets the number of aircraft needed is halved. From airfield alert status in Readiness No. 1, fighter-bombers need from eight to 15 minutes to deliver strikes against such targets. If we compare the specified allowances with the effectiveness of the employment of artillery in destroying the nuclear means of the enemy, then this comparison will not be in the latter's favor. This refutes the assertions of certain authors that the main burden of combat against the nuclear weapons of the enemy within the limits of the tactical depth at a distance of up to 30 kilometers from the forward edge will fall to the missile battalions and the artillery of divisions, as well as to the army missile units. It suffices to remember that, according to the 1956 Artillery Manual of the Soviet Army (fire control of ground artillery), 2,400 130-mm artillery shells are needed for the reliable





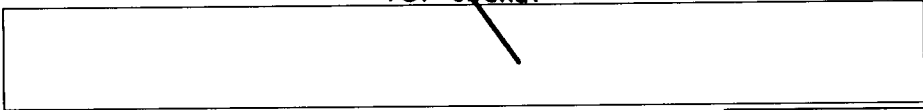
neutralization of an Honest John free rocket fire position (in an area of 200 by 400 meters) at a distance of 20 kilometers. And it will take at least one hour for a single 18-gun battalion to expend this amount of ammunition. Even if we assume that these allowances are obsolete, then all the same, it is more expedient to deliver air strikes against specified targets by employing conventional means of destruction and chemical weapons.

We must also recognize that combat against enemy nuclear means will be the most important and the most difficult task of an air army in a modern front offensive operation. It is completely obvious that by exposing and destroying these means, the air army will contribute considerably to the success of the offensive of the ground forces and will deprive the enemy of the capability of inflicting heavy damage on them. Therefore, a large part of the aircraft resource of fighter-bomber and reconnaissance aviation must be planned for and expended in carrying out just this task.

Success in combating the nuclear weapons of the enemy can only be achieved when there is well-organized reconnaissance. As we know, aviation plays quite an important role in conducting reconnaissance. The data of aerial photographic reconnaissance are extremely reliable. However, the time spent on processing the results of the photography does not meet the main requirement of combating the nuclear means of the enemy, which is to destroy them immediately, as soon as they are detected. The problem of reducing the time limits for processing the results of aerial photography and very rapidly delivering the pictures to the appropriate command levels must be carried out by automating the processing of aerial photographic film and transmitting the pictures from the aircraft in the air to the appropriate command posts.

In this case aerial photographic reconnaissance may be the main means for detecting and determining the coordinates of enemy nuclear installations. We feel that this problem has already been resolved in principle if we keep in mind the method of photographing the reverse side of the moon from a Soviet automatic interplanetary station. Consequently, this is already a matter for the design engineers who must more effectively work out and introduce this method into aerial photography from aircraft.



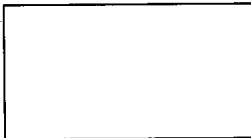


Aviation can also conduct visual aerial reconnaissance extremely successfully. Thus, the crew of a bomber-type reconnaissance aircraft can supply the coordinates of the target with the use of a bomber range-finding system within ten to 15 minutes after it is detected and with a margin of error of up to 150 to 200 meters. A fighter-type reconnaissance aircraft can transmit visual reconnaissance data about the installation by radio within two to three minutes after it is detected. However, due to the absence of a bomber range-finding system in this aircraft, the accuracy of determining the targets's coordinates is decreased several times compared to that of a bomber-type reconnaissance aircraft, and the margin of error sometimes reaches 800 to 1,500 meters.

Accuracy in the visual determination of a target's coordinates can be achieved by means of a high level of training of reconnaissance aviation flight personnel. The experience of the work of a number of aviation units shows that well-trained crews are capable of determining the coordinates of a target with an accuracy of from 100 to 300 meters. However, it is obviously necessary to install radiotechnical instruments in all reconnaissance aircraft for a more rapid and precise determination of the coordinates of the enemy targets.

When there is a strong air defense, it is most expedient to conduct aerial reconnaissance of nuclear weapons in fighter aircraft and fighter-bombers at low altitudes, and better yet -- in special unmanned aircraft (flying drones) equipped with various automatic instruments for carrying out the flight and reconnaissance. Besides this, in order to neutralize the air defense of the enemy, it is desirable to have flying reconnaissance drones with antiradar coatings. Also during reconnaissance flights in the existing types of aircraft it is advisable as far as possible to bypass the zones of operations of enemy surface-to-air guided missiles and to employ radioelectronic countermeasures.

Considering the high maneuverability of the enemy means of nuclear attack, we can and must combine reconnaissance of them by fighters and fighter-bombers with their simultaneous destruction and neutralization. Therefore, instead of individual aircraft, pairs and flights should be sent for aerial reconnaissance. These, having detected the nuclear means of the enemy, will then

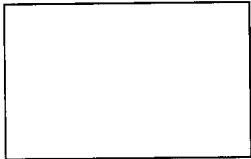




be able to destroy or neutralize some of them and immediately relay the coordinates of the targets and also the results of their strikes against them by radio to the command post of aviation and combined-arms formations and large units. Such actions of fighter and fighter-bomber aviation represent nothing other than "free hunting", which proved itself favorably during the Great Patriotic War. For conducting "free hunting" it is necessary to designate special zones of operations for fighter-bomber and fighter aviation divisions, the borders of which can be periodically defined more exactly.

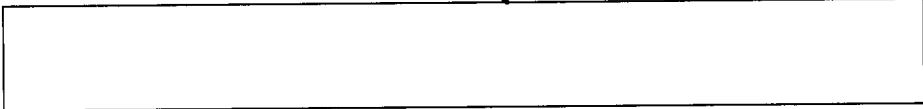
During a front offensive operation the discovery of the enemy means of nuclear attack will be facilitated to some extent by the fact that in the rear of his troops that are withdrawing he will have had to prepare areas for launching sites in advance for his missile units and nuclear artillery. This preparation can be detected by our reconnaissance even before the above-mentioned units arrive there.

An investigation of the problems of setting up reconnaissance of enemy nuclear weapons shows that it must be implemented in a centralized manner under the command of the chief of intelligence of a front, with the use of all forces and means at the disposal of a front, armies and divisions, according to a single overall reconnaissance plan with tasks given in detail in the plans of subordinate staffs. In connection with this, it is impossible to agree with the proposal set forth in the article of Colonel B. STRELCHENKO of having a squadron of spotter aircraft with a radius of operation of 400 to 500 kilometers at the disposal of the chief of the rocket troops and artillery of an army, and of even having one separate spotter reconnaissance air regiment with a radius of operation of up to 1,000 kilometers for the chief of rocket troops and artillery of a front. Obviously, under modern conditions we can speak only about reconnaissance aviation with a specific radius of operation, and not about spotter reconnaissance aviation, which conducts final reconnaissance of targets and observation of fire only of long-range artillery and tactical missiles. We do have reconnaissance aviation in the service of a front and armies, but it is inexpedient to subordinate it to the chiefs of the rocket troops and artillery.



When problems of combating the nuclear weapons of the enemy are examined in our military periodical press, it is quite unfortunate that such important targets of destruction as ordnance companies for supplying special weapons which provide combat units with nuclear warheads and subunits with surface-to-air guided missiles are not considered. It suffices to point out that an ordnance company for supplying special weapons can maintain in vehicles for issue to combat units the following types of nuclear warheads: two Corporal guided missiles, eight Honest John free rockets, eight 203.2-mm or 280-mm nuclear artillery shells, one nuclear land mine, two containers with acid and four containers with fuel for the Corporal guided missile or 14 Honest John free rockets, or 42 Hawk surface-to-air guided missiles, or seven Nike-Hercules surface-to-air guided missiles, or 14 Nike-Ajax surface-to-air guided missiles. It is necessary to destroy the enemy surface-to-air guided missiles not only because they support the combat actions of his aviation and cruise missiles, but also because they are capable of delivering nuclear strikes against our ground installations. For example, the Nike-Hercules surface-to-air guided missile can deliver nuclear strikes against ground targets at a distance of up to 180 kilometers.

There exists the opinion that the chief of the rocket troops and artillery of a front (army), to whom a specified number of nuclear warheads is allocated, should be the main organizer of combat against enemy means of nuclear attack. The reason for this is the possible reduction in the time limits for preparing and delivering missile/nuclear strikes against specified enemy targets and in the time needed for the commander of the front (army) to make a decision. We feel that this opinion is unsound. Of course, it is necessary to have a single individual in a front who is responsible for the destruction of enemy nuclear weapons, but he should not be the chief of the rocket troops and artillery, but rather the front commander (or his deputy), who has all the necessary forces and means of reconnaissance and destruction at his disposal. In particular, there must constantly be subunits of rocket troops, aviation, artillery, tanks, and airborne assault landing forces on alert, as well as aerial and other types of reconnaissance. Orders for delivering strikes must be sent from the front command post directly to the subunit executors and, at the same time, to the persons in whose subordination these subunits belong. We feel that it is totally



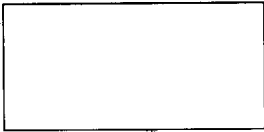
inexpedient to subordinate all forces participating in combating enemy means of nuclear attack to the chief of the rocket troops and artillery.

Finally, we do not agree with the proposal of a number of comrades who feel that a special plan for combating the nuclear means of the enemy must be worked out in the staff of a front. In our opinion, tasks for combating enemy nuclear weapons should be included in the plan of a front offensive operation, as well as in the plans for the combat employment of aviation and rocket troops and artillery with a specification of the forces and means allocated to fulfil them. The front commander (or his deputy) must always have a duty chart of the subunits allocated for combating the nuclear means of the enemy. This chart will ensure the timely selection by him of the most optimal variant for allocating forces and means for the most rapid destruction of newly detected enemy nuclear attack installations.

* * *

Among the tasks fulfilled by troops in offensive operations, combat against the enemy means of nuclear attack unquestionably takes first place. The importance of this task in the initial offensive operations of the initial period of a war is especially great. This is because the initial offensive operation will be characterized by a fierce struggle for the initiative, and this struggle will be conducted primarily with the means of nuclear attack of the belligerents. We can reasonably assume that the achievement of the final goals of the initial offensive operations of a front and army will depend to a considerable degree on how successfully combat against the enemy nuclear weapons is conducted.

Combat against the enemy means of nuclear attack in the initial strike can have extremely important features. First of all, at the moment it is conducted we will usually not have sufficiently complete and precise information at our disposal about the grouping and, more importantly, the disposition of the enemy means of nuclear attack. Based on materials of troop and command-staff exercises of recent years, we are able to confirm that at the beginning of the initial strike not more than 25 to 30 percent of the entire complement of missile/nuclear means of



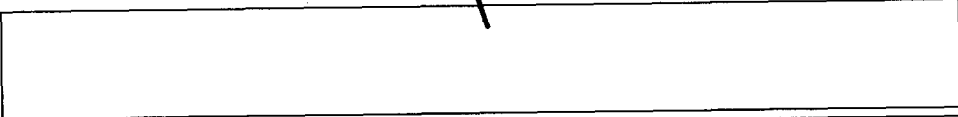
X the enemy operating on a given axis will have been reconnoitered. // Consequently, it does not seem possible to inflict appreciable damage with these means during the initial fire action against the enemy.

We should add to this that in peacetime various targets subject to destruction in the initial strike may be indicated with unequal completeness and accuracy.

Obviously, stationary targets (airfields of delivery aircraft, depots for nuclear warheads) can be reconnoitered more completely and accurately. The possibility that the location of these targets will be changed after they are discovered is quite improbable.

The case is somewhat different in discovering the means of nuclear attack of ground forces. In peacetime, as a rule, only the permanent locations of these means and, at best, certain positions prepared for them can be set up. It is natural to expect that in anticipation of the beginning of combat actions (in the period of threat) these means will be moved either to alert assembly (concentration) areas or to launching sites prepared in advance. However, it is extraordinarily difficult to uncover this before the beginning of a war due to the impossibility of employing means of aerial and long-range radar reconnaissance.

Therefore, in order to prevent the enemy from taking the initiative, it is advisable, in our opinion, that the front commander, when conducting the initial strike, have a specified reserve of reconnaissance means and especially missile/nuclear weapons (rocket troops of the ground forces, front cruise missiles, aviation), with a certain number of nuclear warheads, which would not be burdened with the other fire plans and would be in constant readiness for combating newly discovered enemy installations of means of nuclear attack in the initial strike. Only by introducing such a fire reserve can we count on the successful fulfilment of tasks in combating enemy means of nuclear attack in the initial strike. The size of this reserve should be determined as a result of the assessment of the actual grouping of the enemy means of nuclear attack which oppose the front with due regard for the plan of its discovery during peacetime.



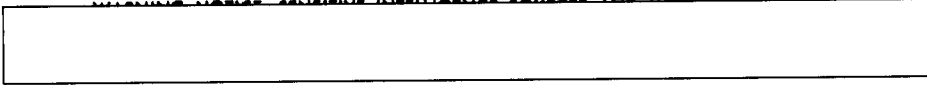
An important feature of combat against enemy means of nuclear attack in the initial strike will be that its main focus, in addition to destroying airfields of delivery aircraft, will be aimed at destroying Corporal and Redstone (or Sergeant and Pershing) guided missiles and Matador and Mace cruise missiles. These means possess great ranges of fire, have powerful nuclear warheads (including those in megatons) and, therefore, present a very great danger to the troops of a front. The destruction of enemy tactical means of nuclear attack (Honest John and Little John free rockets, Lacrosse guided missiles, and nuclear artillery weapons) will obviously not have a place as separate targets in the initial strike. On the one hand, this is due to the fact that at the moment when the initial strike against the tactical means of nuclear attack is being carried out, they will still be in concentration areas of large units in whose T/O they belong, and therefore, only their incidental destruction is possible while strikes are being delivered against these large units. But on the other hand, the fact is that their importance to the success of the struggle for fire superiority when military actions are unleashed is not very great relative to that of operational-tactical guided missiles.

In accordance with this, in the initial strike, as a rule, rocket troops of only front and army subordination will conduct combat against the enemy means of nuclear attack. While the initial strike is being conducted, control of their fire will be rigidly centralized at the front level. However, for army missiles this centralization will be limited only to the initial launch against planned targets, after which the army missile brigades must be fully switched over to fulfilling the tasks according to the plan of the armies.

Combat against the means of nuclear attack in the course of the initial offensive operation is decentralized in the range of the fire of organic missile (artillery) units and large units; this task is fulfilled by the divisions, armies and front. As a result of this, the higher command level builds up the efforts of the lower level. In practice this will manifest itself approximately in the following manner.

Divisions of the first echelon will conduct combat in their offensive zones against enemy nuclear artillery, his tactical guided missiles, and his surface-to-air guided missiles. Under





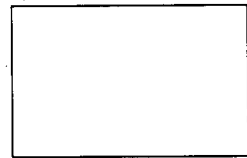
favorable conditions the fire means of divisions may be allocated to destroy army supply points with nuclear warheads.

An army of the first echelon is entrusted with destroying Corporal and Redstone guided missiles and other similar means, as well as army depots and supply points with nuclear warheads. When necessary, army missile brigades may be allocated to destroy the enemy tactical means of nuclear attack in the zones of divisions of the first echelon which are operating on the main axis.

A front carries out destruction of airfields for delivery aircraft, Matador and Mace cruise missiles, and base and forward nuclear warhead depots, and large control posts. According to the plan of a front, missile large units and units of front subordination can be allocated in the zones of armies of the first echelon to destroy such targets as Corporal and Redstone guided missiles and army nuclear warhead depots, in order to strengthen the missile/nuclear strikes of army missile brigades.

Of course, in the conditions being examined, decentralization of combat against enemy means of nuclear attack will be reflected not only in demarcation of the zones of fire actions of specified command levels, but also in granting the chiefs of the rocket troops of a front and army and the chief of artillery of a division the authority to open fire. It should be emphasized that in such a measure there is no encroachment on the sole responsibility of the commander, that is, on the authority of the combined-arms commander, since it will be based on his decision, and in practice will be implemented in accordance with this decision by allocating a specified number of nuclear and chemical missiles (chemical and conventional artillery shells), specially designated for combating enemy means of nuclear attack, to the chief of rocket troops and artillery (chief of artillery) during the operation.

The improvement of fire means and the methods of employing them in the initial strike and in the subsequent course of the offensive operation has very important significance for



the successful conduct of combat against the nuclear weapons of the enemy.

One of the measures in this direction and perspective may be, in our opinion, the establishment of specialized missile subunits (units, large units) in the composition of the rocket troops of front, army and division subordination with the necessary means for reconnaissance and control, designated primarily for combating enemy means of nuclear attack. It is natural that these units can, if necessary, be allocated even for carrying out other tasks.

Specialized missile units and large units must have in their armament missiles and launchers with high tactical-technical specifications. There must be an improved guidance system for these missiles compared to other missiles, and their engines must run on solid propellant. Specialized missile units should initially be adapted for airdrop, and in the future for full air (helicopter) transport. In the T/O&E of these units it is necessary to have reconnaissance aviation and means of radiotechnical reconnaissance, counting on their utilization primarily for final reconnaissance of targets before they are destroyed.

The number of specialized missile units will depend on the composition of the possible grouping of enemy means of nuclear attack, the presence in a front of rocket troops and other means allocated for carrying out a given task, and the amount of allocated nuclear and chemical warheads.

On the average, specialized missile units (keeping in mind that they are designated to carry out the main task in an operation) can consist of from three-eighths to one-half of the entire complement of rocket troops of a formation (large unit). Specialized units (large units) must be directly subordinate to the front (army) commander, who will control them through the chief of the rocket troops. They are employed in close cooperation with other means of destruction and groupings of the ground forces.

The condition and disposition of specialized missile units and large units in border military districts in peacetime must ensure their immediate readiness for launching according to the



plan for the initial strike.

We may be reproached for drawing a certain analogy between the counterbattery artillery units (large units) of the Great Patriotic War era and the proposed specialized missile units (large units). However, we see no flaw in this reasoning.

We know that in the Soviet Army the combat against enemy artillery during the years of the Great Patriotic War was brought to a high level of perfection and therefore was conducted with great effectiveness. There is no reason to reject this rich beneficial experience. It is important that it be applied under modern conditions not in a mechanical manner, but rather with due regard for the radical changes which have occurred since that time in the armament of the troops and in military art.

