TOP SECRET

3714

CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

20 December 1978

MEMORANDUM FOR: The Director of Central Intelligence

FROM : John N. McMahon
Deputy Director for Operations

SUBJECT : MILITARY THOUGHT (USSR): Some Questions Concerning Modern Defense

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 consists of three separate sections that are written by different authors. The first author discusses how the advent of nuclear weaponry has made it necessary to increase the stability and aggressiveness of a modern defense. The second author points out the need to establish a fire system not only at the tactical level but on the scale of an army when an army goes over to a defense. The third discusses the different types of defense and when it is most advantageous to go over to a defense. This article appeared in Issue No. 5 (66) 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

for John N. McMahon

TOP SECRET

Distribution:

The Director of Central Intelligence

The Director of Intelligence and Research
Department of State

The Joint Chiefs of Staff

The Director, Defense Intelligence Agency

The Assistant to the Chief of Staff for Intelligence
Department of the Army

The Assistant Chief of Staff, Intelligence
U. S. Air Force

Director, National Security Agency

Deputy Director of Central Intelligence

Director of the National Foreign Assessment Center

Director of Strategic Research

[redacted]

Intelligence Information Special Report

COUNTRY USSR

[redacted]

DATE OF INFO. Late 1962

[redacted] 20 December 1978

SUBJECT

MILITARY THOUGHT (USSR): Some Questions Concerning Modern Defense

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 5 (66) for 1962 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article consists of three separate sections that are written by different authors -- by General-Mayor V. Domnikov, Colonel G. Biryukov, and Colonel N. Miroshnichenko, respectively. The first author discusses how the advent of nuclear weaponry has made it necessary to increase the stability and aggressiveness of a modern defense. The second author points out the need to establish a fire system not only at the tactical level but on the scale of an army when an army goes over to a defense. The third discusses the different types of defense and when it is most advantageous to go over to a defense.

End of Summary

[redacted] Comment:

Biryukov also co-authored "Features of an Offensive Operation When Neither Side Uses Nuclear Weapons" in Issue No. 2 (75) for 1965 ([redacted] The article referred to in the text was disseminated as [redacted] (IRONBARK).

[redacted]

[redacted]

Some Questions Concerning Modern Defense*

by

General-Mayor V. DOMNIKOV, Colonel G. BIRYUKOV,
and Colonel N. MIROSHNICHENKO

The investigation of problems connected with increasing the stability and aggressiveness of a defense is acquiring urgent significance. Missile/nuclear weapons have greatly increased the capabilities of the attacking side to deliver powerful and deep strikes and to swiftly penetrate a defense to a great depth. Conducting a defense is characterized now by a sharp increase in the intensity of combat against large mobile enemy groupings, especially armored groupings and airborne landing forces, which the enemy will employ first in the attempt to exploit the results of his nuclear strikes.

When working out the problems of a modern defense, one becomes acutely aware of the task of seeking out new methods for raising the stability of a defense, for protecting personnel and combat equipment from destruction by missile/nuclear weapons, and for aggressively employing the forces and means which operational formations have at their disposal. The need to solve this problem has been pointed out repeatedly in the directives and orders of the Minister of Defense, which require that troops be taught to establish a stable, aggressive, and impregnable defense in minimally short time limits.

Soviet military art recognizes offense as the main form of military actions. However, in a missile/nuclear war there can be no blanket offense as in the past, since the situation even now will require either consolidating lines which have been occupied, in order to economize forces and means for the development of an offensive on different and more important axes, or going over to a defense for the purpose of repulsing the counterattacks of the enemy's major forces. A defense, in our opinion, should now be regarded as a legitimate form of armed combat, during which troops which are forced to defend themselves will inflict damage

---

* Collection of Articles of the Journal "Military Thought", No. 6 (61), 1961.

on superior enemy forces and establish conditions for going over to a decisive offensive. The attempts of certain comrades to show that defense on an operational scale loses its significance are, in our opinion, unconvincing.

True, operational defense in a missile/nuclear war is most possible, obviously, on an army scale. In this case, army defensive operations can be conducted both in the initial period and in the subsequent periods of a war. These operations should be prepared on axes and in theaters of military operations of varied importance with differences in the composition of the troops of operational formations and in the nature of enemy actions. Depending on these conditions, the special features of preparing and equipping a defense will be specified, as well as the content of measures for increasing its stability and aggressiveness. Regarding front defensive operations, they are an extremely rare phenomenon under modern conditions.

It is most advantageous to conduct army defensive operations on those axes where, for a variety of reasons, offensive operations are not being planned. Defensive operations are possible also on coastal axes for the purpose of defending seacoasts and islands, where major enemy amphibious and airborne landings are probable in the initial period of war.

We have not ruled out that variant where an intense defensive engagement on one or several axes will precede the initial offensive operation of an operational formation. This may be called for by the conditions of a situation when the enemy, having preempted us in the delivery of the first missile/nuclear strikes, goes over to the offensive, and the troops of the given army will sustain losses even before they move forward to the designated areas and they will not be able to begin an offensive from the march. In this instance, troops of the first operational echelon of the front, moving forward to areas of combat actions according to the plan of the initial offensive operation, will, on some axes, be forced to immediately go over to a defense or conduct a meeting engagement with the enemy groupings who have penetrated into our territory, while on other axes -- they will have to attack swiftly. The unfavorable outcome of meeting engagements may also force troops to temporarily go over to a defense with part of their forces.

The need to organize and conduct an army defensive operation may arise during the development of a front offensive when the enemy establishes superiority in nuclear weapons and other means on one of the axes and when he delivers powerful counterattacks or switches to a counteroffensive.

In our opinion, General V. PETRENKO in his article did not sufficiently discuss the principle that all measures for raising the stability and aggressiveness of a defense are to be carried out in an exceptionally complex ground, air, and (on coastal axes) naval situation under the systematic and forceful effect of the enemy's missile/nuclear weapons and the aggressive actions of his aviation, unmanned means, and ground forces. This is especially applicable when an army goes over to a defense during a front offensive operation or after its completion.

Under these conditions, the forward movement of troops to areas designated for a defense and the occupation of those areas will be carried out at the same time as the aftereffects of the enemy nuclear attack are eliminated, as extensive zones of radioactive contamination are negotiated, and as combat actions are conducted against enemy tank groupings penetrating from the front and against his airborne landing forces in the rear.

An army will not, as a rule, go over to a defense with all its forces simultaneously. While some large units will continue an offensive or conduct a meeting engagement, others will be forced to go over to a defense on lines which have been gained, and some of them will even have to withdraw to organize a defense of advantageous areas and key positions located in the depth, or they will have to conduct combat actions to destroy enemy airborne landing forces and ground groupings in the rear area of the front troops.

Defense as a form of combat actions has continuously been developed and improved, in order to oppose an enemy offensive with more and more effective methods of combat against the employment of new means.

With missile/nuclear weapons at their disposal, the defending troops can disrupt an enemy offensive, which is being prepared or has already begun, and achieve results which could not be obtained earlier with the aid of aviation or artillery.

This causes a change in the principles of organizing and conducting defensive operations. It is universally recognized that a linear defense on continuous fronts will not be employed today. It is impossible not to agree with the author of the article that the disposition of the defense must establish conditions for the extensive maneuvering of fire, forces, and means in conjunction with the holding of key areas and positions on the probable axes of the offensive of enemy attack groupings. The organization of defensive operations must be implemented in minimally short time limits, and their conduct should be based on missile/nuclear strikes, troop maneuvering, and powerful counterattacks.

Massed employment of missile/nuclear weapons by both sides will lead to the formation of numerous zones of destruction and radioactive contamination, which, when a continuous front and high mobility of troops are lacking, will impart a multiple-centered nature to defensive engagements conducted on separate axes.

The article should have emphasized more strongly that a modern defense will be needed very often. In all cases, it is necessary to consider a defense as a temporary measure whose purpose is to wear down the enemy, inflict damage on him, and gain time to prepare our forces for the transition to a decisive offensive.

A struggle for the initiative in employing missile/nuclear weapons and for preempting the enemy in the delivery of nuclear strikes will be a characteristic of modern defensive operations. In the final analysis, the stability and aggressiveness of a defense will depend on this.

Missile/nuclear weapons are the primary and decisive means of destruction. Their sudden and massed employment, in combination with other means of mass destruction and with conventional types of weapons against the missile/nuclear means and troops of the enemy, can lead to the destruction of his attack groupings and the disruption of his offensive. To most rapidly exploit the results of nuclear strikes against an advancing enemy, it is necessary for the reserves of the defending troops to deliver flank and meeting attacks. We fully support the author's opinion that a defense assumes a

mobile-positional nature, with mobility having the predominant role. Moreover, offensive actions will be extensively employed in a modern defense.

An increase in the aggressiveness and stability of a defense will be provided not only by missile/nuclear weapons but also by new technical means of reconnaissance and troop control, the increased firepower and striking power of all branch arms, their mobility, and by a considerable increase in the ratio of tank and airborne landing forces, capable of exploiting most effectively the results of the employment of missile/nuclear weapons by the defending troops. The presence of these forces and means affords the troops of an army the capability at the beginning of an enemy attack, if they have not succeeded in breaking it up, to aggressively oppose him during the entire defensive operation and firmly hold the main areas and key positions, while maneuvering extensively with forces and means and conducting decisive counterattacks and counterthrusts, in order to rout the attack groupings of the advancing enemy and change the balance of forces in our favor.

We must keep in mind that the defender will most often have a limited quantity of nuclear weapons at his disposal. Therefore, detailed planning of their employment and careful selection of targets for the delivery of nuclear strikes, so as to destroy primarily those which are most dangerous to the defense, acquires important significance in the conduct of defensive operations. In this regard we fully support the opinion that, in all instances, and especially in a defense, the employment of nuclear weapons must be economical and must achieve the maximum effect, and that specific problems concerning the delivery of nuclear strikes (the time of these strikes, the yield of nuclear warheads, height of the bursts, etc.) must be decided personally by the commander of the army.

A characteristic feature of modern defensive operations, in our opinion, will be the ever-growing deep echeloning of forces and means, as well as their dispersed distribution. We feel that deep echeloning of forces and means is conditioned by the need to employ the main forces of the defender for aggressive and maneuvering actions. For this, it is necessary to have strong second echelons in an army. We cannot agree with those who maintain that operational second echelons are not needed, and who

propose that we confine ourselves to reserves. Only the presence of strong second echelons will make it possible for the defender to inflict decisive damage on advancing enemy groupings with nuclear weapons in combination with powerful strikes by troops from the depth. Of course, the altered conditions of conducting operations require a completely different employment of second echelons than previously. For example, they often will be committed to battle along axes neither simultaneously nor from a single line of commitment. Second echelons, unlike in the past, are acquiring a multipurpose designation, etc.

We know that in increasing the stability and aggressiveness of a modern defense, not only its disposition but also the proper organization of a fire system and engineer preparation of the terrain are of utmost importance. This applies especially to conditions where troops go over to a defense during an offensive, when, as a rule, there will be very little time for setting up a defense, that is, for the engineer preparation for one. However, this does not mean that a defense under these conditions will not be organized and equipped. It is necessary to take all possible measures so that at the beginning of an enemy attack a fire system be set up and that the siting areas of the rocket troops and the defensive areas and positions of divisions and regiments be equipped and prepared.

We cannot agree with the author, who rejects the fire system in a division and army and proposes replacing its organization with the drafting of a fire plan. The basis of a modern defense is fire and mobility, which, first of all, will be reflected in the plan of the operation. Why should we draft a fire plan in addition to this? It seems to us that in a modern defense a unified fire system must be established at all levels. At the operational level the basis a fire system will undoubtedly be nuclear strikes; at tactical levels it will depend more on conventional means -- artillery, tanks, antitank means, and small arms.

In order to speed up engineer preparation of the terrain when there is a limited amount of time available, it will be necessary to extensively employ various engineer vehicles, especially under the cover of previously allocated forward detachments, and to also employ explosives when executing engineer tasks. As before, engineer-built obstacles and mixed

minefields, which have been set up not only in front of the defense areas (lines) but also in their depth and in gaps and on the flanks of large units and units, will be very important in a defense.

The disposition of a defense will depend each time on the actual conditions of the situation. There must be no set pattern in it, otherwise the enemy will be able to ascertain the system of defense and the grouping of forces and means, and he will be able to disrupt its stability by delivering nuclear strikes. A modern defense is set up in a creative manner, with due regard for its tasks, the intentions of the enemy, the capabilities of our own troops, and the terrain conditions. Novelty in the disposition of a defense and surprise in troop actions can make it difficult for the enemy to uncover the concept of a defense and can force him to deliver missile/nuclear strikes against non-advantageous or dummy targets and [allow us to] oppose the enemy where he does not expect it during his attack. Therefore, it is completely understandable that the disposition of a defense, both along the axes and in the depth, should not be repetitious or stereotyped, since even the best plan for the disposition of a defense, when employed routinely, will not provide the necessary stability for it.

In conditions where means of mass destruction are employed in front of the defending troops, there inevitably arise such problems as allocation of forces and means along the axes, distribution of troop efforts over the depth, selection of areas for concentrating the main efforts, skilful disposition of troop groupings, etc. In the final analysis, the survivability of a defense will depend on the solution of these problems.

Thus, to successfully solve the problem of the stability and aggressiveness of a defense, it is necessary to make the following principles the basis of its organization. First, a defense must be built upon a combination of stubborn actions by the defending troops on the most important axes, of maneuvering by forces and means along the front and from the depth, and of coordination of the aggressive actions of troops with nuclear strikes against the main enemy groupings. Second, a defense must be deep, with strong second echelons and reserves available which are capable of carrying out extensive and rapid maneuvering to

any axis, in order to destroy enemy groupings which have broken through. Third, in the disposition of a defense there should be no stereotyping and linearity, nor continuous fronts and equal allocation of forces and means, since this leads to their dispersal, hinders maneuverability and does not provide the necessary stability. Fourth, a defense must be relied on, not for massive retention of positions and lines, but for decisive actions, in order to rout advancing enemy groupings with the effective employment of nuclear weapons and other means of mass destruction.

The rapid development of science and technology is causing an unprecedented growth in the forces and means of armed combat. Measures for raising the stability and aggressiveness of a defense that are suitable today may in time become obsolete, and they will require appropriate amendments to them. Stemming from this, a modern defense must be examined from the standpoint of the further development of armed combat means and military art, and the search for new, more effective methods of organizing and conducting it.

In our opinion, the tendency toward the continuous growth in the importance of nuclear weapons, the establishment of the most diverse equivalence of nuclear warheads, the increase in stockpiling them, and the development of still longer-range means for delivering nuclear warheads to target, will lead inevitably to a further increase in the depth and diversity of the disposition of a defense, to an increase in the distances between defensive zones and positions, and to a still greater allocation of forces and means with a simultaneous increase in the decisiveness of troop actions.

* * *

It is known that with the employment of nuclear weapons, fire in a defense, along with extensive troop maneuvering, has acquired a decisive role. In connection with this, one of the most important problems in preparing a defense is the planning of fire and the organization of a fire system. In General V. PETRENKO's article, it is not shown in a sufficiently clear manner that a fire system signifies, first of all, the organization, careful planning, and preparation of fire according to place (targets, areas) and time, and the constant readiness of

fire means for fulfilling the tasks set for them. It is completely obvious that unless these problems have been resolved, it will be impossible to achieve the proper organization of a fire system.

The author recognizes the fire system as a component part of the fire plan of a large unit only at the level of subunits and units. We cannot agree with this. As the experience of exercises shows, there are no bases for limiting ourselves to establishing a fire system at the tactical level. With powerful and long-range nuclear and other fire means available, and the capability of maneuvering them extensively, a fire system is necessary not only in each unit, but also in each large unit, and when an army goes over to a defense with all its forces -- it is necessary even at the army level.

In our opinion, the author's statement that a fire system can supposedly be set up only within the framework of a single branch arm or type of weapon is unconvincing. We feel that a fire system in a defense consists of the organized employment of all the fire means of destruction in support of achieving the objective of the defensive operation (battle) by delivering coordinated strikes by rocket troops and aviation (with the employment of nuclear, chemical and conventional munitions), and also by conducting fire with artillery, tanks, and small arms.

Of course, it is impossible to reject the branch arm fire system. For example, under any conditions in a defense, a fire system for the rocket troops and artillery of an army is necessary, which consists of the organized employment of all types of these fire means for delivering individual and grouped nuclear strikes and concentrated, barrage and other types of artillery fire in support of the fulfilment of the task of the army. It is also necessary to organize a fire system for antitank means, and small arms, etc.

This being the case, and depending on the tasks of the defending troops, the amount of fire means, their combat characteristics and capabilities, as well as the expected actions of the enemy, the nature of the terrain, and other conditions of the situation, the fire system in each operation (battle) will be organized differently.

[redacted]

Finally, a fire system should not be equated with a grouping of fire means. A grouping of fire means must ensure the establishment of the most acceptable fire system and the maintenance of its stability. It is completely understandable that a fire system, particularly for small arms and antitank means, depends on the grouping and disposition of appropriate fire means. However, when organizing a fire system for rocket troops and artillery, this factor is no longer so important. For example, we do not doubt that with one and the same grouping of fire means, especially long-range means, we can establish a diverse fire system, and, conversely the necessary fire system can be established with a diverse grouping of means, the more so, since the system itself requires the maneuvering of fire and fire means.

There is no doubt that nuclear strikes constitute the basis of a fire system. For example, in an army and a division they are effectively employed for destroying the enemy's main groupings and installations. However, in a number of cases this principle will appear to be otherwise, especially if a fire system is examined only according to the types of weapons and only at the level of units and subunits (as the author has done).

In connection with the fact that a defense must be primarily antinuclear and antitank, fire with nuclear means should be directed mainly toward destroying the enemy's nuclear weapons and tank troops, as well as his control posts, in order to disrupt his offensive. In organizing a fire system, it is necessary to prepare nuclear strikes with rocket troops and aviation on the distant approaches to a defense.

However, not all defense tasks can be carried out with nuclear weapons alone. In certain periods of an operation, and more so, of a battle, it will be necessary to conduct combat actions without employing nuclear weapons, which sharply raises the role and meaning of conventional means of combat. Hence, it is not difficult to draw the conclusion that a fire system will always be based on a combination of nuclear strikes and various types of fire of conventional fire means.

Concerning units and subunits, the basis of a fire system in their defense under all conditions will consist of fire from artillery, tanks, antitank means, and small arms, with the

establishment of zones of continuous fire on the most important axes, both in front of the forward edge and in the depth of the battle formations, and also pockets of fire, especially in gaps between the defense areas. In this case, rapid concentration of fire from all fire means on threatened axes acquires important significance.

At the level of a division, and even more so, of an army, it is advisable to plan and prepare areas of fire destruction. Under modern conditions a high level of troop mobility will make it possible to set up offensive groupings in very short time limits and to go over to the offensive from the march. This, in contrast to the period of the Great Patriotic War, complicates the advance planning of fire of all means against specific targets. Therefore, as confirmed by the experience of exercises, it is advisable to plan fire, especially nuclear strikes, in advance, not only against detected targets but also against areas in which enemy troops may be deployed for an offensive. In so doing, we must keep in mind that areas of fire destruction are so designated as to destroy an advancing enemy's main grouping of nuclear means and ground troops by using the entire or main mass of fire means of an army (division). Consequently, fire destruction areas are, as a matter of fact, areas of massed fire, the basis of which are nuclear strikes.

Fire destruction areas must be selected with due regard for possible strikes of the defending troops for the purpose of completing the rout of the advancing enemy's main grouping, combining these areas with areas of radioactive and chemical contamination, which have been set up to oppose the advancing troops, and also with areas in which obstacles have been placed.

The number of fire destruction areas depends on the availability and capabilities of the fire means of the defending troops. In any army, for example, two to three such areas can be prepared with the allocation of an army missile brigade and supporting aviation and, in a number of cases, with the participation of front means. When this is done, the simultaneous delivery of strikes with these means is most probable against one to two areas at a distance of up to 100 kilometers from the forward edge for the purpose of destroying the enemy's operational-tactical nuclear means and the main grouping of his ground troops in concentration areas.

On closer approaches to a defense (up to 30 kilometers) it is necessary to prepare division fire destruction areas (obviously, not more than one to two for each division), allocating both division and army nuclear and other means to destroy the enemy's tactical nuclear means and his deploying tank and infantry large units.

In our opinion, the author's proposal to exchange the fire system in a defense for a fire plan is unacceptable. The fact is that fire in combination with maneuvering, as we have already mentioned, is the basis of a defense, and nuclear strikes, about which we have already spoken, must be considered the main firepower of the defending troops at the level of an army and even of a division. Consequently, the decision to employ nuclear weapons, as well as other fire means, is the basis of the decision of the commander of an army or division for a defense. As we know, the plan of an operation (battle) is made on this basis. This plan must fully reflect the organization of fire, i.e., its system. Why should we draw up a fire plan separately?

It is advisable, in our opinion, to draw up a fire plan from the fire planning documents of those troops whose basic combat activity is to fire. This applies primarily to rocket troops and artillery. Here we should mention that at present fire planning documents are compiled with the most diverse names: fire plan, fire employment plan, plan of actions, etc. A single name should be prescribed for this document, for example: "Fire Plan for Rocket Troops and Artillery."

Combating the tanks of an advancing enemy must be regarded as an important problem of a modern defense. The rapid development of tank equipment, the considerable saturation of the ground forces of all armies of the world with tanks, and the establishment of large tank formations require radical changes in solving the problem of combat against tanks, including in a defense.

During the Second World War the main burden of combat against tanks lay, as is known, at the tactical level; hence, during battle this combat was carried out right up to the destruction of each individual tank by direct fire (mainly by individual guns and tanks).

Under modern conditions, combat against enemy tank troops, including in a defense, acquires an operational meaning. For example, nuclear strikes are effective against tank groupings in concentration areas at a great depth, against tank factories, fuel and ammunition depots, transport means which are transporting a large number of tanks, etc. Chemical weapons and aviation can also be employed directly to disrupt the forward movement of tank formations and large units. It is advisable to set up extensive zones of radioactive contamination, to set up demolitions, especially in mountains, and to change the nature and condition of river lines on the routes of the enemy's advance, sharply limiting and even completely eliminating the employment by him of tank troops on a given operational axis.

At the same time, it is necessary to support the antitank autonomy of subunits, units, and large units, saturating them with small and effective mobile antitank means such as modern antitank guided missiles, employing them in close combination with nuclear and chemical weapons, artillery and tank fire from indirect positions, air strikes, and also with the employment of electronic countermeasures and other effective means, e.g., an infrared or light beam of powerful force.

In discussing the decisive role of fire and the growing importance of maneuver, it is impossible, in our opinion, to reject such a battle formation element as the antitank reserve. It is fully understandable that for combating tanks on any one axis, it is more expedient to carry out maneuvering by special antitank reserves than to carry out unwieldy and, at times, ineffective maneuvering by motorized rifle units and subunits.

* * *

In addition to other items, General V. PETRENKO's article examines the problem of disrupting an enemy offensive which is being prepared or has begun. While we agree with the author's opinion that achieving this goal is most advantageous for the defending troops, insofar as conditions are set up to immediately go from a defense to an offensive, we feel that it can be organized only under certain conditions. In so doing, it is necessary to consider the conditions under which troops go over to a defense, their composition, and especially the availability of nuclear weapons.

[redacted]

Those troops that have gone over to a defense in advance and have a comparatively strong and prepared grouping of missile/nuclear means will be more capable of disrupting an enemy offensive which is being prepared or has already begun. However, an early transition to a defense in the initial operations of a missile/nuclear war, will be, as we know, a rather rare phenomenon. It can take place primarily on those axes, where, for a number of reasons, carrying out offensive operations has not been envisaged, or where it is necessary to gain time to ensure that the main forces of an army (front) are deployed and are going over to the offensive. A defense can also be set up in advance in coastal areas and on islands, where major enemy amphibious and airborne landings are expected.

In the above-mentioned cases, a defense can be set up without contact with the enemy. In a border zone, ground large units will go over to a defense, in our opinion, at a distance of 20 to 30 kilometers from the state border. Therefore, as a rule, the enemy's transition to the offensive will be preceded by the movement of his troops forward from the depth and their deployment into battle formations, and when there is to be an amphibious landing the transition will be preceded by the negotiation of a specific expanse of water. During this time, the defending troops, having begun the destruction of the enemy with missile means and aviation from long ranges, can deliver a number of powerful nuclear and chemical strikes against him in sequence, and when he enters a zone that can be reached by conventional means, fire strikes can be delivered against him by artillery and tanks. Of course, these strikes against the main grouping of enemy troops can lead to the disruption of his offensive.

However, we must keep in mind that during the time of the enemy's advance (two to three hours), a combined-arms army, with its missile means, can launch no more than one salvo of operational-tactical missiles and one to two salvoes of tactical missiles, and this may not always lead to a disruption of the enemy's offensive. It is also necessary to take into consideration the losses in an army's nuclear means from nuclear strikes delivered by the enemy. Therefore, it seems to us that the means of an army alone will be insufficient to disrupt his attack, and the means of a front will be required.

The transition of an army and large units to a defense is also possible in the course of the first offensive operations, especially when the enemy preempts us in the delivery of nuclear strikes, as well as when the outcome of a meeting engagement is unsuccessful, or when it is necessary to repulse a strong counterattack (counteroffensive) of the enemy. In these instances the organization of a defense will usually be carried out in very short time limits and at the same time as the strikes of the advancing enemy are repelled, which the author himself discusses. Here, an army will have limited time to disrupt an enemy offensive which has begun. Under these conditions, mainly the second echelons and reserves of the enemy can attack with nuclear and chemical strikes [two to three words illegible] the army troops [two words illegible] his offensive or counterattack, setting up conditions for successfully repulsing them by conducting aggressive defensive actions.

Consequently, depending on the situation, the objective of troop actions prior to the beginning of a defensive engagement may be not only to disrupt the enemy's offensive but to weaken it and subsequently to repulse him. And this is due to the fact that the transition of the troops to a defense usually will be carried out when there are a limited number of nuclear warheads. And this will not always make it possible to completely disrupt the enemy offensive.

In our opinion, the author opportunely brings up the point about changing the role of the elements of the operational disposition of the troops, particularly the second echelons and reserves, and also about changing the nature of the tasks in a defense that are being accomplished by the troops. However, a point that is not brought out in a sufficiently clear manner is that the troops located in the depth, i.e., those not within the complement of the first echelons, in modern conditions more closely resemble the reserves in their function and employment. The author proposes having combined-arms reserves only in a front formation, but in the case of a single echelon disposition he recommends assigning them to an army and division.

Meanwhile, for the second echelons of an army and division there is characteristically a great diversity of tasks and quite often they must be fulfilled simultaneously. This makes it

difficult to employ second-echelon troops at full strength, and predetermines the multifariousness of the planning of their actions, as well as an approximate determination of tasks before the beginning of an operation (battle).

In contrast to the operations of the last war, the features mentioned above bring second-echelon large units (units) and reserves closer together in function and use, and they are also characterized by a multipurpose designation, an approximate determination of tasks before the beginning of an operation (battle), and the use of small groupings in accordance with the situation. Therefore, we feel that large units (units), which are not within the complement of the first echelon of an army (division), should be called combined-arms reserves rather than second echelons. This will be in keeping with the flexible and versatile employment of large units and units located in the depth, which is necessary during modern defensive operations.

In addition to a combined-arms reserve, there should be special reserves in the operational disposition of an army and in the battle formation of a division. In particular, we now need to set up not only tank, antitank, and engineer reserves, but also chemical and medical reserves and communications means.

We support the author's thesis that a modern defense must be based on the close combination of mobile and positional forms of combat actions. However, it must be borne in mind that the relationship between them at various levels will be diverse. For example, in an army defense, mobile actions will undoubtedly predominate over positional ones, especially for large units located in the depth of an army defense and those making up the reserves. Concerning the defense of first-echelon divisions, in the majority of instances it will, in our opinion, be mobile and positional, since the presence in a division of missile/nuclear means, a considerable number of tanks, and fully motorized units and subunits establishes conditions for the wide-scale employment of maneuvering.

In our opinion, a rigid positional defense will be the basis of the actions of the regimental subunits of the first echelon of divisions. Under these conditions it is not positioning which must be subordinate to maneuver, as the author asserts, but maneuver which will be subordinate to the task of holding

specific areas and positions.

Here it is necessary to mention that a modern positional defense of units and subunits differs from a past defense to a considerable degree. In the first place, defensive actions, like offensive ones, will be conducted not on a continuous front but along separate axes, which gives a defense a multiple-centered nature. In the second place, if the battalion areas of a defense were formerly the basis of the layout of the defensive positions, then today, instead of them, there will be company areas of defense or strongpoints, prepared for all-around combat against enemy tanks and having fire coordination between them. As the experience of exercises shows, the gaps between companies, with regard to the capability of fire means for supporting fire communications, can reach one to two kilometers in length.

At present, an important problem in laying out of areas of defense and defensive positions is ensuring troop stability when the enemy employs low-yield nuclear weapons, which are already in the inventory of the large units of the US Army.

A distinctive feature of the present-day subunit defense areas is the fact that, essentially, it is not motorized rifle subunits which constitute its basis, but fire means -- tanks, self-propelled guns, armored personnel carriers, and combat vehicles with antitank guided missiles. Thus, the most important task of engineer preparation is not be so much the establishment of a system of trenches, as the preparation of emplacements and shelters.

The above-mentioned qualitative changes in the composition of the fire means located in the areas of a defense and the need for the further dispersal not only of large units and units but also of subunits strengthen the tendency even more for an interrupted and multicentered defense layout and for the rejection of continuous front defensive positions set up on a division scale.