MEMORANDUM FOR: The Director of Central Intelligence

FROM: William W. Wells
Deputy Director for Operations

SUBJECT: MILITARY THOUGHT (USSR): The Combined-Arms Army in a Modern 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 is a review of a book dealing with the basic questions of the combat actions of a combined-arms army. After outlining the book's basic format by topics, the author examines the main points of each. He discusses the organization and support of an offensive operation in great detail, particularly questions of the employment of nuclear weapons, mobile actions of troops, and the organization of cooperation. Other matters highlighted are methods of army actions during meeting engagements and offensive operations against a defending enemy, the conduct of actions under conditions of strong radioactive contamination of the terrain, and the nature and methods of preparing and conducting defensive actions. This article appeared in Issue No. 1 (71) for 1964.

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.

William W. Wells
Distribution:

The Director of Central Intelligence

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

Deputy to the Director of Central Intelligence
    for National Intelligence Officers

Deputy Director for Intelligence

Director of Strategic Research
The following report is a translation from Russian of an article which appeared in Issue No. 1 (71) for 1964 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is General-Mayor M. Cheremnichenko. This article is a review of a book dealing with the basic questions of the combat actions of a combined-arms army. After outlining the book's basic format by topics, the author examines the main points of each. He discusses the organization and support of an offensive operation in great detail, particularly questions of the employment of nuclear weapons, mobile actions of troops, and the organization of cooperation. Other matters highlighted are methods of army actions during meeting engagements and offensive operations against a defending enemy, the conduct of actions under conditions of strong radioactive contamination of the terrain, and the nature and methods of preparing and conducting defensive actions.

Comment: General-Mayor M. I. Cheremnichenko was identified as a Candidate of Military Sciences. 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 Combined-Arms Army in a Modern Operation
by
General-Mayor M. Cherednichenko

More and more frequently of late works have begun to be published on strategy, operational art, and tactics in which the changes in military affairs that have come about as a result of the appearance of nuclear weapons are finding reflection, and important theoretical and practical questions of contemporary military art are being put forth and researched profoundly.

The book by Chief Marshal of Armored Troops P. A. Rotmistrov, The Combined-Arms Army in a Modern Operation,* that has been published should be classed among the number of such works. In it the author has posed and thoroughly examined the basic questions of the combat actions of a combined-arms army, which have not only theoretical but also practical importance for the training of leadership cadres and the improvement of the methods of employing operational formations in the initial period of a war.

The author has, to a considerable degree, departed from the traditional structuring of this type of work. At the beginning the general characteristics of the operations of a combined-arms army are set forth and its combat capabilities are researched. Then the work examines the subjects of the marching and maneuvering of the army in a theater of military operations and its movement from the interior of the country, and the organization and support of an offensive operation in a complex and dynamic situation. Much attention is devoted to research into the methods of conducting a meeting engagement of a combined-arms army and an offensive against a defending and a retreating enemy, of negotiating water obstacles and of conducting army actions under conditions of strong radioactive contamination of the terrain. A separate chapter of the book is devoted to the nature and methods of preparing and conducting the defensive actions of a combined-arms army. The work concludes with research into the questions of the rear services and technical support of the army during the conduct of offensive and defensive operations. Such an approach to the research of the topic has allowed the author to set forth a theory of the modern army operation closest to the possible actual practice of conducting such operations in a future war. This is the important positive quality of the

work being reviewed.

Any reader will find in the book many original ideas and interesting and useful propositions not only to expand his theoretical outlook, but also to use in his everyday practical work. True, not all problems have been expounded and argued convincingly; there are insufficiently worked out and debatable propositions, and on some questions it is hardly possible to agree with the author. But this does not diminish the positive significance of the book, for it forces the reader to think and challenges him to discuss and talk over debatable and unclear questions of operational art.

The modern combined-arms army has acquired completely new combat qualities in comparison with an army of the Great Patriotic War period. As a result of this, the methods of employing it and the methods of organizing and conducting an operation have also changed. Military art is faced with the task of continuing the further development of the theory and practice of operational art, of new methods of conducting operations with combined-arms armies. This task is being accomplished in the work under review.

Concerning the role and significance of the experience of past wars in the development of theory (page 10), the author indicates that, in military matters, harm is inflicted not only by conservatism, transferring old methods of conducting military actions to new conditions, but also by excessive fascination with "progressiveness", by a tendency toward utopian statements. Of course, "utopianism" in military matters is unacceptable, but, all the same, it appears to us that the great danger now is represented by conservatism, overrating old experience and inadequate searches for new methods of conducting armed conflict. Besides, the author himself on the whole stands for the most progressive views in military matters.

Primary attention in the book is devoted to research into modern offensive operations of a combined-arms army. The author gives a clear and convincing description of an offensive in a future missile/nuclear war, emphasizing that the method of conducting an offensive operation has now come to be the delivery of crushing nuclear strikes against the nuclear means and troop groupings of the enemy to the full depth of their operational dispositions, and immediately following these strikes with the swift advance of tank divisions and motorized rifle divisions. This has led to a drastic increase in the scope of an army operation: the depth of the offensive will reach 400 to 500 kilometers (page 51), and in a number
of cases it will be to the full depth of the front operation, i.e., up to 800 to 1,000 kilometers, with the width of the zone being up to 100 kilometers and more. The offensive zones of large units have correspondingly increased. The author points out that divisions can now successfully advance in zones of 20 to 30 kilometers (page 49). It appears to us that such offensive zones of divisions will be characteristic for combat in the operational depth. In negotiating the enemy defense on the main axes, divisions will apparently advance in zones from 12 to 15 and up to 20 kilometers wide. The average speeds of an offensive have also increased, and they will vary within the limits of 80 to 100 kilometers per day and more.

In the work are precisely formulated the distinguishing features of a modern operation: the absence of a continuous front, offensive by axes, the conduct of combat actions simultaneously at different depths in the absence of immediate close contact between large units and units and possibly even subunits, combat in scattered centers of fighting that quickly shift location from one area to another, the inevitability of frequent meeting battles and engagements, the high fluidity and mobility of combat actions, and the abrupt changes in the situation. Therefore, an offensive will be conducted basically in tanks, armored personnel carriers, and combat vehicles. The fire and clash of combat vehicles and their fire means will dominate the battlefield. Tactical airborne landing forces landed by helicopters will be employed on a wide scale. The offensive operation will be conducted under conditions of strong radioactive contamination of the terrain.

The author devotes much attention to the questions of the achievement of nuclear weapons superiority over the enemy. In so doing, in our opinion, he puts the basic stress mainly on the numerical aspect. It seems to us, however, that the essence of the matter consists not in numerical superiority, but in skill in employing nuclear weapons. Numerical superiority, it goes without saying, is desirable, but by itself does not guarantee the success of an operation. It is necessary to strive to preempt the enemy in delivering nuclear strikes, to deliver strikes in the most sensitive spot -- against his nuclear means, armored troops, and control posts, and exploit with timeliness the results of nuclear strikes by means of the decisive actions of tank troops and motorized rifle troops. High skill in employing nuclear weapons is the chief condition of the successful conduct of a modern operation.

Examined in detail in the work are the organization and support of a modern offensive operation of a combined-arms army. Here the main emphasis
is placed on the new problems of the preparation and support of an
operation which commanders and staffs will encounter in actual practice.

As the basis of research, the author uses an army's first operation in
the initial period of a war. He has in mind the case where a nuclear war
breaks out by surprise and, from the very first minute, the sides employ
strategic and operational nuclear weapons. The author, in fact, does not
examine other conditions of the outbreak of war but only mentions them from
time to time.

The surprise unleashing of a worldwide nuclear war is fully probable.
It is the most dangerous and extremely complex case of the entry of our
armed forces into a war. However, it is not out of the question that a war
may first break out in some limited area (a local war) and nuclear weapons
will not be employed in it. An army participating in such a war will be
conducting an operation which no longer comes within the theoretical
framework presented in the book. It may so happen, too, that at the
beginning of a war of limited scale only operational-tactical nuclear
weapons will be employed. An army conducting an operation in such a war
will employ all its forces and means, including nuclear weapons, but
strategic nuclear weapons may not participate in the war for some time.
Consequently, such an army operation will not come fully within the
framework of the first operation examined by the author of the work under
review.

In view of this, doubt arises as to whether it is correct to call an
army's first operation conducted at the beginning of a worldwide nuclear
war the first operation. In reality, it may by no means be the first
operation for a given army. The scheme of the first operation adopted by
the author does not embrace all the complexity of the situation which may
arise in the beginning of a future war. In our opinion, it would have been
more correct to use as the basis of research an operation of the initial
period that would have encompassed the various conditions of the outbreak
and development of a future war.

The preparation of an offensive operation is carried out on the basis
of a decision made by the commander of the army. The procedure for making
a decision has now acquired important theoretical and practical
significance. In the past, as we know, much time was spent on this; a
careful appraisal of the situation was carried out, and memoranda of the
staff and chiefs of branch arms and various suggestions about the decision
were prepared and listened to. Similar methods are also recommended in
this work (pages 87 to 100). The conditions of conducting a future war
will hardly allow such deliberation in "working out" the decision. Every formation commander and commander must constantly know the entire situation, and must personally, without outside advice or after a short exchange of opinions with a limited circle of subordinates (mainly with the chief of staff), make a responsible decision on the conduct of the operation and, during its course, assign tasks to the troops.

The Minister of Defense, Marshal of the Soviet Union R. Ya. Malinovskiy, in addressing a military science conference in the M. V. Frunze Academy, sharply condemned the firmly rooted term "working out a decision" which orients commanders and staffs towards deliberation in work.

In his decision, the commander of an army must first of all determine the concept of actions, the methods of fulfilling the assigned task, the axis of concentration of the main efforts, and the operational disposition of the troops.

In the past war, the most important element of the concept was the determination of the axis of the main attack. This was the zone or axis on which were concentrated the main efforts of the troops and fire means -- artillery, aviation, tanks, infantry, and other forces and means. Their actions were directed in strict coordination as to time and direction. This guaranteed the necessary penetrating strength of the attack grouping to enable breaking open the enemy defense -- a solid wall of fire means, manpower, and obstacles. In modern conditions, these problems must be solved differently.

The concept must now be based on the employment of nuclear weapons and the mobile actions of attack groupings of army troops which exploit the results of the nuclear strikes. Therefore, it is necessary in the first place to determine what targets, groupings of nuclear means, and troops must be destroyed and in what times by nuclear strikes with army and division means, and moreover, in such a way that, as a result of these strikes, the combat effectiveness of the entire opposing enemy grouping is effectively neutralized. Based on this, one determines the tasks and axes of actions of the attack groupings of troops to complete the defeat of the enemy and the capture of the important areas and installations that constitute the final objective of the operation.

In this connection, the question arises of how nuclear strikes and the actions of the attack groupings of troops should now be coordinated. Should they be concentrated in one well defined zone, on a single axis, where the main strike is to be delivered, or is this now no longer compulsory? Unfortunately, these questions have not been taken into
consideration in the work under review.

It appears to us that there is no need now to make a narrow breach in the enemy defense with nuclear strikes as was done by artillery and aviation in the last war. Such a breach not only will not ensure that the advancing troops will negotiate the enemy defense, but rather it will become a trap for the troops, since the enemy can easily destroy them with those nuclear weapons which will be at his disposal to the side of the main axis of attack. In addition, the advancing troops will hardly be able to get across a "carpet" of such nuclear strikes, where one will find the greatest destruction, fires, and high levels of radiation.

It is now necessary in the first place to destroy with nuclear strikes the missile and atomic artillery firing positions, airfields, nuclear warhead depots and assembly bases, and also the most important enemy large units and units, first of all, tank large units and units. These targets will not be located in some single narrow zone, but most likely they will be dispersed over nearly the entire zone of the army offensive and beyond its limits. Therefore, if enemy missile means are located to the side of the axis chosen for the main attack, they have to be destroyed. As for tank and infantry large units and units, the strongest and most dangerous of them will hardly be situated on the forward edge; they will rather be located in the depth in readiness to move. But if some of them happen to be deployed on the forward edge, they have to be neutralized with tactical missile nuclear strikes and conventional fire means.

Thus, the efforts of the nuclear means must now be concentrated by targets and areas within the entire offensive zone of the army and on its flanks, and by no means by axes.

But tank divisions and motorized rifle divisions can only operate by axes. Their efforts cannot be scattered evenly over the entire army zone of the offensive. Therefore, it is necessary to form groupings of them, with the strongest one advancing on the axis chosen for the main attack. It is important to ensure the advance of the attack grouping to the depth, flank, and rear of the enemy troop grouping that is to be destroyed or to the installation or area slated for capture. Therefore, for the advance of the attack groupings of troops it is necessary to select the weakest places in the enemy disposition, primarily those not occupied by troops or those occupied by weak or unsteady forces. Only under this condition will the attack groupings be able to most effectively exploit the results of nuclear strikes.
At first glance there appears a contradiction here: nuclear strikes are, as it were, divorced from the actions of the troops. This apparent contradiction arises because the grouping that has now been formed does not fit the customary scheme, worked out over a long period of time, for the disposition of forces in an operation.

In conformity with the concept and axis of the main attack, the army commander determines the attack grouping of troops necessary to fulfill the assigned task and the operational formation of the army. Can one believe that the motorized rifle large units and tank large units are the nucleus of the attack groupings, as the author asserts (page 52)? It appears to us that this formulation is imprecise. We are not inclined to belittle the importance of tanks and their combat capabilities. But still, in a nuclear war, tanks without nuclear means are now no longer able to decide the outcome of a battle in an operation. This is an indisputable fact that needs no special proof. Therefore, in our opinion, we should now consider the nucleus of the attack groupings to be above all the operational-tactical and tactical missile troops, capable of employing nuclear warheads, and also, needless to say, the tanks, most effectively capable of exploiting the results of nuclear strikes.

The author considers that "breaking down the tasks assigned to the large units for the day of battle into a number of successive ones is inadvisable and even harmful" (page 100). One can hardly agree with such an assertion. In any situation, the tasks should be assigned to the large units in specific form, defining not only the final objective of the battle, but also the methods of accomplishing the combat task -- the axis of the attack, what enemy grouping is to be routed, what installation or area is to be destroyed and captured, and by what time. Therefore, it is necessary to split up the overall task of the large units into the immediate task, the axis of the subsequent attack, and the task of the day, and also to determine the axis of the attack for the following day.

The decision of the army commander constitutes the basic content of the plan of the operation. However, planning the operation does not end with this, as is correctly noted in the book. Planning an operation has now become considerably more complicated as compared to the planning in the last war. In order to effectively ensure the fulfilment of an assigned task, it is necessary to perform complex calculations, to coordinate in detail the actions of the forces and means of the army for the entire operation.
Above all, it is necessary to allocate the available nuclear warheads by tasks for the entire operation and among the large units and units; to select the installations and targets to be hit with nuclear strikes and determine their coordinates; to designate the launchers or units to hit them; to determine the schedule for the preparation of missiles, warheads, and the entire system of ground equipment; to perform calculations for hitting the targets -- determine the type of burst, yield of nuclear charge, launch data, and target designations for each target; to prescribe the signals for the missile launchings, organize communications, and ensure getting the missiles to the targets and effectively hitting them; and to organize the monitoring and reporting of the results of a hit. Specific planning of the employment of nuclear weapons against targets for the entire operation, it stands to reason, is impossible. The author indicates that it has to be planned in detail for the period of routing the main opposing grouping of the enemy or for the first one or two days of the operation, and with this one can agree.

Based on how the employment of nuclear weapons is organized, one plans the actions of the divisions and other forces and means of the army specifying the following: the grouping of forces at the beginning of the operation and the possible changes in it during the course of combat actions, the axes of attack and the tasks of each large unit, the time and order of arrival of the large units at the departure line or area for the attack, the methods of accomplishing tasks during the operation, possible moves, cooperation procedures, etc.

It has already become a tradition among us that planning of the actions of an army's large units by days is done in detail for the depth of the immediate task of the army and in outline for the depth of the subsequent operation. Can one consider this obligatory for every situation? It appears to us that there should be no stereotyping in this matter. In the past war, many army operations were planned in detail by days for the entire depth and they were so carried out. The advantage of this kind of planning for army operations in a future war is obvious, especially those whose depth will not exceed 500 kilometers.

But how about army operations that are going to be conducted to the entire depth of a front task (800-1000 kilometers)? Specific planning of such a deep operation by days is, of course, a more complex matter, but it is perfectly feasible.

Very important is the matter of the organization of cooperation between the army's troops, to which the author devotes due attention (pages
The essence of cooperation now amounts to coordinating nuclear strikes and troop actions. Sometimes the opinion is expressed that it is necessary to provide continuous support of the offensive of the troops by nuclear strikes over the entire depth of the operation or continuous fire support of the offensive by the rocket troops. To some extent, this opinion is evident in the work under review. It appears to us that this matter requires further amplification.

The continuity of fire support of the offensive with rocket troops, stated on page 107 of the book, may be understood as the uninterrupted delivery of nuclear strikes on enemy targets ahead of the advancing large units. But in actual practice this is not feasible, and it is hardly advisable. It would require too many nuclear warheads, and the number of them will be limited. Besides, delivering nuclear strikes immediately in front of advancing troops is disadvantageous in principle. Such a method of employing nuclear weapons will not speed up, but rather it will restrain the advance of troops, to say nothing of the fact that it does not even ensure their safety.

Obviously, cooperation between nuclear means and the divisions must be constructed upon other principles. In our opinion, nuclear strikes have to be delivered on the most important enemy installations and troop groupings long before the arrival of our troops in these areas, or more precisely, at or near the maximum flight range of the missiles. It is not at all necessary, and even undesirable, for advancing troops to go into an area against which a nuclear strike has been delivered, especially a surface strike. Through such areas, all movement of troops will often prove to be altogether impossible for a certain time.

It may be said that, in this case, on the route of advance of the divisions, they will encounter enemy centers of resistance not neutralized by nuclear weapons that are capable of delaying the offensive. This cannot be denied. In our opinion, the way out of such a situation may be the following: one must try to destroy with nuclear strikes at long ranges the strongest centers of enemy resistance; the remaining enemy installations that have not been neutralized should be bypassed, blocked, and when this is impossible, overcome with the use of conventional fire means; in separate cases a nuclear strike with tactical missiles may be delivered against such centers, but observing the safety measures for our own troops.

Requiring some amplification is the matter of employing airborne landing forces and the cooperation of the army's troops with them. In the book it is repeatedly indicated that, in a front operation, an operational
landing force with a strength of up to an airborne division will be employed, and the questions of cooperation with such a landing force are examined (pages 109-110). As we know, airborne divisions have a different mission: they will be used by the Supreme High Command for landings deep in the enemy rear and will not, as a rule, be attached to fronts. And it is unlikely that an army commander will have to organize cooperation with such a landing force.

In front and army operations, as is mentioned in this work, tactical airborne landing forces, landed by helicopters in areas which the army's troops can quickly get to, will be employed. But this must not, as it seems to us, be considered an indispensable condition for employing tactical airborne landing forces. In a number of cases, and probably quite frequently, tactical landing forces will be landed to accomplish combat tasks independently (for instance, to seize or destroy targets located to the side of the offensive of the troops, to negotiate zones with a high level of radiation, and others), and troops of the army may not even link up with such a landing force. Therefore, in this work it should have been stressed that, under conditions of employing nuclear weapons, the role of airborne landing forces in the accomplishment of combat tasks, and moreover to a certain degree independently, is increasing.

In examining the questions of cooperation between a combined-arms army and a tank army, the author indicates that "by delivering deep attacks, the tank army will promote the swift actions of the combined-arms army and cooperate in the fulfilment of the tasks facing it and in the quick achievement of the objectives of the army's operation" (page 111). This proposition is in need of refinement. Here the author, as it were, unwittingly emphasizes that in future operations the tank army will bring the combined-arms army along behind it, opening up the way for it to accomplish the final objective of the operation. In future front operations the tank and combined-arms army will advance on independent axes and not necessarily one behind the other, as was often done in the past war. Not uncommonly, the combined-arms army will be accomplishing the same kind of task as the tank army. Therefore, cooperation must be based on just this employment of these armies, which have, moreover, essentially the same operational-tactical capabilities.

The work gives serious attention to the methods of conducting an offensive operation by a combined-arms army. Chapters 5 and 6 are devoted to these matters.
The book emphasizes first of all that, as a result of the fact that massed nuclear strikes now inflict the main damage on the enemy, one should consider the initiation of modern offensive operations to be the moment the first nuclear strikes are delivered, these being the decisive act of an operation.

Unfortunately, the author has limited himself to only a general presentation of the matter of delivering a nuclear strike at the beginning of an operation. This is a complex question and, in our opinion, it has not yet been adequately developed in theory with respect to an army operation.

War may begin by the surprise and unlimited employment of nuclear weapons on the part of the aggressor. In this case, our armed forces will deliver the initial nuclear strike with strategic means with the participation of front means and navy means. Army missile units will also be called upon to participate in the initial nuclear strike, but obviously on a limited scale. This is conditioned not only by the limited range of fire of army missiles and the difficulty of selecting strike targets, but also by the necessity of conserving army nuclear warheads for employment during the operation. As for the division missile subunits, they will, in all probability, not participate in the initial nuclear strike at all.

In preparing an operation in the course of a war, not only army missile units, but also division missile subunits, will be called upon to deliver the initial nuclear strike.

The main task of the initial nuclear strike of army means must be the destruction of the enemy's nuclear means and the disruption of his nuclear strike, and the neutralization of the opposing enemy troop grouping to such an extent that organized resistance to the offensive of our troops is out of the question. The initial nuclear strike of an army in all cases, obviously, will be delivered according to front orders.

The methods of having troops go over to the offensive must also be decided in specific detail, depending on the situation. If contemplating an army operation in the beginning of a nuclear war, then the large units of a first-echelon army of the front will have to be moved up to a deployment area for commitment to the engagement. The movement of the large units, in all probability, will be carried out during the delivery of the initial nuclear strike or after it. The troops will have to travel different distances in a complex situation, under enemy nuclear strikes, negotiating or bypassing zones with high levels of radiation. Some armies
will be moving from the interior of the country. In either case, they will have to complete marches over long and short distances, which is examined in detail in the work under review (Chapter 2).

In the book it is repeatedly emphasized that the army's troops must immediately go over to the offensive following a nuclear strike from whatever condition they were in before this. It appears to us that such an assertion is in need of refinement. In determining the time the troops go over to the offensive, one must not fail to reckon with the radiation situation, since on some axes the high levels of radiation that have developed will not allow them to immediately go over to the offensive. For this, it will be necessary to find axes where the radiation level is low or to wait a certain time until the radiation level has fallen. If one considers this circumstance, and also the fact that the army's large units will in most cases have to complete marches over varying distances, one cannot fail to come to the conclusion that between the initial nuclear strike and the time of going directly over to the offensive there will be an inevitable interruption, the length of which will depend on the specific conditions of the situation.

In the book the methods of actions of army troops in the offensive are set forth in sufficient detail (Chapter 6). The recommendations listed do not on the whole give rise to objections. We should only like to emphasize that, in certain cases, an offensive against a defending enemy may be preceded by negotiation of a forward security zone of up to 100 kilometers and more in depth, covered by reconnaissance and security. The advancing troops must not get involved here in prolonged battles but, operating predominantly in columns under the cover of the forward detachments and their own security, quickly negotiate such zones and break through from the march to the main defensive line. Subsequently, by exploiting gaps in the enemy combat formations or sectors that have been subjected to a nuclear strike, it is necessary to penetrate quickly into the depth, destroy the remaining enemy groupings by attacks on the flanks or rear, and swiftly develop the offensive into the depth. The offensive must be conducted with a speed of 15 to 20 kilometers per hour; only in exceptional cases is it permissible to dismount from the vehicles, and even less so, to attack enemy centers of resistance. Therefore, the troops must not try to attack every strong point and opposing garrison; it is better to bypass them, destroy them with a nuclear strike, with tank or artillery fire, or with an air strike, and sometimes simply to leave them in the rear -- the next echelons will finish them off.
It stands to reason that first-echelon troops will often have to overcome the resistance of individual centers of defense and destroy their garrisons. Against such centers one should primarily deliver nuclear strikes with tactical means. However, this will not always be possible, not only because of the limited reserve of tactical nuclear warheads, but also for reasons of the safety of our own troops. In this case, a fire preparation has to be conducted using tanks, artillery, and air strikes. Such a fire preparation will most often be conducted at the division scale. But one must not rule out its also being conducted according to a common plan on the attack axes of the army, especially while negotiating (breaking through) the main and intermediate lines of defense. Nuclear strikes in this case may be delivered both before the start of the fire preparation and also during it.

Noting that the occurrence of meeting engagements is characteristic of the actions of armies during an operation, the author gives a number of practical recommendations on the deployment of troops. One can hardly accept that in an encounter with an enemy armored grouping it will be advantageous to force it to deploy, deliver a nuclear strike against it, and then develop the offensive (page 172). The enemy can be more quickly and simply routed when he has not deployed, since his troops are in columns stretched out in depth.

Deserving great attention are the propositions set forth in this work about an offensive against an enemy mobile defense employing delaying actions. In many theoretical works these questions are bypassed although it is well known that the enemy attaches great significance to such actions.

The author also examines the methods of negotiating zones with high levels of radiation (pages 203-218). This is an important feature of an offensive in a future nuclear war which one must not fail to take into consideration. But, as we know, this dangerous factor is at times underestimated in the combat training and operational training of troops. Naturally, the problems of negotiating the zones in helicopters and vehicles, of ensuring personnel are protected from high doses of radiation during combat actions, and also of protecting rations, water, and other materiel require further theoretical working out.

A separate chapter of this work is devoted to the questions of an army's defense. The author emphasizes that, in spite of the fact that under present-day conditions the offensive means of armed conflict have acquired absolute supremacy over the means of defense and that defensive
actions can no longer ensure the achievement of any tangible results in armed conflict, still defense cannot be completely ignored. Our troops, in the course of offensive actions, will, in all probability, have to cope with halts and loss of the rates of advance, and even resort to the defense in individual sectors as a temporary and forced type of combat action. This may be the case if the troops are subjected to the powerful effect of enemy nuclear weapons, if nuclear warheads are not delivered in time, or if reserves do not arrive in time.

Defensive operations of an army, as is mentioned in this work, will most frequently be conducted during a front offensive operation to repel enemy counterattacks or support the attack groupings of the front. And it may so happen that the army will have to defend itself on those axes on which an offensive is for some reason advisable or impossible.

The book deals in detail with the nature of modern defense and new demands on it, and it examines the disposition of the defense, the establishment of troop groupings, and the methods of conducting defensive actions. All the propositions on these matters cause no objections. As for the questions of employing nuclear weapons in defense, they need amplification.

The author believes, for instance, that "nuclear weapons strikes will constitute the basis of the fire system of a modern defense" (page 221), and further, without denying that they "will be employed mainly in offensive operations" (page 226), he still speaks on page 228 of the necessity of massed employment of nuclear weapons. The question arises: Why will the army go over to the defense if it is able to execute the massed employment of nuclear weapons? If massed nuclear strikes are going to be delivered on the enemy, then the defending troops have no need to stay in place; they must immediately go over to the offensive. It is precisely thus that our troops are now being trained.

In all probability, the troops will go over to the defense mainly when there are not enough nuclear warheads at their disposal. Therefore, in defense one should be oriented not only towards nuclear weapons, but also towards conventional means of destruction: tanks, artillery, aviation, antitank guided missiles, surface-to-air missiles, and small arms. To build the defense on the calculation of using only nuclear weapons is unrealistic. Apparently, owing to the erroneous treatment of the matter of employing nuclear weapons in defense, the author has altogether excluded the counterpreparation and he has devoted almost no attention to engineer preparation of the terrain in defense, although all this continues to be
critical even under present-day conditions.

Deserving serious attention are the matters of the rear services and technical support in the operations of a combined-arms army. In the book they have also found due treatment. In this, the author places main emphasis on supporting the army with nuclear warheads, missiles, missile propellant, fuel and lubricants for combat vehicles, and technical items; this support has become considerably complicated. He has also examined the matters of technical servicing, and the restoration and repair of complex combat equipment.

In conclusion, it should be said that the remarks expressed by us do not diminish the great theoretical and practical value of the book. It will greatly help our command cadres improve their knowledge of operational art and improve the quality of operational training, especially in studying questions of organizing and conducting army operations.