MEMORANDUM FOR: The Director of Central Intelligence

FROM: William W. Wells
Deputy Director for Operations

SUBJECT: MILITARY THOUGHT (USSR): Actions of a Front Air Army in Support of a Tank Army

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 an extensive review of front aviation actions appropriate to the support of a tank army in an offensive operation. The allocation of flight resources to air support is discussed in terms of numbers of aircraft and the number and types of targets to be destroyed. The primary tasks of the aviation, regardless of the tank army's overall mission, are considered to be the destruction of missile/nuclear weapons as they are detected, and combat with enemy reserves in close coordination with tank actions. Other aviation tasks carried out for the tank army may include air reconnaissance, cover, and airlifts, which do not necessarily fall under the category of air support as defined in the article. The author also explains the cooperation "by time" of aviation with SAM troops, and concludes with a brief discussion of the roles of the tank army commander and the air army operations group in controlling the supporting aviation. 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 William W. Wells
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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 author of this article is General-Mayor of Aviation S. Sokolov. This article is an extensive review of front aviation actions appropriate to the support of a tank army in an offensive operation. The allocation of flight resources to air support is discussed in terms of numbers of aircraft and the number and types of targets to be destroyed. The primary tasks of the aviation, regardless of the tank army's overall mission, are considered to be the destruction of missile/nuclear weapons as they are detected, and combat with enemy reserves in close coordination with tank actions. Other aviation tasks carried out for the tank army may include air reconnaissance, cover, and airlifts, which do not necessarily fall under the category of air support as defined in the article. The author also explains the cooperation "by time" of aviation with SAM troops, and concludes with a brief discussion of the roles of the tank army commander and the air army operations group in controlling the supporting aviation.

End of Summary

Comment:
The author also wrote "Actions of Front Aviation in the First Offensive Operation of the Front in the Initial Period of War" in Issue No. 1 (71) for 1964. After 1962 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.
Actions of a Front Air Army
In Support of a Tank Army
by
General-Mayor of Aviation S. Sokolov

The air army of the front aviation, as is known, has as its primary purpose joint actions with the ground forces in the operations carried out by them. The quantity of tasks to be accomplished by the air army in support of the tank army is conditioned by the strength of forces of the opposing enemy, the nature of his actions, the combat strength of the air army, the quantity of nuclear weapons allocated to it, and the tasks which the tank army must accomplish.

The basic tasks of the tank army in the initial operation of the front will be destruction or capture of the enemy nuclear weapons, rout of his deep reserves, and seizure of areas or installations of operational-strategic importance on the line of the final objective of the front operation. Characteristic of tank actions are speed and frequent separation by a considerable distance from the other troops of the front. As a consequence of this, successful accomplishment of the tasks assigned to the tank army is possible only with its close cooperation with the other troops of the front -- rocket troops, aviation, airborne troops, and motorized rifle large units.

In the operations of a front, the tank army plays the most important and leading role, inasmuch as tank troops are better capable than motorized rifle troops of exploiting the effect of the employment of nuclear weapons and have more survivability during the delivery of enemy nuclear strikes. The armored protection of tanks, self-propelled guns, and armored personnel carriers considerably reduces personnel losses from the shock wave, penetrating radiation, and thermal radiation. Thanks to this, tank units can more successfully withstand enemy nuclear strikes.

Along with this, the tank army can have higher rates of advance (over 100 kilometers per day) than motorized rifle troops. However, such a rapid advance of the tank troops complicates the conditions of their cooperation with the other troops of the front, including the air army. The basing of the air army on the second or third day of the offensive may be 250 to 300 kilometers distant from the advancing forward units of the tank army. And
this distance is approximately equal to the tactical operating radius of the fighter-bombers and fighters cooperating directly with the troops of the tank army. Rebasining the aviation closer to the forward units in this period does not always work out because of the lack of airfields in operating condition in the territory which the troops of the tank army seize.

The capabilities of the air army for building new airfields are extremely limited. In a day the air army can build one or two airfields with metal runways (or two to three dirt airfields). But it will not always be possible to count on this. Considering the experience of the combat actions of the aviation in Korea, we should keep in mind that new airfields can be immediately destroyed by the enemy. Therefore, besides building new airfields, it is necessary for the advancing troops of the tank army, employing forward detachments and airborne landing forces, to strive to capture enemy airfields in operating condition. It is necessary to take steps for the defense of airfields in operating condition or newly built airfields against the air and ground enemy and to create conditions on them for basing the air army of the front.

Solving the problems of airfield basing of the front aviation in the course of an operation is possible only through the joint efforts of the air army and the tank army with the assistance of the commander of troops of the front. Only under such conditions will the tank army have close contact in the course of an operation with the aviation carrying out the tasks of air support.

In organizing the combat actions of the air army in support of a tank army, it is also necessary to consider the other specific features of the employment of the latter. For instance, the tank army (unlike the combined-arms army) will, as a rule, be operating on the main axis of attack of the front. Therefore it may, in many cases, meet with stronger resistance on the part of the enemy than the combined-arms army operating on an axis other than the main axis. This must be taken into consideration by the commander of the air army, particularly in organizing the covering of the troops of the tank army, but also in determining the flight resources for air support. As a rule, greater flight resources must be planned for a tank army than for a combined-arms army.

In the period of the Great Patriotic War, the commander of a tank army knew already during the planning of an operation what air large units of the air army were being allocated to him for air support, and with what flight resources, and sometimes also what air large units were covering the
army against enemy air strikes.

Under present-day conditions, carrying out such detailed planning in advance will not always be possible. Because of the changes that have taken place in the combat strength of the air army, its combat actions may be conducted mainly in a centralized manner, and the flight resources for air support of the troops of the tank army will be more limited. Air large units for air support may be specified only at the very last minute, i.e., during the assignment of tasks, and only at times the day before.

The limited strength of the front aviation will not allow allotting specific air large units to the tank army.

Let us now consider what flight resources a tank army can count on in the initial offensive operation of the front.

If there is in the combat strength of the air army one air division of fighter-bombers, then the flight resources that can be planned by this division for the entire operation of the troops of the front (eight to ten days long) are in the range of 12 to 14 divisional sorties. Taking into consideration the experience of exercises conducted in recent years, we note that the planning of flight resources of the air army is carried out in accordance with the specific situation, but, breaking it down by main tasks, it has been executed in these exercises in approximately these proportions: for destruction (neutralization) of enemy missile/nuclear weapons and aviation -- about half of the flight resources, for combat with enemy reserves -- 20 to 30 percent, about the same amount for air support of the troops, and five to ten percent comprised the reserve.

Consequently, in our example, out of 12 to 14 divisional sorties of fighter-bombers, only a total of three or four divisional sorties can be planned for air support of the troops. But this is for all the combined-arms armies and the tank army. Undoubtedly, the tank army will get the greater part of these flight resources. In our example, this will constitute two or three divisional sorties, or four to six divisional sorties if there are not one but two air divisions of fighter-bombers in the air army.

Calculating in the same way the possible flight resources of bomber aviation to be planned for air support of the tank army, we get five or six regimental sorties of bomber aviation.
From this calculation it is obvious that the flight resources in support of a tank army cannot be so extensive as they were in operations during the Great Patriotic War, when there were sometimes over 20 air units and large units, with a total of more than 3,000 aircraft, in an air army.

True, determination of flight resources must not be approached only arithmetically; everything will depend on the conditions of the specific situation. Indeed, it is no wonder that the necessity for rigid centralization in the employment of the air army is being specially stressed at the present time. Troop exercises have confirmed that centralization makes it possible to concentrate the main efforts of the entire air army on carrying out one of the tasks in support of the troops of the front or in support of one of the armies, principally, of course, in support of a tank army fulfilling the leading role in a front operation.

The allocation of limited flight resources (two or three divisional sorties of fighter-bombers and five or six regimental sorties of bombers for the entire operation of the tank army) may appear clearly inadequate if this question is approached as it was approached in the period of the Great Patriotic War, when several entire ground-attack air corps -- two or three air divisions and sometimes even more in each -- would be operating in support of a tank army.

Such an approach to the allocation of the efforts of the air army is now intolerable. It is considered obsolete and even erroneous. With such an approach, the power of the missile/nuclear weapons employed by all branch arms and branches of the armed forces, including aviation, is, in fact, dismissed from consideration. Nor should it be forgotten that, in two or three divisional sorties of fighter-bombers and five or six regimental sorties of bomber aviation, it is possible to employ from 85 to 120 nuclear aerial bombs of medium yield (calculating on the employment of 60 to 90 in two or three divisional sorties of fighter-bombers, and 25 to 30 in five or six regimental sorties of bombers). The burst yield of such a quantity of nuclear bombs is beyond comparison with the explosive power of the weapons employed by several ground-attack air corps and bomber air corps in the last war. Of course, the air army will not receive such a quantity of nuclear bombs to carry out the tasks on the operations axis of a tank army. But even if the forces of the air army have to employ conventional means of destruction, this will in no way diminish the effect of air support. Only, in this case, it is necessary to keep in mind that employing aviation now in such a quantity and in such ways as it was employed in the period of the Great Patriotic War is impossible. The front aviation has changed in its composition (quantitatively and qualitatively),
and in connection with this, the conditions and methods of accomplishment of its tasks have changed. On the whole, its employment must be structured differently.

Under present-day conditions, the front aviation must be mainly for the purpose of destroying only those enemy targets which it is impossible for other means of the ground forces to neutralize. For bombers, such targets will be the reserves and control posts; for fighter-bombers, small-size and mobile targets (individual launchers of missile/nuclear weapons, atomic artillery, tank groups and movement groups, artillery groups, control posts, etc.).

What quantity of missile/nuclear weapons targets may there be in opposition to the advancing troops of the tank army? Knowing the approximate zone of actions which the advancing troops of the tank army will occupy, and taking into consideration the possible opposition not only in this zone, but also on the flanks, it may be assumed that a tank army will be opposed during its offensive by enemy forces and means equal in number to approximately one field army. The organic means of a US field army are presented in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Designation of Targets</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporal and Sergeant guided missile battalions</td>
<td>3</td>
</tr>
<tr>
<td>Honest John free-flight rocket battalions (in army corps)</td>
<td>3</td>
</tr>
<tr>
<td>Honest John free-flight rocket battalions (in infantry and armor divisions)</td>
<td>9</td>
</tr>
<tr>
<td>Redstone or Pershing guided missile groups</td>
<td>1</td>
</tr>
<tr>
<td>Atomic artillery battalions</td>
<td>15-17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31-33</strong></td>
</tr>
</tbody>
</table>
Naturally, the aviation will not act against all the targets indicated in the table. It should be targeted only against those of the enumerated targets which, at the moment of detection, happen to be on the move (changing their positions or moving out of them). When these targets are located in positions, they must no longer be treated as small-size targets. For instance, the position of a Corporal guided missile battalion or an Honest John free-flight rocket battalion occupies an area of terrain measuring two by three kilometers and it has vulnerable centers dispersed all over the area; therefore, they can be destroyed by the rocket troops of the ground forces.

It is important to stress that, of the indicated number of targets, only a certain portion may be on the move -- a quarter or a third of their number, i.e., about eight to ten targets. These targets must be destroyed primarily by the aviation designated for air support; moreover, this will be its main task. Such a task is perfectly feasible for fighter-bombers, even when they are employing conventional means of destruction.

But will the allocated flight resources suffice to accomplish such a task? Let us make a rough calculation. Knowing the effectiveness of the rocket/cannon armament on the modern SU-7B fighter-bomber, it can be assumed that it will take up to one air squadron of fighter-bombers (eight to 12 aircraft) to destroy one Corporal guided missile battalion or one Honest John free-flight rocket battalion or one Redstone group. Consequently, to destroy eight to ten such targets it is necessary to plan about one divisional sortie of fighter-bombers. The remaining targets (of the 31 to 33) it appears possible to destroy with missiles when they are not moving.

However, it should not be understood that destruction of missile/nuclear weapons is the only task of air support of the troops of a tank army. Before going on to the consideration of other tasks to be carried out in air support, it is necessary to note one important circumstance. During the offensive of the troops of the tank army, aircraft and cruise missiles of the Matador and Mace type of the enemy tactical aviation will offer the most active resistance. Combat with these means of air attack will be conducted by the forces of the entire front; therefore, the forces and means allocated for air support of the tank army should not be expended on the destruction of such targets.

Approximately the same situation obtains with the accomplishment of another task -- combat with the deep operational reserves of the enemy. It is accomplished according to the plan of the front by the rocket troops in
cooperation with the air army, and sometimes also with the long range aviation. Consequently, for carrying out this task, only those forces of the air army and nuclear warheads will be expended which are provided for by the plan of the front. Naturally, the command of the tank army must certainly know about these actions, especially the time and place of delivering nuclear strikes. Such information will permit timely exploitation of these strikes of the front in the interest of successful accomplishment of the tasks assigned to the tank army.

The task of combating the immediate reserves of the enemy will be carried out differently. The commander of the tank army takes this on himself and he will expend part of the resources of the fighter-bomber and bomber forces allocated to him to accomplish this task.

Combating the enemy reserves, as well as destroying them with missile/nuclear means, requires consideration of certain special features. The aviation has to be employed against those targets which it is either impossible or less convenient to destroy with missile means. For instance, the concentration area of an enemy armored division is detected, but the coordinates of the locations of its units and subunits are still not pinpointed, and the situation requires hitting it immediately. In such a case, of course, either a regiment of bombers or a regiment of fighter-bombers with nine to ten nuclear aerial bombs may be employed. It can be expected that in such strength the aviation will fulfill the task successfully. Even given a tactical coefficient equal to 1.5, effective damage of all tank battalions is obtained with five or six nuclear aerial bombs (out of the nine to ten), as a result of which the enemy armored division loses its combat effectiveness.

But enemy reserves may also be on the move. In such cases they will represent limited targets against which the employment of missiles is not very effective. But the aviation will be able to operate against them very successfully, causing the formation of bottlenecks and large bunchings of troops and providing for missile/nuclear weapons to be employed against the bunched up reserves. The creation of "man-made" targets will be promoted not only by the aviation delivering strikes directly against troops on the move, but also by its destruction of bridges and crossings over water obstacles on the routes of movement of the reserves, or by delivery of strikes directly on the enemy personnel and equipment in places where it is easiest to cause bunching up of troops (ravines, gorges, defiles, etc.).

In assigning tasks to destroy bridges or crossings, the capabilities of the fighter-bomber aviation should be taken into consideration.
Fighter-bombers can successfully accomplish this task by employing large caliber unguided rockets. One or two such rockets hitting a 50 x 8-meter light bridge will knock it out. To increase the reliability of destruction of such targets, the detail of aircraft allocated should not be too limited. Calculations show that, even figuring a tactical coefficient equal to two, it requires the allocation of up to eight aircraft to bring about the bunching up of troops at light bridges. Consequently, one regiment of fighter-bombers using large rockets can cause a delay of the movement of up to one division of enemy reserves at water obstacles and turn them into targets against which the employment of missiles with nuclear warheads will be advisable. It is evident from this what great significance the actions of the aviation carrying out support of a tank army have in combating enemy reserves.

We will note that, for the aviation, combat with enemy reserves constitutes the second extremely important task, after the task of destroying missile/nuclear weapons targets, with both of them remaining the main tasks for the aviation during the course of the entire operation of the tank army. The significance of both is of the same degree and does not depend on what task the tank army is carrying out, whether it is negotiating a forward or intermediate line of defense of the enemy, conducting a meeting engagement or pursuing a retreating enemy, making an assault crossing of a water obstacle or negotiating a zone of radioactive contamination. Timely accomplishment of these two tasks by the aviation contributes considerably to the successful achievement of the objectives of the operation by the tank army.

The procedure of carrying out these tasks by the aviation is not identical. Destruction of missile/nuclear weapons targets is carried out immediately as they are detected, whereas combat with enemy reserves is conducted in conformity with the concept of the actions of the tank army, requires precise coordination with these actions, and sometimes coincides with the most complex periods of the operation of the tank army. For instance, the aviation may carry on combat against the enemy reserves when the tank army is carrying out the task of routing enemy counterattack groupings, when the second echelon of the army is being committed to the engagement, when tactical landing forces are landing, and during other periods.

Besides the two main tasks examined above, the aviation will, in the course of air support, also fulfill other tasks. Depending on the situation, according to the decision of the commander of the tank army, the aviation may sometimes be given such tasks as destruction of enemy command
posts and aviation and guided missile guidance and control posts, illumination (at night) of individual targets, establishment (at night) of navigational reference points with the use of illuminating flare night marker bombs, etc.

The actions of the air army of the front in support of a tank army are not limited to air support. By air support, in our opinion, should be understood only those actions of the front air army to destroy (neutralize) enemy targets on the ground which are conducted according to the decision of the commander of the tank army. These actions are conducted within the framework of the established flight resources and with the employment of the nuclear warheads allocated for the given tank army; air support begins from the moment the ground troops go over to the offensive.

Simultaneously with air support, the air army also carries out other combat actions, accomplishing tasks in support of the tank army according to the plan of the front. Such tasks are aerial reconnaissance, covering the troops, and provision of airlifts for the tank army. Let us dwell briefly on these tasks.

The basic task of aerial reconnaissance in support of the tank army is detection of the missile/nuclear weapons of those opposing enemy troops who may offer the tank army immediate resistance. Unquestionably, the command of the tank army must have its own forces and means of aerial reconnaissance for this. This is why, in the exercises conducted in the troops and academies in recent years, the inclusion of a separate air reconnaissance squadron in the composition of the tank army is practiced. The exercises demonstrate the advisability of such a measure.

Let us determine whether these aerial reconnaissance forces are enough for a tank army. For this, we shall examine approximately what number of aircraft sorties of the reconnaissance aviation may be required to detect the missile/nuclear weapons targets of the enemy. In Table 2 are shown the possible number of such targets in the zone of actions of a tank army and the number of sorties required to detect all the targets.
Table 2

<table>
<thead>
<tr>
<th>Reconnaissance targets</th>
<th>Number</th>
<th>Total aircraft sorties for detection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redstone or Pershing missile group</td>
<td>1</td>
<td>3-10</td>
</tr>
<tr>
<td>Corporal missile battalions</td>
<td>3</td>
<td>9-30</td>
</tr>
<tr>
<td>Honest John rocket battalions (in an army corps)</td>
<td>3</td>
<td>9-30</td>
</tr>
<tr>
<td>Honest John rocket battalions (also those in armored divisions)</td>
<td>9</td>
<td>27-90</td>
</tr>
<tr>
<td>Nuclear artillery battalions</td>
<td>15-17</td>
<td>51-170</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31-33</strong></td>
<td><strong>99-330</strong></td>
</tr>
</tbody>
</table>

From the table it is evident that for the reconnaissance aviation to accomplish only the one task examined it must carry out from 100 to 330 aircraft sorties (figuring on the unfailing detection of one target in the course of three to ten sorties).

The capabilities of one reconnaissance air squadron are considerably smaller. It is capable of making altogether about 90 aircraft sorties (under the following conditions: the duration of the operation of the tank army is five to six days, there are ten aircraft in operating status in the squadron, each aircraft makes an average of 1.5 sorties per day). From this it is evident that one reconnaissance air squadron will not always be able to carry out even one main task, detection of all the missile/nuclear weapons targets of the enemy in the zone of actions of the tank army (and it still has other very important tasks). Therefore, it is advisable that the reconnaissance aviation squadron of the tank army be assigned to accomplish only part of this task, namely reconnaissance of missile sites or detection of such targets as Redstone, Pershing, and Corporal missiles. Aerial reconnaissance of the remaining targets in support of the tank army will evidently be assigned to the reconnaissance and reconnaissance-and-spotting air regiments of the air army. The
intelligence department of the tank army must provide for such sorties beforehand in its requests and also utilize the results of the aerial reconnaissance conducted in accordance with the plan of the front.

To shorten the time of assigning tasks to the crews of reconnaissance aircraft, and to obtain the reconnaissance data from them more quickly, it appears advisable to us to give the chief of the air army operations group attached to the tank army the authority to assign aerial reconnaissance tasks to reconnaissance regiments of the air army directly and not through the intelligence department of the front and the staff of the air army. It would be still better if the air army planned, just as it does for air support, specific flight resources of reconnaissance aviation in support of the tank army and indicated these to the commander of the tank army. It would also be useful to give the chief of the air army operations group the authority, in accordance with the decision of the commander of the tank army, not only to assign reconnaissance tasks through the staff of the reconnaissance air regiment, but also to call for the reconnaissance aviation of the air army, assign it a task and arrange for the later receipt of the aerial reconnaissance data directly at the command post of the tank army commander and the operations group of the air army.

Reliable covering of the tank army against enemy air strikes is one of the conditions ensuring the success of its actions. Therefore, it is organized according to the instructions of the commander of the front. Under present-day conditions, successful covering of a tank army against enemy air strikes is achieved not only by destroying aircraft and guided missiles in the air, but also by striking these means of attack at airfields and launching sites, and by damaging their launchers. Consequently, not only the fighter aviation and surface-to-air missile troops but also the front missiles, bomber aviation, and fighter-bombers can participate in carrying out the task of covering the tank army against air strikes. The more the air enemy is weakened by strikes on airfields, launching sites, and nuclear weapons assembly depots and bases, the easier it will be to organize his destruction in the air.

Air cover of the tank army against enemy strikes is carried out centrally in cooperation with the surface-to-air missile troops of the front within the general system of covering the main grouping of troops of the front. Given this condition, in order to repel massed strikes of the means of air attack, it is possible to allocate the efforts of all the air defense means of the front, the fighter aviation of the air army, and the means of the air defense of the country, if they are located in the zone of the front troops.
For purposes of better employment of all the forces and means of air defense, the correct practice has been established, in our opinion, of working out an air defense plan for the front which provides for the possible variants of enemy air actions and employment of our own forces, including the fighter aviation of the air army.

Destruction of enemy aerial reconnaissance aircraft and small groups of air targets is organized in the zones of combat actions of the fighter air divisions. In these zones, allotted with consideration for the operations axes of the tank army, commanders of the fighter air divisions may, on their own initiative, put part of the fighter forces in the air for destroying single targets, and also for airborne alert. In the period of the forward movement of the tank army, and during its conduct of combat actions, nearly all the fighter aviation will be employed for covering the tank army.

The organization of cooperation of the aviation with the surface-to-air missile subunits of the troops is generally known. We shall explain only the procedure of cooperation "by time". Cooperation by time may be very important when the advancing tank troops are making rapid progress, especially when the tank army is conducting combat actions while separated from the remaining forces of the front. The essence of cooperation by time will, in our opinion, come down to the following: for some specific period of time in a specific area (zone) or on a specific axis, only the surface-to-air missile troops cover the tank army against air strikes. Then, as the tank army moves forward, the surface-to-air missile troops pack up and follow it and the fighters of the air army start providing its cover. (It might be the other way round, i.e., at the beginning only the fighters cover and then the surface-to-air missile troops cover.) Such a method of cooperation is possible, for instance, during a change of fire positions of the surface-to-air missile troops when they are on the move. In this case, for one to three hours in a specific area the task of covering the troops of the tank army is assigned to the fighter aviation alone.

There may be other variants, too. For instance, if the whole unit of fire has been expended in the surface-to-air missile troops, then, until it is replenished, the task of covering the troops of the tank army may be accomplished only by the fighter aviation. In this case, the fighter aviation is obliged to destroy all air targets regardless of the altitudes and directions of their appearance.
Covering the troops by fighter aviation can be accomplished by various methods. With the tank army operating in the operational depth, especially when separated from the remaining forces of the front, the most reliable method will be "airborne alert". True, its employment requires a large number of fighters. Thus, in order to cover a tank army with this method for three or four hours, for instance, when a first-echelon division of the tank army is making an assault crossing of a water obstacle (width of the river, about 200 meters), it is necessary to have not less than two fighter air divisions. Accomplishing the task of covering the tank army with these forces will be extremely complex, since the commander of the air army needs a constant reserve of fighter aviation. A reserve permits increasing the forces in the air and replacing ahead of schedule groups of aircraft that have conducted aerial combat and expended their ammunition. But there is no place to get a reserve from, inasmuch as the strength of the air army is not very great.

Nonetheless, during the offensive of a tank army, it will very often be necessary to carry out covering of its troops against enemy air strikes by the method of airborne alert (during the commitment of one or several tank divisions to the engagement, when routing enemy counterattack groupings, when making assault crossings of water obstacles). In such cases, the efforts of all the fighter aviation of the air army may be required for air cover of the tank army. Therefore, air cover of the tank army against enemy air strikes must be carried out centrally during the entire operation of the tank army. In this connection, under present-day conditions the inadvisability should be recognized of making fighter aviation designated for cover subordinate (even operationally) to the commander of the tank army. In this respect, the experience of the Great Patriotic War has lost its significance, and such a practice of employing fighter air large units -- still encountered in some exercises in the postwar period -- must be condemned. In centralized organization of air cover of the tank army, the commander of the air army will have more capabilities for covering its troops. At the necessary moment, the commander of the air army will be able not only to strengthen the cover or throw the entire fighter aviation of the air army into it, but also to allocate part of the fighter-bombers for this purpose. Just by maneuvering forces, the commander of the air army is capable of increasing the reliability of the cover of the tank army. The commander of the tank army is not in a position to do this.

A few words about airlifts in support of the tank army. Even in a brief examination of this question it is possible to come to the conclusion that air delivery of materiel (ammunition, diesel and automotive fuel, and
other kinds of provisions) to support a tank army can be accomplished only by the transport aviation of the Supreme High Command. The daily expenditure of materiel for a tank army amounts to about 3,000 tons. To deliver it will require from 300 to 600 sorties of AN-12 or AN-8 aircraft. The air army does not have such a quantity of transport aviation at its disposal. The air army, during the execution of airlifts in support of the tank army, will obviously be able to accomplish the task of covering military transport aviation on the routes and in places of loading and unloading and to participate in the preparation of airfields for the military transport aviation in the zone of advance of the troops of the tank army.

These are what we see as being the combat actions of the air army in support of a tank army in an offensive operation of a front.

The somewhat unusual nature of the actions of the aviation causes certain special features in the control of air large units of the air army that are carrying out air support of a tank army. It is organized and carried out, as has been indicated, centrally by the commander of the air army from a command post usually located in immediate proximity to the command post of the commander of the front.

For the purposes of better organizing cooperation of the aviation with the tank army, and also for carrying out more effective air support, there must be detailed from the air army to the tank army an operations group, which must be located constantly in proximity to the commander of the tank army.

The functions of controlling the aviation that is accomplishing the tasks of air support come down to the following. The commander of the tank army, within the limits of the air resources allocated to him, assigns the tasks to the aviation, designates the targets to act against and the degree of their neutralization, and establishes the time of the strike. The chief of the operations group is responsible for calling for fighter-bomber aviation with conventional means of destruction through the commanders of divisions or through the command post of the air army. Calling for all bombers is done only through the command post of the air army. Such a procedure is explained by the fact that, for comprehensive support of a bomber strike, the air army must allocate considerable forces of fighter aviation and organize comprehensive radiotechnical support and radioelectronic countermeasures. Control of all delivery aircraft for nuclear warheads will be carried out only from the command post of the air army.
In a number of cases, the chief of the operations group will be given the authority to call for fighter-bombers directly from the units. But, for this, a special decision of the commander of the air army is necessary, which will remain in force only during a specific period of time. In case of drastic changes in the situation, the commander of the air army of the front, himself, will control that part of the aviation which is supporting the tank army.

For control of the fighter aviation covering the tank army from the air, a forward command post of one of the fighter air divisions may be deployed. It is best to collocate it with the control post of the chief of air defense of the tank army. The chief of the operations group directly controls the work of the forward command post and the air guidance officers located in the tank divisions of the first echelon. However, in all cases, centralized direction of all of the aviation by the commander of the air army constitutes the basis of control.