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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

17 April 1974

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT (USSR): Nuclear Support of Airborne Operations

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 points out complexities and unresolved aspects of nuclear support of airborne operations. The author finds that answers are needed to important questions of target selection, identification of and coordination among the combat elements involved, reconnaissance post-strike and during the operation, and suppression of enemy air defense positions along the routes to the drop zones. While the Soviet airborne division is said to have practically no technical reconnaissance equipment, there is a suggestion that it was to receive a tactical nuclear capability. This article appeared in Issue No. 3 (82) for 1967.

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.

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William E. Nelson
Deputy Director for Operations

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Intelligence Information Special Report

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SUBJECT

MILITARY THOUGHT (USSR): The Delivery of Nuclear Strikes in Support of a Large Airborne Landing in a Front Offensive

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 3 (82) for 1967 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is Colonel I. Andrushkevich. This article points out complexities and unresolved aspects of nuclear support of airborne operations. The author finds that answers are needed to important questions of target selection, identification of and coordination among the combat elements involved, reconnaissance post-strike and during the operation, and suppression of enemy air defense positions along the routes to the drop zones. While the Soviet airborne division is said to have practically no technical reconnaissance equipment, there is a suggestion that it was to receive a tactical nuclear capability.

End of Summary

[Redacted Box] Comment:

Col. Andrushkevich has written three articles for the RESTRICTED version of Military Thought: a critique and bibliography entitled "The Soviet Army and Navy--Beloved Creation of the People", Issue No. 2, 1973; "Psychological Aspects of Surprise" (a translation of an article from the periodicals of Fraternal Armies), Issue No. 7, 1971; and "Combat with Tanks in Modern Operations, Issue No. 4, 1969. Military Thought has been published by the USSR Ministry of Defense in three versions in the past -- TOP SECRET, SECRET, and RESTRICTED. There is no information as to whether or not the TOP SECRET version continues to be published. The SECRET version is published three times annually and is distributed down to the level of division commander.

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The Delivery of Nuclear Strikes in Support of a Large
Airborne Landing in a Front Offensive Operation

by

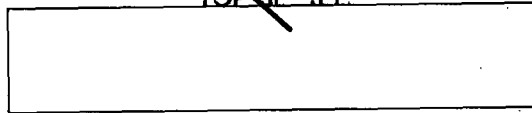
Colonel I. Andrushkevich

During operational exercises and war games a situation is occasionally encountered in which several generals and officers of the staffs of fronts (including staffs of rocket troops and artillery as well) view the delivery against the enemy of missile/nuclear strikes in support of a large airborne landing in a front offensive operation as merely an incident preceding the airborne landing. In our opinion, this is a definite underestimation, on the one hand, of the role of a large airborne landing and, on the other hand, of the capabilities of front missile/nuclear weapons to accomplish missions which support this type of operation.

Strikes against enemy objectives for the purpose of creating favorable conditions for aggressive combat actions to complete their destruction must be considered as the basis for the employment of nuclear weapons in the conduct of troop landing operations. These strikes are delivered from the moment the landing is made until the tasks of the landing are completed (joining up with the troops attacking from the front line).

In our opinion, the sequence for the delivery of nuclear strikes in support of a large airborne landing might be as follows: the destruction and neutralization of the enemy air defense missile means along the flight routes of the Military-Transport Aviation aircraft carrying the airborne troops, and of fighter aircraft on their airfields along the entire zone of the front offensive (strikes are delivered at the beginning of the operation and are concluded on the eve of the airborne landing); the delivery of nuclear strikes against enemy troop groupings and air defense means detected in the airborne landing zone and adjacent areas (strikes are delivered before the landing but no later than 30 to 40 minutes before the drop begins); and the destruction of nuclear attack means and troop groupings,

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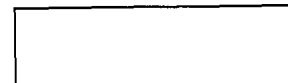


particularly tanks, during the combat actions of the airborne landing forces.

The means for delivering nuclear munitions against targets located in the airborne landing area, depending on how deep the area is (its distance from friendly forward troops) can be medium-range strategic missiles, delivery aircraft of long-range and front bomber aviation, and front missile/nuclear means. As the offense develops (shortening the distance between the airborne landing and the troops operating from the front line), they are joined by fighter-bombers and army (operational-tactical) and tactical rockets. This variety of forces and means involved in the delivery of nuclear strikes for the purpose of neutralizing and destroying the enemy in the airborne landing area and its vicinity, requires, in its turn, the planned allocation of tasks and precise coordination. The basic content of this planning is: the synchronization of the targets and the time factors for the delivery of nuclear strikes prior to the airborne landing drop; the detailed elaboration of measures to hit the air defense means and to support the airborne landing; the establishment of the sequence for delivering the nuclear strikes after the landing; and a determination of the type of airborne troop actions which will best exploit the results of nuclear strikes.

The difficulties which arise in connection with the complexity of control can be overcome to a certain extent by establishing within the front headquarters an operations group to direct the airborne landing. We shall discuss below the composition and functions of this group.

Reconnaissance and final reconnaissance of the objectives (targets) is of great importance in the delivery of nuclear strikes on enemy objectives in the drop and combat operations area of the airborne landing forces. Since, as a rule, most of the objectives (launching sites for surface-to-air and ballistic missiles, firing positions of artillery capable of employing nuclear munitions, and others) will be mobile and small in size, most accurate determination of their ground zero coordinates will be required to destroy them. Data from the airborne landing forces (from their own reconnaissance organs) on the



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location of objectives is also required because of the low accuracy in determining coordinates. Aviation including pilotless reconnaissance aircraft, will be the basic means of reconnaissance (final reconnaissance) of objectives to be hit because of the distance separating these objectives from our troops.

Unit and subunit commanders of the airborne landing forces must have timely information concerning the results of nuclear strikes delivered on enemy targets in the airborne landing combat zone if they are to make correct decisions and most effectively exploit the results obtained by the use of nuclear weapons. It is particularly important for the airborne landing forces to know the results of the nuclear strikes carried out prior to the landing, because at the moment these are being delivered, the airborne landing force may already be en route to the objectives--in the air. Therefore, information (about the yield and ground zero coordinates) may be transmitted to the commander of the airborne landing forces only on the Military-Transport Aviation communications net; and he, in turn, must get this information to landing force unit and subunit commanders (concerning those strikes which directly concern a given unit or subunit) over the same net. Unfortunately, on the basis of information received, the results of this or that strike (the degree of destruction of the target, the nature of the destruction and changes in the terrain, etc.), can be determined only by means of an initial estimate with subsequent refinements made after the landing.

When planning a large airborne landing, the front staff, jointly with the staffs of the air army and of the rocket troops and artillery, designates the enemy objectives to be hit by nuclear weapons in the airborne landing area, in adjacent areas, and in the Military-Transport Aviation flight zone; determines the delivery times for the nuclear strikes, their yields, types of bursts, and the means to be used; and the nuclear strike sequence and means to be employed (in specific terms for front and army rocket units and large units) while the airborne landing force is accomplishing its combat task. All of these matters are set forth in the plan for the employment of front rocket troops

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in the operation and in the plan for the combat employment of the air army.

As a rule, the nuclear strikes planned for the landing area are air bursts. In a case of extreme necessity (when an air burst has little effect in the destruction of an objective) ground bursts may be employed, but it is mandatory to take into account the direction of the average wind and the yield of the nuclear munitions in order to assure the security of the landing and the subsequent actions of the airborne landing units and subunits.

Lately it has become widespread practice to have airborne landing commanders and staffs participate in the determination of the objectives to be hit in the landing zone. It must be admitted that this approach is correct, because nobody has greater primary interest than the air landing personnel in the destruction of the enemy in the landing zone. However, this will not always be possible because of the conditions of the situation. Therefore, it is necessary to organize in advance an operations group of the landing staff which would participate in the front planning for nuclear strikes against objectives in the landing and combat actions zone.

To assure the flight of the Military-Transport Aviation column (to the landing and return) requires that enemy air defense means in the zone be neutralized strongly enough to preclude the destruction of transport aircraft on the flight routes. The width of the flight zone will vary in every specific case. The effective ranges of fire of the enemy air defense means on the flight altitudes chosen by Military-Transport Aviation will serve as the criterion for determining the width of the flight zone. For example, taking into account the capabilities of the Nike-Hercules and Hawk surface-to-air missiles, it is assumed that at a flight altitude of 900 meters, the width of the flight zone may be from 60 to 150 kilometers.

The following must be destroyed along with surface-to-air missile launching sites: airfields with enemy fighter aviation; control and guidance posts and radar stations of the detection system; and also the firing

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positions of tube antiaircraft artillery. As indicated by research, such objectives in the front offensive zone will be numerous (more than 100), and, therefore, to destroy them will obviously involve a considerable portion of the means of destruction (medium range strategic missiles, long-range aviation, front aviation and rocket units, and units of tube and rocket artillery) on a given operational-strategic axis. It seems to us that these measures, carried out actually to gain air supremacy, will be planned and executed within the framework of the entire strategic operation. Accordingly, the front may be assigned specific objectives to destroy or a zone of defined depth within which front means must destroy enemy air defense installations. It must be stated frankly that the problem of destroying enemy air defense means with the aim of assuring the flight of Military-Transport Aviation carrying the airborne landing force still awaits comprehensive analysis and practical solution.

The front plan for the employment of nuclear weapons must include a definite number of nuclear munitions and the means of delivering them to targets to enable the airborne landing force to combat the enemy nuclear attack means and his operational reserves, particularly his tanks, and to destroy other important objectives. Accordingly, the plan will indicate the types of munitions, their yields, and the degree of readiness of the allocated delivery means for each day of the operation.

The basis for determining the required amount of nuclear munitions will be the data available in the front headquarters concerning enemy groupings in the landing zone and in adjacent areas, taking into account their possible move and regrouping and, also, the duration of the independent combat actions of the landing forces.

The means for delivering nuclear strikes are selected by taking into account the depth at which the landing forces will be dropped and, also, the reduction of the depth as the situation changes (as front troops advance). Thus, initially these means might be bomber aviation and front operational-tactical rockets, then army operational-tactical rockets and fighter-bombers, and, in the concluding phase

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(as front troops enter the airborne landing force zone of action), tactical rockets and tank and artillery fire.

The experience of exercises and war games indicates that, if a front executes an airborne landing with a force up to an airborne division in strength, then to destroy the enemy in the airborne landing drop and combat action zone would require the expenditure of up to 6 to 8 medium-yield nuclear munitions in 3 to 4 days. This calculation is based primarily on the assumed repulse by the landing force of the enemy reserves consisting of up to one tank or mechanized division (at full strength). Of course, these calculations are purely approximations, since they were arrived at, not on the basis of actual targets but only on assumed ones and taking into account the organization and action tactics of the probable enemy.

How will the planning be conducted for the delivery of nuclear strikes in support of a large airborne landing? Our limited experience allows recommending the following work procedure. The commander of the airborne landing (as a rule, the commander of an airborne division with his operations group), located at the front headquarters, clarifies the assigned task and makes his proposals for the destruction of the enemy in the landing zone and adjacent areas, taking into consideration the planned (or already delivered) nuclear strikes. He presents these proposals to the front troop commander together with his plan for the landing and combat actions. Then, under the direction of one of the front deputy commanders or of the chief of the front operations directorate, problems concerning the coordination of the airborne landing troops with rocket troops and aviation are worked out. The amount of detail in this coordination depends on the specific conditions of the situation and the nature of the means to be employed. Thus, for the front means (rocket units and bomber aviation) it is necessary to indicate the exact level of readiness to deliver nuclear strikes of specific yields for every day of the operation; but for army means and fighter-bomber aviation, obviously it will suffice to orient them on the level of readiness required to strike the enemy (from a new airfield area for fighter-bomber aircraft) in the combat operations zone of the airborne landing as the army troops

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reach a specified line. Obviously this will be a line within reach of the indicated means.

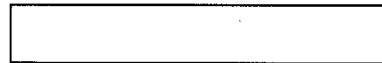
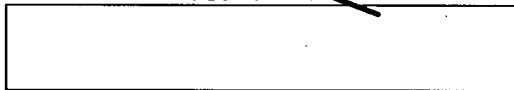
The most complex problems, in our opinion, are those of control while nuclear strikes are being delivered on objectives in the airborne landing zone and combat operations area of the airborne landing. Right up to the present it is not yet clear who will make the decision to deliver nuclear strikes and how this task will be conveyed to the executors. No one doubts that the decision to employ nuclear weapons must be made by the commander who possesses them. At the same time, also, the commander of the airborne landing cannot remain indifferent to this matter, because he is the person who has the most detailed knowledge of the situation in the combat actions area and who is most concerned with the employment of this weapon. Depending on the situation which has developed, he may specify the objectives (targets) which must be destroyed by nuclear weapons and report them to front (army) headquarters, indicating the nature and dimensions of the objectives and their location on the ground (coordinates). The decision to deliver a nuclear strike on these objectives will be taken, of course, by the front or army troop commander.

Such a procedure for delivering nuclear strikes combines centralized control over rocket troops and aviation by the front (army) troop commander with the designation of the objectives to be destroyed by the airborne landing commander. In this way, the most rational expenditure of nuclear munitions is obtained because strike yields will correspond strictly to the required destruction levels, while the use of duty batteries (squadrons at readiness No. 1) will allow the task to be accomplished in the shortest time possible.

The technical aspects of this matter, in our opinion, should be decided by an operations group, at front headquarters, charged with the employment (control) of the airborne landing. Besides officers and generals of the airborne landing troops, this group should consist of officers from the operations directorate, officers from the front rocket troop and artillery staff, and representatives of the air army. This group may be located in the front

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troop commander command post, ~~from where it is convenient to maintain uninterrupted communications with the airborne landing and with the appropriate directorates and departments of the front headquarters and of the arms of troops.~~

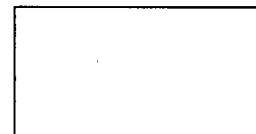
The basic tasks of this group may be: the collection of data concerning the situation in the combat operations area of the airborne landing and in adjacent areas (collected from the landing commander, reconnaissance aircraft, and other sources of information); the preparation of proposals for the employment of missile/nuclear weapons and bomber (fighter-bomber) aviation to destroy objectives in the landing and combat actions area of the airborne landing; and the approval of requests by the front troop commander and the transmittal of appropriate instructions to executors.

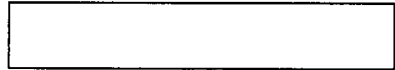
The last condition mentioned above requires some clarification. In our view, if a nuclear strike is to be delivered in accordance to plan (within the limits of the restrictions issued), then, with the approval of the front troop commander, the decision to deliver it may be made independently by the operations group. In those cases when added restrictions are required for nuclear means, or when their employment will also permit the accomplishment of other operational tasks (the destruction of nuclear attack means, enemy operational reserves, etc.), the decision to destroy these objectives should be made by the front troop commander.

Conveying to the executors the task of delivering a nuclear strike should be accomplished, as a rule, through the corresponding staffs (of rocket troops and artillery, of the air army). After sending the order, the operations group informs the airborne landing commander of the situation (coordinates of the points of aim), the type and yield of burst, and the time of delivery; and it also takes steps to determine the results of the burst.

Regrettably, in many exercises and war games the problem of employing nuclear weapons against the enemy in the combat operations area of the airborne landing is

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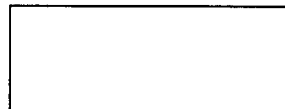




resolved by setting up and detailing to the airborne landing commander a group of representatives from the front (army) rocket troops staff and from aviation, who have to make the landing with the airborne force. The advisability of this approach raises serious doubts, because staff officers (except for pilots) are not trained to make parachute jumps. In addition, there are great difficulties in organizing communications for this group with the senior commander, because the dimensions of the R-102 and R-118 shortwave radio sets make it difficult to drop them. There are even doubts about the competence of this group to resolve independently the question of the employment of missile/ nuclear weapons.

The subject is much simpler concerning the organization of coordination when nuclear strikes are delivered by the means of the troops approaching the combat actions area of the airborne landing. The front plan will provide for the allocation of means from those of the combined-arms or tank army and of the motorized rifle and tank divisions approaching to join the airborne landing force; and the amount of nuclear munitions allocated will be enough to accomplish tasks jointly with the airborne landing force. In contrast with the procedure we suggested for delivering nuclear strikes by front means (through the operations group at front headquarters), the employment of army and division nuclear means has to be carried out at the decision of the army (division) commander, upon request from the airborne landing commander, within the limits of the nuclear munitions allocation. Communications must be direct in this case: from the airborne landing command post to the army (division) command post.

The chief of artillery of the airborne landing and his staff are at present sufficiently trained to resolve efficiently problems pertaining to the employment of nuclear weapons and to provide the airborne landing commander with appropriate assistance in selecting objectives to be struck and in preparing the necessary data to deliver nuclear strikes on them. But even to this day the problem remains the final reconnaissance of the objectives to be struck, because airborne troop large units do not yet have technical reconnaissance means (except visual) which will provide



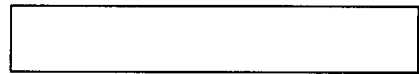
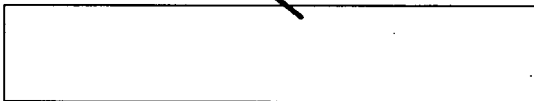


accurate coordinates for the objectives to be struck. Incidentally, we shall mention that ~~this situation tends to favor, to a certain degree, the use of bomber aviation as the delivery means for nuclear munitions, because bombers are capable, under certain conditions, of accomplishing final reconnaissance while executing a combat task and thereby cut down on the time between receipt of the request (report) of the airborne landing commander and the delivery of the nuclear strike on the accurately located objective (target).~~

Some work has already been done along these lines. In one of the exercises carried out in the summer of 1966, a separate heavy bomber aviation corps, operationally subordinate to the front during an airborne landing operation, was used to deliver nuclear strikes during the landing and combat actions of the airborne landing force. In all, it was planned to carry out 5 regimental-size sorties employing 15 medium and large yield nuclear aerial bombs. Most of these resources (3 regimental-size sorties and 10 nuclear aerial bombs) were used to strike the enemy in the flight zone and in the air landing zone before the beginning of the drop; and 2 regimental-size sorties and 5 medium-yield nuclear aerial bombs were used to accomplish tasks during the combat operations.

The planning for the combat actions of the corps was conducted at the headquarters of the air army, which was included in the front troop complement, under the direction of the army commander with the participation of generals and officers of the control group of the airborne troops directorate, which had been given control of the airborne landing. When determining the tasks and the procedure for combat actions for the large units and units of the aviation corps, the capabilities and specific characteristics of long-range aviation were taken into account. The objectives chosen to be struck were stationary and limited-mobility targets of distinct radar reflectivity, such as airfields, large enemy troop concentrations, amphibious landing and combat ships, and the disembarkation areas of enemy amphibious landings. The strikes were delivered primarily in the hours of darkness by one or two squadrons of TU-16 aircraft. Reconnaissance and final reconnaissance of the





objectives to be struck was conducted in advance by specially allocated reconnaissance aircraft, or during combat sorties by crews accomplishing combat tasks.

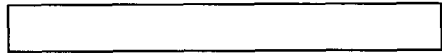
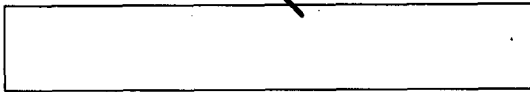
The plan for the use of long-range bomber aviation was developed jointly by the air army staff, the separate bomber aviation corps staff, and the operations group of the airborne troops; and the allocation of available aviation units and subunits by periods of readiness for flight (from readiness No. 2), was effected in advance while resolving questions of coordination. For closer coordination with the airborne landing, an operations group, headed by a guidance service officer, was detached from the separate bomber aviation corps and made the landing together with the airborne landing force. This operations group maintained communications with the corps headquarters and the airborne landing force commander, assisted the latter in selecting objectives to be struck, and provided reconnaissance data obtained directly from on board the aircraft. The close coordination maintained throughout the entire exercise between the airborne landing troops operations group directing the airborne landing and the corps headquarters, assured the timely allocation of tasks and effective action by long-range aviation supporting the airborne landing; and it also assured the receipt of necessary reconnaissance information of interest to the airborne landing troops.

Thus, one can already conclude that the most precise coordination of forces and means is achieved to the highest degree by the creation, under the front troop commander, of a special group to control all troops participating in an airborne landing operation. Wide authority must be given to this group for the employment of forces and means (including nuclear weapons also) within the limits established by the front offensive operation plan.

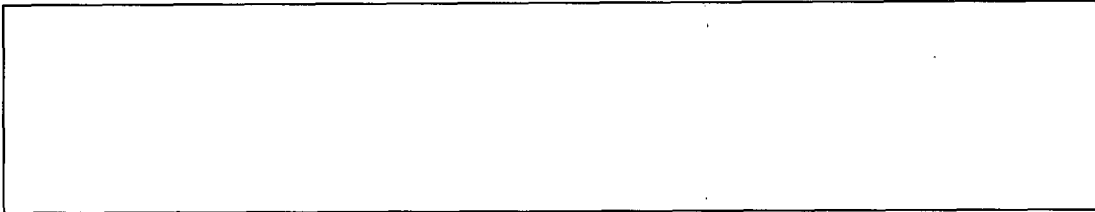
There is no doubt at all that the incorporation of tactical missile/nuclear weapons into the armament of airborne troops will help resolve the problems of the employment of nuclear weapons in an airborne landing operation as a whole, and will raise the combat capabilities of a large airborne landing operating in the depth of the enemy rear areas.



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