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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

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20 July 1973

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT (USSR): Radiation Reconnaissance and Other Aspects 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 discusses an article in a previous issue, but supplements rather than criticizes the earlier article. The authors comment enthusiastically on the new airborne shock troops, stressing their mobility and reduced vulnerability to nuclear attack, and then devote most of their remaining space to radiation reconnaissance in support of airborne operations. This article appeared in Issue No. 1 (89) for 1970.

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.

[redacted]

W. E. Colby
Deputy Director for Operations

[redacted]

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Intelligence Information Special Report

DIRECTORATE OF PLANS

COUNTRY USSR

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DATE 20 July 1973

SUBJECT

MILITARY THOUGHT (USSR): The Development of Airborne Landing Large Units and the Creation of Airborne Shock Large Units

SOURCE Documentary

Summary

The following report is a translation from Russian of an article which appeared in Issue No. 1 (89) for 1970 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought." The authors of this article are Colonel V. Mozolev, General-Mayor of Technical Troops I. Malgin, and Colonel N. Levishev. They discuss an article in a previous issue, but supplement rather than criticize the earlier article. The authors comment enthusiastically on the new airborne shock troops, stressing their mobility and reduced vulnerability to nuclear attack, and then devote most of their remaining space to radiation reconnaissance in support of airborne operations. They also speak approvingly of the previous authors' recommendations on providing organic air elements to the ground forces.

End of Summary

Comment:

There is no information in available reference materials which can be firmly associated with the authors. 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.

The Development of Airborne Landing Large Units and the Creation of Airborne Shock Large Units*

by
Colonel V. Mozolev
General-Mayor of Technical Troops I. Malgin
Colonel N. Levishev

The problem of the development and combat use of airborne shock units and large units in modern operations is highly important and urgent.

Several such large units, equipped with combat, transport-combat, and transport helicopters and other combat equipment have been created in the ground forces. The results of research conducted during the preparation of the Guide for the Combat Use of Airborne Shock Large Units, as well as the experience of the first CPX and troop exercises, already permit certain theoretical inferences and practical conclusions to be made concerning their combat use.

We fully share the view of the author of the article indicated above in that the basic function of the airborne shock units and large units is to increase the pace of an offensive by formations of ground troops, since the high mobility of these large units and units and their ability to penetrate deeply into enemy positions, regardless of terrain conditions, allow the front (army) to actively operate in the entire depth of the operational disposition of enemy groupings; and, at the same time, to carry out a new kind of maneuver--the envelopment of the enemy by air and also, much more rapid exploitation of the results of nuclear/missile strikes by weapons of strategic and operational-tactical designation and of strikes by aircraft and conventional means of destruction.

For the purpose of defining more specifically certain general conditions mentioned by the author in his article, we would like to add the following.

Airborne shock troops, by using deep, surprise and swift thrusts in coordination with rocket troops, air forces, and

*Comments on the article by Colonel M. Belov published in the Collection of Articles of the Journal "Military Thought," 1969, No. 2 (87).

airborne landing forces, are capable of frustrating, or at least weakening, an enemy nuclear strike and of ensuring that the main forces of our troops advancing from the front can overcome nuclear mine barriers. Leading the offensive by air, the airborne shock large units and units create favorable conditions for quickly breaking up the enemy, encircling him, and destroying him piecemeal.

Airborne shock troops can also act as the forward echelon of an army and front. The most typical tasks in this case will be, clearly, to prevent the activation of enemy nuclear mine barriers, to seize and hold beyond the barrier zone favorable areas of terrain for dropping motorized rifle units by aircraft and helicopters and, also, to prevent the organization of defenses behind the barrier zone. During an offensive, airborne shock large units and units are capable of fulfilling the tasks of seizing and destroying enemy nuclear means, airfields with aviation technical equipment, control posts, and other important targets; and of seizing and holding water barrier crossings and mountain passes and of preventing the approach of enemy reserves from the depth.

In a meeting engagement they can be used as forward detachments of combined-arms and tank armies to seize and hold favorable areas of terrain, to carry out tasks of disorganizing march formations of enemy troops moving forward and to prevent their organized deployment, to destroy the means of nuclear attack and control posts, and to complete the destruction of enemy units and large units which had been subjected to nuclear strikes. In addition, airborne shock large units and units can act as a mobile reserve for parrying enemy strikes against the flanks and rear of the main grouping of our troops.

In a defensive operation airborne shock large units and units can be used in combat with enemy troops on the defensive approaches and in the security zone, the depth of which lately has had the tendency of increasing in size; and in combat with enemy tanks and infantry that have broken through into the depth of our defenses, and with airborne landings and air-mobile troops.

The basic method of combat actions by airborne shock units and large units is the airborne shock attack which, as a rule, is carried out after strikes by the rocket troops, air forces, and artillery. It consists of swiftly penetrating, with the use of aircraft, to the targets of the attack, of striking and neutralizing

enemy personnel and fire means with onboard weapons from the air, and of completing their destruction by airborne shock subunits which have been landed.

The landing of units and subunits can be carried out in the area of the target under attack or in its close proximity. In those cases when the antiair and ground defenses of the enemy target under attack have not been fully neutralized, it is recommended that the landing of personnel and the unloading of equipment be done outside the range of fire of enemy antiair defense means, small arms fire, and mortars. Upon landing, the subunits, in approach march (battle) formation and under cover from aircraft and combat helicopters, move out toward the target and attack and destroy the enemy from the march from various directions. In a number of cases the destruction of enemy targets can be carried out by fire strikes from the air by weapons
port-combat helicopters and by fire from rifle subunits.

To carry out fire preparation and provide support for airborne shock units in combat, and to fulfil independent fire tasks, it is recommended that airborne fire groups be created. Subunits of combat helicopters, and in many cases subunits of transport-combat helicopters, may be included in these groups.

Upon fulfilling their assigned combat tasks, the airborne shock large units and units withdraw from battle and then prepare for subsequent combat actions, concentrate in a new area, or carry out combat actions for the retention of captured targets until the arrival of the advancing troops.

In conclusion, it should be noted that the author of the article, Colonel M. Belov, is quite timely and correct in raising the question on the creation of organic aviation elements in the ground forces. The experience of many exercises conducted over the past years indicates that in modern operations and in combined-arms battles, there has been a marked increase in the role of airborne landings carried out by helicopters. In addition, there has also been an increase in the need for light aircraft and helicopters to fulfil such tasks as conducting reconnaissance, moving troops by air, observation and correction of fire, minelaying, delivery of missiles and warheads to the troops, transportation of materiel, evacuation of wounded, etc. In order to solve these problems operationally, it is necessary to create organic aviation

units and subunits and include them in reasonable proportions in operational formations and large units of the ground forces.

We fully agree with the author of the article under discussion that the creation of airborne shock large units not only contributes to a sharp increase in the mobility of ground forces and a considerable increase in their fire and strike power, but it also makes them less vulnerable to attacks by nuclear and chemical weapons. Actually, the capability of airborne shock large units and units, after delivering strikes from the air or the ground, to disperse and operate on a broad front, to frequently change their areas of concentration or waiting areas, and to switch their combat actions from one axis to another in exceedingly short periods of time, greatly hinders the efforts of the enemy to detect them in time and, consequently, to deliver nuclear and chemical strikes against them.

However, one must not forget that with massive employment of nuclear and chemical weapons, these large units will have to operate under complex radiation and chemical contamination conditions. This is why even now, at the same time we are studying the problems of the combat employment of airborne shock troops, we must also have theoretical development and a practical solution to a number of problems connected with carrying out specific measures for the protection of these troops from weapons of mass destruction.

What kind of problems are these, what direction should we take, and how can they be resolved?

Let us examine the question of forecasting. Airborne shock large units, in making a comprehensive assessment of the radiation and chemical conditions, as well as a forecast of zones (areas) of radioactive and chemical contamination, will also have to make a forecast of atmospheric radiation conditions, the necessity of which is beyond any doubt.

As is known, combat flights of airborne shock large units and units are carried out at altitudes of two hundred to six hundred meters. Thus, the danger of radioactive radiation of personnel from flying through the cloud of the nuclear burst (air or surface) is almost ruled out because the maximum height of ascent of the lower edge of the cloud, even from a warhead with a yield of one hundred tons, is not less than 1.3 to 1.4 kilometers. However, the

personnel of airborne shock large units in flight can be subjected to radiation when flying through an offshoot of the radioactive cloud or close to it.

What is the degree of danger to personnel from radiation under these conditions?

It has been established that the level of radiation in an offshoot of the cloud is lower by a factor of one or two than in the cloud itself. But, as shown by calculations, doses of radiation received by helicopter crews by flying through it are quite dangerous under certain conditions. Thus, for example, in only a single flight through an offshoot of a cloud created by a nuclear burst with a yield of fifty thousand tons, within ten, twenty or thirty minutes after the burst, the personnel on board the helicopter can receive respective doses of seventeen, seven, and four roentgens. Taking into consideration that airborne shock subunits and units may fly through several offshoots while carrying out only one task, the danger of over-radiation to personnel during an operation becomes quite real. Thus, to raise the question of the need for airborne shock large units to forecast the atmospheric radiation conditions is quite valid, but the need for such a forecast within the first hour after the burst is compulsory.

Since this is the case, it is necessary that the staffs of the airborne shock large units receive and process the raw data from the evaluation and analysis stations, and also use their own forces and means to make forecasts of zones of radioactive contamination. In order to perform this work quickly and with a high degree of accuracy, it is desirable that these large units have organic evaluation and analysis groups capable of handling the problems of forecasting zones of radioactive contamination on their own.

Forecasting atmospheric radiation conditions is a considerably more complicated matter. At the present time neither airborne shock large units nor the combined-arms formations have any effective means for its practical fulfilment. Under the existing system for acquiring and transmitting data on nuclear bursts it is virtually impossible to use the information received from evaluation and analysis stations to forecast atmospheric radiation conditions which change quickly under the influence of weather factors. It seems to us that the only possible successful solution to this problem is to create a system based on the use of specialized,

rapid computers which can process large volumes of information quickly and with a high degree of accuracy.

Forecasting areas of chemical contamination in airborne shock large units will not pose any particular problems and must be conducted by the staffs of large units and units on general principles.

An important role in the support of combat actions of airborne shock large units and units belongs to radiation and chemical reconnaissance, which has a large number of tasks to perform. Airborne shock large units must, after all, conduct radiation and chemical reconnaissance of their area of concentration, which covers at least 5000 square kilometers, of the primary and alternate assembly areas, which are 150 to 300 kilometers from the area of concentration, of the air space in the flight zones, and of the areas of combat actions to a depth of 250 to 300 kilometers; in other words, they fulfil tasks over a large area both on the ground and in the air. Because of this, airborne shock large units should have not only organic subunits for ground radiation and chemical reconnaissance but subunits for atmospheric radiation reconnaissance as well; for example, a flight of three or four MI-1 helicopters.

The most expedient method of conducting atmospheric radiation reconnaissance is one in which reconnaissance helicopters equipped with roentgenometers fly ahead of the combat formation of a unit and transmit information on the atmospheric radiation conditions along the flight route directly to the command crews of the advance group, of the leading cover group, and of the airborne shock battalion commanders, and also to the command crews of units carrying out tasks along parallel routes. Clearly the main task of atmospheric radiation reconnaissance will be to establish levels of radiation in the assembly areas and in areas of combat actions of airborne shock units, as well as in the area of concentration of the large unit itself in case it is subjected to heavy contamination.

Ground radiation and chemical reconnaissance in airborne shock units and large units will be conducted by using organic radiation and chemical reconnaissance subunits which set up observation posts, send out chemical reconnaissance patrols, and also make use of observation posts and observers of subunits. The nature of the tasks of ground radiation and chemical reconnaissance and the manner in which they are carried out do not differ in principle from the tasks performed by combined-arms large units of

the ground forces and will consist of reconnoitering the centers of nuclear and chemical destruction, the areas of alternate command posts and the routes leading to them, the primary and alternate landing sites for helicopter squadrons, and the routes of advance to these landing sites for airborne shock battalions and artillery (rocket) battalions.

The successful defense of airborne shock large units and units against weapons of mass destruction depends to a large extent on the ability to operate precisely and quickly in the zones (areas) of radioactive and chemical contamination. As a rule, in case of dangerous and heavy radioactive contamination of the areas of concentration or the waiting area, the large unit must rapidly move from the primary area to the alternate one. Should it be necessary to remain in contaminated areas for a prolonged period of time, the following measures should be taken for the protection of personnel: the provision of engineer shelters; steps to eliminate or reduce the dust from helicopters doing sampling; the extensive use of individual means of protection and of the protective features of equipment and terrain; the implementation of special prophylactic and routine measures; and partial and complete special treatment.

The most effective method of defense against weapons of mass destruction in areas of combat actions is rapid, decisive action by units and subunits in carrying out their assigned tasks, and immediate redeployment to new areas after the battle is over.

The organization and implementation of monitoring of radioactive radiation of personnel in airborne shock large units and units will not be any different in principle from the measures carried out in regular large units and units of the ground forces. The only basic difference is that it will be effected by the individual method for helicopter crews and officer personnel and by the group method for NCO and enlisted men. Monitoring of radioactive contamination of personnel, armaments, transport and aviation equipment, and the materiel of airborne shock units and subunits, as a rule, is conducted after they are out of the zone of contamination and, also, during complete special treatment.

A matter of considerable importance is the provision of airborne shock large units and units with chemical weapons and equipment. It must be carried out in accordance with equipment

tables and norms in the areas of concentration of large units and, in extreme cases only, in the waiting areas.

In the area of combat actions units and subunits can replenish their expended materiel mainly from the large unit mobile supplies delivered from the area of concentration or from the waiting area by transport helicopters directly to the landing site. Because of the limited cargo capacity of transport-combat helicopters, it is hardly possible at the present time to use echeloning of mobile supplies at the airborne shock battalion and company level. But there really is no need for this because the high mobility of helicopters allows supplies to be replenished in time even under the most complex conditions.

The elimination of the aftereffects in the centers of destruction caused by nuclear and chemical weapons is carried out in airborne shock large units by composite detachments and also by the forces and means of units and subunits which were not subjected to attack.

The composition of the detachments from units and large units will vary, as will the tasks assigned them in the areas of concentration and those assigned them in combat operations. If, in the first case, the large unit can create a composite detachment capable of completely handling the tasks of rescue, medical evacuation, and other work, then it will not have adequate forces to do the same in the second case, because part of the heavy technical equipment will still be in the area of concentration. However, in all cases these detachments must have combat and transport helicopters, radiation and chemical reconnaissance subunits, and medical service subunits.

In this commentary we have supplemented, in general terms only, Colonel M. Belov's article on the problem of defending airborne shock large units from weapons of mass destruction. A more comprehensive and detailed analysis of individual defensive measures and the elaboration on them in the press is quite in order; and the resolution of this problem is the task of officers of airborne shock large units and of special troops.