

50X1-HUM

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Next 3 Page(s) In Document Denied

-4-

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

by

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Historical experience shows that the most important conditions for victory in operations and in combat are a harmonious combination of troop mobility with the capabilities of the main types of armament, and the conformity of their organizational forms and methods with the technical means of combat. The greater the increase in the destructive power and range of the main types of armament, the greater the degree of troop mobility required in order to have timely exploitation of the results of using a given type of weapon. The main thing here is that the equipping, organization, and methods of action of combined-arms large units and units make it possible to forestall enemy maneuvering and to rout his troops before their combat effectiveness can be restored or fresh forces can be committed to battle.

In recent years, considerable attention has been devoted in the leading countries of the world to the development of the decisive means of armed combat--the nuclear/missile weapon. Troop mobility has been raised mainly by perfecting the existing means of moving troops and conducting combat and by completing full mechanization, mainly through mass use of wheeled and tracked vehicles. It is thus apparent that the mobility and maneuverability of formations and large units still do not satisfy the requirements for timely exploitation of the results of nuclear strikes or for conducting front and army offensive operations in which mass use is made of nuclear weapons.

An urgent problem has arisen for military theory and practice--to determine effective ways of sharply increasing the mobility of the ground forces and to discover the new means, organizational forms, and operating methods necessary to accomplish this. Troops must have an adequate number of forces whose mobility is independent of terrain conditions. In our view, this capability is assured by taking to the air, based on the mass and comprehensive use of aircraft.*

50X1-HUM

*Here and below, this term refers to transport and combat aircraft of military designation.

-5-

50X1-HUM

Aircraft have great speed. By using them, troops acquire a higher degree of mobility and maneuverability. They can cover large distances rapidly, deliver surprise strikes, and advance swiftly into areas of destruction, obstructions, fire, flood, and radioactive contamination. However, air mobility, or aeromobility as it is called abroad, is not the only positive quality, though a very important one, acquired by ground forces as a result of taking to the air. Important also are the increase in capabilities for combat and materiel-technical support and more effective resolution of the problems of command and communications. The firepower and strike power of troops also rise significantly.

Actual practice shows that rotary-wing aircraft equipped with various onboard armament systems are becoming essential to ground forces for fulfilling fire tasks. In complicated ground situations and fast-moving combat actions, they are capable of changing location along with the troops and of mounting strikes at the initial request of the combined-arms commander. Furthermore, these strikes may be mounted in the immediate vicinity of our troops. Using light rotary-wing aircraft as a base, we can create a new, mobile means for troops to conduct combat, a means possessing great advantages over ground vehicles in supporting the strike capabilities of combined-arms large units under conditions of nuclear warfare.

Much has already been done in our army in the realm of taking to the air, particularly in the last two to three years. The materiel base is being widened by increasing the production of aircraft, as well as by creating new types required for future warfare. A beginning has been made toward fundamental organizational changes projected for the future. Experiments are being conducted for introducing new forms of troop organization and methods of combat actions, with mass use of aircraft for fulfilling various tasks in operations and in combined-arms combat.

At the same time, however, we still cannot say that favorable solutions have been found for all problems. It is necessary first of all to make a theoretical plan showing all the expedient ways of taking to the air and to balance this against the needs of the ground forces and possible future aircraft development. Actual practice provides adequate material from which to proceed in solving this scientific-technical problem.

50X1-HUM

Our industry can produce various types of aircraft with a cargo capacity of four dozens of kilograms up to fifty to eighty

tons and more. In accord with troop needs, some of the aircraft are used as transport and auxiliary means, and the rest as mobile troop means for conducting combat. Similar use of aircraft is becoming a common occurrence at troop training exercises and maneuvers, as well as in the actual combat practice of several armies.

However, the effectiveness of aircraft depends not only on cargo capacity and adaptability for fulfilling various missions. It is very important that the organizational forms correspond to the specific conditions of their use. Current experience and the results of theoretical research provide a basis for stating that two primary methods of taking to the air exist at the present time.

The first is characterized by an increase in the air transportability of ground, i.e., motorized rifle and tank, large units, units, and subunits in order to adapt them to airlifting. This method anticipates that part of the aircraft will also be used directly in combined-arms combat for fulfilling fire and other auxiliary tasks. The increase in troop air transportability is achieved by adapting equipment and armament to airlifting on existing aircraft and by creating new types which will provide for the transport of existing and projected heavy equipment and armament. At this point we encounter certain difficulties caused by the specific nature of the allocating and equipping of ground large units. Since it is planned that they will for the most part deliver powerful strikes while moving on the ground, they possess a great quantity of heavy equipment requiring a large grouping of aircraft with large cargo capacities to airlift them. For example, a motorized rifle division as presently organized requires on the average about 260 heavy and 860 medium aircraft or helicopters. At the present time, consequently, it can only be a question of airlifting lightened units and large units and then equipping them with heavy combat equipment, if possible, from stores at their point of landing. Great attention has been given abroad to such airlifts in recent years. And this is not accidental. Airlifts in the "Big Lift" operation, as well as the specially created NATO "mobile forces," showed definite effectiveness. At the present time, with the tendency toward gradual displacement of United States ground forces from Europe, the Americans attach great importance to this method of building up forces.

50X1-HUM

The second method of taking to the air is characterized by the development of airborne landing and airborne shock large units

which have already taken to the air, i.e., been specially adapted for transfer by airlift. They are equipped and organized in such a way that they can be moved as rapidly as possible aboard aircraft and can make swift attacks from the air and on the ground. With a comparatively small number of maneuverable aircraft, they can be committed to an engagement from distant areas more rapidly than can ground large units, and they can swiftly penetrate deep into the enemy disposition even if the intervening terrain is inaccessible to ground advance.

In accordance with the demands stemming from the nature and conditions in the conduct of future operations, airborne landing large units are developing above all as a strategic means and airborne shock large units as a means of the operational command.

Airborne landing large units earmarked for conducting combat operations deep in the enemy rear are airlifted in organizationally detached aircraft, AN-12 military transport aircraft. It is these aircraft which to a considerable extent determine our present views on the use of airborne landing large units and which constitute a unique technical condition for the perfecting, equipping, and organization of these large units.

In the immediate future, the fleet of military-transport aircraft will consist predominantly of medium aircraft providing for the transport of a landing force to depths up to 800 to 1000 kilometers and more. It is important for these aircraft to be able to transport the new forms of combat equipment being added to the armament of airborne troops, including nuclear weapons, antiaircraft missiles, and combat vehicles.

The capabilities of airborne landing large units will rise even more with the appearance of AN-22 heavy aircraft.* These aircraft will enable them, as forces of the first strategic echelon, to reach a designated area on any continent rapidly and, exploiting the results of nuclear strikes by strategic means, to rout the enemy or keep him from restoring his military potential.

*The range of the AN-22 aircraft with an airborne cargo load of ten tons is up to 9600 kilometers, and with a fifty ton load it is 4350 kilometers.



50X1-HUM

-8-

Airborne shock large units are a fundamentally new means for carrying out tasks in front and army operations. Their prototype was an experienced helicopter brigade used in the "Dnepr" maneuvers.

Proposing to name the new large units airborne shock large units, we are proceeding from the fact that this term reflects the essence of such formations: their capability to carry out shock attacks from the air with their own organic weapons during the entire period of fulfilling tasks. The term "helicopter large units," characterizing the new large units from the aspect of how they are equipped, is a less desirable designation. And this is why. First, in all probability, the new large units will be equipped with other aircraft as well. Second, this term is already firmly in use as a designation for air transport units equipped with helicopters.

In our view it is a great mistake to try to view the new large units as one of the variants of landing force formations, i.e., to reduce their activity to the same old plan: the landing force lands and conducts combat while the aircraft return across the front line as fast as possible. Important distinguishing traits of airborne shock large units also include organic adaptability to airlifting and the possibility of using organic aircraft for carrying out combined-arms tasks at all stages of combat use, including directly on the battlefield.

Airborne shock large units must have numerous special qualities conducive to the use of completely new methods of operating. Principal among these qualities are exceptionally high mobility, independence from terrain conditions, and the capability to alternate between swift air advances and ground actions, to make shock attacks from the air with organic means during the entire period of carrying out tasks, to disperse rapidly in order to reduce losses from enemy strikes, and to concentrate quickly in order to create a needed advantage.

What is the essence of the new qualities of these large units and units?

50X1-HUM

First of all, thanks to their high mobility and independence from terrain conditions, airborne shock large units and units can be committed to combat as the situation demands. It is they who are above all capable of assuring the development of rapid advances





-9-

in front and army operations under conditions of great destruction, fire, barriers, floods, and zones of radioactive contamination. Such large units have exceptional capabilities for overcoming water barriers and other natural obstacles of operational importance and for conducting combat actions in almost inaccessible terrain.

Of particular significance is the capability of troops to alternate between swift air advances and ground actions and to make shock attacks from the air with their own organic means during the entire period of carrying out tasks. This is something totally new in the realm of tactics and the art of operations. It is like a response to the development of nuclear weapons and is based on the actual capabilities of the military aircraft which have been created. It appears that this is precisely what determines the prerequisites for bringing the methods of combat actions into conformity with the newest weapons of armed combat.

Organic aircraft with powerful onboard weapons of all types assure the capability for massing fire in a short period of time, mounting a series of rapid fire strikes from the air against various targets at considerable distances from one another, and maintaining uninterrupted fire support for troops regardless of the terrain conditions and the rapidity with which the situation may change.

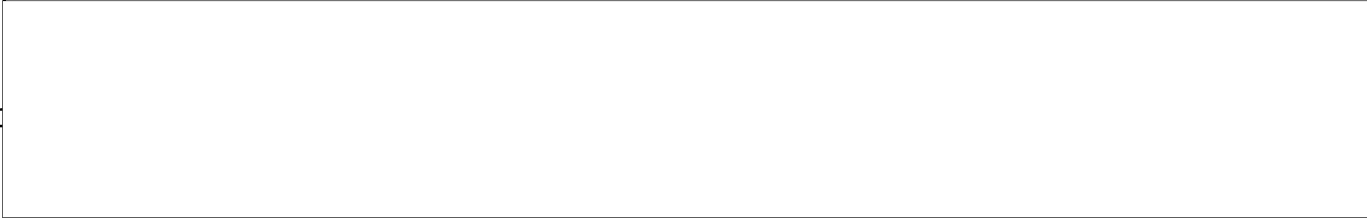
The capability of troops to disperse rapidly and to concentrate swiftly in conformity with the conditions of nuclear warfare is also difficult to overestimate. Possessing these qualities, airborne shock large units and their units can operate effectively on a broad front and can quickly create superiority where needed.

Even a brief analysis allows us to state most definitely that the creation of airborne shock large units is the most important result of taking to the air, conducive not only to a sharp rise in the mobility of ground forces under the conditions of a future war but also to an appreciable increase in their fire and strike power. Fronts and armies will have the means to exploit the results of nuclear strikes on a timely basis in complicated ground situations, to achieve high rates of advance, to rapidly overcome enemy defenses, including nuclear obstacles, and to conduct successful combat actions in areas with almost inaccessible terrain.

50X1-HUM

We are, of course, far from believing that no complicated problems will arise in the course of using these large units. On





-10-

the contrary, we must assume that problems will be numerous, for example, in overcoming enemy antiaircraft counteractions and in implementing materiel-technical, engineer-aviation, and other types of support. It appears that many problems will have to be solved differently than in other combined-arms large units. Even the position of the new large units within the ground forces may be somewhat isolated.

The first results of theoretical research and the experience of the "Dnepr" maneuvers show that airborne shock large units differ appreciably from all other combined-arms components in such vital aspects as equipment, organization, and the tactics of operations. This shows that a completely new type of troops is appearing, with its own distinctive operational-tactical features and capabilities. It is capable of carrying out missions which are suited only to these components and may also be used for fulfilling traditional tasks under various types of combat actions.

★ Considering economic and combat factors, it is advisable at first to have airborne shock troops as large units subordinate to fronts. As the materiel-technical base broadens and is perfected, the proportion of these large units to total ground forces will rise. It will then be possible to include such large units in armies. The time may even come when it will be possible to have airborne shock subunits or units included in ground combined-arms large units as well.

However, at the present time, when aircraft in large concentrations are the means of the air forces, it is more difficult to resolve this problem successfully. There must be an organizational restructuring which takes into account the established methods of taking to the air, and there must also be further development of aircraft in accord with specific equipment and with the conditions under which they are to be used. This is one of the most urgent scientific-technical problems. At the same time it is extremely complicated, since the interests of all branches of the armed forces are affected, above all those of the ground forces and air forces.

We believe it advisable to resolve this problem with consideration for the interests of these two branches above all. 50X1-HUM

It is advantageous, as formerly, that heavy and medium aircraft be included in military-transport aviation as means of



~~the Supreme High Command.~~ They may be used in support of the various branches of the armed forces to fulfil transport tasks of various types in line with their importance.

It is desirable even now to introduce helicopters and rotary-wing aircraft, existing models and those which are being added to our armaments, and also light aircraft, into all branches of the armed forces, each in an established proportion. Ground forces should have the largest supply of such aircraft, which may be divided organizationally into two groups.

The first group comprises aircraft as an auxiliary means of assuring troop mobility and raising the firepower of combined-arms large units and formations, and also as a means of carrying out tasks in support of combat actions. It is advisable to have aircraft of this group at organizational levels from districts (fronts) to combined-arms large units. The main bulk of heavy and medium helicopters and rotary-wing aircraft should be in front formations. This assures their massive use and mobility on the most important axis. Part of the heavy and medium helicopters (rotary-wing aircraft) must be included in the air forces for use as reserves by the Supreme High Command and for the needs of the air forces themselves. There must also be a few organic aircraft in combined-arms (tank) armies, mainly to support combat actions and to perform other auxiliary tasks. They can receive heavy and medium rotary-wing aircraft from the front. It is advisable to include units of the same type in combined-arms large units (corps and divisions), equipped with light, small military aircraft, mostly combat helicopters and rotary-wing aircraft.

The second group of aircraft for ground forces is, by its function, the principal means of assuring troop mobility and carrying out fire and other tasks as part of combined-arms airborne shock large units which are capable of being airlifted. 50X1-HUM

For equipping airborne shock large units, combat rotary-wing aircraft of at least two types are necessary in addition to transport and support aircraft. Above all there must be a combat helicopter or rotary-wing aircraft serving as an air combat vehicle (BVM) or as an infantry airlift combat vehicle. As already noted in the pages of this journal, air combat vehicles are earmarked for use in subunits as a mobile means of conducting combat, similar to armored transport or combat infantry vehicles in ground units. A combat helicopter must be specially designated to serve as a

-12-

50X1-HUM

military air fire system, or "fire support helicopter" as it is called abroad. It goes without saying that this must not be a vehicle of yesterday or copied from an enemy equivalent, but something more advanced and forward-looking.

Great importance is attached to the creation of a troop air combat vehicle which will be capable of transporting a combat detachment and will have reliable defense means and powerful on-board armament. Such a vehicle is necessitated by the trend in the development and use of mechanical means of transport and of conducting combat. As is known, troop organization and combat methods corresponding to the capabilities of the new types of armament can only come into being at such time as mechanical means provide for the transport of troops not only up to the area of combat action but directly onto the field of battle, i.e., when they become combat means with a troop function.

Abroad, there are still no military air combat vehicles capable of providing subunits on the battlefield with the capability to alternate between rapid movement by air and action on the ground. In the United States the air-equipped large unit called an air mobile division still lacks the qualities necessary for effective action in nuclear warfare. However, we may judge from the latest data that in the West, too, they are approaching the idea of creating a troop air combat vehicle. Thus, one of the articles published in the West German magazine Wehrkunde (1967) states that "ground vehicles cannot provide the necessary increase in the speed with which troops are moved on the battlefield; the vehicle capable of doing this is one that can leave the ground."

Troop air combat vehicles can be produced by Soviet industry in the very near future. As initial models for such vehicles it is advisable to use light armored helicopters equipped with powerful onboard armament systems. The combat features of these helicopters will be perfected, taking into account the conditions of combined-arms combat.

Troop air fire systems, as indicated above, are earmarked for supporting airborne shock subunits and carrying out independent fire tasks. Their entire cargo capacity should be used for the installation of powerful armament and radioelectronic equipment and also for increasing the radius of action and overall armor protection. We note that troop air fire systems are necessary not only for airborne shock large units. They are more and more

50X1-HUM

-13-

necessary in ground large units as well, as a means of fire support for tactical airlifts and as a means of carrying out independent fire tasks. The point is that the combat helicopter or rotary-wing aircraft used as an air fire system has greater mobility than ground systems, greater independence of terrain conditions in moving about, and greater capability to mount surprise powerful fire (nuclear) strikes and to move rapidly to a new axis (new area). This is the basis for considering air fire systems the most mobile fire means, making possible the rapid creation of high densities of fire in all combined-arms large units.

Of the various ground forms of armament, airborne shock large units can use the fire means of airborne landing troops. They can be transported successfully by medium and even light helicopters, loaded and unloaded without difficulty, and quickly brought to combat readiness.

Of essential importance in raising the effectiveness of the organization of airborne shock large units are high mobility at all levels and accuracy in control based on a unity of understanding as to tasks and the responsibility for carrying them out. To accomplish this, the air combat vehicle must obviously be incorporated down to the lowest organizational levels, i.e., used as an organic means of airborne shock detachments. These detachments may include a rifle group and an air combat vehicle crew.

Finally, we would like to remark that it is still too soon to make definitive conclusions on the equipping and organizational structure of airborne shock large units. Fundamental innovations in military affairs are involved, touching objectively on many aspects of military art, the structuring of the armed forces, and the national economy. Therefore, the problem must be solved with careful consideration and without undue haste, combining theoretical research with experimental exercises. As correctly pointed out by Minister of Defense of the USSR Marshal A. A. Grechko, a changeover to a new organizational structure must always be made with great circumspection and only after careful testing in many exercises in various situations.

This indicates that to assure timeliness in the solution of the basic problems, with due consideration for the interests of the armed forces as a whole, we must create in the large staffs (directorates) a specialized organ (directorate, department, or section of aerizatsiya) which will be knowledgeable in this matter



-14-

and will provide continuous leadership in working out and implementing this problem on the basis of well-thought-out plans. This organ must be guided in its work by a detailed program covering a minimum of ten to fifteen years. In this way there will be a clear perspective, and the progression and reliability of the solution will be assured.

We must emphasize that this does not mean an organ which would, as in the United States Army, handle only questions of the use and development of army aviation. The problems of taking to the air affect the armed forces as a whole and must be solved, as shown above, on a two-sided basis: by the all-around use of aircraft and by the reorganization and technical adaptation of the various branches of the armed forces as needed. Therefore these air support organs should be staffed with specialists of various types headed by a representative from the appropriate branch of the armed forces.

It appears to us that the practical solution of the most important problems of taking to the air will provide a basis for completing the current restructuring of the armed forces. There will be a qualitative change in the materiel basis of war.

On the strength of the pattern stipulated by the dialectics of the development of means and methods of armed combat, the new theory of conducting operations must be in conformity with the qualitatively new materiel basis of war. The working out of this theory is yet another major new problem.

50X1-HUM

