

# DEFENSE AGAINST AIRBORNE ATTACK

VERTICAL ENVELOPMENT WAS A FRIGHTENING and magical term during the past war. Newspapers peopled the skies with paratroopers; the Germans swung into airborne action in Holland, Belgium, Norway, the Balkans, and finally wrested the entire island of Crete from the Allies.

Now, as we try to peer into the future, we hear predictions that the infantry of the future must be largely airborne and that entry into combat from the air will be commonplace and normal. It is evident that one question is looming ever larger: How can we defend against an airborne attack?

To answer our question we must research the past. To the student of airborne operations it becomes clear that under certain circumstances and by applying certain principles an airborne attack can be successful as can any other type of attack. Conversely, if an airborne attack is not properly made, or if a proper and sufficiently strong defense is employed, the airborne attack can fail or be defeated. Hence as on the ground, attack and defense in three-dimensional warfare have attained a sort of precarious balance in which success can only be grasped by the side which combines a better and stronger application of proper principles with better tactical execution.

In speaking of airborne operations, it may be said that the defense has a shorter history than the attack. The idea of airborne attack germinated in this country during World War I; however peace brought an almost complete termination of everything except the idea in this country.

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In Russia and Germany, on the other hand, experiments and trials were carried out and maneuvers held. This continued during the nineteen-thirties and operations were planned and men trained during the Spanish Civil War, but because of lack of transport planes the attacks were never executed. Transportation of troops by air was carried out in that war, however. Rapid developments were then made in the organization and principles of employment of airborne troops, and the Germans were ready to use them, and did,

when they started the second World War. At that time the defense of airfields, a prize objective for airborne troops, was entrusted to antiaircraft artillery alone. In very short order, the German successes demonstrated that such defense was not sufficient. By the time of the Battle of Crete, the defense was sufficiently strong to cause such high casualties and such difficulty to the German paratroopers that Field Marshal List almost called off the operation after the first day. The main tactical principles of defense against airborne attack began to take on clear form. At the close of the past war we find the Germans defending against our airborne operations and doing so with such skill as to cause high casualties and serious hindrance to the mightiest airborne force the world has seen, the First Allied Airborne Army. It would seem, therefore, that the defense against airborne attack has reached a comparatively high state of development and that the principles have become firm.

We cannot discuss the defense until we have

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Vigorous use of highly mobile reserves is the best answer to vertical envelopment

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briefly reviewed the salient points about airborne troops themselves. Airborne troops have great strategic mobility and threaten large areas constantly by their mere presence on the enemy side. They are capable of great surprise by reason of their speed, and even when in the air, it is not possible to tell their objective. These troops can envelop vertically the strongest defense line or the most impassable terrain barrier. Airborne troops strike directly at the vitals of the defense; the airfields, communications centers, and the command posts.

Of course, airborne troops also have their limitations; they have great strategic mobility but with present equipment their tactical mobility is low and reduced to that of footmovement once they are landed. Air superiority is an absolute requisite for the landing and continued supply of any airborne force. These troops are extremely vulnerable while in the air and immediately upon landing. They do not have sufficient heavy arms, armor, and supplies to make them capable of sustained independent action. Finally, their operations are subject to the weather and to suitable landing areas.

In studying these capabilities and limitations we see how already they are shaping the defense. Strong defenses will have to be placed in key areas within striking distance of major airborne forces, and some defense will have to be made of all likely objectives. Furthermore, since the air arm is so intimately connected with these operations, our defense will have to be integrated with air defense. And finally, since airborne troops will normally operate in conjunction with a major effort by ground troops, we dare not weaken our front line forces to any great extent to provide defenses of rear areas.

We note that the defense may be faced by an attack from any direction and that the airborne troops in most types of terrain will have a wide selection of suitable drop zones. We also note that for a short period of time the attacker will literally have one foot in the air and one on the ground and that the initial landings will be attended by disorganization.

WHAT GENERAL TYPE OF DEFENSE IS INDICATED? Careful evaluation of the above factors shows that defensive-offensive action must be employed—the active type of defense. It will in most cases be impossible to place troops at all the places where airborne troops might land, hence we seek to establish local defense forces at the most likely of these areas. Vigorous offensive action is the best defense against airborne attack, and so we keep a highly mobile reserve to strike

the enemy before he can firmly establish himself in the landing area.

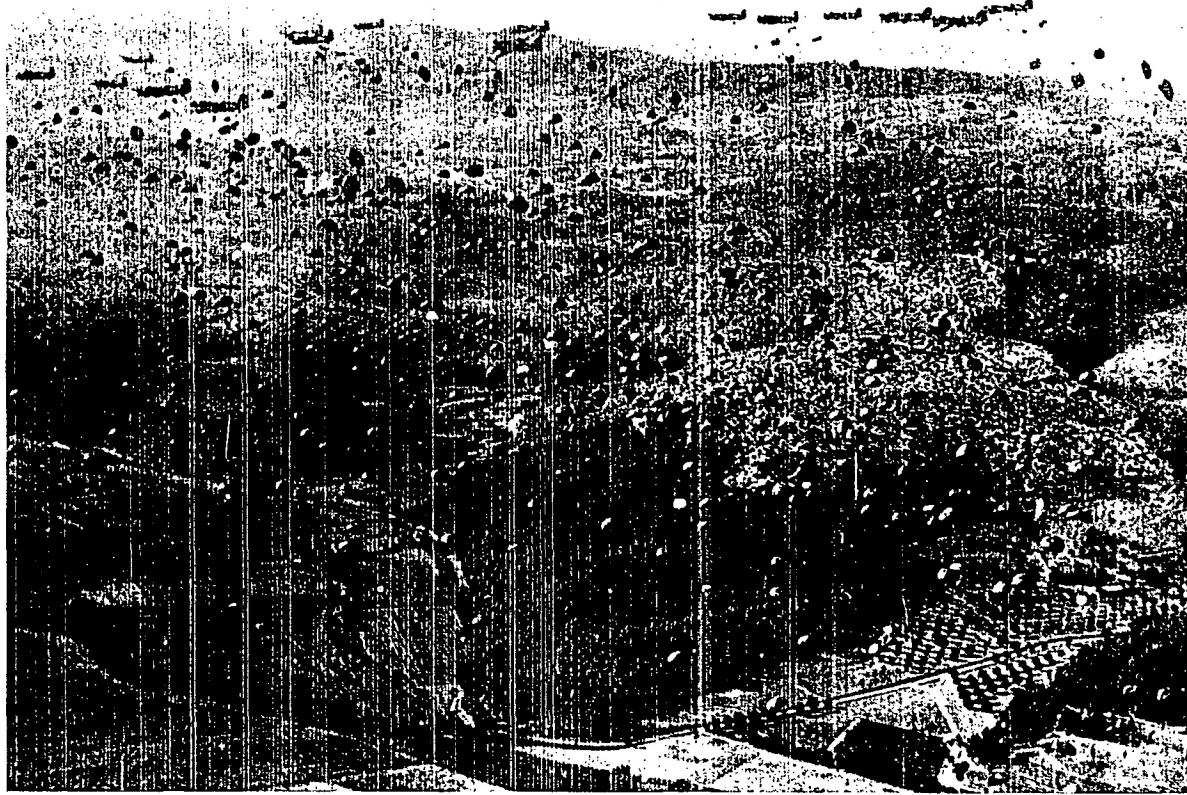
From examination of the type of attack with which we are faced we can develop our idea of defensive-offensive action further. We see that we must conduct the defense so as to: *first*, inflict the maximum damage to the attackers during the period when they land and commence reorganization — their most vulnerable periods; *second*, contain the attacking forces and deny them their objective, and; *third*, defeat them by rapidly striking them with a concentrated mobile counterattack force before they can be relieved and while they are still weak in mobility, armament, and supply.

It is apparent that one type of force cannot accomplish these conflicting missions demanded of the defense. We must, therefore, have a judicious mixture: a local defense force available at the point of landing during the attacker's period of greatest vulnerability, and a mobile defense force which can strike rapidly, in mass, upon which we must depend for the complete defeat of the enemy, since with air superiority and a willingness to take losses the enemy can always prevail against local defense forces.

LET US FIRST EXAMINE THE EMPLOYMENT OF the local defense force. We recall that our defensive doctrine prescribes all-around defense of mutually supporting tactical localities and the organization of the defense, as a whole, in depth. Critical terrain features which give us command of such likely objectives as airfields, communications centers, and important command installations must be located. Others which command likely drop zones must be sought.

In selecting the objectives and drop zones which are to be protected, it must be borne in mind that there are certain practical limitations to the employment of airborne troops which will assist us in our task. First, since three to five days of independent action is considered a maximum for airborne forces, a certain limit is imposed on the distance behind the front lines that they may strike: normally not over about 100-150 miles. Of course, the stronger our front line defenses, the less will be this effective striking depth. Second, since the ground mobility of the first waves of airborne troops is low, the drop must usually be made within about three miles of the objective. On the other hand, they will make every effort to land at an undefended point since the very presence of armed men in the drop zone, no matter how uncoordinated, would make a parachute landing hazardous.

In considering the above factors, we see that



Part of Operation Uppercut, this drop was somewhere between Nice and Marseilles.

from a defensive standpoint the ideal situation is one in which the most likely objectives, as well as the most likely nearby drop zones, are commanded by the same critical terrain features. When this does not occur, priority is given to those which command the objectives. In any case, we occupy the terrain features which command the objective and the most likely nearby landing areas and organize them for all-around defense with troops which are small in number but powerful in automatic weapons. Those tactical localities which are close to the objectives are made mutually supporting, while those farther out, organized to command the drop zones, are also organized so that they command the approaches to the objective from the drop zone. This local defense force should have a reserve available for counterattack so that an aggressive defense may be conducted against the attackers during their most vulnerable period.

The area defended by the local force is divided into sectors, the boundaries being so placed that responsibility is not divided for the defense of a drop zone or an avenue of approach to the objective, and so that the objective is made the center of the area and the sectors extend

outward and provide "cut-of-pie" divisions. A sector commander is designated to coordinate the activities of all troops and weapons in his area. Most important is the coordination of the fires of the antiaircraft weapons emplaced within the sector and the machine guns of the ground troops, since the former are normally assigned a secondary mission of supporting the defense by firing at ground targets. A further important duty of the sector commander is to see that every man in the sector has a position which he has previously occupied and organized. When possible, infantry organizes the tactical localities and troops of service and technical units "tie in"; however, in order to insure that the reserve is composed of infantry trained in offensive combat, it will normally be necessary for the service units to organize and occupy the tactical localities with assistance and supervision from the infantry.

The second part of the force, the mobile reserve, should be constituted to take advantage of the weaknesses of the attackers. Since the attacking airborne force is restricted in heavy weapons and mobility and must be supplied from the air, our reserve should have a large propor-

tion of armor and must be highly mobile in order to strike the enemy where desired and before reinforcement. Maximum available amounts of air, naval gunfire, and artillery must be used to support the counterattack; however it must be remembered that the primary mission of aviation is to regain air superiority and isolate the battlefield, and that close air support will be contingent upon success in this primary task.

The reserve should be kept concealed in positions outside areas which are likely to be bombed or in which paratroops may drop, so that it can be kept free of the action until the time for counterattack. It may often occur, because of terrain and enemy air superiority, that one reserve for the entire area surrounding an objective is not feasible. In this case the reserve should be broken up and an appropriate part given to each sector. Plans can still be made for the coordinated employment of these sector reserves against the point of main effort of the attack.

Within this broad framework of defense which we have given, are some details which must be covered. First is the relation of the ground defense force to the air defense force. They must of necessity be closely allied because air defense provides the first phase of defense against air borne attack; namely, attack of enemy aircraft in the air by fighters and antiaircraft artillery. In addition, the air defense force supplies warning of air attack and this information must be relayed to the force defending against airborne attack.

The second point is that of command relationships. In combat areas, the commander of a defensive sector or zone of action is responsible for defense against airborne attack within his area. In the rear areas of large commands, however, it is normal for an officer to be designated as commander of a specific airfield, supply point, or other area to be defended. It is often possible and very practicable to designate the AAA commander as the officer commanding such an area. Haste is necessary in preparing these defenses and the AAA commander can assign positions to the local defense force at the same time he puts in his guns and thus immediately coordinate their fire plans. Since AAA is under operational control of the air defense commander for opening and ceasing fire and illumination, and since it is directly in the air warning service circuits as well as possessing organic air warning devices, this arrangement has many advantages. By this method the requirement of closely coordinating the local defense with air defense will be met, and active air defense, passive air defense, and

ground defense against airborne troops will all be meshed smoothly together.

The third detail is the organization of the force. In rear areas, the local defense may be made up of all sorts of personnel who normally have other jobs. These troops are formed into a task organization for tactical purposes under the officer designated as local commander of the area. He provides the necessary liaison and communications between this force and the nearest air defense force and assigns each man and weapon a position for defense. It is well to point out here that thought should be given to including an organic infantry component in organizations responsible for defense of lines of communications and airfields. This might well be done in the case of separate engineer units, service regiments, AAA battalions, and similar units.

The fourth consideration is that of supply and signal communications. It is evident that once combat is joined, a series of local and often isolated conflicts will take place. It is necessary to provide each local defense force with a sufficient level of supplies within its positions to enable it to fight until the counterattack can take place. For the same reason, radio will become the primary means of signal communication, although wire should be laid to subordinate parts of the local defense and used as long as possible. For emergency use, a system of visual signals must be prescribed. Signal communication must be maintained by some means for in no other way can the higher commander obtain the information necessary to commit the reserve. It must be stressed that this flow of information is vital and is the continuing duty of all subordinate commanders. The success of the defense will hinge on the performance of this duty.

The last point to be discussed is that of preparation. The entire area must be thoroughly reconnoitered so that defenses may be placed to best advantage with the limited men available, and so that main and local counterattacks may be made by the best possible routes and with maximum speed. Training and rehearsals are imperative. Command post exercises to insure the proper coordination with the air defense force must be held, and rehearsals to train the personnel in manning their positions and counterattacking must be conducted.

This article would be incomplete without a discussion of the conduct of the defense. An airborne attack may be divided into four phases: first, preliminary reconnaissance; second, bombardment by aviation; third, the initial landing

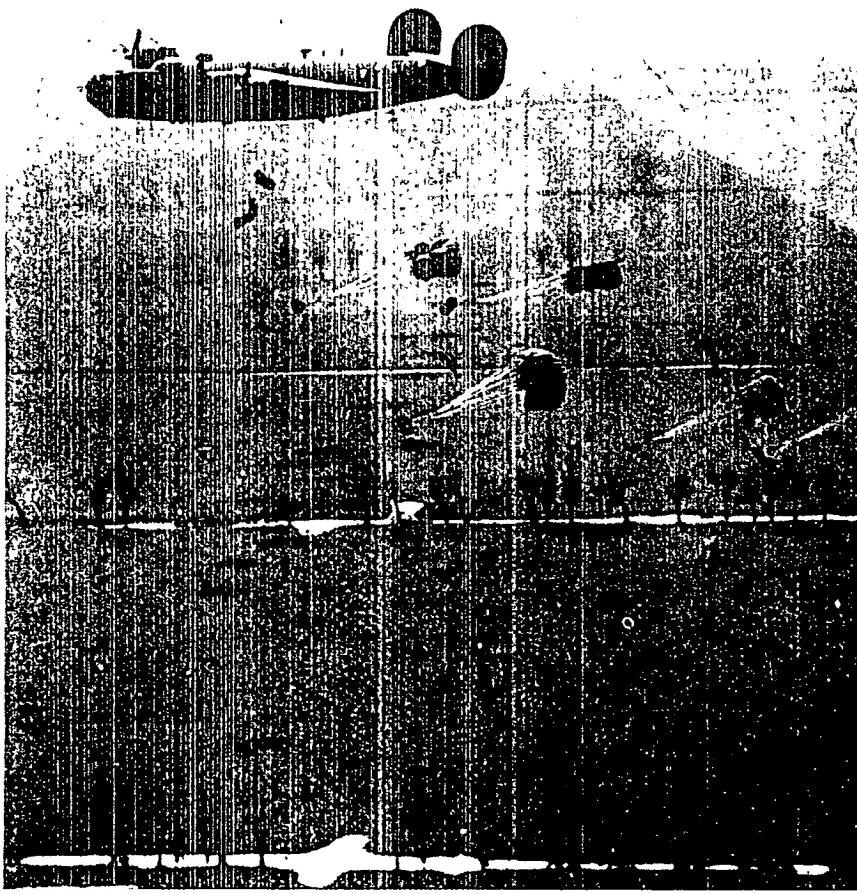
phase during which parachute and glider troops are landed; and fourth, the assault phase during which air landing troops are brought in and the main attack is launched.

During the first phase, passive defense measures are taken by the defense force. Dispersion, concealment, and the occupation of alternate positions are vital.

Depending upon the resources in planes and guns of the defenders, either an active or passive defense may be conducted during the second phase. Assuming that the enemy has a clear cut air superiority, it will be better to adopt passive defense measures and conserve our effort until the critical point when the third phase commences.

As the attack starts, the maximum active defense against the enemy is undertaken by planes and guns. All transport planes, gliders, and paratroops are taken under fire in the air or as they land. Immediate effort is made to determine the main landing as diversionary drops may be expected. In an effort to come to grips with the airborne troops during their most vulnerable period, small local counterattacks should be vigorously pushed by local commanders against the attackers who are landing, gathering up their equipment, and reorganizing. As more attackers land and the drop and landing zones are consolidated, the local defense forces must make every effort to hold their ground and thus contain the forces landed or prevent enemy progress toward the objective. If it is possible to get the mobile reserve into action at this time, the enemy forces in initial landings should be destroyed before the air landing troops with their heavier weapons and equipment can land. Due to confusion and uncertainty, distances involved, and the speed of the enemy's attack, it will often be impossible to make the main counterattack at this time.

In the fourth phase, the local defense force



Even the unsuccessful defense of Normandy by the Germans was skilled enough to be a serious hinderance to the Allies.

maintains its positions or fights a delaying action toward the objective until the general counterattack is made.

During the latter two phases the defenders make maximum use of artillery, mortars, self-propelled guns, tanks, and such aviation as can take the air.

To summarize and bring the article to an end, we may say that defense against airborne attacks is provided by aviation, antiaircraft artillery, air warning, and ground defense forces all acting in concert. The ground defense force is composed of a local defense force and a mobile reserve. The defense is conducted along active lines so as to: (1) destroy the enemy while still in the air; (2) destroy the enemy while landing and reorganizing; (3) contain such enemy units as have landed and reorganized, or fight a delaying action toward the objective; (4) defend the objective, and; (5) destroy the attackers with the mobile striking force held in reserve. This conduct of the defense requires aggressiveness; a continuous flow of intelligence up, down, and laterally, and; a prompt, proper, and vigorous use of all reserves.

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