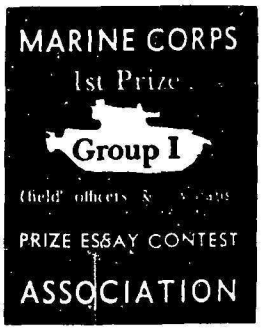
AMPHIBIOUS WARFARE TOMORROW



Prophets of gloom and doom have never had a place in the Corps, and now comes the greatest challenge

By Col Robert E. Cushman, Jr.

THE TIME HAS COME TO TAKE A long, hard look at the concept under which we will wage amphibious warfare in the near future. Instruments of war, of far-reaching effect, are moving from the drawing board to the testing and evaluation stage. Of course, we all realize that the changing organization, unit tactics and equipment must be evolutionary rather than sudden, for a revolutionary shift could bring disaster. We might find we had discarded working tools for drawing board plans and single prototype models. A war forced upon us tomorrow would then find us unprepared. Therefore, we must go slowly in this area — awaiting the development of new equipment, then testing and evaluating its use in the field, and finally changing organization and tactics to obtain the maximum advantage from the new developments.

The development of basic doctrinal concepts requires a different pace. These underlying precepts need more "lead time" for study and adoption. If developed sufficiently early, they can form the basis for requirements for new weapons systems. In any case, they are needed before changes in organization and minor tactics are made, so that the many alterations in these fields will take the same direction and be given cohesiveness by a sound overall doctrine. To illustrate, it is not now time to suddenly reorganize the air and ground units of the Fleet Marine Force to fit them to ship-to-shore craft, water and airborne, that are now on the drawing boards. But it is time to develop principles by which the new tools should be used. Then we will be able to make a sound reorganization when the "hardware" becomes available to combat units.

Major strategy and tactical principles must be examined. Some may feel that strategy is outside the province of the Corps. This is erroneous. The exercise of seapower is strategic, and the Fleet Marine Force is one major element of seapower — it is the means whereby seapower is projected ashore. Furthermore, on matters of concern to the Corps, the Commandant of the Marine Corps sits with the Joint Chiefs of Staff, and the major function of that body is strategic direction of the Armed Forces. We will examine strategy, therefore, as well as tactics.

STRATEGY

There has grown up since the Napoleonic Wars a theory of absolute strategy, characterized by such terms as "total war" and "the nation in arms." This culminated in World War II with "unconditional surrender." An accompanying phenomenon was the apparent separation of war from political objectives. In some cases it seemed that the assuagement of moral indignation was a valid war aim.

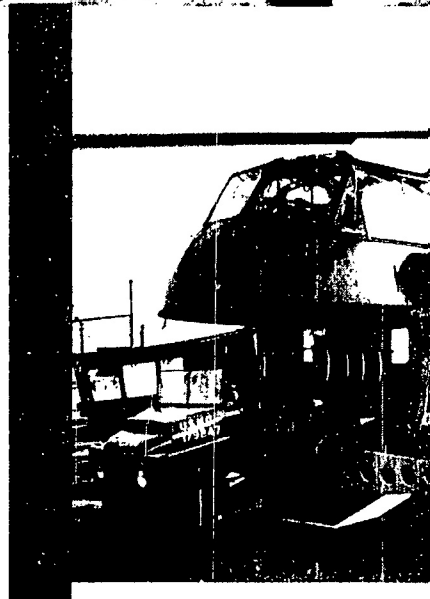
Now this was not always so. The dynastic wars preceding Napoleon closely wedded political objectives and military aims. When the political objective was attained, military action was concluded. We may call this a theory of limited strategy. The most recent example, of course, was Korea. Disagreement with the theory or the results does not alter the fact that our political objective was to stop Communist aggression from taking southern Korea. When this was achieved military action came to a halt.

We can then postulate the two

types of strategy, absolute and limited. In absolute strategy, we aim to destroy completely the will and ability of the enemy to wage war and we insist upon far-reaching changes in his political leadership and objectives which will conform entirely to our desires. In limited strategy, we strive to impose our will upon the enemy to the extent necessary to make him stop a particular course of action inimical to us. Political changes may or may not result in the hostile country. His capacity to wage war will still exist; however, our *political* objective will have been achieved.

What will be the character of war, and the influence of amphibious seapower, under each type? I think that absolute strategy will call for massive blows against all targets which can contribute to the enemy war effort, seizure of areas of great strategic importance to the enemy, continuing pressure upon strategic points and upon the important elements of his armed forces until he capitulates. Complete destruction of the enemy's armed forces may not be necessary, but these forces must be fought to a standstill. They cannot be permitted to seize, hold and exploit resources which will replace those destroyed in the homeland. Thus, landpower and amphibious seapower will conduct *offensive* action to fix the enemy in position, seize hostile strategic areas by defeat of enemy forces in those areas and exhaust the local resources of the enemy in the field. Meanwhile, air power conducts the massive blows which destroy the fountain of resources without which the enemy must eventually collapse, and throws up the protective (although offensive minded) air umbrella without which forces cannot live on the combat fields of tomorrow.

On the other hand, limited strategy will probably call for the destruction of the enemy in a limited area of operations; the use of atomic weapons in a tactical role within that area; prohibition against massive strikes against civilian and industrial targets removed from the scene of operations; and eventual complete control of the area of combat by our forces. In this type of strategy all forms of power — sea, land, air — will form a closely-knit, joint team which will achieve the overall objective by the tactical application of force. Note, however, that the limited strategy of the future does not imply a so-called conventional limited war — I believe that all modern weapons of a tactical nature will be used; it is merely the strategic and political objectives which will be



limited. They will be limited solely because the price of absolute strategy in future war will be prohibitive to both victor and vanquished. The only true objective of sufficient importance to justify resort to absolute strategy is national survival. However, this may be forced upon us, either full blown by the enemy or by spontaneous combustion from what starts as a war of limited strategy.

At first blush this seems bad. It looks as though we need two kinds of Marine Corps to fight in these two types of conflict. We have heard much talk to this effect. But I think that reflection upon the analysis made above will show that amphibious seapower has similar roles in each kind of war. The operating conditions may vary; more flexibility may be permitted in a limited strategy because less effort need be devoted to continuing defensive tasks such as protection of sea lines of communication to the Western Hemisphere. A greater calculated risk may be taken in certain cases to permit a greater concentration of power at desired points. But the essential scope and opportunity for employment should be about the same. In both cases, amphibious seapower, by *offensive* action, will seek to seize areas from which to further project naval power against the enemy, capture and deny to the enemy areas vital to the exercise of his seapower, and assist other forces in the defeat of enemy groups accessible from the sea.

This excursion into what is sometimes called grand strategy leads us to consideration of certain strategic principles — the objective, mass and the advantage of operating on interior lines, which is closely related to the first two.

We need to analyze carefully what we mean by objective. The principle that we need one is not questioned. But what the nature of a suitable objective may be in future war is a pertinent problem. Seizure of a naval base? Seizure of a port area? Seizure of an airfield? These classical objectives are on the way out. After their seizure, our use of them can be prevented by atomic means. Similarly, if our object is denial of their use to the enemy, atomic weapons will probably be the more economical road to success. Therefore, the objective must be, in the future, a terrain *area* and the hostile forces therein. What kind of area? It must be an area of strategic nature through which enemy power must pass before it can be applied against more distant strategic objectives in the rear, or from which our power may be projected against more distant strategic objectives in enemy territory. Such an area must be extensive, including within itself many widely dispersed points upon which our air power can be based (by methods described later), facilities for dispersed support and strategically important natural or man-made features such as industrial centers, agricultural areas and essential communication lines.

Certain terrain areas have vital approaches — Ljubljana Gap

This area should be impractical to by-pass by land with significant forces, and it should impose a high price upon detouring by air or sea. Examples of such areas might be: the entries onto the North German Plain: the area from the Alps to Trieste, including the Ljubljana Gap: the Bosporus-Dardanelles area and the Black Sea littoral of the Ukraine. Similar areas are apparent in Asia.

The above-mentioned areas have, in general, the physical characteristics required; they might or might not be proper objective areas, depending upon the friendly and enemy strategic situations. I have selected as examples those within reach of seapower, at least under certain circumstances which could be assumed. There are others which would require independent airhead operations for seizure and do not enter into this discussion of amphibious warfare. The point is that we must widen the scope of our thinking in relation to objectives. The tiny island, the single port, the small area with one bomber and two fighter strips laid end to end—these will no longer be proper objectives. We must think in terms of areas 200 miles in width and depth. This should not be hard for Marines, for our *initial* objective has always been *a tactical area*—the beachhead; now our *final* objective must also be an area—*a strategic or vital, area.* But are such large areas within the capabilities of the Marine Corps to seize and hold, at least until other forces arrive? I believe that the subsequent discussion will show that they are.

We have seen how the principle of the objective had to be re-examined, not as to its total validity as a principle, but as to the exact meaning of the word "objective" in the war of the future. In a similar manner, we must look at the principle of mass, or concentration of force as it is sometimes called.

It has long been accepted in this country that this principle of mass does not necessarily mean massed manpower. We realize that a combination of firepower and manpower must be concentrated against the selected point in the enemy defense system. But in the past, this has still meant considerable personnel, not only to transport and operate the instruments for delivering fire, but also to hold in strength the ground seized; to defeat the hostile ground troops who were for the most part

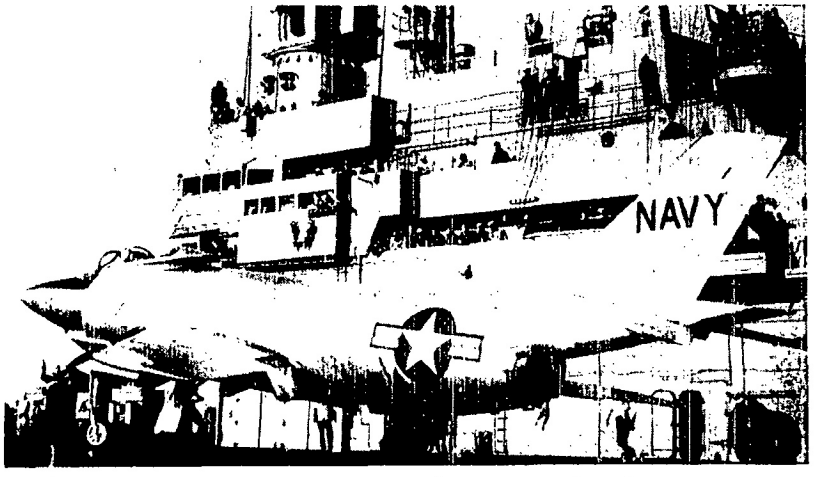
merely neutralized rather than destroyed by firepower; and to provide protection against defeat in detail. The limited range, duration and effect of firepower were such as to require that attacking groups remain within mutual supporting distance of each other. All of these factors resulted in considerable battlefield congestion, even in our forces, which have always recognized the advantages of dispersion and the use of firepower rather than manpower to achieve victory. It may be added that this congestion on the battlefield resulted in compounded congestion in the logistic areas to the rear.

How have these factors been affected by the weapons we shall meet on the battlefield of tomorrow? They have been altered irrevocably. Tremendous firepower can now be unleashed by weapons which do not require large numbers of men for their operation and servicing. The primary effect of the weapon is destruction rather than neutralization; the enemy can mass personnel for defense only at his peril. This means that we will not need as many personnel for the purpose of defeating remaining enemy ground forces and for holding the terrain seized. Defeat in detail may remain a threat; the enemy will certainly have highly mobile armored counterattack forces which will be a great danger. The answer to this lies not in greater concentration of attacking groups, but in command of the air. This will provide the mutual supporting link required; our aviation can provide prompt delivery of immense volume of firepower and can effect rapid redeployment of ground units by helicopter or other suitable aircraft.

Here then we have the concept of the future. The tactical application of immense firepower, followed up by many small attacking groups and supported by Marine airpower for delivery of fire against targets of opportunity and for rapid shifting of reserves. Thus, massed firepower has replaced massed manpower. As a matter of fact, massed manpower is now an invitation to disaster and must be avoided at all costs.

If we are to attack an area rather than a point, and if we are to use massed firepower rather than massed men, then the advantages of interior lines disappear. Operations on interior lines result in a congestion of supporting air installations, logistic means and lines of communication that invites destruction. The former advantage of interior lines was that forces could be rapidly concentrated for successive blows at relatively weaker enemy forces attacking from different positions on the periphery. Under present conditions, this concentration of the attacking force again invites disaster. Conversely, in the future the advantages will lie with the attacker who directs many small groups against a wide number of points within a strategic area and supports this attack by concentrated firepower against enemy concentrations, installations and counterattacking forces.

It is submitted that the strategy of the modern amphibious operation must follow the above precepts. Devastating atomic blows are delivered against key points within a large strategic area and are immediately followed up by many relatively small landings, both helicopter and waterborne, against these key points. Thus the force is established ashore — this is the new beachhead. Questions arise — how do we subdue the rest of the area and complete its consolidation? Once we have the area, how do we avoid becoming saddled in turn with the disadvantages of interior lines and resultant congestion of resources? How do we subsist logistically? What is to prevent the enemy using the same tactics against us? The answer lies in the area of tactics, and to this we now turn.



Amphibious air — to strengthen and maintain local air supremacy

TACTICS

The answers to the above questions depend primarily upon the proper application of amphibious airpower. Four principal functions must be successfully performed if this new method is to work. These are: (1) the achievement of air superiority over the area with a high concomitant air defense performance; (2) aerial fire support, both close and general; (3) tactical movement of troops into battle by air from either ship or ground assembly areas; and (4) new aerial supply concepts in the logistic field. These functions must be coupled with new methods of basing and operating which will depend upon new advances in the research and development field. These advances are not in the "dream world" category, but are in the prototype stage as reported by the daily newspapers.

The attainment of general air superiority will be a continuing task for all forms of airpower. It is beyond the scope of this paper. Suffice it to say that without air superiority no operation with staying power can be conducted in the future, whether by land, sea, or air forces, or combinations thereof. With this general condition met, it will be the task of amphibious air power to strengthen in degree and to maintain local air supremacy over the amphibious forces and the area of operations. Once ashore, aircraft must be based on many dispersed and relatively indestructible points and provide a really tight air defense in conjunction with other antiaircraft weapons. This will cut down the danger from that of disaster to that of calculated risks and allow us to carry out our assigned tasks in accordance with the

new tactics.

Air support must be fast, positive and safe. This requires the utmost in responsiveness to the amphibious troops commander. The new Marine air-ground task force organization will, to my mind, provide this in the necessary degree. Improvement in the mechanics of air support must continue, but no radical innovation is needed.

Air transportation of units into battle is the key to complete victory within the strategical area discussed previously. Once the various attacking groups are established ashore in the key points of the area, operations must be undertaken to destroy the remaining hostile forces. First priority will be the mobile reserve of the enemy, followed by other forces which can interfere with our mission. Finally, all remaining groups can be mopped up. The procedure which must be followed is: location of the hostile force by air and ground reconnaissance; the fast movement by air of sufficient troops to destroy the enemy force by battle — concurrent with this movement, the delivery of aerial firepower against the enemy group. A variation may occur in case the enemy does not initially present a sufficiently concentrated target for atomic attack; then it may be possible for our ground forces to attack in such manner as to force him to become a suitable target.

The logistic support of the widely dispersed groups envisioned in this concept must be accomplished by new methods. Large dumps incur an unacceptable risk. Many small dumps under control of the higher echelons are unacceptable because of the manpower requirements for handling and guarding which are generated by such a procedure. The only solution is supply direct from the water to the using unit, and this can be done only by air. For food, ammunition and medical supplies we thus eliminate at one stroke the dangerous and time consuming unloading over the beaches, or through a vulnerable port, and the long truck convoying to dumps and to users. Helicopters or sea transport planes can pick up these types of supplies from ships at sea and deliver them directly to battalion landing teams. Remember, too, that ammunition requirements should be less, since tactical atomic weapons deliver much more explosive effect for a given weight than do conventional munitions.

Certain heavy equipment, such as tanks and larger vehicles, will have to be unloaded over beaches, but this should be feasible since we have eliminated most of the congestion at the beach by aerial delivery of other material. As will be shown later, the requirement for heavy engineering equipment should be greatly lessened also in future warfare.

POL supplies represent the greatest problem. The day of the tank farm has passed, as well as the usefulness of any other concentrated, fixed installation for handling POL. A possible solution lies in using the aerial tanker for refueling planes in the air, not to extend their range but to make unnecessary the installation of elaborate fueling facilities at the plane's base. This should be combined with the use of lightweight but strong plastic bags, filled with fuel at sea and delivered by helicopter to certain bases and units. The container could be lowered gently by the helicopter's crane. This might be particularly useful for supplying motor gas. These two methods could, of course, be augmented by using some well-dispersed and protected tanks which could provide a reserve supply in case of need.

We mentioned earlier that base facilities for aircraft should be relatively indestructible. How can this be attained? Two methods come to mind. First is the use of vertical rising, high performance aircraft, and second is the use of water-based high performance aircraft. It is not possible to destroy all of the ground suitable for the former, nor the water areas usable by the latter. In short, our high performance aircraft would have the same freedom of action relative to landing fields that is now enjoyed by helicopters. With every open field, every river and lake, every stretch of seacoast constituting an air base, who can doubt that we could carry out the air operations essential to a modern concept of amphibious warfare?

CONCLUSION

Prophets of gloom and doom have never had a place in the Corps. Marines have always "thought big," and well in advance of conventional and current ways of warfare. After all, we figured out how to attack an island surrounded by a reef before we had the necessary special equipment, and at a time when most people thought we couldn't take any island even when no reef existed to interfere!

New reefs loom ahead. But this time there are already in sight the new developments which, properly used, can get over those obstacles. Our job is to find the best ways of using them, in an age where a mistake means destruction. In that spirit, this concept is tendered: Offensive action by small, air-mobile groups in conjunction with massed destructive firepower; the seizure and defense of relatively large strategic areas by a combination of air support, air movement and concentration of small battalion combat teams, and effective air defense; and logistic support by means of fast-moving water-air lines of communication which do not become concentrated or congested.

In conclusion, I consider this to be the greatest challenge which has yet faced the Marine Corps: in this atomic age, to formulate a sound concept of modern amphibious warfare. US MC

POL must come by air — the day of the tank farm has passed