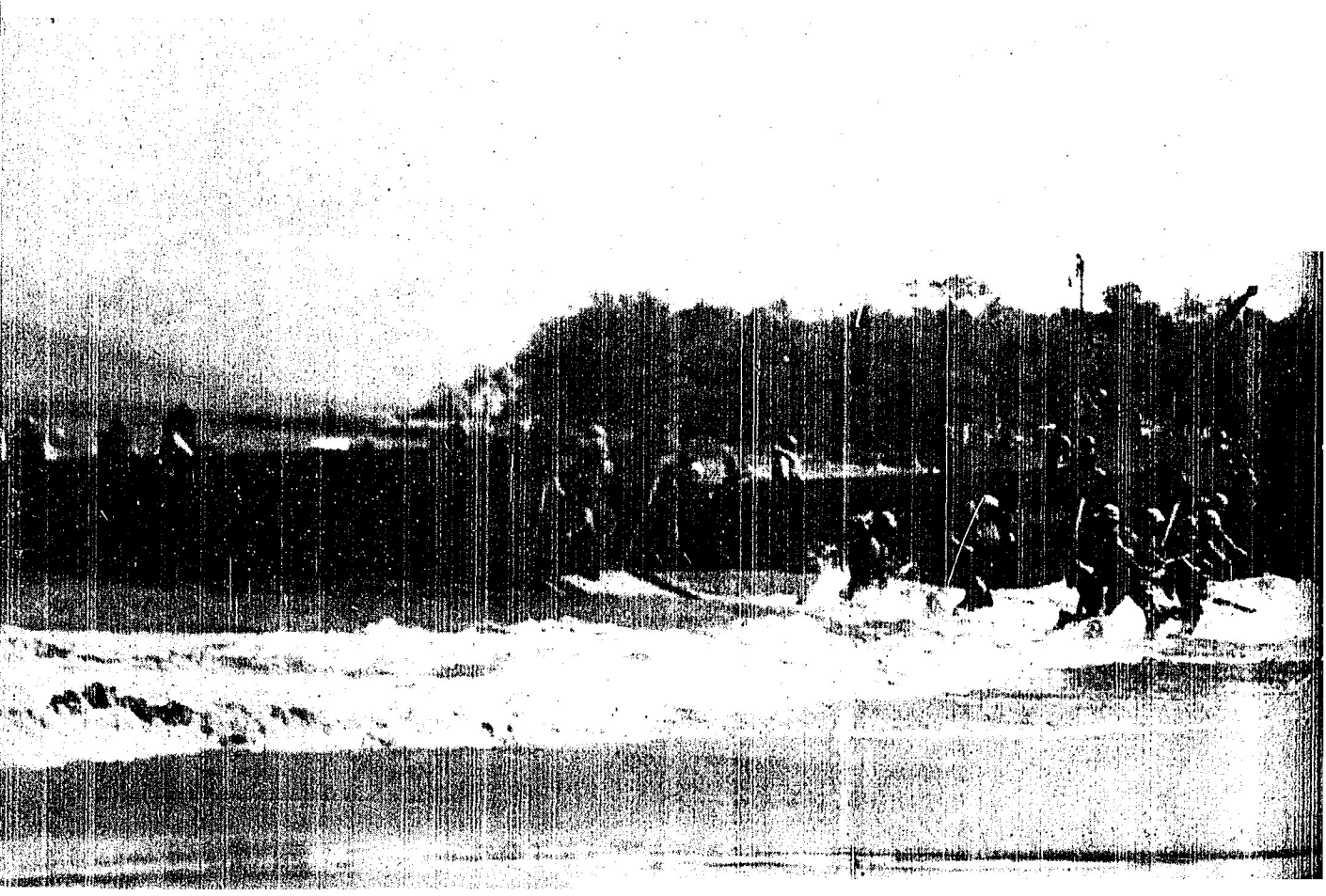
Naval Gunfire

With every passing day we see more and more disagreements about what preparations should be made for the war of the future. These disagreements arise from different theories about what the war of the future will be like. There are those who maintain that it must be a war of atomic holocaust, using the biggest and the most lethal atomic and hydrogen weapons; others contend that for self preservation it must be a limited atomic war, using only tactical atomic weapons, small yield stuff designed to obliterate only the fighting forces on the battlefield. The most moderate of all, hold the position that atomic weapons will follow the route of poison gas and will be relegated to storehouses throughout the world, only to be used if and when . . .

This theorizing about what kind of war will be fought imposes upon the Armed Forces of the US the difficult task of making preparations to wage any type of war. To solve this problem, it has generally been accepted that plans and preparations will be made for an atomic war, but it is stipulated that these plans and preparations must be adaptable to the so-called conventional war. Following these lines, the Marine Corps has been engaged in extensive planning, experimenting and testing to determine how an amphibious operation in an atomic war will be conducted. As this new theory of amphibious operations is being developed, however, the Marine Corps retains its ability and skill to land in the conventional manner.

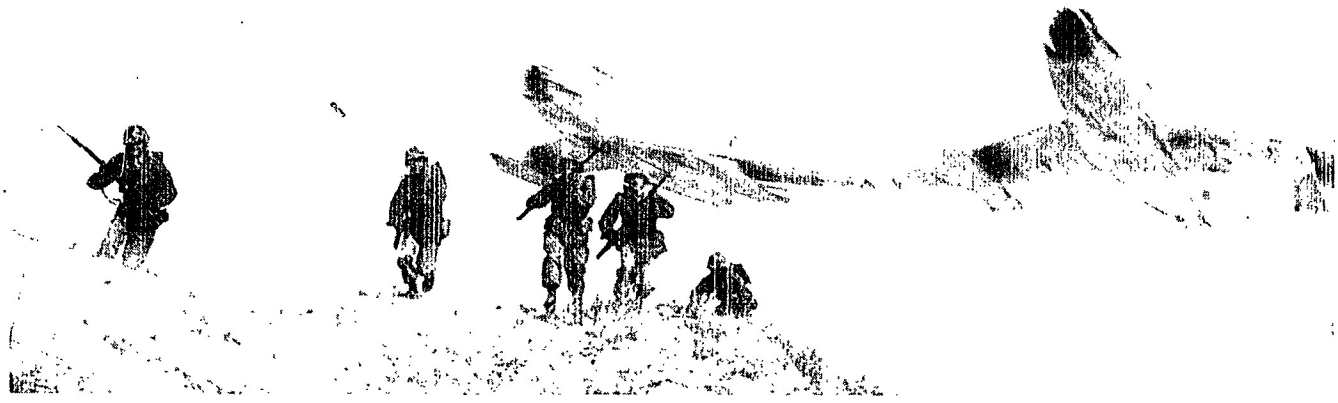


and the ATOM

By Maj Harold D. Fredericks

Will naval gunfire support be possible in an atomic war?

If so, what form will it take?



Close Air Support

One small aspect of this problem which I would like to discuss is the naval gunfire support available during an amphibious operation, when our enemy has chosen to employ atomic weapons. What I shall say here will be a theory, not a solution. My hope is that my theorizing will lead others to evolve solutions which may make naval gunfire planning in an atomic war easier to accomplish. This theory will apply if the war is an all-out atomic effort or a limited atomic action.

However, before we consider naval gunfire planning, perhaps it might be well for us to examine some of the other characteristics of amphibious operations in an atomic war so that we might better understand the problem.

Strangely enough, our first consideration must be a defensive one. We must consider the lethal effects of the atomic weapon and realize that one such weapon could destroy our entire landing force if we were to land as we did in WWII. To offset the effect of a nominal sized bomb, it has now been generally recognized that the minimum safe distance between battalions is a mile and a half. However, experimentation has been conducted to determine the feasibility of having assault battalions operate as far as 20 miles apart.

This defensive separation between battalions imposes on us our second consideration—the necessity of being able to shift rapidly so that we may be able to mass more than one battalion when a critical situation arises, or when we are ready to seize an objective which requires greater strength. In other words, we must be able to keep our forces separated, then rapidly converge them and then separate them again. All of this requires us to have mobility.

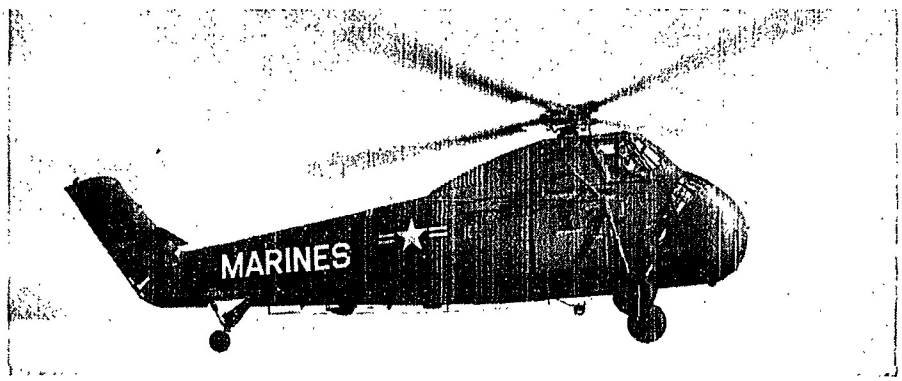
The Marine Corps envisions using the helicopter to transport the assault troops deep inland. Although this eliminates landing beaches of the WWII vintage, beaches would still be necessary to land certain follow-up troops. The important point to remember for purposes of naval gunfire, however, is that the assault elements will be landed primarily by helicopter.

This extensive use of helicopters to seize inland objectives poses a supporting arms problem. As a step in solving this problem the new organization of the MarDiv supplies the combat troops with light artillery or mortars, replacing the cumbersome 155mm howitzers once found in division artillery regiments. These light pieces will be helicopter transportable.

It is also envisioned in the way of support that extensive air cover will be necessary. This is so for a number of reasons. We must first again consider defensive aspects. A successful amphibious operation in an atomic war is impossible to achieve unless there is complete air superiority within a certain range of the objective area. In order to achieve this complete air superiority, there will, of course, have to be more airplanes. In addition, since the initial objectives will be so far inland and since the units will be spread so far apart, it is envisioned that there will be need for more extensive air strikes against enemy ground forces and installations, since this is the only weapon which initially will be able to see the enemy on his home ground.

And in very concise form those are the salient features which must be borne in mind when evaluating the role of naval gunfire support in an amphibious operation of the atomic era: separation, mobility, lighter organic supporting arms and more air cover.

In light of all these, the question which first comes to mind is whether or not naval gunfire support will even be possible in an atomic war.



If it is possible, what form shall it take?

These questions arise because we are prone to consider naval gunfire support only as it was employed in previous operations. It has been almost always SOP to have a destroyer in direct support of each assault infantry battalion. To bolster the powerful fires of the destroyer, light or heavy cruisers were usually placed in general support of a regiment. As further back-up, the division had heavy cruisers and battleships in general support.

This system of allocating fire support shipping was devised so that one battalion could receive the fires not only from its own direct support destroyer but, if the situation were serious enough, fire support from all the ships in general support of the regiment and division. It was an extremely flexible and workable system for a landing of the WWII type; but as we shall see, this type of support may not be possible in the amphibious operation of the future. In planning naval gunfire support, however, we should strive to retain the characteristic of flexibility which this system embodied.

As we mentioned in preceding paragraphs, our infantry battalions will be widely separated and some of our assault battalions will make their initial assault miles inland. Will these battalions be able to be adequately supported by destroyers in direct support roles? In many cases the answer will be, unfortunately, *no*. Even in those situations where destroyers can be used in direct support roles, it is easy to foresee how their use will be seriously limited. The reason we must rule out the destroyer as our direct support ship is based on range. Since the range of the 5" battery of the destroyer is 15,000 yards and since we foresee our assault battalions initially landing as far inland as 10 miles (and perhaps even farther with new helicopters) we can easily understand how destroyers would be unable to render us support. Even when battalions land over the beaches we can anticipate that because of the heavy atomic preparation they will be able to progress inland rapidly, and consequently will soon outdistance the range of the reliable destroyer.

And so we must conclude that a destroyer, with its present armament, will not be able to render direct support to our assault battalions in an atomic war. Must we therefore rule out naval gunfire in a direct support role? The answer is a resounding *no*. Not only must we not rule it out, but we must be ever insistent that we have the necessary direct support ships, for they are as vital in an atomic war as they ever were in a conventional war.

We must remember that the basic characteristic of an amphibious landing has not changed. It is still the most difficult type of operation to conduct. This is true not only because amphibious landing requires elaborate planning to achieve correct timing, support, etc., but primarily because it is one of the few operations (together with air borne landings) that requires fighting forces to be built up, from nothing to an effective overpowering force. It also creates the requirement that all support initially come from sources outside the landing force.

It is this last requirement which causes us to insist that naval shipping be available to give direct support. For as we all undoubtedly know, there are only 2 major sources of support which come from outside the landing force—naval gunfire and air. Air, as we mentioned before, is taking on a larger and larger role in rendering support. There are those who maintain that the day is near at hand when each assault battalion will be supported by a squadron of attack aircraft. However, even our most ardent exponents of air power must admit that there will be circumstances of weather and operations that will prohibit air from rendering continuous support. Therefore, naval gunfire remains one of the principal supporting arms in the initial stages of an amphibious operation.

Nor is it sufficient to say that this naval gunfire may simply be in a general support role since we have already decided that destroyers will be inadequate for direct support. There is still the requirement, as before, that in the early stages of the landing, our assault battalions have at their fingertips (or at least no farther away than the other end of their radio) a ready supply of naval gunfire. Despite atomic preparation, we must still give the enemy the capability of mustering a powerful force; and we must have the assurance that naval gunfire will be available to the battalion when it needs it, to help repel such a force.

Marines assault from HR2S

A direct support ship is therefore mandatory.

But what can we use as a direct support vessel? Would not light and heavy cruisers fulfill this role? The range of the 8" guns may be just what the tactician ordered in an amphibious operation. Granted that cruisers are not in as plentiful supply as destroyers, but it is hoped that enough of them can be made available to act as direct support ships. Moreover, there is still the possibility of employing destroyers in some situations; and they certainly should be used whenever practicable.

Since we are using cruisers for direct support, should we then advance our whole system of allocation of shipping and use battleships in general support? If we answered in the affirmative, we would be guilty of failure to keep up with the times, for the Navy has retired its battleships. Nor are heavy cruisers the answer because they are not available in sufficient numbers. Therefore, let us examine the entire array of naval shipping and perhaps we might find something to suit our purposes. We have but to look at the fields in which the Navy has been concentrating its research efforts lately and we find the answer to our general support problem. The Navy's emphasis in recent years has been on 2 major programs—air and guided missile.

We have already mentioned aviation, and we admit that if aviation is capable of evolving an around-the-clock, all-weather capability for ground support, planes will be employed as a supporting arm in many situations where naval gunfire was formerly used.

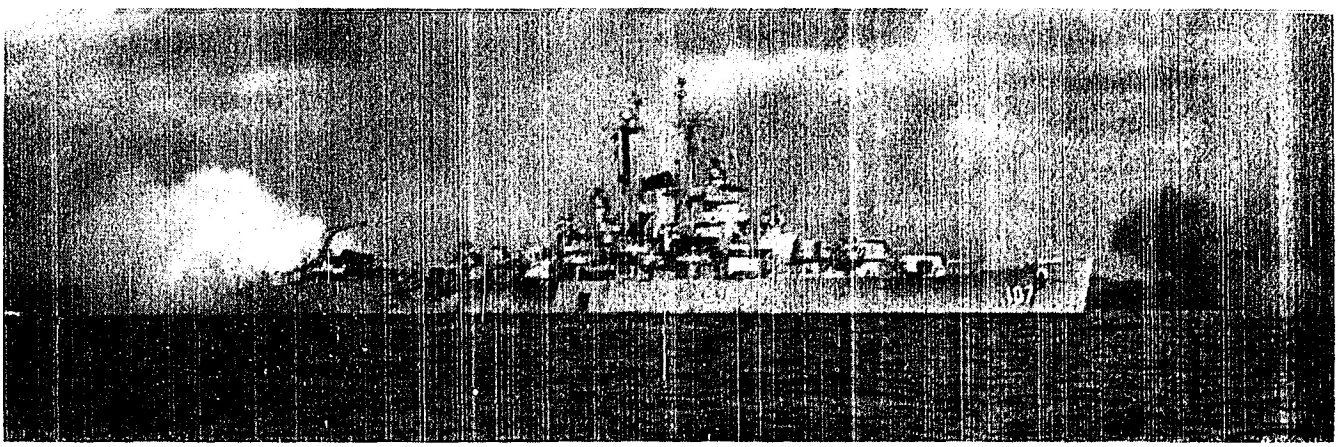
However, in the field of guided missiles we have a virgin expanse in which to let our imaginations run rampant, for the Navy has invested much in the way of men, money and material in its guided missile program. Although much of the information about guided missiles is classified, I think we can safely conclude that Navy missiles are being tested, developed and produced which have the capability of striking targets deep inland. Exactly what their present capabilities or future potentialities are makes little difference, for the salient feature to remember about guided missiles for the purposes of this article is that they have a much greater range (i.e. Regulus—600 miles) than what we might term conventional naval gunfire and that they will have a good degree of accuracy. Furthermore, if we can believe what we read in the newspaper, these guided missiles will be fired from all types of naval shipping—submarines, cruisers, destroyers and probably, if circumstances warrant, other type shipping.

Therefore, instead of saying that a certain type of ship will be in general support, let us just say that guided missiles will be in general support. Actually, this becomes an ideal naval gunfire general support weapon because, as we have mentioned before, our battalions will be pretty well separated in a nuclear war; and for a ship to render general support capable of supporting 3, 6 or 9 of them without major shifts of firing positions will mean that this ship must have the capability of firing very long ranges—longer than those we are now familiar with. Therefore, guided missiles are the logical choice. These missiles, supplementing our increased air support, should be able to do the job quite well.

We admit that we have been speaking in generalities. We have not examined the detailed planning and analysis necessary for the successful executions of NGF support. We don't believe that this examination is necessary. Fire planning will still be based upon the same principles—so many rounds to so many square feet of ground to achieve neutralization—so many rounds to achieve destruction against various types of installations. Granted that there must be adjustment made for the use of atomic weapons, but this is old stuff to naval gunfire planners. Computing the number of rounds necessary to achieve certain missions evolves into nothing more than a mathematical process.

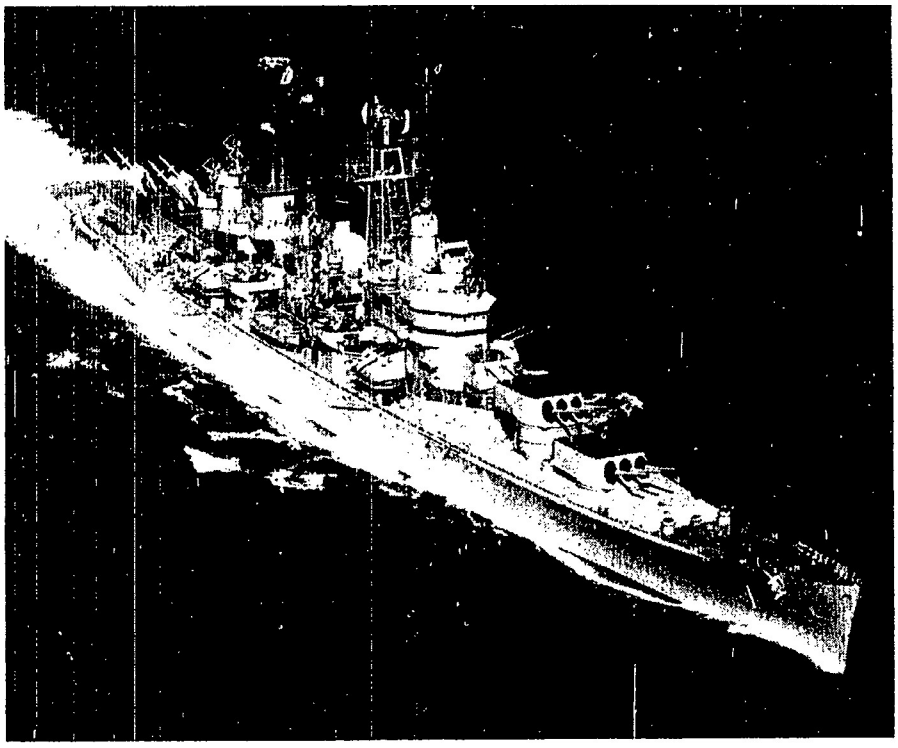
There is but one other possible major change which will take place during the nuclear war, and this is the elimination of pre-D-Day bombardments. Assuming that our amphibious task forces will employ atomic weapons to precede the landing force by as little time as safety factors permit, we can logically conclude that these atomic weapons will neutralize and destroy the targets which were previously neutralized in the pre-D-Day bombardment.

Many people maintain that the elimination of the pre-D-Day fires



Cruiser lays down fire

will give the amphibious force an added opportunity to achieve surprise. These individuals believe that the pre-D-Day bombardment of previous years lost the element of surprise, despite the fact that extensive efforts were usually put forth to have 2 or 3 beaches receive similar type shelling. It is our contention, however, that we should not delude ourselves into believing that by eliminating the necessity for pre-D-Day fires we have increased the element of surprise. We must remember that we cannot make this landing until we have achieved local air superiority—and so, the days prior to D-Day will be spent in extensive air operations to win this superiority. These operations unfortunately will lose for us the element of surprise in the same way that the pre-D-Day bombardment lost it for us in WWII.



USS Boston—Guided Missile Cruiser

And so, having generalized about the major changes which we believe will take place in naval gunfire support in a total or limited nuclear war, let us summarize our conclusions.

We believe naval gunfire will be as necessary in a nuclear war as it was in a conventional amphibious landing. And we believe that this will be so until we can be assured of air support with a continuous, all-weather capability. Even if airplanes with all-weather capability are provided in sufficient numbers, there is serious doubt that it would be economical to employ them for all missions.

Since naval gunfire is considered necessary and since a landing in a wholescale or limited nuclear war takes on different characteristics, certain modifications in naval gunfire support are considered necessary. These changes envision a greater use of cruisers in direct support roles and guided missiles from any ship capable of firing them for general support. Moreover, the pre-D-Day bombardment is considered unnecessary in a war employing atomic weapons.

The Marine Corps realizes that we cannot be certain that our next fight will be an atomic one, and so it must maintain the capability of using naval gunfire in practically the same way it was used during WWII and Korea. The modifications listed above do not preclude us from maintaining that capability.

All in all, we must sum it up this way—the "gravel crunchers" are still dependent on the lethal effects of naval gunfire to help them continue their successful string of amphibious landings, thereby upholding the reputation of the Marine Corps as an elite and professional striking force capable of always landing and having the situation well in hand.

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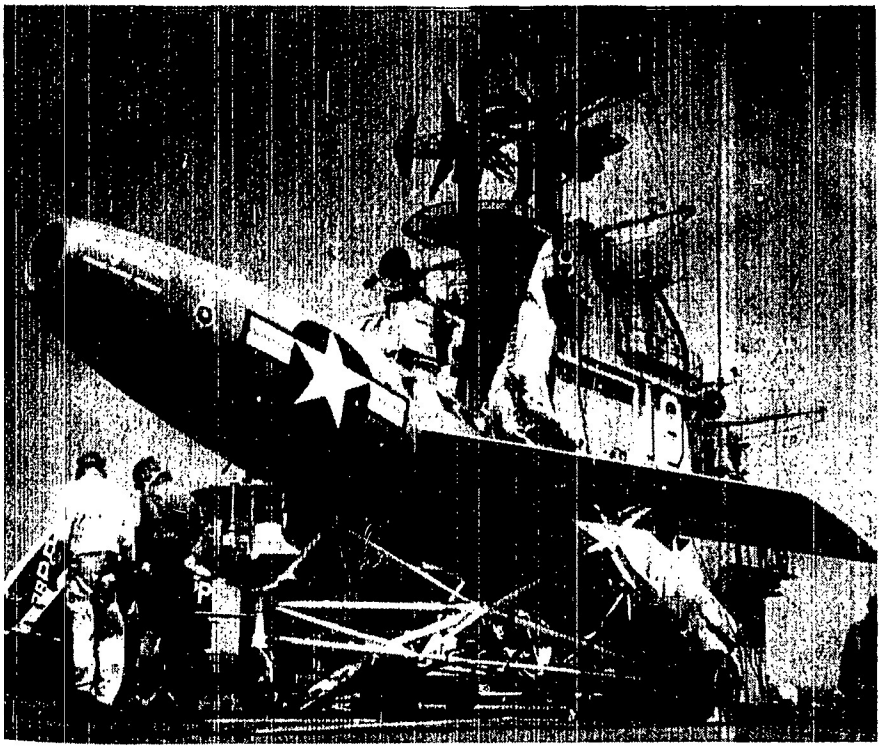

Regulus Missile aboard carrier