

JOINT ARMY-NAVY TASK FORCE NUMBER ONE

OPERATION CROSSROADS -- RELEASE NO. 46

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TO PRESS AND RADIO AT
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FULL STORY OF ATOMIC BOMB TESTS
WILL BE TOLD TO PUBLIC

Vice Admiral W. H. P. Blandy, U.S.N., Commander Joint Army-Navy Task Force One, announced today that observers and representatives of the press would be able to view the general arrangement of the target vessels and other military equipment in Bikini Atoll. While technical details will not be disclosed, the press will see the target array, both before and after the tests, and both from the surface and from the air.

This is but one step being taken to insure that the public has fullest confidence that the experiments are being conducted purely as fact-finding scientific tests for future guidance with no intent to "prove" or "disprove" any present-day theories concerning military, air and naval strategy and tactics. All possible facts consistent with National security will be released so that the public will not await the results with the misconception that these tests alone will once and forever establish whether there will be a great or small air force, navy or ground force.

Early in the planning stages of the tests it was clearly recognized that no one test or series of tests could at the same time:

- (a) Simulate war conditions,
- (b) Provide the data which are desired from the purely scientific point of view, and
- (c) Provide the data which are essential if military and naval strategists, engineers, designers and medical officers are to have the information they need in order to proceed along sound and economical lines in developing our Armed Forces.

The basic directives require that the tests provide the essential data required by the Armed Forces. The tests are primarily planned, therefore, to determine and to measure with precision what happens at various distances when an atomic bomb is used against ships and other items of military equipment such as tanks, airplanes, radio sets, etc. Much information of value to pure science will also be obtained, and, where practicable, duplication or simulation is made of typical operating conditions.

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The arrangement of the ships in the target array for the first test was reached after the many factors affecting the problem were carefully analyzed by the Army and Navy and by civilian scientists. The array agreed upon is considered the best which will obtain the maximum of valuable information.

It is so arranged that (a) maximum damage will be inflicted on the cluster of ships at the point of aim by one airplane dropping one bomb, and (b) a progressive decrease in damage will be inflicted on ships at increasing distances from the explosion to a point where it is intended that almost negligible damage will be encountered by ships farthest from the aiming point.

Some of the ships and target material, at considerable distances from the point of aim in the first test, can probably be placed in satisfactory condition to be close to the point of detonation in the second test. This aspect was considered in the arrangement of the target array.

Some of the smaller ships have little significance from the point of view of measuring effects of blast on the ships themselves but are stationed at measured distances in order to form platforms on which recording instruments and cameras may be installed.

Typical conditions will be approximated by loading the ships with varying degrees of combat supplies such as fuel oil, gasoline, bombs, ammunition, torpedoes, etc. The ship loadings will vary from some almost full to some almost empty, which is the normal situation with ships at sea and at anchor both in war and peace.

However, there is no thought of simulating an "attack" by atom-bomb-loaded airplanes against a disposition of ships at sea or at anchor in a harbor. This should be very clear from the diagram of the approximate target array to be used in the first test which is furnished herewith. This diagram shows relative locations of ships, and closely approximates the expected exact location of each ship. It should be remembered, however, that the final locations of the ships at the time of the tests will depend on such factors as the direction of the wind and the length of anchor chain, as ships riding to a single anchor will swing to the wind in a circle a quarter mile or more in diameter.

Also furnished is a diagram showing a portion of a carrier task force at sea and a typical anchorage plan, drawn to exactly the same scale and compared to the target array diagram for the Bikini Atoll test.

Simulation of actual bombing attack conditions is also precluded by the fact that only one bomb is used and by several other factors. More than a score of ships are concentrated within a circle of 1,000 yards radius at the center of the Bikini array for two principal reasons:

First, to insure doing major damage to a capital ship even if the bomb does not detonate exactly over the bullseye, and, second, to provide a positively identifiable point of aim to the bombardier from a high bombing altitude. Other steps being taken to place the bomb over the aiming point with the extreme accuracy required in this test and not normally available or essential under war conditions include: Painting the battleship NEVADA at the center a bright red-orange, installing a radar beacon on the NEVADA, providing special destroyer station ships as navigation checks for the bomber's approach, and using precise radar methods for obtaining accurate wind data at all altitudes over the target.

The bomb which will be used in both of the tests in 1946 is the "standard" type. This is the type which was used at Nagasaki. It is the best type which we have available and that is the reason it is being used. There is no desire on the part of the Joint Chiefs of Staff or the personnel conducting the CROSSROADS Operation to "hold back" a more powerful bomb. If a more powerful bomb were now available, it would be employed.

For reasons of security, the President has decreed that all information connected with the development, manufacture, operational techniques and characteristics of the atomic bomb be kept a secret of the United States. For related security reasons the information outlined below cannot be made public:

- (a) The exact point of detonation of the bomb with respect to the point of aim of the target array.
- (b) The altitude at which the bomb is detonated.
- (c) The exact bearings and distances at which the ships are stationed with respect to each other.
- (d) The special equipment and techniques used by the airplane involved in dropping this bomb.
- (e) The exact pressures, temperatures and other data obtained at various distances from the point of burst.
- (f) The degree of efficiency of the explosion.

(It is conceivable that the bomb might be almost a "dud" or have a very "efficient" high-order detonation. With our present limited knowledge of atomic fission, there is a range of possibilities between these two extremes which cannot be accurately foretold or measured. Whether or not determined, no official announcement is contemplated as to the factor of efficiency of explosion obtained.)

- (g) Large numbers of detailed photographs showing bomb damage.

(Photographs produce exact and measurable records; analysis of large numbers of related photographs of bomb damage can evolve much precise information. While the press representatives who write for publication and broadcast by radio will be permitted to do so without censorship of their copy, the national security requires that all photographs be reviewed for security and that the information obtainable from photographs of damage be limited. Representative pictures showing damage will be released as soon as practicable after the tests, some by radio photo from Bikini. These pictures will be selected to provide the public with a true graphic record of the general effects of the test. Only such identification of ships and viewpoints in the photographs will be released as will not prejudice the security interests of our country.)

The evaluation of the information obtained from the Bikini tests will take many months. Intelligent progress toward world peace as an enduring condition on our planet may be jeopardized if the public of the world at large, as a result of the headlines made by the tests, jumps to hasty and possibly erroneous conclusions as to the effects of atomic attacks against ships and military material. No sound conclusions can be reached prior to a studied evaluation of the results of the tests by the Joint Chiefs of Staff. To assist them in this evaluation the Joint Chiefs of Staff have appointed a Board of civilian, military, and naval experts who have also been available to Commander Joint Army-Navy Task Force One for advice during the major part of the planning and execution of Operation CROSSROADS.