

Barry Lawrence Ruderman Antique Maps Inc.

7407 La Jolla Boulevard La Jolla, CA 92037 www.raremaps.com

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In Memory of the Atomic Bomb Test Bikini Atoll - Marshall Islands

Stock#:	76906
Map Maker:	The Original Crosby / Wallace

Date:1947Place:San PedroColor:ColorCondition:VGSize:9 x 12.5 inches

Price: SOLD



Description:

Fantastic decorative image of Bikini Atoll made to commemorate Operations Crossroads, the first two post-World War II atomic tests. The map shows the disposition of the ships used as targets within the lagoon, with what appears to be the target ship shown in orange.

The payload plane is shown flying over the test site, and a compass rose points north. Images abound throughout the map, showing the target ship in side view, symbols of the atomic tests, and other American insignias.

These fliers were handed out to sailors and technicians who participated in the effort. The other recorded example we could find indicates that the blank space left below the phrase "On Board The Good Ship" should be overprinted with the name of the ship the sailor was on at the time of detonation, however, this was neglected on the present example.



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The two Crossroads tests were codenamed Able and Baker. A third test was canceled due to safety concerns by Stafford Warren, the lead physician at the tests, resulting in a showdown with the Navy and Congressional hearings.

Crossroads Able

The first post-war atomic bomb test, Crossroads Able was conducted on June 30th, 1946. The tests were the subject of intense government debate, with many arguing that conducting the test would lead to worsened relations with the Soviet Union (not to mention the environmental impacts). However, President Truman finally ordered Able to go ahead by the end of June.

Operations Crossroads was designed to test the effects of nuclear weapons on warships. As such, Able was detonated over water near a series of ships. Nearly 450 million dollars worth of ships were used as targets, stationed in a high density so that the effects of the blast could be accurately measured as a function of distance from the detonation.

The Fat Man-type atomic bomb used in the test, *Gilda*, missed the target ship by about 710 yards, likely due to a calculation error by the bombing crew. As such, only two ships were sunk initially sunk (with several more sinking over the coming weeks), leading many to view the test as a failure. However, it was still argued that sufficient data had been collected to make the tests worthwhile. Less than a month following Able, Crossroads Baker would be conducted at the same location to test the viability of underwater detonation.

Crossroads Baker

The first-ever underwater atomic bomb test, images of Crossroads Baker are considered unique for the various phenomena they show. Conducted as part of Operations Crossroads, a testing series designed to understand the abilities of atomic bombs as anti-ship weapons, this test was designed to measure the impacts of an underwater explosion.

Prior to the test, there was little understanding as to what would happen during the explosion sequence. As such, these photographs used to document the explosions would have been used by scientists trying to explain the features of the explosion seen. Yet, so much confusion remained that a conference was held two months after the test to standardize nomenclature.

The sequence of events following the explosion at Mike Hour is as follows: 1) an underwater bubble containing a heated fireball expands until it reaches the surface and seabed, subsequently digging a 30-foot deep and 2,000-foot wide crater; 2) once it hits the air, a supersonic shock wave expands to the top of



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a spray column. Simultaneously, a spray column develops but is hidden from sight; 3) an area of lowpressure forms behind the shock wave, in which fog condenses, creating a "Wilson Cloud;" 4) the Wilson Cloud dries out, revealing the rising spray column; 5) the spray column collapses. This entire sequence lasted less than a few seconds.

<u>Rarity</u>

We note only one example of this map having appeared for sale before, in 2011 at PBA.

Detailed Condition:

Corners torn in lower left and right margins.