

U. S. S. BAIROKO (CVE-115)  
Fleet Post Office  
San Francisco, California

EO:TELM:rd  
CVE115/M3-4  
Ser: 008

410436

7 March 1954

~~SECRET~~  
~~CONFIDENTIAL DATA~~

From: Commanding Officer  
To: Chief of Naval Operations  
Via: (1) Commander Task Group 7.3  
(2) Commander Joint Task Force SEVEN

DOWNGRADED AT 3 YEAR INTERVAL  
DECLASSIFIED AFTER 12 YEARS  
DOD DIR 5200.10

Subj: U.S.S. BAIROKO (CVE-115); radiological contamination of

1. About 0800-M on 1 March 1954 this ship received a heavy fall-out of contaminated coral particles following the detonation of an atomic device on Bikini Atoll. At the time of the fall-out the ship was thirty-one (31) miles bearing 133°T from the shot site. The BAIROKO was in the process of launching five (5) helicopters at the time the fall-out was received and the wash-down equipment was layed out in the catwalks. One helicopter was in the air but was immediately recalled and landed. The first warning of fall-out was the report of approximately one (1) roentgen per hour on the flight deck. The order to set Material Condition ABLE was given at the first indication of fall-out and all ventilation, including ventilation to the engine room spaces was shut down and remained secured for approximately two (2) hours. This prevented contamination of real consequence of any spaces below the hangar deck, the engineering spaces rising to only eight (8) milli roentgens per hour, gamma only. The wash-down equipment was turned on as soon as Condition ABLE had been set but proved to provide an insufficient volume of water to handle the heavy fall-out of contaminated coral sand deposited on the flight deck, catwalks, island structure, forecastle and fantail. Operation of the wash-down equipment was continued for approximately two (2) hours and then secured. Monitoring of the flight deck at this time gave readings as high as five (5) roentgens per hour in many of the cross deck gutters and a high of twenty-five (25) roentgens per hour was recorded in the flight deck drain on the starboard side aft. Fire hoses were then broken out and used to washdown the exposed areas for the remainder of the day. The fire hoses proved to be much superior in washing away the comparatively large particles of coral sand which had been received and it was possible to reduce the flight deck count to approximately two-hundred (200) milli roentgens per hour, gamma only, or less by 1600-M.

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2. A second fall-out was received starting at about 1600-M. This fallout was composed of very fine particles and increased the count on the flight deck and bridge to between two-hundred (200) and four-hundred (400) milli roentgens per hour, gamma only. The fire hoses were again used on the flight deck, forecastle and fantail and bridge structure until about 1845-M when the Task Unit 7.1 radiological personnel recommended sending all personnel who could be spared below decks because of the possibility of inhaling the extremely fine particles into the lungs. No further decontamination measures were taken on 1 March 1954.

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Classification Changed to UNCLASSIFIED  
By Authority of J. C. H. B. / S. C. M. / D. W. A.  
CN REVIEWED BY PAUL BUREN  
By DNA [Signature] Date 10/1/84  
By DOE [Signature] Date 4/12/85

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51062

3. At 0800-M on 2 March 1954 the ship was completely monitored and the flight deck and bridge structure indicated from one-hundred (100) to two-hundred-twenty (220) milli roentgens per hour, gamma only. The hangar deck and rooms on the deck below the flight deck indicated from thirty (30) to fifty (50) milli roentgens per hour, gamma only. Decontamination efforts were commenced immediately after monitoring was completed and were carried on all day 2 March 1954. The flight deck was washed down several times using high pressure hoses, working parallel to the planking. The first wash-down resulted in an average reduction of 40-50 milli roentgens per hour, gamma only. This was followed by scrubbing with a detergent soap solution and salt water rinse, using high pressure fire hoses. The intensity on the flight deck was reduced below fifty (50) milli roentgens per hour, gamma only, except in a few scattered spaces, following repeated applications of this method. The average beta plus gamma reading on the flight deck before decontamination was one (1) r e p. The decontamination efforts utilized reduced this figure by at least 50% according to calculations of the Navy Radiological Decontamination Laboratory representatives.

4. A check on representative film badges of flight deck and other exposed personnel indicates that they received an average of from two (2) to three (3) roentgens total dose up to noon 2 March 1954. I consider that as a result of the decontamination measures taken the radiation level has been reduced to the point that the ship is entirely safe for continued occupancy by all personnel on board. I recommend that the BAIROKO continue with the operations in progress in preparation for the remainder of the tests.

5. A detailed report of the decontamination operations will be submitted at a later date.

EMMET O'BEIRNE

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ENCL (2) TO ENCL (4)

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~~ATOMIC ENERGY ACT 1954~~

*Restricted*