

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

EOB:TELM:rd
CVE115/M3-4

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11 MAR 1954
37th Defense Nuclear
Location WNRG

Access No. 612-1740 Box 10/19

File: INTELLIGENCE ONE -
CTG 7.3 HISTORY - 15 Nov 1951

From: Commanding Officer
To: Commander Task Group 7.3

Subj: Radioactive contamination; summary of for period 1-8 March 1954

Ref: (a) Appendix IV to Annex G, CTG 7.3 OpPlan 1-53
(b) CO, USS BAIROKO (CVE-115) sec ltr M3-4 ser 008 of 7 Mar 1954

Encl: (1) Tabulation of average intensities topside
(2) Copy of reference (b)

1. In accordance with reference (a) the following report of radioactive contamination is submitted for the period 3-8 March 1954. Reference (b) contained a report of contamination and decontamination efforts on 1 and 2 March 1954.
2. At 0830 on 3 March 1954 this ship entered BIKINI ATOLL and anchored in berth N-5. Helicopter operations were conducted throughout the day. The canvas bath tub for decontamination of aircraft was rigged on the flight deck, aft of number two elevator and all returning aircraft that had landed on the atoll were landed in the tub for monitoring and washdown with fresh water. Passengers were debarked in the tub, monitored, and processed through the forward personnel decontamination station, if necessary. No further efforts were made to decontaminate the flight deck, however, several details were busy all day cleaning out flight deck drains where high radiation reading were noted. The average intensity in these drains was between 80 and 100 milli roentgen per hour (gamma only) with one reading as high as 500 milli roentgen per hour (gamma only). Stoppages in these drains were caused, for the most part, by excess accumulation of wood splinters, rust flakes and paint chips jamming at the junction of two or more drain lines while fire hoses were being used to wash down the flight deck.
3. Decontamination work on the port and starboard gun sponsons was started after anchoring on 3 March 1954. The methods employed included hosing down with high pressure fire hoses, hosing and scrubbing with salt water and wiping down with fresh water. Number one motor whaleboat was decontaminated with a soap and water scrub down followed by a fresh water wipe down. The 40 MI gun and gun director canvas covers registered high radiation in spots where water from previous wash downs had collected in pools. By hosing and scrubbing with soapy water, the intensity of all canvas covers was reduced below 20 milli roentgen per hour (gamma only). The covers were then stowed in a void on the fantail to allow the intensity to reduce by natural decay. The average deck intensity on the starboard sponsons was reduced to 9 milli roentgen per hour (gamma only) by the end of the day. The only points of high radiation being two cocoa mat fenders which

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were left over the side as far removed from personnel as possible. Repeated hosing with salt water reduced their intensity from 125 to 30 milli roentgens per hour (gamma only).

4. On 4 March 1954, decontamination work on the port gun sponsons was completed. The methods used were similar to those employed on the starboard side. At the completion of the days work the average deck intensity on the port sponsons was 7 milli roentgen per hour (gamma only). The hot spots were ventilation duct screens and one cocoa mat fender, which had average readings of 30 milli roentgen per hour (gamma only). The vent screens were removed, placed on deck and scrubbed which reduced their intensity to 15 milli roentgen per hour (gamma only).

5. The average intensity on the hangar deck at 1600, 4 March 1954 was 2.7 milli roentgen per hour (gamma only). Decontamination efforts on this deck consisted mainly of swabbing up water which leaked through the roller curtain doors during hosing down operations on the weather decks. The average intensity in berthing spaces below the hangar deck was less than 2 milli roentgen per hour (gamma only) by 1600, 4 March 1954.

6. Decontamination efforts of 40 MM guns and gun directors were of minor nature. Exposed gun barrels, gun carriages, and director pedestals were scrubbed with soap and water and wiped down with fresh water. Contamination was highest in the bottom of the empty brass shutes under the elevation gear racks. The average reading was 5 milli roentgen per hour (gamma only) and the highest was 10 milli roentgen per hour (gamma only) on mount 45 which was uncovered during the period of fall out. The remainder of the work necessary on the guns and gun directors was routine maintenance to remove corrosive salt deposits.

7. While at anchor in BIKINI TOLL the intensity reading on the salt water piping system did not exceed 2 milli roentgen per hour (gamma only). on 8 March 1954, the evaporator drain pump strainers were opened on all four evaporators. The intensity reading of the scale accumulations was found to be 5 milli roentgen per hour (gamma only). All fresh water samples from the evaporators tested by Task Group 7.1 have shown 1/5000 micro curries per milliliter or less.

8. Decontamination of the ship was considered completed at the end of the day on 4 March 1954. Decontamination of helicopters and personnel continues as required.

FRANK O'HEIRNE

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COM. IFRAC (Less Enclosure (2))

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<u>TIME</u>	<u>LAT. N</u>	<u>LONG. E</u>	<u>AVERAGE INTENSITY IN KILLI-ROBISON</u>
010700 M	11°20.5'	165°47'	0.3
010800 M	11°19.5'	165°41'	0.3
010900 M	11°12'	165°41'	500
011000 M	11°14'	165°44'	500
011100 M	11°21'	165°43.5'	500
011200 M	11°12'	165°40'	550
011300 M	11°12.5'	165°41'	500
011400 M	11°13.5'	165°39'	240
011500 M	11°14'	165°41'	200
011600 M	11°16'	165°32'	170
011700 M	11°21.5'	165°39'	140
011800 M	11°21'	165°38'	200
011900 M	11°15'	165°31'	180
012000 M	11°18'	165°23'	180
012400 M	11°18.5'	164°22'	160
020400 M	11°19.5'	163°21'	145
020800 M	11°25.4'	162°31.2'	134
021200 M	11°24.2'	162°22.6'	108
021600 M	11°24.2'	162°22.6'	36
022000 M	11°24'	162°33'	30
022400 M	11°22'	163°34'	27
030400 M	11°20'	164°35'	25
030800 M	11°30'	165°32'	22
040800 M	11°32'	165°31.5'	14
050800 M	11°32'	165°31.5'	9
060800 M	11°32'	165°31.5'	6
070800 M	11°32'	165°31.5'	4
080800 M	11°32'	165°31.5'	3

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3. 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 EAINORD 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.

ROBERT O'HEINKE

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