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# DMIC ENERGY COMMISSION

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### ENIWETOK STATUS REPORT

The attached Eniwetok Status Report is provided for your information.

BEST COPY AVAILABLE

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Attachment: Eniwetok Status Report

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FOLDER Radiological Survey

# STATUS REPORT

## ENIWETOK RADIOLOGICAL SURVEY

(As of December 1, 1972) (See Attached Map)

This report summarizes significant activities and results to date of the radiological survey in progress on Eniwetok Atoll.

The aerial survey of all islands was completed on November 23, 1972, and included radiation missions (high and low energy scales) and black and white and multispectral photo coverage.

All high energy radiation missions were flown on 150-foot grid paths (parallel to longitudinal axis of islands). Time and weather constraints dictated that majority of low energy missions be flown on 300-foot grid spacing. Exceptions were SALLY, JANET, ALICE, BELLE, YVONNE, and IRENE. Photo processing and data handling initially were impeded by power outages on Eniwetok, which caused water shortages and loss of air conditioning for computer operation. Even so, some data reduction was accomplished and overlay radiation contour plots have been completed for 16 islands. Observations regarding these plots are provided in the attachment. A map of the Atoll is also attached to aid in identification of island locations.

A partial ground survey was accomplished on OLIVE and BELLE and it is interesting to note that correlation of aerial and ground measurements thus far is excellent; a fine demonstration of the sensitivity of the aerial equipment. All data from the aerial survey has now been returned to CONUS for completion of processing.

Normal power has been restored to Eniwetok base camp with the installation and satisfactory operation of two SOLAR generators provided from NTS. Restrictions on water usage have also been lifted.

Marine, Engineering, and Air Survey Groups arrived November 25, 1972, and concentrated their initial efforts in the areas of REX, JAPTAN, and FRED (southeast quadrant) and BELLE (northwest quadrant). The Marine Reef Group achieved excellent results near JAPTAN and BELLE and estimates that 90 percent of requirements for that area are satisfied.

Lagoon bottom sampling (Boston Whaler Group) has sampled in area from REX to SAM (southeast quadrant). This operation was initially hampered by poor sea conditions and operational problems wherein grab samplers stuck to the lagoon bottom. It now appears to be progressing smoothly.

The Air Sampling Group has concentrated initial efforts on FRED.

Preparations for installation of air samplers on outer islands are underway.

Attachments: `As stated

# Aerial Survey

General Observations from Radiation Contour Plots (All values in Micro R/hr)

Island	General level	Maximum level (Small patches)
DAVID (JAPTAN)	1 or less	
ELMER (PARRY) *	1 or less except for	
	point sources	
FRED (ENIWETOK) *	1 or less except for	
	point sources	
BRUCE	1	1-1.7 (center of island)
URSULA	3.5-6	
LEROY	3.5-6	
OLIVE	6-12	12-25 (center of island)
KATE	12-25	
DAISY	25-50	
CLARA	25-50	
ALICE	25-50	•
BELLE	50-100	100-200
JANET (ENGEBI)	12-25	25-50 (NE corner)
IRENE	25-50	50-100 (North side of crater)
SALLY	3-12	12-25 (NW corner)
YVONNE (RUNIT)	Very complex structure,	•
	consistent with earlier	
	ground survey data which	
•	suggest some areas as much	ı
	as 400-1000 Micro R/hr.	

<sup>\*</sup>Point sources (2 on FRED; 1 on ELMER) initially identified by aerial survey. Ground reconnaissance determined these point sources to be (1) a small cobalt 60 source stored in locked building, (2) stack of barrels of fly ash stored in PACE drilling equipment warehouse, and (3) cobalt source in deteriorated pig within dosimeter calibration facility.

