

# Lab and Operations

LOG

410686

Vol. II

22 April 1954. May 20, '54

UNIVERSITY OF CALIFORNIA  
SCHOOL OF AERONAUTICS AND SPACE SCIENCES  
APFL  
~~CHIEF OF STAFF~~  
BOOK  
Daily Log, 1954-57  
VOL 2

ENIWEATOR Atoll

Locality Paradise Beach Date APRIL 1954 (P. 2)  
 Personnel H.P.C.B. Worker W.P.T.  
 Worker Geoff

Radiation level(s) South Beach

Operations:

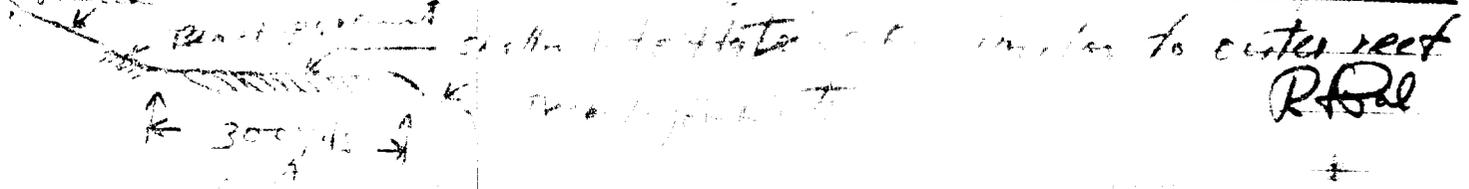
Comments: Algae population in beach area. Beach slopes sharply to beach pavement which is at low tide level. Three layers of slopes are fairly firm for about 300 yds and is composed of hard sand covered loosely with sand and is pocked by dead coral heads of small size, base in <sup>crs</sup> deep toward the deeper water. Algae present in area are

25-50 yds  
 50m  
 LT line

75 yds  
 100 yds

- Hatfieldia - to form small and largest bunches
- Ectocarpus sp. - yellow branching frond coral
- Lingbya sp. } attached to coral
- Chlorococcum }
- Diatoms - small species of largest attached to coral
- H. stipitata, H. lypsea, H. munda, Diatoma, Mytilus, Turbina, etc. - few in area
- Diatypophanes - small patches only
- Spumella murex; (Heter) - small patches only
- Chlorophora; Ceramium and other attached gelatinous Mytilus

This place appeared healthy but in small size. No large clumps seen. Profile of area:





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Applied Physics Laboratory

SEATTLE, WASH. 98195

Locality

W-13 APR 54 (CONT)

Personnel

W-13

W-13

Radiation level(s)

Operations:

Small amount of work done on the Regatta  
- Design of a 24 day cruise, including margins 2263-C-17  
(conf.) daily, to 10/15/54 including outline  
of work on 10/15/54.

11







Locality: Pointe-à-Pic (Pointe)

Personnel: W. H. ...  
W. H. ...

Radiation level(s): ...

Operations: ...

The "coral" fish were small fish that were seen to come from off the ...  
 (SILUR) + small ...  
 ... to be the ...  
 ... flat ...  
 ... schools of just ...  
 ... a few ...  
 ... getting ...  
 ... asked Bradley ...  
 ... follow on ...  
 ... It is a small ...  
 ... In one instance ...  
 ... ~~the~~ PRO'S ...  
 ... PIX-PRY-1

... shallow reef flat ...  
 ...  
 ... about 400 ft ...  
 ... about ...  
 ... (< 6') of ...  
 ...  
 ... a few ...  
 ...  
 ... as near ...  
 ...  
 ... Trigger fish.



Locality: FERRY

Date: April 1 1954

Personnel: C. J. ...

... of ...

Pat ...

...

Radiation level(s):

...

Operations:

They ... following initial ... cloud ... 5 minutes ... obscured ... still ... sky ... breaking ... sharp ... 10 minutes ... crack ... over ...

Photo ... 33 ... cloud ... after ... filter ... this ...

Notes







UNIVERSITY OF ALABAMA

AGRICULTURAL EXPERIMENT STATION

TRENTON, ALABAMA

Locality 10 miles N.W. of Trenton, Ala. 11/14/54

Personnel W. C. Coker, M. J. Perry, T. E. 26°F  
W. C. Coker, M. J. Perry

Radiation level(s) 0.7 - 1.0

Operations:

Trapped 2000 gnat pupae, 10000 pupae, and 10000 pupae  
in 1000 gnat pupae. Pupae made up more  
out of 2000 pupae. Pupae made up more  
10000 pupae. Pupae made up more  
soil samples 1000 pupae, 10000 pupae, 10000 pupae  
Gnat pupae. Pupae made up more  
soil samples 1000 pupae, 10000 pupae, 10000 pupae  
to Trenton, Ala. Pupae made up more  
soil samples 1000 pupae, 10000 pupae, 10000 pupae  
A. J. Coker, M. J. Perry, T. E. 26°F  
W. C. Coker, M. J. Perry, T. E. 26°F

10/14/54



UNIVERSITY OF MARYLAND  
Agricultural Experiment Station  
P.O. Box 38  
Pawcatuck, Maryland

Locality: \_\_\_\_\_

Personnel: \_\_\_\_\_

\_\_\_\_\_

Radiation level(s): \_\_\_\_\_

Operations: \_\_\_\_\_

At \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ <sup>50</sup> \_\_\_\_\_  
\_\_\_\_\_ run into  
\_\_\_\_\_ relative to  
\_\_\_\_\_   
\_\_\_\_\_ RBC, +  
\_\_\_\_\_ HCC.

Evencs. \_\_\_\_\_ and  
\_\_\_\_\_ and  
\_\_\_\_\_





MEMORANDUM FOR THE RECORD  
DATE: 11/11/54

Locality: *Point Barlow, Del.*  
Personnel: *1. [Name] 2. [Name] 3. [Name]*

Radiation level(s): *1. [Value] 2. [Value]*

Operations: *[Detailed handwritten notes describing the operations, including measurements, observations, and procedures. The text is dense and spans most of the page.]*



UNIVERSITY OF ALABAMA

Department of Anthropology

BA 400 - Archaeology

Locality: 2000 ft. ... May 1968

Personnel: ...

Excavation level(s): ...

Operations:

Excavation of ...

... of the ...

EXHIBIT A  
ADDITIONAL INFORMATION  
STATE

County

Personnel

Religion

...

Handwritten notes in cursive script, including dates like "Nov 1964" and "22 Nov 64", and various illegible text.

1. EXHIBIT CHECK POSITION

David L. ...

...

Exhibits

...

Presented

...

Relation level(s)

...

Operations:

Main body of handwritten notes detailing operations and procedures.

PV







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APPLIED FISHERIES LABORATORY

SEATTLE, WASH. 98195

Locality Barry Id Date May 1954

Personnel Barnes, W. Williams Weather S.F. Sky Sunny

Peterson Water Temp. Frans Good

Radiation level(s) 1000

Operations:

Sailed from Seattle at 10:00 AM. Arrived at Barry Id. Barnes, Williams, Peterson, and I. Peterson is a fisherman from Barry Id. Barnes is a fisherman from Barry Id. Williams is a fisherman from Barry Id. I am a fisherman from Barry Id.

Spent the day on Barry Id. Peterson is a fisherman from Barry Id. Barnes is a fisherman from Barry Id. Williams is a fisherman from Barry Id. I am a fisherman from Barry Id.

Spent the day on Barry Id. Peterson is a fisherman from Barry Id. Barnes is a fisherman from Barry Id. Williams is a fisherman from Barry Id. I am a fisherman from Barry Id.

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Spent the day on Barry Id. Peterson is a fisherman from Barry Id. Barnes is a fisherman from Barry Id. Williams is a fisherman from Barry Id. I am a fisherman from Barry Id.













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APPLIED ECOSYSTEMS RESEARCH CENTER  
SEATTLE, WASHINGTON

(2)

Locality

Friday 54 cont

Personnel

W. ...

W. ...

Radiation level(s)

Operations:

slightly turbid ... off the lagoon reef. Great crew said water was noticeably different in color than yesterday. About 1 mile ... water sample and plankton ... water but not as turbid as in ... Belle, observed, consistently but some ... situation. Picked up some Turbomaria ... 2 miles from Belle. Held caught a 5<sup>th</sup> yellow ... fish Aug. 1 day although ... at evening ... Field, Kilmbo, Olsen ... Proceeded to water ... 22 mph ... took water sample ... to Belle for another water sample ... Belle to Gene was ... but not nearly as ... 1952 ... dead fish or other organic ... at 5:45. Weather clear and somewhat ...

Some ... of Belle, just ... at wind ... are dissolving ... recently ... of poison ... has been ... poorly, never ... markers

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 Applied Fisheries Laboratory  
 S. A. TIL WING



Locality: 1000' MAY 54 (Cont)  
 Personnel: \_\_\_\_\_  
 \_\_\_\_\_

Radiation level(s): 1000' MAY 54 (Cont)

Operations: JUN 17 1954  
BENTON  
LOCOTILEY

	Y	P	Y	P	Y	P	Y	P
End of sand spit			15		15		20	20
W end of island			15		20		65	90
W end of island			15		160		200	450
W end of island								1100
W end of island								180
W end of island			155		350		500	
W end of island			150		250		550	
W end of island			205		600		1000	
W end of island			200		700		550	300
W end of island			200		500		750	
W end of island			65		400		850	
W end of island			75		65		80	
W end of island			205		170		400	650
W end of island					210		700	1100
W end of island			195		700		450	700
W end of island					210		525	650
W end of island					225		750	1250
W end of island								200
W end of island								850
W end of island					120			500
W end of island					150			1000
W end of island					150			600
W end of island					155			600
W end of island					140			1150
W end of island					20			30
W end of island					200			500
W end of island					150			525
W end of island					150			1400
W end of island					200			700
W end of island					230			850
W end of island					150			750

25



(5)

Locality

D... (could)

Personnel

X...

X...

Radiation level(s)

Operations:

Under the sheltered areas, the 2 stakes were down  
and I was completely blind... about 6" of the  
ground, and the... but only  
... the...  
All area C stakes were down... 2078 tagged  
plants were still... "1209, Scirpus  
was reduced to... and...  
stems, stake searched... young leaves still  
rolled with... the rest are at least  
partly... but leaves partly  
searched... also searched.  
Debris all as the change stake not searched.  
Label for 1211...  
Stumps. Most of the plants in this area suffered  
great damage due to blast & heat. No cresset  
plants standing...  
Damage. Most Torularia plants looked OK, in  
fact it is the only species to have withstood  
the attack...  
to...

See 2 for... Area C. JB



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SEATTLE, WASHINGTON

Locality PARRY  
Personnel Held, Barnes, Olson  
Palumbo  
Date May 1954  
Weather 4-5250 Rain  
Wave conditions Choppy  
Radiation level(s) Bk. Jc - 25 (12) 100 (12) (1100)

Operations:

Held, Barnes and Olson were all sick this am. Visibility very poor due to clouded conditions. Zero tide. Everything but glow obscured by cloud cover. Viewed from personnel pier. Intermittent rain. CME and RFP returned to Lal and barracks to button up. PRO & EH stayed to watch wave. Small wave at 11:05 ca. 1' followed by 2-3' null. Largest wave followed was at 11:15. Three more definite waves and then a long succession of smaller eddies along shore rolling sand to end of personnel pier. Water murky. Small fish (Blennies?) stranded by first two waves and washed back by successive waves. PRO took photos of blue markers.

At 1100 hrs. walked along 200' of lagoon side, So. end, Elmer. Found 12 dead fish. Heavy rain started about 1140. Rained continuously until 1300. Delivery of atoll scheduled for 1300 postponed because of weather.

Map of trip enclosed

Procured Hudson sprayer for use on property slip. Returned to Lal. a. discussed plans for phase, worked on maps, fishing, backgrounds and photos. Repaired things outside, fixing heat ventiler which eventually went back to shop for repairs, and contacting 7-3 for our party to get gear. Finally got the OK and picked up gear. Checked out and got safe coveralls. Palumbo and Held took off 1620 via H-19 for atoll, Palumbo in co-pilot seat and Held in passenger seat. No unusual things noted

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APPLIED FISHERIES LABORATORY

SEATTLE, WASHINGTON

Locality \_\_\_\_\_ Date 14 May (Con't) \_\_\_\_\_

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

## Operations:

by either one of us going north from Parry to Janet. All plants seemed normal from 300-foot elevation (from 100 feet at Olive and Vera which were visited). At Vera and Olive, 2 of our buoys were seen (at each island) in the lagoon, lined up along the Transect. At Janet the tower at the SE end was damaged by the blast; the top 1/4th portion was all jumbled up. The plants along the lagoon beach were brownish, but not scorched. Most of the vegetation appeared to be all right excepting for some Messerschmidia sharks at the northern end of the island which were uprooted completely (entire length of airstrip). There were some blackened patches of creeping plants near the beach on the lagoon side (Triumfetta or Ipomoea). On Irene, blackened patches of plants seen on eastern tip of island "behind" large bunker; no other plants seen. No plants seen on any other islands between Irene and Belle; portion of Gene island gone and Gene was covered with pockmarks filled w/muddy H<sub>2</sub>O. Silt area of Nectar extended from Gene west to Clara and into the lagoon a few hundred feet and the outer tide flats. On Belle the general impression was of scorched appearance. Young coconut plants at the SW end looked their normal yellowish color and unscorched; there were some green patches of Triumfetta at the NE end, and patches of green interspersed among the blackened areas. The grass looked reddish brown in many spots. No birds or dead fish were visible. Jeep on NE end overturned, another still upright. On Alice the plants also were charred, but lots of greenery was seen all over the island. Coconut stumps black as on Belle. No birds seen over Alice. Plant life in Leroy - Parry seemed OK; in Leroy, ocean-

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Locality \_\_\_\_\_ Date 14 May (con't) \_\_\_\_\_

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

side of the beach at high tide mark, several large trunks with intact roots laid out in neat row. Large flocks of noddy and fairyterns seen over Keith and some seen at Leroy.

No dead fish were seen on entire circuit, although living parrot fish, half-beaks and undentifiable fish were clearly seen. Birds seen flying as far N as Mary on E. side and 2 miles N. of Leroy on W. side of lagoon. Ample evidence from undisturbed plants, vehicle tracks, and disposition of debris that no island south of Engebi was awash.

Engebi awash along airstrip only. Evidence is uprooted shrubs (a few) many bent shrubs and vines "windrowed" into a small crater of NW end of airstrip. This might have been blast effect but if that were the case, one would expect the entire width of the island to be affected.

Mounds of sand on Gene appear to have been leveled; one large mound near center definitely was leveled. Pilot reports strong winds over north end of atoll blowing ENE. Many living fish seen over reef from Belle to Glenn. Five miles N. of Leroy (pilot's estimate) much small debris (leaves and small sticks?) and oil slicks washing out of lagoon over reef. We have always seen oil slicks in this area in the past. Also saw sea turtle here - first this trip. Juno shorted out.

Readings given are those taken by Chelisis with two T-1-B's on floor of 'copter. Olive over beach at 100' 3.0 mr/hr. Janet 100' over Island 120mr/hr. Gene 25' over island, 12,000 mr/hr. Edna 100' off outside beach 100 mr/hr. Lagoon between Gene and Alice consistently 120 mr/hr at 100'. Took photos with Robot. Conditions poor, overcast

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Locality \_\_\_\_\_ Date 14 May (con't) \_\_\_\_\_

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

\_\_\_\_\_ Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

and much vibration. Roll DK-35-36-13, 1-6 Engebi, 7-32 Belle and Alice.

P. M. laid on H-19 for Barnes tomorrow. Elmer to Vera 1530,

Vera to Elmer 1730. Olson and Held will go to Belle in late after-

noon pending results of Rad Safe survey. Chelisis will bring back

soil sample for us if they make landing on 0730 survey.

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APPLIED FISHERIES LABORATORY  
SEATTLE, WASHINGTON

Locality PARRY, VERA, BELLE, JANET Date 15 May 1954

Personnel Held, Olson, Barnes Weather 78° - 85°F Rainy all day.

Palumbo Water conditions Choppy

Radiation level(s) Counter Bkg. Avg. 315 c/m . Also see below.

Operations:

Mr. Chelisis of Rad Safe delivered 1160 grams of soil from Alice,  
collected 0800 this date. Prepared two samples: plate #7538 dried  
under heat lamp, #7539 dried on muffle for decay curve. Started decay  
series at 1035. Prepared plate #7537 - 25 ml of rainwater from rain  
gauge behind the Lab. The following samples packaged and shipped to  
2I (air mail, registered):

Plant samples: #6316 - 6321 w/cards

Soil & H<sub>2</sub>O " 7530 - 7536 w /cards

Fish 4792 - 4951 w/cards

1 pkg. rat and bird pathology samples in 10% formalin.

Also: Film 35mm D 35-20. 36

D-35-20. 34

36 slides Rongelap, 35mm Kodakrome.

Started decay series for Bikini fish tissues (13 plates). Continued  
washing fish samples, drying remainder of Alice soil sample and pre-  
pared for trip to Belle and Vera. 1530 CMB, PRO and EH left for upper  
islands (H-19), CMB dropped on Janet to set traps, PRO and EH on Belle  
approx. 40 min. Halimeda, Caulerpa, one T. crocea collected. Many  
live fish present but none taken. Scattered dead fish on beach,  
brought several back but only one half-beak in good enough shape for  
dissection. 3 marker floats at w. end and floats at fish collecting  
area still present. Water murky, visibility 0 in a few places at  
times. Few Porites and pocillopora examined not covered with silt.

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Locality \_\_\_\_\_ Date 15 May 1954 (con't)

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

One living *Fungia* seen, x samples, one beach sand and one bottom sample taken. One of the 4 stakes marking Area "D" remains in place, others knocked out but on ground near by. All stakes blackened on shot side. Unable to definitely locate Area "C" in time available-- coconut trees in this area are not standing. Took *scaevola* leaves and stems in vicinity of Area "C". "Shell hole" where 50 hermit crabs were marked has had debris much shifted. Hole stinks! Spent about two minutes turning over debris, found no *Cenobita*. Found thorax of one west of hole. Found a recently dead bird and a living bird just s. of Area "D". Both badly singed and bruised--brought them back.

Picked CMB up at Janet and proceeded to Vera, stayed about 1/2 hr. Took readings, set traps, shot fairy and noddy terns, 2 ea.

Belle 350 - 400 mr/hr at 3' w/PPR-39

RP  
CB  
EH

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APPLIED FISHERIES LABORATORY

SEATTLE, WASHINGTON

Locality Parry Isl. Belle, Janet, Vera Date 16 May 1954  
Personnel Barnes, Held, Olson Weather 78-89°F variable  
Palumbo Water conditions good

Radiation level(s) 238 - 300

## Operations:

Samples 7290-92, 7294-97, 6322 - 6341, mailed to lab. w/cards.

Caught 3 rats at Janet and returned to Parry. Six escaped from bag and 2 recaptured. Sampled 2 and will return 2 to Belle. Collected 3 rats at Vera. Sampled 2 and will take one to Belle tomorrow. Set traps at Belle today (11 each). Barnes, Held, Palumbo to Belle at 0800. Collected 2 fairy terns with shotgun, observed 12 flying about the island. No live noddy terns or other birds in the area. Collected 17 dead noddys with feathers burned off, some severely burned to the bone. Others showed evidence of blast puncture wounds and broken legs. One stump still smoldering. A generator and motor in central part of the island (estimated wt about 1,000 lbs) was turned a flip and a half by the blast. Dead fish were seen in the middle of the island but little evidence of much washing of the dirt. Photographs taken of the birds and frozen birds will be returned to the Lab. in Seattle. TUS took photos. Traps reset on Vera at 1330.

Algae collected in Area E. Halimeda, caulerpa, Udotea, Polysiphonia, Pocickiella and Dictyota. Algae looked OK, although many floating around, especially Polysiphonia, lots of land plant leaves and debris floating. Innermost float moved towards beach. Collected T. crocea in invert area near 3 markers. Nothing unusual seen here. Collected branch of a burned scaevola just outside Area D. All bushes scorched, burned, turned over. Many of tagged plants beyond recognition. From the air the island looks as though a hot poker had been passed over it. Most coconut stumps are blown over, a few still up. No vegetation appeared to be taller than 2 feet and it is scorched

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Locality \_\_\_\_\_ Date 16 May (con't) \_\_\_\_\_

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

\_\_\_\_\_ Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

at the apex. All specimens collected this date processed this evening.

Soil samples of 5/15/54 dried in oven, packaged for 21 sampling.

Remainder sealed in tins to be shipped.

Decays of soil, rain water, and algae started.

Location "E1A" 200 mr/hr at 3' 250 mr/hr at 1". Area D 260 mr/hr at 3', 320 mr/hr at 1" w/ PDR-39 T-26.

Fish poisoned inside beach rock Area "E." Many mullets and 4 wrasse. All mullet show signs of blast and/or heat injury.

A few more dead fish on the beach than yesterday. Predominantly mullet on inner shore and mullet and halfbeaks on outer shore.

Occasional parrot, puffer, trunkfish. Seem to be as many fish as ever on inside and outside. Many mullet and a few goatfish were the only ones seen showing injury.

RFP

CMB

EH

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SEATTLE, WASHINGTON

Locality Parry Island, Belle Date 17 May 1954  
Personnel Barnes, Held, Palumbo Weather Fair, occasional squalls, 78-88°F.  
Water conditions Good

Radiation level(s) Counter bkgd.

Operations:

Olson left at 0600 for UTERIK Atoll with party of Rad-Safe people to collect specimens. They will determine whether natives may be returned safely to the atoll.

Held and Palumbo to Belle and released 6 rats caught yesterday -- Five from Janet Nos. 30♀, 31♀, 32♂, 33♀, 34♀. From Vera no. 35♀.

Barnes got off at Vera and ran trap lines - caught 3 rats and many hermit crabs. Belle trap lines indicated no rats alive on Belle.

None (traps) molested nor sprung. No birds observed on Belle today.

Algae collected in Area E and Area G: 5 Halimeda stuposa, 5 Dictyota, 5H. stuposa and 5 caulerpa. Map will be sent indicating areas. 1.

T. crocea in Area G. Scaevola collected in Area D as for yesterday.

Rats released in Area B. 3 headed for lagoon beach, other 3 headed towards ocean side. Saw sick fish on lagoon side still swimming

around, lots of dead fish at high tide mark, algae covered with fine sand and some samples still contained sand on them. Held made fish

poisoning in Area F on outside. Plants in Area B in very poor shape.

In other areas, Portulaca plants looked unscorched and some were yellow green. The grass was all brownish in color. Closer observation

will be made as our time permits.

Returned at 1200; went through Rad-Safe and back to Lab. Sealed samples of 5/16/54. Ran decay plates, procured new mailing address:

c/o AEC Resident Engineer

APO 187 Hon.

c/o PM San Francisco

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APPLIED FISHERIES LABORATORY

SEATTLE, WASHINGTON

Locality Seymour, et al Date 17 May con't

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

\_\_\_\_\_ Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

Processed algae and land plants. After supper started fish samples when Allyn H. Seymour called from Fred - picked him up at 1920 and took him through Security and to barracks. Got all the "hot poop" and returned to Lab to process more fish and inverts, etc. Olson returned from Uterik at 2100. RP.

Trip to Uterik Atoll - P.R.O. Departed from Fred 0800 in PBM. Arrived Uterik approx. 1130, took a rubber life raft ashore. Three fellows from Los Alamos, were Leo Chelius, Bob Barker, Bob Taft (AEC at Eniwetok). Fellows from PBM crew went ashore with us, carrying 38's in case hungry dogs were tempted to taste. Dogs placed tail between two posterior appendages into brush. Reception committee greeting us as we landed was a swarm of hungry flies. Village was vacant except for a boar and few pigs hiding under houses. All water wells were empty, grass dried up. Few papaya ripe on trees. I took numerous colored pictures of village. Highest background reading in debris was 4 mr/hr. Averaged below 2 mr/hr. Other fellows gathered soil and drinking water samples for shipment to L. A. I poisoned on inside of island in coral area, but with only an hour's time I was able to get mainly only Blue Damsel fish. I collected sea cucumbers, one clam, and 4 species of algae. All were placed on ice and brine cakes in pro can. Can was highly efficient in carrying ice all day. Returned with about half of the initial 12 lbs. of ice. We took off in PBM to Kwajlein and there we were on ground about 45 minutes. We

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Locality \_\_\_\_\_ Date 17 May (con't) \_\_\_\_\_

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

then returned to Eniwetok. Arrived back at Elmer 2100. Al's bright and shining face greeted us at the window of the lab. If Uterik is a Pacific Island paradise, someone can have my full share. P.B. O.

More dead halfbeaks on outer shore. Many injured mullet of NE and E shore and in vicinity of beach pavement Area "E". Most delicate Acropora at 1st float Area "F" undamaged. Water here nearly clear today. Half-beaks evidently took quite a beating because of their habit of lying at the surface.

Unable to take decent readings because of drenching rain. On island during rain 160 - 200 mr/hr w/ PDR - 39 No. T-26 at 3'.

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SEATTLE, WASHINGTON

Locality Parry Island Date 18 May, 1954 75-87°F  
Personnel Seymour, Barnes, Held, Weather Fair, occasional squalls  
Olson, Palumbo Water conditions Low tide 10:37AM  
1.0 ft.

Radiation level(s) Background - ave. 200 c/m

Operations:

Seymour, Held, Barnes left by 'copter for Vera. Picked up 9 rats  
in traps, one was dead. Flew to Belle and released following rats,  
all originating from Vera: No. 85 ♀, 80 ♂, 81 ♀, 37♀, 38♂, 39o, 40o,  
41o, 42o, 43♀, 44o. No. 35 had a short tail due to amputation in the  
trap. No. 43 was crippled in left hind leg and didn't look too well.  
No. 81 looked sick. All rats released today were small, young animals.  
No. 20 was previously marked on Vera on 31 March 54. Two rats were  
caught in traps at Belle-- One #33 and another which escaped before  
getting his number. It is believed both were released on 17 May.  
Traps reset. One air sampler was packed in personal gear of Barnes  
and taken to J-4 for shipment. One fairy tern was observed flying  
over Belle and 3 flying over the Nectar crater. Sent 3 twx's today.  
One to Lab re Barnes return and one to L.O. JTF7 at Hicham and Travis  
re furnishing dry ice for frozen samples on the 22nd.

Held and Seymour at Belle at approx. 10:30 am. Poison put out  
between areas F and G. Many fish present but poor kill due to fast  
water movement to the west. A few dead fish found along shore but Ed  
said not as many as yesterday. In about 200 yards found 1-10' blenny,  
2 mullet and 6 goat fish. Killed by poison were 3 br. spot groupers,  
3 goat fish, 5 black and white damsel, 2 wrasse and 1 butterfly fish  
and a few very small misc.fish. Furthermore, helicopter was back to  
pick us up in about 45 mins. After poison was out. Fast current and  
short time made for poor collecting.

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Locality \_\_\_\_\_ Date May 18, 1954 (con't)

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

\_\_\_\_\_ Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

Ed collected inverts and algae in Areas G and E. Much less silt in water, i. e. water clearer than yesterday. Apparently no new dead fish. Radiation level 120 to 140 mr. per hour with PDR 39 No. T 26.

Afternoon and evening, processing today's samples.

Sent a TWX to the Lab, asking for cards and for plane ticket for Paul on Monday, May 24 from Honolulu. AHS

Olson and Palumbo sealed yesterday's samples, ran decay plates of soil, algae, water, fish; processed Uterik algae - 4 species in triplicate; and picked up supplies from J-15. Hardison (AEC Engineer) visited PM w/ 3 colonels. He thought that our special M boat trips were the only expenses we have incurred and that they will be charged to our \$5,000 budget. Also that we might get a shack hauled to Belle for keeping raft and other supplies there. We shall visit budget accountant for AEC w/Hardison re our financial status. PB.

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SEATTLE, WASHINGTON

Locality PARRY Date 14 May 1954Personnel Held, Barnes, Olson Weather 74-82°F RainPalumbo Water conditions Choppy

(0545)(1530)

Radiation level(s) Bk.gd - 75 - 223; 100(122); 500 (2100)

## Operations:

Held, Barnes and Olson were all smiles this am. Visibility very poor due to clouded conditions. Zero time 0620. Everything but glow obscured by cloud cover. Viewed from personnel pier. Intermittent rain. CMB and RFP returned to lab and barracks to button up. PRO & EH stayed to watch wave. Small wave at N 128' 35" ca. 1' followed by 2-3' null. Largest wave followed was about 3'. Three more definite waves and then a long succession of surges. Eddys along shore rolling sand to end of personnel pier. Water murky. Small fish (Blennies?) stranded by first two waves but washed back by successive waves. PRO took photos of tide marker.

At 1100 hrs. walked along 200 yds of beach lagoon side, So. end, Elmer. Found 13 dead goatfish - ca. 6" long. Heavy rain started about 1140. Rained continuously until 1515. Survey of atoll scheduled for 1300 postponed because of weather

Map of trip enclosed.

Procured Hudson sprayer for lab. at J-4 on property slip. Returned to Lab. and discussed plans for post phase, worked on maps, ashing, backgrounds every 30 mins, Juno readings outside, fixing heat sealer which eventually went back to electric shop for repairs, and contacting J-3 for survey trip to upper islands. Finally got the OK and picked up monitor (Mr. Chielliss) and Rad Safe coveralls. Palumbo and Held took off 1620 via H-19 for circuit of atoll, Palumbo in co-pilot seat and Held in passenger compartment. No unusual things noted

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Locality \_\_\_\_\_ Date 14 May (Con't) \_\_\_\_\_  
Personnel \_\_\_\_\_ Weather \_\_\_\_\_  
\_\_\_\_\_ Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

by either one of us going north from Parry to Janet. All plants seemed normal from 300-foot elevation (from 100 feet at Olive and Vera which were visited). At Vera and Olive, 2 of our buoys were seen (at each island) in the lagoon, lined up along the Transect. At Janet the tower at the SE end was damaged by the blast; the top 1/4th portion, was all jumbled up. The plants along the lagoon beach were brownish, but not scorched. Most of the vegetation appeared to be all right excepting for some Messerschmidia sharks at the northern end of the island which were uprooted completely (entire length of airstrip). There were some blackened patches of creeping plants near the beach on the lagoon side (Triumfetta or Ipomoea). On Irene, blackened patches of plants seen on eastern tip of island "behind" large bunker; no other plants seen. No plants seen on any other islands between Irene and Belle; portion of Gene island gone and Gene was covered with pockmarks filled w/muddy H<sub>2</sub>O. Silt area of Nectar extended from Gene west to Clara and into the lagoon a few hundred feet and the outer tide flats. On Belle the general impression was of scorched appearance. Young coconut plants at the SW end looked their normal yellowish color and unscorched; there were some green patches of Triumfetta at the NE end, and patches of green interspersed among the blackened areas. The grass looked reddish brown in many spots. No birds or dead fish were visible. Jeep on NE end overturned, another still upright. On Alice the plants also were charred, but lots of greenery was seen all over the island. Coconut stumps black as on Belle. No birds seen over Alice. Plant life in Leroy - Parry seemed OK; in Leroy, ocean-

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Locality \_\_\_\_\_ Date 14 May (con't) \_\_\_\_\_

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:

side of the beach at high tide mark, several large trunks with intact roots laid out in neat row. Large flocks of noddy and fairyterns seen over Keith and some seen at Leroy.

No dead fish were seen on entire circuit, although living parrot fish, half-beaks and undentifiable fish were clearly seen. Birds seen flying as far N as Mary on E. side and 2 miles N. of Leroy on W. side of lagoon. Ample evidence from undisturbed plants, vehicle tracks, and disposition of debris that no island south of Engebi was awash.

Engēbi awash along airstrip only. Evidence is uprooted shrubs (a few) many bent shrubs and vines "windrowed" into a small crater of NW end of airstrip. This might have been blast effect but if that were the case, one would expect the entire width of the island to be affected. Mounds of sand on Gene appear to have been leveled; one large mound near center definitely was leveled. Pilot reporte strong winds over north end of atoll blowing ENE. Many living fish seen over reef from Belle to Glenn. Five miles N. of Leroy (pilot's estimate) much small debris (leaves and small stick?) and oil slicks washing out of lagoon over reef. We have always seen oil slicks in this area in the past. Also saw sea turtle here - first this trip. Juno shorted out. Readings given are those taken by Chelisis with two T-1-B's on floor of 'copter. Olive over beach at 100' 3.0 mr/hr. Janet 100' over island 120mr/hr. Gene 25' over island, 12,000 mr/hr. Edna 100' off outside beach 100 mr/hr. Lagoon between Gene and Alice consistantly 120 mr/hr at 100'. Took photos with Robot. Conditions poor, overcast

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Locality \_\_\_\_\_ Date 14 May (con't) \_\_\_\_\_

Personnel \_\_\_\_\_ Weather \_\_\_\_\_

\_\_\_\_\_ Water conditions \_\_\_\_\_

Radiation level(s) \_\_\_\_\_

Operations:  
and much vibration. Roll DK-35-36-13, 1-6 Engebi, 7-32 Belle and Alice.  
P. M. laid on H-19 for Barnes tomorrow. Elmer to Vera 1530,  
Vera to Elmer 1730. Olson and Held will go to Belle in late after-  
noon pending results of Rad Safe survey. Chelisis will bring back  
soil sample for us if they make landing on 0730 survey.

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