ENEWETAK

G.H. BALAZS
SIGHTING REPORTS
& ARTICLES

MARINE TURTLE SICHTING REPORT

all year Round Lab = / /

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

1

Observation made by: Lamberson

weakness repeat 00201

Date: October (?) 1974 Time: 1400

Location (indicate on chart) at edge of "deep channel"
80' offshore From Japtan (David)

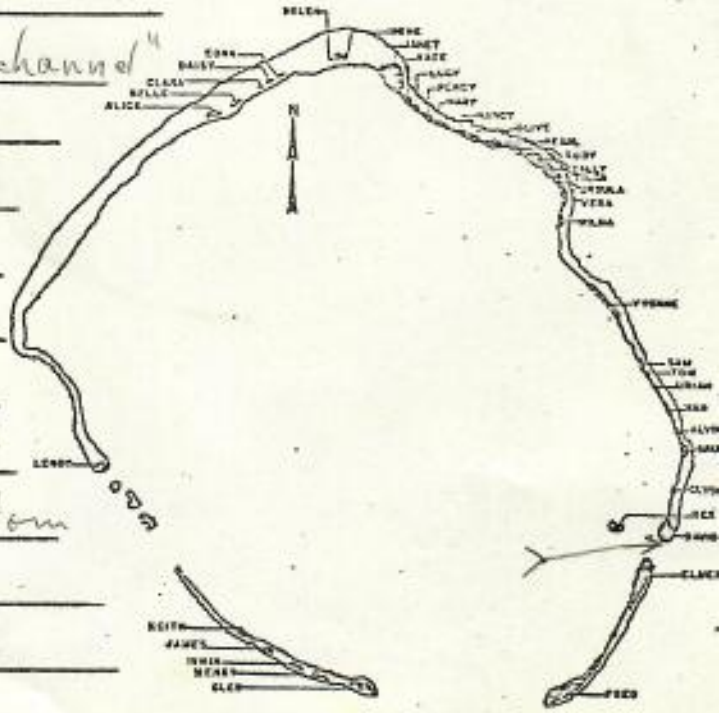
Approximate size (shell length): 40 cm?

Distinguishing characteristics:
species unknown

Observation made: at surface thru lookbox from boat

beneath surface (depth) 20' turtle on bottom

Miscellaneous comments:



MARINE TURTLE SICHTING REPORT

PREDATION REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

2

Observation made by: Randall-Olmon-Lamberson et al.

Date: 6 Dec 74 Time:

Location (indicate on chart)
Shark line set off Fred, at edge of wide channel

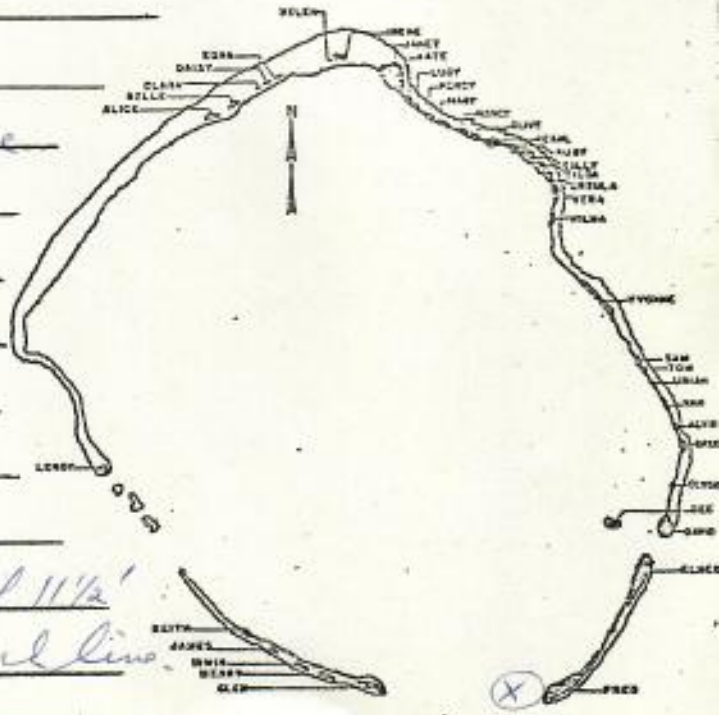
Approximate size (shell length):

Distinguishing characteristics: Identified by Randall as hawksbill NO GREEN

Observation made: at surface

beneath surface (depth)

Miscellaneous comments: Shell in stomach of 11½' tiger shark captured 6 Dec on shark line. Randall has shell.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

3

Observation made by: Lamberson & J. Reardon

Date: 5 times Dec 4 - Jan 1 75 Time: various

Location (indicate on chart) in sand channel approaching beach

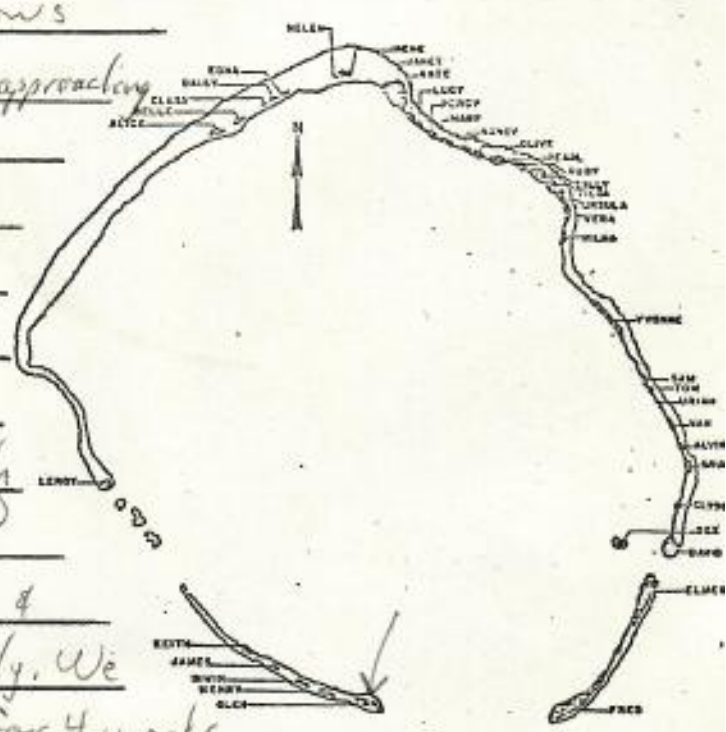
Approximate size (shell length): 60-70 cm

Distinguishing characteristics:

Observation made: at surface ✓ from boat + beach (8-10 ft water depth)

beneath surface (depth)

Miscellaneous comments: This is probably a green & probably the same one seen repeatedly. We were going & coming every other day for 4 weeks.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

4

Observation made by: Allen-Olmon-Leviten

Date: ~~5~~ January 75 Time: ~1500

Location (indicate on chart) Drekatimon (Oscar) Pinnacle - resting with head in depression in rock

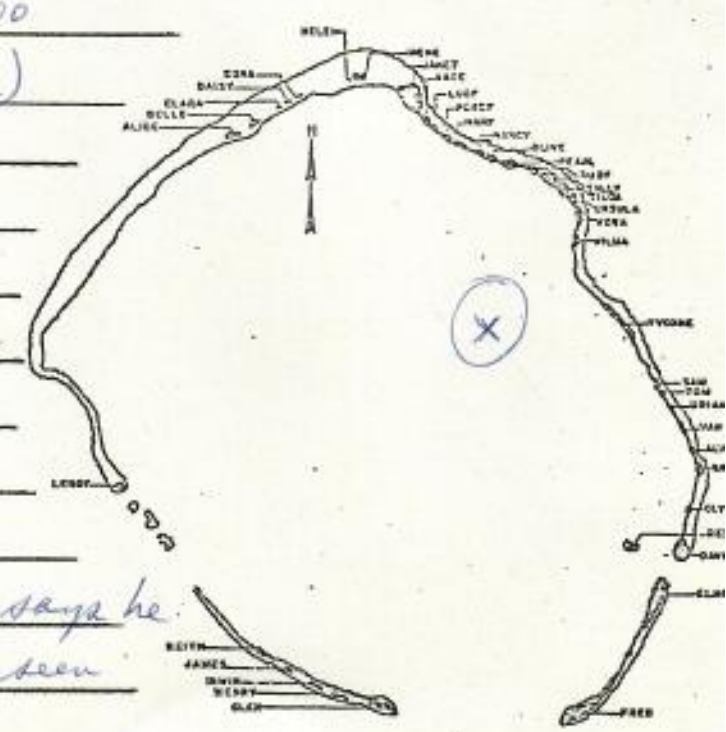
Approximate size (shell length): 1 m

Distinguishing characteristics: probably a green

Observation made: at surface

beneath surface (depth) 15' scuba

Miscellaneous comments: Leviten took pictures - says he will send us copies - Paul Allen has seen a large turtle there before.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

5

Observation made by: Lamberson 901 mon

Date: Thurs 30 Jan 75 Time: 0045

Location (indicate on chart) wind ward reef
flat 100' from shore at low tide

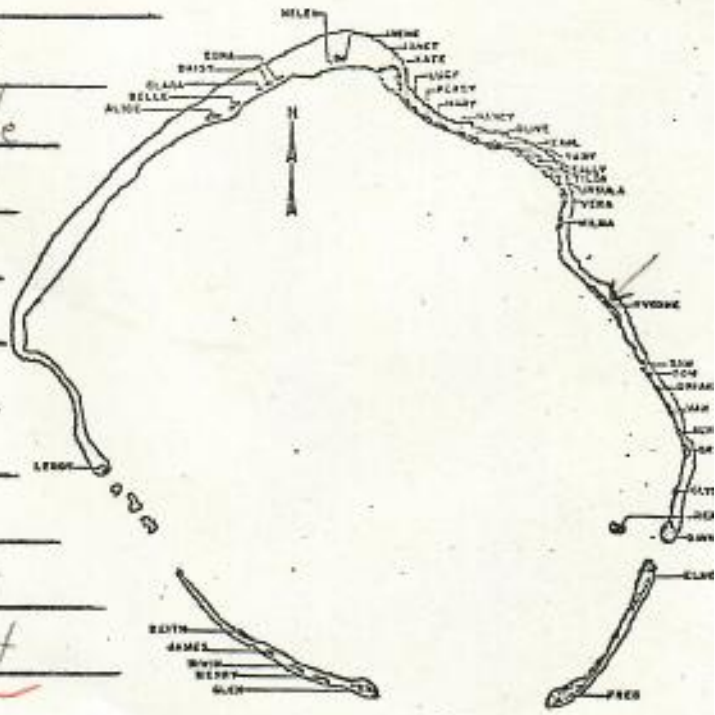
Approximate size (shell length): 50 cm

Distinguishing characteristics: smooth
carapace edge. (Green)

Observation made: at surface

beneath surface (depth) ~1 ft.

Miscellaneous comments: seen with light at
night. Tried to catch it but couldn't
hold on!"



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

6

Observation made by: E. D. Stroup

Date: 31 Jan 1975 Time: 1400

Location (indicate on chart) in shallow water,
3 in channel, one was reef flat

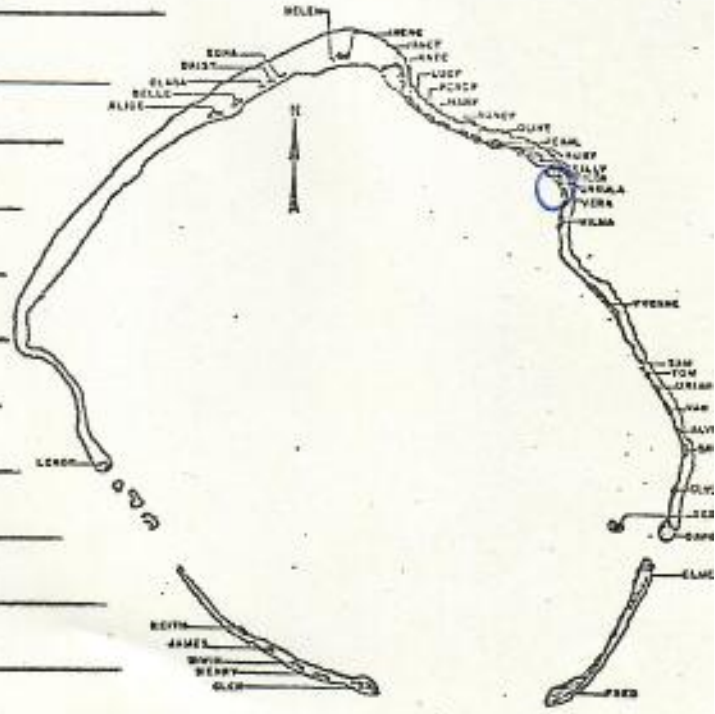
Approximate size (shell length): ~0.5 m

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth)

Miscellaneous comments:
probably a green



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

7

* NOTE SEE STROUP SIGHTING 31 JAN 75

Observation made by: Lamberson - Olmon

Date: 20 January 75 Time: ~1100

Location (indicate on chart) Ursula/Tilda channel
2 turtles seen at once, 1 turtle
seen earlier may have been a third

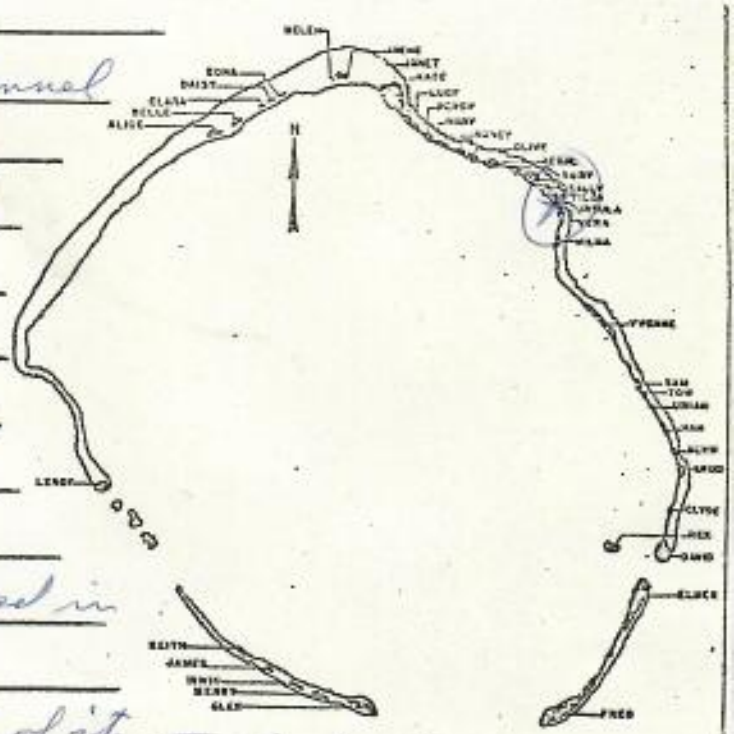
Approximate size (shell length): 0.5 m

Distinguishing characteristics:
probably green turtles

Observation made: at surface

beneath surface (depth) 15' scuba

Miscellaneous comments: one turtle captured in
same locality January 1974 by
R.E. Johannes - Olmon has picture of it. Tasty!



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

8

Observation made by: S.V. Smith, E.D. Stroup

Date: 2 Feb 1975 Time: about noon

Location (indicate on chart) Sand flat on
lagoon side of Irene

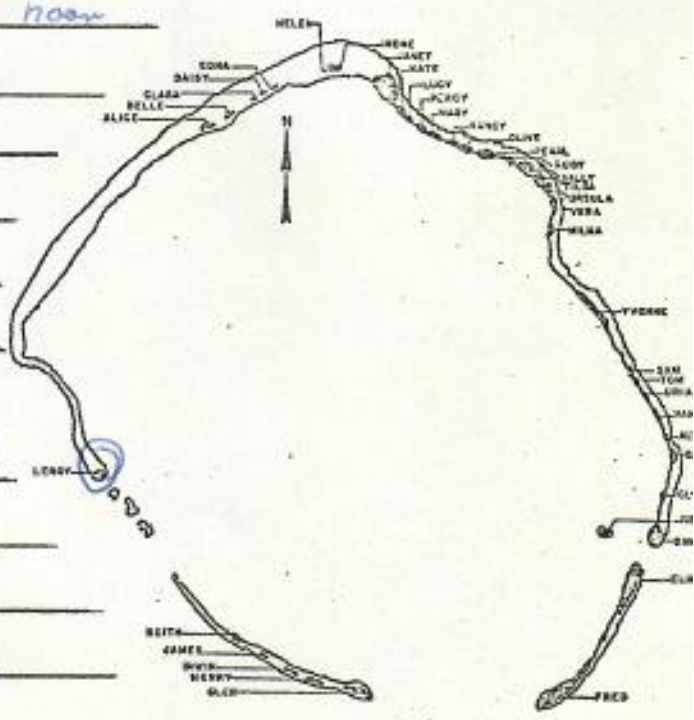
Approximate size (shell length): 50 cm

Distinguishing characteristics: too far away
For details

Observation made: ~~at~~ From surface - turtle in <1m water

beneath surface (depth)

Miscellaneous comments:
probably a green turtle, says Stroup



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

9

Observation made by: E.D. Stroup, S.V. Smith

Date: 3 Feb 1975 Time: 1600

Location (indicate on chart) in open water

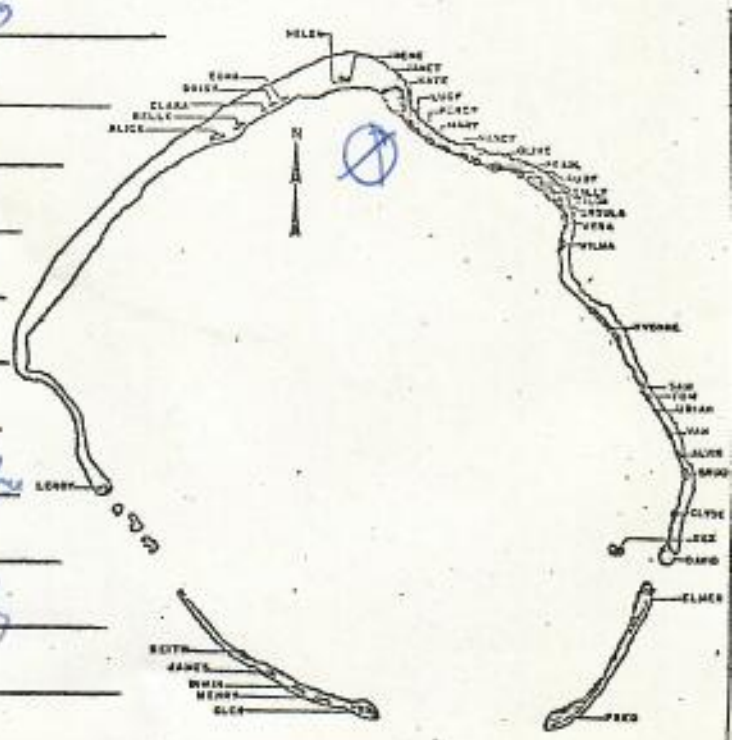
Approximate size (shell length): 1 meter

Distinguishing characteristics:

Observation made: at surface deep water, but near surface

beneath surface (depth)

Miscellaneous comments: probably a green according to Stroup



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

10

Observation made by: Phil Lamberson

Date: 21 Feb '75 Time: 1800

Location (indicate on chart) Lagoon side beach at N. end of Runit (Yvonne)

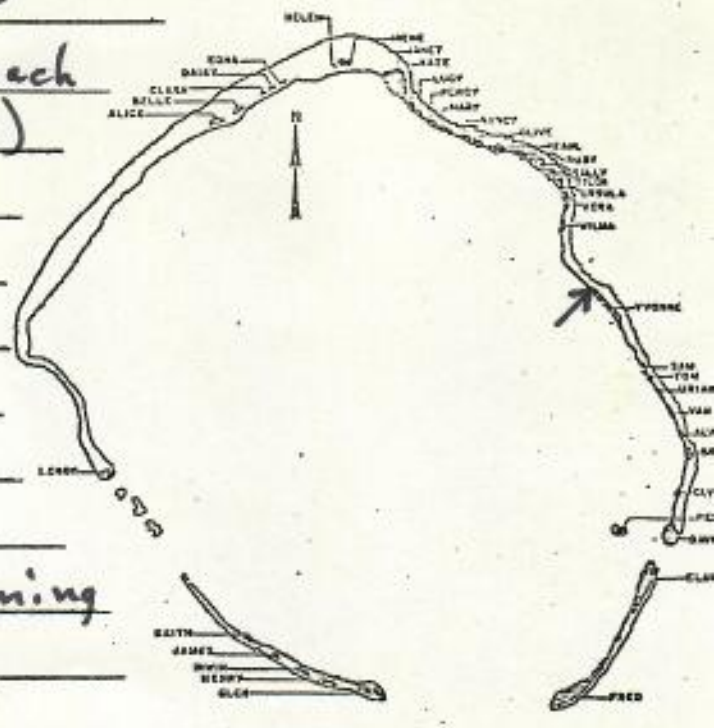
Approximate size (shell length): 20"

Distinguishing characteristics: rapid swimming

Observation made: at surface ~~1-2~~

beneath surface (depth) 1-2 ft

Miscellaneous comments: seen while swimming ashore.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

11

Observation made by: Dale Sarver

Date: 3/13 Time: 13:00

Location (indicate on chart) Vera-Ursula
channel

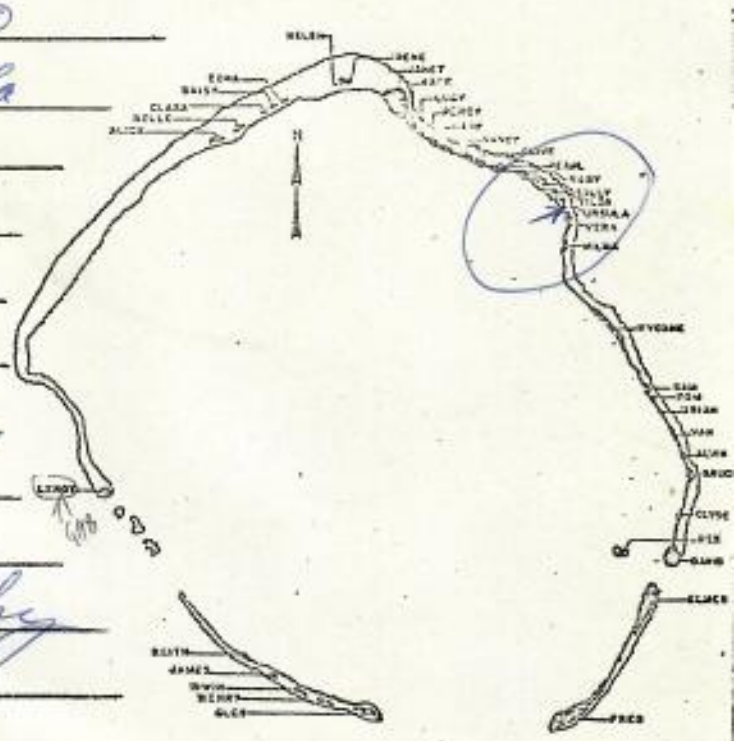
Approximate size (shell length): 30"

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) 5 feet

Miscellaneous comments: just swam by



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

12

Observation made by: Sgt A Dobry (DOBRY)

Date: Jan 15 Time: 9.10

Location (indicate on chart) Between Elmer + Fred

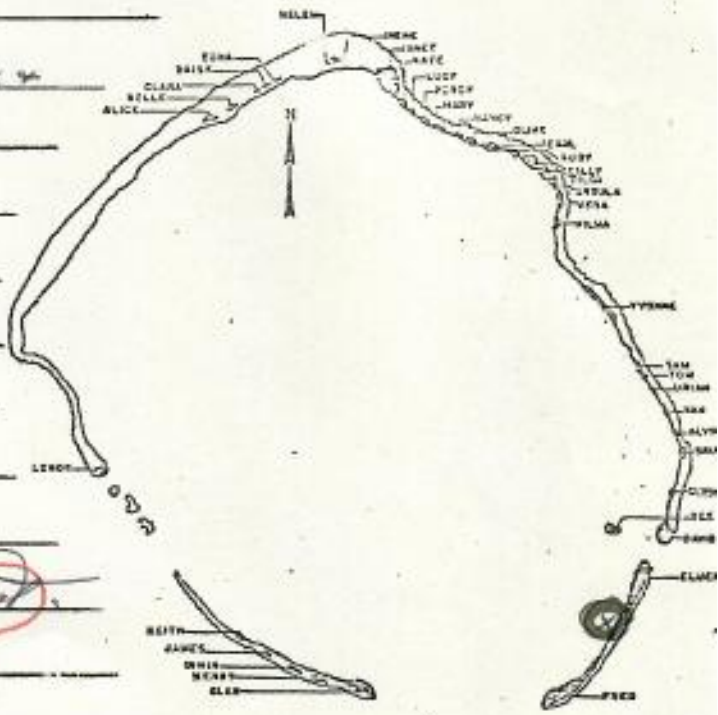
Approximate size (shell length): 30'

Distinguishing characteristics: Just.

Observation made: at surface yes

beneath surface (depth)

Miscellaneous comments: moved out fast.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

13

Observation made by: M. A Dabey

Date: MAR 18 Time: 9:30

Location (indicate on chart) Leeward side

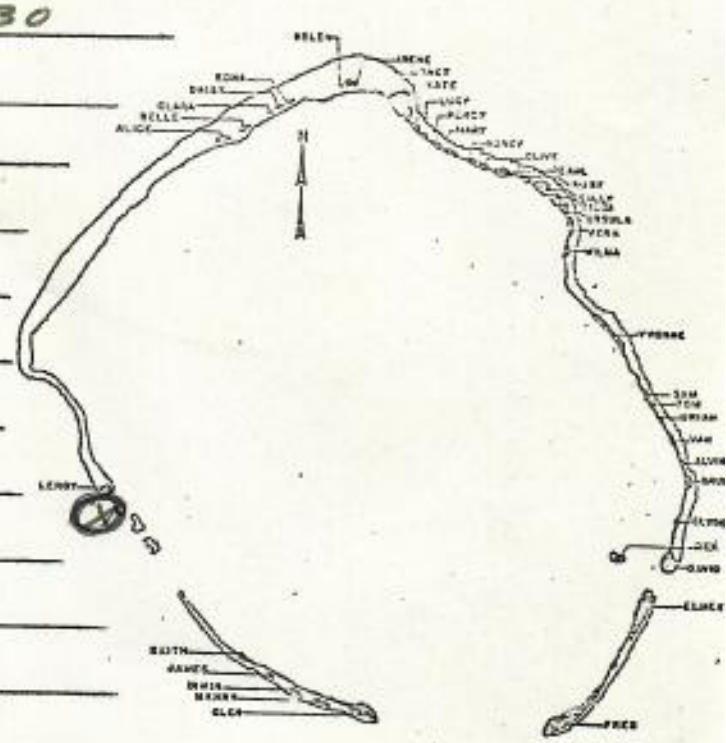
Approximate size (shell length): 28"

Distinguishing characteristics:

Observation made: at surface Yes

beneath surface (depth)

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

14

Observation made by: Dale Sarver

Date: 3/26/75 Time: [illegible] PM

Location (indicate on chart) Ocean side of Henry

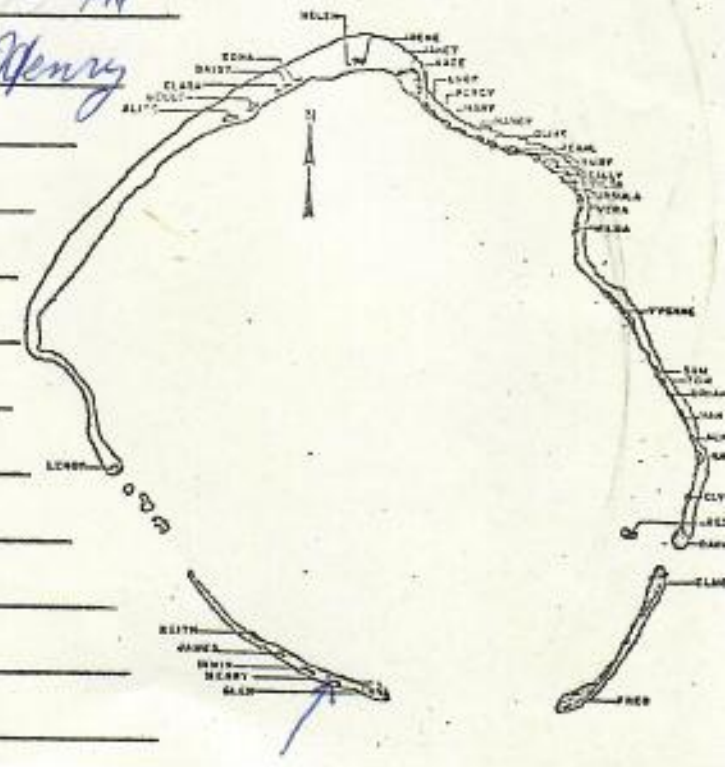
Approximate size (shell length): 24"

Distinguishing characteristics: green turtle

Observation made: at surface

beneath surface (depth) 15'

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

15

Observation made by: Lorea Akaka & Dan Cheney

Date: ~~5/30/75~~ 5/22/75 Time: 2:00 P.M.

Location (indicate on chart) Between Bruce & Clyde on lagoon side of reef.

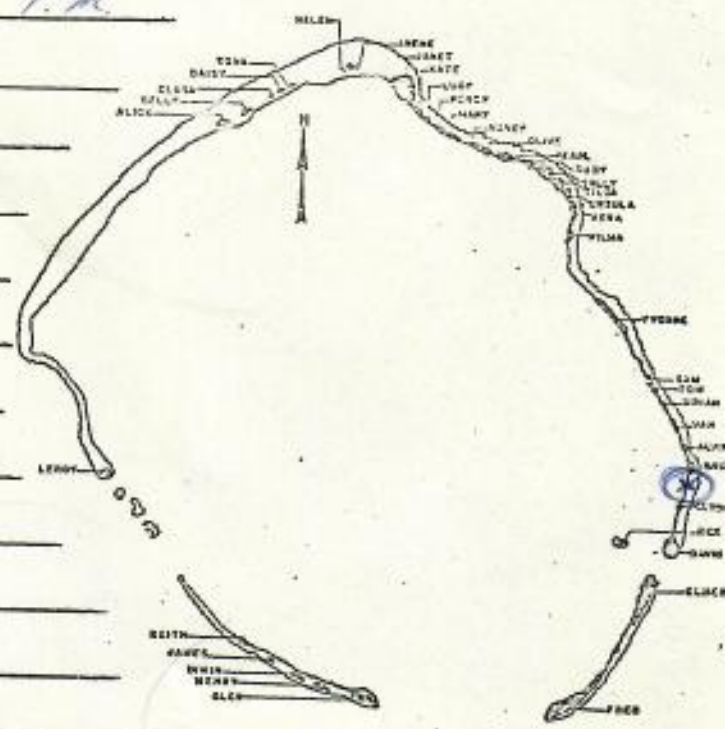
Approximate size (shell length): 30" dia

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) 3'

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

16

Observation made by: SUSAN ARNEST

Date: 5-30-75 Time: 10:30

Location (indicate on chart) BETWEEN TILDA & URSULA (CLOSER TO URSULA)

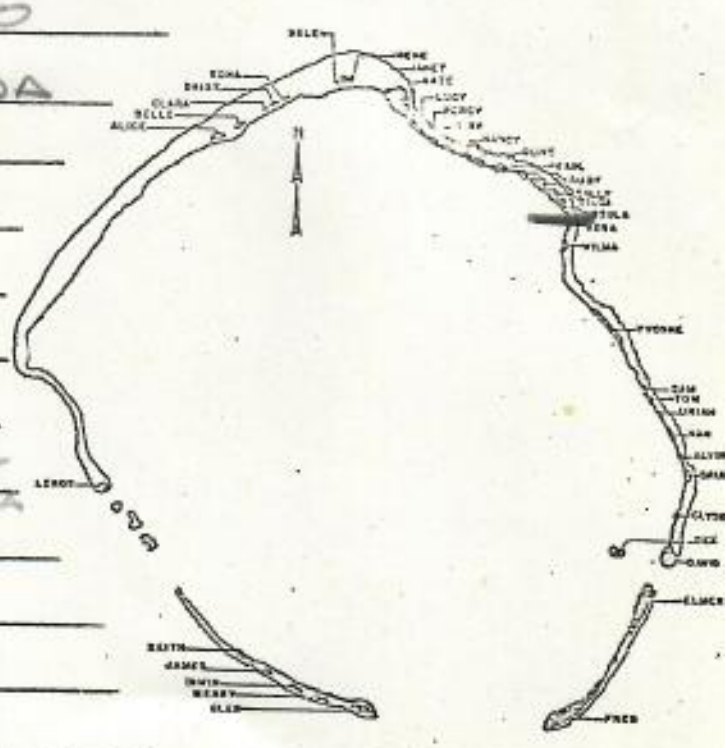
Approximate size (shell length): 18-20"

Distinguishing characteristics: appeared to be a splash of white at base of shell

Observation made: at surface skin diving - turtle at 4 feet & above

beneath surface (depth) 3 ft. Turtle -

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

17

Observation made by: LOBEL + LAMBERSON

Date: MAY 30 1975 Time: ~1500

Location (indicate on chart) GLEN

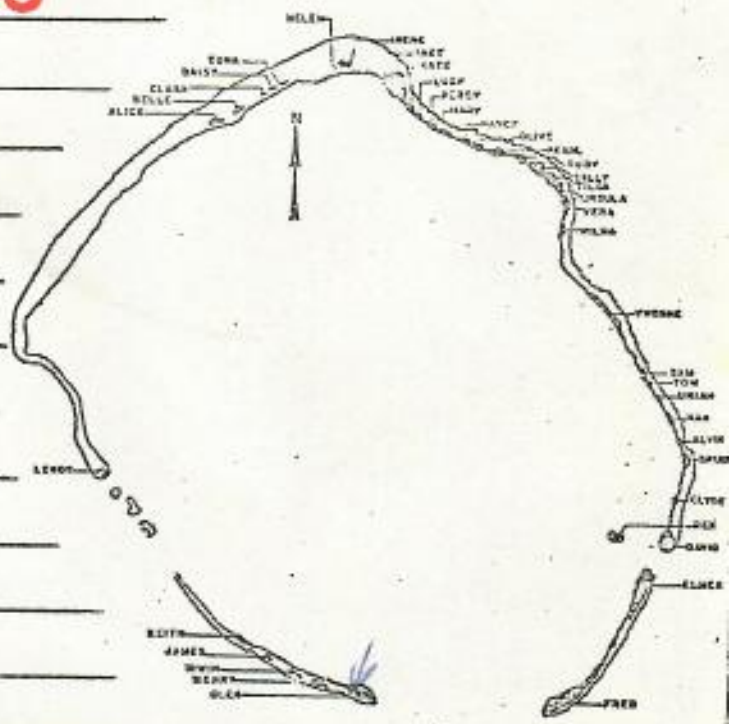
Approximate size (shell length): 15"

Distinguishing characteristics: GREEN

Observation made: at surface X

beneath surface (depth) _____

Miscellaneous comments: HE WAS RUNNING FAST.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

18

Observation made by: JN DAVIES

Date: 31 May 75 Time 11:40

Location (indicate on chart) _____

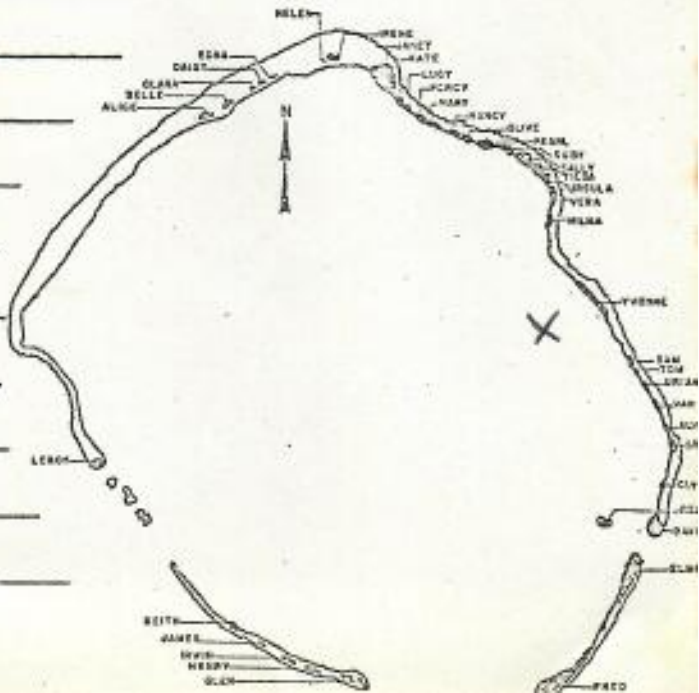
Approximate size (shell length): 2ft

Distinguishing characteristics: _____

Observation made: at surface ✓

beneath surface (depth) _____

Miscellaneous comments: _____



19

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: J N DAVIES

Date: 31 May 75 Time 1445

Location (indicate on chart)

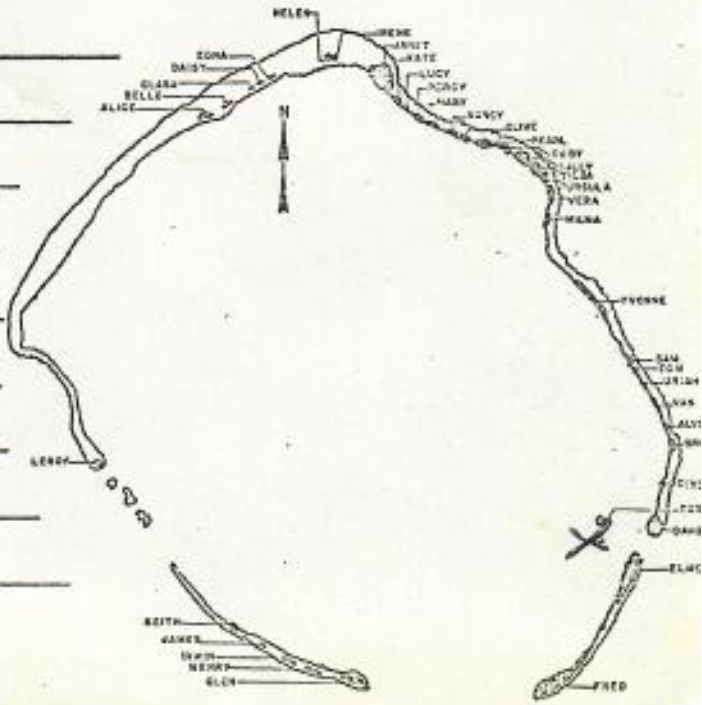
Approximate size (shell length): 3 ft

Distinguishing characteristics:

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments:



20

MARINE TURTLE SIGHTING REPORT

NESTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Lamberson, S. Milley, Phil Lobel, Deetsie Chave, Pagenelli

Date: Sun 1 June 1975 Time

Location (indicate on chart)

tracks only

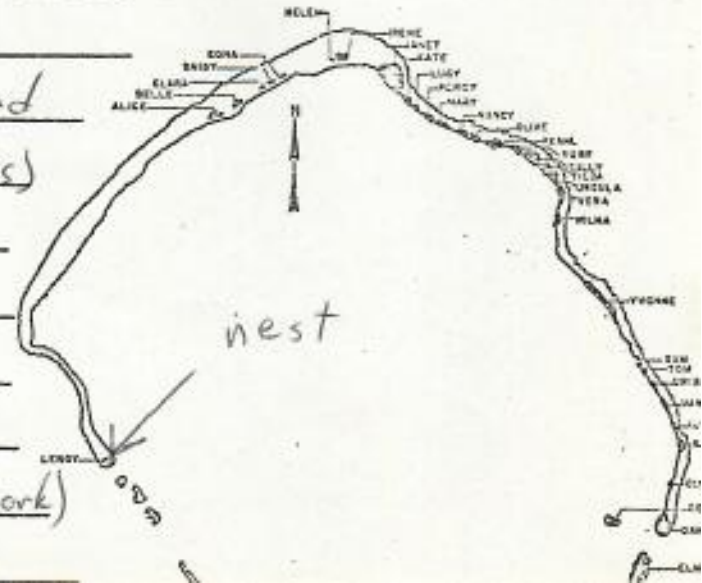
Approximate size (shell length): tracks on sand

Distinguishing characteristics: 3' wide (tracks)

Observation made: at surface

beneath surface (depth)

Miscellaneous comments: Dug for eggs 2 June but found none. (It was hard work)



21

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: TOBY CHAIDMONT U OF H

Date: 6/5/75 Time ~ 1400 Hrs.

Location (indicate on chart) BETWEEN URSULA AND TILDA NEAR Bridge DEPTH OF ~ 15 FSW

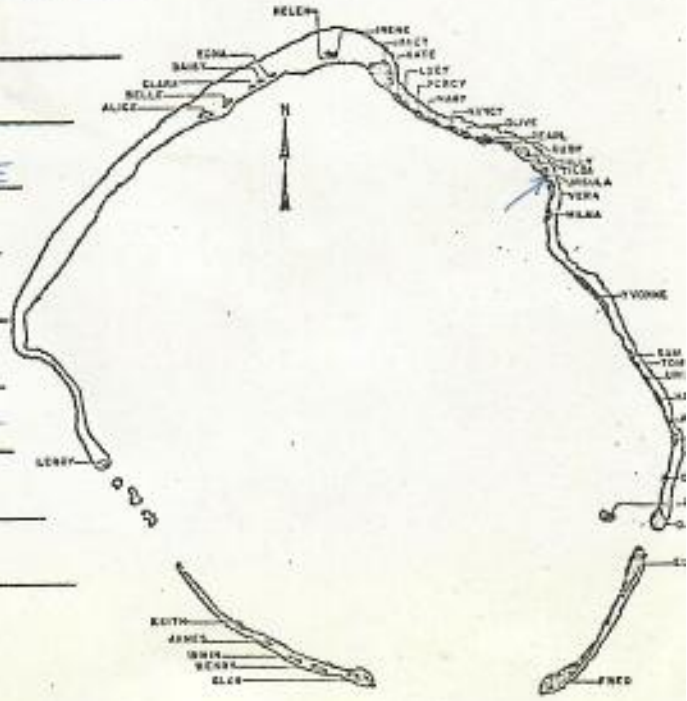
Approximate size (shell length): ~ 2 TO 2 1/2'

Distinguishing characteristics: GREEN SEA TURTLE

Observation made: at surface FROM SURFACE SKIN diving

beneath surface (depth)

Miscellaneous comments: MOVING AGAINST current TOWARD OCEAN (EAST)



22

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Loren Akata

Date: 6/8 Time 5:00

Location (indicate on chart) Lagoon between Ursula & Tilda. Sea-side of bridge

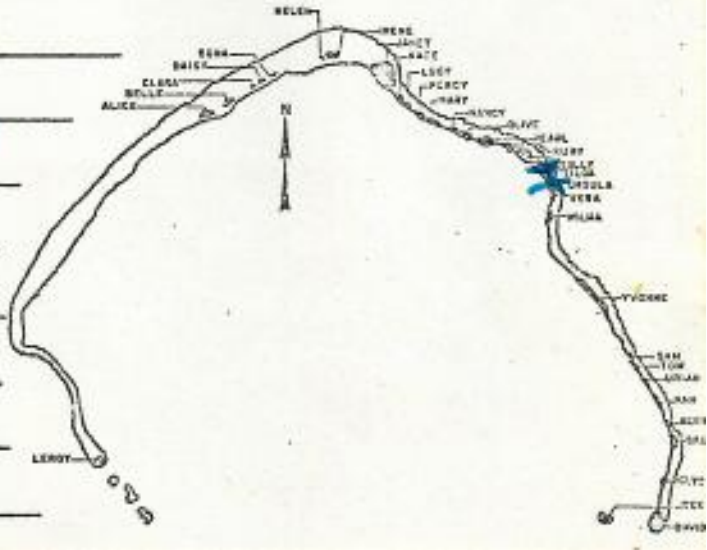
Approximate size (shell length): 25" dia.

Distinguishing characteristics:

Observation made: at surface first seen

beneath surface (depth) 5'

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Loren Akaka

Date: 6/10 Time 2:00 am,

Location (indicate on chart) Just inside of lagoon next to David

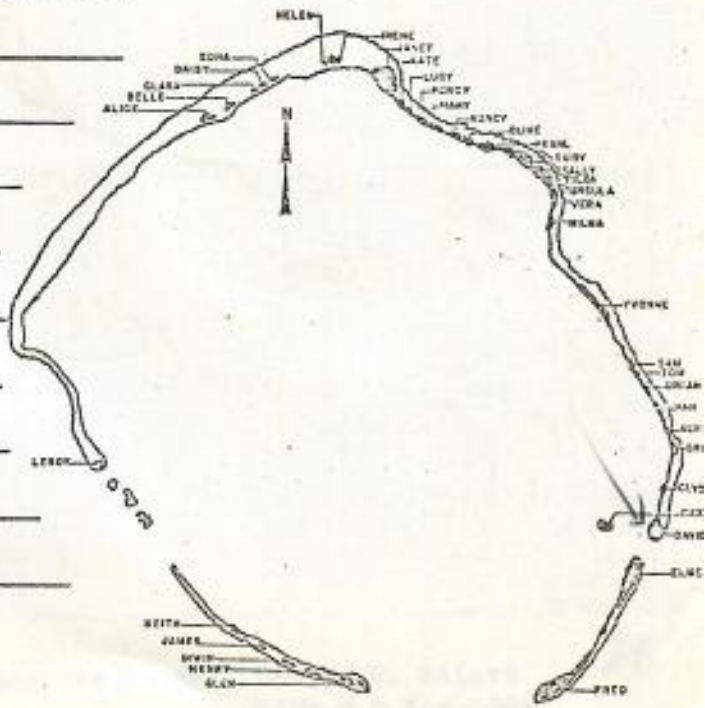
Approximate size (shell length): 36" dia.

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) 20'

Miscellaneous comments:



Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: James LaVelle

Date: June 17, 1975 Time 1000

Location (indicate on chart) Northern tip of Clyde. on shallow patch reef.

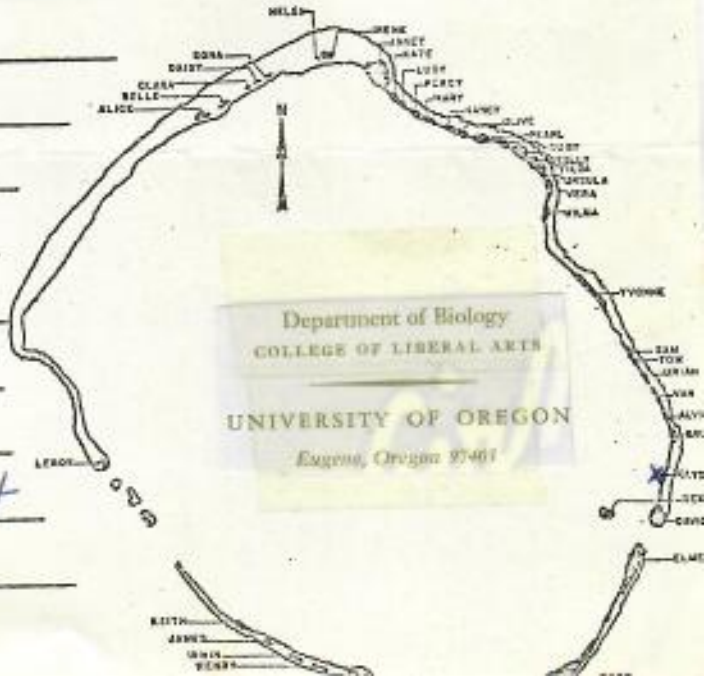
Approximate size (shell length): ~2 feet

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) ~5 feet

Miscellaneous comments: Moving very fast, caught only a brief look as it went by.



25

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Jim LaVelle

Date: 6/30/75 Time 3:45 p.m.

Location (indicate on chart) Small patch reef just off the northern tip of Van.

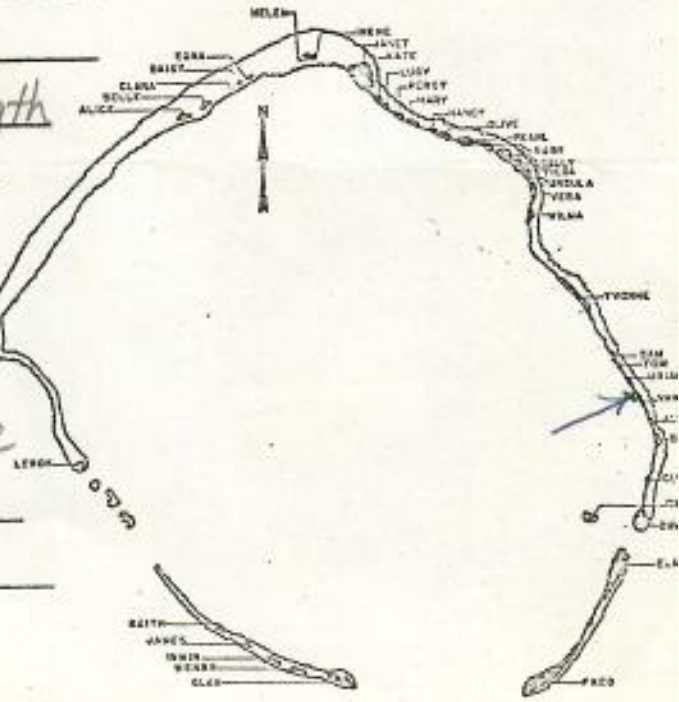
Approximate size (shell length): 2½'-3' in length

Distinguishing characteristics: None noticed

Observation made: at surface

beneath surface (depth) 10'

Miscellaneous comments: Swimming lazily, able to photograph at distance of 10'-15'



26

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Janet Lamberson

Date: 20 June 75 Time: 1145

Location (indicate on chart) patch reefs on lagoon side Clyde, water depth 2 m

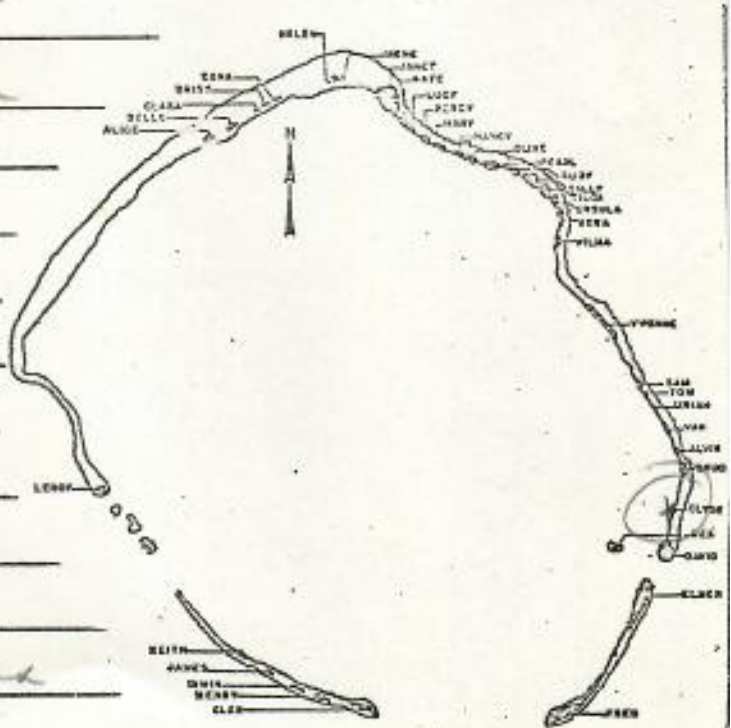
Approximate size (shell length): .4 m

Distinguishing characteristics: none probably a green

Observation made: at surface

beneath surface (depth) .5 m

Miscellaneous comments: movin' fast - may have seen scuba divers



27

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Lambersons

Date: 1 Aug 75 Time 1500

Location (indicate on chart) outside leeward reef
2 mi. South of Leroy

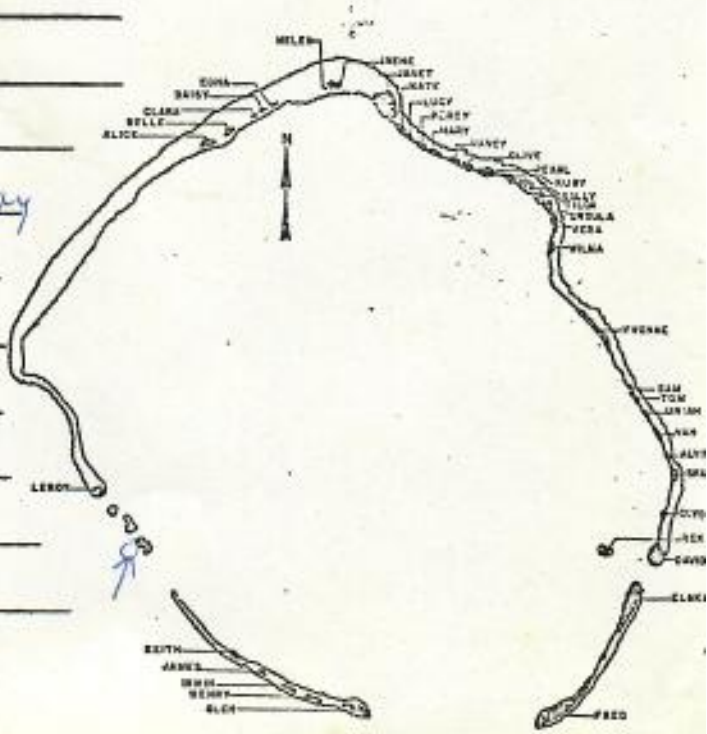
Approximate size (shell length): 2'

Distinguishing characteristics: pointed beak - may
have been ~~hawksbill~~

Observation made: at surface ✓ from boat

beneath surface (depth)

Miscellaneous comments:



28

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Dennis Phillips, Dave Keeling, Bill McConachie

Date: 8/9/75 Time ≈0900

Location (indicate on chart) Just off the Lagoon side
of Yvonne, approximately 300-400 yards
from shore

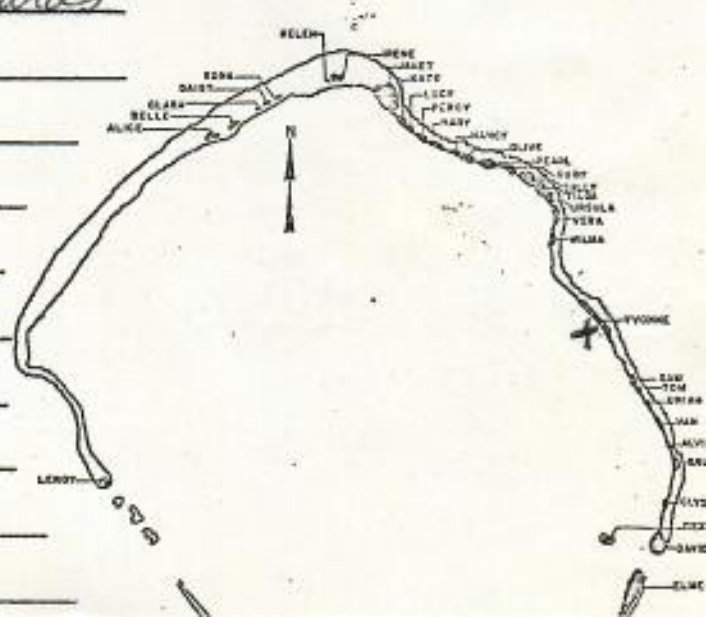
Approximate size (shell length): 2 feet

Distinguishing characteristics: —

Observation made: (at surface)

beneath surface (depth)

Miscellaneous comments: —



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

29

Observation made by: P. Lamberson

Date: 11 Aug Time: 1400

Location (indicate on chart) outside leeward reef
2 mi South of Leroy

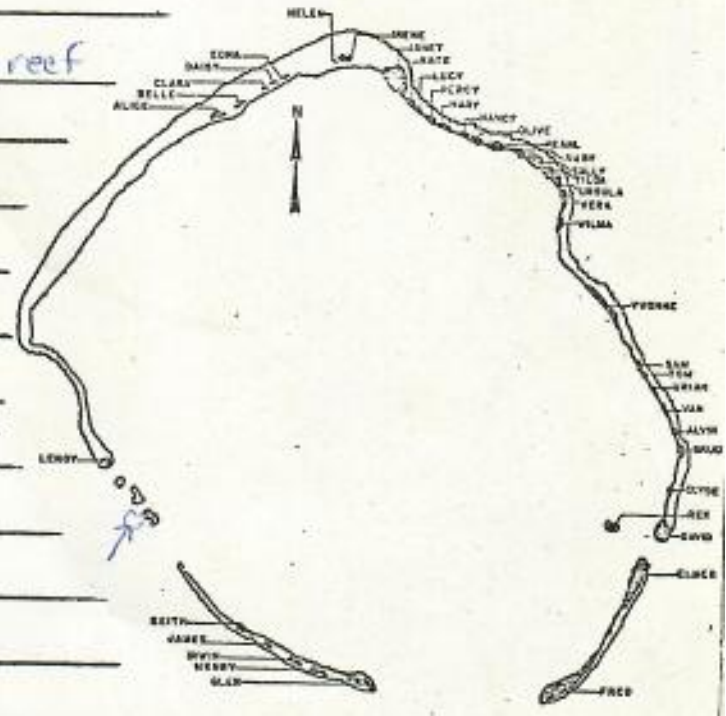
Approximate size (shell length): 2'

Distinguishing characteristics: partly seen

Observation made: at surface ✓ from boat

beneath surface (depth)

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

30

Observation made by: M. Foster, J. Hunt, W. Magruder

Date: 15 August 1975 Time 1900

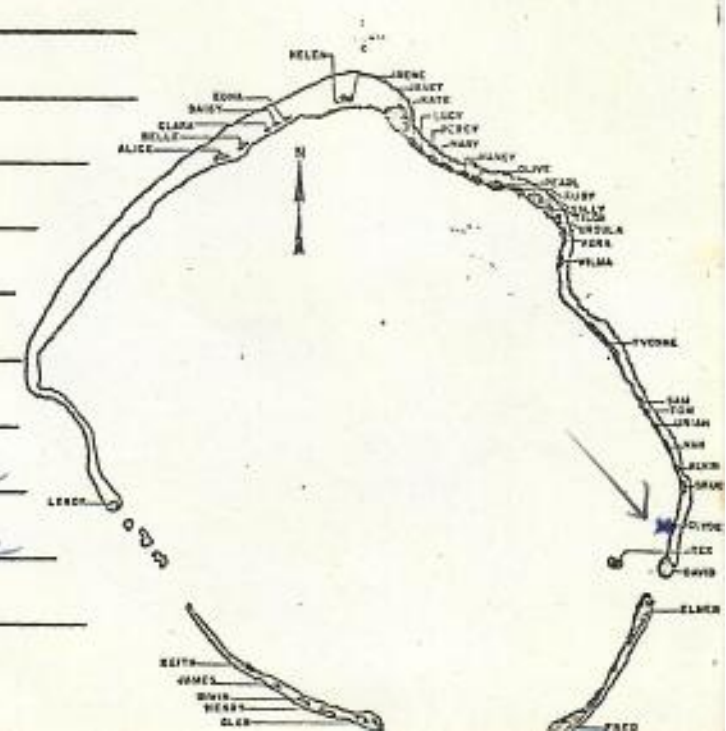
Location (indicate on chart) patch reefs, lagoon
side of Jimini (=Clyde),

Approximate size (shell length): 2'

Distinguishing characteristics:
Green Turtle

Observation made: at surface
SCUBA
beneath surface (depth) 4 m.

Miscellaneous comments: Often see a turtle
around this location; about same
size



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

31

Observation made by: M. Foster, P. Allen, J. Hurt, W. Maguder

Date: 16 August 1975 Time 1530

Location (indicate on chart) North side of cement ship,

Approximate size (shell length): 2'

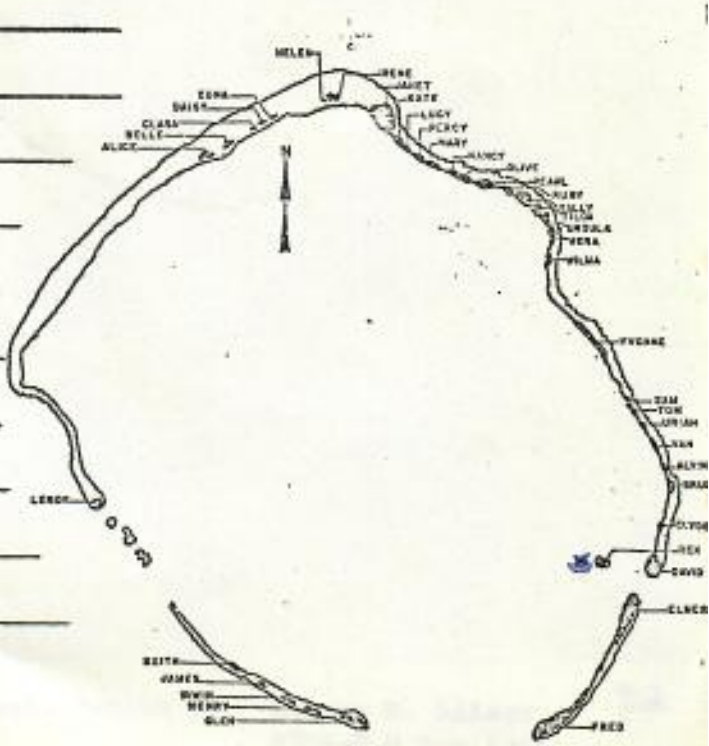
Distinguishing characteristics:

Hawksbill Turtle

Observation made: at surface

SCUBA beneath surface (depth) 25'

Miscellaneous comments:



Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: M. Foster, P. Allen

Date: 19 August 1975 Time 1530

Location (indicate on chart) Tunnel, Pinnacle

pinnacle 10' to top, 150' to bottom

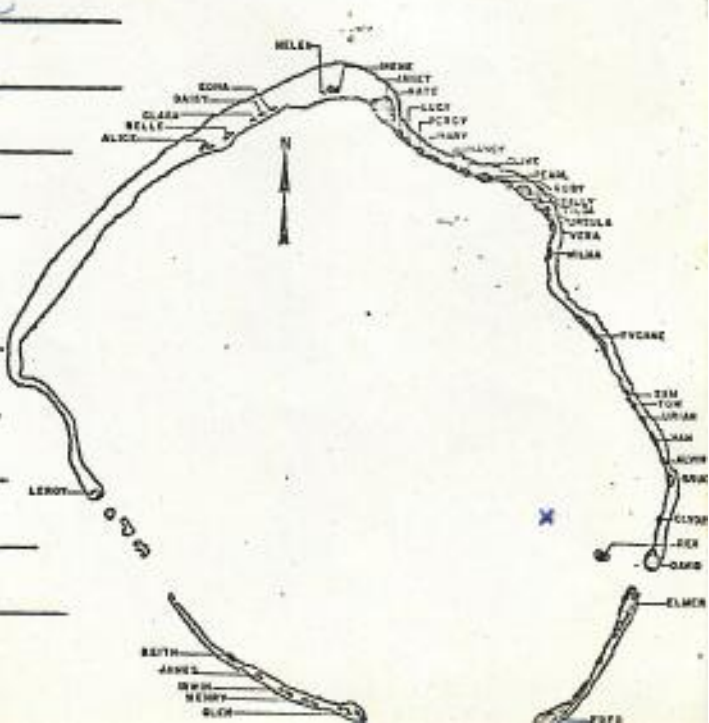
Approximate size (shell length): 3'

Distinguishing characteristics: Green Turtle

Observation made: at surface

SCUBA beneath surface (depth) 30'

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

33

Observation made by: M. Foster, P. Allen

Date: 25 August Time 1200

Location (indicate on chart) lagoon side reef
1 of Leroy

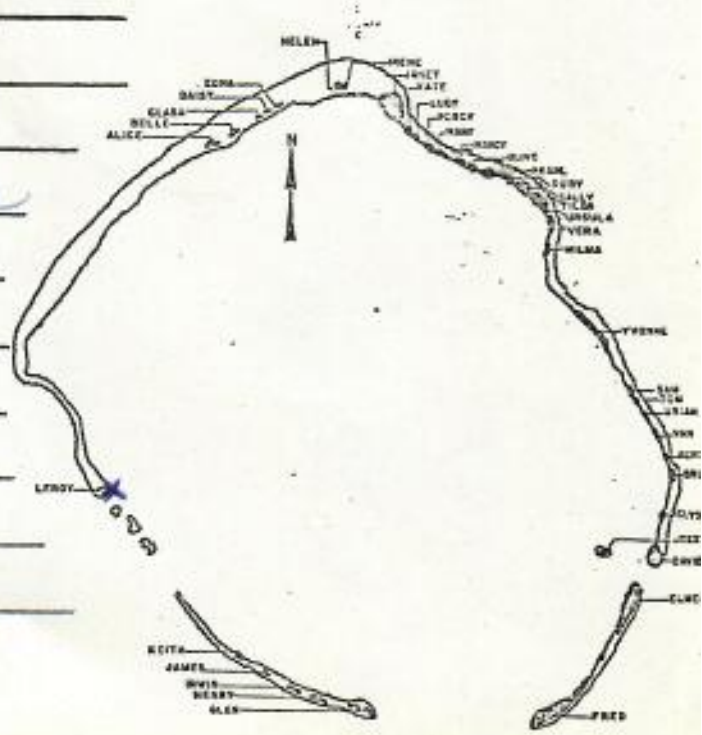
Approximate size (shell length): 18"

Distinguishing characteristics: Hawksbill turtle

Observation made: at surface

beneath surface (depth) 3' deep

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

34

Observation made by: M. Foster, P. Allen

Date: 26 August Time 1330

Location (indicate on chart) Tunnel Pinnacle
10' to top, 150' to bottom

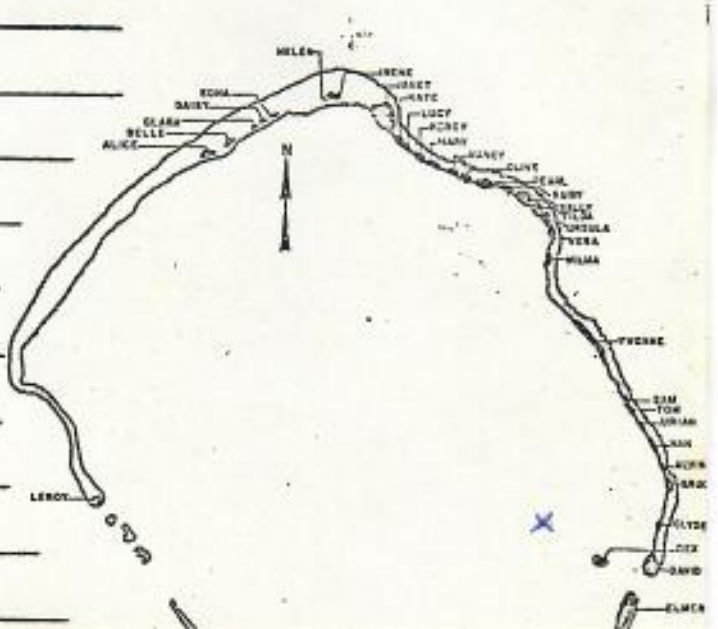
Approximate size (shell length): > 3'

Distinguishing characteristics: Hawksbill

Observation made: at surface

SCUBA
beneath surface (depth) > 100' deep

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

35

Observation made by: SCOTT JOHNSON

Date: 8-23-75 Time 3:45 pm

Location (indicate on chart) Lagoonside Clyde

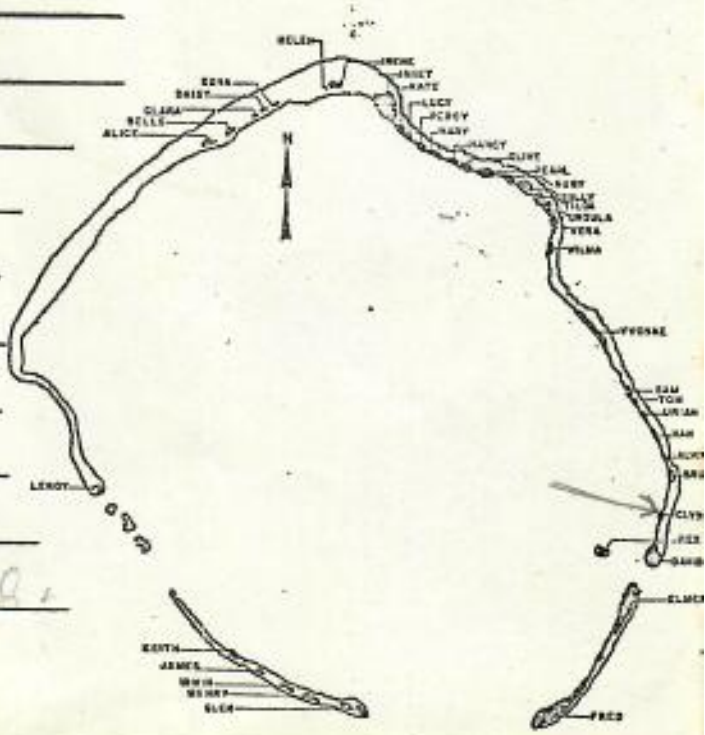
Approximate size (shell length): 2½-3'

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) 15'

Miscellaneous comments: Seen resting on bottom in hollow near edge of patch reef. Was rather tame as he allowed me to approach & photograph him



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

36

Observation made by: C. FUSARO

Date: 1 Sept 75 Time: 1100

Location (indicate on chart) Lagoon Side of Chimney 15'Z

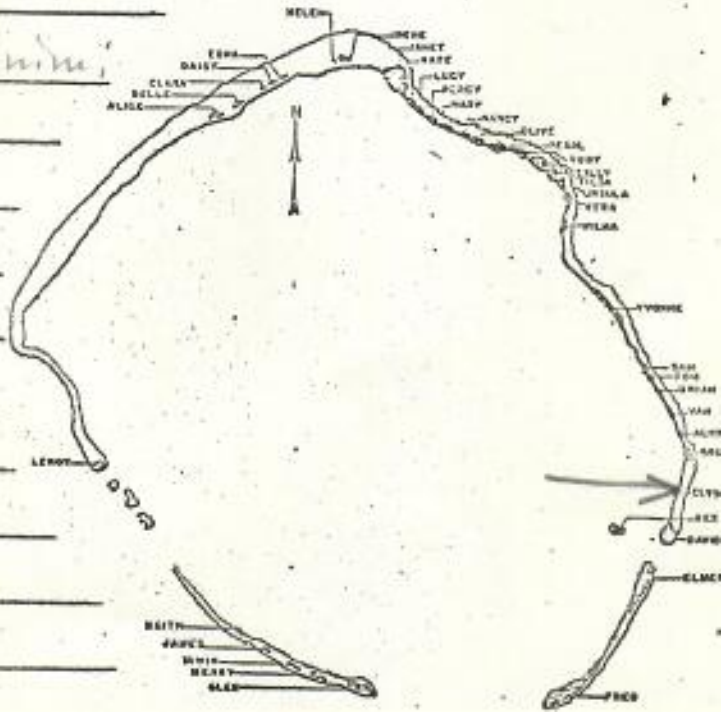
Approximate size (shell length): 1'

Distinguishing characteristics:

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

37

Observation made by: C Fusaro

Date: 10 Sept 75 Time 1100

Location (indicate on chart) at "tunnel pinnacle"

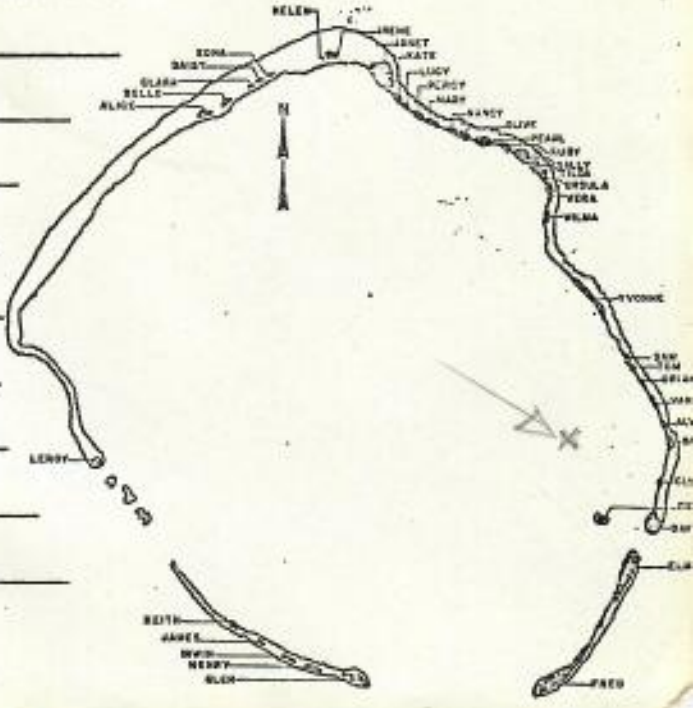
Approximate size (shell length): 2-2½'

Distinguishing characteristics: O

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

38

Observation made by: Nick Singleton

Date: Dec. 20 Time: 14:00

Location (indicate on chart) between Fred Elmer

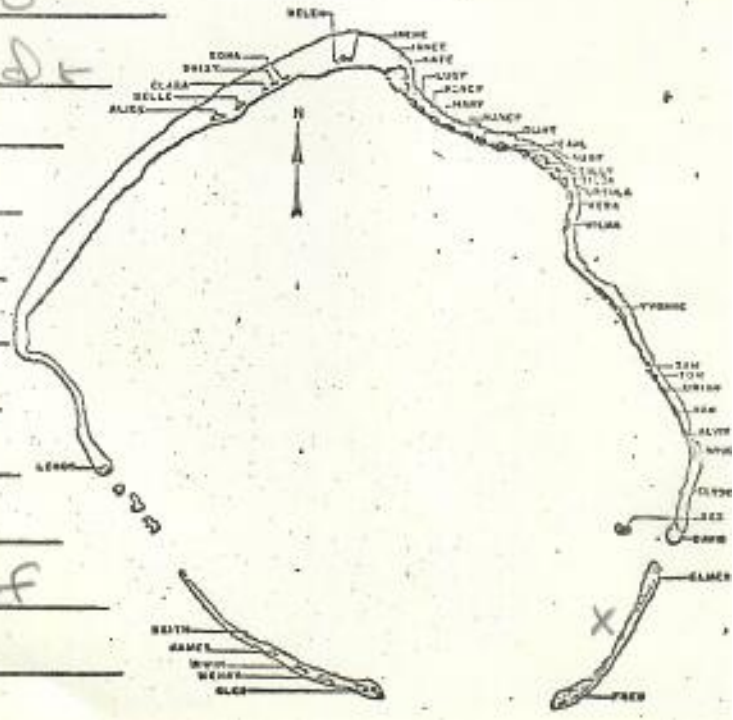
Approximate size (shell length): 24"

Distinguishing characteristics:

Observation made: at surface X

beneath surface (depth)

Miscellaneous comments: just off of reef when sighted



39

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Nick Singleton

Date: Jan 12 Time: 16:00

Location (indicate on chart) off Wain

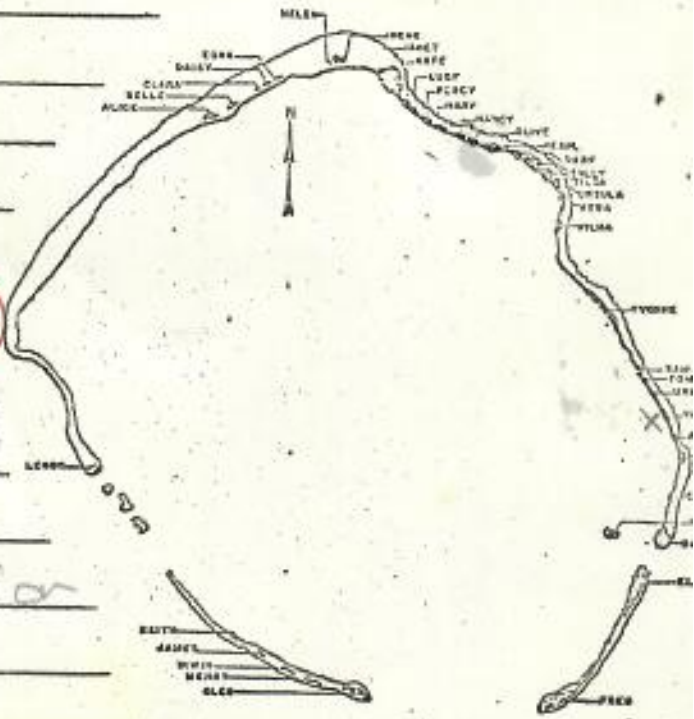
Approximate size (shell length): 3½'

Distinguishing characteristics: large male green turtle (long tail)

Observation made: at surface X

beneath surface (depth) X

Miscellaneous comments: followed him for about 15 min.



40

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or

Observation made by: Nick Singleton

Date: Jan 16 Time: 11:00

Location (indicate on chart) off of Mainit

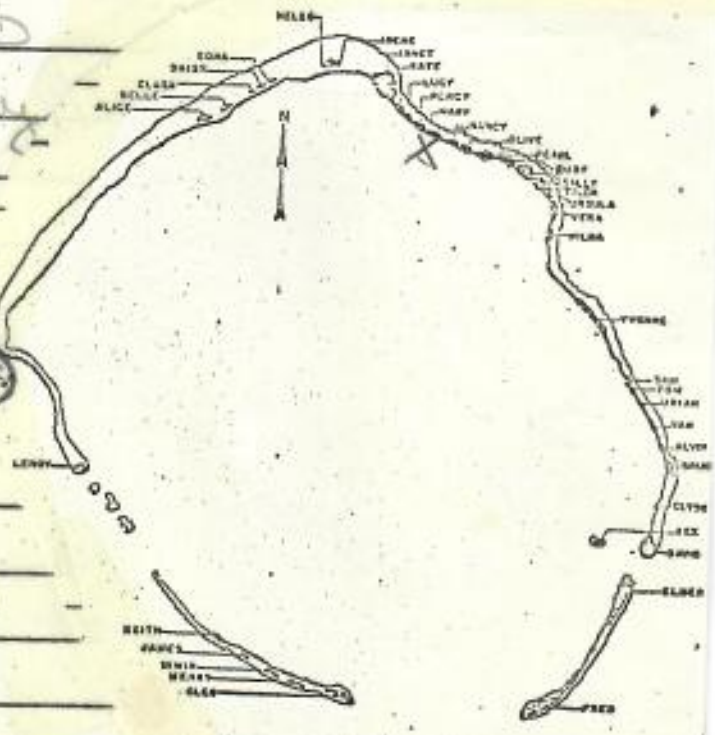
Approximate size (shell length): 4'

Distinguishing characteristics: female etc

Observation made: at surface X

beneath surface (depth)

Miscellaneous comments:



Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: P. Lamberson

Date: 9 Feb. 76 Time: 1300

Location (indicate on chart) 10-20 feet offshore, ocean side of W. End of Alice

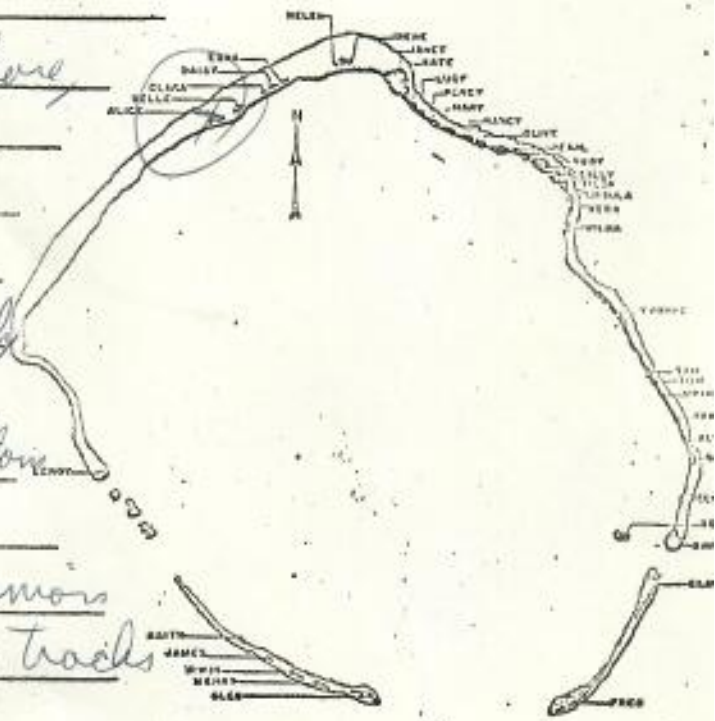
Approximate size (shell length): 1.5–2 feet

Distinguishing characteristics: 2 were definately green sea turtles

Observation made: at surface ✓ and to bottom

beneath surface (depth) at 3'

Miscellaneous comments: I counted 6. a companion counted 14 earlier in the day. No trails or nests.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: PERZANOWSKY, MYNDERSE

Date: 2/21/76 Time: PM

Location (indicate on chart) PATCH REEF BTWN ALVIN & BRUCE

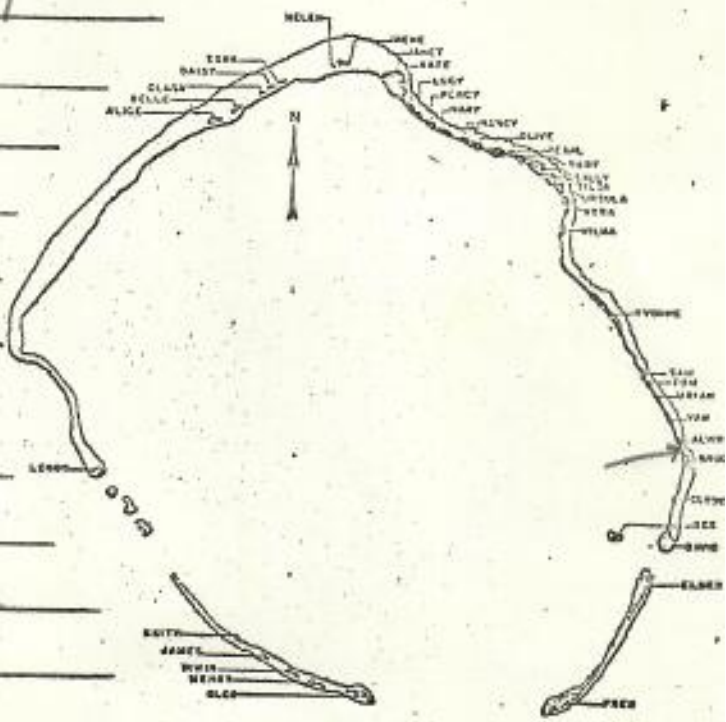
Approximate size (shell length): 2 FT

Distinguishing characteristics: HEAD, FEET

Observation made: at surface

beneath surface (depth) ~10 FT

Miscellaneous comments: ASLEEP UNDER CORAL HEAD



43

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: RAUI, PERZANOWSKY, MYNDERSE

Date: 2/22/76 Time: ~3 PM

Location (indicate on chart) PATCH REEF
SOUTH OF ELMER

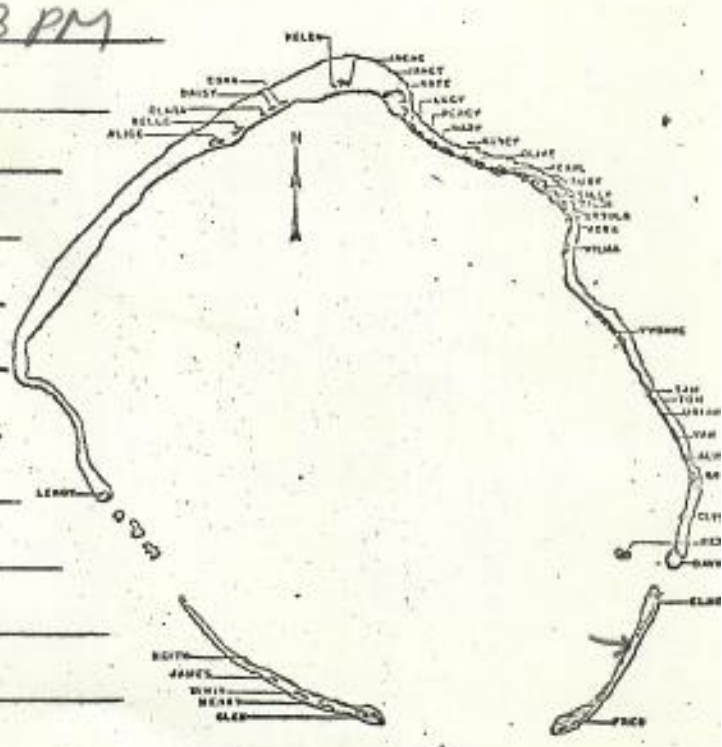
Approximate size (shell length): ~ 2'

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) 10'

Miscellaneous comments:



49

Observation made by: Nick Singleton

Date: March 12 Time: 10:00

Location (indicate on chart) By David pier

Approximate size (shell length): 18"

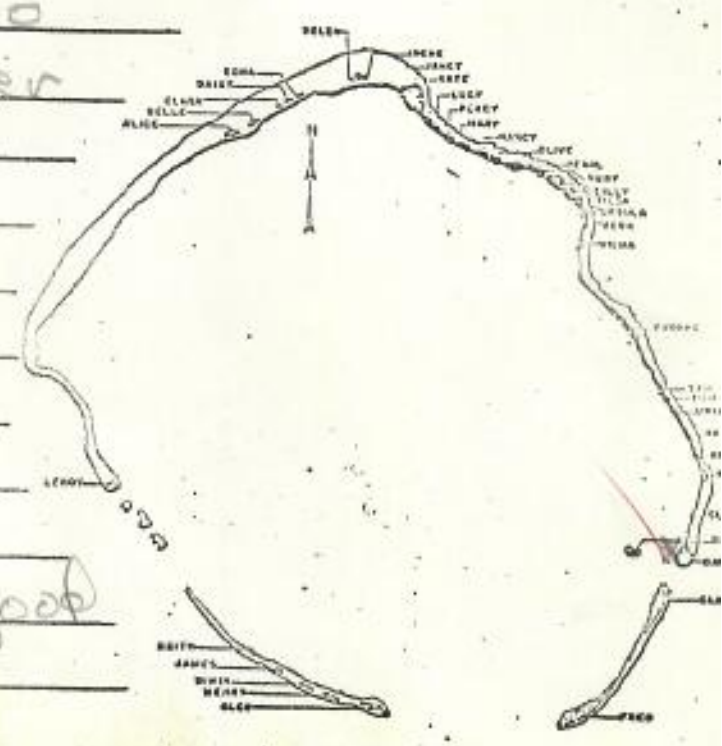
Distinguishing characteristics: —

Observation made: at surface

beneath surface (depth) 5'

Miscellaneous comments: didnt get a good look at it

Kaneohe, 96744
Tel. 247-6631 or
946-1760



Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

Observation made by: P. Lamberson

Date: 13 March 76 Time: 1500

Location (indicate on chart) 15' offshore, ocean side of Alice

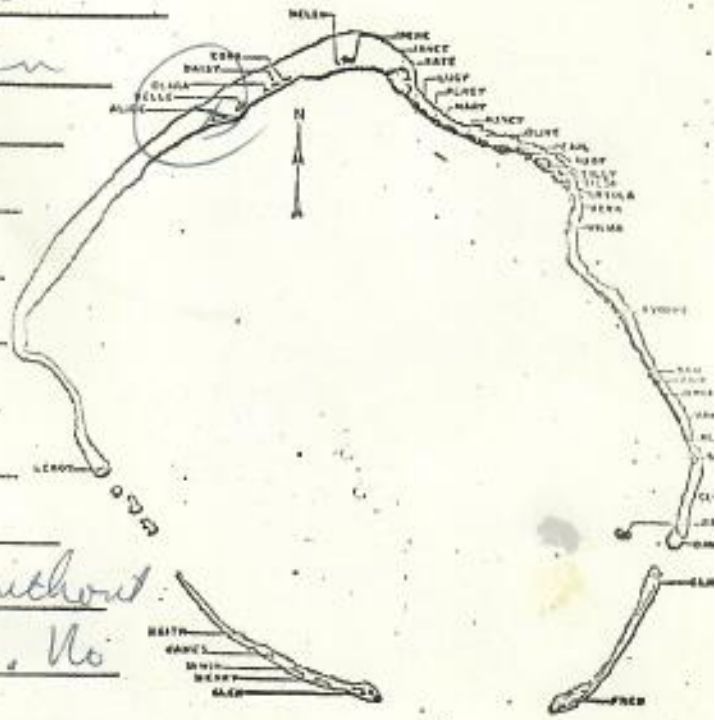
Approximate size (shell length): 24"

Distinguishing characteristics: not clearly seen

Observation made: at surface

beneath surface (depth) 2 feet

Miscellaneous comments: I was on shore without a mask. Never saw it surface. No tracks or nests.



76

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

Observation made by: P. Lamberson

Date: ~~Sun~~ March 14 76 Time: 1300

Location (indicate on chart) Swimming around side of Medren pinnicle # 1.

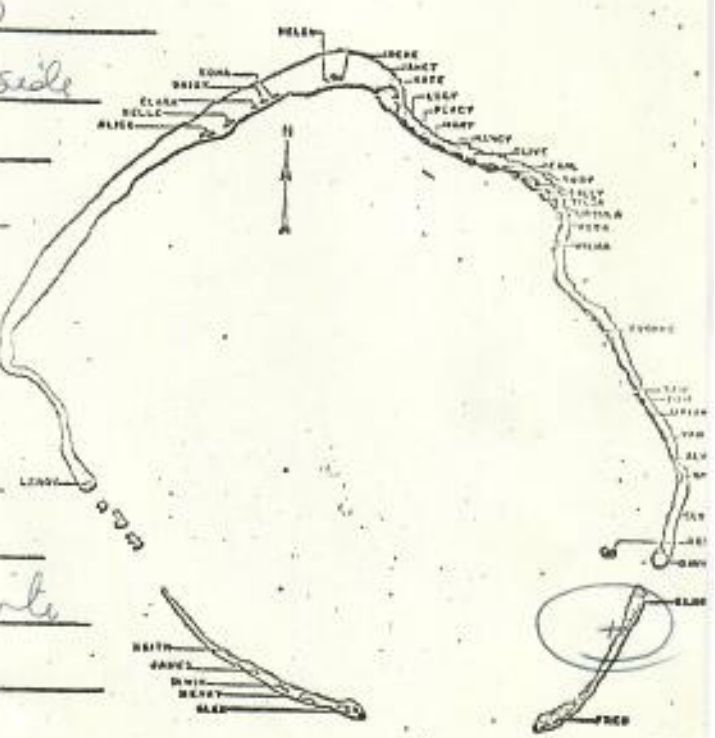
Approximate size (shell length): 22"

Distinguishing characteristics: green sea turtle.

Observation made: at surface

beneath surface (depth) 45'

Miscellaneous comments: It swam away into the blue.



Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Stephen H. Vessey

Date: 18 March 1976 Time: 1500

Location (indicate on chart) 3/4 mile west of Yvonne

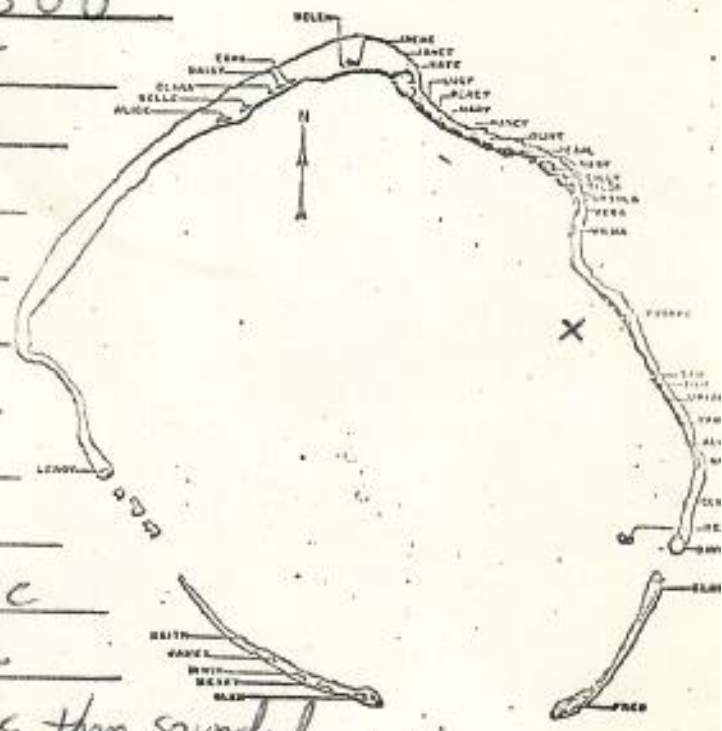
Approximate size (shell length): 3-4 feet

Distinguishing characteristics: carapace greenish yellow. Scutes plainly visible

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments: saw splash, 5 sec later saw it on the surface 30' from "splash". at surface 2-3 sec, then sounded



70

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Charles Fischer

Date: Tues., March 23, 1976 Time: 9 A.M.

Location (indicate on chart) Garbage Pier

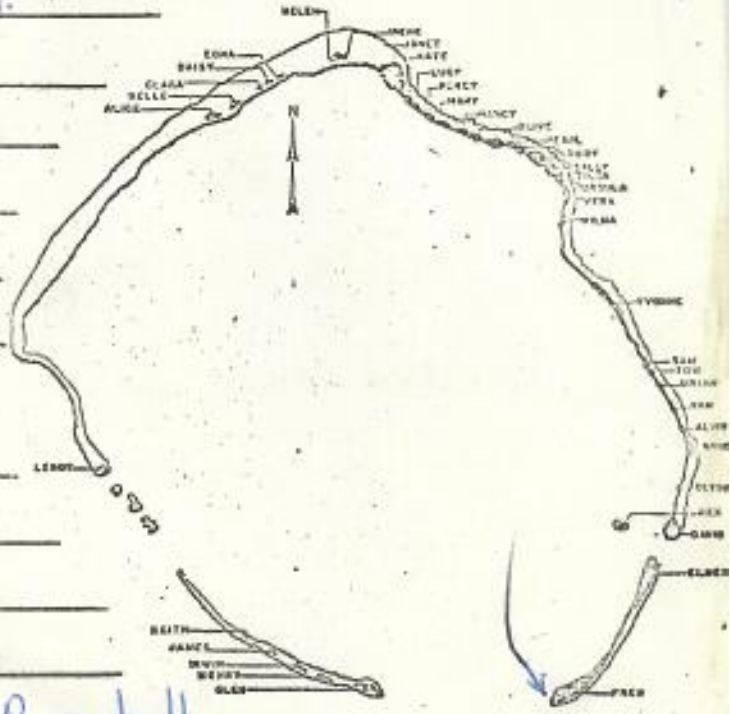
Approximate size (shell length): ~3'

Distinguishing characteristics: Yellowish Brown body & shell color

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments: Feeding on lettuce and other vegitable scraps dumped into water from Garbage Truck. Reportedly is commonly seen in this area.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: E. Hobson

Date: 8 April 1976 Time: 1400

Location (indicate on chart) approx 500M E of Rex, depth 18M

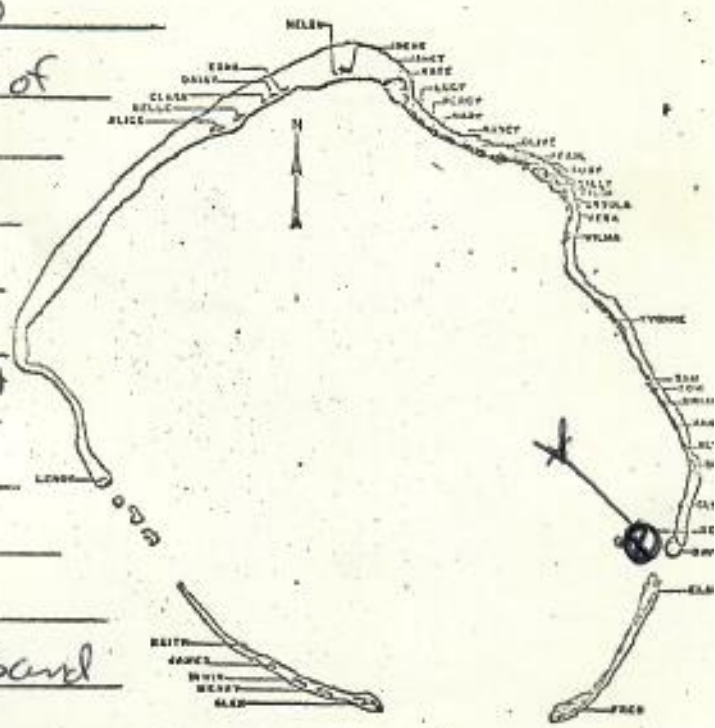
Approximate size (shell length): .7M

Distinguishing characteristics: none noted
green turtle (common name, not appearance)

Observation made: at surface

beneath surface (depth) 18M

Miscellaneous comments: swimming slowly w/in 2M of sea floor over sand next to coral head



Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: E Hobson

Date: 4-12 Time: 1400

Location (indicate on chart)

100M offshore Free on sand next to small coral reef. Swam off on my approach.

Approximate size (shell length): .75M

Distinguishing characteristics:

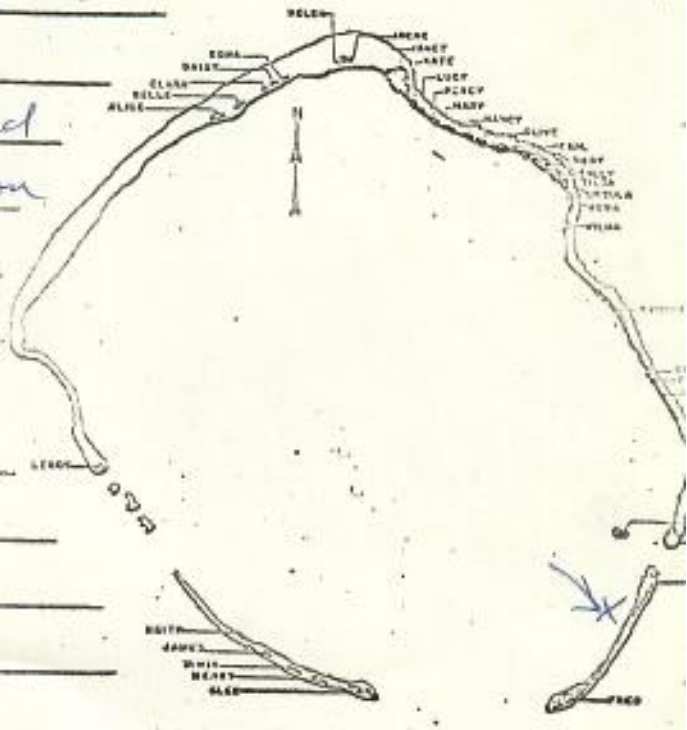
none noted

Observation made: at surface

beneath surface (depth) 4M

Miscellaneous comments:

green turtle



Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Martha Hoversons

Date: May 28, 1976 Time: 11:30

Location (indicate on chart) In shallow water on the lagoon side of Glen islet appx 3 ft. deep.

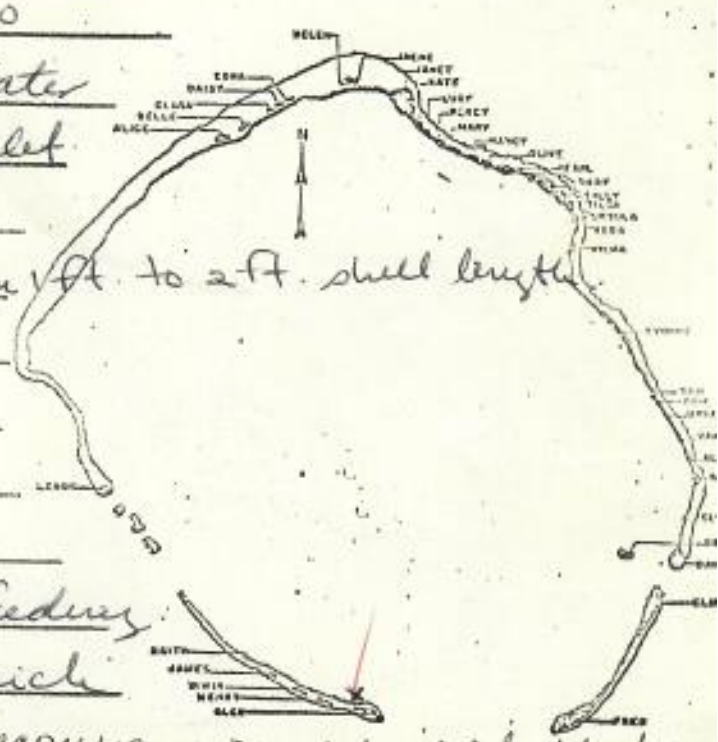
Approximate size (shell length): about 5 turtles from 1 ft to 2 ft. shell length

Distinguishing characteristics: green turtles

Observation made: at surface

beneath surface (depth)

Miscellaneous comments: The largest was feeding on a piece of pandanus which was drifting in water. Person accompanying me said that was the largest no. of turtles she'd seen here.



Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: Bruce Carlson Gordon Tribble, Arnold Suzuoka

Date: 11 June, 1976 Time: 2:00

Location (indicate on chart) Oscar

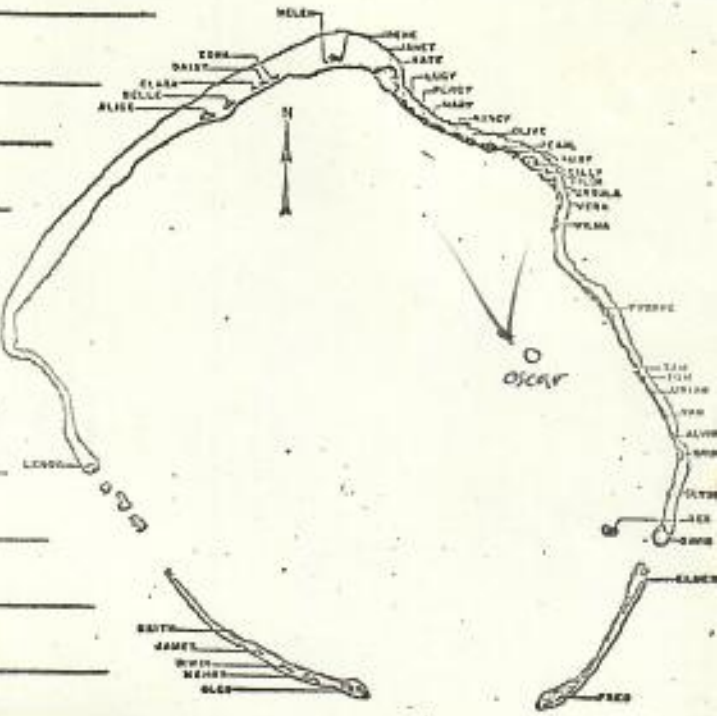
Approximate size (shell length): 3'-4' GREEN (?) 2' Hawksbill

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) GREEN 35' HAWKSBILL 15'

Miscellaneous comments:



Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

Observation made by: Dr Bob Kinzey Paul Allen Jon Faulter

Date: June 21, 1976 Time: 1230

Location (indicate on chart) West of Jedral (Rex) just off the Cement barge

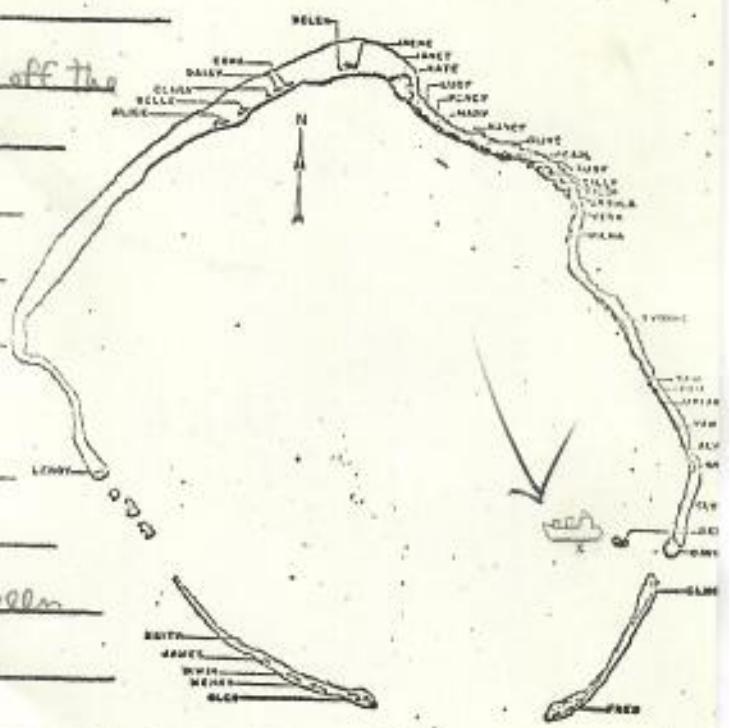
Approximate size (shell length): 2ft long

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) 3x at 20', 40', 70'

Miscellaneous comments: Bob and Paul think it was a green sea turtle, Jon thought it was a Hawksbill.



Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

Observation made by: P Lamberson

Date: 25 June 76 Time: 1200 ~~0920~~

Location (indicate on chart) Lagoon shore of Ekuren

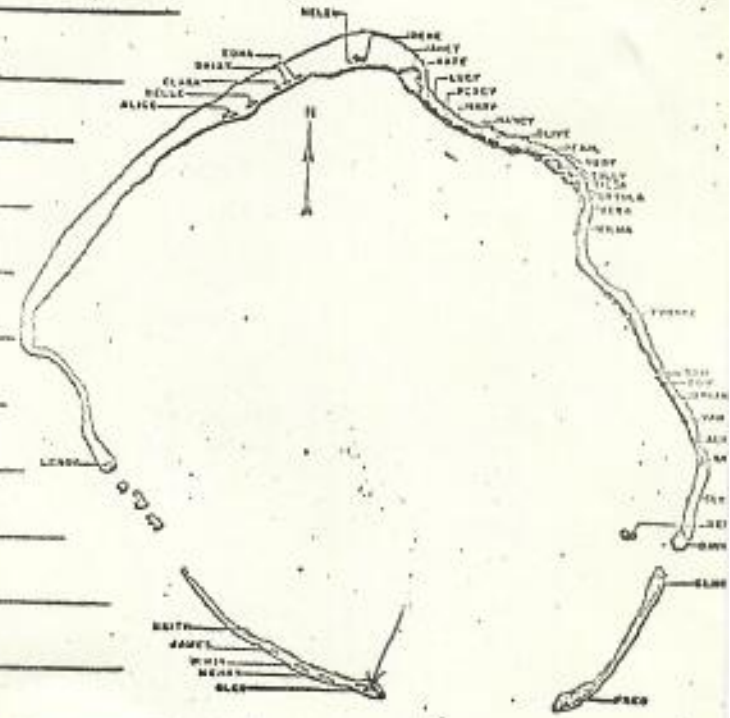
Approximate size (shell length): 2'

Distinguishing characteristics: not seen

Observation made: at surface ~~(me)~~.

beneath surface (depth) 2' (turtle)

Miscellaneous comments:



Kaneohe, [illegible]4
Tel. 247-6631 or
946-1760

Observation made by: CARLSON, MOBLEY, RUMFELDT

Date: 26 June, 1976 Time: 10:00 AM

Location (indicate on chart) PATCH REEF OFF 'SALLY

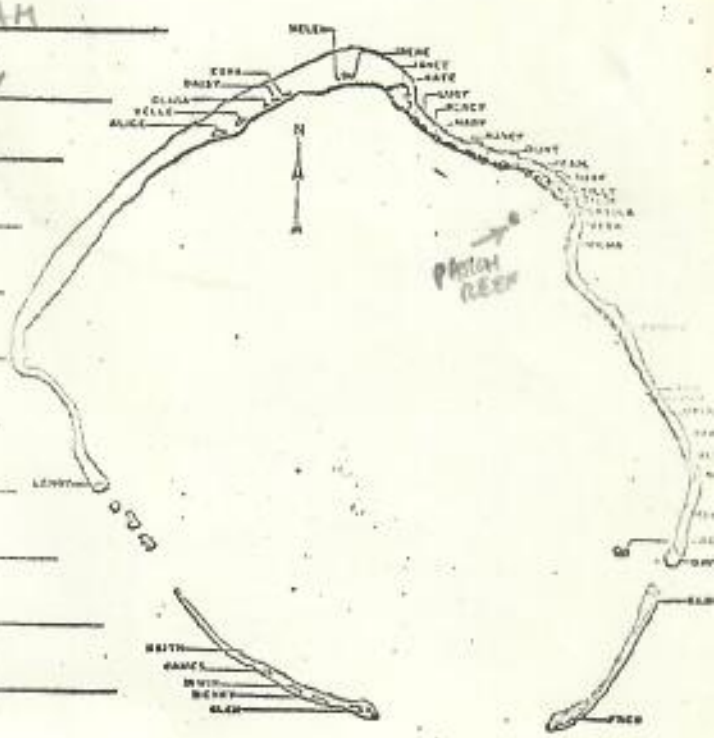
Turtle size (shell length): ca. 3'

Distinguishing characteristics: reddish brown smooth shell

Observation made: at surface

Beneath surface (depth)

Miscellaneous comments: Green Turtle ?



Kaneohe, [illegible]4
Tel. 247-6631 or
946-1760

tion made by: Nick Singleton

July 12 76 Time: 17:00

n (indicate on chart) off Percy

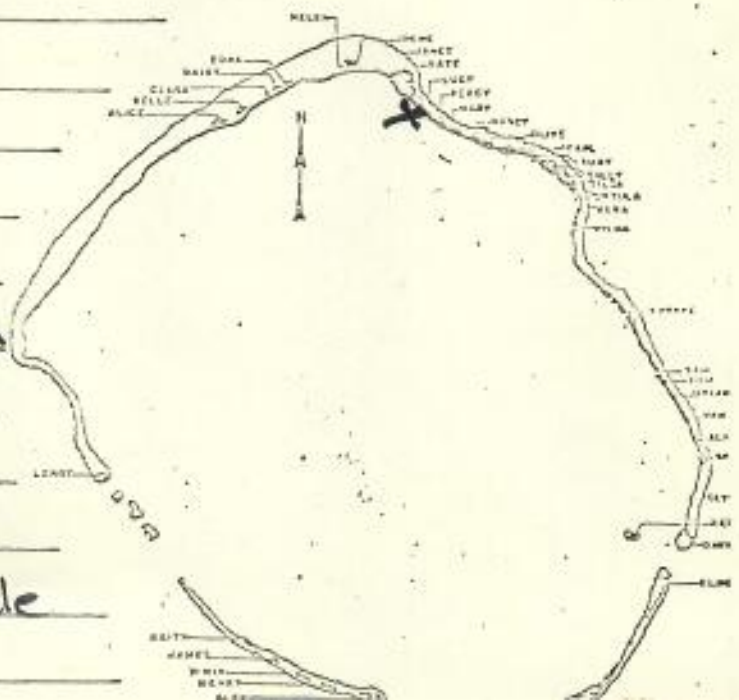
[illegible] size (shell length): 3 ft.

uishing characteristics: greenish-brown

tion made: at surface

eneath surface (depth) 10 ft.

neous comments: looked like a female green



Kaneohe, 96744
Tel. 247-6631 or
946-1760

tion made by: Peter Wainwright

July 12 1976 Time: 15:30

n (indicate on chart) South Medrin Pinnacle

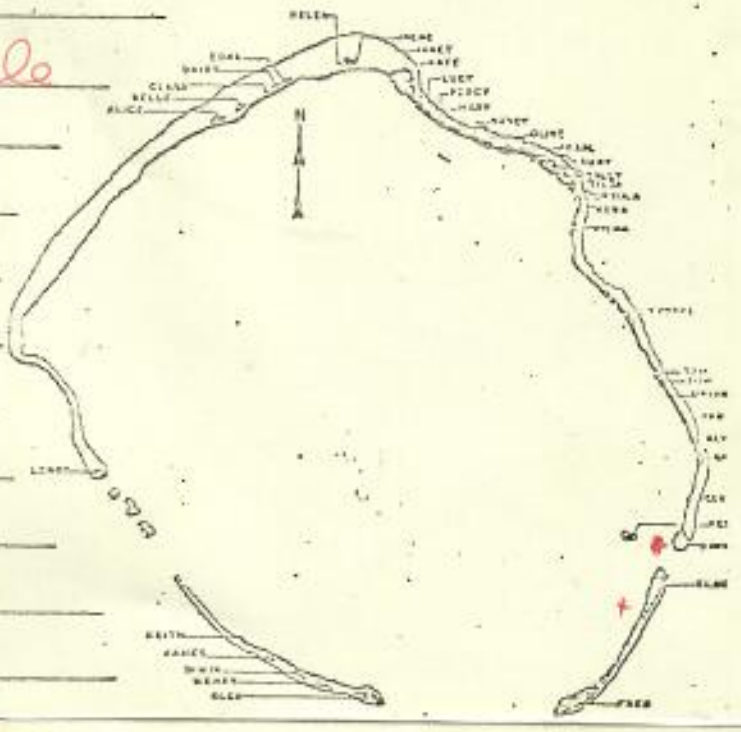
mated size (shell length): 2½ ft.

guishing characteristics: Deep brown

tion made: at surface

neath surface (depth) 20 ft.

aneous comments:



Kaneohe, 96744
Tel. 247-6631 or
946-1760

tion made by: F G PHELPS

Time: 1130 24 JUL 76

n (indicate on chart) IRENE ¼ mile off shore

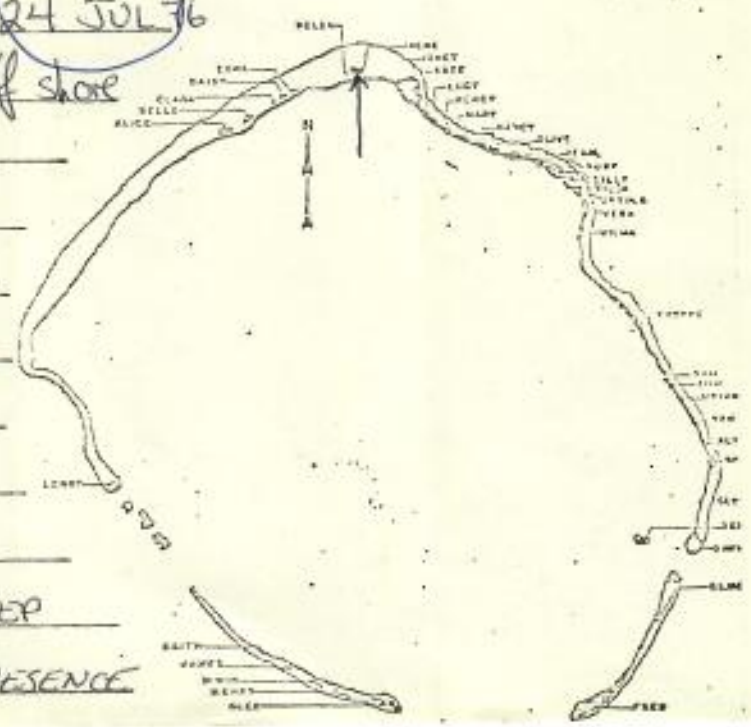
mated size (shell length): 4-5 ft

guishing characteristics: NONE

tion made: at surface N/A

neath surface (depth) 6 ft

aneous comments: TURTLE SWAM FOR DEEP WATER WHEN AWARE OF OUR PRESENCE



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

59

Observation made by: BILL BURKE - STAN THOMPSON LCL

Date: 24 Jul 76 Time: 1330

Location (indicate on chart) WEST OF WILMA NOTE: (4)

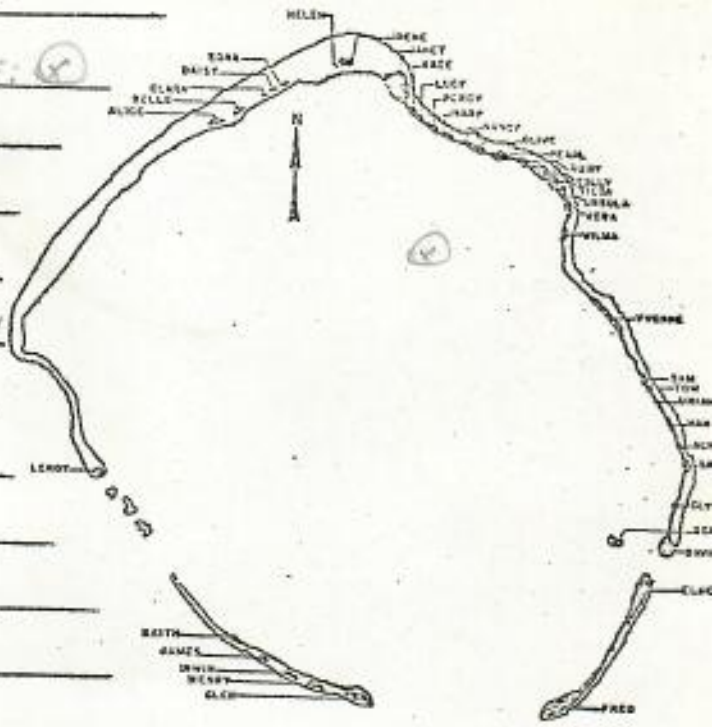
Approximate size (shell length): 3 to 4 FEET

Distinguishing characteristics: DK. COLORED WITH LIGHT COLORED MODELING

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments: DOVE WHEN APPROACHED APPROX 10 FEET AWAY



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

60

Observation made by: J. REGISTER + J. JOHNSTON LCU-26 R.V. LIKTANUR

Date: 29 July 76 Time: 1030 Hrs

Location (indicate on chart) NOTED ON DIAGRAM DUE SOUTH OF JANET + DUE WEST OF YVONNE.

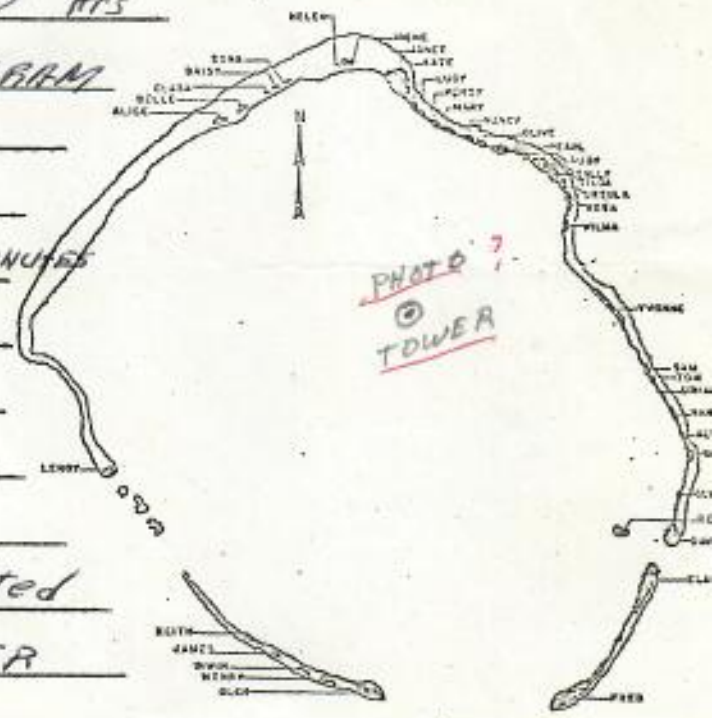
Approximate size (shell length): 3½ TO 4 FEET / 18 INCHES

Distinguishing characteristics: BROWN SPECKLED

Observation made: at surface ✓ ✓ ✓

beneath surface (depth)

Miscellaneous comments: TWO TURTLES SIGHTED ON THE SURFACE AT PHOTO TOWER ONE LARGE, ONE SMALL.



61

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

tion made by: Wayne P. Reetz U.C.S.D La Jolla, Calif.

8/76 ? Time: 1300

n (indicate on chart) Eastern end of Ikuren on lagoon side

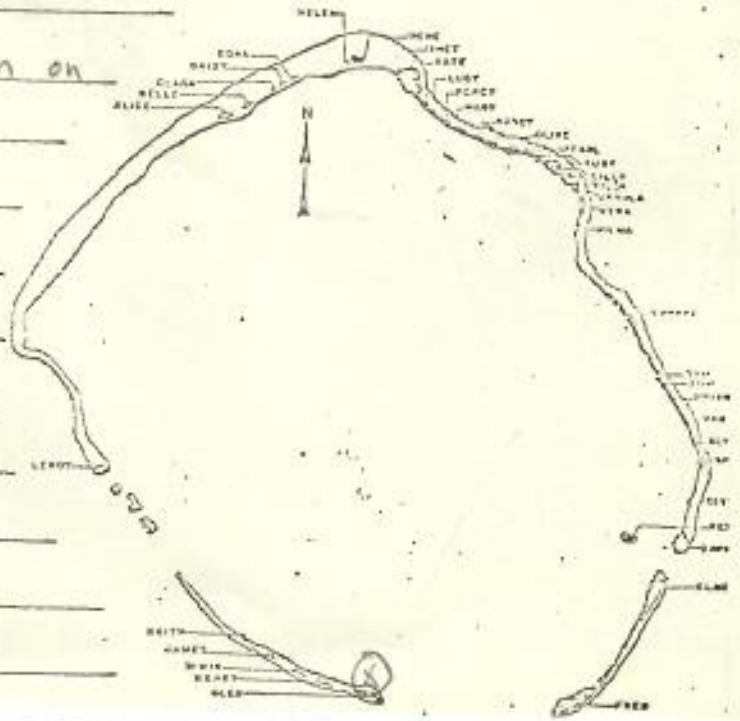
ximate size (shell length): About 24"

uishing characteristics: —

tion made: at surface

eneath surface (depth) 1-2 feet

neous comments: Appeared to be feeding



62

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

tion made by: Janet Lamberson

8/76 ? Time: 1500

n (indicate on chart) Tilda-Ursula Channel

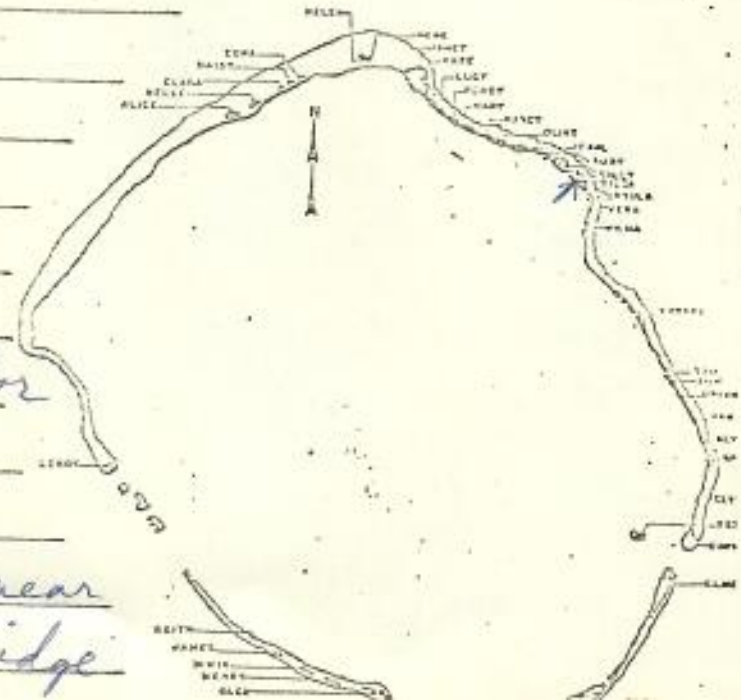
ximate size (shell length): 1 m

uishing characteristics: unclear - seen from bridge - dark color

tion made: at surface

eneath surface (depth) .5 m

neous comments: swimming slowly near surface - seen from bridge



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

63

Observation made by: W. Reetz, J. Corwin

Date: 8-1-76 Time: 1430

Location (indicate on chart) Ananid (Bruce on East side, South end)

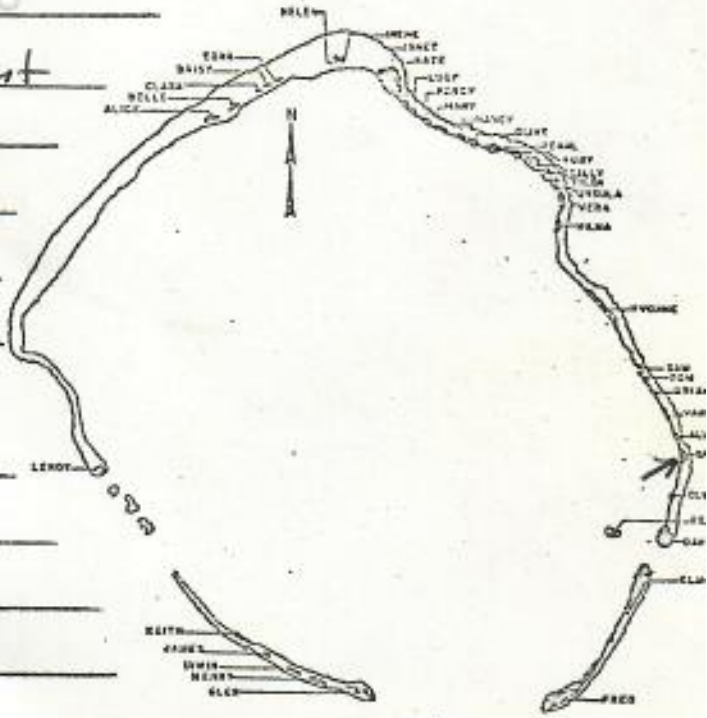
Approximate size (shell length): ~ 30"

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) 2-4 feet

Miscellaneous comments: Green turtle



64

Kaneohe, 96744
Tel. 247-6631 or
946-1760

tion made by: P. Lamberson, T. Lamberson

Thur 5 Aug Time: 1430

n (indicate on chart) 300 meters west of Billae (Wilma)

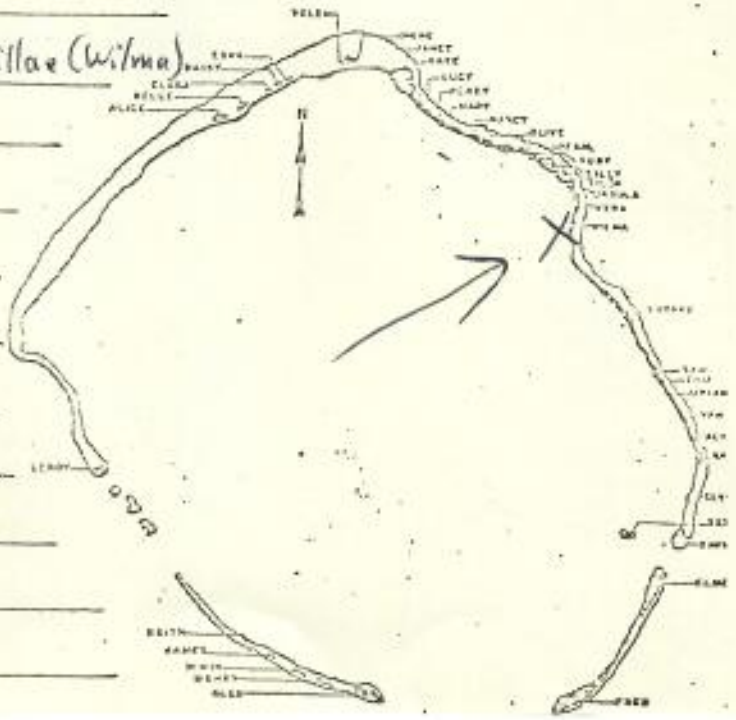
ximate size (shell length): 24"

guishing characteristics: green turtle

tion made: at surface ✓

eneath surface (depth)

aneous comments:



65

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

tion made by: P. Lamberson, T. Bullock, W. Roetz, T. Stimson

Fri 6 Aug Time: 1100-1500

n (indicate on chart) line between "x"s on top reef between Bokoluo (Alice) and Bokinwotme (Edna)

Total of 9 seen

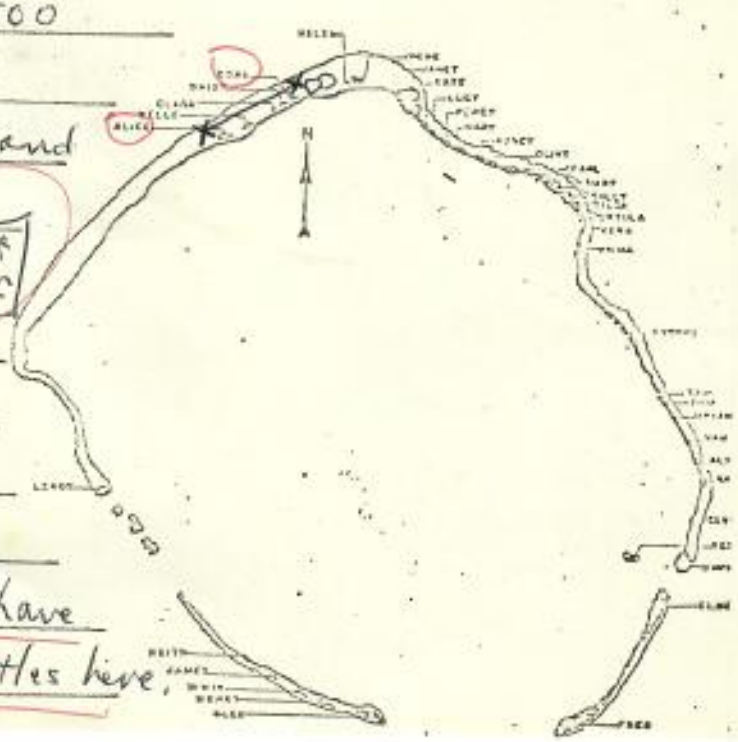
ximate size (shell length): 10" to 24"

guishing characteristics: one was a green, others seen from boat.

tion made: at surface

eneath surface (depth) 2-8'

aneous comments: This area seems to have the greatest known density of turtles here.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

66

Observation made by: Diana Keeling

Date: 8/[illegible]/76 Time: ~4PM

Location (indicate on chart) Bridge between Bokoluo & Tilda

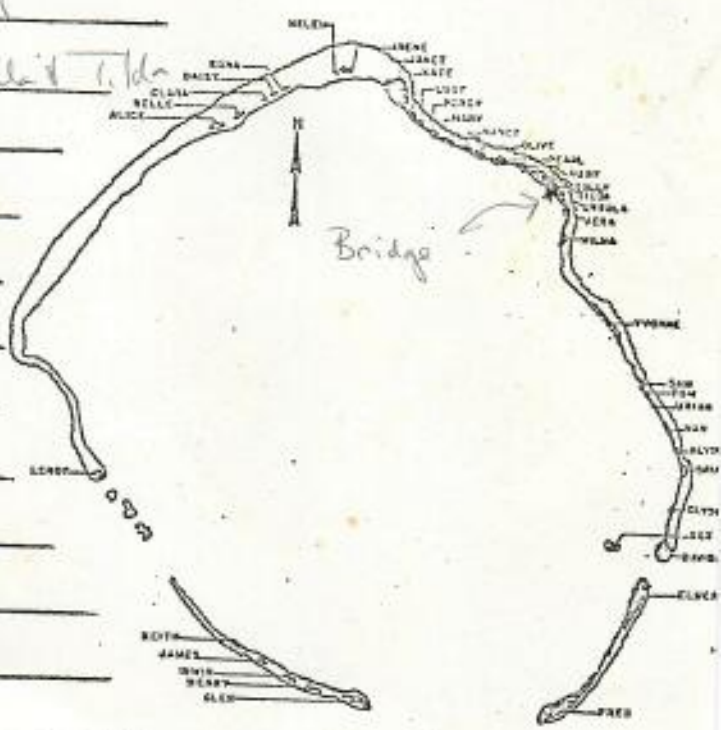
Approximate size (shell length): ~~[illegible]~~ 24"

Distinguishing characteristics: mottled brown markings on back

Observation made: at surface X

beneath surface (depth)

Miscellaneous comments:



67

Kaneohe, 96744
Tel. 247-6631 or
946-1760

tion made by: D. Buddemeier

8/14/76 Time: AM

n (indicate on chart)

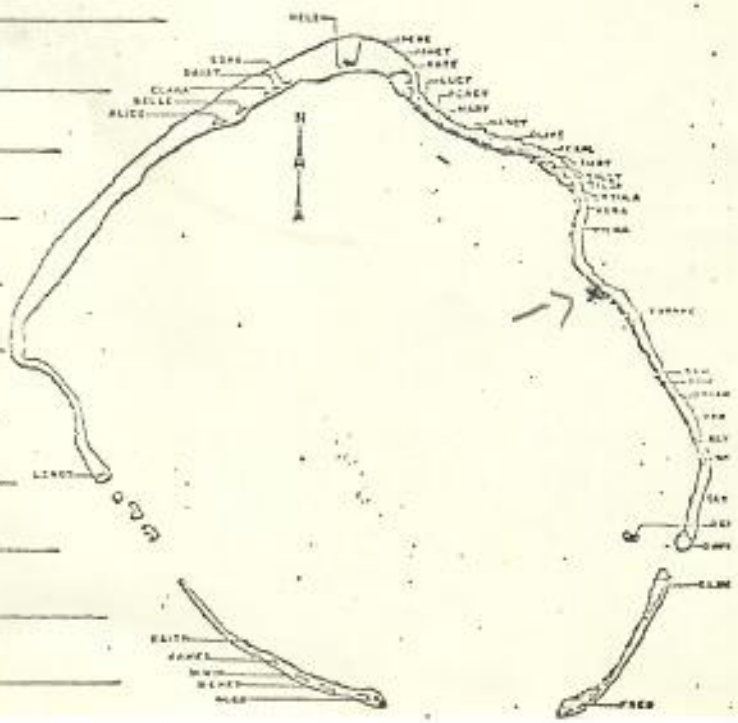
mated size (shell length): 2 ft

uishing characteristics: brown

tion made: at surface X

eneath surface (depth)

aneous comments:



MARINE TURTLE SIGHTING REPORT

68

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: E.S. Reese

Date: Aug. 18, 1976 Time: Approx. 1400 hrs.

Location (indicate on chart) Medren Pinnacle

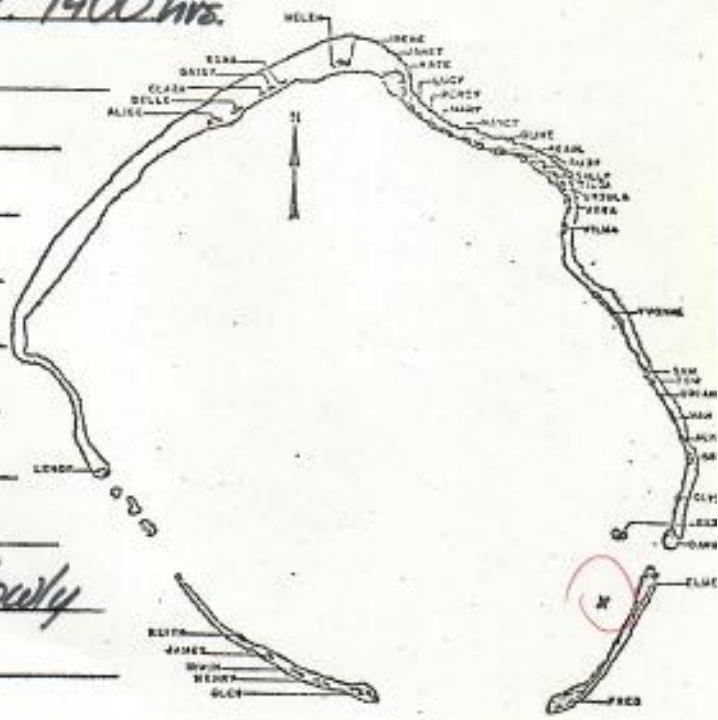
Approximate size (shell length): large, ~ 3 ft.

Distinguishing characteristics: None that I could see - it was too far away.

Observation made: at surface

beneath surface (depth) 20 ft.

Miscellaneous comments: It was swimming slowly in mid-water.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

69

Observation made by: Fred FG PHELPS

Date: 28 AUGUST 76 Time: 1400

Location (indicate on chart) WILMA

Approximate size (shell length): 3-4 ft.

Distinguishing characteristics: 3 turtles all males observed in approx 6 ft water

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments: ONE GREENBACK 36" captured (Male) - saw 3 photos of Freds - looks like sunken in photos?

70

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

tion made by: P. Lamberson

3 Sept. Time: 1430

n (indicate on chart) Small coral patch just off lagoon side reef edge at (Clara) = Kirunu

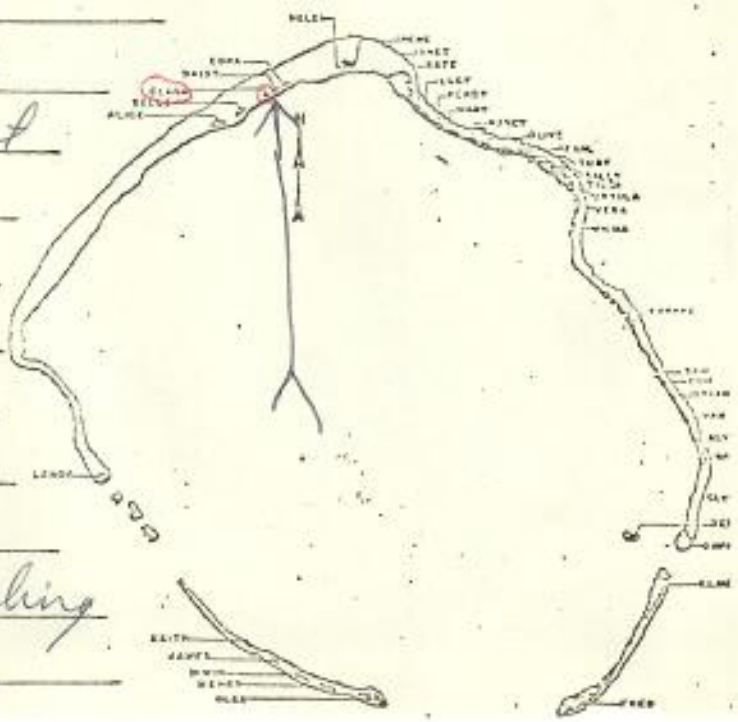
ıte size (shell length): 2'

uishing characteristics: green turtle

tion made: at surface

eneath surface (depth) 15'

neous comments: seen while snorkeling



71

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

tion made by: P. Lamberson

3 Sept Time: 1400

n(indicate on chart) Just off lagoon edge of reef next to (Daisy) Buoy

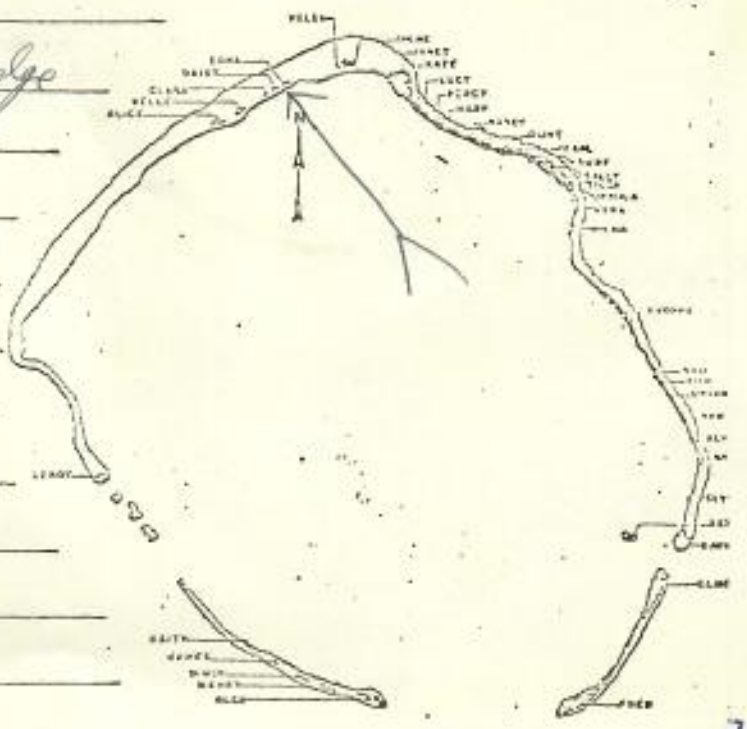
mated size (shell length): ~1½'

guishing characteristics: —

tion made: at surface

eneath surface (depth) 10'

aneous comments: seen while (seeing) towed by boat.



72

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

tion made by: P Lamberson

25 Sept 76 Time: 1430

n(indicate on chart) Ocean side of Kaplan (David)

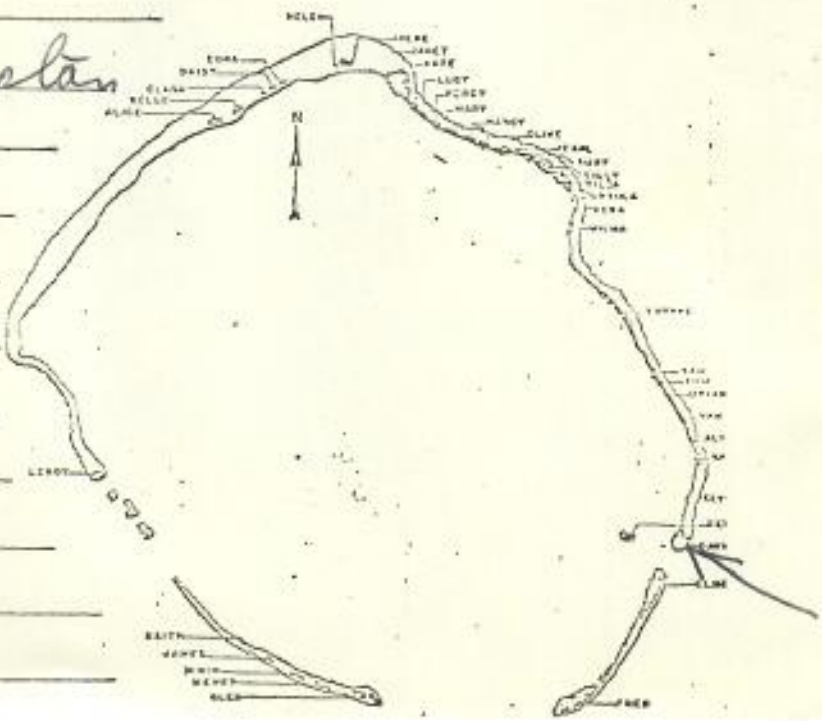
mated size (shell length): ~2'

guishing characteristics:

tion made: at surface

eneath surface (depth) 20'

aneous comments: poorly seen



Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

73

ion made by: P. Lamberson

26 Sept Time: 1600

(indicate on chart) ~~on~~ 500 m East of
Ikuren (Glenn)

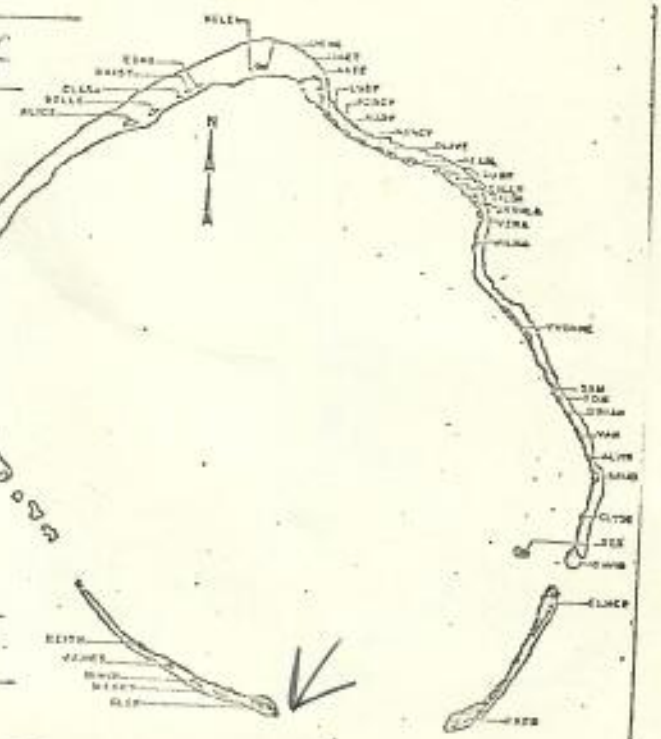
ate size (shell length): ~1½'

ishing characteristics:

ion made: at surface

neath surface (depth) 30'

neous comments: poorly seen



RTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

79

ion made by: A. M. WENNER & C. FUGARO

1 OCT 1976 Time: 0930

(indicate on chart) RIBEWON (JAMES)

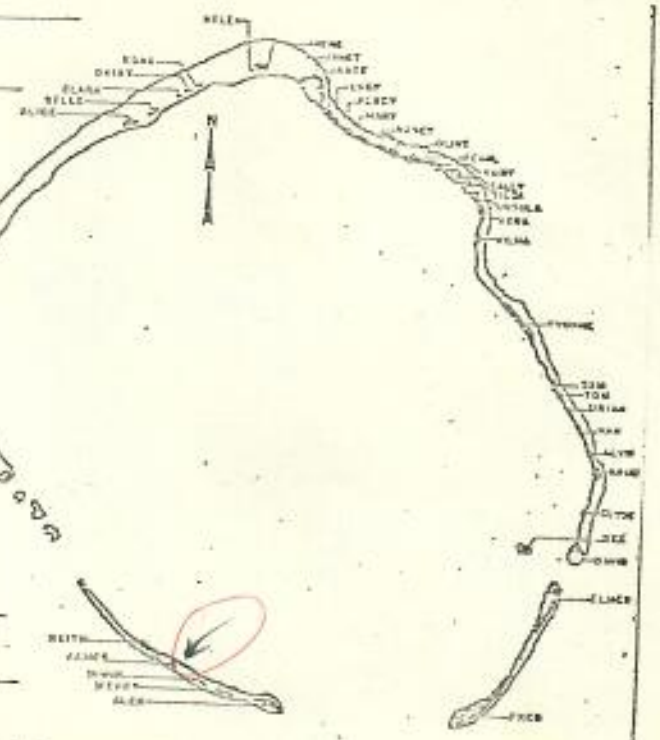
ate size (shell length): 24"

ishing characteristics: GREENISH

ion made: at surface X

neath surface (depth)

eous comments: IN CLOSE TO SAND
BEACH ON LAGOON SIDE



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

75

Observation made by: A. M. WENNER

Date: 3 OCT 1976 Time: 1400

Location (indicate on chart) SEDROL (REX)

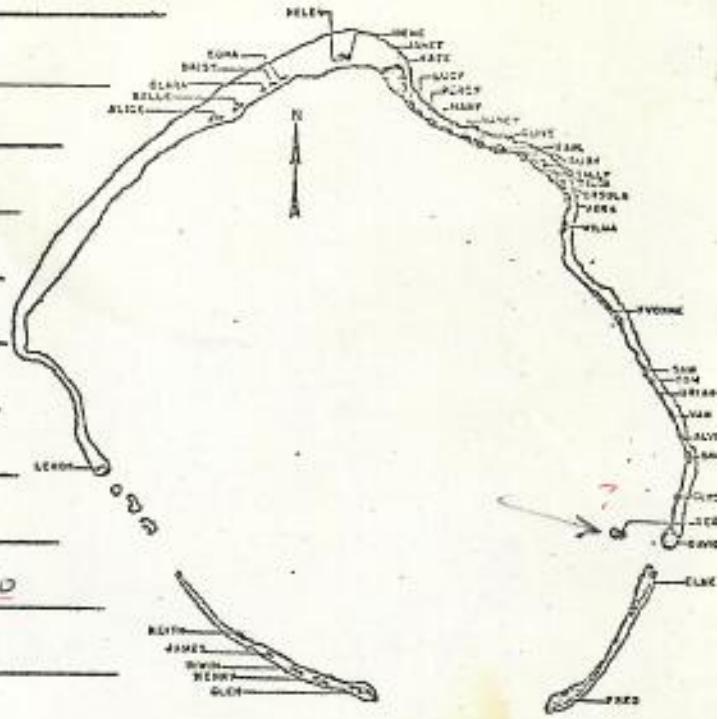
Approximate size (shell length): 16"

Distinguishing characteristics: RICH LIGHT BROWN, POLKA DOT HEAD

Observation made: at surface X

beneath surface (depth)

Miscellaneous comments: IT SWAM CLOSE TO THE SANDY BEACH ?



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

76

Observation made by: Bob MAROUCHOC

Date: 11 OCT 76 Time: 0930

Location (indicate on chart) APPROXIMATELY 500 YDS OFF NORTHERN PART OF RUNIT ISLAND

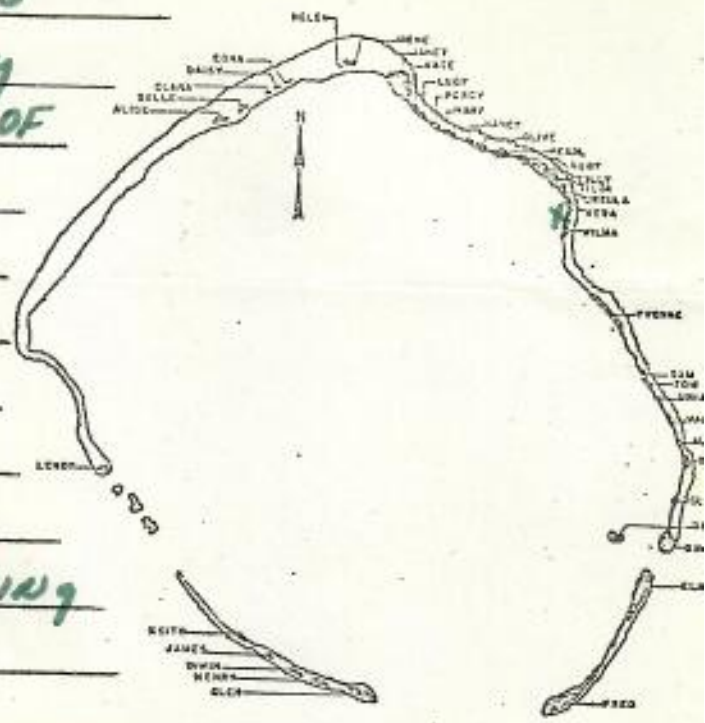
Approximate size (shell length): 30"

Distinguishing characteristics: APPEARED BROWNISH IN COLOR

Observation made: at surface X

beneath surface (depth)

Miscellaneous comments: TURTLE WAS HEADING TOWARD SHORELINE



78

Kaneohe, ...744
Tel. 247-6631 or
946-1760

Observation made by: P. Camberson

Date: 27 Nov 76 Time: 1300

Location (indicate on chart) North Reef Moat,
400 meters N of Bokenwatine (Edna)

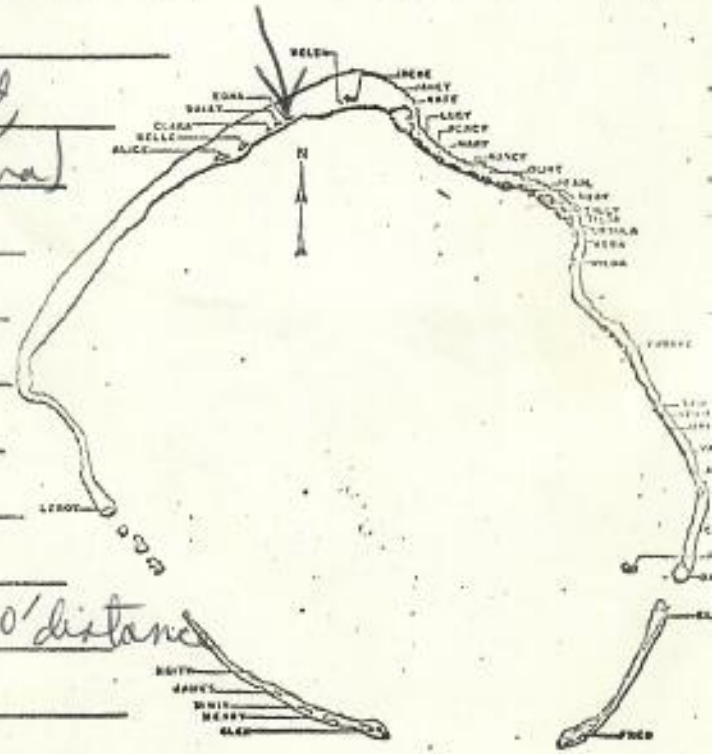
Estimate size (shell length): ~2'

Distinguishing characteristics: —

Observation made: at surface ✓

beneath surface (depth) _____

Miscellaneous comments: swam away @ 40' distance



77

TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

...ion made by: Donna Cooksey

Oct. 18, 1976 Time: 2:00 pm

...(indicate on chart) small pinnacle
about 500 yds from northern
tip of Enewetak (Ired)

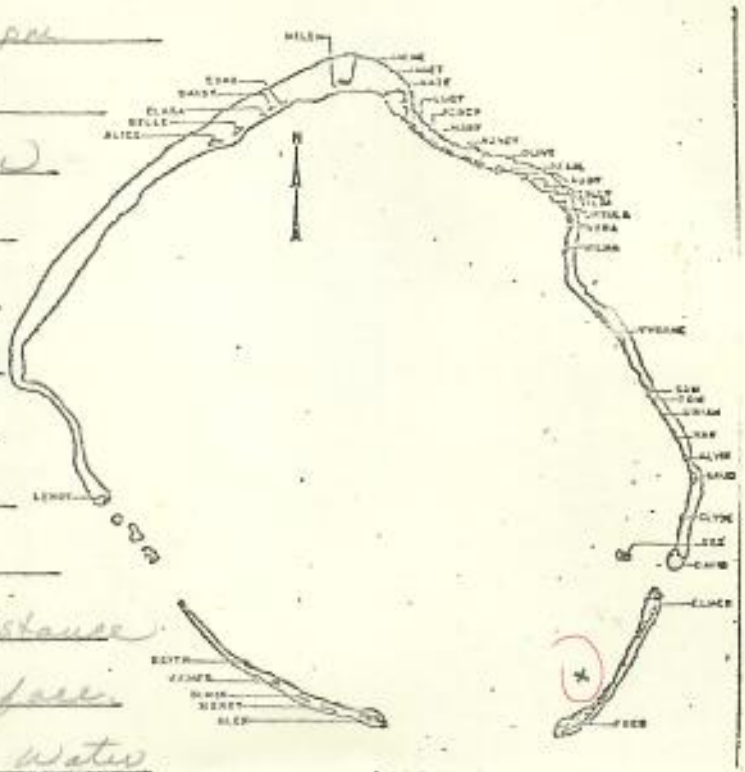
...ate size (shell length): 2 - 2½ ft.

...ishing characteristics: Green ?
(too far away to tell)

...ion made: at surface _____

...neath surface (depth) 20 ft.

...neous comments: noticed turtle at distance
in 20 ft of water heading to surface.
Watched him until he surfaced. Water



RTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

79

on made by: R. M Duerrgaard

3 DECEMBER 1976 Time: 1500 HRS

(indicate on chart) LUCY LAGOON SIDE

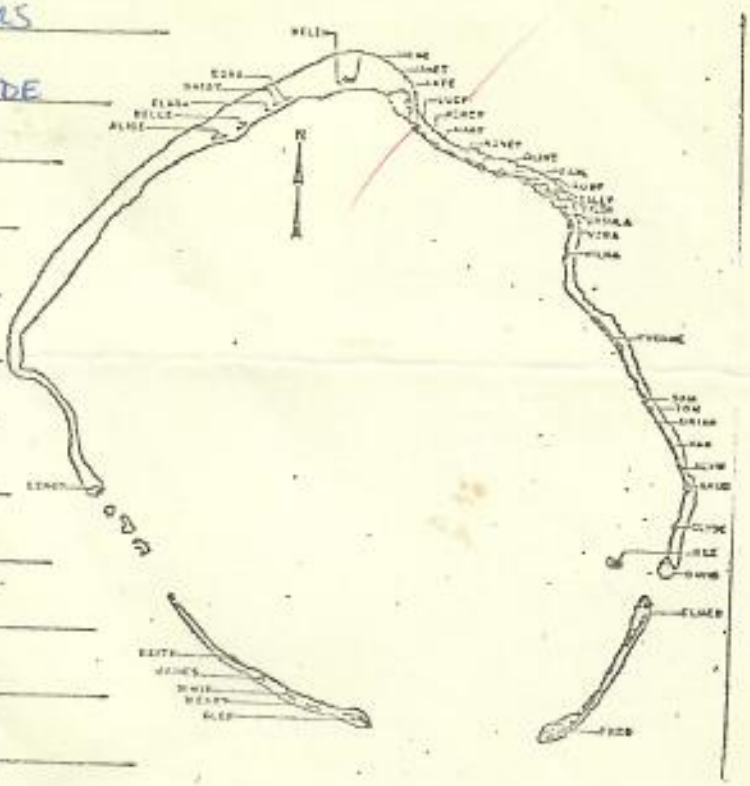
te size (shell length): 30"

ishing characteristics:

ion made: at surface 500 yds of reef

neath surface (depth)

eous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

80

Observation made by: R. B. Carlson

Date: 4 Dec. 76 Time 1030

Location (indicate on chart) Anaraj Lagoon terrace.

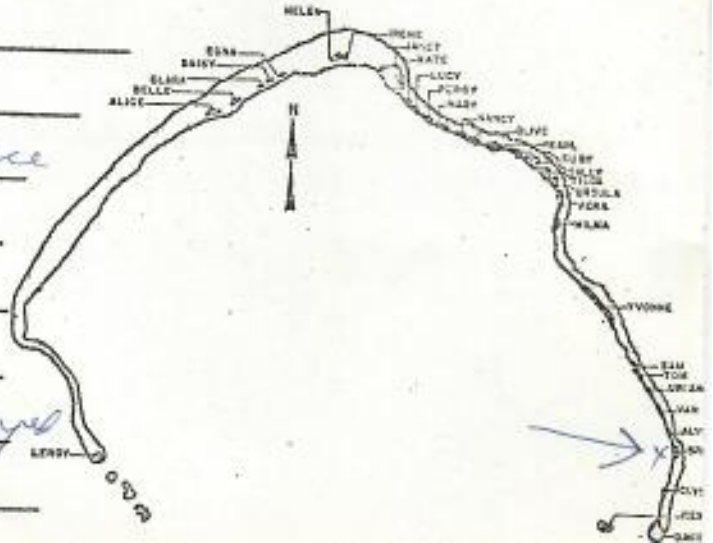
Approximate size (shell length): 3'

Distinguishing characteristics: smooth carapace edge

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments: seen from boat. Stayed & looked ☆ face mask.



URTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

81

ion made by: Puckett, UDT-11

4 DEC 76 Time: 1415

(indicate on chart) off of ISLAND KATE

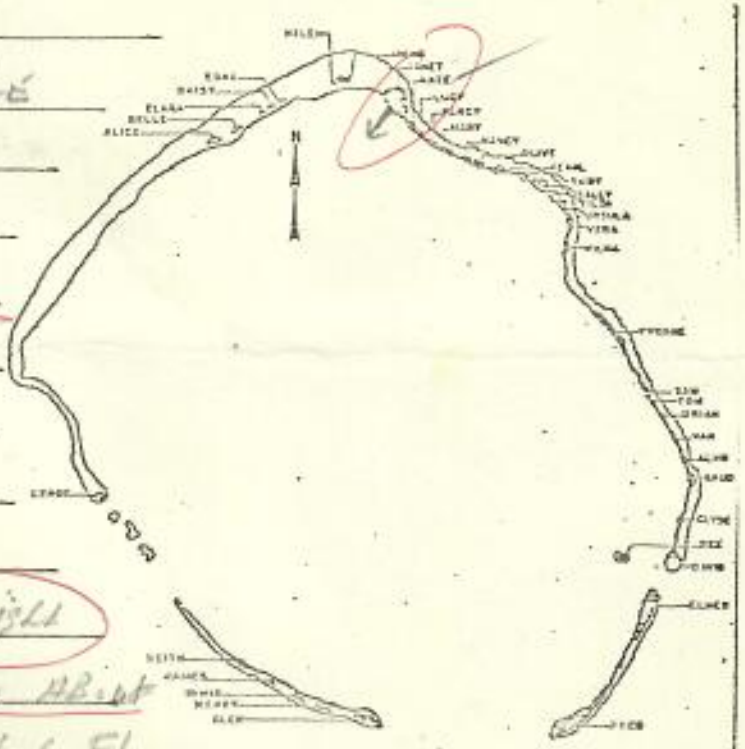
ate size (shell length): FROM 46 3 FT

uishing characteristics:

tion made: at surface

neath surface (depth) SWAM BY

neous comments: THERE WERE 6 OR 8 GILL GREEN TURTLES IN A 25 yard SQUARE ABOUT 250 yd off of KATE IN ABOUT 56 FT Of WATER



URTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

82

ion made by: PJIMENEZ

6 DEC 76 Time: 12:00 NOON

(indicate on chart) ABOUT 100 YDS FROM SHORE

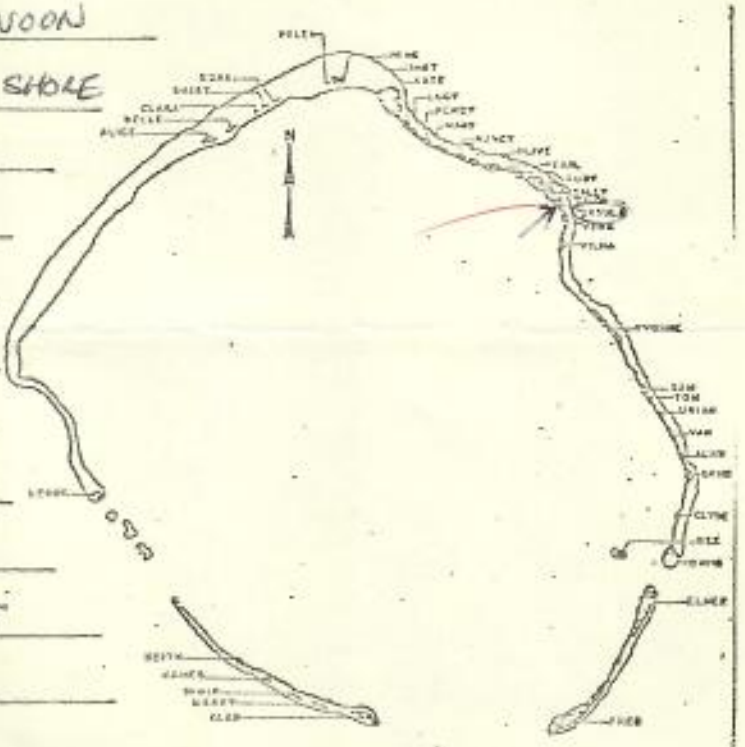
ate size (shell length): 1 FOOT

ishing characteristics: JAGGED EDGE ON SHELL—HAWK LIKE BEAK

tion made: at surface

neath surface (depth) 10 FT

neous comments: TURTLE WAS LOOKING AT CORAL HEAD



TIGER SHARK STOMACH

MARINE TURTLE SIGHTING REPORT

83

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: P.B. Lamberson

Date: 6 Dec Time ~~~

Location (indicate on chart) In tiger shark stomach.
Shark caught at Medrem Pier night of
5-6 Dec.

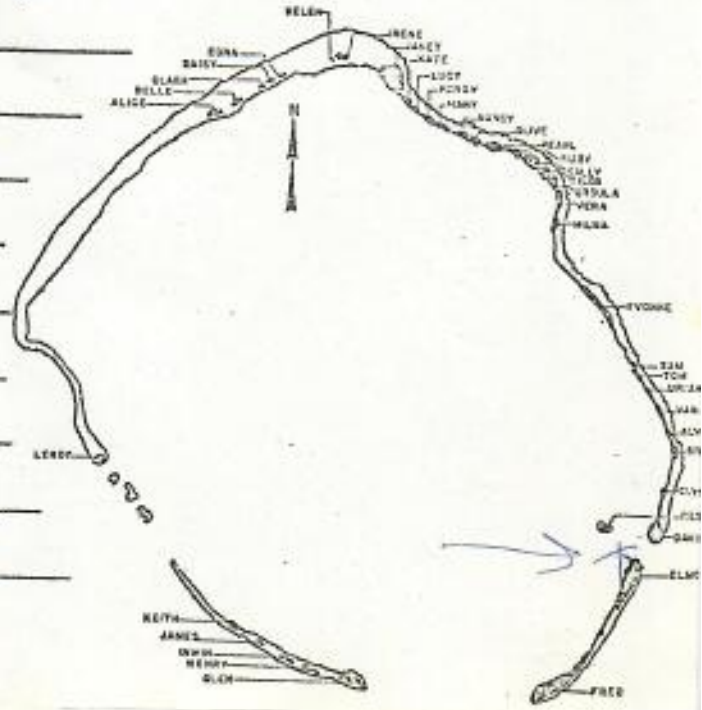
Approximate size (shell length): in pieces

Distinguishing characteristics: Tim Tricas has
skull.

Observation made: at surface

beneath surface (depth)

Miscellaneous comments:



MARINE TURTLE SIGHTING REPORT

84

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: P.B. Lamberson

Date: 10 Dec 76 Time 1200

Location (indicate on chart) N. Moat.

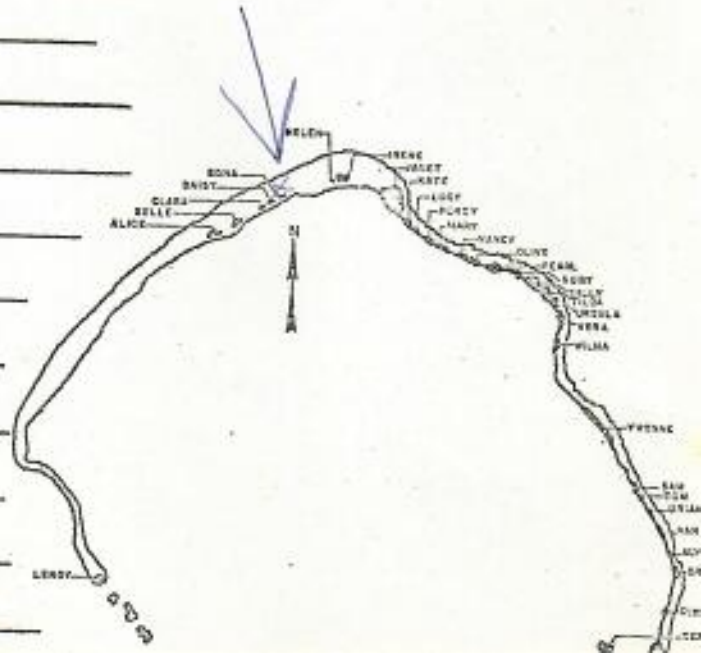
Approximate size (shell length): 1'6"

Distinguishing characteristics: blunt nose

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments: green turtle



URTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

85

ion made by: J. Lamberson

13 December 76 Time: 1430

(indicate on chart)

Marine Pier Pinnacle

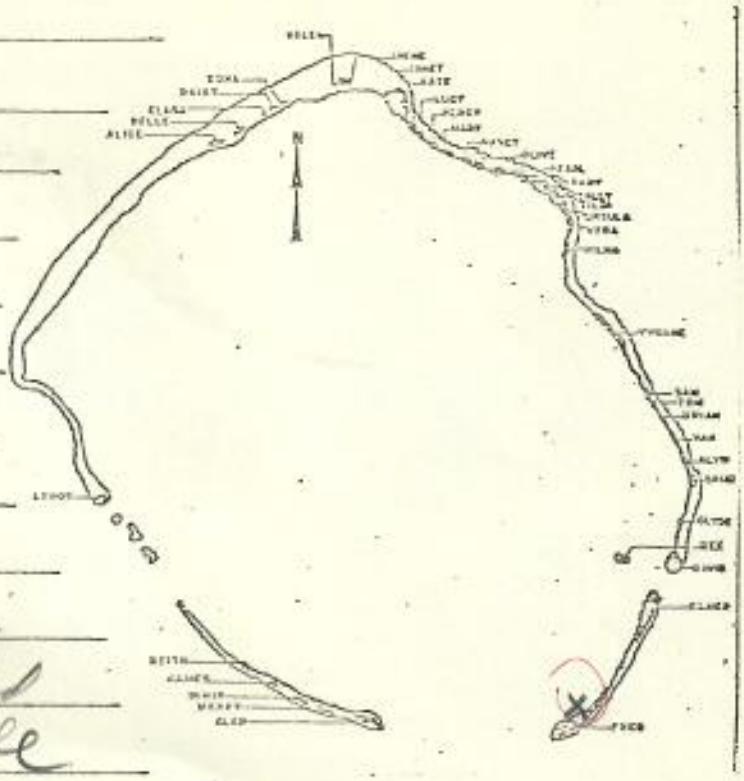
ate size (shell length): ~45 cm

ishing characteristics: green turtle

ion made: at surface

neath surface (depth) 10 m

neous comments: small, swam by slow, close to me - mottled shell



MARINE TURTLE SIGHTING REPORT

BIKINI ATOLL NOTORI

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: P.B. Lamberson

Date: 1/30/77 Time 1100

Location (indicate on chart) Bikini Atoll

Lagoon shore of Airukiraru (Peter) Islet

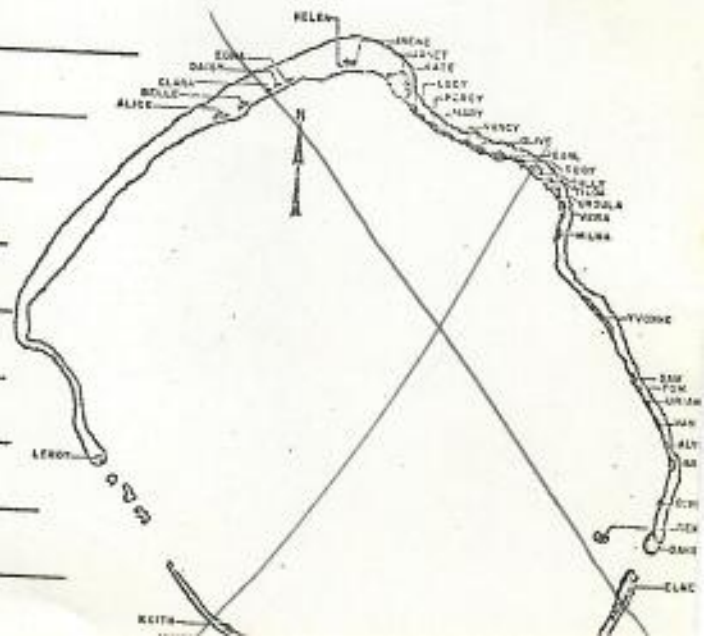
Approximate size (shell length): 2'

Distinguishing characteristics:

Observation made: at surface ✓

beneath surface (depth)

Miscellaneous comments:



URTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

86

ion made by: R. T. Berry

29-iii-77 Time: 14-15

(indicate on chart)

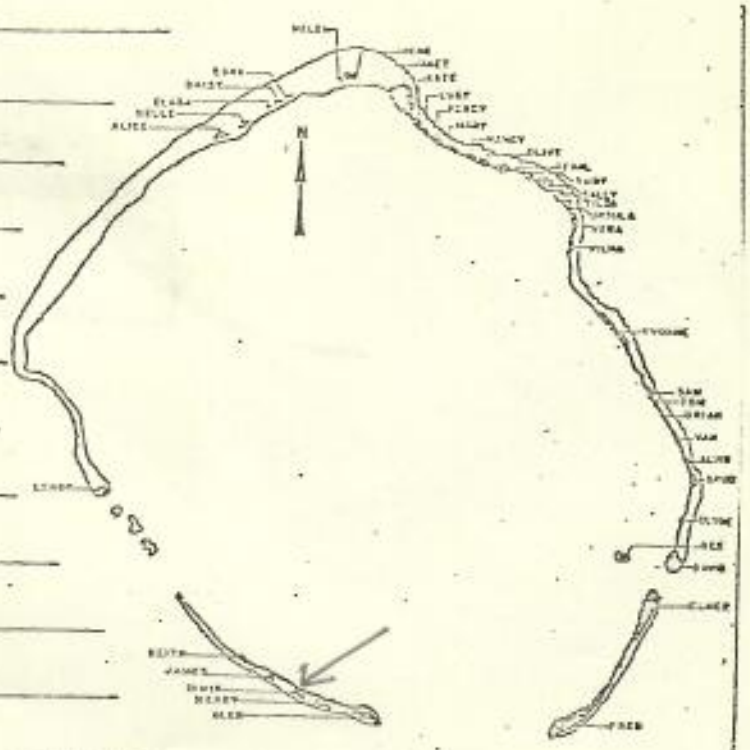
ate size (shell length): 2 feet

uishing characteristics: ?

tion made: at surface

neath surface (depth) 3 feet

neous comments:



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: P. B. Lamberson

Date: 23 Mar 77 Time 1030

Location (indicate on chart) ¼ mi. W. of Aoloa

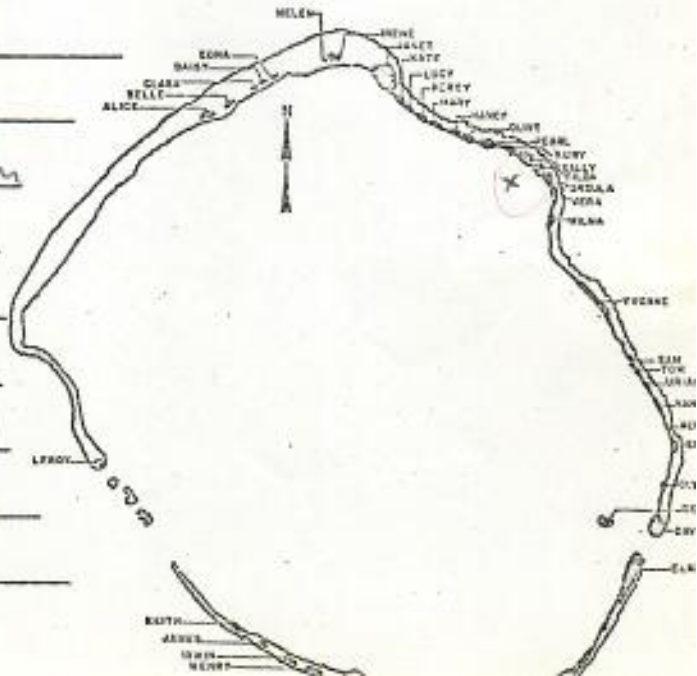
Approximate size (shell length): 3'

Distinguishing characteristics: not clearly seen

Observation made: at surface ~ from boat

beneath surface (depth)

Miscellaneous comments: it dove (dived?)



88

MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: P. B. Lamberson

Date: 23 Mar 77 Time 1100

Location (indicate on chart) ¼ mi sw of Wilma

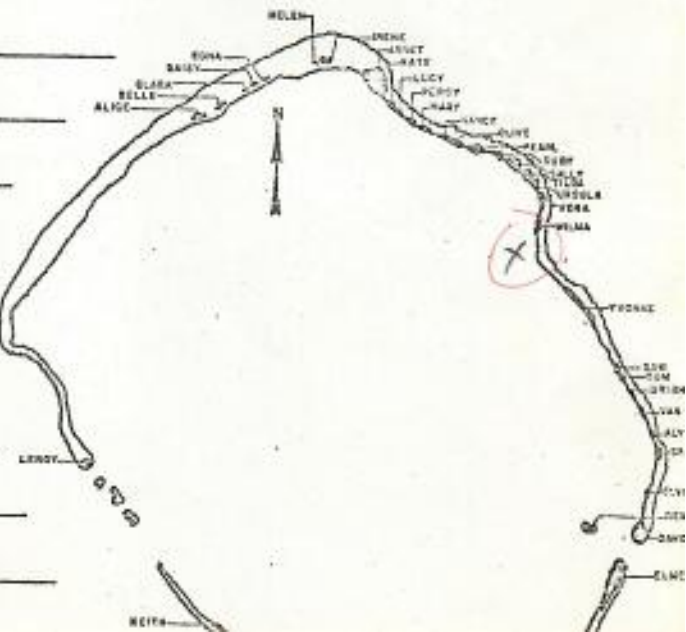
Approximate size (shell length): 2½'

Distinguishing characteristics: not clearly seen

Observation made: at surface ~ from boat.

beneath surface (depth) _____

Miscellaneous comments: _____



URTLE SIGHTING REPORT

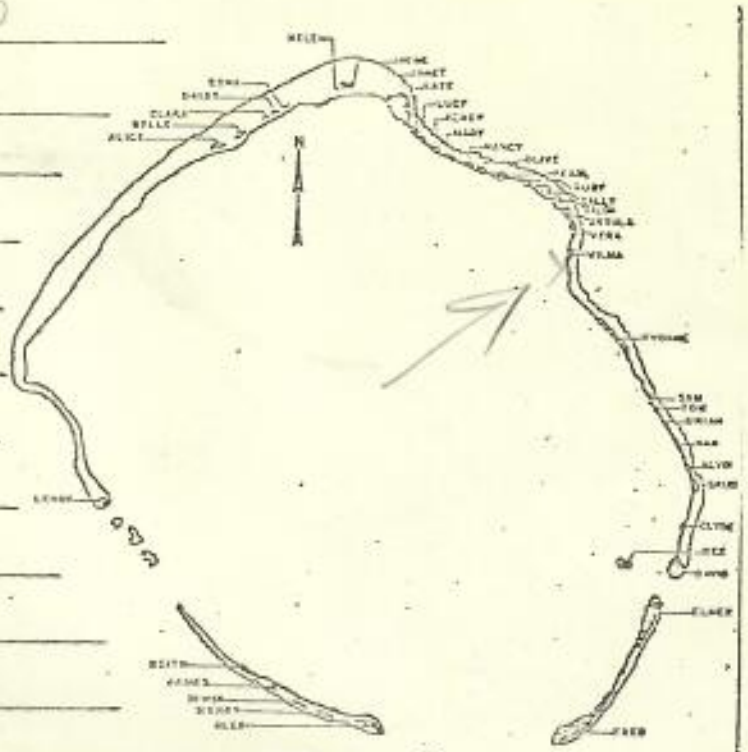
Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

89

ion made by: Stubs BM

18 MAR, 77 Time: 1200

(indicate on chart)



ate size (shell length): 3'

ishing characteristics:

tion made: at surface ✓

eneath surface (depth)

neous comments:

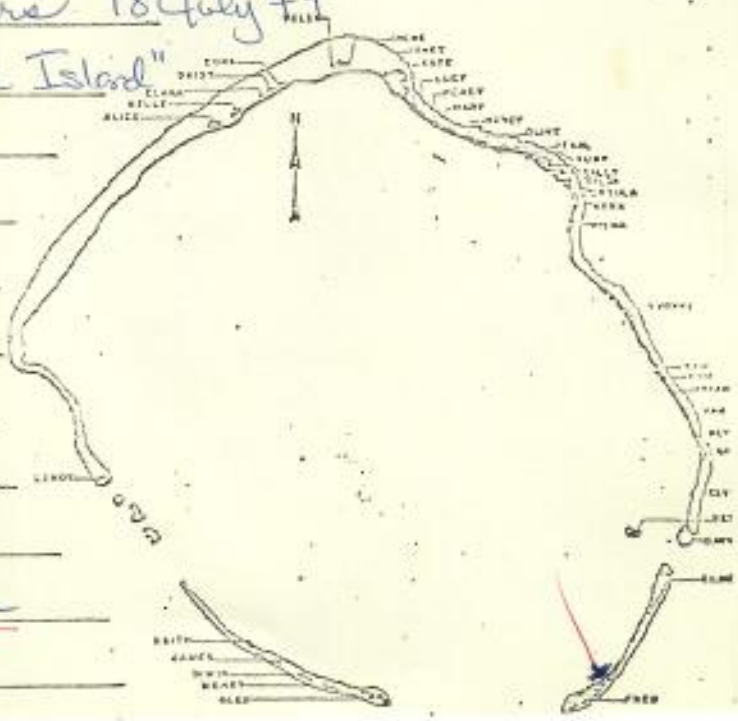
40

Kaneohe, 96744
Tel. 247-6631 or
946-1760

tion made by: Maridee Foster; Paul Allen

Chaag Wa Time: 1400 hrs 18 July 77

(indicate on chart) just off "Sand Island"



ize (shell length): 2', Green

uishing characteristics: back right

"flipper" missing

tion made: at surface snorkeling

eneath surface (depth) turtle 2' under

neous comments: Same turtle seen in

same area ~ 1 yr. ago

91

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

tion made by: Maridell Foster, Paul Allen

lagoon side Kinimi Time: 1200 hrs 21 July 77

n (indicate on chart) Shallow reefs

lagoon side of Kinimi

ize (shell length): 1½' green

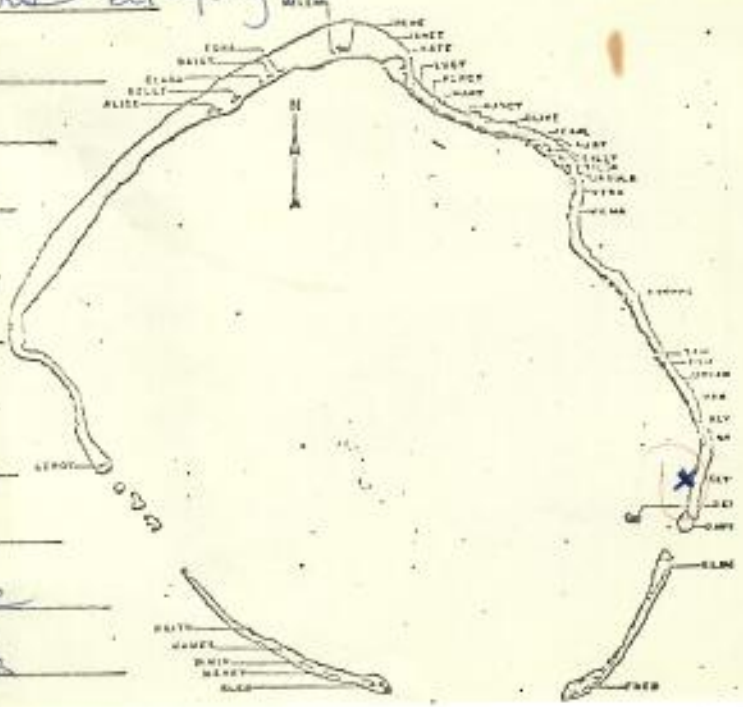
guishing characteristics:

tion made: at surface white sparkling

beneath surface (depth) 8' deep

aneous comments: A green of this size

is often seen at these reefs



92

Kaneohe, [illegible]
Tel. 247-6631 or
946-1760

ervation made by: WM FOULK

e: 29 AUG 77 Time: 7:05 PM

ation (indicate on chart) ON REEF ABOUT HALF WAY BETWEEN

ALICE AND LEROY.

ize (shell length): 25" TO 30"

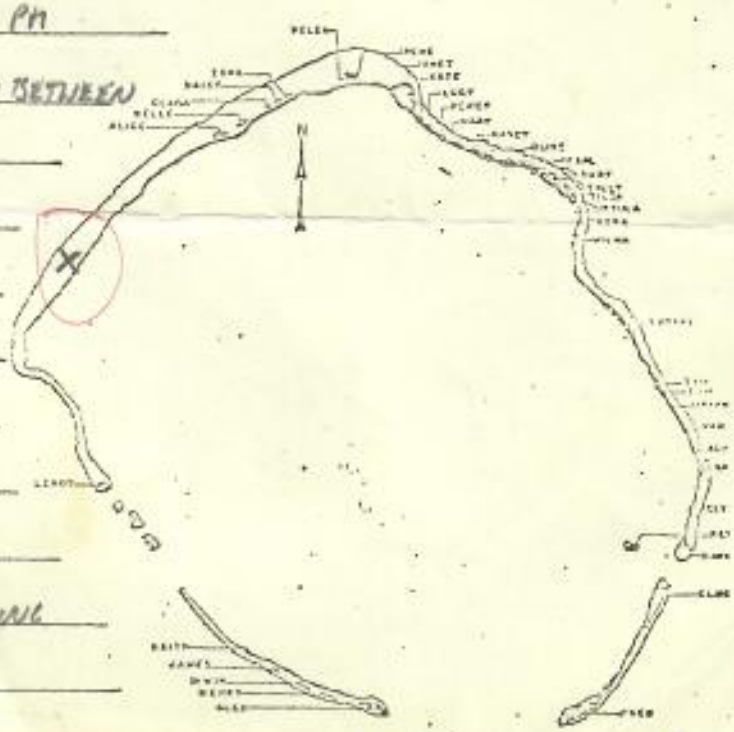
inguishing characteristics:

ervation made: at surface CLOSE TO SURFACE

beneath surface (depth)

cellaneous comments: SPOTTED FROM A HELICOPTER GOING

SOUTH AT ABOUT 200'



93

Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: WM. FOULIS

Date: 29 AUG 77 Time: SEE MAP

Location (indicate on chart) (1) LAGOON SIDE OF BOGAN, (4) ON THE REEF, OCEAN SIDE OF BELLE, (2) LAGOON SIDE OF IRENE, ON REEF (3) OCEAN SIDE OF YVONNE

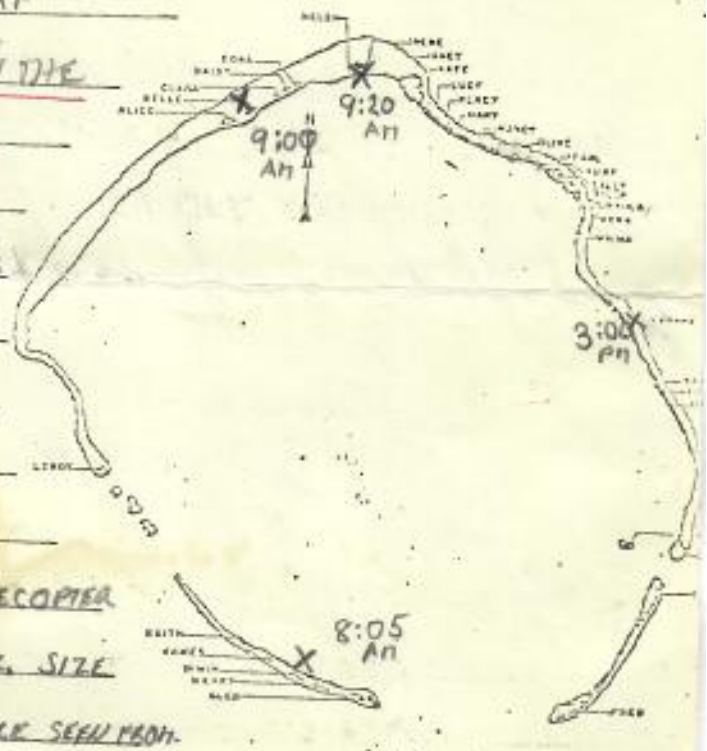
Turtle size (shell length): 18" TO 24" HARD TO TELL FROM THE AIR

Distinguishing characteristics:

Observation made: at surface OR DEEPER, 10' TO 20"

Beneath surface (depth)

Miscellaneous comments: TURTLES WERE SEEN FROM A HELECOPTER FLYING AT ABOUT 100' TO 200'. GOING CLOCK WISE AROUND THE ATOLL. SIZE OF TURTLE AND DEPTH ARE ONLY APPROXIMATE BECAUSE OF DISTANCE SEEN FROM.



94

URTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

ion made by: RALPH NELSON

NOV 7, 1977 Time: 7:15 PM

(indicate on chart)

CORAL HEAD E OF SAND ISLAND

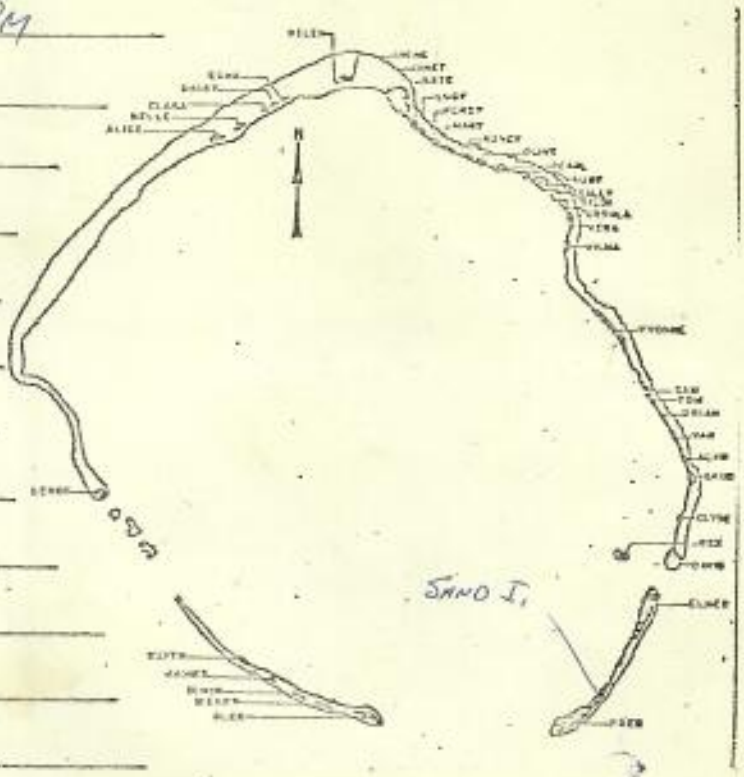
ate size (shell length): 80 cm

ishing characteristics: HAWKSBILL

ion made: at surface

neath surface (depth) 15'

neous comments:



URTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

95

ion made by: CHARLES E. DAY JR

1977 Time: ~1000

(indicate on chart) Lagoon side of North Reef - seen from helicopter so details not obtained

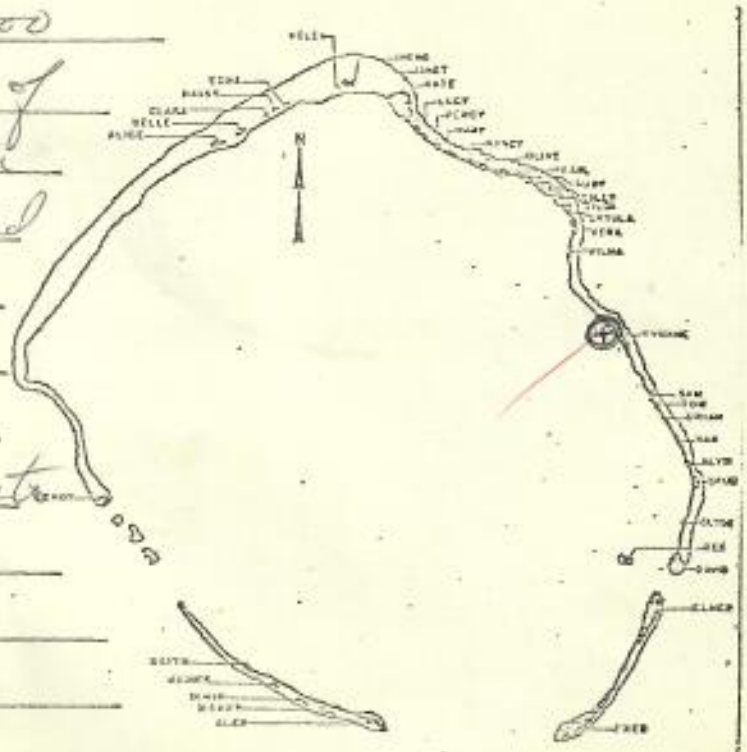
ate size (shell length):

ishing characteristics:

ion made: at surface yes, & turtle dove to

neath surface (depth) ~ 2 metres

neous comments:



I saw it two days in a row in the same area, the 2nd time it was lying in the sand & swam away when I came over.

96

Kaneohe, 96744
Tel. 247-6631 or
946-1760

tion made by: Lisa Boucher

1977? Time: ~ 12:00 noon

n (indicate on chart) Lagoonside of Jinimi (Clyde) island

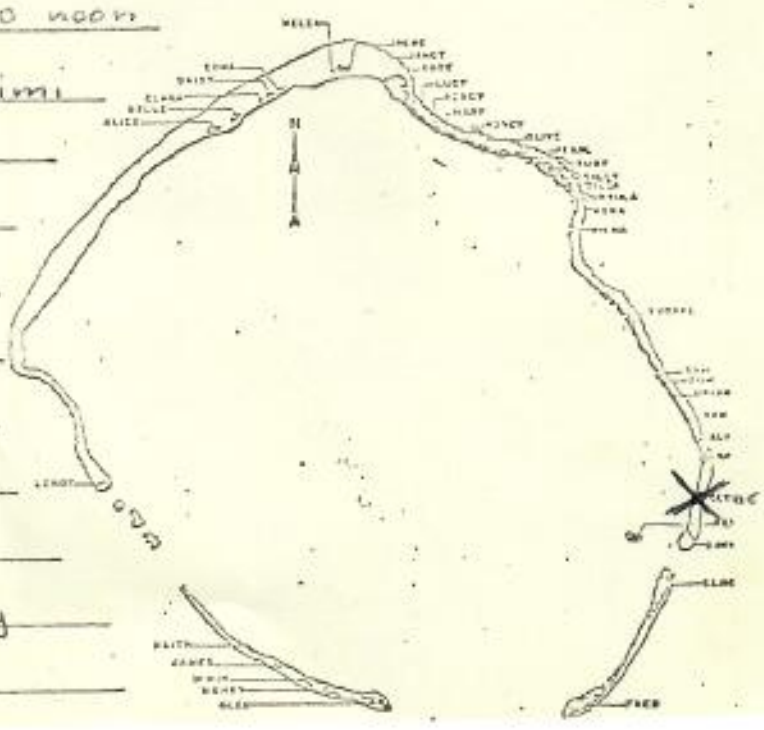
tle size (shell length): ~2 1/2 ft.

uishing characteristics: none observed; was Chelonia mydas.

tion made: at surface

eneath surface (depth) ~ 4 ft.

aneous comments: It was swimming very rapidly, straight for lagoon



97

Kaneohe, 96744
Tel. 247-6631 or
946-1760

tion made by: Wilma

1977 Time: 1145

n (indicate on chart) [illegible]

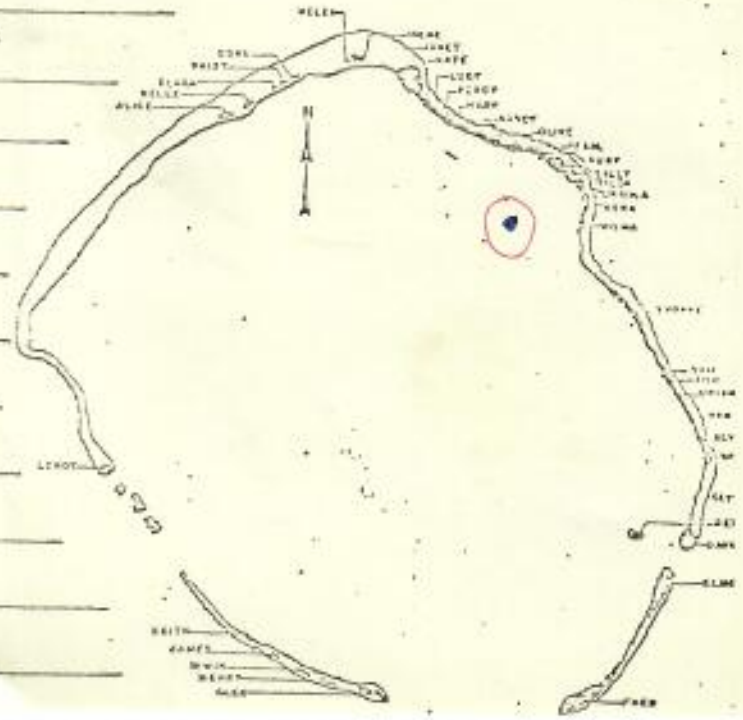
size (shell length): 24" 28"

uishing characteristics: Hawksbill

ion made: at surface ✓

neath surface (depth)

neous comments:



RTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

98

ion made by: Susan Petty

March 24 78 Time: 12:30

(indicate on chart) Enjebi, quarry ocean side

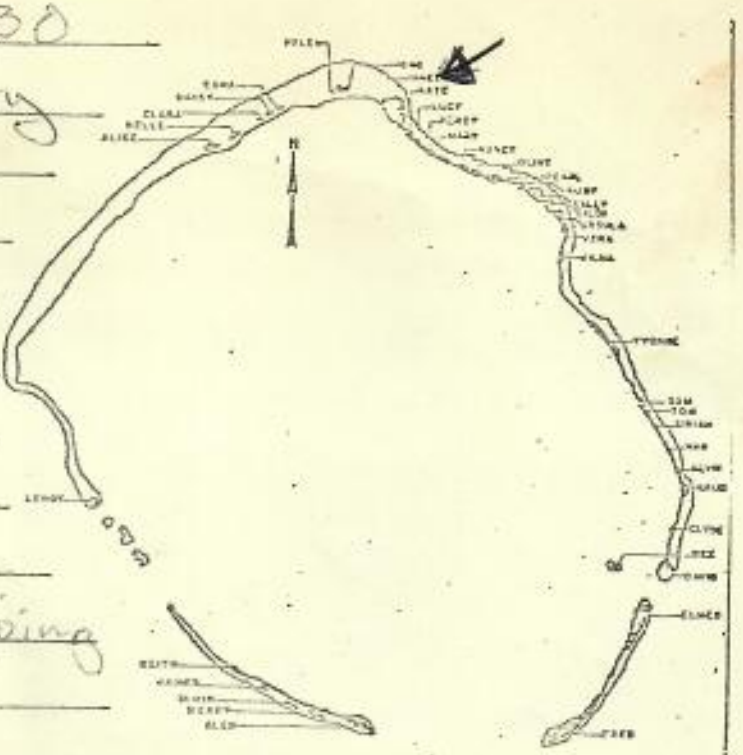
ate size (shell length): ~2 ft

ishing characteristics: Hawksbill, otherwise unmarked

ion made: at surface

neath surface (depth) 4 ft.

neous comments: Turtle was sleeping under a ledge.



MARINE TURTLE SIGHTING REPORT

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

99

Observation made by: Robert Bastian

Date: 15 Apr 78 Time 1725

Location (indicate on chart) between Parrit & Wilma on lagoon side in water less than 10' deep

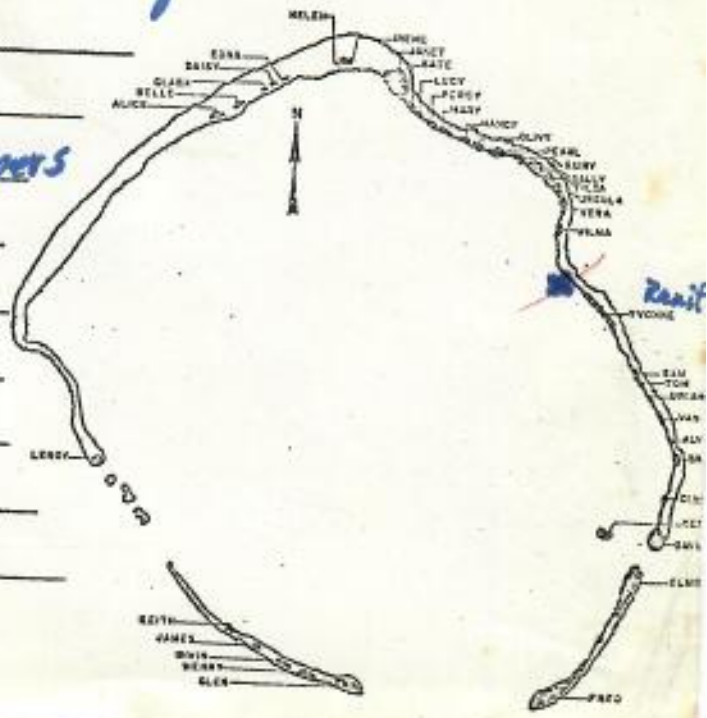
Approximate size (shell length): about 30"

Distinguishing characteristics: sharp bill & flippers characteristic of Hawks bill

Observation made: at surface X

beneath surface (depth)

Miscellaneous comments:



100

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by Gary Long **Date** 5-29-78 **Time** 1120 Am

Address & Tel. No. (optional) MPML Mgr.

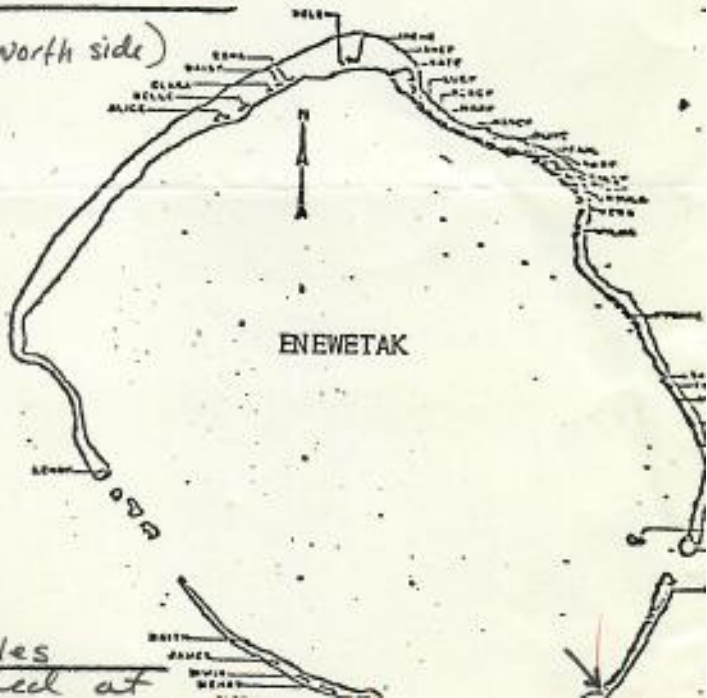
Location (indicate on chart) OFF SAND Isle (North side)

Observation made from: ___ shore; ___ boat; or while ✓ skin ___ SCUBA diving.

Estimated size (shell length 2½ Ft

Turtle seen on: ___ surface; or at depth of approx. 10 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.):



Other comments: SWAM to with in 3 ft of Divers (2) then swum circles around both. NEVER became Alarmed at

101

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by L. Boucher & E. Reese Date 6/6 78 Time 4:30 p.m.

Address & Tel. No. (optional) H.I.M.B.

Location (indicate on chart)

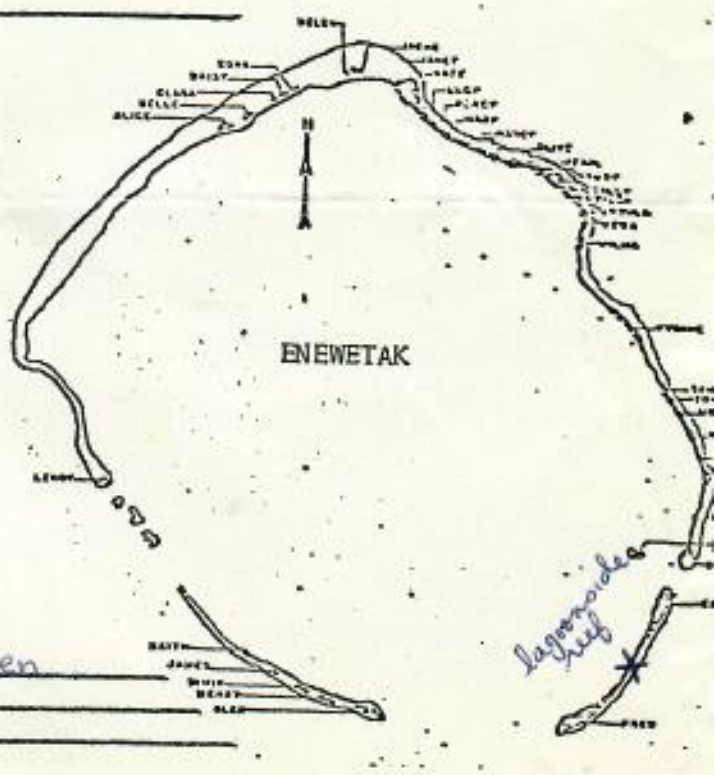
Observation made from: ___ shore; ___ boat; or while X skin ___ SCUBA diving.

Estimated size (shell length 2 ft. ?

Turtle seen on: ___ surface; or at depth of approx. 15 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): none

Other comments: Appeared to be searching for food on shallow lagoonside reef. Fled when it saw us



102

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by MICHAEL V. deGRUY Date July 10, 78 Time 11:00A

Address & Tel. No. (optional) MPML

Location (indicate on chart)

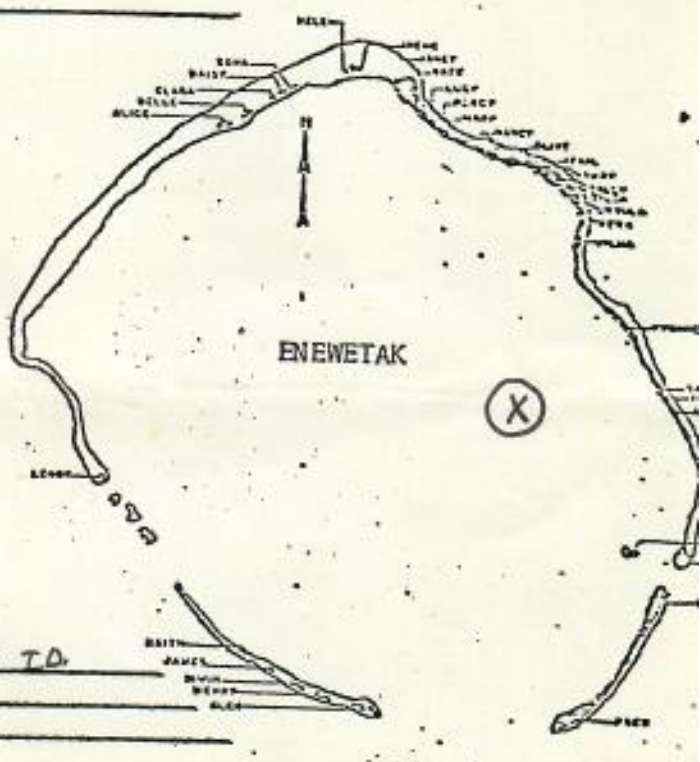
Observation made from: ___ shore; X boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 2½-3'

Turtle seen on: X surface; or at depth of approx. ___ ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): HAWKSBILL

Other comments: Spooked only after circling several times in the boat. Able to make positive I.D.



103

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by Larry Katz Date 7/13/78 Time 1400

Address & Tel. No. (optional) _____

Location (indicate on chart) X

Observation made from: ___ shore; V boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 3ft 94ft

Turtle seen on: ___ surface; or at depth of approx. 3 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Looks like Chelonia mydas

Other comments: There were 2 turtles

104

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by MICHAEL V. deGRUY Date July 14, '78 Time 11:30AM

Address & Tel. No. (optional) MPML Enewetak

Location (indicate on chart) _____

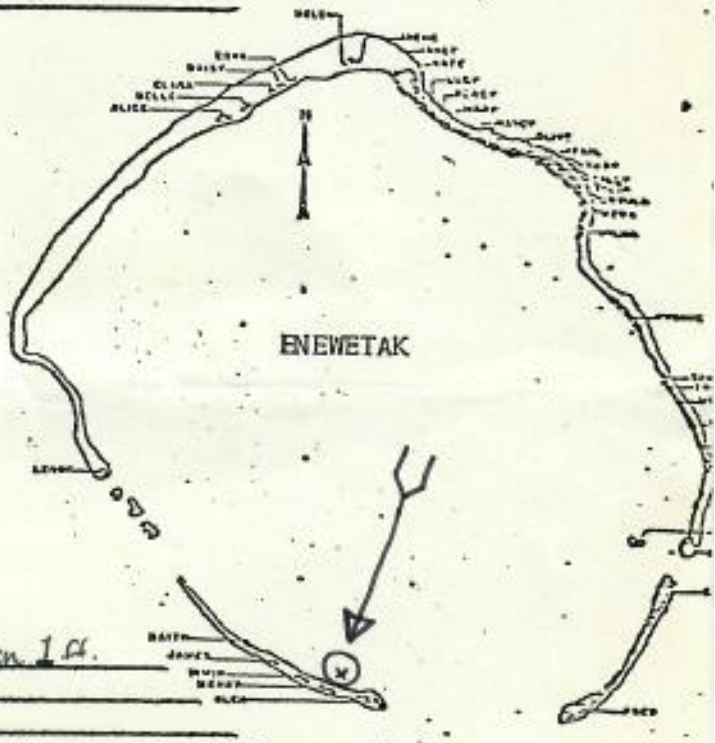
Observation made from: ___ shore; X boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 1½ ft.

Turtle seen on: X surface; or at depth of approx. ___ ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Green sea turtle. This particular one has a VERY light back, almost white.

Other comments: Has been sighted here nearly all week. Territoriality?? Also one reported here less than 1 ft. long on July 12. Water depth is <1'-2' (depending on tide).



105

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by AIC RIBBLINGER DAVID P Date 15Sep78 Time 1430

Address & Tel. No. (optional) RAD LAB

Location (indicate on chart) Between Pearl & Olive

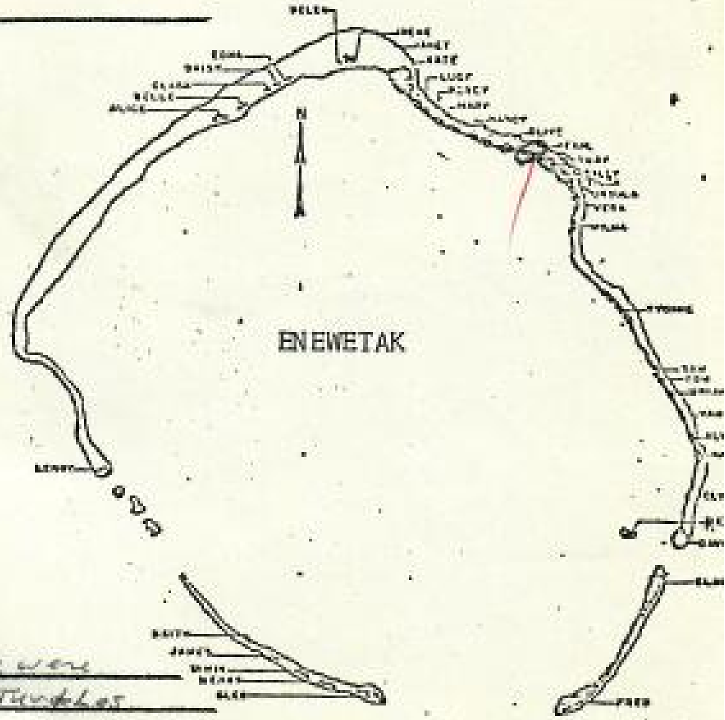
Observation made from: ✓ shore; ___ boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 2 to 3 ft

Turtle seen on: ___ surface; or at depth of approx. 4 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): DARK Shell short tail

Other comments: Seen Mostly under water but it poked its head up out of the Water. We were Appro. 25 to 35 ft Away. There were two Turtles



106

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by JOHN A. BOWLES Date 9SEP78 Time 0915

Address & Tel. No. (optional) ___

Location (indicate on chart) ___

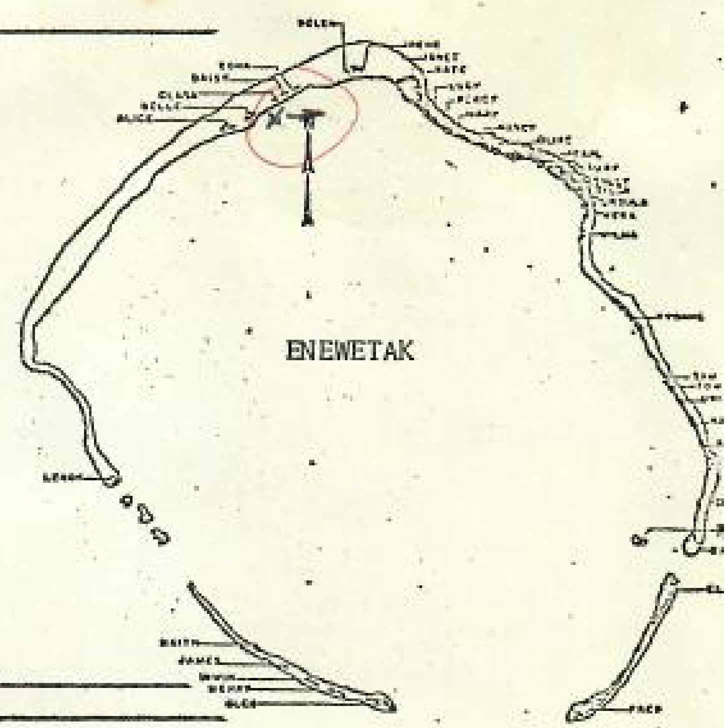
Observation made from: ___ shore; ✓ boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 2½ ft.

Turtle seen on: ___ surface; or at depth of approx. 3-4 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): GREEN Turtle?

Other comments: ___



107

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by Dr. Peter Abrams Date July 15 78 Time 11 AM

Address & Tel. No. (optional) Univ. Sydney / Zoology Dept Sydney Aust.

Location (indicate on chart) Glenn Is.

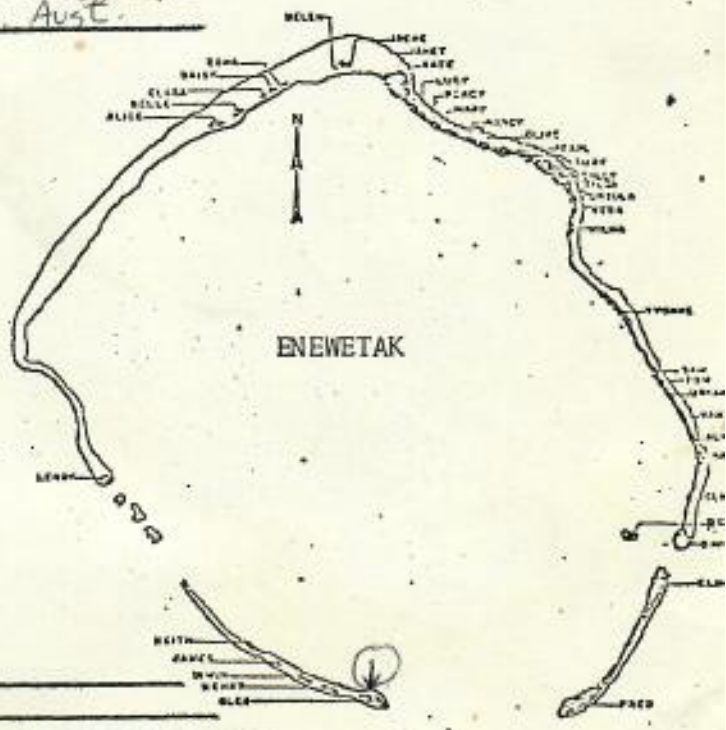
Observation made from: ___ shore; ___ boat; or while ✓ skin ___ SCUBA diving.

Estimated size (shell length 3 ft.

Turtle seen on: ___ surface; or at depth of approx. 5 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): green turtle

Other comments:



108

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by POLACHECK THOMAS Date 8/1/78 Time 10:30 AM

Address & Tel. No. (optional)

Location (indicate on chart)

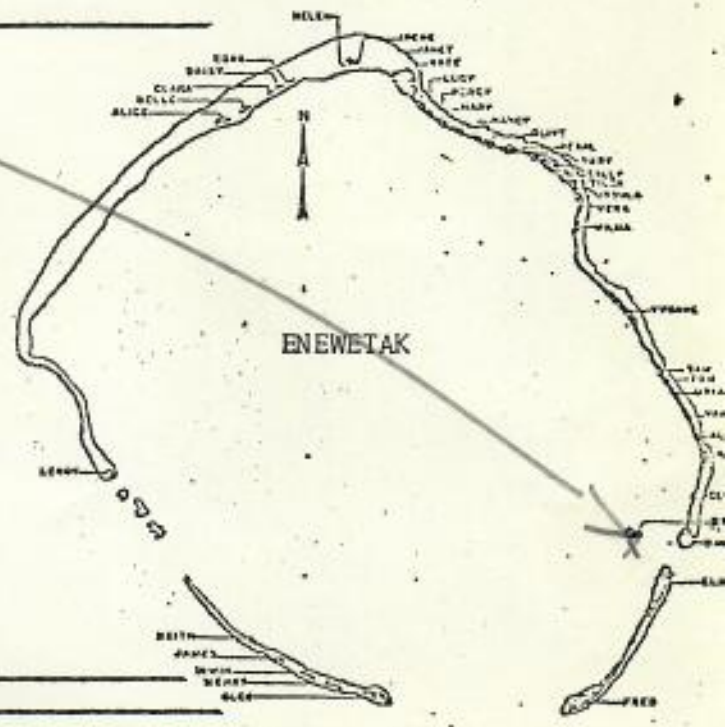
Observation made from: ___ shore; ___ boat; or while ___ skin X SCUBA diving.

Estimated size (shell length 2'

Turtle seen on: ___ surface; or at depth of approx. 10' ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): HAWK OR GREEN

Other comments:



109

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by Lee Hayden CLARK Date 9 Sept 78 Time 17:30 hrs.

Address & Tel. No. (optional) _____

Location (indicate on chart) Right off Lojwa

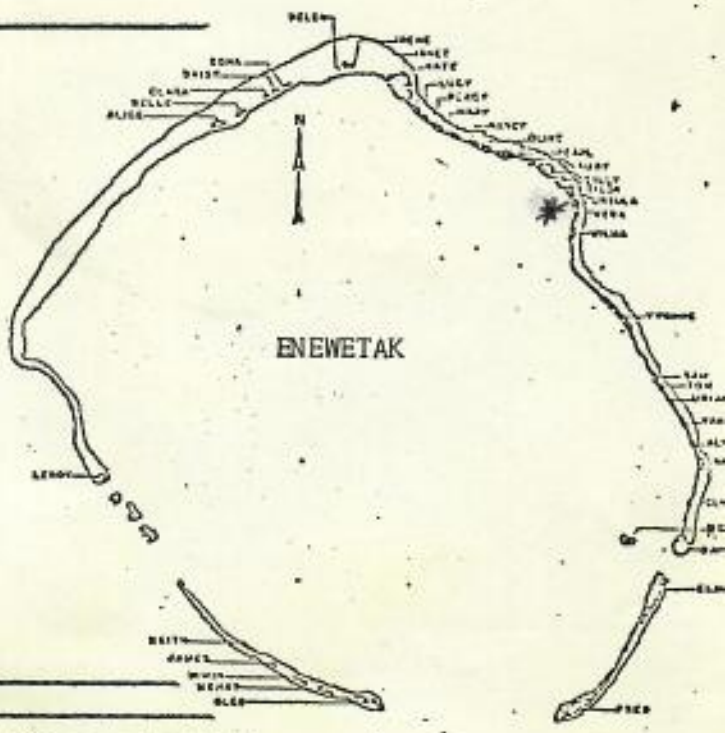
Observation made from: ✓ shore; ___ boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 7 to 10 inches

Turtle seen on: ___ surface; or at depth of approx. 10 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Brown shell by themself 4 baby Greenturtles

Other comments: _____



110

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by DAVE Roach Date 15 SEP 78 Time 1700

Address & Tel. No. (optional) FRST ILOSWA

Location (indicate on chart) Lagoon SIDE ENEWETOK

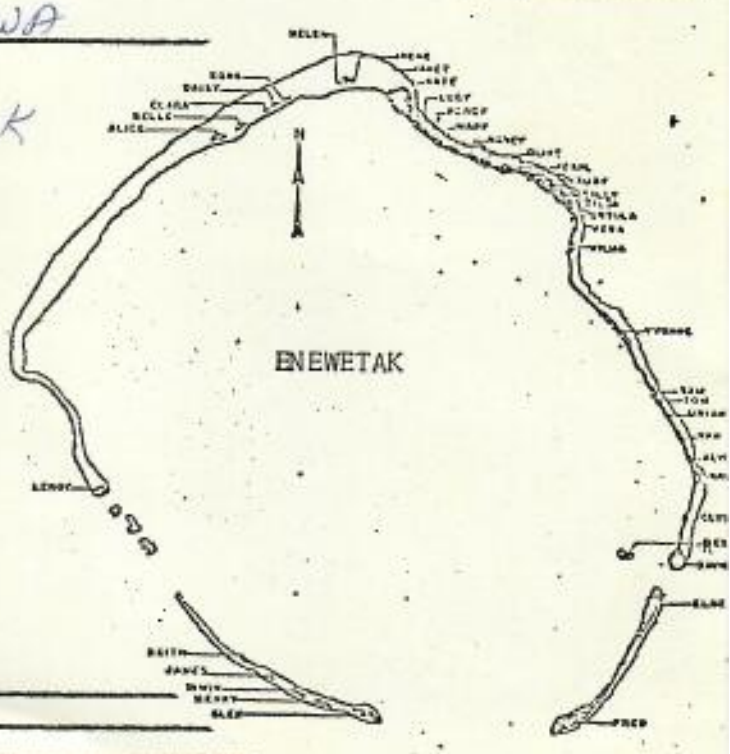
Observation made from: X shore; ___ boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 10-12"

Turtle seen on: ___ surface; or at depth of approx. 1½ ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): GREEN TURTLE

Other comments: _____



111

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by Al Giddings Date Oct-7 78 Time 2:00

Address & Tel. No. (optional) 45-957-1144

Location (indicate on chart)

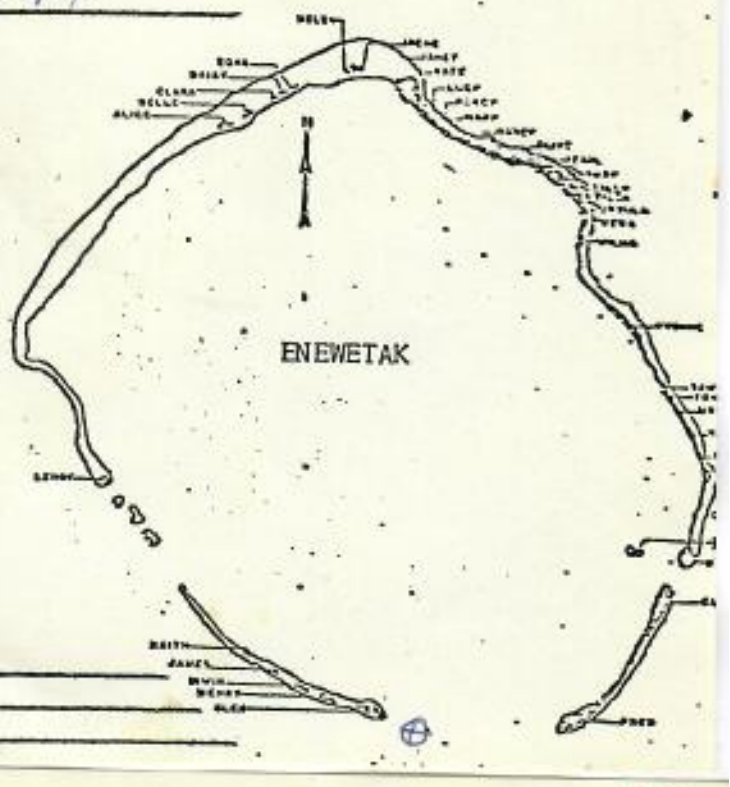
Observation made from: ___ shore; ___ boat; or while ___ skin ✓ SCUBA diving.

Estimated size (shell length 30"

Turtle seen on: ___ surface; or at depth of approx. 20 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): 4 AWRS

Other comments: 60' Bottom



112

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by James N. McKibben Date 10-25-78 Time 1215 hrs.

Address & Tel. No. (optional) Dept. of Biology, CSULB Long Beach, Calif. 90840 (213) 498-4918

Location (indicate on chart) Outer reef of Glen

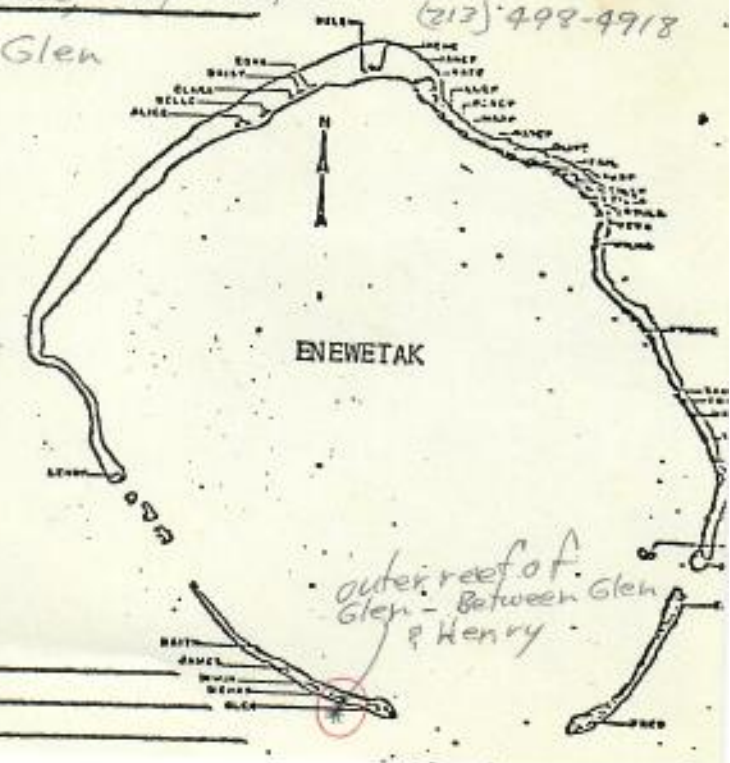
Observation made from: ___ shore; ___ boat; or while ✓ skin ___ SCUBA diving.

Estimated size (shell length 20 in.

Turtle seen on: ___ surface; or at depth of approx. 30 ft. Resting on bottom at 50 ft. Departed when approached.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Green Sea Turtle (Chelonia mydas) no tags, scars or injuries visible

Other comments:



113

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by James N. McKibben Date 10-30-78 Time 1430 hrs

Address & Tel. No. (optional) Dept. of Biology CSULB, Long Beach, Calif. 90840 (213) 498-9918

Location (indicate on chart) Outer reef of James

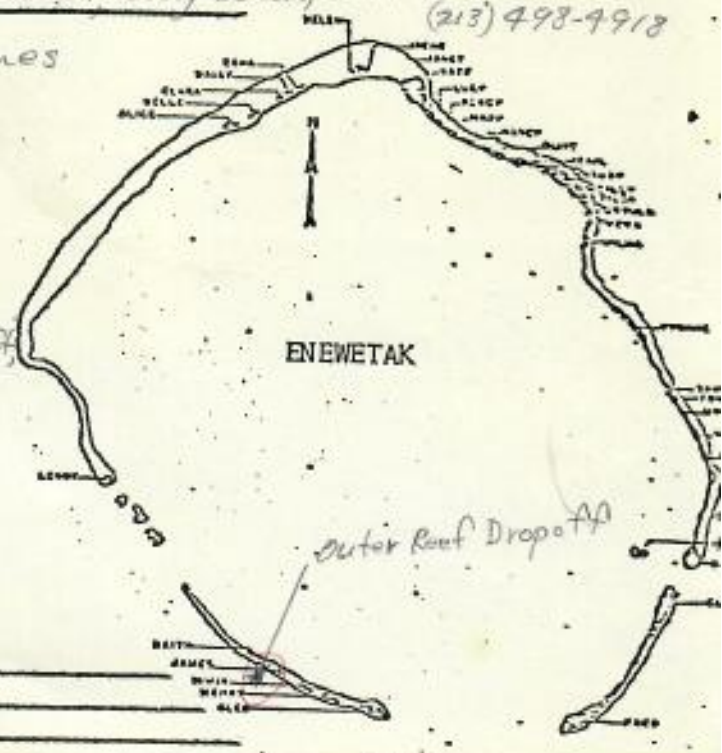
Observation made from: ___ shore; ___ boat; or while ✓ skin ___ SCUBA diving.

Estimated size (shell length 24in.

Turtle seen on: ___ surface; or at depth of approx. 15 ft. Rose from the reef at 60ft to 15ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Hawksbill, no visible tags, scars or injuries

Other comments:



115

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by R.E. ARGANBRIGHT Date #1 23 NOV-78 1100 #2 24 NOV-78 Time 1730

Address & Tel. No. (optional) NAVY ELEMENT

Location (indicate on chart)

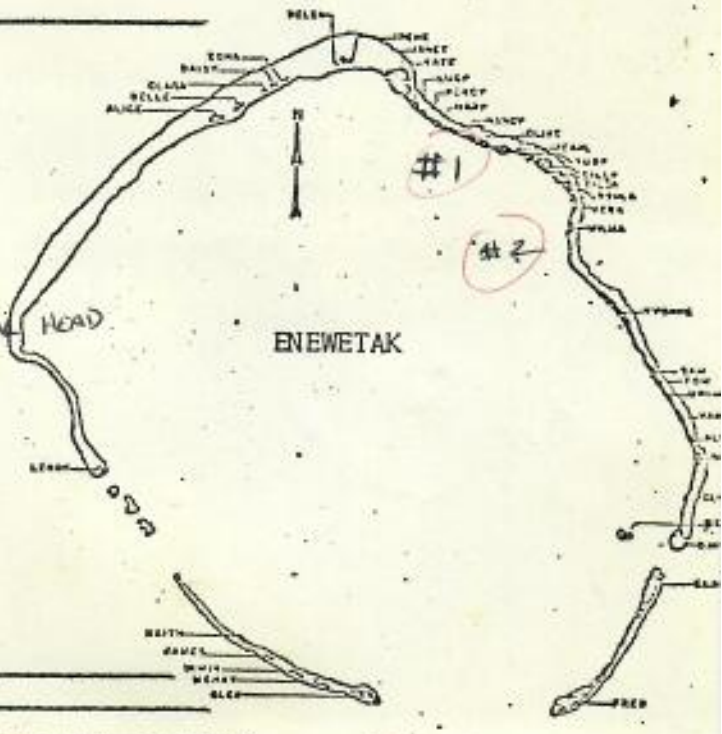
Observation made from: ✓ shore; ___ boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length #1 30" #2 35"

Turtle seen on: ___ surface; or at depth of approx. ___ ft. #1 ABOUT 20' UNDER CORAL HEAD #2 15' SANDY BOTTOM

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): 1st SPECIMEN WAS SLEEPING UNDER CORAL HEAD

Other comments: #2 SWIMMING



116

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by G. W. Barlow Date 12/2/78 Time 1615 hr

Address & Tel. No. (optional) _____

Location (indicate on chart) Henry, fore of reef

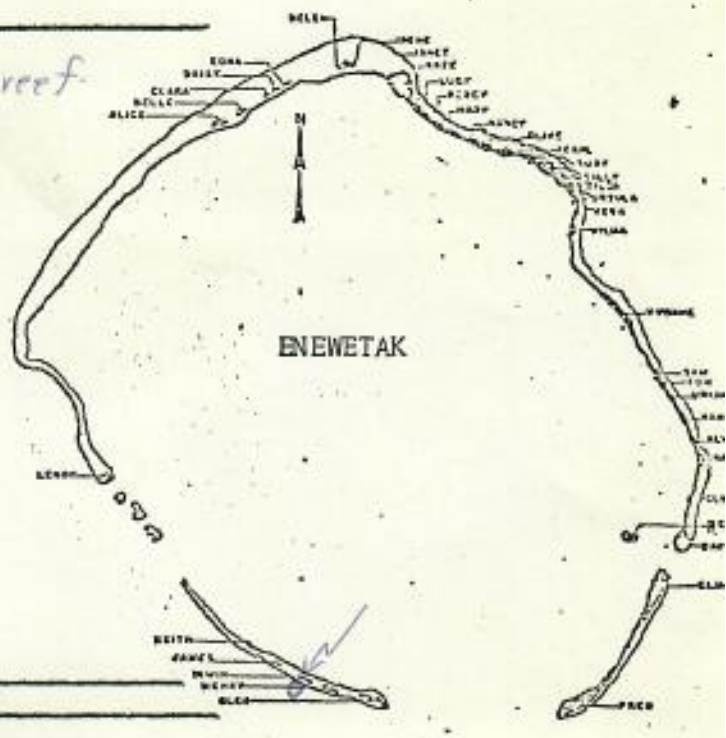
Observation made from: ___ shore; ___ boat; or while ___ skin X SCUBA diving.

Estimated size (shell length 50 cm

Turtle seen on: ___ surface; or at depth of approx. 75 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): _____

Other comments: _____



114

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by SCOTT P. MAXWELL Date 30 OCT. 78 Time 12:00

Address & Tel. No. (optional) EDDINUONE, BARBERS PT., HI. 96862

Location (indicate on chart) RUNIT (YVONNE)

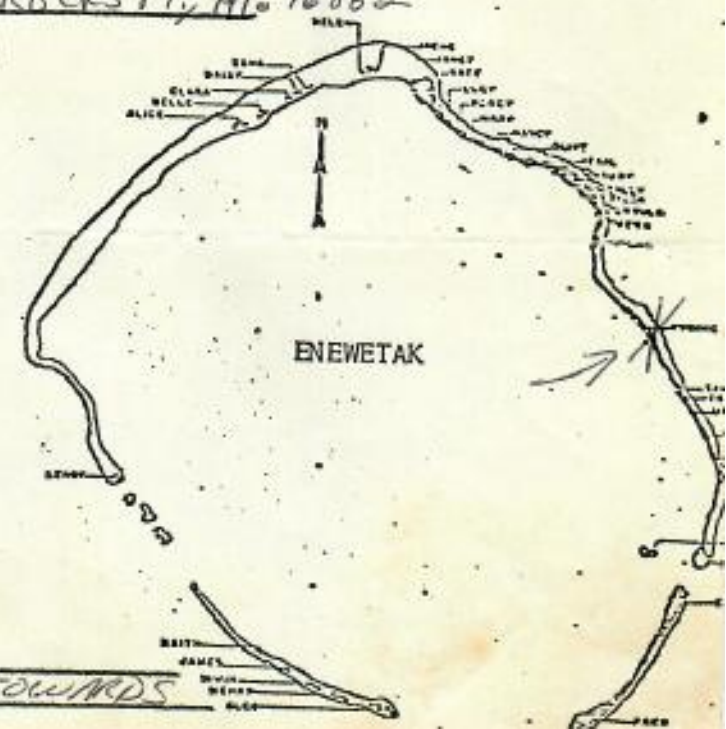
Observation made from: ___ shore; ___ boat; or while X skin ___ SCUBA diving.

Estimated size (shell length 48"

Turtle seen on: X surface; or at depth of approx. 5 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): GREEN SHELLCOLOR, GREEN SEA TURTLE LOOKS CLOSEST

Other comments: TURTLE SWAM AROUND US CURIOUSLY THEN BOLTED AS WE ADVANCED TOWARDS IT.



S. P. MAXWELL
WBCT/ E.O.D. TM.18
ENEWETAK ATTOLL
APO SAN FRAN., CA
96333

JOHNSON

MID-PACIFIC MARINE LABORATORY
ENEWETAK, MARSHALL ISLANDS 96787

117

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by SCOTT JOHNSON **Date** 12/17/78 **Time** 1115 AM 1130 AM

Address & Tel. No. (optional) 2111 E McKINLEY ST HONOLULU 9498923

Location (indicate on chart) STERN OF CEMENT SHIP

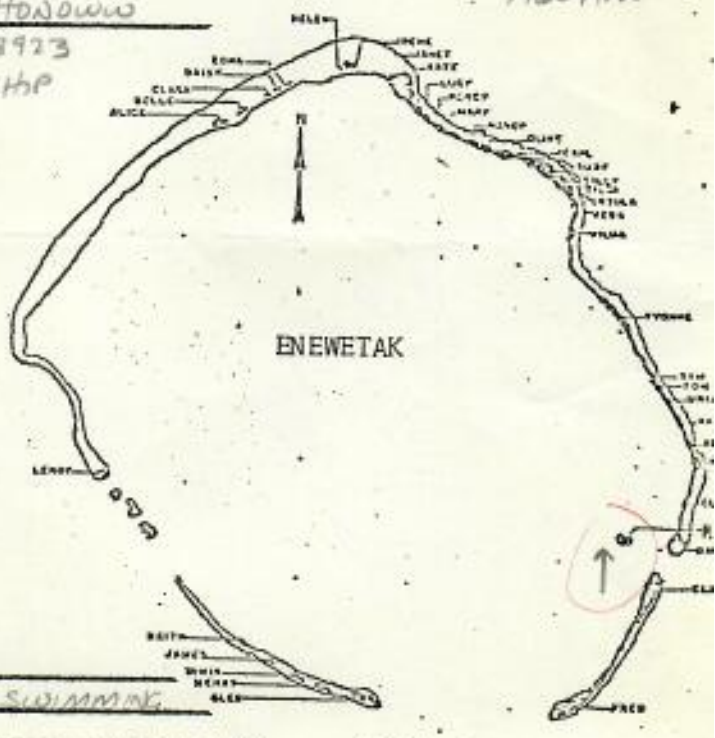
Observation made from: ___ shore; ___ boat; or while ___ skin X SCUBA diving.

Estimated size (shell length 2½-3'

Turtle seen on: ___ surface; or at depth of approx. 60 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.):
CHELONIA MYDAS

Other comments: SAW WHAT I DAS PROBABLY THE SAME INDIVIDUAL TWICE ABOUT 15 MINUTES APART BOTH TIMES SWIMMING DEEP ALONG A SHEER DROPOFF.



MARINE TURTLE SIGHTING REPORT

118

Please return to: George H. Balazs
HIMB-P.O.Box 1346
Kaneohe, 96744
Tel. 247-6631 or
946-1760

Observation made by: E.S. Reese

Date: 7/21/79 Time 1530 hrs.

Location (indicate on chart) Medren Pinnacle

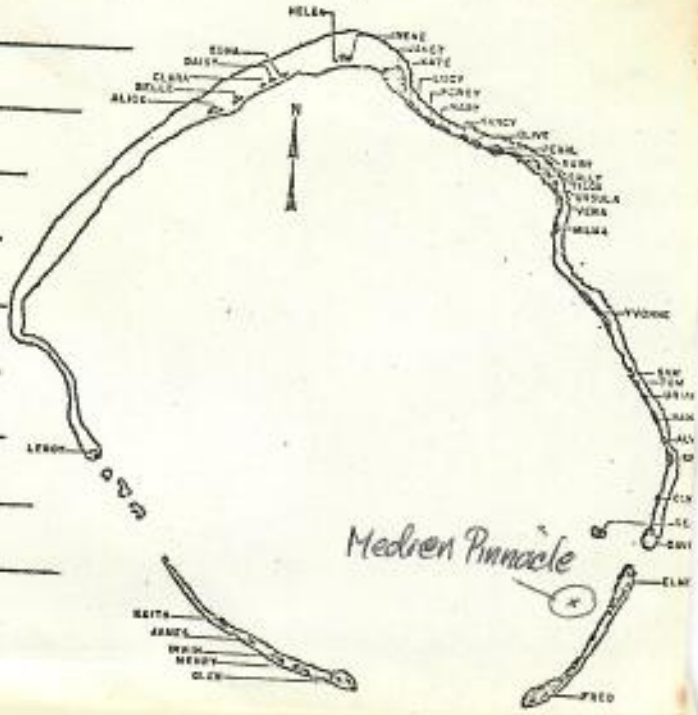
Approximate size (shell length): 3'

Distinguishing characteristics:

Observation made: at surface

beneath surface (depth) Turtle swimming

Miscellaneous comments: at 10-15' depth
Green turtle



SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by E.S. Reese **Date** 7/15/79 **Time** 1400 hrs.

Address & Tel. No. (optional) HIMB

Location (indicate on chart) Clyde (Chinimi)

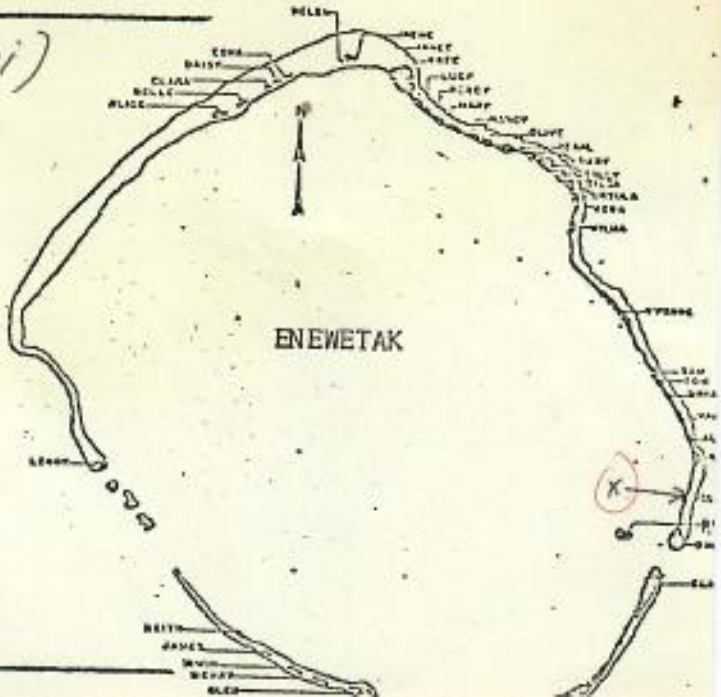
Observation made from: ___ **shore;**
___ **boat; or while** X **skin**
___ **SCUBA diving.**

Estimated size (shell length 2'

Turtle seen on: ___ **surface; or at depth of approx.** 10 **ft.**

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): None

Other comments: Green Turtle



SEA TURTLE SIGHTING REPORT

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631) 120

Thank you for your cooperation

Observation made by WAYNE BLISS Date 8-27-79 Time 1120 A.M.

Address & Tel. No. (optional) 5459 EVAINE Las Vegas Nev 89120 702-736-4182

Location (indicate on chart) near Irene

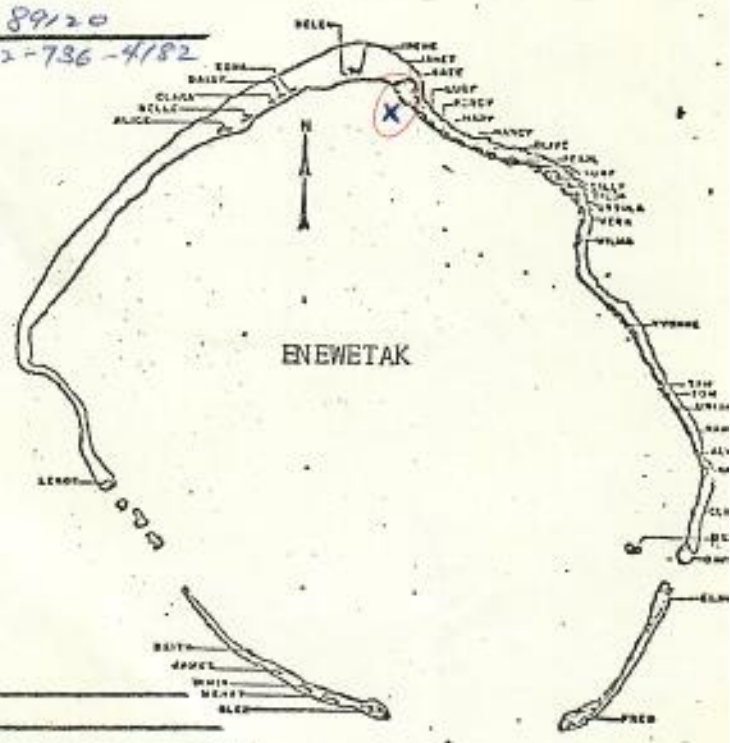
Observation made from: ___ shore; helicopter ___ boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 26-28 inches

Turtle seen on: ___ surface; or at depth of approx. 6 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): light Brown in color

Other comments:



Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Thank you for your cooperation

Observation made by Gary Long MPRL Date 12 Sept 1979 Time 130 pm

Address & Tel. No. (optional) MPRL ENT

Location (indicate on chart) BELLE

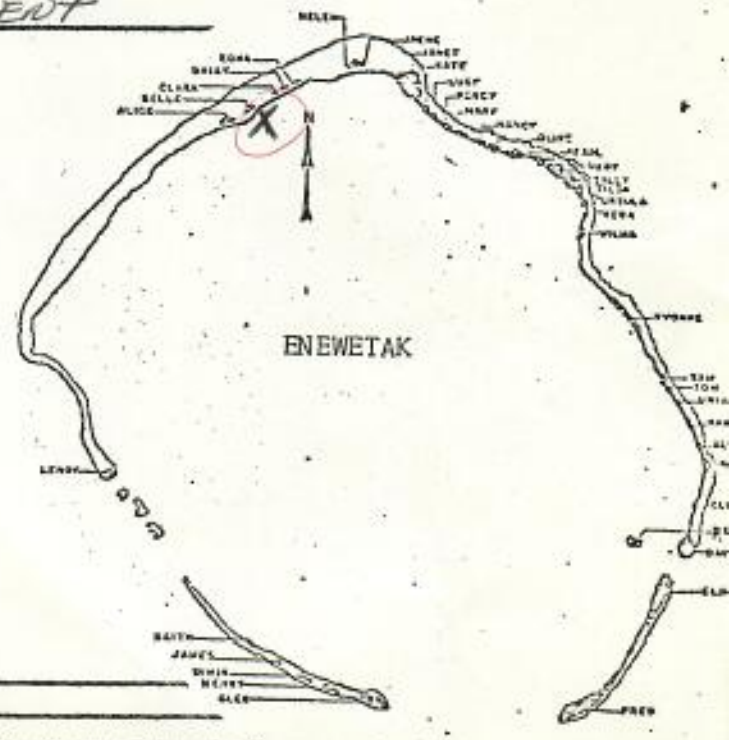
Observation made from: ___ shore; ✓ boat; or while ✓ skin ___ SCUBA diving.

Estimated size (shell length 28" and

Turtle seen on: ✓ surface; or at depth of approx. 12 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Green Sea turtle

Other comments: over shallow sand bottom - coral heads



SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631) 122

Observation made by Richard F. Ford Date 6 Sept 79 Time 1100 hrs

Address & Tel. No. (optional) Center for Marine Studies, San Diego State University, San Diego CA 92107

Location (indicate on chart) In coral reef area of channel between Janet (Enjebi) and Kate Islands

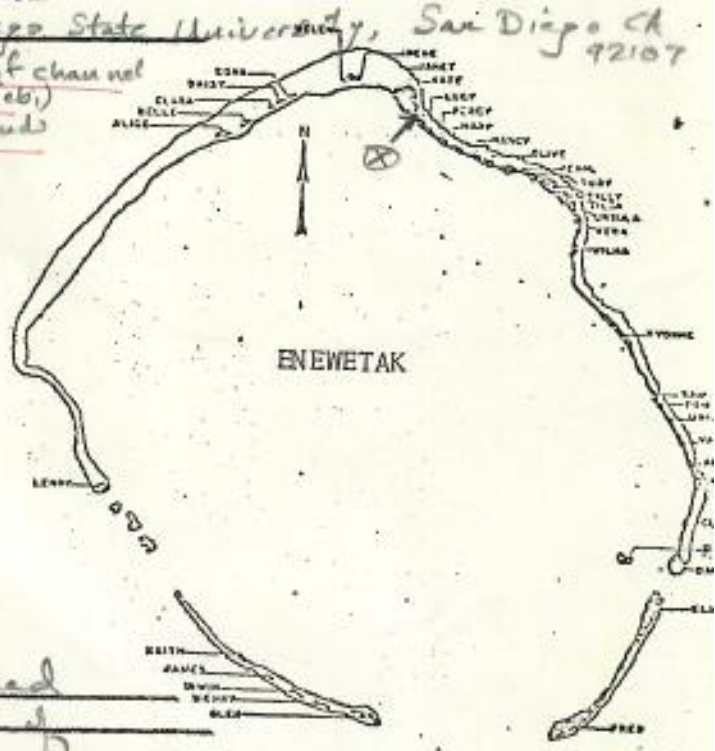
Observation made from: ___ shore; ___ boat; or while ___ skin X SCUBA diving.

Estimated size (shell length 3-4 ft

Turtle seen on: ___ surface; or at depth of approx. 8 ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Green Turtle

Other comments: Turtle was swimming through channel between coral head area; over a water depth of about 12 ft.



SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs, Marine Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631) 123

Observation made by Gary Long MPRL Date 17 Sept 79 Time 500pm

Address & Tel. No. (optional) MPRL ENT Atoll

Location (indicate on chart) LeRoy

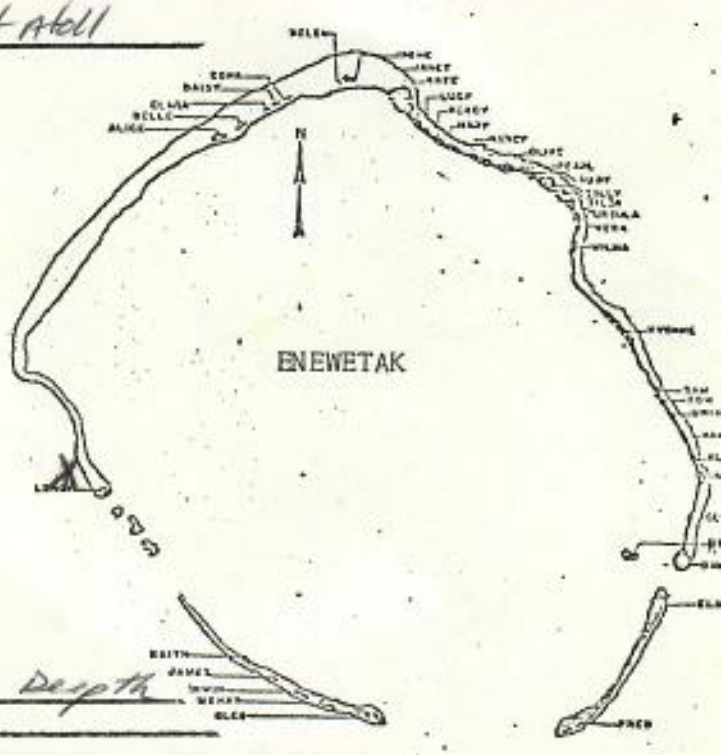
Observation made from: ___ shore; ✓ boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 24"

Turtle seen on: ✓ surface; or at depth of approx. ___ ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Green Sea turtle

Other comments: Swimming on Reef Drop off ocean side — water depth in excess of 300 Ft.



124

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by James Quigley Date Sept 29, 7? Time 9 PM

Address & Tel. No. (optional)_____

Location (indicate on chart) Lojwa

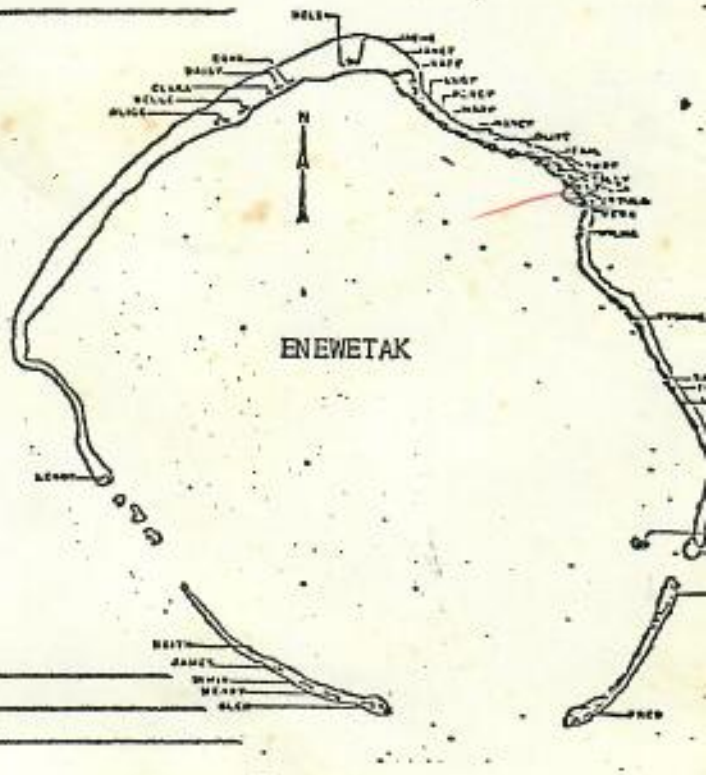
Observation made from: ___ shore;
___ boat; or while X skin
___ SCUBA diving.

Estimated size (shell length 2 1/2'

Turtle seen on: X surface; or at depth of approx. ___ ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): Hawks Bill

Other comments: Turtle found sleeping and in corral at Lojwa Roadway



125

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by CHARLES M. BAREFOOT Date 30 SEPT 79 Time 3 PM

Address & Tel. No. (optional) NAVY DIVE LOCKER tel 72225

Location (indicate on chart) 1/4 MILE NORTH OF HENRY

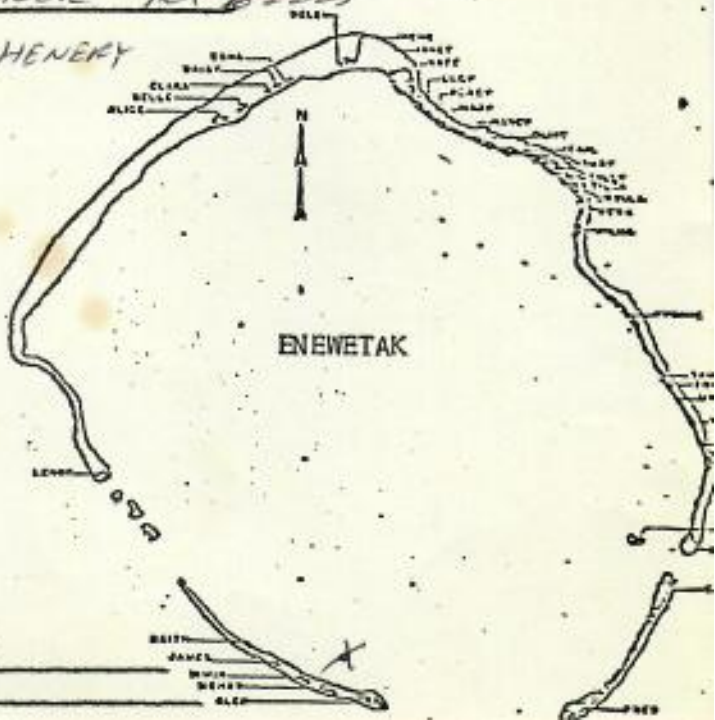
Observation made from: ___ shore;
X boat; or while ___ skin
___ SCUBA diving.

Estimated size (shell length 2 foot

Turtle seen on: ___ surface; or at depth of approx. ___ ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): GREEN TURTLE LIGHT BROWN

Other comments: IN BOAT OF JAPANESE ON WAY TO JAPAN TO BE EATEN!!



126

SEA TURTLE SIGHTING REPORT

Thank you for your cooperation

(Please return to: George H. Balazs; Hawaii Institute of Marine Biology; P. O. Box 1346; Kaneohe, HI 96744; Tel. 247-6631)

Observation made by A1C L.LJESTROM Date 9 Oct 79 Time 10:30 AM

Address & Tel. No. (optional) PSC4 Box 676 Hurlburt Fld FLA 32544

Location (indicate on chart) OCEAN Side RUNWAY

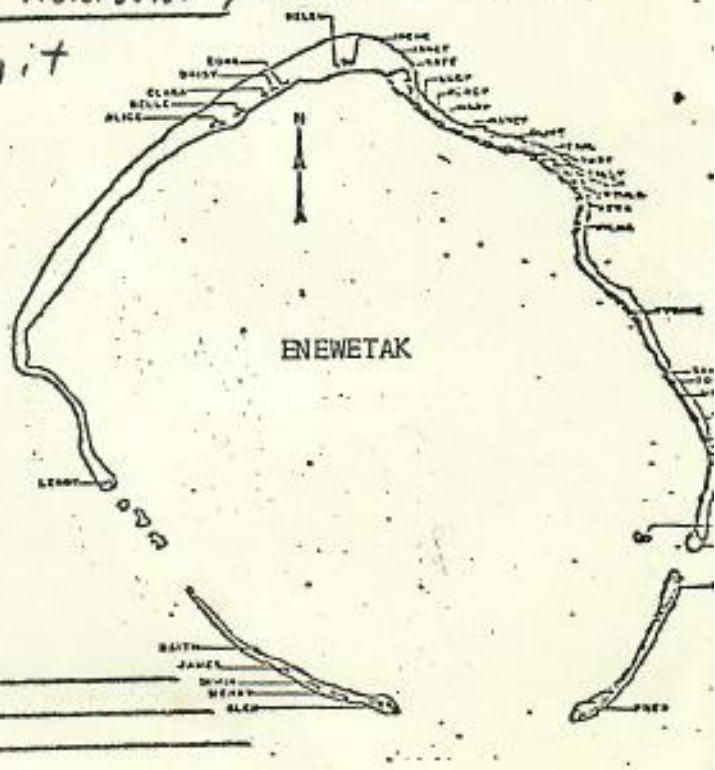
Observation made from: X shore; ___ boat; or while ___ skin ___ SCUBA diving.

Estimated size (shell length 2½ ft

Turtle seen on: X surface; or at depth of approx. ___ ft.

Distinguishing characteristics (species I.D. if known, long tail, shell color, tags, injuries, etc.): BROWN + ORANGE

Other comments:



University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

October 25, 1976

LTC W. L. Spicuzza
Commanding Officer
Enewetak, Marshall Islands 96737

Dear Colonel Spicuzza:

The purpose of this letter is to clarify and confirm the salient points discussed during our meeting of October 12th relating to the sea turtles of Enewetak Atoll.

With respect to gaining insight on the status and survival outlook of the world's sea turtle populations, the most authoritative source available is a policy statement of "Principles and Recommendations" issued in April, 1975 by the International Union for Conservation of Nature (IUCN). This document, which also establishes guidelines for the rational utilization of turtles, was formulated at the request of IUCN by an international team of professional sea turtle biologists. Although these "Principles and Recommendations" do not have the force of law, such policy statements issued by the highly respected IUCN frequently form the basis for regulations and legislation. A copy of these "Principles and Regulations" is now on file in your office. The section most relevant to the Enewetak situation appears in item number six and reads:

> "As regards primary exploitation (meat, hides, eggs), where it can be demonstrated that local turtle populations can tolerate exploitation, and the desire or necessity is present, this should be done by peoples traditionally dependent on them, with methods ensuring minimal waste for local consumption."

It is my opinion that this guideline is entirely reasonable, proper, and above all, necessary for the conditions soon to exist at Enewetak. The Enewetak natives are the people that have been traditionally dependent on the Atoll's sea turtles, therefore the resource should be reserved

for their sole use. This use should, of course, be at a level that will ensure the turtles' continued perpetuation for the benefit of future generations. In this respect, one of the objectives that I hope to eventually accomplish in my research at Enewetak is to determine what level of exploitation will be suitable. However, as we discussed, the more immediate problem is the forthcoming influx of large numbers of military and civilian personnel for clean-up activities. It is my recommendation that before this project starts, a ban should be placed on the taking of all sea turtles by people who are not natives of Enewetak. I urge you to concur with this recommendation and implement the proper measures at the earliest possible time.

During our discussions I also focused attention on the fact that the hawksbill turtle occurs at Enewetak, and that this species receives full protection in the Trust Territory (as well as other areas under U. S. jurisdiction) under provisions of the Endangered Species Act of 1973 (Public Law 93-205; 87 Stat. 884). Additionally, the Code of the Trust Territory of the Pacific Islands (Supplement 1, Volume 1) lists a number of restrictions which control the taking of green turtles (the second species of sea turtle found at Enewetak). It should be pointed out, however, that the Code was designed principally for Micronesians in order to aid in the perpetuation of their own native resources. At this time in history, it is an unusual event to interject a comparatively large number of non-natives into a small Trust Territory atoll, such as will soon take place at Enewetak. The limited protection afforded to green turtles by the Code cannot be expected to be adequate under such atypical conditions. Without the additional protection I have recommended, it is very likely that the tenure of the clean-up personnel will bring about a significant degradation to Enewetak's sea turtles. This will be a direct loss to both the diet and life style of the Enewetak natives. To a lesser extent, it will also be a loss to the scientific community as potential exists for gaining unique information on sea turtles in the Enewetak Atoll environment.

Since returning to Honolulu I have had the opportunity to review the recommendations for an overall conservation policy at Enewetak which were communicated by Dr. Smith to Mr. William Stanley (ERDA) on May 14, 1976. Although my principal area of expertise and concern is sea turtles, many of the points I have made apply equally to other fauna and flora at Enewetak. I therefore fully endorse Dr. Smith's recommendations. At the same time, I would also like to see protective mechanisms developed to safeguard the nesting seabirds from disturbance during their critical incubation and hatching periods.

I want to thank you once again for your assistance during my recent research visit to Enewetak.

Sincerely,

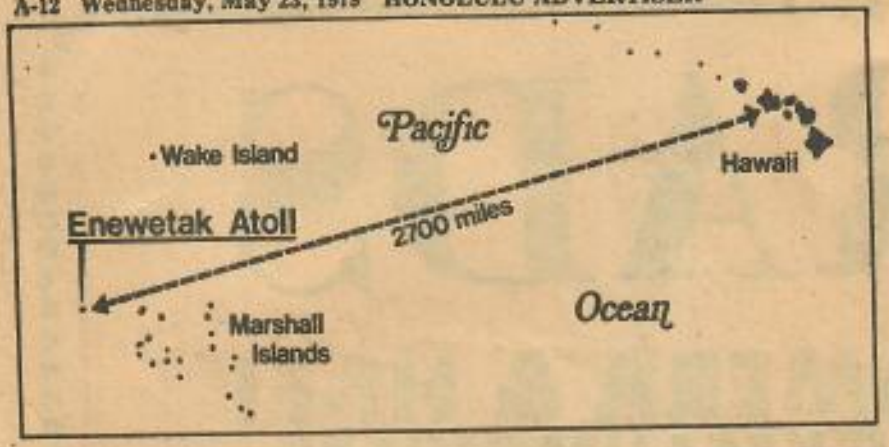
George H. Balazs

George H. Balazs
Jr. Marine Biologist

mk

cc: S. V. Smith
Director, MPML

Enc: publication "Green Turtle Migrations in the Hawaiian Archipelago"



Restricted report says Enewetak still a nuclear hot spot

By WALTER PINCUS
Washington Post Service

WASHINGTON — A restricted General Accounting Office report asserts that the return of former residents to the U.S. nuclear test site at Enewetak Atoll could still expose them to possibly dangerous dosages of radiation.

Representatives of the newly created government of the Marshall Islands accuse the U.S. government of "bad faith" for withholding the draft report from public circulation.

Between 1948 and 1958, the United States conducted 43 nuclear weapons tests on the Pacific atoll.

The GAO report on the $100 million cleanup of nuclear contamination has been passed around selectively within the government since May 8.

Comptroller General Elmer Staats said in the report that public release "would not be in the best interest of the government" because of current negotiations with the Marshallese.

At one point, the GAO report notes that "because of the uncertainty of the long-term effects of exposure to low-level radiation, it is possible that the people of Enewetak could receive radiation doses "in excess of current standards."

It also reports that "Environmental Protection Agency sources" believe those standards will be lowered and in that situation "there is a good possibility" that "their doses could eventually be considered excessive . . ."

blatt, chief of the U.S. delegation for the Micronesian negotiations.

Monday, Anton A. deBrum, the Marshall's secretary of foreign affairs, said the original withholding of the GAO report was a failure to "deal in good faith."

Richard Copaken, a Washington lawyer acting as counsel to the new Marshallese government, said his clients "wonder what else is being held back and why."

Rosenblatt said the report had "not deliberately" been withheld but that no one at the May 16 meeting "considered it newsworthy or important."

"When they mentioned it to me," he said, "I immediately handed them a copy."

Complicating the problem over Enewetak, its safety and future status is the fact that during the last years of the U.S. trusteeship, the atoll leaders and their lawyer, Theodore Mitchell, not the new Marhsall Islands government, had worked out details of the cleanup.

Mitchell said he was "bothered that the GAO report was withheld," but his concern focused more on future health care for the atoll residents and compensation for lost land than on the longterm hazards that appear to bother the Marshall government officials.

In another section, the GAO notes that EPA has asked that planting coconuts on once radiation-contaminated islands be delayed, for fear that the copra produced would itself be radioactive beyond "acceptable limits."

The possibility that plutonium particles, entombed on one of Enewetak's islands, could migrate "to the surrounding environment" also was raised by the report, though the GAO authors said it "is not expected to pose a hazard."

The Marshall Islands government took office May 1, after voting for separate status from other Micronesian areas that once were U.S. trust territories.

On May 16, at the request of the Marshall Island officials, a meeting was held in Washington to discuss turning over to the new government any material "which may bear on the welfare of the people of the Marshalls affected by the tests."

Although the GAO report had been sent to several U.S. government agencies, including some officials attending the May 16 meeting, no mention of it was made to the Marshallese.

They heard about it two days later, and requested and received a copy from Ambassador Peter Rosen-

"It will be up to the Enewetak people to make a decision on their own" about returning to the atoll, Mitchell said.

The two American lawyers representing different Marshallese clients both agreed and disagreed on some aspects of the GAO report.

Both, for example, said questions about the ability of the Enewetak people to produce non-contaminated produce in the near future had to be settled before the size of U.S. economic aid to the new government could be determined.

They took almost opposing views, however, on the key question of whether returning Enewetak people would adhere to some restrictions placed on still radioactive islands in the atoll.

On Runit, one island in the atoll, the Defense Nuclear Agency which has run the cleanup decided to entomb plutonium and other radioactive soil and material from other islands.

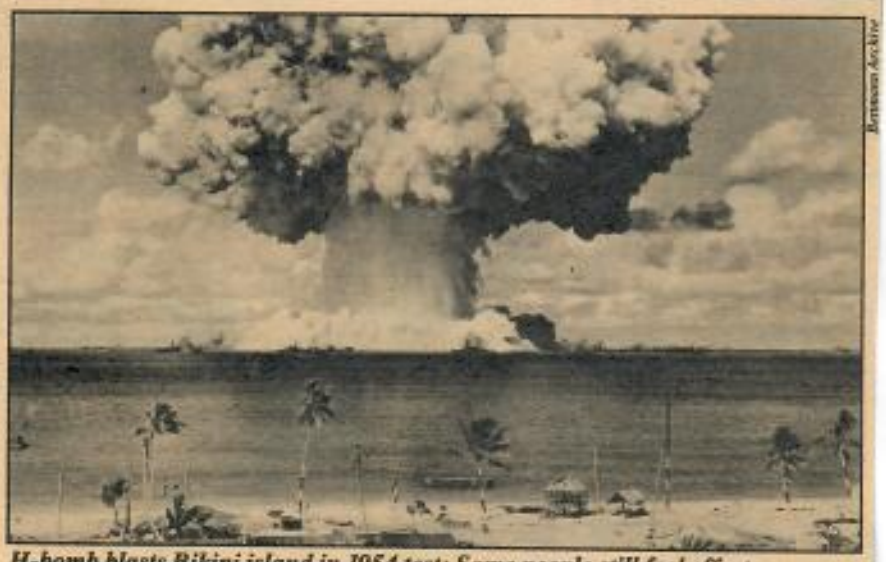
They will be mixed there with cement and water to form a slurry and covered over with an 18-inch cement cap.

Runit, itself, will then be marked as off-limits indefinitely to the returning Enewetak people since the half life of plutonium is some 24,000 years.

FEBRUARY 13, 1983

Significa

By Irving Wallace, David Wallechinsky and Amy Wallace



H-bomb blasts Bikini island in 1954 test: Some people still feel effects

Bomb Blast Coverup

Five former Air Force men are suing for damages inflicted on March 1, 1954, by BRAVO, the test of an H-bomb on the Pacific island of Bikini. They say the U.S. and its contractors knew that east winds would carry the bomb's fallout to the Marshall Islands but gave the go-ahead for the test and later attempted a coverup. Federal officials insist the contamination of 28 servicemen and hundreds of Marshallese was accidental.

Late on the morning of the blast, say witnesses, radioactive ash settled "like a snowstorm" on Rongerik Atoll in the Marshalls, 125 miles away, where the servicemen lived. The radiation dose was 15 times the level now allowed nuclear workers for a whole year. Military doctors pronounced the men in good health on May 16, 1954; since then, the U.S. has refused to provide medical care for them.

The five former airmen say they have developed cancer and other serious conditions, including reproductive problems. Therefore, they have filed claims of $10 million each for punitive damages plus medical costs against contractors who worked with the government on BRAVO. (According to precedent, servicemen cannot sue the government for service-related injuries.) Why did they wait so long to sue? Gene Curbow, one of the five, says it was "a mixture of patriotism and ignorance." The government admits that the men were exposed to large doses of radiation but denies that their injuries are related.

Servicemen who believe their health has been affected by BRAVO may write to attorney Gordon A. Stemple, 2020 Avenue of the Stars, Suite 440, Century City, Calif. 90067.

Woman resident of Japtan Island in the Enewetak Atoll.

Advertiser photos by Ron Jett

Radioactivity is checked on Runit Island where waste is stored.

PARADISE RE

The writer was born in the Marshall Islands, and lived and worked in Micronesia. In 1978, he covered the evacuation of Bikini atoll. He will cover the Enewetak ceremony for The Advertiser.

By FLOYD K. TAKEUCHI
Advertiser Editorial Writer

When isolated Enewetak is formally returned to its original inhabitants Tuesday, the atoll will be a far different place from what they left in late 1947.

For 10 years — from 1948 until 1958 — 43 nuclear tests scarred the fragile ring of coral islets in eastern Micronesia. So fierce were some of the explosions that five islets were vaporized; part of another disappeared.

And as a legacy of that nuclear holocaust, most of the northern half of Enewetak atoll still is so "hot" that permanent resettlement there is out of the question. Even coconuts and pandanus which might grow in the north would be too contaminated with dangerous strontium-90 and cesium-137 to eat.

YET THE REASON the nearly 450 Enewetakese are preparing to return to their atoll home now is because the U.S. government, in an unprecedented three-year, $100 million cleanup program, literally changed the face of Enewetak.

Over 110,000 cubic yards of radioactive soil and debris were mixed with cement and buried under a 370-foot wide, 25-foot high concrete dome on Runit Island in the atoll. Another 100,000 cubic yards of uncontaminated debris were dumped into the lagoon.

Defense Nuclear Agency and Department of Energy officials, who are responsible for the cleanup, believe it now is safe to live on the southern islands of Enewetak, Medren and Japtan. And while it probably will take up to six years before the first coconuts can be harvested, food grown on these islands will be safe to eat, they say.

So on Tuesday, nearly 33 years after the United States took control of Enewetak, a small ceremony will mark the reversion of the atoll to its rightful owners.

Their problems, however, are far from over.

LIKE MANY OTHER Micronesians, the 142 islanders who lived on Enewetak in the late 1940s had a relatively brief, but intense, exposure to the outside world.

Enewetak, one of the northwestern atolls in the Marshall Islands, was under Japanese control following the First World War. But it was not until early January, 1944, that Japanese troops began to fortify the atoll in face of the American advance.

American troops invaded Enewetak in late January, and it took over a month to secure the atoll. The Japanese lost 2,677 men. Americans lost 195, with 521 wounded. The Enewetakese sat out the invasion of Engebe, Medren and Enewetak on other islets.

Once the atoll was wrested from the Japanese, the might of the victorious Americans must have seemed awesome. More ships, men and material than they had ever seen poured through Enewetak on their way to battlefronts farther west.

THE END OF the war, however, did not bring peace to Enewetak, or other atolls in the northern Marshalls.

In 1945, American officials felt they needed new atomic testing grounds. Among the major criteria were favorable weather, and isolation from large population centers.

The northern Marshalls, then under U.S. Navy control, were found to be ideal. In March, 1946, the approximately 160 islanders of Bikini atoll evacuated their ancestral home. On July 1 of that year, a B-29 bomber dropped a 20-kiloton atomic bomb over Bikini's lagoon.

Twenty-three tests seared Bikini before the experiments ended in 1958. That was the same year the nuclear testing was stopped on Enewetak, about 200 miles to the west.

While the Bikinians had to cope with three moves before they settled at Kili Island, the Enewetakese were more fortunate. They only had to move once, to Ujelang Atoll, 124 miles southwest of Enewetak.

BUT IF THEY did not have to deal with the trauma of many moves, they suffered nonetheless.

On an atoll, the richness of the sea and the bounty from what little land there is traditionally has determined whether islanders flourish or starve.

At Enewetak, people were able to fish in a lagoon of nearly 389 square miles. Ujelang's, by comparison, is only 25 square miles.

Enewetak has 2.75 square miles of dry land. That is not much, but Ujelang has only .67 square miles.

So not only did the Enewetakese have less land and sea, the fact they were displaced from "their land" caused serious social disruption. Land in the Marshalls is not only a factor in survival, it also is the key to social status and power.

So strong are the ties that among the Enewetakese, whom outsiders would consider as one, there are two primary social groups — those from Enewetak Island, and those from Engebe in the north. Even on Ujelang, in spite of intermarriage, the social distinction still is recognized.

THIS DISTINCTION has also played an important role in the resettlement of Enewetak Atoll.

Simply, the *dri-Engebe*, the people of Engebe, want to return to their "home." But Engebe, according to most federal officials, still is dangerous, though perhaps less so than other northern islands.

The *dri-Engebe*, who may number around 250, with the help of an American lawyer working for the entire Enewetak community, hired two respected American scientists to study Engebe.

Their findings, presented on Ujelang last fall, basically said there would be no undue

GAINED? Enewetakese their problems

risk to those who returned to Engebe. The people believe them, and now are asking Congress for funds to prepare the island for resettlement, too.

Hearings on the matter were held in Washington this past week.

Federal officials, understandably, are nervous about resettling Engebe. The United States was burned badly by its disastrous experience with Bikini. There, the U.S. said in the late 1960s it was safe to return, only to discover nearly a decade later that internal counts of cesium and strontium were dangerously high among resettled Bikinians. They were quickly evacuated in September, 1978.

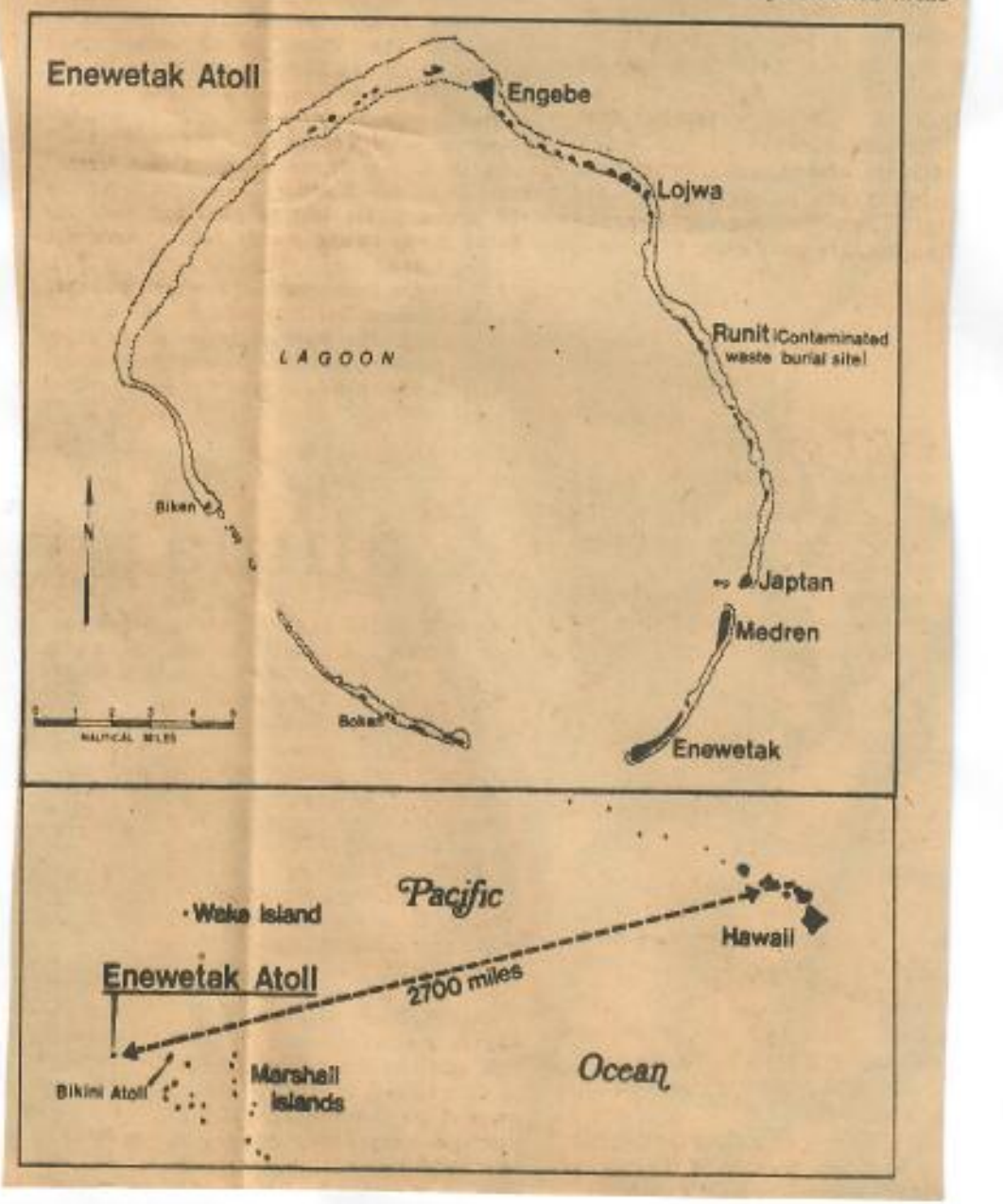
PART OF THE problem on Bikini was that testing methods were not as sophisticated in the late 1960s as they were just a few years later.

Scientists involved in the Enewetak clean-up maintain the atoll is safe, but with the following restrictions:

- People can live only on Enewetak, Medren and Japtan islands.
- Other islands in the atoll can be visited for brief periods, but food cannot be harvested on northern islands. Runit Island is completely off-limits.
- The people can eat coconuts, pandanus and arrowroot grown on "safe" southern islands, but many of those plants will not be ready to harvest for years.
- Meanwhile, imported food will make up the bulk of the Enewetakese diet for some time, and even after when locally grown foods are available in quantity.
- The U.S., for the indefinite future, will continue environmental and human monitoring to assess radiation exposure.

THIS "PROGRAM," of course, is based on present knowledge and technology.

The difficult question facing American officials and the Enewetakese is: What if at some later time more sophisticated meas-



returning home, but are far from over

urement devices, or a better understanding of the effects of prolonged exposure to low-level radiation, show the atoll people are in danger?

This concern was raised by a restricted 1979 report, "Enewetak Atoll — Cleaning Up Nuclear Contamination," issued by the General Accounting Office.

The report questioned the cleanup effort, and noted: "Because of the uncertainty of the long-term effects of exposure to low-level radiation, it is possible that the people of Enewetak could receive radiation doses in excess of current standards even if they adhere to living pattern restrictions.

"Further, even if the people of Enewetak do not receive excess radiation doses by current standards, their doses could eventually be considered excessive should radiation-dose standards become more stringent. According to EPA sources, there is a good possibility that will happen."

The "ifs" remain.

WHILE THE cleanup is officially completed, actual resettlement will not begin immediately. The Engebe issue undoubtedly will cause delay among some, and the logistics of moving back so many people has not been worked out yet.

Even if people move back to both the southern islands and Engebe, the Enewetakese still will have rights to Ujelang and some may elect to remain there.

While it may not be wise (as some officials like to say) to dwell on the past — those events that led to the disruption of people's lives and the near destruction of their atoll home — it also is wise not to forget the past.

The cleanup and resettlement of Enewetak, after all, would not have taken place if the people had not complained, and complained loudly with lawyers at their side.

And only seven years ago, Americans wanted to turn Enewetak into a test ground once again. The plan was to detonate underground TNT blasts to 100 tons to simulate the effect of a nuclear attack on American missile silos.

Officials maintained there would be no environmental damage. The Enewetakese did not buy the argument.

But that did not deter some. One official who went to Ujelang to present the American case said they had to go through the motions, and the project would go on. It did not, thanks to Enewetakese opposition and a greater sensitivity among others in Washington.

IF ANYTHING, then, relations between the people of Enewetak and Americans have at best been bittersweet. And while an impressive effort to clean up Enewetak has been made over the past three years, it can hardly begin to right the many wrongs of the past.

Indeed, if there are any tears shed on Enewetak Tuesday by islanders, they probably will be as much tears of sorrow as they will be tears of joy.

ific focus

Advertiser photo by Ron Jett

Nuclear storage dome sits over crater blown out in 1958 explosion.

Nuclear burial ground

By FLOYD K. TAKEUCHI
Advertiser Editorial Writer

RUNIT, Marshall Islands — From the air, Runit Island's 370-foot wide concrete dome looks like a grounded spaceship or an oversize upside-down saucer. But this unusual structure, so out of place on this barren, wind-swept spit of sand and coral, serves a deadly purpose.

It caps over 110,000 cubic yards of highly radioactive soil and debris. The plutonium-enriched waste was literally scraped off the top of many of Enewetak Atoll's 40 islands where 43 nuclear bombs were exploded between 1947 and 1958.

INDEED, THE DOME sits over a crater blown out by a 1958 explosion code-named "Cactus." A similar crater now is a tidal pool next to the dome.

Runit is a fitting place for a nuclear burial ground.

Nineteen tests were centered around the island, which is situated halfway up the eastern end of the atoll.

It is so contaminated with deadly radioactive elements — plutonium, strontium-90 and cesium-137 — that it will be off-limits forever. Anyone who walks over the island's sandy surface must wear a protective gauze mask and special boots. Even those who only walk on the 25-foot high dome must be checked for radiation on their hands and feet.

The Cactus crater dome is supposed to shield the surrounding environment from the radioactive waste. It will have to do the job for a long time.

While the half-life of strontium and cesium are around 30 years, plutonium's is 24,000 years. That means in the year 25,980 there will still be half as much plutonium radiation there as at present.

The concrete cap, which required over 43,000 bags of cement to build, is between 16 and 21 inches thick.

In an effort to slow erosion from the sea, Army engineers built a seawall of sand and coral on the ocean side of the dome. They also have to contend with corrosive salt spray, a common occurence on the low-lying island.

Asked if the dome, which was completed last year, could survive the elements for 24,000 years or more, an Army spokesman said no damage is expected.

A scientist with the Enewetak cleanup project jokingly said, "I'd bet on it."

The Runit dome is an awesome sight, from both the air and ground. There is only sparse vegetation on the small island, and the only other structures are the remains of two bunkers.

WITH THE EXCEPTION of occasional visitors who arrive by helicopter, the only mammals on contaminated Runit are the rats.

Their hardy ancestors survived the nuclear testing by hiding in underground burrows. This latest generation scampers in the underbrush, eating vegetation that is chock-full of strontium and cesium.

Rats also have survived on Enewetak's other islands.

According to resident scientists at the Mid-Pacific Marine Laboratory on Enewetak island who have been studying the atoll's rat population, the only observable mutation they have discovered so far is a slight abnormality in some rat palates.

Dr. Steve Vessey, who heads the project, added they have found "no real scare stories, no two-headed rats."

Former N-Test Site Deemed Safe

Enewetak to Be Returned to Its People

By Edwin Q. White
Associated Press Writer

After 33 years and 43 nuclear tests, Enewetak will be returned Tuesday to its people.

A ceremony on the atoll about 2,700 miles west-southwest of Honolulu will mark what Defense Nuclear Agency officials call the end of the largest radiological cleanup operation ever. They say it also fulfills a "moral obligation incurred by the United States 33 years ago."

It was at that time in 1947 that the United States decided it needed Enewetak — then called Eniwetok — as a site for nuclear testing. Part of the Marshall Islands, Enewetak already had been fought over in World War II, with U.S. Marines and infantrymen securing it in February 1944.

When the decision was made on nuclear testing, the people of the atoll — 136 of them — were moved 125 miles to the southwest to the atoll of Ujelang. It was smaller and barren. The Enewetakese fought rats and near starvation and longed to go home.

BUT FROM 1948 to 1958, 43 nuclear tests were carried out on the atoll, including the first hydrogen bomb test in 1952. Enewetak, an oval-shaped, coral reef surrounding a lagoon and made up of about 40 low, sandy islands, also became a target for intercontinental ballistics missiles, fired over a 5,000-mile range from Vandenberg Air Force Base in California.

In 1972, the people of Enewetak were told they might be able to return home by the end of the next year. Then plans were announced to carry out something called PACE — Pacific Cratering Experiments — on the atoll, using tons of TNT. Representatives of the Enewetak people filed a federal court suit to stop those tests, and in 1973 the Department of Defense said PACE would not be carried out there.

By then custody of the atoll had been turned back by the Defense Department to the Trust Territory of the Pacific Islands, and pressures increased to let the people return. But the cleanup operation of radioactive materials had to be undertaken, and Congress at that time was finding other places to put the money needed.

IN 1976, FUNDS were appropriated for what was known officially as the Enewetak Radiological Cleanup and Rehabilitation Project. It was to be carried out by the military services. Army, Navy and Air Force elements took part, and, in all, more than 4,000 U.S. service personnel served on the atoll. In the end, the program cost about $100 million.

The work was carried out on three levels, dealing with uncontaminated debris, contaminated debris and contaminated soil. That found contaminated was transported by boat to one of the islands, Runit, where it was mixed into concrete and put in a crater formed by one of the nuclear detonations. A dome-like mound was shaped over the crater and covered with a concrete top. The island of Runit will remain quarantined indefinitely.

The Nuclear Defense Agency says probably the most important decision was the choice of islands where the people would actually live. Selected were the three large southern islands of the atoll — Enewetak, Medren and Japtan.

THE AGENCY SAYS the level of residual contamination on those islands generally is less than that of most locations in the United States. A total of 116 homes have been built for the returning islanders, and crops have been planted, including 31,000 coconut trees.

But the decision on residence islands raised another problem because the people called the dri-Enjebi, one of the two Enewetak groups, wanted to go back to their own ancestral island of Enjebi in the north.

It was held, however, that radiological contamination of the soil of Enjebi would be such that lifetime body accumulation by people eating crops grown there might exceed acceptable levels. So the decision was made to settle the people of the north on the three islands in the south.

The dri-Enjebi have made a formal request that they be allowed to go back to their own island anyway, and officials say the request is under consideration.

Now, there are about 600 Enewetak people. The actual return to the atoll to make their homes will be carried out in phases, and about 450 are expected to be resettled by the end of June. Officials say some will remain on Ujelang, while a few already have gone to more developed island areas.

But after 33 years, most just want to go home.

Displaced islanders to return home

HONOLULU — Their islands decontaminated from years of nuclear testing, 175 persons were officially resettled yesterday on Eniwetok Atoll.

Ceremonies there marked the return — 33 years after atoll residents were moved to allow the United States to test bombs.

Originally, there were 136 evacuees from the atoll, which is 2,700 miles southwest of Honolulu. They were sent to Ujelang atoll, 125 miles away.

When the return is finished in June, there are to be 450 people — evacuees and their descendants — resettled on Eniwetok.

In 1976, the U.S. government embarked on a $100 million program to clean up the atoll.

L.A. Herald-Examiner
April 9, 1980

Honolulu Star-Bulletin

Published by Gannett Pacific Corporation

CHINN HO, CHAIRMAN ALEXANDER ATHERTON, PRESIDENT

PHILIP T. GIALANELLA, PUBLISHER

PAUL T. MILLER II, ASSOCIATE PUBLISHER

A. A. SMYSER
Editor, Editorial Page

JOHN E. SIMONDS
Managing Editor

Edwin R. Edwards, Administrative Assistant to the Publisher; Barbara Morgan, Cynthia Oi, Assistant Managing Editors; Bill Kwon, Sports Editor; Neal Ingledew, News Editor; Charles Frankel, Carl Zimmerman, Assistant Editors, Editorial Page.

Published at 605 Kapiolani Boulevard | Honolulu, Hawaii 96813

A-22 Thursday, April 3, 1980

Back to Enewetak

The U.S. government is throwing a party next week, which is not unusual. The location is, however. It's Enewetak atoll in the Marshall Islands, and the occasion is the completion of the cleanup of radioactive materials on the atoll.

It took three years and $100 million to make three islands of the atoll habitable again. Troops from the 25th Infantry Division at Schofield Barracks provided the bulk of the labor.

Now the job has been pronounced completed. The former residents and their descendants, who were moved to nearby Ujelang Island in 1947 to make way for nuclear weapons testing, will be coming home once a resettlement plan is worked out.

We are keeping our fingers crossed that no hitches will develop. In the case of Bikini, another atoll used for nuclear weapons tests, resettlement had to be abandoned when it was determined that dangerous levels of radioactivity persisted despite a cleanup.

In the case of Enewetak, the cleanup effort was more extensive. The project directors had more data and experience to work from.

The Trust Territory is transporting the Enewetak people from Ujelang for the festivities. It should be quite a party.

We cannot eliminate the disruption of the lives of these people that the nuclear tests caused, but we have tried to make amends.

NEGLECT?—John Anjain, left, and his nephew Julian Riklong say their people in the Marshall Islands have been neglected by the U.S. government. Anjain and others were exposed to atomic radiation during the Bikini Atoll tests. —Star-Bulletin Photo by Terry Luke.

Rongelap Natives Seeking Aid

By Nadine W. Scott
Star-Bulletin Writer

Julian Riklong and his uncle John Anjain are making the long journey to Washington, D.C., to talk about what it's like to suffer from exposure to radiation.

John Anjain knows. He was magistrate of Rongelap, a tiny island in the Marshalls, when the gigantic 15-megaton "Bravo" bomb was exploded in the Bikini tests in 1954.

"At first I didn't know what happened. At first there was light like lightning and a great sound of an explosion. Later on, something fell on our island, a snow-like thing that covered the water and the food and fell on the people," Anjain said, with his nephew interpreting.

Anjain said he had his first thyroid operation at Brookhaven, N.Y., in 1973. "I feel my health is not very good," he said.

At the time of the atomic test, Riklong said there were 86 people on Rongelap. Since then, 26 have died and everyone "else has this thyroid problem. I don't know, but I think most of the 26 died of radiation exposure," he said.

BOTH MARSHALLESE will testify this weekend in the National Citizens' Hearings for Radiation Victims in Washington, D.C. There will be four days of testimony by radiation victims, workshops on legal redress for victims, lobbying in Congress and federal agencies, as well as a citizens' tribunal on federal radiation and public demonstrations.

Anjain said the people of Rongelap suffer from an astonishing high rate of thyroid disease and cancer. He said 19 of 21 children exposed on Rongelap in 1954 have had surgery for removal of thyroid nodules. In 1972, Anjain's son Lekoj, who was 1-year-old when exposed to the Bravo test, died of leukemia.

"I hope we might be able to tell the American people about our problems and that they will stand behind us and make Congress do something to give us better medical care," Riklong said. "They should compensate us for our islands that are contaminated, those islands where most of our food was grown," he said.

"We feel our people are neglected," Riklong said.

Enewetak Test Site

Islanders Returned to Their Homeland

By Rick Padden
Gannett News Service

ENEWETAK ATOLL — The U.S. government returned what was left of this tiny Pacific atoll—borrowed for nuclear testing 33 years ago—to its people yesterday.

In a brief ceremony on the atoll, 2,300 miles southwest of Honolulu, the Defense Nuclear Agency, thanked the returning islanders saying they had made a great contribution to world peace.

About 450 Enewetakese attended the ceremony. Most had never seen their ancestral homeland before.

Forty-three nuclear tests, including the detonation of the world's first hydrogen bomb, left the island devastated and contaminated. Many islands were vaporized by the explosion, and most were contaminated with radioactivity.

Vice Adm. Robert Monroe, who headed the three-year, $100-million cleanup effort that made three of the islands safe enough to return, thanked the islanders.

"This program has helped prevent nuclear war for the past three decades," he said. "The price of this security, however, has been paid by the people of Enewetak."

MONROE expressed gratitude on behalf of the more than 4,000 men who participated in the cleanup and Trust Territory High Commissioner Adrian Winkel joined the praise:

"I say to you with all my heart it is you, the men and women of Enewetak, who are the real heroes of the Enewetak cleanup and reabilitation. You have conducted yourselves with dignity, and you didn't give in to fears of failure."

Winkel said the next phase of the project would be to complete resettlement of the 500 Enewetakese.

"It is our expectation that resettlement will be complete within the next two months," Winkel said.

Three of the atoll's 40 islands are now ready for habitation.

The resettlement plan included building 116 new homes, and schools, churches, dispensaries, recreation facilities and community centers. In addition 80,000 coconut and breadfruit trees were planted.

So Bikini Residents Must Leave Atoll

They Keep on Eating Coconuts

By David Shapiro
Gannett News Service

WASHINGTON — You can give a Marshall Islander lessons in atomic fusion, but you can't stop him from eating his coconuts.

That was the reasoning offered by an Interior Department official Tuesday in explaining why 145 residents of tiny Bikini Atoll in the Marshalls are again being forced to leave their homeland only five years after they were allowed to return.

The message was not welcomed by members of the House Appropriations Subcommittee on Interior, who complained of American bumbling in Bikini since World War II when residents were arbitrarily moved off the Pacific island by the military to clear the way for atomic bomb tests.

Ruth Van Cleve, director of the Office of Territorial Affairs, told the subcommittee that Bikinians have continued to eat the meat and drink the milk of coconuts despite warnings that all vegetation on the island still contains high levels of radiation.

She said the only realistic option left is to evacuate the island until radiation levels are safe, which may take as long as 60 years.

The 145 people now living on Bikini will be returned next month to nearby Kili Island, where many of the 800 Bikinians who were moved off their home island when the atomic testing began still reside.

BIKINIANS BEGAN to push for a return to their homeland virtually as soon as World War II ended, but were held back by federal agencies because of the dangerous radiation level.

The move home finally began in the early 1970s, when new tests indicated that the island was again safe for habitation. A work crew of 35 Bikinians was allowed to return to the island to build houses and other facilities needed for resettlement. The workmen eventually were joined by members of their families.

Van Cleve told the congressmen that the first resettlement was the result of inadequate scientific testing of radiation levels. More recent tests confirm that external radiation levels are safe, she said, but demonstrate that radiation in the island's 60,000 coconut trees and other vegetation remains at dangerous levels.

The move back to Kili will be accompanied by complex radiological tests to determine the extent of the radiation problem on Bikini and nearby islands. Scientists now speculate that it will be at least 30 to 60 years before the island can again be safely inhabited.

Rep. Sidney Yates, chairman of the subcommittee, blamed the Interior Department for creating much of the problem. He said shipments of food from outside have been months apart, forcing a rationing regime that has left Bikinians with little choice but to eat the coconuts.

BUT VAN CLEVE argued that the Bikinians would eat coconuts, always their food staple, no matter what the schedule of food shipments. "I think the evidence shows that Marshall Islanders will eat coconuts if coconuts are there," she said.

Thursday, July 27, 1978 Honolulu Star-Bulletin C-7

HONOLULU ADVERTISER

Cloud of controv

By WALTER PINCUS
Washington Post Service

Although scientists now say Bikini Island's food and water are too radioactive for safe consumption, the 100 or so Bikini people who have returned home over the past eight years "want to stay there," a Department of Energy official says.

The islanders' decision is likely to accentuate disagreements both within the U.S. government and among Bikini leaders over what to do about the island, which once was the site of U.S. nuclear tests.

Fueling the controversy have been accusations by Marshall Island politicians that the United States has used the Bikinians and other islanders to study radiation effects.

Less than two years ago, it has been learned, U.S. government-supported scientists wrote that Bikini was the best source for data on reactions to plutonium inside the human body. But Department of Energy officials deny that the scientists meant to suggest islanders be allowed to remain as study subjects.

Bikini Island was declared safe for reoccupation in 1969. At that time, Atomic Energy Commission officials were quoted as saying: "There's virtually no radiation left, and we can find no discernible effect on either plant or animal life."

About 100 out of 500 former residents of the 26-island Bikini chain subsequently returned to their island.

Last year, however, sophisticated tests of the Bikini residents showed that higher than acceptable concentrations of cancer-causing radioactive elements — including plutonium — were being taken into their bodies from the water and food grown on the island's still radioactive soil.

A study by Lawrence Livermore Laboratory of California, which was sponsored by the Department of Energy, found that the long-term dose to an individual living on Bikini would be far above federal guidelines.

As a result, since last October, the United States has been importing food and drink to the island's inhabitants so they won't eat radioactive coconuts, fruit and other vegetables that are locally grown.

According to Roger Ray, the Department of Energy's assistant manager for environmental safety, who visits Bikini regularly, there is "no need for sudden shift" of the people away from the island.

"If the situation (of radioactive elements within the bodies) can be moderated by getting good food into the island," Ray said, "I would not be disturbed if they continued to live in the houses on Bikini Island."

Last month the Interior Department asked Congress for $15 million to begin preparing another island for all the Bikinians, including the 100 who had moved back to Bikini Island itself.

The Department of Energy, according to Ray, is studying Eneu, another part of the island chain of the Bikini Atoll. Eneu Island, 10 miles away, received far less fallout during the 1950s nuclear tests than did Bikini Island.

Interior Department officials, who have political responsibility for Bikini, have made it clear they believe that the present residents of the island must be moved elsewhere.

They say it's impossible to keep the people, particularly children, from wandering into the interior, which is considered too contaminated to live in, and from eating the coconut, pandana fruit and breadfruit that are growing there. They also note that plutonium dust can be inhaled.

They have been joined in that view by leaders of the Bikini people who still live on Kili, the island to which they were moved in the late 1940s before the nuclear tests began.

Last fall, these leaders wanted the present Bikini residents "moved off immediately."

According to Ray, the leaders later changed their view, after meeting with him and other government officials who explained the radiation risks to them. The leaders backed down on the demand that Bikinians be evacuated immediately but argue that no one else should be allowed to move to Bikini.

One irony is that the free U.S.-supplied food is an attraction to live on the contaminated island. Life on Kili is hard, with most residents working all day to subsist.

In contrast to Interior, some Department of Energy officials have said the people now on Bikini should make their own judgment on where they want to live, once everything has been explained to them.

Some energy officials do not believe the intake of radioactive elements that was recorded last year was serious enough to require moving the residents even over the long term.

The 1976 Livermore study for the Department of Energy concluded,

APRIL 3, 1978

ersy over Bikini

"Bikini Atoll may be the only global source of data on humans where intake via ingestion is thought to contribute the major fraction of plutonium body burden . . . .

"It is possibly the best available source of data for evaluating the transfer of plutonium across the gut wall after being incorporated into biological systems."

U.S. officials deny accusations that Bikini islanders and others have been exploited in the study of radiation effects, saying extensive health-care examinations given those people are for their own benefit and not to gather scientific data.

A U.S. medical team is now in the Marshalls to examine and collect specimens for later study from the Bikini residents and others who were exposed directly to radiation during the 1950s.

According to Ray, results from this expedition should permit a decision to be made on whether Eneu would be safe for the remaining former inhabitants of Bikini.

Fresh Troops Will Tackle Enewetak Job

They'll be changing the guard at **Enewetak** shortly as fresh troops from **Schofield Barracks** get into the big cleanup project, disposing of "hot" metal left over from the 1950s atmospheric blasts.

Radioactive junk has been moved to **Runit**, the "hottest" of the islets and the uncontaminated stuff was dumped into the lagoon, reports Lt. Col. **William McGee** of the **Defense Nuclear Agency** from Washington.

The whole business is on schedule, says McGee.

Coming up soon will be the slurry operation when the stuff on Runit is mixed with concrete and funneled into a water-filled blast crater.

Soldier cleanup crews, operating out of the base camp at **Lowja** have completed work on seven islands in the atoll.

McGee said soil scrapping is continuing where necessary.

Meanwhile, McGee reports that the Enewetakese continue to rotate also between their "new" quarters on **Japtan** and the island that has been their home since the 1950s, **Ulejang**.

The scrap dealer has moved from Japtan to **Medran**, the ghost island where the technicians lived during the test days.

Despite what happened to the natives on **Bikini**, Gen. **Bernard Rogers** confirmed here last week that the Army has no plans to hesitate for a minute on the Enewetak job.

Personnel from Schofield get a medical examination before they leave here and after they return in addition to the daily monitoring that goes on at the lagoon.

Work crews of mixed military and civilian personnel leave Hickam for Enewetak once a week, 60 at a time and that will be increased to 115 for the rotation.

Meanwhile DNA continues to show an interest in the estimated 300,000 persons involved in 272 Pacific nuclear shots at Bikini between 1946 and 1962.

DNA wants to know what the health hazards were during those years for participants and will accept toll free phone calls to 800-638-8300.

McGee says of 500 ships involved in the tests, either as target ships or support, two, the battleships **Nevada** and **New York**, put into **Pearl Harbor** after the 1946 tests.

But DNA is uncertain just how "hot" these ships were when they came to Hawaii, who worked on them or what the level of exposure may have been for shipyard workers.

Another **RIMPAC** fleet exercise kicked off this week with the U.S., Australian, Canadian and New Zealand navies planning to wind up everything in Hawaii May 4.

The **Enterprise** is the show horse and Vice Adm. **Samuel L. Gravely Jr.** commander of the 3rd Fleet is overall quarterback. The range at **Barking Sands** figures in the action.

Col. **Sharman Stevenson**, now at Yokota, is Hickam-bound to take Col. **Howard F. O'Neal's** post as head of the **15th Wing**. O'Neal says he's gathering material on some of the lighter sides of Air Force life to put in a book.

That sudden weather change for Schofield troops sent to Korea caused plenty of colds and fevers but one man, **Robert Pullum**, may have come down with a case of frostbite.

Going the other way, toward WestPac, are **Marines** from the **Kaneohe** base who will rotate with those sent out earlier for some shipboard duty as a contingency strike force.

Making the deployment also is **Fighter Attack Squadron 212**.

A less visual exercise than Rimpac is **Roll Call**, a shipping control exercise in the Pacific now going on also under Adm. Gravely.

The Armed Forces

By Lyle Nelson

4/14/78 S-B

Bikini Natives Have to Move

WASHINGTON (AP)—The United States has decided to relocate the 112 residents of Bikini Island against their will because of radioactivity on the atoll, the site of hydrogen bomb tests in the late 1940s and '50s.

John DeYoung, an Interior Department official, told a House Appropriations subcommittee Wednesday that the level of strontium 90 in the residents' bodies is reaching dangerous levels.

The move could take place as early as next month if tests on the Bikinians show an increase in the radioactive material, DeYoung said, adding that Bikini "will be off limits for 30 to 50 years."

The Atomic Energy Commission in 1969 declared Bikini safe enough for its natives to return and settle. They had been removed at the time of the bomb tests which took place between 1947 and 1958.

STARTING IN 1970, about 112 natives returned. But three years ago, medical tests detected higher than normal amounts of radioactive strontium, cesium and plutonium in their bodies.

Health officials determined that the problem was being caused by food grown in still-contaminated soil.

Ruth Van Cleve, director of the Interior Department's Office of Territorial Affairs, said Enyu, an island in the same atoll, was likely to be a safe site for relocation of the Bikinians.

Last year, the government started providing imported food so the Bikinians would not eat contaminated coconuts, breadfruit and other locally grown foods. The islanders also were given canoes and fishing gear so they could eat marine life caught in their lagoon, which was certified as safe.

Bikinians Sue U.S.

WASHINGTON (UPI) — A $450 million lawsuit was filed today against the United States on behalf of the people of Bikini Atoll in the Pacific Ocean, charging their homeland was damaged or destroyed by nuclear testing after World War II.

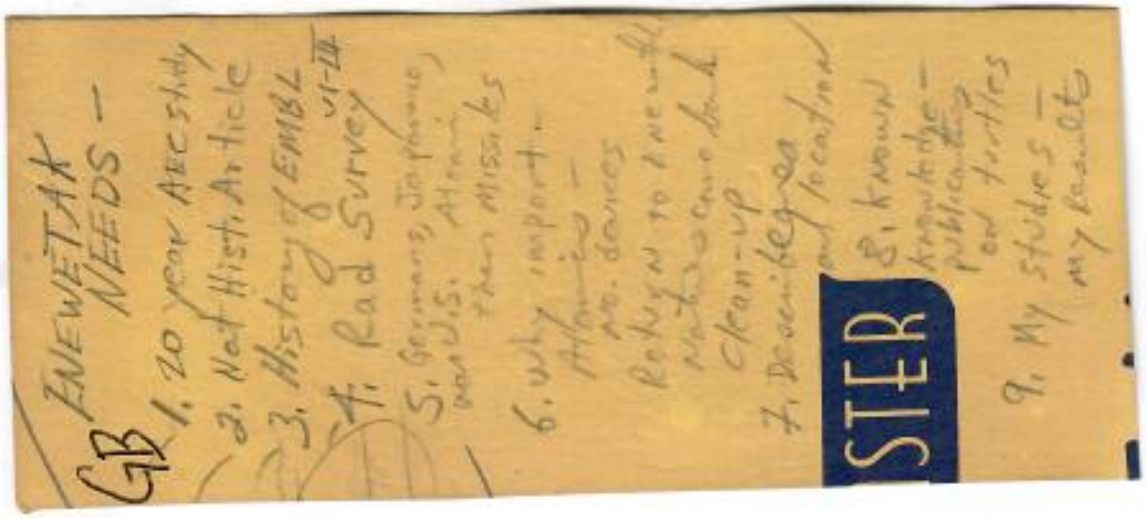
The class action lawsuit filed in the U.S. Court of Claims is seeking damages for nearly 1,000 Bikini residents or their descendants.

The odyssey of the residents of Bikini, a U.S. trust territory, began in 1946, when they were evacuated so the American government could begin "Operation Crossroads" — the first American atomic tests in the Pacific.

They were relocated to Rongerik Atoll, 140 miles from Bikini, and then moved to Kwajalein Atoll and later to Kili Island, 400 miles south of Bikini, where many Bikinians still live.

About 550 now live on Kili, where there are amost no cash-producing activities and the local economy is severely depressed, the suit said.

Monday, March 16, 1981 Honolulu Star-Bulletin A-7



Bikinians May Play Major Solar-Power Role

By David Shapiro
Gannett News Service

WASHINGTON — Natives of Bikini, who saw their tiny Marshall Islands atoll decimated by American bomb tests at the dawn of the nuclear age, may now be invited to usher in a new era of solar power in the Pacific.

Sen. Spark Matsunaga, D-Hawaii, is urging the Interior Department to make Bikini the first fully solar-powered community in the region if the United States allows 500 Bikinians to return home after some 30 years of exile caused by the atomic bomb tests.

Matsunaga has received a commitment from Interior Secretary Cecil Andrus to lean heavily on solar power and other renewable energy resources in drawing a master plan for the resettlement of Bikini natives.

Bikinians, who were moved to Kili and other islands in the Marshalls when the U.S. military took over Bikini for bomb tests, have fought to return home since the bombing ended in the 1950s.

Their return was long precluded by dangerous levels of radiation found in the atoll, but a new Department of Energy study has determined that resettlement of Eneu, an island on the fringe of the Bikini atoll, now may be possible.

MATSUNAGA, WHO has proposed several plans to free residents of Micronesia from their costly dependence on foreign oil, said Bikinians should be the first to benefit from the drive for energy self-sufficiency whether they return to Eneu, remain on Kili or choose another island for permanent resettlement.

"I can think of no site more fitting for introducing into the Pacific Basin a new energy foundation based on renewable energy resources, nor any people more deserving of playing that role, than the islands and the people who suffered most from those devastating demonstration projects that initiated the thermonuclear age," he said.

Matsunaga has already won Senate approval of a bill that would require the federal government to develop energy self-sufficiency plans for all of the major islands of the U.S. Trust Territory, relying heavily on such renewable resources as solar photovoltaics, wind power and ocean energy.

Another Matsunaga bill would encourage the replacement of expensive diesel-powered ships used for transportation between the 2,100 islands of Micronesia with new-generation sailing ships.

MATSUNAGA'S INTEREST in solar power for Micronesia has already produced some practical results in the Marshalls.

At Matsunaga's suggestion, a representative of ARCO Solar recently visited Marshall Islands President Amata Kabua just as the president was ordering diesel generators to power communications systems in the islands.

By time the meeting ended, Kabua had canceled the diesel orders and bought 15 small solar-power systems from ARCO.

Said Kabua, "I believe this solar system will provide for an excellent alternate energy source which is far more cost effective than small diesel generators and will give us a start to become less dependent on costly diesel fuel."

He estimated that the solar equipment will cost $184,500 to operate over 15 years, about half the price of the diesel generators that have traditionally been used to light island homes.

Uncle Sam 'Mines' Gold on Kwajalein

By Lyle Nelson
Star-Bulletin Writer

Uncle Sam went gold mining on Kwajalein atoll awhile back.

Vincent C. Tolino, head of the Defense Logistics Agency, revealed in a speech in Toronto recently that a huge, obsolete radar system at the Pacific atoll was the object of the prospecting.

He told an International Precious Metals Conference that 6,000 ounces of gold and 6,300 ounces of silver were reclaimed by the government from the radar system that once played a role in tests of the Army's Ballistic Missile Defense System.

Tolino described a precious metals recovery program run by the Pentagon that recovers gold and silver from obsolete military equipment.

Martyn Chase, a former Star-Bulletin writer and Island radio and television newsman who is now writing for Fairchild Publications in New York, reported on the Torotno conference and the Defense Logistics Agency prospecting successes.

Tolino said, "When they built that radar system, gold prices were only around $35 an ounce, so they made the radar facing out of solid gold."

"THAT SOUNDS astounding today, but in those days they didn't have to bother with gold plating. They just went ahead and said solid gold," he said.

Construction of various types of multiple-phased array radars took place in the 1950s and equipment has been updated throughout the '60s and '70s.

Most of the missile research at Kwajalein involved learning the characteristics of missile re-entry at the atoll after being launched from Vandenberg Air Force Base, Calif., more than 4,000 miles away.

And other research has concerned firing interceptor missiles from Kwajalein to knockdown incoming missiles.

Tolino said that when the obsolete radars were being dismantled workers noted that circuit boards and panels were also "very rich in terms of gold content." There were 10,000 gold-bearing elements, he said.

"We got as many of these items as we could and put them all on an airplane and flew it all back to our recovery center (at Colts Neck, N.J.)."

Tolino estimates the government has spent $4.2 million finding gold and silver built into its defense hardware and the program has returned the government $28 million in terms of the value of the metals recovered.

"The profit, if you want to call it that, is made in terms of savings when these materials are used again in our defense procurement system," he said.

Marshallese Leaders at Odds

By Rick Padden
Gannett News Service

A last-minute flurry of controversy broke this week over Enewetak atoll resettlement plans when a letter critical of the radiation cleanup operation from Marshall Islands' President Amata Kabua to President Carter was made public.

In the letter, Kabua expressed serious doubts as to the success of the project and requested that Carter look into the matter soon — keeping in mind the U.S. government's responsibility for the safety of the returning Enewetak people.

The atoll was used by the United States as a nuclear testing site from 1948 to 1958. Residents were evacuated before the tests began and were kept away for many years because radioactive contamination — the after effects of nuclear explosions — made the atoll unihabitable.

Kabua's letter evoked an immediate and harshly worded response from two traditional leaders of the Enewetakese, who believe the United States did a "magnificent job" of cleaning up their islands. About 500 Enewetakese are scheduled to return by the end of June.

THEIR RESPONSE — also sent to Carter — asserted that Kabua's motives for opposing resettlement were "money and politics" and that his objective was to see that federal projects and funds would be channeled through him rather than directly to Enewetak.

The two leaders, Binton Abraham and Johannes Peter, say they have opposed Kabua's policies for years. "We know President Kabua very well and we do not trust him," they said in the letter. "He has never done anything to help us and we reject his false claim to be our friend now."

The Enewetakese leaders, involved from the start in the three-year cleanup operation, said their decision to return was both "wise and necessary."

But on the very day the two men flew to Enewetak for the return ceremony, a memorandum written by Peter Rosenblatt, Carter's personal representative to the Marshall's status negotiations, was circulated and raised many eyebrows.

The memo expressed support for Kabua's attitude along with a belief that the "whole project — ceremony, proclamation and all — should be put on ice," until the Department of Interior could review the situation.

ROSENBLATT'S MEMO contended that Kabua and the Marshall Islands Government (MIG), "fiercely resented being ignored on this entire issue."

The memo said the MIG had a legitimate interest in the proceedings

Over Cleanup of Enewetak

as spokesman for and guardian of the interests of all the people of the Marshall Islands. It added that a serious mistake had been made when MIG had been ignored in the framing of a proclamation read at Wednesday's return ceremony, and omitted from the list of signatories.

Now Kabua protests the whole idea of a return to Enewetak, the memo said. Kabua did not show up for the historical return ceremony.

But Vice Adm. Robert R. Monroe, director of the Defense Nuclear Agency's cleanup said that Rosenblatt was "just plain wrong" when he said in the memo that the Marshall's government had been ignored in the Enewetak matter.

Monroe said the heads of all the federal departments involved had briefed Tony DeBrum, MIG's secretary for foreign affairs, on the entire operation May 16, 1979.

HE SAID ON May 31 he had sent an invitation to Kabua to help in resettlement planning, but that Kabua was unable to attend and sent a representative instead. And Monroe said that in September 1979, Oscar DeBrum, chief secretary of MIG, attended a radiation dose assessment meeting concerning Enewetak atoll, at which the dangers from radiation were spelled out for the Enewetakese.

Enewetak's People Finally Go Home

By Rick Padden
Gannett News Service

After three decades of waiting, the people of Enewetak atoll in the Marshall Islands have finally gotten their islands back from the U.S. government, which used the atoll for nuclear testing from 1948 to 1958.

The atoll has changed drastically since the people left in 1947, and the people will face many problems and uncertainties when they return.

Although control of the atoll was signed over to the people in 1976, they had to await a three-year government cleanup program before resettlement became something more than a dream.

Now, three of the 40 islands that make up the atoll have been rehabilitated — with debris removed, houses and community facilities erected and thousands of fruit tree seedlings planted.

All studies indicate that the returnees will encounter some health risks, but the Enewetakese themselves are convinced that the chances of adverse effects are too slim to prevent resettlement. Their spokesmen say the people know the risks, and want to return.

A RESETTLEMENT in stages will probably be completed by the end of June, according to Trust Territory High Commissioner Adrien Winkel.

Vice Adm. Robert R. Monroe, who directed the Defense Nuclear Agency's role in the cleanup, said that radiation standards set by the Department of Energy had been met on the three islands originally tagged for resettlement.

The three islands to be resettled — Enewetak, Medren and Japtan — had never actually been used for tests. They were primarily used by the personnel of the testing program.

Those islands needed only to be cleared of military buildings and then rehabilitated through housing and agricultural projects.

AT A CEREMONY celebrating the project's end, Winkel said yesterday that the evacuees should be moved back to the atoll by the end of June.

There are about 500 of them hoping to go home. They have lived on Ujelang, a tiny, isolated atoll 125 miles southwest of Enewetak, since 1947.

When they do go back, they'll move into small concrete houses that will be equipped with large rainwater catchment systems.

Kerosene stoves will be used for cooking and heating water. Lighting will come from candles and kerosene lanterns.

The houses will be grouped around a common courtyard in each cluster — similar to the traditional Enewetakese custom. Outdoor privies will be located around the clusters, along with gardens and animal pens.

Community centers will provide educational, medical, religous and sanitation facilities.

Boat piers have been built on the three islands, and lagoon fishing not only will be allowed but is said to be very productive.

ONE OF THE biggest remaining worries of the Enewetakese leadership at this point is food.

The 80,000 or so coconut, pandanus and breadfruit trees that were planted won't bear fruit for several years.

So the atoll will be totally dependent on supplies brought by Trust Territory field trip ships every two to three months.

Another unsettled matter on Enewetak revolves around Engebi, the traditional home-island of the atoll's northern people.

Engebi was not included in the cleanup program at first because it was situated in an area that was badly contaminated.

The more easily removed surface contaminants, however, were cleared up after persistent prodding by Engebi people, but some low level radiation remains below the surface.

And congress hadn't appropriated money for houses or general rehabilitation on Engebi, so the Engebi resettlement issue remains up in the air.

DESPITE THE radiation worries, the long wait on barren Ujelang atoll and the questions of future food supplies Binton Abraham — chief of the southern part of the atoll — said he is grateful to the United States.

Problems Unresolved on Enewetak Atoll

By Rick Padden
Gannett News Service

AGANA, Guam—With the ceremony to celebrate the end of a $100 million government cleanup program of radiation contaminated Enewetak Atoll less than two weeks away, there are still unresolved issues that may lead to disappointments for the islands' displaced natives.

Nearly 150 Enewetakese were forced to evacuate their island homes 33 years ago when the Atomic Energy Commission announced that Enewetak Atoll was needed temporarily — for the good of all mankind — as a site for nuclear testing.

In the following 10 years the atoll was to be jolted, reshaped and contaminated by 43 nuclear tests, including the detonation of the world's first hydrogen bomb.

Mankind would certainly save a place in history for the ring-shaped Marshall Island atoll, 1,000 miles southeast of Guam, but would it save a place for its people?

IN 1977 THE Departments of Defense, Interior and Energy set to the task of cleaning up and rehabilitating the atoll.

One thousand soldiers were to be used in the project, under the direction of the Defense Nuclear Agency (DNA), in a task later called "technologically the most complex ever undertaken on earth."

The Enewetakese people have clung to the hope that their islands could be saved and returned to them ever since that time and watched a similar "cooling-down" project on Bikini Atoll be lauded as a success, and then fail with the development of new radiation detecting devices.

But Project officials say Enewetak's cleanup was more complete, more sophisticated than Bikini's. And more costly.

The Enewetakese have been told that areas of the atoll have been made more safe, habitable. But there are qualifications.

ONLY THREE islands of the 40 that make up the atoll have been designated as habitable. All are in the southern part of the atoll.

Houses, community centers, a clinic and a dock area were built on the three islands, and 80,000 coconut seedlings were planted.

The northern islands, where nuclear testing was most extensive, have been labeled off-limits to the Enewatakese.

Runit, where 100,000 cubic yards of contaminated soil from the cleanup was deposited and capped in a giant concrete tomb, is considered too dangerous for habitation and may remain so for thousands of years.

BUT OF GREATEST concern to the Enewetakese is that Enjebi, the ancestral home of the northern Enewetak people, was not included in the original cleanup plan.

Before evacuation, Enewetak was politically divided into two groups: the Enjebi, people of the north, and the Enewetak people of the south.

Each group had separate tribal chief lineages.

Throughout the cleanup, the Enjebi people hoped that returning home woud mean returning to Enjebi.

In a telephone interview last week, Ted Mitchell, an attorney with Micronesian Legal Services who is representing the Enewetakese, said that DNA had made an extra effort to rid Enjebi of soil contaminated by plutonium, (which is most dangerous through inhalation), although the agency had not originally planned to do so.

But what Mitchell called "very small amounts" of cesium 137 and strontium 90, which remain in the soil and can be taken up through the food chain, have prompted Department of Energy officials to resist any Enjebi resettlement for at least 30 years.

MITCHELL SAID that tests conducted by independent researchers he had hired had convinced the people that it would be safe to return.

And in October 1979, the Enewetakese passed a resolution to return, despite warnings from the Department of Interior and Vice Admiral Robert R. Monroe, director of the DNA project.

"There are still levels of suburanics (subsurface contaminants) on Enjebi," Monroe had said in December 1978. "According to all our know planning factors, they are still too great to allow the people to go back to that northern island this year or next year or in the near future."

Earlier this month Monroe was quoted in a UPI story as saying Enjebi had surprisingly been restored to acceptable living standards.

But Mitchell said that he had not been informed by the energy department of such a development and that Monroe must have been referring only to the riddance of plutonium from the atoll — not cesium or strontium 90.

As far as he knew, Mitchell said, the government's official position was still one of resistance to Enjebi resettlement.

BUT, MITCHELL said, "I don't think the risk to the people going to Enjebi is any worse than I take going to Washington and a polluted urban environment."

Mitchell pointed to test results that he said predicted no more than 0 to 0.66 extra cancer cases over a 60 year period for the islanders if they return.

"DOE tends to exaggerate the problem", Mitchell said.

The Enjebi resettlement remains in question, with Mitchell now in Washington trying to get funds to build additional housing on that island.

Radiation Checks

The Armed Forces

By Lyle Nelson

As the **Enewetak** cleanup project winds down to its last days the question was raised about what effort the military will make to monitor the health of the 2,917 men who worked on the "hot" northern islets of the massive atoll.

The question is asked by the **Ophi Alliance**, one of the anti-nuclear groups that passes out leaflets to men reporting to work at **West Loch.**

A Defense Nuclear Agency spokesman in Washington says health precautions during the cleanup included putting radiation exposure film badges on everyone working the north end of the atoll. Readings were zero exposure on 83 percent of the badges and in the 0.01 to 0.02 rem for the other 17 percent. In Hawaii the normal reading is higher, 0.1 rem

In addition, the DNA set up 83 air samplers downwind in areas where the men were moving radioactive debris and these filters were changed every two hours. Again readings were zero, as were urinalysis samplings.

IN FACT EACH man working on the northern islets had the fact recorded in his health records along with the hours and days in which he worked on an island.

This information is fed into service record computers and stored in Albuquerque, N.M.

Today only 35 servicemen remain in Enewetak, along with about 300 contractors building homes for the islanders who have returned there.

The official date for returning Enewetak back to the Marshallese is April 8.

Tripler's information office issued a rare warning, that the medical center is not fund-raising for a 32nd anniversary brochure and that anyone soliciting from businesses "is doing so under false pretenses and should be ignored."

The issue of base directories published by private companies is an old one and causes some consternation from time to time. Directories list important services on base usually, along with maps, advertisements, features about the service and Hawaii.

American Publishers now has contracts to supply directories at all bases.

TAKING A BOW at tomorrow's 38th birthday **Seabee** ball will be **Melvin E. Neighbours**, the Pacific Fleet Seabee of the Year.

Chief M. Sgt. **Gerald D. Lampe**, senior enlisted adviser at the **15th Wing at Hickam** might take a bow also as chairman of the **Round Robin Group**, a gathering of chief master sergeants or petty officers in the five service branches in Hawaii.

Vice Adm. **Robert P. Coogan**, a former 3rd Fleet commander here, has retired.

Robert E. Chisolm, of P.O. Box 212, Santa Teresa, N.M., seeks to update the roster of the **508th Parachute Infantry Regiment** which jumped at Normandy as part of the 82nd Airborne.

It's coincidental that on Feb. 28, the day they rolled out the Army's new XM-1 tank, first new model in 22 years, retired Gen. **I.D. White**, one of the Army's greatest tank commanders and armor experts, should walk into a farewell party for outgoing information officer **Roland Libby.**

for Enewetak Men

Thursday, March 6, 1980 Honolulu Star-Bulletin B-5

That's the **Jarvis** getting a $982,068 facelift at Honolulu Harbor by Pacific Marine because the cutter, commissioned in 1967, is badly in need of top-to-bottom maintenance, including painting and work on the barnacles.

AND MORE adjustments at Bremerton where the ballistic subs **Theodore Roosevelt** and **Abraham Lincoln** get their tubes removed while the Navy considers whether to retire them. The overhauls are required under SALT I since the Trident Ohio is coming on line and the number of launchers is limited by the treaty.

Next big doing for the **Walanae Coast Military/Civilian Advisory Council** will be an ocean-oriented program in June with all kinds of activities along the coast, including fishing, swimming and sailing, the Army reports.

The 1980 **Combined Federal Campaign** collected $1,607,461. Most of this, 83 percent, went to the Aloha United Way.

Five officers of the Army Reserve are off to Karlsruhe, West Germany, while 10 enlisted men of the 100/442nd recently returned from New Zealand. The officers get the snow; the enlisted the heat, presumably.

Tentative agreement by Marshall isles

By JERRY BURRIS
Advertiser Politics Writer

KAILUA-KONA — Talks between the United States and the islands of Micronesia on a new political relationship ended here yesterday with progress but no final conclusion.

One of the three Micronesian political entities represented at the talks — the Marshall Islands — did initial a draft compact of free association with the United States.

That initialing signals the Marshalls' tentative agreement to the terms of a 15-year relationship with the United States which will give them internal autonomy while the United States maintains authority over defense matters.

The other two Micronesian groups present — the Federated States of Micronesia (Ponape, Kosrae, Truk and Yap) and Palau — did not initial the agreement.

Representatives of the Federated States were to take the latest draft back to Ponape for review by their political leadership.

While there appeared to be general satisfaction with the draft negotiated during the week-long meeting here, the Federated States were known to still have questions about several items.

These included the formula for increasing American payments to the islands to take care of inflation; the wording of language which governs fishing rights; and the process by which the Micronesians would vote on termination of the trusteeship.

The Palauans at Kona represented a recently elected government and were unprepared to make final decisions on a relatively unfamiliar compact.

The compact reportedly would provide the Marshall Islands around $19 million a year, diminishing slightly over the 15-year term of the agreement. That sum would be increased, however, by a cost-of-living escalator which would be 7 percent or less, depending on the growth of a cost-of-living index.

The Marshall payments would not include a separate $9 million the United States pays annually for the use of Kwajelein Atoll as a missile test site.

The United States has pledged to end its trusteeship over the islands of Micronesia by 1981.

The Northern Mariana Islands already have agreed to a new commonwealth status relationship with the United States which will be formalized at the same time the other areas come to final terms.

Majuro tries for recovery

MAJURO, Marshall Islands (UPI) — A massive recovery action has been started by federal agencies and Army personnel following huge sea waves that left some 7,000 persons homeless on Majuro in the Marshall chain.

After heavy waves pounded the island from Nov. 26 to Dec. 1, Marshall Islands President Amata Kabua requested disaster aid from President Carter.

The Red Cross set up tent cities and field kitchens following the disaster and now Hawaii's 25th Infantry Division has taken over the relief work, under the guidance of the Federal Emergency Agency.

"We are now in the process of trying to develop a housing program for the island's residents," spokesman Verne Paule said Wednesday. "We have also set up a one-stop disaster assistance center, whereby local people can get assistance from all agencies."

He said about 2,000 residents have been evacuated and the rest are being housed in tents until permanent shelter can be built or found for them.

U.S. Army photo

Mother and child wait for Army mess teams to feed them.

U.S. Army photo

Tent cities house many of Majuro's homeless.

U.S. Army photo

Children gather around Hawaii-based soldiers assisting in relief efforts.

U.S. Army photo

Some of the damage done by gale-force winds and 20-foot surf.

Mount Runit Built to Store Nuclear Waste

ENEWETAK ATOLL — It looks like a gigantic white disc on the edge of one of the Pacific's largest lagoons. It's called Mount Runit.

The 30-foot high concrete cap was built by Army engineers to store radioactive soil and debris left over from the nuclear bomb tests at Enewetak between 1948 and 1958.

The Army said the concrete cap was completed Sept. 6. The concrete is 18 inches thick, 370 feet wide and contains 110,000 cubic yards of radioactive soil mixed in a concrete slurry plus pieces of "hot" debris taken from Runit and other islands at the northern end of the lagoon.

One of the two deep craters on Runit, created by bombs, was used as the site for the concrete cap, an engineering feat conceived by the Army Corps of Engineers at Fort Shafter.

The dome is expected to survive for hundreds of years though Mount Runit itself is considered to be unsafe for humans for thousands of years due to plutonium contamination. It is off-limits to the Enewetak people.

THE ARMY BASE camp at Lojwa is now being taken down and non-radioactive debris, some of it World War II buildings not contaminated by the bomb tests, will be dumped in the lagoon, a spokesman for nuclear agency said.

The cleanup work ended Sept. 15 and the demobilization of cleanup equipment should be completed by April 15, the Army said. The cleanup campaign got under way two years ago.

Thousands of servicemen from every branch took part in the cleanup and the Defense Department has decided to give them Humanitarian Service Medals for their work, mostly accomplished under very hot, humid conditions.

Temperatures on the concrete dome hit 130 degrees Fahrenheit during construction.

Five persons died during the work. Two were lost when their fishing boat vanished during a rainstorm, one had a heart attack playing basketball, one died using an acetylene torch and one was fatally injured when crushed by a bulldozer.

Many of the Schofield Barracks soldiers who helped in the Defense Nuclear Agency's atoll cleanup campaign will be home by Christmas. But some military personnel still will remain on Enewetak for several more months.

Some 550 Enewetak people expect to move back to the atoll next year, including about 200 natives of the northern islands, where tests were held. They have expressed their intention to return to Enjebi over the objections of the U.S. government.

25th Div. Has Cleanup Plans

Hawaii looks better day by day as the rubbish gets picked up in the wake of the **United Public Workers** strike settlement, and now the **Army** has its own cleanup plans.

For a week, starting Dec. 17, the **25th Division** will start clearing debris, litter and junk cars from 70,000 acres of private or state land that it leases for training on Oahu.

Soldiers will be working in **Makua Valley, Kipapa, Kahuku range lands, Dilligham, Wheeler, Waihole, Waiawa and a few other areas.**

It would take an army to clean up **Kapaa Quarry Road**, a real disaster area, but perhaps the uniformed Army feels it has enough to do cleaning up after itself, which is almost what the 25th operation amounts to.

A recent cleanup operation involved bulldozing **"Sherwood Forest,"** as it is known, in Waimanalo. **Kaneohe Marines**, with an assist from some Schofield soldiers, cleared out 16 acres of brush which was littered with trash, including junk cars.

The **Waimanalo Council of Community Organization** had suggested the work and folks around there even contributed some food after they found the servicemen gobbling C-rations.

Tomorrow is the anniversary of the **Pearl Harbor** attack and the Army reminds me it will sponsor a retreat at **Fort DeRussy** at 4 p.m. with **Robert L. Stevenson**, former state adjutant general, as speaker.

Shafter officials say the ceremony is tied to its public awareness drive which Gen. **Edward C. Meyer**, chief of staff, who will visit here next week, says underscores "the need to man our armed forces. . ."

Looks like a subtle recruiting drive to me. Nationally the Army will give last five-star general **Omar Bradley** a Defense Department Distinguished Service Medal at the Sun Bowl football game Dec. 22 in El Paso.

Other Dec. 7 items: **James W. Neal**, national vice president of the **Fleet Reserve Association**, will take part in events tomorrow at Pearl Harbor and speak to members at 8 p.m. in Building 367 near Drydock Four.

And the **Senior Non-Commissioned Officers Wives Club** will place a wreath at the memorial to K-Bay defenders at 9 a.m. tomorrow, **Frances Stewart** reports.

A story out of Washington last week indicated a decision by a federal judge will open the way for ex-soldiers to upgrade their less than honorable discharges if they were separated for drug offenses.

Soldiers were forced to take urinalyses in those years. Now the federal government may appeal the decision. Judge **Barrington D. Parker** estimated there were 10,000 in this category.

Locally the **Veterans Administration** and the **Army** say they believe very few such ex-soldiers live in Hawaii. Once a soldier is discharged here his service records are sent to St. Louis.

The VA here submitted these drug treatment figures:

Of the 94,000 veterans of all wars living in Hawaii, 12 right now are taking outpatient treatment for drug problems, a few at the **Drug Addiction Services of Hawaii** unit in Waikiki. Eight were admitted for treatment in fiscal 1979 and 1,764 received outpatient treatment during the same period. Most were undergoing methadone maintenance for heroin. Not one veteran is an inpatient today.

Capt. **Julia A. Dean** of the Defense Nuclear Agency here, back from Enewetak, reports the demobilization of forces phase of the nuclear cleanup program is ahead of schedule. The deadline for the end of the military operation there is April 15.

Have heard nothing new from Washington, however, regarding the desire by the islanders to resettle Engebi and other northern atolls where bomb tests were held.

The Council of Enewetak passed a resolution in September that outlined its belief that returning to Engebi was safe based on reports by two scientific experts in genetics and other radiation risks.

The Armed Forces

By Lyle Nelson

The Sunday Advertiser

Established July 2, 1856

THURSTON TWIGG-SMITH — *President & Publisher*
GEORGE CHAPLIN — *Editor-in-Chief*
BUCK BUCHWACH — *Executive Editor*
JOHN GRIFFIN — *Editorial Page Editor*
MIKE MIDDLESWORTH — *Managing Editor*

Honolulu, October 7, 1979

Micronesia issues

Some monument

The Army calls its 370-foot concrete dome on Enewetak atoll "a monument to America's concern for humanity." It gives itself, and the United States, far too much credit.

The dome is a concrete cap over a 25-foot deep, 360-foot wide crater filled with a mixture of radioactive soil mixed with concrete. The crater itself was formed by one of the 43 nuclear tests conducted on Enewetak between 1948 and 1958.

If the dome is a monument to anything, it is a monument to American military expediency and civilian acquiescence. The Army's engineering masterpiece on Runit Island will stand as a stark symbol of our nuclear legacy in the Pacific.

Runit itself will be off-limits indefinitely, and the concrete dome is expected to have a life span of "hundreds of years." The radioactive material it is covering has a half life of 24,000 years.

Before our government gets carried away with praise for itself, it should remember why it had to clean-up Enewetak and build that dome in the first place.

travel freely to the United States, to enlist in the armed services.

Presently, they cannot join. However, their cultural cousins on Guam, who are American citizens, can and do enlist in large numbers.

The Examiner says there are 300 commonwealth citizens who are waiting to enlist. That's out of a total population of about 15,000.

Those 300 or so Sablans, Borjas and Ataligs (the Smiths and Joneses of the Northern Marianas) must wonder at times why so many Americans are reluctant to join them in wearing fatigues. Representative Won Pat, after all, called his bill a "humanitarian measure."

A sad loss

A great island institution burned to the ground in Micronesia last month, and its loss will be long felt.

The Truk Trading Company, an unbelieveable collection of everything from bolts of cloth to engines to toothpaste, all housed in a mammoth quonset hut, was destroyed by fire.

Marianas 'army'

While many in the United States are not in favor of a return of military conscription, the folks out in the Northern Marianas are welcoming with open arms a chance to serve in the U.S. military.

"Marianas Boys May Be In Armed Forces Soon," a headline in a recent edition of the weekly Commonwealth Examiner noted. When the Trust Territory ends, the Northern Marianas will become a U.S. Commonwealth. Indeed, the Examiner says on its banner, "Published weekly on Saipan, U.S.A. — America's newest territory."

The commotion is about a bill in Congress introduced by Tony Won Pat, Guam's non-voting delegate to the House of Representatives. It would allow Northern Marianas residents, who are technically Trust Territory citizens but who may

Truk Trading was one of the largest companies in Micronesia, and one of the most successful cooperatives in the islands. It was formed in the early days of the American administration, and its annual gross sales were reported at over $4 million.

But its charm and attraction were in the many goods Truk Trading "displayed" on its dusty shelves. It was an island version of Filene's Basement, complete with almost everything a person might want. And quite a few things someone might not normally expect to find in the tropics.

An enterprising shopper reportedly once found a World War I uniform in the store.

Truk Trading also operates in copra trading, air-conditioning repair work, and runs a U-drive service and a barber shop. Its heart, though, was in the large quonset hut store that fronted the waterfront of Moen Island. Somehow, Truk will not be the same

NOVEMBER 28, 1976

Reef blasting, debris in lagoon

HONOLULU STAR-BULLETIN & ADVERTISER

Enewetak plan wor

By BRUCE BENSON
Advertiser Staff Writer

Federal fisheries and wildlife officials have voiced concern about a plan drawn up by the U.S. Defense Nuclear Agency to make the Enewetak atoll habitable once again for the 450 Enewetak people who wish to return.

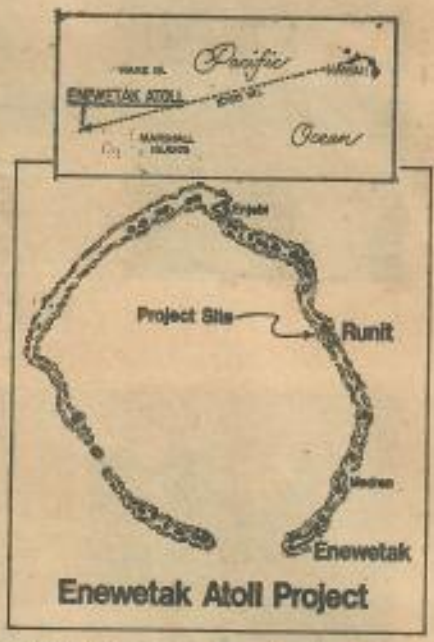
The nuclear agency is putting the final touches on a three-part cleanup operation that would dump up to 125,000 cubic yards of debris into the lagoon waters of the atoll, blast 10 or more long channels through coral reef to get to the dumping grounds and bury another 100,000 to 300,000 cubic yards of debris inside two craters formed from previous nuclear explosions.

Enewetak was the site for U.S. testing of nuclear and intercontinental ballistic missile weapons from 1947 until 1972. Its people were forced to abandon their homeland, with children crying and women screaming, before the tests began.

Congress has authorized the cleanup with a budget of some $20 million, about half the amount estimated as necessary to rid the atoll of its radioactive wastes and other debris. The Army Corps of Engineers is preparing to issue three permits under the Federal Water Pollution Control Act of 1972.

Col. F. M. Pender, the corps district engineer, has notified his superiors that the permits will be issued by Jan. 15, provided the corps can convince the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that they should drop their objections.

The objections center not so much on radioactive contamination as on the effects of carving channels through the reefs, dumping debris within the lagoon itself and scouring several feet of topsoil off Enewetak and other nearby atolls, disrupting seabird nesting grounds and possibly causing large-scale siltation from rainwater runoffs.



Enewetak Atoll Project

An official staff memorandum on an Army Corps meeting held at Ft. Shafter on Nov. 3 noted, "Permits cannot be issued if there are any outstanding questions that have not been resolved, regardless of the time expiration of the public notice. All problems should be handled at the local level in lieu of involving headquarters at Washington."

The expiration date for further public comment was Oct. 3, 30 days after the corps announced that it would act on whether to issue the three permits.

Gerald V. Haward, regional director for the National Marine Fisheries Service, has written to Pender of the plan: "If the material cannot be buried, burned or salvaged, it should be taken outside the lagoon and disposed of at a deep ocean dumping site."

The primary reason advanced for dumping up to 125,000 cubic yards of debris within the lagoon is that it would cost too much to take it farther out to sea.

Maurice Taylor, field supervisor for the Fish and Wildlife Service, wrote to Pender that "the dumping of 125,000 cubic yards of metal and concrete wastes into the lagoon is of concern to the service." He said the debris possibly would increase the incidence of ciguatera, a form of fish poisoning. He also said the metals possibly would release toxic oxides into the marine environment.

"The combination of these conditions could affect the resources and people who are expected to eventually utilize the lagoon resources as a future food source," he said.

Of an environmental impact statement prepared last year and of data in the recent public announcement of the cleanup, Taylor said, "(They) were found to be completely inadequate to evaluate project effects on fish and wildlife resources." He directed the latter criticism to the proposal to blast channels at five or more islands encircling the lagoon.

The public notice describes the proposed channel-making this way: "All work is expected to be of a clearing nature, using explosives or other mechanical means to remove any coral head obstructions. Creating an access channel by blasting may be necessary; however, channel clearances would not exceed 1,000 feet long by 150 feet wide and will be approximately 8 feet deep."

The new channels would require a permit under the Federal Water Pollution Act since the material displaced by blasting and other means would be left in the water. Pender has indicated to his staff that if Taylor doesn't drop his objections, the work could be done by dredging the material and placing it ashore. In that case, a permit wouldn't be required.

The cleanup of the radioactive debris seems likely to amount to a dif-

ries wildlife officials

fault operation in itself, the present objections notwithstanding. It must reduce radiological hazards by gathering all contaminated materials along with some plutonium-bearing soils, then entombing them inside two craters at Runit Island, a little more than 10 miles to the north of Enewetak.

More than a dozen islands make up the horseshoe-shaped lagoon, which is roughly 20 miles wide by 20 miles long, and is part of the Marshalls group, which in turn is part of the Trust Territory of the Pacific Islands.

At Runit Island, the nuclear agency proposes to bury from 100,000 to 300,000 cubic yards of contaminated wastes inside the LaCrosse and Cactus craters. The craters would be sealed on top with an 18-inch-thick concrete cap. Keeping workers free from contamination and cleaning the machinery are expected to require extensive, if not extraordinary, precautions.

Of the entombment operation, Taylor said he was unhappy at the potential disturbance of wildlife on Runit. But he said he wouldn't object if the permit carries such conditions as making certain that radioactive wastes will not enter lagoon waters, and monitoring wildlife in the future for radiological contamination.

A U.S. Suburb — on a Pacific Isle

By Bob Barr, Associated Press

KWAJALEIN ISLAND — This super-secret suburb in the middle of the Pacific has brought American affluence tantalizingly close to native Marshall Islanders.

The United States moved the natives away to make way for a military base that became a key part of the missile program. Now the islanders live on a dusty, disease-ridden slum island eight miles away, and only those with jobs on the missile base are allowed here.

Island leaders sometimes wish the missile test range would go away, but they concede they need the dollars that flow from it.

The 3,000 American residents of Kwajalein Island are pampered with free movies, a golf course, sparkling beaches, subsidized food and top-flight schools and medical care. The tropical climate is perfect for bicycling to work along tree-shaded streets.

Hawaii seems much closer than 2,440 miles away.

THE MARSHALL Islanders live on Ebeye — 73 parched acres where 7,000 people have crowded out all but a few trees and patches of grass. There is only one doctor to treat common ailments such as influenza, scabies, dysentery and malnutrition.

"There is no question that there is discrimination," says George Allen, an American lawyer employed by Micronesian Legal Services. "It is just like South Africa's apartheid."

But American officials say Kwajalein is no different from any other U.S. military base.

Kwajalein Atoll, a necklace of more than 90 small islands surrounding 1,000 square miles of lagoon, has been a missile test base since 1959. The Nike-Zeus, Nike-X, Sentinel and Safeguard ABM systems were tested here, and Kwajalein Lagoon is the target for ICBMs test-fired from Vandenberg Air Force Base in California.

Security is strict. Visitors must get permission from the Army, and reporters have been allowed on the island only in the last few years.

ALTHOUGH THE Safeguard system was scrapped, Kwajalein is now preparing to test radar and computers for another missile defense system.

"As long as there is ballistic missile defense testing and intercontinental ballistic missile testing, there will be a need for Kwajalein Missile Range," says Col. Robert L. Russell, the former base commander.

Russell estimates the U.S. investment here at $1 billion.

For the Marshallese, though, "Over the long term, Kwajalein is a real liability," says Sen. Amata Kabua of the Congress of Micronesia. "All of the evils of the ghetto are on Ebeye."

Rep. Ataji Balos, a member of the congress who was born on Kwajalein, concludes: "We're stuck with it."

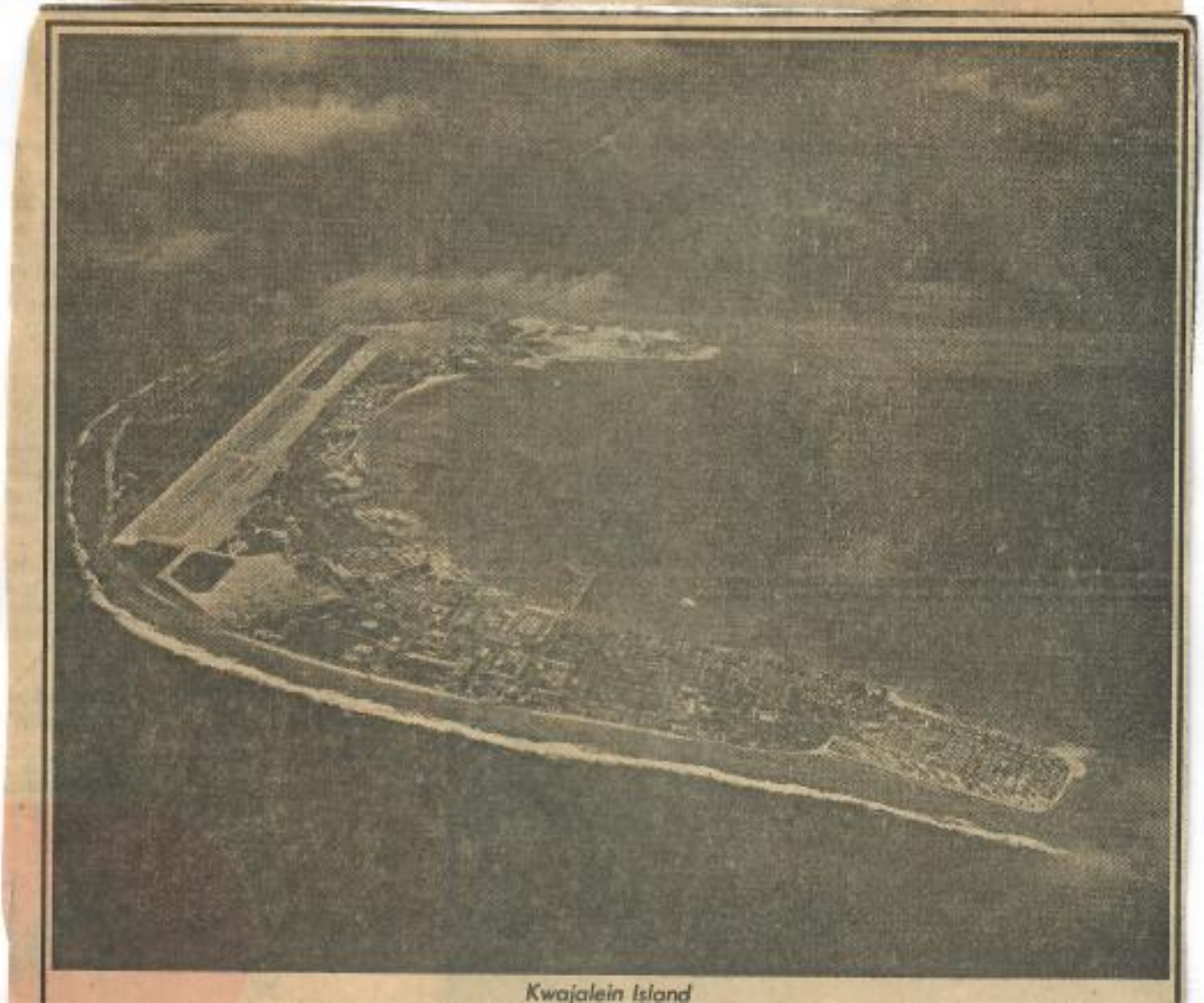
The islanders have become dependent on the base. Kwajalein is worth $3.3 million a year in salaries to Marshallese employes, $2 million a year in taxes to local government and $704,000 in reparations to those who were relocated from Kwajalein.

HERE, THIS IS big money. The rest of the Marshall Islands earned barely $1.1 million in 1975 from exports and tourism.

Some Marshallese are asking for a better deal — for example, access to Kwajalein's schools, stores and hospitals.

Col. Russell responds that Marshallese may not shop on Kwajalein for the same reason that Hawaii residents may not use the PX at Pearl Harbor. And he notes that seriously ill Marshallese are treated on Kwajalein, qualified Marshallese are given preference for jobs on Kwajalein and Kwajalein charities contribute more than

Children play near their homes on the island of Ebeye. — AP Photos.



Kwajalein Island

$90,000 a year to projects in the Pacific.

Though a slum by American standards, Ebeye continues to be a magnet for the Marshallese. The lure of jobs and Western ways has pushed Ebeye's population from 2,000 to 7,000 in 15 years.

The 505 Marshallese who commute by boat to jobs on Kwajalein earn an estimated average wage of $3.15 an hour — four times the pay considered good elsewhere in the Marshall Islands. The Marshallese generally have menial jobs, though several hold skilled positions.

BUT FEW OF THE islanders are getting ahead because virtually every wage-earner is inundated by free-loading relatives.

"You can't just send people away," explained one Ebeye resident. "It is very bad in our custom."

The Army spent $7 million between 1966 and 1968 to build housing on Ebeye for 3,500. Today as many as 20 people are crammed into a single $10-a-month units in now-dilapidated buildings.

What is the attraction for the Marshallese?

"The bright lights, the beer, the movies — and, for some, the jobs," says Lawrence Edwards, who represents the Marshalls government on Ebeye.

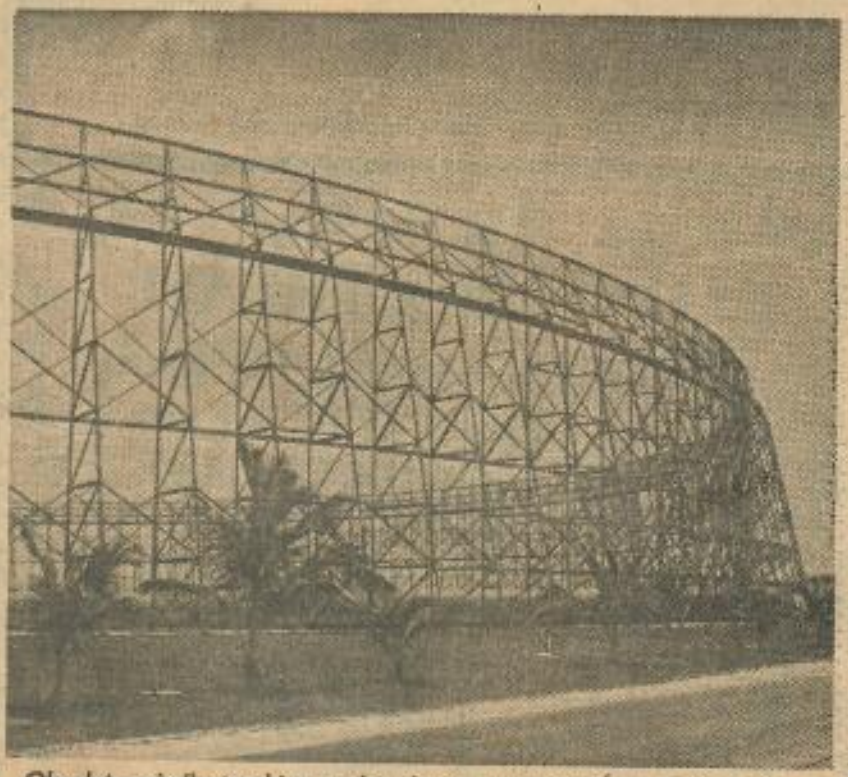
"THEY THINK IT is a good standard of living. There are a lot of things they cannot get on the outer islands."

Edwards is in charge of Operation Exodus, an effort to cut Ebeye's population to perhaps 4,000. More than 200 have left voluntarily since Exodus began in January, and Edwards is now drawing up lists of the jobless and homeless, who will be ordered out.

The government extends little help to those who leave Ebeye. Critics fear many who have had one foot in the 20th Century may now be unprepared to return to more primitive ways.

"Returning people from Ebeye," says Rep. Balos, "may be a way of shortening their lives."

Star-Bulletin
Today
Features
Entertainment
Section B
Honolulu
Tuesday, September 28, 1976



Obsolete missile tracking radar device now serves as a fence for a driving range on Kwajalein.

Sept 30, 76 5-B

29 Years Since Evacuation

U.S. Returns N-Test Isle to Exiled Natives

By Ed Kelleher
Gannett News Service

AGANA, Guam — The United States officially has given up control of radiation-plagued Enewetak Atoll, the site of the world's first hydrogen bomb explosion, and allowed its former inhabitants to return after being exiled by the Americans for 29 years due to nuclear testing programs.

The first returnees are expected to resettle there by the end of the year.

A $20 million clean-up and rehabilitation program has been pledged by the U.S. during the next three to four years.

This culminates two years of negotiations on the controversial subject, during which the U.S. Congress halved the originally proposed $40 million program. Even at the reduced cost, the allocation, if divided evenly among the 400 returning islanders, would amount to the equivalent of $50,000 a person.

PETER T. COLEMAN, acting high commissioner of the Trust Territory of the Pacific, said on arrival here today that he signed documents Sept. 16 that reverted control of the atoll to the Enewetakese.

About 40 Enewetak representatives traveled by ship to their former home for the ceremony from Ujelang island. They have been living there since 1947, when they were evacuated from Enewetak to allow the U.S. to conduct nuclear testing.

In addition to the return of the Enewetak islands, the islanders were given a quitclaim deed to Ujelang Atoll "in return for some of the land in Enewetak that could not be returned," Coleman said. The northern half of Enewetak — representing about 50 per cent of the land area — still is uninhabitable due to nuclear debris.

He said the Enewetak people have "signed an agreement which permits the United States . . . to undertake a program to remove tons of debris remaining from the period of nuclear testing.

"ALSO IT WILL BE necessary to remove or neutralize some radioactive areas within the atoll which might be dangerous to the future inhabitants when they return to their former home.

"By the end of the year, an advance group of Enewetak people will move from Ujelang to the noncontaminated Enewetak island of Japtan to start the work toward a new life in a much larger and more desirable atoll."

Enewetak came under American control when U.S. forces in World War II captured the atoll from the Japanese in February 1944. They used it as a military base until the war's end the following year.

In 1947, Enewetak's 136 residents were shipped to nearby — but much smaller — Ujelang Atoll so the United States could proceed with nuclear testing plans.

When the testing ended in 1958, after 43 nuclear tests including the world's first hydrogen bomb explosion in 1952, the United States was reluctant to move the islanders back because of radioactivity in the area.

U.S., Japan Await Birth of an Island

TOKYO (AP) — Japan and the United States are reportedly vying for possession of a yet-to-surface volcanic island discovered by a Japanese fishing boat seven months ago.

The potential island is an undersea ridge that has risen 12,135 feet from the 13,122-foot-deep Pacific seabed.

It is located in international waters, 800 miles south of Tokyo and about 200 miles southeast of Iwo Jima, where the United States and Japan fought one of their bloodiest World War II battles.

The area is in the midst of rich bonito and tuna fishing grounds.

IF AND WHEN it surfaces, the island is expected to be just a tiny piece of land, but the country that first discovers it will have priority to ownership claim, according to the maritime safety agency.

Recognition of that claim will give the nation that claims it a 200-mile-wide economic zone around the island. That would entitle the country to exclusive fishing and seabed mining rights there.

The undersea ridge was reported by a Japanese fishing boat while operating a sonar device for detecting fish on March 20, 1974, the agency said.

It said the United States announced discovery of shoals in the same area on Nov. 1, 1975.

Both countries have stepped up their watch for the formation of the island, the agency said.

Honolulu Star-Bulletin Wednesday, June 29, 1977

Natives Return to Polluted Home

New Start in En

By Lyle Nelson
Star-Bulletin Writer

ENEWETAK ATOLL, Marshall Islands—Order restored out of chaos, rows of coconut trees in quiet serenity instead of the megatonnage of nuclear fireballs.

This is the contrast for this northwest corner of the Marshalls where life is returning full cycle like a reborn Phoenix bird.

From simple, almost fishhook culture and plantation life, through 43 American nuclear tests, back to an Enewetak that will become reminiscent of the German and Japanese colonial period.

Today soldiers from Schofield Barracks are cleaning up 10 years of American violence to the ecology and environment and 19 years of neglect due to worry over the after effects of deadly radiation.

The Enewetak people are coming back home. Some have landed, prepared to smile through the obvious hardships to regain the post-1941 lifestyle.

Johanes Peter

History repeats itself in this scenario:

The primitive atoll living, sustenance from the sea, communications through travels of canoes between the widely spaced dots on the map of blue that are the Marshalls, the navigation by the mysterious, wonderful stick chart whereby the lookout in the bow watched the play of the waves to determine the direction to go, the waves affected in subtle ways as they were deflected by passing around huge lagoons.

And so the super weapons were tested in a race against time, against the moratorium clock set by President Dwight D. Eisenhower while far away other technicians in the different tundra landscape of Siberia were doing precisely the same.

The roar of Mars was an improbable intrusion upon reef life.

Ask the Marshallese how long they've fished the lagoons of Enewetak, Kwajalein, Bikini and the others and they say, "We've been here since the beginning."

A thousand years, says the learned anthropologist.

AND WHAT MUST CHIEF Johanes Peter think of all this? A man who lived the simple plantation life before 1944; witnessed the trauma of invasion fleets coming at him in small assault craft as the battleship cannon barked; who was uprooted from his Enewetak home by Seabees building; uprooted again by the Atomic Energy Comission, moved to Ujelang where he could watch the nuclear fireworks from over the horizon 124 miles away, the mushrooming madness, and now, home again.

The 20th century nearly destroyed him. Yet he smiles broadly at our visit and he endures.

Youngsters jumped with joy and ran along the dock as our landing craft pulled alongside Japtan atoll where the exiles of Ujelang are restoring life. One boy wore "Hawaii 75" in red.

Johanes wore a big smile as he led the greeting parade. His white whiskers set off his chocolate coloring. His white shirt had long sleeves, his khaki baseball cap adorned with one silver star, making him an imaginary brigadier general.

ANOTHER MARSHALL MAN showed off the replica of an outrigger, the parts meticulously tied together by fine twine obtained from the coconut shuck.

The ladies were in bright prints, but unlike Gauguin's Tahitians, these ladies were smiling, as they tended the kids.

Later, plantation life; growing coconuts in geometrically planned forests set down by men from Bremen and Halle and Mainz—the German years (1885-1914), then the Japanese years (1915-1944) of more of the same, lizards five-feet long introduced to eliminate the rat problem, except that the lizard romped by day, the rats by night in an ecosystem that failed to pay off.

This pastoral life ended in February 1944 and Enewetak was never the same gain. But by 1980 things may come full cycle, a return of atoll life, fishing, drying coconut, the rest, with one exception. There may be no white boss man.

What happened in 1944 was a strange prelude to the nuclear tests of the 1950s. Modern war, geopolitics, smashed into Enewetak with hurricane force, bombardments from battleships, diving aircraft, invasion boats, hand-to-hand fighting, night counterattacks under brilliant hanging flares that made midnight appear high noon.

Less than 10 years later it was nuclear tests, a new dimension in warfare, fireballs of such brilliant intensity that the flares of 1944, by comparison, were but a dying star of modest magnitude.

AND THE "NEXT" WAR ran its preview upon this strange stage, this necklace of islands anchored atop tens of millions of microscopic animals, the growing reef building atop the limestone tomb of earlier generations of coral.

The returnees have made a chapel out of a metal house built years ago by the Navy. A cloth over a simple table, and bench pews.

"Congregational," said Ismael John, district administrator representative for the Trust Territory. It had all the simplicity of a church in Vermont or Utrecht.

Now we walked past the pig in his pen, through the German forest of coconuts, the fronds in disarray, crisscrossed over the ground. In a clearing, at the well, using buckets made out of Folger coffee cans, several young ladies, shy, smiling, drew water for clothes washing under a palm. All about were the discarded Orange Crush cans and flattened boxes of Tide. Things were unkempt and we were light years away from any freeway or fouled country road.

ISMAEL JOHN, CHAIN-SMOKING cigarettes supplied by the visitors, served as interpreter for the chief. Sitting in a cool breeze under a palm, one-star Johanes Peter said:

"The return to Enewetak is good. The old buildings available for living are a good start. The living is not as good as it is on Ujelang because there is more food there. This is like starting over. It is like it was at Ujelang at first when there were coconuts but no pandanus, breadfruit or banana. We want to go to the (contaminated) islands but we will not go there."

(He understands ERDA's film and warnings

ewetak

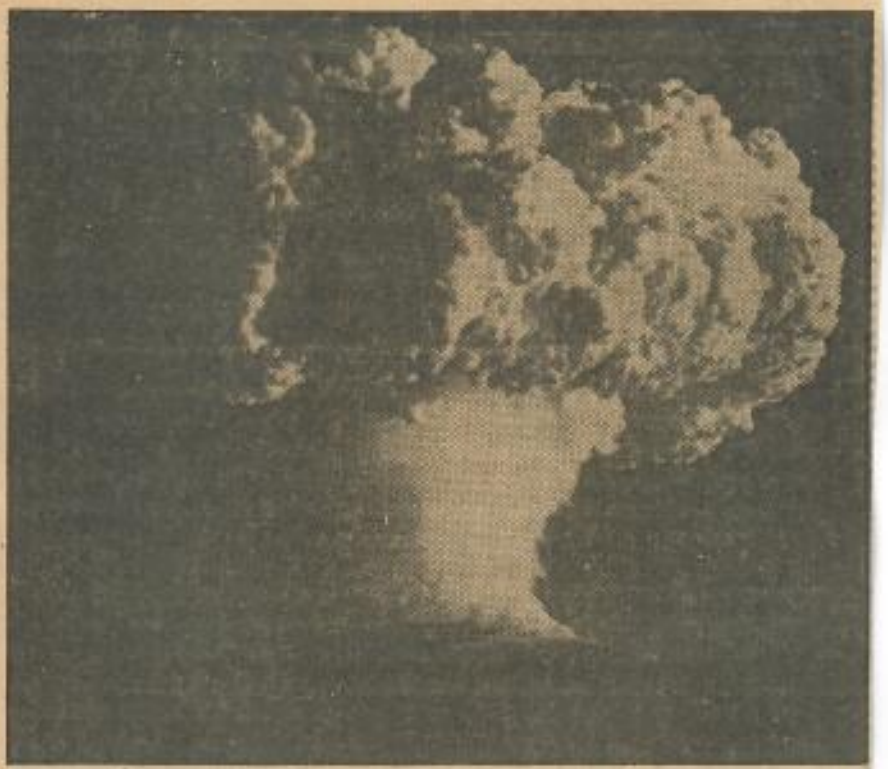
about radiation. The Marshallese, having no word for radiation, call it poison.)

The elected Ujelang council passed an ordinance in 1974 making it a $100 fine for any Marshallese to go to Runit. But will that dissuade future firebrands?

THE RETURNEES FIND life different, said Ismael. They limit the fish catch to 50 because they lack enough salt to preserve more. A bigger catch would be wasted. They caught a big, dog-tooth tuna and ate it and two got sick. But dozens ate it and only two got sick, perhaps the two who think the most.

Ismael carries a walkie-talkie to keep in touch with Enewetak six miles away. He has a radio to confer with Ujelang where the younger people remain and wait. The idea was to let the elders enjoy the satisfaction of resuming life on familiar ground.

They don't have as many years left since 30 years were carved out and taken away by the Cold War struggle.



BIG SHOT—This is Mike, the first U.S. hydrogen bomb that made an island in the Enewetak Atoll disappear in 1952.—U.S. Navy Photo.

NEW HOMES—Schofield soldiers, left to right, Thomas Turner, Larry Handy and Michael Hollister, pave a floor for a temporary barracks. When the Army finishes its work on Lojwa, the land will revert to a coconut plantation.

FIREBALL CRATERS—Nuclear tests caused these craters at Runit, called Cactus, foreground, and LaCrosse. "Hot" debris sticks out at the right. Scrap dealers will clean up the noncontaminated debris left from the tests. —Army Photos by M.Sgt. Jerry Shepherd.

The Cleanup at Enewetak

Little Isles,

By Lyle Nelson
Star-Bulletin Writer

ENEWETAK ATOLL, Marshall Islands—Tradewinds caress the coconut trees that share the scene with the biggest junkyard between Kailua's Wreckers and the scrap dealers of Yokohama.

Twenty-six junk estimators were given a quick tour of what's left of America's nuclear testing grounds of 1948-58, and Kolar Co. of Tucson, Ariz., submitted high bid and won.

A losing Japanese firm turned right around and bought the rusted lot from Kolar.

Today Kolar is pulling communications cables, and looking for copper insulation, out of the ground at Japtan, a network that linked the military headquarters at Enewetak and the nuclear works center on Medren with Boken and other islets that ring the 22-mile lagoon.

AT THE northern end today soldiers from Schofield Barracks, based at Lojwa, will handle the debris of 43 nuclear tests with care and dump the hottest stuff into a fireball's crater at Runit islet.

All the stuff not giving off radiation goes to Kolar. Its major scrap effort will be at Medren, a lifeless, abandoned island next door to Japtan Atoll where Enewetak's people are resuming a simple plantation life that ended abruptly with the American invasion of 1944.

Medren is the Marshallese name for the island. It was known as Parry when America's top nuclear scientists rubbed elbows with an army of construction workers, mostly recruited by Holmes and Narver in Honolulu.

THE MARCH of time had really changed Medren, turning it from a city of 8,000 men and no women to a ghost town, a Silver City, Ida., but without Silver City's visitors.

Roads had turned to grass, runway concrete weathering by clumps of weed widening the cracks. Stop signs at intersections had faded back to a natural wood finish, the red paint long since destroyed by a merciless sun.

Heavy chain links had been chipped away by the decay of time and nearby salt spray at the lagoon edge. The junk pile of abandoned machinery, batteries, trucks, oxygen containers, coils, condensers, were reduced to rust that crumbled under foot. One rusted truck chassis, half-submerged in the lagoon, had tires with new tread.

THE CONCRETE floors of office buildings were a mixture of shattered glass and strewn papers, mostly Holmes and Narver jobsite orders, transfer requests, forms in triplicate, some undisturbed in brown paper sheaths.

The May 1958 phone book appeared weathered, told of the warning system, that four siren blasts meant a shot was 30 minutes from detonation.

At one minute to go there were two blasts and by that time this city of men either were inside or facing the shot wearing special dark glasses dense enough to keep out the sun.

The nuclear device assembly rooms were large, though now the playground of scurrying skinks. A blackboard listed the shots, codenames out of the past, the Koa, Butternut, Magnolia, Wahoo, Tobacco, Nutmeg, Aspen, Sycamore, some under the management of the Los Alamos Laboratory in New Mexico, others the Lawrence Livermore team, or the Defense Department or the Air Force.

OVER THESE 43 shots in more recent times had been scratched an obscenity concerning the payscales of a Hawaii-based contractor. And on a door were the recent pencil scratches in Japanese by a scrap dealer estimating what everything was worth.

Since Medren is the scrap goldmine, the scrap contractor must, by specifications, mine these fields last. One wonders if a Japanese tank on the beach will be part of the booty. Parry was the site of a major battle in 1944.

After the cleanup Medren will become a residency island for Marshallese.

And their life-style will stand in unique contrast with the life-style of the test days when, to enter the assembly area, one needed two badges, one exchanged for another, and the "buddy" system whereby no one walked anywhere without having another person alongside. Even

Big Junkyard

sweeping janitors were watched by a guard.

AND THEN would come a big preshot day when the nuclear device, hidden in an air-conditioned van where unseen scientists labored, would be placed aboard a barge and towed to an islet to the north for the big bang.

The cleanup plan has placed the 84th Engineer Battalion of Schofield at a forward base at Lojwa. To reach Lojwa the soldiers ride boats for two hours across the lagoon 200 feet deep.

Simple barracks will be placed on concrete slabs, some left over from testing days, and ventilated by constant trades from the northeast. Without the wind Lojwa would be a Turkish bath. We found that by walking down a firebreak in the tall scaevola brush, amid the chattering of birds, some nesting, others who lay the egg in the open crook of a branch, that we then felt the full heat of an Enewetak summer.

BY CONTRAST, later, in the boat on the open lagoon, we were struck by a sudden tropical squall, and the soaking was cold. The shiver impact of tropical rain, much as a summer sidewalk in Honolulu can sizzle and steam with the first drops.

Cement slabs help prevent the tiny Polynesian rat from spending too much time with the soldier.

The heat is such that siesta hours will govern: 7-12, 2-6, or maybe 10 hours a day, six days a week.

If there are medical problems a helicopter can whisk soldiers to surgery at Enewetak in 14 minutes.

FOR RECREATION or the siesta break there is swimming. It is almost safe. One swvmmer at Enewetak recently faced an unfriendly shark who chewed off the snorkel mask and left the victim with a 100-stitch facial problem.

To do their work the soldiers will strip Lojwa of its greenery, and four years from now it will feature rows of coconut, just as it was in German days.

It is no worse than umpteen dozen atoll battlefields of World War II where some had to shoot their way in and others had to languish for months, crazy with the heat, the marginal food, bent over a bulldozer or being fatigued by the apathy of life at the end of a 10,000-mile supply line. It's no picnic; Schofield Barracks is better; but this is a volunteer army, this is an assigned job that has to be done; Uncle Sam owes it to the Marshallese any way you cut it.

STILL, YOUNG soldiers complained, a healthy sign. "Don't take a snow job from them," one said, referring to officers escorting newsmen. A familiar refrain from the ranks.

There are about 200 men sharing the misery today; the Lojwa work city will inflate to 650 later.

The Army called June 15 D-Day, meaning that's when the project became full-blown. The target for having a complete base camp, with an EM club, laundries, sewage treatment plant and so forth is Nov. 15.

S-B MARCH 24, 77

Oahu Troops Will Spruce Up Atoll

Before long Army outfits on Oahu will get the word that they're off to **Enewetak** atoll to wear funny clothes and clean up the mess created by nuclear bomb testing.

Ft. Shafter officials have no details to release yet but **Lt. Gen. Warren Johnson** of the **Defense Nuclear Agency** said last week the first big contingent would reach the atoll May 15.

The Armed Forces

By Lyle Nelson

About 700 military and civilans are ticketed for the duty, according to the **Army and Air Force Exchange Service, Pacific**, which will take 28 months. One-year tours are expected to be in the works, just as was done in Vietnam.

AAFES opened its retail store March 1 and is ready to service the GIs at Enewetak with cameras, watches and other merchandise.

GIs ticketed for Enewetak will have 7,300 cubic yards of radioactive scrap to worry about and another 125,000 yards of other junk to dispose of.

AAFES says its first shop at Enewetak will be followed by one at Lojwa atoll in the forward area. The northern islets are the hot ones; Enewetak is safe.

Following the recent **Rimpac 77** exercise the sailors on the Australian carrier **Melbourne** boasted of sinking two submarines and adding three probables in the war games. Now the carrier has gone to California to pick up 12 more S-2 trackers.

A **Singapore C-130** made an unscheduled stop at **Hickam** recently and had minor trouble getting fuel because its arrival here had not been cleared in advance with Washington. Air Force planes, those of friendlies, and even private pilots, such as golfer **Arnold Palmer**, can fill 'er up at Hickam with a billing form not totally unlike a credit card system.

Army ROTC cadets at the University of Hawaii—**Ronald Akemoto, Thomas D. Farrell** and **Rodney Yoshida**—earned $50 bonds from the **Freedoms Foundation** for patriotic essays.

Fifty acres at **Wheeler** are available for lease for grazing for five years beginning April 16, **Army Corps of Engineers** report.

Air Force ROTC qualifying tests will be held at the University Saturday at 8 a.m.

Fuels Management Branch of the 15th Supply at Hickam has been awarded the cigar five times in nine years as the best of its kind in the Pacific Air Force.

The **Coast Guard Auxiliary** always welcomes new students in its free boating and seamanship training school.

William C. Rowland, president of **Hawaiian Telephone**, is credited with help in improving the Army's **Museum** at **Randolph Battery, Ft. DeRussy.**

The Joint Casualty Resolution team at **Barbers Point** is down to 17 members after getting here from Thailand with 100. Things could change after the blue-ribbon mission to Hanoi.

CINCPAC says no decision has been reached on changing the status of **HASP** here into an all-Army operation rather than the joint military police force it has been.

The **83rd Infantry Division** will hold its reunion Aug. 18-20 in Warren, Ohio.

Funniest stuff in local military papers is the snappy answers given out by Col. **Howard F. O'Neal**, base commander at Hickam, in his Comment column in the **Hawaiian Falcon.**

Regarding drunken driver claims, he denied that clubs at Hickam "tank up our people for the demolition derby." And, regards a sports complaint, wondered why the complainant was so criticial of the Falcon sports editor—"How come you're taking so many free shots when he can't recall fouling you?"

Hot Issue on Cleanup Project

Enewetak: 25,000

By Lyle Nelson
Star-Bulletin Writer

Military infighting over monitoring radioactive "hot" junk for the next 25,000 years has sent ripples through the Enewetak cleanup project.

But a spokesman for the Army Corps of Engineers at Ft. Shafter hopes that the issue can be resolved at top levels in Washington before the Nov. 15 target date when the cleanup operation is to begin.

Fussing about corps regulations concerning maintenance procedures is the Defense Nuclear Agency, the multiservice military agency that heads the operation to remove radioactive debris from the Pacific atoll 19 years after the last nuclear test was held there.

VICE ADM. Robert R. Monroe, DNA director, refused to sign one of three permits required by the engineers. Negotiations to settle the matter have begun.

The cleanup plan involves placing radioactive material into a concrete slurry and burying it in an old bomb

Years of Monitoring

crater on Runit, the hottest of the islets that ring the Enewetak lagoon.

Monroe, a corps spokesman said, felt his responsibility ends with completing the disposal project, not by supplying Geiger counter checks at the capped junkpile for the next 25,000 years, the time it will take for the "hot" junkyard to cool off.

The spokesman at Shafter said the problem was not unlike the routine insistence that the Army Corps of Engineers places upon a private dock builder at the beach to maintain in good condition when he gets a permit to build.

TWO OTHER permits did not bother Monroe.

One concerned dumping nonradioactive material in Enewetak's lagoon, and the other to blast coral where needed to open up ship channels as part of the cleanup project.

Soldiers from Schofield Barracks are completing their base camp at Lowja today in preparation for the Nov. 15 start of the cleanup project.

The joint task force is edging toward full strength of nearly 1,000 men to do the job.

Honolulu Star-Bulletin

Published by Gannett Pacific Corporation

CHINN HO, CHAIRMAN **ALEXANDER ATHERTON,** PRESIDENT

PHILIP T. GIALANELLA, PUBLISHER

PAUL T. MILLER II, ASSOCIATE PUBLISHER

A. A. SMYSER
Editor, Editorial Page

JOHN E. SIMONDS
Managing Editor

Edwin R. Edwards, Adm. Assistant to the Publisher; **Claude Burgett,** Deputy Managing Editor; **Barbara Morgan,** Today Editor; **Cynthia S. Oi,** News Editor; **Dennis Anderson,** City Editor; **Bill Kwon,** Sports Editor; **Charles E. Frankel** and **Carl Zimmerman,** Assistant Editors, Editorial Page

Published at 605 Kapiolani Boulevard / Honolulu, Hawaii 96813

Finding a Solution to Bikinians' Plight

The annual report of the United Nations Trusteeship Council urges the United States to find a home for the people displaced by the nuclear bomb tests at Bikini atoll in 1946.

"The search for a satisfactory solution to the tragic problem should be given highest priority," the council said.

The need for a solution is undeniable, and is fully recognized by the U.S. government. But finding the right answer has been much more difficult than was anticipated.

Resettlement on two other islands in the Marshalls was attempted with unsatisfactory results. A return to Bikini was staged but proved abortive when it was determined that the islands remained dangerously radioactive.

Last month a delegation of Bikinians visited the Big Island to see whether it might qualify as a resettlement site. The delegates left without commenting on their findings. But they did express appreciation for the cooperation they received from state officials.

What the islanders really want is to go back to Bikini, but that will be out of the question for decades to come. The other islands where resettlement was attempted seemed similar to the outsider but presented problems that eventually doomed the projects.

Life in Hawaii would be a drastic change for the Bikinians and would probably have profound effects on them. Some of the visiting delegates reportedly were concerned that the people would lose their identity in Hawaii.

But if the Bikinians should decide to come here, it should not be a great problem for Hawaii to absorb a few hundred Pacific islanders. We should welcome an opportunity to help solve what the Trusteeship Council called a "tragic problem."

Diggs in Trouble

Faces kickback charges

Ever since flamboyant Congressman Adam Clayton Powell lost his House seat in 1970, roly-poly Charles Coles Diggs Jr., 55, has been the senior black member of Congress. The son of a powerful Michigan politician who became wealthy as an undertaker in Detroit, Diggs has won election to the House twelve times from the city's predominantly poor and black 13th Congressional District. Because of his seniority, he became the first chairman of the Congressional Black Caucus in 1971. He is also chairman of the House District of Columbia Committee and the House International Relations Subcommittee on Africa.

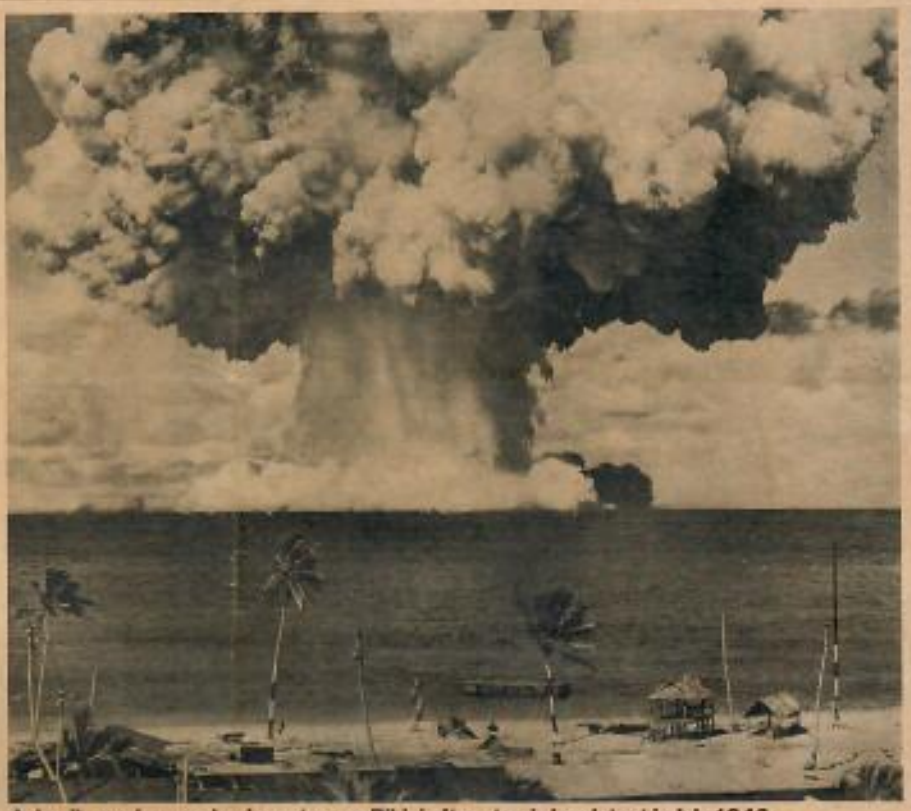
Last week a federal grand jury handed down a 35-count indictment charging Diggs with padding his federal payroll by $101,000 since 1973. He was accused of inflating the wages of three House employees—one aide's pay, for instance, jumped from $14,667.84 to $37,355 a year—and then requiring them to pay some of his personal bills with the raises. In addition, he was charged with putting three employees of the family undertaking business on the federal payroll, at annual salaries of up to $35,000.

According to investigators, Diggs has been burdened for years with heavy personal and business debts. In addition, the Internal Revenue Service has filed tax claims of $5,000 against Diggs himself, and $48,000 against the estate of his father, who died in 1967.

From Mozambique, where he was on a 15-day junket, Diggs last week professed his innocence. But months before leaving the country he used some $8,000 raised by his friends to hire a lawyer from the firm headed by famed Defense Attorney Edward Bennett Williams. If convicted, Diggs faces up to five years in jail on each count, and fines totaling $224,000. ■

Michigan Congressman Charles Diggs Jr.

Charges of padding the legislative payroll.



A deadly mushroom cloud erupts over Bikini after atomic bomb test in July 1946

Blunder on Bikini Island

After ten years, it is still dangerously radioactive

A decade ago, when the U.S. finally agreed to let some 500 Micronesians return to their native island of Bikini, Washington officials determined to undo the damage inflicted by 23 nuclear tests. All sorts of debris was scooped off the beaches and dumped out at sea. Swaths of local jungle were cleared so that some 50,000 new coconut trees could be planted. Forty cement houses were built along the shore of the lagoon, and an Atomic Energy Commission spokesman declared that there was "virtually no radiation left." After a generation of exile, the first 100 of the Bikini islanders contentedly settled down in their new homes, at peace at last.

Last week, in confirming an embarrassing blunder, U.S. officials acknowledged that their assessment of Bikini was premature. Periodic radiological surveys conducted by the Government since 1975 showed that the earlier tests had been inadequate. Bikini's well water still contains strontium 90 and cesium 137, radioactive products of the bomb tests, and so do the coconuts, fruits and vegetables grown on the island.

The U.S. Interior Department, which has supervisory authority over the island as part of the Trust Territory of the Pacific Islands, insisted that none of the people on Bikini had shown any adverse effects from radiation during periodic health checks. But officials found that levels of strontium and cesium, as well as of plutonium, were rising alarmingly among the returned islanders, and they now believe that Bikini probably will not be safe for long-term human occupation for another 35 to 50 years. "It is now clear," as the department put it, "that for the foreseeable future the island of Bikini should not be used for agricultural purposes and should not be considered a residential area." Those islanders who have been repatriated will have to be evacuated again. In the meantime, they have been forbidden to eat their home-grown coconuts, bananas and breadfruit. Food is now being shipped in from outside.

A likely resettlement site is the island of Eneu, also a part of the Bikini Atoll, but presumably far enough from the center of nuclear testing to be safe for people. In fact, the Interior Department is already asking Congress to allocate $6 million as the first payment in a resettlement program ultimately expected to cost $15 million.

Still, before any further decision is made on a new home for the Bikinians, the department will conduct its long-promised aerial radiation survey of all the areas in the Marshall Islands where nuclear devices were exploded, in order to determine which of the now peaceful islands are once again fit—truly—for human inhabitants. ■

Hearing Centers on Radiation Safety

House Panel Told Ene

By George R. Blake
Gannett News Service

WASHINGTON — It has been more than 30 years since the U.S. dropped atomic bombs on Enewetak Atoll in the Marshall Islands, and its former residents are eager to return home.

Concern that the returning islanders will be safe from radiation was the focal point of a House hearing yesterday on a proposal to spend $8.4 million in fiscal 1978 for the atoll's rehabilitation.

The atoll was used for atomic testing during World War II, and Rep. Sidney Yates, D-Ill., said he had been studying rehabilitation plans and was "not satisfied that everything had been done to ensure the safety of the people. Radiation is an issue with which we are terribly concerned."

YATES IS CHAIRMAN of the House subcommittee on Interior Department appropriations.

But by the end of the day's hearing, Yates had heard testimony from officials of the Energy Research and Development Administration (ERDA), the Defense Nuclear Agency and a California technical consulting firm working on the Enewetak project.

And the congressman told Iroij Binton Abraham, high chief of Enewetak, that the cleanup and rehabilitation plans appeared fully satisfactory.

Binton, speaking through an interpreter, thanked Yates for his concern and said the Enewetakese are eager to return to their "ancestral lands" and "bring an end to 30 years of exile and hardship for me and my people."

THE REHABILITATION plan calls for cleanup of radioactive wastes from eight islands in the coral atoll and storage of the wastes in a 360-foot-wide bomb crater on Runit Island.

The wastes would be mixed with soil and sludge for dilution and sealed in 30-foot-thick concrete containers at the bottom of the crater. An 18-inch-thick concrete cap then would be installed over the storage area as an added seal.

While the cleanup and waste disposal program is being carried out, the U.S. plans to resettle the Enewetakese on their home islands.

Running both programs concurrently will enable the U.S. to use common logistical support and save up to $5 million, said Earl Gilmore, vice president of Holmes and Narver Inc., the technical consulting firm to the Pacific Trust Territory.

Some 432 islanders are to return to the atoll, which has a total land area of 2.7 square miles.

THE ISLANDERS have been living on Ujelang, about 150 miles south-southwest of Enewetak, and the rehabilitation plan would allow them to continue using Ujelang as a farming area and provide them with a ship in which to travel.

"We will all move to Enewetak, but from time to time groups will return to Ujelang for harvests," Chief Binton said. Coconuts, pandandas, breadfruit and taro are major crops on Ujelang.

Crops also are being planted on Enewetak, but the continued use of Ujelang is necessitated by the length of time it takes the crops to grow. For example, one official noted that a coconut palm tree takes eight years to mature. Two types of coconut palm are to be planted, one for

ewetak Clean-up Plans

copra production and one for food.

Extensive studies have been conducted on Enewetak since 1962, and L.J. Deal, assistant director for ERDA's division of safety, standards and compliance, told the subcommittee, "We know it's safe on the southern islands beyond any doubt."

RESIDENCES FOR THE Enewetakese are to be built on the islands of Medren, Japtan and Enewetak, about 12 miles south of the waste-disposal area on Runit.

Deal also said that, even if all the plutonium wastes were to be dumped into the Enewetak lagoon, ERDA could see no major problem because of the degree to which the wastes have already been diluted and the 600-foot depth of the lagoon. Gilmore said that wastes from modern nuclear power plants are more than a million times more voluminous than the low-level wastes remaining on Enewetak.

Lt. Gen. Warren Johnson of the Defense Nuclear Agency told the panel that the first troops to work on the rehabilitation project are scheduled to arrive at the atoll May 15.

"We are committed to cleaning the island up to the specifications of ERDA, and ERDA is committed to making sure the cleanup meets the specifications," he said.

Economic & security coo

The writer is corporation secretary of the East-West Center and special assistant to the president.

By ROBERT HEWETT
Special To The Advertiser

A new spirit of self-confidence is stimulating surprising economic growth among non-Communist nations of East Asia.

This spirit of self-confidence, coupled with capital investment policies that are more rational than those found elsewhere in the world's developing countries, is paving the way for some sort of loose Pacific Community organization that seemed inconceivable at the beginning of the 1970s.

AN INTERNATIONAL group of business leaders, scholars, diplomats, and government executives agreed at a recent Pacific Forum symposium in Kona, Hawaii, that the time was ripe for an Asian/Pacific initiative to seek closer, continuous cooperation with the United States and Japan to stabilize economic development on a partnership basis.

There also was general agreement that a basic requirement for continued economic growth and trade in the developing countries is a sustained, reliable, and clear-cut American commitment to the security of the Pacific area.

Such a firm U.S. policy has been lacking since the Vietnam war trauma. And the rise in Soviet naval strength in the Pacific threatens to upset hard-won economic development and stability unless there is a reversal in Asian perceptions that the United States is at best "indifferent" to Pacific security interests, or at worst "abandoning" them.

SOME PARTICIPANTS in the Kona meeting, such as Thomas O. Paine, who was NASA administrator at the time of U.S. landings on the moon and now is president of Northrop Corporation, argued that talk of America's declining strength is emotionally exaggerated. U.S. industrial capacity, defense capabilities and forward-looking research and development programs are capable of a tremendous surge forward for the rest of the century. But all agreed that Washington still has not produced a credible security policy for the Pacific area.

Other major points that emerged during discussion on "Future Economic and Security Cooperation in the Pacific Region" included:

• The Japan-United States alliance remains more important than ever as the linch-pin of Pacific area security necessary for peaceful economic development. Urgent measures must be taken by both Japan and the United States to overcome the current trading imbalances, which pose a severe strain on the alliance. As one former U.S. diplomat put it, "there must be less table pounding, and more understanding of each other's positions." But Japan came under sharp criticism for failing, as one East Asian businessman charged, to match its promises to balance its trade with actual performance.

• Cautionary words against "euphoria" popped up repeatedly in discussions of China's new stance of seeking investment credits and technology from Japan and the West for its crash modernization program. Most participants expressed varying degrees of skepticism about Peking's ability to meet its ambitious goals. Apprenhension was expressed by several that a "rush" of Western and Japanese credits to China, and resulting Chinese competition in the export markets for light industrial goods, could cripple the newly developing economies of of the non-Communist nations of East and Southeast Asia.

• In discussion of equitable use of resources, an American banker emphasized that more than natural resources are needed for economic development. Equally vital to the process are financial resources, technological resources, and human resources, particularly managerial talent. An economist warned that a burgeoning of anti-business, anti-technology sentiments could lead to short-sighted nationalistic political actions which would hamper economic growth by curbs on the free market pricing system.

• American government and business must take stronger and moe urgent actions to bolster the declining value of the dollar. At the same time, Japan and the semi-industrialized countries of East Asia were told they must shift their trading patterns to get away from past heavy reliance on exports to the United States if imposition of protective trade barriers was to be avoided.

One point expressed by Asians and Americans alike was that American

Pacific

The Pacific Forum was founded in Honolulu in 1975 as an independent, privately-sponsored international organization to promote an Asian-Pacific-American dialogue among thoughtful leaders in the fields of business, government and scholarship. Its principal purpose is to provide a forum for the constructive exchange of views and ideas aimed at helping formulate sound public policies and decisions on such vital issues in the broad Pacific area as economic and social development based on mutual security, investment, trade and the intelligent use of resources.

Chairman of the Pacific Forum's international policy

peration in Pacific Basin

business must make much greater efforts to export manufactured goods, and that the U.S. government must provide greater support and incentives to business in the promotion of exports.

BUT DESPITE cautionary statements about inevitable problems and dislocations arising from the changing economic scene, there was general optimism for expanding economies.

"In the world of international business the great new frontier is definitely the Pacific Basin," declared James D. Hodgson, a former ambassador to Japan and now the board chairman of an international mining company. "It seems to me the Pacific Basin now possesses all the ingredients needed to insure a remarkably promising economic future."

Alejandro B. Melchor Jr., Philippines representative on the executive board of the Asian Development Bank, said a major problem in the Pacific Basin is equitable cooperation between the industrialized and the developing countries in the management of resources.

"Among all the regions of the world, the countries surrounding the Pacific Ocean hold the greatest potential for free trade," Melchor added. "Most of these countries are ideologically compatible, and relatively stable politically. They have market economies open to free trade and to flows of private and public capital. They also possess considerable marine and terrestrial resources still untapped."

JIRO TOKUYAMA, managing director of the Nomura Research Institute in Tokyo, said: "My basic perception of the Asia-Pacific region is that in 10 or 15 years it will become the world's most viable economic center, where Australia, New Zealand, the United States, Canada, Korea, Taiwan, the five ASEAN nations, Japan and China will play a pivotal role."

J. Alexander Caldwell, vice president and chief international economist of the Crocker National Bank in San Francisco,c warned of the danger posed by present trade imbalances involving Japan, the United States, and the semi-industralized nations, but added:

"For the decade of the 1980s, the developing market economies of East Asia are likely to become the most dynamic region in the world in terms of economic development. Public investment policies in East Asia are for the most part more effective than in the rest of the developing world, and educational levels are generally high."

One of those who might be described as in the "pessimistic minority" in forecasting future developments was Robert A. Scalapino, director of the Institute of East Asian Studies at the University of California, Berkeley. He predicted uneven development with some significant successes and failures, and added:

"The population-production ratio will present growing problems for a number of Asian societies, necessitating drastic measure. In general, the gap between the 'richer' and 'poorer' societies will expand, making more acute the 'North-South issue.' Similarly, the urban-rural chasm will widen despite efforts to contain it."

SCALAPINO, however, acknowledged the growth of economic cooperation in ASEAN (Association of Southeast Asian Nations), comprised of the Philippines, Thailand, Malaysia, Singapore, and Indonesia. He did not think ASEAN would develop into a political union structure, but added that it could form an example for evolution of a Pacific Basin Community.

"I think the rationale of a Pacific Basin Community is dawning on the elite," he added. "We've already got some embryonic forms. I'm not predicting how successful it will be, but it will come."

Another who saw some sort of Pacific Community concept emerging was Richard L. Sneider, who became a research fellow at the Institute of Politics, Kennedy School of Government, Harvard University, after serving as American ambassador to South Korea.

Sneider said the time was right for East Asian nations to take the initiative in establishing "an enlarged ASEAN-type structure, an Asian/Pacific Council" whose focus would be essentially economic. Such an organization would initially be designed far less to solve problems, but rather to expose them, and would provide a vehicle for closer integration of the efforts of Japan and the United States in fostering economic relationships and cooperation in the area on a multilateral basis.

Forum

council is Malcolm MacNaughton, board chairman of Castle and Cooke, Inc. Other members of the policy council from Hawaii include -Herbert C. Cornuelle and Lowell S. Dillingham, president and board chairman of Dillingham Corporation; James F. Gary, president of Pacific Resources, Inc.; Stuart T.K. Ho, president, Capital Investment of Hawaii, Inc.; Spencer A. Murphy, president, Bishop Trust Company, Ltd.; and Clifton D. Terry, chairman of the executive committee, Bank of Hawaii.

Founder and executive director of the Pacific Forum is Lloyd R. Vasey, Rear Admiral, USN (retired).

SundayFocus editorial opinion,

The Sunday Star-Bulletin & Advertiser

Los Angeles Times photo by Robert A. Jones

"Sun, white sand, quiet lagoons, and jungle paths — and open dumps piled high with junk around a tin shack kingdom. . ."

commentary, business section G

Prepared by the staff of The Honolulu Advertiser April 29, 1979

Advertiser photo by Ron Jett

Micronesia: Ward of

By RICHARD HARWOOD
Washington Post Service

MAJURO, Marshall Islands — An American expatriate pops a cold beer and discourses on the pleasures of easy sex and indolence amid the social rot of the late 20th century.

He is intrigued by the contradictions of life in the islands.

THE INGREDIENTS for paradise are all around — the sun, white sand, quiet lagoons and damp jungle paths overhung with coconut palms, breadfruit, bananas and bougainvillea.

But the pathologies seem to worsen each year — more and more crime, alcoholism and suicide, which is now the leading cause of death among the young men.

The ocean teems with fish, the land is lush and fertile. But most of the fishing boats are beached, and canned tuna has become a popular import. The production of fruits and vegetables declined in a single decade from 30 million to 1 million pounds a year. So there are now food stamps and food handouts from the American government.

The road into the Majuro district center is littered with beer cans and supermarket trash. An open dump, piled high with junked cars and garbage, smolders and stinks. In the village, sweltering in tin shacks, are immigrants from the outer islands, fresh recruits for the new welfare class. The local newspaper editor calls it "one of the most wretched shack kingdoms in the world."

The production of copra — dried coconut meat — was once a mainstay of the economy. Today the crop doesn't bring in enough dollars to pay the liquor bills of the islands.

Things are out of kilter.

THERE IS THIS surface impression of modernity, prosperity — of Little America. Jets glide into the new airports. There are supermarkets and banks. Thousands of children are learning English and sociology in American-style schools. Government-sponsored radio stations deliver the Top 40 tunes. Cable television brings in "Love Boat" and "Hollywood Squares." There is a revolving restaurant — the only one between Honolulu and Sydney — perched atop an empty 127-foot office building on Saipan.

And there are the impressive structures of government. In the Northern Marianas, with a population of about 16,000, Gov. Carlos Camacho presides over a bureaucratic apparatus that includes 22 Cabinet departments and employs about 10 percent of all the men, women and children in the islands. There is a full-time legislature meeting six days a week. Its 23 members are served by press secretaries, consultants and speech writers. The well staffed judicial branch is headed by a chief commonwealth judge whose jurisdiction is equivalent to that of an American justice of the peace. He is paid $43,000 a year.

THROUGHOUT the islands it is much the same. Handsome hotels have arisen, selling $100 bottles of cognac to heavy-spending tourists from Japan. There are planning agencies and development agencies and boards of election and port authorities. Of 17,000 paid jobs in all of Micronesia, more than 11,000 are in government. Of $44.5 million in 1977 wage and salary payments, $32.3 million went to government workers.

66 It would be hard in the new Micronesia imported luxury and might have to br

The institutions of the modern state are in place. There are a few highways and thousands of cars.

And it is all an illusion.

The people of Micronesia are wards of the American state, as dependent as reservation Indians on Washington's largesse.

IT STARTED WITH the war and flowed out of the philosophy Franklin Roosevelt enunciated in a 1944 campaign speech:

"The American people are prepared to meet the problems of peace

too generous U.S.?

in the same bold way that they have met the problems of war."

The American way of war was the way of abundance. You put 16 million men in uniform. You pushed the industrial button and produced 300,000 aircraft, 100,000 tanks, 87,000 ships, 370,000 artillery pieces, billions of rounds of ammunition. You threw these people and things at targets until they yielded.

Micronesia got a taste of it. One day in January, 1944, an American armada of 200 ships showed up in the Marshals. Within 72 hours

to do the farming
. We have seen
l comfort. I think we
ing in some labor ? ?

Kwajalein, Roi and Namur were naked wastelands. The ordnance dumped on Kwajalein alone was equivalent of 20,000 tons of TNT. Not a tree was left standing.

In June 600 ships carrying 127,000 troops and 100,000 sailors moved into the Marianas. Fires from the Saipan cane fields lit up the night, and that was the last cane ever seen there. Dead marines sloshed in the surf off the beaches at Susupe and Chalan Kanoa. Dead water buffalo and dead Japanese swelled up and split open in the heat. We collected gold teeth as souvenirs. Some of the boys collected heads, mounted them on bamboo poles and posed for snapshots to send home.

NEAR THE END, Japanese soldiers and civilians began mass suicides, holding hands and holding babies as they stepped off the cliffs at Marpi Point for the plunge to the rocks below. Search parties from Japan still seek out their bones.

Guam, just to the south, became the textbook case for the proper use of naval gunfire. The preparatory fires included 1,178 rounds from 16-inch guns, 6,574 rounds of 14-inch, 5,194 rounds of 8-inch, 29,344 rounds of 5-inch from the destroyers and 9,000 rounds of 4.5-inch rockets. For cosmetic reasons, the Air Force later seeded the island with tangantangan, the gangling castor oil plant that grows like kudzu. It covered up the scars.

Eniwetok, Pelelilu, Ulithi and Angaur islands got the same treatment. Truk was bypassed, but its great harbor became an underwater junk yard for Japanese ships and is now one of the favorite scuba diving spots in all the Pacific.

Thus Micronesia came under American control 35 years ago. The human cost was 75,000 Japanese and 7,500 American lives, which is approximately the annual body count of tourists these days.

The islands will be remembered in the history books for other military firsts. The first atomic bombs used in war were flown out of Tinian in B-29s. The first hydrogen bomb test was conducted at Bikini atoll. The bomb was called "Mike," short for Micronesia.

IT IS NOT entirely unfair to equate the American way of peace in Micronesia with the American way of war. The plan of attack simply substituted dollars for ordnance. The long-range effect of the dollars will be far more profound.

For several thousand years before the war the brown-skinned people of the islands lived in a subsistence economy. There was no money. They fished and harvested fruits, vegetables and copra. There was an ecological balance between the people and the land; disease and typhoons prevented overpopulation.

This way of life was left in place in the first few years after the war. The Navy administered Micronesia according to the doctrine of benign neglect, observing accurately that "the natural resources of the islands are meager, though they will sustain the local island peoples reasonably well. There are limited opportunities for future expansion and development. Furthermore (the) islands cannot be expected to be self-supporting. . . they are a liability and an inevitable charge on the public purse."

THE MONEY bombardment

See U.S. TOO on Page G-4

Bikinians May Not Return to Isles

WASHINGTON (AP) — Relocated residents of Bikini won't be able to return to their Pacific atoll for at least 30 years and maybe as many as 100 because of lingering radiation from U.S. nuclear-weapons tests, preliminary results of a new survey suggested Thursday.

However, officials told a House Appropriations subcommittee that another island in the chain, Eneu, may be safe enough to occupy after five years.

Eneu is the Bikini islanders' next choice after their own atoll, Adrian P. Winkel, high commissioner of the U.S. Trust Territory, told the panel.

Proposals to move to Hawaii the 140 Bikinians evacuated in 1978 have been abandoned as impractical, Winkel said. Most of the relocated natives are now living on Kili, an island about 500 miles south of Bikini.

He said most of the evacuated natives miss Bikini atoll and its lagoon where they used to fish and are restive on Kili, an isolated open-ocean island which lacks a lagoon.

"The alternatives are very limited," Winkel said.

Radiation on Bikini and several neighboring islands continues to exceed federal safety levels, according to the findings presented to the subcommittee by the Energy Department based on a new aerial radiological survey.

Bikini was the site of some 23 nuclear-weapons tests from 1946-58, including the 1956 explosion of a hydrogen bomb dropped from an airplane.

L.J. Deal, an official with the Energy Department's nuclear safety branch, noted that the study showed some parts of the 20-island chain now register the same level of radiation found in Washington, D.C.

But he said this isn't the case on Bikini and its immediate vicinity, where radiation is still a problem and will continue to be for years to come.

Deal ruled out any return to Bikini for the natives within the next 30 years. And he presented one chart showing that the radioactive substances that find their way into bone marrow might not reach the "safe" level on Bikini for another 100 years.

The subcommittee's chairman, Rep. Sidney Yates, D-Ill., said that apparently no alternative exists for the Bikini natives except to stay where they are "and wait for Eneu to cool down."

Hawaii loses its glow for Bikini exiles

By JERRY BURRIS
Advertiser Politics Writer

A candid picture of the land and living situation in Hawaii has "discouraged" Bikini Islanders who want to relocate to Hawaii, state Land Director Susumo Ono said yesterday.

Ono flew to Majuro Island in the Marshall Islands this week to meet with representatives of Bikini Islanders who are seeking a new home.


Ono

The 700 or so islanders have had to move off Bikini because of lingering radiation from atomic tests conducted on the island 32 years ago. They are dissatisfied with Kili atoll, where they are temporarily living, and recently asked about moving to the Big Island.

"We must find a place to live until the radiation has left our island," the Kili-Bikini Council said in a recent statement. "We were hoping to explore the possibility of living in Hawaii until we can return to our own island."

But two days of talks about conditions in Hawaii left the islanders discouraged about the move, Ono said.

Nonetheless, Ono said a delegation from the Bikini Islanders may come to Hawaii to look at conditions firsthand.

Ono said he described land-use laws, property laws, availability of health and welfare services, education and even the geographical conditions to the islanders.

"They are interested in living close by the sea so they can go fishing," he said.

"I told them the coastline on the Big Island is rugged, in some places it is cliffs, and that there are restrictions on fishing such as size of catch," he said.

Toward the end of the second meeting with the islanders, Ono said, they asked him if he could suggest whether there is a parcel of land that would suit their needs within Hawaii.

"I told them very frankly that I could not suggest a place like that on the Big Island or anywhere in the state," Ono said.

Although he also tried to outline the positive conditions in Hawaii, Ono said, "on balance, they were feeling discouraged."

The meetings on Majuro included Tomaki Juda, Kili-Bikini magistrate, Trust Territory High Commisioner Adrian Winkel, Marshall Islands District Administrator Oscar deBrum and other officials.

U.S. too gener

Continued from Page G-1

began in the 1960s, when the Kennedy administration decided that Micronesia must become a model of how colonial powers deal with their subjects. This policy, as described in a study by David Nevin, grew out of both strategic and humanitarian concerns: by winning the hearts and minds of the Micronesians, American military control would forever be insured even if the islands became independent.

The whole array of New Frontier and Great Society programs was exported to Micronesia. U.S. appropriations for the territory rose from less than $10 million in 1960 to about $150 million last year. Another $50 million goes into the islands through 166 independently administered federal programs.

The local bureaucracy grew from fewer than 2,000 to nearly 12,000 people. Armies of American technicians and administrators and consultants flew out from the States. At one point in the '60s there were 1,100 Peace Corps volunteers in the islands, raising consciousness and calling for social revolution.

A VAST educational system, on the American model, was put in place to process thousands of children from villages barely out of the Stone Age. It was never clear what they were being educated for, since the economy of Micronesia is not on the American model.

"It's a monster, this government," says Carlos Camacho, the governor on Saipan. "We picked it up from 34 years of U.S. rule. . . We don't want to give the impression that government is the primary employer. But it is. It is a big monster. Politically, however, you can't lay people off. We have to provide jobs until there are jobs in the private sector."

As this process continues, the social and economic imbalances grow worse. Government jobs cost money, and there is virtually no privately generated money in the islands. Truk, Yap, Kosrae and Ponape, for example, are now operating on government budgets that collectively total $52 million a year. They get $50 million from the American government and $2 million from local sources.

Even with those subsidies, island governments can't hire everyone. Unemployment in the new urban centers is running at 20 to 25 percent as job seekers flock in from the outer islands. The impact of unemployment is especially felt by the newly educated young. They are turning to alcohol, crime and suicide.

JOE MURPHY, a journalist in the Marshalls, tells of the emergence of youth gangs who fight over turf in Majuro.

A Palauan, Francisco Uludong, talks of growing up in a village in which the families and clans functioned as a cooperative. If a road

Advertiser photo by Ron Jett

Young girls sit atop pig pen. Outhouse at end of pier empties into lagoon at Majuro.

ous to islands?

needed fixing or a house needed repair, the whole village did the work.

"Now it's different," he said. "They (the Americans) decided that people who worked on village projects should be paid by CETA (the Comprehensive Employment and Training Act). Now they won't work unless they get paid."

Almost every aspect of the old culture has been eroded by the Americanization of the islands. There has been, for example, a considerable effort by some U.S. agencies to pour free food into the islands.

Truk, with a population of 36,000, gets food for 40,000 people. As the food poured in, food production dropped to negligible levels. Simultaneously, imports have risen astronomically, creating still another imbalance. The Micronesian trade deficit is now $28 million a year.

All this, presumably, is manageable so long as the United States keeps the dollars flowing. But that is not a certainty, at least at present levels, and under the new rules that are now being negotiated.

THE AMERICAN trusteeship of Micronesia, granted in 1947 by the United Nations, is to end in 1981. The islands will achieve political independence, and there will be no turning back to the subsistence society of the pre-American days.

As islander has written that obituary:

"The traditional society's demise began as soon as the first child learned to read and write, and when the first dollar bill was earned and exchanged for goods and services. It has been terminally infected by the disease of modernity.

"The day is soon coming when the only chiefs in the world will be on a football team in Kansas City, or in various police and fire departments around the world. 'Traditional dances' will be a high-school elective, and traditional customs and culture will be covered in Anthropology 102.

"Some far-sighted and realistic planning for the future is necessary now, unless we are to compound heartache with new heartache. I mean, who wants to sit around forever on a reservation with their finger in their ear?"

The "far-sighted and realistic planning" now under way consists largely of protracted negotiations with the United States over financial subsidies after 1981. The Palauans are aided in this effort by two Harvard luminaries, John Kenneth Galbraith and Mark Roberts.

They reportedly are proposing an annual American payment of $128 million, which is equivalent to something over $9,000 per year for each man, woman and child. The payments would continue for 15 years. The Marshall Islands have retained the Washington law firm of Covington and Burling. Truk, Yap, Ponape and Kosrae have retained Clark Clifford's law firm and a Washington economic consultant, Dan Perrin. They want something over $1 billion during the next 15 years.

THAT WOULD keep things going as they are. But what happens after that, in the absence of a private economy? Ambassador Peter Rosenblatt, who is negotiating for the American government, is not at all sure. The proposals he has seen thus far are vague and insubstantial.

One fond hope is that the American military might come to the rescue with new bases. They have seen what the large military apparatus on Guam has done for that island. Its population has topped 100,000 people and 60,000 cars, the highest ratio of cars to people outside Los Angeles.

Governor Camacho on Saipan speaks wistfully of agricultural possibilities — fruits, coffee, vegetables, sugar cane and ginger: "You could net $1 million on 30 acres of ginger."

But who would do the farming in the new Micronesia?

"It would be hard," Camacho replies. "We have been shown the imported luxury and comfort. I think we might have to bring in some labor."

Saturday, Dec. 9, 1978 Honolulu Star-Bulletin A-7

Enewetak Project Ending

The gigantic task of rehabilitating the nuclear devastation of Enewetak Atoll is nearly over, according to the officer responsible for the American cleanup project.

All that man can do to make the 40 islands habitable is nearly complete, said Vice Adm. Robert R. Monroe, director of the Defense Nuclear Agency, at a news conference yesterday.

The islands that have not been made habitable will remain too dangerous to live upon, or too dangerous to farm or fish until radioactivity decreases naturally, he said.

Such dangerous radioactivity, caused at Enewetak by U.S. atomic weapons testing in the 1950s, cannot be speeded up by man but new estimates indicate that such radioactivity may disappear within years or decades instead of centuries.

MONROE SAID the $100 million cleanup has almost rid more than 90 percent of the land space of radioactively contaminated debris—including concrete bunkers—as well as non-radioactively contaminated World War II debris.

More than half the number of islands (20) are or will become places in which people can live.

About 10 are or will become suitable for farming or fishing although people will not be able to live there.

And about 10 more will be suitable only for visiting.

Because these projections are so scientifically sound and will be so understandable, the people of Enewetak must, within a year, begin to decide for themselves on which islands they wish to live.

TED MITCHELL, executive director of the Micronesian Legal Services, said that "the people must decide what risks they wish to incur."

He called having to make such decisions "a very, very tough situation."

There must be no risk taken, he said that "would shock the average person."

The risks being discussed are the likelihood of contracting illnesses—including cancer—which are produced by exposure to radioactivity.

Mitchell also noted that the present cleanup by the Defense, Interior and Energy departments, is costing at least $200,000 per person who lives or has roots in the atoll.

He said, "To think that price is too high is to put a price on human life, as well as the security of the United States."

Mitchell said, "The weapons tests were conducted to protect everyone in the United States. Whatever it takes can be charged to everybody."

LA TIMES MAY 22, 1978 1:4 MONDAY

Radiation Rise in Bikini Islanders' Bodies Called Incredible; Atoll to Be Evacuated

BY WALTER PINCUS
The Washington Post

WASHINGTON—Medical examinations have disclosed a 75% increase in the last year of radioactive cesium in the bodies of Marshall Islanders living on Bikini Island, site of the fallout from a 1954 U.S. hydrogen bomb test.

Government officials described as "incredible" the increased level of cesium, which alone is causing internal radiation in individuals that is almost two-thirds the allowable U.S. level for absorption from internal and external sources.

The new findings, from medical examinations in April, suggest that the 139 men, women and children living on Bikini are well beyond the overall radiation safety limits set by U.S. government scientists for exposure in the general population.

Late Sunday, it was learned that Interior Department officials had decided to move the Bikinians temporarily to another Marshall Island atoll within 75 to 90 days.

This morning, the officials will appear before a House appropriations subcommittee to report on the Bikini medical situation. Interior is asking the subcommittee for $15 million to relocate not only the 139 Bikinians on the island but also the 400 Bikini people who now live on Kili Island.

Cesium is only one of the radiation sources to which the Bikinians have been exposed. Strontium 90, another ingredient of fallout, is in their bodies but has not been measured recently. Yet another source of exposure is external radiation from fallout material that has remained in the ground since the 1954 test.

Officials believe tests now under way will show that the overall average radiation level has doubled in the last 12 months.

The Marshallese have been ordered to stop eating coconuts and other fruits grown in the still-contaminated Bikini Island soil. For the last six months all of their food and drink has been supplied from outside, except for fish that is considered safe to eat.

The only exception, officials said, occurred during a drought when the islanders turned to coconut milk to satisfy thirst.

Despite the precautions, April examinations of 99 adults and children over 5 discovered 12 with radioactive cesium in their bodies above the level considered safe over the long term by U.S. standards.

The tests on Bikini were primarily done with a device called a whole body counter, which measures radiation from cesium but not strontium. Strontium 90 is measured by urinalysis.

Department of Energy officials who have reviewed the current data believe that when the overall body radiation, including strontium, is calculated, levels will be even higher than those now being reported.

Cesium is attracted to muscle tissue; strontium adheres to bones. The radiation these elements then produce affects bone and tissue cells, raising the risk of cancer if the process continues.

Cesium inside a human body drops off by one-half in about 100 days, scientists believe. However, strontium, lasts much longer—up to 30 years before it drops by half.

Government scientists said over the weekend that the Bikinians might have ingested the largest amount of measurable radiation of any population.

Many of those examined last month had returned to Bikini Island in 1969 after it was declared safe for habitation by the Atomic Energy Commission.

Officials who have reviewed the April medical findings don't, as one put it, "think this is a life-threatening situation" requiring immediate evacuation of Bikini.

They do believe, however, that the danger to children is greater than to adults because their smaller bones and organs are more easily damaged by the internal radiation caused by the ingested radioactive elements.

A suggestion has been made to Interior Department officials, who administer Bikini as part of a U.S. Trust Territory, that children be taken off the island immediately and that adults be evacuated within several months.

The 539 persons on Bikini and Kili all spring from the 120 persons who were moved off Bikini Atoll in 1946 to make way for the first series of Pacific nuclear weapons tests.

SB 5-30-78

Bikini Islanders' Dilemma

By John Noble Wilford

NEW YORK — For centuries, the Bikini Islanders lived on the same coral atoll, where the coconut and pandanus were plentiful and the sparkling waters of the lagoon were a source of joy and of all the fish they could eat. They lived to themselves, about 170 of them on their tiny island far from any other land or people in the Marshall Islands. This was their home, their world — until 1946.

It was then that circumstances forced the Bikini Islanders out of their homeland. They became nuclear-age nomads. And last week they were told that they would likely remain so for another 30 years.

Soon after World War II, the United States chose Bikini as the perfect test site for its new atomic weapons. The atoll was so remote and, presumably in the minds of those with bombs to test, so inconsequential.

First, the United States Navy moved the people to the island of Rongerik. It was too small, and in two years the people were near starvation. They were moved again, to Kwajalein, a major military installation and then resettled on the island of Kili, about 500 miles southeast of Bikini.

Life proved difficult on Kili. There was not enough land for cultivation and no lagoon for easy fishing. From

The people of Bikini must leave their home islands again because radioactivity levels are still too high.

1952 on, these once independent and self-sufficient people were reduced to depending more and more on food shipped in by the United States.

FINALLY, in 1968, it seemed that the people would get to go home again. The atoll had not been used for nuclear testing in a decade, surveys indicated that it was apparently free of radiation contamination, and so the United States announced a rehabilitation program to plant food trees and build concrete-block houses.

More than 100 people returned to Bikini in the early 1970s, and most of the others on Kili planned to follow as soon as adequate food supplies and housing could be assured. But disturbing signs began to appear, insidious legacies from the atoll's nuclear era. In 1975, when the people on Bikini wanted to begin harvesting the maturing coconut palms, a new survey showed unacceptably high levels of radioactive substances in the well water and the plants.

At the time of the earlier surveys, scientists had looked for radioactivity in the soil, metal debris and marine life. All the food plants had been destroyed during the bomb blasts, and replanting had not begun. Besides, scientists were still relatively unfamiliar with the phenomenon of radioactive isotopes from fallout (strontium-90, cesium-137, cobalt-60 and plutonium) working their way from the soil into plants and then into people who eat the fruit of those plants.

THE DEPARTMENT of the Interior warned the people to drink only rainwater collected in cisterns and to resist any temptation to eat the food growing all around them. Instead, they were to eat only food shipped in.

Surveys last year showed even sharper increases in radiation in vegetation, and earlier this year the Interior Department planned to move the people off Bikini once again. The hope was to transfer them to another island in the atoll, Eneu. It was assumed that fallout and therefore contamination had been minimal there. But, on Eneu, too, according to new tests, the plants were absorbing low-level radioactivity.

And in April government doctors gave most of the 139 islanders their annual medical examinations. The results were startling. In a year's time, there had been a 75 percent increase of cesium in people's bodies. In many cases the concentrations of cesium far exceeded government minimum radiation standards.

Although other data from the tests have not been analyzed, a Department of Energy safety expert assumed that they would show increases in the amounts of accumulated strontium-90, which invades the bones and can cause cancer.

The Interior Department reported these findings to Congress last Monday and said that Bikini would have to be evacuated within 90 days.

ADRIAN P. WINKEL, high commissioner of the Trust Territory, plans to meet with the people of Bikini in the next couple of weeks to explain why they must leave their homeland again and find out where they would prefer to live for the next few years.

There is more than a touch of sadness and regret in the voices of those government officials involved in the Bikini situation.

Joseph Deal, a safety officer of the Department of Energy, remarked:

"At the time, nobody had any thought but that those islands were for testing. No one thought of them as the home of people. Then a lot of well-meaning people make a judgment to let the people return home. The conclusion of 20-20 hindsight is that we probably did the wrong thing."

SB 5-10-78

Senate OKs Funds to Clean Up Atoll

WASHINGTON (UPI) — The Senate today authorized $15 million for a plan to make it possible for natives of the Bikini Atoll to return to their homeland from which they were driven in 1948 by U.S. atomic bomb tests.

But there is no hope, at the present time, that the estimated 500 persons who want to return can come back to Bikini Island, the largest in the atoll, because of the lingering radiation effects.

The legislation was approved by voice vote, without dissent, and sent to the House.

The money was part of a package which also includes $8.8 for water service facilities in Guam; $12 million for a power plant in the Northern Marianas; and $4 million for pre-construction work on a hospital in the Virgin Islands.

The Bikini Atoll, located in the Marshall Islands which are administered by the United States as trust territories, was damaged severely and much of it rendered uninhabitable by atomic testing between 1948 and 1958.

BEGINNING in 1958, the exiles of the atoll increasingly pressed for a return to their home. Ten years later, President Lyndon Johnson announced that the island would be returned to the people of Bikini after cleanup and rehabiliation.

Despite earlier optimism, a radiological survey in 1975 revealed that Bikini Island would not be safe.

James A. Joseph, Interior Department undersecretary, wrote the Senate Energy Committee that Bikini Island "should not be used for residential purposes; that well water should not be used for human consumption; and that locally grown food products must be placed on a restricted basis...

"The restriction on the use of coconut products produced on Bikini Island for food and export additionally make the island of Bikini unrealistic as a permanent place of settlement and for agricultural use."

JOSEPH SAID a number of alternate plans are being considered. The most feasible appears to be to resettle most of those who want to return on Eneu Island—12 miles south of Bikini—which did not receive significant amounts of radiation fallout.

The Interior Department estimated it would cost about $13 million to rehabilitate Eneu and develop suitable residential facilities there. About 21,000 coconut trees planted there are bearing fruit and can be used for food and possible export.

Even if Eneu could accomodate all those who want to return, the Interior Department said it anticipates a small group of Bikinians will elect to remain on Kili Island. The cost of rehabilitating the Kili community is estimated at $2 million.

Planting trees on Bikini in 1968.

SB 6-24-78

Enewetak Work Safe for Soldiers, Admiral Says

By Lyle Nelson
Star-Bulletin Writer

Schofield Barracks soldiers working on Enewetak Atoll islets devastated by nuclear bomb tests have encountered no medical problems from working with radioactive debris, Vice Adm. Robert R. Monroe said here yesterday.

The director of the Defense Nuclear Agency in charge of a massive, $80 million cleanup effort said control methods in use have dissapated apprehension over the health of the men.

While Monroe said the job was dangerous in many respects, the operation is going so smoothly that the health hazards are no different than they are for anyone living in mile-high Denver where people are exposed to more natural sun radiation than people living at sea level.

Monroe, in a news conference at the military's Hale Koa Hotel at Fort DeRussy, said the soldiers and others working at cleaning up the site of nuclear tests conducted in the 1950s are closely monitored for radiation hazards and that "morale is very high" in the ranks of the men doing the work.

SOLDIERS WORK in 150-day cycles at Enewetak and then return to Schofield. Most of the debris left over from the tests, some uncontaminated and much that is still radioactive more than 20 years after the blasts, has been picked up and readied for burial in concrete slurry, dumped in the lagoon or salvaged by a scrap dealer.

The major job ahead for the agency is to remove the topsoil from test sites.

The Marshallese people native to Enewetak are setting up a new community on the island of Japtan but rotate between there and their home on Ujelang.

Those islanders native to Enjebi, a test site at the north end of the lagoon, have been given field trips to visit the cleanup project.

Robert Monroe

Roger Ray, a project director for the Department of Energy, said there is a chance people will be able to return to Enjebi within 30 years to live there as they did prior to World War II when the atoll became a battleground.

A thousand men, including 600 military, are involved in the cleanup operation.

Of 450 Enewetakese displaced by the testing, about 55 live today on the uncontaminated southern islets growing coconuts, pandamus, breadfruit and other foods.

Scientists have determined that the fish and shellfish in the lagoon are safe to eat.

Dec 27, 77 5-B

847 Leave Atoll; Typhoon Eases Up

AGANA, Guam (UPI) — Four U.S. Air Force airplanes today evacuated 801 Americans and 46 natives from low-lying Enewetak atoll in the Marshall Islands and flew them to Guam to escape the onslaught of Typhoon Mary.

High seas accompanying the typhoon's winds of 65 mph flooded part of the atoll — only 5 to 8 feet above sea level — and caused minor damages to buildings. Soon after, the typhoon was downgraded to a tropical storm.

The evacuees are expected to stay only two or three days. They were put up in barracks at Andersen Air Force Base. Many of the servicemen involved are from Hawaii-based units.

The island commander, Army Col. Edgar J. Mixan, 21 enlisted men and one native remained on the atoll and took shelter in its only concrete building.

The American civilians on the atoll are under contract to the U.S. Atomic Energy Commission to assist soldiers in cleaning the area of radioactive waste from the 1940s atomic bomb tests.

The atoll is being cleaned so islanders, evacuated for the tests nearly 30 years ago, can return.

Section B
The Honolulu Advertiser
Wednesday, March 29, 1978
• More news: B4,8

Bomb effect still evident in Marshalls

By WALTER PINCUS
Washington Post Service

WASHINGTON — New cases of thyroid abnormalities continue to turn up in Marshall Islands natives who 24 years ago were exposed to fallout from a U.S. hydrogen bomb test exploded more than 100 miles from their home atolls.

According to Interior Department officials, doctors in the last 18 months have confirmed seven new thryoid cases in natives who lived on Rongelap and Utirik atolls on March 1, 1954, when the largest U.S. nuclear weapon, a 15-megaton hydrogen bomb, was exploded on the coral reef of Bikini Atoll in the South Pacific.

The unexpectedly heavy radioactive fallout from the explosion was carried by winds to Rongelap, 110 miles east of Bikini. A lesser amount of fallout drifted an additional 180 miles east to Utirik.

Counting the most recent cases, 33 of Rongelap's 82 inhabitants at the time of the fallout have developed thyroid problems.

Five of them have been ruled cancerous and doctors believe many of the others would have turned malignant had not the victims' thyroids been surgically removed after the first sign of nodules.

In addition, the youngest child on the island at the time of the fallout died of leukemia in 1972.

Of 21 Rongelap children under 12 years of age at the time of the bomb, 19 have turned up with thyroid tumors or problems, according to an Interior Department official.

The health problem of those exposed on Rongelap and Utirik is but one aspect of the continuing controversy over the long-term effects of radiation.

Last week, another aspect of the problem emerged with disclosure that Bikini Island — which, though unoccupied, also took fallout from the March 1, 1954, explosion — is too radioactive for people to live on.

Bikini had been declared safe by the Atomic Energy Commission in 1969 and some 100 Bikinians had returned eight years ago. They will have to be moved to another island.

The health of the Marshallese who were dosed with radioactivity in 1954 has been closely monitored by U.S. government doctors in the 24 years since the fallout exposure.

Rongelap, according to scientists, received a total radiation dose of about 175 rads. But since the natives lived on the fallout-blanketed island for more than two days after the test — eating and drinking contaminated food and water — the inhaled and swallowed radiation doses to bones and organs such as the thyroid were considered much higher.

Utirik, since it was much farther from the site of the shot, received a much lower dose — about 15 rads, according to AEC estimates made more than 20 years ago.

Where 175 rads was expected to cause some short-term medical problems, neither that dose nor the much smaller one on Utirik was thought dangerous over the long term.

Beginning 10 years after the exposure, however, thyroid nodules, both malignant and benign, began turning up among the exposed natives.

Of 157 on Utirik at the time of the fallout, eight have developed thyroid tumors and four of those were found to be cancerous.

Information on the new cases was disclosed last month when Interior officials asked Congress for an additional $600,000 to compensate the fallout victims who turn up with tumors.

Last year Congress approved a $1,083,000 compensation bill to pay the Rongelap and Utirik Marshallese whose illnesses had appeared between 1963 and 1976.

In their presentation last month, the officials said two more cases had developed on Utirik since 1976.

Interior officials project that 10 to 15 more cases may appear before 1980, when authorization to make compensatory payments comes up again for congressional review.

Honolulu Star-Bulletin

Published by Gannett Pacific Corporation

CHINN HO, CHAIRMAN **ALEXANDER ATHERTON,** PRESIDENT

PHILIP T. GIALANELLA, PUBLISHER

PAUL T. MILLER II, ASSOCIATE PUBLISHER

A. A. SMYSER
Editor, Editorial Page

JOHN E. SIMONDS
Managing Editor

Edwin R. Edwards, Adm. Assistant to the Publisher; **Claude Burgett,** Deputy Managing Editor; **Barbara Morgan,** Today Editor; **Charles E. Frankel,** News Editor; **Dennis Anderson,** City Editor; **Bill Kwan,** Sports Editor; **Harry Whitten** and **Carl Zimmerman,** Assistant Editors, Editorial Page

Published at 605 Kapiolani Boulevard / Honolulu, Hawaii, 96813

A-8 Saturday, August 12, 1978

Reflections on Annexation

Compensation for Nuclear Test Victims

The post-World War II Pacific nuclear tests had a disastrous impact on the lives of some island peoples.

The problem continues to this day. Efforts to resettle the people of Bikini on their home island were recently aborted by the discovery of evidence of continued dangerous radioactivity.

Other efforts to assist the victims continue, however. The Army is rehabilitating Enewetak Atoll, apparently without encountering the problems that were found at Bikini.

Last month 62 residents of Rongelap and Utirik Atolls in the Marshalls who were exposed to radiation from a thermonuclear blast on Bikini March 1, 1954, received a total of $490,000 in compensation from the U. S. government.

Amounts of the awards depended on whether illness or death had resulted; the maximum compensation was $100,000.

Other islanders will also be compensated. About 200 people were on the atolls at the time of the explosion. More than $1 million has been made available for payment.

Another $900,000 is being requested for additional compensation, partly for individual payments and the rest for community projects.

No cash payment can be adequate compensation for the suffering caused by nuclear accidents. But the program is a tangible expression of the nation's regrets.

Honolulu Star-Bulletin

Published by Gannett Pacific Corporation

CHINN HO, CHAIRMAN **ALEXANDER ATHERTON,** PRESIDENT

PHILIP T. GIALANELLA, PUBLISHER

PAUL T. MILLER II, ASSOCIATE PUBLISHER

A. A. SMYSER
Editor, Editorial Page

JOHN E. SIMONDS
Managing Editor

Edwin E. Edwards, Adm. Assistant to the Publisher; **Claude Burgett,** Deputy Managing Editor; **Barbara Morgan,** Today Editor; **Charles E. Frankel,** News Editor; **Dennis Anderson,** City Editor; **Bill Kwan,** Sports Editor; **Harry Whitten** and **Carl Zimmerman,** Assistant Editors, Editorial Page.

Published at 605 Kapiolani Boulevard / Honolulu, Hawaii, 96813

A-8 Saturday, August 12, 1978

Reflections on Annexation

Eighty years ago today at Iolani Palace, the Hawaiian flag was hauled down for the last time as the emblem of an independent nation, and the Stars and Stripes took its place. Hawaii was annexed to the United States.

It was a jubilant day for the whites who had overthrown the monarchy but a sad one for native Hawaiians.

Eight decades later we find native Hawaiians battling with a new militance for what they consider to be their rights.

They have demonstrated for an end to the military bombing of Kahoolawe and its return to the Hawaiian people.

They have resisted eviction at Waiahole-Waikane.

They have demonstrated for payment by the state Transportation Department of rent for use of Hawaiian Home Lands for Hilo Airport.

They have petitioned Congress for reparations for the role of the United States in the overthrow of the monarchy.

Hawaii has changed enormously in the 80 years since annexation. Hawaiians have not fared well economically and socially in comparison with some other racial groups. They are experiencing a growing discontent with their status and are demanding attention to their grievances.

But annexation was an irrevocable break with the past. It made Hawaii part of a vast nation. Hawaiians became a minority not only in the national population but even in their own islands.

Once the interests of the Hawaiian people were paramount in Hawaii. Now they must be reconciled with the interests of the many other residents of the Islands, and of the American people in general.

This is a task that requires more concern and attention than we have given it.

AF Evacuating Eniwetok as Typhoon Nears

ENIWETOK ATOLL, Marshall Islands (AP) — The Air Force said today it would evacuate 849 people from this atoll in the Marshall Islands chain as a precautionary measure because Typhoon Mary was due to sweep near the area, kicking up high winds and surf.

Air Force C-141 planes from Yakota, Japan, were to begin flying evacuees to Guam beginning at first light tomorrow, officials said.

The first plane was expected to land on Guam at Andersen Air Force Base with 220 passengers. Three other flights were to arrive on Guam at half-hour intervals.

Those to be evacuated include 616 male military personnel, 186 Department of Defense civilian contract workers, and 47 native Marshall Islanders, including 10 men, 10 women and 27 children.

THE TYPHOON is predicted to pass about 105 miles south of the island late tomorrow morning. About 500 of the evacuees will be housed at Andersen and the rest will stay in Navy housing on Guam.

The elevation of Eniwetok is 10 to 12 feet. Forecastecs expect high winds and surf of at least 10 feet.

The islands were uninhabited because of U.S. nuclear bombing in the late 1940s and 1950s. The people there now returned just last summer to begin cleaning up the nuclear waste debris. The Marshallese are the first islanders to return to their home after more than 20 years.

March 31, 1976 5-B

Panel Balks at Funding for Enewetak

By Arlene Lum
Gannett News Service

WASHINGTON — When the United States decided in 1947 that the Enewetak Atoll would be used for nuclear testing, the 136 residents were given virtually no choice about being herded aboard a Navy vessel and exiled from their homeland.

The ring of islands, surrounding a lagoon 28 miles across at its furthest point, has not been used by the United States for testing since 1958, and the people — now numbering 432 — want to go home. The United States promised to return the people to a restored atoll, but some congressmen are balking at the cost.

The House and Senate Armed Services committees and the Senate Appropriations Committee last year approved the first $14 million in a clean-up campaign, but the House Appropriations subcommittee on military construction balked, and the matter died in conference.

testing was made between the secretary of the Navy and the high commissioner of the Trust Territory in 1946.

Theodore R. Mitchell, attorney for the islanders, said the selection of the atoll for testing "was made before the people of Enewetak knew anything about it. President Truman made the decision."

The islanders, he said, were conquered by the Japanese, "saw Americans level the Japanese," so when told to get aboard the boat for exile, they "thought Americans were divine," omnipotent.

REP. BURT L. Talcott, R-Calif., said he wanted to know why the United States didn't simply purchase the land or condemn it by eminent domain in 1946. He was told that the conditions of the trusteeship agreement with the United Nations under which America administers the Trust Territory precluded those actions.

AT A MONDAY hearing before the subcommittee, Gen. Warren D. Johnson, director of the Defense Nuclear Agency, told congressmen that a minimal budget would be $20 million, $5 million less than asked last year, to clean up the debris and radioactive material still left on the islands.

The Department of Interior has estimated it will cost $12 million to replant coconut and pandanus trees and build homes and community facilities.

In a statement submitted to the subcommittee, Iroij (Chief) Johnannes Peter, Iroij Binton Abraham and elected-Magistrate Hertes John recalled how they were uprooted from their atoll and taken away for what was to become 30 years of exile.

"So with children crying and women screaming, we were herded into the LST and taken to Ujelang; that is where we have lived to the present day," they said. But Enewetak Atoll, with its 388-square-mile lagoon and land area of 2.75 square miles, is far superior, they said, to crowded Ujelang Island, where they said they faced starvation in recent years.

JOHNSON testified that the people "did not have any choice. The U.S. had the authority to displace them." He suggested that the actions the United States took could be open to legal challenge.

Adm. William J. Crowe Jr., the Pentagon's director of East Asia and Pacific Region for International Security Affairs, said that the agreement for use of the atoll for the

Crowe said: "An island people looks at land different than from people in the Midwest who buy and sell land."

A highly mobile American copes well with selling his house on Staten Island and buying another home in San Francisco if his job takes him there, but islanders rooted in traditional family land-ownership systems cannot understand moving or selling their land, one Pentagon source said.

The islanders said Monday: "We have been asked why we want to go back to Enewetak at all. We have been asked why we do not want to remain permanently on Ujelang. And we have been asked what is to us a rather rude question: 'Why don't you just take money instead?'

"TO US, money is not and never can be a substitute for our islands. It is against our nature and our custom to sell our land or to take money for it," they said.

Rep. John P. Murtha Jr., D-Pa., said he opposed the reconstruction measure "very strongly . . . I have 38,000 substandard houses in my district and no way" would he support moving "some natives from one island to another."

Rep. Bill Chappell Jr., D-Fla., suggested that if the islands were ravaged and the homes were destroyed by war, the United States has no obligation but to return the land in the condition the United States found it in 1944. "We took these people out of slavery (under Japanese rule). The land was taken in war by this country at great expense."

Sept 23, 76 S-B

Enewetak Bill Before Senate

Gannett News Service

WASHINGTON — A bill is before the Senate calling for $12.4 million for the Department of Interior's rehabilitation and resettlement of Enewetak Atoll.

Sen. Henry Jackson, D-Wash., chairman of the Senate Committee on Interior and Insular Affairs, who introduced the measure, also entered into the Congressional Record a letter from Interior explaining the proposed use of the funds.

The Enewetakese were removed to nearby Ujelang Atoll in 1947 when the United States decided to use the area for nuclear weapons testing between 1948 and 1958. The testing "severely damaged Enewetak and rendered it uninhabitable," said John Kyl, Interior assistant secretary. "The United States is committed to rehabilitating Enewetak, whose former residents are most anxious to return."

HE SAID THE DEFENSE Department would be responsible for maintaining facilities and operations in the atoll and for clean-up operations, the Energy Research and Development Administration for radiological monitoring and surveying, and Interior for rehabilitation and resettlement.

But the three agencies still have not settled their squabble over "whose ox will be gored," said an Interior official — none of the three wants the entire expenditure to come out of its budget.

The $12.4 million Jackson asked for is in addition to the $20 million already requested of Congress for cleanup. Congress has yet to act on that request.

Interior wants $4.4 million for replanting and construction of housing and community facilities; $5.5 million for facilities, equipment and operations, and $2.5 million for overhead, profit and contingencies.

Action before Congress adjourns next month is doubtful, an Interior Committee aide said.

Nov 6, 1976 S-B

Team Will Comb Marshall, Caroline Isles for Artifacts

By Jerry Tune
Star-Bulletin Writer

An expedition will leave next March from Honolulu to probe the Marshall Islands and Caroline Islands of Micronesia in search of artifacts that may unravel more about the origins of those Pacific people:

Bishop Museum, with an unexpected $100,000 windfall frm the Kelton Foundation of California, will be doing some of the first modern archeological research in the area:

Yosihiko H: Sinoto, chairman of the museum's department of anthropology, termed the trip more of a "reconnaisance" mission to pick sites for potential finds: Another trip, with additional funding, would be necessary before any extensive excavation work could be carried out:

The schedule now calls for about three months in Micronesia with stops at 20 to 26 islands or atolls, depending on the weather and the expedition schedule changes once the boat gets in the area:

THE SCIENTISTS WILL spend, at the most, 3 ½ days on any one island or atoll:

"There has been no intensive archeological survey of the area using modern techniques," explained Sinoto:

The Germans, who had control of the area until the end of World War I, did some work at the turn of the century: The Japanese, who took control after World War I, did some more work in the three decades that followed but only some of this work is considered especially useful for the current expedition:

Most of the early work concentrated on structures on the ground rather than excavation: And scientists point out that modern techniques for archeological discovery and catalogueing came after 1950:

"WE WILL BE looking for any archeological remains, habitation sites and cultural remains," added Paul Rosendahl, a museum archeologist and one of the five persons who will travel on a luxury cruising boat provided by the Kelton Foundation:

Others are Peggy Luscomb, a museum field archeologist; Richard Kelton, an attorney from Beverly Hills, Calif:, who has a strong interest in both sailing and anthropology; David Finstein, a professional sailor; and one other person to be chosen later: Sinoto will join the expedition midway in the schedule:

Bishop Museum, which has been active in Pacific research since 1960, is cooperating with historic officials in Micronesia to coordinate all its activities:

The scientists also will be looking for someone to accompany them on the trip to act as an interpreter-guide so the purpose of the trip can be explained to the people living on the islands and atolls:

THE POPULATION VARIES from thousands on some islands to 200 on others: Some of the stops will be on uninhabited islands nd atolls:

The expedition will stay away from Kwajalein, Enewetak and Bikini:

Bishp Museum was completely surprised by the offer from the Kelton Foundation to fund the expedition:

Sinoto said a proposal to do the same kind of "prospecting" for archeological sites had been made by the museum and the University of Arizona to the National Science Foundation but was turned down:

"THAT SAME DAY Mr: Kelton showed up at the museum and asked to talk to someone about a mission," Shinoto said: "Mr: Kelton had read about a mysterious island in a book titled 'Whale Hunt' by Nelson Cole Haley, a harpooner from 1849 to 1853 on the whaler Charles W: Morgan:

"I knew from the description that the island was Kusaie:"

Kusaie, in the eastern Carolines, has some interesting stone walls that were made from basaltic rock:

The possibilities for some major discovery are wide open because of the lack of good archeological information in the area:

"WE KNOW NOTHING of the archeology (details) so its hard to even frame any questions," Rosendahl said:

Sinoto said, however, that they are quite confident of finding some archeological sites worth pursuing:

The expedition, titled the Louis L: Kelton-Bishop Museum archeological expedition to Eastern Micronesia, may lead to other efforts in the future through the Kelton Foundation:

Decisions on how to spend the foundation's money are made by a three-member board which includes Richard Kelton and his father, Louis:

Richard Kelton, who attended Stanford University and Yale Law School, got his interest in archeology by visiting museums:

THEN AFTER SAILING in the Trans-Pacific race last year, he just decided to drop in and talk to the Bishop Museum about his mysterious island:

"I didn't know anyone at the museum, it was just one of those things," Kelton said:

That was in July 1975 and since then the plans have been moving steadily ahead:

The boat to be used, the Enchantress, is a sleek Wellington cruising boat with an Alden design: It can accommodate five persons in comfort: The boat carries 440 gallons of fuel which means it has a range of 2,500 miles:

"WE ALSO CARRY 440 gallons of water which is enough , with proper rationing, so a crew of five could stay out for six months," Kelton said:

He pointed out that this is important because water is scarce in the Carolines:

The boat also has a shallow draft of five feet, with the centerboards up, which will be very helpful in getting into the shallow waters of some islands and atolls:

The schedule calls for about two weeks to get to the Marshalls, another three months to travel in Micronesia and get to Ponape, and then another six weeks to get back to Honolulu:

IT IS POSSIBLE that the return trip may include some stops on the "line islands" south of the Hawaiian chain:

The Kelton Foundation, which draws its money from a thriving real estate and construction business in California, may also be around for some continued expeditions in the Pacific:

Richard Kelton is already thinking about coming back after the Micronesia venture for some closer inspections of islands closer to Hawaii:

S-B March 24, 77

HOME SOIL—These children of natives of Enewetak accompanied their elders to the Marshall Islands atoll last week 29 years after the Enewetak people were forced to relocate during U.S. nuclear bomb testing. A homecoming reception was sponsored by U.S. officials.-Associated Press Photo.

Natives of Enewetak Return to Their Atoll

ENEWETAK ATOLL, Marshall Islands (AP) — They had been forced from their land for 29 years.

"It's good to be back," said Irolj Joanej Peter, the first Enewetak islander to officially step foot on his native land since the United States began using the chain as a nuclear testing ground in 1947.

Peter, the chief of the Enewetak, was one of 56 men, women and chil-

Related Story on Page B-7

dren to be returned last week to the atoll in the Marshall Islands about 2700 miles west of Honolulu.

The atoll consists of 40 small islands with a total land mass of 2.75 miles. It had been home to the Enewetakese until Dec. 20, 1947, when 136 people were relocated to Ujeland Atoll and given full land rights.

TWO OF THE northern islands in the atoll were completely blown away during nuclear tests. The world's first hydrogen bomb was exploded on one of the islands in 1952. Six years later, another hydrogen explosion vaporized the second island, officials said.

Enjebi, the main northern island, was flooded by a 100-foot wall of water during one of the tests and will not be considered inhabitable for another 30 years, Trust Territory authorities said.

Before the native people were able to return, the atoll had to be cleared of the hazardous radiological and structural debris. The complete cleanup operation will take three years and cost $20 million.

EVEN THEN, authorities say some of the areas may not be liveable.

As the Enewetakese filed from the ship which carried them home, children ran quickly to the beach; the elders relaxed in the shade and scanned the land. Most smiled.

A reception, complete with a luau, was put on by U.S. officials.

Peter summed it up. He called the return a "moment in history."

Oct 23, 76 S-B

Nuclear Moratorium

By Dr. Fred H. Schmidt and Dr. David Bodansky

Two nuclear physicists at the University of Washington investigated the nuclear power controversy for more than two years. This is the last of a six-part series excerpted from their book, "The Energy Controversy: The Fight Over Nuclear Power."

DESPITE THE defeat of California's antinuclear initiative at the ballot box in June, 1976, there is a continuing movement in the United States for moratoria on the construction of nuclear-power plants.

Attempts to persuade state legislatures to pass moratorium bills have so far failed, but the issue is before the public in a series of initiatives to be decided on the election ballot.

We view these moratorium proposals as sheer madness. A disturbing prospect is that the general public, with little time or background to examine the issues fully, may succumb to the irresponsible statements often made about nuclear power.

AS AN ABSTRACT intellectual proposition, it is painful to contemplate the blindness involved in singling out nuclear power, which is setting exemplary new standards of safety and environment cleanliness, for the special attack.

Slogans like "Split wood, not atoms" show how far the argument has strayed from any sensible regard for conservation or the environment.

In recent months hundreds of miners have died in a coal-mining disaster in India (the average U.S. rate is more than 100 coal-mining deaths a year), about 20 died in a gas explosion in a Nebraska hotel, and 26 died in Kentucky coal mine accidents. Yet it is nuclear power alone which, it is asserted, is so unsafe as to require a moratorium.

The world is approaching the exhaustion of its oil, yet it is only uranium which will be conserved if moratoria prevail.

NEVERTHELESS, no matter how much one may deplore the folly of the moratorium movement on an intellectual level, it is not simply an abstract intellectual proposition. There are very real risks involved if the moratoria should succeed, and these must be examined.

Realists can take a hard look at the situation and note that there is a practical alternative to nuclear power: coal. One can debate the precise extent of our coal reserves and the relative economic costs of nuclear power and coal.

Nevertheless, it is probably true that a massive commitment to coal, carried out with vigor and without great regard either to economy or to the environment, could probably solve the U.S. energy problems for at least a century.

Some objections are evident. Strip mining disfigures the earth in many instances and deep mining is dangerous — and a substantial death toll would result from coal pollution.

THE U.S. IS unusually fortunate in its coal reserves. The rest of the world is not. Western Europe, Japan, and most of the less developed world cannot take the coal route. Just as the Arabs are the landlords of much of the world's oil, the U.S. is the owner of a disproportionate share of the world's coal.

Of course, the U.S. can do little about the oil, but it can try to conserve the coal for the day when it may be sorely needed as a source of oil (by liquification) or petrochemicals. It is wanton to dissipate it in the generation of electricity as long as there are other choices.

What about alternative energy sources? Those who are hoping for quick solutions are doomed to disappointment if they look for the alternatives to solve energy problems within the next 25 years.

It is virtually certain that no fusion power will be available before the turn of the century, if then, and it is most unlikely that solar energy will be able to do more than provide a fraction of the heat needed in some of our homes within the next quarter century.

Nuclear power offers the best means of providing much of our energy requirements; moratoria on its use would be madness, the authors conclude.

THE REMAINING sources have prospects too small in scope to be relevant to a solution of the national energy problem. These are not our own assessments alone. They are implicit in almost all major energy studies and are the premises on which all the industrialized countries are making their energy plans.

If we abandon nuclear energy, if we do not greatly increase coal production, and if we fail in our dreams of large-scale conservation of major alternative energy sources, the net result is obvious. We will have to import more oil.

That is where the silent beneficiaries of the antinuclear movement come into their own. To replace a large nuclear-power plant by an oil-fired electrical generating plant re-

Honolulu Star-Bulletin

Published by Gannett Pacific Corporation

CHINN HO, CHAIRMAN ALEXANDER ATHERTON, PRESIDENT

PHILIP T. GIALANELLA, PUBLISHER

A. A. SMYSER, Editor, Editorial Page

JOHN E. SIMONDS, Managing Editor

Edwin E. Edwards, Associate Editor; Charles E. Frankel, News Editor; Claude Burgett, City Editor; Bill Kwon, Sports Editor; Barbara Morgan, Today Editor; Harry Whitten and Carl Zimmerman, Assistant Editors, Editorial Page

Published at 605 Kapiolani Boulevard / Honolulu, Hawaii, 96813

Proposals Are Madness

quires about 10 million barrels of oil a year.

Even if the price of oil were as low as $10 a barrel, it would mean that each year's delay in building a reactor would be worth an additional $100 million to whomever sells us the oil (the oil production costs being minor).

THUS, FOR all the idealism of the antinuclear movement, and for all its opposition to the waste of resources and (often) to big business, the greatest beneficiaries of a successful moratorium movement would be the oil producers and sellers.

Of course, such a situation would not be stable. In a few decades the oil would run out. Before that time the nation undoubtedly would find the burden of highly inflated oil imports intolerable and, in another swing of public mood, would demand a Project Independence on a crash program basis, including a rapid — and now much more expensive — return to nuclear power.

The antinuclear camp might argue that this is fine; the delay would permit the development of "safe" nuclear power. We strongly doubt that is a valid assessment. Nuclear power is already safe.

During a moratorium the government might announce specific waste-disposal plans. But safe methods already are available, and the announcement of one or another specific choice will not make waste disposal any safer.

OTHER COSMETIC changes might be made to increase public acceptance, as, for example, changes in insurance laws.

With the delay, however, would come a real, irreparable loss. Trained engineers and technicians might have to leave or want to leave the nuclear field, and training of new personnel would suffer.

It was once said that a scarcity of highly specialized welders was a severe bottleneck in the U.S. program to build nuclear plants. In a period of emotion-inspired and unpredictable moratorium, it isn't hard to imagine that there would be little or no effort to recruit the needed welders or any other skilled talent into nuclear training programs — much less success in recruiting the very best.

On the contrary, a moratorium would break the momentum of an orderly expansion of the nuclear program. In the later transition from bust to boom, the U.S. would be starting from a weakened position in a climate with less patience for the care and precautions now taken.

ALTHOUGH IT IS impossible to predict the economic and political developments that might accompany America's greater dependence on imported oil, one risk cannot be ignored. If another oil embargo is ordered or prices are increased precipitately, the vulnerability of the U.S. will be greater — and its response perhaps more immoderate.

The risk the world can least afford to take is that of nuclear war. If by giving up nuclear energy ourselves we might lessen the chance of war, the sacrifice might be worthwhile.

However, the world is too much in need of nuclear energy and too committed to its use for us to be able to, or to want to, stop its spread. The best we can do is try to limit the proliferation of nuclear weapons, although it is difficult to be certain how successful we will be.

IN THE EVER more overarmed world, some hope for restraint and prudence could be sustained if national frustrations do not become too great. In a situation in which a country as heavily armed as the U.S. feels threatened in its vital interests, all sorts of gambles, ordinarily unthinkable, could become plausible to many.

We do not say a nuclear moratorium will necessarily bring on a depression or that it will precipitate World War III or another Vietnam. We are saying that an energy scarcity would create domestic and international tensions with unpredictable consequences.

As the world advances in its ability to destroy itself, rational policy demands that we look for ways to decrease such tensions. To increase them artificially and capriciously would be tragic.

IN THE COURSE of our study, we questioned particularly why environmental and conservation groups have come to oppose nuclear power. We sympathize with the genuine concerns of the conservationists, but we believe firmly that when all the facts and alternatives are carefully examined, these concerns will disappear.

In our view the goals and desires of the environmentalists and conservationists are far better served by nuclear energy than by any other approach that is technologically and economically feasible today. Energy conservation by itself simply cannot be a solution.

IN FINAL recapitulation, we believe the greatest overall safety for the U.S. now and for future generations lies in building a stable, prosperous, and peaceful society in America and the rest of the world.

We do not see how such a society can be created if the U.S. does not maintain a continuing and, in fact, increasing, supply of energy. It is needed not merely to maintain the pattern of life of middle-class America, but to meet the requirements of her poor, to help relieve the extremes of poverty elsewhere, and to make allowances for the inevitable increase in world population, at least for the short run.

At present, nuclear power offers the surest, safest means of providing much of the required energy and of helping reach these goals.

End of series.

Nuclear Po

By Dr. Fred H. Schmidt and Dr. David Bodansky

Two nuclear physicists at the University of Washington investigated the nuclear power controversy for more than two years. This is the fifth of a six-part series excerpted from their book, "The Energy Controversy: The Fight Over Nuclear Power."

PLUTONIUM HAS received spectacular and hostile attention in the press. An article about it was entitled, "The Element of the Lord of Hell?"

It has been characterized as being "perhaps the most toxic substance known." A college newspaper quoted testimony that "one pound of plutonium, ground finely and dispersed properly in the earth's atmosphere, would cause lung cancer in everyone on earth."

These statements have more to do with mythology, ancient and modern, than with science and fact.

But it is not a myth that plutonium is a highly toxic substance. Whether it is more toxic, microgram for microgram, than some of the exotic biological and chemical alternatives is not the key to judging the dangers. The real issue is the toxicity of plutonium itself, coupled with gauging the possibility that people will be exposed to it.

ALTHOUGH THERE is no natural plutonium, plutonium is manufactured in uranium-fueled reactors. A large light water reactor produces about 500 pounds of plutonium a year. If extracted from the used fuel and returned to another reactor, the plutonium can substitute for about one-fourth the uranium otherwise needed, and thus is a useful product. Plutonium's potential in breeder reactors may turn out to make it the major fuel of the future.

But it is also a troublesome product, partly because it is highly toxic and partly because it could possibly be used to make bombs.

Studies of the medical effects of plutonium date back to 1944, when it was first being produced in the atomic bomb program of World War II. Very large programs to study its toxicity have been under way more than 20 years, and much is known about the passage of plutonium through the body and the chief sources of danger.

FOR EXAMPLE, plutonium taken into the body with food or drink is retained only to the extent of one part per million for insoluble compounds and 30 parts per million for soluble compounds. In consequence, ingestion of plutonium is not strikingly hazardous. It is not very much worse than ordinary lead for ingestion.

Inhalation of plutonium, on the other hand, is much more dangerous because a far higher proportion of the plutonium is retained in the body. Safety standards, setting limits on the intake of plutonium by nuclear-plant workers are more than 1,000 times stricter for inhalation than for ingestion.

However, a theory offered recently suggested the true radiotoxicity of plutonium for producing cancer is about 100,000 times greater than has been supposed. It is called the "hot-particle" theory.

IN VIEW of the importance of the problem and the vigor with which the hot-particle theory has been advanced, particularly in the writings of Dr. Arthur Tamplin and Dr. Thomas Cochran, the issue warranted a new careful study.

Two reviews of the entire matter of the toxicity of plutonium have been made by highly regarded specialists. One was carried out by a committee of the British Medical Research Council. The report of this study concludes "there is no evidence that irradiation by 'hot particles' in the lung is markedly more hazardous than the same activity uniformly distributed or that the currently recommended standards for inhalation of plutonium are seriously in error."

Plutonium is highly toxic, but reports about its hazards have been greatly exaggerated, the authors say.

Dr. Robin Mole, chairman of the committee that prepared the report, later stated his evaluation of the Tamplin-Cochran papers on the hot-particle hypothesis in blunter terms:

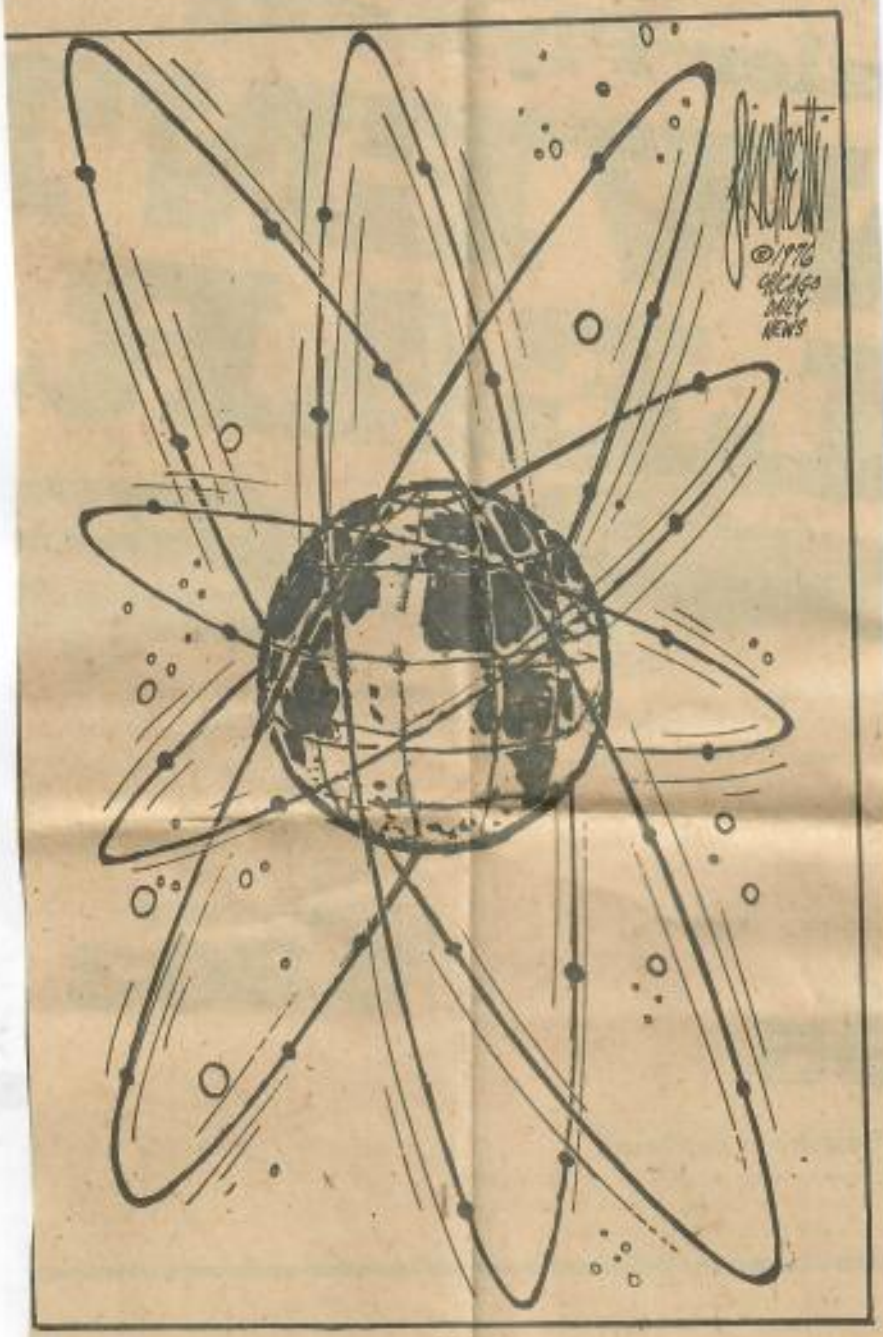
"It really was a penance for me to have to read such ill-written and ill-argued documents. Why should attention be paid to inadequate science?"

THE SECOND STUDY was carried out by a group of American experts. Their conclusions are similar to those in the British report. Although they did not indulge in the ascerbic rhetoric of Mole, their rejection of the hot-particle theory is as definite.

Conclusions reached by the two studies are in such great contrast to many popular statements that it is of interest to inquire about the evidence on which the British and U.S. arguments were based.

In World War II, 25 persons accidentally acquired body burdens of

ower: Plutoniu



Trouble Spot

plutonium at the bomb laboratory in Los Alamos. It is known that some of that plutonium still resides in their bodies in amounts substantially in excess of the figure the hot-particle theorists indicate would produce cancer.

THE 25 HAVE been studied constantly and with great care — as can be imagined — ever since, or for a period of about 30 years. Had the original hot-particle hypothesis been correct, it is estimated these men would together have received doses sufficient to produce about 5,000 cancer tumors in their lungs. In fact, there has been *no incidence* of lung cancer among them.

Perhaps the greatest reason for concern about plutonium toxicity is the possibility that it will be dispers-

ım Problem

ed intentionally by a terrorist group. What would happen then?

A study of the terrorist problem by Prof. Bernard Cohen indicates there would be one cancer death for each 15 grams of plutonium dispersed, or 30 a pound. This is to be contrasted with the statement quoted earlier, in which it was said that one pound could give lung cancer to everyone on earth — more than three billion people.

COHEN'S CALCULATIONS include realistic consideration of how dust particles spread through the atmosphere and the rate at which they can be taken in by breathing. The higher number requires not only the hot-particle hypothesis but also inhalation of almost every speck of the plutonium by one individual or another in specks of just the right size — a nonsensical premise.

In the preceding discussion we have criticized what we believe to be wild exaggerations of the extent of plutonium toxicity. However, it is important to repeat that, by any reckoning, plutonium is highly hazardous.

In view of the amounts of plutonium to be produced in the future, continued great care must be exercised in its handling.

We can gain confidence in our ability to handle it with the requisite care from the fact that despite the handling of many tons of plutonium in the weapons programs, there is no known incidence of plutonium-induced cancer in weapons-industry workers, or, for that matter, in anyone else.

A PARTICULARLY frightening potential danger arising from nuclear power has been brought to public attention largely through the efforts of Theodore Taylor, formerly an AEC bomb designer. The thesis is straightforward: Nuclear bombs require a relatively small amount of fissionable material, such as U-235 or Pu-239; 10 kilograms or possibly less are sufficient for one bomb. Much greater amounts of such material are produced in the operation of nuclear-power plants and in the fuel-enrichment plants.

One can envisage a terrorist group stealing such material, either surreptitiously in small amounts over an extended period of time or in a single attack on, say, a truck transporting nuclear fuel.

It is a matter of some dispute as to how easy it would be for any group to make a bomb out of such stolen material. Taylor probably could succeed in doing so himself, but as to the terrorists he envisages, it may be like saying a math problem can be solved by any high-school student with the brains of Einstein.

THE PROBLEM is complicated because after a year or more in the reactor — the typical time fuel remains in the reactor is three years — the fuel elements contain a considerable fraction of Pu-240. This isotopic material cannot be separated by chemical techniques from Pu-239, and Pu-240 possesses a property which greatly reduces the fuel's usefulness as bomb material.

Although it is apparently possible to build bombs even with the Pu-240 contaminant, other bomb authorities assert it requires considerable expertise from a group of highly trained scientists and technicians.

It is difficult to envisage a terrorist organization capable of marshalling such an array of experts in a clandestine manner, replete with rather sophisticated laboratory facilities. Nevertheless, prudence suggests we assume the terrorists might achieve the requisite training or enlist the help of nuclear scientists.

FOR THESE reasons it is essential that attention be paid to the prevention of plutonium theft. If safeguards could be made essentially impregnable, it is obvious that questions of whether it is easy or isn't easy to fabricate a bomb or whether plutonium is or is not extraordinarily toxic quickly become moot.

Thus, Taylor's asserted goal in bringing these matters to public attention was to jab the AEC into taking adequate steps to reduce the chance of such theft.

Having now acknowledged the problem and the need for vigorous steps, thanks in part to the prodding of Taylor's campaign, the federal government has already developed a greatly improved safeguards program. Both Taylor and his coauthor, Mason Willrich, have stated they consider the planned new safeguards to be adequate.

NEXT: Moratorium Madness

Nuclear Power: Rea

By Dr. Fred H. Schmidt and Dr. David Bodansky

Two nuclear physicists at the University of Washington investigated the nuclear power controversy for more than two years. This is the fourth of a six-part series excerpted from their book, "The Energy Controversy: The Fight Over Nuclear Power."

BOTH NUCLEAR reactors and nuclear bombs produce energy through a chain reaction propagated by neutrons. Consequently, it is not surprising that some persons believe a nuclear-power plant could go out of control and explode like a gigantic atomic bomb.

Such a catastrophic event in today's commercial reactors, however, is not possible for a number of reasons, including the fact that the U-235 or Pu-239 in a nuclear reactor *is not* sufficiently pure to produce an explosion.

On the other hand, if the radioactive products in the fuel core were somehow dispersed in the atmosphere by, for example, a malfunction of the reactor, the radioactivity would indeed be lethal to anyone receiving sufficient radiation exposure.

THE PRINCIPAL reason a means exists for spreading the radioactivity of the core is that the radioactivity itself produces heat even after the reactor has been shut down. If the normal flow of cooling water continues, a shutdown of the reactor creates no difficulty.

But even if the normal cooling process were to fail, backup safety cooling systems are provided to take over and assume the task of keeping the hot core from reaching the melting point.

In the worst situation envisaged, one of the main large cooling lines — a stainless steel pipe about 3 feet in diameter with walls 3 or 4 inches thick — conceivably could break in two places simultaneously. All the steam and water in the reactor vessel would then burst out into the reactor containment building, leaving the core vulnerable to a meltdown.

A final emergency core cooling system (ECCS) is designed then, to flood the entire reactor vessel with water.

IS IT CONCEIVABLE that all safety systems could fail simultaneously? *Anything* is *conceivable*, but is the chance large enough to worry about or to negate an important source of energy?

To answer the question is not easy. Since no such accidents have occurred — indeed there haven't been any core melts in reactors of the light water type — the question can only be answered by *calculating* the probability of occurrence.

Before a discussion of such calculations, the actual operating records should be examined. More than 50 such reactors are in commercial use in the U.S. today. Many have been in operation three or more years. Outside the U.S. are more than 70 commercial reactors, many of them similar in design to our light water reactors. Others are of diverse types.

The Rasmussen report, a two-year study, gives much assurance concerning the unlikelihood of disastrous nuclear accidents.

Dr. Fred Schmidt

THERE HAVE been no reported core melts or radiation-related injuries for any of those reactors, in or out of the U.S. That includes about five commercial reactors in Russia.

In addition, 112 U.S. Navy vessels, mostly submarines, are powered by nuclear reactors similar to the commercial pressurized water type. All of them have operated for a collective total of 1,300 reactor years without a core melt or radiation-related injury.

To obtain a better estimate of the safety of reactors, a detailed study of the design features is required. Accordingly, the AEC initiated such a study in 1973 under the direction of Prof. Norman Rasmussen of the Massachusetts Institute of Technology. It was carried out by a group of 60 scientists and engineers, 10 of whom were AEC employes assisting the independent group.

THE STUDY predicts one chance in 20,000 per reactor of a core melt per year. Moreover, the possible *consequences* of a core melt are analyzed in detail. Contrary to much previously held opinion, the chance of a core melt causing deaths or injuries or genetic damage to the public was found to be extremely small. In fact, it was found that there is only one chance in three million per year that a nuclear plant would cause 10 or more fatalities.

Other ways exist to show the

ctor Safety Question

Dr. David Bodansky

smallness of the risk. At the end of 1975, about 55 reactors were in operation in the U.S., but in four or five years the number is expected to rise to about 100.

The Rasmussen study indicates the chance an average U.S. citizen has of meeting death through an accident to a nuclear reactor when 100 of them are operating is one in 50 billion a year

By comparison, a person who never rides in an automobile and never crosses a street nevertheless has one chance in 300,000 each year of being killed by a runaway automobile!

IN OTHER WORDS, the average person has 100,000 times as much to worry about from runaway cars as from 100 nuclear reactors. By any reasonable standard one can consider the risk involved from a nuclear plant as being absolutely negligible.

What about effects due to radiation released to the environment which does not produce prompt death but nevertheless might create a long-term potential for fatal cancer or genetic damage?

There is about one chance in a million per reactor per year of an accident which might produce as many as 200 latent cancers a year; these would continue over a period of about 300 years.

IN THE WORST conceivable accident, having a probability of one in 10 million a year for 100 reactors, the study predicted that widely spread radioactivity could produce 1,500 latent cancers a year over a 30-year period. These delayed cancer deaths would be in addition to about 3,000 immediate deaths produced in the worst-case accident.

A comparison is relevant. The normal cancer incidence in the affected population is 17,000 a year. Thus, bad as this highly unlikely event would be, it is hardly the holocaust some persons imagine.

Furthermore, most of these predicted cancer deaths are ascribed to radiation received at very low radiation levels; these predicted deaths should perhaps be termed "possible," because it has not been established that cancer is produced at these low radiation levels.

A VISCERAL reason for public concern over possible reactor accidents is fear of genetic damage from radiation. Socially responsible people view with horror the possibility that we may be tampering with our gene pool and threatening the future of the human race. The basis for that concern is the demonstrated fact that high levels of radiation produce mutations in animals and almost certainly would in man as well, given high exposures.

It is assumed that genetic effects will extrapolate in a linear manner from the levels at which they have been measured to very low radiation levels. This seems to be a conservative assumption. But even when one makes it, the calculated genetic consequences of possible accidents are small.

For the worst-case accident (once in a billion reactor years), the increase in genetic effects over those occurring normally would be only 0.1 per cent for the country as a whole. Further, the effects would appear most strongly in the first generation; contrary to some popular impressions, succeeding generations would have a gradually decreasing burden from a single accident.

IN SHORT, the human race, exposed to radiation from its inception, is not genetically sensitive enough to radiation to be appreciably affected by anything the reactor program could be, even assuming the worst.

An indication of the exaggerated nature of conventional fear of genetic damage is the popular image of the consequences of Hiroshima and Nagasaki. All of us have seen, or think we have seen, pictures of deformed babies of parents who were bomb victims. However, there is no clear evidence of *any* genetic damage caused by the two bombs.

That statement of fact concerning genetic bomb damage is so directly contrary to common belief that it is generally greeted by incredulity. In fact, such a reaction of disbelief was displayed by one of the authors when first confronted by it. Nevertheless, it is based on the outcome of careful investigations of the Hiroshima and Nagasaki populations.

IN ITS FINAL pages, the Rasmussen report states:

"We do not now, and never have, lived in a risk-free world. Nuclear accident risks are relatively low compared to other man-made and natural risks. All other accidents, including fires, explosions, toxic chemical releases, dam failures, earthquakes, hurricanes, and tornadoes, that have been examined in this study are much more likely to occur and can have consequences comparable to or greater than nuclear accidents."

Should we believe these words and the results quoted earlier? We, the authors, do. In our reading and analysis of the Rasmussen report, we found much to give us assurance that in their two-year study, the 60 scientists and engineers brought their most sincere and honest expertise to bear on this monumentally important problem of nuclear-reactor safety.

Next: Plutonium, Human Health and Safeguards

Fight Over Nuclear Power

By Dr. Fred A. Schmidt and Dr. David Bodansky

Two nuclear physicists at the University of Washington investigated the nuclear power controversy for more than two years. This is the first of a six-part series excerpted from their book, "The Energy Controvery: The Fight Over Nuclear Power."

IF BALANCED JUDGMENT and good sense do not prevail in the handling of America's dilemma over the production and use of energy, the nation could face a political and sociological crisis worse than that created by the Vietnam War.

Never has there been a greater need for a willingness to avoid quick emotional reactions, and for a determination that decision-making be based on a sound analysis of the situation.

The dilemma has arisen because our energy shortages threaten to become progressively worse unless prompt and prudent action is taken. Future energy crises could make those of the past look like trivial occurrences.

In studying possible solutions to this growing problem, we have concluded that responsible development of nuclear power is urgently needed. The chief arguments leading to that conclusion are:

—The United States needs energy, and so does the rest of the world. Conservation measures may change the rate of increase of energy consumption and they may even reduce the per capita consumption, but they cannot materially alter the basic need.

1973. Oil remains both our largest and most precarious energy source. Together with natural gas it accounts for about 75 per cent of our total energy use.

Thus, we will first turn to a consideration of oil resources. Since natural gas and oil deposits are associated geologically — with energy contents of approximately two for oil to one for gas — an examination of reserves of oil will suffice for both fuels.

WE CAN CREATE a "scale" to judge the adequacy of oil resources by noting the U.S. consumes about 17 million barrels of oil each day, or a little over 6 billion barrels each year (one barrel equals 42 gallons).

For the lower 48 states, our onshore reserves are 40 billion barrels; with Alaska added, the total is 56 billion barrels. The duration of the supply is given by dividing 56 by 6. Thus, without imports, offshore oil or new discoveries, our oil would last about nine years.

We have concluded that responsible development of nuclear power is urgently needed.

the length of time we can continue using oil at the present rate

In our judgment the high estimate of 60 years is too optimistic. A fact of great significance which gave credibility to more pessimistic predictions, as exemplified in analyses by the geologist M. King Hubbert, was that the daily U.S. oil production dropped by 4 per cent between early 1973 and early 1974 to about 8.9 million barrels a day. That suggested directly that America was beginning to run out of domestic oil.

We are led to the overall conclusion that the U.S. certainly should not base any long-range plans on the use of oil for fuel. The seriousness of the situation is compounded by America's dependence on oil for many uses other than as a fuel. It is needed for lubrication, petrochemicals, and plastics, too.

Whatever estimates of coal accessibility are used, it is clear that coal could give the U.S. a reprieve from energy problems for a very long time, a century or more. This would seem to afford ample time to develop radically new energy sources, including, possibly, breeder reactors, fusion, or large-scale solar power. The objection to this course is that heavy use of coal creates environmental problems the solutions to which are neither technically nor economically obvious at this time.

WE NOW TURN to the most immediately practical alternative to oil and coal, namely nuclear fission energy.

eign breeders exist. One in France, called Phoenix, is already supplying power to the French grid. A U.S. demonstration breeder may be built in Tennessee; nevertheless, it appears at this time that Europeans, including the Russians, are ahead of the U.S. in breeder development.

Commercial reactors now in operation in the U.S. (about 55), most of which are light water reactors, and those planned or under construction (another 100 or so) are not capable of producing enough Pu-239 to use very much of the vast U-238 resources. Therefore, they are able to use only about one per cent of the energy available in natural uranium. It is important, however, to note that the spent U-238 fuel is not lost. It can be stored for later use in breeders.

It is sometimes argued that the supply of natural uranium in the United States is too small to justify the present light water reactor program. This is not the case. Recent estimates of uranium resources indicate the U.S. has about 3.4 million tons of uranium oxide for ore which would be economical to use.

THE 3.4 MILLION TONS would suffice for about 500 reactors, each running for 30 years. The most optimistic recent plans, which now seem

The most immediately practical alternative to oil and coal is nuclear fission energy.

—Fossil fuels, the present chief sources of energy, are limited. When measured on a time scale projected into the future and contrasted with recorded history — or even one-tenth of that time — fossil fuels cannot be considered as a solution to the world energy problem.

—While worldwide fossil fuel reserves, taken together, are adequate for the short run, their utilization involves special problems. The concentration of oil resources in a few countries has already created severe economic strains in the world and it has raised the prospect of even greater economic and political strains in the future. A rapidly increased rate of coal utilization carries with it substantial environmental hazards, unless adequate and expensive counter-measures are taken.

—When we apply the two criteria of technological and economic feasibility to possible new energy sources, such as geothermal, solar, wind, and nuclear fusion, each is eliminated as a viable contender because its practicality as a large-scale contributor remains to be proved. In the face of the urgency of the world's energy problems, the U.S. cannot rely on *hopes* for technological breakthroughs. Nevertheless, we should continue research and development in these areas and remain always ready to exploit any technological or economic breakthroughs which may occur.

—Nuclear power today is safe, ecologically acceptable, environmentally clean, economically practical, and available on a wide scale.

The energy crisis became recognized widely with the oil embargo of

In 1974, the U.S. imported about 40 per cent of its crude oil; that was 16 per cent more than during the preceding year. During one week in March 1976, oil imports exceeded 50 per cent for the first time! It was an isolated, dramatic excursion from a more gradually worsening norm, but, like the first chill wind of autumn, it may be considered a forerunner of things to come.

Were we to abandon the thought of energy independence and maintain a 50-50 split between domestic and imported oil, and were our consumption to remain constant, the above time span would be increased from 9 to 18 years. To the onshore reserves we have been considering, we should add offshore reserves of 6 billion barrels and, using the best available estimates, another 82 billion barrels of "undiscovered recoverable" oil, both onshore and offshore.

THAT PROVIDES a grand total of 144 billion barrels, enough for about 24 years, at our present use rates without imports, and enough for twice that time if we rely on imports for half our oil.

The numbers for undiscovered resources are disputed by many expert geologists, and various estimates differ widely. In fact, it is just this disagreement which is one of the roots of the fight over nuclear power, because it encompasses the question of need.

If a calculation based on the *most* optimistic estimates for undiscovered recoverable oil is made as before — but with imports left out because they can't be counted on over long periods — we find about 60 years as

Our initial focus will be on the resources for fission energy; some possible problems in its use will be considered in later articles.

In nuclear fission the heaviest natural elements, particularly uranium, are made to release enormous quantities of energy. It happens when their atoms are fissioned or split into two roughly equal halves, resulting in atoms of medium-weight elements.

Uranium atoms in the raw consist of two different kinds of nuclei, or isotopes, each with slightly different masses and structure. They are referred to as U-235 and U-238.

Natural uranium is only 0.7 per cent U-235; more than 99 per cent is U-238. Only the U-235 will readily "burn" in a chain reaction in which the "chain" is sustained by neutrons passing from nucleus to nucleus. The U-238, on the other hand, acts chiefly like a strong damper by absorbing neutrons.

However, the U-238 exhibits a most remarkable property when it swallows up neutrons: It produces an element which does not exist in nature but which is itself capable of sustaining a chain reaction, just as for U-235. It is called Plutonium 239, or Pu-239. If more Pu-239 is produced than U-235 is consumed, the process is called "breeding."

AS TIME GOES ON, the world would eventually exhaust the supply of U-235, but Pu-239 would be there to continue the breeding cycle.

The process sounds easy, but it is not. Reactors capable of performing this breeding process, appropriately called "breeder reactors," are not available as commercially viable items, at least not in the U.S. For-

unlikely to be fulfilled, called for 250 reactors by 1985. Conceivably, the U.S. could have 500 reactors by 1990, but that seems impossible without a change in public mood and vigorous government policies.

Should it happen, however, the U.S. could "run out" of uranium in 1990. But we would run out only in the sense that we would not have the resources — without additional discoveries or imports — to warrant the building of more uranium-fueled light water reactors.

The existing ones would keep going, most of them past the year 2215. During that period they would represent a major energy source, providing considerably more electricity than we now obtain from all means of electricity generation taken together.

If ordinary light water reactors are to provide power for much of the 21st century, however, it will be necessary either to find new reserves of reasonably high-grade uranium (possible but not to be counted on) or to demonstrate the practicality of methods of utilizing uranium from low-grade sources, such as exist in Chattanooga shale, or more remotely in seawater.

In view of the uncertainties in the prospects for more uranium, it is most prudent to view the nonbreeder fission reactions as a valuable intermediate-term energy source, but to plan on breeders for long-time scales. Thoughtful persons will rest more easily when it is known with certainty that the technical and economic problems of breeders have been solved, providing a virtually inexhaustible energy source.

Next: Radiation Hazards

Hazards

"It's ticking!! . . . It's ticking!!"

Chinese N-tests

By Dr. Leonard Reiffel

DID YOU KNOW that we can find out a lot about Chinese nuclear weapons from the fallout which has been landing on our East Coast recently?

Years ago scientists recognized that they could unravel a great deal about the circumstances of a nuclear explosion and the design of the device which produced it by studying a few of the microscopically small radioactive particles that are inevitably created in these intense events.

The particles, which condense out of the hot vapor of the detonation, are lifted high into the stratosphere and beyond and can float around the world for years. On occasion, some of the bigger particles will come down and become what we know as fallout.

BY COLLECTING some of the little particles with air filters flown on airplanes or by techniques used by the old Ash Can project — about which I'll tell you more in a moment — and then studying them with microscopes and with other apparatus, one can understand the current state of weapons development in China almost as if we had spies at the test site.

We will be able to decide, for example, whether the Chinese tests used ground-level shots or underground ones from which some of the radioactivity escaped accidentally. We can determine whether some of the blasts took place relatively high in the air.

Some of the most interesting particles, from a technical or weapons design standpoint, persist at extremely high altitude and generally are very small. These can take a very long time to come down to ordinary airplane altitudes, so one needs some other way of collecting them. This is where Project Ash Can came in.

IN THE LATE 1970s the Air Force Ash Can used great "skyhook" balloons — basically just big plastic bags — filled with helium to get some of these particles. Such balloons can achieve very high altitudes, perhaps 80,000 to 120,000 feet. And, at least in the early days of the project, they carried *ash-can-shaped* payloads with them.

The payloads often included an electric motor and a fan and filter system. After the high altitude air was sucked through the filter for about two hours, the payload was cut loose and floated down to recovery personnel on a parachute.

When the A-bomb fell on Bikini

Bikini Atoll wasn't a nice place to live after the United States began testing atomic bombs there, according to Ernie Bitner.

He ought to know — he was one of the few Americans to spend the night on Bikini the day after the first atomic test bomb exploded in the lagoon.

That evening, he says, he swam and fished in the radioactive lagoon, not fully comprehending the possible dangers. He says they were warned only not to eat the fish.

But now he has five normal children and good health.

In July 1946, the 19-year-old Bitner was a flight engineer on a plane assigned to assist the scientists conducting the test. On the day of the test his plane carried newsmen so they could film it.

Bitner's squadron was sent to Ebeye atoll from its base in Saipan to assist in the test.

When he saw the explosion, "I was just awed," he said.

Bitner, a California resident vacationing in Hawaii, said no one supposed the island was being destroyed or ruined. "It was rather barren to begin with. There was barely enough there for the folks to live on."

His experences with the "couple of hundred" Bikini residents before the test were limited. He remembered one Bikinian, Ok Mamu, who said he wanted to leave Bikini.

Bitner said he remembers the first evacuation of Bikini's population very well. "There were a lot of people there, Frank Knox (secretary of defense), Vinegar Joe (Gen. Joseph Stilwell) and newsman Lowell Thomas.

"After working out some sort of deal with the chief, all the islanders gathered up their few items and were shipped off. The Bikinians were so happy with the new quarters and food they didn't seem to care about the bombing."

In September of that year, when the test was over and the Bikinians were preparing to move back, Bitner said, "the chief said he really didn't want to move back to Bikini because he really liked the lifestyle that quonset huts and canned food offered."

Sept 4, 78 Advertiser

24 Jan 79 HS-B

Bikinians Seek to Settle Here

By Cisco Ulodong
Gannett News Service

SAIPAN — A group of Bikinians will travel to Hawaii next month to negotiate with Hawaii Gov. George R. Ariyoshi for possible resettlement in one of the outlying Hawaiian Islands, according to their adviser, Ataji Balos.

The Bikinians are now living on Kili, an atoll in the Marshalls, where they were moved after their island was deemed contaminated by fallout from U.S. nuclear tests in the 1950s.

"It is their decision to relocate in Hawaii, to be on American soil so that they won't be forgotten by the U.S. government like they were in the past," Balos said.

Balos, a member of the Marshalls Political Status Commission, said, however, he personally wants the U.S. government to buy another atoll in the Marshalls where the Bikinians could live.

"I can only advise the Bikinians," he said.

Balos said the U.S. Interior Department and High Commissioner Adrian Winkel already have approached Ariyoshi about the Bikini plans to move to the Aloha state.

Balos said he supports separate negotiations between the United States and the Bikinians.

HONOLULU ADVERTISER

Some may resist

By JOHN C. GIVEN
Advertiser Staff Writer

MAJURO, Marshall Islands — The high commissioner of the Trust Territory of the Pacific Islands said yesterday that he would "not be surprised" if some Bikini islanders resist when ships arrive to evacuate the entire population from the island two days from now.

Speaking here on the eve of the departure of vessels that will take the islanders from the dangerously radioactive atoll to Kili Island, about 550 miles away, Adrian Winkel expressed the hope that no such incidents will occur. But he said that if some of the 140 residents do refuse to go along with the evacuation, their action would reflect "a feeling of very deep sadness which is at the very least the most natural and normal one."

Although officials have been concerned about this possibility, at least one, Marshall Islands District Administrator Oscar deBrum, said recently that an understanding reached between the two sides indicates such an incident is unlikely.

The islanders first left Bikini in 1946 at the request of the Americans, who used the atoll for nuclear testing between that

28 AUGUST 1978 A-3

Bikini pullout

year and 1958.

In 1968, President Johnson announced that Atomic Energy Commission tests had found the atoll to be free of radiation, and that the islanders could go home.

But the AEC was wrong. Recent tests by the U.S. government led to a decision in May that the Bikinians would have to leave again.

The tests showed they had been absorbing too much radiation too quickly from the water and from the coconuts, breadfruits and other fruits that grow there.

"One of the leaders there is about my age," Winkel reflected. "I can really understand how he feels.

"He was a man in his early 30s when he was told to move. And now, in his 60s, he has been asked to move again."

For people that age and older it is a virtual certainty that never again will they see Bikini, Winkel said.

Estimates vary, but it has been said that the atoll may not be inhabitable again for at least 50 years.

Winkel said the federal government is taking steps to try to make the relocation easier for the islanders.

Sept 6, 78 Advertiser

Journey's end: homeleaving, homecoming

It's the comfortable, familiar things that become important when you've had to pack up your home and move away. So, while the first Bikinians, left, were unloading a small boat after arriving at Kili Island on the Micro Pilot, anchored in the background, one man makes sure his ukulele is still in tune.

The Bikinians arrived at Kili on Saturday, after being forced to leave their island because high radioactive levels remain more than 20 years after it was first used as a U.S. test site for nuclear bombs. Photo below is part of the Kili Island village which will become the center of the Bikinians' new life.

These homes are part of the facilities built about 30 years ago. The U.S. government has just completed 28 new housing units, plywood homes with tin roofs, as temporary living quarters for the Bikinians.

About 140 Bikini residents arrived on Kili, including an infant born during the 450-mile ocean voyage.

Advertiser photographer Ron Jett, who took these pictures, referred to the situation as "the most depressing mess I have ever been involved in."

Government Lies on Radiation

By Judith Randal

WASHINGTON — "This isn't a story about science; those details don't matter. It's a story about how the government lied."

So said a reporter who was in Salt Lake City last month when a special congressional hearing there disclosed how people living downwind of the 1951-58 open-air nuclear weapons tests in the Nevada desert were deliberately deceived about matters intimately affecting their health and livelihoods by officials from the White House on down.

But the reporter was only partly right. For the really crucial lies that were told to the people of southwestern Utah in this appalling chapter of our history came — directly or indirectly — out of the mouths of scientists.

Consider, for example, the testimony of Stephen Brower, now a professor at Brigham Young University. Brower was the agricultural agent in Iron County when several of the bombs went off. He clearly remembers that a ranking biological scientist in the Atomic Energy Commission told him that the agency "could under no circumstances allow the precedent to be established in court that the AEC was liable for radiation damages, whether to animals or humans."

ACCORDINGLY, OTHER explanations had to be found. Thus, when thousands of sheep sickened and died and their lambs were born stunted, the AEC put a secrecy lid on information linking the losses to the tests and told any sheep rancher who raised questions that they would be "too dumb" to understand the answers — this although the needles of radiation-detecting instruments passed over the carcasses of the animals went wild.

So it was, too, when a woman in her 20s who had been in the fallout zone lost her hair, had sores that were slow to heal, and became nervous and distraught. No, the AEC insisted, these were not symptoms of radiation sickness, they were the result of a recent hysterectomy. As Brower told the hearing, "The AEC didn't ignore the data, they covered it up."

It followed from cover-up that freedom of scientific inquiry also went by the boards.

Whether scientists were getting their funding from the AEC or some other federal agency such as the Public Health Service didn't matter. As soon as their studies suggested that iodine-131 levels in the fallout zone might endanger immature thyroids or that more children than would have been expected to were dying of leukemia, their reports were buried and their funding was cut off.

RIGHT THROUGH the administration of John F. Kennedy and at least well into that of Lyndon B. Johnson, no agency of government could make public — to the scientific community or anyone else — information related to nuclear fallout without the approval of the White House, and that approval was coordinated by the AEC. (ERDA)

Precious years were lost in the process. Much that might have been learned about the health effects of radiation by this time has yet to be learned today.

Much of the Utah tragedy could have been prevented had civilians only been warned in the 1950s of possible dangers from radiation which even at that time were suspected to exist.

Even in the era of the Cold War a quarter-century ago, there should have been no place in this country for the mentality of the "Nuremberg doctors" of Hitler's Germany. But arrogance was to prevail over common sense. Albert Einstein, a victim of Nazi persecution, warned of the perils of nuclear weaponry. But Einstein was not a commissioner of the AEC.

Willard Libby, later to win a Nobel prize in chemistry, was. "People have got to learn to live with the facts of life and part of the facts of life are fallout," Libby is quoted as saying in the recently declassified minutes of a 1955 AEC meeting.

YET MUCH of the tragedy in Utah could have been prevented had civilians only been warned of possible danger which even at that time was suspected to exist from exposure to levels of radiation that AEC-primed scientists contended were harmless.

Ancient history? Obviously, but in the wake of the Three Mile Island atomic power plant accident, ancient history that it would be foolish to forget.

Fortunately the releases of radioactivity from the near-catastrophe in Pennsylvania apparently really were so low that they were not worth lying about. Nonetheless, only time can tell whether they were really harmless. The point is that no one can be absolutely sure.

There is a further point. As long as scientists in high places can be persuaded that the public is not to be trusted with the truth, there will always be the potential for more of these American tragedies.

Whether by government or industry, the prostitution of science is not a victimless crime.

Gannett News Service

Wednesday, September 26, 1979 Honolulu Star-Bulletin A-1

Enewetak Islanders Plan Return

By Lyle Nelson
Star-Bulletin Writer

About 200 former residents of Engebi, an island in Enewetak Atoll used for nuclear bomb tests in the 1950s, have decided to return there even though the U.S. government claims it will remain dangerously radioactive for another 30 years.

Ted Mitchell, a lawyer and executive director of the Micronesian Legal Services Corp., said yesterday that last week the former Engebi residents, now living in Ujelang—their home for 30 years—unanimously adopted a resolution informing the United States of their intent.

Some 350 other Enewetak people supported their resolution, he said.

Mitchell said he will leave for Washington soon to discuss the matter with the House appropriations subcommittee.

He will ask subcommittee members to include about $4 million in a supplemental appropriations bill for fiscal year 1980 to build homes, a church and community building on the atoll.

The Departments of Energy and Interior have opposed resettlement of the northern islets in Enewetak lagoon because they think they remain too "hot."

Current plans call for all 550 Enewetakese to settle on three atolls at the southern end of the lagoon where there is no radioactive contamination because no nuclear tests were held there.

MITCHELL said the Energy Department distributed information to the people on Ujelang last Wednesday that underscored the department's contention that the northern islands remain unsafe even after a massive Defense Department cleanup campaign which soldiers from Schofield Barracks completed last week.

Mitchell said that after the department's presentation "the people were very gloomy because they desperately want to return to Engebi, their home before the tests."

"The next morning our experts made their reports and there was a complete change in attitudes," he said. "The people conferred, passed the resolution to return, sang songs and were happy."

Mitchell's organization is a U.S. government-sponsored advisory group to many different groups in the Trust Territory.

Mitchell's advisers were Dr. A. Bertrand Brill, a nuclear medicine specialist at Vanderbilt University; Dr. Michael Bender, geneticist at the Brookhaven Laboratory in Upton, N.Y., and William Ogle, former technical director for the nuclear test series in the 1950s.

BRILL AND Bender discussed the probability of cancer and birth defect risks for the population over the next few generations.

They said Engebi was far less radioactive than the government contends.

Brill said, "Cancer mortality in the lifetime of the population is estimated to be less than a single (additional) case."

Bender estimated that "it might take five generations before even one extra case (of any type of infant malformation or defect) appeared, during which time some 500 or more cases will appear spontaneously, regardless of where people reside."

Ted Mitchell

Mitchell said the studies done by Brill and Bender were very thorough.

The studies also show, said Mitchell, that the military project of removing more than 100,000 cubic yards of topsoil from contaminated islands was a huge success and that the soil on those atolls is now less radioactive than the soil in Denver.

The Honolulu Advertiser

Established July 2, 1856

THURSTON TWIGG-SMITH *President & Publisher*
GEORGE CHAPLIN *Editor-in-Chief*
BUCK BUCHWACH *Executive Editor*
JOHN GRIFFIN *Editorial Page Editor*
MIKE MIDDLESWORTH *Managing Editor*

Thursday, Sept. 7, 1978

Bikinians: What next?

Now that the 140 Bikinians have moved to Kili Island from their radioactively dangerous home atoll, it is important that the United States not ignore their needs as was long the case.

Their wandering isn't entirely over. As U.S. officials have said, the stay on Kili for most of the Bikinians can be only temporary.

With no lagoon for fishing and with only 0.36 square miles of land, Kili is simply too small as a permanent home for those who have just arrived plus the 400 to 450 who were there already.

THAT HAS a sadly familiar ring. When U.S. authorities asked the Bikinians to leave their homes in 1946 so that nuclear explosives could be tested there, the islanders complied. They thought they could return before long.

President Johnson personally announced a decade ago that Bikini was safe for the return of its people. But after scientists belatedly discovered a few months ago that the place remains radioactively hazardous, those who went back had to leave again — a move covered in The Advertiser by reporter John Given and photographer Ron Jett.

No one knows where the next stop will be for those who ultimately choose to leave Kili. Bikini Island is now expected by scientists to be off limits for decades. Some of the islanders are hoping to go to Eneu Island in the Bikini Atoll, but the probabilities are that when tests are completed by early next year Eneu also will be declared unsafe.

SOME BIKINIANS say they want to come to the United States, especially Hawaii. While it is most unlikely that a single large chunk of public land can be made available for them to resettle here en masse, those who wish to come as individuals or families deserve to be welcomed. Having destroyed their native island as a habitable place, the U.S. owes the Bikinians an open door.

On the same account, pending congressional bills to provide $15 million for the permanent resettling of the Bikinians and to increase the Bikini Trust Fund to $6 million from the present $3 million deserve quick passage.

None of that money is designated for the building of a permanent dock at Kili. Additional funds for that purpose are needed, since some of the approximately 600 Bikinians now on Kili are likely to stay indefinitely. Without a dock, the island is isolated by rough waters for as many as six months a year. With a solidly constructed dock, boats would be free to come and go.

A dock would go a long way toward causing more Bikinians to remain on Kili. Certainly it would make the life of the island more pleasant and comfortable for those who do stay.

IT IS NOT POSSIBLE to erase the record of U.S. government callousness and neglect. But it is possible, and morally compelling, for the current administration to see to it that for the Bikinians the future is made better than the immediate past.

Honolulu
STAR-Bulletin

Aug 25, 1978

In Second Relocation over Radiation

A Final Farewell to Bikini

By David Shapiro
Gannett News Service

WASHINGTON — Early next week, a U.S. government ship will pull up to Bikini Atoll to take the 140 residents of that tiny Pacific island away from their homes, probably for the last time.

It will be the second time since World War II that Bikinians have been forced to leave their island because of dangerous radiation from U.S. atomic bomb tests.

Some officials had feared that growing anger might lead many of the residents to refuse to leave despite the danger, but a top Interior Department official, who visited the area earlier this month to smooth the way for relocation, now predicts that all will leave without resistance.

"WE HAD a very emotional meeting with all the residents that lasted over two hours," said Undersecretary James Joseph. "There were a lot of people who were reluctant, but in the end they got up and assured me one by one that they would cooperate."

Joseph said he made several concessions to the Bikinians about improving relocation facilities on Kili, another island in the Marshall chain that will serve as the temporary home for those leaving Bikini. He said he agreed to build a new school and dispensary on Kili, as well as expand the existing civic center.

"This was agreeable to them, although they did question why they should expect follow-through from the U.S. government this time after so many broken promises in the past," he said.

Bikinians were first forced off their atoll after World War II when the U.S. military decided that the isolated spot would be ideal for bomb tests.

When the bombing ended in the mid-1950s, Bikinians began clamoring for permission to return home, and this was finally granted five years ago when tests determined that external radiation levels were safe.

But scientists did not accurately measure ground radiation, which was later determined to be unsafe when readings were made of coconut trees and other vegetation that serve as food staples for the Bikinians. The new discoveries forced the latest evacuation.

SCIENTISTS NOW predict that it will be 30 to 60 years before Bikini can again be inhabited safely.

Joseph estimated that the relocation, including the new facilities on Kili, will cost $500,000. Another $15 million has been set aside for a permanent solution to the Bikini problem.

Kili, which already houses 400 former Bikini residents moved when the bomb tests began, is too small and unproductive to serve as a permanent home for 500 people. The residents are already dependent on U.S. food deliveries for survival.

The government is now conducting a comprehensive radiological survey of Bikini and surrounding areas to determine which islands are safe from radiation and which are not, Joseph said. "When the radiological survey is completed next year, we will be able to present the Bikini people with their options and work from there."

Bikini islander tells U.S. he won't go

By JOHN GIVEN
Advertiser Staff Writer

Plans for the prompt evacuation of the 135 residents of this radioactive island hit a snag yesterday when an angry Bikini native told Trust Territory High Commissioner Adrian Winkel that he would not go.

And there were indications, unconfirmed, that other atollians may also decide to stay.

Declaring through an interpreter that his "goals were not met by higher officials" during the years after the first relocation in 1946, Andrew Jakeo said he would "rather go back to Kili," the island which has been chosen as "a temporary" relocation site by the United States and Trust Territory governments.

"In 1946 we were told 'wherever you go, we will take care of you,' the years go by go by go by," he said, "they never kept their promise."

"Now you come a second time. Are you going to do the same thing?" he asked. "I am sorry, very sorry to say this but because my goals were not met by higher officials I am not going to leave."

The United States first moved the islanders off Bikini in 1946 for a series of nuclear test explosions here that lasted through 1958.

After two temporary relocations, most of the the Bikinians ultimately stayed at the third, Kili island, some 450 miles away.

In 1968, President Johnson declared that the atoll was free of radioactivity and that the Bikinians could return home.

By last year, however, scientists realized that a terrible mistake had been made, that the island was not uncontaminated after all. So this May the Bikinians were told that for their own safety they must leave their homeland once again.

In a meeting with the islanders Winkel explained that they would be taken to the other island only as a temporary measure. Once the results of an aerial radiological survey and other radiological tests of Bikini are in, he said, then it could be determined whether to relocate them again to Eneu, another islands in the Bikini atoll.

Although the Bikiniuans have indicated that Eneu is their first choice for a final settlement, Winkel said he did not wish "to build false hopes" that they could return there.

"The Department of Energy does not feel the possibilities of Eneu's being safe are hopeful," he told the Bikinians. But he said the option would remain open until the final survey results are in.

At the meeting Winkel gave the Bikinians an eight-point memorandum of understanding outlining commitments made to the Bikinians during the recent visit by Interior Undersecretary Dave Mendoza, deputy undersecretary Wallace Dunes and director of the office of Territorial Affairs, Ruth Van Cleve.

The points began with a declaration that "The United States considers itself generally responsible for the well being of the Bikini people and their descendants," and that it would seek to arrange their permanent location "in the most satisfactory manner possible."

Noting that "it appears the Eneu island in the Bikini atoll will also be unavailable for settlement," it says the government will develop permanent facilities on Kili, including the island's first dock, which would be ready next spring. And it states that the federal government is already in the process of some temporary construction on the island including 20 new homes, a new dispensary, new school and other projects.

The document promises that a permanent relocation plan would be made at the completion of the aerial radiological surveys, "in the early weeks of 1979." And it said that those Kili residents who want to move elsewhere would be given a choice "among the possible relocation sites."

Besides authorizing temporary return visits to Bikini, it pledges that the Bikinians will be allowed to move back to their first choice, Eneu island, if conditions permit noting at the same time "the best information suggests that it will not be possible." Finally, it grants a $100.72 per person relocation allowance for the Bikinians to buy provisions at Kwajalein before they arrive at Kili.

Winkel noted also that there is legislation pending in Congress that would raise a current $3 million trust fund for the Bikinians to $6 million.

While awaiting Winkel's arrival, two Bikinians said that at least three husbands, their wives and families are planning to stay at least until the government gives them a fast settlement in partial compensation for their loss.

Referring to the Kwajalein "spending money" which Winkel said he gave to the islanders today, Jakeo asked that the money ($14,000 in all) "be taken back to the United States.

"I recall the meetings we had with Joseph and Ruth Van Cleve," he continued, "I remember making a request that if we must be removed from Bikini we need a vast sum of money. So far that we can't see the tall of it. We cannot see the wide of it.

"That means we need billions of dollars right before our eyes before we can leave," he said.

Winkel responded by saying that he sympathized with the man's feelings, in part because he is of about the same age (middle 60s) and could imagine himself in the same place.

He said such things that Jakeo is requesting are beyond the realm of possibility, however. And he said that even if he could get the money, he knows that "there are things in this life that no amount of millions will compensate for."

Winkel also said that while he regretted that the Bikinians would have to move, the fact that scientists now say it would be dangerous for the people to stay there leaves the government no choice.

The high commisioner later said he has no intention of using force to evacuate the island, adding that he hopes a peaceful settlement could be reached before the boat's scheduled departure on Thursday, Honolulu time.

HONOLULU ADVERTISER 30 AUGUST 1978 A-3

STAR-Bulletin 8/28/78

Government Delegation Heads for Atoll

U.S. Gets Set to Move Bikini People

By Floyd K. Takeuchi
Gannett News Service

MAJURO, Marshall Islands—Last-minute preparations have been completed for the evacuation from Bikini Atoll of about 140 Marshall Islanders the U.S. government says are in danger of radioactive poisoning.

Government officials, led by High Commissioner Adrian Winkel of the Trust Territory of the Pacific Islands, and a contingent of the international press are expected to reach the northern Marshall Islands atoll, where the U.S. conducted atomic bomb tests during and after World War II, on Wednesday. They left here today.

"The United States accepts full responsibility for the condition of the people of Bikini. There is absolutely no question about that," Winkel said at a press conference.

He said a memorandum of understanding has been drafted by the U.S. outlining assistance to be given them, but he would not reveal details. The document will be made public after it is formally presented to the people being evacuated, he said. They will be taken by ship to Kili, where 400 other Marshallese who trace ties to Bikini now live.

WHILE WINKEL and local officials hope for a problem-free evacuation, some people here with ties to the Bikini community say there may be some resistance. One source, who asked not to be identified, said many on the contaminated atoll are older people who may not see Bikini again, and they might refuse to leave.

Winkel admits this is a possibility, but said he feels there will be no active resistance.

The high commissioner indicated he expects this to be the last major move for the Bikini people. "There are a considerable number of people on Kili, perhaps a majority of them, who want to stay there," he said.

Bikini sources have said, however, that they want the United States to consider seriously their request to be moved once again, this time to either Hawaii or the U.S. Mainland. District Administrator Oscar Debrum discounted the talk, calling it a "negotiating position," while Winkel said he had only heard the idea mentioned once. He said he does not consider it a realistic alternative.

MOST OFFICIALS do not expect the atoll to become safe for human habitation until 50 years have passed. Three-fourths of the current residents of Kili have never been to Bikini, although they claim the atoll as their home through land rights.

Hawaii R

Some Bikini re to put their be

By JOHN C. GIVEN
Advertiser Staff Writer

ABOARD THE SS MICRO-CHIEF — Some Bikini Atoll residents yesterday refused to load their belongings on a cargo ship when it arrived to participate in their evacuation.

It was the first indication that residents might resist evacuation from the dangerously radioactive atoll to Kili Island.

The cargo ship, the Marshall Islands, was able to load the belongings of people assisting the move. The apparent resistance by some residents was reported by the ship's captain, Aikjai Lopaush, to the Micro-Chief, en route from Majuro to Bikini.

Trust Territories High Commissioner Adrian Winkel is aboard the Micro-Chief, which is due to arrive at Bikini tomorrow morning.

The Bikini islanders are scheduled to depart tomorrow night for Kili, 450 miles from Bikini.

They are being moved from the atoll, the test site for 23 nuclear explosions between 1946 and 1958, because it has been declared uninhabitable due to dangerous radiation levels.

Ten years ago, President Johnson declared the atoll safe; but tests since last summer have shown that the original return order was premature by 15 years or more.

Following a ceremony tomorow, the Bikinians are scheduled to board a third ship, the Micro-Pilot, for their trip to Kili.

While Trust Territory officials are saying they hope it doesn't happen, Winkel said Sunday in Majuro that he would not be surprised if some Bikini islanders decided not to board the ship when the time came.

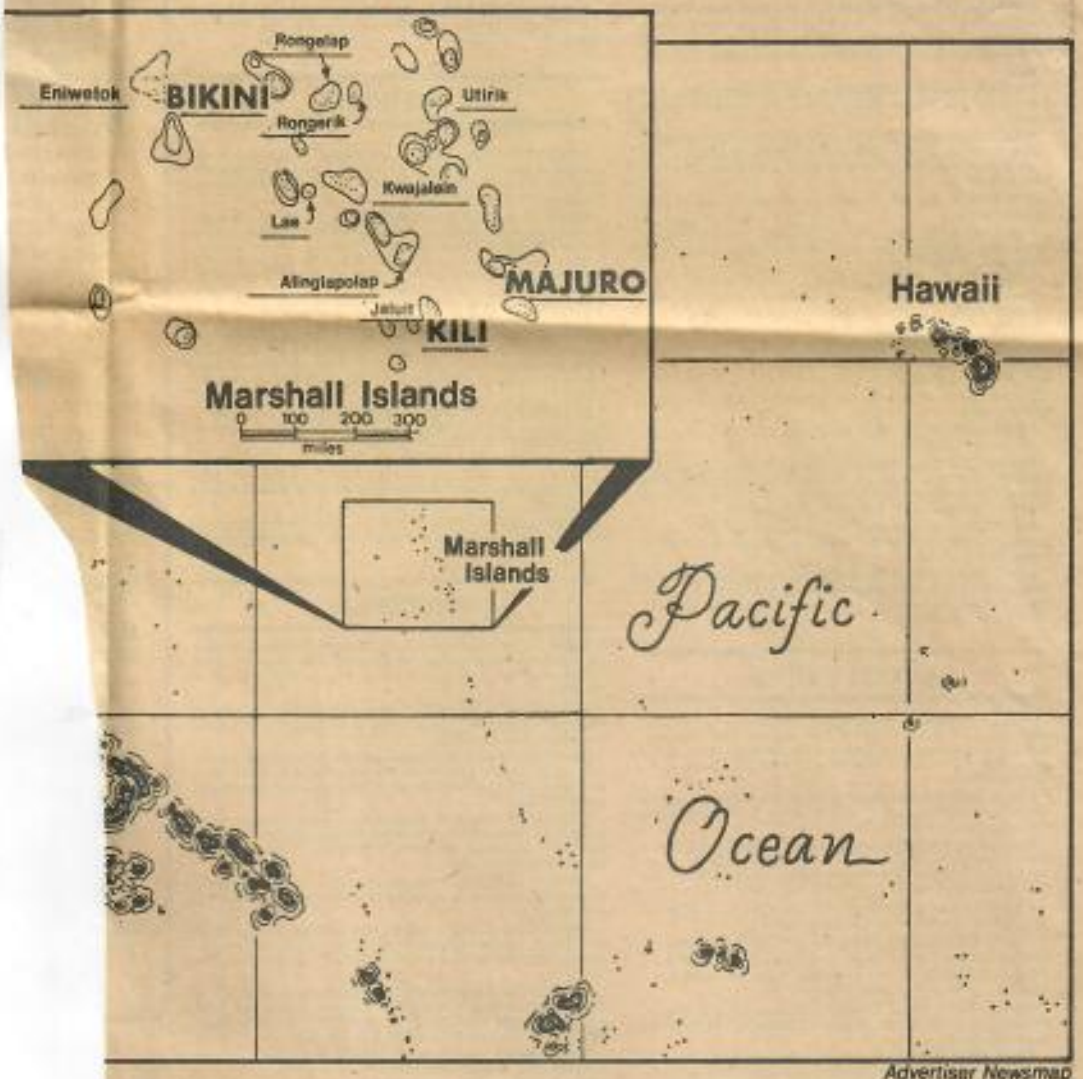
Yesterday, a 33-year-old Bikini resident, returning to Bikini aboard the Micro-Chief, said he is contemplating resistance because Kili "is a horrible place".

He is Henchi Balos, the elected liaison officer representing the Bikinians on Kili. He said he was "thinking about" the idea of refusing to board the boat as a protest against "what the U.S. has been doing to my people." But that decision would depend on what his relatives felt about it as well, he said.

eport

Honolulu Advertiser
Tuesday, August 29, 1978 A-3

esidents refuse elongings on ship



Advertiser Newsmap

"We've been telling the U.S. officially that we can no longer live on Kili," Balos said.

Among his criticisms of Kili is the winter high surf, which makes the island virtually unapproachable for six months.

To make the move more palatable, the federal government has financed a new construction program on Kili with more projects to come pending congressional approval, he said.

The plans include a dock and airstrip, which would help end the isolation.

Scheduled for completion in two weeks are 28 new houses, eight classrooms, a new dispensary and meeting house.

Japtan: snack time as father filets fish.

Kili Island: Two youngsters enjoy a sudden shower.

The Marshalls' young faces

Majuro: lei-crowned young beauty.

When The Advertiser sent reporter John Given and photographer Ron Jett to cover the evacuation about 140 Bikini Islanders from their radioactive home, they ended up spending about three weeks in the Pacific islands. Jett's pictures and Given's stories of the evacuation and the resettlement on Kili were among the first published in the United States.

As they moved through the Marshalls, Jett never stopped shooting pictures of children. It seemed to him the best way to show people here how people there live.

Jett describes the pictures on this page:

"One morning just after sunrise we walked down the dusty back streets of Majuro. The streets were filled with children. One photo taken on that walk is of a young boy peering out from between the slats in a window of his home. Another was of a beautiful young girl with a fresh flower lei on her head. She chewed on her shirt collar as I shot the picture.

"Three days later we were on Bikini Atoll. A meeting was in progress between the high commissioner of the Trust Territories and the leaders of the Bikini community. The press was not allowed to enter the small house where the meeting was being held, so we moved around the building shooting pictures through windows and doors. As I moved from one side to the other, I found this small boy squatting against the back of the building. Over his shoulder someone had written on the wall 'HELP US'.

"Sunday morning after church services on Kili, the Bikinians' new home, a rain shower sent me looking for shelter — which turned out to be the overhang of a small wooden shack. As I stood there, two small children raced down the crushed coral street. The little girl still wore her Sunday dress. The boy was much more sensibly attired in his birthday suit.

"Further down the road I found a grandmother sitting on a wooden floor outside her home holding her grandchild, both dressed in their Sunday best.

"Our last stop was Enewetak Atoll, where we visited one of the islands, Japtan. I found a young girl chewing on the tail of a fresh fish that her father had just cleaned.

"It's been said that the future of a country lies with its children. The problems besetting the Marshall Islanders have received a good deal of attention in the press. Perhaps these pictures show the hope."

Advertiser photos by Ron Jett

Kili Island: A grandmother holds her grandchild.

Japtan: teen-age girl on southern island of Enewetak Atoll.

Majuro: Children are shy at first.

Bikini Atoll: High commissioner, island leaders inside discuss this child's future.