

PRIVACY ACT MATERIAL REMOVED

LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
MERCURY, NEVADA 89028

OFFICE MEMORANDUM

TO : John S. Malik, J-DOT

DATE: April 17, 1979

FROM : Gordon V. Jacks, J-DO

RG 326 US ATOMIC ENERGY
COMMISSION

SUBJECT:

Location JAPAN

SYMBOL : JNTS-79-83

Collection Recreational Center J. Div

MAIL STOP: 900

Folder HARDTACK I-

RAD SAFE

J-DO Routing	
JCH	RIV
TAHE	Receiving
HTS	
RAJ	
ICRR	
Action	

411097

(R)

According to the Hardtack dosimetry records, _____ was issued his first film badge on 8 April, 1958; his last film badge was turned in on 15 August, 1958. A copy of this record is attached. I have no idea as to why his DD 214 Record of Ionizing Radiation shows only the exposure recorded on his first film badge. _____ was issued his film badges in keeping with the Joint Task Force Seven order requiring film dosimetry for each person in the Task Force during the actual period of time that the Task Force was responsible, approximately 1 April, 1958 to 31 August, 1958.

He was not issued a film badge for the period of 27 November, 1957 to 8 April, 1958 as none was necessary. During that period of time the radiation levels on Japtan Island were background only. The radiation levels on Japtan Island after 15 August, 1958 were low enough to preclude the requirement for film dosimetry under the existing FRC requirements, per AEC procedures. See TG 7.5 Rad Safe Report for Hardtack. Information with respect to the film packet is correct. "Supposedly", as used by _____ in his letter, is not correct. The ceresin wax and vinyl plastic holder were absolutely necessary to protect the film packet. Reference WT 1685, Operation Hardtack, Radiological Safety.

I cannot account for the excessively high exposure record shown for _____. A search through the exposure records of all other personnel in his particular organization (Task Group 7.2, Task Unit 0, Org. 1) shows only one individual with equal or higher exposure record, 3,578 mr. Where this one individual was located within the Atoll is not known. He could have been on Japtan with _____ he may well have been on Eniwetok Island with the vast majority of the Task Group 7.2 personnel. The exposure records on the other members of _____ organization show exposures of a few hundreds of mr to 2100 mr. A few have exposures below this range, a few others have exposures of 2200-2400 mr.

Japtan Island was kept "clean" in so far as possible with respect to radiation. This island was used as a recreation area by many people in the Task Force. Every effort was made to retain the ecology of the island in a clean mode. No radioactive materials or sources were placed on the island; this was true, also, during those weapons testing operations conducted prior

BEST COPY AVAILABLE

PRIVACY ACT MATERIAL REMOVED

PRIVACY ACT MATERIAL REMOVED

John S. Malik
JNTS-79-83

-2-

April 17, 1979

to Hardtack. The one thing that could not be controlled was the winds, and as a result, Japtan Island was hit by fallout from the Fir event, as were Parry Island and Ehiwetok Island, fired on Bikini Atoll on 12 May, 1958 (M.I. time). According to WT 1685, "fallout from the Fir event on Bikini contributed approximately 1,200 to 1,500 mr total dose to those living at Ehiwetok Atoll---".

With regard to high exposure, one can speculate based on knowledge acquired during the operation. (1) On recreation, or shell-hunting trips, wearing his film badge, went into areas that were contaminated as a result of shots fired at Ehiwetok where he had no business being or (2) he left his film badge in his quarters, hanging or laying against the outside wall where it received excessive exposure from the radioactive debris from the Fir fallout that was concentrated by rain water run-off from the eaves of the quarters.

One other general comment is in order before tackling the specific questions that raised. has mixed apples and oranges in his remarks about "the background intensity" or the "background" at Site Nan "began to rise". Site Nan was Enyu Island at Bikini Atoll and radiation levels there had no bearing on Japtan Island at Ehiwetok Atoll, some 180 miles or more from Bikini. Further, his references to the rise in background at Site Elmer Rad Safe Center (Parry Island at Ehiwetok) are of no consequence. Such incidents were not mentioned or discussed in WT 1685 for the simple reason that they were of no consequence or concern.

Now, as to questions, in order:

a. I believe that the badges were accurate within 20 percent. There were errors; see WT 1685, Chapter 5, on personnel dosimetry. On the whole, the dosimetry program was reasonably accurate and satisfactory. The program had been repeatedly blessed and approved by knowledgeable people from a variety of agencies and was never criticized as lacking in adequacy. The biggest single "hole" in the program was created by people. Many did not wear their film badge or wore it improperly. You can drive a horse to water but you can't make him drink.

COPIED/DOE
LANL RC

b. No, not unless an individual never went swimming, never took a shower, never washed in any manner. Normal clothing provided adequate protection over most of the body.

c. Doses required to produce "reversal" in the film far exceeded those that show in the dosimetry records. Film fogging, normally, will not mask a higher dose; fogging darkens the film and thus increases the dose.

d. In case, yes. The dosimetry records show continuous coverage for the period of interest.

PRIVACY ACT MATERIAL REMOVED

John S. Malik
JNTS-79-83

3
~~PRIVACY ACT MATERIAL REMOVED~~ 7, 1979

e. The dosimetry records speak for themselves. They are valid records.

f. The drinking water was safe. Enclosure 1 has no bearing on the drinking water. These measurements were made on the lagoon floor in the immediate vicinity of a shot.

g. Swimming in the lagoon was perfectly safe as far as radiation levels were concerned.

h. The FRC guidelines in effect at that time were followed.

i. There was a flat ban on eating sealife as a precautionary measure with respect to radiation. Sealife was migratory within the lagoon, and it concentrated various isotopes. That was a good rule. The ban on coconuts on Japtan Island was primarily in effect to keep people from stripping the trees and destroying the ecology of the island. With regards to the adequacy of the briefings on radiation safety provided by the Commander, Task Group 7.2, I cannot comment. Nor can I comment on how much attention the Army GIs paid to what they were told.

j. This is impossible to answer as we have found no records that tell us the names of the individuals on Japtan during the operational period. If one assumes that all personnel on Japtan were members of Task Group 7.2, Task Unit 0, Org. 1, then either the unnamed individual mentioned in paragraph 3 of this memo, or showed the highest exposure. this assumption may not be valid. As to the classification answer given to by if that be so it was a mistake. I know of no reason for classifying that information.

k. As a general safety rule, all individuals were mustered by a physical head count prior to firing. As to "stand on the beach, facing the shot area", perhaps for orientation, education or the like.

l. Not necessary. I don't know what CTG 7.2 may have instructed personnel to do immediately after the Fir fallout.

COPIED/DOE
LANL RC

m. Not necessary per FRC guidlines.

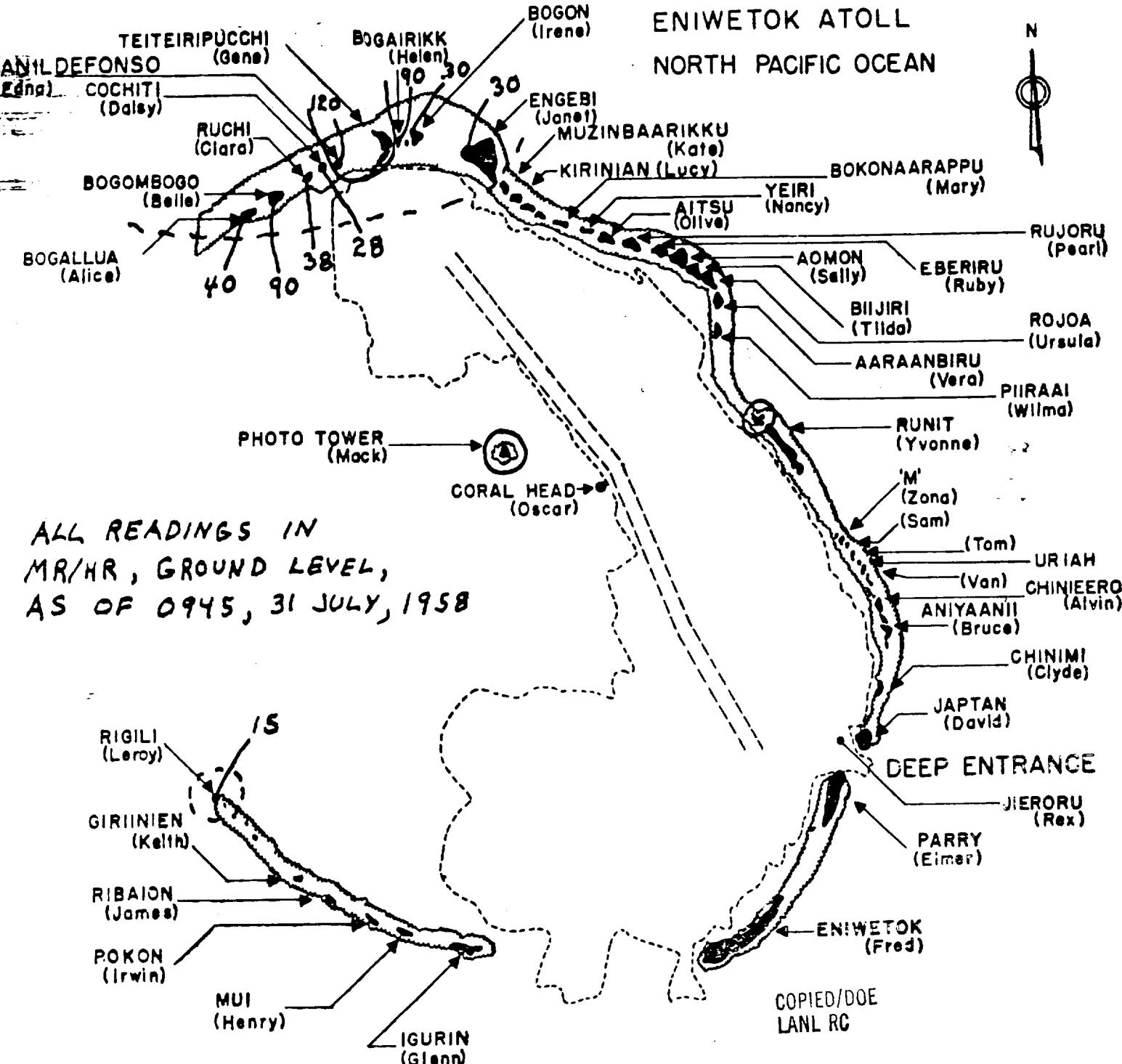
n. The answer to this question must come from the DoD.

o. WT 1685, referenced above. The DNA library should have a copy. Also, the Rad Safe report from TG 7.5 (actually an H&N report), referenced above.

C: John C. Hopkins, J-DO/LASL, MS 670 ←
R. H. Campbell, J-DO/LASL, MS 670
G. L. Jackis, J-DO/NTS, MS 900
T. T. Scolman, J-DO/NTS, MS 900

3
~~PRIVACY ACT MATERIAL REMOVED~~

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



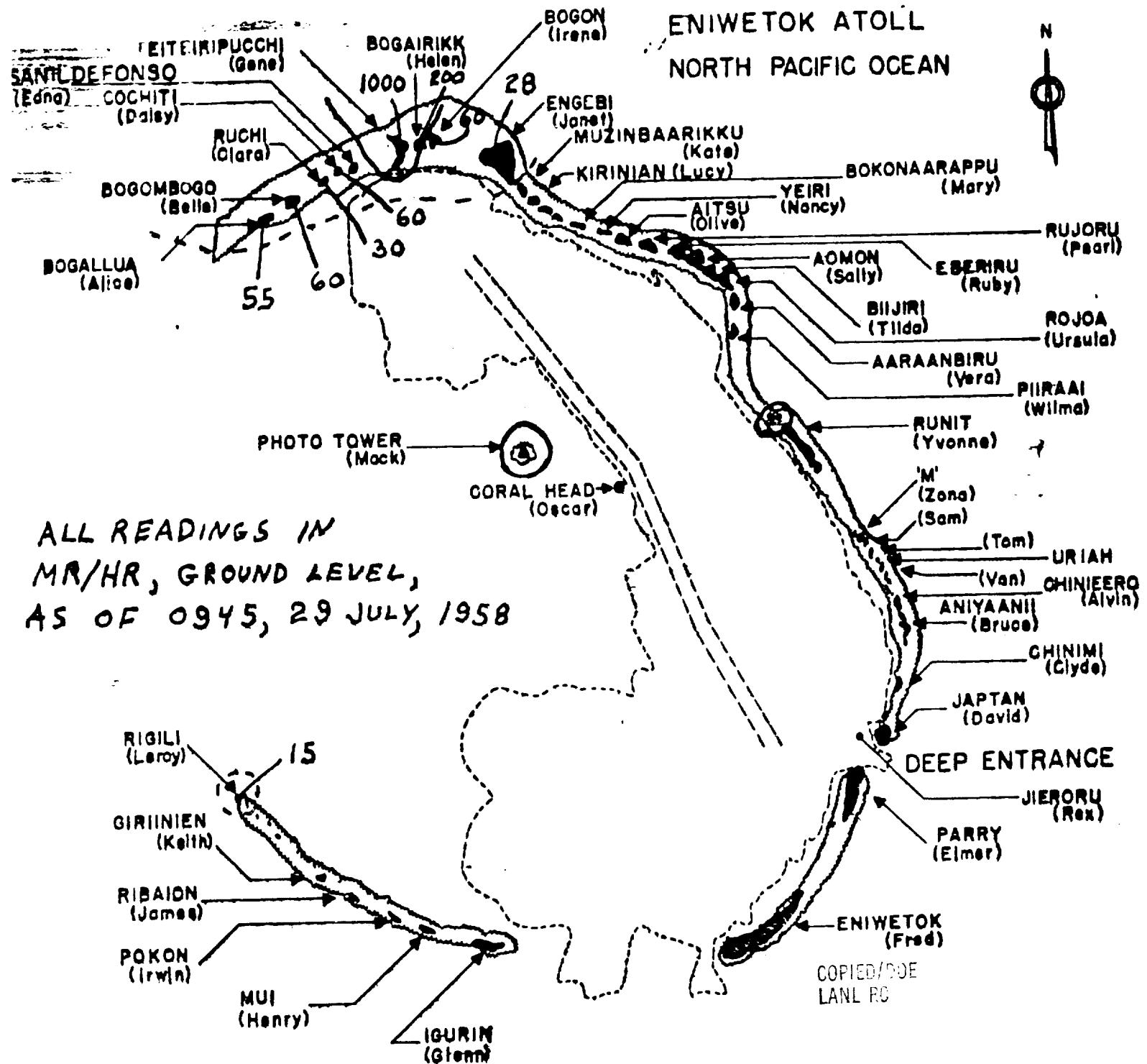
ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0945, 31 JULY, 1958

----- LIMITED RADEX

Note: Sand Spit North of
Oak G. 2. Reading
450 m.p.t.p at 25°.

— FULL RADEX

4

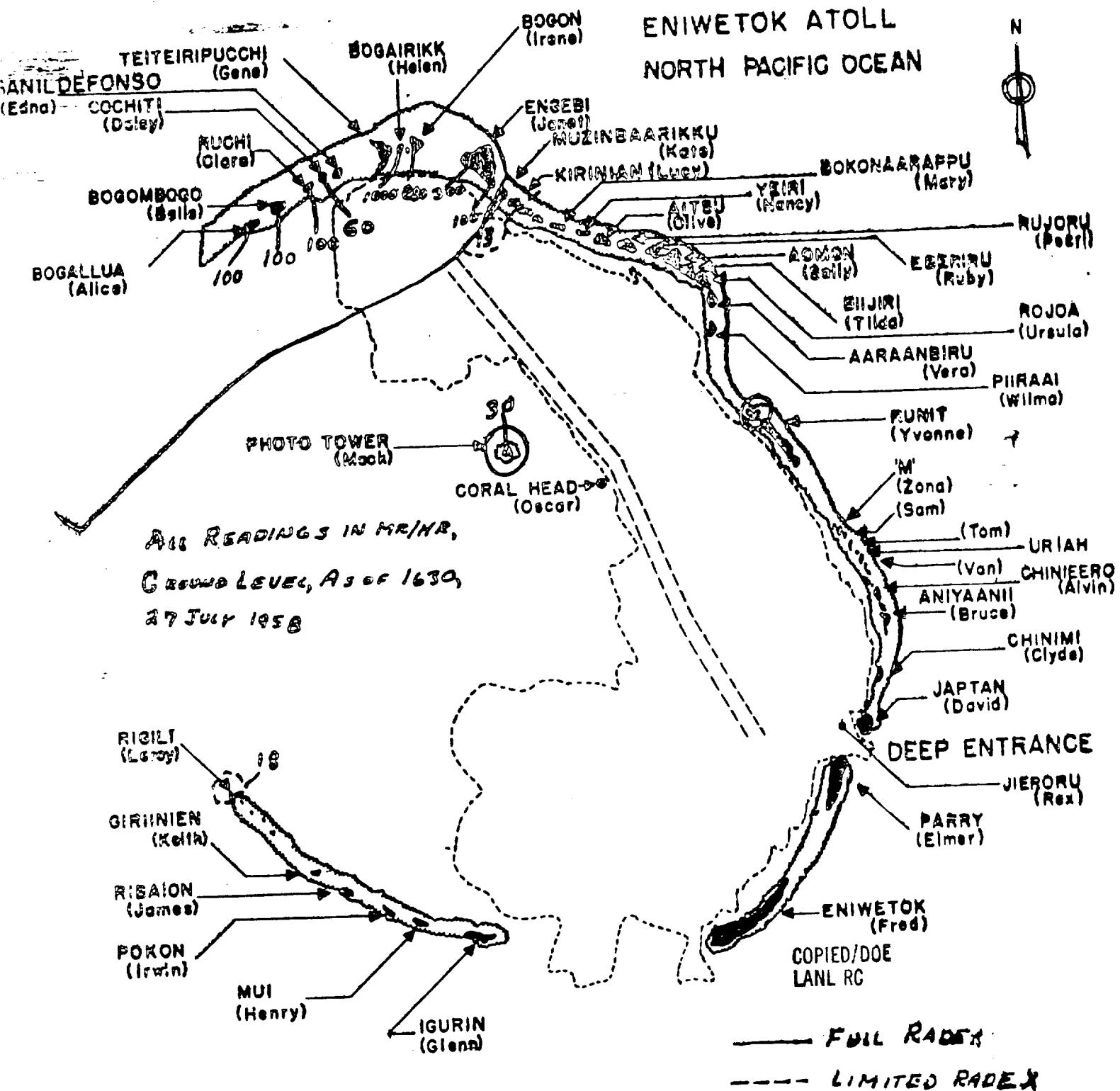


ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0945, 29 JULY, 1958

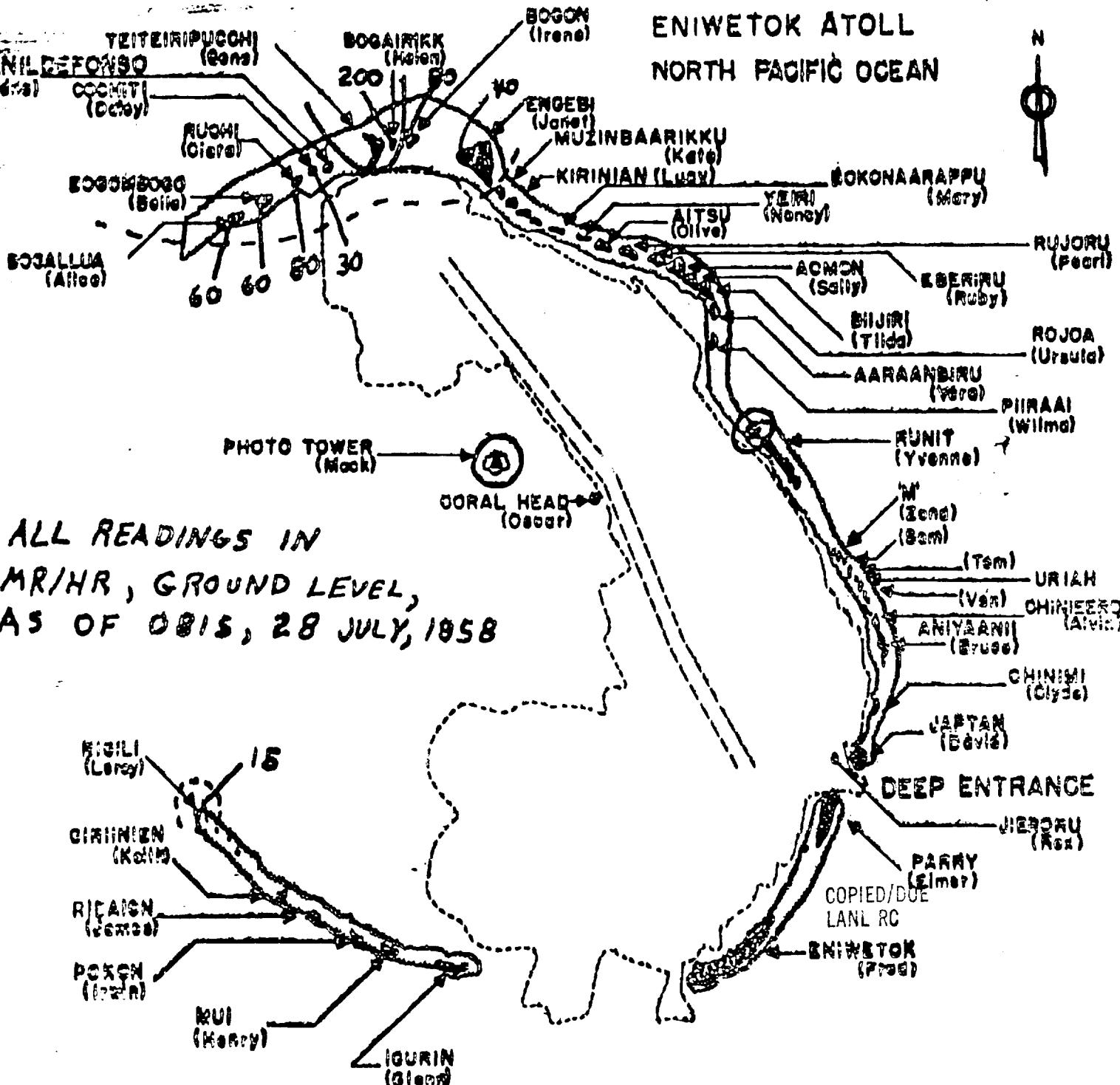
----- LIMITED RADEX

— FULL RADEX

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



ENIWETOK ATOLL
NORTH PACIFIC OCEAN



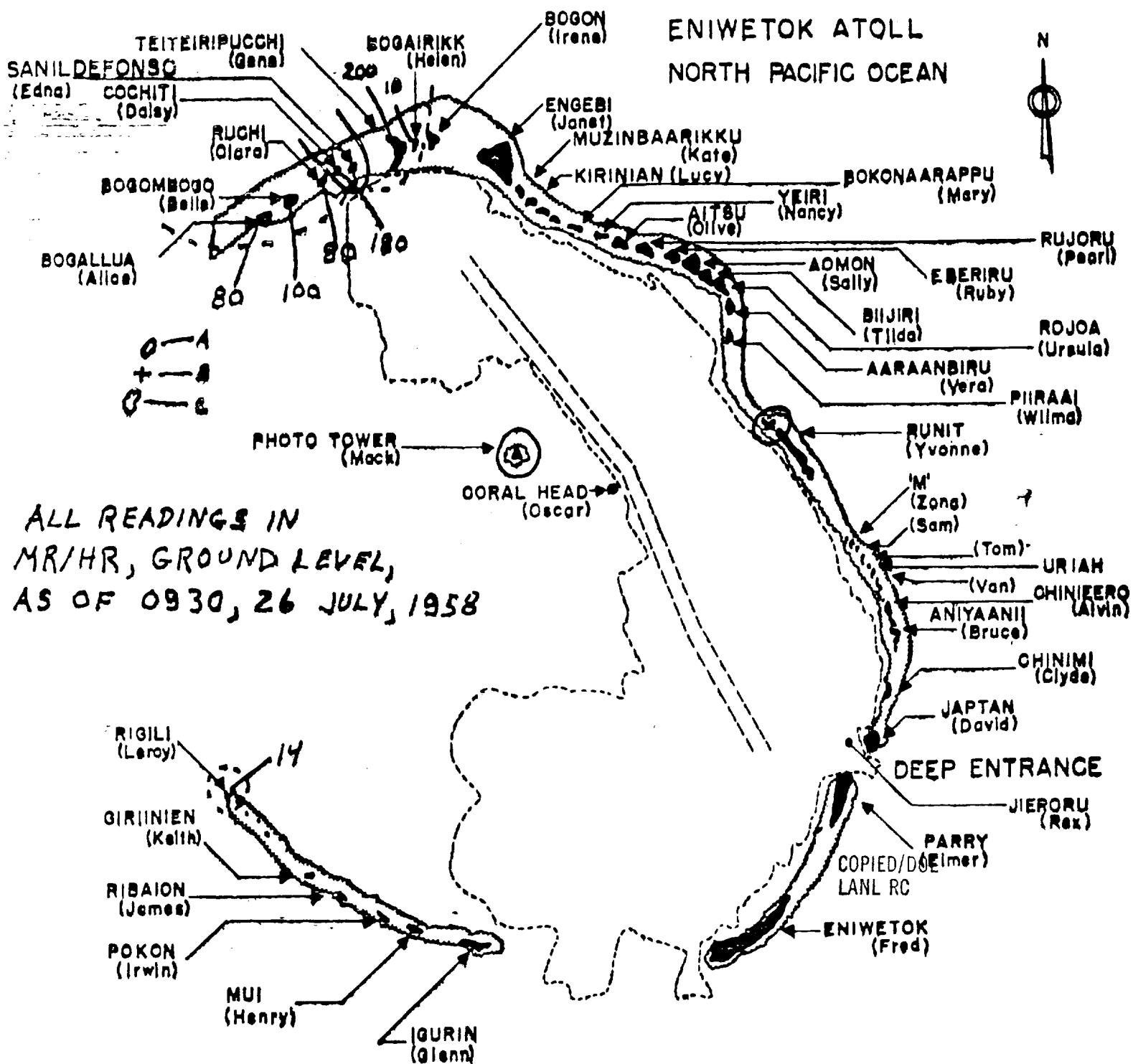
ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0815, 28 JULY, 1958

Note: Water off lagoon side
of Janet reading 400 mr/hr.

— — — LIMITED RADEX
— — FULL RADEX

**ENIWETOK ATOLL
NORTH PACIFIC OCEAN**

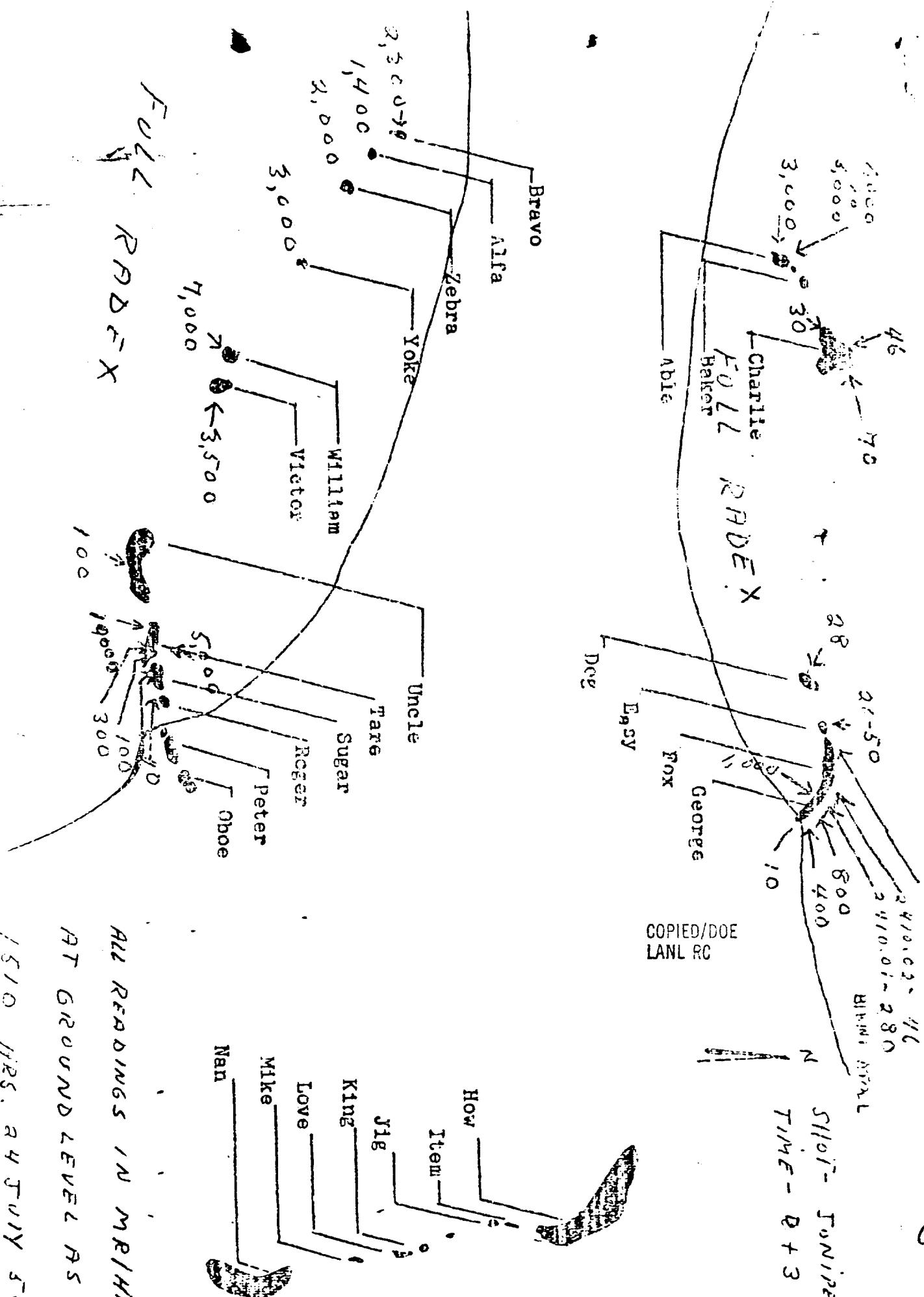
N



- A Sand Spit North
of Oak G.Z. — 800 mr/hr at 25'.
B Oak G.Z. — 1 mr/hr at 25'.
C Sand Spit South of Oak G.Z. —
100 mr/hr at 25'.

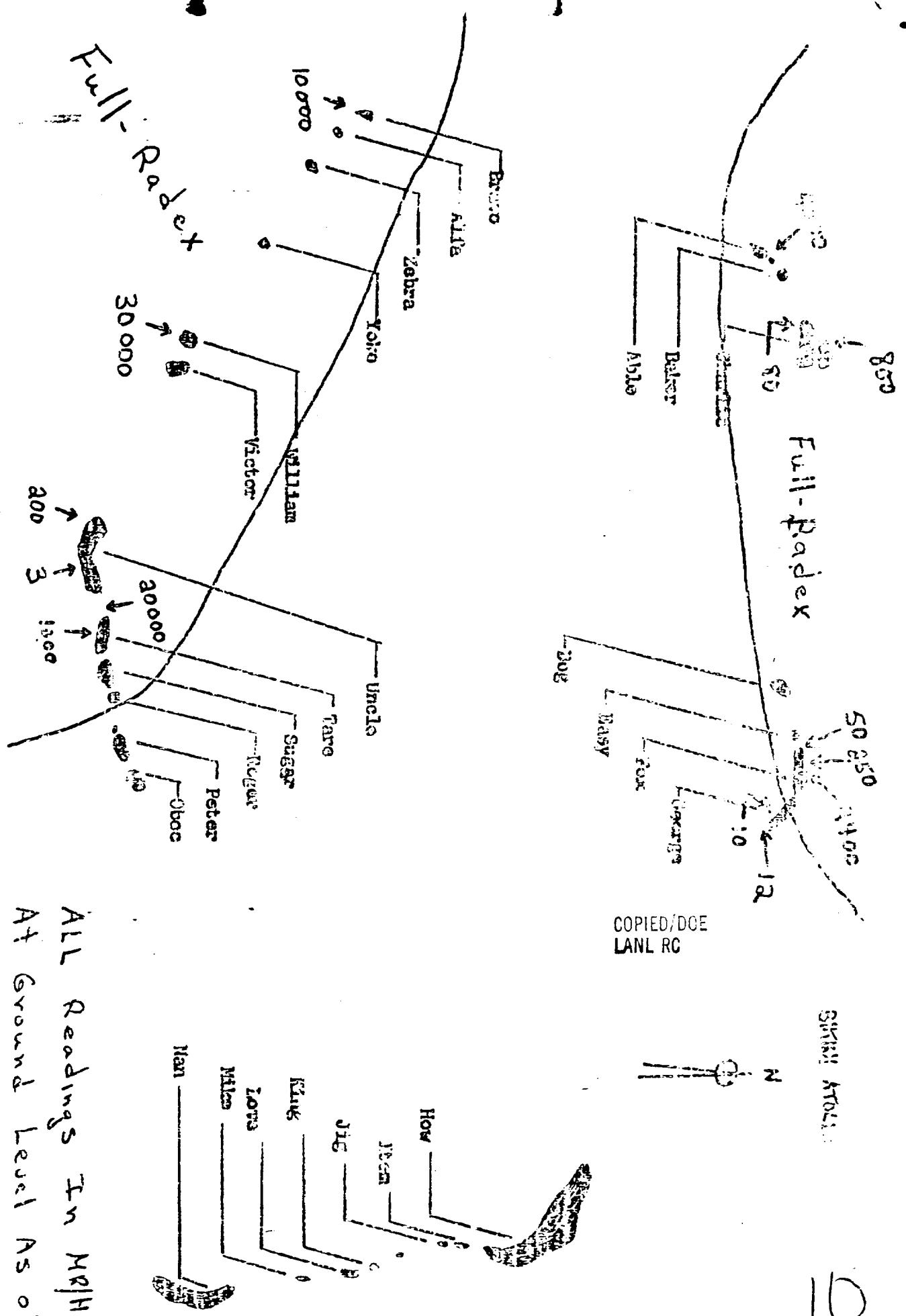
- - - LIMITED RADEX

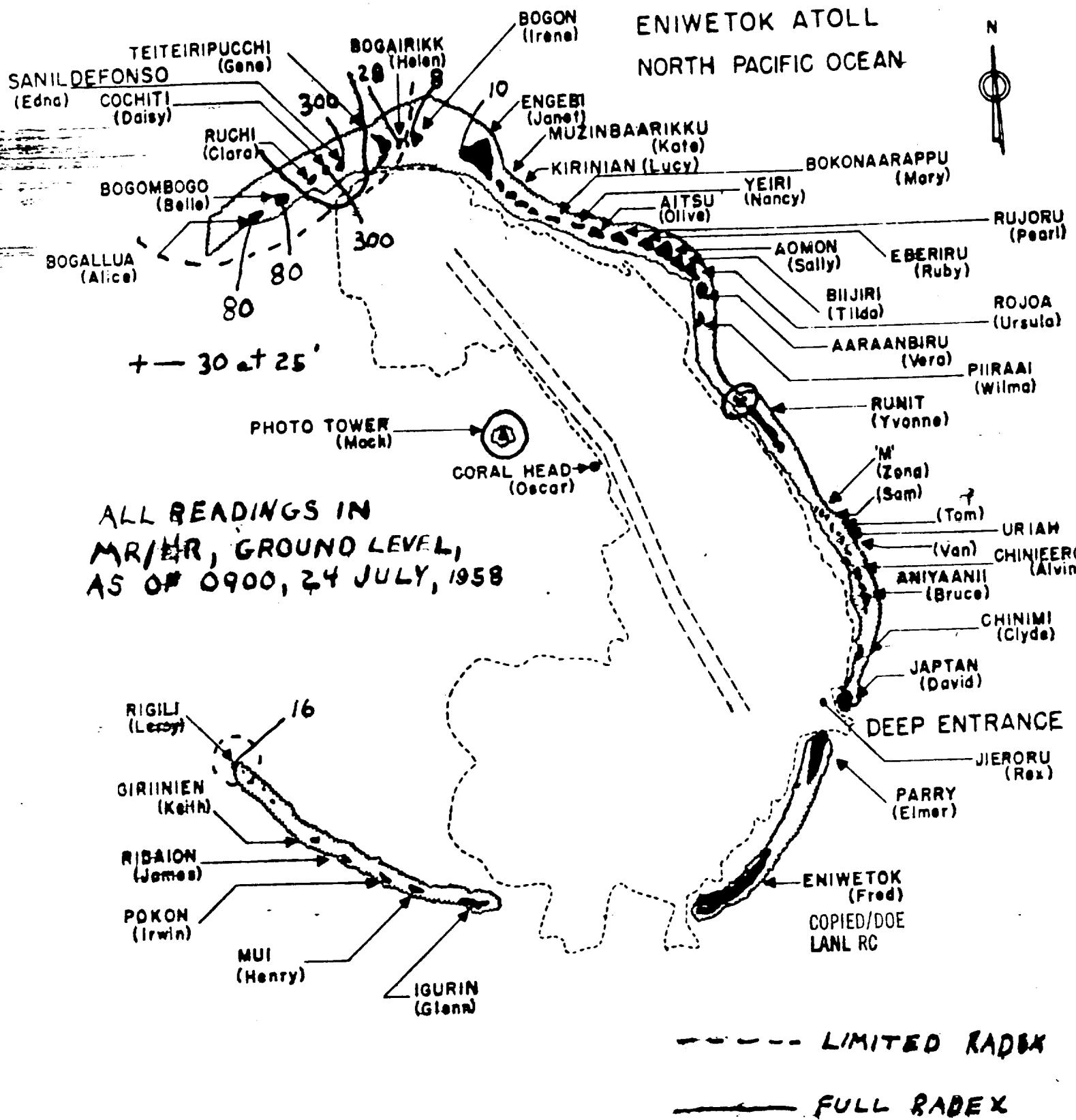
— FULL RADEX

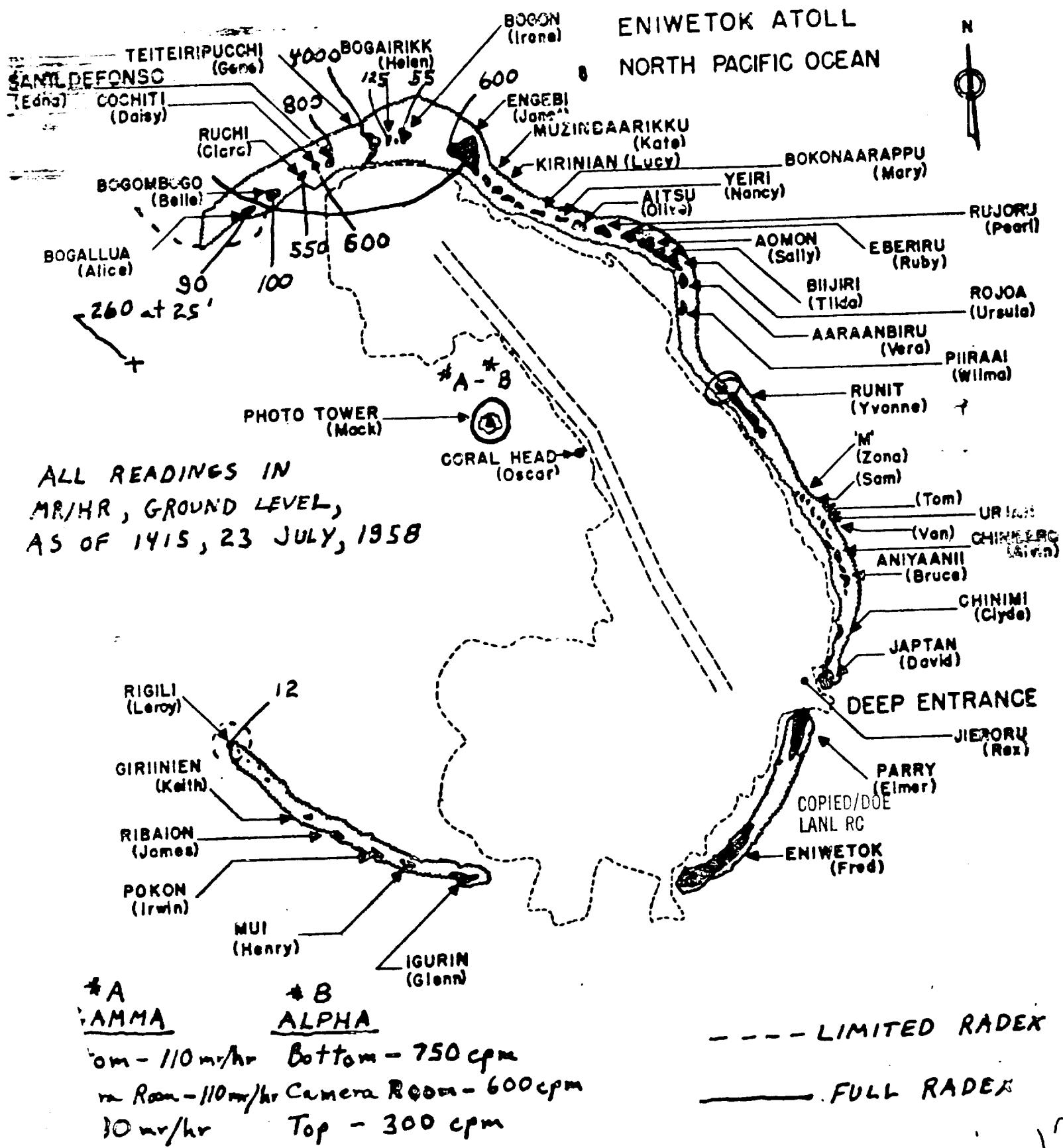


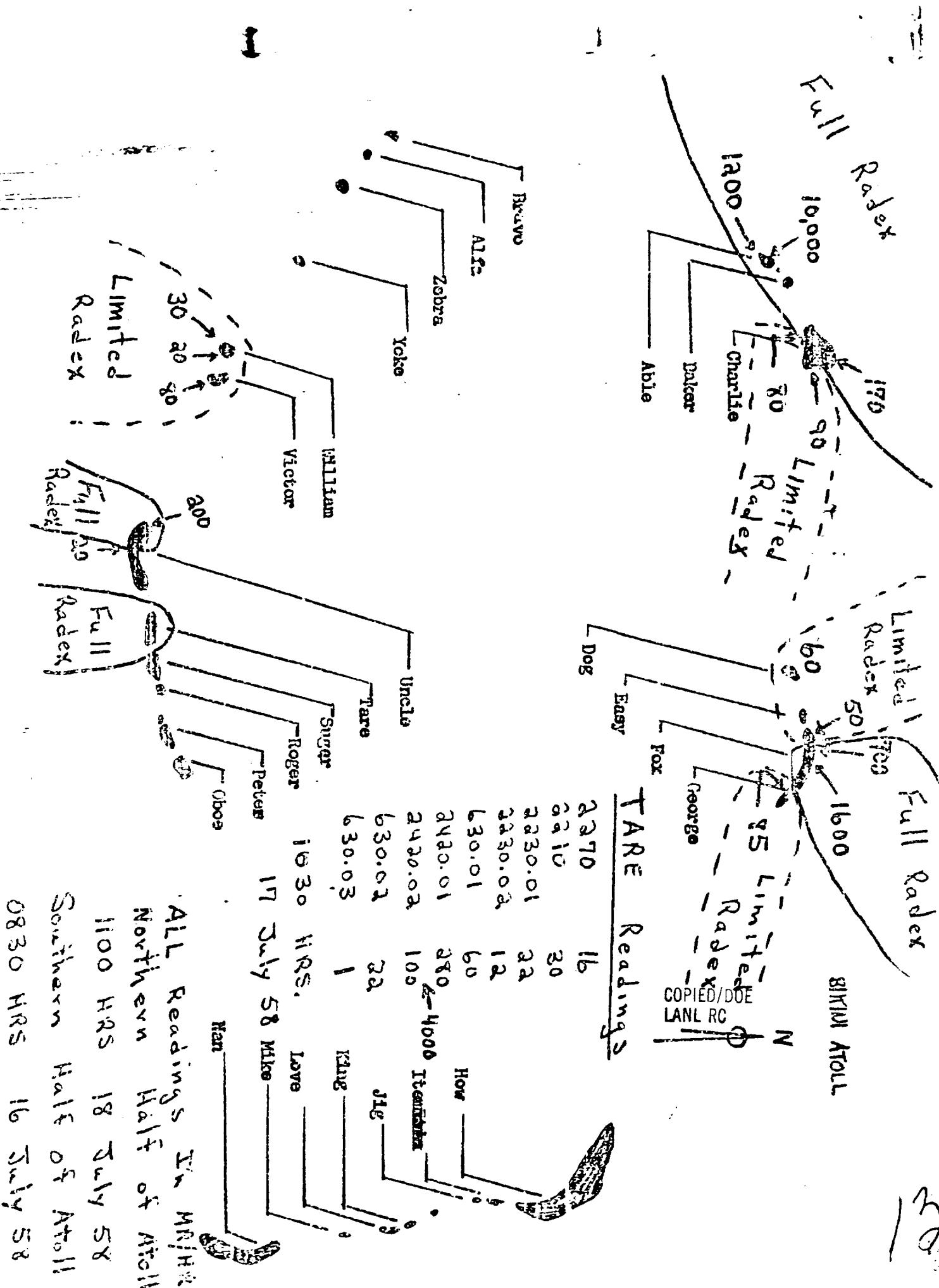
1510 1925. 24 July 58

ALL READINGS IN MR/HR
AT GROUND LEVEL AS OF

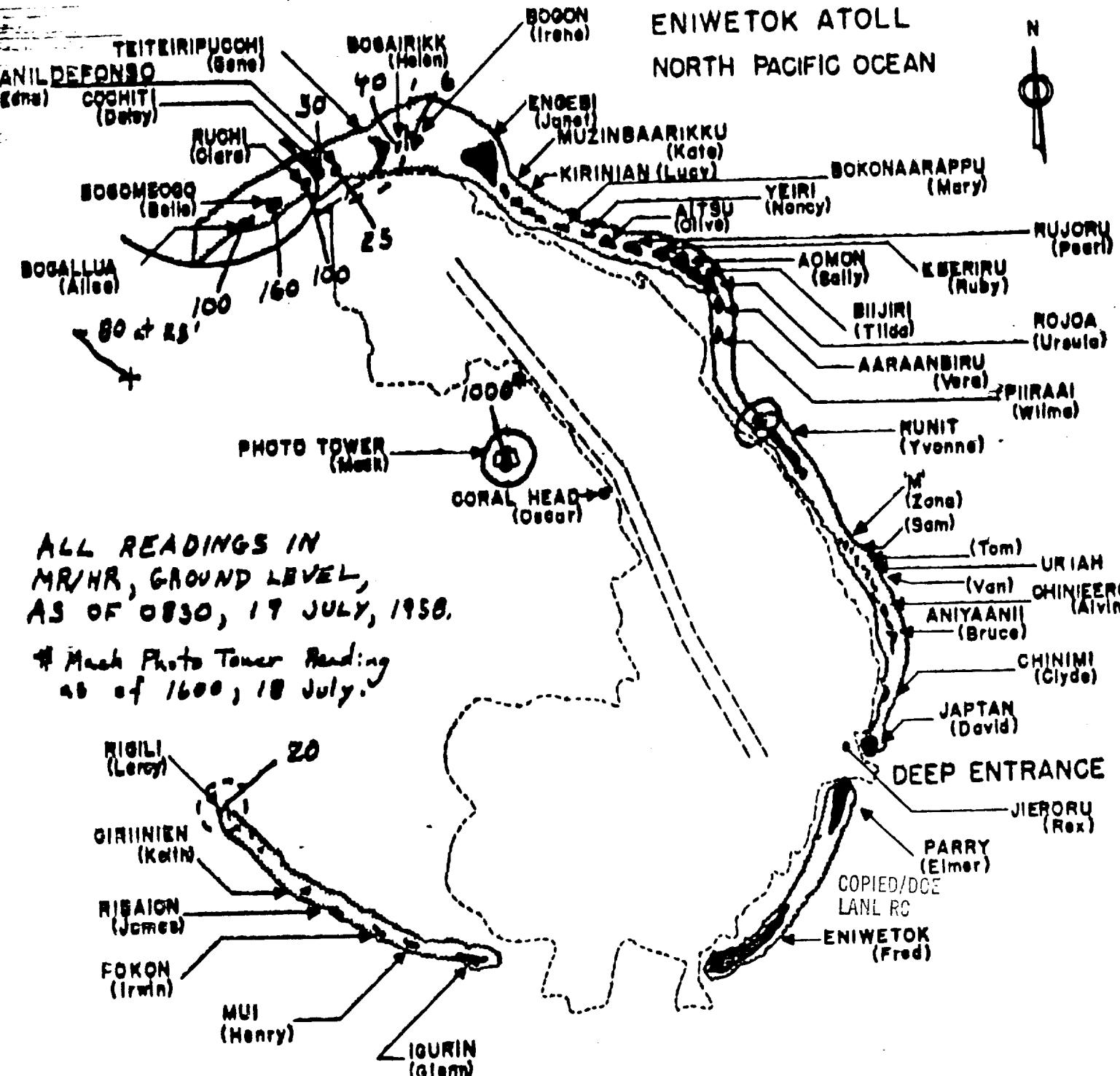








ENIWETOK ATOLL
NORTH PACIFIC OCEAN



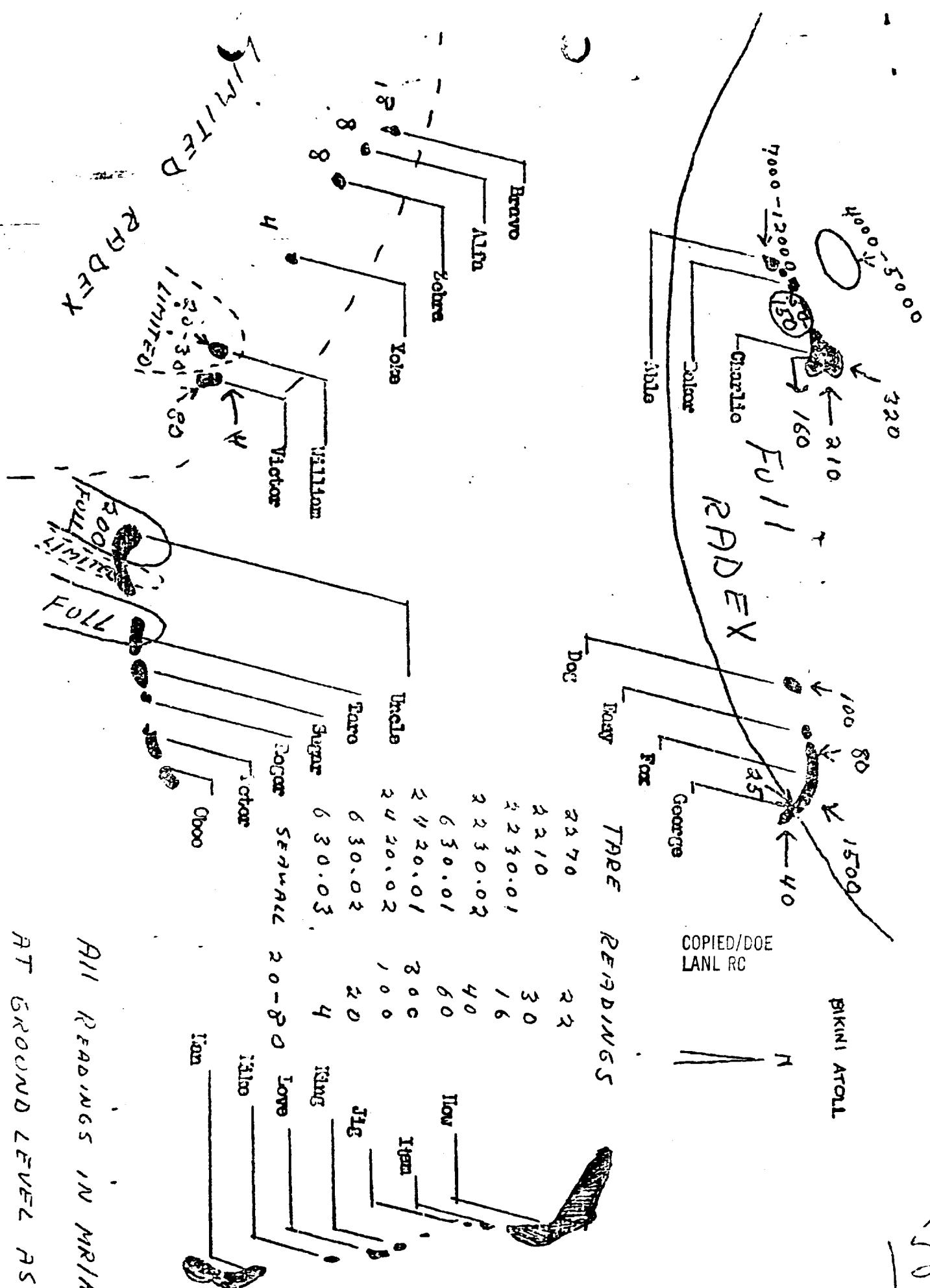
ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0830, 17 JULY, 1958.

* Mach Photo Tower Reading
as of 1600, 18 July.

----- LIMITED RADEX

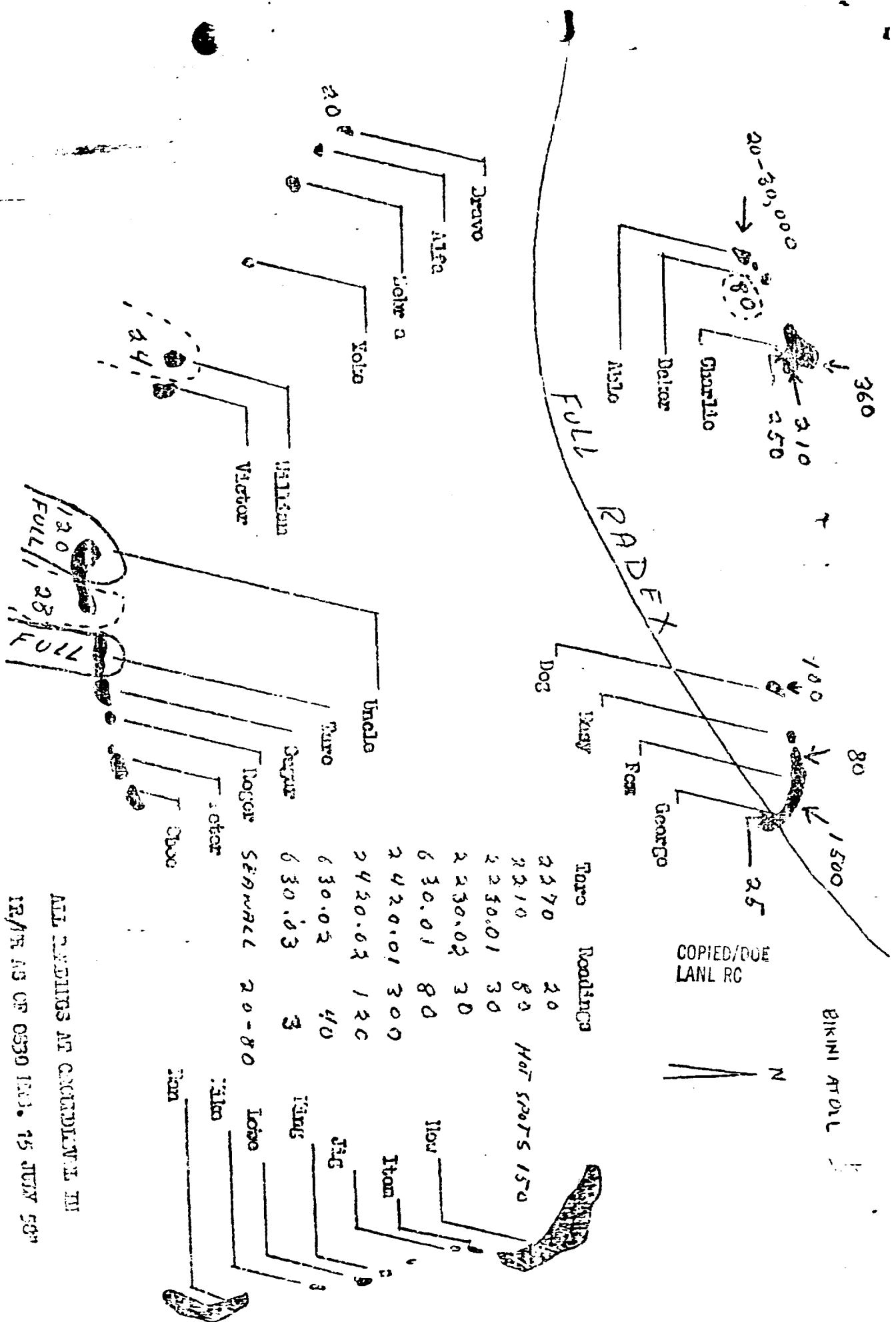
— FULL RADEX

H



ALL READINGS IN MR/HR AT GROUND LEVEL AS OF

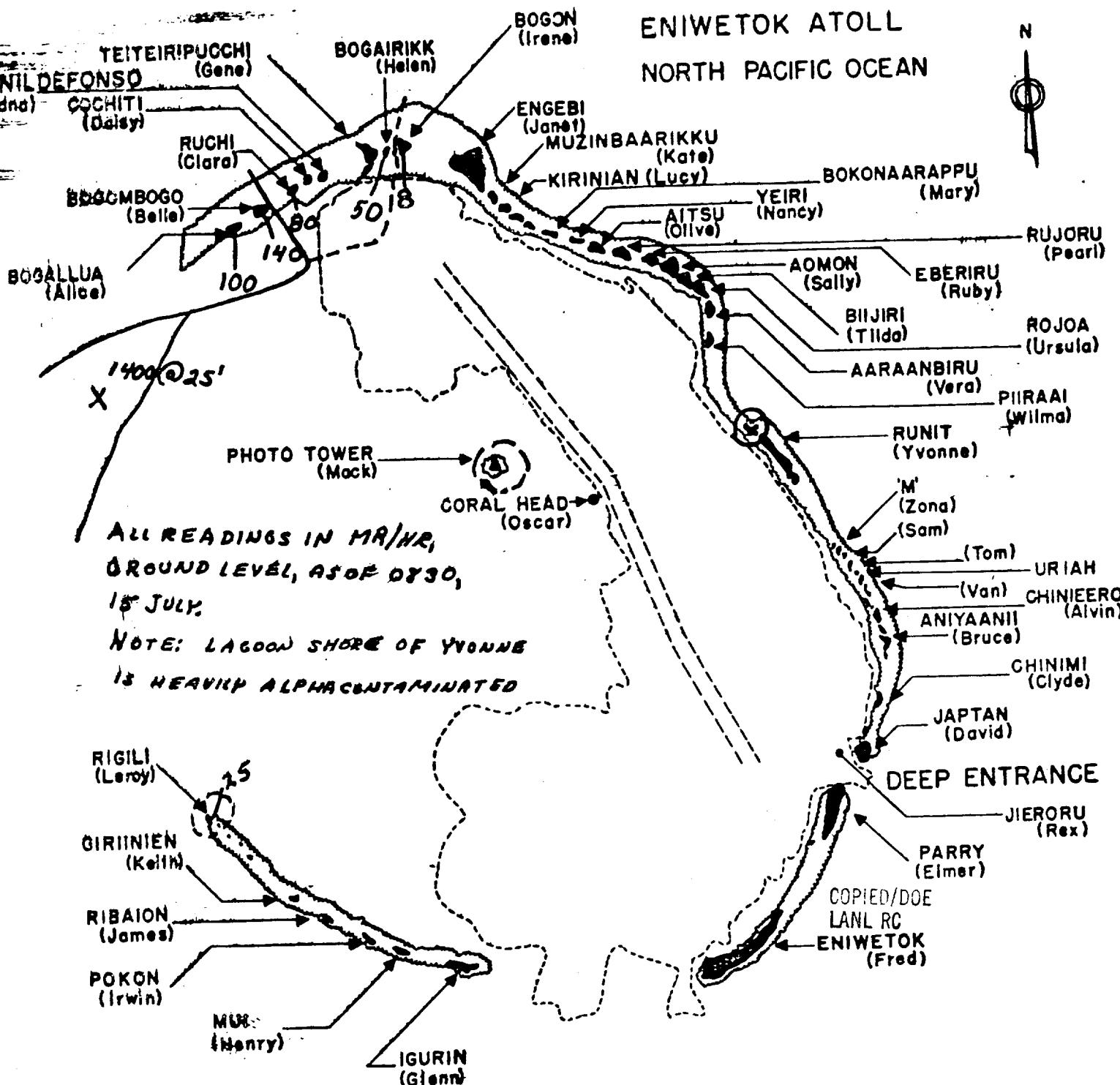
C 900 "H25. July 5/1



ALL DEDUCTIONS AT EXCLUDING THE
12/F IN CS OF 0330 HRS. 15 JUNE 53

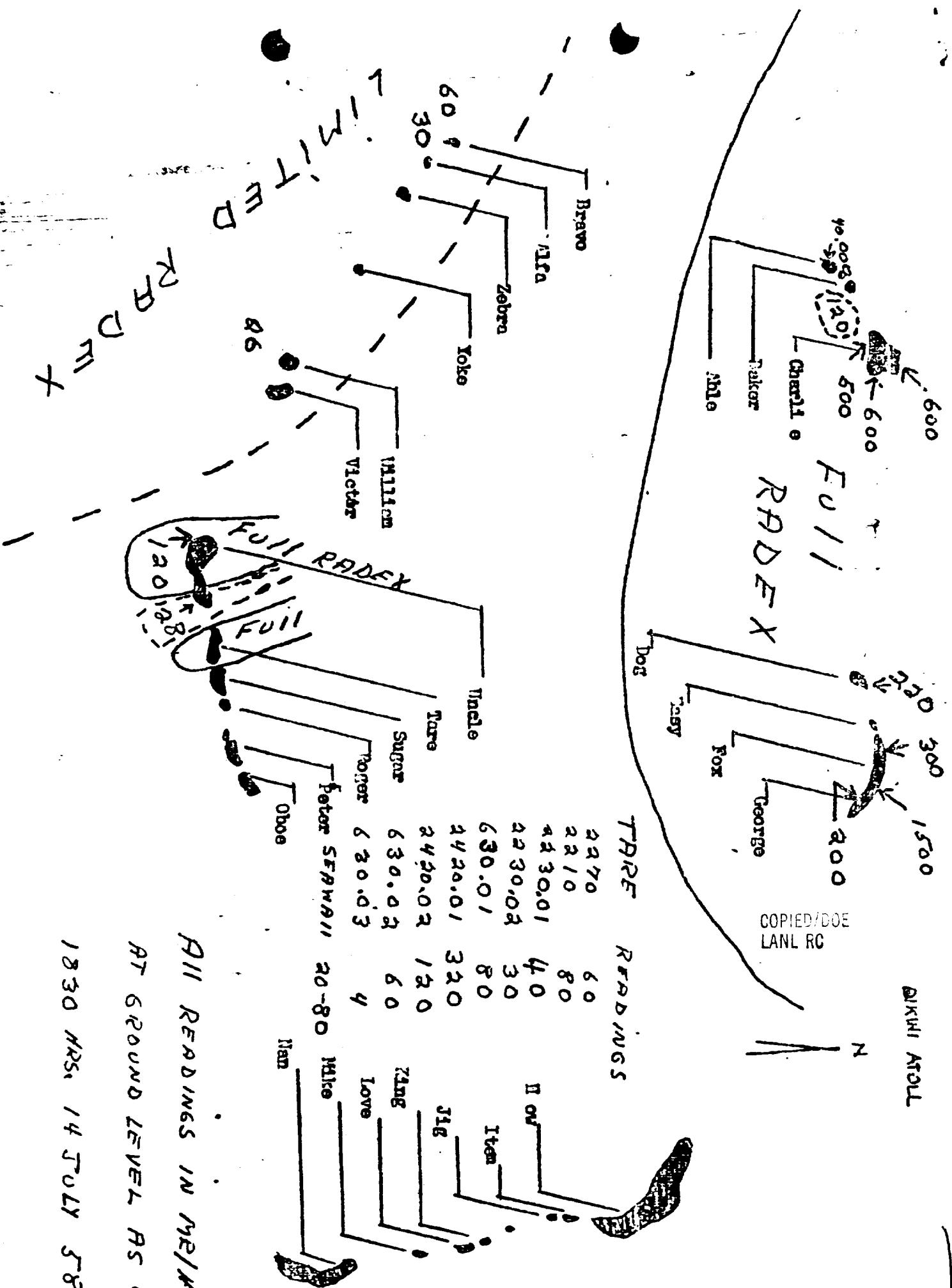
ENIWETOK ATOLL
NORTH PACIFIC OCEAN

N



— FULL RADEX

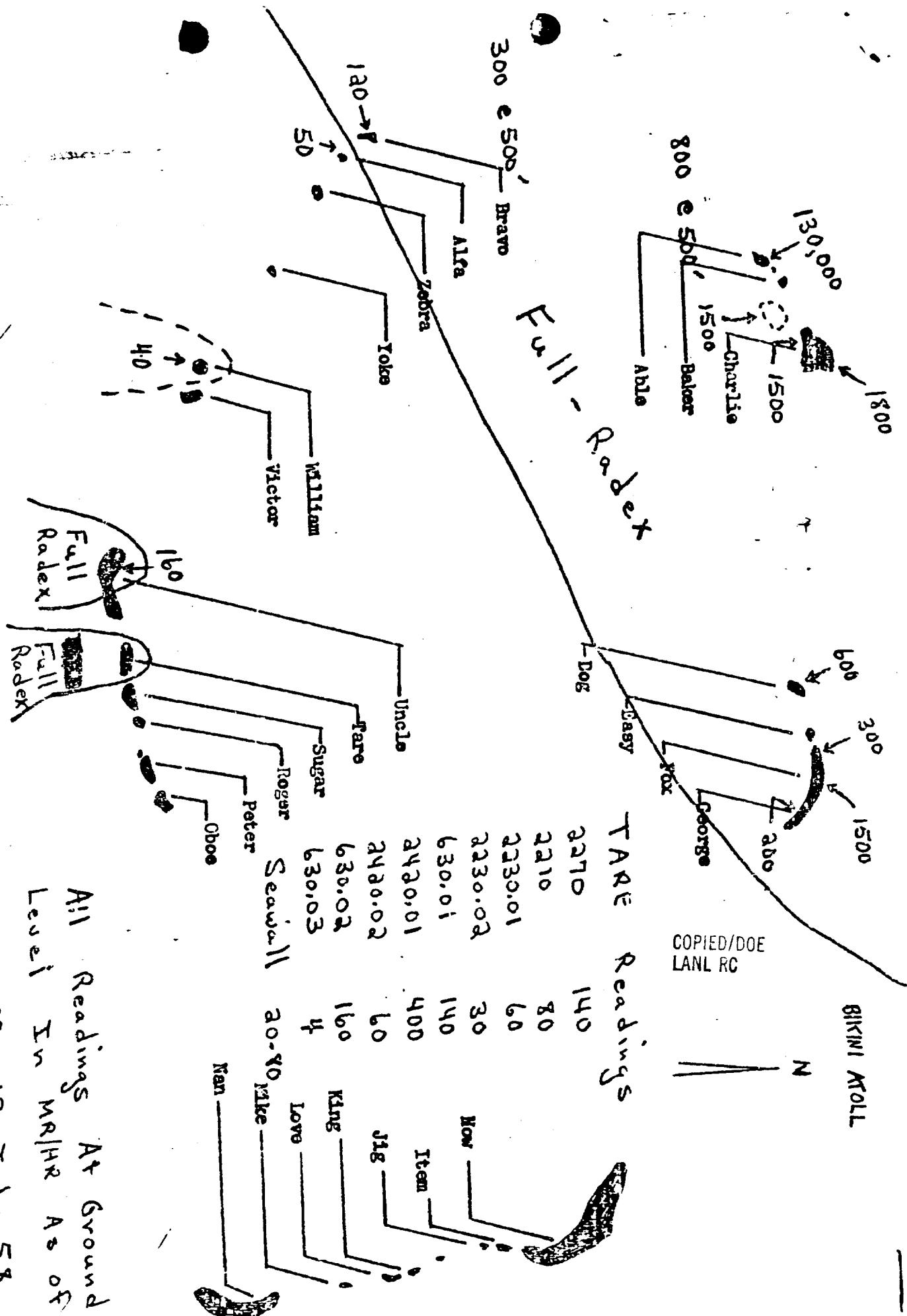
— LIMITED RADEX



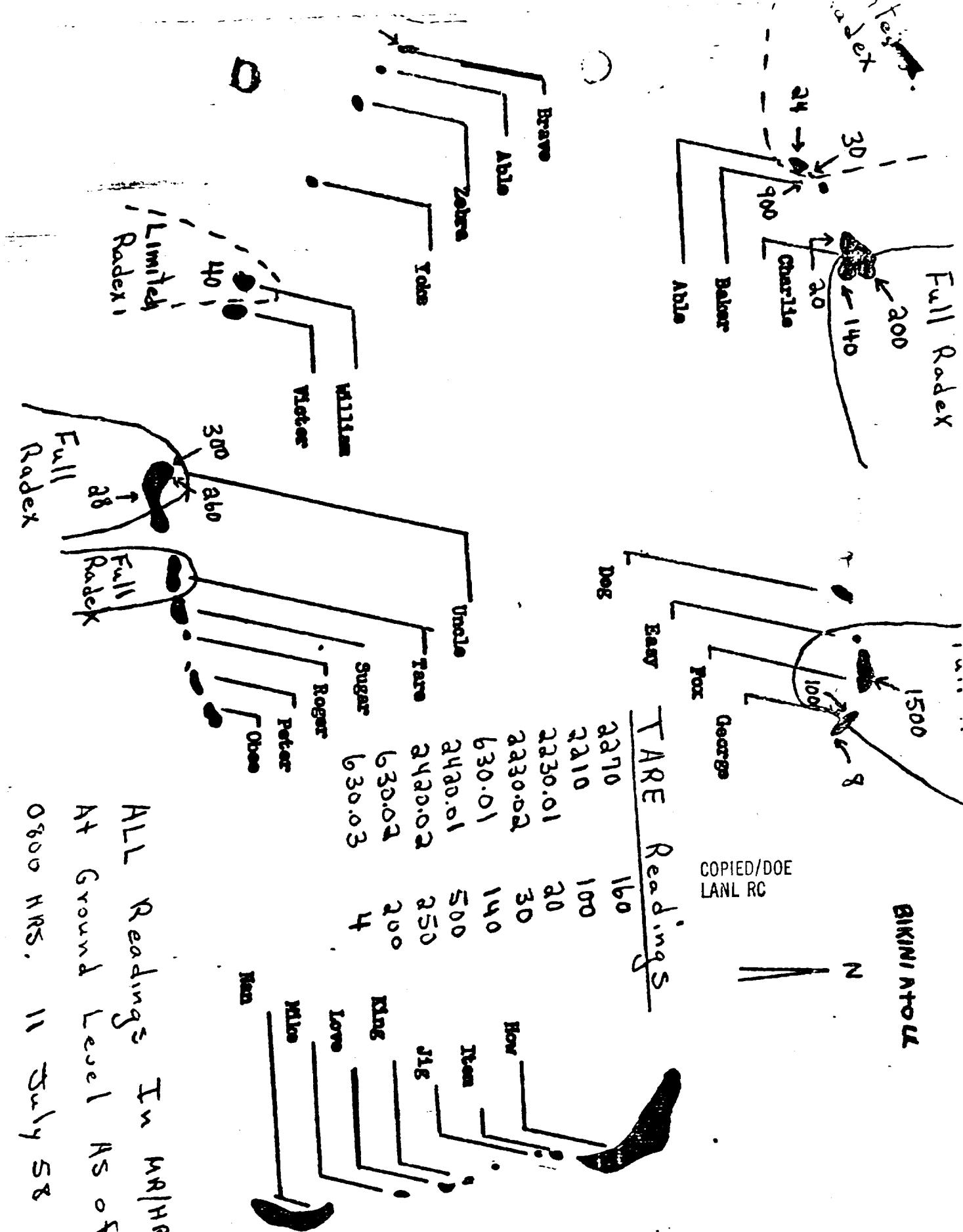
All Readiness in MR/MR

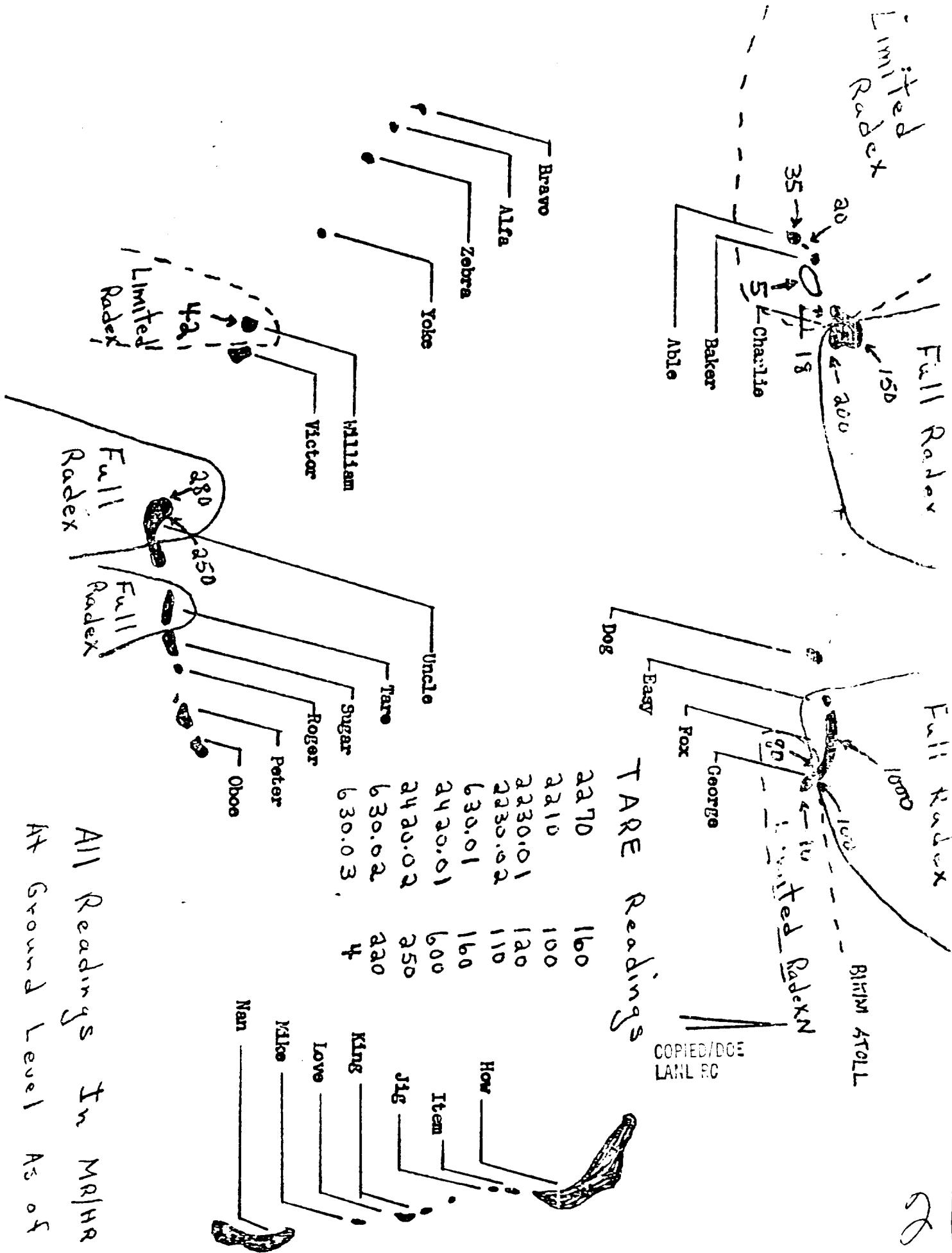
AT GROUND LEVEL AS OF

85 170541 14 JULY 1951 14251 30 MARCH 1951



All Readings At Ground
Level In MR/HR As of
1500 HRS. 13 July 58





All Readings in MR/HR

At Ground Level A.S.O.T

O GIOIAS 10 JULY 58

22

Full - Rader

230
400
4300

Limited - Rader

10 - Rader

Baker

Able

Tex

George

Easy

Dog

Uncle

Tare

Sugar

Roger

Peter

Oboe

Survey Triangle

7000

140

10

N

BIKINI ATOLL

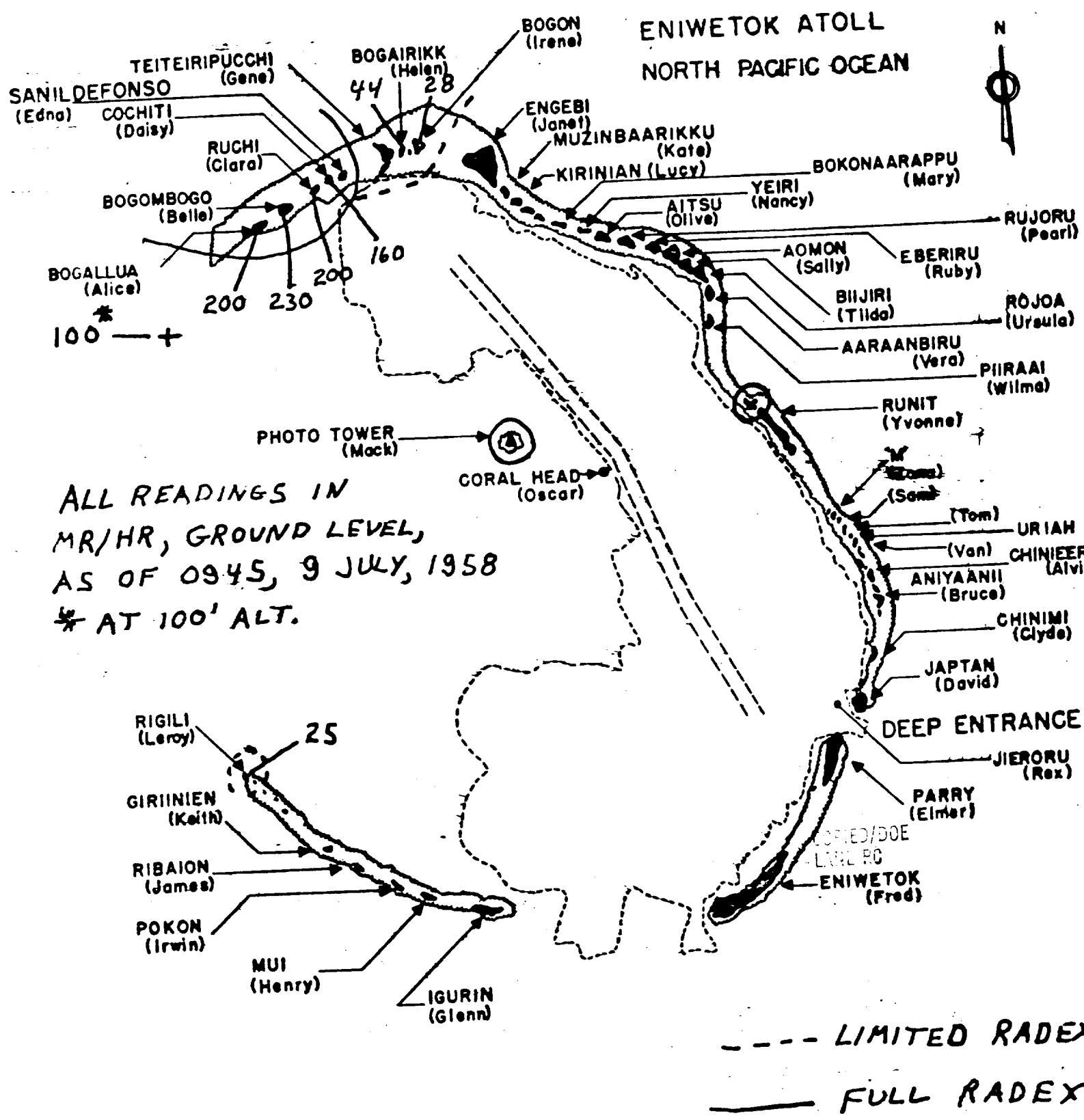
COPIED/DUE
LAHL RC

All Readings In MR/Ha
At Ground Level As Of
1030 HRS 9 July 58

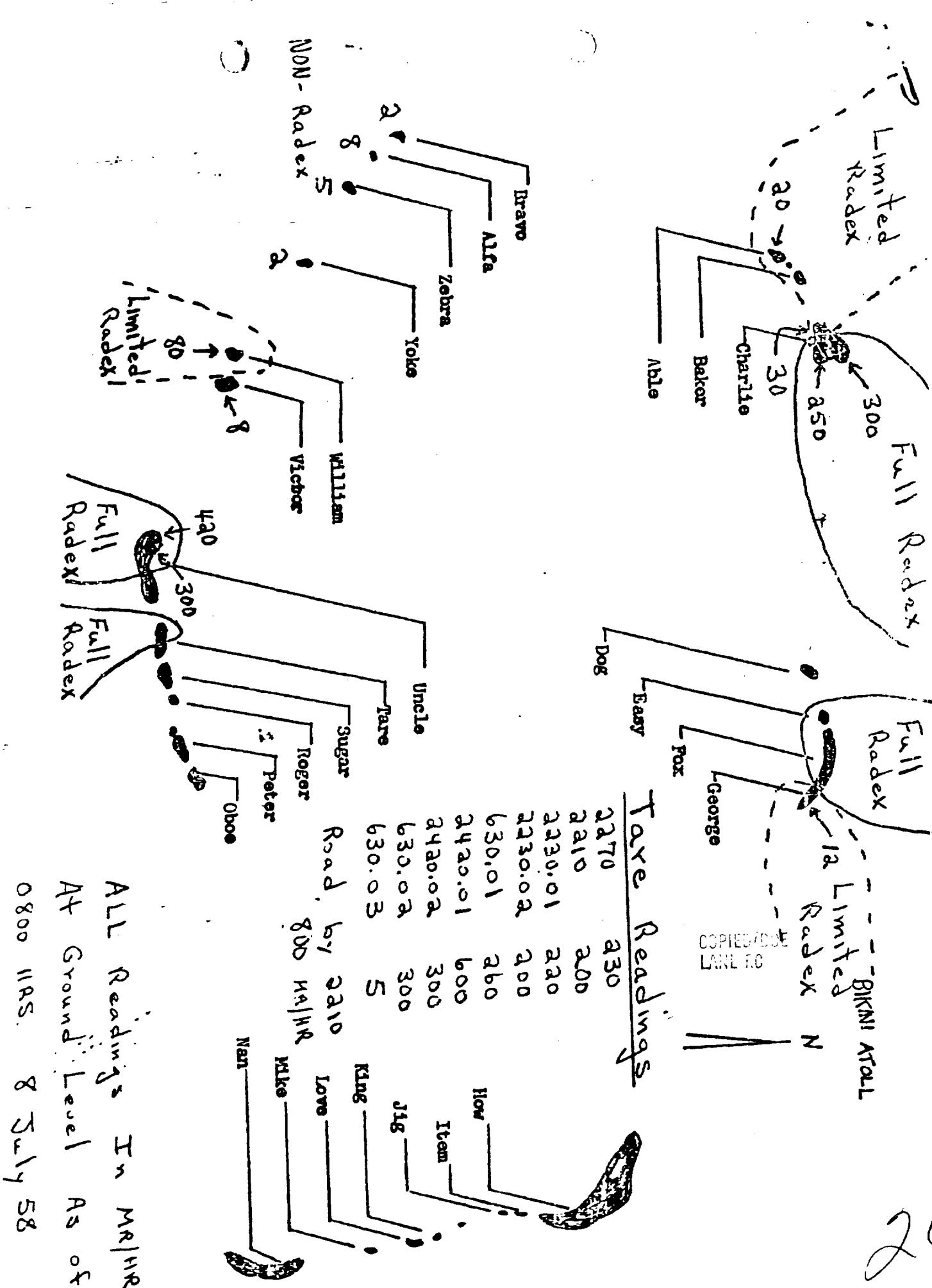
Point	Reading
Dog	2270
Uncle	2210
Tare	2230.01
Sugar	2230.02
Roger	630.01
Peter	2420.01
Oboe	2420.02
Survey Triangle	630.03
Hot Spot At Love	4
Miko	500
King	140
Jig	150
Item	200
King	600
Jig	300
Item	140
King	180

All Readings In M.R.H.R
At Ground Level A = 0.
1030 hrs 9 July 58

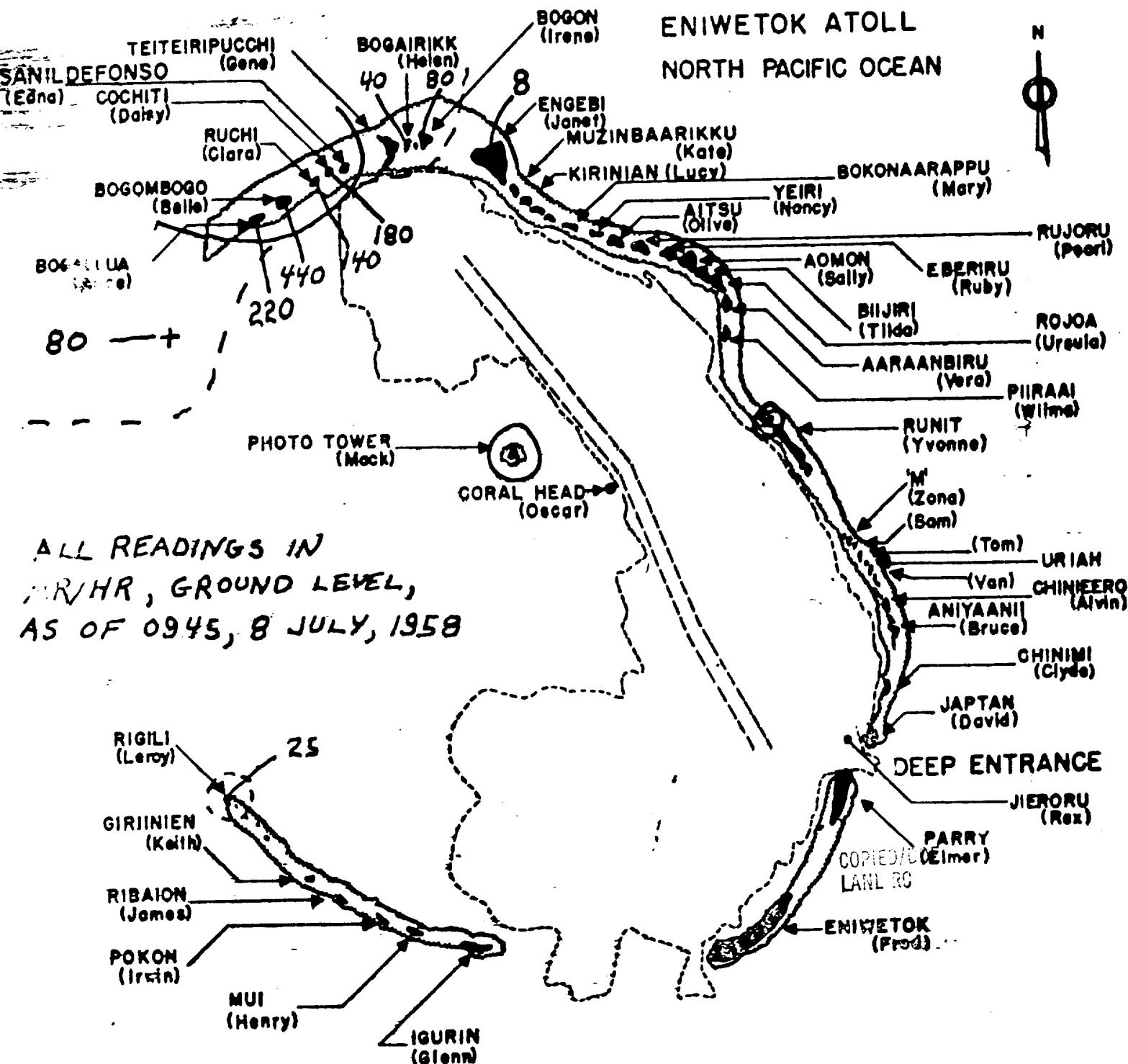
22



20



ENIWETOK ATOLL
NORTH PACIFIC OCEAN

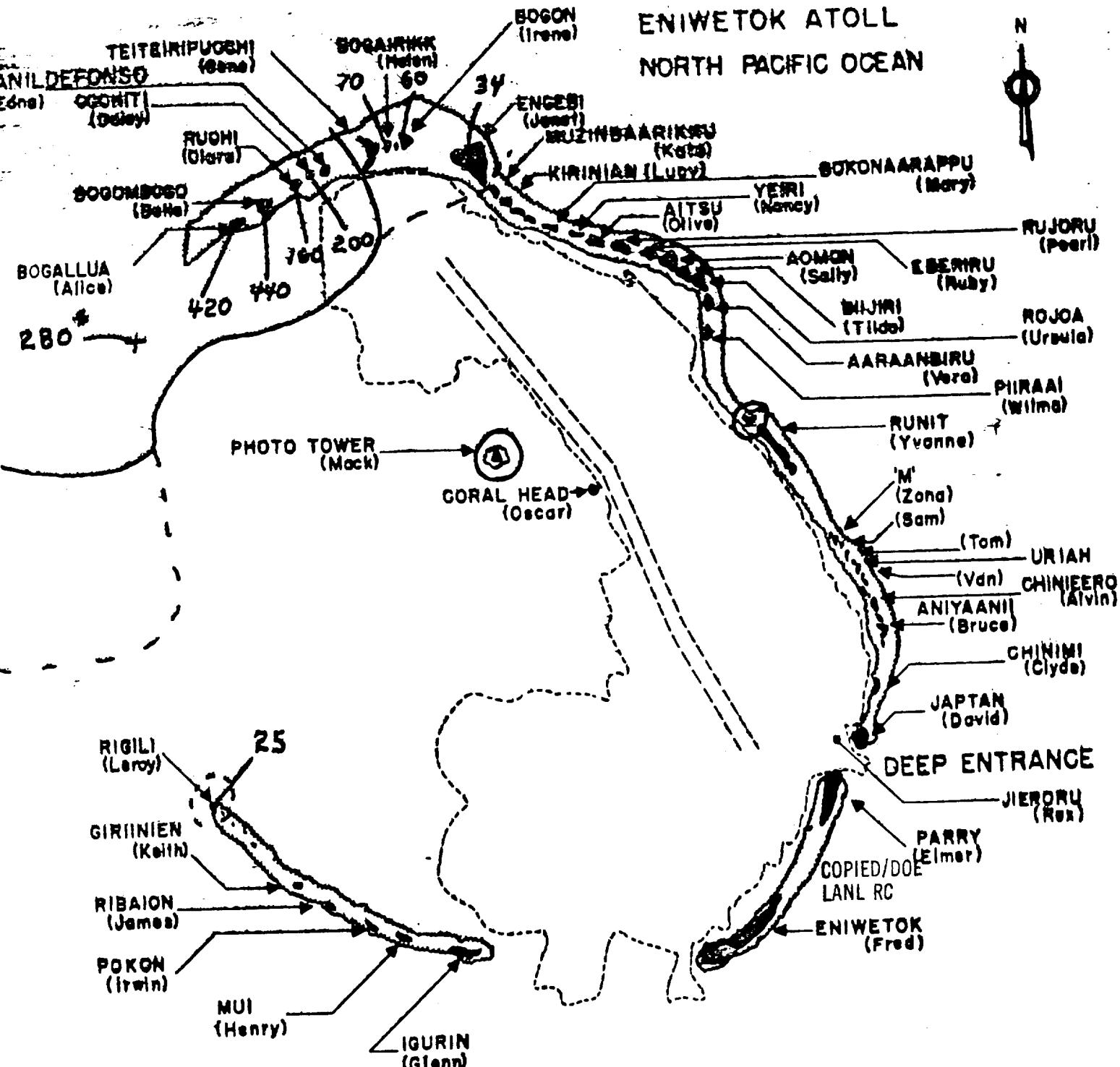


ALL READINGS IN
MRHR, GROUND LEVEL,
AS OF 0945, 8 JULY, 1958

----- LIMITED RADEX
— FULL RADEX

20

ENIWETOK ATOLL
NORTH PACIFIC OCEAN

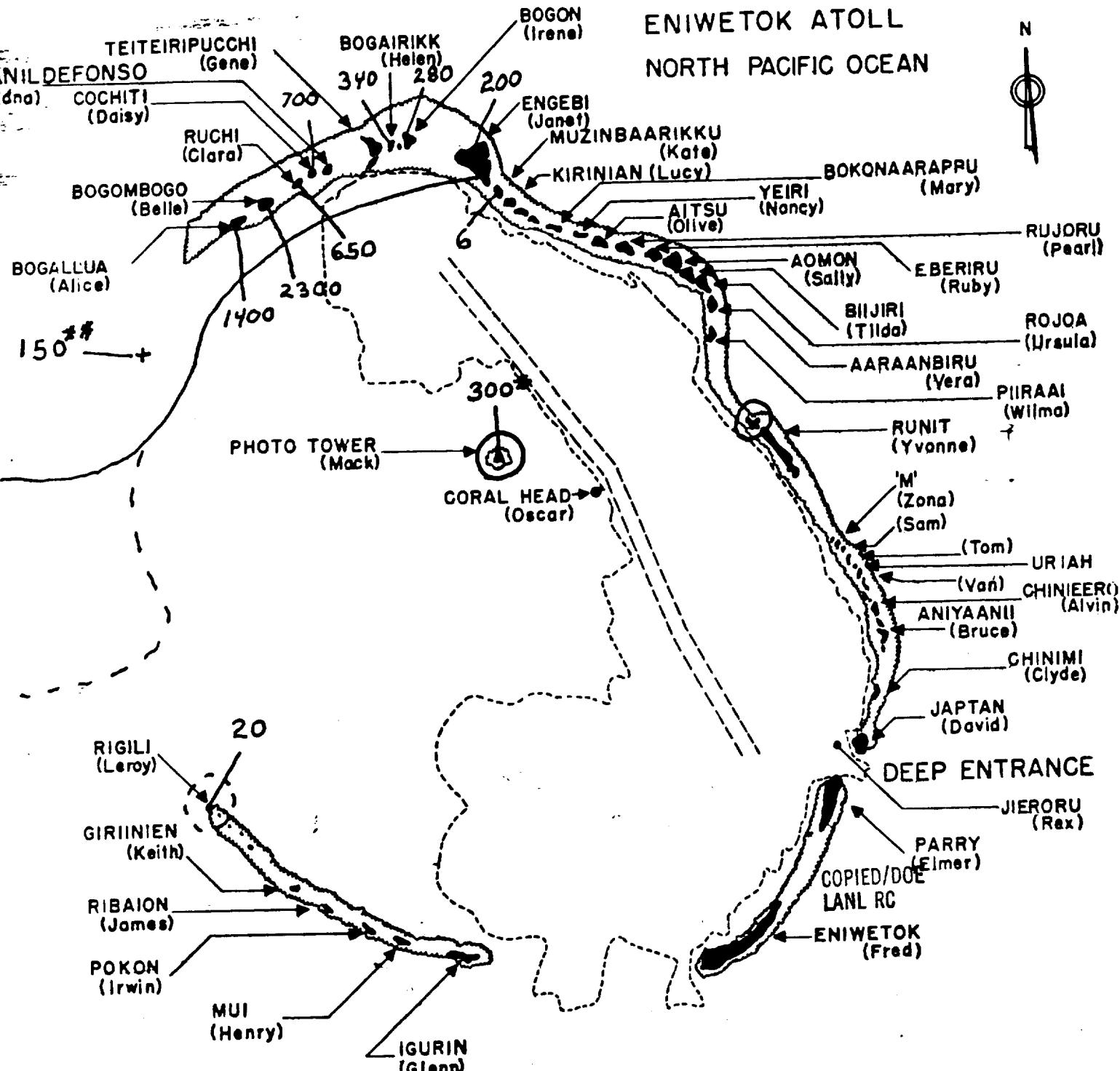


ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0945, 7 JULY, 1958
* AT 100' ALT.

----- LIMITED RADEX
— FULL RADEX

2

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



ALL READINGS IN
MRI/HR, GROUND LEVEL,
AS OF 1400, 6 JULY, 1958
* 1045 HRS., 6 JULY, 1958
** AT 200' ALT.

----- LIMITED RADEX
— FULL RADEX

2

Full - Radex

Water

Revol

Limited

Radex

60

80

100

120

140

160

180

200

220

240

260

280

300

320

340

360

380

400

420

440

460

480

500

520

540

560

580

600

620

640

660

680

700

720

740

760

780

800

820

840

860

880

900

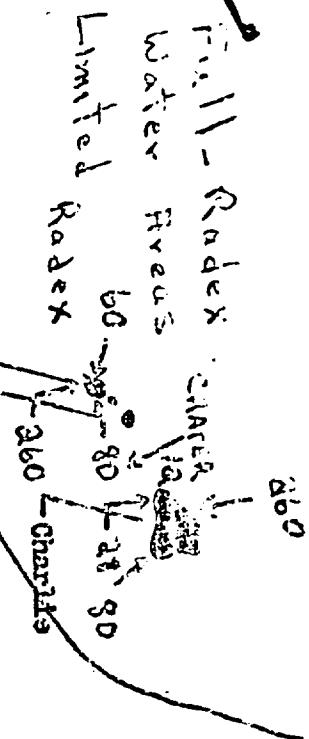
920

940

960

980

1000



630.04
630.05
630.06
630.07
630.08
630.09
630.10
630.11
630.12
630.13
630.14
630.15
630.16
630.17
630.18
630.19
630.20
630.21
630.22
630.23
630.24
630.25
630.26
630.27
630.28
630.29
630.30
630.31
630.32
630.33
630.34
630.35
630.36
630.37
630.38
630.39
630.40
630.41
630.42
630.43
630.44
630.45
630.46
630.47
630.48
630.49
630.50
630.51
630.52
630.53
630.54
630.55
630.56
630.57
630.58
630.59
630.60
630.61
630.62
630.63
630.64
630.65
630.66
630.67
630.68
630.69
630.70
630.71
630.72
630.73
630.74
630.75
630.76
630.77
630.78
630.79
630.80
630.81
630.82
630.83
630.84
630.85
630.86
630.87
630.88
630.89
630.90
630.91
630.92
630.93
630.94
630.95
630.96
630.97
630.98
630.99
630.100

1000
900
800
700
600
500
400
300
200
100
0

Full - Radex

Water

Revol

Limited

Radex

60

80

100

120

140

160

180

200

220

240

260

280

300

320

340

360

380

400

420

440

460

480

500

520

540

560

580

600

620

640

660

680

700

720

740

760

780

800

820

840

860

880

900

920

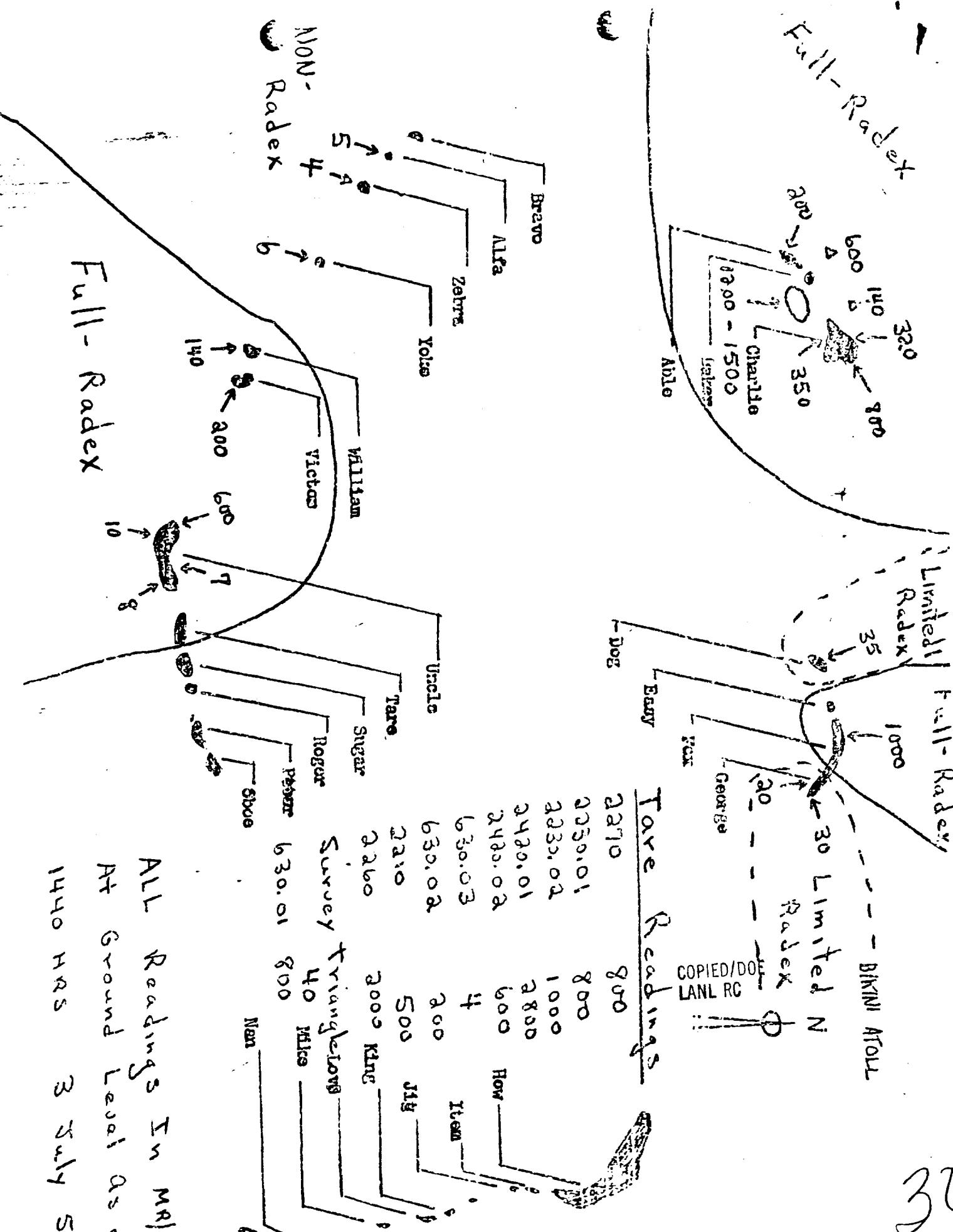
940

960

980

1000

All Readings In MNRHR
At Ground Level As Of
0830 hrs. 5 July 58



30

450 Full - Radex 18000

BIKINI ATOLL

30

Limited
RADEX

30

380

30
20
RADEX

500

20

RADEX

300

20

RADEX

TARE Readings

1300

2000

3000

4000

5000

6000

7000

8000

9000

10000

11000

12000

13000

14000

15000

16000

17000

18000

19000

20000

21000

22000

23000

24000

25000

26000

27000

28000

29000

30000

31000

COPIED/DONE
ANL RC

Dog

Easy

Fox

Nile

Baker

George

Uncle

Taro

Sugar

Roger

Polar

Oboe

Man

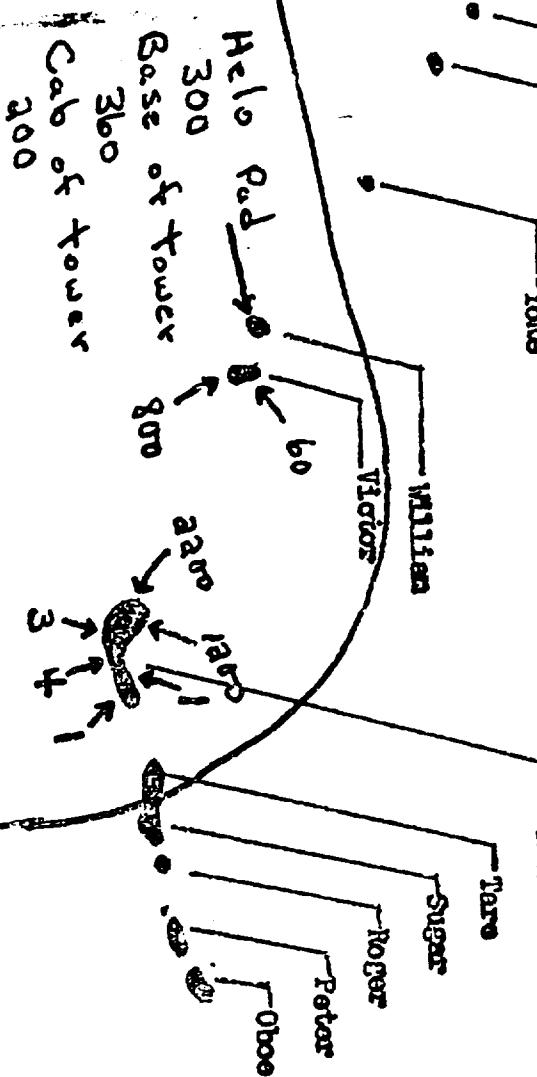
Survey Triangle Low

400 Miles

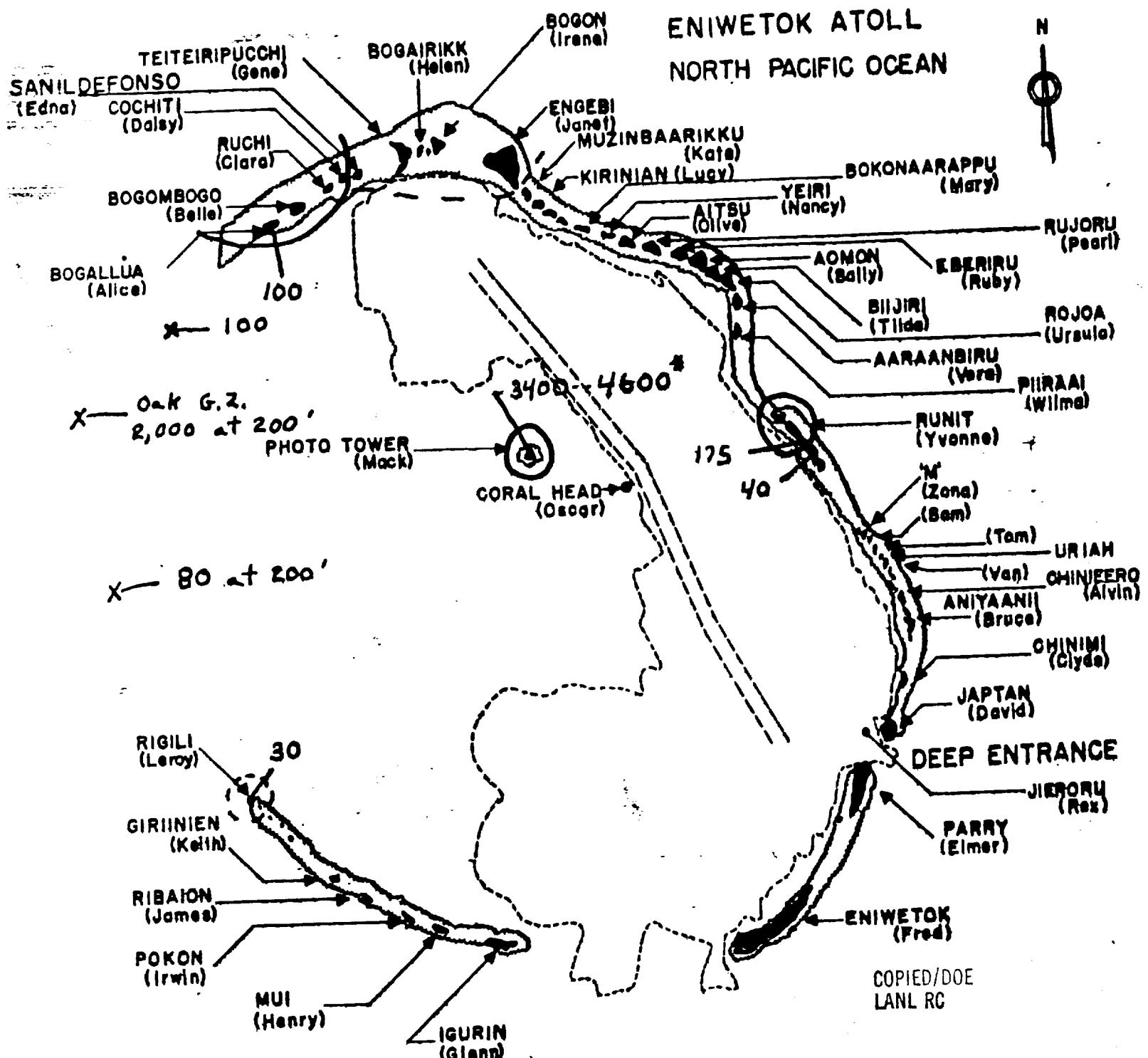
Man

ALL Readings In MAJ/HR
At Ground Level As Of
1500 HRS 2 July 58

Full - Radex



ENIWETOK ATOLL
NORTH PACIFIC OCEAN



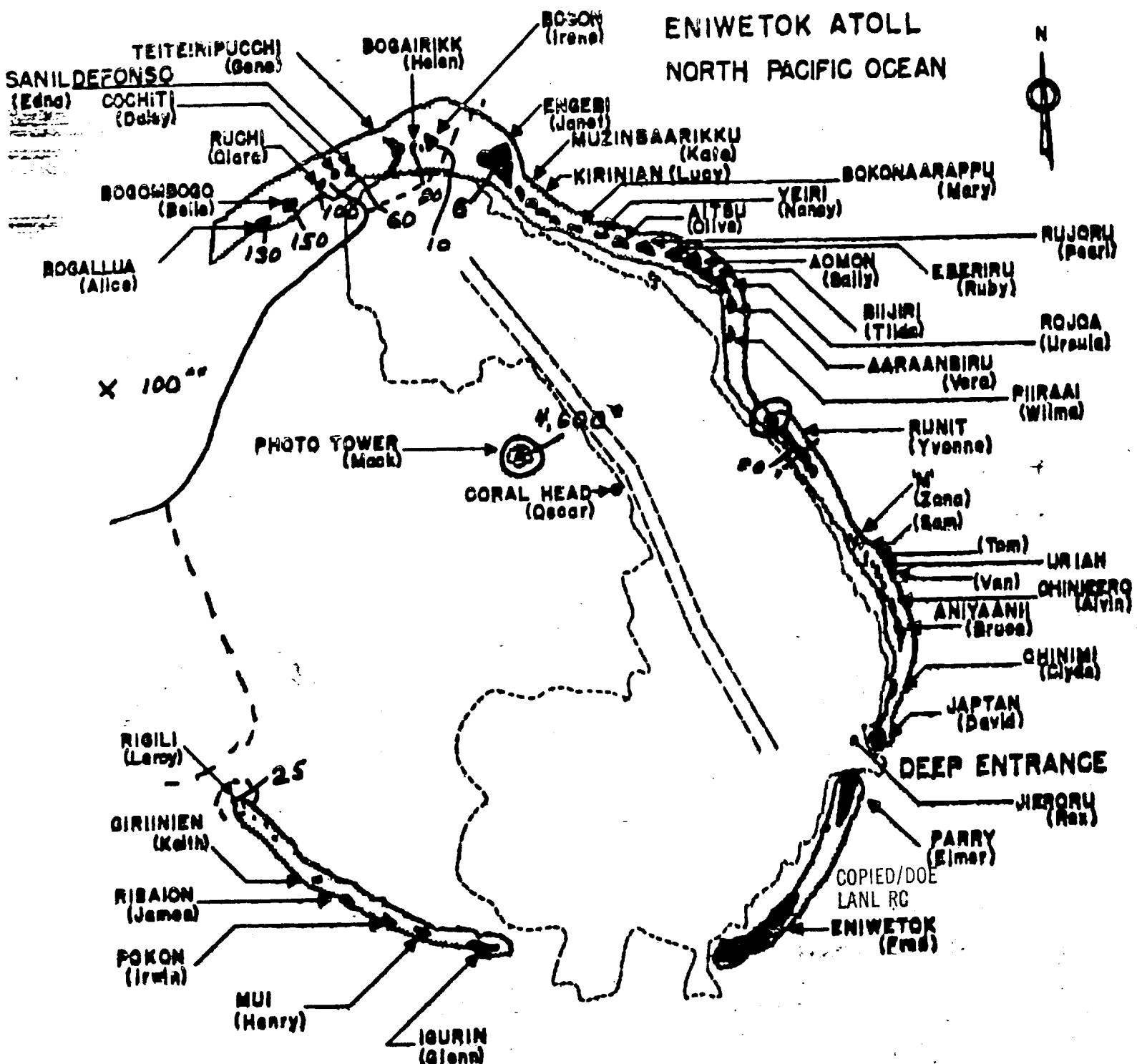
ALL READINGS IN
MR/HR, AS OF 1500,
2 JUNE, 1958

----- LIMITED RADEX
— FULL RADEX

* Lower Platform - 3400
Upper Platform - 4600

32

ENIWETOK ATOLL
NORTH PACIFIC OCEAN

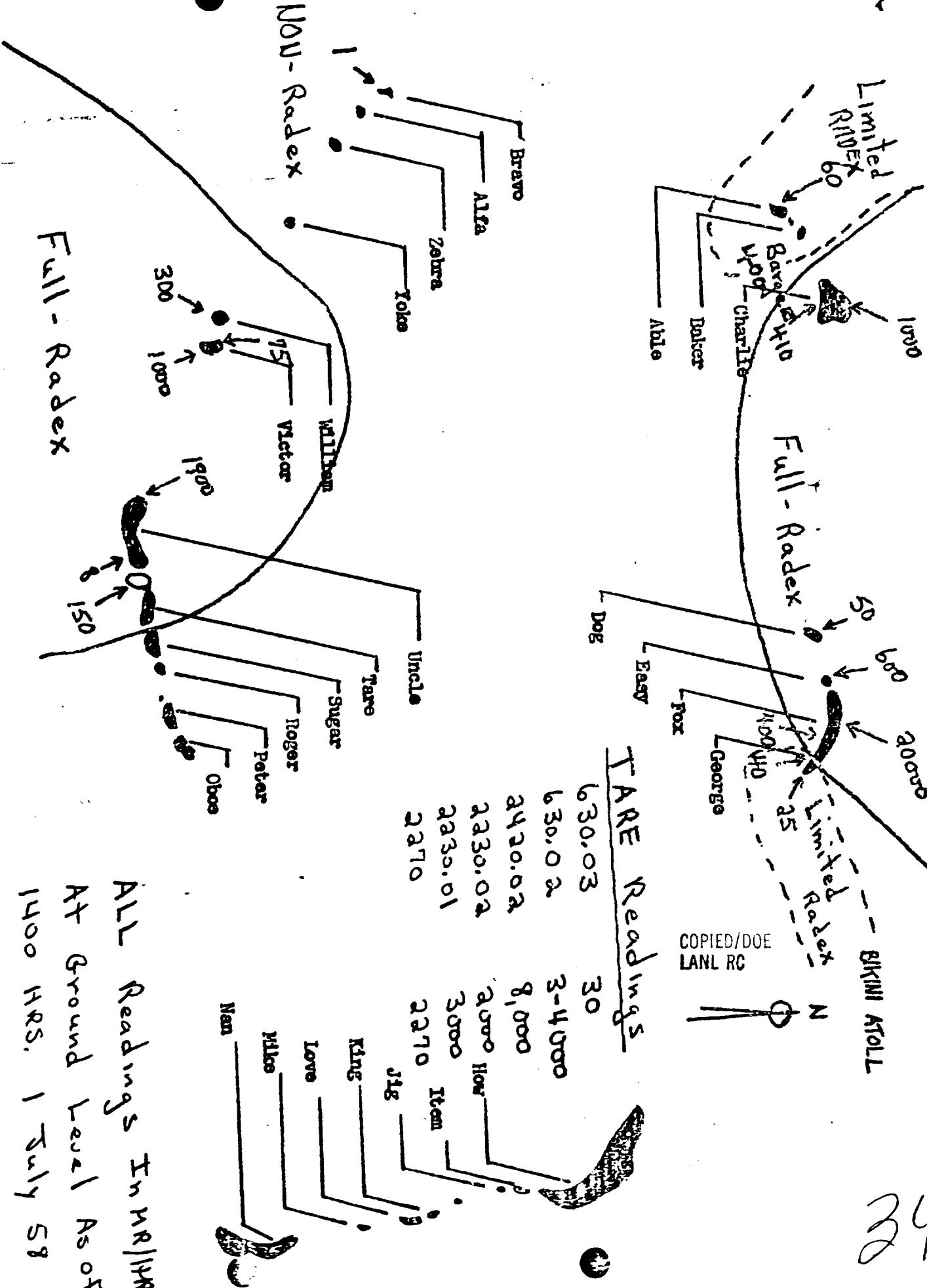


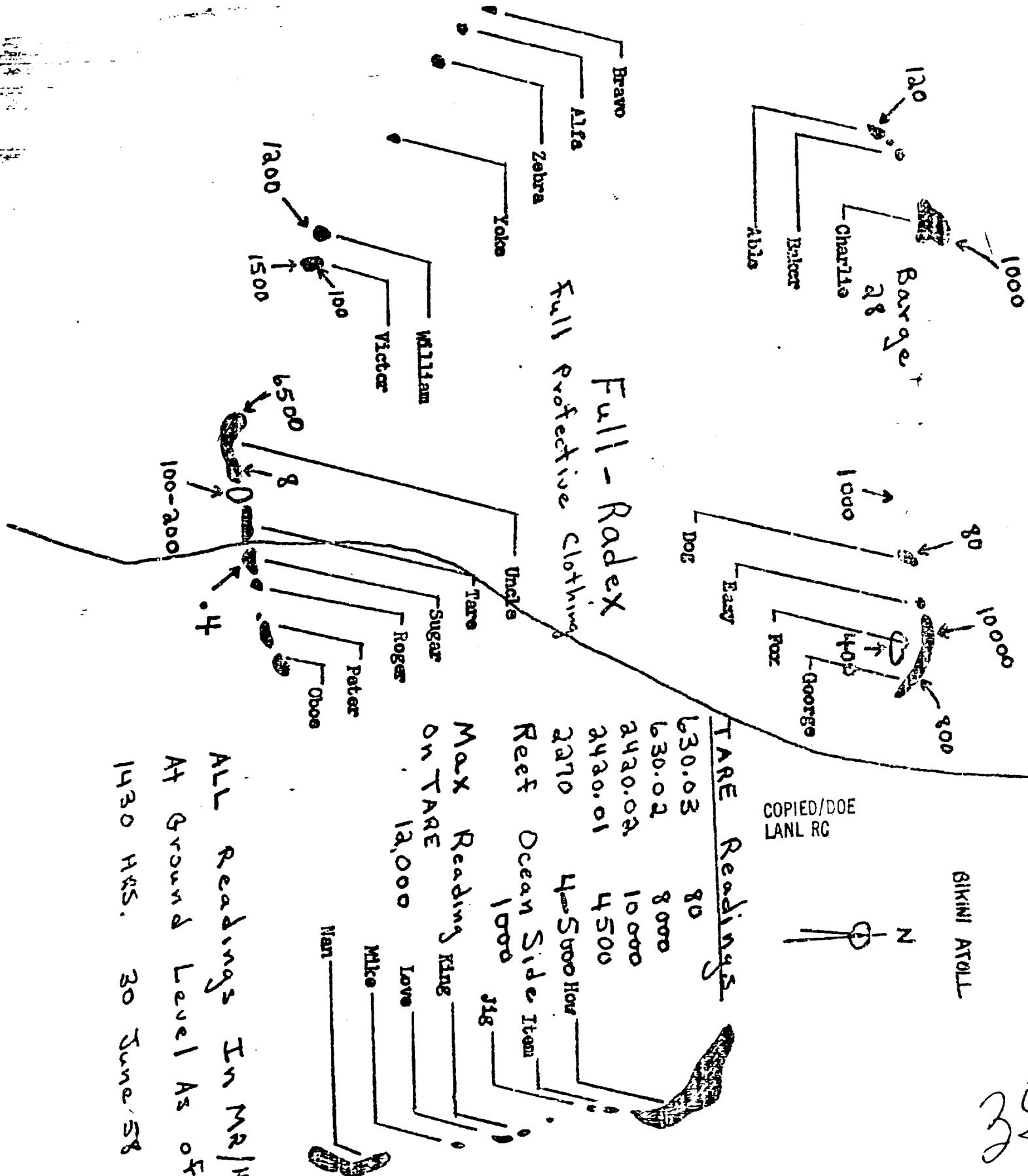
ALL READINGS IN MR/INR,
GROUND LEVEL, AS OF 0815
HRS, 3 JULY 1958

* 0815 HRS 3 JULY
** READING AT 200' ACT.

— FULL PAGE
- - - - LIMITED PAGE

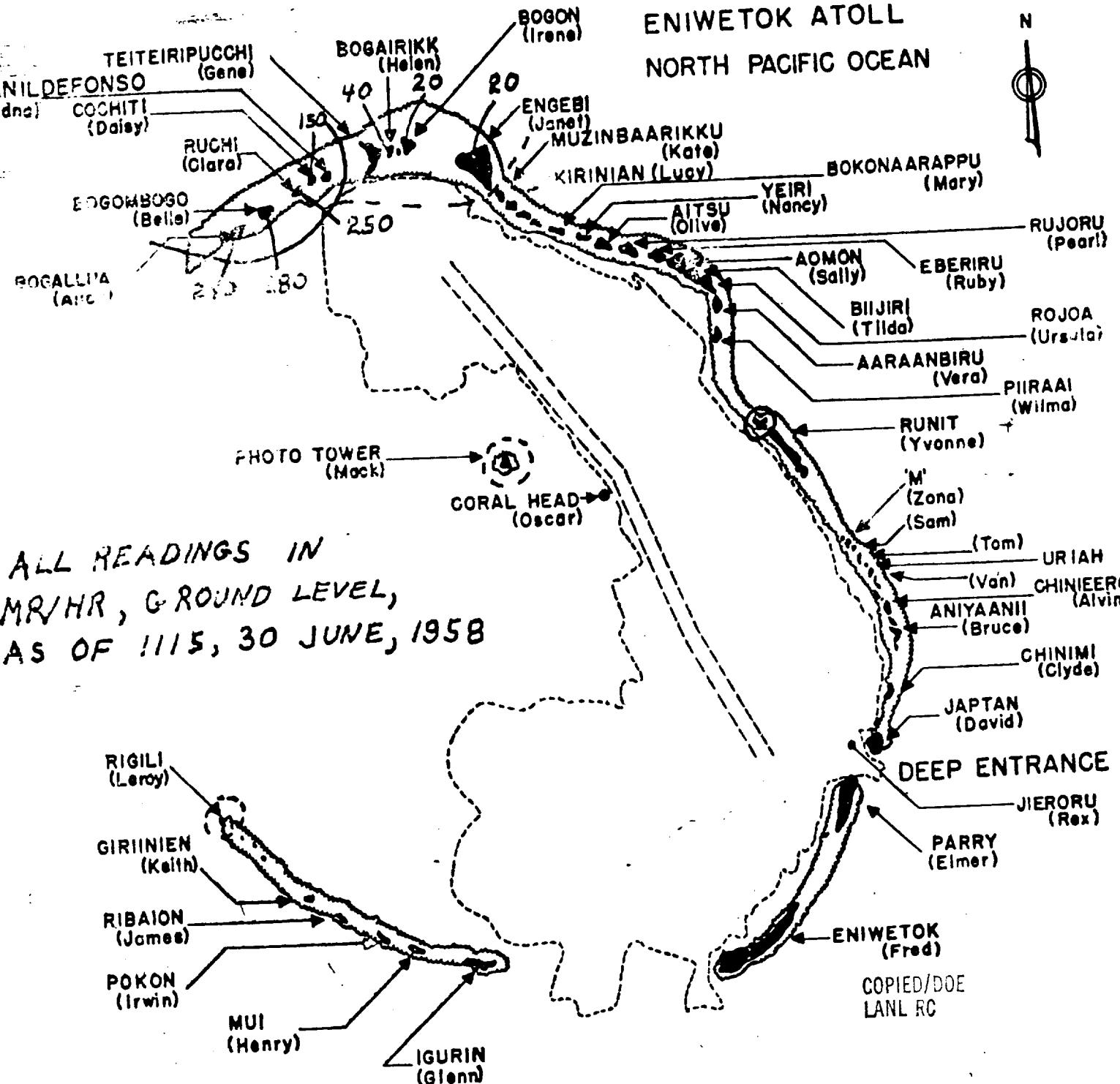
3





ALL Readings In M²/H
At Ground Level As of
1430 Hrs. 30 June 58

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



— — — LIMITED RADEX

— — — FULL RADEX

31

ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 1115, 30 JUNE, 1958

P-1

BIKINI ATOLL

200

150

→ 300 →

8000

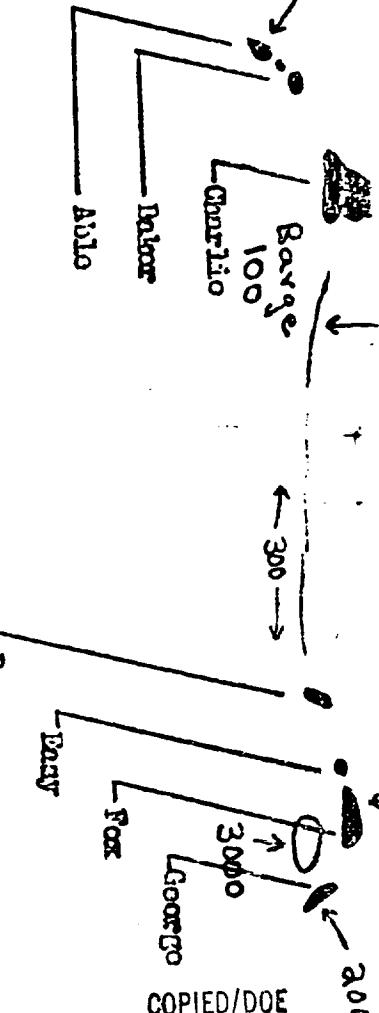
2000

3000

George

COPIED/DOE
LANL RC

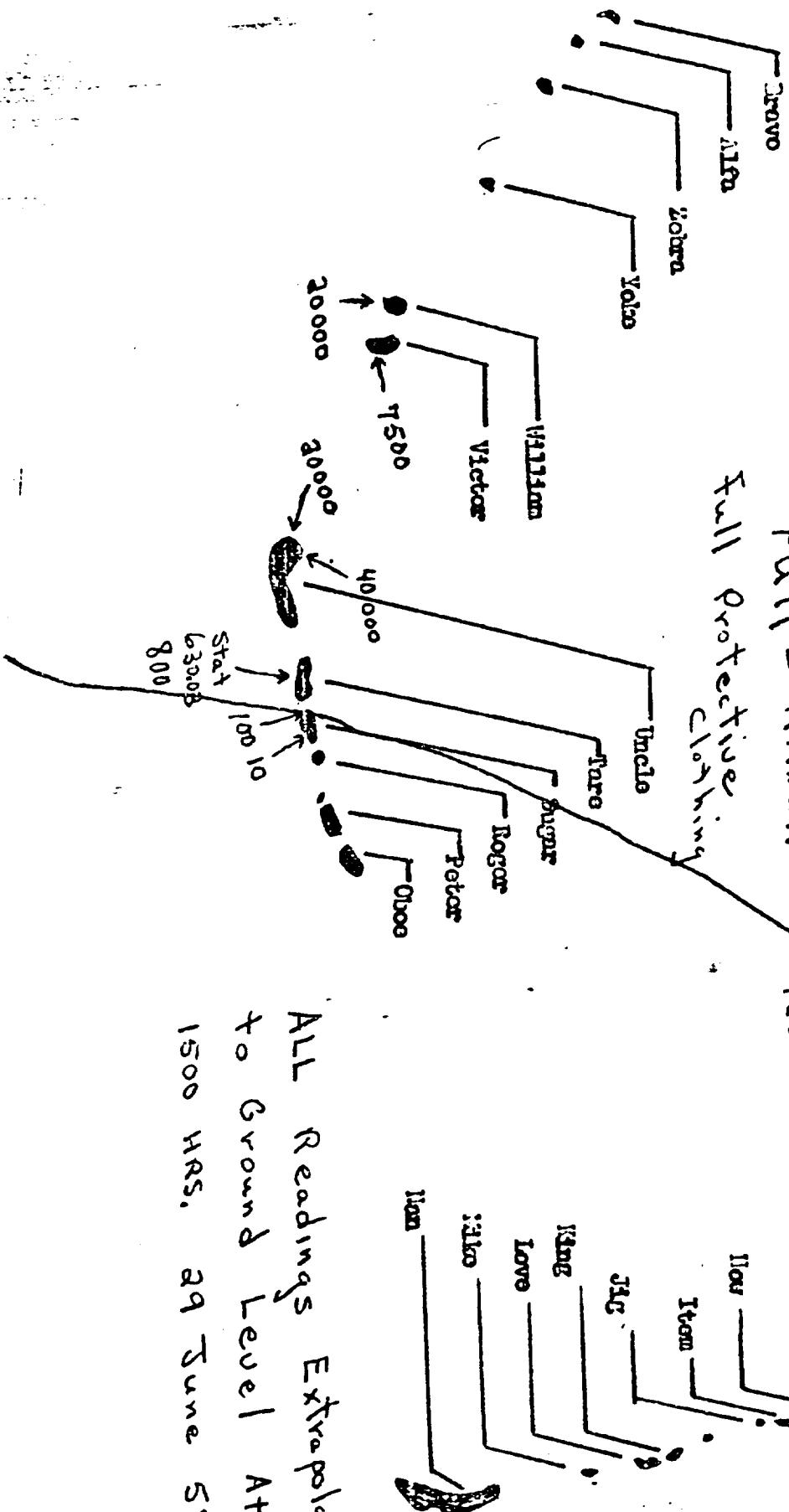
N



Full - RADEX

Full Protective Clothing

NON - RADEX



BARGE

Full - RADEX

Beck - 550 8000
Surrounding water - 30

400

800

160

1200

8000

5500

16000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

12000

8000

4000

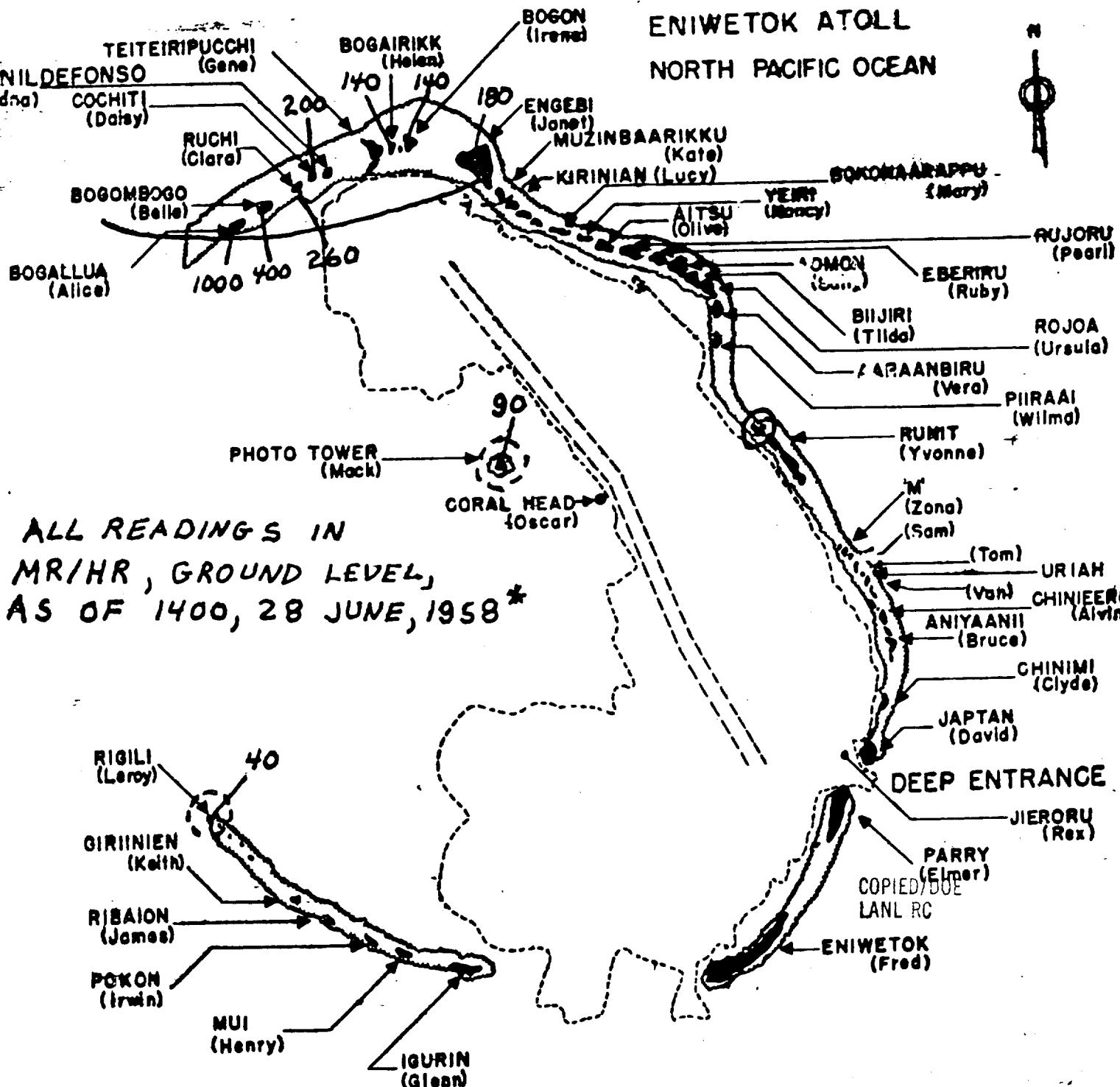
12000

8000

4000

12000

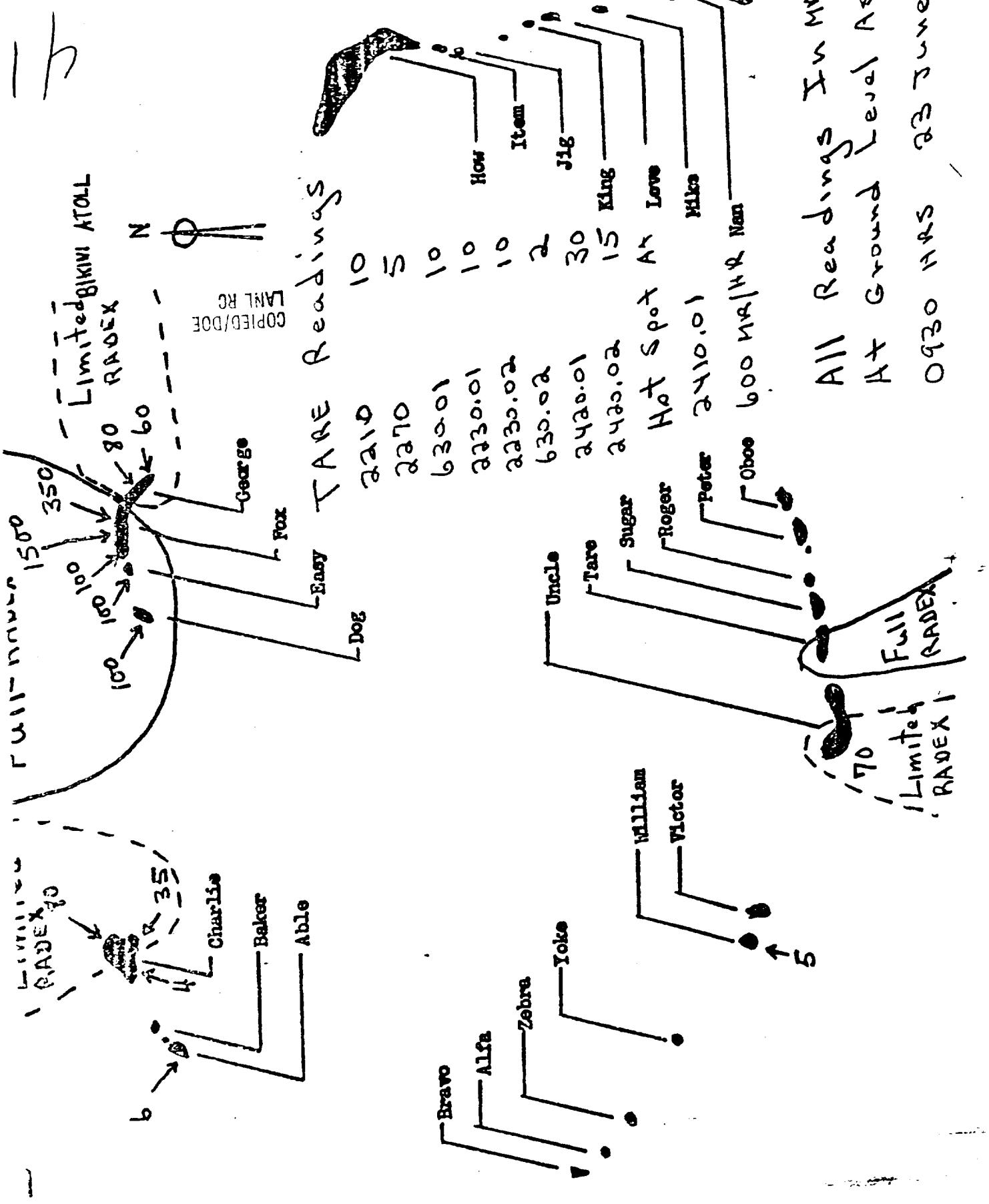
ENIWETOK ATOLL
NORTH PACIFIC OCEAN



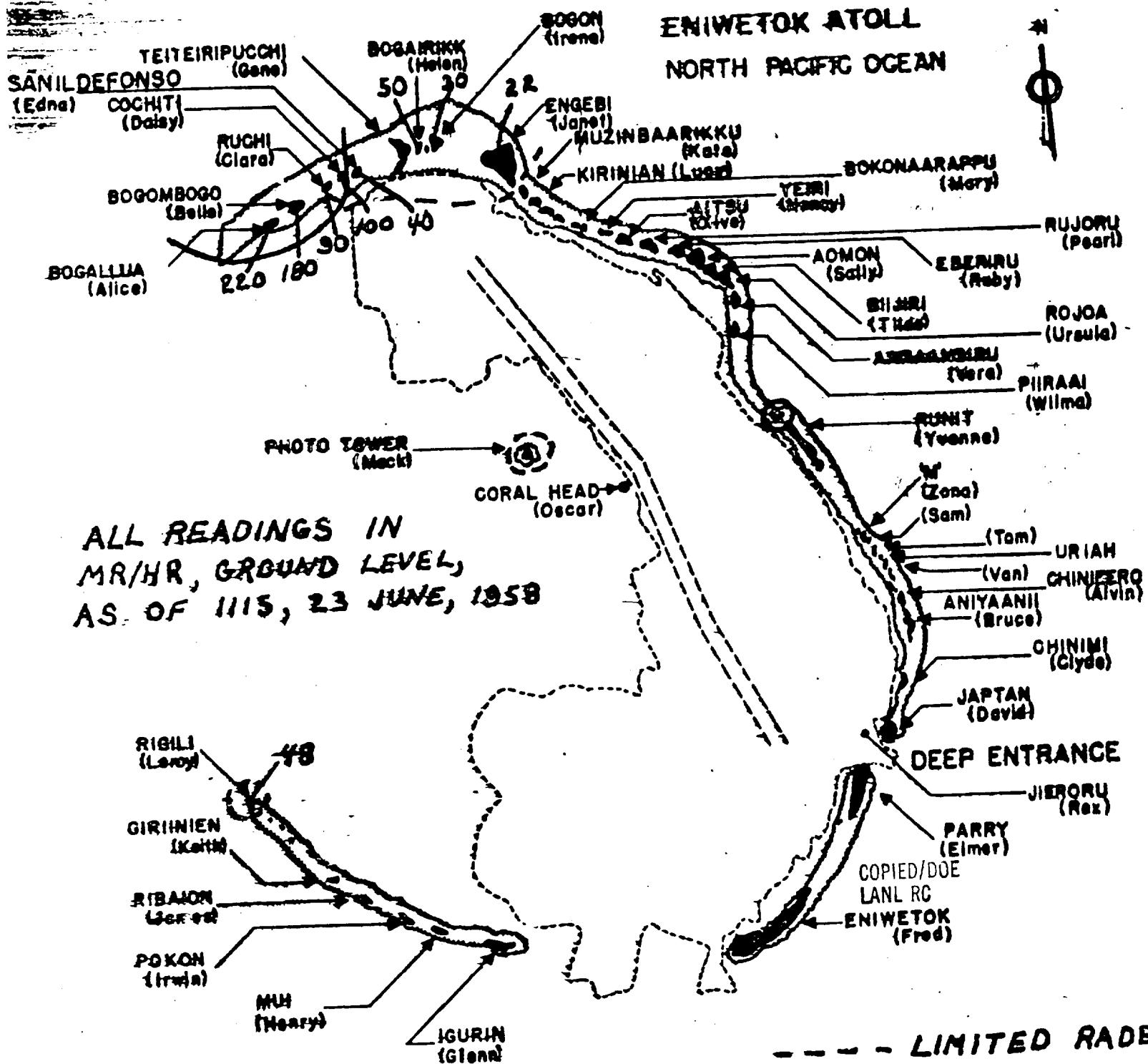
ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 1400, 28 JUNE, 1958*

* MACK PHOTO TOWER READING
AS OF 1100, 28 JUNE, 1958

----- LIMITED RADEX
— FULL RADEX



ENIWETOK ATOLL
NORTH PACIFIC OCEAN



Full - KAUDEX

Full - RADEX

COPIED/DUE
LANL RC

BURN ATOLL

N

TARE Readings

5

10

15

20

25

30

35

40

45

50

55

60

65

70

75

80

85

90

95

100

Hour Item Jig

King

10

4

10

15

20

25

30

35

40

45

50

55

60

65

70

75

80

85

90

95

100

Hot Spot At Low Miss

1000 mAh

Max

Min

Tare

Uncle

Dog

Fox

George

Charlie

Able

Baker

Zebra

Alfa

Bravo

Yoke

William

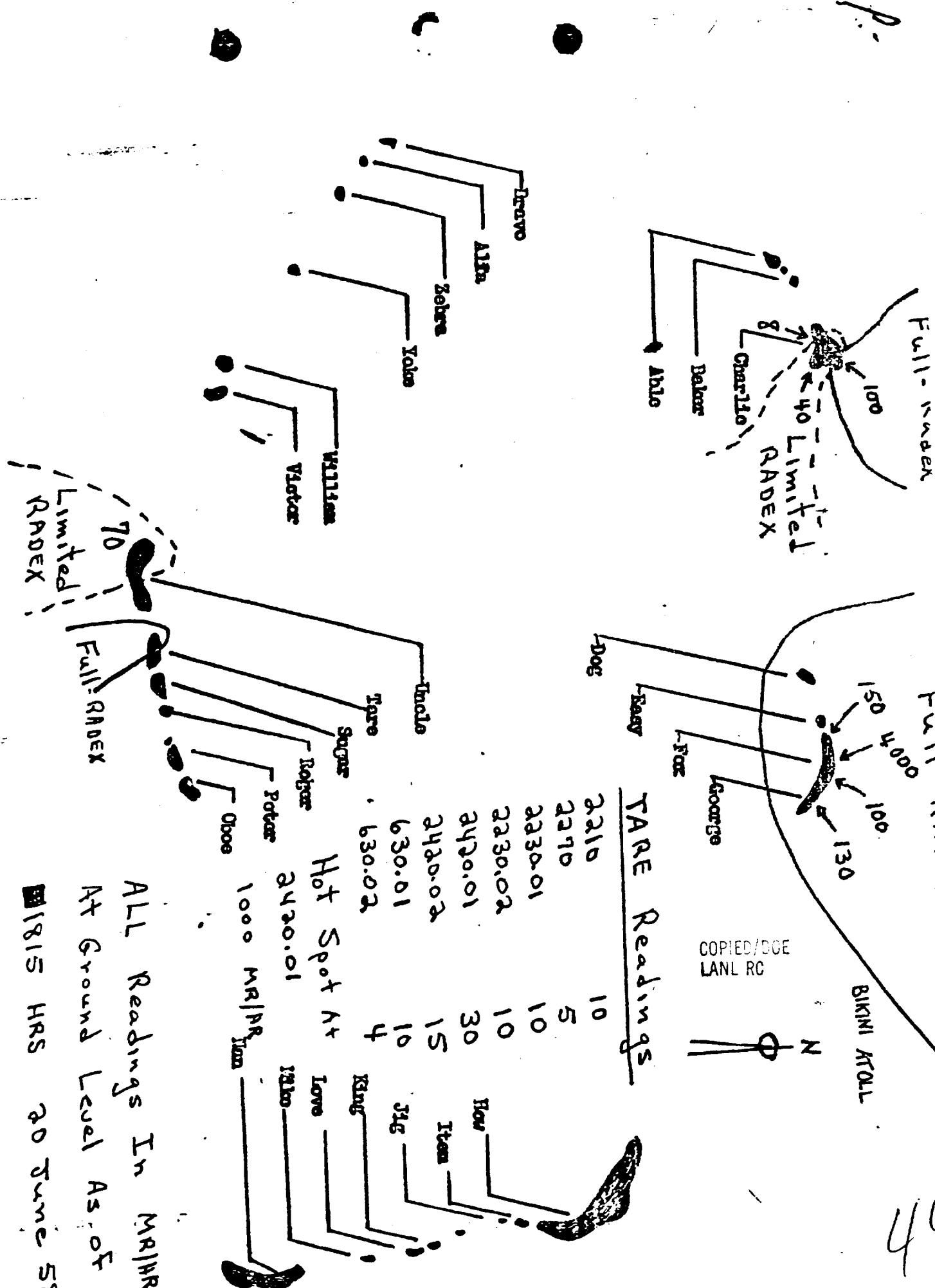
Motor

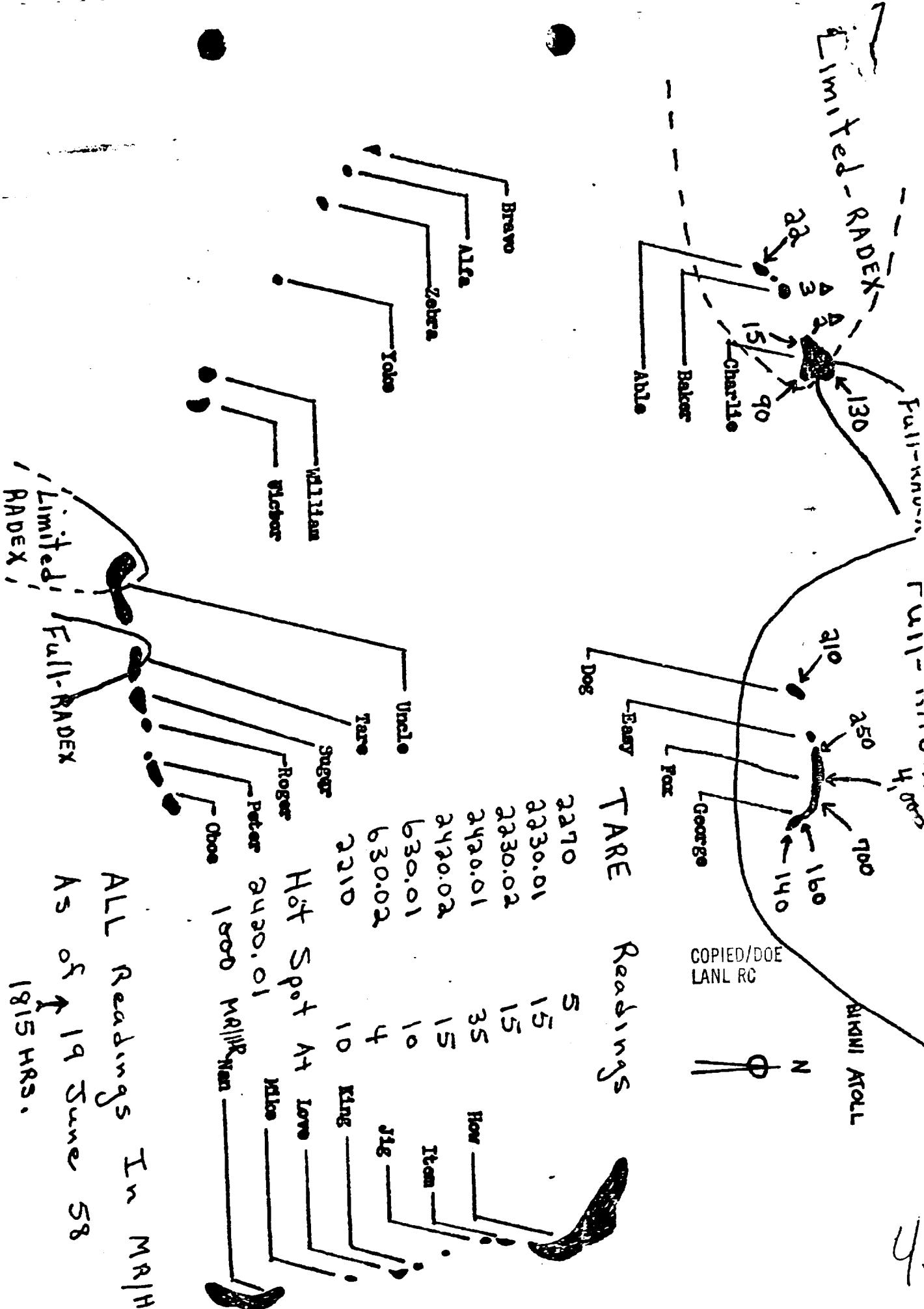
Full
RADEX

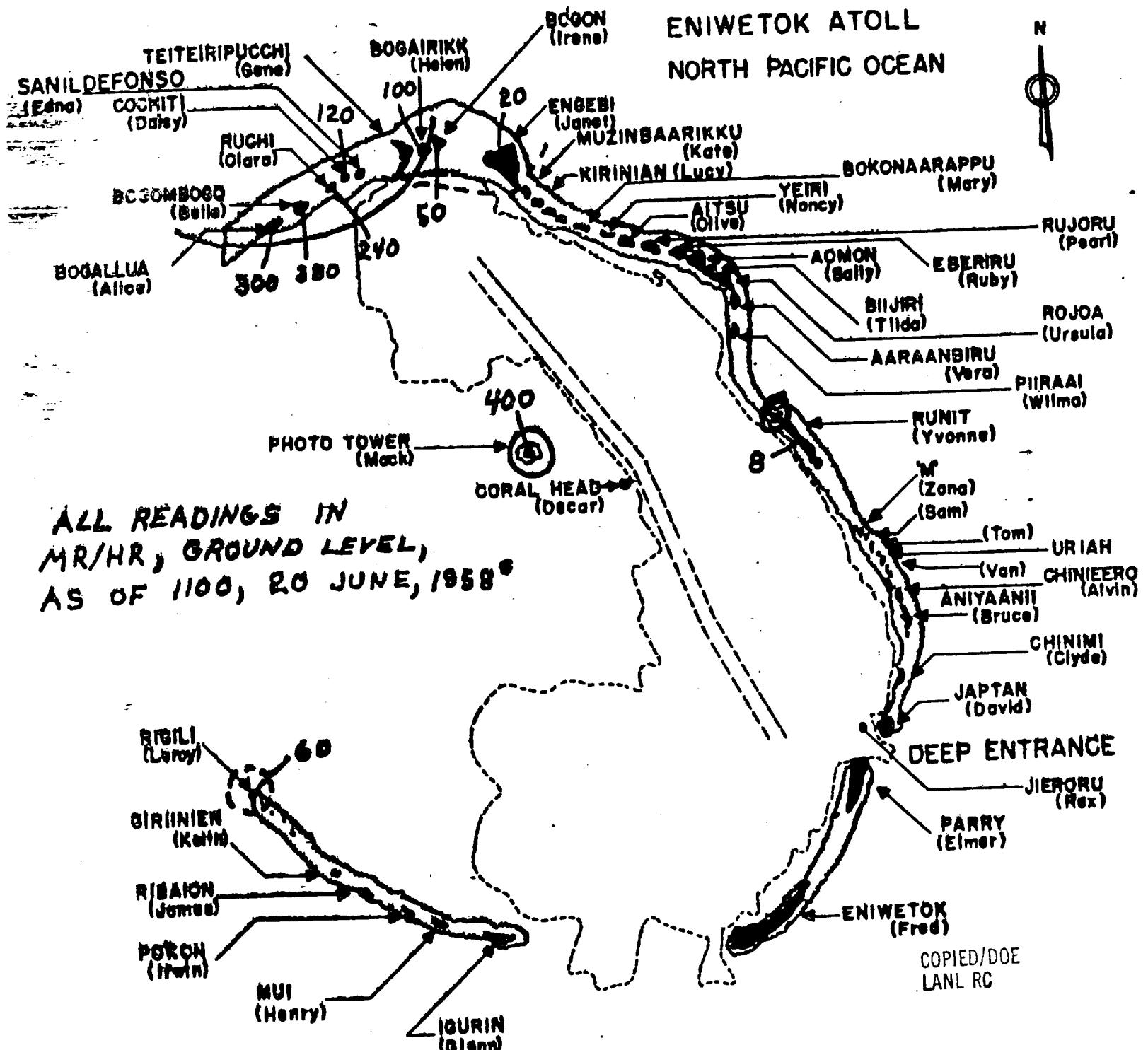
Limited

Full
RADEX

1

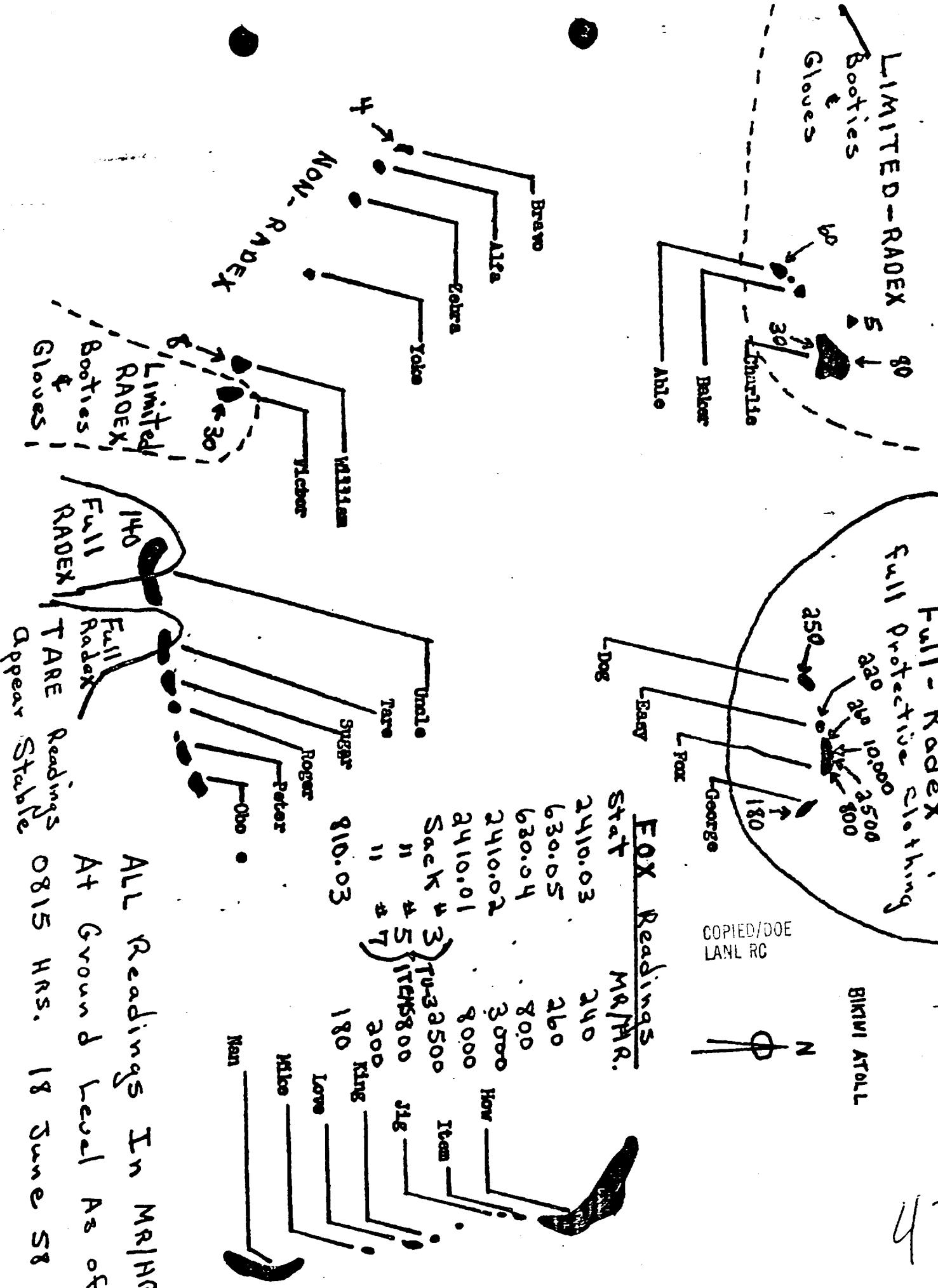




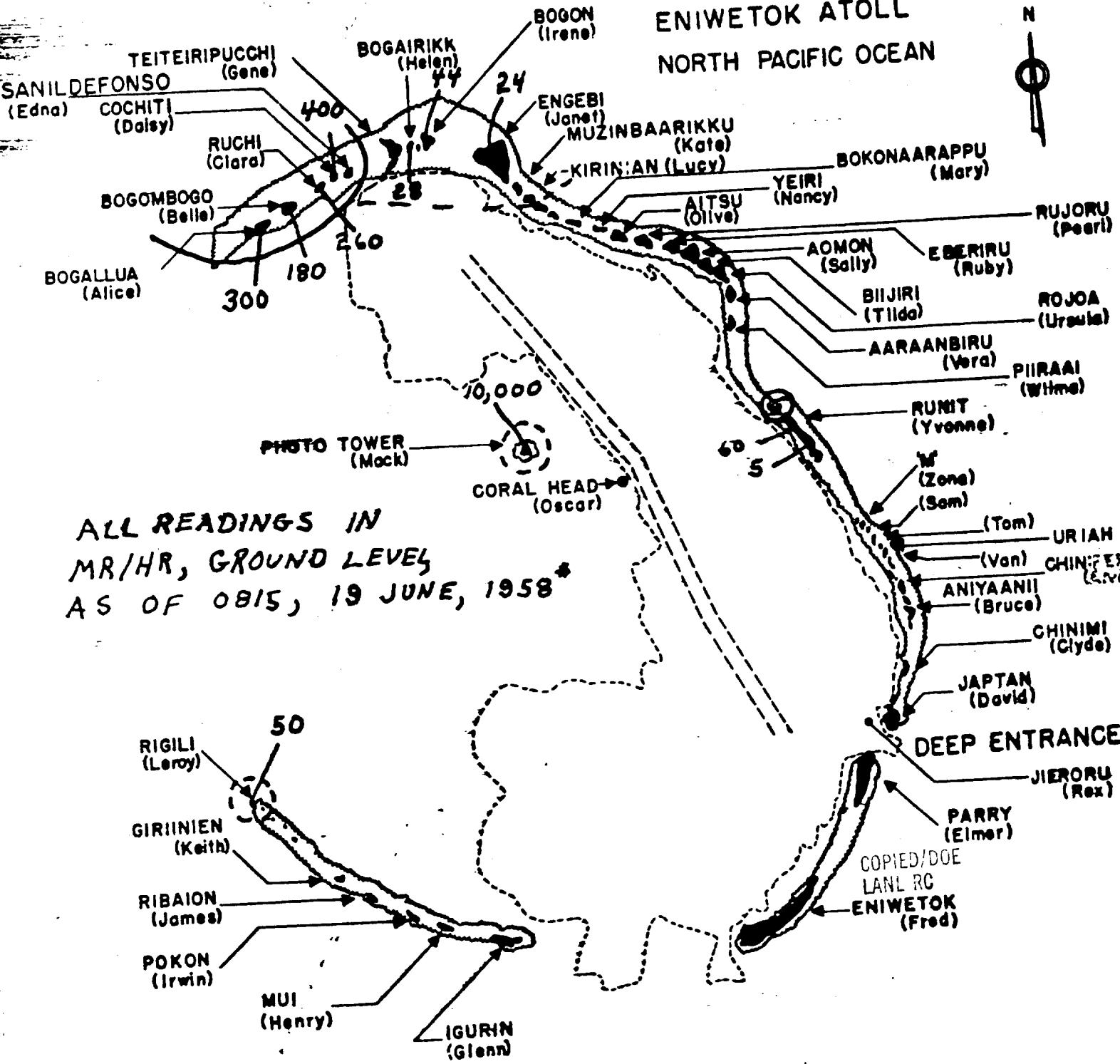


* MACK PHOTO TOWER READING
 AS OF 1300, 19 JUNE, 1958.

- - - LIMITED RADEX
 — FULL RADEX

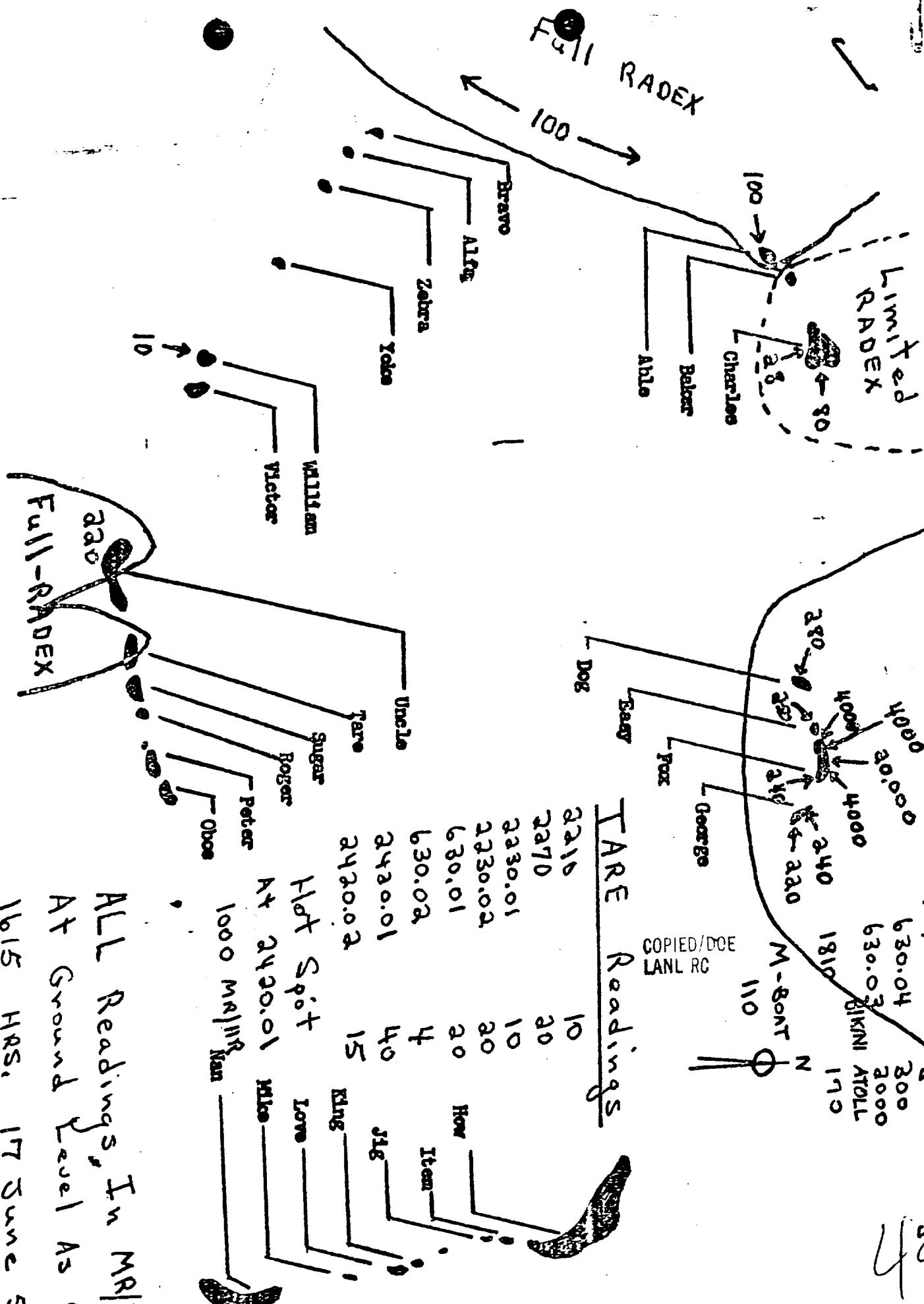


ENIWETOK ATOLL
NORTH PACIFIC OCEAN



ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0815, 19 JUNE, 1958*

* Mack Photo Tower As
OF 1700; 18 June, 1958.



ENIWETOK ATOLL
NORTH PACIFIC OCEAN

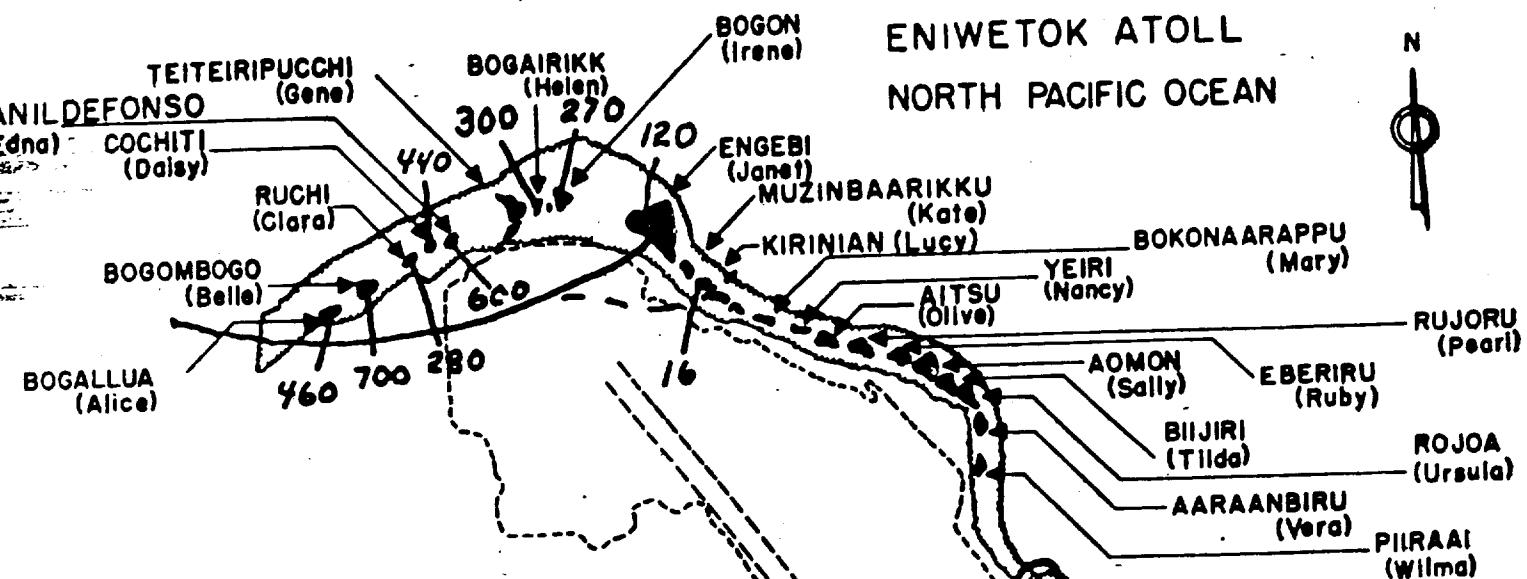


PHOTO TOWER (Mock)

CORAL HEAD (Oscar)

**ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0800, 16 JUNE, 1958**

RIGILI (Leroy) 70

GIRIINIEN (Keith)

RIBAION (James)

POKON (Irwin)

MUI (Henry)

IGURIN (Ken)

DEEP ENTRANCE

JIERORU (Rex)

PARRY (Elmer)
COPIED/DOE.
LANL RC

ENIWETOK (Fred)

— — — LIMITED RADAR

— — — FULL RADAR

40
80
170

40000
20000
2000
280
240
200

BIKINI ATOLL

Charlie FULL - RADEX

CREATED

Baker

Able

COPIED/DOE
LANL RC

Easy TARE Readings

2210

10

2270

30

2230.01

20

2230.02

20

630.01

14

630.02

4

Tare

40

sugar

15

Roger

King

Peter

Love

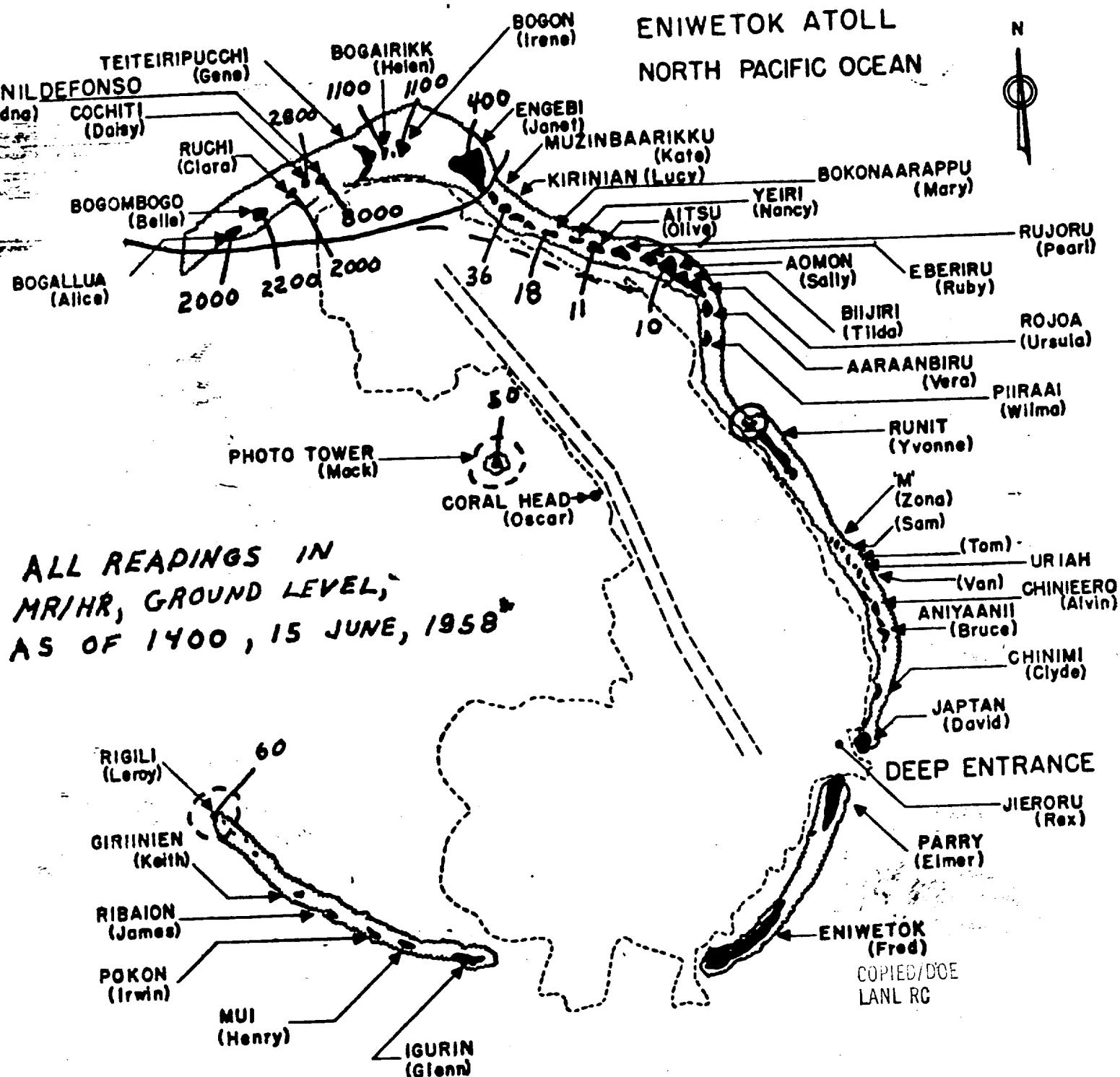
Oboe

Mike

Nan

ALL Readings In MR/HR
At Ground Level As Of
1615 HRS. 16 June 58
'Limited'
RADEX

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



* Reading for Mack Photo
Tower as of 1000, 15 June.

— — — LIMITED RADEX

— FULL RADEX

50

Full Protective Clothing

Clothing

1

BIKINI ATOLL

40000
20000
3000
240
340
240
240

180
800
400
340
240
400
Charlie
1000 - 5000
Bakar

FULL - RADEX

TARE Readings

2210
2270
2230.01
630.01
630.02
2430.01
2430.02

Dog

Fox

EASY

COPIED/DOE
LNL RC

N

O

N

O

N

O

N

O

Bravo

Alfa

Zebra

Yoke

NON - RADEX

Uncle

Tare

Sugar

Roger

Peter

Obie

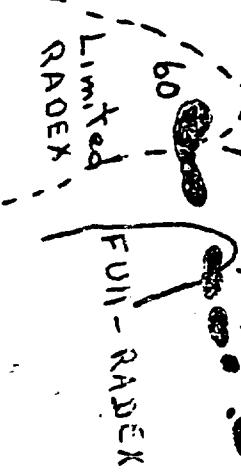
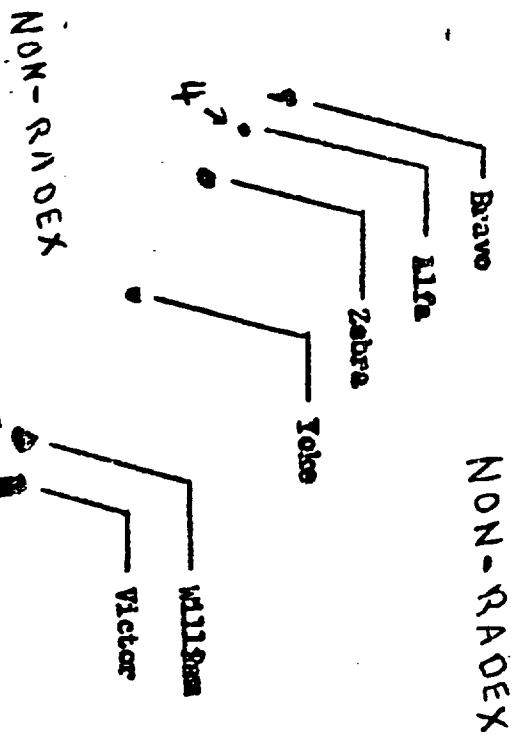
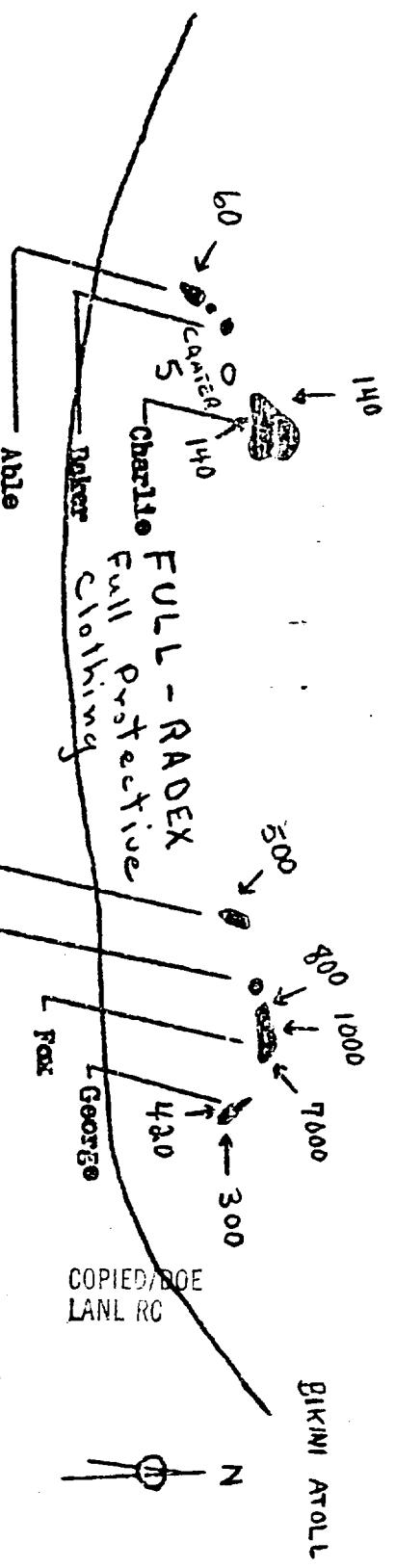
Hot Spot At Love
King Jig Item

Majha Mike Nan

ALL Readings In MR

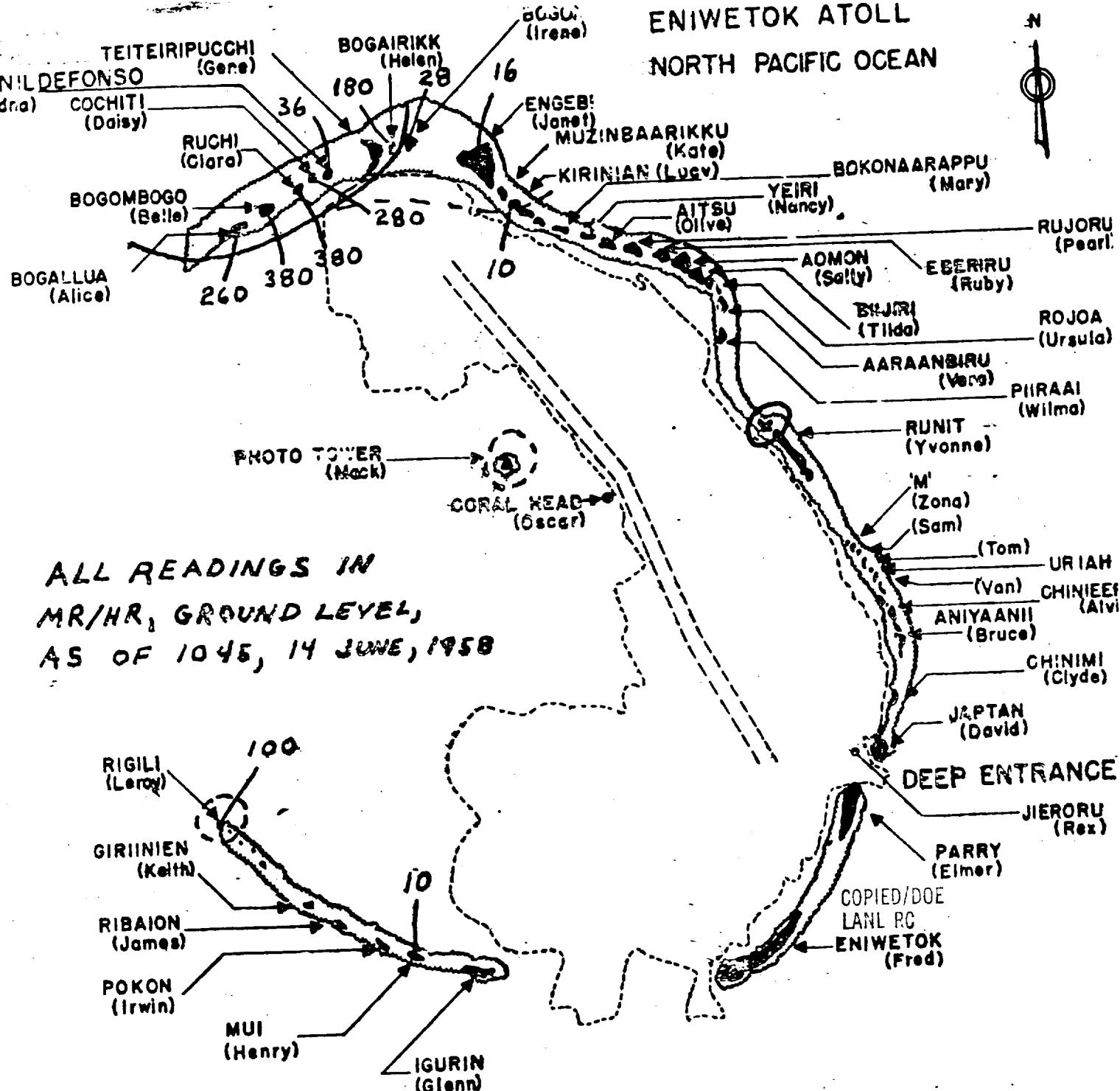
'Limited'
RADEX

At Ground Level As
1300 HRS. 15 June 5



ALL Readings In MA
At Ground Level AS
1515 HRS. 14 June

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 1045, 14 JUNE, 1958

— — — LIMITED RAD
— FULL RADEX

IS

ALL Readings In MR

At Ground Level As

1530 HRS. 13 June

COPIED/DOE
LANL RC

NON-RADEX

- BRAVO
 - ALFA
 - ZULU
 - YODE
 - WILLIAM
 - VICTOR

RADEX

- ABLE
- BEAKER
- DOG
- EASY
- FOX
- GEORGE
- UNCLE
- TARE
- SUGAR
- ROGER
- PETER
- CHOE
- MAN

Station	Reading
ABLE	200
BEAKER	150
CHARLIE	200
DOG	300
EASY	1300
FOX	1400
GEORGE	1300
UNCLE	1200
TARE	1400
SUGAR	1300
ROGER	1300
PETER	1300
CHOE	1300
MAN	1300
WILLIAM	200
VICTOR	200
ZULU	200
YODE	200
ALFA	200
BRAVO	200
CHARLIE	200
WILLIAM	200
VICTOR	200
UNCLE	200
TARE	200
SUGAR	200
ROGER	200
PETER	200
CHOE	200
MAN	200
WILLIAM	200
VICTOR	200
ZULU	200
YODE	200
ALFA	200
BRAVO	200
CHARLIE	200
WILLIAM	200
VICTOR	200
UNCLE	200
TARE	200
SUGAR	200
ROGER	200
PETER	200
CHOE	200
MAN	200

Full protective clothing

४८

800
— 1400

3200
2000

100,000

BIKINI ATOLL

COPIED/DOE
LANL RC

Easy TARÉ Readings
Dog 2210 16

٤٢

NON-RADEX

- 88 -

Bakery

210

FULL - RADEX

George 7

-Unile

卷之三

Roger

10

1,000 MARSHES
Nan -

HOT SPOT AT L...

5

111

卷之三

Roggan

四百三

1

A hand-drawn diagram on a white background. At the top right, the number '8' is written above a series of short horizontal lines. Below these lines, there are two solid black dots connected by a horizontal line. To the left of this group, there is a small, faint circle. In the center of the page, there is a large, irregular shape representing a plowshare. A dashed line extends from the top left corner of this shape towards the left edge of the page. The word 'Yoke' is written vertically along the right edge of the plowshare's shape. The word 'Plowshare' is written vertically along the bottom edge of the same shape. In the bottom left corner, there is a partial view of another drawing, showing some curved lines and a small circle.

All Readings In MAHRA
At Ground Level As Of
1615 HRS. 12 June 58

Boots & Gloves

2,400,000 at 0735
8KMI AROLL

28000 at 0730

12000 SP 3350

Charlie

Baker

Able

George

Fox

-Easy

COPIED/DOE
LANL RC

FULL INDEX NO ENTRY T~~dog~~ FOX OR GEORGE

TARE	READINGS
STAT	MR / HR

2210

20

How

2270

30

Item

630.02

4

JIG

630.01

20

King

2230.02

20

Lane

2230.01

25

Mile

Roger

2420.02

20

Obey

Pete

2420.01

50

SW Tip

Obey SW Tip 4000m

NW Tip 450

Bravo
Alpha
Zebra

Yoke
William

Victor
Uncle

Tare

Sugar

Roger

ALL READINGS IN MR/HR
AT GROUND LEVEL AS OF
1645 HRS (EXCEPT AS NOTED)

LIMITED
RADEX
BOOTIES &
GLOVES

FULL
RADEX

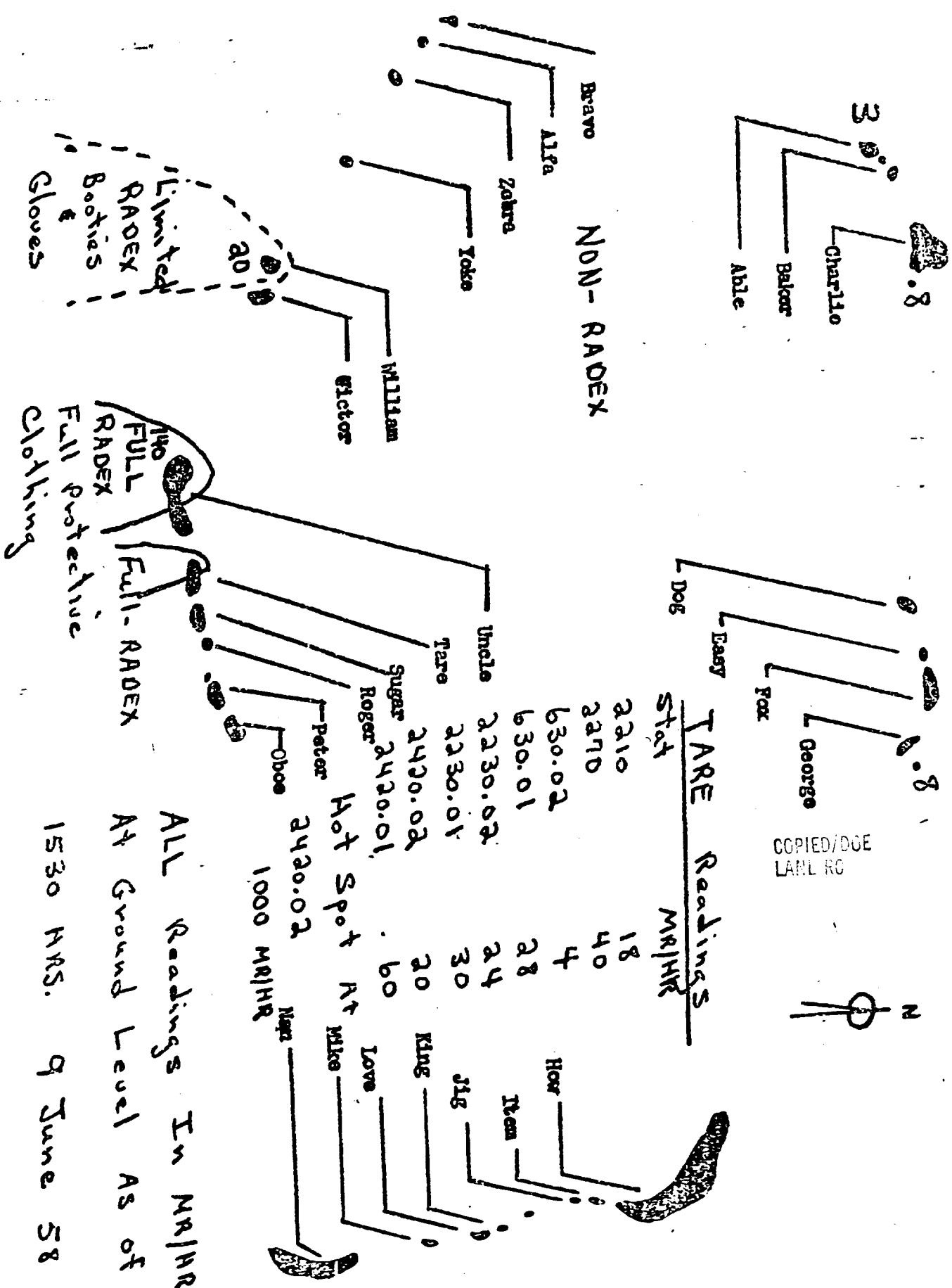
FULL
RADEX

FULL
PROTECTIVE
CLOTHING

11 JUNE 1958

**BIKINI
ATOLL**

67



BIKINI KÖLL

COPIED/DCE
LANL RC

NON-RADIX

Stat.	MR/HR
2270	20
2230.01	38
2230.02	40
2420.01	75
2260	38
2420.03	20
sugar 630.02	20
2218.	

Easy TARE Readings

267

Eba

三

11

1

3

ARH

四

1

1

三

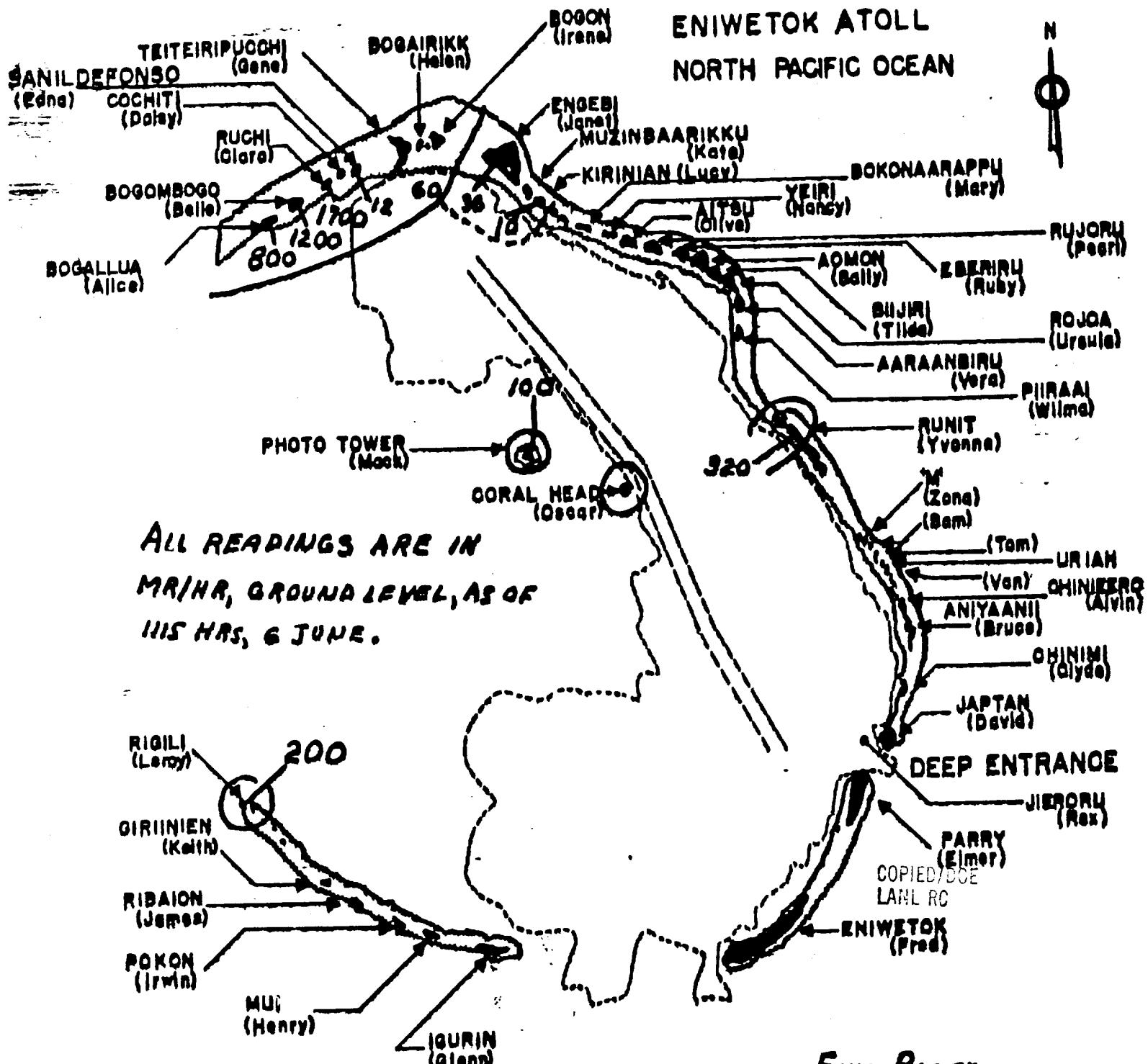
1

```

graph TD
    DRAEX[DRAEX] --> ALCA[ALCA]
    DRAEX --> Zebra[Zebra]
    DRAEX --> Telsa[Telsa]
    DRAEX --> Uncle[Uncle]
    DRAEX --> Tare[Tare]
    DRAEX --> Sugar[Sugar]
    DRAEX --> Roger[Roger]
    DRAEX --> Peter[Peter]
    ALCA -.-> RADEX1[Limited RADEX]
    ALCA -.-> Bodyies[Bodyies]
    ALCA -.-> Gloves[Gloves]
    Zebra -.-> RADEX2[Full RADEX]
    Zebra -.-> Clothes[Clothes]
    Telsa -.-> RADEX3[Full RADEX]
    Telsa -.-> RADEX4[Full RADEX]
    RADEX1 -.-> RADEX5[220]
    RADEX1 -.-> RADEX6[FULL]
    RADEX1 -.-> RADEX7[RADEX]
    RADEX5 -.-> RADEX8[Gloves]
    RADEX5 -.-> Clothing[Clothing]
    RADEX5 -.-> FullProtective[Full Protective]
  
```

ALL Readings In MAJ|HR
At Ground Level As Of
1530 hrs. 6 June 58

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



ALL READINGS ARE IN
MR/HR, GROUND LEVEL, AS OF
115 HRS, 6 JUNE.

— Full Radar
- - - Limited Radar

b6
b7c

PIKWI MALL

COPIED/DOD
LANL RC



TARE Readings

MA/HR

60-80

24-38

10

20

30-80

50

55-60

10-25 King

Low

Mike

Man

NON - RADEX

Uncle

2420.01

2230.01

2230.02

2420.02

2210

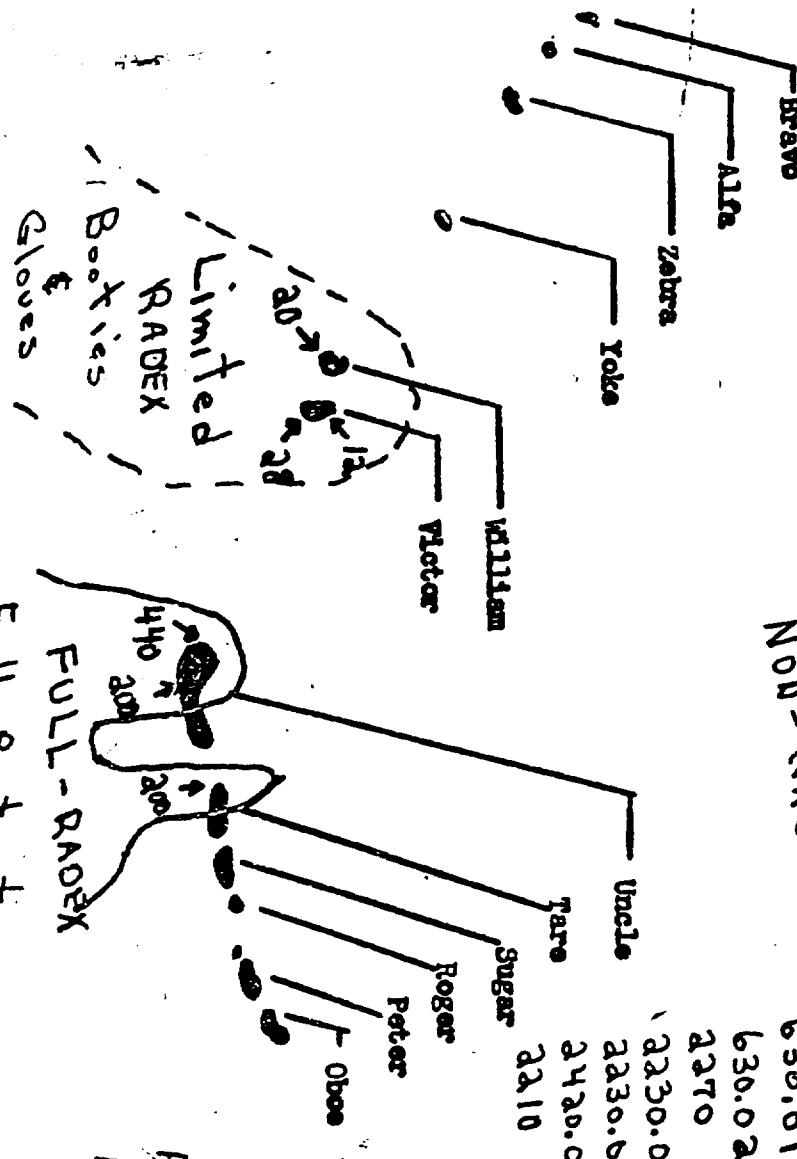
Rare

Sugar

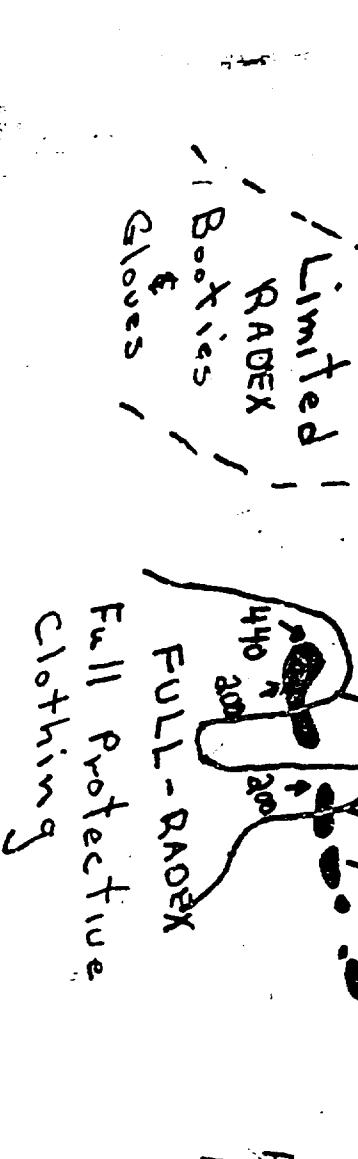
Roger

Peter

Obes



ALL Readings In MA/HR
At Ground Level As of
1530 HRS. 5 June 58.

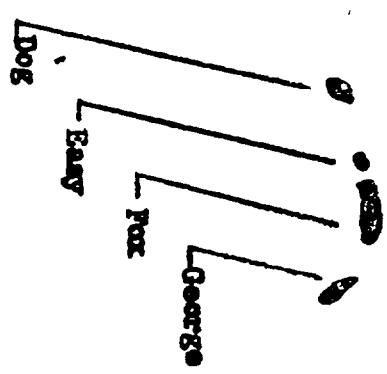


BIKINI ATOLL

COPIED/DOE
LANL RC



NON-RADEX



Non
Item

Jig

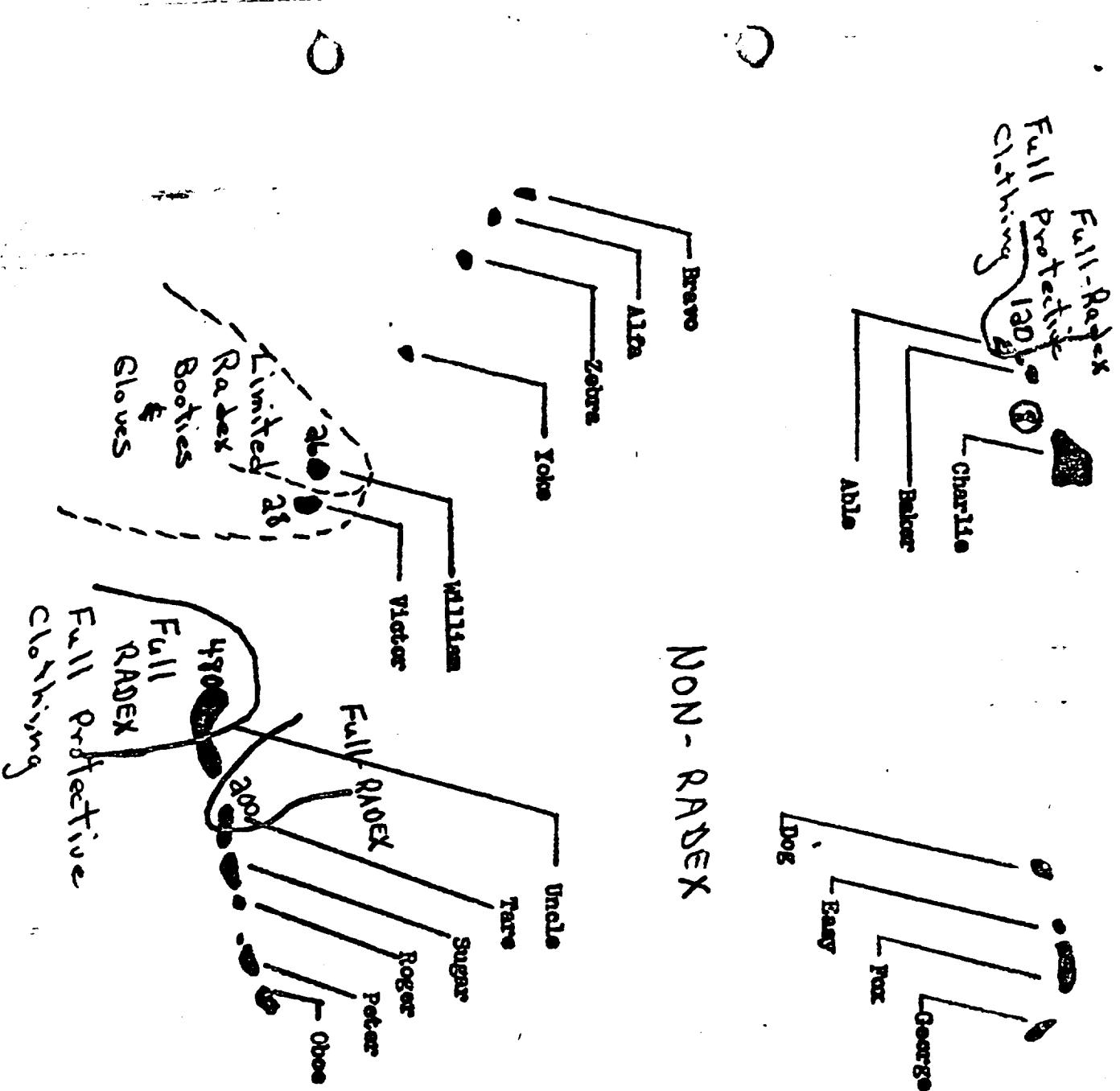
Rug

Low

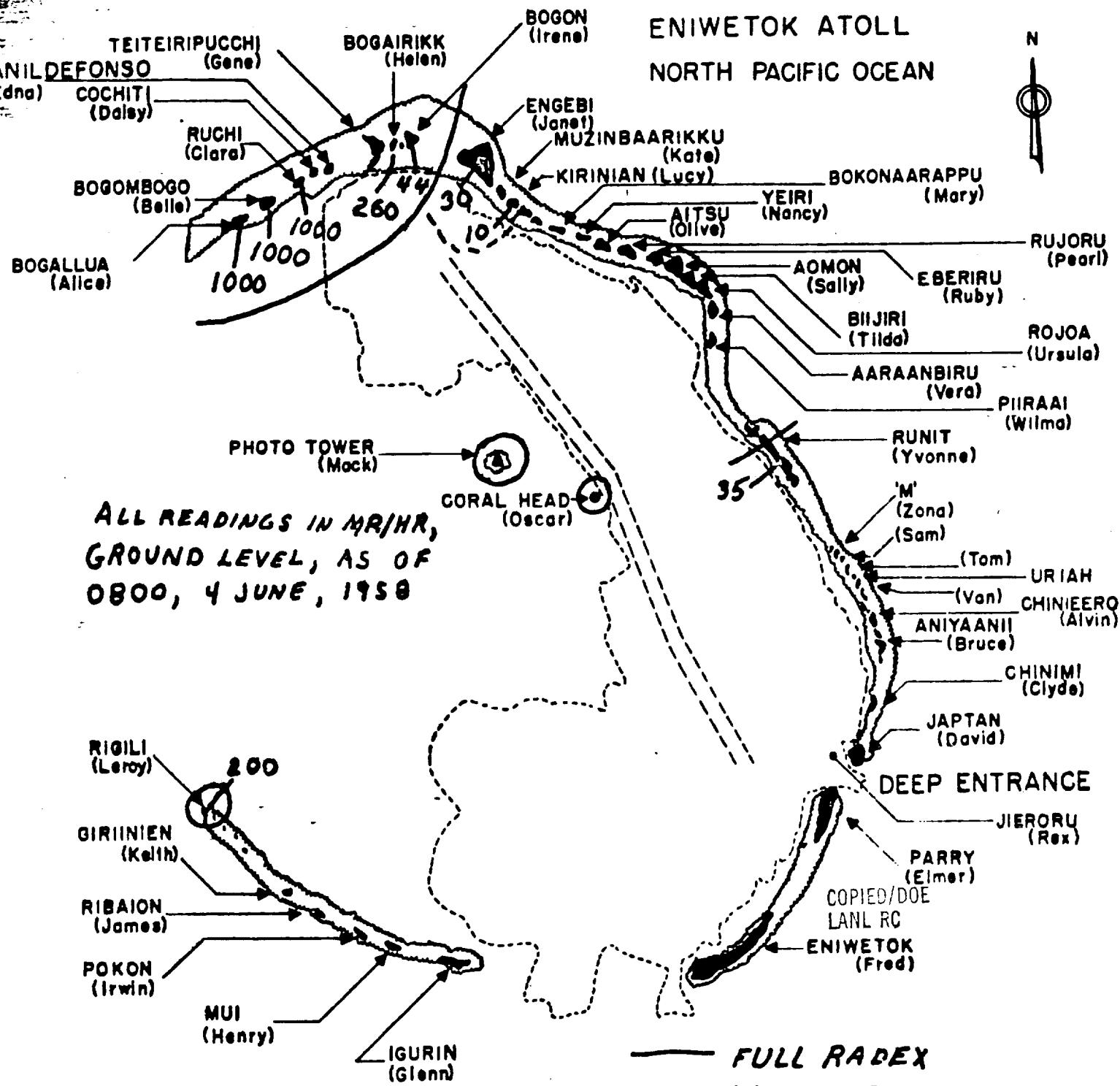
Mile

Man

ALL Readings AT
Ground Level IN MAJOR
AS OF 0830 HRS. 4 JUN

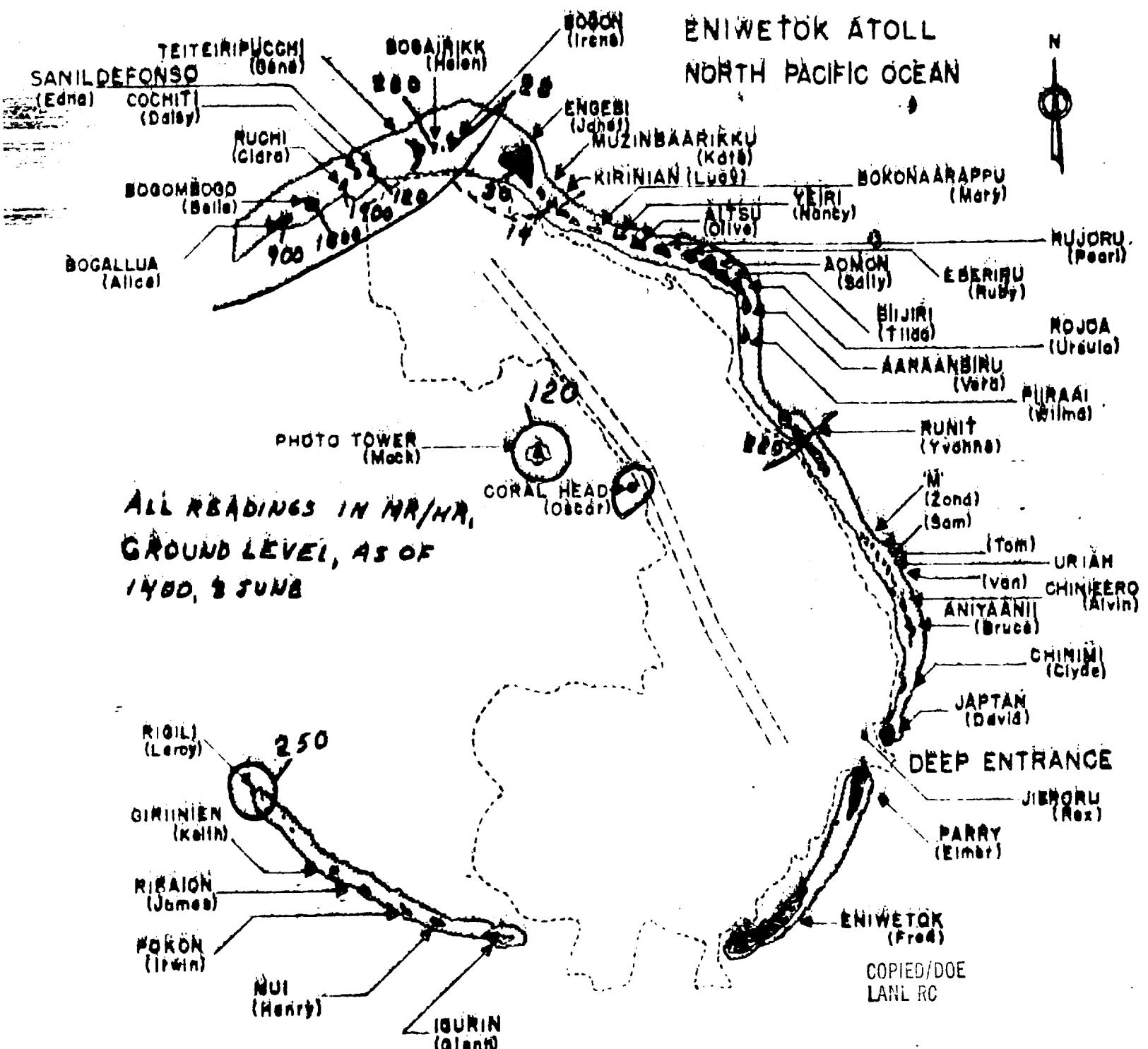


ENIWETOK ATOLL
NORTH PACIFIC OCEAN



61

ENIWETÖK ATOLL
NORTH PACIFIC OCEAN



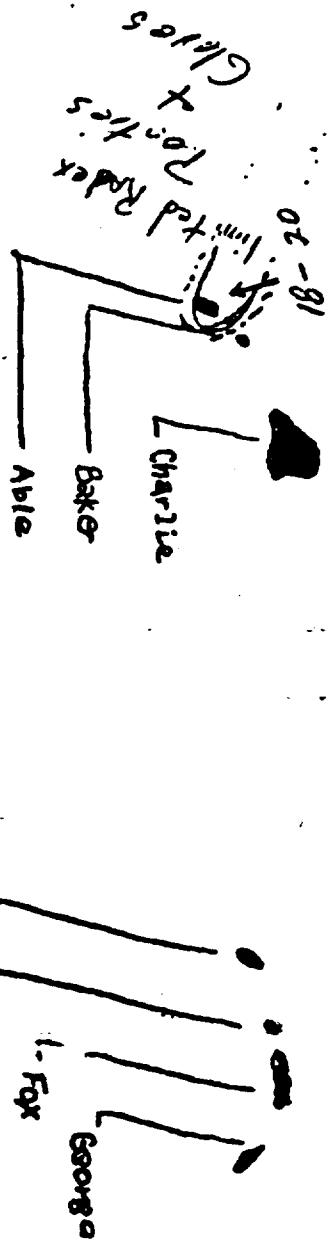
NOTE: MACK TOWER READING
AS OF 1000, 3 JUNE

— FULL RADEX
- - - - LIMITED RADEX

6

BURN MOLL

COPIED/DOE
LANL RC



NON RAD EX TARE READINGS

2210	16 - 28	
636.01	16 - 20	Hand
2230.01	40 - 60	Stem
2420.01	60 - 280	dig
2220	50 - 80	
Sixx	12 - 34	King
Roger	0 - 5	Lore
Peter	2230.02	80 - 100 NKE

Nan

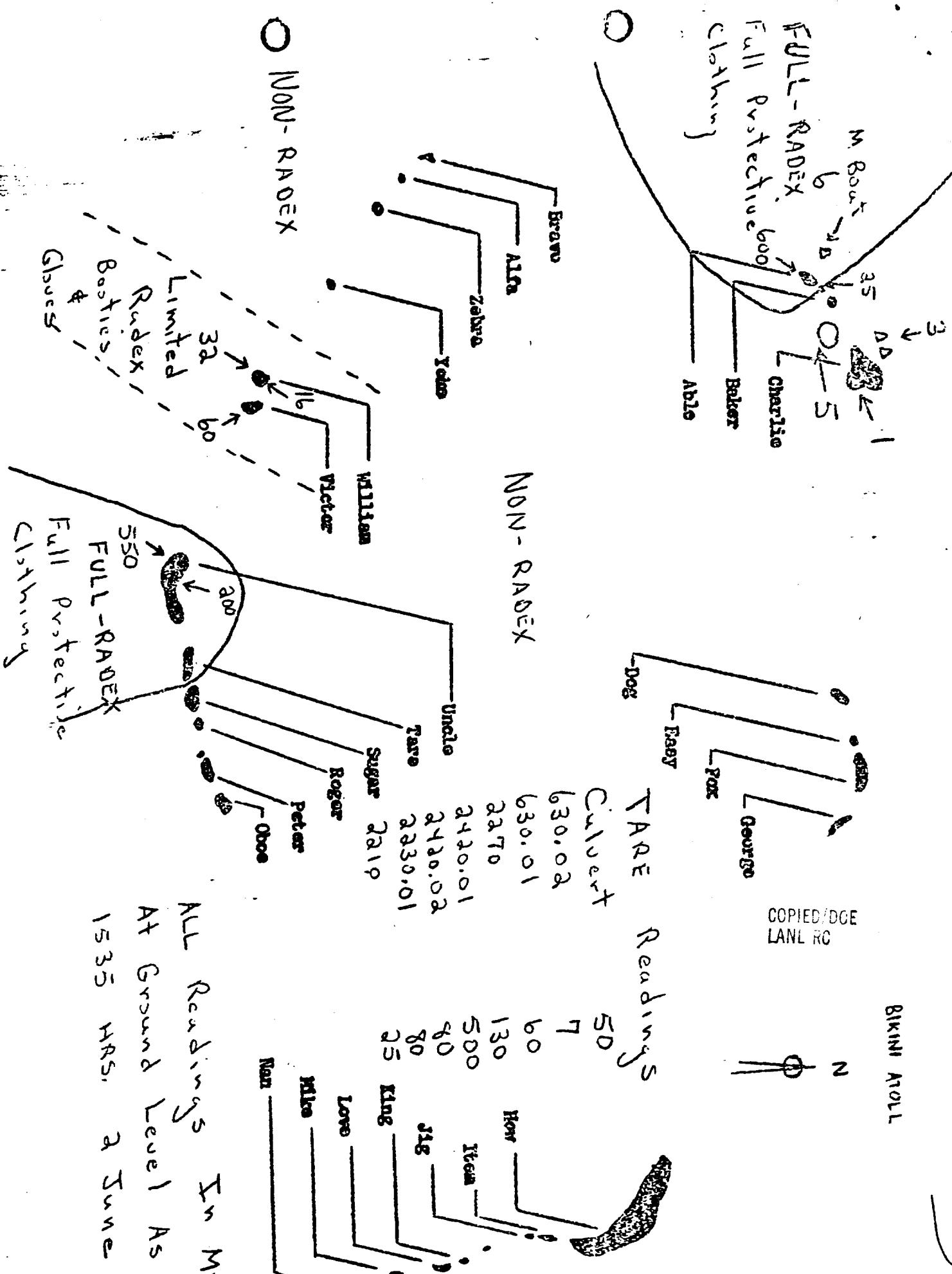
36

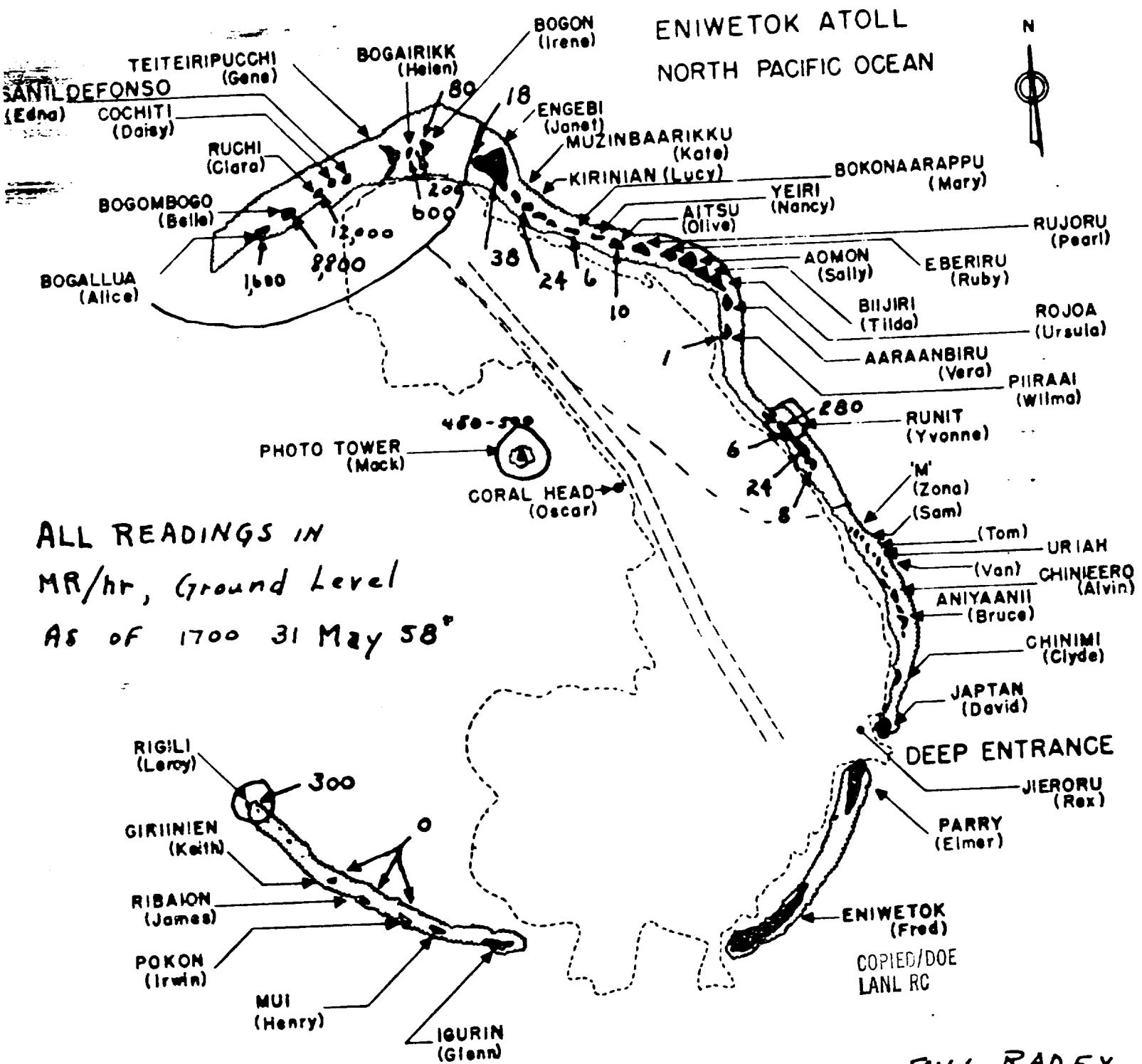
280
600

Limited
Rader
Protective
Clothing

Gloves

All Readings IN MR/
At Ground level AS
0830 hrs 3 June 58





— FULL RADEX
--- LIMITED RADEX

* Hack Photo Tower
1200 hrs, 1 June 58

Full RADEX M Boat
Full Protective 200
CLOTHING 050
040
030
020
010
000

1.5
1.0
0.5
0.0

1st Charlie

Baker Able

Fox

COPIED/DOE
LANL RC

N

O

EKIM ATOLL

Dog

Sat

TARE

Readings

MR/MR

NON-RADEX 630.02

630.01

10

q.d.

New

Item

None

Culvert

2310

40

Jig

None

Uncle

2230.01

80

King

None

Tare

2230.02

140

None

Sugar

2420.01

500

None

Roger

2420.02

80

None

Poter

2420.03

None

None

Obbo

2420.04

None

None

ALL Readings AT
Ground Level IN MR/MR

AS OF 1545 HRS.
1 June

Gloves

Full Protective
Clothing

NON-RADEX
RADEX Base
off Tower
Limited

NON-RADEX
RADEX Base
off Tower
Limited

NON-RADEX
RADEX Base
off Tower
Limited

BIKINI Atoll

N

COPIED/DOE
LANL RC

TARE Readings

Sta. 2310 80-1500

630.01

80-160

2330.02

100-900

2310

300-350 Raw

2350.01

100-200 Item

2410

300-350 Raw

2430.02

100-200 Item

2450.01

150-450 Jig

2470.02

30-40 King

2510

400-1000 Love

2530.01

Mike

2550

Man

2570

Mike

2610

Mike

2630

Mike

2650

Mike

2670

Mike

2710

Mike

2730

Mike

2750

Mike

ALL Readings At
Ground Level IN H
1450 HRS. 29 MAY

Gloves

Boonies

FULL RADEX
420
NON-RADEX
46
TOWER
Base
ox
250

Limited
RADEX

NON-RADEX
CLOTHING
Full Protection
Worn In This Area

Gloves
Boonies

ALO
Zeina
Yole

William
Peter

Bravo
ALO

Uncle
Tape

NON-RADEX

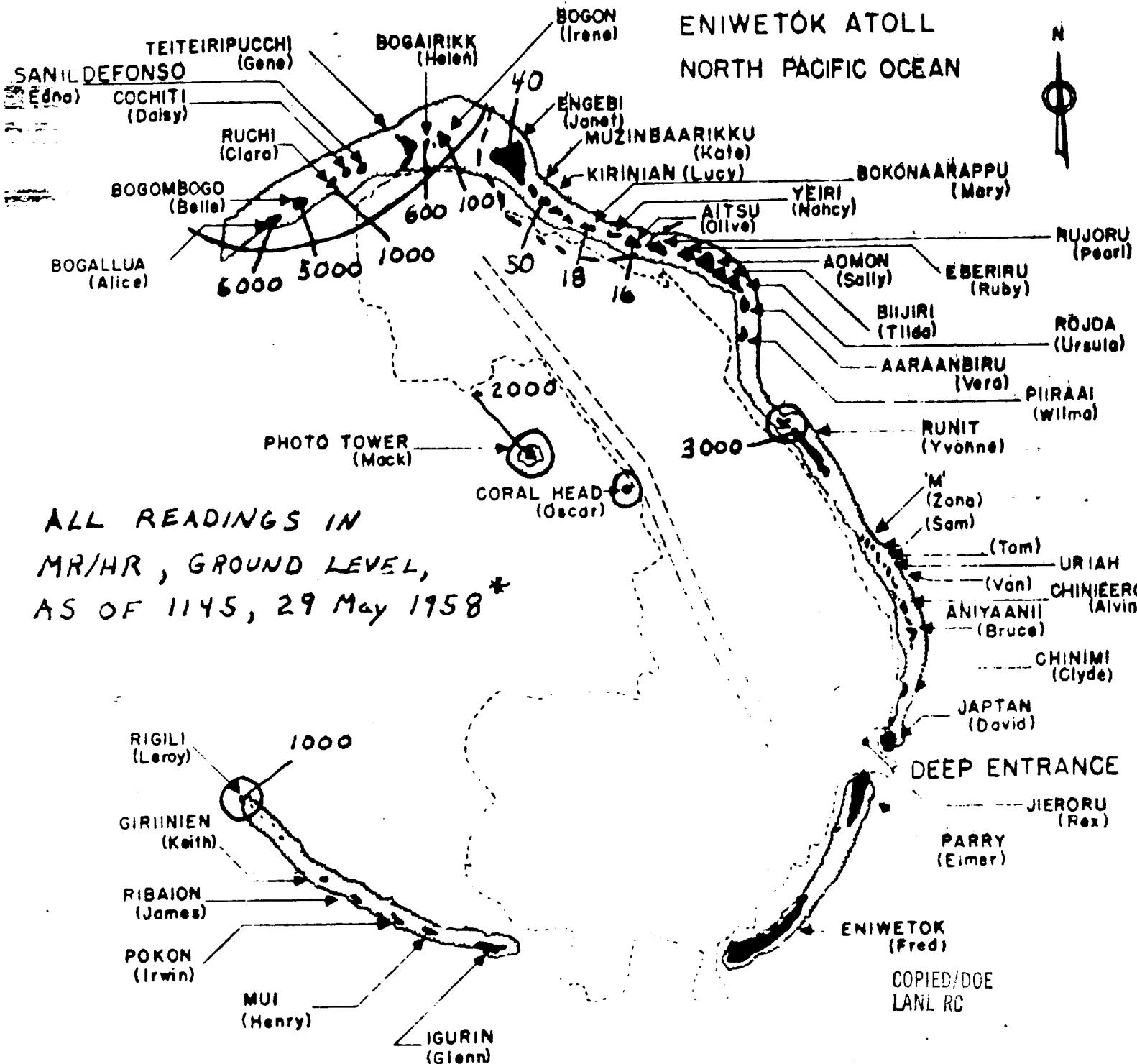
Sugar
Roger
Peter
Obese

NON-RADEX

NON-RADEX

FULL RADEX

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 1145, 29 May 1958 *

Mack Photo Tower Reading
as of 1500, 28 May 1958

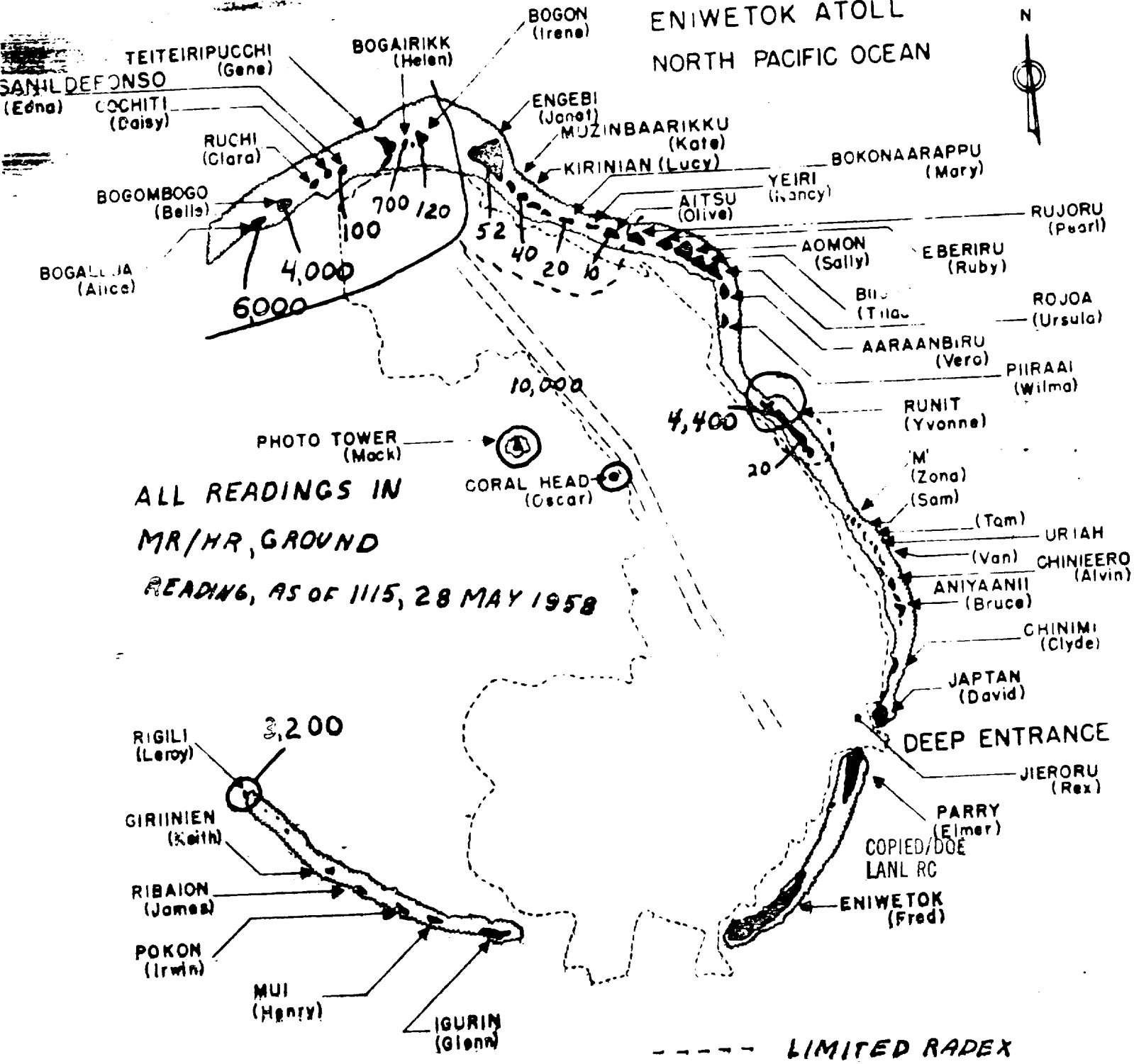
----- LIMITED RADEX

----- FULL RADEX

15

ENIWETOK ATOLL
NORTH PACIFIC OCEAN

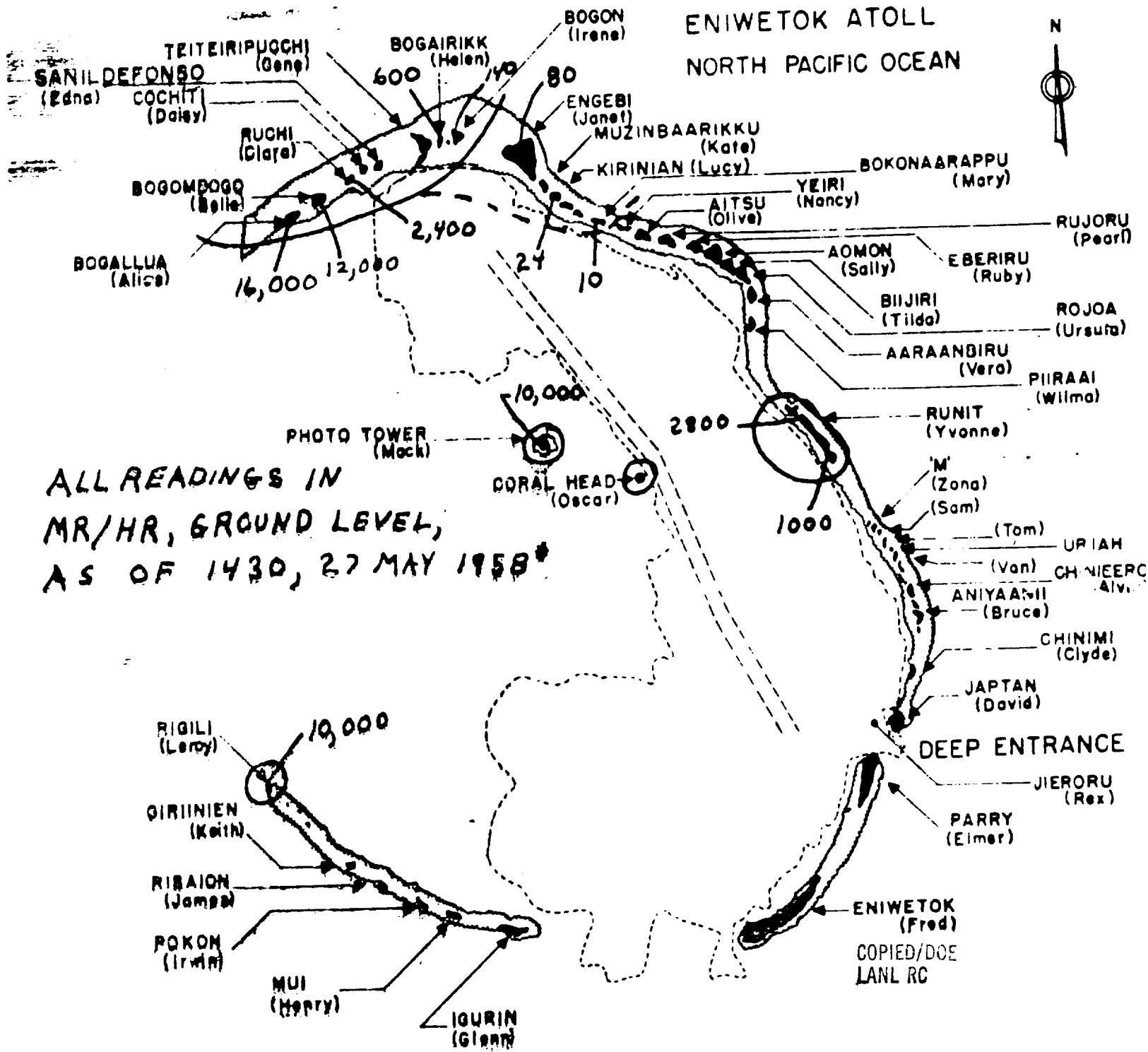
N



----- LIMITED RADEX

— FULL RADEX

76

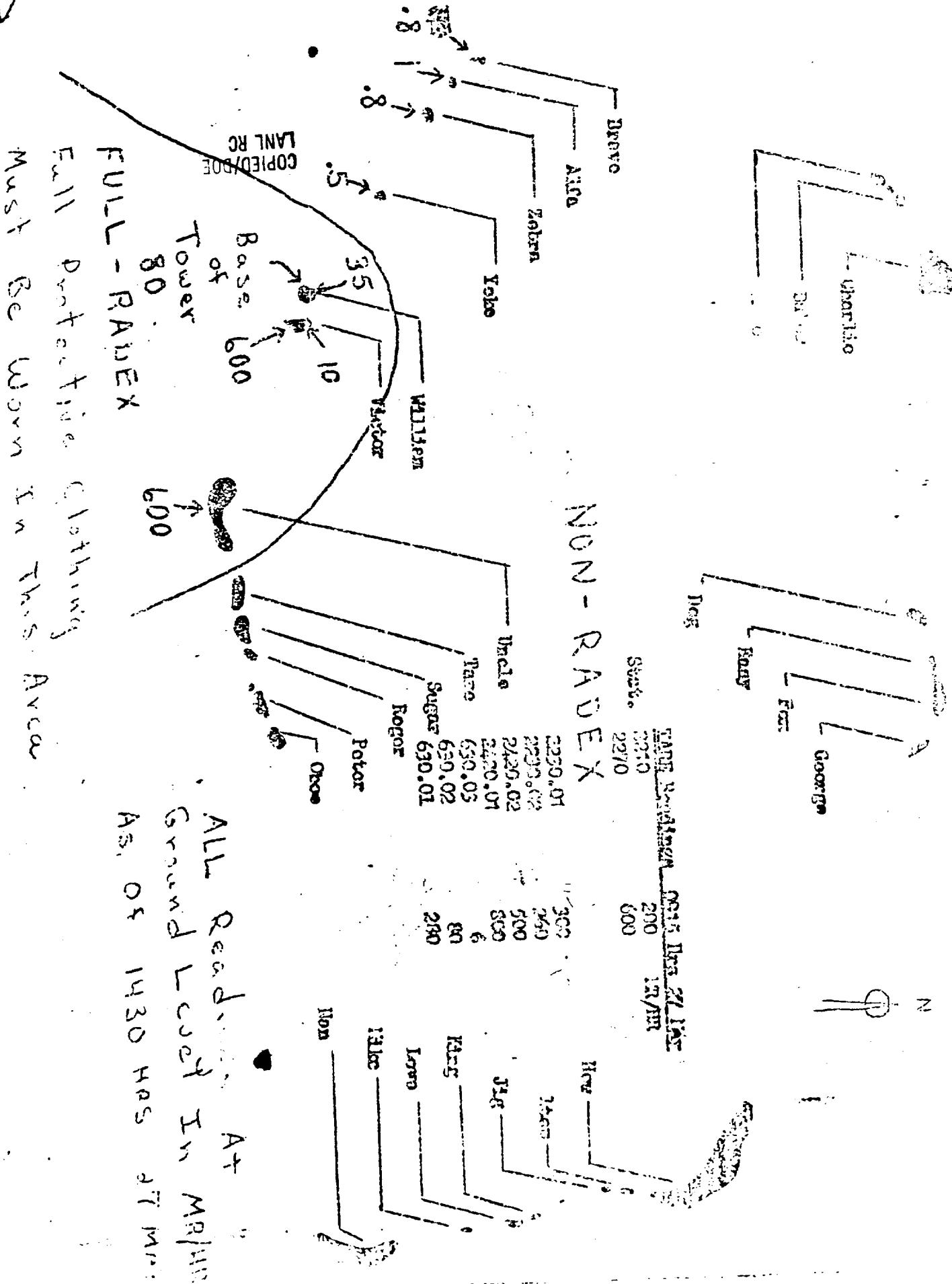


* MACK PHOTO TOWER
AS OF 1100.

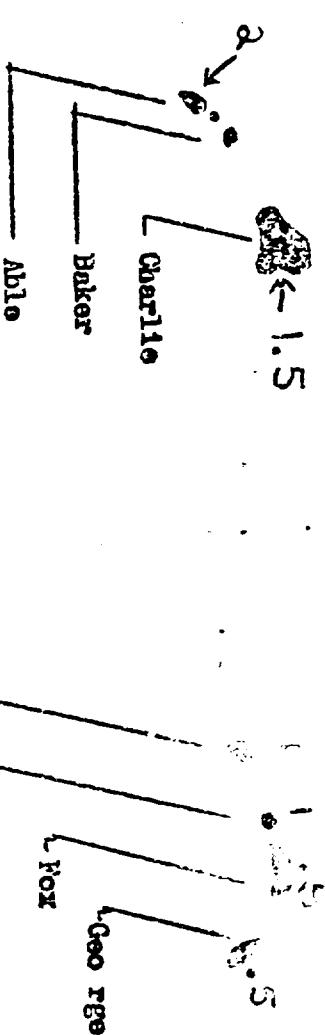
YELLOWWOOD G.Z. - 10 MR/HR.

— — — LIMITED RADIATION
— — — FULL RADIATION

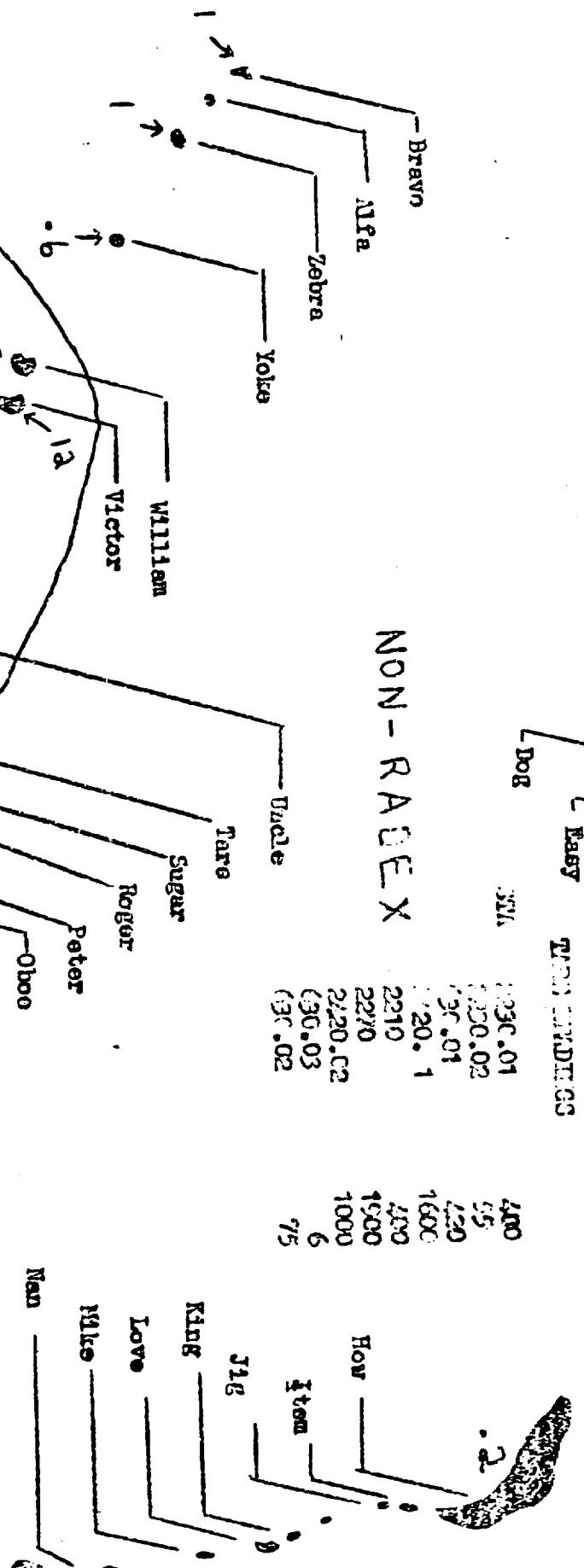
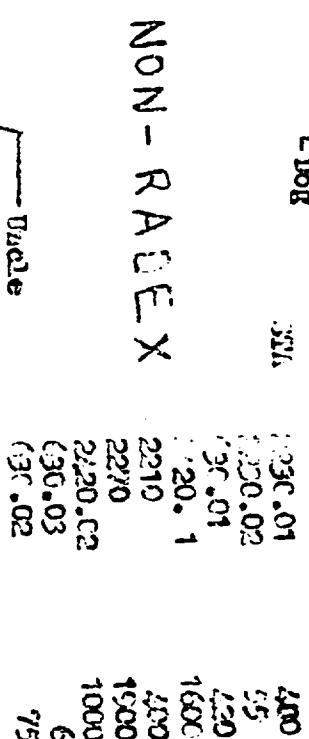
BUCKINGHAM



BIKINI TROLL



COPIED/DOE
LANL RC

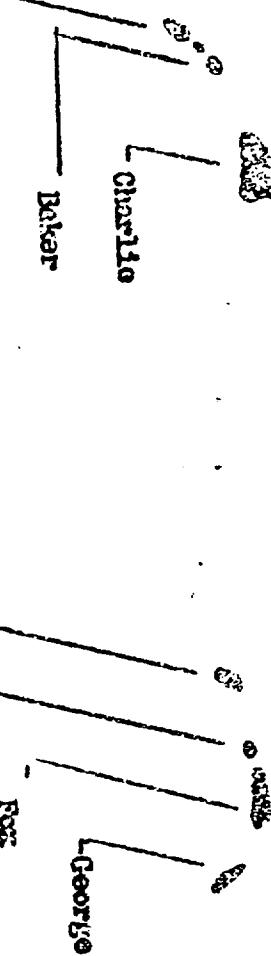


ALL Readings At Ground
Level In MR/HR AS
1500 HRS. 26 May

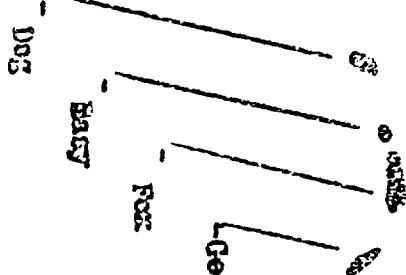
FULL RADEX
Full Protective Clothing
Will Be Worn In This Area

BIKINI ATOLL

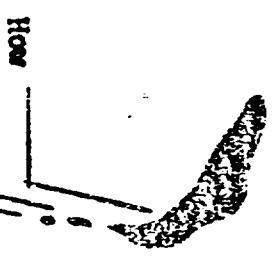
P.J.



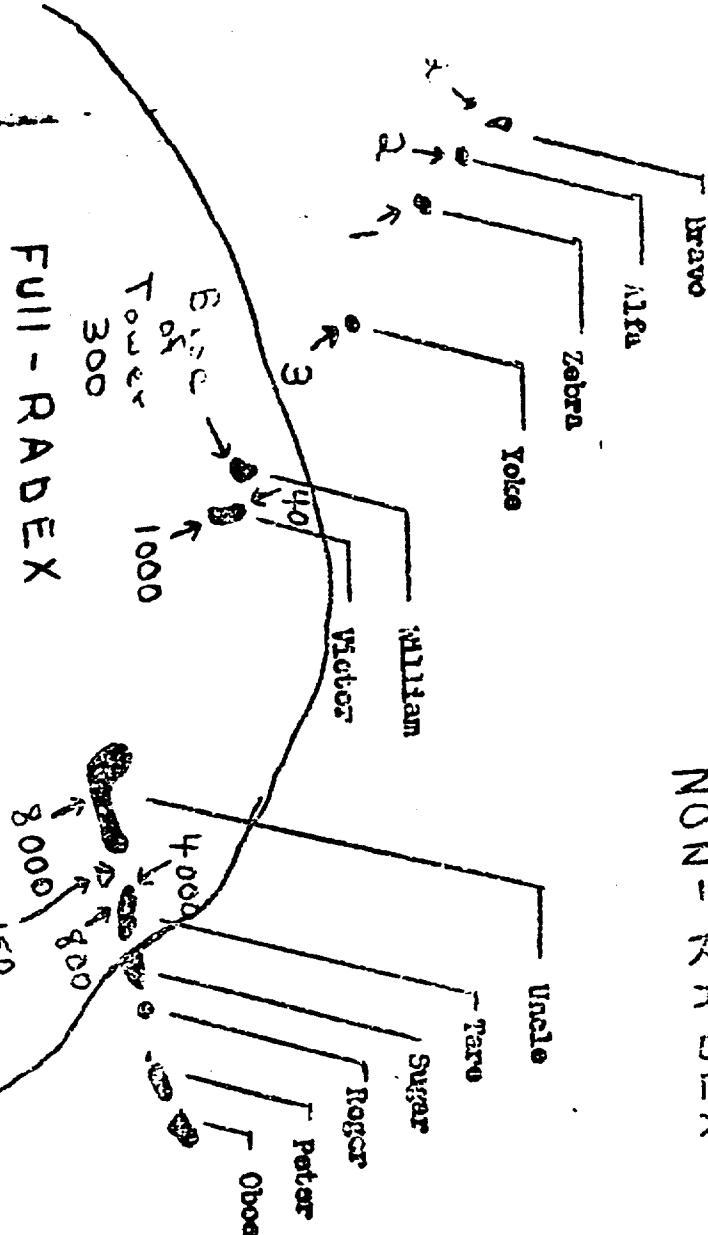
COPIED/DOE
LANL RC



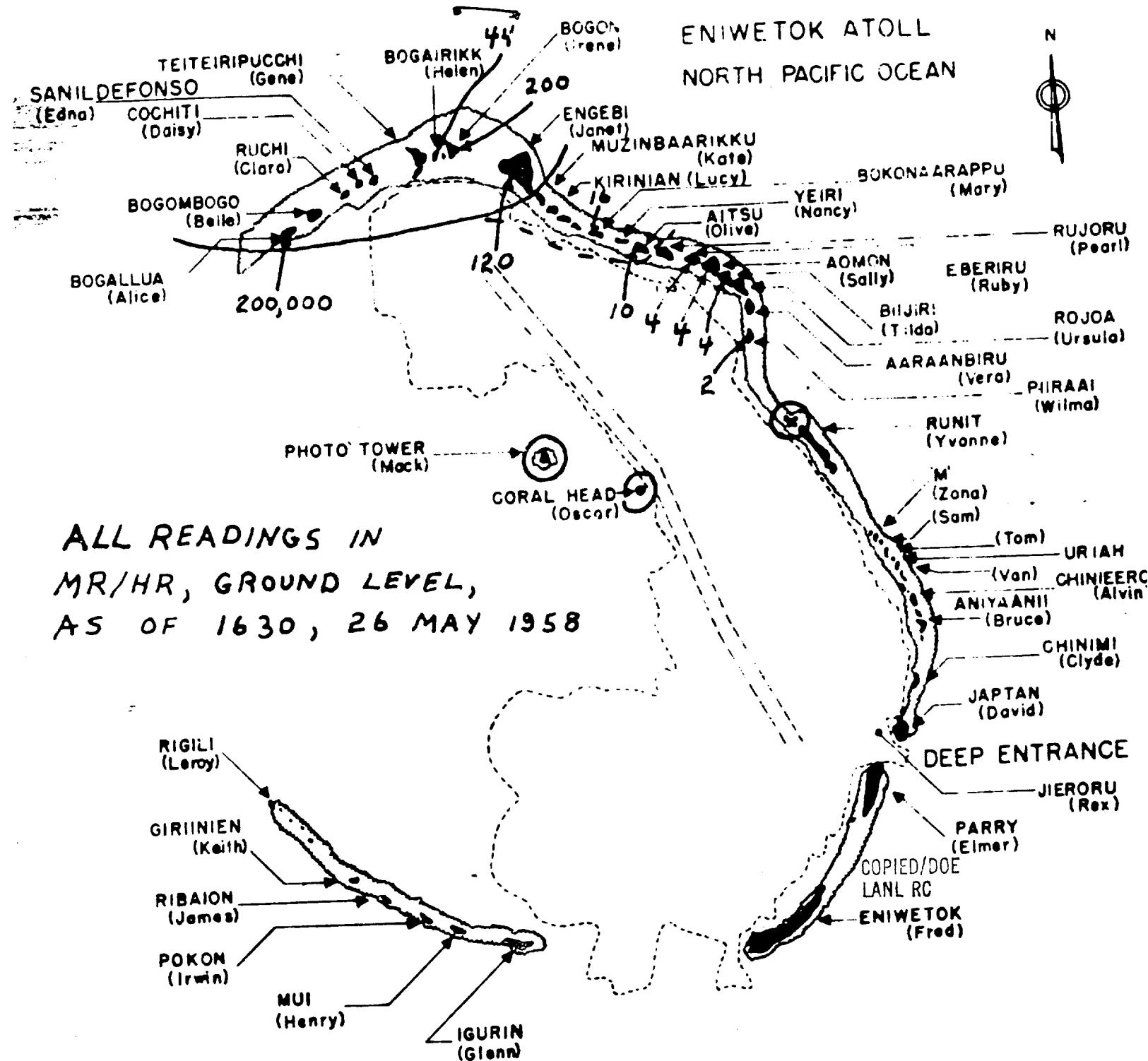
NON-RADEX

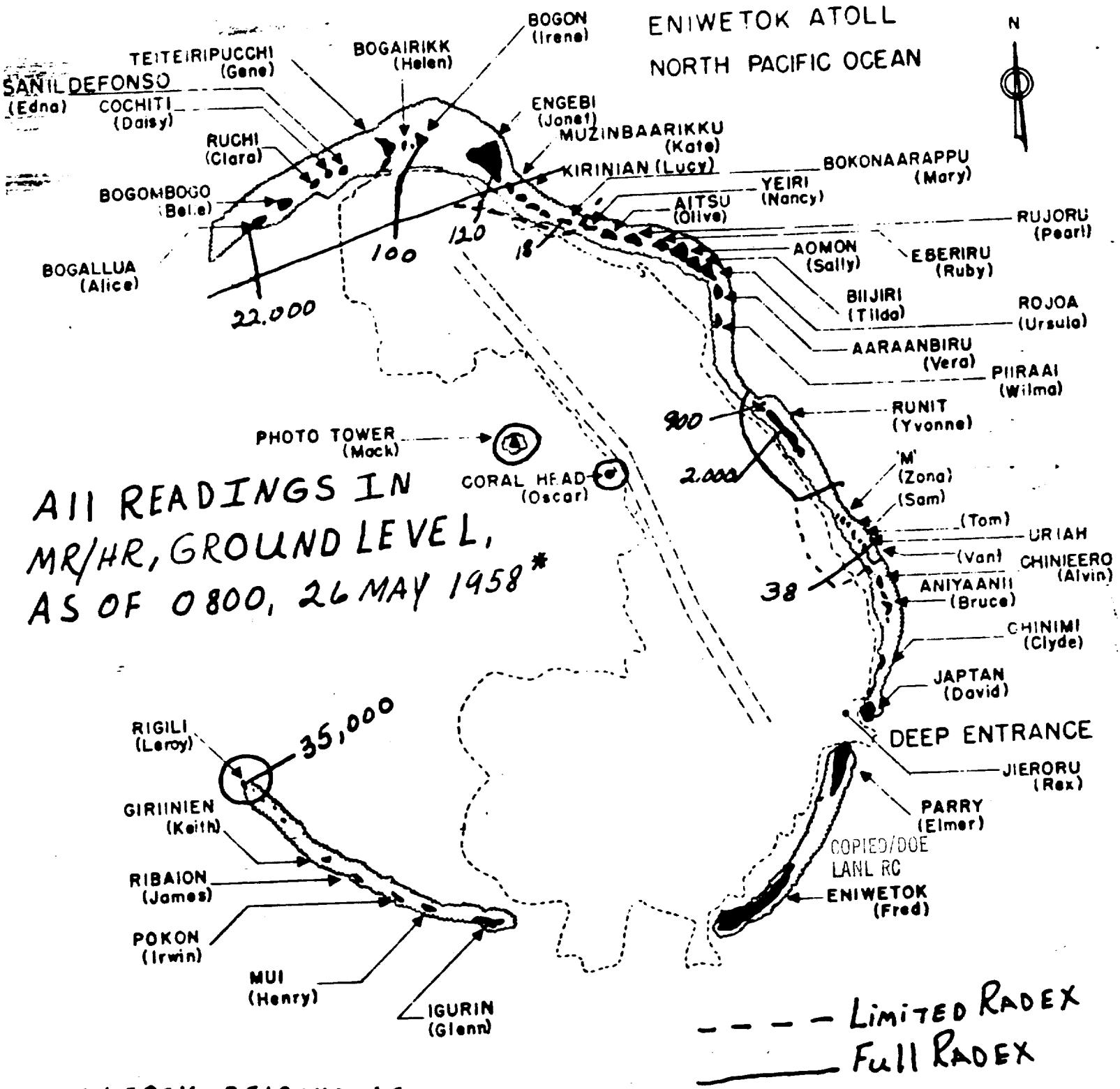


ALL Readings AT
Ground Level In
MR/MR AS OF 1630 HR
24 MAY 58



FULL PROTECTIVE CLOTHING
WILL BE WORN IN
THIS AREA





ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0800, 26 MAY 1958*

* LEROY READING AS
OF 0930.

87

BINNELL STORE

CHARLIE

GEORGE

COPIED/DOE
LANL RC

RAD-SAFÉ
SIT-MP

N
How

WELLE

TARE

SUGAR

ROSE

PETER

JOSE

MU

AN

ALL READINGS IN
HR / HR AS OF

1600 25 MAY 58
(ground level)

TARE READINGS IN
5TH 630.02 - 200
2210 - 1000
2270 - 2500
2230.01 - 1000
2230.02 - 1500
2420.01 - 3500
2420.02 - 500
630.03 - 9
630.01 - 1000

BIKINI ATOLL

COPIED/DCE
LANL RC

NON + RADIATION

NOV.

1965

JAN

1965

FEB

1965

MAR

1965

APR

1965

MAY

1965

JUN

1965

JUL

1965

AUG

1965

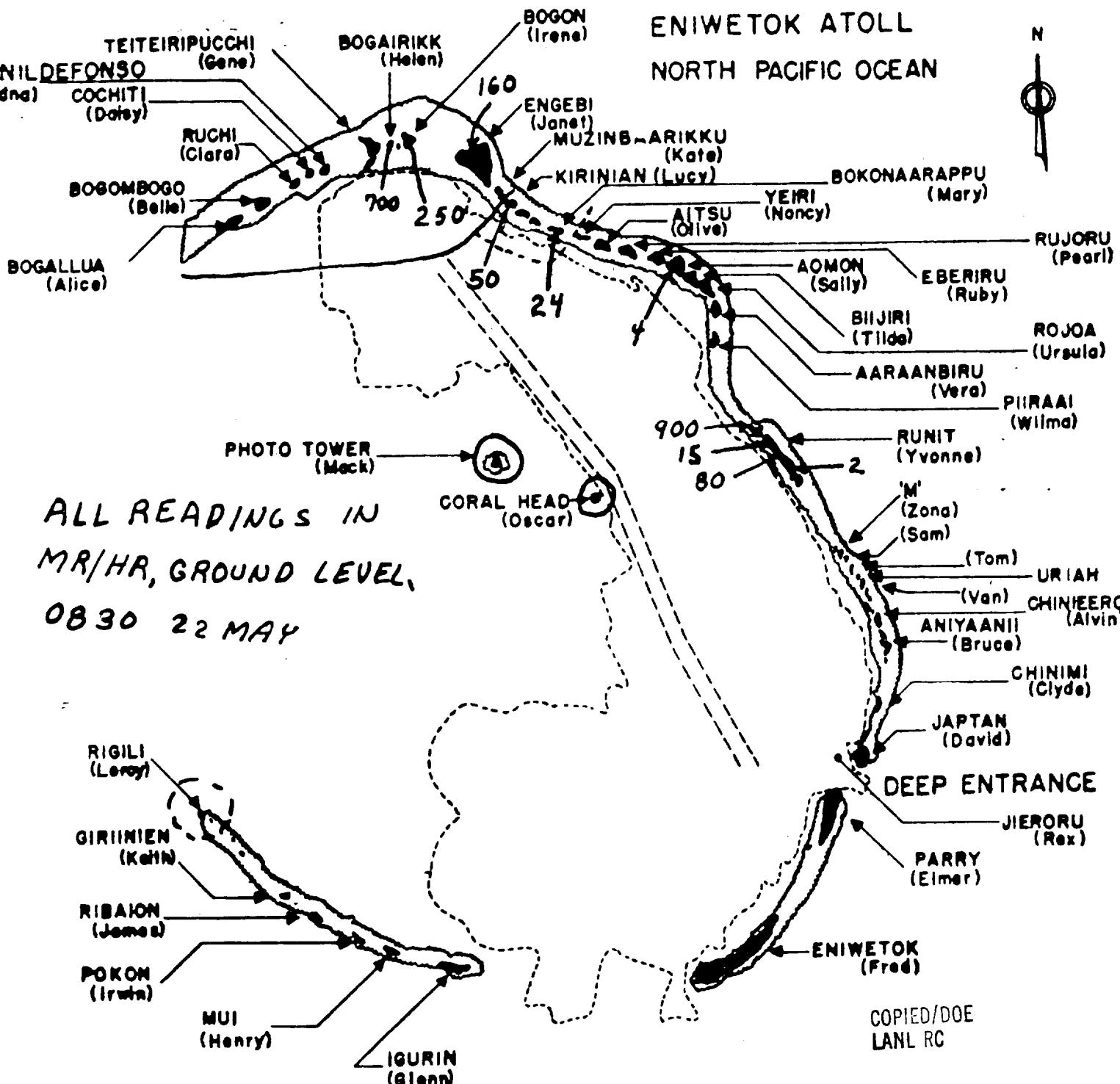
FULL - RADEX

Full protective Halo Shield
Required 10 WMR
Ingress Radar

All Readings At Main
Ground Level In Main
Village Indicated

1655 hrs. 23 MAY

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



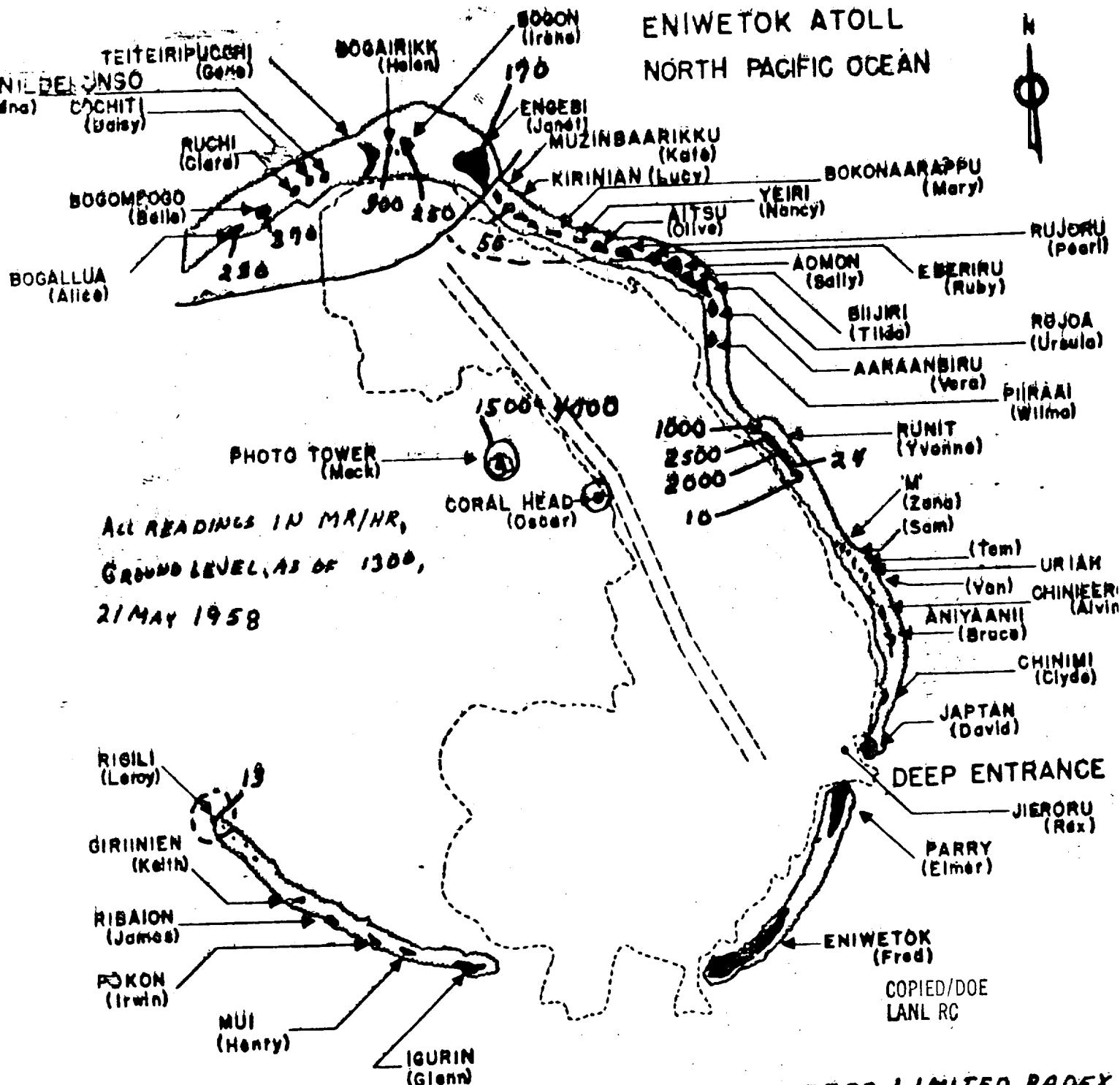
NOTE: HOLLY G.Z. - 20 to 120 mr/hr

— FULL RADEX

--- LIMITED RADEX

8'

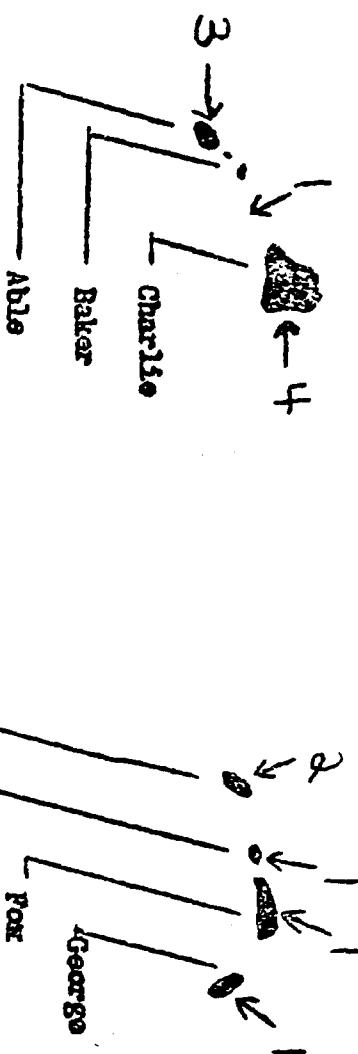
ENIWETOK ATOLL
NORTH PACIFIC OCEAN



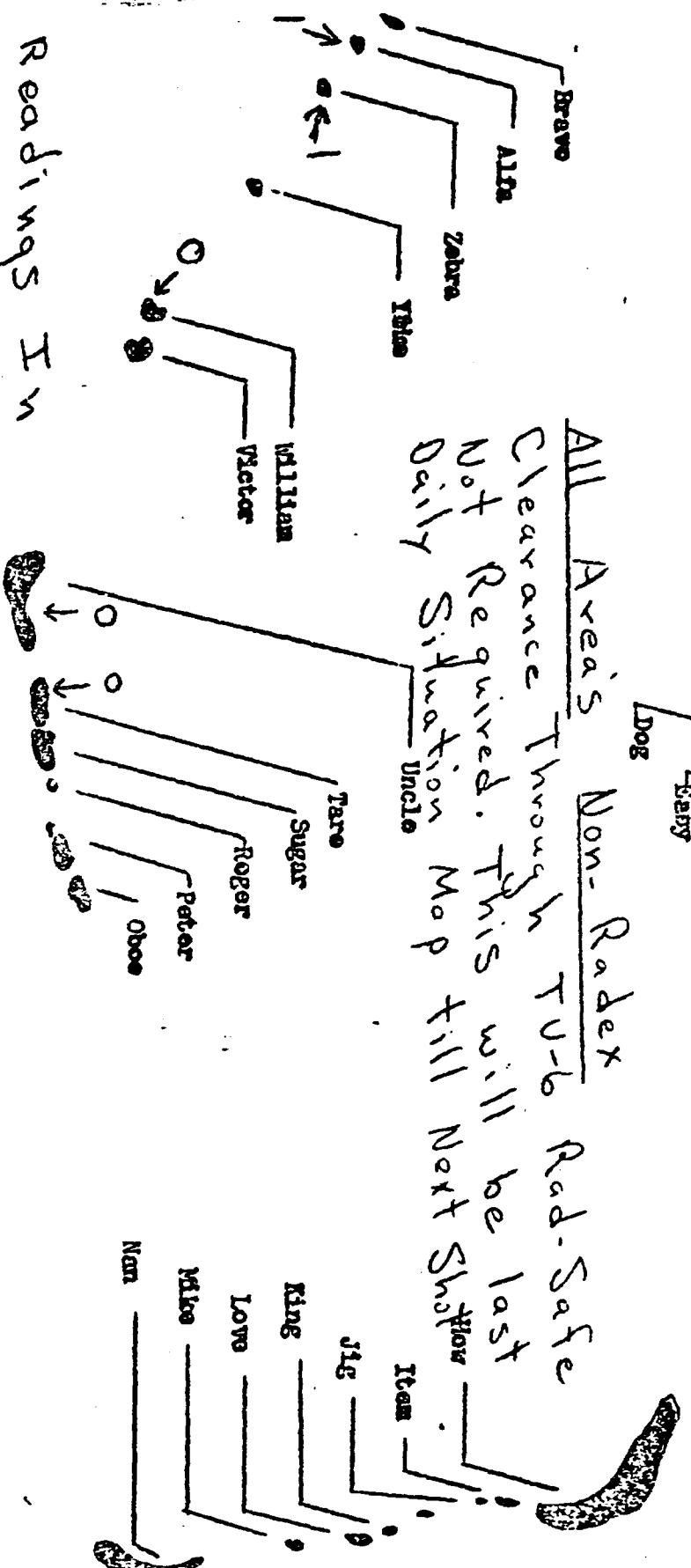
NOTE: Holly G.Z. - 5400 MR/HR
Young Full RADEX EXCEPTING
FROM THE AIRSTRIP SOUTH.
MACK READING AS OF 1000 HRS

BUKINI ATOLL

COPIED/DOE
LANL RC



All Areas Non-Radex
Clearance Through TU-6 Rad-Safe
Not Required. This will be last
Daily Situation Map till Next ShotNow
Uncle



All Readings In
MR/HR At Ground
Level, As of 1435 hrs.
18 MAY

BIRKIN AIDEL

COPIED/DOE
LANL RC

N

George

Box

Easy

Dog

All Areas Are Non-Rad-Safe
Cleaning Through Rad-Safe
Not Required

How

Item

Jig

King

Lava

Mike

Man

Mike

Oboe

Peter

Roger

Sugar

Uncle

Purse

Victor

William

Yoke

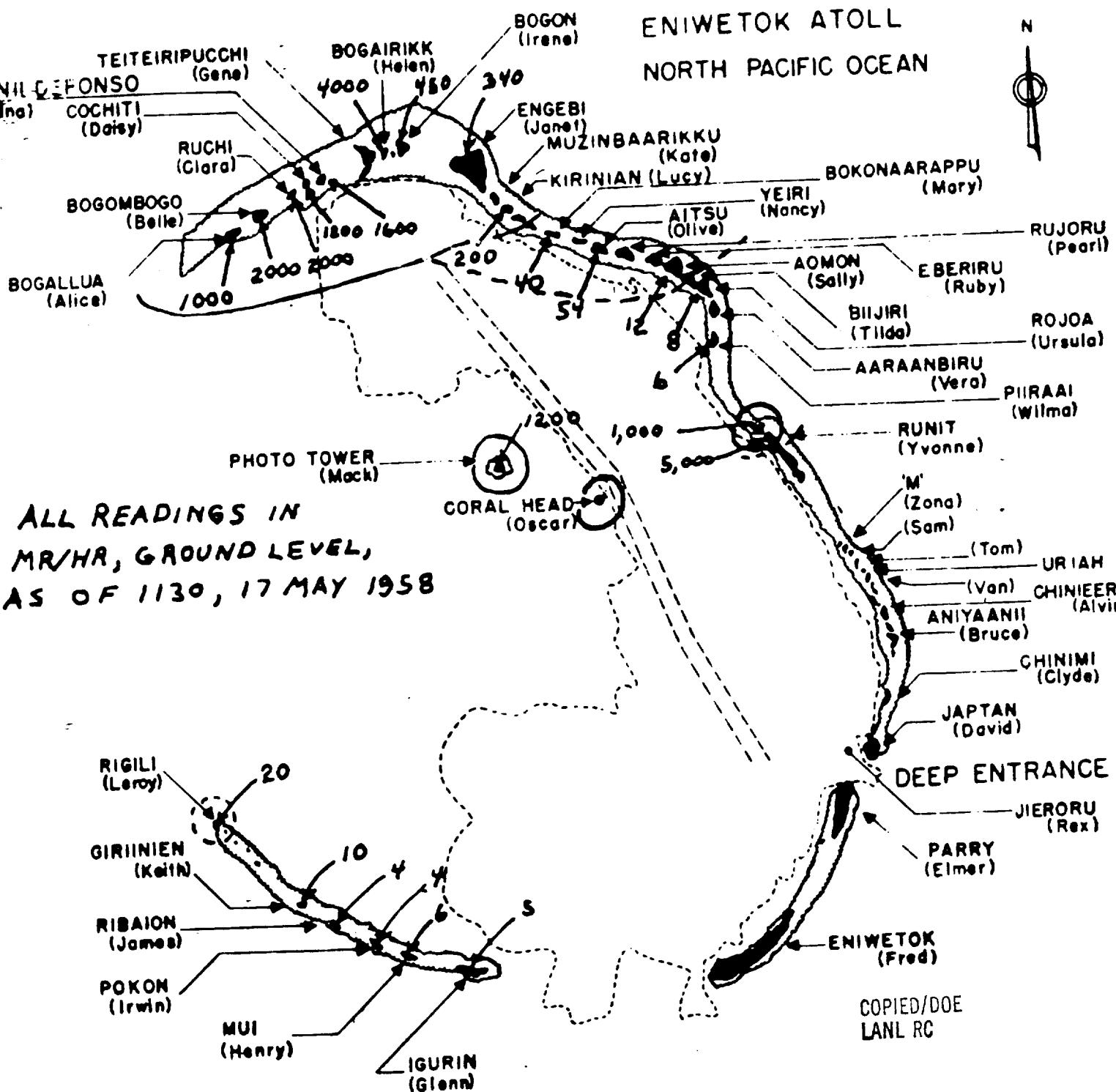
Zebra

Aira

Bravo

ALL Readings In
ALL MR at Ground Level
AS of 1650, 17 May

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



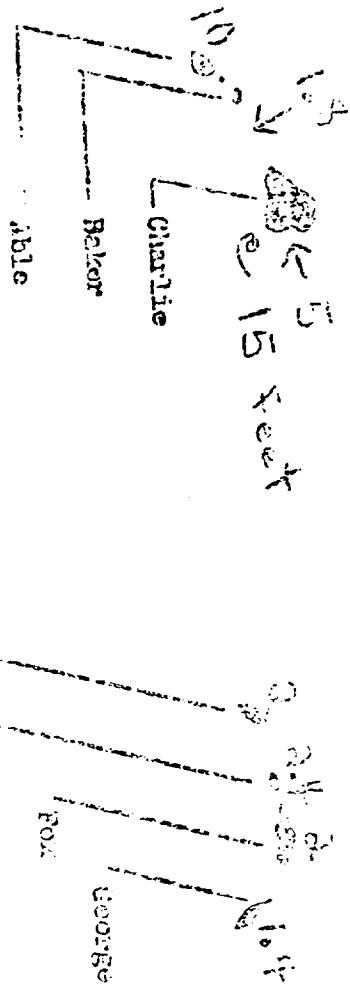
----- LIMITED RADEX

— FULL RADEX

91

RIKINI ATOLL

COPIED/DOE
LANL RC



Pen

All houses have Non-Radiant

Clotheslines through Radi-Sax
Not required

Uncle

Tare

Sugar

Roger

Potor

Dooe

Mike

Louie

King

Jig

Item

Man

Low

Mike

Jig

Item

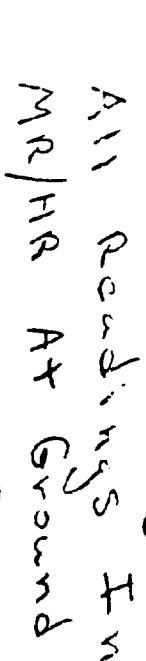
Man

Low

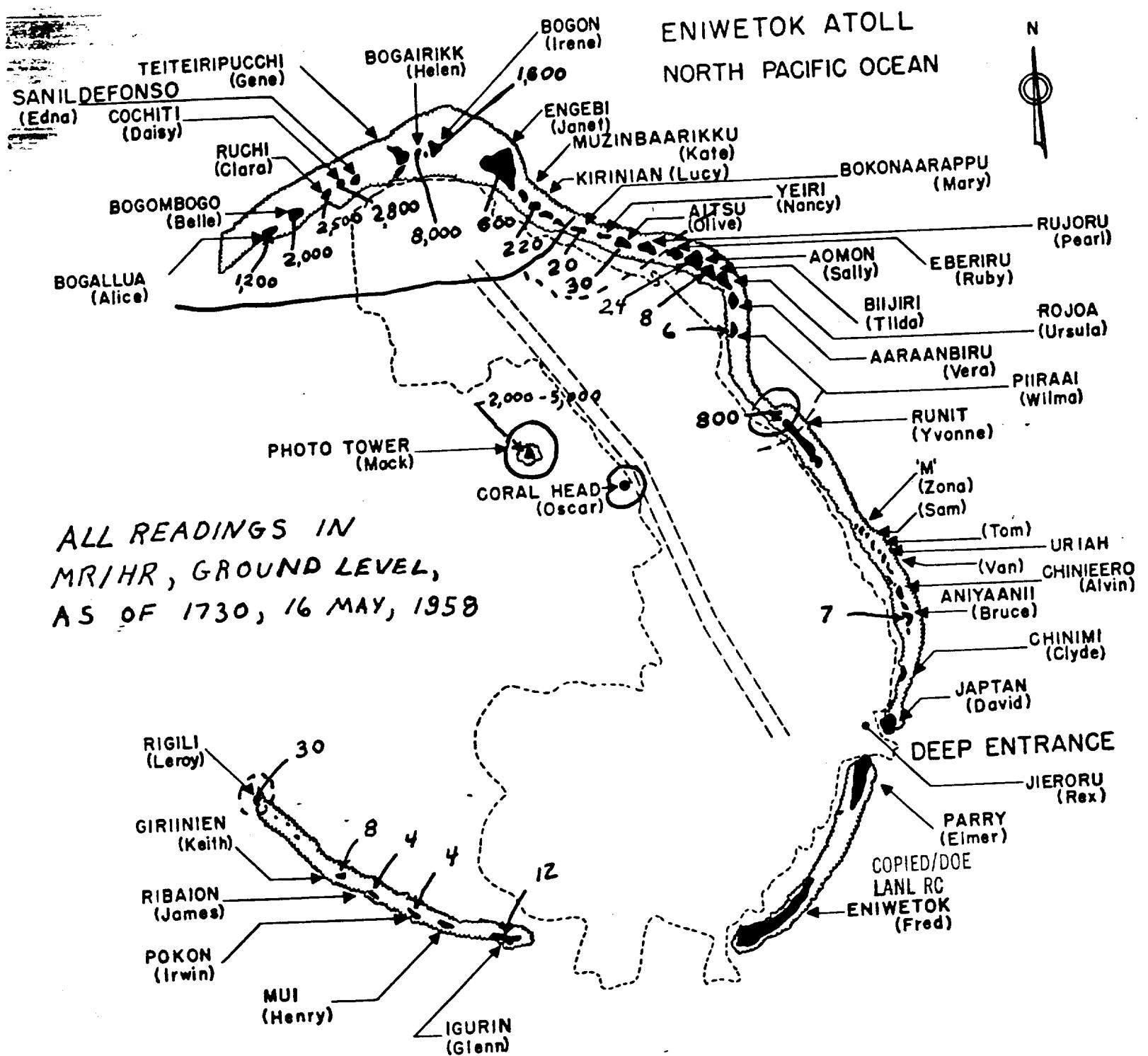
make a file for B.
Then for G

COPIED/DOE
LANL RC

BÍKINI
MÝTOS



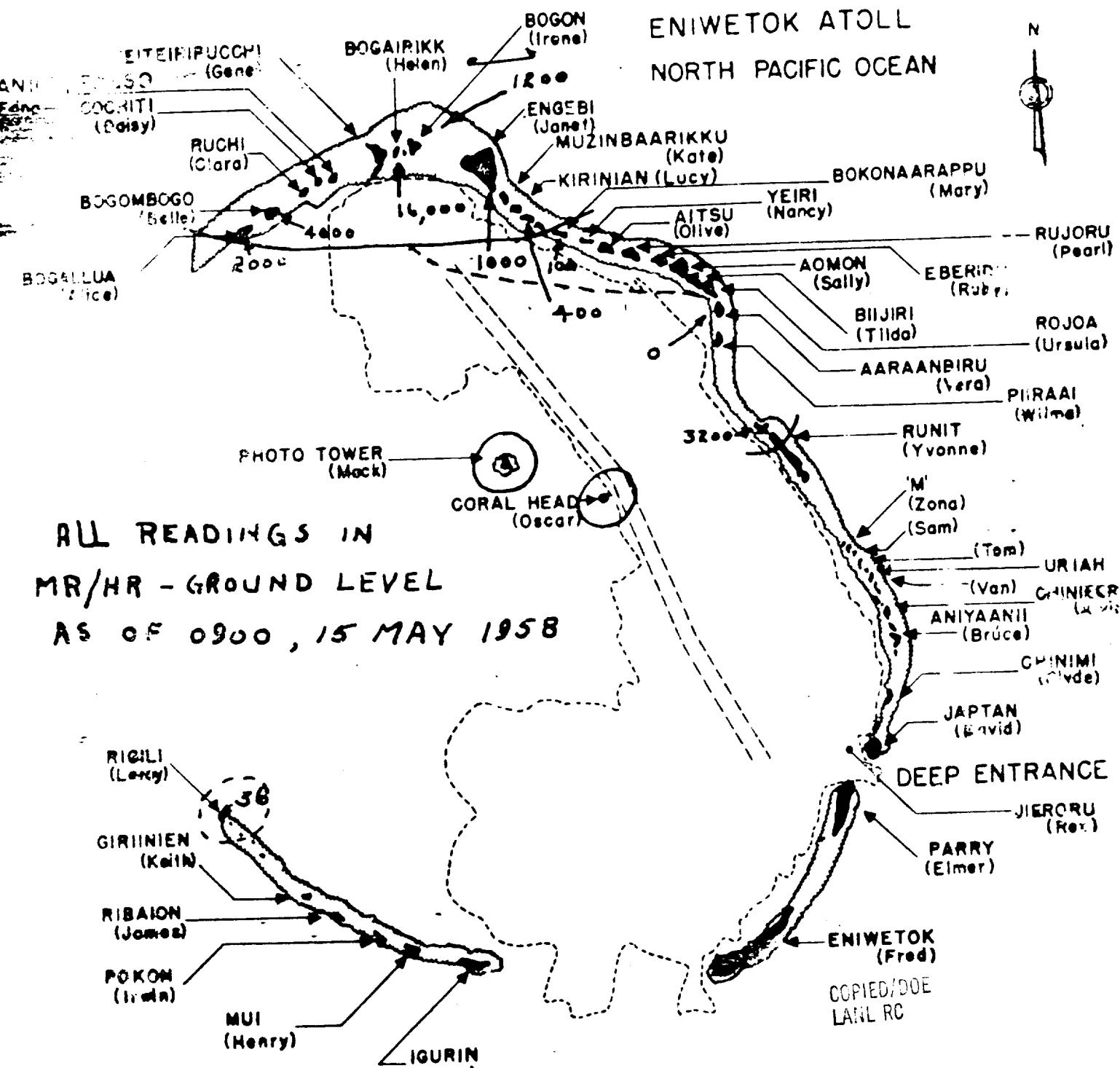
Level as of 1150 hrs.



ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 1730, 16 MAY, 1958

----- LIMITED RADEX
----- FULL RADEX 94

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



ALL READINGS IN
MR/HR - GROUND LEVEL
AS OF 0900, 15 MAY 1958

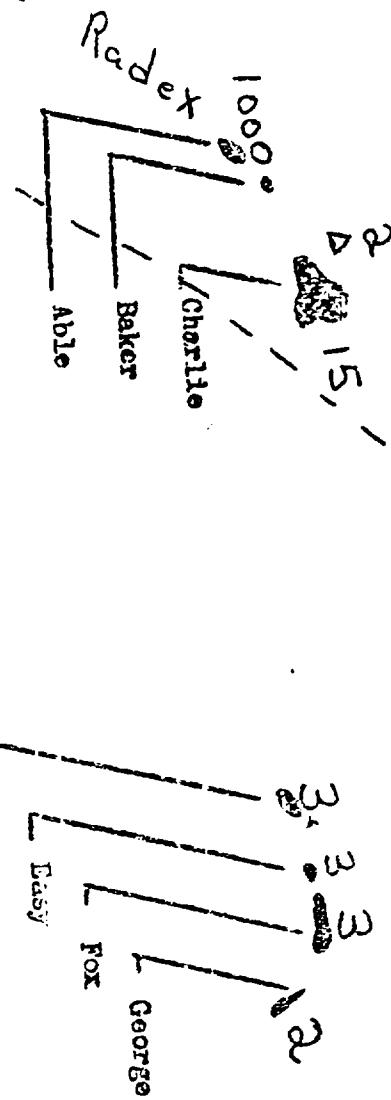
----- LIMITED RADAR

— FULL RADAR

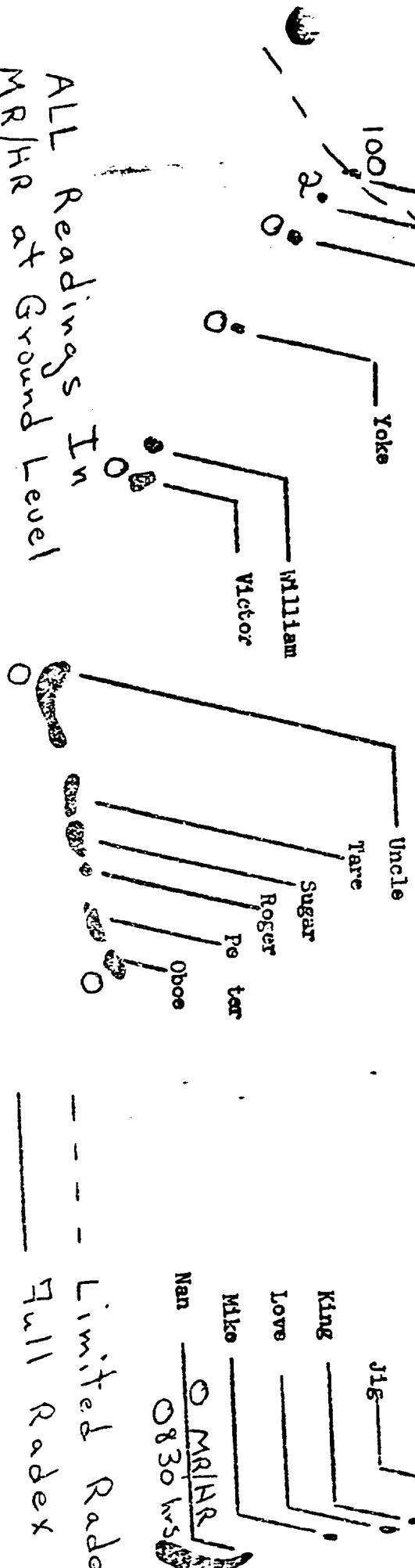
GS

BIKINI ATOLL

COPIED/DOE
LANL RC



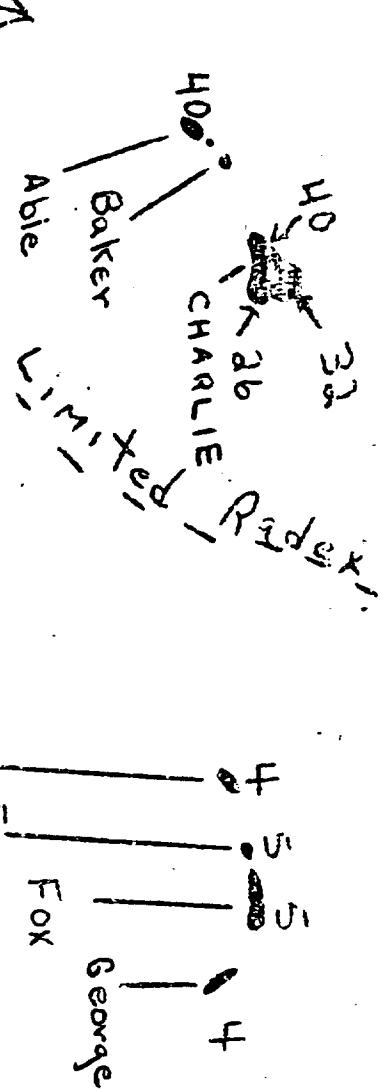
Limited
NON-RADEX



ALL Readings In
MR/HR at Ground Level
AS of 0800, 14 May

BIKINI ATOLL

COPIED/DOE
LANL RC



REEF 100-200

NON-RADEX

How
Item

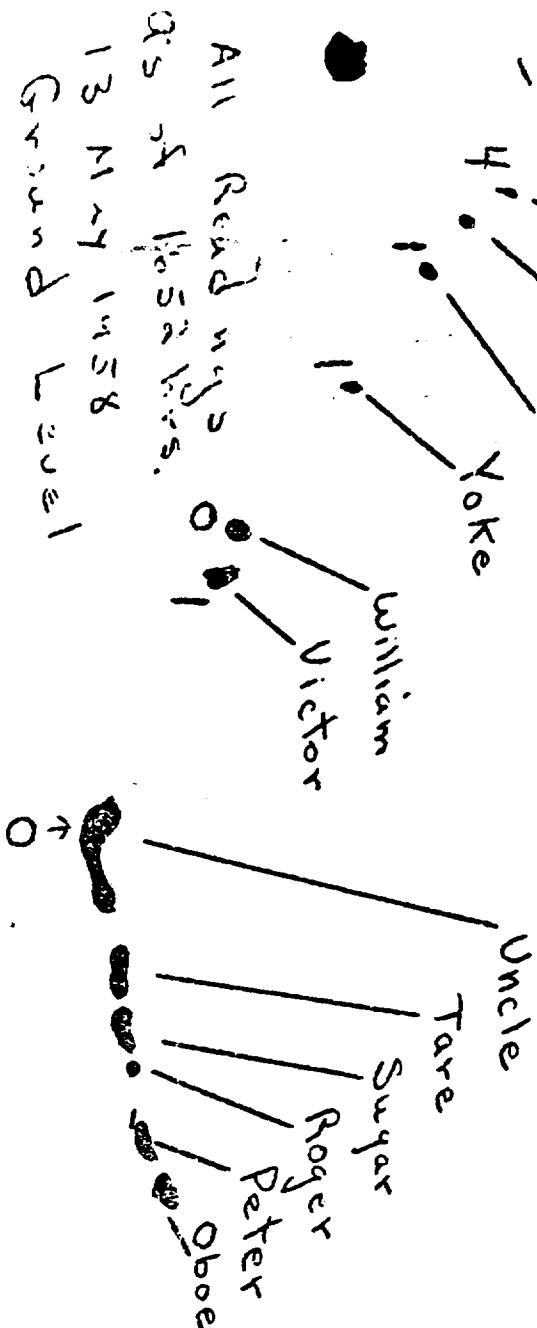
Jig
King

Love

Mike

Nan

O MAHR
Hibiscus.



0

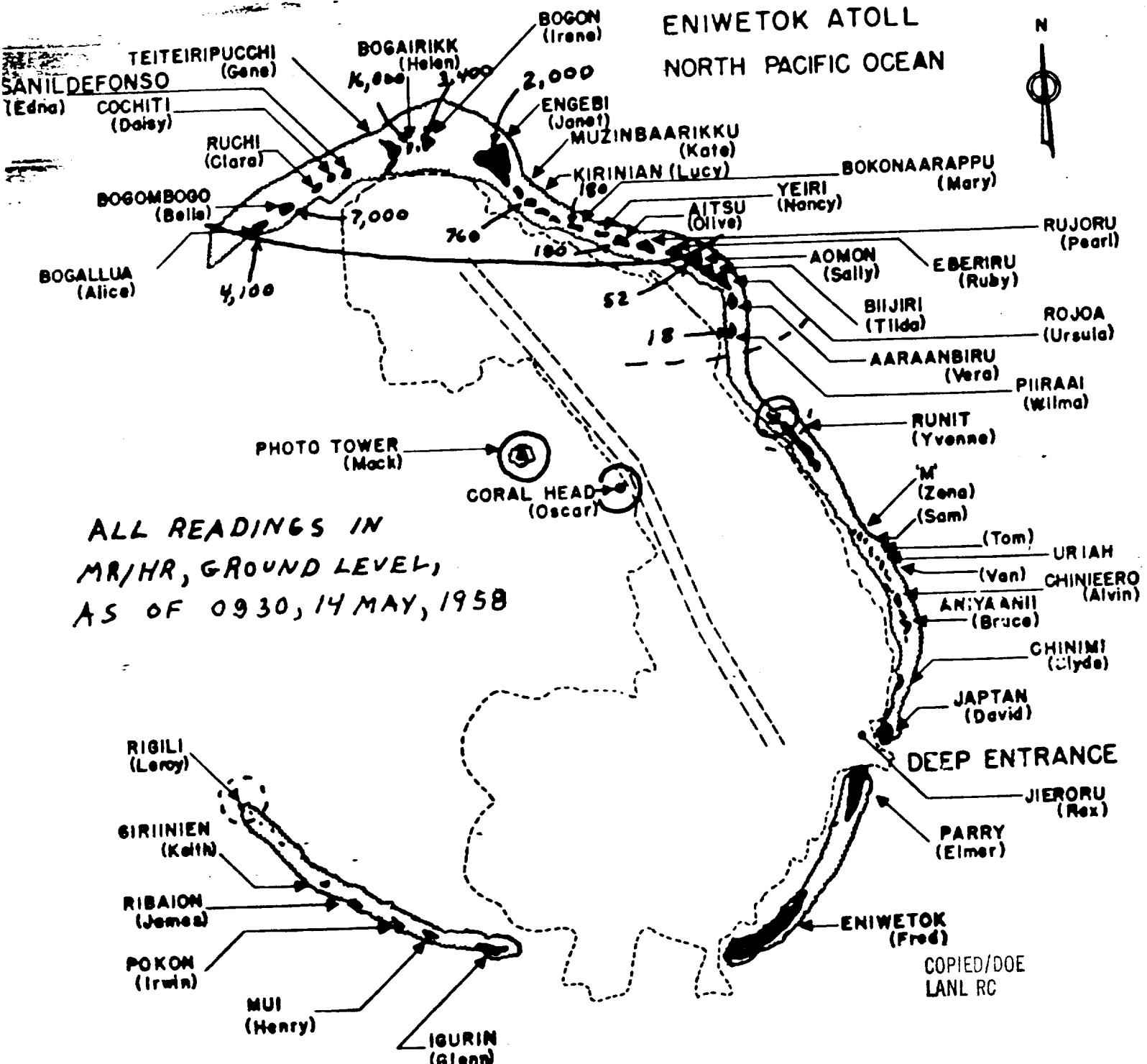
— — — Limited Radex

— — — Full Radex

All Readings In MR/HR

13 May 1958
Ground Level

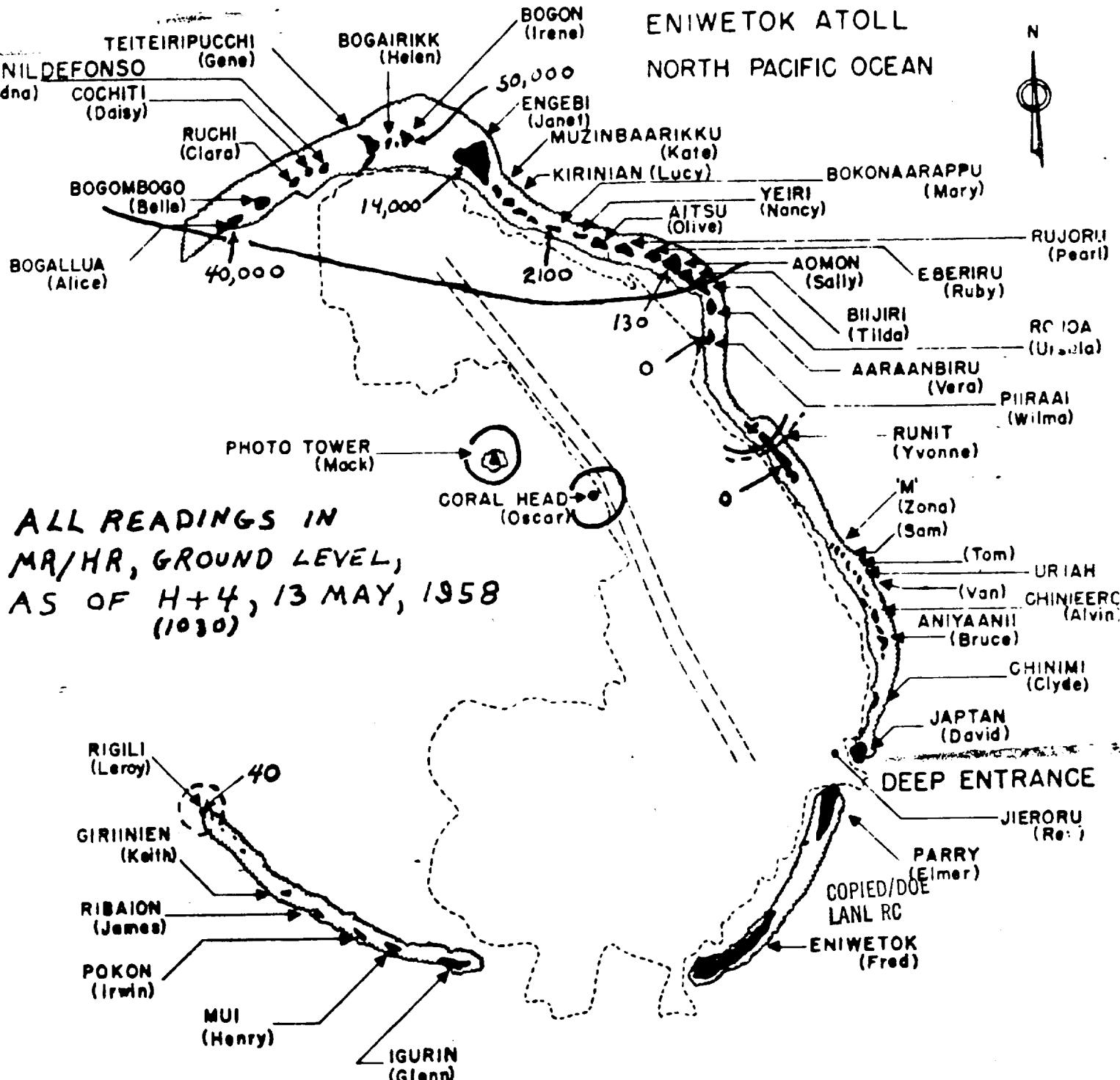
Dr. Wm. E. Ogle
JTF-7



----- LIMITED RADEX

----- FULL RADEX q

Dr. Wm. E. Ogle
JTF - 7



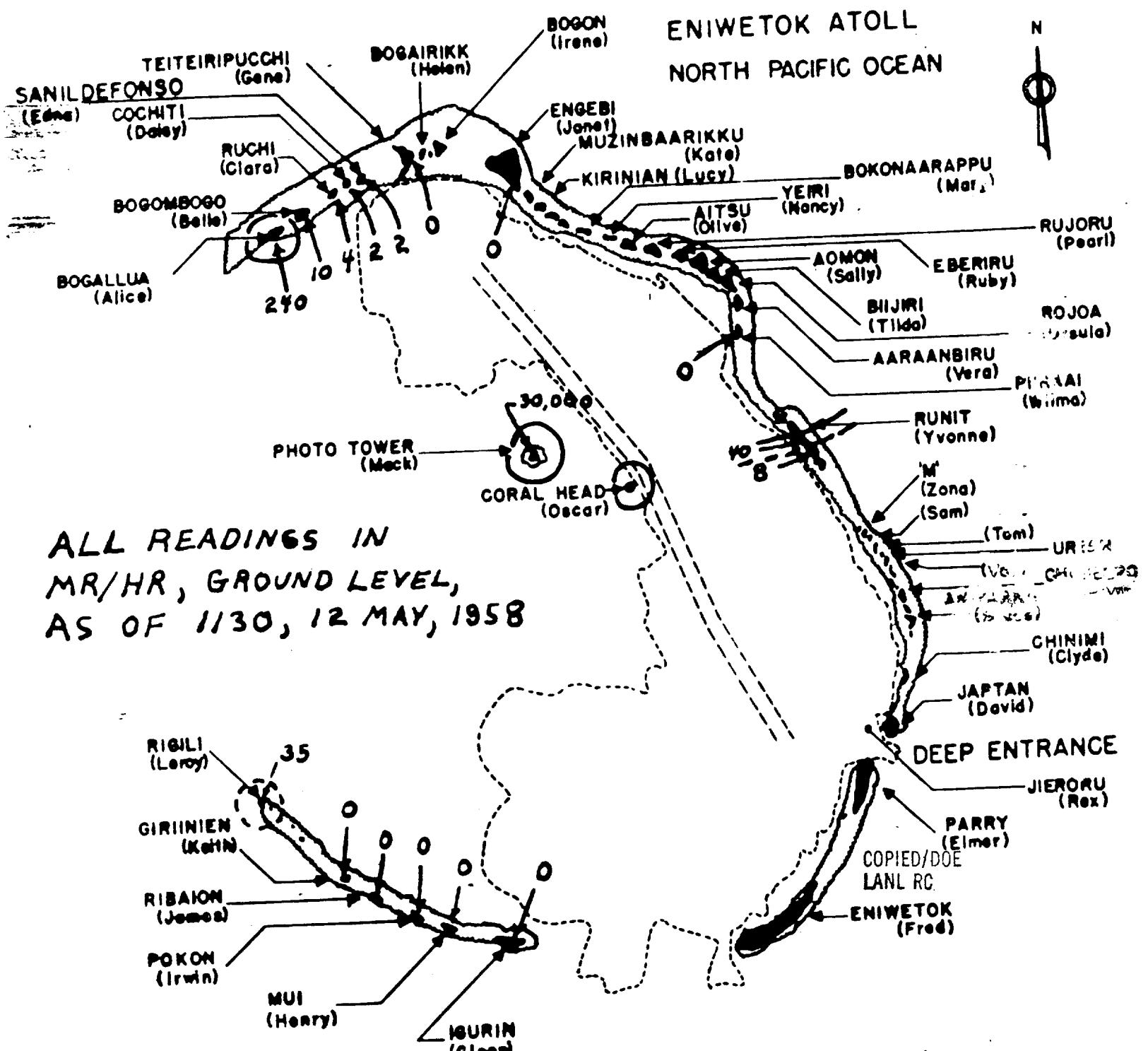
NOTE: Holly Moor - 70 mr/hr at 25'
Yellowwood Moor - 250 mr/hr at 25'
Irene Pinex Recovery Area - 5,000
to 10,000 mr/hr at 25'

9

--- LIMITED RAD

— FULL RADEX

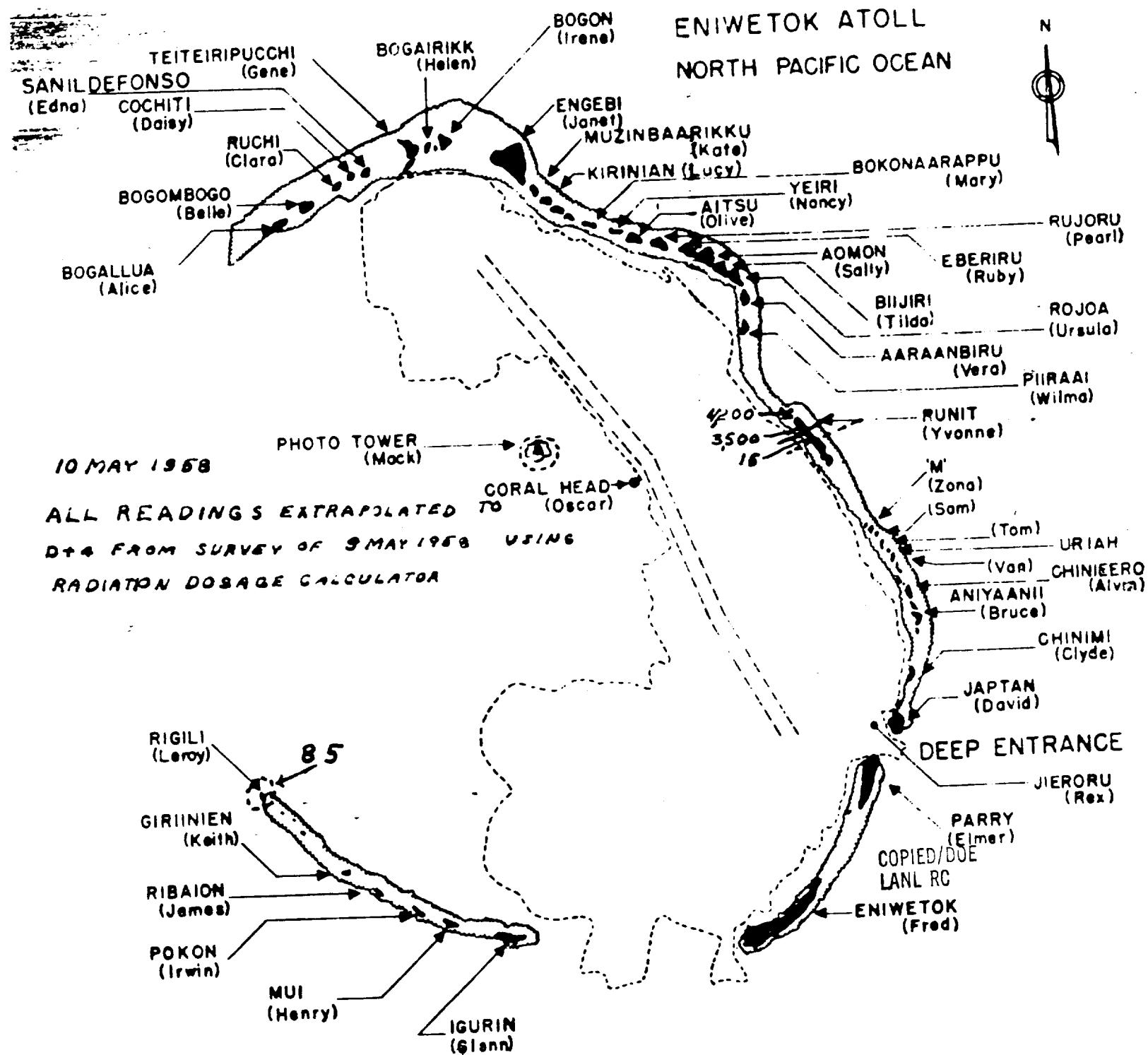
Dr. Wm. E. Ogle
JTF - 7



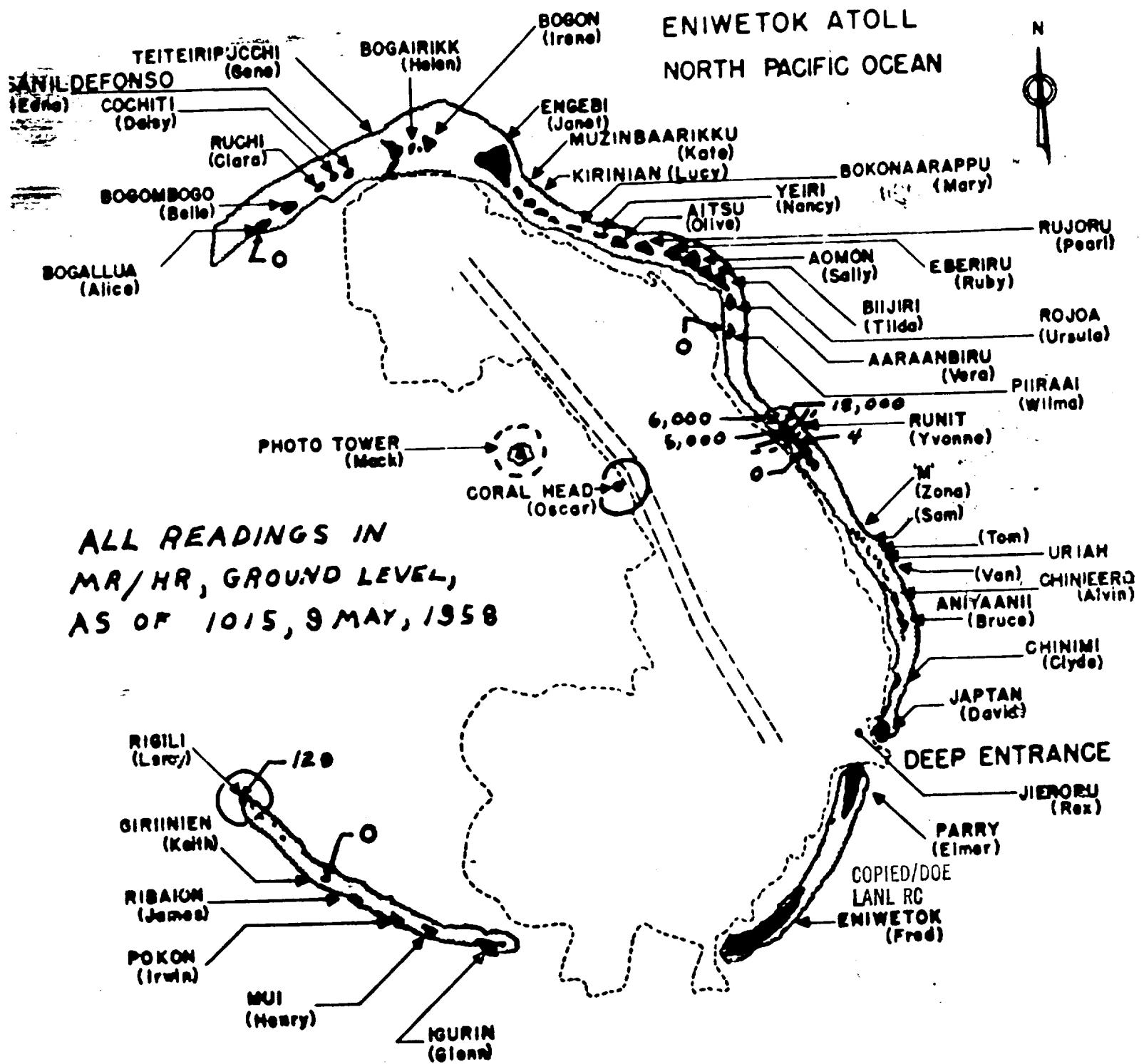
— — — LIMITED RAD
— FULL RADEX

160

Dr. Wm. E. Ogle
JTF-7



Jr. Wm. E. Cgle
JTF-7



----- LIMITED RADEX

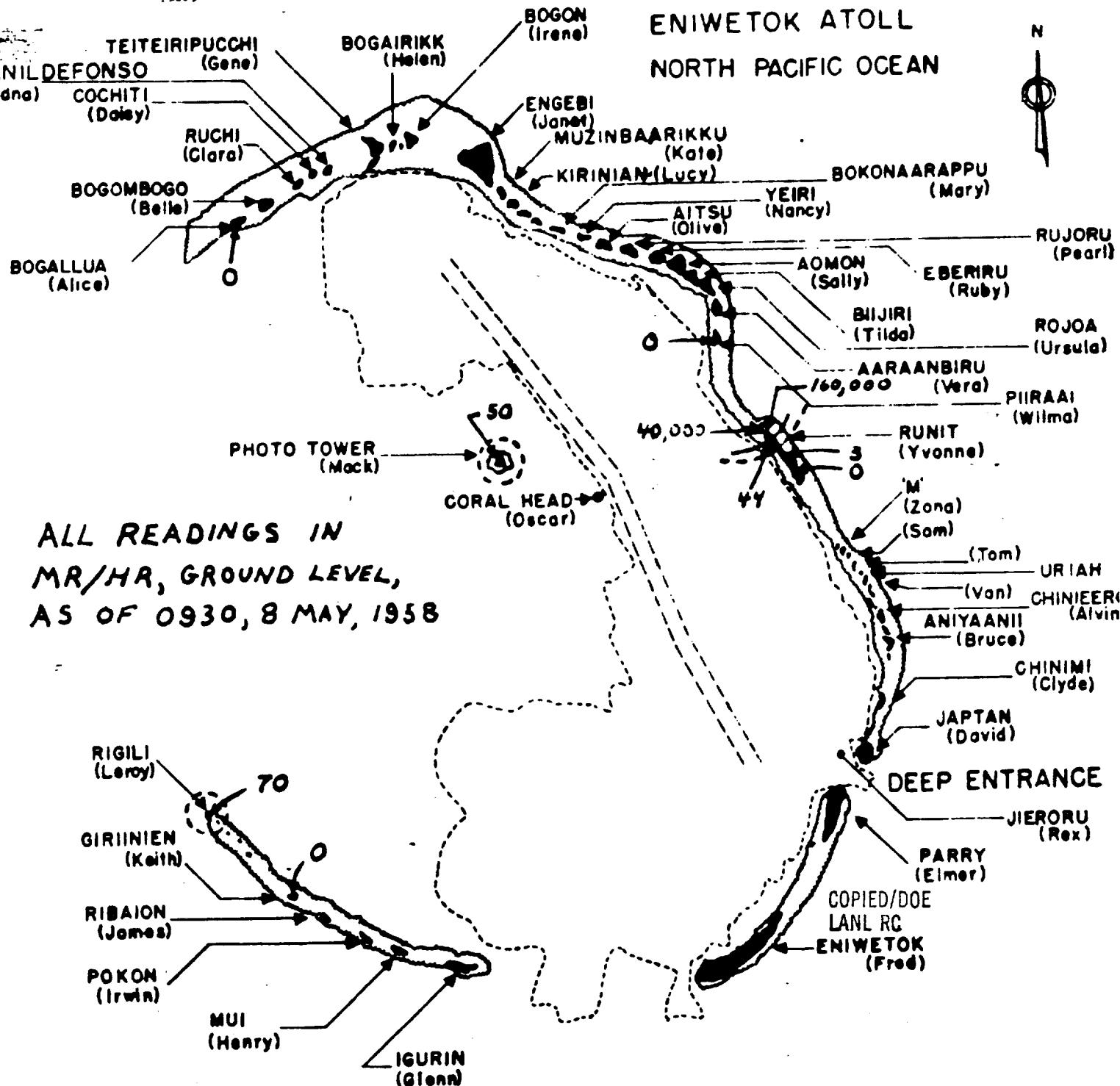
----- FULL RADEX

10

Dr. Wm. E. Ogle

JTF - 7

ENIWETOK ATOLL
NORTH PACIFIC OCEAN



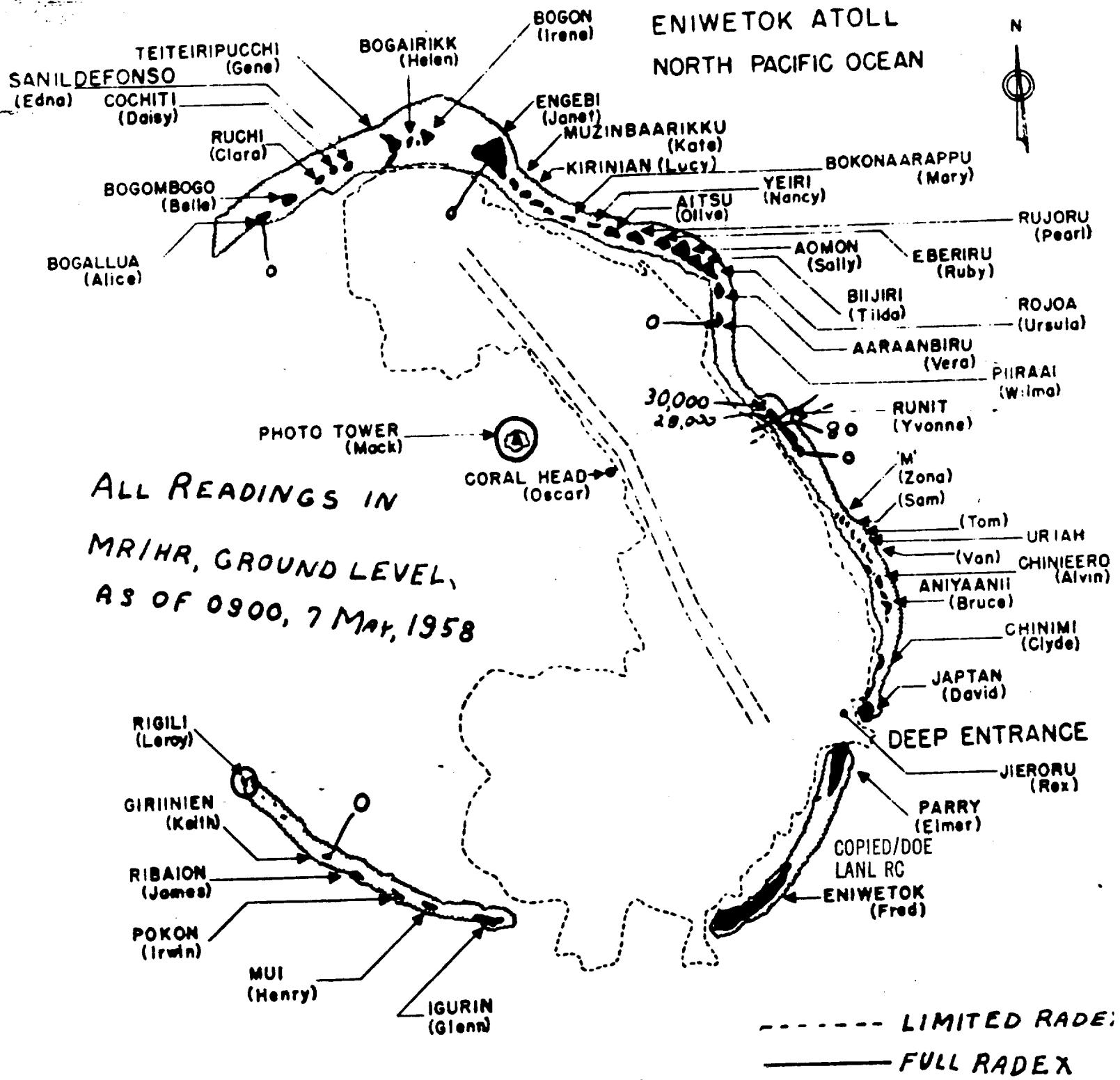
ALL READINGS IN
MR/HR, GROUND LEVEL,
AS OF 0930, 8 MAY, 1958

— — — LIMITED RADEX

— — — FULL RADEX

10

Jr. Wm. E Ogle
JTF-7



----- LIMITED RADEX
— FULL RADEX

100