

~~OFFICIAL USE ONLY~~

JOB NO. 942

HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS.
JOB 942

405719

R

DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION YOSH
CHIEF OF PARTY Dalton
DESCRIBED BY M.P.C. MARKED BY Dalton
FIELD BOOK NO 349 PAGE 17 DATE 20 Febr. 1959

SITE Yvonne
Runit Island
Eniwetok Atoll
Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE MARKS		
	DISTANCE		DIRECTION
	FEET	METERS	
No reference marks set			

ELEVATION OF MARK 13.42

DETAILED DESCRIPTION OF STATION

The station mark is a flat brass plate, 2 inches by 2½ inches, brazed on a 3/4 inch brass bolt. The bolt is grouted in a hole drilled in the concrete roof of Hardtack Station 1612 and the brass plate is flush with the surrounding concrete.

A 20 ft. wooden observation tower is presently in place. The observing stand is 20.04 ft. above the station mark (elevation 33.46).

See page 2 of this description for location details.

BEST COPY AVAILABLE

REPOSITORY NATIONAL ARCHIVES
PACIFIC SOUTHWEST REGION
COLLECTION RG 326 ATOMIC ENERGY COMMISSION
BOX No. 199679 (#1089) A16429 326-65AG170
ENIWETOK 1959
FOLDER HORIZONTAL CONTROL HOLMES & NARVER
JIS NO. 6 82-4

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Pacific Southwest Region

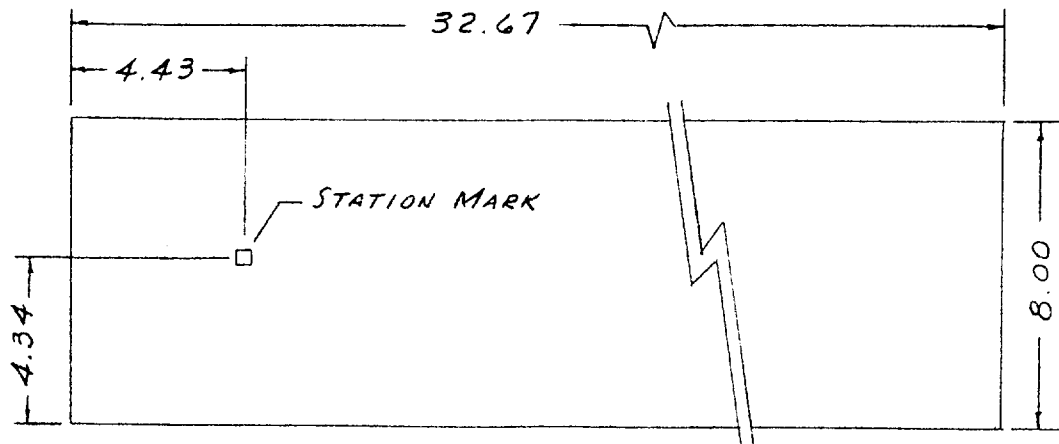
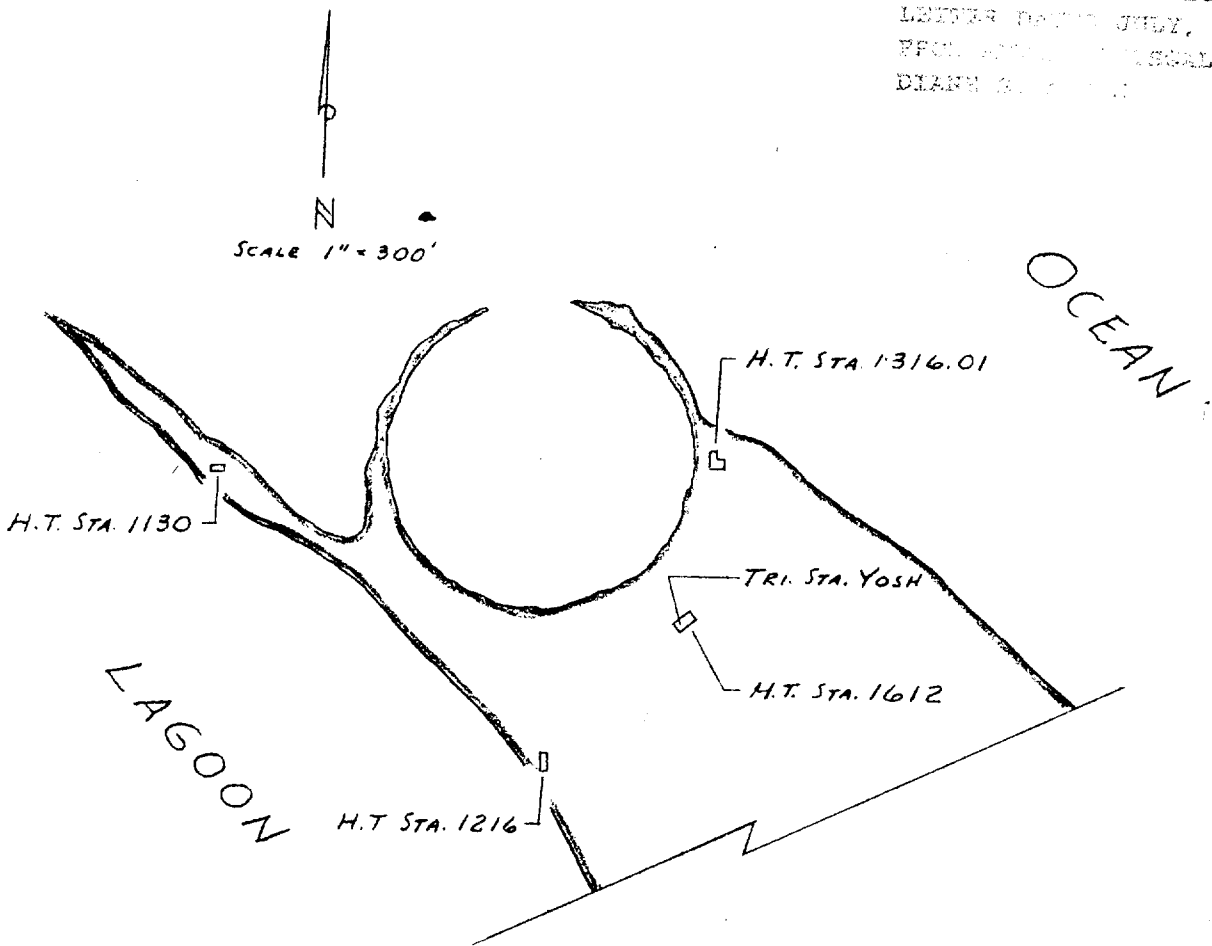
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PAGE 2 DESCRIPTION OF TRIANGULATION STATION

TABLE 1. DESCRIPTION OF STATION POINT

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ADAM M. DISCALI TO
DIANE B. [illegible]



ROOF PLAN, H.T. STA. 1612
SCALE 1" = 5'

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JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION AITSU
ESTABLISHED BY H & N
RECOVERED BY F. A. Axtell
FIELD BOOK NO: 342 PAGE: 28
SITE: Olive
Aitsu Island
Eniwetok Atoll
Marshall Islands
YEAR: 1952
YEAR: 1958
DATE: 9/9/58

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE	DIRECTION	ELEVATION
	FEET	METERS	
Aitsu			10.05
Coral	---	00-00-00	---
R.M. #1	50.00	103-48-32	9.37
R.M. #2	100.02	103-48-32	9.31

BRIEF HISTORY OF STATION.

This station was established as a third order station in the control net in the Holmes & Narver 1952 Control Expansion Survey.

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ANTON SINISCALLO TO
DEANE S. NIXON

DETAILED DESCRIPTION OF STATION.

This station was recovered in good condition. The station mark is an aluminum pipe capped with an aluminum cap 2" in diameter, stamped "Aitsu - H & N." It is set in concrete 4" below the ground surface.

R.M. #1 is in good condition. It is an aluminum pipe cap 2" in diameter stamped "50-RP-Aitsu." It is set in concrete 6" below the ground surface.

R.M. #2 is in good condition. It is an aluminum pipe cap 2" in diameter stamped "RM 2-Aitsu-H & N-1952." It is set in concrete 6" below the ground surface.

Both reference marks are badly corroded, but still identifiable.

References:

Field Book

Page

Date

186
227

14
14

10/13/52
4/22/54

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PAGE 2-RECOVERY NOTE-TRIANGULATION STATION

STATION Aitsu

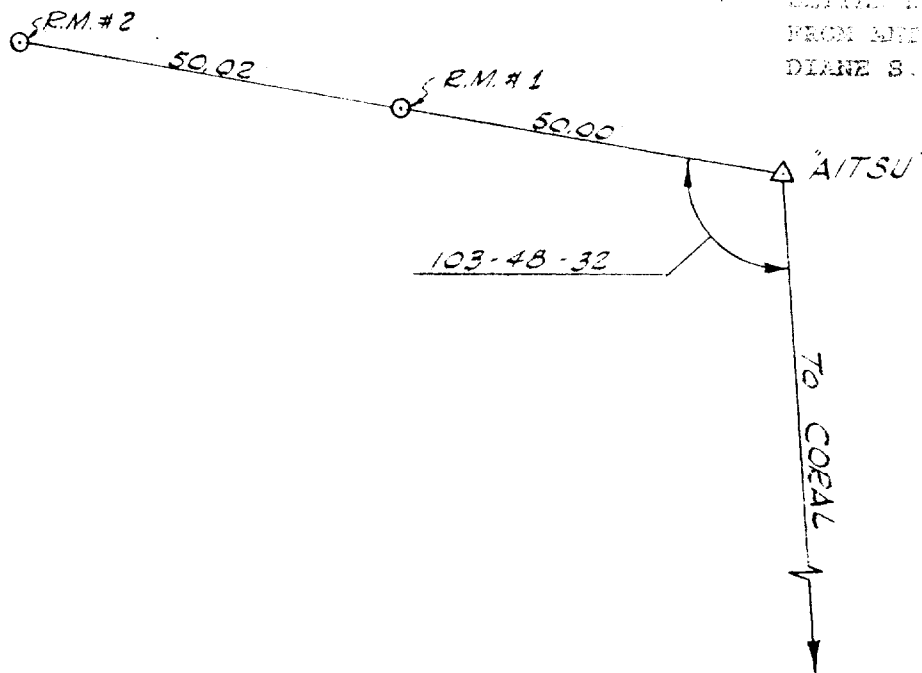
SITE Olive, Aitsu Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

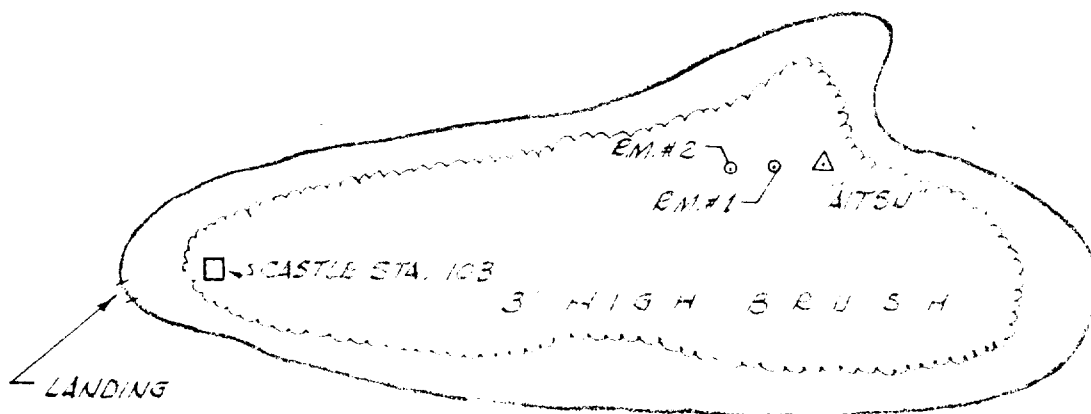
References (Cont'd):

<u>Field Book</u>	<u>Page</u>	<u>Date</u>
296	8&9	1/8/57
342	28	9/9/58

DECLASSIFIED PER DOZ
DATE 15 JULY, 1994
FROM WHICH SEMISCALLI TO
DIANE S. NIXON



LOCATION SKETCH.



L A G O O N

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HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION ALICE

ESTABLISHED BY H & N

RECOVERED BY

FIELD BOOK NO.

PAGE

YEAR 1955

YEAR 1958

DATE

SITE

Alice

Bogallua Island

Eniwetok Atoll

Marshall Islands

OBJECT	DISTANCES		AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE		DIRECTION		ELEVATION
	FEET	METERS			
Alice					39.14
R.M. #1	18.455				
R.M. #2	18.615				

BRIEF HISTORY OF STATION:

This station was established as a second order station in the 1955 Holmes & Narver Replacement and Expansion Survey.

RECLASSIFIED PER DOE
EXPIRY DATED JULY, 15, 1994
RETURNED TO
DIANE E. NIXON

DETAILED DESCRIPTION OF STATION:

This station was not recovered. Due to its isolated and protected location it is assumed to be undisturbed. The station mark is a lead and tack at the approximate working point of Ivy station 300, a 3 story concrete building. It is located 5 feet back from the forward edge of the station on the center axis of the station on the highest portion of the station roof.

Reference Marks #1 and #2 are lead and tacks at the two rear corners of the highest portion of the station roof.

References:

Field Book

Page

Date

252

2

6/13/55

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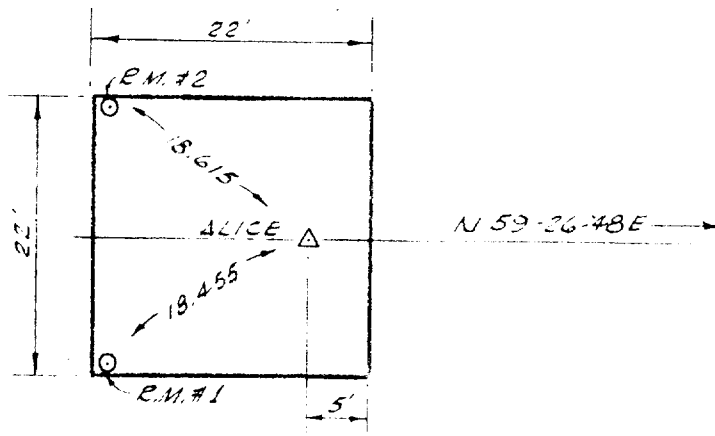
PAGE 2-RECOVERY NOTE-TRIANGULATION STATION

STATION ALICE

SITE Alice, Bogallua Island, Eniwetok Atoll, M.I.

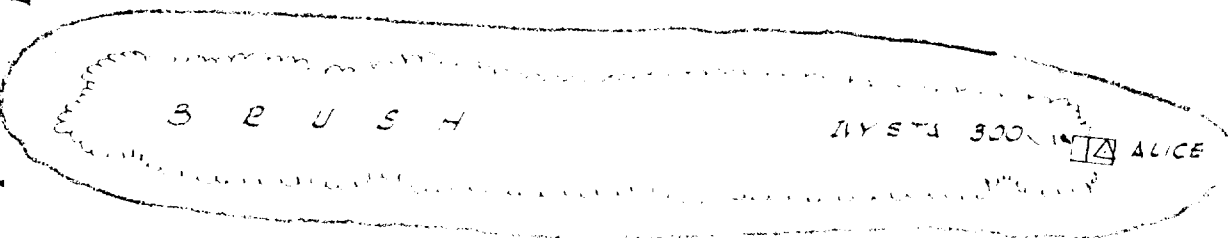
DETAILED DESCRIPTION OF STATION (CONT'D)

DECLASSIFIED BYR DOR
DATE: JULY, 15, 1994
FROM ANTON SINISCALLO TO
BLANE S. NIXON



ROOF PLAN
IVY STA. 300

LOCATION SKETCH:



NO BOAT LANDING
DUKWS & TRACKED EQUIP. ONLY

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ENGINEERS - CONSTRUCTORS
JOB 942

NAME OF STATION	Aster (Kirinian)	SITE	Lucy
ESTABLISHED BY	USN	YEAR	1944
RECOVERED BY	F. A. Axtell	YEAR	1958
FIELD BOOK NO.	344	PAGE	3
		DATE	9/10/58

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE MARKS		ELEVATION
	FEET	METERS	
Aster			8.60
Alice	---	---	---
R.M. #1	52.28		7.10
R.M. #2	102.69		6.72

This station was a primary station in the USS Bowditch Survey, 1944. It shown on US Navy Hydrographic Office Chart 6033 as Beacon "M". It was a secondary station in the Holmes & Narver 1949-50 Survey. It was a third order station in the Holmes & Narver 1952 Control Expansion Survey and was called "Kirinian" to designate the island it is located upon.

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM: JOHN STRINGSALLI TO
OFFICE C. KENNEDY

This station was recovered in good condition. The station mark is a standard embossed USN Survey disc, 2" in diameter. It is set in an 8"x8" concrete post 6" above the ground surface.

R.M. #1 is in good condition. It is a standard Holmes & Narver 2-5/8" embossed brass disc, unmarked except for a punch mark. It is set in concrete 6" below the ground surface.

R.M. #2 is in good condition. It is a standard Holmes & Narver 2-58" embossed brass disc, unmarked except for a punch mark. It is set in concrete 8" below the ground surface.

Field Book

Page

Date

37

4/12/50

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

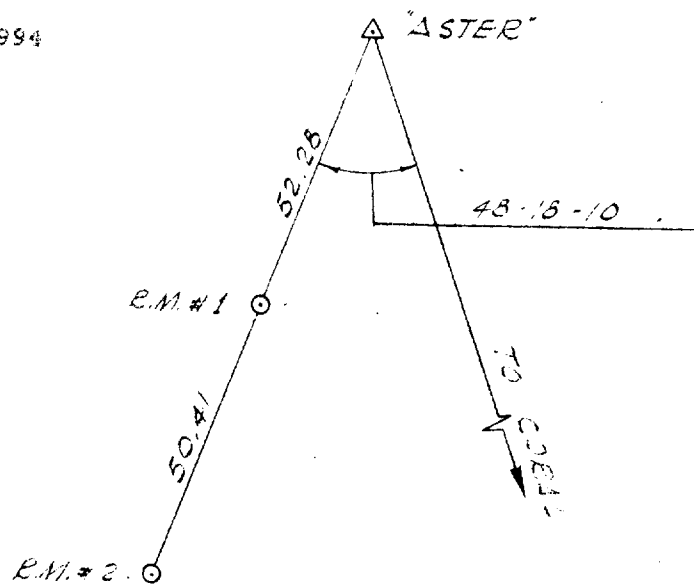
STATION: Aster (Kirinian) SITE: Lucy, Kirinian Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

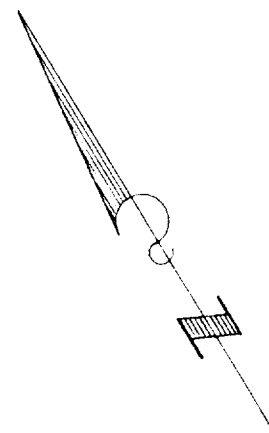
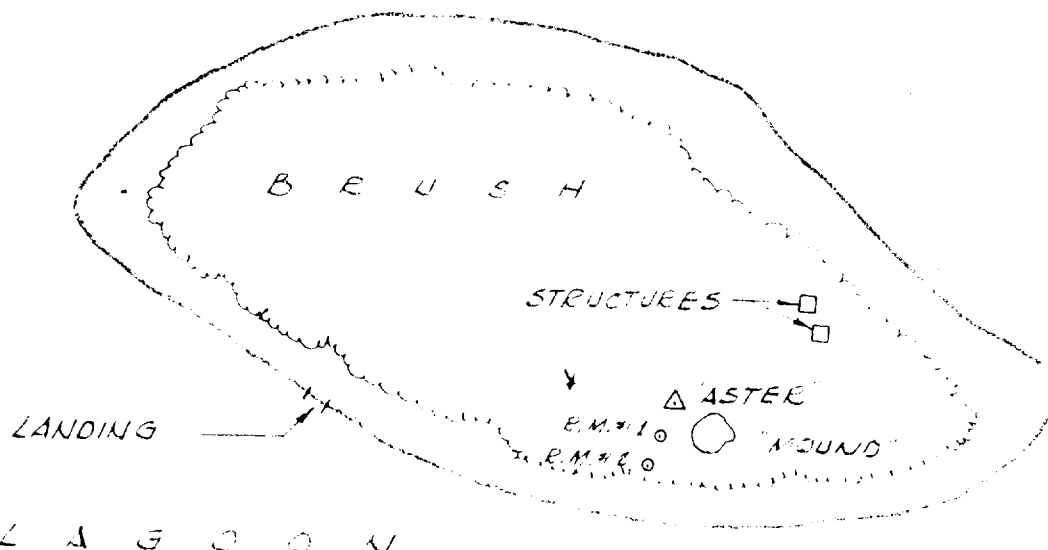
References (Cont'd):

<u>Field Book</u>	<u>Page</u>	<u>Date</u>
142	2	6/14/51
230	3	5/8/54
296	14-16	1/10/56
344	3	9/10/58

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM DEPT OF COMMERCE TO
DIANE ST NIXON



LOCATION SKETCH:



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HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION. BOKON SITE Mary
ESTABLISHED BY: H & N YEAR: 1949 Bokonaarappu Island
RECOVERED BY: F. A. Axtell YEAR: 1958 Eniwetok Atoll
FIELD BOOK NO: 342 PAGE: 30 DATE: 9/9/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE		ELEVATION
	FEET	METERS	
Bokon			10.40
Coral	---		00-00-00
R.M. #1	50.02		144-26-02
R.M. #3	80.17		239-55-35
			9.32

BRIEF HISTORY OF STATION:

This station has been a second order station in the following surveys:

Holmes & Narver 1949-50; Holmes & Narver 1952 Expansion.

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ANTON SEMIGALSKI TO
DIANE S. SIMON

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard Holmes & Narver embossed brass disc 2-58" in diameter. It is stamped "Bokon". It is set in concrete flush with the ground surface.

R.M. #1 is in good condition. It is a standard embossed holmes & Narver disc, 2-58" in diameter. It is stamped RP 1 with a crossed arrow pointing toward the station mark. It is set in concrete flush with the ground surface.

R.M. #3 is in good condition. It is a cross chiseled in the center of the top of a concrete anchor block of Greenhouse Tower station 60.

References:

Field Book

Page

Date

31
31
133

2
6
16

3/19/50
3/19/50
6/25/51

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PAGE 2- RECOVERY NOTE - TRIANGULATION STATION

STATION. Bokon

SITE. Mary, Bokonaarappu Is, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

Field Book

Page

Date

230

21

6/3/54

296

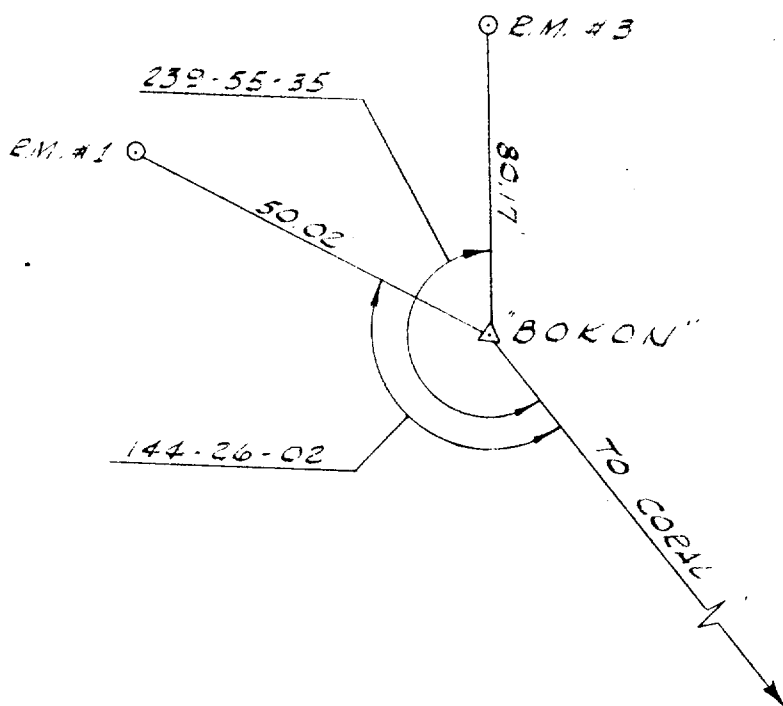
10-11

1/8/57

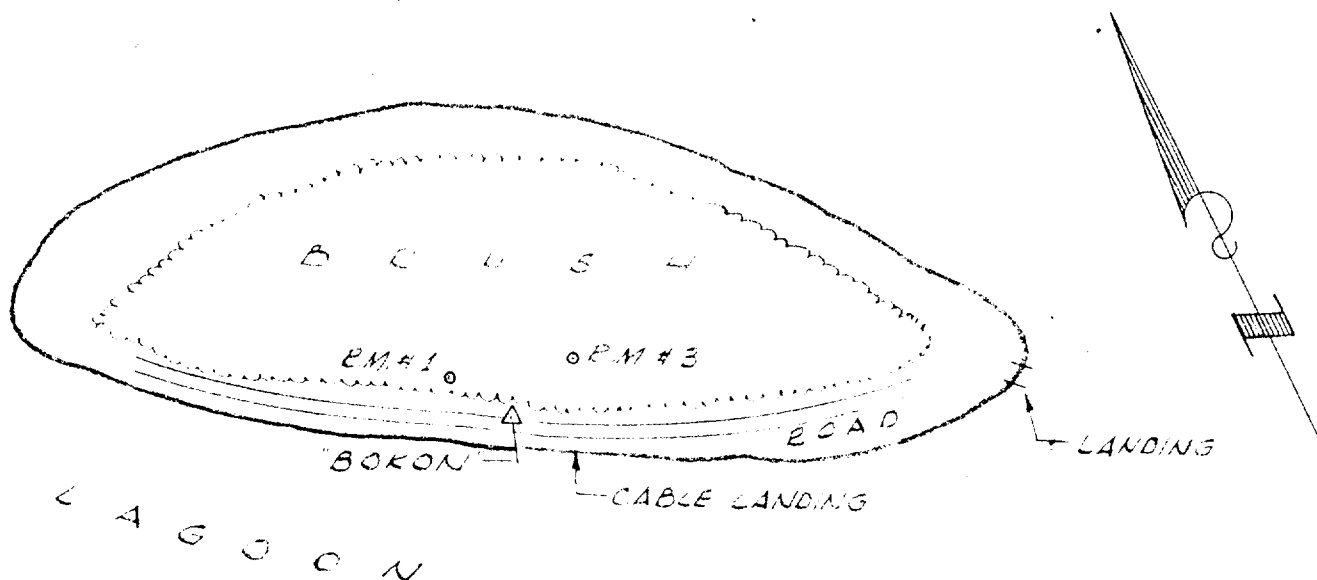
342

30

9/9/58



LOCATION SKETCH:



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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION CORAL SITE OSCAR
ESTABLISHED BY JTF-7 YEAR 1947-48 Coral Head
RECOVERED BY F. A. Axtell YEAR 1958 Eniwetok Atoll
FIELD BOOK NO. 344 PAGE 8 DATE 9/12/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE	DIRECTION	
	FEET	METERS	ELEVATION
Coral			10.20
Photo	----	----	00-00-00
R.M. #1	93.31	----	260-23-33
			5.04

BRIEF HISTORY OF STATION.

This station was established b JTF-7 on the same coral head where the USN 1944 intersection station "Reef" was located. It has been a primary station in all subsequent surveys and is the origin of coordinates (N100,000; E100,000) for the "Ivy" grid. There is a 20 foot high square steel tower permanently mounted over this station.

1959 - Mon. To OBS. STAND 22.37; OBS STAND ELEV 32.57

DETAILED DESCRIPTION OF STATION.

This station was recovered in good condition. The station mark is a standard USC & GS brass disc 3" in diameter stamped "Coral". It is set in concrete 14" below the surface of the surrounding concrete.

R.M. #1 is in good condition. It is a lead and tack in the small coral head 90' southeast of the main station structure. A piece of angle iron is imbedded in the coral head directly behind the RM on the Coral-RM #1 line.

References:

Field Books	Page	Date
162	3	4/3/52
229	3&4	6/20/54
280	6	3/12/56
280	15&16	8/1/56
289	30	1/31/57
344	8	9/12/58

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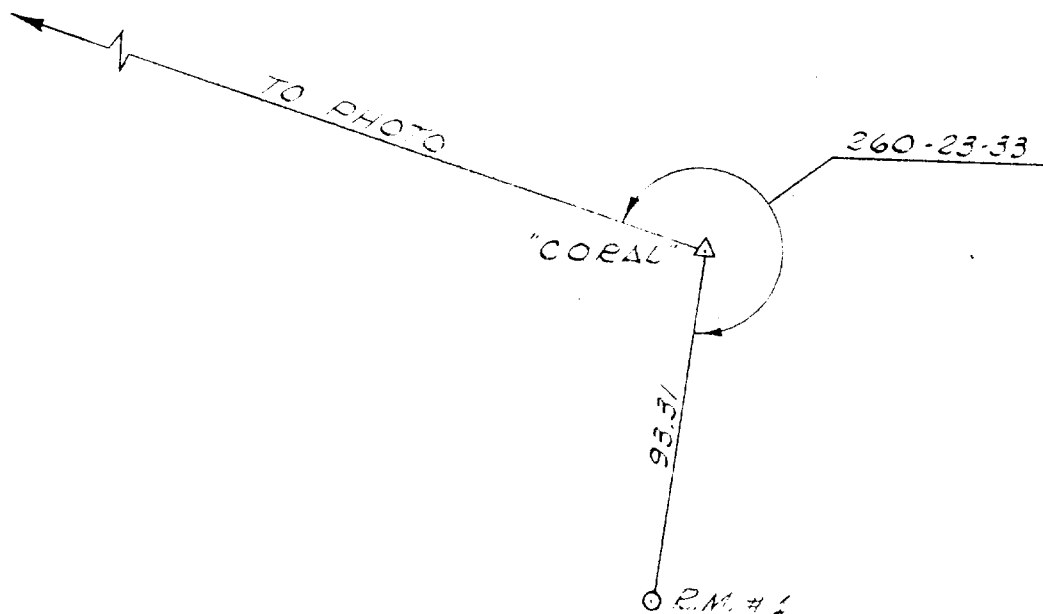
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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION Coral

SITE: Oscar, Coral Head, Eniwetok Lagoon, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)



LOCATION SKETCH.

REPRODUCED FROM THE HOLDINGS OF THE NATIONAL ARCHIVES
DATE OF REPRODUCTION: 11. 1994
BY: S. 1111

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RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION	ELGIN (ENGEBI)	SITE	JANET
ESTABLISHED BY	JTF-7	YEAR	1946
RECOVERED BY	F.A. AXTELL	YEAR	1958
FIELD BOOK NO	344	PAGE	7 & 9
	346	DATE	1958
			1958

ENGEBI ISLAND
ENIWETOK ATOLL
MARSHALL ISLANDS

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE MARKS		ELEVATION
	DISTANCE	DIRECTION	
	FEET	METERS	
ELGIN			7.17'
CORAL		00-00-00	
RM #1	58.70	45-03-40	9.46'
PI #1	154.95	60-40-58.3	9.70'
RM #2	50.02	105-42-22.5	8.74'

BRIEF HISTORY OF STATION

This station was established by JTF-7 in 1946 as one end of the timing line. It has been a primary station in the following surveys: Holmes & Narver, 1949-50; Holmes and Narver Control Expansion, 1952; Holmes and Narver Supplemental, 1955; Holmes and Narver Replacement, 1957. It has been called ENGEBI to designate the island it is located upon.

RECOVERED FOR COE
DATE: JULY, 15, 1994
FROM ARMO CONISBURY TO
WILLIAM S. MERRY

DETAILED DESCRIPTION OF STATION.

The surface station mark has been destroyed by erosion. A standard USC & GS sub-surface mark, 30" below the ground surface was recovered in good condition while preparing to replace the surface mark.

The station mark is a standard USC & GS brass disc, 3-1/2" in diameter, stamped "ELGIN". The station mark is a crossed arrow. The disc is set in concrete 30" below the ground surface.

RM #1 is in good condition. It is a standard Holmes and Narver, 2-5/8" in dia., embossed brass disc unmarked except for a punch mark. It is set in concrete 6" below the ground surface.

RM #2 is in good condition. It is a standard Holmes and Narver, 2-5/8" dia., embossed brass disc marked only with an arrow pointing toward the station. It is set in concrete 18" below the ground surface.

PI #1 is in good condition. It is a spike embedded in a concrete block with the point protruding 1/2". The spike is rusty, but still is identifiable.

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PAGE 2-RECOVERY NOTE-TRIANGULATION STATION

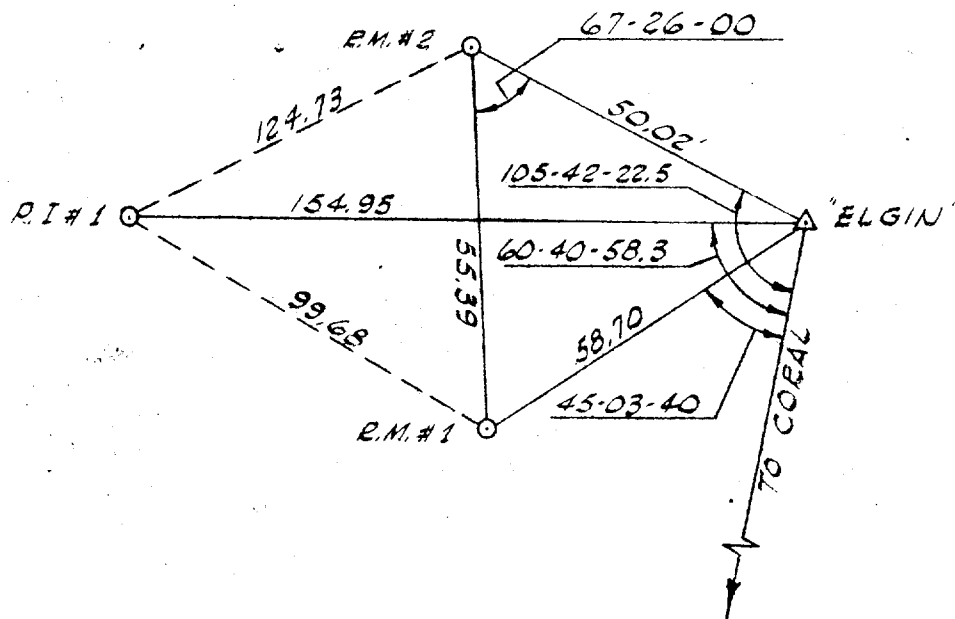
STATION ELGIN (ENGEBI) SITE JANET-ENGEBI ISLAND-ENIETOK ATOLL-M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

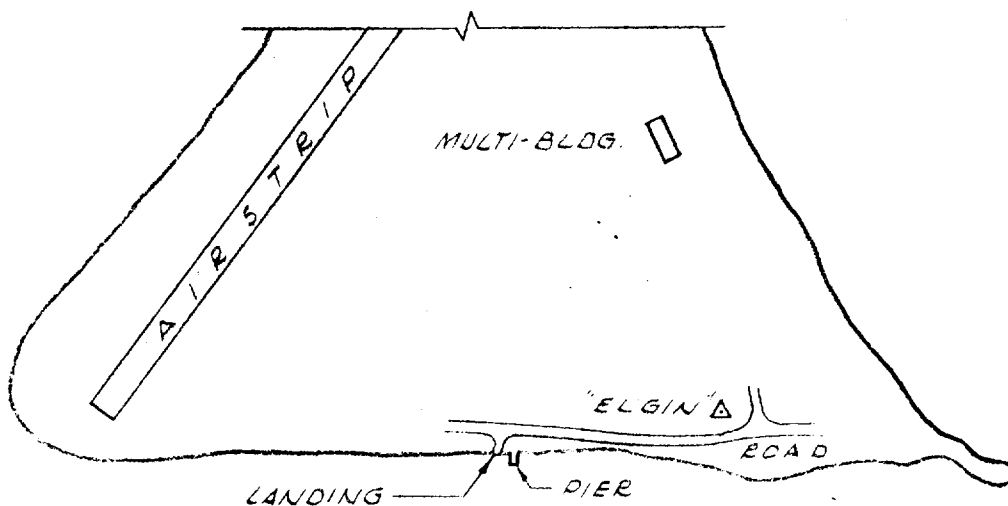
DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ARTHUR SYMSEBILI TO
FRANK E. ARFON

References:

<u>Field Book</u>	<u>Page</u>	<u>Date</u>
120	6	3- 9-51
248	29	6-11-55
296	23-25	1-14-57
344	7&9	9-13-58
346	2	10- 8-58



LOCATION SKETCH:



LAGOON

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HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

Marshall Islands

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RECOVERY NOTE-TRIANGULATION STATION

NAME OF STATION: HENRY SITE: HENRY
 ESTABLISHED BY: H & N YEAR: 1957 Mui Island
 RECOVERED BY: F. A. Axtell YEAR: 1958 Eniwetok Atoll
 FIELD BOOK NO: 344 PAGE: 12-13 DATE: 9/18/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE		ELEVATION
	FEET	METERS	
Henry			6.54
Rigill #2		00-00-00	----
R.M. #1	50.15	240-19-30	6.33
R.M. #2	99.79	240-19-30	6.65

BRIEF HISTORY OF STATION:

This station was established as a third order triangulation station in the Atoll Control Net by the Holmes & Narver 1957 Expansion Survey.

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard H & N brass cap stamped "Henry - H & N - 1957." It is set in concrete 1 ft below the ground surface. A 50 foot steel bilby tower in good condition is erected over this station.

P.I.'s #1 & 9 were destroyed during Operation Hardtack.

R.M. #1 & R.M. #2 were set as a part of this recovery. They are standard H & N brass discs stamped "RM 1(2) - H & N - '58." They are set in concrete 1 foot below the ground surface.

References:

~~OFFICIAL USE ONLY~~

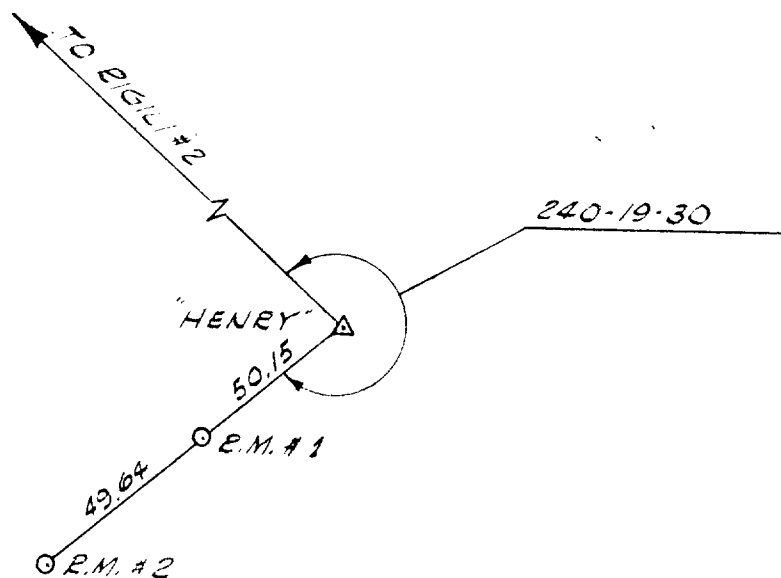
PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION: HENRY

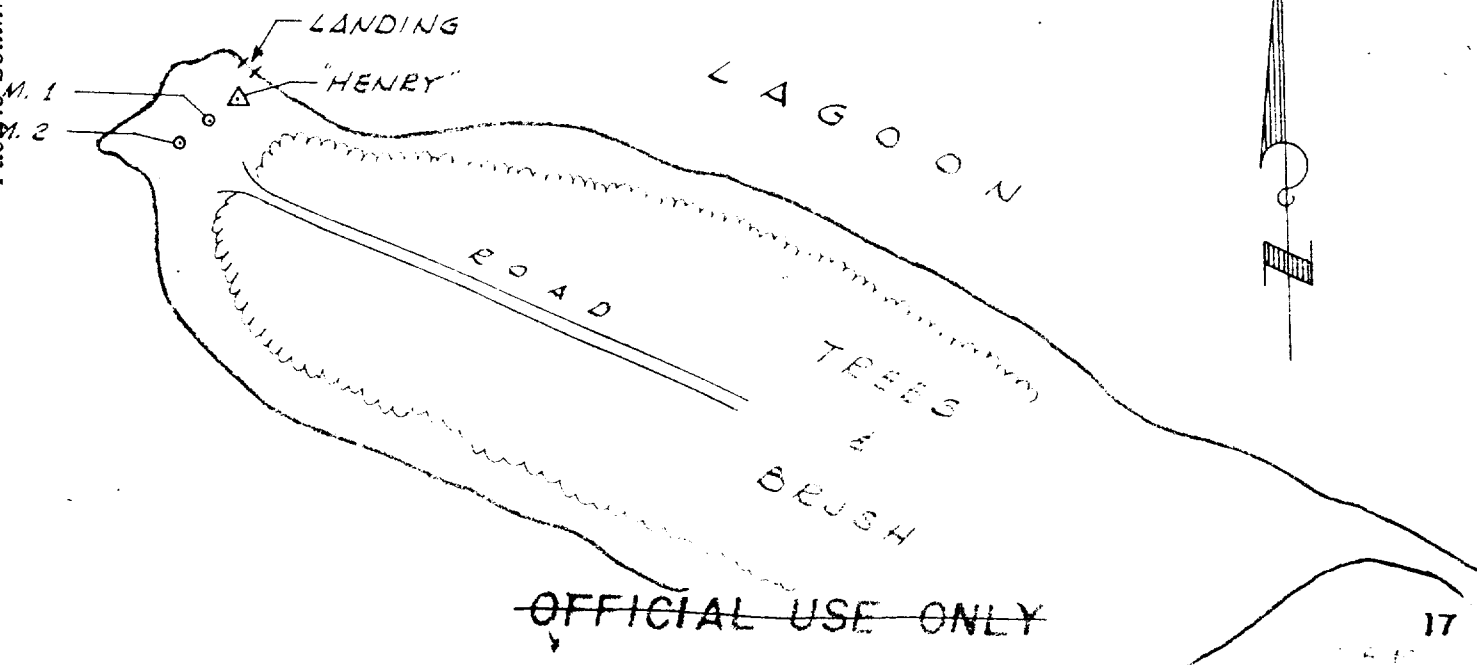
SITE: Henry, Mui Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ANTON SINISCALLO TO
DORNE S. NIXON



LOCATION SKETCH



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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: ISLET
ESTABLISHED BY: H & N
RECOVERED BY: F. A. Axtell
FIELD BOOK NO: 342 PAGE: 24
SITE: SAM
YEAR: 1949
YEAR: 1958
DATE: 9/5/58
1st Sand Spit So of Runit
Eniwetok Atoll
Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS	
	DISTANCE			ELEVATION
	FEET	METERS		
Islet			11.09	
Coral			00-00-00	
R.M. #1	82.44		148-19-48	
R.M. #2	119.01		193-20-22	

BRIEF HISTORY OF STATION:

This station was a part of the following surveys: Holmes & Narver, 1949-50;
Holmes & Narver Expansion, 1952.

RECOVERED PER DOE
MARCH 1994
FROM ANTON SEMISGALLI TO
VANCE S. NIXON

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard embossed Holmes & Narver brass disc 2-58" in diameter stamped only with the station mark. It is set in concrete 1 foot above the ground surface.

R.M. #1 is in good condition. It is a tack driven into a triangular lead plug driven into a hole in a prominent coral ledge on the ocean reef, directly opposite the station.

R.M. #2 is in good condition. It is a transit tack driven into a circular lead plug driven into a hole in the ocean reef opposite the south end of the sand spit.

References:

Field Book

Page

Date

165
230

30
9

4/19/52
5/12/54

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

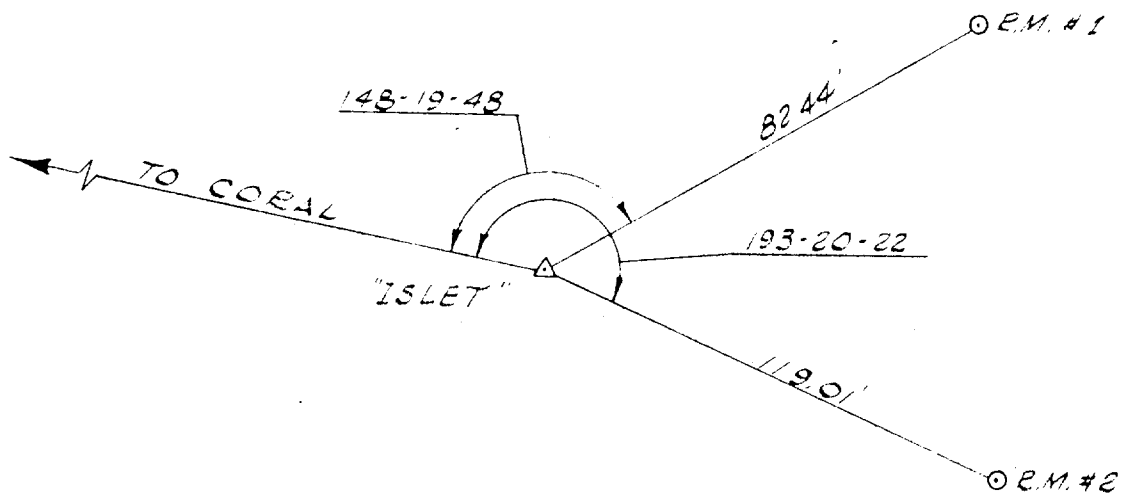
STATION ISLET

SITE Sam, 1st Sand Spit So of Runit, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

<u>Field Book</u>	<u>Page</u>	<u>Date</u>
294	27 & 28	12/31/56
342	24	9/5/58

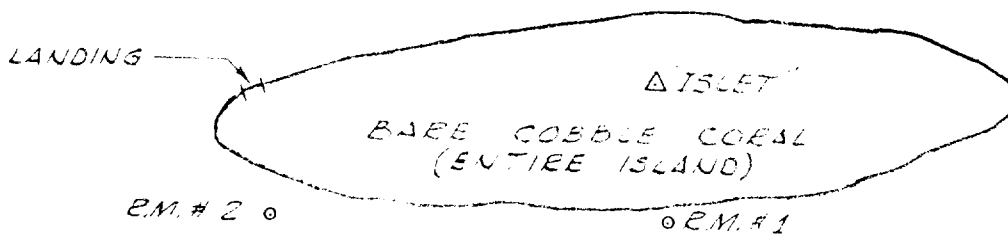


LOCATION SKETCH:



DECLASSIFIED PER DOE
LETTER DATED JAN, 15, 1994
FROM ANTHON BINTOCALIT TO
DYANE S. NEMON

LAGOON



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HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

NAME OF STATION	IVY	SITE	Elmer
ESTABLISHED BY	H & N	YEAR	1952
RECOVERED BY		YEAR	1958
FIELD BOOK NO	PAGE:	DATE:	
			Parry Island
			Eniwetok Atoll
			Marshall Islands

[illegible]

This station was a second order control point in the 1952 Holmes & Narver Control Expansion Survey.

This station was destroyed by construction of Building 516 during Operation Hardtack.

1992

20

HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

NAME OF STATION	JAMES	SITE	JAMES
ESTABLISHED BY	H & N	YEAR	1957
RECOVERED BY	F. A. Axtell	YEAR	1958
FIELD BOOK NO.	344	DATE	9/18/58
PAGE	14		

[illegible]

This station was established as a Third Order station in the Atoll Control Net by the Holmes & Narver 1957 Expansion Survey.

This station was destroyed during Operation Hardtack.

DECLASSIFIED AND DOWN
 GRADED BY SP-6 JAC/STW
 DATE 11/11/1994
 BY 6032/SP-6 JAC/STW
 AUTHORITY E.O. 11652

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HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION JAPTAN SITE David
ESTABLISHED BY H & N YEAR 1951 Japtan Island
RECOVERED BY F. A. Axtell YEAR 1958 Eniwetok Atoll
FIELD BOOK NO. 342 PAGE 14 DATE 8/23/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE	DIRECTION	ELEVATION
	FEET	METERS	
Japtan			8.12
Lilac		00-00-00	—
R.M. #1	45.57	101-54-05	8.20
R.M. #2	50.21	208-00-15	10.10
R.M. #3	26.46	258-20-52	8.03

BRIEF HISTORY OF STATION:

This station was established as a third order station in the Atoll Control net in the Holmes & Narver 1952 Expansion Survey.

DECLASSIFIED PER DOE
EXEMPT FROM GDS, 15, 1994
FROM ARJIN COLLECTION TO
DIANE S. HENRY

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is an aluminum pipe capped with an aluminum cap 2-1/2" in diameter, stamped "Japtan-H & N-1954." It is set in a concrete monument flush with the ground surface in a 20 ft diameter depression in the ground.

Reference markers #1, #2 & #3 were recovered in good condition. They are standard 2-5/8" brass discs set in concrete stamped "RMI (2 & 3) - H & N - '54."

R.M. #1 is 1-1/2 ft below the ground surface, R.M. #2 is flush with the ground surface and R.M. #3 is 6" below the ground surface.

References:

Field Book

Page

Date

201
227

13-31
7-8

8/11/52-8/14/52
4/21/54

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~~OFFICIAL USE ONLY~~

PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION JAPTAN

SITE: David, Japtan Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

Field Book

Page

Date

263

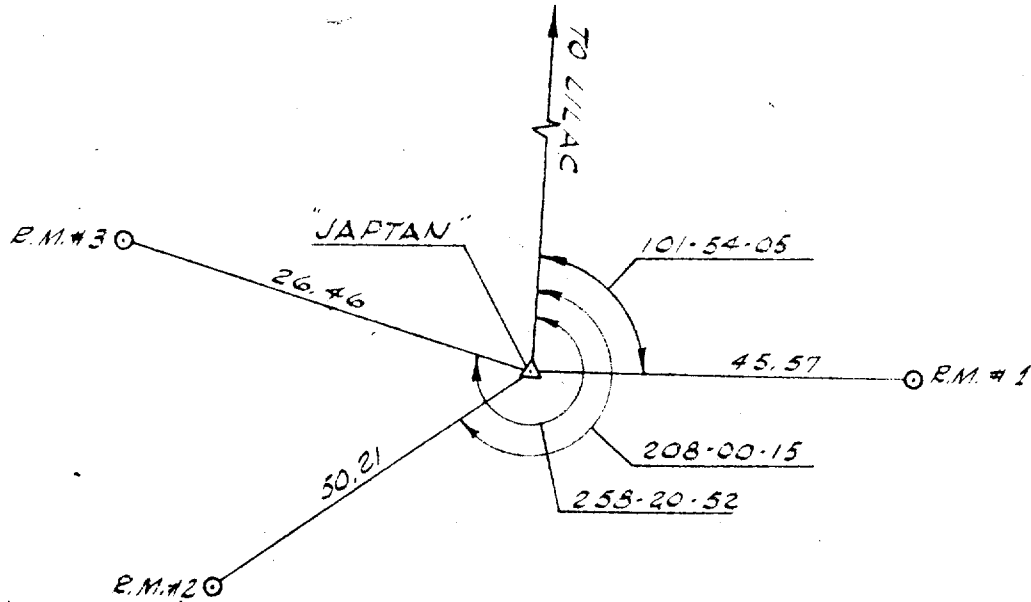
229-30

12/8/54

342

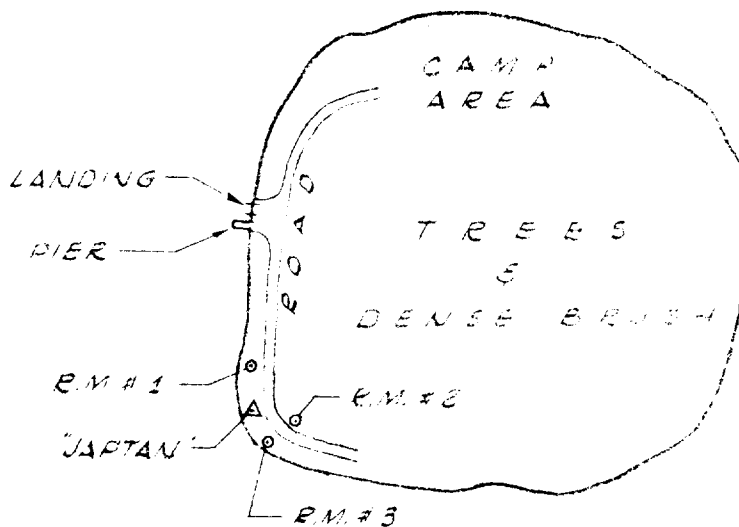
1411

8/23/58



DECLASSIFIED PER DOK
NOTES FILED JUNE 15, 1994
FROM LITCH GAMESHALLI TO
DIANE S. NIXON

LOCATION SKETCH:



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ENGINEERS - CONSTRUCTORS
JOB 942

[illegible]

ESTABLISHED BY H & N

RECOVERED BY F. A. Axtell

FIELD BOOK NO. 344 PAGE: 14

SITE **Irwin**

Pokon Island

Eniwetok Atoll

Marshall Islands

YEAR. 1957

YEAR. 1958

DATE: 9/18/58

BRIEF HISTORY OF STATION:

This station was established as a third order traverse station in the Atoll Control Net by a traverse from Triangulation Station Henry during the 1957 Holmes & Narver Expansion Survey.

DETAILED DESCRIPTION OF STATION:

This station was destroyed during Operation Hardtack.

100-111-1111-1111-1111
 1111-1111-1111-1111-1111
 1111-1111-1111-1111-1111
 1111-1111-1111-1111-1111

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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: KEITH SITE: KEITH
ESTABLISHED BY: H & N YEAR: 1957 Giriinien Island
RECOVERED BY: F. A. Axtell YEAR: 1958 Eniwetok Atoll
FIELD BOOK NO 344 PAGE: 17-18 DATE: 9/20/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE	DIRECTION	ELEVATION
	FEET	METERS	
Keith			8.69
Rigili #2		00-00-00	—
R.M. #1	51.30	323-45-00	8.60
R.M. #2	101.47	323-45-00	7.71

BRIEF HISTORY OF STATION

This station was established as a third order triangulation station in the Atoll Control Net by the Holmes & Narver 1957 Expansion Survey.

DECLASSIFIED PER DOW
LETTER DATED JULY, 15, 1984
FROM ANTON SENTISCHALLI TO
DEANE S. KIMM

DETAILED DESCRIPTION OF STATION

This station was recovered in good condition. The station mark is a standard H & N brass cap stamped "Keith - H & N - 1957." It is set in concrete 12" below the ground surface. A 50 foot steel Bilby tower in good condition is erected over this station.

P.I.'s #1 & 9 have been destroyed.

R.M.'s #1 & 2 were set as a part of this recovery. They are standard H & N brass discs stamped "RM 1(2) - H & N - 1958." They are set in concrete 6" below the ground surface.

References:

Field Book

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9/20-58

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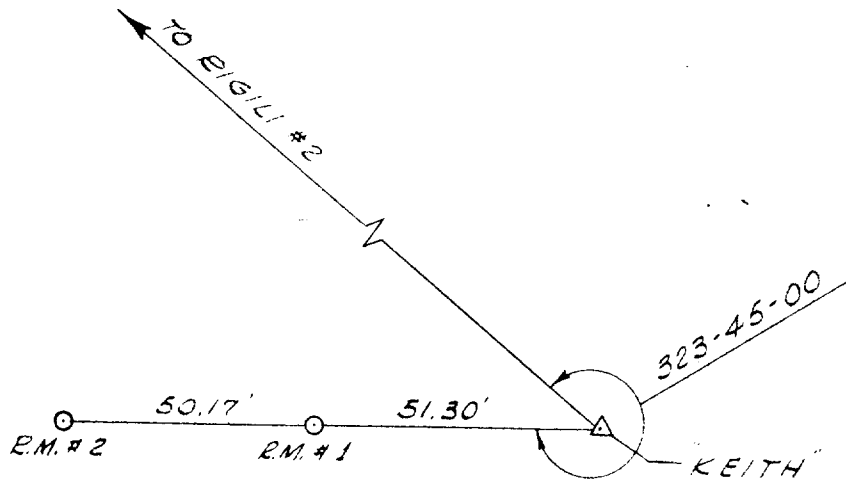
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PAGE 2-RECOVERY NOTE-TRIANGULATION STATION

STATION Keith

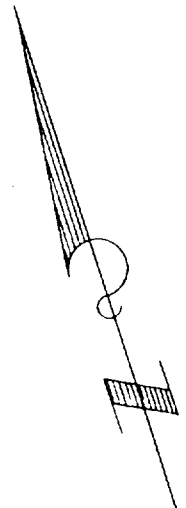
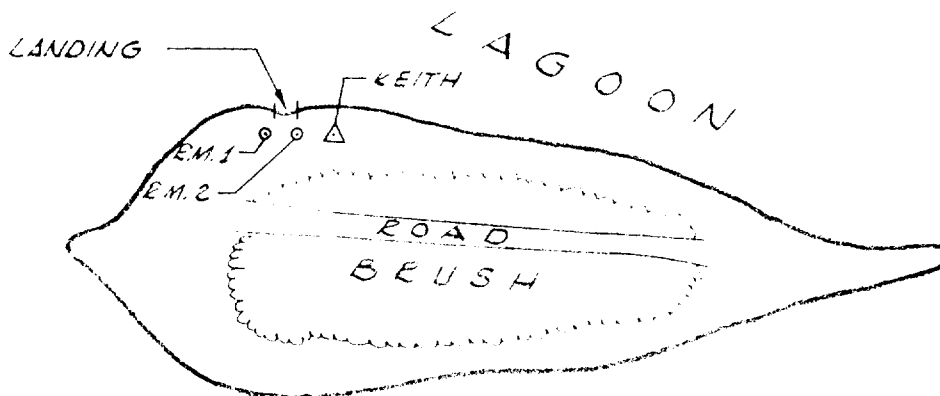
SITE: Keith, Giriinien Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)



DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ANTHON STENISCALE TO
DARIN S. WINCK

LOCATION SKETCH:



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~~OFFICIAL USE ONLY~~

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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: KODAK (ANIYAANII) SITE: Bruce
ESTABLISHED BY: JTF-7 YEAR: 1947 Aniyaanii Island
RECOVERED BY: F. A. Axtell YEAR: 1958 Eniwetok Atoll
FIELD BOOK NO. 342 PAGE: 22 DATE: 9/4/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS ELEVATION
	DISTANCE	DIRECTION	
	FEET	METERS	
Kodak			9.60
Coral		00-00-00	---
R.M. #1	57.40	113-03-35	10.40
R.M. #3	95.40	222-05-18	10.90

BRIEF HISTORY OF STATION:

This station has been a primary station in the following surveys: JTF-7, 1947-48; Holmes & Narver, 1949-50; Holmes & Narver 1952 Expansion. In the Holmes & Narver surveys it was called "Aniyaanii" to designate the name of the island on which it is located. The station was disturbed by construction operations in 1951 but was reestablished from its RM's using the same station marker.

DECLASSIFIED PER DOE
LETTER DATED JAN, 15, 1994
FROM ANTON GELICHOVA TO
DIANE G. KIRBY

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard USC & GS brass marker 3-1/2 " in diameter stamped "Kodak." It is set in concrete 1-1/2 feet below the ground surface.

R.M. #1 was recovered in good condition. It is a 3-1/2" USC & GS brass disc stamped "RM 1-Kodak" with a crossed arrow pointing toward the station. It is set in concrete flush with the ground.

R.M. #3 was recovered in good condition. It is a brass marker 2" in diameter stamped "RM #3-Kodak-USC & GS-1947." It is set in concrete 4" below the ground surface.

References:

<u>Field Book</u>	<u>Page</u>	<u>Date</u>
141	30	6/7/51
165	14	4/17/52

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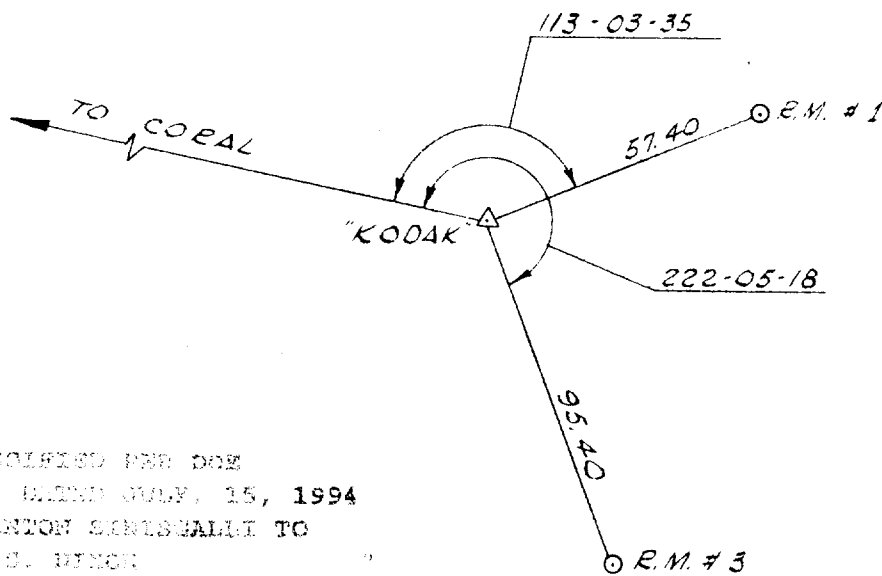
PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION KODAK(Aniyaanii) SITE: Bruce, Aniyaanii Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

<u>Field Book</u>	<u>Page</u>	<u>Date</u>
227	11	4/24/54
294	22-24	12/31/56
342	22	9/4/58



DECLASSIFIED PER DOE
NOTICE DATED JULY, 15, 1994
FROM ENTON SENESEALLI TO
ERNEST G. BUNCH

LOCATION SKETCH:



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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION LANTANA
ESTABLISHED BY USN
RECOVERED BY F. A. Axtell
FIELD BOOK NO. 344 PAGE 11
SITE Glenn
YEAR 1944
YEAR 1958
DATE 9/17/58
Igurin Island
Eniwetok Atoll
Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE	DIRECTION	
	FEET	METERS	ELEVATION
Lantana			7.46
Photo		00-00-00	—
R.M. #1	74.65	119-38-10	10.66
R.M. #3	73.98	206-12-35	8.31

NOTE: Elevations differ from those on previous recovery due to a correction on the datum establishment.

BRIEF HISTORY OF STATION:

This station was a secondary station in the USS Bowditch Survey, 1944. Coordinate location of the station was computed using the 1944 geographic position computations and the station has been used as a third order station as needed. This station was included in the 1957 Holmes & Narver Expansion Survey and Third Order results of a very poor quality were obtained.

DECLASSIFIED PER DOE
DATE 15 JULY 1994
BY SP-1000 SRS/SC/STO
DANIEL S. NIXON

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard USN SURVEY brass disc 2" in diameter. It is set in a 10" x 15" concrete post flush with the ground surface.

R.M. #1 is in good condition. It is a standard H & N brass disc 2-5/8" in diameter stamped "RM1 - Lantana - USN - 1944." It is set in a concrete filled 5" diameter can set in the top of a concrete monument.

R.M. #2 has been destroyed by erosion.

R.M. #3 was set as a part of this recovery. It is a standard H & N brass disc 2-5/8" in diameter stamped "RM3 - H & N - 1958." It is set in concrete 6" below the ground surface.

References:

Field Book

Page

Date

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4/13/54

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION LANTANA

SITE: Glenn, Igurin Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

Field Book

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296

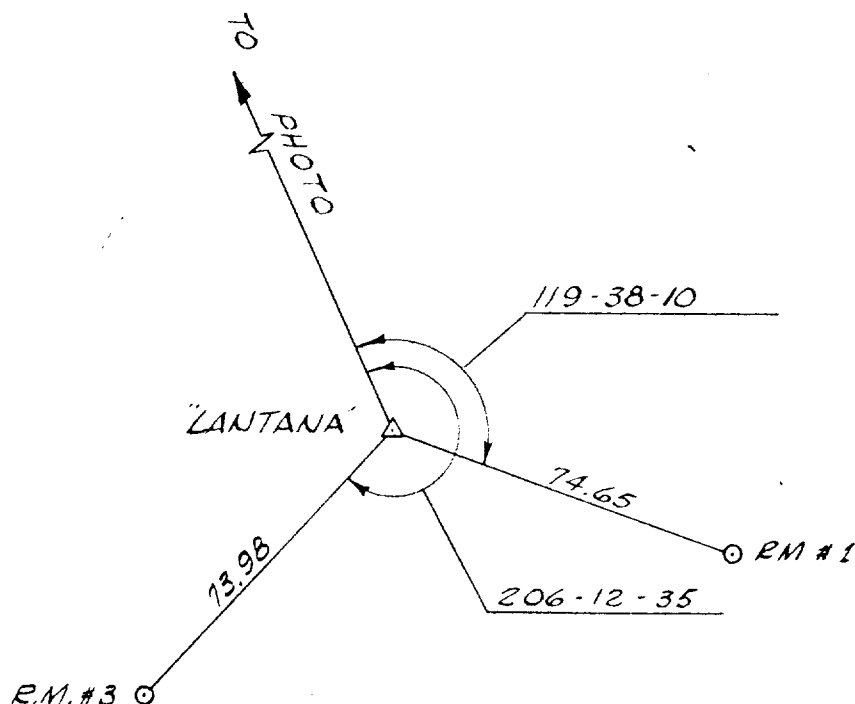
27-29

1/26/57

344

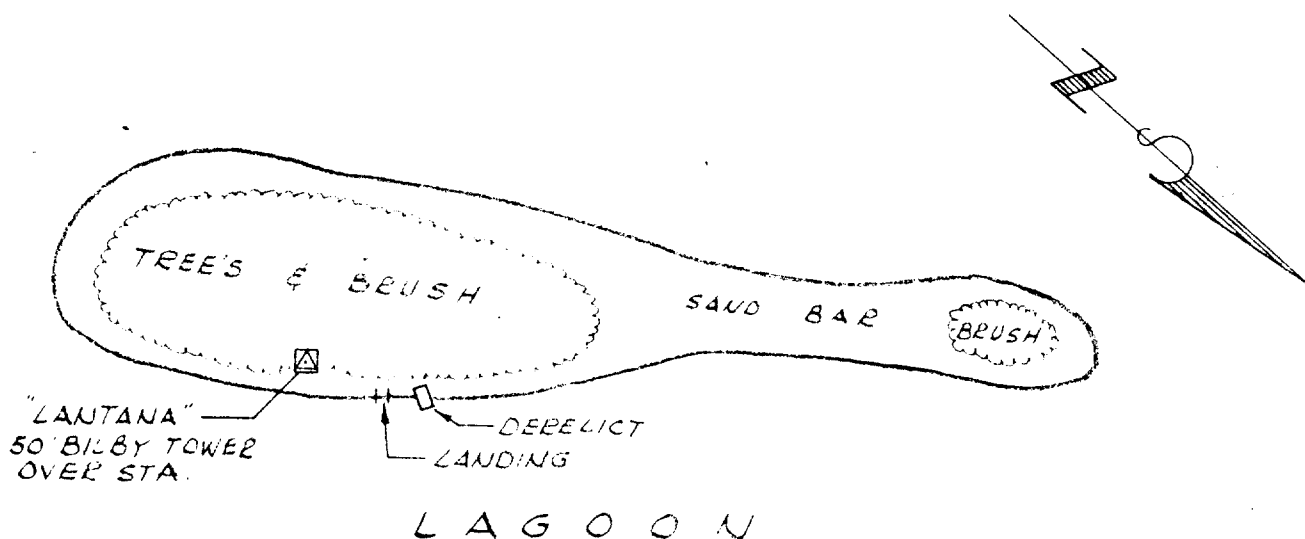
11

9/17/58



DECLASSIFIED PER DOE
EXEMPT FROM GDS, 15, 1994
FROM AMER. ST. ISOLATE TO
BLAKE S. NIXON

LOCATION SKETCH:



LAGOON

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~~OFFICIAL USE ONLY~~

HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION LILAC SITE Rex
ESTABLISHED BY USN YEAR: 1944 Jieroru Island
RECOVERED BY F. A. Axtell YEAR: 1958 Eniwetok Atoll
FIELD BOOK NO. 342 PAGE: 13 DATE: 8/23/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE MARKS		ELEVATION
	DISTANCE	DIRECTION	
	FEET	METERS	
Lilac			20.12
Japtan		00-00-00	-----
R.M. #1	80.23	111-44-15	14.24
R.M. #4	39.37	257-04-35	19.04
R.M. #5	61.70	39-32-55	18.79

BRIEF HISTORY OF STATION:

This station was a secondary station in the USS Bowditch Survey, 1944. It was included as a third order station in the Atoll Control Net in 1952. This station is shown on U.S. Navy Hydrographic Office Chart 6033 as Beacon "D."

DECLASSIFIED PER DOE
EXEMPT DATED JULY, 15, 1994
FROM ANTON SINISCALLO TO
DIANE S. NIXON

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard embossed "USN SURVEY" disc 2" in diameter. It is set in a 6"x6" concrete post flush with the ground surface.

R.M. #1 is in good condition. It is a 2-5/8" diameter flat brass disc stamped "RM 1 - H & N - 1954." It is set in concrete flush with the ground surface.

R.M.'s #4 & 5 were recovered in good condition. They are .30 caliber cartridge cases set in concrete 2" above the ground surface. R.M. #4 bears the ordnance mark "U-42-1" around its rim. R.M. #5 bears the ordnance mark "U-4-2" around its rim.

References:

Field Book

Page

Date

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4/24/51

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION LILAC

SITE Rex, Jieroru Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

Field Book

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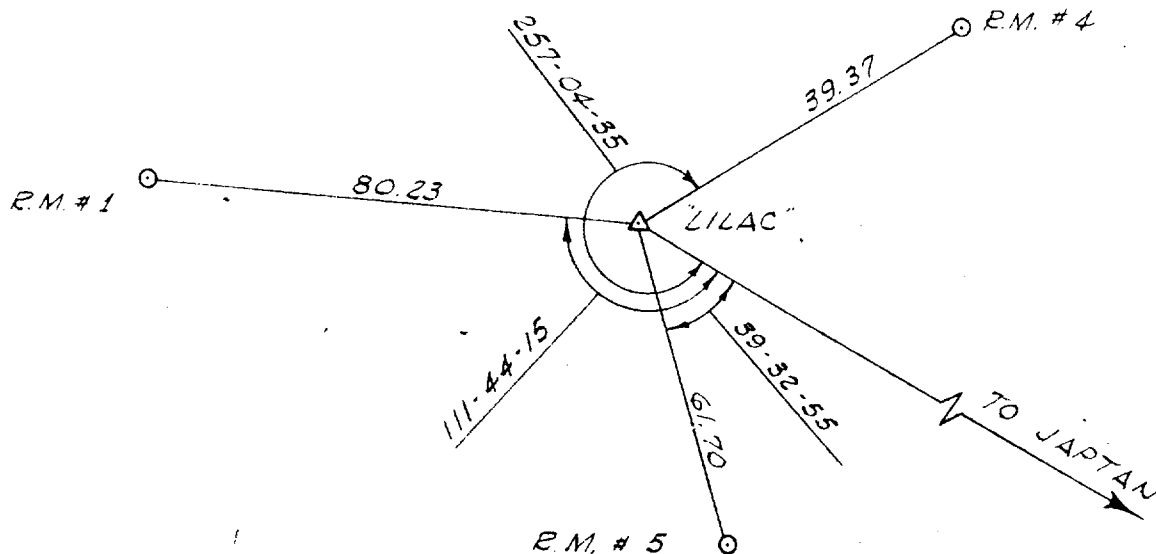
5-7

12/12/56

342

13

8/23/58



DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM LINTON SINIGUALI TO
DIANE S. NIXON

LOCATION SKETCH.

o R.M. #5

R.M. #4 o

△ LILAC

STABILIZED

ROAD

RAMP

o R.M. #1

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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: LUCY
ESTABLISHED BY: H & N
RECOVERED BY: F. A. Axtell
FIELD BOOK NO. 342 PAGE 26
SITE: Vera
Aaraanbiru Island
Eniwetok Atoll
Marshall Islands
YEAR: 1951
YEAR: 1958
DATE: 9/8/58

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE		ELEVATION
	FEET	METERS	
Lucy			8.44
Coral			—
R.M. #1	142.51		11.61
R.M. #2	90.17		3.31
R.M. #3	65.85		2.69
		00-00-00	
		239-46-00	
		03-19-32	
		96-55-18	

BRIEF HISTORY OF STATION:

This station was established and triangulated as a part of the Operation Greenhouse "V" Zero development. It is a third order station in the Atoll Control Net.

DECLASSIFIED PER DOE
LETTER DATED JAN. 15, 1994
FROM ANTON SINESGALLI TO
DIANE S. NIXON

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard Holmes & Narver embossed brass disc, 2-5/8" in diameter stamped "Lucy" with a cross for the station mark. It is set in concrete flush with the ground surface.

R.M. #1 is in good condition. It is a cross cut in the concrete roof of Greenhouse station 75. The cross is located at the approximate center of the roof.

R.M. #2 is in good condition. It is a brass tack driven into a 1-1/2" square lead plug driven into a hole in the lagoonside reef, approximately 2 feet north of the Lucy-Coral line. The lead plug is stamped "RM 2-Lucy-H&N-1951."

R.M. #3 was recovered in good condition. It is a brass tack driven into a 1-1/2" diameter circular lead plug driven into a hole in the lagoonside reef. The lead plug is stamped "RM 3-Lucy-H&N-1951."

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION LUCY

SITE Vera, Aaraanbiru Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References:

Field Book

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7-30

7/18/50-7/20/50

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6/25/51

215

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12/2/53

230

4

5/8/54

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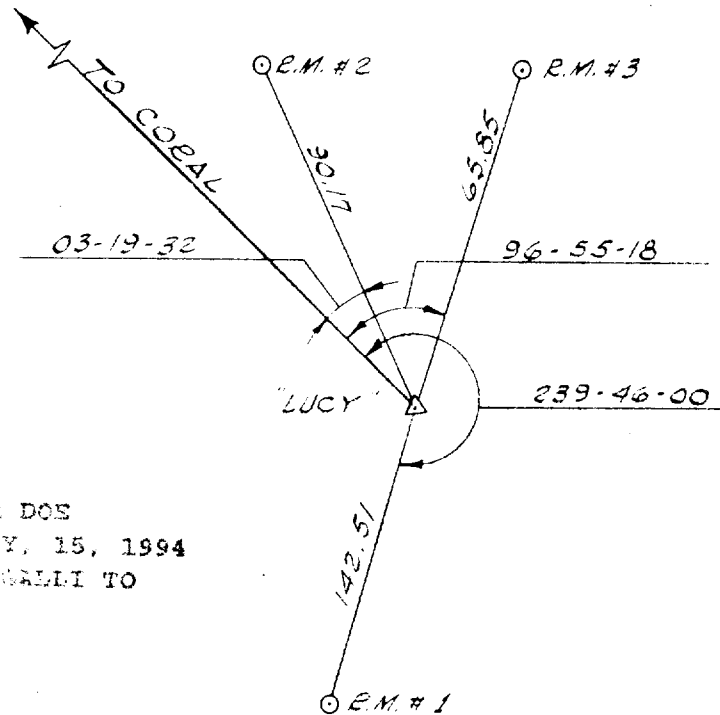
2-4

1/4/57

342

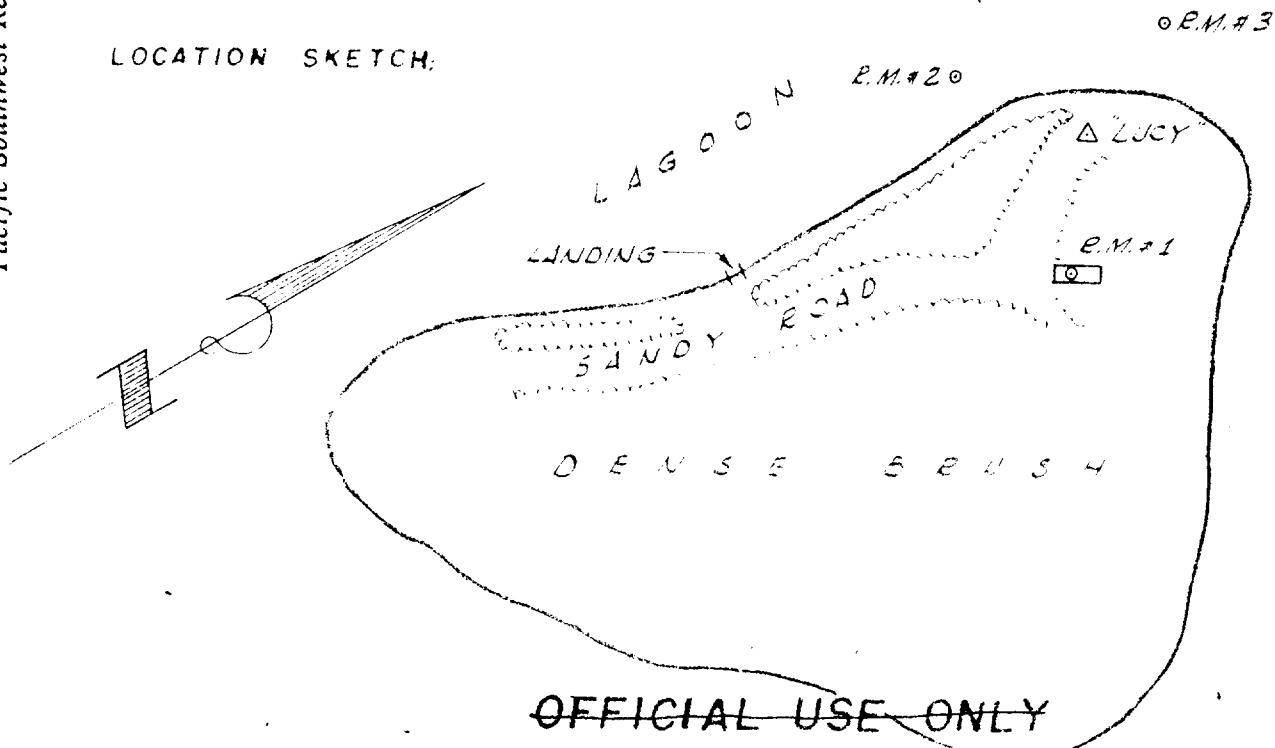
26

9/8/58



DECLASSIFIED PER DOE
LETTER DATED MAY, 15, 1994
FROM JONAS STODOLSKI TO
DAVID S. NIXON

LOCATION SKETCH:



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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION MUZIN - P.I. #1 SITE Kate
ESTABLISHED BY H & N YEAR 1950 Muzinbaarikku Island
RECOVERED BY F. A. Axtell YEAR 1958 Eniwetok Atoll
FIELD BOOK NO. 344 PAGE 4 DATE 9/10/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE	DIRECTION	ELEVATION
	FEET	METERS	
Muzin			6.40
Coral		00-00-00	---
R.M. #2	49.84	291-37-30	10.26
R.M. #3	62.01	170-27-32	4.20

BRIEF HISTORY OF STATION:

This station is a third order station in the Atoll Control Net. It was originally established as P.I. #1 of the Muzinbaarikku island traverse. It was tied in by local triangulation to the Engebi grid in the Holmes & Narver 1949-50 Survey. It was integrated in the Atoll Control Net in the Holmes & Narver 1952 Control Expansion.

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ANTON SANTISMALE TO
DEANE A. CHASE

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard embossed Holmes & Narver disc 2-5/8" in diameter stamped "Muzin - P.I. #1." It is set in concrete inside a 55 gallon drum 1-1/2 feet below the top of the drum. The top of the drum is 1 foot below the ground surface.

R.M. #1 has been disturbed.

R.M. #2 is in good condition. It is a 2" diameter brass disc stamped "RM 2 - Muzin - H & N - 1950." It is set in concrete in the northeast corner of Greenhouse station 41 (an asphalt slab). The mark is 2" below the surface of the slab.

R.M. #3 is in good condition. It is a brass tack in a lead plug driven into a hole in the reef coral. The lead plug is stamped "RM 3 - Muzin - H & N - 1950."

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~~OFFICIAL USE ONLY~~

PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

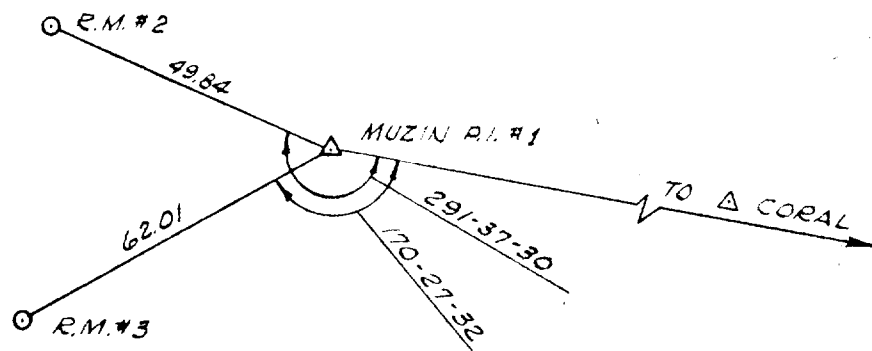
STATION MUZIN - P.I. 1 SITE: Kate, Muzinbaarikku Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References:

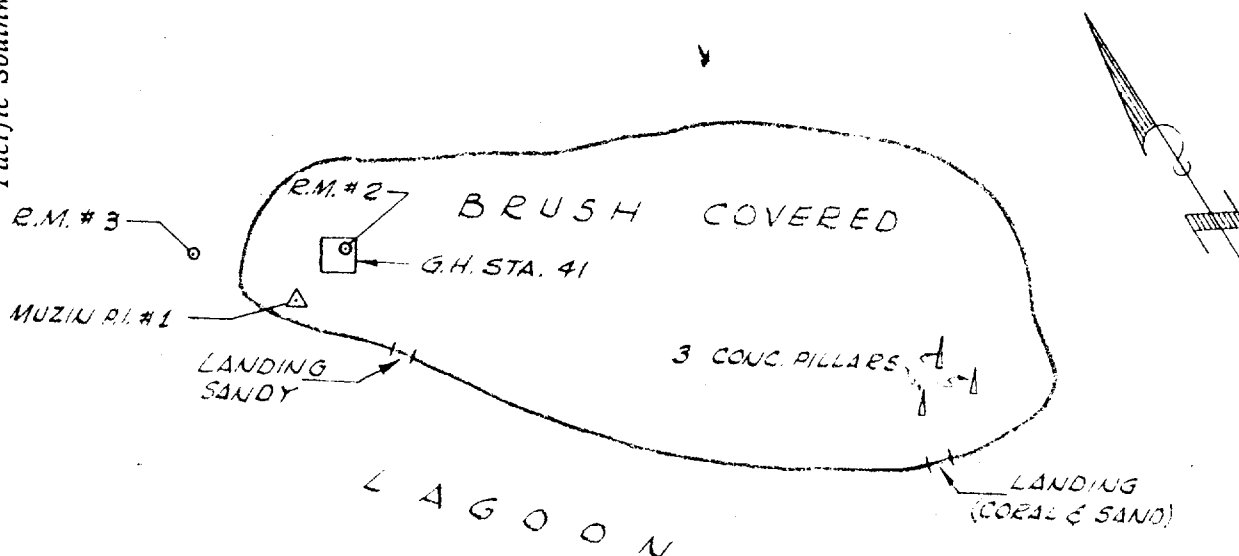
Field Book

<u>Field Book</u>	<u>Page</u>	<u>Date</u>
28	27	1/23/50
45	7-8	5/29/50
48	8-9	6/12/50
230	20	5/26/54
296	17-19	1/11/57
344	4	9/10/58



DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM PENTON SIMILARLY TO
LETTER S. NUTON

LOCATION SKETCH:



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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION NORTH
ESTABLISHED BY H & N
RECOVERED BY:
FIELD BOOK NO: PAGE: YEAR 1957
DATE: 1958
SITE Yvonne
Runit Island
Eniwetok Atoll
Marshall Islands

DISTANCES AND DIRECTIONS TO REFERENCE MARKS				
OBJECT	DISTANCE		DIRECTION	ELEVATION
	FEET	METERS		

BRIEF HISTORY OF STATION:

This station was established as a second order triangulation station in the Atoll Control Net by the Holmes & Narver 1957 Replacement Survey to replace triangulation station "Yvonne" which was disturbed during Operation Redwing.

DETAILED DESCRIPTION OF STATION:

This station was not recovered. Due to its location it is assumed that it has been destroyed.

RECEIVED PER ROW
JUL 18, 1994
FOR THE
TO

~~OFFICIAL USE ONLY~~

~~OFFICIAL USE ONLY~~

HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION. PARRY SITE Elmer
ESTABLISHED BY: H & N YEAR. 1949-50 Parry Island
RECOVERED BY: E. A. Axtell YEAR. 1958 Eniwetok Atoll
FIELD BOOK NO. 344 PAGE: 10 DATE: 9/16/58 Marshall Island

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE MARKS		ELEVATION
	DISTANCE	DIRECTION	
	FEET	METERS	
Parry			8.66
Japtan		00-00-00	----
R.M. #1	39.67	13-25-42	8.36
R.M. #2	53.45	100-51-30	7.82
R.M. #4	26.25	193-26-20	9.92

BRIEF HISTORY OF STATION:

This station is located at the north end of Parry Island, 25 feet north of Sta 71, a P I & S Bldg at the foot of a 300 ft tower. It is in the approximately same location as USN steel (1944) which is shown as a tower on H.O. Chart 6033. The station as it now exists was a principal station in the Holmes & Narver 1949-50 control survey. It was destroyed in 1951 and replaced from its reference marks. It was used as an azimuth mark for the island traverse orientation in the Holmes & Narver 1952 Expansion Survey.

DECLASSIFIED PER DOE
EXPIRY DATED JULY 15, 1994
AUTHORITY DERIVED FROM
FBI/DOJ RECORDS

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard Holmes & Narver 2-58" in diameter brass disc stamped "Parry". It is set in concrete flush with the ground surface in a depression approximately 1/2 ft below the surrounding ground surface.

R.M. #1 is in good condition. It is a standard H & N brass disc, stamped "RM 1 - Parry - H & N - 1956." It is set in concrete 4" below the ground surface on the line between Parry and the USN light beacon on Japtan Island.

R.M. #2 is in good condition. It is a standard H & N brass disc stamped "RM 2 - Parry - H & N - 1956." It is set in concrete 4" below the ground surface nearly due east of Parry.

R.M. #3 was destroyed by the construction of Station 71.

R.M. #4 was set as a part of this recovery. It is a Lead & Tack set on the concrete slab on the north side of Station 7. It is 12" south of the north edge of the slab.

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION: PARRY

SITE: Elmer, Parry Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References:

Field Books

Page

Date

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3/2/51

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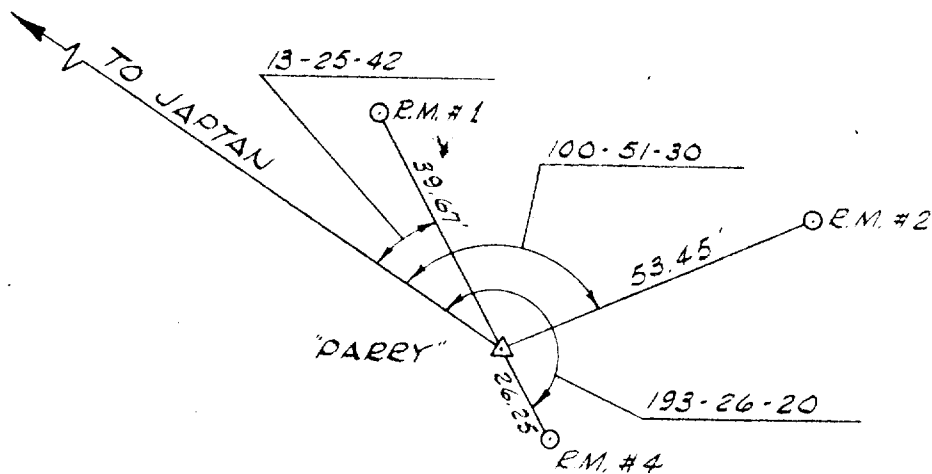
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12/10/56

344

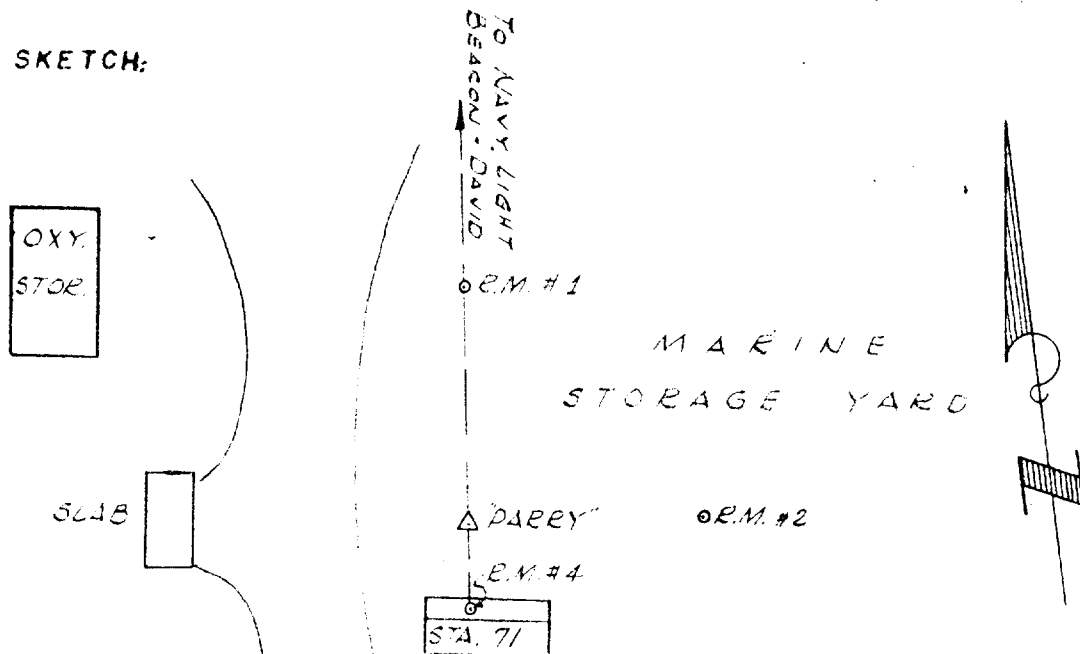
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9/16/58



DEVELOPMENT PER DOE
LATE 1940S TO 1954, IS, 1994
FROM LITCHI STATION TO
BEARD S. NIXON

LOCATION SKETCH:



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HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: PIIRAAI
ESTABLISHED BY: H & N
RECOVERED BY: F. A. Axtell
FIELD BOOK NO. 342 PAGE: 25
SITE: Wilma
Piiraa Island
Eniwetok Atoll
Marshall Islands
YEAR: 1949
YEAR: 1958
DATE: 9/6/58

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE	DIRECTION	ELEVATION
	FEET	METERS	
Piiraa			8.80
Coral		00-00-00	—
R.M. #1	74.99	203-36-00	5.96
R.M. #2	74.96	290-35-25	8.68

BRIEF HISTORY OF STATION:

This station is a second order station in the Eniwetok Atoll Controll Net. It has been a primary station in the following surveys: Holmes & Narver, 1949-50; Holmes & Narver 1952 Expansion; Holmes & Narver 1955 Replacement Survey; Holmes & Narver 1957 Replacement Survey.

1959 MON. TO OBS. STAND 19.84 - OBS. STAND ELEV. 28.64

DECLASSIFIED PER DOE
DATE 10/13/1994
BY SP-10/13/1994 TO
SP-10/13/1994

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard embossed Holmes & Narver bras disc stamped "Piiraa." It is set in concrete flush with the ground surface.

R.M. #1 is in good condition. It is a standard embossed H & N disc 2-5/8" in diameter marked only with a crossed arrow. It is set in concrete 1-1/2 foot below the ground surface.

R.M. #2 is in good condition. It is identical to R.M. #1. It is set in concrete flush with the ground surface.

References:

Field Book

Page

Date

133
207
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6/25/51
11/13/53
5/12/54

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION PIIRAAI

SITE Wilma, Piiraa Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

Field Book

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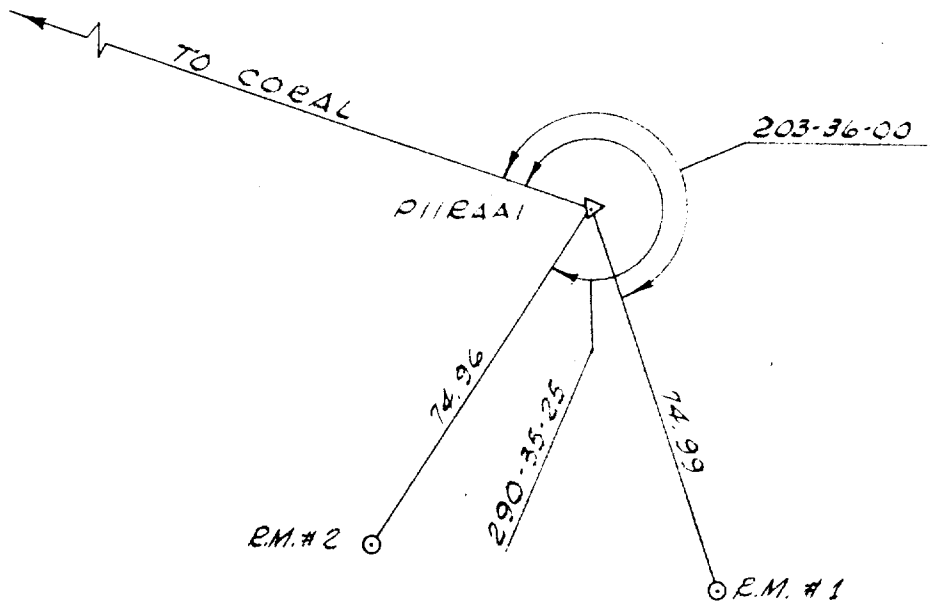
29-30

1/4/57

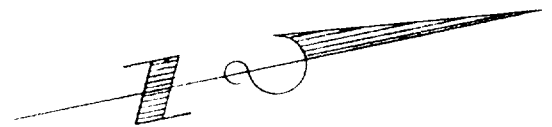
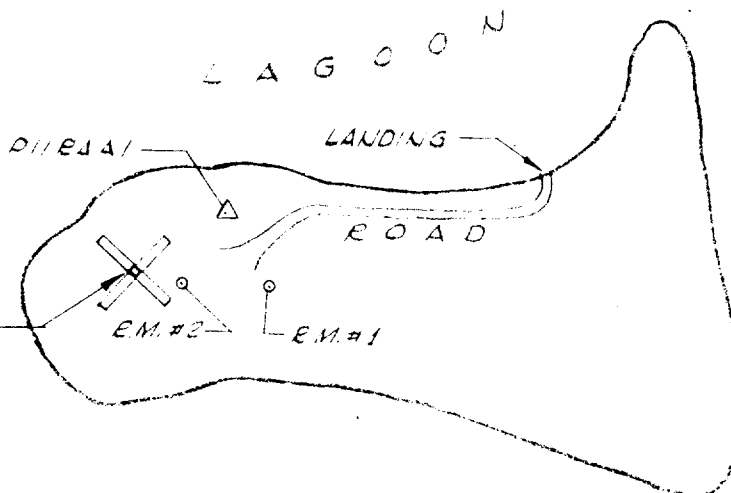
342

25

9/6/58



LOCATION SKETCH:



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10. 1994
TO

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HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION PRIVILEGE (ENIWETOK) SITE Fred
ESTABLISHED BY USN YEAR 1944 Eniwetok Island
RECOVERED BY L.H.Oakes & F.A.Axtell MAR 1958 Eniwetok Atoll
FIELD BOOK NO. 341 PAGE 8 DATE 8/12/58 Marshall Islands
344 27-28 10/3/58

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE	DIRECTION	ELEVATION
	FEET	METERS	
Privelege			11.02
Sta 91 (Elmer)		00-00-00	----
R.M. #1	79.38	254-30-30	12.62
R.M. #2	61.42	341-28-38	9.45

BRIEF HISTORY OF STATION.

This station was a primary station in the following surveys: USS Bowditch, 1944; Holmes & Narver, 1949-50; Holmes & Narver Expansion, 1952. In the Holmes & Narver records, it has been called "Eniwetok" to identify the island it is located upon.

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ANTON SINGHALLAI TO
DIANNE S. NIXON

DETAILED DESCRIPTION OF STATION:

This station is located at the extreme northerly end of Eniwetok Island. It is approximately 35 feet north of the north face of Bldg #1.

This station was recovered in good condition. The station mark is a standard embossed USN Survey disc, 2" in diameter. It is set in an 8"x8" concrete post 9 inches below the ground surface.

Monument "Rose" was not visible due to a post on the line-of-sight. It appears however to have been disturbed by heavy equipment working in the area.

R.M. #1 was recovered in good condition. It is a tack set in a lead plug driven into a hole in the top of the concrete sea-wall. It is in the north corner of the section which is a sheet pile cap and projects 3'-1-1/2" above the greater portion of the sea wall. "RM 1" is chiseled in the concrete near the marker.

PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION PRIVELEGE(Eniwetok) SITE Fred, Eniwetok Island, Eniwetok Atoll, M.I.

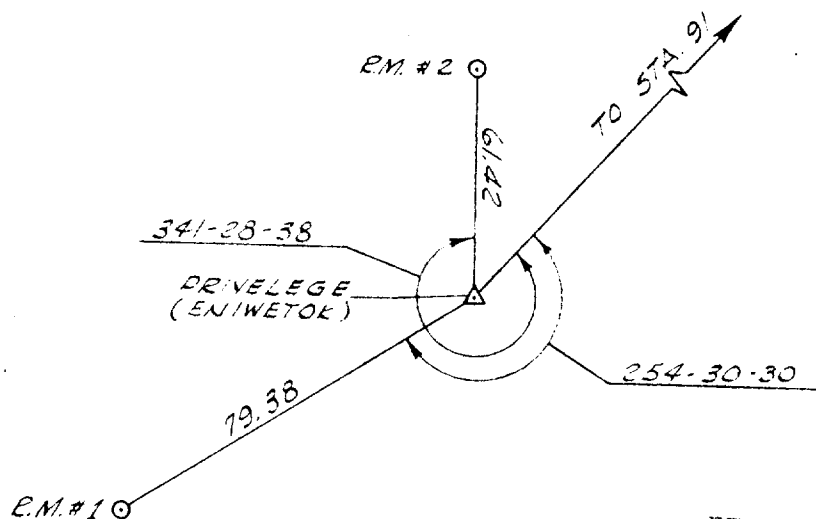
DETAILED DESCRIPTION OF STATION (CONT'D)

R.M. #2 was set as a part of this recovery. It is a Lead and Tack driven into a hole in the top of the concrete sea-wall 24" from the north end of the sea-wall.

References:

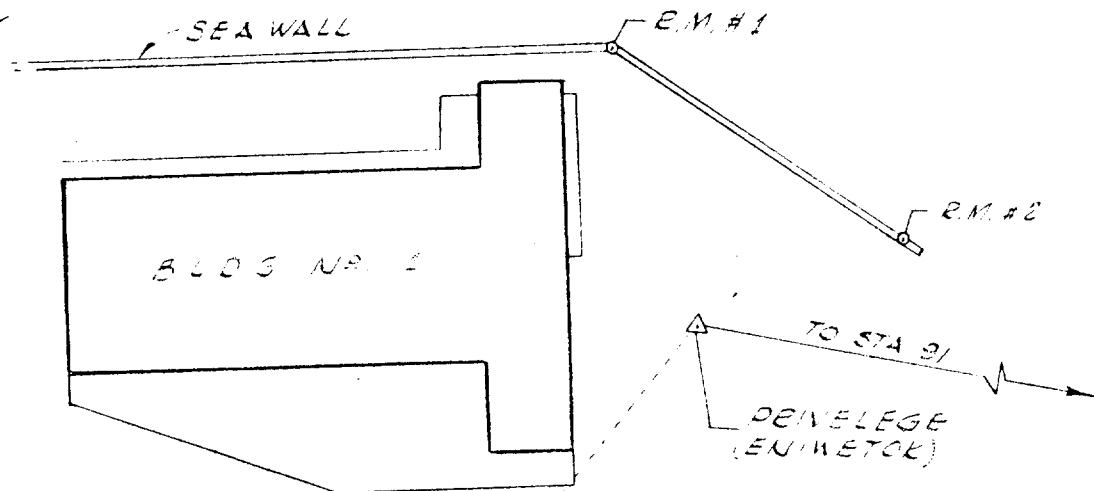
Field Book

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285	23	11/28/56
341	8	8/12/58
344	27 & 28	10/3/58



DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ANTON SINISCALLO TO
BLAKE S. NELSON

LOCATION SKETCH:



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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: SALLY

SITE: Sally

ESTABLISHED BY: H & N

YEAR: 1957

Aomon Island

RECOVERED BY: F. A. Axtell

YEAR: 1958

Eniwetok Atoll

FIELD BOOK NO: 342 PAGE: 27

DATE: 9/8/58

Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE		ELEVATION
	FEET	METERS	
Sally			9.59
Coral			00-00-00
Buck #41	164.04		97-30-20
Buck #30	164.05		159-46-30
Buck #29	54.00		277-31-30
			13.06

BRIEF HISTORY OF STATION:

This station is a second order station in the atoll control net. It was established in the Holmes & Narver 1957 Replacement Survey to replace "Aomon" which was disturbed during Operation Redwing.

DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM AXTON SINISCALLI TO
DANIEL H. LINDEN

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard H & N brass cap set in a concrete filled 55 gallon drum encasing the top of a 10" H-pile, stamped "Sally - H & N - 1957." It is one foot below the ground surface.

Bucks #29, 30 and 41 are in good condition. They are 4"x4" posts set in concrete with brass tack marked aluminum strips on the top. They are stamped with the buck numbers. They are chaining bucks on the "Sally" first order traverse.

References:

Field Book

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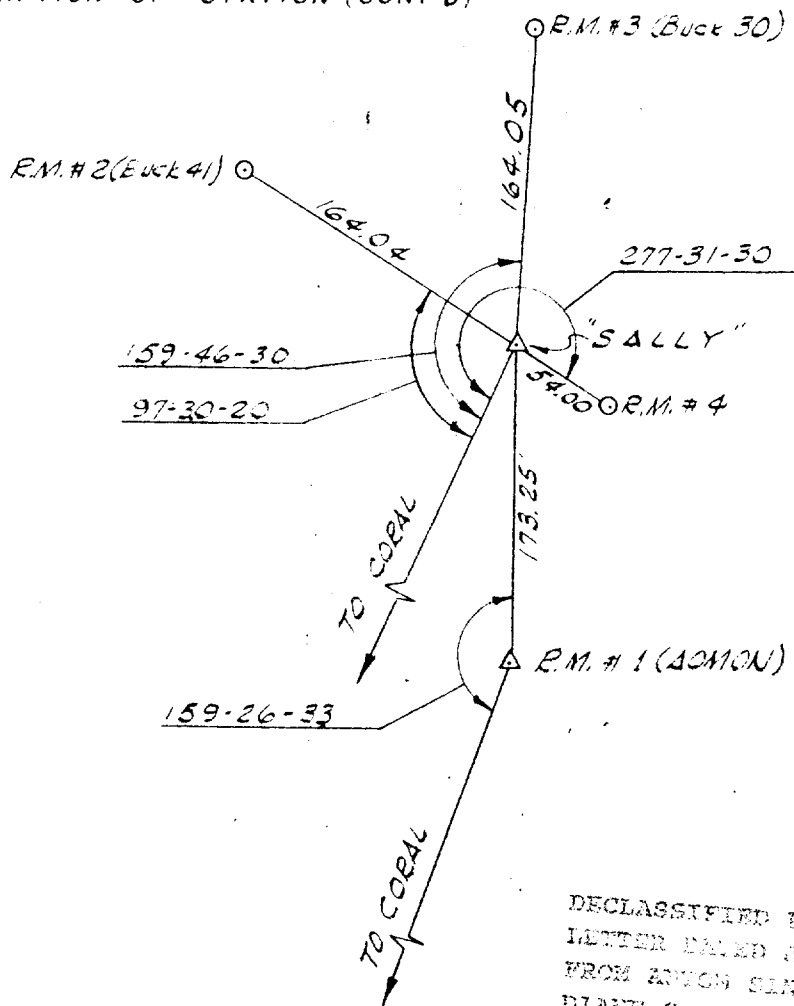
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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION SALLY

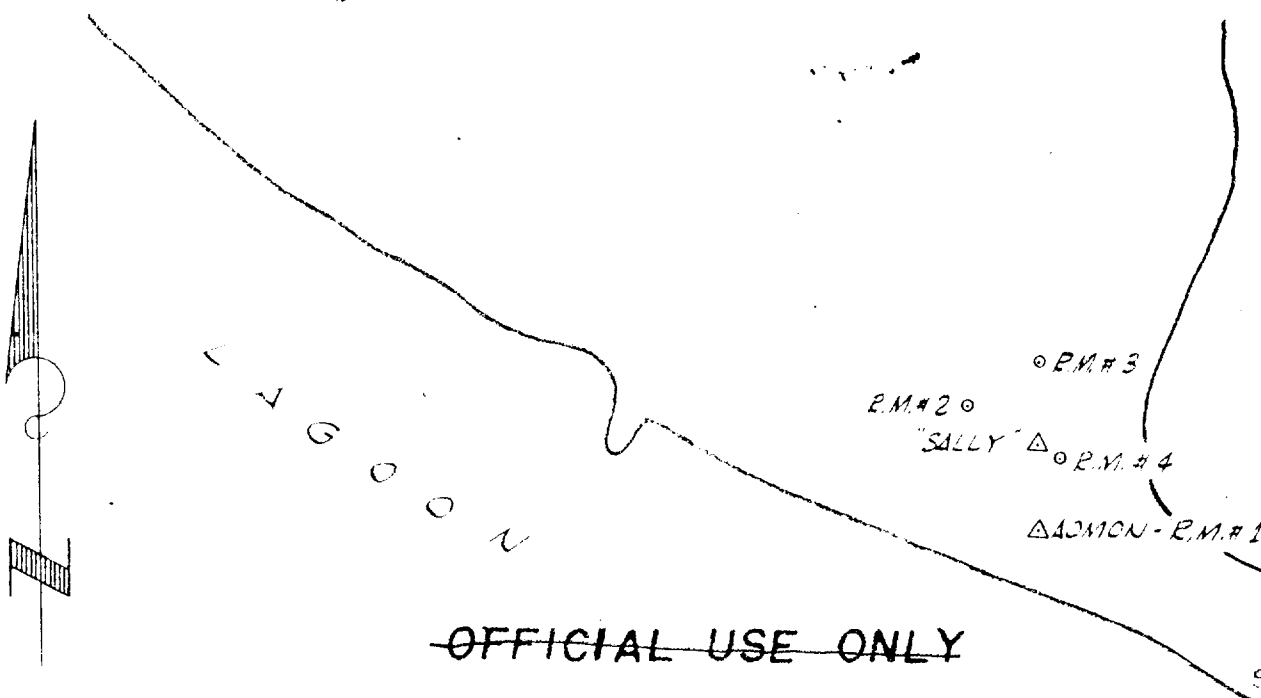
SITE: Sally, Aomon Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)



DECLASSIFIED PER DOE
LETTER DATED JULY, 15, 1994
FROM ANTON SINISCALLO TO
DIANE S. NIXON

LOCATION SKETCH:



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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION SAND SITE Uriah
ESTABLISHED BY USN YEAR 1944 3rd Sand Spit So of Runit
RECOVERED BY F. A. Axtell YEAR 1958 Eniwetok Atoll
FIELD BOOK NO. 342 PAGE 23 DATE 9/5/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE MARKS		ELEVATION
	DISTANCE	DIRECTION	
	FEET	METERS	
Sand			10.81
Coral		00-00-00	---
R.M. #1	64.67	54-06-25	9.70
R.M. #2	71.46	192-37-05	9.46

BRIEF HISTORY OF STATION:

This station was a primary station in the following surveys: USS Bowditch, 1944; JTF-7, 1947-48; Holmes & Narver, 1949-50; Holmes & Narver 1952 Expansion. U.S. Navy Day Beacon "G" shown on Hydrographic Office Chart 6033 was originally erected over this station, but was moved 25.7 feet lagoonward to make room for the erection of an observing platform over this station.

DECLASSIFIED PER DOE
LATER DATED JULY 15, 1994
FROM AUTON RESPONSIBILITY TO
DIANE S. HIRON

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard embossed USN-SURVEY disc 2" in diameter. It is set in concrete flush with the ground surface.

R.M. #1 is in good condition. It is a 2-58" diameter flat brass disc stamped "Sand - RM 1 - H & N - 1954." It is set in concrete 1 ft below the ground surface.

R.M. #2 is in good condition. It is a 2-58" diameter flat brass disc stamped "Sand - RM 2 - H & N - 1954." It is set in concrete 1 ft below the ground surface.

References:

Field Book

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4/19/52
6/6/52
5/6/54

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION SAND

SITE Uriah, 3rd Sand Spit So of Runit Is, Eniwetok Atoll, M

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

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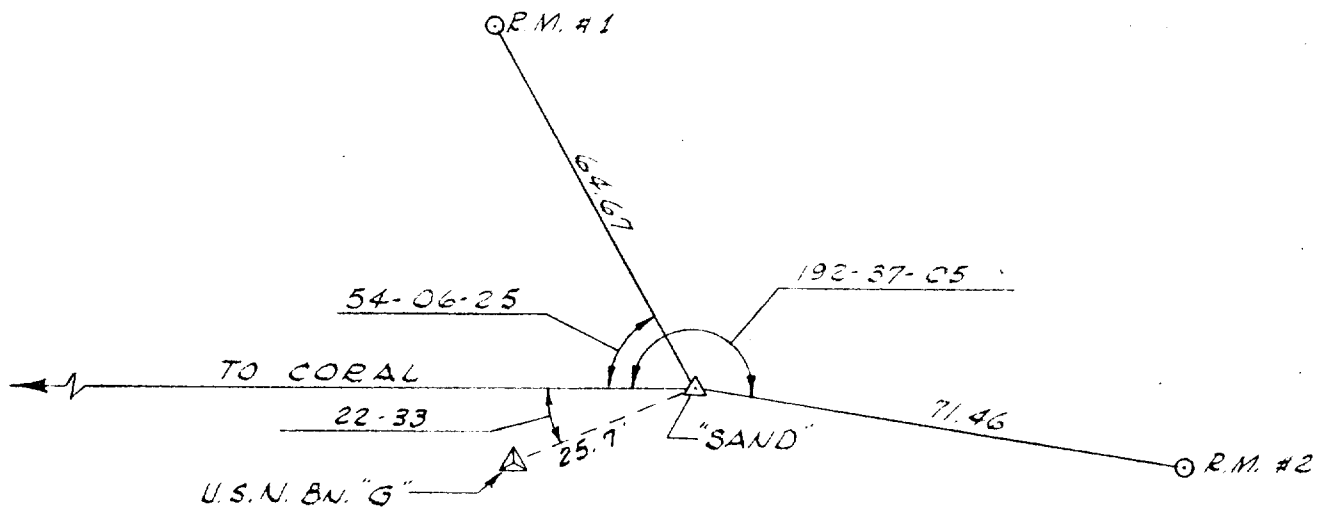
25 & 26

12/31/56

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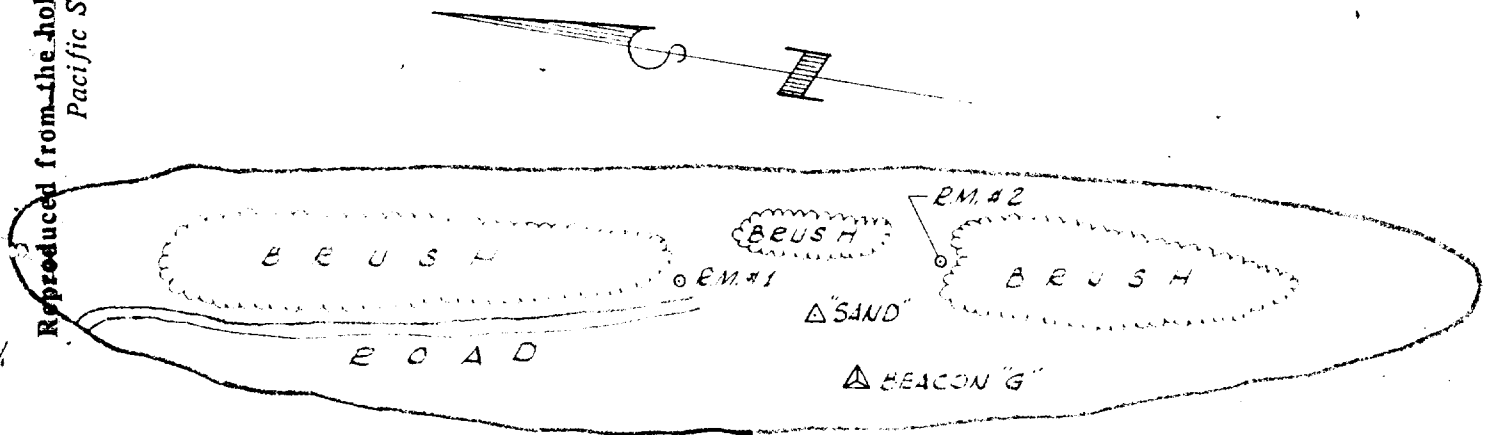
23

9/5/58



DECLASSIFIED PER DOE
LETTER DATED JULY 15, 1994
FROM ADICN CIRROGALLI TO
PIERRE S. NIXON

LOCATION SKETCH:



L A G O O N

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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: RIGILI #2 SITE Leroy
ESTABLISHED BY: H & N YEAR: 1952 Rigili Island
RECOVERED BY: F. A. Axtell YEAR: 1958 Eniwetok Atoll
FIELD BOOK NO: 344 PAGE: 19 DATE: 9/20/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE		ELEVATION
	FEET	METERS	
Rigili #2			8.32
Photo			00-00-00
R.M. #1	---	---	Not Visible
R.M. #2	30.01		101-41-58
R.M. #3	68.35		79-59-17

BRIEF HISTORY OF STATION:

This station was a third order station in the 1949-50 Holmes & Narver Survey. It was known as 11 plus 50 and Rigili #1. It was destroyed and later replaced and retriangulated as a second order station in the Holmes & Narver 1952 Control Expansion Survey. This station was used as a second order triangulation station in the Holmes & Narver 1957 Expansion Survey.

DECLASSIFIED PER DOE
EXEMPT FROM GDS, 15, 1994
FROM AUC OF 10000000000 TO
DIANE S. FAYON

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a .50 caliber machine gun cartridge set in concrete flush with the ground surface. A 50 foot steel Bilby tower in good condition is erected over this station.

R.M. #1 is in good condition. It is a spike embedded in a concrete block 6 " below the ground surface. It is not visible from the station due to the fact that one of the Bilby tower legs is on the line.

R.M. #2 is in good condition. It is a spike embedded in a concrete block 3" below the ground surface.

R.M. #3 is in good condition. It is a brass disc 2" in diameter, stamped "RM 3 - Rigili - H & N - 1952." It is set in concrete 6" below the ground surface. It is 5-1/2 feet from the N.W. corner of a large metal radar reflector.

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PAGE 2-RECOVERY NOTE-TRIANGULATION STATION

STATION Rigili #2

SITE Leroy, Rigili Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References:

Field Book

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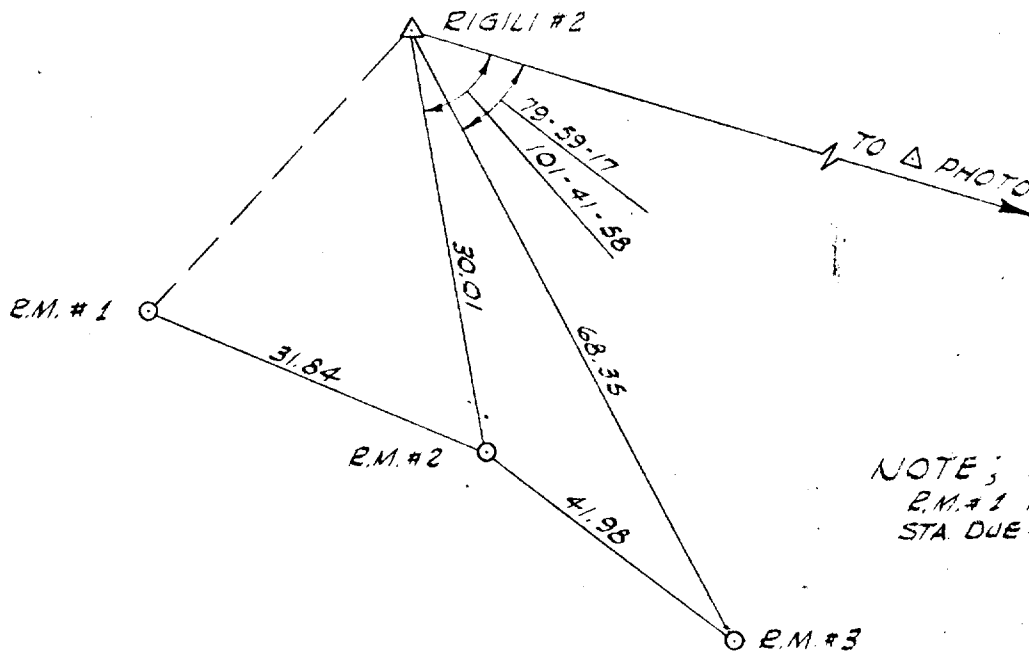
20-22

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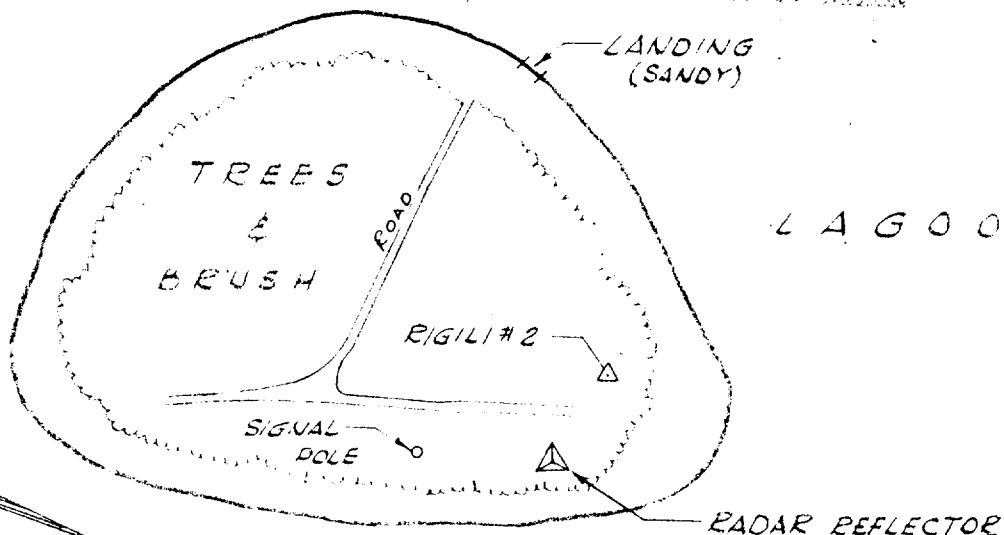
19

9/20/58



NOTE;
E.M. #1 NOT VISIBLE FROM
STA DUE TO TOWER LEG ON LINE.

LOCATION SKETCH:



DECLASSIFIED PER DOE
EXEMPT FROM E.O. 13526, 15, 1994
FROM ANTON FERRELL TO
DIANE S. NIXON

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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: RUJORU #2 SITE: Pearl
ESTABLISHED BY: H & N YEAR: 1957 Rujoru Island
RECOVERED BY: F. A. Axtell YEAR: 1958 Eniwetok Atoll
FIELD BOOK NO: 344 PAGE: 20-21 DATE: 9/21/58 Marshall Islands

OBJECT	DISTANCES AND DIRECTIONS TO REFERENCE		MARKS
	DISTANCE		ELEVATION
	FEET	METERS	
Rujoru #2			10.66
Coral	—		—
R.M. #1	65.78		9.90
R.M. #2	115.53		9.19

BRIEF HISTORY OF STATION:

This station was established as a second order triangulation station in the Atoll Control Net by the Holmes & Narver 1957 Replacement Survey to replace "Rujoru" which was disturbed during operation Redwing. The station is located approximately 35 feet west of Rujoru.

DECLASSIFIED PER DOE
AUTHORITY: 48 CFR 1.101
DATE: 10/10/2001 BY: 60322
CLASSIFIED BY: 60322

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard H & N Brass cap, stamped "Rujoru #2 - H & N - 1957." It is set in concrete 4" below the ground surface.

R.M. #1 and R.M. #2 were set as a part of the Recovery survey.

R.M. #1 is a steel cap, 2" in diameter, stamped "RM1-H&N-1957." It is set in concrete 4" below the ground surface.

R.M. #2 is a standard Holmes & Narver brass disc stamped "RM2-H&N-1958." It is set in concrete 1 foot below the ground surface.

References:

Field Book

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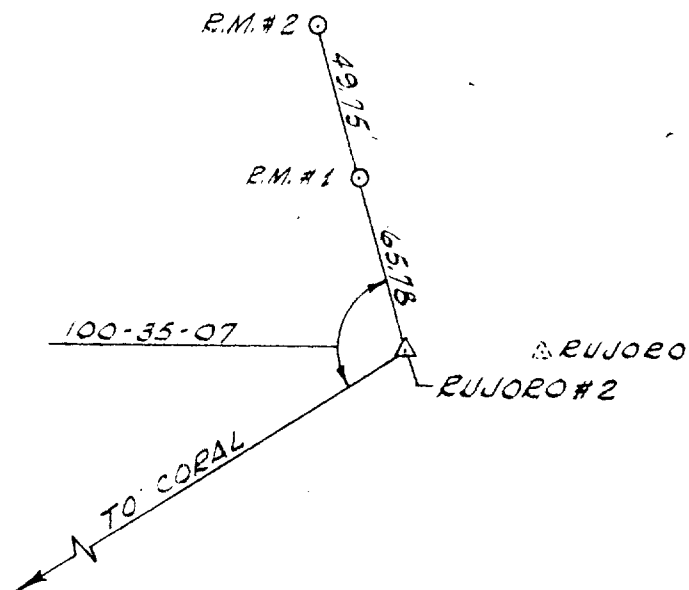
9/21/58

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION Rujoru #2 SITE Pearl, Rujoru Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)



LOCATION SKETCH:



R.M. #2
R.M. #1
R.U.J.O.R.O #2
R.U.J.O.R.O

LAGOON

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ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION: RUNIT
ESTABLISHED BY: JTF-7
RECOVERED BY: F. A. Axtell
FIELD BOOK NO: 342 PAGE:

SITE: Yvonne
Runit Island
Eniwetok Atoll
Marshall Islands
YEAR: 1946
YEAR: 1958
DATE: 8/12/58

DISTANCES AND DIRECTIONS TO REFERENCE MARKS				
OBJECT	DISTANCE		DIRECTION	ELEVATION
	FEET	METERS		
Runit				8.345
Coral			00-00-00	—
R.M. #1	61.14		127-41-30	10.16
R.M. #3	53.13		52-47-32	10.39

BRIEF HISTORY OF STATION

BRIEF HISTORY OF STATION:

This station was a primary station in the following surveys: JTF-7, 1947-48; Holmes & Narver, 1949-50; Holmes & Narver Expansion 1952; Holmes & Narver 1957 Replacement Survey.

DECLASSIFIED PER DOD
EXEMPT DATED JULY 15, 1994
FROM EXECUTIVE ORDER TO
REMOVE S. NIXON

MON TO OBS. STAND 20.445; OBS. STAND ELEV 29.80

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is a standard stamped U.S.C. & G. S. brass disc, 3" in diameter, stamped "Runit." It is set in a concrete block 1 1/2 foot below the ground surface.

R.M. #1 is in good condition. It is a cross cut in the slab of latrine #76, 8.4 feet from the west edge of the slab and 7.2 feet from the north edge.

R.M. #2 has been destroyed.

R.M. #3 was set as a part of this recovery. It is a lead and tack set in the concrete slab on the east side of Station 162.01. It is 6" from the south edge of the slab and 1 foot from the east wall of Station 162.01.

References:

Field Book

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION RUNIT

SITE: Yvonne, Runit Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

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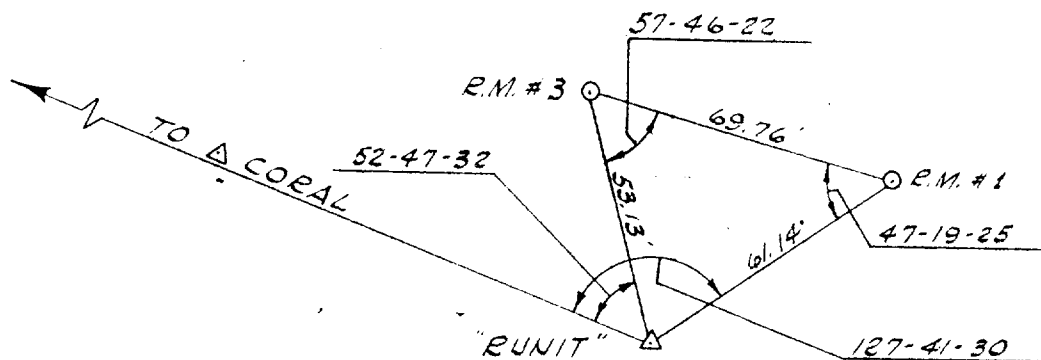
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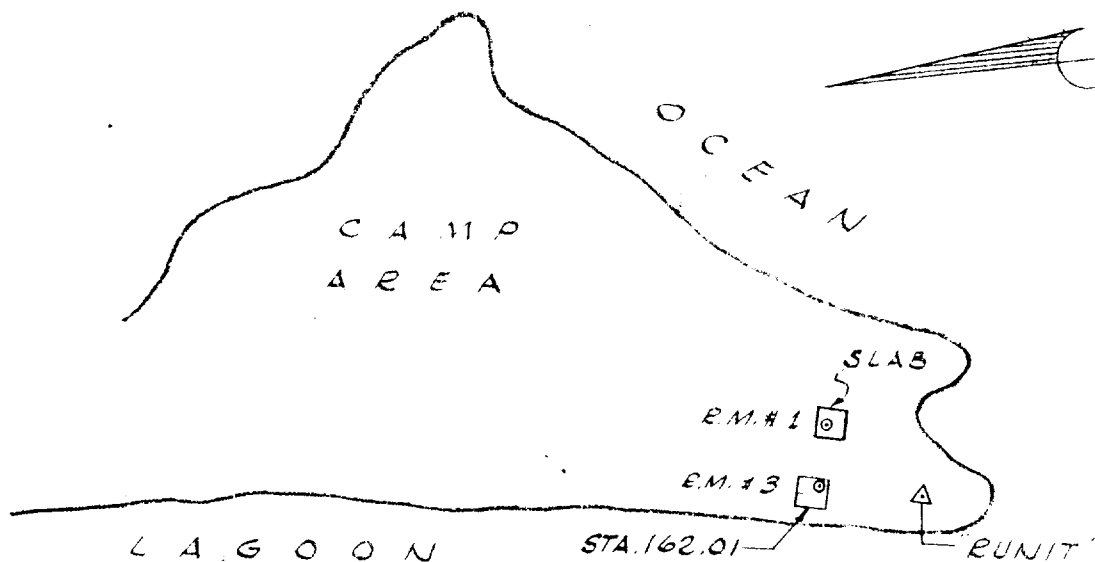
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8/12/58



DECLASSIFIED PER DOE
1 JULY 1994
BY NATION, GENISCALLI TO
ERNE S. NIXON

LOCATION SKETCH:



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53

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~~OFFICIAL USE ONLY~~

HOLMES & NARVER, INC.
ENGINEERS - CONSTRUCTORS
JOB 942

RECOVERY NOTE - TRIANGULATION STATION

NAME OF STATION YEIRI
ESTABLISHED BY H & N
RECOVERED BY F. A. Artell
FIELD BOOK NO. 342 PAGE 29
SITE Nancy
YEAR 1951
YEAR 1958
DATE 9/9/58
Yeiri Island
Eniwetok Atoll
Marshall Islands

DISTANCES AND DIRECTIONS TO REFERENCE MARKS				
OBJECT	DISTANCE		DIRECTION	ELEVATION
	FEET	METERS		
Yeiri				9.96
Coral	---		00-00-00	---
R.M. #1	50.00		108-07-30	10.03
R.M. #2	99.99		108-07-30	10.27

BRIEF HISTORY OF STATION:

This station is a third order station in the Atoll Control Net. It was established as a part of the Holmes & Narver 1952 Control Expansion by triangulation from Coral and Aomen.

DECLASSIFIED PER DOE
EXEMPT UNDER E.O. 15, 1994
FROM ACTION SINISCALLI TO
DIANE S. NIXON

DETAILED DESCRIPTION OF STATION:

This station was recovered in good condition. The station mark is an aluminum pipe capped with an aluminum cap 2" in diameter stamped "Yeiri - H & N." It is set in concrete 8" below the ground surface.

R.M. #1 is in good condition. It is a steel cap, 2" in diameter, stamped "RP-50." It is set in concrete 8" below the ground surface.

R.M. #2 is in good condition. It is a steel cap, 2" in diameter stamped "RP-100", and has a crossed arrow pointing toward the station. It is set in concrete 8" below the ground surface.

References:

Field Book

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6/3/54
1/10/57

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PAGE 2-RECOVERY NOTE - TRIANGULATION STATION

STATION Yeiri

SITE: Nancy, Yeiri Island, Eniwetok Atoll, M.I.

DETAILED DESCRIPTION OF STATION (CONT'D)

References (Cont'd):

Field Book

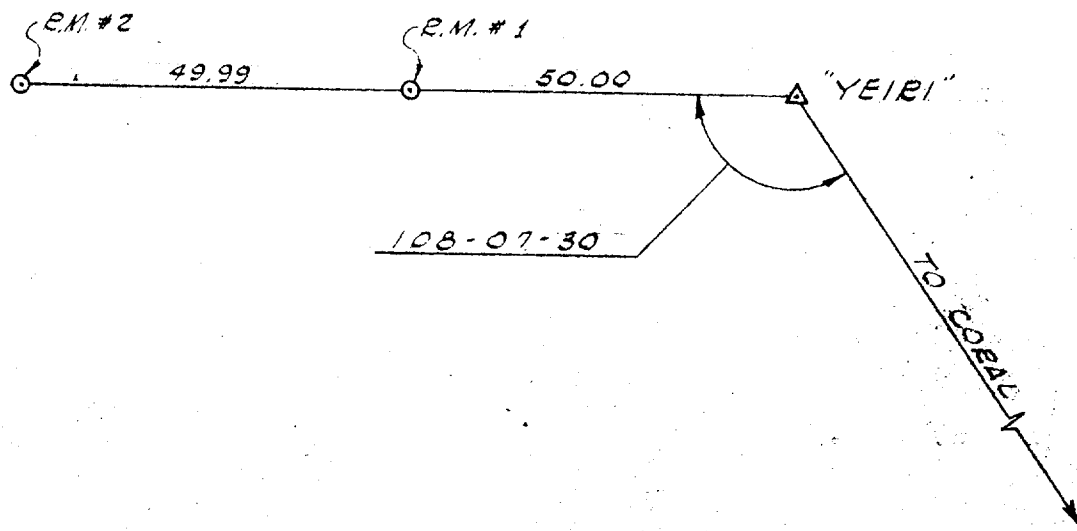
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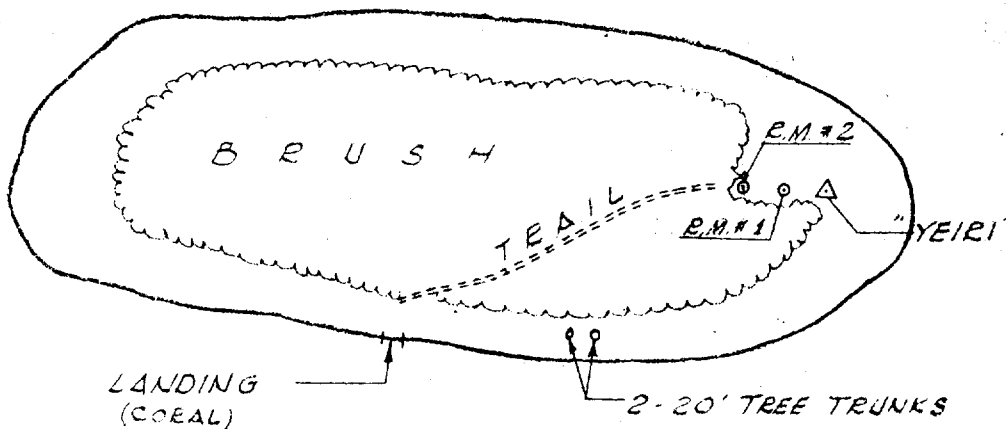
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LOCATION SKETCH:



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