

5036

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GUIDELINES AS DESCRIBED IN SECTION
3.3(a), EXECUTIVE ORDER 12356.

Diag. Cht. No. 4000

Form 504 U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE DESCRIPTIVE REPORT	
Type of Survey	HYDROGRAPHIC
Field No.	1
Office No.	H-5036
LOCALITY State..... TERRITORY OF HAWAII General locality..... NECKER ISLAND Locality..... AROUND THE ISLAND	
<u>194 29</u> CHIEF OF PARTY K. T. Adams	
LIBRARY & ARCHIVES DATE..... NOVEMBER 21, 1930	

B-1870-1 (1)

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

R.S. Patton
Superintendent.

State: Territory of Hawaii

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 5036

LOCALITY:

Necker Island

Around the Island

U.S.C. & G.S.S. GUIDE

1909

CHIEF OF PARTY:

K.T. Adams

5036

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U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO.

5036

HYDROGRAPHIC TITLE SHEET



The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 1

REGISTER NO. 5036

State ~~Territory of Hawaiian Is.~~

General locality Necker Island

Locality About Necker Island

Scale 1:5,000 Date of survey June 15, 1928 and June 8, 9, 19, 1929

Vessel U.S.C. & G.S.S. GUIDE

Chief of Party K. T. Adams

Surveyed by Glendon E. Boothe & W.H. Bainbridge and ship

Protracted by Henry J. Healy

Soundings penciled by Henry J. Healy

Soundings in fathoms ~~Feet~~

Plane of reference M L L W

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated March 26, 1928

Remarks:

GPO

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3.3(a), EXECUTIVE ORDER 12356.

Descriptive Report

to accompany

Hydrographic Sheet No. 1

Necker Id. T.H.

Scale 1:5,000

DATE OF INSTRUCTIONS: March 26, 1928.

LIMITS: The soundings were carried out from the shore line to 500 meters north, to 1600 meters south, southwest, and west, and to 1500 meters east of the island, which was sufficient to define the 15 fathom curve.

CONTROL: The usual types of small signals were used, located by topography-Topographic Sheet B, Necker Id, 1928; and sextant cuts taken from boat and topographic stations ashore. See special report attached hereto.

SURVEY METHODS: All soundings were taken with the hand lead. Most of the work was done by a motorsailer party.

Due to wind and currents the outer part of the work was finished by the ship.

The general plan of the work was to run the lines paralleling the shore spaced 50 meters apart inside the 10 fathom curve, and 100 meters apart between the 10 and 15 fathom curves. But due to the northeasterly wind, and the strong, erratic south westerly currents sweeping about, both ends of the island, this spacing could not be rigidly maintained.

GENERAL INFORMATION: Shark Bay is open to the northeast trades and is usually filled with breakers as it was on the days the survey was made. Small boat landings could be made in this bay in very calm weather. This is true also for any part of the island where a footing could be obtained. The best landing found and used extensively was on the western side in West Cove in the lee of Northwest Cape at signal ^{land} ~~boom~~, on a wave cut bench where an "A" frame was erected to handle the heavy gravity and astronomic instruments.

The bottom is sand and coral. The island is so small that it affords practically no shelter from any wind.

STATISTICS:

<u>Date</u>	<u>Day</u>	<u>Volume No.</u>	<u>No. of Positions</u>	<u>No. of Soundings</u>	<u>Statute Miles</u>
Motorsailer (green)					
1928					
June 15,	a	1	83	394	11.5
June 8, 1929	b	1	174	540	12.2
June 9, 1929	c	1	<u>164</u>	<u>335</u>	<u>8.8</u>
Totals			<u>421</u>	<u>1269</u>	<u>32.5</u>
Ship (red)					
June 19, 1929	A	2	109	204	13.2
Grand Totals			<u>530</u>	<u>1473</u>	<u>45.7</u>

Respectfully submitted,

W.H. Bainbridge

 W.H. Bainbridge, Jr. H & G E

Forwarded, Approved:

K.T. Adams

 K.T. Adams, Chief of Party,
 Steamer GUIDE.

Sheet #1 Necker Id.
List of Signals

Topographic-See Topographic Sheet B. Necker Id. 1928

Bag	Bow	Rok
Big	Mik	See
Bowl	Mut	Sta
Bud	Nix	Tide Gage
Cliff	North	Tom
East	Nub	Top
Had	Off	Up
In	Out	Was
Land-	Pin	West
Bit	Pole	

Hydrographic - Located by sextant cuts recorded in Sketch book and on Pages 20-23, Vol 1. Hydro. record.

	Lat. Long.	Sec in Meters.	
Bay	23-34	+1083	-763
	124-42	+ 433	-1266
Boy	23-34	+1172	-674
	124-42	+ 638	-1063
Ben	23-34	+1419	- 427
	164-42	+ 579	- 1122
Cave	23-34	+1231	- 615
	164-42	+ 803	- 898
End	23-34	+1452	-394
	164-42	+454	-1247
Face	23-34	+1441	-405
	164-42	+ 519	-1182
Flag	23-34	+1136	- 710
	164-42	+ 752	- 949
Gap	23-34	+1329	- 517
	164-42	+ 648	-1053
Gil	23-34	+1386	- 460
	164-42	+ 699	-1002
Hel	23-34	+1163	- 683
	164-42	+ 815	- 886
Hi	23-34	+1396	- 450
	164-42	+484	-1217
King	23-34	+ 954	- 892
	164-42	+ 29	-1672
Lil	23-34	+ 923	- 923
	164-42	+ 246	-1455

	Lat. Long.	Sec in meters.	
Nat	23-34	+954	- 892
	164-42	+439	-1262
	23-34	+ 1057	- 789
Pat	164-42	+ 1659	- 42
	23-34	+ 1101	- 745
Sad	164-42	+ 685	- 1016
	23-34	+ 944	- 902
Saw	164-41	+ 1477	- 224
	23-34	+ 1442	- 404
Tip	164-42	+ 4586	- 1245

Triangulation Stations
Astro.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5036

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	530.
Number of positions checked	216.
Number of positions revised	16.
Number of soundings recorded	1473.
Number of soundings revised	185.
Number of signals erroneously plotted or transferred	✓

Date: Jan. 3, 1931.....
Cartographer: Harold W. Murray.....

December 5, 1930

Division of Hydrography and Topography:

Division of Charts: ✓

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5036

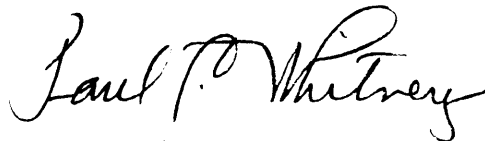
Locality Necker Island, T. H.

Chief of Party: K. T. Adams, in 1928 and 1929

Plane of reference is mean lower low water, reading
3.5 ft. on ~~tabulations~~ tabulations at Honolulu
17.3 ft. below B. M. 2

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.



Chief, Division of Tides and Currents.

Section of Field Records

ECM
LAC

December 5, 1930

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5036

Locality **Necker Island, T. H.**

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Plane of reference is **mean lower low water, reading**

3.5 ft. on ~~tidal staff~~ **tabulations at Honolulu**

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10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
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13. Remarks.



Chief, Division of Tides and Currents.

VERIFICATION REPORT
to accompany
HYDROGRAPHIC SHEET #1.
NECKER I, T.H.

This will certify that I have examined the completed smooth sheet and records and hereby approve them. The usual amount of supervision was had over the launch work. Most of the ship work was done under my direct supervision.

Your attention is called to the fact that in the Ship work the control became quite weak in places when the soundings were at some distance from the island.

The cuts by which the hydrographic signals were located are to be found in one note book (in addition to the sounding volumes), which note book forms a part of the records of this sheet.

K.T. Adams

K. T. Adams,
Chief of Party,
Steamer GUIDE.

SECTION OF FIELD RECORDS
REPORT ON SHEET No. 5036

CHIEF OF PARTY—H. J. Adams

DATE SURVEYED—June 15, 1928 & June 8-10, 1929

SURVEYED BY—J. E. Boothe, W. H. Bainbridge

PROTRACTED BY—H. J. Healy

SOUNDINGS PLOTTED BY—H. J. Healy

VERIFIED & INKED BY—Harold W. Murray

1. The records conform to the requirements of the general instructions.
2. The plan and character of development fulfill the requirements of the specific instructions.
3. Few crossings resulted since the work was developed in circles about the island.
4. Ample bottom characteristics were taken but none were added by the field party to the smooth sheet. These were plotted in the office.
5. The usual depth curves can be completely drawn save the 3-fathom curve inshore.

6. Signal "Hel," established by the Hydro-graphic party at present stands alone in the water. It may be on a rock but no explanation can be found in the description report.

7. The work was somewhat troublesome in checking. Time intervals are frequently far from uniform which may be due to conditions of wind and current. This may account for crossed fixes. Many of the positions are characterized by small angles ranging from 3 to 10 degrees.

In the work done by the ship on "A" day, several positions remote from the island and in the N.E. & N.W. sections could only be checked within about 25 meters.

Little or no appreciable distortion in latitude between lat. $23^{\circ}34'30''$ and $23^{\circ}35'$ is present. All other parts tend to show uniform shrinkage.

8. Positions 18a to 21a and 65a to 69a cannot be verified at present due to the use of signals "~~Fit~~" and "Boom" which are not on this sheet. It is probable that these

Boat Sheet used Jan. 28, 1931 and contained necessary information to warrant verifying. J. C. Murray

signals are on adjacent work which as yet, has not been received by this office.

9. The shore line was transferred from a reduction of T-4422 and descriptive names added.
10. No boat sheet for this sheet H-5036 has as yet been received by this office.
11. No overlaps were made as adjacent work has not yet been received.

Respectfully submitted:- Jan. 5, 1931
Harold W. Munay

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

AND REFER TO No. 11-WSW

April 21, 1931.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5036

Necker Island, Hawaiian Islands

Surveyed in 1928 - 1929

Instructions dated March 26, 1928 (Guide)

Chief of Party - K. T. Adams

Surveyed by G. E. Boothe, W. H. Bainbridge

Protracted and plotted by H. J. Healy

Verified and inked by H. W. Murray

1. The records conform to the requirements.
2. The plan, character and extent of the survey satisfy the general and specific instructions.
3. As most of the lines parallel the shoreline there are not many crossings. These are satisfactory.
4. The information is sufficient for completely drawing the five and ten fathom curve.
5. The junction with H. 5053 will be reported in the review of that sheet when it is completed.

There is no previous survey of this area.

6. The usual amount of field plotting was well done by the field party except that no bottom characteristics were plotted.
7. Character and scope of surveying - The area is believed to be sufficiently developed as there are apparently no passages through reefs at landings or prominent shoalings. The control of some of the outer lines is quite weak, due to the limited area available for signals, and the small angles resulting.

8. No additional work is recommended.
9. Reviewed by R. L. Johnston, March 10, 1931.

Approved:

signed A.M. Sobirakki

Chief, Section of Field Records (CHARTS)

F. Borden

Chief, Section of Field Work (H. & T.)

Inspected E.P.E.

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 11-WSW

WASHINGTON

April 21, 1931.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5036

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Instructions dated March 26, 1928 (Guide)

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8. No additional work is recommended.

9. Reviewed by R. L. Johnston, March 10, 1951.

Approved:

Chief, Section of Field Records (CHARTS)

Chief, Section of Field Work (H. & T.)

Inspected: E.P.E.

Applied to chart 4181 Aug. 19, 1940 J.K.S.