

4787

Diag. Cht. No. 4115

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director

State: Hawaiian Is.

DESCRIPTIVE REPORT

~~Topographic~~ } ² Sheet No. 4787
Hydrographic }

LOCALITY

W.Coast of Hawaii

Palemno Point to Puuhonua Point

1928

CHIEF OF PARTY

T.J. Maher

G. & G. SURVEY
L. & A.
JUN 13 1928
Am. No.

4787

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET NO.2
of the

4287

West Coast of Hawaii
, from
Palemano Point
to
Puuhonua Point

Scale 1:5000

Steamer GUIDE
1928

Thos. J. Maher
Commanding.
Chief of Party

DESCRIPTIVE REPORT
to accompany

HYDROGRAPHIC SHEET NO.2
Scale 1:5,000

AUTHORITY: Instructions from Director dated November 3, 1927.

LIMITS: The limits of this sheet are from the beach to the one hundred fathom curve, and along the beach from Palemano Point on the north to 1/3 mile south of Punhonua Point on the south.

DESCRIPTION: The shore line from Palemano Point to Honauau Bay consists of low flat lava flow. This flat expanse extends inshore to the beginning of the slope of the mountainous inland of the Island of Hawaii. At the high water line the shore line drops off abruptly, forming a veritable sea wall. There is no vegetation on this flat lava to speak of. A scattering of coconut palms constitute about all the vegetation that exists.

Honauau Bay is a small bay which makes in between two low lava points, the southern one of which is fringed with a coral reef. There is a small native settlement here, consisting of a small store, and several houses. The so called "City of Refuge" is located at this place and is of particular interest to tourists. This city consists of ruins of high thick stone walls. The bay is quite deep, the 20 fathom curve runs very close to the north shore, and the bottom on this side is rocky. On the south side the slope is a little more gentle and the bottom consists of coral and sand. This bay is not very suitable for anchorage, the depth is too great for the limited swing room and the holding ground is none too good.

CONTROL: The control for this survey was furnished by the topographic party of Lieutenant E. R. Hand.

METHOD: This survey was accomplished by a whaleboat under oars from the beach to the twenty fathom curve. The usual method of hand lead sounding was followed. The personnel of the party consisted of one officer in charge, right angle and plotting; another officer left angle and steering; one recorder; one leadman; and three oarsmen. The lines were run normal to the shore line. In all cases the sounding lines were run as close up to the beach or sea wall as was thought practicable and safe. This work was not accomplished entirely without mishap. On several occasions, after taking a sea aboard and nearly capsizing, it was necessary to delay operations long enough to bail the boat

and dry the sheet and other equipment. Fortunately there were no casualties or important parts of the equipment lost during the progress of the work.

From the twenty fathom to the hundred fathom curve the work was accomplished with the motorsailer. It was necessary to take up and down soundings in this depth, and a hand sounding machine was installed on the boat for this purpose. Positions were taken simultaneously with each sounding.

The personnel of this party consisted of one officer in charge, right angle and plotting; another officer left angle and steering; one recorder, one motor engineer, and two leadsmen. The lines run by this party were run parallel to the shore lines, and spaced in accordance with the instructions for this particular work.

TIDAL DATA for this survey was obtained from a portable, automatic tide gauge installed at the landing at Napoopoo in Kealahou Bay.

Respectfully submitted,

H. C. Warwick

H. C. Warwick,
Jr. H & G Engineer,
Coast & Geodetic Survey.

FORWARDED:

T. J. Maher

Thos. J. Maher, H & G E,
Chief of Party
Commanding Steamer GUIDE

STATISTICS FOR HYDROGRAPHIC SHEET NO. "2"

Date	letter	Vol.	Positions	Soundings	Miles(stat)	Boat
1928						
Mar. 9	a	1	114	330	3.2	whaleboat
14	b	1	82	241	3.0	whaleboat
15	c	1	105	295	3.5	whaleboat
16	d	1	166	478	5.5	whaleboat
17	e	1	60	171	2.5	whaleboat
17	e	2	4	13	0.4	whaleboat
19	a	1	142	142	4.8	motorsailer
20	b	1	92	92	5.7	motorsailer
21	c	1	112	112	5.5	motorsailer
22	d	1	110	108	5.2	motorsailer
23	e	1	47	47	3.1	motorsailer
TOTAL	11	3	1034	2029	42.4	2

June 15, 1928.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 4767

Locality: ISLAND OF HAWAII, E. E.

Chief of Party: E. J. Maher, 1888.
Plane of reference is M L L W
0.7 ft. on tide staff at Napoee *

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 each 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.

G. W. ...

Chief, Division of Tides and Currents.

* Attention is called to the fact that a reference plane corresponding to a reading of 1.1 feet on the tide staff at Napoee was used for H.S. 4768. This plane, derived by the field party and used in entering the reducers, was used for checking them in the absence of the necessary tidal data for verifying it, since the Division of Charts requested that the tide reducers be verified without delay. It will be noted that the field party has changed its reference plane from 1.1 on the staff at Napoee for H.S. 4768 to 0.7 for H.S. 4767. An office determination based on all information now available gives a value of 0.8 for MLLW on the Napoee staff.

June 21, 1928

Report on H 4787

Chief of Party - Thos. J. Maher

Surveyed by - H.C. Warwick - V.M. Gibbens

Protected and soundings penciled by, G.E. Boothe - V.M. Gibbens

Verified and inked by - John B. Ladd

Soundings penciled by G.W. Lovesee.

1. The records conform to the requirements of the general instructions.
2. The plan and character of development fulfill the requirements of the general instructions.
3. The sounding closing lines are adequate.
4. The usual depth curves could be drawn.
5. The field plotting was completed to the extent prescribed in the general instruction with the following exceptions. The spacing of the soundings between the position was done without regard to the recorded time intervals in the Volumes. As a result the spacing between position had to be done over as a new job. Sounding of ess

values than one fathom were plotted as " $0\frac{5}{6}$ " instead of simply " $\frac{5}{6}$ ". The position numbers were too far from the position to enable their identification in congested areas.

Signal "T_e" had to be moved south about 8 miles and it was found that the shift did not alter the plotting as done by the field.

The smooth sheet was not made to conform to the boat sheet in regard to rocks discovered by the hydrographic party. Only about $\frac{1}{2}$ of them being plotted on the smooth sheet.

6. No additional surveying is required to fully develop the important areas within the limits of the sheet.

7. The plotting of the position was excellent but the balance of the field drafting was only fair.

John E. Hoag
jr. Capt. Eng.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 10, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4787

Palemano Pt. to Puuhonua Pt., Hawaii

Surveyed in 1928

Instructions dated November 3, 1927 (GUIDE)

Chief of Party, T. J. Maher.

Surveyed by H. C. Warwick and V. M. Gibbens.

Protracted by G. E. Booth and V. M. G.

Soundings plotted by G. W. Lovesee.

Verified and inked by John G. Ladd.

1. The records conform to the requirements of the General Instructions with the exception that on a, b, and c days (motor sailer) very few bottom characteristics are noted.
2. The plan and extent of development satisfy the requirements of the specific instructions except that several shoal soundings should have been further developed. These will be mentioned below.
3. The usual depth curves could be drawn except those close inshore, where probably the heavy seas and reefs prevented the party from approaching too closely to the shore.
4. The usual field plotting was done by the field party, but was found defective in the following respects:
 - a. Time intervals were disregarded in the spacing of the soundings.
 - b. Soundings of less than 1 fathom were plotted as $0 \frac{5}{6}$ instead of $\frac{5}{6}$
 - c. The position numbers were inked too far from the positions.

- d. Many rocks shown on the boat sheet were not transferred to the smooth sheet.
5. The junction with H. 4768 on the north is satisfactory.
The junction with H. 4798 on the west will be taken up when that sheet is reviewed.
6. No additional work is immediately necessary in the area covered by this survey. However, when work is extended to the southward, consideration should be given to the further examination of the following places:
 - a. An examination of the 3 1/2 fathom shoal in lat. 19° 27' 500 m., long. 155° 55' 915 m.
 - b. A development of the 18 fathom sounding in lat. 19° 26' 1684 m., long. 155° 55' 970 m.
 - c. An examination of the 2 5/6 fathom sounding in lat. 19° 25' 580 m., long. 155° 55' 115 m.
7. Reviewed by A. L. Shalowitz, July, 1928.

Approved:

Chief, Section of Field Records (Charts)

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HCCW
C. & G. SURVEY
L. & A.
JUN 11 1928
Acc. No.

REG. NO. 4787

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. 2

REGISTER NO. 4787

State ~~Territory of Hawaiian Is.~~

General locality West Coast of Hawaii

Locality Palomano Point to Puuhonua Point

Scale 1:5,000 Date of survey March 9th to 23rd, 1928.

Vessel Steamer GUIDE

Chief of Party Thos. J. Maher

Surveyed by H.C. Warwick - V.M. Gibbens

Protracted by G.E. Boothe - V.M. Gibbens

Soundings penciled by G.W. Lovesee

Soundings in fathoms ~~FSEEX~~

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated November 3, 1927

Remarks: Work on this sheet is included in 2 volumes whaleboat
1 volume motor sailer.