

4697

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Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
State: Hawaiian Is.	
Acc. No.	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. ⁴ 4697
LOCALITY	
Kauai, E. Coast	
Hanamaula Bay	
1927	
CHIEF OF PARTY	
F. G. Engle	

REPRODUCTION PROHIBITED

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: Hawaiian Islands

11-5613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 4 ¹¹⁻⁹⁷ 4697

LOCALITY:

Kauai Island

Hanamaulu Bay, East coast
of Kauai.

1917

CHIEF OF PARTY:

F. G. Engle

4 . . .

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET #4 HANAMAULU BAY, KAUAI, T. H.
Commanding Officers Instructions dated, November 23, 1926.

LIMITS: This sheet covers the hydrography of Hanamaulu Bay and approaches and joins the hydrography on field sheet No. 2 at the entrance to the Bay.

SURVEY METHODS AND CONTROL: Control for this survey consisted of three triangulation stations and topographic signals established on topographic sheet C, Hanamaulu Bay, scale 1:2500 completed just previous to the hydrography.

The survey was made in accordance with the usual methods of launch hydrography using a 30 ft. motor sailer and a copper centered hand lead line with 10 lb., lead. The sounding and both angles were taken from the bow of the boat. The sounding lines were carried as close to the beach as safety would permit.

Tidal reducers for this sheet were obtained from a portable automatic gauge operated at the dock in this Bay.

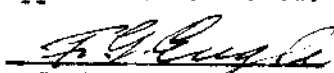
DESCRIPTION OF THE COAST: This subject is fully covered in the descriptive report accompanying Topographic Sheet C, Hanamaulu Bay.

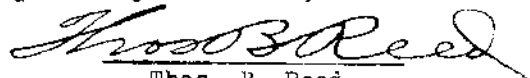
LANDMARKS: The only very prominent object on this sheet is the large sugar warehouse and sugar loading equipment at the dock. This large warehouse offers a good means of identifying the entrance when approaching from seaward.

INSHORE DANGERS: The shore lines on both sides of the entrance is rocky with many rocks awash close to the shore. With the exception of the rock located by the hydrographic party off position 161a, all rocks awash along shore are shown on the topographic sheet. A submerged rock was sketched by the hydrographic party off position 50a and between the inner ends of the sounding lines and the shore at the northward entrance to the bay many submerged rocks were seen from the launch. Between signals AHU and WAT a submerged rocky ledge with about 3 feet on it was observed and sketched on the boat sheet by the hydrographic party. Large breakers roll in from about 150 meters off signal WAT during the North East trades. A least depth of $10\frac{1}{2}$ feet was found on the shoal about 150 meters NE., of signal AHU. An attempt was made on d day to verify the sounding of $10\frac{1}{2}$ feet obtained at position 14c and no sounding obtained in this vicinity of less than 14 feet. The launch was maneuvered around over this spot and many soundings taken. However the sounding may have been on a very small coral head which could not again be located.

Respectfully submitted,

Approved & Forwarded:


F. G. Engle
Comdg. Str. DISCOVERER.


Thos. B. Reed.

STATISTICS SHEET NO. 4

East
~~WEST~~ COAST KAUAI, SCALE, 1:2,500 - - - - HANAMAULU BAY, KAUAI.

<u>Date, 1927</u>	<u>: Letter</u>	<u>: Volume</u>	<u>: Positions</u>	<u>: Soundings</u>	<u>: Miles Stat</u>	<u>: Vessels</u>
May 12	: a	: 1	: 214	: 629	: 15.5	: Stbd. Motorsailer
13	: b	: 1	: 63	: 307	: 4.1	: " "
Sept. 1	: c	: 2	: 87	: 361	: 5.1	: " "
9	: d	: 2	: 35	: 131	: 1.7	: " "
Totals ----			209 399	1428	26.4	

March 21, 1928

Section of Field Records
Report on Hydrographic Sheet No. 4697
Hanamaula Bay, East Coast of Kauai, Hawaiian Is.
Surveyed in 1927
Instructions dated Nov. 23, 1926

(Gibson
Notes left in
H 4697)

Chief of Party - F. G. Engle
Surveyed by - Thos. B. Reed
Protracted and sounding by - G. A. Nelson
Verified and checked by - J. J. Jarman

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. There are several disagreements in line crossings. The above discrepancies are in all probability caused by an irregular bottom. Numerous soundings which do not agree with those surrounding them

Statistics on the sheet follow:

No positions - 399
No checked - 152
No incorrect - 5
No sounding - 1424

Character of sheet - Generally open with several shoal developments.

Time interval - regular.

Remarks:

The protractor used by the field draftsman in plotting this sheet was slightly out of adjustment. However, the positions were not off enough to justify changing them. The error seemed to be negligible in shore but increased as the distance from the shore lengthened. This sheet joins H-4703 but the junction was not investigated due to the latter being incomplete.
Report by J. J. Jarman.

tend to bear out this fact. From a study of the bottom characteristics it would appear that the irregular bottom is due to the presence of coral formations.

4. The manual depth curves can be completely drawn.

5. ~~Except for the omission of the depth curves by the field draftsman~~ The field plating was completed to the extent prescribed in the General Instructions.

6. The following errors were made by the field draftsman in plating the sheet:

1. Platted $22\frac{1}{2}$ ft. for 25 ft on position 83a.
2. Omitted sounding between 92a and 93a
3. " " " " 104a " 106a
4. Too many soundings between 106a " 107a
5. Platted $30\frac{1}{2}$ ft. for 31 ft. on position 150a
6. " $18\frac{1}{2}$ ft. " 19 ft. between 25a and 26a
7. Omitted 17 ft sounding between positions 11b and 12b.

6-28-28

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
volumes of sounding records for

2

HYDROGRAPHIC SHEET 4697

Locality: KAUAI ISLAND, T. H.

Chief of Party:

Plane of reference is F. C. Engle, 1927.

ft. on tide staff at M L L W

1.7 Hawiliwili Bay.

2.3 " ~~de~~ Hanamaulu Bay.

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.

J. A. Warner
 Chief, Division of Tides and Currents.

AND REFER TO NO. 11-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 11, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4697

Kauai Island, T.H. - Hanamaulu Bay

Instructions dated November 23, 1926

Chief of Party, F. G. Engle.

Surveyed by Thos. B. Reed.

Protracted and soundings plotted by G. A. Nelson.

Inked and verified by J. T. Jarman.

1. The General Instructions were complied with except in the following instances:
 - a. The 19 foot indication near position 175 a was not investigated.
 - b. There is no evidence to show if additional investigation of the 18 foot spot about 150 meters northeast of signal "Ahu" was made.
 - c. The records were very poor in regard to remarks and courses.
2. The specific instructions were not complied with in regard to developing the 6 foot curve and the area south of \triangle Ahu and in the vicinity of the wharf and mooring buoys. The area in the vicinity of the wharf and mooring buoys was not well developed, probably on account of a ship lying there at the time of the survey.
3. The following changes from previous surveys were noted.
 - a. Different positions and numbers of mooring buoys.
 - b. Different location of depth curves, especially the 18 foot curve.
 - c. A 10 foot sounding was obtained about 1/8 mile southeasterly of \triangle Maula which was not shown by previous surveys. An unsuccessful attempt was made by the hydrographic party to verify the sounding.

- d. The detached 26 ft. shoal near nun buoy No. 4 shown on chart 4112 was found to be inside of the 30 foot curve.
 - e. A 28 foot sounding was obtained approximately in the position of the 27 foot shoal shown on chart 4112 northeast of nun buoy No. 6.
 - f. The shoreline seems to have changed somewhat; especially on the north side of the bay.
- 4. Crossings were adequate.
 - 5. The drafting was well done.
 - 6. Some difficulty was experienced in plotting soundings across the ends of lines on this large scale sheet on account of the uncertain turning radius of the launch. There was also an uncertainty as to whether the launch was on course when the first and last positions of the lines were taken.
 - 7. Reviewed by W. M. Gibson, Jr. H. & G. E., April 17, 1928.

Approved:

Chief, Section of Field Records (Charts)

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

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 28, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4697

Hanamaula Bay, East Coast of Kauai, Hawaiian Islands

Surveyed in 1927

Instructions dated November 23, 1926

Chief of Party, F. G. Engle.

Surveyed by Thos. B. Reed.

Protracted and soundings plotted by G. A. Nelson.

Verified and inked by J. T. Jarman.

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. There are several disagreements in line crossings. The above discrepancies are in all probability caused by an irregular bottom. Numerous soundings which do not agree with those surrounding them tend to bear out this fact. From a study of the bottom characteristics it would appear that the irregular bottom is due to coral formations.
4. The usual depth curves can be completely drawn.
5. The field plotting was completed to the extent prescribed in the General Instructions.
6. The following errors were made by the field draftsman in plotting the sheet:
 - a. Plotted 22 1/2 ft. for 25 ft. on position 83 a.
 - b. Omitted sounding between 92 a and 93 a.
 - c. " " " 104 a and 105 a.
 - d. Too many soundings between 106 a and 107 a.
 - e. Plotted 30 1/2 ft. for 31 ft. on position 153 a.
 - f. Plotted 18 1/2 ft. for 19 ft. between 25 a and 26 a.
 - g. Omitted 17 ft. sounding between 11 b and 12 b.

Statistics on the sheet follow:

No. of positions	399
" " " checked	152
" " " incorrect	5
" " soundings	1428

Character of sheet - generally open with several shoal developments.

Time interval - regular.

7. Remarks: The protractor used by the field draftsman in plotting this sheet was slightly out of adjustment but none of the positions were off enough to justify changing them. The error seemed to be negligible inshore but increased as the distance from the shore lengthened.
8. This sheet joins H. 4703 but the junction was not investigated due to the latter being incomplete.
9. Report by J. T. Jarman, March 21, 1928.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY
L. & A.
DEC 18 1927
Acc. No.

REG. NO. 4697

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. 4

REGISTER NO. **4697**

State Hawaiian Islands

General locality Kauai Island

Locality Hanamaula Bay, East coast of Kauai.

Scale 1:2,500 Date of survey May to September, 1927

Vessel DISCOVERER

Chief of Party F.G. ENGLE

Surveyed by Thos. B. Reed

Protracted by G. A. Nelson

Soundings penciled by G. A. Nelson

Soundings in ~~fathoms~~ feet

Plane of reference M. L. L. W. Reading 2.2 on Tide Staff at Hanamaulu

Subdivision of wire dragged areas by.....

Inked by.....

Verified by.....

Instructions dated November 23, 1927

Remarks:.....

Applied to chart 4100 thru chart 4112 Wittmann
11/2/58