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Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director

B. & G. SURVEY
L. & A.
JUN 13 1928
Am. Nav.

State: Hawaiian Is.

DESCRIPTIVE REPORT

Topographic } Sheet No. 4605
Hydrographic }

LOCALITY

S. Coast of Kauai

Makahuena Pt. to Waimea

1926

CHIEF OF PARTY

C.L. Garner

GOVERNMENT PRINTING OFFICE

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

~~SEVEN~~ Territory of Hawaii

11-5613

DESCRIPTIVE REPORT.

4605

Hydrographic Sheet No. 10

LOCALITY:

Waimea to Makahuena Pt. Kauai, T.H.

1926

CHIEF OF PARTY:

Lieut. Comdr. Clem L. Garner.

NOTE:

The soundings in Hanapepe Bay (Port Allen) generally agree very closely with the original soundings made in 1904 by the party of Assistant King and for that reason it was not considered necessary to go to greater detail in making the soundings for the past season. It will be noticed that lines were run over the entire bay in order to secure comparisons and thus learn of any changes. ~~Hanapepe River is small and the rainfall on that side of the island light the drainage in the Hanapepe Bay being light and changes due to silting.~~

~~The drainage from Hanapepe River into the Bay is small.~~

It is not apparent that ~~any~~ much change in depth should be expected here as the drainage from Hanapepe River is ^{very} small and the silting corresponding light. Any changes which take place would probably be ~~more~~ more due to the ocean swell than anything else.

In connection with the soundings it should be mentioned that a ^{with} small swell is constantly running in this area and the work was done ~~with~~ ^{with} swells of from 1/2 to 3 feet, the more critical soundings ~~being~~ in shallow water being when it was smoothest.



G.L. Garner

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET NO. 10,
WAIHEA TO MAKAHUENA PT., KAUAI, T. H.
Commanding Officer's Instructions dated Nov. 23, 1926

LIMITS: This sheet covers the hydrography on the south coast of Kauai Island, from Koloa Landing on the east to Makaweli Bay on the west. A complete hydrographic development was made inside the 100 fathom curve, with additional sounding lines run parallel to the coast out to approximately the 500 fathom curve. This sheet joins on the east with sheet No. 9, Koloa Landing, and on the west connects with sheet No. 8, survey of Waiheea Bay vicinity. The scale of this sheet is 1:20,000 with a sub-plan of Hanapepe and Wahiawa Bays, on a scale of 1:5,000. The field work was done on similar scales.

SURVEY METHODS & CONTROL: Recovered triangulation stations established by the Hawaiian Territorial Survey and by the U. S. Geological Survey were used for the control of the topographic and hydrographic surveys of this region. These recovered stations are computed on the Independent Hawaiian datum. The control for the hydrographic work was obtained from triangulation signals and plane-table positions.

The plane-table positions Cal, Ore, Ida and Wind, on the west shore of Hanapepe Bay, are erroneously plotted on the boat sheet, scale 1:20,000, due to a discrepancy in the topography. The topography was revised after the completion of the hydrography, and the soundings are correctly delineated on the smooth sheet. The hydrography of Hanapepe Bay, executed on a scale of 1:5,000, is plotted correctly on the boat sheet.

The ship was used for all off-shore hydrography, or soundings beyond the 50 fathom curve. Motorsailors were used for all inshore development. Soundings with the ship in depths less than 100 and greater than 15 fathoms, were made with the Hude Fisher pressure tubes. Automatic tide gauges were operated at Port Allen and at Waiheea during the period of this survey.

GENERAL DESCRIPTION OF THE COAST: The south coast of Kauai, from Makahuena Pt. to Waiheea Bay, is quite irregular, made up of rocky shore line interspersed with stretches of white, sandy beaches. The country back of the coast is mountainous, with gently, rolling slopes, and long ridges, and is considerably cut up by deep gulches. Almost all the land is under cultivation, and as viewed from seaward, the green cane fields and the network of irrigation ditches extend well up the mountain slopes.

name not approved. See 74230

LANDMARKS: Nihsina Pt., about 3 1/2 miles westward of Koloa Bay, is low and rocky, and is distinguishable by a series of low, conical-shaped, wooded hills, directly back of the point. Ukula Pt., on the west side of Hanapepe Bay is low and flat, and is marked by a flashing, white light. The warehouse and other buildings, the flag pole and the oil tanks at Port Allen, which is situated on a bold bluff, are conspicuous from seaward. Makawili mill chimney, painted red, and standing on a small knoll near the coast, is a prominent object.

INSHORE DANGERS: Lanipua Rock, with a least depth of 3 feet exists, and its position is shown on the SOUND sheet, as is that of the red nun buoy which marks this danger. Ukula Pt., marked by a flashing white light, is shoal, the 10 fathom curve is 0.6 mile SE of the point, and the waters around it are at times considerably agitated by tide rips. This point should be given a berth of 3/4 mile. The "6" and "7" fathom soundings, south of Ukula Pt., shown on the present charts, were not found, and their existence is extremely improbable.

ANCHORAGES: Hanapepe Bay is a safe anchorage protected from the NE trades, and with good, holding bottom, mostly sand. Suitable depth for anchoring can be found here for vessels of any draft, though the best holding bottom is well inside of the bay, off the breakwater. Wahiawa Bay is a safe little anchorage for small boats, in all except strong southerly winds.

Respectfully submitted,


Jack Senior.

Approved and forwarded:

Lieut. Comdr. Glen L. Garner.
Commanding Ship DISCOVERER.

STATISTICS TO ACCOMPANY
SHEET NO. 10

PORT ALLEN AND VICINITY, T.H.

(Date-1926)	(Letter)	(Volume)	(Positions)	(Soundings)	(Miles.stat.)	(Vessel)
May 21	a	1	80	287	14.0	Port H. Sailer.
22	b	1	38	72	5.2	"
June 3	c	1&2	121	588	18.7	"
4	d	2	100	289	17.5	"
5	e	2&3	82	372	14.3	"
9	f	3	101	334	18.0	"
10	g	3&4	89	321	12.1	"
10	a	4	30	47	1.5	Stbd. M. Sailer
14	b	4	64	263	2.7	"
2	A	1	22	62	0.2	DISCOVERER
3	B	1	75	176	21.5	"
4	C	1	74	134	30.0	"
5	D	1	21	42	9.8	"
8	E	1&2	16	16	12.1	"
9	F	2	55	64	14.3	"
10	G	2	53	81	18.2	"
Totals:			1021	3148	218.1	
Area - 26.0 Sq. Mi.						

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

May 11, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4605

South Coast of Kauai, Hawaiian Islands

Surveyed in 1926

Instructions dated November 23, 1925 and May 1, 1926 (EXPLORER)

Chief of Party, C. L. Garner.

Surveyed by C. L. G. and R. W. Knox.

Protracted and soundings plotted by T. B. Reed.

Verified and inked by J. T. Jarman.

(Note: The descriptive report for this sheet has been misplaced and the following remarks are made without having the benefit of the information contained therein.)

1. The records conform to the requirements of the specific instructions with the exception that on stop soundings the times of "ahead" and "stop" were not always recorded. This made approximations in many cases necessary. (See notes in records by verifier.) There are also numerous cases where times were recorded only on positions, although there were four or five soundings in between.
2. The plan and character of development conform to the General Instructions.
3. The plan and extent of development satisfy the specific instructions with the exception that in Hanapepe Bay the work is far from complete, unless it was merely intended as a check on the old survey. This seems to be the opinion of Mr. Knox who was on the field work and who was in the office at the time the sheet was verified.
4. There are several cases of poor crossings. These cases were all examined in the office, but nothing could be done to correct them and they were accepted as recorded.
5. The usual depth curves could be drawn with the exception of those in Hanapepe Bay.

6. The usual field plotting was done by the field party. Many of the soundings had to be respaced by the office cartographer.

The verifier was confronted with numerous problems on this sheet that greatly delayed the work, the principal cause being the indefinite location of many of the inshore positions and the faulty recording.

7. The junction with H. 4600 is satisfactory.

The junction with H. 4597^a is satisfactory, with the exception that in the vicinity of latitude 21° 52', longitude 159° 30 1/2' where a deep line of soundings on H. 4597^a falls between two shoaler lines on H. 4605. It appears as though the deep line is out in position. A study was made by the verifier with a view to changing this, but no satisfactory solution could be arrived at.

The work in Hanapepe Bay checks the old survey H. 2670. The lines on the new survey are very sparse and were apparently intended as check lines only. In view of the close agreement between the two surveys, it is recommended that the old survey be used to supplement the new work in this bay. The wreck marked PD in latitude 54° 00' 190 m., longitude 159° 35' 275 m. should still be retained on the charts, as it does not appear that any special examination was made to disprove its existence. The authority for this wreck is letter 389 of 1925 (Division of Charts) and blueprint 20006 where it is reported by the Navy Department.

8. Additional work is desirable in Hanapepe Bay to investigate the wreck mentioned above, and also to determine whether less water exists on the shoaling south of \triangle Ele. Also at the eastern end of the sheet near \odot Gay where the sheet joins H. 4597^a, additional soundings might be necessary to determine whether any dangers exist at the entrance to the small bay (See H. 4597^a).

9. Character and scope of field operations, good.
Field drafting, good.

10. Reviewed by A. L. Shalowitz, May, 1928.

Approved:

Chief, Section of Field Records (Charts)

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. ¹⁰ 4605

4605

State Hawaiian Islands

General locality ~~Kauai Island~~ S. Coast of Kauai

Locality ~~Waimea to Makahuena Point~~ Waimea

Chief of party Clem. L. Garner

Surveyed by Clem. L. Garner and R. W. Knox

Date of survey May 21 to October 18, 1926.

Scale 1:20,000 (insert 1:5,000)

Soundings in Fathoms (feet on insert)

Plane of reference M. L. L. W.

Protracted by T. B. R. Soundings in pencil by T. B. R.

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, 2 Boat sheets,

6 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet 24 Graphs

Remarks: *Recd*

Applied to Chart 4100

@RWilliams 11/7/58