3582

Diag. Cht. No. 4116

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ..... *Office No.* H-3582

LOCALITY

State HAWAIIAN ISLANDS

General locality LANAI ISLAND

Locality SOUTHERN, EASTERN AND NORTHERN COASTS

19 14

CHIEF OF PARTY

J. B. Miller

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DATE MAY 12, 1914

8-1870-1 (1)

3582

DEPARTMENT OF COMMERCE
Coast and Geodetic Survey

O. H. TITTMANN, Supt.

HAWAIIAN ISLANDS

SOUTHERN, EASTERN, AND NORTHERN COASTS OF LANAI ISLAND.

A DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO.80

Surveyed by the Steamer PATTERSON, January - March, 1914.

REPORT, LIMITS, SCALE, METHODS, OBSERVER.

1. I have the honor to report as follows upon hydrographic sheet No. 80, which shows hydrography along the north, east, and south coasts of Lanai Island, as done in January, February and March, 1914, by a party from the steamer PATTERSON. The work done extends from Kaea Point around the east end of the island, to Kaena Point. The scale used is 1:20,000. There are two inserts; a sketch of Kehamoku, scale 1:5,000, and a survey of Manele Bay, scale 1:10,000. Launch No. 47, with Paul Herberger, Mate, C.& G.Survey in charge, was used for all inshore work, using the hand lead only. The launch limits are at a depth between 20 and 30 fathoms. The deeper soundings were taken from the PATTERSON, with J.B.Miller, Com'd'g. Officer and A.M.Sobieralski, Assistant, as observers. For ship work, Bassnett tubes were used with frequent check casts, while the deeper soundings were all vertical casts. The remarks in regard to the Bassnett tube soundings, have been made in previous reports. Launch lines were run at intervals of 25 meters in Manele Bay, and at intervals of 200 meters at other places along the coast. Ship lines were spaced 400 meters apart in depths of 50 fathoms or less.

2. DANGERS

There are no offshore dangers.

3. CHARACTER OF BOTTOM

Along the north and east coasts, there is a coral reef extending in some places, 1/4 mile offshore. Except close in shore the bottom is generally sandy in character. Off the south coast, the bottom is irregular in many places, several sunken rocks and ledges being found in some cases 300 meters offshore.

4. ANCHORAGES

The anchorage along the north and east coasts is good if the winds are favorable. Anchor 3/4 or 1 mile offshore in 18 or 20 fathoms, sandy bottom. The only anchorage on the south shore is Manele Bay.

5. LANDING PLACES

On the north and east shores, landings can be made by crossing the reef, but the weather must be especially favorable. There are several openings in the reef, and landings can be made in pulling boats, depending on weather conditions. The openings in the reef are shown on the sheet. Manele Bay is the best landing on the south coast.

6. CURRENTS

There is a light easterly current flowing along the north coast, the current flowing in a southerly direction was estimated at from 1/4 to 1/2 miles per hour. No current was noticed along the south coast.

7. MANELE BAY

Manele Bay is shown in an insert, on a scale of 1:10,000 This place is used for transferring live stock from the shore to steamers, but only small boats can lie alongside the pier, as the depth is only 4 feet or less. On either side of the entrance are small bare rocks, about 300 meters off shore. About midway between these rocks, there is a good anchorage in a depth of 15 to 20 fathoms, samd bottom. This anchorage is the best on the island when the prevailing trade winds are blowing.

8. KEHAMOKU

Kehamoku is shown on a careful sketch on a scale of 1:5,000. There are three iron pipes, projecting about 4 feet above high water, that mark the break in the reef. 200 meters south of the entrance, there is an anchorage for small launches where the depth is 4 feet, with muddy bottom.

9. COURSES

Vessel courses around Lanai Island are best seen from the chart. A vessel should keep 3/4 mile offshore.

Respectfully submitted,

G. C. Mattison

Aid, C. and G. Survey,

APPROVED:

James B. Miller

Assistant, C. & G. Survey,
Commanding.

Honolulu, T. H.
April 24, 1914.

S T A T I S T I C S

SHEET NO. 80 — SOUTH & EAST COASTS OF LANAI ID. T.H.

Date	Boat	letter	Vol.	Hours	Pos.	Sdgs.	Stat. Miles
Feb. 3	Launch #47	a	1	9.0	123	331	11.5
" 4	"	b	1	9.5	180	479	15.5
" 5	"	c	1&2	9.0	138	507	20.3
" 6	"	d	2	9.5	59	226	10.3
" 7	"	e	2	8.5	100	552	18.0
" 10	"	f	2	9.5	155	451	21.0
" 10	PATTERSON	A	3	5.0	30	63	20.5
" 11	"	B	3	10.00	73	254	44.9
" 12	"	C	3	10.8	83	219	46.3
" 13	"	D	3	10.7	74	273	40.5
" 14	Launch #47	g	4	9.5	141	624	23.1
" 16	"	h	4	7.5	86	352	14.5
" 18	"	j	4	9.0	93	332	16.0
Mar. 3	"	k	5	4.5	22	82	3.2
" 27	"	l	5	10.0	181	692	34.0
				133.0	1538	5437	339.6

AREA SQ. STAT. MILES. 68.7

VEC

July 20,1914

HYDROGRAPHIC SHEET 3582.

Lanai Island, Territory of Hawaii, by Assistant J. B. Miller in 1914.

TIDES.

	Hilo ft.
Mean lower low water, or plane of reference on staff	0.1
Lowest tide observed " "	-0.9
Highest " " " "	3.5
Mean range of tide	1.5

Hyd ± 3582.

The work on this sheet shows the hydrography along the north, east & south coasts of Lanai Isl.

Soundings were plotted in the field, verified and inked in the office.

On a number of cases, according to the sounding records, rocks were passed by, the "remark column" starting "rocks abeam" and from this remark the positions of the rocks are to be guessed. (See $\frac{7}{Vb}$, $\frac{16}{Vb}$, $\frac{99}{Vb}$, $\frac{116}{Vb}$ etc) The boat sheet does not show rocks close by. The rocks reported to are evidently the large ones which are plotted. Ellis

On comparing this work with the survey in the same locality (Hyd ± 2459), the two could not be made to agree very well, and as ±2459 is in the character of a reconnoissance, the overlap was not transferred to this sheet.

Soundings in red shown on this sheet were taken from Hyd ± 3653 and transferred to Hyd ± 3582 wherever the two overlap or join up. The part transferred from ±3653 extends up to the 20 fathom curve.

The inshore part of the work was fairly well developed and that of Manele Bay more completely than the rest.

The records throughout were kept in good shape.

Soundings plotted in fathoms.

10/20-1914.

J. B. Shikeano