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Diag. Cht. No. 4115

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Pittmann
Superintendent.

State: *H. I.*

DESCRIPTIVE REPORT.

H. I. Sheet No. *3098*

LOCALITY:

Mohukona Harbor,
Hawaii Islands.

1910

CHIEF OF PARTY:

O. W. B. French.

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Coast & Geodetic Survey
O.N. Pittman, Superintendent

Hawaii

Makua Kona Harbor

Top. & Hyd.

By Assistant O.B. French, Chief of party.

Topog. by Aid P.W. Trustad.

Sheet inked by O.B.F. & P.W.T.

Soundings plotted by O.B.F.

Hyd. executed Feb. 17, 18, 24, 25, 1910.

Scale 1:2500.

Projection not inked as the S^r of the island will probably be revised and changed somewhat.

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COAST AND GEODETIC SURVEY

APR 27 1910

REFURNED TO
Assistant in Charge
DESCRIPTIVE REPORT.

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Report to accompany topographic and hydrographic sheet of Mahukona Harbor, Hawaii, Territory of Hawaii.

The coast line in this region is about north and south in the neighborhood of Mahukona and is very irregular, being a series of sharp rocky points, all of them of not much length however. The land rises quite rapidly from the shore and is very rolling in appearance. About 3 miles to the eastward of Mahukona are several small summits about a thousand feet in height and south of these others increasing in height until the highest point is reached about 10 miles south east of Mahukona, 5500 ft. Still farther toward the Southeast are visible the high peaks of Mauna Kea and Mauna Loa and more to the south the summit of Hualalai. These high summits are often covered with clouds and are not visible most of the time.

The most prominent object ^{ordinarily} seen when approaching this coast is probably the summit of Puu o Nale, a conical shaped peak, rounded on top and 1500 feet in height. Just north of it is another conical peak some 400 feet lower. These two peaks are about the same distance from the shore all around the northeast end of the island. They are both covered with grass and lantania bushes and appear greenish in color, the grasses having a yellowish tint however. The color of the land on the side of Mahukona is reddish, this being the color of the rock which is so thick as to obscure every thing else.

Dangers. There are no outlying dangers other than keeping clear of the points of the shore. The water is quite bold

very close inshore all along this side of the island within a few miles of Mahukona. There is nearly always enough swell on the water so that it breaks on the shore and is easily visible even if the rocks were not seen.

Refuge. Ships are not subject to much bad weather at this Harbor as it is protected from the trade winds and the southerly winds, or westerly ones, are not at all common or frequent, and very rarely strong enough to cause a ship any trouble if strongly anchored. There is often a swell from the west which makes it difficult to make a landing at the wharf but it is not accompanied by wind usually and hence of no danger to a ship at anchor. In case of westerly or southerly weather it is very easy for a ship to slip her moorings and go to sea or run around the point of the island and thus be in its lee.

Currents. There is a decided current toward the north along this coast and it is said to be some 3 or 4 knots per hour in strength at times. Observations taken in good weather showed less than a knot per hour. It is not at all constant evidently and may even disappear at times. I did not hear of it ever having changed direction however.

Landing places. When there is a small swell a landing can be made at most any place along the coast with a small boat. At the harbor itself there are two wharves about 15 meters apart and perpendicular to the shore so small boats can run between them and lay alongside without getting broadside to the waves. Boats drawing over 4 feet cannot safely come to the wharf at all. The entrance is rather narrow and bordered with rocks and when there is a strong swell running it is not safe to at-

tempt to make a landing at all. Fortunately strong swells are very rare and even when they do come last but a short time.

Water. There is no fresh water at Mahukona, that which comes from the wells being brackish and not fit to use even for washing. Fresh water is brought from the east side of the island by rail, tank cars being kept for this purpose. This harbor is owned by the Hawaii Railway and used as the port for shipping for the large sugar plantations of Kohala. It would not be easy for ships to take water here as it would have to be taken off in small boats.

Lights beacons and buoys. A fixed white light is maintained by the Government at the first point south of the harbor, about a quarter of a mile away. It is merely a lantern suspended from a pole some 20 feet in height. There is a range of fixed red lights, maintained by the Inter Island Steamship Co., which indicates the anchorage directly in front of the harbor. Just in front of the Govt. light there is a large stone beacon. It is about 10 feet high and some 6 or 7 feet in diameter at the base and 3 feet at the top. On the first point north of the harbor there is a similar beacon and both are painted white.

At present there are several large mooring buoys in front of the landing, with 2 or more anchor chains for each. These will probably be changed in the near future however as they propose to set them so larger ships can be moored to them.

Ports. Mahukona is the principal port for the north^{west} end of the island of Hawaii and handles most of the sugar from this part of the island. It is the landing place for the Inter Island S. S.

Co. and their only landing place for Kohala District. One of the large plantations ships its sugar at present from a small landing, Honoipu, but it is a very rough place and it will probably soon be abandoned if the larger ships come directly to Mahukona for sugar.

Survey methods. The usual methods were employed in this work the soundings being taken from a very small boat. An inexperienced leadsman had to be used and some of the depths may not be as accurate as could be desired but the cross lines failed to show any discrepancies of consequence. A rocky shoal was developed by running lines across it in various directions and the lines checked as good as could be expected with such a bottom. It is very rocky all along this coast and the bottom is of the same character as the land on shore but not quite so rough. It looks like a mass of large irregular shaped rocks with sand filling most of the spaces between them. Anchors seem to hold very well and once get under one of these rocks it would take a very strong wind to pull one loose.

Owen B. French,

Assistant, G. & G. Survey.

Statistics for Sheet, Matukona Harbor,

Date 1910	Letter	Vol.	No. Position	No. Sdgs.	St. Me. Sdgs.	
Feb. 17	A	1	112	633	8	Small row boat,
" 18 (1/2 day)	B	1	61	335	4 1/2	"
" 24 "	C	1	73	381	7 1/2	"
" 25 "	D	1	95	475	7 3/4	"
Total			341	1824	27 3/4	

Soundings recorded in Fathoms, 1 ft. but plotted in feet.

Tide Gauge was located near the W. end of the S. wharf.

Plane of reference reading on gauge	2.2 ft.
Lowest tide obtained	1.8 "
Highest " " " "	4.5 "

Log Sheet No 3098

July 1, 1910.

The area is fairly well covered with the exception of the harbor where a few more lines should have been run and additional soundings taken near the wharves.

In most cases the soundings agree very well at the crossings.

The records were not kept in the best possible manner but this is explained by the chief of party as being due to an experienced party.

H. L. Simmons



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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

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Superintendent.

State:

DESCRIPTIVE REPORT.

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Sheet No.

LOCALITY:

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CHIEF OF PARTY:

E. R. Stand

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Hyd 3098 a
DESCRIPTIVE REPORT.
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To accompany topographic sheet revising chart #4101, Mahukona, Hawaii.
Eoline R. Hand, Asst., Chief of Party.

There have been several changes since the survey of 1910: the buoys are recent additions and their character, location and ownership is set forth by note directly on sheet. The range has been changed: the front light remains the same but the rear light has been placed farther back and raised, as noted on sheet. It is now on a pole about 3 ft. off the corner of new house, and is 60 ft in height. There is a third light, a red hand lantern, which is hung out at end of railroad wye, at coping apex, as shown on old chart: it is 2 1/2 ft. above track and 13 above H.W. These lights are maintained by the Inter-Island Steam Navigation Co. and are shown ONLY ON STEAMER NIGHTS, which are at present every Wednesday, S.S. Mauna Kea, and at irregular intervals for the other boats of the company.

The structure indicated just S. of Derrick is a roofed area under which boats are suspended by boat falls. The triangulation position, ¹⁹¹⁰ Δ Derrick no longer exists, as the derrick was moved about ten inches. To replace it for hydrographic purposes I have submitted ○ Derrick.

A pier was built S. of Derrick but destroyed by surf. A new one is to be built, using the old wall which I have shown, and then turning S. as indicated by dashed line. Not fully decided, but can not vary materially from the way I have shown it. The road is to extend down on this pier for convenience of vehicles when getting and bringing boat passengers.

The government road is as indicated on sheet and should now be shown by full lines.

Near this road the height 352 is shown immediately above a 240 ft. contour. I assume this is an error in drafting. This party made the elevation 250 odd.

A copy of #4101 is enclosed with certain objects of culture blocked out: aside from these changes I find no re-arrangement of buildings. The new structures replacing those removed, are shown on my sheet. The house on which rear range was formerly placed was torn down and new structure put in about same position. Building on old chart between bridge and new warehouse for sugar, has been ordered torn down because of fire risk. so I have not shown it on sheet.

Colinet R. Hand
Assistant, U.S.C. & G.S.

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Colin R. Land
Assistant, U.S.C. & G.S.

LIST of POSITIONS.

To accompany topographic sheet revising chart #4101,
Mahukona Harbor. 1913.

Eoline R. Hand, Asst., Chief of Party.

Name	Lat	D.M.	Long.	D.P.	Hei.	Description.
*Derrick	20° 11'	394 1451	155° 54'	235 1457	5-8 ft. (base)	The freight derrick on N. side slip.

* Superseding ▲ DERRICK (Asst. O. B. French, 1910)

Applied to comp. 4140 Z.M.A. June 1941