5335

5335

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: HAWAIIAN ISLANDS

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. 27 5335

LOCALITY

Northeast Coast of Oahu

Laie Bay to Kalaipaloa Point.

19 33

CHIEF OF PARTY

Lieut. Hubert A. Paton

U. S. GOVERNMENT PRINTING OFFICE: 1931

DESCRIPTIVE REPORT

To Accompany

Hydrographic Sheet #27

Northeast Coast of Oahu
Hauula - to Laie Bay
April - August, 1933.

INSTRUCTIONS:

The work on this sheet was done in accordance with instructions dated July 14, 1931. The field work was done in cooperation with the U.S. Army, the members of the crew being detailed from the Third Engineers, Schofield Barracks.

METHODS:

The same methods were employed as on the other sheets of this project.See Descriptive Reports for Sheets #12, 31, 32, 33, etc.

JUNCTIONS:

On the south, this survey joins Sheet #26 and on the north, it joins Sheet #28. The inner lines on Sheet #3289 fall within the limits of this work.

CHANNELS:

At the north limit of this sheet, one side of the Laie Entrance is shown. For the further survey of this channel see Sheet #28. Although this entrance is neither as wide nor as deep as others between Kahana Bay and Kahuku Point, it is considered the best by the local inhabitants. They claim boats can enter Laie Bay in any weather. Possibly the presence of Laie Point and the several islands in the vicinity afford it sufficient protection.

A fair entrance just north of Laie Point, is too shallow to be used except in favorable weather. In normal weather, with the northeast or east trade winds blowing, breakers extend from thevicinity of Triangulation Station Laie 1, for more than one-half mile in a northwest direction.

On the south side of Laie Point, Melekahana Entrance, has two openings through the reef, the southern one being the better.

Laiemaloo Entrance has the best depth of all the openings on this side of the island. The four fathom curve approaches within 80 meters of the shore. However the heavy breakers which would be found on the east side of the channel in rough weather, would probably make its passage difficult for small boats. In normal weather, this entrance can not be seen easily from shore or from sea.

The Hauula Entrance is much better, being shorter, wider and not so crooked. The opening can be seen easily when entering. The best place to land is near Signal Tri. Currents of 2 to 5 knots will be found here but there is good protection from the sea.

DISCREPANCIES:

In the vicinity of Laiemaloo Entrance two of the soundings shown on Sheet #3289 could not be verified: one, a thirty foot depth where "no bottom at 51" was obtained, and the other, a 52 foot sounding where 18 to 23 feet was found. Some additional work was done in this vicinity, which checked the depths obtained on the first system of lines. It is recommended that these two soundings be rejected.

A 14 foot sounding obtained in 1910 in Lat. 21° 38.'1 Long. 157° 54.'8 could not be verified. However the same depth (14 feet) was found 150 meters west of it, which may be the same shoal.

A 17 foot sounding in Lat. 21° 37.'8 Long. 157° 54.'6 is 150 meters northeast of nearest area of equal depth. The other soundings check quite closely.

NEW GEOGRAPHIC NAMES:

The following names were obtained from local inhabitants and are in common use:

Melekahana Entrance
Laiemaloo Entrance (same name as nearby stream)
Hauula Entrance (same name as town)

The following names were obtained from maps of the Geological Survey:

Laniloa Point
Kaipapuu Point (same name as Hill nearby)

It is recommended the names be adopted for use on the charts of this area.

Respectfully submitted,
Hubert A. Paton
Hubert A. Paton,
Lieut., U.S.C. & G.S.

TIDAL DATA

To Accompany

Sheet #27

The tide gage at Waikane in Kaneohe Bay was used for the reductions of the soundings on this sheet through June 14, 1933. (See Sheet #24 for location)

For the work after that date the gage at Laiemaloo was used.(Shown on this Sheet.)

	Waikane	Laiemaloo
Mean lower low water	1.06	1.89
Highest tide observed	4.2	4.3
Lowest tide observed	0.4	2.0

STATISTICS

To Accompany

Sheet #27

Total number of soundings	4915
" " " positions	974
Statute miles of sounding line	75
Area in square statute miles	3.8

APPROVAL OF RECORDS

To Accompany

Sheet #27

The above sheet and records have been examined and are approved.

Hubert A. Paton

Hubert A. Paton,
Chief of Party.

SECTION OF FIELD RECORDS

Report on H. 5335

Surveyed in 1933.

Chief of Party - H. A. Paton.
Surveyed by - H. A. Paton.
Protracted by - H. A. Paton.
Soundings plotted by - H. A. Paton.
Verified and Inked by - Leo S. Straw and

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 line crossings are adequate for this survey. In general there is good agreement in soundings at crossings:

(a) On line 113g to 136g at positions 127, 128 and 129g the soundings are from 2 to 4 feet shoaler than the lines run normal to it. The weather for "g" day is recorded as "Wind S.E. ~~N~~ 2 "sea choppy". The Chief of Party stated that the sea was very rough at the time the soundings were taken (Lat. 21°-39.8'; Long. 157°-55.85').

(b) A 3 feet difference is noted between 7 and 8g and sounding at 215 K. This may be accounted for by the uneven character of the coral bottom. It is also noted that the same cross line (7 and 8g) crosses 88f and 89f in good agreement.

4. The usual depth curves can be completely drawn except where the development is not sufficiently close to determine definitely the delineation of the bottom. However, the dashed six foot curve is used in some instances as recommended by the Chief of Party.

5. The field plotting was accurately done, and very few revisions of positions and soundings were necessary.

6. (a) The junction, on the north with H. 5319 at Laie Entrance is satisfactory.
(b) The junction, on the south with H. 5320 at Kalaipaloa Point is satisfactory.

7. The breaker and reef symbols were inked on this sheet (H. 5335) in the office under personal direction of Mr. Paton.

8. Further surveying within the limits of this sheet is not required at this time.

Respectfully submitted,

Leo S. Straw.

January 18, 1934.

Field Record Section Feb. 9, 1934
Report on H. 5335

Chief of Party - Hubert A. Paton.
Surveyed By - Hubert A. Paton
Protracted by - Hubert A. Paton
Soundings Plotted by - Hubert A. Paton
Verified by - Ira Zeskind
Inked by - Ira Zeskind

The sounding records were neat, legible, and complete.

The protracting was very good. A visual check of positions was made by Leo S. Straw. All reef & breaker symbols were inked by Straw.

The soundings were correctly plotted as to time intervals & the records conform to the Hydrographic manual.

The field drafting was very good.

The crossings in some instances did not check; however this was considered plausible in view of the character of the bottom.

Attention is called to the naming of Laie Point. The hydrographer also called this Laniloa Point. The name Laie Point was inked on this sheet because this name is shown on our chart.

Respectfully submitted,
Ira Zeskind

SECTION OF FIELD RECORDS
Review of Hydrographic Sheet No. 5335 ~~(Confidential)~~.
Laie Bay to Kalaipaloa Point, Northeast Oahu, Hawaiian Islands.
Surveyed April to August, 1933.
Instructions dated July 14, 1931 (Paton)

Chief of Party - H. A. Paton.
Surveyed by - H. A. Paton.
Protracted and soundings plotted by - H. A. Paton.
Verified and inked by - L. S. Straw and I. M. Zeskind.

1. The records conform to the requirements of the Hydrographic Manual.

2. The plan and extent of development conform to the general regulations and satisfy the specific requirements of the Army authorities at whose request the surveys were made.

3. Soundings are generally consistent. The bottom and the reef lines are very irregular. The reefs and rocks were inked in the office under the immediate supervision of the chief of party making the survey.

4. Depths curves are generally satisfactory. Breaking seas prevented closer development of several areas.

5. Junction with H. 5319 to northward and with H. 5320 to southward is adequate.

6. Comparisons. This is the basic survey of the area between H. 3289 (1910-11) and the high water shoreline. The general agreement in depth of the overlapping area is good. The discrepancies noted in the Descriptive Report are probably due to the irregular bottom and possibly a slight dislocation in plotting on the smaller scale. The new survey should control in the entire area covered by H. 5335. The reef line on chart4110 is very much generalized andshould be modified on the next edition, to conform to the information on H. 5335.

7. Field drafting was excellent.

8. Recommendations. This sheet (H. 5335) should supersede all previous surveys for charting the area represented by it.

No further surveys are deemed necessary.

9. Reviewed by R. J. Christman, Feb. 20, 1934.

L. O. Colbert
L. O. Colbert,
Chief, Section of Field Records.

Examined and approved:
L. O. Colbert
Chief, Division of Charts.

H. B. Borden
Chief, Section of Field Work.

G. Rude
Chief, Division of H. & T.

KAE

December 18, 1933.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 5335

Locality **Laie Bay to Kalaipaloa Point, N.E. Coast of Oahu, T.H.**

Chief of Party: **H. A. Paton in 1933**
Plane of reference is **mean lower low water reading**
1.1 ft. on tide staff at **Waikane**
4.5 ft. below B. M. 1
1.9 ft. on tide staff at Laiemaloo
23.3 ft. below B.M. 1

Height of mean higher high water above plane of reference is 2.2 ft.

L.L.W.

Condition of records satisfactory except as noted below:

Acting Chief, Division of Tides and Currents

Form 567
Ed. Dec., 1929

Copy

DIVISION OF CHARTS, FILE NO. H-5335

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY 27

LANDMARKS FOR CHARTS

Honolulu, T. H.

September 11, 1933

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects ~~[illegible]~~ should be ~~charted~~ removed from charts

Hubert A. Paton
Lieut., U.S.C & G.S
Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM		
	° '	D. M. METERS	° '	D. P. METERS			
Cup Mormon Ch	21 39		157 56				4110
(The old church has been moved and is no longer prominent. The new Mormon Temple should be shown instead. It has a large flat roof.)							
High R.T.	21° 26'		157° 48.4'				4110
(All three radio towers have been removed. A 100' tower in the vicinity should be shown instead) (Reported June 3rd, 1933)							
Target	21° 15'	1455	157° 42'	1290			4110
(Maunalua Bay Datum Point should be shown instead)							

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1934

Form 537
Ed. Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC 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. 27

REGISTER NO. 5335

State Hawaiian Islands.

General locality Northeast Coast of Oahu

Locality Laie Bay to Kalaipaloa Point.

Scale 1:5000 Date of survey April - August, 1933

Party

~~Vessel~~ Inshore Hydrographic Survey of Oahu

Chief of Party Lieut. Hubert A. Paton

Surveyed by H. A. P.

Protracted by H. A. P.

Soundings penciled by H. A. P.

Soundings in ~~fathoms~~ feet

Plane of reference Mean Lower Low Water

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated July 14, 1933

Remarks: Surveyed in cooperation with the U. S. Army

U. S. GOVERNMENT PRINTING OFFICE: 1931