



5330

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3.31a), EXECUTIVE ORDER 12356.  
Form 504  
Ed. June, 1928

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

State: Hawaiian Is.

DESCRIPTIVE REPORT

*Topographic* } Sheet No. 13 5330  
*Hydrographic* }

LOCALITY

Southeast Coast of Oahu  
Koko Head to Makapuu Point

1932

CHIEF OF PARTY

Hubert A. Paton

5330



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

NOV. 29 1933

REG. NO. 5330

**[REDACTED]**  
HYDROGRAPHIC TITLE SHEET

Acc. No. \_\_\_\_\_

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. 13

REGISTER NO. **5330**

State Hawaiian Islands

General locality Southeast Coast of Oahu

Locality Koko Head to Makapuu Point

Scale 1:5000 Date of survey Jan. 1932 + Oct. 1933

Party \_\_\_\_\_  
Vessel Inshore Hydrographic Survey of Oahu

Chief of Party Hubert A. Paton, Lieut.

Surveyed by H. A. P.

Protracted by J. H. Becker, Sgt. U. S. Engrs. and H. A. P.

Soundings penciled by J. H. B. and H. A. P.

Soundings in ~~fathoms~~ feet

Plane of reference Mean Lower Low Water

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by Irvin Miller

Verified by W. H. Bawford

Instructions dated July 14th, ~~1932~~ 1931.

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

G.P.O.  
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GUIDELINES AS DESCRIBED IN SECTION  
3.3(a), EXECUTIVE ORDER 12356.**

## Descriptive Report

to accompany

SHEET 13

SOUTHEAST COAST OF OAHU

KOKO HEAD TO MAKAPUU POINT

### INSTRUCTIONS:

The work on this sheet was done in cooperation with the U. S. Army, in accordance with instructions dated July 14, 1931. Additional instructions were received from representatives of the Chief of Engineers, U. S. Army. The purpose of the survey was to make a hurried examination of possible landing places for troops. See Descriptive Report accompanying Sheet 12.

### METHODS:

The original intention was to include with this sheet a small area which had been omitted on Sheet 4830. In order to do this, it was necessary to divide the sheet into two parts.

Work was started on January 2, 1932, and was delayed by unfavorable weather. There were no anchorages for the whale boat and only two places where it could be beached. At the head of Hanauma Bay, there is one narrow and crooked break in the reef and the boat was taken through it once with only a few severe bumps. It was not attempted again. The next site was at Signal Lan, which was a good sand beach, sufficiently protected to permit its use in favorable weather. Small boats might be able to land at Signal Fen under favorable conditions but it was never possible while the party was working in the vicinity.

On February 20, 1932, the boat was swamped in the surf near Signal Ker, and laid up for repairs for a month. After repairs were completed, the boat was hauled overland to the small cove at Signal Fen. As there was no favorable weather during the next two months, the survey of this area was abandoned for the time, and the party transferred to the north coast of Oahu.

The survey was resumed in October, 1933, and sufficient work obtained to satisfy the requirements of the Army.

All soundings were taken with the hand lead line, using a 10 pound lead.

### JUNCTIONS:

This sheet joins No. 5208 on the west and No. 4830 on the east.

The inshore lines on Sheet No. 3287 falls within the area covered by this work. The agreement between sheets was considered satisfactory.

SHEET NO. 13 - 2.

**DANGERS:**

Deep water makes in close to the shore over most of this sheet. East of Longitude  $157^{\circ}40'$ , a depth of 19 feet is found about 0.3 mile offshore. Breakers were noticed in this area in very rough weather.

*Hubert A. Paton*  
Submitted by - Hubert A. Paton,  
Lieut. U. S. Coast & Geodetic Survey.

STATISTICS

to accompany

SHEET 13

Number of Positions	428
" " Soundings	1821
" " miles of sounding lines	20.8
Area, in square statute miles	0.8

TIDAL DATA

to accompany

SHEET 13

The soundings on this sheet were reduced by means of the records obtained on the tide gages located in Hanauma Bay and Waimanalo Landing.

Readings on the staff for -	<u>Hanauma Bay</u>	<u>Waimanalo Landing</u>
Mean lower low water	1.1 feet	1.56
Highest tide	3.9 "	3.9
Lowest tide	0.6 "	1.4

APPROVAL OF RECORDS

to accompany

SHEET #13

The records of this sheet have been inspected and are  
approved.

*Hubert A. Paton*

Hubert A. Paton,  
Lieutenant,  
Chief of Party.

December 22, 1933

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in  
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5330

Locality Koko Head to Makapuu Point, Oahu Island, T. H.

Chief of Party: H. A. Paton in 1932

Plane of reference is mean lower low water, reading

1.1 ft. on tide staff at Hanauma Bay

6.1 ft. below B. M. 1

Height of mean higher high water above plane of reference is 1.9 feet

Condition of records satisfactory except as noted below:

  
Chief, Division of Tides and Currents



Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5330

The following statistics will be submitted with the  
cartographer's report on the sheet:

Number of positions on sheet	.428.
Number of positions checked	.25..
Number of positions revised	..6...
Number of soundings recorded	.182.
Number of soundings revised	..16..
Number of signals erroneously plotted or transferred	.....

Date: ...Jan. 8, 1934.....

Cartographer: W.H. Barnford. [positions]. J. Miller. [soundings]...

Supplementary Report on Hydrographic Sheet # 5330

Jan. 8, 1934.

Southeast Coast of Oahu  
H. A. Paton - Chief of Party.

The sounding records were complete and conformed with the requirements of the Hydrographic Manual.

The soundings were very well plotted. In the few cases where the soundings were revised on the sheet, the cause arose from the fact that the tide reductions were changed subsequent to the plotting of the soundings.

In the area of Hanalei Bay, zero soundings were changed to rock awash at mean lower low water. The general characteristic of the bottom in this area is coral.

Irvin Miller

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5330 ~~(Confidential)~~  
Koko Head to Makapuu Point, Southeast coast of Oahu, Hawaiian Is.  
Surveyed Jan. 1932, Oct. 1933  
Instructions dated July 14, 1931 (Paton)

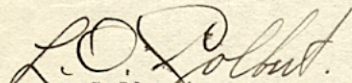
Chief of Party - H. A. Paton.  
Surveyed by - H. A. Paton.  
Protracted and soundings plotted by - J. H. Becker and H. A. Paton.  
Verified by - W. H. Bamford.  
Inked by - Irvin Miller.

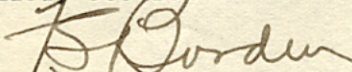
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3.3(a), EXECUTIVE ORDER 12356

1. The records conform to the requirements of the Hydrographic Manual.
  2. The plan and extent of development conform to the regulations and satisfy the specific instructions which call for consultation with the Army authorities relative to details desired, etc.
  3. Soundings are generally consistent. A few zero soundings are represented by the rock awash symbol as the bottom is mostly coral or coral and sand. The Chief of Party supervised the inking of the sheet in the office.
  4. Depth curves can be drawn satisfactorily. The 12 foot curve generally lies in the line of breakers.
  5. Junction with H. 4830 at the north and with H. 5208 at the west is satisfactory.
  6. Comparison. This sheet (H. 5330) is the basic survey in the area between H. 3287 (1910) and the shore. The area is fairly well covered except off Koko Head and in the vicinity of Hanauma Bay where the surveys leave a gap or unsurveyed area. The water is very deep in this vicinity and the party carried the work to the limit of the hand lead only.
- Chart 4131 does not show anything in conflict with this survey.
7. Field plotting was very well done. The few corrections needed were caused by changes in tide reducers.
  8. Recommendations. This sheet (H. 5330) is the basic survey for the inshore area and as such is satisfactory for charting purposes.

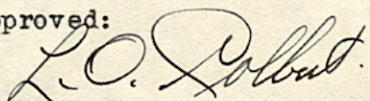
Additional soundings in the unsurveyed part of Hanauma Bay and off Koko Head are desirable but not urgently needed.

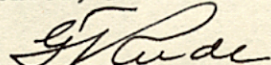
9. Reviewed by R. J. Christman - Feb. 13, 1934.

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

  
Chief, Section of Field Work.

Examined and approved:

  
Chief, Division of Charts.

  
Chief, Division of H. & T.

PARTIAL REPORT ON H 5330

Dec. 29, 1933

The protracting was found to have been fairly well done - of the 25 points checked - six were found to have been erroneously plotted and were therefore changed.

The datum the sheet is referred to, was omitted by the field plotter.

The year in which the triangulation stations on this sheet were established - was omitted by the field plotter.

Respectfully submitted

W. H. Bamford

Two spots that were developed fairly closely - were inked by W. H. Bamford.

Completed inshore hydro on chart 4131

eastward of Koko Head

H. F. Stegman 4/21/47

Applied to reconstruct 4131 (mostly via current chart 4131) by L.A.M. 1949

Md	Son	Pos
7.1	513	117
13.7	1308	311
<u>20.8</u>	<u>1821</u>	<u>428</u>