

5288

U. S. COAST & GEODETIC SURVEY  
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**GUIDELINES AS DESCRIBED IN SECTION**  
**3.3(a), EXECUTIVE ORDER 12356.**

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**DATE** 8-3-77 **BY** JLE

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. 20 5288  
Hydrographic }

LOCALITY

Mokapu Peninsula

Oahu Island

1932

CHIEF OF PARTY

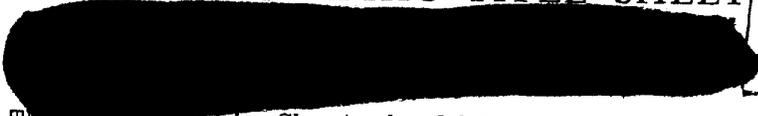
Hubert A. Paton

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**3.3(a), EXECUTIVE ORDER 12356.**

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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET



U. S. COAST AND GEODETIC SURVEY  
AUG 7 1933  
REG. NO. 5288  
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. 20

REGISTER NO. 5288

State Hawaiian Islands

General locality Northeast Coast of Oahu

Locality Northwest Coast of Mokapu Peninsula

Scale 1:5000 Date of survey May - November, 19 32

Vessel Inshore Hydrographic Survey of Oahu

Chief of Party Hubert A. Paton, Lieut.

Surveyed by H.A.P. and Sgt. S. D. Jones, U. S. Army

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 14th, 19 31

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

U. S. GOVERNMENT PRINTING OFFICE: 1929

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GUIDELINES AS DESCRIBED IN SECTION  
3.34, EXECUTIVE ORDER 12356.

DESCRIPTIVE REPORT

to accompany

SHEET #20

MOKAPU PEN., OAHU

INSTRUCTIONS:

The work on this sheet was done in accordance with instructions dated July 14, 1931. Additional verbal instructions were received from representatives of the Chief of Engineers. The field work was done in cooperation with the U. S. Army, and its purpose was restricted to a rapid development of possible landing sites for troops.

METHODS:

See Descriptive Reports for Sheets 12 and 31 for detailed account of methods used. The undersigned was personally in charge of the sounding boat for all but the last day of work. On this day, Sgt. S. D. Jones, U.S.A., was in charge.

A survey of most of this area had been made in 1929 by the U. S. Engineers, Lieut. York in charge. Also work by the Coast and Geodetic Survey in 1910 (see Sheet #3252) extended into this area. A few reconnaissance lines were run over previously surveyed area to investigate for possible changes.

A blueprint copy of Lieut. York's work is submitted with this sheet.

JUNCTIONS:

On the west this survey joins Sheet #4833. In general the junction was excellent. In one small area near Latitude  $21^{\circ}28'$ , Longitude  $157^{\circ}47'$ , a few of the old soundings do not check very well. A deep trench is found here however and depths change from 11 to 31 feet in a distance of 30 meters.

DISCREPANCIES:

While the field work was in progress, an error in the location of the signals was suspected because of the "jump" in some of the lines. The topography had been done in February 1932, and the hydrography was begun in October 1932. There was a possibility that the correct site was not recovered when the signals were rebuilt. Accordingly, the topographic sheet was checked in the field very carefully and the location of Signals

HAD, LAY, and TRE were changed a few meters. With these new locations, the lines could be run very satisfactorily.

CHARACTER OF BOTTOM:

The shoal area was found to be very foul. At low water many scattered coral heads could be seen and the outer limits of these were located by wading and taking sextant fixes. Some of these coral heads had a depth of about three feet around them. A coral reef extends from Signal BAY toward Kekepo Island. It can be crossed at high water at three places, under very good conditions. However, all of these entrances lead into shoal and foul areas.

LANDINGS:

The best landing is on a flat sand and coral reef at Latitude  $21^{\circ}27.2'$ , Longitude  $157^{\circ}47'$ , Boats drawing four feet could come up to the edge of the reef here and land troops in normal weather. The reef extends about 1/4 mile off shore here and is bare at low water. At all other places the reef is uneven and extends farther off shore.

Respectfully submitted,

*Hubert A. Paton*

Hubert A. Paton,  
Lieutenant,  
Chief of Party.

STATISTICS

to accompany

SHEET #20

Total number of positions	27.1
Total number of soundings	1687
Statute miles of sounding lines	345
Area in square statute miles	1

APPROVAL OF RECORDS

to accompany

SHEET #20

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

*Hubert A. Paton*

Hubert A. Paton,  
Lieutenant,  
Chief of Party.

## Sections of Field Records

Report on - H 5288

... Surveyed in 1932

Chief of Party - H. A. Paton

Surveyed by - H.A.P. and S.D. Jones

Protracted by - H.A.P.

Soundings plotted by - H.A.P.

Verified and Inked by - V.D. Behn

1. The records conform to the general instructions with the exception of the following:

- a) The soundings have been recorded entirely in feet instead of fathoms and feet
- b) Sufficient information has not been given concerning breakers, reefs and rocks.

2. The usual depth curves could not be drawn, in particular the zero-depth curve could not be drawn because of a lack of information of the reefs

3. The field plotting was complete except in the following respects:

- a) The nature and extent of the reefs and rocks were not clearly shown
- b) Several Topographic names were omitted
- c) The low-water line was not properly shown
- d) Three rejected positions were plotted on the smooth sheet after one signal had been changed in each case. (Positions 28c to 30c inclusive)

4. The office draftsman had to change several notes in connection with awash rocks

5. Part of the junction with H-4833 has been shown on this sheet; this junction is satisfactory except at one point. The remaining part of the junction with H-4833 and the junctions with other sheets are shown on H-4833a. In general the junctions shown on H-4833a are not very satisfactory

6 -

7. The quality of the field drafting was good.

Respectfully submitted

Victor D. Behu

Sept. 28, 1933

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5288.

N. W. Coast of Mokuapu Peninsular, N. E. Coast of Oahu, Hawaiian Is.

Surveyed in 1932

Handlead soundings.

Instructions dated July 14th and 18th, 1931. (H. A. Paton).

Chief of party - H. A. Paton.

Surveyed by - H. A. P. and S. D. Jones.

Protracted and soundings plotted by H. A. P.

Verified by - V. D. Behn.

1. The records conform to the requirements of the Hydrographic Manual except that soundings were obtained in feet instead of fathoms and feet. (Par. 32). This was probably due to the fact that a soldier personnel was used instead of experienced leadsmen. More detailed notes might have been entered regarding the character and extent of shoalings, reefs and breakers.
2. The specific instructions for this work do not prescribe the extent of the survey. The work was done in cooperation with the Army Engineers under verbal instructions.
3. There are only a few cross lines. These cross well and the agreement of adjacent lines is fairly good.
4. The information is sufficient for drawing the usual depth curves fairly completely with the exception of the zero curve or low water line. This curve can be shown sufficiently for charting purposes considering the nature of the locality.
5. The junction on the west with the survey of 1927 and the <sup>additional</sup> work of 1933, H. 4833 and ~~H. 4833a~~ is adequate and the general agreement is fair. Some sharp differences occur in the vicinity of the deep trench close to Lat. 21° 28', Long. 157° 47'. The plotting of the lines was verified on both sheets but could not be shifted to agree. The discrepancies may be due to the sudden changes in depth and irregularity of the bottom or to the large scale of the sheets which would magnify any slight errors in the surveying. This area will be studied further when the soundings from H. 5289 can be added.

The contemporary survey of 1932, H. 5289, which joins this work on the north west, has not been verified and this junction will be reported in the review of that sheet.

This work joins the survey of 1910, H. 3252, on the north. In general the agreement is fairly good but several discrepancies were noted in the area east of Pyramid Rk. These may be partly due to the fact that the soundings from H. 3252 were enlarged four times for comparison. The compiler should give the soundings from this sheet, H. 5288, the preference over the soundings from H. 3252 in the areas which are common to both sheets.

The U. S. Engineers Blueprint No. 20, 1929, (filed with H. 4832), covers several blank areas which were not covered by either H. 5288 or H. 3252.

H. 5288 - 2.

6. The work on this sheet is not a complete survey of this area but since it was not intended for such but was restricted to the needs of the U. S. Army, no additional work is recommended.

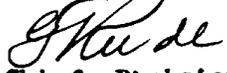
7. Reviewed by - R. L. Johnston.

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

  
Chief, Field Work Section.

Examined and approved:

  
Chief, Division of Charts.

  
Chief, Division of H. & T.

82 Live  
Sept. 2, 1933.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in  
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5288

Locality Northwest Coast of Mokapu Peninsula, Oahu Island, T. H.

Chief of Party: Hubert A. Paton in 1932

Plane of reference is mean lower low water, reading

1.1ft. on tide staff at Hanauma Bay

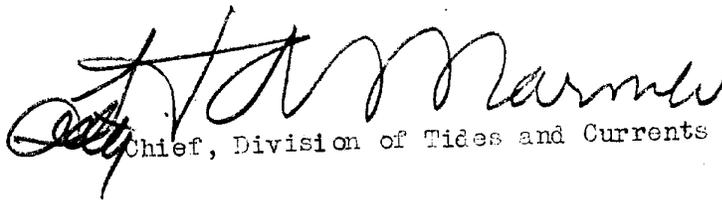
6.1ft. below B. M. 1

1.1 ft. on tide staff at Waikane

4.5 ft. below B. M. 1

Height of mean higher high water above plane of reference is 1.9 feet  
at Hanauma Bay and 2.2 feet at Waikane

Condition of records satisfactory except as noted below:

  
Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5288.

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

Number of positions on sheet	...345
Number of positions checked	....41
Number of positions revised	.....5
Number of soundings recorded	..1687
Number of soundings revised	...362
Number of signals erroneously plotted or transferred	.....0

Date: .Sept. 28, 1933.....

Cartographer: .V. D. BEHN.....