

4779

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GUIDELINES AS DESCRIBED IN SECTION
3.3(a), EXECUTIVE ORDER 12356.

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4779

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director

G. & G. SURVEY
L. & A.
MAY 18 1928
Acc. No.

State: Hawaiian Is.

DESCRIPTIVE REPORT

~~Topographic~~ Sheet No. ¹⁶ 4779
Hydrographic

LOCALITY

W. Coast of Oahu

Makua to Kaena Pt.

1926

CHIEF OF PARTY

E. R. Hand

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~HYDROGRAPHIC SURVEY SHEET~~

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The finished Hydrographic Sheet is to be prepared by the following title sheet, insofar as possible, when the sheet is forwarded to the office.

U. S. Coast and Geodetic Survey
No. 16

Register No. 4779

4779

State Ter-Hawaiian Is.

General locality West Coast Oahu

Locality Makua Sta. "MILL" to Kaena Point.

Chief of party Eoline R. Hand.

Surveyed by " " "

Date of survey May - June, 1926

Scale 1:5000

Soundings in feet

Plane of reference MLLW Tide gauge at Waianae (Pokai Bay)

Protracted by C.S.Merek # Soundings in pencil by C.S.Merek #

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, 1 Tide books, * Marigrams, 1 Boat sheets,

1 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks:
Chief Draftsman, office Department Engineer, Hawaiian Dept. USA

for tides see sheet 14,

415

13 25 -

129

Duplicate

DESCRIPTIVE REPORT

to accompany hydrographic sheet No. 16, sta. "MILL" to Kaena Pt., W. coast of Oahu, T.H.
7/17/26

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Eoline R. Hand, Chief of Party.

The stretch embraced within the above limits presents a diversity of conditions and physical make-up. The entire shore is similar, however, in this regard — that it is rock, excepting a little half mile stretch between sigs. "Big" and "Bus". For the SE half of sheet the bottom is regular; its characteristic is sand and coral. But for the NW half the bottom is quite irregular, and mostly rocky, especially at the inner ends of lines, while the coast is particularly ugly from a marine standpoint, being very jagged, with innumerable awash rocks fringing it, and a line of dangerous sunken rocks outside of those.

As to landings, none equals that at Makua, on contiguous sheet to the SE. As proof of this the present sounding party returned each night to that Makua landing, rather than attempt the possible hazards of those shown hereon. An interesting condition is noticed, in that with a heavy northerly swell the rollers execute a kind of left wheel and hit this coast a terrific impact, making landing anywhere out of the question; yet the breakers become more and more modified as they turn in further and further south with weakened force and speed, till at the Makua landing they are negotiable.

The landing on beach at sig. "Cut" is probably to be preferred for this sheet. The treacherous spot just northwest of here (same beach) should be noted: for off sig. "Bus" it is always breaking, so far as this party could observe. And the breakers were of such a dangerous nature that the sounding boat, backing in, as usual when doing the close to shore work, kept well away, as the soundings show. These breakers appear to be caused by a peculiar conformation of the shore which throws back an incoming breaker so that it meets the next incoming one just as it is about to curl, thus intensifying the resultant break. Next in value is the entrance off sig. "Lan". Care and caution would have to be used to get between the two awash rocks at entrance. The breakers should, as usual, be timed, and the boat slip in between the breaking interval. NW of this place there are no more landings possible, as a look at the ruggedness of inked sheet will attest: except that (exceptionally smooth sea, which is very rare at this point) landings might be made on the ledges indicated, between sig. "Pee" and the light. On the whole, a wise seaman will avoid attempting to land on the coast embraced by this sheet (especially the northern half) but will study instead the possibilities from the Makua landing southward.

The Oahu Railway still parallels this coast, rounding Kaena Pt. A horse trail is inside of it: its position may be followed out by eye from the sea, meandering along the rocky slope, above the railroad tracks.

The Pokai Bay (Waianae) gauge controlled these soundings: they are reduced to MLLW.

Original to Comdg. General (G2)
Hawaiian Department,
Honolulu, T.H.

Eoline R. Hand

Eoline R. Hand,
Lt. USC&GS.

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LIST OF STATISTICS

To accompany hydrographic sheet No. 16, Triangle Sta. Mill to Kaena Pt.
Eoline R. Hand, Chief of Party.

Date, 1926	Letter	Vol- ume	Posi- tions	Sound- ings	Miles, statute	Vessels
June 12.....	a	1	85	357	5.5	Whaleboat
" 15.....	b	1	33	134	3.0	"
" 21.....	c	1	53	170	4.7	"
" 24.....	d	1	74	279	4.8	"
" 25.....	e	1	91	286	5.1	"
" 26.....	f	1	79	279	4.5	"
Total.....			415	1505	27.6	

(11)

May 24, 1928

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
1 volume of sounding records for

HYDROGRAPHIC SHEET 4779

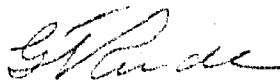
Locality: OAKU, T. H.

Chief of Party: E. R. Hand, 1928.

Plane of reference is M L L W
2.2 ft. on tide staff at Waianae.

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.



Chief, Division of Tides and Currents.

Section of Field Records
Report on H 4779
West Coast Oahu, Hawaiian Is.
Surveyed in 1926

Chief of Party - Coline R. Hand

Surveyed by - E. R. H.

Protracted and soundings by - C. S. Merck

Verified and Inked by - J. T. Jarman

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 lines of this sheet are run normal to the shore and there are no crossings.

4. The information is sufficient for drawing the 18 and 30 foot curves completely. The 12 foot curve is partially complete but below this depth there is very little information. Due to the rocky and treacherous condition of the coast, and to the heavy swells and breakers, the field party was unable to get close inshore.

5. Something like 15 signals appeared to be off upon checking. These signals were checked by means of a tracing which was secured by subdividing first, the grids of the topographic sheet, and then a tracing of the grids of the smooth sheet. Upon protracting it was found that only signal "D0" was off enough to make an appreciable difference in the location of the sounding lines and this was the only signal changed. All of the signals on the smooth sheet appear to have the same relationship to each other that they have on the topographic sheet. It may be that the projection of the smooth sheet became distorted by unequal shrinkage causing the discrepancies. These discrepancies occur in the uppermost grid at the N.W. corner of the sheet and the lowermost grid at the S.E. corner of the sheet. The above mentioned grids are not complete on the sheet and this fact coupled with the unequal shrinkage theory probably account for the discrepancies.

The triangulation station, Kaena Pt. appeared to be erroneously plotted upon checking by means of the tracing, but using the information secured by the army it was checked and found to be plotted in the correct position. Using the same information and deducting for shrinkage, the plotting of Kaena Pt. on the topographic sheet was found to be about 3 meters in error which explains the above discrepancy.

6. The junction with H-4649 on the South is good.

7. The low water line and rocks awash from the topo sheet were shown in pencil on the smooth sheet and they were inked in by the office draftsman. Rocks now appearing on the smooth sheet in pencil probably came from the boat sheet and are not to be inked in until further information is

They
have
been
inked
on
smooth
sheet
A.L.S.

secured from the field.
report respectfully submitted
By J. T. Jarman

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-WSW

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 29, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4779 (~~Confidential~~)

West Coast of Oahu, Hawaiian Islands, Makua to Kaena Point

Surveyed in 1926

Instructions by U. S. Army.

Chief of Party, E. R. Hand.

Surveyed by E. R. Hand.

Protracted and soundings plotted by C. S. Merek.

Verified and inked by J. T. Jarman.

1. The records conform to the requirements of the general instructions.
2. The specific instructions are not available and it is assumed that the work was carried out in accordance therewith.
3. The extent of the development is generally sufficient considering the scale of the survey and the practical unimportance of the greater portion of the area of this sheet. For example in the upper half of the sheet there are a number of shoal spots that would have required more development were it not for the fact that the treacherous coast line makes inshore navigation or small boat landing, an extremely dangerous and haggardous business along here. In the lower half of the sheet, however, a few more lines should have been run over the area in the vicinity of Lat. $21^{\circ} 33'$ 750 meters, Long. $158^{\circ} 15'$ 600 meters, particularly on the west of the shoal. Also in the area inshore of the 30 foot in the vicinity of Lat. $21^{\circ} 33'$, Long. $158^{\circ} 15'$ additional work should have been done to develop the shoal indications (see the 26 foot soundings about 75 meters west of the above intersection and the 19 and 21 foot soundings about 200 meters east of the intersection.
4. The depth curves can be satisfactorily developed except those close inshore. On account of the numerous rocks that fringe this coast it is not essential that the inshore depth curves be completely developed.
5. The usual field plotting was done by the field party and was satisfactory.

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6. The junction with H. 4696 on the south is adequate.
 - a. A general comparison was made with the off-shore sheet H. 3292 (surveyed in 1911) and was found to agree very favorably with the new works.
7. No additional work will be required except as mentioned in paragraph three above.
8. Reviewed by A. L. Shalowitz, June, 1930.

Approved:

Chief, Section of Field Records (CHARTS)

Chief, Section of Field Work (H. & T.)

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11-WSW

August 29, 1930.

SECTION OF FIELD RECORDS

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Surveyed in 1926

Instructions by U. S. Army.

Chief of Party, E. R. Hand.

Surveyed by E. R. Hand.

Protracted and soundings plotted by C. S. Merck.

Verified and inked by J. T. Jarman.

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2. The specific instructions are not available and it is assumed that the work was carried out in accordance therewith.
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Approved:

Chief, Section of Field Records (CHARTS)

Chief, Section of Field Work (H. & T.)

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4779

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

Number of positions on sheet . 415 . .
Number of positions checked . 129 .
Number of positions revised . 22 .
Number of soundings recorded . 1505 .
Number of soundings revised . 62 .
Number of signals erroneously
plotted or transferred . . . 1

Date: - Feb. 14, 1929 - - - - -
Cartographer: - J. J. Jarman - - - - -