

5340

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: T. of Hawaii

DESCRIPTIVE REPORT

Topographic

Hydrographic

Sheet No. 27 5340

LOCALITY

Hawaiian Islands

South Coast of Kahoolawe Island

1932

CHIEF OF PARTY

O. W. Swainson

5340

DESCRIPTIVE REPORT
Hydrographic
TO ACCOMPANY SHEET NO. 27.

HAWAIIAN ISLANDS PROJECT NO. 69.

U.S.C. & G.S.S. PIONEER

O. W. SWAINSON, CMDG.

INSTRUCTIONS DATED

August 19, 1930.

LOCALITY

South coast of Kahoolawe Island.

SURVEY METHODS

The hydrography by the ship was controlled by visual fixes on triangulation and topographic stations. The soundings were taken by the fathometer. For fathometer corrections and method of computation see Season's Report, 1931-1932, Project 69. ✓

The hydrography by the launch deviated from standard methods in the control. There were too few signals along the beach, and as the bluffs were too high, signals on the top could not be used. Instead, identifiable points, projections, and tangents on the shoreline as transferred from Photostat of the topographic sheet of Kahoolawe (sheet 2698) were used as signals by the launch. Due to the near proximity of the boat to the points selected as signals when the fixes were taken, no appreciable error is believed to exist in the location of the soundings taken by the launch. The hand wire sounding machine was used to take the sounding, the launch stopping for each sounding. ✓

DISCREPANCIES

Ship sounding line at 68 C believed to have been in error and position 68 C replotted to make the soundings check those taken by the launch. See note in record book. ✓

*Probably 10° error in LR
Plotted O.K. R/S*

DANGERS

No dangers were located by the survey. ✓

CHANNELS

No channels in area covered by sheet. ✓

ANCHORAGES

Due to extreme depth of water close to beach, there is no anchorage on the south coast of Kahoolawe Island between Smugglers Cove and Beck Cove. ✓

COMPARISON WITH PREVIOUS SURVEYS

Tracing No. one is junction of 2728 with west end of this sheet. ~~Most of the soundings of the two surveys where they coincide check very well, except for the three encircled in red. These are not far off, but the 100 fathom curve from the new survey by interpolation does not check the old survey's 99 fathoms.~~ Tracing No. two is a junction of 2728 with the north-east end of this sheet. There is no overlap between the two sheets.

Paper tracings forwarded with beach sheet 2/26

GEOGRAPHIC NAMES

No new geographic names were assigned on the sheet.

STATISTICS

	Statute Miles Sounding Line	Number of Soundings	Number of Positions
Ship	62	564	138
Launch	<u>13.5</u>	<u>92</u>	<u>49</u>
Total for Sheet	75.5	656	187

O. J. Swainson
O. J. Swainson,
H. & G. Engineer,
Chief of Party.

TIDAL DATA

Automatic gage at Honolulu was used to reduce the soundings on this sheet. An auto-portable tide gage was erected in Smugglers Cove but was washed out by heavy swells. A plain staff was erected on March 4, 1932, and read from 9:00 A.M. until 4:00 P.M., March 6th for a comparison with the Standard Automatic Gage at Honolulu. The staff was leveled to three bench marks.

CHIEF OF PARTY'S REPORT ON INSPECTION OF SMOOTH SHEET

The sheet was protracted and soundings penciled by J. R. Jahn, draftsman. The sheet was verified by E. K. Burdick, draftsman, by checking ^{the} positions with boat sheet, and checking the plotting of ~~the~~ ^{all} soundings from the record. Any errors found in the verification were checked and corrected on the sheet by J. R. Jahn

The final inspection and writing of the Descriptive Report was done by C. J. Wagner, Jr. H. & G. Engineer. ~~Shoreline was inked in red ink, but was not changed as there is a note stating it was transferred from sheet #1-3090.~~ The sheet and records are recommended for approval. ✓

O. W. Swainson

O. W. Swainson,
H. & G. Engineer,
Chief of Party.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *5340*

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

Number of positions on sheet	<i>187</i>
Number of positions checked	<i>✓</i>
Number of positions revised	<i>0</i>
Number of soundings recorded	<i>656</i>
Number of soundings revised	<i>✓</i>
Number of signals erroneously plotted or transferred	<i>✓</i>

Date:.....*January 19, 1934*.....
Cartographer:.....*A. S. Williams*.....


SECTION OF FIELD RECORDS
Review of Hydrographic Sheet No. 5340.
Kahoolawe Island, South Coast, Hawaiian Islands.
Surveyed in March 1932.
Instructions dated August 19, 1930.

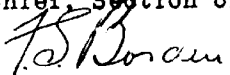
Chief of Party - O. W. Swainson.
Surveyed by - O. W. Swainson, P. L. Bernstein.
Protracted and soundings plotted by - J. R. Jahn.
Verified and inked by - A. L. Williams.

1. Records conform to the requirements of the Hydrographic Manual. No bottom characteristics are recorded in records of launch or ship. No fathometer comparisons come within the area of this sheet. The photostat copies of T. 2698 should have been returned with the boatsheets in the absence of a new survey to locate topographic signals.
2. The plan and extent of development conform to the regulations and satisfy the specific instructions, except that no bottom characteristics were noted.
3. Soundings are consistent. No bottom characteristics appear on the sheet. The discrepancy noted in the Descriptive Report (Pos. 68C) may have been an error of 10° in reading the angle or a wrong right object. The topographic signals were natural objects spotted on a photostat of T. 2698 and none of them appear to have been specially marked or location determined for this survey. See Descriptive Report under Survey Methods.
4. Depth curves can be drawn satisfactorily.
5. Junction with H. 5339 is adequate.
6. Comparison. The overlap with H. 2728 (1904) shows a satisfactory agreement. Only two lines on H. 2726 (1904-5) approach the south shore of Kahoolawe. Chart 4130 shows a rock awash close inshore (long 156°38') for which no authority can be found in the surveys.
7. Field drafting was satisfactory. A few corrections in inshore details were made necessary from the fact that only a photostat of T. 2698 was available in the field.
8. Recommendation. This sheet (H. 5340) should supersede all previous information for charting the area represented by it.

No further surveys are deemed necessary at this time.

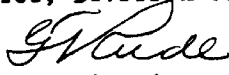
9. Reviewed by - R. J. Christman, Feb. 12, 1934.


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.

Section of Field Records

Report on H-5340

Chief of party O. W. Swainson

Projected by J. R. Jahne

Verified and linked by A. L. Williams

Surveyed in 1932

Surveyed by { O. W. Swainson
P. L. Bernstein

Soundings plotted by J. R. Jahne

1. Records conform to the requirements of the General Instructions. ✓
2. Depth curves could be drawn in most cases. ✓
3. Field plotting complete. ✓
4. Drafting work by field party is good. ✓
5. There is only one adjoining sheet (H-5339) which has not been verified as yet.
6. Rocks at and between Halona Pt. and Kaka Pt. do not agree with old Topo Sheet 2698
See pencil note on H-5340

Respectfully submitted,

A. L. Williams.

January 19, 1934.

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HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office. *5340*

Field No. 27

REGISTER NO. **5340**

State Hawaiian Islands

General locality Kahoolawe Island

Locality South Coast

Scale 1-20000 Date of survey March 3, 4, & 11, 1932

Vessel U. S. C. & G. S. S. Pioneer

Chief of Party O. W. Swainson

Surveyed by O. W. Swainson & P. L. Bernstein

Protracted by J. R. Jahn, Draftsman

Soundings penciled by J. R. Jahn

Soundings in fathoms ~~feet~~

Plane of reference Mean Lower Low Water

Subdivision of wire dragged areas by --

Inked by --

Verified by --

Instructions dated August 19, 1930

Remarks: _____

700

December 28, 1933.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5340

Locality South Coast of Kahoolawe Island, T. H.

Chief of Party: O. W. Swainson in 1932
Plane of reference is mean lower low water, reading
3.5 ft. on tide staff at Honolulu
17.3 ft. below B. M. 2

(Most of the soundings are in deep water and do not require
tide reducers.)

Height of mean higher high water above plane of reference is 1.8 feet.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents