

# 4917

Diag. Cht. No. 4116

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R.S. Patton... Director	
<div style="border: 1px solid black; width: 100px; height: 50px; margin: 0 auto;"></div>	
State: <u>Hawaiian Is.</u> <del>Terr. of Hawaii</del>	
<b>DESCRIPTIVE REPORT</b>	
<del>Topographic</del> Hydrographic	Sheet No. 4917
LOCALITY	
Kahului , Harbor	
Kahului, Maui, T.H.	
1929	
CHIEF OF PARTY	
K. T. Adams. <i>(Guide)</i>	

GOVERNMENT PRINTING OFFICE

# 4917

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 11

KAHULUI , MAUI , T.H.  
Scale 1:5000

K. T. ADAMS

CHIEF OF PARTY

K. T. Adams

W. H. Bainbridge

Hydrographers

F. B. Quinn

AUTHORITY: Confirmation of a Telegram dated March 9, 1929.

CONTROL: The control for the Survey was furnished by triangulation, and the Topography executed by G. E. Boothe. Four permanent objects; The Rock Crusher, The California Packing Corporation water tank, The Flag Pole on the shed on Pier I, and the Central Power Station Stack were located by triangulation. Three old triangulations stations: Tug, Hen, and Hay were used as signals. All other signals and natural objects used as signals were located by topography.

SURVEY METHODS: The Survey was executed by three different parties: The whaleboat party consisted of two officers, engineer for outboard motor, recorder, and four oarsmen and leadsmen. ( The outboard motor ran spasmodically. ) The motorsailor party consisted of two officers, engineer, recorder, and three leadsmen. The GUIDE with the necessary personnel for hand lead sounding, with a leadsmen in both the starboard and port sounding chairs, comprised the third party.

According to the general plan of the work, the whaleboat party developed the area between the 7 fathom curve and the beach with lines 25 meters apart. The motorsailor party developed the area between the 7 and 10 fathom curves with lines spaced 50 meters apart, and the area between the 10 and 15 fathom curves with lines spaced 100 meters apart. The GUIDE ran lines spaced 100 meters apart at the inner end, from the 15 fathom curve, in general, out to depths ranging from 19 to 23 fathoms where the lines were about 150 meters apart. The additional sounding lines ran by the GUIDE over the 10 fathoms shoal N x E of the harbor entrance were spaced 100 meters apart.

Due to the weather and the time element the motorsailor ran additional lines inside the 7 fathom curve on both sides of the harbor entrance and the GUIDE ran the additional lines over the 10 fathom shoal N x E of the harbor.

The hand lead soundings taken on the GUIDE were supplemented by fathometer red-light soundings.

**COMPARISON WITH PREVIOUS SURVEY:-** This survey is a complete revision of the area of the harbor and approaches. The five fathom curve off the Waihee Reef was moved about 120 meters east of the same curve as shown on the chart No. 4105. The same curve at a point  $\frac{1}{2}$  mile NNE of the outer end of the eastern breakwater was moved about 90 meters north ~~and~~ west.

**DISCREPANCIES:-** The projection of chart No. 4105 appears to be about 25 or 30 meters west of the correct projection.

**GENERAL:-** A blue print, showing the proposed extension of the breakwaters and the area to be dredged furnished by Captain S. L. Damon of the Corps of Engineers, will be included with the topographic sheet.

The extension of the eastern breakwater is under construction now. The work on the western breakwater and the dredging have not been started. The estimated time of completion of the projects given by Capt. Damon are as follows:- eastern breakwater, Jan. 1, 1931; dredging, July 1930.

The present aids to navigation are of a temporary nature only and will be replaced by permanent aids when the work is completed.

The shoal area east of the harbor ranging in depth from nothing to two fathoms, was not fully developed because the sea was breaking over this area at the time. On a calm day two lines were run by the whaleboat party parallel to the shore line and as close in as feasible.

Tidal data was obtained from a portable automatic tide gauge located on the east side of Pier 2.

The water tank, painted with aluminum paint at present, about 140 feet in height on the grounds of the pineapple cannery belonging to the California Packing Corporation is the most prominent object in the vicinity of the harbor.

The concrete stack, 180 feet in height, light grey in color, known as the Central Power Station stack, located about 1.4 miles east of Kahului is the next most prominent natural object. This stack is outside of the limits of chart No. 4105.

The stack shown east of Pier No. 1 is small, not tall, and when viewed from a ship entering the harbor it blends into the back ground of tall trees which renders it practically useless as a landmark.

The large grey building located about 360 meters N x W from the inner end of the western breakwater and known, locally as the Rock Crusher is a rather prominent object.

Boat Used	Date	Day	Vol	Numbers Positions	Number Soundings	Statute Miles
Ship	April 15	A	I	130	357	14.4
"	Apr. 18	B	I	66	105	5.4
"	" 19	C	I	50	113	5.3
Total				246	575	25.1
Motorsailer	Apr. 1	a	I	59	153	5.3
"	" 2	b	I	65	192	7.1
"	" 4	c	I	74	276	6.0
"	" 5	d	I	64	210	5.0
"	" 9	e	I	110	395	10.1
"	" 10	f	2	28	111	2.6
"	" 11	g	2	78	288	7.5
"	" 14	h	2	25	90	2.1
"	" 15	j	2	80	286	8.3
"	" 16	k	2	121	422	11.8
"	" 17	l	2 & 3	122	598	9.1
"	" 18	m	3	102	348	9.7
"	" 19	n	3	127	752	11.0
Total				1055	4121	95.6
Whaleboat	March 28	a	1	117	564	8.6
"	" 29	b	1	112	595	6.7
"	" 30	c	1	95	332	5.4
"	April 1	d	2	191	690	7.8
"	" 2	e	2	95	458	4.7
"	" 3	f	2 & 3	187	950	10.3
"	" 4	g	3	97	350	4.0
"	" 5	h	3	14	265	3.2
"	" 9	j	4	179	965	8.4
"	" 10	k	4	62	233	3.1
"	" 14	l	4	47	153	1.5
"	" 15	m	5	89	484	5.0
"	" 16	n	5	164	668	5.9
Total				1509	6707	75.6
Grand Total				2810	11403	196.3

Respectfully submitted -

*W. H. Rainbridge*  
 W. H. Rainbridge

Jr. H. & G. E.  
 C. & G. Survey.

Approved - *K. T. Adams*  
 K. T. Adams  
 Chief of Party.

*Section of field records ✓*

Feb. 10, 1930

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in  
9 volumes of sounding records for

HYDROGRAPHIC SHEET 4917

Locality: Kahului Bay, Maui, I, T. H.

Chief of Party: K. T. Adams, in 1929  
Plane of reference is mean lower low water, reading  
1.9 ft. on tide staff at Kahului  
~~at Kahului Bay.~~

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 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.

Paul C. Whitney

Chief, Division of Tides and Currents.

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 21, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4917

Kahului Bay, Maui, H.I.

Instructions dated March 9, 1929. (Guide)

1. The records conform to and the plan and character of development fulfill the requirements of the general instructions.
2. The plan and extent of development appear to cover the Specific Instructions.
3. The sounding line crossings appear satisfactory and are adequate.
4. There are no adjacent sheets making junctions with this survey at this date.
5. Comparison of this survey with work of older surveys shows this to be the most complete survey made of this area and includes the location of the new East and West Breakwaters.
  - a. Several changes can be noted in comparing this sheet with the previous surveys in the positions and shapes of the depth curves, apparently are due to either natural conditions or the different scales of the sheets or both. The ten fathom curve for instance (vicinity, Lat.  $20^{\circ} 55'$ , Long.  $156^{\circ} 28'$ ) is shown continuous on H. 3514 but on H. 4917, the curve is broken up into numerous spots varying in size. The same can be held somewhat similar in other instances inshore, only the curves in general are more tortuous and complete on H. 4917.
  - b. Attention might be called to the note in the description report H. 4917 under "Discrepancies" in reference to Chart 4105. Examination of this chart shows that the projection used was not the adjusted Old Hawaiian datum adopted as standard June, 1926 (see H. 3514) and explains the discrepancy noted by the field party between this sheet and Chart 4105.
  - c. The work has been carried inshore as close as the breaker line would permit. The area covering the work from the breaker line to the outer limits of the sheet appears to be fully developed.

d. A study of the soundings was made where the fathometer red light soundings supplemented the hand lead soundings (see descriptive report H. 4917). The fathometer soundings in these cases appear the more probable and agree favorably with adjacent soundings. Page 2, Vol. 9, H. 4917 states as follows:-- "An officer was sitting at the fathometer watching both leadsmen (two leadsmen were used, one at portside, the other starboard side) and when they got a sounding that was questionable he took a red light fathometer sounding."

7. Character of survey and scope of surveying -- good.  
Field drafting, protracting --- good.
8. Reviewed by G. Risegori, March 21, 1930.

Approved:--

  
\_\_\_\_\_  
Chief, Section of Field Records (CHARTS)

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

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY  
L. & A.  
SEP 17 1929  
Acc. No.

REG. NO.  
4917

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.

Field No. 11

REGISTER NO. <sup>4917</sup>  
**4917**

State Territory of Hawaii

General locality Island of Maui

Locality Kamului Bay ( Kamului )

Scale 1:5000 Date of survey March 26 - April 25, 1929

Vessel Steamer Guide

Chief of Party K. T. Adams

Surveyed by K. T. Adams, W. H. Bainbridge, F. B. Quinn

Protracted by G. E. Boothe

Soundings penciled by G. E. Boothe

Soundings in fathoms feet

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated Confirmation of a Radiogram March 9, 1929

Remarks:

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4917

HYDROGRAPHIC TITLE SHEET

*Duplicate*

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. 11

REGISTER NO. 4917

State Territory of Hawaii

General locality Island of Maui

Locality Kahului Bay (Kahului)

Scale 1:5000 Date of survey March 26 - April 25, 1929

Vessel Steamer Guide

Chief of Party K.T. Adams

Surveyed by K.T. Adams, W.H. Bainbridge, F.B. Quinn

Protracted by G.E. Boothe

Soundings penciled by G.E. Boothe

Soundings in fathoms feet

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated Confirmation of a Radiogram March 9, 1929

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. H. 4917

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

Number of positions on sheet . . . . . 2810  
Number of positions checked . . . . . 200  
Number of positions revised . . . . . 10  
Number of soundings recorded . . . . . 11,403  
Number of soundings revised . . . . . 50  
Number of signals erroneously  
plotted or transferred . . . . .

Date: G. Riczari

Cartographer: Mar. 21, 1930