5956

5956

Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } *Sheet No.* 3 5956

State California

LOCALITY

Northern California Coast

~~Vicinity of Bear Harbor~~

Jackson Pinnacle to Small White Rock

1935

CHIEF OF PARTY

F. H. Hardy

U.S. GOVERNMENT PRINTING OFFICE: 1934

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. S.

REGISTER NO. 5956

State California

General locality Northern California Coast

Locality ~~Vicinity of Bear Harbor~~ Jackson Pinnacle to Small White Rock

Scale 1:10,000 Date of survey Sept. 19 -- Oct. 20, 1935

Vessel Ship GUIDE, Motorsailer and Gig

Chief of Party F. H. Hardy

Surveyed by L.P. Raynor, F. B. Quinn and C. J. Beyma

Protracted by H. G. Conerly

Soundings penciled by H. G. Conerly

Soundings in fathoms ~~feet~~

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by John G. Ladd

Verified by J. G. L.

Instructions dated May 2, 1935

Remarks: Visual fix control was used. Soundings were taken with fathometer, wire and handlead.

GPO

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET FIELD NO. 3
Project H. T. 206
Coast of California
U.S.C. & G.S.S. GUIDE
1935

INSTRUCTIONS:

Instructions for this project were dated May 2, 1935.

CHARACTER OF WORK:

The soundings were taken with handlead, wire and fathometer. The positions were controlled by visual fixes.

The spacing of soundings and of sounding lines was kept within the limits prescribed in the above instructions. In general the lines were spaced from 70 to 100 meters apart, with a maximum of 120 meters, from the 10-fathom curve to the shoreline; and about 130 meters apart offshore from the 10-fathom curve, with a maximum of 250 meters at the outer limit. No regular cross lines were run, but sufficient splits, cross lines and detached soundings were made in the development of critical areas to serve this purpose. The junctions between the work of the two launches and of the ship, and with adjoining sheets were good.

The interval between positions was usually from two to three minutes.

The scale of this sheet is 1:10,000.

LIMITS:

The area covered by this hydrography is approximately 11.7 square statute miles, extending from latitude 39°-54' near Bear Harbor to latitude 39°-59' near White Rock, and is in the general longitude of 123°-59'.

This sheet is joined at the south by Sheet No. 2, 1935, (Field Number); at the west by Sheet No. 42, 1935, (Field Number); and at the north by Sheet No.4, 1935, (Field Number). A satisfactory junction was made with these sheets.

Sheet H-1643 b, 1885, (Office Register), extends over the entire area of this sheet with widely spaced lines and soundings. It agrees very well with the present survey except close to shore where it indicates the depths about one fathom too shoal. It is recommended that Sheet 3, 1935, entirely supercede the 1885 sheet.

See Review

CONTROL:

The triangulation on this sheet includes stations from the 1930 scheme of second order coastal triangulation; 1873 and 1883 stations adjusted in 1930; and field adjusted positions of 1871, 1872 and 1883 stations. All are on the North American 1927 datum.

The topographic stations and features are from Sheets "C", "D" and "E", 1935, (aluminum mounted), which were executed by Lieutenant (j.g.) M. G. Ricketts of this vessel.

There are no hydrographic locations of signals on this sheet.

DATES OF SURVEY:

Work on this sheet was done on September 19, 20 and 25, October 9, 10, 11, 14, 15, 16, 17 and 20, 1935.

TIDAL DATA:

Tidal reducers were obtained from portable automatic tide gage No. H-131, located at Shelter Cove, California. No corrections were applied. See "Tidal Note" sheet attached to this report.

No record of the tides at Shelter Cove was obtained for October 16, 1935, and the reducers for that day were obtained by interpolation from the preceding to the following day.

APPARATUS CORRECTIONS:

The leadlines and wire sheaves were checked throughout the season and found correct. The "Results of Sheave Measurements", November 5, 1935, are attached to Page 2 of Volume 1 in the sounding records.

Fathometer and wire comparisons were made throughout the field season. Corrections were computed for each month using temperatures and salinities obtained with vertical casts, and based on the British Admiralty tables for velocities. A report on Fathometer corrections was submitted to the Washington office on January 17, 1936.

BOTTOM CHARACTERISTICS:

Rocky bottom was found to a distance of 3/8 mile offshore the full length of the sheet, and extending 2/3 mile offshore near signals "BEAR HARBOR 2, 1930" and "WHALE GULCH 2, 1930". Outside of these areas fine gray sand and shell was the characteristic bottom.

DANGERS AND SHOALS:

No real dangers were found, but the following spots are noted for attention:

During times of heavy seas, the swells coam over 1/3 mile offshore from WHITE ROCK, 1871, southward to BEAR HARBOR 2, 1930.

The symbol for breakers is shown close to shore at latitude 39°-58.5' and at latitude 39°-58.0', which are spots in which breakers appear almost constantly.

A rocky area near WHALE GULCH was investigated by splits, and a least depth of 3 5/6 fathoms (position 23f, motorsailer) was found at latitude 39°-57.1', longitude 123°-58.8'.

A development of a rocky area extending offshore from DOUBLE ROCK, latitude 39°-56.5', showed regular bottom.

Off BEAR HARBOR 2, 1930, latitude 39°-55.3', a close spacing of sounding lines did not show any pinnacle rocks, but a wire drag may find shoaler depths. A kelp-marked 2½ fathom rocky spot was found at latitude 39°-55.2', longitude 123°-57.5'.

COMPARISON WITH PREVIOUS SURVEYS:

Sheet H-1643 b, 1885, (Office Register), covering the entire area of this sheet, agrees fairly well with the present survey, but shows the inshore depths somewhat shoaler. Since the 1935 survey had stronger control and had a much closer spacing of lines and soundings, it is recommended that the 1935 survey entirely supersede the 1885 sheet.

LANDMARKS:

Landmarks for charts were submitted to the Washington office December 10, 1935 on Form 567.

ANCHORAGES:

No anchorages are recommended within the limits of this sheet.

DISCREPANCIES:

No discrepancies were found.

BOATS AND EQUIPMENT:

The inshore limits to the 10-fathom curve were sounded by handlead from the Motorsailer, F. B. Quinn in charge; the outer limits by fathometer, with several check wire soundings, from the GUIDE, L. P. Raynor in charge; and the intervening part by wire from the Gig, C. J. Beyma in charge. Capitals, in red, were used to designate the GUIDE'S work; lower case, in red, the motorsailer; lower case, in blue, the gig.

Respectfully submitted,

Francis B. Quinn

Francis B. Quinn,
Jr. H. & G. Engineer,
Coast and Geodetic Survey.

Forwarded,
Approved,

F. H. Hardy

F. H. Hardy,
Chief of Party,
Coast and Geodetic Survey.

LIST OF STATIONS USED ON
HYDROGRAPHIC SHEET FIELD NO. 3.

Hydrographic Name	Location	Full Name
Nac	Triangulation	Jackson Pinnacle 1872
Clu	"	Chester Cone Rock 1883-1930
Son	"	Jackson 1873-1930
Be	"	Bear 1930
Gan	"	Morgan Rock 1883
Tie	"	North Rock 1930
Bear	"	Bear Harbor 2, 1930
Dub	"	Double Rock 1883-1930
Rie	"	Laurie 1930
Need	"	Needle Rock 1883-1930
Gulch	"	Whale Gulch 2, 1930
Rock	"	White Rock 1871
Row	Topographic Sheet C	Row
Gus	"	Gus
Seal	"	Seal
Wall	"	Wall
Ink	"	Ink
Mac	"	Mac
Lee	"	Lee
Ank	"	Ank
Flat	Topographic Sheet D	Flat
Top	"	Top
San	"	San
Em	"	Em
El	"	El
Cent	Topographic Sheet E	Cent
Vin	"	Vin
Log	Topographic Sheet D	Log
Gable	"	Gable
Nun	"	Nun
Miss	"	Miss
Kay	"	Kay
Load	"	Load
Jam	"	Jam
Hop	"	Hop
Gal	"	Gal
Fly	"	Fly
Egg	"	Egg
Don	"	Don
Snag	"	Snag
Oby	"	Oby
No	"	No
Mar	"	Mar
Lid	"	Lid
Jol	"	Jol
Ira	"	Ira
Six	"	Six
Hod	"	Hod

Hydrographic Name	Location	Full Name
Gat	Topographic Sheet D	Gat
Fag	"	Fag
Elf	"	Elf
Cop	"	Cop
Bluf	"	Bluf
Paul	Topographic Sheet E	Paul
Done	"	Done

STATISTICS

to accompany

HYDROGRAPHIC SHEET FIELD NO. 3

Date 1935	Day Letter	No. of Soundings Mach.	H.L.	Fath.	No. of Positions Mach.	H.L.	Fath.	Statute Miles Mach.	H.L.	Fath.	Stat.Mi. To&From	Boat Used
Oct. 9	a(red)	---	269	---	---	69	---	---	8.5	----	0.8	M.S.
10	b "	---	590	---	---	161	---	---	14.4	----	4.5	"
11	c "	---	531	---	---	189	---	---	16.4	----	7.5	"
14	d "	---	254	---	---	75	---	---	7.8	----	0.5	"
15	e "	---	23	---	---	9	---	---	0.7	----	0.5	"
16	f "	---	532	---	---	155	---	---	13.5	----	1.0	"
17	g "	176	217	---	176	81	---	4.2	5.9	----	0.5	"
Sept.25	a(blue)	190	---	---	67	---	---	6.5	----	----	1.2	Gig
Oct. 9	b "	386	---	---	136	---	---	14.1	----	----	7.2	"
10	c "	246	25	---	109	25	---	8.1	----	----	8.3	"
11	d "	119	---	---	44	---	---	3.8	----	----	11.0	"
14	e "	414	---	---	139	---	---	11.2	----	----	8.0	"
15	f "	218	---	---	91	---	---	6.3	----	----	8.0	"
16	g "	130	---	---	56	---	---	3.1	----	----	4.2	"
Sept.19	A(red)	10	---	535	4	---	72	----	----	20.7	15.0	GUIDE
20	B "	2	---	399	5	---	50	----	----	14.4	15.0	"
Oct.20	C "	---	---	159	---	---	21	----	----	4.8	8.0	"
SUB-TOTALS		1891	2432	1093	827	764	143	57.3	67.2	39.9		
TOTALS			5416			1734			164.4		101.2	

Area of sounding on sheet --- 11.7 square statute miles.

STATEMENT

to accompany

HYDROGRAPHIC SHEET FIELD NO. 3 5956

The smooth plotting of this sheet and the pencil work on soundings, bottom characteristics and depth curves was done by Ensign H. G. Conerly.

The completed smooth sheet has been inspected and is approved.

F. H. Hardy,
Chief of Party, C. & G. Survey,
Commanding Ship GUIDE.

Oakland, California.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5956

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

Number of positions on sheet	1734
Number of positions checked	about 2%
Number of positions revised	———
Number of soundings recorded	5416
Number of soundings revised	35
Number of signals erroneously plotted or transferred	none

Date: April 28, 1936

Verification by John G. Ladd Time: 42 hrs.

Review by Chas. R. Byrd Jr. Time: 24 hrs

R. J. Christman 6 hrs

HYDROGRAPHIC SURVEY NO. 5956

Smooth Sheet 1

Boat Sheet 2

Sounding Records 5 Vols.

Descriptive Report yes

Title Sheet yes

List of Signals yes

Landmarks for Charts (Form 567) yes

Statistics yes

Approved by Chief of Party yes

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service (Circular Nov. 30, 1933) No no floating aids on sheet

Remarks

H - 5956

	Remarks	Decisions
1		
2	T 1285 has "White Rock" on the border line between a common and a proper name: but since it has long been charted as a proper name, and there is a dearth of good Geog. Names along this section of coast, it is approved.	Small
3		
4	Report on T 6485 (1916) says that "Needle Rock" refers more to the group of buildings at the abandoned landing than to the rock itself, that in itself is of little or no value to the navigator	
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27		
M 234		

GEOGRAPHIC NAMES

Survey No. H-5956

Name on Survey	A On Chart No. 5602	B Topographic survey No. T-1324	C On U. S. quadrangle Maps	D From local information	E On local Maps	F T P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List T6485	K	
Jackson Pinnacle	*		✓							1
Small White Rock	*	✓							✓	2
Whale Gulch	*	✓		—					✓	3
Needle Rock	*	✓		—					✓	4
										5
										6
										7
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										27

Names underlined inked approved by C.H.S. on 4/30/36 8/6/36

A. HOMES

M 234

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT COPY~~

No. H - 5956

~~XXXXX~~

received Mar 4, 1936
registered Mar 30, 1936
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	

C. K. Green April 2, '36

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 10, 1936

Division of Hydrography and Topography:

✓ Division of Charts: **Attention: Mr. E. P. Ellis**

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5956

Locality **Jackson Pinnacle to Small White Rock, California coast.**

Chief of Party: **F. H. Hardy in 1935**
Plane of reference is **mean lower low water reading**
2.7 ft. on tide staff at **Shelter Cove**
7.2 ft. below B.M. **1A**

Height of mean high water above plane of reference is 5.6 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

Verification Report
H-5956 (1935)

1. The records are neat and legible and conform to the requirements of the Hydro. Manual. ✓

2. The field plotting was excellently done and no part of the work had to be done over or amended in the office. ✓

3. The shoreline and Topo. Signals originate with T-6379 (1935) and T-6485 (1935) with which the hydro has been carefully compared and made to agree.

4. The help on the smooth sheet was inked in by the field party. ✓

5. The Boatsheet symbols shown inshore along the northern portion of the sheet were inked in in the office from the Boat-sheet and notes in the volume. ✓

5a The 1½ fathom sounding on a detached position (Pos. 121f) at Lat. 39°57.98' Long. 123°59.45' which falls in depths of 4 to 5 fath. should have been more extensively developed, although the note in the volume of the position states "Only shoalest recorded."

6. The junction with H-5945 (1935) has been applied as is satisfactory. The survey on the north (field sheet no. 4) and the offshore survey (field sheet no 42) have not been received in the office to date.

John G. Ladd

May 27, 1936

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5956 (1935) FIELD NO. 3

Jackson Pinnacle to Small White Rock,
Northern California Coast, California.
Surveyed in September - October 1935 - Scale 1:10,000
Instructions dated May 2, 1935

Hand Lead and Machine Soundings. 3 Point fixes on shore signals.
Fathometer Soundings.

Chief of Party - F. H. Hardy.
Surveyed by - L. P. Raynor, F. B. Quinn, C. J. Beyma.
Protracted by - H. G. Conerly.
Soundings pencilled by - H. G. Conerly.
Verified and inked by - John G. Ladd.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual, except as follows:

Par. 60b is not complied with in that hydrographic features mentioned in the sounding volumes are not indexed.

The Descriptive Report is clear and comprehensive and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan and character of development is in accordance with the instructions for the project except that no cross lines were run. The instructions call for cross lines spaced approximately 4 miles apart inside of the 100 fathom curve. The 2-4/6 fathom rock in lat. 39°56.15', long. 123°58.10', although located by a detached position should have had some split lines to define its limits.

3. Shoreline and Signals.

The shoreline and the location of topographic signals originate with plane table surveys T-6379 (1935), T-6485 (1935) and T-6486 (1935).

4. Sounding Line Crossings.

Only such cross lines, as result from the development of shoals, were run. They are in satisfactory agreement.

5. Depth Curves.

Within the area surveyed, the usual depth curves can be drawn, including most of the 3 fathom curve and portions of the 1 and 2 fathom curves.

6. Junction with Contemporary Surveys.

The junction, on the south, with H-5945, is satisfactory. The other adjoining contemporary surveys have not yet been received in the office.

7. Comparison with Prior Surveys.

a. H-241 (1851).

This reconnaissance survey is on a scale of 1:1,000,000 and contains no hydrography of current value within the limits of the present survey. It should be superseded for charting purposes.

b. H-401 (1854).

This is a reconnaissance survey on a scale of 1:375,000. A single line of soundings was run about 3/4 mile offshore, which is of no value in making a comparison with the present survey.

c. H-1643b (1885).

This survey on a scale of 1:20,000, covers the entire area of the present survey. The agreement in depth is good. The bottom inshore of the 10 fathom curve is rocky and very irregular and there are many differences in soundings on the two surveys apparently due to the nature of the bottom. Several soundings and some other hydrographic features from the above survey have been carried forward to the present survey in color (blue). In examining the original sounding records it was noted that time of sounding was recorded only on positions. This renders control of soundings between positions somewhat uncertain in rapidly changing depths.

The following are examples of apparent discrepancies:

(1) The 9-3/4 fathom sounding in lat. 39°54.7', long. 123° 56.9' is plotted as a detached area less than 10 fathoms, but when plotted according to the probable time of sounding it falls within the general 10 fathom curve.

(2) A 5 fathom sounding just north of a 5-1/2 fathom spot (lat. 39°55.5', long. 123°57.7') in general depths of 6-2/6 fathoms on the present survey, could not be verified in the sounding records. It probably is an error in plotting and may have been 5-1/2 according to the sounding record.

(3) The 3-3/4 fathom sounding at lat. 39°54.6', long. 123°56.4' was found to be an error in plotting as the original record shows it to be a 5-3/4 fathom sounding.

(4) The 14 foot sounding at lat. 39°56.0', long. 123° 57.7', when replotted with due allowance for time, falls inside a 2-5/6 fathom sounding on the present survey.

Because of the larger scale, closer development and better control of the present survey, H-5956 (1935) with indicated additions, should supersede the above survey for charting purposes.

d. H-4183 (1921).

This offshore survey, on a scale of 1:20,000 covers a very little of the northwest corner of the present survey. Within this area the two surveys are in good agreement. Because of the larger scale and close development of the present survey, H-5956 (1935) should supersede the above survey for charting purposes.

8. Comparison with Chart 5602 (New Print dated Aug. 15, 1935).

a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraph and contains no other information that needs consideration in this review.

b. Aids to Navigation.

There are no aids to navigation within the limits of the present survey.

9. Field Plotting.

The protracting and field plotting was adequate and well done.

10. Additional Field Work Recommended.

The survey is satisfactory and no further work is recommended.

11. Superseding Old Surveys.

Within the area covered the present survey with indicated additions from prior surveys, supersedes the following surveys for charting purposes:

H-241	(1851)	in part
H-401	(1854)	" "
H-1643b	(1885)	" "
H-4183	(1921)	" "

12. Reviewed by - Chas. R. Bush, Jr., July 27, 1936,
and R. J. Christman, July 31, 1936.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green, C. K. Green
Chief, Section of Field Records.

L. O. Colbert
Chief, Division of Charts.

Fred. E. Peacock
Chief, Section of Field Work.

G. Rude
Chief, Division of H. & T.

Applied to Chart 5602 June 21 1937 J. H. S.