

5566

U.S. COAST & GEODETIC SURVEY  
LIBRARY AND RECORDS  
Dec. 17, 1934

Form 504  
Rev. Dec. 1933  
DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

**DESCRIPTIVE REPORT**

Topographic } Sheet No. 5566  
Hydrographic } Field No. 43

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State California

LOCALITY

Estero Bay to Point Piedras Blancas

Pacific Coast

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1933

CHIEF OF PARTY

Fred. L. Peacock

5566

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

DEC 17 1934

REG. NO. 5566

Acc. 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. 43

REGISTER NO. 5566

State California

General locality Pacific Coast

Locality Estero Bay to Point Piedras Blancas

Scale 1:40,000 Date of survey June 11 to Dec 10, 1933

Vessel U.S.C. and G.S.S. GUIDE

Chief of Party Fred L. Peacock

Surveyed by Fred L. Peacock

Protracted by R.H. McCarthy Jr.

Soundings penciled by R.H. McCarthy Jr.

Soundings in fathoms ~~feet~~

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by IRVIN MICHAELSON

Verified by IRVIN MICHAELSON

Instructions dated March 23, 1933

Remarks: Sextant Fix Hydrography throughout with

Fathometer Soundings

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SHEET No. 43  
California Coast.

INSTRUCTIONS: Instructions for the hydrography on this sheet are dated March 23, 1933. The work was performed in accordance with the season's instructions dated March 23, 1933. 3/27/33  
4/4/33

CHARACTER OF WORK: The position control of the hydrography on this sheet was all done by means of visual fixes. The soundings were all obtained by the Fathometer except for 97 wire soundings for Fathometer comparisons. The depth range is from 15 to 315 fathoms. The area and amount of work are about equal on either side of the 100 fathom curve.

Sounding line spacing is approximately three-quarters of a mile outside the 150 fathom curve, 600 meters outside the 50 fathom curve, and 300 meters inside the 50 fathom curve. Cross lines are spaced roughly four miles apart.

The position interval is in general three minutes, with supplemental positions at radical changes of speed and course.

The scale of this sheet is 1:40,000.

LIMITS: The hydrography on this sheet covers an area of approximately 325 square statute miles, extending from Latitude  $35^{\circ} 16'$ , (Estero Bay), to Latitude  $35^{\circ} 38'$ , (Point Piedras Blancas).

The 100 fathom curve is about two miles offshore at Point Piedras Blancas and then its distance increases until at Estero Bay it is six to eight miles offshore. The 50 fathom curve has been developed as has a small portion of the 20 fathom curve.

This sheet is joined on the north by ship sheet Field No. 42; on the west by ship R. A. R. sheet, Field No. 81, on the south it makes a junction with the hydrography of the party under Lieut.-Commander O. W. Swainson, commanding the Ship PIONEER and on the east the inshore junction is composed of Launch Sheet Field No. 11, done in 1933 under Project No. 140, and Launch Sheets, Field Nos. 8, 9, 10 and 11, completed in 1934 under Project No. 184.

CONTROL: Control for the hydrography on this sheet consisted of hydrographic signals over triangulation stations on the 1932-1933 scheme, plotted on the North American 1927 adjusted datum.

DATES OF SURVEY: Work on this sheet began June 11, 1933, and was concluded on December 10, 1933.

**TIDAL REDUCERS:** Tidal reducers for the soundings on this sheet were obtained from the San Simeon and Port San Luis portable automatic tide gages. ✓

For further information on the subject of tidal reductions the reader is referred to the season's tidal report, which covers all of the tidal work of the party of the Ship GUIDE for the 1933 field season. ✓

**APPARATUS CORRECTIONS:**

The apparatus corrections for the soundings on this sheet were applied in accordance with the instructions in the hydrographic manual. They consisted of the following; a velocity correction for the temperatures, salinities, and depths sounded; a dial speed correction based on the speed of the Fathometer and corrections made from comparative vertical casts. The dial speed remained constant throughout the season. Temperatures and salinities showed the usual seasonal variations. The index correction varied from 0 to 1 fathom throughout the entire season, subject to the trim of the vessel and according to the hydrophone or oscillator used. ✓ ✓

For further information on this subject the reader is referred to the Season's Report on Temperature and Salinity Determinations, which covers the subject in complete detail. ✓

**SLOPE CORRECTIONS:** No slope corrections were found to be necessary for the soundings on this sheet. ✓ ✓

**BOTTOM CHARACTERISTICS:** Forty seven bottom characteristics, distributed over the area of this sheet, were obtained. The offshore bottom samples show green mud and clay for the most part. Inshore the bottom specimens were quite varied, ranging through fine gray sand, coral, lava, broken shell, rock and gray mud. ✓ ✓

**DANGERS:** There appear to be no dangers to navigation within the limits of the hydrography on this sheet. ✓ *see page X9 of review*

**DISCREPANCIES:** In comparing previous hydrography with the present work on this sheet photostats H1607 b, H1611 a and H2022 were used. Previous soundings were placed on a tracing and super-imposed upon the sheet. The agreement in all cases was generally good. ✓

Cross lines checked the regular sounding lines quite well, ✓  
with no great discrepancies noted.

In comparing the junction with R. A. R. Sheet No. 81 and ✓  
inshore work of the 1934 season it should be noted that these sheets  
mentioned have not as yet been completed. A more adequate report on  
junctions will accompany these sheets.

Respectfully submitted,

*G. E. Logan*

G. E. Logan,  
Observer,  
Coast and Geodetic Survey.

Forwarded,  
approved:

*F. H. Hardy*

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



## PAGE 13.

Paragraphs 1 and 2, strike out both paragraphs and substitute the following:

"The signal consists of the transmission of a dot (.) for every second, omitting the twenty-ninth, fifty-first, fifty-sixth, fifty-seventh, fifty-eighth, and fifty-ninth second during the first minute; in the second minute the twenty-ninth, fifty-second, fifty-sixth, fifty-seventh, fifty-eighth, and fifty-ninth second will be omitted; in the third minute the twenty-ninth, fifty-third, fifty-sixth, fifty-seventh, fifty-eighth, and fifty-ninth second will be omitted; in the fourth minute the twenty-ninth, fifty-fourth, fifty-sixth, fifty-seventh, fifty-eighth, and fifty-ninth second will be omitted; in the fifth minute the twenty-ninth, fifty-first, fifty-second, fifty-third, fifty-fourth, fifty-fifth, fifty-sixth, fifty-seventh, fifty-eighth, and fifty-ninth second will be omitted; at the sixtieth second a one-second dash (—) will be sent, the beginning of which is the time signal.

"This is followed by the letters VA. In the event of an error occurring in the signal, another time signal will be transmitted one hour later.

"Hydrographic information, weather reports, and other information of benefit to shipping are sent out from these stations."

## Page 16.\*

Radiobeacons.—Strike out list of radiobeacons and substitute the following:

Name of station and frequency	Call sign	Latitude N.	Longitude W.	Signal <sup>1</sup>	Clear-weather transmission
Fire Island (LS) 300 kc...	WPZ <sup>2</sup>	40 28	73 11	2 dashes.....	Second 15 minutes of each hour.
Ambrose Channel (LS) 300 kc.	WRG <sup>2</sup>	40 27	73 49	Single dot.....	Do.
Scotland (LS) 307 kc.....	.....	40 27	73 55	1 dash, 1 dot, 1 dash, and 1 dot.	8 to 9 a. m. and p. m.
Barnegat (LS) 300 kc.....	WRA <sup>2</sup>	39 46	73 59	2 dashes.....	Do.
Five-Fathom Bank (LS) 290 kc.	WRE <sup>2</sup>	38 47	74 34	2 dots and 2 dashes.	Do.
Overfalls (LS) 290 kc.....	.....	38 48	75 01	1 dot, 1 dash, and 1 dot.	Do.
Winter-Quarter (LS) 290 kc.	WRO <sup>2</sup>	37 55	74 56	3 dashes and 1 dot.	Do.
Chesapeake (LS) 285 kc...	WRS <sup>2</sup>	36 59	75 42	1 dot, 2 dashes, and 1 dot.	Fourth 15 minutes of each hour.
Cape Henry (L) 285 kc...	.....	36 55½	76 00½	1 dash, 1 dot, and 1 dash.	2 to 2.30 and 8 to 8.30 a. m. and p. m.
Diamond Shoal (LS) 300 kc.	WRV <sup>2</sup>	35 05	75 20	2 dashes and 1 dot.	Fourth 15 minutes of each hour.
Wolf Trap (L) 305 kc.....	.....	37 23	76 11	2 dashes and 2 dots.	3 to 3.30 and 9 to 9.30 a. m. and p. m.
Smith Point (L) 305 kc...	.....	37 53	76 11	1 dash, 2 dots and 1 dash.	4 to 4.30 and 10 to 10.30 a. m. and p. m.
Cove Point (L) 305 kc.....	.....	38 23	76 23	1 dot and 2 dashes.	5 to 5.30 and 11 to 11.30 a. m. and p. m.
Sandy Point (L) 305 kc.....	.....	39 01	76 23	1 dot, 1 dash, and 1 dot.	1.30 to 2 and 7.30 to 8 a. m. and p. m.

<sup>1</sup> Stations send for 60 seconds and are silent for 120 seconds.

<sup>2</sup> Radio operator stands watch on 300 kc. (300 meters) for the first 15 minutes of each hour from 8 a. m. to 9.15 p. m. in clear weather. Stations will transmit signals for reasonable additional periods upon request.

<sup>3</sup> Radio operator stands watch as noted above and also from 10 to 10.15 a. m. and from 4 to 4.15 p. m. during foggy weather during which the radiobeacon is not operated.

NOTE.—(L) indicates light station; (LS) indicates lightship.

COAST AND GEODETIC SURVEY  
HYDROGRAPHIC DEPARTMENT  
WASHINGTON, D. C.

DEPARTMENT OF COMMERCE  
**Additional Note Concerning Sheet 43**  
U. S. COAST AND GEODETIC SURVEY

It should be noted that the positions marked with colored squares on this hydrographic sheet are the ones at which velocity tests were made during the 1933 R.A.R. Season. A full report on the velocities and the positions used has been forwarded with R.A.R. Sheet 181. This was sent in August 1934.





LIST OF SIGNALS  
to accompany

HYDROGRAPHIC SHEET FIELD NO. 43

TRIANGULATION

Hydrographic Name	Location
ARGE	Large Rock 1933
BLAN	Piedras Blancas Lighthouse 1932
CAM	Cambria Rock 1933
CAS	Hearst Castle North Tower 1933
CON	Cayucos Concrete Tank 1933
CREE	Creek 1885-1932
DAW	Dawson 1932-33
DER	Islay Creek Oil Derrick 1933
DOBE	Adobe 1932-33
GEN	Gence 1884-1932
GILL	Gillespie 2 1932-33
HALL	Hall 1883-1932
HAR	Harbor 1932-33
LAR	Pillar Rock 1932
PAD	Padre 1932-33
PICO	Pico Rock 1933
POI	Point 2 1932
REEF	Reef 1932-33
SIM	Simeon 1932-33
STAN	Standard 1932-33
VILL	Villa 2 1932-33
WAT	Water Tank Black Hill 1933
MORRO	Morro 2 1919-1932

**STATISTICS**  
**to accompany**  
**HYDROGRAPHIC SHEET FIELD NO. 43**  
**Project No. 140**

1933 Date	Day	No. of Soundings			No. of Positions			Stat. Miles Sdg. Lines.	Bottom Charact- eristics	Water Samples
		RL	RL x 6	V.C.	RL	RL x 6	V.C.			
6-11	A	15		15				1	2	
6-12	B	10		10				1	1	
6-21	C	443		15	112		15	64.4	1	
6-22	D	915		13	217		13	118.4	2	
6-24	E	90		20	18			5.8		
8-16	F	253	121	2	85	42	2	71.4	2	
8-17	G	126		1	31		1	11.6	1	
10-16	H	355	22	13	126	6	13	68.6	5	
10-17	J	173	186	9	55	59	9	68.1	4	
10-18	K	256	210	6	83	72	6	88.5	5	
10-19	L	18		1	18		1	2.1	1	
11-1	M	178	316	6	57	113	6	95.7	5	
11-2	N	31		1	14		1	4.5	1	
12-7	P	351	124	10	150	46	10	92.3	6	
12-8	Q	254	67	9	112	10	9	59.4	4	
12-9	R	570	98	11	132	30	11	86.7	5	
12-10	S	849		8	173		8	82.7	3	
TOTALS		4885	1144	150	1363	<del>372</del> 586	97	920.2	47	19

Area: 325 square statute miles.

STATEMENT  
to accompany  
HYDROGRAPHIC SHEET FIELD No. 43  
California Coast  
1933

The smooth plotting on this sheet and pencilling of the soundings thereon was done by Mr. R. H. McCarthy, Draftsman, under the general supervision of Lieutenant (j.g.) Swanson. ✓

Lieutenant Swanson has drawn the depth curves. The completed smooth sheet has been inspected and is approved. ✓

Ten percent of the protracted positions on this sheet have been checked by Lieutenant (j.g.) Lawrence W. Swanson. ✓

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5566

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

Number of positions on sheet	1833 .....
Number of positions checked	232 .....
Number of positions revised	6 .....
Number of soundings recorded	6179 .....
Number of soundings revised	47 .....
Number of signals erroneously plotted or transferred	.....

Date:

Verification by IRVIN MICHAELSON

Time: 31¼ hrs

Review by V. D. Behn

Time: 16 hrs.

## Section of Field Records

Report on H-5566                      Surveyed in 1933  
 Chief of Party, F.L. Peacock      Surveyed by F.L. Peacock  
 Protracted by R.H. Mc Carthy, Jr.      Soundings Plotted by R.H. Mc Carthy  
 Verified and Inked by Irvin Michaelson

1. The records are neat legible and complete - conforming to the general requirements of the Hydrographic Manual ✓
2. The usual depth curves can be completely drawn. Crossings are excellent. ✓
3. Protracting was excellent and soundings were correctly plotted.
4. Field drafting was good

At pos 196 D, which was rejected note in record says, "hard left to avoid buoy. There was no buoy on the smooth sheet nor on the boat sheet. However Von Helm Rock is marked on the boat sheet. } Von Helm Rk and buoy located on H-5681. Von Helm Rk transferred to this survey V Behn

At  $\left\{ \begin{array}{l} \text{Lat } 35^{\circ} 30' 35.6 \\ \text{Long } 121^{\circ} 04.75 \end{array} \right.$  there is a rock on the boat sheet with the notation "rock reported". } probably refers to 8 1/4 fm shoal located by W.D. on H-5682. Lat 35° 30.6' Long 121° 04.5' V Behn

Positions 12F to 32F were rejected by the field party because the fathometer was not working properly. It is suggested that soundings from pos 31F to 34F be rejected for the same reason. } pos 31-34F rejected as a result of a comparison with H-5611 V. Behn

5. Junctions
  - a. On the east with Inshore sheets, H-5476(1933), H-5681(1934), H-5682(1934), H-5708(1934), H-5692(1934). (Not Ver) (Being Verified)
  - b. On the west with H-5611(1933) (being verified)
  - c. On the north with H-5567(1934) and H-5671a(1934)

Respectfully Submitted,  
 Irvin Michaelson  
 April 22, 1935.



200

January 11, 1935.

Division of Hydrography and Topography:

✓ Division of Charts: Attention, E. P. Ellis

Tide Reducers are approved in  
5 volumes of sounding records for

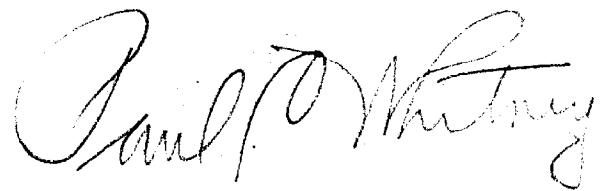
**HYDROGRAPHIC SHEET 5566**

Locality Estero Bay to Point Piedras Blancas, California Coast

Chief of Party: Fred L. Peacock in 1933  
Plane of reference is mean lower low water reading  
1.3 ft. on tide staff at San Simeon  
21.0 ft. below B.M. 1  
3.2 ft. on tide staff at Port San Luis  
14.5 ft. below B. M. 2

Height of mean higher high water above plane of reference is 5.5  
feet at San Simeon; 5.1 feet at Port San Luis.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5566 (1933)

Estero Bay to Point Piedras Blancas, Pacific Coast, California  
Instructions dated April 4, 1932, March 27, 1933 (GUIDE)  
Surveyed in June to December, 1933

Fathometer Soundings

3 Point Fixes on Shore Signals

Chief of Party - F. L. Peacock.  
Surveyed by - F. L. Peacock.  
Protracted by - R. H. McCarthy, Jr.  
Verified and Inked by - I. Michaelson.

1. Condition of Records.

The records conform to the requirements of the Hydrographic Manual, with the exception that no mention was made of the 32 fathom shoal located by position 104q (see paragraph 9), lat. 35°20.7', long. 120°59.0', the descriptive report was clear and adequately covers all matters of importance.

2. Compliance with Instructions for the Project.

The survey complies with the instructions for the project.

3. Sounding Line Crossings.

The agreement in sounding line crossings is excellent.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn.

5. Junctions with Contemporary Surveys.

Junctions with inshore surveys H-5476 (1933), H-5671a (1934), H-5681 (1934), and H-5682 (1934) are satisfactory.

The junction with H-5567 (1933) on the northwest is satisfactory.

In shore surveys H-5708 (1934) and H-5692 (1934) and off shore survey H-5611 (1933) have not as yet been completely verified. Junctions with these surveys will be considered in their respective reviews.

6. Comparison with Prior Surveys.

- a. H-1611a (1884) H-1607b (1884)  
H-1611b (1884) H-2022 (1890).

These surveys are in good agreement with the present survey.



b. H-3048 (1910).

This survey consists of 1 line of soundings spaced approximately 4 miles apart and plotted on chart 5400 (very small scale). The soundings are in fair agreement with the present survey.

7. Comparison with Chart No. 5302.

Within the area of the present survey the chart is based primarily on the surveys discussed in the foregoing paragraph and except as noted below contains no additional information that needs consideration in this review.

A number of soundings appear on the chart that originate with sources other than our surveys. These are in good agreement with the present survey and hence their authority was not traced.

8. Field Plotting.

The field plotting and protracting are satisfactory and conform to the requirements of the Hydrographic Manual.

9. Additional Field Work Recommended.

a. The 32 fathom shoal located by position 104q in lat.  $35^{\circ}20.7'$ , long.  $120^{\circ}59.0'$ . The steepness of its slope and the rocky bottom makes dragging of this area desirable.

b. The 22 fathom shoal sounding on line 40-41s in lat.  $35^{\circ}29.7'$ , long.  $121^{\circ}04.5'$ . The sounding following this sounding was missed and the bottom noted as being rocky. In view of this and the proximity of this location to the shoals located by Wire Drag on H-5682 (1934) in the vicinity of the 20 fathom curve, it is recommended that this area be dragged. Under instructions dated May 31, 1934, to the "Guide" this spot will probably be covered. ✓

10. Superseding Old Surveys.

Within the area covered, the present survey supersedes the following surveys for charting purposes:

H-1611a (1884)	in part
H-1611b (1884)	" "
H-1607b (1884)	" "
H-2022 (1890)	" "
H-3048 (1910)	" "

11. Reviewed by - V. D. Behn, May, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

*K.T. Adams*  
Asst Chief, Division of Charts.

*Paul A. Smith*  
*actives*  
Chief, Section of Field Work.

*R.R. Lubner*  
*act* Chief, Division of H. & T.

*Applied to drawing of chart 5302 - Mar. 13, 1936 - J.S.W.*  
*" " compilation of " 5387 Jan. 1937 J.G.L.*

25 July 13, 1936  
LMS