

5620

U. S. COAST & GEODETIC SURVEY  
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JAN 31 1935

Acc. No. \_\_\_\_\_

Form 504  
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

~~Topographic~~ Sheet No. 5620  
Hydrographic

State California

LOCALITY

Pacific Coast

Grimes Point to Little Slate Rock

1934

CHIEF OF PARTY

F. H. Hardy  
~~R. F. A. Studds~~

5620

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

JAN 15 1935

Acc. No. \_\_\_\_\_

REG. NO.

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. 2 5620

REGISTER NO. 5620

State California.

General locality California Coast Pacific Coast

Locality Little Slate Rock to Gilman Point

Scale 1:10,000 Date of survey Aug. 8 to Aug. 24, 1934

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

Chief of Party R. F. A. Studds F. H. Hardy

Surveyed by R. F. A. Studds  
F. H. Hardy and G. C. Mast.

Protracted by H. Roberts

Soundings penciled by T. M. Means

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 April 4, 1932, Mar 27, 32 May 31, 19 34

Remarks: Visual Fix Hydrography. Soundings by Fathometer.  
Wire and Hand Lead.

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SHEET FIELD NO. 2  
Project No. 184  
Coast of California  
U.S.C. & G.S.S. GUIDE  
1934

**INSTRUCTIONS:** Instructions for the hydrography on this sheet are dated April 31, 1932. The work was performed in accordance with the season's instructions dated May 31, 1934.

**CHARACTER OF WORK:** The control for the hydrography on this sheet was done by means of visual fixes. The soundings were obtained by the fathometer, by wire, and by hand lead. Eight (8) wire soundings were taken by the ship for comparison with the fathometer.

The depth range is from less than 2 fathoms to 261 fathoms. The twenty fathom curve approximately bisects the area of the sheet. Sounding line spacing is approximately 100 meters inside the ten fathom curve, 150 meters to the twenty fathom curve, and 200 to 300 meters outside the twenty fathom curve. Shoal indications were developed.

The position interval was usually two to three minutes, but supplemental positions were taken at changes of speed and course.

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

**LIMITS:** The hydrography on this sheet covers an area of approximately 12.0 square statute miles extending from Latitude  $36^{\circ} 12'$  (Grimes Point) to  $36^{\circ} 07'$  (Little Slate Rock).

The sheet is joined on the north by Launch Sheet No. 1, on the south by Launch Sheet No. 3 and on the west by Ship Sheet No. 47 completed in 1932, and by Ship Sheet No. 41, completed in 1933.

**CONTROL:** Control for the hydrography on this sheet consisted of hydrographic signals over triangulation stations on the 1932 scheme, plotted on the North American 1927 adjusted datum. Topographic signals were located by Mr. J. C. Ellerbe (Aid).

**DATES OF SURVEY:** Work on this sheet began on August 8, 1934, and was concluded on August 24, 1934.

**TIDAL REDUCERS:** Tidal reducers for the soundings on this sheet were obtained from the Monterey Portable Automatic Tide Gage.

For further information on the subject of tides the reader is referred to the 1934 Season's Tidal Report which will be sent at a later date.

APPARATUS CORRECTION: The apparatus corrections on this sheet were applied only to the fathometer soundings. These consisted of corrections for temperature, salinity, and comparative vertical casts. The leadline and wire sheave checked throughout the season and found to be correct.

A further report on this subject will be sent later.

BOTTOM CHARACTERISTICS: The bottom characteristics in this area consisted mostly of fine grey sand and rock, with occasional specimen of shell or clay.

DANGERS: There appear to be no outlying dangers to navigation within the limits of this sheet. There were three offshore shoal indications developed, but two of these were found to differ not more than two or three fathoms from the surrounding area. The third located in Latitude 36° 08.9 and Longitude 121° 40.5 was thoroughly developed and a least depth of nine and one half fathoms was found in a twenty fathom area.

*Additional information requested*

It may be noticed as a distinguishing feature of this area that the ten fathom curve generally marks the limit of the kelp line except in a few isolated instances.

DISCREPANCIES: The junctions with Launch Sheets Nos. 1 and 3, and with the ship work of the two previous years were uniformly good. The comparisons with photostats H 2077 and H 2078 b show differences approaching one or two fathoms and in a few cases where the bottom is irregular, even more of a discrepancy. However, as has been observed before, part of this may be due to the strengthening of the control between the two surveys.

ANCHORAGES: There appear to be no suitable anchorages on this sheet.

Respectfully submitted,

L. W. Swanson,  
Jr. H & G Engineer,  
Coast and Geodetic Survey.

Forwarded:

Approved:

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

LIST OF SIGNALS  
to accompany  
HYDROGRAPHIC SHEET FIELD NO. 2

TRIANGULATION:

Hydrographic Name:

Locations:

BIG	Big Slate Rock, 1932
LEA	Leaning White Rock $\frac{1}{2}$ mile N. of McWay, 1932.
LONE	McWay, Lone Rock, 1 mile South of, 1932
RING	Spring, 1932.
STEEP	Steep, 1932.
TON	Partington Point, 1932.
WASH	Part awash North of Partington Point, 1932.
WAY	McWay, 1932.

TOPOGRAPHIC

Apr	Lie
Aug	May
Bill	Mon
Can	My
Car	Nov
Cliff	Oct
Day	One
Dec	Pan
Feb	Pea
Head	Pin
High	Rum
Hoe	Run
July	Sag
Kay	Say
Lad	Side
Lay	Tea
	Ted
	They
	Thur
	Tues
	Was
	Wed
	Yes

STATEMENT  
to accompany  
HYDROGRAPHIC SHEET FIELD NO. 2.

The smooth plotting on this sheet was done by Mr. H. Roberts, Draftsman, and the pencilling of the soundings was done by Mr. T. M. Means, Draftsman, under the general supervision of Lieutenant (j.g.) L. W. Swanson.

Lieutenant Swanson has drawn the depth curves.

The completed smooth sheet has been inspected and is approved. ✓

*F. H. Hardy*

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

Oakland, California.

STATISTICS  
to accompany  
HYDROGRAPHIC SHEET FIELD NO. 2.

Date	Day	No. of Sdgs.		No. of Pos.		Stat. Miles		Stat. Miles to & From	Boat
		Mach.	H.L.	Mach.	H.L.	Mach.	H.L.		
1934	Letter								
8-8		62	249	27	65	3.5	8.5	7.5	Motorsailer
8-19		190	58	105	16	14.0	3.3	10.0	"
8-20		125	123	65	25	9.0	4.8	11.0	"
8-21		107	252	54	71	4.4	12.0	11.5	"
8-22		93	99	48	28	5.8	4.0	5.25	"
Total for M-S		577	781	299	205	36.7	32.6	45.3	

	Fath.		Fath.		Fath.		V.C.	Stat. Miles to & From	Boat
	RL.D.	RL x 6	RL.D	RL x 6	RL.D	RLx6			
8-18	750		137		42.5		7	30.1	Ship
8-23	245	27	53	8	17.0	1.0	1	28.7	"
8-24	54		12		2.1			45.6	"
Total for Ship		1049	27	202	8	61.6	1.0	8	104.4

	Mach. & H.L.		Mach. & H.L.		Mach. & H.L.		V.C.	104.4
	Fath.	Fath.	Fath.	Fath.	Fath.	Fath.		
Total for Sheet	577	781	299	205	36.7	32.6	8	45.3
	1049		202		61.6			
	27		8		1.0			
	1653	781	509	205	99.3	32.6	8	149.7

Area of Hydrography 12.0 square statute Miles.

LAC

F.E

March 27, 1935.

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
3 volumes of sounding records for

*checked*

HYDROGRAPHIC SHEET 5620

Locality Little Slate Rock to Grimes Point, California Coast

Chief of Party: F. H. Hardy in 1934  
Plane of reference is mean lower low water reading  
2.5 ft. on tide staff at Monterey  
12.5 ft. below B.M. 3

Height of mean higher high water above plane of  
reference is 5.3 feet.

Condition of records satisfactory except as noted below:

*Starnamer*  
Acting Chief, Division of Tides and Currents.





## Section of Field Records

Report on H-5620  
Chief of Party, F.H. Hardy  
Protracted by H. Roberts

Surveyed in Aug. 1934  
Surveyed by R.F.A. Studds, G. C. Mast  
Soundings plotted by T.M. Means

Verified and Inked by Irvin Michaelson

1. The records are neat and legible and conform to the general requirements of the Hydrographic Manual. However, depths of 10 fm. and a fraction were plotted as 10 fm. or 11 fm. The verifier plotted these in the proper manner. In recording soundings, rocks were evidently ignored since there were few notes in the sounding volumes concerning them, even tho the sounding line passes close by or turns because of a rock.
2. The usual depth curves may be completely drawn.
3. Soundings were correctly plotted. Protracting was excellent.
4. Field drafting was good; the lettering of position and day letters good. All rocks however, were not transferred from T-4876 & T-4877 - several rocks outside the foul area and in clear water having been neglected. Rocks and notations on H-5620 were transferred from the Topo. Sheets by the verifier.
5. Junctions
  - On the north with H-5619 (1934)
  - " " south " H-5640 (1934)Verification of these sheets has not been completed. No overlap was made.
  - On the west with H-5477 (1933) - Scale 1:40,000
  - " " N.W. " H-5313 (1933) - Scale 1:40,000.
6. a. With reference to the shoal development at Lat.  $36^{\circ}08'.85$ , Long  $121^{\circ}40'.45$ , with a least depth of  $9\frac{1}{2}$  fm., a note at pos. 14 A in the Sounding Volumes, states, "Shoal indications 10 fms. full right." This area was not developed on the sheet.  
b. Several soundings between Pos 29A and 30A. appear impossible and Capt Ellis recommends that they be rejected. { Lat.  $36^{\circ}11'.2$   
Long.  $121^{\circ}43'.53$   
c. Also there are notes in the record stating, "Fathometer indicates depth of approx. 200 fms." - etc These have been plotted.

Respectfully Submitted

Irvin Michaelson 4/12/35.

is not disposed of by letter from the field party it is recommended that when feasible a more thorough development of the immediate area of this sounding be made.

11. Superseding Old Surveys.

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

H-2077 (1891) in part.

H-2078 (1891) " " (except as noted in par. 6,a )

12. Reviewed by Harry T. Kelsh, April 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

*L. O. Tolbert*  
Chief, Division of Charts.

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

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5620

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

Number of positions on sheet	<u>714</u>
Number of positions checked	.....
Number of positions revised	.....
Number of soundings recorded	<u>2434</u>
Number of soundings revised	.....
Number of signals erroneously plotted or transferred	.....

Date:

Verification by IRVIN MICHAELSON

Time: 28  $\frac{1}{2}$  hrs

Review by

*Harry T. Kelsch*

Time: 14 hrs

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

*8DKTA*  
*82 Green*  
*1935 JUN 12:25 PM*  
*CH*

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY  
Steamer GUIDE, 510 Custom House,  
San Francisco, California,  
June 5, 1935.

To: The Director, U. S. Coast & Geodetic Survey,  
Washington, D. C.

From: The Commanding Officer, U.S.C. & G.S.S. GUIDE.

Subject: Shoal Sounding, Chart H 5620.

Reference: Director's letter dated May 6, 1935, No. 89-SD.

The  $9\frac{1}{2}$  fathom Fathometer sounding referred to in the above reference has been covered and sheared by the wire drag, set at an effective depth in excess of 70 feet. This clearly proves that the Fathometer sounding recorded was incorrect and should be expunged.

*F. H. Hardy*  
F. H. Hardy,  
H. & G. Engineer, C. & G. S.,  
Commanding Ship GUIDE.

*9 1/2 fm sounding removed  
from sheet.*  
*A.L.S.*

C.K.G.C  
GNC

80-SD

May 6, 1935.

To: The Commanding Officer,  
U. S. Coast and Geodetic Survey,  
Ship GUIDE,  
510 Customhouse,  
San Francisco, California.

From: The Director,  
U. S. Coast and Geodetic Survey.

Subject: Section of H-5620, shoal sounding.

Inclosed is a section of your survey, H-5620, Little  
Slate Rock to Grimes Point, California. The history of a  
shoal sounding (encircled on the photostat) follows:

At lat. 36°08.9', long. 121°40.5', a single  
10 fathom (reduced to 9½) fathometer sounding  
(pos. 13-14A) was obtained by the GUIDE in depths  
of 19 to 20 fathoms and just after a "miss". A  
note in the remarks column states "indications of  
shoal water about 10 fathoms". The shoal was later  
developed with the motor sailer (20-39D) but no  
evidence of the 9½ was found, however, no sounding  
was obtained directly over the 9½. The Descriptive  
Report (page 2) nevertheless states "the shoal . .  
. . . was thoroughly developed and a least depth of  
nine and one half fathoms was found in a twenty  
fathom area".

Since the shoal was not verified by the motor sailer's  
development, the feature cannot be charted with confidence from  
the present records. If the single fathometer sounding is correct,  
a pinnacle rock with less depth is possible.

Please have the wire drag unit attached to your party prove  
or disprove the existence of a shoal in this locality as soon as  
practicable. The area should be dragged at an effective depth of  
not less than 70 feet.

(SIGNED) F. H. HAWLEY

Inclosure.

Acting Director.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5620 (1934)

Little Slate Rock to Grimes Pt., California.

Surveyed in August, 1934

Instructions dated April 4, 1932, March 27, 1933 (GUIDE)

Fathometer, Wire and Hand Lead Soundings - 3 Point control on Shore signals.

Chief of Party - F. H. Hardy.

Surveyed by - R. F. A. Studds, G. C. Mast.

Protracted by - H. Roberts.

Soundings penciled by - T. M. Means.

Verified and inked by - Irvin Michaelson.

1. Condition of Records.

The records are clear, legible, and conform to the requirements of the Hydrographic Manual with the following exceptions:

a. The position letters were entered in the correct colors on the cover and title page, but not the position numbers. This was accomplished in the office.

b. No notes were entered in the records regarding rocks passed close to by the motor sailer.

c. No copy of Landmarks for Charts on Form 567 accompanied this particular sheet.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

3. Sounding Line Crossings.

No general system of cross lines was run, but such as occur on the work, and adjacent lines, check well with the exception of soundings following position 29A to the second sounding following 30A (approx. lat.  $35^{\circ}11.3'$ , long.  $121^{\circ}43.61'$ ) which appear considerably too deep.

4. Depth Curves.

Within the limits of the survey all the usual depth curves may be satisfactorily drawn, including portions of the three and five fathom curves.

5. Junctions with Contemporary Surveys.

The junction with H-5619 (1934) on the north, and H-5640 (1934) on the south will be considered in the reviews of those sheets. The junction with the offshore sheets, H-5477 (1933) and H-5313 (1933) are satisfactory.

6. Comparison with Prior Surveys.a. H-2077 (1891) and H-2078 (1891).

These surveys on a 1-20,000 scale cover with moderate development the area of the present survey and, in general there is an excellent agreement in depths. The inshore development is not as detailed as on the present survey, but at lat.  $36^{\circ}10.4'$ , long.  $121^{\circ}41.7'$  the small bay was surveyed on a 1-5000 scale on H-2078 and these soundings should be retained for use in any large scale charts. A number of vertical cast soundings in the vicinities of the submarine valleys have also been carried forward from H-2078 as well as a  $6\frac{1}{2}$  and  $8\frac{1}{2}$  fathom sounding in lat.  $36^{\circ}09.4'$ , long.  $121^{\circ}40.46'$ .

7. Comparison with Chart No. 5302.

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

8. Field Plotting.

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

9. Doubtful Soundings.

a. At lat.  $36^{\circ}08.9'$ , long.  $121^{\circ}40.5'$ , a single 10 fm. (reduced to  $9\frac{1}{2}$ ) fathometer sounding (pos. 13-14A) was obtained by the GUIDE in depths of 19 to 20 fms. and just after a "miss". A note in the remarks column states "indication of shoal water about 10 fms." The shoal was later developed with the motor sailer (20-39d) but no evidence of the  $9\frac{1}{2}$  was found, however, no sounding was obtained directly over the  $9\frac{1}{2}$ . The descriptive report (page 2) nevertheless states "the shoal.....was thoroughly developed and a least depth of nine and one half fathoms was found in a twenty fathom area". This matter has been referred to the field party for further information. ~~Pending this, the  $9\frac{1}{2}$  has been retained on the sheet.~~ \*

b. A line of soundings (pos. 28 to 30A) crossing the submarine valley in approx. lat.  $36^{\circ}11.3'$ , long.  $121^{\circ}43.6'$  appears too deep in comparison with a close adjacent line (pos. 9 to 12c), which introduces an unnatural convolution in the 100 fm. depth curve. However, there is some indication of irregularities in this vicinity and the line has therefore been retained.

10. Additional Work Recommended.

This survey is ~~complete~~ except for the disposition of the  $9\frac{1}{2}$  fathom shoal sounding discussed under paragraph 9, this review, and if this

\*  $9\frac{1}{2}$  fm. sounding disproved by wire drag - effective depth 70 ft. + .  
See attached letter from Chief of Party, June 5, 1935.



25 J-10, 1936  
EHS

Applied to drawing of Chart 5302 - Feb'y, 12, 1936 - J.F.W.  
Applied to drawing " " 5402 - Feb 25, 1936 R.M.Z.