

5312

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*  
Field No. .... Office No. *5312*

LOCALITY

State *California*

General locality *El Jaro*

Locality *Point to Needle  
Rock Point*

1932

CHIEF OF PARTY

*Fred S. Peacock*

LIBRARY & ARCHIVES

DATE .....

5312

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES  
OCT 14 1933  
Acc. No. \_\_\_\_\_

REG. NO. 5312

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. 7

REGISTER NO. 5312

State California

General locality Pacific Coast

Locality Needle Rock Pt., to El Jorro Pt.

Scale 1 : 10,000 Date of survey November 14, to November 26, 1932

Vessel Chartered Launch ROGUE

Chief of Party Fred. L. Peacock

Surveyed by A. N. Stewart

Protracted by E. E. Garnett

Soundings penciled by E. E. Garnett

Soundings in fathoms foot

Plane of reference M. L. L. W.

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

Inked by \_\_\_\_\_

Verified by \_\_\_\_\_

Instructions dated April 4, 1932, 19\_\_\_\_

Remarks: Positions by visual sextant fix. Leadline soundings.

XWW 9/22/92

Approved & Chg 52402 - Mar. 1935 - J. O. G. Smith

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SHEET FIELD NO. 7  
Coast of California  
U.S.C. & G.S.S. GUIDE  
1932

INSTRUCTIONS: Instructions for the hydrography on this sheet are dated April 4, 1932.

LOCALITY: The work on this sheet is the inshore launch hydrography extending from approximately Latitude  $37^{\circ} 01.3$  to Latitude  $36^{\circ} 57.3$  along the California Coast.

LIMITS: This sheet covers about 9.7 square statute miles of hydrography. It joins Launch Sheet Field No. 6 on the North, Launch Sheet Field No. 8 on the south and Ship Sheet Field No. 48 on the west.

CHARACTER OF WORK: The hydrography on this sheet is all fixed position launch hydrography. The soundings were all obtained by hand lead.

The depth range is from  $1 \frac{2}{6}$  fathoms to 22 fathoms. Very little work was done beyond the twenty fathom curve.

The line spacing is approximately 75 meters inside the ten fathom curve and is approximately 150 meters outside the ten fathom curve.

Cross lines are spaced approximately 3 miles apart.

The position interval is in general 3 to 4 minutes with supplemental positions at radical changes of course and speed.

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

DATES OF SURVEY: Work on this sheet began November 14, 1932 and was concluded November 26, 1932.

CONTROL: The control for the hydrography on this sheet consists of triangulation of the 1931 scheme executed by Lieutenant C. D. Meany, plotted on the North American 1927 adjusted datum, and hydrographic signals located by the 1932 topographic unit of the Ship GUIDE'S party.

TIDAL REDUCERS: Tidal reducers for the soundings on this sheet were obtained from the Santa Cruz automatic tide station. There was no correction applied for either time or range.

For further information on this subject the reader is referred to the Season's Tidal Report, which covers all the tidal work of the party on the Ship GUIDE from April 28, 1932 to February 28, 1933.

LEADLINE CORRECTIONS: It should be noted that considerable trouble was had during the season due to the shrinkage of the leadlines. Leadlines were checked regularly before and after each days work and often during the days work. The leadlines used were mahogany, phosphor bronze wire center, No. 8 braided tiller line; furnished by the Washington Office.

BOTTOM CHARACTERISTICS: In general the bottom is rocky to approximately the ten fathom curve and fine gray and brown sand from the ten fathom curve to the limits of the sheet.

DANGERS AND SHOALS: There appears to be no dangers on this sheet beyond the shoal water immediately adjacent to the shore.

JUNCTIONS: The junctions with Launch Sheet Field No. 6 and 8 and Ship Sheet Field No. 48 are good.

H-5266

DISCREPANCIES: Because of the character of the bottom where differences in soundings occur it is felt that these soundings are correct and that few if any, discrepancies occur on this sheet.

Respectfully submitted,

*Lawrence W. Swanson*

Lawrence W. Swanson,  
Jr. H. & G. Engineer,  
U.S.C. & G. Survey.

*A. Newton Stewart*

A. Newton Stewart,  
Jr. H. & G. Engineer,  
U.S.C. & G. Survey.

Respectfully forwarded,  
Approved:

*Fred. L. Peacock*

Fred. L. Peacock,  
Chief of Party, C. & G. Survey,  
Commanding Ship GUIDE.

STATISTICS  
to accompany  
HYDROGRAPHIC SHEET FIELD NO. 7

Date 1932	Day	Statute Miles Sounding Lines	No. of Positions	No. of Soundings
11-14	a	28.5	122	430
11-15	b	23.7	119	350
11-16	c	23.1	149	747
11-17	d	29.7	132	452
11-18	e	13.7	91	339
11-26	f	<u>12.2</u>	<u>81</u>	<u>233</u>
		130.9	694	2351

Area in square statute miles, 9.7

LIST OF SIGNALS  
to accompany  
HYDROGRAPHIC SHEET FIELD NO. 7

TRIANGULATION

Hydrographic Name	Location
Cab	N. W. Cable Tower
Glass	Glass, 1931
Jaro	Jaro, 1931
Lag	Lag, 1931
Oil Derrick	Oil Derrick, 1931
Pars	Pars, 1931
Tow	S. E. Cable tower

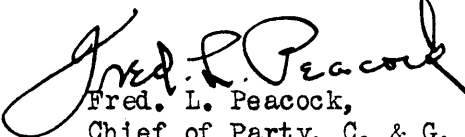
TOPOGRAPHIC

	Topographic Sheet G
Ban	"
Bil	"
Bul	"
Cut	"
Der	"
Dog	"
Dog 2	"
Don	"
Fat	"
Fay	"
Gun	"
Jag	"
Jery	"
Kil	"
Lois	"
Lop	"
Man	"
Marg	"
Non	"
Pat	"
Rat	"
San	"
Sou	"
Tank	"
Tom	"
Ton	"

STATEMENT  
to accompany  
HYDROGRAPHIC SHEET FIELD NO. 7  
Coast of California  
U.S.C. & G.S.S. GUIDE  
1932

The protracting of this sheet and the penciling of soundings thereon was done by Mr. E. E. Garnett, Civil Engineering Hand, under the direct supervision of Lieutenant (j.g.) L. W. Swanson.

Lieutenant Swanson has drawn the depth curves and verified at least ten percent of the positions and soundings. The completed smooth sheet has been inspected and is approved. However, in as much as the plotting of this sheet was done by a temporary employee, it is recommended that office verification be correspondingly rigid.

  
Fred. L. Peacock,  
Chief of Party, C. & G. Survey,  
Commanding Ship GUIDE.

Oakland, California,  
October 9, 1933.

VARIATION OF SOUNDING METHOD IN DEPTHS TOO GREAT FOR ORDINARY HAND  
LEAD SOUNDING:

The deeper soundings on this sheet were obtained by a slight modification of the usual hand lead sounding.

Whenever the depth became so great that any difficulty was experienced in obtaining vertical lead line casts at regular sounding speed the launch engine clutch was disengaged at the command "Sound", and was re-engaged when the sounding had been obtained. This method was resorted to because of the small amount of work necessary outside the fifteen fathom curve and was particularly feasible in that the launch was equipped with pilot house control which enabled the helmsman to view the operations of the leadsman and control the engine accordingly.

Another consideration was the exceptional ability of the two leadsmen and their consistent cooperation in advising the hydrographer with respect to the proper speed to enable them to obtain vertical soundings under the conditions of depth, wind and sea being encountered.

A fourteen pound lead was used for all soundings outside the ten fathom curve.

Although a hand wire sounding machine was installed on the launch, ready for use, the method detailed above was favored, since in the opinion of the hydrographer it gave better control of the sounding line and was faster.

The regularity with which the engine clutch was manipulated appeared to insure satisfactory accuracy with respect to the spacing of soundings intermediate between points.

All recorded soundings were made with the lead line vertical and all doubtful soundings were rejected at the time.

Respectfully submitted,

*A. Newton Stewart*  
A. Newton Stewart,  
Jr. H. & G. Engineer,  
U.S.C. & G. Survey.  
Hydrographer.

*For further information regarding  
this letter see Dec. Rept. H-5296*



October 19, 1933

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
2 volumes of sounding records for

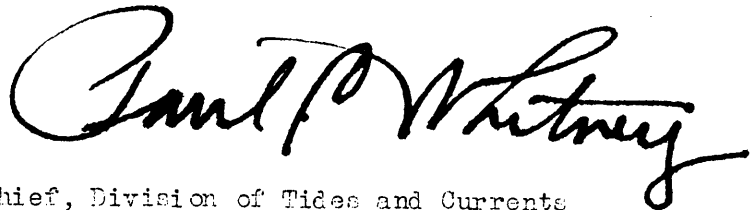
HYDROGRAPHIC SHEET 5312

Locality Needle Rock Point to El Jarro Point, California Coast

Chief of Party: Fred L. Peacock in 1932  
Plane of reference is mean lower low water reading  
3.0 ft. on tide staff at Santa Cruz  
14.5 ft. below B. M. 2

Height of mean ~~high~~ high water above plane of reference is <sup>4.6</sup> 5.3 feet.

Condition of records satisfactory except as noted below:



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. 82-AAP

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

October 30, 1933.

SECTION OF FIELD RECORDS

Verification Report on Hydrographic Sheet No. 5312.  
El Jarro Pt. to Needle Rock Pt.  
Pacific Coast, Calif.

Chief of Party - Fred L. Peacock.  
Surveyed by - A. N. Stewart.  
Protracted by - E. E. Garnett.  
Soundings penciled by - E. E. Garnett.  
Verified and inked by - W. L. Mullen.

The records conform to the requirements of the Hydrographic Manual.

The five and ten fathom curves can be completely drawn.

The two, three and twenty fathom curves can be partially drawn.

The field plotting was complete and accurate.

The curves were not smoothly drawn and a very hard pencil was used making deep indentations in the paper.

A visual method of verification was used and sounding lines checked with dividers on the projection lines. The positions of all soundings appearing to be out of place were checked by protracting.

W. L. Mullen.

SECTION OF FIELD RECORDS  
Review of Hydrographic Survey No. 5312.  
Needle Rock Point to El Jarro Point, California.  
Surveyed in 1932.  
Instructions dated April 4, 1932 (G U I D E)

Chief of Party - F. L. Peacock.  
Surveyed by - A. N. Stewart.  
Protracted and soundings plotted by - E. E. Garnett (Temp. employee)  
Verified and inked by - W. L. Mullen (Temp. employee).

1. The records are in conformity with the provisions of the Hydrographic Manual.

2. Instructions for the Project.

The work conforms with the Instructions for the Project. It is assumed that it was unsafe to extend the work closer inshore.

3. Depth Curves.

The usual depth curves can be completely drawn with the exception of those close inshore. The inshore hydrography ends approximately at the 3 fathom curve.

4. Crossings.

The sounding line crossings are excellent.

5. Junctions with Surveys.

The junction with the offshore sheet H. 5266 is satisfactory. Where the two sheets overlap there is a discrepancy in certain sections of 1 to 2 fathoms, the offshore fathometer sheet being always shoaler. This could result from either a variation in the fathometer soundings or the hand lead soundings not being truly vertical. It is not believed to be due to irregularities of the bottom. Comparative soundings taken on H. 5266 in close proximity to the line in question shows excellent agreement and indicates that the fathometer was functioning properly. In the compilation preference should be given the fathometer work.

6. Field Drafting.

The usual amount of field plotting was accomplished and insofar as the verification extended was found to be accurate. Only a small percentage of the boats positions were reprotracted by the office cartographer, these being confined to the positions that were found to differ from the boat sheet or that appeared erroneous.

In connection with the field plotting, it is suggested that the field party's attention be called to the need for using a soft pencil no harder than a 2H for penciling the depth curves on the smooth sheet. These curves are invariably altered in the final verification of the sheet and

H. 5312-2.

if a hard pencil is used, as was done on this sheet, it becomes almost impossible to remove their traces.

7. Comparison with old surveys.

There is a general good agreement between this survey and H. 379 (1853) and H. 505 (1855). The small cove known as Williams Landing was surveyed on H. 505, but no soundings were taken in this cove at the present survey.


8. Additional Work.

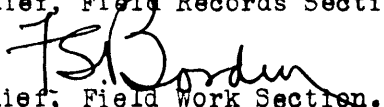
No additional work is recommended within the limits of this sheet except that if Williams Landing is a used place, it should be examined possibly on a 1-5,000 scale. *See <sup>also</sup> report on add. work.*

9. Information for Compiler.

The present survey is considered the basic survey for this area and should supersede all previous surveys for charting purposes. However, if no additional work is done in Williams Landing, the information shown on H. 505 in this cove can be used in charting. It was not considered advisable to transfer any of these depths to the new survey, because of their date as well as the uncertainty of the control used.

10. Reviewed by - A. L. Shalowitz - Nov. 1933.

  
L. O. Colbert,  
Chief, Field Records Section.

  
Chief, Field Work Section.

Examined and approved:

  
Chief, Division of Charts.

  
Chief, Division of H. & T.

5312 and Additional work (1935)

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

OCT 14 1933

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

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: California

DESCRIPTIVE REPORT

5312

~~Topographic~~  
Hydrographic

} Sheet No. 7

LOCALITY

California Coast

El Jarro Point to Needle Rock Point

1932

CHIEF OF PARTY

Fred. L. Peacock

5312 and Additional work (1935)

# 5312

## Additional work (1935)

SUPPLEMENTAL DATA  
WIRE DRAG SHEET FIELD NO. 7

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

SEP 9 1935

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

The following soundings were taken on July 31, 1935,  
northwest of the dock at Davenport. These positions can be plotted  
on H 5312 or the wire drag sheet this vicinity.

Time	Sounding		Tide Reducer Ft.	Reduced Sounding		Angles
	Fm.	Ft.		Fms.	Ft.	
1:04	5	4	4 ✓	5	-	Sou 39 25 South } 56-50 North 17 25 North-Jaro 64 30
1:07	5	1	4 ✓	4	3	Sou 56 37 North Jaro 66 54
1:36	4	5	4 ✓	4	1	Sou 39 43 South } 57-38 North 17 55 South-Jery 58 53 South-Jaro 84 15

*Copy filed  
1935*

The above work was done by Lieutenant Commander G. C. Jones,  
using the wire drag tender.

The boat sheet is forwarded with this report.

*F. H. Hardy*  
F. H. Hardy,  
Commanding Ship GUIDE.

Tide reducers approved  
Tides, etc. SEP 13 1935

*No tide observations available  
at this office, tide reducers verified  
by predictions for Santa Cruz. RAC*

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5312 Additional Work of 1935.

Surveyed in July, 1935.

Hand Lead Soundings.

3 Point Fixes on Shore Signals.

Chief of Party - F. H. Hardy.  
Surveyed by - G. C. Jones.

1. Purpose of Survey.

The purpose of this additional examination was to investigate an unverified reported shoal northwest of the dock at Davenport and shown on H-5712 W. D. (1934). A diver reported a rock at least 10 feet above the average bottom. The depth over the rock was not estimated, but a depth of 3 fathoms was recommended for charting pending a further examination. (See par. 7c, review of H-5712 W.D. 1934).


2. Results of Survey.

No description of the present investigation was submitted. However, it is assumed that only the shoalest depths were recorded after a thorough examination. The least depth found was 4-1/6 fathoms. This depth falls between soundings of 5-4/6 and 6-1/2 fathoms on H-5312 (1932-5) and the difference between these depths and the 4-1/6 fathom would agree with the diver's description of the shoal. In view of the somewhat uncertainty of the 3 fathom depth, the 4-1/6 fathom sounding should be accepted as the least depth on this shoal. Both H-5312 (1932) and H-5712 W. D. (1934) have been corrected accordingly.


Reviewed by - R. L. Johnston, Dec. 18, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

  
Chief, Division of Charts.

  
Chief, Section of Field Work.

  
Chief, Division of H. & T.