

5345

5345

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R.S.Patton, Director

State: CALIFORNIA

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 1 5345
Hydrographic }

LOCALITY

Montara Point.

Seal Cove to Montara Point.

19 33

CHIEF OF PARTY

Fred L. Peacock.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5345

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. 1

REGISTER NO. 5345

State California

General locality Montara Point

Locality Seal Cove to Montara Point.

Scale 1:5,000 Date of survey April 28, 1932
October 11, 1933

Vessel Chartered Launch ROGUE, U.S.C. & G.S.S. GUIDE

Chief of Party Fred. L. Peacock

Surveyed by Fred. L. Peacock, A. Newton Stewart

Protracted by A. Newton Stewart; R. D. Dewell

Soundings penciled by R. D. Dewell

Soundings in fathoms feet

Plane of reference M L L W

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated April 4, 1932

Remarks: Positions by visual sextant fix.

Soundings by leadline.

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET FIELD NO. 1
Project No. 101
Coast of California
U.S.C. & G.S.S. GUIDE
1932-1933

INSTRUCTIONS: Instructions for the hydrography on this sheet are dated April 4, 1932. Particular attention is called to this area in paragraph fourteen.

LOCALITY: This sheet covers the inshore area off Montara Point, California, extending northward from Latitude $37^{\circ}31.1$ for a distance of about 1.6 miles. It extends offshore to a depth of 15 fathoms or more, and covers an area of 1.9 square statute miles.

LIMITS: This sheet joins Ship Sheet Field No. 43 on the west, Sheet No. H4977 on the north and Sheet No. H4978 on the south.

CHARACTER OF WORK: The hydrography on this sheet is all hand lead sounding with visual fix control.

The depths range up to a maximum of 18 fathoms for the work done by the Launch. The ^{Ship}GUIDE obtained soundings between 13 and 19 fathoms.

The area was first covered by a system of lines spaced approximately 75 meters run in a north and south direction. This was followed by an intensive development inside the ten fathom curve by means of closely spaced lines run in a southeasterly and northwesterly direction, and by detached soundings over shoal areas. Particular attention was paid to those shoals lying farthest offshore.

The position interval ranges from two to four minutes, the usual interval being about three minutes. Supplemental positions were obtained at radical changes of course and speed.

Paragraph twenty-three of the instructions states that the scale of the Launch Sheets should be on a scale of 1:10,000. The field work was done on that scale. However because of the large amount of development done it was decided in order to show the development that the smooth sheet should be plotted on a scale of 1:5,000.

Most of the work was done between April 28 and July 14, 1932, by the chartered Launch ROGUE. Some additional work was done on the outer limits in the vicinity of the 15 fathom curve by the ^{Ship}GUIDE on October 11, 1933.

CONTROL: The control for the hydrography on this sheet consists of positions determined by triangulation in 1929 by Lieutenant-Commander L. W. Swainson and in 1931 by Lieutenant C. D. Meany, and of topographic signals located by the 1932 topographic unit of the Ship GUIDE's party. These positions are plotted on the North American 1927 adjusted datum.

TIDAL REDUCERS: Tidal reducers for the launch soundings on this sheet were obtained from the Princeton Automatic Tide Station. There was no correction applied for either time or range.

For the ship soundings tides from the San Francisco Standard Station were used. A correction of minus 45 minutes for time was applied, and no correction for 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 shrinkage of leadlines. Leadlines were checked regularly before and after each days work. Corrections to soundings were obtained by direct proportion between the times of the morning and evening corrections.

BOTTOM CHARACTERISTICS: Numerous bottom characteristics well distributed over the sheet were obtained. In general the bottom is rocky to the ten fathom curve and on the southern part of the sheet rocky to about the fifteen fathom curve. Beyond these limits the bottom is sand or gravel. All shoals developed were rocky.

GENERAL CHARACTER OF AREA: The general character of almost the entire area covered on this sheet is extremely rough and irregular. A series of rocky ridges extend offshore in a northwesterly direction. Rocks and small shoals are very numerous in the vicinity of the five fathom curve and then shoreward, and it is doubtful if even the most rigid handlead survey could find all the critical soundings in this area.

The general irregular character of the bottom was noted at times to extend into prevailing depths of 17 fathoms.

DANGERS AND SHOALS: All outer shoal indications were carefully felt over with the leadline. On some of these the least water had been found previously while running sounding lines.

The ten fathom curve is very irregular, with deep indentations between the ridges previously mentioned. The outer limits of this curve extend to Longitude $122^{\circ}32.1$ with shoal spots at Latitude

37°32.8, 37°32.2, 37°31.9 and 37°31.7. From this point south the ten fathom curve trends in a south southeasterly direction where there is another shoal at Latitude 37°30.3 and Longitude 122°31.9.

The outermost positions of five fathoms or less were obtained in Latitude 37°32.0 and Longitude 122°31.8 and at Latitude 37°31.8 and Longitude 122°31.8.

A thorough sounding out of the four foot spot shown on previous surveys in Latitude 37°32.2 and Longitude 122°31.6 failed to reveal less than 1 2/6 fathoms. A very little kelp, hardly noticeable, was growing here. See Review
par. G, d.

Further development closer inshore than the positions given would very likely reveal more shoal soundings than have been obtained.

A smooth sheet tracing on which is delineated the least depth found on shoals and also critical soundings in other places accompanies the smooth hydrographic sheet,

The course of vessels passing this area should be so laid as to insure that they will pass not less than one mile off Montara Point Lighthouse, as the lead is practically useless as a guide in this area.

JUNCTIONS: Satisfactory junctions have been obtained with Sheet No. H4977 on the north, Sheet No. H4978 on the south and Ship Sheet Field No. 43 on the west.

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.

COMPARISON WITH PREVIOUS SURVEYS: The general characteristics of this area have been shown by a previous survey on sheet No. H835a. However a close development has shown the ten fathom curve to extend farther offshore than shown previously, and more shoal water has been found in many places.

There was little or no kelp growing in the area covered by this sheet to assist in locating shoal areas. About the time this survey was being made the Hydrographic Office of the Navy, in its bulletins, stated there was a scarcity of kelp along the coast.

In view of this it is felt that where kelp has been shown by previous surveys to exist it should continue to be shown on charts.

Respectfully submitted,

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.

LIST OF SIGNALS
to accompany
HYDROGRAPHIC SHEET FIELD NO. 1
Project No. 101

TRIANGULATION

Hydrographic Name	Location
Mont	Montara Point Lighthouse, 1929
Tank	Montara Radio Compass Tank, 1929
Pil	Tank, Pillar Point, 1929
Whale	Whale, 1929
Tack	Stack on house north of Pillar Point, 1931.

TOPOGRAPHIC

	Topographic Sheet A
West	" "
White	" "
Top	" "
Shack	" "
Ben	" "

FIELD SHEET NO. 1
TIDAL DATA

Bregante Wharf, Princeton, Half Moon Bay, portable automatic tide gage station was used for reducing all launch soundings. It was not necessary to apply a correction for either time or range.

M L L W	3.10 feet
H W I	10.49 hours
L W I	3.96 hours
Mean Range	3.87 feet

The San Francisco Standard Gage Tide Station was used for reduction of ship soundings. A correction of minus forty-five minutes for time was applied and no correction for range.

M L L W	5.50 feet
H W I	11.67 hours
L W I	4.97 hours
Mean Range	3.93 feet

STATISTICS
to accompany
HYDROGRAPHIC SHEET FIELD NO. 1
Project No. 101

Date	Day	Statute Miles Sounding Lines	No. of Positions	No. of Soundings
1932-ROGUE				
4-28	a	2.6	13	60
4-29	b	22.3	195	503
5-9	c	18.2	152	463
6-1	d	5.9	50	183
6-2	e	14.9	134	503
6-7	f	11.5	103	370
6-15	g	7.5	64	309
6-19	h	.3	38	55
6-20	j	13.1	112	310
6-23	k	16.0	152	487
7-14	l	6.0	23	60
Totals-ROGUE		<u>118.3</u>	<u>1036</u>	<u>3303</u>
1933-GUIDE				
10-11	A	<u>9.1</u>	<u>76</u>	<u>145</u>
TOTALS		127.4	1112	3448

Area in square statute miles:

ROGUE	1.60
GUIDE	<u>.30</u>
TOTAL	1.90

STATEMENT
to accompany
HYDROGRAPHIC SHEET FIELD NO. 1
Project No. 101
Coast of California.
U. S. C. & G. S. S. GUIDE
1932-1933.

The protracting of the Launch work on this sheet was done by Lieutenant (j.g.) A. Newton Stewart. The ship work was protracted and the soundings penciled by Mr. R. D. Dewell, Civil Engineering hand, under the direct supervision of Lieutenant (j.g.) L. W. Swanson.

Lieutenant Stewart has drawn the depth curves and verified at least ten percent of the protracting and ten percent of the soundings penciled by Mr. Dewell.

The completed smooth sheet has been inspected and is approved. However as part of the work was done by a temporary employee, it is recommended that the Office verification be correspondingly rigid.

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

Oakland, California,
December 27, 1933.

lae

January 9, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 5345

Locality Seal Cove to Montara Point, California Coast

Chief of Party: Fred L. Peacock, 1932-1933

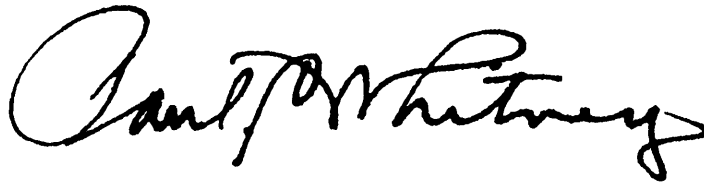
Plane of reference is mean lower low water, reading

3.1 ft. on tide staff at Princeton
13.7 ft. below B. M. 4

5.5 ft. referred to datum of tabulations, San Francisco
11.5 ft. above B. M. 166

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

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents

SECTION OF FIELD RECORDS

Report on H. 5345

Chief of Party - Fred L. Peacock.

Protracted by - A. N. Stewart, R. D. Dewell.

Verified and Inked by - Chas. R. Bush, Jr.

Surveyed April 28, 1933 - October 11, 1933.

Surveyed by - F. L. P., & A. N. S.

Soundings plotted by - R. D. Dewell.

The records do not conform to the requirements entirely. In several instances "Kelp" was noted but no location in references to sounding lines were given, nor did they always appear on the same line with a sounding in the record. In instances where shoal soundings were obtained in a comparatively deeper area, no notes were made verifying same.

The usual depth curves can be drawn on the smooth sheet due to the enlarged scale over the boat sheet.

The field plotting was completed to the extent of the general instructions.

Due to the fact that the work was executed on a scale of 1:10,000 and the smooth sheet plotted on a scale of 1:5,000 about 40 per cent of the positions had to be replotted in order to verify same. About 7 per cent of the positions checked were found erroneously plotted as were also a number of the soundings.

The junctions with H. 4977 and H. 4978 are very good considering how broken the bottom is.

Several items enter into this sheet which tend to cast some doubt as to the accuracy of the work. In the first place it would appear that Lieut. Stewart was greatly handicapped with a "green" crew. This is apparent from the "sloppy" way the records were kept in the beginning of the work and also from the numerous changes in the left angle. Due to this fact several portions of the work were omitted. It is apparent also that the work should have been executed on a scale of 1:5,000 rather than 1:10,000, due to the large amount of developing. The boat sheet was of practically no value in tracing shoals or in comparing it with the smooth sheet. This change in scale brings to light several doubtful places that could have been investigated had the work been performed on a scale of 1:5,000.

At Lat. 37°31'.6 Long. 122°31'.6 there appears a "2" fathom spot where there has evidently been no attempt to develop or investigate.

Other questionable spots where it appears investigations should have been made are as follows:

- Lat. 37°31'.55 Long. 122°31'.5 - a "3 2/6" spot.
- Lat. 37°32'.1 Long. 122°32' - a "6 5/6" spot.
- Lat. 37°32' Long. 122°31'.6 - a "4 5/6" spot.

The work as a whole is considered only fair.

Chas. R. Bush, Jr.
Submitted by - Chas. R. Bush, Jr.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5345(1932-3)

Seal Cove to Point Montara, California
Surveyed in 1932-3

Instructions dated April 4, 1932(GUIDE)

Hand lead soundings - 3-Point fixes on shore signals

Chief of Party - Fred L. Peacock.

Surveyed by - Fred L. Peacock, A. Newton Stewart.

Protracted and soundings penciled by - A. N. Stewart, R. D. Dewell.

Verified and inked by - C. R. Bush, Jr..

1. Condition of Records.

a. The records generally conform to the requirements of the Hydrographic Manual, however in the first volume of the launch records there is a note by the Chief of Party, which reads, "This is Lieut. Stewarts first volume of independent hydrography". This volume is poorly recorded and from the numerous corrections both to signals and angles, it would appear that the personnel was inexperienced. The remaining volumes show improvement.

Evidence that the transfer of topographic signals was checked in the field was lacking since the initials of the checker did not appear on the sheet. This has been done in the office.

2. Compliance with Instructions for the Project.

The character and extent of the survey complies with the instructions for the project with the following exceptions:

- a. No mention or recommendation was made in the descriptive report regarding a reported uncharted shoal which is mentioned in par. 14 of the instructions. The source of the report was a general verbal statement from Capt. T. J. Maher.
- b. The offlying rocks located on T-4524(1929) were not examined by the hydrographic party, (par. 10). All of these rocks however are fairly close inshore and do not fall within the limits of the hydrography.
- c. There are numerous shoal indications such as the 2 fathom spot in lat. $37^{\circ}31.6'$, long. $122^{\circ}31.63'$, which were not developed.

3. Sounding Line Crossings.

The entire area of this sheet is so broken and irregular that close agreement in cross lines can not be expected. For bottom of this character, the sounding line crossings are considered satisfactory.

4. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn, including portions of the 2 and 3 fathom curves.

5. Junctions with Contemporary Surveys.

Junctions with H-4977(1929), H-4978(1929) and the off shore sheet H-5395(1932-4) are adequate. In view of the irregularity of the bottom the agreement in depth is good.

6. Comparison with Prior Surveys.

a. H-241(1851) and H-290(1851).

These are open reconnaissance surveys on very small scales. They show more topography than hydrography and only one or two soundings fall within the limits of the present survey.

b. H-835(1863).

This survey is quite open, but is in fair general agreement with the present survey. It shows two shoal soundings not found on the present survey. A 1 4/6 fathom sounding in lat. 37°31.6', long. 122°31.4' and a 4 4/6 fathom sounding in lat. 37°31.17', long. 122°31.6'. The areas were not closely covered by the recent work and these soundings have been carried forward to the present survey.

c. H-835b (1884).

This is simply a tracing of the original survey, H-835(1863), showing the limits of the breaker areas located from shore observations during a moderately heavy southwest swell. The present survey shows depths which would account for breakers under these conditions.

d. H-835a (1909-10).

This is the most recent of the previous surveys and is in general good agreement with the present survey. Several shoaler depths are shown on this survey and all of them of any importance have been carried forward to the present survey. Because of the irregular character of this area it is not felt they are disproved. The most important of these is a 4/6 fathom sounding, rocky bottom, located by a detached fix (pos. 70b) in approximate lat. 37°32.2', long. 122°31.65'. After a fairly intensive examination the present survey found a least depth of 8 feet about 30 meters to the northwest. The present survey located numerous new shoals and generally obtained lesser depths over the old ones. With the indicated additions, the present survey should supersede H-835a(1909-10) because of its larger scale and greater detail.

7. Comparison with Chart No. 5530.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and also contains some of the critical soundings from the present survey which were charted from advance information in chart letters nos. 480 and 522 of 1932. Corrections made in the verification of the sheet will not materially affect the chart because of its small scale. The chart contains no information from outside sources that needs consideration in this review.

The shoreline and adjacent rocks, shown on H-5345(1932-3) which is already charted come from T-4524(1929) as no contemporary topography was done except the location of topo signals. Several sunken rocks, which fall in blank areas, have been carried forward to H-5345(1932-3) from T-1019(1866).

There are no offshore aids to navigation within this area.

8. Field Plotting.

The field plotting was only fairly well done. Approximately 7% of the positions were incorrectly protracted and a number of the soundings were not properly spaced. The boat sheet being on a scale of 1-10,000 was of no value for comparison with the smooth sheet and in verifying the sheet it was necessary to re-protract about 40% of the positions.

9. Additional Field Work Recommended.

a. It is not known at this time to what extent this area has been covered with the wire drag by the party of the Guide in 1934. One of their preliminary depths, (Chart letter No. 708, 1934) falls well within the area of the present survey. In case the drag work has not been carried to approximately 3/4 of a mile from the coast or a line connecting the offlying shoals under 6 fathoms, a great many of the offlying shoal soundings of the present survey should be further examined.

b. While the inshore area from lat. 37°31.8' to the southern limits of the sheet is not particularly well developed no additional work is called for since it is realized that the area is generally foul and of no commercial importance.

10. Superseding Old Surveys.

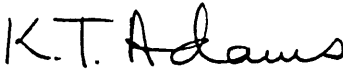
Within the area covered, the present survey with the indicated additions from previous surveys, supersedes the following surveys for charting purposes:

H-241 (1851) in part.
H-290 (1851) in part.
H-835 (1863) in part.
H-835b(1884) in part.
H-835a(1909-10) in part.


11. Reviewed by - R. J. Christman and R. L. Johnston, July 1934.


Inspected by - A. L. Shalowitz.

Examined and approved:


K. T. Adams,
Chief, Section of Field Records.


Chief, Division of Charts.


Chief, Section of Field Work.


Chief, Division of H. & T.

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, DIRECTOR.

DESCRIPTIVE REPORT

TOPOGRAPHIC SHEET A

CALIFORNIA COAST

VICINITY OF MONTARA POINT.

U. S. C. & G. S. S. GUIDE

PROJECT NO. 101

1932

FRED. L. PEACOCK, H. & G. ENGINEER, CHIEF OF PARTY

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET A -

CALIFORNIA COAST

*H 5345
as B.S.*

Vicinity of Montara Point.
1932

Authority:

Authority for this survey is contained in Instructions dated April 4, 1932.

Purpose:

This survey was made to locate hydrographic signals for Launch Hydrographic Sheet, Field No. 1. This sheet covers the gap left by the PIONEER in 1929 between sheets, Office Register Nos. H 435A, H 4977 and H 4978.

Control:

Adequate control was furnished by the Triangulation executed in 1929 by O. W. Swainson.

Survey Methods:

A traverse was run from triangulation station TURN, 1929 to Montara Light House, 1929; and from Montara Light House, 1929 to TANK, Pillar Point. Both traverses closed within the allowable limits. The hydrographic signals were located by rod readings or by three or more cuts.

The field work was executed by Lieutenant (j.g.) J. N. Jones, who is no longer attached to this party.

Respectfully submitted,

H. C. Applequist
H. C. Applequist
Aid, C. & G. Survey.

Respectfully Forwarded,
Approved:

Fred. L. Peacock
Fred. L. Peacock,
H. & G. Engineer, C. & G. Survey,
Chief of Party.

LIST OF TOPOGRAPHIC STATIONS

to accompany

TOPOGRAPHIC SHEET A -

CALIFORNIA COAST

H 5345
Las B.S.

VICINITY OF MONTARA POINT.

1932

OBJECT	REMARKS
Seaward Center, White Dance Hall	
West Gable, Large House	Center
Whitewash, Low on Point	
Tall Stack on House	
Red Chimney, Yellow House, Green Fence	
West Gable, Farralone Hotel	Center
Yellow Dome	Top
Window, S.W. Corner Unpainted House Near Bluff	
Gable on Painted House	Center
Peak, White House, Red Roof	Top
Porch Gable, Red House, Stone Chimney	Center
Chimney, Yellow House	
Radio Pole, Nye's Hotel	
Gable of Shack	Center
Banner	
Stack on Red House	
Peak of Large Cupola on Greyish House	Top

No descriptions of recoverable signals
in more detail than above are available.
J.P.P.

Comp. applied to chart 5072 after V&K En. 4964