

5676

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

DESCRIPTIVE REPORT

~~XXXXXXXXXX~~ } Sheet No. 15 - 1934
Hydrographic }

State CALIFORNIA

LOCALITY

SOUTHERN CALIFORNIA COAST

Pt. Medanos Pt.
~~MISSION BEACH~~ TO LA JOLLA

1934

CHIEF OF PARTY

ROBERT W. KNOX

5676

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. 15

REGISTER NO. 5676

State CALIFORNIA

General locality SOUTHERN CALIFORNIA COAST

Locality Pt. Medanos Pt.
MISSION BEACH TO LA JOLLA

Scale 1:10000 Date of survey May 21-Aug 2, 1934

Vessel Chartered Launch JOANNE

Chief of Party ROBERT W. KNOX

Surveyed by R. J. SIPE

Protracted by R. A. PHILLO

Soundings penciled by J. W. PARSONS

Soundings in fathoms ~~xxx~~

Plane of reference M L L W

Subdivision of wire dragged areas by None

Inked by R. W. Cochran

Verified by " " "

Instructions dated April 14, 1932

Remarks: _____

DESCRIPTIVE REPORT
To Accompany
SHEET (field) NO. 15
MISSION BEACH TO LA JOLLA
SOUTHERN CALIFORNIA
Scale 1:10000
1934

INSTRUCTIONS:

The authority for the execution of this survey was contained in the Director's Instructions dated April 14, 1932, Supplemental Instructions dated September 13, 1933, Supplemental Instructions dated March 9, 1934, and Telegraphic Instructions directed to Lieut.(j.g.)R.J. Sipe under date of December 22, 1933. Also in part by the Director's Instructions to the Commanding Officer, U.S.C. &G.S.S. PIONEER, dated June 23, 1934. ✓

SURVEY METHODS:

This survey was made with the chartered launch JOANNE. The sounding lines are spaced approximately 100 meters apart. Positions were obtained by the customary 3-point sextant fixes on shore objects located either by triangulation or topography. Soundings in depths up to 10 fathoms were taken with the ordinary hand lead line graduated to fathoms and half fathoms. In depths from 10 to 16-18 fathoms a modified trolley rig was employed, by which the 36 pound lead was dropped and hauled in by means of the gas-driven sounding machine over a boom rigged out on the port ✓

side forward, while the measuring line was read by the leadsman stationed on the port side aft. The measuring line consisted of a length of the usual graduated lead line spliced to an 8 fathom length of stranded wire inserted between the lead and the graduated portion. For depths of the order of 20 fathoms and over, vertical casts were taken with the sounding machine using a registering sheave reading to fathoms and tenths of fathoms.

DISCREPANCIES:

No serious discrepancies in the soundings are apparent, and the depths appear to be generally consistent.

Between Lat. 32-48 and Lat. 32-51, the bottom near the shore is very irregular, as is revealed by the shallower depth curves. This strip of coast is very rocky, and rock ledges doubtless extend well out into the water at numerous points. There are a few apparent inconsistencies where shoal soundings were obtained outside of deeper ones along the inshore lines. These are as follows: the sounding before Pos. 21d, pg.19, Vol.2, $1 \frac{4}{6}$ fathoms; the sounding before Pos. 22d, pg.19, Vol.2, 2 fathoms; the third sounding after Pos. 24d, pg.20, Vol.2, $1 \frac{1}{6}$ fathoms; the first sounding after Pos. 33d, pg.21, Vol.2, $2 \frac{1}{2}$ fathoms; the second sounding after Pos. 35d, pg.22, Vol.2, $2 \frac{1}{2}$ fathoms; the second sounding after Pos. 60e, pg.56, Vol.2, $1 \frac{1}{2}$ fathoms; the second sounding after Pos. 37f, pg.67, Vol.2, $2 \frac{4}{6}$ fathoms; the sounding on Pos. 39f, pg.67, Vol.2, $1 \frac{5}{6}$ fathoms; the sounding on Pos. 54f, pg.69, Vol.2, $2 \frac{5}{6}$ fathoms;

and the first sounding before Pos. 161h, pg.6, Vol.4, 1 4/6 fathoms. It is believed that all of these instances may be attributed to the rocky and irregular bottom. ✓

DANGERS:

There are no dangers on this sheet which constitute a menace for coastwise navigation, which will normally keep well to seaward of the kelp beds, which extend offshore as much as two miles in this vicinity. ✓

As previously noted, the section of this coast between Lat. 32-48 and Lat. 32-51 is extremely rocky. The shoreline and rocks on the smooth sheet have been transferred from Topographic Sheets I and H, 1934, on which some of the more prominent rocks were cut in, and the remainder were sketched in by the topographer. Because of this rocky character, and the fact that unsounded offshore rocks may exist, pleasure craft attracted by the natural beauty of this region should not attempt to coast along close inshore. ✓

Kelp is prevalent along this coast, and there is a particularly large bed lying between Lat. 32-48.0 and 32-51.5. The growth is very thick and rank, and small boats should not attempt to force their way through it. Another bed extends from the southern limit of the sheet to Lat. 32-45.7. ✓

CHANNELS:

There are no channels within the limits of this sheet. There is no approach to Mission Bay (Lat. 32-45.3) which is unimportant as a waterway. The sea breaks on the entrance ✓

bar at all times. See Descriptive Report accompanying Sheet (field) No. 25, 1934 (Mission Bay) submitted by this party.

ANCHORAGES:

There are no anchorages along this strip of open coast. In emergency vessels may anchor in suitable depths in sandy bottom between the extremities of the kelp patches, in Lat. 32-45.7 to Lat. 32-48.0.

Small boats should not attempt to find shelter from NW winds in the small indentations of the coast south of La Jolla because of the many rocks noted above under "Dangers".

COMPARISON WITH PREVIOUS SURVEYS:

Previous surveys of this area are as follows: Sheet 567 (1856), 1:10000; Sheet 1889 (1889), 1:20000; Sheet 1905 (1889), 1:20000; and Sheet 4266 (1922-23), 1:40000.

Comparison with Sheet 567 (1856) is of little value because of the wide spacing of the soundings. The general agreement in depth and configuration is good. The kelp patch now terminating in Lat. 32-45.7 is shown in approximately the same location.

The soundings on Sheet 1889 (1889) are also too widely spaced to permit detailed comparison. The general agreement is good. Irregularities in the shallower depth curves of the present sheet are not indicated, largely due to lack of development. The northern kelp bed is shown in approximately its present location. Sheet 1889 shows a shoal sounding of 16 feet in Lat. 32-48.5, Long. 117-16.4 (new datum), but it is

See review, part 6, c. 1.

not developed. The depth at this point appears to be $3\frac{1}{2}$ to 4 fathoms on the present survey. However, in the same latitude at Long. 117-16.3, the latter shows two shoal soundings of $1\frac{1}{2}$ and $2\frac{1}{2}$ fathoms. It is believed that these are probably indications of the same shoal, thought to be a high spot or ridge on the irregular bottom (see discussion under "Discrepancies").

Sheet 1905 (1889) is the continuation to the northward of Sheet 1889, and has the same wide spacing between sounding lines. The limits of the kelp have not been photographed on the photostatic copy of this sheet, and consequently cannot be compared. The lines are too widely spaced to reveal the shoal indication of 10 fathoms in Lat. 32-50.3, Long. 117-18.1 found in the present survey (Pos. 57-71j, pg.20-22, Vol.4). The general depths and subsurface forms agree satisfactorily. The lack of development and wide spacing of line on Sheet 1905 naturally does not reveal irregularities now apparent in the shallower depth curves.

Sheet 4266 is to a scale of 1:40000 and the soundings do not carry inshore beyond a general depth of 12-15 fathoms. The soundings check well where the two sheets overlap. The kelp is shown in its approximate present location.

GEOGRAPHIC NAMES:

New and conflicting geographic names for this area are reviewed in detail in Descriptive Reports accompanying Hydrographic Sheet (field) No. 25 (Mission Bay), and Air-

Photo compilation Sheets T5374 and T5375 submitted by this party.

PLOTTING NOTE:

This sheet was plotted in San Diego subsequent to the departure of the hydrographic party, so that it was not possible to consult with the hydrographer in plotting the sheet or preparing this report. ✓

Respectfully submitted,

R. A. Philleo

R.A. Philleo,
Surveyor, C.&G.S.

Forwarded, approved,

Robert W. Knox

Robert W. Knox,
H.&G.E., Chief of Party

Statistics

Sheet (field) No.15

Day	Date	Vol.	No. Soundings		Statute Miles		Pos.		
			H.L.	Trolley Machine	H.L.	Trolley Machine			
a	May 21	1	191		07.8		50		
b	July 5	1	659		28.5		195		
c	" 6	1-2	564		27.4		187		
d	" 16	2	642		26.1		181		
e	" 17	2	313		13.5		82		
f	" 18	2-3	388		15.4		134		
g	" 19	3	456		23.8		178		
h	" 20	3-4	560		16.7		171		
j	" 27	4	199	152	10.0	08.1	131		
k	" 30	4		338		18.8	117		
m	" 31	4-5	98	308	04.4	18.0	162		
n	Aug. 2	5	5	209	65	----	14.7	05.2	157
Totals			4075	1007	65	173.6	59.6	05.2	1745

59.6
5.2

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VERIFICATION REPORT

To Accompany

HYDROGRAPHIC SHEET NO. 15

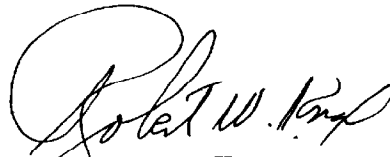
CALIFORNIA COAST

Hydrographic Sheet No. 15, and accompanying records, have been inspected and approved by me.

The field work was done under the direct supervision of Lieut. (j.g.) R.J. Sipe.

The office work was done by civilian draftsmen under the supervision of Lieut. (j.g.) John C. Mathisson.

No additional work is considered necessary.



Robert W. Knox
H. & G. Engineer
Chief of Party

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5676

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

Number of positions on sheet	..1746
Number of positions checked	..192
Number of positions revised	..5
Number of soundings recorded	..5147
Number of soundings revised	..18
Number of signals erroneously plotted or transferred	..0

Fractions add for 10 fathom curve 299

Date: May 23, 1935

Verification by R. W. Cochran

Time: 94 hours

Review by John G. Ladd.

Time: 14 1/2 "

200

May 2, 1935.

Division of Hydrography and Topography:

E

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

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5676

Locality Pt. Medanos to Pt. La Jolla, Southern California

Chief of Party: R. W. Knox in 1934
Plane of reference is mean lower low water, reading
3.9 ft. on tide staff at La Jolla
26.2 ft. below B.M. 1

Height of mean higher high water above plane of reference is 5.2 feet.

Condition of records satisfactory except as noted below:

Ham
Osby Chief, Division of Tides and Currents.

VERIFIER'S REPORT
H-5676

1. The records conform to the requirements of the General Instructions. ✓
2. Only a very small section of the 1 fathom curve can be drawn. The 2 and 3 fathom curves can not be drawn completely. This is due to the rocky nature of the shore line. The 5 and 10 fathom curves can be drawn completely. A good sized section of the 20 fathom curve can also be drawn on this chart. ✓
3. The field plotting was completed to the extent prescribed in the Hydrographic Manual. ✓
4. The office draftsman did not have to do over any part of drafting done by ✓

the field party.

5. The junctions with contemporary adjacent sheets are satisfactory. ✓

6. Remarks: - On Graphic Control sheets 6224 a and b there is a note "Bare 3' at MLLW" at lat. $32^{\circ}-49'$; long. $117^{\circ}-17'$ and arrow points to a rock that is bare at all times. Just where the arrow should go is uncertain.

Considered in
review of T6224a+b, 1935.

Respectfully submitted.
R. W. Cochran

May 23, 1935

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5676 (1934)

Pt. Medanos to Pt. La Jolla, Southern California Coast, California
Surveyed in May - August, 1934
Instructions dated April 14, 1932, September 13, 1933,
and March 9, 1934 (R. W. Knox)

Hand Lead and Machine Soundings.

3 Point Fixes on Shore Signals.

Chief of Party - R. W. Knox.
Surveyed by - R. J. Sipe.
Protracted by - R. A. Philleo.
Soundings penciled by - J. W. Parsons.
Verified and inked by - R. W. Cockran.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

The "Descriptive Report" is very complete and covers all matters of importance.

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project.

3. Sounding Line Crossings.

No regular system of crosslines were run. However, those that occur in the normal development of the work, together with the parallel adjacent lines, are in good agreement.

4. Depth Curves.

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

5. Junctions with Contemporary Surveys.

Satisfactory junctions are made with H-4809 (1928) on the north, H-5677 (1934) on the south, H-5665 (1934) on the east in Mission Bay, and H-4266 (1922) on the west (offshore).

6. Comparison with Prior Surveys.

a. H-289 (1851).

This sheet is a small scale reconnaissance track survey of the Pacific Coast and contains no soundings in conflict with the present survey.

b. H-567 (1856).

This survey covers the lower half of the present survey and is generally in good agreement. There are a number of minor differences between the two surveys along the inshore limits. The area here is sandy and close to the entrance to Mission Bay, where considerable change in shoreline is noted. The differences, therefore, are considered to be due to changes in the bottom and the present survey should supersede H-567 (1856) for charting purposes.

c. H-1889 (1889) and H-1905 (1889).

These surveys cover the northern half of the present survey and are in good agreement with the present survey, with the following exceptions:

- (1) The 16 foot sounding on H-1889 (1889) in lat. $32^{\circ}48.55'$, long. $117^{\circ}16.41'$ falls in depths of 3-4/6 fathoms on the present survey. Because of the irregular and rocky character of the bottom in this vicinity, together with the fact that the development at this particular spot is not too close, the 16 foot sounding has been carried forward to the present survey.
- (2) The small islet shown on H-1905 (1889) at lat. $32^{\circ}50.70'$, long. $117^{\circ}16.75'$ is not verified by the present hydro. or topo. survey. Neither is it shown on any previous hydro. or topo. survey and is not traceable to the sounding records for H-1905 (1889). It was probably erroneously added to H-1905 (1889) and should be disregarded in future charting.

d. H-4810 (1928).

This survey consists chiefly of a single line of offshore soundings. The agreement with the present survey is satisfactory.

7. Comparison with Chart No. 5101.

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 plotting is satisfactory.

9. Additional Field Work Recommended.

No additional field work is required.

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- 289 (1851) in part.
H- 567 (1856) " "
H-1889 (1889) " "
H-1905 (1889) " "
H-4810 (1928) " "

11. Note to Compiler.

Because of the general good agreement between the old and the new surveys, the soundings on H-1889 (1889) and H-1905 (1889) that fall inshore of the limits of the present survey can be used to supplement the new survey wherever necessary for large scale charting.

12. Reviewed by - John G. Ladd, June, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

L. O. Polbut.
Chief, Division of Charts.

F. B. Gordon
Chief, Section of Field Work.

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

25 Jan 6, 1936

Applied to Chart 5101 - May 28, 1936 - L.M.J.

[Signature]

Appl to new unit for Chart 5107 7-6-57 RKO