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

State: California

DESCRIPTIVE REPORT
Topographic SD 13 5648
Hydrographic SD 16 5649

LOCALITY
Southern California Coast
Carlsbad to Santa Margarita River
Point La Jolla to Del Mar

1935

CHIEF OF PARTY
Robert W. Knox
THE 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. SD-16

REGISTER NO. 5648

State: California

General locality: Southern California Coast
Locality: Carlsbad to Santa Margarita River
Off Oceanside

Scale: 1:10,000 Date of survey: Jan 20-Apr 4, 1934, 19

Vessel: Chartered launch Joanne

Chief of Party: Robert W. Knox

Surveyed by: R. J. Sipe

Protracted by: C. L. Rasmussen

Soundings penciled by: C. L. Rasmussen

Soundings in fathoms: 

Plane of reference: Mean Lower Low Water

Subdivision of wire dragged areas by: None

Inked by:

Verified by:

Instructions dated: Jan 10, 1934

Remarks:

U.S. COAST & GEODETIC SURVEY
FEB 14 1935
**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. SD 13**

**REGISTER NO. 5649**

<table>
<thead>
<tr>
<th>State</th>
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<tr>
<td>General locality</td>
<td>Southern California Coast</td>
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<tr>
<td></td>
<td>Point La Jolla to Del Mar</td>
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<tr>
<td>Locality</td>
<td>Off La Jolla</td>
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<tr>
<td>Scale</td>
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<td>Date of survey</td>
<td>Feb 26 to May 4, 1934</td>
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<td>Vessel</td>
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<td>Chief of Party</td>
<td>Robert W. Knox</td>
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<tr>
<td>Protracted by</td>
<td>A.J. Volmar</td>
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<td>Jan 10, 1934</td>
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DESCRIPTIVE REPORT TO

ACCOMPANY HYDROGRAPHIC SHEETS NUMBER SD 13 & SD 16.

Instructions dated January 10, 1934

Surveyed by A.J. Sipe Robert W. Knox, Chief of Party

Scale 1:10,000

SURVEY METHODS:
Standard survey methods were used. Leads weighing 8# were used for sounding from the motor launch, 12# leads for hand lead sounding from the Joanna, and a 32# lead on a trolley rig with a power driven machine for sounding in depths of approximately ten to twenty fathoms.

The party used field adjusted position computation of triangulation stations.

GEOGRAPHIC NAMES:
The air-photo topographic sheets of these areas, soon to be submitted, will contain detailed information concerning geographic names.

WIND & WEATHER:
The prevailing winds are west and west by south. The sea runs normal to the shore and to the sounding line, and afternoon breezes, particularly during early summer, made hydrography difficult with short choppy seas.

TIDES:
Reducers for soundings on these two hydrographic sheets were scaled from a standard tide gauge at LaJolla. Photostatic copies of hourly heights were furnished the hydrographic party.

DISCREPANCIES:
No discrepancies of importance were noted during the plotting of these two sheets.
AREA AND LIMITS:
Sheet SD 13 covers the inshore waters of the mainland from La Jolla to Del Mar. The sheet makes a junction to the north with sheet SD 12, to the south with H 4808, and to the west with off-shore hydrographic sheet 4266.

The coast line of the central portion of the coast line is a high flat bluff. To the north and south the bluff drops away into low drainage valleys.

ANCHORAGES AND CHANNELS:
There are no anchorages or commercial shipping in this area although small boats may make landings at the pier of the Scripps Institution of Oceanography about a mile north of La Jolla. A deep submarine valley extends from deep water to the Scripps's pier.

DANGERS AND SHOALS:
There are no dangers or shoals in this area and the depth curves are fairly regular. No currents of more than normal strength were noted during the course of the field work.

COMPARISON WITH PREVIOUS SURVEYS:
No discrepancies were found between this survey and photostats of previous work.

Respectfully submitted

[Signature]
Recorder

Approved and endorsed:

[Signature]
Chief of Party
AREA AND LIMITS:
Sheet 16 covers the inshore waters from the Santa Margarita river south through Oceanside. The sheet makes a junction with Sheet SD 19 to the north, with off-shore hydrographic sheet 4367 to the west, and with SD 14 to the south.

The shore line is a low bare bluff with a wide sand beach.

ANCHORAGES AND CHANNELS:
There are no anchorages or channels in this area. A pier at Oceanside is a fishing or pleasure pier.

DANGERS AND SHOALS:
There are no dangers or shoals in this area and the depth curves are very regular. No currents other than the normal southerly current was noted during the course of the field work.

COMPARISON WITH PREVIOUS SURVEYS.
No discrepancies were found between this survey and photostats of previous work.

Respectfully submitted

L. C. Hough
L. C. Hough
Recorder

Approved and forwarded:

Robert W. Knowl
Chief of Party.
### STATISTICS SHAFT 15

Southern California Coast - Off La Jolla

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<th>Date</th>
<th>Day</th>
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APPROVAL OF CHIEF OF PARTY

Hydrographic sheets number SD13 and SD16 and accompanying records have been inspected and approved by me.
The field work was done under the immediate supervision of Lieut. (jg) Sipe and the office work, under the supervision of Lieut. (jg) Mathisson.

Robert W. Knox,
Chief of Party.
Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5648

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

Number of positions on sheet  888
Number of positions checked  117
Number of positions revised  2
Number of soundings recorded  3216
Number of soundings revised  132
Number of signals erroneously plotted or transferred  0

Date:
Verification by C.R. Draper  Time: 76
Review by V.D. Behn  Time: 7 hr.
Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5649

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

Number of positions on sheet 523.
Number of positions checked 23..
Number of positions revised /....
Number of soundings recorded 1813.
Number of soundings revised 22..
Number of signals erroneously plotted or transferred 0...

Date:
Verification by A Squires Time: 48
Review by V D Behn Time: 14½ hr.
To: H.M. Strong  
From: C.F.M.  

GEOGRAPHIC NAMES  
Date: Feb. 19, 1935  

CALIFORNIA  
Survey No.: H 5648  
Chart No.: 5102  
Diagram No.: 5102-3

Approved by the Division of Geographic Names, Department of Interior. X
Referred to the Division of Geographic Names, Department of Interior. R
Under investigation. Q

<table>
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<th>Status</th>
<th>Name on Survey</th>
<th>Name on Chart</th>
<th>New Names in local use</th>
<th>Names assigned by Field</th>
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</table>
To: H.M. Strong  
From: C.F.M.  

GEOGRAPHIC NAMES  

Date: **Feb. 19, 1935**  
CALIFORNIA  

Survey No.: **H 5649**  
Chart No.: **5102**  
Diagram No.: **5102-3**  

Approved by the Division of Geographic Names, Department of Interior.  

Referred to the Division of Geographic Names, Department of Interior.  

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Report on H-5648 (1934)

Chief of Party - R.W. Knox
Surveyed in March & April 1934
Surveyed by - R.J. Smith
Practised by - E.L. Roemmerson
Soundings plotted by - E.L. Roemmerson
Vesfied and inched by - C.R. Draper

(1) The test of signals are found with the sounding records, otherwise the record conforms to the general instructions.

(2) Depth curve for 2 Fathoms incomplete due to shallowness. Depth curves for 3, 5, 10 & 20 Fathoms completed drawn.

(3) Fractional soundings in some fathoms from 10 to 11 fathoms were omitted and have been added to comply with present instructions - this accounts for 121 revisions of soundings, otherwise the field plotting was complete, neat and accurate.

(4) The office draftsmen replotted the 10 Fathom depth curve to comply with the fractional revisions, otherwise it was not necessary to request or do any of the drafting by the field party.

(5) Junction with H-5663 (1934) and H-5606 (1934) are shown and are with satisfactory.

(6) There are no dangers or shoals in the area. The soundings are regular and there are very few crossings, all of which are satisfactory. The smooth sheet plotting was checked and found satisfactory.

Report fully submitted
C.R. Draper
May 10, 1934
Report on H 5649 - (1934)

Chief of party: R.W. Knox
Surveyed by: R.F. Love
Protraced by: A.J. Volman
Soundings by: A.J. Volman
Verified by: A. Stiles

1) No list of signals furnished

2) The depth curves are completely drawn, except
   the overlap H 4809 -1928 which has been left
   for reviewers attention — overlap satisfactory

3) Fractions from 10 to 11 fathoms were omitted and
   have been added to comply with C.A.'s instructions.

4) The office draftsman did over Number 12
   Position which was 80 meters off added low water
   lines and shoulder symbols.

5) The junction with H 4809 -1928 was not made
   being left for reviewers attention
   The junction with H 5864 -1934 was not made

   The sheet not being complete
   both overlaps have been made

Respectfully submitted by

A. Stiles
Division of Hydrography and Topography:

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

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5649

Locality Point La Jolla to Del Mar, Southern Calif.

Chief of Party: Robt. 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:

Chief, Division of Tides and Currents.
Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5648 (1934)

Carlsbad to Santa Margarita River
Surveyed in February - May, 1934
Instructions dated February 17, 1933, January 10, 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. Sips.
Protracted by - C. L. Rasmussen.
Soundings penciled by - C. L. Rasmussen.
Verified and inked by - C. R. Draper.


The records are neat and legible and conform to the requirements of
the Hydrographic Manual except as follows:

a. No list of signals used was furnished, as required by par. 139

b. No copy of Landmarks for Charts, Form 567, accompanied this par-
   ticular sheet. Landmarks for area submitted.

The Descriptive Report is clear and comprehensive and adequately
covers all matters of importance.

2. Compliance with Instructions for the Project.

The survey complies with the instructions for the project.


No cross lines were run but adjacent lines are in good agreement.

4. Depth Curves.

Within the limits of the survey the usual depth curves can be satis-
factorily drawn including portions of the 2 fathom curve.

5. Junctions with Contemporary Surveys.

The junctions with H-5606 (1934) on the north, H-5663 (1934) on the
south, are satisfactory.

The junction with the offshore survey H-4367 (1924) is generally sat-
isfactory. However, in the vicinity of lat. 33°10', long. 117°24'
the 1924 survey is 1 to 3 fathoms shoaler than the present survey.


      This survey is in good agreement with the new survey.

7. Comparison with Chart No. 5101.

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

8. Field Plotting.

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

9. Additional Field Work Recommended.

   This survey is complete and no additional work is required.

10. Superseding Old Surveys.

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

    H-1906 (1889) in part.


    Inspected by - A. L. Shalowitz.

Examined and approved:

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

L. D. Bollard, Chief, Division of Charts.

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

H. I. Nelson, Chief, Division of H. & T.

Applied to Chart 5101 - May 27, 1936 - 12 p.m.
Applied to Chart 3360  Dec. 27, 1943  2 a.m.
b. The junction with H-4809 (1928) on the south is satisfactory.

c. The junction with H-5564 (1934) on the north is satisfactory.

6. **Comparison with Prior Surveys.**

   a. **H-1905 (1889).**

      This is the only prior survey within the area of the present survey and is in good agreement with the latter.

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 and protracting are satisfactory and conform to the requirements of the hydrographic manual.

9. **Additional Field Work Recommended.**

   This survey is complete and no additional field work is required.

10. **Superseding Old Surveys.**

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

    **H-1905 (1889) in part.**

11. **Reviewed by - V. D. Behn, June, 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.

Applied to Chart 5101 - May 27, 1936.
Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5649 (1934)

Point La Jolla to Del Mar, Southern California Coast
Surveyed in February - May, 1934
Instructions dated February 17, 1933, January 10, 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 and soundings plotted by - A. J. Volmar.
Verified and inked by - A. Stiles.


The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

a. No list of signals used was furnished as required by par. 139 of the Hydrographic Manual.
b. No copy of Landmarks for charts, Form 567, accompanied this particular sheet. Landmarks for area submitted.

The "Descriptive Report" is clear and comprehensive and adequately covers all matters of importance.

2. Compliance with Instructions for the Project.

The survey complies with the instructions for the project.


Such sounding line crossings that result from the work are in good agreement, with the exception of the crossing between line 29 - 30b and 78 - 79b, at the southern end of the survey in lat. 32°52.3', long. 117°15.3'. The junction with H-4809 (1928) indicates a very irregular bottom in this area.

4. Depth Curves.

Within the limits of the survey the usual depth curves could be satisfactorily drawn including most of the 2 fathom curve.

5. Junctions with Contemporary Surveys.

a. The junction with H-4266 (1922-23) on the west is satisfactory, with the exception that the submarine valley in lat. 32°52.2', long. 117°15.3' on this survey was missed on H-4266 (1922-23). This valley is shown on both this survey and on H-4809 (1928).
Division of Hydrography and Topography:

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

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5648

Locality Carlsbad to Santa Margarita River, Southern Calif.

Chief of Party: Robt. 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:

[Signature]

Chief, Division of Tides and Currents.