

5487

U. S. COAST & GEODETIC SURVEY
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Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton *Director*

State: CALIFORNIA

DESCRIPTIVE REPORT

Topographic } Sheet No. 19 5487
Hydrographic }

LOCALITY

San Pedro Channel

San Pedro Bay

(Eastern Part)

19.33.- 34

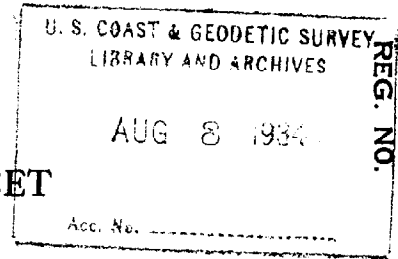
CHIEF OF PARTY

Robert W. Knox,

H. & G. Engr.

5487

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY



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.

5487

Field No. 19 5487

REGISTER NO.

State CALIFORNIA

General locality San Pedro Channel

Locality San Pedro Bay (Eastern Part)

Scale 1:10 000 Date of survey Jul 10, 33 - Aug 1, 34

Vessel Chartered launch Romance & whale boat

Chief of Party Robert W. Knox

Surveyed by John C. Mathisson

Protracted by C. L. Rasmussen

Soundings penciled by D. L. Ackland

Soundings in fathoms ~~feet~~

Plane of reference mean lower low water

Subdivision of wire dragged areas by

Inked by R. S. Bagwell

Verified by L. S. Straw, R. S. B.

Instructions dated February 17, 1933, 19

Remarks:

DESCRIPTIVE REPORT
TO ACCOMPANY HYDROGRAPHIC SHEET NO. 19

Scale 1:10,000

SOUTHERN CALIFORNIA

VICINITY LONG BEACH

Instructions dated Feb. 17, 1934

Surveyed by R. W. Knox

AREA, LIMITS, ETC. The area covered by sheet 19 comprises the inshore waters off the City of Long Beach. The work on this sheet makes a junction with that on sheet 10 to the westward, with sheet 21 - yet to be completed - offshore, and is to be joined with further hydrography to be executed in the near future to the eastward.

SURVEY METHODS. Standard survey methods were used in the survey of this sheet. All soundings were taken with a hand lead with a 12 pound lead, except those taken from the whale boat, where an 8 pounder was used. Considerable difficulty was had with the lead line. A new line, after a day's sounding, would often be in error as much as 3 or 4 feet in 12 fathoms. In almost all cases the line would shrink and the wire core would protrude through the covering, forming small loops very aptly named by the leadsmen as "meat hooks". Many methods of curing the line were tried, but with little success. Care was taken to obtain accurate comparisons at the beginning and end of each day.

In accordance with the instructions, sounding lines were spaced 100 meters near the beach, this distance being gradually increased to a maximum of 200 meters.

DANGERS. There are no dangers on this sheet.

CHANNELS. There are no channels on this sheet.

ANCHORAGES. Some few vessels have been observed to anchor in the area covered by this sheet, although the waters to the westward are preferred, as a greater amount of shelter is obtained from the prevailing weather.

COMPARISON WITH PREVIOUS SURVEYS. No photostatic copies of previous surveys of this area were furnished the party.

CONTROL. The signals on this sheet are all from the air-photo topographic sheets of the area, with, of course, the exception of points determined by triangulation. It was found that existing objects could be readily identified in the photographs and their location then determined by the regular intersection method, a rapid and sufficiently accurate method for the purpose. The smooth sheet was constructed immediately after these objects were located, so as to both preserve the location and minimize distortion.

Two of the overlay sheets upon which the signals were intersected are attached to the smooth sheet.

2

DISCREPANCIES: Additional lines were run in the vicinities of the mouths OF the Los Angeles Flood Control Channel, the San Gabriel River and Anaheim Creek to determine whether or not the floods of January first had appreciably shoaled these areas. Few discrepancies between the sounding of the two seasons were noted.

BOTTOM: Bottom specimens were invariably fine sand.

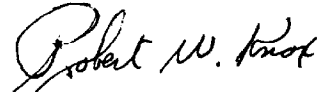
MISCELLANEOUS: The two inshore lines were run with an outboard-driven whale boat, and represent the shoalest soundings that could be taken with safety to personel and equipment at this season of the year.

PLOTTING. The smooth plotting was accomplished by civilian draftsmen under the occasional supervision of the commissioned personel.

Day letters of the 1933 work are in red, while those of the 1934 work are in blue.

CURRENTS: No currents of an exceptional nature were noted during the progress of the field work.

Respectfully submitted:



Robert W. Knox,
H. & G. Eng'r,
Chief of Party.

*Applied to new chart 5147
H.R. Sept. 1934*

STATISTICS

3

Sheet 19, 1933

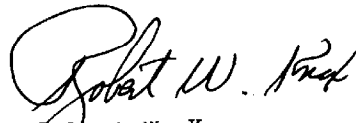
Date 1933	Day	Stat. mi. sdg	No. Pos.	No. Sdg	Vol.	Boat
Jul 10	a	29.3	185	713	1	Romance
	11	b	28.8	178	607	1 do
	12	c	24.8	143	508	2 do
	13	d	29.1	161	671	2 do
	14	e	34.5	164	609	2 & 3 do
	17	f	16.8	72	273	3 do
	19	g	19.3	104	461	3 do
	20	h	38.5	193	789	3 & 4 do
Aug 10	j	1.0	8	21	4	do
1934 Jul 30	k	21.9	118	600	4	Romance & whale boat
Aug 1	l	10.2	52	209	5	Romance
totals		254.2	1378	5451		

APPROVAL OF CHIEF OF PARTY

4

Hydrographic sheet number 19 and accompanying records have been inspected and approved by me. The field work, except the final two days, was done under my occasional supervision, as was the office work.

No additional work is considered necessary.

A handwritten signature in cursive script, reading "Robert W. Knox".

Robert W. Knox,
Chief of Party.

Inspection of H 5487

San Pedro Bay (Eastern Part) Surveyed by R.W.Knox.

1933 and 1934
Three Point Fix -- Hand Lead ---Soundings in fathoms

1. Records.

The records conform to the requirements of the Hydrographic Manual. *except as noted in the review.*

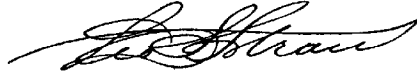
2. Protracting.

The protracting was done accurately, and is satisfactory.

3. Plotting.

~~It will be~~ necessary for the Verifier to revise soundings not plotted in accordance with the prescribed rules in paragraph 152, page 19 of the Hydrographic Manual. ~~Some~~ of the mistakes prevalent throughout the sheet are: plotting soundings under one fathom with a zero in front of them - thus $0\frac{1}{2}, 0\frac{3}{4}$ instead of $\frac{1}{2}, \frac{3}{4}$. Plotting 7 fathoms 4 feet as $7\frac{1}{2}$ instead of $7\frac{3}{4}$. All soundings will be revised between 10 and 11 fathoms, this however, is due to a recent ~~change~~ in the Hydrographic practice.

Respectfully submitted,



August.24.1934.

Leo S. Straw.

Section of Field Records

Report on H-5487

Surveyed in 1933-1934

Chief of Party Robert W. Knox

Surveyed by John C. Mathiason

Projected by C. T. Farnumson

Soundings plotted by D. J. Ackland

Verified and inked by R. S. Bagwell

1. The records conform to the requirements of the General Instructions, except as noted in the review. ✓
2. The usual depth curves can be drawn completely except the 1 fathom curve. ✓
3. The field plotting was completed to the extent prescribed in the General Instructions except that 4 foot fractions of a fathom were plotted as $\frac{1}{2}$ fathom, and soundings under 1 fathom were plotted with a cipher preceding the fraction. Also fnc (fine) was written for shoals and breakers mentioned in the records were not noted on the smooth sheet. ✓
4. The drafting done by the field party was altered by the office draftsmen only as noted in par. #3. ✓
5. Junction with H-5486 is satisfactory. ✓

6. Remarks:

Breakers are mentioned in the records in Volume 3, pp. 58, 59 at position 624 and 704, SE. of Lat. $33^{\circ}44'$, Long. $118^{\circ}06'$. Again in Vol. 4, p. 17, near position 34, Lat. $33^{\circ}45'$, Long. $118^{\circ}09'$. A shoal is mentioned in Vol. 4, p. 17, position 114, Lat. $33^{\circ}46'$, Long. $118^{\circ}10'$. ✓

7. Rating of work. Field drafting -

Respectfully submitted
R. S. Bagwell

September 10, 1934

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. **H.5487**

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

Number of positions on sheet	1378...
Number of positions checked	.10...
Number of positions revised	..9...
Number of soundings recorded	5451...
Number of soundings revised	244... 244
Number of signals erroneously plotted or transferred0..

Date: *Sept. 12, 1934*

Cartographer:

Verification of protracting

~~Verification of plotting of soundings~~

by Leo S. Straw

Time: 2 hr.

Verification of inking by

R.S. Bagwell

Time: 65 hr.

Review by *Harold W. Murray*

Preliminary
Final

Time: 5 hr.

3 hr.

Sept. 1, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5487

Locality San Pedro Bay (Eastern Part), Coast of California.

Chief of Party: Robert W. Knox in 1933 - 1934

Plane of reference is mean lower low water reading.

3.6 ft. on tide staff at Los Angeles Harbor (Berth 60)

14.0 ft. below B. M. 8

Height of mean higher high water above plane of reference
is 5.4 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents

Section of Field Records.

REVIEW OF HYDROGRAPHIC SURVEY NO. 5487 (1933-34)

San Pedro Bay (Eastern Part), San Pedro Channel, California.

Surveyed July 1933 - August 1934.

Instructions dated February 17, 1933 (R. W. Knox).

Chief of Party - R. W. Knox.

Surveyed by - J. C. Mathisson.

Protracted by - C. L. Rasmusson.

Soundings penciled by - D. L. Ackland.

Verified and inked by - L. S. Straw; R. S. Bagwell, Jr.

1. Condition of Records.

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

On the cover label and title page of the sounding records, the position numbers and day letters were in black ink. These were changed to the proper colored ink in the office (Par. 138).

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 cross lines were required by the instructions for the project. Those that were run are in good agreement.

4. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn including portions of the 1 and 2 fathom curves.

5. Junctions with Contemporary Surveys.

The junction on the west with H. 5486 (1933-34) is satisfactory.

The junctions on the east and south will be considered when the surveys of that area are received in the office.

6. Comparison with Prior Surveys.

a. H. 289 (1851).

This survey is on a very small scale and contains no information which would conflict with H. 5487 (1933-34).

b. H. 1418 (1878).

Soundings of this survey are generally in good agreement with

those of H. 5487 (1933-34).

c. H. 4162 (1920).

Soundings of this survey are generally in good agreement with those of H. 5487 (1933-34).

7. Comparison with Chart 5143 (Scale 1/40,000) and 5102 (Small Scale).

A comparison of this survey with the charts of the area shows no matters of importance in disagreement which need be considered in this review.

8. Field Plotting.

Field protracting and plotting of soundings were accurate and conform to the requirements of the Hydrographic Manual except as follows:

a. Sounding such as 7 fathoms 4 feet were plotted as $7\frac{1}{2}$ fathoms instead of $7\frac{3}{4}$ fathoms (Par. 154). These were corrected in the office.

b. Descriptive notes relative to shoals and breakers contained in the sounding records and boat sheet were not applied to the smooth sheets. These were added in the office.

c. The bottom characteristic "fine" was abbreviated as "fn" instead of "fne" (see Table 1, page 158 of H. M.). This was corrected in the office.

9. Additional Field Work Recommended.

This survey is complete, no additional work is required.

10. Superseding Old Surveys.

Within the area covered, the present survey H. 5487 (1933-34) supersedes the following surveys for charting purposes:

H. 289	(1851)	In part.
H. 1418	(1878)	" "
H. 4162	(1920)	" "

11. Reviewed by - Harold W. Murray - Sept. 20, 1934.

Inspected by - A. L. Shalowitz.

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

J. B. Borden
Chief, Section of Field Work.

Examined and approved:

L. O. Pollock
Chief, Division of Charts.

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

*Applied to chart 5143 - 5147
Jan 1935 H.M.C.*

25 ~~pp~~ 23, 1936

cap

Applied to Chart 5101 - May 1936 R.M.Z.
Applied to chart 5148. May 1943. L.A.M.