6621

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
L.O. Colbert, Director

State: California

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. 3-38

LOCALITY

Northern California Coast

South of Humboldt Bay Entrance

1940

CHIEF OF PARTY

G. L. Bean

U. S. GOVERNMENT PRINTING OFFICE: 1933

6621

Form 537
Ed. Dec., 1930

REG. NO.

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.

Field No. 3-38

REGISTER NO. H6621

State California

General locality Northern California Coast

Locality South of Humboldt Bay Entrance

Scale 1 : 10,000 Date of survey Oct. 13 to Nov. 22 1940

Vessel GUIDE, Port and Starboard Motorsailers.

Chief of Party G. L. Bean

Surveyed by F.G. Johnson, H.C. Applequist, H.G. Conerly, C.A. Schoene and M.A. Hecht. (Ships Officers)

Protracted by P. I. Hauk

Soundings penciled by P. I. Hauk

Soundings in fathoms ~~feet~~

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by C.E. Dennis 3/26/41

Verified by C.E. Dennis 3/26/41

Instructions dated September 29, 1939

Remarks: Sheet plotted and report written in Oakland Processing Office.

U. S. GOVERNMENT PRINTING OFFICE. 1932

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET FIELD NO. 3-38, H-6621
Project No. HT-238
Coast of California
U.S.C. & G.S.S. GUIDE
1940

DATE OF INSTRUCTIONS:

Instructions for this project are dated September 29, 1939.

SURVEY METHODS:

The work was done by the following boats: the Ship GUIDE using a Dorsey No. 3 fathometer; the Port Motorsailer using a lead line on "a" day (blue) and a fathometer on "b" and "c" days (blue); and the Starboard Motorsailer using a lead line (a + b days, red).

Control is visual using shore objects and signals determined by triangulation or topography with boat positions being obtained by the usual three point fix.

Sounding lines, in general, are parallel with the shore line and the spacing of soundings is in accordance with instructions, varying from fifteen to fifty seconds.

The shoreline was traced taken from the boat sheet since the original shoreline was on a topographic sheet T-4512 and T-4514 of 1929 previously forwarded to Washington. Topographic sheets T "a"-1939 and T "b"-1939 covering this area contain no detail and were used only to locate signals for hydrographic control.

DISCREPANCIES:

Lat 40-43.6, Long 124-16.2 and Lat 40-44.4, Long 124-15.6: from 50c to 58c (blue) there is a one fathom difference from adjacent soundings 5c to 12c day (blue). Accepted.

Apparent discrepancies of one fathom in various cross lines in depths of eleven fathoms or over, where soundings are plotted in whole fathoms, reduce to one half fathom or less when fractional soundings are plotted thus giving satisfactory crossings.

On the boat sheet "b" day (red) should read "a" (red) throughout and "c" day (red) should read "b" (red) as plotted on the smooth sheet.

DISCREPANCIES CONT'D.:

"Q" day in vol. 2 (Ship) was changed to "C" day to conform with the boat sheet and plotted as "C" (red) on the smooth sheet.

DANGERS:

There are no shoals or dangers to navigation on this sheet except for a few sand bars close inshore near the breaker line, notably in Lat 40-40.7; 40-41.4; and 40-42.7. It was impossible to develop these areas because of the heavy surf.

CHANNELS:

This sheet covers the open coastline and there are no channels.

ANCHORAGES:

There are no anchorages along the shore line or in the area covered by the sheet.

All bottom soundings, with the exception of two, showed fine, gray sand while the two exceptions showed fine, black sand and fine sand and shell.

COMPARISON WITH PREVIOUS SURVEYS:

Photostats of previous adjoining surveys are not available in the Processing Office. These surveys are H-5001 on the north, H-6416 on the south and H-6415 on the west. Soundings from these surveys are shown on the boat sheets and indicate a satisfactory junction.
See Rev., par. 4 for further details.

GEOGRAPHIC NAMES:

There are no geographic names on this sheet.

STATISTICS:

Positions - - - - - - - - - - - - - - - - - 1028
Soundings - - - - - - - - - - - - - - - - - 6527
(1803 lead line and 4724 fathometer)
Statute Miles Sounding Lines - - - - - - 218.1

Respectfully submitted,

Paul I. Hauk

Paul I. Hauk
Ass't. Engineering Draftsman
Oakland Processing Office

H6621

LIST OF SIGNALS
to accompany
HYDROGRAPHIC SHEET FIELD NO. 3-38
1940

TRIANGULATION

Log U.S.E. 1911-1919
Mound U.S.E. 1911-1919
Table Bluff Highest Wireless Tower 1928

TOPOGRAPHIC SIGNALS

Sheet T "a" 1939	Sheet T "b" 1939		Sheet "U" 1937
Cat	Agua	Met	Clam
Mort	Ant	Nab	Jack
Tower	Barn	Name	New
	Bot	Nod	Sign
	Dor	Oak	Tel
	Fern	Oslo	
	Igno	Ram	
	Kip	Tall	
	Last	Tap	
	Lean	Tri	
	Lighthouse		

H6621

STATEMENT
to accompany
HYDROGRAPHIC SHEET FIELD NO. 3-38
1940

Smooth plotting and penciling of soundings on this sheet was done by Ass't. Draftsman P.I. Hauk under the supervision of Lieut. S.B. Grenell at the Oakland Processing Office.

Depth curves were drawn and the descriptive report written by P.I. Hauk.

The completed smooth sheet has been inspected and is approved.

S.B. Grenell
~~Lieut.~~ S.B. Grenell
H. & G. Engineer
Officer in Charge
Oakland Processing Office

Oakland, California

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6621

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

Number of positions on sheet ......

Number of positions checked ......

Number of positions revised ......

Number of soundings recorded ......

Number of soundings revised ......

Number of soundings erroneously spaced ......

Number of signals erroneously plotted or transferred ......

Date:

Verification by Time:

Review by Harold W. Murray Time: 8 hrs.

2629

HYDROGRAPHIC SURVEY NO. H6621

Smooth Sheet One

Boat Sheet Three

Records; Sounding 5 Vols., Wire Drag ___ Vols., Bomb ___ Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service -----
(Circular Nov.30, 1933)

Hydrography: Total Days ______; Last Date ________

Remarks ________

3776

	Remarks	Decisions
1		407242
2		406242
3		
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M 234

GEOGRAPHIC NAMES
Survey No. H6621

Name on Survey	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Humboldt Bay										1
Table Bluff										2
										3
										4
										5
	by L.	Heck	on 2/27/41							6
										7
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M 234

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H H6621

Verified and Inked by C. E. Dennis Date 3/26/41

1. The descriptive report was consulted and appropriate action taken.

2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.

3. All references to survey sheets mentioned in the descriptive report include the registry number and year.

4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering.

5. All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.

6. All positions verified instrumentally were check marked in the sounding records.

7. All critical soundings are clear and legible.

8. The metal protractor has been checked within the last three months.

9. The protracting and plotting of all bad crossings were verified.

10. All detached positions locating critical soundings, rocks or buoys were verified.

11. The boat sheet was compared with the smooth sheet.

12. The spacing of soundings as recorded in the records was closely followed.

13. The bottom characteristics were shown on outstanding shoals.

14. The reduction and plotting of doubtful soundings were checked.

15. The transfer of contemporary topographic information was carefully examined. Topographic sheet not available See Mr. Edminston ✓

16. All junctions were transferred.

17. The notation "JOINS H " was added for all contemporary adjoining or overlapping sheets now registered.

18. The depth curves have been drawn to include the significant depths.

19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party.

20. Heights of rocks were checked against range of tide.

21. Rocks transferred from topographic survey have a dotted curve where shown thereon.

22. Unnecessary pencil notes have been removed.

23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.

24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934). ✓
Breakers along shore made this impossible.

25. Degree and minutes values and symbols have been checked.

26. Source of shoreline and signals (When not given in report).
Shoreline not available. See (15) ✓

27. Depth curves were satisfactory except as follows:
See (29) ✓

28. Sounding line crossings were satisfactory except as follows: -

29. Junctions with contemporary surveys were satisfactory except as follows: Junctions with H5001(1929) and H6410 were satisfactory ✓ except within the 3 meter curves. Here butt junctions were made ~~[illegible]~~ there is a rapid change of bottom here due to breakers.

30. Condition of sounding records was satisfactory except as follows: ✓

31. The protracting was satisfactory except as follows: ✓

32. The field plotting of soundings was satisfactory except as follows: ✓

33. Notes to reviewer: The shore line is on a topographic sheet not yet ✓ in from the field as is the location of most signals. See Rev. par. 1
there is one reference to a bell buoy Vol 2. p. 21 in Lat. 40°-45.7' Long 124°-15.0' but no definite location is made. This buoy is not on H-5001, the adjoining sheet but is on Chart #5832 ✓

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H H6621
~~No. T~~

received Feb. 21, 1941
registered Feb. 21, 1941
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
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62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed

✓ TBR

x a c
HRE

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 25, 1941

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6621

Locality South of Humboldt Bay Entrance, Northern California.

Chief of Party: G. L. Bean in 1940
Plane of reference is mean lower low water reading
3.0 ft. on tide staff at North Jetty, Humboldt Bay Entrance.
11.5 ft. below B.M. 1

Height of mean high water above plane of reference is 5.8 feet.

Condition of records satisfactory except as noted below:

Paul C. Whitney
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

DIVISION OF CHARTS

Surveys Section

REVIEW OF HYDROGRAPHIC SURVEY NO. 6621 (1940) FIELD NO. 3-38

California, Northern California Coast,
South of Humboldt Bay Entrance
Surveyed in October - November 1940, Scale 1:10,000
Instructions dated September 29, 1939 (GUIDE)

Soundings:
Hand Lead and Fathometer

Control: Three-point Fixes
on Shore Signals

Chief of Party - G. L. Bean
Surveyed by - F. G. Johnson, H. C. Applequist, H. G. Conerly
Protracted by - P. I. Hauk
Soundings plotted by - P. I. Hauk
Verified and inked by - C. E. Dennis
Reviewed by - Harold W. Murray, March 28, 1941
Inspected by - H. R. Edmonston

1. Shoreline and Signals

No shoreline was surveyed. The most recent work in this area is T-4512 and T-4514 of 1929.

The signals originate with graphic control sheets T-6616b (1937) and T-6814a and b.

2. Sounding Line Crossings

General agreement of sounding line crossings is very good.

3. Depth Curves

The usual depth curves may be satisfactorily drawn. Heavy surf prevented the complete development of the 2-fathom curve as well as the remaining lesser curves.

4. Junctions with Surveys

a. The present survey joins H-6416 (1938) on the south. The agreement is excellent except inshore of the 5-fathom curve on the east where differences of 1 to 3 fathoms are noted. These differences may indicate bars and depressions running parallel with the shoreline but since the differences are also noted at crossings, it seems apparent that they represent changes. The conflicting soundings from H-6416 have been omitted in the common area.

b. The junction with H-6415 (1938) on the west is excellent.

c. The junction on the north with H-5001 (1929) is satisfactory except that differences are noted in the inshore area which are similar to those discussed in paragraph a, above.

5. Comparison with Prior Surveys

H- 401 (1854)	H-1299 (1872)
H-1177b(1870)	H-1328 (1875)
H-1294 (1875)	H-4096 (1919)
H-1295 (1875)	H-4999 (1929)

Each of these surveys, on scales ranging from 1:10,000 to 1:375,000, cover portions of the present survey. The common area is characterized by a smooth sand bottom and contains no shoals except in the area close inshore, which is subject to some change. It is noted, however, that the depths on H-4999 agree closely. The present survey supersedes these surveys.

6. Comparison with Wire Drag Surveys

H-6320 (1938) W.D. and H-6321 (1938) W.D., scales 1:10,000

These wire drag surveys extend inshore to about 7 fathoms and contain no information that conflicts with the present survey.

H-6320 W.D., contains several sounding lines in depths of 4 to 9 fathoms which agree closely with the present survey. The present survey information is adequate for charing purposes.

7. Comparison with Charts 5832 (New Print date July 29, 1940)
5602 (" " " Sept. 7, 1940)

Information shown on the charts originates with previous surveys discussed in this review and no further consideration is necessary.

8. Compliance with Instructions

The plan, character and extent of the survey satisfy the instructions for the project.

9. Condition of Survey

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

b. The field protracting and plotting of soundings were satisfactory.

c. The Descriptive Report is clear and satisfactorily covers all matters of importance.

d. More bottom characteristics could have been obtained in the lead line work but it is to be noted that the predominating characteristic is sand. The bell buoy referred to in the sounding records (54C, red) in Lat. 40° 46', Long. 124° 15' should have been specifically located. The practice of describing each signal on the boat sheet is very commendable.

10. <u>Additional Field Work Recommended</u>

This is an excellent survey and no additional work is required. The absence of hydrography close inshore is due to heavy breakers.

11. <u>Superseded Surveys</u>

H- 401	(1854)	In part	H-1328	(1875)	In part
H-1177b	(1870)	" "	H-4096	(1919)	" "
H-1294	(1875)	" "	H-4999	(1929)	" "
H-1295	(1875)	" "	H-6320	(1938)	W.D. In part, soundings only
H-1299	(1872)	" "			

Examined and approved:

Thos B Reed
Thomas B. Reed,
Chief, Surveys Section

F.S. Borden
Chief, Division of Charts

C K Green
Chief, Section of Hydrography

G Thude
Chief, Division of Coastal Surveys

Applied to Chart 5602 May 23, 1941. L.A. McGunn.
" " " 5832 June 17, 1941 – J.F. Walker
" " " 5002 Sept. 9, 1941 no corr. F. M. Albert
appd to Cht 5832 Recons. July 17 1953 Earl M. Burgoyne