

5942

WIRE DRAG

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

DESCRIPTIVE REPORT

WIRE DRAG

Topographic

Hydrographic

Sheet No. *4*

State California

LOCALITY

California Coast

Mill Creek to

Gamboa Point to One and one-third

miles South of Rockland Landing

1935

CHIEF OF PARTY

F. H. Hardy

U. S. GOVERNMENT PRINTING OFFICE: 1934

5942

WIRE DRAG

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

WIRE DRAG
~~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. 4 **H5942**

REGISTER NO.

State California

General locality California Coast
Mill Creek to ²⁴

Locality Gamboa Point to One and one-third Miles south of Rockland
Landing

Scale 1:10,000 Date of survey Aug. 2 to Aug. 5, 19 35

Vessel Chartered Launches "FLORENCE (Guide); "POINT REYES" (End)

Chief of Party F. H. Hardy

Surveyed by G. C. Jones

Protracted by C. A. Kester

Soundings penciled by Walter J. Chovan

Soundings in fathoms feet Drag Depths in Feet.

Plane of reference M L L W

Subdivision of wire dragged areas by Walter J. Chovan

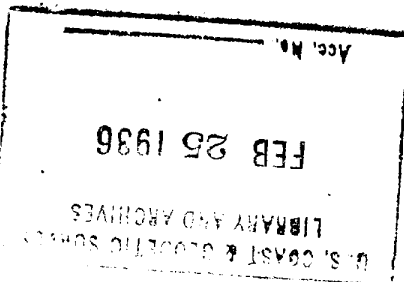
Inked by Walter J. Chovan

Verified by Jawcormick

Instructions dated May 5, 19 35

Remarks: Dual Control Wire Drag. Positions by Visual Fixes.

U. S. GOVERNMENT PRINTING OFFICE



DESCRIPTIVE REPORT
to accompany
WIRE DRAG SHEET FIELD NO. 4
Project H.T. 206
Coast of California
U.S.C. & G.S.S. GUIDE
1935

INSTRUCTIONS: Instructions for the wire drag work on this sheet were authorized by telegram dated May 5, 1935, to continue wire drag work as per instructions of May 31, 1934.

CHARACTER OF WORK: This work includes that portion from Gamboa Point to one and a third miles south of Rockland Landing, and from approximately one third mile offshore (in general along the kelp line) to beyond the 30 fathom curve.

The area of the work on this sheet is 11 square statute miles.

The scale of this sheet is 1:10,000.

The position interval was usually five minutes, with supplemental positions at radical changes of course and speed.

The effective depth range is from ten feet to eighty feet.

CONTROL: The control for the wire drag on this sheet was by means of visual fixes.

Dual control was used for all this work.

Control consisted of hydrographic signals over triangulation stations of the 1932 scheme, plotted on the North American 1927 adjusted datum.

Shoreline and topographic signals were transferred from Topographic Sheets Field "E" and "G", 1934.

DATE OF SURVEY: Work on this sheet began August 2nd and was completed on August 5, 1935.

TIDE REDUCERS: Tidal reducers for the work on this sheet were obtained from the Monterey Bay Portable Automatic Tide Gage.

For further information on this subject see Season's Tidal Report.

OVERLAP OF BUOY PATH LINES:

The overlap of buoy path lines is more than sufficient throughout this sheet.

The overlap of drag lines at the beginning and ending of lines on this sheet are good.

JUNCTIONS: The north end of this sheet joins and is continued from Wire Drag Field Sheet No. 3, 1935. The south end of this sheet joins and is continued on Wire Drag Field Sheet No. 5, 1935.

H. 5940 (1935)
H. 5943 (1935)

There is a small discrepancy on the northern junction. Position 38 D, Sheet No. 3 and Position 1 A, Sheet No. 4, is the same fix and should plot in one common point. Evidently Position 38 D, Sheet No. 3 was plotted incorrectly and as Sheet No. 3 was already sent to Washington, D.C. it could not be checked in this office.

*Corrected
page*

GROUNDINGS:

Pos.No. Day Letter	Latitude & Longitude	Grounded Effective Depth	Least Sounding Depth	Cleared Effective Depth	Depth Plotted	Remarks
	° ' "	feet	fms	feet	fms	
21 A	36 01.37 121 35.04	43 ✓	6 2/6 ✓	26 ✓	6 2/6 ✓	See note Tender Record Page 4, Derelict.
40 B	36 01.39 121 34.76	30 ✓	3 2/6 ✓	16 ✓	3 2/6 ✓	
17 C	36 00.77 121 34.38	55	8 4/6 ✓	41 ✓	8 4/6 8 3/4	Small area
25 B	36 00.82 121 34.04		5 ✓	26 ✓	5	This drag strip reject- ed. (Grounded) between 1 & 2 G.L., Pos. 25B Day, Page 14
27 B	36 00.76 121 33.84	18 ✓	2 1/2 ✓	11 ✓	2 1/2 ✓	
61 C	35 59.37 121 30.03 30.03	29 ✓	3 1/2 ✓	not cleared	3 1/2 ✓	This shoal was not clear- ed as it was in a kelp covered area too heavy to take drag through. Sound- ings were taken at the outer edge of kelp area.

Much difficulty was encountered in dragging in the vicinity of Lopez Point in the form of young kelp not yet grown to the surface and consequently not visible. All of the grounds were eventually covered without noting evidence of unrecorded lift though it was watched as closely as possible.

The groundings some 3 miles southeast of Lopez Point (off Triangulation Station KIRK) were not covered due to finding so much kelp which did not show plainly and was unseen until the area was reached.

DEPTH CHANGES: In Special Publication No. 118, Page 30, second paragraph, states that, "It should be noted that the time of changing any upright is the instant the operation ends when the depth is increased." This was not done in the field. All changes of uprights were recorded the instant the operation started. Therefore in plotting the depth change curves in increasing depths the depth curve was made to not take effect between the first two buoys until the operation was started at the second buoy. The corresponding interval of time was taken beyond the noted ending of operation to take care of the necessary time for lowering the last buoy. This is well on the safe side as no time interval for running between buoys was allowed.

*All addendum
attached*

COMPARISONS WITH PREVIOUS SURVEYS:

In the review of Hydrographic Sheet H-5640 comparison with Chart No. 5302, Paragraph 7 states that, "a sunken rock in Latitude 36° 02'.7, Longitude 121° 35'.5, has not been located by the present survey." This position of the sunken rock was plotted and found that the path of the end buoy passed 30 meters inside and this area was covered by a depth of 34 feet which further proves the recommendation as stated in the same paragraph "that this sunken rock should be discontinued in future charting."

This sunken rock original with T-2677 (1891) and falls inside the 34' section of the drag.
— (Signature)

In review of Hydrographic Sheet H-5641, comparison with Sheet H-2077, 1890-91, the single 1 5/6 fathom sounding in Latitude 36° 00'.8, Longitude 121° 33'.6, was not covered by wire drag, however, a 2 1/2 fathom sounding was found with surrounding depths of 8 1/2 fathoms to 9 1/4 fathoms, about 400 meters due west of this position, which shows the irregularity of the bottom in this kelp covered area, and indicates that this sounding is probably there.

|

PERSONNEL AND LAUNCHES:

Lieutenant-Commander G. C. Jones was in charge of the wire drag party, and also in charge of the chartered guide launch "FLORENCE". Lieutenant (j.g.) Walter J. Chovan was in charge of the chartered end launch "POINT REYES".

Respectfully submitted,

Walter J. Chovan
Walter J. Chovan,
Jr. H & G Engr.
C. & G. Survey.

Forwarded, approved:

F. H. Hardy
F. H. Hardy, Chief of Party,
Coast and Geodetic Survey,
Commanding Ship GUIDE.

see Mar. 3, '36
CKG

ADDENDUM.
TO
WIRE DRAG SHEET FIELD NO. 4.
1935.

The depth changes on this sheet were plotted in accordance with paragraph on "Depth Changes" in the descriptive report. It was later found that the depth change curves on this sheet are slightly in error, as the dragmaster states, that, "All upright changes in the field were noted, whether increasing or decreasing depths, the time the operation began at the first buoy and the time the operation ended at the last buoy"

Walter J. Chovan
Walter J. Chovan
Jr. H. & G. Engr.

STATEMENT
to accompany
WIRE DRAG SHEET FIELD NO. 4
1935

The plotting and protracting of buoy positions was done by C. A. Kester, ~~Drag Master.~~
Surveyor

The drag areas were subdivided and inked by Lieutenant (j.g.) Walter J. Chovan.

The completed smooth sheet has been inspected, and is approved.

F. H. Hardy

F. H. Hardy,
Chief of Party, C. & G. S.
Commanding Ship GUIDE.

STATISTICS
 TO ACCOMPANY
 WIRE DRAG SHEET NO.4

Date 1935	Day Letter	Volume	Statute Miles	Positions	Drag Length Feet	TENDER	
						Soundings	Positions
August 2	A	1	2.8	21	9000	3	3
3	B	1	6.0	47	3900	14	14
4	C	1	8.0	61	9000	7	7
5	D	1	0.9	6	9000	-	-
Total			17.7	135		24	24

AREA 11 Square Statute Miles

LIST OF SIGNALS
to accompany
WIRE DRAG SHEET FIELD NO. 4
1935

Hydrographic Name

TRIANGULATION

Location

GAM	Gamboa Point Derrick, 1932
LOPEZ	Lopez Rock, 1932
POD	Tripod Rockland Landing, 1932
IRK	Kirk, 1932

TOPOGRAPHIC

Location of Topographic Sheet Field Letter "C", 1934

ZAP	ONE
CRY	TIP
DUD	WHY
EGO	DUB
FIT	MED
GET	RED
INK	CRO
JAP	EX
KIP	YEL
LOP	ZAR
NEX	

Location of Topographic Sheet Field Letter "D", 1934

CAT
GO
BIN
COP
DO
EAT
FAN

500

TIDE NOTE FOR HYDROGRAPHIC SHEET

March 9, 1936.

Division of Hydrography and Topography:

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

Tide Reducers are approved in
3 volumes of sounding ^{and water} records for

HYDROGRAPHIC SHEET 5942

Locality Mill Creek to Gamboa Point, California coast.

Chief of Party: F. H. Hardy in 1935.
Plane of reference is mean lower low water reading
2.5 ft. on tide staff at Monterey
12.5 ft. below B.M. 3

Height of mean high water above plane of reference is 4.6 feet.

Condition of records satisfactory except as noted below:

Acting Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **..H5942**

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

Number of positions on sheet	...135
Number of positions checked13
Number of positions revised0
Number of soundings recorded	...24
Number of soundings revised0
Number of signals erroneously plotted or transferred0

Date: March 12, 1936

Verification by *J. A. Mc Cormick*

Time: 4 hrs.

Review by *B. Pisigani*

Time: 8 1/2 hrs.

HYDROGRAPHIC SURVEY NO. 5942 W.D.

Smooth Sheet Yes

Boat Sheet 2

Sounding Records 3 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals See D.R.

Landmarks for Charts (Form 567) No

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service No
(Circular Nov. 30, 1933)

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
 PHOTOSTAT OF

No. H 5942 W.D.
 No. ~~F~~

received Feb. 25, 1936
 registered Feb. 29, 1936
 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			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			
<i>Room</i> 2229	<i>A.L. Shalowitz</i>	<i>A.L.S.</i>	<i>Note Ps # 1, page 2 - # 1 & 2, page 3 - P.R.</i>

RETURN TO

82	
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*Verifier's attention is called to
 1st ^{and last} paragraph on page 2 of D.R.*

C. K. Greer March 2, '36

Verifier's Report v on H-5942 (Wire Drag)

Records: Records conform with specifications.

Drafting: Drafting is excellent.

Junctions: This sheet is joined on the north by H-5940 and on the south by H-5943, both wire drag. Field party had a discrepancy in the junction with H-5940 due to an erroneously transferred signal. This was corrected by the verifier. Both junctions are satisfactory. ✓

Control: Shoreline and topographic signals are from T-4874 and T-4878. ✓

Remarks: Shoal soundings were transferred to H-5641. *

Reviewer's attention is called to the 5 fathom sounding at pos. 2b. Lat. 36-00.8, Long. 121-34.0 This sounding was obtained after drag grounded on a position which was rejected because end launch had obtained no positions. See page 14, vol. 2. Effective depth was 35 ft. See also the note on position 22B "Drag apparently not aground but caught in kelp."

Verifier has not inked kelp symbols *sketched by field party.

Reviewer's attention is called to paragraphs 1 and 2, page 3 of descriptive report. Verifier did not investigate old sheets. Verifier questions the statement in paragraph 1 in view of the inaccuracy involved in the transfer of a sounding from the information available to the field party. ±

* The 5 was cleared with 26' effective depth.

* The kelp symbols penciled by field party in lat 35° 59.3' long, 121° 30' has been inked. R.

March 12, 1936.

Submitted,

J.A. McCormick
J.A. McCormick.

± The location of the sunken rock checks the field party's statement on page 3 of the D.R. R.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5942 W.D. (1935) FIELD NO. 4

Mill Creek to Gamboa Point, California Coast, Cal.

Surveyed in August 1935

Instructions dated May 31, 1934 (GUIDE)

Wire Drag with Hand Lead Soundings. Dual Control on Shore Signals.

Chief of Party - F. H. Hardy.

Surveyed by - G. C. Jones.

Protracted by - C. A. Kester.

Subdivision of wire dragged areas by - W. J. Chovan.

Inked by - W. J. Chovan.

Verified by - J. A. McCormick.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual and S. P. 118.

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

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey comply with the instructions for the project. This survey is well executed and such matters as overlaps, proper speed, and determination of lift have been given careful attention.

3. Shoreline and Signals.

The shoreline and topographic signals originate with T-4874 (1934) and T-4878 (1934).

4. Junctions with Wire Drag Surveys.

The junction with H-5940 (1935) on the north is satisfactory. The drag strip continues from one sheet to the other.

The junction with H-5943 (1935) on the south is satisfactory. One of the drag strips continues from one sheet to the other.

5. Comparison with Latest Hydrographic Surveys.

H-5640 (1934), H-5641 (1934).

The present survey covers portions of the above hydrographic surveys and the effective drag depths are consistent with the depths shown on these surveys.

6. Comparison with Chart No. 5302 (New Print dated Feb. 25, 1936).

None of the soundings on the chart conflict with the effective depths of the drag.

The 6 fathom sounding in latitude $36^{\circ}01.37'$, longitude $121^{\circ}35.04'$ was charted from advance information derived from the present survey and contained in Chart letter No. 744 (1935).

This depth is actually $6-2/6$ fathoms.

7. Field Plotting.

The plotting, protracting, and subdivision of dragged areas were well done.

8. Results of Survey.

a. Shoals discovered and clearance depths obtained.

The shoals noted below fall on H-5641 (1934) in greater depths as follows:

- (1) The $6-2/6$ fathoms in latitude $36^{\circ}01.37'$, longitude $121^{\circ}35.04'$, in depths of 14 fathoms. Cleared by 26 foot drag.
- (2) The $3-2/6$ fathoms in latitude $36^{\circ}01.39'$, longitude $121^{\circ}34.76'$, in depths of $7-1/4$ to $9-3/4$ fathoms. Cleared by 16 foot drag.
- (3) The $8-3/4$ fathoms in latitude $36^{\circ}00.77'$, longitude $121^{\circ}34.38'$ in depths of 13 fathoms. Cleared by 41 foot drag.
- (4) The $2-1/2$ fathoms in latitude $36^{\circ}00.76'$, longitude $121^{\circ}33.84'$, in depths of $5-2/6$ to $8-1/4$ fathoms. Cleared by 11 foot drag.
- (5) The $3-1/2$ fathoms in latitude $35^{\circ}59.37'$, longitude $121^{\circ}30.03'$, in depths of $7-1/2$ fathoms. No clearance depth obtained, being too close inshore, as well as in extremely heavy kelp area.
- (6) The 5 fathoms in latitude $36^{\circ}00.8'$, longitude $121^{\circ}34.02'$, in depths of $9-1/4$ to 11 fathoms. Cleared by 26 foot drag.
- (7) The $8-3/4$ fathoms in latitude $35^{\circ}59.37'$, longitude $121^{\circ}30.1'$, in depths of $9-1/4$ fathoms. No clearance depth obtained, being too close inshore, as well as in extremely heavy kelp area.

b. Effective depths.

The effective depths of the various drag strips are sufficient to insure safety to surface navigation in the normal steamer lanes.

c. Splits and insufficient overlaps.

No splits exist and overlaps are satisfactory.

9. Additional Field Work Recommended.


No additional field work is necessary.


10. Reviewed by - G. Risegari, Mar. 20, 1936.


Inspected by - A. L. Shalowitz.

Examined and approved:


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


L. O. Polbert
Chief, Division of Charts.


Fred. L. Peacock
Chief, Section of Field Work.


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

Applied to Chart 5302 - May 19, 1936 - R.M.Z.