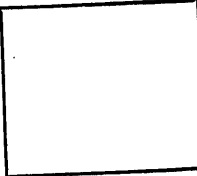


5986

WIRE DRAG SURVEY

Form 504
Ed. June, 1928

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



State: California

DESCRIPTIVE REPORT

WIRE DRAG
Topographic } Sheet No. 16
Hydrographic }

LOCALITY

South California Coast
Pecho Rock to
Point Buohon

1935

CHIEF OF PARTY

F. H. Hardy

5986

WIRE DRAG SURVEY

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

WIRE DRAG
~~HYDROGRAPHIC SHEET~~ 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. 16

⁵⁹⁸⁶
REGISTER NO. **H5986**

State California

General locality South California Coast

Pecho Rock to
Locality Point Buchon

Scale 1:10,000 Date of survey Oct. 7 to 13, 192/35

Vessel Chartered Launches (FLORENCE) Guide Launch, (POINT REYES) End Launch

Chief of Party F. H. Hardy

Surveyed by G. C. Jones

Protracted by C. A. Kester

Soundings penciled by H. G. Conerly

Soundings in fathoms ~~feet~~ Drag Depths in Feet.

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by H. G. Conerly

Inked by H. G. Conerly

Verified by J. A. Mc Cormick

Instructions dated May 5, 192/35

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

DESCRIPTIVE REPORT
 to accompany
 WIRE DRAG SHEET FIELD NO. 16
 Project No. HT 206
 Coast of California
 U.S.C. & G.S.S. GUIDE
 1935

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

LIMITS OF WORK: This sheet covers the area between Point Buchon and Peoho Rock from about one third mile offshore (in general the outside edge of the kelp) to approximately one and one half miles offshore (to 25 to 30 fathom depths.)

CHARACTER OF WORK: The scale is 1:10,000.

The position interval was usually five minutes with intermediate fixes at radical changes in course and speed.

Dual control was used throughout with fixes on shore objects located by triangulation in 1932 or topography in 1934.

DATES OF SURVEY: Work was started on October 7 and completed on October 13, 1935.

JUNCTIONS: The north end of this sheet joins Sheet Field No. 15. (H-5985-1935) There were two continuous strips from that sheet to this one. The south end of this sheet joins Sheet Field No. 17. There is one strip continued from this sheet to Sheet 17, and one strip continued from Sheet Field No. 17 to this sheet. No drag work was done offshore from this sheet.

GROUNDINGS:

Pos.No. Day Letter	Latitude & Longitude	Grounded Effective Depth	Least Sounding Depth	Cleared Effective Depth	Depth Plotted	Remarks
	o ' "	Feet	Fms	Feet	Fms	
32 D	35 14.50 120 54.28	28	3 4/6	Not Cleared	3 4/6	Pos. 13 A also grounded here.
13 A	35 14.45 120 54.53	57	Not Sounded	Not Cleared	None	Grounded on Navigation Buoy.
36 B	35 13.93 120 53.64	Bet. buoys set at 35 & 45 feet	6 2/6	28	6 2/6	Grounded on sloping section while drag was being lifted. Same grounding as 22C
24 B	35 13.60 120 53.12	43	4 1/2	Not Cleared	4 1/2	

COMPARISON WITH PREVIOUS SURVEYS:

The following comparisons are with Sheet H-5832. The 3 4/6 fathom sounding obtained at Latitude 35° 14.50, Longitude 120° 54.28, was in an area previously developed and a least depth of 6 2/6 fathoms. It is on Chart No. 5302 as 3 3/4 fathoms.

The 6 2/6 fathom sounding at Latitude 35° 15.93, Longitude 120° 53.64, was in an area of general depth of 15 fathoms with a least depth of 13 fathoms, not shown on latest issue of Chart 5302.

The 4 1/2 fathom sounding was on the 10 fathom curve with steep bottom and 125 meters west of a rock awash. Not shown on Chart No. 5302.

APPARENT DISCREPANCIES: The beginning of "A" Day was continued from Sheet 15 (Field No.), and on that sheet the depths are one foot shoaler than they are on this sheet. On Sheet 15 there was an additional lift of one foot for swell, this additional one foot lift was dropped on this days work, this sheet as per note Page 2, Volume 1.

At the beginning of "B" Day a bight was plotted instead of a straight line. For explanation see note in record, Page 8, Volume 1. For plotting bight the rejected positions were plotted on the sheet and the drag was dragged up to Position 1.

At end of "E" Day positions 19 and 20 were transferred from Sheet No. 17. There was insufficient space for the bight on Sheet 17.

Work on "D" Day was a continuous strip from Sheet No. 17. There is a difference of 8 feet in effective depths, which is due to a lift of 8 feet for a large thick kelp patch passed over on Sheet 17. It was completely passed over and another drag test made before coming on this sheet.

PERSONNEL AND LAUNCHES:

Lieutenant-Commander G. C. Jones was in charge of work and in charge of Guide Launch. Lieutenant (j.g.) W. J. Chovan was in charge of End Launch. The launches used were the chartered launches FLORENCE (Guide Launch) and POINT REYES (End Launch).

Respectfully submitted,

H. G. Conerly
H. G. Conerly,
Aid,
C. & G. Survey.

Forwarded, approved:

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

LIST OF SIGNALS
to accompany
WIRE DRAG SHEET FIELD NO. 16
1935

<u>Hydrographic Name</u>	<u>Location</u>
PECHO	Pecho Rock, 1933.
OLE	Olson, 1933.
PAT	Patton, 1933.
BET	Rock Between Triangulation Stations Crowbar and Patton, 1933.
LION	Lion Rock, 1933.
CROW	Crowbar, 1933.
SLO	Sloping Rock off Triangulation Station Roy, 1933.
ROY	Roy, 1922. ³³
ISLAY	Islay, 1933.

TOPOGRAPHIC

Located on Topographic Sheet T-6286

GAB
PILE

Located on Topographic Sheet T-6287

CUR
TOP
FLAT
NOT
NEED
WHY

Located on Topographic Sheet T-6288

DER
RAY
HO
PIL
OAT
NUB
FAR
NER
RO
CAN
ARM

STATEMENT
to accompany
WIRE DRAG SHEET FIELD NO. 16
1935

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

The drag areas were subdivided and inked by
Ensign H. G. Conerly.

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. 16

Date 1935	Day Letter	Volume	Statute Miles	Positions	Drag Length Feet	TENDER	
						Soundings	Positions
Oct. 7	A	1	0.9	13	7200	-	6
8	B	1	4.6	36	8000	4	4
9	C	1	0.9	22	8000	2	2
11	D	1	4.0	33	8000and4200	2	2
13	E	1	2.3	18	8000	-	-
Total			12.7	122		8	14

AREA 9.5 SQUARE STATUTE MILES.

Lac

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 7, 1936

Division of Hydrography and Topography:

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

Tide Reducers are approved in
3 volumes of sounding/records for
and wire drag

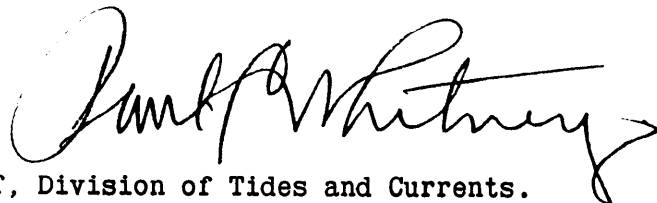
HYDROGRAPHIC SHEET 5986

Locality Pecho Rock to Point Buchon, Calif. coast

Chief of Party: F. H. Hardy in 1935
Plane of reference is mean lower low water reading
3.6 ft. on tide staff at Port San Luis
14.4 ft. below B.M. 2
5.5 ft. on tide staff at Presidio with allowance for time and range
of tide at place of sounding.
10.3 ft. below B. M. 165.

Height of mean high water above plane of reference is 4.5 ft.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES
 Survey No. **H5986**

Name on Survey	5302									
	A	B	C	D	E	F	G	H	K	
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
<u>Pecho RK</u> ✓	*		—							1
<u>Pt. Buchon</u> ✓	*		—				—			2
										3
										4
										5
										6
										7
										8
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										23
										24
										25
										26
										27

Names underlined in red approved
 by *[Signature]*
 on 5/5/30

Remarks

Decisions

	Remarks	Decisions
1		
2		
3		
4		
5		
6		
7		
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11		
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27		
M 234		

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H5986**

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

Number of positions on sheet ¹³⁶
Number of positions checked ¹² ✓
Number of positions revised ⁰
Number of soundings recorded ⁸
Number of soundings revised ⁰
Number of signals erroneously plotted or transferred ⁰

Date: *May 15, 1936*

Verification by *J. A. Mc Cormick* Time: *5 hrs.*

Review by *E. Pisegari* Time: *14½ hrs.*

HYDROGRAPHIC SURVEY NO. H5986 Wire Drag

Smooth Sheet yes

Boat Sheet 2

Sounding Records 1 Vols. # 2 Drag

Descriptive Report yes

Title Sheet yes

List of Signals yes

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 5986 Wire Drag
~~No. H~~

{ received April 16, 1936
 registered May 5, 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			

RETURN TO

82	
----	--

May 4 '36

Verifier's Report on H-5986 (Wire Drag)

Records:

Records are satisfactory.

Drafting:

Field drafting is excellent. Field party ✓
did not indicate the ^{two} splits - 5
Lat. 35-14.5 Long. 120-54.4.

Control: Shoreline and topographic signals are ✓
from T-6286, T-6287 and T-6288.

Junctions: This sheet is joined on the north ✓
by H-5985 (Wire Drag). Junction is
satisfactory. The adjoining sheet to the
south has not been received from the
field.

Remarks:

Attention is called to field party's ✓
method of getting around the 2 1/2% rule ✓
in depth change at 34.4-35.2 B. This area has
Lat. 35-14.0 Long. 120-53.7. been covered by
a deeper drag. ✓

The Chief of Field Records Section suggests ✓
that drag launches should continue towing
after a grounding until the drag is
drawn into a V. In ^{two} ~~many~~ cases the
drag grounds near one launch and both
launches immediately stop. This leaves the
drag in a wide bight. Of course it is
desirable that both launches should obtain
angles to the grounding when the drag
straightens out. a case in question is ✓

the grounding at 24 B. Lat. 35-13.6
Long. 120-53.1. As plotted by the field party
the bight of the drag and the soundings
were east of the path of N buoy. After
checking the adjacent N buoy positions and
making no change, verifier bent the path
of N buoy between positions 19 and 20 B.

No check angles were taken by the grounding on
the ~~and~~ launch. ^{although a cut was taken on the guide launch} Undoubtedly the shoals
located by the tender are O.K. ~~but the~~
~~under draft of the drag~~ ~~leaves a question as to~~
~~how the drag grounded on shoals east of the~~
~~H buoy.~~

The grounding at 22 C also shows the way with
a wide bight. The end launch took two
~~additional~~ positions ^{after the grounding} but the guide launch ~~did not~~ had stopped.
From the records it is clear that the guide ✓
launch was being towed around the shoal so
we cannot show a straight line from the
additional end launch position to the grounding,
although there is an area shown as covered
with 28 feet which was undoubtedly covered
with greater depths.

Shoal soundings obtained were transferred to H-5832. ✓

May 15, 1936

Submitted,

J. A. Mc Cormick

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. H-5986 W.D. (1935) FIELD NO. 16

Pecho Rock to Point Buchon, California Coast, California

Surveyed in October, 1935

Instructions dated May 31, 1934 (GUIDE), May 5, 1935.

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 - H. G. Conerly.

Inked by - H. G. Conerly.

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, except as follows:

The difference in the length of the two uprights of the inclined sections at positions 33.4 B and 34.4 B (Guide launch Record p. 17) were not made in accordance with Rule No. 2, S. P. 118, page 37. No change, however, was made in the office since the area has been covered by a deeper drag.

The Descriptive Report is clear and comprehensive and satisfactorily covers all items 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 except where the groundings occurred, at positions 24 B and 36 B. In these cases the tension on the drag ceased almost immediately after grounding, which should have been maintained until the buoys "lined-up" between the grounding and each launch. This procedure would more accurately determine the location of the grounding as well as to include additional area, not otherwise covered by the same strip. Such matters as overlaps, proper speed, and determination of lift have been given careful consideration, except that in the vicinity of latitude $35^{\circ}13.8'$, longitude $120^{\circ}53.9'$, the overlap of the ends of the two drag strips was insufficient. The resulting gap, however, has been covered by a lesser drag depth of 28 feet.

3. Shoreline and Signals.

The shoreline and topographic signals originate with T-6286 (1934), T-6287 (1934), and T-6288 (1934).

4. Junctions with Wire Drag Surveys.

The junction with H-5985 (1935) on the northwest is satisfactory, the drag strips continuing from one sheet to the other.

The junction with Field Sheet No. 17, on the southeast will be considered in the review of that sheet.

5. Comparison with Latest Hydrographic Surveys.

H-5774 (1934), H-5831 (1934), and H-5832 (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).a. Hydrography.

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

The 3-4/6 fathom sounding in latitude 35°14.5', longitude 120°54.28' was charted 3-3/4 from advanced information in Chart Letter No. 945 (1935). The present survey's position of the sounding as shown on the sheet should be used in preference to the Chart Letter's position which was scaled from the boat sheet.

b. Aids to Navigation.

Whistle Buoy (vicinity of Point Buchon) was located approximately 420 meters northeast of its charted position. The present position more accurately marks the shoal.

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-5832 (1934) in depths as follows:

- (1) The 3-4/6 fathom shoal in latitude 35°14.50', longitude 120°54.38', in depths of 6-2/6 to 9-1/4 fathoms. This shoal was not cleared by the drag.

(2) The 4-1/2 fathom shoal in latitude 35°13.60', longitude 120°53.12', in depths of 8-3/4 to 11 fathoms. This shoal was not cleared by the drag. It is close inshore and near a large rock smash.

(3) The 6-2/8 fathom shoal in latitude 35°13.93', longitude 120°53.64', in depths of 15 to 19 fathoms. Cleared by 28 foot drag. This shoal is fairly close inshore and the clearance depths is considered adequate.

b. Effective depths.

The effective depths of the various drag strips are sufficient to insure safety to surface navigation in the normal steamer lanes, except possibly in the vicinity of latitude 35°13.8', longitude 120°53.9', where the plotting shows a small area covered by only a 28 foot drag. There is evidence that the deeper drag (1C to 22C) probably did cover this area, although the recorded data are not sufficient to plot the coverage with certainty.

c. Splits and insufficient overlaps.

A small split exists in latitude 35°14.4', longitude 120°54.5', as a result of the navigational buoy located in this area. H-5832 (1934) shows the buoy in depths of 24 fathoms and in an area with the bottom depths apparently quite uniform. It is not likely that a danger exists here.

A small split exists in latitude 35°14.5', longitude 120°54.5', at the 3-4/8 fathom shoal.

9. Additional Field Work Recommended.

When a wire drag party again operates in this vicinity, it would be desirable to cover the area noted in par. 8b this review, to a greater effective depth, and to cover the two small splits noted in par. 8(c) of this review.

10. Reviewed by - G. Risegari, May 18, 1936.

Inspected by - A. L. Shalewitz.

Examined and approved:

C. K. Green

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

L. O. Polbat

Chief, Division of Charts.

Fred. L. Pearson

Chief, Section of Field Works

G. Stude

Chief, Division of H. & T.