

6322

WIRE DRAG

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WIRE DRAG

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

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

State CALIFORNIA

LOCALITY
Northern California Coast
VICINITY OF FALSE CAPE ROCK to
Centerville. #

1938

CHIEF OF PARTY

F. H. Hardy

4

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 3-38

REGISTER NO. H-6322 W.D.

State California

General locality Northern California Coast

Locality Centerville to
Vicinity of False Cape Rock to Centerville

Scale 1:10,000 Date of survey July 20, 1938

Vessel GUIDE

Chief of Party F. H. Hardy

Surveyed by Walter J. Chovan

Protracted by H. F. Garber

Soundings penciled by H. F. Garber

Soundings in fathoms ~~feet~~ Effective depths in feet

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by H. F. Garber

Inked by H. F. Garber

Verified by J. A. McCormick

Instructions dated May 31, 1934, May 2, 1935, March 6, 1937

Remarks: Dual control

Visual fixes

DESCRIPTIVE REPORT
to accompany
WIRE DRAG SHEET FIELD NO. 3-38
Project No. HT-206
U.S.C & G.S.S. GUIDE
1938

INSTRUCTIONS: Instructions for this work were dated May 31, 1934, ✓
May 2, 1935 and March 6, 1937.

CHARACTER AND LIMITS OF SHEET: This sheet is a wire drag survey ✓
of the area from False Cape (Latitude $40^{\circ} 31'$) northward to Latitude ✓
 $40^{\circ} 35'$. The inshore limits were governed by offlying rocks and ✓
safe navigation of the guide launch. This sheet joins Wire Drag ✓
Sheet No. 22-37-38 to the south and Sheet No. 2-38 to the north. ✓
H-6408 H-6322

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

The position interval was five minutes, modified to two and ✓
one-half minutes on the radical changes of course.

Dual control and visual fixes were used throughout. ✓

Effective depths range from twenty-three to sixty-one feet. ✓

All the operations were carried on with the Chartered Launches ✓
FLORENCE, VIRGINIA I and a tender.

CONTROL AND DATUM: This sheet is on the Final Adjusted North Amer- ✓
ican Datum of 1927. Signals were taken from Graphic Control Sheets ✓
Q-1937, R-1937 and S-1937, this vessel. ✓
T-6614b T-6615a T-6615b

The shore line was left in pencil as a slight adjustment is ✓
necessary on Sheet No. T-4511, 1929. The shore line is not to be used ✓
for charting purposes. Shoreline inked. Sufficiently good for this sheet.

DATES OF SURVEY: Work was executed on this sheet on July 20, 25, 27, ✓
and 29, 1938.

SPLITS: There is one split on the sheet at Latitude $40^{\circ} 31.5'$, Long- ✓
itude $124^{\circ} 23.5'$ caused by avoiding a fourteen foot sounding that was ✓
impractical to clear.

TIDAL REDUCERS: Tide reducers are determined from observations from ✓
the tide gage located at the North Jetty, Humboldt Bay, California. ✓
See attached Tidal Report, 1938, for detailed information.

GROUNDINGS AND SHOALS:

Pos.No. & Day Letter	Latitude & Longitude	Grounded Eff. Depth	Least Sdg. Depth	Cleared Eff. Depth	Depth Plotted	Remarks
	o ' "	Feet	Feet	Feet	Fms	
A Day	40 31.20 124 23.68	31	--	not cleared	--	Same grounding as 1-B See notes under "General" ✓
1-b	40 31.20 124 23.68	28 ✓	--	not cleared	4 4/6 ✓	Upright depth plotted (See notes) ✓
2-b	40 31.17 124 23.61	23 ✓	17 ✓	not cleared	2 5/6 ✓	Not cleared (see notes) ✓
3-b	40 31.50 124 23.43	35 ✓	28 ✓	23 ✓	4 4/6 ✓	
4-b	40 31.47 124 23.80	35 ✓	29 ✓	23 ✓	4 5/6 ✓	
1-c	40 31.54 124 23.53	23 ✓	14 ✓	not cleared	2 2/6 ✓	Not cleared (see notes) ✓
From Sheet 22-37 H-6408	40 31.40 124 24.33	--	50	36	8 2/6	Grounding from Sheet 22-37 not previously cleared. (See notes)

GENERAL: The following notes on the plotting of this sheet may be of value to the compiler:

"A" Day: The drag was aground on Position 7-A, but by continuing towing to keep tension on the drag, the wire pulled around the grounding to between buoys 1 and 2 by the time the tender reached the spot. ✓ About this time (Position 9-A) the wire broke free of the grounding due to the large swell before the tender could investigate. This is thought to be the same grounding as Position 1-B. The line is ended on Position 9-A at which time the wire broke loose.

Owing to the small area involved, the tide change at Position 5.8-A is not plotted, the lesser depth being used.

"B" Day: The first drag strip was ended at Position 14-B by grounding on approximately the same spot as "A" Day with an effective depth of twenty-eight feet, between buoys N and 1. There is considerable area of uneven bottom, making it difficult to obtain the least depth. The guide launch towline parted before this could be accomplished. The N buoy was towed to the grounding by the end launch at which point the angles were taken (Position 1-b) eleven minutes after the towline parted. The upright depth of 4 4/6 fathoms was plotted.

An attempt was made to clear the 4 4/6 fathom shoal (Position 1-B) with an effective depth of twenty-three feet (Drag Strip No. 15-24B), but before this could be accomplished the drag grounded at buoy 1, with a least depth of 2 5/6 fathoms (Position 2-b). ✓ Owing to the proximity of Mussel Rock and the fact that 2 5/6 fathoms is a decided

danger, it was considered impractical to clear this shoal. As Position 1-b and 2-b are very close together no further attempt was made to clear either shoal.

A third drag strip on "B" Day (Position 26-33B) grounded in two places (Positions 36 and 46) as shown in tabular form. At the beginning of the strip the bight appeared straight from the guide launch on Position 25-B, while the end launch records the bight straight on Position 26-B. Therefore the strip was begun on 26-B.

"C" Day: The strip on "C" Day was laid out to clear the shoals on Positions 3-b and 4-b with an effective depth of twenty-three feet which was accomplished, but the drag grounded shortly thereafter on a fourteen foot spot (Position 1-c). The launches continued towing to cover as much area as possible.

The remainder of the area was covered on "D" Day without further grounding. The fourteen foot shoal (Position 1-c) was purposely avoided as it was impractical to clear, thereby causing a split as shown. As this split is close inshore in an area proven foul, time was not spent in covering it.

The 8 2/6 fathom sounding, Latitude 40° 31.40', Longitude 124° 24.33' is transferred from Wire Drag Sheet No. 22-37^{H-6408} and cleared with an effective depth of thirty-six feet. There was a grounding on Sheet No. 22-37^{H-6408} that was not cleared in 1937 due to the close of the season before it could be accomplished. Disposed of in review of H-6408.

COMPARISON WITH PREVIOUS SURVEYS AND CHARTS: No soundings less than the effective depths were noted on the surveys or charts of this area.

PERSONNEL AND EQUIPMENT: Standard wire drag equipment was used throughout with Lieutenant (j.g.) Walter J. Chovan in charge of the work.

Respectfully submitted,

Harry J. Garber
Harry J. Garber,
Jr. H. & G. Engineer,
C. & G. S.

Approved and forwarded:

E. W. Eickelberg
E. W. Eickelberg,
Chief of Party, C. & G. S.,
Commanding Ship GUIDE from October 3, 1938;
Preceded by Captain F. H. Hardy from 6-15-38 to 10-3-38;
Preceded by Comdr. O. W. Swainson from 5-1-38 to 6-15-38.

STATISTICS
to accompany
WIRE DRAG SHEET FIELD NO. 3-1938

Date 1938	Day Letter	Statute Miles	Positions	Soundings	Tender Positions
July 20	A	1.0	10	--	--
" 25	B	2.7	33	3	4
" 27	C	1.5	14	2	1
" 29	D	4.8	35	--	--
TOTALS		10.0	92	5	5

AREA SQUARE STATUTE MILES = 8.0

Shelter Cove tides were used for reducers for work south of False Cape with no corrections for time or heights. For work north of False Cape when records at Humboldt Bay were incomplete or missing a correction of plus fifteen minutes was applied with no corrections for heights, in accordance with Director's letter dated October 26, 1938.

San Francisco tides were used for reducers on May 29th and October 7th to 18th inclusive, when records from Humboldt Bay and Shelter Cove were incomplete or not available. A Correction in time of minus 0.46 hours to high water, minus 0.14 to low water and a range factor of 1.12 to staff readings was applied. These factors reduce tides at San Francisco to Shelter Cove as of simultaneous comparison between these stations determined in 1936.

Hourly heights were tabulated for only the hours of those days on which work was done. High and low waters were not tabulated. Nor were simultaneous comparisons made between North Jetty, Humboldt Bay and Shelter Cove; as previous comparisons in 1937 were made from a better series of observations.

Respectfully submitted,

Harry F. Garber
Harry F. Garber,
Jr. H. & G. Engineer,
C. & G. S.

Approved and forwarded:

E. W. Eickelberg,
Chief of Party, C. & G. S.,
Commanding Ship GUIDE from October 3, 1938;
Preceded by Captain F. H. Hardy from 6-15-38 to 10-3-38;
Preceded by Comdr. O. W. Swainson from 5-1-38 to 6-15-38.

STATEMENT
to accompany
WIRE DRAG SHEET FIELD NO. 3
1938

The plotting and protracting of buoy positions was done by
Lieutenant (j.g.) Harry F. Garber.

The drag areas were subdivided and inked by Lieutenant (j.g.)
Harry F. Garber.

The completed smooth sheet has been inspected and is approved.



E. W. Eickelberg,
Chief of Party, C. & G. S.,
Commanding Ship GUIDE from October 3, 1938;
Preceded by Captain F. H. Hardy from 6-15-38 to 10-3-38;
Preceded by Comdr. O. W. Swainson from 5-1-38 to 6-15-38.

LIST OF SIGNALS USED
ON WIRE DRAG SHEET FIELD NO. 3-38.

<u>HYDROGRAPHIC NAME</u>	<u>Location POSITION.</u>
Point	Point, 1928
Coon	Coon, 1928
Sel	Mussel Rock, 1869
False	False Cape Rock, 1869

TOPOGRAPHIC SHEET S-1937.

MAC	NADA	SIX
GAB	CEN	LAP

TOPOGRAPHIC SHEET R-1937.

ARE	FAT	ZEP
POD	ACE	TEL
BUR	RIP	

TOPOGRAPHIC SHEET ^QS-1937.

PUG	LANK	BRIG
LONG	HO	BEN
	BIG	

Field Records Section (Charts).

HYDROGRAPHIC SHEET NO. **H6322** W.D.
.....

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

Number of positions on sheet 97 ..
Number of positions checked 9 ..
Number of positions revised 0 ..
Number of soundings recorded 5 ..
Number of soundings revised 0 ..
Number of signals erroneously plotted or transferred 0 ..

Date: **Feb. 9, 1939.**

Verification by **J.A. M^c Cormick**

Time: **4 hr.**

Review by **J.A. M^c Cormick**

Time: **6 hr.**

Remarks.

Decisions

	Remarks.	Decisions
1	Referred to USGB 1/12/39 vs Cape Fortunas	File No. 405 243
2	Location of T.G. off limit of survey	.. 407 242
3	Name of <u>A</u> station sufficient.	.. 405 243
4	Referred to in Tidal Data off limit of survey	
5		.. 405 243
6		.. 405 243
7		
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M 234		

GEOGRAPHIC NAMES
 Survey No. **H6322**
 W.D.

Name on Survey	On Chart No. 5795		On previous survey		On U. S. quadrangle Maps		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List	
	A.	B.	C.	D.	E.	F.	G.	H.	K.							
✓ <u>False Cape</u>	✓															1
Humboldt Bay	5602															2
✓ <u>Mussel Rock</u>	✓															3
Shelter Cove	5602															4
✓ <u>False Cape Rock</u>	✓															5
<u>Centerville</u>	5602															6
																7
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<u>Names underlined in red</u>																25
<u>to be inked on H-6322</u>																26
✓ <u>ATE</u>	1/16/39															27

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H-6322 W.D.
~~PHOTOSTAT OF~~ } ~~No. H-~~

{ received Dec. 29, 1938
 { registered Jan. 4, 1939
 { 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			
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63			
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83			
88			
90			

RETURN TO

82	T. B. Reed
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✓ *TBR*

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 28, 1939.

Division of Hydrography and Topography:

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

Plane of reference

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

HYDROGRAPHIC SHEET 6322

Locality Vicinity of False Cape, Norther California Coast

Chief of Party: F. H. Hardy in 1938

Plane of reference is mean lower low water reading

3.4 ft. on tide staff at Shelter Cove

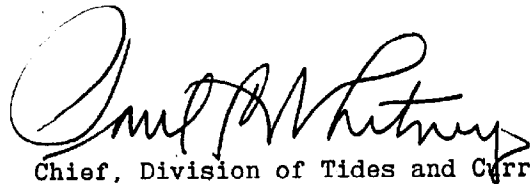
7.1 ft. below B.M. 1 A

2.0 ft. on tide staff at North Jetty, Humboldt Bay

11.5 ft. below B.M. 1

Height of mean high water above plane of reference is 5.6 feet at
Shelter Cove; 5.8 feet at North Jetty, Humboldt Bay.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Veriper's Report on H-6322 (1938) W.D.

This survey was verified and reviewed by the same cartographer. All pertinent comment is contained in the review.

Feb. 9, 1939.

J.A. McCormick

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6322 (1938) W.D. FIELD NO. 3

False Cape Rock to Centerville, Northern California Coast, Calif.
Surveyed in July, 1938, Scale 1-10,000
Instructions dated May 31, 1934; May 2, 1935; March 6, 1937 (GUIDE).

Wire Drag

Dual Control on shore signals

Chief of Party - F. H. Hardy.
Surveyed by - W. J. Chovan.
Protracted by - H. F. Garber,
Subdivision of wire dragged areas by - H. F. Garber.
Inked by - H. F. Garber.
Verified by - J. A. Mc Cormick.

1. Shoreline and Signals.

- a. Shoreline is from T-4511 (1929) and T-4514 (1929).
- b. Topographic signals originate with graphic control surveys T-6614b (1937) and T-6615 a and b (1937).

2. Junctions with Wire Drag Surveys.

The junctions with H-6321 (1938) W.D. on the north and H-6408 (1937-38) on the south are satisfactory.

3. Results of Survey.

a. Shoals discovered and clearance depths obtained.

- (1) A 2-2/6 fathom sounding in lat. 40°31.5', long. 124°23.5' falling in depths of 12 fathoms on H-6420 (1938). Not cleared.
- (2) A 4-4/6 fathom sounding in lat. 40°31.5', long. 124°23.4' falling in depths of 11 to 12 fathoms on H-6420 (1938). Cleared with an effective depth of 23 feet.
- (3) A 4-5/6 fathom sounding in lat. 40°31.5', long. 124°23.8' falling in depths of 12 to 14 fathoms on H-6420 (1938). Cleared with an effective depth of 23 feet.
- (4) A 4-4/6 fathom grounding in lat. 40°31.2', long. 124°23.7' falling in depths of 9-1/4 to 10-3/4 fathoms on H-6420 (1938). Not cleared.

- (5) A 2-5/6 fathom sounding in lat. 40°31.2', long. 124°23.6' falling in depths of 8-1/4 to 9-1/4 fathoms on H-6420 (1938). Not cleared.

b. Splits and insufficient overlaps.

The split in lat. 40°31.5', long. 124°23.5' falls in depths of 10 to 12 fathoms on H-6420 (1938). It was impractical to cover because of its proximity to Mussel Rock and to the 2-2/3 fathom sounding discussed in par. 3a (1). There are no other splits and the overlaps are sufficient.

4. Comparison with Latest Hydrographic Surveys.

H-6415 (1937-38), H-6420 (1938).

The present survey falls entirely within the combined area of the above surveys. There are no conflicts between effective drag depths and hydrography.

5. Comparison with Chart 5602 (New Print dated Nov. 5, 1938).
Chart 5795 (New Print dated Aug. 1, 1938).

The charts contain no soundings which conflict with effective drag depths on the present survey. Shoals discovered by the drag have already been charted from advance information furnished in Chart Letter 509 of 1938 from the field party. The charted positions and depths differ slightly from those on the verified survey.

6. Condition of Survey.

- a. The drag volumes are neat and legible.
- b. The descriptive report covers all items of importance.
- c. The field plotting is excellent.
- d. Effective drag depths should have averaged 10 to 15 feet deeper inshore and about 25 feet deeper in the offshore portion of the work.

7. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project.


8. Additional Field Work Recommended.

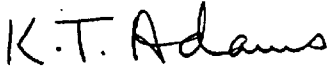
Clearance of shoals and split discussed in par. 3a (1), 3a (4), 3a (5) and 3b is not considered necessary because of their proximity to Mussel Rock. Greater effective depths would have been desirable (see par. 6d) particularly in the case of the 7-1/4 fathom shoal (from H-6420 (1938)) in lat. 40°31.55', long. 124°23.96' cleared with 23 feet on the present survey. This, however, is one of the chain of shoals about Mussel Rock and additional investigation is not considered necessary at this time.

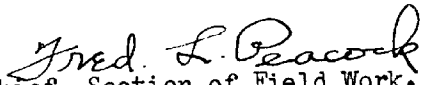
9. Reviewed by - J. A. Mc Cormick, March 22, 1939.


Inspected by - E. P. Ellis.

Examined and approved:


T. B. Reed,
Chief, Section of Field Records.


K. T. Adams
Chief, Division of Charts.


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


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

Applied to Chart 5795 - June 1939 - JAS
Applied to Chart 5602 Oct. 9, 1939 J.L.