

6167

WIRE D

WIRE DRAG

6167

Form 504

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

State: California

6167

DESCRIPTIVE REPORT

WIRE DRAG
Topographic }
Hydrographic } Sheet No. 23

LOCALITY
San Clemente Island
Northern Part ~~of~~

~~San Clemente Island~~

1936

CHIEF OF PARTY

F. H. Hardy

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 23

REGISTER NO. H6167 W.D.

State California

General locality San Clemente Island

Locality Northern Part of Island ~~San Clemente~~

Scale 1:20,000 Date of survey Oct. 19, 20, 21, 22, 30, 1936
November 10, 1936

Vessel GUIDE

Chief of Party F. H. Hardy

Surveyed by I. E. Rittenburg

Protracted by W. J. Chovan

Soundings penciled by R. C. Bolstad

Effective Depths in Feet.
Soundings in fathoms ~~feet~~ and sixths.

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by W. J. Chovan & R. C. Bolstad

Inked by W. J. Chovan & R. C. Bolstad

Verified by _____

Instructions dated May 31, 1934; 3rd para. letter of Chief, Div.
of H. & T. August 31, 1936., 19____

Remarks: Dual Control - Visual Fixes using Chartered Launches

VIRGINIA I (guide launch) and CAPON (end launch).

DESCRIPTIVE REPORT
to accompany
WIRE DRAG SHEET FIELD NO. 23
Project No. HT-206
Coast of California
U.S.C. & G.S.S. GUIDE
1936

INSTRUCTIONS: Instructions for this work were dated May 31, 1934, and in the third paragraph of a letter from the Chief, Division of Hydrography and Topography dated August 31, 1936.

CHARACTER AND LIMITS OF WORK: This sheet is a wire drag survey of the northern half of San Clemente Island. It is joined on the south by Wire Drag Sheet Field No. 22. On the eastern side of the island the drag strip runs about 200 meters offshore. However, on the western and northern side of the island it was impossible to approach the shore closer than one-half mile in places and one mile at the northwest end of the island due to the heavy kelp encountered. Kelp was encountered over a mile offshore at the northern portion of the island; it was impossible to drag this area due to fouling of the drag (see positions 21 to 24, "F" day). In general the guide launch was held from 10 to 100 meters offshore from the kelp line which is practically continuous. This kelp line was sketched on the boat sheet by estimation and has been transferred to the smooth sheet. Notes in the drag record supplement this information. In connection with this see a memorandum from the Chief, Division of Hydrography and Topography to Chief, Section of Coast Pilot dated February 12, 1937. This kelp was too heavy to drag through and the area dragged on this sheet represents the closest inshore area obtainable under the conditions existing at the time of dragging. From the 1933 topographic survey it appears the kelp area has extended offshore; it is not known whether seasonal changes exist. However, this kelp was heavy enough to occasion a lift of 31 feet on the drag (see the beginning of "D" day). This made it necessary to reject about one hour's dragging here because of uncertainty as to just when this excessive amount of lift began. The area was later re-dragged. The 9 1/4 fathom shoal in about Latitude 33° 02.6', Longitude 118° 35.54' could not be dragged because of this heavy kelp. An attempt was made to drag this on "F" day but the line had to be broken at Position 24F and the drag set out again at the east edge of the shoal. This kelp, as in other areas on the west side of the island was not on the surface, having not yet grown tall enough; but the tops of the kelp had grown to within one fathom of the surface and this kelp was very heavy. Likewise, it was impossible to drag Northwest Harbor closer because of this same kelp condition. For apparent groundings due to kelp see paragraph headed "Groundings" below. The drag area beyond Position 34A where

the drag launches began to slow up due to running into kelp has been omitted from this sheet because the drag was not tested at the time and the lift may have been excessive. This area was redragged on "D" day. Likewise drag strip 16 to 24 B was not plotted on the smooth sheet because the area was redragged and is well covered. Wilson Cove could not be dragged closer because of kelp and mooring bouys.

The scale of this sheet is 1:20,000.

Effective depths range from 30 to 84 feet.

Dual control and visual fixes were used throughout.

CONTROL AND DATUM: This sheet is on the final adjusted North American 1927 datum. Triangulation was that of 1933 and 1934. Topographic signals were taken from tracings of topographic sheets T-6087 and T-6088, furnished this vessel by the office. Shoreline, offlying rocks and kelp (shown in ink on this sheet) were taken from photostats furnished by the Washington office. In this connection, the photostats and tracings had distorted to such extent that difficulty was encountered in transferring the topographic detail to the smooth sheet. In plotting and checking the signals the meridians and parallels were held fixed, and adjustments made. This method disagreed with the tracings furnished, in many instances with relation to the position of triangulation stations shown on these tracings.

** A general check showed the signals were plotted correctly. SR on H-6167 WD.*

DATES OF SURVEY: Six day's work are shown on this sheet, being done on October 19, 20, 21, 22, 20 and November 10, 1936.

3

TIDAL REDUCERS: Tide reducers for this sheet were obtained from the Commanding Officer, U.S.C. & G.S.S. PIONEER being records of the Portable Automatic Tide Gage at Wilson Cove, San Clemente Island, and the Standard Station at Los Angeles Outer Harbor. See attached Tidal Data Sheet for additional information.

JUNCTIONS AND OVERLAPS: This sheet joins Wire Drag Sheet Field No. 22^(H-6166) on the south. The junctions are good as on the east side of the island the drag strip is continuous to Sheet 22^{H-6166} while on the west side of the island the overlaps of the adjoining lines are ample. The overlaps of the adjoining lines on this sheet are also sufficient.

SPLITS: None. However, there is a small very important area at the northwest end of the island with a least depth found by hydrography in Latitude 33° 02.6', Longitude 118° 35.54' of 9 1/4 fathoms that it was most important to drag but because of the very heavy kelp encountered it was impossible to drag it. The line was ended at Position 24F and the drag picked up. In setting the drag out again, the drag was laid around the eastern edge of this kelp and the line continued east.

best that can be done on H-6166

GROUNDINGS: There is only one certain grounding on this sheet. This occurred on October 30th at Position 25E when the drag hung up at Buoy No. 8 with 70 feet. In picking up the drag, after the tender was unable

to locate the ground, the wire was still fouled around something, believed to be a pinnacle rock as the surrounding depths would show a wreck to be about 165 to 170 feet high, but a shoal sounding could not be found. * Evidently means rock GR

There were two other hang ups which were thought to be groundings but on further investigation were believed to be due to kelp. The first occurred at the end of A day. This was the first experience hanging up on kelp and it was believed at the time that the drag was actually grounded on a rock or shoal. The kelp was very heavy at Buoy "N" but upon investigation by the tender, it is believed the hang up was due to kelp. This spot could not be cleared because of the kelp. The effective depth of N was 40 feet at the time of this apparent grounding. While I am morally certain there was nothing here but kelp, yet the doubt does remain whether there actually was a shoal of 40 feet or less here in surrounding depths of 16 fathoms. It is not known what the office policy is regarding this upon reviewing the sheet.* The grounding was not shown but was noted on the smooth sheet. * Not considered a grounding R

The second of these was at Position 15 B. At first it was thought that an actual grounding was encountered here but later investigation led to the belief that it was another case of kelp.* However, to further substantiate the conclusion that it was nothing but kelp. The drag was reversed to cover this again. Nothing was found. However, because of the small amount of the coverage and the same reasons as in the preceding paragraph a note has been made on the smooth sheet calling your attention to this spot. * Not considered a grounding. R

| Pos.No. Letter Day | Latitude & Longitude | Grounded Eff. Depth | Least Sdg. Depth | Cleared Eff. Depth | Depth Plotted | Remarks |
|--------------------------|----------------------------|---------------------------|------------------------|--------------------------|------------------|----------------------------------|
| | o ' " | Feet | Fms. | Feet | Fms. | |
| 25 E | 33 00.5 118 37.55 | 70 | 0/25 — | 53 43 | 70 | Believed to be pinnacle rock. |

COMPARISON WITH PREVIOUS SURVEYS AND CHART: There are no soundings on Chart 5111 or hydrographic sheets H-5475 and (H-5459)* which are shoaler than the dragged depths. The 70 foot grounding above falls in surrounding depths of about 42 fathoms. * Falls off H-6167 R. Probably meant H-6128 (1936)

PERSONNEL AND EQUIPMENT: Lieutenant I. E. Rittenburg was in charge of this work and in charge of the guide launch. Lieutenant (j.g.) Walter J. Chovan was in charge of the end launch. Chartered Launch VIRGINIA was used as guide launch and Chartered Launch CAPON as end launch. Standard wire drag equipment was used.

Respectfully submitted,

I. E. Rittenburg
I. E. Rittenburg,
H & G Engineer,
C. & G. Survey.

Forwarded and approved:

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

STATEMENT
to accompany
WIRE DRAG SHEET FIELD No. 23
1936

The plotting and protracting of buoy positions was performed by
Lieutenant (j.g.) W. J. Chovan.

The drag areas were subdivided and inked by Lieutenants (j.g.)
W. J. Chovan and R. C. Bolstad.

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 FIELD NO. 23
1936

| Date 1936 | Day Letter | Volume | Statute Miles | Positions | Drag Length Feet | Tender Soundings | Positions |
|--------------|---------------|--------|------------------|-----------|---------------------|---------------------|-----------|
| Oct. 19 | A | 1 | 5.7 | 76 | 6,000 | 0 | 0 |
| 20 | B | 1 | 7.3 | 108 | 6,000 | 0 | 0 |
| 21 | C | 1 | 1.2 | 16 | 6,000 | 0 | 0 |
| 22 | D | 1 | 3.4 | 44 | 6,000 | 0 | 0 |
| 30 | E | 1 | 4.5 | 51 | 6,000 | 0 | 3 |
| Nov. 10 | F | 1 | 9.6 | 116 | 6,000 | 0 | 0 |
| TOTALS | | | 31.7 | 411 | | 0 | 3 |

AREA 18.7 SQUARE STATUTE MILES.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6167** W. D.

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

| | |
|--|---------------|
| Number of positions on sheet | 411 |
| Number of positions checked | 99 |
| Number of positions revised | none |
| Number of soundings recorded | 1 |
| Number of soundings revised | none |
| Number of signals erroneously plotted or transferred | none |

Date: April 12, 1937

Verification by S. Pizzari

Review by S. Pizzari

Time: 2 days. 2 hrs.

Time: 1 " 6 hrs.

HYDROGRAPHIC SURVEY NO. H6167 W.D.

Smooth Sheet Yes

Boat Sheet Two

Sounding Records 3 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol#1

Landmarks for Charts (Form 567) No

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None
(Circular Nov. 30, 1933)

Remarks _____

HYDROGRAPHY
Total Days 6
Last Date Nov. 10

Remarks

Decisions

| | Remarks | Decisions |
|----|------------------|-------------------|
| 1 | <i>For Title</i> | |
| 2 | <i>" "</i> | <i>see T-6087</i> |
| 3 | | <i>" "</i> |
| 4 | | <i>" "</i> |
| 5 | | <i>" "</i> |
| 6 | | <i>see T-6088</i> |
| 7 | | |
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GEOGRAPHIC NAMES

Survey No. **H6167** W.D.

| Name on Survey | Sources | | | | | | | | | | | |
|-------------------------|--------------|---|---|---|---|---|---|---|---|--|--|----|
| | A | B | C | D | E | F | G | H | K | | | |
| <u>California</u> | ✓ | | | | | | | | | | | 1 |
| <u>San Clemente I</u> | ✓ app'd | | | | | | | | | | | 2 |
| <u>Northwest Harbor</u> | ✓ app'd | | | | | | | | | | | 3 |
| <u>Wilson Cove</u> | ✓ app'd | | | | | | | | | | | 4 |
| <u>West Cove</u> | ✓ app'd | | | | | | | | | | | 5 |
| <u>Seal Cove</u> | GNS app'd | | | | | | | | | | | 6 |
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Names underlined in red approved
by STE on 3/18/37

LAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

March 17, 1937

Division of Hydrography and Topography:

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

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


HYDROGRAPHIC SHEET 6167

Locality Northern Part, San Clemente Island, Calif. coast.

Chief of Party: F. H. Hardy in 1936
Plane of reference is mean lower low water reading
3.6 ft. on tide staff at Wilson Cove
16.2 ft. below B.M. 2
3.6 ft. on tide staff at Los Angeles Harbor
14.0 ft. below B. M. 8

Height of mean high water above plane of reference is 4.4 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H **6167** W.D.
~~No. 112~~

received Mar. 9, 1937
registered Mar. 12, 1937
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 | <i>A. L. Shalowitz</i> | ✓ | <i>See page 2 # 2 - Have projection of both smooth sheet and Topo checked to see if the trouble was in projection error.</i> <i>CKA</i> |
| 83 | | | |
| 88 | | | |
| 90 | | | |
| | | | |
| | | | |

RETURN TO

| | |
|----|--------------|
| 82 | C. K. Green. |
|----|--------------|

✓

C O P Y

20-28
720 Vo 15

CKG

February 12, 1937.

MEMORANDUM to Chief, Section of Coast Pilot.

On my recent inspection of the party on the Ship GUIDE, the chief of the wire drag sub-party informed me that it was impractical to drag within the desired distance from shore around the islands off the Southern California Coast because of heavy kelp. It is not certain whether this kelp remains attached all year or is seasonal. I shall recommend, however, to the Division of Charts that the kelp line as indicated on the drag sheets be charted. You will please give consideration to a statement of caution in the Coast Pilot to the effect that, while hydrographic surveys have been made close in to shore, wire dragging for dangers extends only in to the kelp line as indicated on chart No. --.

/signed/ G. T. RUDE

Chief, Division of
Hydrography and Topography.

H 6 / 67

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6167 (1936) W.D. FIELD NO. 23.

Northern Part, San Clemente Island, California
Surveyed in October and November 1936, Scale 1:20,000.
Instructions dated May 31, 1934, H. & T. Letter August 31, 1936.

Wire Drag with Hand Lead Soundings Dual control on shore signals.

Chief of Party - F. H. Hardy.
Surveyed by - I. E. Rittenburg.
Protracted by - W. J. Chovan.
Subdivision of wire dragged areas by - W. J. Chovan, R. C. Bolstad.
Inked by - W. J. Chovan, R. C. Bolstad.
Verified by - G. Risehari.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual, and S. P. 118 except that the smooth sheet showed considerably more kelp off the northwestern end of the island than was shown on the boat sheet or noted in the drag records. Inasmuch as the Descriptive Report (page 1) states that "this kelp line was sketched on the boat sheet by estimation and has been transferred to the smooth sheet", the latter was changed in the office to conform to the limits shown on the boat sheet.

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 except that in the vicinity of lat. 32°59' long. 118°37' the drag work should have extended offshore to the 50 fathom curve which is the general limit of the drag work on the west side of the island. This survey is well executed and such matters as overlaps, proper speed and determination of lift have been given careful consideration. The 5 foot lift between positions 1A and 11A (at the southern end of sheet) was rectified as soon as discovered.

3. Shoreline and Signals.

The shoreline including the inshore fringe of kelp and topographic signals originate with T-6087 (1933) and T-6088 (1933). The wharf in Wilson Cove was transferred in the office from T-6490 (1936).

4. Junctions with Wire Drag Surveys.

On the west side of the island the junction with H-6166 (1936) on the south is satisfactory. On the east side of the island the junction on the south with H-6166 (1936) is satisfactory, the drag strip continuing from one sheet to the other.

5. Comparison with Latest Hydrographic Surveys.

H-5475 (1933), H-5600 (1933-34) and H-6128 (1936).

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. 5111 (New Print dated July 30, 1936).

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

7. Field Plotting.

The plotting, protracting, and subdivision of dragged areas were well done. The dimension lines, however, of each subdivision were omitted by the field plotter. These were added in the office. (See p. 40, S.P. 118).

8. Results of Survey.

a. Shoals discovered and clearance depths obtained.

The shoals noted below fall on H-5475 (1933) in greater depths as follows:

- (1). The 11 4/6 fathom grounding in lat. 33°00.5' long. 118°37.55' in depths of 38 to 45 fathoms. This is believed to be a pinnacle rock by the field party. The D. R. page 3, states that "the wire was still fouled around something" when picking up the drag. This obstacle was cleared, however, by a 43 foot drag.
- (2). In two spots the drag hung up; in lat. 32°56.85' long. 118°33.7' with 40 feet, and in lat. 32°58.7' long. 118°31.9' with 30 feet effective depths.

The former falls in depths of 13 fathoms in very heavy kelp and could not be cleared; the latter in depths of 8 to 16 fathoms but was cleared with a 31 foot drag, also in heavy kelp. The tender investigated the 30 foot hang-up and noted in the record very heavy "new kelp not yet grown to the surface." It is not believed that the drag actually grounded on these spots. The opinion of the field party in the D. R. that the hang-ups were due to the heavy kelp is concurred in. The apparent

groundings have been omitted.

b. Effective depths.

The effective depths of the various drag strips are sufficient to insure a safe track for surface navigation for a distance of about $3/4$ mile from the kelp line.

c. Splits and insufficient overlaps.

There are no splits within the dragged area and the overlaps are sufficient.

9. Additional Field Work Recommended.

The survey generally fulfills the purpose intended, however, attention is called to the undragged areas at the northwest end of the island, Northwest Harbor and Wilson Cove. These areas could not be dragged closer because of the very heavy kelp encountered. (See D. R. pages 1 and 2). If it should develop that the kelp in this area is seasonal, (see D. R. page 1) then these areas should be dragged over particularly the area off the northwest end of the island in order to cover the charted 9 fm. shoal in lat. $33^{\circ}02.6'$ long. $118^{\circ}37.5'$. If kelp conditions permit the charted $4\frac{1}{2}$ fm. shoal in lat. $32^{\circ}55.2'$ long. $118^{\circ}33.3'$ should be dragged over and a clearance depth obtained. The drag work should also be extended offshore to cover the area noted in par. 2 of this review.

10. Kelp Limits.

The inshore fringe of kelp, shown in black on the present survey, was transferred from the 1933 topographic survey. The patches of kelp shown in black near the inshore limit of the drag work were plotted from notes in the drag records. The fringe of kelp shown in blue was transferred from the boat sheet and represents the approximate offshore limits of the kelp as sketched on the boat sheet during the drag operations. This latter kelp does not show on the surface in all cases, but the tops have grown to within 1 fathom of the surface (see D. R. - page 1).

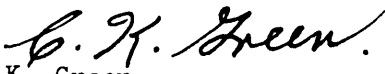
11. Note to Compiler.

Attention is called to paragraph 10 of this review re-kelp shown on this survey and to memorandum from Chief Division of H. & T. attached to D. R. regarding the charting of the kelp limits from the present survey.

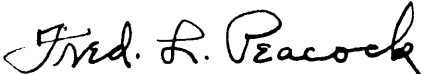
12. Reviewed by - G. Risegari, April 10, 1937.


Inspected by - A. L. Shalowitz.

Examined and approved:


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


Chief, Division of Charts.


Chief, Section of Field Work.


Chief, Division of H. & T.

Bray area compared with plan of Wilson Cove 1:5,000 ch. 5111 ^{27th A.} 6/17/37
Inspected and grounding applied to Chart 5118 9/2/39 H.E.M.