

6455

WIRE DRAG

6455
WIRE DRAG

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Wire Drag
~~Topographic~~ } Sheet No. 21
~~Hydrographic~~ } Register No. H-6455

U. S. COAST & GEODETIC SURVEY
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Acc. No. _____

State California

LOCALITY

Northern California Coast

St. George Reef

1939

CHIEF OF PARTY

I. E. Rittenburg

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

~~HYDROGRAPHIC~~ ^{WIRE DRAG} 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. 21

REGISTER NO. H-6455

H6455

State California

General locality Northern California

Locality St. George Reef

Scale 1:20,000 Date of survey June 13 to Aug. 30, 1939

Vessel Pacific Coast Wire Drag Party

Chief of Party I. E. Rittenburg

Surveyed by I. E. Rittenburg & W. J. Chovan

Protracted by E. E. Stohsner

Soundings penciled by E. E. Stohsner

Soundings in fathoms ~~not~~ Effective depths in feet

Plane of reference Mean lower low water

Subdivision of wire dragged areas by E. E. Stohsner

Inked by E. E. Stohsner

Verified by H. E. Stegman

Instructions dated March 3, 1939

Remarks: Dual control - Visual fixes - using chartered launches

Florence (guide launch) Virginia I (end launch)

DESCRIPTIVE REPORT
to accompany
WIRE DRAG SHEET FIELD NO. 21
Office Register No. H-6455
Project # HT-230
Coast of California
Pacific Coast Wire Drag Party
- 1939 -

INSTRUCTIONS: Authority for this survey is contained in instructions from the Director, dated March 3, 1939, project No. HT-230.

CHARACTER AND LIMITS OF WORK: This sheet covers the area that extends from Sister Rock on the south to $7\frac{1}{2}$ miles north of Pt. St. George. From Castle Rock north the inshore limit of this survey was governed by the safe inshore limit of operation of the launches due to swell and dangers. South of Castle Rock the inshore limit joins the off shore limit of the 10,000 sheet of this area, sheet field #2-39, office register #H-6453. The offshore limit extends well beyond the 20 fathom curve, in the vicinity of St. George Lighthouse this is about $1\frac{1}{3}$ miles outside of lighthouse.

The limits of areas in which wire drag surveys are desirable as shown outlined in red ink on chart #5895 forwarded by the Washington Office have been followed except in the following cases. No drag strips were carried between S.W. Seal Rock and Great Break, Whale Rock and Flat Rock, or Star Rock and Hump Rock. All three of these passages are quite narrow and with adjacent dangers it would have been difficult to maneuver the large launches and short drag with absolute safety. Considering the rest of the sheet, these three small passages are relatively unimportant.

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

The position interval was 5 minutes in most cases but was shortened as necessary to control radical changes of course and when near dangers.

Effective depths ranged from 12 to 86 feet.

CONTROL AND DATUM: This sheet is on the final adjusted North American, 1927, datum. Triangulation control was established in 1859, 1869, 1871, 1913, and 1925. Topographic signals were taken from graphic control sheets field letters A, B, C, D, and E, 1939 registry numbers T-6675 a&b, T6676 a&b, and T-4949. ~~and also a 1929 topographic sheet registry number T-4409.~~ Topographic features as shoreline and offlying rocks were taken from the photostats of surveys executed in 1928. ~~and 1929.~~ None of the topographic features shown on this sheet were located by this party. T-4402, T-4404, T-4405, T-4409 of 1928. Offlying rocks probably taken from copy of H-4362 (1928).

DATES OF SURVEYS: This work was done by the chartered launches Florence and Virginia I, from June 13 to Aug. 30, 1939. The positions for this survey are shown in blue capitals.

TIDAL REDUCERS: Tide reducers for this sheet were taken from the records of the standard automatic tide gage at Crescent City, California. The necessary hourly heights were furnished this party by the Washington Office. For further tidal information see the attached tidal sheet.

JUNCTIONS AND OVERLAPS: This sheet joins wire drag sheet field number 3-39, office register H-6454, on the south. Also on the south, 'R' day strip is continued as 'A' day on sheet field number 22-39, office register H-6456. The lower half of this sheet joins wire drag sheet field number 2-39, office register H-6453 on the east. The overlaps with these adjacent sheets are good except at lat. $41^{\circ}41'2''$ - long. $124^{\circ}11'3''$. At this spot the overlap is only 400' instead of 500', the length of a section on that strip. This adjoining sheet has already been forwarded to the Washington Office and only the tracing of the limits available in this office so cannot intellegently go into detail concerning this overlap. Overlap satisfactory.

SPLITS: There is but one split on this sheet and this is at lat $41^{\circ}53'2''$ long $124^{\circ}18'7''$. It is relatively unimportant technical split as it falls one mile outside of the 20 fathom curve. There is only 200' overlap instead of 500' the length of a section in this case. The boatsheet shows sufficient overlap but the fixes are weak in this vicinity and that is why the split occurred when the smoothsheet was plotted. Par. 2b, review.

GROUNDINGS: 'H' Day - Pos 26H indicates ground between buoys 16 & 17, on pos 28H the drag apparently slipped over ground. There being a pronounced bight with most of the drag streamed behind the launches in maneuvering thru the narrow channel. The groundwire apparently sagged between buoys and touched bottom and then pulled free when strain was again put on it. Tender investigated but found entire drag free and took a fix, 1h plotted on smooth sheet, and a range to Brown Rock to determine the extreme southern limit of the drag. No buoys were south of this fix and Brown Rock. Upright depth of $8\frac{1}{2}$ fathoms shown on boat sheet was plotted between buoys 16 & 17, pos 26H, but no investigation could be made as groundwire slipped off bottom. This upright depth was disproved on 'OC' day when 55 feet was taken over the doubtful 48 foot spot. The sounding is therefore not shown on the smoothsheet, but the position is shown as 4h. Also this spot had already been covered on 'G' day by 48 feet. Lat. $41^{\circ}41'0''$
Long. $124^{\circ}16'8''$
Par. 3a, review.

'J' Day - End*launch reports drag aground pos 21J, reported drag slipped over obstruction 23J, this grounding, 7j plotted at buoy 19 on pos 22J. Upright depth used as sounding. No soundings were obtained on groundings 8j and 9j so upright depths were used. The position of these two groundings were determined as the towing launches swung around increasing the 'V' in the drag. Pos 8j is at buoy 19, pos 29J of end launch. Pos 9j is midway between N and 1 buoys, pos 28aJ of guide launch, see 'M' day note below.

'M' Day - Grounding 7m was plotted by cut and distance to buoy 4 using upright depth as sounding, The tender did not investigate as it was necessary to reverse to avoid fouling the drag before other investigations were completed. This is probably the same shoal as 9j. Pos 9j was not located by a fix but by cut and distance, the distance is defined as "about halfway between N & 1 buoys". The grounding 7m shows that it was closer to #1 buoy than to N buoy. Considered same shoal. 9j not plotted.

'N' Day - Although the least sounding found to be $11\frac{4}{6}$ fathoms on pos 1n, it was grounded on an inclined section between 73' and 63' effective depth. The grounding being closer to the 73' depth of the inclined section accounts for the seemingly 63' depth grounding on the deeper obstruction as shown on the smoothsheet. This shoal was cleared on sheet field number 2-39, registry H-6453. Because this sheet has already been forwarded to the Washington Office, the effective depth at which it was cleared cannot be given here. Cleared with 37 ft. 7 $\frac{1}{4}$ fin. shoal 500 m. SE on H-6452.

Groundings continued:

'Q' Day - Too rough for tender to come alongside this day. Upright depth was therefore used and fix taken as drag was taken in. This shoal was cleared on sheet field number 2-39, office registry H-6453. Because this sheet has already been forwarded to the Washington Office, the effective depth at which it was cleared cannot be given here. *Cleared with 53 ft.*

'V' Day - Pos 1v shows being grounded at 29' effective depth on the smoothsheet. Actually #8 buoy was just ~~being~~ lowered to an effective depth of 39' at the time the drag grounded so no deeper depth could be claimed for any area. This explains the apparent grounding on a 6 2/6 fathom shoal by 29' effective depth drag. Pos 3v, this shoal was not investigated by tender because of close proximity of shoaler shoals, and that the area already had been covered by 40 feet. Upright depth of 7 5/6 fathoms was therefore used.

'W' Day - Too rough for tender to come alongside this day, therefore shoal not investigated and upright depth was used.

'Z' Day - Pos 5z, note in tender record is as follows about this grounding, "drops off sheer to 16 fathoms on west side and to 12 fathoms on south side. Felt as though ground might be spar of sunken ship. When pulling up lead from deeper depths, could not feel rock on the way up as is usually the case. Could not definitely place lead on top of obstacle, but could feel it. Ground wire hung very tight taking up drag, had to disconnect it to free it." As final bight is drawn in on smoothsheet it is longer than actual drag length by about 200 feet. Probably this is do to extreme tension and very sharp "V", and also peculiar object grounded on.

'AA' Day - At grounding laa, drag parted before tender could investigate, therefore upright depth was used.

A table of groundings and clearances given below.

Chart Depth* column listed below, is depth of shoal as N.B. entered temporarily on chart #5895 from advanced information furnished the Washington Office during the field season.

| Pos.No. Day Letter | Latitude & Longitude | Grounded Effect. Depth | Least Sdg. Depth | Cleared Effect. Depth | Advanced Chart Plotted Depth | Remarks |
|--------------------------|----------------------------|------------------------------|------------------------|-----------------------------|---------------------------------------|---|
| | o ' | feet | fms. | feet | fms. | feet |
| 50A 1a,2a | 41 49.01 124 16.16 | 52 ✓ | 3 5/6 & 5 5/6 | 21 ✓ | 3 5/6 ✓ 25 ✓ | Least sd'g plotted 13 to 14 fms. on H-4860 and H-4862. |
| 68C 1c | 41.42 15.40 | 75 ✓ | 12 2/6 ✓ | 59 ✓ | 12 2/6 ✓ 74 ✓ | 15 to 20 fms. on H-4852 and H-4860 |
| 2c | 41.55 15.29 | 75 ✓ | 12 2/6 ✓ | 59 ✓ | 12 2/6 ✓ 74 ✓ | do. |
| 3c | 41.44 15.04 | 76 ✓ | 12 1/2 ✓ | 59 ✓ | 12 1/2 ✓ 78 ✓ | do. |
| 48D 1d | 50.19 18.43 | 79 ✓ | 11 2/6 ✓ | 48 ✓ | 11 2/6 ✓ 69 ✓ | 18 to 20 fms. on H-4860 |
| 26E 1e | 42.25 11.94 | 80 ✓ | 14 1/2 ✓ | 64 ✓ | 13 2/6 ✓ 70 ✓ | Upright depth plotted 20 fms. on H-4852. |

| Pos.No. Day Letter | Latitude & Longitude | Grounded Effect. Depth | Least Sd'g Depth | Cleared Effect. Depth | Advanced Chart Plotted Depth | Remarks |
|--------------------------|-------------------------------|------------------------------|------------------------|-----------------------------|---------------------------------------|--|
| | o ' " | feet | fms. | feet | fms | feet |
| 17G 1g | 41 49.25 ✓ 124 18.05 ✓ | 49 ✓ | 6 1/6 ✓ | 32 ✓ | 6 1/6 ✓ | 38 ✓ 13 to 15 fms. on H-4862. ✓ |
| 2g | 48.95 ✓ 18.03 ✓ | 49 ✓ | 6 2/6 ✓ | 16 ✓ | 6 2/6 ✓ | In proximity of 3 1/2 fm shoal 13 to 15 fms. on H-4862. ✓ |
| 3g | 48.84 ✓ 17.95 ✓ | 49 ✓ | 6 1/6 ✓ | 16 ✓ | 6 1/6 ✓ | 38 ✓ Maybe cleared by 32'. In proximity of 3 1/2 fm shoal. 12 fms. on H-4862. ✓ |
| 4g | 48.83 ✓ 17.95 ✓ | 49 ✓ | 8- ✓ | 16 ✓ | -- ✓ | To close to 3g to plot. ✓ Maybe cleared by 32'. In proximity of 3 1/2 fm shoal. 12 fms. on H-4862. ✓ |
| 43 G 5g | 47.18 ✓ 15.90 ✓ | 28 ✓ | 4- ✓ | -- | 4- ✓ | 24 ✓ Not cleared, to close in-shore and rocks. 12 fms. on H-4862. ✓ |
| 27H 4h | 47.05 16.88 | 48* | none | 55 | none | *See grounding notes above, also for explanation of pos 1h. ✓ |
| 48H 2h | 48.91 ✓ 17.86 ✓ | 32 ✓ | 4 1/6 ✓ | 16 ✓ | 4 1/6 ✓ | 25 ✓ 12 to 14 fms. on H-4862. ✓ |
| 3h | 48.97 ✓ 17.95 ✓ | 32 ✓ | 3 1/2 ✓ | 16 ✓ | 3 1/2 ✓ | 21 ✓ do. ✓ |
| 28J 1j & 2j | 48.55 ✓ 18.69 ✓ | 40 ✓ | 5 4/6 & 6- ✓ | 29 ✓ | none ✓ | — To close to 6j to plot depth. 12 to 14 fms. on H-4862. ✓ |
| 3j & 4j | 48.49 ✓ 18.75 ✓ | 40 ✓ | 7 1/6 & 5 5/6 ✓ | 16 ✓ | 5 5/6 ✓ | — In proximity of 3 1/2 fm shoal. Shoalest sd'g plotted. 12 to 14 fms. on H-4862. ✓ |
| 5j | 48.81 ✓ 19.55 ✓ | 40 ✓ | 6- ✓ | 31 ✓ | 6- ✓ | 37 ✓ 9 1/2 to 11 fms. on H-4862. ✓ |
| 37J 6j | 48.55 ✓ 18.72 ✓ | 29 ✓ | 3 1/2 ✓ | 16 ✓ | 3 1/2 ✓ | 21 ✓ 12 to 14 fms. on H-4862. ✓ |
| 22J 7j | 48.89 ✓ 20.16 ✓ | 40 ✓ | upright ✓ | 31 ✓ | 6 4/6 ✓ | 40 ✓ Upright depth used. May have cleared by only 29'. See grounding notes above. 8 1/2 fms. on H-4862. ✓ |
| 29J 8j | 48.51 ✓ 20.10 ✓ | 40 ✓ | upright ✓ | 31 ✓ | 6 4/6 ✓ | 40 ✓ Upright depth used - see note above under groundings. 11 fms. on H-4862. ✓ |
| 28aJ 9j | 48.41 ✓ 17.65 ✓ 19.05 ✓ | 40 ✓ | upright ✓ | 12 ✓ | 4 1/6 ✓ | 16 ✓ See note under 'groundings' above. In proximity of 2 4/6 fm shoal. 10 fms. on H-4862. ✓ |
| 36K 2k & 3k | 46.38 ✓ 17.65 ✓ | 70 ✓ | 13 2/6, 7- & 4 1/6 ✓ | 21 ✓ | 4 1/6 ✓ | 25 ✓ Shoalest sd'g plotted. 19 to 20 fms. on H-4862. ✓ |
| 34L 1l | 47.73 ✓ 19.44 ✓ | 59 ✓ | 9 1/2 ✓ | 30 ✓ | 9 1/2 ✓ | 60 ✓ Grounding 550 meters from Whale Rock. 12 to 14 fms. on H-4862. ✓ |

| Pos. No. Day Letter | Latitude & Longitude | Grounded Effect. Depth | Least Sd'g Depth | Cleared Effect. Depth | Depth Plotted | Advanced Chart Depth | Remarks |
|---------------------------|----------------------------|------------------------------|-------------------------|-----------------------------|------------------|----------------------------|---|
| | o ' " | feet | fms | feet | fms | feet | |
| 18M 2m & 3m | 41 48.54 124 18.92 | 31 ✓ | 7 1/2, 5 1/2 & 3 1/6 | 13 ✓ | 3 1/6 ✓ | 19 | Shoalest depth plotted. ✓ 11 to 13 fms. on H-4862. ✓ |
| 4m | 48.50 19.15 | 31 ✓ | 4 2/6 ✓ | 12 ✓ | 4 2/6 ✓ | 27 | 11 to 12 fms. on H-4862. ✓ |
| 5m & 6m | 48.55 19.06 | 31 ✓ | 7- & 4 2/6 | 12 ✓ | 4 2/6 ✓ | 26 | In proximity of 3 1/2 fm shoal. ✓ 11 to 12 fms. on H-4862. ✓ |
| 7m | 48.37 19.05 | 16 ✓ | upright ✓ | 12 ✓ | 2 4/6 ✓ | 16 | See 'grounding' note above ✓ in this report. 10 fms. on H-4862. ✓ |
| 16N 1n | 42.09 12.25 | 63* ✓ 73 | 11 4/6 | 31 H-6453 | 11 4/6 | 31 | *See above note under ✓ 'groundings' for explanation. ✓ 17 to 22 fms. on H-4852. ✓ |
| 40P 1p | 49.86 22.89 | 75 ✓ | 10- ✓ | 52 ✓ | 10- ✓ | 61 ✓ | 17 to 28 fms. on H-4860 and H-4862. ✓ |
| 6Q 1q | 41.62 11.43 | 70 ✓ | upright ✓ | 52 H-6453 | 11 4/6 | 72 ✓ | Upright depth plotted, see ✓ note under 'groundings' above ✓ for cleared depth. 17 fms. on ✓ H-4852. ✓ |
| 55T 1t & 2t | 49.14 21.19 | 58 ✓ | 8 5/6 & 7 1/2 | 38 ✓ | 7 1/2 ✓ | 46 ✓ | Shoalest depth plotted. ✓ 17 to 18 fms. on H-4862. ✓ |
| 3t | 49.99 22.06 | 77 ✓ | 12- ✓ | 52 ✓ | 12- ✓ | 72 ✓ | 22 to 23 fms. on H-4862. ✓ |
| 4t | 49.97 22.10 | 77 ✓ | 12 2/6 ✓ | 52 ✓ | 12 2/6 ✓ | | 22 to 23 fms. on H-4862. ✓ |
| 44U lu 2u & 3u | 50.36 18.59 | 68 ✓ | 10 1/6, 10- & 10 1/6 | 48 ✓ | 10- ✓ | 61 ✓ | Shoalest depth plotted. ✓ 19 to 21 fms. on H-4860 ✓ |
| 24V 1v | 48.62 19.68 | 29* ✓ | 6 2/6 ✓ | 31 ✓ | 6 2/6 ✓ | 39 ✓ | *See note under 'groundings' ✓ above in this report. ✓ 10 fms. on H-4862. ✓ |
| 2v | 48.50 20.59 | 28 ✓ | 4/6 ✓ | -- | 4/6 ✓ | 5 ✓ | Not cleared - rock visible. ✓ 11 fms. on H-4862. ✓ |
| 49V 3v | 48.88 19.95 | 47 ✓ | upright ✓ | 40 ✓ | 7 5/6 3/4 ✓ | 48 ✓ | Upright depth plotted, see ✓ note under 'groundings' ✓ above. 12 to 13 fms. on H-4862. ✓ |
| 12W 1w | 48.52 21.78 | 73 ✓ | upright ✓ | 59 ✓ | 12 1/6 | -- | Upright depth plotted, see ✓ note under 'groundings' ✓ above. 18 to 26 fms. on H-4862. ✓ |
| 15Z 1z | 48.85 21.55 | 49 ✓ | 7 1/2 ✓ | 38 ✓ | 7 1/2 ✓ | -- | 11 to 19 fms. on H-4862. ✓ |
| 2z | 48.74 21.66 | 59 ✓ | 7 4/6 ✓ | 38 ✓ | 7 4/6 3/4 | -- | D6. ✓ |

| Pos.No. Day Letter | Latitude & Longitude | Grounded Effect. Depth | Least Sd'g Depth | Cleared Effect. Depth | Depth Plotted | Advanced Chart Depth | Remarks |
|--------------------------|----------------------------|------------------------------|------------------------|-----------------------------|---------------------------|----------------------------|---|
| | o ' " | feet | fms | feet | fms | feet | |
| 24Z 3z | 41 48.78 124 21.57 | 38 ✓ | 5 2/6 ✓ | 22 ✓ | 5 2/6 ✓ | 33 ✓ | 11 to 19 fms. on H-4862 ✓ |
| 4z | 48.75 21.49 | 38 ✓ | 4 1/2 ✓ | 22 ✓ | 4 1/2 ✓ | 27 ✓ | do. ✓ |
| 35Z 5z | 48.33 20.96 | 21 ✓ | 3 1/6 ✓ | 15 ✓ | 3 1/6 ✓ | 19 ✓ | See note under 'grounding' above in this report. 19 fms. on H-4862. ✓ |
| 21 AA 1aa | 48.08 19.83 | 49 ^{54*} ✓ | upright ✓ | 31 ✓ | 9 ⁹ 8 1/6 ✓ | 49 ✓ | * Inclined section plotted. Upright depth plotted, see note under 'groundings' above in this desc. report. 19 to 27 fms. on H-4862. ✓ |
| 37AA | 47.23 19.80 | 52 ✓ | 8 2/6 ✓ & 7 1/2 ✓ | 39 ✓ | 7 1/2 ✓ | 45 ✓ | Least sd'g plotted. 19 to 27 fms. on H-4862. ✓ |

NOTES ON PLOTTING: 'E' Day - 1e was the only grounding investigated although the drag was probably aground at pos 1n, later found to be a 11 4/6 fathom spot. This is the way the final bight has been drawn in on the smooth sheet.

See positions 8E to 10E inclusive in field record for location of Crescent City Whistle Buoy.

'E' Day - Final bight drawn in as aground also about buoy #8, on the 7 1/2 fathom shoal found on 'AA' day, pos 2aa. The drag was no doubt aground in this position although undetected by the sounding tender at the time.

'P' Day - Fixes for both launches weak in vicinity of St. George Lighthouse on this strip.

'X' Day - Drag had to be taken in on pos 24X because drag fishing boats became entangled and cut ground wire.

COMPARISON WITH PREVIOUS SHEETS AND CHARTS: There are no soundings on surveys H-4852, H-4860, or H-4862, shoaler than the effective depths dragged on this survey.

In the list of groundings above in this report, there is a column called "chart depth". These depths are taken from a recent issue, (issue date of Jan. 8, 1940) of chart #5895 that is at hand. This chart has been temporarily brought up to date by the advanced information furnished as the work progressed during the field season. From the list of groundings a comparison can be quickly made between the "Depth Plotted" column and the "Chart Depth" column. The differences between the predicted tides used during field work on the boat sheet, and the actual tides used on the smooth sheet, account for the differences in those two columns. All soundings or groundings shown on the chart happen to reduce deeper than the final smooth sheet depth except one, this is grounding 1e on E day. This grounding finally reduces to 80' on the smooth sheet and is shown as 79' on the chart. Two groundings have not been entered on the chart, one is pos 1n on 'N' day, the other 1w on 'W' day. The sounding at pos 1n reduces to 70' and falls in a blank area between a 96' and 126' spot on the chart. The grounding at pos 1w reduces to 73' (upright depth used) and falls in a blank area between a 108' and a 210' spot on the chart.

Comparison with previous sheets and charts: continued -

The symbol for the "Great Break", about $\frac{1}{2}$ mile south and east of S.W.Seal Rock, should be shown as rock awash instead of sunken rock according to the note in the remarks column in field record on "Z" day, pos 30z. The note states "Shoal to port just awash at this stage of tide". Tide was 4 feet at the time. ✓

EQUIPMENT: The chartered launch Florence was used as guide launch and the chartered launch Virginia I was used as end launch. Standard wire drag equipment and methods were used throughout this survey. ✓

Respectfully submitted,

E. E. Stohsner
E. E. Stohsner,
Aid, U S C & G Survey.

Forwarded and approved,

Walter J. Chovan
W.J.Chovan, Chief of Party, C&GS.,
Pacific Coast Wire Drag Party.
Preceded by I. E. Rittenburg,
March 25, 1939 to Feb. 15, 1940.

STATISTICS
to accompany
WIRE DRAG SHEET FIELD NO.21
Office registry No. H-6455
1939

| Date 1939 | Day Letter | Statute Volume Miles | Positions | Drag Length feet | Tender Soundings | Positions |
|--------------|---------------|----------------------------|-----------|---------------------|---------------------|-----------|
| June | | | | | | |
| 13 | A | 1 | 8.2 | 100 | 10,000 | 2 2 |
| 14 | B | 1 | 7.6 | 104 | 10,000 | - - |
| 17 | C | 1 | 8.9 | 133 | 10,000 | 3 3 |
| 18 | D | 1 | 6.5 | 94 | 10,000 | 1 1 |
| 22 | E | 1&2 | 2.1 | 52 | 10,000 | 1 1 |
| 25 | F | 2 | 6.2 | 98 | 9,900 | - - |
| 26 | G | 2 | 6.2 | 95 | 10,000 | 5 5 |
| 28 | H | 2 | 5.1 | 95 | 10,000 | 2 3 |
| 29 | J | 2 | 3.5 | 75 | 10,000 | 6 6 |
| July | | | | | | |
| 10 | K | 2&3 | 4.2 | 72 | 10,000 | 3 3 |
| 11 | L | 3 | 4.5 | 69 | 10,000 | 1 1 |
| 14 | M | 3 | 2.9 | 38 | 10,000 | 6 6 |
| 16 | N | 3 | 1.7 | 32 | 9,500 | 1 1 |
| 19 | P | 3 | 5.4 | 79 | 10,000 | 1 1 |
| 20 | Q | 3 | 0.4 | 12 | 10,000 | - 1 |
| 21 | R | 3 | 3.2 | 53 | 10,000 | - - |
| 22 | S | 3 | 3.9 | 58 | 10,000 | - - |
| Aug | | | | | | |
| 9 | T | 4 | 6.2 | 110 | 10,000 | 4 4 |
| 10 | U | 4 | 5.2 | 91 | 10,000 | 3 3 |
| 11 | V | 4 | 6.7 | 97 | 10,000 | 2 2 |
| 16 | W | 4 | 1.2 | 24 | 10,000 | - - |
| 23 | X | 4 | 4.7 | 69 | 10,000 | - - |
| 24 | Y | 5 | 5.2 | 87 | 10,000&8,500 | - - |
| 25 | Z | 5 | 3.9 | 79 | 5,600 | 5 5 |
| 27 | AA | 5 | 4.0 | 79 | 5,600 | 2 3 |
| 29 | BB | 5 | 7.1 | 95 | 5,600&8,500 | - - |
| 30 | CC | 5 | 3.0 | 45 | 5,200&5,600 | - - |
| TOTALS - - - | | 127.7 | 2,035 | | | 48 51 |
| Total area - | | 93.6 square statute miles | | | | |

STATEMENT
to accompany
WIRE DRAG SHEET FIELD NO.21
Office registry No. H-6455
-1939-

The plotting and protracting of buoy positions
was done by Ensign E. E. Stohsner.

The drag areas were subdivided and inked by
Ensign E. E. Stohsner.

The completed smooth sheet has been inspected
and approved.

Walter J. Chovan

W. J. Chovan,
Chief of Party, USC&GSurvey,
Pacific Coast Wire Drag Party.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6455** Wire Drag

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

| | |
|--|-----------------------------------|
| Number of positions on sheet | 2035 wire drag. ...51. tender. |
| Number of positions checked | 29 wire drag. ...46. tender. |
| Number of positions revised | ...1. wire drag. |
| Number of soundings recorded | ...48. |
| Number of soundings revised | ...1. |
| Number of soundings erroneously spaced | |
| Number of signals erroneously plotted or transferred | None |

Date: 4-29-40

Verification by H. F. Stegman

Time: 4 1/2 hours.

Review by J. A. McCormick 5/11/40

Time: 13 hrs.

HYDROGRAPHIC SURVEY NO. H6455

Smooth Sheet Yes

Boat Sheet 2

Records; Sounding 1 Vols., Wire Drag 10 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) Yes

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

Hydrography: Total Days 27; Last Date Aug. 30, 1939

Remarks _____

Remarks

Decisions

| | Remarks | Decisions |
|----|-------------------------|---------------|
| 1 | Title | 418243 USG-B. |
| 2 | D.R. p.1 | 417242 " |
| 3 | southern limit of sheet | 416241 |
| 4 | Location of tide staff | 417241 |
| 5 | D.R. p.1 | 417242 |
| 6 | D.R. p.2 | 417242 |
| 7 | D.R. p.7.1 | 418243 |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |
| 14 | DR, p.1 | |
| 15 | " 1 | |
| 16 | " 1 | |
| 17 | " 1 | |
| 18 | " 1 | |
| 19 | " 1 | |
| 20 | | |
| 21 | | |
| 22 | | |
| 23 | | |
| 24 | | |
| 25 | | |
| 26 | | |
| 27 | | |

GEOGRAPHIC NAMES

Survey No. **H6455**

Wire Drag

Name on Survey

| Name on Survey | Sources | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|--|--|----|
| | 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>Saint George Reef</u> | | | | | | | | | | | | 1 |
| <u>Point St. George</u> | | | | | | | | | | | | 2 |
| <u>Sister Rocks</u> | ✓ | | | | | | | | | | | 3 |
| <u>Crescent City</u> | | | | | | | | | | | | 4 |
| <u>Castle Rock</u> | ✓ | | | | | | | | | | | 5 |
| <u>Brown Rock</u> | | | | | | | | | | | | 6 |
| <u>Great Break</u> | | | | | | | | | | | | 7 |
| | | | | | | | | | | | | 8 |
| | | | | | | | | | | | | 9 |
| | Names underlined in red approved by L. Heck on 5/15/40 | | | | | | | | | | | |
| | | | | | | | | | | | | 10 |
| | | | | | | | | | | | | 11 |
| Following names of signals, or names mentioned in Descriptive Report, are also approved: | | | | | | | | | | | | 12 |
| <u>S. W. Seal Rock</u> | ✓ | | | | | | | | | | | 13 |
| <u>Whale Rock</u> | ✓ | | | | | | | | | | | 14 |
| <u>Flat Rock</u> | ✓ | | | | | | | | | | | 15 |
| <u>Star Rock</u> | ✓ | | | | | | | | | | | 16 |
| <u>Hump Rock</u> | ✓ | | | | | | | | | | | 17 |
| <u>St. George lighthouse</u> | ✓ | | | | | | | | | | | 18 |
| | | | | | | | | | | | | 19 |
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MEMORANDUM

IMMEDIATE ATTENTION

| | | | |
|--|---|--|--|
| SURVEY DESCRIPTIVE REPORT PHOTOSTAT OF | } | No. H H6455 No. F Wire Drag | { received March 27, 1940 registered March 30, 1940 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 | ✓ EKG | | Pages 3 to 6 Groundings |
| 88 | | | |
| 90 | | | |
| | | | |
| | | | |

RETURN TO

| | |
|----|------------|
| 82 | T. B. Reed |
|----|------------|

✓ TBR

RAC
71E

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 5, 1940

Division of Hydrography and Topography:

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

Plane of reference approved in
11 volumes of sounding records for

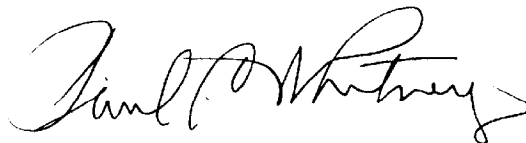
HYDROGRAPHIC SHEET 6455

Locality St. George Reef, Northern California Coast

Chief of Party: I. E. Rittenburg in 1939
Plane of reference is mean lower low water reading
3.7 ft. on tide staff at Crescent City
12.8 ft. below B. M. 2

Height of mean high water above plane of reference is 6.2 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

VERIFICATION REPORT

ON H-6455 (1939) WD

CONDITION OF RECORDS.

Records are neat and conform to the requirements of the Wire Drag Manual. The Descriptive Report discusses all necessary items except the split in $\phi - 41^{\circ} - 48.4$, $\lambda - 124^{\circ} - 20.5$. This split is relatively not important as it is adjacent to the 4 ft sounding of tender pos. 2-V, and less than 400 meters east of a rock awash.

The grounding at pos 1-c $\phi - 41^{\circ} - 42.3$ $\lambda - 124^{\circ} - 11.9$ was cleared at 37 ft on H-6453 (1939) WD. Cleared at 64 ft. on present survey. ✓

The sounding at pos. 1-n $\phi - 41^{\circ} - 42.1$ $\lambda - 124^{\circ} - 12.2$ was cleared at 37 ft on H-6453 (1939) WD. See Descriptive Report page 2, par. 6 ✓

The grounding at pos 1-g $\phi - 41^{\circ} - 41.7$ $\lambda - 124^{\circ} - 11.4$ was cleared at 53 ft on H-6453 (1939) WD. See Descriptive Report, page 3, par. 1. ✓

SIGNALS

Signals originate with:

T-6675 a & b (1939) ✓

T-6676 a & b (1939) ✓

~~T-4409 (1929)~~

T-4949 (1939) ✓

SHORELINE

Shoreline originates with:

T-4402 (1928) ✓

~~T-4403 (1928)~~

T-4404 (1928) ✓

T-4405 (1928) ✓

T-4409 (1929) ✓

T-1132 (1869) ✓

JUNCTIONS

Junctions were made with the following:

H-6353 (1939) WD ✓

H-6354 (1939) WD ✓

H-6356 (1939) WD ✓

The overlap is satisfactory and there are no discrepancies. ✓

TRANSFER OF SOUNDINGS.

Soundings were transferred to:

H-4852 (1928) ✓

H-4860 (1928) ✓

H-4862 (1928) ✓

The rock awash in $\phi-41^{\circ}48.4$ $\lambda-124^{\circ}20.7$ was transferred to ^{H-}4862 (1928), It was noted in the records of H-6455 WD at Guide launch position 30Z. See Descriptive Report, page 7, par. 1.

PLOTTING

The field plotting was very good. Only a few minor corrections to drag strips were made by the verifier.

The sounding (grounding) at pos 1-aa, $\phi-41^{\circ}48.1$ $\lambda-124^{\circ}19.8$ was on an inclined section of the drag with effective depth of 54 to 55 ft. It was plotted as 9 fm.

The grounding at pos 9j, $\phi-41^{\circ}48.4$, $\lambda-124^{\circ}19.1$, of 6 $\frac{1}{2}$ fm was not inked. the drag was evidently hung on the 2 $\frac{1}{6}$ fm shoal about 35 meters S.E., as it would have had to clear the latter shoal to get to pos 9j. (Pos 9j is not a sextant fix) See Descriptive Report page 2, par. 5.

Crescent City Whistle buoy was moved slightly on July 21, 1939. The new location is given on page 56 of Guide launch Vol. 1.

Pencil A & D sheet was made by the verifier.

Respectfully submitted.

Harold J. Stegman

April 29, 1940

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6455 (1939) W.D. FIELD NO. 21

California, Northern Coast, St. George Reef
Surveyed in June - August 1939, Scale 1:20,000
Instructions dated March 3, 1939 (I. E. Rittenburg)

Wire Drag

Dual Control

Chief of Party - I. E. Rittenburg.
Surveyed by - I. E. Rittenburg; W. J. Chovan.
Protracted by - E. E. Stohsner.
Subdivision of wire dragged areas by - E. E. Stohsner.
Inked by - E. E. Stohsner.
Verified by - H. F. Stegman.
Reviewed by - J. A. McCormick, May 11, 1940.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

This information is covered adequately in the descriptive report, page 1.

2. Junctions with Wire Drag Surveys.

Junctions with H-6453 (1939) W.D. on the southeast and with H-6454 (1939) W.D. and H-6456 (1939) W.D. on the south are satisfactory. Overlap with H-6453 in lat. $41^{\circ}41.2'$, long. $124^{\circ}11.3'$ is small (descriptive report, page 2) but as two drag strips begin with straight bights in this vicinity on H-6453 it is probable that at least one of the two extended back of the straight line a sufficient amount to insure adequate coverage.

Wire drag surveys have yet to be made on the north.

3. Results of Survey.

a. Groundings.

Shoals discovered on the present survey are thoroughly discussed in the descriptive report, pages 3 to 6. The apparent grounding on H day in lat. $41^{\circ}47.0'$, long. $124^{\circ}16.8'$ was in depths of 14 to 16 fathoms on H-4862 (1928). The drag hung at 48 feet but slipped off and the spot was later cleared with effective depths of 48 and 55 feet. A sag of 40 to 50 feet in the ground wire seems rather extreme (descriptive report, page 2) and it is probable that there are shoaler depths on the spot than those shown on H-4862. However, a cleared depth of 55 feet is sufficient

for any traffic liable to use this channel and the grounding has been disregarded.

b. Splits and insufficient overlaps.

All splits on the survey are in the vicinity of rocks (bare, sunken and awash) and were unavoidable. Insufficient overlap in lat. $41^{\circ}53.2'$, long. $124^{\circ}18.7'$ (discussed as a split in the descriptive report, page 2) is in depths of 24 fathoms, uniform sand bottom, and is so close to the limits of the survey as to be unimportant.

c. Effective Depths.

Depths to which the area was cleared are very satisfactory considering the number of shoals and rocks which had to be circumnavigated. There are no conflicts between effective drag depths and soundings on the 1928 hydrographic surveys H-4852, H-4860, H-4862, H-4865, H-4874 and H-4876.

4. Comparison with Chart 5895 (New Print of Dec. 13, 1939).
Chart 5702 (New Print of Oct. 14, 1939).

All shoals discovered on the present survey have been charted from advance information furnished by the field party. Small differences between charted depths and survey depths are due to the use of predicted tides on the advance reductions. The position obtained on the survey for Crescent City Whistle Buoy is substantially as charted. There are no conflicts between effective drag depths and charted depths.

5. Condition of Survey.

Descriptive reports for this series of surveys have been exceptionally good. Pertinent information has been presented in such a manner as to require little additional discussion in the reviews. Protracting and subdivision of dragged areas have also been very satisfactory.

6. Compliance with Instructions for the Project.

Satisfactory.

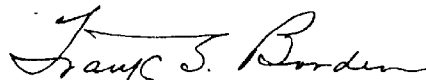
7. Additional Field Work Recommended.

None.

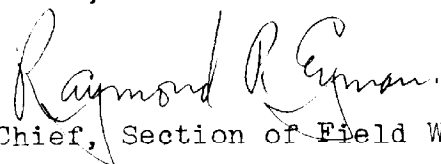
Examined and approved:



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



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.

(from advance letters)

Applied to chkt 5052 from Dry 5702 - 9/3/40 P.B.C.
Applied to chkt 5895 Dec. C, 1940 G.H.S.

Applied to chkt 5702 - 2/12/41 - P.B.C.