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Diag. Cht. No. 5702-2

Form 504	
U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	<i>Hydrographic</i>
Field No.	Office No. <i>48772A</i>
LOCALITY	
State	<i>Calif. & Oregon</i>
General locality	<i>Chetco Cove</i>
Locality	
1928	
CHIEF OF PARTY	
<i>F. G. Engle</i>	
LIBRARY & ARCHIVES	
DATE	

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Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
E. Lester Jones, Director

G. & B. SURVEY
L. & A.
MAY 7 - 1928
Acc. No.

State: Oregon and
California

DESCRIPTIVE REPORT

~~TOPOGRAPHIC~~ } Sheet No. 13 Field
Hydrographic } 4877

LOCALITY

Southern Oregon Chetco Cove

Brookings

Winchuck River to Chetco River

1928

CHIEF OF PARTY

F. G. Engle, H. & G. E.

Memorandum H-4877a

The topographic detail shown on H-4877a (1934)
has been ^{revised} transferred from the 1928 source
(H-4877 and T-4423).

H.W. Murray

DESCRIPTIVE REPORT
To Accompany Hydrographic Sheet No. 13

Instructions Dated March 13, 1928

U.S.C. & G.S.S. DISCOVERER
F. G. Engle, H. & G. Engineer,
Commanding.

Surveyed by R. W. Knox

September 17-October 20, 1928

Launch MARTHA
Starboard Motor Sailor

Survey Methods:

A twelve pound lead was used in surveying this area by the launch MARTHA and a eight pound lead on the Motor Sailor. The lead-lines were of bronze wire center sash-cord, carefully made and checked frequently. No difficulty was experienced in keeping the error within one percent of the depth. Standard survey methods were used in obtaining positions and soundings.

Dangers:

There is a group of breakers in latitude $42^{\circ} 02'$ 1320 M. longitude $124^{\circ} 17'$ 1300 m. This group is within the nine fathom curve.

The Chetco Point Reef extends south from the point about 150 meters and constitutes a danger due to the tendency for small boats to hug the coast on leaving the harbor for northern points in heavy northwesterly weather.

South of Brookings the rocks are well inside the ten fathom curve. The following rocks are, however noted:

A double rock awash lat. $42^{\circ} 00'$ 393m. long. $124^{\circ} 14'$ 684 m.

An islet lat. $42^{\circ} 00'$ 570 m. long. $124^{\circ} 14'$ 540 m.

A rock awash at $2/3$ tide lat. $41^{\circ} 59'$ 1190m long. $124^{\circ} 13'$ 1225 m. ✓

Channels:

There are no channels in area covered by the sheet.

Anchorage:

Chetco Cove affords some protection from northwesterly weather, but is uncomfortable in heavy northwesterly weather. It affords no protection in southerly weather and all boats leave. There is considerable rocky bottom in the anchorage.

Comparison with previous surveys:

The following rocks and shoals, shown on chart 5909 and bromide H 212 A, were searched for with the result shown:

	lat.	dm.	long.	dp.	Remarks.	Pos.
1. Group of sunken rocks	42 02	1370 1270	124 17	1120	unable to find least water	13-14a ✓ 3-4f 23-24h
2. 11 feet	42 02	1320	124 17	710	21 1/2 ft	72a ✓
3. 2 1/2 fathoms	42 02	1060	124 17	40	4 fathoms	13-14j ✓
4. 7 1/4 "	42 02	580	124 17	330	9 "	127e 13-14c
5. 9 1/4 "	42 02	510 480	124 16	1290	¹⁰⁺¹¹ 9 1/2 "	30e, 42-43e, 147- 148e. 30e
6. Sunken rock	42 02	700	124 16	170	4 2/6 "	81g
7. " "	42 02	230 240	124 16	150	unable to find least water 6 2/6 fa.	12-22h
8. 3 3/4 fathoms	42 01	1550	124 15	920	1 2/6 fa.	26c
9. 3 "	42 01	830	124 15	550	4 2/6 "	11h 3h
10. 1 1/2 "	42 01	1160	124 15	903	Brks. Mod sea at low water	10-11h
11. 2 2/6 "	42 02	344	124 15	1280	5 1/6 fath.	39c

The following rocks are shown on photostat H 1239 and not observed by the party:

Rock awash	lat. 41 59	881 m.,	long. 124 13	667 m.
Sunken Rock	" 41 59	867 m.,	" 124 14	240 m.
" "	" 41 59	1711 m.,	" 124 14	612 m.
" "	" 42 01	640 m.,	" 124 14	1040 m.

The following rocks are not on photostat H 1239 and observed by the party:

Rock awash	lat. 42 00	585 m.,	long. 124 13	1170 m.
Sunken rock	" 42 00	738 "	" 124 13	1073 "

Salmon Rocks, Bar Rock and Twins are shown on chart 5909 as islets but observed by the party as awash at high tide. White Rock, shown as islet and observed to be awash at 1/3 tide.

The two gaps of rock, 340 m. and 400 m. respectively south of hydrographic station Sam were not observed by the hydrographic party. There was, however, an unusual amount of kelp in that vicinity between positions 126a-128a.

Approved and forwarded:

F. G. Engle
F. G. Engle, H. & G. E.,
Commanding

Respectfully submitted,

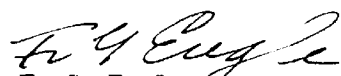
Robert W. Knox
Robert W. Knox,
Jr. H. & G. Engr.

STATISTICS, SHEET 13

Date	1928	Day	Vol.	positions	soundings	miles(stat)	Vessel
Sept.	17	a	1	84	201	12.4	MARTHA
"	18	b	1	80	254	11.5	"
"	19	c	1	103	257	16.0	"
"	27	d	1	48	233	8.5	"
"	28	e	1	193	484	20.5	"
Oct.	15	f	2	34	98	3.4	"
"	17	g	2	86	286	7.0	"
"	29	h	2	28	36	0.0	"
"	30	j	2	<u>17</u>	<u>35</u>	<u>0.5</u>	"
Total				673	1824	79.8	
Sept.	20	a	1	159	501	19.5	Motor Sailor
"	29	b	1	27	142	2.3	" "
Oct.	1	c	1	<u>131</u>	<u>497</u>	<u>12.5</u>	" "
Total				317	1140	34.3	
Oct.	18	a	1	33	109	1.6	Skiff
TOTALS				1023	3073	115.7	

APPROVAL BY CHIEF OF PARTY

Hydrographic sheet 13 and accompanying records are approved. Office work only was done under my supervision, the field work being done by detached party under only occasional supervision. No additional work is considered necessary.


F. G. Engle, H. & G. Engr.
Commanding Str. DISCOVERER

TIDAL NOTE

The auto-portable guage at Brookings, Oregon, lat. 42 03 north, long. 124 16 west, was used in reducing the soundings on this sheet.

The plane of mean lower low water was used. The reading of mean lower low water on the guage was 1.59 feet.

The tabulations for highest and lowest tides observed have not been made.

May 24, 1929.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
volumes of sounding records for

HYDROGRAPHIC SHEET 4677

Locality: Chetco Cove, Southern Oregon

Chief of Party: F. G. Engle in 1928.
Plane of reference is mean lower low water, reading
1.6 ft. on tide staff at Brookings, Oregon.
~~ft. below B. M.~~

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Paul C. Whitney

Chief, Division of Tides and Currents.

877
 1928
 of Party F. G. Engle Surveyed. R. W. Bruce
 conducted by - C. J. Wagner - soundings by. R. W. K.
 reinforced and worked (E. H. ...)

The records conform to the requirements of G. S.
 than and character of the development fulfilled the requirement
 of G. S.

Sounding line crossings are adequate

The depth curves can be completely drawn
 The field plotting was completed to the extent presented
 in G. S. except that Kelp symbols were omitted in the majority
 of cases on both smooth and smooth sheets
 The plotting of positions was excellent but the plotting
 of soundings is unsatisfactory
 erroneous values and the use of quarter fathoms below
 7 fath and the use of $\frac{1}{6}$ above 7 fathoms constitute
 the two major defects.

again - 7 fath 5 feet was sometimes plotted as 8 fathoms
 and 10 fath 4 feet was plotted as 11 fathoms

The data given in the descriptive report regarding rocks shoals
 and least depths have been each one checked.

In addition to this a list of shoal soundings and doubtful spots
 observed throughout the verification is submitted with this report
 this list is independent of data given in the descriptive report.

Depth	Fathoms	Position	Remarks
	2 $\frac{1}{2}$	Lat. 41°-59.95' Long. 124°-13.7'	observe the 1 $\frac{1}{2}$ fathoms 200 m. S.W of this position should have been further developed.
	2 $\frac{2}{5}$	Lat. 41°-59.8' Long. 124°-13.3'	with keelp ✓
	1 $\frac{5}{6}$	Lat. 42°-00.05' Long. 124°-13.65'	Note others above it ✓
	4	Lat. 42°-00.4' Long. 124°-14.2'	✓
	4 $\frac{1}{2}$ -4 $\frac{2}{5}$	Lat. 42°-01.45' Long. 124°-15.5'	keelp ✓
	4	Lat. 42°-01.75' Long. 124°-15.75'	✓
	4 $\frac{1}{2}$	Lat. 42°-01.45' Long. 124°-15.50'	✓
	5 $\frac{1}{6}$	Lat. 42°-01.9' Long. 124°-15.95'	should have been investigated ✓
	1 $\frac{5}{6}$	Lat. 42°-01.85' Long. 124°-15.7'	This sounding is supported by a 3 $\frac{3}{4}$ on 1212 $\frac{1}{2}$ ✓
	2 $\frac{2}{6}$	Lat. 42°-02.05' Long. 124°-15.9'	✓
	6 $\frac{1}{6}$	Lat. 42°-02.05' Long. 124°-16.05'	✓
	6 $\frac{5}{6}$	Lat. 42°-02.15' Long. 124°-16.15'	✓
	6 $\frac{1}{6}$	Lat. 42°-02.4' Long. 124°-17.5'	✓
	5 $\frac{2}{6}$	Lat. 42°-02.45' Long. 124°-17.05'	✓
	3 $\frac{1}{6}$	Lat. 42°-02.5' Long. 124°-17.1'	see also a 3 $\frac{1}{2}$ about 100 m north and slightly east of this position on sheet of several soundings ✓
	3 $\frac{1}{2}$	Lat. 42°-02.55' Long. 124°-17.06'	✓
	1 $\frac{5}{6}$	Lat. 42°-02.5' Long. 124°-16.7'	✓
	2 $\frac{2}{6}$ and 2 $\frac{5}{6}$	Lat. 42°-02.55' Long. 124°-16.9'	✓
	4 $\frac{2}{6}$	Lat. 42°-02.65' Long. 124°-17.97'	✓
	3 $\frac{2}{6}$	Lat. 42°-02.7' Long. 124°-17.83'	Note that this is in vicinity of sunken rocks on H-1212a ✓
	6 $\frac{5}{6}$	Lat. 42°-02.1' Long. 124°-16.1'	Note that this is close to sunken rock on H-1212a ✓
	5 $\frac{2}{6}$	Lat. 42°-02.65' Long. 124°-17.05'	surrounded by 7 and 7 $\frac{1}{4}$ faths 31-32 f ✓
	6 $\frac{2}{6}$	Lat. 42°-02.8' Long. 124°-18.12'	Vol. 2 Page 8 ✓
	3 $\frac{5}{6}$	Lat. 42°-02.9' Long. 124°-18.06'	✓
	2 $\frac{4}{6}$	Lat. 42°-03.55' Long. 124°-18.8'	✓
	5	Lat. 42°-03.65' Long. 124°-18.65'	✓
	growing keelp	Lat. 42°-02.85' Long. 124°-18.3'	✓
	2 $\frac{5}{6}$	Lat. 42°-02.5' Long. 124°-16.5'	in keelp ?

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It is considered that the practice of recording and plotting the shallowest sounding only in a particular spot, does not enable the office to put sufficient information on the sheet to show that the spot in question has been satisfactorily developed a notable example of this is the 3 1/2 fathom sounding at pos. 16-J.

The 1 1/2 spot heading the list on the preceding page looks bad and the area between it and the 2 1/2 on the right is doubtful

In the search for the sunken rock 610-m. S.W. of O Spit only the shallowest sounding (4 1/2) was recorded and plotted leaving a blank area on the sheet

found It was decided not to plot the sounding line 3-4-J-C Red owing to the uncertainty of the fix at - 4. These soundings give no additional information see Page 350 Vol. # 3

There is a decided displacement of the topography as shown on T-1227 and T-4423 particularly from Chete point towards the N.W. Both sheets are on the North American Datum

The Rock awash on the 18' meridian west of O wreck is about 80 meters S.W. of the sunken rocks shown at the point on 5909. (Except later determination)

Chart 5909 shows 2 1/2 faths and 3 1/2 fathoms in 4 1/2 and 6 1/2 fathoms respectively, the latter depths being those obtained in the present survey. (See No 3 paragraph 6 review)

Chart 5909 shows 1 3/4 in lat. 42° 01' 35" Long. 122° 15' 05" where by interpolation a theoretical depth of approximately 1 fathom exists. About 150 meters east of this point on the chart is a 2 fathom sounding. There is no development between these soundings.

About 150 meters above the 1 3/4 sounding referred to above is position 96-a Vol # 3

At position 140-a-red (S.W. between O Red and O Yo 500 m) the record states 'Boat in line with O Red) - The cut from the boat position to O Red passes over rock awash near Boat and E.D. rock inshore so that it may mean rather with a 7 foot tide (over)

Shall sounding from H1237 will be retained, no development on this sheet Red

... have been given to the breaker line (137-138-a red) passed within a few meters without detecting it altho the tide was high (these cuts at pos 139 + pos 140 locate the sk. awash close to those positions, etc)

500 Meters S.W. of O Kam near pos (105-a red) are some rocks which are shown on H. 1212-a and on Topo 4423; also These were not shown on this hydro sheet (have been transferred)

The position of the small inlet ^{Sat. 42-09.15} _{Long 128-13.4} as shown on the figure does not agree with the Topo (4423) - The displacement is about 50m (follow T4423)

There are several large rocks or bare spots 200 m - SW of OVs which appear on the topo (4423) but not on this sheet (have been added)

There is a large rock or bare spot 100-meters NE of O.Shak on the Topo (4423) This is (has been added)

Three rocks are shown about 200 meters East of O.Van Topo 4423 but are not shown on the hydro sheet (have been added)

There is a large rock or bare spot ^{Sat 42-03.72} _{Long 128.18.2} shown on T 4423 but not on the hydro (has been added)

A tracing has been prepared which shows the differences between this and previous surveys.

A few particularly dangerous looking soundings have been transferred from sheet 4989 in green ink to the tracing, these are to be found slightly S.W. of O.Kam and S.E. of the Wharf in Chated Cove.

While the protracting of position and plotting of soundings was excellent, the exceedingly large number of erroneous sounding values plotted together with the fact that important dangers shown on the topo sheet were not shown and the omission of the keep symbols the spreading is considered fair

A. ...

About 75 fathoms S. E. of the wharf is a 4 fathom sounding and a 3 and some 6 fathoms in pencil.

All efforts to run down these soundings failed

The lines were replotted again on the tracing and compared with the boat sheet, without result

They are therefore left for disposition by higher authority.

(Follow record.)

Sept-25-1929

Respectfully submitted
Hemming

(Report to be inked after review)

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

March 18, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4877

Winchuck River to Chatco River, Oregon and California

Surveyed in 1928

Hand lead soundings

Instructions dated March 13, 1928 (DISCOVERER)

Chief of Party, F. G. Engle.

Surveyed by R. W. Knox.

Protracted by C. J. Wagner.

Soundings plotted by R. W. Knox.

Verified and inked by J. Fleming.

1. The records conform to the requirements.
2. The plan and extent of the survey conform to the general and specific instructions, except that several critical depths shown on H. 1239, between Lat. 41° 59' and Lat. 42° 00' were not examined.
3. There are not many cross lines. Those run cross well, and considering the irregularity of the bottom, the agreement of adjacent lines is good.
4. The information is sufficient for drawing the depths curves fairly completely.
5. The junction on the north with H. 4872 and H. 4863 is satisfactory.

The junction on the west with H. 4860 is satisfactory except in the vicinity of Lat. 42° 00' where there is a gap of approximately 200 meters.

The junction on the south with H. 4872 is satisfactory.

6. Comparison with previous surveys:

There are numerous discrepancies between the old topographic sheet T. 1227 and T. 4423. In general T. 4423 and adjacent topographic sheets shall supersede the old topography including offlying breakers shown on the old sheets. (See remarks under Nos. 6 and 7. Each of the latter has been examined and those which should be retained, if any, will be noted.

The following items are listed in the descriptive report and will be taken up in the same order.

No. 1. Group of sunken rocks shown on T. 1227 in Lat. 42° 02' (1270 m.), Long. 124° 17' (1120 m.). There is no reference to these in the sounding record of H. 1212_a and this party reports they were unable to verify them. (See statement on boat sheet.) It is considered probable that these rocks were sketched on T. 1227 and their existence disproved by H. 4877. They should be removed from the chart.

No. 2. An 11-foot sounding in Lat. 42° 02' (1320 m.), Long. 124° 17' (710 m.), least water found 21 feet. In view of the fact that the 11-foot spot on H. 1212_a is plotted from rather doubtful data as to position and was searched for in 1928, it is probable that it was obtained in the vicinity of the sunken rock located slightly to the westward on H. 4877. The 11-foot spot should not be charted.

No. 3. The 2 1/2 fathom sounding on chart 5909, in Lat. 42° 02' (1060 m.), Long. 124° 17' (40 m.) was plotted from letter No. 467, 1910. On Blueprint 16,646 (1917) it is shown that the depth on this spot is 4 fathoms, which agrees with this survey (H. 4877).

On chart 5909 a 3 1/2 fathom spot is shown 200 meters, 163° from end of dock. This was plotted originally as 2 1/2 fathoms from letter No. 476, 1910. In letter No. 270, 1924, word was received that this spot had been deepened to 22 feet in 1914. There is apparently no doubt of the existence of a 22 foot spot in this locality and it is believed that the correct location of this spot is given on H. 4877 as 160 meters, 145° from end of dock.

The 3 1/2 fathom spot on chart 5909, just northwest of the latter, was plotted from Blueprint 16,647 (1917) and it is believed that this is the same spot.

It is therefore recommended that these three soundings be removed from the chart and the present survey accepted.

No. 4. The 7 1/4 fathom spot in Lat. 42° 02' (580 m.), Long. 124° 17' (330 m.) was verified from the records of H. 1212a, and should be retained.

No. 5. The 9 1/4 fathom spot in Lat. 42° 02' (480 m.), Long. 124° 16' (1290 m.) was verified from the records of H. 1212a and should be retained.

No. 6)
No. 7) These two sunken rocks, one in Lat. 42° 02' (700 m.), Long. 124° 16' (170 m.), and the other in Lat. 42° 02' (240 m.), Long. 124° 16' (150 m.), are originally from T. 1227. T. 4423 does not show either of these and the topographer notes in pencil "can not verify". The hydrographic party also made a search for these without finding any indication of either. (See statement on boat sheet) The topographer often indicates breakers or sunken rocks when not sure of existence or location, merely for guide to hydrographic party. It is recommended that these two sunken rock symbols be removed from the chart.

No. 8. The 3 3/4 fathom spot in Lat. 42° 01' (1550 m.), Long. 124° 15' (920 m.) was taken from H. 1212a. As a shoaler depth, 1 2/6 fathoms, was obtained at this point, no comment is necessary.

No. 9. The 3 fathom sounding shown on Chart 5909 in Lat. 42° 01' (830 m.), Long. 124° 15' (550 m.) was verified from the records of H. 1239, and should be retained.

No. 10. A sunken rock, which breaks in moderate seas at low water, was located on T. 4423, at the approximate position of the 1 1/2 fathom spot shown on H. 1212a in Lat. 42° 01' (1160 m.), Long. 124° 15' (903 m.). Chart 1 1/2 fathoms and add note, "Breakers".

No. 11. The 2 2/6 fathom spot in Lat. 42° 02' (344 m.), Long. 124° 15' (1280 m.), was verified from the records of H. 1212a. It is marked in the records "Rk with anchored kelp", and should be retained on the chart.

The following rocks are listed in the descriptive report as shown on the old sheets, but not observed by this party:

- (1) Rock awash. Lat. 41° 59' (881 m.), Long. 124° 13' (667 m.). The position of the 1 5/6 fathom sounding was verified from the records of H. 1239. The rock awash symbol is not shown on the old topographic sheet and no rock is noted in records of H. 1239, except rocky bottom. It is believed the symbol may have been added because of the shoal sounding. One line on this sheet is very close to this point, but no indication was obtained. This spot should have been examined. The 1 5/6 fathom sounding has been transferred to this sheet and will be

charted, without the rock symbol.

- (2) Two sunken rocks. One with a sounding of 2 fathoms, in Lat. 41° 59' (867 m.), Long. 124° 14' (240 m.) and the other with a sounding of 4 fathoms, in Lat. 41° 59' (1711 m.), Long. 124° 14' (612 m.). An exhaustive search was made for these in the records of H. 1239 but they could not be found. The statement in the descriptive report of this sheet that these were "not observed" is not sufficient evidence to reject them as this party made no hydrographic examination. Both spots should have been closely examined. These soundings have been transferred to this sheet, H. 4877, and will be charted with the sunken rock symbols omitted, as it was the practice at that time to add a sunken rock symbol beside a shoal sounding.
- (3) A sunken rock shown on T. 1227 in Lat. 42° 01' (640 m.), Long. 124° 14' (1040 m.). While no soundings were taken at this point, there is a note on T. 4423, "cannot verify" and also on the boat sheet, and the rock will be removed. Shoal soundings, shown on H. 1239, both east and west of the position of this rock have been transferred to this sheet.
- (4) Two groups of rocks, shown on T. 1227 in a position about 340 m. and 400 m. south of signal "Sam" on this sheet, are not shown on T. 4423 and were not observed by the hydrographic party. As an unusual amount of kelp was noticed in the vicinity, these rocks will be retained on the chart for lack of other evidence.
- (5) A sunken rock symbol shown on T. 1227 in Lat. 42° 01' (1070 m.), Long. 124° 15' (310 m.), is marked E.D. on T. 4423. This rock will be removed from the chart as the 1 5/6 fathom sounding obtained south of this is virtually a sunken rock.
- (6) A group of sunken rocks shown on T. 1227 in Lat. 42° 02' (1770 m.), Long. 124° 17' (1360 m.) will be removed from the chart as both T. 4423 and this sheet (H. 4877) locate a rock awash about 60 m. S.S.W. from the above group, which is thought to be the same spot.
- (7) On T. 1260 there is a bare rock or small islet shown in Lat. 42° 03' (1080 m.), Long. 124° 18' (560 m.). This is not shown on the other old topographic sheet, T. 1227, and is not indicated on T. 4423. The preponderance of evidence is that this does not exist, although this can not be stated with any certainty. The rock will not be charted.


Some soundings have been transferred in color to this sheet (H. 4877) from both H. 1212a and H. 1239. These will not be listed in this report, but may be accepted for charting.

7. The usual amount of field plotting was done by the field party. The protracting was well done but in plotting the soundings, fractions were not expressed in conformity with the Hydrographic Manual.
8. Character and scope of survey:

In the vicinity of Chetco Cove this survey is fairly complete. South of Lat. $42^{\circ} 02'$, while the work is within the limits of the instructions, there are numerous shoal indications which remain undeveloped. Just north of Lat. $42^{\circ} 00'$, the work was carried only to about one-third of a mile of the shoreline.
9. While the chief of party does not consider additional work necessary, there are many spots which could be further examined. The most important of these are the 2 fathom and 4 fathom spots, between Lat. $41^{\circ} 59'$ and Lat. $42^{\circ} 00'$ and west of Long. $124^{\circ} 14'$, both of which are more than a mile off shore.
10. Recommendations about rocks and shoals were submitted to and had the approval of A. M. Sobieralski.
11. Reviewed by R. L. Johnston, March 17, 1930.

Approved:


Chief, Section of Field Records (Charts)


Chief, Section of Field Work (H. & T.)



DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4877

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. 13

REGISTER NO. 4877

State OREGON AND CALIFORNIA

General locality SOUTHERN OREGON Chetco Cove

Locality BROOKINGS Winchuck River to Chetco River

Scale 1/10000 Date of survey October 1928

Vessel Str. DISCOVERER

Chief of Party F. G. Engle

Surveyed by R. W. Knox

Protracted by C. J. Wagner

Soundings penciled by R. W. Knox

Soundings in fathoms ~~1000~~

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by J. Fleming

Verified by J. F. Sept 26-1929

Instructions dated March 13 1928

Remarks:

Adm'l Work of 1934 (Chico Cove, Oregon)
Inspection Report.

1. Field Plotting is excellent
2. Plotting of soundings is good.
3. Criticism:
 - (a) There are no tectonic characteristics on this sheet which fact may be of minor importance.
 - (b) No geographic datum was appended to the sheet.

4. Recommendation:

The plotting of rdgs. on this sheet has been verified. The soundings may therefore be inked directly without reference to the sounding records.

Harold W. Murray

Section of Field Records.

Supplementary Report - H. 4877a.

Surveyed in June 1934.

Surveyed by - G. C. Jones.

Chief of Party - ~~G. C. Jones~~ F. H. Hardy

Verified and Inked by - E. R. Behn.

Shoal soundings of H. 4877a were transferred to H. 4877, surveyed in 1928, Chief of Party F. G. Engle. The junction was satisfactory with one exception. Position 36a (blue) of $3\frac{1}{2}$ fathoms when transferred to H. 4877 came in conflict with a sounding of $7\frac{1}{2}$ fathoms, immediately preceding position 6g (green) on H. 4877. The location of this sounding is approximately lat. $42^{\circ}02'.5$ and long. $124^{\circ}17'.1$. The $7\frac{1}{2}$ fathom sounding was rejected and the $3\frac{1}{2}$ fathom sounding retained.

Submitted by - E. R. Behn.

Sept. 25, 1934.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 4877a (1934)

Chetco Cove, Oregon

Surveyed in June 1934

Instructions dated May 29, 1934 (Director's telegram to
Inspector at San Francisco)

Hand Lead Soundings.

3 Point fixes on Shore Signals.

Chief of Party - F. H. Hardy.

Surveyed by - G. C. Jones.

Protracted and soundings penciled by - G. C. Jones.

Verified and inked by - E. R. Behn.

1. Purpose of Survey.

The purpose of the additional work of 1934 was to further investigate shoalings and also to furnish a check on a local survey of the area.

2. Condition of Records.

The records are clear and legible and conform to the requirements of the Hydrographic Manual, except as follows:

- a. No bottom characteristics were recorded.
- b. No Descriptive Report was submitted. However, several letters from the surveyor, which are filed under Field Examination No. 98 of 1934, cover most matters of importance.

3. Compliance with Instructions for the Project.

The instructions called for a wire drag of the area. This was not made because launches were not available at the time. However, some hydrography was accomplished. Subsequent to this work a wire drag survey (H-5889-1935) of Chetco Cove has been made.

4. Results of Survey.

The hydrography on this survey consists of a few sounding lines and an examination of several shoals. The surveyor was handicapped by being forced to use a very unwieldy craft. A copy of the results of this examination has been furnished to Senator Steiwer.

Reviewed by - R. L. Johnston, Dec. 16, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

J. B. Borden
Chief, Section of Field Work.

L. O. Pollard
Chief, Division of Charts.

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4877

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

Number of positions on sheet . . . 1 0 2 3
Number of positions checked . . . 2 0 1
Number of positions revised . . . 7
Number of soundings recorded . . . 3 0 7 3
Number of soundings revised . . . 4 0 0 +
Number of ~~sights~~ erroneously

Note:-

plotted or transferred . . . None

The exceptionally large number of revised soundings is due to the apparent disregard of general instructions relative to the plotting of fractional fathoms - some, of course, are due to discrepancies in time.

Date: --- Sept - 26th 1929 ---
Cartographer: --- John L. Brining ---