

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO.
5002

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. 9

REGISTER NO. **5002**

State California

General locality ~~North Coast~~ Cape Mendocino

Locality ~~False Cape to Cape Mendocino to False Cape~~

Scale 1-10000 Date of survey Sept. 24 to Oct. 22, 19 29.

Vessel Chartered Launch Rogue

Chief of Party A.P. Ratti

Surveyed by A.P. Ratti

Protracted by G. M. Marchand

Soundings penciled by G. M. Marchand

Soundings in fathoms feet

Plane of reference MLLW Humboldt Bay

Subdivision of wire dragged areas by _____

Inked by *L. S. Straw*

Verified by *[Signature]*

Instructions dated April 27, 19 29.

Remarks: _____

DESCRIPTIVE REPORT

To accompany Hydrographic Sheet Field No.8, False Cape to Cape Mendocino, Northern Coast of California.

DATE OF INSTRUCTIONS.-

Instructions covering this survey were dated April 27, 1929.

SURVEY METHODS.-

All soundings on this sheet were obtained with the hand-lead, and all positions of same were determined by visual fixes using signals located by triangulation in 1928 and topography of 1929 as shown on topographic sheet field no.H.

DANGERS.-

1. Fauntleroy Rock, with 5 feet over lies in
 Lat. $40^{\circ} 25'$ ~~1557~~ meters. **1560 m** ✓
 Long. $124^{\circ} 26'$ ~~570~~ " **561 m** ✓
- Position of this rock is recorded in Vol.1, page 34, pos.38c. ✓
2. A sunken rock with 7 feet (2.1 m.) over it lies 1812 m. **1810** ✓
 (1982 yards) 222° true (SSW. mag.) from Cape Mendocino L.H.
 Position of this rock is recorded in Vol.1 page 34, pos.36c. **1882** ✓
3. A sunken rock with 8 feet (2.4m) over it lies 1880 meters
 (2055.9 yards) $222\frac{1}{2}^{\circ}$ true (SSW. mag.) from Cape Mendocino L.H.
 Position is recorded in Vol.1, page 34, pos.37c. ✓
4. Rock awash at low water, lies 1267 meters (1385 yards) **1262** ✓
 $250\frac{1}{2}^{\circ}$ true (SW. $\frac{1}{2}$ W mag.) from Cape Mendocino L.H. Position of
 this rock is recorded in Vol.2, page 63, pos. ~~36c~~ **37 k** ✓
5. A sunken rock with 6 feet over it lies 1215 m. (1326.5 yds.) **1206** ✓
 248° true, (SW. $\frac{1}{4}$ W. mag.) from Cape Mendocino L.H. Position of this
 rock is recorded in Vol. 2 page 63 pos. 36 k.
6. A sunken rock with 14 feet over it lies ~~1 mile (naut.)~~ **2031 m.** ✓
~~205 m. (224 yards)~~ 270° true, (WSW $\frac{1}{4}$ W. mag.) from Cape
 Mendocino L.H. Position of this rock is recorded in Vol.1 page 33,
 pos.33c.
7. A sunken rock with 19 feet over it lies ~~1536 meters~~ **1526 m.** ✓
 (1673 yards) 274° true (WSW. $\frac{1}{2}$ W.) from Cape Mendocino L.H.
 Position of this rock is recorded in Vol.1 page 35, pos.46c.
8. A sunken rock with 8 feet over it lies ~~1429 meters~~ **1423 m** ✓
 (1563 yards) 271° true (WSW. $\frac{1}{4}$ W. mag.) from Cape Mendocino L.H.
 Position of this rock is recorded in Vol.2, page 61, pos. 22k.
9. Rock awash at MLW lies ~~1190 meters~~ (1301 yards) 276° **1187** ✓
 true (WSW. $\frac{3}{4}$ W. mag.) from Cape Mendocino L.H. Position of this rock
 is recorded in Vol.1, page 39, pos.65c. This rock is also shown on topog
 raphic sheet ~~X~~ - Register No. 4511 field sheet H.
10. A sunken rock with 15 feet (4.6 m.) over it lies ~~1730 m.~~ **1725** ✓
 (1892 yds.) 296° true (W $\frac{1}{2}$ N mag.) from Cape Mendocino L.H.
 Position of this rock is recorded in Vol.2, page 59, pos.6k.
11. A sunken rock with 15 feet (4.6 m.) over it lies ~~1840 m.~~ **1834** ✓
 (2012 yards), 300° true, (W x N) from Cape Mendocino L.H.
 Position is recorded in Vol.2, page 60, pos.9 k.

12. A sunken rock with 51 feet (15.5 m.) over it lies in
 Lat. 40° 27' 335 meters.
 Long. 124° 26' 295 "
- Position of this rock is recorded in Vol.1, page 61, pos.71d.
13. A sunken rock with 45 feet (13.7 m.) over it lies in
 Lat. 40° 27' 416 meters). *434 m*
 Long. 124° 26' 154 " *126 m* } *L.S.S.*
- Position is recorded in Vol. 1 page 46, pos.111c.
14. A sunken rock with 50 feet (15.2 m.) over it lies in
 Lat. 40° 27' 575 m. *596 m*
 Long. 124° 26' 357 m. *342 m*
- Position is recorded in Vol.1 page 60, pos. of sounding between pos.61d and 62d.
15. A sunken rock with 34 feet (10.3 m.) over it lies in
 Lat. 40° 27' 761 m.
 Long. 124° 26' 276 m.
- Position is recorded in Vol.1 page 60 pos.66d.
16. A sunken rock with 38 feet (11.5m) over it lies in
 Lat. 40° 27' 776m. *791 m*
 Long. 124° 26' 128m. *110 m*
- Position is recorded in Vol.1, page 58 position of sounding between pos. 49d and 50d.
17. A sunken rock with 23 feet (7.0m.) over it lies in
 Lat. 40° 27' 811 m. *832 m*
 Long. 124° 25' 1212 m. *1203 m*
- Position is recorded in Vol.2, page 24, pos.2g.
18. A sunken rock with 33 feet (10m.) over it lies in
 Lat. 40° 27' 744 m. *762 m*
 Long. 124° 25' 912 m. *892 m*
- Position is recorded in Vol.2 page 14 sounding between pos.25f and 26f
19. A sunken rock with 35 feet (10.6 m.) over it lies in
 Lat. 40° 29' 1168 m. *1181 m*
 Long. 124° 24' 466 M. *461 m*
- Position is recorded in Vol.2, page 47, pos. of sounding between position 73j. and 74j.
20. A sunken rock with 32 feet (9.7 m.) over it lies in
 Lat. 40° 29' 1018 m. ~~1054 m~~ *960 m*
 Long. 124° 24' 392m. *406 m*
- Position is recorded in Vol.2, page 53, position of sounding between pos.112j. and 113j.
21. A sunken rock with 31 feet (9.4 m.) over it lies in
 Lat. 40° 29' 920 m. *855 m*
 Long. 124° 24' 375 m. *361 m*
- Position is recorded in Vol.2, page 45, pos.59j.
22. A sunken rock with 33 feet (10.0m.) over it lies in
 Lat. 40° 29' 808 m. *759 m*
 Long. 124° 24' 340 m. *347 m*
- Position is recorded in Vol.2, page 38, pos. of sounding between positions 14j. and 15j.
23. A sunken rock with 20 feet (6.0 m.) over it lies in
 Lat. 40° 29' 1050 m. *1027 m*
 Long. 124° 24' 145 m. *153 m*
- Position is recorded in Vol.2, page 50 between pos.91j and 92j.

24. A sunken rock with 11 feet (3.3 m.) over it lies ~~1077 m.~~ 1072 m (1178.2 yds), $281\frac{1}{2}^{\circ}$ true (W. $\frac{3}{4}$ S mag.) from the peak of False Cape Rock. Position of this rock is recorded in Vol.1, page 68, pos. 34e. ✓

25. A sunken rock with 16 feet (4.9 m.) over it lies 532 m. (581.8 yds.) 290° true (West mag.) from False Cape Rock. Position of this rock is recorded in vol.2, page 6, pos.76 e. ✓

26. A sunken rock with 23 feet (7.0m.) over it lies 594m. (649 yds.) 287° true (W. $\frac{1}{2}$ S. mag.) of False Cape Rock. Position of this rock is recorded in vol.2, page 6, pos.73e. ✓

27. Rock awash at low water lies 465 m.(508 yds.) 296° true (W. $\frac{1}{2}$ N. mag.) from False Cape Rock. Position of this rock is recorded in Vol.2, page 72, pos.55e. ✓

28. Rock awash at H.W. lies 380 m. (415 yds.) 285° true (W. $\frac{1}{2}$ S. mag.) from False Cape Rock. This location checks location established by triangulation in 1869. ✓

29. Rock awash at low water lies ~~510 m.~~ 317 m. (339 yards) 290° true (West mag.) from False Cape Rock. Position is shown on topographic sheet field no:H. ✓ E.D.

30. Rock awash at low water lies ~~1104 m.~~ 1110 m. (1207 yds.) 19° true. (North Mag.) from False Cape Rock. Position is recorded in Vol.2, page 8, pos. 88e. ✓

COMPARISON WITH PREVIOUS SURVEYS.-

The 2 fathom sounding 1185 meters, 277° true from the north tangent of False Cape Rock was investigated and new location and characteristic checks very closely with location shown on chart 5795. See description and location of this rock in paragraph 24 under Dangers.

Soundings were obtained on the group of four sunken rocks, the center of which lies 1.3 miles, 319° true, from the peak of Sugar Loaf Island. The shoal in this vicinity was not thoroughly developed due to weather conditions at the end of the season. It is recommended that sunken rock symbols are shown on the chart in the location of soundings described under "Dangers" in paragraphs 12 to 18 incl. *

The $2\frac{1}{2}$ fathom sounding 1475 meters, 280° true from Sugar Loaf Peak was investigated and found to check very closely with location shown on Chart 5795. Mention is made of this rock under " Dangers" in paragraph 6.

Fauntleroy Rock was found slightly out in position and less water was found on it. See paragraph 1 under "dangers".

The three pair of sunken rocks shown along the ten fathom curve northwest, west by north, and south southwest from Sugar Loaf Island at approximate distances of 1400, 900, and 1300 meters respectively, were investigated for which see paragraphs 2,3,7,8,10, and 11 under " Dangers".

The rocks awash at low water shown approx. 644 meters, 245° true from Sugar Loaf Island were investigated and found as described under " Danger" in paragraph 4 and 5.

Chart 5795 shows a high water rock about 120 meters NW of Mussel Rock. This should be shown as a sunken rock.

not on chart
Smooth Sheet H 5002
L.S.S.

* This is not our practice, the sunken rock symbol on H1150 indicates that some, in the location of shoal water was seen apparently from shore. The shoal edgs. found by the survey should replace & supersede the sunken rock symbols, Amos.

4.

R E M A R K S.-

This sheet makes a junction with and supplements work shown on sheet reg. no. 1682 and 1150.

All soundings are plotted in fathoms.

Respectfully submitted,

Augustus P. Ratti

H. & G. E. Chief of Party.

T I D A L D A T A F O R S H E E T N O . 8 .

Location of tide gauge:	North Jetty, Humboldt Bay, Calif.
Plane of Reference:	MLLW 4.47 feet.
Highest Tide:	12.7 "
Lowest Tide:	2.2 "
Type of gauge:	Standard Automatic.

S T A T I S T I C S S H E E T N O . 8 .
 * * * * *

Date 1929	Letter	Volume	Positions	Soundings	Miles Stat.	Vessel.
Sept. 24	a	1	64	189	9.7	Rogue
" 25	b	1	76	287	9.2	"
" 26	c	1	125	379	9.5	"
" 27	d	1	80	301	7.0	"
Oct. 1	e	1	58	160	3.5	"
" 1	e	2	31	101	3.0	"
" 2	f	2	89	251	7.0	"
" 4	g	2	18	62	1.9	"
" 9	h	2	29	104	5.2	"
" 11	j	2	139	466	16.9	"
" 22	k	2	<u>37</u>	<u>78</u>	<u>1.5</u>	"
TOTALS			746	2378	74.4	

cm
l.a.e.

COPY FOR THE FILES OF FIELD RECORDS SECTION

May 14, 1930.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5002

Locality: California (False Cape to Cape Mendocino)

Chief of Party:

Plane of reference As Pt Matti in 1929

4.5 ft. on tide staff ~~at~~ mean lower low water reading
12.5 ft. below B. M. 2 North Jetty, Humboldt Bay

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.

Row

Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *H5002*

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

Number of positions on sheet	<i>746.</i>
Number of positions checked	<i>389.</i>
Number of positions revised	<i>3.</i>
Number of soundings recorded	<i>2378.</i>
Number of soundings revised	<i>6.</i>
Number of signals erroneously plotted or transferred	<i>0.</i>

Date: *November 15, 1930* +

Cartographer: *Loe Straut*

Section of Field Records

Page 1.

Surveyed in 1929.

Report on Sheet H-5002 +

Chief of Party A.P. Ratti

Surveyed by A.P. Ratti

Protracted by G.M. Marchand

Soundings Plotted by G.M.M.

Verified and Inked by ~~Leo~~ Straw

1. The records conform to the requirements of the General Instructions.

2. The plan and character of development fulfills the requirements of the General Instructions.

3. Sounding line crossings are adequate throughout the extent of this survey.

4. The one, two, and three fathom curves are completely drawn. The five fathom curve is incomplete in shore. The ten fathom curve is also incomplete due to adverse weather conditions and the end of the season.

5. The field plotting was completed to the extent prescribed in the General Instructions.

6. The field Drafting was satisfactory.

7. There are no contemporary surveys of this locality and consequently no junctions of other sheets.

REMARKS: 8. Further surveying is necessary to fully develop shoaler area located between ^{lat.} $40^{\circ}-27'$ and ^{lat.} $40^{\circ}-28'$ and centered on long. $124^{\circ}-26'$. There seems to be an indication of further shoaling to the north west, see sounding line 38d to 43d. note two 10 fathom spots on said line.

Attention should be given to the significance of the 9 1/4 fathom sounding 37 meters north west of sunken rock with 15 feet over it - 1725m - $296^{\circ}-20'$ true ($W\frac{1}{2}N$ mag) from Cape Mendocino L. N. There is ^{completely} insufficient information to draw the 10 fathom curve at this point.

One more sounding line approximately 190 meters to the west of sounding line 14-16 between Lat. $40^{\circ}28'$ - $40^{\circ}30'$ would have given sufficient information to completely draw the ten fathom curve.

Under "Dangers" in the Descriptive Report it is noticed that the location of the rocks listed are somewhat in error, evidently the distances recorded were taken from the Boat Sheet and not the Smooth Sheet. In paragraph no 6. the distance should be 2031 m. instead of 205 m.

The field work is excellent and is therefore accepted.

Respectfully submitted
Nov 15 1930 *Leo Streat*

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 11-WSW

WASHINGTON

April 21, 1931.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5002

Coast of California, Cape Mendocino to False Cape

Surveyed in 1929

Hand lead soundings.

Instructions dated April 27, 1929. (Lieut. A. P. Ratti)

Chief of Party - A. P. Ratti

Surveyed by A. P. Ratti

Protracted and plotted by G. M. Marchand

Verified and inked by L. S. Straw

1. The records conform to the requirements.
2. The plan, character and extent of the survey satisfy the general and specific instructions except that the development of the area in the vicinity of the four sunken rocks shown on Chart 5795 about 1.3 miles north-west of the peak of Sugar Loaf Island, is not considered sufficiently thorough.
3. Very few cross lines were run but these cross satisfactorily.
4. The information is sufficient for drawing most of the ten fathom curves and a portion of the five fathom curve.
5. There are no junctions with contemporary surveys.

This work overlaps the old survey of 1872, H. 1150, to about the vicinity of the ten fathom curve without any serious discrepancies, except in the irregular areas in approximate Lat. $40^{\circ}29.5'$, between Long. $124^{\circ}24'$ and Long. $124^{\circ}25'$. Several shoaler depths are shown on H. 1150 in this area, a sounding of $6\frac{3}{4}$ fathoms coming well outside the present ten fathom curve.

The development of this area should have been closer

and the examination extended further westward to include the shoal indications on H. 1150. It is recommended that the shoal soundings shown on H. 1150 be retained in this area.

The four sunken rocks shown in red on H. 1150 in approximate Lat. $40^{\circ}27.4'$, Long. $124^{\circ}25'$ were located by theodolite cuts taken from shore stations. As these were probably only points at which shoal water or breakers were observed from shore the rock symbols should be superseded by the shoal soundings obtained on this survey, H. 5002.

The rocks inside of the hydrography as shown on this sheet from T. 4511 differ slightly from the locations on the old topographic survey of 1869, T. 1134. It is believed that the new determinations should be accepted. Off-lying dangers shown on the old survey were checked closely by the new work with the exception of Fauntleroy Rock, which was found to be out of position.


6. The usual amount of field plotting was well done by the field party.
7. Character and scope of surveying - good.

The work that has been done is considered very good. In some places the ten fathom curve is not well defined and the area the center of which is Lat. $40^{\circ}27.4'$, Long. $124^{\circ}26'$, is not sufficiently developed. In the broken area in approximate Lat. $40^{\circ}29.5'$, between Long. $124^{\circ}24'$ and Long. $124^{\circ}25'$ several shoal soundings on the old survey were neither verified nor disproved.

8. The two areas, mentioned in the preceding paragraph, should be further examined, but it is doubtful if additional lead line work would be of much value. Probably only the wire drag would find all the dangerous depths in these broken areas.
9. Reviewed by R. L. Johnston, March 6, 1931.

Approved:


Chief, Section of Field Records (CHARTS)


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

Inspected: E. P. E.

April 21, 1931.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5002

Coast of California, Cape Mendocino to False Cape

Surveyed in 1929

Hand lead soundings.

Instructions dated April 27, 1929. (Lieut. A. P. Ratti)

Chief of Party - A. P. Ratti

Surveyed by A. P. Ratti

Protracted and plotted by G. M. Marchand

Verified and inked by L. S. Straw

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9. Reviewed by R. L. Johnston, March 6, 1931.

Approved:



Chief, Section of Field Records (CHARTS)



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

Inspected: ERS.