

4184

U. S. SURVEY
L. & A.
DEC 1- 1921
Age No. 780

Diag. Cht. No. 5602-2

4184

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

State: *California*

11-5613

DESCRIPTIVE REPORT.

Hydro Sheet No. *4184*

LOCALITY:

Northern Coast
Punta Yorda to
Falsa Cape

104

CHIEF OF PARTY:
E. H. Pagenbent

DESCRIPTIVE REPORT

To accompany Hydrographic Sheet Number 2

Scale 1:40000

From Punta Gorda to False Cape, Northern Coast California

USS LYDONIA

June - September, 1921.


This sheet fills in gaps on the original hydrographic sheets of the area,

The area to the Northward of Blunt's Reef Lightship, where breakers have been reported as noted in the Coast Pilot, was carefully examined. In this area there were several soundings of about nine fathoms and one sounding of seven fathoms (between 224 R and 225 R), which was the least water found on this shoal. A day of sounding in this immediate area, later, failed to find it again.

Off Punta Gorda there seemed to be a difference between our sounding and original work of from 2 to 4 fathoms. It was noted as the work was being done; our trolley sheaves were carefully checked against a measured length of wire and found correct. At the close of the season a line was run, crossing the work, with good up and down casts, this again checked our previous work. The signals were those that had been located by topography.

At no time was work discontinued because of sea or swell as it was often the case that the signals only showed when the wind was strong enough to cause a sea or swell.

EHP-1.


E.H. Pagenhart,
Chief of Party.

HYDROGRAPHIC STATISTICS

BOAT: U.S.S. Lydonia

SHEET No. 2
Offshore development.

DATE	LETTER	VOLUME	MILES	SOUNDINGS	POS.	ANGLES	AREA
May 9, 1921	A	1	19.5	415	205	410	
" 10, "	B	1	16.0	229	103	211	
" 18, "	C	1	16.0	148	85	170	
" 19, "	D	2	70	96	54	108	
" 20, "	E	2	135	165	90	182	
" 23, "	F	2	40	59	27	54	
" 24, "	G	2	23.0	353	113	226	
" 25, "	H	2+3	40.0	561	199	398	
" 26, "	J	3	15.5	221	78	163	
May Totals			154.5	2247	954	1922	23.6
June 2, 1921	K	3	21.5	304	105	213	
" 6, "	L	3	6.0	53	20	42	
" 7, "	M	3	12.5	130	44	100	
" 8, "	N	4	28.0	373	150	306	
" 18, "	O	4	31.8	312	146	292	
" 20, "	P	4	9.9	133	45	90	
" 21, "	Q	4+5	23.8	309	97	194	
" 22, "	R	5	64.0	867	233	474	
" 24, "	S	5	11.5	76	29	57	
" 24, "	T	6	6.2	57	11	22	
June Totals			215.2	2594	889	1790	37.0
Fiscal Year Totals (June 30, 1921)			369.7	4841	1834	3712	60.6
no work done							

HYDROGRAPHIC STATISTICS

BOAT U.S.S. Lydonia

SHEET No. 2
Offshore Development.

DATE	LETTER	VOLUME	MIRES	SOUNDINGS	POS.	ANGLES	AREA
July 18, 1921	U	6	14	191	66	133	
" 19, "	V	6	29.3	98	56	109	
" 20, "	W	6	37.5	129	86	172	
" 21, "	X	6	18	81	42	85	
July Totals			98.8	499	250	499	41.5
Aug. 11, 1921	Y	6	8.5	38	17	34	3
Aug. Totals			8.5	38	17	34	3.0
Nov. 3, 1921	A'	6	16.0	57	57	124	
			123.3	594	324	657	44.5
			369.7	4841	1834	377	60.6
Total			493.0	5435	2158	4369	105.1

6000
3

Jan. 14, 1922

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 4184

Locality: Cape Mendocino - Punta Gorda, California

Chief of Party: E. H. Pagenhart in 1921

Plane of reference is mean lower low water, reading
4.0 ft. on tide staff at North Jetty Landing, Humboldt Bay.

~~Condition of records~~ *corrected for reduction of soundings et al*
Condition of records ~~as checked below:~~ 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 each 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.

G. H. D.

Chief, Division of Tides and Currents.

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 9-1151

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
WASHINGTON
SECTION OF FIELD RECORDS.

REPORT ON HYDROGRAPHIC SHEET No. 4184.

Surveyed in 1921.

Chief of Party: E. H. Pagenhart.

Surveyed by party of Steamer LYCOMIA.

Protracted by D. E. Whelan, A. W. Skilling and J. D. Torrey.

Soundings plotted by A. W. Skilling and J. D. Torrey.

Verified and inked by J. D. Torrey and F. M. Albert.

- ✓ 1. The records conform to the requirements of the General Instructions except for insufficient information regarding the sounding tubes that were used. The record should show the kind and number of tube used in every case, this information being necessary to determine which tubes are giving satisfactory results.
- ✓ 2. The plan and character of development fulfill the requirements of the General Instructions except that bottom characteristics were omitted on all but two days.
3. The plan and extent of development satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The development is sufficient for drawing the usual depth curves.
- ✓ 6. The field plotting was completed to the extent prescribed in General Instructions. The smooth sheet was rejected, however, on account of defective protracting caused by the use of a protractor that was out of adjustment.
- ✓ 7. The junctions with adjacent sheets are satisfactory. One of the purposes of this survey was to test the accuracy of the previous surveys. The agreement between the old and new work is excellent, except in one respect - the depths on the new sheet being deeper throughout than those on the old sheets, which were surveyed in 1872, 1885 and 1886.

The reasons for this difference in depths are not apparent. It may be due to errors in registering sheive or leadline of either survey,

H-4184 (con).

or reading the dial when the leadline was slanting rather than vertical in the new survey. In this connection it is interesting to note that the "fault line" of the 1906 earthquake appears to extend through the center of this survey, and it is possible that the bottom of the sea in this locality has subsided. To offset this theory it should be noted that the investigation by the Coast and Geodetic Survey of the earthquake disclosed the fact that on the land areas but very slight change in elevation resulted from the earthquake.

- ✓ 8. This survey revealed five shoal spots of 7 to 10 fathoms near lat. $40^{\circ} 30'$, long. $124^{\circ} 30'$. Although the development is as complete as could have been expected, nevertheless it is quite likely that shoaler water exists. The area is very important and it is recommended that it be examined with the wire drag.
- ✓ 9. The character and scope of the surveying is good and the field drafting is poor.
10. Reviewed by E. P. Ellis, April, 1922.

*Probably
Dragged
11/27/28*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 24184

State . . . California

General locality Northern Coast, Humboldt County

Locality . Punta Gorda to False Cape Rock

Chief of party E. H. Pagenhart

Surveyed by . . . LYDONIA

Date of survey . May 9th to November 3rd, 1921

Scale 1:40000

Soundings in . . . Fathoms

Plane of reference . . . M. L. L. W.

*A.W. Skillings
D.E. Whelan
J.D. Torrey*

Protracted by . CDM Soundings in pencil by WRC + J.D. Torrey

Inked by J.D. Torrey + F.M. Albert Verified by J.D. Torrey + F.M. Albert

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, Boat sheets,

6 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks: