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Diag. Cht. No. 1206-2 & 5702-2

Form 504		L. & A.	
DEPARTMENT OF COMMERCE		APR 16 1929	
U. S. COAST AND GEODETIC SURVEY		Acc. No.	
E. Lester Jones, Director			
State: California			
DESCRIPTIVE REPORT			
Topographic Hydrographic		Sheet No. 3 Field 4852	
LOCALITY			
-NORTHERN CALIFORNIA-			
South of Point St. George REDDING RK. TO CRESCENT CITY			
1928			
CHIEF OF PARTY			
F. G. Engle			

4852

DESCRIPTIVE REPORT.

To Accompany Hydrographic Sheet # 3.

Scale 1/40,000

Coast of Northern California --- Redding Rock to Crescent City.

U.S.C. & G.S. Str. DISCOVERER --- F. G. Engle, H. & G. Engr.
Commanding.

July --- November 1928.

Limits:

The work on this sheet extends from the safe limits of navigation of the ship on the coast out to a distance of $8\frac{1}{2}$ miles offshore where it joins the work on sheet #5. (Field). On the south it joins sheet #11 (Field) and 4216. On the north it joins sheet #2 (Field).

Control:

The work is controlled principally by visual fixes on triangulation points, together with objects cut in by the ship and objects transferred from old inshore Hydrographic sheets.

Method:

Soundings over approximately 15 fathoms are by Fathometer (Red Light) with ship speed of 8 to 10 knots. The Fathometer soundings were recorded at 30 second intervals and at times of pronounced changes in depth. The disc speed was kept constant by adjustment of rheostat to keep the middle reed of Fathometer vibrating.

Vertical casts were taken in various points in the area surveyed for comparison with Fathometer also to obtain bottom temperatures, bottom samples, surface temperatures and water samples for salinity determination.

In depths less than 15 fathoms soundings were obtained by hand lead at ship speed of about $4\frac{1}{2}$ to 5 knots. A phosphur bronze wire center line was used.

Shoals etc.

A long shoal was found $4\frac{1}{2}$ miles 180 degrees true from Castle Rock with a least depth of 15 fathoms. Development lines were run on sheet #2 without however obtaining shoaler depth. This shoal is in the position where two 21 fathom soundings are shown on chart 5702 from older work. Three shoal soundings of 19, 22, and 23 fathoms were found about one mile south of the above. The shoals are quite small and on one of them, the 23 fathom sounding only two shoal soundings were obtained, one on the main system of lines and the other on a development line. The 22 fathom sounding was not

was not checked by the development. It is not thought that any depths dangerous to navigation can exist in the locality of these shoals. Shoal indications were also found in the vicinity of Redding Rock. It is recommended that further development of all the above shoals be made in connection with the inshore work in the locality.

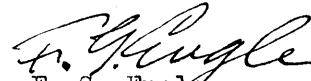
Comparison with previous work:

The depths found agree well with the soundings previously shown on chart 5702.

Discrepancies between Boat & Smooth sheets:

Due to an error in plotting Δ Gold on the Boatsheet there is some discrepancy between the two sheets in the positions using this signal.


Respectfully submitted,


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

Approval by Chief of Party.

Sheet # 3 and accompanying records of Ship DISCOVERER, Coast of Northern California 1928 has been inspected and approved by me. The field and office work was under my supervision at all times.

It is recommended that the two shoals five and six miles south of Castle Rock and the shoal indications in the vicinity of Redding Rock be examined by launch in connection with the inshore work to be done in this vicinity.


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

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS *Sheet # 3.**Feb 26*, 19*29*

SUPERINTENDENT, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

F. G. Engle
 F. G. Engle, H. & G. Engr., Chief of Party.

DESCRIPTION.	POSITION.					Method of determination.	Charts affected.
	Latitude.		Longitude.		Datum.		
	'	D. M. meters.	'	D. P. meters.			
<u>Star Rk.</u> A sharp pointed pyramid shaped rock.	41	46	997	124 17	642	Δ	5702 - 5895
<u>Castle Rk.</u> Highest rock in vicinity with small nub on top.	41	45	1292	124 14	1363	Δ	5702 - 5895
<u>Crecent City Hotel.</u> A square roofed 4 storey white building. (Red tower).	41	45	155	124 11	1047	P.T.	5702 - 5895
Highest Pt. of Rock at Δ Saddle. A light gray cliff having a double top.	41	36	1823	124 06	1191	Δ	5702
<u>False Klamath Rk. (Far)</u> A light reddish colored rock.	41	35	1190	124 06	958	Scaled from H 1936	5702
<u>White Rock (High).</u> A prominent bird lime whitened rock.	41	30	1742	124 05	94	Scaled from H 1936	5702
<u>Split Rk.</u> A light gray split cliff.	41	29	1327	124 04	474	Δ	5702
Δ Alder Pt. 2. A yellow clay slide 20 m. south of Δ Alder Pt. 2 formed by road cutting. It extends from near top of coast ridge to the beach & is sharp on top.	41	28	862	124 03	1046	Estimated distance from Δ station	5702

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Sheet #3

Oct 26, 1929

SUPERINTENDENT, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

F. G. Engle, H. & G. Engr., Chief of Party.

Table with columns: DESCRIPTION, POSITION (Latitude, Longitude, Datum), Method of determination, Charts affected. Includes entries for Mussel Pt., Conical Rk., Redding Rock, Sharp Point, High Bluff, Flint Rock Head, Midway Point.

Have now become place names Do not erase. J.F.F.

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are of primary importance. The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaves and like objects are not sufficiently permanent to chart.

STATISTICS, SHEET NO. 5

Date 1928	Letter	Vol.	Pos.	Soundings		Miles(Stat)		Vessels
				H.L	F.M	H.L	F.M.	
July 19	A	1	58	308		28.9		Ship
" 27	B	1	88	470		44.8		"
" 31	C	1	57	206	103	19.2	9.6	"
Aug. 1	D	1	78	144	288	12.8	24.9	"
" 2	E	2	50	85	255	7.7	23.1	"
" 3	F	2	90	128	452	11.0	41.5	#
" 6	G	2	45		334		30.0	"
" 7	H	2	95		709		57.3	"
" 8	J	3	142		959		86.9	"
" 9	K	3	75		673		56.0	"
" 10	L	3	43		319		27.5	"
" 13	M	4	56		435		31.5	"
" 27	N	4	90		656		44.2	"
Sept. 7	P	4	31		344		32.4	"
" 10	Q	4	9		73		4.0	"
" 12	R	4&5	92		791		56.3	"
" 14	S	5	47		333		27.8	"
" 18	T	5	51		384		27.6	"
Oct. 12	U	5&6	105		762		60.9	"
" 13	V	6	71		519		45.5	"
Nov. 7	W	6	71		534		44.8	"
" 15	X	6	73		566		50.1	"
Totals - - - - -			1567	1341	8489	124.4	781.9	

Sec. of Field Records. ✓

E.A.L.

Division of Hydrography and Topography:

April 17, 1929

Division of Charts:

Tide Reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 4852

Locality: South of Crescent City, California

Chief of Party: F. G. Engle in 1928

Plane of reference is Mean lower low water, reading
2.8 ft. on tide staff at Crescent City, Calif.

~~1.6 ft. below P.M.~~
1.6 " " " " " " Brooking, Oregon

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.

Section of Field Records
Report on Hyd. Sheet No. 4852

Redding Rock to Crescent City, Coast of Northern California.

Surveyed in 1928

Instructions dated March 13, 1928 (Discoverer)

Chief of Party - F. G. Engle

Surveyed by - F. G. Engle

Protracted and plotted by - G. M. Marchand

Verified and inked by - J. Fleming

1. The records are clear and well kept. They conform to the requirements except that the check mark after fathometer soundings has been omitted.
2. The plan and character of development conform to the requirements of the General Instructions.

Field Records Section

LIST OF RELATED SHEETS
H-1934
1936
1937
1236

Report on H-4852 Surveyed in 1928

Chief of Party F. G. Engle - Surveyed by F. G. E.

Protracted by G. M. Marchand. Revised by G. M. M.

verified and Inked. by J. Fleming June - 19 1929

- (1) ~~The records conform to the requirements of the G. S. except that the entries for A-day were not in the proper columns.~~
- (2) ~~The plan and character of the development fulfill the requirements of G. S.~~
- (3) ~~Sounding-line crossings are adequate~~
- 4 ~~The usual depth curves can be completely drawn~~
- (5) ~~Field plotting was quite accurate and complete~~
- (6) ~~With the exception of the replottting of a few positions and the changing of timing between some soundings none of the work had to be done over~~
- (7) ~~The shoal discovered in Lat. $41^{\circ}-41'$ should be further developed~~
- 8 The 17 fathom sounding Sounding South West of Reddings Rock lies outside of the 20 fath curve on H-1934 — This spot looks bad and should be examined carefully
An 18 fathom sounding about 300 meters east of Reddings Rock and shown on 1934 was not developed in this survey.
This work is considered Excellent

Respectfully Submitted

John Fleming

June - 19 - 1929

3. The plan and extent of the survey satisfies the specific instructions.
4. Practically no cross lines were run, but the ground is uniformly covered by a system of parallel lines. The general agreement of adjacent lines is good.
5. The information is sufficient for drawing the usual depth curves.
6. The junction on the north with H. 4860 and H. 4865 is satisfactory. The junction on the west with H. 4874 is satisfactory. The junction on the south with H. 4216 and H. 4848. is satisfactory.
7. The usual amount of field plotting was well done by the field party.
8. Character and scope of survey - very good.
9. The chief of party recommends further development of the shoal spots in Lat. $41^{\circ} - 40'$; Long. $124^{\circ} - 14.6'$ and the shoal spots off of

Redding Rk, in connection with the inshore work in this locality. These soundings were all obtained with the fathometer.

They should be either examined closely or passed over with a light wire drag.

The large shoal four miles south of Castle Rock has been rather closely covered on St. 4860, but no shoaler depth found. It might be desirable to pass the drag over this, but additional soundings are not necessary.

Reviewed by R. L. Johnston

July 8, 1929.

A. M. Sobieralski

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g. H. L. L.

Chief, Div. of Hydrog. and Topog.

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO. 4852

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. 3

REGISTER NO. 4852

State California

General locality ~~Northern California~~ South of Point St. George

Locality ~~South of Crescent City~~ Redding Rock to Crescent City

Scale 1:40,000 Date of survey July 19 to Oct. 12, 1928

Vessel U.S.S. DISCOVERER

Chief of Party F. G. Engle, H. & G. Engr.

Surveyed by F. G. Engle, H. & G. Engr.

Protracted by G. M. Marchand

Soundings penciled by G. M. Marchand

Soundings in fathoms ~~xxxx~~

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by J. Fleming June - 20 - 1929

Verified by J.F.

Instructions dated March 13, 1928

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4852

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

Number of positions on sheet	. 1567
Number of positions checked	. 224
Number of positions revised	. 19
Number of soundings recorded	. 9830
Number of soundings revised	. 206
Number of signals erroneously plotted or transferred

Date: June - 20 - 1929

Cartographer: John Fleming