

4857

Diag. Cht. No. 5602-2

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

E. Lester Jones, Director



State: California

DESCRIPTIVE REPORT

~~Topographic~~ Hydrographic } Sheet No. 4857

LOCALITY

Cape Mendocino
~~Northern California~~

Humboldt Bay Entrance

1928

CHIEF OF PARTY

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

GOVERNMENT PRINTING OFFICE

4857

DESCRIPTIVE REPORT
TO ACCOMPANY

HYDROGRAPHIC SHEET ----- SCALE 1:10,000
Northern California -----Humboldt Bay.

This work was requested by the United States Lighthouse Service,
Department of Commerce.

A polyconic projection was first constructed and the positions of Howe, Log and Mound were plotted on it using geographic positions. Using Howe as the center, a system of coordinates with 6000 ft. squares was constructed. On this system the positions of Log and Mound were plotted by coordinates. These positions differed from those plotted on the polyconic projection by 16 meters in latitude and 5 meters in longitude. The grid system was then shifted by that amount to allow the coordinate positions to coincide with those plotted on the polyconic projection. Howe, therefore, is 16 meters north and 5 meters west of the center of origin. Signals: Mast, New, Staff and Red were plotted by coordinates furnished by the Army Engineers (See attached list). Cap, Bee and Con were taken from the boat sheet made by the Army Engineers.

All soundings were taken with a hand lead from the port motor-sailer. A wire cored lead line was used.

Position 12 A was not plotted because the angles given in the record do not agree with those used on the boat sheet. No other probable angles could be found that would check with the time and course.

Some of the buoys have been moved since the survey, therefore, the positions given in the remark column of the record are those before the buoys were moved.

Respectfully submitted,


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

Tidal Note:

The soundings on this sheet were reduced from half hourly readings on a tide staff set up alongside and at the same height as the Coast & Geodetic Survey tide staff at the North Jetty, Humbolt Bay, Calif.

Levels were run from the staff to B.M. 5 and B.M. 6

Elevation of tide planes above mean lower low water.

Lower low water -----	0.00
Highest tide -----	4.9 ^{9.00}
Lowest tide -----	3.3 ^{-3.00}

The following coordinates were recieved from the U.S. Engineers
San Francisco, Calif.

	N	W
Howe -----	100,000 -----	100,000
Staff -----	99,377.18 -----	105,988.50
Mast -----	98,620.11 -----	109,992.80
Red -----	92,625.73 -----	108,276.47
New -----	97,577.70 -----	108,466.03
Mound -----	89,647.10 -----	112,585.00
Log -----	93,288.40 -----	111,152.60

(For Files Field Records Section)

E.A.L.

Division of Hydrography and Topography:

April 16, 1929

Division of Charts:

Tide Reducers are approved in
1 volume of sounding records for

HYDROGRAPHIC SHEET 4657

Locality: Eureka, Humboldt Bay, California

Chief of Party: F. G. Engle in 1928

Plane of reference is Mean lower low water, reading

0.0 ft, on tide staff at North Jetty, Humboldt Bay, California

~~XXXXXXXXXX~~

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 Sheet No 4857

Surveyed in - 1928

Chief of Party - F. G. Engle

Surveyed by - L. D. Graham

Projected by C. M. Dargin

Soundings plotted by - R. W. Knox

Verified and inked by - J. H. Church

1. The records conform to the requirements of the General Instructions, with the exception that the boat's heading by compass is omitted.
2. The plan and character of the development fulfil the requirement of the General Instructions.
3. The usual depth curves can be completely drawn except the zero curve and 6-foot curve.
4. The field plotting was completed to the extent prescribed by general instructions.
5. The chief draftsman did not have to do any part of the drafting over except the replotting of positions 4A, 12A, 56A and 65A.

Section of Field Records
Report on Hyd. Sheet No. 4857
Humboldt Bay Entrance, California
Surveyed in 1928.

Chief of Party - F. G. Engle
Surveyed by - L. D. Graham
Protracted by - C. M. Durgin
Soundings plotted by - R. H. Knox
Verified and inked by - J. H. Church

1. The records conform to the requirements except that courses were only given on about half the work.
2. The plan and character of development conform to the requirements of the General Instructions.
3. This work was done at the request of

the Lighthouse Service and no specific instructions from this office (C. & G. S.) could be located.

4. There are no cross lines but adjacent lines agree well.

5. The information is sufficient for drawing the usual curves for depths over six feet.

6. There are no junctions with contemporary sheets. Comparison with H. 4096, surveyed in 1919, shows that the area has changed greatly. This work should supersede previous surveys.

7. The usual amount of field plotting was well done by the field party.

8. Within its limits this survey is complete and additional work is not necessary, but this area is subject to constant change.

Reviewed by R. L. Johnston July 25, 1929.

Note: Method of plotting rectangular coordinates is of doubtful accuracy. ^{U.S.} Engineer's surveys cover this area & should be used in preference to this survey.

A. M. Sohier, Lt. Comdr.

Accepted for purpose intended but not recommended for approval as permanent record.

L. O. Colwell, Lt. Comdr.

Gluse

CHIEF DIVISION OF HYDROGRAPHY

4857 Cont'd.

Remarks:-

Position 12A was left unplotted by the field party and also by the office draftsman. This position is called to the reviewer's attention.

June 6, 1929.

Respectfully submitted
J. M. Hurch

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY
L. & A
MAR 21 1929
Acc. No

REG. NO. 4857

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. _____

REGISTER NO. **4857**

State California.

General locality Northern Calif. Cape Mendocino

Locality Humboldt Bay Entrance.

Scale 1-10,000 Date of survey July 30, 1928

Vessel DISCOVERER (Port motor-sailer).

Chief of Party F. G. Engle.

Surveyed by L. D. Graham.

Protracted by C. M. Durgin.

Soundings penciled by R. W. Knox.

Soundings in fathoms feet

Plane of reference MLLW

Subdivision of wire dragged areas by _____

Inked by _____

Verified by _____

Instructions dated _____, 192

Remarks: Work requested by the U. S. Lighthouse Service,
Dept. of Commerce.