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U. S. G. SURVEY,
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MAY 11 1909
Acc. No.

Diag. Ch. No. 5530-4

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: *Cal.*

DESCRIPTIVE REPORT.

Hydro. Sheet No. *2990*

LOCALITY:

*Suisun Bay, from
Suisun Pt. to Pt. Edith*

1909

CHIEF OF PARTY:

W. C. Dibrell

2990

Department of Commerce and Labor

Report on Hyd. Sheet 2990.

This work covering an area between Bull's Head Pt. and Edith Pt. is uniformly good. The ground is thoroughly covered and the developement very good. Considerable change has been made, the large middle shoaling shows a movement to the south westward, while the north channel has widened and deepened and the south channel deepened.

The eight and fifteen foot spots, shown on lht 5534, northeast of Army Pt. probably do not exist; as a close and careful examination in this locality shows that the water deepens slowly and evenly, and gives about twenty one or two feet as an average depth.

The positions of Roe Island lighthouse and Edith Pt. post light have been redetermined, by the sextant.

R. L. Johnston

Draftsman

7/21/09.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO.....

(FIELD NO. 4), SUISUN BAY, CALIFORNIA, SCALE 1-10,000.

GEODETIC SURVEY

MAY 11 1909

REFERRED TO:

U. S. GEOLOGICAL SURVEY,
LIBRARY AND ARCHIVES

MAY 11 1909

No.

2990

This sheet is to show a resurvey of a portion of Suisun Bay. The area surveyed lies between a line joining Army Point with Bulls Head Point and a parallel ^{line} passing through Point Edith.

2. The hydrography was executed with the motor launch in charge of Mr. Hunter, W.O. The principal lines are parallel to the channel, as directed in the Superintendent's Instructions, and are spaced from 50 to 100 meters apart. Cross lines were run at intervals of about 1/2 mile. Over the places where lumps are shown on the chart additional lines were run in both directions.

3. The lines are somewhat crooked in places owing to current and absence of good ranges. The atmosphere usually was very hazy and this prevented the use of ranges to a considerable extent. Fish nets also caused some inconvenience to the party.

4. Three old triangulation stations, Army 2; Suisun Point 2 and Bull 2, were recovered and were occupied with theodolite to cut in a sufficient number of new signals. The signals used in the hydrography have been plotted on the projection furnished by the Office.

5. Since the field work in Suisun Bay was completed the party has been crowded with work and the positions and soundings have not been plotted on the smooth sheet. This is to be regretted; for, hydrographic parties working under similar conditions, where there is considerable current, have experienced difficulty in obtaining accordant results. The officer in charge should have the opportunity of testing the accuracy of his work and of investigating the

(2)

cause of discrepancies. Work found to be below the required standard should be ~~replotted~~^{repeated}, under **d**ifferent conditions **i**f necessary, before the party leaves the locality.

6. The boat sheet shows the positions of the lines of soundings. Owing to the fact that the soundings have not been plotted at the time this report is prepared, details of the results of the survey cannot be included in the report. An inspection of the records shows that as a rule the depth changes gradually, and it is believed that some of the abrupt shoals indicated by the former survey do not at the present time exist.

7. A tide staff was established on the wharf at Martinez and ~~read~~ readings were recorded during the hours that soundings were made. The staff was connected by levels to a permanent bench mark formerly established at triangulation station Martínez East. The same plane of reference used in previous hydrography in this locality was adopted, and the necessary reductions have been applied to the soundings in the record books. A Geological Survey bench mark in the court house at Martinez was included in the leveling, so that there are two permanent tidal bench marks available in that locality.

8. The triangulation includes the location of Roe Island light-house and Edith Point post light. The nun buoy located about 1 1/4 miles eastward of Army Point was determined by sextant angles taken from the launch at a position near the buoy. These angles will be found in the sounding record.

9. Along the south side of Suisun Bay the limit of the tules (marsh grass) was determined by the hydrographic party. Positions were taken ~~from the launch~~ at a sufficient number of points so that the limit may be sketched in. The sextant angles corresponding to

these positions will be found in the sounding records. At the present time a considerable strip along the south shore outside the high water line shown upon the chart is covered with tall marsh grass and should be so indicated upon the chart. It cannot be said that the actual high water line has changed, but this is a matter of little concern to the navigator, for to him the limits of open water constitute the shore line.

10. Hydrographic signals "stack", a tall smoke stack near old Seal Bluff triangulation station, and "Chimney", a tall smoke stack on a chemical plant at Fulls Head Point, are prominent features and might well be shown on the chart. Three new wharves have been built out in the vicinity of Suisun Point. These were located by the party and have been plotted on the hydrographic sheet.

// Notwithstanding the discharge from the Sacramento and San Joaquin Rivers, which was unusually great during the past winter and early spring, the current in Suisun Bay was observed to flood, as well as ebb, although the former is the weaker current. The water is practically fresh.

12. The waters of Suisun Bay and Carquinez Strait are much frequented by fisherman, and it is necessary for pilots to exercise care to avoid fouling their nets. The boatmen usually indicate which side of their boat is clear by waving a hat or coat in that direction.

Respectfully submitted,

Walter D. Dineen

 Assistant, C. & G. Survey,

Commanding.

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DEPARTMENT OF COMMERCE AND LABOR

C. & G. SURVEY,
LIBRARY AND ARCHIVES
MAY 13 1909
Acc. No.

Coast and Geodetic Survey

O. H. Tittmann, Capt.

Hydrographic Sheet No. 2990

(Field No. 4)

Suisun Bay, California.

Steamer "Explorer".

Assistant ^{Asst. P.} Walter C. Dibrell, Chief of Party.

Begun: February 26th, 1909

Completed: March 13th, 1909

Scale 1 - 10,000

Hydrography in charge of A. R. Hunter, Watch Officer.

Projection by H. S. Gamble.

New Signals plotted by S. W. Tay, Aid.

Observers:

A. R. Hunter, Watch Officer.

Henry Bernhardt, Mate.

Recorders:

S. W. Tay, Aid.

H. L. Hansen, C.Wr.

William Duker, Sea.

Leadsman:

Emil Moen, Qmr.lcl.

H. Sibertsen, Sea.

Tidal Observation at Martinez, Cal.

Tidal Observer: Ed. Callaway, Sea.

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STATISTICS.

Date 1909	Vol.	Let.	No. of Miles (Naut.)	No. of Sdgs.	No. of Angles	Boat
Feb. 26	1	<i>a</i>	15.0	509	146	Motor Launch.
" 27	1	<i>b</i>	3.5	160	44	" "
Mar. 1	1	<i>c</i>	20.0	777	214	Motor Launch.
" 6	1	<i>d</i>	8.5	269	76	" "
" 8	2	<i>e</i>	19.0	655	208	" "
" 9	2	<i>f</i>	1.5	67	20	" "
" 10	2	<i>g</i>	14.5	551	162	" "
" 11	2	<i>h</i>	11.0	386	122	" "
" 12	3	<i>i</i>	10.0	574	198	" "
" 13	3	<i>j</i>	10.0	630	204	" "
Totals	3	10	113.0 <i>130.0 (50.0)</i>	4578	1394	

Soundings plotted in feet.

Area : 6 s.q. statute miles.

Protracted, plotted and inked by R.L. Johnston.

Verified by " J.D. Torrey.

VEC
Jan. 27, 1912.

HYDROGRAPHIC SHEET 2990.

Suisun Bay, California, by Assistant W. C. Dibrell
in 1909.

TIDES.

	Martinez ft.
Mean lower low water, or plane of reference on staff	6.0
Lowest tide observed " "	4.6
Highest " " " "	13.3
Mean range of tide	4.8

Coast and Geodetic Survey
JAN 29 1912
TIDAL DIVISION