

4008

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No. 12

4008

Form 501  
 DEPARTMENT OF COMMERCE  
 U. S. COAST AND GEODETIC SURVEY

State: California

11-5013

**DESCRIPTIVE REPORT.**

Topog. Sheet No. 4008

LOCALITY:

San Diego

San Diego to Roseville

1923

CHIEF OF PARTY:

R. R. Lukens

DESCRIPTIVE REPORT

to accompany

Sheet

No. (Field No 1)

A Revision of Topographic Sheet Register No 3643

Ballast Point to San Diego, San Diego Bay.

1922 - 1923.

EXTENT OF REVISION

Reconnaissance of the Bay showed that the topography of the survey of 1916-1917 was complete and accurate except for changes due to construction. Construction has been very active, especially on the part of the Navy and Marine Corps since then, but the latest edition of Chart 5107 (September 1922) showed practically all the new work. It was assumed that the plans of those changes shown on the chart but not on the photostat of topographic Sheet No 3643 were on file in the Washington office. Accordingly the shoreline about these changes has been run in and points located for orienting the plans but the structures themselves were not surveyed in detail. Some natural objects were also located for the hydrographic survey.

CHANGES IN SHORELINE

An extensive hydraulic fill has been made on the north side of San Diego Bay for the establishment of a Naval Training Station and a Marine Corps Base. A wood sheet piling dyke was built and the ground filled in behind it to a height of from three to five feet at the high water line. Another dyke back from the shoreline which raises the level from ten to fifteen feet is located as shown on the September 1922 edition of Chart 5107. The locations of the buildings as shown on the chart are checked by cuts taken to the corners of the corner buildings.

Differences from the high water line as shown on Chart 5107 exist at the following places:

At the west end of the Naval Training Station Fill the shoreline is approximately straight instead of cornered.

The two projecting points shown just to the west of the small bay have been filled in to about two feet above high water but no retaining walls had been built at the time the party left the field.

Just to the east of the small bay and to the southwest of the Marine Base the low water line continues straight along the dredged channel instead of bending in to form a bight with a sounding of nine feet as shown on the chart.

In Latitude 32 43.8, longitude 117 (12) <sup>? probably 10' 30"</sup> the hydraulic fill has flowed up to the northward from behind the retaining wall and the high water line now curves around to the bluff as shown on the sheet. Three new fish canneries have small wharves projecting out from a sheet piling retaining wall just south of this locality. There is also a railway for hauling out small launches.

On the north shore of North Island a sand spit from one to two feet above mean high water has made out. Though shown correctly on the chart, the shore line and wharves around the Naval Air Station were rodded in because they do not appear on the photostat of topographic sheet No 3643.

In the Bay to the southeast of the city some new fish cannery wharves were cut in with the sextant. The highwater line around the Naval Repair Base (in latitude 32 41, longitude 117 07.5) which differs from the chart was run in. These changes do not come within the limits of the sheet and have been plotted carefully on the smooth hydrographic sheet of that area.

NEW PIER UNDER CONSTRUCTION A new pier is being constructed just north of the Municipal Pier. The piles as driven on February eighteenth 1923 are shown. The construction and dredging were being actively prosecuted when the party left the field. No blueprints of the plans could be had for forwarding to the Office at that time. It is thought that they may be obtained from the Harbor-master as soon as they are available.

The large wooden coal pier just south of the Municipal Pier has been condemned. It is used only by some small laid up vessels and launches at their own risk.

In latitude 32 42.3 longitude 117 09.8 a large pier with railway tracks as shown on the chart does not exist. The pier actually existing in this locality is a light structure belonging to the San Diego Athletic Club and is shown on the sheet.

LANDMARKS FOR CHART The landmarks as shown on Chart 5107 are complete and correct except for the following differences:

✓ No object exists near the place marked "Ferry Tower" (latitude 32 42 longitude 117 10.2) which could be used for navigation. It is recommended that the symbol and name be expunged from the chart.

✓ There are two towers of the same height and appearance on the railroad station in latitude 32 43 longitude 117 10.2. The place marked "Tower" on the chart checks the location of the west tower. It is recommended that it be marked "West Tower" or the two towers shown.

The objects in addition to those shown on the September 1922 edition of Chart 5107 which were used for hydrographic signals are not considered sufficiently permanent or prominent for chart purposes.

SURVEY METHODS AND CONTROL The hydrographic signals were determined by the plane table from three point stations based on the triangulation previously done. Most of the signals and all of the landmarks used on the chart have been graphically checked by theodolite cuts. These cuts were taken from eccentrically occupied intersection stations which were difficult to occupy with a plane table. The cuts were reduced to center but further computation was considered unnecessary as well as being unjustified because the stations from which they were taken were determined by intersections.

An observing tower on a small building to the north of the Naval Air Station was supposed to be signal "Lon" of the survey of 1916 until the plane table disclosed that it was out some twenty meters to the eastward. The position of the tower was carefully determined and named "Lon 2".

The construction of a new beacon No. 8 was completed except for the light at the time of the surveys. The position shown has been carefully determined and checked as described above.

Respectfully Submitted

*J. P. Reading*

Approved *R. R. Turner*

Lieut. C. & G. Survey

Comm'dg. U.S.S. PIONEER

To the Director

U.S. Coast & Geodetic Survey

Washington, D.C.

LIST OF SIGNALS DETERMINED BY PLANE TABLE

OBJECT	to		accompany			REM. RES	
	Topographic Sheet No 1	Revision of San Diego Bay.	Lat.	D.M.	LONG		D.P.
Chimney Marine Base	32	44'	1254 ✓	117	11'	1255 ✓	
"Chim"							
"Yel"		44	473 ✓		10	973 ✓	Chimney yellow house
N. Stack of 2 small stacks		43	1143		10	655	
"Dub"							
E. Tower, Railroad Station		42	1828 ✓		10	209 ✓	Santa Fe Railroad
W. " "		42	1828 ✓		10	236 ✓	" " "
Beacon S "OCT"		42	1773 ✓		12	289 ✓	New pile structure
F.P. Nyls		42	1759 ✓		10	591 ✓	E. end Municipal pier
F.P. "Pier"		42	1756 ✓		10	821 ✓	W. " " "
W. Tank Naval Supply Bldg.		42	1719 ✓		10	516 ✓	
"Sup"							
N.W. Stack of Power Plant		42	1686 ✓		10	251 ✓	N.W. of five large stacks
"Lon" (2)		42	1560 ✓		11	992 ✓	Short frame Observing tower
"Coal"		42	1294 ✓		10	863 ✓	Iron stack of donkey boiler on coal pier
Tower Naval Air Station		42	1255 ✓		11	891 ✓	Administration Bldg.
"Ad"							
Tank on Roof of Citrus Soap Co. "My"		42	1223 ✓		09	1451 ✓	Isolated wooden tank on roof
F.P. "Off"		42	1036 ✓		10	440 ✓	On E Santa Fe Wharf office Bldg.
"End"		42	717 ✓		10	173 ✓	N end sign, Cable Crossing on W. Santa Fe Wharf
"Hook"		42	35 ✓		10	601 ✓	Anchor of "Don't anchor east" sign
"Dan"		41	1612 ✓		11	422 ✓	N E Flagpole of W grandstand
"Mid"		41	1533 ✓		11	128 ✓	Middle flagpole E grandstand

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic 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. **4008** (4)

State . . . California

General locality . . . **San Diego**  
~~Southern Coast~~

Locality . . . **San Diego Bay to Roseville**

Chief of party . . . **R.R. Lukens**

Surveyed by . . . **O.S. Reading & D.W. Taylor**

Date of survey . . . **February 1923.**

Scale . . . **1 : 10,000**

Heights in feet above . . . **MHW**

Contour interval . . . **7.777** feet.

Inked by . . . **D.W. Taylor** . . . Lettered by . . . **D.W. Taylor**  
**O.S. Reading** . . . **O.S. Reading**

Records accompanying sheet (check those forwarded): Photographs,

\*Descriptive report, \*Horizontal angle books, \*Field computations,

Data from other sources affecting sheet . . . . .

Remarks: **A plane table revision of the high water line of Topographic sheet register # 3643, and for location of hydrographic signals.**