

REPORT OF THE SUPERINTENDENT

OF THE

U. S. COAST AND GEODETIC SURVEY

SHOWING

THE PROGRESS OF THE WORK

DURING THE

FISCAL YEAR ENDING WITH

JUNE, 1885.

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1885

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was to feel my way to the kelp on the eastern shore and then head about northwest until the anchorage was reached.

"The best anchorage for light-draught vessels is about one-eighth of a mile east of Whaler's or Clark's wharf, in three fathoms of water (at *low* low water) where there is a good lee from the north-west winds. In the winter months, the southwest swell makes this anchorage, like most of the ports on the coast, an unsafe one. If, however, obliged to ride out a gale, the same anchorage is to be preferred, as the reef and peninsula serve to break the sea somewhat.

"The shores along the coast, from the harbor of San Simeon to the northwest are low bluffs, with occasional small stretches of sand beach. The country rises into mountains about two miles from the coast. These mountains dip towards the sea, and reach the coast at the end of our work northwest of Arroyo San Juan Carpofero.

"Off the shore the coast is generally lined with kelp, and the soundings are irregular; the general character of the bottom is rocky; gray sand is found off the Castro House, and formerly schooners anchored there and lightered off their freight. Since the construction of the wharf in the harbor of San Simeon this has not been done. Patches of kelp are found in as much as thirteen fathoms of water one-half mile south by west of Castro station. One and one-eighth miles southwest one quarter south of Castro House is a rock with three and one-fourth fathoms in kelp, and irregular soundings from six to nine fathoms around it. This is the outer danger of the coast between the peninsula of San Simeon and the rocks called Piedras Blancas. Vessels bound from San Simeon northward should keep three-fourths of a mile off shore in order to keep in not less than ten fathoms of water, while patches of kelp may be found a mile off shore.

"Vessels may approach the rocks called Piedras Blancas with impunity, taking care not to approach too close on the western and northwestern sides, as the bottom is foul and rocky."

Lieutenant Taussig gives in detail other statements respecting dangers to be avoided in approaching the coast, and his report will furnish valuable material for the forthcoming new edition of the Coast Pilot of California and Oregon.

With regard to the examination of the bar of San Francisco, to which some days were devoted in June, and one day, the 18th, in July, Lieutenant Taussig remarks that while all the time occupied there was well spent, he does not think the examination complete enough to state officially that the bar has not changed. It was his impression, however, that no material changes have taken place, and that a survey will probably show slightly deeper water in the southern channel than is given by the chart, and a possible extension of the southern end of the Four-Fathom Bank. The specimens of bottom show no signs of silt, and the living animals on the crest of the bar prove that the mining débris, and the silt of the streams emptying into the bay have not yet effected a deposit.

Lieutenant Taussig expresses his obligations to Assistant Forney for valuable information and services in connection with the work in the neighborhood of Cayucos, and to Assistant Davidson for information relating to the San Francisco Bar, and other data of value. The efficient aid afforded by the officers attached to the party is acknowledged: Lieut. F. H. Lefavor, and Ensigns W. L. Burdick, P. B. Bibb, and J. L. Purcell, U. S. N.

The statistics of the hydrography are:

Miles run in sounding .....	1, 069
Angles measured .....	5, 221
Number of soundings.....	30, 057

On the 1st of October Lieutenant Taussig was instructed to resume the hydrographic survey of the northern coast of California. An account of this work, and of that subsequently executed by his party under instructions dated in February, 1885, will be given under a later heading in this section.

*Occupation of stations in continuation of the primary triangulation of the coast of California.*— In July and during part of August, 1884, Assistant George Davidson was in Washington, having been called there for conference with the Superintendent, but he continued to direct the main triangulation and astronomical work on the coast of California, the Saucelito and Alaska tidal parties, the Coast Pilot work, and other operations, reference to which will be made here. Upon