

4789

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: CALIFORNIA

DESCRIPTIVE REPORT

Topographic  
~~Hydrographic~~  
~~Altimetric~~

Sheet No. C

4789

LOCALITY

Monterey Bay

Vicinity of Monterey Bay.

19<sup>33</sup>

CHIEF OF PARTY

G. C. Jones

DESCRIPTIVE REPORT  
to accompany  
TOPOGRAPHIC SHEET "C"

LOCALITY

This sheet covers the area from two miles north of Monterey Harbor to one mile south of Salinas River. It joins with Sheet "D" on the southern end and Sheet "B" on the northern end.

AUTHORITY

Survey was made under the Director's instructions dated April 4, 1932, and Supplemental instructions March 27, 1933 (Project HT-130).

GENERAL DESCRIPTION

The shore line forms a long smooth curve with coarse sand prevailing, and no offlying rocks or reefs. A strip of sand dunes partly covered with low brush and varying in width from 150 to 700 meters extends the full length of the sheet. These dunes present a yellowish brown appearance, ranging from 40 to 150 feet in height, with no particular distinctive peaks that can serve as landmarks. Inshore from these dunes prevail low rolling hills, cultivated, grassy, or brushy, as shown by the sheet. The strip of sand dunes makes it impossible to observe from the bay any object lying inshore from these dunes.

The sand (and clay) dunes from triangulation station MONTEREY BAY 3 to 1/2 mile north of triangulation station JACKS rise from the high water in steep bluffs 30 to 120 feet in height, gradually becoming lower toward the north. North of topographic station MUG the dunes slope gradually from the Bottom of Dune line to the heights as indicated on the sheet.

#### SHORE LINE CHANGES

The sand and clay bluffs lying between triangulation station MONTEREY BAY 3 and 1/2 mile north of triangulation station JACKS are gradually eroding away, due principally to the low cohesion between the sand grains and also to the strong northwesterly winds that prevail in the spring. Evidence of such erosion was most marked at triangulation station GIGLING; at this station the hydrographic signal erected at the top of the bluff in 1932 was found in June, 1933, to extend three feet over the edge of the bluff.

Because of such evidence, careful comparison between the present and the 1910 high water lines was made. It was found that the high water line at present is from 10 - 70 meters farther inshore than the 1910 line. Specifically, the receding amounts to 23 meters near MONTEREY BAY 3, 70 meters at GIGLING, and 58 meters at JACKS. A portion of this discrepancy could possibly be accounted for by different interpretations in the field of the high water line by the two surveys. However, it is thought that not

more than 10 meters could be accounted for in such a way and that the receding of the high water line is due to the eroding away of the loosely consolidated sand bluffs and by the wind transporting particles of sand inland. The fact that the present high water line north of the bluff region on this sheet shows little variation from the 1910 line is further proof of the above theory.

#### LANDMARKS

Topographic station BUNK is a sand bunker, 40 feet in height and is easily recognized off shore, as it lies in a break in the sand dunes.

Topographic station APE is a windmill 30 feet in height lying at the base of the sand dunes and is of sufficient importance to small boats to be charted.

#### CONTROL

A plane table was used throughout. Triangulation stations used in the 1932 network served as a basis of control.

#### CLOSING ERRORS

All traverses excepting the one noted below had closing errors so negligible as to need no adjustments. The traverse from triangulation station LAPIS failed to check in at triangulation station JACKS by 37 meters, attributed to the damp day and distortion of the sheet. A re-run in the opposite direction and subsequent adjustment of the located topography was found necessary.

PREVIOUSLY CHARTED LANDMARK

The watertank shown on Charts 5402 and 5403 and located just south of the sand railroad spur, should not be listed as a landmark, as it is not of sufficient prominence to be so listed.

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### REVISION DISCREPANCIES

All artificial objects showing discrepancies between this sheet, Reg. #554a, and Reg. #478a, are shown correctly on this sheet, as they are located from closed traverses or have been checked by several cuts. The Monterey-Castroville road is a new highway constructed since the original survey.

In the cultivated area containing the three ponds lie numerous houses, windmills, tanks, etc. Because none of these are visible from the bay, it was not deemed advisable to spend the time to locate them. The three buildings located near the ponds, shown on Reg. #478a are therefore correctly shown, but in view of the existing buildings in this area that are not shown on this sheet, it seemed logical that these three buildings also be omitted on this sheet.

The watertank located by triangulation and marked n.d., called WATERTANK ON HILL 1/2 MILE EAST OF GIGLING SIDING, 1932, latitude  $36^{\circ}39'10.766''$ , longitude  $121^{\circ}48'37.961''$ , should be stricken from the list, as the tank has been removed.

Marina, which has grown up since the 1910 survey, is a small village located inshore from triangulation station JACKS. Marina is the name by which it is known locally and the name as it appears on all railroad and road maps.

Workfield Siding is a railroad siding 1/2 mile

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south of triangulation station GIGLING. It is of no importance for charts, but was desirable on this sheet because it is a keynote for directions to many triangulation stations in this locality.

#### DECLINATOIRE

There was no nearby station at which the declination was known; therefore the declinoire error has not been determined. Comparison with the declination as determined with the compass-declinometer at the common station, MONTEREY BAY 3, will give the correction to be applied to the declinoire.

#### STATISTICS

Statute miles of shoreline - - - - - 7.3

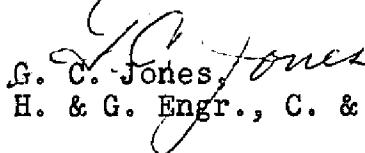
Area, square statute miles - - - - - 4.9

Respectfully submitted,



Wm. J. Bardin,  
Engineer Hand.

Approved and forwarded:



G. C. Jones,  
H. & G. Engr., C. & G. S.

PLANE-TABLE POSITIONS

Object and description	Latitude	D.M.	Longi- tude	D. P.	Height	Remarks
Windmill	36° 37'	Meters 841	121° 50'	Meters 1,076	Feet 30	Top.
Windmill	36 37	1,106	121 50	357	35	Do.
Small Shed	36 37	1,282	121 50	783	15	S. Gable
Sand Loader	36 37	1,299	121 50	762	15	Pole on top.
Watertank S. Workfield						
Siding	36 38	836	121 49	577	25	Top.
Watertank	36 38	1,602	121 48	1,106	20	Do.
Watertank	36 38	1,820	121 48	1,082	28	Do.
Windmill	36 39	343	121 48	1,158	30	Do.
Watertank	36 39	346	121 48	1,136	20	Do.
Building	36 39	1,826	121 49	210	15	S. W. Corner.
Marina R. R. Station	36 41	54	121 48	223	15	S. Gable.
Watertank	36 42	1,247	121 48	142	18	Top of pole.
Windmill, Pacific Coast						
Aggregates Co.,	36 42	1,290	121 47	1,329	35	Top.
Sand Bunker	36 42	1,386	121 48	539	40	Do.
Windmill	36 43	353	121 47	747	30	Do.

Datum - North American 1927.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter C

REGISTER NO. 7750

State California

General locality Monterey Bay

Locality Vicinity of Monterey Bay.

Scale 1:10,000 Date of survey May-June, 1933

Vessel Shore party; project HT-130.

Chief of Party G. C. Jones

Surveyed by W. J. Bardin

Inked by W. J. Bardin

Heights in feet above M.H.W. to ground ~~to top of rocks~~

~~Contour~~ Approximate contour ~~from tide interval~~ 50 feet

Instructions dated April 4, 1932

Supplemental March 27, 1933.

Remarks: