

4838

U. S. COAST & GEODETIC SURVEY
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Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~

Sheet No. I. 4838

State

CALIFORNIA

LOCALITY

Monterey Bay COAST

Capitola and Vicinity.

193 2

CHIEF OF PARTY

FRED. L. PEACOCK

U. S. GOVERNMENT PRINTING OFFICE: 1934

DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET FIELD NO. J
COAST OF CALIFORNIA
U. S. C. & G. S. S. GUIDE
1932

INSTRUCTIONS: Instructions for the topography on this sheet are dated April 4, 1932.

LIMITS: This sheet consists of a resurvey of the area adjacent to the shoreline between Soquel Point, Latitude $36^{\circ} 57.3'$, Longitude $121^{\circ} 58.3'$, and Latitude $36^{\circ} 55.7'$, Longitude $121^{\circ} 51.4'$.

ORGANIZATION OF PARTY: The topographic party consisted of one officer and three men. The party based at the City of Santa Cruz and used a truck for transportation.

GENERAL DESCRIPTION OF THE COAST: From the southeast end of the sheet to Latitude $36^{\circ} 58.7'$, Longitude $121^{\circ} 56.3'$, the shoreline consists of sloping earth bluffs, varying from 70 to 120 feet in height, with a fairly wide strip of sand beach below the bluffs. The area back of the shoreline is fairly level and is practically all under cultivation. There are several real estate subdivisions along the shoreline but none of them have been built up to any extent. Near the village of Aptos there is a small pleasure pier to which a concrete ship has been made fast. This ship is used as a pleasure resort and is more or less permanently made fast to the pier.

From this point to Soquel Point the bluffs are lower and are nearly vertical. The foot of the bluff coincides with the high water line. The area back of the shoreline has all been subdivided but is not built up and consists mostly of small farms. The Town of Capitola is a small summer resort. There is a small pier there used only by pleasure boats.

LANDMARKS: The Hotel Rio Del Mar, near Aptos, is a prominent building and should be shown as a landmark. It is a large white concrete or stucco building on the south side of the mouth of a small creek. The station on the hotel was located by triangulation in 1931 and this position is given on Form 367, Landmarks For Charts. This is the only object on this sheet prominent enough to be shown as a landmark.

CHARACTER OF CONTROL: Control for this survey was furnished by triangulation executed in 1931 by Lieutenant C. D. Meaney. The stations were plotted on the North American 1927 Datum. The adjusted positions were used.

SURVEY METHODS: Only standard survey methods were used. Setup positions were all determined by traverse, using three point fixes as checks wherever possible. Sunken rocks were located by cuts to the breakers or boiling caused by them. They are not enclosed in dotted circles but each sunken rock symbol indicates the approximate position of a sunken rock. In estimating the amount which rocks awash bared and also to secure a datum for elevations, a curve drawn from the predicted tides was used in determining the stage of the tide.

CLOSING ERRORS OF TRAVERSES AND METHOD OF ADJUSTMENT: All traverses closed well within the allowable error of four meters per mile of traverse. Each traverse was adjusted by distributing the error proportionately over the traverse.

Traverse	Error in Meters	Length of Traverse
	Distance Azimuth	Stat. Miles.
Soq to End of Dock, Capitola. .-3	0	1.5
End of Dock, Capitola to Bor. .-2	2	2.6
Bor to Aptos 0	0	1.3
Aptos to Leon. -4	0	2.2
Leonard to Dune. -2	2	1.3
Soq to Aptos (Road). -6	9	7.3
Aptos to Dune (Road). -8	4	4.49
Soq to Bor (Railroad). -5	3	4.3
Bor to Aptos (Railroad). . . . -4	4	2.9
Aptos to Leon (Railroad). . . -4	0	2.4
Leonard to Dune (Railroad). . -3	0	1.5

COMPARISON WITH OLD WORK: The shoreline and rocks were carefully transferred from the promides of the old sheets covering this area. Both checked very well.

CHANGES IN COASTLINE: West of Longitude $121^{\circ} 56.3'$ the surf acts directly upon the base of the bluffs and is slowly breaking them down. From a comparison of the old sheets, surveyed in 1910, and this sheet it appears that the recession of the shoreline due to this breaking down of the bluffs has been fairly small. A resident of Capitola estimated that the average annual recession in that vicinity was about one foot.

COMPARISON WITH AERIAL PHOTOGRAPHS: Aerial photographs for this area were available and were closely examined at the time of the field work. A large number of features located on the topographic sheet are easily recognizable on the photographs and if the photographs are to be reduced there are a sufficient number of points recognizable on both. The photographs were also closely examined and compared with the topographic sheet in order to pick up any errors or omissions.

COMPARISON WITH HYDROGRAPHIC SHEET, FIELD NO. 9: There are very few rocks on this sheet and they were all too close in-shore for the hydrographer to attempt to verify.

MISCELLANEOUS: No contouring was done on this sheet because the contouring had been done previously by the Geological Survey and also because of insufficient time to complete other necessary work by the end of the field season. The Commanding Officer of the Ship GUIDE felt that the contouring could be omitted for the above reasons. This area is covered by the Capitola Quadrangle of the Geological Survey.

A list of recoverable topographic stations located accompanies this report. Form No. 524, Description of Hydrographic or Topographic Station, was filled out for the more prominent of the stations located. These cards are forwarded with the sheet.

Respectfully submitted,

H. C. Applequist
H. C. Applequist,
Aid,
U.S.C. & G. Survey.

Respectfull forwarded,
approved:

F. H. Hardy
F. H. Hardy,
Chief of Party,
U.S.C. & G. Survey,
Commanding Ship GUIDE.

map of County Peruysa forwarded with
sheet *BP 27477*

STATISTICS
to accompany
TOPOGRAPHIC SHEET FIELD LETTER J

DATE FIELD WORK BEGAN:	November 30, 1932
DATE FIELD WORK WAS COMPLETED:	December 29, 1932
NUMBER OF DAYS OF FIELD WORK:	14
STATUTE MILES OF SHORELINE:	9.1
STATUTE MILES OF ROADS AND RAILROADS:	37.8
AREA IN SQUARE STATUTE MILES:	5.3
NUMBER OF RECOVERABLE TOPOGRAPHIC STATIONS LOCATED:	23
NUMBER OF CARDS? FORM NO? 524? DESCRIPTION OF TOPOGRAPHIC STATION, SUBMITTED:	8

LIST OF TOPOGRAPHIC SIGNALS
to accompany
TOPOGRAPHIC SHEET FIELD LETTER J

Hydrog. Name	Object and Description
Rat	Chimney, white house, 36th Ave. E. Cliff Drive
*Tank	White wooden water tank, 36th Ave. near E. Cliff Dr.
Hi	South gable, high part, yellow building, E. of 36th Ave.
Wet	SW spire on green house on bluff near 38th Ave.
Eat	NE spire on green house on bluff near 38th Ave.
*Water Tank	High white water tank on 41st Ave.
*Water	Flat white water tank, West of Capitola
Ten	S gable large yellow house on bluff W of Capitola
Bath	SE gable of bathhouse at Capitola
Hot	Spire on round green restaurant at Capitola
*Mill	Windmill on beach E of Capitola
Brow	S gable brown house on bluff
Red	Chimney white house, red roof
Rose	S gable rose colored house
cen	Center of chimneys on large white stucco house
Ter	White water tank
Abe	Flagpole on bluff, W side of road to Aptos pier
Bay	Flagpole on bluff, E side of road to Aptos pier
*Small	Silver colored water tank on bluff above Aptos Pier
One	West flagpole on bluff W of Hotel Rio Del Mar
Two	East flagpole on bluff W of Hotel Rio Del Mar
*Steel	Steel water tank on bluff
*Met	Steel stack at Metal Works

Note: Those signals marked with an asterisk are described on Form No. 524, Description of Topographic Station.

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REG. NO. 4838

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 No. J

REGISTER NO. 4838

State CALIFORNIA

General locality Monterey Bay COAST, MONTEREY BAY

Locality Capitola and Vicinity.

Scale 1 - 10 000 Date of survey DECEMBER, 19 32

Vessel U.S.C. & G.S.S. GUIDE

Chief of party FRED. L. PEACOCK

Surveyed by RE C. APPLEQUIST

Inked by H.C. APPLEQUIST

Heights in feet above M H W to ground ~~XXXXXX XXXXXX~~

Contour, Approximate contour, Form line interval _____ feet

Instructions dated APRIL 4, 1932, 19 _____

Remarks: _____

REVIEW OF TOPOGRAPHIC SURVEY No. 4838

Title (Par. 56) *Capitola and Vicinity, Monterey Bay, California*Chief of Party *F.L. Peacock* Surveyed by *H.C. Applegate* Inked by *H.C. Applegate*Ship *Guide* Instructions dated *Apr. 4, 1932* Surveyed in *Dec. 1932*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓
4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
Only a few elevations near shoreline were determined.
5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) *Refers to the "Capitola Quadrangle" by Geological Survey for contours.*
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) *B.P. 27 477* ✓
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓
8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓
10. ~~The span, draw and clearance of bridges are shown.~~ (Par. 16c.)
11. ~~Locations and elevations of summits are given.~~ (Par. 19, 51.)
12. ~~The tree line was shown on mountains.~~ (Par. 16g.)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.
15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) and scaling checked. Additional recoverable stations are listed in the Desc. Rep. ✓
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) Not yet received. See Desc. Rep.
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) ✓
18. The geographic datum of the sheet is *North American 1927* and the reference station is correctly noted. (Par. 34.)
19. Junctions with contemporary surveys are adequate. ✓
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report. ~~after review by~~

24. Remarks:

Reviewed in office by *R. J. Christman* May 28, 1934

Examined and approved:

C. H. Green
Chief, Section of Field Records

G. S. Borden
Chief, Section of Field Work

K. T. Adams
Asst Chief, Division of Charts

G. F. Hinde
Chief, Division of Hyd. and Top.