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Form 504
Ed. June, 1928

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

State: CALIFORNIA

DESCRIPTIVE REPORT

Topographic
~~*Hydrographic*~~ } *Sheet No.* L

LOCALITY
Northern California Coast
~~NORTH COAST~~

PUNTA GORDA LIGHTHOUSE TO ~~½ MILE NORTH OF MOUTH OF~~ MATTOLE ~~RIVER~~ River Point

1936

CHIEF OF PARTY

F. H. HARDY

U. S. GOVERNMENT PRINTING OFFICE: 1933

Form 537a
Ed. Nov., 1929

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 No. L

REGISTER NO. T6513

State CALIFORNIA

General locality NORTH COAST

Locality PUNTA GORDA LIGHTHOUSE TO MATTOLE POINT

Scale 1-10,000 Date of survey June 19 to 30, 1936

Vessel GUIDE

Chief of party F. H. HARDY

Surveyed by CURTIS LEFEVER

Inked by CURTIS LEFEVER

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated May 2, 1935

Remarks:

DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET L-1936
Project No. HT-206

U. S. C. & G. S. S. GUIDE F. H. HARDY, COMMANDING
Season of 1936

INSTRUCTIONS

Director's instructions dated May 2, 1935.

LIMITS

The coast line surveyed on this sheet extends along the North California Coast from Punta Gorda Lighthouse northwest to about one quarter mile north of the mouth of the Mattole River. It is joined on the south by Sheet K-1936 and joins Sheet M-1936 on the north.

DESCRIPTION

Steep grass covered slopes rise from the edge of the narrow plain,which parallels the beach, to the seaward edge of a large sloping area called Barksdale Table. This area slopes from an elevation of 800 feet on the seaward side, upward to the high ridge in the background and to elevations nearing 1500 feet. Its grass covered surface is scarred deep on the south side by the brush covered slopes of the ravine through which flows Four Mile Creek. Other, shallow ravines cut into the table north of Four Mile Creek.

On the north edge of Barksdale Table, the Mattole River breaks through the high ridge which parallels the coast. It is a small river with headwaters west of the Coast Range of mountains, the summit of which is visible in the background. This river is not navigable and cannot be entered with a small boat at any stage of the tide. During the dry summer months when the surface runoff is small the river is closed by a sand ridge, which forms across its mouth. The slopes of the Mattole River Canyon are timber covered the growth of those facing the north being much more dense.

North of the Mattole River the grass and brush covered slopes rise rapidly from the beach to the summit of Moore Hill. The elevation of Moore Hill is about 1210 feet.

From Punta Gorda Lighthouse north to the mouth of the Mattole River the narrow plain which parallels the beach disappears in one place. At the first point north of Four Mile

Creek the base of the bare rock bluff forms the storm water line. When a south bound vessel is close inshore and north of this point they cannot see the lighthouse.

A narrow sand beach extends the entire length of this sheet. From the lighthouse north to the Mattole River valley the sand overlies a rocky ledge which in places appears near the water edge and extends into the water, forming a submerged reef. The many off-lying rocks are the high points on this reef. It again appears on the north side of the Mattole River valley.

Gorda Rock, Latitude 40° 14.96', directly west of the lighthouse and 1180 meters offshore, projects 10 feet above ~~M.L.L.W.~~ M H W

See letter from chief of Party dated 3-8-38 attached to D.R.

also letter dated June 20, 1938

SURVEY METHODS

The usual methods of plane table topography were used on this sheet. A point was established north of the lighthouse which was common to both sheets K and L 1936. A traverse was run from this point north to the northern limits of the sheet where it joined a traverse run from the north on Sheet M-1936. At a point 1¼ miles south of the river mouth a three point fix was taken on triangulation stations MATTOLE POINT, MOORE HILL and BAGLEY. There was a 10 meter discrepancy between this fix and the location of the same point by traverse. The 10 meter error was all in distance and was assumed to have accumulated throughout the traverse to that point. The traverse was adjusted throughout its length to eliminate this error. At the northern limits of the sheet the closing error with the other traverse was three meters. No adjustment was made there. All offshore details were located with three or more cuts. Check elevations were taken at all points on the sheet, near the beach where it was thought a change may have taken place. No revision of form lines was found necessary.

COMPARISON WITH PREVIOUS SURVEYS

This sheet covers part of the area surveyed in 1871 and shown on Sheet T-1240. All features on that sheet were traced and then transferred to this sheet before it was taken into the field. They were examined on this survey and a special search was made where a discrepancy appeared between the two surveys. On Sheet T-1240 all rocks are shown as breakers or as being above water at all stages of the tide. There are many rocks which were not located on the survey of 1871. With exception of the form lines it was necessary to make a complete revision of the survey of this area. The highwater line as it exists today differs considerably from that of 1871. However, the changes are reasonable and no more than can be expected over a period of years. At rocky points where the change is slow the location of the highwater line on the two surveys compares very close.

Discrepancies warranting special attention:-

On the tracing of T-1240, in this area, discrepancies discussed are numbered in accordance with the numbers of the following paragraphs.

(1) Latitude 40° 15.2':- The positions of the two rocks shown on T-1240, about 220 meters offshore, is changed 9 meters to the northeast. They exist as bare 4 feet at M.L.L.W. The position of another rock about 110 meters north of the two mentioned is also shifted east 9 meters. The symbol for this rock is changed also.

(2) Latitude 40° 15.3' :- The large rock on T-1240, 150 meters offshore does not exist as shown but it falls very near the outer edge of the sunken reef located on this sheet.

(3) Latitude 40° 15.33':- The large rock on T-1240, 316 meters offshore, does not exist as shown. An examination of air photos of this area shows no indication of a rock at this point. An examination of Launch Sheet 4 for this season shows a sounding of 4 fathoms was obtained near the location of this rock. This rock should not be charted.

Rock brought forward and shown as rock awash. See Review par. 9.

(4) Latitude 40° 15.4':- The position of the rock shown on T-1240, 140 meters offshore is shifted 12 meters to the southeast. It exists as a rock awash.

(5) Latitude 40° 15.45':- The position of the rock shown on T-1240, 213 meters outside highwater line,is shifted 16 meters to the southwest. It exists as awash at highwater. The breaker shown on T-1240, 188 meters west of the above rock, was not sighted on this survey. This area is covered on H 4, 1936.

(6) Latitude 40° 15.5':- The position of the rock shown on T-1240, 380 meters outside highwater line,is shifted 13 meters westward. It now bares 4 feet at M.L.L.W. The symbol for the rocks shown on T-1240, 120 meters east-northeast of the above mentioned rock are changed. They exist today as a breaker and as a rock awash.

(7) Latitude 40° 15.6':- The positions of the two rocks shown on T-1240, 350 meters outside highwater line, are changed 15 meters to the northwest. They and the large rock 130 meters inshore exist today as bare 4 feet at M.L.L.W.

(8) Latitude 40° 16.04':- The position of the rock shown on T-1240, 280 meters outside highwater line, is shifter 12 meters to the north. It is today a breaker. The three rocks surrounding this one were not located but may exist as breakers. The position of the breaker shown on T-1240, 60 meters to the southeast, has been shifted 20 meters to the south-southwest.

(9) Latitude 40° 16.2':- The large rock shown on T-1240, 110 meters outside highwater line, does not show above the surface but may exist as a breaker. Several other rocks in this vicinity, shown on T-1240, fall on the sunken reef located on this survey.

(10) Latitude 40° 16.75':- The breaker shown on T-1240 was not located on this sheet. See Launch Sheet 4, 1936 for its location. The small breaker shown 240 meters to the southeast was not seen. The area was thoroughly examined. It should not be charted.

(11) Latitude 40° 16.8':- The position of the large rock shown on T-1240, 203 meters outside highwater line, is shifted 30 meters to the west. Its elevation is determined as 4 feet.

(12) Latitude 40° 16.9':- The position of the large rock shown on T-1240, 140 meters outside highwater line, is shifted 23 meters to the north. It is quite prominent and was used as a signal from offshore. Its elevation is determined as 12 feet.

(13) Latitude 40° 17':- The position of the large rock shown on T-1240, on the low water line, is shifted north-northwest 23 meters. It is awash at high water and is shown.

(14) Latitude 40° 17.05':- The position of the breaker located on T-1240, 353 meters outside highwater line, is shifted 50 meters offshore. It bares 3 feet at M.L.L.W. and is shown.

LANDMARKS FOR CHARTS

LAP Latitude 40° 15', 735 meters, Longitude 124° 21', 573 meters. A small unpainted barn, 14 x 20 feet, situated on the north side of Four Mile Creek. About ½ mile north from Punta Gorda Lighthouse.

PAL Latitude 40° 15', 752 meters, Longitude 124° 21', 538 meters. A small unpainted house, 12 x 18 feet, situated on the north side of Four Mile Creek and about ½ mile north from Punta Gorda Lighthouse.

RECOVERABLE TOPOGRAPHIC STATIONS

Descriptions of the following stations are submitted on Form No. 524: JOB, PAL, LAP, RID, MA, OUT, COP, BIG, FOOT, FLA, PA, RIPE, UP, HOVEL, BAG, TRI, BUTTE, MESA, TON and PUS. Not received in this office. July 24, 1937.

LIST OF NAMES

Barksdale Table, Moore Hill, Four Mile Creek and Mattole River ~~and~~ are all well established names in this area.

MISCELLANEOUS

The tracing used in transferring Sheet T-1240 is being forwarded with the report for Topographic Sheet K-1936.

STATISTICS

Statute miles of shore line - - - - - - - - - - - 3.5

Magnetic meridian - - - - - - - - - - - - - - - - 1

Elevations of rocks - - - - - - - - - - - - - - - 6

Respectfully submitted,

Curtis LeFever,
Jr. H & G Engineer,
U.S.C. & G.Survey.

Approved and forwarded:

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

	Remarks	Decisions
1		
2		See H-6164
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7		See H-6164
8		" "
9		" "
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M 234

GEOGRAPHIC NAMES

Survey No. T-6513

Name on Survey	A: On Chart No. 5602	B: On previous survey No. T-1240 H-1682	C: On U.S. quadrangle Trinity	D: Maps Natl For. / From local information	E: On local Maps	F	G: P. O. Guide or Map	H: Rand McNally Atlas	K: U.S. Light List USCP	
State of California	✓									1
Mattole River	✓ app'd	✓	✓	D.R. pg. 4			✓		✓ Mattolle in index only	2
Barksdale Table		Barksdale △		✓ " "						3
Four Mile Creek	✓	✓		✓ " "						4
Pacific Ocean										5
Moore Hill		Moore's Hill		✓ " "						6
Gorda Rock	✓ app'd	✓	✓						✓	7
Punta Gorda	✓ app'd	✓	✓					✓	✓	8
Conical Rock	✓ app'd	✓	✓						✓	9
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Names underlined in red approved by GPE on 3/25/37

M 234

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTATIC~~

~~No.~~

No. T-6513

received Mar.16,1937
registered Mar.24,1937
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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88			
90			

RETURN TO

82	C. K. Green

✓

REVIEW OF TOPOGRAPHIC SURVEY No. 6513 (1936)

Title (Par. 56) Punta Gorda Lighthouse to Mattole River, Northern California Coast, California.

Chief of Party F.H. Hardy Surveyed by C. Le Fever Inked by C. Le Fever

Ship GUIDE Instructions dated May 2, 1935 Surveyed in June, 1936

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.) ✓

5. The delineation of ~~contours~~-formlines- is satisfactory. (Par. 49, 50.) Formlines were transferred from the prior survey and check elevations determined as prescribed in the instructions. Necessary adjustments were made by the field party. ✓

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.) None submitted. ✓

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.) Rocks awash were shown as bare 6 and 7 feet at MLLW with a 5½ foot range of tide. These were transferred to the hydro survey as rocks awash. ~~and~~ In outstanding cases ~~there~~ they were noted as awash at MHW and appropriate notes placed on the present survey. In other cases the notes were simply omitted from the hydro survey. ✓

9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) See reverse side.

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.

R-317

Paragraph 9.

Comparison with Prior Surveys.

T-1240 (1871)

This 1-10,000 scale survey is discussed in detail in the Descriptive Report. The high water rock in lat. 40°15.'36, long. 124° 21.'77, although not verified on the present survey (see page 2, par. 3, Descriptive Report) has been brought forward as a rock awash. The sounding lines in this vicinity were run at high tide.

T- 3846 (1921)

This 1-20,000 scale survey covers the entire area of the present survey and was made for the purpose of furnishing signals for an offshore hydrographic survey. Shoreline is shown but no detail. It is in good agreement with the present survey.

Within its limits the present survey supersedes the following surveys for charting purposes:

T- 1240 (1871) in part.
T- 3846 (1921) in part.

Comparison with Chart No. 5602 (New Print dated Aug. 6, 1936)
Chart No. 5795 (New Print dated Mar. 31, 1937)

Within the limits of the present survey, the charts are based on surveys discussed in the foregoing paragraphs. ~~and contain no additional information which needs consideration in this regard~~. No authority could be found for the elevation of 15 feet above MHW charted for Gorda Rock (lat. 40°15', long. 124°22'.) Davidson's Coast Pilot (1889) gives the elevation as "16 feet above the sea." The present survey shows an elevation of 10 feet above MHW but the descriptive report, page 2, states that it projects 10 feet above MLLW. The statement in the descriptive report is apparently taken from a similar note on the boat sheet for H-6164 (1936). Because of the discrepancies in elevation the matter has been referred to the field party for additional information. (Continued on reverse side of page 2)

Correct elevation 10 feet at MHW. See letter from Chief of Party attached to D.R. dated 3-8-38. H.W.M. 5-12-38

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.) None received although Descriptive Report states that 20 cards were submitted.

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ✓

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) There is no evidence that the declinations was checked. The declination agrees with the charted value. ✓

18. The geographic datum of the sheet is N.A. 1927 and the reference station is correctly noted. (Par. 34.) ✓

19. Junctions with contemporary surveys are adequate. Joins T-6512 (1936) on the south. T- Field Letter M (1936), joining on the north, not received in this office. ✓

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 J.A. Mc Cormick, July 24, 1937.

Examined and approved: Inspected by A.L. Shalowitz.

C. K. Green
Chief, Section of Field Records

Fred. L. Peacock
Chief, Section of Field Work

L. O. Colbert
Chief, Division of Charts

[signature]
Chief, Division of Hyd. and Top.

R-317

applied to Chart 5795 J. M. Albert Feb. 23, 1938

(continued) The descriptive report (page 3) for T-6559 (1936) states that the railroad shown from the Mattole River to the landing is gone and that the road paralleling the north bank and crossing the river is no longer there and should be deleted from the chart. Both of these features fall within the area of the present survey. The railroad originates with Chart Letter ~~437~~ 438 of 1909. Authority for the road could not be readily ascertained as the standard on which it should have been marked up is missing from the files.

POST-OFFICE ADDRESS: P. O. Box 1197, Oakland, Calif.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

25 AM 11 51

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Ship GUIDE, Oakland, Calif.,
June 20, 1938.

To: The Director, U. S. Coast and Geodetic Survey,
Washington, D. C.

From: The Commanding Officer, U.S.C. & G.S.S. GUIDE.

Subject: Height of Gorda Rock.

Reference: (a) Your letter of March 8, 1938, No.80/LEF.
(b) My letter in reply dated March 14, 1938.

With further reference to the above subject you are advised that while planting a sono-radio buoy this vessel laid to close to Gorda Rock and an opportunity was had to verify my letter of March 14, 1938. There is no question that Gorda Rock bares 10 feet at M H H W.

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

D.R. T-6513

POST-OFFICE ADDRESS: P. O. Box 1197, Oakland, Calif.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Steamer GUIDE, Oakland, Calif.,
March 14, 1938.

To: The Director, U. S. Coast and Geodetic Survey,
Washington, D. C.

From: The Commanding Officer, U.S.C. & G.S.S. GUIDE.

Subject: Height of Gorda Rock.

Reference: Your letter of March 8, 1938, No. 80-LEF.

This will acknowledge receipt of above reference. In reply you are advised that there are no original data showing the elevation of Gorda Rock now aboard this vessel. However, this has been discussed with all the officers aboard and the unanimous opinion is that Gorda Rock bares 10 feet at M.H.H.W. This will show that the descriptive report is in error on this subject.

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

Attach to D.R. of T-6513.
Reduced to M.H.W.
5-12-38

HBR

82

80-LEF

March 8, 1938.

To: Commanding Officer,
U. S. Coast and Geodetic Survey,
Ship GUIDE,
P. O. Box 1197,
Oakland, California.

From: The Acting Director,
U. S. Coast and Geodetic Survey.

Subject: Height of Gorda Rock.

Reference is made to Topographic Survey No. T-6513 (Field No. L) Punto Gorda Lighthouse to Mattole River, surveyed in 1936 by Lieutenant LeFever, on which there is a discrepancy between the survey and descriptive report as to the height of Gorda Rock. The rock is shown on the topographic survey as 10 feet above high water and the descriptive report states as follows:

> "Gorda Rock, Latitude 40° 14.96', directly west of the lighthouse and 1180 meters offshore, projects 10 feet above M.L.L.W."

There is also a note on the boat sheet referring to Gorda Rock as "bare 10' M.L.L.W."

It is requested that you inform this office as to which is the correct elevation. If this is not known definitely at this time it is probable that you will be able to verify the elevation during your next field season. Lieutenant Bainbridge remembers passing close to Gorda Rock during the 1936 field season and believes the elevation of 10 feet above high water is correct. The rock has been charted for many years with an elevation of 15 feet.

(Signed) J. H. HAWLEY

Acting Director.

The reply to this letter has been filed with D-R. of T-6513. HBR