6512

6512

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. K

LOCALITY
Northern California Coast
~~NORTH COAST~~

~~FROM~~

~~TRIANGULATION STATION RANDALL 1930~~
REYNOLDS ~~Creek~~ Rock
TO PUNTA GORDA LIGHTHOUSE 1930.

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. K

REGISTER NO. 16513

State CALIFORNIA

General locality ~~NORTH COAST~~ Northern California Coast

Locality ~~TRIANGULATION STATIONS RANDALL~~ REYNOLDS ~~GREENE~~ ROCK TO PUNTA GORDA LIGHTHOUSE

Scale 1-10,000 Date of survey June 1 to 7, 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, 19.35

Remarks:

DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET K-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 Triangulation Station RANDALL 1930, northwest to PUNTA GORDA LIGHTHOUSE. It is joined on the south end by Sheet J-1936 and joins Sheet L-1936 on the north.

DESCRIPTION

Steep mountains rise abruptly from the beach to elevations of 1200 to 2000 feet. They are grass covered with a few isolated groups of trees high up on their shoulders. The top of the high ridge in the background is unbroken. Its seaward slope is deeply scarred by the ravine through which Cooskie Creek flows. A few shallow un-named canyons cut into the seaward slope north of Cooskie Creek. The slopes of the canyons are covered with timber, the growth on the slopes facing the north being much heavier and more prominent from off shore.

The PUNTA GORDA LIGHTHOUSE reserve is composed of several large white buildings and the lighthouse which is a low structure, the second building from the north, of the group is about 30 feet higher up on the hill side than the adjoining buildings. The entire reserve sets down near the beach and is not visible from close inshore when coming from the north. The only other buildings on this sheet are those of the Smith, Mackey Ranch. They are situated 1½ miles southeast along the coast from the lighthouse, on a narrow bench, about 70 feet above the beach.

A narrow sand beach extends from the south boundary of the sheet, north to a point inshore from the large offlying rock named SEA. From this point the beach is covered with large boulders, north to a point latitude 40° 14.5'. From this point north to the boundary of the sheet the space between high and low water is bare rock outcrop. The beach is bounded by many rocks and breakers close inshore. These are the high points on the sunken reef which extends throughout the sheet with but one possible break which is just south of the large rock named SEA.

Reynolds Rock is a large rock, Latitude 40° 12.1', lying 0.2 mile off shore and projecting 16 feet above M.L.L.W. Directly west of Reynolds Rock and 0.9 mile off shore is Rodgers Break, relocated by several cuts on this sheet. This is a large breaker which shows only in a heavy sea. It was designated on the 1871 survey as New Break. The position of this breaker was shifted on this survey 37 meters to the northwest from that on Sheet T-1239. Rodgers Break Buoy lies 0.3 mile outside the breaker. It was located on this sheet by several cuts.

CONTROL

The control for this sheet is the 1930 scheme of second order coastal triangulation.

SURVEY METHODS

The usual method of plane table topography was used. A point was established on the north end of Sheet J-1936 which was also common to this sheet. The traverse was then continued from that point to Triangulation Station CONKLIN 1930. The closing error at CONKLIN was 7 meters, it all being in distance. It was assumed to have been accumulative and was distributed back through the traverse. The traverse was then continued to Triangulation Station PUNTA GORDA 1930. The closing error there was 4 meters. No adjustment was made. Off shore details were all located by three or more cuts. Check elevations were taken at points on the sheet near the beach where it was thought changes may have taken place. No revision of form lines was found necessary except at one place, inshore from the large rock named SEA.

COMPARISON WITH PREVIOUS SURVEYS

This sheet covers part of the area surveyed in 1871 and shown on sheets T-1239 and T-1240. All features were carefully traced from those sheets for this area and transferred to this sheet before it was taken into the field. Where discrepancies were noted in the survey of 1871 special care was taken to correct the errors. On those sheets all rocks are shown as breakers or as being above water at all stages of the tide. This, and there being many rocks which were not located on the 1871 survey, made it necessary to completly revise the survey of this area. The location of the highwater line on the two surveys with but few exceptions compares very well.

Discrepancies warranting special attention:-

(1) The difference in location of the highwater line on the two surveys, on the south end of the sheet is no doubt due to shifting of the loose sand beach. In this area the highwater line as shown on T-1239, is the present low bluff line. Loose course sand is piled deep against the foot of the bluff thereby shifting the present highwater line to the position shown on this sheet.

(2) In the vicinity of the large off lying rock named SEA, there has been rapid erosion and sliding of the steep mountain side. This appears to be caused by an excessive wave action on the beach. This wave action may be caused by a break in the submerged reef at this point. The beach here has receded appreciably since the survey of 1871. The rapid changing in this area was obvious to the topographer, and was mentioned by ranchers living near. ✓

(3) The difference in location of the highwater line on the 1871 survey and this survey, in the vicinity of the Punta Gorda Lighthouse Reserve is probably due to weak control on the 1871 survey. ✓

(4) Latitude 40° 12.1' to 40° 12.3';- The positions of the rocks in this area, shown on T-1239 are shifted from 5 to 20 meters farther off shore. The symbols for them have also been changed to show existing conditions today. ✓

(5) Latitude 40° 12.3':- The rock shown on T-1239, about 170 meters off shore, does not exist above water. Air photos of this area shows breakers in this location but no definite rock. This rock should be charted as a breaker. Shown as sunken rock

(6) Latitude 40° 12.5':- The breaker shown on T-1239, about 345 meters off shore, is shifted 18 meters to the west on this survey. The symbol for the rock is changed, it bares 2 feet M.L.L.W. The large rock shown on T-1239, 260 meters east of the breaker has been shifted in position 16 meters northeast. The symbol for this rock has also been changed, it bares 6 feet M.L.L.W. The symbols for two rocks directly north from the breaker have been changed. They are shown as bares 3 feet M.L.L.W. ✓

(7) Latitude 40° 12.7':- The large rock shown on T-1239, 236 meters off shore, as above water at all stages of the tide, is located on this survey as a rock bares 3 feet M.L.L.W. Two breakers were also located near it. The positions of the two rocks about 100 meters north of the one just mentioned are shifted 17 meters to the northeast. They bare 4 feet M.L.L.W. The rock shown on T-1239 just north of the last two mentioned does not exist above water. However, it is surrounded on three sides by rocks and may exist under water. It should be charted as a breaker. Unimportant. not shown and not to be charted. ✓

(8) Latitude 40° 13.0':- The breaker shown on T-1239, 76 meters off shore,was not sighted on this survey but may exist. Several uncharted rocks and breakers were located out side its position. It should be charted.* The symbol for the rock 27 meters east of the position of the breaker is changed. It does not show above water but is a large breaker. Unimportant Not shown not to be charted.

(9) Latitude 40° 13.8':- The most northerly of the two rocks shown on T-1240 is located on this survey as bares 7 feet M.L.L.W. The south rock is shifted in position 20 meters inshore and is a breaker. ✓

(10) Latitude 40° 13.85':- The position of the rock shown on T-1240, about 0.2 mile off shore, is shifted 5 meters to the southeast and the rock bares 6 feet M.L.L.W.

(11) Latitude 40° 13.9':- The symbol for the most northerly of the two breakers shown on T-1240 is changed. The rock is awash at M.L.L.W. Each of the two rocks are shifted in position about 5 meters to the northeast.

H-6164 (1936) shows as "Bare 6' M.L.W." To be so charted.

(12) Latitude 40° 14.1':- The position of the breaker shown on T-1240 is not changed but an uncharted rock is located about 30 meters west-northwest of the breaker and is shown as bares 2 feet M.L.L.W.

(13) Latitude 40° 14.2':- The position of the breaker as located on T-1240 is changed to the north 26 meters. An uncharted rock is located just north of the breaker which bares 5 feet M.L.L.W.

(14) Latitude 40° 14.3':- The position of the breaker shown on T-1240 is changed 27 meters to the north. This rock bares 5 feet M.L.L.W. An uncharted breaker is located on its outer edge.

(15) Latitude 40° 14.4':- The location of the large rock (elevation 21 feet) and the small one near by was shifted to the north 10 meters. The position of the breaker inshore and south of these rocks is shifted about 5 meters to the north. It is a rock which bares 5 feet at M.L.L.W.

(16) Latitude 40° 14.5':- The position of the rock shown on T-1240 is shifted 30 meters to the east. It bares 7 feet at M.L.L.W. The position of the breaker about 50 meters northeast of this rock is shifted 36 meters directly north. Positions of several other rocks in this latitude and closer in shore were changed. The symbols for them in most cases are changed also.

(17) Latitude 40° 14.65':- The position of the breaker shown on T-1240, 560 meters off shore, is shifted 26 meters to the southwest.

(18) Latitude 40° 14.85':- The position of the breaker located on T-1240 is shifted 34 meters to the northeast. The positions and symbols for several of the inshore rocks in this vicinity are also changed.

LANDMARKS FOR CHARTS

HOW The most southerly of the two unpainted houses at the Smith, Mackey Ranch. Latitude 40° 13', 1546 meters, Longitude 124° 19', 437 meters.

DEN The most northerly of the two unpainted houses at the Smith, Mackey Ranch. Latitude 40° 13', 1649 meters, Longitude 124° 19', 473 meters.

RECOVERABLE TOPOGRAPHIC STATIONS

Descriptions of stations are submitted on Form No. 524 for the following topographic stations ANS, HOW, DEN, SEA, LE, ROS, and FLAG. Not received in office July 24, 1937.

LIST OF NAMES

Cooskie Creek is a well established name in this vicinity. ✓

STATISTICS

Statute miles of shore line - - - - - - - - - - - - - 5.5

Magnetic Meridian - - - - - - - - - - - - - - - - - - 1 ✓

Elevations of rocks - - - - - - - - - - - - - - - - - 12

Respectfully submitted,

Curtis LeFever

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

Approved and forwarded:

F. H. Hardy

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

GEOGRAPHIC NAMES

Survey No. T-6512

	Name on Survey	A On Chart No. 5602	B On previous survey No. T-1239, 1240	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
	State of California	✓									1
see H-6170	Cooskie Creek	✓ appd									2
	Pacific Ocean										3
see T-6511	Lake Hill	✓ appd									4
	Sea Lion Gulch	✓	✓								5
	MacKey's Beach		✓								6
	MacKey's Ridge		✓								7
	MacKey's Mtn		✓								8
	Reynolds Ck.	✓ appd	Not on sheet.								9
	Reynolds Rock	✓ appd	✓								10
											11
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Names underlined in red approved by GHE on 3/23/37

M 234

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

~~No.~~ No. T-6512

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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83			
88			
90			

RETURN TO

82	C. K. Green

REVIEW OF TOPOGRAPHIC SURVEY No. 6512 (1936)

Title (Par. 56) Reynolds Rock to Punta Gorda Lighthouse, Northern California Coast, California.

Chief of Party F.H. Hardy Surveyed by C. LeFever Inked by C. LeFever

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 to the present survey from the prior surveys and a number of check elevations taken as called for 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.) ~~except that~~ Rocks are shown as bearing 6 and 7 feet at MLLW with a range of tide of 5½ feet. These have been transferred to the hydro survey as "rocks awash. In outstanding cases they are noted on the hydro survey as "awash at MHW" and an appropriate note placed on the present survey. In other cases the note is 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. 16e.)~~

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-1239 (1871), T-1240 (1871)

An exceptionally complete comparison between these old surveys and the present survey has been made in the descriptive report. The surveys have also been compared in this office and additional comment is considered unnecessary. The rock discussed in par. 5, Descriptive Report, has been brought forward as recommended and shown as a sunken rock.

Within its limits the present survey supersedes the above surveys in part for charting purposes.

Comparison with Chart No. 560 (New Print dated Aug. 4, 1936)
Chart No. 5795 (New Print dated March 31, 1937).

Within the limits of the survey these charts are based on surveys discussed in the foregoing paragraphs and contain no additional information which needs consideration in this review.

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 7 cards were submitted.

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) Not submitted on Form 567. Two landmarks are listed in Descriptive Report.

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) There is no evidence that the declinatoire was checked. ✓ The declination shown on this survey agrees with the value shown on the chart.

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-6513 (1936) on the north and T-6511 (1936) on the south.

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. McCormick, July 24, 1937.
Inspected by A. T. Sabin

Examined and approved:

C. H. Green
Chief, Section of Field Records

Raymond S. Patman
Chief, Section of Field Work

K. T. Adams
Chief, Division of Charts

G. Rude
Chief, Division of Hyd. and Top.

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