

4849

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U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: California

DESCRIPTIVE REPORT

Topographic

~~Hydrographic~~

Sheet No. G

4849

LOCALITY

Pacific Coast

North of Point Sur

1933

CHIEF OF PARTY

Fred. L. Peacock

U. S. GOVERNMENT PRINTING OFFICE: 1930

4849

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4849

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 G

REGISTER NO. 4849

State CaliforniaGeneral locality Pacific CoastLocality North of Point SurScale 1:10,000 Date of survey October, 1933Vessel Sub-Party - U.S.C. & G.S.S. GUIDEChief of Party Fred. L. PeacockSurveyed by I. R. RubottomInked by I. R. RubottomHeights in feet above M. H. W. to ground ~~to tops of trees~~~~Contour~~ Approximate contour ~~Form line~~ interval 50 feetInstructions dated April 4, 1932, March 27, 1933Remarks: Continuation Project HT 130G. C. Jones, Chief of Party.

DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET FIELD NO. G.
Coast of California
SUB-PARTY U.S.C. & G.S.S. GUIDE
1933

INSTRUCTIONS: Instructions for the topography on this sheet are under date of April 4, 1932 to the Commanding Officer of the GUIDE, and the Director's letter to Lieutenant-Commander G. C. Jones dated February 24, 1933, Reference No. 22-RS 1990.

LIMITS: This sheet consists of a resurvey of the area adjacent to the shoreline between Latitude $36^{\circ} 19.6' N$ and Latitude $36^{\circ} 25.9' N$.

ORGANIZATION OF PARTY: The personnel on the survey of this sheet consisted of one officer and three men using a leased truck for transportation. The base of operations was at Monterey, California, and the average distance from this base was approximately fifteen statute miles.

GENERAL DESCRIPTION OF COAST: The coast line as a rule on this sheet is jagged and rocky with numerous offlying rocks varying in size from small islets to rocks awash at various stages of the tide to many sunken rocks over which the sea breaks at low tides with a moderate swell.

At the southern end of the sheet at the mouth of the Little Sur River, is a stretch of sand beach approximately one mile long. At the south end of this beach the shoreline is backed by a bluff approximately 150 feet in height, that is composed of a redish sand and sand stone. This bluff gradually shades off into sand dunes as it extends northward toward the Little Sur River. At the mouth of the river is a partially detached rock 91 feet high, that resembles an island from a short distance offshore. During the dry season in the summer the river has water in it back of this rock, and during the rainy season the river breaks through the sand beach just south of it as shown by the dotted line on the sheet. From this point northward to Triangulation Station BRAZIL, the hill adjacent to the shoreline is very precipitous up to the Coastal Highway. It is not exactly a bluff, but when the highway was built a large amount of excavating was done and the greater part of this material was dumped over the hill below the roadway forming rock and dirt slides resembling a bluff in many respects. An attempt has been made to show this as accurately as possible on the sheet. The beach along this stretch is made up of almost a continuous mass of rocks and large boulders

that apparently have slid off the hill over a long period of time. This beach can be traversed on foot at low water, and can be readily reached by means of a foot trail from the highway at Topographic Station SHACK.

From Triangulation Station BRAZIL to the north end of the sheet the shoreline is backed by a bluff with a well defined rim at the top. The ground slopes up gradually from this rim for a distance varying up to 400 to 500 meters in places, where it ascends more rapidly to the tops of the rolling hills. This bluff is over 300 feet high just north of Triangulation Station BRAZIL, and generally speaking, diminishes in height toward the north end of the sheet.

North of Kasler's Point is a stretch of sand beach approximately one half mile in length, that is backed by the common bluff along the shoreline.

LANDMARKS: Although this sheet has many large offshore rocks and a relatively large amount of detail, it is thought that there are very few, if any, objects that are distinctive or prominent enough to be charted as landmarks. However, there are two rather high and large concrete arch bridges on the Coast Highway in the vicinity of Division Knoll that can be seen from limited angles, but might be found useful as aids to navigation, and therefore are listed on Form No. 567. The top of the arch being taken in each case.

The concrete arch bridge over Bixby Canyon is approximately 260 feet high and 700 feet long. It is of the usual whitish concrete color, and is visible only in a southwesterly direction.

The concrete arch bridge over Rocky Creek just north of Division Knoll is approximately 160 feet high and 490 feet long, and is visible only from a northwesterly direction.

SURVEY METHODS: Only standard survey methods were used. Setup positions were all determined by traverses with many checks taken on triangulation stations on the hills inshore and to offshore rocks that had been located by triangulation. All features which were not located by rod readings were located by three or more cuts. Separate traverses were run in surveying the road. Sunken rocks were located by cuts to the breakers and later checked by going over the area very carefully at minus tide and taking sextant cuts to them. Not all rocks were definitely located, however, all of the offlying rocks awash and those sunken that showed definite breakers at minus tide were definitely located. All of those so located are enclosed in small dotted circles on the sheet. Also, all offshore and prominent inshore rocks that are bare at all stages of the tide were definitely located, and have their elevations shown on the sheet.

The closing errors on all traverses were negligible, and therefore no adjustments were necessary. The longest traverse was between Kasler's Point and Bixby Landing. This traverse was not tied into Division Knoll by direct rod reading, but by resection on Division Knoll and the offshore rocks that had been located by triangulation, with a double azimuth on Kasler's Point and Brazil. This accuracy was accomplished by using extreme care when taking rod readings and by keeping a close check on the distortion of the sheet.

The topographer was aided materially in this case by having a sheet that had been well seasoned to atmospheric conditions. The sheet had been stretched out flat in the outside air at the Monterey Office for five months, with just enough covering to protect it from dirt and the elements. It had become so nearly adjusted to ordinary atmospheric conditions, that very little distortion was encountered while working on the sheet in the field.

COMPARISON WITH OLD WORK: The shoreline and all rocks and the contours were transferred to the sheet from the bromides of the old sheets, before the survey was started. A new survey of the shoreline and the rocks checked fairly well over most of the area.

The rocks and rocks awash offshore and the larger rocks closer inshore checked with the old work insofar as it was possible to make the transfers from the old bromides with any degree of accuracy. This was rendered rather difficult due to lack of a sufficient datum on the old bromides.

Apparently little effort was made at the time of the old survey to locate sunken rocks, and many additional sunken rocks were located on this survey due to a close examination of the area at minus tide. All elevations and checks taken on the contours were found to agree very closely and showed that a great amount of careful and accurate work was done on the old contouring and no improvement could be made on them in the time allotted for this survey. However, due to the new Coastal Highway being cut through the ridges and with large fills in the depressions the contours were all rerun up to and including this highway. These contours were inked on the sheet while the remainder were transferred from the old bromides and therefore have been left in pencil on this sheet. The contours have been entered on this sheet using a 50 foot interval throughout, even though on the old sheet a 100 foot interval was used over most of the area. This was done to make the interval consistent, and where a 100 foot interval was used on the old survey the intermediate 50 foot contours were filled in by inspection only.

JUNCTIONS: Satisfactory junctions were made with Sheet Field Letter F on the north at Triangulation Station GRANITE and Sheet Field Letter H on the south at Triangulation Station VENTURA.

GEOGRAPHIC NAMES: All geographic names used on this sheet are in general use locally, which in all cases agrees with those shown on the U. S. Geological Survey Quadrangle maps of this area.

Hurricane Point is the only new name used on this sheet, and refers to the point around Triangulation Station BRAZIL. This is the local name given to this point because the wind seems to nearly always be blowing a gale at this point no matter from which direction the wind may be blowing offshore. From experience gained while executing this survey it seems that this contention is well founded, and therefore this name is suggested for the point. *O.K. because it is a local name*
H.B. July. 1934

CHANGES IN COAST LINE: No apparant changes in the shoreline could be determined by comparison with the old work. No shoreline references were available, and the amount of change due to breaking down of the bluff is probably small. However, there is a slight change in the course of the Little Sur River just east of where the present Coast Highway crosses the channel. The channel was rodded in for a distance of approximately 300 meters inshore from the highway and a marked discrepancy was found at this point.

COMPARISON WITH AERIAL PHOTOGRAPHS: Aerial photographs were available from Bixby Landing northward and were very closely examined, and compared with the topographic sheet in order to pick up any errors or omissions.

COMPARISON WITH HYDROGRAPHIC SHEET FIELD NO. 7: A careful comparison was made with the hydrographic sheet and all rocks encountered by the hydrographic party are in agreement on the two sheets. *See F. 115452*

STATISTICS:

Statute miles of shoreline	16.7
Statute miles of road	8.8
Area in square statute miles	7.0
Number of recoverable hydrographic stations located	3

Respectfully submitted,

Ira R. Rubottom

Ira R. Rubottom,
Jr. H & G Engineer,
C. & G. Survey.

Respectfully forwarded:

G. C. Jones
G. C. Jones,
H. & G. Engineer,
In charge Sub-Party,
U.S.C. & G.S.S. GUIDE.

LIST OF SIGNALS
to accompany
TOPOGRAPHIC SHEET FIELD LETTER G

TOPOGRAPHIC

Hydrographic Name	Object and Description	Remarks
South	South abutment of concrete arch bridge south of Division Knoll	Center
North	North abutment of concrete arch bridge south of Division Knoll	Center
But	North abutment of concrete arch bridge north of Division Knoll	Center

Date,

GEOGRAPHIC NAMES

California

Survey No. T. 4849

Chart No. 540245476

Diagram No. _____

Names underlined in red approved Oct 11, 1934

* Approved by the Division of Geographic Names, Department of Interior.

Ø, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
✓OK		<u>Oliviers Mt.</u>			
✓OK		<u>Notleys Landing</u> (no apostrophe)			
✓OK		<u>Castle Rock</u>			
	Bixby Canyon	Bixbys Creek			
✓OK		<u>Bixby Creek</u> (USGS)			
	<u>Kasler</u> X <u>Pt.</u>	Kaslars Pt. Hold for investigation <u>Kasler</u> <u>Pt.</u> (USGS) & Forest Service Map			
✓OK	<u>Hurricane Point</u> (Local name)				
	Added from names inked on sheet 1/15/37 JHE				
	<u>Doud Cr.</u>	USGS and Forest Service Map			
	<u>Garrapata Cr.</u>	USGS and Forest Service Map			
	<u>Palo Colorado Canyon</u>	Auth. USGS, Forest Service Map			Santa Barbara Nat'l Forest
	<u>Rock</u> X <u>Creek</u>				
	<u>Ventura Rocks</u>	ch. 5476, 5402, USGS, Forest Service Map			
	<u>Little Sur R.</u>	" " "	"	"	

Section of Field Records

Review of Topographic Survey No 4849 (1933)⁴⁴₄₅

North of Point Sur, Pacific Coast, California

Surveyed: October 1933²¹

Instructions dated: April 4, 1932 - March 27, 1933 (GUIDE)⁵⁵

Plane Table Survey - Aluminium Mounted³⁷

Chief of Party: F. L. Peacock

Surveyed and Inked by: J. R. Reubottom

1. Condition of Records

The ~~Descriptive~~ Report is, ^{especially} clear and comprehensive and satisfactorily covers all matters of importance.

The records conform to the requirements of the Topographic Manual with the following exceptions:—

- a. Scaled one-half meter distances were not laid off for distortion checking

2. Compliance with Instructions for the Project.

The survey complies with the instructions

3. Junctions with Contemporary Surveys

Satisfactory junctions were made with T-4792 (1933) on the south and with T-4814 (1933) on the north.

4. Comparison with Prior Surveysa. T-1458 b (1876)

This survey is in good agreement with the present survey except ^{that} several sunken rocks which were not formerly shown are now located

b. T-1525 a (1876-77)

A comparison of this survey with the present survey shows ^{but little change in the high water line.} ~~no differences except that~~ The new survey shows many sunken rocks ^{and} a few rocks awash which had not been located.

This present survey is considered highly satisfactory because of the practice of transferring the old work to the sheet and checking it in the field. Also the method of investigation of an area for rocks at minus tides (see D. R. page 3) is commendable ^{as well as the actual location of all the ~~exterior~~ rocks as evidenced by encircling them with dots.}

5. Field Drafting

The field inking of the survey is good.

6. Additional Field Work Recommended

~~No~~ additional field work is required

7. Superseding Old Surveys

Insofar as the topography actually included on the present survey is concerned, it supersedes the following surveys for charting purposes.

T-1458 b (1876) in part

T-1525 a (1876-77) " "

8. Reviewed by W. J. Jenks February 1935
 approved C. V. G.

Section of Field Records

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North of Point Sur, Pacific Coast, California

Surveyed in October, 1933

Instructions dated April 4, 1932-March 27, 1933 (GUIDE)

Plane Table Survey - Aluminum Mounted

Chief of Party - F. L. Peacock.

Surveyed and Inked by - I. R. Rubottom.

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7. Superseding Old Surveys.

Insofar as the topography actually included on the present survey is concerned, it supersedes the following surveys for charting purposes.

T -1458b (1876) in part

T -1525a (1876-77) in part

8. Reviewed by - A. F. Jankowski, February, 1935.

Supervised by - A. L. Shalowitz.

Examined and Approved:

C. K. Green, *C. K. Green*
Chief, Section of Field Records.

F. S. Borden
Chief, Section of Field Work.

L. O. Pollock
Chief, Division of Charts.

G. W. Hude
Chief, Division of H. & T.