5418

U. S. COAST & GEODETIC SURVEY
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Applied to Chart 5101 - May 11, 1936 - L.M.Z.

[redacted]

Form 537a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

PHOTO 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 .....

REGISTER NO. 5418 **5418**

State CALIFORNIA

General locality ~~SOUTHERN CALIFORNIA~~ *Gulf of Santa Catalina*

Locality Laguna Beach to Newport Bay

Scale ..... Date of ~~survey~~ photographs January 17, 1934, 19

Vessel Launch and Shore Party, California, Project No. 102

Chief of Party Robert W. Knox

Surveyed by see data sheet of descriptive report

Inked by W.J.Mignola

Heights in feet above ..... to ground to tops of trees

Contour Approximate contour Form line interval ..... feet

Instructions dated April 14, 1932 & August 6, 1934

Remarks: Compiled from aerial photographs at a scale of 1:10,500 for reproduction by the photo-lithographic process at a scale of 1:10,000.

U. S. GOVERNMENT PRINTING OFFICE, 1938

DATA SHEET

NO T 5418

PORTION OF WORK	DONE BY	DATE COMPLETED
PROJECTION BY:	W.J.Mignola	October 23, 1934
PROJECTION CHECKED BY:	D.L.Ackland	October 23, 1934
CONTROL PLOTTED BY:	D.L.Thompson	October 26, 1934
CONTROL CHECKED BY:	W.J.Mignola	October 26, 1934
RADIAL PLOT BY:	J.C.Mathisson	October 31, 1934
RADIAL PLOT CHECKED BY:	W.J.Mignola	December 8, 1934
COMPILED AND INKED BY:	W.J.Mignola	February 8, 1935
TOPOGRAPHY TRANSFERRED BY:	D.L.Thompson	January 10, 1935
TOPOGRAPHY CHECKED BY:	W.J.Mignola	February 5, 1935

AREA OF SHEET: 14.28 square statute miles

LENGTH OF SHORE LINE: 7.95 statute miles

LENGTH OF RIVERS AND SLOUGHS: none.

DESCRIPTIVE REPORT

To Accompany

PHOTO-TOPOGRAPHIC SHEET, REGISTER NO. 5418

LAGUNA BEACH TO NEWPORT BAY

CALIFORNIA

1934-35

ROBERT W. KNOX, CHIEF OF PARTY

Scale 1:10,500

PROJECT INFORMATION

For information which applies to the entire project see descriptive report accompanying report for Register No. 5410.

DESCRIPTION OF AREA

This sheet includes that part of the coast of Southern California between the east end of Laguna Beach and the southerly end of the city of Newport Bay. This includes a revision of Register No. 5030 necessary to effect a satisfactory junction.

Earth and rock bluffs line the shore from Laguna Beach to Newport Bay with the exception of the mouth of Laguna Canyon, where there is a wide sand beach. The bluff line is ragged, and is broken with

sand beaches from Laguna Beach to Abalone Point.

The San Joaquin Hills lie to the north and east of the shore. The slope of the terrain north of Laguna Beach is gradual for a distance inshore of a little less than half a mile, and then rises steeply into the hills which reach an altitude of more than a thousand feet at a distance of about three miles inshore.

North of Laguna Beach the steep slope comes practically to the shore line; in some places the spurs of these hills reach elevations of more than 500 feet less than a mile inshore.

From a point about a mile north of Reef Point to the north limits of this sheet the slope back of the bluff line becomes gradually less steep.

The entire area included in this compilation north and west of the middle of Laguna Canyon was included in the Spanish Grant, San Joaquin.

Drainage from the San Joaquin Hills consists mainly of arroyos eroded in the soft ground. Laguna Canyon is the only important stream bed on this sheet. Like the smaller arroyos, it is normally dry, a flow occurring there only at rare intervals when there is a heavy rainfall in the hills. All other arroyos drain very limited areas, but are subject to sudden and brief flow.

The mouth of Laguna Canyon widens into a valley with gently sloping sides, but it does not have the tidal stream beds or marshy areas so characteristic of the stream beds between San Diego and San Juan Creek.

Nigger Canyon reaches the shore at Emerald Bay. At this place the bluffs are broken and ragged. The bottom of the canyon is very close to the level of high water, but there is no wide flat mouth. Similar conditions are found at the mouths of Moro, Muddy, Los Trancos and Boat Canyons, and at Buck Gulch. The bottoms of the smaller arroyos, however, are usually at a considerable height above the high water line when they reach the tops of the bluffs.

Cultivation is limited to those places near the shore and toward the northern end of the sheet where the slope is not so steep. Land under cultivation at the time of the photographs, verified by field inspection, has been shown with the conventional symbol.

All settlements on this sheet from Laguna Beach on the south to Corona Del Mar on the north are resort towns. At Emerald Bay and Corona Del Mar the streets have been graded and paved far beyond the requirements of the population at this time.

The State Highway (No. 3) between San Diego and Los Angeles follows the bluff line very closely for the entire length of this sheet. This is a wide concrete paved highway with easy curves and grades.

There is no railway within the limits of the sheet.

PHOTOGRAPHS

This sheet is covered by photographs Nos. 326 to 340 inclusive. These photographs were secured January 17, 1934 between the hours of 11:10 and 11:20 A.M.

For further information regarding photographs refer to the general descriptive report accompanying the report for Register No. 5410.

BRIDGES

The only bridges on this sheet are minor highway structures built only to provide for intermittent flow in the drainage systems. None of these bridges are built over navigable waters.

CONTROL

The control for this sheet was plotted from the field computations of the triangulation executed by

Charles Pierce in 1933.

A proportional adjustment was made by the compilation party to compensate for a discrepancy of several meters which occurred where two parts of the triangulation came together.

For further information regarding this field adjustment refer to the general report accompanying descriptive report for Register No. 5410. Pages 10 and 13

A table of control is appended to this report. The positions used to plot the control on this sheet; including the DMs and DPs converted to the scale of the compilation, i.e. 1:10,500, appear on this list. The field adjusted positions gave records in meters but not records for these positions and for that reason record are not given in the datum note. B.G.J.

RADIAL PLOT

Abundance of control in the vicinity of Laguna Beach afforded strong intersections and determinations. The radial plot was made to Newport Bay without adjustment.

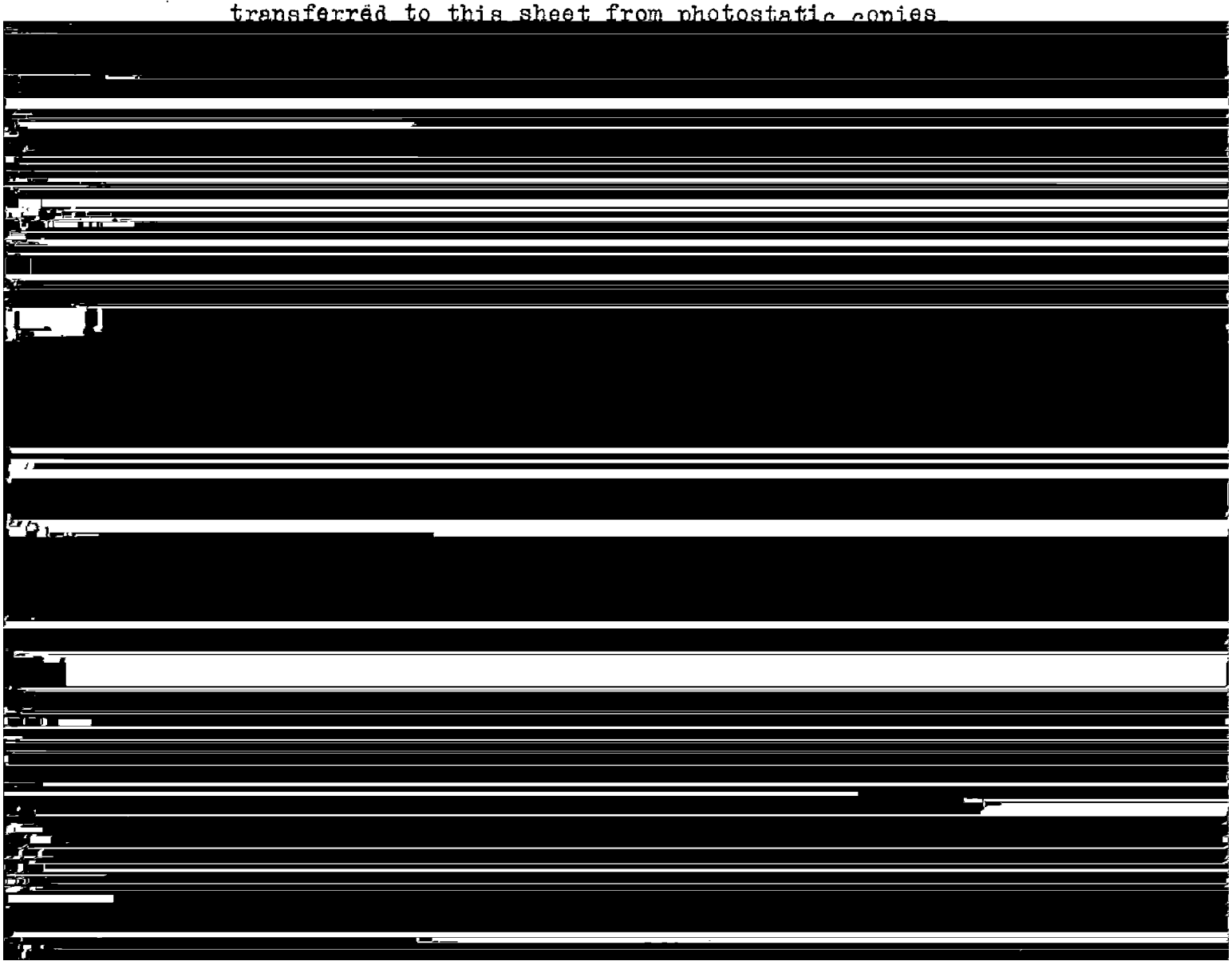
INTERPRETATION OF PHOTOGRAPHS

All detail of importance for charting purposes was clear enough on the photographs; with the exception of the high and low water lines and offshore

detail. In most cases the high water line was obscured by the tops of the bluffs along the shore.

INFORMATION FROM OTHER SOURCES

Since the high and low water lines could not be takne from the photographs; and since most offshore reefs, rocks, and obstructions were not clearly defined in the photographs: these details were run in by plane table methods and their positions transferred to this sheet from photostatic copies



COMPARISON WITH OTHER SURVEYS

In the comparison with Register H-1908, dated 1889, two islands which are shown on the older chart appear in the present compilation as reefs. These are located just off Reef Point. It is believed that wind and water erosion during the time intervening since the older survey may have changed the character of what were probably low lying small islands to that of reefs at the present time.

The photostatic copy of Register 1908 was not quite clear enough in the vicinity of Pelican Point to enable the compilation party to recognise two or three apparent islands off that point. These could not be found by the topographic party of 1934.

INFORMATION FROM OTHER SOURCES

It is believed that the highwater line could probably be determined more accurately from the photographs after a thorough field inspection than by plane table surveys. It was found, in parts of this area, that the highwater line as shown on the topographic sheets did not check with the evident position of the highwater line on the photographs. In general there was fair agreement; but the discrepancies were due, apparently, to the long distances between rodded points on the plane table work, with the consequent inaccurate sketching in between.

It would, of course, be impossible to locate the small heads of rocks awash or sunken rocks if the photographs were taken at or near high tide. The submerged rock ledges photographed well when surrounded by grey or white sand, even when covered by as much as 18 feet of water. It is obviously inpossible to pick a high point on these ledges for the purpose of charting a rock awash when inspected at low tide.

This evidently refers to shoreline on T 4596 (1934) which did not check with the compilation and was partially rerun on T 6231 a 1935.
B.G.G

COMPARISON WITH OTHER SURVEYS

This compilation was compared with Register No. 1646, dated 1885 and was found to check satisfactorily in regard to details of natural features.

LANDMARKS

Landmarks for this area were selected by field inspection and their positions determined by the usual compilation methods, with the exception of those which were already located by triangulation.

The copy of Form 567, Landmarks for Charts, which is appended to the general descriptive report for the entire project includes the landmarks for this area.

[redacted]

Note The estimated accuracy of location given on the opposite page is rather high for work on this scale though the compilation is well controlled and has been carefully compiled. A better estimate is an accuracy of location of 2 to 5 meters for intersected points and 2 to 8 meters for other detail except in the mountain areas where only stream lines are shown. In these areas due to frequent and erratic changes in elevation and consequent changes in scale of the photos a better estimate is an

[redacted]

are both included in this list which is appended to this report. These descriptions have been copied and filed on form 524 B.g. Jones

GEOGRAPHIC NAMES

Boat Canyon, Nigger Canyon, Moro Canyon, Muddy Canyon, Los Trancos Canyon, and Buck Gulch are names found on the maps of the highway department, State of California. They appear to be generally in use in their respective localities and have, therefore, been retained in the present compilation.

RECOMMENDATION FOR FURTHER SURVEYS

This compilation is believed to have a probable error of less than two meters in positions of well defined detail of importance for charting purposes, and of less than four meters for all other data. The location of drainage in the steep slopes to the easterly edge of the sheet may be found to have a slightly greater error. See opposite page

DAMAGE TO SHEET

During the process of plotting the control a steel straight edge was inadvertently dropped on the sheet, the corner of the instrument inflicted a small tear in the celluloid just offshore from Rocky Bight.

Great care has been exercised in the handling

of the sheet in order to prevent this tear from spreading. This break has been mended with Testers' Cement.

LETTERING

All lettering required for the completion of this sheet has been shown in ink on the cover sheet.

All geographic names have been checked for spelling and position and are believed to be correct.

Respectfully submitted:

W.J. Mignola

W.J.Mignola
Compiler

Approved:

John C. Mathisson

John C. Mathisson,
Jr. H. & G. Engineer,
U.S.C. & G. Survey.

The value for seconds have been omitted in the title as they are not known, only metered to the nearest 0.1 being furnished here.

TRIANGULATION STATION	POSITION	Scale 1:10,000 SECONDS IN METERS		Scale 1:10,500 PLOTTING DISTANCE	
Temple Hill, 1933	33 - 33	579.6	(1268.9)	552.0	(1208.5)
	117 - 45	701.4	(846.3)	668.0	(806.0)
Laguna Hill, 1884	33 - 32	1573.4	(275.1)	1498.5	(262.0)
	117 - 46	473.9	(1073.9)	451.3	(1022.8)
Recreation Pt.$_2$, 1933	33 - 32	1080.1	(768.4)	1028.7	(731.8)
	117 - 47	750.8	(797.1)	715.0	(759.1)
Guna, 1933	33 - 33	751.0	(1097.5)	715.2	(1045.2)
	117 - 47	1214.6	(333.1)	1156.8	(317.2)
Extra, 1884	33 - 33	126.5	(1722.0)	120.5	(1640.0)
	117 - 48	1261.2	(286.6)	1201.1	(273.0)
Abalone Pt., 1884	33 - 33	432.7	(1415.8)	412.1	(1348.4)
	117 - 49	179.1	(1368.6)	170.6	(1303.4)
Abalone Knoll, 1884	33 - 33	692.7	(1155.8)	659.7	(1100.8)
	117 - 49	57.0	(1490.7)	54.4	(1419.7)
Center, 1933	33 - 35	22.0	(1826.5)	21.0	(1739.5)
	117 - 48	292.0	(1255.3)	278.1	(1195.5)
Reef Hill, 1884	33 - 34	1033.9	(814.6)	984.7	(775.8)
	117 - 49	827.9	(719.5)	788.5	(685.2)
Rocky Bight, 1884	33 - 34	605.1	(1243.4)	576.3	(1184.2)
	117 - 50	382.1	(1165.4)	364.0	(1109.9)
Mustard$_2$, 1933	33 - 34	1536.1	(312.4)	1463.0	(297.5)
	117 - 49	1202.5	(344.9)	1145.2	(328.5)
San Joaquin, 1874	33 - 36	249.2	(1599.3)	237.3	(1523.1)
	117 - 48	1434.4	(112.6)	1366.1	(107.2)

TRIANGULATION STATION	POSITION	SECONDS IN METERS Scale 1:10,000		PLOTTING DISTANCE Scale 1:10,500	
Arch Rock, 1884	33 - 35	180.0	(1668.5)	171.4	(1589.0)
	117 - 51	1209.1	(338.2)	1151.5	(322.1)
Browning, 1933	33 - 37	215.7	(1632.8)	205.4	(1555.0)
	117 - 50	1100.9	(445.7)	1048.5	(424.5)
~~Spur, 1933~~	~~33 - 37~~	~~801.9~~	~~(1566.6)~~	~~868.6~~	~~(1498.0)~~
	~~117 - 52~~	~~597.9~~	~~(940.7)~~	~~569.4~~	~~(905.5)~~
Center Signboard Support Laguna Beach Hotel, 1933	33 - 32	868.7	(979.8)	827.3	(933.1)
	117 - 46	1423.5	(124.6)	1355.7	(118.7)
North Light Pole on end Laguna Beach Pier, 1933	33 - 32	842.6	(1005.9)	802.5	(958.0)
	117 - 47	484.7	(1063.2)	461.6	(1012.6)
Water Tank North End of Laguna Beach, 1933	33 - 33	66.9	(1781.6)	63.7	(1696.8)
	117 - 47	151.1	(1396.7)	143.9	(1330.2)
North spire, grey stone bldg., Laguna Beach, 1933	33 - 32	1692.5	(156.0)	1611.9	(148.6)
	117 - 47	972.1	(575.7)	925.8	(548.3)
Highest Rock off Two Rock Point, 1933	33 - 32	1350.2	(498.3)	1285.9	(474.6)
	117 - 48	399.5	(1148.4)	380.5	(1093.7)
South Chimney, House on Two Rock Point, 1933 (Head Crescent Bay Drive)	33 - 32	1544.2	(304.3)	1470.7	(289.8)
	117 - 48	405.6	(1142.3)	386.3	(1087.9)
Tract Office Tower Finial edge highway, south limits Newport Beach, 1933	33 - 35	886.7	(961.8)	844.5	(916.0)
	117 - 51	1129.9	(417.3)	1076.1	(397.4)

BENCH MARKS

NO. T-5418

Form 524 was made out in the office for each of these stations.

M 167 1933 At Laguna Beach, at the southwest corner of Cliff Drive and Coast Boulevard, in the front wall of the Laguna Beach Art Gallery, at the northesst corner of the building about 4 feet from the end of the wall and 3 feet above the ground. A standard disk stamped M 167 1933 and set vertically. (Orthometric Elevation 60.891 feet.)

N 167 1933 About 1.5 miles northwest along the coast highway from Laguna Beach, about 1.1 miles northwest of the Laguna Beach Art Gallery, 45 feet northeast of the center line of the highway and 65 feet southeast of the entrance to Emerald Bay properties, 12 feet northwest of power pole No. 440259E. A standard disk stamped N 167 1933 and set in the top of a concrete post. (Orthometric Elevation 85.370 feet.)

P 167 1933 About 2.7 miles northwest along the coast highway from Laguna Beach, in the southeast corner of highway bridge No. 383 - 72, at Tryon's Camp Grounds, in the top of the wing wall and about 3 feet below the surface of the highway. A standard disk stamped P 167 1933. (Orthometric elevation 17.848 feet.)

R 167 1933 About 1.8 miles S.E. of the south city limits of Newport Beach, about 4.2 miles N.W. along the coast highway from Laguna Beach, at the N.W. corner of the intersection of the highway and the road leading to the Crystal Cove Auto Camp, about 60 feet S.W. of the center line of the highway, and 45 feet N.W. of the Crystal Cove road, at the end of a fence and about 3 feet inside the fence line. A standard disk stamped R 167 1933 and set in the top of a concrete post.
(Orthometric elevation 69.964 feet.)

[redacted]

S 167 1933 About 1.0 mile southeast of the south city limits of Newport Beach, 55 feet northeast of the center line of the coast highway, set 3 feet from the southeast headwall of state highway culvert No. 254 - 33. A standard disk stamped S 167 1933. (Orthometric elevation 116.977 feet.)

5418 BENCH MARKS -1-

BENCHMARK	POSITION	SECONDS IN METERS 1:10,000
M 167 1933	33° 32' + 1131.1 - (717.4)	
	117° 47' + 364.4 - (1183.7)	
N 167 1933	33° 33' + 94.5 - (1754.0)	
	117° 48' + 382.5 - (1165.3)	
[redacted]		
R 167 1933	33° 34' + 1088.4 - (760.1)	
	117° 50' + 598.5 - (949.3)	
S 167 1933	33° 35' + 212.3 - (1636.2)	
	117° 51' + 97.7 - (1450.1)	

Scaled by: D.L.T. 2-13-35
Checked by: D.L.A. 2-21-35

REVIEW OF AIR PHOTO COMPILATION NO. T 5418

Chief of Party: Robert W. Knox H. & G.E. Compiled by: W.J.Mignola
April 14, 1932

Project: 102 Instructions dated: August 6, 1934

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)

2. Change in position, or non-existence of wharfs, lights, and

8. The representation of low water lines, reefs, and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)

9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
Also first order benchmarks recovered and located, positions are given in appendix to report.

10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)

11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)

No bridges over navigable water areas on this sheet.

12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)

13. The geographic datum of the compilation is N.A.1927 and the reference station is correctly noted. (Field comp. field adj.)

14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)

15. The drafting is satisfactory and particular attention has been given the following:

1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.

2. The degrees and minutes of Latitude and Longitude are correctly marked.

13. All station points are exactly marked by fine black dots.

14. Closely spaced lines are drawn sharp and clear for printing.

15. Topographic symbols for similar features are of uniform weight.

16. All drawing has been retouched where partially rubbed off.

17. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

Robert W. Knox

Robert W. Knox, H. & G.E.
Chief of Party

19. Remarks after review in office:

Reviewed in office by: Joseph Andrews 3d B.G. Jones.

Examained and approved:

K.T. Adams
Asst Chief, ~~Section of Field Records~~ Division of Charts

F.P. Borden
Chief, Section of Field Work

L.O. Colbert
Chief, Division of Charts

G.G. Rude
Chief, Division of Hydrography and Topography.

Survey No. T-5418

GEOGRAPHIC NAMES

Date. 5-8-35

Chart No. 5102

Diagram No.

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

¢, 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
	Laguna Beach *				
	Recreation Point				
	Crescent Bay				
	Two Rock Point				
Town	Emerald Bay				
Bay	Emerald Bay				
	Boat Canyon	See Des. Report Page 8			
	Nigger Canyon	"			
	Moro Canyon	"			
	Abalone Point				
	Muddy Canyon	"			
	Reef Point				
	Crystal Cove				
	Los Trancos Canyon	"			
	Pelican Point				
	Arch Rock				
	Buck Gulch	"			
	Gulf of Santa Catalina				
	Laguna Canyon				
	Two Rock				
		APPROVED NAMES UNDERLINED IN RED H.L. Flemer			

(M 100)

REVIEW OF AIR PHOTO COMPILATION T-5418

The compilation has been reviewed and compared with previous surveys in the same locality with the following results:

Comparison with T-4896 (1934).

This is a graphic control survey on a scale of 1:10,000. In addition to the information given on pages 6 and 6a of the Descriptive Report a comparison of the compilation with T-4896 showed only minor differences with the exception of two errors which were corrected. Off Reef Point the most westerly rock awash had been transferred from T-4896 to the compilation about 25 meters east of its true position. The most southerly submerged rock in the same locality was likewise incorrectly transferred and, in addition, was noted as a rock awash. Corrections to the compilation have been made and the positions of the rocks and the notes concerning them now agree with T-4896.

The geographic names Arch Rock, Two Rock, and Crescent Bay were added to the compilation from T-4896. The elevations of several rocks were in disagreement on the compilation, on T-4896, and on H-5602 (the most recent hydrographic survey) on account of differing uses of fractional heights. It was the opinion of the reviewer of H-5602 that the elevations of the rocks in question as shown on the hydrographic survey were probably the most accurate. The compilation was therefore revised to agree with H-5602. No change was made on T-4896.

One recoverable topographic station was omitted from the compilation. "CAP", lat. 33°38'+1181 meters, long. 117°49'+429 meters, was added to the compilation in the office (plotted by J.A.B ; checked by V.R.S.). A description for "DUN", a recoverable topographic station, was submitted on Form 524. This was discovered to be identical with triangulation station "Highest Rock Off Two Rocks Point, 1933". The triangulation station was shown on the compilation; Form 524 was destroyed.

With the additions and corrections mentioned above, the compilation now includes all information on T-4896 not superseded by T-6231a with the exception of the magnetic declination and temporary plane table stations.

Comparison with T-6231a.(1935).

This is a graphic control survey on a scale of 1:10,000 and is a resurvey of a portion of T-4896 made where differences had been found between T-4896 and the compilation in order to determine which was correct. The compilation is found to be in perfect agreement with this survey.

Comparison with T-1646 (1885).

This is a topographic survey on a scale of 1:10,000 made fifty years ago. The compilation agrees with it satisfactorily considering the changes to be expected in such an area on account of natural causes during such an interval. The high water line on the compilation is in general found slightly farther westward than on T-1646. The location of the adjacent bluffs, however, remain practically the same. Minor differences are found in the delineation of drainage. An examination of the compilation and the photographs in these areas indicate that a sufficient number of supplemental control points were used in these canyons to determine the proper positin of the drainage and the compilation is therefore accepted as correct.

The detail outside the high water line on T-1646 is rather indefinitely shown, but the compilation, and the most recent topographic survey included all offshore detail shown on T-1646 with the following two exceptions: the compilation does not show an ~~obsolete~~ isolated ledge on the north side of Emerald Bay (lat. 33°33.0', long. 117°48.8'), nor another ledge off Reef Point (lat. 33°33.9', long. 117°50.1'). These two ledges are not shown on the most recent topographic surveys. The photographs of this area have been carefully examined and no such ledges can be found. These have not been shown on the compilation. Their charting should be continued, however, unless their existence is disproved by H-5602. The compilation therefore supersedes T-1646 except for the two ledges mentioned above and contours.

Comparison with H-5602 (1934).

This is a hydrographic survey on a scale of 1:10,000, the topographic information on which was obtained from T-4896 and T-6231a. Except for minor differences the compilation agrees with H-5602.

During the comparison one error on H-5602 was discovered. The ledge off Abalone Point had been transferred fifty meters east of its correct position. Correction has been made to H-5602.

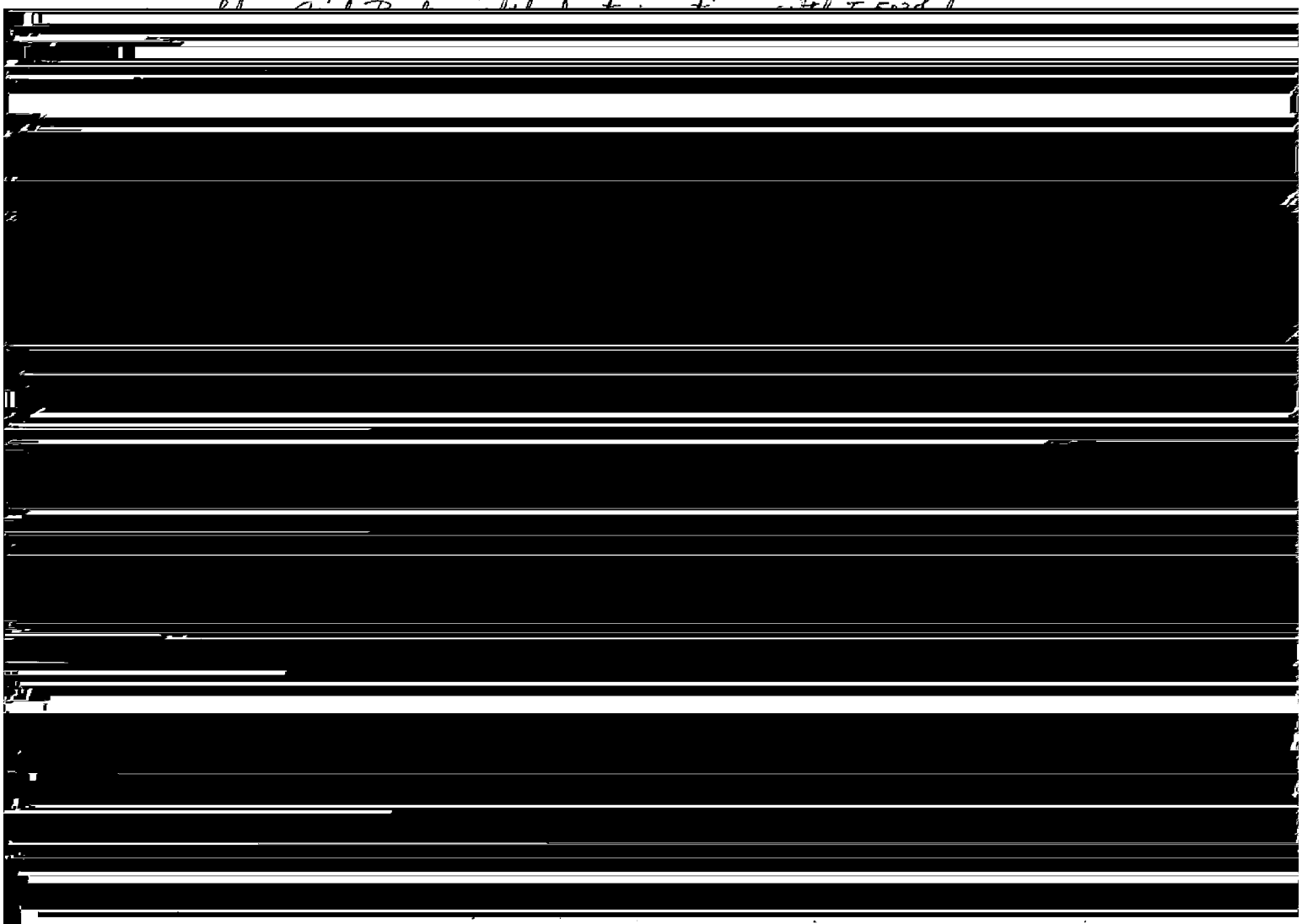
Comparison with H-1908 (1889).

This is a hydrographic survey on a scale of 1:20,000 and a discussion of the comparison of the compilation with it will be found on page 6a of the Descriptive Report. No further comparison was made by the reviewer.

Comparison with Chart 5101.

This chart is on an approximate scale of 1:235,100 and the information thereon has been taken from the surveys already discussed above. The compiler's attention is called to the fact that the town of Laguna on the chart is called Laguna Beach on the compilation. A wreck symbol

See comparison with T-4186 in descriptive report of T-5030 for explanation of the dashed line delineating foul



just south of Recreation Point
was noted on the chart. ~~which is south of Recreation Point.~~ This wreck is shown neither on the compilation nor the latest hydrographic survey (H-5602). The photographs have been examined and no indication of this wreck can be seen. Its removal from the chart is recommended.

General.

Instructions for the project have been complied with. The projection was found satisfactory. The drafting is excellent and the compilation is adequately controlled and carefully made. An unusual adjustment to the control used was necessary. This is referred to on pages 4 and 5 of the Descriptive Report with a complete description of the adjustment necessary on pages 10 to 13 of the Descriptive Report accompanying T-5410.

In the position of the reference station given in the title of T-5418 the value of seconds has been omitted. This was omitted because the adjustment to the control mentioned above was made in meters and the adjusted seconds value was not available. (See page 10 of the Descriptive Report).

By Joseph Andrews 3d
as revised by K.T. Adams
B.G. Jones