

5417

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

DESCRIPTIVE REPORT

Photo
Topographic } Sheet No. T - 5417
~~Hydrographic~~

State CALIFORNIA

LOCALITY

SOUTHERN CALIFORNIA

DANA POINT

~~SAN JUAN POINT~~

340 3410 FT

TO

LAGUNA BEACH

193 4-35

CHIEF OF PARTY

Robert W. Knox, H. & G. E.

U. S. GOVERNMENT PRINTING OFFICE: 1934

5417

Applied to Chart 5101 - May 11, 1936 - L.M.Z.
" " " 5142 1950 L.A.M.

Original

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

P H O T O
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. 5417

State CALIFORNIAGeneral locality SOUTHERN CALIFORNIALocality ^{Dana} ~~San Juan~~ Point to Laguna Beach
photographsScale 1:10,000 Date of ~~survey~~ January 17, 1934Vessel Launch and Shore Party, California, Project No. 102Chief of Party Robert W. Knox, H. & G. E.Surveyed by see data sheet of descriptive reportInked by John C. Mathisson, Jr. H. & G. Engineer

Heights in feet above to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated April 14, 1932, and 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: 1929

NO. T 5417

DATE COMPLETED

W. J. Mignola October 16, 1934

DESCRIPTIVE REPORT

To Accompany

PHOTO-TOPOGRAPHIC SHEET, REGISTER NO. ^T5417

~~SAN JUAN~~ ^{DANA} POINT TO LAGUNA BEACH

CALIFORNIA

1934 - 35

ROBERT W. KNOX, CHIEF OF PARTY

Scale 1:10,500

PROJECT INFORMATION


For information which applies to the entire project refer to the general descriptive report which accompanied the report for Register No. ^T5410.

DESCRIPTION OF AREA

The area covered by this ^{compilation} ~~sheet~~ extends along the coast from just south of Dana Point to Laguna Beach. The south part of Laguna Beach appears on this ^{compilation} ~~sheet~~ and the north part appears on Register No. ^T5418 to the north.

Bluffs follow the shore line closely from the south end of this ^{compilation} ~~sheet~~ for ^{its} ~~the~~ entire length ~~of the~~ ~~sheet~~. The bluffs at Dana Point reach an elevation of over 200 feet; while those to the north are just as steep but not, usually, so high.

For a little less than a mile north of Dana Point the ground slopes steeply to the shore line. From that point to the ^{northern} ~~north~~ limits of the ^{compilation} ~~sheet~~ the bluffs



continue without interruption, in one place a short distance back from the shore line, but in most places in very nearly the same relative position.

Back of the bluff line the terrain rises to the north and east; gently near the south end of the ~~sheet~~ ^{compilation}; but gradually becoming steeper toward the north. In one place an elevation of over 700 feet is reached half a mile back from the shore. In another place an elevation of over 600 feet is found a little more than a quarter of a mile back from the shore line.

The gently sloping ground back of the bluffs between San Juan Creek and Dana Point is occupied by the settlement of Dana Point. This is a real estate development. There are many paved and graded streets; but very few homes here at this time. This street layout extends back from the shore to the point where the grade increases sharply.

An aero beacon is located about 400 meters back from the shore line at Dana Point.

The easterly and westerly boundaries of the Rancho Niguel, a Spanish Grant, reach the shore line just south of Mussel Cove. These lines have not been shown on this compilation since no adequate information as to position or direction was available to the compilation party. It is extremely doubtful that these

boundaries have ever been properly surveyed.


From Mussel Cove north to the limits of this sheet the rugged slopes of the hills reach very nearly to the tops of the bluffs along the shore.

There is some cultivation, ^{shown} largely on the southwest side of the highway between Dana Point and Mussel Cove. ~~This having been shown on the sheet.~~

^{compilation} ~~sheet~~ From Mussel Cove to the north limits of this sheet most of the land has been subdivided into resort settlements; particularly that part between the highway and the bluffs along the shore, and northeast of the highway where the slope of the land permits such development. Throughout the entire area the graded and paved streets are far in excess of the needs of the population at the present time.

The run-off from the hills to the north and east of the shore line has eroded numerous steep-sided arroyos back of the bluff line. Aliso Creek, Canada Salada, and Hobo, Bluebird, and Honeycomb canyons are the only ones of sufficient importance to have been given names. The names of Aliso Creek and Canada Salada appear on most charts and maps; while the names Hobo, Bluebird, and Honeycomb canyons ^{do not, but are} ~~were found to be~~ well established local names.

These arroyos are normally dry stream beds with very steep sides and little or no width at the bottoms.



Unlike the stream beds farther south, the stream beds in this area end in a steep slope at the bluffs along the shore without any widening at the mouth and without the constantly changing sand bars and the standing water so characteristic of the streams between San Diego and San Juan Creek.

There is a flow in these stream beds only at rare intervals, often separated by a period of years.

PHOTOGRAPHS

This ~~sheet~~^{compilation} is covered by photographs Nos. 306 to 325 inclusive. These photographs were secured January 17, 1934 between the hours of 11:02 and 11:10 A.M.

For further information in regard to photographs see the general descriptive report which accompanies the descriptive report for Register No. ^T5410.

CONTROL

The control for this ~~sheet~~^{compilation} was plotted from the field computations of the triangulation survey of Charles Pierce in 1933. These field computations were adjusted by this compilation party to compensate for an error of several meters occurring at the junction of the two parts of the triangulation survey. For further details regarding this field adjustment refer to the general descriptive report

which accompanies the descriptive report for Register No. ^T_A 5410.

A list of control giving the positions used and the plotting distances reduced to the scale of the compilation - 1:10,500 - is appended to this report.

cut-in ^A station CHIMNEY ON SPANISH TYPE HOUSE, ¹⁹³³ should be ^A TOWER ON SPANISH TYPE HOUSE, ¹⁹³³ A tower was evidently mistaken by the triangulation party for a chimney. *This error has been called to the attention of the Division of Geodesy. (1/31/36).*

RADIAL PLOT

There was strong control at each end of this ~~sheet~~ ^{compilation} which enabled a radial plot to be developed from north to south and from south to north with only minor adjustments necessary.

There is believed to be no reason for questioning the strength of the radial plot as finally adjusted.

INTERPRETATION OF PHOTOGRAPHS

In general the detail of importance for charting purposes was clear enough on the photographs for compilation purposes. Offshore rocks and ledges, however, were not visible with enough clarity for compilation. These details were, therefore, taken from the plane table survey of the topographic survey of 1934.

INFORMATION FROM OTHER SOURCES

Names of drainage and geographical features were checked against the maps of the highway department of the State of California; various real estate plats; the published quadrangles of the U.S. Geological Survey; and all data thus obtained was checked by field inspection.

Much of the shore line was obscured by the tops of the bluffs along the shore. For this reason a plane table survey was executed by the topographic party of 1934. The high and low water lines and all offshore details were transferred from photostatic reductions of the topographic sheets, Field Letter, 'X', 1934. (T-4895).

For a description of all offshore detail refer to the descriptive reports accompanying Topo-
^{T-4895}
graphic Sheet, Field Letter 'X', 1934 (Desc. Report. T-4895).
Pages 6 to 8 report T-4895 give a detailed comparison with previous topographic surveys as regards rocks awash and shoreline details

COMPARISON WITH OTHER SURVEYS

This compilation was compared with the photostatic copy of Register No. ^T1646, dated 1885, and was found to check satisfactorily in regard to natural features. A comparison with Register No. ^T1645, dated 1885, checked also.

INFORMATION FROM OTHER SOURCES (Additional)

It is believed that the highwater line could probably be determined more accurately from the photographs after a field inspection than by a plane table survey. It was found, in parts of this area, that the highwater line as shown on the plane table survey did not check very satisfactorily with its evident position on the photographs. This is due, probably, to the long distance between rodded points with uncontrolled sketching 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 photograph well even when covered by as much as 18 feet of water, especially when surrounded by white or grey sand. It is obviously impossible to pick a high point on these ledges for the purpose of charting a rock awash when inspected at low tide.

Three additional rocks appeared on the photographs which were not shown on Topographic Sheet ^{T-4895} Field Letter 'X', 1934. The positions of these is given below:

Rock Awash	33 - 27	plus 1434.4 meters
	117 - 42	1400.3 meters
Rock Awash	33 - 27	plus 1018.8 meters
	117 - 42	1348.7 meters
Rock Awash	33 - 27	plus 1033.1 meters
	117 - 42	1316.1 meters

These rocks awash are now shown on T-4895 in their respective positions shown. They have been either transferred to T-4895 or surveyed on T-4895 by others.
Sam,
1/30/36.

BENCHMARKS

The benchmarks described by the releveled party of G.R. Fish in 1932-33 have been identified in the field and compiled along with other detail in this area. These benchmarks are believed to have a probable ^{plotted} error of less than ^{0.2 millimeter.} ~~two meters in positions.~~

A list of the benchmarks ^{is appended to this report.} ~~on this sheet,~~
^{This gives} ~~giving~~ descriptions ^{of B.M.s.} as reported by the releveled party with minor corrections ~~as~~ reported by this compilation party after field inspection, ^{and} ~~along with~~ their geographic positions as determined by scaling from this ^{compilation.} ~~sheet,~~
~~is appended to this report.~~

LANDMARKS

Landmarks have been selected for this area by field and water inspection. The ^{list on} ~~copy of~~ Form 567, Landmarks for Charts, ^{which accompanies} ~~accompanying~~ the general report ^{and} ~~with the~~ ^{descriptive} report for ^{T-} ~~Register No.~~ 5410 includes the area of this ^{compilation.} ~~sheet.~~

GEOGRAPHIC NAMES

The first point north of the ^{southern} ~~south~~ limits of this ^{compilation} ~~sheet,~~ and the most ^{prominent} ~~important~~ point of the whole project, is designated San Juan Point on published charts. The published quadrangle of the U.S. Geological

Survey shows this point as San Juan Capistrano Point. Maps of the state highway department designate it as Dana Point in some cases and in others with both names on the same map.

The settlement between this point and San Juan Creek is known as Dana Point. Investigation in the field disclosed that ^{for the point of land} Dana Point is the name in most common use at the present time. While the older name, San Juan Point, has been retained in this compilation; ^(Name on compilation changed to Dana Pt. 1/30/36) the adoption of the newer, and more commonly recognised, name, Dana Point, is recommended.

The origin of this name Dana Point is believed to be the fact that this is the point at which the ship on which Richard Henry Dana, (cf. Two Years Before The Mast.) landed on his trip to the California coast over one hundred years ago.

The region designated as Canada Salada on this compilation is shown on Register No. ^{T-}1645, dated 1885, as Canada Saladar. This is believed to be in error, as the more recent published quadrangle of the U.S. Geological Survey shows this name to be Salada. The dry canyon at the mouth of this drainage area is shown on this sheet as Salt Creek in accordance with the state highway maps of the area. This information was checked by field inspection.

L

* A more reasonable estimate of the error of plotting is from 0.3 to 0.5 mm. on scale of this compilation for intersected points and from 0.5 mm to 0.8 mm for non-intersected points. The error of plotting may exceed these values for f_{am} , the stream lines in the mountain areas.

BRIDGES

There are no bridges within the limits of this ~~sheet~~ ^{compilation} which are built over navigable water areas.

RECOMMENDATION FOR FURTHER SURVEYS

This compilation is believed to have a probable error of less than 2 meters in positions of well defined detail of importance for charting purposes and of less than 4 meters for all other data. ^(See opp page.) A ~~slightly~~ greater error may be found in the delineation of the drainage in the steep areas to the extreme easterly limits of this sheet.

COMPILATION

No untoward problems were encountered in this compilation. The drainage into Aliso Creek from the east and west has not been shown. The drainage from the west was thrown under the hill and that on the east is so steep that it was impossible to be sure of the delineation.

The main bottom of Aliso Creek is rather level and the location was easy to obtain. The creek is shown to the limits of the photographs; other drainage from the east has been shown as far as the location was definite. Only the beginning of the feeders are shown on the floor of the valley where their location was a matter of some certainty.

LETTERING

All lettering required for the completion of this ~~sheet~~^{compilation} has been shown in ink on the cover sheet.

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

Respectfully submitted,

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

Copy checked D. D. A.

5417

-1-

TABLE OF CONTROL

TRIANGULATION STATION	POSITION	SECONDS	IN METERS	PLOTTING DISTANCE	Scale 1:10,500
San, 1933	33 - 27 117 - 42	1168.3 1057.7	(680.2) (491.9)	1112.7 1007.3	(647.8)✓ (468.5)✓
Dana, 1884 (Dana Point Aviation Beacon)	33 - 27 117 - 42	1575.2 780.1	(273.3) (769.5)	1500.2 743.0	(260.3)✓ (732.9)✓
Cap, 1933	33 - 30 117 - 41	195.0 245.0	(1653.5) (1303.7)	185.7 233.3	(1574.8)✓ (1241.6)✓
Juan, 1933	33 - 28 117 - 43	670.5 61.7	(1178.0) (1487.6)	638.6 58.8	(1121.9)✓ (1416.8)✓
Mussel Cove 2, 1933	33 - 29 117 - 44	597.4 293.6	(1251.1) (1255.4)	569.0 279.6	(1191.5)✓ (1195.6)✓
South Niguel, 1884	33 - 29 117 - 43	1578.3 1498.5	(270.2) (50.2)	1503.1 1427.1	(257.3)✓ (47.8)✓
Niguel, 1884	33 - 30 117 - 43	1381.6 1544.4	(466.9) (4.3)	1315.8 1470.9	(444.7)✓ (4.1)✓
Aliso Peak, 1884	33 - 30 117 - 44	1021.2 942.9	(827.3) (605.4)	972.6 898.0	(787.9)✓ (576.6)✓
Goff Island 2, 1933	33 - 30 117 - 45	1574.7 898.4	(273.8) (650.3)	1499.7 855.6	(260.8) (619.3)✓
Goff Ridge, 1884	33 - 31 117 - 45	529.3 502.5	(1319.2) (1045.8)	504.1 478.6	(1256.4)✓ (996.0)✓
Winston 2, 1933	33 - 31 117 - 45	1091.4 1021.4	(757.1) (526.8)	1039.4 972.8	(721.0)✓ (501.7)✓
Corona, 1933	33 - 31 117 - 45	1344.0 403.4	(504.5) (1144.9)	1280.0 384.2	(480.5)✓ (1090.4)✓
Close, 1933	33 - 32 117 - 45	100.2 328.0	(1748.3) (1220.1)	95.4 312.4	(1665.0)✓ (1162.0)✓
Cactus Point 2, 1933	33 - 31 117 - 46	1194.3 367.9	(654.2) (1180.5)	1137.4 350.4	(623.0)✓ (1124.3)✓

Copy checked DT DHA

5417

TABLE OF CONTROL

-2-

TRIANGULATION STATION POSITION		SECONDS IN METERS		PLOTING DISTANCE	
		Scale 1:10,000		Scale 1:10,500	
HIGHEST ROCK OF SAN JUAN ROCKS GROUP, 1933	33 - 27 117 - 42	789.5 1191.3	(1059.0) (358.0)	751.9 1134.6	(1008.6)✓ (341.0)✓
CHIMNEY RED BRICK HOUSE DANA PT., 1933	33 - 27 117 - 42	1202.8 1012.5	(645.7) (536.8)	1145.5 964.3	(615.0)✓ (511.2)✓
GREEN WATER TANK NE OF DANA PT., 1933	33 - 28 117 - 41	966.7 969.3	(881.8) (580.0)	920.7 923.1	(839.8)✓ (552.4)✓
FLAG POLE EAST OF MUSSEL COVE, 1933	33 - 29 117 - 43	670.2 1529.1	(1178.3) (19.9)	638.3 1456.3	(1122.2)✓ (19.0)✓
CHIMNEY, HOUSE NORTH OF MUSSEL COVE, 1933	33 - 29 117 - 44	1736.0 839.5	(112.5) (709.5)	1653.3 799.5	(107.2)✓ (675.7)✓
CHIMNEY, WHITE HOUSE ABOUT 1/4 MILE S.E. GOFF ID., 1933	33 - 30 117 - 45	1344.0 324.3	(504.5) (1224.4)	1280.0 308.9	(480.5)✓ (1166.1)✓
HOUSE TOWER FINIAL 1.0 MILE SOUTH CACTUS PT., 1933 (Japanese House)	33 - 31 117 - 45	450.2 1258.0	(1398.3) (290.4)	428.8 1198.1	(1331.7)✓ (276.6)✓
HOUSE TOWER 1/4 MILE SOUTH CACTUS PT., 1933	33 - 31 117 - 45	632.6 1372.6	(1215.9) (175.8)	602.5 1307.2	(1158.0)✓ (167.4)✓
GREEN TOWER ATOP COAST INN, LAGUNA BEACH, 1933	33 - 31 117 - 46	1626.7 713.0	(221.8) (835.4)	1549.2 679.0	(211.2)✓ (795.6)✓
TRAP DOOR ATOP HOTEL CASA DEL COMINAS, LAGUNA BEACH, 1933	33 - 31 117 - 46	1744.7 799.0	(103.8) (749.4)	1661.6 761.0	(98.9)✓ (713.7)✓
CROSS ATOP CATHOLIC CHURCH TOWER, LAGUNA BEACH, 1933	33 - 32 117 - 46	509.1 391.3	(1339.4) (1156.8)	484.9 372.7	(1275.6)✓ (1101.7)✓
CHIMNEY SPANISH TYPE HOUSE, TEMPLE HILL, LAGUNA BEACH, 1933	33 - 32 117 - 46	894.0 228.9	(954.5) (1319.1)	851.4 218.0	(909.0)✓ (1256.3)✓
CHIMNEY HOUSE 1.0 MILE SOUTHEAST GOFF ID., 1933	32 - 30 117 - 44	814.3 1512.9	(1034.2) (35.8)	775.5 1440.9	(985.0) (34.1)

BENCH MARKS

NO. T- 5417

*These descriptions
have been filed on Form 524*

- E 167 1933 ✓ About 1.2 miles northwest along the coast branch of the state highway from Serra, 60 feet northeast of the center-line of the highway, 3 feet southwest of a lamp post set in a circle 20 feet in diameter which is in the center of a side-street leading to the northeast. A standard disk stamped E 167 1933 and set in a concrete post. (Orthometric elevation 153.823 feet.)
- F 167 1933 ✓ About 2.5 miles northwest along the coast highway from Serra, about 1.5 miles northwest of B.M. E 167, about 50 feet northeast of the center-line of the highway, about 2.7 meters south of the headwall in the center of the southeast wing of culvert C 317 40. A standard disk stamped F 167 1933. (Orthometric elevation 149.974 feet.)
- G 167 1933 ✓ About 3.7 miles northwest along the coast highway from Serra, about 1.1 miles southwest of B.M. H 167, in the headwall $2\frac{1}{2}$ meters southwest of the end, in culvert 344 90. A standard disk stamped G 167 1933. (Orthometric elevation 149.340 feet.)
- H 167 1933 ✓ About 3.8 miles southeast along the coast highway from Laguna Beach, 4.6 miles northwest of Serra, 38 feet southwest of the center-line of highway, 15 feet northwest of power pole #123291 and 2 feet southwest of curb, opposite entrance to 8th Avenue. A standard disk stamped H. 167 1933 and set in the top of a concrete post. (Orthometric elevation 134.153 feet.)

- J 167 1933 ✓ About 2.7 miles southeast along the coast highway from Laguna Beach, 45 feet northeast of center-line of highway, and set in the wing wall at the northeast corner of bridge # 5503 across Aliso Creek. A standard disk stamped J 167 1933.
(Orthometric elevation 30.441 feet.)
- K 167 1933 ✓ About 1.6 miles southeast along the coast highway from Laguna Beach, 15 feet southwest of the center-line of the highway, in the center at the base of a large concrete retaining wall which has a rustic fence (concrete) surmounting it, about 3 feet above the ground. A standard disk set vertically and stamped K 167 1933.
(Orthometric elevation 99.587 feet.)
- L 167 1933 At Laguna Beach, at the southwest intersection of Coast Boulevard and Oak Street, 27 feet south of the center line of Oak Street and 38 feet west of the center line of Coast Boulevard, one foot from the inside edge of the sidewalk. A standard disk stamped L 167 1933 and set in the top of a concrete post.
(Orthometric elevation 56.746 feet.)

BENCH MARKS

NO. T 5417

BENCHMARK	POSITION	SECONDS IN METERS	Scale 1:10,000
E 167 1933	33 - 28 117 - 41	58.8 1386.7	(1789.7) ✓ (162.6)
F 167 1933	33 - 28 117 - 42	942.6 1402.6	(905.9) ✓ (146.7)
G 167 1933	33 - 29 117 - 43	688.0 1175.4	(1160.5) ✓ (373.6)
H 167 1933	33 - 29 117 - 44	1712.1 636.5	(136.4) ✓ (912.5)
J 167 1933	33 - 30 117 - 45	1267.4 176.4	(581.1) ✓ (1372.3)
K 167 1933	33 - 31 117 - 45	787.2 1343.7	(1061.3) ✓ (204.7)
L 167 1933	33 - 32 117 - 46	79.8 884.1	(1768.7) ✓ (663.7)

Scaled by: D.L.T. 2-15-35
Scaling checked by: G.L.B. 2-15-35
Conversion checked by: D.L.A. 2-21-35

Remarks

Decisions

1	A. Laguna	P.O. GUIDE SAYS <u>LAGUNA BEACH</u>	
2			
3			
4			
5			
6			
7			
8			
9	7/23/40- new P.O. name is <u>South Laguna</u>		
10			
11			
12			
13			
14	CANADA JALADOR ON T1645		
15	A. San Juan Point. # SAN JUAN CAPISTRANO ON U.S.G.S		
16			
17			
18	SINGULAR.		
19			
20			
21			
22			
23			
24			
25	# RGN @K# 9/17/36		
26			
27			

GEOGRAPHIC NAMES

Survey No. T-5417.

Name on Survey	On Chart No. 5101	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
	A	B	C	D	E	F	G	H	K
<u>Laguna Beach</u>	see pp page					✓	✓		1
<u>Blue Bird Canyon</u>	none			✓					2
<u>Cactus Point</u>	none	1646							3
<u>Arch Beach</u>	none		✓	✓					4
<u>Goff Island</u>	none	1646	✓						5
<u>Coast Royal</u>	"			✓					6
<u>Hobo Canyon</u>	"			✓					7
<u>Aliso Creek</u>	"		✓						8
<u>Three Arches</u>	"			✓					9
<u>Honeycomb Canyon</u>	"			✓					10
<u>Three Arch Bay</u>	"			✓					11
<u>Mussel Cove</u>	"	1645	✓						12
<u>Salt Creek</u>	"			✓					13
<u>Canada Salada</u>	"		✓	✓					14
<u>Dana # Point</u> (1)	see pp page			✓	✓		SAN JUAN POINT		15
<u>Dana Point</u> (2)	none					✓			16
<u>Dana Cove</u>	"		✓						17
<u>San Juan Rock</u> #	✓	1645	✓						18
									19
									20
									21
									22
									23
									24
									25
									26
									27

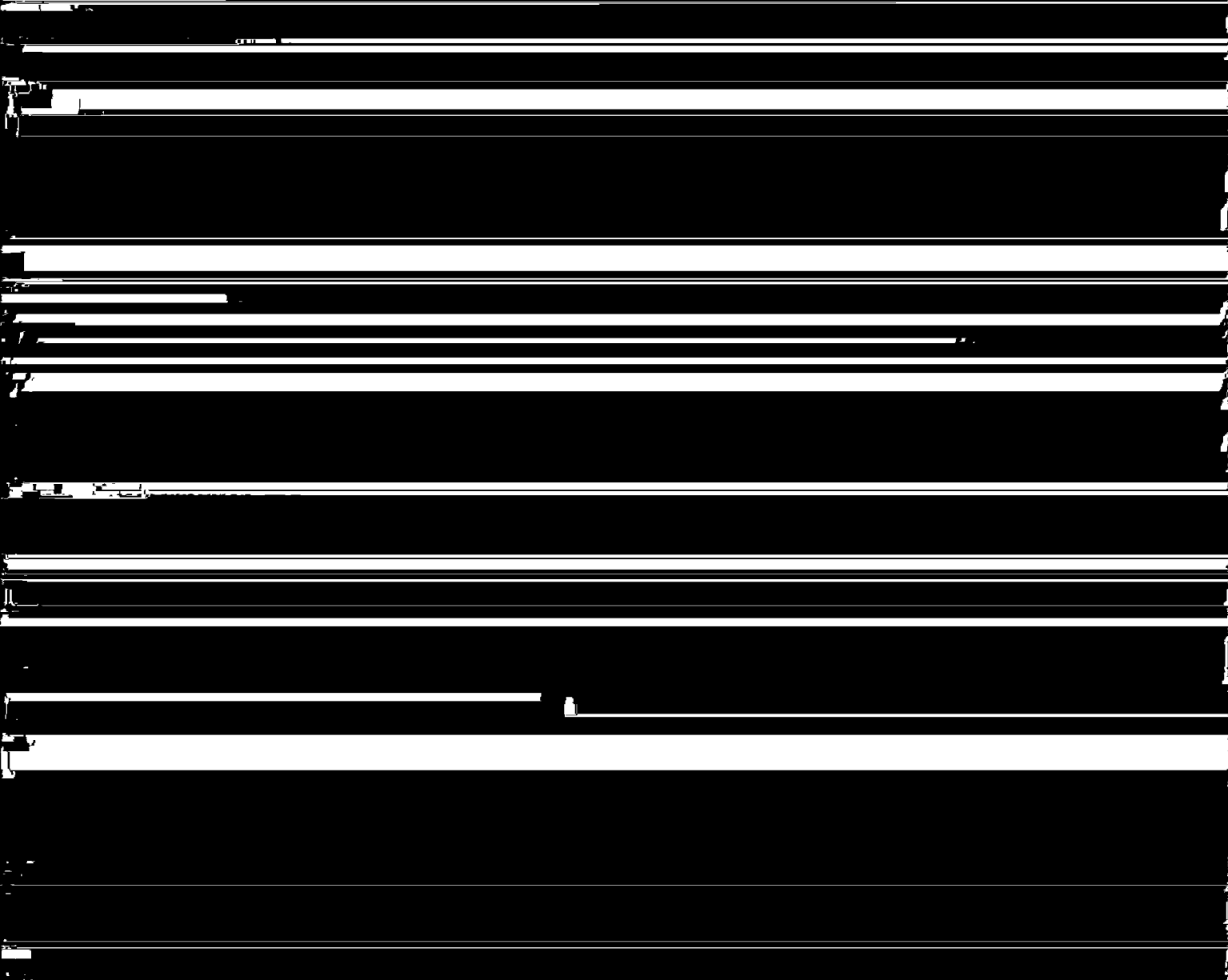
OFFICE OF THE COMMISSIONER OF THE GENERAL LAND OFFICE
 O. H. G. 10/2/36

REVIEW OF AIR PHOTO COMPILATION T 5417 (1936)
1:10,000

Comparison with Graphic Control Surveys

T 4895 (1934), 1:10,000 (Whatman's)

The survey for T 4895 covers the coastline including offshore details from Dana Point to Laguna Beach. High water line and rocks on this compilation were taken from T 4895. All detail on T 4895 is shown on this compilation over the common area except non-recoverable plane table stations, photo control points (shown on T 4895 with a blue circle), and the magnetic declination. All transfers of detail were made in the field except the transfer of two sunken rocks at lat. $33^{\circ} 31'$, long. $117^{\circ} 45.7'$ which were transferred in this office



T 1645 (1885), 1:10,000

The survey for T 1645 covers an area between long. $117^{\circ} 39'$ and

(4) The island on T 1645 at triangulation station Mussel Cove has been joined to the mainland by sand filling in behind it. ^{2,1933} ^

(5) Several high water rocks in this area on T 1645 are shown on this compilation ^{and on planetable survey T 4895 (1934)} as rocks awash.

(6) In general the points of land along the coast in this area are more narrow and shorter than on T 1645.

(7) The stream lines on this compilation are in general agreement with T 1645 but differ for short sections by 10 to 50 meters. The compilation is subject to greater error in location of stream lines in mountains than for other detail but should not have a maximum error of more than about 3 mm. for stream lines and an average of 1.5 mm. This is well within the probable error of the planetable for the same detail.

This compilation is complete and adequate to supersede the section of T 1645 which it covers except for contours.

T 1646 (1885), 1:10,000

The survey for T 1646 covers the coast between Aliso Creek and long. 117° 51'. T 1646 shows contours with a 20-foot interval.

Since the time of the survey for T 1646 there have been developments of roads, towns and cultivated areas. There have been changes in the position of the high water line and offshore detail listed as follows:

(1) The point of land on which triangulation station Goff Island 2, 1933 is located was formerly an island.

(2) The two rocks awash at 33° 31.45', 117° 46.15' are shown on T 1646 as rocks exposed at high water.

(3) The three rocks awash south of triangulation station Cactus Pt. 2, 1933 are shown on T 1646 as sunken rocks.

(4) The two rocks awash at 33° 31.8', 117° 46.7' are shown on T 1646 as rocks exposed at high water.

(5) As compared with T 1646 the positions of identical rocks as shown on this compilation (taken from planetable survey T 4895, 1934) differ by 10 to 40 meters.

(6) The following reefs on T 1646 are not shown on this compilation nor planetable survey T 4895 (1934). Pages 6 to 8 of report, T 4895 (1934) give a general comparison with the old surveys and apparently an effort was made to find all existing rocks awash. However, neither the report T 4895 nor this compilation definitely state that the reefs listed below are non-existent. They have not been transferred to this compilation:

Lat. 33° 31.6',	long. 117° 46.4')	
33 31.7	117 46.4) N.A. 1927 datum
33 31.35	117 45.9	
33 30.85	117 45.63	

(7) The same statement regarding stream lines applies as given for T 1645 above.

This compilation is complete and adequate to supersede the section of T 1646 which it covers except for contours and the reefs mentioned under (6) above.

Comparison with Recent Hydrographic Surveys

The topographic details shown on H 5602 and H 5603 (1934) agree with this compilation.

Comparison with Chart

See preceding paragraphs regarding differences with the previous topographic surveys.

The list of landmarks for this area is included in the general report filed under T 5410.

Feb. 3, 1936.

L. A. McGANN
L. A. McGANN
B. G. Jones

REVIEW OF AIR PHOTO COMPILATION NO. T 5417

Chief of Party: Robert W. Knox

Compiled by: J.C. Mathisson

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 other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, n)
3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d, e)
T-4895
4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)
No blueprints or maps transmitted
5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c, h, i)

7. ~~High water line on this compilation was taken from the plane table survey T-4895.~~

Coastal High water line on this compilation was taken from the plane table survey T-4895.
Lam.

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

8. The representation of low water lines, reefs, ~~under 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 have been given in appendix to report. *and on Form 524.*
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)
List of landmarks attached to general report for project T-5410. Plan.
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 streams 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.~~ *for Bench Marks which are shown with a circle instead of the conventional cross (x).*
 2. The degrees and minutes of Latitude and Longitude are correctly marked. *Plan.*


3. All station points are exactly marked by fine black dots.
4. Closely spaced lines are drawn sharp and clear for printing.
5. Topographic symbols for similar features are of uniform weight.
6. All drawing has been retouched where partially rubbed off.
7. 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, H. & G.E.
Chief of Party

19. Remarks after review in office:

*For detailed report on office verification
see pages immediately preceding.*

Reviewed in office by: *Lionard A. Kubaum* *v. B.G. Jones*

Examined and approved:


C. H. Green 
Fred. L. Peacock