

4825 THRU 4832

4825 THRU 4832

Diag. Cht. Nos. 5101-2 and 5202-2

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey Topographic  
Field No. \_\_\_\_\_ Office No. T-4825 thru T-4832

### LOCALITY

State California  
General locality Pacific Coast  
Locality Point Fermin to Sycamore Can-  
yon

1933

CHIEF OF PARTY

R. W. Knox

LIBRARY & ARCHIVES

DATE \_\_\_\_\_

COMM-DC 51300

Applied to Chart 5202 - Mar 1936

P.M.J

DESCRIPTIVE REPORT

to accompany

Sheets A to H 1933

Pt. Fermin to Big Sycamore Canyon

March - June 1933

Robert W. Knox      Chief of Party

Scale 1:10,000

INSTRUCTIONS:

The Instructions for this project were dated  
Feb., 17, 1933.

INTRODUCTION:

This report covers the area of eight topographic  
sheets surveyed prior to June 30, 1933. The general characteristics  
of the area covered are similar and it is believed that one report  
may be submitted more economically.

The number and the limits of the sheets covered in  
this report are as follows:

Sheet A	Point Fermin to Point Vicente (4825)
Sheet B	Point Vicente to Redondo Beach (4826)
Sheet C	Redondo Beach to Del Rey
Sheet D	Del Rey to Pacific Palisades
Sheet E	Pacific Palisades to Malibu Beach 4829
Sheet F	Malibu Beach to Point Dume 4830
Sheet G	Point Dume to Sequis
Sheet H	Sequis to Big Sycamore Canyon

GENERAL DESCRIPTION OF COAST:

The section of coast line from Point Fermin to Malaga Cove, a distance of about five miles, is distinguished by high, steep, dirt bluffs immediately over the high water line. These bluffs are broken occasionally by the mouth of canyons and lower topography. The beach in this area ranges from gravel to boulders and is on a base of bed rock which outcrops to form rock ledges around some of the points and elsewhere. Offshore from the beach are found numerous rocks awash and a few sunken rocks. The area inshore of the high water line is grass covered hills and cultivated most of the year.

From Malaga Cove to the Pacific Palisades, a distance of about sixteen miles, the beach is sandy and has no offlying rocks. The terrain inshore of the high water line is sandy and rather low and is thickly populated. In the vicinity of the Ballona Lagoon there are numerous oil derricks.

The coast from the Pacific Palisades westward to Point Dume is mostly sandy with area of boulders and gravel. There are some rock ledges but these are of small extent. The bluffs in the area are of dirt. There are a few offlying rocks awash but none outside the area of kelp. Inshore from the beach are the Santa Monica Mountains. From the base of these to the top of the bluffs over the high water line there is a rather level coastal plane of various widths. This plane becomes quite wide at Point Dume and the knob on which  $\Delta$  Point Dume is located is very prominent. (See photograph)

The area from Point Dume to the western limit of the work is very similar in character to the above area. The beach is of sand but with some areas of boulders. There are a few offlying rocks awash. Kelp extends offshore of these in most places.

CONTROL:

The control on Sheet A, Point Fermin to Point Vicente, is from the original triangulation scheme in this vicinity and recovered by the party. Most of these stations were previously recovered by the Palos Verdes engineers and re-marked by them.

The control on the rest of the sheets is from 1927 triangulation executed by W. Mussetter. Two stations,  $\Delta$  REEF 1862 and  $\Delta$  MALAGA 1862 were recovered by running plane table traverse to them. These were used in the control of the topography. The names of the buildings on which two of the triangulation stations are located have been changed. The Breakers Hotel, Hermosa has been changed to the Surf and Sand Club and the New Beach Club, Santa Monica has been changed to Grand Hotel.

on Sheet H

The location of  $\Delta$  SHALE 1933<sup>1</sup> is from party of Chas. K. Green.

In the area of Sheet D it was found necessary <sup>to</sup> ~~the~~ establish more triangulation stations for topographic control and to locate landmarks. There were only three triangulation stations on the sheet before this was done and one of these,  $\Delta$  GAS HOLDER, VENICE, was useless for plane table purposes because of it's size. Three new stations were located by occupying stations BALDWIN HILL, SEGUNDO

and PALISADES 2 R. M. The stations located were ALUMINUM TANK, VENICE PIER, CHUTES DOME, OCEAN PARK PIER and the tower of the Bay Cities Building and Loan Association, Santa Monica.

▲ TRESTLE 1933 was located on Sheet F by a three point theodolite fix on triangulation stations POINT DUME, RAMERA and LATAGO. This was done after a difficulty was experienced in running the traverse between ▲ LATAGO and ▲ POINT DUME.

#### SURVEY METHODS:

Before the field work was begun the instrument was adjusted. The rods were compared on a measured base and longer rods were graduated so that longer half interval sights might be taken along the traverse.

Plane table traverses were run between triangulation stations or three-point fixes. On sheets where it was necessary to work three-point fixes, the fixes were made and marked on the beach before the sheet distorted. Later traverses were run between these marked fixes. On Sheet H the control was located poorly for topography as it was difficult to see the stations from the beach and also difficult to occupy them. Except for one place, three-point fixes were impossible but at several places two triangulation stations could be seen. At the mouth of Little Sycamore Canyon it was possible to make a fix. From this fix a rodman was sent ahead to select a point where two stations could be seen and a long azimuth was drawn on the sheet to intersect the rod. The selected station was then occupied and the table was oriented on the fix or previous station and re-section lines were drawn from the two visible stations and thus a position was obtained. This was carried ahead for three positions. Later, when

the traverse was run for beach detail these points tied-in flat. The average length of foresight was about one mile. These fixes were taken while the sheet was new.

A magnetic skip set-up traverse was run to locate the road up Little Sycamore Canyon. This traverse was run from the mouth of the canyon to the chimney of a house whose position and elevation had been previously determined by cuts and angles from positions on top of the ridges. This traverse closed one foot in elevation and thirty meters in distance and azimuth.

The tops of the bluffs as shown on these sheets were determined by rod shots.

CLOSING ERRORS OF TRAVERSES:

SHEET A	Traverse Dist. (meters)	Closure. (meters)
Pt. Fermin to fix on ○ Knob	--	0
Fix on ○ Knob to fix on ○ Tri	--	0
Fix on ○ Tri to fix on ○ Pod	--	0
Fix on ○ Pod to fix on Port. Pt.	1530	2
Fix on Port. Pt. to ▲ Long Point	3050	5
▲ Long Point to Pt. Vicente L. H.	1350	2.5
SHEET B		
Pt. Vicente L. H. to ▲ Rocky	4050	5
▲ Rocky to ▲ Paseo	1630	2
▲ Paseo to ▲ Redondo	5760	12
▲ Redondo to ▲ West stack Edison Co.	2925	2.5

SHEET C

	Traverse Dist. (meters)	Closure (meters)
△ West stack, Edison Plant, to fix on Hermosa Pier	1340	3
Fix on Hermosa Pier to △ Man. Beach Pier B'ld'g	2720	5
△ Man. Beach Pier B'ld'g to fix on S. O. Pier	3600	3
△ Segundo to △ Del Rey	3330	5

SHEET D

△ Del Rey to fix on Venice Pier	4650	7
Fix on Venice Pier to fix on Ocean Park Pier	1520	3
Fix on Ocean Park Pier to △ Chim. New Beach Club	4870	0
△ Chim. New Beach Club to △ Palisades 2 R. M.	4870	6

SHEET E T-4829

△ Palisades 2 R. M. to △ Topango	5020	2.5
△ Topango to △ Big Rock	2225	4 ✓
△ Big Rock to △ Malaga	6295	13

SHEET F

△ Malaga to △ Malibu	----	0
△ Malibu to △ Reef	2880	6
△ Reef to △ Latago	5240	6
△ Latago to △ Point Dume (This traverse was rerun from Trestle to Pt. Dume)	6870	24
△ Trestle to △ Pt. Dume	2750	4

SHEET G = T-4831

△ Pt. Dume to △ Rindge	2677	5 ✓
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SHEET G (cont) = T-4831

	Traverse Dist. (meters)	Closure (meters)
△ Rindge to fix near ○ Bose	3804	5
Fix near ○ Bose to fix near ○ Poi	4223	3
Fix near ○ Poi to △ Sequis	2960	5

SHEET H. = T-4832

△ Sequis to fix near ○ Den	----	0
Fix near ○ Den to fix near ○ Shak	----	0
Fix near ○ Shak to fix near ○ Gud	----	0
Fix near ○ Gud to △ Shale	----	0

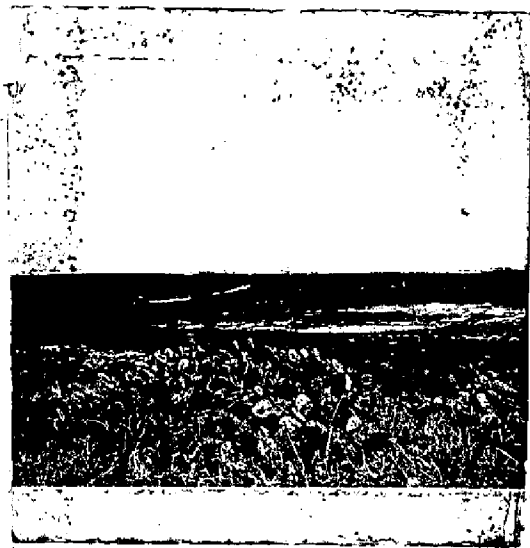
All of the above traverses that were in error were adjusted by proportion.

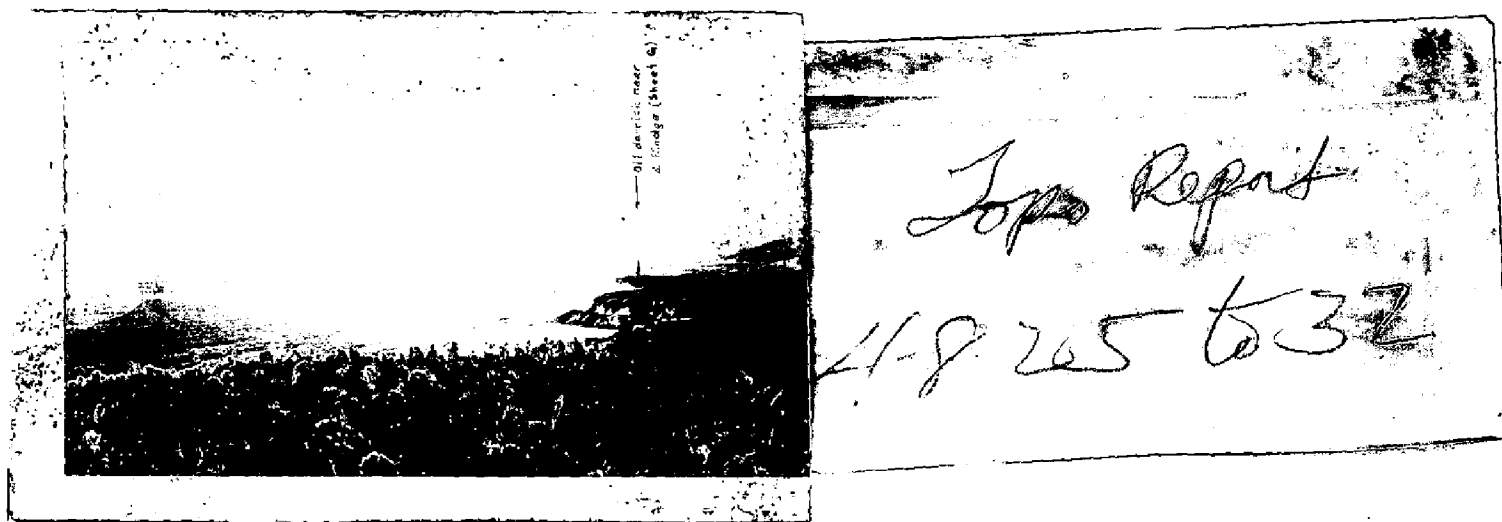
SUPPLEMENTAL SURVEYS:

There is being transmitted with these sheets, ten U. S. Geological Survey quadrangles. These are on the North American datum and are of recent survey. Street intersections have been located on the topographic sheets and are shown in blue thereon and in red on the quadrangles where they can be identified.

NOTES ON INDIVIDUAL SHEETS:

The following part of this report covers notes on each sheet and deals with specific items that are not of a general nature of the survey. The notes on each sheet have been typed separate.

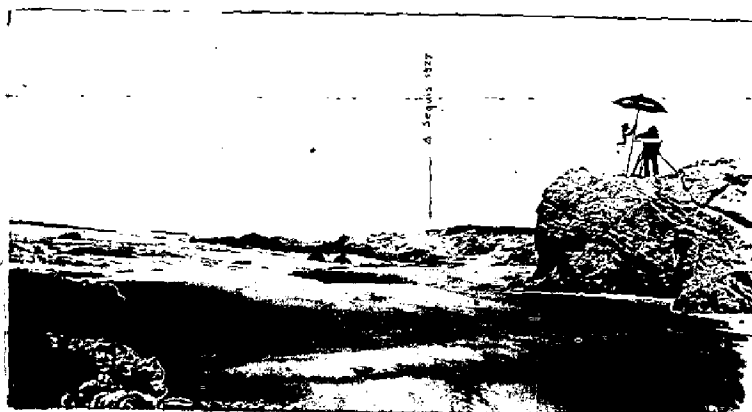




Panorama from Triangulation Station Point Dume



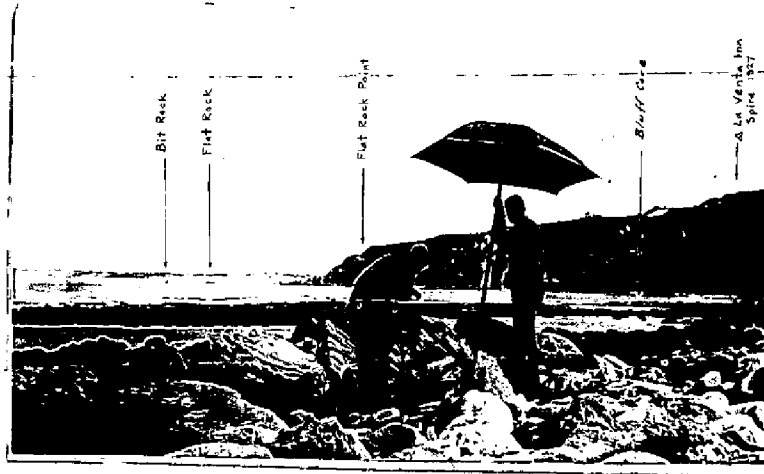
Point Dume from vicinity of Triangulation  
 Station Reef 1862



Vicinity Triangulation Station Sequis  
 1927



# PHOTOGRAPHS



Bluff Cove showing character of beach.



Malibu Beach, Malibu Point in background

SHEET A.

Previous surveys in this area was covered by Sheet Registry No. 1153 surveyed in 1870. A comparison with this sheet shows that the high water line in the bights and coves falls some forty or fifty meters inshore of the present survey. These differences have no regularity and considering the fact that the area is rather unchangable, it is hard to explain. The section of shore line in Portuguese Bend is a good example of this difference. The points agree with the present survey in most cases but on the present survey they are slightly broader.

Most of the offlying rocks were verified but in slightly different location. An area of rocks and ledges under Ⓞ PYR does not appear on the present survey. These rocks were not found. The rock ledges shown to extend some 100 meters beyond the small dock near Ⓞ STE was not verified.

Three additional sunken rocks were charted. On the previous sheet rocks were shown immediately inshore of the sunken rock 330 meters west of Ⓜ LONG POINT but this sunken rock was not located. Another additional sunken rock lies a little offshore of the ledges to the west of Portuguese Point. The sunken rock southeast of Ⓞ TRI was not located on the original sheet.

The data referred to the several rocks on the sheet are from field observations and gives the time, date and the amount bare in pencil.

The inshore limit of the kelp shown on this sheet was sketched during the progress of the work.

*Applied to chart 5143  
H.N.R. Dec 1934*

SHEET B

A comparison of Sheet Registry No. 1231 surveyed in 1871 shows good agreement with this sheet. The delineation of the high water line varies somewhat between points but agrees very well on the points. There is a discrepancy in the high water line around Flat Rock Point. The present survey shows the point slightly further north and east. The agreement between the location of Flat Rock and Bit Rock is good. Almost all of the offlying rocks were verified but in slightly different position. The former survey shows two sunken rocks offshore of the rock ledge reef off  $\odot$  SIO south of Resort Point. Also there are sunken rocks shown off of  $\odot$  STRA which were not verified. It is beleived that these rocks do not exist.

Several area of rocks were charted on the present survey which are not shown on the survey of 1871. Two groups of rocks, close inshore to the low water line, were found astern of and to the north of the wreck just north of Rocky Point. The topographic representation of Bluff Cove was found to be in error. The rocks shown in the cove on the present sheet were not charted on the former sheet and the high water line is rather erratic from here southeastward to Rocky Point. From Malaga Cove northward to the northern limit there seems to be very little change in the location of the high water line. This being a sandy area, the changes that do occur could be attributed to natural causes.

The street system of Redondo Beach was tied into the traverse by locating street intersections where possible from the beach traverse. These are shown in blue and the names of the streets are indicated.

*Applied to Chart 5143  
JNB Dec 1934*

*Applied to Chart 5144; Feb, 1935  
K.R*

SHEET B, continued

An attempt was made to reduce the street system of Redondo Beach to the scale of the sheet from the City Engineers Plats. After reduction the system was traced on the sheet and a field inspection was intended to be made but due to the limited time such was impossible. During field work in another area this erratic street system was inked by a civilian draftsman. For this reason it was necessary to erase the entire area inshore of the high water line because of the errors in the street system. The street intersections are shown of the U. S. Geological Survey Quadrangles in red. These quadrangles are being transmitted with the sheet.

The data on the amount the several rocks are bare are shown on the sheet in pencil and give the time, date and amount the rock is bare.



SHEET C<sub>1</sub> & C<sub>2</sub>

The topography around the Standard Oil Co. pier at El Segundo was executed by Lieut. W. F. Malnate under telegraphic instructions dated February 4, 1933. The limits of this work is shown by dashed lines, approximately one mile on either side of the pier. The remaining detail on the sheet was transferred from Sheet C<sub>2</sub> executed under instructions dated February 14, 1933. This irregularity was due to the fact that the street systems of Manhattan Beach and Playa Del Rey were reduced to scale from city maps and the intended field inspection was not made because of the field season being closed on this project before time permitted. A civilian draftsman inked the sheet and missed pertinent detail. Luckily the detail was not erased and the topographer was able to transfer this detail to Sheet C<sub>1</sub>. Sheet C<sub>2</sub> is being transferred with this group of sheets and should be used to verify signals etc. in this area.

It will be noted that signals in the area surveyed by Lieut. W. F. Malnate bear two names in some cases. Those objects whose names are lettered in brick red appear on hydrographic Sheet Reg. #H 5235, surveyed in 1933 by party of Str. Pioneer, and those that appear in carmine are those used on hydrographic Sheet Field No. 13- 1933, party of Robert W. Knox. Thus; Bel in brick red is on Sheet Reg. #H 5235 and Bell in carmine is on Sheet Field No. 13 although they are the same signal. Signal Lie is the same as Nu, a hydrographic location, on Sheet Reg. #H 5235.

SHEET C<sub>1</sub> & C<sub>2</sub> (cont)

The location of the mooring buoys around the end of the submarine pipe line of the Standard Oil Co. off the pier at El Segundo are from Hydrographic Sheet Field No. 13. The location of the submarine pipe line is from a reduction of the Standard Oil Co. map and is approximate. There are several signals, tanks etc. shown that were not used for sights. The description of these are in pencil.

The intersections of streets are shown in blue. Where these intersections could be identified they are shown in red on the U. S. Geological Quadrangles being transmitted with these sheets.

The former surveys in this area are shown on Sheets Registry Nos. 1231, surveyed in 1871, and 1432 b, surveyed in 1876. A comparison with these surveys shows excellent agreement in the delineation of the high water line with but one exception. This change is south of the Hermosa Beach pier where the former survey shows a broad sand spit extending about 200 meters offshore from the present high water line.

The small lines extending offshore from the high water line are sheet piling groins intended to retard beach erosion.

*Applied to Cht. 5144 - Feb., 1935*  
*K. R.*

SHEET D 7-4828

The small blue circles on this sheet mark street intersections located along the beach traverse. The names of the streets are also shown in blue. The small black circles and names refer to oil derricks and their names in the Playa del Rey oil field. These are occasional locations and do not represent all of the oil derricks. A map may be procured from the California State Mining Bureau showing the location of these by name.

The low water line in Ballona Lagoon is not a true but only an approximate topographic representation. The topographic party was not in the locality at low tide.

Since the date of the survey, work was started on the Santa Monica Breakwater. The light on the dolphin west of the Santa Monica Pier marks a part of the breakwater.

No attempt was made to locate the many buildings and amusement devices on the Venice and Ocean Park Piers. The building on the Santa Monica Pier is the largest and is very prominent. The small pier about 1100 meters southeast of the Venice Pier is the private property of F. A. Way.

The original survey in this area is contained on Sheets Registry Nos. 1432 b, surveyed in 1876 and 1427, also surveyed in 1876. There is one sheet of revision survey in 1887 on Sheet Registry No. 1791. From a comparison of these sheets, the beach in the sand area has built up an average of 60 meters from the entrance

SHEET D (cont)

to Ballona Lagoon, where the beach extends about 100 meters further off shore to Santa Monica Canyon. The present tendency is toward erosion as evidenced by the number of sheet pile groins to retard the process. The high water line south of the entrance of Ballona Lagoon shows very little change. The wire fences shown in this area extend across high water and are to fence in private beaches.

*Applied to Cht. 5144 - Feb, 1935*

*N.R.*

SHEET E T-4829

The road along the beach on this sheet is the main coast highway to San Francisco. This road was located accurately from the beach traverse, locating all beginnings and ends of curves and on large curves a distance was determined to the center. 430 meters east of Castle Rock (O Pin) there is an archway over the road connecting to the Castellammare Inn. During the period of the survey there was extensive road widening operations. In most places this was done by cutting the bluff back and dumping the excess dirt over the high water line. This tends to make a temporary high water line which is subject to change. This is particularly true of the small point about 400 meters west of Castle Rock. The bluff as rodged and shown on this sheet represents the bluff after grading operations were completed. The four groins in the vicinity of <sup>Tau</sup> O Low are made of heavy planks placed against railroad rails driven into the ground. The two longest groins are quite prominent and high, being bare about 10 or 12 feet at high water. The other groins shown on the sheet are low and constructed of sheet piling.

The previous sheets in this area are Sheets Registry Nos. 1432, surveyed in 1877, and 1427, surveyed in 1876. A comparison with the latter sheets shows excellent agreement between the two surveys considering the changes caused by groins etc. There is a slight difference in the location of the two groups of rocks near Palisades 2 R. M.

It was impossible to get an agreement between the delineation of the high water line on Sheet Registry No. 1432 and the present

SHEET E (cont) T-4829

survey. By making the triangulation on the two sheets coincide the 1927 datum fits very well and the rounded point under  $\Delta$  Topanga 1927 agrees but the point under  $\Delta$  Big Rock is displaced about 150 meters west and the small rounded point in the vicinity of  $\odot$  Pale is likewise displaced with the high water line on the previous sheet cutting back into the bluffs to the east of the point. The points west of here agree very well. There is an apparent discrepancy in traverse and delineation of the shore line on the old survey. Some of the error west of  $\odot$  Cyl might be due to erosion. Most of the offlying rocks were verified and a few additional rocks were charted. The four located rocks lying between  $\odot$  Pale and  $\Delta$  Big Rock 1927 and one lying off the rock ledges south of  $\odot$  Pale are the most important additions. The amount these rocks are bare at m.l.l.w. was obtained by field observations and reduced to staff at El Segundo.

*Applied to Cht. 5144 - Feb., 1935*  
*K.R.*

SHEET F

The road shown on this sheet is a continuation of the main coast highway. The location is from rod shots along the beach traverse westward to O Peak, and from here to the western limit the road was located by three point fixes. The scattered elevations are from intersections and vertical angles taken along the traverse and are reduced to the high water line for vertical datum. Malibu Lagoon is fresh water as are the marshes around it. The fences are shown in the vicinity of Malibu Point because space permitted. There are fences on both sides of all roads and many other fences dividing cattle pasture areas. The foot bridge north of the main highway bridge is an abandoned trestle of the railroad that at one time ran from the pier in Kellers Shelter westward to Ventura. There is another trestle across a canyon just north of  $\Delta$  Trestle. This structure does not span the gap as the eastern end has been demolished. This trestle is the one referred to in the Coast Pilot and is shown dotted. There are four water tanks, shown by small black circles, shown on the sheet.

The former surveys in the area of this sheet are shown on Sheets Registry Nos. 1432 a, surveyed in 1877, and 703, surveyed in 1857. A comparison with Sheet 1432 a shows very good agreement in the vicinity of Malibu Point. A group of rocks are shown where the present survey shows a line of breakers. No rocks were seen in the locality. The remainder of the sheet is in fair agreement with the old work with the exception of the point southwest of  $\Delta$  Latigo 1927. This point on the sheet agrees very well but the high water

SHEET F (cont)

line on the old sheet is charted some 25 meters <sup>✓CRBL</sup> inshore and over the present line of bluffs. All of the rocks were verified with slightly different locations.

The data on the rocks in this area are reduced from field observation and are reduced to m.l.l.w on the staff at El Segundo.



SHEET G T-4831

The entire area of this sheet is covered by a survey of 1857 on Sheet Registry No. 703. A comparison made with that sheet shows excellent agreement in all detail. There is a slight variation in the location of the high water line along the sand beach northwest of Point Dume but this is probably due to erosion in some places and accretion in others. There is a good agreement on all of the points. Most of the offlying rocks were verified and some additional ones located. Four of these are located offshore from Ⓞ On and another is south of Ⓞ Bot.

The road on this sheet is a continuation of the main coast highway. It was located from the beach traverse where possible and in those places where the road was not visible from the beach fixes were made to locate ~~the~~ same. The lagoon at the mouth of Zuma Canyon is fresh water. There is an abandoned railway trestle part way across the lagoon.

The reef just south of Ⓞ Poi is an area of bed rock. This reef is shown as a rock ledge while the rest of the rocks are shown by symbol as they are only heads. The inshore limit of the kelp shown on the sheet was sketched when the beach traverse was run. The several scattered elevations are the tops and spurs and the vertical datum is H.W.L.

SHEET H = F4832

A comparison with Sheet Registry No. 702, surveyed in 1857, shows very little change in the high water line. The slight changes that were noted are in the vicinity of groins and in localities where cuts were made to construct the coast highway. There are several retaining walls along the high water line. These are noted in pencil.

The party under C. K. Green, working from Santa Barbara, found it necessary to locate  $\Delta$  Shale to end the beach traverse. That party surveyed the high water line but failed to locate signals for hydrography. Signal Pod, perhaps with a different name, is common to this sheet and the sheet on the eastern limit of the above party.

The area of rocks and breakers just south of  $\odot$  Sla is believed to be a faithful representation. The westernmost breaker was never seen and showed only as a large break. Three cuts were taken to this break with but a fair intersection.

The lines of equal elevation on this sheet should be classed as approximate contours. The elevations were obtained by three point fixes made on the tops of the ridges. The contours on Sheet Registry No. 702 with corrections were fitted to these elevations. The road up Little Sycamore Canyon was located by a skip set-up, magnetic traverse with a tie-in to the chimney on the house near the end of the road (elev. 1282). The road in Big Sycamore Canyon was also located by a skip set-up magnetic

SHEET H (cont)

traverse but with no tie-in. The county line monuments, shown by small black circles, were located by stadia. The main coast highway was located by rod shots along the beach traverse.

LANDMARKS:

See the descriptive reports for Hydrographic Sheets Field Nos. 11 to 18-1933 inclusive for a list of landmarks for charts.  
*(Duplicate attached to H-5390) H-5363*

INKING:

Most of the sheets were inked in the office by D. L. Ackland, civilian draftsman. Some inking was done by A. J. Vollmar also a civilian draftsman. The shore line on two of the sheets, F and H were inked by the topographer. Due to other field work being in progress, adequate supervision was not possible at all times. After inking, the sheets were reviewed and carefully checked to see that none of the detail was missed by the draftsman.

*John C. Mathisson*  
John C. Mathisson,  
Jr. H. & G. Engr., C. & G. Survey,  
Topographer.

Respectfully forwarded;  
*Robert W. Knox*  
Robert W. Knox,  
H. & G. E., Chief of Party.

# STATISTICS

SHEET A.	Point Fermin to Point Vicente	
	Stat. mi. of shore line	8.64
SHEET B.	Point Vicente to Redondo Beach	
	Stat. mi. of shore line	10.32
SHEET C.	Redondo Beach to Del Rey	
	Stat. mi. of shore line	7.44
SHEET D	Del Rey to Pacific Palisades	
	Stat. mi. of shore line	10.42
	" " of road	3.24
SHEET E	Pacific Palisades to Malibu Beach	
	Stat. mi. of shore line	8.48
	" " of roads	9.01
SHEET F	Malibu Beach to Point Dume	
	Stat. mi. of shore line	10.72
	" " of roads	11.68
SHEET G	Point Dume to Sequis	
	Stat. mi. of shore line	9.35
	" " of roads	8.76
SHEET H	Sequis to Big Sycamore Canyon	
	Stat. mi. of shore line	5.08
	" " of roads	8.84
	Area, sq. stat. mi.	7.0

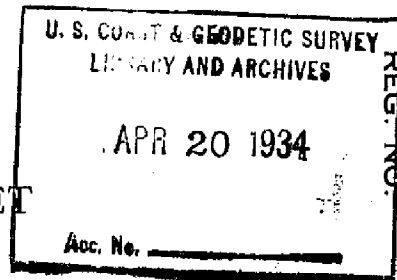
# VERIFICATION REPORT

I have reviewed the sheets covered by this report and have supervised the field and office work on said sheets insofar as it was possible without interference with the progress of the field work.

These sheets are hereby approved.

A handwritten signature in dark ink, appearing to read "Robert W. Knox". The signature is fluid and cursive, with a large initial "R" and "W".

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

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## 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 A. 1933REGISTER NO. 4825State CaliforniaGeneral locality San Pedro ChannelLocality Point Fesmin to Point VicenteScale 1:10,000 Date of survey March 23 - 31, 19 33Vessel Launch and shore party, CaliforniaChief of Party Robert W. KnoxSurveyed by John C. MathissonInked by D. L. Ackland

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour Approximate contour Form line interval \_\_\_\_\_ feet

Instructions dated April 14, Feb. 17,, 19 33

Remarks: \_\_\_\_\_

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC  
LIBRARY AND ARCHIVES

REG. NO.

APR 20 1934

Acc. No.

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 B 1933

REGISTER NO. 4826

State California

General locality Santa Monica Bay

Locality Point Vincente to Redondo Beach

Scale 1:10,000 Date of survey April 3 to 10, 1933

Vessel Launch and shore party, California

Chief of Party Robert W. Knox

Surveyed by John C. Mathisson

Inked by A. J. Vollmar

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour Approximate contour Form line interval \_\_\_\_\_ feet

Instructions dated April 14 Feb. 17, 1933

Remarks: One Quadrangle (Torrance) Los Angeles County. Filed with T. 4826.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES	REG. NO.
APR 20 1934	
Acc. No.	

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 C. 1933

REGISTER NO. 4827a

4827b

State California

General locality Santa Monica Bay

Locality Redondo Beach to Del Rey Playa del Rey

Scale 1:10,000 Date of survey Feb. & April 10-14 19 33

Vessel Launch and shore party, California

Chief of Party Robert W. Knox

Surveyed by W. F. Malnate and John C. Mathisson

Inked by A. J. Lollmar, D. L. Ackland and J. C. M.

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour Approximate contour Form line interval \_\_\_\_\_ feet

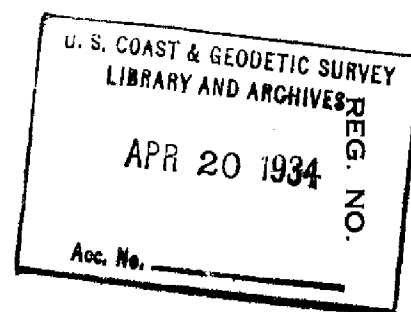
Instructions dated April 14 Feb. 17, 19 33

Remarks: This Title Sheet covers two sheets of the same area.

See Descriptive Report for details.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## 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 D 1933REGISTER NO. 4828State CaliforniaGeneral locality Santa Monica BayLocality Vicinity of Santa MonicaScale 1:10,000 Date of survey April 18 to 28, 1933Vessel Launch and shore party, CaliforniaChief of Party Robert W. KnoxSurveyed by John C. MathissonInked by D. L. Ackland

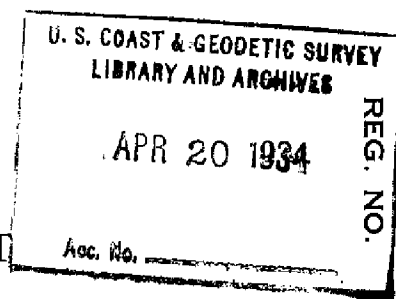
Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour Approximate contour Form line interval \_\_\_\_\_ feet

Instructions dated April 14 Feb, 17, 1933Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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 E 1933

REGISTER NO. 4829

State California

General locality Santa Monica Bay

Locality Pacific Palisades to Malibu Beach

Scale 1:10,000 Date of survey April 21 to May 5, 19 33

Vessel Launch and shore party, California

Chief of Party Robert W. Knox

Surveyed by John C. Mathisson

Inked by D. L. Ackland

Heights in feet above M. H. W. to ground ~~to tops of trees~~

Contour Approximate contour Form line interval \_\_\_\_\_ feet

Instructions dated April 14 Feb. 17, 1933

Remarks: \_\_\_\_\_

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEYU. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

APR 20 1934

REG. NO.

Acc. 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 Letter F 1933REGISTER NO. 4830State CaliforniaGeneral locality Santa Monica BayLocality Malibu Beach to Point DumeScale 1:10,000 Date of survey May 5 to 12, 19 33Vessel Launch and shore party, CaliforniaChief of Party Robert W. KnoxSurveyed by John C. MathissonInked by J. C. M.Heights in feet above M.H.W. to ground ~~to tops of trees~~

Contour Approximate contour Form line interval \_\_\_\_\_ feet

Instructions dated ~~April 14~~ Feb. 17, 19 33

Remarks: \_\_\_\_\_

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST AND GEODETIC SURVEY  
LIBRARY AND ARCHIVES

Acc. No. \_\_\_\_\_

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 Letter G. 1933

REGISTER NO. 4831

State California

General locality Santa Monica Bay

Locality Point Dume to Sequis Creek ARROYO SEQUIT

Scale 1:10,000 Date of survey May 13 to 18, 1933

Vessel Launch and shore party, California

Chief of Party Robert W. Knox

Surveyed by John C. Mathisson

Inked by D. L. Ackland

Heights in feet above M. H. W. to ground ~~xxxxxx~~

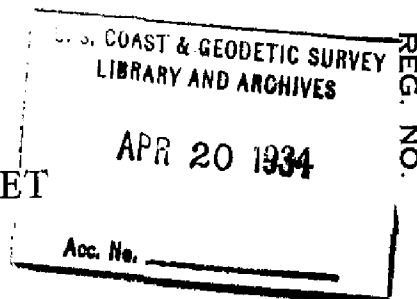
Contour Approximate contour Form line interval \_\_\_\_\_ feet

Instructions dated April 14 Feb., 17, 1933

Remarks: \_\_\_\_\_

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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 H 1933

REGISTER NO. 4832

State California

General locality Santa Monica Bay

Locality Arroyo Sequit  
Saguis Creek to Big Sycamore Canyon

Scale 1:10,000 Date of survey April 21 - June 14, 1933

Vessel Launch and shore party, California

Chief of Party Robert W. Knox

Surveyed by John C. Mathisson

Inked by J. C. M.

Heights in feet above M. H. W. to ground ~~to tops of trees~~

~~Contour~~ Approximate contour ~~from base~~ interval 50 feet

Instructions dated Feb. 17, April 14, 1933

Remarks: \_\_\_\_\_

Date. April 25, 1935

Chart No. 5202

Diagram No. 5002-2

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

[illegible]

Date. April 23, 1935

Survey No. T-4827 a.

Chart No. 5202

Diagram No. 5202-2

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

[illegible]



Date. April 23, 1935

Survey No. T-4827 b

Chart No. 5202

California.

Diagram No. 5202-2

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

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

Under investigation. Q

7N-136

Date. April 20, 1935

Survey No. 1-4828

Chart No. 5202

California

Diagram No. 5202-2

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

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

Under investigation. Q

(M-136)

Date. April 19, 1935

Survey No. T-4829

Chart No. 5202

Diagram No. 5202-2

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

Under investigation. Q

[illegible]

Date. April 3, 1935

Survey No. AT-4830

Chart No. 5202

Diagram No. 5202-2

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

[illegible]

Date. April 4, 1935

Chart No. 5202

Under investigation. Q

[illegible]

Date. April 4, 1835

## 5 GEOGRAPHIC NAMES

Survey No. T 4832

Chart No. 5202

Diagram No. 5202 - 2

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

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

Under investigation. Q

[illegible]

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4825 (1933)

Point Fermin to Point Vicente, San Pedro Channel, California

Surveyed March, 1933

Instructions dated: February 17, 1933 (KNOX)

Plane Table Survey

Cloth Mounted

Chief of Party - R. W. Knox.

Surveyed by - J. C. Mathisson.

1. Condition of Records.

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.
- b. Recovered triangulation stations are shown by a triangle enclosed in a circle. The manual requirement is that triangles alone be used.
- c. Descriptions of Recoverable Topographic Stations, Form 524, were not furnished.
- d. Pencil notes regarding rocks awash have been reduced to MLLW by the Tide Division and are now so shown on the sheet.

2. Compliance with Instructions for the Project.

The survey complies with the instructions for the project, except that there is no evidence of any effort made to check or tie into the form lines of the prior survey.

3. Junction with Contemporary Surveys.

The junctions with T-4826 (1933) on the west and with T-5034, an air-photo sheet on the west are satisfactory.

4. Comparison with Prior Surveys.

a. T-1153 (1870).

A comparison of this survey with the present survey shows a good general agreement in the high water line. The chief discrepancy is in the cove west of Portuguese Point where the high water line is now about 35 meters outside of its former position. The Descriptive Report states that the discrepancy is probably not due to any changes in shoreline. Three breakers which were not located on the former survey are shown on the present survey. A rock in lat.  $33^{\circ}42.8'$ , long.  $118^{\circ}19.0'$  is not shown on the present survey and is not carried forward. (See Review H-5485 (1933)).

5. Field Drafting.

The field inking of the survey is satisfactory.

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 survey for charting purposes:

T-1153 (1870) in part.

8. Reviewed by - A. F. Jankowski, November, 1934.

Examined and approved:

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

*C. K. Green*

*L. O. Solhat*  
Chief, Division of Charts.

*Acting Paul A. Smith*  
Chief, Section of Field Work.

*Act.*

*R. F. Lusk*  
Chief, Division of H. & T.



Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY T-4826 (1933)

Santa Monica Bay, California

Surveyed - April 1933

Instructions dated February 17, 1933

1. Condition of Records.

The records are complete except that Form 524, Description of Recoverable Topographic Stations, was not furnished. Form 567 was furnished with the Hydrographic Descriptive Report.

The provision of topographic manual requiring the laying off of 1/2 meter distances along the edges of sheet for distortion measurement, was not complied with. Also it does not appear that any attempt was made to check the elevations of the previous survey.

Rocks which were noted in pencil with time and amount bare, were reduced to M. L. L. W. and are now so indicated.

The old recovered triangulation stations are encircled in red. This is not required by the regulations of topographic manual.

2. Compliance with Instructions for the Project.

The survey complies with Instructions.

3. Junction with Contemporary Surveys.

T-4825 (1933). This junction was made in the field. It is very good.

T-4827b (1933). The survey was not available for comparison and the junction will be checked during the review of that sheet.

4. Comparison with Former Surveys.

T-1153 (1870). A small portion of the present survey in the vicinity of Pt. Vicente was a part of the old survey. The only discrepancy is that the new survey shows 4 additional rocks awash southwest from Pt. Vicente between the bare rocks.

T-1231 (1871). There is in general a good agreement in the new survey. A few new rocks were charted and they are all mentioned in the Descriptive Report. Some sunken rocks were specifically mentioned as non-existent but the sunken rocks at latitude 33° 46.0', longitude 118°25.4' and the Rock Awash at latitude 33° 45.4', longitude 118°25.0' are being carried forward in red.

T-2127 (1893) and T-3086 (1910) are revision surveys which are partly superseded by the present survey. Within its limits the new survey is to be used for charting purposes.

5. Field Drafting.

The field inking of this survey is satisfactory.

6. Additional Work Recommended.

No additional work is necessary.

7. Superseding Old Surveys.

Within its limits the new survey will replace the following for charting purposes:

T-1153 (1870)	in part
T-1231 (1871)	" "
T-2127 (1893)	" "
T-3086 (1910)	" "

8. Note to Compiler.

Attention is called to the tie prints in blue, to tie into the Geological Survey map which is attached to this survey.

Reviewed by - A. F. Jankowski, December 1934.

Examined and approved:

*C. K. Green.*

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

*L. O. Pollock.*

Chief, Division of Charts.

*Fred. L. Peacock*

Chief, Section of Field Work.

*G. H. Hude*

Chief, Division of H. & T.

## REVIEW OF TOPOGRAPHIC SURVEY No. 4827a

Title (Par. 56) *Santa Monica Bay, California*

Chief of Party

Surveyed by *W.F. Malnate* Inked by *A.J. Lollmar*  
*D.L. Ackland*Ship *Shore Party*Instructions dated *Feb. 4, 1933*Surveyed in *Feb & April 1933*

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.)~~
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.) *U.S.G.S. Quadrangle Sheet forwarded with common points to T4827 located*
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.) ✓
9. ~~Rocks and~~ other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) *Peaks Pier at Q53°53.8 from T3086 is not shown, nor has it ever been shown on Chart 5202. This pier no longer exists. Sheet T4827a supersedes previous surveys in this locality.*
10. ~~The span, draw and clearance of bridges are shown. (Par. 16c.)~~
11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~
12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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.) ✓  
*No points for checking distortion shown*
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 IMs and DPs, 68.) *None Submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ✓
17. The magnetic meridian was shown ✓ and declination was checked. (Par. 17, 52.) *No record of declination having been checked*
18. The geographic datum of the sheet is *N.A. 1927 (Adjusted)* and the reference station is correctly noted. (Par. 34.)
19. Junctions with contemporary surveys are adequate. ✓
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 *Chas. R. Bush Jr. May 19 1936.*

Examined and approved:

*E. H. Green*  
Chief, Section of Field Records

*L. O. Polhut*  
Chief, Division of Charts

*Fred. L. Peacock*  
Chief, Section of Field Work

*Glude*  
Chief, Division of Hyd. and Top.

## REVIEW OF TOPOGRAPHIC SURVEY No. 48276

Title (Par. 56) *Santa Monica Bay, Cal.*Chief of Party *R.W. Knox* Surveyed by *J.C. Mathison* Inked by *J. C. Mathison*Ship *Shore Part,* Instructions dated *Feb. 17-1933* Surveyed in *Feb & April 1933*

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 and lines was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~
5. ~~The delineation of contours and lines is satisfactory. (Par. 49, 50.)~~
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.) *U.S.G.S. Quad. Sheet furnished with points common to both surveys marked*
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.) ✓
9. ~~Reefs and~~ other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) *Packs Pier, 053°53'8" as shown on sheet T 3086 does not exist and is not shown on Chart 5202. Sheet T 48276 supersedes previous surveys in this locality. The beach south of Hermosa Pier seems to have receded about 200 meters in comparison with T 1231*
10. ~~The span, draw and clearance of bridges are shown. (Par. 16c.)~~
11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~
12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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.) ✓  
*No points for checking distortion shown*
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 Submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ✓
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *No record of checking declination*
18. The geographic datum of the sheet is *N.A. 1927 (Adjusted)* and the reference station is correctly noted. (Par. 34.) ✓
19. Junctions with contemporary surveys are adequate. ✓
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 *Chas. R. Bush Jr. May 19, 1936.*

Examined and approved:

*B. H. Green*  
Chief, Section of Field Records

*L. O. Pollock*  
Chief, Division of Charts

*Fred. L. Peacock*  
Chief, Section of Field Work

*G. H. de*  
Chief, Division of Hyd. and Top.

## REVIEW OF TOPOGRAPHIC SURVEY No. 4828

Title (Par. 56) *Santa Monica Bay, California*Chief of Party *R.W. Knox* Surveyed by *J.C. Mathison* Inked by *D.L. Ackland*Ship *Shore Party* Instructions dated *Feb. 17-1933* Surveyed in *April 1933*

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 and lines was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~
5. ~~The delineation of contours and lines is satisfactory. (Par. 49, 50.)~~
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.) *U.S.G.S. Quad Sheets were marked and corresponding points marked on T4828*
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.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)  
*see reverse side*
10. The span, draw and clearance of bridges are shown. (Par. 16c.)  
*No clearances shown on several bridges over entrance to Ballona Lagoon*
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.

Paragraph 9

The Shore line appears to have receded South of the Sunset Pier whereas North of this pier it apparently has built up from 60 to 100 meters. This is shown by comparison with T1791<sup>(1887)</sup>, T1432B<sup>(1876)</sup> and T1427<sup>(1876)</sup>. South of the entrance to Ballona Lagoon the shore line apparently has not changed much.

Comparison with Chart 5202 indicates new docks since its issue.



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.) *No points shown for checking distortion*
14. ~~The descriptive report also contains additional information required in aere-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 IMs and DPs, 68.) *None Submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ✓
17. The magnetic meridian was shown ✓ and declination was checked. (Par. 17, 52.) *No indication that declinatoire was checked*
18. The geographic datum of the sheet is *N.A. 1927 (Adjusted)* and the reference station is correctly noted. (Par. 34.)
19. Junctions with contemporary surveys are adequate. ✓
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 *Chas. R. Bush Jr.* May 19, 1936.

Examined and approved:

*E. H. Green*  
Chief, Section of Field Records

*L. O. Polbert*  
Chief, Division of Charts

*Fred. L. Peacock*  
Chief, Section of Field Work

*G. H. de*  
Chief, Division of Hyd. and Top.

## REVIEW OF TOPOGRAPHIC SURVEY No. 4829

Title (Par. 56) *Pacific Palisades to Malibu Beach, Santa Monica Bay, Cal*Chief of Party *R.W. Knox* Surveyed by *J.C. Mathisson* Inked by *D.L. Ackland*Ship *Launch and Shore Party* Instructions dated *Feb. 17, 1933* Surveyed in *Apr. 21 to May 5, 1933*

- ✓ 1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) *except that no points for distortion were established on the sheet.*
- ✓ 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.) *But few elevations are shown which are near the maximum limits of this survey.*
- ✓ 5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) *No contours are shown on this survey.*
- ✓ 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.)
- ✓ 9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) *See back of page.*
10. ~~The span, draw and clearance of bridges are shown. (Par. 16c.)~~
- ✓ 11. Locations and elevations of summits are given. (Par. 19, 51.) *See Par. 4 above.*
- ✓ 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.

TP9

a number of rocks, inshore and offshore originating with topographic sheets No. 2125 (survey of 1893), 1432a (survey of 1877) and 1427 (survey of 1876) were found to be in conflict with the new survey (T-4829). These have been disposed of in accordance with the principles laid down in Instructions for Board of Hydrographic Survey. The most important of these rocks so disposed are the charted group of <sup>in lat.  $34^{\circ}21'$ , long.  $118^{\circ}32'2''$</sup>  number rocks, originating with T-1427 which are believed to be a general representation of what is more accurately shown on the new survey (T-4829).

- ✓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 aere 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 DP's, 68.)
- ✓16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Altho submitted for other sheets in this area vicinity, none have been received for this sheet.*
- ✓17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *No statement regarding declination was made.*
- ✓18. The geographic datum of the sheet is *N.A. (1927) Datum* and the reference station is correctly noted. (Par. 34.) *Datum reference was added in the office.*
- ✓19. Junctions with contemporary surveys are adequate.
- ✓20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) *Important names marking the limits of the survey were added in the office.*
- ✓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 *R.W. Knox*.

24. Remarks: *The shoreline and features on this survey outside the high water line should, with the indicated additions, supersede all previous topographic surveys for charting purposes.*

Reviewed in office by *Harold W. Murray* *July 7, 1934*

Examined and approved:

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

*L. O. Rolbut*  
Chief, Division of Charts

*Fred. L. Peacock*  
Chief, Section of Field Work

*G. H. de*  
Chief, Division of Hyd. and Top.

## REVIEW OF TOPOGRAPHIC SURVEY No. 4830

Title (Par. 56) *Malibu Beach to Point Dume, Cal.*

Chief of Party *R.W. Knox* Surveyed by *J.C. Mathisson* Inked by *J.C. Mathisson*

Ship *Shore Party* Instructions dated *Feb 17-1933* Surveyed in *May 1933*

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.)~~
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.) *U.S.G.S. Quad. Sheets sent in for Seasons Work.*
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.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

*See reverse side*

10. The span, draw and clearance of bridges are shown. (Par. 16c.)  
*None shown over navigable waters*
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.

Paragraph 9

T1432a (1877)

Comparison of T4830 with T1432a shows in general a good agreement. The HW line of the point S.W. of A Latigo on T4830 appears to be made out 25 to 30 meters in excess of that shown on T1432a. This may be due to the construction of the Coastal Highway.

Several Rocks, both submerged and awash, were added to T4830 from T1432a between Long. 118°-42' and Long. 118°-43!1. These rocks were rather unimportant, being close to shore. Other details of the two sheets checked very closely.

T703 (1857)

A mass of rocks or boulders appear on T703 N.E. of Pt. Dume. These are within the L.W. line on T4830.

Chart 5202

Several rocks close inshore are shown on this chart as discussed above under T703 and should be removed. T4830 supersedes all previous surveys, T703 and T1432a.

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.) ✓  
*No points for checking distortion shown*
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 IMs and DPs, 68.) *12 cards submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *None submitted*
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *Checking declination not noted*
18. The geographic datum of the sheet is *N.A. 1927 (Adjusted)* and the reference station is correctly noted. (Par. 34.) ✓
19. Junctions with contemporary surveys are adequate. ✓
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 *Chas. R. Bush Jr.* May 29, 1936

Examined and approved:

*E. H. Green*  
Chief, Section of Field Records

*L. O. Polk*  
Chief, Division of Charts

*Fred. R. Peacock*  
Chief, Section of Field Work

*G. H. Hilde*  
Chief, Division of Hyd. and Top.

## REVIEW OF TOPOGRAPHIC SURVEY No. 4831

Title (Par. 56) *Point Dume to Arroyo Sequit*Chief of Party *R.W. Knox* Surveyed by *J.C. Mathison* Inked by *D.L. Ackland*Ship *Launch + Shore Party* Instructions dated *Feb. 17, 1933* Surveyed in *May 13-18, 1933*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) *except that no marks for distances were established, nor were they submitted.*
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.) *there are no contours nor formlines on this survey. Contours are adequately shown on T-703 and other maps.*
5. ~~The delineation of contours-formlines is satisfactory.~~ (Par. 49, 50.)
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.) *(see TP 4-10) have 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.)
9. ✓ Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) *see back of page.*
10. ~~The span, draw and clearance of bridges are shown.~~ (Par. 16c.)
11. ✓ Locations and elevations of summits are given. (Par. 19, 51.)
12. ~~The tree line was shown on mountains.~~ (Par. 16g.)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.



P 9 Continued.

all rocks shown on T-703 (1857) have been disposed of in accordance with the principles set forth in "Instructions for Review of Hydrographic Surveys."

The chief of Party's statement regarding rocks on old surveys is general only. Several rocks had to be carried forward from T-703 and indicated in red on the new survey.

- ✓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 aere-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.) *altho received for other sheets in this vicinity, none have as yet been received for this survey. (Have been received 6/26/34-HWM)*
- ✓16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Duplicate filed with D.R. 4 H-5390*
- ✓17. The magnetic meridian was shown ~~and declination was checked.~~ (Par. 17, 52.) *No statement regarding declination was made.*
- ✓18. The geographic datum of the sheet is *N.A. (1927) Datum* and the reference station is correctly noted. (Par. 34.)
- ✓19. Junctions with contemporary surveys are adequate.
- ✓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 L.C. Mathison~~ *after review by R.W. Knox.*

24. Remarks: *The shorelines and features on this survey outside the high water line shall, with indicated addition, supersede all charting purposes previous survey for charting purposes.*

Reviewed in office by *Harold W. Murray* June 17, 1934

Examined and approved:

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

*L. O. Rollins*  
Chief, Division of Charts

*Fred. R. Peacock*  
Chief, Section of Field Work

*J. W. de*  
Chief, Division of Hyd. and Top.

## REVIEW OF TOPOGRAPHIC SURVEY No. 4832

Title (Par. 56) *Santa Monica Bay, California*Chief of Party *R.W. Knorr* Surveyed by *J.C. Mathison* Inked by *J.C. Mathison*Ship ——— Instructions dated *Feb. 17-1933* Surveyed in *April-June 1933*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) *no marks for distinction were established on this sheet. mm. 7/31/36*
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.) ✓ *The Chief of Party states that lines of equal elevation on this sheet should be closed as approximate contours. mm. 7/31/36*
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.) *10 U.S. Geological S. Quadrangle Sheets were submitted with suitable notations covering the seasons work*
7. High water line on ~~marshy and mangrove coast~~ is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓ *The H.W. line has been clearly defined, showing where the H.W. line and the Sea Wall line are the same in many places.*
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.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) *On T 702 rocks and small islets were hard to distinguish. Sheet T 4832 should supersede T 702 as T 4832 is much more in detail (see reverse side)*
10. ~~The span, draw and clearance of bridges are shown.~~ (Par. 16c.)
11. Locations and elevations of summits are given. (Par. 19, 51.) ✓
12. The tree line was shown on mountains. (Par. 16g.) *No tree line indicated at all*

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.

Paragraph 9

Sheet T702<sup>(1857)</sup> apparently generalized the rocks along this coast. Since most of the rocks are inshore and the topographer of T4832 had a copy of T702 with him for comparison, it is unlikely that the topographer of T4832 missed any rocks and so T4832 should supersede T702.<sup>(1857)</sup>

The retaining wall along nearly the entire extent of Sheet T4832 changes the character of the shore line in many places.

Several sunken rocks located hydrographically and shown on Chart 5202 are to be found on H5392 but are not transferred to T4832.

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.) ✓  
*No points for checking distortion shown*
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 IMs and DPs, 68.) *6 Cards Submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *None submitted*
17. The magnetic meridian was shown and declination was checked. ✓ (Par. 17, 52.)
18. The geographic datum of the sheet is *N.A. 1927 (Adjusted)* and the reference station is correctly noted. (Par. 34.)
19. Junctions with contemporary surveys are adequate. *The junction with T 4816 was not so good, and, where differences occurred, Sheet T 4832 was accepted. The junction on the East with T 4831 was satisfactory*
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 *Chas R. Bush Jr.* *May 18, 1936.*

Examined and approved:

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

*L. O. Solbert*  
Chief, Division of Charts

*Fred. L. Peacock*  
Chief, Section of Field Work

*G. H. Hude*  
Chief, Division of Hyd. and Top.