

5373

MAR 25 1935

Acc. No. _____

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Photo
Topographic

Sheet No. T-5373

~~Hydrographic~~

U. S. COAST & GEODETIC SURVEY
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Acc. No. _____

State CALIFORNIA

LOCALITY

SAN DIEGO HARBOR

1934

CHIEF OF PARTY

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

U. S. GOVERNMENT PRINTING OFFICE: 1934

5373

Applied to cht. 5107 E.M.A. Feb 1936

" " " 5101 May 1936 R.M.Z.

1941 revisions on celloid applied to cht. 5105, Dec. 1941, W.A.B.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No.

REGISTER NO. T-5373 5373

State CALIFORNIA

General locality SOUTHERN CALIFORNIA

Locality SAN DIEGO HARBOR

Scale 1:10,000 Date of photographs, December 22, 1933
survey and January 7, 1934

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

Chief of party Robert W. Knox

Surveyed by see data sheet of descriptive report

Inked by

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated April 14, 1932 and supplemental

Remarks: Compiled from aerial photographs Nos. 6 to 17, inc.
Nos. 87 to 107, inc., at a scale of 1:10,500 for
reproduction by the photo-lithographic process at a
scale of 1:10,000.

Applied & Oct 5:05 - July 1935 - J. S. Grumble

DATA SHEET

NO. T-5373

PORTION OF WORK	DONE BY	DATE COMPLETED
PROJECTION PLOTTED	<i>John C. Mathisson</i> J.C. Mathisson	May 17, 1934
PROJECTION CHECKED	<i>W. J. Mignola</i> W. J. Mignola	May 17, 1934
CONTROL PLOTTED	<i>S. B. Lane</i> S. B. Lane	May 21, 1934
CONTROL CHECKED	<i>D. L. Ackland</i> D. L. Ackland	May 22, 1934
RADIAL LINE PLOT	<i>S. B. Lane</i> S. B. Lane	May 29, 1934
RADIAL PLOT CHECKED	<i>John C. Mathisson</i> J. C. Mathisson	May 29, 1934
COMPILED IN PENCIL	<i>S. B. Lane</i> S. B. Lane	August 13, 1934
INKED	<i>W. J. Mignola</i> W. J. Mignola	August 16, 1934

STATISTICS

Area of Sheet: 16.3 square statute miles
 Length of Shore Line: 30.0 statute miles
 Length of Rivers and Sloughs: None

DESCRIPTIVE REPORT
PHOTO TOPOGRAPHIC SHEET NO. T-5373

SAN DIEGO HARBOR
CALIFORNIA

SCALE 1:10,500

PROJECT INFORMATION

For information which applies to the entire project see descriptive report for Sheet No. T-5371.

DESCRIPTION OF AREA

East of Atlantic Street, the City of San Diego slopes gradually upward to the north. At the south bank of the San Diego River, or Mission Valley, it drops abruptly into the bed of the river from an elevation of about three hundred feet. This drop is steep, and has been indicated on the sheet by the symbol for intermittent drainage.

Several canyons have been eroded in this table land, particularly along the west side north of Lindbergh^h Airport. These canyons have steep sides and their bottoms rise rapidly. They interfere with the regular layout of the streets of the city and have been shown on the sheet by the symbol for intermittent drainage.

Atlantic Street follows the bottom of the slope very closely. Between Atlantic Street and the

Navy Training Station the ground is low for the entire distance from San Diego Bay to Mission Bay. Dutch Flat, immediately south of the U.S. Marine Base is evidently an old mouth of the San Diego River, but that stream is now forced to flow into Mission Bay only by the levee shown on Sheet No. T-5374.

West of the Navy Training Station the ground rises to form the ridge of Point Loma, which reaches heights of about 400 feet. Point Loma Light (Old) is built on ground over 400 feet in elevation.

Dutch Flat is a low marshy area covered with grass which extends beyond high water line. This fact makes it very difficult to determine the exact location of the high water line, although the limits of the grass are evident from the pictures. *See also page 15.*

The west shore of Point Loma is high, steep bluffs, shown on the sheet by hachures. These bluffs extend around the point and up the east side as far as Ballast Point, but they are much lower and less prominent on the east side.

North Island is connected to the land to the south by the sand spit known as Silver Strand. It is a low and level piece of ground occupied by the Naval Air Station and Rockwell Field, the Army Air Station.

Coronado, just south of North Island, is a low and fairly level stretch of land, reaching an elevation of about 20 feet. It is a city, entirely separate from the City of San Diego. Coronado and North Island are the only places on this sheet not included within the City Limits of San Diego.

The southern part of Point Loma is a U.S. Reservation which includes Fort Rosecrans, U.S. Navy Radio Station, U.S. Navy Reserve Fuel Depot, and the U.S. Quarantine Station. Reservation boundary lines have been shown on the sheet. The fuel oil tanks at the U.S. Navy Reserve Fuel Depot were shown on previous editions of charts of this area, but have been omitted from this compilation at the request of the Admiral in command of the 11th Naval District here. One new oil tank has been completed since the photographs were taken.

An automobile and passenger ferry service is maintained between the north end of Orange Avenue, Coronado and the south end of Atlantic Street, San Diego. The ferry slips and the approximate route of the ferry have been shown on the sheet.

A passenger ferry service is also maintained between the Navy dock at North Island and a float just south of Broadway Pier, San Diego. This ferry is operated by a private owner and uses only small boats.

The surface of Point Loma has been eroded throughout its entire area. This has resulted in a series of short canyons with fairly steep sides, but they have been shown by the symbol for intermittent drainage rather than by hachures, except where the walls are cut-banks, as it was believed to be advisable to reserve the use of hachures for the very distinctive bluff formation along the west side.

The letters "U S N" in grass on the steep slope back of the U.S.Navy Reserve Fuel Depot are a very prominent feature of the landscape and are visible from a great part of the harbor. They have been shown on the sheet, drawn to scale.

In accordance with instructions, all batteries and other features on military importance, including the roads to the batteries, have been omitted from the Fort Rosecrans area. The navy fuel oil tanks and reserve piles of coal have been treated in the same way.

A cable for fire control purposes extends from the dock north of Ballast Point to the old dock on Zuninga Point. Signs designate this as a cable crossing area. It is believed that this should be shown as a cable crossing area on all charts, and it has been so shown on this sheet. The Commanding Officer of Fort Rosecrans states that he believes it should be shown.

As this lettering permanent?

The long jetty which extends south from Muninga Point is low. The outer half, shown dotted on the sheet, is submerged at high water.

At the foot of McCall Street in La Playa, about 40 meters out from the high water line, there is an abandoned power pole with a dilapidated wooden platform around it a few feet above high water. A second pole a short distance outside of the first is guyed to it. These poles are only a few feet apart and have been shown on the sheet by a single dot. *and lateral Piling*

The dock on the channel side of Muninga Point was built for the military at Fort Rosecrans. It is no longer in use and is in a very poor condition, so it has been shown dotted on the sheet.

An 18 inch sewer empties into the bay from the northeast end of Alameda Street, Coronado. Two prominent pipe line signs are displayed on piles. These signs have been shown on the sheet by squares.

There is very little cultivation in the area shown on this sheet. It is all thickly settled, with the exceptions of the military and naval reservations.

The water front immediately south of Lindbergh Field, San Diego, is occupied by several fish canning plants, small docks for the accomodation of fishing boats, and two marine railways.

The end of the jetty on the west, or channel, side of Muninga Point is not definite in the photographs. It was determined by a field inspection.

A cast-iron water main crosses Spanish Bight a short distance west of the railway and highway bridge. This pipe line is supported on light pile bents. A siphon has been installed to provide for the passage of small boats into and out of Spanish Bight.?

The system of rectangular co-ordinates established by the U.S. Engineers has been shown on this sheet. The origin of this system is the former U.S. C. & G. Survey Station OLD TOWN, now destroyed. *Geographic Position given on the compilation under The Title Box.*

The three buoys and two beacons just north and northwest of Municipal Pier No. 1 in San Diego were located by sextant three-point fixes. These buoys and beacons are privately maintained by the fishing interests to mark the channel to the piers of the fish canning plants located about half a mile north of Pier No. 1. *See review at back.*

Only those buoys which are maintained by private interests have been shown on this sheet. *See review at back*

A radio range station located on the reservation of the U.S. Marine Base, north of Lindberg Field, has been shown on this sheet. This station is operated by the U.S. Dept. of Commerce, Air Navigation Division.

PHOTOGRAPHS

The area of this sheet is covered by the following photographs:

PHOTOGRAPHS	DATE SECURED	TIME
Nos. 6 to 17, inc.	Dec. 22, 1933	11:12-11:16, A.M.
Nos. 87 to 92, inc.	Dec. 22, 1933	11:38-11:40 A.M.
Nos. 93 to 96, inc.	Jan. 7, 1934	Not available
Nos. 97 to 107, inc.	Dec. 22, 1933	11:42-11:50 A.M.

The tide at the time of the photographs was about 4 feet above MLLW.

CONTROL

The control for the compilation of this sheet was executed by Charles Pierce in 1933. This control was supplemented by theodolite three-point fixes executed by the compilation party in 1934. *All on 1927 N.A. Datum unadjusted.*

There is appended hereto a list of the triangulation stations and three-point fixes used in the compilation, giving the plotting distances used for the scale of 1:10,500.

In several cases the names of the intersected stations as given by the triangulation party have been shortened to facilitate attaching them to the sheet. Where such designations are found in error, recovery cards have been prepared giving the correct description.

COMPILATION

The usual radial line method was used in the compilation of this sheet.

No adjustments were made in the radial plot as there was sufficient control to fix the photographs.

INTERPRETATION OF PHOTOGRAPHS

In general, the detail shown on the photographs was found to be sufficiently clear and definite, with the exceptions noted below.

The flight up Point Loma was centered so far back from the bluffs that it was impossible to accurately determine the location of the high water line without additional work in the field.

The north part of North Island, including the buildings and docks at the U.S. Naval Air Station, was shown only on wing prints. There is a great deal of detail along the water front in this section, and it would have been much easier to show it accurately from

the photographs alone if it had been on or near a "B" print. As it happened, other sources of information on this particular area were available, and were used in the compilation. See subsequent paragraph of this report.

The location of Point Loma Light, (New) from the photographs alone was peculiarly difficult because the light is on a structural steel tower instead of a solid shaft. This structural steel tower is very hard to identify in the pictures due to its lack of solid body. *Probably means difficult to use as a control station for the plot. The light was located by Triangulation, Pierce 1933.*

The low water line along the ocean shore south of Zuninga Point was determined from the photographs supplemented by a careful field inspection. The beach in this vicinity is distinctly "washboarded" and is so shown.

It was found impossible to locate the low water line inside San Diego Bay from the photographs. There are extensive areas of mud flats along the north shore between Fishermans Point and Lindberg Field, San Diego, and in Spanish Bight, and Whalers Bight. The low water line in these places has, therefore, been omitted.

The location of the docks on the San Diego waterfront south of Municipal Pier No. 1 would have been simplified if they had appeared on "B" prints.

INFORMATION FROM OTHER SOURCES

The high water line along the ocean shore of Point Loma and along the eastern side as far north as Ballast Point was obscured in many places by the top of the bluffs. This was due to the center of the photographs being so far back from the shore line. Many outlying rocks were concealed by breakers in the photographs. Plane table surveys were therefore run in this vicinity, converted photographically to a scale of 1:10,500, and used for the location of both high and low water lines and outlying rocks. See Topo Sheet Field No. "K"

Military and Naval Reservation boundary lines were plotted on the sheet from information furnished by the Public Works Office, 11th Naval District Headquarters.

Buildings at U.S. Marine Base, U.S. Naval Training Station, U.S. Navy Reserve Fuel Depot, U.S. Navy Radio Station, North Island, and the U.S. Naval Hospital were plotted as far as possible from the photographs and checked from maps furnished by the Public Works Office, 11th Naval District Headquarters.

At the Naval Air Field, North Island, there has been considerable construction work since the date of the photographs. Two berthing platforms have been added to the south end of the pier, and one to the north end. This work is well under way, and is therefore shown on

the sheet as completed. A power house with a prominent stack was under construction at the time of the photographs. It has been completed. A large building has been completed since the date of the photographs on the east side of the island about midway between the pier and the bridge to Coronado, and a short distance back from the shore line. Seven new hangars are now in process of construction along the north shore of the island.

All the above buildings have either been completed or the contract has been let and the work is in progress. For this reason they have been shown as complete on the sheet. They were located from information secured from the Public Works Office, 11th Naval District Headquarters.

Information secured at the U.S. Quarantine Station indicates that the outer end of the quarantine pier is to be demolished at an early date and the buildings on that portion moved to new locations on shore. As this work has not yet been advertised for bids, the dock is shown as it exists at present. This proposed demolition will result in the destruction of the light on the northeast corner of the pier, an intersected station in the triangulation system of Charles Pierce in 1933.

The length of the short jetty on the east side of the channel at Zuninga Point was determined by field inspection. The outer end of the partly submerged jetty

which extends south from Zuninga Point was determined in the same way.

The slips for the San Diego and Coronado Ferry at the north end of Orange Avenue, Coronado and the south end of Atlantic Street, San Diego, were located from the photographs, supplemented and checked by drawings of the slips furnished by the San Diego and Coronado Ferry Company, and verified by sextant three-point fixes.

Tracks of the Atchison Topeka and Santa Fe Ry. and the San Diego and Arizona Eastern Ry. were plotted from the photographs and carefully checked with drawings furnished by the Chief Engineers of the railways concerned.

Scattered piles in various places were located by field inspection and plotted on the sheet.

A small island off the San Diego shore just south of the San Diego Rowing Club pier and near the southern neat line of the sheet has been constructed since the date of the photographs. This island, together with the many scattered piles in the vicinity, was located by the topographic party on Topo Sheet Field Letter "M", which was used to locate the island and the piles on the celluloid sheet.

A new pier near the foot of Market St. San Diego, has been built since the date of the photographs.

This pier provides access to an old ferry boat which has been permanently moored and is used as a dance hall. It was located by the topographic party on Topographic Sheet Field Letter "H", 1934

Two piles south of the pier and a short distance from shore at the Navy Fuel Depot were located by field inspection.

The pier of the San Diego Yacht Club, just south of Fisherman Point, has been extended since the date of the photographs and a club house built at the end. This extension was taped in the field by the compilation party. The location of the flagpole was not changed by this work. This flagpole was located as an intersected station by Charles Pierce in 1933. The beginning of this work can be detected in the photographs of December 22, 1933 and definite progress is evident in the photographs of January 7, 1934.

The yacht club race course is marked by ten piles. These piles were located by sextant observations.

The sunken barge south of the south point of Lindberg Field was located by field inspection.

The two beacons and three buoys north of Municipal Pier No. 1 were located by sextant observations.
See notes at lock

The isolated piles in the area between Fishermen Wharf and the south neat line of the sheet

were located by the topographic party on Topo Sheet Field Letter "M", 1934 and transferred to the celluloid sheet by scaled DMs and DPs, corrected for the difference in scale.

The location of the piers along the San Diego waterfront and on North Island were verified by sextant three-point fixes.

The junctions of this sheet with Sheet No.T-5372 to the south and with Sheet No.T-5374 to the north were checked and found to be satisfactory.

CONFLICTING NAMES

Point Loma Light (Old) is frequently referred to locally as the "Old Spanish Light," and is so shown on some local maps. As this light was built by the United States after this territory was acquired from Mexico, the term "Old Spanish Light" is obviously in error. For this reason the designation "Point Loma Light (Old)" has been retained and is used on this sheet.

Names on this compilation agree with the parent charts.

COMPARISON WITH OTHER SURVEYS

This sheet has been compared with the current editions of Charts Nos. 5105 and 5107. This comparison was somewhat complicated by the differences in scale

between this sheet and that of either of the present charts of the area.

Differences were noted in the location of the high water line at the entrance to Whalers Bight and at Dutch Flat. The location of the high water line as shown on this sheet was verified by a careful field inspection of both localities. A small island shown on the chart a short distance east of the Marine Base was carefully checked in the field. It is a grass covered patch with only the top of the grass above water at high tide.

Several recent fills about San Diego Bay do not appear on the present charts. The fill at Lindberg Field has been extended in a northwesterly direction. A fill has been made on the San Diego waterfront from the foot of "E" street to a point a short distance south of the south line of Market Street. Two fills, the result of recent dredging operations, appear along the north shore of North Island. Two long, narrow sand islands, apparently the result of dredging operations, appear in the mouth of Spanish Bight. All these fills are shown on this sheet and should be added to the charts involved.

The present editions of charts of this area show an island on the north shore of San Diego Bay at Lat. 32 - 42.8', Long. 117 - 14.1'. The channel separating this island from the main land has been filled, as shown on this sheet. Charts should be revised accordingly.

Two fuel oil tanks at the U.S. Navy Fuel Depot

on Point Loma are shown on the present editions of charts. They have been omitted from this sheet at the request of Rear Admiral W. T. Tarrent, U.S. Navy, Commanding the 11th Naval District. Admiral Tarrent objects to showing these tanks as it gives the exact location of the reserve fuel oil supply of the navy.

Piers shown on the present charts at the positions listed below no longer exist and should be deleted: Two small piers in the cove north of Ballast Point, Lat. 32 - 41.1', Long. 117 - 14.3', and Lat. 32 - 41.2', Long. 117 - 14.5'. Small pier at Lat. 32 - 41.9', Long. 117 - 10.2'. Small pier at Lat. 32 - 42.1, Long. 117 - 10.7'. Small pier at Lat. 32 - 41.9', Long. 117 - 11.7'. The first pier west of the Ferry Pier in San Diego has been demolished and should be removed from the present charts. The piles of this pier have been left in place and are shown on this sheet.

Many of the small piers along the west shore of San Diego Bay between La Playa and the U.S. Naval Training Station have been changed since the date of the charts. They are correctly shown on this sheet. Charts should be revised accordingly.

The pier of the Portola Sardine Co. at Fisherman Point has been extended. Present charts should be amended accordingly. It is correctly shown on this sheet.

A short pier, not shown on the present charts, is located at Lat. 32 - 44.4', Long. 117 - 12.4'. It is shown on this sheet.

Two small piers at Lat. 32 - 44.2', Long. 117 - 11.7' should be added to the present charts.

The piers along the shore just south of Lindbergh Field have been changed materially. That are correctly shown on this sheet and should be amended on the charts.

Fishermens Wharf is shown "dilapidated" on the present editions of charts. This wharf is now in good condition. Charts should be amended accordingly.

The pier shown at Lat. 32 - 42.5', Long. 117 - 10.0' is a lumber dock. It should be shown on all charts of the harbor.

There is a new pier, as shown, at Lat. 32 - 42.2' Long. 117 - 11.5'. This should be shown on charts of this area.

There is a building on piles a short distance offshore at Lat. 32 - 42.8', Long. 117 - 11.4'. This shown and marked "Floodlights" on Chart No. 5107, but has been omitted from Chart No. 5105. It is believed that it should be shown on Chart No. 5105.

LANDMARKS

List of landmarks on Form No. 567 has been submitted to cover the entire project. Copy of this list is attached to the descriptive report for Sheet Register No. 5371.

The present edition of Chart No. 5107 shows three lighted radio towers as landmarks, at Rockwell Field on North Island. These three towers have been demolished and replaced by two towers in slightly different positions. These two new towers were located by the triangulation party under Charles Pierce in 1933.

The three towers shown on the chart should be deleted and the two present towers shown. The present towers are lighted at night.

A steel arch bridge carries First Street, San Diego, across a canyon just north of Nutmeg Street. This bridge is prominent from the harbor and is therefore suitable for use as a landmark.

Firebreaks have been cleared along the boundary lines between the Naval and Military reservations on Point Loma. These firebreaks are very prominent from points in the harbor and will, therefore, be suitable for designation as landmarks, particularly the east and west firebreak along the south boundary of the Naval reservation.

The boundry line is shown but the fire breaks referred to were not shown on the compilation.

Bgg.

The letters "USN" done in grass on the steep slope back of the U.S. Navy Fuel Depot on Point Loma are also a very prominent mark from points in the harbor. These letters have been carefully located on the sheet and are shown to scale. It is believed that they are suitable for use as a landmark.

Present editions of charts show a spire back of Fisherman Point as a landmark. This spire has been demolished and should therefore be deleted from the charts.

Certain prominent points, in addition to the landmarks reported, have been selected with a view to their use as plane table points for future surveys. Three such points have been selected and shown on the sheet: Spire on Church at Beech Street and Third Avenue, San Diego, East Water Tank on 11th Naval District Headquarters Building, Broadway and Harbor Street, San Diego, and the concrete chimney of the power house at North Island. All of these points have been described on Form No. 524. Their positions were scaled from this sheet, except the chimney of the power house on North Island which was scaled from Topo Sheet Field Letter "M", 1934.

RECOMMENDATIONS 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 below.*

To prove the compilation several points were plotted from the U.S. Engineers list of rectangular co-ordinates after the grid was in place on the sheet. These points checked the compilation within the above specified limits.

LETTERING

As far as possible lettering was done by attaching to the sheet the printed names furnished by the office. The names of topographic features for which no printed names were furnished have been shown on the name cover sheet. The names of three-point fixes are shown on the name cover sheet, and if a picture reference point other than the instrument set-up was used, it is so noted.

A line has been drawn through each name on the cover sheet when that name has been attached to

The value of 2 to 4 meters given above is a little high for all detail. The compilation has dense control and has been carefully plotted. The accuracy of location might better be expressed as from 2 to 4 meters for intersected points and well defined detail - and 2 to 8 meters for stream lines, wharves and less well defined detail.
B.A. Jones

the sheet. It is respectfully requested that names be provided and attached in the office for all names not so ruled out on the cover name sheet.

Respectfully submitted


S.B. Lane
Compiler

Approved


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

TABLE OF CONTROL

TRIANGULATION STATION	POSITION	DMs & DPs METERS		PLOTTED DISTANCE SCALE 1:10,500	
Administration	Lat. 32° - 42' Long. 117° - 11'	1238.0 857.1	(610.2) (705.5)	1179.1 816.3	(581.2) (671.9)
Battery	Lat. 32° - 41' Long. 117° - 12'	721.4 202.9	(1126.9) (1360.1)	687.0 193.2	(1073.2) (1295.3)
El Cortez	Lat. 32° - 43' Long. 117° - 09'	404.0 656.7	(1444.2) (905.8)	384.8 625.4	(1375.4) (862.7)
Fisherman	Lat. 32° - 43' Long. 117° - 13'	313.3 1262.5	(1535.0) (300.2)	298.3 1202.4	(1461.9) (285.9)
Lindberg	Lat. 32° - 43' Long. 117° - 11'	1365.2 42.0	(483.1) (1520.3)	1300.2 40.0	(460.1) (1447.9)
Marine	Lat. 32° - 44' Long. 117° - 12'	403.5 151.5	(1444.8) (1410.8)	384.2 144.2	(1376.0) (1343.6)
Miller	Lat. 32° - 44' Long. 117° - 11'	1638.0 576.5	(210.3) (985.6)	1560.0 549.0	(200.2) (938.6)
Reserve	Lat. 32° - 41' Long. 117° - 15'	981.1 144.9	(867.2) (1418.0)	934.3 138.0	(825.9) (1350.4)
Road 2	Lat. 32° - 40' Long. 117° - 14'	1393.8 352.0	(454.5) (1211.2)	1327.4 335.3	(432.8) (1153.5)
Rockwell	Lat. 32° - 41' Long. 117° - 13'	1707.0 448.7	(141.2) (1114.2)	1625.7 427.3	(134.5) (1061.1)
Spanish	Lat. 32° - 42' Long. 117° - 10'	115.9 777.4	(1732.4) (785.5)	110.4 740.3	(1649.9) (748.1)
Stockton	Lat. 32° - 45' Long. 117° - 11'	783.5 929.1	(1064.8) (632.8)	746.2 884.8	(1014.1) (602.7)
Ballast Point Light House	Lat. 32° - 41' Long. 117° - 13'	317.1 1479.4	(1531.2) (83.7)	301.9 1408.9	(1458.2) (79.7)
Bluff	Lat. 32° - 40' Long. 117° - 14'	534.8 205.9	(1313.4) (1357.5)	509.3 196.1	(1250.9) (1292.8)
Cemetery Bluff	Lat. 32° - 41' Long. 117° - 14'	725.4 1139.4	(1122.9) (423.6)	690.9 1085.2	(1069.5) (403.3)
East Radio Mast U.S. Navy	Lat. 32° - 42' Long. 117° - 14'	756.7 1188.9	(1091.5) (373.9)	720.7 1132.2	(1039.6) (356.1)

TABLE OF CONTROL (continued)

TRIANGULATION STATION	POSITION	DMS & DPs METERS		PLOTTED DISTANCES SCALE 1:10,500	
Exposition Tower	Lat. 32° - 43' Long. 117° - 09'	1654.3 126.1	(194.0) (1436.2)	1575.5 120.1	(184.7) (1367.8)
Mid	Lat. 32° - 42' Long. 117° - 14'	266.3 1444.6	(1581.9) (118.1)	253.6 1375.8	(1506.6) (112.4)
North	Lat. 32° - 42' Long. 117° - 11'	1498.0 1233.4	(350.2) (329.2)	1426.7 1174.6	(333.5) (313.5)
Point Loma Light House (New)	Lat. 32° - 39' Long. 117° - 14'	1665.2 793.1	(183.0) (770.4)	1585.9 755.3	(174.3) (733.7)
Point Loma Light House (Old)	Lat. 32° - 40' Long. 117° - 14'	583.4 633.3	(1264.9) (-930.0)	555.6 603.1	(1204.7) (885.7)
Pole,	Lat. 32° - 41' Long. 117° - 14'	1004.7 508.7	(843.6) (1054.3)	956.8 484.4	(803.4) (1004.1)
Quarantine Light	Lat. 32° - 42' Long. 117° - 14'	309.5 85.0	(1538.7) (1477.8)	294.8 80.9	(1465.4) (1407.4)
Theosophical Dome	Lat. 32° - 43' Long. 117° - 14'	250.6 1456.7	(1597.6) (105.7)	238.7 1387.3	(1521.6) (100.6)
Water Tank	Lat. 32° - 42' Long. 117° - 14'	864.6 1409.1	(983.7) (153.6)	823.4 1342.0	(936.8) (146.3)
West Radio Mast	Lat. 32° - 42' Long. 117° - 14'	828.8 1366.2	(1019.5) (196.5)	789.3 1301.1	(970.9) (187.1)
Front Range Light	Lat. 32° - 41' Long. 117° - 13'	949.9 1013.8	(898.3) (549.2)	904.7 965.5	(855.6) (523.4)
Beacon No. 1	Lat. 32° - 42' Long. 117° - 13'	651.0 1453.6	(1197.2) (109.2)	620.0 1384.3	(1140.2) (104.0)
Beacon No. 2	Lat. 32° - 42' Long. 117° - 13'	346.0 1043.7	(1502.3) (519.1)	329.5 994.0	(1430.7) (494.4)
Beacon No. 3	Lat. 32° - 42' Long. 117° - 13'	1654.4 561.4	(193.8) (1001.2)	1575.6 534.6	(184.6) (953.5)
Beacon No. 4	Lat. 32° - 42' Long. 117° - 13'	1172.7 253.8	(675.6) (1308.8)	1116.8 241.7	(643.4) (1246.5)
Beacon No. 5	Lat. 32° - 43' Long. 117° - 12'	473.7 1028.7	(1374.5) (533.8)	451.2 979.7	(1309.1) (508.4)

TABLE OF CONTROL (continued)

TRIANGULATION STATION	POSITION	DMs & DPs	METERS	PLOTTED DISTANCE SCALE 1:10,500	
Beacon No. 6	Lat. 32° - 42' Long. 117° - 12'	1643.1 991.7	(205.2) (570.8)	1564.8 944.5	(195.4) (543.7)
Beacon No. 7	Lat. 32° - 43' Long. 117° - 11'	333.5 496.4	(154.8) (106.1)	317.6 472.8	(144.7) (1015.3)
Beacon No. 8	Lat. 32° - 42' Long. 117° - 11'	1755.4 241.7	(92.9) (1320.8)	1671.7 230.2	(88.4) (1257.9)
White Tower, Marston Museum	Lat. 32° - 45' Long. 117° - 11'	1077.0 867.3	(771.3) (694.5)	1025.7 826.0	(734.6) (661.4)
Flag Pole, U.S.N. Train'g. Station	Lat. 32° - 44' Long. 117° - 12'	943.7 875.9	(904.7) (686.2)	898.7 834.2	(861.6) (653.4)
Cupola, U.S.N. Train'g. Station	Lat. 32° - 44' Long. 117° - 12'	783.6 1016.8	(1064.7) (545.4)	746.3 968.3	(1014.0) (519.4)
Flag Pole, U.S. Marine Barracks	Lat. 32° - 44' Long. 117° - 11'	980.4 1254.1	(867.9) (308.0)	933.7 1194.4	(826.6) (293.4)
Stack, U.S. Marine Base	Lat. 32° - 44' Long. 117° - 11'	1235.8 1223.1	(612.5) (339.0)	1177.0 1164.8	(583.3) (322.9)
Chimney, Amer. Agar Co.	Lat. 32° - 44' Long. 117° - 10'	915.3 1524.8	(933.0) (37.3)	871.7 1452.2	(888.6) (35.6)
Silver Stack Palomar Ldry.	Lat. 32° - 44' Long. 117° - 10'	1007.6 1272.4	(840.7) (289.7)	959.6 1211.8	(800.7) (275.9)
North Stack of 7, S.D.G. & E. Co.	Lat. 32° - 42' Long. 117° - 10'	1670.8 196.7	(177.5) (1365.8)	1591.2 187.3	(169.0) (1300.8)
Cupola, Adm. Bldg. Lindbg. Airport	Lat. 32° - 43' Long. 117° - 10'	1791.4 807.9	(56.9) (754.4)	1706.1 769.4	(54.2) (718.4)
Flag Pole, Yellow Stucco School	Lat. 32° - 43' Long. 117° - 09'	860.2 1471.4	(988.0) (91.0)	819.3 1401.4	(941.0) (86.6)
Tower, Bekins Stg. Warehouse.	Lat. 32° - 43' Long. 117° - 10'	144.8 193.1	(1703.4) (1369.5)	137.9 183.9	(1622.3) (1304.3)
Flag Pole, Medico- Dental Bldg.	Lat. 32° - 43' Long. 117° - 09'	211.0 1067.3	(1637.3) (495.3)	200.9 1016.4	(1559.3) (471.7)

TABLE OF CONTROL (continued)

TRIANGULATION STATION	POSITION	DMs & DPs	METERS	PLOTTED DISTANCE SCALE 1:10,500	
Stack, U.S. Naval Hospital	Lat. 32° - 43' Long. 117° - 08'	862.6 1202.2	(985.7) (360.2)	821.5 1145.0	(938.7) (343.0)
West Tower Santa Fe Depot	Lat. 32° - 42' Long. 117° - 10'	1810.3 200.7	(37.9) (1361.8)	1724.1 191.1	(36.1) (1297.0)
Light on Broadway Pier	Lat. 32° - 42' Long. 117° - 10'	1736.3 848.6	(111.5) (713.9)	1654.1 808.2	(106.1) (679.9)
West Tank, 11th Naval Dist. Hdqrs.	Lat. 32° - 42' Long. 117° - 10'	1695.0 481.3	(153.2) (1081.2)	1614.3 458.4	(145.9) (1029.7)
Statue on Courthouse	Lat. 32° - 42' Long. 117° - 09'	1786.2 1341.4	(62.0) (221.2)	1701.0 1277.5	(59.1) (210.6)
West Radio Tower Pickwick Hotel	Lat. 32° - 42' Long. 117° - 09'	1763.5 1280.1	(84.8) (282.4)	1679.5 1219.2	(80.7) (269.0)
East Radio Tower Pickwick Hotel	Lat. 32° - 42' Long. 117° - 09'	1763.7 1232.1	(84.5) (330.5)	1679.7 1173.4	(80.5) (314.7)
West Radio Tower U.S. Grant Hotel	Lat. 32° - 42' Long. 117° - 09'	1789.5 1024.2	(58.7) (538.3)	1704.3 975.5	(55.9) (512.7)
East Radio Tower U.S. Grant Hotel	Lat. 32° - 42' Long. 117° - 09'	1789.9 975.4	(58.3) (587.1)	1704.7 929.0	(55.5) (559.1)
Lindberg Beacon S.D.T. & S. Bldg.	Lat. 32° - 42' Long. 117° - 09'	1756.0 812.8	(92.2) (749.7)	1672.4 774.1	(87.8) (714.0)
Cupola, Bank of Amer. Bldg.	Lat. 32° - 42' Long. 117° - 09'	1710.0 743.2	(138.3) (819.4)	1628.6 707.8	(131.6) (780.3)
Light Pole North End Navy Hangar	Lat. 32° - 42' Long. 117° - 11'	961.1 953.2	(887.1) (609.5)	915.4 907.8	(844.9) (580.5)
Light Pole SE end U.S. Navy Pier	Lat. 32° - 42' Long. 117° - 11'	1299.1 367.0	(549.1) (1195.6)	1237.3 349.5	(523.0) (1138.7)
Flag Pole, Rookwell Field	Lat. 32° - 41' Long. 117° - 11'	1819.7 1388.8	(28.6) (174.1)	1733.0 1322.6	(27.2) (165.8)
Stack, Portola Sardine Factory	Lat. 32° - 43' Long. 117° - 13'	411.7 1089.5	(1436.5) (473.0)	392.1 1037.6	(1368.1) (450.4)
Flag Pole, S.D. Yacht Club	Lat. 32° - 43' Long. 117° - 13'	163.9 1119.6	(1684.4) (442.9)	156.1 1066.3	(1604.2) (421.8)

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TABLE OF CONTROL (continued)

TRIANGULATION STATION	POSITION	DMS & Dps	METERS	PLOTTED DISTANCE SCALE 1:10,500	
Flag Pole, U.S. Quarantine Sta.	Lat. 32° - 42' Long. 117° - 14'	399.8 277.2	(1148.5) (1285.6)	380.7 264.0	(1379.5) (1224.4)
Bennington Monument	Lat. 32° - 41' Long. 117° - 14'	724.6 958.7	(1123.6) (604.3)	690.1 913.0	(1070.1) (575.5)
West Radio Tower U.S. Army	Lat. 32° - 40' Long. 117° - 14'	733.1 723.4	(1115.2) (839.9)	698.2 689.0	(1062.1) (799.9)
East Radio Tower U.S. Army	Lat. 32° - 40' Long. 117° - 14'	700.4 672.0	(1147.9) (891.3)	667.1 640.0	(1093.2) (848.9)
Tide Well Pipe Breakwater	Lat. 32° - 40' Long. 117° - 13'	1383.8 590.1	(464.4) (973.1)	1317.9 562.0	(442.3) (926.7)
Wooden Tower at Spanish Bight	Lat. 32° - 41' Long. 117° - 11'	694.4 1476.2	(1153.8) (86.8)	661.3 1405.9	(1098.9) (82.7)
North Radio Tower Rockwell Field	Lat. 32° - 41' Long. 117° - 11'	1723.4 1183.8	(124.9) (379.0)	1641.3 1127.4	(118.9) (361.0)
South Radio Tower Rockwell Field	Lat. 32° - 41' Long. 117° - 11'	1601.4 1183.2	(246.8) (379.7)	1525.2 1126.9	(235.1) (361.6)
Chimney, Ft. Loma High School	Lat. 32° - 44' Long. 117° - 13'	724.8 733.3	(1123.5) (828.9)	690.3 698.4	(1070.0) (789.4)
Flag pole, Fort Rosecrans	Lat. 32° - 41' Long. 117° - 14'	68.8 480.6	(1779.5) (1082.5)	65.5 457.7	(1694.8) (1030.9)
Flag Pole El Cortez Hotel	Lat. 32° - 43' Long. 117° - 09'	396.0 659.7	(1452.2) (902.8)	377.2 628.3	(1383.1) (859.8)

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POINT FIXES

*	Whaler	Lat. 32° - 41' Long. 117° - 13'	1229.8 697.1	(618.5) (865.8)	1171.2 663.9	(589.0) (824.6)
	Magazine 213	Lat. 32° - 42' Long. 117° - 12'	432.9 1467.5	(1415.4) (95.2)	412.3 1397.6	(1348.0) (90.7)

* Described on Form 524 filed under
Survey T 5373

T-5373

TABLE OF CONTROL (continued)

TRIANGULATION STATION	POSITION	DMS & DPs METERS	PLOTTED DISTANCE SCALE 1:10,500
* Torpedo Range No. 2 Beacon	Lat. 32° - 41' Long. 117° - 11'	640.3 (1207.9) 1181.9 (381.1)	609.8 (1150.4) 1125.6 (363.0)

PLANE TABLE POSITIONS

Positions scaled from this sheet

* {	U.S. Navy Stack	Lat. 32° - 42' Long. 117° - 11'	1375.1 (473.2) 784.8 (777.8)	1309.6 (450.7) 747.4 (740.8)
	East Tank	Lat. 32° - 42' Long. 117° - 10'	1696.0 (152.2) 441.5 (1121.0)	1615.2 (145.0) 420.5 (1067.6)
	Church Spire	Lat. 32° - 43' Long. 117° - 09'	480.4 (1367.8) 1026.6 (536.0)	457.5 (1302.7) 977.7 (510.5)

* Described on Form 524, filed under
Survey No. T 5373

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T-5373

Title (Par. 56) SAN DIEGO HARBOR

Chief of Party Robert W. Knox

Compiled by S.B. Lane

Project HT 102

Instructions dated

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.)
Yes
2. The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
Except as noted in descriptive report
3. The control and adjustment of the radial plot were adequate. (Par. 12, 29.)
Control adequate. No adjustment necessary
4. There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.)
No maps are transmitted with the sheet
5. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
Yes
6. 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.)
7. Important details shown on previous surveys and on the chart have been compared with this sheet and a statement has been entered in the report regarding the removal from the chart or change in position of important detail such as rocks, lights, beacons, prominent objects, bridges, docks, and structures along the water front.
Yes
8. The span, draw and clearance of bridges are shown. (Par. 16c.)
There are no bridges on this sheet *over navigable waters*
9. The data furnished by the Field Inspection is adequate.

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.

- ✓10. The descriptive report covers all details listed in the Manual, so far as they apply to this survey. (Par. 64, 65 and 66.)

Yes

- ✓11. The descriptive report also contains all additional information required in photo topography as prescribed in the instructions and in the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".

Yes

- ✓12. The descriptions of recoverable stations and references to shore line were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.)

Yes

- ✓13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.) *List is contained in report T 5371 for landmarks to be shown. See pages 18 and 19 of this report for discussion of landmarks to be changed or deleted.*

- ✓14. The geographic datum of the sheet is N.A. 1927 *unadjusted* and the reference station is correctly noted. (Par. 34.)

- ✓15. Junctions with contemporary surveys are adequate.

Yes

- ✓16. Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.) *Names are in agreement with the chart.*

Yes

17. The quality of the drafting is *very good.* (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.)

18. No additional surveying is recommended. *Information shown on the compilation and given in the report is very complete*

19. Remarks:

20. Examined and approved:

Robert W. Knox
Robert W. Knox

Chief of Party

21. Remarks after review in office: *This compilation is well controlled and has been carefully compiled.*

Reviewed in office by: *B.G. Jones*

Examined and approved:

K.T. Adams
~~First Chief, Section of Field Records~~
~~Division of Charts~~
L.O. Adams
Chief, Division of Charts

H.S. Borden
Chief, Section of Field Work
G. Thude
Chief, Division of
Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION T 5373 (1934)

Comparison with Other Surveys and with the Charts:

This compilation has been compared in detail with charts 5107 (scale 1:20,000) and 5105 (scale 1:10,000) by the field party and during the office review. Only a general comparison has been made with the old topographic surveys in this area as detail from those surveys is shown on the large scale charts mentioned above. Changes to be made in the information shown on the present charts are discussed in the descriptive report except as noted in the following paragraphs.

At Latitude $32^{\circ} 41.5'$, Longitude $117^{\circ} 15.2'$ chart 5107 shows two small rock islands with foul ground extending from the islands to shore. These have been carried forward on the chart from plane table survey T 333, (1851). They are not shown on the compilation and are not mentioned in the report. This has been taken up with the field party and the existence of these rocks will be checked and reported on in making the hydrographic surveys in this area. The new hydrographic and plane table surveys are not yet in the office but the compilation has been compared with and supplemented by the plane table surveys as stated in the report.

Landmarks: *See next page.*

The list of landmarks recommended for charting in this area is contained in descriptive report T 5371 (1934). Pages 18 and 19 of the preceding descriptive report T 5373 discuss landmarks on the present charts which should be changed or deleted.

Rocks:

Two rocks shown at approximate Latitude $32^{\circ} 40'$ (927 m), Longitude $117^{\circ} 14'$ (205 m) and Latitude $32^{\circ} 40'$ (487 m), Longitude $117^{\circ} 14'$ (150 m) were listed as bare one foot at low tide and bare two feet at low tide respectively. The elevations are not shown on the printed compilation as the datum plane is not consistent with M. L. L. W. plane shown for other rocks.

Buoys:

The positions of ³ buoys mentioned on pages 6 and 13 of the report are as follows, as scaled from the celluloid by *B.G. Jones* and checked by *Vaucher L.V.*. These are not shown on the compilation as it is not intended to maintain correct positions of buoys which are frequently changed.

Buoy positions: Lat. $32^{\circ} 45'$ (252 m) (255 m) (295 m)
Long. $117^{\circ} 10'$ (863 m) (707 m) (663 m)

?

Note 6/5/35.

B.G. Jones 1/15/35

Regarding the rocks listed in par. 2 on the preceding page. The photographs have been examined upon receipt in this office and show no evidence of these rocks. Report H 5677 (1934) states that these rocks were examined in the field and found to be non-existent. It is recommended that these rocks be deleted from the chart.

B.G. Jones

T-5373

Additional Review Note Entered March 3, 1936.

Comparison with Graphic Control Surveys

This Compilation T-5373 was reviewed and completed prior to the receipt in this office of the Graphic Control Surveys T-6222b, T-6223b, and T-6231b.

Comparison has been made at this date and all detail shown on the graphic control surveys in this area is shown on the compilation. The following changes were applied to the compilation:

T-6222b (1:10,000)(1934)

Three rocks shown on T-5373 were reported on page 16 of the descriptive report T-6222b as being non-existent and were, therefore, deleted from the compilation. ($32^{\circ}40'7'' - 117^{\circ}14'2''$)

T-6223b (1:10,000)(1934)

Two piles and two cable crossing signs in the vicinity of the San Diego-Coronado Ferry were transferred to the compilation from T-6223b.

An object apparently designated as a pile on T-6223b falls behind the bulkhead line shown on T-5373 and is, therefore rejected. ($32^{\circ}42'16'' - 117^{\circ}10'12''$)

T-6231b (1:10,000)(1934)

A fill between two piers at Fishermans Point and an island just beyond the race course off Fishermans Point which has been built up of spoil were added to the compilation.

New entrance range lights, shown on T-6231b were added to the compilation from triangulation positions.

March 3, 1936

Ralph M. Berry
Ralph M. Berry
VB Jones

GEOGRAPHIC NAMES

Survey No. T-5373Date. April 10, 1935Chart No. 5107 and 5102

Diagram No. _____

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

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>MISSION VALLEY</u>				
	<u>MISSION HILLS</u>				
	<u>SAN DIEGO RIVER</u>				
	<u>SAN DIEGO</u>				
	<u>SAN DIEGO BAY</u>				
	<u>SAN DIEGO HIGH SCHOOL</u>				
	<u>CAMINO DEL RIO</u>				
	<u>OLD TOWN</u>				
	<u>PRESIDIO HILL PARK</u>				
	<u>FORT STOCKTON</u>				
	<u>LOMA PORTAL</u>				
	<u>AIRPORT</u>				
	<u>GRANT SCHOOL</u>				
	<u>ROSEVILLE</u>	<i>Location changed slightly</i>			
	<u>DUTCH FLAT</u>				
	<u>BALBOA PARK</u>				
	<u>WASHINGTON SCHOOL</u>				
	<u>LA PLAYA</u>				
	<u>SIPHON</u>		<i>This name serves no useful purpose in its present position. See page 6.</i>		
	<u>NORTH ISLAND</u>				
	<u>THEOSOPHICAL INTERNATIONAL HEADQUARTERS</u>				
	<u>BROADWAY PIER</u>				

(over)

Survey No. T-5373

GEOGRAPHIC NAMES

Date. April 10, 1935

Chart No. 5107 and 5102

Diagram No. _____

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

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>U.S. NAVAL RADIO STATION</u>		Hydrographic office specifies Naval	list of radio stations not Navy Radio Sta.	
	<u>U.S. NAVAL RESERVATION</u>				
	<u>U.S. NAVAL FUEL DEPOT</u>				
	<u>U.S. QUARANTINE STATION</u>				
	<u>U.S. NAVAL TRAINING STATION</u>				
	<u>U.S. MARINE CORPS BASE</u>				
	<u>U.S. NAVAL AIR STATION</u>				
	<u>WORLD LONGITUDE STATION</u>				
	<u>LINCOLN SCHOOL</u>				
	<u>PACIFIC OCEAN</u>				
	<u>MIDDLE GROUND</u>		This name should be placed as shown on chart	5107	
	<u>FORT ROSEGRANS</u>				
	<u>BALLAST BALAST POINT</u>				
	<u>WHALERS BIGHT</u>				
	<u>ZUNIGA POINT</u>	<u>ZUNIGA POINT</u>			
	<u>ROCKWELL FIELD</u>				
	<u>SPANISH BIGHT</u>				
	<u>CORONADO</u>				
	<u>POINT LOMA</u>				
		Note: Street names and buildings not verified H.L.F.			
		✓ etc		3/6/36.	