DESCRIPTIVE REPORT

State: California

Locality: Santa Catalina Island,
            Mills Landing to Isthmus Cove

1934

Chief of Party:
Robert W. Knox
applied to Chart 5701 - May 1936  R. M. Z
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 ... P. 1934 ...

REGISTER NO. 48702

State ................................................................. California

General locality Santa Catalina Island, in the vicinity Isthmus Cove

Locality  ....... Mile Lending to Isthmus Cove ...

Scale 1:10,000 Date of survey Dec. 1933 - May 1934.

Vessel Launch and shore party, California

Chief of Party Robert W. Knox

Surveyed by F. W. Scott

Inked by F. W. S.

Heights in feet above M. H. W. 39 feet Approximate contour interval 50 feet

Instructions dated September 13, 1933 19

Remarks: .................................................................

.................................................................
DISSCRIPTIVE REPORT

to accompany
Sheet F 1954

Vicinity of Isthmus Cove, Catalina Harbor and Little Harbor
California

Robert W. Knox Chief of party
Scale 1 : 10,000

INSTRUCTIONS:

The instructions for this project were dated
September 13, 1933

GENERAL DISCRIPITION:

From △ Pablo to △ Quarry the coast line is
irregular and made up of rocky bluffs broken by coves and
bights of considerable depth. The beaches in the bights and
coves are gravel while in other places they are boulders. The
back country is of high broken ridges with steep cactus covered
slopes. The westerly slopes in canyons are covered with brush.
Isthmus Cove is backed by a low lying valley utilized as a resort
covered by tents and bungalows. In the vicinity of □ Ab, □ Dab, and
□ Fish there are white banks approximately fifty feet high.
Between □ Dir and △ Quarry is located a rock quarry, forming a
high rocky bluff.

The coast in the vicinity of Catalina Harbor and
southeasterly beyond Little Harbor is of high rocky bluffs, in some
instances sheer. The beach in this vicinity is composed of large
boulders. The coves have gravel beaches. There are a few off
lying rocks awash that are within the seaward line of kelp.
Inshore are high barren brown hills. Under A White Bluff there are white cliffs. A Fish Hook is on a point covered with very large boulders broken from the face of a high sheer cliff. Opposite O Dun there are high grey precipices that are very prominent.

**LANDMARKS:**

Approaching coast from the north we have two prominent landmarks Bird Rock, lying approximately one mile from shore, is a rock pinnacle approximately sixty feet high and covered with bird dung. White Rock is an island a half mile off shore, thirty seven feet high and covered with bird dung. There is also a water tank at an elevation of 350' situated southeast of A Fablo on the side of a hill. Approaching the coast from the south the white cliffs, on which A White Bluff is located is a prominent landmark.

**CONTROL:**

The control of this sheet is from the original triangulation scheme of 1875 and 1876, most of these stations were recovered by the party. Well 2, Prospect 2 and Cherry 2 were reestablished. Owing to practically all of the stations being in the interior, Slip, Fish Hook, Tower, Trans, Isthmus, Quarry, Channel were established and G.L.O. by the party to facilitate in running traverse of shore line.
CLOSING ERROR OF TRAVERSE:

<table>
<thead>
<tr>
<th>Traverse</th>
<th>Traverse dist. (meters)</th>
<th>Closure (meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A White Rock</td>
<td>3080</td>
<td>4</td>
</tr>
<tr>
<td>A Cherry 2</td>
<td>2135</td>
<td>3</td>
</tr>
<tr>
<td>A White Rock</td>
<td>1100</td>
<td>0</td>
</tr>
<tr>
<td>Fix O Ole</td>
<td>1870</td>
<td>5</td>
</tr>
<tr>
<td>A Cone</td>
<td>2120</td>
<td>0</td>
</tr>
<tr>
<td>A Harbor</td>
<td>4000</td>
<td>2</td>
</tr>
<tr>
<td>Fix Fish Hook</td>
<td>1740</td>
<td>0</td>
</tr>
<tr>
<td>Fix Fish Hook</td>
<td>2180</td>
<td>3</td>
</tr>
<tr>
<td>A Grape</td>
<td>1010</td>
<td>0</td>
</tr>
<tr>
<td>A Slip</td>
<td>936</td>
<td>0</td>
</tr>
</tbody>
</table>

SURVEY METHODS:

Plane table traverses were run between triangulation stations and fixes. In all instances there were stations visible for orientation. Roads were run from plane table traverses from fix to fix and discrepancies were adjusted in the field. Elevations were carried and checked on elevations established on triangulation stations. Contours were located by rod readings for determining elevations and the contours interpolated. Elevations were established from three point fixes taken from established elevations on triangulation stations. The contours on this sheet should be classed as approximate contours. The inshore limits of the Kelp was sketched in the field. The out lying rocks were located by outs and rod readings from plane table set ups.
UNUSUAL SURVEY METHODS:

Due to topography of shore line it was impossible to run plane table traverse between 0 Squ and 0 Blk this portion of the shore line was run in by sextant cuts from the launch. Owing to the change in scale between Sheet Field No. P and Sheet Field No. Q traverse was run on Sheet Field No. P from △ Cone to 0 Ten, these points were transferred to Sheet Field No. Q by DM's and DP's and traverse of that sheet closed in on 0 Ten. Shore line of Catalina Harbor is shown on Sheet Field No. P on a scale of 1:5,000.

NAMES:

Howland Cove, Cherry Valley Cove and Fourth of July Cove are local names and are in pencil on the sheet. For further information on names see descriptive report of hyd. sheet SC 12 H - 55 S.

LIST OF PLANE TABLE POSITIONS:

<table>
<thead>
<tr>
<th>Object</th>
<th>Latitude</th>
<th>DM</th>
<th>Longitude</th>
<th>DP</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water tank</td>
<td>33°27'</td>
<td>962</td>
<td>118°31'</td>
<td>361</td>
<td>Center line</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Top of Tank</td>
</tr>
<tr>
<td>Water tanks</td>
<td>33°26'</td>
<td>916</td>
<td>118°28'</td>
<td>394</td>
<td>Center line</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Between two</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Adjacent tanks</td>
</tr>
</tbody>
</table>

COMPARISON WITH PREVIOUS SURVEYS:

The general trend of the coast line of the present survey compares very favorably with that of the 1853 survey. Some of the bights of the previous survey are not as deep as that of the present survey. For example, the bight 1040 meters Southwest of △ Cherry 2 is at present 40 meters deeper than shown previously.
At a point 700 meters Southwest of a Cherry 2 high water now shown 40 meters further west than it was charted on the previous survey. In Fisherman Harbor high water line was shown 30 meters further inland than it was found to be on the present sheet. In the cove between o Asp and o Gor the high water line of the present survey is 70 meters further inland than previous survey indicates. The point at o Wash is now 60 meters further west than previous locations shows it. These differences are difficult to account for as there is very little erosion on this part of the island due to the character of the geology.

**STATISTICS:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statute miles of shore line</td>
<td>15.10</td>
</tr>
<tr>
<td>Statute miles of roads</td>
<td>19.93</td>
</tr>
<tr>
<td>Statute square miles of area surveyed</td>
<td>6.70</td>
</tr>
</tbody>
</table>

**INKING:**

This sheet was inked in the office by P.M. Scott, civilian observer under the supervision of John C. Mathisson Jr., Hi. & G. Engr., C. & G. Survey.

P.M. Scott, Observer

Respectfully forwarded;

VERIFICATION REPORT

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

This sheet is hereby approved.

[Signature]
Robert W. Knox,
H. & G. E., Chief of Party
# LANDMARKS FOR CHARTS

**Long Beach, California**

**November 13, 1931**

**Director, U.S. Coast and Geodetic Survey:**

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

**Robert W. Knox**

**Chief of Party.**

<table>
<thead>
<tr>
<th>Description</th>
<th>Position</th>
<th>Datum</th>
<th>Method of Determination</th>
<th>Charts Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanks</td>
<td>![ ]</td>
<td>33°26'926&quot;</td>
<td>118°28'376&quot;</td>
<td>USStd topo</td>
</tr>
<tr>
<td>Transmission line</td>
<td>see topographic sheet &quot;P&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Houses</td>
<td>![ ]</td>
<td>33°23'175&quot;</td>
<td>118°28'531&quot;</td>
<td>USStd topo</td>
</tr>
<tr>
<td>Tank*</td>
<td>![ ]</td>
<td>33°27'991&quot;</td>
<td>118°31'383&quot;</td>
<td>USStd topo</td>
</tr>
</tbody>
</table>

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
<table>
<thead>
<tr>
<th>Status</th>
<th>Name on Survey</th>
<th>Name on Chart</th>
<th>New Names in local use</th>
<th>Names assigned by Field</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔</td>
<td>Outer Santa Barbara Passage</td>
<td>Same chiefly</td>
<td>Same</td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Mills Landing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Little Harbor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Santa Catalina Island</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Catalina Harbor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Lathmus Cove</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Cherry Harbor Cove</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Fisherman Harbor Cove</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Fourth of July Cove</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Howland Point Landing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>San Pedro Channel</td>
<td>Seme</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>White Rock</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Bird Rock</td>
<td></td>
<td></td>
<td>Bird Rock</td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Bird Rock</td>
<td></td>
<td></td>
<td>Ship Rock</td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Cottonwood Canyon</td>
<td></td>
<td></td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Empire Landing</td>
<td></td>
<td></td>
<td>does not belong on this sheet</td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Blue Cavern Pt.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Lion Head</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔</td>
<td>Catalina Head</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4870a (1934)

Santa Catalina I., Mills Landing to Isthmus Cove, California
Surveyed December 1933 to May 1934
Instructions dated: September 13, 1933 (Knox)

Plane Table Survey - Cloth Mounted.

Chief of Party - R. W. Knox.
Surveyed by - F. M. Scott.


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

a. Scaled $\frac{1}{2}$ meter distances for distortion checking were not laid off.

b. Old triangulation stations are shown with a triangle enclosed in a circle. The manual calls for triangles alone.

2. Compliance with Instructions for the Project.

The survey complies with instructions in every respect except that the survey was to be on the same scale as the previous survey which was 1:20,000. However the departure was to a larger scale which was probably necessary for proper hydrographic development.

3. Junctions with Contemporary Surveys.

Satisfactory junctions were made with T-4869 (1934), T-4870b (1934), and T-4884 (1934).


a. T-1299b (1853) and T-1299a (1873).

These surveys are actually one; the later being a copy of the 1853 survey. The agreement between these surveys and the present survey is good in general characteristics. Some of the rocks are now shown in slightly different locations. It does not appear that any special effort was made to obtain a satisfactory junction of the new contours with the old. However, the new contours do not vary greatly from their former determination.

b. T-1603 (1877).

This survey was found to agree with the present survey except that a few rocks were not verified. A sunken rock in lat. 33°24'.0, long. 118°29'.1, and 2 rocks awash in lat. 33°23'.5, long. 118°28'.85 have been carried forward to the new survey because they are not considered disproved. A sunken rock in lat. 33°23'.9, long. 118°29'.1 is left to be disposed of in the review of the contemporary hydrographic survey.
c. T-1606 (1878).

This survey contains about 1 1/2 miles of shoreline which is shown on the present survey. Both the shoreline and the offshore rocks are in good agreement.

5. Field Drafting.

The field inking of the survey is satisfactory.

6. Additional Field Work Recommended.

The survey is complete and no additional field work is required.

7. Superseding Old Surveys.

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

- T-1299b (1853)
- T-1299a (1873)
- T-1603 (1877) in part
- T-1606 (1878) in part


Examined and approved:

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

Chief, Section of Field Work.

Reviewed by A. F. Jankowski, December 1934.

C. N. Albert, Chief, Div. of Charts.

G. W. B. Chief, Div. of H. & T.
<table>
<thead>
<tr>
<th>State</th>
<th>California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locality</td>
<td>Santa Catalina Island</td>
</tr>
<tr>
<td></td>
<td>Catalina Harbor</td>
</tr>
<tr>
<td>Date</td>
<td>1934</td>
</tr>
<tr>
<td>Chief of Party</td>
<td>Robert W. Knox, H. &amp; G. E.</td>
</tr>
</tbody>
</table>
Applied to Chart 5101 - May 1936 - R.M.J.
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. 215

REGISTER NO. 4870b

State California

General locality Santa Catalina Island

Locality Catalina Harbor

Scale 1 : 5,000 Date of survey April, 1934

Vessel Launch and shore party, California

Chief of party Robert W. Knox

Surveyed by P. M. Scott

Inked by P. M. Scott

Heights in feet above Mean Hi. Wt. to ground

Contour, Approximate contour, Form line interval feet

Instructions dated September 13, 1933

Remarks:

Applied to Ch 5/28 Apr 1934 - D. S. Santa
DISSCRIPTIVE REPORT

to accompany
Sheet F'1934

Catalina Harbor of Santa Catalina Island
California

Robert W Knox Chief of Party
Scale 1: 5,000

INSTRUCTIONS:
The instructions for this project were dated
September, 13, 1933.

DESCRIPTION:
The Coast line on the west at the entrance of the
harbor is irregular, with steep rocky bluffs, beach is covered with
boulders. On the east side of harbor as far north as A Harbor
there are high rocky bluffs backed by high broken ridges, the shore is
covered with boulders. The further into the harbor the flatter
becomes the coast line at the end of the harbor there is a low
isthmus extending to Isthmus Cove that is utilized as a resort.
The beaches are of gravel, except at the end which is a sand beach.

LANDMARKS:
Under A Cone is a sheer rugged bluff coming to a
decided point. Pin Rock is a low lying pinnacle rock, covered with
bird dung, approximately 150 meters off shore.
CONTROL:

The control of this sheet is from the original triangulation scheme of 1875, most of the stations were recovered by the party. △ Prospect 2 was re-established. △ Isthmus was established to aid in running plane table traverse.

CLOSING ERROR OF TRAVERSE:

Traverse was run from △ Harbor to ○ NG, from △ Harbor to ○ Sini and to ○ Tem via ○ Aoh. Then from △ Santa Catalina Island South Base via ○ Barl to ○ Tem checking in flat.

SURVEY METHODS:

Plane table traverses were run along shore line from set ups at △ Harbor and △ Santa Catalina Island South Base. Off lying rocks were located by rod readings from plane table set ups. Inshore limits of kelp were sketched in the field.

COMPARISON WITH PREVIOUS SURVEYS:

The general trend of the present survey of coast line compares very favorably with survey of 1853. From ○ Squ to ○ Tal the coast line of the present survey is 15 meters further east than the chartered location of the previous survey. The bight between ○ Set and ○ Fur is 15 meters further east on this sheet than shown by the previous survey. ○ Ang was found to be a point 20 meters further seaward than shown by prior survey.
STATISTICS:

Statute miles of shore line 3.61

INKING:

This sheet was inked in the office by F. M. Scott, civilian observer under the supervision of John C. Mathisson, Jr., H. & G. Engr., C. & G. Survey.

F. M. Scott
Observer

Respectfully forwarded,

Robert W. Knox, Chief of Party
VERIFICATION REPORT

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

This sheet is hereby approved.

Robert W. Knox,
H. & G. E., Chief of Party.
To: Mr. Bacon  
From: C.F.M.

GEOGRAPHIC NAMES  
CALIFORNIA

Survey No. T4890b  
Date: Dec. 15, 1934

Names underlined in red approved Dec. 17, 1934  
Haslow Bacon

*, Approved by the Division of Geographic Names, Department of Interior.
Ø, Not Approved by the Division of Geographic Names, Department of Interior.
♀, Referred to the Division of Geographic Names, Department of Interior.

<table>
<thead>
<tr>
<th>Station</th>
<th>Name on Survey</th>
<th>Name on Chart</th>
<th>New Names in local use</th>
<th>Names assigned by Field</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Catalina Island</td>
<td>Same</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catalina Harbor</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pin Rock</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ballast P embryo</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
January 12, 1934.

To: The Director,
Coast and Geodetic Survey,
Washington, D. C.

From: Lieut. Robert W. Knox,
Coast and Geodetic Survey,

Subject: Control signals, Catalina Harbor, California.

Reference: Director's letter of December 29, 1934, 80-DRM

There is enclosed herewith a letter from Mr. P. M. Scott, the civilian topographer who surveyed that portion of Santa Catalina Island including Catalina Harbor, explaining the discrepancy in the position of two signals common to sheets of different scales.

It is recollected that the two signals in question were used little, if any, in the hydrography of the 1:5000 sheet and as a consequence the hydrographic party had no check on the location of the signals. In view of this, together with the opinion of the topographer, it is believed the latter's recommendation should be accepted.

Robert W. Knox,
Chief of Party.
This section has been erased from T-4870b (1934).
It was not used on M-5567.
Scale 1:5000. A.F.D. 9/5/35.

Tracing of T-4870b (Scale 1:5000).
Signals in blue transferred from T-4870a (Scale 1:10000).
Note discrepancy in locations of stations "Ang" and "N.C."
Dear Mr. Knox,

In reference to your letter of the seventh instant, regarding discrepancies of the location of control signals, Ang. and N.C. The signals as shown on T 4870a (scale 1:10,000) are shown correctly. The traverse on this sheet was run continuously, under favorable conditions, and an excellent closure was made to the east.

Regarding the location of above signals as shown on T 4870b (scale 1:5,000) this traverse was only extended as far as O.N.C. and owing to condition of the sea's at this time, no closure was made. Also due to the same cause, some very short set ups were made and the set up governing the signals in question (Ang. & N.C.) was in error, i.e. the wrong point was used, throwing these signals out.

Sincerely,

[Signature]

Applied to T 4870b
R.W. Scott
M. Scott

4/15/35
Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4870b (1934).

Catalina Harbor, Santa Catalina Island, California.
Surveyed April 1934
Instructions dated: September 13, 1933 (KNOX)

Plane Table Survey - Cloth Mounted.

Chief of Party - R. W. Knox.
Surveyed by - P. M. Scott.


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 with a triangle enclosed in a circle. The accepted manner is to show all triangulation stations by a triangle.

c. The section of shoreline from Signal HJP southeastward to Signal M.C. was found to disagree with the determination on T-4870a (1934). Information from the Field Party (see D.R.) has been received and this section has been deleted from the survey.

2. Compliance with Instructions for the Project.

The survey complies with instructions for the project in every respect.

3. Junctions with Contemporary Surveys.

Satisfactory junctions were made with T-4870a (1934) at signal ACH, lat. 33°25’4, long. 118°30’4, and at signal HJP lat. 33°25’.6, long. 118°30’4.


a. T-1299b (1853) and T-1299a (1873).

These surveys are in good agreement with the present survey. There are some slight differences in location and character of rocks but the new survey is considered correct.

5. Field Drafting.

The field inking of the survey is good.
6. Additional Field Work Recommended.

The survey is complete and no additional field work is required.

7. Superseding Old Surveys.

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

- T-1299b (1853) in part.
- T-1299a (1873) in part.


Examined andApproved:

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

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

Chief, Div. of Charts.

Chief, Div. of H. & T.