State: CALIFORNIA

Locality:
California Coast

Arroyo Grande & Vicinity

1934

Chief of Party:
O.W. Swainson
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 ...K...........

REGISTER NO. 6273

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

General locality............ Central California Coast

Locality................... Point Sal North, Carroyo Grande River, Vicinity

Scale 1:10,000 .......... Date of survey.......... August 1934

Vessel................. U.S.C. & G.S.S. PIONEER

Chief of Party.......... O. W. Swainson

Surveyed by............ H. Clarke

Inked by................... L. Clarke

Heights in feet above LW to ground

Contour Approximate contour Form line interval 100 feet

Instructions dated November 18, 1934

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

U.S. GOVERNMENT PRINTING OFFICE 1935
DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET NO. K.

California Coast
Point Sal North (Arroyo Grande River).
Latitude 35° 04' to 35° 07'.

AUTHORITY

This work was done in accordance with instructions dated November 18, 1932, to the Commanding Officer of the PIONEER for Project No. 120 and also those dated April 4, 1932, to the Commanding Officer of the GUIDE, Project No. 101. Work was done during the first part of the month of August, 1934.

CONTROL

The sheet was controlled by triangulation points located previously by Charles Pierce in 1929, at an approximate maximum distance of two miles along the coast line. Since Flaim could not be recovered due to shifting sands, a system of graphic triangulation using Arroyo Grande, 1933, and Arroyo Quinn, 1933, as starting control and checking on Black, 1933, and Arroyo Quinn, 1933. The traverse run from Redwood to Arroyo Grande checked flat. The traverse from Arroyo Grande to Black also checked flat.

GENERAL DESCRIPTION

This section is characterized by a broad flat beach backed by a narrow strip of low grassy dunes. South of the Arroyo Grande River these low grassy dunes are backed up by a strip of bare sand gradually rising to the high ridge of bare sand and bare dunes. Between these bare dunes and the railroad lies a broad valley under cultivation, the southern end of which is a series of lakes with brushy dunes running east and west between these lakes. These lakes are owned by Dune Lakes Incorporated, and by means of pipe lines and pumps control the height of the water in each lake. See map of private survey made in 1928 included in this report.

The Southern Pacific Railroad main line between Los Angeles and San Francisco skirts the edge of the hill and crosses the low valley into the town of Oceano. The Arroyo Grande River, just south of Oceano is guided by levees in its course skirting the north edge of the high dunes.

North of the Arroyo Grande River is Pismo Creek, neither of these streams breaking into the ocean except at flood season. This marks the location of Oceano Beach. Pismo Creek is a broad, meandering, and shallow stream just back of the low grassy dunes. East of Pismo Creek are
the main highway between Pismo and Oceano, and the Southern Pacific Railroad. At the east edge of the railroad right-of-way is a continuous line of eucalyptus trees. East of the railroad the farm land gradually slopes up to the high knoll on which Quinn, 1933, is located.

Of particular note is the fact that the dunes are constantly shifting eastward changing both the Dune Lakes and Pismo Creek.

**Changes in Coast Line**

**Highwater Line.** At Redwood, 1933, the high water line has moved offshore about 15 meters. North thereof to topographic station RAC this change increases to about 40 meters. From topographic station RAC to Flag Pole, Pavillion Oceano, 1933, this increases uniformly from 40 meters to 110 meters. From Flag Pole, Pavillion Oceano, 1933, to Granda, 1933, the divergence offshore decreases uniformly from about 110 meters to approximately 50 meters.

**Sand Dunes.** The encroachment of the bare dunes on seaward land features is quite noticeable, particularly in the case of Pismo Creek as well as the dune lakes' north of Black, 1933.

The higher bare dunes, just inshore from the low grassy dunes north of Redwood, 1933, maintain generally similar character to the old topography, but are changing constantly due to the heavy winds.

**Pismo Creek.** Due to easterly movement of the bare dunes, the channel of Pismo Creek has been moved inshore in spots as much as 250 meters. At the time of this survey, there was indication that either Pismo Creek or the Arroyo Grande River break into the ocean, although they undoubtedly do at flood season.

**Arroyo Grande River.** This river has been impounded by levees and its course completely altered there by.

**Additional Features.** The town, Oceano, with its main settlement along the railroad, and also near the shore line have been added.

The highway from Oceano to Pismo has been added.

The Southern Pacific Railroad main line between Los Angeles and San Francisco has been added. The high line of eucalyptus trees, closely spaced at the east edge of the right-of-way are also noteworthy.

This topographic sheet constitutes a complete new survey except contouring and should replace the old survey in all respects except the contours.
STATISTICS

Sand Beach 3.5 statute miles.
Lakes, Rivers and Sloughs 15.7 statute miles.
Railroad 4.9 statute miles.
Roads and Highways 7.8 statute miles.

Harold Clarke, Topographer.

Forwarded:

O. H. Swainson,
Chief of Party,
Commanding PIONEER.
LANDMARKS

Sheet K.

Pavilion, Oceano Beach.

This pavilion, 80 feet by 80 feet approximately, 42 feet above the ground, constructed of wood, weathered black, stands out prominently above the surrounding sand, is visible from all directions and should be charted.

Water Tank, South of Pismo Beach, 1933.

This tank, black with conical top, about 50 feet in diameter and about 25 feet high is visible from the northwest and should be charted.
### Recoverable Plane Table Positions

<table>
<thead>
<tr>
<th>Location</th>
<th>MIL</th>
<th>35°</th>
<th>06'</th>
<th>444</th>
<th>120</th>
<th>37</th>
<th>340</th>
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<td>Brick Chimney, W. side 35° 03' 1672 m.</td>
<td>MIL</td>
<td>35°</td>
<td>06'</td>
<td>444</td>
<td>120</td>
<td>37</td>
<td>340</td>
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<td>Caretaker's house. 120 36 153.</td>
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<td>Brick Chimney, S. Cable 35 03' 1769</td>
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<td>Block Signal #2651</td>
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<td>663</td>
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<tr>
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<td>Shell Tank</td>
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</tbody>
</table>
The following should be removed from the charts:
Water Tower (no indications of its former location)
The following should be added to the charts:
Oceano
Pismo Creek
Dune Lakes — see Geographic Names list
Highway, Oceano to Pismo.
LANDMARKS FOR CHARTS


February 28, 1935.

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.

O. W. Swainson,
Chief of Party.

<table>
<thead>
<tr>
<th>Topo Sheet K.</th>
<th>Description</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Datum</th>
<th>Method of Determination</th>
<th>Charts Affected</th>
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<tr>
<td></td>
<td>PAVILLION (△ Flag Pole,</td>
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<td>120 37</td>
<td>1142</td>
<td>Triang.</td>
<td>5302.</td>
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<td>Pavillion Oceano, 1933)</td>
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<td>TANK (△ Water Tank, S. of</td>
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<td>Pismo Beach, 1933)</td>
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</table>

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, 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 of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
GEOGRAPHIC NAMES
CALIFORNIA

Survey No. 76275
Chart No. 5302
Diagram No. 5302-2

Approved by the Division of Geographic Names, Department of Interior. *
Referred to the Division of Geographic Names, Department of Interior. R
Under investigation. Q

<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>
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<td>Piano Creek</td>
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<td></td>
<td>Arroyo Grande River</td>
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<td>Pipe Line Lake</td>
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<td>Silva Lake</td>
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<td>Twin Lake</td>
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<td></td>
<td>White Lake</td>
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</table>

Three lakes are probably continually shifting. Names not approved for charting.

Names approved 9/11/35
K.T. Adams
REVIEW OF TOPOGRAPHIC SURVEY No. 6273

Title (Par. 56) Arroyo Grande River & Vicinity, California

Chief of Party O.W. Swainson Surveyed by H. Clarke Inked by H. Clarke

Ship Pioneer Instructions dated Nov. 18, 1922 Surveyed in Aug. 1924

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. Contours from previous surveys are adequate. No new contours drawn.

6. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.)

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.)

11. Locations and elevations of summits are given. (Par. 19, 51.)

No new elevations taken.

12. The tree line was shown on mountains. (Par. 16g.)

Not shown.

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

T1393 (1873-4)

The present survey is in good agreement except as noted on page 2 of the Descriptive Report under "Changes in Coast Line". As noted here the Anoyo Grande River does not empty into the ocean at Lat. 35°-06' as indicated on T1393.

T1596 (1879)

Except as noted on page 2 of the Descriptive Report the present survey is in good agreement. The H.W. line along the sand dunes has evidently changed somewhat as is always the case on such a shore where high winds often sweep.

The present survey supersedes T1393 (1873-4) and T1596 (1879) in part.

Chart 5302

With the exception of Anoyo Grande River as noted under T1393 above, the chart is in good agreement with the present 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 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, 37, 67 except scaling of IMs and DPs, 68.) 27 cards 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 of having checked declinatoire.

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.

   Joins T6274 (1934) on the North and T6272 on the South

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:


Examined and approved:

C. F. Green
Chief, Section of Field Records

John L. Peacock
Chief, Section of Field Work

L. D. Latt
Chief, Division of Charts

E. A. Smith
Chief, Division of Hydrology and Topography