

# 4800

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U. S. COAST & GEODETIC SURVEY  
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Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
H. S. Patton <i>Director</i>	
<div style="border: 1px solid black; width: 100px; height: 80px; margin: 10px auto;"></div>	
State: <u>California</u>	
<b>DESCRIPTIVE REPORT</b>	
Topographic <del>Hydrographic</del>	Sheet No. "E"
LOCALITY	
<u>California Coast</u>	
<u>Pigeon Point to Ano Nuevo Point</u>	
U. S. C. & G. S. S. GUIDE	
<u>1932</u>	
CHIEF OF PARTY	
<u>Fred. L. Peacock, H. &amp; G. Eng.</u>	

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4800

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, DIRECTOR.

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET FIELD LETTER "E"

CALIFORNIA COAST

PIGEON POINT TO ANO NUEVO POINT

U. S. C. & G. S. S. GUIDE.

PROJECT NO. 101

1932

FRED. L. PEACOCK, H. & G. ENGINEER, CHIEF OF PARTY.

DESCRIPTIVE REPORT  
to accompany  
TOPOGRAPHIC SHEET FIELD NO. E  
Coast of California  
U.S.C. & G.S.S. GUIDE  
1932

INSTRUCTIONS: Instructions for the topography on this sheet are dated April 4, 1932.

LIMITS: This sheet consists of a resurvey of the area adjacent to the shoreline between Latitude  $37^{\circ} 06.5$  and Latitude  $37^{\circ} 11$ .

GENERAL DESCRIPTION OF THE COAST: From the south end of the sheet northwest to Latitude  $37^{\circ} 07$ , Longitude  $122^{\circ} 18.8$  the shoreline consists of bluffs from about 70 to 90 feet in height with a strip of sand beach below. From this point the shoreline swings around to the west to Ano Nuevo Point, the bluff gradually decreasing in height and merging into sand dunes. Ano Nuevo Point consists of sand dunes varying in height from 20 to 100 feet. The Ano Nuevo Lighthouse is on Ano Nuevo Island, a low, black rocky island, lying off Point Ano Nuevo. The area between the mainland and the island is shoal and very foul. There are two small piers on the northeast side that are used for unloading supplies for the lighthouse on the island. These piers can be used by small boats only. North of Ano Nuevo Point the shoreline consists of sand beach and sand dunes up to Latitude  $37^{\circ} 08.2$ . From this point to Middle or Franklin Point the shoreline consists of low bluffs. There are a great number of small rocks and the area close inshore is very foul. From Middle or Franklin Point northward to Latitude  $37^{\circ} 10$ , the shoreline consists of sand beach and sand dunes. From this point around to Pigeon Point the shoreline consists of low bluffs. There are numerous rocks and the area close inshore is very foul.

At the extreme south end of the sheet the hills rise abruptly from the bluff. North of Latitude  $37^{\circ} 07$  there is a wide bench sloping back to the foot of the hills. This bench is under cultivation except for the sand dunes back of Ano Nuevo Point and Middle or Franklin Point.

LANDMARKS: The only landmarks on this sheet are Pigeon Point Lighthouse and Ano Nuevo Island Lighthouse, both of which are shown on the charts.

CHARACTER OF CONTROL: Control for this survey was furnished by second order triangulation executed in 1931 by Lieutenant C. D. Meaney. The Stations are plotted on the North American (1927) Datum. The adjusted positions were used.

**SURVEY METHODS:** Only standard survey methods were used. Setup positions were all determined by traverse. Three point fixes were used as checks only. All features which were not rodded in were located by three or more cuts. Separate traverses were run in surveying the road. Sunken rocks were located by cuts to the breakers or boiling caused by them. Notes are placed adjacent to these rocks indicating that the positions are approximate. In sections of the sheet there are such a great number of small rocks that it was practically impossible to locate all of them by cuts, and some of them were sketched in. All of the rocks which have the heights shown were located by cuts as were the majority of the others.

No control was available east of  $\Delta$ Evo and it was necessary to run a traverse on two sheets. A traverse was run from  $\Delta$ Evo, orienting on  $\Delta$ Oil Derrick, to Topographic Station Nel on this sheet. On Sheet Field Letter F a traverse was run north from  $\Delta$ Gray, orienting on  $\Delta$ Evo, and closing on Topographic Station Nel. The closing error was then distributed proportionately over the two traverses. Both traverses were run and the adjustment made before any detail was rodded in. The traverse on the south part of the road was run from  $\Delta$ Frank and closed on the adjusted position of Topographic Station Nel.

**CLOSING ERRORS OF TRAVERSES AND METHOD OF ADJUSTMENT:** All traverses closed well within the allowable limit of four meters per mile and they were adjusted by distributing the error proportionately over the traverse.

Traverse	Error in Meters		Length of
	Distance	Azimuth	Traverse
			Stat. Miles
$\Delta$ Pigeon Point Lighthouse to			
$\Delta$ Frank. . . . .	-5	0	3.3
$\Delta$ Frank to $\Delta$ Oil Derrick. . . . .	-3	0	1.7
$\Delta$ Oil Derrick to $\Delta$ Ano. . . . .	-3	0	1.2
$\Delta$ Ano to $\Delta$ Evo. . . . .	-2	2	1.3
* $\Delta$ Evo to $\Delta$ Gray. . . . .	-8	3	3.6
* O Nel to $\Delta$ Frank (Road)	-5	6	5.4
$\Delta$ Frank to $\Delta$ Pigeon Point Light-			
house.(Road) . . . . .	-4	2	4.2

\*See second paragraph under Survey Methods.

**COMPARISON WITH OLD WORK:** The contours shoreline, and rocks were transferred from the bromides of the old sheets covering this area. The contours were checked carefully and except for the sand dunes at Ano Nuevo Point they checked very well. At Ano Nuevo Point the sand dunes have changed considerably, especially those south of Latitude  $37^{\circ} 07.4$ , and it was necessary

to show new contours. All the contours in these sand dunes were inked in whether they were changed or not.

The shoreline checked very well except at Ano Nuevo Point. Here the shoreline has receded as much ~~as much~~ as 400 meters in places. The position of the old shoreline is shown in pencil on the sheet.

The larger rocks on the sheet checked very well with the old work. In some places there are large groups of rocks and the individual rocks could not be identified. However, the offshore limits of the foul areas and usually the individual rocks farthest out agree very well. In Latitude  $37^{\circ} 10.82$ , Longitude  $122^{\circ} 23.70$  there are two rocks, and in Latitude  $37^{\circ} 10.11$ , Longitude  $122^{\circ} 21.89$  there are two rocks shown on the old sheet that could not be found. Possibly they are sunken rocks.

The old pier shown on the old sheet and on the charts as New Years Wharf, Latitude  $37^{\circ} 07.0$ , Longitude  $122^{\circ} 18.8$  is no longer existent. No sign of it remains. Notes are placed on the sheet adjacent to these changes or discrepancies.

GEOGRAPHIC NAMES: The point in Latitude  $37^{\circ} 09.0$ , Longitude  $122^{\circ} 21.5$ , shown on the charts as Middle Point, is known locally as Franklin Point. It is also shown on the U.S. GEOLOGICAL SURVEY map as Franklin Point. The Ship SIR BENJAMIN FRANKLIN was wrecked at this place. It is recommended that the correct name be ascertained and placed on the charts. Both names are shown in pencil on the sheet.

*Change to Franklin to conform to U.S. Geol. Survey H.B.*  
JUNCTIONS: Satisfactory junctions were made with Sheet Field Letter D to the north and Sheet Field Letter F to the south.

CHANGES IN THE COAST LINE: With the exception of Ano Nuevo Point no change in the shoreline could be determined by comparison with the old work. Ano Nuevo Point is made up of sand dunes which are washing away at a fairly rapid rate. This point as shown on the bromide of the old sheet extended about 400 meters farther out than it does now. The old shoreline is shown in pencil on the sheet.

COMPARISON WITH AERIAL PHOTOGRAPHS: Aerial photographs for this area were available and were closely examined. A large number of the features located on the topographic sheet are easily recognized on the photographs and if the photographs are to be reduced there are a sufficient number of points easily recognizable on both. The photographs were also closely examined and compared with the topographic sheet in order to pick up any errors or omissions.

COMPARISON WITH HYDROGRAPHIC SHEET FIELD NO. 5: Hydrographic Sheet Field No. 5 was mailed to the Washington Office before the inking of the topographic sheet was completed. However, excepting the area

just north of Ano Nuevo Island there are no rocks located by the topographer that are not too close inshore for the hydrographer to attempt to check or to run lines near them. Just north of Ano Nuevo Island, little less than a mile there is a foul area extending northwest from the shoreline. Due to the breakers in this area the hydrographer ran his lines around it and could make no attempt to investigate the area.

Attention is particularly called to the fact that as all of the rocks and reef symbols had not been inked on the topographic sheet at the time the detail was transferred to the Hydrographic Smooth Sheet some of them were missed and are not shown on the Hydrographic Smooth Sheet.

INCOMPLETE WORK: The work on this sheet is complete and requires no further examination.

Respectfully submitted,

*H. C. Applequist*  
H. C. Applequist,  
Aid,  
U.S.C. & G. Survey.

Respectfully forwarded,  
Approved:

*Fred. L. Peacock*  
Fred. L. Peacock,  
Chief of Party, C. & G. Survey,  
Commanding Ship GUIDE.

STATISTICS  
to accompany  
TOPOGRAPHIC SHEET FIELD LETTER E

DATE FIELD WORK BEGAN	AUGUST 4, 1932
DATE FIELD WORK WAS COMPLETED	AUGUST 29, 1932
NUMBER OF DAYS OF FIELD WORK	13
STATUTE MILES OF SHORELINE	13.1
STATUTE MILES OF ROAD	8.7
AREA IN SQUARE STATUTE MILES	6.3
NUMBER OF RECOVERABLE HYDROGRAPHIC STATIONS LOCATED	10

LIST OF TOPOGRAPHIC SIGNALS  
to accompany  
TOPOGRAPHIC SHEET FIELD LETTER E.  
1932

Hydrog. Name	Object and description	Remarks
Flag	Flagpole, West Gable , Large Yellow Building	Center
How	West Gable of White House	Center
Pole	Unpainted Pole on Sand Dunes	Base
Stripa	Striped, Black and Yellow Pole, Sand Dunes Base	
Nob	Knob on Rock Near Ano Nuevo Point	Center
Roc	Small, Southernmost Rock, Ano Nuevo Point	Center
Silo	Large, White Silo on Steel Ranch	Center
Abe	South Gable, Large White House, Steel Ranch	Center
Whit	Standard Hydrographic Station Disc	
Nel	Standard Hydrographic Station Disc	

These stations are all recoverable and Form 524, Description of Hydrographic or Topographic Station, was filled out for each of them.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

JAN 30 1934

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

REG. NO. 4800

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" \_\_\_\_\_

REGISTER NO. 4800

State California ~~Sanct~~

General locality Pacific Coast

Locality San Nuevo Point to Pigeon Point *Large*

Scale 1:10,000 Date of survey August, 1932

Vessel U. S. C. & G. S. S. GUIDE

Chief of Party Fred. L. Peacock

Surveyed by H. C. Applequist

Inked by H. C. Applequist

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

~~Contour~~ Approximate contour ~~spacing~~ interval 20 feet

Instructions dated \_\_\_\_\_, 19

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

## REVIEW OF TOPOGRAPHIC SURVEY No. 4800

Title (Par. 56) *Ano Nuevo Point to Pigeon Point, Pacific coast, California*Chief of Party *F. L. Pearson* Surveyed by *H. C. Applegust* Linked by *H. C. Applegust*Ship *Guide* Instructions dated *Apr. 4, 1932* Surveyed in *Aug. 1932*

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. *Contours were transferred from previous survey and checked in field.*  
The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)  
*Shows revised contours near Ano Nuevo Pt. (T 445)* ✓
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.)~~
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 "Comparison with Old Work" in Desc. Rep.*
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.) ✓
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.) and plotting checked *eye* ✓
16. *No* list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Desc. Rep. states that the two light houses on the sheet are the only landmarks.*
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) ✓
18. The geographic datum of the sheet is *North American 1927* 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 *R. J. Christman Feb. 9, 1934.*

Examined and approved:

*L. O. Colburn*  
Chief, Section of Field Records

*Ernest V. ...*  
Chief, Division of Charts

*F. S. Borden*  
Chief, Section of Field Work

*G. W. ...*  
Chief, Division of Hyd. and Top.