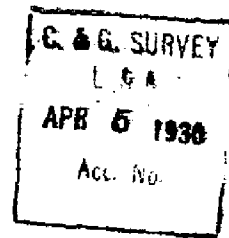


4495

4495

| | |
|---|-----------------------------|
| Form 504 Ed. June, 1928 | |
| DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY | |
|, Director | |
| <div></div> | |
| State: California | |
| DESCRIPTIVE REPORT | |
| Topographic Hydrographic | Sheet No. ^A 4495 |
| LOCALITY | |
| Pt. Reyes | |
| Pt. Reyes and Drakes Bay | |
| | |
| 1929 | |
| CHIEF OF PARTY | |
| F. B. T. Siems | |

Gp 2500 Helmer 11/21/63



Descriptive Report to Accompany

Topographic Sheet A. 4495

California Coast

1929

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

4495

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. A

REGISTER NO. 4495

State California.

General locality ~~Pacific Ocean.~~ Pt. Reyes

Locality Point Reyes and Drake's Bay.

Scale 1:10000 Date of survey May, 1929

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

Chief of Party O. W. Swainson, H. & G. Engr.

Surveyed by Henry J. Healy, Jr. H. & G. Engr.

Inked by Henry J. Healy, Jr. H. & G. Engr.

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

Contour, Approximate contour, Form line interval feet

Instructions dated April 9, 1929, 192

Remarks: For later description of coast see descriptive
for control sheet
report 1 accompanying H-6250 (1937) W.D.

Descriptive Report to Accompany

TOPOGRAPHIC SHEET A.

California Coast

1929

AUTHORITY

The topography was executed in accordance with the Director's orders and instructions dated April 9, 1929, for combined operations on the California Coast, by the U. S. Coast & Geodetic Survey Ship PIONEER.

LOCALITY and LIMITS

The area covered by this survey consists of Point Reyes Head and Drake's Bay. Point Reyes Light is the western limit- Lat. $37^{\circ}59.8'$ Long. $123^{\circ}01.3'$ Topographic signal Let is the eastern limit- Lat. $38^{\circ}01.8'$ Long. $122^{\circ}58.0'$

The topography consists of a detailed resurvey of the coast line and sufficient elevations to check the contours. All prominent objects (aids to Navigation) were located and are listed.

CONTROL

Control consists of triangulation stations as follows:
Point Reyes Light House - 1906-7. Point Reyes East 1859.
Point Reyes Head 1907 Guard 1929.

METHODS and TRAVERSES

The usual plane table methods of topographic surveying were used in Drake's Bay. Cuts were taken on all topographic signals and then a traverse was run between station locating the signals on the cuts, at the same time rodding in the details.

Point Reyes Head, because of its precipitous shoreline, made it necessary to carry a traverse along the top of the cliff, locating details along the shoreline when possible. An additional traverse was carried along the shoreline by means of landing on off-lying rocks. The outer rocks in all cases were located by cuts and the inner rocks were sketched in.

A three point fix was used at station Hard, and a traverse run to Point Reyes East, error 5 m. (adjusted).

A traverse was also run between Point Reyes Head and Point Reyes Light, locating road and building, no error.

All signals which could be seen in Drake's Bay were cut in from Point Reyes East and Guard. A traverse was then run between them and the details cut in.

A traverse was run from C Flag to close on a cut on Point Reyes Light, no error. The closure was very weak because the vertical angle was large. Altho this is the weakest point in the traverse it is more accurate than the original survey.

The contours and shore line and rocks were transferred from the bromide to the projection. The contours were checked and the shoreline resurveyed.

A traverse was run from @ Flag to @ Done meeting a traverse from @ Ray around the East end to @ Done, error of closure 7 m. (adjusted).

SIGNALS

Almost all signals were whitewash or banners, made in various shapes such as triangular, rectangular, etc.

The triangulation signals were dressed so as to be easily identified.

Some natural objects were also used for signals, such as house chimneys, conspicuous rocks, small buildings, Coast Guard Lookout Tower, water tanks, and the Sir Francis Drake Cross.

GENERAL DESCRIPTION

Point Reyes Head from Point Reyes Light to Point Reyes East is precipitous coast. It varies from 500' in elevation at Point Reyes Head₂ to about 200' in elevation at Point Reyes East. The cliff in most cases is almost perpendicular. There are many off-lying rocks.

When the topography was being done the steam schooner "Hartwood" ran aground and was wrecked at the point shown on the topographic sheet. Since the topographic sheet was finished the wreckage has washed up on the beach and the wreck has now disappeared. Part of the hull is submerged at the point shown.

The coast line in the bay itself is also a precipitous one, averaging about 200' in elevation. There are numerous draws running down to the beach.

Near @ Pig is a marsh which was checked and found to be little changed from the old survey. Also another marsh back of @ Let was checked.

The beach between Let and Cow is sandy and between Cow and Reck is of a rocky nature.

MAGNETICS

The magnetic meridian was observed at Point Reyes East with a declinoire.

CONTOURS The various elevations were taken to check the contours and in each case the original survey was found to be correct.

CONCLUSION

The survey of the area showed very little change from the original survey. The contours checked and also the coast line. The only place which seemed to change was the western extremity of the survey and this was the weakest part of the traverse. The topographic sheet shows it changed about 30 meters from the old bromide.

The name Point Reyes as is shown on the topographic sheet is not a town, but refers to the name of the head.

Respectfully submitted,

Henry J. Healy
Henry J. Healy,
Jr. H. & G. Engineer,
USC & GSS PIONEER.

Approved and forwarded:

O. W. Swainson
O. W. Swainson,
Commanding Str. PIONEER.

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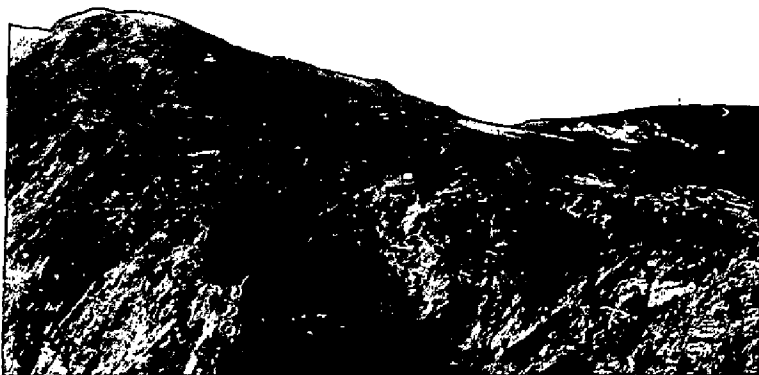
Shows part of
Drake's Bay.
Taken near @
Chimney.



Another view
of Drake's Bay.



Showing Radio
Station KVH;
also some of
Pt. Reyes Head.



Taken from near
R.A.R. Station
showing @ Flag
and part of
coastline.



DM's and DP's for topographic sights.

Point Reyes Light House to Eastern End of Drake's Bay.

| Name | Latitude ° ' | Meters | Longitude ° ' | Meters | Description |
|--------------------------------|-----------------|------------------------|------------------|----------------------|---------------------------|
| Pt Reyes LH | 37 59 | 1405 | 123 01 | 503 | Triang. Station. |
| Pt. Reyes Head ₂ | " " | 1491 | 123 00 | 1239 | " " |
| No | " " | 1232 | 123 00 | 1416 | Whitewashed |
| Guan | " " | 1209 | 123 00 | 856 | " |
| Pon | " " | 1170 | 123 00 | 428 | " |
| Hard (not used) | " " | 1457 | 122 59 | 1089 | + Banner. |
| Flag | " " | 1079 | " " | 923 | WW & Banner. |
| Pole | " " | 1465 | " " | 480 | Tel pole with banner. |
| Ner | " " | 1130 | " " | 354 ₂ | WW |
| Rock | " " | 1036 | 122 58 | 1139 | " |
| Hart | " " | 984 | " " | 875 | Stack on wreck "Hartwood" |
| Cross | " " | 1125 ^{1090.4} | " " | 614 ⁵⁸³ | Sir Francis Drake Cross. |
| Done | " " | 794 ²⁷⁶⁰ | " " | 475 ²¹⁴⁰ | WW |
| Look | " " | 933 ^{899.4} | " " | 4123 ^{91.3} | Coast Guard Mast. |
| Calf | " " | 779 | " " | 250 | WW |
| By | " " | 832 | 122 57 | 1454 | WW |
| Pt Reyes E. | " " | 825 | " " | 1321 | Tripod, triang. sta. |
| Chimney Rk. | " " | 778 | " " | 1100 | Rock east of Head. |
| Ex | " " | 684 | " " | 1284 | Rock. |
| Got | " " | 893 | " " | 1278 | WW |
| Tar | " " | 1188 | " " | 1439 | WW |
| Ray | " " | 1253 | 122 58 | 291 | WW |
| Dok | " " | 1305 ^{1210.4} | " " | 509 ^{74.3} | End of C.G. Dock. |
| Chim | " " | 1360 ^{1325.4} | " " | 912 ^{91.3} | Chimney of C.G. House. |
| Pin | " " | 1634 | " " | 1338 | WW |
| Reck | " " | 1722 | " " | 1383 | Fish boat wreck. |
| El | 38 00 | 562 | " " | 1428 | Triangular banner. |
| Cow | " " | 1147 | " " | 1234 | C. G. Boathouse. |
| Tri | " " | 1811 | " " | 837 | Triangular banner. |
| Ban | 38 01 | 584 | " " | 318 | Square banner. |
| Guard | " " | 843 | " " | 90 | Triangulation station. |
| Pig | " " | 1237 | 122 57 | 926 | Banner. |
| Let | " " | 1584 | " " | 1442 | Banner. |