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|                                       |             | 1           | سنوي       | 16. yes |              |     | u. s.                                 | TMENT OF COAST AND GEOG S. Patton, | ETIC SURVEY   | CE        |   |             | - | •   |   |
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| i tit u                               |             | · en        |            |         |              |     |                                       | •                                  | DEC 23        | 1929      |   |             |   |     |   |
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|                                       |             | 94. S       |            | 1       | <del>,</del> |     |                                       |                                    | <del></del> . | \ . · · > |   | ~J          |   |     |   |
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## 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 Letter "L"

REGISTER NO.

| State              | Territory of Hawaii                   |
|--------------------|---------------------------------------|
| General locality   | S E Coast of Hawaii                   |
| Locality           | Punaluu, Hawaii.                      |
| Scale 1:2,500      | Date of survey October 18 to 24, 1929 |
| Vessel             | U.S.C. & G.S.S. GUIDE                 |
| Chief of Party     | K. T. Adams                           |
| Surveyed by        | W. H. Bainbridge                      |
| Inked by           | WHB                                   |
| Heights in feet ab | oveto ground to tops of trees         |
| Contour Approxima  | te contour Form line intervalfeet     |

## DESCRIPTIVE REPORT to accompany

TOPOGRAPHIC SHEET "L"/ Scale 1:2,500 Punaluu, Hawaii.

AUTHORITY: Director's Instructions dated June 17, 1929.

DATE OF SURVEY: October 18 to 24, 1929. CHIEF OF PARTY: K. T. Adams, H & G E.

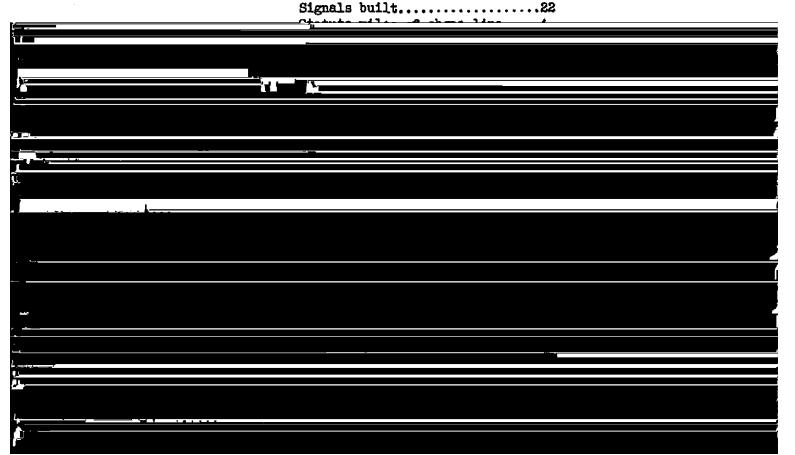
TOPOGRAPHER: W. H. Bainbridge, Jr. H & G E.

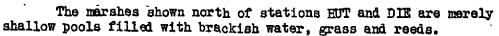
LIMITS: The sheet includes the shore line from about one mile east to one mile scuthwest of Punaluu, and the village of Punaluu.

CONTROL: The sheet was controlled by three triangulation stations: CHURCH, Punaluu, 1914, and PUN and LUU. The latter two were established this year for the control of this sheet and the hydrographic sheets.

METHODS: The usual plane table methods were used. Three men and an officer formed the party. First the traverse was run locating the hydrographic signals; then the topography was done. The traverse was begun at triangulation station LUU and was closed on triangulation station PUN, with a closing error of five meters, which was adjusted proportionally.

STATISTICS: Statute miles of traverse.....2.45
Closing error in meters......5.0





The small pool west of station TIN is fed by a spring. The natives bathe, and wash clothes in this pool.

The pool north of station TOP is a few inches above sea level at high tide. It is fed by springs or seeps and is only slightly brackish.

A stream of brackish water runs out from under the rocks at the lower western end of the old fish pond north of station HAY.

REMARKS: Punaluu is the port for Pahala, where the sugar mill of the Hawaiian Agricultural Co. is located. But this landing is being abandoned in favor of Honuapo landing.

At both places freight is conveyed in small boats between the ships anchored offshore and the landings.

According to local information landings can be made at Honuapo when it is impossible to land at Punaluu.

The oil tank, station WHITE, and the outermost warehouse, the outermost gable of which is station GAB, were being torn down at the time the survey was made.

 $\mathcal{C}_{\mathcal{F}}$ 

Because of the thickness of the grove of coconut palms, algeroba, and other trees; and lack of time, a detailed survey of the village was not made. But two brown prints, one of the landing and warehouses and another of the village, were obtained from the engineering office of the Hawaiian Agricultural Co.

Two marked points on each print are identical and are marked and ② on both, with additional marks for combining the two. The warehouse attain GOT, and fence corners may be used in tieing the prints to the sheet.

The grove of trees was indicated on the brown print of the village with symbols in white ink. A legend was placed on the print.

According to this survey and that of Mr. E. R. Hards, H & G E, the village of Punaluu as shown on chart No. 4115 is out of place, being shown about one-half mile too far north.

The scale of 1:2,500 was inadvertantly used instead of 1:5,000 as called for in the instructions. Perhaps this may be explained in part by paragraph 4 of the instructions, which stated that these roadsteads, Honuapo and Punaluu, were to be developed as were the roadsteads surveyed the previous year, namely, Honokaa and Kukuihaele.

LANDMARKS: As viewed from the sea approaching the landing there are three prominent objects in the immediate vicinity. The church, with a steeple, is on a high bluff to the left and above the large grove of coconut palm, algeroba and other trees. This grove stands out in sharp contrast to the surrounding barren country. Most of the houses constituting the village are in this grove.

The warehouse, built of corrugated iron sheeting painted black, at the landing, is to the right of the grove. The newer and outermost warehouse, built of corrugated, galvanized iron sheeting, and the oil tank, painted white, as previously stated, was being torn down when the survey was made; but it is fairly certain that the concrete foundations



of both will be left in place. These structures do not appear on the sheet made by Mr. E. R. Hand, having been built since his survey was made.

Respectfully submitted,

W. H. Bainbridge, Jr. H & G E, C & G Survey.

Forwarded

K. T. Adams, H & G E,

Chief of Party.

D.M. and D.P. sof Topographic Signals, SHEET "L", Scale 1:2,500 19-07-30 155-30-30 (1871.4)W W flag and cairn NED (2174.7)1. 1514.9 1635.8 BEN 19-07-30 (1311.0)155-30-30 W W on rock (1410.2)2097.0 **(2**378.6) 3. HAY 19-07-30 (719.6)155-30-30 (1099.7)W W on rock 2970.0 2407.5 TOP 19-07-30 155-30-30 Flag 385.2) (1720.1)3304.4 1787.1 5. 155-30-30 Flag on sisal plant stack CEN 19-08-00 (3578.6) (1731.7)111.0 1775.5 6. HOW 19-08-00 (3310.6)155-30-30 (1626.4)Outer gable of unpainted 1880.8 379.0 house. 155-30-30 RUST 19-08-00 (3220.6)(1707.0) Center of rusty tin-roofed 469.0 1800.2 house. 8. RED 19-08-00 (2978.6) 155-30-30 (1765.8) Outer gable of red roofed 711.0 1741.4 house (3325.6) HUT 19-08-00 155-30-30 Flag on pole on rock fence (2226.8)1280.4 364.0 1:30.4 at hut of palm leaves. 10. LON 155-30-00 19-08-00 (2713.6)20.2) Flag on pole in rock fence 976.0 3487.0 11. SOT 19-08-00 (1786.0)155-30-00 250.2) W W cairn 1903.6 3257.0 (1448.6)12. GOT 19-08-00 155-30-00 67.0) Outer gable first house 2241.0 3440.2 N E of church 13. TIN 19-08-00 (1108.3) 155-30-00 (466.2)Square tin house on poles 2581.3 3041.0 14. DIE 19-08-00 ( 933.6) 155-30-00 (633.7) White diamond target. 2756.0 2873.5 15. DOK 19-08-00 (1155.1) 155-30-00 Upright of derrick on dock. (975.4) 2534.5 2531.8 16. GAB 19-08-00 (1168.6) 155-30-00 (1072.2)Seaward gable of seaward 2521.0 2435.0 warehouse. 17. WHITE 19-08-00 155-30-00 (1263.1) (1245.8)Center and top of white oil 2426.5 2261.4 tank 18. PAN (1316.0) 19-08-00 155-30-00 (1265.0)W W on cemented rock pillar 2373.6 2242.2 19. RIK 19-08-00 (1637.2) 155-30-00 (1741.8)Upright of derrick on rocks 2052.4 1765.4 20. ERN 19-08-00 1592.4) 155-30-00 (2225.2)Large W W on boulder 2097.2 1282.0 21. NEST 19-08-00 (1537.2)155-30-00 (2394.1)Small W W cairn 2152.4 1113.ľ 22. BOO 19-08-00 ( 899.0) 155-30-00 (2377.0) flag 2790.6 1130.2 23. BAK 19-08-00 (879.6) 155-30-00 (2741.2)W W on rock 2810.0 766.0 24. RUN 19-08-00 (1161.6)155\_30-00 (3384.0)Flag and W W on cairn. 2528.0 123.2 85. GAL 19-08-00 731.0) 155-29-30 (183.5)Flag and W W cairn on large 2958.6 3323.7 boulder



|     | D.    | M. and D.P | of Topogr | caphic Signa | ls, SHEET | "L", (continued) |
|-----|-------|------------|-----------|--------------|-----------|------------------|
| 26. | CAP   | 19-08-00   | (596.4)   | 155-29-30    | ( 593.5)  | w w on boulder.  |
|     |       |            | 3093.2    |              | 2913.7    | ·                |
| 27. | CHIEF | 19-08-00   | ( 257.7)  | 155-29-30    | ( 442.3)  | W W on rock      |
|     |       | S 4 5      | 3431.9    |              | 3064.9    |                  |
| 28. | BILL  | 19-08-00   | (101.0)   | 155-29-30    | ( 752.5)  | Flag             |
|     |       | 1 1        | 3588.6    |              | 2754.7    |                  |
| 29. | GIB   | 19-08-30   | (3526.0)  | 155-29-30    | (1153.0)  | W W on rock      |
| •   |       |            | 163.6     |              | 2354.2    |                  |
| 30. | LOVE  | 19-08-00   | (134.6)   | 155-29-30    | (2221.5)  | W W cairn        |
|     |       | ′          |           |              | 1285.7    |                  |
| 31. | SEE   | 19-08-00   | ( 358.3)  | 155-29-30    | (2987.0)  | W W and flag     |
|     |       |            |           |              | 520.2     |                  |

Scaled by Glendon E. Boothe Checked by George W. Lovesee.

#### DEPARTMENT OF COMMERCE





### LANDMARKS FOR CHARTS

| ·   |       |                 |                    |                    |                       |                                  |                   |  |
|---|-------|-----------------|--------------------|--------------------|-----------------------|----------------------------------|-------------------|--|
|   |       |                 |                    |                    | November              | r 10                             | , 19 29           |  |
| Superintendent, U. S. Co. The following determindescription given below, as |       |                 |                    | be readily         | distinguis            | hed from s                       |                   |  |
|   |       |                 | *                  | K.I                | Adams                 | aus                              | hief of Party.    |  |
|   |       |                 |                    |                    |                       |                                  |                   |  |
| Description.  | I.a   | titude.         | Longitude.         |                    |                       | Method of<br>deter-<br>mination, | Charts affected.  |  |
| ,   | a ,   | D, M, meters.   | D. P. meters       |                    | Datum.                |                                  |                   |  |
| CHURCH, Punaluu   | 19-08 | At Pur<br>399.4 | aluu, Ha<br>155-30 | waii, T.<br>1055.9 | H.<br>Okl<br>Hawaiian | Triang.                          | 4115              |  |
|   |       | 005.1           | 100-00             | 1000.3             | Hawanan               |                                  |                   |  |
| Grove of Coconut Palms<br>Algeroba, and other tre<br>(Approximate center)   |       | 1               | 155-30             | *                  | lı.                   | Topog.                           | 4115              |  |
| Warehouse, black  | !     |                 |                    |                    |                       |                                  |                   |  |
| (center)  | 19-08 | 706.4           | 155_30             | 632.2              | n                     | Topog.                           | 4115              |  |
|   | ··-   |                 |                    |                    | -                     |                                  |                   |  |
|   |       | *Grove r        | ot yet t           | ransferr           | ed to sl              | meet.                            |                   |  |
| •   |       |                 |                    |                    |                       |                                  |                   |  |
|   |       |                 |                    |                    |                       |                                  |                   |  |
|   |       |                 |                    |                    |                       |                                  |                   |  |
|   |       |                 |                    |                    |                       |                                  |                   |  |
|   |       |                 |                    |                    | - <b></b>             |                                  |                   |  |
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|   |       | -               |                    | -<br>-             |                       |                                  |                   |  |
| w-y   |       |                 |                    |                    |                       |                                  |                   |  |
|   |       |                 |                    |                    |                       |                                  | <br>  <del></del> |  |
|   |       |                 |                    |                    |                       |                                  |                   |  |
|   |       |                 | İ                  |                    |                       |                                  |                   |  |

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be fursished 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, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.



ND REFER TO NO. 11-DRM

#### DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

#### Section of Field Records

Report on Topographic Sheet No. 4469

Punaluu Harbor, Southeast Coast of Hawaii

Surveyed in 1929

In numerous places on this sheet a solid, light black line is shown outside of the heavy black line, which is evidently intended for the high water line. This light line is probably meant for a low water line, but this is an unusual way to show the low water line and the field draftsman, Mr. Lovesee, in transferring the shoreline to H. 4959, showed this light line as the shoreline on the hydrographic sheet, omitting the heavy line entirely. While this is probably an error, the fact that a member of the field party interprets this light line as the shoreline causes some doubt to arise as to just what the solid light line is intended for. Mr. Bainbridge should be asked to explain this.

Jight line is intended for approximate low water line WABainbridge.



# DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY

## 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 Letter "L"                                     |
|--|
| REGISTER NO. 4469                                    |
| State Territory of HawaiianIs.                       |
| General locality S.E.Coast of Hawaii                 |
| Locality Punaluu, Famij                              |
| Scale 1:2,500 Date of survey October 18 to 24 , 1929 |
| Vessel U.S.C. & G.S.S. GUIDE                         |
| Chief of Party K. T. Adams                           |
| Surveyed by W. H. Bannbridge                         |
| Inked by W.H.B.                                      |
| Heights in feet above to ground to tops of trees     |
| Contour Approximate contour Form line intervalfeet   |
| Instructions dated June 17 19 29                     |
| Remarks:   |
|  |
|  |