**DEPARTMENT OF COMMERCE**  
U. S. COAST AND GEODETIC SURVEY  
*R. S. Patton*, Director  

**G. & G. SURVEY**  
**DEC 23 1929**  
**State:** Territory of Hawaii  

**DESCRIPTIVE REPORT**  
Topographic | Sheet No. "L" 4469  

**LOCALITY**  
S.E. Coast of Hawaiian Is.  
Punalu'u, Hawaii  

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**1929**  
**CHIEF OF PARTY**  
*K. T. Adams, H & G E*
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 "I"

REGISTER NO.

State Territory of Hawaii

General locality S E Coast of Hawaii

Locality Punaluu, Hawaii.

Scale 1:2,500 Date of survey October 19 to 24, 1929

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

Chief of Party K. T. Adams

Surveyed by W. H. Bainbridge

Inked by W.H.B

Heights in feet above to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated June 17, 1929

Remarks:

U. S. GOVERNMENT PRINTED 1929
DESCRIBETIVE REPORT
to accompany

TOPOGRAPHIC SHEET "L";
Scale 1:2,500
Punalu'u, 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 southwest of Punalu'u, and the village of
Punalu'u.

CONTROL: The sheet was controlled by three triangulation
stations: CHURCH, Punalu'u, 1914, and FUN 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 FUN, with a closing error of five meters,
which was adjusted proportionally.

STATISTICS:

Statute miles of traverse........2.45
Closing error in meters...........5.0
Signals built.....................22
Statute miles of shore line.....4
Signals located...............31
Working days...................7
Men on party...................3

GENERAL DESCRIPTION: Rough, Aa, lava extends from the south-
western limit of the sheet to the old fish pond north of station
HAY, forming almost perpendicular cliffs about 20 to 25 feet in
height. The pahoehoe, smooth, lava, extends from there to the
black sand beach north of station SOT, with sandy stretches in be-
tween. The elevations of stations TOP and SOT are about twelve
feet, with a lower general elevation between. The sand beach is
higher than the ground immediately inshore.

The aa lava begins at station PAN and then rises to cliffs
again of about 20 to 25 feet in elevation at station RIK, and both
cliffs and aa lava extend to station GIB, where the pahoehoe lava
commences and extends to triangulation station FUN, which is from
12 to 15 feet in elevation. The general elevation between the two
latter stations is 8 to 10 feet.
The marshes shown north of stations HUT and DIN are merely shallow pools filled with brackish water, grass and reeds.
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: Punalu‘u 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 Homaupo 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 Homaupo when it is impossible to land at Punalu‘u.
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.
Because of the thickness of the grove of coconut palms, algoroba, 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 1 and 2 on both, with additional marks for combining the two.
The warehouse at station GAB, and fence corners may be used in tying 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. Hamis, H & G E, the village of Punalu‘u 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 inadvertently 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, Homaupo and Punalu‘u, 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, algoroba 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
K. T. Adams, H & G E,
Chief of Party.
<p>| 1. | MED | 19-07-30 | (8174.7) | 155-30-30 | (1871.4) | W W flag and cairn |
| 2. | BEN | 19-07-30 | (1311.0) | 155-30-30 | (1410.2) | W W on rock |
| 3. | HAY | 19-07-30 | (719.6) | 155-30-30 | (1099.7) | W W on rock |
| 4. | TOP | 19-07-30 | (335.2) | 155-30-30 | (1780.1) | Flag |
| 5. | CEN | 19-08-00 | (3578.6) | 155-30-30 | (1731.7) | Flag on sisal plant stack |
| 6. | HOW | 19-08-00 | (3310.6) | 155-30-30 | (1885.4) | Outer gable of unpainted house |
| 7. | RUST | 19-08-00 | (3228.6) | 155-30-30 | (1707.0) | Center of rusty tin-roofed house |
| 8. | RED | 19-08-00 | (2978.6) | 155-30-30 | (1755.8) | Outer gable of red roofed house |
| 9. | HUT | 19-08-00 | (3235.5) | 155-30-00 | (2226.8) | Flag on pole on rock fence at hut of palm leaves |
| 10. | LON | 19-08-00 | (2713.5) | 155-30-00 | (1802.8) | Flag on pole in rock fence |
| 11. | SOT | 19-08-00 | (1782.0) | 155-30-00 | (2850.0) | W W cairn |
| 12. | OOT | 19-08-00 | (1448.6) | 155-30-00 | (67.0) | Outer gable first house |
| 13. | TIN | 19-08-00 | (1198.3) | 155-30-00 | (466.2) | Square tin house on poles |
| 14. | DRE | 19-08-00 | (935.8) | 155-30-00 | (633.7) | White diamond target |
| 15. | DOK | 19-08-00 | (1155.1) | 155-30-00 | (975.4) | Upright of derrick on dock |
| 16. | GAB | 19-08-00 | (1168.6) | 155-30-00 | (1072.2) | Seaward gable of seaward warehouse |
| 17. | WHITE | 19-08-00 | (1265.1) | 155-30-00 | (1245.8) | Center and top of white oil tank |
| 18. | PAN | 19-08-00 | (1516.0) | 155-30-00 | (1285.0) | W W on cemented rock pillar |
| 19. | RIK | 19-08-00 | (1637.2) | 155-30-00 | (1741.8) | Upright of derrick on rocks |
| 20. | ERN | 19-08-00 | (1892.4) | 155-30-00 | (2252.2) | Large W W on boulder |
| 21. | NEST | 19-08-00 | (1537.2) | 155-30-00 | (2394.1) | Small W W cairn |
| 22. | BOO | 19-08-00 | (899.0) | 155-30-00 | (2377.0) | Flag |
| 23. | HAK | 19-08-00 | (879.6) | 155-30-00 | (2741.2) | W W on rock |
| 24. | RUN | 19-08-00 | (1161.6) | 155-30-00 | (3384.0) | Flag and W W on cairn |
| 25. | GAL | 19-08-00 | (731.0) | 155-29-30 | (153.5) | Flag and W W cairn on large boulder |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Code</th>
<th>Date</th>
<th>D.M.</th>
<th>D.P.</th>
<th>M.D.</th>
<th>Remarks</th>
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<tr>
<td>26.</td>
<td>CAP</td>
<td>19-08-00</td>
<td>(596.4)</td>
<td>165-29-30</td>
<td>(583.5)</td>
<td>W W on boulder.</td>
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<td></td>
<td>3093.2</td>
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<td>2913.7</td>
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<td>27.</td>
<td>CHIEF</td>
<td>19-08-00</td>
<td>(257.7)</td>
<td>155-29-30</td>
<td>(442.3)</td>
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<td>3431.9</td>
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<td>28.</td>
<td>HILL</td>
<td>19-08-00</td>
<td>(101.0)</td>
<td>155-29-30</td>
<td>(752.5)</td>
<td>Flag</td>
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<td>3588.6</td>
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<td>GIB</td>
<td>19-08-30</td>
<td>(3526.0)</td>
<td>155-29-30</td>
<td>(1153.0)</td>
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<td>153.6</td>
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<td>30.</td>
<td>LOVE</td>
<td>19-08-00</td>
<td>(134.6)</td>
<td>155-29-30</td>
<td>(2221.5)</td>
<td>W W cairn</td>
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<td>31.</td>
<td>SEE</td>
<td>19-08-00</td>
<td>(353.3)</td>
<td>155-29-30</td>
<td>(2997.0)</td>
<td>W W and flag</td>
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</tbody>
</table>

Scaled by Glendon E. Boothe
Checked by George W. Lovesea.
SUPERINTENDENT, 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:

<table>
<thead>
<tr>
<th>Description</th>
<th>Latitude.</th>
<th>Longitude.</th>
<th>Datum.</th>
<th>Method of determination</th>
<th>Charts affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHURCH, Punaluu</td>
<td>19-08</td>
<td>399.4</td>
<td>155-30</td>
<td>Old Hawaiian</td>
<td>Triang. 4115</td>
</tr>
<tr>
<td>Grove of Coconut Palms</td>
<td>19-08</td>
<td>*</td>
<td>155-30</td>
<td>High</td>
<td>Topog. 4115</td>
</tr>
<tr>
<td>Algeroba, and other trees (Approximate center)</td>
<td>19-08</td>
<td>708.4</td>
<td>155-30</td>
<td>Old Hawaiian</td>
<td>Topog. 4115</td>
</tr>
</tbody>
</table>

*Grove not yet transferred to sheet.

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 steeple, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
WASHINGTON

Section of Field Records
Report on Topographic Sheet No. 4469
Punalu'u 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.

Aug 27, 1930

P.E. Johnston

Light line is intended for approximate low water line.

W.H. Bainbridge
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 HAWAII

General locality: S.E. COAST OF HAWAIKI

Locality: Punalu'u, HAWAI'I

Scale: 1:2,500 Date of survey: October 18 to 24, 1929


Chief of Party: K. T. Adams

Surveyed by: W. H. Bainbridge

Inked by: W.H.B

Heights in feet above to ground to tops of trees

Contour: Approximate contour Form line interval

Instructions dated: June 17, 1929

Remarks: