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

State: Hawaiian Is.

DESCRIPTIVE REPORT
4752
Topographic Sheet No. 42
Hydrographic

LOCALITY
Northwest Coast of Oahu
Kaiapi to Kaena Point

1932

CHIEF OF PARTY
Robert A. Paton
DESCRIPTIVE REPORT

to accompany

SHEET E.E.

NORTHWEST COAST OF OAHU

KAWAIAPAI TO KAENA POINT

INSTRUCTIONS:

The survey of this area was done in cooperation with the U. S. Army under instructions from the Director, Coast & Geodetic Survey, dated July 14, 1931, and also under verbal instructions from the representatives of the Chief of Engineers, U. S. A. Its purpose was restricted to a rapid development of possible landing sites for troops. On this account, the topographic party located the hydrographic signals and the shore line only. Some additional information was obtained without delaying the progress of the work.

CONTROL:

Eleven triangulation stations were located within the limits of the sheet. They provided sufficient control so that no long traverses were necessary and all closing errors were nil.

JUNCTIONS:

On the east, this sheet joins the field sheet "DD". The shore line was determined by transfer from that sheet and the traverse extended to Triangulation Station Y.M.C.A.

On the west, a good junction with Sheet 4779 was made. Three old signals were recovered and their location checked.

METHODS:

For a general description of methods used, see Descriptive Reports of Sheets "L", "CC", and "DD". Areas inclosed by a dashed line and described as "breakers" indicate the general shape and limits of breakers in normal weather, that is, when a light northeasterly or easterly breeze is blowing. In unfavorable weather, breakers are continuous along this coast and extend farther offshore than shown.

LANDMARKS:

The Geological Survey maps (scale 1:20,000) were found to be quite accurate and the contours should be shown on our charts. The unimproved and incomplete road constructed up the face of the cliff in Longitude 158°15'.5 is a prominent landmark. A subgrade for an inclined railway was constructed
up the first draw east of this road, but is not shown by the Geological survey. An approximate location of this is shown on the topographic sheet.

CORRECTION TO CHARTS:

On Chart #4110 (issued in 1919), an arc of visibility for Keena Point Light is shown. These rays should be removed as the light is not obscured.

Respectfully submitted,

Hubert A. Paton
Lieutenant,
Chief of Party.
# PLANE TABLE POSITIONS

**SHEET E. E.**

<table>
<thead>
<tr>
<th>Object &amp; Description</th>
<th>Lat.</th>
<th>D.M.</th>
<th>Long.</th>
<th>D.P.</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFR, Radio tower - steel</td>
<td>21°34'</td>
<td>1477'</td>
<td>156°13'</td>
<td>904'</td>
<td>100 ft</td>
</tr>
<tr>
<td>Hit, Radio tower - steel</td>
<td>21°34'</td>
<td>1544'</td>
<td>156°13'</td>
<td>1106'</td>
<td>100 &quot;</td>
</tr>
<tr>
<td>water tank, wooden</td>
<td>21°34'</td>
<td>1466'</td>
<td>156°13'</td>
<td>1022'</td>
<td>25 &quot;</td>
</tr>
<tr>
<td>CHI, rock chimney, largest blg.,</td>
<td>21°34'</td>
<td>1664'</td>
<td>156°13'</td>
<td>1047'</td>
<td></td>
</tr>
<tr>
<td>Camp Erdman</td>
<td>21°34'</td>
<td>1737'</td>
<td>156°13'</td>
<td>1030'</td>
<td></td>
</tr>
<tr>
<td>BOY, flag pole, ref. mark in base</td>
<td>21°34'</td>
<td>1675'</td>
<td>156°13'</td>
<td>1555'</td>
<td></td>
</tr>
<tr>
<td>Railroad trestle (center)</td>
<td>21°34'</td>
<td>1631'</td>
<td>156°14'</td>
<td>107'</td>
<td>20 &quot;</td>
</tr>
<tr>
<td>CAB, north gable, red house</td>
<td>21°34'</td>
<td>1283'</td>
<td>156°14'</td>
<td>815'</td>
<td>850 &quot;</td>
</tr>
<tr>
<td>WART, prominent rock on shoulder of cliff</td>
<td>21°34'</td>
<td>1747'</td>
<td>156°15'</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>BOX, small rock shelter for machine gun</td>
<td>21°34'</td>
<td>1720'</td>
<td>156°14'</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>Railroad trestle (center)</td>
<td>21°34'</td>
<td>1690'</td>
<td>156°14'</td>
<td>1298</td>
<td></td>
</tr>
<tr>
<td>Railroad trestle</td>
<td>21°34'</td>
<td>1635'</td>
<td>156°14'</td>
<td>1710</td>
<td></td>
</tr>
<tr>
<td>Railroad trestle</td>
<td>21°34'</td>
<td>1592'</td>
<td>156°15'</td>
<td>747</td>
<td></td>
</tr>
<tr>
<td>Railroad trestle</td>
<td>21°34'</td>
<td>1705'</td>
<td>156°15'</td>
<td>254</td>
<td></td>
</tr>
<tr>
<td>Railroad trestle</td>
<td>21°34'</td>
<td>1488'</td>
<td>156°15'</td>
<td>1426</td>
<td></td>
</tr>
<tr>
<td>SIG, railroad crossing sign</td>
<td>21°34'</td>
<td>1366'</td>
<td>156°16'</td>
<td>557</td>
<td></td>
</tr>
<tr>
<td>Cave, small, on side of rock</td>
<td>21°34'</td>
<td>1328'</td>
<td>156°16'</td>
<td>924</td>
<td></td>
</tr>
<tr>
<td>TIP, north end of large rock</td>
<td>21°34'</td>
<td>1344'</td>
<td>156°16'</td>
<td>967</td>
<td></td>
</tr>
<tr>
<td>Railroad trestle (center)</td>
<td>21°34'</td>
<td>1276'</td>
<td>156°16'</td>
<td>1039</td>
<td></td>
</tr>
<tr>
<td>U.S. Navy Radio Compass Station, red blg.</td>
<td>21°34'</td>
<td>1194'</td>
<td>156°16'</td>
<td>1594</td>
<td>20 ft</td>
</tr>
</tbody>
</table>
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
LANDMARKS FOR CHARTS  
Honolulu, Part Skiffter, T. U.  

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.

Hubert A. Paton,  
Chief of Party.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POSITION</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>DATUM</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio Tower (100')</td>
<td>21 34'</td>
<td>1477</td>
<td>150 15'</td>
<td>984</td>
<td>1930</td>
<td>Topo 4110</td>
</tr>
<tr>
<td>Radio Tower (100')</td>
<td>21 34'</td>
<td>1544</td>
<td>158 15'</td>
<td>1106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Largest Bldg, Camp</td>
<td>21 34'</td>
<td>1664</td>
<td>158 15'</td>
<td>1047</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rod House</td>
<td>21 34'</td>
<td>1681</td>
<td>160 14'</td>
<td>107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promont Rock (650'</td>
<td>21 34'</td>
<td>1283</td>
<td>158 14'</td>
<td>815</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U. S. Navy Radio</td>
<td>21 34'</td>
<td>1174</td>
<td>150 16'</td>
<td>1894</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compass Station, rod</td>
<td>21 34'</td>
<td>1657</td>
<td>150 14'</td>
<td>1560</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block Rock</td>
<td>21 34'</td>
<td>1675</td>
<td>150 15'</td>
<td>1658</td>
<td></td>
<td>Topo 4110</td>
</tr>
<tr>
<td>Railroad Trestles</td>
<td>21 34'</td>
<td>1270</td>
<td>150 14'</td>
<td>805</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>21 34'</td>
<td>1270</td>
<td>150 14'</td>
<td>805</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>21 34'</td>
<td>1690</td>
<td>156 14'</td>
<td>1298</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>21 34'</td>
<td>1635</td>
<td>156 14'</td>
<td>1710</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>21 34'</td>
<td>1592</td>
<td>153 15'</td>
<td>747</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>21 34'</td>
<td>1705</td>
<td>153 15'</td>
<td>254</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>21 34'</td>
<td>1650</td>
<td>158 15'</td>
<td>1208</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>21 34'</td>
<td>1276</td>
<td>150 16'</td>
<td>1016</td>
<td></td>
<td></td>
</tr>
</tbody>
</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 objects 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, masts and like objects are not sufficiently permanent to chart.
REVIEW OF TOPOGRAPHIC SURVEY No. 4752

Title (Par. 56) Northwest Coast of Oahu, Haw. Is., Kona Pt.-Kainaihapoi


Part: Inshore Hyd. Surv. of Oahu Instructions dated 7/14/51 Surveyed in 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. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)

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.)

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. 22, 30, 57, 67 except scaling of IMs and DPs, 68.) Cards checked by Life.

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.) Decl. measured 11° 15' 13" 10' 95.8, all E. All taken at about the same point. All surveys claim decl. varies in this area.

18. The geographic datum of the sheet is Old Hawaiian 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 H. A. Paton

Examined and approved:

[Signatures and names]

Chief, Section of Field Records

Chief, Division of Charts

Chief, Section of Field Work

Chief, Division of Hyd. and Top.
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. EE

REGISTER NO. 4752

State............................................Hawaiian Islands

General locality................................Northwest Coast of Oahu

Locality...........................................Kaena Pt. to Kawainui

Scale........................................1:5000

Date of survey................................September, 1932

Vessel........................................Inshore Hydrographic Survey of Oahu

Chief of Party.........................Hubert A. Paton, Lieut.

Surveyed by................................H. A. P.

Inked by........................................H. A. P.

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

Contour, Approximate contour, Form line interval............feet

Instructions dated..................July 14th, 1931

Remarks: Surveyed in cooperation with the U. S. Army.