**Form 804**

**U. S. DEPARTMENT OF COMMERCE**

**COAST AND GEODETIC SURVEY**

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>SHORELINE (PHOTOGRAMMETRIC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field No.</td>
<td>Ph-6012</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-11991</td>
</tr>
</tbody>
</table>

**LOCALITY**

<table>
<thead>
<tr>
<th>State</th>
<th>Hawaii</th>
</tr>
</thead>
<tbody>
<tr>
<td>General locality</td>
<td>Maui Island</td>
</tr>
<tr>
<td>Locality</td>
<td>Keanae</td>
</tr>
</tbody>
</table>

**1960 - 1963**

**CHIEF OF PARTY**

H. J. Seaborg, Honolulu District Office

W. E. Randall, Baltimore District Office

**LIBRARY & ARCHIVES**

**DATE**

1967
# DESCRIPTIVE REPORT - DATA RECORD

**T-11991**

**PROJECT NO. (III):**

PH-6012
(21034)

**FIELD OFFICE (II):**

Honolulu, Hawaii

**CHIEF OF PARTY**

H. J. Seaborg

**PHOTOGRAMMETRIC OFFICE (III):**

Baltimore, Maryland

**OFFICER-IN-CHARGE**

W. E. Randall

**INSTRUCTIONS DATED (III) (III):**

14 November 1960
28 November 1960
13 June 1961
16 January 1962

**METHOD OF COMPILATION (III):**

Kelsh Plotter

**MANUSCRIPT SCALE (III):**

1:5,000

**STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):**

1:5,000

**DATE RECEIVED IN WASHINGTON OFFICE (IV):**


**DATE REPORTED TO NAUTICAL CHART BRANCH (IV):**


**APPLIED TO CHART NO.**


**DATE:**


**DATE REGISTERED (IV):**


**GEOGRAPHIC DATUM (III):**

Old Hawaiian

**VERTICAL DATUM (III):** MSL

**MEAN SEA LEVEL EXCEPT AS FOLLOWS:**

Elevations shown as (25) refer to mean high water

Elevations shown as (5) refer to sounding datum

i.e., mean low water or mean lower low water

**REFERENCE STATION (III):**

PAUWALU (HGS), 1877, 1929

**LAT.:**

20° 51' 43.286"

**LONG.:**

156° 08' 03.880"

**X ADJUSTED**


**STATE**

Hawaii

**ZONE**

2

**PLAN COORDINATES (IV):**

= 192,319.31

x = 681,722.52

**ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (I) FIELD PARTY, (II) PHOTOGRAMMETRIC OFFICE, OR (IV) WASHINGTON OFFICE.**

**WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.**
# Descriptive Report - Data Record

**Field Inspection by (II):**

| J. C. Lajoye | Date: Jan. 1962 |
---|---|

**Mean High Water Location (III): (State Date and Method of Location):**

Mean high water-line located by Kelsh Plotter from October 1960 photography aided by field inspection notes.

**Projection and Grids Ruled by (IV):**

| A. E. Roundtree | Date: 4-3-62 |
---|---|

**Projection and Grids Checked by (IV):**

| A. E. Roundtree | Date: 4-4-62 |
---|---|

**Control Plotted by (III):**

| L. A. Senasack | Date: 5-7-62 |
---|---|

**Control Checked by (III):**

| L. O. Neterer | Date: 5-7-62 |
---|---|

**Radial Plot or Stereoscopic Control Extension by (III):**

**Aerotriangulation - Washington Office**

| Date: 2-62 |
---|---|

**Stereoscopic Instrument Compilation (III):**

| Planimetry | Date: 5-62 |
---|---|

| E. L. Williams | Inapplicable |
---|---|

**E. L. Williams**

**Manuscript Delineated by (III):**

| Date: 5-62 |
---|---|

| D. M. Brant |
---|---|

**Scribing by (III):**

| Date: |
---|---|

| D. M. Brant |
---|---|

**Photogrammetric Office Review by (III):**

| Date: 5-62 |
---|---|

| D. M. Brant |
---|---|

**Remarks:**

Field Edit - 1963 - USC & GS5 Path Finder (Field Edit Sheet Submitted)
### DESCRIBITIVE REPORT - DATA RECORD

**Camera (Kind or Source) (III):**

\[\text{M}^n\text{in Camera}\]

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>61 W 841 &amp; 842</td>
<td>24 Sept. 1961</td>
<td>0906</td>
<td>1:15,000</td>
<td>0.2 Ft. Above MLLW</td>
</tr>
<tr>
<td>60 W(C) 3122 thru 3124</td>
<td>19 Oct. 1960</td>
<td>0754</td>
<td>1:10,000</td>
<td>0.3 Ft. Above MLLW</td>
</tr>
</tbody>
</table>

*Tides computed from Predicted Tide Tables.*

<table>
<thead>
<tr>
<th>Tide (III)</th>
<th>Diurnal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Station: Honolulu, Hawaii</td>
<td>Ratio of Ranges: 1.2</td>
</tr>
<tr>
<td>Subordinate Station: Hana, Hawaii</td>
<td>Ratio of Ranges: 1.8</td>
</tr>
</tbody>
</table>

Final Washington Office Review by (IV): Leo F. Beugnet For Norfolk Regional Office Date: Nov. 1965

Proof Edit by (IV): Date: Dec. 1965

Number of Triangulation Stations Searched for (III): 1

Number of BM51 Searched for (III): 0

Number of Recoverable Photo Stations Established (III): 0

Number of Temporary Photo Hydro Stations Established (III): 7

**Remarks:**

*Includes a temporary station which was established and identified.*
<table>
<thead>
<tr>
<th>Compilation Record</th>
<th>Completion Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alongshore area for hydro.</td>
<td>January 1962</td>
<td></td>
</tr>
<tr>
<td>Final Compilation</td>
<td>March 1964</td>
<td></td>
</tr>
</tbody>
</table>
SUMMARY TO ACCOMPANY
DESCRIPTION REPORT T-11991

Shoreline manuscript T-11991 is one of forty-nine similar maps at either 1:5,000 or 1:10,000 scale which cover the shoreline of Maui Island. This was a Kelsh project in advance of hydrographic surveys which were made in the area. The field operations preceding compilation included recovery and identification of horizontal control and field inspection. The Kelsh compilation was at 1:5,000 scale from which a cronar positive showing shoreline, alongshore features and shoreline pass points was furnished for preparation of the boat sheet. 1:25,000 scale photographs taken in October 1960 were used for compilation. Ratio prints of 1:15,000 scale photography obtained in 1961 were provided for hydro support and field edit purposes. The compilation manuscript is a vinylite sheet 2 minutes 22.5 seconds in latitude by 1 minute 52.5 seconds in longitude from which the smooth map was re-produced on cronaflex for photogrammetric review. One cronar positive and one cronar negative are provided for record and registry after final review.
3. AREAL FIELD INSPECTION:

The area covered by this report encompasses the whole of the Island of Maui, second largest of the Hawaiian Islands. It is formed by two mountains with a fertile valley devoted to the cultivation of sugar cane and pineapple. The island is shaped like a Shinto priest in prayer with the head at the western end formed by the West Maui range of mountains and the body at the eastern end formed by Mt. Haleakala which rises over 10,000 feet above sea level.

The climate varies from the tropical rain forest at the eastern end of the island near Hana, to the barren lava fields along the south slopes of Mt. Haleakala. Rain seldom falls on the south coasts and thus the disintegration of the lava is a slow process.

Shoreline conditions vary from the stark lava bluffs around Mt. Haleakala and on the east side of the West Maui Range, to the sandy beaches along the valley between the mountains and on the western or lee shores of the island.

The area is cooled by trade winds from the north and east accentuated by the Venturi effect caused by the valley between the mountains and, in the exposed areas, waves beat continuously on the rocky cliffs. On the western shores around Lahaina and on Malaekahana Bay, only a "kona" or southerly storm infrequently disturbs this peaceful area.

Kahului is the principal port on the island. It is protected by a breakwater and serves as a port of call for large ocean going
vessels which bring in freight and load out processed pineapple and raw sugar. It is also the port of call for tug and barge service from Honolulu.

Photography was adequate for the identification of control and for field and shoreline inspection. In some areas which were cloud covered in the 1960 photography, 1962 refight photographs which were furnished to the hydrographic party were secured and the shoreline and interior inspected and inked on those photos.

Shoreline inspection along the lava fields at the south side of the east portion of the island is somewhat sketchy. Areas that were impassable due to broken lava, large crevases, or lack of trails, were left to be inspected from a launch when one becomes available. The shoreline may be delineated at the edge of the lava but additional hydrographic signal sites must be selected from the seaward side.

Shoreline inspection in the beach areas was accomplished by walking along the high waterline, and delineating the waterline supported by measurements from prominent objects. Where it was possible, as in the case of low bluffs, the shoreline was inspected from the top of the bank. In the areas of high rocky bluffs and cliffs, it was not possible to get anywhere near the shoreline and inspection was carried out by leaning over the precipitous bluffs, which descend almost vertically to the high water line. In every area except the sandy beaches mentioned, and even in the lava fields at the south portion of the island, the high waterline lies at the base of bluff and is confused by along shore rocks and breaking surf, and off-shore reefs.
3. HORIZONTAL CONTROL

(a) The following marked or recoverable intersection stations were located by triangulation as nautical aids, aeronautical aids, or as additional photogrammetric control:

- Kahului Harbor Entrance East Breakwater Light, d.m.m.
- Kahului Harbor Entrance West Breakwater Light, d.m.n.
- Kahului Harbor Entrance Range, Front Light, d.n.m.
- Kahului Harbor Entrance Range, Rear Light, d.n.m.
- Kahului Airport Control Tower, Beacon, d.n.m.
- VOR OGG, d.n.m.
- Lahaina Lighthouse, d.m.m.
- E (USE), d.m.
- EAST POINT, d.m.
- WEST POINT, d.m.

The following temporary stations were established for supplemental control of aerial photographs and were not marked:

- Ample (temp)
- Camp (temp)
- Ditch (temp)
- Malay (temp)
- State (temp)
- Grove (temp)
- Pau (temp)
- Power (temp)

Pau and Power were established to determine a position for Lahaina Lighthouse.

The following hydrographic signals were located by theodolite cuts either to establish signals in obscured areas or to provide a check on signal sites established by photogrammetric methods:

- Hydro Sig. 2301
- Hydro Sig. 2303
- Hydro Sig. 2305
- POL
- CAM
- MAY
(b) There were no datum adjustments made by the field party.

(c) All control was either established by the Coast and Geodetic Survey or was tied to Coast Survey control by previous surveys.

(d) All stations required by the project diagrams were recovered and identified except where specific permission was received from the Washington Office to substitute one station for another.

(e) Control adjacent to the shoreline and that within the area of photogrammetric coverage was searched for and Form 526 has been submitted for all stations. Stations outside the area covered by the photographs were not searched for due to heavy brush and undergrowth in the interior of the island.

(f) Control station identification cards were submitted for all stations required by the project diagrams.

4. VERTICAL CONTROL

Tidal bench marks at Kahului, Lahaina, Mala Shurf, Aihe, and Makena were searched for and recovered.

Tidal bench marks at Hana were searched for but due to changes in the area, they were not recovered.

No vertical points were required for stereoscopic mapping.
(c) The foreshore in the bluff areas is confused due to many along shore rocks. The continuous surf along the north, east and south sides of the islands served to confuse the high waterline on the photographs. In the sandy areas of the western and northern shore, the beach is protected by a coral reef which was found by the hydrographer, and which is visible on the photograph. In the Kihei area, offshore rock piles, the remains of old fish pond walls, are visible on the photographs. Offshore rocky reefs are found in some areas and, where seen, were noted on the field photographs.

(d) Bluffs and cliffs form the largest portion of the shoreline, although Maui is represented as having more beach area than any other of the Hawaiian Islands. From a few miles north of Kahului to Honolua Bay the shore is composed of high cliffs and low rocky bluffs. From Honolua Bay, through Lahaina and slightly south of Olowalu the shore is low with sandy beaches between rocky headlands. From the beginning of the cliffs at the south end of the West Maui Range to Mc Gregor Point, the shore is again rocky and precipitous. At Maalaea, and continuing south past Makena to about a mile south of Puu Olai, the shore is protected and sandy with a few rocky projections which act as groins to hold the sand.

From the recent lava flow south of Puu Olai and continuing south and east toward Hana, the shoreline is rocky with bluffs ranging from 10 to 150 feet. In the area near Kaupo, Kipahulu, and Puuiki High vertical bluffs predominate. The only sand beach in the entire area is located several miles southeast of the village of Hana.
From Hana west to Kuau, or into sheet T-11903 the vertical cliffs range from 50 to 200 feet in height and there are no beach areas and no place to approach the high waterline from the beach side except at Keanae or Wahiku except by descending the vertical bluffs by ropes.

(e) Kahului Harbor, as mentioned in the Areal Description, is the principal and only commercial port in the island. It has recently been dredged, is well jettied and has wharfage and facilities for ocean going vessels.

Hana Harbor is partially protected by natural rock projections but is open to some trade directions. It was used as a stop for inter-island steamer traffic, and prior to World War 2, when the sugar plantation at Hana was under cultivation, cargo was loaded out of this port. Since the discontinuing of steamer traffic between the islands, only an occasional fuel barge or fishing boat use the large concrete pier located here.

Mala Wharf, located a few miles north of Lahaina, was used to load sugar and pineapple during the days of steamer traffic but the large concrete wharf is in poor repair and has been closed by the Board of Harbor Commissioners.

Lahaina, once the seat of the Hawaiian kings, and the oldest town in the island, is the site of a protected small boat harbor. Fuel, food, and housing are available here.

Maalaea is the site of a small boat harbor used mainly by fishing boats. It is well jettied and fuel and supplies are available.

In the olden days, when steamers made the rounds of the island
and water transportation was at its height, there were other places where cargo was unloaded by boom and where whaleboat landings were made. Principal among these were Huu Landing, Kaupo, and Nahiku. These have now been abandoned and only the remains of the old concrete foundations and the old mooring bolts remain.

(f) There are no overhead or submarine cables in the area covered by the project.

(g) There are no other shoreline structures.

8. OFFSHORE FEATURES

No offshore rocks were actually visited by the photogrammetric party. It was noted on the field photographs that the hydrographic party/ be asked to determine the heights of offshore rocks. Where heights were indicated on the photographs, they were estimated from shore.

9. LANDMARKS AND AIDS.

Landmarks, nautical and aeronautical aids in Strips 1 to 7 were listed on Form 567 and forwarded with the field inspection photos. Other landmarks should be reported by the hydrographic party.

10. BOUNDARIES, MONUMENTS and LINES.

Investigation of boundaries, monuments and lines were not included in the instructions for the project.

11. OTHER CONTROL

No recoverable topographic stations were established. Where hydrographic or photogrammetric control by geodetic methods was required, only temporarily marked stations were used.

In areas which were inaccessible to the field party, hydro signal sites were not selected. It was requested that the hydrographic
party make a launch available to the photogrammetrist for the inspection of shoreline and the selection of hydro signal sites in these areas.

12. OTHER INTERIOR FEATURES

Roads within the area adjacent to the shoreline were classified as dfl, ddl and sdl. Class 1 structures were not noted. Class 2 structures, churches and public buildings were noted.

The principal airport, Kahului Airport, is located about 3 miles east of Kahului Harbor. There is a paved airstrip at Hana used by D C 3 and small private aircraft. A small dirt strip is located at Kaanapali, about 6 miles north of Lahaina and is used by small private aircraft. The abandoned Naval Airstrip at Puu Hene is not used.

There are no bridges or cables over navigable waters. No trace was found of the shore ends of any submarine cables.

13. GEOGRAPHIC NAMES

No geographic names investigation was required by the project instructions.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

There were no special reports, or supplemental data.

Respectfully submitted

John C. Lajoye

8 September 1962
For additional data pertaining to this survey please refer to the Photogrammetric Plot Report bound with T-11987.

Items 31 thru 36

Please refer to the Compilation Report bound with T-11896

37. LANDMARKS AND AIDS

There are no landmarks, aids to navigation, or aeronautical aids within the compilation limits of this map.

38. CONTROL FOR FUTURE SURVEYS

No control for future surveys was established during compilation.

39. JUNCTIONS

Satisfactory junctions were made with T-11907 on the west and with T-11992 on the south. The Pacific Ocean is to the north and east.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with U.S.G.S. Keaau, Hawaii quadrangle, 1:24,000 scale, 12th edition of 1957.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with nautical chart 4116, 1:250,000 scale, 12th edition, August 17, 1964.
ITEMS TO BE APPLIED TO CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Respectfully submitted:

Joseph Steinberg

For: Donald M. Brant
Carto. (Photo)

Approved:

S. Helms
J. Bull
Capt. C&GS
Norfolk Regional Officer
GEOGRAPHIC NAMES

T-11991

Hahaha Bay
Kawee Point
Kauwalu
Keanae
Keanae Point
Manahoa Rock
Moku Hala
Moku Mana
Moku Holua
Nuaailua Bay
Ohia Stream
Pacific Ocean
Paepaemoana Point
Pauwalu Point
Waialohe Pond

A. J. Wraight
Chief, Geographic Branch
49. NOTES TO HYDROGRAPHER

Incomplete copies of the above surveys have been furnished for photo hydro support. Included is a set of ratio photos with selected shoreline pass points thereon. Hydrographic signal sites selected by the field inspection party have been located and shown by name and number. A listing of these follows:

<table>
<thead>
<tr>
<th>Signal No.</th>
<th>Description</th>
<th>Photo Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9101</td>
<td>High point of island</td>
<td>2512</td>
</tr>
<tr>
<td>9102</td>
<td>Flag on point</td>
<td>2512</td>
</tr>
<tr>
<td>9103</td>
<td>Rag on lauhala tree</td>
<td>2512</td>
</tr>
<tr>
<td>9104</td>
<td>Rag on ironwood tree</td>
<td>2512</td>
</tr>
<tr>
<td>9105</td>
<td>Church steeple</td>
<td>2512</td>
</tr>
<tr>
<td>9106</td>
<td>Rag on small tree</td>
<td>2512</td>
</tr>
<tr>
<td>9107</td>
<td>Northeast corner of landing</td>
<td>2512</td>
</tr>
</tbody>
</table>

T-11992

<table>
<thead>
<tr>
<th>Signal No.</th>
<th>Description</th>
<th>Photo Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9201</td>
<td>End of rock point</td>
<td>2513</td>
</tr>
<tr>
<td>9202</td>
<td>Rag on lauhala tree</td>
<td>2513</td>
</tr>
<tr>
<td>9203</td>
<td>Catholic church steeple</td>
<td>2513</td>
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<tr>
<td>Section</td>
<td>Notes</td>
<td></td>
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<tr>
<td>------------------------------------------------------------------------</td>
<td>-------</td>
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</tr>
<tr>
<td>PROJECTION AND GRIDS</td>
<td>LFB</td>
<td></td>
</tr>
<tr>
<td>5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY</td>
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<tr>
<td>6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (TOPOGRAPHIC STATIONS)</td>
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<td>7. PHOTO HYDRO STATIONS</td>
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<tr>
<td>8. BENCH MARKS</td>
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<tr>
<td>9. PLOTTING OF SEXTANT FIXES</td>
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<td>10. PHOTOGRAHMATIC PLOT REPORT</td>
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<tr>
<td>11. DETAIL POINTS</td>
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<tr>
<td>ALONGSHORE AREAS (Nautical Chart Date)</td>
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<tr>
<td>12. SHORELINE</td>
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<tr>
<td>13. LOW-WATER LINE</td>
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<tr>
<td>14. ROCKS, SHOALS, ETC.</td>
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<tr>
<td>15. BRIDGES</td>
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<tr>
<td>16. AIDS TO NAVIGATION</td>
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<tr>
<td>17. LANDMARKS</td>
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<tr>
<td>18. OTHER ALONGSHORE PHYSICAL FEATURES</td>
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<td>19. OTHER ALONGSHORE CULTURAL FEATURES</td>
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<tr>
<td>PHYSICAL FEATURES</td>
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<tr>
<td>20. WATER FEATURES</td>
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</tr>
<tr>
<td>21. NATURAL GROUND COVER</td>
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<tr>
<td>22. PLANETARY CONTOURS</td>
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<tr>
<td>23. STEREOSCOPIC INSTRUMENT CONTOURS</td>
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<td>24. CONTOURS IN GENERAL</td>
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<td>25. SPOT ELEVATIONS</td>
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<tr>
<td>26. OTHER PHYSICAL FEATURES</td>
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<tr>
<td>CULTURAL FEATURES</td>
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</tr>
<tr>
<td>27. ROADS</td>
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<td>28. BUILDINGS</td>
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<td>29. RAILROADS</td>
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<td>30. OTHER CULTURAL FEATURES</td>
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<tr>
<td>BOUNDARIES</td>
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<tr>
<td>31. BOUNDARY LINES</td>
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<td>32. PUBLIC LAND LINES</td>
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<tr>
<td>MISCELLANEOUS</td>
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<tr>
<td>33. GEOGRAPHIC NAMES</td>
<td>LFB</td>
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</tr>
<tr>
<td>34. JUNCTIONS</td>
<td>LFB</td>
<td></td>
</tr>
<tr>
<td>35. LEGIBILITY OF THE MANUSCRIPT</td>
<td>LFB</td>
<td></td>
</tr>
<tr>
<td>36. DISCREPANCY OVERLAY</td>
<td>LFB</td>
<td></td>
</tr>
<tr>
<td>37. DESCRIPTIVE REPORT</td>
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<td></td>
</tr>
<tr>
<td>38. FIELD INSPECTION PHOTOGRAPHS</td>
<td>LFB</td>
<td></td>
</tr>
<tr>
<td>SIGNATURE OF REVIEWER</td>
<td>LFB</td>
<td></td>
</tr>
<tr>
<td>F. FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT</td>
<td>LFB</td>
<td></td>
</tr>
<tr>
<td>- Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted in remarks on reverse side.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIGNATURE OF COMPILER</td>
<td>LFB</td>
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</tr>
<tr>
<td>USE REVERSE SIDE FOR REMARKS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIGNATURE OF SUPERVISOR</td>
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Donald M. Braunt
Joseph Steinberg
FIELD EDIT REPORT
T-11991

No formal Field Edit Report was received. Please refer to the two following Memorandums concerning the Field Edit of this manuscript.
DATE: 8 July 1963

FROM: Central Office

U.S. Navy, Office of the Chief of Naval Operations
P.O. Box 2399
Washington, D.C.

SUBJECT: Field Edit Report - GR-419

During the first half of the 1963 field season, Pottawatomie personnel made the field edits listed below for accuracy and on photographs. All are marked as having been made on the blacked portions in red and black ink. In general, the manuscripts were found to be very reliable with only minor discrepancies being noted.

For manuscripts with noted changes being forwarded to the Washington Office on July 9, these manuscripts with no recommended changes have been noted below; the remaining manuscripts will be forwarded as soon as we have had an opportunity to compare them with the base sheets now in Washington for photographing.

1-115102 Edits - No changes
1-115101 Edits - Will be forwarded later
1-115207 Edited - Will be forwarded later
1-115202 Edited - Will be forwarded later
1-115201 Edits - Will be forwarded later
1-115210 Edits - Will be forwarded later
1-115220 Edited - Will be forwarded later
1-115300 Edited 9 July
1-115301 Edited - No recommended changes
1-115302 Edits - No recommended changes
1-115303 Edited - No recommended changes
1-115304 Forwarded 9 July
1-121200 Forwarded 9 July
1-121201 Forwarded 9 July
1-121202 Edits - Will be forwarded later
1-121203 Edited - Will be forwarded later

It is requested that these manuscripts be returned to the ship as soon as practical so they will be needed for smooth plotting.

Signature

Capt, USCGS
to: Chief, Photogrammetry Division

FROM: Commanding Officer
USCGGSS PATHFINDER
705 Federal Office Bldg.
Seattle 4, Washington 98101

SUBJECT: Field Edit data, Project 2103/6 (Ph-6012), Maui Island, Hawaii

Manuscripts T-II907 c33. T-II991 were corrected and
sent I/9/64 with transmittal letter PATH I-64. Manu-
scripts T-II906, T-II98 through T-II911 and T-II992
are being cont. Shoreline revision was necessary on
T-II909 and T-II908 only.

Replying to 6314/1h

[Signature]
H. J. Seeberg Capt. USCGGSS
Ship PATHFINDER
Seattle, Washington

[Note: Additional handwritten text]
REVIEW REPORT T-11991
SHORELINE

61. GENERAL STATEMENT

See Summary accompanying Descriptive Report

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

A visual comparison was made with Registered Planetable Surveys 3273 and 3274, 1:20,000 scale, dated March 30, 1914.

Shoreline manuscript T-11991 supersedes these prior surveys and should be used for nautical chart construction.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with U.S.G.S. Keanae, Hawaii 7 1/2 minute quadrangle, 1:24,000 scale, edition of 1957. The shoreline of these two surveys are in good general agreement.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Comparison was made with copies of boat sheets H-8720-PF-10-3-63, scale 1:10,000 and H-8723, FF scale 1:5,000. There is a small discrepancy between this manuscript and the shoreline on the 1:10,000 scale boat sheet. (See comparison print)

65. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with nautical chart h116, scale 1:250,000, 12th edition, August 17, 1964. Because of the extreme difference in scale between the chart and manuscript only a visual comparison was made.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This survey complies with the instructions and meets the National Standards of Map Accuracy.

* Refer to page 25
Reviewed by:

Leo F. Burgart

Approved by:

J. Bull, Director, Atlantic Marine Center

Approved by:

Chief, Cartographic Branch

Chief, Operations Branch

Chief, Chart Division

Chief, Photogrammetry Division
NOTES TO VERIFIER
H-8720 and H-8723
(Comparison with T-11991)

Differences between the surveys in MHW line, apparently resulting from error in application of shoreline survey MHW line to the boat sheets, were noted on the comparison print by the shoreline survey reviewer.

Due primarily to a procedure used by the hydro party for furnishing a field edit sheet; i.e., providing a poor black and white copy of the original cronaflex field edit sheet; application of field edit information was found to be incomplete upon examination of T-11991 in the Washington office (prior to registering the map). The Marine Chart Division file copy of the boat sheet for H-8723 (BP-64291) was found to reflect field edit information. Application of edit changes has been made and, with the exception mentioned in the 1st paragraph and one additional exception, the surveys are in agreement.

A rock awash shown on T-11991, off Moku Mana Island, at latitude 20°51'45.3" and longitude 156°07'45.7" is not shown on H-8720 (BP-64394). The following note is included on the comparison print: visible on photos 61-W-842 and 843 - computed height is 0.2 feet above MLLW. Resolved SB

T-11991 was reproduced prior to registration - subsequent to application of the correction discussed in the 2nd paragraph.
## INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

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<td>6-1-75</td>
<td>N.J. Everdahl</td>
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*FORM C&GS-6292 SUPERSEDES ALL EDITIONS OF FORM C&GS-276.*