Form 504

U. S. Department of Commerce
Coast and Geodetic Survey

Descriptive Report

Type of Survey SHORELINE (Photogrammetric)

Field No. Ph-6012   Office No. T-11934

Locality

State: Hawaii
General locality: Maui Island
Locality: Kahawaihapapa Point

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-11934

PROJECT NO. (II):
Project 21034
(PH-6012)

FIELD OFFICE (III):
Honolulu

CHIEF OF PARTY
H. J. Seaborg

PHOTOGRAMMETRIC OFFICE (III):
Baltimore

OFFICER-IN-CHARGE
William 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

REFERENCE STATION (III): D
SHORE X (HGS) 1881, 1950

LAT.:
20° 35' 12.118"

LONG.:
156° 18' 04.999"

ADJUSTED

UNADJUSTED

PLANE COORDINATES (IV):

\[ y = 92,160.31', \quad x = 621,938.01' \]

STATE

ZONE

Hawaii

2

ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (III) FIELD PARTY, (III) 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 (I):  
J. C. Lajoye  
**DATE:** 1961-1962

### MEAN HIGH WATER LOCATION (III) [STATE DATE AND METHOD OF LOCATION]:  
- By Kelsh Instrument and annotations on field photographs

### PROJECTION AND GRIDS RULED BY (IV):  
**R.A.C.**  
**DATE:** 12-7-60

### PROJECTION AND GRIDS CHECKED BY (IV):  
**J.O.C.**  
**DATE:** 12-7-60

### CONTROL PLOTTED BY (III):  
**L. A. Sessack**  
**DATE:** 2-26-62

### CONTROL CHECKED BY (III):  
**L. O. Neterer**  
**DATE:** 2-26-62

### RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):  
**R. E. Fuechsel**  
**DATE:** February 1962

### STEREOSCOPIC INSTRUMENT COMPILATION (III):  
### PLANIMETRY  
**J. D. Mc Evoy**  
**DATE:** April 1962

### CONTOURS  
Inapplicable  
**DATE:**

### MANUSCRIPT DELINEATED BY (III):  
**C. A. Lipscomb**  
**DATE:** April 1962

### SCRIBING BY (III):  
**DATE:**

### PHOTOGRAMMETRIC OFFICE REVIEW BY (III):  
**D. M. Brant**  
**DATE:** 4/62

### REMARKS:  
F.E. 1963
### CAMERA (KIND OR SOURCE) (III):
"M" Camera

### PHOTOGRAPHS (III)

<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>60 W 2292</td>
<td>2 Oct. 1960</td>
<td>11:39</td>
<td>1:25,000</td>
<td>1.5 Ft above MLLW</td>
</tr>
<tr>
<td>60 W 2462 &amp; 2463</td>
<td>8 Oct. 1960</td>
<td>09:10</td>
<td>1:25,000</td>
<td>1.5 Ft &quot; &quot;</td>
</tr>
<tr>
<td>61 W(C) 1128 thru 1131</td>
<td>25 Sept. 1961</td>
<td>10:02</td>
<td>1:10,000</td>
<td>0.2 Ft &quot; &quot;</td>
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</table>

The above computed from Predicted Tide Tables.

### TIDE (III)

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<thead>
<tr>
<th>REFERENCE STATION:</th>
<th>Ratio of ranges</th>
<th>Mean range</th>
<th>Spring range</th>
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<tbody>
<tr>
<td>Honolulu</td>
<td>1.2</td>
<td>1.9</td>
<td></td>
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<tr>
<td>Makena</td>
<td>1.5</td>
<td>2.1</td>
<td></td>
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</table>

### WAHCASHINGTON OFFICE REVIEW BY (IV):

Atlantic Marine Center

Leo F. Beugnet, Norfolk Regional Office

DATE: Sept. 1965

### PROOF EDIT BY (IV):

DATE:

### NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (III):

RECOVERED: None

IDENTIFIED: None

### NUMBER OF BM(S) SEARCHED FOR (III):

RECOVERED: None

IDENTIFIED: None

### NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

None

### NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

None

### REMARKS:
<table>
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<tr>
<th>Compilation Record</th>
<th>Completion Date</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>Alongshore area for hydro</td>
<td>April, 1962</td>
<td>Superseded</td>
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<tr>
<td>Compilation completed</td>
<td>Dec. 1963</td>
<td></td>
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<td></td>
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</table>
SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-11934

Shoreline manuscript T-11934 covers a part of the coastline of Maui Island, Hawaii, in the vicinity of Kahawaiapapa Point. This is one of forty-nine similar maps which cover the shoreline of the island. The maps were compiled primarily for updating the shoreline on nautical charts and to provide photo-hydro signals for hydrographic surveys to be made in the area.

Field operations preceding compilation included recovery and/or establishment and identification of horizontal control; the selection of hydro signal sites and field inspection.

The maps were compiled by Kelsh plotter methods from 1:25,000 scale panchromatic photography taken on the 2nd and 8th of October 1960, supplemented by color photographs obtained 25th September 1961. Control established by Aerotriangulation was used to control the Kelsh models.

A cronaflex copy of the map manuscript showing shoreline, along-shore detail and shoreline pass points was furnished for preparation of the hydrographers boat sheet and for the location of photo-hydro signals by photogrammetric methods. 1:5,000 scale ratio photographs were furnished as part of the hydro support data and for field edit purposes.

The compilation manuscript is a vinylite sheet from which the smooth sheet was drafted and reproduced. One cronar positive and a cronar negative are provided for record and registry.
FIELD INSPECTION REPORT  PROJECT PH-6012
Map Manuscript  T-11934

Please refer to the Field Inspection report for Maui Island, Hawaii bound with the Descriptive Report for Map Manuscript T-11934.
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
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<tr>
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</tbody>
</table>

THERE IS NO HORIZONTAL CONTROL OF THIRD-ORDER ACCURACY OR HIGHER WITHIN THE LIMITS OF THIS MANUSCRIPT.
PHOTOGRAMMETRIC PLOT REPORT
T-11934

Please refer to the Photogrammetric Plot Report, Maui Island (East Half) Hawaii, dated February 1962, which is bound with the Descriptive Report for T-11931.
COMPILATION REPORT
PROJECT PH-6012 (21034)
Map Manuscript T-11934

31. **DELINEATION**

The Kelsh Plotter was used for delineation using the photography taken on October 2nd and October 8th, 1960.

32. **CONTROL**

Adequate supplemental control, based on identified horizontal control, was established by aerotriangulation for the setting of the Kelsh models.

33. **SUPPLEMENTAL DATA**

None

34. **CONTOURS AND DRAINAGE**

Contours - Inapplicable

Drainage was compiled by the Kelsh operator by analogy using the U.S.G.S. quadrangle as a guide.

35. **SHORELINE AND ALONGSHORE DETAILS**

Shoreline and alongshore details were delineated on the Kelsh Plotter in accordance with the field inspection notes provided on field inspection photographs.

36. **OFFSHORE DETAILS**

Details offshore of the MHWL were delineated from office interpretation of the photographs and are subject to verification by the hydrographer.

37. **LANDMARKS AND AIDS**

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

38. **CONTROL FOR FUTURE SURVEYS**

No supplemental control for future surveys was established.

39. **JUNCTIONS**

Satisfactory junctions were made with T-11933 on the west and T-11935 on the east. There is no contemporary survey on the north and it is bound on the south by Alemuiaha Charrel.
40. HORIZONTAL AND VERTICAL ACCURACY

Please refer to the Photogrammetric Plot Report bound with the Descriptive Report T-11894.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with U.S.G.S. quadrangle LAULAILUA HILLS, Hawaii, scale 1:24,000, 1957 edition.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with Chart 4116, 1:250,000 scale, 11th edition, April 16, 1961, revised January 9, 1961.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Respectfully submitted:

Joseph Steiner
For: Donald M. Brant
Carto. (photo)

Approved and Forwarded:

J. Bull
Capt. C&GS
Norfolk Regional Officer
* Kahaleaimakanai Gulch
* Kahawaihapapa Point
* Kahikinui House
* Kepuni Gulch
  Kiakeana Point
* Manawainui Gulch
  Nakaohu Point
* Palaha Gulch
* Pukai Gulch
  Wekea Point

These Names Not Separated by T Number.

All Names Approved by Office of Geography

Approved 1-20-66
A. J. Wright

* Appear on this manuscript
## 49. NOTES TO THE HYDROGRAPHER

The following photo-hydro signals, identified by the field inspection party, were located during compilation.

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<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Coordinates</th>
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</thead>
<tbody>
<tr>
<td>3401</td>
<td>Flag at corner of walls</td>
<td>60 W 2292</td>
</tr>
<tr>
<td>3402</td>
<td>Flag at N.W. corner of wall</td>
<td>60 W 2292</td>
</tr>
<tr>
<td>3403</td>
<td>Flag on end of rock outcrop</td>
<td>60 W 2292</td>
</tr>
<tr>
<td>3404</td>
<td>Flag at S.E. corner of old wall</td>
<td>60 W 2292</td>
</tr>
<tr>
<td>3405</td>
<td>Extreme end of sharp point (not flagged)</td>
<td>60 W 2292</td>
</tr>
<tr>
<td>3406</td>
<td>Flag at N.W. corner of old wall</td>
<td>60 W 2292</td>
</tr>
<tr>
<td>3407</td>
<td>Flag at break in wall</td>
<td>60 W 2292</td>
</tr>
<tr>
<td>Control Stations</td>
<td>5. Horizontal Control Stations of Third-Order or Higher Accuracy</td>
<td>6. Recoverable Horizontal Stations of Less than Third-Order Accuracy (topographic stations)</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
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<tr>
<td></td>
<td>DMB</td>
<td>NONE</td>
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<td></td>
<td>7. Photo Hydro Stations</td>
<td>8. Benchmark: None</td>
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<td>DMB</td>
<td>NONE</td>
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<td></td>
<td>11. Detail Points</td>
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<tr>
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<td></td>
<td>14. Rocks, Shoals, Etc.</td>
<td>15. Bridges</td>
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<td>16. Aids to Navigation</td>
<td>17. Landmarks</td>
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<tr>
<td>Physical Features</td>
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<td>DMB</td>
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<td>20. Water Features</td>
<td>21. Natural Ground Cover</td>
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<td>22. Planetary Contours</td>
<td>23. Stereoscopic Instrument Contours</td>
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<td>24. Contours in General</td>
<td>25. Spot Elevations</td>
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<td>26. Other Physical Features</td>
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<td>Cultural Features</td>
<td>27. Roads</td>
<td>28. Buildings</td>
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<td>30. Other Cultural Features</td>
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<td>Boundaries</td>
<td>31. Boundary Lines</td>
<td>32. Public Land Lines</td>
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<td>Miscellaneous</td>
<td>33. Geographic Names</td>
<td>34. Junctions</td>
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<td>35. Legibility of the Manuscript</td>
<td>36. Discrepancy Overlay</td>
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<td>37. Descriptive Report</td>
<td>DMB</td>
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<td>38. Field Inspection Photographs</td>
<td>39. Forms</td>
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<td>40. Field Completion Additions and Corrections to the Manuscript</td>
<td>Signature of Reviewer, Review Section or Unit</td>
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<td>41. Signature of Compiler</td>
<td>Signature of Supervisor, Review Section or Unit</td>
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<td>USE REVERSE SIDE FOR REMARKS</td>
<td>DMB</td>
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</table>
FIELD EDIT REPORT
T-11934

No formal Field Edit Report was received for this manuscript. It is assumed that it was field edited at the same time as its adjoining manuscripts T-11933 and T-11935. Please refer to the copy of the letter which follows and is the next page of this report.
TO: The Director  
Coast and Geodetic Survey  
U.S. Department of Commerce  
Washington, D.C.

FROM: Commanding Officer  
USCGS Pathfinder  
705 Federal Office Building  
Seattle, Washington

SUBJECT: Field Edit Report - OFR-419

DATE: 8 July 1963

During the first half of the 1963 field season, Pathfinder personnel field edited the manuscripts listed below for accuracy and completeness. All recommended changes have been noted on the blackline impressions in red and green ink. In general, the manuscripts were found to be very reliable with only minor discrepancies being noted.

Dear manuscripts with noted changes are being forwarded to the Washington Office on July 9. Those 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 boat sheets now in Washington for photography.

T-11925 Edited — No changes  
T-11926 Edited — Will be forwarded later  
T-11927 Edited — Will be forwarded later  
T-11929 Edited — Will be forwarded later  
T-11930 Edited — Will be forwarded later  
T-11931 Edited — Will be forwarded later  
T-11930 Forwarded 9 July  
T-11931 Edited — No recommended changes  
T-11932 Edited — No recommended changes  
T-11933 Edited — No recommended changes  
T-11935 Forwarded 9 July  
T-11936 Forwarded 9 July  
T-11937 Forwarded 9 July  
T-11931 Edited — Will be forwarded later  
T-11992 Edited — Will be forwarded later

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

[Signature]

H.J. Schiberg  
Captain, USCGS
61. GENERAL STATEMENT

See summary accompanying Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Comparison was made with a copy of Registered Planetable survey No. 3276, made in 1912 at 1:20,000 scale, and approved March 30, 1914. The shoreline on map manuscript T-1193\(\text{g}\) is shown in greater detail than on the old planetable survey. No major discrepancies between the two surveys were noted.

Shoreline manuscript T-1193\(\text{g}\) supersedes the prior survey and should be used for all future nautical chart constructions.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with U.S.G.S. Lualailua Hills, Hawaii, quadrangle, 1:24,000 scale, edition of 1957.

There are no discrepancies of importance between the two maps. Map manuscript T-1193\(\text{h}\), being at a much larger scale, shows the shoreline and alongshore area in greater detail than does the U.S.G.S. quadrangle.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

None. See Notes toVerifier.

65. COMPARISON WITH NAUTICAL CHARTS

The only chart that covers the area (chart h116) is at 1:250,000 scale. Because of the difference in scales only a visual comparison was made between the chart and manuscript.
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

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

No items were noted which require investigation by future surveys in the area.

Reviewed by:

Leo F. Bouguet

Approved by:

J. Moll
Director, Atlantic Marine Center

Approved by:

Charles L. Taylor
Chief, Cartographic Branch

Chief, Chart Division

J. F. Woodcock
Chief, Photogrammetry Division

Chief, Operations Division
NOTES TO VERIFIER

No contemporary hydrographic surveys, in the area of this manuscript, were available at the time of Final Review.
**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.

<table>
<thead>
<tr>
<th>CHART</th>
<th>DATE</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Full Part Before After Verification Review Inspection Signed Via</td>
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