<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T-12557</td>
<td>1</td>
</tr>
</tbody>
</table>

**Job No.**
PH-6402

**Map Classification**
FINAL FIELD EDITED MAP

**Type of Survey**
SHORELINE

**Locality**

**State**
HAWAII

**General Locality**
HAWAII ISLAND, WEST COAST
KAILUA TO SOUTH CAPE

**Locality**
KAKIO

**Date**
1963 TO 1979

**Registry in Archives**
**DESCRIPTIVE REPORT - DATA RECORD**

**PHOTOGRAMMETRIC OFFICE**  
Coastal Mapping Division  
Atlantic Marine Center, Norfolk, VA

**OFFICER-IN-CHARGE**  
R. Matsushige

<table>
<thead>
<tr>
<th>I. INSTRUCTIONS DATED</th>
<th>1. OFFICE</th>
<th>2. FIELD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compilation</td>
<td>Oct. 28, 1969</td>
<td>Control/field inspection May 8, 1964</td>
</tr>
<tr>
<td>Amendment I</td>
<td>Jan. 3, 1973</td>
<td></td>
</tr>
<tr>
<td>Nemo</td>
<td>Sept. 1, 1978</td>
<td></td>
</tr>
</tbody>
</table>

**II. DATUMS**

1. HORIZONTAL:  
- [ ] 1927 NORTH AMERICAN  
- [ ] OTHER (Specify)  
  Old Hawaiian

2. VERTICAL:  
- [ ] MEAN HIGH-WATER  
- [ ] MEAN LOW-WATER  
- [ ] MEAN LOWER LOW-WATER  
- [ ] MEAN SEA LEVEL 

3. MAP PROJECTION:  
Polyconic

4. GRID(S):  
STATE: Hawaii  
ZONE: 1

5. SCALE:  
1:10,000

**III. HISTORY OF OFFICE OPERATIONS**

<table>
<thead>
<tr>
<th>OPERATIONS</th>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AEROTRIANGULATION (METHOD: Stereoplanigraph)</td>
<td>J. Perrow</td>
<td>June 1969</td>
</tr>
<tr>
<td>2. CONTROL AND BRIDGE POINTS (METHOD: Coradomat)</td>
<td>J. Perrow</td>
<td>June 1969</td>
</tr>
<tr>
<td>3. STEREOSCOPIC INSTRUMENT COMPILATION (INSTRUMENT: Wild B-8, SCALE: 1:10,000)</td>
<td>C. Blood</td>
<td>Jan. 1973</td>
</tr>
<tr>
<td></td>
<td>L. Neterer</td>
<td>Jan. 1973</td>
</tr>
<tr>
<td>4. MANUSCRIPT DELINEATION (METHOD: Smooth drafted, SCALE: 1:10,000)</td>
<td>C. Blood</td>
<td>Jan. 1973</td>
</tr>
<tr>
<td></td>
<td>L. Neterer</td>
<td>Feb. 1973</td>
</tr>
<tr>
<td>5. OFFICE INSPECTION PRIOR TO FIELD EDIT</td>
<td>L. Neterer</td>
<td>Feb. 1973</td>
</tr>
<tr>
<td>6. APPLICATION OF FIELD EDIT DATA</td>
<td>L. Neterer</td>
<td>Feb. 1973</td>
</tr>
<tr>
<td>7. COMPIILATION SECTION REVIEW</td>
<td>L. Neterer</td>
<td>Feb. 1973</td>
</tr>
<tr>
<td>8. FINAL REVIEW</td>
<td>L. Neterer</td>
<td>Feb. 1973</td>
</tr>
<tr>
<td>9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH</td>
<td>I. Perkinson / C. Blood</td>
<td>Aug. 79/May 80</td>
</tr>
<tr>
<td>10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH</td>
<td>C. Blood / R. Kravitz</td>
<td>Aug. 79/June 80</td>
</tr>
<tr>
<td>11. MAP REGISTERED - COASTAL SURVEY SECTION</td>
<td>R. Kravitz</td>
<td>June 1980</td>
</tr>
<tr>
<td></td>
<td>J. Hancock</td>
<td>May 1987</td>
</tr>
<tr>
<td></td>
<td>J. Hancock</td>
<td>June 1987</td>
</tr>
<tr>
<td></td>
<td>[Signature]</td>
<td>[Date]</td>
</tr>
</tbody>
</table>
1. COMPILATION PHOTOGRAPHY

<table>
<thead>
<tr>
<th>NUMBER AND TYPE</th>
<th>DATE</th>
<th>TIME</th>
<th>SCALE</th>
<th>STAGE OF TIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>63S(P) 7972-7974*</td>
<td>Aug. 31, 1963</td>
<td>09:39</td>
<td>1:30,000</td>
<td>1.1 FT. above MLLW</td>
</tr>
<tr>
<td>63S(C) 7996-8000**</td>
<td>Aug. 31, 1963</td>
<td>09:57</td>
<td>1:15,000</td>
<td>1.1 FT. above MLLW</td>
</tr>
</tbody>
</table>

Remarks:
*Bridging/compilation photographs, **Compilation/hydro support photographs.

2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high water line was compiled from office interpretation of the compilation photographs using stereo instrument and graphic methods.

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

No mean lower low water line was compiled.

4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

<table>
<thead>
<tr>
<th>SURVEY NUMBER</th>
<th>DATE(S)</th>
<th>SURVEY COPY USED</th>
<th>SURVEY NUMBER</th>
<th>DATE(S)</th>
<th>SURVEY COPY USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-9812</td>
<td>1979</td>
<td>Registered</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. FINAL JUNCTIONS

<table>
<thead>
<tr>
<th>NORTH</th>
<th>EAST</th>
<th>SOUTH</th>
<th>WEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-12556</td>
<td>T-12558</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Remarks
### HISTORY OF FIELD OPERATIONS

1. [X] FIELD INSPECTION OPERATION   [ ] FIELD EDIT OPERATION

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CHIEF OF FIELD PARTY</td>
<td>R. Newsom</td>
<td>Feb. - Sept. 1964</td>
</tr>
</tbody>
</table>

2. HORIZONTAL CONTROL

   - RECOVERED BY: None
   - ESTABLISHED BY: None
   - PRE-MARKED OR IDENTIFIED BY: None

3. VERTICAL CONTROL

   - RECOVERED BY: None
   - ESTABLISHED BY: None
   - PRE-MARKED OR IDENTIFIED BY: None

4. LANDMARKS AND AIDS TO NAVIGATION

   - RECOVERED (Triangulation Stations) BY: None
   - LOCATED (Field Methods) BY: None
   - IDENTIFIED BY: None

5. GEOGRAPHIC NAMES

   - INVESTIGATION: None
   - TYPE OF INVESTIGATION
     - [ ] COMPLETE
     - [ ] SPECIFIC NAMES ONLY
     - [X] NO INVESTIGATION

6. PHOTO INSPECTION

   - CLARIFICATION OF DETAILS BY: E. Cline
   - DATE: Aug. 1964

7. BOUNDARIES AND LIMITS

   - SURVEYED OR IDENTIFIED BY: N.A.

### SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

   - Photo Number: None

2. VERTICAL CONTROL IDENTIFIED

   - Photo Number: None

### PHOTO NUMBERS (Clarification of details)

   - 63(S) 7844-7846 (1:30,000 scale matte contacts)

3. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

   - Photo Number: None

### OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

1. Project Field Report
### HISTORY OF FIELD OPERATIONS

#### 1. FIELD INSPECTION OPERATION

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIEF OF FIELD PARTY</td>
<td>(NOAA Ship FAIRWEATHER)</td>
<td>April 1979</td>
</tr>
<tr>
<td></td>
<td>B. Williams</td>
<td></td>
</tr>
</tbody>
</table>

#### 2. FIELD EDIT OPERATION

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORIZONTAL CONTROL</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

| VERTICAL CONTROL                   | None                  |          |
|                                    | None                  |          |
|                                    | None                  |          |

| LANDMARKS AND AIDS TO NAVIGATION   | None                  |          |
|                                    | None                  |          |
|                                    | None                  |          |

| GEOGRAPHIC NAMES                    | TYPE OF INVESTIGATION |          |
| INVESTIGATION                      | COMPLETE             |          |
|                                    | SPECIFIC NAMES ONLY  |          |
|                                    | NO INVESTIGATION      |          |

| PHOTO INSPECTION                   | CLARIFICATION OF DETAILS |          |
|                                    | M. Willis             | April 1979 |
|                                    |                       |          |

| BOUNDARIES AND LIMITS              | SURVEYED OR IDENTIFIED |          |
|                                    | N.A.                  |          |

### II. SOURCE DATA

| HORIZONTAL CONTROL IDENTIFIED       | VERTICAL CONTROL IDENTIFIED |          |
|                                    | None                      |          |

| PHOTO NUMBER                        | STATION NAME             |          |
|                                    |                         |          |

| PHOTO NUMBER                        | OBJECT NAME              |          |
|                                    |                         |          |

| PHOTO NUMBER                        | OBJECT NAME              |          |
|                                    |                         |          |

| GEOGRAPHIC NAMES:                  | REPORT | NONE |          |
|                                    |        |      |          |

| BOUNDARY AND LIMITS:               | REPORT | NONE |          |
|                                    |        |      |          |

### 3. PHOTO NUMBERS (Clarification of details)

63S(C) 7996-8000 (Cronapaque ratios, 1:10,000 scale)

### 4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

### 5. GEOGRAPHIC NAMES:

None

### 6. BOUNDARY AND LIMITS:

None

### 8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

- 1 Field Edit Paper Print
- 1 Field Edit Report

(* Remaining area for edit was accomplished in Oct. 1979 by NOAA Ship RAINIER)
### HISTORY OF FIELD OPERATIONS

#### I. FIELD INSPECTION OPERATION

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIEF OF FIELD PARTY</td>
<td>(NOAA Ship RAINIER)</td>
<td>W. Mobley</td>
</tr>
<tr>
<td>HORIZONTAL CONTROL</td>
<td>Recovered By None</td>
<td>None</td>
</tr>
<tr>
<td>VERTICAL CONTROL</td>
<td>Recovered By None</td>
<td>None</td>
</tr>
<tr>
<td>LANDMARKS AND AIDS TO NAVIGATION</td>
<td>Recovered (Triangulation Stations) By None</td>
<td>None</td>
</tr>
<tr>
<td>PHOTO INSPECTION</td>
<td>CLARIFICATION OF DETAILS BY</td>
<td>T. Clark</td>
</tr>
<tr>
<td>SOURCE DATA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HORIZONTAL CONTROL IDENTIFIED</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>VERTICAL CONTROL IDENTIFIED</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>PHOTO NUMBERS (Clarification of details)</td>
<td>638 (C) 7998, 7999 (Additional Cronapaque ratios, 1:10,000 scale)</td>
<td></td>
</tr>
<tr>
<td>LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>SUPPLEMENTAL MAPS AND PLANS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)</td>
<td>1 Field edit paper print, 1 Field edit report</td>
<td></td>
</tr>
</tbody>
</table>
### I. MANUSCRIPT COPIES

<table>
<thead>
<tr>
<th>DATA COMPILED</th>
<th>DATE</th>
<th>REMARKS</th>
<th>MARINE CHARTS</th>
<th>HYDRO SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compilation complete pending field edit</td>
<td>Feb. 1973</td>
<td>Class II manuscript</td>
<td>None</td>
<td>Feb. 1973</td>
</tr>
<tr>
<td>Partial field edit applied</td>
<td>Aug. 1979</td>
<td>Class II manuscript with partial field edit</td>
<td>None</td>
<td>Dec. 1979</td>
</tr>
<tr>
<td>Field edit completed &amp; applied, compilation complete</td>
<td>June 1980</td>
<td>Class I manuscript</td>
<td>June 1980</td>
<td>June 1980</td>
</tr>
<tr>
<td>Final review</td>
<td>May 1987</td>
<td>Final Map</td>
<td>July 1977</td>
<td>July 1977</td>
</tr>
</tbody>
</table>

### II. LANDMARKS AND AIDS TO NAVIGATION

None

### III. FEDERAL RECORDS CENTER DATA

1. **X** BRIDGING PHOTOGRAPHS; **X** DUPLICATE BRIDGING REPORT; **X** COMPUTER READOUTS.
2. **☐** CONTROL STATION IDENTIFICATION CARDS; **☐** FORM NOS 567 SUBMITTED BY FIELD PARTIES.
3. **☐** SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.

ACCOUNT FOR EXCEPTIONS:

### IV. SURVEY EDITIONS

(This section shall be completed each time a new map edition is registered)

**SECOND EDITION**

<table>
<thead>
<tr>
<th>SURVEY NUMBER</th>
<th>JOB NUMBER</th>
<th>TYPE OF SURVEY</th>
<th>MAP CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP: _____ (2)</td>
<td>PH: _____</td>
<td>REVISED, RESURVEY</td>
<td>III, IV, V, FINAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE OF PHOTOGRAPH</th>
<th>DATE OF FIELD EDIT</th>
</tr>
</thead>
</table>

**THIRD EDITION**

<table>
<thead>
<tr>
<th>SURVEY NUMBER</th>
<th>JOB NUMBER</th>
<th>TYPE OF SURVEY</th>
<th>MAP CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP: _____ (3)</td>
<td>PH: _____</td>
<td>REVISED, RESURVEY</td>
<td>III, IV, V, FINAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE OF PHOTOGRAPH</th>
<th>DATE OF FIELD EDIT</th>
</tr>
</thead>
</table>

**FOURTH EDITION**

<table>
<thead>
<tr>
<th>SURVEY NUMBER</th>
<th>JOB NUMBER</th>
<th>TYPE OF SURVEY</th>
<th>MAP CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP: _____ (4)</td>
<td>PH: _____</td>
<td>REVISED, RESURVEY</td>
<td>III, IV, V, FINAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE OF PHOTOGRAPH</th>
<th>DATE OF FIELD EDIT</th>
</tr>
</thead>
</table>
SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

T-12557

This 1:10,000 scale Final Field Edited Map is one of nineteen maps that comprise PH-6402, Hawaii Island, West Coast, Kailua to South Cape. The project consists of sixteen 1:10,000 scale maps (T-12546 thru T-12561) and three 1:5,000 scale inset maps (T-11796, T-11797, T-13312).

The purpose of this map was to furnish data in support of hydrographic operations and to provide current shoreline data for marine charts.

This map includes shoreline along the southern coast of Hawaii Island from Longitude 155° 45.0' to Longitude 155° 47.2'.

Photo coverage for the project was adequately provided in August/September 1963 using the Wild RC-8 "S" camera. Photography consisted of 1:30,000 scale panchromatic photographs used for field inspection, aerotriangulation, and compilation. Color photographs at 1:15,000 scale were obtained for compilation and hydro support. Additional color photographs at 1:15,000 scale were obtained in March 1969 with the Wild RC-8 "E" camera. These supplemental photographs were used to compile inset maps T-11796 and T-11797. The stage of tide for all project photographs was based upon predicted tide data. No infrared photographs were provided.

Field work prior to aerotriangulation consisted of the recovery and establishment of horizontal control by photoidentification methods. In addition, a field inspection was performed for the project area utilizing the 1:30,000 scale contact photographs. This activity was conducted in February thru September 1964 in conjunction with adjoining project PH-6401.

Analytic aerotriangulation was adequately provided by the Washington Science Center in June 1969. Tie points from photo strip #4 contained in adjoining project PH-6401 were included in this bridge. Aerotriangulation activity included ruling the base manuscripts and also provided ratio prints for compilation and hydrographic/field edit operations.

Compilation for this map was performed at the Coastal Mapping Section, Atlantic Marine Center in February 1973. Copies of the initial compilation and hydrographic support data were forwarded to the hydrographer for field edit.

Field edit was conducted in conjunction with hydrographic survey H-9812 by NOAA ship FAIRWEATHER personnel in April 1979 and by NOAA ship RAINIER personnel in October 1979.
Application of field edit was performed at the original compilation office initially in August 1979 and completed in June 1980. Map copies were submitted to Marine Charts and to the hydrographer for smooth sheet application.

Final review was performed at the Atlantic Marine Center in May 1987. A comparison was made with the common hydrographic survey and nautical chart. The original base manuscript and related data along with a final Chart Maintenance Print and a Hydrographic Print were forwarded to the Washington Science Center for registration and distribution.
FIELD INSPECTION
T-12557

Field activity prior to compilation included a field inspection of the shoreline and the recovery / photoidentification of horizontal control necessary for project aerotriangulation. Results of the 1964 field inspection were submitted on the 1:30,000 scale contact photographs.
Memorandum

TO: Chief, Photogrammetric Field Operations
THRU: Honolulu Field Officer

FROM: Lt(jg) Edward P. Cline

DATE: August 5, 1964

SUBJECT: Control Identification Project No. 21413

No problems were found in the control identification on Project 21413. The following is a list of the stations identified on the various Flight lines:

FLIGHT STRIP NO. 5
- WAIKAKU, 4, 1951
- KAPUKAWAA, 1894
- OHEFUUPUU, 1890

FLIGHT STRIP NO. 6
- KAMOI, 1948
- MA PUU a PELE, 1891
- PUU KI, 1914
- TANK, 1948
  - Supplemental Stations Pricked: KAUNA POINT LIGHT, 1949

FLIGHT STRIP NO. 7
- KALAE 2, 1948
- PALAHAKI, 1898
- KAMIKO, 1898
- KIPAPAHA, 1898
  - Supplemental Stations Pricked: KALAE LIGHT, 1948
    KALAE, 1887
    MAHANA, 1898

The ratio prints provided by the Washington Office were of great assistance in the identification of the stations and they were very well placed.

Edward P. Cline

CC: Honolulu Field Office
21. **Area Covered**

This project extends along the southwest shore of Hawaii Island. It includes T-sheets 12546 through 12561 at 1:10,000 and T-sheets 11796, 11797 and 13312 at 1:5,000. This project joins PH-6401 which extends along the northwest shore of the island.

22. **Method**

Strips were bridged on the stereoplanigraph and adjusted by IBM 1620 methods. Strip #4 discussed in the report for PH-6401. Strip #10 was adjusted on five triangulation stations with tie points from Strips #4 and #11 as checks. Strip #11 was adjusted on five stations with one station and tie points as checks. The adjustment of Strip #12 met with considerable problems. These problems were due to control identification on stations KAMILO, KIPAEPAE on the northeast end of the strip. Points were dropped from Strip #11 to enable model 63-S-7964 and 7965 to be set, thus enabling T-sheet 12561 to be completed.

T-sheets 12559 and 12560 must await further field work. Difficulties were also experienced in bridging Strip #13. This problem was resolved by dropping enough points from Strips #4 and #10 to set individual models between 63-S-8080 and 8085. All points between strips were averaged. Points were drilled by using the Wild FUG.

23. **Adequacy of Control**

Control provided by the field was adequate. The following stations could not be held in the bridging adjustments.

1. KEEI SOUTH BASE, 1948, SS #1 and SS #2, could not be held in Strip #13, as was the case of Strip #4 in PH-5401. No reasons could be determined for the lack of adjustment with other points.
2. KAMILI, 1949 and SS #1
3. KIPAEPAE, 1948 and SS #1. Problems with these two stations could not be resolved. Re-identification of the stations is planned at the same time that work continues to the east.

4. McCANDLESS, 1948 SS #1 and SS #2 although held in the bridging could be seen on only one photograph in Strip #10 due to cloud coverage.

24. Supplemental Data

Ratio prints will be provided to aid in compilation. Local USGS quads were used to provide vertical points needed for the strip adjustment program.

25. Photography

Photography was not adequate to provide coverage of the 1:5,000 scale sheets. This inadequate coverage was caused by a change in the limits of the 1:5,000 areas after bridging was nearing completion. Photography was adequate in regard to definition and overlap.

Submitted by,

John D. Perrow, Jr.

Approved by,

Henry P. Eichert
Chief, Aerotriangulation Section
Notes to Compiler  
PH-6402  
Hawaii Island, Hawaii

The following points should be used in setting individual models along Strips #12 and #13.

(1) 63-S-7964-7965  
Points 68803, 68804, 67100, 67101, 64100, 64101, 64102 and 64103.

(2) 63-S-8080-8081  
Points 22330, 23310, 23800, 23801

(3) 63-S-8081-8082  
Points 77331, 78333, 22801, 23800, McCANDLESS SS #1 and SS #2

(4) 63-S-8082-8083  
Points 76331, 77331, 77333

(5) 63-S-8083-8084  
Points 75331 HONAUNAU ST, BENEDICT CATH, CH. SPIRE, 1948 plus points dropped from model 8082-8083.

(6) 63-S-8084-8085  
Points 75331, 75333 plus points dropped from model 8083-8084.

Plates 63-S-7821 and 7824 were not used in bridging Strip #10.

Plates 63-S-7976, 7978, 7880, 7982 and 7984 were not used in Strip #11.
### DESCRPTIVE REPORT CONTROL RECORD

<table>
<thead>
<tr>
<th>MAP NO.</th>
<th>JOB NO.</th>
<th>GEOGRAPHIC DATUM</th>
<th>ORIGINATING ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-12557</td>
<td>PH-6402</td>
<td>Old Hawaiian Datum</td>
<td>Coastal Mapping Section, AMC</td>
</tr>
</tbody>
</table>

#### COORDINATES IN FEET

<table>
<thead>
<tr>
<th>STATION NAME</th>
<th>AEROTRIANGULATION POINT NUMBER</th>
<th>STATE</th>
<th>ZONE</th>
<th>x</th>
<th>y</th>
<th>Φ</th>
<th>λ</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
<td>Hawaii</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### GEOGRAPHIC POSITION

<table>
<thead>
<tr>
<th></th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### REMARKS

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

**COMPUTED BY**

<table>
<thead>
<tr>
<th>DATE</th>
<th>COMPUTATION CHECKED BY</th>
<th>DATE</th>
</tr>
</thead>
</table>

**LISTED BY**

<table>
<thead>
<tr>
<th>DATE</th>
<th>LISTING CHECKED BY</th>
<th>DATE</th>
</tr>
</thead>
</table>

**HAND PLOTTING BY**

<table>
<thead>
<tr>
<th>DATE</th>
<th>HAND PLOTTING CHECKED BY</th>
<th>DATE</th>
</tr>
</thead>
</table>

*SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.*
COMPILATION REPORT
T-12557

31. **DECLINEATION:**

   Delineation was by instrument methods using the Wild B-8 stereoplotter and 1:30,000 scale panchromatic compilation/bridging photographs. Ratio prints of the 1:15,000 scale color photographs were used graphically to supplement the compilation of minor detail and to assist in photo interpretation.

   The field inspection supplied on the 1:30,000 scale contact prints was difficult to interpret. Individual rocks that could not be clearly identified during compilation were not compiled.

   Photo quality and coverage were adequate.

32. **CONTROL:**

   Refer to the Photogrammetric Plot Report, dated June 10, 1969.

33. **SUPPLEMENTAL DATA:**

   None.

34. **CONTOURS AND DRAINAGE:**

   Contours are inapplicable. Drainage was delineated from the compilation photographs.

35. **SHORELINE AND ALOMONGSHORE DETAILS:**

   The shoreline, coral and foul limits were delineated from office interpretation of the photographs and from the annotated photographs resulting from the precompilation field inspection. Because of the small tide range, no mean lower low water line was compiled.

36. **OFFSHORE DETAILS:**

   Compilation of offshore detail was performed as described in Item #31.

37. **LANDMARKS AND AIDS:**

   There were no charted fixed aids or landmarks within the limits of this manuscript.
38. **CONTROL FOR FUTURE SURVEYS:**

None.

39. **JUNCTIONS:**

Refer to the Data Record Form 76-36B, Item 5.

40. **HORIZONTAL AND VERTICAL ACCURACY:**

Refer to the Photogrammetric Plot Report dated June 10, 1969.

46. **COMPARISON WITH EXISTING MAPS:**

A comparison was made with USGS quadrangle Puu Hou, Hawaii, scale 1:24,000, dated 1962.

47. **COMPARISON WITH NAUTICAL CHARTS:**


**ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:**

None.

**ITEMS TO BE CARRIED FORWARD:**

None.

Submitted by:

[Signature]

for C. Blood
Cartographic Technician
February 1973

Approved:

[Signature]

Albert C. Rauck, Jr.
Chief, Coastal Mapping Section
ADDENDUM TO THE COMPILATION REPORT

T-12557

Field edit for the majority of the sheet was performed in April 1979 by NOAA ship FAIRWEATHER personnel. The remaining area, between Kakio and Kahakahakea Point was field edited by NOAA ship RAINIER personnel in October 1979. Field edit data from the combined activities was adequate to advance the manuscript to Class I.
GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6402 Hawaii
T-12557

Haliipalala
Island of Hawaii
Kahakahkoa Point
Kahiola
Kaimuuwala
Kaklo
Kalepe a Hoa
Pacific Ocean

Approved by:

A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett
Cartographic Technician
Description

Jagged lava flow cliffs and lava rubble ranging from 5 to 30 ft in height above the MHWL, were predominant in this area. The northern half of the sheet was characterized by ledges and submerged ledges protruding from the MHWL seaward. The southern half was characterized more by individual foul areas and isolated rocks and boulders. Depths greater than 4 to 5 fms are common immediately adjacent to the MHWL.

Method

Due to the irregular shoreline and extreme surf all field edit was done on foot. Existing features were compared with the discrepancy print and the color photographs. Changes and additions were depicted on the color photographs. Rock heights, deletions, and answers to questions posed by the stereo compiler, were indicated on the discrepancy print. Submerged offshore features were noted on the boatsheets so that the hydrographer could prove or disprove them. All discrepancies between the field edit and hydrographic data have been resolved. Field edit was not done on a section of coastline from latitude 19°59'28" to 19°59'12" due to inaccessibility by foot.

Adequacy And Completeness Of Compilation

The compilation of the manuscript was very good.

Manuscript Accuracy

The manuscript, as compiled, compared quite well with the features inspected. The extremely jagged coastline did not allow for measurements to the MHWL from photoidentifiable points.

Recommendations

This manuscript should be accepted for charting purposes after the corrections have been applied.

Submitted by:
Michael J. Willis

Approved by:
Bruce I. Williams, Cdr., NOAA
Commanding Officer
NOAA Ship FAIRWEATHER
April 1979
FIELD EDIT REPORT

OPR-T126-RA-79
CM-7713
T-12557

HAWAII
Hawaii, West Coast
KAKIO
(Portion of Sheet between 155° 46' 27"W
and 155° 46' 06"W)

1 Field Edit

3 October 1979 - 8 October 1979
(J.D. 276 - J.D. 281)
METHODS

Field edit operations on T-12557 began 3 October 1979 (J.D. 276) and ended 8 October 1979 (J.D. 281). Ship's time (GMT-9) was used to reference shoreline features in the field, but conversion was made to GMT (Ship's time + 9) on the field edit sheet and final discrepancy print. Notes on the field edit sheet and discrepancy print were made using colors with the following acceptable meanings: green-deletion of features; red-answers to specific questions on the sheets; violet-verification or additions.

Most features were verified on foot. Submerged rocks on photo 7998 and 7999 were sounded using small boat and leadline. Additions of rocks were photo-pricked and referenced on the discrepancy print.

Color photographs 7998, 7999, the discrepancy print, and the field edit sheet were used to record and present data.

This field edit survey complied with Chapter II, Manual of Coastal Mapping Field Procedures and the project instructions.

ADEQUACY AND COMPLETENESS

The only area field edited on this manuscript was between 155° 46' 27"W and 155° 46' 06"W per instructions on the field edit sheet. Within these limits the manuscript, as amended by the field edit survey, is adequate and complete.

GEOGRAPHICAL NAMES

There was no investigation of geographical names.

Manuscript Accuracy

Accuracy was determined by direct comparison of shoreline features with discrepancy print and photos. Agreement was excellent.

Recommendations

This corrected manuscript should supersede all previous shoreline compilations.

Respectfully Submitted,
Thomas G. Clark
Lieutenant, NOAA

Approved and Forwarded
Wayne L. Mobley
Captain, NOAA
Commanding
REVIEW REPORT
SHORELINE
T-12557

61. GENERAL STATEMENT:

Final review for this Final Field Edited Map was accomplished at the Atlantic Marine Center in May 1987. For a schedule of the office and field operations, refer to the Summary included with this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Not applicable.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A comparison was made with USGS quadrangle Puu Hou, Hawaii, scale 1:24,000, dated 1962.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

A comparison was made with a registered copy of hydrographic survey H-9812, FA-10-3-79, surveyed 1979, scale 1:10,000. No significant differences were noted.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with NOS Chart 19320, 13th edition, scale 1:250,000, July 10, 1982.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This map complies with the Project Instructions, and meets the requirements for National Standards of Map Accuracy.

Submitted by:

Jerry L. Hancock
Final Reviewer

Approved for forwarding:

Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved:

Chief, Photogrammetric Production Sec.  Chief, Photogrammetry Branch
**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 Revi

<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 DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FULL PART BEFORE AFTER VERIFICATION REVIEW INSPECTION SIGNED VIA DRAWING NO.</td>
</tr>
</tbody>
</table>