

T-11797

T-11797

|   |                           |
|---|---------------------------|
| NOAA FORM 76-35<br>(3-76)   |                           |
| U.S. DEPARTMENT OF COMMERCE<br>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION<br>NATIONAL OCEAN SURVEY |                           |
| <b>DESCRIPTIVE REPORT</b>   |                           |
| Map No.   | Edition No.               |
| T-11797   | 1                         |
| Job No.   |                           |
| PH-6402   |                           |
| Map Classification  |                           |
| FINAL FIELD EDITED MAP  |                           |
| Type of Survey  |                           |
| SHORELINE   |                           |
| <b>LOCALITY</b>   |                           |
| State   |                           |
| HAWAII  |                           |
| General Locality  | HAWAII ISLAND, WEST COAST |
| KAILUA TO SOUTH CAPE  |                           |
| Locality  |                           |
| HONAUNAU BAY  |                           |
| 1963 TO 1973  |                           |
| <b>REGISTRY IN ARCHIVES</b>   |                           |
| <b>DATE</b>   |                           |

|  |  |   |                          |
|--|--|---|--------------------------|
| NOAA FORM 76-36A<br>(3-72) U. S. DEPARTMENT OF COMMERCE<br>NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.   |  | TYPE OF SURVEY                                  | SURVEY <u>XP-T-11797</u> |
| <b>DESCRIPTIVE REPORT - DATA RECORD</b>  |  | <input checked="" type="checkbox"/> ORIGINAL    | MAP EDITION NO. (1)      |
|  |  | <input type="checkbox"/> RESURVEY               | MAP CLASS FINAL          |
|  |  | <input type="checkbox"/> REVISED                | JOB <u>PH-6402</u>       |
| PHOTOGRAMMETRIC OFFICE<br>Coastal Mapping Div.<br>Atlantic Marine Center, Norfolk, VA  |  | LAST PRECEDING MAP EDITION                      |                          |
| OFFICER-IN-CHARGE<br><br>R. Matsushige   |  | TYPE OF SURVEY                                  | JOB <u>PH-</u>           |
|  |  | <input type="checkbox"/> ORIGINAL               | MAP CLASS                |
|  |  | <input type="checkbox"/> RESURVEY               | SURVEY DATES:            |
|  |  | <input type="checkbox"/> REVISED                | 19 <u>TO</u> 19          |
| <b>I. INSTRUCTIONS DATED</b>   |  |   |                          |
| 1. OFFICE  |  | 2. FIELD  |                          |
| Compilation Oct. 28, 1969<br>Amendment 1 Jan. 3, 1973<br>Memo Sept. 1, 1978  |  | Control/ Field Inspection May 8, 1964           |                          |
| <b>II. DATUMS</b>  |  |   |                          |
| 1. HORIZONTAL: <input type="checkbox"/> 1927 NORTH AMERICAN  |  | OTHER (Specify)<br><u>Old Hawaiian</u>          |                          |
| 2. VERTICAL:<br><br><input checked="" type="checkbox"/> MEAN HIGH-WATER<br><input type="checkbox"/> MEAN LOW-WATER<br><input type="checkbox"/> MEAN LOWER LOW-WATER<br><input type="checkbox"/> MEAN SEA LEVEL |  | OTHER (Specify)                                 |                          |
| 3. MAP PROJECTION<br><br>Polyconic   |  | 4. GRID(S)                                      |                          |
|  |  | STATE <u>Hawaii</u>                             | ZONE <u>1</u>            |
| 5. SCALE<br><u>1:5,000</u>   |  | STATE   | ZONE                     |
| <b>III. HISTORY OF OFFICE OPERATIONS</b>   |  |   |                          |
| OPERATIONS   |  | NAME  |                          |
| 1. AEROTRIANGULATION<br>METHOD: Stereoplanigraph LANDMARKS AND AIDS BY   |  | NAME <u>J. Perrow</u> DATE <u>June 1969</u>     |                          |
| 2. CONTROL AND BRIDGE POINTS<br>METHOD: Coradomat PLOTTED BY<br>CHECKED BY   |  | NAME <u>J. Perrow</u> DATE <u>June 1969</u>     |                          |
| 3. STEREOGRAPHIC SECTION<br>COMPILATION<br>INSTRUMENT: Graphic Methods<br>SCALE: 1:5,000   |  | NAME <u>J. Perrow</u> DATE <u>June 1969</u>     |                          |
|  |  | NAME <u>R. White</u> DATE <u>Dec. 1969</u>      |                          |
|  |  | NAME <u>R. Pate</u> DATE <u>Dec. 1969</u>       |                          |
|  |  | NAME <u>N.A.</u> DATE                           |                          |
|  |  | NAME <u>N.A.</u> DATE                           |                          |
| 4. MANUSCRIPT DELINEATION<br>METHOD: Smooth drafted  |  | NAME <u>L. Graves</u> DATE <u>Feb. 1970</u>     |                          |
|  |  | NAME <u>R. Pate</u> DATE <u>Mar. 1972</u>       |                          |
|  |  | NAME <u>N.A.</u> DATE                           |                          |
|  |  | NAME <u>N.A.</u> DATE                           |                          |
| 5. OFFICE INSPECTION PRIOR TO FIELD EDIT<br>SCALE: 1:5,000   |  | NAME <u>L. Graves</u> DATE <u>Feb. 1970</u>     |                          |
|  |  | NAME <u>R. Pate</u> DATE <u>Mar. 1972</u>       |                          |
| 6. APPLICATION OF FIELD EDIT DATA  |  | NAME <u>R. Pate</u> DATE <u>Mar. 1972</u>       |                          |
|  |  | NAME <u>J. Minton</u> DATE <u>May 1974</u>      |                          |
| 7. COMPILATION SECTION REVIEW  |  | NAME <u>G. Vanderhaven</u> DATE <u>May 1974</u> |                          |
| 8. FINAL REVIEW  |  | NAME <u>G. Vanderhaven</u> DATE <u>May 1974</u> |                          |
| 9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH  |  | NAME <u>J. Hancock</u> DATE <u>Apr. 1987</u>    |                          |
| 10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH  |  | NAME <u>J. Hancock</u> DATE <u>June 1987</u>    |                          |
| 11. MAP REGISTERED - COASTAL SURVEY SECTION  |  | NAME <u>P. Dunsay</u> DATE <u>Aug. 1987</u>     |                          |
|  |  | NAME <u>ELDA QUARCY</u> DATE <u>SEP 87</u>      |                          |

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## COMPILE SOURCES

## 1. COMPILE PHOTOGRAPHY

| CAMERA(S)<br>E=152.71mm, S=152.29mm                  | TIDE STAGE REFERENCE | TYPES OF PHOTOGRAPHY<br>LEGEND | TIME REFERENCE |                                   |
|--|----------------------|--------------------------------|----------------|-----------------------------------|
|  |                      |                                | ZONE           | STANDARD<br>XX                    |
| <input checked="" type="checkbox"/> PREDICTED TIDES  |                      | (C) COLOR                      | Hawaii         |                                   |
| <input type="checkbox"/> REFERENCE STATION RECORDS   |                      | (P) PANCHROMATIC               | MERIDIAN       |                                   |
| <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY |                      | (I) INFRARED                   | 150th          | <input type="checkbox"/> DAYLIGHT |
| NUMBER AND TYPE                                      | DATE                 | TIME                           | SCALE          | STAGE OF TIDE                     |
| 63S(C) 8028-8031**                                   | Aug. 31, 1963        | 10:28                          | 1:15,000       | 1.4 Ft. above MLLW                |
| 63S(P) 8083-8085***                                  | Sept. 1, 1963        | 09:17                          | 1:30,000       | 0.4 Ft. above MLLW                |
| 69E(C) 9339-9342*                                    | Mar. 13, 1969        | 09:54                          | 1:15,000       | 1.1 Ft. above MLLW                |
|  |                      |                                |                | Mean Tide Range=1.4 Ft.           |

REMARKS \*Compilation/hydro support photographs, \*\*Supplemental compilation photographs  
\*\*\*Bridging photographs

## 2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high water line was compiled from office interpretation of the compilation photographs using 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.)

| SURVEY NUMBER | DATE(S) | SURVEY COPY USED | SURVEY NUMBER | DATE(S) | SURVEY COPY USED |
|---------------|---------|------------------|---------------|---------|------------------|
| H-9346        | 1972    |                  |               |         |                  |
| H-9361B       | 1973    | Registered       |               |         |                  |

## 5. FINAL JUNCTIONS

| NORTH   | EAST     | SOUTH    | WEST |
|---------|----------|----------|------|
| T-12547 | T-12548* | T-12548* | None |

REMARKS \*This inset map is contained within the northwest region of T-12548,  
1:10,000 scale.

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## HISTORY OF FIELD OPERATIONS

1.  FIELD INSPECTION OPERATION FIELD EDIT OPERATION

| OPERATION                             | NAME   | DATE               |
|---------------------------------------|--|--------------------|
| 1. CHIEF OF FIELD PARTY               | R. Newsom  | Feb.-Sept.<br>1964 |
| 2. HORIZONTAL CONTROL                 | E. Cline   | May 1964           |
| RECOVERED BY                          | E. Cline   | May 1964           |
| ESTABLISHED BY                        | E. Cline   | May 1964           |
| PRE-MARKED OR IDENTIFIED BY           | None   |                    |
| 3. VERTICAL CONTROL                   | None   |                    |
| RECOVERED BY                          | None   |                    |
| ESTABLISHED BY                        | None   |                    |
| PRE-MARKED OR IDENTIFIED BY           | None   |                    |
| 4. LANDMARKS AND AIDS TO NAVIGATION   | None   |                    |
| RECOVERED (Triangulation Stations) BY | None   |                    |
| LOCATED (Field Methods) BY            | None   |                    |
| IDENTIFIED BY                         | None   |                    |
| 5. GEOGRAPHIC NAMES INVESTIGATION     | TYPE OF INVESTIGATION<br><input type="checkbox"/> COMPLETE<br><input type="checkbox"/> SPECIFIC NAMES ONLY<br><input checked="" type="checkbox"/> NO INVESTIGATION | BY                 |
| 6. PHOTO INSPECTION                   | CLARIFICATION OF DETAILS BY  | E. Cline           |
| 7. BOUNDARIES AND LIMITS              | SURVEYED OR IDENTIFIED BY  | N.A.               |

## II. SOURCE DATA

|                                  |  |                                |                     |
|----------------------------------|--|--------------------------------|---------------------|
| 1. HORIZONTAL CONTROL IDENTIFIED |  | 2. VERTICAL CONTROL IDENTIFIED |                     |
| None                             |  | None                           |                     |
| PHOTO NUMBER                     | STATION NAME                                 | PHOTO NUMBER                   | STATION DESIGNATION |
| 63(S)8075*                       | KEEI SOUTH BASE, 1948<br>(Sub. Pts. 1 and 2) |                                |                     |

\*Partial ratio print

## 3. PHOTO NUMBERS (Classification of details)

63(S)8083-8085 (1:30,000 scale matte contacts)

## 4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

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

5. GEOGRAPHIC NAMES:  REPORT  NONE6. BOUNDARY AND LIMITS:  REPORT  NONE

## 7. SUPPLEMENTAL MAPS AND PLANS

None

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

2 Forms 152 (CSI)  
Project field report

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## HISTORY OF FIELD OPERATIONS

I.  FIELD INSPECTION OPERATION FIELD EDIT OPERATION

| OPERATION                           | NAME   | DATE                 |
|-------------------------------------|--|----------------------|
| 1. CHIEF OF FIELD PARTY             | (NOAA Ship FAIRWEATHER)<br>C. Burroughs  | Mar./Apr.<br>1973    |
| 2. HORIZONTAL CONTROL               | RECOVERED BY<br>ESTABLISHED BY<br>PRE-MARKED OR IDENTIFIED BY  | None<br>None<br>None |
| 3. VERTICAL CONTROL                 | RECOVERED BY<br>ESTABLISHED BY<br>PRE-MARKED OR IDENTIFIED BY  | None<br>None<br>None |
| 4. LANDMARKS AND AIDS TO NAVIGATION | RECOVERED (Triangulation Stations) BY<br>LOCATED (Field Methods) BY<br>IDENTIFIED BY   | None<br>None<br>None |
| 5. GEOGRAPHIC NAMES INVESTIGATION   | TYPE OF INVESTIGATION<br><input type="checkbox"/> COMPLETE<br><input type="checkbox"/> SPECIFIC NAMES ONLY<br><input checked="" type="checkbox"/> NO INVESTIGATION | BY                   |
| 6. PHOTO INSPECTION                 | CLARIFICATION OF DETAILS BY  | None                 |
| 7. BOUNDARIES AND LIMITS            | SURVEYED OR IDENTIFIED BY  | N.A.                 |

## II. SOURCE DATA

## 1. HORIZONTAL CONTROL IDENTIFIED

None

## 2. VERTICAL CONTROL IDENTIFIED

None

| PHOTO NUMBER | STATION NAME | PHOTO NUMBER | STATION DESIGNATION |
|--------------|--------------|--------------|---------------------|
|              |              |              |                     |

## 3. PHOTO NUMBERS (Clarification of details)

None

## 4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

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

5. GEOGRAPHIC NAMES:  REPORT  NONE

## 7. SUPPLEMENTAL MAPS AND PLANS

None

6. BOUNDARY AND LIMITS:  REPORT  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

NOAA FORM 76-36D  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONT-11797  
RECORD OF SURVEY USE

## I. MANUSCRIPT COPIES

| COMPILATION STAGES                       |           |                     | DATE MANUSCRIPT FORWARDED |               |
|--|-----------|---------------------|---------------------------|---------------|
| DATA COMPILED                            | DATE      | REMARKS             | MARINE CHARTS             | HYDRO SUPPORT |
| Compilation complete pending field edit  | Mar. 1972 | Class II manuscript | None                      | July 1972     |
| Field edit applied, compilation complete | May 1974  | Class I manuscript  | June 1980                 | May 1974      |
| Final review                             | Apr. 1987 | Final map           | July 1987                 | July 1987     |
|  |           |                     |                           |               |

## II. LANDMARKS AND AIDS TO NAVIGATION None

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

| NUMBER | CHART LETTER NUMBER ASSIGNED | DATE FORWARDED | REMARKS |
|--------|------------------------------|----------------|---------|
|        |                              |                |         |
|        |                              |                |         |
|        |                              |                |         |
|        |                              |                |         |
|        |                              |                |         |
|        |                              |                |         |
|        |                              |                |         |

2.  REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: None3.  REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: None

## III. FEDERAL RECORDS CENTER DATA

- BRIDGING PHOTOGRAPHS;  DUPLICATE BRIDGING REPORT;  COMPUTER READOUTS.
- CONTROL STATION IDENTIFICATION CARDS;  FORM NOS 567 SUBMITTED BY FIELD PARTIES.
- SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.  
ACCOUNT FOR EXCEPTIONS:

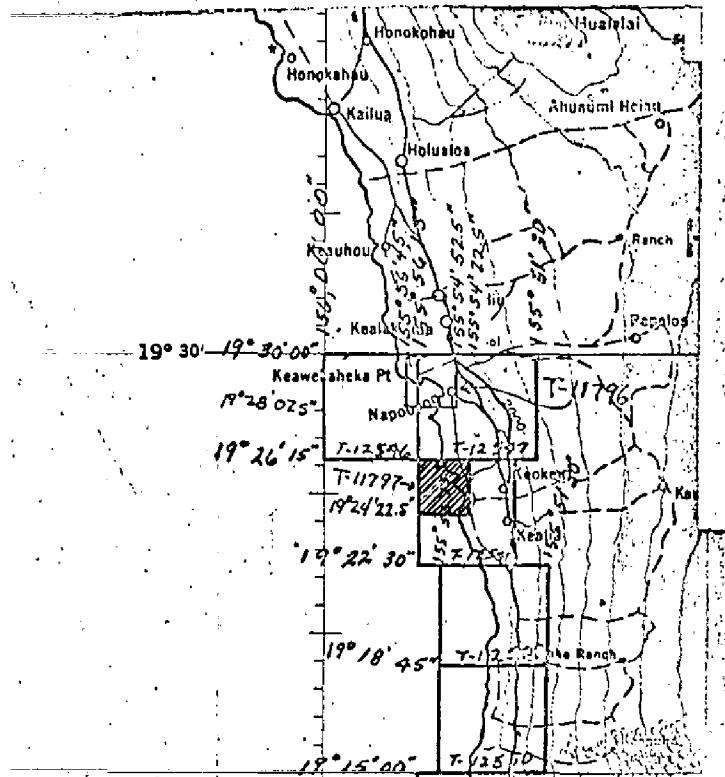
4.  DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: \_\_\_\_\_

## IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

| SECOND EDITION | SURVEY NUMBER<br>TP - _____ (2) | JOB NUMBER<br>PH - _____ | TYPE OF SURVEY<br><input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY<br>MAP CLASS<br><input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |
|----------------|---------------------------------|--------------------------|---|
|                | DATE OF PHOTOGRAPHY             | DATE OF FIELD EDIT       |   |
| THIRD EDITION  | SURVEY NUMBER<br>TP - _____ (3) | JOB NUMBER<br>PH - _____ | TYPE OF SURVEY<br><input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY<br>MAP CLASS<br><input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |
|                | DATE OF PHOTOGRAPHY             | DATE OF FIELD EDIT       |   |
| FOURTH EDITION | SURVEY NUMBER<br>TP - _____ (4) | JOB NUMBER<br>PH - _____ | TYPE OF SURVEY<br><input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY<br>MAP CLASS<br><input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL |
|                | DATE OF PHOTOGRAPHY             | DATE OF FIELD EDIT       |   |

5

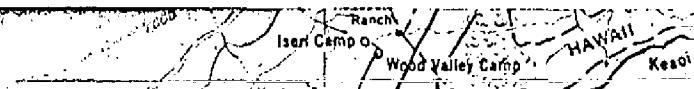
JOB PH-6402  
 SHORELINE MAPPING  
 HAWAII IS. WEST COAST  
 KAILUA TO SOUTH CAPE  
 SCALE 1:10,000



JOB PH-6402

OFFICIAL MILEAGE FOR COST ACCOUNTS

| Sheet<br>No. | Area Sq.<br>Miles |
|--------------|-------------------|
| T-12546      | 1                 |
| T-12547      | 3                 |
| T-12548      | 3                 |
| T-12549      | 3                 |
| T-12550      | 3                 |
| T-12551      | 3                 |
| T-12552      | 3                 |
| T-12553      | 3                 |
| T-12554      | 1                 |
| T-12555      | 3                 |
| T-12556      | 1                 |
| T-12557      | 2                 |
| T-12558      | 3                 |
| T-12559      | 2                 |
| T-12560      | 3                 |
| T-12561      | 3                 |
| T-11796      | 2                 |
| T-11797      | 2                 |
| T-13312      | 2                 |
| Total        | 46                |



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT

T-11797

This 1:5,000 scale Final Field Edited Inset 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 hydro-graphic operations and to provide current shoreline data for marine charts.

This map provides a large scale portrayal of Honaunau Bay and vicinity. This inset map is contained within the northwest region of 1:10,000 scale map T-12548.

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 for the 1963 photography 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. Results from the bridge were used indirectly to control this inset map. Since the 1969 photographs, used to compile this map, were not included in the bridge, compilation was task with determining control common to the 1963 and 1969 photography. During the compilation of the common smaller scale map T-12548, sufficient pass points were established by stereo instrument methods to adequately control the 1969 photographs. Aerotriangulation activity included ruling the base manuscript and also provided ratio prints of the 1963 and 1969 photographs for compilation and hydrographic/field edit operations.

Compilation for this inset map was performed at the Coastal Mapping Section, Atlantic Marine Center in March 1972. The primary source of compilation was the 1969 color photographs; however, the field inspected

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1963 bridging photographs and the 1963 color photographs were used to supplement the photo interpretation. 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-9361B by NOAA Ship FAIRWEATHER personnel in April 1973.

Application of field edit was completed at the original compilation office in May 1974 and the manuscript was advanced to Class I. Map copies were submitted to the hydrographer for smooth sheet application.

Final review was performed at the Atlantic Marine Center in April 1987. A comparison was made with the common hydrographic surveys 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

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Field activity prior to compilation included a field inspection of the shoreline and the recovery/photoidentification of horizontal control necessary for project aerotriangulation. Field inspection consisted of an evaluation of the 1963 1:30,000 scale contact photographs. The 1969 photographs used to compile this manuscript were not field inspected.

UNITED STATES GOVERNMENT

*C. S. 3 8/27/64*  
U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

# Memorandum

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631W

TO : Chief, Photogrammetric Field Operations      DATE: August 5, 1964  
THRU : Honolulu Field Officer *✓*

FROM : Lt(jg) Edward P. Cline

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

WAIKAKUU, 4, 1951  
KAPUKAWAA, 1884  
OHEPUUPUU, 1890

FLIGHT STRIP NO. 6

KAMOI, 1948  
NA PUU a PELE, 1891  
PUU KI, 1914  
TANK, 1948

Supplemental Station Pricked:  
KAUNA POINT LIGHT, 1948

FLIGHT STRIP NO. 7

KALAE 2, 1948  
PALAHEMO 1898  
KAMILO, 1898  
KIPAEKPAE, 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*  
Edward P. Cline

Photogrammetric Plot Report  
Hawaii Island, Hawaii  
PH-6402

June 10, 1969

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 stereoplaniograph 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 PUG.

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-6401. No reasons could be determined for the lack of adjustment with other points.

2. KAMILO, 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.

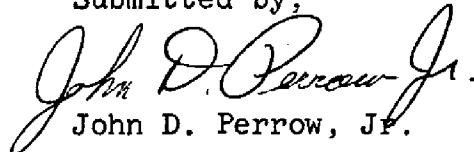
24. Supplemental Data

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

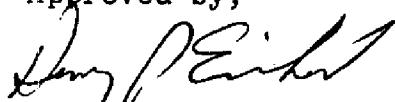
25. Photography

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.

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JOB PH-6402  
SHORELINE MAPPING  
HAWAII IS. WEST COAST  
KAILUA TO SOUTH CAPE  
SCALE 1:20,000

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JOB PH-6402  
OFFICIAL MILEAGE FOR COST ACCOUN

Sheet  
No.

T-12

1. POINT, 1928
2. KANAKU, 1948
3. HONAUNAU ST. BENEDICT

12

Photogrammetric Plot Report  
PH-6401  
Hawaii Island, Hawaii

Feb. 4, 1969

21. Area Covered

The area covered by this report is along the northwest coast of Hawaii Island. T-sheets in this area are numbered 12534 thru 12541, 12543, and 12545 at 1:10,000 scale. T-sheets 12542, 12544, 12635, 13131 and 13132 at 1:5,000 scale. Sheets T-12527 thru 12533 and 13154 were covered by a previous report on Strips #1 and #2.

22. Method

All strips were bridged on the stereoplaniograph and adjusted by IBM 1620 methods. Strip #3 was adjusted on four stations with two additional stations as checks. Strip #4 was adjusted on seven stations with two additional stations as checks. Strip #6 was adjusted on two control points plus 7 tie points. Strip #7 was adjusted on one control station and three tie points. Strip #8 was adjusted on three control stations and three tie points. All tie points between strips were averaged. Points were drilled using the Wild PUG.

23. Adequacy of Control

The control provided by the field was adequate after reidentification of Anaehoomalu 1913, Lana Cone, 1913 and the identification of Hand, 1928 and Nawai 1928. The following stations could not be held in the bridging adjustments.

1. LAVA CONE, 1913, SS #A and SS #B ("NEAR"). By holding four triangulation stations and floating substitute stations "NEAR A AND B", a 1 ft. check was achieved between these substitute stations and placed LAVA CONE, 1913 80 ft. north of survey mark "NEAR" and on the high point of the immediate area. This bares out the field recovery note for station LAVA CONE 1913 that the survey mark "NEAR" and intersection station LAVA CONE, 1913 are not one and the same. Geodesy Division has been notified of our findings and the bridging information added to their files.

2. KEEI SOUTH BASE, 1948 SS #1 and SS #2 could not be held in Strip #4 by 11' and 16' respectively. It is believed these errors are due to bad identification, since seven other stations were held in the adjustment. This station falls in Strip #4 but is outside of the PH-6401 area of compilation.

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24. Supplemental Data

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 with the exception of T-12542. 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.*

John D. Perrow, Jr.

Approved by,

*Henry P. Eichert*

Henry P. Eichert  
Chief, Aerotriangulation Section



## DESCRIPTIVE REPORT CONTROL RECORD

| MAP NO.                         | JOB NO.                       | GEODETIC DATUM                 | ORIGINATING ACTIVITY                            |                            |                     |
|---------------------------------|-------------------------------|--------------------------------|---|----------------------------|---------------------|
|                                 |                               |                                | Coastal Mapping Section, AMC                    |                            |                     |
| T-11797                         | PH-6402                       | Old Hawaiian Datum             | GEOGRAPHIC POSITION                             |                            |                     |
| STATION NAME                    | SOURCE OF INFORMATION (Index) | AEROTRIANGULATION POINT NUMBER | COORDINATES IN FEET<br>STATE — Hawaii<br>ZONE 1 | $\phi$ LATITUDE            | $\lambda$ LONGITUDE |
| KEEI SOUTH BASE, 1948           | G.P. Pg. 16                   |                                | X=  | $\phi$ 19° 26' 14.852"     |                     |
|                                 |                               |                                | Y=  | $\lambda$ 155° 55' 03.083" |                     |
|                                 |                               |                                | X=  | $\phi$                     |                     |
|                                 |                               |                                | Y=  | $\lambda$                  |                     |
|                                 |                               |                                | X=  | $\phi$                     |                     |
|                                 |                               |                                | Y=  | $\lambda$                  |                     |
|                                 |                               |                                | X=  | $\phi$                     |                     |
|                                 |                               |                                | Y=  | $\lambda$                  |                     |
|                                 |                               |                                | X=  | $\phi$                     |                     |
|                                 |                               |                                | Y=  | $\lambda$                  |                     |
|                                 |                               |                                | X=  | $\phi$                     |                     |
|                                 |                               |                                | Y=  | $\lambda$                  |                     |
|                                 |                               |                                | X=  | $\phi$                     |                     |
|                                 |                               |                                | Y=  | $\lambda$                  |                     |
|                                 |                               |                                | X=  | $\phi$                     |                     |
|                                 |                               |                                | Y=  | $\lambda$                  |                     |
|                                 |                               |                                | X=  | $\phi$                     |                     |
|                                 |                               |                                | Y=  | $\lambda$                  |                     |
| COMPUTED BY<br>A. C. Rauck, Jr. | DATE<br>8/4/69                | COMPUTATION CHECKED BY         |   |                            | DATE                |
| LISTED BY                       | DATE                          | LISTING CHECKED BY             |   |                            | DATE                |
| HAND PLOTTING BY                | DATE                          | HAND PLOTTING CHECKED BY       |   |                            | DATE                |

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COMPILATION REPORT

T-11797

31. DELINEATION:

Delineation was accomplished by graphic methods using the 1969 1:15,000 scale compilation photographs. Ratio prints of the 1969 photographs were the primary source of map detail; however, ratio prints of the 1963 1:15,000 scale photographs were used to assist in photo interpretation. Field inspected data, annotated on the 1963 1:30,000 bridging photographs, was applied where the features could be accurately identified and transferred to the 1969 compilation photographs. Individual rocks that could not be clearly identified were not compiled.

Photo coverage and quality were adequate.

32. CONTROL:

Control for this sheet was established by instrument compilation methods from the common 1:10,000 scale manuscript T-12548. When map T-12548 was compiled from 1963 photographs, common points were established on the 1969 photography and the positions were plotted on this manuscript. Refer to the Office Instruction dated October 28, 1969-Item 5.08 and Photogrammetric Plot Reports dated February 4, 1969 (PH-6401) and June 10, 1969.

33. SUPPLEMENTAL DATA:

None.

34. CONTOURS AND DRAINAGE:

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

35. SHORELINE AND ALONGSHORE DETAILS:

The shoreline, coral and foul limits were delineated from office interpretation of the 1969 compilation photographs and from the annotated 1963 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.

T-11797

37. LANDMARKS AND AIDS:

There were no charted landmarks or fixed aids 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 this report, Item 32.

46. COMPARISON WITH EXISTING MAPS:

A comparison was made with USGS quadrangle Honaunau, Hawaii, dated 1959, scale 1:24,000.

47. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with C. & G.S. Charts:

4123, 2nd edition, scale 1:10,000, June 12, 1967 and  
4115, scale 1:250,000, September 9, 1963, revised January 1, 1967.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

*Glory J. Hancock*  
for Larry Graves  
Cartographic Technician  
February 1970

Approved:

*Glory J. Hancock*  
for Albert C. Rauck, Jr.  
Chief, Coastal Mapping Section

## ADDENDUM TO THE COMPILATION REPORT

T-11797

Field edit was performed in conjunction with hydrographic survey H-9361B by NOAA ship FAIRWEATHER personnel in April 1973. Adequate field data was furnished to advance the manuscript to Class I.

GEOGRAPHIC NAMES  
FINAL NAME SHEET

PH-6402 Hawaii

T-11797

Alahaka Bay

City of Refuge

City of Refuge National Historical Park--  
(Not compiled)

Honaunau

Honaunau Bay

Island of Hawaii

Kanoni Point

Kiilae Bay

Kiilae Watercourse---Not compiled

Kii Point

Miana Point

Pacific Ocean

Pehehoni Point

Puuhonua Point

Approved by:

A. J. Wright

A. Joseph Wright  
Chief Geographer

Prepared by:

Frank W. Pickett

Frank W. Pickett  
Cartographic Technician

## FIELD EDIT REPORTS

KONA COAST, ISLAND OF HAWAII

OPR-419 FA-73

MARCH - APRIL 1973

## MAPS

T-11797  
T-12547  
T-12550  
T-12551  
T-12552  
T-13312

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FIELD EDIT REPORT

KONA COAST, ISLAND OF HAWAII  
OPR-419  
MARCH-APRIL 1973

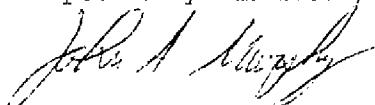
INTRODUCTION

Field edit reports are attached for the following maps: T-11797, T-12547, T-12550, T-12551, T-12552, T-13312.

Field photographs and copies of the field edit ozalids were taken into the field. Due to the small tidal range in the area, shoreline verification was done by visual inspection at various tide stages. Sextant fixes were plotted on the appropriate boat sheet. Height data for rocks, ledges, and reefs is either written directly on the ozalid, or entered in the field edit notebook along with position data, and referenced on the ozalid. Because of the rough surf conditions existing in the working grounds, sextant fixes could not be taken on some near shore rocks and ledges. In these cases positions are based on visual verification by the field editor. Due to the uncommon clarity of the off shore water, numerous submerged rocks and foul areas drawn on the ozalid were found to be at such depths so as not to constitute hazards. These have been noted, and new limits and locations appear on the ozalids. All times are based on the 135°w meridian. Compilation of these maps is in general good, and field inspection is complete.

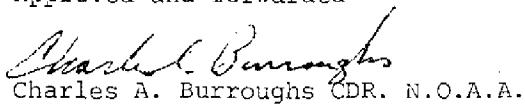
It is recommended that the maps be revised in accordance with the notes on the ozalids, and in the field edit notebook before acceptance as advanced manuscripts.

Respectfully submitted,



John A. Murphy Ens. N.O.A.A.

Approved and forwarded

  
Charles A. Burroughs CDR. N.O.A.A.

## FIELD EDIT REPORT

MAP T-11797  
HONAUNAU BAY, ISLAND OF HAWAII  
MARCH 1973

Field edit of map T-11797 was done by Ens. William A. Wert and Ens. John A. Murphy. Inspection was done on foot and by small boat when surf conditions permitted.

METHOD

Field photographs and a copy of the field edit ozalid were examined in the field. Shoreline verification was done on foot by comparison of the beach area and the ozalid. Heights and descriptions of rocks, reefs, and ledges are noted directly on the field ozalid. All times are based on the 135°W meridian.

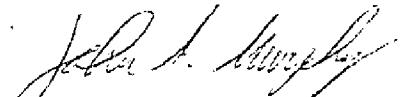
ADEQUACY OF COMPIILATION

Compilation of this map is good with the possible exception of near shore awash ledges which, due to surf conditions, are not easily seen in the photographs. The structures which make up the "City of Refuge", are excellent landmarks for near shore navigation. Particular notice should be taken of the shallow entrance to the small boat basin at the SE corner of the bay, as noted on the ozalid.

RECOMMENDATIONS

It is recommended that this map be revised in accordance with the notes on the ozalid, and in the field edit notebook, and then be accepted as an advanced manuscript.

Respectfully submitted,



John A. Murphy Ens. N.O.A.A.

REVIEW REPORT  
SHORELINE

T-11797

61. GENERAL STATEMENT:

Final review for this Final Field Edited Inset Map was accomplished at the Atlantic Marine Center in April 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 Honaunau, Hawaii, dated 1959, scale 1:24,000.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Portions of this map are common to hydrographic surveys H-9346, RA-10-9-72, 1:10,000 scale and inset survey H-9361B, FA-5-1-73, 1:5,000 scale. A comparison with both surveys did not reveal any significant differences.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with NOS charts: 19332, 6th edition, scale 1:10,000, February 15, 1986 and 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*  
Jerry L. Hancock  
Final Reviewer

Approved for forwarding:

*Billy H. Barnes*  
Billy H. Barnes  
Chief, Photogrammetric Section, AMC

Approved:

*Jay O. Robison*  
Jay O. Robison  
Chief, Photogrammetric Production Sec.

*O. Y. Bryan*  
O. Y. Bryan  
Chief, Photogrammetry Branch

**RECORD OF APPLICATION TO CHARTS**

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-11797, (PH-6402)

## INSTRUCTIONS

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

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