

T-13382

T-13382

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Map No. T-13382	Edition No. 1
Job No. PH-6401	
Map Classification FINAL FIELD EDITED MAP	
Type of Survey SHORELINE	
LOCALITY	
State HAWAII	
General Locality HAWAII ISLAND, WEST COAST, UPOLO POINT TO KAILUA	
Locality HONOKOHAU BAY	
19 63 TO 1972	
REGISTERED IN ARCHIVES	
DATE	

<b>NOAA FORM 76-36A</b> (3-72)		<b>U. S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.</b>																	
<b>DESCRIPTIVE REPORT - DATA RECORD</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">TYPE OF SURVEY</td> </tr> <tr> <td><input checked="" type="checkbox"/> ORIGINAL</td> <td></td> </tr> <tr> <td><input type="checkbox"/> RESURVEY</td> <td></td> </tr> <tr> <td><input type="checkbox"/> REVISED</td> <td></td> </tr> </table>		TYPE OF SURVEY		<input checked="" type="checkbox"/> ORIGINAL		<input type="checkbox"/> RESURVEY		<input type="checkbox"/> REVISED									
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<b>PHOTOGRAMMETRIC OFFICE</b> Coastal Mapping Unit, Atlantic Marine Center, Norfolk, VA <b>OFFICER-IN-CHARGE</b> Richard Houlder		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">SURVEY TP- 13382</td> </tr> <tr> <td colspan="2">MAP EDITION NO. (1)</td> </tr> <tr> <td colspan="2">MAP CLASS Final</td> </tr> <tr> <td colspan="2">JOB PH- 6401</td> </tr> </table>		SURVEY TP- 13382		MAP EDITION NO. (1)		MAP CLASS Final		JOB PH- 6401									
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19__ TO 19__																			
<b>I. INSTRUCTIONS DATED</b>																			
1. OFFICE		2. FIELD																	
Compilation September 12, 1968 Supplement No. 1 February 11, 1969 Supplement No. 2 December 11, 1969 Compilation March 11, 1969		Control/Field Inspection April 29, 1964																	
<b>II. DATUMS</b>																			
1. HORIZONTAL: <input type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify) Old Hawaiian Datum																	
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER <input type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL		OTHER (Specify)																	
3. MAP PROJECTION Polyconic		4. GRID(S) <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">STATE</td> <td style="width: 50%;">ZONE</td> </tr> <tr> <td>Hawaii</td> <td>1</td> </tr> <tr> <td>STATE</td> <td>ZONE</td> </tr> </table>		STATE	ZONE	Hawaii	1	STATE	ZONE										
STATE	ZONE																		
Hawaii	1																		
STATE	ZONE																		
5. SCALE 1:5,000		STATE ZONE																	
<b>III. HISTORY OF OFFICE OPERATIONS</b>																			
OPERATIONS		NAME	DATE																
1. AEROTRIANGULATION BY METHOD: stereoplanigraph LANDMARKS AND AIDS BY		J. Perrow	Oct 1971																
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: coradomat CHECKED BY		J. Perrow	Oct 1971																
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY		A. Shands	Nov 1971																
		L. Neterer, Jr.	Nov 1971																

T-13382

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC8"S"; S=152.29mm Wild R.C. - 8"E"; E=152.71mm		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE Yukon	<input checked="" type="checkbox"/> STANDARD
<input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				MERIDIAN 135th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
63S(P)8063-8065*	Sept 1, 1963	09:10	1:30,000	0.4 ft above MLLW	
69E(C)9254-9255**	Mar 11, 1969	12:28	1:15,000	0.3 ft above MLLW	
					Mean Tide Range = 1.4 ft

REMARKS

\*Bridging Photographs, \*\*Compilation 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 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-9334	surveyed 1972	registered			

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
T-12540	T-12542	T-12542	No survey

REMARKS

This 1:5,000 scale inset map is contained within the limits of map T-12541 (1:10,000 scale).

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## HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Newsom	Jun/Jul 1964
2. HORIZONTAL CONTROL	RECOVERED BY None	--
	ESTABLISHED BY None	--
	PRE-MARKED OR IDENTIFIED BY E. Cline	Jun/Jul 1964
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 E. Cline	Jun/Jul 1964
	LOCATED (Field Methods) BY None	--
	IDENTIFIED BY E. Cline	Jun/Jul 1964
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY E. Cline	Jun/Jul 1964
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY None	--

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
63(s)8036*	Keahoulu Point NE & NW Range markers, 1948 (direct)		
*Section of ratio photos submitted.			

3. PHOTO NUMBERS (Clarification of details)  
63S(P) 8095, 8096 (Matte Contacts)  
63S(C) 7909, 7911 (Cronapaque Contacts)

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
63(S)8036	Keahoulu Point NE & NW Range Markers, 1948		

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)

NOAA FORM 76-36C  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

T-13382

## HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	(NOAA Ship RAINIER) C. Haraden	Sep 1972
2. HORIZONTAL CONTROL	RECOVERED BY S. Hollinshead	Sep 1972
	ESTABLISHED BY None	Sep 1972
	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 S. Hollinshead	Sep 1972
	LOCATED (Field Methods) BY S. Hollinshead	Sep 1972
	IDENTIFIED BY S. Hollinshead	Sep 1972
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY *S. Hollinshead	Sep 1972
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY None	

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED  
None2. VERTICAL CONTROL IDENTIFIED  
None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

## 3. PHOTO NUMBERS (Clarification of details)

63(S)8063, 8094 (matte Ratios, 1:10,000 scale); 69(E)9254, 9255 (Matte Ratios 1:5,000 scale)

## 4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
63(S) 8063	BUILDING (North one of three)		

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

## 7. SUPPLEMENTAL MAPS AND PLANS

U.S. Army Corps of Engineers Dredging Diagram of Honokohau Small Boat Harbor

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

1 Field Edit Report, 2 forms 76-40, 1 Field Edit Paper Print  
(\*Field edit is also included on the common small scale map T-12541 field edit paper print in which this inset lies within)NOAA FORM 76-36C  
(3-72)

T-13382  
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	Nov 1971	Class III manuscript		Nov 1971
Field edit applied compilation complete	May 1974	Class I manuscript		May 1974
Final Review	Feb 1987	Final Map	mar 1987	mar 1987

## II. LANDMARKS AND AIDS TO NAVIGATION

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

76-40 NUMBER pages	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
2			Landmarks and aids for charts

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: \_\_\_\_\_3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: \_\_\_\_\_

## III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ 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:

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

JOB PH-6401  
SHORELINE MAPPING  
AWAII IS. WEST COAST  
OLO POINT TO KAILUA  
SCALE 1:5,000 & 1:10,000

6

SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT

T-13382

This 1:5,000 scale final shoreline inset map is one of twenty-three maps that comprise PH-6401, Hawaii Island, Hawaii, West Coast, Upolo Point to Kailua. The project consists of seventeen 1:10,000 scale maps (T-12527 thru T-12541, T-12543, T-12545) and six 1:5,000 scale inset maps (T-12542, T-12544, T-12635, T-13131, T-13132, T-13382).

The purpose of this inset map was to provide a large scale portrayal of Honokohau Bay and vicinity for support of hydrographic operations and marine chart maintenance.

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 and aerotriangulation. The 1:20,000 and 1:15,000 scale color photographs were used for compilation and hydro support. The 1:20,000 scale photo coverage was obtained for the 1:10,000 scale maps and the 1:15,000 scale photographs provided coverage of the 1:5,000 scale inset maps. Additional color photographs at 1:15,000 scale were obtained in February 1969 with the Wild RC-8 "E" camera. These photographs were bridged and a supplemental plot report was prepared in order to compile three 1:5,000 scale inset maps (T-13131, T-13132 and T-12635). 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 1963 1:30,000 scale photographs.

Analytic aerotriangulation was adequately provided by the Washington Science Center in various phases. Initial bridging activity was accomplished for seven of the northern project maps in June 1966. The second phase was conducted for the remaining project maps in February 1969. A supplemental bridge was provided in October 1971 for the 1969 photo coverage of three 1:5,000 scale inset maps. A special bridge for this inset map was provided in October 1971 to control 1969 photo coverage of a new harbor area that did not appear on the original 1963 photographs. Aerotriangulation activity included ruling the base manuscripts and also provided ratio photographs for the compilation and hydrographic/field edit operations.

Compilation for this map was performed at the Coastal Mapping Section, Atlantic Marine Center in November 1971. Delineation from the 1969 compilation photographs was assisted by the 1963 field inspected photographs and the compilation of the common smaller scale map T-12541, which encompasses this inset map. Copies of the manuscript and hydrographic support data were forwarded to the hydrographer for field edit.

T-13382

Field edit was conducted in conjunction with the common 1:10,000 scale map T-12541 and hydrographic survey H-9334 by NOAA Ship RAINIER personnel in September 1972.

Additional field edit was accomplished at the Atlantic Marine

FIELD INSPECTION

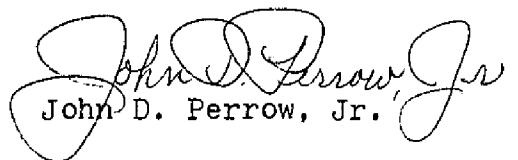
Field activity prior to compilation included a field inspection of

October 1, 1971

SPECIAL PHOTOGRAMMETRIC PLOT REPORT  
Job PH-6401  
Hawaii Island, Hawaii

A four model bridge (63-S-8064 thru 8067) was run to provide detail points in the area of T-13382 and exact scale ratios of photos 69-E(C)-9254 and 9255. The bridge was adjusted on three triangulation stations with companion points and one additional station as checks. All control held within National Map Accuracy Standards. Pass points from previous bridging served as additional checks on the bridging accuracy.

T-13382 lies on the west coast of Hawaii Island, Hawaii, with sheet limits of  $19^{\circ} 41' 00''$ ,  $19^{\circ} 39' 00''$ ,  $156^{\circ} 00' 45''$  and  $156^{\circ} 02' 45''$ .

  
John D. Perrow, Jr.



COMPILATION REPORT  
T-13382

31 - DELINEATION

Delineation was by instrument and graphic methods using the 1969 1:15,000 scale compilation photographs. This 1:5,000 sheet is an inset map contained within the limits of T-12541 which was compiled at 1:10,000 scale from 1963 photographs. The 1963 1:30,000 scale field inspection photographs for the area and sheet T-12541 were used to assist in delineation.

The 1963 and 1969 bridging/compilation ratio photographs were



T-13382

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to the Special Photogrammetric Plot Report dated October 1, 1971 and the Plot Report dated February 4, 1969.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with U.S.G.S Quadrangle Keahole Point, Hawaii, dated 1959, scale 1:24,000.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with USC&GS Chart 4140, scale 1:80,000, 3rd edition, dated Jan. 24, 1966.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

Submitted by

*Gerry L. Hancock*

*for* L. Graves  
Cartographer  
November 1971

Approved

*Gerry L. Hancock*

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

ADDENDUM TO THE COMPILATION REPORT

T-13382

Field edit for this inset map was performed in conjunction with hydrographic survey H-9334 in September 1972. The common small scale sheet, T-12541 was also edited during this time. Pertinent edit data from both sheets was applied to the manuscript. Delineation of the new harbor in Honokohau Bay was applied from the field editors copy of the U.S. Army Corps of Engineers dredging diagram. Adequate information was furnished in order to advance the manuscript to Class I status.

August 1, 1969

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6401 (Hawaii)

T-12541 (\*T-13382)

\*Honokohau

\*Honokohau Bay

Kahului Bay

Kailua Bay

Kailua Kona

\*Kaiwi Point

Kalae Paakai

Kaloko

Kaloko Point

\*Keahuolu Point

Kona Airport

Kukailimoku Point

Laniakea

\*Maliu Point

~~Noio Point~~ --- \*Noio Point *glt*

Ono Bay

\*Pacific Ocean

\*Pawai Bay

Pohakuloa Rock

Waiaha

Approved by:

*A. Joseph Wright*  
A. Joseph Wright  
Chief Geographer

Prepared by:

*Frank W. Pickett*  
Frank W. Pickett  
Cartographic Technician

FIELD EDIT REPORT

OPR-419, 1972

T-12539 through T-12550  
T-13382 T-11796  
Kona Coast, Hawaii

NOAA Ship RAINIER

CAPT G.E. HARADEN  
Commanding

## INTRODUCTION - METHODS

Field edit was accomplished between 14 September and 26 October 1972 by personnel of the NOAA Ship RAINIER. Work was performed from a 16 foot skiff. Landings were made where necessary to verify shoreline character.

The field edit started approximately 0.4 mile north-east of Puialoa Point, Hawaii and extended southward to Puoa Point (see appendix). Editing was completed on Manuscripts T-12539, T-12540, T-12541, T-12542, T-13382, T-12543, T-12544, T-12545, T-11796, T-12546, T-12548, and T-12549. Field edit was begun but not completed on Manuscript T-12550. No field edit was done on Manuscripts T-12547 and T-11797.

All additions and corrections were noted in purple on

### ADEQUACY OF COMPILATION

The compilation of the MHWL on the edited manuscripts was excellent and required very few corrections. In general the compilation of off-shore features was also excellent. Time and height data for rocks not identified on the manuscripts has been included on the photographs.

### DISCUSSION AND RECOMMENDATIONS

#### T-12539 (completed) Mahailua Bay

The shoreline in this area is primarily composed of steep cliffs 20' high, interspersed with sandy beach. The northern and southern-most buildings at Mahailua Bay are the only two prominent objects in the vicinity and therefore are of landmark value. The wooden windmill located at  $19^{\circ} 47' 13.35''$  N and  $156^{\circ} 02' 22.50''$  W, is no longer standing and should be deleted from C&GS Chart 4140. Further information is furnished on NOAA Form 76-40 (see appendix).

#### T-12540 (completed) Makako Bay

The shoreline in this area is composed primarily of low bluffs and sandy beach with marsh surrounding fish ponds.

Keahole Point Lighthouse is of landmark value. The lighthouse was field identified from photo 63-S-7943. Further information is provided on NOAA Form 76-40 (see appendix).

T-13382 (completed) Honokohau Bay

The shoreline in this area is composed primarily of gently sloping lava flows with interspersed sandy beach and marsh surrounding Kaloko Fish Pond.

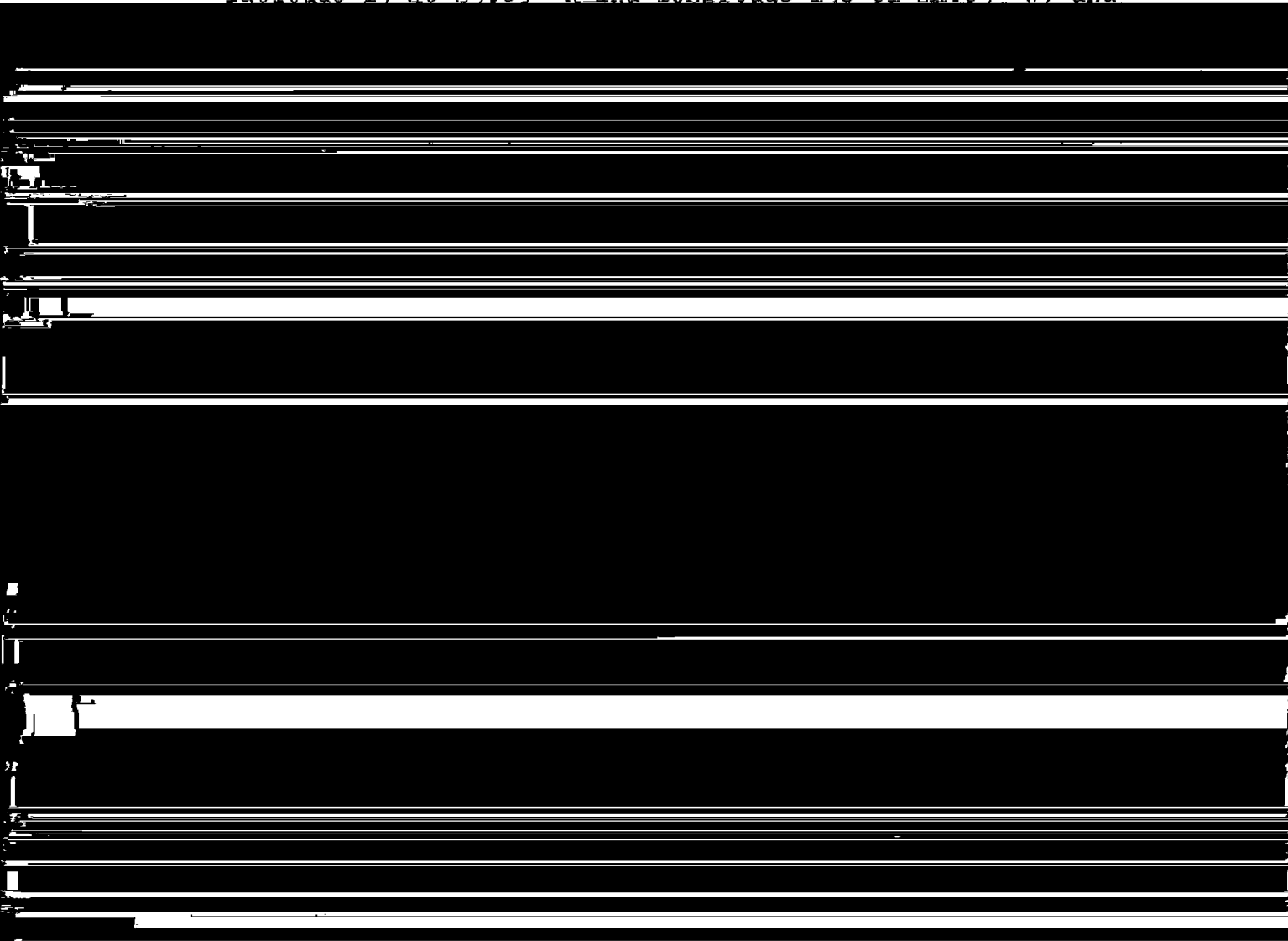
Keahuolu Point Northeast Range Marker, 1948, is of landmark value. Keahuolu Point Northwest Range Marker, 1948\*, has fallen over and is no longer visible from seaward. Four new navigational lights mark the entrance to the new boat basin at Honokohau, located just south of Malibu Point. Further information is provided on NOAA Form 76-40 (see appendix).

T-12541 (completed) Kailua Bay

The shoreline in this area is composed primarily of sloping lava rock with marsh surrounding small ponds and fish ponds at Honokohau Bay.

\* NOTE: Keahuolu Point Northeast Range Marker, 1948, and Keahuolu Point Northwest Range Marker, 1948, are located on Manuscripts T-12541 and T-13382.

The northern-most building at Honokohau, although small, is of landmark value as a navigational aid when entering the Honokohau boat basin. Keahuolu Point Northeast, Keahuolu Point Southeast, and Keahuolu Point Southwest Range Markers are very faded and weathered but are of landmark value. The building located at Honokohau (approximate location, latitude 19°40'25.85" N and longitude 156°01'44.83" W) and



seaward and should be deleted. Further information is provided on NOAA Form 76-40 (see appendix).

T-12542 (completed) Kailua Bay

The shoreline in this area is composed primarily of low

present as described but is obscured by vegetation. Further information is provided on NOAA Form 76-40 (see appendix).

m-13512 (unpublished) Keweenaw Reef

T-12546 (completed) Keawekahaka Bay

The shoreline in this area is primarily composed of lava bluffs approximately 30 feet high.

There are no objects of landmark value.

T-11796 (completed) Kealakekua Bay

The shoreline in this area consists of low lava bluffs six to ten feet high with rocky beaches and a steep cliff (160 feet high) on the northeast side of the bay.

Napoopoo, Kahikolu Church Spire, 1913, Napoopoo Lighthouse, and Captain Cook's Monument are all of landmark value. Further information is provided on NOAA Form 76-40 (see appendix).

T-12547 (incomplete) Kealakekua Bay

No field edit was done on this manuscript.

T-11797 (incomplete) Honaunau Bay

No field edit was done on this manuscript.

T-12548 (completed) Kauhako Bay

The shoreline in this area is composed of bluffs approximately 40-60 feet high with interspersed sandy beach. Buildings in the area indicated on the manuscript at Kauhako Bay are of landmark value. (building locations were not determined by the field editor or located by the compiler - see manuscript).

A church steeple located near Palianihi Point no longer exists and should be deleted.

Further information is provided on NOAA Form 76-40 (see appendix).

T-12549 (completed) Kauluoa Point

The shoreline in this area is composed of cliffs from 10 to 60 feet high interspersed with gravel, sand, and rocky beaches. There are no objects of landmark value.

T-12550 (incomplete) Puoa Point

The shoreline in this area is composed of lava bluffs approximately 40-60 feet high. There are no objects of landmark value. Field edit was completed to Puoa Point.

Respectfully submitted,

*Steven J. Hollinshead*  
Steven J. Hollinshead  
LTJG, NOAA

## MANUSCRIPT REFERENCE INDEX

OPR-419

FIELD EDIT

MANUSCRIPT NUMBER	REFERENCE PHOTO NUMBERS	REFERENCE DETATCHED POSITIONS
T-12539 Mahailua Bay	63-S-7948 63-S-8060	
T-12540 Makako Bay	63-S-7943 63-S-8063*	
T-12541 Kailua Bay	63-S-8063* 63-S-8094	
<del>T-12532</del> Honokohau Bay	69-E-9255 69-E-9254	
T-12542 Kailua Bay	63-S(C)-7913 63-S(C)-7915 63-S(C)-7917	Detatched Positions 10/05/72
T-12543 Keauhou Bay	63-S-8067 63-S-8068	
T-12544 Keauhou Bay	63-S(C)-8158 63-S(C)-8159 63-S(C)-8160	

\*NOTE: Photo 63-S-8063 used on T-Sheets T-12540  
and T-12541

REVIEW REPORT  
T-13382

SHORELINE

61 - GENERAL STATEMENT

Final review for this final Class III 1:5,000 scale inset map was accomplished at the Atlantic Marine Center in February 1987. The field inspection was performed in conjunction with the common smaller scale map, T-12541, which encompasses this inset map. 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 U.S.G.S Quadrangle Keahole Point, Hawaii, dated 1959, scale 1:24,000.

64 - COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison made with a registered copy of H-9334, RA-10-7-72, surveyed in 1972 did not reveal any significant differences.

65 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with NOS chart 19327, scale 1:80,000, 8th edition, September 5, 1981 (includes 1:5,000 scale inset).

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

*Jerry O. Roban*

Chief, Photogrammetric Production Sec.

*A. Y. Bryan*

Chief, Photogrammetry Branch



RESPONSIBLE PERSONNEL		ORIGINATOR
TYPE OF ACTION	NAME	<input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
OBJECTS INSPECTED FROM SEAWARD	S. Hollinshead, NOAA Ship RAINIER	
POSITIONS DETERMINED AND/OR VERIFIED	S. Hollinshead	FIELD ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	L. Graves	OFFICE ACTIVITY REPRESENTATIVE
		<input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'  
(Consult Photogrammetric Instructions No. 64.)

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042  
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field  
 L - Located  
 V - Verified  
 1 - Triangulation  
 2 - Traverse  
 3 - Intersection  
 4 - Resection  
 5 - Field identified  
 6 - Theodolite  
 7 - Planetable  
 8 - Sextant

A. Field positions\* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L  
8-12-75

\*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions\*\* require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V  
8-12-75  
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.  
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.  
8-12-75

\*\*PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION										
NONFLOATING AIDS OR LANDMARKS FOR CHARTS										
PORTING UNIT (Field Party, Ship or Office)		STATE	LOCALITY	DATE	ORIGINATING ACTIVITY					
Bastal Mapping, AMC		Hawaii	Hawaii Island	Mar 1973	<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> COMPILATION ACTIVITY <input type="checkbox"/> FINAL REVIEWER <input type="checkbox"/> QUALITY CONTROL & REVIEW GRP. <input type="checkbox"/> COAST PILOT BRANCH (See reverse for responsible personnel)					
VE [X] HAVE NOT been inspected from seaward to determine their value as landmarks.		DATUM		POSITION			METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED	
PH NUMBER	SURVEY NUMBER	LATITUDE		LONGITUDE						
		° /	'	° /	'			OFFICE	FIELD	
		D.M. Meters		D.P. Meters						
PH-6401	T-13382	19 40	28.88	156 01	45 04			69 (E) 9254 Mar 11, 1969	L-P-5 Sep 1972 69 (E) 9254	19327 19331
ne of three		19 40	09.254	156 01	54.221			69 (E) 9255 Mar 11, 1969	V-Vis Sep 1972	"
u Point, Northeast Range 1948		19 39	09.803	156 01	42.202			"	V-Vis Sep 1972	"
u Point, Southeast Range 1948)		19 39	08.374	156 01	48.216			"	V-Vis Sep 1972	"
u Point, Southwest Range 1948)		19 39	27.01	156 01	39.34			"	F-L-3-7 Sep 1972	"
at, 1972										

DESCRIPTION  
 en for deletion of landmark or aid to navigation.  
 (Station station names, where applicable, in parentheses)

RESPONSIBLE PERSONNEL		ORIGINATOR	
TYPE OF ACTION	NAME	PHOTO FIELD PARTY	HYDROGRAPHIC PARTY
OBJECTS INSPECTED FROM SEAWARD	S. Hollinshead (NOAA Ship RAINIER)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
POSITIONS DETERMINED AND/OR VERIFIED	S. Hollinshead	<input type="checkbox"/>	<input type="checkbox"/>
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	L. Graves	<input type="checkbox"/>	<input type="checkbox"/>

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64, FIELD (Cont'd))	
<b>OFFICE</b> <b>I. OFFICE IDENTIFIED AND LOCATED OBJECTS</b> Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	<b>B. Photogrammetric field positions** require</b> entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> Enter the applicable data by symbols as follows: F - Field P - Photogrammetric L - Located V - Visually 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 *FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	<b>II. TRIANGULATION STATION RECOVERED</b> When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 <b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 <b>**PHOTOGRAMMETRIC FIELD POSITIONS are dependent</b> entirely, or in part, upon control established by photogrammetric methods.

### RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. PH-6401, T-13382

## 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.

[illegible]