

T-12550

T-12550

NOAA FORM 76-35 (3-76)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Map No. T-12550	Edition No. 1
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 PUOA POINT	
19 63 TO 19 73	
REGISTRY IN ARCHIVES	
DATE	

<b>NOAA FORM 76-36A</b> (3-72)		<b>U. S. DEPARTMENT OF COMMERCE</b> NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
<b>DESCRIPTIVE REPORT - DATA RECORD</b>		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Div. Atlantic Marine Center, Norfolk, VA		SURVEY <del>NO</del> T-12550 MAP EDITION NO. (1) MAP CLASS FINAL JOB PH-6402	
OFFICER-IN-CHARGE R. Matsushige		<b>LAST PRECEDING MAP EDITION</b> TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH- MAP CLASS SURVEY DATES: 19__ TO 19__	
<b>I. INSTRUCTIONS DATED</b>			
<b>1. OFFICE</b>		<b>2. FIELD</b>	
Compilation Oct. 28, 1969 Amendment 1 Jan. 3, 1973 Memo Sept. 1, 1978		Control/Field Inspection May 8, 1964	
<b>II. DATUMS</b>			
<b>1. HORIZONTAL:</b> <input type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify) Old Hawaiian	
<b>2. VERTICAL:</b> <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)	
<b>3. MAP PROJECTION</b> Polyconic		<b>4. GRID(S)</b> STATE Hawaii ZONE 1	
<b>5. SCALE</b> 1:10,000		STATE ZONE	
<b>III. HISTORY OF OFFICE OPERATIONS</b>			
<b>OPERATIONS</b>		<b>NAME</b>	<b>DATE</b>
<b>1. AEROTRIANGULATION</b> BY METHOD: Stereoplanigraph LANDMARKS AND AIDS BY		J. Perrow	June 1969
<b>2. CONTROL AND BRIDGE POINTS</b> PLOTTED BY METHOD: Coradomat CHECKED BY		J. Perrow J. Perrow	June 1969 June 1969
<b>3. STEREOSCOPIC INSTRUMENT</b> PLANIMETRY BY COMPILATION CHECKED BY INSTRUMENT: Wild B-8 SCALE: 1:10,000 CONTOURS BY CHECKED BY		L. Neterer A. Shands N.A. N.A.	Nov. 1969 Nov. 1969
<b>4. MANUSCRIPT DELINEATION</b> PLANIMETRY BY CHECKED BY METHOD: Smooth drafted CONTOURS BY CHECKED BY SCALE: 1:10,000 HYDRO SUPPORT DATA BY CHECKED BY		B. Barge L. Graves N.A. N.A. B. Barge L. Graves	Mar. 1970 Mar. 1972
<b>5. OFFICE INSPECTION PRIOR TO FIELD EDIT</b> BY		L. Graves	Mar. 1972
<b>6. APPLICATION OF FIELD EDIT DATA</b> BY CHECKED BY		R. Minton J. Roderick	June 1974 Nov. 1979
<b>7. COMPILATION SECTION REVIEW</b> BY		J. Roderick	Nov. 1979
<b>8. FINAL REVIEW</b> BY		J. Hancock	Apr. 1987
<b>9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH</b> BY		J. Hancock	June 1987
<b>10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH</b> BY		P. Damprey	Aug 1987
<b>11. MAP REGISTERED - COASTAL SURVEY SECTION</b> BY		ELDAUGHERTY	SEP 87

NOAA FORM 76-36B (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY			
T-12550 <b>COMPILATION SOURCES</b>					
<b>1. COMPILATION PHOTOGRAPHY</b>					
CAMERA(S) WILD RC-8"S", S=152.29mm ✓		TYPES OF PHOTOGRAPHY LEGEND  (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				ZONE Hawaii ✓  MERIDIAN 150th ✓	<input checked="" type="checkbox"/> STANDARD  <input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
63S(C) 7880-7885** ✓	Aug.29,1963	09:54	1:15,000 ✓	1.6 FT. above MLLW ✓	
63S(P) 7826-7829* ✓	Aug.29,1963	09:05	1:30,000 ✓	1.1.FT. above MLLW ✓	
				Mean Tide Range = 1.4FT.	
REMARKS *Bridging/compilation photographs, **Compilation/hydro support photographs.					
<b>2. SOURCE OF MEAN HIGH-WATER LINE:</b>  The mean high water line was compiled from office interpretation of the compilation photographs using stereo instrument and graphic methods.					
<b>3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:</b>  No mean lower low water line was compiled.					
<b>4. CONTEMPORARY HYDROGRAPHIC SURVEYS</b> (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-9307	1972	Registered			
H-9356	1973				
<b>5. FINAL JUNCTIONS</b>					
NORTH	EAST		SOUTH	WEST	
T-12549	None		T-12551	None	
REMARKS					

T-12550  
HISTORY OF FIELD OPERATIONSI. ☒ FIELD INSPECTION OPERATION ☐ FIELD EDIT OPERATION

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

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
		None	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
63(S) 7826*	WAIKAKUU 4, 1951 (Direct and Sub. Pt. identified)		
*Partial ratio print			

## 3. PHOTO NUMBERS (Clarification of details)

63(S) 7826 - 7829 (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)

1 Form 152, 1 Form 266, 1 Form 269, 1 Project Field Report

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

T-12550

## HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	(NOAA Ship RAINIER) G. Haraden	Sept. 1972
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	S. Hollinshead None None
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None None None
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
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	N.A.

## 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)

63S(C) 7884 (Cronapaque ratio, 1:10,000 scale)

## 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)

1 Field edit report

1 Field edit paper print (same print is used with the 1973 field edit)

T-12550  
HISTORY OF FIELD OPERATIONS

I. <input type="checkbox"/> FIELD INSPECTION OPERATION				<input checked="" type="checkbox"/> FIELD EDIT OPERATION			
OPERATION			NAME		DATE		
1. CHIEF OF FIELD PARTY			(NOAA Ship FAIRWEATHER) C. Burroughs		Mar.-Apr. 1973		
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			TYPE OF INVESTIGATION				
			<input type="checkbox"/> COMPLETE		BY		
			<input type="checkbox"/> SPECIFIC NAMES ONLY				
			<input checked="" type="checkbox"/> NO INVESTIGATION				
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				2. VERTICAL CONTROL IDENTIFIED			
None				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: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE				6. BOUNDARY AND LIMITS: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE			
7. SUPPLEMENTAL MAPS AND PLANS							
None							
8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)							
1 Field edit report, 1 Field edit book (Form 275) 1 Field edit paper print (same print used with 1972 field edit)							

NOAA FORM 76-36D  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONT-12550  
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	June 1974	Unreviewed Class I manuscript	None	June 1974
Compilation office review, compilation complete	Nov. 1979	Class I Manuscript	Nov. 1979	Nov. 1979
Final Review	April 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: \_\_\_\_\_

## 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  MAP CLASS <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 TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <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 TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <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	





SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT

T-12550

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 portrays the shoreline along the southwest coast of Hawaii Island from Latitude 19° 15' 00" to Latitude 19° 18' 45".

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 March 1972. Copies of the initial compilation and hydrographic support data were forwarded to the hydrographer for field edit.

Field edit activity was conducted in conjunction with two contemporary hydrographic surveys. North of Latitude 19° 18.0', field edit was performed with H-9307 by NOAA Ship RAINIER personnel in September 1972. The southern portion of the manuscript was field edited during hydro survey H-9356 by NOAA ship FAIRWEATHER personnel in March 1973.

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Application of field edit was completed at the original compilation office in November 1979 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 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-12550

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.

UNITED STATES GOVERNMENT

# Memorandum

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

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631W

TO : Chief, Photogrammetric Field Operations  
THRU : Honolulu Field Officer *not*

DATE: August 5, 1964

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

Supplimental Station Pricked:  
KAUNA POINT LIGHT, 1948

FLIGHT STRIP NO. 7

KALAE 2, 1948  
PALAHEMO 1898  
KAMILO, 1898  
KIPAEPAE, 1898

Supplimental 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

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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 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 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.

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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.

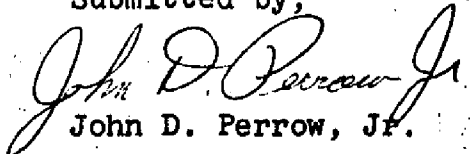
24. Supplemental Data

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

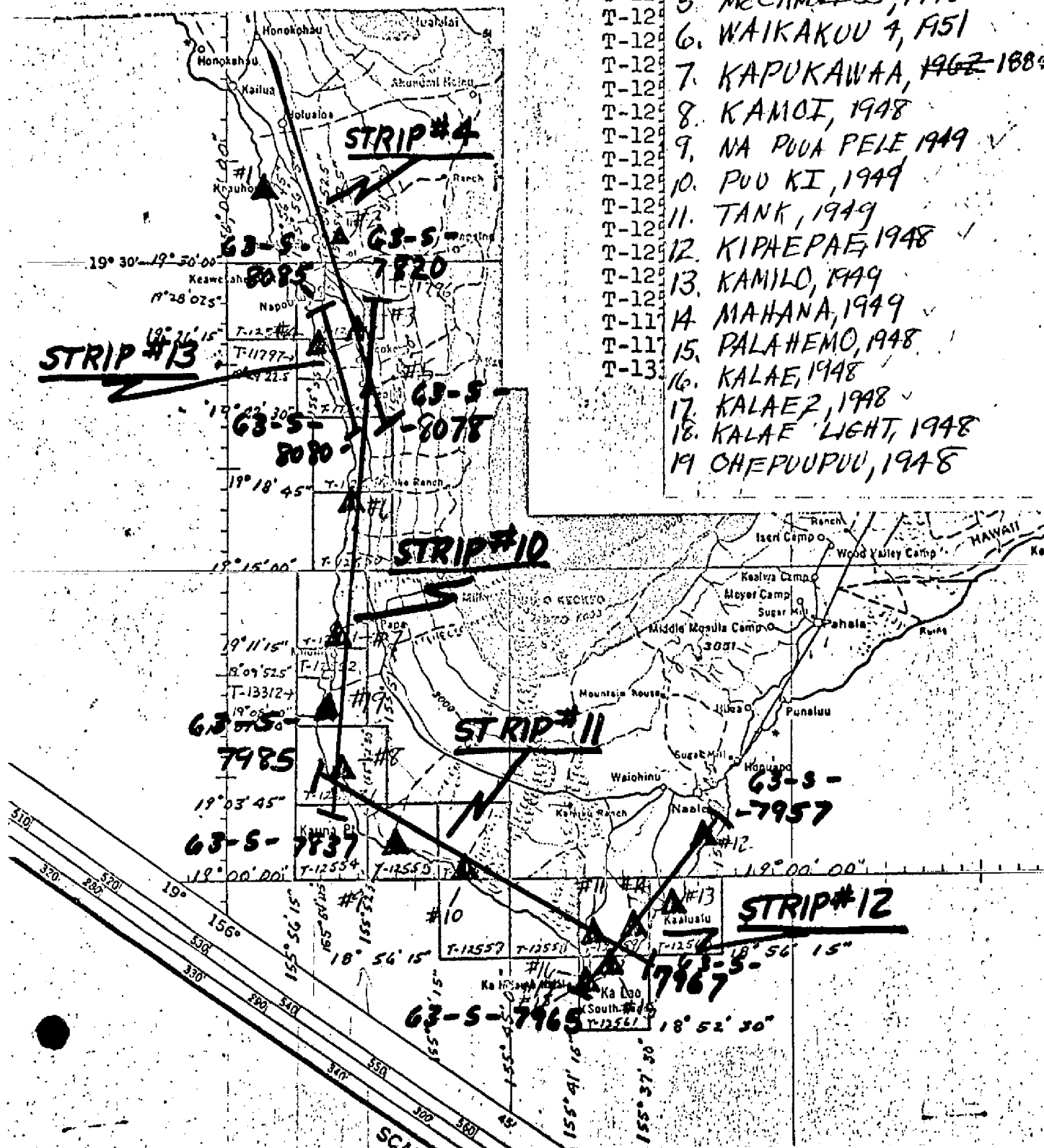
OFFICE

Sheet No.

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1. POINT, 1928
2. KANAKU, 1948
3. HONAUNAU ST. BENEDKT CATH. CH. SPIRE, 1948
4. KEET S. BASE, 1948
5. McCANDLESS, 1948
6. WAIKAKOU 4, 1951
7. KAPUKAWAA, 1962-1889
8. KAMOT, 1948
9. NA POUA PELE 1949 ✓
10. POU KI, 1949
11. TANK, 1949
12. KIPHEPAE, 1948 ✓
13. KAMILO, 1949
14. MAHANA, 1949 ✓
15. PALAHAMO, 1948
16. KALAE, 1948
17. KALAE 2, 1948 ✓
18. KALAE LIGHT, 1948
19. CHEPUUPUU, 1948

SCALE 1:10,000





## DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETTIC DATUM		ORIGINATING ACTIVITY	
		Old Hawaiian Datum	Geographic Position	Coastal Mapping Section, AMC	REMARKS
STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	COORDINATES IN FEET STATE <u>Hawaii</u> ZONE <u>1</u>	$\phi$ LATITUDE $\lambda$ LONGITUDE	
T-12550	PH-6402				
WAIAKAKUU 2, 1948	G.P. Pg. 17		X=	$\phi$ 19° 18' 42.050"	
			Y=	$\lambda$ 155° 52' 36.989"	
WAIAKAKUU 3, 1951	G.P. Pg. 26		X=	$\phi$ 19° 18' 42.020"	
			Y=	$\lambda$ 155° 52' 37.270"	
WAIAKAKUU 4, 1951	G.P. Pg. 26		X=	$\phi$ 19° 18' 41.704"	
			Y=	$\lambda$ 155° 52' 40.240"	
KUKU, 1972	Field Edit Report 1972		X=	$\phi$ 19° 18' 34.121"	
			Y=	$\lambda$ 155° 53' 24.204"	
AUAU, 1972	Field Edit Report 1972		X=	$\phi$ 19° 18' 13.792"	
			Y=	$\lambda$ 155° 53' 30.224"	
			X=	$\phi$	
			Y=	$\lambda$	
			X=	$\phi$	
			Y=	$\lambda$	
			X=	$\phi$	
			Y=	$\lambda$	
			X=	$\phi$	
			Y=	$\lambda$	
			X=	$\phi$	
			Y=	$\lambda$	
COMPUTED BY	A. C. Rauck, Jr.	DATE 7-29-69	COMPUTATION CHECKED BY B. L. Barge		DATE 1-22-70
LISTED BY		DATE	LISTING CHECKED BY		DATE
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE

## COMPILATION REPORT

T-12550

31. DELINEATION:

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 ALONGSHORE 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 landmarks or fixed aids within the limits of this manuscript.

T-12550

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 Kauluoa Point, Hawaii, scale 1:24,000, dated 1962.

47. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with C. & G.S. Chart 4115, scale 1:250,000, 8th edition, dated September 9, 1963, revised January 1, 1967.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

*for* *Jerry L. Hancock*  
L. Graves  
Cartographic Technician  
March 1972

Approved:

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

## ADDENDUM TO THE COMPILATION REPORT

T-12550

Field edit for the area north of Latitude  $19^{\circ} 18.0'$  was performed in September 1972 by NOAA ship RAINIER personnel. The southern portion of the manuscript was field edited in March 1972 by NOAA ship FAIRWEATHER personnel. Field remarks from both activities were submitted on one field edit paper print. Adequate field data was furnished to advance the manuscript to Class I.

16  
GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6402 Hawaii

T-12550

Auau Point  
Heku Point  
Island of Hawaii  
Ka Lae Paakai  
Kaluahoe Rock  
Keananuihonaha Point  
Kolo -----Not compiled  
Kuhulu Rock  
Olelomoana -----Not compiled  
Opihihali  
Paakai Point  
Pacific Ocean  
Puoa Point

Approved by:

*A. J. Wraight*

A. Joseph Wraight  
Chief Geographer

Prepared by:

*Frank W. Pickett*

Frank W. Pickett  
Cartographic Technician

FIELD EDIT REPORT

OPR-419, 1972

T-12539 through T-12550    \$  
T-13332    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 the field edit ozalids. Deletions were accented in green. Photos used in this edit were from PH-6401 and 6402. Values given for distances from MHWL and heights of rocks were estimated. All time references were made to 150° W longitude.

To aid in cross-referencing, A "Manuscript Reference Index" and a "Position Abstract" are included in the appendix. Also included in the appendix are: 1) List of detached positions, 2) A complete signal tape listing, 3) Listing of Triangulation Stations recovered, established, and re-established.

### 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 41140. 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 Maliu 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  $19^{\circ}40'25.85''$  N and longitude  $156^{\circ}01'44.83''$  W) and Keahuolu Point Northwest Range Marker are not visible from 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 bluffs interspersed with sandy beach.

The facade of the Kona Hilton Hotel, which is illuminated yellow at night, and Kailua Lighthouse are of landmark value; both were intersected using second order, class II methods. A crane lighted at night by a floodlight and used by fishermen as a navigational aid and the Kailua Mokuauikaia Church spire are also of landmark value.

The cattle pens, small craft warning mast, and building on the Kailua pier have been removed and should be deleted. The tanks located at latitude  $19^{\circ}38'34.80''$  N, and longitude  $156^{\circ}00'03.46''$  W, and the Kona Airport Airway Beacon have been removed and should be deleted. The church spire, latitude  $19^{\circ}38'24.22''$  N and longitude  $155^{\circ}59'37.05''$  W, is

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

T-12543 (completed) Keauhou Bay

This area is composed primarily of rocky shoreline interspersed with sandy beaches.

New buildings at latitude  $19^{\circ}35'52.50''$  N, longitude  $155^{\circ}58'31.50''$  W and latitude  $19^{\circ}34'39.60''$  W, longitude  $155^{\circ}58'12.60''$  W are not of landmark value. A hotel just south of Kalaau o Kalakani and a blue church building at Kahaluu Bay are of landmark value.

A spire at Kahaluu Bay is not visible and should be deleted. Further information is provided on NOAA Form 76-40 (see appendix).

T-12544 (completed) Keauhou Bay

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

Keauhou Bay Light and Keauhou Bay Entrance Directional Light (both lights on the same structure) and the Kona Surf Hotel (approximate position scaled) are of landmark value. Further information is provided on NOAA Form 76-40 (see appendix).

T-12545 (completed) Keikiwaha Point

The shoreline in this area is composed of low lava bluffs approximately 10 feet high. There are no objects of landmark value.

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 DETACHED 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	
T-13382 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

MANUSCRIPT NUMBER	REFERENCE PHOTO NUMBERS	REFERENCE DETATCHED POSITIONS
T-12545 Keikiwaha Point	63-S-8088 63-S-8087*	
T-12546 Keawekahaka Bay	63-S-8087*	
T-11796 Kealakekua Bay	63-S-8138	Detatched Position 9/14/72
T-12547 Kealakekua Bay	**	
T-11797 Honaunau Bay	**	
T-12548 Honaunau Bay	63-S(C)-8027 63-S(C)-8026 63-S(C)-8025	
T-12549 Kauluoa Point	63-S(C)-8024 63-S(C)-8023 63-S(C)-7888 63-S(C)-7887 63-S(C)-7886	
T-12550	63-S(C)-7884	

\*NOTE: Photo 63-S-8087 used on T-Sheets T-12545 and T-12546

\*\*NOTE: No field edit done

## 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



## FIELD EDIT REPORT

KONA COAST, ISLAND OF HAWAII

OPR-419

MARCH-APRIL 1973

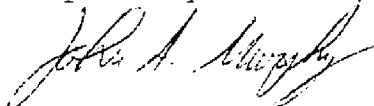
INTRODUCTION

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.

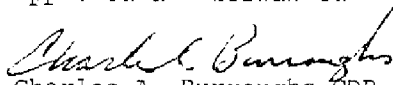
It is recommended that the maps be revised in accordance with the notes on the ozalids, and in the field edit notebook before acceptance as advanced manuscripts.

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-12550  
PUOA POINT, ISLAND OF HAWAII  
MARCH 1973

Field edit of map T-12550 was done by Ens. William A. Wert and Ens. John A. Murphy during the latter part of March 1973. Inspection was done on foot and in a small skiff when surf conditions permitted.

METHOD

Field photographs and a copy of the field edit ozalid were examined in the field. Shoreline verification was done by visual comparison of the beach area and the map in the field. Isolated rocks and ledges were located by sextant fixes (when surf conditions permitted) and plotted on boatsheet FA 10-2-73. Otherwise, visual verification of location was used.

An Apelco Fisherman's portable fathometer was used to determine the depth of the coral marked as foul limits on the ozalids. Heights or depths of rocks, reef, and ledges are noted in the field edit notebook or directly on the ozalid. All times are based on 135° W meridian.

ADEQUACY OF COMPILATION

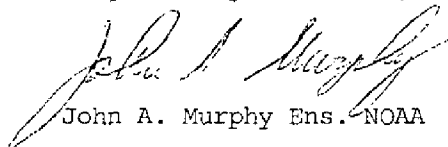
Compilation of this map is considered good considering the prevailing surf conditions. Hydrographic location of features compares well to photogrammetric location

Note is made of the following item; The foul line shown on the map is actually the limit of coral growth in the area. It is at an average depth of 45 feet. The unusual water clarity accounts for this misinterpretation.

RECOMMENDATIONS

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

Respectfully submitted,

  
John A. Murphy Ens. NOAA

REVIEW REPORT  
SHORELINE  
T-12550

61. GENERAL STATEMENT:

Final review for this Final Field Edited 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 Kauluoa Point, Hawaii, 1:24,000 scale, dated 1962.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

This manuscript is common to portions of two 1:10,000 scale hydrographic surveys; H-9307, RA-10-06-72, 1972 and H-9356, FA-10-1-73, 1973. A comparison with both surveys did not reveal any significant differences.

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*  
Jerry L. Hancock  
Final Reviewer

Approved for forwarding:

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

Approved:

*Larry O. Robson*  
Chief, Photogrammetric Production Sec.

*A. Y. Bryson*  
Chief, Photogrammetry Branch

