

T-12545

T-12545

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Map No. T-12545	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 Keikiwaha Point	
19 63 TO 19 72	
REGISTERED IN ARCHIVES	
DATE	

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY ☒ ORIGINAL ☐ RESURVEY ☐ REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Unit, Atlantic Marine Center, Norfolk, VA		SURVEY TP. <u>12545</u> MAP EDITION NO. (1) MAP CLASS Final JOB PH. <u>6401</u>	
OFFICER-IN-CHARGE Richard Houlder		LAST PRECEDING MAP EDITION TYPE OF SURVEY ☐ ORIGINAL ☐ RESURVEY ☐ REVISED	
JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__			
I. INSTRUCTIONS DATED			
1. OFFICE		2. FIELD	
Compilation September 12, 1968 Supplement No. 1 February 11, 1969 Compilation March 11, 1969 Supplement No. 2 December 11, 1969		Control/Field Inspection April 29, 1964	
II. DATUMS			
1. HORIZONTAL: ☐ 1927 NORTH AMERICAN		OTHER (Specify) Old Hawaiian Datum	
2. VERTICAL: ☒ MEAN HIGH-WATER ☐ MEAN LOW-WATER ☐ MEAN LOWER LOW-WATER ☐ MEAN SEA LEVEL		OTHER (Specify)	
3. MAP PROJECTION Polyconic		4. GRID(S) STATE ZONE Hawaii 1	
5. SCALE 1:10,000		STATE ZONE	
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	
DATE			
1. AEROTRIANGULATION BY METHOD: <u>Stereoplanigraph</u> LANDMARKS AND AIDS BY		J. Perrow Feb. 1969 H. Eichert Feb. 1969	
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: <u>Coradomat</u> CHECKED BY		J. Perrow Feb. 1969 H. Eichert Feb. 1969	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY		A. Shands Sept. 1969 C. Bishop Sept. 1969	
INSTRUMENT: <u>Wild B-8</u> CONTOURS BY SCALE: <u>1:10,000</u> CHECKED BY		N/A ---- N/A ----	
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY		A. Shands Nov. 1969 R. Smith Jan. 1970	
METHOD: <u>Smooth drafted</u> CONTOURS BY CHECKED BY		N/A ---- N/A ----	
SCALE: <u>1:10,000</u> HYDRO SUPPORT DATA BY CHECKED BY		L. Graves Nov. 1969 R. Smith Jan. 1970	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		R. Smith Jan. 1970	
6. APPLICATION OF FIELD EDIT DATA BY		R. White Feb. 1973	
CHECKED BY		A. Shands Apr. 1973	
7. COMPILATION SECTION REVIEW BY		C. Blood July 1980	
8. FINAL REVIEW BY		J. Hancock Feb. 1987	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		J. Hancock Mar. 1987	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		P. Demosey May 1987	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		E. L. DAUGHERTY MAY 1987	

T-12545
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild R.C. -8"S" S=152.29mm		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE ZONE Yukon MERIDIAN 135th	
TIDE STAGE REFERENCE ☒ PREDICTED TIDES ☐ REFERENCE STATION RECORDS ☐ TIDE CONTROLLED PHOTOGRAPHY				☒ STANDARD ☐ DAYLIGHT	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
63S(P)8070-8071*	Sept. 1, 1963	09:10	1:30,000	0.4 ft. above MLLW	
63S(P)8087-8088**	Sept. 1, 1963	09:18	1:30,000	0.5 ft. above MLLW	
63S(C)8037-8041***	Aug. 31, 1963	10:30	1:15,000	1.4 ft. above MLLW	
				Mean Tide Range = 14 ft.	

REMARKS

*Bridging photographs, **Bridging/Compilation 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-9335	Surveyed				
H-9346	1972	Registered			

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
T-12543		T-12546 (PH-6402)	
T-12544 (1:5,000 scale)	No Survey		No Survey

REMARKS

A portion of inset map T-12544 lies within the northern segment of this map.

T-12545

HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Newsom	June/July 1964
2. HORIZONTAL CONTROL	RECOVERED BY E. Cline	May 1964
	ESTABLISHED BY E. Cline	May 1964
	PRE-MARKED OR IDENTIFIED BY E. Cline	May 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 ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY E. Cline	June/July 1964
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY None	----

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
63(S)8072*	Kealakekua, Kona Church Spire, 1948 (Direct & Sub Pt)		
*Section of ratio photos submitted (station lies just east of map limits)			

3. PHOTO NUMBERS (Clarification of details)

63(S)8086-8088 (Matte Contacts, 1:30,000 scale)

63(C)8159-8160 (Cronapaque Contacts, 1:15,000 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 form 152 (CSI)

1 form 266

1 form 269C

T-12545

HISTORY OF FIELD OPERATIONS

1. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	(NOAA ship RAINIER) G. Harden	Oct. 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 AID TO NAVIGATION	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None None None
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	*S. Hollinshead
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None

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)

63(S)8088 (Matte Ratio, 1:10,000 scale)

4. LANDMARKS AND AID 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

(*Field edit is also included on the inset map (T-12544) field edit paper print and matte ratios 63(S)8159, 8160, 1:5,000 scale)

NOAA FORM 76-36D
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
T-12545

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	Jan. 1970	Class III Manuscript		Jan. 1970 May 1972
Field edit applied compilation complete	July 1980	Class I Manuscript		Aug. 1980
Final Review	Feb. 1987	Final Map	MAR 1987	MAY 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: _____

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 ☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL

<u>Sheet No.</u>	<u>Area</u> <u>Sq. Mi.</u>
T-12527	1
T-12528	3
T-12529	3
T-12530	3
T-12531	2
T-12532	2
T-12533	3
T-12534	2
T-12535	2
T-12536	3
T-12537	4
T-12538	2
T-12539	4
T-12540	4
T-12541	4
T-12542	2
T-12543	3
T-12544	2
T-12545	3
T-12635	2
T-13131	2
T-13132	2
T-13154	2
T-13382	<u>1</u>

Total 61

61

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

Karapala Ranch
Iseri Camp
W. 1 Valley Camp

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

T-12545

This 1:10,000 scale final shoreline 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 map was to furnish data in support of hydrographic operations and to provide current shoreline data for marine charts.

This map portrays a portion of shoreline along the west coast of Hawaii Island from Lat. $19^{\circ} 30' 00''$ to Lat. $19^{\circ} 33' 45''$. The northern segment of the map is common to the southern portion of inset map T-12544, 1:5,000 scale. This map defines the southern limit for the project and junctions with shoreline project PH-6402, map T-12546.

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 1:30,000 scale photographs. This activity was conducted in June/July 1964.

Analytic aerotriangulation was adequately provided by the Washington Science Center in three 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 final bridge was provided in October 1971 for the 1969 photo coverage of three 1:5,000 scale inset maps. 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 January 1970. Copies of the manuscript and hydrographic support data were forwarded to the hydrographer for field edit.

T-12545

Field edit was conducted in conjunction with hydrographic survey H-9335 and H-9346 by NOAA Ship RAINIER personnel in October 1972. This activity also included field edit for the common inset map T-12544.

Application of field edit was completed at the Atlantic Marine Center in July 1980. This included the transferring of field edited shoreline detail from the common inset map T-12544. Sufficient information was submitted to advance the manuscript to Class I.

Final review was performed at the Atlantic Marine Center in February 1987. A comparison was made with the common nautical chart and hydrographic survey. 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-12545

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.

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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 stereoplanigraph 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.

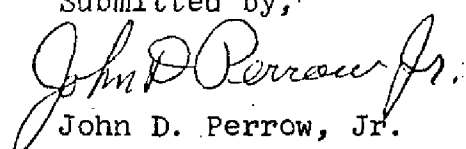
24. Supplemental Data

Local USGS quads were used to provide vertical points needed for the strip adjustment program.

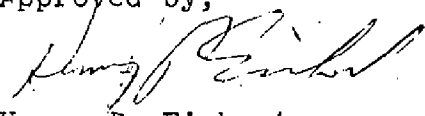
25. Photography

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.

Approved by,


Henry P. Eichert
Chief, Aerotriangulation Section

STRIP#1

63-5-7777 7702

63-5-7703 7815

STRIP#2

63-5-7719 7939

STRIP#3

63-5-8059 8080

STRIP#4

63-5-7917 7955

STRIP#5

63-5-7708 7917

STRIP#6

63-5-8150 8168

STRIP#1

STRIP#2

STRIP#3

STRIP#4

STRIP#5

STRIP#6

STRIP#7

1. KUPUHI 2, 1948
2. KUPUHI, 1913
3. KEALAEHWA 2, 1948
4. LORAN TOWER, 1948
5. PUU ULA, 1913
6. RED TANK, 1948
7. KEAWANUI, 1948
8. PUU KAMALI, 2, 1928
9. KAWAIHAE LT. 1928
10. PUAKO, 1873
11. PUAKO NEW, 1948
12. ANAEOOMALU, 1913
13. HAND, 1928
14. NAWAT, 1928
15. LAVA CONE, 1913
16. KEAHOLE 2, 1948
17. KEAHOLE, 1882
18. KEARUOLD PT. NW. RANGE MARKER, 1948
19. KAILUA, 1887
20. KAHALO, 1882
21. POINT, 1928
22. KEALAKEKUM KOHA CH. SPIRE, 1948
23. KEEI SOUTH BASE, 1948
24. HONAUHUA ST. BENEDICT CATH. CHURCH SPIRE, 1948
25. MC CANDLESS, 1948

JOB PH-6401

SHORELINE MAPPING

HAWAII IS. WEST COAST

UPOLO POINT TO KAILUA

SCALE 1:5,000 & 1:10,000

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODEIC DATUM		ORIGINATING ACTIVITY	
				Old Hawaiian COORDINATES IN FEET STATE <u>HAWAII</u> ZONE <u>1</u>	Geographic Position ϕ LATITUDE λ LONGITUDE	AMC, Coastal Mapping	REMARKS
T-12545	PH-6401			$x =$	ϕ 19 33 28.265		
Target, 1928	G.P. Pg. 64			$y =$	λ 155 58 06.752		
				$x =$	ϕ 19 33 26.856		
LUN, 1948	G.P. Pg. 15			$y =$	λ 155 56 21.648		
				$x =$	ϕ 19 33 23.387		
KEAUHOU COAST, 1948	G.P. Pg. 15			$y =$	λ 155 58 10.189		
				$x =$	ϕ 19 30 52.527		
PUU OHAU, (H.G.S.) (H.T.S. 1928), 1883	G.P. Pg. 15			$y =$	λ 155 57 20.844		
				$x =$	ϕ 19 33 42.326		
POINT, 1928	G.P. Pg. 31			$y =$	λ 155 58 08.207		
				$x =$	ϕ		
				$y =$	λ		
				$x =$	ϕ		
				$y =$	λ		
				$x =$	ϕ		
				$y =$	λ		
				$x =$	ϕ		
				$y =$	λ		
				$x =$	ϕ		
				$y =$	λ		
COMPUTED BY A. C. Rauck, Jr.				COMPUTATION CHECKED BY L. L. Graves			DATE 10/10/69
LISTED BY				LISTING CHECKED BY			DATE
HAND PLOTTING BY				HAND PLOTTING CHECKED BY			DATE

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

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COMPILATION REPORT
T-12545

31 - DELINEATION

Delineation was by instrument methods using the Wild B-8 stereoplotter and 1:15,000 and 1:30,000 scale compilation photographs. The 1:30,000 scale panchromatic field inspection photographs were used during compilation; however, several of the field identified rocks were not discernible on the compilation photographs. Rocks that were not clearly identifiable were not compiled.

Compilation ratio photographs were processed for hydro support and were used graphically to assist in delineation of minor details. Photo coverage and quality were adequate.

The northern segment of this map is common to the southern portion of inset map T-12544, 1:5,000 scale. Shoreline detail for this area was originally omitted but later delineated from a reduction of T-12544.

32 - CONTROL

Refer to the Photogrammetric Plot Report, dated February 4, 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 was delineated from office interpretation of the mapping 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

There were no significant offshore details.

37 - LANDMARKS AND AIDS

There were no charted aids or landmarks within the map limits.

38 - CONTROL FOR FUTURE SURVEYS

None.

T-12545

39 - JUNCTIONS

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

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to the Photogrammetric Plot Report dated February 4, 1969.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with U.S.G.S Quadrangle:
Kealakekua, Hawaii, dated 1960, 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:

Henry D. Hancock

for L. Graves
Cartographic Technician
November 1969

Approved:

Albert C. Rauck, Jr.

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

ADDENDUM TO THE COMPILATION REPORT

T-12545

Field edit was performed in conjunction with hydrographic surveys H-9335 and H-9346 in October 1972. Inset map, T-12544, which is partially common to this map, was also field edited at the same time. During the application of field edit, the common inset detail was reduced and transferred to this map. The combined edit data was applied to the manuscript and the map was advanced to Class I.

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6401 (Hawaii)

T-12545

Honalo Bay

Kaholae Point

Kainaliu Bay

Kaukalaelae Point

Kawanui Bay

Keikiwaha Point

Kualanui Point

Kuamoo Point

Leinokano Point

Maihi Bay

Mokupupu Rock

Nauha Point

Nenue Point

Paaoao Point

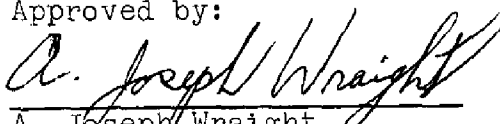
Pacific Ocean

Puu Loa---Not compiled

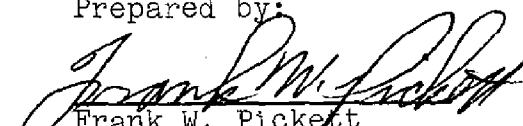
Puu Ohau

Paaoao Bay

Approved by:


A. Joseph Wraight
Chief Geographer

Prepared by:


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 miles 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 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 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 Mokuaiakua 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°35'52.50 " N, longitude 155°58'31.50" W and latitude 19°34'39.60" W, longitude 155°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	Detached 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 ⁵ Keikiwaha Point	63-S-8088 63-S-8087*	
T-12546 Keawekaheka 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

REVIEW REPORT
T-12545

SHORELINE

61 - GENERAL STATEMENT

Final review for this final field edited map was accomplished at the Atlantic Marine Center in February 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 U.S.G.S. Quadrangle:
Kealakekua, Hawaii, dated 1960, scale 1:24,000,

64 - COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with a registered copy of H-9335, RA-10-8-72 and H-9346, RA-10-9-72, both surveyed in 1972 at 1:10,000 scale. No significant differences were noted.

65 - COMPARISON WITH NAUTICAL CHARTS

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

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:

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