

T-13131

T-13131

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
THIS MAP EDITION WILL NOT BE FIELD EDITED	
Map No. T-13131	Edition No. 1
Job No. PH-6401	
Map Classification CLASS III (FINAL)	
Type of Survey SHORELINE	
LOCALITY	
State HAWAII	
General Locality HAWAII ISLAND, WEST COAST UPOLO POINT TO KAILUA	
Locality PUAKO BAY	
1969 TO 19	
REGISTERED IN ARCHIVES	
DATE	

1

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Unit, Atlantic Marine Center Norfolk, VA		SURVEY T2-13131 MAP EDITION NO. (1) MAP CLASS III (Final) JOB PH. 6401	
OFFICER-IN-CHARGE Richard Houlder		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__	

I. INSTRUCTIONS DATED	
1. OFFICE Compilation September 12, 1968 Supplement No. 1 February 11, 1969 Compilation March 11, 1969 Supplement No. 2 December 11, 1969	2. FIELD Control/Field Inspection -- April 29, 1964

II. DATUMS	
1. HORIZONTAL: <input type="checkbox"/> 1927 NORTH AMERICAN 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) Old Hawaiian Datum OTHER (Specify)
3. MAP PROJECTION Polyconic	4. GRID(S) STATE Hawaii ZONE 1
5. SCALE 1:5,000	STATE ZONE

III. HISTORY OF OFFICE OPERATIONS		
OPERATIONS	NAME	DATE
1. AEROTRIANGULATION BY D. Brant		Oct 1971
METHOD: analytical LANDMARKS AND AIDS BY H. Eichert		Oct 1971
2. CONTROL AND BRIDGE POINTS PLOTTED BY D. Brant		Oct 1971
METHOD: coradomat CHECKED BY H. Eichert		Oct 1971
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY R. White		Jan 1972
COMPILATION CHECKED BY A. Shands		Jan 1972
INSTRUMENT: wild B-8 CONTOURS BY N/A		
SCALE: 1:5,000 CHECKED BY N/A		
4. MANUSCRIPT DELINEATION PLANIMETRY BY R. White		Jan 1972
CHECKED BY A. Rauck		Feb 1972
METHOD: smooth drafted CONTOURS BY N/A		
CHECKED BY N/A		
HYDRO SUPPORT DATA BY R. White		Jan 1972
CHECKED BY A. Rauck		Feb 1972
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY A. Rauck		Feb 1972
6. APPLICATION OF FIELD EDIT DATA BY None		
CHECKED BY None		
7. COMPILATION SECTION REVIEW BY A. Rauck		Feb 1972
8. FINAL REVIEW (Class III) BY J. Hancock		Nov 1986
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY J. Hancock		Mar 1987
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY P. Dempsey		May 1987
11. MAP REGISTERED - COASTAL SURVEY SECTION BY E. L. DAUGHERTY		MAY 1987

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COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild R.C. - 8"E"; E=152.71mm 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 <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
69E(C) - 9039 - 9042**	Feb 25, 1969	11:14	1:15,000	0.4 ft above MLLW	
63S(P) - 7919 - 7921*	Aug 31, 1963	08:54	1:30,000	0.7 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
None					

5. FINAL JUNCTIONS

NORTH	EAST *	SOUTH *	WEST *
T-12533 (1:10,000 sc.)	T-12535	T-12534 & T-12535	T-12534
REMARKS * This 1:5,000 scale inset map is contained within the limits of sheets T-12534 and T-12535, both at 1:10,000 scale.			

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HISTORY OF FIELD OPERATIONS

- I. ☒ **FIELD INSPECTION OPERATION** *None ☐ **FIELD EDIT OPERATION**
Note Remark in item #8

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY		
2. HORIZONTAL CONTROL RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY		
3. VERTICAL CONTROL RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY		
4. LANDMARKS AND AIDS TO NAVIGATION RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY		
5. GEOGRAPHIC NAMES INVESTIGATION TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE BY <input type="checkbox"/> SPECIFIC NAMES ONLY <input type="checkbox"/> NO INVESTIGATION		
6. PHOTO INSPECTION CLARIFICATION OF DETAILS BY		
7. BOUNDARIES AND LIMITS SURVEYED OR IDENTIFIED BY		

II. **SOURCE DATA**

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

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

None

4. **LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED**

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. **GEOGRAPHIC NAMES:** ☐ REPORT ☒ NONE

6. **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)

*Field inspection data for the common area of Maps T-12534 and T-12535 (compiled from 1963 photography at 1:10,000 scale) were examined; however, no field inspection was performed for the 1969 photographs used to compile this inset map.

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HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION ☒ FIELD EDIT OPERATION *None, Note Remark in item #8

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY		
2. HORIZONTAL CONTROL	RECOVERED BY	
	ESTABLISHED BY	
	PRE-MARKED OR IDENTIFIED BY	
3. VERTICAL CONTROL	RECOVERED BY	
	ESTABLISHED BY	
	PRE-MARKED OR IDENTIFIED BY	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY	
	LOCATED (Field Methods) BY	
	IDENTIFIED BY	
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	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ 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)

* Field edit data for the common area of maps T-12534 and T-12535 (compiled from 1963 photography and edited in 1969/1970) were applied to this inset map where features were identifiable on the 1969 compilation photographs.

NOAA FORM 76-36D (3-72)	T-13131 RECORD OF SURVEY USE	U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
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I. MANUSCRIPT COPIES				
COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation included the use of 1969/1970 field edit data from common maps T-12534 and T-12535 that were compiled from 1963 photography	Feb 1972	Class III manuscript		Feb 1972
Final Review	Nov 1986	Final Class III Map	mar 1987	mar 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: None
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:

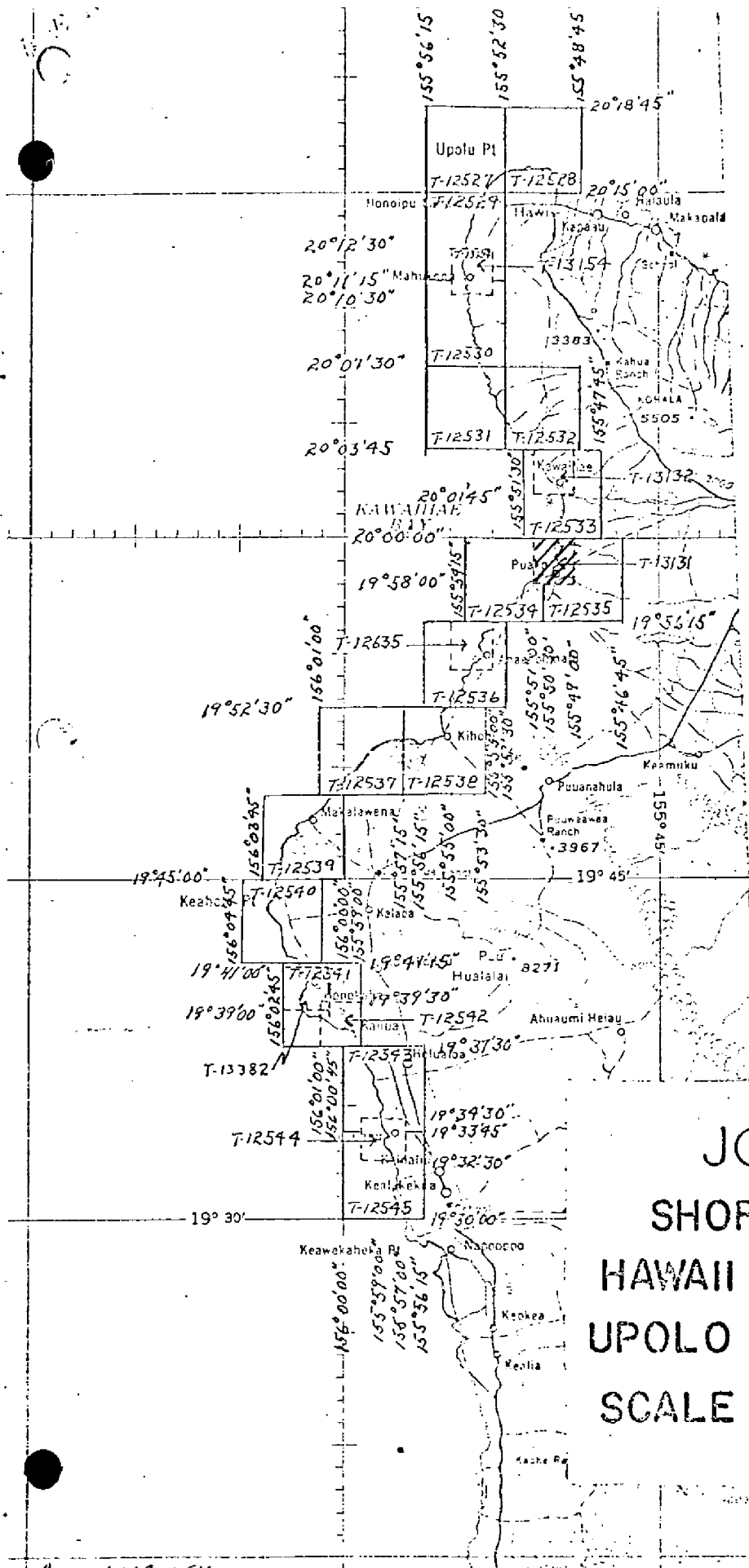
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

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

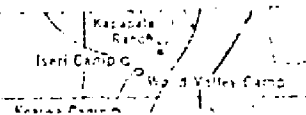
SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	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	

Area
Sq. Mi.

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	1
Total	61



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



6

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

T-13131

This 1:5,000 scale final Class III 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 inset map was to provide current shoreline data for maintenance of the large scale marine chart (19330) of Kawaihae Bay, Hawaii Island.

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. Photoidentification of the original 1963 photographs was sufficient for transferring control to the 1969 photography which was used to compile this inset map. The photoidentification and a field inspection of the 1963 photographs was performed in May/June 1964. No field inspection was accomplished for the 1969 photographs.

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. The final bridge, which includes this map, 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 February 1972. Prior to compilation, two common smaller scale maps (T-12534 and T-12535) which contain this inset map, had been previously compiled and field edited in conjunction with contemporary hydrography. Subsequently, the Class I maps (T-12534 and T-12535) were compared to the 1969 photography when compilation for

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this map was achieved. Primarily, the common mapping area was delineated the same except for a few extra alongshore rocks that were apparent on the 1969 photography.

Field edit was not performed for this map. Hydrographic/field edit activity was completed in the area in 1969 through 1971 when field edit was accomplished for the 1:10,000 scale maps T-12534 and T-12535.

Final review was performed at the Atlantic Marine Center in November 1986. Though this sheet had been considered a Class I map, it was reclassified during final review as Class III. A comparison was made with the common hydrographic surveys (H-9018 and H-9234), though they are not considered contemporary. 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-13131

There was no field inspection performed for this map. However, some select data from the common smaller scale maps, T-12534 and T-12535 was compiled. Refer to the Summary of this Descriptive Report.

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.

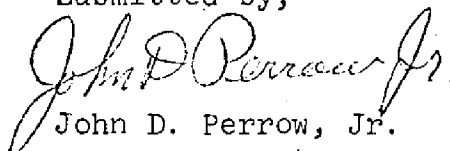
24. Supplemental Data

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

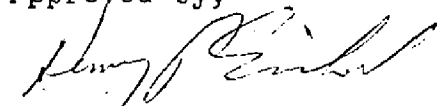
25. Photography

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.

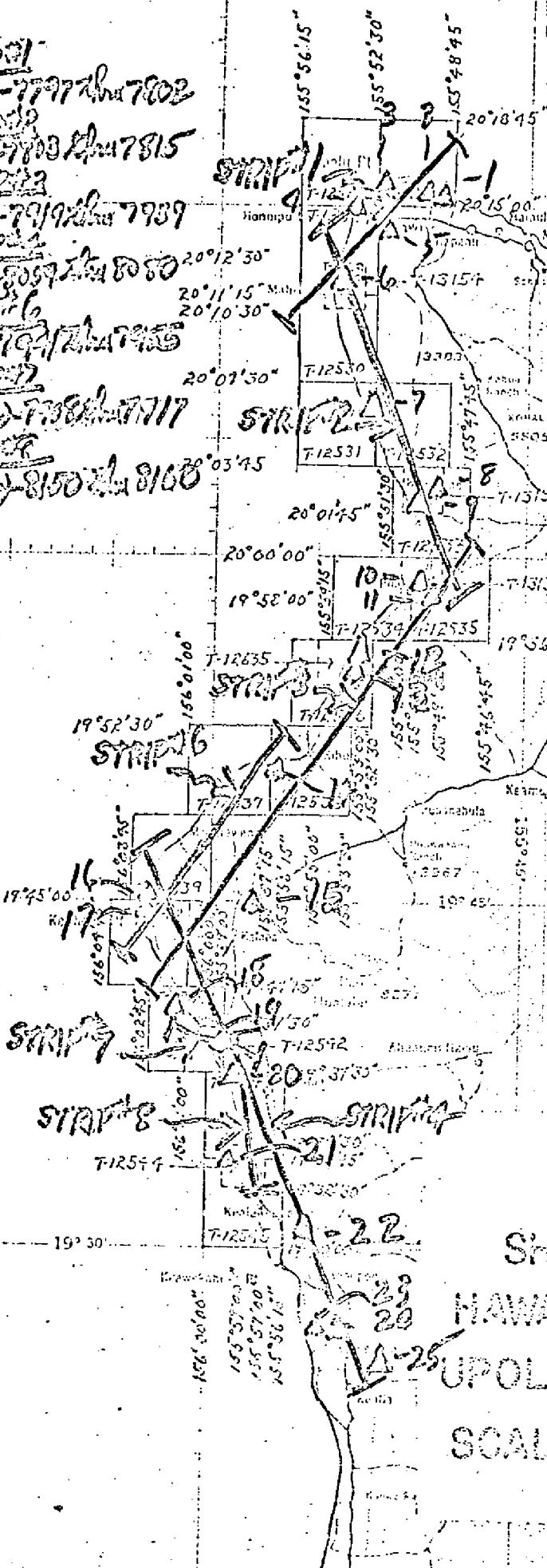
Submitted by,


John D. Perrow, Jr.

Approved by,


Henry P. Eichert
Chief, Aerotriangulation Section

STRIP 1
 63-5-7797 7802
 STRIP 2
 63-5-7798 7815
 STRIP 3
 63-5-7799 7839
 STRIP 4
 63-5-8059 7880
 STRIP 5
 63-5-8059 7880
 STRIP 6
 63-5-8059 7880
 STRIP 7
 63-5-8059 7880
 STRIP 8
 63-5-8059 7880



1. KAPOHI 2, 1948
2. KAPOHI, 1913
3. KEALAHEWA 2, 1948
4. LORAN TOWER, 1948
5. PUU ULA, 1913
6. RED TANK, 1948
7. KEAWANUI, 1948
8. PUU KAMALI, 2, 1928
9. KAWAIAE LT. 1928
10. PUAKO, 1873
11. PUAKO NEW, 1948
12. ANAHECOMALU, 1913
13. HAND, 1928
14. NAVAL, 1928
15. LAVA CONE, 1913
16. KEAHOE 2, 1948
17. KEAHOE, 1882
18. KEAHOE PT. NAV. RANGE MARKER, 1948
19. KAILUA, 1887
20. KAILUA, 1882
21. POINT, 1928
22. KEALANEKUM KONA GN. SPIRE, 1948
23. KEEI SOUTH BASE, 1948
24. HONANU, ST. BENEDICT CATH. CHURCH SPIRE, 1948
25. MC CANDLESS, 1948

JOB PH-6401

SHORELINE MAPPING

HAWAII IS. WEST COAST

UPOLO POINT TO KAILUA

SCALE 1:3,000 & 1:10,000

11

SUPPLEMENTAL
PHOTOGRAMMETRIC PLOT REPORT
Hawaii Island-West Coast
Upolo Point to Kailua
Job PH-6401
October 1971

21. Area Covered

The area covered by this report is along the northwest coast of Hawaii Island. Control was extended for the compilation of three (3) T-sheets (T-13131, T-13132 and T-12~~3~~35) at 1:5,000 scale.

22. Method

Parts of strips #2 and #3 (1:30,000 scale photography) were bridged using analytical aerotriangulation methods. Ties were made between the two strips and also with the previous stereoplanigraph bridges which were used for the 1:10,000 scale compilation. Common points between the 1:30,000 scale photography and the 1:15,000 scale photography were located for the 1:5,000 scale compilation and hydro support photographs. The attached sketch shows the strips of photography and the placement of the control used in the bridge. Compilation points for the 1:5,000 compilation were plotted by the Coradomat on the Hawaii zone 1 plane coordinate system.

23. Adequacy of Control

Horizontal control was adequate (see previous Photogrammetric Plot Report).

24. Supplemental Data

USGS quadrangles were used to provide vertical control for the strip adjustments.

25. Photography

The following 1:30,000 scale RC-8 panchromatic photography was used in bridging:

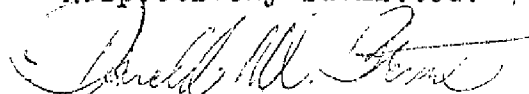
2

Strip #2 - 63-S-7809 thru 7815

Strip #3 - 63-S-7920 thru 7928

The definition and quality of photography was adequate.

Respectively submitted:

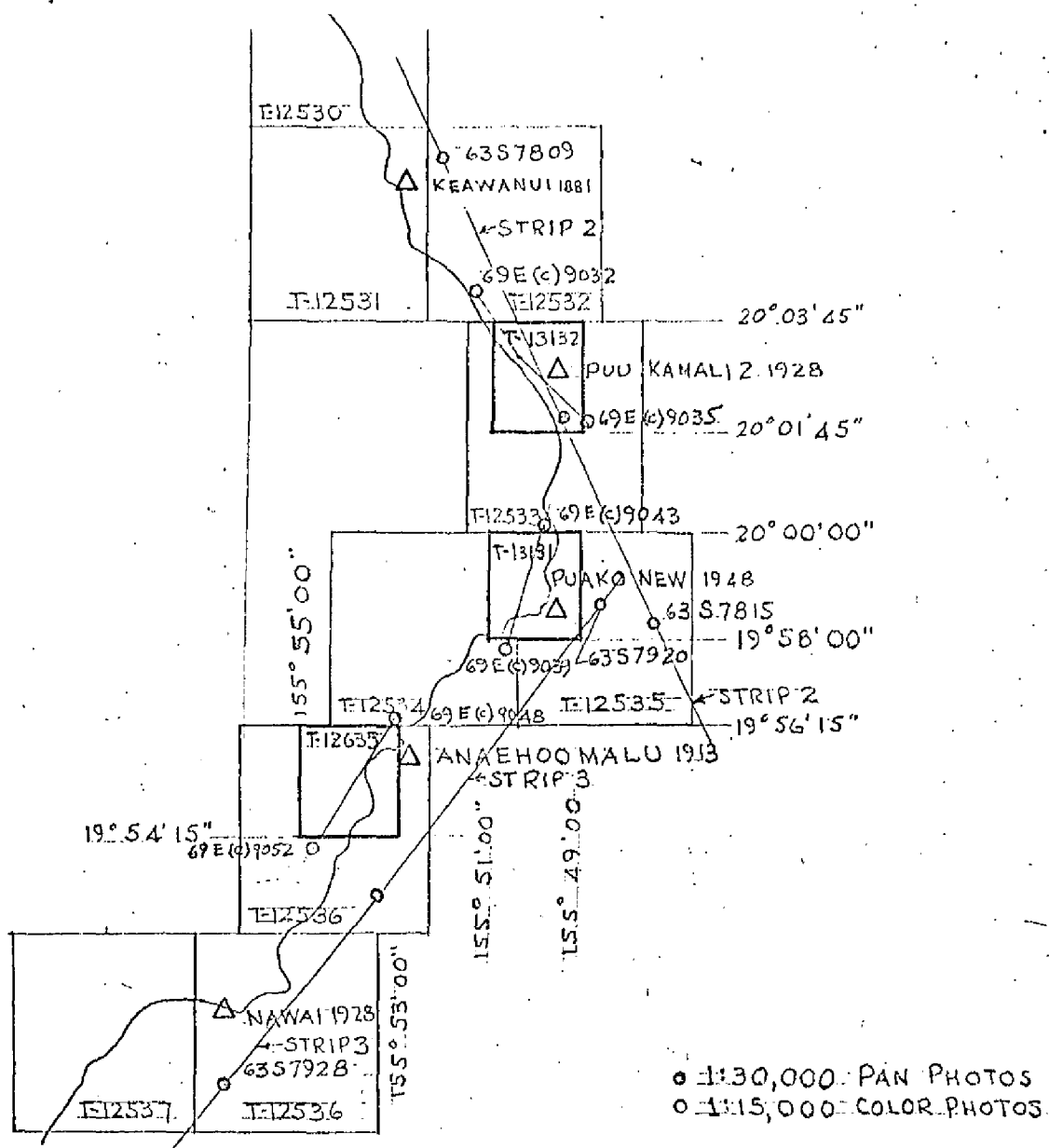


Donald M. Brant

Approved by:



Henry P. Eichert, Chief
Aerotriangulation Section



JOB PH-6401
 SHORELINE MAPPING
 HAWAII IS. WEST COAST
 UPOLO POINT TO KAILUA

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	GEODETTIC DATUM		AEROTRI- ANGULATION POINT NUMBER	COORDINATES IN FEET		GEOGRAPHIC POSITION		REMARKS
			Old Hawaiian Datum	Unit, AMC, Norfolk, VA		STATE	ZONE	ϕ LATITUDE	λ LONGITUDE	
T-13131		PH-6401								
	PUAKO (H.G.S.) (U.S.G.S.), 1873	G.P. Pg. 13						ϕ 19° 58' 45.509"		
								λ 155° 49' 59.231"		
	PUAKO NEW, 1948	"						ϕ 19° 58' 36.320"		
								λ 155° 49' 32.753"		
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COMPILATION REPORT
T-13131

31 - DELINEATION

Delineation was by instrument and graphic methods using the 1969 1:15,000 scale compilation photographs. Because the area covered by this sheet was field edited in 1969/1970 for common sheets T-12534 and T-12535 at 1:10,000 scale, field edit that was identifiable on the 1969 photographs was applied to this sheet during compilation.

Photograph quality and coverage were adequate.

32 - CONTROL

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

33 - SUPPLEMENTAL DATA

Control for this map is explained in the Supplemental Plot Report dated October 1971.

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 1969 mapping photographs. Photo interpretation was assisted by examining the 1963 1:20,000 scale photography used to compile the previously compiled maps, T-12534 and T-12535.

36 - OFFSHORE DETAILS

There were no significant offshore details.

37 - LANDMARKS AND AIDS

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

38 - CONTROL FOR FUTURE SURVEYS

None.

39 - JUNCTIONS

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

T-13131

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to the Photogrammetric Plot Reports dated February 4, 1969 and October 1971.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with U.S.G.S Quadrangle, Puu Hinai, Hawaii, dated 1956, scale 1:24,000.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with USC&GS Charts 4167, scale 1:10,000, 3rd edition, dated Jun. 26, 1967; 4140, scale 1:80,000, 3rd edition, dated Jan. 24, 1966.


ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

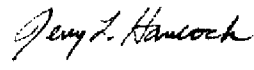
ITEMS TO BE CARRIED FORWARD

None.

Submitted by

for 
R. White
Cartographic Aid
January 1972

Approved

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

17

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6401 (Hawaii)

T-13131

Hapuna Bay

Hapuna Beach Park--Not compiled *W*

Hawaii Island *W*

Kamakoa Gulch -----Not compiled *W*

Kanekanaka Point

Kaunaoa Point

Kawaihae Bay

Ohai Point

Pacific Ocean

Puako

Puako Bay

Puako Point

Waialea Bay

Approved by:

A. J. Wraight
A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett
Frank W. Pickett
Cartographic Technician

REVIEW REPORT T-13131
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 November 1986. Neither a field inspection nor field edit were performed for this 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 Puu Hinai, Hawaii, dated 1956, scale 1:24,000.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with a registered copy of hydrographic surveys H-9018, AR-10-7-68/PF-10-1-70, 1:10,000 scale, field surveyed 1969/1970 and H-9234, FA-5-1-71, 1:5,000 scale field surveyed 1971. Though the hydrographic surveys were conducted prior to compilation of this map, a comparison was made because they are contemporary to final maps T-12534 and T-12535 which are common to the mapping area at 1:10,000 scale.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with NOS charts
19330, scale 1:10,000, 7th edition, dated October 15, 1983;
19327, scale 1:80,000, 8th edition, dated 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

Billy H. Barnes

Billy H. Barnes

Chief, Photogrammetric Section, AMC

Approved

Larry O. Raborn

Chief, Photogrammetric Production Sect.

A. Y. Bryan

Chief, Photogrammetry Branch

