

11955

11955  
CGIT

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey <u>SHORELINE (PHOTOGRAMMETRIC)</u>	
Field No. ....	Office No. <u>T-11955</u>
LOCALITY	
State .....	<u>HAWAII</u>
General locality .....	<u>MOLOKAI</u>
Locality .....	<u>HALEOLONO POINT</u>
<u>19 82<sup>0</sup>-1968</u>	
CHIEF OF PARTY	
H. J. SEABORG, CHIEF OF PARTY	
P. A. STARK, PHOTOGRAMMETRIC OFFICE	
LIBRARY & ARCHIVES	
DATE .....	

DESCRIPTIVE REPORT - DATA RECORD  
T -11955

PROJECT NO. (II):

~~PH-6201~~ PH-6201

FIELD OFFICE (III):

HONOLULU, HAWAII

CHIEF OF PARTY

H. J. SEABORG

UNIT CHIEF:

L. F. VAN SCOY

PHOTOGRAMMETRIC OFFICE (III):

PORTLAND, OREGON

OFFICER-IN-CHARGE

P. A. STARK

INSTRUCTIONS DATED (II) (III): APRIL 25, 1962 II

MAP 31, 1962 III

AMENDMENT I: DEC. 14, 1962 III

AMENDMENT II: FEB. 20, 1963 III

AMENDMENT III: JAN. 8, 1964 III

METHOD OF COMPILATION (III):

KELSH INSTRUMENT

MANUSCRIPT SCALE (III):

1:5000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:3000

PANTOGRAPH SCALE:

1:5000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

GEOGRAPHIC DATUM (III):

OLD HAWAIIAN

VERTICAL DATUM (II):

MEAN ~~SEA LEVEL~~ <sup>High Water</sup> EXCEPT AS FOLLOWS: X

Elevations shown as (25) refer to mean high water

Elevations shown as (5) refer to sounding datum

i.e., mean low water or mean lower low water

REFERENCE STATION (III):

HALE O LONO 2, 1962

LAT.:

21° 05' 27.339"

LONG.:

157° 15' 09.656"

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

= 275,527.10

x = 300,226.69

STATE

HAWAII

ZONE

2

ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE,  
OR (IV) WASHINGTON OFFICE.

WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.

## DESCRIPTIVE REPORT - DATA RECORD

FIELD INSPECTION BY (II):  L. F. VAN SCOY		DATE:  JANUARY 1962 <sup>10</sup> OCTOBER
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):  SEPTEMBER 21, 1962 BY FIELD INSPECTION. COMPILATION BY KELBN INSTRUMENT.		
PROJECTION AND GRIDS RULED BY (IV):  A.R.		DATE  12-12-62
PROJECTION AND GRIDS CHECKED BY (IV):  W.M.		DATE  12-12-62
CONTROL PLOTTED BY (III):  D. N. WILLIAMS		DATE  2-5-64
CONTROL CHECKED BY (III):  R. H. MEYER		DATE  2-5-64
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):  NONE		DATE
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY  D. N. WILLIAMS	DATE  2-12-64
	CONTOURS  NONE	DATE
MANUSCRIPT DELINEATED BY (III):  SMOOTH DRAFT: J. L. HARRIS		DATE  2-19-64
SCRIBING BY (III):  STICK-UP: C. C. HARRIS		DATE  4-1-64
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): ROUGH DRAFT: J. L. HARRIS ADVANCE: J. L. HARRIS		DATE 2-19-64 6-8-64
REMARKS:		

## DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

C&amp;GS SINGLE LENS "W"

## PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
61 W 705 THRU 707	9-23-61	08:30	1:15,000	0.1' ABOVE M.L.L.W.
60 W 2421 & 2422	10-8-60	08:30	1:25,000	1.2' " "
RATIO PRINTS OF ABOVE AT 1:5000.				
62 W 1997 THRU 1999	1-19-62	12:25	1:15,000	0.3' " "
COLOR PHOTOGRAPHY				
60 W 2537 THRU 2541	10-10-60	08:05	1:10,000	1.9' " "
60 W 2678	10-11-60	08:18	"	1.9' " "
COMPUTED FROM PRE- DICTED TIDE TABLES.				

## TIDE (III)

	RATIO OF RANGES	MEAN RANGE	DAILY RANGE
REFERENCE STATION: HONOLULU, HAWAII		1.2	1.9
SUBORDINATE STATION: KOLO		1.3	2.0
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

*Leo F. Beugnot, Atlantic Marine Center*

DATE:

*Nov. 1970*

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 8

RECOVERED: 5

IDENTIFIED: 1

NUMBER OF BM(S) SEARCHED FOR (II):

NONE

RECOVERED:

IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): 2

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): NONE

REMARKS:

COMPIATION RECORD

COMPLETION DATE

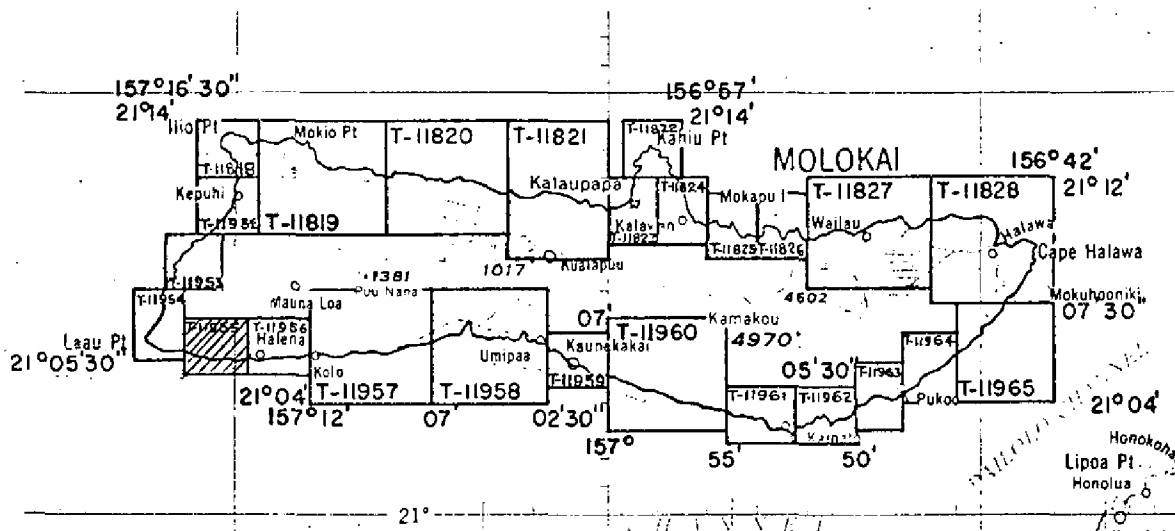
REMARKS

Along shore area for hydro	April 1964	
Final Review	Nov. 1970	

# PROJECT PH-6201

## SHORELINE MAPPING

1:5,000 AND 1:10,000 SCALES  
MOLOKAI ISLAND HAWAII



### Official Mileage for Cost Accounts

Sheet No.	Shoreline Lin. Mi.	Area Sq. Mi.	Sheet No.	Shoreline Lin. Mi.	Area Sq. Mi.
11818	4	4	11952	3	3
11819	6	6	11953	3	3
11820	6	6	11954	2	2
11821	4	4	11955	3	3
11822	3	3	11956	3	3
11823	1	1	11957	6	6
11824	3	3	11958	5	5
11825	3	3	11959	3	3
11826	3	3	11960	6	6
11827	6	6	11961	3	3
11828	9	9	11962	4	4
			11963	3	3
			11964	3	3
			11965	3	3
			Total	98	98

SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT T-11955

Shoreline survey T-11955 is one of twenty-five similar surveys in project PH-6201. These surveys cover the entire coast of Molokai. This survey covers a part of the south coast in the vicinity of Haleolono Point. See page 5 of the Descriptive Report for the area within the project.

Field work preceding compilation consisted of identification of horizontal control, field and shoreline inspection, identification of fixed aids to navigation and selection of landmarks for nautical charts.

Compilation was at 1:5,000 scale by Kelsh Plotter using the photography of October 1960 and September 1961. Cronaflex copies of the compilation manuscript along with ozalids and specially prepared photographs were subsequently provided for transfer of the shoreline to the boat sheet, photo-hydro support and field edit use.

Field edit of the survey was accomplished in conjunction with hydrography on boat sheets H-8974 (AR-10-1-68) and H-8969 (AR-10-3-67).

The compilation manuscript was a vinylite sheet 2 minutes in latitude by 2 minutes 30 seconds in longitude. After application of field edit data the manuscript was scribed and reproduced on cronaflex. Final review was in the Atlantic Marine Center in November 1970. One cronaflex positive and a negative of the final reviewed survey are forwarded for record and registry.

# FIELD INSPECTION REPORT

Map Manuscripts  
T-11952 thru 11965  
T-11818 thru 11828

Project PH-6201

January - October 1962

## 2. AREAL FIELD INSPECTION

The area covered by this report encompasses the whole of the island of Molokai. This is the fifth largest of the group of islands that form the State of Hawaii. The island was originally formed by the eruption of two volcanos. One was located somewhere near the east end of the island and the other somewhere near the west end. Following these eruptions the numerous deep drainages were created by stream erosion and the ocean created the great cliffs along the north coast. A later eruption formed the Makanalua Peninsula on the north central coast. The Kauhako Crater remains as evidence of this eruption. The highest peak is Kanakou which is 4958 feet above sea level.

The climate of the island varies considerably depending on the elevation and location in relation to the prevailing trade winds. The mean annual temperature at sea level is about 74 degrees. The temperature seldom varies more than 10 degrees except at the higher elevations. The yearly rainfall varies from about 7 inches around Kaunakakai to over 150 inches in the high mountain sections of the northeast.

The only port in use on the island is located at Kaunakakai. A small wharf connected to the shore by a long mole is used to load and unload barges, and serve small commercial and private boats. At one time a railroad connected the wharf to the area now known as Hooilehua Homesteads. It was abandoned soon after completion as the sugar plantation it was constructed to serve was a failure. The economy of the island is almost wholly dependent on the growing of pineapple and cattle ranching.

The wharf located at Kolo was used for a time to load pineapple from the Maunaloa area. It was later abandoned and since that time has been partially destroyed by fire. The wharf located at Kamalo is now in poor condition and seldom used except by an occasional small fishing or pleasure boat. The wharf located at Pukoo is no longer in evidence. Located at Haleolon is a small harbor protected by a breakwater. This is a private harbor and is used to load sand and cinder barges for shipment to Oahu. A small private airstrip is located along the easterly breakwater.



Located on the Makenalua Peninsula is the small settlement of Kalau-papa. The settlement is maintained by the State of Hawaii, Department of Health for the treatment of Hansen's Disease (Leprosy). Special permission must be obtained from the state before visiting this area. No facilities for serving the public are permitted on the peninsula. The U.S. Coast Guard maintains an isolated light station at the northern tip of the peninsula. The area is served by limited airplane service and supplies are brought in by barge at infrequent intervals. A small wharf protected by a short breakwater is located at the settlement. This area is isolated from the remainder of the island except for a foot trail that leads down the steep rocky cliffs from the top of the pali southwest of the settlement.

Shoreline around the island vary from the almost vertical rock cliffs along most of the north and east coast, to the narrow and relatively flat coastal areas along the south coast. Most of the south coast is protected by an offshore reef. A few sandy beaches are located along the south and west coasts. Most of the north coast is accessible only by boat and any landings there should be attempted with extreme caution.

Photography was adequate for the identification of horizontal control and shoreline inspection for most of the island. A few sections of the shoreline along the northeast coast of the island were in complete shadow from the most vertical cliffs.

The shoreline for the entire island was visually inspected on the mean high water noted on the field photographs. The shoreline along the north coast except for the Makenalua Peninsula was inspected by cruising offshore in a small boat. The work was difficult due to the small size of the boat, the rough seas, and strong winds. A few landings were made on the more prominent points along the northeast coast. The remainder of the island was inspected by walking the shoreline in the more accessible areas, and by observations from vantage points along bluffs and cliffs where the shoreline could not be otherwise visited. Scattered sections of the shoreline along the south coast were obscured by overhanging Keawe trees and dense growths of Mangrove trees.

### 3. HORIZONTAL CONTROL

(a) The following described intersection stations were located by traverse or triangulation as nautical aids, aeronautical aids, and landmarks.

Molokai Lighthouse  
Molokai Airport Beacon  
Waihuna, Aero Beacon Red Light  
Kaulapuu, Aero Beacon Red Light

2. 7

Kolokai VOR (MGR)  
Puu Apalu, Tank  
Ilio Pt., Coast Guard Loran Mast  
Waiahehewa, Aero Beacon Red Light  
Laau Pt. Light  
Kaunakakai Harbor, Entrance Range, Front Light  
Kaunakakai Harbor, Entrance Range, Rear Light

(b) No datum adjustments were made by the field party.

(c) WAIELI 2, 1945 was the only control station identified that was not established by the Coast and Geodetic Survey. This station was established by the Territory of Hawaii and can be considered as third order accuracy. The station was destroyed before it could be tied to the 1962 work. HELENA, 1962 which is located about a half mile west of this station was later identified. All other control stations identified were established by the Coast and Geodetic Survey or tied to by the geodetic party during the 1962 season. Many of the old stations could not be recovered and new stations had to be established to meet the control requirements.

(d) Control stations were positively identified in all areas indicated on the control diagram.

(e) All control stations within the limits of the project except for a few along the inaccessible northeast coast of the island were searched for. Part of this recovery was performed by the geodetic party located on the island. All stations searched for were listed on Form 526 which was submitted to the Honolulu District Officer. A complete list of all stations reported lost on Form 526 would have to be obtained from the Honolulu District Officer or the Division of Geodesy. No stations that were listed as lost were identified for use in the plot.

(g) The quality of identification of each station or substitute station has been indicated on the control station identification card. None of the identification was considered to be sub-standard.

#### 4. VERTICAL CONTROL

The only vertical control requirement was the recovery of all tidal bench marks in the project area and identification of one mark in each of the groups.

All tidal bench marks listed at Pukoo, Kamalo, Kaunakakai, and Kolo were searched for. A total of 18 bench marks were searched for. All marks were listed on Form 685 which was submitted to the Honolulu District Officer.

A total of 13 U. S. Geological Survey bench marks were searched for. These marks were used in conjunction with the tellurometer traverse work on the island and for use in determining the elevation of landmarks. All marks were listed on Form 685 which was submitted to the Honolulu District Officer.

#### 5. CONTOURS AND DRAINAGE

Contours not applicable

Drainage is self evident on the photographs. All streams except for a few in the larger valleys of the northeast coast and near the east end of the south coast are intermittent. During the wet season there are dozens of waterfalls cascading from the tops of the cliffs and rims of the valleys of the northeast coast. Marsh areas have been indicated on the field photographs.

#### 6. WOODLAND COVER

The mountainous areas of the northeast part of the island is covered with a dense growth of native ferns and hardwoods. A large stand of planted softwoods is located along the top of the pali in the north central part of the island. Keawe trees which were introduced to the island about 100 years ago cover most of the remainder of the island except for the cultivated areas. Along the mud flats of the south coast there are scattered stands of introduced Mangrove trees.

#### 7. SHORELINE AND ALONGSHORE FEATURES

(a) The mean high water line was indicated on the photographs. Along some sections of the northeast coast the shoreline was obscured due to the shadows created on the photographs from the almost vertical cliffs. In some areas of the south coast the shoreline was partially obscured by low overhanging Kiawe trees. In most cases this overhang was less than 10 meters and the approximate correct location was indicated on the photographs. Also along the south coast there are scattered stands of Mangrove trees. In these areas the mean high water line was indicated as apparent shoreline.

The shoreline along the north, east, and small areas of the west and southwest coast contain many areas of alongshore rocks, projecting reefs and ledges, and almost vertical bluffs. These features combined with a normally heavy surf breaking along the shore tend to confuse the location of the mean high water line on the photographs.

Where possible especially along the beach areas and the more accessible sections of the coast the location of the mean high water line was determined by measurements to near by objects.

- (b) The low water line was not indicated on the photographs.
- (c) Where possible the character of the foreshore was indicated on the photographs.
- (d) The north, east, and sections of the west and southwest coast is bordered by rocky cliffs. In some cases these cliffs are over 2000 feet high. Along most of the south coast, sections of the west coast, and the Moomomi area the land has a more gradual slope with a small relatively flat area adjacent to the coast.
- (e) The only unnatural features to be found in the project area were located at Kalaupapa, Kamalo, Kaunakakai, Kolo, and Haleolono. All information regarding these features was indicated on the field photographs.
- (f) Not applicable
- (g) Along the south shore there are the remains of many fishponds. The stone walls for some of these have been completely leveled and for most of the others large sections of the walls have been leveled. The location of these fishponds is apparent on the photographs.

#### 8. OFFSHORE FEATURES

Offshore rocks are located along many areas of the north, east, and sections of the west and southwest coast. Most of these rocks that are visible on the photographs are adjacent to the shore. In these areas it is probable that there are many rocks that are not visible on the photographs but are close enough to the surface of the water to consider the foreshore as being foul with submerged rocks. The height of many of the rocks along the shore were estimated at the time the shoreline was inspected.

A reef about 0.5 to 1.0 mile offshore is located along most of the south coast. Between the reef and the shore there are scattered areas of sand and many coral heads that project at low water.

#### 9. LANDMARKS AND AIDS

(a) All charted landmarks were investigated by the field party. A total of 13 old landmarks were deleted from the charts and four old landmarks were retained. A total of 11 new landmarks were selected for charting. The old landmarks which were to be deleted were indicated on the sections of the charts on which they appeared. These sections of the charts will be submitted with the field records. All old landmarks that were retained and the new landmarks selected for charting were listed on Form 567, and the elevation for each landmark was determined by the field party.

(b) No interior landmarks were selected for charting.

(c) The geographic positions for the following charted aeronautical aids was determined by traverse or triangulation during the 1962 field season.

Molokai, Airport Beacon  
Waiahewahewa, Aero Beacon Red Light  
Waihuna, Aero Beacon, Red Light  
Kualapuu, Aero Beacon, Red Light

The geographic position of one new aeronautical aid selected for charting was determined during the 1962 field season.

Molokai VOR (MKK)

All aeronautical aids to be charted were listed on Form 567 and the elevation for each aid was determined by the field party.

(d) The geographic positions of the following list of aids to navigation was determined by the field party during the 1962 season.

Molokai Lighthouse  
Laau Pt. Light  
Ilio Pt., Coast Guard Loran Mast  
Kaunakakai Harbor, Entrance Range, Front Light  
Kaunakakai Harbor, Entrance Range, Rear Light

All nautical aids to be charted were listed on Form 567 and the elevation for each aid was determined by the field party.

(e) Not applicable

#### 10. BOUNDARIES, MONUMENTS, AND LINES

Not applicable

#### 11. OTHER CONTROL

No recoverable topographic stations were established.

In all areas where identifiable objects could be found photo hydro sites were selected. In some cases it will be necessary to locate a more suitable location for the hydrographic signals from the selected photo hydro sites .

#### 12. OTHER INTERIOR FEATURES

All roads in the project area were classified on the field photographs in compliance with the project instructions.

All public buildings with their function was indicated on the field photographs.

The main airport serving the island is located south of the Hoolehua Homestead area in the central section of the island. A small airport for use by small aircraft is located on the Makaanalua Peninsula. A small private airstrip is located at Haleolon near the southwest end of the island.

No bridges or overhead cable crossings over navigable water are located in the project area. There are no submerged cables connecting the island with other areas.

13. GEOGRAPHIC NAMES

Not Applicable

Approved:

OCT 30 1962

*H. S. Seaborg*  
H. S. Seaborg  
Capt., C & G S  
Honolulu District Officer

Respectfully submitted:

*Leonard F. Van Scoy*  
Leonard F. Van Scoy  
Supervisory Survey Technician  
Unit Chief, C & G S

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Photogrammetric Plot Report  
Project 21044  
Molokai, Hawaii  
August 1963

21. Area Covered

The bridging furnishes control for the compilation of five shoreline surveys on the southwest shore of Molokai Island. They are T-11954 through T-11956 at a scale of 1:5,000 and T-11957 and T-11958 at a scale of 1:10,000.

22. Method

Two strips, 10 and 11, were bridged analytically at a scale of 1:25,000. Strip 10 using photographs 61-W-695 through 710 was adjusted on four horizontal control points. Strip 11 was adjusted as a straight line using photographs 60-W-2427 through 2430 but this was adequate since only three models were involved.

23. Adequacy of Control

Control complied with project instructions. It was well distributed and was adequate. Closures to control and tie points for the two strips are shown on the attached aerotriangulation sketch.


24. Supplemental Data

None

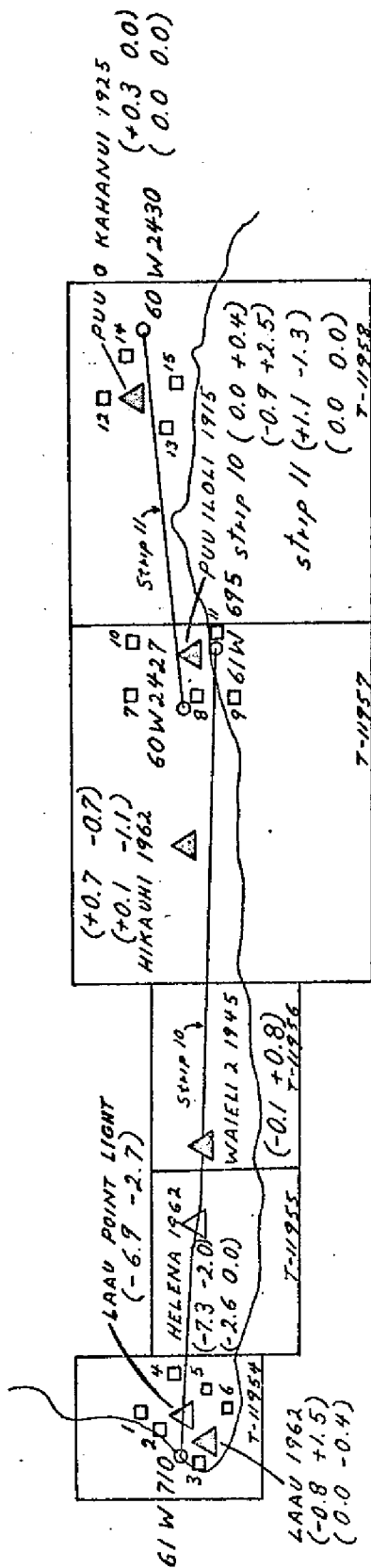
25. Photography

Photography was adequate as to coverage, overlap and definition.

Respectfully submitted,

  
Henry P. Eichert, Acting  
Chief, Aerotriangulation  
Section

LAT. 21°10'  
LONG. 157°09'



△ CONTROL USED IN ADJUSTMENT  
△ CONTROL USED AS CHECK  
□ TIE POINTS

STRIP 9 & 10  
1 (-1.8 -9.3)  
2 (-5.2 -2.7)  
3 (-0.1 +0.7)

STRIP 10 & 11  
7 (+0.2 +4.1)  
8 (+0.4 +2.6)  
9 (+2.6 +2.7)

STRIP 11 & 12  
12 (+9.5 -9.8)  
13 (-2.2 +5.0)

AEROTRIANGULATION SKETCH  
MOLOKAI ISLAND HAWAII  
STRIPS 10 & 11  
21044  
AUGUST 1963



## DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 11955 PROJECT NO: 21044 SCALE OF MAP 1:5000 SCALE FACTOR \_\_\_\_\_

[illegible]

DATE \_\_\_\_\_

**2-3-64**

COMPILATION REPORT  
MAP MANUSCRIPT T-11955  
PROJECT 21044

31. DELINEATION:

PLANIMETRY WAS COMPILED BY THE KELSH INSTRUMENT AS FIELD INSPECTED WITH THE EXCEPTION OF THE BREAKWATERS AT HALEOLONO POINT. THIS AREA WAS NOT COVERED BY THE KELSH PLATES AND THE BREAKWATERS WERE COMPILED GRAPHICALLY USING RADIO PRINTS OF 60 W 2421 AND 2422 WITH CENTERS RESECTED AND CONTROLLED BY POINTS COMMON TO BOTH FLIGHTS. THESE POINTS WERE LOCATED DURING KELSH COMPILATION.

ITEMS 32 THRU 36:

REFER TO THE COMPILATION REPORT FOR T-11952.

37. LANDMARKS AND AIDS:

TWO LANDMARKS ARE SHOWN ON THIS MANUSCRIPT. FORM 567 IS SUBMITTED.

38. CONTROL FOR FUTURE SURVEYS:

NONE.

39. JUNCTIONS:

SATISFACTORY JUNCTION WAS MADE WITH T-11954 TO THE WEST AND WITH T-11956 TO THE EAST. THE PACIFIC OCEAN IS ON THE SOUTH. THERE IS NO CONTEMPORARY SURVEY ON THE NORTH.

40. HORIZONTAL AND VERTICAL ACCURACY:

46. COMPARISON WITH EXISTING MAPS:

COMPARISON WAS MADE WITH THE U.S.G.S.  $7\frac{1}{2}$  MINUTE, ILIO POINT, HAWAII, QUADRANGLE, SCALE 1:24,000, EDITION 1952.

47. COMPARISON WITH NAUTICAL CHARTS:

COMPARISON WAS MADE WITH NAUTICAL CHART 4120, SCALE 1:80,000 AT LAT.  $21^{\circ} 01'$ , 1ST EDITION, REVISED FEB. 4, 1963.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

NONE.

ITEMS TO BE CARRIED FORWARD:

NONE.

APPROVED:

*P. A. Stark*  
P. A. STARK, CDR, C&GS  
PORTLAND FIELD OFFICER

SUBMITTED:

*James L. Harris*  
JAMES L. HARRIS  
CARTOGRAPHER

*JLB*

September 11, 1970

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6201 (Molokai Island, Hawaii)

T-11955

Hakina Gulch

Haleolono Point

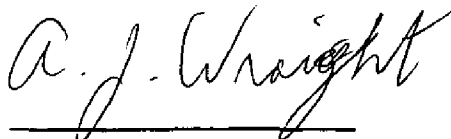
Kanalukaha

Kapukuwahini

Pacific Ocean

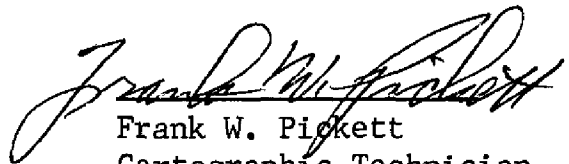
Molokai

Approved by:



A. Joseph Wraight  
Chief Geographer

Prepared by:



Frank W. Pickett  
Cartographic Technician

10/2/70

49. NOTES FOR THE HYDROGRAPHER:

THE HYDROGRAPHER SHOULD INVESTIGATE WHAT APPEARS TO BE PILING ABOUT 600 METERS SOUTH OF THE EAST BREAKWATER MARKING THE ENTRANCE OF THE SMALL PRIVATE HARBOR AT HALEOLONO. THE APPROXIMATE POSITION OF THIS OBSTRUCTION IS  $21^{\circ} 05' 06''$ ,  $157^{\circ} 15' 07''$ .

C&GS FORM 1002  
(11-13-61)

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

PHOTOGRAMMETRIC OFFICE REVIEW

T-10363/1955

1. PROJECTION AND GRIDS ✓	2. TITLE ✓	3. MANUSCRIPT NUMBERS ✓	4. MANUSCRIPT SIZE ✓
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY ✓	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) ✓		7. PHOTO HYDRO STATIONS Not Applicable
8. BENCH MARKS None	9. PLOTTING OF SEXTANT FIXES None	10. PHOTOGRAMMETRIC PLOT REPORT None	11. DETAIL POINTS ✓
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE ✓	13. LOW-WATER LINE None	14. ROCKS, SHOALS, ETC. ✓	15. BRIDGES None
16. AIDS TO NAVIGATION None	17. LANDMARKS ✓	18. OTHER ALONGSHORE PHYSICAL FEATURES ✓	19. OTHER ALONGSHORE CULTURAL FEATURES ✓
PHYSICAL FEATURES			
20. WATER FEATURES ✓	21. NATURAL GROUND COVER ✓		22. PLANETABLE CONTOURS Not Applicable
23. STEREOSCOPIC INSTRUMENT CONTOURS Not Applicable	24. CONTOURS IN GENERAL Not Applicable	25. SPOT ELEVATIONS None	26. OTHER PHYSICAL FEATURES ✓
CULTURAL FEATURES			
27. ROADS ✓	28. BUILDINGS ✓	29. RAILROADS None	30. OTHER CULTURAL FEATURES ✓
BOUNDARIES			
31. BOUNDARY LINES None		32. PUBLIC LAND LINES None	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES ✓	34. JUNCTIONS ✓		35. LEGIBILITY OF THE MANUSCRIPT ✓
36. DISCREPANCY OVERLAY None	37. DESCRIPTIVE REPORT ✓	38. FIELD INSPECTION PHOTOGRAPHS ✓	39. FORMS ✓
40. REVIEWER J. L. Harris		SUPERVISOR, REVIEW SECTION OR UNIT Leo F. Beugnet	
41. REMARKS (See attached sheet)			
FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT			
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.			
COMPILER C. C. Harris		SUPERVISOR Leo F. Beugnet	
43. REMARKS			

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Field Edit Report  
To Accompany T 11955

USC&GSS McARTHUR

Ronald L. Newsom  
CDR, USESSA  
Commanding Officer

51 METHODS

Field edit on manuscript T 11955 was done in conjunction with hydrography on boatsheets AR 10-1-68, H 8974, and AR 10-3-67, H 8969. The shoreline was investigated from launches. The MLLW line was impossible to determine due to continuous swells and breakers.

Field edit information was shown on four (4) field contact prints 61W705, 61W706, 61W707, and 61W708 in violet ink. The photos were indexed on the discrepancy sheet ozalid copy of T 11955 in violet ink.

52 ADEQUACY OF COMPILATION

Manuscript T 11955 was completely adequate for a hydrography survey.

54. RECOMMENDATIONS

None

22

REVIEW REPORT T-11955

SHORELINE

NOVEMBER 2, 1970

61. GENERAL STATEMENT:

See Summary, which is page 6 of the Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

A visual comparison was made with a copy of Registered Survey No. 3526, 1:20,000 scale, dated 1915. The passage of time has made that survey obsolete, it is superseded by T-11955 for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A visual comparison was made U.S.G.S. ILIO POINT, HAWAII, 8.5 by 7.5 minute quadrangle, 1:24,000 scale, edition of 1952. With the exception of the harbor at Haleolono Point the two surveys appear to be in good general agreement.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with copies of boat sheet H-8969 (AR-10-3-67); boat sheet H-8974 (AR-10-1-68 "Y") and smooth sheet H-8977 (AR-5-2-68). The surveys are in good agreement with the following exceptions:

Two rocks located at latitude  $21^{\circ}05'40''$  longitude  $157^{\circ}16'44''$  and latitude  $21^{\circ}05'41''$  longitude  $157^{\circ}16'53''$  are not shown on survey H-8974.

The wrecked barge on H-8969 near latitude  $21^{\circ}05'20''$  longitude  $157^{\circ}14'57''$  is not visible on photographs of the area. It was evidently wrecked subsequent to photography.



65. COMPARISON WITH NAUTICAL CHARTS:

A visual comparison was made with chart 4120, 3rd edition, October 14, 1968. The two surveys are in good general agreement.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This survey complies with instructions and meets the National Standards of Map Accuracy.

Reviewed by:

*Leo F. Beugnet*  
Leo F. Beugnet  
Cartographer

Approved by:

*Allen L. Powell*  
Allen L. Powell, RADM, NOAA  
Director, Atlantic Marine Center

Approved by:

*Charles Steiner* Chief, Photogrammetric Branch *Jack E. Guth* Chief, Photogrammetry Division

# MONITORING COASTAL LANDMARKS FOR CHARTS

**F80.14**     **1964**

I recommend that the following objects which ~~have~~ *have not* been inspected from seaward to determine their value as landmarks be charted on ~~(attached forms)~~ the charts indicated:

The positions given have been checked after listing by J. L. HARRIS

**P. A. STARK** *Chief of Party.*

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

### \* TABULATE SECONDS AND METERS