

11954

11954

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-11954</u>
LOCALITY	
State .....	<u>HAWAII</u>
General locality .....	<u>MOLOKAI</u>
Locality .....	<u>LAAU POINT</u>
<u>1962-1968</u>	
CHIEF OF PARTY	
<u>H. J. SEABORG, CHIEF OF PARTY</u>	
<u>P. A. STARK, PHOTOGRAMMETRIC OFFICE</u>	
LIBRARY & ARCHIVES	
DATE .....	

DESCRIPTIVE REPORT - DATA RECORD  
T - 11954

PROJECT NO. (II):

~~21044~~ PH 6201

FIELD OFFICE (II):

HONOLULU, HAWAII

CHIEF OF PARTY

H. J. SEABORG

UNIT CHIEF:

L. F. VAN SCOY

PHOTOGRAMMETRIC OFFICE (III):

PORTLAND, OREGON

OFFICER-IN-CHARGE

S

P. A. STARK

INSTRUCTIONS DATED (II) (III):

APRIL 25, 1962 II

MAY 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 (III):

MEAN ~~SEA~~ <sup>High Water</sup> LEVEL 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):

LAAU, 1962

LAT.:

21° 06' 18.752"

LONG.:

157° 18' 41.722"

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

Y = 280,792.24

X = 280,165.63

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 -  
OCTOBER 1962

MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):

SEPTEMBER 1962 BY FIELD INSPECTION.  
COMPILATION BY KELSH INSTRUMENT.

PROJECTION AND GRIDS RULED BY (IV):

A. E. ROUNDTREE

DATE

1-9-64

PROJECTION AND GRIDS CHECKED BY (IV):

C. R. JOHNSON

DATE

1-9-64

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 RECEIVED

DATE

STEREOSCOPIC INSTRUMENT COMPILATION (III):

PLANIMETRY

DATE

D. N. WILLIAMS

2-19-64

CONTOURS

DATE

NONE

MANUSCRIPT DELINEATED BY (III):

SMOOTH DRAFT:

L. L. GRAVES

DATE

3-5-64

SCRIBING BY (III):

STICK-UP:

L. L. GRAVES

DATE

5-21-64

PHOTOGRAMMETRIC OFFICE REVIEW BY (III):

ROUGH DRAFT:

L. L. GRAVES

DATE

2-25-64

ADVANCE:

J. L. HARRIS

6-5-64

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 1246 THRU 1250 RATIO PRINTS OF ABOVE AT 1:5000.	9-27-61	08:55	1:15,000	0.8' ABOVE M.L.L.W.
61 W 708 THRU 710 RATIO PRINTS OF ABOVE AT 1:5000.	9-23-61	08:35	"	0.1' " "
60 W 2417 THRU 2420	10-8-60	08:25	1:25,000	1.2' " "
60 W 2194 THRU 2197	10-2-60	10:00	"	0.4' " "
62 W 2000 THRU 2003	1-19-62	12:25	1:15,000	0.3' " "
COLOR PHOTOGRAPHY:				
60 W 2542 THRU 2547	10-10-60	08:10	1:10,000	1.6' " "
60 W 2533 THRU 2536	"	08:05	"	1.9' " "
COMPUTED FROM PRE-DICTED TIDE TABLES.				

## TIDE (III)

	RATIO OF RANGES	MEAN RANGE	DUTYAL RANGE
REFERENCE STATION: HONOLULU, HAWAII		1.2	1.9
SUBORDINATE STATION: WAIMANALO		1.1	1.8
SUBORDINATE STATION: KOLO		1.3	2.0

WASHINGTON OFFICE REVIEW BY (IV):

*Leo F. Beugnot, Atlantic Marine Center*

DATE:

*Oct. 1970*

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

4

RECOVERED:

3

IDENTIFIED:

2

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

NONE

RECOVERED:

IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

1

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

NONE

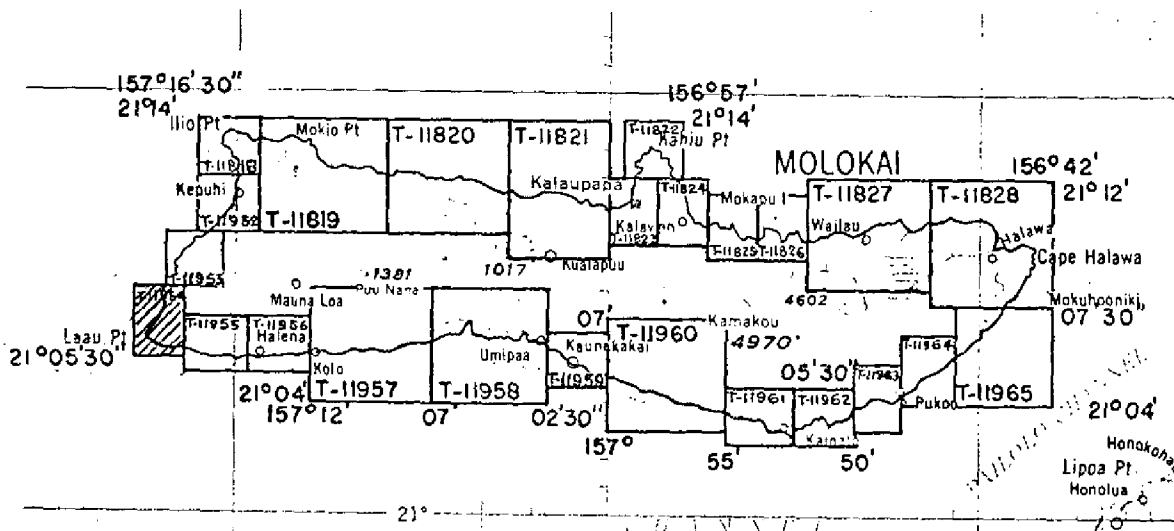
REMARKS:



# 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-11954

Shoreline survey T-11954 is one of twenty-five similar surveys in project PH-6201. The maps in this project cover the entire coast of Molokai. This map covers the area of Laau Point at the southwest tip of the island. See page 5 of the Descriptive Report for the area within the project.

Field work preceding compilation consisted of identification of horizontal control, field inspection, shoreline inspection and identification of fixed aids to navigation.

Compilation was at 1:5,000 scale by Kelsh Instrument using the photography obtained in October 1960, September 1961, and January 1962. Cronaflex copies of the map manuscript along with specially prepared photographs and ozalids were subsequently provided for transfer of the shoreline to the boat sheets, photo-hydro support, and field edit use.

Field edit was done in conjunction with hydrography on boat sheets H-8994 (AR-10-3-68) and H-8974 (AR-10-1-68).

The manuscript was a vinylite sheet 2 minutes 30 seconds in latitude by 2 minutes 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 October 1970. One cronaflex positive and a negative of the final reviewed survey are forwarded for record and registry.

Beach, H. J.

T

11

11

LAST NAME

FIRST

MIDDLE INITIAL

LOCATION

EXTENSION

TOPOGRAPHIC SHEET NUMBER	REPORT (✓)	HYDROGRAPHIC SHEET NUMBER	REPORT (✓)	OTHER MATERIAL
T 111-4	✓			
<del>T 111-5</del>	✓	11955-2-1000		11955-2-1000
T 111-6	✓			

☐ **Classified Material - Authorization:** This is to certify that the above named employee is authorized to use the classified material listed hereon.

SIGNATURE OF AUTHORIZED OFFICIAL

SIGNATURE

DATE

Received for Delivery . . . . .

Signature of Requester . . . . .

Received for Return to Vault . . . . .

NOAA FORM 62-3  
(8-72)

PRESCRIBED BY NOS  
OFFICE CIRCULAR 63-1

**VAULT MATERIAL RECEIPT**

U. S. DEPARTMENT OF COMMERCE  
NOAA-NATIONAL OCEAN SURVEY

(See Instructions on Reverse)

## 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 Makenalua Peninsula on the north central coast. The Kauhako Crater remains as evidence of this eruption. The highest peak is Kamakou 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 Hoolehua 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 (Leper<sup>354</sup>sy). 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 break-water 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

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Molokai VOR (MKK)  
Puu Apalu, Tank  
Ilio Pt., Coast Guard Loran Mast  
Waiahewahewa, Aero Beacon Red Light  
Laa 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 Fukoo, 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.

2. 11
- (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  
 Waiahewaheva, 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 Makanalua 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. J. Seaborg*  
H. J. 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

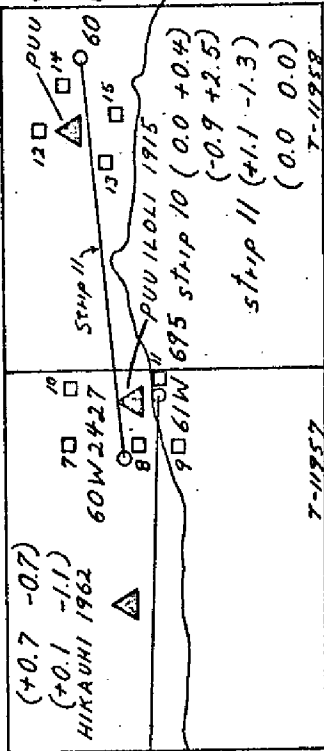
25. Photography

Photography was adequate as to coverage, overlap and definition.

Respectfully submitted,

  
Henry P. Eichert, Acting  
Chief, Aerotriangulation  
Section

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STRIPS 10 + 11  
21044  
AUGUST 1963

STRIP 94/10

1	(-1.8	-9.3)	5	(-4.5	-2.9)
2	(-5.2	-2.7)	6	(-6.8	+0.1)
3	(-0.1	+0.7)			

STRIP 10 4 11

STRIP 1142  
12 (+9.5 -9.8) 14 (+5.0 -6.6)  
13 (-2.2 +5.0) 15 (-2.5 +2.2)

# DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 11954 PROJECT NO: 21044 SCALE OF MAP 1:5000 SCALE FACTOR

[illegible]

12 17

COMPILATION REPORT  
MAP MANUSCRIPT T-11954  
PROJECT 21044

ITEMS 31 THRU 36:

REFER TO THE COMPILATION REPORT FOR T-11954.

37. LANDMARKS AND AIDS:

ONE NON-FLOATING AID IS SHOWN ON THIS MANUSCRIPT. FORM 567 IS SUBMITTED.

38. CONTROL FOR FUTURE SURVEYS:

NONE.

39. JUNCTIONS:

SATISFACTORY JUNCTIONS WERE MADE WITH T-11953 TO THE NORTH AND WITH T-11955 TO THE EAST. THE PACIFIC OCEAN IS ON THE WEST AND SOUTH.

40. HORIZONTAL AND VERTICAL ACCURACY:

46. COMPARISON WITH EXISTING MAPS:

COMPARISON WAS MADE WITH THE U.S.G.S. 7½ 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° 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-11954

Kahaiawa

Kahalepohaku

Kaheu Gulch

Kamakaipo (village)

Kamakaipo Gulch

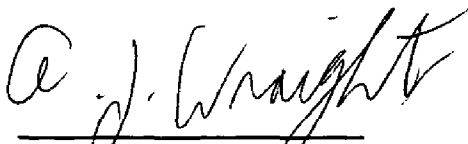
Keawakalani

Laau Point

Pacific Ocean

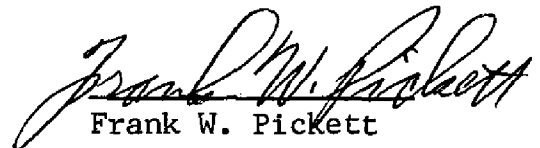
Molokai

Approved by:



A. Joseph Wraight  
Chief Geographer

Prepared by:



Frank W. Pickett  
Cartographic Technician

49. NOTES FOR THE HYDROGRAPHER:

NONE.

C&GS FORM 1002  
(11-13-61)U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## PHOTOGRAMMETRIC OFFICE REVIEW

T-10963-11954

1. PROJECTION AND GRIDS ✓	2. TITLE ✓	3. MANUSCRIPT NUMBERS ✓	4. MANUSCRIPT SIZE ✓
<b>CONTROL STATIONS</b>			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY ✓	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) None		7. PHOTO HYDRO STATIONS Not Applicable
8. BENCH MARKS None	9. PLOTTING OF SEXTANT FIXES None	10. PHOTOGRAMMETRIC PLOT REPORT ✓	11. DETAIL POINTS None
<b>ALONGSHORE AREAS (Nautical Chart Data)</b>			
12. SHORELINE ✓	13. LOW-WATER LINE None	14. ROCKS, SHOALS, ETC. ✓	15. BRIDGES None
16. AIDS TO NAVIGATION ✓	17. LANDMARKS None	18. OTHER ALONGSHORE PHYSICAL FEATURES ✓	19. OTHER ALONGSHORE CULTURAL FEATURES ✓
<b>PHYSICAL FEATURES</b>			
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 ✓
<b>CULTURAL FEATURES</b>			
27. ROADS ✓	28. BUILDINGS ✓	29. RAILROADS None	30. OTHER CULTURAL FEATURES ✓
<b>BOUNDARIES</b>			
31. BOUNDARY LINES None		32. PUBLIC LAND LINES None	
<b>MISCELLANEOUS</b>			
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 L.L. Graves		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 J.L. Harris		SUPERVISOR Leo F. Beugnet	
43. REMARKS			

Field Edit Report  
To Accompany T 11954

USC&GSS McARTHUR

Ronald L. Newsom  
CDR, USESSA  
Commanding Officer

51 METHODS

Manuscript T 11954 was field edited by personnel aboard the USC&GSS McARTHUR in conjunction with hydrography on boatsheets AR 10-3-68, H 8994, and AR 10-1-68, H 8974. The shoreline was inspected from Launches and Skiffs. Constant heavy swell made it impossible to determine the MLLW line.

Field edit information was shown in violet ink on four (4) contact prints, 61W1247, 61W1248, 61W709 and 61W710 and indexed on the discrepancy ozalid copy of T 11954 in violet ink.

52 ADEQUACY OF COMPILATION

Manuscript T 11954 was completely adequate for a hydrographic survey.

54 RECOMMENDATIONS

None

56 MISCELLANEOUS

There is a strong current with eddies flowing in a general westerly direction off Laau Point on the south west corner of Molokai. This is apparently a littoral drift current and the sediment laden waters of this current can be identified in photos 61W710, 61W1249 and 61W1250.

This oceanographic feature may be worth further investigation at some future time.

22

REVIEW REPORT T-11954

SHORELINE

OCTOBER 27, 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. Survey No. 3526 is somewhat generalized because of its scale. No major conflicts were noted.

Registered survey No. 3526 is superseded by T-11954 for nautical chart construction purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A visual comparison was made with U.S.G.S. ILIO POINT, HAWAII, 8.5 by 7.5 minute quadrangle, 1:24,000 scale edition of 1952. The two surveys are in good general agreement.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with copies of boat sheets H-8974 (AR-10-1-68 "Y") and H-8994 (AR-10-3-68 "Z"). The shoreline of the boat sheets is in good agreement with that of T-11954. Rocks shown on the shoreline survey that are not on the boat sheets have been indicated on the comparison print in purple.

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  
Cartographer

Approved by:

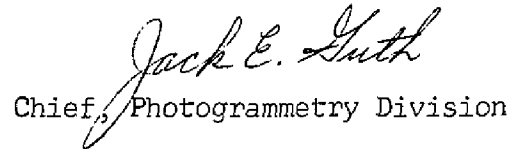


Allen L. Powell, RADM, NOAA  
Director, Atlantic Marine Center

Approved by:



Chief, Photogrammetric Branch



Chief, Photogrammetry Division

0 FT

157° 18' 15"

x=284,000 FT

18'

21° 08' 00"

1

Kahaiawa

Kaheu

Gulch

60 W 2194

awash MHW

awash MHW

*Not on Boat sheet*

awash MHW

*Not on Boat sheet*

Water tank

21° 07' 30"

157° 18' 00"

T-11954

y=282,000 FT

06'30"

21° 06' 30"



awash MHW

61 W 1249

Not on Boat Sheet

awash MHW

61 W 710

Laau Point

LAU 1962

Trail

06'15"

y=280,000 FT

Not on Boat sheet

awash MHW

157° 18' 45"

21° 06' 00"

157° 18' 30"

06'

T-11954

AAU POINT LIGHT 1962

$21^{\circ} 06' 00''$

Not on Boat Sheet

$21^{\circ} 05' 45''$

awash MHW

Keawakalani

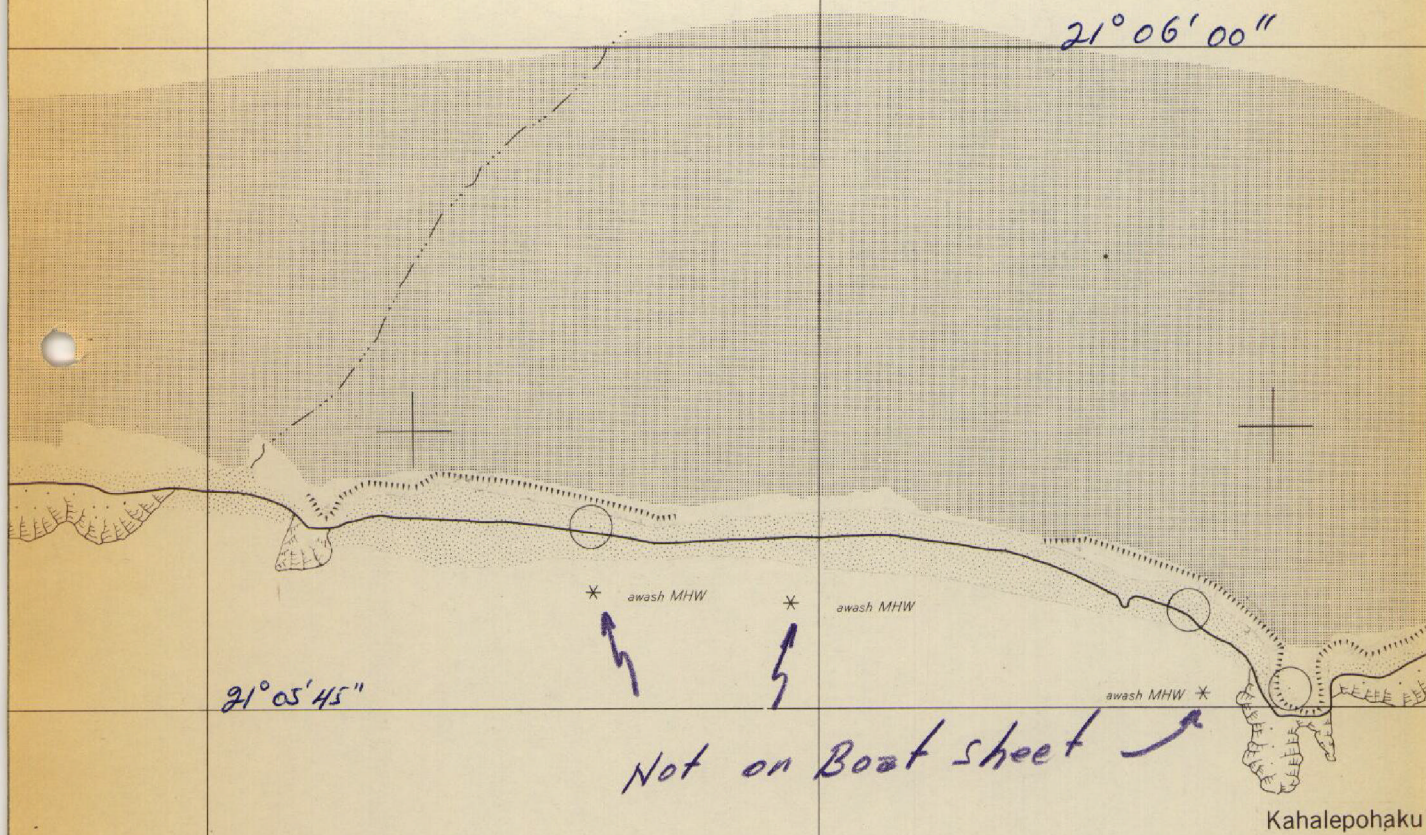
O C E A N

on Boat Sheet H-8974

$157^{\circ} 18' 15''$

$157^{\circ} 18' 00''$

T-11954



XXXXXXXXXXXXXXXXXXXX

JUNE 5, 1964

## NONFLOATING AIDS OR EXAM MARKS FOR CHARTS

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

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