

11819

11819

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Shoreline(Photogrammetric)
Field No.	Office No. T-11819
LOCALITY	
State	Hawaii
General locality	Molokai
Locality	Mokio Point
1964-1968	
CHIEF OF PARTY	
Allen L. Powell, Director, AMC	
LIBRARY & ARCHIVES	
DATE	

DESCRIPTIVE REPORT - DATA RECORD

T - 11819

PROJECT NO. (II): PH-6201														
FIELD OFFICE (III): Honolulu, Hawaii		CHIEF OF PARTY H. J. Seaborg												
PHOTOGRAMMETRIC OFFICE (III): Atlantic Marine Center		OFFICER-IN-CHARGE Allen L. Powell, Director, AMC												
INSTRUCTIONS DATED (II) (III): <table><tr><td>Field</td><td>April 25, 1962</td></tr><tr><td>Office Compilation</td><td>May 31, 1962</td></tr><tr><td>Office Compilation, Amendment I</td><td>December 14, 1962</td></tr><tr><td>Office Compilation, Amendment II</td><td>February 20, 1963</td></tr><tr><td>Office Compilation, Amendment III</td><td>January 8, 1964</td></tr><tr><td>Office Compilation, Amendment IV</td><td>April 24, 1967</td></tr></table>			Field	April 25, 1962	Office Compilation	May 31, 1962	Office Compilation, Amendment I	December 14, 1962	Office Compilation, Amendment II	February 20, 1963	Office Compilation, Amendment III	January 8, 1964	Office Compilation, Amendment IV	April 24, 1967
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Office Compilation, Amendment II	February 20, 1963													
Office Compilation, Amendment III	January 8, 1964													
Office Compilation, Amendment IV	April 24, 1967													
METHOD OF COMPILATION (III): Wild B-8														
MANUSCRIPT SCALE (III): 1:10,000	STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:15,000 Pantographed to 1:10,000													
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 LEVEL ^{high water} EXCEPT AS FOLLOWS: Elevations shown as (25) refer to mean high water Elevations shown as (5) refer to sounding datum i.e., mean low water mean lower low water												
REFERENCE STATION (III): KAEO 1925 ✓														
LAT.:	LONG.:	<input checked="" type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED												
PLANE COORDINATES (IV): y = 321,021.50 ft. ✓ x = 307,494.30 ft. ✓		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: August 29, 1962
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): 2 October 1960 Wild B-8 Plotter		
PROJECTION AND GRIDS RULED BY (IV): A. E. Roundtree		DATE 2-2-65
PROJECTION AND GRIDS CHECKED BY (IV): R. Glaser		DATE 2-10-65
CONTROL PLOTTED BY (III): Portland Photogrammetric Office		DATE 1965
CONTROL CHECKED BY (III): Portland Photogrammetric Office		DATE 1965
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): H. P. Eichert		DATE Dec. 1964
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY A. L. Shands	DATE July 18, 1967
	CONTOURS Inapplicable	DATE
MANUSCRIPT DELINEATED BY (III): A. L. Shands		DATE August 18, 1967
SCRIBING BY (III): B. L. Barge		DATE October 31, 1969
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): Compilation C. H. Bishop Field Edit R. E. Smith Scribing R. E. Smith		DATE Sept. 1, 1967 Oct. 8, 1969 December 23, 1969
REMARKS: Field edit by: Roland L. Newsom March & April 1968		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):
Wild RC-8 "W"

PHOTOGRAPHS (III)				
NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
60-W-2178 thru 2182	2 Oct.1960	0850	1:25,160	0.8 Ft. above MLLW
61-W-1034 thru 1036	24 Sept.1961	1210	1:15,000	1.4 Ft.above MLLW

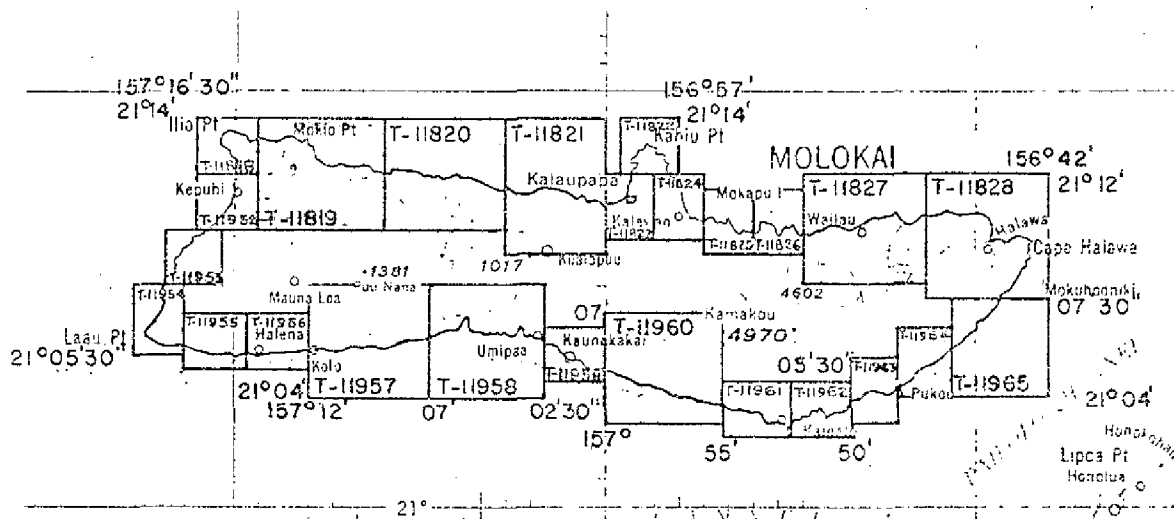
TIDE (III) PREDICTED		DIURNAL		
		RATIO OF RANGES	MEAN RANGE	EXT. RANGE
REFERENCE STATION:	HONOLULU		1.2	1.9
COORDINATE STATION:	Waimanalo	0.92	1.1	1.8
SUBORDINATE STATION:				
WASHINGTON OFFICE REVIEW BY (IV): <i>Leo F. Beugnot, Atlantic Marine Center</i>		DATE: <i>July 1970</i>		
PROOF EDIT BY (IV):		DATE:		
NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 3	RECOVERED: 3	IDENTIFIED: 2		
NUMBER OF BM(S) SEARCHED FOR (II): None	RECOVERED:	IDENTIFIED		
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): None				
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): 6				

REMARKS:

COMPILATION RECORD	COMPLETION DATE	REMARKS
Alongshore area for hydro	August 1967.	Superseded
Field Edit applied Compilation complete	June 27, 1969	

5

15,000 AND 110,000 SCALES
MOLOKAI ISLAND HAWAII



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-11819

Shoreline survey T-11819 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 a part of the north shore from Moku Point to Kaiehu Point.

Field work preceding compilation consisted of identification of horizontal control, shoreline and field inspection, and selection of landmarks for charts.

Compilation was at 1:10,000 scale by Wild B-8 Plotter, using photography obtained on October 2, 1960, and September 24, 1961. Cronaflex copies of the manuscript, along with ozalids and specially prepared photographs, were provided for transfer of the shoreline to the boat sheet, location of photo-hydro signals, and field edit use.

The manuscript was a vinylite sheet 4 minutes in latitude by 5 minutes in longitude. Field edit was accomplished in April 1968. After application of field edit data, the manuscript was scribed, stick-up applied, and reproduced on cronaflex. Final review was in the Atlantic Marine Center in July 1970. A cronaflex copy of the final manuscript and a negative 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 Maianalua 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

Molokai VOR (MOKK)
 Puu Apalu, Tank
 Ilio Pt., Coast Guard Loran Mast
 Waiahewahewa, 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. HELEMA, 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

(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 boardered 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
Waiahawahewa, 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



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 Makenalua 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

14

Photogrammetric Plot Report

Project 21044

Molokai, Hawaii

December, 1964

21. Area Covered

This report pertains to the remainder of the Island of Molokai. It covers surveys T-11818 thru T-11824.

22. Method

Three strips were bridged by analytic aerotriangulation. Strips 6 and 7 were at a scale of 1:15,000 and strip 8 at 1:25,000.

During the processing of the data for strip 8, distortions were evident at the eastern terminal. Model 2169-70 was eliminated from the bridge, and model 2170-2171 appeared to have distortions also in the center and north side although the two tie points on the south side of the model agreed well with strips 4 and 6. Fortunately these models were not needed as the area is adequately covered by strips 6 and 7.

23. Adequacy of Control

The failure of horizontal points in strip 8 to hold together beyond point 86110 and 11 was attributed at first to a possible datum difference. This could not be proved. When additional measurements and a study of the cantilever output indicated distortions in the bridge, this idea was discarded.

Although control point 10100 would not hold well with 86110 and 11 in strip 8, when 10100 was used as a terminal in strip 7, tie point 10403 agreed reasonably well with strip 8.

Control complied with project instructions and was adequate.

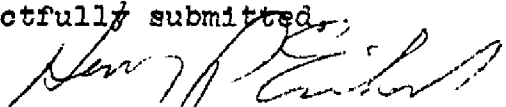
24. Supplemental Data

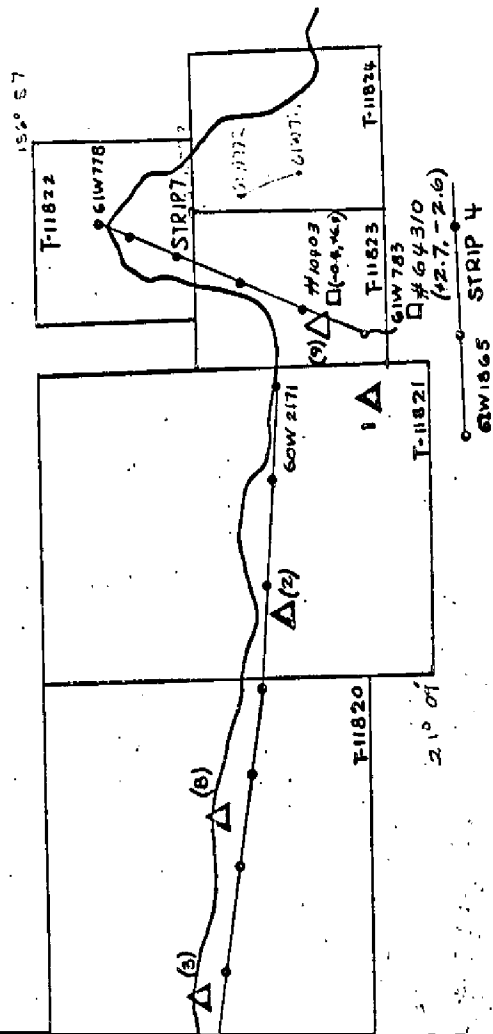
None

25. Photography

Photography was adequate with regard to coverage, overlap, and definition.

Respectfully submitted,


Henry P. Eichert, Acting Chief,
Aerotriangulation Section



TRIANGULATION SKETCH PLOKAL ISLAND, HAWAII PROJECT 21044

LEGEND

CONTROL USED IN ADJUSTMENT

CONTROL USED AS CHECK

POINTS

- HAAEULA 2, 1962 Sub Pt. A (+0.3, +0.9) Sub Pt. B (+2.8, -1.1)
- POHAKUNOI, 1888 (+0.1, -1.2) Sub Pt. A (+2.8, +0.8) Sub Pt. B (+0.9, -3.2)
- MOOMOMI, 1962 Sub Pt. A (-16.2, 7) Sub Pt. B (-1.9, -5.3)
- LAINA (KAA) 1926 Sub Pt. A (0.0, 4.9)
- POU O KAIKA, 1915 Sub Pt. A (+1.2, -2.1) Sub Pt. B (+6.7, 0.1)
- SAND 1950 (Sub Pt. A (+2.6, 17.9) Sub Pt. B (+2.0, 16.8)
- KAEO 1926 Sub Pt. A (+2.3, 9.1) Sub Pt. B (+0.7, 18.9)
- POU KAPELE, 1888 Sub Pt. A (+2.9, -1.2) Sub Pt. B (-1.4, -5.0)
- POWANI 1962 Sub Pt. A (+0.1, 20.0)

Pls. for SAND 1950 were considered poor at the time of plate measurement

LEGEND

Δ Control used in adjustment

Δ Control used as check

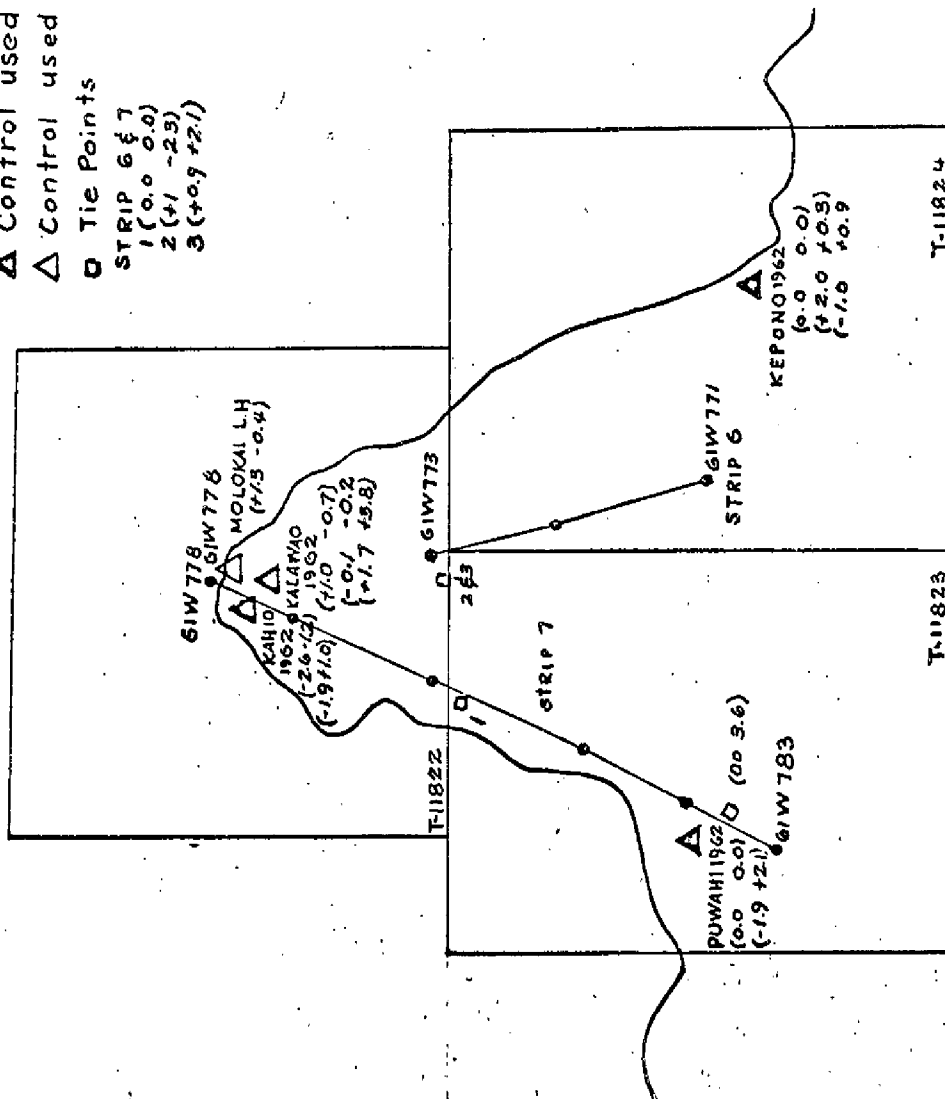
○ Tie Points

STRIP 6 & 7

1 (0.0 0.0)

2 (+1 -2.3)

3 (+0.9 +2.1)



AERO TRIANGULATION SKETCH
MOLOKAI ISLAND HAWAII
PROJECT 21044

SCALE FACTOR

1 FT = .3048006 METER	COMPUTED BY: C. H. Bishop	DATE: August 23, 1967	CHECKED BY: F. T. Wilson	DATE: August 23, 1967	COMM-DC-57843
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5
18

COMPILATION REPORT
MAP MANUSCRIPT T-11819
PROJECT PH-6201

31. DELINEATION:

Planimetry was compiled with the Wild B-8 Plotter.

32. CONTROL:

See the Photogrammetric Plot Report by H. P. Eichert dated December 1964, submitted with compilation report for T-11822.

33. SUPPLEMENTAL DATA:

None.

34. CONTOURS AND DRAINAGE:

Contours are not applicable.

Four intermittent drains were compiled.

35. SHORELINE AND ALONGSHORE DETAILS:

Field inspection was adequate for the delineation of the mean high water line. Foul, ledge, and bluff lines are from office inspection of the photographs. One short stretch of approximate mean lower low water line was shown near longitude 157° 11'.

36. OFFSHORE DETAILS:

None.

37. LANDMARKS AND AIDS:

None.

38. CONTROL FOR FUTURE SURVEYS.

None

39. JUNCTIONS:

Satisfactory junctions have been made with T-11818 to the west and T-11820 to the east. There is no detail at the junction with T-11952 to the west. There are no contemporary surveys to the north and south.

40. HORIZONTAL AND VERTICAL ACCURACY:

No statement.

46. COMPARISON WITH EXISTING MAPS:

Comparison was made with USCGS Quadrangle ILIO POINT, HAWAII, and MOLOKAI AIRPORT, HAWAII. The scale for both is 1:24,000 and both dated 1952.

47. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Nautical Chart 4116, scale 1:250,000, 12th edition, dated August 17, 1964.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

Arnold L. Shands

Arnold L. Shands
Cartographic Technician
2 November 1967

Approved by:

Allen L. Powell

Allen L. Powell
Director, Atlantic Marine Center

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6201

T-11819

HAWAII (title)

KAA GULCH

KAIEHU POINT

KALANI

KAPALAUOA

KAWAALOA

KAWAHUNA

MANALO GULCH

MOKIO POINT

MOLOKAI

MOOMOMI

MOOMOMI COVE

PACIFIC OCEAN

PUEOAO

Approved by:

A. J. Wraight

A. J. Wraight
Chief Geographer

Prepared by:

F. W. Pickett

F. W. Pickett
Cartographic Technician

T-11819

49. NOTES FOR THE HYDROGRAPHER:

Refer to the Field Edit Ozalid.

Photo-hydro points were selected by the field inspector in 1962.

The following is a list of photo-hydro points that are shown on the manuscript and cronapaque ratio prints ~~for your use if they are still in existence.~~

<u>Point</u>	<u>Description</u>
1901	Large pointed black outcrop
1902	Large boulder
1903	Chunk of bluff at MHWL
1904	Top of offshore rock
1905	Top of offshore rock
* 1906	Top of rock

* Selected in office.

PHOTOGRAMMETRIC OFFICE REVIEW

T-11819

1. PROJECTION AND GRIDS CHB	2. TITLE CHB	3. MANUSCRIPT NUMBERS CHB	4. MANUSCRIPT SIZE CHB
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY CHB	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) X		7. PHOTO HYDRO STATIONS CHB
8. BENCH MARKS X	9. PLOTTING OF SEXTANT FIXES X	10. PHOTOGRAMMETRIC PLOT REPORT Bridge - W.O.	11. DETAIL POINTS W/B B-8 Kelley
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE CHB	13. LOW-WATER LINE X	14. ROCKS, SHOALS, ETC. CHB	15. BRIDGES X
16. AIDS TO NAVIGATION X	17. LANDMARKS X	18. OTHER ALONGSHORE PHYSICAL FEATURES CHB	19. OTHER ALONGSHORE CULTURAL FEATURES CHB
PHYSICAL FEATURES			
20. WATER FEATURES CHB	21. NATURAL GROUND COVER X		22. PLANETABLE CONTOURS X
23. STEREOSCOPIC INSTRUMENT CONTOURS X	24. CONTOURS IN GENERAL X	25. SPOT ELEVATIONS X	26. OTHER PHYSICAL FEATURES X
CULTURAL FEATURES			
27. ROADS CHB	28. BUILDINGS CHB	29. RAILROADS X	30. OTHER CULTURAL FEATURES X
BOUNDARIES			
31. BOUNDARY LINES X		32. PUBLIC LAND LINES X	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES CHB	34. JUNCTIONS CHB		35. LEGIBILITY OF THE MANUSCRIPT CHB
36. DISCREPANCY OVERLAY X	37. DESCRIPTIVE REPORT CHB	38. FIELD INSPECTION PHOTOGRAPHS CHB	39. FORMS CHB
40. REVIEWER Charles H. Bishop C. H. Bishop		SUPERVISOR, REVIEW SECTION OR UNIT Albert C. Rauck, Jr. Albert C. Rauck, Jr.	
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 A.C. Rauck June 30, 1969 Rev. by: R. E. Smith Oct. 8, 1969		SUPERVISOR Albert C. Rauck, Jr. Albert C. Rauck, Jr.	
43. REMARKS Field edit applied from: Field Edit Ozalid Matterations - 60-W-2179 and 2181			

13
22

Field Edit Report
To Accompany T 11819

USC&GSS McARTHUR

Ronald L. Newsom
CDR, USESSA
Commanding Officer

51 METHODS

Manuscript T 11819 was field edited by personnel aboard the USC&GSS McARTHUR in conjunction with hydrography on boatsheets AR 10-2-67 (H 8968) and AR 20-3-68 (H 8982). Shoreline inspections were accomplished from Launch AR-1 and it was found that the heavy swell and resulting surf made delineation of the MLLW line impossible. Additions and corrections to the manuscript have been noted on the one field edit ozalid provided for T 11819 and then cross referenced and noted in violet ink on photo numbers 6OW2179 and 6OW2181. No deletions were necessary.

52 ADEQUACY OF COMPILATION

Manuscript T 11819 is complete and adequate for use in conjunction with this hydrographic survey. The inshore area, with the exception of the shoreline and bluffline, was not field edited.

54 RECOMMENDATIONS

None

REVIEW REPORT T-11819

SHORELINE

JULY 21, 1970

61. GENERAL STATEMENT

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

62. COMPARISON WITH REGISTERED SURVEYS

There were no registered surveys of the area available at the time of final review for comparison purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with USGS ILIO POINT and MOLOKAI AIRPORT, HAWAII, quadrangles. These are 1:24,000-scale surveys, dated 1952. These surveys are in fairly good agreement with T-11819. The difference in the shoreline of the three surveys has been indicated on the comparison print in brown.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Comparison was made with a copy of H-8982, AR-20-3-68. The shoreline of the two surveys is in good agreement.

A rock at latitude $21^{\circ} 13' 18''$, longitude $157^{\circ} 13' 12''$ is noted on the boat sheet as awash 2 to 4 feet. This rock appears to be submerged on the photographs of the area. All differences in rock data 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 shoreline of the two surveys appears to be 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, USESSA
Director, Atlantic Marine Center

Approved by:

Charles L. Turner
Chief, Photogrammetric Branch

Jack E. Luth
Chief, Photogrammetry Division

y = 325,000 FT.

21° 13' 30"

No rock visible at this position
Photos 60W 2180-2182

1905

awash MLLW

rocky

61-W-1036

o(2) foul

P u e o a o

only one rock visible in this area

foul

shoreline in brown from USGS quadrangle

No bare rock visible on photographs

21° 13'

△ K A E O 1925

y = 320,000 FT.

157° 14' 00"

157° 13' 30"

21° 12' 30"

T-11819

Shoreline around point is indefinite on boat sheet

21° 13' 30"

Mokio Point

foul with boulders

1904

awash MLLW *

awash MLLW *

rocky

Shoreline in brown from USGS Quadrangle

61-W-1035

Not on Boat Sheet

awash MHW *

foul with rocks

Waiakanapo

Blowhole (4)

awash MHW *

61-W-1034

Not on Boat Sheet

LAINA KAA (HGS)



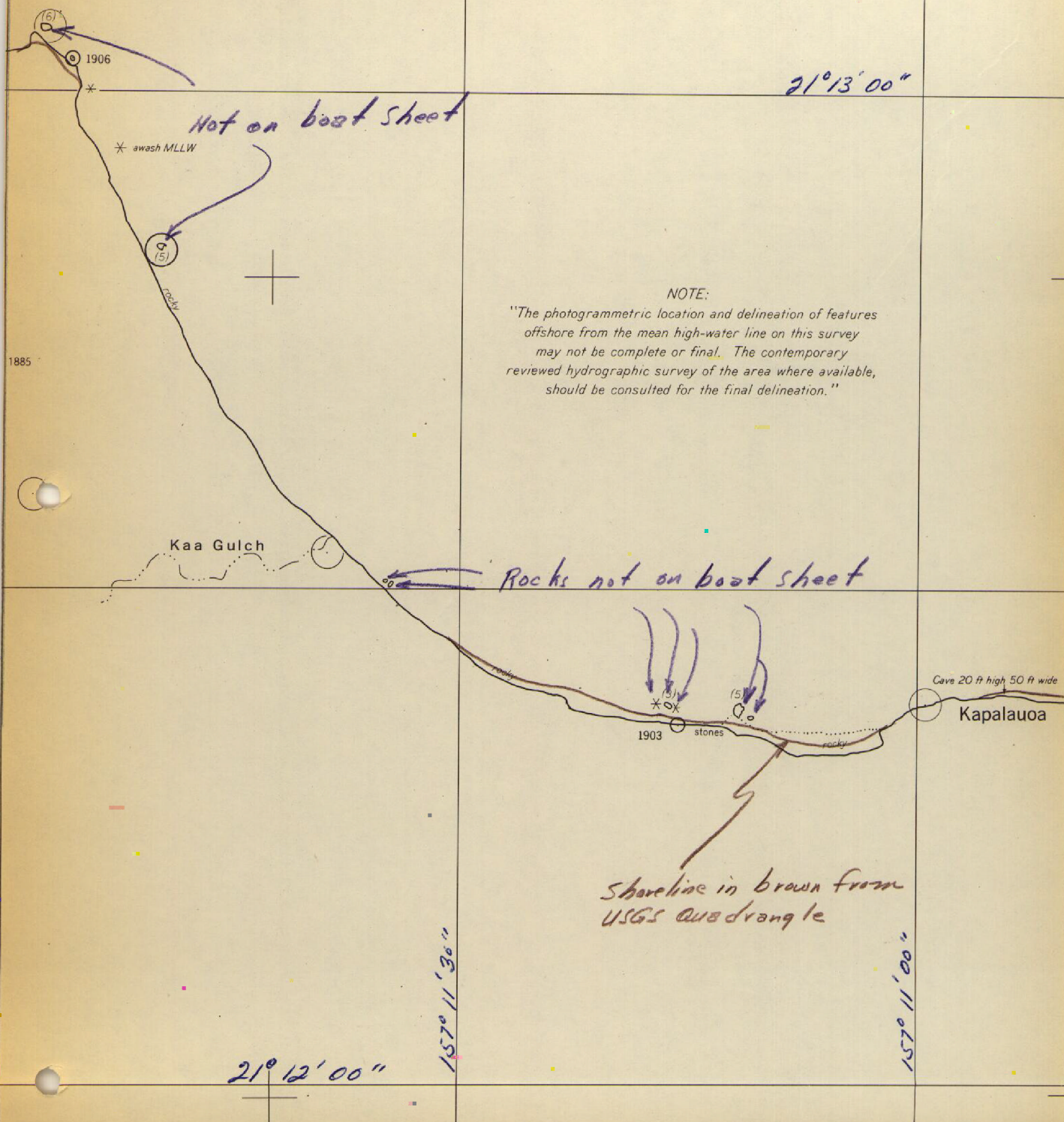
157° 13' 00"

157° 12' 30"

21° 12' 30"

T-11819

I 27



28

21° 12' 30"

only that area delineated as
reef is visible on the photographs

dashed on boat sheet

reef

Kalani

1901

1902

Kaiehu F

Sand dunes

Shoreline in brown
from USGS Quad range

Manalo Gulch

60-W-2179

157° 10' 30"

157° 10' 00"

21° 11' 30"

T-11819

Rocks not on boat sheet

21° 12'30"

No rocks visible outside of foul area delineated.

rocks awash MHW

Kawaaloo

Moomomi Cove

Moomomi

Kawahuna

60-W-2178

Shoreline in brown from USGS Quadrangle

12' y=315,000 FT.

157°09'30"

157°09'00"

21° 11'30"

T-11819

