

11974

orig

Diag. Cht. No. 4116. ⁴¹²²

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey <u>SHORELINE (PHOTOGRAMMETRIC)</u> (PH-6202)	
Field No. <u>Ph-21045</u>	Office No. <u>T-11974</u>
LOCALITY	
State <u>HAWAII</u>	
General locality <u>LANAI</u>	
Locality <u>KAUMALAPAU HARBOR</u>	
<u>1960-1962</u>	
CHIEF OF PARTY WILBUR R. PORTER, CHIEF OF PARTY FRED NATELLA, PHOTOGRAMMETRIC UNIT	
LIBRARY & ARCHIVES	
DATE <u>September 1964</u>	

USCOMM-DC 5087

* see page 2 of Review
Report for additional
compilation performed
after the manuscript
was registered

11974

DESCRIPTIVE REPORT - DATA RECORD

T - 11974

PROJECT NO. (II):

21045 (PH 6202)

FIELD OFFICE (III):

HONOLULU, HAWAII

CHIEF OF PARTY

WILBUR R. PORTER

UNIT CHIEF

L. F. VAN SCOY

PHOTOGRAMMETRIC OFFICE (III):

PORTLAND, OREGON

OFFICER-IN-CHARGE

FRED NATELLA

INSTRUCTIONS DATED (II) (III): JULY 31, 1962 II
 DEC. 18, 1962 III
 AMENDMENT I: MAY 23, 1963 III
 AMENDMENT II: JUNE 24, 1963 III
 AMENDMENT III: JULY 9, 1963 III
 AMENDMENT IV: SEPT. 30, 1963 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 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):

PAU, 1962

LAT.:

20° 47' 00.47"

LONG.:

156° 59' 19.66"

☐ ADJUSTED☒ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Y = 163,594.99

X = 389,962.96

HAWAII

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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 (III): L. F. VAN SCOY		DATE: OCT-DEC. 1962
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): OCTOBER-DECEMBER 1962 BY FIELD INSPECTION. COMPILATION BY KELSH INSTRUMENT.		
PROJECTION AND GRIDS RULED BY (IV): A.R.		DATE 7-18-63
PROJECTION AND GRIDS CHECKED BY (IV): R.G.		DATE 7-19-63
CONTROL PLOTTED BY (III): D.N. WILLIAMS		DATE 7-23-63
CONTROL CHECKED BY (III): R.H. MEYER		DATE 7-23-63
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): HENRY P. EICHERT		DATE Aug. 1963
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY D.N. WILLIAMS	DATE 7-29-63
	CONTOURS NONE	DATE
MANUSCRIPT DELINEATED BY (III): SMOOTH DRAFT: C. C. HARRIS		DATE 8-9-63
SCRIBING BY (III): STICK-UP: C. C. HARRIS		DATE 8-14-63
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): ROUGH DRAFT: R. H. MEYER ADVANCE: J. E. DEAL		DATE 8-1-63 8-15-63
REMARKS:		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

C&GS SINGLE LENS "W"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
61 W 1253 THRU 1257	9-27-61	09:10	1:15,000	1.5' ABOVE M.L.L.W.
62 W 2466 AND 2467	2-1-62	08:00	1:25,000	0.9' " "
COLOR PHOTOGRAPHS				
60 W 2740 THRU 2747	10-12-60	08:50	1:10,000	2.0' " " .15 ft above MHW COMPUTED FROM PRE- DICTED TIDE TABLES.

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	DAILY RANGE
REFERENCE STATION: HONOLULU		1.2	1.9
SUBORDINATE STATION: KAUMALAPAU		1.5	2.2
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

DATE:

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 9

RECOVERED: 9

IDENTIFIED: 3

NUMBER OF BM(S) SEARCHED FOR (II): 2

RECOVERED: 2

IDENTIFIED: 2

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): NONE

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): 6

REMARKS:

10/10
10/10
10/10
10/10
10/10

FIELD INSPECTION REPORT

MAP MANUSCRIPT T-11974

PROJECT 21045

REFER TO THE FIELD INSPECTION REPORT FOR THE ENTIRE PROJECT
INCLUDED WITH THE DESCRIPTIVE REPORT FOR T-11972.

PHOTOGRAMMETRIC PLOT REPORT

MAP MANUSCRIPT T-11974

PROJECT 21045

REFER TO THE PHOTOGRAMMETRIC PLOT REPORT BY HENRY P. EICHERT
AUGUST 1963 AND INCLUDED WITH THE DESCRIPTIVE REPORT FOR T-11972.

COMPILATION REPORT
MAP MANUSCRIPT T-11974
PROJECT 21045

ITEMS 31 THRU 36:

REFER TO THE COMPILATION REPORT FOR T-11972.

37. LANDMARKS AND AIDS:

TWO FIXED AIDS TO NAVIGATION WERE LOCATED BY TRIANGULATION AND SHOWN ON THIS MANUSCRIPT.

ONE INTERSECTION TRIANGULATION STATION SHOWN ON THIS MANUSCRIPT HAS BEEN RECOMMENDED FOR CHARTING AS A LANDMARK.

A RECOMMENDED AERONAUTICAL AID IS LOCATED BEYOND THE LIMITS OF THIS PROJECT.

FORMS 567 ARE SUBMITTED.

38. CONTROLS FOR FUTURE SURVEYS:

SIX PHOTO-HYDRO STATIONS WERE IDENTIFIED BY THE FIELD PARTY AND LOCATED DURING KELSH INSTRUMENT COMPILATION. THEIR NUMBERS AND DESCRIPTIONS ARE LISTED IN PARAGRAPH 49, NOTES FOR THE HYDROGRAPHER.

39. JUNCTIONS:

SATISFACTORY JUNCTIONS WERE MADE WITH T-11973 TO THE NORTH AND WITH T-11975 TO THE SOUTH. THE PACIFIC OCEAN IS ON THE WEST. THERE IS NO CONTEMPORARY SURVEY ON THE EAST.

40. HORIZONTAL AND VERTICAL ACCURACY:

REFER TO THE COMPILATION REPORT FOR T-11972.

46. COMPARISON WITH EXISTING MAPS:

REFER TO THE COMPILATION REPORT FOR T-11972.

47. COMPARISON WITH NAUTICAL CHARTS:

COMPARISON WAS MADE WITH THE FOLLOWING NAUTICAL CHARTS:

NAUTICAL CHART 4120, SCALE 1:80,000 AT LAT. 21° 01',
1ST EDITION MAR. 17, 1942, REVISED 2-4-63.

NAUTICAL CHART 4122, SCALE 1:2500, EDITION 1929, REV. 4-9-51.


ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

NONE.


ITEMS TO BE CARRIED FORWARD:

NONE.

APPROVED:


FRED NATELLA, CAPT, C&GS
PORTLAND DISTRICT OFFICER

RESPECTFULLY SUBMITTED:


JAMES L. HARRIS
CARTOGRAPHER

49. NOTES FOR THE HYDROGRAPHER - T-11974

THE SHORELINE, SHOWN AS UNSURVEYED ON THE MANUSCRIPT, BETWEEN LAT. $20^{\circ} 46' 00''$ AND LAT. $20^{\circ} 46' 45''$ WAS COVERED ON THE PANCHROMATIC FILM KELSH PLATES FURNISHED FOR THE COMPILATION WORK BY THE PHOTOGRAPH DISPLACEMENT OF AN 800 FT. BLUFF WHICH RUNS PARALLEL TO THE SHORELINE. THIS SHORELINE WILL BE COMPILED BY OTHER METHODS AND NO ATTEMPT SHOULD BE MADE TO LOCATE THE M.H.W. LINE DURING THE HYDROGRAPHIC SURVEY.

LISTED ARE PHOTO-HYDRO STATIONS SELECTED BY THE FIELD INSPECTOR AND LOCATED BY KELSH INSTRUMENT.

No.	DESCRIPTION	FIELD PHOTO No.
7401	HIGH POINT SMALL ROCK ISLAND	61 W 1253
7402	CORNER BLUFF	61 W 1253
7403	POINT ON LOW SECTION BLUFF	61 W 1253
7404	POINT OF BLUFF	61 W 1254
7405	EDGE OF BLUFF	61 W 1254
7406	ROCK BARES 3 FT. ABOVE M.H.W.	61 W 1256

PASS POINTS HAVE BEEN LOCATED AT OR NEAR THE WATER LEVEL ABOUT EVERY MILE ALONG THE SHORELINE AND THESE SHOULD BE USED WHEN LOCATED^{ING} ADDITIONAL PHOTO-HYDRO SIGNALS IDENTIFIED DURING THE TIME OF THE HYDROGRAPHIC SURVEY.

NOTE:

SUBSEQUENT COLOR PHOTOGRAPHY WAS OBTAINED AND AN ACCURATE MEAN HIGH-WATER LINE WAS COMPILED.
SEE REVISED MANUSCRIPT.

PHOTOGRAMMETRIC OFFICE REVIEW

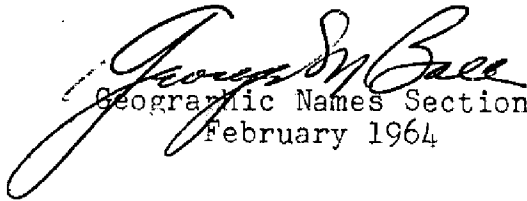
T-10389 11974

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) None		7. PHOTO HYDRO STATIONS ✓
8. BENCH MARKS ✓	9. PLOTTING OF SEXTANT FIXES None	10. PHOTOGRAMMETRIC PLOT REPORT ✓	11. DETAIL POINTS None
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE ✓	13. LOW-WATER LINE None	14. ROCKS, SHOALS, ETC. ✓	15. BRIDGES None
16. AIDS TO NAVIGATION ✓	17. LANDMARKS ✓	18. OTHER ALONGSHORE PHYSICAL FEATURES ✓	19. OTHER ALONGSHORE CULTURAL FEATURES ✓
PHYSICAL FEATURES			
20. WATER FEATURES ✓		21. NATURAL GROUND COVER ✓	22. PLANETABLE CONTOURS None
23. STEREOSCOPIC INSTRUMENT CONTOURS None	24. CONTOURS IN GENERAL None	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 D.N. Williams		SUPERVISOR, REVIEW SECTION OR UNIT Edward Deal	
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		SUPERVISOR	
43. REMARKS			

T-11974

48. Geographic Names List

Kalamaiki Gulch
Kalamanui Gulch
Kaumalapau
Kaumalapau Gulch
Kaumalapau Harbor
Kiei Bay
Lanai Island
Pacific Ocean
Pali Kaholo


Geographic Names Section
February 1964

Review Report

Shoreline Maps

T-11966 through T-11976

July 1964

61. General Statement

These shoreline maps of Project PH-6202 Lanai, Hawaii were prepared to furnish hydro support-data and base maps for our nautical and aeronautical charting programs.

62. Comparison with Registered Topographic Surveys

T-3435	1:20,000	1914
T-4304	1: 5,000	1927
T-4304a	1: 2,500	1928
T-4745	1:20,000	1932
T-4780	1: 5,000	1931

Differences exist between these surveys - generally in the main shoreline and the shapes of some of the islands. The subject surveys are to supersede the above listed maps of common areas for nautical charting purposes.

63. Comparison with Maps of Other Agencies

Island of Lanai	1:62,500	1923
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Because of the scale difference only a visual comparison can be made. The subject surveys are more complete and supersede the above survey for common area.

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Nautical Charts

4120	1:80,000	Edition 1942	Revised Feb.1963
4130	1:80,000	Edition 1936	Revised Apr.1962
4122	1: 2,500	Edition 1929	Revised Apr.1951

Differences exist. However, there are no items to be applied immediately.

66. Adequacy of Results and Future Surveys

These surveys were prepared according to project instructions and are within the required accuracy for Nautical Charting.

Reviewed by:

L. C. Dande
L. C. Dande

Approved by:

Charles L. Lamm
Chief, Photogrammetric Branch

Chief, Nautical Chart Division

M. C. Natto
Chief, Photogrammetry Division
Acting

Note:
The area of Kaumalapau Harbor
was recompiled on the B-8 stereo-
plotter and submitted as a
chart letter on 7/20/71
(CL-954, 1971)

6202

FROM: COMM. OFF. of McArthur
TO: Chief, Photo Division

Trans. Letter Date - 21 Feb 1968

* See below

119466

11947

FIELD EDIT REPORT

PH-6202

Manuscript T-11974 Lanai Island, Hawaii

Used during survey AR-5-2-67 (H-8791) by USCGSS McARTHUR
(Ronald L Newson, Cmdg) during 1967.

51. Methods

Manuscript was field edited for shoreline only. Project instructions state that the offshore reef and ledge symbols around the harbor should be investigated. This was visually inspected from McARTHUR's skiff. The blue-line manuscript (T-11974) furnished for shoreline transfer onto boatsheet AR-5-2-67 (H-8791) showed extensive reef. The shoreline and reef delineation on Chart C.S. 4122 (2nd Edition, Oct 65) is correct; the boatsheet reef symbol is largely erroneous. Not knowing how the chart C.S. 4122 shoreline/reef symbol was updated, manuscript T-11974 has been updated with out shoreline revisions. Shoreline changes are indicated on photo (oversized cronopaque) 61W1255 (1:5000 scale) in violet ink. Corrections are indexed on the ozalid copy of T-11974.

52. Adequacy of Compilation

Map was edited for shoreline changes only. No evaluation of entire manuscript was undertaken, but reef/ledge areas are inaccurate; however, the photos themselves are inadequate to compile shoreline manuscripts, due to the nature of the coastline. Coastline here at Kaunapali and the west-southwest coast of Lanai consists of high bluffs and nearly sheer cliffs. Shadows obscure most of the actual shoreline at the south and west edges of the harbor. See para. 54 for recommendation.

54. Recommendations

It is recommended that any future shoreline photography be flown in the summer afternoon, when the sun can illuminate the shoreline below the high, sheer cliffs around the harbor and along the adjacent coasts. The photos used for T-11974 compilation have shadows obscuring parts of the shoreline.

* Data was never applied to manus.
Could not be found - West VA. Ave. Norfolk
office; Rockville Comp. Sect. etc.
6/3/71 D.P.3

