

11975

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Diag. Cht. No. 4116.

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	SHORELINE (PHOTOGRAMMETRIC)
Field No. Ph-21045	Office No. T-11975
LOCALITY	
State	HAWAII
General locality	LANAI ISLAND
Locality	KAUNOLU BAY
1960-1962	
CHIEF OF PARTY	
WILBUR R. PORTER, CHIEF OF PARTY	
FRED NATELLA, PHOTOGRAMMETRIC UNIT	
LIBRARY & ARCHIVES	
DATE	September 1964

USCOMM-OC 5087

11975

FORM C&GS-181a
(12-61)U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T - 11975

PROJECT NO. (II):

21045

FIELD OFFICE (II):

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):

1:10,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:5000

PANTOGRAPH SCALE:

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 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):

KAHOLO, 1927, 1962

LAT.:

20° 45' 27.33"

LONG.:

156° 58' 52.87"

☐ ADJUSTED☒ UNADJUSTED

PLANE COORDINATES (IV):

Y = 154,192.97

X = 392,486.71

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 (III): L. F. VAN SCOY		DATE: OCT-DEC. 1962
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): OCTOBER-DECEMBER BY FIELD INSPECTION. COMPILATION BY KELSH INSTRUMENT.		
PROJECTION AND GRIDS RULED BY (IV): A.R.		DATE 6-25-63
PROJECTION AND GRIDS CHECKED BY (IV): R.G.		DATE 6-26-63
CONTROL PLOTTED BY (III): L.L. GRAVES		DATE 8-27-63
CONTROL CHECKED BY (III): R.H. MEYER		DATE 8-27-63
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): HENRY P. EICHERT		DATE AUG. 1963
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY L.L. GRAVES	DATE 9-9-63
	CONTOURS NONE	DATE
MANUSCRIPT DELINEATED BY (III): SMOOTH DRAFT: C. C. HARRIS		DATE 9-16-63
SCRIBING BY (III): STICK-UP: C. C. HARRIS		DATE 9-27-63
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): ROUGH DRAFT: D. N. WILLIAMS ADVANCE: J. E. DEAL		DATE 9-10-63 9-30-63
REMARKS:		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

C&GS SINGLE LENS "W"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
60 W 2400 THRU 2405	10-6-60	08:50	1:25,000	1.0' ABOVE M.L.L.W.
	RATIO PRINTS OF ABOVE AT 1:10,000			
61 W 1257 THRU 1260	9-27-61	09:10	1:15,000	1.5' " "
	RATIO PRINTS OF ABOVE AT 1:10,000			
62 W 2469 THRU 2471	2-1-62	08:55	1:25,000	0.2' " "
61 W 1164 THRU 1170	9-26-61	08:45	1:15,000	1.0' " "
61 W 1188 THRU 1190	"	08:50	"	" " "
COLOR PHOTOGRAPHS				
60 W 2748 THRU 2749	10-12-60	08:50	1:10,000	2.0' " "
60 W 7230 THRU 2735	"	08:45	"	" " "
60 W 2697 THRU 2699B	10-11-60	08:35	"	" " "
				COMPUTED FROM PRE- DICTED TIDE TABLES.

TIDE (III)

		RATIO OF RANGES	MEAN RANGE	DAILY RANGE
REFERENCE STATION:	HONOLULU		1.2	1.9
SUBORDINATE STATION:	LAHAINA, MAUI		1.3	2.0
SUBORDINATE STATION:				
WASHINGTON OFFICE REVIEW BY (IV):		DATE:		
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): 16				

REMARKS:

FIELD INSPECTION REPORT

MAP MANUSCRIPT T-11975

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-11975

PROJECT 21045

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

MAP T- 11975	PROJECT NO. 21045	SCALE OF MAP 1:10,000	SCALE FACTOR
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[illegible]

COMPILATION REPORT
MAP MANUSCRIPT T-11975
PROJECT 21045

ITEMS 31 THRU 34:

REFER TO THE COMPILATION REPORT FOR T-11972.

35. SHORELINE AND ALONGSHORE DETAILS:

COMPILATION OF THE MEAN HIGH WATER LINE WAS ACCOMPLISHED BY MODIFYING THE SPOT LOCATION FURNISHED BY THE FIELD UNIT TO CONFORM WITH THE SHORELINE APPARENT ON THE HIGH-WATER COLOR PHOTOGRAPHY. IN THE VICINITY OF $156^{\circ} 55' 30''$ LONGITUDE WHERE SHADOWS OBSCURED THE SHORELINE, COLOR PHOTOGRAPHY WAS USED TO COMPILE THE MEAN HIGH WATER LINE. EXTENSIVE USE OF THE COLOR PHOTOGRAPHS WAS MADE IN DETERMINING THE LIMITS OF LEDGES AND REEFS AS WELL AS THE AREAS ENCLOSED WITH A DASHED LINE AND LABELED "FOUL". LOCATIONS OF ROCKS SHOWING ELEVATIONS WERE OBTAINED FROM DATA FURNISHED BY THE FIELD PARTY, THE HEIGHTS BEING ADJUSTED TO THE MANUSCRIPT DATUM. ALL ROCKS WHICH DO NOT SHOW BARING DATA WERE DELINEATED DURING KELSH COMPILATION AND FROM STEREOSCOPIC EXAMINATION OF THE COLOR PHOTOGRAPHY. THESE SHOULD BE INVESTIGATED OR CONFIRMED BY THE HYDROGRAPHER.

PHOTOGRAPHY DID NOT PERMIT COMPILATION OF A MEAN LOWER LOW WATER LINE.

NO BUILDINGS COULD BE DETERMINED IN THE VICINITY OF A SETTLEMENT NAMED MAMAKI EAST OF PALAOA POINT.

36. OFFSHORE DETAILS:

NONE.

37. LANDMARKS AND AIDS:

ONE FIXED AID TO NAVIGATION WAS LOCATED BY TRIANGULATION AND IS SHOWN ON THIS MANUSCRIPT.

FORM 567 IS SUBMITTED.

38. CONTROLS FOR FUTURE SURVEYS:

SIXTEEN 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-11974 ON THE NORTH AND WITH T-11976 TO THE EAST.

KEALAIAHIKI CHANNEL IS ON THE SOUTH AND THE PACIFIC OCEAN IS ON THE WEST.

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 NAUTICAL CHART 4130, SCALE 1:80,000 AT LAT. 20° 51', 3RD EDITION DEC. 30, 1936, REVISED 4-26-62.

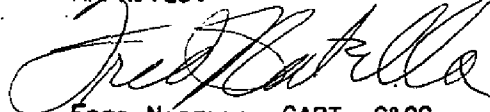
ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

NONE.

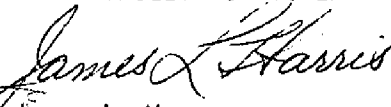
ITEMS TO BE CARRIED FORWARD:

NONE.

APPROVED:


FRED NATELLA, CAPT, C&GS
PORTLAND DISTRICT OFFICER

RESPECTFULLY SUBMITTED:


JAMES L. HARRIS
CARTOGRAPHER

49. NOTES TO THE HYDROGRAPHER - T-11975

THE FIELD INSPECTOR REQUESTED THE HYDROGRAPHER TO INVESTIGATE ROCKS OFFSHORE AS INDICATED BY NOTE ON OVERLAY.

FORESHORE AREAS WERE DELINEATED FROM COLOR PHOTOGRAPHY BY USE OF STEREOSCOPE AND VERTICAL PROJECTOR. NONE OF THE LIMIT LINES SHOWN ARE INTENDED TO REPRESENT APPROXIMATE LOWER LOW-WATER LINES BUT ARE SHOWN TO ASSIST THE HYDROGRAPHER WHEN NAVIGATING CLOSE TO SHORE.

WHEN USING SHORELINE PASS POINTS ON A SINGLE PHOTOGRAPH TO LOCATE ADDITIONAL PHOTO-HYDRO SIGNALS THE PHOTOGRAPHS SHOULD BE EXAMINED BY USE OF A STEREOSCOPE SO THAT IT MAY BE DETERMINED WHICH POINTS OF THE SAME ELEVATION AS THAT OF A POINT TO BE LOCATED MAY BE USED.

ROCKS FOR WHICH BARING DATA IS NOT SHOWN WERE DELINEATED BY THE COMPILER AND LOCATED BY KELSH INSTRUMENT. THESE SHOULD BE VERIFIED BY THE HYDROGRAPHER.

PHOTO-HYDRO POINTS SELECTED BY THE FIELD INSPECTOR WERE LOCATED BY KELSH INSTRUMENT AS IDENTIFIED. THEY ARE:

No.	DESCRIPTION	FIELD PHOTO
7501	Rock	62 W 2470
7502	Rock	"
7503	POINT LOW BLUFF	"
7504	SMALL BUSH BY TREE	"
7505	LARGE BUSH	"
7506	SMALL LONE TREE	"
7507	POINT OF BLUFF	"
7508	SMALL TREE ON POINT OF BLUFF	"
7509	SMALL TREE	"
7510	EDGE OF BLUFF	61 W 1189
7511	SMALL TREE	"
7512	HIGH POINT OF Poo Poo Island	"
7513	SMALL TREE	"
7514	SMALL TREE ON BLUFF	"
7515	SMALL TREE ON BLUFF	"
7516	SMALL TREE ON BLUFF	"

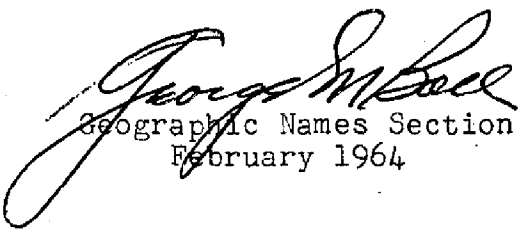
PHOTOGRAMMETRIC OFFICE REVIEW

T-10240 11975

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 None	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 None	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 None	28. BUILDINGS None	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			

48. Geographic Names List

Anapuka Cove
Huawai Bay
Kaunolu Bay
Kealaikahiki Channel
Kolokolo Cave
Kuahulua Bay
Lanai Island
Mamaki
Moku Naio Island
Pacific Ocean
Palaoa Point
Pali Kaholo
Poopoo Island


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. Lande
L. C. Lande

Approved by:

Charles Thayer
Chief, Photogrammetric Branch

Chief, Nautical Chart Division

M. E. Natta
Chief, Photogrammetry Division
Acting

