

11970

Diag. Cht. No. 4116.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey SHORELINE (PHOTOGRAMMETRIC)

Field No. 21045 Office No. T-11970

### LOCALITY

State HAWAII

General locality LANAI ISLAND

Locality HALEPALAOA LANDING

1960-1962

### CHIEF OF PARTY

WILBUR R. PORTER, CHIEF OF PARTY  
FRED NATELLA, PHOTOGRAMMETRIC UNIT

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DATE

JAN 11 1965

USCOMM-DC 5087

11970

DESCRIPTIVE REPORT - DATA RECORD  
T- 11970

PROJECT NO. (II):			
21045			
FIELD OFFICE (II):		CHIEF OF PARTY	
HONOLULU, HAWAII		WILBUR R. PORTER	
		UNIT CHIEF:	
		L. F. VAN SCOY	
PHOTOGRAMMETRIC OFFICE (III):		OFFICER-IN-CHARGE	
PORTLAND, OREGON		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):		STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:5000	
1:10,000		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):		VERTICAL DATUM (III):	
OLD HAWAIIAN		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):			
PUU NENE, 1962			
LAT.:	LONG.:	<input type="checkbox"/> ADJUSTED	
20° 49' 06.67"	156° 50' 06.59"	<input checked="" type="checkbox"/> UNADJUSTED	
PLANE COORDINATES (IV):		STATE	ZONE
Y = 176,247.67 X = 442,455.76		HAWAII	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 1962 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):  D. N. WILLIAMS		DATE  8-7-63
CONTROL CHECKED BY (III):  L. L. GRAVES		DATE  8-7-63
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):  HENRY P. EICHERT		DATE  AUGUST 1963
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY  L. L. GRAVES	DATE  9-16-63
	CONTOURS	DATE
MANUSCRIPT DELINEATED BY (III): SMOOTH DRAFT: L. L. GRAVES		DATE  9-27-63
SCRIBING BY (III): STICK-UP: C. C. HARRIS		DATE  10-18-63
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): ROUGH DRAFT: D. N. WILLIAMS ADVANCE: J. L. HARRIS		DATE  9-17-63 10-21-63
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
60 W 3198 THRU 3201	10-21-60	10:05	1:25,000	0.4' ABOVE M.L.L.W.
	RATIO PRINTS OF ABOVE AT 1:10,000.			
60 W 3297 THRU 3301	10-22-60	09:35	1:25,000	1.1' " "
	RATIO PRINTS OF 60 W 3297 & 3299A AT 1:10,000.			
60 W 2410 THRU 2412	10-6-60	08:50	1:25,000	1.0' " "
	RATIO PRINTS OF ABOVE AT 1:10,000.			
COLOR PHOTOGRAPHS				
60 W 3231 THRU 3236	10-22-60	08:35	1:10,000	1.3' " "
60 W 3242 AND 3243	"	08:40	"	1.3' " "
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):

6

RECOVERED:

6

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): 11

REMARKS:

## FIELD INSPECTION REPORT

MAP MANUSCRIPT T-11970

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-11970

PROJECT 21045

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

SCALE FACTOR

1 FT. = 3048006 METER

COMPUTED BY	L.L.G.	DATE	7-19-63	CHECKED BY	R.H.M.	DATE	7-20-63
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COMM-DC-57845

COMPILATION REPORT  
MAP MANUSCRIPT T-11970  
PROJECT 21045

ITEMS 31 THRU 37:

REFER TO THE COMPILATION REPORT FOR T-11972.

38. CONTROLS FOR FUTURE SURVEYS:

ELEVEN 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-11969 TO THE NORTH AND WITH T-11971 TO THE SOUTH. AUAU CHANNEL IS ON THE EAST. THERE IS NO CONTEMPORARY SURVEY TO 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 4-23-62.

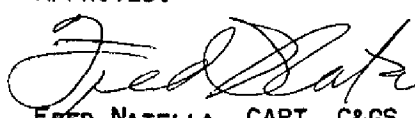
ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

NONE.

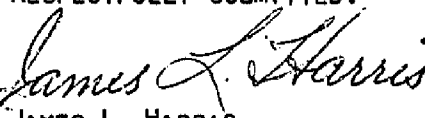
ITEMS TO BE CARRIED FORWARD:

NONE.

APPROVED:

  
FRED NATELLA, CAPT, C&GS  
PORTLAND DISTRICT OFFICER

RESPECTFULLY SUBMITTED:

  
JAMES L. HARRIS  
CARTOGRAPHER



49. NOTES FOR THE HYDROGRAPHER:

ELEVEN PHOTO-HYDRO STATIONS ARE SHOWN ON THIS MANUSCRIPT AND LISTED BELOW. THEY WERE IDENTIFIED BY THE FIELD PARTY AND LOCATED BY THE KELSH OPERATOR DURING COMPILATION.

No.	DESCRIPTION	FIELD PHOTO No.
7001	CORNER BRUSH	60 W 3201
7002	N.W. CORNER LARGE CLUMP BRUSH	"
7003	LONE BUSH BY DRAINAGE	60 W 3200
7004	SMALL BUSH	60 W 3299A
7005	SMALL BUSH	"
7006	N.W. CORNER POND	"
7007	N.W. CORNER LARGE CLUMP BRUSH	60 W 3298
7008	LOW SMALL BUSH	"
7009	CENTER N. EDGE CLUMP BRUSH	"
7010	N.W. CORNER CLUMP BRUSH	"
7011	N.E. CORNER CLUMP BRUSH	"

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 THE SHORE.

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

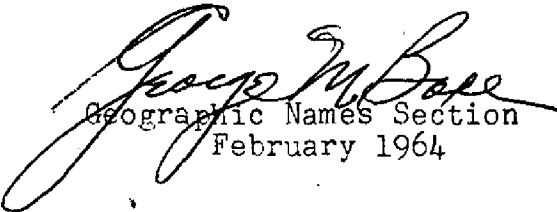
## PHOTOGRAMMETRIC OFFICE REVIEW

T-10553 11970

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 None	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 ✓	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	
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

Auau Channel  
Awehi Gulch  
Awehi Point  
Halepalaoa Landing  
Kahea  
Kahea Gulch  
Kahemano  
Kapua Gulch  
Kapua Point  
Kealaikahiki Channel  
Kikoa Point  
Lanai Island  
Lopa  
Lopa Gulch  
Makaiwa Point  
Waiopae Fishpond  
Waiopae Gulch

  
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 Therman  
Chief, Photogrammetric Branch

Chief, Nautical Chart Division

J. E. Waugh 1/7/65  
Chief, Photogrammetry Division

### RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-11970

## INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

[illegible]