

# 11966

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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. 21045 Office No. T-11966

### LOCALITY

State HAWAII

General locality LANAI ISLAND

Locality KEANAPAPA POINT

1960-1962

### CHIEF OF PARTY

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

### LIBRARY & ARCHIVES

DATE JAN 11 1965

USCOMM-DC 5087

# 11966

## DESCRIPTIVE REPORT - DATA RECORD

T - 11966

PROJECT NO. (II):		
21045		
FIELD OFFICE (II):		CHIEF OF PARTY
HONOLULU, HAWAII		WILBUR R. PORTER
PHOTOGRAMMETRIC OFFICE (III):		UNIT CHIEF
PORTLAND, OREGON		L. F. VAN SCOY
OFFICER-IN-CHARGE		
FRED NATELLA		
INSTRUCTIONS DATED (II) (III):		
JULY 31, 1962 II		
DECEMBER 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):		
POLIHUA, 1962		
LAT.:	LONG.:	<input type="checkbox"/> ADJUSTED
20° 55' 17.74"	157° 02' 33.78"	<input checked="" type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV):		STATE
y = 213,805.70      x = 371,660.46		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):		DATE:
L. F. VAN SCOY		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):		DATE
A.R.		6-24-63
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
R.G.		6-25-63
CONTROL PLOTTED BY (III):		DATE
D. N. WILLIAMS		7-30-63
CONTROL CHECKED BY (III):		DATE
L. L. GRAVES		7-30-63
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):		DATE
HENRY P. EICHERT		AUGUST 1963
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY	DATE
	L.L.G.	8-5-63
	CONTOURS	DATE
	NONE	
MANUSCRIPT DELINEATED BY (III):		DATE
SMOOTH DRAFT	J. L. HARRIS	8-23-63
SCRIBING BY (III):		DATE
STICK-UP	C. C. HARRIS	10-3-63
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):		DATE
ROUGH DRAFT	D. N. WILLIAMS	8-7-63
ADVANCE	J. E. DEAL	10-4-63
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 2210 THRU 2212	OCT. 2, 1960	10:25	1:25,000	0.8' ABOVE M.L.L.W.
	RATIO PRINTS OF ABOVE AT 1:10,000			
62 W 2479 THRU 2481	FEB. 1, 1962	08:00	1:25,000	0.9' " "
	RATIO PRINTS OF ABOVE AT 1:10,000			
62 W 2455 AND 2456	FEB. 1, 1962	08:20	1:25,000	0.9' " "
	COLOR PHOTOGRAPHS			
60 W 3316 THRU 3320	OCT. 24, 1960	07:55	1:10,000	2.4' " "
				COMPUTED FROM PRE- DICTED TIDE TABLES.

## TIDE (III)

	RATIO OF RANGES	MEAN RANGE	<del>DIURNAL</del> RANGE
REFERENCE STATION: HONOLULU		1.3	1.9
SUBORDINATE STATION: KAUNAKAKI, MOLOKAI		1.4	2.1
ORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

DATE:

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 5

RECOVERED: 5

IDENTIFIED: 3

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-11966

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-11966

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

COMM-DC-57843

DATE 7-25-63

COMPILATION REPORT  
MAP MANUSCRIPT T-11966  
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-11967 TO THE EAST AND WITH T-11972 TO THE SOUTH. THE PACIFIC OCEAN IS ON THE WEST AND KALOHI CHANNEL IS TO THE NORTH.

40. HORIZONTAL AND VERTICAL ACCURACY:

REFER TO THE COMPILATION REPORT FOR T-11<sup>9</sup>72.

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 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.
6601	SMALL BUSH ON KNOLL	60 W 2212
6602	POINT LOW 10 FT. BLUFF	"
6603	E. END CLUMP BRUSH	60 W 2211
6604	E. END SMALL BUSH	"
6605	W. END LOW SMALL BUSH	"
6606	POINT LOW BLUFF	60 W 2210
6607	CORNER LOW BLUFF	"
6608	POINT OF LOW BLUFF	"
6609	POINT LOW BLUFF	62 W 2455
6610	POINT LOW BLUFF	"
6611	POINT LOW BLUFF	"

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.

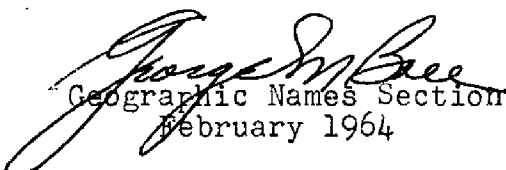
## PHOTOGRAMMETRIC OFFICE REVIEW

T-1002 11966

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 None
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 None
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

Haleolono Point  
Kaena Point  
Kaenaiki Point  
Kalohi Channel  
Keanapapa Point  
Lanai Island  
Pacific Ocean  
Palahinu Point  
Palolo Point  
Polihua Beach

  
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 Shuman  
Chief, Photogrammetric Branch

Chief, Nautical Chart Division

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

### RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-11966

## 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]



Field Edit Report  
To Accompany T 11966

USC&GSS McARTHUR

Ronald L. Newsom  
CDR, USESSA  
Commanding Officer

51 METHODS

Manuscript T 11966 was field edited by personnel aboard the USC&GSS McARTHUR in conjunction with hydrography on boatsheet AR 10-5-68 (H 8999). Acquisition of field edit material was accomplished from Launch AR-1 and Skiff #2. Rocky shoreline and extensive areas of coral heads and reefs along with considerable surf made delineation of the MLLW line impossible. Additions to the manuscript have been noted on the field ozalid that was used for T 11966 field edit work, and then cross referenced and noted in violet ink on photo #60W2211. No deletions or corrections on the ozalid of T 11966 were necessary.

52 ADEQUACY OF COMPILATION

Manuscript T 11966 is complete and adequate for use in conjunction with this hydrographic survey. The area of this manuscript from the shoreline seaward was field edited.

Hydrographic  
Notes

54 RECOMMENDATIONS

None

NOTE: This report and field edit photograph 60W2211 were forwarded to the Rockville Office by the Norfolk Office on March 18, 1971. The field edit (ozalid) mentioned above was not forwarded, and is apparently lost. There is no data on the photo requiring application to the photogrammetric manuscript. The photo will be filed with other PH-6202 data in the Federal Records Center.

JBB