

11967

Duty

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-11967

LOCALITY

State HAWAII

General locality LANAI ISLAND

Locality POHAKULOA POINT

1960-1962

CHIEF OF PARTY

WILBUR R. PORTER, CHIEF OF PARTY

FRED NATELLA, PHOTOGRAMMETRIC OFFICE

LIBRARY & ARCHIVES

DATE

JAN 11 1965

USCOM-DC 5087

11967

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

DESCRIPTIVE REPORT - DATA RECORD

T - 11967

PROJECT NO. (II): 21045		
FIELD OFFICE (II): HONOLULU, HAWAII		CHIEF OF PARTY UNIT CHIEF WILBUR R. PORTER L. F. VAN SCOY
PHOTOGRAMMETRIC OFFICE (III): PORTLAND, OREGON		OFFICER-IN-CHARGE FRED NATELLA
INSTRUCTIONS DATED (II) (III): JULY 31, 1962 II AMENDMENT I: DECEMBER 18, 1962 III AMENDMENT II: MAY 23, 1963 III AMENDMENT III: JUNE 24, 1963 III AMENDMENT IV: JULY 9, 1963 III AMENDMENT V: 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): HONOWAE, 1962		
LAT.: 20° 55' 55.96"	LONG.: 156° 59' 25.93"	<input type="checkbox"/> ADJUSTED <input checked="" type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV): Y = 217,623.00 X = 389,476.75		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 6-26-63
PROJECTION AND GRIDS CHECKED BY (IV): L.F.B.		DATE 6-27-63
CONTROL PLOTTED BY (III): L. L. GRAVES		DATE 7/26/63
CONTROL CHECKED BY (III): R. H. MEYER		DATE 7-26-63
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): HENRY P. EICHERT		DATE AUGUST. 1963
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY R. H. MEYER	DATE 8-7-63
	CONTOURS NONE	DATE
MANUSCRIPT DELINEATED BY (III): SMOOTH DRAFT: C. C. HARRIS		DATE 8-30-63
SCRIBING BY (III): STICK-UP: C. C. HARRIS		DATE 10-8-63
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): ROUGH DRAFT: D. N. WILLIAMS ADVANCE: J. E. DEAL		DATE 8-7-63 10-9-63
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 2212 THRU 2216	OCT. 2, 1960	10:25	1:25,000	0.8' ABOVE M.L.L.W.
COLOR PHOTOGRAPHY	RATIO PRINTS OF ABOVE AT 1:10,000.			
60 W 3261 THRU 3269	OCT. 22, 1960	08:50	1:10,000	1.4' ABOVE M.L.L.W.
				COMPUTED FROM PRE- DICTED TIDE TABLES.

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	DAILY RANGE
REFERENCE STATION: HONOLULU, HAWAII		1.3	1.9
SUBORDINATE STATION: KAUNAKAKI, MOLOKAI		1.4	2.1
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

DATE:

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 4

RECOVERED: 4

IDENTIFIED: 2

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

NONE

RECOVERED:

IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

2

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

6

REMARKS:

FIELD INSPECTION REPORT

MAP MANUSCRIPT T-11967

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-11967

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

COMPILATION REPORT
MAP MANUSCRIPT T-11967
PROJECT 21045

ITEMS 31 THRU 36:

REFER TO THE COMPILATION REPORT FOR T-11972.

37. LANDMARKS AND AIDS:

TWO OBJECTS LOCATED IN THE AREA OF THIS MANUSCRIPT HAVE BEEN RECOMMENDED FOR CHARTING AS LANDMARKS.

THE POSITION OF THE TRIANGULATION STATION, AWALUA BEACH, SHIPWRECK; FORWARD MAST, 1962, IS NOT IN AGREEMENT WITH THE LOCATION OF THIS OBJECT OBTAINED DURING KELSH INSTRUMENT COMPILATION AND SHOWN WITH THE WRECK SYMBOL.

ON NAUTICAL CHART 4120, 1ST ED. MAR. 17/42, REVISED 2-4-62, TWO WINDMILLS ARE CHARTED AS LANDMARKS IN THE VICINITY OF POHAKULOA POINT. ONLY THE EASTERN WINDMILL WAS IDENTIFIED BY THE FIELD INSPECTION AND IS SHOWN ON THIS MANUSCRIPT.

FORM 567 IS SUBMITTED.

38. CONTROLS FOR FUTURE SURVEYS:

SIX PHOTO-HYDRO STATIONS WERE IDENTIFIED BY THE FIELD UNIT 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-11966 TO THE WEST AND WITH T-11968 TO THE EAST. THERE IS NO JUNCTION OF PLANIMETRY WITH T-11973 TO THE SOUTH. KALOHI CHANNEL IS ON THE NORTH.

40. HORIZONTAL AND VERTICAL ACCURACY:

REFER TO THE COMPILATION REPORT FOR T-11972.

46. COMPARISON WITH EXISTING MAPS:

COMPARISON WAS MADE WITH THE U.S.G.S. TOPOGRAPHIC MAP OF THE ISLAND OF LANAI, MAUI COUNTY, HAWAII, SURVEYED IN 1923.

47. COMPARISON WITH NAUTICAL CHARTS:

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


ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

NONE.

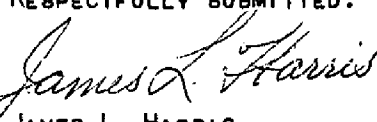
ITEMS TO BE CARRIED FORWARD:

NONE.

APPROVED:


FRED NATELLA, CAPT, C&GS
PORTLAND DISTRICT OFFICER

RESPECTFULLY SUBMITTED:


JAMES L. HARRIS
CARTOGRAPHER

49. NOTES FOR THE HYDROGRAPHER:

LISTED BELOW ARE SIX OBJECTS IDENTIFIED BY THE FIELD INSPECTOR FOR PHOTO-HYDRO SIGNALS. THEY WERE LOCATED BY THE KELSH INSTRUMENT OPERATOR.

No.	DESCRIPTION	FIELD PHOTO No.
6701	CORNER OF A CLUMP OF BRUSH	60 W 2212
6702	CORNER LARGE CLUMP BRUSH	60 W 2214
6703	NORTH ONE OF TWO SMALL BUSHES	"
6704	LARGE CLUMP BUSHES	"
6705	LARGE CLUMP BUSHES	60 W"2215
6706	WEST CORNER LARGE CLUMP BUSHES	"

THE POSITION OF AWALUA BEACH, SHIPWRECK, FORWARD MAST, 1962 SHOULD BE VERIFIED DURING PHOTO-HYDRO SUPPORT OPERATIONS. THIS POSITION IS NOT IN AGREEMENT WITH THE LOCATION OF THIS OBJECT OBTAINED FROM THE FIELD INSPECTION ON 1960 PHOTOGRAPHY. BOTH POSITIONS HAVE BEEN SHOWN ON THE MANUSCRIPT. RELOCATION OF THIS WRECK BY THE HYDROGRAPHER WILL DETERMINE IF THERE HAS BEEN SHIFTING SINCE THE TRIANGULATION WORK IN 1962.

ON NAUTICAL CHART 4120, 1ST ED. MARCH 17/42, REVISED 2/4/63, TWO WINDMILLS ARE CHARTED AS LANDMARKS IN THE VICINITY OF POHAKULOA POINT. ONLY THE EASTERN WINDMILL WAS IDENTIFIED BY THE FIELD INSPECTOR AND IS SHOWN ON THIS MANUSCRIPT. THE WESTERN OF THE TWO WINDMILLS WAS NOT VISIBLE ON THE AVAILABLE 1960 PHOTOGRAPHY USED IN COMPILATION. THE HYDROGRAPHIC PARTY SHOULD CONFIRM THE POSITION OF THIS WINDMILL AS SHOWN ON THE CHART.

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.

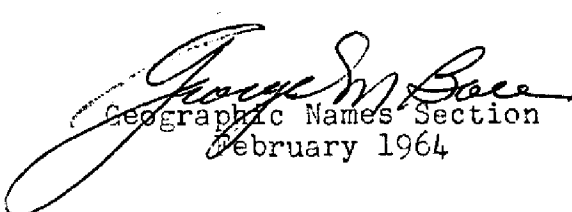
PHOTOGRAMMETRIC OFFICE REVIEW

T-10363 11967

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 ✓	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 ✓
BOUNDARIES			
31. BOUNDARY LINES None		32. PUBLIC LAND LINES None	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES ✓	34. JUNCTIONS ✓		35. LEGIBILITY OF THE MANUSCRIPT ✓
36. DISCREPANCY OVERLAY ✓	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

Awalua
Hawaiiilanai Gulch
Honowae
Honuaula Point
Kahua Gulch
Kahue
Kalohi Channel
Kanaele
Kuamoo Ridge
Lanai Island
Lapaiki
Lapaiki Gulch
Pohakuloa Point
Paopao Point
Wahie Point


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. W. Vaughn 11/15
Chief, Photogrammetry Division

Field Edit Report
To Accompany T 11967

USC&GSS McARTHUR

Ronald L. Newsom
Commanding Officer

51 METHODS

Field edit on manuscript T 11967 was done in conjunction with hydrography on boatsheets AR 10-4-68, H 8998 and AR 10-5-68, H 8999. Shoreline was inspected from launches and skiffs. The MLLW line was impossible to determine due to off shore reefs and heavy surf.

The field edit information was shown on four photographs, 6OW2213, 6OW2214, and 6OW2215 in violet and indexed in violet ink on the field edit ozalid copy of T 11967. Some field edit information was shown directly on the field edit ozalid in violet ink.

52 ADEQUACY

Manuscript T 11967 was completely adequate for a hydrographic survey.

54 RECOMMENDATIONS

The windmill in question on T 11967 should be removed from chart 4120 since it no longer exists. The old ship boiler Long. 157°00.05', Lat. 20°55.96' has moved slightly inland to the position 12a shown on boatsheet AR 10-5-68, H 8999 and its position should be relocated.

56 MISCELLANEOUS

The photogrammetry location of the AWALUA Beach Shipwreck was confirmed with sextant cuts. The triangulation location is in error.

NOTE: THIS REPORT AND THE PHOTOS AND F.E. OZALID MENTIONED ABOVE WERE FORWARDED TO THE ROCKVILLE OFFICE BY THE NORFOLK OFFICE ON MARCH 18, 1971. NO DATA REQUIRING APPLICATION BY PHOTOGRAMMETRIC METHODS WAS FURNISHED. THE PHOTOS AND F.E. OZALID WILL BE FILED IN THE FEDERAL RECORDS CENTER WITH OTHER PH-6202 DATA

S.G.B