

11935

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-6012
Office No.	T-11935
LOCALITY	
State	Hawaii
General locality	Maui Island
Locality	Pakowai Point - Huakini Bay
1961-1963	
CHIEF OF PARTY	
H. J. Seaborg, Honolulu District Office	
W. E. Randall, Baltimore District Office	
LIBRARY & ARCHIVES	
DATE	1967

USCOMM-DC 5087

925 21 - 70/63

11935

DESCRIPTIVE REPORT - DATA RECORD

T -11935

PROJECT NO. (II):

PH-6012
(21034)

FIELD OFFICE (II):

Honolulu District Office

CHIEF OF PARTY

H. J. Seaborg

PHOTOGRAMMETRIC OFFICE (III):

Baltimore District Office

OFFICER-IN-CHARGE

William E. Randall

INSTRUCTIONS DATED (II) (III):

14 November 1960
28 November 1960
13 June 1961
16 January 1962

METHOD OF COMPILATION (III):

Kelsh Plotter

MANUSCRIPT SCALE (III):

1:5,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

1:5,000

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):

M Hw
~~MEAN SEA LEVEL EXCEPT AS FOLLOWS:~~

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 MANEONEO 2, 1950

LAT.:

20° 37' 47.195"

LONG.:

156° 10' 16.855"

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Y = 107,923.65'

X = 669,369.41'

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 (II): J. C. Lajoie		DATE: 1961-1962
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): By Kelsh Instrument from annotations on Field Photographs		
PROJECTION AND GRIDS RULED BY (IV): R.A.C.		DATE 12-7-60
PROJECTION AND GRIDS CHECKED BY (IV): J.O.C.		DATE 12-7-60
CONTROL PLOTTED BY (III): L. A. Senasack		DATE 2-26-62
CONTROL CHECKED BY (III): L. O. Neterer		DATE 2-26-62
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): R. E. Fuechsel		DATE 1961
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY J.D.M.	DATE 4-4-62
	CONTOURS Inapplicable	DATE
MANUSCRIPT DELINEATED BY (III): J. D. Mc Evoy		DATE April 1964
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): D. M. Brant		DATE April 1964
REMARKS: FIELD EDIT - 1963		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

"W" Camera

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
61 W 1042 thru 1044	25 Sept. 1961	0901	1:15,000	0.5 Ft. above MLLW
61 W(C) 1132 & 1133	25 Sept. 1961	1002	1:10,000	0.2 Ft. " "
61 W(C) 1143 thru 1145	25 Sept. 1961	1010	1:10,000	0.2 Ft. " "
61 W(C) 1098	25 Sept. 1961	0950	1:10,000	0.1 Ft. " "
The above computed from Predicted Tide Tables.				

TIDE (III)

Diurnal

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Honolulu		1.2	1.9
SUBORDINATE STATION: Makena		1.5	2.1
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV): *Atlantic Marine Center*
Leo F. Beugnet, ~~Norfolk Regional Office~~

DATE:
Sept. 1965

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): None

RECOVERED:
None

IDENTIFIED:
None

NUMBER OF BM(S) SEARCHED FOR (II): None

RECOVERED:
None

IDENTIFIED
None

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): None

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

REMARKS:

4.

COMPILATION RECORD

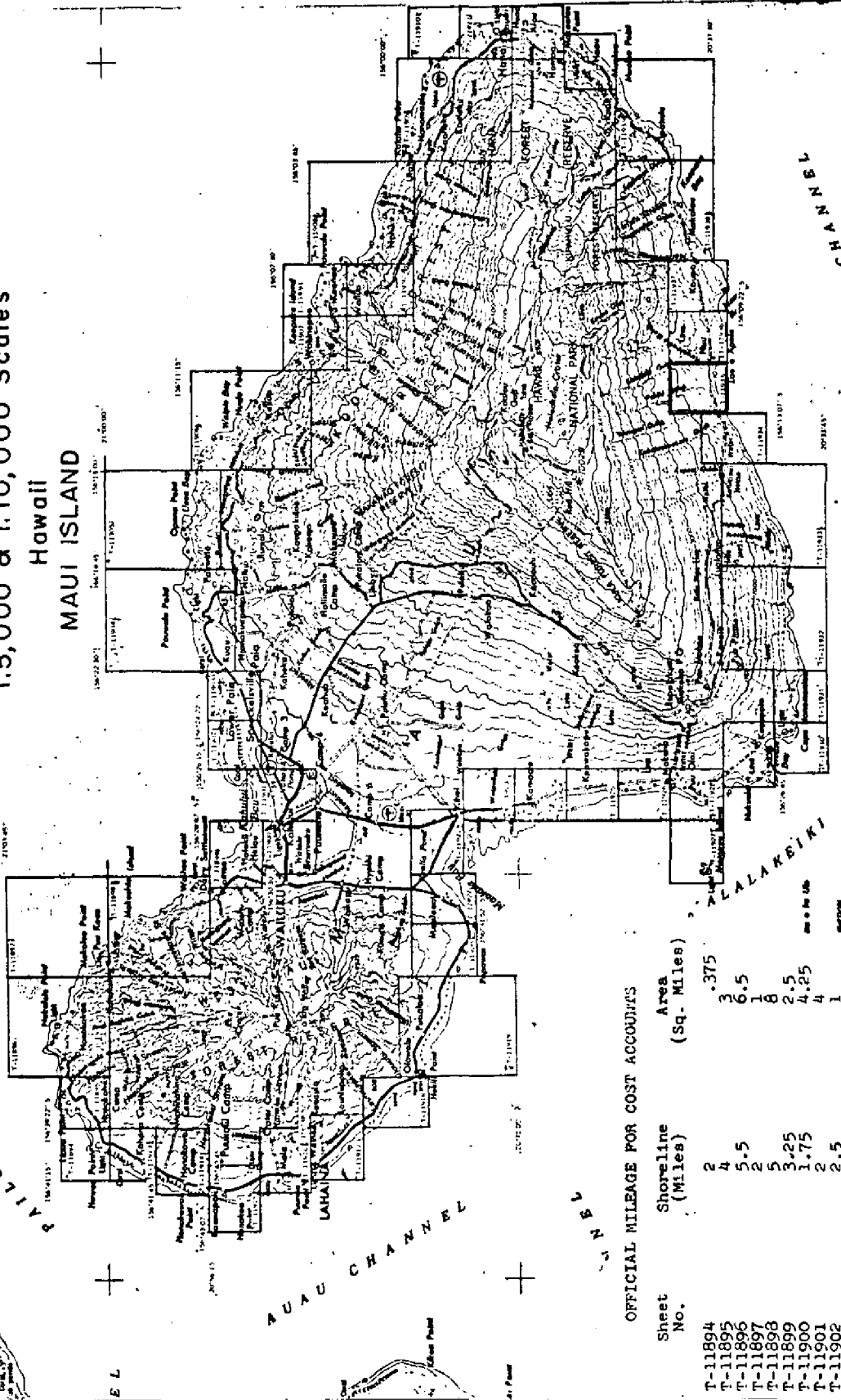
COMPLETION DATE

REMARKS

Shoreline furnished for hydro	April, 1962	Superseded
Compilation Completed	Jan. 1964	

PROJECT PH-6012 Planimetric Mapping 1:5,000 & 1:10,000 Scales

Hawaii MAUI ISLAND



OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No.	Shoreline (Miles)	Area (Sq. Miles)
T-11894	2	.375
T-11895	4	3
T-11896	5.5	6.5
T-11897	2	1
T-11898	5	8
T-11899	3.25	2.5
T-11900	1.75	4.25
T-11901	2.5	4
T-11902	2	1
T-11903	2	2
T-11904	5	6
T-11905	4.5	4
T-11906	6.5	10
T-11907	7	7.8
T-11908	5	6
T-11909	4.7	16
T-11910	.75	.25
T-11911	2.7	2
T-11912	27	3
T-11913	2.2	4.5
T-11914	2.5	2.2
T-11915	2.5	4
T-11916	2.5	2.6
T-11917	27	4
T-11918	3	

OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No.	Shoreline (Miles)	Area (Sq. Miles)
T-11922	3	3
T-11923	2	3
T-11924	2.5	2.5
T-11925	2.5	1.5
T-11926	2.5	1
T-11927	1	.04
T-11928	3	1.5
T-11929	4.5	3
T-11930	1.5	.25

OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No.	Shoreline (Miles)	Area (Sq. Miles)
T-11931	2.5	1.5
T-11932	4.5	12
T-11933	5	8
T-11934	2.7	3
T-11935	2.5	4
T-11936	5	4
T-11937	5	4
T-11938	5	6
T-11939	4.5	3

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-11935

Shoreline manuscript T-11935 covers a part of the shoreline of the southern coast of Maui Island, Hawaii; in the vicinity of Hakini Bay. This is one of forty-nine similar maps in the area compiled by Kelsh plotter methods, primarily to obtain new shoreline for nautical charts and to provide photo-hydro support data.

Field operations preceding Aerotriangulation and compilation included field inspection, selection of photo-hydro signal sites and recovery and identification of horizontal control.

Kelsh compilation was at 1:5,000 scale from 1:15,000 scale panchromatic photography obtained September 25th, 1961 supplemented by 1:10,000 scale color photography of the same date.

A cronaflex copy of the map manuscript showing shoreline, alongshore detail and shoreline pass points was furnished for preparation of the hydrographers boat sheet. 1:5,000 scale ratio photographs were provided for the location of photo-hydro signals and field edit purposes.

The compilation manuscript is a vinylite sheet from which the smooth sheet was drafted and reproduced on cronaflex. One cronar positive and one cronar negative are provided for record and registry.

FIELD INSPECTION REPORT
T-11935

Please refer to the field inspection report for Maui Island, Hawaii
bound with the Descriptive Report for T-11894.

PHOTOGRAMMETRIC PLOT REPORT
ISLAND OF MAUI (EAST HALF)
HAWAII

Project PH-6⁰812
February 1962

21. AREA COVERED

T-11905 through T-11911; T-11929 through T-11939;
T-11989 through T-11992

22. METHOD

Six stereoplanigraph bridges, designated as strips #6 through #13, were run in order to provide pass points for use in Kelsh compilation of the project. Additional points along the shoreline were provided, for possible use in conjunction with hydrographic surveys in the area.

This project covers the entire eastern half of the island of Maui, and adjoins a similar project of March 1961, which covers the western half of the island. On that earlier phase, the numbers assigned to the stereoplanigraph bridges were #1 through #7.

Strip #13 was adjusted on a linear basis. All other strips in this project (eastern half of the island) were adjusted by a least-squares solution on the IBM 650 computer. Numerous ties between strips were used as checks on adjustments. A pass point from strip #9 was used in the adjustment of strip #11. Where strip #11 duplicates the coverage of strip #9, the former should be used in compilation.

Satisfactory ties with the project of March 1961, were made on both the north and the south coasts. Also, satisfactory adjustments were obtained for all strips in this part of the Maui Island project.

23. ADEQUACY OF CONTROL

The horizontal control provided complied with project instructions, and was adequate. The following control failed to hold in bridging: Δ PUHILELE, 1950-SUB. A; Δ MAKAAALAE, 1950-SUB. B; Δ PUUHINAI 2, 1950-SUB PTS. 1, 2, and 3. They are to be disregarded in compilation. The problem with

PUHILELE-SUB A is entirely one of interpretation. In strip #8, two different possible positions for the point were read, one of which held in bridging, and the other failed to hold. In strip #9, the single position read for the point failed to hold. The number and geographical location of other control in this area is such that this station may be disregarded.

No specific cause has been found for the failure of MAKAAALAE-SUB B to hold. Its companion sub. pt. held, and therefore, SUB B may be disregarded.

The sub. pts. of PUUHINAI 2 had a questionable starting azimuth due to the lack of agreement among several solar azimuth observations. The sub. points did not hold in the adjustment.

24. SUPPLEMENTAL DATA

None

25. PHOTOGRAPHY

The photography used in bridging was adequate in all respects.

Submitted by

Robert E. Fuechsel
Robert E. Fuechsel

Approved

Everett H. Ramey
Everett H. Ramey, Chief
Aerotriangulation Section

11

COMPILATION REPORT
PROJECT PH-6012 (21034)
MAP MANUSCRIPT T-11935

ITEMS 31 THRU 36

Please refer to the Compilation Report for T-11934

37. LANDMARKS AND AIDS

There are no landmarks or nonfloating aids to navigation within the limits of this map.

38. CONTROL FOR FUTURE SURVEYS

No supplemental control for future surveys was established.

39. JUNCTIONS

Satisfactory junctions were made with T-11934 on the west and with T-11936 on the east. Alenuihaha Channel is on the south; there is no contemporary survey on the north.

40. HORIZONTAL AND VERTICAL ACCURACY

Please refer to the Photogrammetric Plot Report bound with the Descriptive report for T-11894.

ITEMS 41 THRU 45

Inapplicable

46. COMPARISON WITH EXISTING MAPS

Comparison was made with U.S.G.S. Quadrangles Lualailua Hills and Kaupo, Hawaii, 1957 editions at scales of 1:24,000.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with nautical chart 4116, 1:250,000 scale, 11th edition, April 16, 1941, Revised January 9, 1961.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Respectfully submitted:

Joseph Steinberg
For: Donald M. Brant
Carto. (Photo.)

Approved and forwarded:

J. Bull
for J. Bull
Capt. U.S.C. & G.S.
Norfolk Regional Officer

GEOGRAPHIC NAMES

Ph 6012

T-11935

Alelele Stream	Nuanualoa Gulch
Apole Point	Nuu
Elialii Gulch	Nuu Bay
Halekii Point	Nuu Landing
Hawelewele Gulch	* Pahihi Gulch
* Huakini Bay	* Pakowai Point
Kailio Point	* Poopoo Gulch
Kalama Bay	Pukaauhuhu
Kalepa Gulch	Punahoa Spring
Kalepa Point	Puu Maneoneo
Kamanawa Bay	* Wailaulau Gulch
Kamanawa Point	* Waiopai Gulch
Kaupo	Waiu Bay
Kepio Point	Waiuha Bay
Koukouai Gulch	Waiu Spring
Kukuiula Gulch	
Lapehu Point	
Lelekea Stream	
Maalo Gulch	
Makaakini Point	
Mamalu Bay	
Manawainui Stream	
Mikimiki Gulch	
Mokuia Point	
Mokulau	
Mokulau Landing	
Nonou Bay	

Frank W. Fickett
 All Names Approved
 by Office of Geography

Approved 1-20-66
A. J. Wright

* only these names appear on this manuscript

49. NOTES TO THE HYDROGRAPHER

The positions of the following photo-hydro signals, identified by the field inspection party, were established during compilation.

3501	Flag at N.E. corner of wall	60 W 2294
3502	Flag on gate post at corral	60 W 2294
3503	Flag at S.E. corner of old wall	60 W 2294
3504	Flag at S.E. corner, old wall	60 W 2294
3505	Flag at east end of brush	60 W 2294
3506	Rag on bush, south of two	60 W 2294

FORM 182 (2-51)		PHOTOGRAMMETRIC OFFICE REVIEW T11935		U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY	
1. PROJECTION AND GRIDS DMB		2. TITLE DMB		3. MANUSCRIPT NUMBERS DMB	4. MANUSCRIPT SIZE DMB
5. CONTROL STATIONS	5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY DMB		6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (TOPOGRAPHIC STATIONS) NONE		
	7. PHOTO HYDRO STATIONS DMB	8. BENCH MARKS NONE	9. PLOTTING OF SEXTANT FIXES NONE	10. PHOTOGRAMMETRIC PLOT REPORT DMB	
	11. DETAIL POINTS DMB				
ALONGSHORE AREAS (Nautical Chart Data)	12. SHORELINE DMB	13. LOW-WATER LINE NONE	14. ROCKS, SHOALS, ETC. DMB	15. BRIDGES NONE	
	16. AIDS TO NAVIGATION DMB	17. LANDMARKS DMB	18. OTHER ALONGSHORE PHYSICAL FEATURES DMB		
	19. OTHER ALONGSHORE CULTURAL FEATURES DMB				
PHYSICAL FEATURES	20. WATER FEATURES DMB		21. NATURAL GROUND COVER NONE		
	22. PLANETABLE CONTOURS NONE		23. STEREOSCOPIC INSTRUMENT CONTOURS NONE		
	24. CONTOURS IN GENERAL NONE		25. SPOT ELEVATIONS NONE		
	26. OTHER PHYSICAL FEATURES DMB				
CULTURAL FEATURES	27. ROADS DMB	28. BUILDINGS DMB	29. RAILROADS NONE		
	30. OTHER CULTURAL FEATURES DMB				
BOUNDARIES	31. BOUNDARY LINES NONE		32. PUBLIC LAND LINES NONE		
MISCEL- LANEOUS	33. GEOGRAPHIC NAMES DMB			34. JUNCTIONS DMB	
	35. LEGIBILITY OF THE MANUSCRIPT DMB	36. DISCREPANCY OVERLAY DMB		37. DESCRIPTIVE REPORT DMB	
	38. FIELD INSPECTION PHOTOGRAPHS DMB		39. FORMS DMB		
	SIGNATURE OF REVIEWER For: D.M. Brant <i>Joseph Steinberg</i>			SIGNATURE OF SUPERVISOR, REVIEW SECTION OR UNIT <i>Joseph Steinberg</i>	
40. FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT - Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted in remarks on reverse side.					
SIGNATURE OF COMPILER			SIGNATURE OF SUPERVISOR <i>Joseph Steinberg</i>		

FIELD EDIT REPORT
T-11935

No formal field edit report was received. Please refer to the letter concerning field edit of this quadrangle, a copy of which is the following page of this report.

Memorandum

24 16

TO : The Director
Coast and Geodetic Survey
U.S. Department of Commerce
Washington 25, D.C.

DATE: 8 July 1963

FROM : Commanding Officer
USCGC Pathfinder
705 Federal Office Building
Seattle, Washington

SUBJECT: Field Edit Report - QPR-419

During the first half of the 1963 field season, Pathfinder personnel field edited the manuscripts listed below for accuracy and completeness. All recommended changes have been noted on the baseline impressions in red and green ink. In general, the manuscripts were found to be very reliable with only minor discrepancies being noted.

Four manuscripts with noted changes are being forwarded to the Washington Office on July 9. Those manuscripts with no recommended changes have been noted below. The remaining manuscripts will be forwarded as soon as we have had an opportunity to compare them with the boat sheets now in Washington for photographing.

T-11905	Edited - No changes
T-11906	Edited - Will be forwarded later
T-11907	Edited - Will be forwarded later
T-11908	Edited - Will be forwarded later
T-11909	Edited - Will be forwarded later
T-11910	Edited - Will be forwarded later
T-11911	Edited - Will be forwarded later
T-11912	Forwarded 9 July
T-11931	Edited - No recommended changes
T-11932	Edited - No recommended changes
T-11933	Edited - No recommended changes
T-11935	Forwarded 9 July
T-11936	Forwarded 9 July
T-11937	Forwarded 9 July
T-11991	Edited - Will be forwarded later
T-11992	Edited - Will be forwarded later

It is requested that these manuscripts be returned to the Ship as soon as is practical as they will be needed for smooth plotting.

H. J. Schberg
Captain, USCGC

REVIEW REPORT T-11935
SHORELINE
March 22, 1966

61. GENERAL STATEMENT

See summary accompanying Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

The manuscript was compared with Registered Planetable survey 3276, 1:20,000 scale, made in 1912 and approved March 30, 1914.

Map manuscript T-11935 supersedes the planetable survey and should be used for all future nautical chart construction.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with U.S.G.S. quadrangles Kaupo and Lualailua Hills, Hawaii, 1:24,000 scale, editions of 1957. The shoreline of the quadrangles and manuscript T-11935 are in good general agreement.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

None. See notes to Verifier. (Page 19)

65. COMPARISON WITH NAUTICAL CHARTS

Chart 4116 at 1:250,000 scale is the only chart that covers the area. A visual comparison with this chart disclosed no major discrepancies.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This survey complies with instructions and meets the National Standards of Map Accuracy.

There are no recommendations for future surveys.

Reviewed by:

Leo F. Beugnet
Leo F. Beugnet

Approved by:

J. Bull
J. Bull
Director, Atlantic Marine Center

Approved by:

Charles Lamer
Chief, Cartographic Branch, *add*
Photogrammetric

Chief, Chart Division

L. F. Woodcock
Chief, Photogrammetry Division

Chief, Operations Division

NOTES TO VERIFIER

No contemporary hydrographic survey, in the area of this manuscript, was available at the time of Final Review.

A note on the "Comparison Print" indicates that the contemporary hydro survey and the new map were compared during the subject final review.

Hydro Survey field edit information was applied to the manuscript - Refer to pages 14 through 16 of this report.

438

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-11935

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]