

# 11990

Diag. Cht. No. 4116.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

Field No. Ph-6012 Office No. T-11990

### LOCALITY

State Hawaii

General locality Maui Island

Locality Puuiki

1960-63

### CHIEF OF PARTY

H.J. Seaborg, Honolulu District Off.  
W.E. Randall, Balto. District Off.

### LIBRARY & ARCHIVES

DATE 1967

USCOMM-DC 37022-P66

# 11990

## DESCRIPTIVE REPORT - DATA RECORD

T-11990

PROJECT NO. (II):  PH 6012		
FIELD OFFICE (II):  Honolulu, Hawaii		CHIEF OF PARTY  H.J. Seaborg
PHOTOGRAMMETRIC OFFICE (III):  Baltimore, Maryland		OFFICER-IN-CHARGE  W.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): <u>MSL</u> 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):  MAKAALAE, 1950		
LAT.:  20° 42' 42.548"	LONG.:  155° 59' 30.868"	<input checked="" type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV):  Y = 137,943.79      X = 730,605.51		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 (II):

John C. Lajoye

DATE:

Feb. 1962

MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):

Mean high water located by Kelsh Plotter from photography of October 1960  
supplemented by panchromatic and color photography of 1962.

PROJECTION AND GRIDS RULED BY (IV):

S.R.

DATE

3-19-62

PROJECTION AND GRIDS CHECKED BY (IV):

S.R.

DATE

3-19-62

CONTROL PLOTTED BY (III):

L. A. Senasack

DATE

3-11-62

CONTROL CHECKED BY (III):

L. O. Neterer

DATE

3-11-62

RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):

Aerotriangulation - Washington Office

DATE

Feb. 1962

STEREOSCOPIC INSTRUMENT COMPILATION (III):

PLANIMETRY

DATE

J. D. Mc Evoy

3-62

CONTOURS

DATE

J. D. Mc Evoy

Inapplicable

MANUSCRIPT DELINEATED BY (III):

J. D. Mc Evoy

DATE

3-62

SCRIBING BY (III):

DATE

PHOTOGRAMMETRIC OFFICE REVIEW BY (III):

D. M. Brant

DATE

3-62

REMARKS:

FIELD EDIT - 1963

## DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

"W" Camera

## PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
60 W 2379	5 Oct. 1960	1023	1:25,000	0.5 Ft. above MLLW
62 W 2249 thru 2254	26 Jan. 1962	0925	1:15,000	1.1 Ft. " "
62 W(C) 2289 thru 2291	26 Jan. 1962	0950	1:10,000.	1.0 Ft. " "
62 W(C) 2267 thru 2271	26 Jan. 1962	0942	1:10,000	1.0 Ft. " "

## TIDE (III)

## Diurnal

		RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Honolulu, Hawaii			1.2	1.9
SUBORDINATE STATION: Hana, Hawaii			1.8	2.5
SUBORDINATE STATION:				
FINAL <del>WASHINGTON OFFICE</del> REVIEW BY (IV): Leo F. Beugnet, Norfolk Regional Office		DATE: Nov. 1965		
PROOF EDIT BY (IV):		DATE: Dec. 1965		
NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 4	RECOVERED: 4	IDENTIFIED: 3		
NUMBER OF BM(S) SEARCHED FOR (II): 0	RECOVERED: 0	IDENTIFIED: 0		
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): 0				
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): 5				

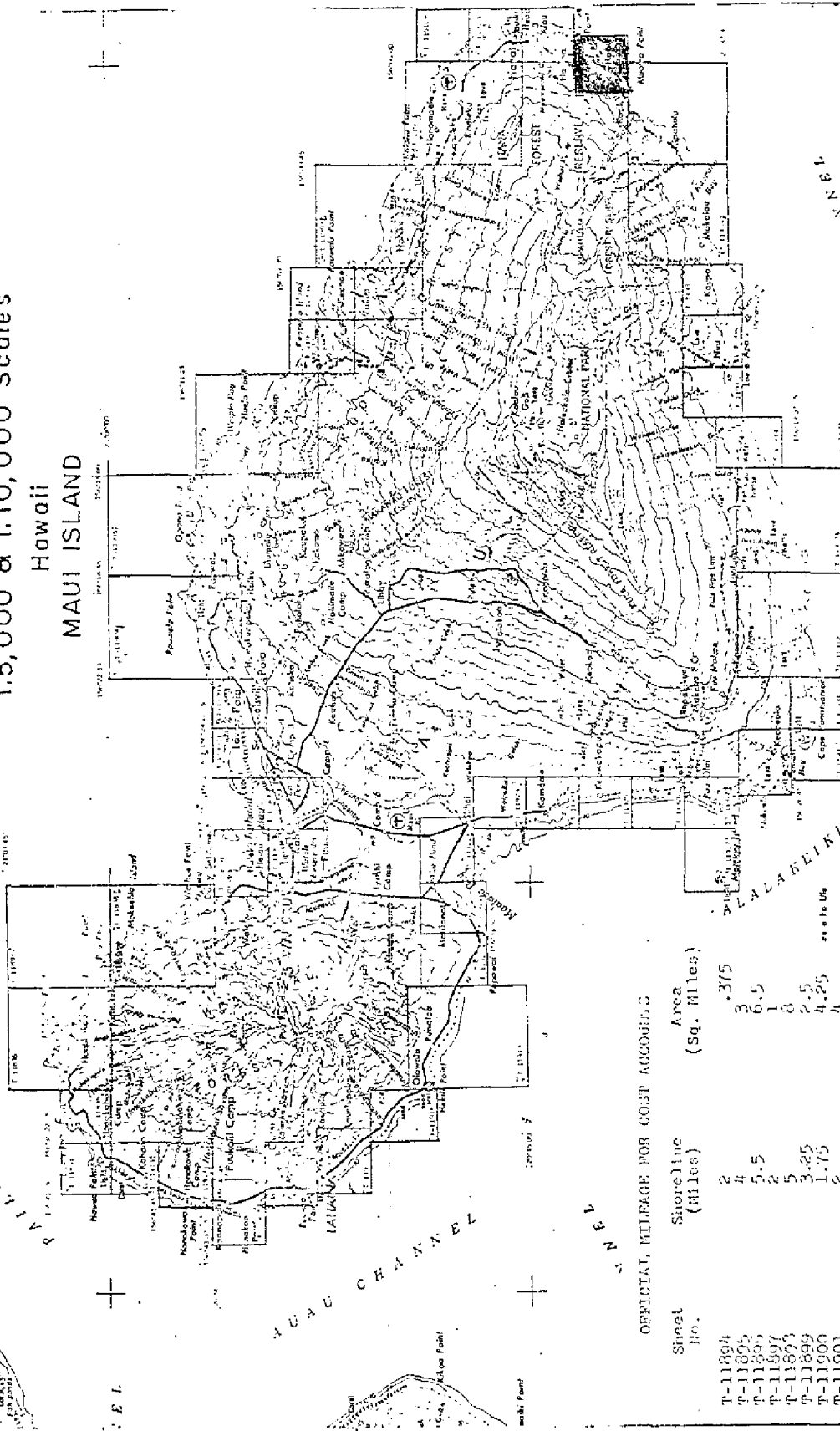
REMARKS:

COMPILATION RECORD	COMPLETION DATE	REMARKS
Alongshore area for hydro	June 1962	superseded
Final Compilation	March 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	3.75
T-11895	4	3
T-11896	5.5	6.5
T-11897	3	1
T-11898	5	3
T-11899	3.25	2.5
T-11900	1.75	4.25
T-11901	2	4
T-11902	2.5	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	15
T-11910	7.75	25
T-11911	2.7	2
T-11912	2.7	3
T-11913	1.5	4.5
T-11914	1.5	2.5
T-11915	1.5	4
T-11916	1.5	4
T-11917	1.5	4
T-11918	1.5	4
T-11919	1.5	4
T-11920	1.5	4
T-11921	1.5	4
T-11922	1.5	4
T-11923	1.5	4
T-11924	1.5	4
T-11925	1.5	4
T-11926	1.5	4
T-11927	1.5	4
T-11928	1.5	4
T-11929	1.5	4
T-11930	1.5	4
T-11931	1.5	4
T-11932	1.5	4
T-11933	1.5	4
T-11934	1.5	4
T-11935	1.5	4
T-11936	1.5	4
T-11937	1.5	4
T-11938	1.5	4
T-11939	1.5	4
T-11940	1.5	4
T-11941	1.5	4
T-11942	1.5	4
T-11943	1.5	4
T-11944	1.5	4
T-11945	1.5	4
T-11946	1.5	4
T-11947	1.5	4
T-11948	1.5	4
T-11949	1.5	4
T-11950	1.5	4
T-11951	1.5	4
T-11952	1.5	4
T-11953	1.5	4
T-11954	1.5	4
T-11955	1.5	4
T-11956	1.5	4
T-11957	1.5	4
T-11958	1.5	4
T-11959	1.5	4
T-11960	1.5	4
T-11961	1.5	4
T-11962	1.5	4
T-11963	1.5	4
T-11964	1.5	4
T-11965	1.5	4
T-11966	1.5	4
T-11967	1.5	4
T-11968	1.5	4
T-11969	1.5	4
T-11970	1.5	4
T-11971	1.5	4
T-11972	1.5	4
T-11973	1.5	4
T-11974	1.5	4
T-11975	1.5	4
T-11976	1.5	4
T-11977	1.5	4
T-11978	1.5	4
T-11979	1.5	4
T-11980	1.5	4
T-11981	1.5	4
T-11982	1.5	4
T-11983	1.5	4
T-11984	1.5	4
T-11985	1.5	4
T-11986	1.5	4
T-11987	1.5	4
T-11988	1.5	4
T-11989	1.5	4
T-11990	1.5	4
T-11991	1.5	4
T-11992	1.5	4
T-11993	1.5	4
T-11994	1.5	4
T-11995	1.5	4
T-11996	1.5	4
T-11997	1.5	4
T-11998	1.5	4
T-11999	1.5	4

## 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	3
T-11934	2.7	4
T-11935	2.5	4
T-11936	5	4
T-11937	5	4
T-11938	5	4
T-11939	5	4
T-11940	5	4
T-11941	5	4
T-11942	5	4
T-11943	5	4
T-11944	5	4
T-11945	5	4
T-11946	5	4
T-11947	5	4
T-11948	5	4
T-11949	5	4
T-11950	5	4
T-11951	5	4
T-11952	5	4
T-11953	5	4
T-11954	5	4
T-11955	5	4
T-11956	5	4
T-11957	5	4
T-11958	5	4
T-11959	5	4
T-11960	5	4
T-11961	5	4
T-11962	5	4
T-11963	5	4
T-11964	5	4
T-11965	5	4
T-11966	5	4
T-11967	5	4
T-11968	5	4
T-11969	5	4
T-11970	5	4
T-11971	5	4
T-11972	5	4
T-11973	5	4
T-11974	5	4
T-11975	5	4
T-11976	5	4
T-11977	5	4
T-11978	5	4
T-11979	5	4
T-11980	5	4
T-11981	5	4
T-11982	5	4
T-11983	5	4
T-11984	5	4
T-11985	5	4
T-11986	5	4
T-11987	5	4
T-11988	5	4
T-11989	5	4
T-11990	5	4
T-11991	5	4
T-11992	5	4
T-11993	5	4
T-11994	5	4
T-11995	5	4
T-11996	5	4
T-11997	5	4
T-11998	5	4
T-11999	5	4

6.

SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT T-11990

Shoreline manuscript T-11990 is one of forty-nine similar maps in this project and covers a part of the coastline of Maui Island. This was a Kelsh project in advance of hydrographic surveys in the area. The field operations preceding compilation included recovery and identification of horizontal control and field inspection. The Kelsh compilation was at 1:5,000 from 1:25,000 scale photography obtained in October 1960. A cronaflex positive showing shoreline, alongshore detail and shoreline pass points was furnished for preparation of the hydrographer's boat sheet and the location of hydrographic signals. 1:5,000 scale ratio prints were furnished for hydro support and field edit purposes. The compilation manuscript is a vinylite sheet 1 minute 50 seconds in latitude by 2 minutes 50 seconds in longitude 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-11990

Please refer to the Field Inspection Report for Maui Island,  
Hawaii bound with the Descriptive Report for T-11991.



SCALE OF MAP..... 1:5,000

SCALE FACTOR.....1.000

سید

CHECKED BY:...

DATE 4 June 1962

COMM-DC-57843

COMPILATION REPORT T-11990

For additional data pertaining to this survey please refer to the Field Inspection Report for Maui Island bound with T-11991 and the Photogrammetric Plot Report bound with T-11907.

ITEMS 31 THRU 36

Refer to the Compilation Report for T-11896.

37. LANDMARKS AND AIDS

There are no fixed aids to navigation within the compilation limits. Landmarks have been reported on form 567.

38. CONTROL FOR FUTURE SURVEYS

No control for future surveys was established.

39. JUNCTIONS

Satisfactory junctions were made with T-11989 on the north and with T-11939 on the south. There is no contemporary survey on the west; the Pacific Ocean is on the east.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with U.S.G.S. Hana and Kipahulu quadrangles, scales 1:24,000, editions of 1957.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with nautical chart 4116, 1:250,000 scale, 12th edition, August 17, 1964.

10.  
ITEMS TO BE APPLIED TO CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Respectfully submitted:

*Joseph Stenberg*  
For: Donald M. Brant  
Carto. (Photo.)

Approved:

*J. Bull*  
for J. Bull  
Capt. C&GS  
Norfolk Regional Officer

11.  
T-11990

48. Geographic Names List:

The Geographic names listed below were furnished by the Washington Office on U.S.G.S. Hana and Kipahulu, Hawaii 7½ minute quadrangles, 1:24,000 scale, editions of 1957.

Alaaulaula Gulch  
Kaou  
Kakio  
Kapia Stream  
Keawa Bay  
Koali  
Kulepeamo Point  
Laupapa Rock  
Makaalae Point  
Moku Pala  
Muolea  
Oahu Point  
Pacific Ocean  
Papaahawhawa Gulch  
Popokanaloa Harbor  
Puuliki  
Pukuilua Gulch  
Waiohonu Stream

ALL NAMES APPROVED BY  
GEOGRAPHIC NAMES SECTION  
UNLESS OTHERWISE INDICATED

*A. J. Wright*

Ph-6012  
Maul Island, Hawaii  
T-11989 and T-11990

49. NOTES FOR THE HYDROGRAPHER

A set of ratio photographs (taken in 1962) has been prepared for use during photo-hydro support.

Color photography was used as an aid in interpreting offshore details and foul lines.

The positions of the following hydrographic signal sites, identified on field inspection photographs, have been established photogrammetrically for the following surveys:

<u>Signal No.</u>	<u>Description</u>	<u>Photo. No.</u>
	T-11989	
8901	Rag on palm	2377
8902	Rag on lauhala tree	2377
8903	Rag on small kamane tree	2377
8904	Rag on bush, W. side of path	2377
8905	Rag on iron wood tree	2377
8906	Rag on lone lauhala tree	2377
	T-11990	
9001	West gable, aluminum roof cottage	2378
9002	Flag, S. E. corner of rock pile	2378
9003	S. E. Corner GAY house	2378
9004	Center of round rock	2377
3904	West gable, small brown, green roof house	2380

50.

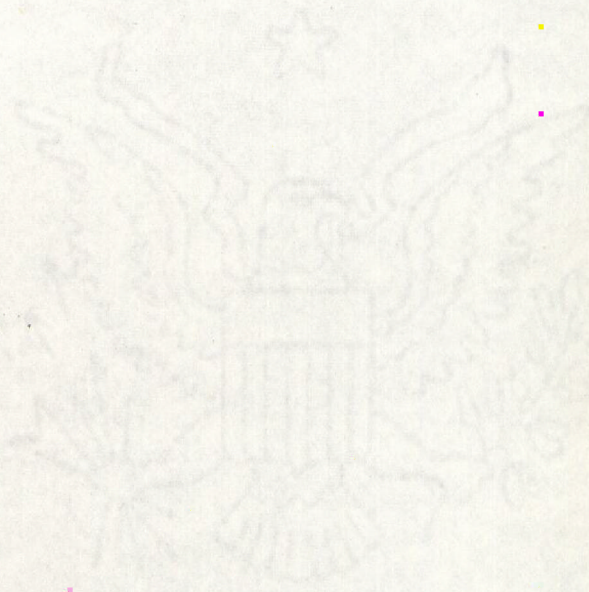
T-11990

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

FIELD EDIT REPORT  
T-11990

There is no formal Field Edit Report.

Transmittal Letters to W.O. were checked. No F.E. Sheet  
was forwarded.





161

REVIEW REPORT T-11990  
SHORELINE

61. GENERAL STATEMENT

See Summary accompanying Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

A visual comparison was made with Registered Planetable surveys No. 3274, 1:20,000 scale dated March 30, 1914 and No 3275, 1:20,000 scale dated June 4, 1914.

Shoreline manuscript T-11990 supersedes these two planetable surveys and should be used for all nautical chart construction.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with U.S.G.S. Hana and Kipahulu quadrangles, 1:24,000 scale, editions of 1957.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Comparison was made with copies of boat sheets H-8719 PF-10-2-63 sheet CC and H-8826-PF-10-7-63 sheet 3. The differences between the manuscript and boat sheets are shown on the comparison print. \*

65. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with nautical chart 4116, 1:250,000 scale, August 17, 1964.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

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

\* Note: A "Notes To Verifier" page (copy, page 17 of this report) was submitted to the Hydro Branch, 8/4/66

SEN



Reviewed by:

Leo F. Bugnitz

Approved by:

J. Hollis  
J. Bull, Director, Atlantic Marine Center

Approved by:

Charles F. Fenn  
Chief, Cartographic Branch 568

L. F. Woodcock  
Chief, Photogrammetry Division

Chief, Chart Division

Chief, Operations Division



17

NOTES TO VERIFIER  
H-8719 and H-8826  
(Comparison with T-11990)

Boat sheet copies of hydrographic surveys H-8719 (PF-10-2-63, sheet cc) and H-8826 (PF-10-7-63, sheet 3) were compared with map T-11990 during final review of the shoreline survey. Differences in shoreline exist between the boat sheets and the shoreline map. These differences are indicated on the comparison print accompanying the shoreline map.

The shoreline map was field edited during hydrography. No field edit report was submitted; and, in addition, no discrepancy print was forwarded to the Washington office upon completion of final review in the Photogrammetric Office. It is assumed that as was the case for other project maps, no changes were indicated by the field editor for application to the shoreline map.

No mention is made in either the compilation or final review reports for the shoreline survey to the effect that the subject differences result from office initiated corrections applied subsequent to forwarding the "Incomplete Manuscript" for hydro support.

Existing differences in the surveys apparently result from errors in application of photogrammetric survey shoreline to the boat sheets.

JAB  
Washington Office, Review Unit

