NOAA FORM 76-35 (6-80)

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

This Map Will Not Be Field Edited					
Map No.	Edition No.				
TP-01128	1				
Job No. _{CM-8105}					
Map Classification					
Type of Survey Shoreline/Photo	obathymetry				
LOCALIT	Υ ` '				
State Saint John, Virgin	Islands				
General Locality Northern and Southe	astern Coasts				
Locality Northern Coast - Mary Point	. to Mænnebeck Bay				
Southeastern Coast: - Elk.Bay to Johnson Bay					
1983 TO 19					
REGISTERED IN A	RCHIVES				
DATE					

DESCRIPTIVE REPORT

TP-01128

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NOAA FORM 76-36A U. S. DEPARTMENT OF COMMERCE (3-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	TYPE OF SURVEY	SURVEY TP. 01128
	D ORIGINAL	MAP EDITION NO. (1)
DESCRIPTIVE REPORT - DATA RECORD	RESURVEY	MAP CLASS
	REVISED	_{ЈОВ} Х ЖХ. <u>СМ-8105</u>
PHOTOGRAMMETRIC OFFICE	LAST PRECEED	ING MAP EDITION
Photogrammetry Branch, Rockville, MD	TYPE OF SURVEY	JOB PH-
	D ORIGINAL	MAP CLASS
OFFICER-IN-CHARGE	RESURVEY	SURVEY DATES:
Ronald K. Brewer	A REVISED	19TO 19
I. INSTRUCTIONS DATED		
1. OFFICE	2.	FIELD
Aerotriangulation 1/27/84	Field 3/9/83	1
Office 3/21/84		
	1	
11. DATUMS	<u></u>	<u> </u>
	OTHER (Specify)	<u> </u>
1. HORIZONTAL: 1927 NORTH AMERICAN	Puerto Rico Horiz	ontal Datum
X MEAN HIGH-WATER	OTHER (Specify)	
2. VERTICAL: MEAN LOW-WATER MEAN LOWER LOW-WATER		
MEAN SEA LEVEL		
3. MAP PROJECTION	4.	GRID(\$)
Lambert Conformal Conic Projection	P.R. & Virgin Is.	ZONE
5. SCALE 1:10,000	STATE	ZONE
III. HISTORY OF OFFICE OPERATIONS		
OPERATIONS	NAME	DATE
I. AEROTRIANGULATION BY	John McClure	4/84
METHOD: Analytical LANDMARKS AND AIDS BY	John McClure	4/84
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Calcomp 718 CHECKED BY	John McClure N/A	4/84
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY	Ted Doyle	8/85
COMPILATION CHECKED BY	Robert Rodkey	8/85
INSTRUMENT: Wild B-8S Photo- XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Robert Rodkey	3/86
SCALE: 1:10,000 CHECKED BY	Robert Rodkey	4/86
4. MANUSCRIPT DELINEATION PLANIMETRY BY	Ted Doyle	8/85
Photo XXXXXXXXXX	Robert Rodkey	8/85
METHOD: Smooth Drafted bathymetry CHECKED BY	Robert Rodkey Robert Rodkey	5/86 6/86
PBATH: Automated plot HYDRO SUPPORT DATA BY	N/A	
SCALE: 1:10,000 CHECKED BY	N/A	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	N/A	1
6. APPLICATION OF FIELD EDIT DATA	N/A N/A	
CHECKED BY 7. COMPILATION SECTION REVIEW (Base Map) BY	Edward Allen	9/85
8. FINAL REVIEW (Base Map and PBATH) BY	Robert Rodkey	6/86
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY	Robert Rodkey	1/87
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY	P. Dempsey	2/87
11. MAP REGISTERED - COASTAL SURVEY SECTION BY	ELDAUGHERTY	MAR 87

NOAA FORM 76-36B U. S. DEPARTMENT OF COMMERCE (3-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION						
COMPILATION SOURCES TP-01128						
					17 01120	
1. COMPILATION PHOTOGR CAMERA(S)	APHY	1				
Wild RC-10 "B" F/	L 152.74 mm	TYPES	OF PHOTOGRAPHY LEGEND	TIM	AÈ REFERENCE	
TIDE STAGE REFERENCE		(C) COL	OB	ZONE		
PREDICTED TIDES			CHROMATIC	Atlanti	C X STANDARD	
TIDE CONTROLLED PHO		(R) INF	RARED	MERIDIAN 60 th	DAYLIGHT'	
NUMBER AND TYPE		TIME	SCALE		AGE OF TIDE	
83 B(C) 2163-2167	3/25/8	3 16:0	2 1:15,00	0 +0.75	ft. MHW *	
83 B(C) 2167-2173	3/25/8	3 16:0	1:15,00	0 +1.06	ft. MHW **	
83 B(C) 2186-2188	3/25/8	3 16:0	8 1:15,00	0 +0.76	ft. MHW *	
83 B(R) 2378-2381	4/12/8	3 11:0	9 1:15,00	+0.20	ft. MLW**	
83 B(R) 2349	4/12/8	3 10:4	3 1:15,00	0 +0.20	ft. MLW *	
1	-	tte Amalett	e, St. Thomas:	* Sub. Sta	. at Coral Harbor	
2. SOURCE OF MEAN HIGH-WATER LINE: The color photographs listed above. 3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE: Not Applicable.						
4. CONTEMPORARY HYDRO		List only those sur	rveys that are sources SURVEY NUMBER	for photogrammetric	survey information.) SURVEY COPY USED	
5. FINAL JUNCTIONS	15		0011711			
NORTH N/A	EAST	_	SOUTH TP-01129	WEST	•	
N/A REMARKS	TP-0113	<u> </u>	TP-01129	L	TP-01162	

NOAA FORM 76-36B

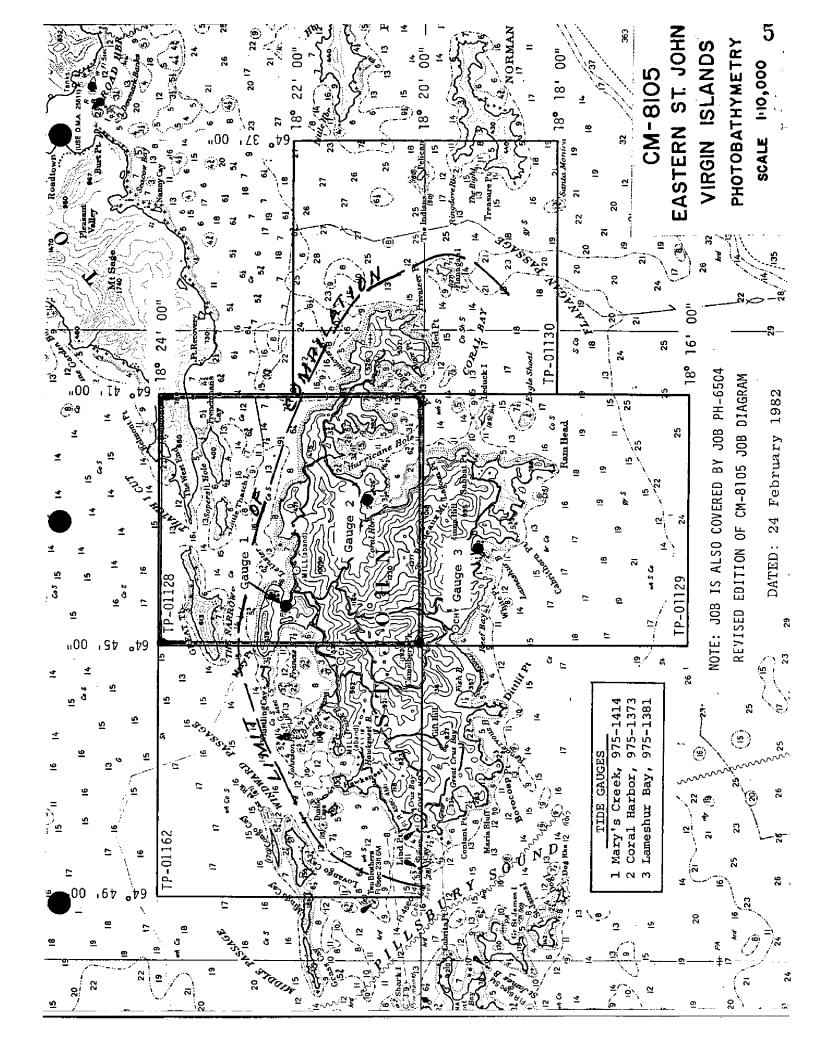
-72)		NATIONAL OCEA	NIC AND ATMOSPHE	MENT OF COMME! RIC ADMINISTRAT MAL OCEAN SUR
	HISTORY OF FIELD	OPERATIONS	· <u></u>	TP-01128
T FIELD MARKATION	FIEL	D EDIT OPERATION		
OPERATIO	N	NAME		DATE
CHIEF OF FIELD PARTY		C.S. Middleton, Jr.		3/83
	RECOVERED BY	Coastal Pa		3/83
HORIZONTAL CONTROL	ESTABLISHED BY	N/A	· · · · · · · · · · · · · · · · · · ·	
PRE	MARKED OR IDENTIFIED BY	Coastal Pa	rty 2	3/83
	RECOVERED BY	Coastal Pa	rty 2	3/83
VERTICAL CONTROL	ESTABLISHED BY	Coastal Pa	rty 2	3/83
PRE	MARKED OR IDENTIFIED BY	Coastal Pa	rty 2	3/83
RECOVER	ED (Triangulation Stations) BY	N/A		
LANDMARKS AND	LOCATED (Field Methods) BY	N/A	·	
AIDS TO NAVIGATION	DENTIFIED BY	N/A		
т	YPE OF INVESTIGATION	1		1
0200	COMPLETE BY	N/A		}
INVESTIGATION	SPECIFIC NAMES ONLY	},		- }
	NO INVESTIGATION			<u> </u>
PHOTO INSPECTION CLA	RIFICATION OF DETAILS BY	N/A		
	JRVEYED OR IDENTIFIED BY	N/A		
SOURCE DATA	_ 	14		
HORIZONTAL CONTROL IDENTIFIES)	2. VERTICAL CONTROL IDENTIFIED		
Premarked			Premarked	
HOTO NUMBER ST	ATION NAME	PHOTO NUMBER	STATION C	ESIGNATION
BB(C)2186 BAT 1918 (Ho				n =
BE(C)2186 BAI 1918 (HO	riz. Panel #2)	83B(C)2173	Vert. Panel	
		83B(C)2171	Vert. Panel	
		83B(C)2186	Vert. Panel	
		83B(C)2186	Vert. Panel	
		83B(C)2171	Vert. Panel	
PHOTO NUMBERS (Clarification of de	A- 54 - 0	83B(C)2165	Vert. Panel	-
PHOTO NUMBERS (Clarification of de	(8) (8)	(83B(C)2165	Vert Panel	
N/A		83B(C)2186	Vert. Panel	#13A
LANDMARKS AND AIDS TO NAVIGAT	ION IDENTIFIED	J	L	
None				
PHOTO NUMBER OF	BJECT NAME	PHOTO NUMBER	OBJEO	TNAME
SUPPLEMENTAL MAPS AND PLANS	PORT NONE	6. BOUNDARY AN	D LIMITS: RE	PORT V NONE
None				
OTHER FIELD RECORDS (Sketch boo	ks, etc. DO NOT list data submi	tled to the Geodesy L	ivision)	
Refer to "Index to Pi this Descriptive Report :			', which is bo	ound with

(3-72)	™ 76-36D		N#	ATIONAL OCEANIC	U. S. DEPARTME! AND ATMOSPHERIC	NT OF COMMERCE ADMINISTRATION
		RECO	RD OF SURVE	Y USE	TP-	·0 1 128
I. MANUSC	RIPT COPIES					
	co	MPILATION STAGE	s		DATE MANUSCR	IPT FORWARDED
	DATA COMPILED	DATE	RE	MARKS	MARINE CHARTS	HYDRO SUPPORT
Prelim: Field	inary Data For Use	Oct.,1985	Preliminar Hydrograph	y Notes to er Print		10/29/85
	Reviewed III Map	June,1986	Chart Main Print	tenance	1/28/87	
	Reviewed III Map	June,1986	Notes to H	lydrographer		1/28/87
Photoba Overla	athymetric Data Y	June ,1986		tenance and lydrographer I	//28/87 Prints	1/28/87
II. LANDM	IARKS AND AIDS TO NAVIGA	TION				
I. REP	ORTS TO MARINE CHART D	IVISION, NAUTICAL	DATA BRANCH			
NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED		REN	MARKS	
l Pg.		1/28/87	Landmarks	and Fixed Aid	is To Navigat	ion Listing
					٠	
				•		
2.	REPORT TO MARINE CHAR	F DIVISION, COAST	PILOT BRANCH.	DATE FORWARDE	o: None	
3.	REPORT TO AERONAUTICA	L CHART DIVISION				<u>None</u>
î. 🗆	RAL RECORDS CENTER DAT BRIDGING PHOTOGRAPHS; CONTROL STATION IDENT SOURCE DATA (except for G ACCOUNT FOR EXCEPTION	DUPLICATE IFICATION CARDS;	FORM NOS		Y FIELD PARTIES.	
4. X	DATA TO FEDERAL RECO	RDS CENTER. DAT	E FORWARDED:			_
IV. SURVE	EY EDITIONS (This section S	Shall be completed ea		p edition is registered	TYPE OF SURVEY	
SECOND	-n	(2) PH		RE		SURVEY
EDITION	2475 05 500 50 50 40			 □#. □#.	MAP CLASS	FINAL
	SURVEY NUMBER	JOB NUMBE	.R		TYPE OF SURVEY	
THIRD	TP	_ (3) PH	<u>.</u>	RE	EVISED RE	SURVEY
EDITION	DATE OF PHOTOGRAP	HY DATE OF FI	IELD EDIT	nm.	MAP CLASS	FINAL
	SURVEY NUMBER	JOB NUMBE	R		TYPE OF SURVEY	
FOURTH	TP	(4) PH		∏ RE	EVISED RES	BÛRVEY
	DATE OF PHOTOGRAP	HY DATE OF FI	IELD EDIT]	MAP CLASS	

EDITION

FINAL

□u. □u. □v. □v.



SUMMARY

Project CM-8105 was planned to consist of four 1:10,000 scale shoreline maps with accompanying photobathymetric data overlays. The map numbers assigned for this project are TP-01162, TP-01128, TP-01129 and TP-01130. The photogrammetric survey depicts the shoreline and other cartographic features of mapping interest located along the coast of St. John Island except for the southwestern coast from Stevens Cay to Reef Bay. Photobathymetry was cancelled for the entire west and north coast. Photobathymetry was conducted for the southeastern and southern coast, which includes Reef Bay easterly to Privateer Point.

The purpose of the project is to provide comtemporary shoreline and photobathymetric data for the maintenance of the nautical charting program and to supplement future hydrographic surveys.

Field operations consisted of aerial photography, tidal observations, and the recovery, establishment and identification (premarking) of horizontal and vertical control necessary for aerotriangulation. A field inspection of the shoreline was not performed. Natural color photographs required for aerotriangulation and compilation were taken with a Wild RC-10(B) camera at 1:15,000 scale. In addition, support color photographs at 1:30,000 scale were secured using a Wild RC-10(B) camera, to provide for the general field identification of premarked horizontal and vertical control points required for aerotriangulation and compilation. Supplemental tide-coordinated infrared photographs for Mean Low Water were also obtained at 1:15,000 scale to complement the establishment of tidal datums/vertical control required for compilation.

Five strips of 1:15,000 scale natural color photographs were bridged using analytic aerotriangulation methods. Horizontal and vertical control points used were field identified (premarked). Aerotriangulated control proved adequate and meets the requirements of the National Standards of Map Accuracy.

Compilation was performed in the Coastal Mapping Unit, Rockville office. Delineation was accomplished using a Wild B-8S stereoplotter through application of standard shoreline mapping techniques. Delineation was based on an office interpretation of the natural color bridged photographs. All line work on the base map was smooth drafted. Photobathymetric discrete point data was measured and recorded digitally via an Altek Unit with tape transport interfaced with the Wild B-8S. The digital data was processed off-line utilizing programs which adjust the resultant data for refraction, earth curvature and tide corrections. A negative of the final reviewed discrete point data for each map was scribed utilizing a Calcomp automated plotter. Isobaths were compiled at 6 foot(1 fathom) intervals and were hand scribed on the discrete depth scribe for each map. Positives were generated from the photobathymetric data scribe for registration and data dissemination purposes. The photobathymetric discrete point digital data is stored in the Photogrammetric Electronic Data Library (PEDL) and is available for dissemination to approved users.

Final review was performed in the Coastal Mapping Unit, Rockville Office. The base maps, data overlays and associated discrete point data of this project meet the requirements of the National Standards of Map Accuracy. The base maps, data overlays and reports also comply with project instructions. The project digital photobathymetric data comply with the Nautical Charting Division (NCD) standards for digital source data structured in NCD Format 13. NCD Format 13 is structured for geographic positions and associated attributes for each data record.

The Descriptive Report perpared for each map contains all the information pertinent to the completion of each map.

CM-8105 EASTERN ST. JOHN VIRGIN ISLANDS PHOTOBATHYMETRY

HORIZONTAL AND VERTICAL PREMARKING REPORT

Premarking for this project was performed during Feb. - March 1983 as specified in Project Instructions dated March 9, 1983. Array No. 1 for 1:15,000 scale photography was used to premark horizontal control and Array No. 2 for 1:15,000 scale photography was used for Vertical Control Points.

Project Instructions specified that three tide stations be installed prior to photography. This task was accomplished with the aid of the Atlantic Marine Center Tides and Water Levels Branch.

Preliminary Mean Low Water Datum was established at each tide staff by connecting levels to existing Tidal Bench Marks in the vicinity and checks were obtained wherever possible. The most questionable elevation was 975-1414, Mary Creek, where a questionable check was obtained and original descriptive data was vague. Acceptable checks were obtained at 975-1373, Coral Harbor, and 975-1381, Lameshure Bay, however, it should be noted that the datums for these bench marks were determined from relatively few tide observations. These conditions affect the elevations of all vertical panels with the exceptions of Vertical #14 and Vertical #15 which were determined by levels from bench marks of other tide stations. The Project Instructions specified Mean Low Water Datums which were not furnished to the field party. All elevations given herein are referenced to Mean Low Water. For the reasons noted above, these elevations should be used with caution and preferably after verification can be obtained from the reduction of the tidal data being collected at these tide stations. The controlling tide gage at Charlotte Amalie, St. Thomas was replaced prior to and was operational during the time of the project.

Horizontal Control

Horizontal Panel #1 is a non-standard Array No. 1 placed direct on Horizontal Control Station WHISTLE 1918. This panel also serves as Vertical Panel #1.

Horizontal Panel #2 is a non-standard Array No. 1 placed direct on Horizontal Control Station <u>BAT 1918</u>.

Horizontal Panel #3 is a non-standard Array No. 1 placed direct on horizontal Control Station PRIVATEER 2 1983 which was located by Third Order Traverse from FLANNAGAN 1918.

Horizontal Panel #4 is a non-standard Array No. 1 placed direct on Horizontal Control Station <u>FLANNAGAN 1918</u>.

Horizontal Panel #5 is a non-standard Array No. 1 placed direct on Horizontal Control Station LIND 1918 RESET 1983.

Horizontal Panel #6 is a standard Array No. 1 which is placed on a hub which was located by solar azimuth and EDM distance from DIT 1918. Also serves as Vertical #16A.

Horizontal Panel #7 is a standard Array No. 1 which is set on a hub which was located by angle and taped distance from <u>LAM 1983</u> which was located by reverse solar and EDM distance from BRITE 1918. Also serves as Vertical #18.

Horizontal Panel #8 is a non-standard Array No. 1 which is placed direct on Horizontal Control Station NANNY 1918.

Horizontal Panel #9 is a non-standard Array No. 1 which is placed direct on Horizontal Control Station PERKINS 1918. The panel also serves as Vertical Panel #5.

Triangulation Station MOOR 1918 is an extra Horizontal Control Point. It is a non-standard Array No. 1 placed direct on the Triangulation Station.

Horizontal Control Doppler Station 50438 is an extra Horizontal Control Point. Station 50438 1982 was paneled direct with an "X" as shown on the CSI Card.

Vertical Panel #8 Doppler Station 50439 is an extra Horizontal Control Point. Station 50439 1982 was paneled direct with a non-standard Array No. 2.

Vertical Control

Vertical Panel #1 is a non-standard Array No. 1 placed direct on Horizontal Control Station WHISTLE 1918. The panel also serves as Horizontal Panel #1. ELEV of Panel above MLW=8.36 ft. determined by Water Transfer from 975-1414.

Vertical Panel #2 is a standard Array No. 2 in the vicinity of Francis Bay. Its Elevation is 1.49 ft. above MLW and was determined by levels from Bench Mark 1414 B 1983.

Vertical Panel #3 is a standard Array No. 2 in the vicinity of the Southeast end of Mary Creek. Its Elevation is 2.34 ft. above MLW and was determined by Water Level Transfer from 975-1414.

Vertical Panel #4 is a non-standard Array No. 2 located near the Northwest end of Coral Harbor. Its Elevation is 7.59 ft. above MLW and was determined by levels from Bench Mark NO 3 1924.

Vertical Panel #4A is a non-standard Array No. 2 located on the South shore of the town of Coral Bay. It is placed direct on Bench Mark NO 2 1924. Its Elevation above MLW is 2.82 ft.

Vertical Panel #5 is a standard Array No. 2 located near the Southeast end of Waterlemon Bay. Its Elevation is 1.87 ft. above MLW and was determined by Water Level Transfer from 975-1414.

Vertical Panel #6 is a non-standard Array No. 2 located on the West shore of Hurricane Hole. Its Elevation is 5.54 ft. above MLW and was determined by Water Level Transfer from 975-1373.

Vertical Panel #7 is a non-standard Array No. 2 located near the Northwest limit of the East End District. Its Elevation is 4.69 ft. above MLW and was determined by Water Level Transfer from 975-1414.

Vertical Panel #8 is a non-standard Array No. 2 which is placed direct on NGS Doppler Station 50439 1982 on the North shore of Haulover. Its Elevation is 8.57 ft. above MLW and was determined by Water Level Transfer from 975-1373.

Vertical #9 is the Northernmost corner of a concrete dock just Northeast of Long Point. Its Elevation is 2.75 ft. above MLW and was determined by Water Level Transfer from 975-1373.

Vertical Panel #10 is a non-standard Array No. 2 located just East of Newfound Bay. Its Elevation is 4.75 ft. above MLW and was determined by Water Level Transfer from 975-1414.

Vertical Panel #11 is a non-standard Array No. 2 located on a rocky shore of a small cove at the North shore of Privateer Bay. Its Elevation is 7.86 ft. above MLW and was determined by Water Level Transfer from 975-1381.

Vertical Panel #12 is a non-standard Array No. 2 located on the West side of Flannagan Island. Its Elevation is 6.43 ft. above MLW and was determined by Water Level Transfer from 975-1381.

Vertical Panel #13 is a non-standard Array No. 2 located on the West shore of Johnson Bay. Its Elevation is 5.06 ft. above MLW and was determined by Water Level Transfer from 975-1373.

Vertical Panel #13A is a non-standard Array No. 2 located on the West side of Coral Harbor. Its Elevation is 4.29 ft. above MLW and was determined by Water Level Transfer from 975-1373.

Vertical #14 is the surface of the Southeast corner of the concrete pier in Caneel Bay. Its Elevation is 4.23 ft. above MLW and was determined by levels from Tidal Bench Marks in the area.

Vertical Panel #15 is a non-standard Array No. 2 located at the National Park Service dock in Cruz Bay. Its Elevation is 3.51 ft. above MLW and was determined by levels from Tidal Bench Marks in the area.

Vertical Panel #16 is a non-standard Array No. 2 which is located in the East-Central portion of a peninsula owning Dittlif Point. Its Elevation is 10.33 ft. above MLW and was determined by Water Level Transfer from 975-1381.

Vertical Panel #16A is also Horizontal Panel #6 and is a standard Array No. 1 located on a small hill North of Dittlif Point. Its Elevation is 48.75 ft. and was determined by levels from Vertical Panel #16.

Vertical Panel #17 is a non-standard Array No. 2 located on the East shore of Genti Bay. Its Elevation is 6.12 ft. above MLW and was determined by Water Level Transfer from 975-1381.

Vertical Panel #18 is also Horizontal Panel #7 and is a standard Array No. 1 located on the Northwest shore of Little Lameshur Bay. Its Elevation is 13.20 ft. above MLW and was determined by Water Level Transfer from 975-1381.

Vertical Panel #19 is a standard Array No. 2 located at the North end of Kiddel Bay. Its Elevation is 9.19 ft above MLW and was determined by Water Level Transfer from 975-1381.

Vertical Panel #20 is a standard Array No. 2 located on the West shore of a peninsula owning Ram Head. Its Elevation is 9.63 ft. above MLW and was determined by Water Level Transfer from 975-1381.

Vertical Panel #21 is a non-standard Array No. 2 located on the North shore of the peninsula West of Nanny Point. Its Elevation is 7.52 ft. and was determined by Water Level Transfer from 975-1373.

Vertical Panel #21A is a non-standard Array No. 2 located on the North side of Sabbat Point. Its Elevation is 9.41 ft. above MLW and was determined by Water Level Transfer from 975-1373.

Vertical Panel #22 is a non-standard Array No. 2 located on the Westernmost appendage of Leduck Island. Its Elevation is 5.70 ft. above MLW and was determined by Water Level Transfer from 975-1371.

Vertical Panel #23 as it was requested in Project Instructions was to be located in heavily vegetated hills where no Elevation Control was available. No panel was placed at this location and its designator was omitted.

Vertical Panel #24 is a non-standard Array No. 2 located on the East side of Henley Cay. Its Elevation is 7.91 ft. above MLW and was determined by Water Level Transfer from 975-1414.

Vertical Panel #25 is also Horizontal Panel #9 and is a non-standard Array No. 1 placed direct on Horizontal Control Station <u>PERKINS 1918</u>. Its Elevation is 13.92 ft. above MLW and was determined by Water Level Transfer from 975-1414.

Vertical #26 is the top of a Nun Buoy at the South side of Johnson Reef. Its Elevation was 6.56 ft. above MLW at the time of photography. The Water Level was determined at 975-1414.

Vertical #26A is the white top of a Bouy at the North side of Johnson Reef. Its Elevation was 15.16 ft. above MLW at the time of -hotography. The Water Level was determined at 975-1414.

Vertical Panel #27 is a non-standard Array No. 2 located along the shore at Cinnamon Bay. Its Elevation is 6.70 ft. above MLW and was determined by Water Level Transfer from 975-1414.

Vertical Panel 975-1381 is an extra Vertical Control Point. It is a non-standard Array No. 2 placed direct over Bench Mark $\underline{\text{NO 1 1967}}$ at the site of the Tide Station at Greater Lameshur Bay. Its Elevation is 3.24 ft. above MLW.

Tide Station 975-1373 is located in the town of Coral Bay. It is a Fischer-Porter ADR with a Vitrified Scale Staff. Two old Bench Marks were recovered and three new marks established. The MLW value of the Tide Staff was determined by levels from the two old Bench Marks. National Park Service personnel were contracted to provide observations at the gage. It is planned for this gage to be in operation for several months. The Elevation of the Staff Stop used for determination of Water Level Transfers off this Staff was 3.45 ft. above MLW.

Tide Station 975-1381 is located at the Virgin Islands Ecological Research Station at Greater Lameshur Bay. It is a Fischer-Porter ADR with a Vitrified Scale Staff. Five old Bench Marks were recovered. The MLW value of the Tide Staff was determined by levels from the old Bench Marks. National Park Service Personnel were contracted to provide observations at the gage. It is planned for this gage to be in operation for several months. The Elevation of the Staff Stop used for determination of Water Level Transfers off this Staff was 5.26 ft. above MLW.

Tide Station 975-1414 is located at the Southwest corner of Mary Creek. It is a Metercraft Gas Purged System (Bubbler Gage) with a Vitrified Scale Staff. Two old Bench Marks were recovered and Five new marks established. The MLW value of the Tide Staff was determined by levels from BENCH MARK 1 1924. National Park Service Personnel were contracted to provide observations at the gage. It is planned for this gage to be in operation for several months. The Elevation of the Staff Stop used for determination of Water Level Transfers off this Staff was 3.96 ft. above MLW.

Records

Originals of all field records are submitted herein except where the originals were required for submission to separate activities. In these cases copies are herein submitted in lieu of the originals. Horizontal and Vertical Control are submitted separately.

CHIEF, COASTAL SURVEYS UNIT

SUBMITTED:

CLIFTON S. MIDDLETON JR

CHIEF, COASTAL PARTY 2

PROJECT REPORT

M-8105 Farew-UP
VERTICAL #12 - THE CRIGINAL CSI WAS POUND TO BE IN ECROR.
A NEW CSI WAS INITIATED AND THE PANCE WAS TRICKED ON
CENTRAL 3-25-83 BC 2218
VERTICAL "17 - THE ORIGINAL CSI WAS FOUND TO BE IN EPLOR. A NEW
CSI CARD WAS INITIATED AND THE PANEL WAS PRICED ON
CONTACT 3-25-83 BC 7262.
1/
VERTICAL 27 - THE PANEL NOT VISIBLE ON PHOTOCHAPHY, VERTICAL
PHUTO POINT * 27A WAS ESTABLISHED. A NEW CSI CARD WAS INSTINTED
AND A NEW WATER LEVEL TRANSFER WAS DEPARTMEN TO ESTABLISH
AN ELEVATION. THE PHOTO POINT WAS PRICKED ON CONTACT
3-25-03 BC 2256.
HORDONIAN #3- THE PANEL NOT VISIBLE ON PROTOSENTAL HOURN THE
PHOTO POINT # 3 R WAS ESTABLISHED AND POSITIONED BY SOLAR
AZIMUTH AND DISTANCE FROM PRIVATEGE Z 1985. A NEW
CSI CARD WAS INITIATED AND THE PHOTO AMENT WAS PRICED
ON CONTACT 3-25-83 BC 22/8
HORROWTH # 5- THE PANEL WAS PRICED ON 3-25-83 BE 2273 AT THE
PANEL SITE AFTER CLUSE INSPECTION HOWEVER ITS IMAGE IS QUESTIONAGE
ON THE ADDRING FLICHT LINE. HORIZONTH PINTO POINTS "54 AND 58
WERE ESTABLISHED, HORROWTHE PHOTO POINT & SA IS THE CENTER OF THE
VENT AT THE MOUTH OF CENT BAY WHICH IS AT THE CENTER OF A
•

313 PLATEREN AND IT WAS LOCATED BY SHEE AZIMON AND
DISTANCE FRANCE SMITCH LIND 1918 PRISET 1983, HEREWITH PHUTO
•
PULT \$ 58 IS THE CENTER FOR OF THE COVERNMENT HOUSE IN CRUZ
BOY WHICH HAS A PUBLISHED THIRD CROSE DESITION MEMBER IT
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Photogrammetric Plot Report St. John, Virgin Islands CM-8105 April 1984

21. AREA COVERED

The area covered by this report is the island of St. John, Virgin Islands. The project area is covered by four 1:10,000 scale sheets; TP-01162, TP-01128, TP-01129, and TP-01130.

22. METHOD

Five strips of 1:15,000 scale photographs were bridged by analytic aerotriangulation methods. The strips of bridging photographs were controlled by field identified control. Tie points were used to ensure an adequate junction of strips. Points for compilation were established on the 1:15,000 scale photographs for the 1:10,000 scale sheets. The bridging photographs will be used for the 1:10,000 scale sheets. Ratios of the 1:15,000 scale compilation photographs and 1:15,000 scale infrared photographs were determined and the ratios were ordered by this office.

The manuscripts were plotted by the Calcomp 718 plotter.

23, ADEQUACY OF CONTROL

The horizontal control was adequate and the aerotriangualtion positions meet National Ocean Service accuracy requirements. Point #159101 (PRIVATEER 2, 1983 Sub pt.) was not used in the adjustment because the wrong point was measured.

Point #188201 (Vertical Panel #13) is off 3.3 feet, but was held in the adjustment because it keeps a shoreline point near water level. Point #236201 (Vertical Panel #27A) was off 3.4 feet due to poor stereo image. All other vertical control points are within \pm 3 feet.

24. SUPPLEMENTAL DATA

A Nautical Chart was used to locate aids and landmarks.

25. PHOTOGRAPHY

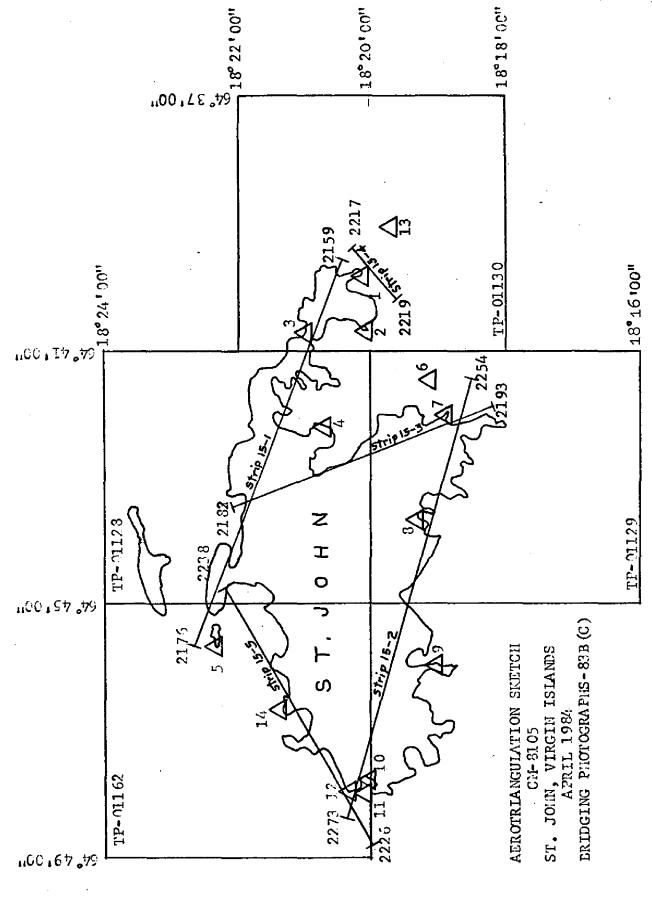
The coverage, overlap, and quality of the photographs were adequate for the job.

Submitted by: the The Clure John McClure

Approved and Forwarded:

Don O. Norman

Chief, Aerotriangulation Unit



FIT TO CONTROL (IN FEET) CM-8105 St. John, Virgin Islands

 $\boldsymbol{\Delta}$ Horizontal Control held in adjustment

□ Vertical Control held in adjustment

Strip 15-1	Point <u>Number</u>	<u>X</u>	· <u>Y</u>	<u>Z</u>
1. PRIVATEER 2, 1983 Sub pt.	159101			
△ 2. MOOR 1918	161100	+0.6	+0.6	
☐ ▲ 3. NGS DOPPLER STA. 50439, 1982	163100	0.0	-1.0	-2.2
▲4. BAT 1918	186100	-0.6	+0.5	
□△5. WHISTLE 1918	175100	0.0	-0.1	-0.9
□ Vertical Panel #2	173201			+0.2
☐ Vertical Panel #9	161201			+0.7
☐ Vertical Panel #11	161203			+0.6
☐ Vertical Panel #10	161202			+0.5
□ Water level pt.	163201			-0.3
☐ Vertical Panel #6	165201			-0.8
□ Vertical Panel #7	165202			+0.7
☐ TIDAL BENCH MARK 2, 1924	186202			0.0
☐ Vertical Panel #4	186201			-0.7
□ Water level pt.	169201			-0.1
□ Vertical Panel #5	171202			+0.5
☑ Vertical Panel #3	171201			+1.2
□ Water level pt.	173202			+0.8
□ Water level pt.	173203			-0.3
☐ Vertical Panel #26A	234202			-0.1
Strip 15-2				
△ 6. NGS DOPPLER STA. 50438, 1982	254100	-0.2	-0.5	
△ 7. NANNY 1918	256100	+0.5	+0.8	
□ ▲ 8. LAM 1983 Sub pt.	260101	-0.5	-0.6	-1.1
□ △ 9. DIT 1918 Sub pt.	266100	+0.1	+0.1	0.0

△ 10. ST. JOHN GOVT HOUSE GABLE	228100	+1.4	+2.0	
▲ 11. LIND 1918 RESET 1983 Sub pt.	270101	+1.0	-2.4	
▲ 12. LIND 1918 RESET 1983	270100	-0.3	-0.5	
□ Water level pt.	254203			+1.5
☐ Vertical Panel #20	254201			-0.3
□ Vertical Panel #21	256201		•	-0.3
☐ Vertical Panel #21A	192201		•	+0.4
☐ Vertical Panel #19	258201	•		0.0
☐ LAMESHUR BAY TIDE STA. 975-1381	•			
☐ TIDAL B.M. NO.1 1967	260201			-1.8
□ Water level pt.	264202			-1.6
□ Vertical Panel #16	266201			+2.2
□ Water level pt.	266202			+2.0
□ Water level pt.	270202			-0.5
□ Water level pt.	270203			-0.3
☐ Vertical Panel #15	270201			-0.1
□ Water level pt.	270204		•	+1.5
☐ Vertical Panel #14	272201			0.0
□ Water level pt.	273201			-1.3
Vertical Panel #17	264201			-2.9
Strip 15-3				
△Tie from Strip 15-1	182803	0.0	0.0	-3.0
Δ7. NANNY 1918	256100	+0.1	+0.3	
△ 6. NGS DOPPLER STA. 50438, 1982	254100	0.0	-0.3	
△4. BAT 1918	186100	-0.2	0.0	
□ Vertical Panel #21A .	192201			-0.1
□ Vertical Panel #21	256201			0.0
□ Vertical Panel #20	254201			0.0
□ Vertical Panel #19	25 8201			+0.5
☐ Vertical Panel #6	165201			+0.8
□ TIDAL BENCHMARK 2, 1924	186202			+1.3
□ Vertical Panel #4	186201			+0.3

☐ Vertical Panel #5	171202			-1.4
☐ Vertical Panel #3	171201			+0.3
□ Water level pt.	186204			+0.2
□ Vertical Panel #13A	186203			+1.2
□ Vertical Panel #13	188201			-3.3
☐ Water level pt.	190201			+0.4
Strip 15-4				
△ 13. FLANNAGAN 1918	217100	0.0	0.0	
△2. MOOR 1918	161100	0.0	0.0	
1. PRIVATEER 2, 1983 Sub pt.	159101			
☐ Vertical Panel #12	217201			0.0
☐ Vertical Panel #11	161203			0.0
☐ Vertical Panel #10	161202			0.0
☐ Vertical Panel #9	161201			0.0
Water level pt.	218201			+1.6
Water level pt.	218202			-0.3
Water level pt.	218203			+0.2
Water level pt.	219201			-0.7
Strip 15-5				
△12. LIND 1918 RESET 1983	270100	-1.4	-1.0	
△11. LIND 1918 RESET 1983 Sub pt.	270101	0.0	-0.3	
△10. ST. JOHN GOVT HOUSE GABLE	228100	+1.0	+0.6	
□ △ 14. PERKINS 1918	232100	+0.7	÷0.5	+1.6
□△5. WHISTLE 1918	175100	-0.2	+0.1	-0.3
□ Water level pt.	228201			+0.6
☐ Vertical Panel #15	270201			-0.7
☐ Vertical Panel #24	230201			-0.9
□ Water level pt.	236202			-0.2
□ Vertical Panel #2	173201			0.0
Vertical Panel #27A	236201			+3.4

St. John, Virgin Islands

CM-8105

April 1984

Ratio values for 1:15,000 scale black-and-white infrared photographs:

83	B(R)	2345-2351	X1.5	1
		2355-2358	X1.5	1
		2361-2370	X1.5	1
		2374-2383	X1.5	1
		2389-2396	X1 5	1

Ratio values for 1:15,000 scale color bridging photographs:

83	B(C)	2159-2176	X1	.51
		2182-2193	X1	.51
		2217-2219	X1	.51
		2226-2238	X1	.51
		2254-2273	Х1	51

NOAA FORM 76-41 (6-75)					U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
		DESCRIPTIV	DESCRIPTIVE REPORT CONTROL RECORD		
MAP NO. TP-01128	JOB NO. CM-8105	.05	rizontal	Datum Coastal Mapping Rockville, MD	ing Unit D
STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	COORDINATES IN FEET STATE P.R. & Virgin IS. ZONE N/A	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	REMARKS
BAT 1918	Quad 180643 Sta. 1008	186100	x= 1,100,052,23 y= 188,382,12	\$ 18-20-39.588\$ 064-42-10.625	Recovered in 1983
ANNABERG MILL 1918	Quad 180643 Page 84		χ= η=	Φ 18-21-53.859λ 064-43-47.483	Charted Landmark
			χ= η=	φ. Υ	
			χ= ή=	φ	
			X= y=	φ γ	
			χ= ή=	φ	
			χ= ή=	φ	
			χ= η=	φ γ	
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COMPUTED BY		DATE	COMPUTATION CHECKED BY		DATE
LISTED BY E. D. Allen		DATE 8/85	LISTING CHECKED BY T. Doyle	,1e	DATE 8/85
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE
		SUPERSEDES NO	ERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.	H IS OBSOLETE,	

Compilation Report

TP-01128

31. Delineation

Delineation was accomplished using a Wild B-8S stereoplotter through application of standard compilation techniques. Delineation of the shoreline, alongshore, offshore and interior cartographic features and details was based on office interpretation of the 1:15,000 scale natural color photographs. The 1:15,000 scale infrared photographs were used as an aid in interpreting the shoreline.

32. Control

Horizontal control furnished by the Aerotriangulation Unit was adequate for controlling the stereomodels. Refer to the Photogrammetric Plot Report bound with this Descriptive Report for additional information.

Vertical control was achieved by using a combination of paneled vertical control stations and elevations provided by the Aerotriangulation Unit.

33. Supplemental Data

No survey, map or plan of this agency or of any other organization was used to supplement the compilation photographs in the identification of cartographic features.

34. Contours and Drainage

The compilation of contours was not a requirement of the project. Drainage was compiled based on office interpretation of the color compilation photographs.

35. Shoreline and Alongshore Detail

The mean high water line and shoreline structures were compiled as described in item 31 of this report. There was no preliminary field inspection of the shoreline.

36. Offshore Detail

The limits of submerged coral formations, where visible, were delineated from the natural color compilation photographs. These limits indicate the characteristics of the seabed and do not necessarily represent a hazard to navigation.

37. Landmarks and Aids

One charted landamrk, which is also a geodetic station, was confirmed during compilation.

38. Control for Future Surveys

Refer to NOAA Form 76-41 bound with this Descriptive Report for information on recoverable control for future surveys.

39. Junctions

Refer to item 5 of NOAA Form 76-36B (Data Record), which is bound with this Descriptive Report, for information on map junctions.

40. Horizontal and Vertical Accuracy

This map meets the requirements of the National Standards of Map Accuracy. Refer to the Photogrammetric Plot Report bound with this Descriptive Report for more information.

41. Photobathymetry

The photobathymetric survey requirement for the northern coast depicted on this map has been indefinitely postponed. A photobathymetric survey was conducted for the southeastern coast depicted on this map. Refer to the Summary bound with this Descriptive Report for information on this subject.

- 42. through 45. Not Applicable
- 46. Comparison with Existing Maps

Comparison with existing maps was not a requirement of this project.

47. Comparison with Nautical Charts

A comparison was made with the following National Ocean Service nautical charts:

25647, 7th Edition, November 3, 1984; Scale 1:15,000 25641, 20th Edition, March 3, 1984; Scale 1:100,000.

A Chart Maintenance Print indicating the results of the comparison was forwarded to the Marine Chart Branch, Rockville, Maryland. Refer to the print for items to be immediately applied and carried forward.

snow itted by

Ted Doyle

Cartographer (Photogrammetry)

Approyed by,

Robert W. Rodkey,

Chief, Coastal Mapping Unit

Review Report

TP-01128

61. General Statement

Refer to the Summary bound with this Descriptive Report for an overview of the photogrammetric operations related to the production of this map and associated data.

62. Comparison with Registered Topographic Surveys

Comparison with registered topographic surveys was not a requirement for this project.

63. Comparison with Maps of Other Agencies

Refer to item 46 of the Compilation Report bound with this Descriptive Report for detailed information on this topic.

64. Comparison with Hydrographic Surveys

Comparison with hydrographic surveys was not a requirement for this project.

65. Comparison with Nautical Charts

Refer to item 47 of the Compilation Report bound with this Descriptive Report for information on this topic.

66. Adequacy of Results and Future Surveys

This map meets the National Standards of Map Accuracy and the requirements specified in the project instructions.

Submitted by,

Edward D. Allen-Office Reviewer

Robert W. Rodkey,

Final Reviewer

Approved by,

Acting Chief, Photogrammetric Production Section

Acting Chief, Photogrammetry Branch

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8105 (St. John, Virgin Islands)

TP-01128

Annaberg Anna Point Atlantic Ocean Borck Creek Brown Bay Coral Bay Coral Harbor Elk Bay **Emmaus** Francis Bay Harbor Point Hurricane Hole Leinster Bay Leinster Point Maho Bay Maho Point Mardenboro Point Mary Creek Mary Point Mennebeck Point Otter Creek Palestina Pen Point Popilleau Bay Princess Creek Saint John Sanders Bay The Narrows Threadneedle Point Turner Point Water Creek Watermelon Bay Watermelon Cay

Approved:

Charles E. Harrington Chief Geographer

Nautical Charting Division

INDEX TO PROJECT DATA AND MATERIAL ON FILE

CM-8105

St. John Island, USVI

NATIONAL ARCHIVES/FEDERAL RECORDS CENTER

Brown Jacket:

Three Field Data Binders containg NOAA Forms, field
photographs, computional listings; titled: "Horizontal
Premarking", "Vertical Premarking" and "Follow-Up".

Four NOAA Form 76-77, Leveling Record - Tide Station
Three NOAA Form 77-53, Tides
One NOAA Form 76-52, Observations of Horizontal Directions
One envelope containing seventeen(17) Field Annotated
Contact Prints(photographs)
One envelope containing Photogrammetric Plot Report(1 copy),
Aerotriangulation Strip Adjustments(5), Geodetic and
Aerotriangulated Control Listing(1 copy, 6 pages),
NOAA Form 76-41(6 pages, the original from Aerotriangulation
Unit), Project Diagram(1 copy).

Project Completion Report

AGENCY ARCHIVES

Registration Copy of Each Map Descriptive Report of Each Map

PHOTOGRAMMETRIC ELECTRONIC DATA LIBRARY

Photogrammetric Digital Source Data Files for the Project

REPRODUCTION BRANCH

8X Reduction Negative of Each Map

OFFICE OF STAFF GEOGRAPHER

Geographic Names Standard

CHARTED LANDMARKS AND NONFLOATING AIDS TO NAVIGATION

Page <u>1</u> of <u>1</u>

PROJECT NUMBER: CM-8105

PROJECT NAME: Stay John Island, Virgin Islands

MAP NUMBER: TP-01128, Northern Coast from Mary Point to Mennebeck Bay and Southeastern Coast from Elk Bay to Johnson Bay

The following charted landmarks and nonfloating aids to navigation have been measured and or confirmed during photogrammetric operations. All geographic positions are based on the Nat. 1927 Datum? Refer to Nautical Charting Division Standard Digital Data Exchange Format documentation for clarification of NCD Quality(Q.C.) and Cartographic (CARTO) Codes.

FEATURE DESCRIPTION	CARTO CODE	GEOGRAPHIC PO LATITUDE	OSITION * LONGITUDE	NCD O.C.	DATE OF LOCATION
ANNABERG MILL 1918 (ABAND)	086	18-21-53.859	064-43-47,483	3	1918

^{* -} Puerto Rico Horizontal Datum

Listing approved by: Robert W. Rodkey, Jr. Final Reviewer

June, 1986

Date -

FORM C&GS-8352 (3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

TP-01128 FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

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.

CHART	DATE	CARTOGRAPHER	REMARKS
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			· · ·
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
		· · · · · · · · · · · · · · · · · · ·	Full Part Before After Verification Review Inspection Signed Via
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