

TP-01130

TP-01130

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.		
<i>Map No.</i> TP-01130	<i>Edition No.</i> 1	
<i>Job No.</i> CM-8105		
<i>Map Classification</i> III		
<i>Type of Survey</i> Shoreline/Photobathymetry		
LOCALITY		
<i>State</i> Saint John, Virgin Islands		
<i>General Locality</i> Eastern End		
<i>Locality</i> Mennebeck Bay to Round Bay		
<table border="1"><tr><td>19 83 TO 19</td></tr></table>		19 83 TO 19
19 83 TO 19		
REGISTERED IN ARCHIVES		
DATE		

DESCRIPTIVE REPORT

TP-01130

TABLE OF CONTENTS

NOAA Form 76-36A, DESCRIPTIVE REPORT - DATA RECORD	.....	1
NOAA Form 76-36B, COMPILATION SOURCES	.....	2
NOAA Form 76-36C, HISTORY OF FIELD OPERATIONS	.....	3
NOAA Form 76-36D, RECORD OF SURVEY USE	.....	4
PROJECT DIAGRAM	.....	5
SUMMARY	.....	6
HORIZONTAL AND VERTICAL PREMARKING REPORT	.....	8
CM-8105 FOLLOW-UP (FIELD OPERATIONS)	.....	13
PHOTOGRAMMETRIC PLOT REPORT (AEROTRIANGULATION REPORT)	.....	15
NOAA Form 76-41, DESCRIPTIVE REPORT CONTROL RECORD	.....	21
COMPILATION REPORT	.....	22
REVIEW REPORT	.....	24
GEOGRAPHIC NAMES, FINAL NAMES SHEET	.....	25
INDEX TO PROJECT DATA AND MATERIAL ON FILE	.....	26
FORM C&GS-8352, RECORD OF APPLICATION TO CHARTS	.....	27

NOAA FORM 76-36A (3-72)	U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	SURVEY TP. <u>01130</u> MAP EDITION NO. <u>1</u> MAP CLASS <u>III</u> JOB 8405 <u>CM-8105</u>
DESCRIPTIVE REPORT - DATA RECORD			
PHOTOGRAMMETRIC OFFICE Photogrammetry Branch, Rockville, Maryland		LAST PRECEDING MAP EDITION	
OFFICER-IN-CHARGE Ronald K. Brewer		TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__
I. INSTRUCTIONS DATED			
1. OFFICE		2. FIELD	
AEROTRIANGULATION 1/27/84 OFFICE 3/21/84		FIELD 3/9/83	
II. DATUMS			
1. HORIZONTAL: <input type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify) Puerto Rico Horizontal Datum	
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER <input checked="" type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL		OTHER (Specify)	
3. MAP PROJECTION Lambert Conformal Conic Projection		4. GRID(S)	
		STATE <u>P.R. & Virgin Is.</u>	ZONE <u>N/A</u>
5. SCALE 1:10,000		STATE	ZONE
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION BY <u>J. McClure</u> 4/84 METHOD: Analytical LANDMARKS AND AIDS BY <u>N/A</u>			
2. CONTROL AND BRIDGE POINTS PLOTTED BY <u>J. McClure</u> 4/84 METHOD: Automated Plotter (Calcomp) CHECKED BY <u>N/A</u>			
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY <u>R. Rodkey</u> 8/85 COMPILATION CHECKED BY <u>E. Allen</u> 8/85 INSTRUMENT: Wild B-8S/Altek SCOPERS BY <u>R. Rodkey</u> 8/85 SCALE: 1:10,000 Photobathymetry CHECKED BY <u>R. Rodkey</u> 9/85			
4. MANUSCRIPT DELINEATION PLANIMETRY BY <u>T. Doyle</u> 11/85 CHECKED BY <u>E. Allen</u> 12/85 METHOD: Shoreline map - Smooth. SCOPERS BY <u>R. Rodkey</u> 3/86 drafting; Photobathymetry - SCOPERS BY <u>R. Rodkey</u> 4/86 Automated plotting. SCOPERS BY <u>R. Rodkey</u> 4/86 SCALE: 1:10,000 HYDRO SUPPORT DATA BY <u>N/A</u> CHECKED BY <u>N/A</u>			
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY <u>N/A</u>			
6. APPLICATION OF FIELD EDIT DATA BY <u>N/A</u>			
7. COMPILATION SECTION REVIEW (Shoreline map) BY <u>E. Allen</u> 1/86			
8. FINAL REVIEW (Shoreline map & Photobathymetry) BY <u>R. Rodkey</u> 6/86			
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY <u>R. Rodkey</u> 1/87			
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY <u>P. Dempsey</u> 2/87			
11. MAP REGISTERED - COASTAL SURVEY SECTION BY <u>E. L. DAUGHERTY</u> MAR 87			

NOAA FORM 76-36B (3-72)	U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY
COMPILATION SOURCES	
TP-01130	

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-10 (B) (cfl=152.74mm)	TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (R) INFRARED	TIME REFERENCE ZONE Atlantic MERIDIAN 60th
TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE PHOTOGRAPHY coordinated		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
83B(C) 2159, 2161, 2163	3/25/83	1700-1702	1:15,000	+0.75 MLW*
83B(C) 2217, 2218, 2219	3/25/83	1719-1720	1:15,000	+0.71 MLW*
83B(R) 2375, 2376, 2377	4/12/83	1207-1208	1:15,000	+0.2 MLW

REMARKS Based on the tide gage at Charlette Amalette, St. Thomas; with substation 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 HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

5. FINAL JUNCTIONS

NORTH N/A	EAST N/A	SOUTH N/A	WEST TP-01128/TP-01129
--------------	-------------	--------------	---------------------------

REMARKS

HISTORY OF FIELD OPERATIONS

TP-01130

I. FIELD ~~INSPECTION~~ OPERATION FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	C.S. Middleton	3/83
2. HORIZONTAL CONTROL	RECOVERED BY Coastal Party 2	3/83
	ESTABLISHED BY Coastal Party 2	3/83
	PRE-MARKED OR IDENTIFIED BY Coastal Party 2	3/83
3. VERTICAL CONTROL	RECOVERED BY N/A	
	ESTABLISHED BY Coastal Party 2	3/83
	PRE-MARKED OR IDENTIFIED BY Coastal Party 2	3/83
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY N/A	
	LOCATED (Field Methods) BY N/A	
	IDENTIFIED BY N/A	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE BY <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	N/A
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	N/A

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED Premarked		2. VERTICAL CONTROL IDENTIFIED Premarked	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
83B(C) 2163	50439 EXTRA	83B(C) 2163	Vert. Panel #8
83B(C) 2161	MOOR 1918 EXTRA	83B(C) 2161	Vert. Panel #9
83B(C) 2159	Horiz. Panel #3	83B(C) 2161	Vert. Panel #10
83B(C) 2217	FLANNAGAN 1918 (Horiz. Panel #4)	83B(C) 2161	Vert. Panel #11
		83B(C) 2217	Vert. Panel #12

3. PHOTO NUMBERS (Clarification of details)
N/A

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED
None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: REPORT NONE

6. BOUNDARY AND LIMITS: REPORT NONE

7. SUPPLEMENTAL MAPS AND PLANS
None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)
Refer to listing "Index to Project Data and Material on File", which is bound with this Descriptive Report, for more information on this subject.

HISTORY OF FIELD OPERATIONS

TP-01130

I. FIELD INSPECTION OPERATION FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	C.S. Middleton, Jr.	12/83
2. HORIZONTAL CONTROL	RECOVERED BY	N/A
	ESTABLISHED BY	Coastal Party 2
	PRE-MARKED OR IDENTIFIED BY	Coastal Party 2
3. VERTICAL CONTROL	RECOVERED BY	N/A
	ESTABLISHED BY	Coastal Party 2
	PRE-MARKED OR IDENTIFIED BY	Coastal Party 2
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY	N/A
	LOCATED (Field Methods) BY	N/A
	IDENTIFIED BY	N/A
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION	
	<input type="checkbox"/> COMPLETE	
	<input type="checkbox"/> SPECIFIC NAMES ONLY	
	<input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	N/A
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	N/A

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
Photoidentified		Photoidentified	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
83B(C)2217	Horizontal Photo Pt. #3A	83B(C)2217	Vertical Panel #12

3. PHOTO NUMBERS (Clarification of details)
N/A

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED
None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: REPORT NONE

6. BOUNDARY AND LIMITS: REPORT NONE

7. SUPPLEMENTAL MAPS AND PLANS
None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)
Refer to listing "Index to Project Data and Material on File", which is bound with this Descriptive Report, for more information on this subject.

I. MANUSCRIPT COPIES			DATE MANUSCRIPT FORWARDED	
COMPILATION STAGES			MARINE CHARTS	HYDRO SUPPORT
DATA COMPILED	DATE	REMARKS		
Final Reviewed Class III Map		Chart Maintenance Print	1/28/87	
Final Reviewed Class III Map		Notes to Hydrographer Print		1/28/87
Photobathymetric Data		Chart Maintenance Print	1/28/87	
Photobathymetric Data		Notes to Hydrographer Print		1/28/87

II. LANDMARKS AND AIDS TO NAVIGATION
 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

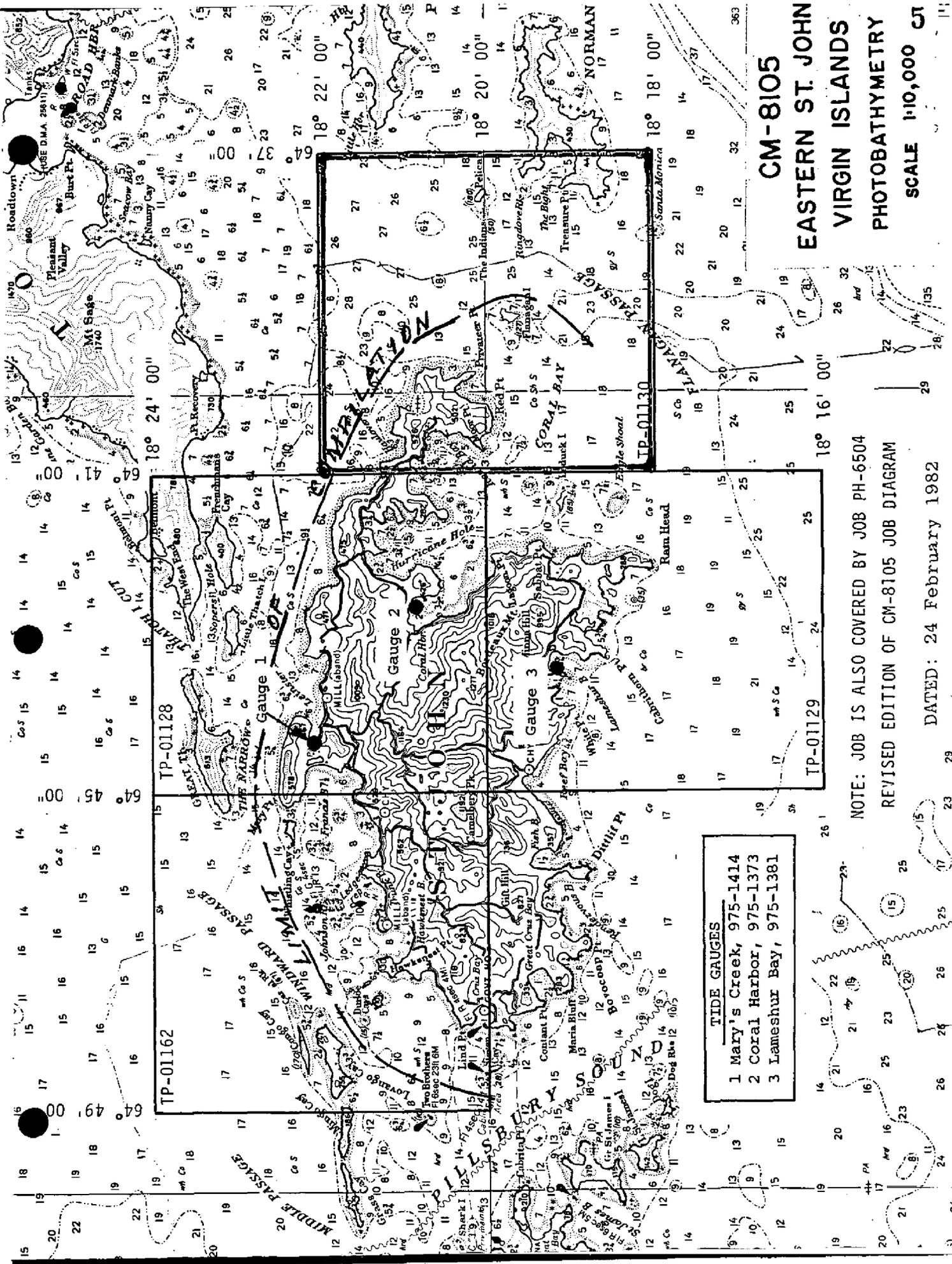
NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
			NONE

2. REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: N/A
 3. REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: N/A

- III. FEDERAL RECORDS CENTER DATA**
1. BRIDGING PHOTOGRAPHS; DUPLICATE BRIDGING REPORT; COMPUTER READOUTS.
 2. CONTROL STATION IDENTIFICATION CARDS; FORM NOS 567 SUBMITTED BY FIELD PARTIES.
 3. SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:
 4. DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

EDITION	SURVEY NUMBER	JOB NUMBER	TYPE OF SURVEY	
	SECOND EDITION	TP - _____ (2)	PH - _____	<input type="checkbox"/> REVISED	☐ RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS	
			<input type="checkbox"/> II.	<input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	<input type="checkbox"/> REVISED	<input type="checkbox"/> RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS	
			<input type="checkbox"/> II.	<input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	<input type="checkbox"/> REVISED	<input type="checkbox"/> RESURVEY
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS	
			<input type="checkbox"/> II.	<input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL



TIDE GAUGES

- 1 Mary's Creek, 975-1414
- 2 Coral Harbor, 975-1373
- 3 Lameshur Bay, 975-1381

CM-8105
EASTERN ST. JOHN
VIRGIN ISLANDS
PHOTOBATHYMETRY
SCALE 1:10,000

NOTE: JOB IS ALSO COVERED BY JOB PH-6504
 REVISED EDITION OF CM-8105 JOB DIAGRAM

DATED: 24 February 1982

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 contemporary 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 prepared 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 BAT 1918.

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 FLANNAGAN 1918.

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 LAM 1983 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 PERKINS 1918. 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 photography. 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 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 Vitriified 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.

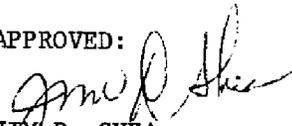
Tide Station 975-1381 is located at the Virgin Islands Ecological Research Station at Greater Lameshur Bay. It is a Fischer-Porter ADR with a Vitriified Scale Staff. Five old Bench Marks were recovered. The MLW value of the Tide Staff was determined by levels from the old Bench Marks. National Park Service 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.

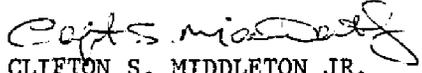
Records

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.

APPROVED:


JIM D. SHEA
CHIEF, COASTAL SURVEYS UNIT

SUBMITTED:


CLIFTON S. MIDDLETON JR.
CHIEF, COASTAL PARTY 2

PROJECT REPORT

CM-8105 FOLLOW-UP

VERTICAL #12 - THE ORIGINAL CSI WAS FOUND TO BE IN ERROR.

A NEW CSI WAS INITIATED AND THE PANEL WAS PRICKED ON
CONTACT 3-25-83 BC 2218.

VERTICAL #17 - THE ORIGINAL CSI WAS FOUND TO BE IN ERROR. A NEW

CSI CARD WAS INITIATED AND THE PANEL WAS PRICKED ON
CONTACT 3-25-83 BC 2262.

VERTICAL #27 - THE PANEL NOT VISIBLE ON PHOTOGRAPHY. VERTICAL

PHOTO POINT #27A WAS ESTABLISHED. A NEW CSI CARD WAS INITIATED
AND A NEW WATER LEVEL TRANSFER WAS PERFORMED TO ESTABLISH
AN ELEVATION. THE PHOTO POINT WAS PRICKED ON CONTACT
3-25-83 BC 22~~18~~³⁶.

HORIZONTAL #3 - THE PANEL NOT VISIBLE ON PHOTOGRAPHY. HORIZONTAL

PHOTO POINT #3A WAS ESTABLISHED AND POSITIONED BY SOLAR
AZIMUTH AND DISTANCE FROM PRINATEER 2 1983. A NEW
CSI CARD WAS INITIATED AND THE PHOTO POINT WAS PRICKED
ON CONTACT 3-25-83 BC 2218.

HORIZONTAL #5 - THE PANEL WAS PRICKED ON 3-25-83 BC 2273 AT THE

PANEL SITE AFTER CLOSE INSPECTION HOWEVER ITS IMAGE IS QUESTIONABLE
ON THE ADJOINING FLIGHT LINE. HORIZONTAL PHOTO POINTS #5A AND #5B
WERE ESTABLISHED. HORIZONTAL PHOTO POINT #5A IS THE CENTER OF THE
LIGHT AT THE MOUTH OF CEV2 PAN WHICH IS AT THE CENTER OF A

3 1/3 PLATFORM AND IT WAS LOCATED BY SGT. AZIMICH AND
PPSA IS PICKED ON CONTACT # 3-25-83 BC 2273
DISTANCE FROM STATION LIND 1318 DECEMBER 1983, INCIDENTAL PHOTO

POINT # 5B IS THE CENTER TOP OF THE GOVERNMENT HOUSE IN CRV
BOM WHICH HAS A PUBLISHED THIRD ORDER POSITION HOWEVER IT
SHOULD BE USED WITH CAUTION AS IT IS NOTED ON THE CSI CARD

THAT THE STATIONS DESCRIPTIVE FEATURES ARE AMBIGUOUS, PHOTO POINT
5B WAS PICKED ON CONTACT 3-25-83 BC 2228.

SUBMITTED 12/21/1983

Capt S. M. Dwyer

CHIEF, COASTAL PARTY 2

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 aerotriangulation 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 ± 3 feet.

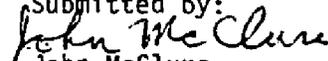
24. SUPPLEMENTAL DATA

A Nautical Chart was used to locate aids and landmarks.

25. PHOTOGRAPHY

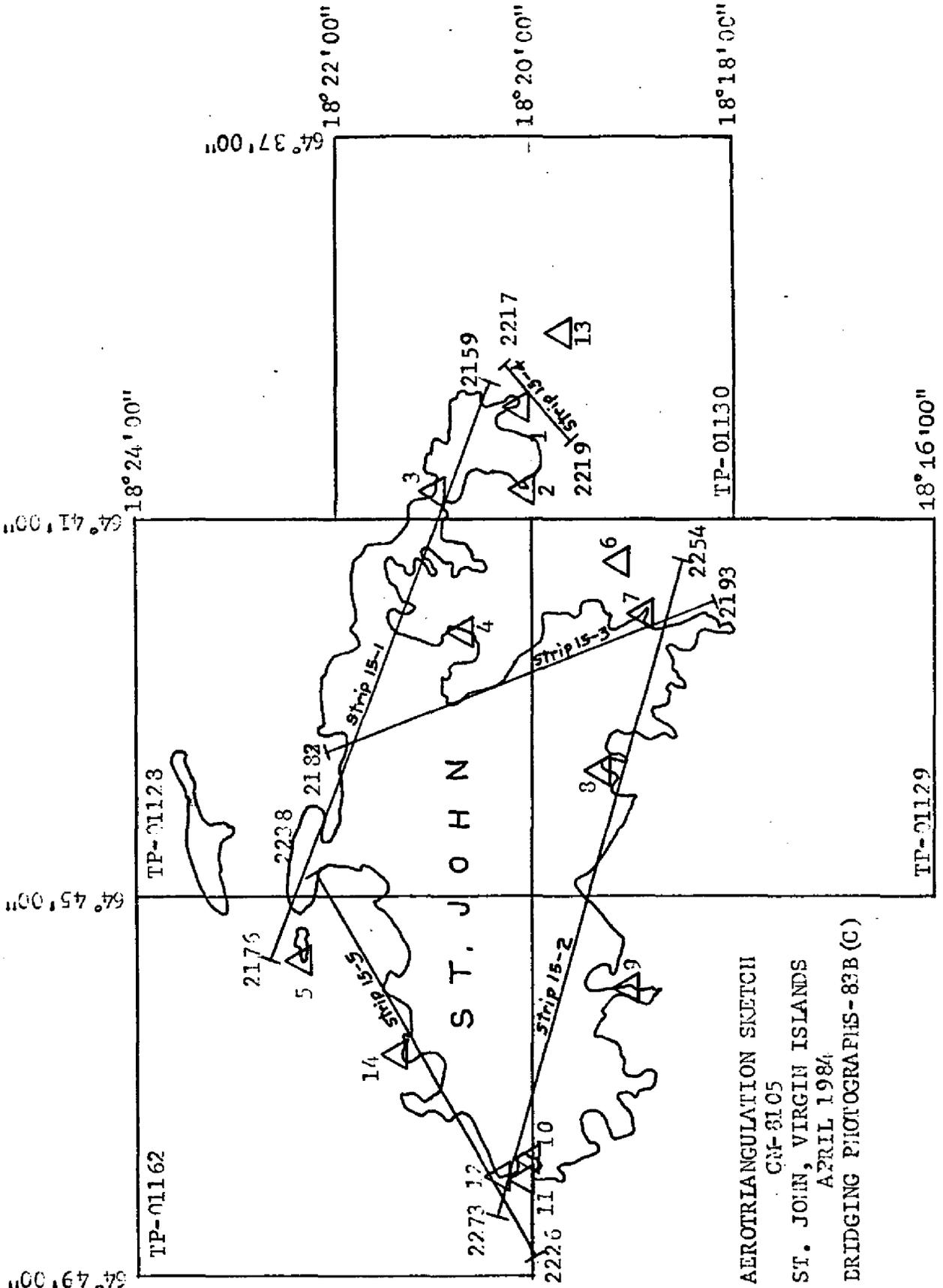
The coverage, overlap, and quality of the photographs were adequate for the job.

Submitted by:


John McClure

Approved and Forwarded:

Don O. Norman
Chief, Aerotriangulation Unit



AEROTRIANGULATION SKETCH
 CN-8105
 ST. JOHN, VIRGIN ISLANDS
 APRIL 1984
 BRIDGING PHOTOGRAPHS-83B (C)

FIT TO CONTROL (IN FEET)

CM-8105

St. John, Virgin Islands

△ Horizontal Control held in adjustment

□ Vertical Control held in adjustment

<u>Strip 15-1</u>	<u>Point 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
<u>Strip 15-2</u>				
△ 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
<u>Strip 15-3</u>				
△ Tie from Strip 15-1	182803	0.0	0.0	-3.0
△ 7. 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	258201			+0.5
□ Vertical Panel #6	165201			+0.8
□ TIDAL BENCHMARK 2, 1924	186202			+1.3
□ Vertical Panel #4	186201			+0.3

<input type="checkbox"/> Vertical Panel #5	171202			-1.4
<input type="checkbox"/> Vertical Panel #3	171201			+0.3
<input type="checkbox"/> Water level pt.	186204			+0.2
<input type="checkbox"/> Vertical Panel #13A	186203			+1.2
<input type="checkbox"/> Vertical Panel #13	188201			-3.3
<input type="checkbox"/> 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			
<input type="checkbox"/> Vertical Panel #12	217201			0.0
<input type="checkbox"/> Vertical Panel #11	161203			0.0
<input type="checkbox"/> Vertical Panel #10	161202			0.0
<input type="checkbox"/> 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	
<input type="checkbox"/> △ 14. PERKINS 1918	232100	+0.7	-0.5	+1.6
<input type="checkbox"/> △ 5. WHISTLE 1918	175100	-0.2	+0.1	-0.3
<input type="checkbox"/> Water level pt.	228201			+0.6
<input type="checkbox"/> Vertical Panel #15	270201			-0.7
<input type="checkbox"/> Vertical Panel #24	230201			-0.9
<input type="checkbox"/> Water level pt.	236202			-0.2
<input type="checkbox"/> 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	X1.51
2355-2358	X1.51
2361-2370	X1.51
2374-2383	X1.51
2389-2396	X1.51

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	X1.51

Compilation Report

TP-01130

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 this project. Due to the lack of cultural detail, prominent peaks were depicted on the map.

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 photographs. These limits indicate the characteristics of the seabed and do not necessarily represent a hazard to navigation.

37. Landmarks and Aids

There are no charted landmarks or fixed aids to navigation within the geographic limits of this map.

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 more 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

A photobathymetric survey was conducted for the offshore area adjacent to the shoreline depicted on the map. Refer to the Summary bound with this Descriptive Report for more 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.

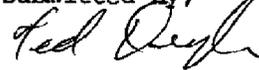
47. Comparison with Nautical Charts

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

25641, 20th Edition, March 3, 1984; 1:100,000 scale.

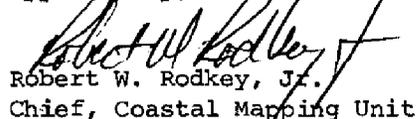
A Chart Maintenance Print indicating the results of the comparison was forwarded to the Marine Chart Branch, Rockville, Maryland. Refer to the print for items to be immediately applied and carried forward.

Submitted by,



Ted Doyle
Cartographer (Photogrammetry)

Approved by,



Robert W. Rodkey, Jr.
Chief, Coastal Mapping Unit

Review Report

TP-01130

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.

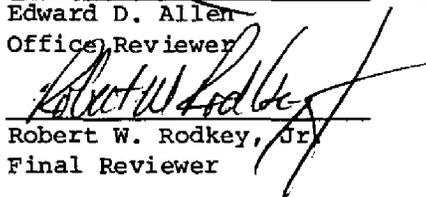
66. Adequacy of Results and Future Surveys

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

Submitted by,



Edward D. Allen
Office Reviewer

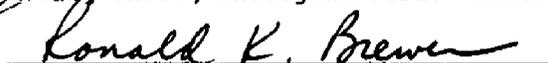


Robert W. Rodkey, Jr.
Final Reviewer

Approved by,



Gregory J. Ferman
Acting Chief, Photogrammetric Production Section



Ronald K. Brewer
Acting Chief, Photogrammetry Branch

GEOGRAPHIC NAMES

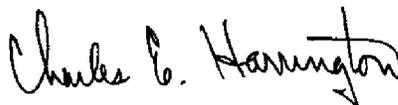
FINAL NAME SHEET

CM-8105 (St. John, Virgin Islands)

TP-01130

Blackrock Hill
East End Bay
East End Point
Flanagan Island
Flanagan Passage
Gowed Point
Hansen Bay
Haulover (isthmus)
Haulover Bay
Long Bay
Moor Point
Nancy Hill (hill)
Newfound Bay
Pelican Rock
Pond Bay
Privateer Bay
Privateer Point
Red Point
Round Bay
Saint John
Southside Pond

Approved:



Charles E. Harrington
Chief Geographer
Nautical Charting Division
Charting and Geodetic Services

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, computational 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

