9365

Diag. Cht. No. 905

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey ..... HYDROGRAPHIC

Field No. WH-10-2-73

Office No. H-9365

LOCALITY

State ..... VIRGIN ISLANDS

General Locality ..... ST. JOHN

Locality ..... GREAT ST. JAMES ISLAND TO REEF BAY

19 73

CHIEF OF PARTY
J. G. CARLEN

LIBRARY & ARCHIVES

DATE 1-14-77

☆ U.S. GOV. PRINTING OFFICE: 1975—668-353

Area 3
Charts 905
920
938

9365

FORM C&GS-537 (5-66)

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

REGISTER NO.

H-9365

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

WH 10-2-73

State Virgin Islands

General locality St. John

Locality ~~Southern Coast~~ GREAT ST. JAMES I. to REEF BAY

Scale 1:10,000 Date of survey Jan. 16 to April 3, 1973

Instructions dated see Remarks Project No. OPR-423-73

Vessel NOAA Ship WHITING & Launches WH-1 & WH-2

Chief of party CDR Jeffery G. Carlen, NOAA

Surveyed by CDR Carlen, LCDR Burke, LCDR North, LCDR Veselenak, LTJG Servais, LTJG Kaiser, ENS Decker, ENS Polvi, ENS McMillan, CST Hill

Soundings taken by echo sounder, ~~hand lead or pole~~

Graphic record scaled by Ship's personnel

Graphic record checked by Ship's personnel ✓ B.J. Stephenson, AMC Calcomp 618

Protracted by Calcomp plotter - 618 Automated plot by ~~WHITING system~~

Soundings penciled by WHITING shipboard system Verified by: B.J. Stephenson AMC

Soundings in ~~XXXXXXX fathoms~~ feet at MLW ~~XXXXXX MLLW~~

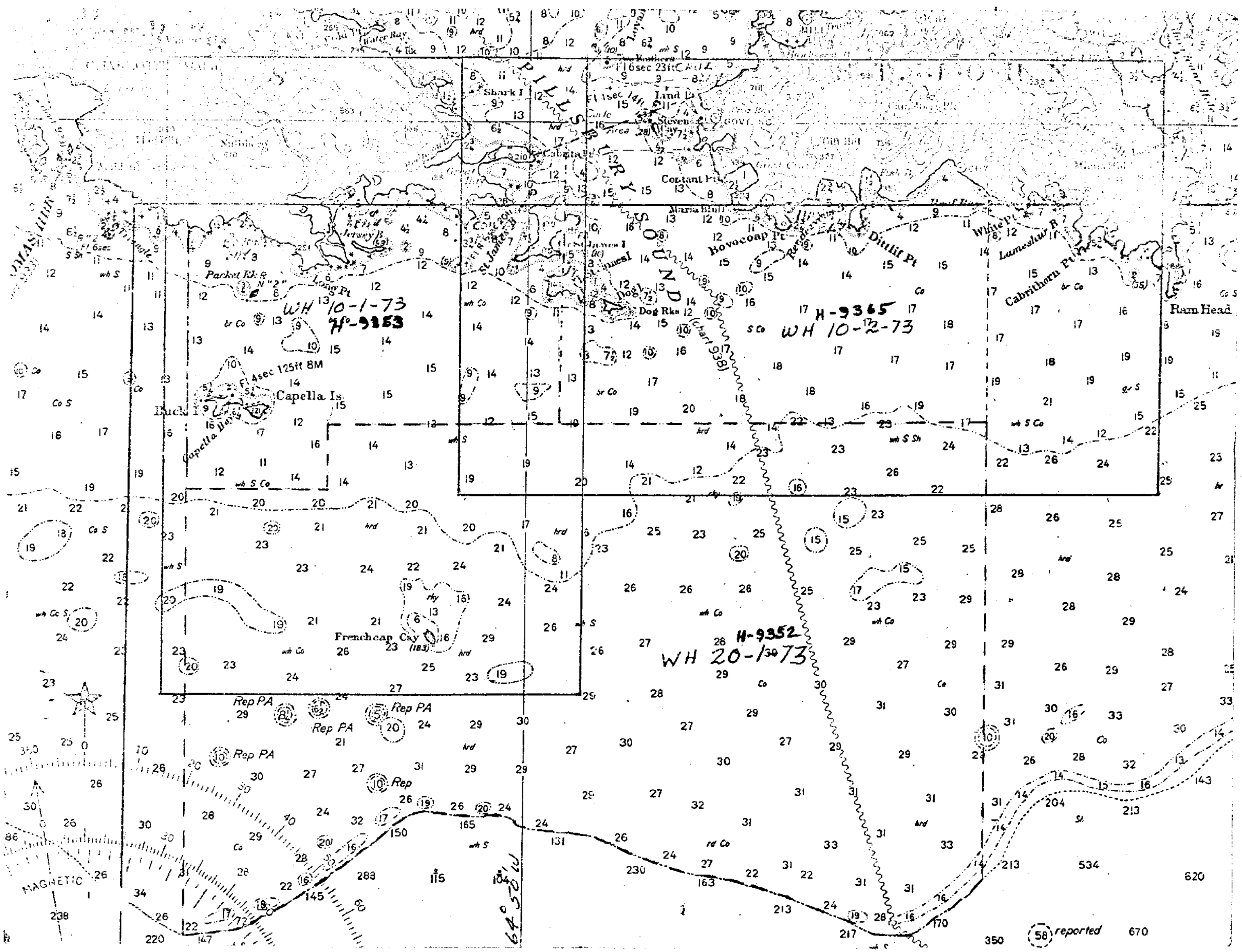
REMARKS: This survey used the 0° time meridian.

changes in red by B.J.S. (AMC)

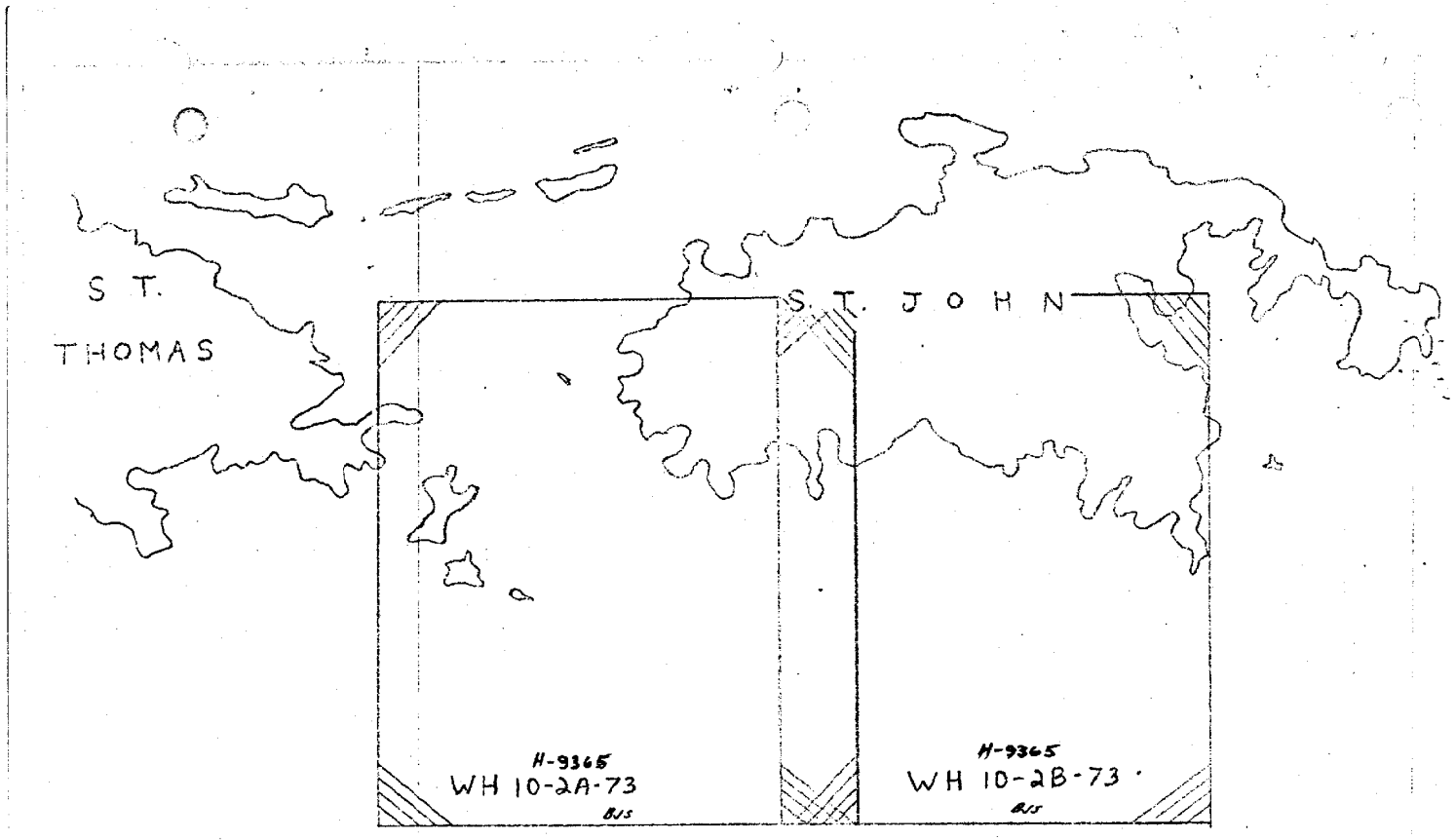
Instructions dated October 19, 1972; Change No. 1, Amendment to Instructions, dated November 7, 1972; Change No. 2, Amendment to Instructions, dated November 16, 1972; Change No. 3, Amendment to Instructions, dated November 16, 1972; and Change No. 4, Supplement to Instructions, dated January 29, 1973.

Applied to chts 6/29/77

USCOMM-DC 37009-P66



PILLSBURY SOUND
WH 10-1-73
H-9353
H-9365
WH 10-12-73
H-9352
WH 20-1/30-73
64°50'W
MAGNETIC
Capella Is.
Frenchcap Cay
Dog Rks
Ram Head
Cabrithorn Pt
Dittlif Pt
Shark I
Contant Pt
Maria Bluff
Long Pt
Rep PA
(58) reported



PLOTTER SHEET LAYOUT and BOATSHEET LAYOUT

WH 10-2-73 H-9365

PSR-DEC. 18, 1961
UPDATED to SEPT. 24, 71

A. PROJECT

This survey was accomplished in accordance with PROJECT INSTRUCTIONS OPR-423-WH-73, dated October 19, 1972; Change No. 1, Amendment to Instructions, dated November 7, 1972; Change No. 2, Amendment to Instructions, dated November 16, 1972; Change No. 3, Amendment to Instructions, dated November 16, 1972; and Change No. 4, Supplement to Instructions, dated January 29, 1973.

B. AREA SURVEYED

The area surveyed is bounded on the west by contemporary survey WH 10-1-73, H-9353. The northern boundary of the sheet is a line between Cabrita Point, St. Thomas, and Lind Point, St. John, and the island of St. John. The eastern end of the sheet extends to 064° 42' 18", however hydrography terminated at 064° 44' 34" to "square off" the sheet. The sheet junctions southward with contemporary survey WH 20-1-73, H-9352.

Survey operations began on January 16, 1973 and ended on April 3, 1973.

C. SOUNDING VESSELS

Sounding vessels used during this survey were the NOAA Ship WHITING, Launch WH-1, and Launch WH-2. The WHITING surveyed the southern portion of the sheet, generally in waters deeper than 70 feet. The launches completed all other hydrography.

D. SOUNDING EQUIPMENT

Sounding instruments used aboard the launches were Raytheon DE-723D survey fathometers. Launch WH-1 used fathometer recorder number 37018 and launch WH-2 used fathometer recorder number 37019. The NOAA Ship WHITING used Ross Model 5000 (544) Fineline Depth Recorder number 1055.

Barchecks and leadline comparisons were taken in the working area as often as sea conditions permitted. The launch fathometer operators checked for proper initial setting, stylus arm length, and A-F scale checks. Nansen and TDC casts were taken in the area of the survey in water as deep as that encompassed by the survey as an additional source of sounding corrections.

Tide correctors, based upon predicted tides for Magueyes Island, Puerto Rico, were applied to all soundings. Tide gages were maintained at the following locations:

a. Hassel Island, St. Thomas
b. Bovoni Bay, St. Thomas
c. Jersey Bay, St. Thomas
d. Great Bay, St. Thomas
e. Cruz Bay, St. John
f. Rendezvous Bay, St. John
g. Lameshur Bay, St. John

E. SMOOTH SHEET

The smooth sheet will be plotted on the computer plotter system at the Alantic Marine Center, Norfolk, Virginia.

Boatsheet WH 10-2-73 was subdivided into two plotter sheets, WH 10-2A-73 (west) and WH 10-2B-73 (east). Both sheets are included in this report.

F. CONTROL

The primary method of control for this survey was Del Norte, a range-range electronic surveying system utilizing a super-high frequency. See "Electronic Control Report" for 1973 for details of the Del Norte system's characteristics and use as a means of control for this hydrographic survey. In addition, range-visual and pure visual control were used in areas where Del Norte reception was not reliable or questionable.
In the "Horizontal Control Report" for 1973 is a description of each station and how it was recovered or established.

G. SHORELINE

The shoreline was transferred from shoreline manuscripts T-12944, T-12945, ~~and~~ T-12946 and T-12947. Photo Party 62, assigned to the WHITING for this survey, completed the verification of the shoreline during its field edit.

H. CROSSLINES

Crosslines composed 13.7% of the total length of main sounding lines. The agreement between crosslines and the main system of lines was excellent, between 1 and 2 feet. The highly irregular bottom prevented closer agreement.

I. JUNCTIONS

Agreement in depths at the western junction with contemporary survey WH 10-1-73, H-9353, was excellent. Soundings agreed or were within 2 feet of each other. Excellent agreement of depths was also found at the southern junction with contemporary survey WH 20-1-73, H-9352.

J. COMPARISON WITH PRIOR SURVEYS

The boatsheet was compared with prior survey H-4743a (1923-24). Very good agreement was made, the maximum discrepancy being 8 feet. The velocity correctors, which have not been applied to the boatsheet, account for up to 6 feet, normal coral growth and/or silting could account for the remainder.

PRESURVEY REVIEW ITEMS

The Presurvey Review Items have been divided into four catagories which will be described individually. The depths found are taken from the boatsheet and are subject to velocity corrections. Isolated soundings on the boatsheet reflect the least depth in an area typically developed using 10 meter spacing. Additional data may be obtained from the launch raw data print-outs.

The first three items are the numbered items of primary importance on the PSR sheet.

NO. 4 The sunken wreck MV CARIDAD was found 280 meters NE of its charted position, at detached position number 1502, by launch WH-1 on 066 day. (see H/T report) φ 18° 18.75 λ 64° 49.5'

NO. 5 A 13 ft. sounding was found near the charted 15 ft. sounding. The hydrographer recommends this new depth be added to future charts. (see H/T report) (also a 5 ft.) φ 18° 18.0' λ 64° 48.1'

NO. 6 This item refers to the suspected rocks awash added from H-4743a (1923-24) but which were not shown on T-3779 (1918). Launch WH-1 circled these rocks on 068 day and can support their existence. The hydrographer recommends adding rocks awash to the circled location on future charts. (see H/T report) Position line 1566-1567 φ 18° 19.6' λ 64° 48.1'

VBJS

Two-hundred series items refer to the dot-dashed circled items from prior surveys.

NO. 275 The charted 40 ft. sounding was not found in its charted location, nor within 200 meters in any direction. Typical depths in the area ranged from 70 to 80 feet. The hydrographer recommends this sounding be deleted from future charts. * considered misplotted

NO. 277 The charted 17 ft. sounding was found 50 meters to the south.*

NO. 278 The charted 7 ft. sounding was found 20 meters to the SW. *

NO. 280 The charted 48 ft. sounding was found 45 meters to the WSW.

NO. 282 The charted 48 ft. sounding was not found. However, a 52 ft. sounding was discovered 110 meters to the SSW. *

NO. 284 The charted depth of 14 ft. was found 90 meters to the west.**

NO. 285 and NO. 286 The charted 13 ft. and 11 ft. soundings were not found. However, due to the shallow depths, the verifier should examine the photo-bathymetry for a final determination. *

NO. 288 Within 15 meters of the charted 88 ft. sounding was found an 89 ft. sounding. **

NO. 290 On 088 day, launch WH-2 searched for the charted 17 ft. sounding without success. Depths in the immediate vicinity ranged from 43 to 51 feet. The hydrographer recommends examining the photo-bathymetry for the final determination. *

NO. 291 The charted 25 ft. sounding was not found. The depths within 100 meters of its charted position ranged from 44 to 60 feet. The hydrographer recommends the 25 ft. sounding be deleted.*

NO. 293 The charted 58 ft. sounding was not found. The depths within 200 meters ranged from 68 to 78 feet. The hydrographer recommends the 58 ft. sounding be deleted. *

NO. 295 The 99 ft. charted sounding was found near an area considerably more shoal than indicated on the chart. A least depth of 85 ft. was found 80 meters to the east. The hydrographer recommends this new shoal be added to future charts.**

* These soundings should be retained as the present survey was considered inadequate to verify or disprove their existence. (See Q.C. Critique)

** The present survey (BJS) has comparable soundings and is considered adequate to verify their existence. The HIT report has G.P.'s for these soundings (BJS).

Three-hundred series items are the dashed-circled soundings from Wire Drag Surveys.

NO. 387 The charted 48 ft. sounding was found 100 meters to the NNE. *

NO. 390, 391, and 392 The charted 24 ft.*, 29 ft.*, and 29 ft.** soundings, respectively, were not found in their charted locations. A shoal with a least depth of 26 ft., however, was found 55 meters west of No. 392, 190 meters north of No. 391, and 180 meters NW of No. 390.

NO. 395 The charted ~~56~~ 56 ft. depth was found 70 meters to the south.** as a 59-ft.

NO. 397 Ninety meters to the east of the charted 79 ft. sounding was found a 7½ ft. sounding. **

NO. 399 The charted 24 ft. sounding was located 50 meters ESE of its charted location. **

Five-hundred series items are along the suspected continuous ridge.

NO. 580 through NO. 592 The soundings indicate there is not a continuous ridge in the area indicated. There are, however, a series of small, separate ridges all oriented in a NE-SW direction. Each individual sounding is discussed in the HIT report.

* (see previous page)
**

BJS

BJS

PRE-SURVEY REVIEW ITEMS

One-hundred items are the numbered items of primary importance on the PSR sheet.

number	latitude	longitude
104	18 18 45.00	064 49 30.00
105	18 18 01.00	064 49 08.20
106	18 19 41.50	064 48 15.80

Two-hundred series items are the dot-dashed circled soundings from prior surveys.

275	18 19 04.30	064 49 14.80
277	18 18 09.80	064 49 12.50
278	18 18 08.20	064 49 10.90
280	18 17 57.20	064 48 31.00
282	18 18 40.60	064 48 23.50
284	18 19 33.90	064 48 07.20
285	18 19 43.30	064 48 04.50
286	18 19 35.80	064 47 57.30
288	18 16 27.80	064 46 58.10
290	18 18 48.50	064 46 43.60
291	18 18 46.40	064 46 41.80
293	18 18 34.50	064 46 38.40
295	18 17 11.30	064 45 01.00

Three-hundred series items are the dashed circled soundings from Wire Drag Surveys.

387	18 17 13.10	064 49 18.70
390	18 19 23.50	064 49 22.30
391	18 19 19.90	064 49 17.10
392	18 19 26.00	064 49 14.80
395	18 18 09.90	064 47 51.90
397	18 16 32.00	064 46 20.10
399	18 18 55.00	064 45 28.90

Five-hundred series items are along the suspected, continuous ridge.

580	18 17 14.00	064 48 58.00
581	18 17 11.90	064 48 53.50
582	18 17 18.70	064 48 32.80
583	18 17 27.80	064 48 20.50
584	18 17 34.90	064 48 07.50
585	18 17 39.40	064 48 01.30
586	18 17 46.30	064 47 48.20
587	18 17 55.60	064 47 40.50
588	18 18 04.10	064 47 20.70
589	18 18 15.00	064 47 18.40
590	18 18 21.50	064 47 11.90
591	18 18 26.20	064 47 02.00
592	18 18 26.50	064 46 45.70

K. COMPARISON WITH THE CHART

The boatsheet was compared with the 4th edition of Chart No. 938, dated October 10, 1970, at a scale of 1:15,000. Agreement varied with the depth throughout the entire area encompassed by the boatsheet. A 4 to 8 ft. discrepancy was typically encountered, the chart always having the greater depth. Since the boatsheet has not had velocity correctors applied, this discrepancy is to be expected.

L. ADEQUACY OF THE SURVEY

This survey is complete and adequate and should supercede all prior surveys for the purposes of revising Chart No. 938.

M. AIDS TO NAVIGATION

There are two aids to navigation located in the survey area. These are the Steven Cay Light (fl. w., 4 sec.) U. S. Coast Guard Light List number 1451, and the Cruz Bay Light (fl. r., 4 sec.) U. S. Coast Guard Light List number 1452. These aids adequately serve the purpose for which they were established.

N. STATISTICS

Sounding Vessel	Miles of Sounding Line	Number of Bottom Samples	Number of Positions
Ship WHITING	117.9	15	1125
WH-1	94.3	12	1050
WH-2	73.3	9	876
TOTAL	285.5	~~36~~ 48	3051

Area surveyed = 18.5 Square Nautical Miles

Percent of Crosslines = 13.7 %

O. MISCELLANEOUS

None

P. RECOMMENDATIONS

None

R. REFERENCES TO REPORTS

Electronic Control Report

Horizontal Control Report

APPROVAL SHEET

Submitted by

Michael C. McMillan

Ensign NOAA

Supervision of field work and office work on this hydrographic survey was continuous on a day to day basis to insure completeness of the survey and that all work was done in accordance with the instructions.

Approved/Forwarded

Jeffrey G. Carlen

COMMANDER NOAA

Commanding Officer, NOAA Ship Whiting

VELOCITY CORRECTIONS FOR SURVEY H 9365.

TABLE NUMBER 1. UNIT IS FEET.

DEPTH	VELOCITY CORRECTION
5.0	0.0
9.5	0.2
13.0	0.4
17.0	0.6
21.0	0.8
25.0	1.0
29.0	1.2
33.0	1.4
38.0	1.6
42.5	1.8
47.0	2.0
51.0	2.2
56.0	2.4
60.0	2.6
64.0	2.8
68.0	3.0
72.5	3.2
77.0	3.4
81.0	3.6
85.5	3.8
90.0	4.0
94.5	4.2
99.0	4.4
103.0	4.6
108.0	4.8
112.0	5.0
116.0	5.2
121.0	5.4
125.0	5.6
99999.9	5.8

P.O. CHECKED BY RG
DATE 13 May 1974
VERIFICATION BR., AI

/16/73 H 9365

THE FOLLOWING LISTING GIVES THE TRA AND VELOCITY TABLE FOR EACH DAY AND VESSEL WHENEVER EITHER OF THOSE VALUES CHANGES DURING THE DAY

VES ID	YEAR	DAY	TIME	IND	VEL TABLE	TRA	POS. NO.	RECORD NO
2930	73	77	143600	0	1	11.3	1	1.
2930	73	78	130700	0	1	11.3	277	1545.
2930	73	79	131000	0	1	11.3	594	3209.
2930	73	79	150000	0	1	1.3	8021	5940.
2930	73	79	170000	0	1	1.3	8033	14868.
2930	73	80	160000	0	1	1.3	8036	14871.
2930	73	88	142700	0	1	11.7	3492	3749.
2 0	73	88	181500	0	1	1.7	3691	4776.
2930	73	88	181800	0	1	11.7	0	4793.
2930	73	88	212700	0	1	1.7	3844	5543.
2930	73	88	223100	0	1	11.7	3880	5738.
2930	73	92	020000	0	1	1.7	8040	5952.
2931	73	43	194800	0	1	2.2	1000	5958.
2931	73	44	171000	0	1	2.2	1028	6124.
2931	73	44	171200	0	1	1.8	1030	6132.
2931	73	44	171400	0	1	2.2	1031	6133.
2931	73	44	171500	0	1	1.8	1032	6142.
2931	73	44	171700	0	1	2.2	1033	6143.
2931	73	44	171800	0	1	1.8	0	6151.
2931	73	45	150000	0	1	0.0	8001	9762.
2931	73	60	134400	0	1	2.2	1050	6178.
2931	73	60	152600	0	1	1.8	1101	6348.
2931	73	60	153300	0	1	2.2	1103	6360.

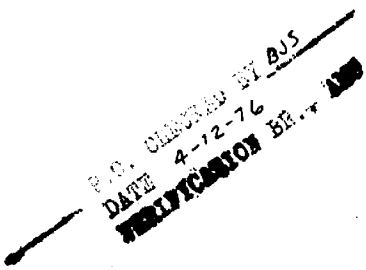
2931	73	60	160000	0	1	0.0	8004	9765.
2931	73	61	123600	0	1	1.8	1125	6478.
2931	73	61	141600	0	1	2.2	1159	6626.
2931	73	61	142100	0	1	1.8	0	6641.
2931	73	61	142100	0	1	2.2	0	6642.
2931	73	64	151700	0	1	1.8	1230	7183.
2931	73	64	153100	0	1	2.2	0	7202.
2931	73	65	130700	0	1	2.2	1340	7641.
2931	73	66	142500	0	1	2.2	1420	8237.
2931	73	66	172300	0	1	1.8	1478	8481.
2931	73	66	182700	0	1	2.2	1483	8509.
2931	73	66	150000	0	1	0.0	8006	9767.
2931	73	68	150000	0	1	0.0	8017	9775.
2931	73	68	165400	0	1	2.2	1509	8617.
2931	73	68	181400	0	1	1.8	1566	8773.
2931	73	73	150000	0	1	0.0	8019	9777
2931	73	73	164500	0	1	2.2	1570	8792.
2931	73	74	165200	0	1	2.2	1585	8862.
2931	73	75	130500	0	1	2.2	1664	9340.
2931	73	75	135700	0	1	0.0	1673	9385.
2931	73	75	143700	0	1	2.2	1691	9420.
2931	73	75	190600	0	1	1.8	1754	9643.
2931	73	75	193300	0	1	2.2	1762	9690.
2931	73	76	132100	0	1	2.2	1784	13749.
2931	73	76	150900	0	1	1.8	0	13888.
2931	73	76	151300	0	1	2.2	1837	13890.
2931	73	76	182100	0	1	2.2	1868	14875.

2931	73	77	141100	0	1	2.2	1899	14964.
2 .	73	81	171900	0	1	2.2	3230	14001.
2931	73	82	121100	0	1	2.2	3327	14327.
2931	73	82	125400	0	1	1.8	0	14472.
2931	73	82	125500	0	1	2.2	0	14473.
2931	73	82	175100	0	1	1.8	3475	14859.
2931	73	82	175900	0	1	2.2	3482	15081.
2932	73	60	123200	0	1	2.2	2000	9779.
2932	73	61	131200	0	1	2.2	2125	10066.
2932	73	64	174100	0	1	1.8	2183	15112.
2932	73	65	142800	0	1	1.8	2206	15172.
2932	73	66	132500	0	1	1.8	2255	10372.
2932	73	66	150000	0	1	0.0	8014	13743.
2932	73	66	150000	0	1	0.0	8015	15335.
2932	73	67	143400	0	1	2.2	2350	10491.
2932	73	68	131800	0	1	2.2	2476	11386.
2932	73	73	141100	0	1	2.2	2588	12016.
2932	73	74	172400	0	1	2.2	2612	12188.
2932	73	76	134800	0	1	2.2	2627	12284.
2932	73	76	191500	0	1	1.8	2681	12509.
2932	73	79	125300	0	1	2.2	2683	12516.

2932	73	88	131800	0	1	1.8	3926	13127.
2932	73	88	142300	0	1	2.2	3943	13244.
2932	73	88	142500	0	1	1.8	0	13254.
2932	73	88	142800	0	1	2.2	3946	13257.
2932	73	88	143300	0	1	1.8	0	13277.
2932	73	88	143600	0	1	2.2	3954	13288.
2932	73	88	160000	0	1	0.0	8046	13745.
2932	73	93	135300	0	1	1.8	4000	13408.
2932	73	93	142100	0	1	2.2	4010	13481.
2932	73	93	152700	0	1	1.8	4040	13608.
2932	73	93	172100	0	1	2.2	4052	13677.
2932	73	93	202800	0	1	1.8	4065	13712.

SIGNAL LIST
H-9365 WH-10-2-73 OPR-423

027	18° 19' 07.15"	064° 49' 37.09"
028	18° 19' 36.93"	064° 49' 55.70"
030	18° 18' 06.24"	064° 49' 36.88"
031	18° 19' 42.34"	064° 47' 59.83"
032	18° 19' 50.29"	064° 48' 26.37"
034	18° 19' 04.31"	064° 47' 21.56"
036	18° 20' 20.17"	064° 45' 13.63"
037	18° 18' 49.96"	064° 46' 53.90"
042	18° 18' 36.48"	064° 43' 18.87"
201	18° 20' 04.74"	064° 47' 56.06"
203	18° 20' 10.91"	064° 47' 44.80"
205	18° 20' 05.08"	064° 47' 40.12"
207	18° 20' 04.11"	064° 47' 38.12"
211	18° 20' 02.90"	064° 47' 41.78"
213	18° 20' 00.23"	064° 47' 46.01"
215	18° 19' 56.39"	064° 47' 51.70"
217	18° 19' 43.52"	064° 47' 47.52"
218	18° 19' 36.63"	064° 47' 46.90"
219	18° 19' 18.50"	064° 47' 39.34"
221	18° 19' 25.39"	064° 47' 30.93"
223	18° 19' 29.02"	064° 47' 16.60"
225	18° 19' 16.87"	064° 47' 18.52"
227	18° 19' 13.21"	064° 47' 26.83"
229	18° 19' 10.81"	064° 47' 32.90"
231	18° 19' 00.65"	064° 47' 15.37"
235	18° 19' 06.90"	064° 47' 11.06"
237	18° 19' 08.97"	064° 47' 02.40"
239	18° 19' 00.00"	064° 47' 06.79"
241	18° 18' 49.62"	064° 46' 48.15"
245	18° 19' 01.21"	064° 46' 52.93"
247	18° 19' 04.52"	064° 46' 42.12"
251	18° 19' 07.64"	064° 46' 30.55"
253	18° 19' 21.64"	064° 46' 23.18"
255	18° 19' 16.57"	064° 46' 15.80"
257	18° 19' 15.69"	064° 46' 12.87"
261	18° 19' 12.40"	064° 46' 05.63"
263	18° 19' 06.00"	064° 46' 00.73"
265	18° 19' 00.21"	064° 46' 03.46"
267	18° 18' 50.75"	064° 46' 06.46"
275	18° 19' 14.48"	064° 45' 58.45"
277	18° 19' 26.84"	064° 45' 58.61"
279	18° 19' 29.92"	064° 45' 55.51"
283	18° 19' 12.66"	064° 45' 47.38"
333	18° 19' 05.82"	064° 45' 35.15"
335	18° 19' 06.90"	064° 45' 23.86"
337	18° 19' 21.28"	064° 45' 07.77"
339	18° 19' 35.31"	064° 44' 51.35"
341	18° 19' 13.30"	064° 44' 26.37"
216	18° 19' 43.36"	064° 47' 53.26"



Del-Norte Stations
H-9365 WH-10-2-73 OPR-423

Signal No.	Station Name	Latitude	Longitude
30✓	James, 1918-73	18° 18' 06.24"N	64° 49' 36.88"W
34✓	Bake, 1918-73	18° 19' 04.31"N	64° 47' 21.56"W
	Catwalk	18° 16' 48.54"N	64° 51' 49.22"W
✓32 added #	May, 1918-73	18° 19' 50.29"N	64° 48' 26.37"W
N.D'd →	French Cap, 1918-73	18° 13' 59.74"N	64° 51' 09.01"W
31✓	Turn, 1918-73	18° 19' 42.34"N	64° 47' 59.83"W
27✓	Pill	18° 19' 07.15"N	64° 49' 37.09"W
✓28 added ¤	Cab, 1918-73	18° 19' 36.93"N	64° 49' 55.70"W
38✓	Dit, 1918-73	18° 18' 47.81"N	64° 45' 59.12"W
42✓	Brite, 1918-73	18° 18' 36.48"N	64° 43' 18.87"W

P.O. CHECKED BY BJS
DATE 4-12-76
VERIFICATION BR., AMC

TIDE NOTE

All reduced soundings plotted were based on predicted tides taken from Magueyes Island, Puerto Rico, with appropriate correctors.

Seven tide stations were established by Tide Party 753 in late 1972 in order to establish a tidal datum for photogrammetric work. These stations were near the work area and remained in operation until the end of hydrography. Station names were as follows:

a. Hassel Island, St. Thomas
b. Bovoni Bay, St Thomas
c. Benner Bay, St. Thomas
d. Cowpet Bay, St. Thomas
e. Cruz Bay, St. John
f. Hart Bay, St. John
g. Lameshur Bay, St. John

Tide observers sent the marigrams to NOAA headquarters in Rockville, Maryland, monthly with the exception of the March record for Hart Bay which was scanned and logged by WHITING personnel.

A copy of the letter to the Chief, Tides Division, is included. The letter requests zoning recommendations and the necessary hourly heights for the inclusive months of hydrography to be furnished to the Atlantic Marine Center Procssing Division.

H 9365 05/09/74

TIDES WERE APPLIED TO SURVEY H 9365 BY AN AUTOMATIC MULTIPLE GAGE, NON-DISCRETE-ZONING METHOD CALLED GRGAG.

GAGE LATITUDE		GAGE LONGITUDE			
DEGREES	MINUTES	DEGREES	MINUTES	DATUM	GAGE NAME
18	19.0	64	46.9	2.80	HART BAY
18	19.2	64	43.5	2.60	LAMESHUR BAY
18	19.1	64	50.7	3.10	COWPET BAY

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY VERIFICATION Copy

10/10/73

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division Atlantic Marine Center

Hourly heights are approved for Cowpet Bay, Hart Bay, Lameshur Bay

Tide Station Used (NOAA form 77-12):

Period: January - April 1973

HYDROGRAPHIC SHEET H-9365

OPR: 423

Locality: Virgin Island, South coast

Plane of reference (mean ~~xxxxx~~ low water): *

Height of Mean High Water above Plane of Reference is

*Remarks:

STATION	MLW	MHW(above Plane of Reference)
Cowpet	3.1	0.91
Hart	2.8	0.97
Lameshur	2.6	0.91

Tide Zone: in vicinity of Pillsbury Sound, do not apply reducers above Lat. 18° ~~17~~ 19'.0. Multiple zoning is recommended for this sheet. 19'.0 - changed 10/16/73 Telecon CAC Thurlow, Tides D

	Time (hrs.) HW	LW
Cowpet	1.8	6.3
Hart	1.4	5.8
Lameshur	1.3	5.9

Time differences for each station may be obtained from the Greenwich high and low water intervals listed above.

Robert A Cummings
Chief, Tides Branch

GEOGRAPHIC NAME LIST

Cabrita Point
Chocolate Hole
Cocoloba Cay
Cruz Bay
Devers Bay
Ditlef Bay
Dittlif Point
Dog Island
Dog Island Cut
Dog Rock
Fish Bay
Frank Bay
Genti Bay
Great Bay
Great Cruz Bay
Great St. James Island
Hart Bay
Klein Bay
Lind Point
Little St. James Island
May Point
Mingo Rock
Monte Bay
Pillsbury Sound
Reef Bay
Rendezvous Bay
St. John
St. James Cut
Skipper Jacob Rock
Steven Cay
Turner Bay
Welk Rock

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-9365

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
BLASBALG POINT ✓ ✓										1
BOATMAN POINT ✓										2
BOVOCOAP POINT ✓ ✓										3
CABRITA POINT ✓										4
CHOCOLATE HOLE ✓										5
COCOLOBA CAY ✓										6
CONTANT POINT ✓										7
CRUZ BAY ✓ ✓										8
CRUZ BAY ✓ (locality) ✓										9
DEVERS BAY ✓ ✓										10
DITTLIF BAY ✓ ✓										11
DITTLIF POINT ✓										12
DOG ISLAND ✓ ✓										13
DOG ISLAND CUT ✓ ✓										14
DOG ROCKS ✓ ✓										15
FISH BAY ✓ ✓										16
FRANK BAY ✓ ✓										17
GALGE POINT ✓ ✓										18
GREAT CRUZ BAY ✓ ✓						APPROVED				19
GREAT ST. JAMES ISLAND ✓ ✓						Chas. E. Harrington				20
HART BAY ✓ ✓						STAFF GEOGRAPHER - C51x2				21
KLEIN BAY ✓						10 JUNE 1977				22
LIND POINT ✓ ✓										23
LITTLE ST. JAMES ISLAND ✓ ✓										24
MONTE BAY ✓ ✓										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

☆ U.S. G.P.O. 1972-769-565/516 REG.#6

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
MORAVIAN POINT ✓										1
PILLSBURY SOUND ✓										2
REEF BAY ✓										3
RENDEZVOUS BAY ✓										4
ST. JAMES CUT ✓										5
ST. JOHN ✓										6
ST. THOMAS ✓										7
SKIPPER JACOB ROCK ✓										8
STEVEN CAY ✓										9
TURNER BAY ✓										10
WELKS ROCKS ✓										11
WHITE POINT ✓										12
MINGO ROCK ✓										13
GENTI BAY ✓										14
										15
										16
										17
						APPROVED				18
						Chas. E. Harrington				19
						STAFF GEOGRAPHER			C51x2	20
						10 JUNE 1977				21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

☆ U.S. G.P.O.: 1972-769-565/516 REG. #6

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H-9365

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~has not~~ been made. A new final sounding printout has/~~has not~~ been made.

Date: Nov. 4, 1976

Signed: William L. Jones

Title: Chief, Verification Branch

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 11/30/76

Signed: Robert A. Ziemba

Title: Chief, Processing Division

NOAA FORM 77-27
(9-72)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. H-9365

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & smooth PNO, excess ovly.	1	BOAT SHEETS (4 parts, mylar)	1 ½
DESCRIPTIVE REPORT	1	OVERLAYS (preliminary)	4 4

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
~~Accordion~~ ENVELOPES	8		1			
CAHIERS	2-with printouts		1			
VOLUMES	4					
BOXES			1-smooth printout, envelope & sndg. vols.			

T-SHEET PRINTS (*List*)
T-12944, T-12945, T-12946, & T-12949 -not recieved from field 1/14/77 MCR

SPECIAL REPORTS (*List*)

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				3051
POSITIONS CHECKED		300		
POSITIONS REVISED		30		
DEPTH SOUNDINGS REVISED		100		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		10		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		48		
JUNCTIONS		8		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK		463		
TOTALS		519	30	

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY: R.R. ~~Hill~~ R.G. Cram	06/01/73	08/18/75
VERIFICATION BY: B.J. Stephenson	03/27/76	04/13/76
REVIEW BY: B.J. Stephenson	04/13/76	04/20/76

P. C. Salisbury 130 hrs 3/15/77
Carstens 6/7/77 22 hr
R.O. Sanocki 6/21/77 8hrs

* U.S. G.P.O. 1972-769-562/439 REG.#6

REGISTRY NO. H-9365(1973)

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE_____ TIME REQUIRED_____ INITIALS_____

REMARKS:

REGISTRY NO. H-9365

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE 6-30-82 TIME REQUIRED 26 Hrs INITIALS JKC

REMARKS:

H-9365

Information for Future Presurvey Reviews

None

Position Index		Bottom Change	Use	Resurvey
Lat.	Long.	Index	Index	Cycle
181	0645	2	1	50 years
182	0645	2	1	50 years

HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

DATE:

REGISTRY NO.: H-9365 FIELD NO.: WH-10-2-73

GENERAL LOCALITY and SPECIFIC LOCATION:

Virgin Islands, Pillsbury Sound, between St. Thomas and St. John's Islands

SURVEYED: January 16, 1973 through April 3, 1973

PROJECT NO.: OPR-423 SCALE: 1:10,000

SOUNDINGS BY: Raytheon Depth Recorder DE-723D (Launch)
Ross Fineline Depth Recorder (Ship)

CONTROL: Electronic, Del-Norte Range-visual
Visual

Chief of Party ..... CDR J.G. Carlen
Surveyed by ..... LCDR Burke
..... LCDR North
..... LCDR Veselenak
..... LTJG Servais
..... LTJG Kaiser
..... ENS Decker
..... ENS Polvi
..... ENS McMillian
..... CST Hill
Automated Plot by ..... Calcomp Plotter #618 (AMC)
Verified and Inked by ..... B.J. Stephenson

1. Control and Shoreline

The origin of control is adequately covered in Section F. of The Descriptive Report.

The shoreline originates with (unreviewed) Class I photogrammetric manuscripts T-12944, T-12945, and T-12949. The shoreline east of 64° 45' 00"W originates with (unreviewed) Class III photogrammetric manuscript T-12946, which has had the south shoreline upgraded to Class I. Date of photographs: November 1971, November 1972, and February 1974; date of field edit: March - May 1973 and February 1975.

2. Hydrography

A. Crossings: Depths at crossings are in good agreement.

B. Depth Curves: The standard depth curves were adequately delineated. A 100 foot brown curve was added to better delineate the bottom. The photobathymetry and hydrographic soundings were utilized when drawing the three to thirty foot curves.

C. Developments: The development of the bottom configuration was not considered adequate. There were many areas which differed with the prior surveys that could have been rectified with a few additional lines, especially the pre-survey review items.

3. Condition of the Survey

The sounding records, automated plotting and the Descriptive Report are adequate and conform to the requirements of the Provisional Hydrographic Manual, supplemented by the Atlantic Marine Center Manual.

4. Junctions

An adequate junction was effected with the following contemporary surveys:

H-9507 (1975) on the northwest
H-9353 (1973) on the west
H-9352 (1973) on the south

No contemporary survey joins the present survey on the east.

Soundings in red were determined by photobathymetric methods using photographs of 1972 and 1974. These soundings were transferred from photobathymetric surveys T-12944, T-12945, T-12946, and T-12949 and provide supplemental information for unsurveyed areas and areas not adequately surveyed by hydrographic methods.

Date of photo →

5. Comparison With Surveys

A. Prior Surveys: H-4743a (1923-1924), 1:20,000

This prior survey covers the area of the present survey; however, the sounding lines were too sparse for a detailed comparison. The prior and present surveys reveal only minor differences with the exception of the soundings on the Pre-survey Review, which are discussed in further detail later in this report. These discrepancies could be attributed to the following:

(a) velocity corrections
(b) less detailed and accurate methods employed on prior surveys
(c) the prior survey was plotted in fathoms

B. Wire Drag Surveys: H-4743b (1924-1927), 1:20,000

This wire drag survey covers the present survey, and all differences are discussed under the chart comparison section of this report.

6. Comparison With Published Chart

#25647 (formerly C&GS 938), 5th edition, dated September 7, 1974.

A. Hydrography: The charted hydrography originates with the previously discussed prior surveys. The present survey was not considered adequate to disprove some of the questionable soundings from the prior hydrographic and wire drag surveys.

B. Attention is directed to the following Pre-survey Review Items:

Item No. 4 (wreck, M/V Caridad), Ref: Chart Letter #261 of 1970 - The submerged wreck charted in latitude 18° 18.75'N, longitude 64° 49.50'W was found, position #1502, approximately 280 meters northeast of its charted position. It is recommended that the submerged wreck symbol with mast visible be charted in latitude 18° 18' 49.64"N, longitude 64° 49' 21.78"W.

Item No. 5 (15 foot shoal reported) - A depth of 13 feet was found, on position line 1147-1148, in latitude 18° 17' 59.7"N, longitude 64° 49' 06.69"W. The present survey reveals that depths ranging from ~~15~~ to 17 feet extend in a north-northwest direction for approximately 170 meters. It is recommended that the charts be revised accordingly.

Item No. 6 - This item refers to the suspected rocks awash added from H-4743a (1923-1924). Launch WH-1 circled these rocks on day 68, position line 1566-1567, and can support their existence. This area has been outlined with dashed lines and labeled foul with rocks.

The following charted items originate with information prior to the date of the present survey. It is recommended that these be retained, as the present survey was inadequate to verify or disprove their existence:

Item #	Description	Latitude	Longitude	
275	40 ft. sounding	18° 19' 04.3"N	64° 49' 14.8"W	reject 40' sdg. cleared by 49' drag H-4743b W.D.
277	17 ft. sounding	18° 18' 09.8"N	64° 49' 12.5"W	retain
278	7 ft. sounding	18° 18' 08.2"N	64° 49' 10.9"W	retain
282	48 ft. ~~sounding~~ W.D.	18° 18' 40.6"N	64° 48' 23.5"W	retain (grounds)
285	11 ft. sounding	18° 19' 43.3"N	64° 48' 04.5"W	disregard
286	13 ft. sounding	18° 19' 35.8"N	64° 47' 57.3"W	retain
* 290	17 ft. sounding	18° 18' 48.5"N	64° 46' 43.6"W	disregard
* 291	25 ft. sounding	18° 18' 46.4"N	64° 46' 41.8"W	disregard
293	58 ft. sounding	18° 18' 34.5"N	64° 46' 38.4"W	disregard
387	48 ft. wire drag	18° 17' 13.0"N	64° 49' 18.7"W	retain
390	24 ft. wire drag	18° 19' 23.5"N	64° 49' 22.3"W	retain
391	29 ft. wire drag	18° 19' 19.9"N	64° 49' 17.1"W	retain
580	47 ft. wire drag	18° 17' 14.0"N	64° 48' 58.0"W	retain (grounds)
589	60 ft. wire drag	18° 18' 15.0"N	64° 47' 18.4"W	retain
590	53 ft. wire drag	18° 18' 21.2"N	64° 47' 11.9"W	retain (grounding)
590B	53 ft. wire drag	18° 18' 26.5"N	64° 47' 11.0"W	retain (grounding)
592	56 ft. sounding	18° 18' 26.5"N	64° 46' 55.7"W	agrees with present survey depths F.P.S.

* The 17 and 25 foot soundings were not disproved by the hydrographer, but the prior wire drag surveys for the same area have them cleared at 25 and 32 feet respectively. The photographs were checked and there was an indication of something, but they were too dark to obtain a depth. Quality Control should check the records of the prior surveys and confirm their existence before retaining on chart.

disregard 17 & 25-ft. sdgs. misplotted on original source H-4743a (1923-24) 4-1-77 F.P.S.

The following charted items originate with information prior to the date of the present survey; however, the present survey has comparable soundings, and are considered adequate to verify their existence:

Item No.	Charted Sounding	Latitude Longitude	Comparable Sounding	Latitude Longitude
280	48 ft.	18° 17' 57.2"N 64° 48' 31.0"W	48 ft.	18° 17' 56.52"N 64° 48' 32.37"W
284	15 ft.	18° 19' 33.5"N 64° 48' 07.2"W	14 ft.	18° 19' 33.66"N 64° 48' 07.62"W
288	88 ft.	18° 16' 27.8"N 64° 46' 58.1"W	89 ft.	18° 16' 27.23"N 64° 46' 58.09"W
295	99 ft. ✓	18° 17' 11.3"N 64° 45' 01.0"W	85 ft. ✓	18° 17' 11.42"N 64° 44' 58.63"W
392	29 ft.	18° 19' 26.0"N 64° 49' 14.8"W	27 ft.	18° 19' 25.95"N 64° 49' 16.60"W
395	56 ft.	18° 18' 09.9"N 64° 47' 51.9"W	59 ft.	18° 18' 07.45"N 64° 47' 51.67"W
397	79 ft.	18° 16' 32.0"N 64° 46' 20.1"W	76 ft.	18° 16' 32.23"N 64° 46' 17.32"W
399	24 ft. ✓	18° 18' 55.0"N 64° 45' 28.9"W	24 ft. ✓	18° 18' 54.73"N 64° 45' 27.78"W
581	68 ft.	18° 17' 11.9"N 64° 48' 53.5"W	68 ft.	18° 17' 12.86"N 64° 48' 54.09"W
582	63 ft.	18° 17' 18.7"N 64° 48' 32.8"W	60 ft.	18° 17' 20.39"N 64° 48' 35.26"W
583	66 ft.	18° 17' 27.8"N 64° 48' 20.5"W	63 ft.	18° 17' 26.88"N 64° 48' 19.79"W
584	61 ft.	18° 17' 34.9"N 64° 47' 48.2"W	63 ft.	18° 17' 34.05"N 64° 47' 48.60"W
585	67 ft.	18° 17' 39.4"N 64° 48' 01.3"W	64 ft.	18° 17' 39.99"N 64° 47' 59.87"W
586	62 ft.	18° 17' 46.3"N 64° 47' 48.2"W	63 ft.	18° 17' 44.57"N 64° 47' 48.60"W
587	58 ft.	18° 17' 55.6"N 64° 47' 40.5"W	58 ft.	18° 17' 55.28"N 64° 47' 38.25"W
587A	57 ft.	18° 17' 54.0"N 64° 47' 33.7"W	57 ft.	18° 17' 55.82"N 64° 47' 34.95"W
588	61 ft.	18° 18' 04.1"N 64° 47' 20.7"W	58 ft.	18° 18' 04.49"N 64° 47' 21.88"W
590A	58 ft.	18° 18' 21.2"N 64° 47' 04.6"W	59 ft.	18° 18' 21.72"N 64° 47' 04.68"W
591	54 ft.	18° 18' 26.2"N 64° 47' 02.0"W	54 ft.	18° 18' 27.22"N 64° 46' 59.95"W

C. Aids to Navigation: The aids to navigation on the present survey are in substantial agreement with their charted positions and adequately mark the features intended.

7. Compliance With Instructions

This survey does comply with the Project Instructions.

8. Additional Field Work

This is a good basic survey. Additional field work is not recommended, with the exception of Pre-survey Review Items previously mentioned, which should be verified or disproved by wire drag methods.

9. Hydrographic Inspection Team Comments

Hydrographic Inspection Team comments are included within this report and Verification deficiencies have been corrected on the smooth sheet.

10. Additional Notes

The two shoal soundings 29-30-ft located in latitude 18° 19' 00"N, longitude 64° 44' 30"W were not developed to determine the extent of shoal.

28 ft from H-4743b-W.D. plus bottom chan. of Co was brought forward to present survey.

Approval Sheet for H-9365

Examined and Approved:
Hydrographic Inspection Team
Date:

CAPT Ronald M. Buffington, NOAA
Chief, Operations Division

CDR Robert A. Trauschke, NOAA
Chief, Processing Division

CDR Jeffrey C. Carlen, NOAA
Chief, Coastal Mapping Division

C. Douglas Mason, LT(jg), NOAA
Chief, EDP Branch

William L. Jonns
Chief, Verification Branch

Approved/Forwarded

Robert C. Munson
RADM, NOAA
Director, Atlantic Marine Center

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

C352

March 21, 1977

TO: A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

FROM: F. P. Saulsbury
Quality Evaluator

SUBJECT: Quality Control Report for H-9365 (1973), U.S. Virgin Islands, St. John, Great St. James Island to Reef Bay

Survey H-9365 was inspected to evaluate the accuracy and adequacy of the survey with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, shoreline transfer, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data. In general, it was found to conform to the National Ocean Survey's standards and requirements except as follows:

1. The following soundings, generally with accompanying bottom characteristics, were brought forward to the present survey from H-4743b W.D. (1924-27) during quality evaluation since they represented least depths obtained in their respective areas.

Sounding	Bottom Characteristic	Latitude	Longitude
28 feet	Co	18°19.03'	64°44.49'
62 feet	Co	18°17.78'	64°47.81'
56 feet	Co S (B.C. from H-4743a)	18°18.17'	64°47.88'
46 feet	br Co (B.C. from H-4743a)	18°17.97'	64°48.53'
27 feet	------	18°19.70'	64°48.44'
61 feet	Co	18°17.58'	64°48.12'
34 feet	------	18°19.98'	64°48.61'

2. The 56-foot sounding from H-4743a (1923-24) was erroneously brought forward in latitude 18°18.44', longitude 64°46.77' and was removed from the present survey during quality control inspection. Its correct location in latitude 18°18.45', longitude 64°46.92' places it within similar depths on the present survey. The positions of the 17-, 7-, and 48-foot soundings carried forward in latitude 18°18.16', longitude 64°49.22';

latitude 18°18.13', longitude 64°49.19'; latitude 18°17.22', longitude 64°49.31'; respectively, were transferred approximately 20 to 30 meters out of position and were correctly positioned during quality control inspection. The 48-foot sounding carried forward in purple as originating with H-4743a (1923-24) does in fact originate with wire-drag survey H-4743b (1924-27). Its position was transferred approximately 30 meters north of its correct location. Color and position were corrected during quality control inspection.

3. The following soundings charted from H-4743a (1923-24) and carried forward to the present survey were removed during quality control inspection and are to be disregarded. A recheck of the old survey records has determined that all were plotted in error on their original source. Three of these soundings were also disproved on H-4743b W.D. (1924-27).

Sounding	Latitude	Longitude	
40 feet	18°19.07'	64°49.25'	cleared by 49-foot drag
11 feet	18°19.72'	64°48.09'	
17 feet	18°18.80'	64°46.73'	cleared by 25-foot drag
25 feet	18°18.78'	64°46.70'	cleared by 32-foot drag

4. The following rocks, charted from H-4743a (1923-24), were found to be misplotted on their original source and are to be disregarded.

Latitude	Longitude	
18°19.08'	64°45.72'	rock awash
18°18.79'	64°45.90'	rock awash
18°19.55'	64°49.89'	rock awash
18°17.91'	64°49.66'	bare rock

5. The three rocks awash charted in the vicinity of latitude 18°19.90', longitude 64°48.02' from a reef symbol shown on H-4743a (1923-24) are disproved by present survey information. An offshore rise to 16 feet from depths greater than 30 feet indicates the possible existence of breakers in this area. The original reef symbol may have meant to symbolize breakers.

6. The following soundings charted from H-4743a (1923-24) are noticeably shoaler than counterpart depths on the present survey. While they are not necessarily disproved by present survey information, a check of old survey information has determined them to be misplotted and are therefore to be disregarded in chart compilation.

Sounding	Latitude	Longitude
11 feet	18°17.91'	64°49.64'
21 feet	18°17.87'	64°49.68'
52 feet	18°17.83'	64°49.67'
65 feet	18°17.78'	64°49.66'
10 feet	18°20.03'	64°48.52'
16 feet	18°20.03'	64°48.46'
61 feet	18°20.03'	64°48.38'
49 feet	18°19.50'	64°49.81'
20 feet	18°19.90'	64°48.33'

7. The two landmarks falling on this survey were transferred from T-12945 and T-12946 during quality control inspection. No elevations were available.

8. The adequacy of junctions with H-9507 (1975) on the north and H-9352 (1973) on the south will be considered in the inspection of those surveys.

9. The area in Great Cruz Bay which was reportedly dredged to 15 feet in 1971, Chart Letter 1114 (1971), contains depths as shoal as 7 feet on the present survey. It is recommended that depths from the present survey be charted in this area.

10. Shoreline and topographic information were updated through the application of information from reviewed photogrammetric manuscripts T-12944, T-12945, T-12946, and T-12949 compiled from photos of 1971, 1972, and 1974, field edited in 1973, 1975, and 1976.

The unusually large number of corrections applied during quality control inspection to topographic information and photobathymetric soundings transferred to the smooth sheet from contemporary photogrammetric information indicates a need for more careful checking.

Based on items corrected on the present survey, the following suggestions may provide some benefits:

a. All soundings when identified as rock or coral, and reef and ledge when identified as coral by the hydrographer or field editor should be so identified on the smooth sheet.

b. When a sunken rock symbol is shown on the T-sheet and a sounding is shown in the identical location on photobathymetry, the sounding with the abbreviation "Rk" appended is the preferred office practice.

c. When a rock is used as a signal, the description should include the elevation of the rock; i.e. (rock uncovers 3 ft MLW). The rock awash symbol should not be drawn within the signal circles. Conversely, bare rocks must be delineated.

d. The practice of "leroying" soundings brought forward from prior surveys and transferred from photobathymetry even though taking more time than manual drafting does assure legible soundings. However, after transferring these "leroyed" soundings to the smooth sheet, they must be rechecked for accuracy in position, value, color, and completeness. As of this date, all surveys containing photobathymetry have been corrected in this office for one or all of the above-mentioned deficiencies. The transfer of zero and minus soundings plus the low water curve are required. The transfer of zero soundings within a reef or ledge symbol is to be avoided because of the likelihood of mistaking these soundings for islets or bare rocks.

e. All areas outlined by a dashed black line should be identified by annotations.

f. All elevations of awash or bare features should be in slanted figures. Care should be exercised in the placement of the elevation so that there is no doubt of which feature it refers. Where there is doubt, draw leaders, breaking them for shoreline, so that the leaders may not be mistaken for piers or other alongshore features.

g. When drawing depth curves, care must be exercised to avoid aligning a depth curve with the figure "1" part of a sounding. Where this is done it is very easy to mistake the figure 1 as part of the curve and chart a shoaler incorrect sounding. Some effort should be made to compile depth curves to reflect the direction of the features. When curves are drawn around a single sounding, much shoaler or deeper than surrounding hydrography, the sounding is frequently found to be in error. All unsupported soundings should be rescanned to verify their authenticity. The use of a drop bow pen to draw depth curves must be avoided, not only because it is unnatural but also to eliminate the false illusion of a control signal.

h. Where bottom characteristics were not obtained on prominent shoals, they should be brought forward from prior surveys when available.

cc:
C351

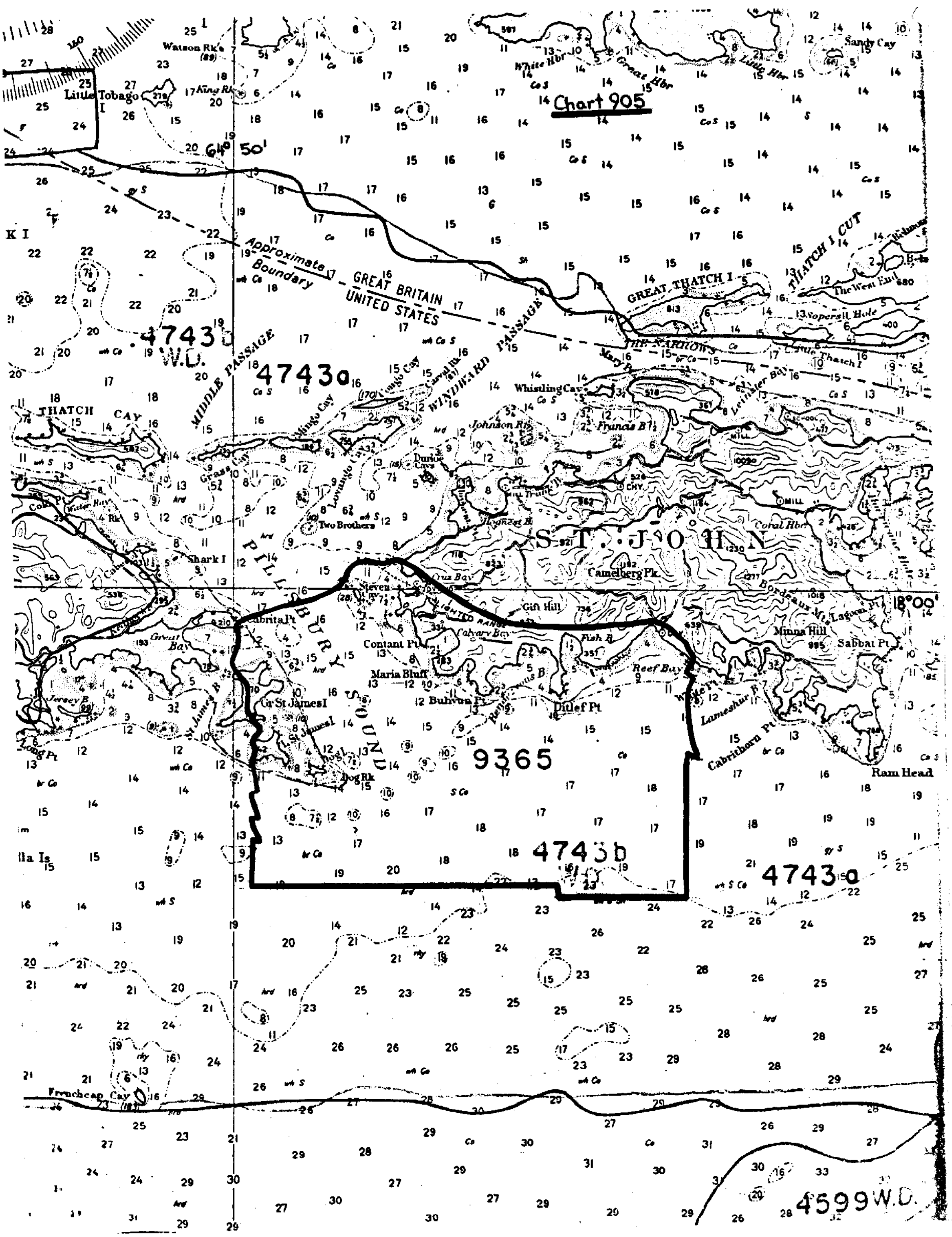


Chart 905
Little Tobago I
Watson Rk's
Sandy Cay
White Hbr
Great Hbr
Little Hbr
64° 50'
Approximate Boundary
GREAT BRITAIN
UNITED STATES
4743b W.D.
4743a
MIDDLE PASSAGE
WINDWARD PASSAGE
THATCH I CUT
GREAT THATCH I
The West End
Sopers Hole
Little Thatch I
THE NARROWS
THATCH CAY
Mingo Cay
Grass Cay
Lovango Cay
Congo Cay
Carval Rk
Whistling Cay
Johnson Rf
Francis B
Leinster Bay
Durloe Cays
Two Brothers
Shark I
PILLSBURY SOUND
ST. JOHN
Camelberg Pk.
Coral Hbr
Cruz Bay
Gift Hill
Bordeaux Mt
Lagoon Pt
18°00'
Great Bay
Cabrita Pt
Steven Cay
Contant Pt
Calvary Bay
Fish B
Reef Bay
Minna Hill
Sabbat Pt
Maria Bluff
Jersey B
St James B
Gr St JamesI
Lt St JamesI
Dog I
Dog Rk
Bulwun Pt
Ditlef Pt
Lameshur B
Cabrithorn Pt
Ram Head
Long Pt
9365
4743b
4743a
Frenchcap Cay
4599 W.D.

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

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9365

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
25647	16 Jun 79	Alex. Radichevich	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. Q.C.
25641	30 Mar 81	[illegible]	Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via
			Drawing No. 28 Q. C.
25640	2 Aug 82	R. Richter	Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via
			Drawing No. 33 Q.C.
			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
			Drawing No.
			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
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63