

9353

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-10-1-73 ..  
Office No..... H-9353 ..

LOCALITY

State ..... U.S. VIRGIN ISLANDS ..  
General Locality ..... ST. THOMAS ..  
Locality ..... BUCK I. TO GREAT ST. JAMES I. ..

1973

CHIEF OF PARTY  
Jeffrey G. Carlen

LIBRARY & ARCHIVES

DATE ..... 1/19/77 ..

9353

Area 3  
Charts  
905  
920  
938

**HYDROGRAPHIC TITLE SHEET**

H-9353

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 10-1-73

State Virgin Islands

General locality Saint Thomas

Locality Buck I. to Great St. James I.  
southeast coast

Scale 1:10,000 Date of survey 1/29/73 - 4/3/73

Instructions dated Oct. 19, 1972 and CHANGES No. 1, 2, & 3 of Nov. 7, 16, & 16  
of 1972 and No. 4 & 5 of Project No. OPR-423  
Jan. 29 & Mar. 14, 1973

Vessel Ship WHITING, Launch WH I, Launch WH II, and Whaler I

Chief of party CDR Jeffrey G. Carlen

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

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

Graphic record scaled by Ship's Personnel

Graphic record checked by same L.G. Cram (AMC)

Protracted by Calcomp 618 (AMC) Automated plot by: WHITING SYSTEM

Soundings penciled by WHITING Shipboard System Verified by: R.G. Cram, AMC

Soundings in ~~athoms~~ XXXX feet at MLW XXXX

REMARKS: Time Meridian of this survey was 0°.

changes in red by L.G. Cram (AMC)

Applied to stds 10-28-74  
[Signature]

DESCRIPTIVE REPORT

OPR 423-WH-73, H-9353

A. - PROJECT

This project was completed in accordance with the Project Instructions OPR 423-WH-73, Virgin Islands, October 19, 1972. Pertinent amendments and supplemental instructions are as follows:

Change No. 1	Nov. 7, 1972
Change No. 2	Nov. 16, 1972
Change No. 3	Nov. 16, 1972
Change No. 4	Jan. 29, 1973
Change No. 5	Mar. 14, 1973

Hydrography commenced on January 29, 1973 and was completed on April 3, 1973.

B. AREA SURVEYED

The western boundary <sup>9271</sup> junctioned with the 1972 Ship WHITING work WH-~~26~~<sup>20</sup>-1-72, H-~~9272 at Longitude 64°54'00"W and proceeded eastward along the south coast of St. Thomas. The eastern <sup>65</sup> boundary junctioned with contemporary survey WH-~~26~~<sup>20</sup>-1-73, H-935~~2~~<sup>2</sup> at Longitude 64°49'45"W, and the southern boundary junctioned with contemporary survey WH-~~10~~<sup>20</sup>-2A-73, H-936~~5~~<sup>52</sup> at Latitude 18°17'25"N.~~

The area was surveyed into the twelve foot contour except for specified areas such as Current Hole and St. James Cut. Shoal areas less than twelve feet will be delineated by photogrammetric methods.

Pole soundings were taken along the private day markers leading into Benner Bay Boat Basin. Data from this survey will be turned in by the photogrammetrist in Photo Party 62.

C. SOUNDING VESSEL

The Ship WHITING and her two launches WH-I and WH-II were used to conduct this survey. WHITING Whaler I was primarily used in connection with horizontal control and photo support. However, random pole soundings were taken in the shoal area of Mangrove Lagoon, St. Thomas by Whaler I for photogrammetric verification.

D. SOUNDING EQUIPMENT

The ship work data was determined with a Ross Model 5000 (544) Finline Depth Recorder, Serial No. 1095. Launches WH-I and WH-II used Raytheon Survey Fathometers Model 723-D with recorder Serial Numbers 37018 and 37019 respectively. All vessels surveyed in water up to depths of 112 feet.

Daily bar checks were observed with all pertinent data tabulated in the Correction to Echo Soundings Report. Velocity correctors were determined from Nansen and TDC data collected throughout the field season. (See Correction to Echo Soundings Report). These correctors should be applied prior to the smooth plot.

E. SMOOTH SHEET

The smooth sheet as defined in Section 6-1 of the Hydrographic Manual will be plotted on the Computer Plotting Systems at the Atlantic Marine Center in Norfolk, Virginia. The ship smooth boatsheet submitted with this report has TRA correctors, position correctors and predicted tides already applied. For a tabulation of these correctors see Correction to Echo Soundings Report and Electronic Control Report respectively.

F. CONTROL

Horizontal control for this survey was obtained with a Range-Range positioning system manufactured by Del Norte Technology. In areas where this system was impractical, visual hydrography was conducted.

Del Norte station locations used were either existing third-order triangulation stations or were located by officers of the WHITING using third-order methods. Visual signals were located by Photo Party 62 using third-order and photogrammetric methods. All D.P.'s and aids to navigation were located by sextant fixes.

A listing of the shore stations (and their geographic positions) on which Del Norte units were set up on is included in this report. A map-view diagram entitled "Electronic Stations" shows their geographic layout.

It should be noted that Station Buck and Station Catwalk can <sup>Note!</sup> be easily confused. Buck is the center of the Buck Island Lighthouse light and was used as a visual signal for calibrations and visual hydrography. Station Catwalk, while on the lighthouse, is not the center of the light. It is the location of the Del Norte shore station. All hydrographic data tapes being submitted by the WHITING using Station Catwalk are labeled "Buck!"

This discrepancy has been corrected throughout this report; all parameter tape listing, signal listings, and control data being correctly labeled.

#### G. SHORELINE

Shoreline was transferred to the boatsheet from Manuscripts T-12948, T-12943, and T-12944<sup>12949</sup>. Low water line was not defined by launches because of small tidal range and frequent rocks and coral alongshore. Shoreline features such as rocks were verified by field edit, and when possible, D.P.'s on rocks were obtained by the launches.

#### H. CROSSLINES

Crosslines encompassed 12.7% of the hydrography run. Agreement between crosslines and the regular hydrography was, on the average, within a foot.

#### I. JUNCTIONS

These eastern limits of the sheet junctioned with the contemporary Survey WH-10-2A-73, H-9365. The west limit junctioned with previous Survey WH-10-1-72, H-9271 and the southern limit with contemporary Survey WH-20-1-73, H-9352. Agreement along all junction boundaries was excellent with a maximum discrepancy of two feet.

#### J. COMPARISON WITH PRIOR SURVEYS

This sheet was compared with H-4743A, a 1:20,000 scale survey of 1923-24. Agreement varied from two feet in shoal areas to six feet in offshore areas, the prior survey showing deeper. However, the prior survey was in fathoms while the current survey is in feet without velocity correctors applied. If the correctors were added to the current survey and the soundings were then converted to fathoms, agreement would be excellent.

#### Pre-Survey Review Items

All depths found during investigation of the following items are based on predicted tides and may change when the smooth tides are applied.

Numbers were assigned to the PSR Items by the WHITING. On this sheet, 100-series (circled items), 200-series (dashedot circled items), and 300-series (circled items) occur. Included in this report are copies of the PSR layouts with each item properly numbered.

To avoid cluttering the boatsheet, only the least depths of the PSR investigations were plotted on the development sheet. In cases where a PSR item was not found, developments of the area were usually plotted.

K. COMPARISON WITH THE CHART ✓

A comparison with the Chart C&GS 938, 1970 (1:15,000) was made by the hydrographer. Soundings randomly checked agreed within two feet. The 60 foot depth contour line was exceptionally close to the charted contour line.

L. ADEQUACY OF THIS SURVEY ✓

This survey is complete, accurate, and adequate to supersede all prior surveys in this area for charting purposes.

M. AIDS TO NAVIGATION ✓

The following aids to navigation were located within the area of WH-10-1-73.

<u>CHARTED NAME</u>	<u>DESCRIPTION</u>	<u>LIGHT LIST #</u>	<u>ACTUAL POSITION</u>	<u>CHARTED POSITION</u>
✓Buck Is. Lt.	F1 W 4 sec.	1440	18/16.8 64/53.6	18/16.8 Δ <sup>*14</sup> 64/53.6
✓Current Rock Lt.	F1 R 6 sec. <i>Position No.</i>	1439	18/19.1 64/50.1	18/19.1 64/50.1
✓N "2"	Red Nun Buoy <i>(Position No. 3358)</i>		18/17.9 64/53.4	18/17.9 64/53.4

N. STATISTICS ✓

Hydrography commenced on this boatsheet from Julian Day 029 until Julian Day 060. Also on Days 078, 087, and 093 small developments were completed.

The following is a tabulation of the final statistics for WH-10-1-73.

<u>VESSEL</u>	<u>NAUTICAL MILES OF SOUNDING LINES RUN</u>	<u>NO. OF POSITIONS</u>
Ship WHITING	74.9	472
WHII	162.3	1463
WH II	43.4	305
Totals	<u>280.6</u>	<u>2240</u>

Area of Sheet = 13.4 square nautical miles  
Total Bottom Samples = 53  
Detached Positions = 5  
Percent Crosslines = 12.7%

O. MISCELLANEOUS

None.

P. RECOMMENDATIONS

None.


Q. REFERENCE TO REPORTS

1. Electronic Control Report 1973, Project OPR-423-WH-73
2. Horizontal Control Report 1973, Project OPR-423-WH-73
3. Correction to Echo Sounding Report 1973, Project OPR-423-WH-73
4. Coast Pilot Report
5. Chart Investigation Report

APPROVAL SHEET

Submitted by: James D. Servais  
LTJG, NOAA

Supervision of field and office work on this hydrographic survey was continuous to insure completeness of survey in accordance with the project instructions.

Approved/Forwarded:   
Jeffrey G. Carlen  
CDR, NOAA



PRESURVEY REVIEW LISTING

ITEM & LOCATION	CHARTED DEPTH (ft.)	RESULTS
110 18 12 1800 064 51 4800		
120 18 12 3600 064 53 4200		
121 18 13 0600 064 52 5400		
122 18 13 1200 064 52 3000		
123 18 13 0600 064 51 4800		
130 18 15 0000 064 47 2300		
131 18 15 4500 064 46 4200		
132 18 15 1800 064 46 1600		
133 18 12 5500 064 44 2100		
134 18 11 1800 064 46 3200		
140 18 18 4500 064 49 3000		
150 18 18 0100 064 49 0820		
160 18 19 4150 064 48 1580		
180 * 18 19 0100 064 50 0350	19	<sup>4</sup> 18 ft. found 15 meters west
181 * 18 19 0100 064 50 0000	16	*19 ft. found 15 meters northwest *11 ft. found 50 meters south
200 18 15 2000 064 53 0500		
201 18 14 2800 064 50 4600		
202 18 16 0600 064 50 4500		
203 18 14 5700 064 49 3700		
204 18 15 1400 064 49 1800		
205 18 16 0200 064 48 4700		
206 18 15 5700 064 47 5700		
207 18 15 4100 064 47 2800		
210 18 15 4500 064 46 0400		
<del>211 18 15 2400 064 46 0700</del>		
212 18 15 2800 064 45 4300		

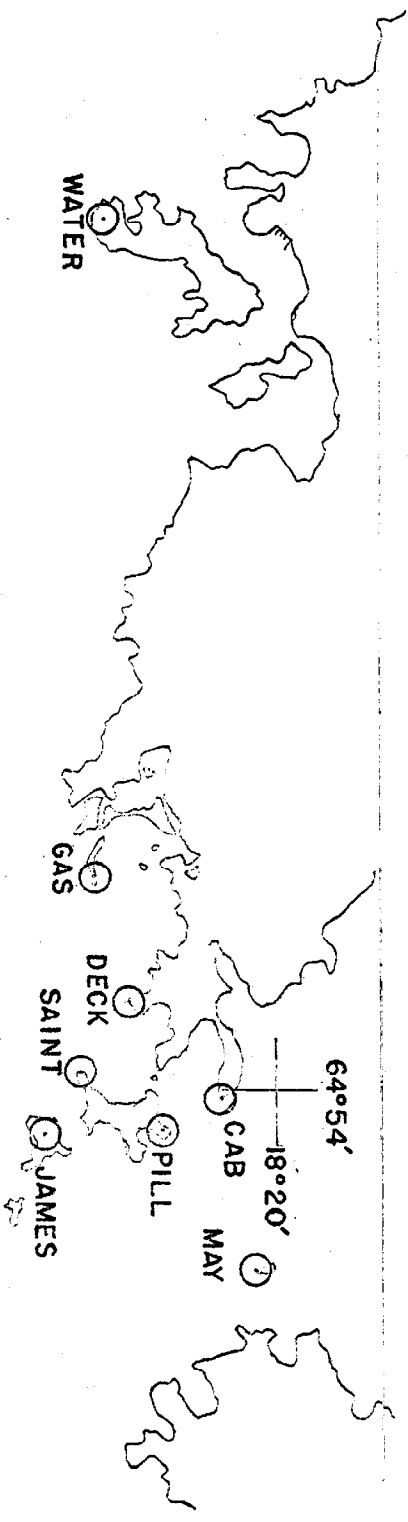
\* on Excess overlay

220	18 14 3500	064 46 0000			
221	18 14 5100	064 45 2500			
230	18 10 4700	064 53 3700			
231	18 10 5400	064 53 1200			
232	18 11 1100	064 52 3800			
233	18 11 3700	064 52 2400			
234	18 11 3600	064 52 0500			
235	18 11 5500	064 51 4200			
236	18 12 0600	064 51 1300			
237	18 12 0300	064 50 2900			
238	18 12 0400	064 50 1500			
* 252	* 18 18 1300	064 52 3650	11	<sup>4</sup> 12 ft. found <sup>5</sup> 70 meters <sup>WSW</sup> northwest	
* 254	* 18 18 1600	064 52 2830	14	14 ft. found on location	
* 255	* 18 18 1780	064 52 2620	8	8 ft. found <sup>2</sup> 30 meters northwest	
* 256	* 18 18 1500	064 52 2670	12	<sup>4</sup> 15 ft. found 50 meters west <sup>NW</sup>	
* 258	* 18 18 4650	064 51 3630	28	29 ft. found 40 meters south	
* 260	* 18 18 3370	064 51 2950	12	8 ft. found on Photobathymetry 11 ft. found on location	
* 262	* 18 18 4850	064 51 1930	24	25 ft. found on location	
^ 263	* 18 18 4930	064 51 1620	28	<sup>5</sup> 24 ft. found <sup>on location</sup> 30 meters to northwest	
* 270	* 18 18 3350	064 50 5380	30	<sup>7</sup> 26 ft. found on location	
* 271	* 18 18 3620	064 50 4400	23	<sup>32</sup> 29 ft. found <sup>4</sup> 30 meters southwest	
* 273	* 18 19 2100	064 50 1010	24	23 ft. found 35 meters northwest	
275	18 19 0430	064 49 1480			
277	18 18 0980	064 49 1250			
278	18 18 0820	064 49 1090			
280	18 17 5720	064 48 3100			
282	18 18 4060	064 48 2350			
284	18 19 3390	064 48 0720			
285	18 19 4330	064 48 0450			
286	18 19 3580	064 47 5730			

288	18 16 2780	064 46 5810			
<del>290</del>	<del>18 18 4850</del>	<del>064 46 4360</del>			
291	18 18 4640	064 46 4180			
293	18 18 3450	064 46 3840			
295	18 17 1130	064 45 0100			
* 300 *	18 15 5600	064 53 4500	12 fathoms	72 ft. found 70 meters to east	
* 301 *	18 16 0000	064 53 1300	11 fathoms	67 ft. found 70 meters northeast	
* 352 *	18 18 3700	064 53 4450	34	34 ft. found <sup>on location</sup> <del>50 meters to southeast</del>	
* 354 *	18 17 5400	064 53 3530	57	50 <sup>2</sup> ft. found 50 meters northeast	
* 356 *	18 17 4100	064 53 1450	56	54 <sup>5</sup> ft. found <sup>on location</sup> <del>25 meters south</del>	
* 358 *	18 17 3770	064 52 4950	57	53 <sup>7</sup> ft. found on location	
* 360 *	18 17 2150	064 52 5630	59	58 <sup>5</sup> ft. found <sup>2</sup> 100 meters <sup>North</sup> southeast	
* 361 *	18 17 2530	064 52 5430	60	60 ft. found on location	
* 363 *	18 17 0170	064 53 2710	47	47 <sup>9</sup> ft. found <sup>40 meters South</sup> <del>on location</del>	
* 365 *	18 17 2940	064 52 4380	59	60 <sup>59</sup> ft. found <sup>7</sup> 50 meters <del>south</del> NNE	
* 367 *	18 18 4550	064 51 3070	27	26 <sup>v</sup> ft. found on location	
* 368 *	18 18 4630	064 51 2800	27	27 <sup>v</sup> ft. found on location	
* 370 *	18 18 5310	064 51 1780	26	26 <sup>v</sup> ft. found on location	
* 381 *	18 16 4550	064 50 4480	57	53 <sup>7</sup> ft. <sup>found on location</sup> <del>30 meters southeast</del>	
* 382 *	18 16 5180	064 50 4280	53	74 <sup>6</sup> ft. found 50 meters to <del>WNW</del> southwest, not developed	
* 383 *	18 17 0330	064 50 4040	53	83 <sup>7</sup> ft. found 25 meters northeast	
* 384 *	18 16 5270	064 49 5500	54	84 ft. found 30 meters southwest 54 ft. found on location	
* 385 *	18 16 5170	064 49 5200	53	54 <sup>4</sup> ft. found 90 meters west	
* 386 *	18 17 4520	064 49 5750	56	54 <sup>6</sup> ft. found 50 meters <del>north</del> NNW	
387	18 17 1310	064 49 1870			
390	18 19 2350	064 49 2230			
391	18 19 1990	064 49 1710			
392	18 19 2600	064 49 1480			
395	18 18 0990	064 47 5190			
397	18 16 3200	064 46 2010			

399	18 18 5500	064 45 2890
400	18 14 3000	064 53 4300
401	18 14 1000	064 53 0000
402	18 14 1200	064 51 1900
403	<del>18 13 3400</del>	<del>064 50 1800</del>
404	18 15 2900	064 48 4800
405	18 15 1000	064 46 3000
580	18 17 1400	064 48 5800
581	18 17 1190	064 48 5350
582	18 17 1870	064 48 3280
583	18 17 2780	064 48 2050
584	18 17 3490	064 48 0750
585	18 17 3940	064 48 0130
586	18 17 4630	064 47 4820
587	18 17 5560	064 47 4050
588	18 18 0410	064 47 2070
589	18 18 1500	064 47 1840
590	18 18 2150	064 47 1190
591	18 18 2620	064 47 0200
592	18 18 2650	064 46 4570

65° 00'



ELECTRONIC STATIONS

CONTROL

Sw. Sheet list

Bark Island Signals plotted on Sheet

8	18	18	23.120	65	0	7.840	SE
10	18	18	35.030	64	57	26.210	SE
14	18	16	48.500	64	53	34.690	SE
18	18	18	32.080	64	49	49.220	E
20	18	19	49.440	64	11	34.350	E
22	18	13	59.740	64	51	11.100	E
24	18	18	49.030	64	50	44.800	NW
26	18	18	25.480	64	50	9.340	S
27	18	19	7.150	64	49	33.880	S
30	18	18	6.240	64	49	36.880	SE
102	18	18	44.690	64	43	51.670	W
106	18	18	52.820	64	43	47.400	NW
110	18	18	48.760	64	33	43.550	NW
114	18	18	52.950	64	33	30.390	NW
116	18	18	55.530	64	22	28.660	N
118	18	18	53.710	64	33	24.500	SE
120	18	18	48.220	64	22	21.740	NE
122	18	18	38.800	64	11	21.340	NE
123	18	19	13.200	64	14	29.910	NW
124	18	18	47.360	64	33	25.600	E
125	18	19	17.130	64	11	25.740	N
129	18	19	13.660	64	11	25.580	SE
130	18	19	8.430	64	11	10.800	SE
132	18	19	5.480	64	11	13.350	SE
134	18	19	4.110	64	11	5.540	NW
136	18	19	0.780	64	11	2.110	N
138	18	18	59.770	64	11	0.330	NE
140	18	18	58.790	64	5	4.990	NE
142	18	18	52.870	64	39	0.290	SW
144	18	18	58.800	64	39	3.360	SW
146	18	19	33.770	64	43	3.270	W
148	18	19	7.770	64	43	3.440	W
150	18	19	8.770	64	37	3.200	W
152	18	19	7.420	64	34	4.480	SW
158	18	19	15.360	64	22	0.440	SW
160	18	19	19.620	64	34	1.590	W
166	18	19	32.190	64	33	3.970	NW
168	18	19	32.670	64	33	3.180	NW
170	18	19	35.510	64	21	3.310	N
172	18	19	33.090	64	7	7.480	N
176	18	16	33.240	64	18	9.220	NE
180	18	16	39.950	64	26	7.760	NE
182	18	16	42.250	64	28	8.900	N
184	18	16	42.810	64	38	8.530	N
185	18	16	54.040	64	39	8.450	N
186	18	16	39.500	64	41	9.990	W
187	18	16	48.510	64	47	7.010	SW
188	18	16	36.870	64	41	5.530	SW
190	18	16	46.210	64	46	6.110	NW
999	18	16	46.54	64	53	34.74	NE

Col work

ELECTRONIC CONTROL PARAMETERS

Signal Stations used in this Range-Range survey are listed below with their geographic positions.

An observer standing at "R<sub>1</sub>" Station and looking directly at "R<sub>2</sub>" Station would find the survey area to his right (i.e. A=0).

Water	18/18/35.03	64/57/26.21
Catwalk	18/16/48.54	64/53/34.74
Deck	18/18/49.03	64/50/44.86
James	18/18/06.24	64/49/36.88
Gas	18/18/32.08	64/51/49.22
Saint	18/18/25.48	64/50/09.34
Pill	18/19/07.15	64/49/37.09
May	18/19/50.29	64/48/26.37

## CONTROL DATA

WH I

WH 10-1-73, H-9353 Virgin Islands

<u>Julian Day</u>	<u>Position No.</u>	<u>Time of Hydro</u>	<u>Control Stations</u>
031	1000-1046	180350-200820	Catwalk-Water <sup>101</sup>
	2172-2252	145430-174910	Water-Catwalk <sup>102</sup>
032	1047-1094	180620-195710	Catwalk-Water <sup>101</sup>
033	1098-1114	125620-140340	Water-Catwalk <sup>102</sup>
	1114-1236	143740-191540	Catwalk-Water <sup>101</sup>
036	1237-1339	141420-200610	Catwalk-Water <sup>101</sup>
037	1341-1351	131710-133130	Water-Catwalk <sup>102</sup>
	1352-1414	135020-151350	Catwalk-Deck <sup>103</sup>
	1460-1472	193800-195150	Catwalk-Deck <sup>103</sup>
	1415-1441	180840-185020	Deck-Catwalk <sup>104</sup>
	1442-1459	190110-190923	Deck-Catwalk <sup>104</sup>
038	1473-1686	123030-201300	Deck
039	1687-1759	134110-185917	Deck
040	1760-1892	133040-175630	James-Catwalk <sup>105</sup>
043	1893-1938	131150-175550	James
1	1959-1979	171340-173310	James-Catwalk <sup>105</sup>
	1939-1953	184710-191340	Deck-James <sup>106</sup>
044	1980-1986	125250-125930	Catwalk-Deck <sup>103</sup>
	3000-3005	142550-143200	Deck
	3011-3015	152900-153230	James
045	3022-3085	134500-172220	James-Gas <sup>107</sup>
	3096-3119	174640-192300	James-Gas <sup>107</sup>
046	3086-3105	122110-130500	James-Gas <sup>107</sup>
	3111-3123	145030-150520	Deck-James <sup>106</sup>
	3125-3163	170520-182320	Saint-Deck <sup>108</sup>
	3164-3194	183800-192750	Saint-Deck <sup>108</sup>
051	3195-3239	164540-174520	Pill-Saint <sup>109</sup>
	3132-3146	191400-193630	May-Pill <sup>110</sup>
058	3240-3314	130720-161100	Saint
	3322-3336	141140-182825	Saint
	3315-3321	193030-193550	Saint
060	3329-3330	120900-130200	May-Pill <sup>110</sup>
	3322-3327	125040-125620	May-Pill <sup>110</sup>
078	3333-3356	170015-182130	Visual
087	3362-3385	142715-173830	Visual



CONTROL DATA

WH II

WH 10-1-73, H-9353 Virgin Islands

<u>Julian Day</u>	<u>Position No.</u>	<u>Time of Hydro</u>	<u>Control Stations</u>
029	2003-2082	174220-202800	Catwalk-Water <sup>101</sup>
030	2083-2170	131520-174400	Catwalk-Water <sup>101</sup>
045	2253-2285	134900-194530	Visual
046	2286-2320	144545-194915	Visual
051	2321-2344	135345-153115	Visual
	2354-2359	190145-190645	Visual
	2328-2348	180530-184645	Pill-Visual
057	2360-2378	185140-194420	Saint
093	3365-3371	130250-131310	James-Buck <sup>105</sup>

CONTROL DATA

Ship WHITING

038	1-290	133120-202101	Catwalk-Deck <sup>103</sup>
039	291-353	173851-192001	Deck
058	355-420	142501-174401	Saint
059	421-471	132330-152230	Catwalk-Saint <sup>102</sup>

12/10/74 H-9353 TC/T1

000000	0	0017	0001	036	293000	009353
000000	0	0017	0001	041	293000	009353
000000	0	0013	0001	057	293000	009353
000000	0	0013	0001	060	293000	009353
000000	0	0000	0000	400	293000	009353
000000	0	0000	0001	001	293100	009353
000000	0	0000	0000	400	293100	009353
000000	0	0000	0001	001	293200	009353
000000	0	0000	0000	400	293200	009353

\*\*\*\*\* TAPEMARK \*\*\*\*\*  
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VELOCITY CORRECTIONS FOR SURVEY H 9353.

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

### 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 to establish a tide datum for photogrammetric work. All seven were near the work area and remained in operation until the end of hydrography. Station names were as follows: Hassel Island, St. Thomas, Bovoni Bay, St. Thomas, Benner Bay, St. Thomas, Cowpet Bay, St. Thomas, Cruz Bay, St. John, Hart Bay, St. John, and Lameshur Bay, St. John. Tide observers sent the marigrams to Rockville monthly with the exception of the March record for Hart Bay, a bubbler, which was scanned and logged by WHITING personnel.

A copy of the letter to the Chief, Tides Division is included in the appendix of this report. The letter requests zoning recommendations and the necessary hourly heights for the inclusive months of hydro to be furnished to AMC Processing Division.

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

10/10/73

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center

Hourly heights are approved for Bovoni Bay, Benner Bay, Cowpet Bay

Tide Station Used (NOAA form 77-12):

Period: January - April 1973

HYDROGRAPHIC SHEET: H-9353

OPR: 423

Locality: Virgin Islands - South coast

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

Height of Mean High Water above Plane of Reference is

\*Remarks:

<u>STATION</u>	<u>MLW</u>	<u>MHW</u> (above Plane of Reference)
Bovoni	2.5	0.95
Benner	3.2	0.90 <i>USE BENNER SHEET</i>
Cowpet	3.1	0.91

Tide Zones: multiple zoning is recommended for this sheet.

	<u>Time (hrs.)</u>	
	<u>HW</u>	<u>LW</u>
Bovoni	2.0	5.7
Benner	2.2	6.3
Cowpet	1.8	6.3

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

*Robert A. Cumming*  
Chief, Tides Branch

IN Conversation with R. Smith 11/26/74  
by Phone he REC. USING Benner Direct

Walt

ATLANTIC MARINE CENTER  
VERIFICATION OF SMOOTH TIDES

SURVEY H- 9353

PLANE OF REFERENCE MLW OR MLLW  
TIME MERIDIAN 000GMT  
HEIGHT DATUM ON STAFFS 1. 3.2 2. \_\_\_\_\_ 3. \_\_\_\_\_

TIDE STATIONS	POSITION	TYPE GAGE	TIME CORR.		HEIGHT CORR. *	
			H.W.	L.W.	H.W.	L.W.
1. <u>Benner</u> <u>Virgin Is</u>	Ø <u>18° 19.2'</u> Y <u>64° 52.2'</u>					
2.	Ø Y					
3.	Ø Y					

HOURLY HRIGHTS  FROM ROCKVILLE OFFICE  
 FROM FIELD MARIGRAMS

VERIFIED BY: Rockville

TIDE ZONING  NOT APPLICABLE  
 BY COMPUTER  
 FROM TWO OR MORE GAGES

LIMITS AND DESCRIPTION OF ZONING METHODS

TIDE CORRECTIONS COMPILED  BY COMPUTER  
 MANUALLY

VERIFIED BY: GFT  
VERIFIED BY: \_\_\_\_\_

HEIGHT OF MHW ABOVE PLANE OF REFERENCE [0.9]

TIDE CORRECTIONS VERIFIED ON SOUNDING PRINTOUT BY: GFT

DATE OF VERIFICATION 12/13/74

\*OR RATIO

EXAMINED & APPROVED



GEOGRAPHIC NAMES

H-9353

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	I	J	K	
BENNER ✓												1
BENNER BAY ✓												2
BEVERHOUT POINT ✓												3
BOLONGO BAY ✓												4
BOLONGO POINT ✓												5
BOVONI BAY ✓												6
BOVONI CAY ✓												7
BUCK ISLAND ✓												8
CARRITA POINT ✓												9
CALE ROCK ✓												10
CAPELLA BAY ✓												11
CAPELLA ISLANDS ✓												12
CARIBBEAN SEA ✓												13
CAS CAY ✓												14
CHRISTMAS COVE ✓												15
COCULUS POINT ✓												16
COCULUS ROCK ✓												17
COMPASS POINT ✓												18
COMPET BAY ✓												19
COW ROCK ✓												20
CURRENT HOLE ✓												21
CURRENT ROCK ✓												22
DECK POINT ✓												23
FISH CAY ✓												24
GRASSY CAY ✓												25

APPROVED

*Chas. E. Harrington*

STAFF GEOGRAPHER - C5142

18 AUG 1977



GEOGRAPHIC NAMES

also listed on preceding page

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	I	K	
GREAT BAY ✓											1
GREAT ST. JAMES ISLAND ✓											2
JERSEY BAY ✓											3
KID ROCK ✓											4
LITTLE ST. JAMES ISLAND ✓											5
LONG POINT ✓											6
MANGROVE LAGOON ✓											7
NAZARETH BAY ✓											8
PACKET ROCK ✓											9
PATRICIA CAY ✓											10
PATRICK POINT ✓											11
RED POINT ✓											12
ROTTA CAY ✓											13
ST. JAMES BAY ✓											14
ST. JAMES CUT ✓											15
ST. THOMAS ✓											16
STALLEY BAY ✓											17
THE STRAGGLERS ✓											18
U.S. VIRGIN ISLANDS (TITLE) ✓											19
WATER POINT ✓											20
											21
											22
											23
											24
											25

APPROVED

*Chas. E. Harrington*

STAFF GEOGRAPHER-C51x2

18 Aug. 1977

ATLANTIC MARINE CENTER  
APPROVAL SHEET  
FOR  
AUTOMATED SURVEY H-9353

- 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: October 14, 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: 12/2/76

Signed: R. A. Hall

Title: Chief, Processing Division

**HYDROGRAPHIC SURVEY STATISTICS**  
**HYDROGRAPHIC SURVEY NO. H-9353**

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & PNO, excess		1	BOAT SHEETS (2 parts, mylar)		1 <del>XX</del>	
DESCRIPTIVE REPORT		1	OVERLAYS (preliminary)		3 <del>XX</del>	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ACCORDION ENVELOPES	I		1 2			
CAHIERS	2-with printouts		I			
VOLUMES	2					
BOXES						

T-SHEET PRINTS (List)

T-12943, T-12944, T-12948, and T-12949

SPECIAL REPORTS (List)

See Section "Q" of Descriptive Report

**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				2240
POSITIONS CHECKED		250		
POSITIONS REVISED		50		
DEPTH SOUNDINGS REVISED		300		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		0		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		40		
JUNCTIONS		20		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		111		
SPECIAL ADJUSTMENTS		18		
ALL OTHER WORK		275		
<i>11/2/77</i> TOTALS <i>C.C.I. F.P. SAULSBURY - HARS</i>		464	28	
PRE-VERIFICATION BY G.D. Hendrix, C. Meekins	BEGINNING DATE 10/09/74	ENDING DATE 08/06/75		
VERIFICATION BY R.G. Cram	BEGINNING DATE 10/12/75	ENDING DATE 10/29/75		
REVIEW BY Hydrographic Inspection Team (AMC)	BEGINNING DATE 10/14/76	ENDING DATE 10/22/76		

*Cartoons 9 6/28/77*

Cartoon; 7445 D. HAN 10-6-77

REGISTRY NO. H-9353(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-9353

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 9-23-82 TIME REQUIRED \_\_\_\_\_ INITIALS JHC

REMARKS:

H-9353

Information for Future Presurvey Reviews

The inadequately surveyed area of Mangrove Lagoon and Benner Bay should be developed on a future survey.

<u>Position Index</u>		<u>Bottom Change Index</u>	<u>Use Index</u>	<u>Resurvey Cycle</u>
<u>Lat.</u>	<u>Long.</u>			
181	0650	3	2	50 years
181	0645	2	1	50 years

HYDROGRAPHIC INSPECTION TEAM  
ATLANTIC MARINE CENTER  
HYDROGRAPHIC SURVEY REVIEW

DATE:

REGISTRY NO.: H-9353

FIELD NO.: WH-10-1-73

GENERAL LOCALITY and SPECIFIC LOCATION:

St. Thomas, Virgin Islands - Southeast Coast

SURVEYED: January 29, 1973 through April 3, 1973

PROJECT NO.: OPR-423

SCALE: 1:10,000

SOUNDINGS BY: Ross Model 5,000  
Fathometer  
Raytheon Model 723D

CONTROL: Del-Norte,  
Visual and  
~~Super~~ hyper-visual

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

1. Control and Shoreline

The control is adequately described in the Descriptive Report.

The shoreline was taken from unreviewed, Class I manuscripts T-12943, T-12944, T-12948, and T-12949; dates of photographs - November 1971-1972, February 1974; final compilation - February 1975. The photobathymetry soundings and bottom features were taken from manuscripts flown in November 1971-1972 and February 1974.

## 2. Hydrography

A. Photobathymetry: All photobathymetry soundings and rocks were shown in red. Photographs were made available to the verifier to check any differences with the hydrographic depths. The photobathymetry soundings were used only when they agreed with the hydrography or if needed to supplement the hydrography. There were numerous places where the photobathymetry and hydrography were in disagreement. When this occurred the hydrography was accepted, after close examination of the photographs by Photogrammetric personnel, and the disagreement could not be resolved.

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

C. Depth Curves: The depth curves along the shoreline, out to the 12 foot curve, were drawn with the aid of photobathymetry depths.

D. Low-water Line: The mean low-water line was not delineated by the hydrographer due to the very steep slope of the bottom close to shore. The numerous rocks and reefs close to the shore made it extremely difficult to show a continuation of any low-water line. The low-water line from Photobathymetry was only shown in isolated areas.

The reef around Current rock (in latitude 18° 19' 01", longitude 64° 50' 06") is outlined only by its extremes in the direction of the channels; it appears to be continuous, but is not shown as such by soundings and rock symbols and descriptions which interfere with the drawing of this feature. *This feature is adequately delineated, 11/17 JFS*

E. Developments: Developments were run on Pre-survey Review Items. The hydrographer listed the results in tabulated form; Item, Location, Charted Depth, and Results.

## 3. Condition of the Survey

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

A. Position numbers were not assigned in accordance with section 1.4.5.2 of the Provisional Hydrographic Manual, resulting in the duplication of the following position numbers: 3097-3105, 3117-3119, 3132-3139, 3245, and 1114. The position numbers were duplicated on the survey with the addition of the suffix "A".

B. The Volumes appear incomplete, as they lack information concerning certain positions and what may have happened to affect them. The hydrographic information index was not filled out.

#### 4. Junctions

An adequate junction has been effected with the following contemporary surveys: H-9271 (1972) on the west  
H-9352 (1973) on the south  
H-9365 (1973) on the east

Brown soundings were added from H-9271 and red soundings from H-9352 to better delineate curves in junctional areas.

#### 5. Comparisons

A. Prior Surveys: This sheet was compared with H-4743a (1923-1924), 1:10,000. The soundings on H-4743a were within one to two feet in most areas. In deep water the difference was as much as three feet. A few shoal areas appear on the present survey due to the much closer line spacing. The most notable difference in shoal areas appears on a feature called Cow and Calf Rocks ( in latitude 18° 18' 20"N, longitude 64° 50' 50"W). These appear as ~~one~~ <sup>two</sup> shoals on the present survey. *No difference, but better development on present survey. 4/11/77 JPS.*

PSR item #252, an 11 foot sounding in latitude 18° 18' 13"N, longitude 64° 52' 36.5"W, and PSR item #256, a 12 foot sounding in latitude 18° 18' 15"N, longitude 64° 52' 26.7"W were carried forward to the smooth sheet from prior survey H-4743a. *Disregard these sdgs. they were determined to be misplotted on their original source. 4/11/77 JPS.*

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

A comparison has been made with the present survey and the following wire drag soundings, from detached positions and groundings, were not adequately verified or disproved. These were carried forward to the present survey:

<u>Sounding</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Type</u>
(a) 53 ft.	18° 16' 51.0"N	64° 50' 43.4"W	Grounding
(b) 53 ft.	18° 17' 02.8"N	64° 50' 40.9"W	Grounding
(c) 31 ft.	18° 18' 38.1"N	64° 50' 38.5"W	Detached
(d) 23 ft.	18° 18' 37.0"N	64° 50' 43.8"W	Detached ✓
(e) 28 ft.	18° 18' 12.1"N	64° 52' 28.2"W	Detached ✓
(f) 59 ft.	18° 17' 22.0"N	64° 52' 56.1"W	Detached ✓
(g) 42 ft.	18° 16' 59.1"N	64° 53' 41.1"W	Detached ✓

The remaining wire drag soundings from hangs and detached positions were adequately verified and a tabulated list of the results can be found under "Pre-survey Review" in the Descriptive Report.



4  
*Groundings considered to be erroneous - disregard*

Two groundings, (a) and (b) on the preceding page, were carried forward, but the records should be checked during Quality Control to attempt to disprove their existence. These depth differences are attributed to natural changes in the bottom and the less detailed and less accurate methods employed on the prior surveys.

#### 6. Chart Comparison

C&GS 938, 4th edition, dated October 10, 1970 - The hydrography and the chart show good agreement. The 18, 30, and 60 foot curves are relatively close; however, there were areas on the chart where depths for the 12 and 18 foot curves were not shown. This survey, in conjunction with the photobathymetric survey, appears to provide good coverage for the areas of Bolongo Bay, Bovonzi Bay, Stalley Bay, Nazareth Bay, and Cowpet Bay. ~~Packet~~ Rock (in latitude 18° 18' 04"N, longitude 64° 53' 30"W) shows a charted depth of five feet. The present survey shows seven feet. Photobathymetry depths provide ~~inadequate~~ coverage for Mangrove Lagoon and Benner Bay. *5 retained from WD*

To the east of Cas Cay in latitude 18° 18' 40"N, longitude 64° 51' 25"W, the chart shows a shoal of 12 feet. The present hydrographic survey indicates an 11 foot sounding on the excess overlay; the photobathymetry has a least depth of eight feet, which appears on the smooth sheet.

The stranded wreck on the smooth sheet in latitude 18° 16' 43"N, longitude 64° 53' 27"W was transferred from shoreline manuscript T-12948. A fifth edition (1974) on this chart shows the wreck plotted in latitude 18° 16' 42"N, longitude 64° 53' 36"W, which appears to be in error. It is recommended that the charted position be changed to agree with this survey location. *May be another wreck - retain as charted.*

Aids to Navigation: Eleven daybeacons located in Benner Bay in latitude 18° 19' 18"N, longitude 64° 52' 12"W were not located by the field, nor are they charted. Information from shoreline manuscript shows these as privately maintained daybeacons and are shown on this survey as privately maintained markers. The aids to navigation on the present survey are in substantial agreement with their charted positions and adequately mark the features intended; however, it is recommended that a buoy be established to mark the eight foot shoal charted in latitude 18° 18' 35"N, longitude 64° 51' 27"W, as there does appear to be a considerable amount of small craft activity in the area.

This more completely developed present survey is adequate to supersede the prior surveys and charted hydrography in the common area, with the addition of those soundings carried forward from prior surveys.

7. Compliance With Instructions

This survey complies with the Project Instructions.

8. Additional Field Work

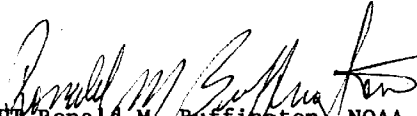
This is an excellent basic survey. Additional field work is not recommended.

9. Hydrographic Inspection Team Comments

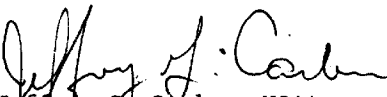
Hydrographic Inspection Team comments are included within this report and Verification deficiencies found, if any, have been corrected on the smooth sheet.

Survey H-9353

Examined and Approved:  
Hydrographic Inspection Team  
Date: October 14, 1976

  
CAPT Ronald M. Buffington, NOAA  
Chief, Operations Division

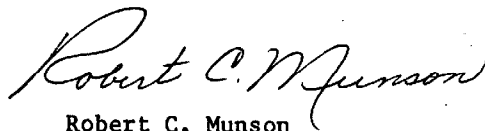
  
CDR Robert A. Trauschke, NOAA  
Chief, Processing Division

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

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

  
William L. Johns  
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

June 29, 1977

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

THRU: Chief, Quality Control Branch

FROM: F. P. Saulsbury *F. P. Saulsbury*  
Quality Evaluator

SUBJECT: Quality Control Report for H-9353 (1973), U.S. Virgin Islands,  
Saint Thomas, Buck Island to Great Saint James Island

Survey H-9353 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. Shoreline and photogrammetric information was compared with the final reviewed photogrammetric manuscripts T-12943, T-12944, T-12948, and T-12949 compiled from photography of 1971, 1972, and 1974 and field edited in 1973 and 1975.

Numerous revisions and additions were applied to photogrammetric information shown on the smooth sheet during quality control inspection.

Included in these revisions were corrections to shoreline, ledges, and foul limits, revising bare rocks to rocks awash and rocks awash to sunken rocks, the removal of two bare rocks that were found to be ink splatters on the original manuscript, the revision of bare piling to awash piling and vice versa, the repositioning of nine daybeacons, the removal of an islet which was actually the arrow head of a leader line on the original manuscript, deletion of elevations with no accompanying features. Islets, bare rocks, and ledge with no identifiable source were deleted.

Additions made to the smooth sheet included foul areas, ledge, bare rocks, islets, rocks awash, sunken rocks, rock elevations, descriptions of piers,



slips, mangrove islets, and foul and coral legends. Bare rocks or islets falling within signal circles were added.

The numerous revisions and additions to the shoreline detail indicate less than normal care in its transfer.

2. Signals 134, 136, 187, and 190 falling offshore of the high water line are not described. There is no indication of rocks on the topo manuscripts at signals 138 and 188 described as rocks, with no elevations given, on the smooth sheet.

3. Several meaningful soundings were added from the photobathymetric manuscripts. With the addition of zero soundings, some low water curves were added. The description "RK" was appended to several soundings transferred to the smooth sheet in accordance with photobathymetric information. A 1-foot sounding in latitude  $18^{\circ}18.67'$ , longitude  $64^{\circ}53.93'$  was erroneously transferred as an 11-foot sounding and was corrected during quality control inspection.

4. A malfunction of the digital readout, printing six soundings about 10 feet too shoal, at positions 1552-1553 and 1557-1558 was detected because of obvious crossline conflict. This pseudo-shoal feature had been emphasized with brown curves on either side of the crossline. These soundings were corrected and curves removed during quality control inspection.

5. Some additional soundings representing least depths on shoal features were carried forward from prior surveys. Three elevations of islets were carried forward from T-3779 (1918) and T-3778a (1918-19).

With the addition of these items the present survey is adequate to supersede the prior surveys within the common area.

6. The dredged channel in Benner Bay charted from letter 1385 of 1972 with a reported depth of 7 feet apparently has a controlling depth of 4 feet according to photobathymetric soundings shown on the present survey. This area of Benner Bay as well as the adjacent area north and west of Bavoni Cay were not adequately developed by present survey hydrography or photobathymetry. Completion of the survey of Benner Bay is recommended.

7. The pier charted in latitude  $18^{\circ}19.23'$ , longitude  $64^{\circ}51.18'$  from an undetermined source prior to the present survey does not appear on the present survey and should be charted with a broken line.

8. The following items are to be disregarded since they are considered disproved by the present survey or were determined to be misplotted on their original source.

- ✓ rock awash - latitude  $18^{\circ}19.56'$ , longitude  $64^{\circ}49.88'$  from H-4743a (1923-24)
- ✓ bare rock - latitude  $18^{\circ}19.24'$ , longitude  $64^{\circ}50.17'$  from H-4743a (1923-24)
- ✓ 17-foot and 19-foot soundings - vicinity of latitude  $18^{\circ}19.02'$ , longitude  $64^{\circ}50.53'$  from H-4743a (1923-24)
- ✓ 2-foot sounding - latitude  $18^{\circ}19.24'$ , longitude  $64^{\circ}50.14'$  from H-4743a (1923-24)
- ✓ islet - latitude  $18^{\circ}18.32'$ , longitude  $64^{\circ}52.32'$  from H-4743a (1923-24)
- rock awash - latitude  $18^{\circ}18.68'$ , longitude  $64^{\circ}53.82'$  from H-4651a (1923-26)
- rock awash - latitude  $18^{\circ}18.72'$ , longitude  $64^{\circ}53.85'$  from H-4651a (1923-26)

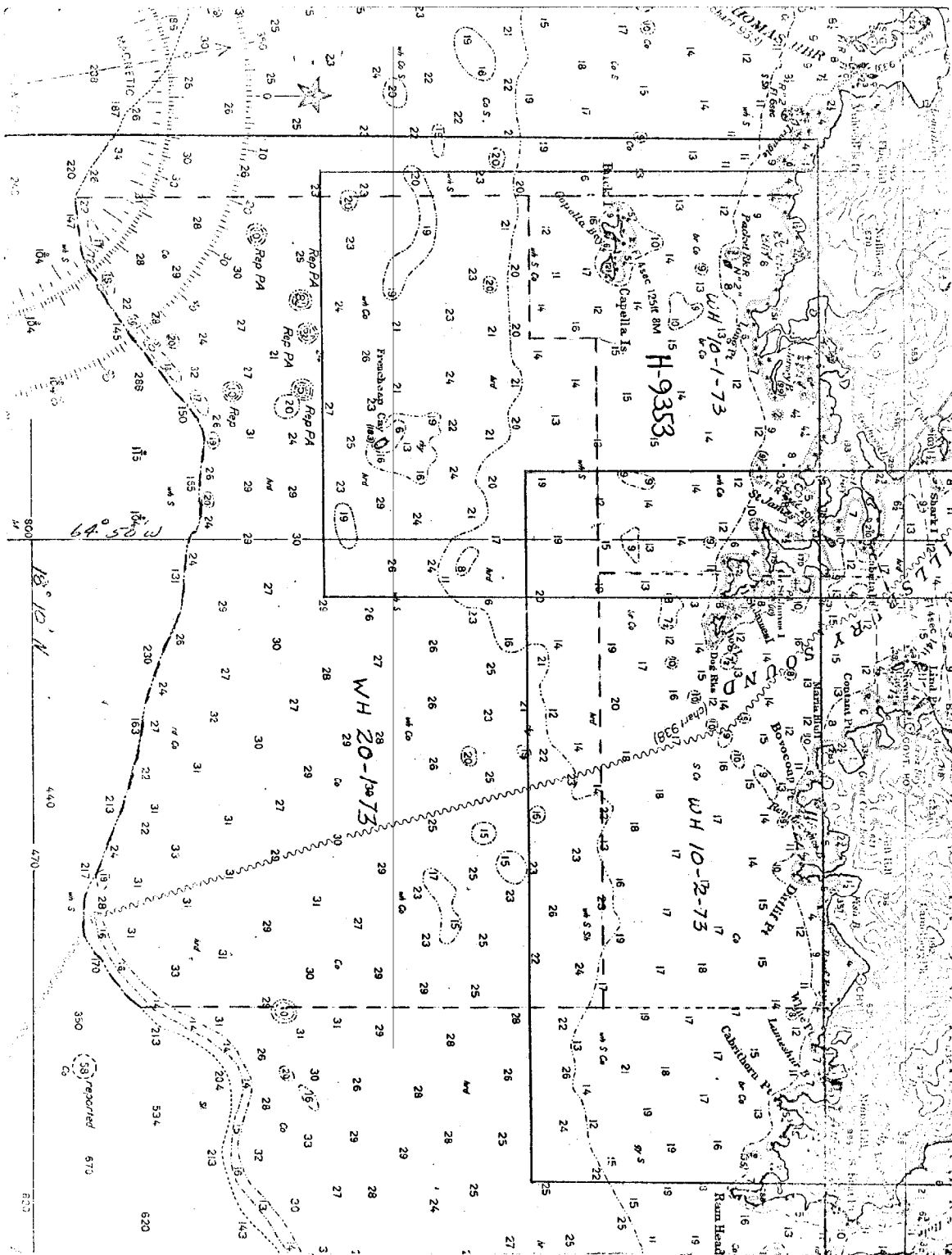
The 19-foot sounding charted from H-4743a (1923-24) in latitude  $18^{\circ}18.23'$ , longitude  $64^{\circ}52.88'$  was found to be in error on its original source and should be 31 feet.

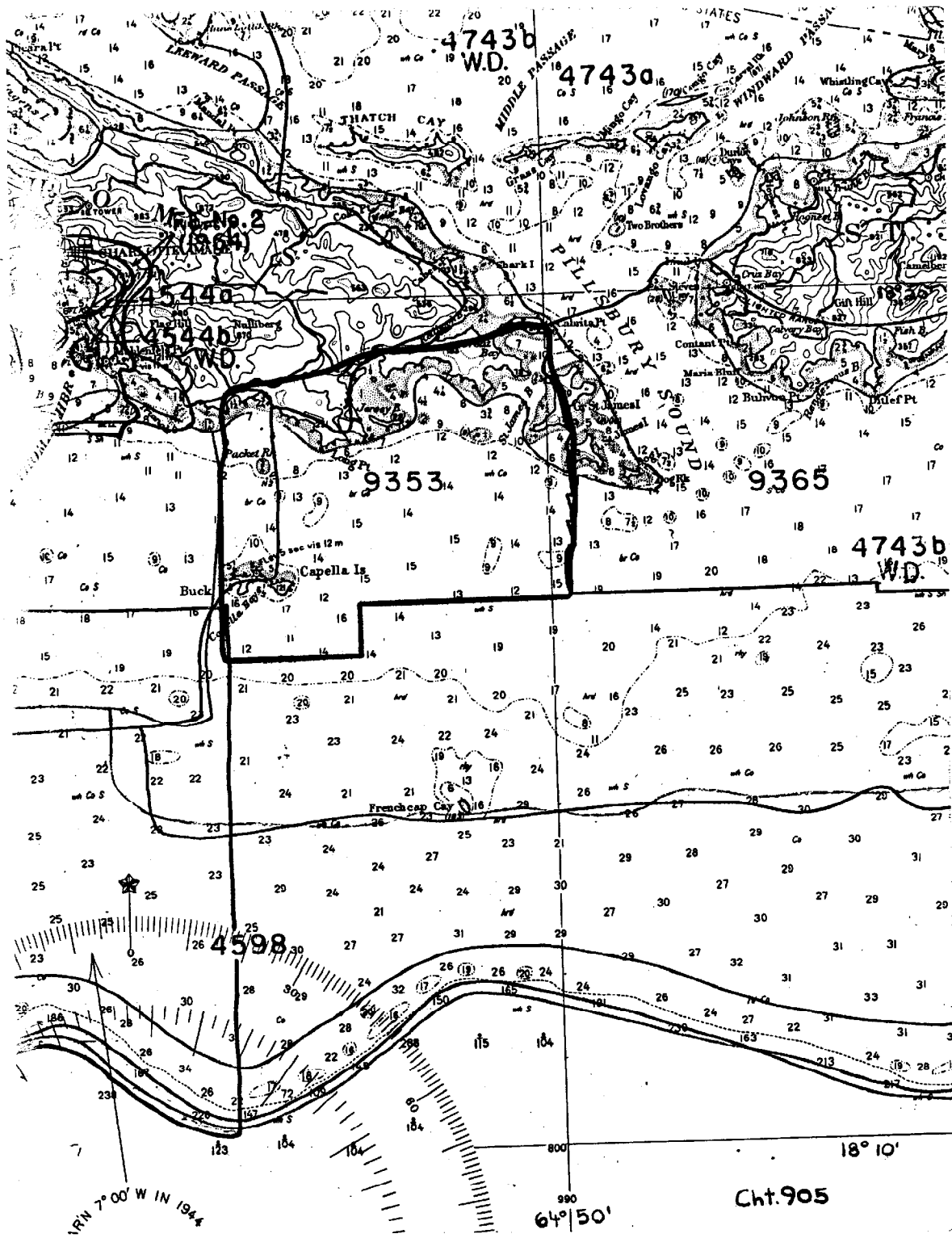
9. The adequacy of the junction with H-9352 (1973) on the south will be considered in the inspection of that survey.

10. The two 53-foot depths charted in latitude  $18^{\circ}16.85'$ , longitude  $64^{\circ}50.72'$  and latitude  $18^{\circ}17.04'$ , longitude  $64^{\circ}50.68'$ , respectively, are from temporary groundings plotted on H-4743b WD. These plotted groundings occur in depths of about 80 and 89 feet and are considered to result from erroneous interpretation of the movement of the buoys. The groundings were reported as occurring only momentarily and no verification was obtainable. The present development discredits these depths and they should be deleted from the chart.

11. The stranded wreck charted in latitude  $18^{\circ}16.7'$ , longitude  $64^{\circ}53.6'$  from LNM 22 (1973) was not disposed of by the hydrographer and should be retained as charted.

cc:  
C351







RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9353

**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	2 Feb 79	Alex. Radchikov	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. <u>Q.C.</u>
25641	3/1/79	E. Bodouin	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. <u>APPLN 5/w Portion direct</u>
25641	4/8/81	J. Kahl	<u>remainder to be applied thru Chrt 25647</u> Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. <u>28</u>
25640	2 Aug 82	R. Richter	Full <del>Part Before</del> After <del>Verification Review</del> Inspection Signed Via Drawing No. <u>33</u> <u>Q.C.</u>
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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