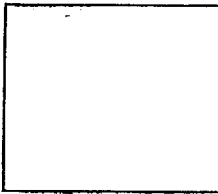


4652b

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director



State: Virgin Is.

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. ⁵ 4652b

WIRE DRAG

LOCALITY

East End of St. Croix I.

Ft. Louisa L.H. to East Pt. and

Lang Bank

1924 - 1925

CHIEF OF PARTY

G.C. Mattison

GOVERNMENT PRINTING OFFICE

4652b

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

Wire Drag #5

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. **4652b**

4652b

State VIRGIN ISLANDS

General locality E. End of
ST. CROIX ISLAND

Locality Ft. Louisa L.H. to East Pt. and Lang Bank
~~EAST END, ST. CROIX ISLAND~~

Chief of party G.C. MATTISON

Surveyed by C.K. GREEN, A.P. RATTI, H.E. FINNEGAN

Date of survey May 13, 1924 - October 20, 1925

Scale 1:20,000

Soundings in FEET

Plane of reference M.T.L. -0.5 feet

Protracted by V.A. Powell
C.F. Ehlers Soundings in pencil by C.F.E.

Inked by V.A.P. & C.F.E. Verified by

Records accompanying sheet (check those forwarded):

Des. report, _____ Tide books, _____ Marigrams, 3 Boat sheets,

4 Sounding books, 15 Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Sounding Sheet #5

Yols and Hyd sheet not received June 17, 1927

Remarks:

CAB

DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
E. LESTER JONES, DIRECTOR.

VIRGIN ISLANDS

A DESCRIPTIVE REPORT

to accompany

WIRE DRAG SHEET # 5

1924-1925

B.S. RANGER

G.C. MATTISON,
CHIEF OF PARTY.

DESCRIPTIVE REPORT

to accompany

WIRE DRAG SHEET # 5.

INSTRUCTIONS:

The instructions covering this work were dated June 8, 1923, The field work was commenced May 13, 1924 and completed October 20, 1925.

LIMITS:

The limits of the work are roughly: Fort Louisa Light, Buck Island Bar, Lang Bank and East Point.

The work was done on a scale of 1:20,000.

DRAG LENGTHS:

In the deep water area between Lang Bank and East Point lengths from 4000 to 8800 feet were used; for developing channels, lengths of 1000 to 3000 were used.

METHOD OF CONTROL:

The two boat control was instituted for all lengths of drag; this required the services of two officers on each launch.

EQUIPMENT:

Standard wire drag equipment was used as described in Special Publication #118.

SHOALS DISCOVERED:

Numerous shoal soundings previously uncharted were obtained. In nearly all cases the shoals were coral branches. Difficulty was experienced in clearing the drag on this account. In nearly all cases when the drag was grounded, it was necessary to pick it up to clear.

LIFT:

Very few actual tests for lift were obtainable when dragging the exposed East end of St. Croix on account of heavy swell. This applies to work done before 1925, when weather conditions were unfavorable. The work done during the hurricane season of 1925 was done in smooth weather and lift tests were obtained more often.

On days when lift tests were not obtained, an estimated lift varying with the depth of the drag and speed through the water, was entered. Estimated lift varied from one half foot to three feet. Together with the correction for lift, a correction of one half of the estimated swell was entered. On days when tests were obtained, the actual correction was entered.

FIELD WORK:

When dragging the outer limits of Long Bank, the only fix available was: Signal "TREE" on Buck Island (excellent natural object), triangulation station KID (white beacon signal 20 x 15' facing towards the eastward) and an anchored buoy or ship in Lat. 17 44' and Long 64 32'. Difficulty was experienced in seeing the left and center objects during hazy weather and especially during the afternoon when the sun was behind the signals. Fixes at the outer edge were taken from the top of the pilot house on the drag launches.

Some difficulty was also experienced in keeping the signal buoy anchored due to currents and heavy seas. After two or three unsuccessful attempts with the buoy, the ship anchored, with a hammer at the mast, was used as a signal. A position of the buoy or of the ship was obtained at the beginning of each days work and used throughout the day by the wire drag party. Positions were taken at intervals of twenty minutes when using the ship as a signal.

In view of the fact that there might be some discrepancies entering in when taking fixes and also differences between the boat sheets and smooth sheets, large overlaps were allowed in laying out the drag strips.

Lang Bank was dragged to effective depths varying between 30 feet as a minimum to a depth of 60 feet as a general maximum. The northern edge, which is perhaps the shoalest, was dragged to 30 feet effective, increasing to 43 feet towards the outer end. The southern side was dragged to effective depths varying between 38 feet and 60 feet. The center of the bank is deeper than the outer edges, but was likewise dragged to depths varying between 38 and 60 feet.

The eastern approach to Buck Island channel was dragged to effective depths of 13 to 20 feet.

A channel of 18 feet was carried through, increasing to 31 feet when inside of Buck Island. Shoals at the eastern approach prohibited any greater depths at the entrance.

OFFICE WORK:

The work on this sheet was plotted up with the three arm steel protractor, using double extension arms when plotting the work on outer Long Bank.

All positions of the buoy or ship were plotted according to the time when taken and used as the position of the left object. Buoy positions are recorded in the tender records and the ships position in records for Hydrographic sheet #5. It will be noted that the ship's positions plotted during the day, differ slightly from the original or first position used by drag party in the field. This is due to the swing of the ship. This variation has caused some difference between the boat and smooth sheet.

Fixes at the outer limits were very difficult to plot correctly due to small angles and great distance. Care was taken in plotting each position, especial attention being paid to the errors due to play in protractor arms.

The work as a whole, when plotted on the smooth sheet lies some distance southward from the same work shown on the boat sheet. This is only true of the work done after H' day on the new boat sheets constructed at that time. Triangulation station KID on these sheets was plotted some 20 meters in error to the northward. This together with the differences in the position of the signal buoy or ship is sufficient to cause the general difference of the work plotted on both of the sheets.

GENERAL REMARKS AND NOTES:

The work plotted on the smooth sheet up to H' day has been lettered with small or lower case letters. Soundings for the corresponding days were lettered with capital letters.

On B day at position 3, the drag grounded while dragging at an effective depth of 20 feet. The drag was set at 24 feet. No sounding was obtained. At position six of the same day the drag again grounded, set at 24 feet and dragging at an effective depth of 20 feet. The least sounding obtained was 24 feet. *showed 20' in each case, 24' at pos 18.*

On V day at position 25, the drag grounded at buoy #1 while dragging at an effective depth of 33 feet. The drag was set at 36 feet and the least sounding obtained was 41 feet., This was later covered at an effective depth of 35 feet. *showed 33ft - drag depth*

On W day at position 11 the drag grounded while dragging at an effective depth of 48 feet. Least sounding obtained was 58 feet. The launches were running at slow speed at this time to allow for hook up. In all probability this slowing up caused the ground wire to slack and catch on the shoal. *showed 48ft.*

On X day the drag grounded at position 5, dragging an effective depth of 58 feet. Least sounding obtained was 65 feet. *showed 58ft*

At 5 - Z the drag grounded while dragging at an effective depth of 53 feet. No sounding obtained. *Location of ground not stated in record*

On H' day the drag grounded at position 17 while dragging at an effective depth of 33 feet. No sounding was obtained. This same area was later covered with an effective depth of 34 feet. *showed 33 ft. between N + #1*

CURRENTS:

Currents were noted when dragging off East Point as running in a northwesterly and southeasterly direction. The northwesterly current was especially evident during the trade winds. While the southeasterly currents were not so noticeable. In calm weather these currents are about

the same, having a speed of approximately 1 knot. Currents running to the westward around East Point through Buck Island Channel when the Eastern Trades were blowing were noted as being especially strong.

Respectfully submitted.

Carl F. Ehlers

Carl F. Ehlers,
Jr. H. & G. Engineer.

*Forwarded
G. Mattison*

The following is a list of soundings obtained during the progress of wire drag on sheet #5.

A depth of 46 feet was found 6.5 miles 54° true from East Point in Lat. $17^{\circ} 49'$ - 530 meters, Long. $64^{\circ} 28'$ - 818 meters. (3P')

A depth of 38.5 feet was found 6.95 miles 55° true from East Point in Lat. $17^{\circ} 49'$ - 990 meters, Long. $64^{\circ} 28'$ - 120 meters. Coral growth 10 meters in diameter. A sounding of 42 feet was also found 86 meters 55° true from the 38 foot sounding. Coral head surrounded by 45 feet. (4P' + 1q')

A depth of 43 feet was found 7.05 miles 58° true from East Point in Lat. $17^{\circ} 49'$ - 418 meters, Long. $64^{\circ} 27'$ - 1519 meters. A sounding of 45 feet was found 68 meters 58° true from the 43 foot sounding. A sounding of 45 feet was also found 187 meters 124° true from the 43 foot sounding. These soundings are on coral heads surrounded by a general depth of 48 feet. (2w' + 3q' NP + 2g')

A depth of 64 feet was found 7.95 miles 54° true from East Point in Lat. $17^{\circ} 50'$ - 225 meters, Long. $64^{\circ} 27'$ - 449 meters. A sounding of 74 feet was also found 296 meters 130° true from the 64 foot sounding. (2r' + 1r')

A depth of 43 feet was found 4.93 miles 40° true from East Point in Lat. $17^{\circ} 49'$ - 374 meters, Long. $64^{\circ} 30'$ - 1105 meters. A sounding of 56 feet was found 57 meters 29° true from the 43 foot sounding. And a sounding of 44 feet was also found 210 meters 81° true from the 43 foot sounding. These soundings are on coral heads. (1t', 2t' + 4t')

A depth of 92 feet was found 5.1 miles 37° true from East Point in Lat. $17^{\circ} 49'$ - 970 meters, Long. $64^{\circ} 30'$ - 1270 meters. Sounding on coral head, 10 meters in diameter surrounded by a general depth of 95 feet. (3t')

A depth of 74 feet was found 8.65 miles 60° true from East Point in Lat. $17^{\circ} 49'$ - 1157 meters, Long. $64^{\circ} 26'$ - 93 meters. Coral shoal surrounded by approximate depth of 90 feet. (1u')

A depth of 77 feet was found 8.7 miles 58° true from East Point in Lat. $17^{\circ} 49'$ - 1732 meters, Long. $64^{\circ} 26'$ - 311 meters. Coral surrounded by general depth of 82 feet. (1v')

A depth of 79 feet was found 8.05 miles 68° true from East Point in Lat. $17^{\circ} 48'$ - 942 meters, Long. $64^{\circ} 26'$ - 284 meters. Small coral head surrounded by general depth of 90 feet. (2v')

A depth of 58 feet was found 6.65 miles 71° true from East Point in Lat. $17^{\circ} 47'$ - 1127 meters, Long. $64^{\circ} 27'$ - 659 meters. (3v')

A depth of 48 feet was found 6.27 miles 58° true from East Point in Lat. $17^{\circ} 48'$ - 1424 meters, Long. $64^{\circ} 28'$ - 710 meters. Small coral head. (1w')

A depth of 49 feet was found 6.0 miles 66° true from East Point in Lat. $17^{\circ} 47'$ - 1712 meters, Long. $64^{\circ} 28'$ - 524 meters. Coral growth 10 meters in diameter, surrounded by a general depth of 55 feet. (1x')

A depth of 75 feet was found 8.4 miles 65° true from East Point in Lat. $17^{\circ} 49'$ - 3 meters, Long. $64^{\circ} 25'$ - 1757 meters. (1Y')

A depth of 49 feet was found 5.0 miles 71° true from East Point in Lat. $17^{\circ} 47'$ - 100 meters, Long. $64^{\circ} 29'$ - 110 meters. A sounding of 54 feet was also found 156 meters 184° true from the 49 foot sounding in Lat. $17^{\circ} 46'$ - 1790 meters, Long. $64^{\circ} 29'$ - 121 meters. (2Z' + 1Z')

A depth of 39 feet was found 2.75 miles 19° true from East Point in Lat. $17^{\circ} 48'$ - 35 meters, Long. $64^{\circ} 33'$ - 66 meters. (1A'')

A depth of 48 feet was found 2.95 miles 23° true from East Point in Lat. $17^{\circ} 48'$ - 226 meters, Long. $64^{\circ} 32'$ - 1500 meters. (2A'')

A depth of 44 feet was found 1.66 miles 326° true from Tree on Buck ISLAND in Lat. $17^{\circ} 48'$ - 1287 meters, Long. $64^{\circ} 38'$ - 202 meters. (1C'')

A depth of 17 feet was found 1.3 miles 333° true from Tree on Buck Island in Lat. $17^{\circ} 48'$ - 887 meters, Long. $64^{\circ} 37'$ - 1349 meters. (2C'')

A depth of 11 was found 1220 meters, 306° true from the north end of Green Cay in Lat. $17^{\circ} 46'$ - 781 meters, Long. $64^{\circ} 40'$ - 782 meters. (1D'')

A depth of 12 feet was found 1468 meters 301° true from the north end of Green Cay in Lat. $17^{\circ} 46'$ - 1264 meters, Long. $64^{\circ} 40'$ - 1054 meters. (2D'')

A depth of 12 feet was found 1719 meters, 292° true from the north end of Green Cay in Lat. $17^{\circ} 46'$ - 1155 meters, Long. $64^{\circ} 40'$ - 1280 meters. (2E'')

A depth of 27 feet was found 1.55 miles 87° true from the east end of Buck Island in Lat. $17^{\circ} 47'$ - 787 meters Long. $64^{\circ} 55'$ - 144 meters. (1F'')

A depth of 28 feet was found 1.8 miles 100° true from the east point of Buck Island in Lat. $17^{\circ} 47'$ - 63 meters, Long. $64^{\circ} 34'$ - 1503 meters. Shal is made up of branch coral. (1a)

A depth of 27 feet was found 2.0 miles 107° true from the east point of Buck Island in Lat. $17^{\circ} 46'$ - 1401 meters, Long. $64^{\circ} 34'$ - 1200 meters. Sounding obtained on branch coral. (2a)

A depth of 24 feet was found 1.65 miles 111° true from the east point of Buck Island in Lat. $17^{\circ} 46'$ - 1400 meters, Long. $64^{\circ} 35'$ - 192 meters. Sounding on branch coral. (1B) showed drag depth, 20ft, at fms 6 & 8

A depth of 18 feet was found 110 meters 48° true from the north end of Green Cay in Lat. $17^{\circ} 46'$ - 571 meters, Long. $64^{\circ} 39'$ - 1482 meters. (2B)

A depth of 31 feet was found 2.0 miles 109° true from

the east point of Buck Island in Lat. 17 46' - 1284 meters, Long. 64 34' - 1290 meters. Sounding on coral head surrounded by a general depth of 33 feet. (1D)

A depth of 34 feet was found 1.18 miles 140° true from the East point of Buck Island in Lat. 17 46' - 839 meters, Long. 64 35' - 1600 meters. Coral shoal 20 meters in diameter. (2D)

A depth of 17 feet was found 1.4 miles 106° true from the east point of Buck Island in Lat. 17 46' - 1780 meters, Long. 64 35' - 522 meters. Sounding on coral head. (1E)

A depth of 21 feet was found 1.48 miles 96° true from the east point of Buck Island, in Lat. 17 47' - 374 meters, Long. 64 35' - 268 meters. Sounding on branch coral. A depth of 19 feet was also found 57 meters 19° true from the 21 foot sounding and a depth of 24 feet was found 130 meters 346° true from 21 foot sounding. Both depths were on branch coral. (21 - 1F) (24 - 2F) ? no 19ft in records

A depth of 13.5 feet was found 360 meters 84° true from Pull Point in Lat. 17 46' - 142 meters, Long. 64 39' - 240 meters. (1G)

A depth of 16 feet was found 826 meters 64° true from Pull Point in Lat. 17 46' - 476 meters Long. 64 38' - 1615 meters. A sounding of 18 feet was found on the same shoal 67 meters 128° true from the 16 foot sounding and a sounding of 17 feet was found 60 meters 145° true from the 16 foot sounding. Shoal is made up of coral. (17 + 20 + 18)

A depth of 30 feet was found 1.55 miles 87° true from the east point of Buck Island in Lat. 17 47' - 803 meters, Long. 64 34' - 1755 meters. Coral head. (1K)

A depth of 20 feet was found 446 meters, 332° true from Pull Point in Lat. 17 46' - 500 meters, Long. 64 39' - 811 meters. Shoal is of coral sand is 30 meters in diameter. (2L)

A depth of 12 feet was found 1174 meters, 319° true from the north end of Green Cay in Lat. 17 46' - 1306 meters Long. 64 40' 660 meters. A depth of 10 feet was also found 113 meters 245° true from the 12 foot sounding. Both soundings are on coral heads surrounded by a general depth of 14 feet. (3L + 4L)

A depth of 12 feet was found on a coral head 10 meters in diameter 1.0 mile 279° true from the north end of Green Cay in Lat. 17 46' 800 meters, Long. 64 40' - 1644 meters. A sounding of 8 feet was also found 367 meters 280° true from the 12 foot sounding in Lat. 17 46' 854 meters Long. 64 41' - 240 meters. Shoal is a ridge of large coral heads extending east and west 40 meters in length and surrounded by a general depth of 15 feet. (1M + 2M)

A depth of 45 feet was found 1.35 miles 339° true from East Point in Lat. 17 46' - 1287 meters, Long 64 34' - 804 meters. Sounding on coral head. (1N)

A depth of 33 feet (co) was found 1.6 miles 87° true from the east end of Buck Island in Lat. 17 47' - 801 meters Long. 64 34' - 1625 meters. (1Q)

A depth of 17 feet was found 1.0 mile 53° true from the East end of Buck Island in Lat. $17^{\circ} 47'$ - 1745 meters, Long. $64^{\circ} 35'$ - 1483 meters. A sounding of 19 feet was found 57 meters 153° true from the 17 foot sounding, and a sounding of 23 feet was found 111 meters 78° true from the 17 foot sounding. These soundings were taken on coral heads. (2Q, 3Q + 4Q)

A depth of 40 feet was found 1.95 miles 120° true from East Point in Lat. $17^{\circ} 44'$ - 811 meters, Long. $64^{\circ} 32'$ - 302 meters. Hard bottom. (1R)

A depth of 54 feet was found 3.06 miles 84° true from East Point in Lat. $17^{\circ} 43'$ - 139 meters, Long. $64^{\circ} 30'$ - 1375 meters. (1S)

A depth of 60 feet was found 3.12 miles 51° true from East Point in Lat. $17^{\circ} 47'$ - 691 meters, Long. $64^{\circ} 31'$ - 713 meters. A sounding of 59 feet was found 86 meters, 241° true from the 60 foot sounding. On coral ten meters in diameter. (1T + 1V) plotted drag depth 59 + 57 ft.

A depth of 41 feet was found 2.8 miles 23° true from East Point in Lat. $17^{\circ} 48'$ - 26 meters, Long. $64^{\circ} 32'$ - 1437 meters. (2V) plotted drag depth 33 ft.

A depth of 58 feet was found 5.1 miles 72° true from East Point in Lat. $17^{\circ} 46'$ - 1833 meters, Long. $64^{\circ} 28'$ - 1554 meters. (1W) showed drag depth 48 ft.

A depth of 65 feet was found 4.0 miles 60° true from East Point in Lat. $17^{\circ} 47'$ - 781 meters, Long. $64^{\circ} 30'$ - 532 meters. (1X) plotted drag depth 58 ft.

A depth of 50 feet was found 3.63 miles 61° true from East Point in Lat. $17^{\circ} 47'$ - 335 meters, Long. $64^{\circ} 30'$ - 1123 meters. Shoal 20 meters in diameter. A sounding of 55 feet was also found 14 meters 300° true from the 50 foot sounding. (1Y + 1H')

A depth of 53 feet was found 4.25 miles 70° true from East Point in Lat. $17^{\circ} 46'$ - 1640 meters, Long. $64^{\circ} 29'$ - 1387 meters. (1A')

A depth of 58 feet was found 4.04 miles 80° true from East Point in Lat. $17^{\circ} 46'$ - 277 meters, Long. $64^{\circ} 29'$ - 1422 meters. (1C')

A depth of 57.5 feet was found 6.85 miles 57° true from East Point in Lat. $17^{\circ} 49'$ - 326 meters, Long. $64^{\circ} 27'$ - 1706 meters. (1d')

A depth of 47 feet was found 5.27 miles 59° true from East Point in Lat. $17^{\circ} 48'$ - 215 meters, Long. $64^{\circ} 29'$ - 347 meters. (1E')

A depth of 41 feet was found 5.2 miles 48° true from East Point in Lat. $17^{\circ} 48'$ - 1615 meters, Long. $64^{\circ} 29'$ - 1584 meters. (1F')

A depth of 13.5 feet was found 1.0 mile 95° true from the east end of Buck Island in Lat. $17^{\circ} 47'$ - 533 meters, Long. $64^{\circ} 35'$ - 1141 meters. Sounding on coral shoal 30 meters in diameter surrounded by a general depth of 18 feet. (1G)

A depth of 53 feet was found 3.35 miles 66° true from East Point in Lat. $17^{\circ} 46'$ - 1512 meters, Long. $64^{\circ} 30'$ - 1332 meters. (2H')

A depth of 43 feet was found 3.07 miles 88° true from East Point in Lat. $17^{\circ} 45'$ - 1011 meters, Long. $64^{\circ} 30'$ - 1310 meters. (1 J')

A depth of 35.5 feet was found 4.17 miles 35° true from East Point in Lat. $17^{\circ} 48'$ - 1527 meters, Long. $64^{\circ} 31'$ - 762 meters. (1 L')

A depth of 45 feet was found 1079 meters, 141° true from East Point in Lat. $17^{\circ} 44'$ - 794 meters, Long. $64^{\circ} 33'$ - 1000 meters. A sounding of 37 feet was also found 132 meters 210° true from the 45 foot sounding. (1 m' + 2 m')

A depth of 44 feet was found 1.55 miles 148° true from East Point in Lat. $17^{\circ} 44'$ - 217 meters, Long. $64^{\circ} 33'$ - 164 meters. (3 m')

A depth of 35 feet was found 4.5 miles 42° true from East Point in Lat. $17^{\circ} 48'$ - 1466 meters, Long. $64^{\circ} 30'$ - 1348 meters. Sounding on small coral head. (1 n')

A depth of 36' was found 6.1 miles 48° true from East Point in Lat. $17^{\circ} 49'$ - 906 meters, Long. $64^{\circ} 29'$ - 345 meters. (1 P')

A depth of 34 feet was found 6.55 miles 52° true from East Point in Lat. $17^{\circ} 49'$ - 924 meters, Long. $64^{\circ} 28'$ - 1235 meters. Small coral head surrounded by 40 feet. (2 P')

Statistics
WD. sheet #5

Date	Letter	Vol.	Drag Length	Positions.	Miles	Soundings,	
May 13 '24	A	This day has been rejected					2
May 14 '24	B	1	2800	22	5.0	2	
May 15x'24	C	1	2800	31	6.5	2	
May 16 '24	D	1	2800	30	7.5	2	
May 20 '24	E	1	2800	33	6.4	1	
May 21 '24	F	1	2400	8	1.0	2	
May 27 '24	G	1	2800	9	1.0	1	
May 28 '24	H	1	3000	22	6.0	-	
May 29 '24	J	1	2000	13	3.0	1	
June 3 '24	K	1	2400	10	1.0	1	
June 4 '24	L	1	2400	14	2.5	4	
June 5 '24	M	2	2400	53	6.0	2	
June 10'24	N	2	5100	14	3.0	1	
June 11'24	O	2	6000	28	9.0	-	
June 12'24	P	2	6000	20	4.0	-	
June 13'24	Q	2	2800	22	3.0	4	
June 17'24	R	2	4200	15	3.0	1	
June 18'24	S	2	8000	13	2.0	1	
June 19'24	T	2	8000	20	3.5	1	
June 20'24	U	2	1800	6	1.5		
June 25'24	V	2&3	8800 5600	25	3.5	1	
June 26'24	W	3	6000	11	2.0	1	
June 27'24	X	3	6000	5	0.5	1	
June 30'24	Y	3	5500	18	2.7	1	
July 1 '24	Z	3	5500	6	1.7		

STATISTICS (CON'T)

Date	Letter	Vol.	Drag Length	Positions	Miles	Soundings
July 15'24	A'	3	6000	10	2.8	1
July 16'24	B'	3	6000	11	1.0	-
July 17'24	C'	3	6000	27	4.5	1
July 22'24	D'	3	6000	15	0.5	1
July 24'24	E'	3	6000	17	2.0	1
July 25'24	F'	3	6000	7	2.0	1
July 28'24	G'	3	1000	40	2.1	1
Sept. 1'25	H'	4	3500	18	2.3	2
Sept. 2'25	J'	4	4000	14	1.8	1
Sept. 3'25	K'	4	4000	30	6.9	-
Sept. 4'25	L'	4	3000	23	4.2	1
Sept. 9'25	M'	4	6300	12	2.6	3
Sept. 15'25	N'	4	5400	23	2.5	1
Sept. 16'25	P'	4	5400	19	1.8	4
Sept. 17'25	Q'	4	5400	31	4.0	3
Sept. 18'25	R'	4	4200	3	0.1	-
Sept. 21'25	S'	4	2400	21	2.5	-
Sept. 22'25	T'	4	4200	14	1.3	4
Sept. 29'25	U'	4	4200	28	5.4	1
Sept. 30'25	V'	5	5400	36	6.3	3
Oct. 1'25	W'	5	6300	24	3.4	2
Oct. 2'25	X'	5	6300	18	3.2	1
Oct. 5'25	Y'	5	6300	22	4.4	1
Oct. 6'25	Z'	5	4800	25	3.6	2
Oct. 7'25	A''	5	3500 4000 2400	40	5.0	2

STATISTICS (CON'T)

Date	Letter	Vol.	Drag Length	Positions	Miles	Soundings
Oct. 8'25	B''	6	4500	41	6.3	1
Oct.15'25	C''	6	3500	20	2.0	2
Oct.16'25	D''	6	2400	14	2.3	2
Oct.19'25	E''	6	2800	13	1.3	-
Oct.20'25	F''	6	3500	44	6.0	1
Total-----				1108	179.4	75

Total area dragged 71.3 square statute miles.

Automatic Tide gauge at Christiansted, St.Croix, Virgin Islands.

Plane of reference M.T.L. -0.5 = 2.8 ft. on staff.

Lowest tide observed = 2.4 ft. on staff.

Highest tide observed = 4.1 ft. on staff.

TRIANGULATION SIGNALS
W.D. SHEET # 5

Name	Lat.	Long.	Remarks.
Cent	17 45	64 42	Chimney
Episcopal Church Tower (Pisc)	17 44	64 42	
Clock	17 44	64 42	Christiansted clock tower
Lut	17 44	64 42	Lutheran Church Spire
Welcome	17 44	64 41	Mill
Louis	17 45	64 41	Ft. Louisa Augusta Light
Hoy	17 45	64 40	Shoys Mill
Bout	17 44	64 40	Boutsberg Mill
Pete	17 43	64 40	Petronella Mill
Mond	17 42	64 42	
Nug	17 43	64 40	Nugent Hill (Sig. on prominent hill)
Pond	17 43	64 39	
Sight	17 44	64 39	Sight Mill
Rest	17 45	64 39	Mill
Grell	17 45	64 39	Green Cay Estate Mill
Pole	17 45	64 38	Schoolhouse Flagpole
Coak	17 45	64 38	Mill
Tude	17 45	64 37	Mill, Solitude
Ton	17 45	64 37	Cotton Valley Mill
Gro	17 43	64 38	Cotton Grove Mill
Fancy	17 43	64 38	Prominent hill
Sol	17 45	64 37	W.W.
Tague	17 45	64 36	
Crab	17 47	64 37	
End	17 47	64 36	W.W. on rock
Grape	17 44	64 35	W.W. on rock

TRIANGULATION SIGNALS (CON'T)

Name	Lat.	Long.	Remarks
Jack	17 44	64 35	
Cot	17 45	64 35	Tripod signal
Goat	17 45	64 34	Prominent hill
Lamb	17 45	64 34	
Id	17 45	64 34	Large signal
Sac	17 44	64 34	Isaac (Pole signal)
Pull	17 46	64 39	
Green	17 46	64 39	Signal on Green Cay
Dry	17 46	64 38	On sand spit

TOPOGRAPHIC SIGNALS

Wire Drag Sheet #5

Name	Lat.	Meters	Long.	Meters	Remarks
Hog	17 45	1422.0	64 40	1455.0	W.W.
Cay	17 45	1561	64 40	679	W.W.
Log	17 45	1021	64 35	1711	W.W.
End or Land	17 45	783	64 33	1680	End rock
Tom	17 44	1800	64 36	1139	W.W.
Lee	17 44	0.0	64 37	526	W.W.
House	17 43	1768	64 38	351	House on Cotton Grove Estate.
Crab 2	17 47	854	64 37	1248	Pole signal with banner
Apt	17 47	918	64 37	556	W.W.
Tree	17 47	617	64 37	273	Prominent tree on highest point of Buck Island.
Mid	17 47	395	64 37	179	W.W.

HYDROGRAPHIC SIGNALS

Wire Drag Sheet #5

Name	Lat.	Meters	Long.	Meters	Remarks
Lep	17 45	1324	64 38	471	W.W. on rock
End 2	17 47	1658	64 36	1218	W.W. on rock. Same as End Triangulation station.
Sab	17 45	1166	64 36	1180	W.W. on rock
Run	17 45	367	64 34	219	W.W.
Ice	17 44	1673	64 34	1014	W.W.

Copy for Records Section files.

February 15, 1928.

(11)

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
20 volumes of sounding records for

HYDROGRAPHIC SHEET 4652B

Locality: ST. CROIX ISLAND, VIRGIN ISLANDS.

Chief of Party: G. C. Mattison, 1924, 1925.

Plane of reference is M L W
2.9 ft. on tide staff at Christiansted

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

G. W. Wade

Chief, Division of Tides and Currents.