4653a
4653c
4653d

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

....., *Director*

State: Virgin Islands

DESCRIPTIVE REPORT

~~*Topographic*~~
Hydrographic } *Sheet No.* 6 4653a 4653c

LOCALITY 4653d

St. Croix

West End of St. Croix

1924-1925

CHIEF OF PARTY

G.C. Mattison

GOVERNMENT PRINTING OFFICE

4653a c d
4653
4653
4653

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4653a

HYDROGRAPHIC TITLE SHEET

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. 6

REGISTER NO. 4653a

State VIRGIN ISLANDS

General locality ST. CROIX ~~ISLAND~~

Locality WEST END

Scale 1:20,000 Date of survey ~~Apr.May,1924.June.Oct.~~1925

Vessel RANGER

Chief of Party G.C.MATTISON

Surveyed by G.C.Mattison,C.K.Green, H.E.Finnegan,A.P.Ratti,M.Leff

Protracted by W.R.Porter

Soundings penciled by C.F.Ehlers

Soundings in fathoms ~~feet~~

Plane of reference M.T.L. -0.5 ft. MLW ? JTW

Subdivision of wire dragged areas by

Inked by J T Walker

Verified by J T W

Instructions dated June 22,1923, May 28 ,1925

Remarks: See wire drag sheet for same area.

GPO

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4653C

HYDROGRAPHIC TITLE SHEET

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. .....

REGISTER NO. 4653C

State Virgin Islands

General locality Southern Coast of St. Croix

Locality S.W. Anchorage to Krausse Pt.

Scale 1:10,000 Date of survey Apr., May, 1924, June, Oct, 1925

Vessel Ranger

Chief of Party G.C. Mattison

Surveyed by G.C.M., C.K.Green, H.E.Finnegan, A.P.Ratti, M.Leff

Protracted by W.H. Bamford

Soundings penciled by W.H.B

Soundings in fathoms ~~feet~~

Plane of reference

Subdivision of wire dragged areas by

Inked by J. Walker

Verified by J T W

Instructions dated June 22, 1923, May 28, 1925

Remarks: See H-4653a for original protracting

GPO

Form 537
11-5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4653d

HYDROGRAPHIC TITLE SHEET

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. .....

REGISTER NO. 4653d

State Virgin Islands

General locality Southern Coast of St. Croix

Locality Krausse Pt. to Fairham Pt.

Scale 10,000 Date of survey Apr. May, 1924, June, Oct 1925

Vessel Ranger

Chief of Party G.C. Mattison

Surveyed by G.C.M., C.K. Green, H.E. Finnegan, A.P. Ratti, M. Leff

Protracted by J.G. Ladd

Soundings penciled by JGL

Soundings in fathoms ~~feet~~

Plane of reference

Subdivision of wire dragged areas by

Inked by J.T. Walker

Verified by JTW

Instructions dated June 22, 1923, May 28, 1925

Remarks: See H-4653a for original protracting

GPO

DEPARTMENT OF COMMERCE

U.S.COAST AND GEODETIC SURVEY

E. LESTER JONES, DIRECTOR.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET #6 4653a

St.Croix

VIRGIN ISLANDS.

S.S. RANGER

G.C.MATTISON,
Chief of Party

1924-25

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET #6

INSTRUCTIONS:

Instructions dated June 28,1923 and supplemental instructions dated May 28,1925.

Work on this sheet was begun April 4,1924 and completed October 16,1925, no work being done between May 9,1924 and June 11,1925.

LIMITS:

This survey includes all waters surrounding the island of St. Croix between parallels 17 38' and 17 49' and meridians 64 40' and 64 58'. The work in the vicinity of Christiansted Harbor, although included within these limits, was done on hydrographic sheet #7, on a 1-10,000 scale.

CONTROL:

Control was furnished by triangulation and topographic stations located during the topographic survey previous to this survey. Hydrographic signals were located by the party and are listed in this report with distances in meters. Distances in meters of the topggraphic signals were not taken off the sheet as they are already listed inthe topographic reports for this vicinity.

SURVEY METHODS:

All inshore work was done by the Launches MARINDIN and MITCHELL, the wire drag tender "EDNA M", the motor dinghy and pulling boat. All work by these boats was done using the hand lead.

Two hundred meter lines were run out to the twenty fathom curve on the northern and part of the western side of the island. In the vicinity of Fredericksted, around Southwest Point and along the south coast, much closer development was found to be necessary, due to coral reefs and coral shoals. Supplemental instructions dated May 28,1925 modified previous instructions relative to wire dragging inshore waters along the south coast. Instead of dragging, a closer system of lines was to be run and all shoals thoroughly investigated. All shoals found along the southmcoast were made up of coral growth and in a great many cases lone coral heads.

The usual method of developing the coral shpals was as follows. After the regular system of lines had been run, detached soundings were taken in the vicinity of any indications of shoals or on those coral heads that could be seen. After the position and the shoalest sounding had been obtained the location was marked by a buoy. Radial sounding lines or a xlose system of parallel lines was then run over the shoal as marked by the buoy. Soundings

on the vicinity of the shoal soundings on coral heads often did not indicate the presence of the coral head. To eliminate the possibility of a lesser depth than found on a coral shoal it was found necessary to do a great amount of very close development.

All sounding outside of the twenty fathom curve was done by the ship with the sounding machine, using both stranded and piano wire. The work done by the ship around Southwest Point within the twenty fathom curve was done using the hand lead and trolley rig.

RESULTS:

In general the results obtained from this survey are the same as those shown on the present chart. No changes in the shoreline were noted.

On the reef or bank south and southwest of Southwest Point a sounding of 8-1/2 fathoms was obtained where 11 fathoms is now shown. South of Southwest Point just inside of the 10 fathom curve, 6-1/2 fathoms was found where 7 fathoms is charted.

The soundings obtained in the vicinity of the reefs and on coral heads show that these have been built up some what. The 1/2 fathom shoal, as shown on the chart 1.6 mile ESE from Long Point is now a reef. About 2 miles E x S from Long Point a coral head with one fathom of water was found in the vicinity of 4-1/2 fathom soundings. In the passage through Long Reef south of Bethlehem River soundings of 2-1/4 and 1-1/4 fathoms were obtained where 3-1/4 fathoms is now shown. These plot in the center of the passage and are on coral heads. 1-1/2 fathoms was found on the 2 fathom shoal south of Canegarden Bay. At 1.4 mile E 1/2 S from Vagthus Point 2-3/4 fathoms was obtained in the vicinity of 3-1/4 fathoms.

No changes or differences were noted on the north and west coast.

In the vicinity of Southwest shoal soundings of 2-1/2 fathoms were obtained in place of 3-1/4 fathoms as now shown.

The 3-1/2 fathom spot approximately 2 miles S x E of Southwest Point was not found.

DISCREPANCIES:

Off the entrance of Salt River Bay, soundings obtained on j day do not agree with k day, tender. Error is probably due to wrong boat positions.

Positions 63,64 and 65 j tender have been plotted on the smooth sheet using the tangent to Salt River Point as the left object, as shown on the record. This throws the five fathom curve out further in that location. These positions however, are plotted using triangulation station SALT as the left object on the boat sheet. Error is probably in recording.

V 798

Position 31 f, tender, is also probably in error as 12 fathoms on the position plots inside 4-4/6 fathoms.

CURRENTS:

No actual current work was done during this survey.

A strong north-westerly current was noted around the Southwest Point when working in that vicinity.

TIDES:

An automatic tide gauge was erected at Christiansted and a plain staff used at Fredericksted. Comparison of simultaneous observations was made between the staff and gauge.

Christiansted

Plane of reference	reading on staff	2.8 ft.
Lowest tide observed	" " "	2.4 ft.
Highest tide observed	" " "	4.1 ft.

Fredericksted

Plane of reference	reading on staff	2.70 ft.
Lowest tide observed	" " "	2.85 ft.
Highest tide observed	" " "	3.45 ft.

COAST PILOT NOTES:

Anchorages and channels are adequately described in the present edition of the Coast Pilot and nothing is to be added to the general description of the coast.

Respectfully submitted.

Carl F. Ehlers

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

Forwarded

G. C. Matthes

Cdg. U. S. C. Ranger

STATISTICS
HYDROGRAPHIC SHEET #6

Date	Letter	Vol.	Posi.	Sdgs.	Miles stat.	Vessel
4- 4-24	A	1	1	1		Mitchell
4-15-24	B	1	47	215	10.5	"
4-16-24	C	1&2	145	528	27.2	"
4-22-24	D	2	112	648	28.0	"
4-22-24	A	8	55	260	19.0	Marindin
4-22-24	A	10	8	8	3.3	Ranger
4-23-24	E	2	151	687	36.0	Mitchell
4-23-24	B	3	91	482	39.0	Marindin
4-24-24	F	2&4	140	603	31.0	Mitchell
4-24-24	C	3	90	376	25.0	Marindin
4-25-24	D	3	73	297	22.0	Marindin
4-25-24	a	4	115	799	24.2	Tender
4-29-24	E	3&5	74	246	18.0	Marindin
4-29-24	b	4&6	125	836	16.6	Tender
4-30-24	a	5	107	662	20.0	Motor dinghy
4-30-24	c	6	119	502	13.0	Tender
5- 1-24	b	5	112	476	1600	Motor dinghy
5- 1-24	d	6	112	479	14.4	Tender
5- 2-24	F	5	101	268	22.0	Marindin
5- 2-24	e	6&9	125	885	18.4	Tender
5- 6-24	f	7	108	670	26.0	"
5- 7-24	g	7	139	577	31.0	"
5- 8-24	h	7	118	276	16.0	"
5- 9-24	j	7&8	80	240	9.5	"
5- 9-24	a	9	24	261	2.8	Sail dinghy
5-23-24	k	9	93	385	9.1	Tender
6-11-25	l	8	114	365	7.5	"
6-11-25	B	10	34	34	16.0	Ranger
6-11-25	G	11	102	358	12.2	Marindin
6-12-25	m	8	101	217	7.4	Tender
6-12-25	C	10	17	17	9.5	Ranger
6-12-25	H	11	77	311	11.1	Marindin
6-16-25	D	10	89	107	16.4	Ranger
6-17-25	n	8	107	261	11.7	Tender
6-17-25	E	10	83	99	17.0	Ranger
6-17-25	J	11	97	370	14.9	Marindin
6-18-25	F	10	102	99	15.2	RANGER
6-19-25	G	10	26	27	10.0	Ranger
6-23-25	H	10	98	97	18.2	Ranger
6-24-25	J	10	41	41	7.3	Ranger
6-25-25	K	21	83	83	19.5	Ranger
6-26-25	L	21	41	41	9.9	Ranger
6-30-25	p	8	86	221	11.2	Tender
6-30-25	K	11	124	543	18.8	Marindin
6-30-25	M	21	18	18	10.5	Ranger
7- 1-25	q	8&14	182	346	16.1	Tender
7- 1-25	L	12	125	625	18.1	Marindin
7- 1-25	N	21	12	11	7.2	Ranger
7- 2-25	M	12	81	488	13.1	Marindin
7- 2-25	G	14	94	264	14.0	Mitchell

Statistics (Con't)

Date	Letter	Vol.	Posi.	Sdgs.	Miles stat	Vessel
7- 2-25	P	21	15	15	8.0	Ranger
7-06-25	N —	12	72	340	11.6	Marindin
7- 6-25	H —	13	83	228	11.1	Mitchell
7- 7-25	P —	12	107	567	16.9	Marindin
7- 7-25	J —	13	142	398	19.6	Mitchell
7- 8-25	r	14	108	431	11.6	Tender
7- 8-25	K —	16	116	521	18.3	Mitchell
7- 9-25	s —	14	133	688	14.5	Tender
7- 9-25	L	16	136	507	21.4	Mitchell
7-10-25	Q —	15	57	280	9.8	Marindin
7-10-25	M	16	65	185	8.3	Mitchell
7-13-25	R —	15	65	300	10.9	Marindin
7-13-25	N	16	77	220	10.5	Mitchell
7-14-25	S —	15	157	746	20.5	Marindin
7-14-25	t	17	110	344	8.0	Tender
7-14-25	Q	21	43	43	21.4	Ranger
7-15-25	T —	15	116	649	15.1	Marindin
7-15-25	u	17	144	357	10.3	Tender
7-15-25	R	21	70	70	26.4	Ranger
7-16-25	P	16&18	141	547	18.0	Mitchell
7-16-25	v	17	147	365	10.4	Tender
7-16-25	S	21	104	104	21.0	Ranger
7-17-25	w	17	75	194	6.2	Tender
7-17-25	Q	18	76	377	13.2	Mitchell
7-21-25	x	17	43	157	3.3	Tender
7-21-25	R —	18	100	269	10.7	Mitchell
7-21-25	T	21	71	71	16.8	Ranger
7-22-25	S —	18	167	511	19.0	Mitchell
7-22-25	y	20	70	276	6.0	Tender
7-23-25	T	18&19	82	260	7.6	Mitchell
7-23-25	z	20	69	258	7.2	Tender
7-23-25	U	21&22	124	213	12.5	Ranger
7-27-25	U —	19	93	319	13.4	Marindin
7-27-25	a'	20	5	5		Tender
7-28-25	V —	19	135	470	17.6	Marindin
7-28-25	b'	20	106	388	7.1	Tender
7-28-25	V	22	112	208	11.7	Ranger
7-29-25	W —	19	121	465	14.9	Marindin
7-29-25	c'	20	160	641	13.6	Tender
7-29-25	W	22	106	169	12.3	Ranger
8- 6-25	b	19	8	40	0.5	Dinghy
8-11-25	X	22	37	37	8.0	Ranger
9- 9-25	Y	22	20	20	9.9	Ranger
10-7-25	Z	22	5	5	6.3	Ranger
10-15-25	A'	22	14	14	10.4	Ranger
10-16-25	B'	22	5	5	4.3	Ranger
	Totals		8404	29986	1367.3	

Area sureveyed -----160.7 sq.stat. mi.

TRIANGULATION SIGNALS
HYDROGRAPHIC SHEET #6

Endfield Mill	Bried	Big Diamond Chimney
Paradise Mill	Blessing Chimney	Lower Love Chimney
Adventure Mill	Betty's Hope Chimney	River Mill
Manning Mill	Kings Hill Flag Staff	Profit Mill
Anguilla Chimney	Mary's Fancy Chimney	Barren Spot Chim. Steeple
Jerusalem Mill	Peter's Rest Chimney	Work and Rest Chimney
Little Diamond Chimney	Longford Chimney	Petronela Mill
Flagg #222	Nugent	Green Cay Est, Mill
Green	Shoy's Mill	Fort Louisa Light
Clock Steeple	Lutheran Church Spire	Episcopal Church Spire
Central Factory Chy.	Little Princess Chimney	Great Princess Chimney
St.John Chimney	Rattan Chimney	Dolby Hill
Judiths Fancy	Salt	River - figured on T3799 a sheet
Claremont Mill	La Valle Chimney	La Valley
Cane ~~Bay~~ Bay Mill	North Star Mill	Prosperity Mill
Wells	Hams Bluff Lt.Ho.	Butlers Bay Mill
Sprat Hall Mill	Punch	Punch Mill
Williams Mill	Prosperity Chimney	La Grange Chimney
Lutheran Church Steeple	Wym Chimney	Carlton Mill
Cane Rust	Hope.	

LIST TOPOGRAPHIC SIGNALS
HYDROGRAPHIC SHEET #6

Bluff	Staff	Flat
Ham	Not	Side
Had	But	Hall
Crik	White	Quar
Out	Gram	Wharf
Fred	Brot	Rin
Cor	Low	Sand
South	Smithfield	Hannahs Rest
Hop	Long	End
Ro	Coop	Green
Tom	Man	Riv
Bless	Red	Sing
Dan	Kah	Ree
Ear	Black	Out
Red	Fairham Mill	Seg
Great Pond Bay Mill	Gab	Ded
Cay	Hop	Sho
Wash	Rest	Nor
Ant	Gol	Ver
Cone	Ord	Don
Joe	Ray	Rust
Belve	Spring	High

HYDROGRAPHIC SIGNALS
HYDROGRAPHIC SHEET #6

Name	Lat.	D.M.	Long.	D.P.	Remarks
In	17 46	535	64 52	853	Cuts
Plug	17 46	309	64 52	1633	Cuts
Burn	17 45	1785	64 52	1647	Cuts
Ben	17 45	1726	64 53	33	Trans. from boatsheet
Pipe	17 45	1608	64 53	286	" " "
Al	17 45	1270	64 53	627	From topo.sheet
Cut	17 45	1076	64 53	725	Trans. from boat sheet
Cap	17 45	655	64 53	852	Cuts
Ded	17 45	282	64 53	840	Cuts
Go (Ed)	17 44	1430	64 53	1163	Cuts
Are	17 43	1620	64 53	531	Trans. from boat sheet
Lot	17 42	845	64 53	128	" " " "
Cat	17 41	927	64 53	1276	" " " "
Dog 2	17 41	600	64 53	1540	Cuts
Dog	17 41	512	64 53	1585	Lat. from boatsheet and one cut.
Kate	17 41	305	64 54	35	Trans. from boatsheet cuts.
Bush	17 40	1470	64 54	107	Boat sheet and cuts
Clump	17 40	1390	64 54	5	Cuts
Pole	17 40	1526	64 53	1250	Cuts
Dry	17 41	5	64 53	841	Cuts
Log	17 41	342	64 53	343	Cuts
Boy	17 41	292	64 52	1292	Cuts
White	17 41	384	64 52	900	Trans. from topo.sheet cuts.
White Pole	17 41	585	64 51	142	Cuts
New	17 41	72	64 50	22	Cuts
White Banner	17 41	1611	64 46	1268	Cuts
Nu	17 42	1024	64 44	1627	Cuts

Name	Lat.	D.M.	Long.	D.P.	Remarks
Us.	17 42	846	64. 44	1003	Cuts.
Cliff	17 42	660	64 43	1477	"
Dim	17 42	523	64 43	918	"
White	17 42	329	64 43	706	"
Tan	17 42	32	64 43	178	"
Tip	17 46	1030	64 44	574	Trans. from topo. sheet
Sit	17 46	1186	64 45	477	
Wil	17 46	1092	64 45	780	
Pin	17 46	1027	64 45	462	
Ho	17 46	750	64 45	947	
In	17 46	463	64 45	993	
Ded	17 46	1050	64 45	1100	
Out	17 46	1167	64 45	944	
Lef	17 46	1585	64 45	863	
Bud	17 46	1812	64 45	1705	Cuts
Windmill	17 47	108	64 47	310	
How	17 46	1262	64 47	1562	
W.W.Rock	17 46	1518	64 48	234	
Mar	17 46	1574	64 48	606	
Ded	17 46	1515	64 48	724	
Fix(Red Roof)	17 46	850	64 48	1053	
Yew	17 46	352	64 49	170	
Now	17 46	220	64 49	542	
Hir(Air)	17 46	144	64 49	779	
Rus	17 46	15	64 49	954	
Pea	17 45	1713	64 49	1565	Trans. from boat sheet
Foul	17 45	1474	64 50	712	Cuts
Up	17 46	1731	64 50	1062	

HYDROGRAPHIC SIGNALS (CON'T)

NAME	LAT.	D.M.	LONG.	D.P.	REMARKS
Bov (Bay)	17 45	3	64 50	1620	Cuts
Rail	17 45	1778	64 51	125	
Ring	17 45	1794	64 51	534	
Led	17 46	62	64 51	887	
Tone	17 46	514	64 52	130	

Copy for Record Section files.

March 16, 1928.

(11)

Division of Hydrography and Topography:

Division of Charts:

The reducers are approved in volumes of sounding records for

4653a

HYDROGRAPHIC SHEET

VIRGIN ISLANDS, ST.CROIX.

Locality:

G. C. Mattison, 1924-5.

Chief of Party:

M L W

Plane of reference is Christiansted
2.0 ft. on tide staff at Frederikstad, 1924.
2.8 " do do June, 1925.

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.

[signature]

Chief, Division of Tides and Currents.

In replying please address:—
The Hydrographer,
Admiralty,
London, S.W.1,
quoting H 4938/30.

Hydrographic Department,
Admiralty,
London, S.W.1.

28 March, 1931.

Dunlop
14
3

APR - 9 - PM 3:21

ANSWERED
APR
10
1931
DIVISION OF CHARTS

Sir,

I have the honour to inform you that it has been observed that a shoal 3½ fathoms "P.D.", formerly shown on U.S. Coast and Geodetic Survey Chart No.905 about 2 miles to the South Eastward of the South West Point, Santa Croix, is not shown on the July 1929 Edition of that chart.

This shoal was first inserted on British Admiralty Chart No.485 from the U.S.B.N. Notice No.3388 of 1918, its position and depth being subsequently amended in accordance with information received from the Chief of Department for Hydrography, Buenos Aires, a copy of whose letter is attached.

ENCLOSURE

I would therefore be much obliged if you would be so good as to furnish this Department with any later information received by you on which this shoal has now been removed from the U.S. Coast and Geodetic Survey charts.

I have the honour to be,
Sir,
Your obedient Servant,

H.P. Douglas.

Rear-Admiral and
Hydrographer of the Navy.

The Superintendent,
U.S. Coast & Geodetic Survey,
Washington, D.C.

Removed as result of surveys.

File with Desc. Report
H 4653a
Anco.

COPY.

Buenos Aires,

No.188 - C.

18th February, 1919.

TRANSLATION.

The Director
of the Hydrographic Office,
Admiralty, London, S.W.1.

Sir,

I beg to inform you that on November 20th 1918, the Argentine Transport "Chaco," navigating from Buenos Aires to New York, with call at Puerto Rico, ran aground on a shoal of 21' of water, not marked on the charts, nor mentioned in the Pilots; its position is: Lat. 17°38'55" N., long. 64°53'21" W., at a distance of 0,9 of a mile, 68°, from the $3\frac{3}{4}$ fathom shoal advised in July 1912 and cancelled later on.- At the point where the "Chaco" ran aground the British Chart No.485, edition 1914, marks 8 fathoms .

I have the honour to be,
Sir,
Your obedient Servant,

(Signed) JORGE YALOUR.
Captain.- Chief of Department
for Hydrography, Lights and Beacons.

April 10, 1931.

The Hydrographer,
Admiralty,
London, S. W. 1,
England.

Sir:

In reply to your letter H 4938/30 dated March 28, 1931, a hydrographic survey supplemented by wire drag survey in 1924-1925 failed to reveal any indication of the shoal, 3 1/2 fathoms "P.D." formerly shown on U. S. Coast and Geodetic Survey chart No. 905, about two miles southeastward of the southwest point of Saint Croix Island. The existence of this shoal has been definitely disproved, and it was removed from the charts.

Respectfully yours,

(Signed) R. S Patton

Director.

Section of Field Records

Report on H4653a, c, d.
Chief of Party G C Mattison
Protracted by W.R. Porter
W H Bamford
J G Ladd
Verified and Inked by
J T Walker

Surveyed in 1924 & 1925
Surveyed by G.C. Mattison
C K Green
H E Finnegan
A P Ratti
M Leff.
Soundings plotted by C.F. Ehlers
W H Bamford
J G Ladd

Certain areas of H4653a when received in the Washington office were so congested with soundings and positions - or the paper was in such bad condition that it was thought impracticable to try and verify and ink it in. It was therefore decided to enlarge these areas to a scale of 1:10000. The areas, which are all along the south side of St. Croix, were devided into two nearly equal parts and were plotted by Field Records Section. The two enlarged sheets were called H4653c and H4653d.

Sounding Records. The records were neatly kept and are legible. The soundings had been reduced to feet but as the sheets are plotted in fathoms it was necessary to reduce them again to fathoms. These reductions were made by Mr Mc Gann and checked by the writer. Two columns of soundings starting with red "B" lay

Vol. 10 page 5 were marked Reg. Sheave and Mach. Counters, respectively. The Reg. Sheave column was used throughout.

Protracting. In congested areas the boat sheets were not sufficiently legible to follow or to make comparisons and this necessitated the checking of more positions than would otherwise have been necessary. Some of the position numbers on the "a" smooth sheet were indistinct or were obliterated. Most of the errors found on the "a" sheet were due to signals which had been revised or to erroneous numbering of the fixes on the smooth sheet.

Very few errors were found in the protracting of the "c" and "d" sheets as these were done by experienced office men.

Soundings. Very few soundings were found on any of the sheets which had been penciled in erroneously. No bad discrepancies were found in the crossings.

Conformity to General Instructions. The "a" sheet when received was somewhat soiled and badly wrinkled in places as would be expected on such a large ~~scale~~ sheet, such close work, and a poor grade of paper. Most of the geographic names were added by the writer. The shoreline and rocks did not conform, in many

places, with the topo sheets. Where inshore hydrography occurred the topo sheets were therefore reduced to the scale of the hydrographic sheet and such corrections and additions as were necessary were made. A note appeared on the sheet that the projection had been checked but no note appeared showing that the signals had been checked. Four of the triangulation signals were found which plotted 10 meters or less off, and one of them was moved. Six topo signals were revised. One hydro signal was revised. Several signals were found shown ~~the~~ with the wrong symbol or color and a few were added. Checking the signals was found to be a most unsatisfactory task. Shinkage caused trouble with the triangulation signals; the topo signals were often not named or shown with a symbol on the topo sheets, and the cuts to the hydrographic signals were scattered through many volumes and were often confused and inadequate. No authority could be found for some of the signals and they were accepted as plotted on the smooth sheet.

The "c" and "d" sheets when received were clean ✓ and neat and conformed with General Instructions.

<u>Overlap</u>. H 4653a and H 4629a do not overlap ✓ but the junction seems close enough.

The junction of H 4653a and H 4652a on the north side of the island is off shore and does not overlap but is considered sufficient. The junction on the south side of the island overlaps sufficiently and the soundings are in good agreement.

The wire drag sheets for H4629 and H4652 do not show any soundings in the area of H4653a

The soundings shown on W.D. H4653b have been plotted on the "a" sheet in green ink and show a few additional shoals.

The overlap of H 4653d with H 4652a is sufficient and the soundings are in good agreement.

The areas on H 4653a to be enlarged were inclosed by a pencil line and the soundings were inked up to this line. When the "c" and "d" sheets were inked in a few soundings were inked in past the junction so as to form an overlap.

Soundings Rejected. a 25 fathom sounding (Lat. 17-43 Long 64-54) was reported in about 250 fathoms depth and was rejected— see position 1 red 8 volume 10 page 5.

a 5 fathom sounding (Lat. 17°-38'+1440 m Long. 64°-5-4' + 905 m) was recorded in Vol. II page 13, 60-61 G day. It was not plotted on the smooth sheet by the field or by the writer. The area was dragged to 5½ fathoms depth. Probable depth 7 fath.

Respectfully submitted
J. W. Walker
July 1, 1932.

Section of Field Records
Review of Hydrographic Sheet No. 4653 (a,c,d)
West end of St. Croix Island, Virgin Islands
Surveyed in 1924 - 5
Instructions dated June 22, 1923 and May 28, 1925
Chief of Party - G. C. Mattison
Surveyed by G. C. Mattison, C. K. Green, H. E. Finnegan, A. P. Ratti and M. Leff
Protracted by W. R. Porter, (c) W. H. Bamford, (d) J. G. Ladd
Soundings plotted by C. F. Ehlers, (c) W.H.B., (d) J. G. L.
Verified and inked by J. T. Walker.

1. The records in general conform to the requirements of the Hydrographic Manual. An index of hydrographic signals located by sextant cuts, is given in a separate book. Other hydrographic information is not indexed.

2. The plan and extent of development satisfies the specific instructions as modified by the supplemental instructions relative to wire drag work.

3. Sounding lines are in good agreement. The discrepancies noted in the Descriptive Report have been satisfactorily adjusted on the smooth sheet.

A questioned 25 fathom sounding recorded in Vol. 10, page 5, position 1B with note relative to fouling of sounding wire, was called to the attention of the Chief of Party. He recommends that it be not charted. Accordingly it was not plotted on the smooth sheet. If plotted it would be in approx. lat. 17°43' long. 64°54'.35, adjacent to depths of 253 and 268.

The parts in pencil on the (a) sheet south of St. Croix Island, were replotted in the office on 1:10,000 scale on (c) and (d) sheets as indicated. A few small discrepancies resulted apparently due to shrinkage and warping of the (a) sheet while being plotted in the field. The greatest change noted was in lat. 17°39'.8 long. 64° 52'.3 where the displacement was about 5 m m on the (a) sheet. The adjustment was carried out to where it became negligible.

4. The usual depth curves appear on the sheets, the curves less than 5 fathoms are necessarily incomplete due to the character of the shoreline.

5. Junctions with contemporary survey sheets No. H4652 and H4629 are satisfactory. There were no previous surveys by the Coast and Geodetic Survey of the area covered by this sheet.

6. The soundings on chart 905 Ed. Nov. 1921 were taken from British charts. The present survey shows few changes. The shoals and reefs on the south coast of the island are shown in much greater detail and show somewhat less water over the coral heads. The section in the Descriptive Report headed "Results" notes the more noticeable changes.

7. Recommendation. This survey, comprising sheets H 4653a, b(wire drag), c and d, should supersede all previous information for charting purposes in the area covered.

No further surveys are deemed necessary at this time. The 25 fathom noted in paragraph 3 is believed to come from a false indication of bottom due to fouling of the wire on the sounding machine.

8. The field drafting is good. The necessity for putting the entire area on one sheet is not apparent. The developed areas were illegible and the paper did not stand up well under hard usage. For a detailed history of the sheet see the verifier's report.

9. Reviewed by R. J. Christman, Aug. 19, 1932.

Inspected: E. P. Ellis. See page 3 of the verifier's report for remarks regarding the records and plotting of control stations by field party.