

3783

DESCRIPTIVE REPORT

to

Accompany Topographic Sheet No. 3783

Field Sheet "G", Virgin Islands of the U.S.

by

A. L. Shalowitz, Jr. H. & G. Engineer, C. & G. Survey.

O. W. Swainson, Chief of Party.

3783

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic 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. 3783

Field Sheet "G"

State Virgin Islands

General locality St. John Island

Locality ~~Coral Bay and Vicinity~~ Eastern Part and Offlying Islands

Chief of party O. W. Swainson

Surveyed by A. L. Shalowitz

Date of survey March, April, 1919

Scale 1-10000

Heights in feet above Mean sea level

Contour interval 20 feet.

Inked by A. L. Shalowitz Lettered by A. F. Gleason

Records accompanying sheet (check those forwarded): Photographs, ☒

Descriptive report, ☒ Horizontal angle books, Field computations,

Data from other sources affecting sheet

Remarks: The notes and elevations were inked by A. L. Shalowitz.

PLANE TABLE SURVEY OF CORAL BAY, ST. JOHN.

Field Sheet "G". Virgin Islands of U.S.

Shore Party. March-April, 1919. O. V. Swainson, Chief of Party.

Survey by A. L. Shelowitz, Aid.

INTRODUCTORY NOTES.

The survey of this sheet was made on a 1-10000 scale and is covered in the general instructions for the survey of the Virgin Islands under date of January 24, 1918. Actual field work on the sheet was begun about the middle of March and field work closed on the second of May. The actual work comprised 29 working days. On account of the future possibilities of the bay as a naval base, particular care was taken in the survey of the shore line, and permanent marks were left at all the salient points for future hydrographic control.

LIMITS OF SHEET.

This sheet borders on sheet "F" to the westward and comprises the eastern end of the island of St. John east of the $64^{\circ}43'$ meridian as well as Buck Island and Flannagan Island.

CONTROL AND METHOD OF SURVEY.

The Chief of Party furnished the principal control for this sheet by establishing triangulation stations on most of the prominent points along shore and on some of the principal hills in the interior. The first step in the execution of the plane table work was to send the rodmen out to flag all hills within the limits of the sheet as well as to place topographic flags on all salient points along the shore. The next step was to occupy a triangulation station, draw the

magnetic meridian and begin cutting in all triangulation and topographic flags, as well as observing vertical angles to same. All work around that station was then completed, thus eliminating the necessity of returning again to the same station. Another point was then occupied and additional cuts taken to all flags. This was continued until three or more cuts were obtained to almost every flag on the sheet. It is to be noted that these cuts checked remarkably well in both plan and elevation, there being absolutely no triangle of error and the greatest difference in elevation being 2 feet, which shows to what extent the plane table can be used as a survey instrument, under proper conditions. With this method of establishing complete control at the beginning of the work, all troublesome errors due to distortion were avoided, and assuming that the sheet distorted uniformly, all points located are in their proper relative positions on the sheet. Progressive surveying was then begun. The entire shore was then completed and the roads run in. In the survey of the roads a combination of the traverse and three point method was used. Where many short set ups had to be taken with no special detail to map, the compass method of orientation was used, with set ups at every other reading. Owing to the excellent control no adjustments were necessary. The remaining interior topography was then filled in by occupying several points of vantage.

CONTOURS.

The contours are at 20' intervals. Elevations were carried along all the roads, so that the contours along these are accurate. In a general way, elevations were obtained by direct readings at the tops and bottoms of all hills, heads of ravines, breaks in grade etcetera.

In the vicinity of Minna Hill and Jacob's Flat, the timber was too heavy to permit of accurate contouring, so that sketching had to be resorted to: The chief object here was to delineate properly the drainage line. The relative accuracy of the contours and the extent of the sketching in this vicinity is shown by the number of elevations actually determined. The elevations of triangulation stations are topographic determinations. These were later checked up with the triangulation computations and found to differ by a maximum of 2 feet. No change was therefore made.

DESCRIPTION OF SHORE LINE.

Particular pains were taken in the careful inking of the shore line on this sheet, and the nature shown by appropriate conventional signs. Any unusual feature, or where doubt might exist, is described by a note. A detailed description is therefore unnecessary.

GENERAL APPEARANCE OF COUNTRY.

Coral Bay with its numerous smaller bays and indentations lies in a general northwest and southeasterly direction. It is about 2 1/2 miles long from head to mouth with an average width of about a mile and a quarter. The eastern and western boundaries of the bay are formed by two remarkable headlands (Red Point and Ram's Head), that shelter the bay from all directions except the southeast. Were Nature but a trifle kinder and extended Red Point further to the southwest then St. John would have boasted one of the most wonderful harbours in the world.

The country is generally hilly and mountainous, there being no extensive flats within the limits of this sheet. The hills are more or less regular, the most prominent of them being Minna Hill which is 996 feet high.

There is considerable pasture land in the vicinity of Hermitage, a stock-raising estate, but for the most part the country is covered with trees and bush. In the vicinity of Minna Hill, the timber is particularly heavy with yellow-sandal trees 30 to 40 feet high. There is no cultivated land to speak of, the patches here and there being of the small garden variety. The accompanying tracing shows the general character of the vegetation and forms a part of the field records for this sheet. The limits of grass and bush were sketched on in the field and are considered sufficiently accurate for the character of the work, in view of the fact that bush and grassland are constantly changing.

All houses were located. They are generally wooded in character.

The largest settlement on this part of the island is at East-End. Boat building is the chief occupation of the males here, and some of the finest small boats and sloops used in St. Thomas and St. John come from East End. The women folk too do their bit for a livelihood by weaving baskets and the like from what is known as black whist. These find a ready market in St. Thomas and among the tourists that visit the beautiful island.

At Emmaus there is a Moravian Mission and school.

The Government doctor lives at Usher's Cay.

Salt Pond around the south side is the only salt bearing pond on this end of the island. Caroline Estate is the big Bay Oil manufactory.

The ruins of an old fort can (be still) seen on top of Fort Berg Hill. It was here that during the slave riots of 1733, the little garrison stationed here were surprised and massacred by the revolting slaves.

COAST PILOT.OUTLYING AND INSHORE DANGERS.

EAGLE SHOAL lying about 3/4 mile south of Buck Island and about one mile northeast of Ram's Head is the only outlying danger in the vicinity. Only in heavy weather does it break, thus making it difficult to obtain plane table cuts. The position shown is a sextant location, taken in a rough sea. The center of the shoal was estimated. The object was not so much to get an exact location for the shoal, as it was to verify the existence of the same.

All other dangers are clearly shown on the chart and need no special comment.

Attention is called to H.O. Chart No. 3903 which shows 5 fathoms of water just off the western point of the Haulover in Round Bay. This is incorrect, as there are a group of rocks known as The Blinders about 200 meters off the point, that are awash at low tide.

ANCHORAGES.

Small boats can seek shelter in almost any of the numerous bays within Coral Bay, and even large vessels have put in to Hurricane Hole during heavy weather with perfect safety.

WATER CREEK which is the deepest of the three creeks on the eastern side of Hurricane Hole was used by the Danes as an anchorage for some of their smaller cruisers. The ships were moored to guns planted on the shore. The small bight on the eastern side and at the entrance to Water Creek was used for careening ships.

CORAL HARBOR is an excellent anchorage for shallow

draft vessels but not quite deep enough for large boats.

On the north side of the island, Haulover Bay is the only bay that can be used as an anchorage.

The gravel spit at the northern end of Long Point makes a splendid place for beaching a launch or sloop as the land drops sharply just off the spit.

OBJECTS PROMINENT FROM SEAWARD.

At the west end of the sheet Minna Hill and Ram's Head are most prominent.

The contour of the promontory of Ram's Head plays an important part in alongshore navigation.

At the eastern end of the sheet Nancy Hill and Black Rock Hill are most conspicuous.

GENERAL RESOURCES.

WATER SUPPLY.

Like St. Thomas, the people have resort to rain water caught from the roofs of houses. There are no permanently flowing streams on this end of the island. There are numerous wells around and these form the chief water supply for the animals.

ROADS.

The roads are scarcely more than good mountain trails. As they are all public roads and maintained they are shown in full. Owing to the heavy grades they can only be used for riding purposes.

FAUNA.

There are no game of any sort on this part of the island.

FLORA.

As this sheet covers so little of the interior portion of St. John, it was not thought advisable to go into any detailed

description of the Flora of this island. In many respects it is similar to that on St. Thomas, and reference can be made to Descriptive Report for sheets "A" and "B", Virgin Islands.

It has been endeavoured to show on the accompanying tracing the types of trees, shrubs and vines on different portions of the sheet.

FUTURE POSSIBILITIES.

From a commercial standpoint, the only hope for the island seems to be in the possibility of using Coral Bay as a naval base. With this eliminated, St. John is destined to be dormant in the history of the Virgin Islands, with only an occasional tourist or rest loving St. Thomian coming to wake it from its peaceful and happy slumber.

CLIMATIC CONDITIONS.

Owing to the more mountainous condition of the country, the climate of St. John seems to be a shade the better than St. Thomas. But in a general way it is very much the same as St. Thomas. See Reports for sheets "A" and "B", Virgin Islands.

RELATION OF SURVEY TO NAVY NEEDS.

It is hoped that the character of the survey will meet all requirements from both a military and naval standpoint. It was planned to locate the more important estate boundaries, but like on St. Thomas these are poorly defined with many of them running through inaccessible bush and guts.

A number of permanent marks were left along the roads. This together with the already excellent control along the shore and in the interior, should make any future boundary surveys a simple matter. Boundary surveys in country of this character should be made by single estates and should follow measure briefs. To include all

estate boundaries in a comprehensive plane table survey covering such a wide scope is almost an impossibility without serious loss in time.

CONCLUSION.

The photographs attached were taken during the progress of the work and form a part of this report.

A list of recoverable plane table stations is also attached as well as a reference list of Geographic Names.

Respectfully submitted

Aaron L. Shalowitz
Aaron L. Shalowitz,
Jr. H. & G. Engineer.

To the Superintendent
Coast and Geodetic Survey.
December 18, 1919.

PLANE TABLE POSITIONS. SHEET "G".

3783

Object and Description	Latitude	D.M.	Longitude	D.P.	Elevation	Remarks and How Marked.
BAD	18 19	1771	64 40	258	6	Nail set in cement
BERG	18 20	1080	64 42	948		Large rock
BIG	18 21	674	64 41	1273	8	Nail in cement
ENT	18 20	405	64 42	871	2	Reg. Disc.
HEAD	18 18	27	64 42	371		Reg. Disc
HON	18 21	1341	64 42	1651	359	Reg. Disc
LAST	18 21	363	64 41	250	335	Same as JON, sheet "F". Reg. Disc
LEDGE	18 21	948	64 39	1164	2	Nail set in Cement
MEM	18 21	1160	64 41	457	2	Reg. Disc
MID	18 21	373	64 41	1091	3	Nail in cement
NEAR	18 20	1362	64 40	1176	46	Reg. Disc
NEW	18 21	97	64 40	272	4	△ Disc
PEL	18 20	852	64 40	1074	7	Pelican Rock
PEN	18 20	1032	64 42	1403	7	△ Disc
POP	18 20	1462	64 41	1149	6	Nail set in cement
ROCK	18 20	1559	64 40	98	10	Lone rock
ROD	18 19	738	64 42	10	103	Reg. Disc
ROUND	18 20	1417	64 40	1470	12	Reg. Disc
SABAT	18 19	705	64 41	1525	9	Reg. Disc
SAD	18 21	1163	64 42	122	241	Reg. Disc
SALT	18 18	1553	64 42	869	109	Reg. Disc
SLOPE	18 20	1332	64 41	510	15	Nail set in cement
SPIK	18 21	252	64 40	844	2	Spike in cement
TOP	18 21	342	64 42	427	2	Nail in cement
TURN	18 20	868	64 41	978	46	△ Disc
WOT	18 20	1817	64 41	1064	8	Nail set in cement

SHEET "G".

The following are Geographic Names that are known locally but which do not appear on the published charts.

THREADNEEDLE POINT
POP POINT
LONG POINT
PEN POINT
LAGOON POINT

EMMAUS ✓

MT. ZION
LEINSTER HILL
NANCY HILL
BLACK-ROCK HILL

PALESTINA ✓

HERMITAGE
EAST END
JOHN'S FOLLY
SALT-POND (Estate)
MANDAL ✓

HAULOVER BAY ✓
✓ NEWFOUND BAY ✓
LONG BAY
HANSON BAY
BIG CREEK
SANDER'S GUT BAY
PLAAS BAY
MEYERS BAY

ST. CUYACUS BAY
FREEZE BAY
JOHN'S FOLLY BAY
SALT POND BAY
LITTLE MANDAL BAY

THE SCHOOL OF FISH
THE BLINDERS
PELICAN ROCK
USHER'S QUAY
JOHNSON REEF
JACOB'S FLAT
JOHNNY HONE ROAD
SALT POND (pond).

The following names were assigned by the Field Officer and are recommended for adoption.

FORT-BERG HILL - This is a very conspicuous hill, Fort Berg was the name of the fort at the top of the hill.

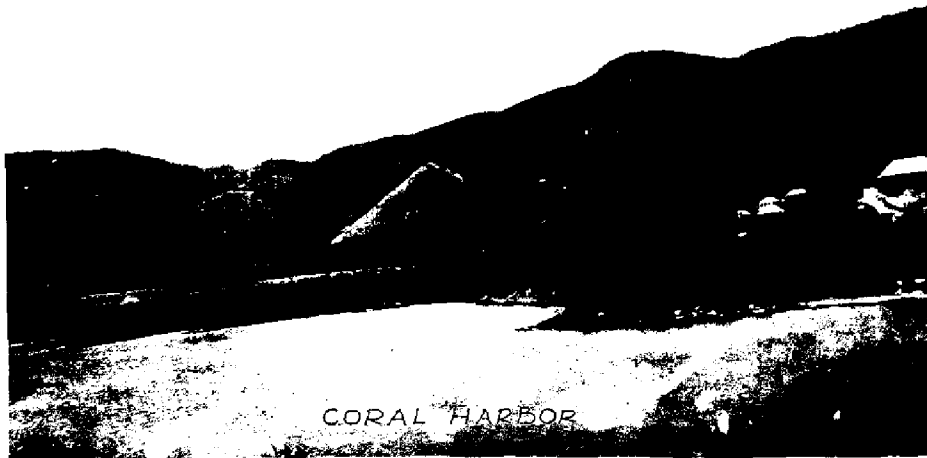
NORTH-SIDE ROAD-

SOUTH-SIDE ROAD, These roads lead through the respective parts of the island.

CENTER-LINE ROAD-

EAST-END ROAD-

All other names shown were taken from H.O. Charts Nos. 3803, 3886, and Danish Chart No. 265.



Caroline Estate and Emmaus Moravian Mission
from Usher's Quay.



Bay Oil still at Caroline Estate

TORTOLA



Hurricane Hole and Coral Harbour from
Bordeaux with Tortola in background.



Round Bay and part of Hurricane Hole from
Bordeaux with Norman and Peter Is. in background.

TORTOLA

Hurricane Hole

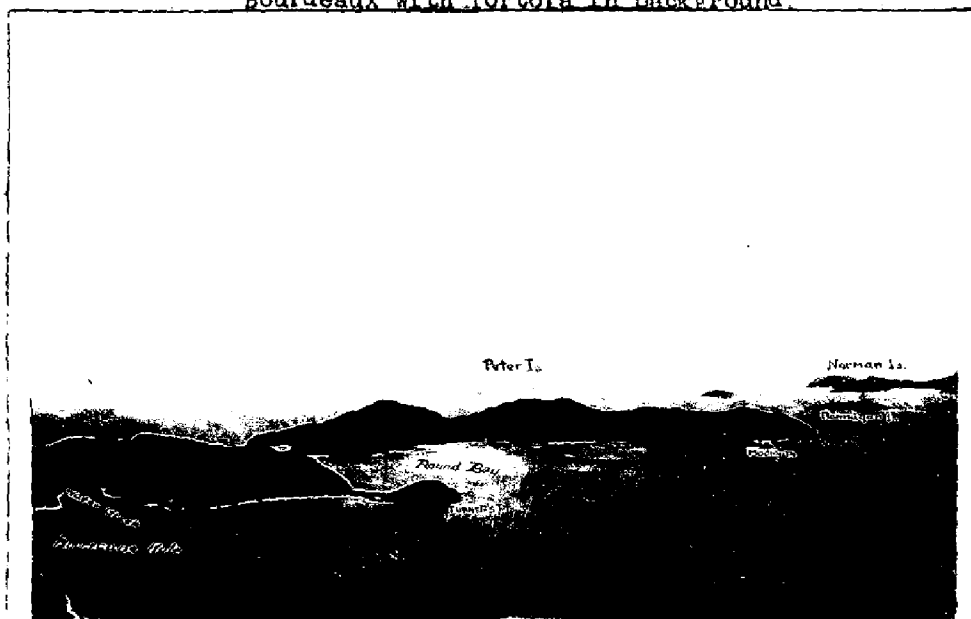
Enniscus
(Flemish Mission)

Weyers Cay

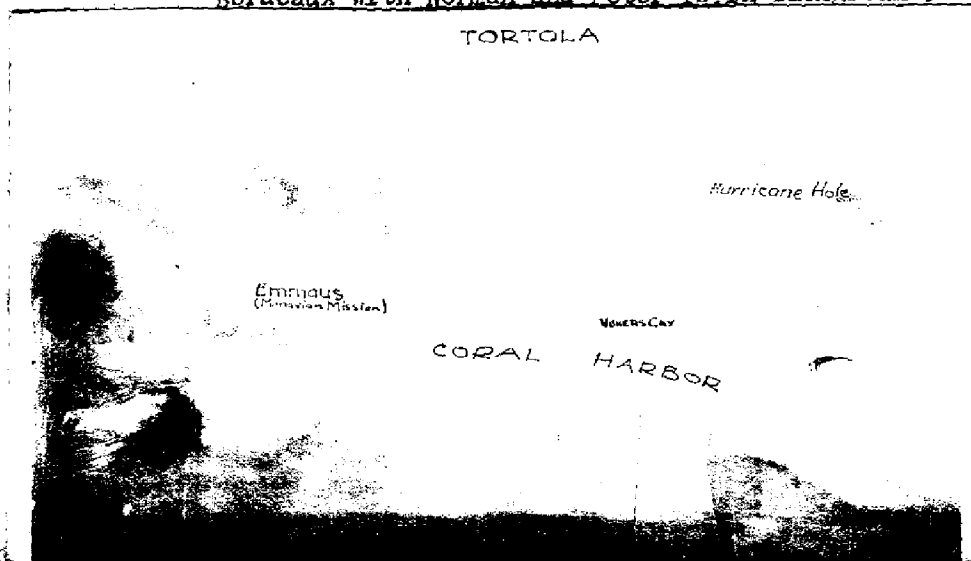
CORAL HARBOR



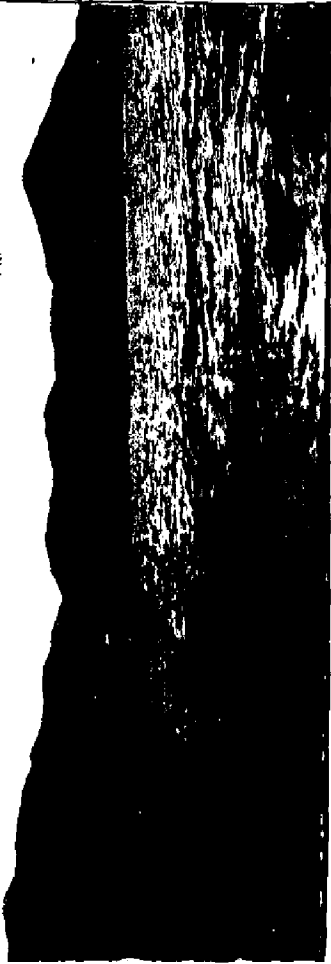
Hurricane Hole and Coral Harbour from
Bordeaux with Tortola in background.



Round Bay and part of Hurricane Hole from
Bordeaux with Norman and Peter Is. in background.



Minna Hill



Minna Hill and ridge to west from south shore.

Buck Is.

Round Bay

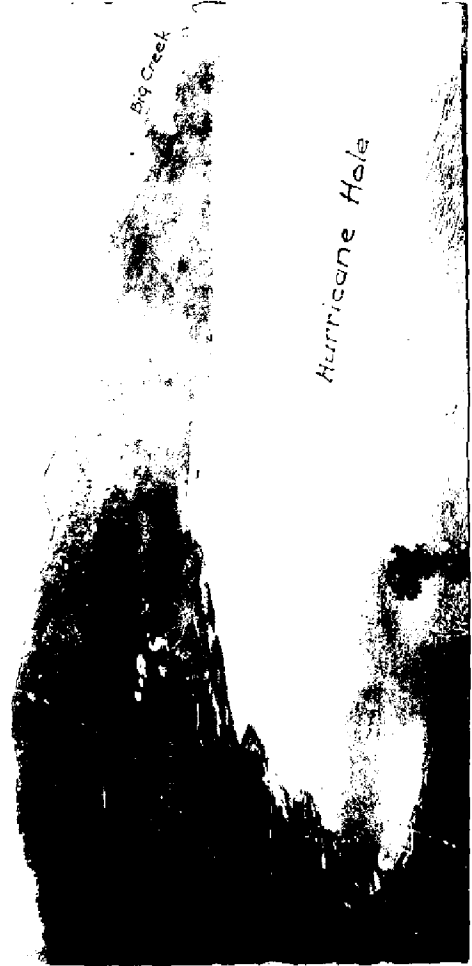
Round Bay

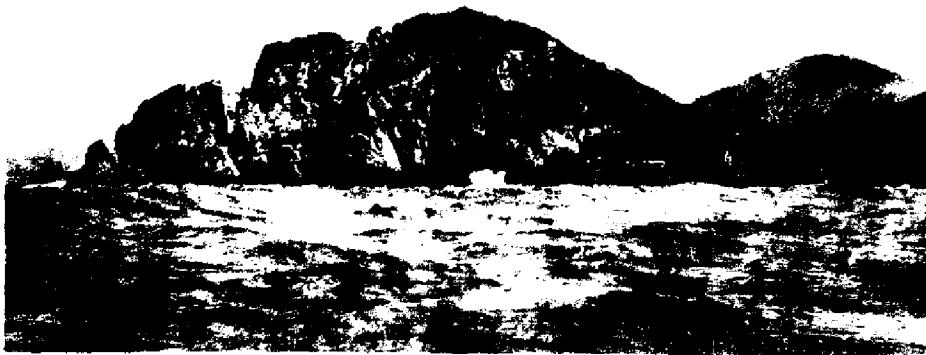


Looking south from point in road west of Haulover showing Buck Island in distance.

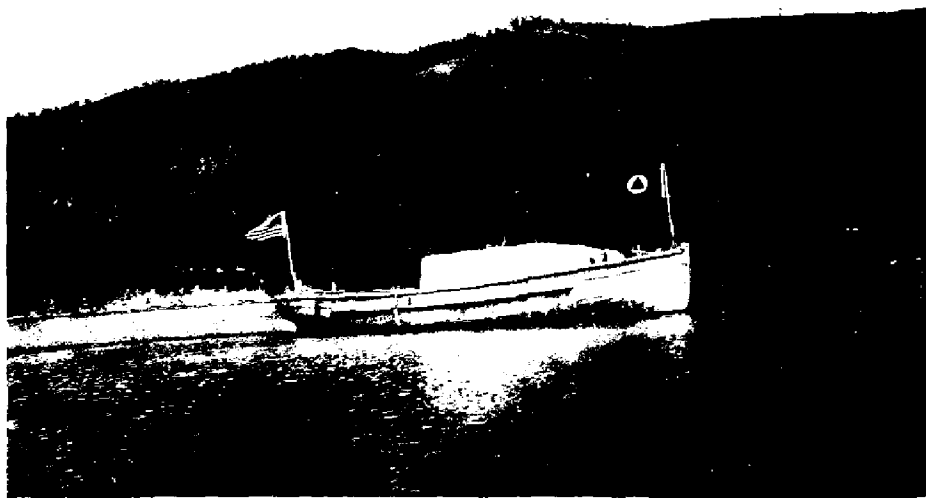
Big Creek

Hurricane Hole





Ram's Head from the east showing bold weatherworn cliffs.



Launch used in topographic work.