

6798

RESTRICTED

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Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE

U.S. COAST AND GEODETIC SURVEY

R. S. PATTON, Director

DESCRIPTIVE REPORT

Topographic

~~Hydrographic~~

Sheet No. A

State British West Indies

LOCALITY

Jamaica Island

Portland Bight

South of Bushy Park

19341

CHIEF OF PARTY

H.C. Warwick

6798

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

Field No. "A"

REGISTER NO. T6798 RESTRICTED

State JAMAICA, B.W.I.

General locality PORTLAND BIGHT

Locality *South of Bushy Park*
~~BUSHY PARK, PARISH OF ST. CATHERINES.~~

Scale 1:4800 Date of survey Dec. 29, 1940, Feb. 27, 1941

Vessel MOTOR VESSEL GILBERT

Chief of party H. C. Warwick

Surveyed by Alfred Wright Jr.

Inked by Alfred Wright Jr.
a plane

Heights in feet above 0.64 ft. below ground ~~to tops of trees~~
MHW to ground

Contour, ~~Approximate contour, from~~ interval 5 feet

Instructions dated November 9, 1940

Remarks:

D E S C R I P T I V E R E P O R T

TO ACCOMPANY

TOPOGRAPHIC SHEET "A" T. 1. 1.

PORTLAND BIGHT

JAMAICA, B.W.I.

INSTRUCTIONS:

This survey was made as per instructions dated November 9, 1940 and by verbal instructions to the Commanding Officer given in conference on November 4, 5, and 6, 1940.

LIMITS:

This sheet extends eastward from a north and south line about one mile east of the town of Old Harbour Bay. It extends along the shore of Galleon Harbor for about $1\frac{1}{2}$ miles and inland about $1\frac{1}{4}$ miles to latitude $17^{\circ}55'27''$.

CONTROL:

Three triangulation stations were used for control points for planetable traverses. The base line stakes used for base line measurements between triangulation stations BUSHY and CORNER were used for both horizontal and vertical control over that area.

Planimeter closure errors did not exceed two meters per mile with the exception of one traverse from triangulation station BUSHY eastward and then southward in which the error was found to be in one set up. This latter traverse was re-run and a satisfactory closure obtained.

Beginning at triangulation station CORNER and running south to the mud flat, a point was set to close upon from a traverse coming from the east.

Base line stakes were used for control for the area north of a line between triangulation stations CORNER and BUSHY. Two short loop traverses running north then east and then south closing on the base line again had less than one meter closure in distance and one half meter in azimuth.

Starting from triangulation station BUSHY south to the cultivated field and then west to the point which had been set on the edge of the mud flat south of triangulation station CORNER the traverse was out in azimuth by two meters and in distance by one-half meter.

A traverse running south from triangulation station BUSHY to triangulation station PIER was out in azimuth by one meter and in distance by one and one-half meters.

A traverse beginning at triangulation station BUSHY running north to the northern limit of the sheet, east to the eastern limit and then south to the mud flat then southwest to triangulation station PIER was out in azimuth by three meters and in distance by two meters.

CONTROL (continued):

A traverse line from triangulation station BUSHY east to Coleburns Gully, south along the eastern side of the gully to the mud flat on the west of the gully, closed on triangulation station PIER by twenty-six meters in azimuth and three meters in distance. This traverse was re-run and the error found to be in one set up which was in latitude $17^{\circ}54'53''$ and longitude $77^{\circ}03'50''$. The closure on the re-run traverse was out in azimuth by one and one-half meters and in distance by one meter.

A traverse beginning at triangulation station PIER and running northwest through the mud flat to a point which had been set on a previous traverse in latitude $17^{\circ}54'54''$, longitude $77^{\circ}04'34''$ closed in distance by one and one-half meters and by zero meters in azimuth.

Field adjustment was made of all detail on all traverses.

All levels were run with a Wye level over the entire area. The alidade was used for side shots to locate contours only and not to carry elevations from set-up to set-up. Numbered 2 x 4 stakes were driven down to about one foot above ground level were used for every T.P. and this served for B.M.'s.

This sheet was begun before sufficient observations had been made to determine the value of mean high water. For this reason an assumed datum was used which was later determined as 0.64 feet below mean high water as determined from tide observations in Galleon Harbour.

The outer mangrove line was located on hydrographic boat sheet (field no. 481) and was transferred from this sheet to the topographic sheet in pencil.

The red numbers denoting elevations are in feet and tenths of feet. The red dot being the decimal point and not the point to which the elevation refers.

SURVEY METHODS:

Standard topographic methods were used and closed traverses were used entirely as three point fixes on resections were not possible to obtain due to the dense foliage over the greater portion of the sheet.

JUNCTIONS:

Sheet ^{T-6798} "A" is the western most sheet on the project and no junction was made along the western limit of the sheet.

Field comparison was made with sheet ^{T-6799} "B" on the eastern limit of this sheet and satisfactory junction was made.

The U. S. Engineers Department is making a survey to the north of this sheet and will make a junction with this sheet.

The area was flown for air photography by the U.S. Army. These single lens prints are, I understand, available at the Division Engineer in Washington.

No comparison was made between this sheet and any other survey.

GENERAL DESCRIPTION:

The shore line is densely covered with mangrove for several

GENERAL DESCRIPTION, (Continued):

hundred meters inland. Mud flats extend along most of the shore line between the inside edge of the mangroves (which is very indeterminate) and higher ground.

The line of fast land was indeterminate due to the long gradual slope of the ground.

The mud flats are flooded at very high tide and also after rains.

Bungo Bee Gully flows out upon the mud flat and has no definite channel at its outlet. Coleburns Gully has a narrow channel at its outlet in dry weather but floods the plain and mud flats during wet weather.

The ground is soft and muddy over all the land below the five foot contour. The whole area is flat and is all soft loam with no indication of rock or stone of any description. Opportunity to view the stratified condition of the soil for a depth of about six feet was given by a freshly dug drain in a banana field about 250 meters east of triangulation station BUSHY. The soil was very sedimentary with the various strata level. Gravel layers appeared about two and one-half feet below the surface but the gravel stones were all below one inch in size. The layers of gravel did not exceed two inches in thickness.

The wooded area is covered mainly by cashaw trees with a few large guango, logwood, lignum vitae and cottonwood trees. There are many tall bamboo roots along Coleburns Gully.

The banana fields are interlaced with drains which are two or three meters wide and about two meters deep. Only the larger drains were located. The drains along the edges of the fields were usually much larger than those in the center of the fields.

About 600 meters southeast of triangulation station CORNER are two abandoned wells and the masonry ruins of an old water storage tank.

The cultivated fields shown by cross lines was sowed with peas at the time of this survey.

There are two tram lines shown on the eastern half of the sheet which run approximately north and south. Tall trees both broad leaved and cocoanuts grow along the two tram lines and serve as wind breaks for the banana fields.

The tram line which runs north and south between triangulation stations PIER and BUSHY is abandoned about 500 meters south of BUSHY. A few old rusty rails and rotten ties are all that remain south of this point.

Directly north of triangulation station PIER and five meters distant is an old iron shed used as a pier shed when the tram line running north from Triangulation station PIER was in use.

The ruins and piles of an old wharf extend about 150 meters south of triangulation station PIER into Calleon Harbor.

Much of the wooded area east of Bungo Bee Gully is being cleared slowly by charcoal burners who build large earth mounds used as burning ovens which would probably show up in air photographs as black circular areas about 10 - 15 meters in diameter. The wooded area west of Bungo Bee Gully is used for cattle grazing.

GENERAL DESCRIPTION, (Continued):

One large white dead tree was located in the central part of the northern boundry of the sheet. This might be used as a control point for air photographs. It is indicated on the sheet.

GEOGRAPHIC NAMES:

The name Coleburns Gully is taken from a map of the plains of St. Catherines compiled by the Jamaica Public Works Department from information obtained from various sources.

The name Bungo Bee Gully is of local usage.

STATISTICS:

Total area in square statute miles	2.0
Statute miles of streams and woods	5.35
Total shoreline obtained on sheet	0.25
Total narrow gage railway	2.53

MAGNETIC MERIDIANS:

Observations were made of the magnetic meridian at triangulation stations CORNER and BUSHY with declinatoire.

No observation was made at triangulation station PIER because of the proximity of the large iron shed.

Station	Date	Variation
BUSHY	Feb. 3, 1941	1°36' E
CORNER	Dec. 30, 1940	1°59' E

Chart No. 1683 of the Hydrographic Office gives the variation as 1°45' E in 1941.

The error of the declinatoire is not known.

Respectfully submitted,

Alfred Wright Jr.

Alfred Wright Jr.,
Deck Officer, USC&G Survey.

Approved and forwarded:

H. C. Warwick
H. C. Warwick,
Comd'g. Motor Vessel GILBERT.

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF TOPOGRAPHIC SURVEY NO. 6798 (1940-41) FIELD NO. A

British West Indies, Jamaica, Portland Bight,
South of Bushy Park

Surveyed in December - February 1941, Scale 1:4,800

Instructions dated November 9, 1940 (GILBERT)

Plane Table SurveyAluminum Mounted

Chief of Party - H. C. Warwick

Surveyed by - Alfred Wright, Jr.

Inked by - Alfred Wright, Jr.

Reviewed by - Harold W. Murray, May 16, 1941

Inspected by - H. R. Edmonston

1. Junctions with Contemporary Surveys

- a. The junction on the east with T-6799 (1941) is excellent. The apparent difference in the line of elevations shown on both surveys in Lat. $17^{\circ} 55.0'$, Long. $77^{\circ} 03.5'$ is due to the plane of reference on the present survey which is 0.64 foot below the standard plane of mean high water.
- b. There are no contemporary surveys by this Bureau to the north and westward of the present survey limits.

2. Comparison with Prior Surveys

No prior surveys have been made by this Bureau in this area.

3. Comparison with H.O. Chart 1683 (New Print date June 1938)

a. Topography

The small scale chart contains no information that needs specific consideration in this review.

b. Magnetic Meridian

The two magnetic meridian observations agree very closely with the charted value of $1^{\circ} 45'$ E. The Descriptive Report, page 4, states that the error of the declinoire is not known.

4. Compliance with Instructions for the Project

The plan, character and extent of the survey satisfy the Instructions for the Project.

5. Condition of Survey

- a. The inking of the topographic details is very good.
- b. The Descriptive Report is clear and comprehensive and satisfactorily covers all matters of importance.

6. Additional Field Work Recommended

This is an excellent survey and no additional work is necessary.

7. Superseded Surveys

No prior surveys have been made in this area by this Bureau.

Examined and approved:



Chief, Surveys Section



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of Coastal
Surveys