

6788a&b  
RESTRICTED

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6788a&b

RESTRICTED

Form 504 Rev. Dec. 1933	
DEPARTMENT OF COMMERCE U.S. COAST AND GEODETIC SURVEY R. S. PATTON, DIRECTOR	
DESCRIPTIVE REPORT	
Topographic <del>Hydrographic</del>	Sheet No. 2A & 2B
State	Bahama Islands
LOCALITY	
Mayaguana Island	
Abraham Bay	
19340	
CHIEF OF PARTY	
G.C. Mattison	

6788a&b

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. 2 a & b

REGISTER NO. **T6788<sub>a</sub> & b** **RESTRICTED**

State West Indies, Bahamas Islands

General locality Mayaguana Island

Locality Abraham Bay

Scale 1:4800 Date of survey November-December, 1940

Vessel HYDROGRAPHER

Chief of party G. C. Mattison

Surveyed by Edwin C. Baum

Inked by Edwin C. Baum

Heights in feet above M.H.W. to ground ~~to top of trees~~

Contour, ~~approximate contour~~ Form line interval 5 feet

Instructions dated November 9, 1940.

Remarks: Confidential Survey, Project H.T. - 258.

DESCRIPTIVE REPORT TO ACCOMPANY  
TOPOGRAPHIC SHEET No. 2a & b (field)  
T-6788a+b (1940)

AUTHORITY:

Instructions dated November 9, 1940 - Project H.T.-258.

GENERAL:

The purpose of this survey is to obtain an accurate delineation of the shoreline, furnish adequate control for the hydrography, ascertain 5-foot contours of the area contiguous to the shoreline, determine the character of the soil and vegetation together with any other information pertinent to this survey.

Gently rising hills, thickly wooded, may be found to culminate in a main ridge lying in a northeast and southwest direction of approximately 60 foot elevation. The higher part of this ridge is found to the southwest and gives way to lower ground to the northeast. Beyond the main ridge to the northwestward the ground drops abruptly.

Immediately adjacent to the shoreline and parallel with it lies a small barrier ridge of 14 foot maximum elevation.

A continuous chain of sloughs lie inshore from this smaller ridge and are subject to restricted tidal action.

The entire area of this survey above 2 foot elevation is covered with dense deciduous trees. These trees are approximately

fifteen feet in height and are classified as impenetrable. Most of the trees are hardwood. The sloughs are fringed with mangrove except as shown.

Limestone rocks and slabs are in evidence throughout the entire area. These are found to exist in large broken pieces and outcropping of huge slabs. This surface limestone is very brittle and may be broken by sledge hammer.

The soil is very rich between these limestone deposits and crops are found to grow throughout the entire year without fertilization.

The cultivated fields shown in this area are principally corn. These fields are not cultivated fields such as we are familiar with but areas partially cleared and the corn growing at random, as though scattered by hand.

#### LANDMARKS:

No landmarks for mariners exist in this area. However the lines cut thru the underbrush and trees in vicinity of Abraham Bay affords an excellent aerial identification in thick weather during restricted visibility.

#### CHARACTER OF CONTROL USED:

This topographic survey was controlled by locally established triangulation. (See triangulation report.)

#### ERRORS:

No errors were found in shoreline traverses.

A loop traverse was run on Sheet 2b northward from topographic

signal "ZIP" thence westward along King Road to 22 foot elevation at western extremity of road. Tie-ins were made at the two other lines that joined the King Road. Discrepancies of plus 3 meters and minus 5 meters were noted on central and western lines respectively. An azimuth check was obtained at 37.1 foot elevation near top of ridge. This is the only open space giving a view of the valley and bay to southward. An azimuth check was made on

△ "VILLAGE 1940". The determined error in azimuth on VILLAGE was eight meters only after carrying azimuth from signal ZIP. These errors were adjusted proportionately.

#### CONTOURS:

A thorough investigation of area to be contoured resulted in the practice of cutting lines normal to the shoreline through the trees. Lines of levels were run with ordinary Wye level and elevations on permanent bench marks and numbered stakes evenly spaced were determined. These bench marks and stakes were located by the topographer and additional elevations determined as required to supplement those determined by levels.

These profile-lines of elevations were reduced in scale and plotted on Air Photo pictures and the contours drawn between control profiles by an experienced compiler using the stereoscope. The resulting contours were enlarged to the scale of topographic sheets and are shown thereon.

The penciled numbers\* following an elevation as (L-1-5) identify the marked stake location. The stake's exact location

\* Removed from sheet. Permanent "Bench Marks" considered adequate. H.W.M.

is the black dot at elevation shown in red. The ground elevations of stake are shown on sheet. Usually the stakes project about 0.7 ft. above the surface of the ground. These stake markings were retained on sheet as possible aid to future operations.

Steep declines were noted at the northwest extremity of profiles (lines of levels) at B-4, B-3, A-3, D-1 and J-1.

#### FIELD INSPECTION:

To insure proper interpretation of all questionable areas on photographs\* a thorough field inspection was undertaken.

The dark areas bordering the sloughs are mainly mangrove.

The light spotted areas particularly those as shown as intermittent ponds consists of large exposed slabs of limestones, dead brush and sand of varying shades giving a mottled appearance. This area covers at unusually high tides accompanied by heavy rainfall.

The odd shaped slough to the north of triangulation station CREEK (Sheet 2b) <sup>T-6188b</sup> is very shoal (1/2 to -1 foot) with a dark muddy appearing bottom. The bottom is very uneven due to emergence of limestone slabs from dark silt-mud bottom.

The sloughs having a light grayish appearance have a light colored sand bottom. Their photographic differences is due to bottom color.

Field inspection indicates that pictures were taken at half tide or lower

#### SLOUGHS:

The delineation of shoreline of sloughs shown on this survey

\* Photographs filed with T-6791 (1941).

were determined by the following procedure: The aerial photographs were taken in the field by the topographer and identifiable points on the photographs were accurately located on the topographic sheet. This procedure was followed throughout the entire area.

These sloughs were pantographed directly on the topographic sheet from the aerial pictures. The control points referred to above insured correlation of the whole.

LIST NEW NAMES:

The names shown here were taken from Hydrographic Office Chart No. 2805.

FEATURES:

The topographic signals were placed close together to aid the hydrographer in running ranges normal to the shoreline.

Respectfully submitted,

*Edwin C. Baum*

Edwin C. Baum,  
Jr. H. & G. Engineer,  
U.S.C. & G. Survey.

APPROVED AND FORWARDED,

*G. C. Mattison*  
G. C. Mattison,  
Commanding, HYDROGRAPHER.

## STATISTICS

F O R

TOPOGRAPHIC SHEET No. 2a T-6788a

1.70 statute miles shoreline.  
3.8 statute miles level-lines.  
0.94 square statute miles of area.

TOPOGRAPHIC SHEET No. 2b T-6788b

1.5 statute miles shoreline.  
5.25 statute miles level-lines.  
1.1 square statute miles of area.



## CHART DIVISION

## SURVEYS SECTION

REVIEW OF TOPOGRAPHIC SURVEY NO. 6788a&b (1940) FIELD NO. 2a and 2b

West Indies, Bahamas, Mayaguana Island, Abraham Bay  
Surveyed in November - December 1940, Scale 1:4,800  
Instructions dated November 9, 1940 (HYDROGRAPHER)

Plane Table SurveyAluminum Mounted

Chief of Party - G. C. Mattison  
Surveyed by - Edwin C. Baum  
Inked by - Edwin C. Baum  
Reviewed by - Harold W. Murray, May 7, 1941  
Inspected by - H. R. Edmonston

1. Junctions with Contemporary Surveys

- a. The junction of T-6788a with T-6788b is satisfactory.
- b. The junctions on the west with T-6787b (1940) and on the east with T-6789 (1940) are excellent.

2. Comparison with Prior Surveys

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

3. Comparison with H.O. Chart 2805 (New Print date July 1938)

The charted information is purely of a reconnaissance nature and no consideration in this review is necessary.

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 features is excellent.
- b. The Descriptive Report is clear and comprehensive and satisfactorily covers all items of importance.
- c. No magnetic meridian was shown on the smooth sheet; the charted variation, however, is only 2 degrees.

6. Additional Field Work Recommended

This is an excellent survey and no additional field work is required.

7. Superseded Surveys

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

Examined and approved:



Thos. B. Reed,  
Chief, Surveys Section



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of Coastal  
Surveys