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6787a&b

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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. 1A & 1B
State	Bahama Islands
LOCALITY	
Mayaguana Island	
Abraham Bay	
1940	
CHIEF OF PARTY	
G.C. Mattison	

6787a&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. "1A" & "1B"

RESTRICTED

REGISTER NO. **T6787** a & b

State Bahama Islands

General locality Mayaguana Island

Locality Abraham Bay

Scale 1:4,800 Date of survey November-December, 1940

Vessel U.S.C. & G.S.S. "HYDROGRAPHER"

Chief of party G. C. Mattison,

Surveyed by E. B. Lewey

Inked by E. B. Lewey

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

Contour, ~~Approximate contour of Form 1111~~ interval 5 feet

Instructions dated Project H.T.-258, November 9, 19 40.

Remarks: Sheets "1A" and "1B" are on opposite sides of the
same aluminum mounted sheet.

DESCRIPTIVE REPORT

To Accompany

T-6787a T-6787b
Topographic Sheets "1A" and "1B", 1940

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Mayaguana Island, Bahama Islands.

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G. C. Mattison, Chief of Party.

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INSTRUCTIONS:

This work was done in accordance with the Director's Instructions for Project H.T.-258 dated November 9, 1940.

LIMITS:

These sheets cover the northern and western shore of Abraham Bay; starting about one half mile northwest of Start Point and extending three and one half miles in a north-easterly direction. The area surveyed extends, on an average one-half mile inland from the waterline.

GENERAL DESCRIPTION:

Start Point is at the west entrance to Abraham Bay and is prominent from the westward. It is brush covered and low, only ten feet above Mean High Water. From Start Point the shoreline is fairly straight and runs in a northeasterly direction. In General the shoreline is sandy and adjacent to the water is covered with low brush, grass, and some palmettos. There are a few stretches

of coral ledges in the vicinity of Start Point. A low ridge, six to ten feet high, runs parallel to the beach and about 25 meters inshore. Behind this ridge the land drops slightly and then rises gradually to the first main ridge (averaging 60 feet in height) which is 500 to 700 meters from the beach and starts about one-half mile from Start Point. A high ridge parallels this ridge about $3/4$ mile to the northward with a low valley (six to ten feet in elevation) between. A broken coral reef from 100 to 400 meters offshore extends the full length of the shoreline covered by these sheets. (See H-6628)

Three quarters of a mile to the NNE of Start Point is a low marshy area containing several salt ponds. These ponds are less than one foot above M.H.W. and show evidence of rise and fall - apparently they are connected by underground passage with the ocean. The ground here is covered almost entirely with thin flat rocks of limestone appearance. There are several holes in this vicinity - some as deep as eight feet.

A low valley extends to the NE from Start Point and another to the NW. These valleys are fairly flat, from six to ten feet in elevation, and extend at least a mile from the point. However, the one to the N.W. is narrow - about 500 meters in width.

SOIL

The surface of the ground is rocky throughout. The rocks are of limestone appearance, quite brittle, and irregular in shape. Between the rocks is a soft, light, sandy soil but of very little depth. The soil is deeper in the low places and thinner on the ridges.

VEGETATION:

The entire area is covered with impenetrable brush and trees in which are scattered patches of corn. The brush is from six to eight feet in height; the trees from 15 to 20. Both brush and trees are of the hard wood variety - mostly mahogany and lignum-vitae.

CONTOURS:

Contour interval of five feet.

Between cleared lines the contours are controlled by photographs, being sketched in by use of a stereoscope. Scale of the photographs approximately 1:9800.

CONTROL:

The survey was controlled by a Local Grid^{of} Plane coordinates with Triangulation Station ABE as Point of Origin. Coordinates of ABE: 6,000 Meters North, 15,000 Meters East.

SURVEY METHODS:

Standard Planetable Survey Methods were used.

Spirit levels were run along the beach and cleared trails. Elevation of Bench Marks and Turning Points were determined in this manner. Bench Marks are noted on the sheets but the Turning Points are not; except for the way the elevations are shown. Elevations of Bench Marks and Turning Points are shown to thousandths. Elevations determined by planetable are shown to tenths.

All elevations are in feet above MHW as determined by tide staff in Abraham Bay.

All topographic signals were located by traverses run between triangulation stations.

CLOSURES:

All traverses closed satisfactorily.

Traverses run up the cleared trails were checked by running independent traverses from the inner end back to traverse stations on the beach. Exception: The two traverses run into the salt ponds to the NNE of Start Point, one from Triangulation Station MAC and one from the beach ^{at} Topographic Station RIB (approximately 500 meters SW of Triangulation START) checked each other within 5.0 meters. The traverses were not re-run, but adjusted.

Traverses run along the beach were tied into triangulation stations on either end.

GEOGRAPHIC NAMES:

MAYAGUANA ISLAND, ABRAHAM BAY, and START POINT are the only names used on these sheets.

These names are locally used and are shown on existing charts.

PLANETABLE POSITIONS:

A list of planetable positions - topographic stations marked with Standard Topographic Station Disks, Bench Marks, and Reference Marks - with their elevations is attached to this report.

STATISTICS:

A table of statistics is attached.

Respectfully submitted,

Ernest E. Lewey
Ernest E. Lewey,
Jr. H. & C. Engineer,
U.S.C. & G. Survey.

Approved and forwarded:

G. C. Mattison
G. C. Mattison,
H. & C. Engineer,
Chief of Party,
U.S.C. & G. Survey.

TOPOGRAPHIC STATIONS

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S H E E T "1A" T-6787a

STATION	Latitude	Longitude	Remarks
JAY	3,772.4 ✓	12,443.0 ✓	Topo. Disk, 8.038 ft. ✓
RIB	3,507.0 ✓	12,144.0 ✓	" " 2.293 ft. ✓
AMO	3,290.8 ✓	11,780.0 ✓	" " 8.290 ft. ✓

S H E E T "1B" T-6787b

ZED	5,420.0 ✓	14,162.8 ✓	Topo. Disk, 3.698 ft. ✓
PET	4,895.8 ✓	13,595.6 ✓	" " 7.971 ft. ✓
DUB	4,628.0 ✓	13,318.5 ✓	" " 7.536 ft. ✓
NIG	4,294.0 ✓	13,028.5 ✓	" " 6.826 ft. ✓
LEW	4,034.9 ✓	12,750.5 ✓	" " 8.266 ft. ✓

BENCH MARKS

SHEET "1A" T-6787a

BENCH MARK	Latitude	Longitude	Height, in ft. (above MHW)
B. M. # 17	3,999.0 ✓	12,250.0 ✓	24.686 ✓
B. M. # 18	4,104.0 ✓	12,162.8 ✓	56.959 ✓
B. M. # 19	3,427.4 ✓	11,731.0 ✓	15.224 ✓
B. M. # 20	3,590.0 ✓	11,655.0 ✓	12.560 ✓
B. M. # 27	3,619.0 ✓	12,060.0 ✓	13.976 ✓
B. M. # 28	3,775.3 ✓	11,940.0 ✓	36.094 ✓
B. M. # 35	3,244.0 ✓	11,407.2 ✓	11.455 ✓
B. M. # 36	3,558.0 ✓	11,177.2 ✓	9.554 ✓

REFERENCE MARKS

SHEET "1A" T-6787a

R. M. #1 (ROCK)	3,111.6 ✓	11,513.2 ✓	2.693 ✓
R. M. #2 (ROCK)	3,102.0 ✓	11,499.0 ✓	2.809 ✓
R. M. #1 (RAM)	2,920.0 ✓	10,919.5 ✓	3.014 ✓
R. M. #2 (RAM)	2,923.1 ✓	10,901.0 ✓	2.814 ✓

BENCH MARKS

SHEET "1B" T-6787b

BENCH MARK	Latitude	Longitude	Height, in ft. (above MHW)
B. M. # 11	5,605.0 ✓	13,927.4 ✓	11.939 ✓
B. M. # 12	5,802.5 ✓	13,646.9 ✓	52.705 ✓
B. M. # 13	5,131.8 ✓	13,337.7 ✓	20.371 ✓
B. M. # 14	5,307.7 ✓	13,171.5 ✓	52.955 ✓
B. M. # 15	4,504.5 ✓	12,794.0 ✓	19.987 ✓
B. M. # 16	4,669.3 ✓	12,595.2 ✓	67.309 ✓
B. M. # 21	4,821.0 ✓	13,046.4 ✓	23.184 ✓
B. M. # 22	4,961.8 ✓	12,874.2 ✓	56.153 ✓
B. M. # 25	4,215.2 ✓	12,586.0 ✓	14.959 ✓
B. M. # 26	4,390.8 ✓	12,418.4 ✓	55.140 ✓
B. M. # 33	5,370.6 ✓	13,715.8 ✓	8.235 ✓
B. M. # 34	5,579.4 ✓	13,528.2 ✓	47.856 ✓
B. M. # 37	5,886.5 ✓	14,337.7 ✓	2.347 ✓

REFERENCE MARKS

R. M. # 1 (MAY)	5,062.8 ✓	13,792.2 ✓	7.183 ✓
R. M. # 2 (MAY)	5,052.6 ✓	13,768.8 ✓	6.609 ✓
R. M. # 1 (START)	3,935.0 ✓	12,525.2 ✓	18.046 ✓
R. M. # 2 (START)	3,951.3 ✓	12,513.8 ✓	16.534 ✓

STATISTICSSHEET "1A"

Statute miles of shoreline	1.7
Statute miles of cleared trails	4.6
Area surveyed, square stat. miles	0.7
Elevations determined by level	54
Elevations determined by planetable	712

SHEET "1B"

Statute miles of shoreline	1.7
Statute miles of cleared trails	3.2
Area surveyed, square stat. miles	0.8
Elevations determined by level	89
Elevations determined by planetable	489

SURVEYS SECTION

REVIEW OF TOPOGRAPHIC SURVEY NO. 6787a&b (1940) FIELD NO. 1A and 1B

Bahama Islands, 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 - E. B. Lewey
Inked by - E. B. Lewey
Reviewed by Harold W. Murray, May 6, 1941
Inspected by H. R. Edmonston

1. Junctions with Surveys

- a. The junctions on the west with T-6790 (1941), on the north (T-6787a only) with T-6791 (1941), and on the east with T-6788a (1940) are excellent.
- b. The junction of T-6787a with T-6787b is 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)

Information shown on the chart is purely of a reconnaissance nature and need not be considered in this review.

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 topographic features was excellent.
- b. The Descriptive Report was clear and satisfactorily covers all matters of importance.
- c. No magnetic meridian observations are indicated on the smooth sheet, however, the variation shown on H.O. Chart 2805 is only 2 degrees.

6. Additional Field Work Recommended

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

7. Superseded Surveys

No prior surveys are on register 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