

3835

G. & G. SURVEY  
L. & A.  
SEP 13 1921  
Adm. No.

Form 504  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

State: *Virginia*

11-5813

DESCRIPTIVE REPORT.

*Topo* Sheet No. **3835**

LOCALITY:

*Entrance to Chesapeake Bay*  
*South Island and*  
*Myrtle Island*

1821

CHIEF OF PARTY:  
*Hasler*

3835

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET NO.....

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GENERAL DESCRIPTION:

The object of this survey was to locate the signals "Ho2" and "Ship 2" by plane table traverse, for use in off-shore hydrography. The traverse was run along the east coast of Smith and Myrtle Islands, and those topographic features in the vicinity of the traverse were located.

A strip of sand beach 100 to 200 meters <sup>wide</sup> extends along the entire east coast of both Islands, and this is covered by shifting sand dunes. Back of this strip of beach are marshes covered with tall grass which are submerged at high tide.

CHANGE OF COAST LINE:

It is evident that the entire east coast of Smith and Myrtle Islands is wearing away. In some places it has worn back more than 100 meters.

In the center of Smith Island a new inlet has been formed by the waves, through which swift tidal currents pass. This new inlet is about 1,500 meters wide and is being rapidly extended by the swift currents.

SURVEY METHODS:

In this traverse the distances were chained by means of a 100-meter length of stranded sounding wire. The traverse was begun at  $\Delta$  Old and the sheet was oriented on  $\Delta$  Char. The azimuth was carefully carried forward thruout the traverse, each orientation being checked by observations on the lighthouses at  $\Delta$  Old and  $\Delta$  Char. The traverse was closed on  $\odot$  Ship and azimuth and distance checked almost exactly.

*Wm. D. Patterson*

Wm. D. Patterson,  
Jr. H. & G. Engineer,  
Coast and Geodetic Survey.

ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 4-MEM

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

SECTION OF FIELD RECORDS

REPORT ON TOPOGRAPHIC SHEET No. 3835.

Surveyed in 1921.

Chief of Party: H. A. Seran

Surveyed by W. D. Patterson

Inked by W. D. Patterson.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the survey fulfill the requirements of the General Instructions.
3. The plan and extent of the survey satisfy the specific instructions.
4. The field drafting was completed to the extent prescribed in General Instructions.
5. The failure to survey the inner shoreline of the islands will make it impossible to represent this feature correctly on the charts.
6. No further surveying is required within the limits of the sheet.
7. The surveying is fair and the field drafting is good.
8. Reviewed by E. P. Ellis, February, 1922.

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. **3835**

State . . . . . **Virginia** . . . . .

General locality . . **Entrance to Chesapeake Bay** . . . . .

Locality . **Smith Island and Myrtle Island** . . . . .

Chief of party . . **H. A. Seran, H. & G. Engineer** . . . . .

Surveyed by . **Wm. D. Patterson, Jr. H. & G. Engineer**

Date of survey . **April 20-26, 1921** . . . . .

Scale . . . . . **1:40,000** . . . . .

Heights in feet above . . . . . **77** . . . . .

Contour interval . . **77** feet.

Inked by **Wm. D. Patterson** Lettered by **Wm. D. Patterson** . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report,  Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . .

Remarks: