

4139

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

State: Va.

11-5613

DESCRIPTIVE REPORT.

Topo Sheet No. **4139**

LOCALITY:

C. Henry

Bet. C. Henry and Currituck Beach Lt.

1925

CHIEF OF PARTY:

F. S. Borden

DESCRIPTIVE REPORT  
TO ACCOMPANY  
TOPOGRAPHIC SHEET  
COVERING AREA  
SOUTH OF CAPE HENRY  
VIRGINIA  
OCTOBER 1925  
STEAMER BACHE  
F. S. BORDEN  
COMD'G.

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EXTENT

The topography on this sheet extends from Coast Guard Station No. 166 (new) to a point about two miles south of Cape Henry Light. The sheet has been subdivided into two sections, each of which embraces about fifteen statute miles of shoreline on a scale of 1:20,000.

METHODS

The greater portion of the topography was accomplished by means of tape traverse. This was necessary because of the scarcity of signals. Coast Guard Stations approximately seven miles apart and the two 100 foot hydrographic signals, NECK and WASH, comprised the control for the area between Coast Guard Stations Nos., 163 and 166. The remaining distance was negotiated by a combination of tape traverse and three point fixes. Three point fixes were employed in the area surrounding Virginia Beach because of the circuitous route necessitated by this thickly settled area.

Each section of traverse was started from a set-up over a point of known position such as the flag poles at the various stations or the triangulation stations. The first orientation was made on some other visible signal and the traverse then carried along the beach by taping the distance and orienting on the previous traverse station. On arriving at the next signal adjustments were made for errors in distance and azimuth. Distances were taped along the flat part of the beach and stations offset to a prominent position where necessary.

REMARKS

Coast Guard Station No. 166 (old) has been moved from it's old location. The buildings have been condemned and have, with the single exception of the station building, been destroyed. The station building has been purchased by a gun club and at the present time is being removed bodily to a new location. It's position at the time of this survey is shown on the topographic sheet.

Buildings of the latest type have been erected at Coast Guard Station No., 164. Strong winds partly wrecked the old building in 1922 and changed it's position two or three feet. The old building and flag pole remain and a new station and watch tower have been erected in positions as shown on the sheet.

The position of the club house about two miles south of Coast Guard Station No., 164 is questionable. This is assumed to be the same building as signal CLUB shown on a photostat copy of the inshore work accomplished in 1922. The two positions differ considerably. It is probable that the last determination is in error because the topographer did not have the location of this signal on the sheet and therefore had no means of checking the old determination directly.

Rudy Inlet has filled in and the beach is now unbroken at that point. A pond has formed behind the high water line and it is probable that a narrow cut will be opned to allow the escape of this water.

Tree lines have been sketched in from cuts to tangents and prominent trees. Hard sand prevails over the entire distance between high and low water lines. At low water the beach is much traveled by autoists as this "low water road" is the only means of reaching the territory to the south by auto. No attempt has been made to show the comparatively tiny dunes which predominate behind high water line. A comparison with chart 1227 shows more large sand dunes on the topographic sheet. At Wash Hill there are now four fairly large dunes, close together, but with definite lines of demarcation. These dunes are roughly from forty to seventy feet in height.

LAND MARKS

In recent years the U.S. Engineers have erected four very prominent towers along the coast in the vicinity of Cape Henry and Virginia Beach. The towers are used as observation towers for fire control. They are permanent in construction and are approximately 90 feet high. They serve as excellent land marks and should be charted. The positions of the four towers, "Granite", "Emerson", "Hollies" and "Rifle Range" were computed from data obtained from the U.S. Engineers. The data obtained from the Engineers consisted of azimuths between the various towers and Cape Henry Lighthouse. From the azimuths a list of directions was made and the positions computed by Coast Survey Methods, using Cape Henry Lighthouse as a starting point, the azimuth Cape Henry L.H. - Cape Charles L.H. as an <sup>initial</sup> azimuth and a distance measured by the Engineers as a base.

Respectfully submitted,

Approved *Frank B. D... ..*

*J. A. Mc Cormick*  
Jr. N. H. E.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4139

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. -----

REGISTER NO. 4139

State ~~Virginia and North Carolina~~-----

General locality ~~Coast line south of Cape Henry, Virginia~~-----

Between Cape Henry and Currituck Beach Lt.  
Locality ~~Coast Guard Station 166 (new) to a point about 2 mi. south of Cape Henry Light.~~-----

Scale 1:20,000 Date of survey October, 1925

Vessel BACHE-----

Chief of Party Frank S. Borden-----

Surveyed by C.A. Egner, J.A. McCormick, E.J. Burke-----

Inked by E.J. Burke, J.A. McCormick-----

Heights in feet above----- to ground to tops of trees

Contour, Approximate contour, Form line interval----- feet

Instructions dated June 24, 1925

Remarks:-----