6959 a&b

Diàq. Cht. 1222-2
Form 504
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT
Type of Survey Topographic
Field No. A.& B. Office No.
LOCALITY
State Virginia
General locality Hampton Roads
Locality North side of Naval Operating Base
and Willoughby Spit
194 4
CHIEF OF PARTY
John H.Brittain
LIBRARY & ARCHIVES

DATE May 9,1944

B-1870-1 /I\+-

76959 Applied to Cht. 400, June 29, 1944 1222, June 30, 1944

X. YI.

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 = 1944 Graphic Control
REGISTER NO.

State Virginia
General Locality Hampton Roads
Locality Neval Operating Base
Scale 1:5000 Date of survey February-March , 1944
Vessel Launch HILGARD
Chief of party John H.Brittain
Surveyed by R.H.Tryon, Jr.
Inked by R.H.Tryon, Jr.
Heights in feet above to ground to tops of trees
Contour, Approximate contour, Form line interval feet
Instructions dated February 8 , 19 44
Remarks: This survey graphic control only.
GPO 266853

review needed

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. B - 1944

REGISTER NO.

State Virginia
General Locality Hampton Roads
Locality Willoughby Spit
Scale 1:5000 Date of survey February - March 1944
Vessel Launch HILGARD
Chief of party John H.Brittain
Surveyed by R.H.Tryon, Jr.
Inked by R.H.Tryon, Jr.
Heights in feet above to ground to tops of trees
Contour, Approximate contour, Form line interval feet
Instructions dated February 8 , 1944
Remarks:
GFO 296833

DESCRIPTIVE REPORT

TO ACCOMPANY

TOPOGRAPHIC SURVEYS A & B, 1944

Launch HILGARD

J.H.Brittain, Comd'g.

INSTRUCTIONS: The work was executed under Director's Supplemental Instructions for project CS 305, dated February 8,1944.

CONTROL: Previously executed triangulation was adequate to control the work on these surveys. A geographic position was determined from a three-point theodolight fix at topographic signal Eve,1943. The fix was taken from an eccentric point and this eccentric point was used to tie in one end of the traverse along Willoughby Beach.

METHODS: Standard methods of surveying as outlined in the Topographic Manual, were used. On sheet A, the location of the hydrographic signals only was desired so the high water line was not determined.

On sheet B, the location of the high water line and the various jettys was determined. The location of the offshore ends of all the jettys could not be determined by the topographic party so that in some cases, sextant fixes were taken for these positions. See positions Nos. 106e, 107e, 108e, 11le, 113e, 114e, and 135g of the skiff hydrographic party.

TRAVERSES: A traverse was run from triangulation station SUB,1943 to LAGOON,1943. The closure of 1.5 meters was adjusted on the sheet. A traverse was run from triangulation station LAGOON,1943 to triangulation station CHAMBERS,1943. The closure was 0.5 meter and was adjusted on the sheet.

On sheet B, nearly all signals were located from a closed traverse which extended from triangulation station WILL,1943 to Eve eccentric. A spur traverse was run from a set-up 150 meters east of signal Vit eastward to locate signals Yel, Zed, and Add. The traverse was run three times before a satisfactory closure could be obtained. The final discrepancy of 2.5 meters was adjusted on the sheet.

COMPARISON WITH PREVIOUS SURVEYS: The surveys were compared with Chart 400 and Topographic Survey 6913a. A general recession of from 10 to 15 meters was noted in the shore line along Willoughby Beach. The extreme end of Willoughby Spit has changed since the survey in 1943. At the south end of the hook, the shore has built out 17 meters. This action may have been aided by the hull of a boat that went aground on the point and filled with sand.

GEOGRAPHIC NAMES: There are no new names to be charted in the ares covered by these surveys. No names except title 814 L.H-

Respectfully submitted,

Lieutenant, C.& G.Survey

Approved and Forwarded:

March 17,1944

John H.Brittain, Lt.Commander, C.& G.Survey.

The serieur needed for sheet A signals have been compared with contemporary hypo. surveys R.H. Carateus

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NO. T-6959 b

FIELD NO. B-1944

Virginia, Hampton Roads, Willoughby Spit
Surveyed Feb. - March 1944 Scale 1:5000
Instructions dated Feb. 8, 1944

Plane Table Survey

Aluminum Mounted

Chief of Party - J. H. Brittain
Surveyed by - R. H. Tryon, Jr.
Inked by - R. H. Tryon, Jr.
Reviewed by - R. H. Carstens, March 27, 1947
Inspected by - H. W. Murray

1. Adjoining Surveys

The present survey was carried to a satisfactory junction with T-6913a (1943) on the west. No contemporary planetable surveys on the east have been made by this Bureau. However, the entire area is covered by quadrangle T-8303 (1944), and an adequate junction is made with that survey on the east.

2. Comparison with Prior Surveys

A. T- 502 (1853) 1:20,000 T-2632 (1903) 1:20,000 T-3647 (1916) 1:30,000

Willoughby Spit has extended about 350 meters westward since the earliest of these surveys was made and the north shore has receded about 75 meters. The numerous jetties along the north shore were constructed comparatively recently and do not appear on the prior surveys.

The present survey supersedes these prior surveys for shoreline detail within the common area.

T-6959b (1944) - 2

3. Comparison with Contemporary Surveys

T-8303 (1944) 1:20,000

Agreement of this air photographic survey with the present survey is good except for numerous jetties shown on the present survey which are not shown on T-8303.

The present survey is adequate to supersede this contemporary survey for charting the shoreline in the common area.

Comparison with Chart 400 (Latest print date 12/9/46)

The present survey has been wholly applied to the chart before review. No revisions are necessary.

The magnetic variation determined on the present survey is in good agreement with the charted value. The corrections of the declinatoire readings, if any, are not known.

5. Condition of Survey

The inking was neatly done.

The Descriptive Report covered all essential details.

6. Compliance with Project Instructions

The present survey adequately complies with the Project Instructions.

7. Additional Work Recommended

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

Examined and Approved:

I. E. Rittenburg

Chief, Nautical Chart Branch

G. Crosby

Chief, Section of Hydrography

C. M. Durgin Chief Division of Charts

C. K. Green Chief. Division of Coastal Surveys