

7070
a&b

Diag'd. on Diag. Ch. No. 78-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic
CO-A-48
Field No. CO-B-48 Office No. T-7070a & b

LOCALITY

State Virginia
General locality James River
Locality Vicinity of Fort Eustis

1948

CHIEF OF PARTY

E.B. Latham

LIBRARY & ARCHIVES

DATE October 4, 1948

B-1870-1 (1)

7070
a&b

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

T7070 a+b

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

CO-A-48
Field No. CO-B-48

REGISTER NO. T-7070 a+b
Virginia ~~T-7071~~

State _____

General locality James River _____

Locality Vicinity of Fort Eustis _____

Scale 1:10,000 Date of survey 29 April to 25 May 48, 19 _____

Vessel COWIE _____

Chief of party E. B. Latham _____

Surveyed by E.B.L. _____

Inked by E.B.L. _____

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated 12 March 1948, 19 _____

Remarks: _____

DESCRIPTIVE REPORT

Graphic Control

Sheets T-7070 and T-7071 James River, Va.

Ship COVIE

Ector B. Latham, Comdg.

AUTHORITY.

Amended Instructions, Project CS-255, 12 March 1948.

CHIMIOLOGY.

Work was done on 29 April, 6 May, 24 May and 25 May.

GENERAL.

The presence of the moth ball fleet made it very difficult to properly identify the signal locations on air photo compilations, or to locate signals by cuts from triangulation stations. Subject fleet also made it necessary to locate additional signals by obstructing visibility of signals across the river.

DESCRIPTION OF COAST

7070, West side, High Water line was generally along the foot of a wooded bluff averaging 25 feet high - 7071 low marshy ground with offlying low marshy islands.

CHARACTER OF CONTROL.

Controlled by triangulation stations established at various times and coordinated by the party of H. E. Finegan in 1938.

LANDMARKS.

Only landmark within limit of sheet is tower South of Marshy Point, already located and charted.

CLOSING ERRORS AND HOW ADJUSTED.

Traverse, Triangulation Station EXTRA to Triangulation Station GHOST, Closed flat. Triangulation Station GHOST to Triangulation Station DEMON, A closure of 16 meters, all in azimuth was experienced. Error was due to mistake in orienting table at GHOST, signal HOW being mistaken for flag at Triangulation Station DEMON. HOW was partly obstructed by trees and apparently the flag at Triangulation Station DEMON was completely obstructed. A cut taken from set up at Triangulation Station GHOST to signal ~~OAT~~^{OAR} was laid on sheet and the orientation of table checked by this line when set up at ~~OAT~~^{OAR}. Closure was adjusted graphically, and it is believed that final positions are accurate within plotting accuracy.

Closure of traverse Triangulation Station SNELL to set up near signal BOG was checked by orienting by traverse and resection on Triangulation Station ULBER Reference Mark and Triangulation Station Point of SHOALS. Closure was approximately three (3) meters which was not adjusted. A jump in sounding line was noted on "b" day, 11 May 1948 in connection fix using Ask, and the topography was re-run on 24 and 25 May. A comparison was made and conclusion reached that an error had been made either in holding or reading the rod when locating signal Ask. Signal was relocated on direction line to Ask, with distance from plane table set up altered to conform to the new position. Additional check angles observed by the Hydro. party are not considered of sufficient consequence to warrant further comparisons. (Subject angles are recorded on page 30 Vol. 1 Sounding Record)

AUXILIARY METHODS ETC.

No application.

FORM LINES ETC, OTHER PARAGRAPHS IN MANUAL

No application.

LIST OF PLANE TABLE POSITIONS.

None, only landmark has been located by triangulation.

Respectfully Submitted,

Ester B. Latham,
Chief of Party.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NO. T-7070a & b

FIELD NO. CO-A & B-48

Virginia, James River, Vicinity of Fort Eustis
Surveyed in April - May, 1948 Scale 1:10,000
Instructions dated 12 March 1948

Plane Table Survey

Aluminum Mounted

Chief of Party - E. B. Latham
Surveyed by - E. B. Latham
Inked by - E. B. Latham
Reviewed by - I. M. Zeskind, June 15, 1949
Inspected by - R. H. Carstens

1. The control for this survey is based on triangulation of 1938. The closing error (16 m.) of the traverse from GHOST to DEMON (2 miles), exceeding 4 meters per mile, was adjusted graphically on the sheet. No plottable inaccuracies have been found to result from this adjustment.
2. The following surveys overlap the present survey and make satisfactory junctions with it:
 - a. West Shore
T-8070 (1943) and T-8069 (1943) join the present survey on the north and south respectively.
 - b. East Shore
T-8060 (1943) joins the present survey on the north and south.
3. A comparison of the present survey with H-7174 (1948) reveals no discrepancies in shoreline or low-water detail.

4. Only minor differences in the shoreline were revealed in the comparison between the present survey and the prior surveys mentioned in paragraph 2 above. The shoreline on the present survey is adequate to supersede that shown on the prior surveys.
5. The shoreline on Chart 529 (Latest print date 5/29/49) is in substantial agreement with the present shoreline.