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Superintendent

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OFFICE OF ASSIST. IN CHARGE
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U. S. COAST AND GEODETIC SURVEY

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U. S. COAST AND GEODETIC SURVEY.

Henry S. Pittchell, Superintendent.

State: Maryland.

DESCRIPTIVE REPORT.

Hydrographic Sheet Nos. 2464
2465

LOCALITY:

Eastern Bay,
Maryland.

Geo.

CHIEF OF PARTY:

P. A. Walker, Assistant.

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ASSISTANT IN CHARGE

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COAST AND GEODETIC SURVEY
LIBRARY AND ARCHIVES

Acc. No.

Diag. Chart No 77-1

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

A. S. Pritchett
Superintendent.

State: *Md.*

DESCRIPTIVE REPORT.

Hyd. C. Sheet No 2465

LOCALITY:

See

2464

1900

CHIEF OF PARTY:

P. A. Welker

2465

TREASURY DEPARTEMENT,
U. S. Coast & Geodetic Survey, Str. "A.D.Bache",
Reedville, Northumberland Co. Va.,

Aug. 20th. 1900.

Dr. Henry S. Pritchett,
Supt. U.S.C. & G. Survey,
Washington D. C.

Sir:

In obedience to "Instructions and memoranda for Descriptive Reports, 1887", I beg leave to submit the following report on Hydrographic Sheets Nos. 2464 and 2465:

The work consists of a hydrographic resurvey of Eastern Bay, Maryland, in 2 sheets on a scale of 1:20000, made during the season from August 8th. to December 7th. 1899.

Eastern Bay is an estuary of Chesapeake Bay, having an area of about 50 sq. miles, and an average depth of 5 to 8 fathoms in the navigable parts. A good channel with above given depths runs from the mouth of the bay to Deep Water Point. Large vessels of deep draught, however, unless familiar with the locality should not venture beyond Tilghman's Point without a pilot. The channel is permanent and has no bars crossing it. The bottom is of a dark clay and is soft to the lead; holding ground is excellent.

The B.C. & A.R.R. have requested, and the Secretary of War has transmitted to congress, recommendations of the U.S. Army Engineers, relating to improvements of the channel to Claiborne, Md., by dredging a channel 300 ft. wide from the twelve ft. curve of Eastern bay to the B.C. & A. Wharf, said channel to have a depth of 12 ft. at M.L.W. A breakwater at the same place, 300 ft. long, to form a harbor of refuge

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is also under consideration.

Vessels usually ^{ANCHOR} under the lee of the land, shifting their anchorage from one side of the bay to the other as the direction of the wind may require. The bottom is good holding ground in all parts of the bay except on the various shoals which are of sand.

The principal water trade is by small sailing craft, and consists of oysters during the winter season, and grain and garden truck, and fruit during the summer months. A steamer from Baltimore, Md. makes connection with the B.C. & A.R.R. at Claiborne, this steamer makes two round trips daily during the summer and during the winter makes one.

There are no life saving stations.

There are no regular pilots, but a stranger entering could at all times engage one of the many captains who trade in the bay to take a vessel to any point on the bay or its tributaries.

There are no quarantine regulations or boarding stations, neither are tow boats to be found in the bay.

There are no harbor regulations or harbor dues. Ship chandlers stores may be obtained in limited quantities at either Claiborne or St. Michaels. Fresh water may be obtained at wharves of either Claiborne or St. Michaels. Bitumen ^{or} and anthracite coal in limited quantities may be purchased ^{at} St. Michaels; coal will be delivered either at wharf or along side a vessel in small barges. Nearest machine shops for extensive repairs to machinery ^{are} at Baltimore Md., although light repairs can be made at St. Michaels.

There is no marine hospital or hospital available for mariners.

3.

There is one marine railway situated at St. Michaels. This railway is of easy approach for the draught it will take. Ways are 132 ft. long 5ft. deep at head, and have 8 1/2ft. over sill at M.L.W. It is owned and run by I.H. Kirby & Sons.

There are two good wharves at St. Michaels, with a depth of 10ft. along side and one at Claiborne with a depth of 8ft., M.L.W.

There is no time ball, but time may be obtained at the telegraph office, at St. Michaels.

There are no branch hydrographic offices, weather service, or stations for reporting vessels.

The B.C. & A.R.R. runs a steamer between Baltimore and Claiborne, making daily round trips during the winter and two round trips daily during the summer months. They also run an additional daily freight steamer when traffic warrants it.

The Tolchester Steamboat Co. runs a steamer from Baltimore Md. that touches at Haddaway's Cove on Tuesday and Thursday of each week.

The only R.R. within the limits of the sheets is the B.C. & A.R.R. which runs between Claiborne and Ocean City making connections with all points.

Post offices on the sheets are Kent Island P.O., reached by county road from Queen Anne Md., St. Michaels P.O., reached by water or by B.C. & A.R.R., Claiborne P.O., reached by B.C. & A.R.R. or their steamer, Sharwood P.O., reached by Tolchester Steamboat Co's. steamer, Whittman P.O., reached by road from Claiborne, McDanielstown P.O., reached by B.C. & A.R.R., Bozman P.O., reached by road from either Claiborne or St. Michaels.

At St. Michaels the Postal and W.U. Telegraph Co's. have offices,

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and the W.U. has an office at Claiborne.

The principal settlements are Claiborne, McDanielstown and St. Michaels, all reached by the B.C. & A.R.R.

There is no custom house nearer than Baltimore.

There no freshets worthy of mention and the ice does not as a rule interfere with navigation. The prevailing winds are N'ly and E'ly. The fogs which are more frequent at the changes of seasons viz: spring and fall, are brought in by the E'ly winds and clear with N.W'ly winds. There are very few wrecks.

The aids to navigation are, generally speaking good, but in some instances are not sufficient to guide the stranger. It is recommended that a red buoy in addition to No. 4 be placed on the extreme N.E. of the spit making off from Tilghman's Point; also that a H.S. Buoy be placed on the charted 11 ft. spot to the S'd and E'd of Tilghman's Point at which spot as little as 9 ft. of water was found; also that a black buoy on the charted $3 \frac{1}{4}$ fathom edge of shoal which lies $\frac{1}{4}$ mile to the E'd and S'd of red buoy no. 6; also that a red buoy be placed on the 2 fathom curve about midway between the north entrance to Long Haul Creek and Deepwater Pt., and on the edge of the steep bank, as this bank is dangerous to craft entering with the lead, due to the fact that there is deep water leading right up to it.

The method of locating positions of soundings used in this survey, was by simultaneous horizontal sextant angles, and the three point problem.

The signals were located by computation ^{and} plane table triangulation.

For the reductions of soundings the plane of reference was transferred from Thomas Point Light House to Claiborne Wharf, and from the latter to Mile's (St.Michael's) River.

Rectangular system of lines of soundings running N.E. and S.W. and N.W. and S.E. were run at a distance of 200 metres apart. In addition a third system of lines of soundings was run over charted shoals, and the work was connected to the shore line by zigzag lines of soundings.

Special examinations were made of the charted shoal spots, and also of those shoals indicated by the results of our work.

Much time was lost on account of bad weather. The party under my command at the beginning of the season's work consisted of C.L.Green, Chief Yeoman U.S.N., F.H.Ainsworth Watch Officer U.S.C.& G.S., William B.Procter Chief Yeoman U.S.N., William G.Insley, Watch Officer, U.S.C.& G.S., Harry Ely, Chief Machinist, U.S.N., and J.J.Murphy, Hospital Steward, U.S.N.

Watch Officer F.H.Ainsworth was detached on Dec. 1st. 1899. Chief Yeoman William B.Proctor was detached Dec. 5th. 1899. Chief Yeoman Geo. Olsen joined the party on Nov. 17th. 1899. A Draughtsman was attached to the party for a short time.

The following is a summary of the work accomplished upon the two sheets:

Area sounded in square geographical miles -----	75.
Number of miles (geographical) run while sounding -----	1577.
Number of angles measured -----	24690.
Number of soundings -----	121866.
Number of tidal stations established -----	3.

Report B.

3. Principal water trade is by small schooners, and consists of oysters during the winter season and grain, garden truck and fruit during summer.

A steamer from Baltimore makes connection with the railroad at Claiborne, and makes two round trips daily during the summer, and one during winter months.

8. No pilots.

9. No quarantine or boarding stations.

10. No tow boats.

11. No limits to anchorages.

12. No harbor regulations, or dues.

13. Ships chandler's stores may be obtained in limited quantities at either Claiborne or St. Michaels. Fresh water may be obtained at wharves at Claiborne or St. Michaels. Soft coal and anthracite coal can be obtained in limited quantities, at St. Michaels, either at wharves or in small barges. Nearest machine shops for extensive repairs are at Baltimore Md., although light repairs may be made at St. Michaels.

14. No hospital available for mariners.

15. One marine railway of easy approach for draught it will take, way is 132ft. long, 5ft. at head and 8 1/2 ft. on sill at mean low water, is owned and run by T.H. Kirby & Sons.

16. There are two good wharves at St. Michaels with a depth of 10ft. and one at Claiborne with a depth of 8 ft.

17. No time ball; time can be obtained at telegraph office.

18. No branch hydrographic office.

19. NO weather service or signals.

20. No special signals or ice codes used in vicinity.

21. No station for reporting vessels.

22. The B.C. & A.R.R. runs a steamer between Claiborne and Baltimore, making daily trips during the winter and two trips daily during the summer months, they also run an additional daily freight steamer when traffic warrants it.

The Tolchester Steamboat Co. runs a steamer from Baltimore that touches at Haddaway's Cove on Tuesday and Thursday of each week. The B.C. & A.R.R. runs between Claiborne and Ocean City, making connections with all points. Post Offices, Kent Island, reached by country road from Queen Anne, St. Michaels, reached by B.C. & A.R.R. or their steamer, Sherwood, reached by Tolchester Steamboat Co's steamer, Wittman, reached by road from Claiborne, McDanielstown, reached by B.C. & A.R.R. W.U. and Postal telegraph offices at St. Michaels, and W.U. at Claiborne.

23. The principal settlements are Claiborne, McDanielstown and St. Michaels all reached by the B.C. & A.R.R.

25. No custom house nearer than Baltimore.

26. Ice does not as a rule interfere with navigation.

27. No freshets.

28. Prevailing winds are N'ly and E'ly.

29. Fogs are more frequent at changes of seasons, viz spring and fall. Easterly winds bring it in and it clears with N.W'ly winds.

30. No wrecks to speak of.

Very respectfully,

P. A. Walker,

Assist., C. & G. Survey,

Commanding.