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Lieutenant Wilner expresses his acknowledgments for information received from Mr. Henry Bacon, assistant engineer in charge of the improvements at the entrance for the Engineer Bureau, and to Capts. J. H. and T. Harper for many courtesies extended during the course of his survey.

Leaving Smithville April 10, Lieutenant Wilner proceeded with the vessel and party to Pamlico Sound to make a resurvey of the main channel from the Croatan to the Roanoke Marshes light, and to complete certain unfinished portions of the survey of Pamlico Sound. He passed into Pamlico Sound through Ocracoke Inlet, finding that the buoys were much out of place, and that unless wind and tide were both favorable, six and one-half feet of water could hardly be carried through. The main channel through Croatan Sound was found to be but little changed, except at the southern end, where new islands have formed and old ones have disappeared. Representations were made to Lieutenant Wilner while at Elizabeth City, N. C., of a desire on the part of navigators of the waters of Croatan and Pamlico Sounds for a change in the location of Croatan light-house; the reasons for the desired change are stated clearly by Lieutenant Wilner, but without expressing himself as in favor of it.

The hydrographic surveys required were completed by the 18th of May, soon after which the Silliman sailed for New York. Three hydrographic sheets showing the results of the work have been registered in the archives. Statistics are as follows:

Miles run in sounding	769
Angles measured	10, 772
Number of soundings	59, 740

Ensigns Francis H. Sherman and Harry Phelps, U. S. N., aided in the survey.

SECTION V.

SOUTH CAROLINA AND GEORGIA, INCLUDING COAST, SEA-WATER CHANNELS, SOUNDS, HARBORS, AND RIVERS. (SKETCHES NOS. 1, 6, AND 7.)

Hydrographic survey in the vicinity of Cape Romain, S. C.—Between the end of February and the beginning of May, 1883, a hydrographic survey off the coast of South Carolina in the vicinity of Cape Romain was made by the party in charge of Lieut. J. T. Sullivan, U. S. N., Assistant Coast Survey, commanding the steamer Endeavor. The area sounded included the immediate approaches to that portion of the coast between Winyah Bay and Bull's Bay. A hydrographic sheet, scale 1-10,000, showing the results of the survey, has been deposited for registry in the archives. The statistics are:

Miles run in sounding	164
Angles measured	1, 678
Number of soundings	17, 204

Lieutenant Sullivan was aided by Ensigns W. H. Allen, E. N. Fisher, and J. P. Parker, U. S. N.

About the 10th of May the Endeavor proceeded to Philadelphia, and under Lieutenant Sullivan's direction was prepared for a season's work in Section II.

Occupation of the station at Savannah, Ga., for the determination of the longitude of Saint Augustine, Fla., by exchange of telegraphic signals.—In co-operation with the party sent out by the French Government for the observation of the Transit of Venus at Saint Augustine, Assistant O. S. Peirce was directed to determine the longitude of the Transit of Venus station. For this purpose he detached Mr. E. D. Preston of his party with letters to Colonel Perrier, Chief of the Geographical Service of the French army, who was in charge of the observing corps at Saint Augustine.

All arrangements having been completed for the longitude observations, the station at Savannah—the same as that of 1874—was occupied by Mr. Preston, and at the station at Saint Augustine the observations were made by Captain Desforges. The location of the Saint Augustine station was in the middle of the north rampart of Fort Marion, the same pier being used as for the meridian circle of the Transit of Venus party.

For the first series of exchanges, results for longitude were obtained on the nights of November

30, December 1, and December 3; the observers then changed places, and signals were again successfully exchanged on the nights of December 16, 17, and 18. These completed the number of determinations required.

Before leaving Saint Augustine, Mr. Preston, by direction of Assistant Peirce, made a set of observations with the two new invariable reversible pendulums which had been swung at Montreal, Albany, Hoboken, and Washington, D. C. For this purpose the station occupied was in the chapel of the fort. He also determined the geographical position of the new light-house on Anastasia Island, Saint Augustine Harbor, and the height above mean tide of the Transit of Venus and pendulum stations.

SECTION VI.

PENINSULA OF FLORIDA, FROM SAINT MARY'S RIVER, ON THE EAST COAST, TO ANCLOTE KEYS ON THE WEST COAST, INCLUDING THE COAST APPROACHES, REEFS, KEYS, SEAPORTS, AND RIVERS. (SKETCHES NOS. 1, 8, 9, 10, AND 11.)

Hydrographic resurvey of Saint John's River and Bar.—Under instructions dated in December, 1882, and January, 1883, Lieut. E. D. F. Heald, U. S. N., Assistant Coast Survey, having organized his party on board the schooner Eagle, proceeded to the Saint John's River, Florida, for the purpose of making a hydrographic resurvey of that river and the bar at its entrance. The necessary signals having been established, soundings were begun January 30, and though many delays occurred from bad weather and thick atmosphere occasioned by fires in the forest adjacent, Lieutenant Heald was able to report the completion of the resurvey April 24.

Three hydrographic sheets, on a scale of 1-10,000, showing the results of the work, have been registered in the archives. They show the river from the entrance to a point just south of Jacksonville. On the bar the least depth was found to be six and a half feet at mean low water, the mean rise and fall of the tide at the entrance being four feet and six-tenths. The statistics are:

Miles run in sounding	126
Angles measured	1,812
Number of soundings	10,784

Lieut. David Daniels, U. S. N., and Ensigns O. G. Dodge and Alfred Jeffries, U. S. N., were attached to the hydrographic party. Upon leaving the Saint John's River, Lieutenant Heald was directed to take the Eagle to New York and prepare for a season's work on the coast of Maine.

Determination of the longitude of the Transit of Venus station at Saint Augustine, Fla., by exchange of telegraphic signals with Savannah.—Full reference has already been made, under the head of Section V, to observations made by Mr. E. D. Preston, under the direction of Assistant Charles S. Peirce, at Saint Augustine and at Savannah, for the determination of the longitude of the French Transit of Venus station at Saint Augustine, in co-operation with Col. F. Perrier, Chief of the Geographical Service of France, who was in charge of the Transit of Venus party sent to Saint Augustine by the French Government.

Duplicates of the records and results of the observations, made by Mr. Preston and by Captain Desforges, with whom he was immediately associated, will be deposited in the archives of the Coast and Geodetic Survey.

Reconnaissance of the Saint John's River from Lake Monroe to Lake Washington.—The course of the Saint John's River from Jacksonville to Lake Monroe is shown upon the reconnaissance map published in 1878 and subsequently in another issue, with additions to 1881. In February, 1883, Assistant Eugene Ellicott was directed to extend this reconnaissance from Lake Monroe to Lake Washington, the rapid development of Southern Florida having created a demand for a chart of the river to the head of navigation.

Mr. Ellicott's survey was begun February 27. Some extracts from his report will be of interest:

"From Lake Monroe to Lake Harney the river is comparatively bold and deep, with an average width of two hundred and fifty feet. The least depth of water encountered in a single line of soundings between Monroe and Harney is six feet; the greatest, twenty-two feet. The least depth

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