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Diag. Cht. No. 1243-2

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

T-11453

Field No. Ph-123 Office No. T-11454

LOCALITY

State Florida

General locality Nassau Sound

Locality Ft. George River to Bird
Island

194/ 51-54

CHIEF OF PARTY

L. F. Woodcock, Chief of Field Party
E. H. Kirsch, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE February 26, 1957

DATA RECORD

T-11453 - T-11454

Project No. (II): Ph-123 Quadrangle Name (IV):

Field Office (II): Fernandina, Fla.
Charleston, S. C.

Chief of Party: C. R. Reed
L. F. Woodcock
Officer-in-Charge: E. H. Kirsch

Photogrammetric Office (III):

Instructions dated (II) (III): 4 September 1953
5 November 1953
1 July 1954
24 September 1954
5 November 1954

Copy filed in Division of
Photogrammetry (IV)

Office Files

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.000

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 9-26-56

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): MHW

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (6) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): GEORGE, 1861

Lat.: 30° 26' 41.799" (1287.1m)

Long.: 81° 26' 39.043" (1041.7m)

Adjusted
Unadjusted

Plane Coordinates (IV):

State: Florida

Zone: East

Y=

X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

DATA RECORD

Field Inspection by (II): L. C. Lajoie

Date: Nov. 1953

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location):

*Identification (field) ^{in 1953} on
photographs taken 1951 and 1952 and planetable 1954.*

Projection and Grids ruled by (IV): A. Riley

Date: 7/7/54

Projection and Grids checked by (IV): A. Riley

Date: 7/7/54

Control plotted by (III): J. W. Robinson

Date: 8/17/54

Control checked by (III): J. Steinberg

Date: 8/18/54

Radial Plot or ~~Stereoscopic~~

~~Control extension~~ by (III): H. R. Rudolph

Date: 9/28/54

Planimetry

Date:

Stereoscopic Instrument compilation (III):

Contours

Date:

Manuscript delineated by (III): Ruth M. Whitson (T-11453)
Judson Y. Councill (T-11454)

Date: 11/16/54
11/22/54

Photogrammetric Office Review by (III): H. R. Rudolph

Date: 11/29/54

Elevations on Manuscript
checked by (II) (III):

Date:

Camera (kind or source) (III): U.S. C. & G. S. single lens "0" camera.

Number		Date	PHOTOGRAPHS (III) Time	Scale	Stage of Tide
51-0-3530	thru 3534	4/1/51	1610	1:10,000	4.8' above MLW
51-0-4353	thru 4358	4/11/51	1019	"	3.9' " "
51-0-4367		4/11/51	1033	"	3.3' " "
52-0-1761		10/12/52	0948	"	1.8' " "

Tide (III)
From predicted tide tables

Reference Station: MAYPORT, FLORIDA
Subordinate Station: NASSAU SOUND
Subordinate Station: SOUTH JETTY

Ratio of Ranges	Mean Range	Spring Range
1.2	5.4	6.3
1.1	4.9	5.7

Washington Office Review by (IV): *Everett H. Ramey*

Date: *14 Jan 1955*

Final Drafting by (IV): *Lach*

Date: *4 Mar 1955*

Drafting verified for reproduction by (IV): *L.C. Lande*

Date: *9-26-56*

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): $4\frac{1}{2}$ sq. statute miles
Shoreline (More than 200 meters to opposite shore) (III): 17.8 Miles
Shoreline (Less than 200 meters to opposite shore) (III): 4.4 Miles
Control Leveling - Miles (II):

* Number of Triangulation Stations searched for (II): 17 Recovered: 10** Identified: 9
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III): None
Number of Temporary Photo Hydro Stations established (III): 33

Remarks: * In addition one (1) temporary station was established and identified, and two (2) new stations were established, one of which was identified.

** One of the recovered stations (BIG, 1934) was destroyed after recovery.

Summary to Accompany Shoreline Surveys T-11453 and T-11454
(History of Project Ph-123)

Project Ph-123 was accomplished to provide topography and control for hydrographic surveys of Project CS-364. The project is divided in two parts: Area A - St. Marys Inlet, Florida and adjacent shoreline; Area B - Nassau Sound to St. George Inlet, Florida.

The field inspection was done in 1953 in conjunction with hydrographic surveys of Project CS-364. The primary purpose of the field inspection was to furnish positions of hydrographic stations by photogrammetric methods applied directly in the field. Revision surveys compiled by office interpretation onto 1933 planimetric bases were used for this purpose.

Because the revision surveys were inadequate for positioning hydrographic stations and for nautical charting, additional field inspection of shoreline and identification of some control was accomplished. In areas where shoreline had changed so greatly that it was impractical to reference it to the aerial photographs, and in areas where errors were indicated in photo-hydro stations, planetable surveys were done. These data were subsequently used in compiling new manuscripts by photogrammetric methods.

The use and disposition of materials on this project will be as follows:

Revision Surveys: RS 492, 493, 494 = Blue Prints 50829, 50830, and 50891, respectively. Filed in the Division of Charts.

Platable Surveys: ECFP Aa-54 and Ab-54 with accompanying report. Filed in the Division of Charts; to be destroyed when finished as source material.

Shoreline Surveys: T-11453 and T-11454, with a combined Descriptive Report which includes a Field Inspection Report for the entire project. These will be registered and filed in the Division of Charts.

Incomplete Manuscripts: T-9801 and T-9804 with accompanying Preliminary Descriptive Report covering both surveys. This is an overlap zone with Project Ph-69. T-9801 and T-9804 will be later registered as standard topographic surveys in conjunction with Project Ph-69. Incomplete manuscripts and Preliminary Descriptive Report filed in the Division of Photogrammetry until final surveys are completed.

FIELD INSPECTION REPORT
PROJ. Ph 123 (53)

2/ AREAL FIELD INSPECTION

This project was divided into two areas, one extending from the north side of St. Johns River Entrance, along the Atlantic Coast, to a point about two and one half miles north of the mouth of Nassau Sound. This area includes portions of Nassau Sound, Fort George River, and Sawpit Creek.

In the second area, covered by portions of Sheet T-9801 N, the Atlantic Coast, St. Marys Entrance, portions of Cumberland Sound, Amelia River, and St. Marys River were included.

In the area first mentioned above, sheets covering the area were RS 494, RS 493, and RS 492. These sheets were first compiled in 1933 and the shoreline was interpreted and recompiled by the Baltimore Photogrammetric Office from photographs taken in April of 1951 and October of 1952.

In general, few changes were noted between the compiled shoreline and the actual shoreline in the protected areas in the interior. Only in those areas which were flooded at high water, which might not be apparent on the photographs, was any change necessary. These areas should be shown as grass in water.

At the mouth of Fort George River, and on the north side of the St. Johns River jetties, considerable change was noted. An estimate of the change of the high waterline in this area can be made in considering that in 1934, station NORTH JETTY 1926 was found 418 meters west of the high waterline. In 1953, as shown on the revised shoreline manuscript, the station fell practically on the interpreted high water line. In December of 1953, during recovery on this project, the station was found to be 33 meters east of the highwaterline. This indicates an erosion of the shoreline of 451 meters in twenty years.

At the mouth of Nassau Sound, Bird Island was found to have altered its shape entirely; and there were indications that there had been considerable erosion along the south shore from the vicinity of station TAL 1934 west to the mouth of Simpson Creek.

In these two areas, the location of hydrographic signals and of the shoreline was done by plane table on Sheets ECFP Aa and Ab (54). A discussion of the signals in the south portion of the project will be made in Item 11, and of the shoreline in Item 7 (d).

The north portion of this project lies just north of the city of Fernandina Beach and includes the portions of Amelia and Cumberland Islands covered by Sheet T - 9801 N.

In the Fort George River area, Kingsley Plantation and Fort George Island are the salient features. Little Talbot Island, in its entirety, is a Florida State Park, and two recreation areas have been set up here. These areas are beach areas in which a few temporary buildings have been built. Entrance and exit roads to these areas were run in by plane table on Office Photographs 3531 and 3532. An additional discussion of these traverses will be made in Item 11.

In the Fernandina area (Sheet T-9801 N) Fernandina itself is worthy of note. Established by the Spanish early in the settlement of this country, it passed rapidly through the hands of the French, English, American, Confederate, and numerous unattached parties. It was a base for the buccaneers who infested the Caribbean. These pirates would take over the town for as long as it took them to fill their water casks from the sweet water of the upper St. Marys River, then sail away to be succeeded by another band for the same purpose. In addition, an attempt was made to establish breeding grounds for the production of slaves after the prohibition of export from Africa. This attempt failed, no doubt due to the length of time involved in securing a saleable crop. Fort Clinch, a State Park, is a pre Civil War fort which is being re - constructed by the State. Fernandina is the site of plants of the Rayonier Corporation, and the Container Corporation of America which provide most of the employment in the area. Numerous fish and shrimp plants line the waterfront and there are two fish processing plants on the Amelia River, north of Clark Creek.

The 1952 photography was very fuzzy and in most cases, the 1951 photographs were used to locate photo hydro signals.

Horizontal control stations specified for identification in the instructions for the project and as amended by the Directors Letter of 8 December 1953, were recovered and identified. Additional control along the west side of the project (the Intracoastal Waterway) was scanned and stations which were assumed to be recoverable were searched for and when recovered, were identified. There was no general search for all control along the Waterway.

Most of the vegetation along the sand dune area adjacent to the coast is in low spots and consists of low brush. In most cases it was hard to distinguish in tone between the brushy areas and the damp grassy areas which surround them. Trees up to forty feet in height grow on the north end of Talbot and Little Talbot Island, along the whole of Amelia Island back from the coast, and on the portion of Cumberland Island which was visited. On the larger hummocks small trees and brush prevail. The southwest portion of Cumberland Island, the west side of the Amelia River, and the west side of Talbot Island are all marsh except the hummocks mentioned above.

Field photographs were not available at the beginning of this project and office photographs were used in the field for a short time. Notes made on the photos were allowed to remain on the office photographs

3/ HORIZONTAL CONTROL

(a) Additional triangulation was established to provide control for the radial plot, to fulfil the requirements for control in the instructions for Project Ph 123 (53), and to locate nautical aids and landmarks as required by the instructions for Project CS 365.

One temporary station was established in sheet RS 493 to control one end of a plane table traverse, and to provide additional control for the radial plot. This station was identified. X

Twenty eight recoverable triangulation stations were established either to replace destroyed control, to locate aids or landmarks, or to fulfil the requirements for control on the jetties at St. Marys Entrance.

A report on the triangulation established has been forwarded to the Photogrammetry Division along with the rough computations.

(b) No datum adjustments were made by this party.

(c) All control recovered and identified was either established by this bureau or has been tied to U.S.C. & G.S. schemes.

(d) All stations identified were positively identified.

(e) All control which fell within the area covered by the hydrographic project was searched for. Stations which fell to the west of the area were searched for when it was felt that their recovery and identification would aid the radial plot.

The sub surface mark for BIG 1934 and REFERENCE MARK NO 1 for HAMMOCK 1905 were recovered and identified before new triangulation was executed. New stations established in these areas were not identified.

The bend in the north jetty at St. Marys Entrance was located by sextant fix by the hydrographic party. The offshore ends of both the north and the south jetties at the Entrance were located by sextant fix. These points are shown on the hydrographic manuscript. The bend in the south jetty is the site of station ENTRA 1954. Station MARIA 1954 marks the bend at the east side of Cumberland Island in the north jetty. No evidence of the inshore end of the south jetty was found west of the high water line. The slight offset in the north jetty as shown on the manuscript is evident in the field.

4/ VERTICAL CONTROL

Tidal Bench Marks recovered and established by the East Coast Field Party will be reported by them.

5/ CONTOURS AND DRAINAGE

Drainage here is largely seepage or tidal. No fresh water drainage was found.

Contouring is not applicable.

6/ WOODLAND COVER

As stated previously, the southern portion of Little Talbot Island is made up mostly of sand dunes with brush cover in the lower areas. The northern portion of Little Talbot Island, all of Fort George Island, the northern portion of Talbot Island, and the portion of Amelia Island within the limit of sheet RS 492 are covered with a dense growth of trees up to forty feet in height, a mixture of live oak, pine and palm. Some of the larger hummocks have a dense cover of pine.

The northernmost portion of Amelia Island and the south east part of Cumberland Island are covered with sandy dunes and low brush. In the southwest part of Cumberland and the northwest part of Amelia Islands, trees cover the ancient dunes.

7/ SHORELINE AND ALONG SHORE FEATURES

(a) The shoreline, where marshy, has hardly changed from the 1953 re-compilation except that in the area along the south side of the Nassau River, the edge of the marsh is covered at high water, and the proper symbol for this area is "grass in water". The high waterline is difficult to place here but generally follows the line of white sand and oyster shells thrown up by wave action. This is not to mean that the marsh areas behind the shell and sand do not themselves flood at high tide through sloughs or through the marsh line on other portions of the area.

See 531

In sandy areas, changes were noted in the mouths of Nassau Sound and the Fort George River. As mentioned in Item 2 of this report, these shorelines are shown on plane table sheets Aa and Ab - 54 to be submitted by the East Coast Field Party.

(b) There was no attempt made to show the low water line although the mouths of Nassau Sound and Fort George River are very shallow. The hydrographic party will report on shoals in these and other areas.

(c) The shoreline along the coast is sandy. The area west of the high waterline from the north jetty at the St. Johns River Entrance to the

south side of Nassau Sound is covered with sand dunes, still shifting in the wind. North of the mouth of Nassau Sound, the high water line has reached into the dune area and the undermining wave action has created a bluff from five to twentyfive feet high along the shore.

In Fort George River, the entrance is marked by a sandy beach on both the north and south sides. This area is changing so rapidly that it is here that the shoreline was determined by plane table survey; Up river from the entrance, on the western side, marsh spotted with sand and shell ridges forms the shore from the highway bridge to the shore of Fort George Island. Here the trees come almost to the high waterline at a ten to fifteen foot bluff, the easterly end of which is protected by a wooden bulkhead. West of the bulkhead, the shore is fast land with trees to the west edge of the island where marsh again makes up the shoreline. This marsh continues westerly to the edge of the project, and beyond.

On the north side of the Fort George River, opposite Fort George Island and on the south edge of Talbot Island, the shoreline is marshy. This condition continues to the east to the west edge of Little Talbot Island where the sandy shore begins again and continues south and east to the ocean.

Along the south shore of Nassau Sound, from the north end of Little Talbot Island and running north and west, sand and occasional hardpan outcroppings form the shoreline and this was another area in which the shoreline was shown by plane table survey. West of the mouth of Simpson Creek, there is a short area of sand dunes, after which the vegetation comes almost to the high waterline. The easterly storms have cut into the base of a five to fifteen foot bluff which continues almost to the highway bridge over Sawpit Creek. On the north shore in this area, the shore is sandy, backed by captive dunes and marsh. Bird Island, also in this area is a shifting sand island, covered with dunes and slight vegetation (grass), which seems to be eroding into a sand bar.

West of the highway bridge, the shoreline is indefinite in many places, with low marsh extending beyond the high waterline. At high tide, this becomes grass in water. At extreme tides, the entire marsh area was found to be flooded to a depth of two feet. For this reason, the outer edge of marsh is shown as the high waterline except where the white shell and sand mounds indicate the high waterline. In these cases, marsh outside the white areas should be shown as grass in water.

In the northern area, that is the area covered by sheet 9801 N a portion of the north part of Fernandina Beach is shown. The shoreline here is sandy and houses front along the high waterline

North of the inhabited area, the shore is sandy with low dunes back from the high waterline. This condition continues to the south jetty and around the point to Fort Clinch. On the eastern side of the Amelia River, there is an area of fast land, protected in part by groins. The fish processing plants mentioned in Item 2 are south of this area and extend to the north side of Clark Creek. On the south side of Clark Creek lies the remnant of the village of Old Fernandina, atop a fifteen foot bluff.

On the west side of the Amelia River, the land is marshy with occasional hummocks adjacent to the shore. The shoreline itself is sandy, but this ridge is very narrow and is backed up by marsh which floods at high water. This condition continues to the south side of Tiger Creek. Around the mouth of the creek, marsh forms the shoreline and continues to the point at the northeast corner of Tiger Island. Here hummocks again lie adjacent to the shore for a short distance. North and west of this area, the land is again marshy and this condition exists to the edge of the sheet.

On the north side of the St. Marys River, hard shoreline is apparent at Pt. Peter, but gives away to marsh which bounds both the north side of the St. Marys River and the west side of Cumberland Sound. On the east side of Cumberland Sound, this marsh also prevails with the exception of the hummock on which station HAMMOCK 2 1954 is located. From this hummock south to the mouth of Beach Creek, the shoreline is marshy and flooded at highwater.

South of the mouth of the creek, with the exception of a small marsh area, the shoreline again becomes sandy and this condition prevails all along the south and east sides of Cumberland Island to the north edge of the project.

In areas where the shoreline was felt to be fairly stable, it was indicated on the field photographs. In the southern portion of the project, measurements were taken from the Photo Points established to locate Photo Hydro Signals, to the high waterline along the line to the hydro signal. These were plotted on the map manuscript and are recorded along with the angles and distances to the signals in Form 251 a " Angle and Distance to Photo Hydro Signals. In other portions of the project, notes were made on the field photographs.

It is noted that the shoreline on the plane table sheets does not agree exactly with the measurements taken, nor does the shoreline established by measurements agree with the interpreted shoreline on the RS manuscripts. This may be due in part to a shifting shoreline but, where a conflict occurs, the plane table shoreline should be accepted since it is a more recent survey. See § 35

(d) Bluffs were noted along the north side of Fort George Island, the north sides of Talbot and Little Talbot Islands, along the Atlantic

beach north of Nassau Sound, and in the area between Fort Clarks Creek at Fernandina.

(e) The pier shown on the south side of Fort George River in the entrance has been destroyed. Two piers, one part of a boat yard, are located just north of the highway bridge on Fort George River. Two other piers are located on Fort George Island at the Ribault Boat Club. A group of old piling mark the site of another old pier at the north side of the highway bridge, on the east side of the river. There is a landing on the west side of the Intracoastal Waterway just south of the junction of Nassau Cutoff and Sawpit Creek. One pier and a building on piles are located at Joyner's Fishing Camp at the confluence of Sawpit Creek and Nassau Sound.

There are no docks or piers south of the mouth of St. Marys Entrance, within the limits of sheet T-9801 N. There is, however, a fishing pier in the area between the north edge of sheet RS 492 and the south edge of sheet T-9801 N. This pier was located by the East Coast Field Party.

The jetties at St. Marys Entrance project seaward for a considerable distance. They have settled with the years and, in spots, are covered at high water. The north jetty has two bends in it, the first at the location of station MARIA 1954 and the easterly bend at the location of a sextant fix taken by the hydrographic party. This second bend is about 100 meters east of station SANTA 1954. The outer ends of both jetties were located by sextant fix by the hydrographic party. The bend in the south jetty is the site of station ENTRA 1954.

Within St. Marys Entrance, rock groins protect the shoreline from a point about 150 meters east of the Fort to a point about 100 meters north of the fish processing plants on Amelia River. In addition, a seawall parallels the north side of the Fort and is shown in the Field Inspection.

There are two piers at the fish processing plants on the east side of the Amelia River.

The shoreline structures and piers within the area indicated as Item 14 on the preliminary review sheet for Proj. CS 365 are shown on Photos 52-0-1769 and 1770.

(f) No submerged cables were found in the area, although waste from the Rayonier Plant on the east side of Amelia River is piped to the beach area and is emptied into the Atlantic Ocean from a submerged pipe line, the outflow from which is about 5000 feet offshore. The route of the pipeline, paralleled in part by a road, is shown on Chart 453, at Lat. 30-39-30, Long. 81-26-00 as a road connecting with South Fletcher Ave. The centerline of the road should be extended to the high waterline and shown from there as a submerged pipe line. Information relative to the underwater portion of the line can be secured from the Plant Engineer at Fernandina.

(g) All shoreline structures not visible on the photographs have been shown except the picnic sheds at the recreation areas at Talbot Island

State Park. These were not shown as the park personnel told this party that they would be dismantled and replaced within a few months.

8/ OFFSHORE FEATURES

There are no offshore features within the limits covered by this report except the jetties at St. Johns and St. Marys Entrances.

9/ LANDMARKS AND AIDS

Landmarks and aids will be reported by the East Coast Field Party. *See §37*

10/ BOUNDARIES, MONUMENTS AND LINES

No boundaries or landlines were located by this party. It should be noted that Little Talbot Island, in its entirety, is a Florida State Park Area.

11/ OTHER CONTROL

No recoverable topographic stations were set.

Fifty nine photo hydro signals were located for use by the East Coast Field Party. One was located by angle and distance from station TAL 1934, and others were located by graphic methods by the hydrographic party.

In some cases, it was possible to pick the signal site direct, but others were located by the photo point method. Notes on angles and distances will be found in Form 251 a "Angles and Distances to Photo Hydro Signals Proj. Ph. 123 (53)".

In the southern portion of the project, that is in the area near the mouth of Fort George River, photo points selected were cut in on the manuscript with only a two cut intersection. These were slim intersections but were used to locate the hydro signals by angle and distance. When these points were used by the hydro party, they caused a jump in the lines. Since a plane table survey of the mouth of Fort George River was planned, it was further extended to include the location of the questionable points by graphic methods. This graphic location should be used to plot these signals.

Two of the signals in question were located during a plane table traverse on photographs during the location, or supposed location, of the entrance and exit roads to the recreation areas in the park. The graphic location of the signals by the hydro party should be held and the road plotted from them as it is possible that the traverse on the photographs may be in error due to a change in detail during the construction of these roads. The traverse to locate the north roads seems to be accurate since the signals located during this traverse hold when used in conjunction with other signal located by different methods. *See §38*

In addition, Photo Hydro signal LAD did not hold to its photo point

position and was relocated as a hydro signal during hydrography.

The reason for the difference in positions in this area is not known. Angles and distances to the signals were taken in accordance with Photogrammetry Instruction 45. The cuts to most points were slim and could be taken from only two photographs. A temporary triangulation station was located between the two recreation areas to tie down the north end of the plane table survey of the mouth of Fort George River, and this point was identified in order to further control the radial plot. It is possible that, in re laying the plot, the photo point location and the plane table location may be brought into coincidence. Otherwise the plane table location should be used

*See §38,
last par.*

12/ OTHER INTERIOR FEATURES

Worthy of note here is the fact that the Buccaneer Trail (Fla State Hgwy 11A) traverses the southern portion of the project. It is a toll road from the north side of Nassau Sound to the south side of Fort George River. The road was classified in accordance with the Topographic Manual.

Bridge Clearances will be furnished by the East Coast Field Party.

13/ GEOGRAPHIC NAMES

No Geographic Name Investigation was made by this party but it was ascertained that the city of Fernandina has been combined with the city of Fernandina Beach, both to be known as FERNANDINA BEACH.

14/ SPECIAL REPORTS AND SUPPLEMENTAL DATA

- 1 - "Report to Accompany Rough Computations of Triangulation, Proj. Ph-123 (53)" submitted to Photogrammetry Division
Forwarded to Division of Geodesy.
- 1 - Sketchbook listing "Notes on Hydro Signals located by Photogrammetry" with the method of location, description, and photograph number of each signal. *
- 1 - Form 251 a "Angles and Distances to Photo Hydro Signals Proj. Ph-123" *

** Filed in the Division of Photogrammetry.*

Respectfully submitted

John C. Lajoie
John C. Lajoie

Cartographer, U.S.C. & G.S.

PHOTOGRAMMETRIC PLOT REPORT
Project Ph-123
Surveys Nos. T-9804S, T-11453 and T-11454

21. AREA COVERED

This radial plot covers the areas of Surveys Nos. T-9804S, T-11453 and T-11454. These are shoreline surveys located along the east coast of Florida from the St. Johns River entrance to a point about two and one half miles north of the mouth of Nassau Sound, and includes portions of Nassau Sound, Fort George River and Sawpit Creek.

22. METHOD - RADIAL PLOT

Map Manuscripts:

Vynylite sheets with projections in black and Florida transverse mercator, east zone, grids in red at a scale of 1:10,000 were furnished by the Washington office. Base sheets were prepared in this office.

The positions of all control stations and substitute stations were plotted using the beam compass and meter bar.

A sketch, showing the layout of the surveys in this plot and the distribution of control and photograph centers, is attached to this report. A list of control station names is also attached to this report.

Photographs:

The photographs used in this plot are as follows: Twenty-two (22) single lens photographs taken during April 1951, at a scale of 1:24,000 and ratioed to a scale of 1:10,000:

51-0-3530 thru 51-0-3535
51-0-4349 thru 51-0-4359
51-0-4367 thru 51-0-4371

Five (5) single lens photographs taken during October 1952, at a scale of 1:30,000 and ratioed to a scale of 1:10,000:

52-0-1761 thru 51-0-1765

Standard symbols were used on all photographs.

Templets:

Vynylite templets were made for all photographs. The master templet was used to correct for film and paper distortion for all photographs.

Closure and Adjustment of Control:

Vynylite base sheets were prepared in this office.

All identified control was transferred to the base sheets by matching common grid lines. Four control stations located in the south-central part of survey T-11454 were identified in this office and were also transferred to the base sheet.

22. METHOD - RADIAL PLOT (cont'd)

Closure and Adjustment of Control: (cont'd)

The radial plot was then constructed on the base sheets.

The templets for the photographs in survey T-11454 were laid first. Then the two easterly flights of 1951 photographs were extended northward until a tie-in was made with station DUNE, 1932.

The templets for the photographs, taken in 1952 were laid next followed by the western flight of photographs taken during 1951.

A satisfactory plot was constructed.

Two triangulation stations could not be held in the plot.

Transfer of Points:

The positions of all pass points and photograph centers were pricked directly on the map manuscripts by superimposing the map manuscripts on the plot as constructed and matching common grid lines.

23. ADEQUACY OF CONTROL

The control was adequate except in the northwest corner of survey T-9804S, and the southern part of survey T-11454.

As previously mentioned two of the control stations could not be held in the plot.

ANDERSON 2, 1933 - The radially plotted position of the substitute station fell approximately 4.0 mm southwest of its computed position, however, it was the correct distance from station ANDERSON 2, 1933. The control station identification card was examined and it was noticed that a left angle had been observed. However, when the photograph was oriented under the map manuscript an angle to the right of the initial station was indicated. A new position of the substitute station was then plotted graphically using the same angle to the right and the new position agreed with the plot. All evidence indicated that the angle was turned to the right. ✓

GEORGE, 1861 - The substitute point for this station falls on only two photographs and is only about 4.0 mm away from the flight line. The radial line for each photograph falls approximately 0.5 mm west of the station. The intersection is extremely slim, therefore, no attempt was made to show a radially plotted position. It is possible that the point pricked on the field photograph is in error since there is very poor definition in the area.

In addition to these two stations that could not be held, two other stations could not be held on all photographs.

SKELETON, 1861. Held on all photographs except 51-0-3530. *

* The amount the station is missed on 51-0-3530 is negligible - within 0.2 mm. This apparently is a pricking error. SKR

23. ADEQUACY OF CONTROL (cont'd)

MID 2, 1954 - Held on photographs taken during 1951 but could not be held on photographs taken during 1952. Station BIG, 1934, ^{nearby} was given preference since it could be held on all photographs. The definition on the 1952 photographs in the vicinity of MID 2, 1954 is very poor. The office identification of MID 2, 1954 on the photographs taken during 1952 is probably in error. *Sub. sta. was a point of sand in an area of shifting sand which was difficult to identify. All photographs held closely. etc.*

24. SUPPLEMENTAL DATA

Planimetric Survey RS-494 (brownline) was used to assist in identifying additional control on survey T-11454.

25. PHOTOGRAPHY:

The overlap in line of flight was adequate. The overlap between lines of flight was inadequate in the area not covered by 1952 photography.

The positions of photograph centers and pass points along the southern part of survey T-11454 are considered weak, since they are beyond the limits of control.

No tilt determinations were made as there was very little evidence of tilt in any of the photographs.

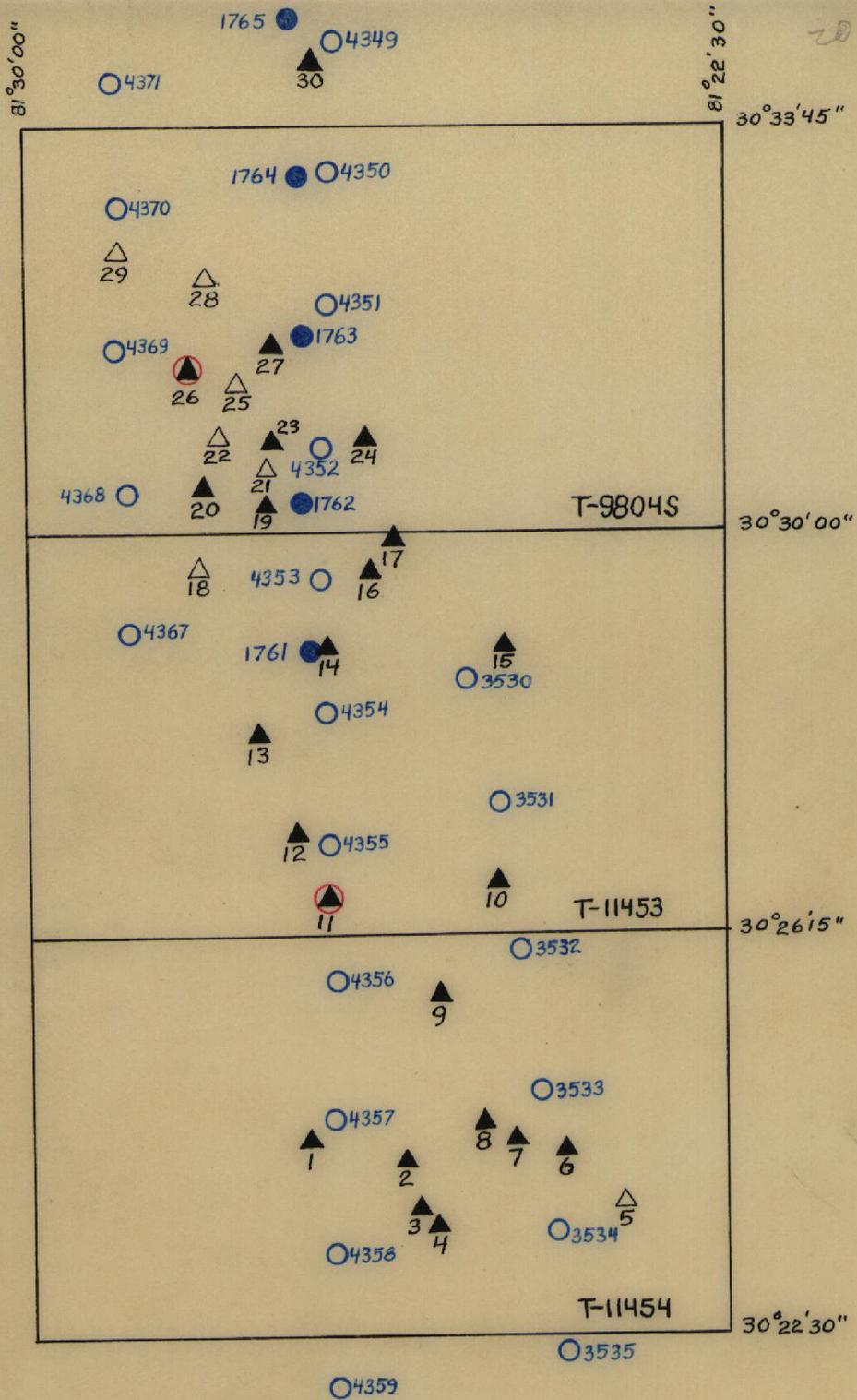
Some difficulty was experienced in locating common points between the photographs taken during 1951 and those taken during 1952.

Respectfully Submitted
28 September 1954

Harry R. Rudolph
Harry R. Rudolph

LIST OF CONTROL

No.	Name of Station	Identification
1	WARDS BANK REAR RANGE, 1933	office
2	EX-GOVENOR BROWARDS HOUSE OPEN CUPOLA, 1926	"
3	MAYPORT, CAPT. TORRIABLES HOUSE PEAK, 1926	"
3	MAYPORT, ESPISCOPAL CHURCH SPIRE, 1926	None
4	ST. JOHNS LIGHT, 1926	office
5	SOUTH JETTY, 1924	None
6	NORTH JETTY, 1926	Sub. Pt.
7	BEACON NUMBER 4, 1926	Direct
8	VII (USE) 1926 (same as Hydro Sta. TOW)	Hydro direct
9	FORT GEORGE ISLAND, RIBAULT CLUB, WATER TANK, 1929	Direct
10	LITTLE (temporary), 1954	Sub. Pt.
11	GEORGE, 1861	" "
12	SMOKE (USE), 1932	" "
13	SUG (USE), 1932	" "
14	SKELETON, 1861	" "
15	TAL, 1934	Sub. Pt.
16	BIG, 1934	" "
16	BIG 2, 1954	None
17	MID 2, 1954	Sub. Pt.
18	DUMP (USE) 1932	None
19	CHRISTOPHER, 1861	Sub. Pt.
20	CROAKER (USE) 1932	Sub. Pt.
21	SOUTH (USE), 1933	None
22	NASSAU CUTOFF LIGHT 57, 1954	"
23	NORTH (USE), 1933	Sub. Pt.
24	SOUND, 1934	Sub. Pt.
25	NASSAU CUTOFF LIGHT 53, 1954	None
26	ANDERSON 2, 1933	Sub. Pt.
27	MELIA, 1933	" "
28	SOUTH AMELIA RIVER LIGHT 50, 1954	None
29	NASSAU, 1861	None
30	DUNE, 1932	Sub. Pt.



LAYOUT SKETCH

PH-123

SURVEYS NOS T-9804S, T-11453 and 11454

- SINGLE LENS PHOTOGRAPHS APRIL 1951
- SINGLE LENS PHOTOGRAPHS OCTOBER 1952
- ▲ CONTROL STATIONS (Identified)
- △ CONTROL STATIONS (Not identified)
- ◐ CONTROL STATIONS (Not held in plot)

MAP T. 11453

PROJECT NO. Ph-123

SCALE OF MAP 1:10,000

SCALE FACTOR 1,000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -COORDINATE LONGITUDE OR λ -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N. A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
			°	'	FORWARD	(BACK)		FORWARD	(BACK)	
SMOKE (U.S.E.), 1932	G-1841 p. 55	N.A. 1927	30	27	12.135			373.7	(1473.9)	
			81	27	03.711			99.0	(1501.8)	
GEORGE, 1861	" p. 46	"	30	26	41.799			1287.1	(560.5)	
			81	26	39.043			1041.7	(559.2)	
DUMP (U.S.E.), 1932	" p. 54	"	30	29	42.213			1299.9	(547.7)	<i>A doubtful recovery was made. STR</i>
			81	28	05.546			147.9	(1452.2)	
BIG, 1934	" p. 108	"	30	29	36.895			1136.1	(711.5)	<i>Big 2, 1954 established. STR</i>
			81	26	13.686			365.0	(1235.1)	
TAL, 1934	" p. 109	"	30	28	56.195			1730.5	(117.2)	
			81	24	51.937			1385.2	(215.0)	
SUG (U.S.E.), 1932	" p. 55	"	30	28	07.697			237.0	(1610.6)	
			81	27	28.607			763.1	(837.4)	
SKELETON, 1861	" p. 53	"	30	28	54.930			1691.5	(156.1)	
			81	26	49.182			1311.7	(288.5)	
SUB. PT. SKELETON, 1861	" p. 53	"	30	28				1693.0	(154.6)	
			81	26				1318.3	(281.9)	
SUB. PT. SUG, (USE), 1932	" p. 53	"	30	28				237.3	(1610.3)	
			81	27				801.7	(798.8)	
SUB. PT. BIG, 1934	" p. 53	"	30	29				1146.7	(700.9)	1
			81	26				354.5	(1245.6)	
SUB. PT. SMOKE, (USE), 1932	" p. 53	"	30	27				359.8	(1487.8)	1
			81	27				72.1	(1528.7)	
SUB. PT. GEORGE, 1861	" p. 53	"	30	26				1242.2	(605.4)	1
			81	26				1180.4	(420.5)	

1 FT. = 3048006 METER

COMPUTED BY J. W. Robinson

DATE 7/22/54

CHECKED BY J. Steinberg

DATE 7/26/54

U.S. DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT
COAST AND GEODETIC SURVEY
CONTROL RECORD

MAP T 11454

PROJECT NO. Ph-123

SCALE OF MAP 1:1,000

SCALE FACTOR 1,000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -COORDINATE LONGITUDE OR x -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
			"	"	FORWARD	(BACK)		FORWARD	(BACK)	
VII (USE), 1926	G 2033 p. 78	N.A. 1927	30	24	30.241			931.2	(916.4)	
BEACON NUMBER 4, 1926	" p. 83	"	81	25	03.998			106.7	(1494.8)	
NORTH JETTY, 1926	" p. 78	"	30	24	22.887			704.8	(1142.8)	
SUB. PT. NORTH JETTY, 1926			81	24	42.253			1127.8	(473.7)	
MAYPORT EPISCOPAL CHURCH SPIRE, 1926	G 2033 p. 84	"	30	24	15.237			469.2	(1378.4)	
MAYPORT CAPT. TERRIBLE'S HOUSE PEAK, 1926	" p. 84	"	81	24	07.833			209.1	(1392.5)	
SOUTH JETTY, 1924	" p. 78	"	Plotted Graphically							
EX-GOVERNOR BROWARD'S HOUSE OPEN CUPOLA, 1926	" p. 84	"	30	23	39.175			1206.3	(641.3)	
WARDS BANK REAR RANGE, 1933	G 1841 p. 63	"	81	25	42.815			1143.0	(458.8)	
ST. JOHNS LIGHT, 1926	G 1892 p. 39	"	30	23	39.57			1218.5	(629.1)	
FORT GEORGE ISLAND RIBAULT CLUB WATER TANK, 1929	G 1892 p. 39	"	81	25	47.46			1267.0	(334.7)	
			30	23	48.383			1489.9	(357.7)	
			81	23	34.476			920.3	(681.4)	
			30	24	08.773			270.1	(1577.4)	
			81	25	58.067			1550.0	(51.6)	
			30	24	21.333			656.9	(1190.7)	
			81	26	59.946			1600.1	(1.4)	
			30	23	35.989			1108.2	(739.4)	
			81	25	34.220			913.5	(688.2)	
			30	25	37.742			1162.2	(685.4)	
			81	25	31.079			829.4	(771.8)	

COMPILATION REPORT
Project Ph-123
T-11453 and T-11454

31. DELINEATION

These manuscripts were delineated by graphic methods.

Along the shoreline at the large bend in Fort George River at Fort George Island the field inspection identified areas of "marsh flooded at H.W.," and recommend that they be shown as "grass in water". The outer limits of these areas were delineated as the apparent shoreline, as were all other large marsh areas, with marsh behind the apparent shoreline, instead of "grass in water" areas.

§ 767
See § 67

32. CONTROL

Refer to the photogrammetric plot report.

Station LITTLE (Temp) 1954, is neither described nor marked except with a temporary stake, and is not shown on the map manuscript.

Station added during review: listed in G.P.'s. ENR

33. SUPPLEMENTAL DATA

The following graphic control sheets were available in the compilation office:

- ECFP-Aa-54
- ECFP-Ab-54
- RS 493 (Brown line print) = BP 50830, Div. of Charts
- RS 494 " " " = BP 50891, Div. of Charts

} See § 35, below

34. CONTOURS AND DRAINAGE

Contours: Not applicable.
Drainage: No comment.

35. SHORELINE AND ALONGSHORE DETAILS

In accordance with the recommendation in the field report, the MHWL as delineated on the graphic control sheets was transferred to the map manuscripts except in the vicinity of hydro signal DAY, just north of Fort George Inlet, (T-11454) where the MHWL was adjusted slightly away from the planetable shoreline in order to agree with a measurement to the MHWL from hydro signal DAY. The MHWL was joined with the planetable survey about 200 meters south of the signal.

In the vicinity of station TAL, 1934 (T-11453) the MHWL from the planetable survey was extended to tie in with a measurement at hydro signal OAK. The field inspection on photograph 3530 does not agree with the planetable location of the shoreline in this area. The planetable location of the shoreline was shown in accordance with the recommendation in the field report.

See § 67

At hydrographic signals POL and EAR the measured distances, to the MHWL, furnished on survey RS 493 were plotted from the planetable locations of hydrographic signals POL and EAR. The planetable locations of these

35. SHORELINE AND ALONGSHORE DETAILS (cont'd)

hydrographic signals were, also, used to delineate the entrance road to a recreation park. (See item 38).

In the vicinity of hydrographic signal CAN the measurement from the "photo point" to the MHWL would locate the MHWL about 120 feet west of the position as taken from the planetable survey. The planetable location of the MHWL was shown on the map manuscript. No apparent reason for this discrepancy can be found.

No low water or shoal lines are shown on the map manuscript. (See Para. 7b of the field report.)

36. OFFSHORE DETAILS

None.

37. LANDMARKS AND AIDS

Form 567 is being submitted for one aeronautical aid labeled "CAA installation" by the field party. It has been identified in the compilation office as "FAN MARKER, FORT GEORGE ISLAND".

Form 567 is being submitted for one Aid to Navigation.

Fort George River Daybeacons 1 thru 5* are not shown on the map manuscript because the sextant fixes to locate them were not available in the compilation office.

* Chart Letter L-892 (1954) ENTZ

38. CONTROL FOR FUTURE SURVEYS

The following information is furnished regarding the hydrographic signals in the area of these map manuscripts:

HIT, END and YEL were transferred from planetable survey ECFP-Aa-54.

LONE PALM TREE and S. GABLE FISHING CAMP were transferred from planetable survey, ECFP-Ab-54.

38. CONTROL FOR FUTURE SURVEYS (cont'd)

LAD was apparently plotted in error on RS 493 using an incorrect angle (see field report Para. 6, item 11). The photogrammetric position was replotted in this office. No plane table position is available. *Tip of S*

ICE and GAD agreed closely with plane table positions. The positions of the following signals disagree with the planetable survey: *same area*

SON disagrees with the planetable position by about 1.5 mm. It is possible that the distance from the photo-point is in error. The discrepancy is in a direction radial from the photo-point. The planetable position was accepted. It is, also, possible that the signal was moved after measurement was made. The name of the signal was "HAG" originally, as noted in the field book, and "photo pt. HAG" on brownline manuscript, RS-493. Changes were made in the name on photograph and brownline manuscript, also, at top of page 6 in field book Vol. 1., but other notes were not changed. *work done*

POL and EAR were located on planetable sheets and by planetable traverse on Photo. No. 3532 during location of a new road. The positions for POL disagreed by about 2.5 mm. and EAR disagreed by 0.5 mm. In Para. 50 of item 11, Field Inspection Report, it is recommended that the hydrographic party's location be used to delineate the entrance road to a recreation park. The planetable positions were accepted. The new entrance road was delineated using the two planetable positions and the photogrammetric position for the beginning of the traverse on the photograph. *done*

CAN was not located on the planetable survey but the "Beginning of Traverse" is near the photogrammetric position, which was accepted. *See 368*

DAY disagreed with the planetable position by about 0.5 mm. The planetable position was accepted. It is on the same traverse with POL and EAR and this traverse was closed within 0.3 mm. on station LITTLE, 1954. *done*

ABE was identified direct and plots 0.5 mm. NE of the planetable location. It is a bush and appears positive on the photographs, which were well fixed by adequate control. The planetable position would put the bush in a clear sand area. The photogrammetric position was accepted. *at sand area*

BAG, also, was located with the ^{same} discrepancy in distance and direction as ABE. It is believed that the planetable locations are weaker for ABE and BAG. The photogrammetric position for BAG was accepted. *identical location*

WEB. The photogrammetric position is about 1 mm. east of the planetable position. There is a control point nearby and the radial plot appears good. Both Sub. Pt. NORTH JETTY, 1926 and WEB are positively "identified" points on buildings. The photogrammetric position was accepted as correct.

The radial plot in surveys T-11453 and T-11454 is considered fairly accurate and rigid. The scale in the area where discrepancies were noted was very good, providing good positions for hydrographic signals even where they are near the flight line, after proper adjustments for scale have been made.

38. CONTROL FOR FUTURE SURVEYS (cont'd)

With reference to the last paragraph, item 11, of the field report it is believed that the difficulties experienced by the field party can be explained as follows:

Each photo center was located individually using points of detail common between the photos and RS 493 in addition to some control that could be office identified. The differences between the present radial plot and RS 243 can be seen by superimposing one over the other. The positions of the photo centers on RS 493 were enough in error to greatly affect the positions located along or near the flight line. The field party could not have detected these errors. The fault lies rather with the method used in this instance to provide the hydrographic party with a quick shoreline survey.

39. JUNCTIONS

Junctions have been made and are in agreement between surveys and with T-9804 S to the north.

40. HORIZONTAL AND VERTICAL ACCURACY

See photogrammetric plot report and item 38.

See § 66

41 thru 45. Inapplicable.

46. COMPARISON WITH EXISTING MAPS

6 These manuscripts have been compared with Survey T-5235(1933) and T-5672(1933).

*See § 62
& § 63*

47. COMPARISON WITH NAUTICAL CHARTS

These manuscripts have been compared with Chart No. 577 published January 1947, corrected to 5/12/52.

See § 65

Items to be applied to nautical charts immediately.

None.

Items to be forwarded:

None.

Approved and Forwarded

E. H. Kirsch
E. H. Kirsch,
Comdr. USC&GS
Officer in Charge
Baltimore Photo. Office

Respectfully submitted
19 November 1954

Frank J. Tarcza
Frank J. Tarcza
Super. Carto.

PHOTOGRAMMETRIC OFFICE REVIEW

T-11453 and T-11454

1. Projection and grids H.R.R. 2. Title H.R.R. 3. Manuscript numbers H.R.R. 4. Manuscript size H.R.R.

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy H.R.R. 6. ~~Recoverable horizontal stations of less than third-order accuracy (topographic stations)~~ 7. Photo hydro stations H.R.R. 8. Bench marks
9. ~~Plotting of sextant fixes~~ 10. Photogrammetric plot report H.R.R. 11. Detail points H.R.R.

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline H.R.R. 13. Low water line 14. Rocks, shoals, etc. H.R.R. 15. Bridges H.R.R. 16. Aids to navigation H.R.R. 17. Landmarks 18. Other alongshore physical features H.R.R. 19. Other along-shore cultural features H.R.R.

PHYSICAL FEATURES

20. Water features H.R.R. 21. Natural ground cover H.R.R. 22. ~~Planetable contours~~ 23. ~~Stereoscopic instrument contours~~ 24. ~~Contours in general~~ 25. ~~Spot elevations~~ 26. Other physical features H.R.R.

CULTURAL FEATURES

27. Roads H.R.R. 28. Buildings H.R.R. 29. Railroads 30. Other cultural features H.R.R.

BOUNDARIES

31. Boundary lines 32. Public land lines

MISCELLANEOUS

33. Geographic names H.R.R. 34. Junctions H.R.R. 35. Legibility of the manuscript H.R.R. 36. ~~Discrepancy overlay~~ 37. Descriptive Report H.R.R. 38. Field inspection photographs H.R.R. 39. Forms H.R.R.

40. Harry R. Rudolph Joseph Steinberg
Reviewer Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler

Supervisor

43. Remarks:

48. GEOGRAPHIC NAMES LIST

- Atlantic Ocean
- Bird Island
- Fla. State Highway 1A (Buccaneer Trail)
- Fort George Inlet
- Fort George Island
- Fort George River
- Garden Creek
- Gunnison Cut
- Intracoastal Waterway
- Little Talbot Island
- Mt. ^oCarnelia
- Mud River
- Nassau Sound
- * St. Johns River Entrance
- Simpson Creek
- Sister ^oCreek (Sisters is a B.G.N. decision)
- Talbot Island
- Wards Bank

Names approved
1-6-55, L. Heck

* The name St. Johns River Entrance has been taken from the Field Inspection Report.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Baltimore Photogrammetric Office
78

DATE: 5 November 1954

FROM : Chief, Division of Photogrammetry

SUBJECT: Differences in positions of hydrographic signals between photogrammetric manuscript T-11454 and planetable survey ECFP-54 - Project 123 - Shoreline north from St. John's River entrance, Florida.

Field work included planetable location of signals for hydrography in part of this area and shoreline inspection and identification of these same signals and triangulation stations on photographs. Shoreline manuscripts are now being compiled in the Baltimore Office for application to the smooth sheets. The radial plot is well controlled and seems to indicate errors in several of the planetable signals that were also identified on photographs. The Baltimore Office shall investigate differences in position for each station and state in the descriptive report whether the graphic control or the photogrammetric position should be accepted. These decisions will be reviewed in the Washington Office by 78 and the Processing Office notified.

73 shall obtain the original planetable sheet and loan it to Baltimore for study. After 78 has reviewed the Baltimore Office decisions referred to in above paragraph, he will note on the planetable sheet any signals that are superseded by the photogrammetric manuscripts.

/s/ L. W. Swanson
L. W. Swanson, Chief
Division of Photogrammetry

cc: Norfolk Processing Office
22

Review Report
Shoreline Surveys T-11453 & T-11454
14 January 1955

62. Comparison with Registered Topographic Surveys:

T-411	1:10,000	1853
T-1232	1:20,000	1871
T-4068	1:20,000	1924
T-5234	1:10,000	1933
T-5235	"	"
T-5672	"	"
T-6376	"	1934

Many changes in shoreline and culture have occurred since these surveys. For the area they encompass, T-11453 and T-11454 are to supersede these prior surveys for nautical charting purposes.

63. Comparison with Maps of Other Agencies:

Mayport, Florida (C. of E.) 1:24,000 1950

Differences exist in shoreline and cultural features.

64. Comparison with Contemporary Hydrographic Surveys: *

Comparison was made with prints of the boat sheets (BP 51842 thru 51844) and no discrepancies were apparent. *Smooth sheet H-8107*

65. Comparison with Nautical Charts:

577 1:40,000 1947 - corrected to 53-3/23

A large portion of the shoreline differs with this chart. There are also a few additions to the roads which require changing the chart. Changes made to the map manuscript during this review are minor and are shown in red.

66. Adequacy of Results and Future Surveys:

These surveys are adequate for nautical charting purposes for the features they cover. The field inspection did not include the investigation of low-water and offshore features, landmarks, bridge clearances, geographic names and boundaries.

The smooth Hydrographic sheet H-8107 has been completed and reviewed and discrepancies mentioned on the preceding page have been taken care of h.c.h.

67. Shoreline:

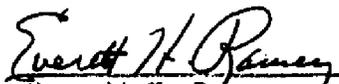
Reference, Item 31. Throughout the area of the field inspection no apparent shoreline was identified by the field party. Instead, the field party attempted to identify the mean high-water line in all marsh areas. The compiler is, therefore, justified in showing an apparent shoreline. The shoreline, as compiled for these areas, is in substantial agreement with prior surveys.

Reference, Item 35. Probable explanations for these discrepancies are errors in the positions of the photo-hydro stations (see Item 68 below) and differences in position in identifying the shoreline by the two field parties. At triangulation station "TAL, 1934" the photogrammetric party identified the shoreline on a 1951 photograph using a tone line for reference. This accounts in large measure for the discrepancies with the plane-table party.

68. Control for Future Surveys:

Reference, Item 38. The identification of photo stations for the hydrographic stations of questionable accuracy was done in an area of shifting dunes (see Item 7(c)) on photographs taken two years prior to the field inspection. The sand areas could have progressed much in that time and yet not be detected by radial plotting. This may account for many of the discrepancies with the plane-table survey. Most of the discrepancies were resolved (Item 38) in favor of the plane-table positions. Others possibly effected by shifting sand are ABE and BAG and the photogrammetric positions should be used with caution.

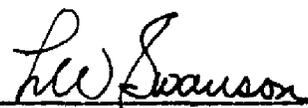
Reviewed by:


Everett H. Ramey

APPROVED:


Chief, Review Section
Div. of Photogrammetry


Chief, Nautical Chart Branch
Div. of Charts


Chief, Div. of Photogrammetry


Chief, Div. of Coastal Surveys

