

9911

Diag. Cht. No. 1244.

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-82(51) Office No. T-9911

LOCALITY

State Florida

General locality Halifax River

Locality Ormond Beach

19 52-57

CHIEF OF PARTY

~~P. Taylor, Chief of Field Party~~
~~E.H.Kirsch, Baltimore Photo. Office~~
~~W.F.Deane, Baltimore Photo. Office~~

LIBRARY & ARCHIVES

DATE July 31, 1959

B-1870-1 (1)

9911

DATA RECORD

T - 9911

Project No. (II): **Ph-82(51)** Quadrangle Name (IV):Field Office (II): **Brunswick, Georgia**Chief of Party: **Paul Taylor**Photogrammetric Office (III): **Baltimore, Md.**Officer-in-Charge: **E. H. Kirsch
W. F. Deane**Instructions dated (II) (III):
29 December 1951
15 February 1952 (Supplement I)
28 February 1952 (Supplement I)
14 March 1952 (Supplement II)
28 April 1952 (Supplement III)Copy filed in Division of
Photogrammetry (IV)Method of Compilation (III): **Graphic**Manuscript Scale (III): **1:20,000**Stereoscopic Plotting Instrument Scale (III): **1:20,000**Scale Factor (III): **1.000**Date received in Washington Office (IV): **2-5-56** Date reported to Nautical Chart Branch (IV): **12-12-56**

Applied to Chart No.

Date:

Date registered (IV): **4/6/59**

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): **N.A. 1927**Vertical Datum (III): **MSL**

Mean sea level except as follows:

Elevations shown as (25) refer to mean high water

Elevations shown as (5) refer to sounding datum

i.e., mean low water or mean lower low water

Reference Station (III): **FRONA, 1934**Lat.: **29° 18' 41.668" (1282.9m)** Long.: **81° 02' 58.058" (1566.7m)**Adjusted
~~1000000~~

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): **Henry R. Spies,**
Cartographic Survey Aid Date: **April, 1952**

Planetable contouring by (II): **John R. Smith,**
Cartographic Survey Aid Date: **March to May,**
1953

Completion Surveys by (II): **J.K. Wilson** Date: **March, 1957**

Mean High Water Location (III) (State date and method of location): **1952, Field inspection.**
Oct. 1956 ("W" camera photographs)

Projection and Grids ruled by (IV): **J. Allen** Date: **10/20/52**

Projection and Grids checked by (IV): **H. R. Cravat** Date: **10/22/52**

Control plotted by (III): **J. C. Richter** Date: **7/9/53**

Control checked by (III): **J. Steinberg** Date: **7/23/53**

Radial Plot ~~by (III):~~ **L. A. Senasack** Date: **1/15/54**

Planimetry Date:

Stereoscopic Instrument compilation (III):
Contours **F. Lampton** Date: **July 21, 1958**

Manuscript delineated by (III): **J. Honick** Date: **10/25/56**

Photogrammetric Office Review by (III): **R. Glaser** Date: **11/26/56**

Elevations on Manuscript
checked by (II) (III): **R. Glaser** Date: **11/26/56**

Camera (kind or source) (III):

U. S. C. & G. S. Nine lens
"W" camera

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
34927 thru 34930	2/13/52	1150	1:20,000	2.3 above MLW
34984	2/14/52	1007	"	3.6 " "
34944 thru 34946	2/13/52	1215	"	All land area
56W 3650 thru 3652	10/18/56	0910	1:20,000	Interior
56W 3740 " 3747	"	1000	"	"
56W 3800 " 3807	"	1035	"	2.4 above MLW

Tide (III)

From predicted tables

Reference Station: **MAYPORT**
Subordinate Station: **Daytona Beach (Ocean)**
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	4.5	5.3
0.9	4.1	4.9

Washington Office Review by (IV): **S.G. Blankenbaker**

Date: **Sept. 1959**

Final Drafting by (IV): **R.A. Carter**

Date: **May 13, 1959**

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): **31**

Shoreline (More than 200 meters to opposite shore) (III): **30 mi.**

Shoreline (Less than 200 meters to opposite shore) (III): **16 mi.**

Control Leveling - Miles (II): **32**

Number of Triangulation Stations searched for (II): **29** Recovered: **16** Identified: **12**

Number of BMs searched for (II): **13** Recovered: **12** Identified: **10**

Number of Recoverable Photo Stations established (III): **2 (Az. Mks.)**

Number of Temporary Photo Hydro Stations established (III):

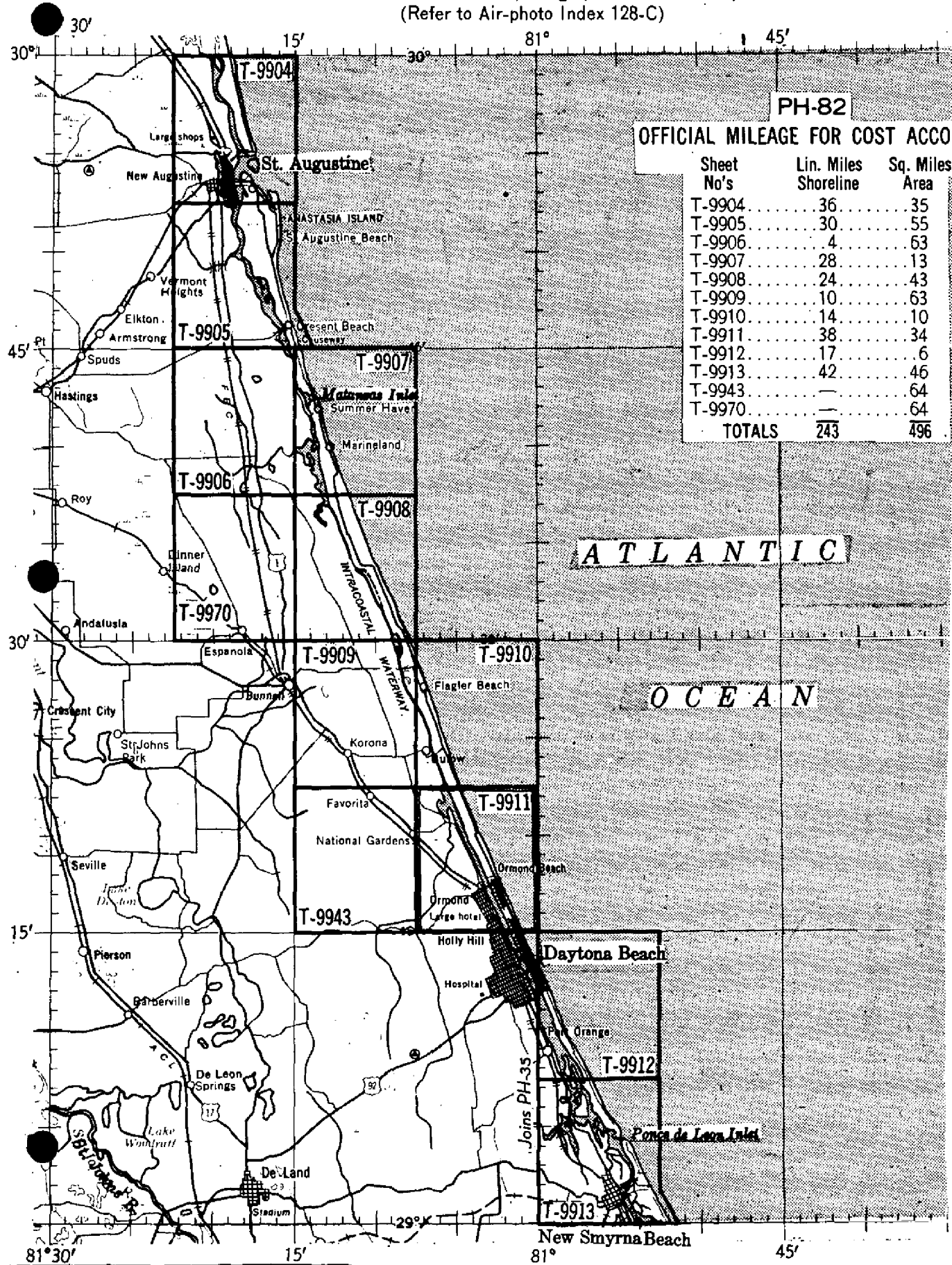
Remarks:

TOPOGRAPHIC MAPPING PROJECT PH-82 Page 5

FLORIDA - EAST COAST, St. Augustine to New Smyrna Beach

Compiled by the U. S. Coast and Geodetic Survey at scale 1:20,000
from 1:20,000 scale nine-lens photographs taken February, 1952.

(Refer to Air-photo Index 128-C)



PH-82

OFFICIAL MILEAGE FOR COST ACCO

Sheet No's	Lin. Miles Shoreline	Sq. Miles Area
T-9904	36	35
T-9905	30	55
T-9906	4	63
T-9907	28	13
T-9908	24	43
T-9909	10	63
T-9910	14	10
T-9911	38	34
T-9912	17	6
T-9913	42	46
T-9943	—	64
T-9970	—	64
TOTALS	243	496

ATLANTIC

OCEAN

SUMMARY TO ACCOMPANY DESCRIPTIVE REPORT T-9911

Topographic map T-9911 is one of 12 similar maps in project PH-82 and is in the south half of the project. It covers the city of Ormond Beach and surrounding area including parts of the cities of Holly Hill and Daytona Beach.

This is a graphic compilation project. Field work in advance of compilation included complete field inspection and complete planetable contouring.

The map was compiled at 1:20,000 scale. Nine lens photographs taken in February 1952 were used for field work and office compilation. Field edit was accomplished in March 1957. New photography (1956 "W" camera 1:20,000 and 1:10,000 scale) was available for the work. The map was corrected to the date of the new photography. With the addition of hydrographic data the map will be published by the Geological Survey at a scale of 1:24,000.

Items registered under T-9911 will include a Descriptive Report, a positive impression on cronar of the scribed copy of the manuscript and a lithographic print in colors of the published Geological Survey quadrangle.

FIELD INSPECTION REPORT
 Quadrangle T-9911
 Project Ph-82(51)

The phases listed below are in addition to those phases shown on Pages 2 and 3:

<u>Name and Title</u>	<u>Phase</u>	<u>Date</u>
Henry R. Spies, Cartographic Survey Aid	Vertical Control	March, 1952
	Horizontal Control	March, 1952
	Shoreline	July, 1952
John R. Smith, Cartographic Survey Aid	Fly Levels	June, 1952

2. AREAL FIELD INSPECTION

The area lies in the extreme northeastern portion of Volusia County. The incorporated town of Ormond Beach and a portion of the towns of Holly Hill and Daytona Beach fall within the quadrangle limits.

Tomoka Airport, which is located in the southwest portion of the sheet, was an auxiliary airport of the Navy during World War II. It is now leased to local cattlemen for pasturage.

The Florida Board of Parks owns three pieces of property within the quadrangle, namely: Tomoka State Park, Addison Blockhouse, and Ormond Tomb. Tomoka State Park is open to the public, but has not been fully developed. It is a part of the old Oswald plantation and in it are found the old Indian mounds and relics of the seventeenth and eighteenth centuries. The Addison Blockhouse lies across the river from the Tomoka State Park. This property has not been developed. Within the area is a small coquina blockhouse and a bricked grave of John Addison the owner of the flourishing plantation in the early nineteenth century. Ormond Tomb commemorates the burial place of James Ormond II. This man was the owner of a large plantation and the nearby town has been named in his honor. A coquina tomb with a marble cover is open to the public.

The chief industries are citrus, cattle-raising, turpentine and logging. The beach section caters to the summer and winter tourists.

The field inspection is believed to be adequate. The photographs were easily interpreted.

3. HORIZONTAL CONTROL

(a) A third-order monumented traverse was measured from BP-187 (Fla. Geod. S.), 1934 to T-8 (Fla. Geod. S.), 1935 to establish control in the southwestern portion of the quadrangle. One monumented station and two temporary points along the traverse line were identified for control of the radial plot. See Field Inspection Report T-9943 for discussion of the traverse.

Monumented stations KIRTON and BOWERS, 1952 were established. Stations BP-T-63, BP-T-70 and KIRTON were identified on the photographs.

Along the beach, one control point was established by a short traverse from a Coast and Geodetic Survey station.

All other existing control was searched for and a sufficient amount identified.

(b) No datum adjustments were made.

(c) Stations, which are within the limits of the quadrangle, but were not established by the Coast and Geodetic Survey are:

<u>Station</u>	<u>Agency</u>	<u>Order</u>
T-5, 1934	Florida Geodetic Survey	Third
T-6, "	"	"
T-7 "	"	"
T-8 "	"	"
T-9 "	"	"
T-10 "	"	"
T-11 "	"	"
T-116 "	"	"

(e) A search was made for all known control points. Stations reported as "destroyed", "lost" or "not recovered" are:

ARENA, 1873
 DAMON, 1872
 ESPERANZA, 1873
 GRAHAM, 1934
 HALIFAX, 1874
 HERCULES, 1873
 OSWALD, 1873
 PALOMA, 1873
 PINE POINT, 1874
 QUIXOTE, 1873
 TOMOKA, 1873
 T-113 (Fla. Geod. S.), 1934
 G-8 (USE), 1931

4. VERTICAL CONTROL

(a) A search was made for all known vertical control. Bench marks of third-order or higher accuracy within the quadrangle are:

<u>Station</u>	<u>Agency</u>	<u>Order</u>
T-31	U. S. Coast and Geodetic Survey	First
U-31	"	"
T-5	Florida Geodetic Survey	Third
T-6	"	"
T-7	"	"
T-8	"	"
T-9	"	"
T-10	"	"
T-11	"	"

A fourth-order level line was run during the measurement of the traverse. Elevations were established on all monumented stations and Form 638 submitted.

(b) Thirty-two miles of supplemental levels were run with a Wye Level, beginning and closing on bench marks of third-order or higher accuracy, or on previously established level points. The greatest error of closure was 0.37 foot. This was the only line adjusted.

(c) The first and last fly-level points are 11-1 and 11-34.

(d) Inapplicable.

5. CONTOURS AND DRAINAGE

The contouring was done on 1:20,000 scale nine-lens photographs by standard planetable methods.

The topographer has tried to draw all contours along the sand dunes of the beach area. Some generalization was necessary because of the space provided on the 1:20,000 scale photographs. The five foot contour has been drawn along the beach, but should be ignored and drawn by the compiler one meter west of the mean high-water line. This is due to the rapid shoreline change in this area, therefore the contours would not necessarily agree with the measurements made to the high-water line in July and August, 1952.

The western portion of the quadrangle is generally irregular. It is composed of several sand ridges, some of which attain a height of thirty-nine feet.

The drainage is by the Halifax and Tomoka Rivers and numerous small ditches and canals. The drainage has been delineated on the photographs in accordance with the Director's letter, dated 11 August 1952.

6. WOODLAND COVER

The coverage was classified in accordance with instructions for Planimetric Mapping. The several different tones have been sufficiently labeled on the photographs. Where the swamp limits are indefinite (along contours), the areas have been completely delineated by the field inspector in red.

7. SHORELINE AND ALONGSHORE FEATURES

A Special Shoreline Report is submitted for this project, a copy of which is filed with this report.

8. OFFSHORE FEATURES

No offshore features were noted during the field inspection. The location of the low-water line is discussed in the Special Shoreline Report.

9. LANDMARKS AND AIDS

For the nautical landmarks and aids, see Special Shoreline Report. There are no interior landmarks or aeronautical aids recommended.

10. BOUNDARIES, MONUMENTS AND LINES

Three section corners and two grant corners were located on the photographs. Form M-2226-12 is submitted for each. See Special Report on Boundaries submitted in April, 1953.

11. OTHER CONTROL

There were no topographic or photo-hydro stations established.

12. OTHER INTERIOR FEATURES

All roads and buildings have been classified in accordance with the Topographic Manual. This work was done on the control set of photographs.

Three bridge clearances are shown on photographs 34928 and 34929. A submerged cable and a water main are located along the Ormond Beach Bridge. A copy of the letter to the District Engineer on bridge discrepancies is included with both the Shoreline and Coast Pilot Reports.

13. GEOGRAPHIC NAMES

This will be the subject of a Special Report, which will be submitted at a later date.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

A Coast Pilot Report, Shoreline Report, Boundary Report and a Geographic Names Report will be submitted as Special Reports for the entire project.

Field work was discontinued on this project during May, 1953, therefore, the Geographic Names Investigation will not be done until the 1954 season.

11 May 1953
Submitted by:

John R. Smith
John R. Smith,
Cartographic Survey Aid

18 June 1953
Approved by:

Paul Taylor
Paul Taylor
Commander, USC&GS
Chief of Party

SHORELINE INSPECTION REPORT
Project Ph-82(51)
August, 1952

The shoreline was inspected in accordance with project instructions dated 29 December 1951 and the Topographic and Hydrographic Manuals. The work was accomplished by Henry R. Spies, Cartographic Survey Aid during the period May to August, 1952.

This report is being written to be forwarded with the shoreline data, prior to the completion of other phases for the project and copies will also become a part of the Descriptive Report for Quadrangle T-9911.

SHORELINE INSPECTION

The shoreline inspected extends from about 7 miles north of St. Augustine to New Smyrna Beach and consists of the shoreline along the ocean beach and the Intracoastal Waterway and its navigable tributaries.

The mean high water line and (or) apparent shoreline has been indicated by the field inspector in sufficient areas to enable the compiler to delineate the remainder without difficulty.

On the ocean beach, measurements were taken from identifiable detail to both the mean high and low water lines. In some cases, particularly near the southern end of the project, it was impossible to establish a definite tone quality for the low water line, but it is believed that sufficient measurements have been taken to enable the compiler to make a straight line interpolation between measurements and maintain the desired accuracy.

The low water line along the Intracoastal Waterway was indicated on the photographs from a visual inspection at the time of low water when practical.

Most of the shoreline is in its natural state, except in the vicinity of cities and towns. In these areas, piers, wharves, buildings, etc. have been shown in accordance with the Topographic Manual.

All submarine cables, overhead cables, and bridge clearances over navigable water have been measured and indicated on the photographs. It will be noted that there are several fixed wood bridges and overhead power and telephone lines along U. S. Highway No. 1 in the vicinity of Spruce Creek and Rose Bay. The clearances of these have not been measured as navigation in these waters is limited to skiffs and outboard motors. In a similar instance, overhead clearances have not been shown for the power

and telephone lines crossing Tomoka River. Navigation on the river is limited by the presence of three fixed bridges, with a maximum clearance of about 10 feet; it is further limited by a controlling depth of 3 to 4 feet at the mouth of the river.

The following paragraphs are devoted to a very brief description of the area inspected. It is to be noted that the shoreline has been divided into several sections with the same general characteristics, and that no attempt is made to give a detailed description of any area, except where it is felt that this information will be of value to the compiler.

The shoreline along the Tolomato and Matanzas Rivers is bordered by a strip of marsh varying in width from several hundred feet to one mile. Shell banks along the outer edge of this marsh generally designate the low water line in these areas.

From Matanzas Inlet to the Halifax River, the Intracoastal Waterway generally follows a dredged canal, which, in some places, is bounded by spoil banks of about 40 feet in elevation. Due to dredging operations, spoils are continually being thrown up in this area and will be located by planetable.

The shoreline of the Halifax River from the mouth of Tomoka River to Port Orange is mostly fast land with a strip of grass in water ranging in width from 2 to 20 meters. In some instances this grass is of sufficient density to warrant the designation as apparent shoreline, but in most cases should be termed grass in water and drafted as such. The areas of apparent shoreline have been indicated by the field inspector.

From Port Orange to the southern extent of the project there are heavy growths of mangrove, with an average height of about 15 feet. The shoreline in this mangrove area is mostly apparent.

The ocean shoreline is generally straight, broken only by St. Augustine Inlet, Matanzas Inlet, and Ponce de Leon Inlet. The beach from the northern project limit to St. Augustine is a mixture of fine sand and shell (coquina gravel) and is quite soft with a slope ranging from moderate to steep. From St. Augustine to Matanzas Inlet it is gently sloping, hard packed sand, capable of carrying light vehicular traffic at low tide. South from Matanzas Inlet to a point about 5 miles north of Ormond Beach, the beach is steeply sloping and composed almost wholly of fine shell. Extending south from Marineland for about 2 miles is a projection of a coquina rock ledge. This feature is the only rock beach encountered in the project and is indicated on the photographs. From Ormond Beach to the southern extent of the project, the beach is similar in appearance and composition to that in the vicinity of St. Augustine.

AIDS TO NAVIGATION

All fixed aids to navigation were located according to the project instructions. When visible on the photographs, the aids were identified direct, but for the greater part were located by theodolite cuts taken from photo points along the shore or by measuring a direction and distance from photo points. The theodolite cuts consisted of three direct and reverse pointings with a Wild T-2 theodolite, with a minimum of three cuts taken to each aid. When possible, triangulation stations were used for azimuth, but here again it was necessary to rely on photo points for the most part of the work. Control Identification Cards (Form M-2226-12) are submitted for all photo points. Where an aid has been located by a direction and distance from a photo point, it has been noted on the card for the respective point.

A Nautical Chart has been prepared as a progress sketch, showing the approximate location of all photo points and the cuts taken to each aid. These charts should be forwarded to Nautical Charts as they contain notes pertaining to deletions of piling, etc.

Near the southern end of the project, a great number of aids have been destroyed during dredging operations, which are now in progress along the Intracoastal Waterway. According to the Officer-in-Charge of the Ponce de Leon Inlet Coast Guard Station, the contracts to replace these aids have been let to a private concern by the U. S. Engineers, but no information was available as to the date that they would be replaced. Several dredges are still in operation along the Waterway at the present time, and it is highly probable that a number of the aids located by this party will be destroyed in the near future. It is believed that this matter should be called to the attention of the field editor, and he should make a visual inspection of all aids in the project to verify their existence, besides locating those reported as destroyed in this report. All aids have been listed on Form 567. Those which were destroyed at the time of field inspection have been listed on the deleted form. However, it is believed that they will be replaced in the near future.

LANDMARKS FOR CHARTS

All charted landmarks and several new ones have been identified and listed on Form 567. No landmarks have been deleted from the charts.

RECOMMENDATIONS

It is believed not out of place to stress, at this time, the advantages of larger scale photography on similar projects where such a large number of aids to navigation are encountered. It is believed that with larger scale photographs of this area, most of the aids could have been identified directly on the photographs, creating a considerable saving in time and expense. This matter was discussed with Captain Reading at the time of his visit to the party and appears to be under consideration.

SPECIAL REPORTS AND SUPPLEMENTAL DATA

A letter has been written and submitted to the Jacksonville District Engineer, listing discrepancies in the published bridge clearance data. A copy of this letter is enclosed in this report.

2 December 1952
Submitted by:

Henry R. Spies,
Cartographic Survey Aid

17 December 1952
Approved by:

Paul Taylor
Lt. Comdr., USC&GS
Chief of Party

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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POST-OFFICE ADDRESS: P. O. Box 539
Brunswick, Georgia

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

18 August 1952

District Engineer
Jacksonville District
Corps of Engineers
P. O. Box 4970
Jacksonville 1, Florida

Gentlemen,

During the course of field work by this party, along the east coast of Florida from St. Augustine to New Smyrna Beach, the following discrepancies were noted in the "List of Bridges Over Navigable Waters of the United States, dated 1941" and its Supplement dated 1948. Field measurements are given first, followed by published measurements.

Miles Above Low Water	Nearest Town	Owner	Type Bridge	Horiz. Cl.	Vert. Cl. H. W.
0	St. Augustine Matanzas Inlet	State Road Dept. of Florida	F F	38.0 40.0	11.0 10.5
36.8	St. Augustine Tolomato River	"	VL VL	89.5 68.0	*83.8 *82.7
		(*) Lift span raised.			
37.9	St. Augustine Matanzas River	State Road Dept. of Florida	B B	76.7 60.0	24.0 27.4
48.2	Crescent Beach Matanzas River	"	B B	79.3 79.5	10.1 6.4
70.5	Flagler Beach Smith Creek	Flagler County	B SW	91.0 53.0	14.1 4.0
		(Note: This is a new bridge.)			
84.8	Ormond Halifax River	Volusia County	SW W span E " SW W " E "	54.6 54.4 55.75 55.8	 2.2 3.2

Miles Above Mouth	Nearest Town	Owner	Type Bridge	Horiz. Cl.	Vert. H.	Cl. W.
89.0	Seabreeze Halifax River	Volusia County	B W span SW E "	89.7 41.7 45.7	20.1	6.4
(Note: This is a new bridge.)						
94.1	Port Orange Halifax River	State Road Dept. of Florida	B	91.9	20.9	
(Note: This is a new bridge and is not listed in bridge book.)						
105.2	Coronado Beach Hillsborough River	State Road Dept. of Florida				
(Note: New bridge under construction.)						
106.7	New Smyrna Hillsborough River	State Road Dept. of Florida	SW W span E " SW W " E "	56.1 58.1 58.0 58.0		5.0 4.8

Very truly yours,

Paul Taylor
Lt. Comdr., USC&GS
Chief of Photo. Party #1

cc: The Director, USC&GS

The photogrammetric plot report is part of the Descriptive Report
for T-9943.

MAP T. 9911 PROJECT NO. 24170 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -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	
HOMER, 1874	G-3038 p. 122	N.A. 1927	29	16	02.535			78.0	(1769.3)	
Sub. Pt. HOMER, 1874	Comp.	"	81	01	39.551			1067.8	(552.0)	
HOMER, 1874 RM. 3			29	16				62.7	(1784.6)	
			81	01				1062.6	(557.2)	
			PLOTTED GRAPHICALLY							
TOMOKA, 1873	G-6209 p. 795	"	29	22	23.243			715.6	(1131.7)	
			81	05	59.426			1602.7	(15.4)	
TOMOKO, 1934	G-3038 p. 122	"	29	16	49.716			1530.7	(316.6)	
			81	06	48.705			1314.7	(304.9)	
Sub. Pt. TOMOKO, 1934			29	16				1511.5	(335.8)	
			81	06				1321.2	(298.4)	
ARENA, 1873	G-3040 p. 174	"	29	20	04.804			147.9	(1699.4)	
			81	03	37.359			1007.9	(610.9)	
ARENA 2, 1934	G-3038 p. 122	"	29	20	07.545			232.3	(1615.0)	
			81	03	38.079			1027.3	(591.4)	
Sub. Pt. ARENA 2, 1934	Comp.	"	29	20				285.1	(1562.2)	
			81	03				1629.5	(589.2)	
FRONA, 1934	G-3040 p. 144	"	29	18	41.668			1282.9	(564.4)	18
			81	02	57.058			1566.7	(52.4)	
Sub. Pt. FRONA, 1934			29	18				1273.8	(573.5)	
			81	02				1611.9	(7.2)	
KIRTON, 1952	Playa p. 205		1,793,210.55		3210.55	(6789.45)		978.6	(2069.4)	
			467,242.62		7242.62	(2757.38)		2207.6	(840.4)	

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

MAP T. 2911 PROJECT NO. 24470 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -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)	
Sub. Pt. KIRTON, 1952			1,790 460				948.1 (2,099.9) 2208.7 (839.3)		
COQUINA (Base of rod on hotel tower) 1934	G-3040 p. 144	N.A. 1927	29 17 28.434 81 02 22.313				875.4 (971.9) 602.3 (1,017.2)		
ORMOND, 1934	"	"	29 16 46.243 81 03 46.166				1423.7 (423.6) 1246.2 (373.4)		
ORMOND HOTEL CHIMNEY, 1906	G-6209 p. 801	"	29 17 26.097 81 02 47.999				803.5 (1,043.8) 1295.5 (323.9)		
ORMOND MUNICIPAL WATER TANK CENTER, 1934	G-3040 p. 190	"	29 16 46.195 81 03 46.312				1422.3 (425.0) 1250.1 (369.5)		
BOWERS, 1952	Plane and pad p. 205	"	1,791,631.10 465,567.51				497.2 (2,550.8) 1697.0 (1,351.0)		
T-5 FLA. GEOD. S. 1934	Volusia Co. p. 11	"	1,785,130.70 485,845.00				1563.8 (1,482.2) 1781.6 (1266.4)		
T-6 FLA. GEOD. S. 1934	"	"	1,790,756.9 483,140.3				230.7 (2,817.3) 957.2 (2,090.8)		
T-7 FLA. GEOD. S. 1934	"	"	1,795,840.9 480,707.9				1780.3 (1,267.7) 215.8 (2,832.2)		
T-8 FLA. GEOD. S. 1934	"	"	1,799,504.43 478,959.51				2897.0 (151.0) 2790.9 (317.1)		
T-9 FLA. GEOD. S. 1934	"	"	1,800,464.85 478,378.26				141.7 (2,906.3) 2553.7 (494.3)		
T-10 FLA. GEOD. S. 1934	"	"	1,804,343.88 471,687.67				1324.0 (1,724.0) 514.4 (2,533.6)		

MAP T-9911 PROJECT NO. 24170 SCALE OF MAP 1:20,000 SCALE FACTOR

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)		FORWARD	(BACK)	
Sub. Pt. T-10 FLA. GEOD. S. 1934			1,800					1,293.8	(1754.2)	
			470					568.6	(2479.4)	
T-11 FLA. GEOD. S. 1934	Volusia Co. p. 11	N.A. 1927	1,811.405.58		1,405.58	(8,594.42)		428.4	(2619.6)	
			465,144.88		5,114.88	(4,885.12)		1,559.0	(1489.0)	
Sub. Pt. T-11 FLA. GEOD. S. 1934			1,810					570.7	(2477.3)	
			460					1,375.2	(1672.8)	
T-113 FLA. GEOD. S. 1934	Volusia Co. p. 12	"	1,799,516.91		9,516.91	(483.09)		2,900.8	(147.2)	
			481,069.60		1,069.60	(8,930.40)		326.0	(2722.0)	
T-116 FLA. GEOD. S. 1934			1,795,196.42		5,196.42	(4,803.58)		1,583.9	(1464.1)	
			490,260.86		260.86	(9,739.14)		79.5	(2968.5)	
BP T-63 1952	Plane Card p. 205		1,788,309.67		8,309.67	(1,690.33)		2,532.8	(515.2)	
			462,978.96		2,978.96	(7,021.04)		908.0	(2140.0)	
Sub. Pt. BP-T-63, 1952	Not Monumented		1,780					2,333.4	(714.6)	
			460					742.1	(2305.9)	
BP T-70, 1952	Plane Card p. 206		1,797,463.40		7,463.40	(2,536.60)		2,274.8	(773.2)	
			472,928.74		2,928.74	(7,071.26)		892.7	(2155.3)	
Sub. Pt. BP-T-70, 1952	Not Monumented		1,790					2,281.4	(766.6)	
			470					985.1	(2062.9)	
G 8 U.S.E., 1934	G-3040 p. 174		29 19	58.92				1,814.0	(33.3)	1
			81 04	36.47				984.0	(634.8)	2

COMPILATION REPORT
T-9911

The Photogrammetric Plot Report is part of the Descriptive Report for survey T-9943.

31. DELINEATION

Graphic methods were used to delineate this manuscript.

Ormond Tomb, referred to in the field report, falls on survey T-9910.

32. CONTROL

The identification, density and distribution of control was adequate.

33. SUPPLEMENTAL DATA

The final name sheet dated 8/9/54, Ormond, Fla. Quad. was used for geographic names.

Copies of the following plats were used to delineate the public land lines:

T-13S R 31 E (page 10, 11, 15)
T-13S R 32 E (page 18, 19, 20)
T-14S R 31 E (page 12, 13, 14)
T-14S R 32E (page 21, 22, 23)

The AAA Highway map of Florida was used as a guide in determining road objectives.

Refer to boundary report Ph-82 (51) March 1953 for information pertaining to reservations and boundary lines appearing on this manuscript.

The following local maps were also available:

Ormond Beach, exhibit "D"
Tomoka State Park, exhibit "H"
Tomoka Airport, exhibit "M"
Addison Blockhouse, exhibit "L"
Volusia County, exhibit "Q", Special boundary report, Project Ph-35A to B.

34. CONTOURS AND DRAINAGE

No comment.

35. SHORELINE AND ALONGSHORE DETAILS

The shoreline inspection was adequate. The low-water line was delineated from data furnished by the field party.

36. OFFSHORE DETAILS

No comment.

37. LANDMARKS AND AIDS

Forms 567 are being submitted for two (2) landmarks and four (4) nonfloating aids to navigation to be charted, also for five (5) non-floating aids to be deleted.

Since the date of field inspection, additional aids have been moved or discontinued. Only those aids whose positions have not been changed are shown on the manuscript.

Refer to page 3 of the Shoreline Report and to letter 731 mkl, dated 14 December 1953. Subject: Aids to Navigation - Project Ph-82 - Florida.

Positions for all aids to Navigation were verified or re-established by the field editor.

38. CONTROL FOR FUTURE SURVEYS

Forms 524 are being submitted for two azimuth marks.

39. JUNCTIONS

Junctions have been made and are in agreement with T-9910 to the North, USGS Quadrangle, Daytona Beach (T-9100, 1952) to the south and T-9943 to the west. An all water area to the east.

Refer to Review Report - "Junctions"

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41. PUBLIC LAND LINES

Some of the grant lines are considered reliable. Most of the section lines are considered unreliable. In a few places roads and ditches were found which appeared to be on the lines.

42. - 45

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

Comparison has been made with Bureau Survey T-4552 (1930) scale 1:20,000 and A.M.S. Quad. Ormand, Florida, scale 1:50,000, published 1948.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison has been made with Chart No. 843, scale 1:40,000, published January 1952 and corrected to 8 September 1956.

Items to be applied to nautical charts immediately:

None.

Items to be carried forward:

None.

Respectfully submitted
26 October 1956

Jack Honick
Jack Honick
Carto. Photo. Aid

Approved and forwarded

William F. Deane
William F. Deane,
CDR, C&GS
Baltimore District Officer

T-9911.Geographic Names.Addison Blockhouse Ruins (State owned) ✓Atlantic Ocean ✓Anacape ~~Ruins~~ Mission Ruins ✓Bryan I₂land ✓Ellinor Village ✓Ellinor Village Golf Course (No. 25) ✓FloridaFlorida East Coast ✓Halifax River ✓Hand Canal ✓Holly Hill ✓Hillside Cemetery ✓ (No. 5)Intracoastal Waterway ✓Old Dixie Highway ✓Ormond Beach ✓Ormond-by-the Sea ✓Ortona ✓National Gardens ✓Pilgrim's Rest Church ✓ (No. 8)Rio Vista Golf Course ✓Shady Rest Cemetery ✓Tomoka Airport (Abandoned) ✓Tomoka Basin ✓Tomoka Estates ✓Tomoka River ✓Tomoka State Park ✓Tropical Gardens ✓

TOMOKO ROAD ✓

Volusia County ✓U.S. 1State ALANames approved 12-19-56
L. Heck.

PHOTOGRAMMETRIC OFFICE REVIEW

T-9911

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

CONTROL STATIONS

4a. Classification label

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

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines 32. Public land lines

MISCELLANEOUS

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

40. R. Glaser Reviewer Joseph Steinberg Supervisor, Review Section of 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.

J. Honick
Compiler

Frank Tarcea
Supervisor

43. Remarks:

FIELD EDIT REPORT
 Project 24170(6082)
 Quadrangle T-9911

The field edit of this quadrangle was accomplished during the months of February and March 1957.

51. METHODS

The inspection of the quadrangle was accomplished by traversing all roads by truck, walking to other areas which required special attention, and by skiff along the waterways. Instructions were followed in accordance with letter to Baltimore District Office, dated 9 November 1956, 731-mk1. Standard surveying methods were used for other corrections and additions.

All additions, corrections and deletions have either been indicated on the field edit sheet, referenced to the field photographs, or answered directly on the discrepancy print. A legend, describing the colored inks used, is shown on the field edit sheet. Purple ink was used for additional information on the photographs.

One 1:20,000 scale print is submitted as a field edit sheet. One additional print, which covers a portion of the sheet, is submitted with the information on fixed aids to navigation.

Thirty-one photographs, on which field edit information has been shown, are listed as follows:

56-W-3741	56-W-3650	56-W-3800	56-W-3978	34929
3742	3651	3801	3980	
3743	3652	3802	3981	
3744	3654	3803	3982	
3745	3655	3804	3983	
3746		3805	3984	
3747		3806	3985	
		3807	3986	
			3988	
			3990	

52. ADEQUACY OF COMPILATION

The compilation was adequate with the exceptions and additions indicated by the field edit data. It is believed that the compilation will be complete after these are applied.

This area has changed considerably since the original field inspection, especially along the atlantic beach. Many new sub-divisions have been constructed and others are in progress. Numerous cultural changes have occurred throughout.

U.S. Highway 1 was under construction during the field edit. This highway will eventually be a four-lane highway throughout the length of the quadrangle, and as a whole, the two new lanes being constructed will parallel the present two-lane pavement on the east. See Field Edit Report, Quadrangle T-9943. The portion of the four-lane highway within the corporate limits of Holly Hill and Ormond Beach has been completed. The remaining portion has only been started and there have been no notes or delineation shown on the photographs.

All fixed aids to navigation were checked during this field edit. All of the lights and daybeacons 34, 4, 6, 8, 9, 11 and 13 were identified on the 1:10,000 scale 1956 photographs. The remainder were not visible on these photographs, therefore, they were located by graphic methods on a section of a print of the quadrangle. The radial plot positions of Halifax River Daybeacons 17 and 20 were verified. The radial plot positions of Halifax Creek Daybeacon 34 and Halifax River Daybeacon 4 were not verified. See letter to Chief, Division of Photogrammetry from the writer, dated 14 March 1957. A magnifier was used to identify the daybeacons on the 1:10,000 scale photographs, and in each case the position of the daybeacon was checked thoroughly by two men. Form 567 is submitted for all aids to navigation within the limits of this sheet, with the exception of daybeacons 17 and 20.

Two submerged cables were identified on the photographs. There is no cable just south of the Ormond Beach Bridge.

Two section corners, one land grant corner and several points on line were identified on the photographs. Most of the corners in this area are not marked. The party searched for several mores which could not be found. Form M-2226-12 is submitted for three corners.

53. MAP ACCURACY

The horizontal positions of the map detail appear to be good. No standard vertical accuracy test was requested and none was made during the field edit.

The contours were visually checked and were found to adequately depict the terrain. Since the original contouring,

There have been several man-made changes. Many spoil banks were widened along the Intracoastal Waterway during the 1952-1953 dredging operations. Also new roads affected the contours in other areas.

54. RECOMMENDATIONS

None

55. EXAMINATION OF PROOF COPY

Mr. John J. Matejka, registered land surveyor of the State of Florida and a resident of the area for thirty years, has agreed to examine a proof copy of this quadrangle for possible errors. Mr. Matejka's address is: P.O. Box 3098, Daytona Beach, Florida.

All geographic names were verified as shown on the advance manuscript. One new name is recommended: TOMOKA ROAD. See Field Edit Report, Quadrangle T-9943.

18 March 1957
Submitted by:

Joseph K. Wilson
Joseph K. Wilson
Cartographer

Ira R. Rubottom
CDR, USC&GS
Chief of Party

REVIEW REPORT

Topographic Survey T-9911

September 1958

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

T-1343	1:20,000	1874	T-4066	1:20,000	1924
T-4552	1:20,000	1928	T-4067	1:20,000	1924

T-9911 supersedes these prior surveys for nautical charting purposes in common areas.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Ormond, Florida (AMS) 1:50,000 1944

The map is outdated.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

None

65. COMPARISON WITH NAUTICAL CHARTS

843	1:40,000	1952	revised 11/25/57
1244	1:80,000	1930	revised 4/14/58

Numerous changes in the mean high water line, piers, roads, etc. shown on T-9911 have not been carried forward to the charts.

Many of the aids to navigation in the area were moved subsequent to field inspection. These aids ~~are not shown~~ *have not been applied* on chart 843 in the new positions indicated on 567 forms submitted after field edit of T-9911. Boatyard Channel Daybeacon's 1 and 2 are represented on chart 843. A 567 form recommending the deletion of these aids was submitted by the field editor. *changed to piles until assured no submerged part exists. ZA*

Nautical chart 843 shows an overhead cable crossing at Ellinor Village. The field editor reports no cable in the area. The submerged power cable south of Daybeacon 25 shown on T-9911 has not been shown on chart 843. *now deleted not authorized for charting by Corps of Engrs.*

There is no evidence on the photographs taken at approximate $\frac{1}{2}$ tide of the small island shown on chart 843 in the Halifax River west of Daybeacon 21. *revised*

-2-

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with the National Standards of Map Accuracy and Bureau requirements.

67. JUNCTIONS

T-9911 junctions to the south with T-9100 (PH-35) -USGS Quadrangle, Daytona Beach. The entire J. M. Hernandez Grant (43) falls within the limits of T-9911. A small section of the grant is shown on ~~T-9909~~ ^{T-9911}. The grant as represented on T-9911 is probably more nearly correct. A part of the corp. limits line of Holly Hill follows the north line of the grant. This section of the line was checked by the field editor and ties in with recovered corners resulting in a relatively strong net. The plot for T14S-R32-E shows a recorded length of 72.4 chains (length used on T-9100) for the west line of public lands section 35. The scaled plot length is 83 chains. The use of the 83 chain length on T-9100 would move the grant north of the manuscript limits into reasonable agreement with the grant as represented on T-9911.

68. CONTOURS

Extensive grading in connection with new housing developments on the barrier beach necessitated contour revisions to correct the map to the date of the 1956 photography. This was accomplished with the Kelsh plotter.

Reviewed by

S. G. Blankenbaker
S. G. Blankenbaker

Approved by:

L. C. Lande
Chief, Review & Drafting Section
Photogrammetry Division

Max. Skidletts
Chief, Nautical Charts Br.
Charts Division

Bill Swann
Chief, Photogrammetry Division

J. B. Russell
Chief, Coastal Surveys Div.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Baltimore, Maryland

December

1956

I recommend that the following objects which have ~~(deleted)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(deleted)~~ the charts indicated.

The positions given have been checked after listing by R. Glaser

William F. Deane
Chief of Party.

CHARTING NAME	STATE	DESCRIPTION	NEW SIGNAL NUMBER	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	CHARTS AFFECTED				
				LATITUDE*		LONGITUDE*				HARBOR CHART	INSHORE CHART	OFFSHORE CHART		
				D. M. METERS	'	"	D. P. METERS			'	"			
58	FLORIDA	Hallifax Creek Daybeacon	34	29 22	26.08	81 05	08.08	N.A.	1927	Rad. Plot	1952	X	X	843
62		Hallifax River Daybeacon	4	29 21	17.70	81 04	10.56	"	"	"	"	X	X	"
75		" " " Same as L. 855 (57)	17	29 17	36.01	81 03	16.97	"	"	"	"	X	X	"
78		" " " Same as L. 855 (57)	20	29 16	41.01	81 02	53.90	"	"	"	"	X	X	"
					1275		1455							

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating* aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Baltimore, Maryland

25 October, 1957

I recommend that the following objects which have ~~charts/added~~ been inspected from seaward to determine their value as landmarks be charted on ~~(charts/added)~~ the charts indicated.

The positions given have been checked after listing by R. Glaser

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				DATE OF LOCATION	METHOD OF LOCATION AND SURVEY	CHARTS AFFECTED			Chief of Party
				LATITUDE*		LONGITUDE*				HARBOR CHART	INSHORE CHART	OFFSHORE CHART	
				D. M. METERS	"	"	D. P. METERS						
FLORIDA													
		Halifax Creek Daybeacon (34)		29 22	22.38	81 05	06.49	Plot	1957	X			843
		Halifax River Light (2)		29 21	34.46	81 04	175	"	"	X			"
		Halifax River Daybeacon (4)		29 21	08.51	81 04	1259	"	"	X			"
		Halifax River Daybeacon (6)		29 20	48.82	81 04	35.85	"	"	X			"
		Halifax River Light (7)		29 20	1503	81 04	27.80	"	"	X			"
		Halifax River Daybeacon (8)		29 20	29.26	81 04	18.02	"	"	X			"
		Halifax River Daybeacon (9)		29 20	901	81 04	486	"	"	X			"
		Halifax River Daybeacon (10)		29 20	11.63	81 04	13.97	"	"	X			"
		Halifax River Daybeacon (11)		29 19	358	81 04	377	"	"	X			"
		Halifax River Daybeacon (12)		29 19	53.33	81 04	05.37	"	"	X			"
		Halifax River Daybeacon (13)		29 19	1642	81 04	145	"	"	X			"
		Halifax River Daybeacon (14)		29 19	35.37	81 03	00.11	Plane-table	"	X			"
		Halifax River Daybeacon (15)		29 19	1089	81 03	54.37	Radial	"	X			"
		Halifax River Daybeacon (16)		29 19	22.67	81 03	1467	Plot	"	X			"
		Halifax River Daybeacon (17)		29 19	08.41	81 03	51.33	"	"	X			"
		Halifax River Daybeacon (18)		29 18	259	81 03	1385	"	"	X			"
		Halifax River Daybeacon (19)		29 18	45.07	81 03	41.47	"	"	X			"
		Halifax River Daybeacon (20)		29 18	1406	81 03	1119	"	"	X			"
		Halifax River Daybeacon (21)		29 18	24.43	81 03	35.50	Plane-table	"	X			"
		Halifax River Daybeacon (22)		29 18	752	81 03	958	"	"	X			"
		Halifax River Daybeacon (23)		29 18	06.66	81 03	27.27	"	"	X			"
		Halifax River Daybeacon (24)		29 17	205	81 03	736	"	"	X			"
		Halifax River Light (25)		29 17	50.77	81 03	24.05	Radial	"	X			"
		Halifax River Light (26)		29 17	1563	81 03	609	Plot	"	X			"

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Baltimore, Maryland

25 October, 1957

I recommend that the following objects which have ~~Model 1680~~ been inspected from seaward to determine their value as landmarks be charted on ~~(Model 1680)~~ the charts indicated.

The positions given have been checked after listing by R. Glaser

William F. Deane Chief of Party.

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION			DATUM	METHOD OF LOCATION AND SURVEY No. RECD.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
			LATITUDE *	LONGITUDE *	DATUM							
STATE	FLORIDA <i>June day 2. 855(57)</i>											
	Halifax River Daybeacon (18)		29 17	81 03	N.A. 1927	Plot T-9911	1957	X				843
	Halifax River Daybeacon (19)		29 17	81 03	"	Table	"	X				"
	Halifax River Daybeacon (21)		29 16	81 02	"	"	"	X				"
	Halifax River Daybeacon (22)		29 16	81 02	"	"	"	X				"
	Halifax River Light (23)		29 16	81 02	"	Rad.	"	X				"
	Halifax River Daybeacon (24)		29 15	81 02	"	Plane-table	"	X				"
	Halifax River Daybeacon (25)		29 15	81 02	"	"	"	X				"
	Halifax River Light (26)		29 14	81 01	"	Rad.	"	X				"
	Halifax River Daybeacon (27)		29 14	81 01	"	Plane-table	"	X				"
	Halifax River Daybeacon (17)		29 17	81 03	"	"	"	X				"
	Halifax River Daybeacon (20)		29 16	81 02	"	"	"	X				"

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

