**U. S. COAST AND GEODETIC SURVEY**  
DEPARTMENT OF COMMERCE

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>TOPOGRAPHIC</th>
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<tbody>
<tr>
<td>Field No.</td>
<td>Ph-30(48)</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-9162</td>
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**LOCALITY**

<table>
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<tr>
<th>State</th>
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</tr>
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<tbody>
<tr>
<td>General locality</td>
<td>EAST COAST</td>
</tr>
<tr>
<td>Locality</td>
<td>VOLUSIA COUNTY</td>
</tr>
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</table>

**19750**

**CHIEF OF PARTY**  
G. E. Morris, Jr. Chief of Field Party  
R.A. Gilmore, Tampa Photogrammetric Office

**LIBRARY & ARCHIVES**

**DATE** April 1 - 1953
DATA RECORD

Project No. (II): Ph-30(48) Quadrangle Name (IV):

Field Office (II): Titusville, Florida Chief of Party: George E. Morris, Jr.

Photogrammetric Office (III): Tampa, Florida Officer-In-Charge: Ross A. Gilmore

Instructions dated (II) (III) The Director's Instructions, Project Ph-30(48), dated 13 July 1949

Copy filed in Division of Photogrammetry (IV)

Office Files

Method of Compilation (III): Graphic

Manuscript Scale (III): 1: 20,000

Stereoscopic Plotting Instrument Scale (III): None

Scale Factor (III): None

Date received in Washington Office (IV): 1/3/50

Date reported to Nautical Chart Branch (IV): 1/6/50

Applied to Chart No. Date: Date registered (IV): 19 May 1952

Publication Scale (IV): 1: 24,000

Publication date (IV): ""

Geographic Datum (III): N.A. 1927

Vertical Datum (III):

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

Reference Station (III): TURTLE MOUND, 1874

Lat.: 28° 55' 50.5" 143 (1543.7)

Long.: 80° 49' 38.5" 950 (1054.7)

Adjusted

Plane Coordinates (IV):

y = 1,671,024.06 Feet

State: Florida Zone: East

x = 555,184.06 Feet
Areas contoured by various personnel
(Show name within area)
(II) (III)
DATA RECORD

Field inspection by (II):
Jack T. Beecher, Cartographic Survey Aid
Cecil A. Mavin, Topographic Engineer (Shoreline)
Date: 7 Apr - 25 May 1949
25 Jan - 26 May 1949

Planetary contouring by (II):
Jack T. Beecher, Cartographic Survey Aid
Date: 7 Apr - 3 May 1949

Completion Surveys by (II):
J. E. Hundley
Date: Feb, 1950

Mean High Water Location (III) (State date and method of location):
Air Photo Compilation
2-6-49
5-20-49

Projection and Grids ruled by (IV): W. E. W. (W.O.)
Date: Oct. 15, 1948

Projection and Grids checked by (IV): W.E. W. (W.O.)
Date: Oct. 15, 1948

Control plotted by (III): R.R. Wagner
Date: Nov. 5, 1948

Control checked by (III): B. F. Lampton
Date: Nov. 9, 1948

Radial Plot (III):
M.M. Slavney
Date: June 30, 1949

Stereoscopic instrument compilation (III):
Planimetry

Contours

Manuscript delineated by (III):
R.A. Reece
Date: Sept., 1949

Photogrammetric Office Review by (III):
J.A. Giles
Date: Nov., 1949

Elevations on Manuscript
checked by (II) (III):
J. A. Giles (III)
Date: Nov. 1949
**PHOTOGRAPHS (III)**

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
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<tr>
<td>48J-151</td>
<td>2-18-48</td>
<td>1404</td>
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<td>48J-501-505</td>
<td>4-21-48</td>
<td>1308-09</td>
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<td>-0.25</td>
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<tr>
<td>48J-511-514</td>
<td></td>
<td>1320-22</td>
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**Tide (III)**

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
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<tbody>
<tr>
<td>1.0</td>
<td>4.5</td>
<td>5.3</td>
</tr>
<tr>
<td>0.5</td>
<td>2.3</td>
<td>2.7</td>
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</tbody>
</table>

**Reference Station:** MAYPORT, FLORIDA  
**Subordinate Station:** Ponce De Leon Inlet  

**Final Drafting by (IV):**   
**Drafting verified for reproduction by (IV):**  
**Proof Edit by (IV):**

**Land Area (Sq. Statute Miles) (III):** 21  
**Shoreline (More than 200 meters to opposite shore) (III):** 46 Statute miles  
**Shoreline (Less than 200 meters to opposite shore) (III):** 62

**Control Leveling - Miles (II):** 23 4th Order

<table>
<thead>
<tr>
<th>Number of Triangulation Stations searched for (II):</th>
<th>Recovered</th>
<th>Identified</th>
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</thead>
<tbody>
<tr>
<td>6</td>
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<table>
<thead>
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<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Number of Recoverable Photo Stations established (III):** 15

**Number of Temporary Photo Hydro Stations established (III):** None

**Remarks:**
Summary to Accompany T-9162

This map is one of a series of 14 topographic 7'30 minute quadrangles in Project Ph-30(48) and is one of the northernmost maps in the project. It covers part of Indian River North, Florida. These topographic maps were compiled at 1:20,000 scale and are to be published by the U. S. Geological Survey as standard topographic quadrangles.

The registered copies under T-9162 will include the original descriptive report, a cloth-mounted print of the manuscript at a scale of 1:20,000, and a cloth-mounted color print of the published map at a scale of 1:24,000.
All phases of the field work were completed in accordance with the Director's Instructions, Project Ph-30(48), dated 13 July 1948, and applicable General Instructions, except for deviations noted in paragraph 16.

Horizontal and vertical control recovery, horizontal control identification, and shoreline inspection was by Cecil A. Navin, Topographic Engineer. Vertical control was established along the beach by James E. Hundley, Cartographer (Photo), and on the mainland by Warren M. Gottschlich, Cartographic Survey Aid. Public land line monument recovery and identification was by Grover E. Torbert, Cartographic Survey Aid. All other work was by the writer, Jack T. Baecher, Cartographic Survey Aid.

1. DESCRIPTION OF THE AREA

Approximately 30% of the total area is land and is situated in the SE part of the geographical limits of the quadrangle. This land area is bounded on the NE by the Atlantic and divided by Indian River North (Mosquito Lagoon and Hillsborough River) that parallels the Atlantic.

East of the river thread are numerous marshy islands with heavy growths of marsh grass and mangrove. A row of small spoil bank islands, mostly bare of vegetation, lie along the east side of the Intracoastal Waterway channel (river thread).

The beach area, between the river and the Atlantic, is extremely narrow in the central part of the quadrangle, but broadens considerably near the north and south limit of the quadrangle. A very narrow prominent sand ridge, between 15 and 30 feet high, closely parallels the Atlantic and is covered with scrub palmetto. The land on the river side is lower than the beach and supports a heavy growth of palm and oak. The area is sparsely settled, and most of the houses and fish camps are along the river shore in the vicinity of Eldora. An unpaved road along the west side of the ridge, passable at all seasons, makes the area easily accessible from New Smyrna Beach to the north.

The mainland contains only approximately 5 square miles and is conspicuously undeveloped agriculturally. U. S. Highway No.1 parallels the Intracoastal Waterway approximately 1/2 mile inshore. The main line of the Florida East Coast Railway parallels the highway slightly less than 1/2 mile farther inshore. A narrow band of heavy palm and oak parallels the west shore of the river. Inshore, the virgin pine timber has been cutover, and the second growth merchantable pine is thinly interspersed. Other vegetation growths are palm, oak, and scrub palmetto. A few houses are located along U. S. Highway No.1 and several fish camps are found along the west bank of the river at the east end of graded sand roads that connect with U. S. Highway No.1 to the west.

The principal livelihood of the area is fishing.
2. **COMPLETENESS OF FIELD INSPECTION**

Field inspection is believed to be adequate and has been shown on the following photographs: 48-J-151 (1 of 2), 48-J-501, 48-J-502, 48-J-511 (1 of 2), 48-J-512 (1 of 2), 48-J-513 (1 of 2), 48-J-672 (2 of 2), and 48-J-673 (2 of 2).

3. **INTERPRETATION OF THE PHOTOGRAPHS**

Photographic detail was reasonably sharp and no difficulty of interpretation was experienced.

No vegetation growths peculiar to the general area were encountered.

4. **HORIZONTAL CONTROL**

Six U.S.C. & G.S. stations were searched for, recovered, and identified.

Photographs 48-J-151 (1 of 2) and 48-J-513 (1 of 2) were fixed by locating an identifiable control station, along a line through the photograph center and approximately normal to the flight line, by the substitute station method. The data for these fixes were submitted in "Horizontal Angle Book, Quadrangle T-9168" and forms M-2226-12 are submitted with this quadrangle.

5. **VERTICAL CONTROL**

There are no U.S.C. & G.S. bench marks within the quadrangle.

U.S.E. third-order BM-18 was not recovered after a thorough search, and is believed to be permanently lost.

Fourth-order control was established along the beach by running a line of wye levels between bench mark EDM-6 in quadrangle T-9168 along the outer beach to bench mark DA-216 north of quadrangle T-9162, a distance of 37.2 statute miles. Because of the original closure of 1,467 feet, a portion of the line which was run under unfavorable weather conditions was rerun giving a final closure of 0.960 feet. This was adjusted throughout the line. The line crosses four quadrangles, T-9168, T-9165, T-9164, and T-9162 and is recorded in four level books, one for the portion falling in each quadrangle. The record books are cross-referenced.

The fourth-order control for the mainland consisted of two short loops run along the highway and railway between nearby bench marks in adjoining quadrangles. The maximum error of closure was 0.17 ft., and no adjustment was necessary.

31 temporary bench marks were set along 23 miles of fourth-order levels for contour control.
6. **CONTOURS AND DRAINAGE**

All contouring on the mainland and the beach area was done by planetable methods, and because of a plethora of temporary bench marks there were no appreciable errors of closure.

The elevations shown on the spoil bank islands along the Intracoastal Waterway were transferred from the U.S. E. plans submitted with the field data. Several of the elevations were spot checked by wye level methods and found to be in good agreement with our datum, and the contours were shaped under the stereoscope.

A satisfactory contour junction was made with quadrangle T-9154 to the south and quadrangle T-9161 to the west.

Contouring was done on the following photographs: 48-J-151(2 of 2), 48-J-510, 48-J-511(2 of 2), 48-J-512(2 of 2), 48-J-513(2 of 2), 48-J-514 (2 of 2), and 48-J-672(2 of 2).

7. **MEAN HIGH WATER LINE**

Ample measurements were taken along the Atlantic from identifiable detail to the MHWL (elev. 1.8 ft.) to prove that this line (MHWL) is represented on the photographs by a definite tone change. These measurements have been recorded and the MHWL symbolized at frequent intervals on the shoreline inspection photographs.

See item 58

The MHWL along Indian River North (Hillsborough River) has been adequately symbolized. Most of this shoreline is apparent.


8. **LOW WATER LINE**

Ample measurements were taken, along the Atlantic, from identifiable detail points to the MLWL (elev. minus 1.8 ft.) to allow compilation of an approximate MLWL.

See item 59

In Indian River North (Hillsborough River) there is an average tide range of 2 to 3 feet at the north end and about 1 foot at the junction of Hillsborough River and Mosquito Lagoon.

All along Indian River North the displacement of the MLWL is too small to show.

9. **WHAVERS AND SHORELINE STRUCTURES**

Adequately labeled on shoreline inspection photographs.
10. DETAILS OFFSHORE FROM HIGH WATER LINE

Believed adequately labeled on shoreline inspection photographs.

11. LANDMARKS AND AIDS TO NAVIGATION

Two landmarks are recommended for deletion and Form 567 submitted.

Four lights and nine daybeacons are submitted on Form 567. Two are discernible on the photographs, and the other eleven were located by theodolite cuts, and Forms M-2226-12 and 24A submitted.

12. HYDROGRAPHIC CONTROL

None required for this project.

13. LANDING FIELDS AND AERONAUTICAL AIDS

There are no landing fields or aeronautical aids within the quadrangle.

14. ROAD CLASSIFICATION

All roads were classified in accordance with Photogrammetry Instructions No.10, dated 14 April 1947, and Amendment dated 24 October 1947.

15. BRIDGES

There are no bridges over navigable waters in this quadrangle.

16. BUILDINGS AND STRUCTURES

Classified in accordance with Photogrammetry Instructions No.29, dated 1 October 1948, with the exception that all buildings to be mapped have been circled on the photographs.

17. BOUNDARY MONUMENTS AND LINES

Seven land line monuments along the mainland were recovered, identified, and Forms 524 are submitted. Complete plans showing land lines for the mainland are submitted with quadrangle T-9161, and the recovered monuments in this area will allow accurate and complete plotting of all lines on the mainland.

Only one monument (township line) was recovered along the beach area, and Form 524 is submitted.

Land line information is shown on the following photographs: 48-J-524, 48-J-525, and 48-J-673(2 of 2).

Other boundaries are the subject of a special boundary report for the entire project by Lowell I. Bass, Cartographic Survey Aid.
18. GEOGRAPHIC NAMES

This is the subject of a special geographic names report for the entire project by Lowell I. Bass, Cartographic Survey Aid. File in Geographic Name Set, Div. of Charts.

19. TOPOGRAPHIC STATIONS

Five abandoned U.S.E. monumented stations (positions unavailable from Jacksonville District, U.S.E.), one natural object; and one standard U.S.C.& G.S. station monument were located as topographic stations, useable for hydrographic control, and Forms 524 are submitted.

Two azimuth marks were identified on the photographs. RM NO. 2 (Az Mk) ELDORA 1934 can be used for hydrographic control, and Form 524 is submitted. Form M-2226-12 is submitted for RM NO. 3 (Az Mk) OAK 1934.

Submitted
27 May 1949

Jack T. Beecher
Cartographic Survey Aid

Approved and forwarded
27 May 1949

George E. Morris, Jr.
Chief of Party
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR Y-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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<td>Palo Negro, 1974</td>
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<td>Oak, 1931</td>
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<td>Mount, 1934</td>
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<td>Eldora, 1934</td>
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Stations Dated by: J. Rika 2/85/50
PHOTOMETRIC PLOT REPORT

This report was submitted to the Washington Office with Descriptive Report for T-9167. Filed in Div. of Photogrammetry.

31. DELENEATION

The graphic method was used in delineating the manuscript.

Photographs were clear and of fair scale. Field inspection was adequate. Any discrepancies discovered have been noted on the discrepancy overlay.

32. CONTROL

Sufficient control was provided to cut in necessary detail points. All control was positively identified and well placed.

33. SUPPLEMENTAL DATA

U. S. E. Intracoastal Waterway Plans, scale 1: 2,400, dated September 7, 1935, were used in checking location of the waterway.

34. CONTOURS AND DRAINAGE

The contours along the ocean beach on field photographs 48J-510 and 5ll were originally drawn with such a disregard for compilation instructions that a note to the compiler was included in the original Field Inspection Report.

It was felt that the contours were in too bad a condition to be shown correctly on the map manuscript from the original notes and contours. C. A. Navin, temporarily assigned to the Tampa Office, who did recovery and shoreline inspection in the area, re-drafted the contours on office photograph 48J-505 (adding pertinent notes) as far south as substitute point "ALDEN". These contours, as drawn under the stereoscope by Mr. Navin from photographs 48J-510 and 5ll, have been delineated on the map manuscript; however, spot elevations must still be added at the time of field edit.

35. SHORELINE AND ALONGSHORE DETAILS

No difficulty was encountered in the delineation of these features.

Shoreline inspection was adequate.
36. OFFSHORE DETAILS

None.

37. LANDMARKS AND AIDS

There are no landmarks or aeronautical aids.

Sec. Item 11

38. CONTROL FOR FUTURE SURVEYS

Fifteen cards (Form 524) are being submitted herewith.

Seven of the foregoing topographic stations, usable for hydrographic control, have been listed in Item 49.

Form 524 for ZIM (USE), 1949, has been destroyed and a Form 526 submitted instead, as a third order position was available for this station in this office.

In addition to the stations mentioned in Item 19, a point on Township Line 17/18 R35E can also be used for hydrographic control.

39. JUNCTIONS

This quadrangle joins the Army Map Service Port Orange quadrangle to the north, T-9161 to the west, T-9164 to the south, and is bordered by the Atlantic Ocean on the east.

Junctions are in good agreement.
40. **HORIZONTAL AND VERTICAL ACCURACY**

No statement necessary  \textit{See Item 47}

46. **COMPARISON WITH EXISTING MAPS**

There is no topographic quadrangle of the area available for comparison.

Comparison was made with U.S.C. & G.S. Planimetric Map No. T-5430, scale 1: 20,000, compiled from aerial photographs taken by the U.S. Army Air Corps on April 30, 1928. Only minor cultural changes have taken place over most of the area. Changing the course of the Intra-coastal Waterway has altered the features to some extent. Many spoil islands were thrown up near the waterway.

47. **COMPARISON WITH NAUTICAL CHARTS**

Comparison was made with U.S.C. & G.S. Nautical Chart No. 543, scale 1: 40,000 (2nd edition), published November 1938, bearing a print date October 13, 1945.

The planimetric map listed in Item 46 was the source of most of the planimetry on the nautical chart. The same differences are to be found between the nautical chart and the map manuscript as were mentioned in Item 46.

**ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY**

None.

**ITEMS TO BE CARRIED FORWARD**

None.

\begin{center}
\textit{Approved and Forwarded:}
\end{center}

\begin{center}
\textit{Ross A. Gilmore,}\ \textit{Chief of Party.}
\end{center}

\begin{center}
\textit{Richard A. Reese}\ \textit{Cartographic Survey Aid}
\end{center}
50 PHOTOGRAMMETRIC OFFICE REVIEW


CONTROL STATIONS

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES

BOUNDARIES

MISCELLANEOUS
40. [Signature] J. Giles  William A. Rasure
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:
51. METHODS

The field edit of this quadrangle was accomplished by traversing, via truck, all passable roads, by boat, and by walking to other areas in which the reviewer requested information, or for a general check on the adequacy of the map compilation.

Planimeter, hand level, theodolite and tape methods were used to make corrections and additions.

All deletions have been noted on the field edit sheet. All additions and corrections have been noted on the field edit sheet, except the corrected contours between latitudes 28° 58' 00" - 29° 00' 00" and longitude 80° 51' 00" - 80° 52' 30" which have been shown on photograph 48J510 print No. 2 of 2: 1: 20,000.

The reviewer's questions are answered on the discrepancy prints whenever possible. All work shown on the photographs is properly referenced on the discrepancy print or field edit sheet.

A legend appears on the field edit sheet indicating the different colored inks used for the various additions, corrections and deletions.

52. ADEQUACY OF COMPILATION

The map compilation is believed to be adequate and complete with the corrections added by the field editor.

53. MAP ACCURACY

The horizontal position of the map details appear to be good.

Spot elevations and horizontal placement of contours were checked and corrected between latitudes 28° 58' 00" - 29° 00' 00" and longitudes 80° 51' 00" - 80° 52' 30". Some differences in spot elevations were found. The major error detected was that a good number of the spot elevations were horizontally displaced. See item 60

54. RECOMMENDATIONS

None.
55. **EXAMINATION OF PROOF COPY**

It is believed that William E. Swope, Jr., Registered Engineer, 124 Canal Street, New Smyrna Beach, Florida, is best qualified to examine a proof copy of this quadrangle.

56. **CULTURAL FEATURES**

A cross country telephone line has been indicated on the field edit sheet. Two new roads and one fill have been shown on the field edit sheet.

57. **AIDS TO NAVIGATION**

Hillsborough River Light 189 was relocated. Form 24A is submitted.

58. **MEAN HIGH WATER LINE**

The mean highwater line, Atlantic Ocean, was checked and found to be in error beginning near latitude 28° 57' 45" north to limits of the quadrangle. The correct mean high water line is indicated at intervals on the field edit sheet.

59. **MEAN LOW WATER LINE**

The mean lowwater line, Atlantic Ocean, was also corrected and is indicated, at intervals, on the field edit sheet.

60. **REMARKS**

In regards to the contouring that was corrected on the ocean beach, the spot elevations were established in the field on Photograph 48J-510 1; 10,000 scale and transferred to Photograph 48J-510 1; 20,000 scale, print 2 of 2. This transfer was made in order that the stereoscope could be used to place the contours nearer their proper position.

Approved and Forwarded:

[Signature]

James E. Hundley
Cartographer (Photo)
February 28, 1950

Arthur L. Wardwell,
Chief of Party.


NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Titusville, Florida  
6 May 1949

I recommend that the following objects which have (///not) been inspected from seaward to determine their value as landmarks be charted on (///the charts indicated.

The positions given have been checked after listing by Richard D. Reese  
Tampa Photogrammetric Office

<table>
<thead>
<tr>
<th>STATE</th>
<th>FLORIDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
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<tr>
<td>HILLSBOROUGH RIVER LIGHT 169</td>
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<tr>
<td>HILLSBOROUGH RIVER DAYBEACON 190</td>
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</tr>
<tr>
<td>HILLSBOROUGH RIVER LIGHT 191</td>
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<td>HILLSBOROUGH RIVER DAYBEACON 193</td>
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</tr>
<tr>
<td>MOSQUITO LAGOON LIGHT 5</td>
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</tbody>
</table>

Note: All descriptions agree with Light List, 1 June 1949. See item 61, this report.

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 confirmed for the chart of the area.
I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be (deleted from) the charts indicated.

The positions given have been checked after listing by

<table>
<thead>
<tr>
<th>State</th>
<th>Florida</th>
</tr>
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<tbody>
<tr>
<td>Charting Name</td>
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<tr>
<td>Tank</td>
<td></td>
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<tr>
<td>Windmill</td>
<td></td>
</tr>
</tbody>
</table>

Note: The above landmarks are visible only from the old channel no longer maintained, and are not visible from new Intracoastal Waterway Channel or from the Atlantic Ocean.

See item 66, this report.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation if visible and shall be reported on this form. The data should be considered for the charts of the area.
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be on the charts indicated.

The positions given have been checked after listing by Richard A. Reece

Cartographic Survey Aid,

<table>
<thead>
<tr>
<th>STATE</th>
<th>FLORIDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>LT. 189</td>
<td>HILLSBOROUGH RIVER</td>
</tr>
</tbody>
</table>

Note: New position being submitted for this aid.

See item 66, this report.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

<table>
<thead>
<tr>
<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT. 189</td>
<td>HILLSBOROUGH RIVER - Black square daymark with yellow border on white pile dolphin</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POSITION</th>
<th>METHOD OF LOCATION AND SURVEY No.</th>
<th>DATE OF LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LATITUDE</td>
<td>D.M. METERS</td>
<td>D.P. METERS</td>
</tr>
</tbody>
</table>

See item 66, this report.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating
GEOREGRAPHIC NAME LIST

ARTH
ATLANTIC OCEAN

BISSITTE BAY
BITTERSWEET COVE
BLUE HOLE
ROTHENATION CREEK
BOTTLE ISLAND
BOTTLE ISLAND CREEK
BRICKHOUSE COVE

CEDAR CREEK
CEDAR ISLAND
EAST CHANNEL

EIDORA

FLORIDA EAST COAST R.R.
FLA. 5
FLA 114
FOX SLIP

GAINES ISLAND
GAINES SLough

INDIAN RIVER NORTH
INTRACOASTAL WATERWAY

KERRILL CAMP
MOSQUITO LAGOON

OAK HILL PUBLIC DOCK
ORANGE ISLAND
ORANGE ISLAND CREEK
OYSTER BAY

PACKWOOD PLACE
PLANTATION ISLAND
PUMPKIN POINT

SAND POINT
SHIPYARD CANAL
SHIPYARD ISLAND
SLIPPERY CREEK

THREE SISTERS ISLANDS
TURNER FLATS
TURTLE MOUND

U.S. 1
WEBSTER CREEK
"Florida"
62. Comparison with Registered Topo Surveys. - This survey supersedes common areas on T-1344 (1874) 1:20,000; T-1145A (1875) 1:20,000; T-4133 (1925) 1:20,000; T-4345 (1928) 1:20,000; T-4440b (1928) 1:20,000; T-4530 (1928) 1:20,000; and T-4440a (1929) 1:20,000 for nautical charting purposes.

63. Comparison with Maps of Other Agencies. - None

64. Comparison with Contemporary Hydro Surveys. - None

65. Comparison with Nautical Charts. - No. 843, 4-3-50 and No. 844 5-21-48, 1:40,000. Additions and corrections made during review have been shown in red ink on the manuscript. There are no changes of importance for nautical charting purposes.

66. Landmarks and Aids to Navigation. - Landmarks and aids are listed on Form 567 and filed as Chart Letter No. 19 (1950) in the Division of Charts. See carbon copy following Field Edit Report.

67. Adequacy of Results. - This map complies with national map accuracy standards.

68. Overlay. - An overlay has been prepared showing road classification, control, etc. This map will be edited and published by the U. S. Geological Survey.

Reviewed by:

Jack L. Rihn, Cartographer

APPROVED:

S. V. Griffith 3/6/53
Chief, Review Section
Div. of Photogrammetry

H. M. Fraim
Chief, Nautical Chart Branch
Division of Charts

O. S. Reading
Chief, Div. of Photogrammetry

Earl O. Heston
Chief, Div. of Coastal Surveys
HISTORY OF HYDROGRAPHIC INFORMATION

T-9162, Florida

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry request of 5 October 1950, and with general specifications of 18 May 1949.

The depths are in feet at mean low water and originate with the following surveys and charts:

**USCGS Hydrographic Surveys**

- H-4477 (1925) 1:20,000
- H-4804 (1928) 1:40,000
- H-4935 (1929) 1:40,000

**USCGS Nautical Chart**

- 1245 (1949) 1:80,000

Bottom contours are shown at 0 (represented by a dotted line), 6, 12, 18, 30, and 60 feet.

Hydrography has not been shown in Hillsborough River because the available material is considered to be inadequate for this compilation.

The hydrography was compiled by R. E. Elkins and checked by G. F. Jordan.

R. E. Elkins,
25 October 1950
Nautical Chart Branch