DESRIPTIVE REPORT
Air Photographic
Plane Table
Hydrographic

Date of Photos 1/9/40

Locality
State Florida
General locality East Coast
Locality St. Lucie River

1942

Chief of Party
Lieut. Comdr. Kenneth G. Crosby

U. S. GOVERNMENT PRINTING OFFICE 1941
Applied to Chart 846 before review Oct 16, 1942

Applied to ch. 1259 8/18/43 GE

Applied to Chart 1112 before review 2/10/44 BR

1247 after review 3/17/44 GE
The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

**Sheet No.**

**Register No.**

**State** Florida

**General Locality** East Coast - St. Lucie River

**Locality** North Fork St. Lucie River

**Scale** 1:10000

**Date of Survey** January 9, 1940

**Party** Air Photographic Party No. 1

**Chief of Party** Lieut. Comr. K. G. Crosby

**Field Inspected by** Lieut. J. D. Thurmond

**Inked by** R. Dossett, Senior Photo Aid

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated April 3, 1940

Remarks:
GENERAL

This sheet was compiled in accordance with "Instructions for Drafting Air Photographic Surveys, Project H. T. 242", dated April 3, 1940.

The general locality of the area covered by this sheet is Florida East Coast, in the vicinity of the St. Lucie River. It includes the North Fork of the St. Lucie River and extends eastward to include the western shoreline of Indian River at the town of Jensen. The shoreline is generally fast with flat ground, vegetated with pine, palmetto and grass.

The upper tributaries of the North Fork, St. Lucie River are vegetated with fringes of mangrove and scattered palm.

The vegetation inshore consists principally of palmetto and grass with scattered pine and occasional patches of swamp. There are numerous ponds, grassy ponds, marshes, and flooded areas throughout the sheet. Large areas that were formerly marshy have been drained by an extensive system of ditches.

There is one large area of citrus cultivation in the vicinity of Howard Creek. There are no other cultivated areas of importance. Along the Eastern boundary of the sheet, from Jensen, Southward, there are large areas of abandoned cultivation that are now vegetated with scattered pine, palm and grass.

All roads shown by a centerline should be drafted 0.6 m.m. wide.

CONTROL

Control on this map drawing consists of the following triangulation stations:

<table>
<thead>
<tr>
<th>Station</th>
<th>Year</th>
<th>Surveyor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lucie</td>
<td>1934</td>
<td>J. Bowie, Jr.</td>
</tr>
<tr>
<td>End</td>
<td>1930</td>
<td>C. A. Egner</td>
</tr>
<tr>
<td>Nest</td>
<td>1930</td>
<td>C. A. Egner</td>
</tr>
</tbody>
</table>

The following triangulation stations fall on this sheet but outside the detailing limits: Swan, 1930; Pisgah, 1883-1934; Mendel, 1930; Spit, 1930; Draw, 1930; and Cemetery, 1906-1934.

The position of the azimuth mark at triangulation Station Lucie, 1934 was compared with the geodetic azimuth given in the list of geographic positions and was found to be in good agreement.

INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and no difficulty was experienced in their interpretation.
MAIN RADIAL PLOT

A continuous radial plot was run on April 22 - 24, 1942 inclusive, for the purpose of locating all photograph centers, all hydrographic stations, topographic stations, bench marks, azimuth marks, and radial points. The plot extended over the area covered by sheets T-5912 to T-5919, inclusive. All photographs in the area were used. It extends along the St. Lucie Canal from Stuart, Florida, South and westward to Lake Okeechobee at Fort Mayaca. Photographs 4591, 4593 and 4594 are the northeast limits and photo 4594 forms the westerly limits.

The plot consisted of 37 templates all being for 9 lens photographs and being controlled by triangulation stations as follows: 1 by 0; 12 by 1-2; 9 by 3; 8 by 4-8; 7 by 9-13. These templates were made in accordance with "Notes on Radial Plotting of nine-lens Photographs", dated April 9, 1940.

The control afforded by first and second order triangulation was sufficient on sheets T-5917, T-5917 and T-5918. Triangulation control was very meagre on sheets T-5913, T-5914, T-5915 and T-5916; but it was felt that additional field observations were not necessary.

The usual practice of laying the plot was followed. This consisted of plotting the control on the survey sheets and then transferring it to the base grid sheets by matching grid squares. The agreement between the grid lines on the survey sheet and those on the base grid was excellent and no adjustment was necessary. After laying the plot, the intersections of the radial lines were transferred to the survey sheet by again matching grid squares as previously described.

The plot was laid only once with the exception of those templates on sheets T-5914 and T-5915. The laying of the plot began with the templates on sheets T-5917, T-5918 and T-5919 and proceeded southwest to triangulation station "ALLEN" on sheet T-5916. These templates were rigidly controlled. From that point to sheet T-5912 the templates were laid by holding intersections of radial lines and azimuth, and due to lack of control the templates on sheets T-5914 and T-5915 had to be laid three times before a satisfactory tie-in of control on sheet T-5912.

The agreement along the flight line and the intersections of radial lines to adjacent photographs was excellent, with exceptions as noted in this paragraph. About 98 percent of the points established by the plot resulted from the intersection at a common point, of three to six radial lines. The remaining 2 percent are instances where only two "cuts" could be obtained. These are mostly cut on the wings of the photographs and while the value of the intersection will be determined by the draftsman, it is believed that the majority of them will be outside the detailing limits. In six or eight instances the point was selected at the center of gravity where the radial lines did not form a common intersection. In no case were the sides of the triangle of error greater than 0.25 m.m. away from the point selected.

The conditions in the preceding paragraph apply to seven of the eight sheets of this plot. The other sheet (T-5914) was the "weakest" of the
plot, in so far as control is concerned, and a common intersection of radial lines was not obtained in some instances on the northern half of the sheet. There are fourteen of these instances and in each case the "cuts" were transferred to the survey sheet for further investigation by the draftsman. The points on the southern part of the sheet were picked at common intersections and after the draftsman has made further investigation, it is believed the detailing will be accomplished with the desired accuracy.

To summarize - the plot is considered "strong"; no large or unusual adjustments were necessary; and that all points are picked with 0.25m.m. of their true position.

Various colored inks were used on the photographs and survey sheets to designate triangulation stations, topographic and hydrographic stations, and radial points. The following key is furnished for future reference.

Photographs
Triangulation and traverse stations.......2.5 mm blue circle
Hydrographic and topographic stations.....2.5 mm green circle
Radial points in main plot.................2.5 mm red circle

Survey Sheet
Triangulation and Traverse Stations.......3.5 mm high black triangle
Hydrographic and topographic stations.....2.5 mm black circle
Radial Points on main plot...............2.5 mm blue circle on back of sheet
Radial points (additional)..............3.5 mm blue circle on back of sheet
Photograph Centers..................Double blue circle on back of sheet

FIELD INSPECTION

The field inspection was made by Lieut. J. D. Thurmond and George E. Varnadoe, principal Engineering Aid, during the months of January and February, 1942.

Field notes were plentiful over the entire area covered by this sheet.

The legend used by the field inspector and by the draftsman is made a part of this report.

DETAILING

The detailing of this sheet has been done in accordance with the current instructions for this sheet and project.

Before detailing the surface of this sheet was rubbed with magnesium carbonate and washed off. No additional cleaning was necessary, and except for occasional touched-up places, no re-inking was required.

The scale of all photographs was found to be reasonably good, however,
there was found to be an unbalanced scale on all of them, in which a
good scale appeared on one side while the other was not good.

Only those trails appearing to lead to some definite point have
been shown.

All buildings visible under the stereoscope have been shown.

JUNCTIONS

This sheet forms a junction on the South with T-5917 and on the East
with T-5919, both Junctions are in good agreement.

COMPARISON WITH OTHER SURVEYS

A comparison was made with Lithographic Print 4542, in the area North
of the entrance to St. Lucie River. The scale of 4542 was somewhat larger,
however except for this, they were found to be in good agreement.

No former topographic maps were available for a comparison with the
Western part of this map drawing.

LANDMARKS

There are no prominent landmarks within the limits of this sheet.

GEOGRAPHIC NAMES

The geographic names for this sheet are the subject of a special report
entitled "Investigation of Geographic Names, Florida, East Coast, St. Lucie
River, Cross State Waterway, and Lake Okeechobee", submitted by Harold A.
Duffy, Senior Photogrammetric Aid.

Respectfully submitted

[Signature]

Sr. Photogrammetric Aid

Forwarded,

[Signature]

Kenneth G. Crosby,
Chief of Party
<table>
<thead>
<tr>
<th>Remarks</th>
<th>Decisions</th>
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<td>272801-03</td>
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<td><strong>Apply this name pending decision of USCE</strong></td>
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<tr>
<td>17</td>
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<tr>
<td>18</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Railway Guide</td>
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<tr>
<td>20</td>
<td>1941 Fla. State Road Map</td>
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<tr>
<td>21</td>
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<tr>
<td>Name on Survey</td>
<td>A</td>
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<td>-----------------------------</td>
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<tr>
<td>Indian River</td>
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<td>Jensen</td>
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<td>Britt Creek</td>
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<td>Howard Creek</td>
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<td>Mel-Bar Fruit Farm</td>
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<td>North Fork St. Lucie River</td>
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<tr>
<td>Van Seggern Creek</td>
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<td>Mile Lake</td>
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<td>Greenridge Point</td>
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<tr>
<td>Niggerhead Point</td>
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<tr>
<td>Kitching Cove</td>
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<td>Winturs Creek</td>
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<tr>
<td>Blakalee Creek</td>
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<tr>
<td>Spruce Bluff</td>
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<tr>
<td>Mud Cove</td>
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<tr>
<td>Ten Mile Creek</td>
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<tr>
<td>Long Creek</td>
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<tr>
<td>Florida East Coast Ry.</td>
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<td>U.S. Highway No. 1</td>
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Note: The table contains a handwritten note in the bottom left corner: "Heck 01/14/62"
# SHEET NO. T-5918

## SUPPLEMENTARY SURVEYS

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>JEH - WHS</td>
<td>Mar. &amp; Apr.</td>
<td>3</td>
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<tr>
<td>Planetary Surveys</td>
<td></td>
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## FIELD INSPECTION

<table>
<thead>
<tr>
<th>Activity</th>
<th>Name</th>
<th>Date</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Preparation of Photographs</td>
<td>CH - FHE</td>
<td>Nov.</td>
<td>7</td>
</tr>
<tr>
<td>Field Work</td>
<td>JDT - FHE-GEV</td>
<td>Jan. 1942</td>
<td>96</td>
</tr>
<tr>
<td>Indexing Notes</td>
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<tr>
<td>Coast Pilot Notes</td>
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<tr>
<td>Geographic Name Reports</td>
<td>FHE</td>
<td>May</td>
<td>15</td>
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<tr>
<td>Landmarks for Charts</td>
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<td>Description Cards</td>
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<tr>
<td>Recovery Notes</td>
<td>JDT-GEV</td>
<td>Jan.</td>
<td>52</td>
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**Total** 170

## MAIN RADIAL PLOT

<table>
<thead>
<tr>
<th>Activity</th>
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<th>Date</th>
<th>Hours</th>
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<tr>
<td>Scale Plot</td>
<td>JEH</td>
<td>Mar. 1942</td>
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<tr>
<td>Projection on Base Sheet</td>
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<tr>
<td>Projection on Survey Sheet</td>
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</tr>
<tr>
<td>Control Plotted</td>
<td>KGC</td>
<td>Apr.</td>
<td>11/2</td>
</tr>
<tr>
<td>Control Checked</td>
<td>WHS</td>
<td>Apr.</td>
<td>1</td>
</tr>
<tr>
<td>Control Trans. to Base Sheet</td>
<td>KGC</td>
<td>Apr.</td>
<td>1</td>
</tr>
<tr>
<td>Transfer Checked</td>
<td>WHS</td>
<td>Apr.</td>
<td>4</td>
</tr>
<tr>
<td>Control Picked on Photographs</td>
<td>JEH</td>
<td>Mar.</td>
<td>4</td>
</tr>
<tr>
<td>Control Checked on Photographs</td>
<td>CAJP</td>
<td>Mar.</td>
<td>6</td>
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<tr>
<td>Hydro. &amp; Topo. Stations Picked</td>
<td>JEH</td>
<td>Mar.</td>
<td>5</td>
</tr>
<tr>
<td>Radial Points Picked</td>
<td>JEH</td>
<td>Mar.</td>
<td>4</td>
</tr>
<tr>
<td>Adjacent Centers Picked</td>
<td>JEH-HGB-CAJP</td>
<td>Feb.</td>
<td>19/2</td>
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<tr>
<td>Templates</td>
<td>HVR</td>
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<td>22</td>
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<td>Radial Plot</td>
<td>KGC-WHS-JEH</td>
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<td>Radial Points Transferred</td>
<td>JHSB-JEH</td>
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<td>TransferChecked</td>
<td>JEH</td>
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<td>H &amp; T Stations Scaled &amp; Checked</td>
<td>RD-JEH</td>
<td>June</td>
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<td>Additional Radial Points</td>
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**Total** 78 1/2

## DETAILING

<table>
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<tr>
<th>Activity</th>
<th>Name</th>
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<th>Hours</th>
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<tr>
<td>Rough Draft</td>
<td>RD</td>
<td>May 1942</td>
<td>122</td>
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<tr>
<td>Smooth Draft</td>
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**Total** 122

## COMPILATION

<table>
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<tr>
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<tr>
<td>Name Overlay</td>
<td>RD</td>
<td>June 1942</td>
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<tr>
<td>Descriptive Report</td>
<td>RD</td>
<td>June 1942</td>
<td>6</td>
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<tr>
<td>Field Review</td>
<td>WHS</td>
<td>July 1942</td>
<td>14</td>
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**Total** 24

**Total time spent on Sheet** 397 2/3 hours.
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<tr>
<th>Code</th>
<th>Date</th>
<th>Time</th>
<th>Lat.</th>
<th>Long.</th>
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<td>4582</td>
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</tr>
</tbody>
</table>

The following information is for St. Lucie Inlet, Ref: Mayport, Florida.

*Note: The data provided is for the year 1934 and includes latitude and longitude coordinates.*

- **Datum**: N. A. Datum, 1927
- **Latitude**: 27° 16' 22.481" (691.20')
- **Longitude**: 80° 19' 03.615" (99.4')

**Adjusted Coordinates:**

$$X = 721,648.08$$

$$Y = 1,068,937.58$$
LEGEND USED FOR FIELD INSPECTION AND DRAFTING
PROJECT 242 - 1942

**TREES**

PL = Pine
Cy = Cypress
Palo = Palmetto
Pal = Palm
D T = Deciduous trees (broad leaf)
Cit = Citrus (orchard)
Mix = pine, Cypress & Dec. trees
(Density)
Scr = Scattered
t.w. = Thinly wooded
h.w. = Heavily wooded

**VEGETATION**

G = Cultivation
Gr = Grass
T Gr = Tall Tropical Grass
L = Marsh (dashed blue line on
inshore limits)
Lw = Marsh grass in water (dashed blue
line on offshore limits)
Sw = Swamp
Ng = Mangrove
Hg = Hedge

**STREAMS**

Ca = Canal (width)
Cr = Creek
D = Ditch (width)
I S = Intermittent Stream
PDU = Probable drainage unsurveyed
Brg = Bridge or symbol
Cy = Culvert
Lev = Levee

P.G.S. = Florida Geodetic Survey
U.S. E. = U.S. Engineers
USBS = U.S. Biological Survey

**ROADS & R.H.LINES**

Rd 1 = 1st class road (paved)
Rd 2 = 2nd class road
Tr = Trail
R R = Railroad
O P = Overpass (state the kind)
U P = Underspass (state the kind)
X = Abandoned trail, road, etc.
R H ab = R.R. abandoned (grade only)

**NOTES**

P = Pond
Cy P = Cypress Pond
I P = Intermittent Pond

**SHORELINE**

M.H.L. = mean high waterline (solid
red line - fast land)
L.I. = low waterline (dashed red line)
L.I. = Light line (solid blue line for
mean high water line on marsh)
Dk = Dock
Pr = Pier
Se W = Seawall
Bkd = bulkhead
Conc = Concrete
Eo = Wooden
Jet = Jetty
Del = Dolphin
Pile = Pile (give type)
S = Sand
Ed = End
Rk = Rock or Rocky
Sty = Stone
W = Water
Blf = Bluff (height)

**BUILDINGS**

H = House, barn or building
Ch = Church (give name)
St H = Court House (give name)
Bo H = Boat House
P.O. = Post Office (give name)
R.R.Ste = Railroad station (give name)
Hos = Hospital (give name)
Sch = School (give name)

**MISCELLANEOUS**

F = Fence
FB = Fire Break (maintained)
FRK = Fire Break (abandoned)
Cem = Cemetery
Park = Park (give name)
P.T. = Fire tower
T.T. = Transmission tower (tall steel)
P.L. = Power Line
Shoal = Approx. limits by long dashed
line for use by hydrographer.
Pi - Pine
Cy - Cypress
Ple - Palmetto
Pan - Palm
O P - Overpass (at to the land)
U P - Underpass (state the kind)
O.F. - Open Field
A.B. - All But.
M. - Miami

P - Pond
Cy P - Cypress Pond
I.P - Intermittent Pond

Red Line - Main body of water (solid red line = fact land)
It. L. - Io. waterline (dashed red line)
Bl. L. - Right line (solid blue line for mean high water line on chart)
Dr. - Dock
P. - Pier
So. B. - Sailing
Md. - Buoyhead
Cone - Concrete
L. O. - Lagoon
Jet. - Jetty
Dol. - Dolphin
File - File (ave tape)
S. - Sand
Bl. - Bluff
Nh. - Rock or rocky
Sty. - Stony
L. - Litter

Bluff (height)

Florida Geodetic Survey
U. S. E. - U. S. Engineers
N. B. - N. B. Biological Survey

1st. - 1st class road
2nd - 2nd class road
Tr. - Trail
R. R. - Railroad
Open Field (at to the land)
Underpass (state the kind)
Abandoned trail, road, etc.
Al. B. - All But. abandoned (grade only)

Fence
Fire Break (maintained)
Fire Break (abandoned)
Cem. - Cemetery
Park - Park (give name)
Fire Tower
Transmission tower (tall steel)
Power Line
Approx. limits by long dashed line for use by hydrographer.
Division of Photogrammetry

Review of Planimetric Map T-5918

This map was compiled in the Tampa Photogrammetric Office in 1942, but Washington Office processing was delayed because of war map work of the Bureau. The map was reviewed in 1943, printed in 1945, and registered in 1947.

Field Inspection and Detailing.

These were adequate and only a few minor changes were necessary on the manuscript during review.

Comparison with Previous Topographic Surveys.

T-5918 supersedes the following older surveys:

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<tr>
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<td>T-4534a</td>
<td>1930</td>
<td>1:20,000</td>
</tr>
<tr>
<td>T-4534b</td>
<td>1930</td>
<td>1:10,000</td>
</tr>
<tr>
<td>T-4542</td>
<td>1930</td>
<td>1:20,000</td>
</tr>
</tbody>
</table>

Comparison with Nautical Charts.

T-5918 was applied to charts 846 and 1289 prior to this review. However, no changes of consequence to the charts were made during the review.

Reviewed under the direction of D. H. Benson in December 1943.

This report prepared by B. G. Jones from reviewer's notes in May 1947.

APPROVED BY:

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