Descriptive Report to Accompany
Air Photo Topographic Sheet No. 4526.

No. 4526 - Florida East Coast, Lake Wyman to Fort Lauderdale.

This sheet is a compilation of a single strip of three lens air photographs taken with the Army Air Corps T-1 camera No. 11 on February 27, 1927. Photograph No. 27 at the northern end of the sheet was taken about 3:45 P.M., and Photograph No. 64 at the south end was taken about 4:00 P.M. A high water of 2.2 feet at 4:32 P.M., at Hillsborough Inlet is predicted by the tide tables for this date.

A Loening amphibian plane with Liberty motor was piloted by Lieutenant Guy Kirkey at altitudes between seven and eight thousand feet, giving a scale of about 1:15,000 to the photographs. This low altitude was necessary in order to avoid interference from clouds.

CONTROL. The third order triangulation and traverse stations established by the party of Lieutenant Mattison in 1928 south of Hillsborough Inlet Lighthouse and by Lieutenant Schoppe in 1929 to the northward of this station were used for the basic control of this sheet.

The positions of all stations used were reduced to the 1906 position, and the 1928 and 1929 positions of this station to the respective field computations. With the exception of Cloister 1929 and Turtle 1929 all stations were located on the photographs during a field inspection.

Road traverses with steel tape and solar azimuths with seven inch theodolites were run at Boca Raton, Deerfield, Pompano and Fort Lauderdale. A solar azimuth was observed at the railroad in Oakland Park. The turning points and plusses at road intersections of these traverses are shown on the sheets by small red circles.

The Florida East Coast Railroad traverse was used to some extent after being reduced in length about 50 meters both between Boca Raton to Pompano and Pompano to Fort Lauderdale. The azimuths of the Broward County Survey were also checked at Pompano and Oakland Park.

North of Hillsboro Inlet the highwater line and the positions of certain roads and houses were traced from Sheet No. 4443B.

COMPILATION. A projection was laid down on celluloid to the average scale of the photographs as determined by a radial plot (scale 1:289 x 20,000). The control was plotted on the projection. Bromides of Topographic Sheets Numbers 1656 and 1657 enlarged to the scale of the projection were traced on the celluloid in blue. A radial line graphic plot was then made holding to the control. The plot did not require much adjusting, but seemed somewhat weak between Boca Raton and Deerfield. The detail desired on the topographic sheet was then traced.
from the photographs in black, adjusting discrepancies between the points determined by radial intersection.

After the topographic information had been traced on the celluloid sheet in black, the sheet was reduced to 1:20,000 and printed on Whatman's mounted paper by the Printing Section. In this process particularly when printing on mounted paper, a shrinkage in one direction occurs usually about ten meters per minute of latitude. It is therefore necessary to proportion this distortion between the nearest projection lines when using the sheet. The track west of Pompano was added by proportional distances from the extreme edge of a picture. It is therefore likely to be incorrect; it is sufficiently accurate for use as a landmark on airway maps.

DIFFERENCES FROM FORMER TOPOGRAPHY. In general, there is good agreement between the shoreline of former surveys and this sheet. The shore seems to have receded some ten to thirty meters in the vicinity of Hillsboro Inlet. Some of the inside waterways or sloughs have been shifted considerably by the photo survey, probably because of insufficient control inshore when the former surveys were made.

NAMES. The names appearing on this sheet are those appearing on the charts of the locality or on the state highway maps with the exception of Oakland Park which was substituted for Floramada. The field party inspecting the photographs was informed that the people of this town had voted by a large majority for this change as well as to reduce the city limits from several miles to three fourths of a mile just before the party visited the locality.

CULTURE SYMBOLS. The standard topographic symbols were used. A single full line was used for a ditch or stream, a double full line for improved paved roads, a double dashed line for roads unimproved but graded, and a single dash line for trails. The culture was noted on the photographs from the principal roads which were driven over during a limited field inspection. At inaccessible places the culture was interpreted in the office from the similarity to that noted during the field inspection. Only the buildings adjacent to the water and important public buildings such as schools, railroad stations and post offices were shown. The photographs do not show all houses distinctly enough to make certain that some would not be missed and only those near the water are needed for the purposes of the Bureau.
LANDMARKS FOR CHARTS

Washington, July 24, 1930

O. S. Reading
Chief of Party.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POSITION</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LATITUDE</td>
<td>LONGITUDE</td>
<td>DATUM</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>D.M. METERS</td>
<td>0</td>
</tr>
<tr>
<td>Tank (Boca Raton)</td>
<td>26</td>
<td>21</td>
<td>170.2</td>
</tr>
<tr>
<td>Chimney (Brick)</td>
<td>26</td>
<td>20</td>
<td>1027.6</td>
</tr>
<tr>
<td>Steak (Club House)</td>
<td>26</td>
<td>19</td>
<td>94.6</td>
</tr>
<tr>
<td>Tank (Deerfield)</td>
<td>26</td>
<td>14</td>
<td>19.5</td>
</tr>
<tr>
<td>Tank (Pompano)</td>
<td>26</td>
<td>14</td>
<td>19.5</td>
</tr>
<tr>
<td>Tank (Pt. Lauderdale)</td>
<td>26</td>
<td>07</td>
<td>669.3</td>
</tr>
</tbody>
</table>

All of the above positions have been adjusted to agree with the 1906 position of Hillsbog Inlet Lighthouse which the Computing Division recommends to hold fixed pending the adjustment of the coastal schemes.

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance. The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
FLORIDA INLAND NAVIGATION DISTRICT
(EAST COAST CANAL)
Office of the Chief Engineer
GILBERT A. YOUNGBERG
21 Laura Street
Jacksonville, Florida

CHARLTON & DAVIS
Resident Engineers
Fort Lauderdale, Florida

Sept. 26, 1930.

Director, U. S. Coast & Geodetic Survey,
Washington, D. C.

Dear Sir:

Subject: ADVANCE SHEETS U.S.C. & G.S.
AERIAL SURVEYS.

When you so kindly sent us copies of sheets covering this vicinity as requested in your letter that we advise you of any omissions that we might note:

Referring now to your Sheet No. 4526 there is a small and important rock road left out extending West from the Ocean Boulevard County Road for about a quarter of a mile.

This little rock road starts at Lat. 26°-12'50" (approximate) Long. 80°-05'40" (approximate) and runs West from that point. You can probably pick this up on your photographic plate. If not we can send you data sufficient to plot it.

At a point about Lat. 26°-07'30" a small East and West rock road about 2000 feet long has been omitted.

The Federal Highway has been paved through the County and is now the main road. You do not show it North of a point approximately Lat. 26°-12'20", Long. 80°-06'40". At the time of your aerial survey this road was graded but not paved. We can give you the data to map it if your plate does not show it.

If we pick up any other omissions we will advise you.

Your maps are exceptionally accurate, complete and useful.

Very respectfully,

CHARLTON & DAVIS

By J. F. Charretti

cc Col. Youngberg

JFC/C

Item 1 and 2 plotted up 4526
and to be added to 4526 A
Has been added to inside note
about 3/2/35.
The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. ..................

REGISTER NO. 4526

State. .......................... Florida

General locality. .......................... East Coast

Locality. .......................... Lake Wyman to Fort Lauderdale

Scale 1:20,000.  Date of survey: February 27, 1927

Vessel: Loening Amphibian Aeroplane Lt. Guy Kirksey, pilot

Chief of Party: O. S. Reading

Surveyed by: O. S. Reading

Inked by: O. S. Reading

Heights in feet above... to ground to tops of trees

Contour, Approximate contour. Form line interval... feet

Instructions dated: June 6, 1929

Remarks: Compilation of three lens air photographs Nos. 27 to 54

Second set. Reduced to 1:20,000 and printed on Whatmans paper

by photo lithographic process in Printing Section.

APPROVED

K.T. Adams
FIELD RECORDS (O)

Chief, Section Field Work

L.C. Zollhar
Chief, Division of Charts

Chief, Div. of Hyd'y and Top'y
DESCRPTIVE REPORT, T-4526A

T-4526A is identical with the original T-4526 except for the deletion of all detail below latitude 23° 09' and for minor corrections of details along latitude 23° 09' to perfect the junction with the new 1935 compilation T-5633.

Oct. 6, 1937.  B. G. Jones

[B.G. Jones]
10/7/37