DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: FLORIDA

LOCALITY
Biscayne Bay.
South Miami.

1935-36
Date of photos January, 1935.

CHIEF OF PARTY

E. R. McCarthy
Applied to sheet 1248. Mar. 17, 1937  G.H.S.

Applied to chart 848 (new compilation) Sept. 19, 1938  R.L.W.
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. T-5626

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

General locality.............. Biscayne Bay.

Locality...................... South Miami.  

Scale 1:10,000 

Photographs

Date of photographs Jan., 25, 1935.

Vessel Field party No. 14

Chief of party E. A. McCarthy

Surveyed by see data sheet attached to descriptive report

Inked by

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 17, 1935

Remarks: Compiled from aerial photographs at a scale of 1:10,200 for reproduction by the photo-lithographic process at a scale of 1:10,000.
**DATA SHEET**

**SHEET REGISTER No. T-5626.**

<table>
<thead>
<tr>
<th>Portion of work</th>
<th>Done by</th>
<th>Date completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projection made by</td>
<td>W. J. Mignola</td>
<td>July 17, 1935</td>
</tr>
<tr>
<td>Projection checked by</td>
<td>D. L. Ackland</td>
<td>July 17, 1935</td>
</tr>
<tr>
<td>Control plotted by</td>
<td>O. H. Niemela</td>
<td>July 18, 1935</td>
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<tr>
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<td>T. H. Aldrich</td>
<td>July 18, 1935</td>
</tr>
<tr>
<td>Radial plot developed by</td>
<td>John C. Mathisson</td>
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<tr>
<td>Radial plot verified by</td>
<td>D. L. Ackland</td>
<td>July 29, 1935</td>
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<tr>
<td>Street systems compiled and inked by</td>
<td>M. B. Gill</td>
<td>April 28, 1936</td>
</tr>
<tr>
<td>High water line and symbols compiled and inked by</td>
<td>John C. Mathisson</td>
<td>March 4, 1936</td>
</tr>
</tbody>
</table>

* * * * * * * * * *

Area of sheet: 24.5 square statute miles
Length of shoreline: 16.8 statute miles.
Length of rivers and canals: 13.8 statute miles.
DESCRIPTION REPORT

to accompany

PHOTO-TOPOGRAPHIC SHEET

REGISTER NO. T-5626

SOUTH MIAMI

FLORIDA

1935 - 36

Scale 1:10,000

E. R. McCarthy, Chief of Party.

John C. Mathisson, In charge, photo unit.

PROJECT INFORMATION:

General project information in regard to the project as a whole is contained in the General Descriptive Report which was made a part of and attached to the report for Sheet Register No. T-5629.

DESCRIPTION OF AREA:

This sheet covers a rural area lying between Cutler on the south and South Miami on the north. A small section of Coconut Grove (City of Miami) is shown near the north neat line and a portion of the City of Coral Gables is also shown. Chapman Field, (U. S. Army Air Base), the Department of Agriculture Experimental Station at Chapman Field and Dade County Park (Matheson Hammock) are also shown on this sheet.

The area is cultivated extensively but the cultivation is limited to the rich bottom lands and the low lands paralleling the beach just inshore of the marsh and mangrove areas. Other areas on the sheet are higher hammock land with little or not top soil and unfit for cultivation. These areas are generally covered with a thick growth of palmetto and scrub pine. The areas of deciduous trees have been charted on the sheet.

There are numerous orchards located within the limits of the sheet. Most of these orchards are citrus fruits, mangos, and avocados. All of the orchards have been shown on the compilation.

Numerous rock pits, from which material has been obtained for road construction, are found in the area. These pits have been located and the limits shown on the compilation by a dashed line.
Almost the entire length of the shoreline on this sheet is lined with a very thick growth of mangrove. The mangrove is very tall (black mangrove) near the water and this gives away to the lower red mangrove further inland, which in turn gives away to the cultivated areas and marsh. In areas where cultivation has been abandoned for several years, sea myrtle grows.

Offshore from the mangrove area there is a shoal of white sand. This shoal appeared very definite on the photographs. In places, the sand from the shoal has been washed ashore and deposited around the roots of the mangrove and a very narrow sand beach has been formed.

GENERAL INFORMATION:

The area of this sheet is covered by 23 five lense photographs, nos. 114 to 136 inclusive, secured at 1:15 P.M. on January 25, 1935. The flight line of these photographs roughly parallels the high water line. An index of photographs is appended to the General Descriptive Report of the area.

Parts of the mangrove in the area of the sheet have been extensively ditched for mosquito control and drainage. A large number of the ditches inshore from Shoal Point have been cleared but the ditches have not, as yet, been dug. The broken lines appearing in this area are old clearings for survey lines. These were very clear on the photograph.

The photographs show two small piers in the bight west of Chicken Key. These are no longer in existence having been destroyed by the hurricane of November 4, 1935. The tall royal palms lining the road leading to this bight are very prominent over the water area and should be charted.

The beacons along the Chapman Field Channel, as well as the privately maintained pile beacons along the channel at the north neat line, were located by sextant fixes. These channels, together with the private channel into the Deering Estate at Cutler and the channel into the Coral Gables Waterway, were delineated from the photographs.

The reservation line around the limits of the government reservation at Chapman Field has been shown on the sheet. Located within this reservation are the U. S. Army Air Base and the U. S. Department of Agriculture Experimental Station. The limits of Dade County Park are also shown on the sheet. This park is known locally as Matheson Hammock in honor of the donor.

The area being a rural area, all of the houses outside the limits of Coral Gables and South Miami, have been shown on the compilation. Due to the difficulty in interpretation, houses have not been shown when they appeared more than half way out on the wind prints.

The data on the span and clearance of bridges appearing on this sheet were obtained by the personnel of this party.
CONTROL:

For a description of the control used in the compilation of this sheet, see the General Descriptive Report of the area.

There is appended to this report a list of the triangulation stations used in the compilation. This list shows the plotting distances used for the scale of the compilation, 1:10,200.

COMPILATION METHODS:

The usual radial line method was used in the compilation of this sheet. Due to the deficiency of control at the south neat line for strong compilation, a 'dog ear' was used to plot the position of First, 1930 and a three point fix with theodolite was obtained inland. With the addition of these two stations to the plotted control, the radial plot was developed without difficulty. The object used for the three point fix was not a recoverable point and the position has not been retained.

INTERPRETATION OF PHOTOGRAPHS:

No difficulty was experienced in obtaining information from the photographs. They were clear and adequate, as a whole, for charting purposes.

Difficulty was experienced in obtaining the high water line along the bay because the centers of the photographs were placed too far inland. It is believed that this detail was obtained with the desired accuracy after a field inspection trip of the area in question.

INFORMATION FROM OTHER SOURCES:

All of the topographic information, with the exception of the positions of the beacons and piles along the channels, was obtained from the photographs. The positions of the beacons and piles was obtain but three point sextant fixes.

The street names in the chart portion of Coral Gables and in the area of South Miami were obtained from the maps of the street systems of these localities.

COMPARISON WITH CONTEMPORARY SURVEYS:

There were no contemporary surveys covering the area embraced by this sheet.
COMPARISON WITH PREVIOUS SURVEYS:

The area of this sheet is covered by portions of two compilations made during 1926. These are Sheet Register Nos. 4540 and 4578.

A comparison with these sheets reveals the fact that the high water line is out of agreement from five to fifteen meters along most of the beach and the maximum error of about twenty five meters is noted at Shoal Point, Chicken Key and in the delineation east of Dade County Park. This displacement appears to be approximately southeast of the true location. This same condition is also noted in the delineation of the shoal area immediately offshore of the high water line.

A majority of the ditches in the area of the sheet were apparently dug since the date of the former survey as none of the ditches were shown on the old compilation.

The displacement in the case of the roads in the area is not as great as in the case of the high water line. A fair agreement is attained at the south near line. In general the disagreement was to the southeast as was the case with the high water line but the maximum difference did not reach ten meters.

Rather extensive improvements are noted in the Chapman Field area. A landing field has been added and a hanger and barracks built for the U. S. Army. At the present time the City of Miami is actively engaged in trying to have the field designated one of the national defense air bases. In the area of the Department of Agriculture, Bureau of Plant Industry a few changes are noted. The series of trails to the west of the station have been added since the date of the last survey.

The addition of several canals are noted in the area along the beach south of the north near line. New canals have been dredged on the Brett Estate and a channel dredged into the property. This channel is, however, private and closed to navigation by a gate across the mouth near Triangulation Stations Elliott's Beach 2 & 3.

Several new roads have been constructed since the date of the 1926 compilation. Additional rock pits, orchards and cultivated areas are noted and several area of cultivation and orchards have been abandoned.

BENCHMARKS:

All of the first order bench marks as well as the tidal benchmarks at Cutler have been located by radial intersection and shown on this compilation. These benchmarks are represented by a circle instead of the standard symbol. All other symbols, however, are standard.

CONFLICTING NAMES:

The name Cocooplum Beach appears on the present edition of Chart 1248. This area is now known as Tahiti Beach. The name Cocooplum could
not be verified. It is recommended that the name be deleted from future editions of the chart.

The name, Elliott Beach, just south of Tahiti Beach could not be verified. No one could be found in the area who could explain the origin of the name. It is recommended that this name be expunged from future editions of the chart of the area.

LANDMARKS:

Landmarks for Charts for the area of this sheet were submitted on Sept., 17, 1935. A duplicate copy of this list is appended to the descriptive report for Sheet Register No. T-5629.

Landmarks for Charts covering the permanent (non-floating) aid to navigation are being transmitted. A copy of this list is attached to this report.

RECOMMENDATION FOR FURTHER SURVEYS:

It is believed that this compilation covers the area adequately and that further surveys are not needed at the present time. It is also believed that the desired accuracy has been maintained in this compilation of the sheet. The error of location is estimated to be from 0.5 to 0.8 mm for intersected points and from 0.5 to 1.0 for points between intersections, except for the railroad and highway No.4a on the western edge of this compilation where the error may be as much as 2.0 mm.

John C. Mathisson,
Jr. H. & G. E.,
U. S. Coast and Geodetic Survey.

April 30, 1936
**TABLE OF TRIANGULATION CONTROL**

<table>
<thead>
<tr>
<th>STATION</th>
<th>POSITION (North American Datum)</th>
<th>PLOTTING DISTANCES</th>
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<td>Corr. to N.A. 1927</td>
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<tr>
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<tr>
<td>Elliott’s Beach 2, 1907</td>
<td>Lat. 25° 41' 7.777.3 (1069.0)</td>
<td>762.1 (1048.0)</td>
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<td></td>
<td>Long. 80° 14' 1639.6 (33.4)</td>
<td>1607.5 (32.7)</td>
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<tr>
<td>Elliott’s Beach 3, 1918</td>
<td>Lat. 25° 41' 7.867.1 (1079.2)</td>
<td>752.1 (1058.0)</td>
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<td>Long. 80° 14' 1640.0 (33.1)</td>
<td>1607.8 (32.5)</td>
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<td>Warwick, Silver tank, Amizal, 1934</td>
<td>Lat. 25° 38' 1488.6 (357.7)</td>
<td>1459.4 (350.7)</td>
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<td></td>
<td>Long. 80 17' 1551.0 (122.0)</td>
<td>1520.6 (120.2)</td>
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<tr>
<td>Tank, 1930</td>
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<tr>
<td>Shoal Point 2, 1930</td>
<td>Lat. 25° 38' 610.3 (1236.0)</td>
<td>598.3 (1211.3)</td>
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<td>Long. 80° 16' 534.0 (1139.8)</td>
<td>523.5 (1117.5)</td>
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<td>Naco, 1934</td>
<td>Lat. 25° 37' 1464.9 (381.4)</td>
<td>1436.2 (373.9)</td>
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<td>Long. 80° 18' 1414.1 (1529.7)</td>
<td>1413.4 (1499.7)</td>
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<td>Cupola, 1930</td>
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<td>Long. 80° 18' 702.0 (972.0)</td>
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<td>Brett, 1935</td>
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<td>189.1 (1621.0)</td>
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<td>First, 1930</td>
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<td></td>
<td>Long. 80° 18' 28.752 (802.5)</td>
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*This station falls outside of the limits of the compilation as shown but it has been used for control.*
I recommend that the following objects which have (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.

<table>
<thead>
<tr>
<th>NAME AND DESCRIPTION</th>
<th>POSITION</th>
<th>METHOD OF LOCATION</th>
<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
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<td><em>Beacon 1 (Light) Chapman Field</em></td>
<td><strong>25 37 654.6 80 16 156.7</strong></td>
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<td><em>Beacon 2, Chapman Field Channel</em></td>
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<td><em>Beacon 3, Chapman Field Channel</em></td>
<td><strong>25 37 585.1 80 17 100.2</strong></td>
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This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." 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.
<table>
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<tr>
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<td>Kendall</td>
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<td>Chapman Field</td>
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<td>Chicken Key</td>
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<td>Biscayne Bay</td>
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<td>F.E.C. Rly</td>
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<tr>
<td>Snapper Creek</td>
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</table>

Names underlined in red approved by [Signature].
Comparison with Previous Topographic Surveys.

T-336 (1851) 1:20,000
T-744 (1859) 1:20,000

The above surveys T-336 and T-744 cover the shoreline of Biscayne Bay in the area south of the City of Miami. There have been large changes since the time of T-336 and T-744. Comparisons show that the compilation is complete and adequate in order to supersede those portions of T-336 and T-744 which it covers.

T-3758 (1919) 1:20,000
T-3760 (1919) 1:20,000

The above surveys adjoin at latitude 25°42.5', Only a very small portion of T-3758 is covered by this compilation. T-3760 covers the shore of Biscayne Bay between 25°35' and 25°42.5'. The tank shown on T-3760 at latitude 25°38.5', longitude 80°17.6' is gone. In this vicinity extensive changes have been made and the former gunnery school is now occupied by a U. S. Department of Agriculture field station. The short section of railroad shown on T-3760 at Latitude 25°38.7', longitude 80°17.4', has not been shown on this compilation. It is believed to have been abandoned but from an inspection of the photos its existence can not be disproved.

There have also been extensive changes of shoreline here since the time of surveys T-3758 and T-3760. The compilation is complete and adequate to supersede T-3758 and T-3760 over the respective common areas except for the railroad shown on T-3760.

T-4540 (1927) 1:20,000 Air Photo Compilation.
T-4576 (1927) 1:20,000 Air Photo Compilation

The whole area of this compilation is covered by T-4540. Refer to page 4 of the preceding descriptive report for a supplementary comparison with T-4540.

Comparison with T-4540 shows that the high water line on T-4540 is from 10 to 30 meters outside the position of the H. W. line shown on this compilation. The larger differences are due to errors of position on account of lack of control on T-4540.

There is also a difference of about 20 meters in a North South direction in the roads and other detail at Cutter. This is apparently due to error in the traverse used to control this section of T-4540. The ends of this traverse were poorly controlled. See page 2, Report T-4540.
Comparison with the Charts.

Charts 583, 1248, 3260, Chart letter 818 (1935) covers the list of landmarks for this area. The list of non-floating aids to navigation for this area is attached to this report.

There are no graphic control, no new hydrographic surveys in this area.

L.A. McGann

V.B.G. Jones
REVIEW OF AIR PHOTO COMPILATION NO. T-5626

Chief of Party: E. R. McCarthy

Compiled by: See data sheet.

Project: Fort Lauderdale to Cutler, Fla. Instructions dated: Nov., 17, 1933.

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b, c, d, e, g and i; 26; and 64)

2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, n)

3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d, e)

4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)

5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.

6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c, h, i)

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."
8. The representation of low water lines, reefs, coral reefs and 
rocks, and legends pertaining to them is satisfactory. (Par. 
36, 37, 38, 39, 40, 41)

9. Recoverable objects have been located and described on Form 524 
in accordance with circular 30, 1933, circular letter of March 3, 
1933, and circular 31, 1934. (Par. 29, 30, and 57)

10. A list of landmarks was furnished on Form 567 and instructions 
in the Director's letter of July 16, 1934, Landmarks for Charts, 
complied with. (Par. 15d, e; and 80)

11. All bridges shown on the compilation are accompanied by a note 
listing whether fixed or draw, clearance, and width of draw if 
a draw bridge. Additional information of importance to naviga-
tion is given in the descriptive report. (Par. 15c)

12. Geographic names are shown on the overlay tracing. The accepted 
local usage of new names has been determined and they are listed 
in the report, together with a general statement as to source of 
information and a specific statement when advisable. Complete 
discussion of place names differing from the charts and from the 
U. S. G. S. Quadrangles is given in the descriptive report, 
together with reasons for recommendations made. (Par. 64, and 66k)

13. The geographic datum of the compilation is North American and the 
reference station is correctly noted.

14. Junctions with adjoining compilations have been examined and are 
in agreement. (Par. 66j)

15. The drafting is satisfactory and particular attention has been 
given the following:

1. Standard symbols authorized by the Board of 
   Surveys and Maps have been used throughout 
   except as noted in the report.

2. The degrees and minutes of Latitude and Longi-
tude are correctly marked.
3. All station points are exactly marked by fine black dots.

4. Closely spaced lines are drawn sharp and clear for printing.

5. Topographic symbols for similar features are of uniform weight.

6. All drawing has been retouched where partially rubbed off.

7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examinend and approved;

[Signature]
E. R. McCarthy
Chief of Party

19. Remarks after review in office:

Reviewed in office by:
L.A. McGann

Examined and approved:

[Signature]
C. K. Green
Chief, Section of Field Records

[Signature]
L. O. Holm
Chief, Division of Charts

[Signature]
Chief, Section of Field Work

[Signature]
Chief, Division of Hydrography and Topography.