5629

Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

PHOTO-
Topographic } Register
~~Hydrographic~~ } *Sheet No.* T - 5629

State FLORIDA

LOCALITY

MIAMI AND MIAMI BEACH

1935

CHIEF OF PARTY

E. R. McCarthy

U.S. GOVERNMENT PRINTING OFFICE: 1934

5629

Applied to Chart 547 12/10/35 I. M. Z. (from 1st page)

Applied to chart 847 - May 6, 1936 ~~W.P.C.~~

applied to chart 1248 Mar. 17, 1937 g. H. S.

Applied to chart 848 (2nd compilation) Sept 2, 1938. R.L.J.

applied to drawing of Chart 547 (extension of chart to φ 25°-45' on NA 1927 datum) May 4, 1942 H.F.S.

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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 - 5629

State Florida

General locality Biscayne Bay

Locality Miami and Miami Beach.

Scale 1:10,000 Date of photographs survey Jan., 23 & 25, 1935

Vessel Shore party

Chief of party E. R. 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, 1933

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.

Applied to Chart 547 12/10/35

GENERAL

Descriptive Report

for area covered by

PHOTO-TOPOGRAPHIC SHEETS

REGISTER Nos. T - 5626 to T - 5633 inclusive

FORT LAUDERDALE TO CUTLER

FLORIDA

1935

E. R. McCarthy, Chief of Party.

John C. Mathisson, In charge, photo unit.

AUTHORITY:

The photo-topographic survey of the area from Fort Lauderdale to to Cutler was executed under the authority granted in the Director's Instruction, Project HT 158, issued to Lieut. Comdr. H. A. Cotton under date of November 17, 1933.

Written Instructions for the air-photo compilation were not received. Verbal instructions, however, were received by the writer while in Washington during March, 1935.

AREA COVERED BY PROJECT:

This project, compiled at a scale of 1:10,200 for reproduction by the photo-lithographic process at a scale of 1:10,000, comprises the area along the east coast of Florida from Cutler on the south to a point two and one half miles north of New River Inlet at Fort Lauderdale on the north. It is composed of eight photo-topographic sheets, Register Nos. T - 5626 to T - 5633 inclusive.

The limits of the area compiled inshore of the high water line of the ocean and Biscayne Bay averages approximately two and one half miles through the length of the project. It includes the peninsular and the three islands forming the east shore of Biscayne Bay. This average is exceeded at Miami where compilation, through single lense photographs, was carried five miles up the Miami River to the 36th Street Bridge.

The register numbers and titles of the eight sheets in this project are as follows:

Register Number.	Title.
T - 5626	South Miami.
T - 5627	Key Biscayne and Virginia Key.
T - 5628	Coconut Grove.
T - 5629	Miami and Miami Beach.
T - 5630	Little River.
T - 5631	North Miami Beach.
T - 5632	Hollywood.
T - 5633	Port Everglades and Fort Lauderdale.

GENERAL DESCRIPTION OF AREA:

Physiography.

The topography in the area of this project is very low. The average elevation above mean sea level is approximately ten or fifteen feet and the maximum elevation is approximately twenty feet. Due to this condition, the streams and rivers in the area are tidal and sluggish.

The soil of the area is sandy. Generally there is from one to two feet of soil on a strata of coral or ojus rock. In most areas it is necessary to import rich soil from the Everglades, locally known as 'muck' to mix with the sandy top soil before cultivation is possible.

The vegetation consists of fairly sharply defined areas of salt marsh and mangrove along the coast, which gives away inshore to flats of chalky marl or decomposed coral rock. The water table is comparatively high throughout the area, consequently marshy spots are found in the interior.

Inshore from the marsh and coral flats are areas of palmetto dotted with clumps of scrub or second growth pine and a few hardwood trees. Some grass and deciduous brush are also found. In general, the hardwood trees are found in the areas locally known as 'hammocks'. Where a hammock occurs it can usually be assumed that the elevation of the terrain at that point is sufficiently high to keep it above the water table during all seasons.

Several species of trees, foreign to the area, have been imported because of their adaptability to the climate. Among these are the australian pine, cocoanut palm and royal palm. Australian pines are extensively used as wind breaks. The cabbage palm is native of the area.

The meteorological averages of the locality reveal a rather high annual rainfall, temperature and relative humidity. The average annual precipitation, taken from 41 years of records obtained between 1855 and 1929, is 60.4 inches. The minimum is during January and February and the maximum during October. The months between May and October are known as the 'rainy season'. The average relative humidity is approximately 76%.

Culture.

The principal cities and towns of the area embraced by the project, listed according to size and importance are; Miami, Miami Beach, Coral

Gables, Fort Lauderdale, Hollywood, Miami Shores, South Miami, North Miami Beach, Ojus, Hallandale, Dania and Cutler. Coconut Grove, Buena Vista, Little River and Allapattah are within the corporate limits of the City of Miami. In addition, a portion of Hialeah is shown in the vicinity of the Miami River, west of Miami.

Most of these cities and towns are winter resorts and depend almost entirely upon the winter tourists business for subsistence. The most important of these is Miami Beach. The population in these towns is generally sharply divided into two classes, 'natives' and 'tourists' and as a result of this condition, the population fluctuates considerably from season to season.

There are very few industries in the area of this project outside the city of Miami. There are numerous small ship yards along the banks of the Miami River. Miami is an important aviation center being the terminus of the Pan American and Eastern Air Lines. Maritime shipping contributes somewhat to industry as do the two railroads that enter the city. In addition there are numerous small industries.

There is very little cultivation within the area of this project. Some small truck farms are located in the vicinity of Hallandale and Dania. The only area that is cultivated on a commercial scale is south of Miami. Here are located groves of mangoes, avocadoes and citrus fruit. Cultivation is limited to those areas where the elevation is such that the terrain can be kept dry and to those areas where sufficient depth of soil is found.

Due to the predominance of salt marsh and mangrove swamp along the coastal region, it has been necessary to ditch a considerable area for mosquito control. This rather extensive system of ditches has been shown on the sheets of the area.

The Intracoastal Waterway extends the full length of the project from Biscayne Bay on the south to the northern limit of the project. The dredged channel of the waterway as well as other channels in the area have been shown where clear enough on the photographs to delineate.

The lines of the Florida East Coast Railroad and U. S. Highway No. 1 extend almost the entire length of the project. The line of the Seaboard Airline Railway enters the project along the Miami River from the west.

PROJECT INFORMATION:

The photographs used in the compilation of this project were secured on January 23 and 25, 1935 by the Fourth Air Photo Section, U. S. Army, Maxwell Field, Alabama. The pilot was Capt. James G. Pratt and the camera-man was Tech. Sgt. George H. Fisher. The plane used in the photographic mission was a Fairchild Photographic Ship, serial no. 31-464. Camera no. T 3A - 32-2 was used to secure the five-lense photographs.

The area is covered by 198 five-lense photographs and 175 single-

lense photographs. The former were secured on January 25. The latter, in the vicinity of Miami were secured on January 23, while those in the vicinity of Fort Lauderdale were secured on January 25. An index of photographs on chart sections is appended to this report.

The scale of the five-lense photographs was found to be 1:10,200 and the scale of the single-lense, 1:10,000. Because of the greater area covered by the five-lense photographs, all sheets in this project were compiled at their scale.

GENERAL DESCRIPTION OF COMPILATION METHODS:

Sheets Register Nos. T - 5629 to T -5631 inclusive were laid out with the long axis of the sheet lying in an east-west direction. This was done in order to avoid sheets covering small areas. North of Sheet Register No. T - 5631 the sheets - Nos. T - 5632 and T 5633 - were laid out with the long axis of the sheet lying in a north-south direction. In both cases the projections were nearly parallel to the edge of the sheet. Sheets Register Nos. T - 5626 and T - 5628 were laid out with the projections at an angle to the long axis of the sheets. These 'skew' projections were considered necessary in order to obtain a junction of maximum strength since the high water line and flight follows, roughly, this skew direction. Sheet Register No. T - 5627 was laid out in a manner similar to that used for Nos. T - 5632 and T - 5633.

The Director's letter of June 5, 1935 in regard to layout of projections was received too late to be used on this project. Paragraph 5 of the above letter was complied with, where possible, to do so.

Considerable difficulty was experienced in obtaining the trimming distances for the wing prints because of poor transformation. The black notch, in most cases, did not coincide with the white transforming line, on the edges of the wing prints. This difference amounted to as much as 0.6 mm. on some prints. Very poor matching of detail was also noted between the center and wing prints. After two tests of ten photographs each the following trimming distances were obtained:

"A"	wing prints	70.0 mm.
"C"	" "	70.1 mm.
"D"	" "	70.1 mm.
"E"	" "	70.1 mm.

It was found that the operation of the trimming board required great care in order to trim the photographs accurately and uniformly. It was necessary to weight the photograph between the two guides and the trimming edge in order to hold the photograph flat. For this purpose, a one quarter meter bar was used. A slight error was noted in the graduations in the centimeter scale on the board. This error was compensated before the photographs were trimmed.

Before the photographs were mounted, the mounting diagram was checked by testing temporarily mounted photographs in an area of good control. The wing prints were shifted until all control came on. This test revealed the fact that no offset on the perpendicular axis was necessary on the mounting cards and the following distances of the collimating lines from the "B" prints were obtained:

"A" Wing	70.8 mm.
"C" "	71.1 mm.
"D" "	71.0 mm.
"E" "	71.1 mm.

Because of the results obtained from this test it was necessary to correct all mounting cards before use. A celluloid template was made for this purpose. The use of this template in correcting the mounting cards disclosed the fact that the D - E axis of the cards varied from the perpendicular. It is believed that this variation was caused by the method in which the cards were fed through the press.

Considerable difficulty was experienced with the mounting of the photographs due to the extremely high humidity in Miami. The tape used to hold the edges and the ends of the wing prints did not seem to adhere in all cases with the same strength. Shifting prints were the result and the condition of the mounting had to be watched carefully at every stage of the work.

The large areas covered by heavy mangrove growth presented a difficulty when the high water line was sought. These areas, where the mangrove is alive and growing, are consequently under water at most stages of the tide. The high water is therefore, and paradoxically, inshore from the edge of the mangrove as shown on the sheets of this project. It has been observed that mangrove will thrive only where the roots are submerged in several inches of water, salt or fresh, and that it will grow in water as deep as three feet or more.

CONTEMPORARY SURVEYS:

The northern part of Biscayne Bay is covered by topographic surveys made during 1934 by the party of H. A. Cotton and E. R. McCarthy. These sheets are on a scale of 1:10,000.

The topography in the vicinity of Miami and Miami Beach is shown on Sheet Register No. 6275. This survey delineates the high water line in the area. The area in the northern part of Biscayne Bay to a junction with Register No. 6275 is covered by Sheets Register Nos. 6297a and 6297b. These sheets show only the signals used for hydrography ~~and topography of a questionable nature.~~ 6297a and 6297b shoreline and a small amount of shoreline. 17

The area in the vicinity of Fort Lauderdale and Port Everglades is covered by contemporary surveys made by the party of W. H. Bainbridge during 1934. This area is shown on Sheets Register Nos. 6181 and 6182 and are on a scale of 1:5,000. The delineation of the high water line is complete on these sheets.

The topographic detail shown on the above sheets was used to check the delineation from air photographs. Discrepancies are noted in the reports for the individual sheets.

In this connection, the contemporary hydrographic sheets were used to check the location of the channels and shoal areas as shown on the Compilations. For this purpose, a photostat copy of the boat sheets was furnished by the Washington Office.

CONTROL

PREVIOUS AIR-PHOTO COMPILATIONS:

The area of this project was covered by air-photo sheets compiled during 1928. These sheets are on a scale of 1:20,000. The following table shows the sheets of the two project covering common areas:

1935 Surveys	1928 Surveys.
Register No. 5626	Register No. 4540 and 4578.
" " 5627	" " 4529
" " 5628	" " 4528 and 4540
" " 5629	" " 4528 and 4529
" " 5630	" " 4528 and 4529
" " 5631	" " 4527 and 4528
" " 5632	" " 4527
" " 5633	" " 4526 and 4527

These sheets were compared with the present compilations and the major differences were noted in the descriptive reports of the various sheets.

INFORMATION FROM OTHER SOURCES:

A few topographic features along the waterfront were indistinct in the photographs. These features were checked by the contemporary surveys of the area shown on Sheets Registry Nos. 6181, 6182, 6275, 6297a and 6297b. Where it was necessary to take detail from these sheets an appropriate note was made in the report of the sheet affected.

The city maps of the various settlements in the area were used from which to check the names of streets and avenues and their general position. Street names are covered fully on the name sheet as these various city street maps were not transmitted because, in most cases, they were incomplete.

Maps furnished by the Public Works Department of the City of Miami were used from which to check the trackage, spurs and siding of the two railroads that enter the project.

The sheets of the U. S. Engineers in the vicinity of the Miami River were used with which to check the area affected. The latest information in regards to the various spoil areas in the area was also obtained from this Bureau.

Information was obtained from the various City Engineers in the area from which to delineate the city limits of the various municipalities. These limits are shown only where the location is definite.

CONTROL:

The triangulation used for the control of these sheets was obtained from the following sources; Appendix 6, Report of 1911, Triangulation in Florida,- H. Leypoldt, 1918 - G. C. Mattison, 1928 - R. L. Schoppe, 1929 - Chas. Shaw, 1930 - H. A. Cotton, 1934 - W. H. Bainbridge, 1934 - J. Bowie, 1934 - E. R. McCarthy, 1935.

All of the above triangulation is on the North American Datum except that work by J. Bowie, 1934. (St. Augustine to Miami, Fla, G.1682) which is on the N.A. 1927 datum.

A majority of the positions were obtained from unadjusted field computations. It was necessary to make an approximate field adjustment of the field computations of Bowie's 1934 first order scheme and the beach traverse executed by the party under the direction of G. C. Mattison during 1928.

The adjustments for the first order scheme were obtained by comaring stations in various localities that were commonmtonthisband other schemes in the locality. The resulting adjustments as applied to the scheme were as follows:

N.A.

Area from North to South.	Corr. Lat.	Corr. Long.
Vicinity of Ft. Lauderdale to Station Jill. 1934	+ 12.2 meters	- 6.0 meters
To Station Wood (Hotel) 1928	+ 12.0 "	- 5.7 "
To line Red Top - Morris, 1934	+ 11.7 "	- 5.3 "
Remaining Stations	+ 11.5 "	- 5.0 "

A uniform adjustment of - 8.7 meters to the Latitude and + 1.1 meters to the Longitude was used to adjust the field computations of the beach traverse executed by the party under G. C. Mattison.

Because of the adjustments necessary in the area and in order to record the plotting distances of the scale of the compilations, a list of control used in the compilation of each sheet is appended to each report.

*

U. S. ENGINEERS RECTANGULAR CO-ORDINATE SYSTEM:

The U. S. Engineers make use of rectangular co-ordinates in the surveys of the various harbor areas in the area of the project. Wherever possible to do so this grid has been shown on the sheets.

A list of the co-ordinates of triangulation stations, furnished by the U. S. Engineers and computed by the party, used in the construction of the grid, is appended to the various reports. Where it was necessary to determine the geographic position of the origin, the necessary computations are also appended.

BENCHMARKS:

All first order and tidal benchmarks throughout the area of this project were located by radial intersections and shown on the various sheets.

* Corrections to be applied to change from N A Datum to N A 1927 Datum are shown in red in the list of positions in each descriptive report on this project

6/11/36
#398

LANDMARKS:

A duplicate copy of Form No. 567, "Landmarks for Charts" is submitted with the report. This list includes the area between that area covered by the list submitted by Lieut. W. H. Bainbridge on August 10, 1934 and the area covered by the list submitted by Lieut. (j.g.) E. R. McCarthy during March, 1935. It also includes the area south of the list submitted by Lieut. (j.g.) E. R. McCarthy on May 5. 1935 to the southern limit of the project.

John C. Mathisson.

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

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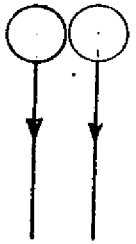
ST COAST

FOWEY ROCKS

ET
R

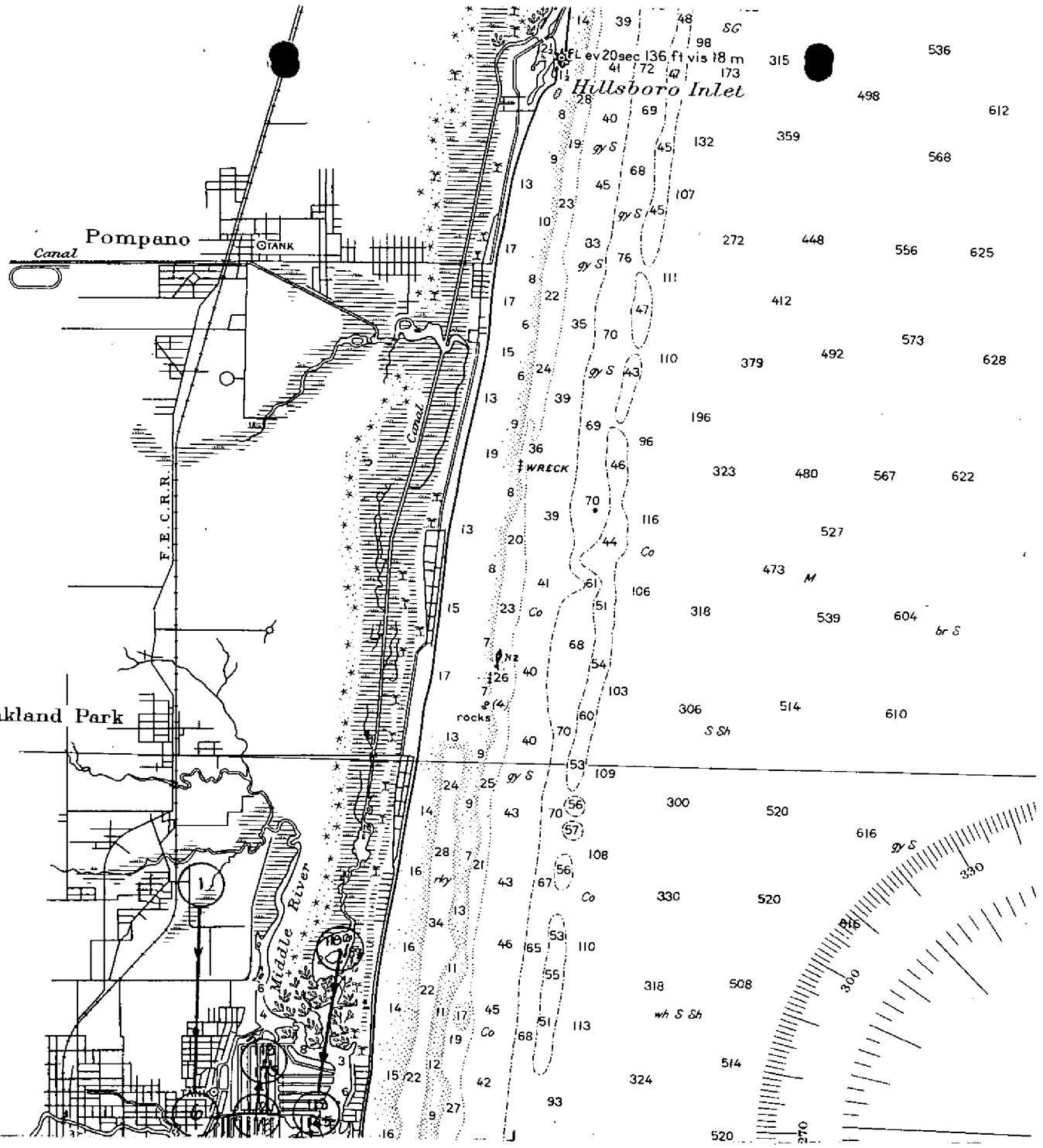


FIVE LENSE PHOTOGRAPHS.

SINGLE LENSE PHOTOGRAPHS.

LEGEND.

INDEX OF PHOTOGRAPHS.



CAUTION

proved Channels

improvement are shown by broken lines. rolling depth through the channel ascer- Because of possible shoaling, particularly be inferred that the depth stated existed h of the improvement on the date of the ed, or that it has not since decreased in dth.

Port Everglades

The controlling depths at mean low water were 34 feet in the entrance channel for a width of 150 feet to the Turning Basin; 30 feet north of the range line and 26½ feet for a width of 250 feet south of the range line in the Turning Basin. *Aug. 1934*

AERO
FL R ev 30 sec

iles

4 5 6 7

000 10000

es	Miami Beach	Fowey Rocks Light
	7h 36m	7h 50m
	2.5 ft.	2.0 ft.
	−2.0 ft.	−2.0 ft.

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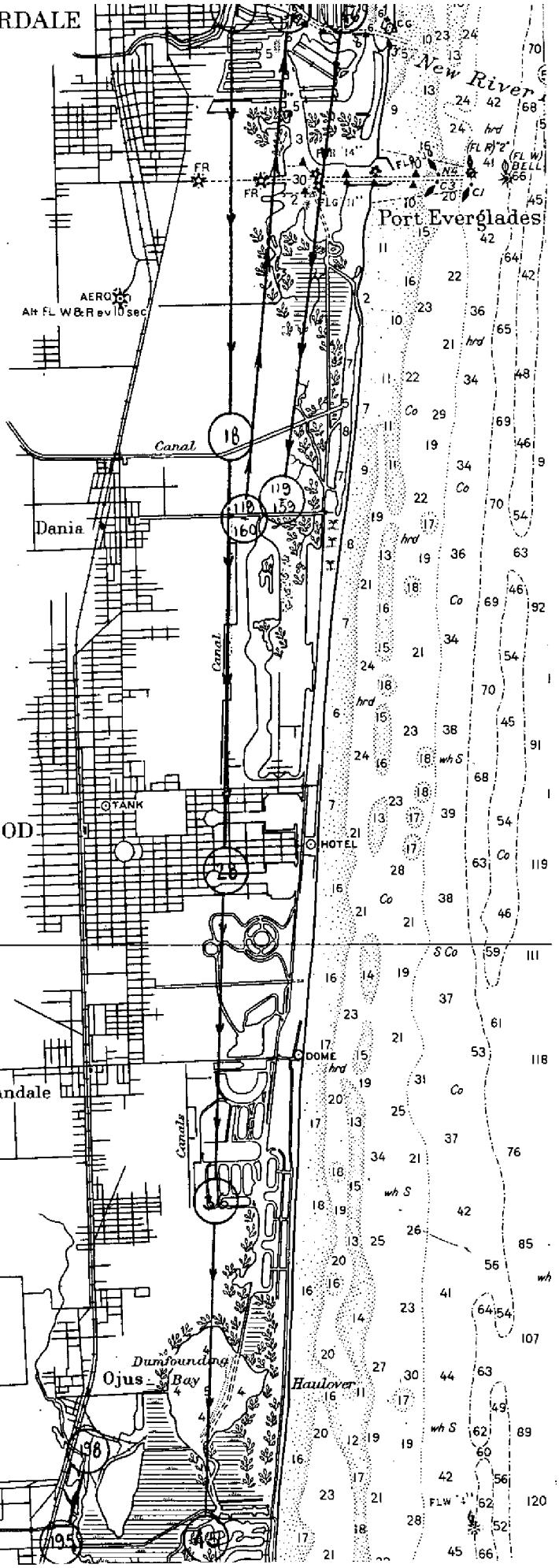
ls, ev. every, vis. visible
autical light

vise indicated

st Guard Station
o tower or mast



. rocky, stk. sticky,

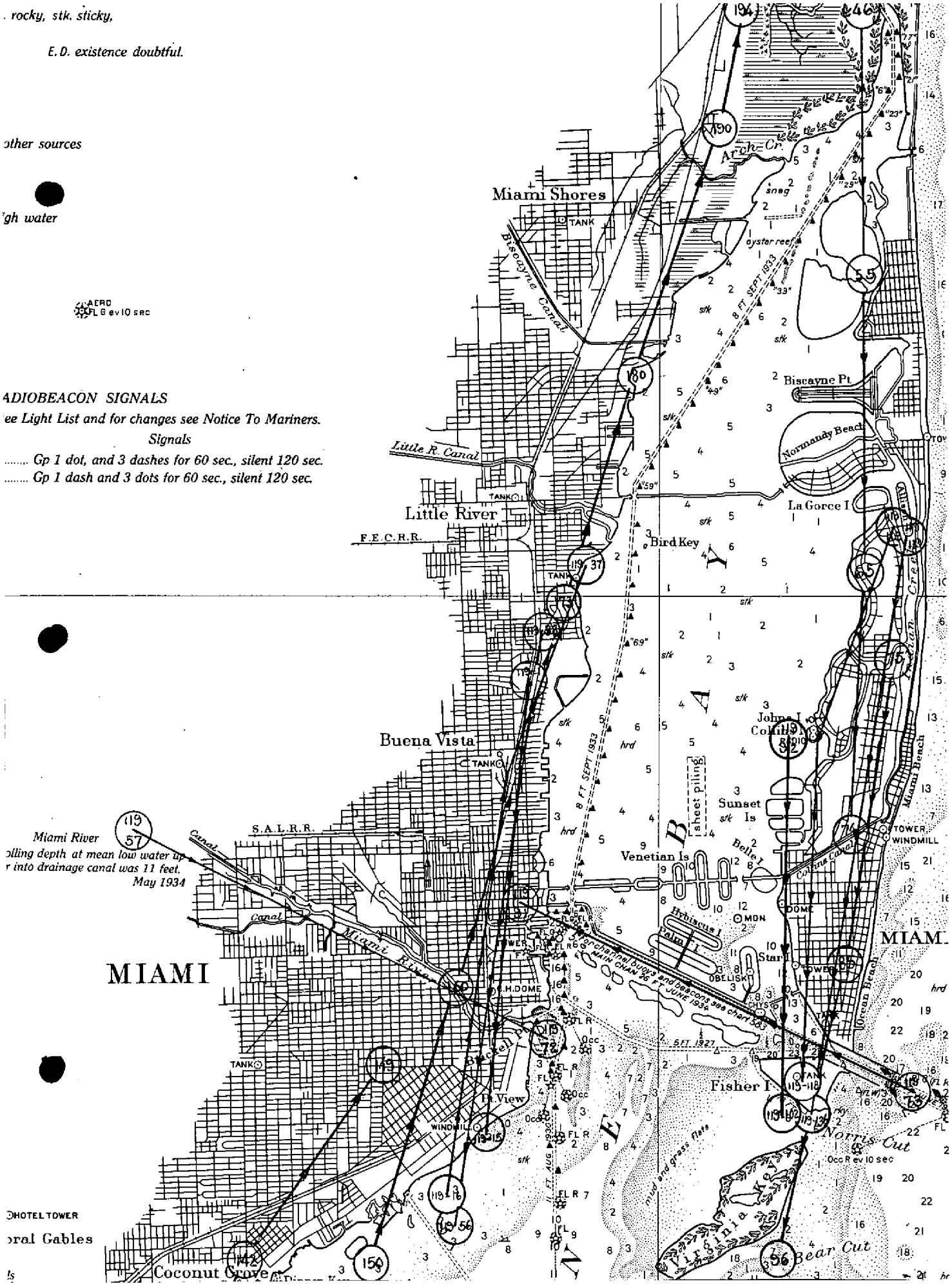
E.D. existence doubtful.

other sources

gh water

AERO
FL G ev 10 sec

ADIOBEACON SIGNALS
ee Light List and for changes see Notice To Mariners.
Signals
..... Gp 1 dot, and 3 dashes for 60 sec., silent 120 sec.
..... Gp 1 dash and 3 dots for 60 sec., silent 120 sec.

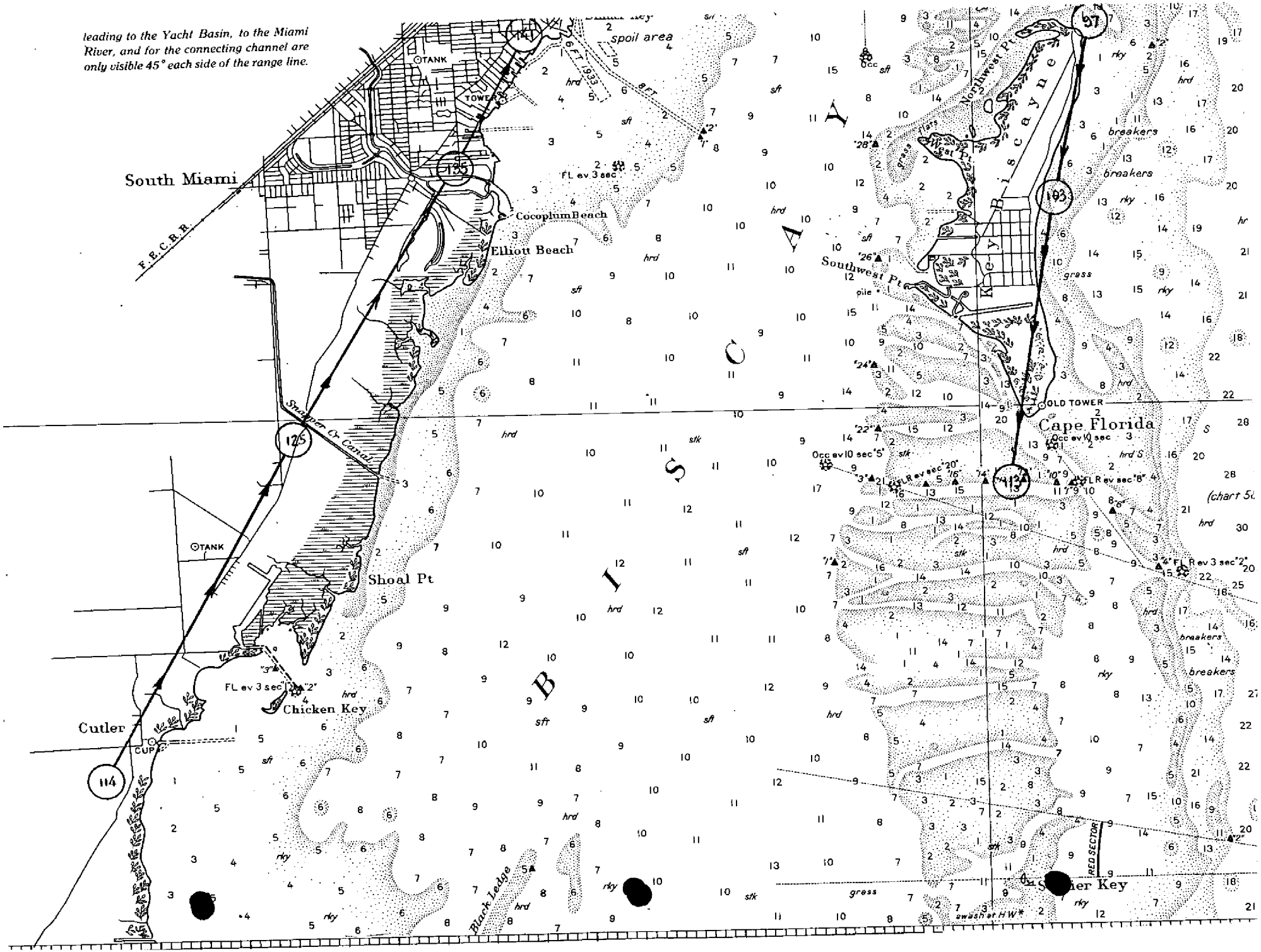


Miami River
olling depth at mean low water up
r into drainage canal was 11 feet.
May 1934

HOTEL TOWER

oral Gables

ls


leading to the Yacht Basin, to the Miami River, and for the connecting channel are only visible 45° each side of the range line.
South Miami
F.E.C.R.R.
TANK
TOWER
spoil area
9 FT 1933
8 FT
FL ev 3 sec
CocoplumBeach
Elliott Beach
Snapper Cr Canal
Shoal Pt
Chicken Key
Cutler
CUP
Black Ledge
Northwest Pt
Key Biscayne
Southwest Pt
pile
OLD TOWER
Cape Florida
Occ ev 10 sec
FLR ev sec "20"
FLR ev sec "8"
FLR ev 3 sec "2"
RED SECTOR
breakers
grass
rky
hrd
sft
stk
awash at HW
(chart 5
BISCAYNE BAY
114
125
135
141
103
57

Form 567
March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

~~TO BE CHARTED~~ } STRIKE OUT ONE
TO BE DELETED }

Miami, Florida. Sept. 17, 1935

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

The positions given have been checked after listing.

E. R. McCarthy,
Chief of Party.

GENERAL LOCALITY Florida, Biscayne Bay to Ft. Lauderdale

NAME AND DESCRIPTION	POSITION LATITUDE ° ′	LATITUDE D. M. METERS	LONGITUDE ° ′	LONGITUDE D. P. METERS	DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
TOWER	25 43.1		80 14.7								583 1248
WINDMILL	25 45.3		80 11.9								583 1248
TANK	25 50.2		80 10.9								583 1248
TOWER	25 51.5		80 07.3								583 1248
DOME	25 59.2		80 07.2								1248
FLAG STAFF	25 47.5		80 08.7								583
STANDPIPE	25 46.3		80 11.8								583
STACK	25 46.3		80 11.8								583
WINDMILL	25 47.8		80 07.6								1248 583

NOTE: All of the landmarks appear on the present editions of the published charts. Most of them have been moved and a few have been obscured by trees or buildings so that they are no longer useful as landmarks.

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.

U. S. GOVERNMENT PRINTING OFFICE

Form 567 87 8-25

Form 567
Revised March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED / ~~TO BE DELETED~~ } STRIKE OUT ONE

Miami, Florida. Sept., 17, 1935 193

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

The positions given have been checked after listing.

E. R. McCarthy.
Chief of Party.

GENERAL LOCALITY Florida. Biscayne Bay - Ft. Lauderdale.

NAME AND DESCRIPTION	POSITION LATITUDE ° '	LATITUDE D. M. METERS	LONGITUDE ° '	LONGITUDE D. P. METERS	DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CUPOLA (Cupola 1930)	25 36	1711.5	80 18	1702.0	N.A.	Tri.	1930	x			583 1248
*TANK (Water tank, Warwick Farms 1934)	25 38	1188.0	80 17	1550.2	N.A.	"	1934	x	x	x	583 1248
WATER TOWER (Brett 1935)	25 41	192.9	80 16	1188.5	"	"	1935	x	x		583 1248
TANK (Tank, Coconut Grove. 1934)	25 43	1115.4	80 15	706.0	"	"	1934	x	x		583 1248
*TOWER (Miami Biltmore Hotel 1928)	25 44	802.7	80 16	1220.7	"	"	1934	x	x	x	583 1248
CUPOLA (chart outline of bldg) (Pan American 1935)	25 43	1201.6	80 14	74.7	"	"	1935	x	x		583 1248
TANK (Power 1935)	25 45	1432.0	80 14	284.1	"	"	1935	x	x		583 1248
HOUSE, chimney. (chart outline) (Hurricane 1935)	25 41	297.4	80 10	1126.2	"	"	1935	x			583
*TOWER (Cape Florida Lighthouse, old tower)	25 39	1812.6	80 09	625.0	"	"	1850	x	x	x	583 1248
TANK (Water Tank, Buena Vista 1934)	25 48	916.5	80 11	1076.6	"	"	1934	x	x		583 1248
TANK (Water Tank, Little River 1934)	25 50	1627.7	80 11	837.4	"	"	1934	x	x		583 1248
TANK (Tank, Aluminum Color, N. Miami)	25 53	704.8	80 11	24.4	"	"	1934	x	x		583 1248
TANK (Tank, N. Miami Beach)	25 55	1751.9	80 09	1304.5	"	"	1934	x	x		583 1248

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.

U. S. GOVERNMENT PRINTING OFFICE

Same as Letter 918 - 1935

Form [illegible]
Rev. Ma[illegible]1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED / ~~NOT TO BE CHARTED~~ } STRIKE OUT ONE

Miami, Fla. Sept., 17, 1935. 193

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

The positions given have been checked after listing.

E. R. McCarthy.
Chief of Party.

GENERAL LOCALITY Florida, Biscayne Bay to Ft. Lauderdale.

NAME AND DESCRIPTION	POSITION LATITUDE ° ′	LATITUDE D. M. METERS	LONGITUDE ° ′	LONGITUDE D. P. METERS	DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CHIMNEY (Chimney, tall 1934)	25 55	523.6	80 09	660.0	N.A.	Tri.	1934	x	x		583 1248
CUPOLA, hotel (chart outline) (Wood, hotel 1928)	26 00	1348.6	80 07	3.4	"	"	1934	x	x	x	1248
TANK (Silver Tank, Hollywood, 1934)	26 01	159.9	80 08	1271.6	"	"	1934	x	x		1248
AERO, beacon. (Airway Beacon, Ft., Lauderdale)	26 04	1297.4	80 08	1046.2	"	"	1934	x	x	x	1248
TANK (Davie, Florida)	26 03	1141.9	80 08	1103.9	"	Air Photo		x	x		1248
AERO, beacon. (Aero Beacon, Ingraham Bldg)	25 46	759.1	80 11	699.8	"	Tri.	1935	x	x	x	583 1248
RADIO MAST. (Radio Mast, WQAM)	25 47	593.7	80 11	277.6	"	"	"	x	x	x	583 1248

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.

U. S. GOVERNMENT PRINTING OFFICE

Same as letter 818-35

DATA SHEET.

Register No. T - 5629.

Portion of Work	Done by	Date completed
Projection By:	W. J. Mignola	May 2, 1935
Projection checked:	D. L. Ackland	May 2, 1935
Control plotted by:	John C. Mathisson	May 11, 1935
Control checked by:	W. J. Mignola	May 11, 1935
Radial plot by:	W. J. Mignola	May 27, 1935
Plot checked by:	John C. Mathisson	
Compiled in pencil by:	W. J. Mignola	August 8, 1935
Inked by:	H. O. Niemela and W. J. Mignola.	August 1, 1935
Contemporary Topo. Sheets checked by:	M. B. Gill, Jr.	September 14, 1935

Area of sheet: 21 square statute miles.

Length of shoreline: 42.5 statute miles.

Length of rivers and canals: 6.7 statute miles.

DESCRIPTIVE REPORT

to accompany

PHOTO TOPOGRAPHIC SHEET

REGISTER NO. T - 5629

MIAMI and MIAMI BEACH

FLORIDA

1935

Scale of Compilation 1:10,200

PROJECT INFORMATION:

For information which applies to the entire project, see the General Descriptive Report which is made a part of this report.

DESCRIPTION OF AREA:

This sheet covers the harbor area of Miami and Miami Beach and the main business districts of both cities. The entire area lies within the city limits of these two cities.

The topography in the locality is very low, averaging not more than ten feet above mean sea level. The entire area is given over to street systems on which are located many homes and business houses. There are many palms and australian pines in the area.

A uniform street system does not exsist in the area. The street system was, presumably, built up by the addition of one sub-division after another. The avenues lies in an approximate north and south direction, while the streets lie in an east and west direction. The area of Miami is divided into four sections; N.E., N.W., S.E. and S.W. The division line for the avenues is Miami Avenue, and Flagler Street is the division line for the streets. The streets and avenues take the prefix of the section in which they lie and are numbered away from the division lines. Streets, terraces and lanes, in the order named, parallel Flagler Street while Avenues, courts and places, in the order named, parellel Miami Avenue. Roads have no definite direction.

This sheet covers a portion of the Miami River, from the mouth to to the 17th. Avenue bridge. There are many small ship yards and marine ways located on the river. The river affords protection for commercial and pleasure craft during the hurricane season.

GENERAL INFORMATION: See also page of the preceding ~~report~~ General Report and Report T 6275 for a description of Miami Harbor

The area of this sheet is covered by two flights of five-lense photo-

Note The statement "the usual radial line plot was not necessary" apparantly means that due to density of control most of the photographs were fixed by triangulation and the usual picture traverse between control was not necessary.

B.G.U.

graphs. Nos. 71 to 91 inclusive, secured at 1:00 P.M. on January 25, 1935, covers the area of Miami Beach while Nos. 156 to 170 inclusive, secured at 12:15 P.M. on the same date, covers the Miami area.

There are also eight strips of single-lense photographs in the area; one centering over the Miami River, one centering over the County Causeway, three along the Miami waterfront and three in the vicinity of Miami Beach. These photographs are Nos. 119-1 to 119-56 inclusive, secured from 10:45 to 11:00 A.M. on January 23, 1935 and Nos. 119-64 to 119-136 inclusive, secured from 11:15 A.M. to 12:45 P.M. on the same date

An index of photographs is appended to the General Descriptive Report.

CONTROL:

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

There is appended hereto a list of the triangulation stations appearing on the sheet. 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 abundance of control, the usual radial plot was not necessary.~~ There is sufficient control for a good radial plot. see ~~off~~ opposite page P.A.M.

INTERPRETATION OF PHOTOGRAPHS:

Generally, the photographs were very clear for charting purposes. Enlargements of the single-lense photographs, intended for large scale compilation but abandoned because of differential shrinkage, were used ~~use~~ for the interpretation of questionable detail. These enlargements covered most of the area of this sheet.

The photographs did not cover all of the islands along the Venetian Causeway satisfactorily. It was necessary to delineate Di Lido, San Marino and San Marco as they appeared more than two-thirds the way out on the wing prints. This was difficult due to the many trees throwing over and obscuring the high water line.

The shoal areas and some of the dredged channels show very well on the photographs. A major portion of the main ship channel into Miami was obscured by sediment in the water due to dredging operation at the time that the photographs were made. The channels as shown on this sheet represents the top of the cut and not the bottom or deepest portion of the channel.

INFORMATION FROM OTHER SOURCES:

All topographic detail appearing on this sheet was obtained from the photographs. The contemporary surveys of the area were use with which to check the delineation of doubtful detail.

The street names as they appear on the name sheet were obtained largly from city maps of Miami and Miami Beach. Additional field inspection was required in many cases.

The spoil areas, south of the main ship channel, were obtained from the photographs. Dumping of spoil on these areas was concluded on Feb., 4, 1935, ten days after the photographs were secured. It is believed that the delineation is correct as shown on the sheet.

The high water line along the ocean beach was obtained by taping off-set distances from street center lines or identified objects on the photographs. This delineation was checked against the contemporary topographic sheet covering part of the area.

An addition is being built on Pier 3, Miami at the present time. Plans call for extending the pier 60 feet to the south and 900 feet inshore of the pier head line. This change has been shown on the compilation.

COMPARISON WITH CONTEMPORARY SURVEYS:

The comparison between this compilation and the contemporary topographic surveys shown on Sheets Register Nos. T - 6275 and T - 6297a is very good. Minor differences in the delineation of the high water line and a few changes due to improvements made since the date of the contemporary surveys, are noted.

The ~~topographic~~ planetable sheet shows a bulge in the shore line on the south side of Johns Island that ~~was not charted~~ is not shown on the compilation. The south side of this small island is straight and runs almost due east and west. It is shown correctly on the compilation.

About 400 meters north of the Venetian Causeway at the Miami Beach end there is a series of slips for small boats shown on the ~~topographic~~ planetable sheet. These slips are covered by a roof and have been so shown on the compilation. In this same locality, ~~about~~ immediately north of the causeway, ten small piers are shown on the ~~topographic~~ planetable sheet. The two north piers have been removed since the date of the contemporary survey.

The bridge across Indian Creek at E. 41st. Street, Miami Beach is noted on the ~~topographic~~ planetable sheet as a fixed bridge. This bridge has a removable center span. In this connection, all bascule bridges in the area have been noted on the planetable sheet as being lift bridges. Where noted as lift bridges they are, without exception, double bascule bridges. These are noted as Bascule Bridges on this compilation.

The high water line on the northwest side of the small spoil area 300 meters north of Fishers Island is out of agreement by about 15 meters

with the compilation. This was checked in the field and it is believed that it is correct as shown on the compilation. ~~The wreckage and wrecked barges, located just south of this spoil area on the topographic sheet, has not been shown on the compilation.~~ Detail transferred 1/19/36. Lam.

The contemporary ~~topographic~~ planetable sheet shows an off-set in the dilapidated wooden bulkhead on the north side of Fishers Island, about 400 meters west of the ferry slip. This was inspected in the field and was found to be a wooden pier in rather poor condition.

The beacons along the main ship channel were located by triangulation after the contemporary surveys were completed. It is noted that Beacons 7, 9, 11 and 13 are out of position on the ~~topographic~~ planetable sheet. It is believed that these beacons were moved after the topographic survey was made.

Referred to Cartographic section before registering this compilation 8.8.

Beacons 5, 18, 26 and 27 were checked by radial intersections from the photographs but they were not shown on the compilation. The front range beacon on the entrance channel was also located by radial intersections and shown on the sheet. A triangulation position of this beacon was not available. A description of this beacon was submitted on Form 524. (Description either lost or never received) Lam.

Small differences were noted in the delineation of the high water line around the following islands: Star Island, Hibiscus Island, Di Lido Island, Rivo Alto Island and Belle Isle. All of the differences were noted in the curved ends of the islands. The maximum difference exsists on Star Island where the high water line on the southeast end is approximately 10 meters offshore from where it is shown on the photo-compilation. It is believed that these differences are due to faulty locations on the field sheets as the compilation was checked where the variation occured.

Except for two small errors, the topography in the Miami River shows excellent agreement. The contemporary survey shows a small v-shaped off-set in the high water line on the north side of the river about 100 meters northwest of the [redacted] 2nd Avenue bridge. This does not exist. There is a wrecked boat at this location which was ~~not shown on~~ transferred to the photo-compilation. A small slip just north of and adjoining a larger slip, 300 meters south of Flagler Street, was not charted on the field planetable sheet.

The spoil areas south of the main ship channel and the filled area adjacent to the County Causeway shows some slight differences in the delineation of the high water line between the two sheets. It is believed that dradging operations in this area was not completed until after the contemporary planetable surveys were made. These features are believed to be correct on the photo-compilation.

A small error was found on T-6275 in the location of Benchmark 3 (City of Miami). One of the city survey marks, located near the center lines of streets, was probably mistaken for the benchmark. The location of this, as well as other benchmarks shown on the ~~sheet~~ compilation, is from radial intersections.

COMPARISON WITH PREVIOUS SURVEYS:

Sheets Register Nos. T - 4528 and 4529 of the 1928 compilations cover the area of this sheet. Considering the control in the area at the time the original compilations were made, the sheets show excellent agreement. Minor differences are noted in the street systems and the representation of topographic detail, due to faulty interpretation. Differences are also noted in the location of the high water line which was due, apparently, to insufficient control.

A comparison of the high water line around Fishers Island reveals considerable differences in location as does the location of ~~Government Cut~~ the adjacent channel. The jetties have been extended since the date of the previous survey. The maximum difference in the high water line of Fisher Island is on the east side of the island. This area was probably used as a spoil area between the dates of the two surveys. At the present time, spoil is being deposited here and consequentially, the high water line will be altered from the way it is shown on the present compilation.

The high water line along the ocean beach has built up since the date of the previous survey. This was due to the jetties and the construction of the a series of groins near the northern limit of the sheet.

Errors are noted in the high water line north of the Venetian Causeway on the west side of Biscayne Bay. This was due to the wooden bulkheads falling apart and allowing erosion to take place.

The high water line from the County Causeway south is swung off in azimuth toward the east, reaching a maximum at the Miami River. It is believed that this was due to an error in the radial plot on the original compilation.

Various differences are noted in the spoil areas in the bay due to ~~to~~ the use of these areas for ~~be~~ depositing of spoil from dredging operations. The ~~spoil~~ filled area adjacent to the County Causeway as well as Burlingame Island have been built since the date of the original survey.

A street appears on the original compilation south of W. Flagler Street and between S.E. 8th and 12th Avenues. This is the right of way of the city street railway and not a highway thorough-fare.

LANDMARKS:

"Landmarks For Charts" were transmitted on May 5, 1935. A duplicate copy of the list was appended to the descriptive report for Topographic Sheet Register No. T - 6275. List of landmarks is also included in the preceeding General Report

CONFLICTING NAMES:

There is a question as to the correct name of the new island at the mouth of the Miami River. In addition to being called Burlingame Island, it is also known as Brickell Island. The City of Miami as well as the U. S. Engineers use the name Burlingame Island and for this reason it is recommended.

Note grid as laid down on this compilation checked in office as followers

1. checked computation of origin - Pages 14
2. Computed G.P. of stations 1 and 2 Page 13 from grid values and checked correct G.P. from U.S. and G. Δ to ½ meter
3. checked plotting of grid values on the compilation of stations listed on Page 13.

BGG
1/28/36

Fishers Island is in almost universal use but some sources refer to the island as Terminal Island. It is recommended that the name as it now appears on the published chart be retained.

There is a confliot as to the spelling of Hibiscus Island. It appears on the present editions of the published chart as Hybiscus Island. All city maps of the area and signs in the vicinity carry Hibiscus as the spelling and it is recommended that this spelling be changed on the new editions of charts of the area.

On the present editions of the published charts, the Venetian Causeway is called Collins Bridge. Venetian Causeway is a well established local name and it should be used on future edition of charts.

U. S. ENGINEER RECTANGULAR CO-ORDINATE GRID:

The U. S. Engineers make use of a system of rectangular co-ordinates in their surveys of the harbor area. This system is not used in making surveys of the Miami River. The grid has been shown only in the area where the surveys are based on it.

This system is based upon an origin point which is located on the center line of the main ship channel between the two jetties at the entrance to Miami Harbor. The geographic position of the origin was not available but from triangulation executed by the party of H. A. Cotton during 1934, the position was computed. Triangulation Stations Pier, 1934 and Base, U.S.E.D., 1934 were used for this computation. This determination resulted in the following geographic position of the origin: Lat. 25° 45' 41.490", Long. 80° 07' 43.484". From this position additional rectangular co-ordinates of triangulation stations were computed and were used with which to construct the grid.

The computations necessary to obtain the geographic position of the origin as well as the computed rectangular co-ordinates, together with those obtained from the U. S. Engineers, are appended to this report.

See following page.

RECOMMENDATION FOR FURTHER SURVEYS:

It is believed that this compilation fully and accurately covers the area and that further surveys are not needed in the area. The location of well defined detail of importance for charting is believed to be within 2 meters and the maximum error of other detail, such as city streets, is within 4 meters of a true position. This sheet is well controlled and has been carefully compiled but a better estimate for work on this scale is an accuracy of closation of 0.3 to 0.5 mm on the ~~scale of~~ the compilation for intersected points and 0.3 to 0.8 mm for other detail. BJJ 1/25/36

John C. Mathisson.

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

TABLE OF TRIANGULATION CONTROL

STATION	Corr to N.A. 1927	POSITION (North American Datum)		PLOTTING DISTANCES:	
Nautilus Twin Tower North, 1934	Lat. 25° 48'	1685.1	(161.2)	1652.1	(158.0)
	Long. 80° 08'	581.5	(1089.7)	570.0	(1068.3)
North Radio Tower, 1928.	Lat. 25° 48'	1475.3	(371.0)	1446.4	(363.7)
	Long. 80° 08'	675.2	(996.0)	662.0	(976.5)
Nautilus Twin Tower South, 1934.	Lat. 25° 48'	1657.8	(188.4)	1625.3	(184.7)
	Long. 80° 08'	579.0	(1092.3)	567.6	(1070.9)
South Radio Tower, 1928.	Lat. 25° 48'	1361.0	(485.2)	1334.4	(475.7)
	Long. 80° 08'	666.1	(1005.1)	653.0	(985.4)
C.W.A. Monument, 1934.	Lat. 25° 48'	1169.8	(676.5)	1146.9	(663.2)
	Long. 80° 11'	285.5	(1385.7)	279.9	(1358.5)
Collins, 1934.	-20.4 Lat. 25° 48'	1202.3	(644.0)	1178.7	(631.4)
	-1.1 Long. 80° 07'	650.3	(1021.0)	637.5	(1001.0)
Buena Vista, black Water tank, 1934 Water Tank, Buena Vista, 1934.	-20.7 Lat. 25° 48'	916.5	(929.8)	898.5	(911.6)
	-1.0 Long. 80° 11'	1076.6	(594.7)	1055.5	(583.0)
Roney, 1928.	-20.8 Lat. 25° 47'	1663.7	(182.6)	1631.1	(179.0)
	-1.2 Long. 80° 08'	1128.4	(543.0)	1106.3	(532.4)
Dilido, North, 1934.	Lat. 25° 47'	1316.7	(529.6)	1291.9	(519.2)
	Long. 80° 09'	934.9	(736.6)	916.5	(722.2)
Miami Beach Water tank, flagpole on top, 1918. Miami Beach Water Tower, 1918.	-20.5 Lat. 25° 47'	1058.3*	(788.0)	1037.5	(772.6)
	-1.1 Long. 80° 08'	448.0	(1223.6)	439.2	(1199.6)
Library, 1934.	Lat. 25° 47'	964.7	(881.6)	945.8	(864.3)
	Long. 80° 11'	289.3	(1373.3)	292.4	(1346.4)
Bridge House Ven. Causeway, 1934	Lat. 25° 47'	690.4	(1155.8)	676.9	(1133.1)
	Long. 80° 10'	1503.1	(168.6)	1473.6	(165.3)
Tower, Sears-Roebuck 1934.	Lat. 25° 47'	421.6	(1424.7)	413.3	(1396.8)
	Long. 80° 11'	630.9	(1040.8)	618.5	(1020.4)
Flam, 1928.	Lat. 25° 47'	408.6	(1437.7)	400.6	(1409.5)
	Long. 80° 08'	1184.1	(487.6)	1160.9	(478.0)
Dilido South, 1934.	Lat. 25° 47'	302.6	(1543.6)	296.7	(1513.3)
	Long. 80° 09'	938.8	(732.9)	920.4	(718.5)
Flagler Monument, 1934.	Lat. 25° 47'	179.7	(1666.6)	176.2	(1633.9)
	Long. 80° 09'	299.8	(1371.9)	293.9	(1345.0)
Pier, U.S.E.D., 1934	Lat. 25° 47'	86.6	(1759.7)	84.9	(1725.2)
	Long. 80° 11'	229.6	(1442.1)	225.1	(1413.8)
Flagpole, Pier #3, 1934.	Lat. 25° 47'	5.1	(1841.2)	5.0	(1805.1)
	Long. 80° 11'	234.1	(1437.6)	229.5	(1409.5)
City, 1928.	Lat. 25° 46'	1741.7	(104.6)	1707.6	(102.5)
	Long. 80° 07'	1627.1	(44.6)	1595.2	(43.7)

* does not check Datum Diff. publication NPS 5/14/42

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STATION	Corr. to N.A. 1927	POSITION (North American Datum)		PLOTTING DISTANCES:			
News Tower, 1928.	↓	Lat. 25° 46'	1485.5	(360.7)	1456.4	(353.6)	
		Long. 80° 11'	644.4	(1027.3)	631.8	(1007.1)	
Flagpole, Palm Island, 1934.		Lat. 25° 46'	1419.6	(426.6)	1391.8	(418.2)	
		Long. 80° 09'	1496.1	(175.7)	1466.8	(172.2)	
Fleetwood (Hotel), 1934		Lat. 25° 46'	1249.9	(596.3)	1225.4	(584.6)	847
		Long. 80° 08'	952.1	(719.8)	933.3	(705.7)	
Clock Tower (Blackstone Hotel), 1934.		Lat. 25° 46'	1285.9	(560.4)	1260.7	(549.4)	847
		Long. 80° 08'	67.2	(1604.5)	65.9	(1573.0)	
Miami Everglades Hotel - Finial 1934. Everglades Hotel Tower, 1928.	-20.7 -0.6	Lat. 25° 46'	1127.2	(719.1)	1105.1	(705.0)	847
		Long. 80° 11'	560.5	(1111.3)	549.5	(1089.5)	
Star (Green W. Tower Star Island), 1934.		Lat. 25° 46'	1149.9	(696.3)	1127.4	(682.7)	847
		Long. 80° 09'	84.9	(1586.9)	83.2	(1555.8)	
Congress, 1934.		Lat. 25° 46'	955.9	(890.4)	937.2	(872.9)	
		Long. 80° 11'	703.6	(968.2)	689.8	(949.2)	
Court, 1928.		Lat. 25° 46'	854.6	(991.6)	837.8	(972.2)	
		Long. 80° 11'	1209.6	(462.2)	1185.9	(453.1)	
Arundel, 1934.		Lat. 25° 46'	543.3	(1303.0)	532.6	(1277.5)	
		Long. 80° 09'	1320.9	(351.0)	1295.0	(344.1)	
Stack (Chimney taller, F.P. & L. Co.) 1928.		Lat. 25° 46'	454.0	(1392.3)	445.1	(1365.0)	847
		Long. 80° 08'	1614.1	(57.8)	1582.4	(56.7)	
Chimney (Lowest, F. P. & L. Co.) 1934.		Lat. 25° 46'	452.5	(1393.8)	443.6	(1366.5)	847
		Long. 80° 08'	1591.0	(81.0)	1559.7	(79.4)	
Water Tank, (S. Miami Beach) 1928.		Lat. 25° 46'	298.6	(1547.7)	292.7	(1517.4)	847
		Long. 80° 08'	415.1	(1256.8)	407.0	(1232.1)	
Chimney, F.P. & L. Co. 1934.		Lat. 25° 46'	321.1	(1525.2)	314.8	(1495.3)	
		Long. 80° 11'	1286.0	(385.9)	1260.8	(378.3)	
Arundel, U.S.E.D., 1934		Lat. 25° 46'	582.2	(1264.1)	570.8	(1239.3)	
		Long. 80° 09'	1360.7	(311.2)	1334.0	(305.1)	
Pier, 1934.		Lat. 25° 46'	177.0	(1669.3)	173.5	(1636.6)	
		Long. 80° 07'	1525.8	(146.1)	1495.9	(143.2)	
Brickell I. North, 1934.		Lat. 25° 46'	191.7	(1654.5)	187.9	(1622.1)	
		Long. 80° 11'	208.8	(1463.2)	204.7	(1434.5)	
Base, U.S.E.D., 1934.		Lat. 25° 45'	1700.6	(145.6)	1667.3	(142.8)	
		Long. 80° 08'	94.9	(1577.1)	93.0	(1546.2)	
Brickell I. South, 1934.		Lat. 25° 45'	1589.9	(256.4)	1558.7	(251.4)	
		Long. 80° 11'	204.4	(1467.5)	200.4	(1438.7)	
Fisher Island Water Tank, 1929.		Lat. 25° 45'	1252.5	(593.8)	1227.9	(582.2)	847
		Long. 80° 08'	903.8	(768.2)	886.1	(753.1)	

STATION	POSITION (North American Datum)			PLOTTING DISTANCES:	
Rear Light, Miami River, 1934.	Lat. 25° 45'	1021.6	(824.6)	1001.6	(808.4)
	Long. 80° 11'	10.4	(1661.6)	10.2	(1629.0)
Pt. View, 1934.	Lat. 25° 45'	785.7	(1060.5)	770.3	(1039.7)
	Long. 80° 11'	649.3	(1022.8)	636.6	(1002.7)
Rear Light, Middle Range, 1934.	Lat. 25° 45'	749.5	(1096.8)	734.8	(1075.3)
	Long. 80° 11'	302.2	(1369.8)	296.3	(1342.9)
Bon Air, 1934.	Lat. 25° 45'	420.7	(1425.5)	412.5	(1397.5)
	Long. 80° 11'	1277.4	(394.8)	1252.3	(387.0)
Concrete Stack, Disposal Plant, 1935.	Lat. 25° 47'	1214.7	(631.6)	1190.9	(619.2)
	Long. 80° 12'	1259.6	(411.9)	1234.9	(403.8)
Stack, F.E.C.R.R.,1935	Lat. 25° 48'	969.8	(876.5)	950.8	(859.3)
	Long. 80° 11'	1100.9	(570.5)	1079.3	(559.3)
Wagner Brewery Sign, 1935.	Lat. 25° 47'	439.6	(1406.7)	431.0	(1379.1)
	Long. 80° 12'	583.4	(1088.3)	572.0	(1067.0)
Penthouse, J.E.Withers Bldg., 1935.	Lat. 25° 47'	60.8	(1785.5)	59.6	(1750.5)
	Long. 80° 12'	444.7	(1227.0)	436.0	(1202.9)
Gas Tank Largest, 1934.	Lat. 25° 47'	859.8	(986.5)	842.9	(967.2)
	Long. 80° 11'	1327.0	(344.7)	1301.0	(337.9)
Chimney, Roosevelt Hotel, 1935.	Lat. 25° 47'	568.7	(1277.6)	557.6	(1252.5)
	Long. 80° 11'	823.6	(848.1)	807.4	(831.5)
Stack, City Ice Co., 1935.	Lat. 25° 47'	418.4	(1427.9)	410.2	(1399.9)
	Long. 80° 12'	608.4	(1063.2)	596.5	(1042.4)
Stack, Seybold Baking Co., 1935.	Lat. 25° 47'	1372.0	(474.3)	1345.1	(465.0)
	Long. 80° 12'	207.5	(1464.0)	203.4	(1435.3)
Fire, 1935.	Lat. 25° 48'	1162.0	(684.3)	1139.2	(670.9)
	Long. 80° 12'	810.2	(861.2)	794.3	(844.3)
Radio Mast, WQAM, 1935.	Lat. 25° 47'	593.7	(1252.6)	582.1	(1228.0)
	Long. 80° 11'	277.6	(1394.1)	272.2	(1366.7)
Cross, 1st Baptist Church, 1935.	Lat. 25° 46'	1374.9	(471.4)	1347.9	(462.2)
	Long. 80° 11'	938.7	(733.0)	920.3	(718.6)
Dome, Temple Baptist Church, 1935.	Lat. 25° 46'	1114.1	(732.2)	1092.3	(717.8)
	Long. 80° 12'	296.9	(1374.8)	291.1	(1347.8)
Flag Staff, Postal Bldg., 1935.	Lat. 25° 46'	1191.2	(655.1)	1167.8	(642.3)
	Long. 80° 11'	889.1	(782.6)	871.7	(767.3)
Aero Beacon, Ingraham Bldg. 1935.	Lat. 25° 46'	759.1	(1087.2)	744.2	(1065.9)
	Long. 80° 11'	699.8	(972.1)	686.1	(953.0)
Cupola, First Trust Co. 1935.	Lat. 25° 46'	859.9	(986.4)	843.0	(967.1)
	Long. 80° 11'	878.6	(793.2)	861.4	(777.6)

STATION		POSITION (North American Datum)		PLOTTING DISTANCES.	
Cross, St. Agnes Church 1935.	Lat. 25° 47'	1016.6	(829.7)	996.7	(813.4)
	Long. 80° 12'	64.4	(1607.1)	63.1	(1575.6)
Stack, Miami Laundry, 1935.	Lat. 25° 46'	1067.5	(778.8)	1046.5	(763.5)
	Long. 80° 11'	1024.1	(647.7)	1004.0	(634.9)
Bn. 9, 1935.	Lat. 25° 46'	146.3	(1700.0)	143.4	(1666.7)
	Long. 80° 08'	1224.6	(447.3)	1200.6	(438.5)
Bn. 14., 1935.	Lat. 25° 46'	229.8	(1616.5)	225.3	(1584.8)
	Long. 80° 08'	1168.3	(503.6)	1145.3	(493.7)
Bn. 7, 1935.	Lat. 25° 45'	1683.7	(162.6)	1650.6	(159.3)
	Long. 80° 08'	558.6	(1113.3)	547.6	(1091.4)
Bn. 21, 1935.	Lat. 25° 46'	1804.3	(42.0)	1768.9	(41.1)
	Long. 80° 10'	1353.1	(318.6)	1326.5	(312.3)
Bn. 19, 1935.	Lat. 25° 46'	1576.4	(269.9)	1545.4	(264.6)
	Long. 80° 10'	876.1	(795.6)	858.8	(780.0)
Bn. 17, 1935.	Lat, 25° 46'	1285.9	(560.4)	1260.6	(549.4)
	Long. 80° 10'	268.2	(1403.5)	262.9	(1376.0)
Bn. 15, 1935.	Lat. 25° 46'	997.5	(848.8)	977.9	(832.2)
	Long. 80° 09'	1336.0	(335.8)	1309.8	(329.2)
Bn. 13, 1935.	Lat. 25° 46'	697.3	(1149.0)	683.5	(1126.4)
	Long. 80° 09'	708.1	(963.8)	694.2	(944.9)
Bn. 11, 1935.	Lat. 25° 46'	420.7	(1425.6)	412.5	(1397.7)
	Long. 80° 09'	128.8	(1543.1)	126.2	(1512.8)
Cupola, Beverly Terr. Hotel, 1935.	Lat. 25° 48'	822.5	(1023.8)	806.4	(1003.7)
	Long. 80° 11'	602.2	(1069.2)	590.4	(1048.2)
Cupola, Floridian Hotel, 1935.	Lat. 25° 46'	924.2	(922.1)	906.1	(904.0)
	Long. 80° 08'	894.3	(777.5)	876.8	(762.3)

COMPUTATION OF GEOGRAPHIC POSITION OF

U. S. E. D. ORIGIN FROM

DATA FURNISHED BY THE U. S. ENGINEER DEPT.

Pier 1934 to U.S.E.D. Origin.

Co-ordinates of Pier 1934

N. 2449.58 feet. W. 1030.56 feet.
746.63 meters 314.1 meters.
log. 2.873 105 log. 2.497 068

2.497 068
2.873 105

Log. tan. a 9.623 963

Azimuth Pier 1934 to U.S.E.D. Origin 337° 11' 02.2"

2.873 105
Log. cos. a 9.964 615

Log. S 2.908 490
S 810.01 meters

S by squaring sides = 810.0

Correction to grid azimuth not large enough for convergance to affect results of computation on next page. B.G.J. 1/28/36

U.S.E.D. Base to U. S.E.D. Origin.

Co-ordinates of U.S.E.D. Base.1934.

N. 1391.23 feet W. 1821.08 feet
424.03 meters 555.06 meters
Log. 2.627 397 Log. 2.744 340

2.744 340
2.627 397

Log. tan. a 0.116 943

Azimuth U.S.E.D. Base 1934 to U.S.E.D. Origin 307° 22' 39.0"

2.627 397
Log. cos. a 9.783 234

Log. S 2.844 163
S 698.49

S by squaring sides = 698.66

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 27
Ed. April, 1929

POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

U.S.E.D. ORIGIN FROM RECTANGULAR CO-ORDINATES.

			°	′	″				°	′	″
α	2	to 3				α	3	to 2			
2d ∠		&	+			3d ∠		&	−		
α	2	to 1	337	11	02.2	α	3	to 1	307	22	39.0
Δα						Δα					
			180	00	00.0				180	00	00.0
α′	1	to 2				α′	1	to 3			

First Angle of Triangle

	°	′	″			°	′	″		°	′	″			°	′	″
φ	25	46	05.753	2 PIER. 1934.	λ	80	07	54.755	φ	25	45	55.266	3 U.S.E.D. BASE 1934	λ	80	08	03.404
Δφ		−	24.263		Δλ		−	11.271	Δφ		−	13.780		Δλ		−	19.918
φ′	25	45	41.490	1 U.S.E.D. ORIGIN	λ′	80	07	43.484	φ′	25	45	41.486	1 U.S.E.D. ORIGIN.	λ′	80	07	43.486

	Logarithms	Values in seconds
s	2.908 490	1276.8 (569.4)
Cos α	9.964 615	
B	8.511 842	
h	1.384 947	1st term 24.263″
s^2	5.816 98	
$\sin^2\alpha$	9.176 15	
C	1.089 53	
	6.082 66	2d term + −
h^3		
D		
		3d term +
		−Δφ 24.263

½(φ+φ′)	°	′	″	Logarithms	Values in seconds
s				2.908 490	1211.7 (460.2)
Sin α				9.588 579	
A′				8.509 449	
Sec φ′				0.045 463	
Δλ				1.051 981	11.271″
Sin ½(φ+φ′)					
−Δα					

	Logarithms	Values in seconds
s	2.844 163	
Cos α	9.783 234 (21)	
B	8.511 842	
h	1.139 239 (26)	1st term 13.780″ (79)
s^2		
$\sin^2\alpha$		
C		
		2d term +
h^3		
D		
		3d term +
		−Δφ 13.780

½(φ+φ′)	°	′	″	Logarithms	Values in seconds
s				2.844 163	
Sin α				9.900 178	
A′				8.509 449	
Sec φ′				0.045 463	
Δλ				1.299 253	19.918″
Sin ½(φ+φ′)					
−Δα					

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Rectangular Co-ordinates of Triangulation Stations Furnished by the U. S. Engineers.

	Base, U. S. E. D., 1934.	N	1391.23 feet.	W	1821.08 feet.
	Pier, 1934.	N	2449.58 "	W	1030.56 "
/	Pier, U. S. E. D., 1934.	N	8212.02 "	W	18713.52 "
2	Arundel, U. S. E. D., 1934.	N	3779.40 "	W	11457.13 "
	Fisher Island Water Tank, 1934	S	78.77 "	W	4473.55 "

Rectangular Co-ordinates computed from Geographic Positions.

	Brickell I. North, 1934.	N	2499.8 feet.	W	18650.7 Feet.
	Everglades Hotel Tower, 1928.	N	5571.5 "	W	19803.8 "
	Flagpole, Palm Island, 1934.	N	6528.0 "	W	11903.0 "
	Star, 1934.	N	5642.2 "	W	7273.0 "
	Key, 1934.	S	3874.2 "	W	6943.2 "
	Range Beacon, 1934.	S	4326.1 "	W	1518.5 "

Klo. many of the names on this roll have been used on T6275 and T629.

	Remarks	Decisions
1		
2		
3		
4		
5		
6	A. Collins Bridge D. Venecia Island.	
7		
8		
9	A. Group is called Venetian Islands.	
10		
11	A. Hybiscus I. D. Hibiscus I. E. Hibiscus. I.	
12		
13		
14		
15	A(not name). U.S. Engineers and City of Miami use Bentinguano I.	
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

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GEOGRAPHIC NAMES

Survey No. T-5629.

15

Name on Survey	A: On Chart No. 583	B: On previous survey No.	C: On U. S. quadrangle Maps	D: From local information	E: On local Maps	F: P. O. Guide or Map	G: Rand McNally Atlas	H: U. S. Light List	K	
Buena Vista.	✓					✓				1
Allapattah.	none					✓				2
Miami River.	✓									3
Miami	✓					✓				4
Biscayne Bay.	✓									5
~~Venecia Island~~ Causeway Island	opp page			opp page						6
San Marco Island.	none									7
San Marino Island	see opp page									8
Di-Lido Island										9
Rivo-Alto Island.										10
Hibiscus Island.	cf. opp page.			cf. opp page	cf. opp page					11
Palm Island.	✓									12
Brickell Point	✓									13
Brickell Park	none									14
Burlingame Island.	opp page		U.S.E.D.		POINTS.					15
Point View.	✓									16
Star Island.	✓									17
Johns Island.	✓									18
Collins Island.	✓									19
Sunset Islands	✓									20
Biscayne Waterway	✓									21
Indian Creek	✓									22
Collins Canal	✓									23
Belle Island	✓		?	ISLAND, not ISLE						24
Miami Beach. (1)	✓									25
Ocean Beach.	✓									26
Fisher Island.	✓		ASHER	ISLAND -					Called Fernmead Id by U.S.E.D.	27

Names underlined in red approved by [signature] on 1-27-36

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	Remarks	Decisions
1		
2		
3	A. Miami Causeway.	
4		
5		
6		
7		
8		
9	25° 47.1' / 80° 12.8'	
10	25° 47'– / 80° 12.5'	
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

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GEOGRAPHIC NAMES

Survey No. T-5629.

Name on Survey	On Chart No. 583 (A)	On previous survey No. (B)	On U. S. quadrangle Maps (C)	From local information (D)	On local Maps (E)	P. O. Guide or Map (F)	Rand McNally Atlas (G)	U. S. Light List (H)	K	
Norris Cut	✓									1
Flagler Memorial Monument	✓									2
County Causeway	see 1pp page			Also known as Miami Causeway U.S.E.D. Blueprint.						3
Sunset Lake	✓	X								4
Lake Pancoast	none									5
Miami Beach (2)	✓									6
Flamingo Is Park	none									7
Bay Front Park	none	X								8
Wagner Creek	none									9
Seybold Canal	none									10
Lummus Park	none	X								11
Venetian Islands	✓									12
Venetian Causeway	none									13
Royal Palm Yacht Basin										14
City Yacht Basin										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red approved by C.H. Kegan on 4-27-36.

M 234

REVIEW OF AIR PHOTO COMPILATION T 5629 (1935)

1:10,000

This compilation as submitted to this office was incomplete for location of beacons, lights, wrecks, piles and so on. These details have been transferred to the compilation in this office from the contemporary planetable surveys except where information in this office showed changes to have occurred since the date of those planetable surveys.

Comparison with recent planetable surveys

a. T 6275 (Aug.-Sept. 1935, 5 months prior to date of photographs) 1:10,000

See pages 3 to 5 of the preceding descriptive report, T 5629, for comparison between T 6275 and this compilation and list of differences.

The survey T 6275 covers Miami and Miami Beach waterfronts.

The following details have been transferred from T 6275 to this compilation in this office by L.A. McBaine and checked by R.K. Berry

(1) All described topographic stations on T 6275 except topographic station FLP., U.S.E., which is too close to triangulation stations for clear plotting. Lat. 25°46.2' Long. 80°08.9'

(2) All beacons and lights on T 6275 except lights Nos. 7, 9, 11, 13, 14, 15, 17, 19, 21, which have been moved and relocated by triangulation since the date of T 6275 and light 12 which has been moved since the survey of T 6275 and for which accurate relocation is not available.

(3) Piles, stakes, dolphins, pipes, boulders and wrecks.

(4) Undescribed recoverable topographic stations Cupola, Lat. 25° 47.5+', Long. 80° 08.9'; Cupola, Lat. 25° 47.4', Long. 80° 08.9+'; Weather vane, Lat. 25° 47.4', Long. 80° 08.8'.

All details on T 6275 are ~~not~~ now shown on this compilation except:

(1) Lights listed under (2) in the preceding paragraph.

(2) Temporary planetable stations and magnetic declination.

(3) Undescribed recoverable planetable stations. Due to the density of recoverable stations in this area none of the undescribed recoverable topographic stations on T 6275 has been transferred except those entered under (4) in the preceding paragraph.

(4) Described topographic station FLP., U.S.E. See (1) under preceding paragraph.

(5) Topographic station RIZ and BID south of entrance jetties on T 2675 have not been transferred as no descriptions of the stations were found.

(6) Topographic station R.M.1, U.S.H.L., Lat. 25° 46.4', Long. 80° 08.5'.

(7) Old positions of lights 18 and 21 and beacon 20. T 6275 shows two locations for each, the later locations having been transferred to this compilation.

b. T 6297a (Dec. 1934 - Jan. 1935, about one month prior to the date of the photographs) 1:10,000

T 6297a covers the head of Biscayne Bay to Sunset Islands. Very little high water line is shownon T 6297a.

See pages 3 to 5 of the preceding descriptive report T 5629 for a comparison between T 6297a and this compilation.

The following details have been transferred from T 6297a to this compilation in this office by [illegible] and checked by R. H. Berry

1. All channel markers and beacons on T 6297a within the area of this compilation.

2. Piles and dolphins within this area.

3. Topographic station N. Gable Ho. at Lat. 25° 47.9', Long. 80° 08.5'.

All detail on T 6297a within the area of this compilation is now on the compilation except for:

(1) Temporary planetable stations and magnetic declination.

(2) Undescribed recoverable planetable stations such as poles, house chimneys, etc. located on T 6297a for control of hydrography. These have not been transferred except as listed under 3 above because of the density of recoverable stations now on the compilation.

Comparison with previous topographic surveys

T 336 (1851), 1:20,000. The survey for T 336 covers the coast of Florida and Biscayne Bay from latitude 25°46' to latitude 25°30'. The topographic detail shown on T 336 over the common area is changed and superseded by this compilation.

T 1049 (1867), 1:20,000. The survey for T 1049 covers the coast of Florida and Biscayne Bay from latitude 25°45' to 25°53'. The changes of topographic detail are large over the common area and T 1049 is superseded by this compilation.

T 3758 (1919), 1:20,000. The survey for T 3758 covers Biscayne Bay and the coast of Florida from latitude 25° 42' to latitude 25° 56'. The area covered by Miami and Miami Beach is not shown but is covered by T 3759. The most prominent changes are: (1) The addition of the venetian Islands and Venetia Island. (2) The large increase in size of Fishers Island as seen by comparing the high water lines. T 3758 is superseded by this compilation over the common area.

T 3759 (1919), 1:10,000. The survey for T 3759 covers Miami and Miami Beach. Prominent changes are: (1) The extension of the street system of Miami due to its growth since the survey for T 3759. (2) The complete change of waterfront at Miami. T 3759 is superseded by this compilation over the common area.

T 4528 and T 4529 (1927), 1:20,000, Air Photo Compilation. See page 5 of the preceding descriptive report, T 5629, for a detailed comparison of this compilation with T 4528 and T 4529.

This compilation is complete and adequate to supersede the sections of T 4528 and T 4529 which it covers.

Bridges

No plane of reference was given for vertical clearance of those bridges below latitude 25° 48' on this compilation nor on the recent planetable survey T 6275.

The plane of reference of high water for clearances of the bridges above latitude 25° 48' was taken from the recent planetable survey T 6297a.

The bridge list of U. S. Engineers for 1927 is incomplete for this area and lists only a few and those of the less important bridges.

Comparison with Chart 583, 1:40,000

The lights and beacons in Miami Harbor have been moved since the last edition of chart 583.

All lights and beacons shown as topographic stations on this compilation were taken from T 6275, Aug.-Sept. 1934 and T 6297 (Dec.1934-Jan.1935) except for entrance range front light which was located by the radial plot. from Photos taken Jan 25, 1935.

See the list of landmarks included in the general report filed as part of the preceding report, T 5629 for recommended landmarks in this area. The hotel tower on chart 583 at lat. 25° 47.8', long. 80° 07' is not included in the list. Triangulation station Roney 1928 on this compilation plots in the same position as the tower but no description for triangulation station Roney has been found in the Division of Geodesy.

See letter 143 1935 for additional landmarks

Lenard A. McGann 1/28/36.

B.G. Jones 1/28/36

REVIEW OF AIR PHOTO COMPILATION NO. T - 5629

Chief of Party: E. R. McCarthy Compiled by: W. J. Mignola

Project: HT 158 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) T-6275, T-6297 transmitted.

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) No maps were transmitted.

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." M-67

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)
Also all tidal and first order benchmarks in the area have been recovered and shown on the sheet.

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. 16d, e; and 60)

11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)

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 Longitude 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. Examined and approved;

E. Mc Cauley
Chief of Party

19. Remarks after review in office:
See pages immediately preceding for detailed report of office verification.

Reviewed in office by: Leonard A. McSaveney / B.G. Jones

Examained and approved:

C. K. Green
Chief, Section of Field Records

L. O. Colbert
Chief, Division of Charts

J. P. Borden
Chief, Section of Field Work

G. Rude
Chief, Division of Hydrography and Topography.