5686

Form 584
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, Director

DESCRIPTIVE REPORT

Topographic }
~~Hydrographic~~   Sheet No. 38
Reg. No. 5686

State .... FLORIDA

LOCALITY

ST. JOHNS RIVER

WEKIVA RIVER

AND VICINITY

Photographs taken Mar 1935

1938

CHIEF OF PARTY

Hubert A. Paton

U.S. GOVERNMENT PRINTING OFFICE: 1934

Applied to chart No. 688. April 1940. L.A.M.

DEPARTMENT OF COMMERCE

U.S. COAST AND GEODETIC SURVEY

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...38...............

T5686

REGISTER NO. T-5686

State................FLORIDA..

General locality.....ST. JOHNS RIVER.................................

Locality................WEKIVA RIVER AND VICINITY................

Scale 1:10,526........... Date of ~~survey~~ Photographs March 20, 1935., 19......

Vessel.....................PARTY No. A. P. 2-A.......................

Chief of party.......Hubert A. Paton............................

Surveyed by...........See Page 2..................................

Inked by...............Lester S. Leavenworth.....................

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

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

Instructions dated..March 4, 1935..................., 19......

Remarks: Camera No. 32-2, U. S. Army Air Corps.................

Field Inspection, July 1935 and June 1938...................

Notes on Compilation

Sheet No. 38

Register No. T-5686

Photographs: Five Lens Flight No. 28, Nos. 1123-1140, Mar. 20, 1935
        "   "   "   No. 29, Nos. 1146-1151, "   "   "
        "   "   "   No. 30, Nos. 1277-1284,- "   "   "
        "   "   "   No. 31, Nos. 1285-1290 "   "   "

Scale Plot by: Hubert A. Paton.

Scale Factor used: 0.95

Projection by: Washington Office.

Control Plotted by: William C. Russell

Control Checked by: Henry O. Fortin.

Smooth Radial Plot by: W. C. R.

Detail Inked by: Lester S. Leavenworth.

Overlay Sheet by: L. S. L.

Area of detail inked: 26.7 sq. statute miles.

Length of Shoreline (over 200 m.)   NONE

"   "   "   (under 200 m.)   55.4 statute miles.

"   "   "   of small lakes: 15.7   "   "

Ref. Sta. Wilson 1935   Lat. 28°49'12.362" (380.6 m.) ✓
Long. 81°21' 43.118" (1169.1 m.) adj.

$x = 384,087.5$

$y = 1,630,985.4$

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC MAP NO. 38

REGISTER NO. T-5686

July 25, 1938.

GENERAL INFORMATION:

This topographic map was compiled from air photographs
taken by the U. S. Army Air Corps, using a five lens camera No. 32-2.
The area delineated was covered by four flights, Nos. 28, 29, 30 and
31. The flights were poorly spaced which resulted in a duplication
of photographs in the southeast corner of the sheet. The southwest
corner of the sheet fell beyond the ends of the flights but the
radial plot could be extended over all of it by taking cuts from
two flights. Flight No. 31 was found not to be in scale and as
it was completely overlapped by other flights it was not used in
tracing detail.

CONTROL:

Although a total of 14 triangulation stations were used
for control, only seven fell within the tracing limits. All of the
stations have been adjusted to the North American, 1927, Datum. They
were established in 1935 and have all been recovered at least once
by field inspection parties.

JUNCTIONS:

On the north this sheet is joined by Sheet No. 5685,
which is being compiled at the present time and the junction will
be discussed in the report for that sheet.

On the east this sheet is joined by Sheets Nos. 5687 and 5688.
Neither of these sheets have been compiled as yet, but the radial
plot has been carried through and the junction detail has been
transferred.

LANDMARKS:

A number of new beacons have been established recently
in the river. These have been located on the hydrographic sheets
surveyed by Lieut. Comdr. L. D. Graham but their positions are not
available as yet, and they are not shown on this sheet. When their
positions are scaled and reported they can be plotted. In add-
ition to these beacons, H&T Station MAN was selected as a landmark.
This station is the west gable of a low frame house. The house was
not shown on the sheet as it proved to be too small to extend beyond
the station symbol. See H6306 for location of B__.

GENERAL DESCRIPTION OF TOPOGRAPHY:

The area shown on this sheet consists of the land along
the St. Johns River, just below Lake Monroe, and extending south to
a community known as Paola. It also shows the mouth of the Wekiva
River and the area along this river for a distance of approximately
four miles. The terrain along both of these rivers consists for the

Note Details on T 5686 one of the
date of the photographs ; Mar 20, 1935
except for minor changes in
cultural features as mentioned
on the opposite page.
B.G.G.

most part of dense cypress and broad leaf swamp, breaking away
occasionally into saw grass savannas. The main exception to this
condition appears on the east bank of the St. Johns River where
high ground is found occasionally, such as at High Bluff, and Manuel Landing, and Fort Florida, Station MAN and at Station WHIRL.
An interesting feature of these high bluffs is that they only occur
at easterly bends in the river. The term "savanna", as used above,
is typical of this part of the country and is used to designate a
flat saw grass marsh broken occasionally by small cypress clumps
or palm islands. They are found more frequently along the coast but
are not uncommon along large streams. In the southwest corner of thee
sheet the area is dotted with many lakes and ponds. The largest
one is called Sylvan Lake and others are known as Yankee, Ross and
Markham Lakes. The area around the lakes is for the most part
quite low and apt to be flooded during the rainy season. This
made the determination of the high water line difficult. It
is believed that the terrain, as represented on this sheet, is
the most probable for annual conditions.

A high tension transmission line runs diagonally across the sheet
from the southwest to the northeast. This line is shown on aeronautical charts and is a main line feeding to the south. The poles
are set about 300 meters apart and are about 70 to 75 feet high,
resulting in a decided sag in the three cables to withing 25 feet
of the ground. The poles on the sheet are shown approximately in
their true position.

FIELD INSPECTION:

The field inspection by truck and boat was made in
July 1935. Additional inspection by truck was made in June, 1938.
The three year lapse in field inspection seems to show no change in
hydrographic features, but there were found to be quite a few changes
in hypsography, such as in cultivated fields abandoned, new land
cleared, use of roads and trails, etc. *See note on opposite page.*

ROADS:

Only one main highway is shown on this sheet, namely:
State Route No. 44, connecting Sanford and Tavares. Several other
paved roads appear on the sheet and are classed as connecting roads,
such as the road between Lake Monroe and Paola and the Paola to
Markham Road. There is no road leading to the west bank of the
St. Johns River, nor to either bank of the Wekiva River in this
area. On the east side of the St. Johns River one may drive to
the river at several points, yet the road is an old one built at
the time Fort Florida was occupied, and is rapidly falling into
disuse. It is mainly used by fishermen and turpentine gatherers,
there being no farms in the vicinity.

SWAMPS AND MARSHES:

The swamps on this sheet consist mostly of a mixture
of cypress and broad leafed trees and sometimes include a scattering of palms along the banks of the river. In the northwest corner
of the sheet the swamp is broken in several places by areas, which
appear to be high marsh grass. This is one of the places where aerial field inspection proves so valuable. However no aerial reconnaissance was made over this area as sufficient funds were not
available. In the center of the sheet along the river are found the

sawgrass savannas which have been described before.

PONDS:

Most of the ponds on this sheet occur on the lower
third of the sheet around the communities of Sylvan Lake, and Paola
and to the west. Difficulty was experienced in tracing the high
water line for many of the ponds. In several cases there were
three distinct lines either one of which might have been the high
water line, for example, Markham Lake. By the use of the stereo-
scope and with adequate field inspection, it is believed that the
shoreline of lakes as shown on this sheet represent as nearly as
possible the mean high water line.

STREAMS:

Although the Wekiva River is considered a navigable
waterway it was impossible to show anything but a single line for
it out at the edge of the sheet, and even then it was impossible to
discern which branch was the main channel. It is a characteristic
of streams in this area to branch out into a confusion of channels;
a striking example on this sheet being Black Water Creek. Even
after extensive use of the stereoscope it could not be determined
which branch was the main one. It is fairly apparent that Sylvan
Lake drains into Yankee Lake which in turns drains into a small
cypress swamp just to the north and hence on into the large swampy
area in the center of the sheet. This line of drainage is known
as Sulphur Creek, but as no accurate location could be determined
for a stream through this swampy area the symbol for drainage un-
surveyed was used. Ross Lake is connected to Markham Lake by drain-
age ditches and a small unnamed pond but no outlet could be discerned
for either lake.

COMPARISON WITH OTHER SURVEYS:

An attempt was made to compare this sheet with a hydro-
graphic survey made by the U. S. Engineers, entitled, "St. Johns
River,- Palatka to Sanford, Florida - surveyed Dec. 1925 and Jan.
1926." This map drawing covers portions of the area delineated
on Sheets 14 and 15 of the Engineers survey. The original draw-
ings were made on a scale of 1:6,000, but we have prints that have
been reduced to approximately 1:10,000. Many discrepancies were
immediately discovered between the two surveys. The width of the
river at Manuel Landing and at Manuel Bend on the Engineers survey
were more than 100 meters narrower than shown on the air photographs.
The construction of Butchers Bend Cut Off (proposed at the time of
their survey) has resulted in a considerable change in the topography
of the vicinity. On their survey only two islands are shown at the
mouth of the Wekiva River while there are three distinct islands
there now. This third island was probably the tip end of the strip
of land lying between the two rivers. The docks shown on the
Engineers survey at Manuel Landing and at Fort Florida have both been
destroyed. These are only a few of the many discrepancies between
the two surveys. The lack of control on the Engineers prints and the
slight difference in scale make a more complete comparison inex-
pediant.

A comparison was made with the hydrographic surveys made by Lieut. Comdr. L. D. Graham on sheets Nos. 46 and 47. The short portions of the shoreline shown checks very well with the map drawing except in the vicinity of Wekiva Reach. The islands at the mouth of the Wekiva River on the hydrographic sheets are thought to be three meters too far east, and near Manuel Landing the error is about five or six meters. It is believed that this map drawing interprets the shoreline more correctly than the hydrographic sheets.

AIDS TO NAVIGATION:

Since the photographs were taken, several new beacons have been constructed in the St. Johns River. These have not been shown on the map drawings as yet, but should be plotted when their geographic positions are available. Their approximate locations are shown in blue on the back of the sheet. *located on H6306. Not transfered to T5686.*

GEOGRAPHIC NAMES:

The names shown on the overlay were obtained from the following sources:

1. Name established by local usuage.
2. U. S. C. & G. S. Chart No. 509.
3. U. S. Engineers, Hydrographic Survey, 1925-1926.
4. Soil Map of Lake County, Dept. Of Agriculture, 1923.
5. Road Maps, State Highway Department, 1934.
6. State of Florida Map, Geological Survey, 1933.
7. Sectional Map of Florida, Dept. lf Agriculture, 1938.
8. Map of Seminole County.
9. U. S. Engineers, Intracoastal Waterway Map, 1934.
10. U. S. C. & G. S. Sectional Aeronautical Chart, "Orlando".
11. U. S. Coast Pilot, Atlantic Coast, Section D.
12. Official Airway Map of Florida, State Road Dept., 1934.
13. Sinclair Road Map of Florida.
14. Official Road Map of Florida, State Highway Dept., 1936.

ALEXANDER ISLAND. A marshy island on the east bank of the St. Johns River, just above Butchers Bend Cutoff. Source - 1.

ALEXANDER REACH. The stretch of river running along the south side of Alexander Island. Source - 1.

ALEXANDER SLOUGH. The shallow slough running along the north side of Alexander Island. Source -1.

ASH HAMMOCK. The high land lying between the Black Water Prairies and Black Water Creek. Owes its name to the numerous ash trees in the area. Source - 1.

ASTOR FARMS. A farming area just to the west of the town of Lake Monroe and owned by a New Jersey Products Corporation. Source 1.

BARBERS REACH.   The stretch of river below Carsons Bend.
Sources - 1, 2, and 3.

BLACK WATER CREEK.   A tributary of the Wekive River, made up
of many branches, none of which seems to be more prominent than the
rest.   Sources - 1 and 4.   Sources 6 and 10 show it as Blackwater
Creek but the two word spelling is in common use now and the stream
is believed to have been named for an old Indian Chief called Black
Water.

BLACK WATER PRAIRIES.   Source - 1.   The flat marshes just to the
north of Black Water Creek.

BOAT LANDING SLOUGH.   Source - 1.   The east branch of the Wekiva
River in the vicinity of the mouth of Black Water Creek.

BREAM LAKE.   Source - 1.   A small pond just west of Paola Post
Office on the north side of the railroad.

BUTCHERS BEND.   Sources - 1 and 3.   A reverse bend in the river
just above the Big Whirl.

BUTCHERS BEND CUTOFF.   Sources - 1, 3, and 11.

BUTCHER PEN SLOUGH.   Source - 1.   A slough making off to the west
of the St. Johns River just above Butchers Bend.   Our informant was
positive that the word was Pen and not Bend, said there was an old
cattle pen up there at one time.

CARSONS BEND.   Sources - 1, 2, and 3.   The bend in the St. Johns
River at High Bluff.

CHUB SLOUGH.   Source - 1.   A slough running north from the
Wekiva River about one-half of a mile upstream from the mouth of the
river.

FORT FLORIDA.   Sources - 1, 2, 3, and 11.   The site of an old
fort by that name which has long since been destroyed.   The name
is still used locally to designate the site.

FORT FLORIDA POINT.   Source - 1.   The rounded point on the east
bank of the St. Johns River, half mile west of Fort Florida.

FORT FLORIDA REACH.   Source - 1.   The stretch of the river
between Fort Florida Point and the bend in the river just below
The Big Whirl.

GUYON COVE.   Source - 1.   A small cove in the east bank of the
St. Johns River just below Manuel Landing.

GUYON SLOUGH.   Source -1.   A short slough just below Guyon Cove.

HIGH BLUFF.   Source - 1.   A small area on the east bank of the
St. Johns River at the top of the sheet.   It derives its name from
a 30 foot bluff which runs close to the river at this point.

JULY SLOUGH.   Source - 1.   A large slough just south of and
running parallel to Fort Florida Reach.

LAKE CLAIR.   Source - 1.   A small pond southeast of the cross

roads at the town of Sylvan Lake.

LAKE MONROE. Sources - 1, 5, 6, 7, 8, 10, 12, 13, and 14.
A small town at the western end of the lake with the same name.
Only a small portion of the extreme west end of the town falls with-
in the tracing limits of this sheet. It is made up of homesteads
along Orange Blvd. Source 5 calls the town simply Monroe but it is
believed that this is in error.

LAKE OLIVE. Source - 1. A small pond just northeast of the
cross roads at the town of Sylvan Lake.

MANUEL BEND. Sources - 1, 2, 3, and 11. The bend in the river
3/4 miles upstream from North Manuel Bend.

MANUEL LANDING. An old landing on the St. Johns River, no
longer in use as a landing, and the dock has been destroyed. The
name is still used to designate the area, however. Sources - 1, 2, and 3.

MARKHAM. Sources - 1, 5, 7, 8, and 13. A small community on
the railroad, three miles west of Paola. There are only a few
houses, no post office, and only a dilapidated station. Most of
the inhabitants are negroes.

MARKHAM LAKE. Sources - 1 and 8. A fairly large lake which
lies one mile west of Sylvan Lake and just north of the community
known as Markham

NIGGAR CREEK. Sources - 1. A small creek entering the
St. Johns River at the north end of Palmetto Reach. Shown as
Little Wekiva River on 2, 3, and 4. However there is a tributary
of the Wekiva River which is called the Little Wekiva River and which
flows into the larger stream approximately three miles south of the
community known as Markham. Consequently the name Little Wekiva
River was not shown on the overlay and it is recommended that it be
deleted from the charts and the name, Niggar, substituted for it.

NORTH MANUEL BEND. Sources - 1, 2, and 3. The bend in the
river just above Carsons Bend.

PALMETTO REACH. Sources - 1, 2, and 3. The stretch of river
lying between Manuel Bend and North Manuel Bend.

PAOLA. Sources - 1, 5, 6, 7, 8, 10, 12, 13, and 14. A small
town situated on the railroad at the bottom right center of the sheet.
The town has a post office but no other public buildings.

ROSS LAKE. Sources - 1 and 8. A lake half a mile north of
Markham Lake.

SAINT JOHNS RIVER. Generally found with the abreviated form
of St. Johns River. All sources in agreement.

SALT LAKE.   Source - 1.   A small lake one mile east of Fort Florida.   Only the western portion falls on this sheet.   The name Mud Lake is sometimes used but Salt Lake is believed to be more common.

SULPHUR CREEK.   Source - 1.   The small stream that serves as an outlet for Sylvan and Yankee Lakes.

SYLVAN LAKE.   Sources - 1 and 8.   The largest lake in the southwest corner of the map drawing.

SYLVAN LAKE JUNCTION.   Source - 1.   The area in the vicinity of the railroad junction about one-third of a mile east of the town of Paola.   Source 7 shows only Sylvan Lake, for this locality, but the word Junction is generally added by the local inhabitants.

THE BIG WHIRL.   Source - 1.   A bend in the river, 3/4 miles upstream from Fort Florida.

TROUT CREEK.   Source - 1.   A short slough just north of the mouth of the Black Water Creek, running from the creek to the Wekiva River.

TWIN LAKES.   Sources - 1 and 8.   Two lakes about one mile east of Sylvan Lake Junction.   Only the northern half of one of the lakes falls on this sheet.   The other lake will be found on Topographic Map No. T-5688.

WEKIVA CUTOFF.   Source 1 and 11.   A canal eliminating the necessity of navigating Manuel Bend.   Source 3 calls this the Manuel Cutoff, however it is believed that the name Wekiva is more common.

WEKIVA REACH.   Sources - 1, 2, and 3.   The stretch of river between the mouth of the Wekiva River and Manuel Landing.

WEKIVA RIVER.   Sources - 1, 2, 3, 4, 5, 6, 8, 10 and 11. The principal tributary of the St. Johns River on this sheet. The name is sometimes spelled WeKiva in the local newspapers but all other sources show it without the capital K.

WILSON CORNER.   Source - 1.   A small community one mile east of Sylvan Lake, at the cross roads where State Highway No. 44 crosses the Lake Monroe - Paola Road.   This community has no public buildings although there used to be a post office there under the name of Sylvan Lake, but this name is no longer used by the local inhabitants. The Wilson School, which lies just south of the town is used by both Paola and Wilson Corner.

YANKEE LAKE.   Sources - 1 and 8.   A long body of water just north of State Highway No. 44 and half a mile northwest of Sylvan Lake.

NOTES ON GEOGRAPHIC NAMES:

Portions of three counties are shown on this sheet. They are Seminole, Volusia and Lake Counties.   It was considered advisable to place these names on the overlay because the boundaries were rivers and therefore not subject to dispute.   The St. Johns River above the mouth of the Wekiva River serves as the boundary between Seminole County and Volusia County and below the mouth of

the Wekiva it serves as a boundary between Lake County and Volusia County.   The Wekiva River is the boundary between Seminole and Lake Counties.   No attempt was made to determine whether the boundaries were on one bank or in the center of the streams, and therefore no such interpretation can be gathered from this description.   Sources - 1, 4, 5, 6, 7, 13, and 14.

All the street names shown on the overlay were derived from Source No. 8, a map of Seminole County.   This map willbe forwarded to Washington as soon as remaining sheets in the area have been compiled.   The names for the railroads were secured from this source and also Source No. 7.

CABLE CROSSING:

The height for the clearance of the ~~cable~~ *aerial* crossing, 93.5 feet above Mean Sea Level, as, shown on the overlay, was taken from Hydrographic Sheet No. 47.   The U. S. Coast Pilot gives the clearance at 77 feet above mean high water, but this is believed to be only the minumun allowable as per regulations set up by the U. S. Engineer Department.

SYMBOLS:

All symbols used on this sheet are believed to be standard with the exception of the abandoned tram road symbol, which is the same as that used on the other sheets of this survey.

The labels "grassy pond" on the overlay refers to topographical features and are not geographical names.

MISCELLANEOUS:

All groves shown on this sheet are believed to be citrous groves whether they have been labeled or not.   Most of the bridges have been exaggerated slightly, so that the symbol could be more clearly represented.   Cultivated fields have been left blank and where practical they have been labeled on the overlay.   There are no bridges over navigable streams on this sheet.   There are no cable crossings nor ferry routes.

Respectfully submitted,

Lester S. Leavenworth,
Draftsman, C. & G. S.

T5686

	Remarks	Decisions
1		
2		
3		
4		
5		
6		
7	Not Black Water creek	
8	Not Black Water Prairies	
9		
10		
11		
12		
13	Not Carsons Bend	
14		
15		
16		
17		
18		
19		
20		
21	Lake Claire on sheet (Clair in D.Rep.)	
22		
23		
24		
25		
26		
27		

M 234

GEOGRAPHIC NAMES
Survey No. T 5686

Name on Survey	On Chart No. 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	
Alexander Island	—									1
Alexander Reach	—									2
Alexander Slough	—									3
Ash Hammock	—									4
Astor Farms	—									5
Barbers Reach	—									6
Blackwater Cr.	—									7
Blackwater Prairies	—		Investigation and approval usually							8
Boat Landing Slough	—		shown on this sheet are shown							9
Bream Lake	~		on Form A-712, Nos. 287813							10
Butchers Bend	—						288 813		L.H	11
Butchers Bend Cutoff										12
Carson Bend	—									13
Chub Slough	—									14
Fort Florida	—									15
Fort Florida Pt.	—									16
Fort Florida Reach	—									17
Guyon Cove	—									18
Guyon Slough	—									19
July Slough	—									20
Lake Claire	÷									21
High Bluff	—									22
Lake Monroe (town)	—									23
Lake Olive	—									24
Mannel Bend	—									25
Mannel Landing	—									26
Butcher Pen Slough	—									27

M 234

T5686(R)

	Remarks	Decisions
1		
2		
3 ●		
4		
5		
6		
7		
8		USGB decision
9	See T5687	
10		
11		
12		
13		
14		
15		
16		
17		
18		USGB decision
19		
20		
21 ●		
22		
23		
24		
25		
26		
27		

M 234

Name on Survey	On Chart No. 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	
Markham	✓									1
Markham Lake	✓									2
Niggar Creek	✓									3
North Mannel Bend	✓									4
Palmetto Reach	✓									5
Paola	✓									6
Ross Lake	✓		Investigation	and	approval					7
St. Johns River	✓		usually	shown	on this	sheet				8
Konomoc DeN Lake	✓		are	shown	on	Form A-71L				9
Sulphur Cr.	✓				Nos. 287	813				10
Sylvan Lake	✓				288	813				11
Sylvan Lake Junction	✓							L.H.		12
The Big Whirl	✓									13
Trout Creek	✓									14
Twin Lakes	✓									15
Wekiva Cutoff	✓									16
Wekiva Reach	✓									17
Wekiva River *	✓									18
Wilson Corner	✓									19
Yankee Lake	✓									20
										21
										22
										23
	Names underlined in red approved									24
	by L. Heck on 11/3/38									25
										26
										27

M 234

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

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

Palatka, Florida ———— July 21, ~~1938~~, 193

I recommend that the following objects which have (~~been seen~~) been inspected from seaward to determine their value as landmarks, be charted on (~~defined from~~) the charts indicated.
The positions given have been checked after listing.

Robert A. Paton

Hubert A. Paton

Chief of Party.

GENERAL LOCALITY St. Johns River

NAME AND DESCRIPTION	POSITION						DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE			LONGITUDE									
	°	'	D. M. METERS	°	'	D. P. METERS							
HOUSE, W. GABLE	28	52	1347	81	21	1207	N. A. 1927	Photo	1938	✗			509

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

REVIEW OF AIR PHOTO COMPILATION NO. 38

Chief of Party: Hubert A. Paton   Compiled by: L. S. Leavenworth

Project:H. T. 168   .   Instructions dated:3/4/35

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)
    Yes

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

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) None used

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

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. Yes

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) No large nor unusual adjustments needed.

7. High water line on marshy and mangrove coast is clear and ade-
 ✓ quate for chart compilation. (Par. 16a, 43, and 44) Yes.

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 Compila-
tion of Planimetric Line Maps from Five Lens Air Photographs."   M-87

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) These are non-tidal waters. No low water line shown.

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) Yes

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) Yes

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) No bridges over navigable streams on this sheet.

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) Yes

13. The geographic datum of the compilation is N. A. 1927 *adjusted* and the reference station is correctly noted. Yes

14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j) Adjoining sheets not compiled as yet.

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. Yes

    2. The degrees and minutes of Latitude and Longitude are correctly marked. Yes

3. All station points are exactly marked by fine black dots. Yes

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

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

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

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

(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;

Hubert A. Paton

Hubert A. Paton
Chief of Party

19. Remarks after review in office:

Reviewed in office by: *L C Lande   BgJones*

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5686

Scale 1:10,000

Photographs taken March 1935. Compiled May to September 1938.

Chief of Party, H. A. Paton
Radial Plot by W. C. Russell
Inked in field by L. S. Leavenworth

Field inspection in 1935 and 1938. Refer to page 4 Descriptive Report.

There are no contemporary Graphic control surveys within the area of the air photographic survey.

Contemporary Hydrographic Surveys.

H-6306 (1938), 1:5,000
H-6307 (1938), 1:10,000

The shoreline and some of the hydrographic signals shown on the above hydrographic surveys were taken from the air photographic survey.

The shoreline was apparently transferred to H-6306 and H-6307 with a projector as the celluloid T-5686 is on a scale of 1:10,500. The accuracy of the transfer of shoreline has not been checked as a part of this review. The completeness of the transfer of shoreline and offshore details has been checked and no omissions noted.

Prior Topographic Surveys.

T-2027 (1875), 1:80,000

T-2027 shows only the main channel which is quite different from T-5686. T-5686 is complete and adequate to supersede the section of T-2027 which it covers.

Comparison with Chart 509.

Chart 509 shows only the main channel and adjacent vegetation. T-5686 does not show the aids to navigation. These were located on H-6306 and have not been transferred to T-5686.

Remarks.

The cypress shoreline was redrafted in this office from an open tree symbol to a light line in accordance with Field Memorandum No.1, 1938.

The shoreline shown by the field party was in accordance with previous instructions.

The details of T-5686 are of the date of the photographs.

Additional Work.

The drafting on T-5686 is very good and the Descriptive Report and the compilation of map details are complete.

No additional topographic surveys are required for charting in the area covered by T-5686.

Reviewed in office by L. C. Lande,

Inspected by B. G. Jones.

November 1938.

Examined and approved:

Thos. B. Reed
Chief, Section of Field Records

K. T. Adams
Chief, Division of Charts

Chief, Section of Field Work

Actg Chief, Division of Hydrography
and Topography.

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by ___S·KASS___

Positions checked by ___S. KASS___

Grid inked on machine by ___S. KASS___

Intersections inked by ___S KASS___

Points used for plotting grid:

x ___375,000___
y ___1,625,000___

x ___395,000___
y ___1,655,000___

x ___395,000___
y ___1,625,000___

x _____
y _____

x ___385,000___
y ___1,640,000___

x _____
y _____

x ___325,000___
y ___1,655,000___

x _____
y _____

Triangulation stations used for checking grid:

1. ___GRIFFIN 1935___   5. _____
2. ___WHIRL 1935___   6. _____
3. ___WILSON 1935___   7. _____
4. _____   8. _____

①

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

x 375,000

y 1,625,000

State _Fla_   Zone _East_   Station ___

λ (Central meridian) ___

ϕ 28° 48′ 12″.81

λ ___ 81 23 25.05

$\Delta\phi$ (Excess of ϕ over even 10′ expressed as minutes and decimal) __8′.2135__

$\Delta\lambda$ (Central meridian − λ) ___

$\Delta\lambda$ (in sec.) __1405″.05__

		$\left(\dfrac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′) ___		Tabular V (even 10′) ___	
Interpolated H (fraction of 10′) −		Interpolated V (fraction of 10′) +	
		Cor. for second dif. +	3
Cor. for second dif. +	55	V	1.039278
H	88.968428		
		Tabular difference of y for 1″ of ϕ	
a	− .78		
b	+ 7.11	y (for minutes of ϕ) ___	
		y (for seconds of ϕ) ___	
H ($\Delta\lambda''$)	125,005.5	Tabular y	1,624,794.8
ab	−	$V\left(\dfrac{\Delta\lambda''}{100}\right)^2$	205.2
x'	125,000		
	500,000.00	c	−
x	375	y	1,625,000
$\dfrac{\text{(Tabular }y) + y}{2}$		$\Delta\lambda'' \sin\dfrac{\phi+\phi'}{2}$	
		$F(\Delta\lambda)^3$	
$\dfrac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\dfrac{\phi+\phi'}{2}$		Δa	° ′ ″

$x' = H\Delta\lambda + ab$

$x = x' + 500,000$

$y = \text{Tabular } y + V\left(\dfrac{\Delta\lambda''}{100}\right)^2 + c$

$\Delta a'' = \Delta\lambda'' \sin\dfrac{\phi+\phi'}{2} + F(\Delta\lambda'')^3$

DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
Form No. 744 a
June 1938

Ⓩ

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

x 395,000

y 1,625,000

State __Fla.__   Zone __East__   Station ____

λ (Central meridian) ____

ϕ __28° 48′ 13″.41__

λ ____ 81· 19 40.25

Δφ (Excess of φ over even 10′ expressed as minutes and decimal) __8′.2235__

Δλ (Central meridian—λ) ____

Δλ (in sec.) ____ 1180″.25

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
		Cor. for second dif.	+ 3
Cor. for second dif.	+ 55	V	1.039282
H	88.968287		
		Tabular difference of y for 1″ of φ	
a	− .78		
b	+ 6.14	y (for minutes of φ)	
		y (for seconds of φ)	
H (Δλ″)	105,004.8	Tabular y	1,624,855.2
ab	−	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	144.8
$x′$	105,000		
	500,000.00	c	− 0
x	395	y	1,625,000
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$$x' = H\Delta\lambda + ab$$

$$y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$$

$$x = x' + 500,000$$

$$\Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F(\Delta\lambda'')^3$$

U. S. GOVERNMENT PRINTING OFFICE   11—12148

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 744 a
June 1938

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

State _Fla_   Zone _East_   Station _____

x 385,000
y 1,640,000

λ (Central meridian) _____

ϕ _28° 50' 41".64_   λ _____ 81 21 33.16

Δφ (Excess of φ over even 10' expressed as minutes and decimal) _0'.694_

Δλ (Central meridian−λ) _____

Δλ (in sec.) _____ 1293".16

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10')		Tabular V (even 10')	
Interpolated H (fraction of 10')	−	Interpolated V (fraction of 10')	+
		Cor. for second dif.	+ 1
Cor. for second dif.	+ 24	V	1.040230
H	88.933282		
		Tabular difference of y for 1" of φ	
a	− .78		
b	+ 6.63	y (for minutes of φ)	
		y (for seconds of φ)	
H (Δλ")	115,005.2	Tabular y	1,639,826.0
ab	−	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	174.0
x'	115,000		
	5 0 0 . 0 0 0 . 0 0	c	−
x	385	y	1,640,000
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin \frac{\phi+\phi'}{2}$	
		$F(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	"
$\sin \frac{\phi+\phi'}{2}$		Δa	° ' "

$x' = H\Delta\lambda + ab$ $y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$

$x = x' + 500,000$ $\Delta a'' = \Delta\lambda'' \sin \frac{\phi+\phi'}{2} + F(\Delta\lambda'')^3$

U. S. GOVERNMENT PRINTING OFFICE   11—12148

DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
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June 1938

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

x 375,000
y 1,655,000

State __Fla.__   Zone __East__   Station _____

λ (Central meridian) _____

ϕ 28° 53' 09".85

λ _____ 81 23 26.16

Δφ (Excess of φ over even 10' expressed as minutes and decimal) __3'.164166__

ΔΛ (Central meridian—λ) _____

ΔΛ (in sec.) __1406".16__

		$\left(\dfrac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10')		Tabular V (even 10')	
Interpolated H (fraction of 10')	—	Interpolated V (fraction of 10')	+
		Cor. for second dif.	+ 4
Cor. for second dif.	+ 81	V	1.041177
H	88.898237		
		Tabular difference of y for 1" of φ	
a	− .78		
b	+ 7.11	y (for minutes of φ)	
		y (for seconds of φ)	
$H (\Delta\lambda'')$	125,005.5	Tabular y	1,654,794.1
ab	—	$V\left(\dfrac{\Delta\lambda''}{100}\right)^3$	205.9
x'	125,000		
	500,000.00	c	—
x	375	y	1,655,000
$\dfrac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin \dfrac{\phi + \phi'}{2}$	
		$F (\Delta\lambda)^3$	
$\dfrac{\phi + \phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	"
$\sin \dfrac{\phi + \phi'}{2}$		Δa	° ' "

$x' = H\Delta\lambda + ab$

$x = x' + 500,000$

$y = \text{Tabular } y + V\left(\dfrac{\Delta\lambda''}{100}\right)^3 + c$

$\Delta a'' = \Delta\lambda'' \sin \dfrac{\phi + \phi'}{2} + F (\Delta\lambda'')^3$

DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
Form No. 744 a
June 1938

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

State __Fla.__ Zone __East__ Station __x 395,000__
__y 1,655,000__

ϕ __28° 53' 10".45__

λ (Central meridian) _____

λ __81 19 41.18__

$\Delta\phi$ (Excess of ϕ over even 10' expressed as minutes and decimal) __3'.1741667__

$\Delta\lambda$ (Central meridian−λ) _____

$\Delta\lambda$ (in sec.) __1181".18__

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10')		Tabular V (even 10')	
Interpolated H (fraction of 10')	−	Interpolated V (fraction of 10')	+
		Cor. for second dif.	+ 4
Cor. for second dif.	+ 81	V	1.041181
H	88.898094		
		Tabular difference of y for 1" of ϕ	
a	− .78		
b	+ 6.14	y (for minutes of ϕ)	
		y (for seconds of ϕ)	
$H(\Delta\lambda'')$	105,004.8	Tabular y	1,654,854.7
ab	−	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	145.3
x'	105,000		
	500,000.00	c	−
x	395	y	1,655,000
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	"
$\sin\frac{\phi+\phi'}{2}$		Δa	° ' "

$x' = H\Delta\lambda + ab$

$x = x' + 500{,}000$

$y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$

$\Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F(\Delta\lambda'')^3$

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 744 a
June 1933

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

State _Fla._ Zone _East_ Station _Griffin, 1935_

λ (Central meridian) _____

ϕ _28° 53′ 23″.787_ λ _81 21 16.166_

$\Delta\phi$ (Excess of ϕ over even 10′ expressed as minutes and decimal) _3′.39645_

$\Delta\lambda$ (Central meridian−λ) _____

$\Delta\lambda$ (in sec.) _1276″.166_

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
		Cor. for second dif.	+ 4
Cor. for second dif.	+ 83	V	1.041265
H	88.894938		
		Tabular difference of y for 1″ of ϕ	
a	− .83		
b	+ 6.37	y (for minutes of ϕ)	
		y (for seconds of ϕ)	
H ($\Delta\lambda''$)	113,444.7	Tabular y	1,656,202.2
ab	− 5.3	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	169.6
x'	−113,439.4		
	500,000.00	c	− 0
x	386,560.6	y	1,656,371.8
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$$x' = H\Delta\lambda + ab$$

$$x = x' + 500,000$$

$$y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$$

$$\Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F(\Delta\lambda'')^3$$

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DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
Form No. 744 a
June 1938

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

State _Fla._ Zone _East_ Station _Whirl, 1935_

λ (Central meridian) _____

ϕ _28° 51′ 18″.545_   λ _81 21 02.356_

Δφ (Excess of φ over even 10′ expressed as minutes and decimal) _1′.3090833_ Δλ (Central meridian−λ) _____

Δλ (in sec.) _1262.356_

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
		Cor. for second dif.	+ 2
Cor. for second dif.	+ 42	V	1.040466
H	88.924559		
		Tabular difference of y for 1″ of φ	
a	− .83		
b	+ 6.50	y (for minutes of φ)	
		y (for seconds of φ)	
H (Δλ″)	112,254.5	Tabular y	1,643,553.0
ab	− 5.4	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	165.8
x′	−112,249.1		
	500,000.00	c	− 0
x	387,750.9	y	1,643,718.8
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$x' = H\Delta\lambda + ab$ $y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$

$x = x' + 500,000$ $\Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F(\Delta\lambda'')^3$

U. S. GOVERNMENT PRINTING OFFICE   11—12148

DEPARTMENT OF COMMERCE
U. S. Coast and Geodetic Survey
Form No. 744 a
June 1938

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

State __Fla__   Zone __East__   Station __Wilson 1935__

λ (Central meridian) _____

ϕ __28° 49' 12".362__   λ __81 21 43.118__

Δφ (Excess of φ over even 10' expressed as minutes and decimal) __9'.206033__   Δλ (Central meridian—λ) _____

Δλ (in sec.) __1303.118"__

		$\left(\dfrac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10')		Tabular V (even 10')	
Interpolated H (fraction of 10')	—	Interpolated V (fraction of 10')	+
		Cor. for second dif.	+ 2
Cor. for second dif.	+ 27	V	1.039660
H	88.954370		
		Tabular difference of y for 1" of ϕ	
a	− .83		
b	+ 6.68	y (for minutes of ϕ)	
		y (for seconds of ϕ)	
H (Δλ")	115,918.0	Tabular y	1,630,808.9
ab	− 5.5	$V\left(\dfrac{\Delta\lambda''}{100}\right)^2$	176.5
x'	115,912.5		
	500,000.00	c	− 0
x	384,087.5	y	1,630,985.4
$\dfrac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin \dfrac{\phi+\phi'}{2}$	
		$F (\Delta\lambda)^3$	
$\dfrac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	
$\sin \dfrac{\phi+\phi'}{2}$		Δa	

$x' = H\Delta\lambda + ab$

$x = x' + 500,000$

$y = \text{Tabular } y + V\left(\dfrac{\Delta\lambda''}{100}\right)^2 + c$

$\Delta a'' = \Delta\lambda'' \sin \dfrac{\phi+\phi'}{2} + F (\Delta\lambda'')^3$

U. S. GOVERNMENT PRINTING OFFICE   11—12148