

5828

Diag'd. on ^{Topo} Diag. Ch. No. 1257-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey **Planimetric Map**

Field No. **T-5828** Office No.

LOCALITY

State **Florida**

General locality **Florida West Coast**

Locality **Rio Vista and Vicinity**

Photos. taken December 12, 1939

194 1

CHIEF OF PARTY

Lieut. Kenneth G. Crosby

LIBRARY & ARCHIVES

DATE **Aug 1 - 1946**

8-1870-1 (1)

00
22
00
5

Applied to Chart 537 before review October 8, 1942 L.A.M.
" " " 1257 " " October 13, 1942 L.A.M.

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.

SHEET NO. T-5828

~~Field No.~~

REGISTER NO.

State Florida

General Locality Florida West Coast, Tampa Bay

Locality West end of Gandy Bridge,

Scale 1:10,000 Date of ^{photos.}~~survey~~ December 12, 1939

Vessel Party: Air Photographic Party, No. 1

Chief of party Lieut. Kenneth G. Crosby,

Field inspected by: James C. McGuire, Photogrammetric Aid.
~~Surveyed by~~

Inked by William H. Shearouse.

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated April 3, 1940

Remarks:

PROMOTED

Number	Date	Time	Stage of Tide
4173	December 12, 1939	10:04	-0.9
4174	" " "	10:04	-0.9
4175	" " "	10:05	-0.9
4176	" " "	10:06	-0.9
4198	" " "	10:30	-0.8
4199	" " "	10:31	-0.8
4200	" " "	10:31	-0.8
4201	" " "	10:32	-0.8
4202	" " "	10:33	-0.8

This data predicted tables for: Mean between Tampa Bay (St. Petersburg)
and Bayview, Old Tampa Bay.

Charts: U.S. Coast and Geodetic Survey, Hydrographic (Soundings 64 inches)
Negatives on file at Hydrographic Station.

SCALE

Map scale of Photo reduced..... 1:10,000 ± .9985
Scale of Survey Sheet..... 1:10,000

STATISTICS

Area (land).....	15.2	Shoreline (total) miles
Shoreline (more than 200 ft. from opposite shore).....	34.2	Shoreline (total)
Shoreline (average).....	12.2	Shoreline (average)
Beach, dunes, trails, and refugia.....	45.4	Shoreline (average)

REFERENCE STATION

Station: PETE, 1908

Latitude: 27° 52' 51.486(1584.8m)
Longitude: 82° 37' 01.685(46.1m) ^{unadj.}

Date: N. A. 1927.

Florida System of Plane Coordinates (West Zone)

x coordinate: 300,632.98 feet
y coordinate: 1,289,876.96 "

SUPPLEMENTARY SURVEYS

	NAME	Date	Hours
Control Surveys.....	KWS JED MMS	May & July	18 1/2
Planetable Surveys.....			
Total			18 1/2

FIELD INSPECTION

Preparation of Photo Log.....	KWS	Jan. & Feb.	12
Field Work.....	JCM JDT WHS	April & Sept.	100
Indexing Notes.....	JCM	May	2
Coast Pilot Notes.....			
Geographic Name Report.....	HAD JED	June & July	5 $\frac{1}{4}$
Landmarks for Charts.....			
Description of Sub.....	JCM	April	72 $\frac{1}{2}$
Recovery Notes.....			
Total			191 $\frac{3}{4}$

MAIN RADIAL PLOT

Scale Plot.....	KGC LJD	June	3
Projection on Base Sheet.....	Washington Office.		
Projection on Survey Sheet.....			
Control Plotted.....	KGC	July	3
Control Checked.....	JED	July	2 1/4
Control Trans. to Base Sheet.....	RHY KGC	July	1 1/4
Transfer Checked.....	JED	July	1
Control Plotted on Photographs.....	JED	May	27 1/2
Control Checked on Photographs.....	LJD	May	11
Hydro. & Tidal Stations Plotted.....	JED LJD KWS	May & June	9 1/4
Radar Points Plotted.....	KWS LJD JED	June	17 1/4
A. T. Base Centers Plotted.....	LJD	April	10
Tidal Sta.....	WHS	July	7
A. T. Plot.....	KGC RD RHY	July	7 1/4
Radar Points Transferred.....	RHY JAG	July & Aug.	5 1/4
Transfer Check.....	JAG JED WHS	July & Aug.	6 1/2
H & T Station Sounding Checked.....	WHS KGC	Sept. & Oct.	5
Additional Radar Points.....	WHS	August	2
Total			119 3/4

DETAILING

Rough Draft.....	WHS	Aug.-Sept.-Oct.	180 1/2
Smooth Draft.....			
Total			180 1/2

COMPILATION

Notes on T. S.	WHS	September	8
Detailing Report.....	WHS KGC	Sept. & Oct.	12
Final Review.....	KGC	October	16
Total			36

Total Time Required for this Project..... 546 1/2 hours

DESCRIPTIVE REPORT
TO ACCOMPANY
SHEET NO. T---5828

GENERAL

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

The general locality of the area covered by this survey sheet is Florida, West Coast, in the immediate vicinity of the West End of Gandy Bridge.

The terrain along the shoreline is mostly mangrove. The inland terrain is flat land and is covered with vegetation consisting generally of pine, palm, palmetto, brush and grass. There are no swamp areas on this sheet except the heavy mangrove areas at the waters edge. Cultivated areas on the sheet are negligible.

Approximate M. L. W. is shown by dotted lines. Approximate shoal limits are shown by short dash lines and are for the use of the hydrographer.

The small bars shown are oyster bars, except where labeled otherwise and consist of sand and shell.

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

CONTROL

The following triangulation and traverse stations were used for control on this sheet:

<u>Name of Station</u>	<u>Year</u>	<u>Established by</u>
PETE	1908	W.B.F. (C. & G.S.)
DOG	1908	W.B.F. "
Y-1	1934	Florida Mapping Proj.
Y-2	1934	Florida Mapping Proj.
Y-39	1934	Florida Mapping Proj.
Y-40	1934	Florida Mapping Proj.
Y-48	1934	Florida Mapping Proj.

None of the above stations have azimuth marks.

No errors were found in the location of the control stations nor in the plotting of these stations on the photographs.

Triangulation stations ASPLIN, 1934, and BIG 1926, and traverse stations, Y-49, 1934 and Y-50, 1934, fall on this sheet but are outside the tracing limits. A paragraph concerning the position of triangulation station BIG will be included in the descriptive report of Sheet T-5830.

*Station BIG reported
lost 1934*

MAIN RADIAL PLOT

A continuous radial plot was laid on July 28-30, 1941 for the location of radial points, hydrographic & topographic stations, bench marks and azimuth marks on Sheets T-5826 to T-5833, inclusive. It extended southward from a northern limit formed by photographs 3828, 3995, 3916, 3954, 3974, 4185, 4176 and 4200 where it formed a satisfactory junction with the previous main radial plot. The plot consisted of 63 templates, all of which were controlled by triangulation or second order traverse. Four templates had 3 to 5 control stations; eighteen templates had 6 to 10 control stations; thirty-three templates had 10 to 20 control stations and eight templates had 20 to 30 control stations. The latter being in the vicinity of St. Petersburg. All traverse stations of the "Y" series used for control of the plot were established and located by the Florida Mapping Project and were considered to be of second order accuracy. In several instances, triangulation established by the U. S. Engineers has been used for controlling the plot in conjunction with U. S. Coast & Geodetic Survey triangulation and traverse control. The order of accuracy for the U. S. E. triangulation is not definitely known although their office has advised that it is probably about third order. These stations are shown on the survey sheet by 2.5 m.m. black circles rather than by the triangle symbol.

No large or unusual adjustments were necessary in any part of the plot. Agreement along the flight line was excellent and the intersection of radial lines to adjacent centers checked the actual center of the template very closely. Photographs on the shore flight (Gulf side) had large amounts of tilt but did not present any difficulties while laying the plot.

The templates were made in the usual manner and in accordance with "Notes on Radial Plotting of Nine-Lens Air Photographs", dated April 9, 1940. All hydrographic and topographic stations whether marked or unmarked were located by the main radial plot. A great number of radial points were established to alleviate the necessity of the draftsman establishing additional points.

The usual practice of laying the main plot was followed. This consisted of plotting and checking the control on the survey sheets and then transferring these points to base grid sheets by matching individual grid squares. The amount of adjustment in each individual grid square was negligible but amounted to about .5 m.m. in some cases for the entire length of the sheet. The grid sheets were securely taped to the plotting table and allowed to remain for 48 hours before any templates were laid. Before laying the templates, the base grids were examined for movement and the necessary adjustments made to reduce or remove the discrepancies along the matched grid lines. After laying the templates all points were transferred to the survey sheet by again matching individual grid squares between the base grid and the survey sheets.

A further check was made by comparing all photographs for each particular sheet against the location established by the radial plot. It has been found that much time can be saved by making this additional check at the time of completing the transfer rather than waiting until the sheet is ready for detailing. This eliminates a particular fruitful source of discrepancy, namely the picking of a wrong intersection when there is a multiplicity of "cuts", not all of which meet at a common intersection.

All points located by the main radial plot on this sheet were determined by the common intersection of three or more radial lines. These intersections were excellent and in cases where there were six or seven radials, there was a common intersection. It is believed that the location as determined by these intersections are less than 0.2mm of their true location.

Various colored inks were used on the mounted office prints and on the survey sheet to designate triangulation, traverse and topographic stations, etc. The following key is furnished for this information:

Photographs (Office Prints)

Triangulation & Traverse Stations.....	2.5 mm blue circle
Marked Hydro. & Topo. Signals.....	2.5 mm green circle
Radial Points (Main Plot).....	2.5 mm red circle
Radial Points (Additional).....	3.5 mm red circle
Photograph Centers.....	Double Circle

Survey Sheet

Triangulation Stations.....	3.5 mm high black triangle
Hydro. & Topo. Stations.....	2.5 mm black circle
Radial Points (Main Plot).....	2.5 mm blue circle on back
Radial Points (Additional).....	3.5 mm blue circle on back
Radial Points (Questionable).....	3.5 mm green circle on back.

INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and accurate, interpretation was obtained with no unusual conditions being found.

FIELD INSPECTION

Field inspection was made during April and May, 1941 by James C. McGuire, Photogrammetric Aid. Considerable difficulty was experienced in distinguishing between the low waterline and grass in water, as the field inspector used the same symbol for both in most cases. Difficulty was also experienced in determining where the heavy line, denoting fast land, should be placed on the map drawing as the field inspector used the heavy line symbol around the mangrove islands and mangrove limits. These mangrove areas flood at high tide and after consulting with the Chief of Party and other draftsman it was decided that the field inspector was in error by using the heavy line. Therefore a light line has been used on the map drawing, denoting the limits of vegetation,

rather than the heavy line as shown on the field inspection photographs.

The draftsman made a trip to the field on September 23, 1941 to ascertain the accuracy of certain doubtful field notes, to recover Tidal Bench Mark "G-5, 1923", on the west end of Gandy Bridge and to take measurements of the St. Petersburg Drive-In Theatre. The theatre has been built since the photographs were made and a number of ground measurements were necessary to establish its position. It is believed its position and diagram are accurate, the approximate location is Latitude $27^{\circ} 50.3'$, Longitude $82^{\circ} 38.3'$.

DETAILING

This sheet was detailed in accordance with the current instructions for the project.

As a whole the photographs for this drawing were of exceptionally good scale. All the photographs were used to some extent. They were very clear and no unusual difficulty was experienced in interpreting vegetation, etc. The scale of photographs 4173, 4176, 4199, 4200, 4201 and 4200 was good, 4175 and 4198 was fair, and 4174 poor.

Before detailing the surface of this sheet was rubbed down with magnesium carbonate and then washed off. No additional cleaning or reinking has been necessary.

Symbols have been used in a few places when it was thought that this was the better procedure.

The stereoscope has been freely used for pricking the corners of buildings, interpreting the detail and determining the limits of vegetation.

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

JUNCTIONS

This sheet joins Sheet T-5830 on the south, and T-5827 on the west. The junctions are in agreement.

COMPARISON WITH OTHER SURVEYS

Reference is made to a letter from the Washington Office dated May 10, 1941 (28-PFA, 1990), advising that this paragraph may be dispensed with for this area. Surveys of other agencies and the charts of this area are of such scales that accurate comparisons could not be made.

GEOGRAPHIC NAMES

The geographic names for this area are the subject of a special report entitled "Investigation of Geographic Names, Anclote Keys to Entrance of Tampa Bay", submitted by Lieut. (j.g.) J. D. Thurmond, to the Washington Office.

LANDMARKS

No landmarks now appear on the charts for this area, however it is recommended that the large white building on Weedon Island be charted. It is submitted on Form No. 567, which is a part of this report. See Chart Letter #508-1943.

Respectfully submitted,

William H. Shearouse

William H. Shearouse,
Engineering Draftsman.
(Topographic)

Forwarded,

Lieut. Kenneth G. Crosby,
Chief of Party.

REVIEW OF AIR PHOTO COMPILATION NO. T-5828

Chief of Party: Kenneth G. Crosby

Compiled by: W. H. Shearouse

Project: H. T. 242

Instructions dated: April 3, 1940.

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 navigation 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. 66; 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 application to the charts. (Par. 28)

None transmitted.

5. Difference 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 65 c,h,i)

Yes; no large or unusual adjustments.

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

Yes the light line around marsh and mangrove areas defines the outer limits of vegetation visible at high water. The mean high waterline is shown on fast land only and is represented by a heavy solid line.

8. The representation of low water lines, reefs, coral reef and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41) Yes, low water line is approximate. Shoal areas are outlined as an aid to the hydrographer.
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 557 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 of navigational importance. All are fixed span type, crossing drainage canals or small unnavigable streams.
12. Geographic names are shown on the overlay tracing. The accepted local usage on new names has been determined and they are listed in the report, together with a general statement as to the source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U.S. C. & G.S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
No overlay. See report on geographic names mentioned in paragraph, "GEOGRAPHIC NAMES".
13. The geographic datum of the compilation is N.A. 1927 and the reference station is correctly noted.
Reference station has been corrected for datum difference since ~~since~~ no triangulation stations within the tracing limits is on the N.A. 1927 datum.
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
Yes.
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, legend also used.
 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, legend also used.
6. All drawing has been retouched where partially rubbed off. Not necessary to retouch.
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.

No additional topographic survey required.

17. **Remarks:** The airport in the vicinity of Latitude $27^{\circ} 51'$ North, Longitude $82^{\circ} 36.5'$ West, has been abandoned. Bridges crossing the bayou in this vicinity have also been abandoned.

18. Examined and approved:

Kenneth G. Crosby
Kenneth G. Crosby.
Chief of Party.

19. **Remarks after review in office:**

Reviewed in office by:

Examined and approved:

Chief of Section of Field Records

Chief, Section of Field Work

Chief, Division of Charts

Chief, Division of Hydrography

GEOGRAPHIC NAMES

Survey No. T-5828

GEOGRAPHIC NAMES		Survey No. T-5828											
Name on Survey		A.	B.	C.	D.	E.	F.	G.	H.	K.			
✓	Cedar Point ✓										1		
✓	Big Island ✓										2		
✓	Big Island Gap ✓										3		
✓	Cabbage Patch Point ✓										4		
✓	Grassy Creek ✓										5		
✓	Grassy Point ✓										6		
✓	Old Tampa Bay ✓										7		
✓	Gandy Bridge ✓										8		
✓	North Gandy Channel ✓										9		
✓	South Gandy Channel ✓										10		
✓	Masters Bayou ✓										11		
✓	Tinney Creek ✓										12		
✓	Weedon Hammock ✓										13		
✓	Weedon Island ✓										14		
✓	Rio Vista ✓										15		
✓	Papys Point ✓										16		
✓	Ross Island ✓										17		
✓	Googe Island ✓										18		
✓	Christmas Pass ✓										19		
✓	Christmas Island ✓										20		
✓	Snake Island ✓										21		
✓	Benjamin Island ✓										22		
✓	Mud Hole Island ✓										23		
	Papys Bayou ✓										24		
	Riviera ✓										25		
											26		
											27		
											28		

COPIES

by L Heck on 7/22/42

M 234

by L Heck on 7/22/42

T-5828

Remarks

Decisions

1		279826
2		"
3		"
4		"
5		"
6		"
7		279825
8		278826
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16		278825
17		"
18		"
19		"
20		"
21		"
22		"
23		"
24		
25		
26		
27		

DIVISION OF PHOTOGRAMMETRY

REVIEW OF PLANIMETRIC MAP T-5828

Radial Plot:

The radial plot, which is described in detail in the descriptive report, was accepted without further check during review.

Field Inspection and Detailing:

Adequate

Comparison with Previous Topographic Surveys:

T-5828 supersedes those sections of the following older surveys which it covers:

T-1409a	1:20,000
T-4185	1:20,000

Comparison with Nautical Charts:

T-5828 was applied to charts 587 and 1257 prior to this review. No changes important to the charts have been made on the manuscript during the review.

Topographic Quadrangles:

T-5828 was compiled in 1941, but processing in the Washington Office was delayed because of war map work of the Bureau and was not completed until July 1946. Meanwhile, the Coast and Geodetic Survey produced topographic quadrangles (manuscript scale 1:20,000) for the War Department of this same area. Planimetric details from T-5828 were used as a base in the preparation of quadrangles T-8380, T-8381, and T-8386, which were completed in 1944. The quadrangles are more recent and are more complete as regards map detail than T-5828, but are at a smaller scale.

Reviewed by Lillian A. Lee

Under the direction of D. H. Benson, August 1943

Review report prepared by B. G. Jones from reviewer's notes, July 1946

Page 2

Approved by:

B. G. Jones 7/46

B. G. Jones, Technical Asst.
Div. of Photogrammetry

Robert W. Knapp

Chief, Nautical Chart Branch
Division of Charts

K. T. Adams

Chief, Div. of Photogrammetry

Raymond P. Egan

Chief, Div. of Coastal Surveys