5133

Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

Topographic } *Sheet No.* 33
~~Hydrographic~~ } Reg. No. T-5133

State FLORIDA

LOCALITY

Lake George

~~NINE MILE~~ POINT
NINEMILE POINT
AND VICINITY

Photographs taken March 13 1935
~~1938~~

CHIEF OF PARTY

Hubert A. Paton

U. S. GOVERNMENT PRINTING OFFICE: 1934

5133

Applied to Chart No. 687. November 1939. L.A.M.

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

J.W.P.

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. 33

REGISTER NO. T-5133 T5133

State FLORIDA

General locality LAKE GEORGE

Locality NINE MILE POINT

Scale 1:10,000 Date of photographs March 13, 1935, 19

Vessel PARTY NO. 26

Chief of party Hubert A. Paton

Surveyed by See Page No. 2

Inked by W. C. Russell

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated March 4, 1935, 19

Remarks: Photographs taken with U. S. Army Air Corps, Five Lens Camera No. 32-2
Field Inspection in March and November 1937 and January 1938.

NOTES ON COMPILATION

SHEET NO. 33

REGISTER NO. T-5133

Photographs: Five Lens Flight No. 25, Nos. 909 - 927

Scale Plot: W. C. Russell May 5, 1937

Scale Factor: 1.00

Projection by: Washington Office.

Control Plotted by: Hubert A. Paton, May 20, 1937

Control Checked by: W. C. Russell May 31, 1937

Detail Inked by: W. C. Russell

Radial Plot by: H. O. Fortin, June 10, 1937

Overlay Sheet by : W. C. Russell

Area of Detail Inked 14.3 Sq. Statute Miles

Length of Shoreline (over 200 m) 5.6 Statute Miles

Length of Shoreline (under 200m) 5.0 Statute Miles

Reference Station
Nine Mile, 1935
Lat: 29-16-13.362 (411.4 m) adjust.
Long 81-32-57.706 (1017.9m)
M.H. 1927 datum

Date and Time of
Photos: March 13, 1935, at 12:25 P.M.
No tide
River Height Normal

DESCRIPTIVE REPORT

to accompany

MAP DRAWING NO. 33

REGISTER NO. T 5133

January 27, 1938.

GENERAL INFORMATION:

This Sheet was compiled from photographs taken by the U. S. Army Air Corps, using a five lens camera No. 32-2. There was but one flight on this sheet, No. 25, which was flown in a northerly direction. The photos were taken at an elevation of about 5,000 feet, and the scale of the photographs was almost exactly 1:10,000.

The tidal range in Lake George is zero, so the stage of the tide need not be considered. From the appearance of the pictures and from the results of tidal observations at Jacksonville and Palatka, the lake was at normal river level when the photographs were taken.

CONTROL:

Triangulation.- Control for this plot was obtained from the unadjusted field positions of the second order stations established by Lieut. K. G. Crosby in 1935. A small adjustment was made to the longitude of the positions for correction of the error in closure of arc. In the case of the reference station, Nine Mile, it amounted to 0.3 meters minus. The adjusted positions, recently received from the Washington Office, show that there is only 0.1 meter error in either the Latitude or the Longitude from the values used in plotting the stations.

Graphic Control Sheets.- Additional control was secured from Sheet ZZ,* surveyed by Lieut. Comdr. L. D. Graham in 1937, on a scale of 1:20,000. Stations LOG and TAN are described H & T stations but the others, CAN and PT.Q, were temporary hydrographic signals on lone trees. Station LOG could not be picked on the photographs and therefore was not used in the radial plot.

A comparison was made of all shore line on the G. C. Sheet with that of the map drawing, and it was found to be in very close agreement. The location of the boat hoist at Dead Man Landing, disagreed by about 10 meters. A radial point was established on the S. W. End of the hoist and its location checked the map drawing. It is probable that the topographer located some other point on the hoist and together with errors due to differences of the scales of the two sheets, this much discrepance could be expected.

The above sources furnished all the control for the sheet.

* Graphic Control Survey ZZ is filed in air photo Section under CS 134 M

There were no State Control Survey Traverses on this sheet. Additional control would have been helpful on the C wing of this flight but not absolutely necessary, as a good plot was carried through from the stations along the shore.

Since triangulation station Coquina could not readily be picked on the photographs, a field inspection station PT.Q, was selected and connected with Coquina by distance and azimuth. For the same reason, field inspection station "PT. GR" was picked at station Grove, and tied in by the same manner.

Station Can did not check the plot. The field inspection at this station was very difficult on account of the wooded swamp and the signal was not used in the plot.

RADIAL PLOT:

The five lens pictures were mounted in accordance with the calibration tests furnished by the office for this camera. No great difficulty was experienced in making the radial plot. The wing prints had to be moved in on some photographs but not any constant amount or direction. In tracing detail, it was found that additional radial points were necessary and were plotted on the sheet by the detailer. The flight had no excessively tilted photographs. Great care was taken to reject all points that did not check very closely.

FIELD INSPECTION:

Field inspection on this sheet was done during the months of March and November, 1937, and January, 1938. In March an inspection was made from a boat along the shoreline. In November an inspection was made by truck, along the sand roads and trails, and all features which were doubtful under the stereoscope were noted on the field photographs.

As has been the experience in the past in making field inspection, not all features which were doubtful could be reached by these two means, and such features had to be traced on the sheet to the best of the observer's knowledge of the surrounding country... Some of these doubtful features have been,:-

Limits of swamp and hammock lands.
Limits of swamps.
Kinds of vegetation,
Types of ponds,,whether intermittent, grassy or clear.

These doubtful features were inspected by a new method, from an airplane. Since this was an entirely new departure from the former methods of field inspection, it will be described in detail. Estimates for the hire of a plane was approved in December, 1937. Contracts were awarded and a plane and pilot hired for the work. The plane was flown at approximately 1000 feet elevation, on a clear day. It is believed that a height of 500 to 1000 feet is probably the best altitude for inspection over this type of country. All information necessary was obtained in approximately one hours time at a cost of $6.00 for the pilot and plane. This is a considerable saving in time and money over a ground field inspection to obtain the same results. It is not recommended that air inspection should take the place of all ground inspection but that in certain sections of the country where information cannot be obtained from the ground, air inspection is indespensible.

GENERAL DESCRIPTION OF TOPOGRAPHY:

At the northern part of the sheet along the shoreline there is a bluff about 10 feet high, gradually sloping both ways to the lake level. This bluff is the highest on the eastern shore of Lake George. About the central part of the sheet, along the shoreline, and extending back in shore, is a densely wooded swamp. The southern shoreline of the sheet is for the most part grassy marsh land. In general, the land back from the shoreline is level, and covered with scattered swamp, pine, and grass areas. Small intermittent and grassy ponds are scattered throughout the area.

An interpretation of topography as seen from the photographs, and characteristic of the area can be found in Descriptive Report for Sheet T-5151 under the heading of "General Description of Topography".

ROADS:

The double dash lines indicate fair sand roads. The one shown on the north of the sheet would ordinarily be considered a good trail, but since it is the one most frequently traveled, and leads to the shoreline, it was considered more important than other trails and was emphasised forthis reason. The double dash lines at the south of the sheet are similiar cases as above. The single dash lines indicate trails. They are, in several instances, very faint and overgrown. Those leading to the swamps are probably old logging roads, and are not used to any extent now. In general, automobiles can travel on most of the trails, except in the lowland, where it is probable they would get stuck in the mud and sand. The abandoned tramway in now a trail, and impassable by automobile at wet seasons of the year.

PILINGS:

There is a row of old piling, indicated by small circles, leading out to the boat hoist at Dead Man Landing, and another row of piling at the southwest corner of the sheet. These are probably remains of old docks. Fish net drying racks are shown as double short dash lines. There are several of these around Dead Man Landing. The boat hoist as indicated on the sheet, is a small "A" frame structure with block and tackle to hoist small boats out of the water for repairs.

SWAMPS AND MARSHES:AND PONDS:

See Descriptive Report accompanying Sheet No. T-5151 for a complete discussion of these features, which applies equally well to this sheet and will not be repeated.

COMPARISON WITH U. S. ENGINEERS SURVEYS:

The original survey of Lake George was made by the U. S. Engineers in 1926 and our charts are apparently based upon them. A comparison with thistsheet shows large errors. The distance between Mud and Price Creeks disagree by about 300 meters and the shoreline is now about 200 meters farther east.

The shoreline at Dead Man's Landing is now about 150 meters southwest of the position shown by the U. S. Engineers. The character of the terrain was also in error. In large areas where they show marsh, wooded swamps are now found and where they show pine woods there are now grass marshes. The detail around Nine Mile Point agrees quite well but at triangulation station Coquina they are again in error by 200 meters.

GEOGRAPHIC NAMES: ✓GHE

A complete list of the names shown on the overlay sheet is here given, together with the sources.

Lake George.- U. S. C. & G. S. Chart No. 508 and all other maps are in agreement on this name.

Jones Cove.- The body of water bounded approximately by the shoreline between Dead Man Landing and triangulation station Adams.

Dead Man. Landing.- The only landing on this sheet. It is a fishing camp.

Nine Mile Point.- A prominent point of land at the north end of the sheet.

Price Creek.- A small creek just south of Dead Man Landing. Used only by small fishing boast when clear of hyacinth.

Mud Creek.- A small creek running through marsh land. At time of inspection it was clogged with hyacinth.

The above names cannot be found on any local, county or state and federal maps. They were obtained from a group of fishermen at Dead Man Landing who have lived in this territory for years. They were all in agreement as to the names and claimed that these names are known locally. The spokesmen for the group was Mr. M. C. Newman, Seaville, Florida. The fishing camp is sometimes known as Newman's Camp but he claimed that Dead Man Landing was the more common name. He said that the entire territory covered by the northern half of the sheet was sometimes called "Graball", but he had never seen it in print and did not know how it was spelled. It was decided that this name was not prominent enough for use on this sheet. He also referred to the long straight trail leading west to the shore about 3/5 of a mile north of Dead Man Landing as the "Avenue". This was the start of some subdivision during the Florida Land Boom and may have had some other name at that time. However no maps of the proposed town site could be found and since the full name could not be learned, it was decided best to leave it off the sheet entirely.

All of the names shown on the overlay are in common use and are recommended for adoption.

MISCELLANEOUS:

All available maps of this region, other than the U. S. Engineers survey mentioned previously, have been compared with this drawing, but due to smallness of scale or obsoleteness of surveys, not much value could be obtained from a minute comparison.

There are no bridges, railroads, cable crossings, over-head powerlines, or water tanks on this sheet. There are only four houses on this sheet, and all of them are old, small, and of light construction.

There are no objects of sufficient importance to be listed as landmarks other than the fish house reported by Captain Graham in the report of Sheet ZZ.

Respectfully submitted,

W. C. Russell

W. C. Russell,
Ensign, C&GS

Landmark
House on pier (O Tan (d)) Forms 567 submitted by Graham in connection with G.C.S. Hydro.

Rec. H+T 05 (d)
2 - Filed under # T-5133

Special Symbols
Shoreline: Fast Land ----- Heavy solid line
Marsh - - - - light " "
Cypress Swamp - - - " " "
Abandoned Tram way — — — — long dash line (labelled)
Fernery (place where ferns grow) -- solid outline crosshatched labelled.
Piles - - - - - - - - small circle open center. labelled.
Fish Net Drying Racks — — — — short, double dashed, lines.
also: ||||

M-350

T-5133

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 H. D. Reed, Jr.

Positions checked on Ruling Machine

Grid inked on machine by H. D. R. Jr.

Intersections inked by H. D. R. Jr.

Points used for plotting grid:

x = 320, 000 FT y = 1,800, 000 FT	x 330, 000 y 1,785, 000
x 345, 000 y 1,800, 000	x y
x 320, 000 y 1,770, 000	x y
x 345, 000 y 1,770, 000	x y

Triangulation stations used for checking grid:

1. Nine Mile 1935	5.
2. Grove 1935	6.
3. Eye 1935	7.
4.	8.

Note:- Grid has been checked for overlap with adjoining sheets and for spacing. Grid positions for Δ stas are in the process of computation. These will be used to check grid as soon as received.

Geodetic positions from transverse Mercator coordinates

State Fla East

320,000
Station 1,800,000

x		log S_g	—
C	—	log (1200/3937)	9.48401583
x' (=x−C)	− 180,000	log (1/R)	—
$x'^3/(6\rho_o^2)_g$	− 2.23	log S_m	—
S_g	179,997.77	cor. arc to sine	−
		log S_1	4.73930317
log S_m^2	9.478617	log A	8.50937462
log C	1.154376	log sec ϕ	0.05938195
log $\Delta\phi$	0.632993	log $\Delta\lambda_1$	3.30805974
		cor. sine to arc	+ 703
y		log $\Delta\lambda$	3.30806677
ϕ'(by interpolation)	29° 17′ 07.″5147	$\Delta\lambda$	2032.″6695
$\Delta\phi$	− 4.2953	λ (central mer.)	81° 00′ ″
ϕ	29° 17′ 03.″2194	$\Delta\lambda$	33 52.6695
		λ	81° 33′ 52.″6695

345,000
Station 1,800,000

x		log S_g	—
C	—	log (1200/3937)	9.48401583
x' (=x−C)	− 155,000	log (1/R)	—
$x'^3/(6\rho_o^2)_g$	− 1.42	log S_m	—
S_g	154,998.58	cor. arc to sine	−
		log S_1	4.67436514
log S_m^2	9.348738	log A	8.50937461
log C	1.154376	log sec ϕ	0.05938326
log $\Delta\phi$	0.503114	log $\Delta\lambda_1$	3.24312301
		cor. sine to arc	+ 521
y		log $\Delta\lambda$	3.24312822
ϕ'(by interpolation)	29° 17′ 07.″5147	$\Delta\lambda$	1750.″3634
$\Delta\phi$	− 3.1850	λ (central mer.)	81° 00′ ″
ϕ	29° 17′ 04.″3297	$\Delta\lambda$	29 10.3634
		λ	81° 29′ 10.″3634

(M-29)

(over)

Explanation of form:

$$x' = x - C$$

$$S_g = x' - \frac{x'^3}{(6\rho_o^2)_g}$$

$$S_m = \frac{1}{R}\left(\frac{1200}{3937}\right)S_g$$

R = scale-reduction factor

ϕ' is interpolated from table of y

$\Delta\phi = C\, S_m^2$

$\phi = \phi' - \Delta\phi$

$\Delta\lambda_1 = S_1 A \sec\phi$

$\log S_1 = \log S_m$ − cor. arc to sine

$\log \Delta\lambda = \log \Delta\lambda_1 +$ cor. arc to sine

$\lambda = \lambda$(central mer.) $- \Delta\lambda$

Geodetic positions from transverse Mercator coordinates

State Fla. East Station 320,000 / 1,770,000

x	320,000	log S_g	5.25526713
C		log (1200/3937)	9.48401583
x' (=x−C)	−180,000	log (1/R)	2555
$x'^3/(6\rho_o^2)_g$	− 2.23	log S_m	4.73930851
S_g	179,997.77	cor. arc to sine	− 534
		log S_1	4.73930317
log S_m^2	9.478617	log A	8.50937642
log C	1.152916	log sec ϕ	0.05903183
log $\Delta\phi$	0.631533	log $\Delta\lambda_1$	3.30771142
		cor. sine to arc	+ 702
y		log $\Delta\lambda$	3.30771844
ϕ'(by interpolation)	29° 12′ 10.″4948	$\Delta\lambda$	2031.″0398
$\Delta\phi$	− 4.2809	λ (central mer.)	81° 00′ ″
ϕ	29° 12′ 06.″2139	$\Delta\lambda$	33 51.0398
		λ	81° 33′ 51.″0398

Station 345,000 / 1,770,000

x	345,000	log S_g	5.19032772
C		log (1200/3937)	9.48401583
x' (=x−C)	−155,000	log (1/R)	2555
$x'^3/(6\rho_o^2)_g$	− 1.42	log S_m	4.67436910
S_g	154,998.58	cor. arc to sine	− 396
		log S_1	4.67436514
log S_m^2	9.348738	log A	8.50937642
log C	1.152916	log sec ϕ	0.05903314
log $\Delta\phi$	0.501654	log $\Delta\lambda_1$	3.24277470
		cor. sine to arc	+ 520
y		log $\Delta\lambda$	3.24277990
ϕ'(by interpolation)	29° 12′ 10.″4948	$\Delta\lambda$	1748.″9601
$\Delta\phi$	− 3.1743	λ (central mer.)	81° 00′ ″
ϕ	29° 12′ 07.″3205	$\Delta\lambda$	29 08.9601
		λ	81° 29′ 08.″9601

(M-29)

(over)

Explanation of form:

$$x' = x - C$$

$$S_g = x' - \frac{x'^3}{(6\rho_o^2)_g}$$

$$S_m = \frac{1}{R}\left(\frac{1200}{3937}\right)S_g$$

R = scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi = C\, S_m^2$

$\phi = \phi' - \Delta\phi$

$\Delta\lambda_1 = S_1 A \sec\phi$

$\log S_1 = \log S_m$ − cor. arc to sine

$\log \Delta\lambda = \log \Delta\lambda_1 +$ cor. arc to sine

$\lambda = \lambda$(central mer.) $- \Delta\lambda$

Geodetic positions from transverse Mercator coordinates

State Fla. East Station 330,000 / 1,785,000

x	330,000	log S_g	5.23044412
C		log (1200/3937)	9.48401583
x' (=x−C)	−170,000	log (1/R)	2555
$x'^3/(6\rho_o^2)_g$	− 1.98	log S_m	4.71448550
S_g	169,998.12	cor. arc to sine	− 476
		log S_1	4.71448074
log S_m^2	9.428971	log A	8.50937552
log C	1.153646	log sec ϕ	0.05920729
log $\Delta\phi$	0.582617	log $\Delta\lambda_1$	3.28306355
		cor. sine to arc	+ 627
y		log $\Delta\lambda$	3.28306982
ϕ'(by interpolation)	29° 14′ 39.″0051	$\Delta\lambda$	1918.″9772
$\Delta\phi$	− 3.8249	λ (central mer.)	81° 00′ ″
ϕ	29° 14′ 35.″1802	$\Delta\lambda$	31 58.9772
		λ	81° 31′ 58.″9772

Station

x		log S_g	
C		log (1200/3937)	9.48401583
x' (=x−C)		log (1/R)	
$x'^3/(6\rho_o^2)_g$	−	log S_m	
S_g		cor. arc to sine	−
		log S_1	
log S_m^2		log A	
log C		log sec ϕ	
log $\Delta\phi$		log $\Delta\lambda_1$	
		cor. sine to arc	+
y		log $\Delta\lambda$	
ϕ'(by interpolation)	° ′ ″	$\Delta\lambda$	″
$\Delta\phi$	−	λ (central mer.)	° ′ ″
ϕ		$\Delta\lambda$	
		λ	

(M-29)

(over)

Explanation of form:

$$x' = x - C$$

$$S_g = x' - \frac{x'^3}{(6\rho_o^2)_g}$$

$$S_m = \frac{1}{R}\left(\frac{1200}{3937}\right)S_g$$

R = scale reduction factor

ϕ' is interpolated from table of y

$\Delta\phi = C\, S_m^2$

$\phi = \phi' - \Delta\phi$

$\Delta\lambda_1 = S_1 A \sec\phi$

$\log S_1 = \log S_m$ – cor. arc to sine

$\log \Delta\lambda = \log \Delta\lambda_1 +$ cor. arc to sine

$\lambda = \lambda$(central mer.) $- \Delta\lambda$

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PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State Fla. East Station 320,000 / 1,800,000

ϕ 29° 17' 03.2194 — λ (Central meridian) 81° ' "

λ 81 33 52.6695

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

$\Delta\lambda$ (in sec.) 2032.6695

log $\Delta\lambda$	3.30806677	log S_m^2	9.478617
Cor. arc to sine	− 703	log C*	1.154376
log $\Delta\lambda_1$	3.30805974	log $\Delta\phi$	0.632993
log cos ϕ	9.94061805		
colog A	1.49062538	ϕ	29° 17' 03.2194
log S_1	4.73930317	$\Delta\phi$	+ 4.2953
Cor. sine to arc	+ 534	ϕ'	07.5147
log S_m	4.73930851		
log 3937/1200	0.51598417	Tabular difference of y for 1" of ϕ'	
log R	− 2555		
log S_g	5.25526713	y (for min. of ϕ')	
log S_g^3	15.76580141	y (for seconds of ϕ')	+
log $1/6\rho_o^2R^2$	4.5821873	y	1,800,000
log $(S_g^3/6\rho_o^2)_g$	0.3479887		
		log sin $\frac{\phi+\phi'}{2}$	
S_g	179,997.77	log $\Delta\lambda$	
$(S_g^3/6\rho_o^2)_g$	2.23	log $\Delta\alpha_1$	
x'	180,000		
	5 / 2,000,000.00	log $(\Delta\lambda)^3$	
x	320,000	log F	
		log b	
		$\Delta\alpha_1$	"
		b	
		$\Delta\alpha$	"
		$\Delta\alpha$	° ' "

* Take out C first for ϕ and correct for approximate ϕ'.

(R 349)

$$x = 2{,}000{,}000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6\rho_0^2}\right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

$$\log S_m = \log S_1 + \text{cor. sine to arc}$$

$$S_1 = \frac{\Delta\lambda_1 \cos\phi}{A}$$

$$\log \Delta\lambda_1 = \log \Delta\lambda - \text{cor. arc to sine}$$

$$\left(\frac{S_g^3}{6\rho_0^2}\right)_g = \frac{S_g^3}{6\rho_0^2 R^2}$$

$$\phi' = \phi + \Delta\phi$$

$$\Delta\phi = C S_m^2$$

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

S_m = distance in meters from point to central meridian

S_1 = distance in meters from point to central meridian reduced to sine

S_g = grid distance in feet from point to central meridian

R = scale reduction factor

Values of y in minutes and tabular difference for one second, scale reduction factors, colog A, and log C are given in auxiliary tables.

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PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State Fla East Station 345,000 / 1,800,000

λ (Central meridian) 81° ' "

φ 29° 17' 04.3297 λ 81 29 10.3634

Δλ (Central meridian–λ)

Δλ (in sec.) 1750.3634

log Δλ	3.24312822	log S_m^2	9.348738
Cor. arc to sine	− 521	log C*	1.154 376
log $\Delta\lambda_1$	3.24312301	log Δφ	0.503114
log cos φ	9.94061674		
colog A	1.49062539	φ	29° 17' 04.3297
log S_1	4.674 36514	Δφ	+ 3.1850
Cor. sine to arc	+ 396	φ'	07.5147
log S_m	4.67436910		
log 3937/1200	0.51598417	Tabular difference of y for 1" of φ'	
log R	− 2555		
log S_g	5.19032772	y (for min. of φ')	
log S_g^3	15.5709832	y (for seconds of φ')	±
log $1/6\rho_o^2R^2$	4.5821873	y	1,800,000
log $(S_g^3/6\rho_o^2)_g$	0.1531705		
S_g	154,998.58	log sin $\frac{\phi+\phi'}{2}$	
$(S_g^3/6\rho_o^2)_g$	1.42	log Δλ	
x'	−155,000	log $\Delta\alpha_1$	
	5		
	2,000,000.00	log $(\Delta\lambda)^3$	
x	345,000	log F	
		log b	
		$\Delta\alpha_1$	"
		b	
		$\Delta\alpha$	"
		$\Delta\alpha$	° ' "

* Take out C first for φ and correct for approximate φ'.

(R 349)

$$x = 2{,}000{,}000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6\rho_0^2}\right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

$$\log S_m = \log S_1 + \text{cor. sine to arc}$$

$$S_1 = \frac{\Delta\lambda_1 \cos\phi}{A}$$

$$\log \Delta\lambda_1 = \log \Delta\lambda - \text{cor. arc to sine}$$

$$\left(\frac{S_g^3}{6\rho_0^2}\right)_g = \frac{S_g^3}{6\rho_0^2 R^2}$$

$$\phi' = \phi + \Delta\phi$$

$$\Delta\phi = C S_m^2$$

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

S_m = distance in meters from point to central meridian

S_1 = distance in meters from point to central meridian reduced to sine

S_g = grid distance in feet from point to central meridian

R = scale reduction factor

Values of y in minutes and tabular difference for one second, scale reduction factors, colog A, and log C are given in auxiliary tables.

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PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State Fla. East Station 320,000 / 1,770,000

λ (Central meridian)

φ 29° 12' 06".2139 λ 81 33 51.0398

Δλ (Central meridian−λ)

Δλ (in sec.) 203".0398

log Δλ	3.30771843	log S_m^2	9.478617
Cor. arc to sine	− 702	log C*	1.152916
log $\Delta\lambda_1$	3.30771141	log Δφ	0.631533
log cos φ	9.94096817		
colog A	1.49062358	φ	29° 12' 06".2139
log S_1	4.73930316	Δφ	+ 4.2809
Cor. sine to arc	+ 534	φ'	10.4948
log S_m	4.73930850		
log 3937/1200	0.51598417	Tabular difference of y for 1" of φ'	
log R	− 2555		
log S_g	5.25526712	y (for min. of φ')	
log S_g^3	15.76580 14	y (for seconds of φ')	+
log $1/6\rho_o^2R^2$	4.5821873	y	1,770,000
log $(S_g^3/6\rho_o^2)_g$	0.3479887		
S_g	179,997.77	log sin $\frac{\phi+\phi'}{2}$	
$(S_g^3/6\rho_o^2)_g$	2.23	log Δλ	
x'	− 180,000	log $\Delta\alpha_1$	
	2,000,000.00	log $(\Delta\lambda)^3$	
x	320,000	log F	
		log b	
		$\Delta\alpha_1$	"
		b	
		$\Delta\alpha$	"
		$\Delta\alpha$	° ' "

* Take out C first for φ and correct for approximate φ'.

(R 349)

$$x = 2{,}000{,}000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6\rho_o^2}\right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

$$\log S_m = \log S_1 + \text{cor. sine to arc}$$

$$S_1 = \frac{\Delta\lambda_1 \cos\phi}{A}$$

$$\log \Delta\lambda_1 = \log \Delta\lambda - \text{cor. arc to sine}$$

$$\left(\frac{S_g^3}{6\rho_o^2}\right)_g = \frac{S_g^3}{6\rho_o^2 R^2}$$

$$\phi' = \phi + \Delta\phi$$

$$\Delta\phi = C S_m^2$$

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

S_m = distance in meters from point to central meridian

S_1 = distance in meters from point to central meridian reduced to sine

S_g = grid distance in feet from point to central meridian

R = scale reduction factor

Values of y in minutes and tabular difference for one second, scale reduction factors, colog A, and log C are given in auxiliary tables.

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State Fla. East Station 345,000 / 1,770,000 ° ' "

λ (Central meridian)

φ 29° 12' 07.3205 λ 81 29 08.9601

Δλ (Central meridian–λ)

Δλ (in sec.) 1748.9601"

log Δλ	3.24277990	log S_m^2	9.348738
Cor. arc to sine	− 521	log C*	1.152913[6]
log $\Delta\lambda_1$	3.24277469	log Δφ	0.501655[4]
log cos φ	9.94096686		
colog A	1.49062358	φ	29° 12' 07.3205
log S_1	4.67436513	Δφ	+ 3.1743
Cor. sine to arc	+ 396	φ'	10.4948
log S_m	4.67436909		
log 3937/1200	0.51598417	Tabular difference of y for 1" of φ'	
log R	− 2555		
log S_g	5.19032771	y (for min. of φ')	
log S_g^3	15.5709831	y (for seconds of φ')	+
log $1/6\rho_o^2R^2$	4.5821873	y	1,770,000
log $(S_g^3/6\rho_o^2)_g$	0.1531704		
S_g	154,998.58	log sin $\frac{\phi+\phi'}{2}$	
$(S_g^3/6\rho_o^2)_g$	1.42	log Δλ	
x'	− 155,000	log $\Delta\alpha_1$	
	5 2,000,000.00	log $(\Delta\lambda)^3$	
x	345,000	log F	
		log b	"
		$\Delta\alpha_1$	
		b	"
		$\Delta\alpha$	° ' "
		$\Delta\alpha$	

(R 349)

* Take out C first for φ and correct for approximate φ'.

$$x = 2{,}000{,}000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6\rho_0^2}\right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

$$\log S_m = \log S_1 + \text{cor. sine to arc}$$

$$S_1 = \frac{\Delta\lambda_1 \cos\phi}{A}$$

$$\log \Delta\lambda_1 = \log \Delta\lambda - \text{cor. arc to sine}$$

$$\left(\frac{S_g^3}{6\rho_0^2}\right)_g = \frac{S_g^3}{6\rho_0^2 R^2}$$

$$\phi' = \phi + \Delta\phi$$

$$\Delta\phi = C S_m^2$$

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

S_m = distance in meters from point to central meridian

S_1 = distance in meters from point to central meridian reduced to sine

S_g = grid distance in feet from point to central meridian

R = scale reduction factor

Values of y in minutes and tabular difference for one second, scale reduction factors, colog A, and log C are given in auxiliary tables.

5133

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State Fla East Station 330,000 / 1,785,000

λ (Central meridian)

φ 29° 14' 35.1802 λ 81 31 58.9772

Δλ (Central meridian−λ)

Δλ (in sec.) 1918.9772

log Δλ	3.28306982	log S_m^2	9.4289711
Cor. arc to sine	− 627	log C*	1.153645
log $\Delta\lambda_1$	3.28306355	log Δφ	0.582616
log cos φ	9.94079271		
colog A	1.49062448	φ	29° 14' 35.1802
log S_1	4.71448074	Δφ	+ 3.8249
Cor. sine to arc	+ 476	φ'	39.0051
log S_m	4.71448550		
log 3937/1200	0.51598417	Tabular difference of y for 1" of φ'	
log R	− 2555		
log S_g	5.23044412	y (for min. of φ')	
log S_g^3	15.6913324	y (for seconds of φ')	+
log $1/6\rho_o^2R^2$	4.5821873	y	~~1,784,999.99~~ 1,785,000
log $(S_g^3/6\rho_o^2)_g$	0.2735197		
		log sin $\frac{\phi+\phi'}{2}$	
S_g	169,998.12	log Δλ	
$(S_g^3/6\rho_o^2)_g$	1.88	log $\Delta\alpha_1$	
x'	− 170,000		
	5 / 2,000,000.00	log $(\Delta\lambda)^3$	
x	330,000	log F	
		log b	
		$\Delta\alpha_1$	"
		b	
		$\Delta\alpha$	"
		$\Delta\alpha$	° ' "

* Take out C first for φ and correct for approximate φ'.

(R 349)

$$x = 2{,}000{,}000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6\rho_o^2}\right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

$$\log S_m = \log S_1 + \text{cor. sine to arc}$$

$$S_1 = \frac{\Delta\lambda_1 \cos\phi}{A}$$

$$\log \Delta\lambda_1 = \log \Delta\lambda - \text{cor. arc to sine}$$

$$\left(\frac{S_g^3}{6\rho_o^2}\right)_g = \frac{S_g^3}{6\rho_o^2 R^2}$$

$$\phi' = \phi + \Delta\phi$$

$$\Delta\phi = C S_m^2$$

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

S_m = distance in meters from point to central meridian

S_1 = distance in meters from point to central meridian reduced to sine

S_g = grid distance in feet from point to central meridian

R = scale reduction factor

Values of y in minutes and tabular difference for one second, scale reduction factors, colog A, and log C are given in auxiliary tables.

5133

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State Fla. E. Station Nine Mile 1935

λ (Central meridian) 81° 00' "

φ 29° 16' 13.362 λ 81 32 37.706

Δλ (Central meridian−λ)

Δλ (in sec.) −1957.706

log Δλ	3.29174747	log S_m^2	9.446096
Cor. arc to sine	− 652	log C*	1.154129
log $\Delta\lambda_1$	3.29174095	log Δφ	0.600225
log cos φ	9.94067690		
colog A	1.49062508	φ	° ' 13".362
log S_1	4.72304293	Δφ	+ 3.9831
Cor. sine to arc	+ 495	φ'	17.3451
log S_m	4.72304788		
log 3937/1200	0.5159 ~~8417~~ 5862	Tabular difference of y for 1" of φ'	
log R	− ~~2555~~		
log S_g	5.23900650	y (for min. of φ')	
log S_g^3	15.7170	y (for seconds of φ')	+
log $1/6\rho_o^2R^2$	4.5822	y	1,794,932.68
log $(S_g^3/6\rho_o^2)_g$	0.2992		
S_g	173,383.00	log sin $\frac{\phi+\phi'}{2}$	
$(S_g^3/6\rho_o^2)_g$	1.99	log Δλ	
x'	− 173,384.99	log $\Delta\alpha_1$	
	5 2,000,000.00	log $(\Delta\lambda)^3$	
x	326,615.01	log F	
		log b	
		$\Delta\alpha_1$	"
		b	
		$\Delta\alpha$	"
		$\Delta\alpha$	° ' "

* Take out C first for φ and correct for approximate φ'.

(R 349)

$$x = 2{,}000{,}000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6\rho_o^2}\right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

$$\log S_m = \log S_1 + \text{cor. sine to arc}$$

$$S_1 = \frac{\Delta\lambda_1 \cos\phi}{A}$$

$$\log \Delta\lambda_1 = \log \Delta\lambda - \text{cor. arc to sine}$$

$$\left(\frac{S_g^3}{6\rho_o^2}\right)_g = \frac{S_g^3}{6\rho_o^2 R^2}$$

$$\phi' = \phi + \Delta\phi$$

$$\Delta\phi = C S_m^2$$

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

S_m = distance in meters from point to central meridian

S_1 = distance in meters from point to central meridian reduced to sine

S_g = grid distance in feet from point to central meridian

R = scale reduction factor

Values of y in minutes and tabular difference for one second, scale reduction factors, colog A, and log C are given in auxiliary tables.

5133

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State Fla. E. Station Grove 1935

λ (Central meridian) 81 ° 00 ′ ″

φ 29 ° 12 ′ 56.238 ″ λ 81 32 04.927

Δλ (Central meridian–λ)

Δλ (in sec.) − 1924.927

log Δλ	3.28441426	log S_m^2	9.431892
Cor. arc to sine	− 630	log C*	1.153159
log $\Delta\lambda_1$	3.28440796	log Δφ	0.585051
log cos φ	9.94090928		
colog A	1.49062388	φ	° ′ 56″.238
log S_1	4.71594112	Δφ	+ 3.8464
Cor. sine to arc	+ 479	φ′	13 00.0844
log S_m	4.71594591		
log 3937/1200	0.5159 5862 ~~8417~~	Tabular difference of y for 1″ of φ′	
log R	−		
log S_g	5.23190453	y (for min. of φ′)	
log S_g^3	15.6957	y (for seconds of φ′)	+
log $1/6\rho_o^2R^2$	4.5822	y	1,775,008.69
log $(S_g^3/6\rho_o^2)_g$	0.2779		
S_g	170,570.74	log sin $\frac{\phi+\phi'}{2}$	
$(S_g^3/6\rho_o^2)_g$	1.90	log Δλ	
x′	− 170,572.64	log $\Delta\alpha_1$	
	2,000,000.00	log $(\Delta\lambda)^3$	
x	329,427.36	log F	
		log b	
		$\Delta\alpha_1$	″
		b	
		$\Delta\alpha$	″
		$\Delta\alpha$	° ′ ″

* Take out C first for φ and correct for approximate φ′.

(R 349)

$$x = 2{,}000{,}000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6\rho_0^2}\right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

$$\log S_m = \log S_1 + \text{cor. sine to arc}$$

$$S_1 = \frac{\Delta\lambda_1 \cos\phi}{A}$$

$$\log \Delta\lambda_1 = \log \Delta\lambda - \text{cor. arc to sine}$$

$$\left(\frac{S_g^3}{6\rho_0^2}\right)_g = \frac{S_g^3}{6\rho_0^2 R^2}$$

$$\phi' = \phi + \Delta\phi$$

$$\Delta\phi = C S_m^2$$

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

S_m = distance in meters from point to central meridian

S_1 = distance in meters from point to central meridian reduced to sine

S_g = grid distance in feet from point to central meridian

R = scale reduction factor

Values of y in minutes and tabular difference for one second, scale reduction factors, colog A, and log C are given in auxiliary tables.

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

State Fla. E. Station Eye 1935

λ (Central meridian) 81° 00' "

φ 29° 14' 53.558 λ 81 31 38.265

Δλ (Central meridian–λ)

Δλ (in sec.) − 1898.265

log Δλ	3.27835684	log S_m^2	9.419502
Cor. arc to sine	− 613	log C*	1.153736
log $\Delta\lambda_1$	3.27835071	log Δφ	0.573238
log cos φ	9.94077104		
colog A	1.49062459	φ	° ' 53.558
log S_1	4.70974634	Δφ	+ 3.7432
Cor. sine to arc	+ 466	φ'	57.3012
log S_m	4.70975100		
log 3937/1200	0.5159 ~~8417~~ 5862	Tabular difference of y for 1" of φ'	
log R	−		
log S_g	5.22570962	y (for min. of φ')	
log S_g^3	15.6771	y (for seconds of φ')	+
log $1/6\rho_0^2R^2$	4.5822	y	1,786,847.96
log $(S_g^3/6\rho_0^2)_g$	0.2593		
		log sin $\frac{\phi+\phi'}{2}$	
S_g	168,154.93	log Δλ	
$(S_g^3/6\rho_0^2)_g$	1.82	log $\Delta\alpha_1$	
x'	− 168,156.75		
	5 2,000,000.00	log $(\Delta\lambda)^3$	
x	331,843.25	log F	,
		log b	
		$\Delta\alpha_1$	"
		b	
		$\Delta\alpha$	"
		$\Delta\alpha$	° ' "

* Take out C first for φ and correct for approximate φ'.

(R 349)

$$x = 2{,}000{,}000.00 + x'$$

$$x' = S_g + \left(\frac{S_g^3}{6\rho_0^2}\right)_g$$

$$S_g = \frac{3937}{1200} S_m R$$

$$\log S_m = \log S_1 + \text{cor. sine to arc}$$

$$S_1 = \frac{\Delta\lambda_1 \cos\phi}{A}$$

$$\log \Delta\lambda_1 = \log \Delta\lambda - \text{cor. arc to sine}$$

$$\left(\frac{S_g^3}{6\rho_0^2}\right)_g = \frac{S_g^3}{6\rho_0^2 R^2}$$

$$\phi' = \phi + \Delta\phi$$

$$\Delta\phi = C S_m^2$$

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

S_m = distance in meters from point to central meridian

S_1 = distance in meters from point to central meridian reduced to sine

S_g = grid distance in feet from point to central meridian

R = scale reduction factor

Values of y in minutes and tabular difference for one second, scale reduction factors, colog A, and log C are given in auxiliary tables.

	Remarks	Decisions
1		see T-5150
2		Ninemile Point
3		Deadman Landing
4		
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27		
M 234		

GEOGRAPHIC NAMES

Survey No. T-5133

	Name on Survey	On Chart No. 508 A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D.R. pg. 6 D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
✓	Lake George	✓			✓						1
✓	Nine Mile Point (1 word)				✓						2
✓	Dead Man Landing				✓						3
✓	Price Creek				✓						4
✓	Jones Cove				✓						5
✓	Mud Creek				✓						6
											7
											8
											9
											10
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											27

Names underlined in red approved by HE on 5/11/38

M 234

REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: Hubert A. Paton Compiled by: W. C. Russell

Project: HT 168 Instructions dated: Mar. 4, 1935

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) None shown on charts.

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) Yes.

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. 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) Yes

7. High water line on marshy ~~and mangrove~~ coast is clear and adequate 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 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) 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)
Described by L. D. Graham, Sheet ZZ.

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)
Submitted by L. D. Graham, Sheet ZZ.

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 on 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 and the reference station is correctly noted. Yes.

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.

    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;

Hubert A. Paton
Chief of Party

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5133

DATA RECORD

Triangulation: 1935.
Photographs taken March 13, 1935.
Field inspection: March and Nov. 1937; Jan. 1938.
Plane Table Graphic Control Surveys: March-April 1937.
Rec. Sta. of less than 3rd order accuracy: 1937.
Hydro. Surveys: 1937.

The field inspection was for the purpose of interpreting the photographs. The detail of T-5133 is of the date of the photographs, without exception.

COMPARISON WITH RECENT GRAPHIC CONTROL SURVEYS.

CS 134 M (1937) 1:20,000.

(1) The Graphic control survey is on 1:20,000 scale, whereas T-5133 is on 1:10,000 scale.

(2) The Graphic control survey was made to locate signals, obstructions, aids to navigation. Very little shoreline or other detail is shown.

(3) In general the air photographs show the detail clearly and the field inspection was adequate. T-5133 has been carefully compared to and corrected against the field photographs and notes, the above graphic control survey and the recent hydrographic survey. In case of any difference between the above graphic control survey and T-5133, the latter should now be taken as correct.

(4) All detail on the above graphic control survey within the area of T-5133 is now shown on T-5133, except:

(a) Mag. Dec., (b) Temp. topographic stations.

(5) There was close agreement between the sections of shoreline and other detail shown on the graphic control survey, and that located by T-5133. The only difference was in the position of the boat hoist, which differed by only 5-10 m. This difference is fully described on page 3 of the descriptive report. The air photo location is accepted as correct.

COMPARISON WITH PREVIOUS TOPOGRAPHIC SURVEYS.

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

This is an inadequately controlled reconnaissance survey. It has been examined in connection with T-5133 but no detail comparison is considered of any value. T-5133 is adequate to supersede.

COMPARISON WITH RECENT HYDROGRAPHIC SURVEY.

H-6266 (1:20,000) 1937.

(1) The above hydrographic survey is on a scale of 1:20,000 whereas T-5133 is on 1:10,000.

(2) The shoreline on the hydrographic survey was transferred by projector from the air photo surveys. The accuracy of the transference was not checked in this review.

(3) There are no conflicts between the soundings on H-6266 and the detail on T-5133.

(4) There are several offshore obstructions which have been located on T-5133 which were not drawn on H-6266. These have been reported to the hydrographic verifying unit.

COMPARISON WITH CHARTS.

Chart 508 (Plate corrected to November 12, 1936)
Scale 1:40,000.

There is no detail shown on the chart in this area other than shoreline and vegetation. A discussion of the inaccuracies in the chart are discussed on page 5 of the Descriptive Report under Comparison with the U. S. Engineers surveys.

Uncharted features of navigational importance which appear on T-5133 include a pier, 2 lines of piling, and a submerged log offshore.

REMARKS.

Recoverable H. & T. Stations.

Two described H. & T. stations appear on and are filed under the number of this sheet (T-5133).

LANDMARKS.

One landmark has been recommended for this sheet: House on pier, adjoining recoverable H. & T. station Tan (d). Form 567 was submitted by the hydrographic party.

CHANGES.

The only changes made to this sheet upon review were of a minor nature.

DRAFTING.

The drafting on this sheet was neat and the detailing complete; this considerably facilitated the review and preparation of this sheet for reproduction.

ACCURACY.

No statement of accuracy is given in the report, but from a review of the sheet, it is believed that the probable error in geographic position of the shoreline and shoreline features is 6-8 meters and of the inshore detail 8-10 meters.

ADDITIONAL WORK.

This survey is complete and adequate for chart compilation.

Reviewed in office by - T. M. Price, May 11, 1938.

Examined and approved:

Chief, Section of Field Records

Chief, Section of Field Work.

Chief, Division of Charts.

Chief, Division of Hydrography & Topography.