Form 504 Rev. Dec. 1933

DEPARTMENT OF COMMERCE

U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic | Sheet No. I-5490 Hydrogenplac

State Florida

LOCALITY

Pensacola Bay

Entrance to Pensacola Bay

193 5

CHIEF OF PARTY

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. 18		
	REGISTER NO. T-	. ₅₄₉₀ T5490	0
State	Florida	••••	· · · · · · · · · · · · · · · · · · ·
General locality	Pensacola Ray	***********	************
Locality	Entrance to Pensaco	la Bay	<u> </u>
10 000 Scale 1: 10,638	photograp Date of survey	hs July 16	, 19.34.
Wassak Air Photo	Compilation Party No	. 24, Pensaco	la, Fla.
Chief of party	M. H. Roese		
Surveyed by	See data sheet in d	escriptive re	port.
Inked by	G. O. Coignet		
Heights in feet ab	oveto gr	ound to tops	of trees
Contour, Approxima	te contour, Form lin	e interval.==	feet
Instructions dated	Ju	ne.7	, 1934
Remarks: Compile	d on scale of 1:10,6	38. Enlarged	and printe
by Photolithograph	y on scale of 1:10.0	00. Scale fa	otor 0.94.

- STATISTICS -

on

SHEET, FIELD NO. 18 , REG. NO. T-5490

DIJOROS NO	374 347	TO NO.	394 365			
PHOTOS, NO.	347	TO MO	8:30 a.m.			
DATE OF PHOTOGRAPHS	7/16/34	TIME				
ميسوب	· . 					
	BY		TIME			
	0-1		FROM TO			
ROUGH RADIAL PLOT	R. E. Wagner		10/29/34			
SCALE FACTOR (0.94)	R. E. Wagner		10/29/34			
SCALE FACTOR CHECKED	E. P. Hernan	dez jr.	10/29/34			
PROJECTION	E. P. Hernan	dez//Jr.	10/30/34			
PROJECTION CHECKED	R. E. Wagner		10/30/34			
CONTROL PLOTTED	We B. Gill,	Gr. Jr.	11/7/34			
CONTROL CHECKED	J. O. Corgne	eh	11/8/34			
TOPOGRAPHY TRANSFERRED		······				
TOPOGRAPHY CHECKED	1-2-2					
SMOOTH RADIAL LINE PLOT	G. O. Coigh	teh	11/8 - 11/22/34			
RADIAL LINE PLOT CHECKED	E. P. Hernan	dez Jr.	11/23/34			
DETAIL INKED	J. O. Cong		11/24-12/8/34 1/9-1/30/35			
PRELIMINARY REVIEW OF SHEET_	E. P. Hernan	dez Jr.	2/1/35			
AREA OF DETAIL INKED 21.4 sq	. Statute Mil	es (Land	d Area)			
AREA OF DETAIL INKEDsq	. Statute Mil	es (Shoals	in Water Area)			
LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore) 82.5 Statute Miles						
LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide) 26.0 Statute Miles						
GENERAL LOCATION Pensacola	Вау					
LOCATION Entrance to Pensa	cola Bay					
DATUM North American 1927	(Unadjusted)	<u> </u>				
·	60-1934	Latitude 30	°20'37.573" (1157.0 m.)			
STATION Navy Yard Wharf , 8	—	Longitude 87	P16'01.553" (41.5 m.)			

COMPILER'S REPORT

FOR

PHOTO TOPOGRAPHIC SHEET NO. T-5490

FIELD NO. 18

I. GENERAL INFORMATION:

Instructions dated June 7. 1934.

The information used in the compilation of this sheet was obtained from the notes and sketches on the field photographs and from members of the field inspection party.

The area covered by this sheet consists principally of land and includes the U. S. Naval Air Station, Fort Barraneas, Fort Pickens on Santa Rosa Island, Fort McRae, and the small town of Warrington.

This sheet also shows part of Pensacola Bay with its entrance from the Gulf of Mexico, Big Lagoon with the entrance to the Intracoastal Waterway, and Bayou Grande. The channel of the Intracoastal Waterway was clearly visible on the photographs and is shown by a broken line. It is well marked by beacons and day marks.

The land area is sandy and generally wooded, pine being more abundant. The higher ground is in most cases covered with small pines and scrub oak. The land between ridges forms natural drains and is thickly wooded with mixed trees.

Along the shores of Bayou Grande and Big Lagoon many small spots of low marsh land are found. The tip of Santa Rosa Island is generally marshy with spots of high sand along the shore. The shore along the Gulf is covered with sand, with a few grass spots. Many small plots of cultivated land are found along the highways and roads. The land area is covered by a network of trails.

At the Naval Air Station only the buildings near the water's edge were shown, and at Fort Barrancas the roads were shown but the buildings were omitted.

The range of normal tide in this area is approximately 1.2 feet. The difference between the high and low water line is very small, and the high water line as determined by the field inspection was used as the shoreline.

This sheet was compiled from photographs taken by the Aero Service Corporation with five-lens camera H.U.I.-33. The photographs used were: Southern flight Nos. 374 to 394, approximately

on line from Latitude 30°21' (to Longitude 87°17' to Latitude 30°20' Longitude 87°21'; Northern flight Nos. 347 to 365 approximately on line from Latitude 30°24' Longitude 87°17' to Latitude 30°22'30" Longitude 87°23'. July 16,1935

The entrance and area in the vicinity of the entrance to the Intracoastal Canal could not be drawn from the above pictures due to changes in shoreline. This area was drawn from more recent photographs taken by the Naval Air Station about January 15, 1935. These pictures were very clear and were brought almost exactly to the scale of the celluloid, by re-photographing after the scale was obtained. Hw line in this area as Jan 1935. The photos were not forwarded to this II. CONTROL:

(A) Sources.

The following sources of control were used in the compilation of this sheet:

- (a) Triangulation by M. H. Reese, 1934.
- (b) Triangulation by G. L. Anderson (Pos. adjusted)

The positions of the stations on this sheet located by M. H. Reese are on the North American 1927 Datum (Unadjusted).

No control established by other organizations was used in the compilation of this sheet.

The U. S. Engineer stations on the shores of Big Lagoon, shown by 2.5 mm. circles, were recovered by our field party. These stations were tied in on the photographs and their position established on the celluloid by radial line intersection. The positions of these stations were scaled from the aluminum sheet by Lieut. I. E. Rittenburg. The scaled position of the U. S. Engineer stations checked the radial line location of these same stations, and in no case was it necessary to readjust the radial line plot to hold the plane table location of the marked U. S. Engineer station in Big Lagoon.

(B) Errors.

The control on this sheet was found adequate for the radial line plot. The northern flight of this sheet has very little control, but inasmuch as the ends of the same flight on the sheets to the east and west and the flights to the north and south parallel to it are well controlled, the flight is considered well controlled and definitely set.

(C) Discrepancies.

No discrepancies in the position of control stations were found.

III. COMPILATION:

(A) Method.

The usual five-lens method of radial line plotting was used in the compilation of this sheet.

(B) Adjustment of plot.

No unusual adjustment of plot was necessary. The pictures in both flights were free from excessive tilt and scale fluctuations and were very near to the scale of the projection.

(c) Interpretation.

Except for the symbol () used to denote brush, only the graphic symbols approved by the Board of Surveys and Maps (1932) were used.

Hard surface roads were shown with double full lines, the width probably slightly exaggerated. Good graded sand or dirt roads were shown by double broken line, and trails by a single broken line. Where a definite boundary existed around cultivated land, it was shown by a broken line.

The field inspection was adequate and no difficulty was experienced in interpreting detail on the photographs.

(D) Information from other sources.

Maps of the Naval Reservation were used in connection with notes by the field inspection party to determine more accurately the position of roads, buildings, wharves and other small detail. Aside from this, no information from other sources was used besides that mentioned above.

(E) Conflicting names.

There are no conflicting names on the charts of this area. The names were taken from Chart No. 413, U.S.C. & G.S.

COMPARISON WITH OTHER SURVEYS:

The junctions of this sheet with adjoining sheets to the North, T-5491; South, T-5489; East, T-5488; and West, T-5494, are satisfactory.

A comparison with U.S.C. & G.S. Charts Nos. 413 and 1265 shows several changes. A pass through the long neck of land at Latitude 30°19' Longitude 87°20'15" (approximate) is now closed. Robertson Island is no longer an island but is connected to the mainland. The channel at the entrance to Big Lagoon has recently been dredged, and this may be partly the reason for the change in this vicinity. Davenport Bend is almost closed at its mouth and could now be considered a pond or small lake. tip of Santa Rosa Island has retained its general shape. A small pond shown between the Naval Land Field and the Naval Cemetery no longer exists.

At the entrance to Bayou Grande is shown a small island. The entrance is very shallow and the shape of the island is thought to be very changeable.

The hydrographic stations shown on the east shore of the Naval Reservation were plotted with positions scaled from the aluminum sheet of Lieut. I. E. Rittenburg, and the shoreline checks very closely.

The shoreline at the entrance to Big Lagoon was checked with that of the aluminum sheet, using the shoreline projector. to bring the two to the same scale, and many small differences were found. This area is sandy and the differences may be due to changes which took place from the time the hydrographic sheet was drawn (about November 15, 1934) to the taking of the photographs (January 15, 1935). There is a small conflict in position of shoreline on the tip of Santa Rosa Island that may also be due to the reason stated above.

V. LANDMARKS:

LAND

A list of the landmarks in this area is submitted by Lieut. Rittenburg.

RECOMMENDATIONS FOR FURTHER SURVEYS:

To the best of my knowledge, this sheet is complete in all detail of importance for charting purposes, and no additional survey is required.

Approved by

MEMORANDUM TO ACCOMPANY SHEET NO. T-5490

The area in the vicinity of the entrance to the Inland Waterway is very changeable. The shore line was rodded in by Lieut. Rittenburg but that differs considerably from the original photographs that were taken. The shore line that is shown on the compilation does not agree with the original photographs or with the plane table, as it was obtained from photographs taken by the U.S. Naval Air Station at a later date. Jan 1935 See review of back regarding under Tobala.

The scale of the photographs taken by the Naval Air Station was obtained and they were re-photographed to the exact scale of the projection, thus eliminating any adjustment to trace the detail. In view of the large amount of control existing in this area, this is considered very accurate.

The shore line from the Naval Station northwestward was rodded in by the party of Lieut. Rittenburg and has been checked against the shore line of the compilation. There were a very few small differences, and these have been rectified.

The control on this compilation was originally plotted on the 1927 Datum as obtained from the field computations of the first order arc along this coast. After the adjustment was made, a considerable difference was found between the adjusted datum and the field datum. The triangulation executed by this party has all been recomputed by adjusted lines of the first order arc. A factor has been obtained between the adjusted datum and the field datum for the purpose of shifting the projection the required amount. The projection was shifted, and after the new projection was drawn the stations were checked using the D.M.'s and D.P.'s as obtained from the adjusted base lines. It is felt that the projection and stations are correct as they are now plotted.

The factor used in changing this projection is -2.8 (average) meters in latitude and -7.0 (average) meters in longitude, and all the stations have been checked to see that when this correction was applied the stations were correctly plotted.

The manner in which this factor was obtained is shown by the stations listed below:

STATION	N. A. 1927 FIEL		CORR'N	N.A. 1927 FINAL (UNADJUSTED)
Water Tank	80 01 04 100	(1656.6)	-	(1659.8)
Ft. Barrancas	30 21 06.190	191.0	- 3•2	187.8
	am'	(834.1)	•	(840.6)
(West) 1934	87 17 28,769	768.4	- 6.5	761.9
		(22.3)		(25.0)
Flag Pole	30 20 59.276	1825.3	-2.8	1822.5
Ft. Barrancas		(856.0)		(862.7)
1934	87 17 27.948	746.4	-6.4	740.0
		(811.0)		(813.7)
Pickens	30 19 33.663	1036.6	-2.7	1033.9
U.S.E.		(869.0)		(875.4)
1901-34	87 17 27.472	734.0	-6.7	727.3

Positions # weed on compilation

		7		N.A. 1927 FINAL
STATION	N. A. 1927 FI	TID POSTETON	CORR*N	(UNADJUSTED)
	210 220 2001 2 22	(383.2)	OUTH II	(385.8)
Flag Pole	30 19 47.557	1464.4	-2.6	1461.8
Ft. Pickens	00 13 41,001	(712.6)	a•0	
/ 1934	87 17 33.327		C 4	(719.0)
1904	07 17 00.027	890.4	-6.4	884.0
		(004.0)		(00m '0)
Tank	30 20 50.422	(294.9)	۰.	(297.2)
	30 20 30,422	1552.7	-2.3	1550.4
U.S.N.	00 10 10 000	(1245.4)	'	(1253.0)
Air Sta.	87 16 13.376	357.3	-7 . 9′	349.4
1934	•	(500 1):		/mno a)
Ch- ala	70 00 45 505	(388.1)		(390.6)
Stack	30 20 47.397	1459.5	- 2.5	1457.0
U.S.N.	0= 14 0= 000	(1413.4)		(1420.9)
Air Sta.	87 16 07.086	189.3	-7.7	181.6
1934		(=00 =)		()
II a ar ou	FD 00 40 F44	(598.5)		(601.5)
U.S.N. Sta.	30 20 40 .564	1249.1	-3.0	1246.1
Obs. Tower		(1591.3)		(1598.6)
1934	87 16 00.428	11.4	-7.6	3 .8
		/ \		
		(687.8)		(690 _{•6})
N.Y. Wharf	30 20 37,663	1159.8	-2.8	1157.0
1860-1934		(1554.8)		(1561.0)
	87 16 01.794	47.9	-6.4	41.5
·				
W.T. East		(1654.3)		(1657.0)
Ft. Barrancas	30 21 06.278	193.3	-2.8	190.5
1934		(846.0)		(852.5)
	87 17 28,324	756.5	- 6.6	749.9
•		(862.2)		(864.7)
U.S.E. Bl.44	30 19 32.000	985.4	-2.5	982.9
1934		(1505.6)		(1512.3)
	87 21 03.648	97.5	-7.1	90.4
•		(22.5)		(25.5)
Tank	30 20 59.270	1825.1	-3.0	1822.1
U.S.N.		(1568.0)		(1575.4)
Hospital	87 17 01.300	34.7	-7. 6	27.1
				·
		(1637.5)		(1640.3)
East Bat.	30 19 06.820	210.0	-2.7	207.3
Tower		(392.4)		(398.8)
	87 15 45.313	1210.6	-6.4	1204.2
_		(1643.3)		(1646.2)
Lagoon "A"	30 19 06.632	204.2	-2.8	201.4
1934		(1449.7)		(1456.0)
	87 21 05.782	153.3	-6.3	147.0
_				
Pensacola L.H.		(447.3)		(450.1)
Ecc.	30 20 45.475	1400.3	-2.8	1397.5
1934		(812.7)		(820.2)
	87 18 29.577	790.1	-7. 9	782.2

⁻⁻ Average Correction Latitude -2.8; Longitude-7.0 --

See special report concerning offshore shore line. Filed at back of report T5494.

M. H. Reese, Chief of Party, C. & G. S.

Remarks Decisions

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Name on Survey Narrington Carande State Highway No.9. Air Station Sarrancas Cola Bay Coport Bend Cickens Rosa Island agoon	A 1265	11895	Aro. Or	D D	E E	Or oco was	G G	H Rand H	K K	1 2 3 4 5
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REVIEW OF AIR PHOTO COMPILATION T-5490 Scale 1:10,000

Comparison with Graphic Control Surveys

1. T-625la (Dec.1934 to Mar.1935), 1:10,000

There are a number of minor differences in location of high water line around the entrance. These are discussed on pages 5 and 6 of this descriptive report T-5490. The high water line in this area is of Jan. 15, 1935. The exact date of the plane table survey is not known. The differences are apparently due largely to interpretation and planetable sketching. This compilation has not been changed.

2. T-632la (April-May 1935), 1:10,000

The compilation and T-632la are in agreement except for location of the detail at lat. 30° 19.8', long. 87° 17.7'. The compilation has been checked with the photos, Nos. C31-C33 and is correct. A note has been placed on the planetable survey.

3. T-6315 (Dec.1934-May 1935), 1:10,000

The compilation and T-6315 are in agreement except in shape of the small island at lat. 30° 22.7', long. 87° 16.1'. The compilation has not been changed as the island is noted on the compilation as changeable.

All detail on the above graphic control surveys within the area of this compilation is now shown on the compilation except the temporary planetable stations.

Comparison with Contemporary Hydrographic Surveys

- 1. H-5669 (Jan. 1935), 1:10,000 No discrepancies.
- 2. H-5823 (May, 1935), 1:10,000 Comparison showed several piles and diving platforms on this compilation, close inshore in the vicinity of the Naval Air Station which were not on H-5823. These have been added.

Comparison with Previous Topographic Surveys

There have been very large changes at Pensacola Bay Entrance, and numerous detail changes along the inner shoreline. The compilation is complete and adequate to supersede the following previous surveys for charting:

T- 566	(1856)	1:10,000
T- 700	(1858)	1:20,000
T-1895	(1889-90)	1:10,000
T-2187	(1895)	1:10,000
T-3793	(1920)	1:20,000

Fort Pickens is shown on T-3793. All structural detail at Fort Pickens and McRee have been purposely omitted from this compilation.

Comparison with chart No. 413 (1:10,000)

This compilation shows extensive corrections to the charted shoreline around the entrance and numerous additions and corrections to detail of the bay shoreline.

This compilation shows beacons in the Intracoastal Waterway at long. 87° 19' as located by graphic control survey T-6251a (Dec.1934 to Mar.1935). These beacons are not shown on the present chart 413.

All structural details at Fort Pickens and Fort McRee have been paintedout on the photographs and omitted from this compilation. This was done by the field party, apparently in compliance with the Naval officials in this area, although it is not mentioned in the descriptive report.

General

Pensacola Lighthouse has been plotted in this office by direction and distance from Pensacola Lighthouse eccentric.

Nov. 11, 1936.

B. G. JONES

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REVIEW OF AIR PHOTO COMPILATION NO. T-5490

Chief of Party: M. H. Reese

Compiled by: G. O. Coignet

Project: Florida Compilation

Instructions dated: June 7, 1934

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 1; 26; and 64)

Yes.

13

- 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) See preceding page.

 Yes.
- 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)

No such surveys used.

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 used. Maps of the Naval Air Station were used in connection with the field notes only to interpret detail.

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.

Discussed in descriptive report.

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

Yes.

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

The high water line was sketched on the photographs by the field inspection party.

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."

78. The representation of low water lines, reads, covad reads and panels, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)

The difference between high and low water line is so small that only the high water line is 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)

Recoverable objects have been located and described by Lieut.

I. E. Rittenburg. Descriptions filed under T6251, T6315,

- ✓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)
 A list of landmarks is furnished by the hydrographic party under Lieut. Rittenburg.
- 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)

 This information is shown on the overlay tracing.
 - cl2. 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)

This has been complied with. There are no new names.

The geographic datum of the compilation is N.A. 1927 and the reference station is correctly noted. (Unadjusted)

Yes.

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:

Yes.

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

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

3. All station points are exactly marked by fine

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

- ారం. Topographic symbols for similar features are of uniform weight.
- 6. All drawing has been retouched where partially rubbed off.
- A. 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)

- . 6 الحي No additional surveying is recommended at this time.
- 17. Remarks:

18. Examined and approved;

Chief of Party

19. Remarks after review in office:

Reviewed in office by:

5/eiter 13.1. Jones

Examained and approved:

Chief, Section of Field Records

Chief, Division of Charts

Chief, Division of Hydrography and Topography.

Description before for Supplemental T5490 Jeles 11/137

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