

Graphic Control

4537

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

U. S. G. SURVEY

L. & A.

JUN 16 1930

Ass. No.

State: Florida

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. "A"

4537

LOCALITY

East Coast of Florida
Indian River
Fort Pierce Harbor

1930

CHIEF OF PARTY

Charles Shaw

GOVERNMENT PRINTING OFFICE

Graphic Control

Graphic Control
DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET "A"

Ship RANGER

Charles Shaw, Commanding

Florida 1930

AUTHORITY:

Project No. 51, RANGER, of the Director's Instructions dated December 31, 1929.

CONTROL:

Triangulation stations located in 1930. Many of these stations were located by the Fort Pierce Port Commission in 1929, but were re-computed to the N. A. Datum by the Coast Survey in 1930.

LIMITS:

Sheet comprises all signals necessary for the hydrographic work called for in the Instructions for field work. Signals were located along the outer beach from Δ North southward to Latitude $27^{\circ} - 27.7'$, along east bank of Indian River from Latitude $27^{\circ} - 28.7'$ southward to Latitude $27^{\circ} - 27'$ and along the west bank of Indian River from Latitude $27^{\circ} - 28.3'$ southward to Latitude $27^{\circ} - 26.4'$.

DESCRIPTION OF COASTS:

The outer coast is a low flat sandy beach, that portion north of the Inlet having a thick palmetto growth to westward. The Fort Pierce Casino, a tall two story stucco building, just south of the Inlet, is the only prominent landmark along the outer coast. The jetties are quite conspicuous, however.

The east bank of Indian River is almost entirely marked by mangroves. The west bank of the river, south of the causeway bridge to Δ Pog is well marked with fish houses and docks, net racks and pipe lines which

extend into the river. In the vicinity of Δ Pog to \odot Hed and turning to westward is a concrete bulkhead. From this point south is flat sandy beach with a 15 foot bluff about 10 meters back from the high water line. The bluff is marked with palms and grass.

A wooden bulkhead marks the high water line from a point just north of \odot Wat northward to the southeast corner of the slip, the Municipal Docks. The bulkhead from this point to a point 35 meters north of \odot Tom is of concrete, thence of wood to \odot End. The shore line from this point to the northern limit of the sheet is a flat sandy beach with vegetation to the westward as shown.

Causeway Island and Coon Island are sand spoil dumps formed by dredging parties at construction of the channel.

LANDMARKS:

A list of landmarks accompanies the hydrographic sheets for this season's work.

TRAVERSES:

The traverse was begun at Δ Taylor and was 4 meters in error at Δ Gable. This was adjusted proportionally. The error in traverse from Δ Taylor northward could not be determined for lack of a triangulation station on which to close. The closure on Δ Pog was 2 meters which was thrown into the last set up of 200 meters. The closure could not be determined for traverse southward from Δ Pog.

From Δ Gable to Δ Pierce 2, the closure was negligible as were those along either side of the channel and on the north and south stretches of outer coast as control stations were numerous and rarely necessitated more than 1 or 2 set-ups between control points.

From Δ Pierce 2 to Δ Man, the closure was negligible, but from Δ Man to southern limit of sheet the closure in azimuth could not be determined for lack of a control station on which to close. However cuts to all signals were taken from Δ Pog giving a check on distance.

From Δ Pile to Δ Spires, the closure was negligible, but from Δ Spires to the northern limit of the sheet the closure checked within 3 meters by resection on triangulation stations. This error was not adjusted.

OFFLYING FEATURES:

The ends of the jetties were determined by cuts. \odot Gul, an old piling, and the two rows of piling extending north from Causeway Island were located by intersecting cuts.

The four wrecks east of the mouth of Taylor^{Creek} the wreck 190 meters north of Δ Spires, Buoy 390 meters north of Δ Pog and all docks, piling, pipelines, net racks, etc. were rodded in. \odot Pin is an old telephone pole.

Since the topographic survey, buoys, dolphins and other aids to navigation were installed which were located by the hydrographic party.

The steel truss drawbridge at the west end of the causeway has a clearance of approximately ten feet at low water and accomodates a 50 foot channel on either side of the center.

The channel under the east bridge is marked by a wooden pony truss and has a clearance of approximately 6 feet, and width of about 6 feet between bridge piling.

CHANGES FROM PREVIOUS SURVEYS:

The only means available for this comparison is from Chart No. 163. In view of the fact that this chart is on an 80,000 scale, an accurate determination of all changes is impossible.

In the vicinity of the turning basin and along the west bank of Indian River numerous changes are evident because of reconstruction and dredging. The two prominent docks at Latitude 27°- 26.9' shown on the chart no longer exist.

Rock breakwaters extending westward from either jetty have recently been constructed.

LIST OF NEW NAMES:

Well established local names.

The highway which crosses the river is known as Fort Pierce Causeway and the island is Causeway Island.

Municipal Pier and Finance Corporation Dock are in the vicinity of the turning basin and are marked accordingly.

○ Ron and ○ Bea (hydrographic names only) are the front and rear beacons respectively of the 100 foot cut rear range, located by rod readings from a set up on Δ No. 39.

Δ Front and Δ Rear (triangulation names only) are the front and rear beacons of the 240 foot cut entrance range.

The large building at Δ Gable is the Baltimore and Carolina Steam Ship Line warehouse.

CHARACTER OF MARSHES:

Very little marsh land is shown on the sheet. The topographic party did not penetrate the mangrove woods to determine the nature of the ground and vegetation other than the immediate shoreline.

Those shown, however, consist of slightly boggy ground covered with marsh grass. The marsh in the vicinity of Δ Bell 2 is covered with approximately one foot of water at high tide.

MAGNETIC MERIDIAN:

The magnetic declination was determined at Δ Pierce 2 on January 27, 1930 about 9:00 A.M. The declinoire used was the one supplied with alidade No. 196.

DISTORTION:

Much of the field work on the sheet was done ^{under} a very damp conditions, causing some shrinking. The sheet also wrinkled badly. This was found impossible to prevent or remedy.

The average shrinkage in Latitude is about 10 meters per mile and that in Longitude ranges from 12 to 18 meters per miles.

STATISTICS:

Sheet comprises 21 statute miles of shoreline, or 2 square statute miles of area surveyed.

Fort Pierce, Florida,
May 22, 1930,

M. E. Wennermark.
M. E. Wennermark,
Aid,
U. S. C. & G. Survey.

ADDENDA:

CHANNEL DOLPHINS:

The channel crossing Indian River is marked by two pairs of dolphin beacons, bearing pointers, red on the northerly, and black on the southerly beacons. These beacons were accurately located on the sheet by graphical triangulation.

Fort Pierce, Florida,
June 2, 1930

E B Roberts
E. B. Roberts,
Jr. H. & G. Engineer,
U. S. C. & G. Survey.

*Test of the Declination shown on
Sheet B.*

approved:

Charles Shaw
Coast Ship Ranger

STATISTICS

TOPOGRAPHIC SHEET "A"

Fort Pierce, Fla.

1930

Date	Statute Miles.
January 24	2.0
25	1.0
27	3.1
28	5.3
29	1.7
31	2.8
February 1	1.1
6	2.8
8	1.1

TOPOGRAPHIC STATIONS

SHEET-A (T.4537) SCALE-1:5 000

SHIP RANGER

Fort Pierce, Fla. 1930

Station Name	Latitude			Longitude			Remarks
	°	'	Meters	°	'	Meters	
Lat	27	26	(1187) 660	80	19	(1261) 387	
Mo	27	26	(1055) 792	80	19	(1214) 434	
Rat	27	26	(693) 1154	80	19	(1222) 426	N.E. Corner of small boat dock.
Hed	27	26	(509) 1338	80	19	(1181) 467	S.E. Corner of concrete retaining wall.
Pin	27	26	(33) 1814	80	19	(1156) 492	
Ke	27	27	(1785) 62	80	19	(834) 814	Shorter of two smoke-stacks
Tu	27	27	(1572) 275	80	19	(961) 687	
Ben	27	27	(1569) 278	80	19	(823) 825	
Wat	27	27	(1415) 432	80	19	(744) 904	Small wood water tank about 30 ft. above ground.
Car	27	27	(1322) 525	80	19	(816) 832	
Am	27	27	(1104) 743	80	19	(929) 719	Pan-Am sign above Independent fish house.
Tel	27	27	(1069) 778	80	19	(1047) 601	
Fish	27	27	(969) 878	80	19	(1260) 388	East gable of Easternmost fish house on dock.
Pi	27	27	(942) 905	80	19	(997) 651	S.E. Corner of Finance Company pier.
Tom	27	27	(928) 919	80	19	(863) 785	Inshore (N.W.) corner of Finance Company pier.
Tab	27	27	(927) 920	80	19	(1405) 243	E. gable of bridge house at draw bridge.
Dol	27	27	(888) 959	80	19	(982) 666	N.E. Corner of Finance Company pier.

Station Name	Latitude			Longitude			Remarks
	°	'	Meters	°	'	Meters	
End	27	27	(620) 1227	80	19	(772) 876	N. End of bulkhead along W. bank of Indian River.
Gul	27	27	(693) 1154	80	19	(1202) 446	Lone pile on North side of channel. 1/8 mi. NE. of pier.
Pam	27	27	(408) 1439	80	19	(521) 1127	
Ted	27	27	(122) 1725	80	19	(372) 1276	
Jon	27	27	(48) 1799	80	19	(351) 1297	
Hi	27	28	(1836) 11	80	19	(513) 1134	
Al	27	28	(1829) 18	80	19	(587) 1060	
Pete	27	28	(1824) 23	80	19	(435) 1212	
Jac	27	28	(1817) 30	80	19	(380) 1267	
Jo	27	28	(1763) 84	80	19	(603) 1044	
Dog	27	28	(1695) 152	80	19	(375) 1272	
Pet	27	28	(1530) 317	80	19	(284) 1363	E. gable of white house on W. bank of Indian R.
No	27	28	(1353) 494	80	19	(220) 1427	
Pol	27	27	(869) 978	80	19	(1598) 50	Telephone pole at E. end of bridge, W. of island.
Sig	27	27	(693) 1154	80	18	(300) 1348	
Pod	27	27	(528) 1319	80	18	(690) 958	Tripod on causeway island.
Slat	27	27	(354) 1493	80	18	(1047) 601	

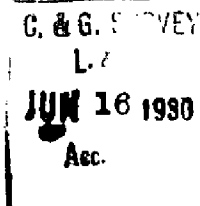
Station Name	Latitude			Longitude			
	°	'	Meters	°	'	Meters	
Cat	27	27	(392) 1455	80	18	(1546) 102	
Lee	27	27	(327) 1520	80	18	(1391) 257	
Sal	27	26	(7) 1840	80	17	(898) 750	End of small boat landing
Rut	27	27	(1353) 494	80	17	(926) 722	
Nel	27	27	(1196) 651	80	17	(826) 822	
Ro	27	27	(792) 1055	80	17	(897) 751	
Set	27	27	(802) 1045	80	17	(284) 1364	
Bob	27	27	(741) 1106	80	17	(721) 927	
Mor	27	27	(687) 1160	80	17	(406) 1242	
Red	27	27	(654) 1193	80	17	(593) 1055	
stuc	27	27	(607) 1240	80	17	(1132) 516	N.E. corner of white stucco house on beach.
Turn	27	27	(577) 1270	80	17	(140) 1508	
Tip	27	27	(462) 1385	80	17	(317) 1331	
Yel	27	27	(461) 1386	80	17	(1072) 576	N.E. corner of yellow frame house on beach.
Cor	27	27	(373) 1474	80	17	(247) 1401	
Bot	27	27	(229) 1618	80	17	(494) 1154	Peak of roof of small house on boat landing in cove.
Ex	27	27	(223) 1624	80	17	(291) 1357	

Station Name	Latitude			Longitude			Remarks
			meters			meters	
Gab	27	27	(168) 1679	80	17	(1009) 639	N. gable of small frame shack on beach.
Len	27	28	(1826) 21	80	17	(379) 1268	
Ban	27	28	(1810) 37	80	17	(956) 691	
Rot	27	28	(1750) 97	80	17	(38) 1609	
Ho	27	28	(1527) 320	80	17	(400) 1247	N.E. corner of small frame house with galv. iron roof, S. of channel.
Cas	27	28	(1498) 349	80	17	(854) 793	N.E. corner of casino on beach.
Tide	27	28	(1408) 439	80	17	(934) 713	E of small tide house on South breakwater.
Ron	27	28	(1204) 643	80	17	(578) 1069	Shorter of two range beacons defining inner range.
Bea	27	28	(1109) 738	80	17	(756) 891	Taller of two range beacons defining inner range.
Tree	27	28	(971) 876	80	17	(415) 1232	
Bus	27	28	(816) 1031	80	17	(311) 1336	
Riv	27	28	(776) 1071	80	17	(182) 1465	
Tur	27	28	(794) 1053	80	18	(1554) 93	
La	27	28	(865) 982	80	18	(1091) 556	
Stu	27	28	(665) 1182	80	17	(43) 1604	
Baw	27	28	(572) 1275	80	17	(483) 1164	
Ely	27	28	(608) 1239	80	18	(1406) 241	

[illegible]

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET



REG. NO. 4537

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter AREGISTER NO. **4537**State FloridaGeneral locality East Coast of Florida. Indian RiverLocality Fort Pierce HarborScale 1:5,000 Date of survey Jan. - March, 19 30Vessel RANGERChief of Party Charles ShawSurveyed by M. E. WennermarkInked by M. E. Wennermark

Heights in feet above _____ to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated December 31, 19 29

Remarks: _____

27 26-2800