

5541

1250

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic }
~~*Hydrographic*~~ } Sheet No. T 5541

5541

State Florida

LOCALITY

Florida Keys

Long Key

Photos taken Jan. 1935
Field Inspection with ground surveys to March 1938

-1938-

CHIEF OF PARTY

E. R. McCarthy

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

V.T.M.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.

REGISTER NO. T-5541

State Florida

General locality Florida Keys

Locality Long Key

Scale 1:20,000 photographs: January 15, 26, 1935
Date of ~~survey~~ 19

Vessel Field Party No. 14

Chief of Party E. R. Mc Carthy

Surveyed by See data sheet attached to descriptive report

Inked by

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

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

Instructions dated..... November 17, 1935....., 19.....

Remarks: Compiled from air photographs at a scale of 1:20,280
for reproduction by photo-lithographic process at a scale of 1:20,000

DESCRIPTIVE REPORT TO ACCOMPANY MAP DRAWING REGISTER NO T-5541.

GENERAL INFORMATION

Reference is made to the general report for the area which is filed with the report for sheet Register No T-5538.

There are three flights of photographs over the area of the map drawing. Photographs #1-10 center over the railroad right-of-way and extend from the center of Long Key to the west limit of the sheet, photographs 473-482 center over a line from Barnes Key to Matecumbe Bight, photographs 547-572 center over the railroad right-of-way from the east limit of the sheet (East point of Lower Matecumbe) to Long Key Viaduct. Dates and times of flights follow:

Photos 1-10	January 15 1935	11:45 AM	- predicted tide: Low
473-482	January 26 1935	1:30 PM	" " " "
547-572	January 26 1935	2:30 PM	" " " "

Field Inspection at various dates to March, 1938

LIMITS

See perian at back for details later than the date of the photographs.

*High
(1.5-2.0 ft.
range) outside
coast.)*

The area covered extends along the main line of keys and includes the section from the east point of Lower Matecumbe along the railroad right-of-way westerly to a point about a mile west of the Conch Keys. It extends northerly to include the south tip of the Buchanan Keys, and all the shoal area between this tip and Lower Matecumbe on the SE, and all the shoal area between it and Channel Key on the SW.

The keys included in the map drawing are: Lower Matecumbe, Long Key, Conch Keys, Lignum-Vitae Key, Jewish Bush Key, the two southerly of the Peterson Keys, and the south tip of the Buchanan Keys. It also includes the Channel Two, Channel Five, and Long Key Viaducts of the Overseas Highway.

CONTROLTRIANGULATION

The control is on the North American Datum and was executed by H. A. Cotton-1934, and E.R. McCarthy-1934-5. One station of the first order control executed in 1935 by J. Bowie, Jr was utilized. It (Sta RACK) was furnished on the 1927 datum and was corrected to the North American Datum by factors determined by comparing common stations of the first and second order schemes. Values obtained were--Lat $+0.528$ and Long -0.129 (seconds).

SUPPLEMENTAL

The area is covered by contemporary graphical control

sheets 6360b and 6418b. Both sheets were surveyed in 1935 and the locations of numerous marked stations were shown. Because of the large amount of triangulation, little of the supplemental control was used except in the vicinity of Long Key Viaduct where the triangulation fell close to the line of flight and the additional control was necessary.

MISCELLANEOUS

Triangulation stations FISH, PEAK, CAMP, VIADUCT, and VIADUCT 2 were destroyed between the time the photographs were taken and the time the map drawing was made. They were used for control but are not shown on the completed sheet. Station CRAIG could not be correctly spotted and was not used. *Craig 1934 is a lost station.*

Practically all the aids to navigation located by triangulation in 1934-5 were destroyed by or following the 1935 hurricane. The new aids were located by sextant fix. *in April, 1937 reported on Form 567 (Chart Letter 380, 1937) These are shown on the drawing.*

A list of the control showing plotting distances is attached to the report.

COMPILATION METHODS

The standard methods of radial line plotting as described by publications of the Bureau were used. No adjustments were necessary.

DESCRIPTION OF AREA

GENERAL

There are no settlements of any kind within the area covered by the sheet. Prior to the 1935 hurricane there was a small permanent houseboat settlement at the ferry slip on Lower Matecumbe, a large veterans camp at the same place, a second veterans camp on the east point of Lower Matecumbe, a small store and settlement on the fill between Channels Two and Five, a railroad settlement of section hands on Long Key, and the winter fishing camp on the west point of Long Key. The 1935 hurricane completely destroyed all these settlements and left but two houses in the area covered by the sheet. One of these was a section foreman house on Long Key and the other a section foreman house on the fill. Since then the store and some of the buildings on the fill have been rebuilt, a large store has been erected at the ferry slip, and ~~the~~ a temporary camp for the new Overseas Highway construction crew has been also built near the ferry slip.

In general, the exposed ocean shores are of sand backed up by a thin fringe of fast land thickly covered with palms or brush. Behind the fringe the land is lower and grass or mangrove covered. The semi-protected or protected ocean shores are of mangrove

The bay shores are largely rock or mangrove with little or no beach. The fills are bulkheaded with wooden sheathing-in rather poor shape- and are grass covered and mangrove fringed. In the construction of the highway west of Matecumbe, the fills were lowered in order to obtain a 20' road.

There is little or no industry. During the winter months, a large fishing fleet bases in Matecumbe Harbor loading the catch directly on trucks for shipment to Miami. A number of yachts- but only charter fishing boats- tie up or anchor in Channel Three and Channel Four. Bulk gasoline plants are located at Matecumbe Harbor and Channel Three.

DETAILS

Lignum-Vitae Key

The key is largely hammock land. Mangrove is found only along the south shore where it extends a short distance in-shore. The key is privately owned, has a good house and a small lime grove upon it, and a pier for small boats on its east shore.

Lower Matecumbe Key

The eastern section of the key is largely hammock land with mangrove along its north shore. The western section is mostly a mangrove swamp with some good land south of the highway. The ocean shore is a high sand ridge covered with palms and high bushes with low grass land behind it. The vicinity of the ferry slip (on the west side of the key) had- at the time the photographs were taken- a rather large camp of war veterans in addition to the houseboat settlement. All the buildings, piers, and houseboats were destroyed in the 1935 hurricane and were partially rebuilt at a later date. There were a number of changes here that will be discussed under the heading CHANGES.

The railroad embankment was completely destroyed by the hurricane. The ties and rails were washed into the mangrove or trees north of the highway- from whence they were later salvaged- and the embankment knocked down and gutted. In the reconstruction of the highway between the Matecumbes, a considerable portion of the embankment on the east portion of the key was removed for borrow.

The highway was washed out in several places but was rebuilt.

Fill between Channel Two and Channel Five

The fill is bulkheaded, covered with a light growth of grass, and mangrove fringed in spots. A large amount of the mangrove was killed in the storm. There is a store, bulk

gasoline plant, water storage tanks, pier, and swimming pool, postoffice, and telegraph station on the fill at Channel Three. There is a marine railway capable of hauling out ordinary fishing boats on the curve of the fill.

Jewish Bush Key

The key is low, grassy, and mud flat land with a small hammock near the north shore. A house and road have been built recently and a small boat basin constructed out of a borrow pit. Mangrove fringes the entire key except a small section of the north shore.

Long Key

The section of the key traversed by the old railroad right-of-way is largely hammock land covered with grass, trees, and palms. The ocean shore is a sand ridge with palms and high bushes. The remainder of the key-south and west of Long Key Bight- is a mangrove swamp except the center which is a shallow pond with numerous marl or mud flats and mangrove clumps.

The fishing camp on the west point of the key was completely destroyed by the 1935 hurricane which even blew over the tall water tank located here. No houses were left on the key except the one house mentioned. The camp was abandoned after salvaging all equipment of any value.

The railroad embankment was washed out in numerous places. The new highway which passes over the old railroad right-of-way is very little above the general level of the key. All the embankments were lowered or destroyed in its construction.

Conch Keys

The NE key is low, grassy, and mangrove fringed. The highway construction crews dug a borrow pit on its east shore which pit was approximately spotted on the field prints and is shown on the sheet.

The SW or outside key is mangrove.

Buchanan Key

This key is described on Sheet 5542.

Peterson Keys

The two southerly of these keys are shown. The keys are mangrove with a mud flat in the center. The mangrove was completely defoliated in the 1935 hurricane but has since sprung up anew.

DESCRIPTION OF WATER AREAS

The shoal areas, as a rule, were clearly outlined on the photographs. No field inspection was made of them but the outlines as shown on the photos were carefully checked against the hydrographic sheets and modified, if necessary. At the time photos #1-10 were taken, the water had been apparently stirred up as the outlines on these prints were somewhat clouded.

The plot in the north section of the Channel Key Banks was somewhat weak on account of slim cuts*. The area east of Matecumbe Bight north of Lower Matecumbe Key is approximately outlined ~~only~~ as there was little hydrographic information here. It was impractical to show the areas bare at low water without a thorough field inspection so bare areas were indicated on banks and shoals where the hydrographic sheets showed they were to be found.

* These shoals were well developed by hydrography, and the outlines originally shown on T-5541 have been entirely removed in this section upon review.

INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and little trouble experienced in the interpretation. The coverage is adequate for the land areas. The water areas are sufficiently covered except for the Arsenic Banks*. These banks show clearly on a few photos but not enough of them to obtain a good position. The photos may be valuable in sketching the shoals as outlined on the hydrographic sheet.

* Name does not appear on T-5541. Location is N.E. of A Horse neck, 1857. Banks were not delineated on T-5541.

CHANGES

There have been a number of changes in the land area since the date of the photographs. They were due principally to the hurricane, the construction of the new highway over the old railroad right-of-way, and the start made on the highway bridges by the veteran camps.

The detail around the south shore of Matecumbe Harbor shows a considerable change from that shown on the photos. The camp and all structures except for the ferry slip were completely taken out by the hurricane. The slips were dredged out and built prior to hurricane and were located by sextant fix. The store was located by measurements on the photographs. The pier was located by sextant fix.

The cuts through the bank forming the west side of the harbor, the spoil bank between the cuts, and the piers and piling west of the bank were located by sextant fixes.

All the houses on the fill between Channel Two and Five were taken out by the hurricane except the one house mentioned. The postoffice and telegraph station were rebuilt on the same foundation. A new pier and swimming pool were constructed and located by sextant fix.

The road and house on Jewfish Bush Key were spotted on the photos as was the borrow pit on Conch Key and the borrow pit on
All features mentioned in this paragraph were built since photographs taken.

Long Key. The basin on Jewfish Bush was located by sextant fix.

The buildings on the grounds of the fishing camp on the west point of Long Key were completely taken out. The asphalt sidewalk is still intact, the foundations of the buildings are scattered around, the underpass has been rebuilt, and the greater part of the area is covered with grass.

OVERSEAS HIGHWAY

Late in 1934 several camps were established on Windley and Matecumbe Keys for the purpose of housing war veterans who were to be assigned to begin construction of the bridges over the water gaps of the Miami-Key West Highway. Surveys were made, the line of the highway staked out and cut through, (it shows plainly on Jewfish Bush and Long Keys—a pencil line parallel to the railroad) and after gathering considerable equipment, work began about April 1937. A cement mixing plant was set up, coffer dams built, and several piers on the west end of the Matecumbe-Jewfish Bush ^{at the} poured in addition to throwing up a spoil bank for fill on the bank on the west side of the harbor when the hurricane of September 2-3 1935 struck. The hurricane wrecked the camps, drowned several hundred of the veterans, and scattered or ruined a large amount of the equipment. Work was immediately halted and the project given up.

During 1936, the railroad abandoned its right-of-way from Florida City to Key West. The Overseas Bridge and Toll District—a State sub-division—succeeded in obtaining a PWA loan, purchased the right-of-way abandoned by the railroad, and began construction of a toll highway connecting the water gaps by means of converting the railroad viaducts and bridges to a highway. The new highway follows the exact route of the railroad within the limits of the sheet.* The junction of State Highway 4A and the toll road was plotted from the right-of-way maps of the Bridge and Toll District.
*The highway N.E. of its junction with railroad was built prior to date of photographs.

AIDS TO NAVIGATION

All aids were located by sextant fix as the aids located in 1934-5 by triangulation had been destroyed. There was but one aid undisturbed by the hurricane—Beacon 2A (New No 4)* a three pile structure on the south point of Joe-Berry Bank. ^{Channel Key Bn. 4, 1934} (name rejected. Is part of channel Key Banks)

RECOVERABLE STATIONS & BENCH MARKS

A number of marked stations and bench marks (tidal and first order) were destroyed by the hurricane or by the conversion of the railroad bridges. These are reported on Form 524 and will be forwarded with the sheet. ^{Forms 524 also for stations shown on this survey are filed under: T-554 (1935-8), T-6258 (1934) T-6360 b, T-6418 b (1935)}

LANDMARKS

Landmarks have been previously reported as have the aids mentioned above. Copies of Form 567 are attached. (these forms removed from this report and given to Nautical Chart Section to replace the original copies in Chart Letter 380 (1937) which was lost)

COMPARISON WITH PREVIOUS SURVEYS

No copies of previous ^{SURVEYS} were made available to the party. From an inspection of the chart it appears that there has been an accretion of mangrove on the north shore of Lower Matecumbe Key and on the shores of Long Key Bight, otherwise there seems to be little change.

The sheet was also compared with contemporary graphical control sheets 6360b and 6418b. Sheet 6360b shows the shoreline along the south shore of Lower Matecumbe Key and was found to check very well. Sheet 6418b shows some shoreline in the vicinity of station MATECUMBE 2, the beach along the east and south shores of Long Key and part of the fill west of Long Key Viaduct. The shoreline is in general good agreement but shows poor agreement in some of the bights—due probably to an insufficient number of rod readings—and the discrepancies were settled in favor of the photographic survey. Sheet 6418b was the first sheet executed by the topographer, Mr A.E. Durie.

COMPLETENESS OF SURVEY

The survey is considered complete and no further work is deemed necessary at the present time.

West Beacon, Long Key Viaduct Shoal, (Old Sweat Bank) was not located because, at the time the field inspection was made, it had not been re-established.* Benchmarks #1 and #2 (Lignum-Vitae) were not located as no description of the benchmarks was on hand when the field inspection was made.

* It has not yet been re-established at date of review (Sept 19, 1935)

The standard of accuracy obtained is believed to be within those standards established by the Bureau for this class of work.

GEOGRAPHIC NAMES

✓ GNE (See Special Report G.N. for T-5541 on file G.N. Section)

Names have been taken up in a report on this subject filed with the sheet.

The name MATECUMBE BIGHT was omitted in error. It finds slight use among the occasional fishermen who anchor there during a southwest blow and is suggested for charting.

The name sheet was made up in compliance with instructions outlined in the letter of the Director dated June 28 1937.

MISCELLANEOUS

The hurricane of September 2-3-1935 deserves some mention. It was probably the most severe hurricane recorded in the history of the Weather Bureau and the official records of the Bureau show that the lowest barometer (sea-level) reading ex

obtained in the Western Hemisphere occurred during this storm. The authenticated values were 26.35" at Channel Three, 26.76" at Lignum-Vitae Key, and 26.98" at Long Key. The previous record low was at West Palm Beach (27.43" in 1928).

More than 30 miles of the railroad track were washed out, storm tides reached a height of from 4' to 10', and more than 400 lives (principally veterans) were lost during the storm. The storm covered a rather small area (about 40 miles diameter) but was very intensive and the wind is estimated to have reached a velocity of over 200 miles per hour.

E. R. McCarthy

E. R. McCarthy
Chief of Party

Key West, Fla.
April 1 1938

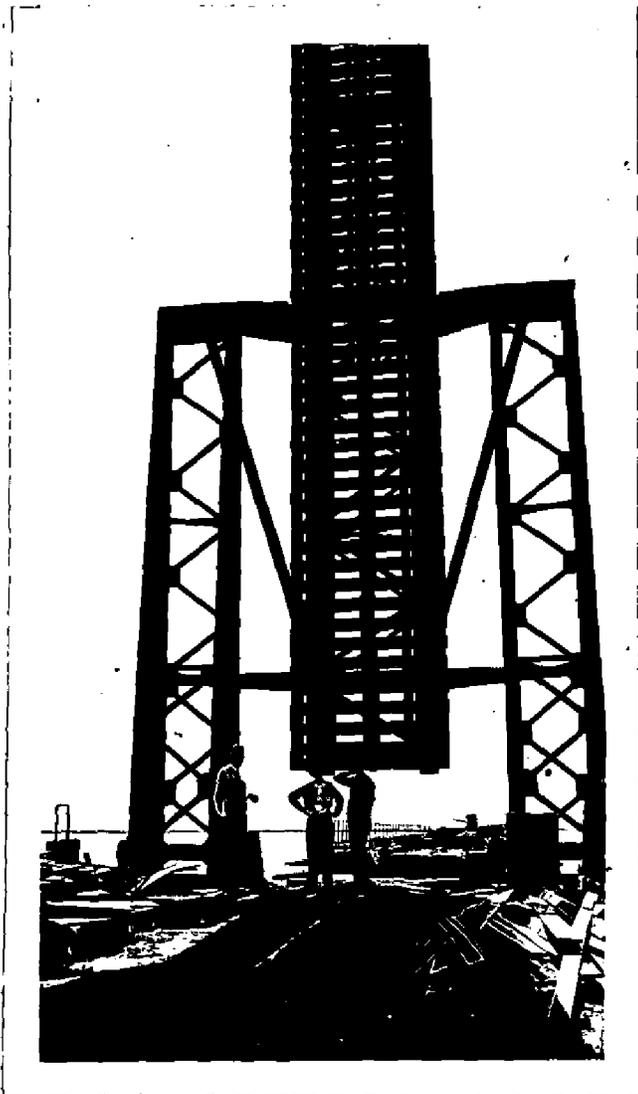
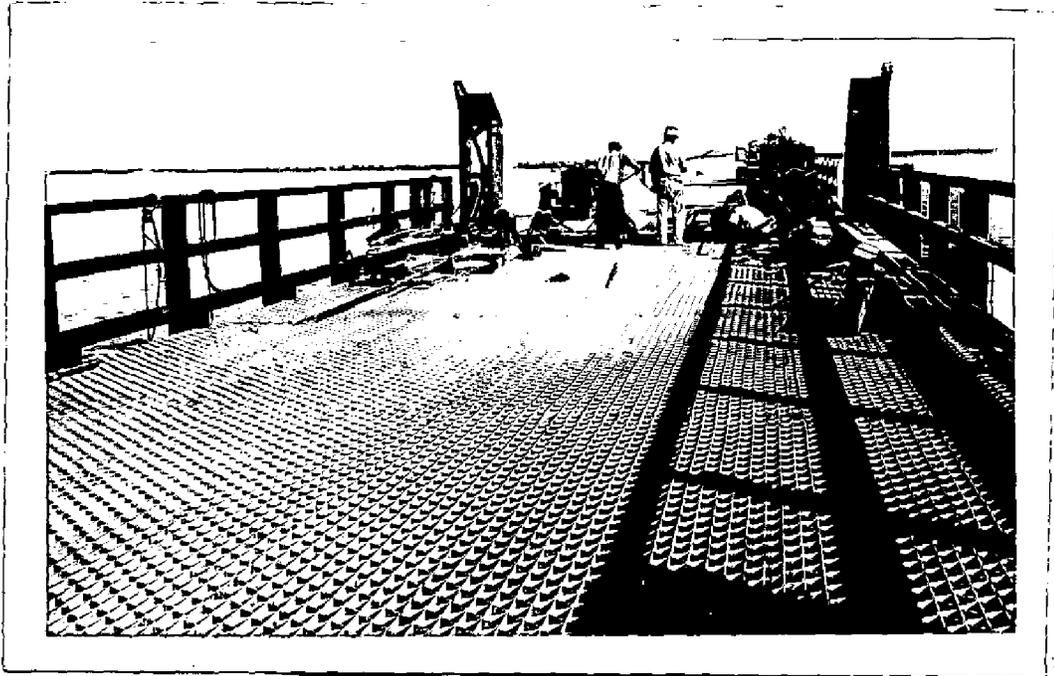
Mathisson reported that field inspection was carried out at various times up to completion of the compilation.

Bridge Clearances:

Shown on map drawing.

Data obtained probably by field measurement.

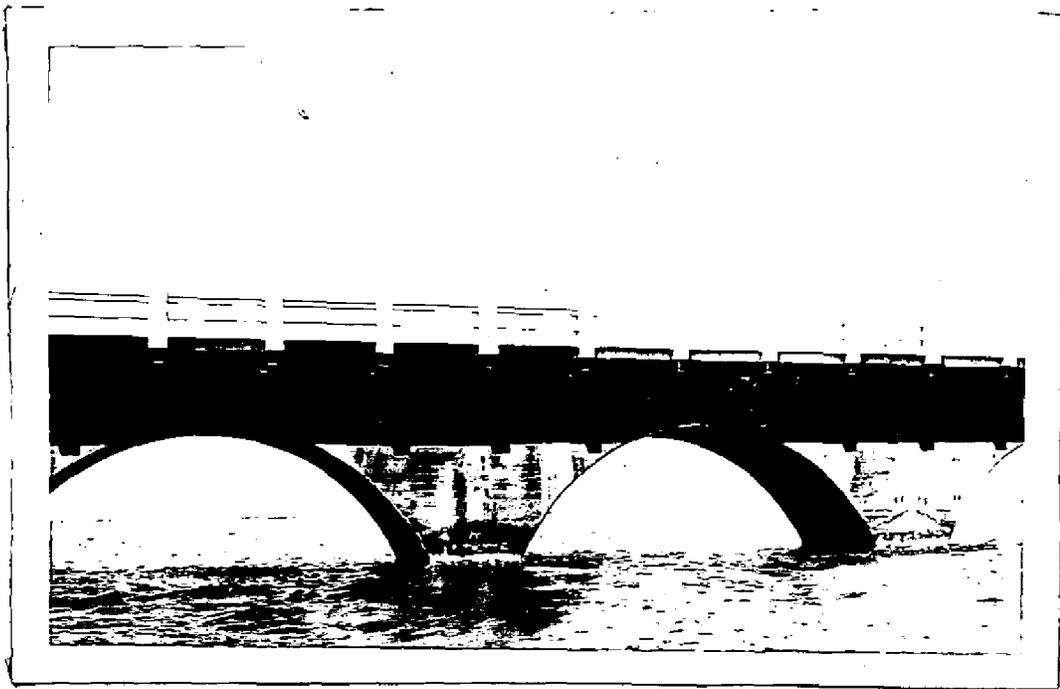
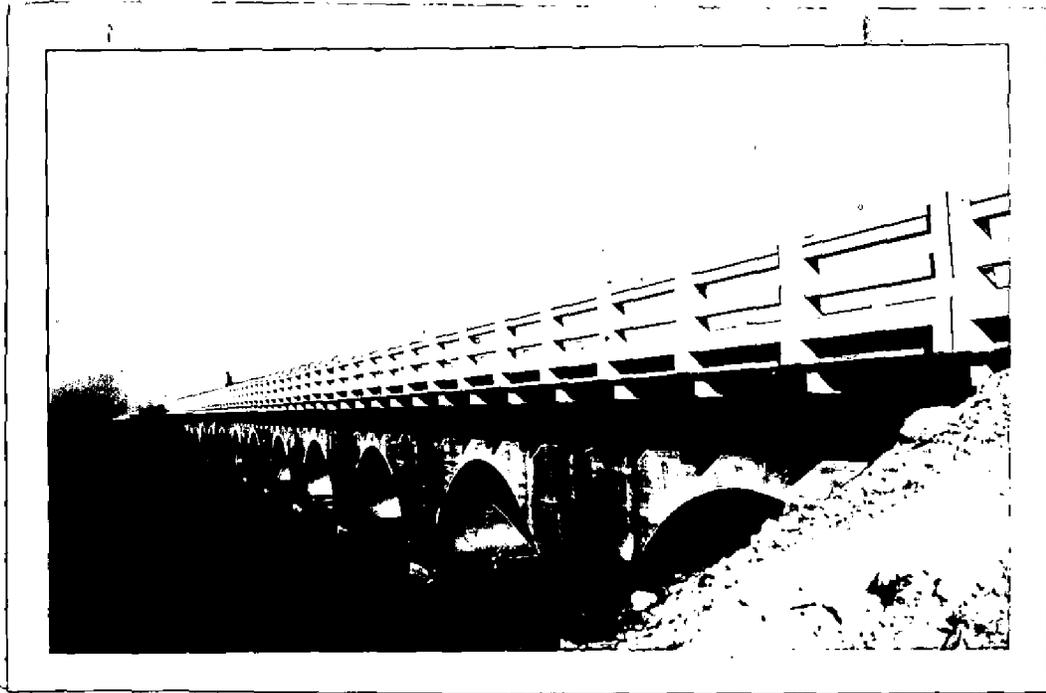
*Notes in red. by:
T. M. Price
upon review
Sept. 10, 1938*

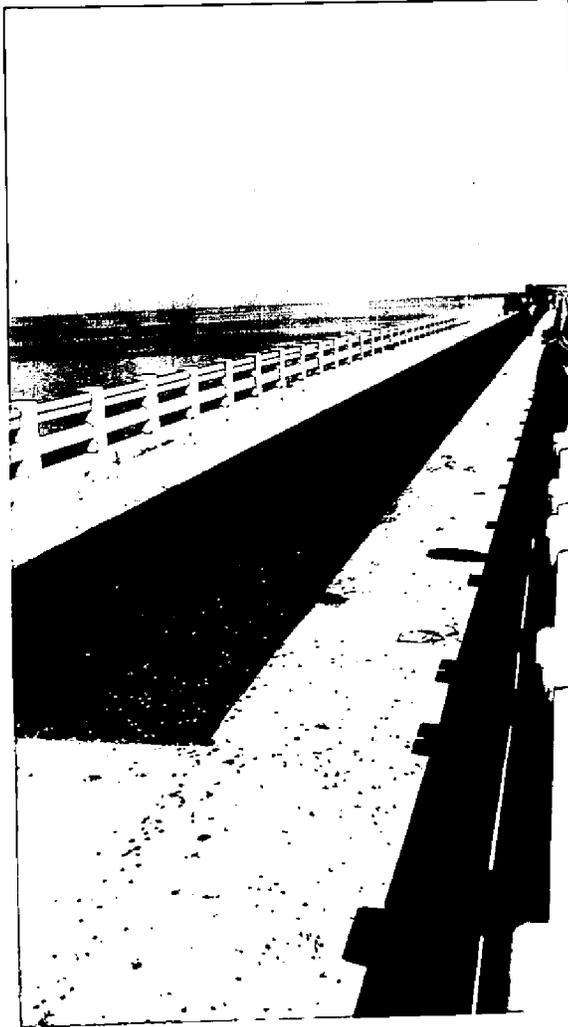


CHANNEL FIVE DRAWBRIDGE

BEFORE AND AFTER
CONVERSION

CHANNEL TWO VIADUCT*****AFTER COMPLETION

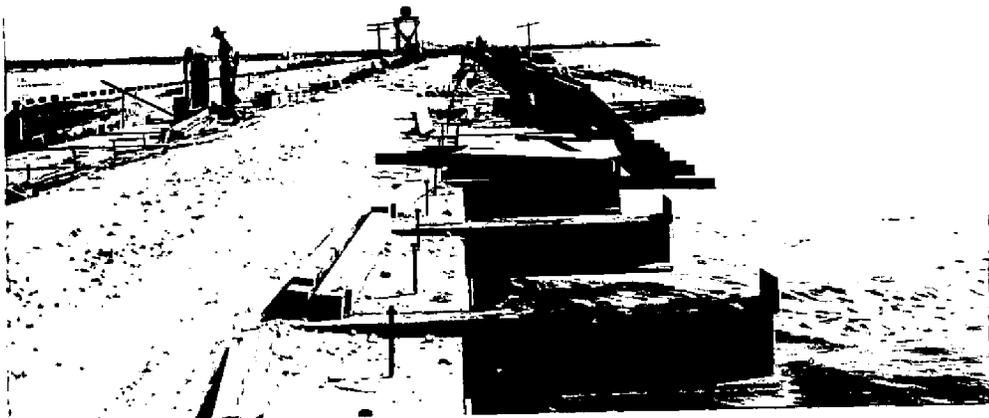




CHANNEL TWO VIADUCT

COMPLETED

**UNDER
CONSTRUCTION**



REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: E. R. McCarthy

Compiled by: ERM, JCM

Project: HT 158

Instructions dated: Nov 17 1933

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

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-27

9. 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)
10. 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)
11. 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)
12. 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)
13. 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)
Special report accompanies sheet
14. The geographic datum of the compilation is North American and the reference station is correctly noted. (UNADJUSTED)
15. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
16. 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;

E. R. McCarthy
E. R. McCarthy
Chief of Party

CONTROL

Sheet T-5541

North American Datum--Unadjusted Field Observations

Lignum 1934	24	54	945.6	(900.4)	932.5	(888.0)
	80	41	1498.4	(185.3)	1477.7	(182.6)
Bowlegs 1934	24	54	946.4	(899.6)	933.3	(887.1)
	80	44	542.9	(1140.8)	535.3	(1125.7)
Bowl 1934	24	52	332.4	(1513.6)	327.7	(1492.6)
	80	42	1068.6	(615.7)	1053.9	(607.1)
Com 1934	24	52	1662.8	(183.2)	1639.8	(180.2)
	80	41	770.0	(914.2)	759.3	(900.5)
Jawbone 1934	24	49	667.8	(1178.2)	658.6	(1161.9)
	80	49	490.5	(1194.6)	483.7	(1177.4)
Hawk 1934	24	48	1230.7	(615.3)	1213.6	(606.7)
	80	47	1221.9	(463.2)	1205.0	(456.8)
Matecumbe 2, 1934	24	51	² 21.0	(1825.0)	20.7	(1799.7)
	80	44	477.0	(1207.6)	470.4	(1190.0)
Rack 1934	24	52	1535.3	(310.8)	1513.8	(306.4)
	80	41	1084.3	(600.0)	1069.2	(591.7)
Horseneck 1857	24	53	77.7	(1768.3)	76.0	(1743.2)
	80	51	1363.1	(321.1)	1342.3	(316.3)
Conch 1934	24	47	726.0	(1120.0)	715.4	(1103.6)
	80	53	616.7	(1068.7)	607.6	(1052.8)
Bee 1934	24	52	86.3	(1759.7)	84.6	(1734.0)
	80	42	561.5	(1122.8)	553.2	(1106.2)

Stations destroyed between time of taking photos and making map drawing; used in compilation.

Craig 1934	24	50	610.6	³⁵ (1253.4)	602.1	(1218.3)
	80	45	833.9	(850.9)	822.2	(839.1)
Fish 1934	24	50	1083.4	⁶² (726.6)	1068.4	(752.0)
	80	47	978.2	(706.5)	964.7	(696.7)
Peak 1934	24	50	453.2	(1392.8)	446.9	(1373.4)
	80	46	475.3	(1209.5)	468.9	(1192.8)
Camp 1934	24	48	452.2	(1393.8)	445.9	(1373.5)
	80	50	1519.9	(165.4)	1498.9	(163.1)
Viaduct 2, 1936	24	47	1318.3	(527.8)	1299.1	(520.1)
	80	52	550.2	(1135.1)	542.0	(1118.2)

Remarks

Decisions

	Remarks	Decisions
1		See T-5442
2		Referred to USGB 5/16/38
3		
4		
5		
6	Part of Chan. Key Banks	
7		
8		
9		See H-6113
10		
11		
12		
13		
14		
15		
16		see T-5540
17		
18		
19		
20		
21		see T-5542
22	Bowlegs Key is middle of these 3 keys	
23	See Note Bowlegs Key below	see T-5540
24	No authority for name on H-5778	see H-5778 see S.R. 9
25		see H-5778
26		USGB decision
27		see T-5540

GEOGRAPHIC NAMES

Survey No. T-5541

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
✓ Florida Bay	✓										1
→ Arsenic Banks	E Horse neck sh	Horse neck sh H-1927		✓							2
✓ Yacht Channel				✓							3
✓ East Horseneck Shoal Lt.		Refered to US Light Lt.						East Horseneck sh Lt.			4
✓ Channel Key Banks				✓							5
Joe Betty Banks				✓							6
✓ Channel Key Pass				✓							7
✓ Conch Key Banks				✓							8
✓ Conch Keys	✓			✓							9
✓ Old Sweat Bank				✓							10
✓ Pontoon Banks				✓							11
✓ Old Dan Bank				✓							12
✓ Long Key	✓	✓		✓							13
✓ Hawk Channel				✓							14
✓ Long Key Point				✓							15
✓ Long Key Bight	GNS										16
✓ Jewfish Bank Key	Jewfish Key	Jewfish Key T-694		✓							17
✓ Jewfish Hole				✓							18
✓ Jewfish Bush Banks				✓							19
✓ Ninemile Nine Mile Bank	GNS			✓							20
✓ Buchanan Keys	✓										21
✓ Buchanan Bank				✓							22
✓ Peterson Keys	GNS										23
✓ Dorley's Peterson Key Banks	GNS			✓							24
✓ Bowlegs Cut	GNS			✓							25
✓ Lignum vitae Key	✓										26
✓ Lignum vitae Chan.	GNS			✓							27

Remarks.

Decisions

	Remarks.	Decisions
1		<i>USGB decision</i>
2		
3		<i>See H-577 8</i>
4	<i>Bowlegs Key - charted since 1895 (for possible origin see Sp. Ref T-5541) Bowlegs Cut</i>	
5	<i>Recommended for charting (see S.R.1)</i>	
6	<i>OK for topo map only</i>	
7	<i>OK for topo map only</i>	
8	<i>Recommended for charting (see S.R.1)</i>	
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GEOGRAPHIC NAMES

Survey No. T-5541

Name on Survey	On Chart No. 1250	On previous survey No.	On U. S. quadrangle Maps	From local sec 57-1 information T-5541 SR 11	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
	A.	B.	C.	D.	E.	F.	G.	H.	K.
<u>Lower Matecumbe Key</u>	✓			✓					1
<u>Matecumbe Bight</u>				✓					2
<u>Matecumbe Harbor</u>	GNS			✓					3
Bowley Key	✓	T-694						✓	4
<u>channel Two</u>				SR 1					5
channel Three				SR 1					6
channel Four				SR 1					7
<u>channel Five</u>				SR 1					8
									9
									10
									11
									12
									13
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									25
Names underlined in red approved									26
by <u>GFE</u> on 5/13/38									27

SECTION OF FIELD RECORDS

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5541

Scale 1:20,000

Photographs taken January 15, 1935, January 26, 1935; Compiled May 1937 to March, 1938. Refer to Pages 1 and 2 of the descriptive report for additional data.

Chief of Party - E. R. McCarthy
Radial Plot by - J. C. Mathisson
Radial Plot checked by - E. R. McCarthy
Inked by - J. C. Mathisson and E. R. McCarthy

INFORMATION FROM OTHER SOURCES

The detail of T-5541 is of the date of the photographs, except for the following:

1. Details located by field inspection of Photographs and Sextant Locations at various times to March 1938, (refer also to Pages 5 and 6 of the Descriptive Report):
 - a. Buildings, piers, and piling.
 - b. Swimming pool near Channel Three, slips, the spoil bank near Matecumbe Harbor, and borrow pits on Conch Key and Long Key.
 - c. Abandonment of railway, building of highway over railway right-of-way.
 - d. Road, house and boat basin on Jewfish Key.
 - e. All aids to navigation (except Triangulation Station Channel Key Beacon 4, 1934 which was checked and found unchanged), all landmarks, and part of the recoverable topographic stations.
2. The junction of the highway and railway right-of-way near Matecumbe Harbor was taken from right-of-way maps of the Bridge and Toll District.
3. Graphic Control Surveys, 1934-5:

Certain recoverable hydrographic and topographic stations.

COMPARISON WITH RECENT GRAPHIC CONTROL SURVEYS

T-6418a,b (1935) 1:20,000
T-6360b (1935) 1:20,000
T-6258 (1934) 1:20,000

The graphic control surveys were made for locating hydrographic signals, beacons, etc. Very little shoreline or other topographic detail is shown. Most of the objects located by these surveys were destroyed by the hurricane of September 2 and 3, 1935. T-5541 has been carefully compared with the graphic control surveys, the photographs, and recent hydrographic surveys, and has been corrected as necessary. In case of any difference remaining between the graphic control surveys and T-5541, the latter should now be taken as correct.

All detail on the graphic control surveys, not changed or destroyed, within the area of T-5541 is now shown on T-5541, except the magnetic declination and temporary topographic stations.

The magnetic declination by declinatoire on the graphic control surveys as compared to that shown on chart 1250 (9/27/37 printing) is given below:

<u>Survey</u>	<u>Date</u>	<u>Station</u>	<u>Declination</u>	<u>As Chartered (no annual change)</u>
T-6258	Oct., 1934	Twin Key, 1856	1°-02' E	2°-00' to 2°-15' E
"	"	Bowl, 1934	2°-04' E	"
T-6360b	Jan., 1935	Bee, 1934	2°-26' E	2°-15' E
T-6418a,b,	Feb., 1935	Matecumbe 2, 1934	2°-34' E	2°-15' E

COMPARISON WITH PREVIOUS TOPOGRAPHIC SURVEYS

T-641 (1857) 1:20,000
 T-694 (1858) 1:20,000
 T-688 (1857) 1:20,000

At Long Key Point a rock ledge bare at low water is shown somewhat larger on the previous surveys than on T-5541. The extent to which this ledge is bare at low water cannot be well defined from the photographs, and it was not approached by the hydrography. It is surrounded by shallow water, however, and the exact outline is not important.

Three hundred meters south of Long Key Point a wreck is shown on T-688 which, is not on T-5541, the graphic control survey, or the contemporary hydrographic survey and no mention of it is made in any of the descriptive reports. This wreck was removed from the charts at some time before 1921, and it is therefore assumed to be no longer existing, although not directly disproved by contemporary surveys.

Except for the above, T-5541 is adequate to supersede previous topographic surveys for the area covered.

COMPARISON WITH RECENT HYDROGRAPHIC SURVEYS

H-5778 (1:20,000), 1934-5
 H-5892a " , 1935
 H-5947 " , "
 H-5952 " , "

There were no conflicts between the soundings and the H.W.L. of T-5541. There were a few conflicts between the soundings and the shoal and low water line of T-5541. Most of these were adjusted after examination of the photographs. The remainder have been referred to the Hydrographic Verifying Unit for adjustment.

The dashed line shown off-shore on T-5541 represents the edge of the channel or the approximate limit of shoal areas. In either case it does not represent a depth curve but only a break between very shallow water and deeper water.

The shoal line and the low water line on T-5541 were drawn for the special purpose of supplementing the hydrography for delineation of the extensive shoal areas. All shoal areas have not been indicated on T-5541 where the hydrography was well developed. The shoal water information given by T-5541 has been applied to all of the hydrographic sheets covering the area except H-5778; this has been called to the attention of the hydrographic reviewing section.

COMPARISON WITH CHARTS

Chart 1250 (printing of 9/27/37)

1. Delete from Chart:

- a. Fishing Camp name and building, on S.W. end of Long Key.

2. Changes:

- a. Long Key Anchorage Beacon "1" (located 1/2 mi. NE of Long Key Point) should be moved 300 yds. NW (position obtained by McCarthy in April 1937 referred to Nautical Chart Section).
- b. Pier at SW end of Long Key now ruined.

3. Additional Landmarks to be Charted:

TANK (ELEVATED) and WINDMILL have been recommended for charting, and Form 567 submitted with the descriptive report.

4. See paragraph 5 below. All of the above corrections to current charts have been called to the attention of the Nautical Chart Section.

5. Lights and Beacons

- a. All lights and beacons were located by sextant in April, 1937 except Triangulation Station Channel Key Beacon 4, 1934 which was checked and found unchanged.
- b. Bowlegs Key Beacons 92 and 97 were reported destroyed in May 26, 1938 Notice to Mariners. It is expected that they will be replaced in approximately the same position, therefore they have not been deleted from T-5541. The same is true for Channel Key Lt. 5 and Bn. 8.

- (c) At Lat. $24^{\circ}50.6'$ Long. $80^{\circ}45.6'$ T-5541 shows a Private Light; this is described on Form 567 as a private beacon (Craig). This private aid is not charted or listed in the light lists.
- (d) Hawk Channel, Long Key Beacon "30" has not been located since it was rebuilt in 1935; it is not shown on T-5541.

REMARKS1. Recoverable Hydrographic and Topographic Stations

The descriptions are filed as follows:

T-5541-----	2 cards Form 524-----	sextant location
T-6258	1 cards Form 524	planetable location
T-6360b	3 cards Form 524	planetable location
T-6418b	6 cards Form 524	planetable location

2. Junctions

The junctions with contemporary air photographic surveys are satisfactory.

3. Bridge Data

All necessary data for type and clearances of bridges is given on the map drawing. It is in agreement with the 1934-5 hydrographic sheet, bridge data, but disagrees in some cases by 2 to 5 ft. with the 1935 U.S. Engineer Bridge Book. The field party information has been accepted in preference to the Bridge Book.

4. Special Symbols

Refer to review T5543 for a detailed description of special symbols used on the maps in this area. These symbols are labelled on T5541 either in the title or on the map.

5. Changes

The following changes were made to T-5541 upon review:

- (a) Minor changes in figures and names.
- (b) Minor changes in shoal and low water lines upon comparison with hydrographic surveys.
- (c) Removal of several shoals on Pontoon Bank and Channel Key Bank were not clear on photographs and were well developed by hydrography.
- (d) Addition of North American 1927 Datum; shown by ticks.

6. Accuracy

It is believed that a probable error of 5 to 10 meters obtains throughout most of the work, except in the position of the shoal and low water lines.

ADDITIONAL WORK

Except for the location of Hawk Channel, Long Key Beacon "30", this survey is complete and adequate for chart compilation in the area covered.

Reviewed in office by: T. M. Price Sept. 10, 1938

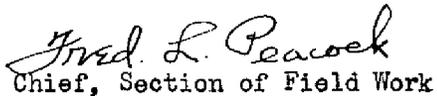
Inspected by: B. G. Jones,

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