6113

Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 15
Hydrographic }

State FLORIDA

LOCALITY

FLORIDA BA[redacted]

CHANNEL KEY TO KNIGHT KEY

1935

CHIEF OF PARTY

E. R. McCarthy

U.S. GOVERNMENT PRINTING OFFICE: 1934

Form 537
Ed. Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

Field No. 15 H6113

REGISTER NO.

State FLORIDA

General locality FLORIDA BAY

Locality CHANNEL KEY TO KNIGHT KEY

Scale 1:20,000 Date of survey MAY - JULY, 1935

Vessel PARTY NO. 14

Chief of Party E. R. MCCARTHY

Surveyed by E.R.MCCARTHY, J.T.JARMAN, A.E.DURIE.

Protracted by T.R.FELTS, J.J.GIORDANO

Soundings penciled by E.R.MCCARTHY

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by L.A. McGann

Verified by L.A. McGann

Instructions dated Nov. 17, 1933 (H.A.Cotton)

Remarks:

U. S. GOVERNMENT PRINTING OFFICE, 1932

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 15

FROM JUNCTION OF SHEET 13 WEST TO KNIGHT KEY AND
FROM A LINE OF KEYS NORTH TO MIDDLE SHOAL.

FLORIDA

Party No. 14

E. R. McCarthy,
Chief of Party.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO.15

AUTHORITY:

Instructions from the Direction dated November 17, 1933 (H.A.Cotton).

LIMITS:

From a junction with sheet 13 on the east (Middle Shoal to Channel Key) west to a line bearing 339° T from Knight Key and from the line of keys north to a line from Middle Shoal to a point 5 miles 339° T from Knight Key.

METHODS:

Soundings were taken with a 15' sounding pole graduated in feet and half feet.

Position was fixed by sextant angles on triangulation and topographic signals.

EQUIPMENT:

Two leased launches drawing about 22" and a twenty foot launch drawing about 18".

COMPARISON WITH PREVIOUS SURVEYS:

The sheet was compared with Chart No. 1250 and the following points noted:

1. The depths in general are about one foot greater.
2. The six foot curve is much different.
3. Most of the banks were correctly located.

DISCREPANCIES:

The lines cross quite well and usually within one foot.

JUNCTION WITH ~~CURRENT~~ Contemporary SURVEYS:

Junction with sheet No. 13 (H-5947) on the east is good.

Junction with sheet No. 16 (H-6133) on the ~~S.~~ south is good. Will be considered in review of H-6133

Junction with sheet No. 17 (H-6137) on the west will be taken up in the report for that sheet. Joins also with H-5952 on SE and H-6134 on SW. See review, par. 6.

GENERAL DESCRIPTION OF AREA:

The area covered by the sheet is flat and of a depth ranging from 7' to 11'. Numerous banks and shoals abound near the keys, on the west limit of the sheet, and north of Bamboo Key.

SHOALS AND DANGERS:

1. Banks south and west of Channel Key:

There are several small isolated banks extending in a line south and west of Channel Key almost to Toms Harbor Viaduct. These will be described from the key south.

(a) Lat. 24-47.3 / Long. 80-54.9:

Chart shows a ridge. Survey shows a ridge separated from Channel Key and shoal (b) by narrow channels. Least depth is ½'(84b-red). Bank outlined by pos. 75-8b-red.

(b) Lat. 24-47.2 / Long. 80-54.8 :

This shoal is roughly circular with least depth of ½'(83b-red). Bank outline by pos. 79-82b-red.

(c) Lat. 24-47.0 / Long. 80-54.8 :

This shoal is separated from (b) & (d) by narrow channels and is very small. Least depth is 2'(15g-red).

SHOALS AND DANGERS: (CONTINUED)

1. (continued):

(d) Lat. 24 - 47.1 / Long. 80 - 55.0:

This shoal is a ridge with axis in a N-S direction and about 0.1 mile long. Least depth is ½'(12g-red). It also is isolated.

(e) Lat. 24 - 46.9 / Long. 80 - 55.1:

This shoal is a ridge with axis in a NE-SW direction and about 0.1 mile long. Least depth is ½'(7g-red).

Note: all the above are fully described in the record and are not correctly charted.

2. Banks north and east of Grassy Key:

The banks extend from Bn. #3 to the east tip of the key. Shoals (a) & (b) are shown on the present chart.

(a) Lat. 24-47.3 to 47.8 / Long. 80-55.5 to 55.6:

This section of the banks is a ridge divided into two parts by a narrow channel. Least depths are ½'(90-97b-red).

(b) Lat. 24-46.8 to 47.2 / Long. 80-55.5 to 55.6:

This section is a series of four ridges separated by narrow channels. Least depths are ½'(20g-red) on north; ½'(24g-red) on north central; 1½'(29g-red) on south central, and 1½'(30g-red) on south.

(c) Lat. 24 - 46.8 / Long. 80 - 56.0:

This is a large rocky shoal. It is separated into two sections. Least depths are ½'(77e-red) on north and 1'(45g-red) on south.

3. Lat. 24 - 46.9 / Long. 80 - 55.4:

There is no indication of this charted 3' sounding. Area probably deepened.

Falls in 7' Surrounding depths in similar disagreement. Change probably due to building of viaduct.

4. Lat. 24 - 46.7 / Long. 80 - 55.5:

A small shoal with a depth of 2½'(144-5e-red) in general depths of 4' was found. It was not investigated and from air photos there is probably less water.

SHOALS AND DANGERS: (CONTINUED)

5. Lat. 24 - 50.3 / Long. 80 - 56.2:

A small bank is charted here. Area investigated and found the bank with least depth of 1'(~~87-8d~~ 88½d-green). The area to the westward of this point within the 6' curve has deepened.

Present survey ½ foot deeper than H-1927 (1889).

6. Lat. 24 - 50.0 to 51.0 / Long. 80 - 57.0 to 58.0:

Fractions dropped in charting. Present survey ½ foot deeper than H-1927 (1889).

Area deepened about 1' from charted depths.

7. Lat. 24-47.0 to 47.6 / Long. 80 - 57.5 Grassy Key Bank:

Chart shows a ridge. Survey shows a ridge in the same approximate locality which is divided into two sections separated by a 7' channel. A very small patch south of the banks which was not located on the sheet shows on the air photos and was sketched on the smooth sheet.

Least depths are ½' on northerly section and 1' on the southerly (Vol. 21, P. 11). Least depth on the patch is apparently ½' to 1'.

8. Lat. 24 - 46.~~2~~3 to 46.8 / Long. 80 - 57.3 ~~5e~~ to 58.2:

Chart shows a spit making out from shore outlined by the 6' curve with depths of 4 & 5'. Survey shows ~~a large isolated shoal with~~ general depths of 5' and ~~least of~~ 4½'(59-61~~k~~h-red).

Survey also shows spit. Continuation of spit discussed under item 9.

The depth curves are well defined by the close development.

9. Lat. 24 - 46.4 / Long. 80 - 57.1 :

An isolated shoal with a least depth of 3'(53-4~~k~~h-red) was found in the spit north of the north point of Grassy Key(not charted).

10. Lat. 24 - 46.6 / Long. 80 - 57.1:

The charted 6' isolated shoal was not found. Development indicates the area has deepened ½' to 1'.

11. Lat. 24 - 51.1 / Long. 80 - 58.6 :

Chart shows a small bank here. Survey shows a small bank with least depth of 3½'(67-8d-green). Not investigated.

12. Lat. 24-50.0 to 50.4 / Long. 80 - 58.6 to 59.0:

There are no indications of the 6' charted soundings in this area.

Most of 6's originate with 6½'s on H-1927(1889). 6½'s fall in 7 and 6's in 6½ on present survey.

SHOALS AND DANGERS: (CONTINUED)

13. Lat. 24 - 46.0 south to shore / Long. 80-58.0 to 59.0:

There is no indication of the isolated 6' charted shoal in 24-45.9 / Long. 80 - 58.2 and the 6' curve is closer to shore than charted. Area probably deepened.

Isolated 6 originates with 6½ on H-1927 and falls in 7 ft on present survey. Difference in curve due to same cause.

14. Lat. 24 - 50.7 / Long. 80 - 59.2 :

Chart shows a ridge. Survey shows a ridge made of three sections separated by channels. Least depths are 3½'(south), 1' (center), and 3'(north). Developed on positions 61-3d-green.

15. Lat. 24 - 50.3 / Long. 81 - 59.9 :

Chart shows two small banks within six foot curve. Survey shows general depths have deepened to 7' and the two banks are ridges with least depths of 1½'(24-5c-green) on south, and 1½' (49-50d-green) on north. Banks developed on pos. 46-50d-green. They are separated by a channel with depths equal to the general surrounding depths.

16. Lat. 24 - 47.9 / Long. 80 - 59.0 :

There is no indication of the charted 6' shoal in this vicinity.

Falls in 7' on present survey. Surrounding depths in similar disagreement.

17. Lat. 24 - 46.0 south to shore / Long. 80 - 59.0 to 81 - 00.0 :

The depths have increased and the 6' curve is closer to shore.

Depths on present survey ½ ft. deeper than those on H-1927.

18. Lat. 24 - 50.7 / Long. 81 - 00.3 :

Chart shows a small bank here. Survey shows the bank to be a ridge with a least depth of 1½' (97-9d-green). The general depths around the ridge have deepened from 6 to 7'.

19. Lat. 24 - 49.7 / Long. 81 - 00.1:

Chart shows a bank here. Survey shows a ridge. Developed 34-36d-green with least depth of 1½'.

20. Lat. 24 - 48.7 to 49.4 / Long. 81 - 00.0 to 01.0 :

The chart shows a long ridge designated as South Horseneck Shoals. The area was investigated and found a series of five shoals the northeasterly and southwesterly of which are ridges and the central patches. All are separated by channels with depths equal to the surrounding depths.

SHOALS AND DANGERS: (CONTINUED)

20. (continued)

Least depths are as follows:

(a) Southwest Ridge - $\frac{1}{2}$'(Vol. 11 P. 21)
(b) Central Patch (W) - $3\frac{1}{2}$'(27-8d-green)
(c) Central Patch - 5'(12ld-purple)
(d) Central Patch (E) - 2'(Vol. 11 P. 12)
(e) Northeast Ridge - $\frac{1}{2}$'(Vol. 11 P. 12)

No position

The name South Horseneck Shoals is not correct. Local fishermen at Key Vaccas refer to the banks as the "Bamboo Banks". do not locate yet

Note: Chart shows the 6' curve extending from Bn. 7 toward Bamboo Key and shore. Survey shows a few isolated shoals ~~detached~~ detailed below but in general the area has deepened.

21. Lat. 24 - 46.0 / Long. 81 - 00.5 to 01.5 :

Chart shows two 5' soundings within 6' curve. Survey shows a narrow ridge with least depths of $5\frac{1}{2}$'(30-1a-blue) in general depths of $6\frac{1}{2}$ to 7'. 5's and 6's originate with 5½'s and 6½'s on H-1927.

22. Lat. 24 - 45.6 / Long. 81 - 01.1 :

Chart shows 5' within 6' curve. Survey shows a 6' ridge, (29-30-purple) in general depths of $6\frac{1}{2}$'. 5½ on H-1927 6½'s shown as 6's in order to smooth out curve

23. Lat. 24 - 45.3 / Long. 81 - 00.9 :

Chart shows 5' within 6' curve. Survey shows no indication of it. Area probably deepened. 5½ on H-1927. 6½ on present survey

24. Lat. 24 - 44.3 / Long. 81 - 01.6 :

An isolated shoal with a least depth of 1'(9-10(1)-red) was found. Not on present chart.

25. Lat. 24 - 44.1 / Long. 81 - 01.7 :

A fish net rack was transferred from the boat sheet. It shows well on the air photos and is located on a shoal spit on the west side of the channel.

26. Lat. 24 - 44.1 / Long. 81 - 01.3 :

The two spits - indicated by a 2' and a 1' sounding - do not extend as far as indicated.

Note: the 6' curve shown from Long. 81-04 west to the shoal charted as Crescent Shoal is considerably different than charted. An approximation of the 6' curve as defined by the survey is a curve enclosing the 5' charted soundings in this area.

SHOALS AND DANGERS: (CONTINUED)

27. Lat. 24 - 44.7 / Long. 81 - 04.6 :

Chart shows a rock awash. Area investigated and found a ridge with a least depth of ½'(20p-blue).

The chart designates this shoal as Palmetto Bank. Local fishermen refer to it as "Rachel Key Bank".

An extensive shaal within the 6' curve surrounds the bank. Least depth is 5' on several lines. The curve is irregular.

28. Lat. 24 - 43.5 / Long. 81 - 04.8 :

Chart shows 3' here. Survey located two ridges and a patch separated by a narrow channel. Least depths are ½'on north ridge; 1½' on north section of south ridge, ½' on south section, and ½' on patch (122-3(1)-red). A rock baring 1' at H.W. and known locally as Green Rock lies in the center of the north ridge. For description of banks see Volume ~~15~~ 17, Page 30-2.

29. Lat. 24 - 43.8 / Long. 81 - 05.2 :

Chart shows two 5' soundings. Survey shows small shoal in general depths of 7' with a least of 5½'(17d & 45d-red).

30. Lat. 24 - 43.2 / Long. 81 - 05.9 :

There is no indication of the 6' shoal charted in this locality.

Falls in 6½ ft. on present survey.

31. Lat. 24 - 46.1 / Long. 81 - 06.7 :

There is no indication of the charted 6' shoal in this vicinity.

6 originates with 6½ on H-1926 and falls in 7 ft. on present survey.

32. Lat. 24 - 45.6 / Long. 81 - 06.6 :

The chart shows a ridge here designated as Crescent Shoal. Area was examined and found a ridge with a patch on its west end and separated from it by a narrow channel. Least depths are 1½'(41q-blue) on west patch, and 0'(38q-blue) on ridge.

The name Crescent Shoal is not the correct local name, the best available information states that it is known as "Bullard Bank".

33. Lat. 24 - 43.6 / Long. 81 - 06.3:

There is no indication of the charted 5' & 6' soundings in this locality.

5½ on H-1926 falls in 6½ ft. on present survey. Surrounding depths differ by same amount.

SHOALS AND DANGERS: (CONTINUED)

34. Lat. 24 - 42.~~7~~ 6 / Long. 81 - 06.~~8~~ 7 :

A ridge extending from Key Vacca to a small key to the north was found. Least depth 0'(48m-red). Not on present chart.

35. Lat. 24 - 42.7 / Long. 81 - 06.9:

A ridge extending north of a small key and marked on its north end by a beacon maintained by the ferry authorities was found . Least depth is ½'(37m-red).

36. Lat. 24 - 45.8 / Long. 81 - 07.5 :

There is no indication of either the charted 6' sounding in this locality ~~nor~~ or the one 0.5 mile W.S.W.

The first is 6' on H-1926 and falls in 7' on present survey. The second is 6½ and falls in 8 ft.

Note: there is no indication of the charted 6' ridge which extends from the Lat. 24-45.3 / Long. 81 -07.0 to the east end of shoal #37 below.

6½'s on H-1926 falling in 7 ft. on present survey.

37. Lat. 24 - 44.4 / Long. 81 - 07.~~8~~ 7 to 08.5 :

Chart shows two ridges. Survey shows that east ridge is correctly charted and that west ridge is divided into two segments by a narrow channel. The air photos indicate that the west section of the west ridge is traversed by a second narrow channel through the approximate center.

Least depths are as follows:

(a) East ridge - ½'(79-80n-red).
(b) East segment-west ridge - ½'(88p-red).
(c) West segment-west ridge - 1'(70-2p-red).

The local name for this bank is not certain. The best information to date is that it is called ~~Ballard~~ Sisin Bank but the authority is questionable.

38. Lat. 24 - ~~44.9~~ 43.8 / Long. 81 - 07.6 to 08.4 :

Chart shows two ridges - Survey shows a series of six isolated ridges separated by narrow channels. A lighted beacon (#6) marks the eastern extremity and it is designated as Bethel Bank.

Least depths are as follows: (lettered from east to west).

(a) 0'(127-9q-blue). The air photos indicate that this section is traversed by two channels one near its east and one near its west ends.

SHOALS AND DANGERS: (CONTINUED)

38. (continued):

(b) 0'(134-5q-blue). The air photos indicate that this segment is also traversed by two channels.

(c) 0'(136q-blue).

(d) 0'(138q-blue). Air photos indicate that this segment is broken by two channels.

(e) 2'(118-9q-blue). Air photos indicate that this section is broken by one channel.

(f) 0'(140q-blue).

Best available local information states that this series of banks is known as John Sawyer Bank.

39. Lat. 24 - 43.8 / Long. 81 - 07.8 :

A small shoal with a least depth of 5½' (3a, 9-10b, & 115-6q-blue) was found. General depths 7'. Not on present chart.

40. Lat. 24 - 42.5 to 42.9 / Long. 81 - 07.7 :

Chart shows a small bank. Survey shows a much larger bank ~~bare at L.W.~~ with an isolated ridge on its west side. Both bare at L.W. (72m & 58n - red).

The bank is marked on its northern end by a privately maintained beacon and is very well known locally as "Key West Bank." O.K.

41. Lat. 24 - 45.0 / Long. 81 - 08.2 to 08.9 :

Chart shows two ridges. Survey shows a ridge broken in four segments by three channels.

Least depths are as follows:

East - ½'(55p-red)
East central - 1'(50p-red)
West central - 1'(47p-red)
West - 1½'(44p-red).

The local name for this bank has not been determined.

42. Lat. 24 - 44.7 / Long. 81 - 08.5:

Chart shows an isolated 4' shoal. Area investigated and found a small shoal with least depth of 4½'(61p-red).

CHANNELS & HARBORS (CONTINUED):

Ferry Routes: (continued)

To Hog Key Slip: (continued)

depth is 6½' in dredged channel which is narrow and allows little maneuvering room.

The ferries draw from 4½' to 5½' loaded. At present the Grassy Key slip is not used pending the reconstruction of the Key Vaccas highway and the ferries follow the Intracoastal Waterway.

Toms Harbor Viaduct: (see also sheet 14).

This was described under sheet 14 the controlling depth is 8' on the bay side but size of boat is limited by the fixed arches. The channel is foul on the ocean side..

A narrow channel parallels the north bank of the railroad fill west almost to Grassy Key.

Grassy Key Cut:

This cut on west end of Grassy Key originally permitted a passage from the bay to the ocean but was filled across by the railroad and highway. Controlling depth to the basin north of the fill is 2' and the depths inside are ample for any boats capable of entering. Local knowledge is desirable but not essential as the banks are usually prominent. The chart is the best guide. Strangers should use caution in the narrow section of the channel.

The inner basin is used somewhat by spongers as a shelter.

Crawl Key Cut:

The cut passes west of Burnt Point and parallel to the ~~east~~ west shore of Crawl Key. It originally provided a passage from the bay to the ocean but was filled across by the railroad and highway.

Controlling depth is 4' although strangers should not attempt over 3' without local knowledge. The chart is the best guide. Boats may tie up close to the highway fill at the inner end but there is little shelter from the north and northeast.

It is used but little.

CHANNELS & HARBORS:

Intracoastal Route - Miami to Key West:

The Intracoastal Waterway extends the full length of the sheet from Channel Key Pass to Bn. #6 marking the east point of John Sawyer Bank (Bethel Bank on Chart No. 1250.

Directions:

From	To	Course T	Dist. Naut.	Controlling Depths
1. Channel Key Pass	150 yds. 330o T from Bn. ~~#2~~ 11	241°	3.0	7'
2. 150 yds. 330° T from Bn. ~~#8~~ 11	150 yds. 345° T W. Bn. ~~#7~~ 13	253°	4.2	7'
3. 150 yds. 345o T W. Bn. ~~#7~~ 13	0.8 mile 235o T. from Bn. ~~#6~~ 16	242°	6.4	6'

Note: - a direct course may be followed from Channel Key Pass to Bn. ~~#7~~ 13 but the yachts that use this waterway usually "run" the beacons.

Pass at least 150 yds off Bn. ~~6~~ 16 in order to avoid the 5½' shoal about 0.2 mile W. x S. of the Beacon.*

By following the chart 7' may be carried through this section of the waterway.

* BN 6 HAS BEEN RELOCATED ON THE SOUTH POINT OF THIS 5½' SHOAL (APRIL 27 1936)

Ferry Routes:

The Monroe County ferries ~~leave~~ have terminals on Grassy Key and Hog Key/

The following routes are usually followed in entering the slips:

To Grassy Key slip:

From Channel Key Pass head on course 218° T (2.5 miles) until the slip ~~bears~~ bears 180° T then head directly for it (0.8 mile). Pass north of Bn. #3 which marks the north point of a shoal ridge. Controlling depth is 6½' close to the slip.

To Hog Key slip: (Marathon).

Pass close by to the northward of Key West Bank and bank on west side of channel to slip being guided by the beacons on the ~~south~~ north side of both of these banks. When the slip bears 180° T turn and head for it. Controlling

CHANNELS & HARBORS: (CONTINUED)

Bamboo Key Cut:

The cut follows the west shore of the key west of Crawl Key. It originally provided passage from the bay to the ocean but was filled across by the railraod and highway.

Controlling depth is 4'. Local knowledge is desirable as the channel is narrow. The chart is the best guide. Boats may tie up close to the highway fill.

It is little used.

Key Vaccas Cut: (see also report for sheet H-6153 16)

The cut originally provided a passage from the bay to the ocean but was filled across by the railroad and highway. A fish house is located here and it was the winter headquarters of a fishing fleet which shipped a large amount of fish during the season. Since the destruction of the railroad activities have been considerably curtailed.

A small railway for hauling out the fish boats is located near the fish house.

Controlling depth is 7' but with local knowledge 8' may be carried. The channel may be easily followed and boats may tie up to the fish house or to the highway fill.

The term "Key Vaccas Cut" is applied to both the ocean and the bay channels although when mentioned the bay channel is usually understood.

Knight Key Channel:

This channel passes between Knight Key and Key West Bank. It is an excellent fishing ground for Tarpon and is used by the small private pleasure fishing boats to a great extent.

Controlling depths are 12' in the ocean approach and 8' in the bay approach. Size of boats is limited by the fixed arches.

Channels between banks:

Passage by small craft through the narrow channels between the ridges and banks in both inshore and offshore areas is possible. Local knowledge is not essential if the water be clear. The controlling depth is usually equal to the general depths in the locality.

TIDAL NOTES TO ACCOMPANY HYDROGRAPHIC SHEET NO. 15:

A number of tide gauges were established within the limits of the sheet and in applying reducers the following assumptions made:

1. The tide east of Bamboo Banks was controlled by Grassy Key and Middle Shoal gauges.

2. The greater part of the sheet was controlled by Horseneck West and/or Crescent Shoal.

3. The character of the tide changed at the banks near the S.W. limit of the sheet.

4. A gradual decrease in tide took place between Key West Bank and Marathon.

Limits of the various gauges are shown on boat sheet 15A.

Tidal comparisons are attached. See also comparisons on sheets 13 and 17 (to be submitted later).

TIDE GAUGES:

Horseneck West: Lat. 24-48.8 / Long. 81-00.7 M.L.W. 2.4 (office).

This gauge was used as a standard for the sheet and for actual reducers from the west limit of the sheet to the Bamboo Banks(South Horseneck Shoals).

Middle Shoal: Lat. 24-51.9 / Long. 80-57.0 M.L.W. 3.0
Grassy Key: Lat. 24-46.3 / Long. 80 - 56.4 M.L.W. 3.5

These two gauges are practically of identical range and time. They were established to determine the corrections to the Horseneck West gauge for reducers for the area east of the Bamboo Banks.

Marathon: Lat. 24-42.7 / Long. 81-06.2 M.L.W. 3.9

This gauge was used to determine reducers in its immediate vicinity and in conjunction with Horseneck West & Pigeon Key for modified tides within the areas shown on the boat sheet.

Crescent Shoal: Lat. 24-45.6 / Long. 81-06.5 M.L.W. 1.3 (Office)

This gauge was established to determine corrections to be applied to Horseneck West. It is found to be practically identical with it.

Pigeon Key: Lat. 24-42.3 / Long. 80-09.4 M.L.W. 3.0 (office)

This gauge was used to determine reducers through the viaduct. It was used in conjunction with Marathon for reducers on the S.W. section of the sheet.

Sombrero Key: Lat. 24 -37.0 / Long. 81-06.7 M.L.W. 3.7 (office)

This gauge was used as a standard for the ocean areas and to compute some highs and lows for Horseneck West.

MEMORANDUM BY CHIEF OF PARTY

The party was based at Key West while working on this sheet. The bay areas were surveyed by a launch based at No Name Key and the inshore areas by a launch based on a house boat. Records and the boat sheet were examined weekly.

The banks within the limits of the sheet were thoroughly covered and notations made in the record as to conditions on them. In reviewing the sheet the banks were checked against the photos and any discrepancies noted in the report.

It will be possible to get the exact outlines of the shoalest sections of practically all banks and shoals and channels from the air photos and with proper field inspection to define the three foot curve.

E. R. McCarthy,
Lieut.(j.g.) C&GS,
Chief of Party.

ANCHORAGES:

Anchorages may be had anywhere within the limits of the sheet. Spongers and fishermen usually anchor or tie up in the various cuts and passes. The deep bight at Bamboo Key is used only slightly.

The anchorage used to the greatest extent as noted by the party during field work was in the two bights between the three small keys north and northeast of Hog Key. Yachts anchored in 6-7' and used their small boats for fishing in the locality.

Small boats usually tied up to the wharf at the fishing camp on the bay shore west of the village of Marathon where gasoline and lubricants could be obtained.

GEOGRAPHIC NAMES: VGHE

Some geographic names are shown on the name sheet accompanying the smooth sheet, some are given in the descriptive report, some are given in the report of geographic names submitted for the area Garden Cove to Long Key, and the remainder will be submitted at a later date in a special report on that subject.

A few names were inked in on the smooth sheet in error.

MISCELLANEOUS:

Gasoline and a limited number of supplies may be obtained at Marathon. During the season some gasoline may be obtained at the Key Vaccas fish house.

The 3' curve was drawn in some areas to better define the shoals and banks. Not inked on smooth sheet

The water is ordinarily quite clear and transparent but when stirred by a heavy - usually north or west - wind becomes opaque which conditions lasts about two or three days after the wind dies.

Statistics and tidal notes are attached.

Respectfully submitted:

E. R. McCarthy

E. R. McCarthy,
Lieut.(j.g.) C&GS
Chief of Party.

STATISTICS

PROJECT HT 158 FLORIDA KEYS

HYDROGRAPHIC SHEET NO. 15

LAUNCH AMALIE

DAY	DATE	MILES (STATUTE)	SOUNDINGS	POSITIONS	DAYS RUN (MILES)	DISTANCE TO & FROM WORK
T	5-13-35	45.0	1272	166	74.4	27.4
W	5-14-35	45.0	1364	182	74.4	27.4
T	5-16-35	34.9	1122	138	36.1	----
F	5-17-35	20.6	668	81	26.4	----
M	5-20-35	25.2	864	102	25.7	----
T	5-21-35	21.5	683	80	24.5	----
F	5-23-35	38.9	1267	150	42.9	----
F	5-28-35	29.7	985	117	30.0	----
S	5-29-35	29.7	1023	120	31.4	----
M	5-30-35	29.7	1060	122	30.9	----
T	6-3-35	29.7	1097	119	46.9	12.1
S	6-7-35	29.1	1016	106	29.5	----
T	6-24-35	25.0	978	131	38.6	12.8
W	6-25-35	32.5	1245	164	38.2	3.0
T	6-26-35	22.6	902	141	54.7	24.0
TOTALS		459.1	15546	1919	504.6	106.7

LAUNCH MARIE

T	6-10-35	40.0	1433	175	57.0	17.0
F	6-11-35	35.8	1390	179	44.8	6.0
S	6-12-35	39.1	1406	189	50.6	8.5
M	6-13-35	24.6	1034	163	46.4	11.0
T	6-14-35	38.3	1312	170	52.3	14.0
TOTALS		177.8	6575	874	251.1	56.5

STATISTICS

PROJECT HT 158 FLORIDA KEYS

HYDROGRAPHIC SHEET NO. 15

DENNY LAUNCH

DAY	DATE	MILES (STATUTE)	SOUNDINGS	POSITIONS	DAYS RUN (MILES)	DISTANCE TO & FROM WORK
a	6-3-35	14.7	494	63	29.2	12.5
b	6-7-35	28.2	999	156	45.9	13.7
c	6-10-35	16.1	542	73	23.9	4.0
d	6-14-35	18.2	600	79	24.6	3.3
e	6-17-35	30.9	1065	148	47.4	13.0
f	6-19-35	3.8	149	24	6.8	1.5
g	6-20-35	10.4	522	93	13.2	0.25
h	6-21-35	28.3	1034	153	47.6	12.0
i	6-24-35	7.1	346	61	28.1	19.0
j	6-25-35	14.4	719	129	22.9	1.5
k	6-26-35	22.4	935	167	4.25	10.5
m	6-28-35	7.9	337	72	2.75	20.0
n	7-2-35	14.8	552	95	22.8	3.0
p	7-3-35	15.4	590	108	37.1	11.25
TOTALS		232.6	8884	1421	356.5	125.5

LAUNCH V-23

a	6-18-35	21.7	1062	123	44.2	6.0
b	6-19-35	31.3	1159	153	39.8	6.5
c	6-20-35	40.5	1610	230	55.3	7.5
d	6-21-35	33.1	1210	154	55.7	11.0
TOTALS		126.6	5041	660	195.0	31.0

STATISTICS

PROJECT HT 158 FLORIDA KEYS

HYDROGRAPHIC SHEET NO. 15

RECAPITULATION

BOAT	MILES (STATUTE)	SOUNDINGS	POSITIONS	DAYS RUN (MILES)	DISTANCE TO & FROM WORK
"AMALIE"	459.1	15,546	1,919	604.6	106.7
"MARIE"	177.8	6,575	874	251.1	56.5
"DENNY LA."	232.6	8,884	1,421	356.5	125.5
" V-23 "	126.6	5,041	660	195.0	31.0
TOTALS	996.1	36,046	4,874	1,407.2	319.7

HYDROGRAPHIC SURVEY NO. H6113

Smooth Sheet Yes

Boat Sheet Yes - 2

Sounding Records 21 Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party No

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service
(Circular Nov. 30, 1933)

Remarks

705

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H.6113

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	4874
Number of positions checked	278
Number of positions revised	13
Number of soundings recorded	36046
Number of soundings revised	67
Number of signals erroneously plotted or transferred	———

Date: January 7, 1938.

Verification by Leonard A. McGann Time: 155 1/2 hours.

Review by J.A. McCormick, Feb. 4, 1938. Time: 35 hrs.
9 hrs. add'l.
44 hrs

VERIFIER'S REPORT ON H-6113 (1935)

The records conform to the requirements of the Hydrographic Manual instructions. ✓

There has been shrinkage of the paper of this sheet amounting to the following: In a N - S direction 1/217 approx. In an E - W direction 1/173 approx. The effect of this distortion on the plotted position of a point is indeterminate except by reconstructing a true projection and control to replot the point. ✓

The plotting of hydrographic signals DIM, NAIL, and BAT could not be checked in this office at the time of the verification. Long sighted distances and some very acute angles have been used to "fix" these signals. They may have been accurately located by the field party. They have not been moved as the discrepancy in each case(if it is a discrepancy) is not serious. ✓

Maximum discrepancy 10 meters. Probably due to distortion. Insufficient to materially affect plotting should there actually have been an error in the original plotting of signals.

The other hydrographic signals, viz. BUSH, FLIT, and QUE have been checked in this office. Hydrographic signals were checked or tried to be checked in order, as they were located during the progress of the work. ✓

The topographic signals originate with Graphic control surveys T-6418a (1935) , T-6479a, T-6479b (1935). The latter has been sent to the field and from the available negatives of it the verifier could not read the notes which may be necessary to transfer to H-6113 (1935) ✓

The shoreline shown on H-6113 had been transferred in this office from T-5543 (1935) before verification was begun. The shoreline from T-5542 is lacking in order to complete the shoreline on H-6113. ✓

The maximum discrepancy of soundings at crossings is 1 1/2 feet. Most of the comparatively few discrepancies are one foot. ✓

A note in Vol. 15, p. 22 states that the line veered to ~~right~~ left to avoid a rock pile which has not been located by the field party. (Lat. 24° 46.′9 , long. 80° 54.′7)

Line running along viaduct and veered away. Evidently too close and encountered debris from construction. Not chartable feature.

The channel shown at lat. 24° 45.′25 , long. 80° 58.′3 is too narrow to show the three lines of soundings run thru it. Only the center line has been inked. ✓

Lat. 24° 50.′3, long. 80° 59.′9. The descriptive report on page 5, art. 15 states that the ridges here are separated by a channel. At the discretion of the verifier the curve may be drawn so as to separate the ridges and show the channel.

Item 15 states that the ridges are within the 6' curve. It does not state that they are separated by the 6' curve.

VERIFIER'S REPORT (Cont'd)

The least depth on the shoals given on page 4, art. 7 and on page 6, art. 20 cannot be shown on this survey as no positions are available for them. Least depth notes for these shoals have also been entered on the boat sheets. The depths shown on these shoals are within 1 1/2 foot of the least depths.

Least depths spotted on smooth sheet from information in records and on boat sheet. Position numbers have been assigned them in the records.

Junctions A satisfactory junction has been made with H-5947 (1935) on the northeast. H- 6137 (1935, 1936, 1937) on the Southwest has not been verified. See review for additional adjoining surveys.

Leonard A. McCann

Leonard A. McCann
January 7, 1938

	Remarks	Decisions
1		
2	Rand McNally has "Vaca Keys" but the name as charted should stand. not monumented	USGB decision
3		
4		
5		
6		See T-5542
7		
8		
9		
10		
11	T339 has "Knights"	"Knight"
12		H-6133
13	T657 has Rachels	Rachel
14	inadvisable to change to "John Sawyer"	Bethel
15	not Bullard Bank	Crescent
16	not sufficient authority to change to "Rachel Ray Bank"	USGB decision Palmetto
17	O.K. since does not conflict with another name.	Key West
18	Note: I question the use of most of the new (local?) names, as shown on tracing accompanying H 6113	T-5542
19	The original ones I cannot in most cases verify, and I doubt the propriety of using certain other	
20	names to take the place of ones already on chart and well established by long usage thereon,	1854,
21	appearing in many cases in the USCP and the U.S. Light Lists. To change now would throw these	GNI (1938)
22	publications out, to no advantage to the navigator. He, passing through, is accustomed	
23	to the old charted names; it means nothing to him what the natives (possibly ignorant	
24	for the most part) may at the moment call the various features. The Chief of Party himself	
25	casts doubt on value of local information, as he says (Report on Geographic Names, Florida Keys, McCarthy, 1935, par. 1)	(See HT 158)
26	"The inhabitants are not well educated, are poor spellers, and few know how to read charts. Often if the name of a feature was not known, rather than	
27	not give some answer, an informer would think up a name on the spur of the moment."	
M 234		

GEOGRAPHIC NAMES

Survey No. H6113

Name on Survey	A On Chart No. 1250	B On previous survey No. T3339	C ~~On U.S. Quadrangle Maps~~ T 1837	D From local information 689	E On local Maps T-5543 T-3830 H-6113	F P.O. Guide or Map Spec. Rept. T-6551	G Rand McNally Atlas	H U.S. Light List	K U.S.C.P.	H6113
Knight Key Channel	1251 *									1
~~Kay~~ Vaca Key	* 1250					✓	✓			2
~~Kay Vaca Rock~~	✓									3
~~Key Vaca Cut~~	✓			✓						* 4
Burnt Point				✓	H-6113					* 5
~~Crawl Keys~~	1250 *		✓	✓	H-6113					6
Channel Key	1251 *			✓	H-6113			✓		7
Grassy Key	1250 *		✓	✓	H-6113		✓	✓		8
Florida Bay	* 1250			✓			✓			9
Bamboo Key	1250 *		✓	✓	H-6113	✓		✓		10
Knight Key	* 1251	✓			H-6113	✓				11
Hog Key	1251 *			✓	H-6113	✓			✓	12
Rachel Key	*				H-6113	✓				13
Bethel Bank	1251 * 1250				H-6113			✓		14
~~Cresent Shoal~~ "C" ← John Sawyer Bank see T-5543	* 1250 1251				H-6113					15
~~Palmetto Bank~~ Rachel Bank	* 1250									16
~~Key West Bank~~	✓			✓						* 17
Tom's Harbor Cut	H5952			✓	R.S					* 18
Channel Key Pass	T-5541			✓				✓		* 19
Grassy Key Bank				✓	H-6113			✓		20
Bamboo Banks	So. Horseneck shoal			✓	H-6113					21
										22
										23
										24
										25
										26
										27

Names underlined in red approved on 6/27/36 by [illegible]

M 234

	Remarks	Decisions
1		
2	H-6113 - Spec. Rep.	
3		
4	H-6113 " "	
5		
6	H-6113 " "	
7	H-6113 " "	
8	H-6113 " "	
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M 234		

GEOGRAPHIC NAMES

Survey No. H 6113

Name on Survey	On Chart No. A,	On previous survey No. T-5343 B,	On U. S. quadrangle Maps C,	From local information H-6113 D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	T-5342 K	
Knight Key Viaduct										1
Marathon	1257									2
Pretty Joe Rock										3
Williams Hammock		✓		✓						4
" Wells		✓								5
STIRRUP Key	1250			✓					✓	6
Russel Key				✓					✓	7
Key Vaca Rock									✓	8
Funny Keys										9
										10
	18	names		from		5/27/36	list:			11
	9	"		above						12
	27	in conformity with G.N.S.								13
					7-11-38		Checked.			14
										15
										16
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										27

M 234 VE

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H H6113
~~No. T~~

received May 2, 1936
registered May 27, 1936
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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24			
✓ 25		~~HOW~~	D JP
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30			
40			
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82			
83			
88			
90			

RETURN TO

82	

C. K. Green

T

ECC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 9, 1936.

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis

Plane of Reference
~~Tides Reducers are~~ approved in
21 volumes of sounding records for

HYDROGRAPHIC SHEET 6113

Locality Channel Key to Knight Key, Florida Bay

Chief of Party: E. R. McCarthy in 1935
Plane of reference is mean low water reading
1.3 ft. on tide staff at ~~Crescent Shoal~~ John Sawyer Bank
1.0 ft. below B.M. 1
3.9 ft. on tide staff at Marathon
4.2 ft. below B.M. 1
1.4 ft. on tide staff at Horseneck West
0.4 ft. below B.M. 1
3.7 ft. on tide staff at Long Key (Inside)
2.6 ft. below B.M. 1
2.7 ft. on tide staff at Sombrero Key
16.6 ft. below B.M. 2
3.5 ft. on tide staff at ~~No Name~~ Anonimo Key
3.5 ft. below B.M. 1

~~Condition of records satisfactory except as noted below:~~

Height of mean high water above plane of reference is 1.2 ft. at Crescent Shoal; 0.8 ft. at Marathon; 1.3 ft. at Horseneck West; 0.9 ft. at Long Key (Inside); 1.6 ft. at Sombrero Key and 0.8 ft. at No Name Key.

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6113 (1935) FIELD NO. 15

Channel Key to Knight Key, Florida Bay, Florida
Surveyed in May - July 1935, Scale 1:20,000
Instructions dated November 17, 1933 (H. A. COTTON)

Hand Lead Soundings. 3 Point fixes on shore signals.
Pole Soundings.

Chief of Party - E. R. McCarthy.
Surveyed by - J. T. Jarman.
Protracted by - T. R. Felts and J. J. Giordano.
Soundings plotted by - E. R. McCarthy.
Verified and inked by - L. A. McGann.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

a. Descriptive notes were omitted for several hydrographic and topographic signals falling in the water area. They are assumed to be of a temporary nature and of no importance in charting.

b. There was no evidence that the plotting of hydrographic signals had been checked. The checking was accomplished in the office.

The Descriptive Report is exceptionally complete and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project except as follows:

a. The development in lat. 24° 45.3', long. 81° 09.0', was insufficient to disprove several shoal soundings from prior surveys (see par. 7b, this review).

b. The 3-1/2 foot bank in lat. 24° 51.1', long. 80° 58.6' should have been further investigated (see Descriptive Report, page 4, item 11).

3. Shoreline and Signals.

a. Shoreline on the present survey originates with topographic maps T-5542 (1935) and T-5543 (1935).

b. Topographic signals originate with Graphic control surveys T-6418a (1935), T-6479a (1935) and T-6479b (1935).

c. Hydrographic signals used were located by sextant fixes recorded in the sounding volumes. (See list of signals in front of first volume).

4. Sounding Line Crossings.

The sounding line crossings are satisfactory, most of the comparatively few discrepancies being one foot or less.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn.

6. Junctions with Contemporary Surveys.

a. The junction with H-5947 (1935) on the east and H-5952 (1935) on the southeast are satisfactory.

b. The junctions with H-6133 (1935-6) on the south, H-6134 (1935-36) on the southwest and H-6137 (1935-37) on the west will be considered in the reviews of those surveys.

c. There are no contemporary surveys on the north nor are any contemplated in the instructions. The junction with older surveys is, however, satisfactory for charting purposes.

7. Comparison with Prior Surveys.

a. H-663 (1858), 1:20,000.

This survey overlaps the present survey in a very small area at the southwest corner of the sheet. The latest charts contain no information originating with it in the common area and it need not be considered in future charting.

b. H-1926 (1889), 1:20,000.

This survey covers the western portion of the present survey and is the basis for the charted information in the common area. Depths on the prior survey average 1/2 to 1 foot shoaler than those on the present survey. Several shoal soundings (charted) shown in approximate lat. 24° 45.3', long. 81° 09.0', on H-1926 (1889) fall in depths greater by 2 to 9 feet on the present survey. Surrounding depths, including those on other nearby shoals, on the two surveys are in fair agreement. The development on the present survey is not considered sufficient to disprove the existence of the shoal depths in question and they have been brought forward. The present survey, including transferred soundings, adequately covers the common area and should supersede H-1926 (1889) for charting purposes.

c. H-1927 (1889), 1:40,000.

This survey covers the eastern portion of the present survey and is the basis for the information charted in the common area. Depths shown on the 1889 survey average 1/2 to 1 foot less than those on the present survey. The present survey adequately covers the common area dnd, because of its larger scale and closer development, should supersede the above survey in future charting.

8. Comparison with Chart 1250 (New Print dated Sept. 27, 1937).
Chart 1251 (New Print dated Dec. 23, 1937).
Chart 3261 (New Print dated Oct. 14, 1937).

a. Hydrography.

Within the area of the present survey the charts are based on surveys discussed in the foregoing paragraphs. Numerous shoal areas shown in dashed lines on these surveys were shown in solid lines on Chart 168 (obsolete) and carried forward to the present charts in the same manner. Palmetto Bank, in lat. 24° 44.7', long. 81° 04.6' was of such small extent that it was shown as a rock awash. The solid lines were removed from the charts on all the banks except Crescent Shoal, in lat. 24° 45.5', long. 81° 06.5' by authority of Chart Letter 198 of 1921 and the dotted outlines now shown, substituted. The delineation of Palmetto Bank was not changed. It should be noted that the dashed lines on the older surveys do not represent shoals bare at low water as they are charted but merely areas which are known to be shoaler than surrounding depths, but on which depths were not obtained. Depths were obtained on these shoals on the present survey and the correct delineation is as shown thereon.

b. Aids to Navigation.

(1) Beacons 1 and 4 in lat. 24° 49.1', long. 80° 54.7' on the survey were removed subsequent to the survey and replaced by beacons 5, 7 and 8 approximately 0.3 mile to the south (Chart Letter 897 of 1936).

(2) Beacons 3 and 5 in lat. 24° 47.7', long. 80° 55.7' and lat. 24° 47.6', long. 80° 57.5' respectively on the survey have been renumbered 9 and 11. The charted positions are in good agreement with those on the survey.

(3) The charted position of Light 13 (old number 7), in lat. 24° 46.3', long. 81° 01.9', agrees with the 1934

triangulation position on the survey. A later position (April 1937) from T-5542 (1935-37) places the light about 65 meters west of the 1934 position. The 1937 position has been transferred to the survey and should control for charting.

(4) Beacon 6 in lat. 24° 43.8', long. 81° 07.5' on the survey was destroyed subsequent to the survey and replaced by lighted beacon 16 approximately 0.35 mile south southwest (Chart Letter 328 of 1936). A later position (April 1937) from T-5543 (1935-37) places the beacon 0.25 mile northeast of the charted position. The 1937 position has been transferred to the survey and should control for charting.

(5) The survey position of beacon 9 (renumbered 15) in lat. 24° 44.8', long. 81° 04.7' is approximately 0.15 mile northwest of the charted position which originates with Lighthouse Notice to Mariners 4 of 1928. The survey position should control for charting.

There are no floating aids within the area of the survey. The fixed aids in their present locations adequately mark the channel for the controlling depth of 5 feet noted on Chart 3261.

9. Field Plotting.

The field plotting was satisfactory.

10. Additional Field Work Recommended.

The survey is complete except as noted in paragraphs 2b and 7b, this review.

11. Superseded Old Surveys.

Within the area covered the present survey supersedes the following old surveys:

H-663 (1858) in part
H-1926 (1889) in part
H-1927 (1889) in part

12. Reviewed by - J. A. McCormick, Feb. 4, 1938.

Inspected by - E. P. Ellis.

Examined and approved:

Thos B Reed
T. B. Reed,
Chief, Section of Field Records.

Fred. L. Peacock
Chief, Section of Field Work.

K. T. Adams
Chief, Division of Charts.

G Rude
Chief, Division of H. & T.

applied to Chart 1250. Dec. 1, 1938 J.H.S.
" " " 1257 " " J.H.S.

Examined to see if all critical data had been applied at original application of this sheet & 1257 June 1952 JHS

Applied to Chart 851 - JTW 9/12/58
" " " 852 - JTW 10-13-58