

5935

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

DESCRIPTIVE REPORT

~~XEROGRAPHIC~~
Hydrographic } Sheet No. 2

Project N. T. 191

State FLORIDA

LOCALITY

KEY WEST

NORTH AND NORTHWEST OF KEY WEST

1934-35

CHIEF OF PARTY No. 22

W. H. BAINBRIDGE

U. S. GOVERNMENT PRINTING OFFICE

5935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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Acc. No. _____

REG. NO.

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. 2

REGISTER NO. **H5935**

State FLORIDA

General locality KEY WEST

Locality NORTH AND NORTHWEST OF KEY WEST

Scale 1:10,000 Date of survey Dec. 6 1934
June 19 1935

Vessel _____ Party No. 22

Chief of Party W. H. BAINBRIDGE

Surveyed by FRANK HOUSTON

Protracted by L. G. KING

Soundings penciled by L. G. KING

Soundings in ~~fathoms~~ feet _____

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by G. F. McKenny

Verified by G. H. Everett

Instructions dated July 20, 1934, Supp. Aug. 6, 19 34

Remarks: _____

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 2

AUTHORITY:

Instructions from Director dated July 20, 1934. ✓
Supplemental Instructions dated Aug. 6, 1934.

SURVEY METHODS:

Soundings were made using a pole graduated to feet and half feet in shallow water and a bronze wire center lead line marked in fathoms and feet in deep water. ✓

The lead line was prepared in the regulation matter and no corrections were ever required. ✓

Three point fixes on signals located by triangulation furnished control. ✓

Floating equipment consisted of a launch 30 feet long, 8 feet beam, $2\frac{1}{2}$ feet draft with inboard motor, and a flat bottomed barge 8 feet by 16 feet propelled by a 13 H.P. Elto outboard motor. ✓

This survey is complete to the extent required by instructions.

LIMITS:

The area of this sheet lies between Latitudes 24-35 and 24-39 and Longitudes 81-48 and 81-56. ✓

DISCREPANCIES:

Sounding lines crossed satisfactorily.

WRECKS:

1. Lat. 24 - 35.06/Long. 81 - 49.15. Wreck of a metal hulled bark about 5 meters beam and 30 meters long. This wreck is on a mud bank which bares at low water. Triangulation station "Rik" is at the mid point and highest part of the wreck, which lies east and west from the position. Highest part about 8' above low water. Charted.

23
2. Lat. 24 - 35.17/Long. 81 - 48.56. Wreck of the wooden schooner "Marie J. Thompson". This was first located with fixes on Sheet No. 1, positions 94(1) and 95(1), Vol. 3, but the fixes were weak and a new fix was taken on the bow and recorded in the index of Vol. 10, this sheet.

Wreck is about 75 meters in length with 10 meters beam and baring 8' at low water. Timbers are sound and it is in no danger of breaking up. Not charted.

22
3. Lat. 24 - 35.2 / Long. 81 - 48.6. Wreck of the fishing smack "Erickson", 20 meters long, 3 meters beam, lying N.W. & S.E., deck submerged 1 foot at low water, stern post and rigging stays bare 1 foot at low water. Not charted. This was first located by a fix using signals on Sheet 1, position 96 (1), Vol. 3 but the fix was weak and it fell off of Sheet 1, it was re-located and the fix recorded in the index of Vol. 10, this sheet.

OBSTRUCTIONS:

1. Lat. 24 - 37.06/Long. 81 - 53.47. Pos. 145t, Vol. 6. Iron tripod with 1 meter sides projecting 7 feet above surface of water set in center of a pile of rock 2 meters wide and 20 meters long in line with extension of west jetty. Used as instrument platform when jetty was built.

2. Lat. 24 - 36.78/Long. 81 - 53.27. Pos. 146t, Vol. 6. Group of 5 piling of various heights, ~~bars~~ baring $\frac{1}{2}$ ' at M.L.W. in 5 feet of water. This danger is marked by a black and red beacon 8 meters southeast, which is triangulation station, "Bee".

3. Lat. 24 - 37.93/Long. 81 - 54.15, Pos. 48u, Vol. 6. Iron piling socket awash at low water. Dangerous to small boats capable of crossing the submerged west jetty.

4. Lat. 24 - 36.9/Long. 81 - 48.38. Pos. 96f, Vol. 12. Three inch iron pipe in $1\frac{1}{2}$ ' water baring $2\frac{1}{2}$ ' at low water. This is the remains of an old beacon on the point of the bank dividing the two channels.

5. Lat. 24 - 36.45/Long. 81 - 48.35. Three inch iron pipe, 5 meters northeast of Beacon 13, baring $\frac{3}{4}$ feet at low water.

2 (by ~~reeds~~) GHE
6. Lat. 24 - 38.9/Long. 81 - 50.0. Turtle net encountered at ^{time} line of survey is not permanent structure but is supported by floats and picked up within a few days. Not in place now. Not plotted on sheet.

SHOALS:

1. At triangulation station "Rik" is a mud flat which bares less than $\frac{1}{2}$ ' at low water. It is known locally as Pearl Bank but is charted as part of the Frankford Bank. The small basin to the north of triangulation station "Rik" and east of triangulation station "Ben" and bounded on the north by the large mud flat (Calda Bank) is locally known as Pearl Lake. ✓
2. Lat. 24 - 35.2/Long. 81 - 50.8. Rocky area marked by red nun buoy No. 8. This shoal extends out to the range with 20' of water. Vessels drawing 18' - 6" of water have reported "feeling" this shoal while on range. *Least water found is 17ft.* ✓
3. The west jetty is entirely submerged with no marks to show its location. Least depth 4' at the bend, Lat. 24-37.95/Long. 81-54.15. See U.S.Army Engineers blueprint. ✓
4. The east jetty is bare 2 to 3' from Lat. 24-37.9 to Lat. 24-38.45, ends located by positions 21u and 35u, Vol. 6, but almost entirely submerged at high water. The north end is buoyed. See U.S.Engineers blueprint for submerged portion. ✓

Calda Channel

5. Lat. 24 - 37.18/Long. 81-48.71. Pos. 1p', Vol. 9. Least depth $3\frac{1}{2}$ ' on mud bank about 2 meters wide and 6 meters long parallel to axis of Calda Channel. *(plotted 3)* ✓
6. Lat. 24 - 37.06/Long. 81-48.58. Pos. 2p', Vol. 9. $3\frac{1}{2}$ ' least depth on mud bank, 1 meter wide and 6 meters long, in Calda Channel, parallel to axis. ✓
7. Lat. 24 - 36.68/Long. 81-48.32. Pos. 3p' Vol. 9. 4' least depth on mud bank 3 meters in diameter in Calda Channel. ✓
8. Lat. 24 - 35.86/Long. 81-48.58. Pos. 4p', Vol. 9, 3' least depth on mud bank 4 meters in diameter. *(Plotted 3)* ✓
9. Lat. 24 - 35.6/Long. 81-48.78. Pos. 5p', Vol. 9. $3\frac{1}{2}$ ' least depth on mud bank 12 meters in diameter. ✓
10. Lat. 24 - 37.08/Long. 81-50.85. Pos. 136g', Vol. 8. $5\frac{1}{2}$ ' least depth in center of white sand bar, 1 meter wide and 35 meters long, lying northwest and southeast. ✓
11. Lat. 24 - 37.17/Long. 81-50.96. Pos. 137g'. Vol. 8. $5\frac{1}{2}$ ' least depth on center of white sand bar, 1 meter wide and 10 meters long. ✓
12. Lat. 24 - 37.28/Long. 81-50.8. Pos. 138g', Vol. 8. $5\frac{1}{2}$ ' least depth in center of sand bar, 1 meter wide and 100 meters long extending in an east and west line. ✓
13. Lat. 24 - 37.58/Long. 81-50.23. Position 139g'. Vol. 9. Center of sand bar about 150 meters long, 10 meters wide lying almost in a north and south line. Depth here $5\frac{1}{2}$ '. 4' found north of this point and $4\frac{1}{2}$ ' found south on lines. ✓

SHOAL SOUNDINGS - TRANSFERRED

The following shoal spots were transferred to the boat sheet from Chart 584 and given special investigation.

The general procedure was to drop a buoy at the location of the transferred sounding and determine the least depth drifting about over the spot and running a closely spaced system of lines, covering an area of 100 meters or more in every direction from the buoy. A lookout was kept for all shoal indications. When these investigations were made the water was sufficiently clear to see the bottom.

The soundings shown were at the marker buoy. No other soundings were recorded during the search unless they were shoaler than already obtained in the surrounding area.

Reference to wire drag area is to the area covered by wire drag sheet No. 2933 (Registry number).

1. Lat. 24 - 36.18/Long. 81-52.04. Position 60h', Vol. 8. 20 $\frac{1}{2}$ '. Charted 6'. Bottom was clearly visible at 16'. Least depth found was 13' about 125 meters north and east of this position. No indication of a 6' spot in this area. This spot was to have been wire dragged by Lieut. E.R. McCarthy's party when the drag gear came into Key West but the parties were disbanded before that time. After 1 $\frac{1}{2}$ hours search I am positive that there is no 6' spot here. *Existence of 6 ft. spot considered disproved.*
2. Lat. 24 - 36.67/ Long. 81-52.4. Pos. 61h', Vol. 8 & 1n', Vol. 9. Charted 9'. Bottom visible at 16'. Nothing less than 16' found in this vicinity. 14' was obtained 100 meters northeast. *a general change has taken place, see Review par. 7a.*
3. Lat. 24 - 37.05 / Long. 81-51.89. Pos. 62h', Vol. 8. Charted 5'. Found 7'. The least depth on a sand bank about 10 meters wide lying N.W. and S.E. *See Review par. 7a and D.R. page 10.*
4. Lat. 24 - 37.87 / Long. 81 - 54.39. Pos. 78i', Vol. 9. Charted 5'. Found 6' about 150 meters west of this position, but no indication of shoal in this vicinity. Bottom visible at 18'. One hour spent in search. *Shoal probably shifted, accept present survey for location and depth.*
5. Lat. 24 - 37.83 / Long. 81 - 54.30. Charted 4'. Nothing less than 8' was found in this vicinity. *General change in details. See Rev. par. 7a.*
6. Lat. 24 - 37.96 / Long. 81 - 54.35. Charted 6'. This depth found at Lat. 24 - 37.96/Long. 81-54.4.
7. Lat. 24 - 38.4 / Long. 81 - 54.4. Pos. 80i', Vol. 9. Charted 12'. Found 13 $\frac{1}{2}$ '.
8. Lat. 24 - 38.53 / Long. 81 - 53.46. Pos. 81i', Vol. 9. Charted 10'. Found 16' 100 meters south of this position. No indication of shoal. Bottom visible at 24'.
9. Lat. 24 - 38.18 / Long. 81 - 52.93. Pos. 83 & 84i', Vol. 9. Charted 5'. Found 9'. Found 6' about 50 meters north of this position.

Note:- In view of the changeable nature of the shoaler areas (see page 10 D.R.) the results of the present survey have been accepted unless otherwise indicated.

R.J.C.

SHOAL SOUNDINGS - TRANSFERRED (CONTINUED):

10. Lat. 24 - 38.25 / Long. 81 - 52.94. Pos. 85i', Vol. 9. ✓
Charted 5'. Found nothing less than 6'.
11. Lat. 24 - 37.38 / Long. 81 - 52.0. Pos. 74k', 31m', Vol. 9. ✓
Charted 5'. Found nothing less than 9'. Time spent in search
1½ hours. Bottom visible. Found 6 & 7' 125 meters north.
12. Lat. 24 - 37.55 / Long. 81 - 52.08. Position 1m', Vol. 9. ✓
south end of 5 & 6' shoal; pos. 33m', Vol. 9, lat. 24-37.75, /
Long. 81-52.06, north end of the shoal. 1½ hours spent on
search. Nothing less than 8½' found. Found 6' 100 meters south
east of pos. 1m'.
13. Lat. 24 - 37.97 / Long. 81 - 52.28. Position 32m', Vol. 9. ✓
Charted 6'. Found 8½'. Fifty minutes search in this area.
14. Lat. 24 - 36.82 / Long. 81 - 52.57. Position 2n', Vol. 9. ✓
Charted 12'. Found 13' about 50 meters northwest of this position.
15. At northeast end of shoal, Lat. 24 - 38.6 / Long. 81 - 51.5, ✓
pos. 27n', Vol. 9. 30 minutes were spent in that one small area
and no shoal indication could be found.
16. Lat. 24 - 38.5 / Long. 81 - 51.7. Center of 12' shoal. ✓
Water 1 to 2' deeper over this area.
17. Lat. 24 - 37.58 / Long. 81 - 51.47. Pos. 17n' Vol. 9. ✓
North end of 5 & 6' shoal extending southwest from this position.
Found 6½' at northeast end, but nothing found in between this and
the southern end where 6' was obtained. Charted 5'. More time
could have been spent in this area. *Old surveys are very meager. Generalized on chart.*
18. Lat. 24 - 37.34 / Long. 81 - 51.05. Pos. 15n', Vol. 9. ✓
Charted 6'. Found nothing less than 8½'. Investigation lasted
20 minutes.
19. The shoal extending from the southern end of Calda Bank ✓
northwestward to Lat. 24 - 37.05 / Long. 81-51.5, has apparently
eroded at the outer end.
20. Lat. 24 - 37.3 / Long. 81 - 50.6. Charted 4'. Found ✓
nothing less than 5'.
21. Lat. 24 - 37.55 / Long. 81 - 50.45. Charted 5'. Found ✓
nothing less than 6'.
22. Lat. 24 - 38.12 / Long. 81 - 50.2. Charted 6'. Found 5', ✓
50 meters west of this position.
23. Lat. 24 - 38.3 / Long. 81 - 50.08, Pos. 28n', Vol. 9. ✓
Charted 6'. Found 6', 75 meters east of this position.
24. Lat. 24 - 38.45 / Long. 81 - 49.62. Charted 4'. Found 6' ✓
and 4½' 50 meters south.

SHOAL SOUNDINGS - TRANSFERRED (CONTINUED):

25. Lat. 24 - 38.35 / Long. 81 - 49.03. Charted 3'. Found 4' east and southwest of this position. ✓
26. Lat. 24 - 38.03 / Long. 81 - 49.7. Charted 6'. Found 5 & 6' within radius of 200 meters of this position but nothing less than 9' here. ✓
27. Lat. 24 - 37.79 / Long. 81 - 49.58. Shoals about mouth of Calda Channel remain about the same in depth. ✓
28. Lat. 24 - 37.97 / Long. 81 - 49.97. Charted 6'. Found 6' 30 meters from this position. ✓
29. Lat. 24 - 36.58 / Long. 81 - 51.86. Charted 17'. Nothing less than 19' found. This spot should be charted as 17' being on the wire drag area, the main channel. Probably a coral head of only a few feet in diameter. 17 retained, see Rev. par. 7d(1) ✓
30. Lat. 24 - 36.1 / Long. 81 - 51.85. Charted 10-12' shoal spots central about this position. Nothing less than 14-15' found. Possibly small coral heads. 2 hour search. ~~Present survey accounts for~~
See Review par. 7a(1). ✓
31. Lat. 24 - 36.36 / Long. 81 - 52.2. Charted 12'. Nothing less than 17' found. Possibly small coral head. See Review, par. 7a(1) ✓
32. Lat. 24 - 36.8 / Long. 81 - 52.02. Charted 18'. Found 17'. ✓
33. Lat. 24 - 36.93 / Long. 81 - 52.18. Charted 18'. Found 17'. ✓
34. Lat. 24 - 35.84 / Long. 81 - 51.64. Charted 12'. Found 13'. ✓
35. Lat. 24 - 35.72 / Long. 81 - 51.62. Charted 12'. Nothing less than the depths obtained found in this immediate vicinity. ✓
36. Lat. 24 - 35.87 / Long. 81 - 51.16. Charted 18'. Found nothing less than 20'. In wire drag area. Rev. par. 7d(1) ✓
37. Large charted shoal between Lat. 24 - 35.65 and 24 - 35.82 and Long. 81 - 50.63 and 81 - 51.0. Investigation gave nothing less than that already found. In wire drag area. Rev. par. 7d(1) ✓
38. Lat. 24 - 35.38 / Long. 81 - 50.92. Charted 18'. Found nothing less than 21'. In wire drag area. Rev. par. 7d(1) ✓
39. Lat. 24 - 35.27 / Long. 81 - 50.83. Charted 18'. Found 18'. In wire drag area. ✓
40. Lat. 24 - 35.18 / Long. 81 - 50.80. Charted 17'. Found 17'. In wire drag area. ✓
41. Lat. 24 - 35.32 / Long. 81 - 50.62. Charted 16'. Found nothing less than 20' in this immediate neighborhood. Bottom clear, 1½ hours search. ✓

SHOAL SOUNDINGS - TRANSFERRED (CONTINUED):

42. Lat. 24 - 35.4 / Long. 81 - 50.52. Charted 12'. Probably small coral head not found 40 minutes search. Bottom clear. Revised survey accepted, see Review par 7a (2).
43. Lat. 24 - 35.36 / Long. 81 - 48.3. Charted 2'. No indication of a shoal spot. Sandy bottom visible. Strong currents. ✓
44. Lat. 24 - 35.59 / Long. 81 - 48.72. Charted 1'. This spot does not lie in this location. ✓
45. Lat. 24 - 35.66 / Long. 81 - 48.66. Charted 1'. 1' sounding 80 meters northwest from this position. ✓
46. Lat. 24 - 35.85 / Long. 81 - 48.56. Charted 5' in Calda Channel. 5' lump now at ~~Lat. 24 - 35.9.~~ ✓
47. Lat. 24 - 37.05 / Long. 81 - 53.44. Charted 6', Found 5' ft. ✓

CHANNELS:NORTHWEST CHANNEL

This sheet covers part of the Northwest Channel, Calda Channel, Jack Channel, part of Blue Fish Channel and the 9' Channel. The last three are local names and do not appear on charts. ✓

The Northwest Channel is the most important on this sheet. It is possible to carry 25 feet through the area surveyed but following the range lines the least depth is 20', in the vicinity Lat. 24 - 35.35 / Long. 81 - 50.8. ✓

Between the jetties, the area surveyed by the U. S. Engineers, the controlling depth is 19'. ✓

This channel has lighted ranges and is well buoyed. ✓

The bottom is white lime stone sand, gray mud, grass and coral formations. ✓

The P. & O. Steamship "Cuba" drawing $18\frac{1}{2}'$ uses this channel more than any other ship, making four passages each week. Ships of the Clyde Mallory Line and the Standard Fruit Line, yachts and an occasional tramp freighter use this channel. ✓

It is estimated that the maximum tidal current is three knots. ✓

CALDA CHANNEL

The next channel of importance is Calda Channel which furnishes an outlet to the north from Key West, for small boats. ✓

This channel is crooked, narrow and hard to follow at high tide in spite of numerous well placed beacons. Its bottom is irregular, in some places, ribbed across the channel wash board fashion, and scoured out in holes in other places. Mud and sand lumps form critical spots, which are described under "Shoals". ✓

At the south entrance just south of Beacon 16, a mud lump with a least depth of 3' is to be avoided by favoring the east bank of the channel. From there a mid channel line may be held to Beacon 12, where the east bank must be favored again until Beacon 10 is passed. From there on north a mid channel course can be followed but a lookout should be kept for the mud lumps with a least depth of $3\frac{1}{2}'$ just north of Beacon 6 and the other about midway between Beacons 9 & 7B with a least depth of $4\frac{1}{2}'$. ✓

Following such a course the limiting depth of the channel is $4\frac{1}{2}'$. ✓

The channel averages between 75 and 100 meters in width and both banks are bare at low water. ✓

CHANNELS (CONTINUED):

CALDA CHANNEL (CONTINUED):

An uncharted branch channel begins at Lat. 24 - 36.35 and parallels the marked channel to Lat. 24 - 36.7, then begins a large curve to the westward, rejoining the marked channel at Lat. 24 - 36.9. By favoring the east bank of this channel, the controlling depth is 5'. It is not over 30 meters wide in places and is not marked.

The tidal current is estimated at 2 knots or better.

JACK CHANNEL

The blind or false channel that enters the Calda Bank just west of the south entrance of Calda Channel and runs north to Lat. 24 - 36.6 is known locally as Jack Channel. The controlling depth is 16' for the first half of its length and 5' for the remainder. It is of no importance and used only by fishing parties.

BLUE FISH CHANNEL

The channel, a part of which appears on this sheet near Lat. 24 - 38 / Long. 81 - 48, is known locally as Blue Fish Channel. It is of no importance except to fishing parties in small boats. The channel is shown fully on sheet No. 3. The limiting depth over the bar into the Gulf of Mexico is 5'. The controlling depth of the channel is 4'. found near Long. 81 - 48. The lower end shoals up to 2'. It is about 50 meters wide and the mud flats are bare or awash at low tide.

NINE FOOT CHANNEL

This is the name given the route followed by local fishermen running boats drawing 6-8' when making passage into the Gulf of Mexico northeast of Key West. It enters the south edge of this sheet at Lat. 24 - 35, / Long. 81 - 50 and roughly parallels the Northwest Channel east of the buoyed channel to near the southern end of the submerged section of East Jetty then swings north or northeast. Occasionally these boats bump on the 6' sand bars in the section between the East Jetty and Calda Channel Lt. No. 1. This is more of a general route than a channel.

RANGES:

The azimuth of the ranges as shown are measured from the north from the front to the rear range.

	0 ' "
1. Northwest Channel Entrance	170-31-36.8
2. Northwest Channel Turn	298-13-48.7
3. Northwest Channel Turn Easterly	117-03-03.0
4. Northwest Channel Inner	139-04-11.8
5 Key West Harbor	24-21-01.5

{ 118° 14' on the sheet which equals the course }

ANCHORAGES:

There are no anchorages on this sheet specifically known as such except the upper end of Man of War Harbor which runs northward from Lat. 24 - 35 / Long. 81 - 48.35 to the mouth of Calda Channel in the vicinity of triangulation station "Nel", and this part of the harbor is too narrow for a large ship. ✓

COMPARISON WITH PREVIOUS SURVEYS: AS SHOWN ON CHART 584

Specific shoal spots have already been covered under "Shoal Soundings - Transferred". ✓

There appears to have been a general deepening in the vicinity of Lat. 24 - 36 / Long. 81 - 52 due to the scouring action of the currents over a sandy bottom. ✓

Local fishermen claim that on the white sandy bottom the lumps shift during a hurricane or heavy blow. ✓

There is an opening, Lat. 24 - 35.5 / Long. 81 - 49, from the upper end of Man of War Harbor, between Calda and Frankfort Bank into Pear Lake that will carry 5' which is not shown on Chart 584. ✓

BP 28561 (1935)

P The junction with the attached U. S. Army Engineer's blue-print of the Northwest passage is good. There has been considerable change in the mud flats north of triangulation station "Ben" where an entrance has been opened from the northwest into Pearl Lake with a controlling depth of 11'. ✓

The sand and mud banks on the west side of the Calda Bank have changed considerably. The northwest tip of the bank charted as making out to the northwest from the southern tip of the Calda Bank to Lat. 24 - 37.15 / Long. 81 - 51.5, has been cut back to Lat. 24 - 37 and the least depth ^{increased} reduced from 2 to 3 feet. Also deepened and reduced in size in other places. ✓

The Middle Ground Shoals in the Northwest Channel east of the range line have decreased in size and the general depth over them has increased. ✓

West of the range line the charted shoals have changed greatly and in some places appear to have been scoured down to the general bottom level. There is absolutely no indication of the six foot spot at Lat. 24 - 36.18 / Long. 81 - 52.05, and a very special search was made for this spot on a day when the bottom was visible at 10 feet. ✓

The 18' curve agrees with the charted curve. The 12' curve compares generally but shows more variations. ✓

LANDMARKS:

For the one landmark (OLD TOWER) on this sheet see Landmarks for Charts, Form 567 dated October 23, 1935. Chart sheet No. 8 attached to that report. ✓

GEOGRAPHIC NAMES:

The geographic names listed below are local names in common use among the fishermen.

1. Blue Fish Channel is the name given to the blind channel in the vicinity of triangulation station "Blu". (The entire channel is shown on Sheet No. 3).
2. Jack Channel is the blind or false channel west of Calda Channel running northward from the vicinity of triangulation station "Nel" into the Calda Bank.
3. Calda Bank. The large mud flat between Calda and Northwest Channels.
4. Pearl Bank. The mud flat on which triangulation station "Rik" is located. Charted as a part of Frankfort Bank.
5. Pearl Lake. The basin surrounded with shoals north and north west of Pearl Bank, east and south of Calda Bank with a general depth of from 6 - 9'.

TIDAL NOTE:

This sheet is divided into 5 tidal zones, lettered A to E. inclusive. The boundaries of the zones are shown in purple on the boat sheet and by short dashed lines ^{in pencil} on the smooth sheets.

ZONE A. The tide reducers were taken directly from the marigrams of the portable tide gauge at Northwest Channel Inner Front Range Light (Sta. "Gag"). Lat. 24-35.0/Long. 81-50.5.

ZONE B. This area is controlled by a mean of curves for Zones A. & C.

ZONE C. This area is controlled directly by the gauges at Old Tower (Sta. "Old") Lat. 24-37.1/Long. 81-54 and Calda Channel Lt. No. 1 (Sta. "Cal"), Lat. 24-37.8/Long. 81-49.6.

ZONE D. This area is controlled by the gauge at Key West Harbor Front Range Light (Sta. "Har"), Lat. 24-34.75/Long. 81-48.

ZONE E. This area is controlled by the mean of the curves for Zones C & D.

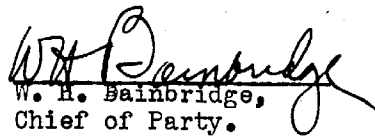
The gauges controlling each Zone is shown in the index of each sounding volume.

STATISTICS:

BOAT	MILES OF SOUNDING LINES	NUMBER OF SOUNDINGS	NUMBER OF POSITIONS	Area in Square miles Statute
Barge	75.8	3,712	647	
Thelma	487.6	19,769	3,454	
TOTALS	<u>563.4</u>	<u>23,481</u>	<u>4,101</u>	27.0

This report is a revised report of the hydrographer,
Frank Houston.

Respectfully submitted,


W. H. Bainbridge,
Chief of Party.

Jan 6, 1936

NOTES BY CHIEF OF PARTY.

The records are not as neat and complete as they should be.

A great many special shoal examinations were not recorded where no depths were found less than the surrounding depths already found on this survey.

Several shoals should have been developed more fully.

*name and maker of smooth sheet paper
not known.*

W. H. Bainbridge
W. H. Bainbridge
Chief of Party.

VERIFIERS REPORT ON H-5935

I. Requirements.

The records conform to the requirements of the General Instructions. ✓

II. The usual depth curves may be completed within the limits of this survey. ✓

III. FIELD DRAFTING

The field plotting was very well done. ✓

IV. Junctions.

Junction with H-5934b which scale is 1:5000 was made on that sheet and is satisfactory. Adjoining sheets H-5934a and H-5908 have not been verified to date. Curves have not been inked in the overlapping areas. ✓

V. Remarks.

There are no topo surveys which cover the area of this sheet. ✓

Beacons with the exception of those used as Δ stations were located by sextant fixes. There are no discrepancies in their location. ✓

Black beacon (Caldes Channel) no. 7 located by fix in Vol. 2 pg. 57. This was also called no. 7b (Vol. 3 pg. 6) It was inked as 7b since the damaged beacon to the south was probably old no. 7. ✓

Line 42u to 51u was run over the top of submerged West Jetty. For jetties refer to D.R. pg. 3 paragraphs 3, 4. ✓

There is a list of signals on inside cover of Vol. I. The nature of Δ Conk is not given.

(CONT. - OVER)

Submitted Dec. 7, 1936

J. H. Everett

A wreck was spotted on line 5d (blue) on this sheet. It was inked in but probably same wreck is definitely located on H-5908.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H5935**

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

Number of positions on sheet	4101
Number of positions checked	296
Number of positions revised	9
Number of soundings recorded	23481
Number of soundings revised	50
Number of signals erroneously plotted or transferred	✓

Date: Dec. 7, 1936

Verification by G. H. Everett
Inked by C. F. McKenny
Review by R. J. Christman

Time: 70 hrs
73 hrs

Time: 53 1/4 hrs

HYDROGRAPHIC SURVEY NO. H5935

Smooth Sheet yes

Boat Sheet yes

Sounding Records 12 Vols. _____

Descriptive Report yes

Title Sheet yes

List of Signals Vol 1

Landmarks for Charts (Form 567) yes

Statistics yes

Approved by Chief of Party yes

Recoverable Station Cards (Form 524) none

Special Chart for Lighthouse Service no yes
(Circular Nov. 30, 1933)

Remarks _____

GEOGRAPHIC NAMES

Survey No. H5935

Name on Survey	Source										No.
	A	B	C	D	E	F	G	H	K	U.S.C.P.	
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
<u>North West Channel</u> ✓	574								✓	✓	1
<u>Calda Channel</u> ✓	584								✓	✓	2
<u>Blue Fish Channel</u> ✓											3
<u>Calda Bank</u> ✓					✓						4
<u>Jack Channel</u> ✓					✓						5
<u>Pearl Lake</u> ✓					✓						6
<u>Pearl Bank</u> ✓					✓						7
											8
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Names underlined in red approved
 by *C. S. Hagan* on 1/24/36

MEMORANDUM

IMMEDIATE ATTENTION

~~SURVEY~~
 DESCRIPTIVE REPORT } No. H5935
~~MICROSTAT/OT~~ } ~~No. 77~~

{ received Jan. 9, 1936
 { registered Jan. 21, 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
20		
22		
24		
✓ 25	<i>GD</i>	<i>pages 2 & 3, 8, 9; D. P.</i>
26		
30		
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83		
88		
90		

RETURN TO

82	
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G. K. Green Jan 22, 1936.

LAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 4, 1936.

Division of Hydrography and Topography:

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

Plane of Reference

~~Tide Records~~ are approved in
12 volumes of sounding records for

HYDROGRAPHIC SHEET 5935

Locality Northwest of Key West, Fla.


Chief of Party: W. H. Bainbridge in 1934-1935

Plane of reference is mean low water reading

- 2.4 ft. on tide staff at Calda Channel
- 5.6 ft. below B.M. 1
- 2.0 ft. on tide staff at Key West Harbor Front Range Lt.
- 2.0 ft. below B. M. 1
- 1.4 ft. on tide staff at N.W. Channel Inner Front Range Lt.
- 5.1 ft. below B. M. 1
- 2.2 ft. on tide staff at Old Tower N. W. Channel Lighthouse
- 11.3 ft. below B. M. 1

Height of mean high water above plane of reference is 2.7 feet at Calda Channel; 1.4 feet at Key West Harbor Front Range Lt.; 1.6 feet at N. W. Channel Inner Front Range Lt.; 2.5 feet at Old Tower N. W. Channel Lighthouse.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5935 (1934-5) FIELD NO. 2

Northwest of Key West, Florida

Surveyed in Dec. 1934, June 1935, Scale 1:10,000

Instructions dated July 20, 1934, Aug. 6, 1934 (W.H.Bainbridge)

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

Chief of Party - W. H. Bainbridge.

Surveyed by - Frank Houston.

Protracted by - L. G. King.

Soundings penciled by - L. G. King.

Verified and inked by - G. H. Everett and C. F. McKinney.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except that the size of the triangulation station symbol is excessive, being about twice the size of the triangle usually used.

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

2. Compliance with Instructions for the Project.

The plan, character and extent of the development are in accordance with the instructions except that no regular system of crossing lines was run. (See Instructions to H. A. Cotton dated November 17, 1933, par. 14.) and that the entrance to Calda Channel in lat. 24°37.8' long. 81°49.6' was inadequately developed. Channel developed.
See Rev. of Add'l Wk.
(1937)

3. Shoreline and Signals.

The area surveyed is not contiguous to land and no shoreline is shown on the sheet. The signals were located by triangulation. The sextant fixes recorded in the sounding records were used for boat sheet purposes only.

4. Sounding Line Crossings.

No regular system of cross lines was run, but crossings resulting from development work and soundings on adjacent lines are consistent.

5. Depth Curves.

Within the area of the survey, the usual depth curves can be satisfactorily drawn.

6. Junction with Contemporary Surveys.

- a. The junction with H-5934b (1934-5-6) to the southeast is satisfactory.
- b. Junction with U. S. Engineer survey of the Northwest Channel is satisfactory,. (Bp. 26077 of 1932).
- c. The junctions with H-5934a (1934-5-6) to the south and with H-5908 (1935) to the east will be considered in the reviews of those sheets.
- d. The instructions do not contemplate new surveys to the north and west. The overlap with the older surveys as represented on Chart 584 is satisfactory, although a slight deepening (about 1 foot) is indicated in some places.

7. Comparison with Prior Surveys.

a. H-281 (1851).

This survey on a scale of 1:20,000 is the source of information for most of the charted shoals listed in the D. R. beginning on page 4. The agreement with the present survey in the deeper areas is good, especially so along the northern border of H-5935 (1934-5). However, many changes have taken place in Northwest Channel and on the shoaler areas (less than 15 feet). The D. R. states (page 10) "Local fishermen claim that on the white sandy bottom the lumps shift during a hurricane or heavy blow." The status of most of the shoals is given in the D. R. It was difficult or impossible to find some of the soundings in the original records but in most cases a general change in bottom is indicated by the present survey. Where necessary the disposition made is indicated in the D. R. and further comment is made only on the following items.

- (1). Items 30 and 31. The 10, 11 and 12 foot spots (charted) in lat. $24^{\circ}36.1'$ long. $81^{\circ}51.8'$ fall in depths of 20, 14 and 17 feet respectively on the present survey and the 12 foot spot (charted) in lat. $24^{\circ}36.36'$ long. $81^{\circ}52.20'$ in depths of 17 feet. The soundings could not be identified in the original records and the character of the bottom is not given on the older survey. Borings by the U. S. Engineers in the adjacent area show rock at 17 to 24 feet. Although the present survey shows several "rky" bottom characteristics in this area, it is probable that they are loose pieces and in view of the general change in the vicinity the existence of these shoal spots is doubtful and they have not been carried forward. However, a wire

drag examination is to be made and pending results they should be retained on the chart.

- (2). Item 42. The 12 foot spot (charted) in lat. $24^{\circ}35.4'$ long. $81^{\circ}50.52'$ falls in depths of 19 feet "wh S" on the present survey northward of the Middle Ground. In view of the statement that the bottom was clear during the search, and the general changes that have taken place the existence of the 12 is doubtful and it has not been carried forward. However, it is to be examined with a wire drag and pending results it should be retained on the chart.

Because of the larger scale as well as the better control and closer development on the present survey, H-5935 (1934-5) should supersede the above survey for future charting.

- b. H-287 (1850-1), H-338 (1850-1-2), H-359 (1852), H-1131 (1872):

These surveys on scales 1:5,000, 1:5,000, 1:20,000 and 1:80,000 respectively show small sections of the area covered by the present survey. The agreement in the deeper areas is good but many changes are noted in the shoaler areas. Some of the changes in details are due to the much closer development of the present survey and others to the probable shifting in position of shoal spots as mentioned in par. 7a. Because of the larger scale, better control and closer development of the present survey, H-5935 (1934-5) should supersede the above surveys in the areas common to them.

- c. H-1518 (1882), H-1825 (1888), H-1828 (1888-9), H-1925 (1889), H-2006 (1890), H-3299 (1911):

These surveys on scales 1:10,000, 1:80,000, 1:40,000, 1:10,000, 1:40,000 and 1:40,000 respectively, cover small sections of the area represented by the present survey. The Northwest Channel has been improved by dredging and the building of jetties. H-1925 (1889) has been largely superseded on the chart by U. S. Engineer's surveys and the remainder should be superseded by the present survey. In other areas the general statement that there is good agreement with the present survey but many changes in details on the shoals have taken place, holds true. Because of the larger scale, better control and closer development of the present survey, H-5935 (1934-5) should supersede the above surveys in the areas common to them.

- d. H-2933 (1908-9-13-14-15) W. D.

This 1:15,000 scale wire drag survey partially covers the portion of Northwest Channel falling within the limits of the present survey. A survey of this channel in 1917 by

the U. S. Engineers verifies only a small percentage of the drag soundings but this is not considered sufficient justification for the omission of drag soundings from the chart. Comparison of drag soundings with the present survey follows.

- (1). 28 soundings, 15 of which are not charted, of the 53 drag soundings falling within the limits of the present survey, including those discussed under Items 29, 36, 37 and 38, D. R., page 6, may be considered as a group. They result from definite groundings and are from 1 to 4 feet shoaler than the depths in which they fall on the present survey. The bottom characteristics either are not given or are hard and rocky. These soundings have been added to the present survey.
- (2). The 21 foot sounding (not charted) in lat. $24^{\circ}36.57'$ long. $81^{\circ}51.97'$ falls in depths of 24 to 28 feet on the present survey. It results from a grounding and has been added to the present survey.
- (3). The 16 foot sounding, (not charted) in lat. $24^{\circ}35.11'$ long. $81^{\circ}50.72'$ falls in depths of 21 to 23 feet on the present survey. It has been carried forward.
- (4). The 15 and 17 foot soundings, (not charted) lat. $24^{\circ}34.94'$ long. $81^{\circ}50.63'$ fall in depths of 22 to 30 feet on the present survey. They have been carried forward.
- (5). Five of the 53 soundings have the bottom characteristics mud or soft. They are 1 to 2 feet shoaler than the depths in which they fall on the present survey. The bottom is considered changeable and they have not been carried forward.
- (6). The remaining 16 of the 53 soundings fall in similar or shoaler depths on the present survey. They have not been carried forward.

8. Comparison with Chart 584 (New Print dated May 12, 1936).

a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and on U. S. Engineer surveys as follows.

- (1). Bp. 26077 (1932) covers the area between the jetties and the present survey makes a satisfactory junction with it. A later blueprint (28561 of April 1935) covering almost the same area is now on file.

- (2). Bp. 16990 to 16992 of 1917 are surveys along the channel on a scale of 1:5,000 showing many borings to rock. The general agreement with the present survey is good though there are a number of minor differences in details. Because of the lapse of time since the surveys were made and because the present survey adequately develops the area, H-5935 (1934-5) should supersede the above blueprints in future charting.

b. Controlling Depth.

The note on the chart states that the controlling depth at mean low water through Northwest Channel was 20 feet in March 1935. A depth of 25 feet can be carried through the area surveyed but 20 feet is the depth on the range in the vicinity of lat. $24^{\circ}35.35'$ long. $81^{\circ}50.8'$.

c. Aids to Navigation.

- (1). The fixed aids to navigation were located by triangulation and are charted in agreement with the positions given on the present survey except lighted Bn. 1 at the north entrance to Calda Channel (lat. $24^{\circ}37.8'$ long. $81^{\circ}49.6'$) which is charted about 100 meters too far to the east.

- (2). A number of beacons in Calda Channel were located by sextant fixes. Nos. 3 and 2 plot north of their charted positions, but are charted in correct diagrammatic relation to the channel. Nos. 5 and 14 were not located by the present survey. Both of these are listed in the 1935 and 1936 local light and buoy list.

Bns. 5 and 14 located
in Add'l Wk. (1937)

- (3). The positions of the floating aids were determined by sextant fixes. The lighted bell buoy at the entrance to Northwest Channel (lat. $24^{\circ}38.95'$ long. $81^{\circ}53.95'$) is charted about 200 meters ESE of the position on the survey but adequately marks the entrance in either position.

Buoys "6A", C11, C"11A" and C"11B" are charted about 200 meters northwestward of the positions on the present survey. The translation is along the range and does not cause any menace to navigation. The authority for the present charting of buoy "6A" is L.H.N.M 43 of 1936. Buoys C"11A" and C"11B" were charted in their present charted positions prior to 1933 and C I and the bell buoy, prior to 1923.

9. Field Plotting.

The field plotting was very well done.

10. Additional Field Work Recommended.

The survey in general is satisfactory. However, the following additional work is recommended:

- a. Additional lines should be run in the channel at Calda Channel Light No. 1 (lat. 24°37.8' long. 81°49.6'). Also the existence of Beacons 5 and 14 in Calda Channel should be verified and located. (See par. 8c(2), this review). (These items are covered by Supplemental Instructions to E. R. McCarthy, dated Aug. 2, 1937.)

Accomplished. See
Rev. of Chart
(1937)
1937

- b. The following shoal spots discussed in paragraphs 7a(1) and 7a(2), this review, should be examined with a wire drag and their existence verified or disproved:

- (1). 10' in lat. 24°36' 90 meters, long 81°51' 1574 meters.
- (2). 11' in lat. 24°36' 264 meters, long. 81°51' 1427 meters.
- (3). 12' in lat. 24°36' 102 meters, long. 81°51' 1324 meters.
- (4). 12' in lat. 24°36' 656 meters, long. 81°52' 331 meters.
- (5). 12' in lat. 24°35' 757 meters, long. 81°50' 902 meters.

All positions are referred to the North American datum which is the datum of the present chart.

11. Note to Compiler.

The compiler's attention is called to paragraphs 7a(1) and 7a(2) this review regarding the retention of certain charted soundings.

12. Superseding Old Surveys.

Within its area the present survey supersedes the following surveys for charting purposes:

- H-281 (1851) in part.
- H-287 (1850-1) "
- H-338 (1850-1-2) "
- H-359 (1852) "
- H-1131 (1872) "
- H-1518 (1882) "
- H-1825 (1888) "
- H-1828 (1888-9) "
- H-1925 (1889) entirely.
- H-2006 (1890) in part.
- H-3299 (1911) "

13. Reviewed by R. J. Christman Dec. 19, 1936, and J. A. McCormick, July 12, 1937.

Inspected by A. L. Shalowitz.

Examined and approved:

C. K. Green.

C. K. Green,
Chief, Section of Field Records.

L. O. Polkett.

Chief, Division of Charts.

Fred. L. Peacock

Chief, Section of Field Work.

G. H. S.

Chief, Division of H. & T.

applied to chart 584 - Jan. 4, 1938
" " " 1254 Aug. 17, 1938
g. H. S.
g. H. S.

5935 (Addl. Wk. 1937)

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

JAN 17 1938

5935 (Additional Work, 1937)

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

DESCRIPTIVE REPORT

Topographic
Hydrographic Sheet No. 5935

State Florida

LOCALITY

Northwest of Key West

1937

CHIEF OF PARTY

E. R. McCarthy

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET 5435 (5935)

AUTHORITY

Supplemental instructions of the Director dated August 2 1937.

LIMITS

Areas specified in the instructions.- Paragraphs #4-6 inclusive.

METHODS

Standard methods used. Positions were fixed with sextant angles on objects of known location. Soundings were taken with a pole graduated in feet and tenths.

EQUIPMENT

A 24' leased launch drawing 2 1/2'.

EXAMINATIONS.

The entrance to Calda Channel was developed as instructed.- see pg. 11
Paragraph 4-and Beacons #5 and #14 were located as instructed in Paragraphs 5-6 of the supplemental instructions.

Attention is called to the fact that Beacon 3 has been destroyed but will be replaced shortly.

Notes were made on the bromide regarding the name 'Calda'. The name is pronounced locally as CALDAZ and the final Z is very apparent. It is stated that the original name of the channel was 'Cal Davis Channel'. Calda Chan.

*etc.
3/19/38*

REDUCERS

The soundings were plotted on the bromide after reducing them approximately by means of cross lines. No reducers were entered in the records as the time and height corrections to the Key West gauge were not known.

STATISTICS

Day	Date	Miles Statute	Soundings	Positions	Dgys Run
a	12-16-37	1.4	251	51	11.6

Respectfully Submitted,

E. R. McCarthy
E. R. McCarthy

Field Records Section (Charts).

HYDROGRAPHIC SHEET NO. **H5935** (Addl. Wk. 1937)

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

Number of positions on sheet	..51..
Number of positions checked	..51..
Number of positions revised	..0..
Number of soundings recorded	..251..
Number of soundings revised	..0..
Number of signals erroneously plotted or transferred	..0..

Date: 11 Feb, 1938

Verification by *L.C. McBlair*

Review by

Time: 3 days

Time:

HYDROGRAPHIC SURVEY NO. H-5935 (Additional Work, 1937)

Smooth Sheet Old

Boat Sheet Old

Sounding Records One Vols. _____

Descriptive Report Yes

Title Sheet Executed in Office

List of Signals -----

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party No

Recoverable Station Cards (Form 524) None

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

Remarks _____

HYDROGRAPHY

Total Days 0122.....

Last Date Dec. 16, 1937.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H -5935 (Addl. Wk.
 PHOTOSTAT OF XXXXXXXX No. T 1937)

{ received Jan. 17, 1938
 registered Jan. 21, 1938
 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
20		
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25	<i>JBR</i>	<i>sent memo</i>
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RETURN TO

82	T. B. Reed
----	------------



11 February, 1938

Report on H 5935 (Additional Works)

Verifying and Inking

It was necessary to plot the positions and pencil the soundings prior to the verifying and inking of the soundings on this sheet. The position numbers were inked in green while the soundings were inked in brown. The original survey, as a whole, was left, as recorded in black ink except where the new work was shoaler. This was done in order to give the reviewer a complete picture of the original survey plus the additional work whereby a more complete analysis may be made. Furthermore the depth curves were adjusted to the combined surveys as they now stand.

Beacon number 5 and 14 were located by the hydrographic party on this additional work and they were inked on the smooth sheet as specified, however the date of location ~~of~~ was also inked in red close

by the beacons in order to distinguish
them from the original survey.

Respectfully submitted,
B.C. McGlendon

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 29, 1938

Division of Hydrography and Topography:

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

Plane of reference
~~Tide Reducers have~~ approved in
/ volumes of sounding records for

HYDROGRAPHIC SHEET 5935 (Additional work, 1937)

Locality Northwest of Key West, Florida

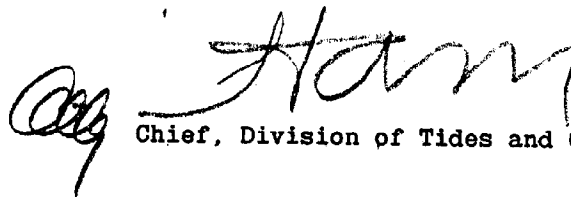
Chief of Party: E. R. McCarthy in 1937
Plane of reference is mean low water reading
4.3 ft. on tide staff at Key West reading
8.8 ft. below B.M. 29

Reducers referred to Calda Channel by applying the following corrections
to Key West observation: Time of tide + 2^h 10^m; height of high water +
1.4 feet.

Height of mean high water above plane of reference at Calda Channel is
2.7 feet.

Condition of records satisfactory except as noted below:

Tide reducers entered and soundings reduced in office.


Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5935 (1937) Ad.Wk.FIELD NO. 5935(2)

Calda Channel, Northwest of Key West, Florida
Surveyed Dec. 16, 1937, Scale 1:10,000
Instructions dated Aug. 2, 1937 (E. R. McCarthy)

Hand Lead Soundings

3 Point fixes on shore signals.

Chief of Party - E. R. McCarthy.
Surveyed by - E. R. McCarthy.
Protracted by - G. C. McGlasson (in office).
Soundings plotted by - G. C. McGlasson (in office).
Verified and inked by - G. C. McGlasson.

1. Purpose of Additional Work.

The purpose of this additional work was to develop or locate several items called for in the Instructions for the Project and Paragraph 10a of the original review.

2. Office Work.

The field work was submitted on a boat sheet. This work was plotted on H-5935 (1934-35) and verified in the office, the soundings being shown in brown and the position numbers in green.

3. Results of Additional Work.

a. Reference Par. 4 of Instructions, and 10a Review H-5935 (1934-35).

Split lines run in the channel in the vicinity of latitude $24^{\circ} 37.8'$, longitude $81^{\circ} 49.6'$ completely develop this feature and show a controlling depth of 6-1/2 feet.

b. Reference Par. 5 of Instructions, and 10a Review H-5935 (1934-35).

Beacon 5 in latitude $24^{\circ} 37.6'$, longitude $81^{\circ} 49.05'$ was located but falls approximately 100 m. west of its charted position. The charted position, however, is placed in relation to the channel which channel differs in geographic position with that on the present survey. The aid in either case satisfactorily marks the feature intended.

c. Reference Par. 6 of Instructions, and 10a Review H-5935 (1934-35).

Beacon 14 in lat. $24^{\circ} 36.3'$, long. $81^{\circ} 48.4'$, was located. Its position agrees with that charted and satisfactorily marks the feature intended.

4. Reviewed by - Harold W. Murray, Feb. 21, 1938.

Inspected by - A. L. Shalowitz.

Examined and approved:

K. T. Adams

K. T. Adams,
Asst. Chief, Division of Charts.

L. O. Robert

Chief, Division of Charts.

Fred. L. Peacock

Chief, Section of Field Work.

G. H. de

Chief, Division of H. & T.

applied to chart 584 F.M.A. Oct. 8, 1938