

5934a  
5934b

Diag. Cht. Nos. 1251-2 and 1252-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic  
Field No. 1 & 1a. Office No. H-5934a  
(Subplan) H-5934b

LOCALITY

State Florida  
General locality H-5934a Key West  
Locality H-5934b Key West and Man of War Harbors

194 34-36

CHIEF OF PARTY

W. H. Bainbridge

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DATE January 13, 1936

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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
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JAN 13 1936

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. 1 & 1a (Subplan)

**H5934 a**

**H5934 b**

REGISTER NO.

State FLORIDA

General locality ~~KEY WEST~~

Locality 5934a KEY WEST | 5934b Key West & Man of War Harbors

Scale 1:10,000 (1) Date of survey Oct. 4, 1934 -  
1:5,000 (1a) June 20 - Jan 6, 1936

Vessel ~~LAUNCH & FLAT BOTTOM BARGE~~ Party No. 22

Chief of Party W. H. BAINBRIDGE

Surveyed by FRANK HOUSTON

Protracted by H. B. CRUM

Soundings penciled by H. B. CRUM

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated July 20, 1934; Supp. August 6, 1934

Remarks:

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SHEET NO. 1  
PROJECT HT 191

AUTHORITY:

Instructions of Director dated July 20, 1934.  
Supplemental Instructions dated August 6, 1934.

SURVEY METHODS:

A sounding pole graduated in feet and half feet was used in shallow water and a lead line prepared in regulation manner and marked in fathoms and feet was used for greater depths. Three point fixes on shore signals were used except where no suitable fix was available in which case position was determined with reference to topography.

A thirty foot launch with eight foot beam and two foot draft was used in making the survey.

For shallow places a flat bottomed barge, sixteen by eight feet, powered by a thirteen horsepower Elto outboard motor, was used.

This survey is complete except for bilge and keel lines in the ferry slips where two ships were anchored all during the survey. Their positions are shown on the smooth sheet.

Least depths to be examined were transferred to the boat sheet. A buoy was dropped on this spot. The launch or barge was run about this buoy in criss cross lines and in circles of widening diameter from the center and allowed to drift about the spot.

In most cases no soundings were recorded if none less than the depth already obtained were found.

All of the examinations were not recorded. This should have been done.

SURVEY METHODS (Continued):

Several attempts were made to use a light rope drag but without success due to tough sea plants fouling the drag. ✓

SHEET LAYOUT:

Part of the area of Key West Harbor, Man of War Harbor and the water front area at the western end of the Island of Key West were plotted on a sub sheet, No. 1a, (H-5934B) ✓  
scale: 1:5,000 to avoid congestion. Sheet No. 1 (standard Whatman's sheet) did not have sufficient area for the sub-plan.

Positions 11, 12 and 20h, Volume 2; positions 74-77t', inclusive; and 85-90t', inclusive, Volume 9 were plotted on sheet No. 1 and transferred by latitude and longitude to sheet No. 1a because stations "Raw" and "Gag" did not appear on sheet No. 1a. ✓  
*11 m net  
74-77t' 85-90t'  
sheet off sheet  
Gag.*

DISCREPANCIES:

Sounding lines crossed satisfactorily. ✓

DANGERS: (Wrecks, shoals and obstructions.)

The dangers along the south shore of Key West are mainly the coral head formations inside the eighteen foot curve. These coral heads arise abruptly from a regular bottom, either singly or in groups, and in some cases are awash at low tide. There are no directions for avoiding them as they are so numerous. Boats should avoid this area except on clear calm days when coral heads can be seen. Under favorable conditions these formations can be seen by a lookout as far as three hundred yards and appear as dark or reddish spots on the normally blue water. At times the water is so clear that the bottom is distinctly visible in depths of twenty feet by actual measurement. Considerable time and care was taken to locate all these formations. All spots were transferred from Chart No. 584 and each transfer was investigated and a least depth taken in the transferred area. A total of eighty-nine least depths were thus taken on coral heads and coral head groups in this area. ✓

These least depth positions, 1-26g inclusive, Volume 4; positions 33t, 54t, 85t, Volume 5; 14g', 17g', 3k', 4k', Volume 8; 1n', 8-19n', inclusive, 1-19p', inclusive 27-34g', inclusive, 48-65g' inclusive, Volume 9 are shown on a tracing cloth overlay to clarify the plotting on the smooth sheet. ✓

DANGERS: (Continued):

The Casa Marina Hotel Company requested the Lighthouse Service to buoy a channel to its pleasure pier, latitude 24-32.8/Long. 81-47.5. Having knowledge of this request an extra effort was made to locate all dangers in this area. The sounding launch cruised on closely spaced courses normal to the beach between shoal water and the twelve foot curve for a distance of 250 to 300 meters on both sides of the pier, on a clear calm day. Nothing was found that had not been previously located.

1. Two two-inch iron pipe stakes baring three feet at M.L.W. - Latitude 24-32.7/Long. 81-48.0, position 81s, Volume 5.
2. Foundation wall of an old structure, bares  $\frac{1}{2}$  foot at M.L.W. and is too close to shore to classify as dangerous. Lat. 24-32.85/Long. 81-47.5.
3. Lat. 24-32.75/Long. 81-47.8. Position 40r, Volume 4.
4. Least depth  $2\frac{1}{2}$  feet on concrete pillar about one meter square. It was apparently a foundation for some structure.
4. Lat. 24-32.65/ Long. 81-48.4, position 34h, Volume 11.
11. Iron pipe stake, eight inches in diameter, bares 4 feet at L.W. Not charted.
5. Lat. 24-34.05/ Long. 81-47.8, position 11, Volume 11.
11. Wreck of wooden mud barge, 15 meters wide, 40 meters long, bares 6 feet at L.W. Charted.
6. Lat. 24-32.5/ Long. 81-46.1, position 117r, Volume 5.
5. Least depth  $3\frac{1}{2}$  feet on boilers of a wrecked dredge, at mid point of wreckage, about 17 meters long and 4 meters wide. The wreck lies east and west and only the iron work remains. Not charted.
7. Lat. 24-34.01/Long. 81-47.76, position 31, Volume 11.
- Location of wrecked wooden barge loaded with rock. Position taken on rocks which bare two feet at L.W. Charted.
8. Lat. 24-34.25/Long. 81-47.73, position 9i, Volume 11.
- Location of wooden barge awash at L.W., 30 meters long and 25 meters wide. Timbers are still sound. Not charted.
9. Lat. 24-34.28/Long. 81-47.89, position 10i, Volume 11.
- Location of wreck of wood hulled schooner, 50 meters long. Only stern posts bares one foot at L.W. Starboard ribs submerged one foot entire length. Wrecks lies southwest from this position. Not charted.
10. Lat. 24-34.59/Long. 81-47.97, position 121, Volume 11.
- Location of center of metal sea-plane carrier, 5 meters beam, 20 meters length, bares 2 feet at L.W. and lies north and south. Not charted.

DANGERS: (Continued):

11. Lat. 24-34.7 / Long. 81-47.99, position 14i, Volume 11. Location of center of wooden barge 15 by 20 meters. Timber in good condition. Least depth 1 foot. Not charted. ✓
12. Lat. 24-34.7 / Long. 81-48.0, position 15i, Volume 11. Location of wreck of wooden barge about 60 by 15 meters. Bares 3 feet entire length and lies north and south. Position at center west side. Not charted. ✓
13. Lat. 24-34.05 / Long. 81-48.76, positions 42j and 43j, Volume 3. Location of wreck of metal hulled quarantine boat, 50 meters long, 9 meters beam; bares 8 feet full length. Not charted. ✓
14. Lat. 24-34.7 / Long. 81-48.01, position 16i, Volume 11. Location of wreck of metal airplane carrier, five by twenty meters. Least depth 3 feet. Position is central and wreck lies east and west. Not charted. ✓
15. Lat. 24-34.2 / Long. 81-48.05, position 73t, Volume 9. Location of wreck of wooden schooner apparently lying on side. Wreckage ten meters long lying east and west of position. Least depth 3 feet. Not charted. ✓ H-5934b
16. Lat. 24-34.94 / Long. 81-48.72, position 87d, Volume 10. Wreck of sponge boat, ten meters long by three meters wide. Stern and ribs bare 2 feet at M.L.W. Not charted. ✓
17. Lat. 24-33.65 / Long. 81-46.82, position 66h, Volume 11. Wreckage of burned barge 20 meters by 10 meters, bares 2 feet at M.L.W., in Garrison Bight and lies N.W. by S.E. Not charted. ✓
18. Lat. 24-35.05 / Long. 81-49.15, position 81d, Volume 10. Location of wreck of old barque, only part of hull and boilers left. Wreckage about 20 meters long and 10 meters wide. Fix taken at center of north side. Bares 4 feet at M.L.W. Charted. ✓
19. Lat. 24-34.6 / Long. 81-48.65, position 55e, Volume 10. Pile of old gasoline barrels about 15 meters in circumference, bares ½ foot at M.L.W. ✓
20. Lat. 24-34.16 / Long. 81-48.43, position 43f, Volume 11. Old gasoline barrel, bares ½ foot at M.L.W. ✓
21. Lat. 24-32.65 / Long. 81-48.42, position 34h, Volume 11. Pipe stake, bares 4 feet at H.W. ✓  
*Noted in record as "Iron Pipe Stake"*
22. Lat. 24-34.05 / Long. 81-47.74, positions 4, 5, 6, 7, and 8i, Volume 11. Old pilings showing 6 to 8 feet above water. ✓
23. Lat. 24-34.5 / Long. 81-49.9. Mud flat. A mud flat middle ground in North West Channel about 200 meters wide and 600 meters long, awash at M.L.W., lying almost due north and south. ✓

DANGERS:(Continued):

24. Lat. 24-34.5 / Long. 81-49.6. Mud flat. A mud flat middle ground in this vicinity 200 meters wide and 400 meters long; least depth 3 feet. This flat is visible under favorable conditions. ✓

25. Lat. 24-34.0 / Long. 81-48.5. Mud flat. An extensive half-moon shaped mud flat begins in this area and curves northwestward to the limits of this sheet, except for one opening through it about 200 meters wide with a controlling depth of seven feet. ✓

This is charted as the Frankfort Bank and it is awash at low water along the eastern edge and gradually slopes westward into deeper water. ✓

26. Extensive mud flats between Latitudes 24-34 and 24-35 and west of Longitude 81-50.7, awash at low water. ✓

28a. Lat. 24 - 33.75 / Long. 81 - 48.3. Dolphins at Key West Marine Railway, of which topographic station AID is the outermost. ✓

\* See letter and photostat attached to Des. Rept

See Addenda - Pages 11 to 15 inclusive. T-6348, R.

NOTE:

Ends of several sounding lines plotted off the north edge of the sheet. These were plotted on a tracing cloth overlay in order to carry the soundings to the edge of the sheet. *a dozen attached to edge of sheet include all sdgs. which plotted off sheet.*

This overlay accompanies the sheet. *Rls*

COMPARISON WITH PREVIOUS SURVEYS:

A comparison with old surveys shows that the depth curves along the south side of Key West have undergone little change. The junction with previous work is satisfactory. ✓

With the exception of the several spots specially investigated the depths agree closely. ✓

The 18 foot curve on the spit separating the North West Channel from the Key West Harbor has retreated, probably due to erosion, about 250 meters north of the charted position. A system of cross lines was run at slack tide to confirm this fact. ✓

The mud flats and middle grounds north and northwest of Key West show no noteworthy change the depth curves remaining about the same. ✓

ADDITIONAL SHOAL SPOTS TRANSFERRED FROM CHART NO. 584:

1. Lat. 24-30.9 / Long. 81-45.9. Transferred depths 16 and 18 feet. Least depth found 23 feet, position 6g', Volume 8. One and one-half hour search. Retain old depths. *from H-145(1920)*
2. Lat. 24-31.55 / Long. 81-45.9. Transferred depth 13 feet. Least depth found  $14\frac{1}{2}$  feet, position 4s', Volume 9. Two hour search. If no difference in tide reducers 13 feet should be retained. Shown on overlay. *from H-2932(1907-14) WD*
3. Lat. 24-31.57 / Long. 81-46.35. Transferred depth 22 feet. Depth found  $23\frac{1}{2}$  feet, position 13g', Volume 8. Retain old depth. Shown on overlay. *from H-2818(1906)*
4. Lat. 24-32.2 / Long. 81-47.7. Transferred depth 16 feet. This depth was erroneously transferred inside the 18 foot curve and no examination was made. *Retained from H-2932(1907-14) WD*
5. Lat. 24-32.3 / Long. 81-47.75. Transferred depth 17 feet. This depth was found on a sounding here about 30 meters northwest of the transferred position. No examination made. *No sounding of 17 Ft. in this vicinity. 17 retained from H-281(1851).*
6. Lat. 24-32.25 / Long. 81-49.30. Chart shows 28 feet. Nothing less than 33 feet found. *WD see par. 7d(4) of Review.*
7. Lat. 24-32.38 / Long. 81-50.28. Charted 18 feet. Found 24 feet. *WD see par. 7d(4) of Review*
8. Lat. 24-32.55 / Long. 81-50.17. Charted 18 feet. Found 21 feet. *WD. see par. 7d(4) of Review.*
9. Lat. 24-32.94 / Long. 81-49.96. Charted 18 feet. Found 21 feet. *From WD 2933 (1908-14)*
10. Lat. 24-32.77 / Long. 81-49.6. Charted 18 feet. Found 23 feet. *See Review par. 7d(4)*
11. Lat. 24-32.8 / Long. 81-49.37. Charted 18 feet. Found 21 feet. *WD grounding, 18 retained.*
12. Lat. 24-32.92 / Long. 81-49.19. Charted 18 feet. Found 21 feet. *Retained 18 from WD H-2933(1908-14)*
13. Lat. 24-33.15 / Long. 81-48.98. Charted 15 feet. Found 23 feet. *See Review par 8a(4)*
14. Lat. 24-34.7 / Long. 81-50.6. Charted shoal of 15 and 17 feet. Found 21 feet. *WD soundings retained from H-2933 (1908-14)*
15. Lat. 24-32.98 / Long. 81-49.27. Charted 18 feet. Found 21 feet. *18.8 on BP 16993(1917); 18 not retained, see "Survey Methods" page 1, Desc. Rep.*



ADDITIONAL SHOAL SPOTS FROM CHART NO. 584 (Continued):

16. Lat. 24-34.0 / Long. 80-49.73. Charted 11 feet.  
Found 12 feet. From WD H-2933 (1903-44).

Exhaustive attempts were not made to find the above shoal spots, Nos. 6 - 15 inclusive, because they are in the wire drag area of former surveys. This party had no wire drag equipment.

It is noted that the bottom in this area is either hard white sand or mud and as there is considerable current action it is possible that the differences may be accounted for by erosion. However, I do not think that critical depths should be removed without the confirmation of a wire drag survey.

CHANNELS:

This sheet covers the Key West Harbor, Man of War Harbor, part of North West Channel, the entrance to the inside route through the keys and the dredged channel entrance to the Garrison Bight.

The Key West Harbor is well marked by a lighted range and buoys. It is about 200 meters wide between the 25 foot curves. The range will carry 25 feet at the least depth. There is 25 feet to the lighthouse wharf, the Clyde Mallory wharf and the F.E.C. ferry slips. A depth of 23 feet may be carried into the Man of War Harbor which is merely an extension of the Key West Harbor. Both of these harbors are good anchorages being well protected and having good holding bottom.

The usual draft of shipping in this harbor is 19 feet or less being confined almost exclusively to the F.E.C. ferries, the Clyde Mallory and Standard Fruit Company ships at this time.

The North West Channel begins in the Key West Harbor and bears out towards the northwest as its name indicates. It varies from 100 to 600 meters in width between the 25 foot curves on this sheet and is limited to 25 feet in the vicinity of the Kingfish shoal light. This channel has lighted ranges and is well marked by buoys.

The usual shipping through this channel is 19 feet or less confined almost exclusively to the passenger boat to Tampa. Occasionally a small freighter or one in ballast uses this channel in running to and from Gulf ports.

15' spot off 12' from center of S. wharf

CHANNELS:(Continued):

The entrance to the inside route through the keys will bear 6 feet to the limit of this sheet. It is marked by pole beacons and has a gray mud and grass bottom with sand patches.

Only small craft having a draft of less than 3 feet use this route since its depth decreases to 2 feet outside this sheet. This route is seldom used even by the local fish and sponge boats.

The dredged channel entering the Garrison Bight is about 15 meters wide and follows the general trend of the north shore of Key West to the opening through the F.E.C. tracks into the Garrison Bight.

Its average depth is about 6 feet in the channel. It has an irregular rocky bottom and with a least depth of 3 feet near hydro station "Sign".

Small boats of 2 feet draft or less use this channel. Garrison Bight varies from spots awash to 3 feet in depth except in the barrow pit paralleling the boulevard on the east.

There is a small channel entering Fleming Key. It is about 6 meters wide at the entrance and about 30 meters wide inside. It was dredged for a hurricane refuge. Its limiting depth is 5 feet in the entrance, 4 feet inside.

There is a channel like barrow pit which parallels the boulevard along the north side of the Island of Key West. There is no entrance to it except over mud flats nearly bare at low water, but the channel itself is about 15 meters in width and has a rocky irregular bottom varying in depth from 1 to 9 feet. It was the result of dredging fill for the boulevard.

The general bottom characteristics on this sheet are as follows: A gray mud usually sticky, a white limestone sand which packs in hard banks, limestone bedrock or mud with a thick coating of sea grass. The rock outcrops usually support a growth of sponges and tough sea plants which caused much trouble with our rope drag. In many cases these marine growths reached a height of 4 feet and had stems 3 inches thick near the roots.

The azimuths of the marked ranges shown on this sheet are true azimuths measured from the front to rear range:"

Main Ship Channel Range	----	356	-	09	--
Key West Harbor Range	----	24	-	21	01.5
North West Channel Inner Range-		139	-	04--11.8	

CHANNELS:(Continued):

The North West Channel Inner Rear Range Light was so placed that it would constitute a range with it as front range light and the Key West Lighthouse as the rear range light, to be used as a danger bearing for the 11 foot shoal at Lat. 24-34.0 / Long. 81-49.73.

NEW NAMES:

The land-locked small boat anchorage on the north side of the Island Of Key West, center about Long. 81-47, is known locally as Garrison Bight.

The name was probably derived from the U. S. Army Post located at the western end of the Bight.

TIDAL NOTE:

Portable tide gauge at North West Channel Inner Front Range Light (Sta. "Gag"), Lat. 24-35.0/Long. 81-50.45, controls the area north of straight line that crosses the 50th Meridian at Lat. 24-33.78, the 34th Parallel at Long. 81-49.67, the 49th Meridian at Lat. 24-34.45, thence in an easterly curve to a junction of boundry lines at Lat. 24-34.54/ Long. 81-48.7; and west of the line leaving this junction and following the general middle of the mud flat in a northeasterly and northwesterly direction to the north edge of the sheet in the vicinity of Lat. 24-35.0 / Long. 81-49.

Another portable tide gauge at Key West Harbor Front Range Light (Sta. "Har"), Lat. 24-34.75 / Long. 81-48.0, controls the area east of the last described line and north and east of the line leaving the above named junction and following the mud flats in a southerly direction to Lat. 24-34.2, thence east southeasterly to the western end of the northernmost F.E.C. Railroad Pier.

Garrison Bight was controlled by a portable tide gauge in the eastern end of the Bight, Lat. 24-33.7 / Long. 81-46.7.

The remainder of the sheet was controlled by the Standard Gauge in the Submarine Basin, Lat. 24-33.2/Long. 81-48.48.

The boundry lines described above are short dash pencil lines on the smooth sheet and similar lines in purple ink on the boat sheet.

STATISTICS: Totals

Statute miles of sounding lines	619.1
Number of soundings	20,557.0 20,725.
Number of positions	3,818.0 3,862.

LANDMARKS:

See Landmarks for chart. Form 567, dated Oct. 23, 1935  
~~list of landmarks attached.~~  
and chart sections Nos 9 + 10 of that report. W.H.B. ✓

MISCELLANEOUS:

Frank Houston, Surveyor and Hydrographer  
wrote the above report which I examined and amplified. ✓

Respectfully submitted,

~~October 23, 1935~~

Jan. 10, 1936

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

ADDENDADangers: (Contd.)

27. Lat. 24 - 32.48 / Long. 81 - 47.72. Pos. 1q & 2q, vol. 4. L. D. on rock shoals  $2\frac{1}{2}$  ft. and  $1\frac{1}{2}$  ft.
28. Lat. 24 - 32.5 / 81 - 47.73. Pos. 3q, vol. 4, L.D.  $\frac{1}{2}$  ft. on rock
29. Lat. 24 - 32.58/Long. 81 - 47.72. Pos 4 q, vol. 4. L. D.  $\frac{1}{2}$  ft. on group of rocks 8 meters in diameter.
30. Lat. 24 - 32.65/ Long 81 - 47.82. Pos 5q, vol. 4. L. D.  $1\frac{1}{2}$  ft. on rock. shoal 6 meters in diameter.
31. Lat. 24 - 32.46/ Long. 81 - 47.66. Pos. 6 & 7q. L. D. 1 & 2 ft on outer and inner limits of rock shoal. L.D. of area.
32. Lat. 24 - 32.47/ Long. 81 - 47.62. Pos. 8q, vol. 4. L. D. 2 ft. on rock shoal, also outer edge.
33. Lat. 24 - 32.48/ Long. 81 - 47.63. Pos. 9q, Vol. 4. L.D. 2ft. on rock 1 meter in diameter.
34. Lat. 24.- 32.43/ Long. 81 - 47.49. Pos. 10q, Vol. 4. L.D. 5 ft. on outer limit of small shoal. rock.
35. Lat. 24 - 32.45/ Long. 81 - 47.47. Pos. 11q, 12q, & 13q. L.D. 1 ft. on small shoal area - rock.
36. Lat. 24 - 32.55/ Long. 81 - 47.<sup>52</sup>~~47~~. Pos. 14q, Vol. 4. Rock with 3 ft. L. D. located October 29, 1934. In December 1935, while marking an entrance and anchorage for small boats for the Casa Marina Hotel Dock, Personnel of the Lighthouse Department could not find this rock, but found one at Lat. 24 - 32.61 Long. 81 - 47.55, which was so noticeable that it could not have been missed during the survey. The rock was examined and the top side was white showing recent exposure and the sides were brown indicating long exposure. The Officials of the Lighthouse Department concluded that this was a so called roller that had been moved by the heavy seas (southeast) during the September 1935 hurricane. They have encountered such rocks or coral heads before that have been broken loose by hurricanes and moved about. I spent  $1\frac{1}{2}$  days, exclusive of the time spent by the Lighthouse Department, in search of the rock on days that the bottom was clearly visible and I am positive that the rock is not in the position given by Pos. 14q.  
This rock was dynamited on December 20, 1935 and the least depth on the highest remaining fragment was 6 ft.\*
37. Lat. 24 - 32.58/ Long. 81 - 47.4. Pos. 15q, Vol. 4. L.D. 3 ft. on small rock shoal.

\* This rock moved to pos 12 <sup>Vol. 11</sup> *Qui*

38. Lat. 24 - 32.44/ Long. 81 - 47.15. Pos. 16q, vol. 4. L.D. 3 ft. on rock.
39. Lat. 24 - 32.51/ Long. 81 - 47.08. Pos. 17q, Vol. 4. L.D. 5 ft. on rock shoal 10 meters in diameter.
40. Lat. 24 - 32.58/ Long. 81 - 47.04. Pos. 18 & 19q, Vol. 4. L. D. 3 & 2 ft. on rocks.
41. Lat. 24 - 32.6/ Long. 81 - 46.9. Pos. 20q, Vol. 4. L. D. 3 ft. on rock.
42. Lat. 24 - 32.62/ Long 81 - 46.63. Pos. 21q, Vol. 4, L.D. 6 ft.; Pos. 14 & 15p', Vol. 9. L.D. 5 ft. on rocks 3 & 4 meters dia.
43. Lat. 24 - 32.6/ Long. 81 - 46.57. Pos. 22q, Vol. 4, & Pos. 6p', Vol. 9. L.D. of 3 & 2 ft. on rock shoal about 6 meters in dia.
44. Lat. 24 - 32.6/ Long. 81 - 46.25. Pos. 23q, Vol. 4. L.D. 4 ft. on rock.
45. Lat. 24 - 32.68/ Long. 81 - 46.27. Pos. 24q, Vol. 4. L.D. 3 ft. on patch of rocks 6 meters in diameter; Pos. 25q, L.D. 3 ft. on Patch of rocks 30 meters long, 10 meters wide, lying N. & S; Pos. 2p', L.D. 3 ft. on same shoal as Pos. 25q.
46. Lat. 24 - 32.78/ Long. 81 - 46.24. Pos. 26q, Vol. 4 and Pos. 3p', Vol. 9. L.D.  $1\frac{1}{2}$  & 1 ft. on group of coral heads 8 meters in dia.
47. Lat. 24 - 32.47/ Long. 81 - 47.57. ~~Max.~~  $5\frac{1}{2}$  ft. on rock in shoal area, L.D. given at Pos. 1k, Vol. 11.
48. Lat. 24 - 32.7/ Long. 81 - 46.34. Pos. 33t, Vol. 5. L.D. 2 ft. on rock shoal 3 x 5 meters.
49. Lat. 24 - 32.45/ Long. 81 - 46.62. L.D.  $8\frac{1}{2}$  ft. on rock 15 meters south of Pos. 39q'.
50. Lat. 24 - 32.45/ Long. 81 - 47.58. L.D. 5 ft. on rock in shoal area, L.D. given at Pos. 1k, Vol. 11.
51. Lat. 24 - 34.0/ Long. 81 - 48.5. Iron stake bares  $1\frac{1}{2}$  ft. at. L.W.
52. Lat. 24 - 32.46/ Long. 81 - 45.91. Pos. 14g', Vol. 8. L.D. 4 ft. on rock shoal, also  $7\frac{1}{2}$  ft. sdg. between 17 & 18 g' in this area.
53. Lat. 24 - 32.65/ Long. 81 - 45.9. Pos. 3k; Vol. 8. L.D.  $2\frac{1}{2}$  ft. on rock.
54. Lat. 24 - 32.62/ Long. 81 - 45.9. Pos. 4k', Vol. 8. L.D. 3 ft. on rock.
55. ~~MAX~~ Positions 12 - 16m', Vol. 9. L.D.s of  $18\frac{1}{2}$ ,  $17\frac{1}{2}$ ,  $16\frac{1}{2}$ . &  $15\frac{1}{2}$  ft. were found in the entrance to the submarine Base, north-east of signal Use.

56. Lat. 24 - 32.59/ Long. 81 - 48.18. Pos. 1n', Vol. 9. L.D. <sup>2 1/2</sup> 3 ft.  
on rock shoal 60 meters long, 20 meters wide, lying NW & SE.
57. Lat. 24 - 32.57/ Long. 81 - 48.05. Pos. 8n', vol. 9. L.D. 4 ft.  
on rock shoal 30 meters long and 5 meters wide.
58. Lat. 24 - 32.59/ Long. 81 - 48.05. Pos. 9n', Vol. 9. L.D. 3 1/2 ft.  
on small rock shoal.
59. Lat. 24 - 32.48/ Long. 81 - 47.82. Pos. 11n', Vol. 9. L.D. 7 1/2 ft.  
on coral head.
60. Lat. 24 - 32.58/ Long. 81 - 47.72. Pos. 12n', Vol. 9. L.D. 2 ft.  
on rock shoal 8 meters in diameter.
61. Lat. 24 - 32.56/ Long. 81 - 47.62. Pos. 13n', Vol. 9. L.D. 2 1/2 ft.  
on rock shoal 4 meters in diameter.
62. Lat. 24 - 32.5/ Long. 81 - 47.28. Pos. 14n', Vol. 9. L.D. 5 1/2 ft.  
on rock shoal 3 meters in diameter.
63. Lat. 24 - 32.64/ Long. 81 - 47.3. Pos. 15n', Vol. 9. L.D. 7 1/2 ft.  
found while looking for 5 foot spot transferred from Chart 584.  
Nothing less found in that immediate area.
64. Lat. 24 - 32.72/ Long. 81 - 46.8. Pos. 16n', Vol. 9. L.D. 2 1/2 ft.  
on rock 1 meter in diameter; Pos. 16p', Vol. 9, L.D. 3 1/2 ft. on  
coral head 1 meter in diameter.
65. Lat. 24 - 32.4/ Long. 81 - 46.4. Pos. 17n', Vol. 9, & 8p', Vol. 9,  
L.D. 3 1/2 ft. on rock reef about 60 meters in diameter.
66. Lat. 24 - 32.66/ Long. 81 - 46.33. Pos. 18n' & 11p', Vol. 9, L.D.  
3 1/2 ≈ 3 ft. on coral reef 30 meters in diameter.
67. Lat. 24 - 32.36/ Long. 81 - 46.26. Pos. 19n', Vol. 9, L.D. 4 1/2 ft.  
on coral head.
68. Lat. 24 - 32.57/ Long. 81 - 46.2. Pos. 1p', Vol. 9, L.D. 5 ft.  
on rock shoal 10 meters in diameter.
69. Lat. 24 - 32.75/ Long. 81 - 46.47. Pos. 4p', Vol. 9. L.D. 1 ft. on  
coral head 2 meters in diameter; Pos. 5p', Vol. 9. L.D. 2 ft. on  
coral head 5 ft. in diameter.
70. Lat. 24 - 32.38/ Long. 81 - 46.53. Pos. 7p', Vol. 9. L.D. 2 ft. on  
coral reef 30 meters in diameter.
71. Lat. 24 - 32.33/ Long. 81 - 46.42. Pos. 9 & 10p', Vol. 9. L.D.  
5 1/2 ft. on coral reef 10 and 30 meters in diameter.
72. Lat. 24 - 32.48/ Long. 81 - 46.23. Pos. 12p', Vol. 9, L.D. 5 1/2 ft.  
on small shoal patch, rock.
73. Lat. 24 - 32.56/ Long. 81 - 46.24. Pos. 13p', Vol. 9. L.D. 6 1/2 ft.  
on coral head 5 meters in diameter.

74. Lat. 24 - 32.49/ Long. 81 - 47.05. Pos. 17p<sup>8</sup>, Vol. 9. L.D. 5½ ft. on coral head 2 meters in diameter.
75. Lat. 24 - 32.49<sup>5</sup>/ Long. 81 - 47.05. Pos. 18p', Vol. 9. L.D. 5 ft. on coral head 1 meter in diameter.
76. Lat. 24 - 32.45/ Long. 81 - 47.22<sup>1</sup>. Pos. 19p', Vol. 9. L.D. 4 ft. on coral head 1 meter in diameter.
77. Lat. 24 - 32.37/ Long. 81 - 48.1. Pos. 27q', Vol. 9. L.D. 6 ft. on detached coral head 2 meters in diameter.
78. Lat. 24 - 32.43/ Long. 81 - 48.01. Pos. 28q', Vol. 9. L.D. 6½ ft. on coral head 2 meters in diameter.
79. Lat. 24 - 32.45/ Long. 81 - 47.62. Pos. 29q', Vol. 9. L.D. 5 ft. on coral head 2 meters in diameter.
80. Lat. 24 - 32.53/ Long. 81 - 47.4. Pos. 30q', Vol. 9. L.D. 2½ ft. on coral head shoal 30 meters in diameter.
81. Lat. 24 32.49/ Long. 81 - 47.38. Pos. 31q', Vol. 9. L.D. 4½ ft. on coral head shoal 8 meters in diameter.
82. Lat 24 -32.44/ Long 81 - 47.37<sup>1</sup>. Pos. 32q', Vol. 9. L.D. 5 ft. on group of coral heads 15 meters in diameter.
83. Lat. 24 -32.43/ Long. 81 - 47.19. Pos. 33q; Vol. 9. L.D. 4 ft. on group of coral heads 12 meters in diameter.
84. Lat. 24 - 32.43/ Long. 81 - 47.15. Pos. 34q', Vol. 9. L.D. 1½ ft. on group of coral heads 15 meters wide, 50 meters long, lying N. & W.
85. Lat. 24 - 32.45/ Long. 81 - 46.3. Pos. 48q', Vol.9. L.D. 6½ ft. on group coral heads 15 meters in diameter.
86. Lat. 24 - 32.78/ Long. 81 - 46.22. Pos. 49q', Vol. 9. L.D. 3 ft. on coral head 2 meters in diameter.
87. Lat. 24 - 32.7/ Long. 81 - 46.22. Pos. 50q', Vol.9. L.D. 3½ ft. on group of coral heads 15 meters in diameter.
88. Lat. 24 - 32.75/ Long. 81 - 46.08. Pos. 51q', Vol.9. L.D. 4 ft. on group of coral heads 30 meters in diameter.
89. Lat. 24 - 32.81/ Long. 81 - 46.11. Pos. 52q', Vol. 9; L.D. 5 ft. on group of coral heads 10 meters in diameter.
90. Lat. 24 - 32.68/ Long. 81 - 46.02. Pos. 53q', Vol. 9. L.D. 4½ ft. on group of coral heads 5 meters in dia.; ~~52q'~~ Pos. 54q', L.D. 5½ ft. on group 10 meters in diameter.
91. Lat. 24 - 32.63/ Long. 81 - 46.08. Pos. 55q', Vol.9. L.D. 4½ ft. on coral head 3 meters in diameter.



92. Lat. 24 - 32.6/ Long. 81 - 46.1 Pos. 56q', Vol. 9. L.D.  $5\frac{1}{2}$  ft. on group of coral heads 12 meters in diameter.
93. Lat. 24 - 32.57/ Long. 81 - 46.1 Pos. 57q', Vol. 9. L.D. 7 ft. on group of coral heads 16 meters in diameter.
94. Lat. 24 - 32.46/ Long. 81 - 46.11 Pos. 58q', Vol. 9. L.D.  $3\frac{1}{2}$  ft. on group of coral heads 36 meters in diameter.
95. Lat. 24 - 32.49/ Long. 81 - 46.04 Pos. 59q', Vol. 9. L.D.  $4\frac{1}{2}$  ft. on boilers of old wreck.
96. Lat. 24 - 32.39/ Long. 81 - 46.11 Pos. 60q', Vol. 9. L.D. 5 ft. on group of coral heads 40 meters in diameter.
97. Lat. 24 - 32.39/ Long. 81 - 46.08 Pos. 61q', Vol. 9. L.D. 5 ft. on group of coral heads 20 meters wide, 40 meters long, lying N & S.
98. Lat. 24 - 32.42/ Long. 81 - 46.01 Pos. 62q', Vol. 9. L.D.  $2\frac{1}{2}$  ft. on group of coral heads 15 meters in diameter.
99. Lat. 24-32.47/ Long. 81 - 46.0 Pos. 63q', Vol. 9. L.D.  $4\frac{1}{2}$  ft. on group of coral heads 20 meters in diameter.
100. Lat. 24 - 32.59/ Long. 81 - 46.01 Pos. 64q', Vol. 9. L.D.  $5\frac{1}{2}$  ft. on coral head 2 meters in diameter.
101. Lat. 24 - 32.7/ Long. 81 - 45.89 Pos. 65q', Vol. 9. L.D. 5 ft. on group of coral heads 15 meters in diameter.
102. Lat. 24.- 34.29/ Long. 81 - 47.9 Iron stake in vicinity of old wreck.
103. Lat. 24 - 33.57/ Long. 81 - 47.18. Pos. 73h, Vol. 11. Rock 2 ft. in diameter bears 2 ft. at low water; Pos. 74h, small bunch of rocks bare at low water.
104. Lat. 24 - 32.6/ Long. 81 - 47.55 Pos. 1t, Vol. 11. L.D. 6 ft. on highest fragment of rock blasted out of Pos. 1j, Vol. 11

105. The  $6\frac{1}{2}$  ft. sounding between positions 12 and 13v, page 65, vol. 5, plotted on Sheet 1a, is an error. The leadman dropped a fathom or the recorder reversed the figures for the fathoms and feet.

I dropped a marker buoy about 50 meters east of the location of this sounding and devoted  $2\frac{1}{2}$  hours in the search for it. A 15 foot sounding pole was "walked" about the area, and the anchor and a lead line were suspended from the bow and stern of the skiff at an effective depth of 10 feet during about half of the search. No obstructions were found until the 9 & 10 foot part of the shoal north and northeast of the marker location were encountered. I am positive this sounding was a mistake, because there is no  $6\frac{1}{2}$  foot spot on this ~~area~~ shoal.

Location of shoal: La. 24 - 33.7/Long. 81 - 48.7 Least depth  $8\frac{1}{2}$  ft

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H5.934 a**

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

Number of positions on sheet	..... <b>3174</b>
Number of positions checked	..... <b>350</b>
Number of positions revised	..... <b>10</b>
Number of soundings recorded	..... <b>18088</b>
Number of soundings revised	..... <b>103</b>
Number of signals erroneously plotted or transferred	.....

Date: **Feb. 13, 1937**

Verification by **S. Risegari.**

Review by **R.G. Christman**

Time: **31 days - 5 hrs.**

Time: **73 <sup>3</sup>/<sub>4</sub> hrs.**

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H5934 b**

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

Number of positions on sheet	759 3174
Number of positions checked	85 100
Number of positions revised	5
" " " <del>added to sheet</del>	.....
Number of soundings recorded	.....
Number of soundings revised	80
Number of signals erroneously plotted or transferred	.....

Date: Feb. 13, 1937

Verification by S. Pisegari

Time: 64 hrs.

Review by R. J. Christman

Time: 14 hrs.

HYDROGRAPHIC SURVEY NO. H5934a&b

Smooth Sheet yes one for a and one for b

Boat Sheet 1

Sounding Records 11 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 Sheet "a" is a development of the harbors on

sheet "b". There is but one boatsheet, one D.R. &

one set of volumes for the two smooth sheets.

# GEOGRAPHIC NAMES

Survey No. H5934a&b

Name on Survey	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	
	A	B	C	D	E	F	G	H	
<u>Frankford Bank</u> * <sup>ink letter</sup>	584								1
<u>Key West Island</u> ✓	584				✓		✓		2
<u>Garrison Bight</u> ✓				✓					3
									4
<u>Man of War Harbor</u> ✓	584				✓				5
									6
									7
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Names underlined in red approved  
 by *G. W. Gagnon* on 1/24/36

Remarks

Decisions

	Remarks	Decisions
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# MEMORANDUM

## IMMEDIATE ATTENTION

~~SURVEY~~  
 DESCRIPTIVE REPORT } No. H 5934a&b  
~~PHOTOSTAT/OF~~ } ~~No. H~~

{ received Jan. 13, 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>JAG</i>	<i>Dangers &amp; Channels - D.R.</i>
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	
----	--

C. K. Green

*Jan. 22, 1936*

## 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 Reducers are~~ approved in  
11 volumes of sounding records for

HYDROGRAPHIC SHEET 5934 a-b

Locality Key West and Man of War Harbors, Florida Keys

Chief of Party: W. H. Bainbridge, 1934-1936

Plane of reference is mean low water reading

4.3 ft. on tide staff at Key West

8.8 ft. below B.M. 29

1.4 ft. on tide staff at N.W. Channel Inner Front Range Lt.

5.1 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

2.2 ft. on tide staff at Garrison Bight

5.0 ft. below B.M. 1

Height of mean high water above plane of reference is 1.3 feet at Key West; 1.6 feet at N.W. Channel Inner Front Range Lt.; 1.4 feet at Key West Harbor Front Range Lt.; 1.1 feet at Garrison Bight.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.



Report H 5934 a

1. The sounding records are neat and legible and conform to the requirements of the Hyd. Manual, except a number of features were omitted on the index pages of the several volumes. These were entered in the office in blue on their <sup>index</sup> pages.

The following ~~imperfections~~ <sup>defects</sup> were shown on the smooth sheet:

- (a) In a number of cases the bottom characteristics were not placed under the proper soundings.
- (b) A number of the position figures were placed too far away, unnecessarily, from the positions, making it difficult to follow a line, particularly, when several lines were involved <sup>in</sup> the area.
- (c) ~~Black Light Buoy No 17 was found incorrectly plotted on <sup>from the</sup> records <sup>and</sup> in the sounding records.~~
- (d) The shoeline in a number of places was poorly transferred from T-6348 (1934) and necessitates changing in some places.
- (e) A number of soundings on sounding lines that continued from H-5934 a to H-5934 b or vice versa, particularly in the vicinity of lat.  $24^{\circ} 33'$  were not shown on either sheet. These were added and the junction made complete in the office.

2. The shoeline and top. signals are from Graphic Control Sheet T-6348 (1934).

Hyd. signal "Sex" was determined by the hydrographic party and is recorded in sounding volume No 11, p. 12.

Report H. 5934a

1. The sounding records are neat and legible and conform to the requirements of the Hyd. Manual, except a number of features were omitted. These have been

H. 5934a

3. Sounding lines crossings are satisfactory.
4. The usual depth curves may be satisfactorily drawn.
5. The junction with H-5934 b (1934-36) on the east south, west and north is satisfactory.

~~There are no other contemporary surveys that make a junction with the present survey.~~

The junction with H-5938 (1935) and H-5935 (1934-35) on the north is satisfactory.

6. In general the field plotting and the plotting of soundings were satisfactory. ✓

7. Remarks:

Top. signal Pole, southeast of Key West Lighthouse, was relocated by the hydrographic party. The new location is west approx. 10 meters of the topo. position shown by a dot on the smooth sheet and the fix is recorded in Vol. 11 p. 61. The description report does not mention the change. It is suggested that since the new determination was <sup>made</sup> hydrographically, it be encircled in blue.

Respectfully submitted,

G. Pizzani.

Feb. 13, 1937.

Report on H-59346.

1. The sounding records are neat and legible and conform to the requirements of the Hydro. Manual. The smooth sheet, however, showed the following infractions:

a. Position of soundings for C day (blue) and positions from 5 r' to 9 r' (red) were omitted. These plot off the faces of wharves and have been added in the Office.

b. No bottom characteristics for blue letter day work ("Barge") were pencilled. This addition was made in the Office.

c. The bottom characteristics in a number of cases were incompletely <sup>pencilled</sup> recorded on the smooth sheet. For example; "wh had S" in the sounding record was pencilled on the smooth sheet "had"; "gy M" pencilled "M"; "gy sth M", pencilled "sth".

d. As a result of an erasure by the Field Party of an erroneously plotted range line, a number of soundings and Buoy "13" were <sup>erased</sup> ~~included~~ and were not replaced. These additions were made in the Office.

e. Pos. 44e (red) should have been 94e (red). ✓

f. Bn 95 was marked N-93.

2. The shoreline and <sup>topo.</sup> signals are from Graphic Control Sheet, T-6348 (1934).

Hyd. signal "Sex" was determined by the Hydro. party and is recorded in sounding volume No 11, page 12.

Report on H-5934b.

3. Sounding Line Crossings are satisfactory. ✓
4. The usual depth curves may be satisfactorily drawn, except at the wharves where the 18 foot and lower depth curves are obstructed.
5. The junction with H-5934a (1934-36) and H-5935 (1934-35) on the north will <sup>be reported</sup> discussed in the Reports of those sheets.

The junction with H-5934a (1934-36) on the east, south and west will be mentioned in the Report of that sheet.

6. Field protracting and plotting of soundings were in general satisfactory except in the following more important cases:

Pos. 9u' (red), 1 was plotted as 11

" 43i ( " ), 8 " " 6

" 75e ( " ) 25 " " 27

" " " 23 " " 28

" 61 a (blue) 18 " " 16  
(red)

Pos. 86t' and 87t' were erroneously protracted.

7. Remarks:

(a) Four dolphins left in pencil on the smooth sheet in the vicinity of Key West Marine Ry., southeast of O Aid, were not inked for the reason that ~~the~~ no

Report on H. 59346.

definite plotting data was submitted. Sounding Volume No. 11, p. 64, pro. 20 m (blue) records a very general description but is unplottable. \*

(b). No information was submitted regarding what kind of structure top-signal "San" approx. Lat. 24-34' Long. 81°-48.75' on. \*

\* A recent letter <sup>with</sup> ~~and~~ photostat from E. R. McCarthy verifies the penciled locations of the dolphins and states that O San is on a small sand key shown on Chart No 584 and is a small wooden signal. (Letter and photostat is attached to Des. Rept. T-6348).

(c) Attention is called to the <sup>shoreline</sup> topography on the smooth sheet. This evidently was transferred from T-6348 (1934), scale 1:10 000, and enlarged to 1:5,000, which <sup>practically</sup> is not in accordance with Top. Map., par. 6.

Submitted

E. Bergari

Feb. 5, 1937.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. H-5934a&b (1934-6) FIELD NO. 1&1a

Key West, Florida

Surveyed in Oct. 1934, Jan. 1936, Scale 1:10,000, Scale 1:5,000  
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 - H. B. Crum.  
Soundings penciled by - H. B. Crum.  
Verified and inked by - G. Risegari.

1. Condition of Records.

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

- a. The records for the survey scale 1:10,000 (F. No. 1) and survey scale 1:5,000 (F. No. 1a) were not kept separate, therefore they have been reviewed as one survey.
- b. Some bottom characteristics were incompletely penciled and not always placed close to the sounding to which they appertained.
- c. The shoreline in several places was poorly transferred and necessitated correction. This was accomplished in the office.
- d. A number of soundings in the overlapping area of the two sheets were omitted. These were added in the office.

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

2. Compliance with Instructions for the Project.

The plan, character and extent of development are in accordance with the instructions for the project.

3. Shoreline and Signals.

The shoreline originates with graphic control survey T-6348 (1934). The shoreline of Fleming Key and of E. Crawford Key is in pencil and awaits comparison with air photo compilation when it becomes available.

Topographic signals are derived from T-6348 (1934). One hydrographic signal (SEX) is determined by a sextant fix recorded in Vol. 11 of the sounding records.

4. Sounding Line Crossings.

Sounding line crossings are satisfactory, the depths generally agreeing within one foot.

5. Depth Curves.

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

6. Junctions with Other Surveys.

- a. The junctions with H-5935 (1934-5) and H-5908 (1934-5) to the north are satisfactory.
- b. The present survey overlaps H-4138 (1919) to the westward to a satisfactory junction.
- c. The present survey overlaps H-4165 (1919-20) to the eastward to a satisfactory junction. This survey also shows some random lines of soundings to the southward and westward of the town of Key West and a development at the F.E.C. Railway docks, checking and supplementing the wire drag and other earlier surveys. This information is in fair agreement with the present survey. The area is adequately covered and this portion of the survey should be superseded by H-5934 a and b (1934-6) in future charting, except those soundings carried forward.
- d. The present survey joins or overlaps the following surveys to the southward: H-2671 (1904), H-2682 (1904), H-2738 (1905), and H-2818 (1906). These surveys are of the ship channels leading into Key West Harbor and their agreement with the present survey is considered under "Prior Surveys" par. 7 of this review.

7. Comparison with Prior Surveys.

- a. H-248 (1850), H-281 (1851), H-287 (1850-1), H-338 (1850-1-2).

These surveys are on scales of 1:20,000, 1:20,000, 1:5,000 and 1:5,000 respectively. Due to the worn condition of the principal sheet, H-281 (1851), no close comparison with the present survey was attempted. A general comparison shows that many changes in details have taken place, partly on account of dredging and other harbor improvements, and because of natural changes during the 85 years since the surveys were made. Very little information from these surveys is in use on the present chart and that only in unimportant areas which subsequent surveys failed to cover. The 18 (charted) in lat.  $24^{\circ}32.7'$  long.  $81^{\circ}50.05'$  is from H-248, the present survey shows 21 to 23 feet stk gy M in this vicinity with an 18 rky about 200 meters to the westward. In view of the character of the bottom and the



amount of development shown, the 18 has not been carried forward. (Also see last par. page 1, D. R. ).

It would serve no useful cartographic purpose to list other differences in detail. Because of the many differences in details, the lapse of time since these surveys were made and the larger scale and closer development of the present survey, H-5934 a&b (1934-6) should supersede the above surveys for charting purposes.

b. H-1518 (1882).

This survey on scale 1:10,000 covers a large portion of the area covered by the present survey. The agreement between the two surveys is generally good. A few of the shoal spots have shifted slightly in position. Depths in Key West Harbor have been changed by dredging and by improvements along the waterfront. Most of the information now on the chart comes from later surveys. This sheet contains a sounding of 13 feet outside of the 18 foot curve, in lat. 24°33.53' long. 81°49.08'. This sounding is accurately plotted in accordance with the records, but is discredited by an intensive development on H-2682 (1904). It was covered by W.D. 2933 (1914) with the drag set at 14 feet. It has never been shown on Chart 584 and should be omitted from future charts. Because the present survey adequately develops this area, H-5934 a&b (1934-6) should supersede the above survey for future charting.

c. H-2671 (1904), H-2682 (1904), H-2738 (1905), H-2818 (1906).

These surveys on scale 1:10,000 are surveys of the channels leading into Key West Harbor from the southward. The present survey overlaps them to a satisfactory junction. The agreement with the present survey in the overlapping area is generally good, depths agreeing within 1 or 2 feet deeper or shallower. These surveys also show a number of soundings from the contemporary wire drag surveys, the latter only were transferred to the present survey and shown as coming from the original (wire drag survey) as authority.

d. H-2873 (1907-15)W.D., H-2875 (1908-14)W.D., H-2932 (1907-14)W.D., H-2933 (1908-15) W.D.

These surveys on scales of 1:15,000 are wire drag surveys of Key West Harbor and of the channels leading into the Harbor. Practically all the soundings on the above surveys have been carried forward to the present survey. The exceptions are as follows:

- (1). Where soundings on the wire drag surveys closely approximate in depth and position soundings on the present survey the latter were retained in their plotted positions.
- (2). A portion of Key West Harbor was dredged subsequent to the wire drag survey. In this area no soundings from the wire drag survey (H-2933) have been carried to the present survey. The greater part of this area falls within the limits of H-5934 b (1934-6).
- (3). The 18 rky (charted) in lat.  $24^{\circ}34.4'$  long.  $81^{\circ}50.15'$  is probably an error in position. An examination of the records shows that the grounding to which this sounding presumably applies occurred about 900 meters to the northwest of the position as now plotted on the sheet. A correction of  $20^{\circ}$  to the right angle of the fix (1H of 1914) would bring the depth into agreement with both the prior survey and the present survey. An examination is being made of this spot and pending its receipt the 18 should be continued on the charts.
 

18 as originally plotted disproved. Replotted in correct position. See Rev. par. 3a, H-5934a (1937) Ad. wk.
- (4). A number of groundings on H-2933 (1908-15) have been charted with the values for the effective depths. The effective depth values are shown on the present survey (Items 6, 7, 8 and 11 page 6, D. R.). Depths on the present survey are consistent with the above wire drag surveys except in Northwest Channel north of  $24^{\circ}34.4'$ . Also see par. 2 page 7 of the D. R. Attention is directed to the fact that a number of shoal soundings from H-2933 (1908-15) formerly charted, were removed from the chart when blueprints 16992 and 16993 (1917) were applied. These U. S. Engineer surveys were practically contemporary with the wire drag survey and though on a larger scale should not be considered as disproving the continued existence of the rock patches located with the wire drag. These soundings therefore have been carried forward to the present survey.

e. H-2933a (1911).

This survey on a scale of 1:30,000 is a special examination of a small area in lat.  $24^{\circ}33'$  long.  $81^{\circ}49'$ .

Three soundings of 17 feet, hard bottom, at  $24^{\circ}33.05'$   $81^{\circ}49.1'$  on H-2933a (1911) are in an area sparsely developed on the present survey. They were cleared by W. D. 2933 (1909-15) with the drag set at 16 feet effective depth. They are shown in blue on the present survey. Because of the larger scale and closer development of the present survey H-2933a need not, with the exception of the two 17 foot

soundings, be considered in future charting.

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

a. Hydrography.

Within the area covered by the present survey the chart is based on surveys discussed in the foregoing paragraphs and on the following:

- (1). A few soundings in Man of War Harbor are charted from advance information contained in Chart Letter 186 of 1915. Wire drag survey H-2933 (1908-15) shows these soundings in slightly different positions. They have been carried forward in their corrected locations.
- (2). Blueprint 19243 (1923) shows condition of dredged area on Dec. 4 of that year.
- (3). Blueprints 18612 (1924), 18966-7 (1924), 23886 (1930) show changes along the Key West Waterfront.
- (4). U. S. Engineers Blueprints 16992-3 (1917) show Key West Harbor and Northwest Channel. These surveys contain numerous borings to rock. A comparison of the rock depths with soundings on the same spots or closely adjacent thereto indicates that, for most of the area covered by these blueprints, there is little and in many cases no sand or mud overlaying the rock bottom. Therefore shoal soundings on these two blueprints should be retained unless clearly discredited by other surveys. Too much reliance should not be placed on the results of wire drag sheet 2933. Most of this drag sheet was accomplished in the earlier years of drag operation. Moreover the absence of boulders and coral heads may have resulted in the drag failing to hang up even when scraping the bottom.

Blueprint 16993 (1917) is the source of the 15 sounding charted in lat.  $24^{\circ}33.15'$  long.  $81^{\circ}48.98'$ . The authenticity of this sounding is corroborated by an 18 and 19 on the same survey within 100 meters of the 15. The three soundings are surrounded by depths of 22 to 30 ft., which agree with the present survey and also with three prior C. & G. S. surveys. On none of these surveys are the developments sufficiently detailed to disprove the 15. The spot was cleared by W. D. 2933 (1909) with an effective depth of 17 feet. This evidence is not sufficient to warrant removal of the 15 and it should be retained on the chart.

Disproved.  
See Rev.,  
par. 3b,  
H-5934a  
(1937)  
Ad. wk.

The 18 foot sounding charted in lat.  $24^{\circ}32.76'$  long.  $81^{\circ}49.6'$  originates with U. S. Engineers Blueprint 10064 (1903) where it appears as an 18.8, surrounded by 25 to 29 feet. Buoy N12 was established in 1936. N. to M. 50, 1936 states the buoy is in 21 feet of water off the north edge of an 18 foot shoal. The present survey shows 24 to 27 feet, with no development, on the spot.

Retain 18. See  
Rev., par. 3c,  
H-5934a(1937)Ad.4k.

Seven C. & G. S. surveys prior to the present one fail to show any indication of the 18 foot depth. All are sparse developments having a minimum of 21 feet. Engineers blueprint 528 (1896) has no indication of the shoal. W.D. 2933 (1908-15) covered the spot with a 17 and two 18 foot strips without revealing a shoal. The statement in the N. to M. quoted above cannot be considered a confirmation of the existence of the shoal. Therefore the original sounding in 1903 has never been confirmed and its existence is doubtful. It should nevertheless be retained on the chart until disproved. The importance of the location warrants an examination of the spot, which is recommended.

(5) and (6). See Addenda attached to this Review.

b. Aids to Navigation.

The charted locations of the fixed aids to navigation are in agreement with the locations given by the present survey.

The floating aids to navigation (buoys) are in agreement with the present survey except as follows:

- (1). N10 in lat.  $24^{\circ}34.7'$  long.  $81^{\circ}50.5'$  is charted about 100 meters to the eastward of the position given on the survey (sextant fix) but marks the eastern edge of the existing shoal area as indicated on the chart.
- (2). F1 R No. 8 in lat.  $24^{\circ}32.9'$  long.  $81^{\circ}48.8'$  is charted about 100 meters northeast of the position given on the present survey (sextant fix) but correctly marks the feature intended.
- (3). F1 R No. 6 in lat.  $24^{\circ}32.2'$  long.  $81^{\circ}48.9'$  is charted about 300 meters north northeast of the location given on the present survey (sextant fix).
- (4). C9 in lat.  $24^{\circ}31.8'$  long.  $81^{\circ}50.3'$  is charted about 200 meters southsouthwest of the position given on the present survey (sextant fix) but adequately

marks the feature intended.

None of these buoys constitute a menace to navigation in the positions given by the survey but it is assumed that they have been replaced on their proper stations and should be charted accordingly.

9. Field Plotting.

In general the field protracting and the plotting of soundings were satisfactory. However in a number of cases the characteristics were not placed close to the proper soundings, and a number of soundings on lines that continued from one sheet to the other were omitted. Some 15 positions and 183 soundings were found in error and were corrected.

10. Additional Field Work Recommended.

The survey is satisfactory, but additional development or wire dragging is recommended in the portion of northwest Channel noted in paragraph 7d(3), and on the 18 and 15 foot spots noted in paragraph 8a(4). (This additional work is covered by Supplemental Instructions to E. R. McCarthy dated Aug. 2, 1937.)

Accomplished  
See Rev. p. 13  
H-5934a (1937)  
Ad. wk.

11. Superseding Old Surveys.

Within the area covered the present survey with indicated additions from prior surveys supersedes the following surveys for charting purposes.

- H-248 (1950) in part.
- H-281 (1851) " "
- H-287 (1850-1) " "
- H-338 (1850-1-2) " "
- H-1518 (1882) " "
- H-2933a(1911) entirely.

12. Reviewed by R. J. Christman. March 4, 1937.

Inspected by E. P. Ellis, May 1937.

Examined and approved:

*E. K. Green.*  
Chief, Section of Field Records.

*L. O. Tolbut.*  
Chief, Division of Charts.

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

*G. H. Hude*  
Chief, Division of H. & T.

Applied to chart 584

Jan. 12, 1938  
J.H.S.

ADDENDA TO REVIEW OF H-5934a and b (1934 - 36)

Par. 8a. Comparison with Chart 584 - Hydrography.

- (5) The two charted islets originating with T-3829 (1920) in latitude  $24^{\circ} 34.3'$ , longitude  $81^{\circ} 48.4'$  and another charted island (source uncertain) in latitude  $24^{\circ} 33.9'$ , longitude  $81^{\circ} 48.7'$  are not shown on the present survey. These will be disposed of when the topographic maps covering this area are available.
- (6) The charted sunken wreck falling in depths of 20 feet on the present survey in latitude  $24^{\circ} 34.9'$ , longitude  $81^{\circ} 48.4'$ , originates with Chart Letter 296 of 1920 received from F. B. T. Siems of the HYDROGRAPHER. The feature is described as "probably a piece of wreckage" and was struck by the Ship in depths of 12 feet. Another charted wreck in latitude  $24^{\circ} 34.3'$ , longitude  $81^{\circ} 48.4'$  falls in depths of 12 feet on the present survey. Its authority was not ascertained but it is charted on the 1st Standard of Chart 584 in 1909. Neither of the above features were verified by the field party and in the absence of a specific investigation, it is recommended that they be retained on the chart.

Not found  
see DR  
FE #5

Reviewed by - Harold W. Murray, Feb. 2, 1938.

Inspected by - A. L. Shalowitz.

	Applied to 1251	Aug. 16, 1938	J-23, 1936			
	Applied to compilation 576	Dec. 1940	S.K.S. S.M.A.	Aug		
	" " drug 576	Aug. 1956	R.K.D. title was moved.			

# 5934a

Additional work

Diag. Cht. No. 1251-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. 1 Office No. H-5934a

### LOCALITY

State Florida

General locality

Locality North West of Key West

19M 37

CHIEF OF PARTY

E. R. McCarthy

LIBRARY & ARCHIVES

DATE January 17, 1938

B-1870: (1)

5934a  
Additional work



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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. H-5935 (Additional Work, 1937)

State Florida

General locality ~~Florida Keys~~

Locality Northwest of Key West

Scale 1 : 10,000 Date of survey Dec. 16, 1937

Vessel SURPRISE

Chief of Party E. R. McCarthy

Surveyed by E. R. McCarthy

Protracted by G. C. McGowan

Soundings penciled by G. C. McGowan

Soundings in ~~feet~~ XXXXXXXXX feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by G. C. McGowan

Verified by G. C. McGowan

Instructions dated (Supplemental) August 2, 1937

Remarks: Title sheet executed in Office

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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. 1

REGISTER NO. H-5934a (Addl. Work, 1937)

State Florida

General locality Florida Keys

Locality ~~XXXXXXXXXX~~ Key West

Scale 1:10,000 Date of survey Dec. 16, 1937, ~~KXX~~

Vessel SURPRISE

Chief of Party E. R. McCarthy

Surveyed by E. R. McCarthy

Protracted by G. C. McBlanton

Soundings penciled by G. C. McBlanton

Soundings in ~~various~~ feet

Plane of reference MLW

Subdivision of wire dragged areas by

Inked by G. C. McBlanton

Verified by G. C. McBlanton

Instructions dated (Supplemental) August 2, 1937

Remarks: Title sheet executed in Office

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET 5434a

AUTHORITY

Supplemental instructions of the Director dated August 2 1937.

LIMITS

Section of Sheet 5434a covered by Paragraphs #1-3 inclusive of above Supplemental instructions.

METHODS

Used standard methods. Position was fixed by means of sextant angles on objects of known location, soundings were taken with a sounding pole graduated in feet and tenths or with a wire center lead line graduated in feet.

EQUIPMENT

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

EXAMINATIONS

References to numbered paragraphs of the supplemental instructions dated August 2.

PARAGRAPH #1 Latitude 24-34.4 Longitude 81-50.1

The area was developed and no indication of the charted 18' spot found (pos 1-10a). It is recommended that the sounding be removed from the chart. *For detailed discussion of 18' see original rev. par. 7d(3). 18' erased. see review P 3a*

Retain 18' See Rev. par. 3c.

PARAGRAPH #2 Latitude 24-33.1 Longitude 81-49.0

The area was developed and no indication of the charted 15' spot obtained (pos 29-45a). It is recommended that it be removed from the chart.

PARAGRAPH #3 Latitude 24-32.8 Longitude 81-49.6

The area was developed and no indication of the charted 18' spot found (12-28a). It is recommended that it be removed from the chart. Buoy #12-Southwest Channel which is in this immediate locality was also located.

GARRISON BIGHT

During the last year, drag lines have been continually at work in the Bight for the dual purpose of obtaining fill for road and sewer projects and of dredging out the area for use as a harbor of refuge.

A few lines were run over the completed areas and the area which, at present, is being dredged was blocked out on the brome. The project calls for a depth of 6' over the entire area west of the drawbridge but, at the present rate of progress, it will be several years before its completion.

MISCELLANEOUS

Attention is called to the swimming pool east of the Bight. *This information added to smooth sheet from brome, brome then destroyed.*

DESCRIPTIVE REPORT (SHEET 5434<sup>9</sup>a- (CONTINUED))

REDUCERS

Soundings were reduced by comparison with the bromide of the smooth sheet. No reductions were made in the records as the values of the times and height corrections were not available.

THE STATISTICS

Day	Date	Miles Statute	Soundings	Positions	Days Run
a	12-16-37	3.1	209	53	9.5

Respectfully submitted

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. .... **H5934 a** (Addl. Wk. 1937)

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

Number of positions on sheet	<i>.53.</i>
Number of positions checked	<i>.53.</i>
Number of positions revised	<i>.0.</i>
Number of soundings recorded	<i>2.09.</i>
Number of soundings revised	<i>.0.</i>
Number of signals erroneously plotted or transferred	<i>.0.</i>

Date: *11 Feb., 1938*

Verification by *S. C. McBlown*

Review by *H. W. Murray*

Time: *1 day 4 hours*

Time: *1 day*

HYDROGRAPHIC SURVEY NO. H-5934a (Addl. Wr. 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 ... One .....

Last Date ... Dec. 16, 1937 .....

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
 DESCRIPTIVE REPORT  
~~PHOTOSTAT OF~~

} No. H-5934a (Addl. wk.  
 1937)  
~~No. 5934~~

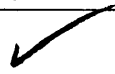
{ received Jan. 17, 1938  
 registered Jan. 21, 1938  
 verified  
 reviewed  
 approved

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			
22			
24			
25		7/32	lent memo
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

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



11 February, 1938

Report on # 5934 a (Additional Work)

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 shown. 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~~ fit the combined surveys as they now stand.

In lot  $24^{\circ} 34.4'$ , long.  $81^{\circ} 50.1'$   
This area shows an 18 foot sounding which was recorded on a previous survey and it falls between a  $29'$  and  $27'$  foot sounding recorded on the additional work. Therefore these two soundings were

\* Inked by Reviewer after removal of 18



left in pencil because they could not be inked without destroying the original 18 foot sounding.

In lat.  $24^{\circ} 33.7'$ , Long.  $81^{\circ} 47.0'$   
Attention is called to the fact that dredging is being done in this area. Consequently the additional work is deeper than the original work and this adjustment should be made accordingly. <sup>appropriate note shown on sheet.</sup> <sub>XXXXXX</sub>

On page one of the Descriptive Report attention is called to the swimming pool east of the Bight. The exact location of this swimming pool could not be found in the records nor on the boat sheet but is shown on the boards. This information was added to the smooth sheet, the boards were then destroyed. <sub>XXXXXX</sub>

In lat.  $24^{\circ} 32.8$  Long.  $81^{\circ} 49.6'$

Buoy number 12 was located by the hydrographic party and it was inked in brown on the smooth sheet in order to distinguish it from the work of the original survey.

Respectfully submitted,

G. C. McGlosson

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  
 1 volumes of sounding records for

HYDROGRAPHIC SHEET 5934 a (Additional work, 1937)

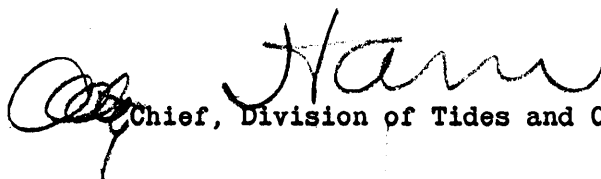
Locality Key West, Florida

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  
 8.8 ft. below B.M. 29

Height of mean high water above plane of reference is 1.3 feet.

Condition of records satisfactory except as noted below:

Tide reducers entered and soundings reduced in the office.

  
 Chief, Division of Tides and Currents.

700  
8/12

82-LEF

March 2, 1938.

To: Lieutenant (j.g.) E. R. McCarthy,  
U. S. Coast and Geodetic Survey,  
P. O. Box 10,  
Key West, Florida.

From: The Acting Director,  
U. S. Coast and Geodetic Survey.

Subject: Charted 18 foot Sounding, Key West Harbor.

With reference to the additional hydrography accomplished by you in 1937 on hydrographic survey No. 5934a, in the vicinity of buoy No. 12, (Latitude 24° 52.8', Longitude 81° 49.6') recommendation is made by you in the Descriptive Report that the 18 foot sounding be removed from the chart.

Item No. 2285, Notice to Mariners No. 50 of 1936 states "Northwest Channel Buoy 12, established in 21 feet, a red, 2nd class mm, on northwest edge of 18 foot shoal, 1,380 yards 168° from Kingfish Shoal Light".

Before consideration will be given by this office to removing the 18 foot sounding from the charts, it is requested that you obtain information from the Lighthouse Service in Key West as to whether an 18 foot sounding was actually obtained when planting the buoy, or whether the buoy was planted with reference to the charted position of the shoal with no verification of the 18 foot spot by a sounding.

(Signed) J. H. HAWLEY

Acting Director.

Attach to D.R. of H-5934a

80 2302

POST-OFFICE ADDRESS: Box 10, Key West, Fla.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

1938 MAR 9 AM 9 25

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY March 7 1938.

To- The Director,  
U. S. C. & G. Survey,  
Washington, D. C.

From-Lt (jg) E. R. McCarthy,  
U. S. C. & G. Survey,  
Key West, Fla.

Subject- Charted 18 foot Sounding-Key West, Harbor.

Reference-Letter of Acting Director dated March 2 1938- 82 LEF  
Descriptive report-supplemental work Sheet H5934a.

You are respectfully informed that the Assistant Superintendent of the 7th District and the Commanding Officer of the tender IVY were contacted and both state that no 18' sounding was obtained in the locality of Buoy 12 -Northwest Channel.

The Commanding Officer of the IVY stated that, at the time the buoy was established, a few soundings were obtained in the locality and the least depth secured was 20'. The buoy was set by means of sextant angles obtained by placing the protractor over the charted 18' sounding and orienting it on three prominent objects. No data was available as to the stage of the tide at the time the buoy was placed and the leadline was made of sashcord.

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

*File in D.R. of H-5934a*  
*above information considered in rev. (par. 3c) of H-5934a*  
*(1937) Ad. Wk.*  
*H. M.*  
*3/14/38*

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5934a (1937) Ad. Wr. FIELD NO. ~~5934a~~(1)

Key West, Florida

Surveyed December 16, 1937, Scale 1:10,000

Instructions dated August 2, 1937 (E. R. McCARTHY)

Hand Lead and Pole 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 in the Review of H-5934a and b (1934-36).

2. Office Work.

The field work was submitted on a boat sheet and bromide of the original survey. This work was replotted on H-5934a (1934-36) and verified in the office, the soundings being shown in brown and the position numbers in green. The bromide also contained additional notes in the vicinity of Garrison Bight which were added to the smooth sheet, the bromide then being destroyed.

3. Results of Additional Work.

a. Reference Par. 1 of Instructions and 10 Review H-5934a and b (1934-36).

Additional lines run in the vicinity of the 18 foot sounding (charted) which was carried forward from H-2933 (1908-15) W.D. in lat.  $24^{\circ} 34.4'$ , long.  $81^{\circ} 50.15'$  shows depths of 27 to 30 feet but no indication of the 18. Although the hydrographer did not obtain drift soundings over this spot, a 29 foot depth was obtained directly over the 18. The work accomplished, together with the strong doubt existing in regard to the accuracy of the charted position as noted in the original review, par. 7d(3) is sufficient to remove the sounding from the chart. On H-2933 (1908-15) W.D., the 18 was replotted in its correct position, the old position being retained as a matter of record but appropriately marked. On the present survey, the original transferred 18 was removed and shown in its correct position.

- b. Reference Par. 2 of Instructions and 10, Review H-5934a and b (1934-36).

The additional lines run including 5 minutes spent in searching the immediate locality of the charted 15 foot sounding originating with blueprint 16993 of 1917 in lat.  $24^{\circ} 33.15'$  long.  $81^{\circ} 48.98'$  shows depths of 23 to 28 feet but no indication of the 15. Since the 15 is a part of a shoal area 100 m. in length, the work accomplished could not fail to show some indication of the shoal if it existed and it should, therefore, be expunged from the chart. For details of the 15 foot sounding see par. 8a(4) of the original review.

- c. Reference Par. 3 of Instructions and 10, Review H-5934a and b (1934-36).

The additional lines run including 5 minutes spent in searching the immediate locality of the charted 18 foot sounding (marked by buoy No. 12) originating with blueprint 10064 of 1903 in lat.  $24^{\circ} 32.76'$ , long.  $81^{\circ} 49.6'$ , show a least depth of 22 feet. A letter (attached to D. R.) dated March 7, 1938 from the Chief of Party, however, states that the Light-house Tender "IVY" obtained a least depth of 20 feet in the vicinity when buoy No. 12 was first placed, but that no data on the stage of the tide was available. In view of the fact that this 20 foot depth would reduce to about 18 feet if the tide was near high water, it is recommended that the original 18 foot sounding be retained on the chart.

The position of buoy No. 12 agrees closely with that charted and satisfactorily marks the features intended.

4. Additional Field Work Recommended.

Attention is called to the dredging operations in Garrison Bight noted in the Descriptive Report, page 1. When this project is completed, it will be necessary to resurvey the bight.

5. Note to Compiler.

Attention is called to the additional work in the vicinity of Garrison Bight in lat.  $24^{\circ} 33.7'$ , long.  $81^{\circ} 46.8'$ . This hydrography has been plotted directly on the smooth sheet, the old hydrography being retained as a matter of record. The depth curves pertaining to the new hydrography have been omitted.

6. Reviewed by - Harold W. Murray, Feb. 24, 1938.

Inspected by - A. L. Shalowitz.

Examined and approved:

*T. B. Reed*

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

*Wm. L. Peacock*  
Chief, Section of Field Work.

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

*G. H. de*  
Chief, Div. of H. & T.

Applied to chart 584 J.M.A. Oct-8, 1938  
" " compilation 576 J.M.A. Dec. 1940  
Partly Applied to chart 11447 (due to extension of eastern baseline) (due to deletion of  
notes in NW corner) 8/30/83 G.K