H-5727
(2.)

Just north of Beacon 83 in the channel we find a 4 ft and a 5 ft sounding, replotting and respacing failed to remove these two soundings from the channel, therefore judgement is passed to the reviewer. *

Shyd as a whole caused considerable difficulty, several reasons were advanced. First experience for the hydrographer, the field draftsman could have done a better job, and the inking done here in the office das by an inexperienced draftsman.

W. D. Cooper
Aug 6, 1935

An extensive search for a description of signals "Raz" - "Bid" & "Jegu" was made, but failed to aid in establishing just what they were.

* The 4 and 5 foot soundings probably belong further to the edge of the channel, in any case these soundings were obtained while dredging was in progress. The area was developed after the completion of dredging on H-5779 (1935) See par 8c(2) of this review and page 3 of D.R.

RZJ

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5727 (1934-35) - FIELD NO. 11

Miami Harbor and Vicinity, Biscayne Bay, Florida
Surveyed in 1934-35
Instructions dated November 17, 1933, and October 29, 1934 (H. A. Cotton)

Hand Lead and Pole Soundings. 3 Point Fixes on Shore Signals.

Chief of Party - H. A. Cotton and E. R. McCarthy.
Surveyed by - E. R. Cotton.
Protracted by - E. R. Cotton.
Soundings penciled by - P. M. Mealo.
Inked by - R. W. Burton.
Verified by - M. D. Cooper.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual, except that the topographic feature on which signal Sign (lat. 25° 46.13', long. 80° 08.86'), Bid (lat. 25° 45.18', long. 80° 07.54'), and Riz (lat. 25° 45.1', long. 80° 07.54') are located was not shown on the smooth sheet, boat sheet or topographic sheet. These are all probably temporary markers.

The Descriptive Report is quite complete and satisfactorily covers all matters of importance except that several charted shoal soundings on the outside coast were not discussed.

2. Compliance with Instructions for the Project.

This survey complies with the instructions for the project except that critical soundings were not transferred to the boat sheet, due to the field party not having photostats of the previous surveys. See paragraph 2 on page 2 of the Descriptive Report.

3. Shoreline.

The shoreline and control signals for the hydrography originate with T-6275 (1934).

4. Sounding Line Crossings.

Cross lines are adequate and in excellent agreement.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn within the limits of this survey.

6. Junctions with Contemporary Surveys.

The junction with H-5779 (1935) on the north is satisfactory.

The junction with the U. S. Army Engineers surveys of 1933 to 1934, Bps. No. 28,972 and 28,973 in the main channel is satisfactory. It is noted, however, that in the turning basin, lat. 25° 47.0', long. 80° 11.0', between beacons No's. 20 and 23 the depths on the present survey are about seven feet deeper than shown on blue print No. 28,973. This is evidently due to dredging subsequent to the Army Engineers survey and prior to the present survey. (See 3rd paragraph on page 3 of Descriptive Report "Main Channel.")

7. Comparison with Prior Surveys.

a. H- 407 (1852), H-1545 (1883), H-1329 (1876), H-1554 (1883).

A comparison between the above surveys and the present survey reveals numerous changes in depths and the location of shoals, as well as marked changes in shoreline. Because of the extensive waterfront improvements, most of which have occurred in the last 15 years, it is unnecessary to consider in detail from a standpoint of information to be carried forward, the various changes noted. The present survey should supersede the above surveys for charting purposes.

b. H-4075 (1919).

This survey, on a 1 to 20,000 scale, includes the entire area covered by the present survey. There is fair agreement in depths over large flat areas in Biscayne Bay, but radical differences in depth are noted where extensive waterfront improvements have been made. These consist generally of dredging channels and the building of artificial islands with the spoil, such as the Venetian Islands, Hibiscus Island, and Palm Island.

Soundings shoaler than those on the present survey on the outside coast and exclusive of the area covered by the U. S. Army Engineers Surveys at the entrance to the main channel are as follows:

(1) 7 foot sounding (charted), lat. 25° 48.02', long. 80° 07.1', falls in depths of 9 to 10 feet on the present survey.

(2) 11 foot sounding (charted), lat. 25° 46.8', long. 80° 07.5', falls in depths of 14 to 17 feet on the present survey.

(3) 11 foot sounding (not charted), lat. 25° 44.85', long. 80° 07.95', falls in depths of 16 feet on the present survey.

(4) 12 foot sounding (not charted), lat. 25° 45.1', long. 80° 07.93', falls in depths of 16 feet on the present survey.

(5) 10 foot sounding (not charted), lat. 25° 45.2', long. 80° 07.84', falls in depths of 15 feet on the present survey.

(6) 12 foot sounding (not charted), lat. 25° 45.28', long. 80° 07.75', falls in depths of 15 to 17 feet on the present survey.

The above soundings were not investigated on the present survey. The area south of the Entrance Channel has been used as a dumping ground for dredged material and the character of the bottom is generally hard sand and occasionally rocky according to the records of the present survey. There is good general agreement of the majority of soundings in this area with the present survey. The Army Engineers surveys did not subsequently cover the area. It is considered that these soundings are not sufficiently disproved by the present work and they have therefore been carried forward.

8. Comparison with Chart No. 583.

a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and numerous U. S. Army Engineers surveys, the most recent of which are blue prints No. 24477 (1931) and 24478 (1931). The chart contains no additional information which needs consideration in this review.

b. Aids to Navigation.

The buoys and beacons within this area were located in positions which in some cases vary considerably from their charted positions. This is due in part to their removal and replacement because of dredging. The present locations adequately mark the features intended with the following exceptions:

The positions of the two beacons (topographic signals Oval and Flit) at the entrance to the small channel leading to the Miami River in approximate lat. 25° 45.9', long. 80° 09.2' are too far south to correctly mark the channel.

These beacons intended to mark the channel north of Fisher Island
RLJ

The following beacons were located on the graphic control sheet, T-6275 (1934), but were not added to H-5727 (1934-5) in the field. While the hydrography was done later than the general topography, verbal information from the Chief of Party was obtained that several beacons were located after the hydrography was completed. These have, therefore, been added to the smooth sheet.

Bn. 15 in Main Channel - lat. 25° 46.4', long. 80° 09.4'.
Bn. 18 in Yacht Basin - " 25° 47.0', " 80° 10.8'.
Bn. 3 in Miami River - " 25° 46.2', " 80° 11.2'.

c. Controlling Depths.

(1) The Main Channel was not developed on the present survey since it was covered by the Engineers survey of 1933 to 1934.

(2) That portion of the Intracoastal Waterway north of Venetian Causeway was not developed on the present survey because dredging was then in progress. Soundings of the lines of the present survey crossing the channel, which were obtained before dredging was completed, should be disregarded. This channel was later developed on H-5779 (1935) after the area was dredged. It is said to have a controlling depth of 10 feet (see D. R. page 3) which is consistent with the depths from H-5779 (1935). The controlling depth of 8 feet which is charted in the northern part of the Intracoastal Waterway, originates with chart letter No. 306 (1934).

8 ft letter June 7 12 - 1935

(3) The charted controlling depth of 11 feet in the portion of the Intracoastal Waterway south of the Miami River, originates with chart letter No. 448, (1930). The soundings of the present survey are consistent with this depth.

(4) The charted controlling depth of 5 feet in the small channel leading from the sea to the Miami River, apparently originates from an Engineers Survey of 1927. The present hydrography shows that the controlling depth is now 8 feet. (See par. 5, page 3 of D. R. for discussion of this channel).

(5) In the cut on the southwest side of Fisher Island, the present soundings are consistent with the charted controlling depth of 18 feet.

(6) For controlling depths and descriptions of the less important channels and basins see Descriptive Report, pages 4, 5 and 6.

9. Field Plotting.

The field plotting is satisfactory.

10. Additional Field Work Recommended.

This survey is satisfactory and in general is quite complete except that some of the shoaler soundings on the outside coast from the survey of 1919, H-4075, were not investigated. An examination of these soundings, described in par. 7b of this review, is desirable when work is resumed in this locality.

11. Note to Compiler.

Attention is called to the fact that Bn. 1 in lat. 25° 46.3', long. 80° 11.05' was located 70 meters westward of its charted position.

12. Superseding Old Surveys.

Within the area covered, the present survey, with the indicated additions from previous surveys, supersedes the following surveys for charting purposes:

H- 407	(1852)	in part.
H-1389	(1876)	" "
H-1545	(1883)	" "
H-1554	(1883)	" "
H-4075	(1919)	" "

13. Reviewed by - Leo S. Straw, September 9, 1935, and R. L. Johnston, September 10, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

L. O. Colbert
Chief, Division of Charts.

H. B. Borden
Chief, Section of Field Work.

G. T. Rude
Chief, Division of H. & T.