5892b

Wire drag

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

DESCRIPTIVE REPORT

~~Topographic~~ / ~~Hydrographic~~ WIRE DRAG

Sheet No. 12

State FLORIDA

LOCALITY

~~FLORIDA KEYS~~

HAWK CHANNEL

HEN & CHICKENS ~~LIGHT~~

TO LOWER MATECUMBE KEY

1935

CHIEF OF PARTY

E.R.McCarthy

U. S. GOVERNMENT PRINTING OFFICE

5892b

GROUNDINGS:

1. Lat. 24 - 53.9 / Long. 80 - 34.7 - Pos. 25A

" N " buoy grounded on a 12' shoal already found by the hydrographic party. Drag was raised one foot immediately and cleared.

2. Lat. 24 - 53.4 / Long. 80 - 36.3 - Bn. #41

On "A" day the line was ended on Bn. #26. On "B" day the drag was set in a northerly direction, pulled until against the beacon and reversed.

3. Lat. 24 - 52.5 / Long. 80 - 37.1 - Pos. 22B

Buoy #1 - upright and bottom wire was found fouled with grass and dragging deep. Drag stopped, guide launch maintaining tension ~~and~~ cleared and went ahead.

4. Lat. 24 - 52.2 / Long. 80 - 37.4 - Pos. 27B & 31B

"N" buoy dragged on both positions. Survey shows that drag was on the bottom on points of two shoals. Pulled through in both cases. Effective depth 13½'.

5. Lat. 24 - 51.8 / Long. 80 - 38.3 - Pos. 37B

"N" buoy tipped. Tender investigated and found sand shoal with depth of 12½'. Effective depth of drag 13½'. Survey indicates a depth of 14' in vicinity but probably is point of shoal to eastward.

6. Lat. 24 - 52.3 / Long. 80 - 39.2

"F" buoy dragged on Pos. 42 and grounded on Pos. 45. Both launches stopped the guide launch maintaining a light tension and pulled ~~them.~~ Survey indicates drag was scraping bottom. Effective depth 12½'.

MISCELLANEOUS:

Statistics are attached.

* Records do not show that the line was broken after grounding. It appears that a tension was maintained, enough so as to pull over the shoaling

Respectfully submitted:

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

STATISTICS

PROJECT HT 158 FLORIDA KEYS

WIRE DRAG SHEET NO. 12

"MARINDIN" & "RODGERS"

DAY	DATE	MILES (Statute)	SOUNDINGS	POSITIONS
A	4-11-35	4.8	0	44
B	4-12-35	9.7	1	98
TOTALS		14.5	1	142

Form 537
Ed. Dec., 1930

REG. NO.

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WIRE DRAG
~~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. 12 5892 b

REGISTER NO.

State FLORIDA

General locality ~~FLORIDA KEYS~~ HAWK CHANNEL

Locality ~~HAWK CHANNEL~~ - HEN & CHICKENS ~~LT.~~ TO LOWER MATECUMBE KEY

Scale 1:20,000 Date of survey APRIL 11-12, 1935

Vessel FIELD PARTY NO. 14

Chief of Party E. R. McCarthy

Surveyed by E. R. McCarthy

Protracted by J. D. Groff

Soundings penciled by J. D. Groff

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by J.D.G. & E.R.M.

Inked by J. D. Groff

Verified by J. A. Mc Cormick

Instructions dated November 17, 1933 (H.A.Cotton), ~~19~~

Remarks:

U. S. GOVERNMENT PRINTING OFFICE, 1932

DESCRIPTIVE REPORT

to accompany

WIRE DRAG SHEET NO. 12

AUTHORITY:

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

LIMITS:

Hawk Channel from Hen & Chickens Light to Matecumbe (Channel Two).

METHODS & EQUIPMENT:

Standard methods for dual control were used. Equipment consisted of the drag launches "RODGERS" and "MARINDIN" and the tender No. 78.

Launch No. 78 is of the small fast speed boat type and is ideal for drag work as it is easily handled and has the necessary speed so that a minimum of time is wasted in running between launches.

CONTROL:

Positions were fixed by sextant angles on signals located by triangulation or topographic methods.

EFFECTIVE DEPTHS:

Effective depths ranged from 9' to 13½'. The drag was set up to pass over a few 9' shoals already found by the party.

MEMORANDUM BY CHIEF OF PARTY

The work was done under my charge and plotted by J. D. Groff. I have had little experience in drag work.

E R McCarthy

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

HYDROGRAPHIC SURVEY NO. 5892b WIRE DRAG

Smooth Sheet yes

Boat Sheet 2

Sounding Records 3 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 (Circular Nov. 30,1933) no

Remarks

GEOGRAPHIC NAMES

Survey No.

H 5892b
WIRE DRAG

Name on Survey

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
SEE H 5892a										1
										2
										3
										4
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Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. ..5892 b

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

Number of positions on sheet	..14..
Number of positions checked	3
Number of positions revised	0
Number of soundings recorded	1
Number of soundings revised	0
Number of signals erroneously plotted or transferred	.....

Date: Dec. 26, 1935

Verification by J. A. Mc Connack Time: 4 hr.

Review by I. Poggari Time: 21 hrs.

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography: December 6, 1935.

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

Tide Reducers are approved in
2 volumes of ~~sounding~~-records for
wire drag

HYDROGRAPHIC SHEET 5892b

Locality Hen and Chickens to Lower Matecumbe Key, Florida Keys.

Chief of Party: E. F. McCarthy in 1935
Plane of reference is mean low water reading
2.2 ft. on tide staff at Whale Harbor
11.2 ft. below B.M. 1

Height of mean high water above plane of reference is 2.2 feet.

Condition of records satisfactory except as noted below:

Paul F. Whitney
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5892b W.D. (1935) FIELD NO. 12

Hen & Chickens to Lower Matecumbe Key, Hawk Channel, Florida
Surveyed in April, 1935
Instructions dated Nov. 17, 1933 (H. A. Cotton)

Wire Drag and Hand Lead Soundings. Dual Control on Shore Signals.

Chief of Party - E. R. McCarthy.
Surveyed by - E. R. McCarthy.
Protracted by - J. D. Groff.
Subdivision of wire dragged areas by - E. R. McCarthy, J. D. Groff.
Inked by - J. D. Groff.
Verified by - J. A. McCormick.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual and S. P. 118, except as follows:

a. No effective depth diagram was entered in the records at the end of each day's work. (Page 37, S. P. 118).

b. Position angles on shoal in latitude 24°51.8', longitude 80° 38.3', were not checked by taking an angle to a fourth object. (Page 33, S. P. 118).

c. No cuts to groundings were recorded, particularly the 10-1/2 foot effective depth grounding in latitude 24°52.5', longitude 80°37.2', and the 12-1/2 foot hand lead sounding in latitude 24°51.8', longitude 80°38.3'. (Page 32, S.P. 118).

The Descriptive Report is clear and comprehensive and adequately covers all matters of importance.

2. Compliance with the Instructions for the Project.

The plan, character and extent of the survey comply with the instructions for the project.

3. Shoreline and Signals.

No recent topography has been received in the office. The topographic signals were obtained from T-6360a and b (1935) (Graphic Control Sheet).

4. Junction with Wire Drag Surveys.

H-5879b (1935) joins the present survey on the northeast with a drag strip continuing from one sheet to the other. No drag sheet to the southwest has as yet been received.

5. Comparison with Latest Hydrographic Surveys.

H-5888 (1935) (unverified), H-5892a (1935) (unverified).

The present survey falls within the area of the above surveys and the effective depths of the drag are consistent with the depths shown on these surveys, except the 9-1/2 foot shoal on H-5888 (1935) in latitude 24°52.5', longitude 80°37.2'.

6. Comparison with Chart No. 1250 (New Print dated June 7, 1935).

With the exception of two 12 foot shoals in latitude 24°52.4', longitude 80°37.5', and latitude 24°52.1', longitude 80°38.1', both originating with H-774 (1862), the effective drag depths are consistent with the charted soundings. These shoals were covered with effective drag depths of 13 and 13-1/2 feet respectively. The description of these shoals will be considered in the review of H-5888 (1935).

7. Field Plotting.

The protracting and the subdivision of dragged strips, as well as the plotting of dragged areas was satisfactory, except as follows:

a. The standard method of showing effective depths was not followed. The method used is confusing with the buoy path lines. (Page 39 S. P. 118).

b. The tide and lift curves were not inked. This was accomplished in the office.

8. Results of Survey.

a. Shoals discovered and clearance depths obtained.

(1) A 10-1/2 foot grounding was obtained in latitude 24° 52.5', longitude 80°37.2', and falls among 13 foot soundings on H-5888 (1935). The drag cleared itself under tension and went ahead.

(2) Attention is called to a 9-1/2 foot sounding on H-5888 (1935), 100 meters southwest of the above mentioned grounding. This shoal spot was not picked up by the drag set at 10 feet. The drag evidently was pulled across this shoal.

(3) Practically all the other groundings shown are on slight shoalings with probably the buoy weights touching or dragging over them. The effective depths of the drag have been plotted at these points, but it is possible that the actual depths are slightly deeper since the buoy weights extend below the bottom wire. Most of the groundings occur near the edge of the

drag and were not cleared.

b. Effective Depths.

With the exception of the split mentioned in paragraph 8c the survey carried an effective depth of from 9 to 13-1/2ft. for the length of Hawk Channel included in this sheet. Considering the average depths in the area (see H-5892a (1935) and H-5888 (1935)), the effective depths of the drag are adequate.

c. Splits and insufficient overlaps.

There is a small split and small area of insufficient overlap caused by the existence of Beacon 41 in latitude 24°53.4', longitude 80°36.3'. The area is, however, well developed on H-5888 (1935) with a least depth of 11-1/2 feet.

9. Additional Field Work Recommended.

The survey is satisfactory and no additional work is necessary.

10. Reviewed by - G. Risegari, Jan. 14, 1936.

Inspected by - A. L. Shalowitz,

Examined and approved:

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

L. O. Colbert.
Chief, Division of Charts.

Chief, Section of Field Work.

Chief, Division of H. & T.

20 - Dec. 30, 1935

Appointment of Chr 1113 - Apl 1938 - D.S.