

5726b

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R.S. Patton, Director

State: FLORIDA

DESCRIPTIVE REPORT

~~Topographic~~ } DRAG
Hydrographic } Sheet No. 6 5726b

LOCALITY

FLORIDA KEYS

Hawk Channel ~~and vicinity~~
Turtle Harbor and Vicinity

~~ANGELFISH CREEK TO~~

~~POINT ELIZABETH~~

1934

CHIEF OF PARTY

Lt. Comdr. H.A. Cotton

5726b

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.6..... (WIRE DRAG)

REGISTER NO. 5726h

State FLORIDA

General locality ~~FLORIDA COAST - OPPOSITE COAST~~
Hawk Channel

Locality ~~ANGELTON CREEK TO POINT ELIZABETH~~
Turtle Harbor and Vicinity

Scale 1: 20,000 Date of survey Sept. 7, 8, & 9, 1934

Vessel Party No. 3

Chief of Party H.A. Cotton

Surveyed by H.A. Cotton - W.O. Hinkley

Protracted by J.D. Groff

Soundings penciled by J.D. Groff

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by J.D. Groff

Inked by

Verified by Jam McCormick

Instructions dated November 17, 1933., 19

Remarks:

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

DESCRIPTIVE REPORT
to accompany
DRAG SHEET NO. 6

FLORIDA KEYS
ANGELFISH CREEK TO
POINT ELIZABETH

Party No. 3

H.A.Cotton,
Lieut-Comdr. C. & G.S.
Chief of Party.

DESCRIPTIVE REPORT

to accompany

DRAG SHEET NO. 6

AUTHORITY:

Instructions from the Director dated November 17, 1933.

LIMITS:

Hawk Channel from Angelfish Creek to a point about 0.5 mile south of Point Elizabeth and Turtle Harbor.

METHODS AND EQUIPMENT:

Standard methods for the dual control system were used.

Equipment consisted of the two wire drag launches 'Rodgers' and 'Marindin' and a leased 22' launch as tender.

The boat sheet No. 6 was used as a boat sheet for the guide launch.

CONTROL:

Positions were fixed by sextant angles on signals or natural objects located by either triangulation or topographic methods. The shoreline was transferred from air phototopographic sheets (1928 work).

EFFECTIVE DEPTHS:

An effective depth of from $9\frac{1}{2}$ to 11 feet was obtained in Hawk Channel and ~~19~~ to 20 feet in Turtle Harbor.

$18\frac{1}{2}$

GROUNDINGS:a. HAWK CHANNEL

Small weight #9 grounded on an iron spar lying on the bottom 200 meters north of Beacon 31. A depth of $9\frac{1}{2}$ ' was obtained (pos. 1a). Effective depth in the vicinity was $10\frac{1}{2}$ feet. ←

Drag grounded on a flat coral head 980 meters WSW of Beacon 31. A tension was maintained and the drag pulled clear while sounding. A depth of $10\frac{1}{2}$ ' was obtained by the tender. ←

Drag touched at F buoy in following places:

1050 meters NE	Beacon 29	Effective depth	10'	✓
800 meters SSW	Beacon 31	Effective depth	10'	✓
1480 meters SSW	Beacon 31	Effective depth	$10\frac{1}{2}$ '	✓

b. TURTLE HARBOR

Drag grounded and pulled clear about 340 meters SE of Beacon 2 in entrance. No soundings were taken. ✓
Effective Depth was $18\frac{1}{2}$ feet.

The end buoys touched bottom at the following points:

300 meters N Beacon 3 Turtle Harbor Effective depth $19\frac{1}{2}$ ' ✓
Along a line from 280 meters N Beacon 3 Turtle Harbor to 500 meters SbyW Beacon 3 Turtle Harbor (pos. 1c to 6c) effective depth $18\frac{1}{2}$ feet.

1100 meters	NNE	WET	Effective Depth	19 feet	✓
570 m.	N	by W	WET	" "	$19\frac{1}{2}$ feet ✓
2050 m.	NNW	WET	" "	$19\frac{1}{2}$ feet	✓
2340 m.	WNW	WET	" "	20 feet	✓

No soundings were taken.

Respectfully submitted:

E.R. McCarthy
E.R. McCarthy,
Lieutenant (j.g.) C. & G.S.
Chief of Party.

STATISTICS TO ACCOMPANY DESCRIPTIVE REPORT FOR DRAG SHEET NO. 6

DATE	LETTER	VOLUME	DRAG LENGTH	POS.	MILES STATUTE	SOUNDINGS
9-7-34	a	1	3300	77	8.0	2
9-8-34	b	1	900	33	1.2	0
9-9-34	c	1	3300	57	6.5	0
	Totals			<u>167</u>	<u>15.5</u>	<u>2</u>

MEMORANDUM BY CHIEF OF PARTY

The field and office work were both done under the direction of Lt. Comdr. H.A. Cotton.

The sheet was held in the field office until hydrographic sheet No. 8 was completed.

E.R. McCarthy

E.R. McCarthy,
Lieutenant (j.g.) C. & G.S.
Chief of Party.

LCC

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 22, 1935

Division of Hydrography and Topography:

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

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5726 (b)

Locality Turtle Reef to The Elbow, Florida Keys, Florida.

Chief of Party: H. A. Cotton in 1934
Plane of reference is mean low water reading
2.1 ft. on tide staff at Angelfish Key
3.1 ft. below B.M. 1

Height of mean high water above plane of reference is 2.3 feet.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

HYDROGRAPHIC SURVEY NO. H5726 b

Smooth Sheet _____

Boat Sheet _____

Sounding Records _____ Vols. _____

Descriptive Report _____

Title Sheet _____

List of Signals _____

Landmarks for Charts (Form 567) _____

Statistics _____

Approved by Chief of Party _____

Recoverable Station Cards (Form 524) _____

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

Remarks _____

Records:

Records did not conform in all respects to specifications of Wire Drag manual. Field party did not make the required effective depth summary at the end of each day's work. There are several cases where the record says "Aground at end buoy" without stating which end. These have been ironed out by consulting the end launch record.

Drafting:

Drafting was excellent. Field party did not observe the required wire drag color scheme. Verifier plotted all soundings. Verifier inked shoreline. Field party placed many superfluous notes on sheet. Verifier did not attempt to change colors of strips but did change effective depths to proper colors.

Remarks:

Split at 12C (guide launch) was caused by navigational buoy according to records. No portion of this buoy was found in records ~~and it could not be found~~ on H-5726 a which however had not been completely verified.

see index
Vol. 2 H5726a

There is insufficient coverage between 5-8C (guide launch) and 46-48C (guide launch)

Several cases occur where end weight drags on bottom over several positions. Verifier has shown this by plotting several soundings in each case over the path of the end buoy.

Drag was lifted over obstruction at 65A. Verifier has left the plotting of this section as shown by field party. There is also insufficient coverage between positions 37-38C (guide launch) and 17-19C (guide launch).

June 11, 1935. Submitted.

J. McCormick

Time: 3 hrs.

Reviewed HTK/sh 12 hrs.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY No. 5726b (1934) W.D.FIELD NO. 6

Turtle Harbor and Vicinity, Hawk Channel, Fla.
Surveyed in September, 1934
Instructions dated November 17, 1933 (H. A. Cotton)

Wire Drag with Hand Lead Soundings - 3 Point fixes on Shore Signals.

Chief of Party - H. A. Cotton.
Surveyed by - H. A. Cotton, W. O. Hinkley.
Protracted by - J. D. Groff
Soundings penciled 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. The drag position number at time of grounding was not entered in the remarks column opposite sounding position number in sounding record. (3rd paragraph, page 36-S.P. 118).
- b. Position angles on shoals were not checked by taking an angle to a fourth object. This is especially important as these are isolated positions. (page 33-S.P. 118).
- c. Summary of effective depths at the end of each day's work was not entered.

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

2. Compliance with Instructions for the Project.

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

3. Junctions with Wire Drag Surveys.

This work is joined in the north by H-5548 (1934) WD with ample overlap and consistent effective depth.

There are no other junctions.

4. Comparison with Latest Hydrographic Survey.

H-5726a (1934)

The present survey (H-5726b) covers portions of the above contemporary hydrographic survey. The effective drag depths are consistent with the soundings on this survey. Considering the average depths in the area, an excellent general drag depth was maintained.

5. Comparison with Chart No. 1249.

The effective drag depths are consistent with the charted soundings.

6. Field Plotting.

The field plotting is satisfactory except that the standard color scheme for drag depths was not followed. This was not changed in the office but the effective depths were inked in the proper colors.

7. Results of Survey.

a. Drag work.

This survey carried an effective depth of from $9\frac{1}{2}$ to 11 feet for the length of Hawk Channel included in this sheet. It also completely covered the deep water area of Turtle Harbor with an effective depth of from $18\frac{1}{2}$ to 20 feet.

b. Only two shoals were found by the drag. A submerged iron spar with $9\frac{1}{2}$ feet over it at latitude $25^{\circ} 13.2'$, longitude $80^{\circ} 18.0'$ and a $10\frac{1}{2}$ foot coral shoaling in latitude $25^{\circ} 12.8'$, longitude $80^{\circ} 18.5'$. Practically all of the groundings occur at points where the drag approached the edge of the channel too closely and touched bottom at the end buoy. The effective depth of the drag has been plotted at these points but it is possible that in these cases the actual depth is $1\frac{1}{2}$ feet deeper since the large weights at these buoys extended that distance below the ground wire.

8. Additional Field Work Recommended.

This survey is complete and no additional work is required at this time. However at two spots in Turtle Harbor (latitude $25^{\circ} 15.1'$, longitude $80^{\circ} 14.3'$ and latitude $25^{\circ} 15.9'$, longitude $80^{\circ} 13.9'$), there is insufficient overlap of the drag strips and at such time as the work is continued in this vicinity these should be covered.

9. Reviewed by - Harry T. Kelsh and R. L. Johnston, June, 1935

Inspected by - A. L. Shalowitz.

Examined and approved:

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

F. S. Borden
Chief, Section of Field Work.

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

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

25 Jan 2, 1936

Ch.H.

849

App'd sdgs & curves in new chart extension
area - J.H. 5/5/76

Reapp 141 PAGE A & C ADDED ADDITIONAL SOUNDINGS & IMPROVED SPACING.
J.H. 6/7/76

Reapp 1249 TO AGREE WITH 141 ^{PAGE} A & C J.H. 6/7/76

Reapp'd 11463 5-28-91 Pearce Hunt Full after verification #31