

83
SHA
3724

3724

C. & G. SURVEY,
LIBR. AND ARCHIVES
APR 9 1915
Acc. No. _____

Diag. Chart No. 1252-2

Department of Commerce and Labor	
COAST AND GEODETIC SURVEY	
O. H. Tittmann	
Superintendent.	
State: Fla.	
DESCRIPTIVE REPORT.	
Hyd.	3724 Sheet No. X
LOCALITY:	
Florida Reefs	
West Channel.	
1915	
CHIEF OF PARTY:	
N. H. Heck	
11-4645	

3724

The object of the work on this sheet was to drag a portion of the West Channel from a point south of Man Key to a point south of the Eastern end of Marquesas Keys with $24^{\circ} 30'$ as the approximate northern limit.

An effort was made to drag the area with the greatest charted depth. The dragged strip varies from a greatest width of one mile to a least of one half mile. This is ample width for the ships proposing to use this channel without further buoys.

As to depth it may be stated that the indicated safe depth is reduced from 30 feet to 22 feet, and vessels of this draft would be obliged to use great care.

The most obstructed part of the channel extends from $81^{\circ} 58'$ to $82^{\circ} 02'$ though there several coral heads near $81^{\circ} 57'$ and $82^{\circ} 03'$. At the extreme western end of the work an extensive shoal was found which could not be entirely developed because of its distance from Key West.

From the eastward there are four heads northeast of the channel buoy with depths from 23 to 25 feet. Southeast of the buoy 23 feet was found where 30 feet was formerly charted. The channel is obstructed almost for its entire width near $81^{\circ} 59'$ by coral heads and narrow ridges with depths from 25 to 29 feet. As there are shoal charted depths on each side it is evident that extension of the width at this point would not give a deeper channel.

A mass of coral heads and shoals are almost continuous from $82^{\circ} 00'$ to $82^{\circ} 02'$. In the previously indicated channel depths from 27 to 29 feet prevail with one small coral head with 24 feet. The charted shoal with a least depth of $4 \frac{1}{4}$ fm. on the south side of the channel was found to have 4 fathoms over an extent of a mile with least depth of 20 and 21 feet.

Near $82^{\circ} 04'$ there are a number of coral heads. There is 23 feet in mid channel, and to the southwest of this depths of 25 and 27 were found for a mile.

The shoal near $82^{\circ} 07'$ with a least charted depth of $5 \frac{1}{4}$ fms. was found to be quite extensive as practically all of a 300 ft. drag was aground on it. As

previously a 3000 ft. drag had been taken past this shoal to the north of it and no opportunity offered it has not been dragged over. With equipment used this season this was the extreme western limit for the party even when using Boca Grande as an anchorage and fine weather which was very infrequent during the season was required to reach this point. Further examination would probably add to the extent and decrease the depth on this shoal. For the present vessels can avoid it.

The results indicate that a vessel of not more than 22 feet using care can use this channel though for the present the draft is rather excessive and not more than 18 should be used. There is no real reason to suppose that the formation stops suddenly and the only reason for assuming that vessels will be safe is the greater charted depth which would prevent the same obstructions as exist to the eastward from rising so near the surface.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Florida Reefs - West Channel

SHEET A.

1915

Date	Letter	Vol.	Angles	Miles	Drag length	Soundings		Remarks
						No.	Angles	
1-15	A	1	-	13	-----	108	233	No wire drag, work hyd. Sd'g
20	B		70	1.5	2700	8	14	
22	C		---	---	-----	8	14	Drag aground all day strong Easterly breeze
25	D		96	1.5	3000	7	15	
26	E		51	3.0	3000	4	10	
28	F		---	---	-----	1	2	No area dragged, heavy sea
2-2	G		36	0.5	2100	2	5	
3	H		102	1.5	2700	9	19	
4	J		84	1.5	2700	10	23	
6	K		96	2.5	2700	3	6	
16	L		54	0.2	2700	0	0	
18	M	2	168	4.5	2700	2	4	
24	N		156	2.5	3000	9	19	
25	O		174	3.2	2400	7	19	
26	P		144	3.0	2100	4	9	* 54 additional angles taken to check towline base
27	Q		96	3.2	2700	2	6	
3-2	R		162	3.5	2700	4	10	
3	S		90	2.0	2700	12	24	
9	T		54	0.4	2400	3	4	
10	U		48	0.2	2700	7	16	
11	V		114	3.0	2700	13	26	
12	W	3	144	2.8	2700	1	2	
			1993*	42.5		224	480	

Total angles 2473
Soundings Miles 13
Wire Drag Miles 42.5
Soundings Hyd. No. 108
Soundings W. D. No. 116
Square Miles 8

VEC
May 14, 1915

L. P. S.

HYDROGRAPHIC SHEET 3724.

Florida Reefs, Florida, by
Assistant N. H. Heck in 1915.

TIDES.

	Key West ft.
Mean low water, or plane of reference on staff	4.1
Lowest tide observed " "	2.8
Highest " " " "	7.5
Mean range of tide	1.2

Myd = 3724

The work on this sheet covers a portion of the West Channel, Florida Reefs, Fla.

The work was plotted in the field and verified in the office. Two tracings were made: one for the soundings and the other for the drag work.

A considerable number of uncharted shoals were located and fully described by the Report and letters Nos. 82 & 169 of the Chief of the Party.

Attention is called to the discrepancies at $\frac{1}{2}T$ & $\frac{3}{4}u$, where a 31' & 25' drag passed a 28' & 24' shoals respectively.

J. B. Shklean

July 13-15