5016

Diag. Cht. No. 1248

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ..... Office No. 5016

LOCALITY

State Florida

General locality From Satana

Locality to Villa Rica

1929

CHIEF OF PARTY

R. L. Schoepe

LIBRARY & ARCHIVES

DATE .....

B-1870-1 (1)++

5016

Form 537

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO. 5016

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. 3 1929

REGISTER NO. 5016

State Florida.

General locality East Coast

Locality ~~Boynton to Boca Raton.~~ Hypoluxo Island to Villa Rica

Scale 1:20,000 Date of survey May - June, 1929

Vessel RANGER

Chief of Party R. L. Schoppe , Charles Shaw

Surveyed by R. L. Schoppe.

Protracted by W. M. Gibson and J. S. Morton

Soundings penciled by ----- J. S. Morton - -

Soundings in fathoms feet feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by None

Inked by John G. Ladd

Verified by J. G. L.

Instructions dated Dec. 27, 1929, 19

Remarks: ~~Returned to office for completion.~~

Completed at New Orleans Field Station.

U. S. GOVERNMENT PRINTING OFFICE

EAST COAST OF FLORIDA

FROM LANTANA TO VILLA RICA

STEAMER RANGER

1929

DESCRIPTIVE REPORT TO ACCOMPANY SHEET NO. 3

FLORIDA EAST COAST

1 9 2 9

-O-

This sheet was partially plotted on board the Steamer RANGER. It has been completed at the New Orleans Field Station and the ship's files are not available for reference. Attached to the descriptive report for field sheet No. 1 is the ship's copy of a "Report on Unfinished Office Work on Steamer RANGER, August 19, 1930". Reference is here made to this report for details as to where the plotting was done.

Field work on this sheet is done under Instructions dated December 27, 1928.

The area covered by this sheet extends from Latitude 26° 24'.0 N. to Latitude 26° 34.'6 N. and from the shore line in approximate Longitude 80° 03, W, eastward to the 100 fathom curve in Longitude 79° 59. W. This sheet joins Sheet No. 1 on the North and Sheet No. 4 on the South. A sub-plan on a scale of 1.5000 covers a small artificial inlet at the extreme south end of Lake Worth (Latitude 26° 32.'7.)

Survey methods differ somewhat from methods in common use at this time. All signals are located by triangulation and traverse. Shore line is not shown on this sheet. It will be supplied by the office compilation of aerial photographs. All positions depend on sextant fixes. Practically all soundings made from the ship in less than 15 fathoms were made by hand lead. Whenever the fathometer was in working order, it was used in connection with the hand lead in depths from 6 fathoms to 15 fathoms. In depths over 15 fathoms, the fathometer was used entirely, except for a limited number of comparisons with up and down wire soundings. No tube soundings were made on this sheet.

All fathometer work on this sheet was done by Lieut. M. O. Witherbee. During the whole season, the operation of this device was in an experimental stage and it is necessary to rely on Lieut. Witherbee's compilation of fathometer corrections for all results by this method. A reference to the fathometer corrections for this sheet (which are attached and made a part of this report) shows that three distinct combinations of fathometer equipment were used. Satisfactory

comparisons are available for all work except C day,- from position 48C to 123C. During this interval, the fathometer soundings are not used in depths less than 70 ft. It is possible that there is a small uncertainty in depths greater than 70 ft. but this uncertainty does not come in depths which affect navigation. The list of fathometer corrections, referred to above is not assembled in logical sequence but the original notes are not available to the writer, and it is therefore thought best not at attempt to re-copy them. It is believed that Lieut. Witherbee's compilation of these corrections are in such form as to be free from serious uncertainty.

An abstract of temperatures and salinities for sheets No. 1, No. 3 and No. 4, was mailed to the office as noted in my transmitting letter of March 26.

The operation of the fathometer during this season was unsatisfactory. The records have numerous references to the failure of the apparatus during working hours and on numerous occasions, when working conditions were favorable on the off-

shore side of the sheet, it was necessary to resort to hand lead work while the fathometer was overhauled and adjusted. On the whole, this resulted in considerable loss of time and was mainly traceable to the poor quality of springs installed in the No. 413A striker. It should be noted that at the end of the season, the fathometer was out of commission,- for causes unknown to the fathometer expert. I believe that the results were favorable enough to justify the installation of an improved fathometer for future soundings.

All inshore work was done by R. C. Overton, Mate. It was not necessary to use a pulling boat. Inshore launch work was done on smooth days when the launch was able to run a few meters off the beach. It will be noted that one entire line of soundings was run inside the one fathom curve. A system of diagonal lines was run by the launch to show up the system of ridges that exist parallel to the shore in much of this inshore work.

At New Orleans, in plotting depths when simultaneous hand lead and fathometer soundings were taken, the hand lead readings have been selected except in a few cases. These cases are noted

in the records and practically all occur on the ridges where it is probable that small lumps exist which might easily be missed by the hand lead.

A ridge approximately 1 mile offshore is described on Sheet No. 1. This same ridge is found on this sheet and also extends southward to Sheet No. 4. The shoalest point of the ridge on this sheet shows 41 ft. (Latitude 26° 31.'4, Longitude 80° 02.'0., Position 119H) and is 0.8 mile offshore. The 10 fathom curve is nowhere more than 1 mile offshore and the 6 fathom curve is very regular and is not more than 0.5 mile from the beach.

Another ridge covered by 11 to 12 ft. of water is noted approximately 320 meters from the beach and parallel to the beach. This ridge is narrow and possibly there are places on it where shoaler water exists than is found on this sheet. It is so close to the beach that it is not a danger to navigation and for that reason, further development was not attempted. Both of these ridges should be wire dragged to make sure that dangerous coral lumps do not exist.

No serious discrepancies are noted on this sheet. A 29 ft. sounding in Latitude 26° 33.'9, Longitude 80° 02.'0 looks like

it might have been read 1 fathom too shoal. The area is well covered and no other shoal evidence is noted. Other soundings of this depth are found along the fine fathom curve and at the same distance offshore. It is therefore not a danger to navigation. Other minor discrepancies are noted in the records and notes have been made showing their disposal.

The following shoal soundings are found on this sheet:-

	Depth	Position	Latitude	Longitude
(a)	45 ft.	2 K	26° 34.'7	80° 01.'5
(b)	29 ft.	67 d	26° 33.'9	80° 02.'0
(c)	41 ft.	119 H	26° 31.'4	80° 02.'0
(d)	43 ft.	23 K	26° 31.'3	80° 01.'9
(e)	50 ft.	126 H	26° 30.'2	80° 02.'1
(f)	12 ft.	144 b	26° 29.'2	80° 03.'1
(g)	49 ft.	16 A	26° 29.'2	80° 02.'4
(h)	51 ft.	136 H	26° 28.'3	80° 02.'6
(i)	51 ft.	142 H	26° 27.'2	80° 02.'8
(j)	46 ft.	43 K	26° 26.'5	80° 02.'9
(k)	50 ft.	14 F	26° 24.'5	80° 03.'1

Wreckage was found close inshore in two places. Neither one is far enough offshore to be dangerous, but both are known

as the location of good fishing grounds. Positions are as follows:-

Wreck covered by 5 ft. (Position 137½ c)

Latitude 26° 33.'75 Longitude 80° 02.'36.

Wreck awash at MLW. (Position 39½ c)

Latitude 26° 27.'15 Longitude 80° 03.'51.

There are no channels on this sheet. The small artificial cut shown in the sub-plan is sometimes used at slack water by small fishing boats but the passage is dangerous at any time except slack water and a smooth sea.

The north and south banks of this cut, are substantial jetties of sheet piling and concrete and there is almost always a dangerous tide rip at the east entrance. During hurricanes the currents at this place have caused serious erosion to the beach and large sums of money have been spent to protect the bank from washing at such times. The original purpose of this opening was to permit a circulation of water in Lake Worth, and thereby improve the sanitary condition of the lake water. In this respect, the project is a success, but it is useless for boat passage. A

fixed bridge crosses the channel.

See my report on Sheet No. 1 for a discussion of the Gulf Stream currents in this locality. Deep draft vessels, southbound, make good a course 1 mile offshore. Coastwise vessels, southbound, run 0.3 mile or more from the beach. There are no lights for aids to navigation, within the limit of this sheet and vessels must keep well offshore unless certain of their position. There are no anchorages within the limit of this sheet.

This survey changes the 10 fathom curve, as now plotted on Chart 1248. The ridge existing 0.8 mile offshore is not well shown on the old survey. The present survey shows less water on all critical spots. The ridges were not wire dragged, but it is strongly recommended that this be done. Such an examination would probably prove the outside ridge clear of dangerous depths and deep draft vessels could then run closer to the beach and avoid much of the adverse current.

Referring to the location of the jetties which form the shoreline of the channel shown on the sub plan, the location

is taken from the aerial photographs and the enlarged picture of the same. These are attached herewith, according to instructions in the Director's letter dated January 28, 1930, File 10-F.B.

There are no new Geographic Names submitted with this sheet. The channel mentioned in the previous paragraph has no well established name.

A copy of Form 567, Landmarks for Charts is attached herewith. These tanks are difficult to distinguish from each other and if one is shown on the chart, it is probably necessary to show all, in order that a mariner may properly identify them.

A copy of Mr. Witherbee's report on Fathometer Corrections is attached as a part of this descriptive report.

A table of statistics is attached.

Respectfully submitted,

Ray L. Schoppe,
Chief of Party.

STATISTICS

for

FIELD SHEET NUMBER 3

Date	Vol.	Letter	Position	Soundings Hand	Soundings Fathometer	Statute Miles	Vessel
May 10	1	A	144	196	205	25.4	Ranger
May 21	1	B	104	192	147	20.1	Ranger
June 4	1	C	144	317	158	24.5	Ranger
June 7	1	D	57	141	0	7.5	Ranger
June 7	2	D	72	120	114	11.7	Ranger
June 10	2	E	67	147	79	8.3	Ranger
June 11	2	F	156	263	238	25.1	Ranger
June 12	2	G	118	198	214	23.9	Ranger
June 12	3	G	10	28	0	1.4	Ranger
June 13	3	H	187	278	367	36.9	Ranger
June 20	3	J	63	28	180	12.9	Ranger
June 24	3	K	101	170	129	23.0	Ranger
Total for Ship ----			1223	2078	1831	220.7	Ranger
May 9	4	a	98	660		17.4	Launch
June 5	4	b	179	969		33.4	Launch
June 6	4	c	84	434		13.2	Launch
June 6	5	c	86	407		13.7	Launch
June 7	5	d	85	345		10.3	Launch
June 10	5	e	42	124		4.5	Launch
June 24	5	f	55	242		8.7	Launch
Total for Launch ---			629	3181	0	101.2	Launch
Total for Sheet No. 3 -------			1852	5259	1831	321.9	

1631
7090


top
top

Scale
1:10000

Enlarged from photograph by comparision of distance on photograph between identified points "Cup" and "Top" with distance between these points on 1:20000 photo control sheet. Print should be submitted with sheet showing hydrography in the inlet.

Ha 8

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 10-FB

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

January 28, 1930.

To: Inspector, New Orleans Field Station,
U. S. Coast and Geodetic Survey,
314 Customhouse, 423 Canal Street,
New Orleans, La.

From: The Director,
Coast and Geodetic Survey.

Subject: Topography, Lake Worth, Florida.

In compliance with your request of January 23, 1930 there is forwarded to you herewith photographic enlargement on the scale of 1:10000 of the south end of Lake Worth, showing the small inlet through which you have run several sounding lines. The original photograph from which the enlargement was made is also enclosed for your information.

It is desired that the photograph and the enlargement be returned as a part of the descriptive report which accompanies the hydrographic sheet in question.

R S Patton

Enclosure.

Director.

Form 567

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

New Orleans, La.,

April 7, 1930

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

For detailed positions, see Geog. Positions. RANGER, 1929.

Ray L. Schoppe

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED
	Latitude		Longitude		Datum		
	° '	D. M. meters	° '	D. P. Meters			
Water Tank (△ Lantana Water Tank, 1929)							
	26°34.9		80°03.4		N. A.	Tri.	1248 - 3260
Water Tank (△ Boynton Water Tank, 1929)							
	26°31.8		80°03.5		N. A.	Tri.	1248 - 3260
Water Tank (△ Gulf Stream Water Tank, 1929)							
	26°29.5		80°03.3		N. A.	Tri.	1248 - 3260
Water Tank (△ Delray Water Tank, 1929)							
	26°27.7		80°04.2		N. A.	Tri.	1248 - 3260
Water Tank (△ Villa Rica Water Tank, 1929)							
	26°23.2		80°05.1		N. A.	Tri.	1248 - 3260

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

GOVERNMENT PRINTING OFFICE

Original

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, *Director*

State: Florida

DESCRIPTIVE REPORT

~~Topographic~~ | Hydrographic

Fathometer Corrections

Sheet No. 3

Temperature Curves

~~XXXXXXXXXXXX~~

Fathometer Comparisons with Hand Lead

Total Fathometer Correction Curves

Tide Reducer Curves Tides

LOCALITY

Off Gulf Stream, Florida

*192*9

CHIEF OF PARTY

R. L. Schoppe,

Charles Shaw from Aug. 19, 1929

GOVERNMENT PRINTING OFFICE

The appended temperature curves, tables of fathometer comparison with hand lead and fathometer corrections report were done in the rough by Max O. Witherbee, Lieut. C. & G. S. March - June 1929 before being detached.

After R. L. Schoppe's transfer August 19, 1929, the above work was checked and all additional work added.

Charles Shaw

Cape May, N. J.,
October 18, 1929.

Charles Shaw,
Commanding, Ship RANGER.

FATHOMETER CORRECTIONS

Sheet No. 3

Florida - 1929

Scale Corrections:

For computation of scale corrections see report for Sheet #1. The scale corrections are as follows:

Fathometer reading fathoms	Correction ft.	Fathometer reading fathoms	Correction ft.
6	-2.4	13	+ 0.7
7	-1.5	14	0.9
8	-0.9	15	1.0
9	-0.4	20	1.5
10	0.0	25	1.8
11	+ 0.3	50	2.4
12	0.5	100	2.7

Velocity Corrections:

Two different fathometers having different dial speeds were used on this sheet, necessitating two tables of velocity corrections. On A day fathometer 4129C was used. The dial speed was 179 r.p.m. corresponding to an assumed velocity of 797 fathoms per second. On B and C days fathometer 41214E, with a dial speed of 181 r.p.m. was used. For the remainder of the sheet fathometer 4129C with the dial and reeds from 41214E was used. The dial speed is therefore 181 r.p.m. The assumed velocity for 181 r.p.m. is $\frac{181}{182} \times 810 = 805$ fathoms. The following partial table of correction factors were computed from tables 4a and 4b of the Hydrographic Manmual.

Assumed velocity = 797
Mean Salinity = 36.4

Temp. C.	Corn. factor
14	+ .035
16	.040
18	.044
20	.048
22	.052
24	.056
26	.059
28	.063

Assumed velocity = 805
Mean Salinity = 36.4

Temp. C.	Corrn. factor
14	+ .026
16	.030
18	.034
20	.038
22	.042
24	.046
26	.049
28	.053

Assumed Velocity - 805 Salinity - 36.4

Depth	Salinity Temp. C	Mean Temp. C	Factor	Vel. Cor. ft.	Scale corrn. ft	Scale and Vel. Corrn. ft.
1	27.7					
6	27.0	27.3	.052	1.9	-2.4	-0.5
7				+ 2.2	-1.5	+ 0.7
8				2.5	-0.9	1.6
9				2.8	-0.4	2.4
10				3.1	0.0	3.1
11	26.2	27.0	.051	3.4	+ 0.3	3.7
12				3.7	0.5	4.2
13				4.0	0.7	4.7
14				4.3	0.9	5.2
15				4.6	1.0	5.6
16	25.4	26.6	.050	4.8	1.1	5.9
21	25.0	26.2	.049	6.2	1.5	8
26	24.6	25.9	.049	7	2	9
31	24.2	25.7	.049	9	2	11
36	23.2	25.4	.048	10	2	12
41	22.0	25.0	.048	12	2	14
46	2100	24.6	.047	13	2	15
51	20.2	24.2	.046	14	2	16
56	18.6	23.7	.045	15	2	17
61	17.4	23.3	.045	16	2	18
66	16.6	22.8	.044	17	2	19
71	15.8	22.3	.043	18	2	20
76	15.2	21.9	.042	19	2	21
81	14.6	21.4	.041	20	2	22
86	14.0	21.0	.040	20	2	22
91	13.4	20.7	.039	21	2	23
96	13.0	20.2	.038	22	2	24
101	12.5	19.9	.038	23	2	25

ASsumed Velocity - 797 Salinity - 36.4

1	27.7					
6	27.0	27.3	.062	+ 2.2	-2.4	-0.2
7				2.6	-1.5	+ 1.1
8				3.0	-0.9	2.1
9				3.3	-0.4	2.9
10				3.7	0.0	3.7
11	26.2	27.0	.061	4.0	+ 0.3	4.3
12				4.4	0.5	4.9
13				4.8	0.7	5.5
14				5.1	0.9	6.0
15				5.5	1.0	6.5
16	25.4	26.6	.060	5.8	1.1	6.9
21	25.0	26.2	.059	7.4	1.5	9
26	24.6	25.9	.059	9	2	11
31	24.2	25.7	.059	11	2	13
36	23.2	25.4	.058	12	2	14
41	22.0	25.0	.058	14	2	16
46	21.0	24.6	.057	16	2	18
51	20.2	24.2	.056	17	2	19

56	18.6	23.7	.056	+ 19	+ 2	+ 21
61	17.4	23.3	.055	20	2	22
66	16.6	22.8	.054	21	2	23
71	15.8	22.3	.053	23	2	25
76	15.2	21.9	.052	24	2	26
81	14.6	21.4	.051	25	2	27
86	14.0	21.0	.050	26	2	28
91	13.4	20.7	.049	27	2	29
96	13.0	20.2	.048	27	2	29
101	12.5	19.9	.048	29	2	31

Index Corrections:

The index corrections were computed by taking a mean of all the differences between the fathometer soundings (Corrected for scale and velocity) and hand lead soundings where comparisons were made.

Various fathometers and strikers were used (See fathometer log) On Cday a broken spring accounted for the changing index corrections.

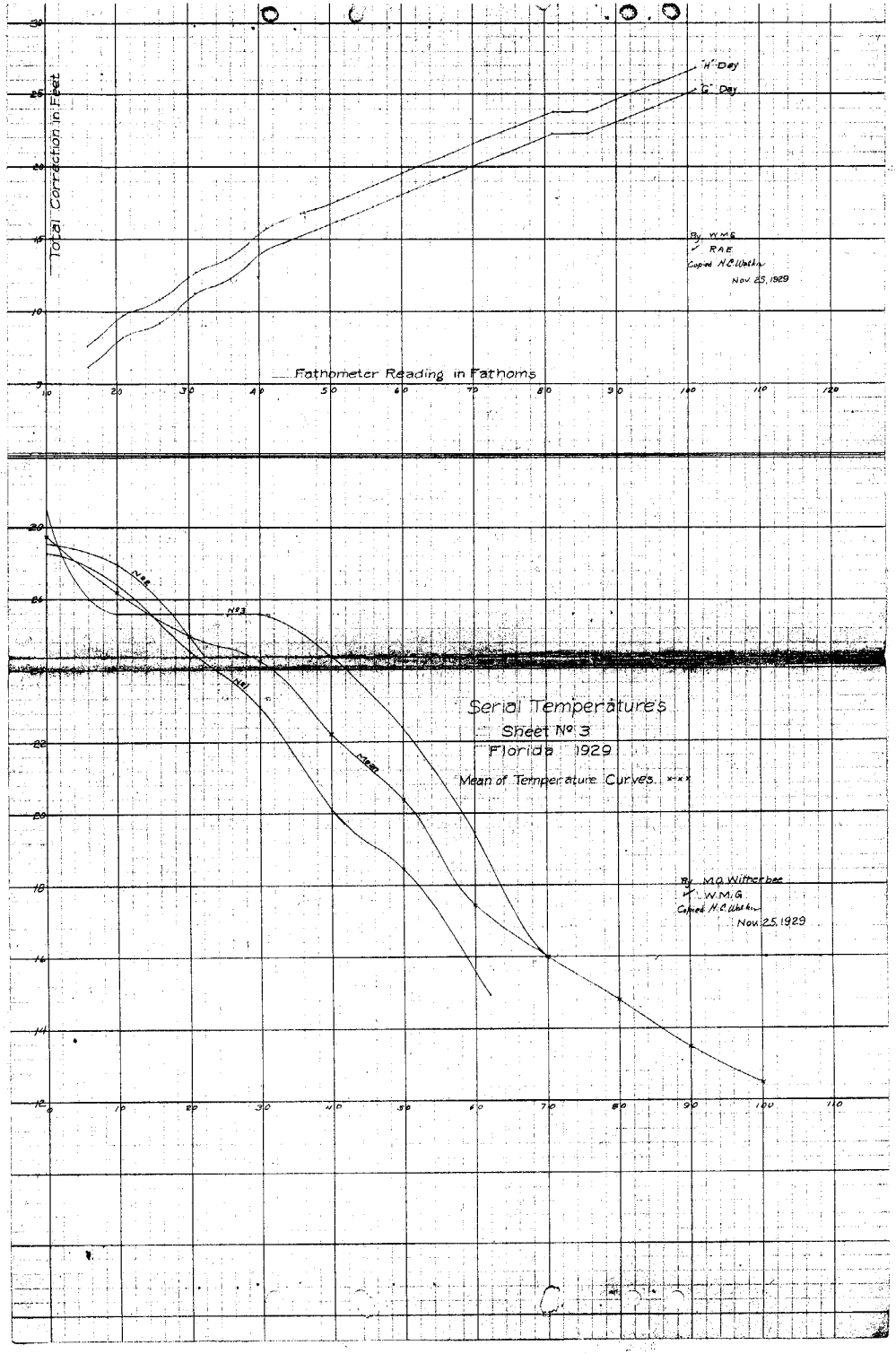
The index corrections were determined as follows:

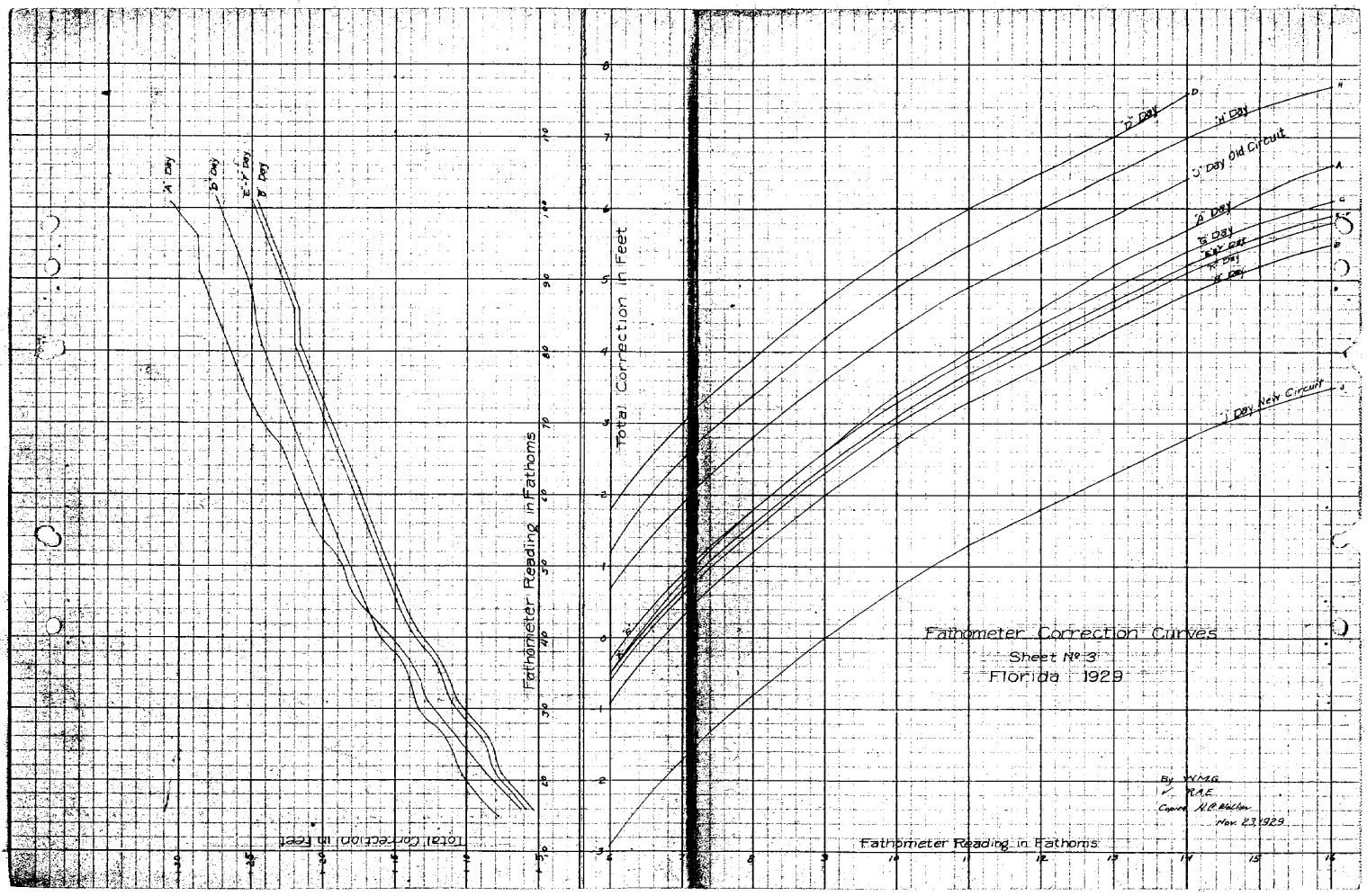
Day	Index.	Corrn.
A	-0.3	
B	-0.4	
C	+0.8	
	4.0	
	6.8	C-day
	7.0	see sheets with computations
	-8.4	of index. corrections.
	+2.0	
	3.0	
	4.5	
D	2.3	
E	0.0	
F	0.0	
G	0.2	
H	1.8	
J	-2.4	
	+1.2 *	*Assumed for old circuit
K	-0.1	

The notes of new circuit and old curcuit in the sounding records refer to the new five tube circuit installed by Dr. Dorsey to use the ships current and the old battery circuit sent by the Submarine Signal Corporation.

The total fathometer corrections:

The total fathometer corrections to be applied to the soundings is the algebraic sum of the scale, velocity and index corrections. A curve of fathometer corrections should be drawn for each day.


Total Correction in Feet
"H" Day
"G" Day
By W.M.G
R.A.E
Copied H.C.Watkins
Nov 25, 1929
Fathometer Reading in Fathoms
Serial Temperatures
Sheet No 3
Florida 1929
Mean of Temperature Curves. x-x-x
No 2
No 3
No 4
Mean
By M.O. Witherbee
W.M.G.
Copied H.C. Watkins
Nov 25, 1929


Total Correction in Feet
Fathometer Reading in Fathoms
Total Correction in Feet
Fathometer Reading in Fathoms
Fathometer Correction Curves
Sheet No 3
Florida 1929
By WMG
RAE
Checked HLB
Nov 23 1929

Sheet No. 3

Pos.	Fath Sdgs fms ft	- J. day continued - Scale & vel. corr.	Cor fath fms ft	H. L. fms ft	Index. Corrn.						
	10 2	+3.3	10 3.3	10 3	-0.3	49	16 0	+5.9	16 5.9	17 3	+3.1
							15 2	4.9	14 0.9	14 4	3.1
							10 2	3.3	10 3.3	11 1	1.7
	10 2	3.4	11 0.4	10 3	-2.3	50	10 3	3.4	11 0.4	11 3	1.6
60	9 4	2.8	10 0.8	9 5	-1.3		10 2	3.3	10 3.3	11 3	2.7
	9 5	3.0	10 2.0	9 5	-3.0	51	9 3	2.7	9 3.7	10 1	1.3
61	10 0	3.1	10 3.1	10 4	+0.9		7 5	1.4	8 0.4	8 3	2.6
	10 3	3.4	11 0.4	10 3	-3.4	55	7 0	0.7	7 0.7	7 2	1.3
62	10 3	3.4	11 0.4	10 4	-2.4		7 5	1.4	8 0.4	8 2	1.3
	10 3	3.4	11 0.4	10 4	-2.4	56	8 4	2.1	9 0.1	9 2	1.9
63	10 4	3.5	11 1.5	11 0	-1.5		9 5	3.0	10 2.0	10 4	2.0
							10 3	3.4	11 0.4	11 3	2.6
		Mean = -2.4				57	10 3	3.4	11 0.4	11 3	2.6
							10m4	3.5	11 1.5	11 4	2.5
		- K day -					9 2	2.6	9 4.6	10 0	1.4
5	10 0	+3.1	10 3.1	10 3	-0.1	86	12 0	4.2	12 4.2	13 1	2.8
6	9 0	2.4	9 2.4	9 3	+0.6	66	12 3	4.4	13 1.4	13 3	2.6
	8 3	2.0	8 3.0	9 1	2.0		10 4	3.5	11 1.5	11 3	3.5
7	8 3	2.0	8 3.0	8 3	0.0	67	9 3	3.0	10 2.0	10 4	2.0
	8 3	2.0	8 3.0	9 0	1.0		9 3	3.0	10 2.0	10 4	2.0
8	9 1	2.3	9 3.3	9 3	-0.3		9 1	2.3	9 3.3	9 3	1.3
	9 4	2.9	10 0.9	9 3	-1.9	90	17 3	6.7	18 3.7	19 2	2.3
9	9 3	2.7	9 3.7	10 0	+0.3		15 0	5.6	15 5.6	16 3	3.4
	10 0	3.1	10 3.1	10 3	-0.1	91	13 2	4.9	14 0.9	14 4	3.1
10	10 2	3.3	10 3.3	11 0	+0.7		11 3	4.1	12 3.1	13 0	2.9
11	10 1	3.2	10 4.2	10 3	0.8		10 3	3.4	11 0.4	11 1	0.6
20	11 1	3.8	11 4.8	11 3	0.2	92	9 2	2.3	9 4.6	10 0	1.4
21	10 3	3.4	11 0.4	11 2	1.6						
	8 0	1.6	8 1.6	8 3	1.4				Mean = +1.8		
22	8 3	2.0	8 3.0	8 4	-1.0						
	11 3	3.9	11 3.9	12 0	+0.1				- D day -		
23	9 4	2.9	10 0.9	10 0	-0.9						
	7 3	1.8	7 4.8	7 4	-0.8	61	8 2	+ 1.9	8.39	8 3	+1.1
24	8 2	1.9	8 3.9	8 3	-1.9		9 1	2.3	9 3.3	9 3	1.3
	7 3	1.4	8 0.4	8 3	+1.6	62	10 1	3.3	10 4.3	11 0	1.8
25	8 2	1.9	8 3.9	8 3	-0.9		11 0	3.7	11 3.7	12 0	2.3
	8 2	1.9	8 3.9	8 4	+0.1	63	12 0	4.4	13 0.4	13 2	1.8
26	8 3	2.0	8 3.0	8 3	0.0		13 3	4.9	14 0.9	14 3	2.1
	8 3	2.3	9 1.3	9 1	-0.3	74	10 3	4.1	11 3.1	12 3	4.9
27	9 4	2.9	10 0.9	9 3	-1.9		10 3	3.4	11 0.4	11 4	3.6
	12 1	4.3	12 3.3	12 3	-0.3	75	10 0	3.1	10 3.1	11 0	2.9
28	12 1	4.3	12 3.3	12 4	-1.3		9 4	2.8	10 0.8	10 4	3.1
43	8 2	1.9	8 3.9	8 3	+1.1		8 3	2.3	8 1.3	8 3	1.7
44	9 0	2.4	9 2.4	9 3	0.6	76	7 2	1.0	7 3.0	7 3	2.0
	8 4	2.1	9 0.1	9 0	-0.1		6 4	0.8	6 4.8	7 0	1.8
45	8 3	2.0	8 3.0	8 3	0.0	82	8 2	1.9	8 3.9	8 3	1.1
	9 0	2.4	9 2.4	9 3	+0.6		9 4	2.8	10 0.8	10 4	3.1
46	9 2	2.6	9 4.6	10 0	1.4		10 0	3.1	10 3.1	10 3	1.9
	9 2	2.6	9 4.6	10 0	1.4	83	8 3	2.3	9 1.3	9 4	2.7
	10 2	3.3	10 3.3	10 3	-0.3		10 0	3.1	10 3.1	11 0	2.9
47	10 3	3.4	11 0.4	10 3	-1.4		10 3	4.1	11 3.1	12 3	4.9
	10 4	3.5	11 1.5	11 0	-1.5	84	12 1	4.3	13 3.3	13 1	1.7
	10 2	3.3	10 3.3	10 3	-0.3	89	7 3	1.1	7 4.1	7 3	-1.1
48	10 4	3.5	11 1.5	11 0	-1.5		8 3	2.3	9 1.3	9 4	+2.7
	11 0	3.7	11 3.7	11 2	-1.7		9 2	2.6	9 4.6	9 4	-0.6
	11 2	3.9	11 3.9	11 3	-0.9	90	9 3	2.8	9 4.8	10 1	+2.2
	11 1	3.8	11 4.8	11 3	+0.2		9 1	2.3	9 3.3	10 2	4.3
						91	8 4	2.1	9 0.1	9 3	2.9
		Mean = -0.1					7 3	1.1	7 4.1	8 0	1.9
						92	6 3	0.3	6 3.3	7 0	0.3
		- E day -				97	8 2	1.9	8 3.9	8 3	1.1
						98	9 3	2.8	9 4.8	10 0	1.4
20	7 2	+1.0	7 3.0	7 3	+0.0		9 3	2.8	9 4.8	10 2	3.4
	8 1	1.7	8 2.7	8 3	+0.3	99	9 3	2.7	9 3.7	10 2	2.3
21	9 0	2.4	9 2.4	9 4	1.6		9 4	2.9	10 0.9	10 3	2.1
	9 3	3.0	10 2.0	10 3	1.0	108	8 1	1.7	8 2.7	8 3	2.3
	10 1	3.2	10 4.2	10 3	0.8		8 4	2.1	9 0.1	10 1	5.9
22	10 2	3.3	10 3.3	10 3	-0.3	101	14 2	5.3	15 1.3	15 3	1.7
	9 1	2.3	9 3.3	9 4	+0.3		8 1	1.7	8 2.7	9 2	3.3
	11 3	4.1	12 3.1	12 2	-1.1	110	10 1	3.2	10 4.2	10 3	0.8
23	13 3	5.1	14 4.1	13 0	+1.9		10 0	3.1	10 3.1	10 3	1.9
39	13 0	4.7	13 4.7	14 0	1.3	111	9 4	2.9	10 0.9	10 2	1.1
	8 3	2.0	8 3.0	9 0	1.0		9 2	2.6	9 4.6	10 2	3.4
40	10 3	3.4	11 0.4	11 2	1.6	112	9 1	2.3	9 3.3	10 1	3.3
	10 1	3.2	10 4.2	11 0	1.8		8 3	1.9	8 4.9	9 2	3.1
	9 3	2.7	9 3.7	10 1	1.3	113	7 4	1.3	7 3.3	8 2	2.7
41	8 1	1.7	8 2.7	8 3	2.3						45) 38.0
	7 2	1.0	7 3.0	7 3	0.0						+2.5
45	8 0	1.6	8 1.6	8 3	1.4						
	9 1	2.3	9 3.3	9 3	1.3						
	10 1	3.2	10 4.2	10 3	0.8						
46	10 3	3.4	11 0.4	11 3	2.6						
	10 4	3.5	11 1.5	11 3	3.3						
	8 3	2.0	8 3.0	9 0	1.0						
47	11 0	3.7	11 3.7	11 3	1.3						
	13 3	4.9	14 1.9	15 3	(7.1)						
48	15 2	5.7	16 1.7	17 0	4.3						

RCO

FATHOMETER COMPARISONS

Sheet No. 5

Florida 1939

Pos	Fath. Sdg. fms ft	Scale & Cor. Vel. Cor.	Cor. Fath fms ft	H. L. fms ft	Index Corrn.						
		- A day -									
25	7 4	+1.8	7 5.8	7 5	-0.8	93	11 0	+3.7	11 5.7	12 0	+2.3
	8 5	2.5	8 5.5	8 4	-1.5		10 1	3.3	10 4.2	10 0	-4.2
24	8 5	2.7	9 1.7	9 4	+2.3		9 1	2.5	9 3.5	9 5	+1.5
	9 5	3.5	10 2.5	10 2	-0.5	94	8 2	1.9	8 3.9	8 4	0.1
25	10 2	3.9	10 5.9	10 5	-0.9		7 5	1.4	8 0.4	7 5	-1.4
26	10 1	3.7	10 4.7	10 5	+0.3		7 1	0.8	7 1.8	7 0	-1.8
	9 2	3.2	9 5.2	9 5	+0.2			Mean S -0.4			
27	13 4	5.8	14 5.8	14 0	(-5.8)			- C day -			
	8 2	2.3	8 4.3	9 1	+2.7	39	7 3	+1.1	7 4.1	7 0	(-4.0)
42	10 1	3.7	10 4.7	10 5	0.3		8 0	1.6	8 1.6	8 1	-0.6
	9 5	3.5	10 2.5	10 5	2.5	40	8 3	2.0	8 5.0	8 5	0.8
43	9 5	3.5	10 2.5	10 4	1.5		9 0	2.4	9 2.4	9 1	-1.4
44	8 2	2.3	8 4.3	8 5	0.7	41	13 0	4.7	13 4.7	14 2	+3.3
	7 2	1.4	7 3.4	7 3	-0.4	42	10 4	3.45	11 1.5	11 3	1.5
45	6 3	0.4	6 3.4	6 3	-0.4		8 2	1.9	8 3.9	8 5	1.1
63	7 4	1.8	7 5.8	8 0	+0.2		7 4	1.65	7 5.3	7 5	-0.3
	8 5	2.7	9 1.7	8 5	-2.7	43	7 2	1.0	7 3.0	7 4	+1.0
64	9 2	3.2	9 5.2	9 5	-0.2		7 0	0.7	7 0.7	7 0	0.3
	10 0	3.7	10 3.7	10 1	-2.7	47	7 2	1.0	7 3.0	7 3	0.0
65	9 5	3.5	10 2.5	10 2	-0.5		7 3	1.1	7 4.1	8 0	1.9
	9 5	3.5	10 2.5	10 3	+0.5	48	7 5	1.4	8 0.4	8 1	0.6
66	8 4	2.8	9 0.8	9 0	-0.8		9 5	3.0	10 2.0	10 5	3.0
67	13 5	5.9	14 4.9	14 5	+0.1	49	12 1	4.5	12 6.5	13 5	(5.7)
68	13 3	5.7	14 2.7	14 4	1.3				39 - 41	+1.8	
	11 2	4.5	12 0.5	13 0	(5.5)			Between Pos. 49 and 55 use I.C. +4.0			
69	8 4	2.8	9 0.8	8 5	-1.8		10 4	+3.5	11 1.5	12 2	+6.5
70	14 0	6.0	15 0.0	14 5	-1.0	55	9 3	2.7	9 5.7	11 3	9.3
102	8 2	2.3	8 4.3	8 3	-1.3	59	7 3	1.1	7 4.1	8 4	5.9
	9 5	3.5	10 2.5	10 2	-0.5		9 0	2.4	9 2.4	10 2	5.6
	10 0	3.6	10 5.6	10 3	-0.6	60	10 2	3.3	10 5.3	12 0	6.7
103	9 5	3.5	10 2.5	10 2	-0.5				5C + 60 inst.	+4.5	
	9 3	3.3	10 0.3	10 1	+0.7			Between Pos. 60 and 68 use IC +7			
	9 1	3.0	9 4.0	9 3	-1.0						
104	8 1	2.2	8 3.2	8 1	-2.2	67					
	7 0	1.1	7 1.1	7 0	-1.1		11 2	+3.9		15 0	
126	8 5	2.8	8 5.8	8 4	-1.8	68	10 1	3.3		11 5	
127	9 1	3.0	9 4.0	9 4	0.0						
	9 5	3.5	10 2.5	10 3	-0.5		10 3	+3.4	11 0.4	10 1	-5.4
128	9 5	3.5	10 2.5	10 4	+1.5	69	9 5	3.0	10 2.0	9 0	-8.0
	10 0	3.7	10 3.7	10 5	1.3		9 0	2.4	9 2.4	7 5	-9.4
	10 1	3.8	10 4.8	10 5	0.2	70	8 5	2.0	8 5.0	7 0	-11.0
129	8 5	2.5	8 5.5	8 5	-0.5						4 55.2
	9 3	3.3	10 0.3	9 5	-1.3			~~Between 70 & 93 use~~	~~I.C. 0.8~~		-8.4
	14 0	6.0	15 0	15 0	0.0						
158	8 5	2.7	9 1.7	9 1	-0.7	93	7 2	+1.0	7 3.0	7 5	0.0
		Mean S -0.5					8 1	1.7	8 2.7	8 1	-1.7
		- B day -				94	8 4	2.1	9 0.1	9 2	+1.9
							9 5	3.0	10 2.0	10 3	1.0
						95	10 2	3.3	10 5.3	11 2	2.7
							10 2	3.3	10 5.3	11 3	3.7
26	7 1	+0.8	7 1.8	7 3	+1.2	96	10 5	3.6	11 2.6	12 0	5.4
	7 3	1.1	7 4.1	7 5	0.9		11 0	3.7	11 3.7	12 1	5.3
27	7 5	1.4	8 0.4	7 5	-1.4	97	11 5	4.1	12 3.1	13 1	5.9
	8 0	1.6	8 1.6	8 2	+0.4		15 5	5.0	14 8.0	14 5	3.0
	9 5	3.0	10 2.0	11 0	4.0		16 4	6.0	17 4.0	17 5	1.0
28	13 3	4.4	15 0.4	15 5	2.6						11)22.2
	14 3	5.4	15 2.4	15 5	1.2						+2.0
	15 4	5.8	16 3.8	16 5	-1.4			Between 98 and 123 use I.C. +3			
55	12 3	4.4	13 0.4	12 5	-1.1						
	8 4	2.1	9 0.1	8 5	-1.1	123	12 0	+4.2	12 4.2	12 2	+3.8
56	7 4	1.3	7 5.3	7 5	-0.3		7 4	1.2	7 5.2	8 5	5.8
37	7 0	0.7	7 0.7	7 0	-0.7		9 0	2.4	9 2.4	10 0	3.6
44	7 4	1.3	7 5.3	7 2	-3.3	24	9 2	2.6	9 4.6	10 3	4.4
45	7 5	1.4	8 0.4	7 4	-2.4		9 3	2.7	9 5.7	10 5	5.3
	8 2	1.9	8 3.9	8 3	-0.9	125	8 2	1.9	8 3.9	9 4	6.1
	10 4	3.5	11 1.5	10 1	(-5.5)		6 4	0.8	6 4.8	7 5	4.8
46	11 3	4.0	12 1.0	12 4	+3.0						42)[illegible]
	14 3	5.4	15 2.4	15 0	-2.4						-2.8
47	16 4	6.0	17 4.1	17 4	-0.1						+ 4.5
58	13 4	5.1	14 3.1	14 2	-1.1			S E day -			
	10 2	3.3	10 5.3	10 0	-5.3						
59	8 5	2.3	9 1.3	8 3	-4.3	1	13 0	+4.7	13 4.7	14 2	(+8.5)
	7 5	1.4	8 0.4	7 4	-2.4	2	8 5	2.8	9 1.8	10 0	4.8
	7 0	0.7	7 0.7	7 0	+0.7		10 1	3.8	10 4.8	10 5	0.8
	7 5	1.4	8 0.4	7 3	-3.4	3	10 0	3.1	10 3.1	10 3	-0.1
66	7 3	1.1	7 4.1	7 4	-0.1		9 4	2.9	10 0.9	10 2	+1.1
	7 3	1.1	7 4.1	7 3	+ 0.9	4	10 0	3.1	10 3.1	10 2	-1.1
67	9 2	2.6	9 4.6	9 4	-0.6		9 5	3.0	10 2.0	10 2	0.0
	10 3	3.4	11 0.4	11 3	+ 2.6	5	9 4	2.9	10 0.9	10 2	+1.1
68	13 2	4.9	14 0.9	14 2	1.1		9 3	2.7	9 5.7	10 0	0.3
						6	9 0	2.4	9 2.4	9 1	-1.4

FATHOMETER COMPARISONS

Sheet No. 3

- H day continued -

Pos.	Fath Sdgs fms ft	Scale & vel. corrn	Cor Fath fms ft	H. L. fms ft	Index corrn.					
6	8 0	+1.6	8 1.6	8 0	-1.6		10 2	+2.4	9 2.4	9 4	+1.6
	7 0	0.7	7 0.7	7 0	-0.7	183	11 0	3.5	10 5.5	10 4	-1.5
							10 5	3.7	11 3.7	11 5	-0.7
								3.6	11 2.6	11 3	+0.4
						184	9 0	2.4	9 2.4	9 3	0.6
12	9 5	2.7	9 5.7	10 0	-0.3		7 4	1.5	7 5.5	7 3	-2.5
13	8 5	2.2	9 1.2	9 1	-0.2	185	10 1	3.2	10 4.2	11 5	+0.8
	8 4	2.1	9 0.1	9 0	-0.1		9 0	2.4	9 2.4	9 3	0.6
	13 0	4.7	13 4.7	13 3	-1.7	144	10 1	3.2	10 4.2	10 5	0.8
17	13 5	5.1	14 4.1	14 4	-0.1		10 0	3.1	10 3.1	10 2	-1.1
	13 0	4.7	13 4.7	13 5	+0.3		8 5	2.0	8 5.0	8 5	0.0
	8 4	2.1	9 0.1	9 0	-0.1	145	7.8	1.0	7 3.0	7 2	-1.0
18	10 0	3.1	10 3.1	10 3	-0.1						
	10 0	3.1	10 3.1	10 3	-0.1			Mean = 0.0			
	10 0	3.1	10 3.1	10 2	-1.1						
19	9 4	2.9	10 0.9	10 1	+0.2			- G day -			
	9 0	2.4	9 2.4	9 2	-0.4						
	7 4	1.2	7 5.2	8 0	+0.8	43	8 4	+2.1	9 0.1	8 4	-2.1
20	7 0	0.7	7 0.7	6 5	-1.7		9 5	3.0	10 2.0	10 0	-2.0
29	10 4	3.5	11 1.5	11 2	+0.5		10 2	3.3	10 5.3	10 5	-0.3
	11 5	4.1	12 3.1	12 4	0.9	44	10 5	3.4	11 0.4	11 0	-0.4
30	13 2	4.9	14 0.9	14 0	-0.9		9 1	2.5	9 3.5	9 2	-1.5
39	16 3	6.0	17 3.0	17 5	+2.0		11 4	4.0	12 2.0	12 2	0.0
40	14 4	5.4	15 3.4	15 4	0.6	45	14 5	5.4	15 4.4	15 5	+0.6
	14 1	5.2	15 0.2	14 5	-1.2		9 2	2.6	9 4.6	9 5	0.4
	13 1	4.8	13 5.8	14 0	+0.2	75	11 2	3.9	11 5.9	11 5	-0.9
41	11 5	4.1	12 3.1	12 5	1.9		11 4	4.0	12 2.0	12 0	-2.0
	11 0	3.7	11 3.7	11 5	1.3		10 4	3.5	11 1.5	11 1	-0.5
	10 1	3.2	10 4.2	10 5	0.8	74	8 5	2.3	9 1.3	8 5	-2.3
42	9 5	3.0	10 2.0	10 3	1.0		7 0	0.7	7 0.7	7 0	-0.7
	9 4	2.9	10 0.9	10 0	-0.9	77	7 2	1.0	7 3.0	7 1	-2.0
	9 0	2.4	9 2.4	9 2	-0.4		8 5	2.3	9 1.3	8 5	-2.3
						78	10 1	3.2	10 4.2	10 3	-1.2
		Mean = 0.0					11 2	3.9	11 5.9	12 1	+1.1
							11 5	3.9	12 0.9	12 2	1.1
		- F day -				79	10 2	3.3	10 5.3	11 0	0.7
							9 0	2.4	9 2.4	9 2	-0.4
14	9 5	+3.0	10 2.0	9 5	-0.5		11 5	4.1	12 3.1	12 3	-0.1
	10 2	3.5	10 5.5	11 0	+0.7	80	14 0	5.2	14 5.2	14 3	-2.2
15	10 2	3.5	10 5.5	11 0	0.7	84	9 4	2.8	10 0.8	10 2	+1.2
	10 0	3.1	10 3.1	10 4	0.9		10 3	3.4	11 0.4	11 0	0.6
	9 1	2.5	9 3.5	9 3	-0.5	85	11 1	3.7	11 4.7	11 5	0.3
16	8 2	1.9	8 3.9	8 3	-0.9		8 0	1.6	8 1.6	8 5	3.4
25	8 1	1.7	8 2.7	8 2	-0.7	90	10 0	3.1	10 3.1	10 3	-0.1
	9 2	2.6	9 4.6	9 5	+0.4		10 2	3.3	10 5.3	10 [illegible]	+0.7
	10 1	3.2	10 4.2	10 3	-1.2		10 0	3.1	10 3.1	10 4	0.9
24	10 4	3.5	11 1.5	11 2	+0.5	91	8 4	2.1	9 0.1	9 0	-0.1
	10 3	3.4	11 0.4	11 1	0.6		12 3	4.5	13 1.5	13 2	+0.5
	10 3	3.4	11 0.4	11 4	3.6		14 3	5.4	15 2.4	15 3	0.6
25	11 4	4.1	12 2.1	12 3	0.9		12 1	4.5	12 5.5	13 0	0.7
	15 0	5.6	15 5.6	15 5	-0.6	96	9 3	2.7	9 5.7	10 0	0.3
33	11 5	4.1	12 3.1	12 2	-1.1		10 0	3.1	10 3.1	10 5	1.9
	10 1	3.2	10 4.2	10 3	-1.2	97	10 0	3.1	10 3.1	10 5	1.9
34	10 3	3.4	11 0.4	10 4	+3.6	99	7 1	0.8	7 1.8	7 0	-1.8
	10 5	3.6	11 2.6	11 2	-0.6		8 2	1.9	8 3.9	8 5	-0.9
	11 0	3.7	11 3.7	11 3	-0.7		10 2	3.3	10 5.3	10 5	-0.3
35	10 1	3.2	10 4.2	10 3	-1.2	100	10 3	3.4	11 0.4	11 2	+1.6
	8 4	2.1	9 0.1	8 5	-1.1		10 2	3.3	10 5.3	11 0	0.7
	7 3	1.1	7 4.1	7 3	-1.1		8 1	1.7	8 2.7	8 4	1.3
40	10 3	3.4	11 0.4	11 2	+1.6	101	12 0	4.2	12 4.2	12 3	-1.2
41	9 2	2.6	9 4.6	9 5	0.4	113	12 5	4.7	13 3.7	14 0	+2.3
	10 3	3.4	11 0.4	11 1	0.6	114	11 3	3.9	12 0.9	12 3	2.1
43	12 2	4.4	13 0.4	13 2	1.6		10 3	3.4	11 0.4	11 2	1.6
68	8 3	2.0	8 5.0	8 5	0.0	115	9 4	2.8	10 0.8	10 3	2.8
	9 5	2.7	9 5.7	10 1	1.5		9 2	2.6	9 4.6	10 0	1.4
	10 1	3.2	10 4.2	11 0	1.8	116	8 3	2.0	8 5.0	9 0	1.0
69	10 5	3.6	11 2.6	11 3	0.4		7 1	0.8	7 1.8	7 4	2.2
	9 5	2.7	9 5.7	10 1	1.5						
	13 0	4.7	13 4.7	13 5	0.3			Mean = +0.2			
70	13 4	5.2	14 5.2	17 0	2.8			- J Day - (New Circuit)			
101	11 4	4.1	12 3.1	12 3	0.9	52	11 1	+3.8	11 4.8	11 2	-2.8
	11 1	3.8	11 4.8	11 5	0.2		11 2	3.9	11 5.9	11 3	-2.9
	11 1	3.8	11 4.8	11 1	-3.8	55	11 4	4.0	12 2.0	12 0	-2.0
102	11 1	3.8	11 4.8	11 1	-3.8		11 5	4.1	12 3.1	12 1	-2.1
	10 4	3.5	11 1.5	11 0	-1.5	54	11 5	4.1	12 3.1	12 1	-2.1
103	9 1	2.5	9 3.5	9 4	+0.5		11 4	4.0	12 2.0	12 2	0.0
	8 0	1.6	8 1.6	8 0	-1.6	55	11 5	4.1	12 3.1	12 0	-3.1
V	7 1	0.8	7 1.8	7 0	-1.8		11 3	3.9	12 0.9	11 5	-1.9
108	8 2	1.9	8 3.9	8 3	-0.9	56	11 4	4.0	12 2.0	11 5	-2.0
	9 1	2.5	9 3.5	9 4	+0.5		10 4	3.5	11 1.5	11 0	-1.5
109	10 0	3.1	10 3.1	10 3	-0.1	57	9 5	3.0	10 2.0	9 3	-3.0
	10 1	3.2	10 4.2	11 0	+1.8		10 2	3.3	10 5.3	10 3	-2.3
	10 3	3.4	11 0.4	11 2	1.6	58	9 4	2.9	10 0.9	9 5	- 3.9
110	12 0	3.7	11 3.7	12 0	2.3		9 3	2.7	9 5.7	9 3	-2.7
122	11 3	3.9	12 0.9	13 0	5.1	59	9 4	2.8	10 0.8	9 3	-2.8

ECM
Sae.

(FOR THE FILES OF THE FIELD RECORDS SECTION)

June 2, 1930

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5016

Locality: East Coast of Florida (Off Gulf Stream)

Chief of Party: R. L. Schoppe in 1929
Plane of reference is mean low water, reading
2.5 ft. on tide staff at Rainbo Pier, Palm Beach
17.0 ft. below B. M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

H A Marmer
Acting Chief, Division of Tides and Currents.

H-5016

Chief of Party - R. L. Shoppe, charles shaw
Surveyed by - R. L. Shoppe
Protracted by - W. M. Gibson, - J. S. Morton
Sounding Penciled by - J. S. Morton.
Verified and Inked by - John S. Rodel

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development fulfills the requirements of the General Instructions.
3. The Sounding line Crossings are adquate
4. The usual Depth curves could be drawn.
5. The field plotting was complete to the extent prescribed in the General Instructions.
6. The junctions with adjacent sheet were satisfactory.
7. a. There was no apparent discrepancy with the chart, except for the two newly located wrecks along the shore line which

are in shoal water near the beach.

b. The shoreline was transferred from the aerial topos. # 4462 and 4463 by the office draftsman.

The shoreline and jetties of the canal in the sub-plan were taken from the 1:10000 aerial photos submitted with the descriptive report for this sheet.

c. The controls for the soundings in the Sandy Canal in the sub-plan were plotted and checked by using the projection of the entire sheet as a 1:5000 and then transfering the determined positions to their present location. The control signals were plotted in pencil only and removed after the work of plotting was checked.

d The difficulties experienced on this sheet with the fathometer are clearly outlined in the descriptive report. It is not believed

how ever that the off-shore work which was done with the fathometer is in error as careful hand lead comparisons were made at frequent intervals.

The 29 ft. sounding between 67 and 68d appears to be one (1) fathom in error but as it was retained by the field party, for lack of definite knowledge, it has been inked on sheet as recorded (see note, Vol. 5, page 27, Pos. 67 to 68d)

retained R.F.

The 21 ft. spot on position 158C between 17 and 14 feet, looks to be in error also by neither replotting (checking) nor plotting by line and course seem to change its location.

unimportant R.F.

John G. Ladd

To Capt. Eng,

Sept 25, 1930

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5016

East Coast of Florida

Surveyed in 1929

Hand lead and fathometer soundings

Instructions dated December 27, 1928 (RANGER)

Chief of Party, R. L. Schoppe, C. Shaw

Surveyed by R. L. S., R. C. Overton

Protracted by W. M. Gibson, J. S. Morton

Soundings plotted by J. S. M.

Verified and inked by J. G. Ladd

1. The records conform to the requirements.

2. The plan, character and extent of the survey satisfy the requirements of the general and specific instructions.

3. In general the sounding line crossings are satisfactory. Although considerable trouble was encountered with the fathometer, the fathometer soundings agree fairly well with the hand lead soundings when taken simultaneously. The fathometer soundings were not plotted in shoal depths except along the ridge approximately three-fourths mile from shore. On this ridge some fathometer soundings, below the authorized limits of 8 fathoms, were plotted, as it was probable that the fathometer would pick up lumps missed by the lead. In the deeper areas, the fathometer soundings are believed to be nearly correct. Mr. Witherbee's compilation of fathometer corrections was accepted.

4. The information is sufficient for completely drawing the usual depth curves.

5. The junction on the north with H. 4963 is satisfactory.

The junction on the south with H. 5015 is also satisfactory.

Comparison with the old survey of 1883, H. 1553 shows no serious discrepancies but it is recommended that this sheet, H. 5016, shall supersede it as the recent work is much closer and probably more nearly portrays the conditions existing at present.

6. The usual amount of field plotting was well done by the field party.

7. Character and scope of surveying - very good.
The ground is well covered. There are no dangerous shoals except the two ridges, one just outside the 12 ft. curve and the other approximately three-fourths mile from shore. The development of these is considered sufficient.

8. While no further hydrography is necessary, the chief of party recommends the wire dragging of the two ridges. The ridge just outside the 12 ft. curve seems almost too close inshore to warrant dragging. The ridge outside the 60 ft. curve is prominent on the adjacent surveys also. One drag strip would probably suffice to prove this ridge free from dangerous depths and it is recommended that it be covered by the drag.

9. Reviewed by R. L. Johnston, Sept. 27, 1930.

Approved:

A. M. Soltenalski
Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5016

East Coast of Florida

Surveyed in 1929

Hand lead and fathometer soundings

Instructions dated December 27, 1928 (RANGER)

Chief of Party, R. L. Schoppe, C. Shaw

Surveyed by R. L. S., R. C. Overton

Protracted by W. M. Gibson, J. S. Morton

Soundings plotted by J. S. M.

Verified and inked by J. G. Ladd

1. The records conform to the requirements.

2. The plan, character and extent of the survey satisfy the requirements of the general and specific instructions.

3. In general the sounding line crossings are satisfactory. Although considerable trouble was encountered with the fathometer, the fathometer soundings agree fairly well with the hand lead soundings when taken simultaneously. The fathometer soundings were not plotted in shoal depths except along the ridge approximately three-fourths mile from shore. On this ridge some fathometer soundings, below the authorized limits of 8 fathoms, were plotted, as it was probable that the fathometer would pick up lumps missed by the lead. In the deeper areas, the fathometer soundings are believed to be nearly correct. Mr. Witherbee's compilation of fathometer corrections was accepted.

4. The information is sufficient for completely drawing the usual depth curves.

5. The junction on the north with H. 4963 is satisfactory.

The junction on the south with H. 5015 is also satisfactory.

Comparison with the old survey of 1883, H. 1553 shows no serious discrepancies but it is recommended that this sheet, H. 5016, shall supersede it as the recent work is much closer and probably more nearly portrays the conditions existing at present.

6. The usual amount of field plotting was well done by the field party.

7. Character and scope of surveying - very good.
The ground is well covered. There are no dangerous shoals except the two ridges, one just outside the 12 ft. curve and the other approximately three-fourths mile from shore. The development of these is considered sufficient.

8. While no further hydrography is necessary, the chief of party recommends the wire dragging of the two ridges. The ridge just outside the 12 ft. curve seems almost too close inshore to warrant dragging. The ridge outside the 60 ft. curve is prominent on the adjacent surveys also. One drag strip would probably suffice to prove this ridge free from dangerous depths and it is recommended that it be covered by the drag.

9. Reviewed by R. L. Johnston, Sept. 27, 1930.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5003

Humboldt Bay, California

Surveyed Oct. 25 to Oct. 31, 1929

Hand lead soundings

Instructions dated April 27, 1929 (Lt. A. P. Ratti)
Supplemental instructions dated October 4, 1929

Chief of Party, A. P. Ratti

Surveyed by A. P. R.

Protracted and soundings plotted by G. M. Marchand

Verified and inked by L. S. Straw

1. The records conform to the requirements.

2. The plan, character and extent of the survey satisfy the general and specific instructions.

3. There are very few cross lines. These cross fairly well and the agreement of adjacent lines is generally good.

4. Within the limits of the work, the information is sufficient for drawing the usual depth curves.

5. The examination of the end of the shoal southwest of Indian Island, shown on field sheet No. 12, shows an extension of the spit in a southwesterly direction and considerable shoaling. Within its limits, this sheet, H. 5003, should supersede the survey of 1919, H. 4097.

   The revision work on field sheet No. 11, south of Lat. 40° 47' agrees fairly well with the survey of 1919, H. 4096, but within its limits this sheet, H. 5003, should supersede it.

Comparison of the work shown on field sheet No. 10, in the vicinity of Pt. Humboldt, with the hydrography on H. 5001, shows a number of differences. It is hardly probable, although not impossible, that changes have occurred in the three weeks which separate the two surveys. The work on H. 5001 was rechecked but no errors could be found. However, it is believed that any slight errors in the surveying, such as the not taking of angles exactly simultaneously would be magnified when enlarged to this scale and it is noted that most of the soundings on H. 5001 would agree fairly well with this work if their position were slightly changed.

It is recommended that the latest survey, H. 5003, supersede all previous work within its limits. This includes H. 4096, H. 4857 and H. 5001.

6. The usual amount of field plotting was well done by the field party. Through a misunderstanding the office verifier inked field sheet No. 10 to the nearest half foot instead of the nearest foot.

7. No additional work is recommended.

8. Reviewed by R. L. Johnston, Sept. 11, 1930.

Approved:

L. O. Colbert

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5016

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

Number of positions on sheet	1852
Number of positions checked	305
Number of positions revised	3
Number of soundings recorded	7090
Number of soundings revised	26
Number of signals erroneously plotted or transferred	None

Date: Sept 20 1930

Cartographer: John D. Ladd