5115

Diag. Cht. No. 1265-2

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R.S.Patton, *Director*

State: Florida

DESCRIPTIVE REPORT

~~*Topographic*~~
Hydrographic } *Sheet No.* 5115
Field #1

LOCALITY

Gulf Coast

Off Santa Rosa I.

1930-31

CHIEF OF PARTY

F.L.Peacock, L.O.Colbert

U. S. GOVERNMENT PRINTING OFFICE: 1930

5115

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO. 5115

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. 1

REGISTER NO. 5115

State Florida

General locality ~~West Coast~~ Gulf Coast

Locality Off Santa Rosa I.

Scale 1:40,000 Date of survey April, May 1930 March, April, 1931

Vessel OCEANOGRAPHER

Chief of Party F.L. Peacock 1930 L.O. Colbert 1931

Surveyed by F. L. Peacock and L. O. Colbert.

Protracted by O. B. Hartzog.

Soundings penciled by O. B. Hartzog.

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by J T Walker

Verified by J T W

Instructions dated Jan.29, 1930; Jan.31, 1931; Feb.17, 1931

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1930

Additional Information
One vol. Log Tests filed with Sounding Vols. of H-5112

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 1. H 5115

GULF OF MEXICO

OFF SANTA ROSA ISLAND, FLORIDA

.....

PROJECT NO. 74

.....

Work was performed on this hydrographic sheet in accordance with instructions to the Ship OCEANOGRAPHER dated January 29, 1930, January 31, 1931, and further instructions of February 17, 1931. It supplements Hydrographic Sheet 4604 (R.L. Schoppe, 1927) sufficiently to bring the spacing of sounding lines to the specifications of the latest instructions. Plans to have a due north and south line at the eastern limit of this area were nullified by bad weather at the close of the season when orders were received to stop work and proceed from this vicinity to prepare for work on the northern working grounds.

All sounding lines were controlled by fixed positions on shore signals or on buoys except the line 19D to 36D.

This line was run under poor conditions for accurate hydrography, the fathometer was not functioning well and errors were made by the recorder who was under his first instruction in this work. It is recommended that the soundings between these positions be discarded.

No obstructions, banks or submarine valleys were noted. No consideration of channels or anchorages is

necessary in this area. Reduction of the soundings for tides was based on the records of the Pensacola tide station, an abstract of which was obtained from the observer.

Comparative soundings, collection, recording and abstracting of temperature and salinity data, computations and abstraction of log ratings were made by Lt. Thos. B. Reed or under his immediate supervision.

There is attached a descriptive report of the method of locating the buoys prepared by Lt. Thos. B. Reed.

The following data are forwarded as a part of this report:

Statistic Sheet.

List of Buoy Positions.

Abstract of Water Temperatures and Salinities.

Abstract of Fathometer Comparisons,

Temperatures, Salinities and Bottom Characteristics.

Respectfully submitted,

L. O. Colbert.

L.O. Colbert, Comdr, C.& G.S.,
Commanding Ship OCEANOGRAPHER.

Norfolk, Va.,
May 8, 1931.

STATISTICS SHEET

TO ACCOMPANY

DESCRIPTIVE REPORT OF HYDROGRAPHIC SHEET NO. 1

.....

	Statute Miles of Sounding Line	Number of Soundings	Number of Positions
Vol. 1	82.7	817	224
Vol. 2	116.2	1401	223
Vol. 3	81.7	1274	190
Vol. 4	62.4	948	115
Totals	343.0	4440	752

Area in square statute miles: - 180

FATHOMETER COMPARISONS

Water Temperatures and Salinities

Abstract of Fathometer Comparisons, Temperatures, and Salinities and Bottoms
To accompany Descriptive Report of Hyd. Sheet No. 1

Project No. 74, Off Santa Rosa Island Florida 1931.

Date 1931	Time	Position Lat. N.	Position Long W	Depth by Wire Fms.	Fathometer Input Fms.-Ft.	Fathometer Output Fms.-Ft.	Obs.	Specific Gravity Surface	Specific Gravity Sub-Surface		Water Temperatures Ther No.	Water Temperatures C°	Depth	Water Temperatures C°	Ther No.	Sea	Air C°	Wind	Weather	Baro.	Motion of Vessel	Bottom	Remarks - Position No. etc.
Mar. 5	10:40	30-13	86-54		16-1	14-2		1.0261			21497	15.3				Light Chop	85	E-2	Clear	30.16	Slight	Tre Wh S.	At Buoy "B"
"	11:25	30-13	86-57		14-1	12-3		1.0260			"	15.2	Bottom	15.2	21498	" "	84	E-2	"	30.16	"	Fine Wh S & Sh	" " "C"
Mar. 6	8:40	30-22	86-48		10-4	9-0		1.0261			21500	15.2	"	15.4	"	Smalls	59	ESE-4	Cloudy	30.11	"		1.2 mi S. of Δ Beauty 3
"	12:05	30-16	86-50		11-3	9-1		1.0260			"	15.2	"	15.3	"	" "	61	ESE-4	"	30.10	Lt Roll		1B-D
"	13:20	30-18	86-50		16-1	12-4		1.0261			"	15.7				" "	61	ESE-4	"	30.05	" "		1B D
Mar. 13	12:05	30-08	86-58		18-5	17-0					"	15.9	"	15.1	"	Lt Chop	62	W-4	Clear	30.28	Steady		E-F 124°32' F-G 98°42'
"	12:35				19-2	19-2															"		Reset discs on fathometer (a read correctly)
"	13:45	30-14	86-58		14-0	13-3		1.0260	Bottom	1.0261	21498	15.2	"	15.7	"	Light Chop	62	WSW-3	Clear	30.28	"	Fine Wh S Wh Sh	10% E.
"																							1-F.
Mar. 13	7:35	30-15	86-56		12-0	12-0		1.0264			"	15.0	"			Smalls	62	E-2	"	30.33	"		" "
"	11:04	30-12	86-59		14-5	14-1		1.0260	Bottom	1.0268	"	15.5	"	15.9	"	" "	61	SE-2	"	30.27	"	Fine Wh S	At Buoy "D"
"	11:35	30-10	86-59		16-0	15-2					"	16.3				"		SE-2	"			D Brk Sh Cr Gy S. Fine wh Sh	At Buoy "E"
"	12:55	30-09	86-49		19-2	18-4		1.0250			"	16.2	"	15.8	"		62					Cr Gy S. Brk Sh	At Buoy "JED"
"	13:55	30-09	86-49		20-0	19-2		1.0262			"	15.9	"	16.2	"								¼ mi. SE. of "JED"
Mar. 14	13:40	29-37	86-32	12.8				1.0261	Bottom	1.0264		19.5	"	14.2	21520	Smooth		Calm	¾ Hy Cloudy	30.20	Steady	Gy M	At Marker Buoy "X" 40 A
"		"	"										50	19.2	"								" "
"		"											65	18.8	"								" "
"		"											80	17.4	"								" "
"	13:40	"											100	16.0	"								" "
"	19:10	30-09	86-49		20-0	19-4		1.0253	Bottom	1.0262	21498	16.1	Bottom	16.8	"	Smooth		Calm			Steady	Br. S.	¼ mi 192° from "JED"
Mar. 15	7:50	30-09	86-49		19-2	19-2	17.2	1.0265	"	1.0261	"	16.2	"	16.4	"	"		NW-2	Clear	30.16	Steady		Near Buoy "JED" (Lead Line Correct)
"	11:30	29-37	86-32	13.0				1.0248					"	14.2	21498							Gy. M.	Hydrometer Broken, At marker Buoy
"		"	"										65	18.2	"								"
"	18:10	30-10	86-49.7		20-0	19-3						16.2	20	28.8	"	Smooth		NW-2	Cloudy	30.05	Steady	Fine Sh Cr Gy S.	1 mi NW Buoy "JED" (Lead Line Current)
Mar. 16	8:10	30-08	86-52	27	26-3	26-0		1.0250			515°00	15.0	Bottom	15.7	21500	Light Chop		N-4	"	30.11	Light Roll	Cr. Br. S.	Near Buoy "HOE"
Mar. 17	9:05	30-23	86-41		5-3	6-3										Smooth							¼ mi from W Cutter
"	9:18	30-22	86-41		9-1	8-4		1.0255			21498	14.8	Bottom	15.2	21498	"		N-2	Clear	30.16	Steady		¾ " " "
"	17:50	30-13	86-50		13-5	13-1		1.0250	Bottom	1.0255	"	15.1	"	15.5	"	"	60	SW-3	"	30.08	"	Fine Wh S	Buoy "AL" 250°T ¼ mi
"																							" " " " " Fathometer cold.
Mar. 18	7:30	30-13	86-50		13-4½	13-4		1.0244			"	15.5	"	15.5	"	"	60	Calm	"	30.10	"		
"	8:30	30-08	86-50		27-1½	27-0		1.0249			"	15.8	"	15.5	"	"				30.10	"	Fine Gy S.	NNE ¼ mi Buoy HOE.
"	10:05	30-07	86-50		37-2	36-4		1.0250				12.7	"	15.5	"	"						Cr. Gy S.	Hammer stopped working after this only Remind but evidently reading 2 fms low.
Mar. 25	11:55	30-16	86-52		11-3	11-1		1.0243	"	1.0252	"	16.5	"	16.2	"	Light Swell		NNE-3	Cloudy	30.06	"	Fine Gy S.	
"	15:11	30-16	86-30		13-0	11-0										Smooth						Fine Wh. S	Near Pos. 49-B
"	16:10	30-16	86-48		12-3	10-1																Fine wh S.	" " " 6B-J
Mar. 26	10:40				13-2	12-1		1.0248	Bottom	1.0252	"	16.8	Bottom	16.2		Medium Swell Heavy Chop	61	ENE-5	Cloudy	30.09	Light Roll	Fine	
"	12:10	30-10	86-49.7		23-3	21-3		1.0246				16.7	"	16.2									

Continued on next Page

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FATHOMETER COMPARISONS

Water Temperatures and Salinities

Abstract of Fathometer Comparisons, Temperatures, Salinities and Bottom Characteristics
To accompany Descriptive Report of Hyd. Sheet No. 1

Project No. 74 off Santa Rosa Island, Florida. 1931

Date. 1931	Time	Position Lat. N.	Position Long W	Depth by Wire Fms.	Fathometer H.L. Fms.-ft.	Fathometer Impact Fms.-ft.	Fathometer Osc.	Specific Gravity Surface	Specific Gravity Sub-Surface	Specific Gravity	Water Temperature Surface Thermo	Water Temperature Surface C°	Water Temperature Bottom Depth	Water Temperature Bottom Thermo	Water Temperature Bottom C°	Sea	F°	Wind	Weather	Barom.	Motion of Vessel	Bottom	Remarks - Positions &c.
Mar 26	13:45	30-17	86-49		13-3	11-3		1.0248			51498	16.3				Moderate	62	E-4	Showers	30.02	Light Roll		Near 37-K
"	15:00				13-5	13-3																	Dial reset on fathometer To read correct
Mar 30	12:25	30-16.2	86-47.8		11-4	12-6					"	18.75	Bottom	51498	15.7	Smooth	68	ENE-3	b.c.	30.06	Steady	Tan Wh. S.	" " " " April 1.
Apr 2	8:10	30-22	86-49		10-0	10-1		1.0248			51498	15.4	Bottom	51498	16.3	Long Swell	60	ENE-1	clear	29.87	"	Tan Wh. S.	
"	9:10	30-16	86-48		12-5	12-1												ENE-1	"		Steady	Hrd.	1-L
"	10:30	30-05	86-47		24-3	23-0		1.0230	Bottom	1.0262	51498	16.7	Bottom	51498	16.9	Long Swell	66	ENE-1	"	29.96	"	Bk sh. Gn.Bn.S. P.	21-L
"	13:02	30-10	86-46		19-3		18-4				"	16.4	"	"	16.9	" "		ENE-1	"	29.96	"		Near ⊙ Num. Hydrometer Broken.
"	13:17	30-10	86-43		19-4		18-5									Lumb Swell		ENE-1	"	29.98	"	Bk sh. Gn.Bn.S.	1/4 mi E. of ⊙ Num
"																							1:30 Apr. 2. Spring broke. Replaced with mercury
Apr 3	9:45	30-13	86-49		16-0	14-5					51498	16.0	Bottom	51498	16.6	Moderate Swell	64	ESE-3	Cloudy	30.00	Light roll & pitch	Gra. Gy. S.	Near ⊙ KACY
"	9:05	30-13	86-49		15-8	15-1												ESE-3	"	30.00	"		" ⊙ "
"	12:55	30-13	86-52		15-0	14-2					51498	16.1	Bottom	51498	16.5	Moderate Swell	66				"	Bk sh. Gy Wh S.	Near ⊙ AL.
"	16:30	30-07.5	86-59.0		19-0	18-0					"	16.8	"	"	16.9	"	66				10° roll		
Apr 4	11:55	30-07.5	86-52		19-2	18-1					51498	16.3	"	"	16.5	Moderate Swell	66			30.02	"	Gn Wh Sh.	
"	13:50	29-44	86-52	102-0			106-0 R										65				Light roll		Fathometer reading inconsistently
"	14:10	29-44	86-52	102-0			106-0 R				51498	20.0	Bottom	51500	16.9		65				" "		Buoy "2" bears 283½°T VA. 21' (Approximate)
"	14:20	29-44	86-52										20	51500	19.3		65						" "
"	17:00	30-09	86-54		21-3	20-0					51498	16.6	Bottom	51498	16.6		65						Near ⊙ HOG.
"	17:05	30-09	86-52		21-3	20-3																	Near ⊙ HOE.
Apr 5	7:15	30-09	86-49		19-2	19-2					51498	15.9	Bottom	"	16.3	Short Swell.		NNW-1	Clear	30.03	Light Roll	Sr. Sh. Gn Wh S.	Near ⊙ J & D.
"	9:40	30-18	86-49		11-5	11-1					"	16.7	"		16.9						" "	Wh. S.	
"	9:42	"	"		11-3	11-2																	

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ABSTRACT OF WATER TEMPERATURES AND SALINITIES

IN GULF OF MEXICO, OFF SANTA ROSA ISLAND, FLORIDA

PROJECT NO. 74 MARCH AND APRIL 1931

SHEET NO. 1

DATE 1931	TIME	LAT.	LONG.	DEPTH Fms. Ft.	SALINITY Sp. Gr.	CORRECTED SUR.	TEMP. BOTT.	
Mar. 6	8:40	30-22	86-46	10-4	1.0261	15.2	15.4	
Mar. 6	12:05	30-18	86-50	11-5	1.0260	15.2	15.3	
Mar. 6	1:20	30-18	86-50	16-1	1.0261	15.7		
Mar 12	12:05	30-08	86-58	18-5		15.9	15.1	
Mar 12	5:45	30-14	86-58	14-0	1.0256*	15.2	15.7	
Mar 13	7:25	30-15	86-56	12-0	1.0254	15.0		
Mar 13	11:04	30-12	86-59	14-5	1.0259*	15.5	15.9	
Mar 13	11:35	30-10	86-59	16-0		15.3		F = 0.0085
Mar 13	12:55	30-09	86-49	19-2	1.0250	16.2	15.8	8-18 fms = +.1fms
Mar 13	5:55	30-09	86-49	20-0	1.0252	15.9	16.2	19-29 fms = +.2fms
Mar 16	8:10	30-08	86-52	26-3	1.0250	15.0	15.7	30-41 fms = +.3fms
Mar 17	9:18	30-22	86-41	9-1	1.0255	14.8	15.2	42-53 fms = +.4fms
Mar 17	5:30	30-13	86-51	13-5	1.0252*	15.7	15.5	54-65 fms = +.5fms
Mar 18	8:30	30-08	86-50	27-1	1.0249	15.8	15.5	
Mar 18	10:05	30-07	86-50	37-2	1.0250	15.7	15.5	
Mar 25	11:55	30-16	86-52	11-3	1.0248*	16.5	16.2	
Mar 26	10:40			13-2	1.0250*	15.8	16.2	
Mar 26	12:10	30-10	86-49.7	23-3	1.0246	16.7	16.2	
Mar 26	1:45	30-17	89-49	13-3	1.0248	16.3		
Apr 2	10:30	30-08	86-47	24-3	1.0251	16.7	16.9	
Apr 2	1:02	30-10	86-46	19-3		16.4	16.9	Hydrometer broken
Apr 3	9:45	30-13	86-49	16-0		16-0	16.8	
Apr 3	12:55	30-13	86-52	15-0		15.1	16.5	
Apr 3	4:30	30-07.5	86-57	19-0		16.5	16.9	*Mean of surface
Apr 5	7:15	30-09	86-49	19-2		15.9	15.3	and bottom.
" 5	9:40	30-18	86-49	11-5		15.7	15.7	
		Means			1.0253	15.86		Comp by T.B.R. Checked P.T.

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Descriptive Report
of
Location of Survey Buoys
off Santa Rosa Island, Gulf of Mexico
U.S.C. & G.S.S. OCEANOGRAPHER

March and April 1931

To accompany Descriptive Report Sheet 1

Method of Proceedure

Buoys, AL, BEN, CAT, KACY, and LAB were cut in from sextant fixes about two miles inshore from the row of buoys. Tall hydrographic signals on shore were used for fixes. All plotting of cuts was done on a 1:40,000 projection on an aluminum sheet. A sketch showing the intersection of cuts on these buoys is shown on page 4 of this report. The numbers on the cuts correspond to position numbers in the horizontal angle record.

The sketch on page 5 of this report shows the method of locating buoys DOG, ELK, FOX, GOAT, HOE, and JED. Full speed double runs were made between buoys CAT and DOG, DOG and ELK, ELK and FOX, FOX and GOAT, GOAT and HOE, HOE and JED and JED and AL. Sun azimuths were observed between buoys around the loop from CAT to AL. Buoys DOG, ELK and FOX were planted exactly on range and no sun azimuth was taken between ELK and FOX, but the azimuth of entire line was taken from DOG.

Beginning with buoy CAT the entire loop was plotted as a traverse using full speed double runs for distance and sun azimuths for azimuth. The closure of the loop at buoy AL was 160 meters which was adjusted. The entire loop was plotted on a 1:40,000 projection on an aluminum sheet.

Buoy MATE was located from Buoy JED by a full speed double run for distance and the mean of the courses run and the range on position for azimuth. This buoy was lost before a sun azimuth was obtained. Buoy NUN was located from buoy JED by a full speed double run for distance and a visual bearing for azimuth.

Full speed double runs for buoy locations are recorded in the record labeled "Runs for Locating Buoys" accompanying this report, and computations are on the sheet attached. Cuts for locating buoys and sun azimuths are recorded in the record labeled "Angles for Buoy Positions" accompanying this report and computations of sun azimuths are attached herewith.

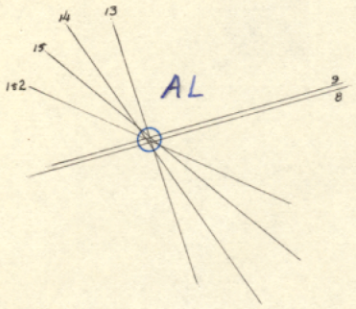
Page 15 of this report lists the positions of all buoys as scaled from the aluminum sheet.

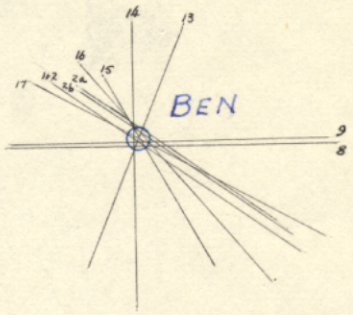
Respectfully Submitted,

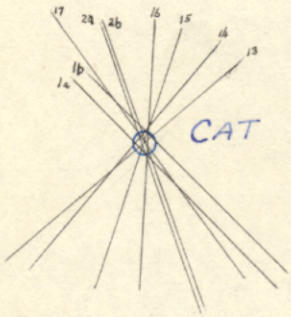
Thos. B. Reed,
H. & G. Engineer.

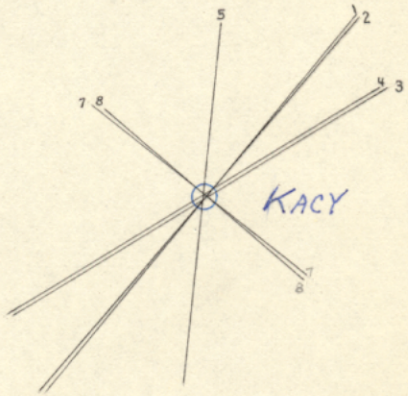
Approved and Forwarded:

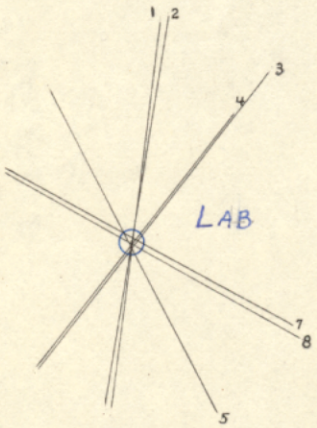
L. O. Colbert,
Commanding Ship OCEANOGRAPHER.







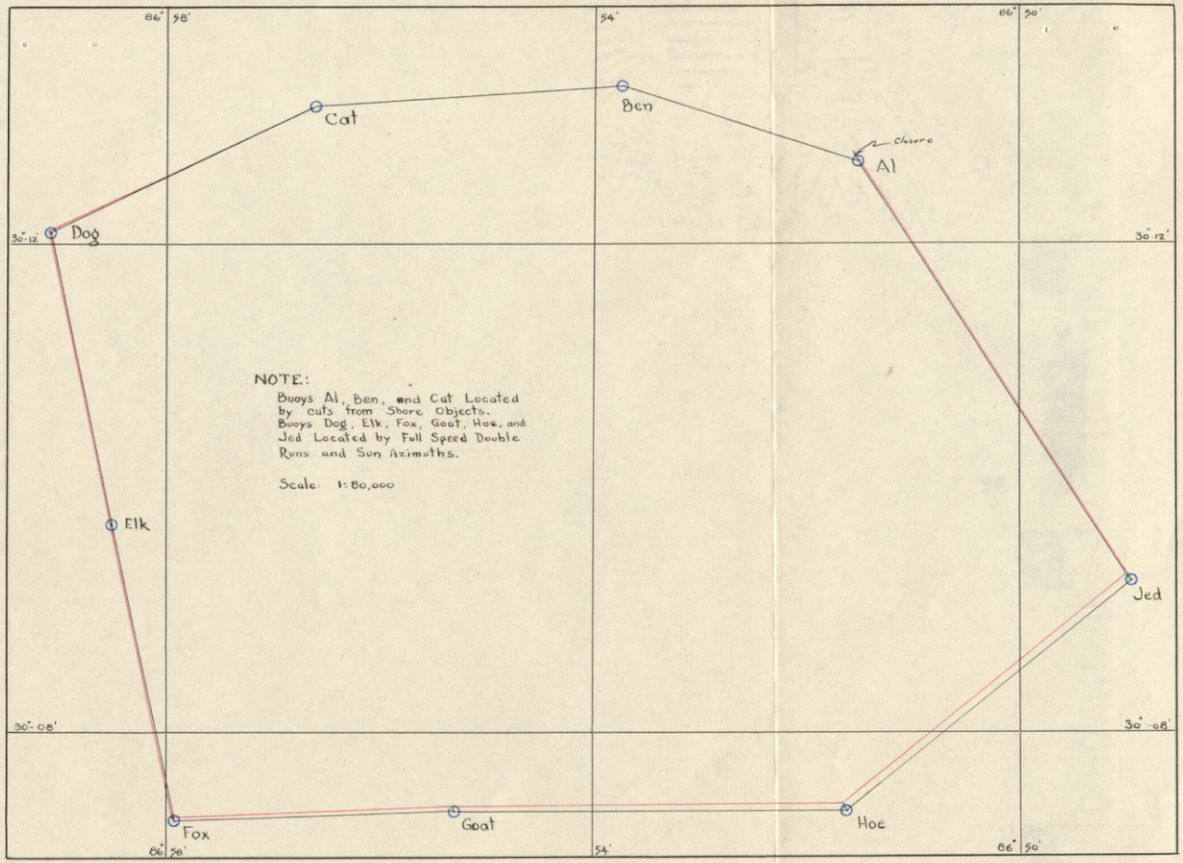




Sketch showing cuts to buoys on aluminum sheet. Scale 1:40,000

Cuts to "AL," "BEN" and "CAT" were taken on March 10 and 11, 1931

Cuts to "Kacy" and "Lab" were taken on March 25, 1931.



⊙ ADJUSTED POSITION OF BUOY
ADJUSTMENT
UNADJUSTED LOOP
ADJUSTED LOOP

Computation of distances between buoys from full speed double Runs.

Run No	Time	Elec. Log	Log Dist.	True Dist. f=1.018	Taffrail Log #2	Log Dist.	True Dist. f=.998	Taffrail Log #3	Log Dist.	True Dist. f=1.030	Revolutions Stbd.	Revolutions Port		Mean Rev's	Miles 545 rev. per mile	Mean Dist.	Buoys	Remarks	Azimuth from Computations Sun Az.
1	8:43:00	66.575			54.89			18.15			281515	340270							
1	8:54:30	68.616	2.041	2.080	56.94	2.05	2.046	20.24	2.09	2.15	282690	341458		1182					
			Mean	(2.235)		Mean	(2.28)		Mean	(2.33)			Mean	(1283)	2.35	2.30	F to G		88-02
2	9:07:30	70.015			58.26			21.67			283678	342077							
2	9:21:00	72.364	2.349	2.390	60.77	2.51	2.505	24.11	2.44	2.51	285054	343470		1384					
3	9:35:57	73.780			61.92			25.27			286077	344144							
3	9:49:26	76.164	2.384	2.43	64.50	2.68	2.68	27.72	2.45	2.52	287447	345528		1372					
			Mean	(2.35)		Mean	(2.50)		Mean	(2.46)			Mean	(1342)	2.46	2.44	E to F		168-09
6	11:31:35	91.283			78.58			41.78			295872	354358							
6	11:44:05	93.507	2.224	2.26	80.90	2.32	2.32	44.12	2.34	2.41	297184	355666		1312					
3	9:49:26	76.164			64.50			27.72			287447	345528							
3	10:02:45	78.558	2.394		66.88	2.38	2.38	30.12	2.40	2.47	288816	346894		1368					
						Mean	(2.25) Reject		Mean	2.42			Mean	(1328)	2.44	2.43	D to E	Elec. Log and 8.2 mi log used.	168-09
6	11:19:07	89.508			76.47			39.48			294583	353070							
6	11:31:35	91.283	1.775 Reject		78.58	2.11	2.11	41.78	2.30	2.37	295872	354358		1288					
4	10:32:20	81.250			68.45			31.50			290179	348415							
4	10:44:42	83.540	2.290	2.33	70.78	2.33	2.33	33.85	2.35	2.42	291462	349701		1284					
			Mean	(2.36)		Mean	(2.39)		Mean	(2.44)			Mean	(1327)	2.43	2.41	C to D		65-08
5	10:54:15	85.081			72.33			35.39			292413	350613							
5	11:07:48	87.416	2.335	2.38	74.78	2.45	2.45	37.78	2.39	2.46	293783	351984		1370					
7	1:13:55	88.500		3 Reject	23.78			88.16			353601	412180							
7	1:34:25	92.753	4.253	4.33	27.81	4.03	4.02	92.07	3.91	4.03	355768	414350		2168					
						Mean	(4.08)		Mean	(4.12)			Mean	(2225)	4.08	4.09	Jed-Al	Elec. Log not used.	328-37
8	1:46:00	94.700			29.79			94.03			356838	415503							
8	2:08:15	98.686	3.986	4.06	33.94	4.15	4.14	98.11	4.08	4.20	359183	417784		2283					
9	2:18:45	0.400			35.71			99.84			360224	418776							
9	2:34:38	3.310	2.910	2.960	38.74	3.03	3.02	102.78	2.94	3.03	361684	420426		1655					
						Mean	(2.97)		Mean	(2.99)			Mean	(1636)	3.00	2.99	Hoe-Jed	Elec. Log not used.	231-04
10	2:46:30	5.523			40.70			4.76			363035	421800							
10	3:02:20	8.088	2.545 Reject		43.60	2.90	2.89	7.63	2.87	2.96	364648	423217		1615					

Comp by RSR ✓ by RT
Copy ✓ by RSR

Run No	Time	Elec. Log	Log Dist.	True Dist. f=1.018	Taffrail Log #2	Log Dist	True Dist f=.998	Taffrail Log #3	log Dist.	True Dist f=1.030
					58.09			22.65		
11	4:27:40	22.850								
11	4:44:18	25.887	3.037	3.092	61.26	3.17	3.16	25.76	3.11	3.20
			Mean	(3.136)		Mean	(3.25)		Mean	(3.25)
					63.31			27.81		
12	4:55:55	27.857								
12	5:12:25	30.982	3.125	3.180	66.66	3.35	3.34	31.01	3.20	3.30
					41.19			24.11		
13	3:32:25	22.159								
13	3:47:35	24.687	2.528	2.56	43.73	2.54	2.54	26.67	2.56	2.64
			Mean	(2.44)		Mean	(2.46)		Mean	(2.51)
					45.44			28.40		
14	3:58:25	26.403								
14	4:11:18	28.675	2.272	2.32	47.81	2.37	2.37	30.71	2.31	2.38
					52.99			36.11		
15	11:55:35	18.333								
15	12:12:40	21.187	2.854	2.91	55.66	(2.67)	Reject	39.11	3.00	3.09
			Mean	(2.67)					Mean	(2.84)
					57.82			41.49		
16	12:22:10	23.490								
16	12:41:20	25.880	2.390	2.44	60.28	2.46		44.00	2.51	2.59

Revolutions Stbd	Revolutions Port		Mean Rev's	Miles 545 rev. per mile	Mean Dist.	Buoys	Remarks	Azimuth from Computations Sun Az.
373118	431692							
374875	433450		1752					
		Mean	(1756)	3.22	3.22	Goat-Hoe		89-39
376075	434618							
377839	436374		1760					
620689	679333						Buoy Mate was lost before Sun Azimuth was taken. Use mean of courses in full speed double run and Range on Position 17J for azimuth.	
622170	680792		1470					
		Mean	(1382)	2.54	2.49	Jed-Mate		
623185	681830							
624479	683125		1294					
744134	803671							
745792	805332		1659				Log #2 not used	265-30
		Mean	(1524)	2.79	2.77	Jed-NUN	Azimuth from visual bearing	
747164	806720							
748553	808109		1389					

Comp. by JSSR
" by F.T.
Copy rec'd JSSR

Hydrographic Sheet No 1, Pensacola Florida

AZIMUTH BETWEEN BUOYS BY OBSERVATION ON SUN

Position:- at Buoy Dog
Lat:- 30 - 12.1
Long:- 86 - 59.1
Ranges:- C and Dog
March 12, 1931

Observer:- Mr. Sammon.
Sextant # OK
I.C.

	h m s		° ' "
C		Obs. h	
☽		I.C.	
C-☽		S.D.	
WT			
CT	7 28 20	Corr. h	04° 51'
CC (+5h)	(−) 36		
GCT	12 - 27 - 44		
E	(+) 10 - 04		
GAT	12 - 17 - 40		
Long	5 - 47 - 56		
LAT	6 - 29 - 44		

L.Tim.⊙ to Range 31 - 49 - 10
~~Range to L. Tim.~~
I.C.
S.D.⊙ 16
Corr. V_o 32 - 05 - 10

Log cos V_o 9.92802
" " h 9.99844
" " V_c 9.92958
V_c 31 - 45
Azimuth (from tables) 96 - 53
Azimuth Buoy C to D 65 - 08

Calculated Altitude of Sun

t = 5 - 30 - 16 Log hav 9.63880
L = 30 - 12.1 Log cos 9.93664
δ = (−) 3° - 34.8 Log cos 9.99915
Log hav. 9.57459
nat. hav 0.37548
nat hav. 0.08442
.45990

L - δ: 33 - 46.9
Z = 85° 24'
Calc. h 04° 36'
C & P Dip + 10
05
Comp. Obs. alt. = 04° 51'

Computed:- E. F. A. S.
Checked:- J. B. H.

Hydrographic Sheet No 1, Pensacola, Florida 9

AZIMUTHS BETWEEN BUOYS BY OBSERVATION OF SUN

Position:- at Buoy Dog
Lat:- 30 - 12.1
Long:- 86 - 59.1
Ranges:- Dog and Elk and Fox

Observer:- M. Crosby
Sextant # O.K.
I.C.

March 12, 1931

	h m s
C	
U	
C-U	
WT	
CT	7 17 56
CC (+5h)	(-) 36
GCT	12 - 17 - 20
E	10 - 04
GAT	12 - 07 - 16
Long	5 - 47 - 56
LAT	6 - 17 - 20

Obs. h ° ' "
I.C.
S.D.
Corr. h 2 : 42 . 10

L. Tan. ⊙ to Range
Range to R. Tan. ⊙ 72 22
I.C.
S.D. ⊙ + 16
V_o 72° 38'

Log cos V_o 9.47492
" " h 9.99952
" " V_c 9.47540
V_c 72° 37'
+ 95 32
168° 09'

Azimuth (from tables)
Azimuth Buoy To

Computed:- R.T.A.S.
Checked:- J.B.T.

Calculated altitude of Sun

t = 5 . 40 . 40
L = 30° 12.1
S = - 3° 35.0

L-S = 33-47.1
Z = 87° 38' 15"

Comp. h 2° 21' 45"
R&P = + 15 25
dip. + 5
Corr. Calc. h 2° 42' 10"

log hav. 9.66074
log cos 9.93664
log cos 9.99915
log hav. 9.59653
Nat. hav. 0.39479
Nat. hav. 0.08444
.47938

Hydrographic Sheet No. 1, Pensacola, Florida

AZIMUTHS BETWEEN BUOYS BY OBSERVATION OF SUN

Position:- At Buoy Fox
Observer:- Mr. Reed
Lat:- 30 - 07.3
Sextant #
Long:- 86 - 58.0
I.C. 0'
Ranges:- Fox and Goat
March 12, 1931

	h m s
C	
W	
C-W	
WT	
CT	8 20 07
CC (+sl)	(-) 36
GCT	13 - 19 - 31
E	(-) 10 04
GAT	13 - 09 - 27
Long	5 47 53
LAT	7 21 34

	° ' "
Obs. h	
I.C.	
S.D.	
Corr. h	15 . 46 . 48

L. Tan. ⊙ to Range	21° 51'
Range to R. Tan.	
I.C.	
S.D. ⊙	+ 16'
V_o	22° 07'

Log cos V_o	9.96681
" " h	9.98332
" " V_c	9.98349
V_c	15° 42'
	103 44
Azimuth (from tables)	
Azimuth Buoy F to G	88° 02'

Computed:- R.F.A.S.
Checked:- OBA

Calculated Altitude of Sun.

t = 4 - 38 - 26
L = 30 - 07.3
S = (-) 3° 34'

L - S = 33 - 41.3

log hav	9.51293	
log cos	9.93700	
log cos	9.99916	
log hav	9.44909	
Nat. hav.	0.28124	
" "	0.08396	
" "	0.36520	

Z = 74 - 21 - 35
h = 15 - 38 - 25
R. & P. + 3 17
Dip + 5 06

Comp. Obs. alt. = 15 - 46 - 48

Hydrographic Sheet No. 1, Pensacola, Florida

AZIMUTHS BETWEEN BUOYS BY OBSERVATION OF SUN

Position:- at Buoy Goat
Lat:- 30 - 07 N.
Long:- 86 - 56 W.
Range:- Goat and Hoe

Observer:- M. Crosby
Sextant # 3K
I.C.

March 14, 1931.

	h	m	s
C			
W			
C-W			
WT			
CT	7	55.	-18
CC (+5ℓ)		(-)	36
GCT	12	54	47
E		-09	31
GAT	12	45	11
Long	5	47	44
LAT	6	57	27

	°	'	"
Obs. h	10	48	
I.C.			
S.D.		+ 16	
Corr. h	11	04	

L. Tan. ⊙ to Range 14 43
~~Range to R. Tan.~~
I.C.
S.D. ⊙ + 16
V_o 14° 59'

δ = -2° 47'

Log cos V_o 9.98498
" " h 9.99185
" " V_c 9.99313
V_c 10° 10'
99 49
Azimuth (from tables) 89° 39'

Azimuth Buoy Goat To Hoe

Computed:- C. J. W. S.
Checked:- J. B. H.

Hydrographic Sheet No. 1, Pensacola, Florida

AZIMUTH BETWEEN BUOYS BY OBSERVATION ON SUN

Position:- At Buoy Jed.
Lat:- 30 - 09.3
Long:- 86 - 18.9
Range:- Jed - Hoe
March 14, 1931

Observer:- Mr. Reed
Sextant # OR
I.C.

	h m s
C	
W	
C-W	
WT	
CT	6 25 09
CC (Apl)	(-) 36
GCT	23 - 24 - 33
E	(-) 9 - 24
GAT	23 - 15 - 09
Long (-12h)	5 - 47 - 16
Lat	5 - 27 . 53

	o ' "
Obs. h	05 31 00
I.C.	
S.D.	(+) 16
Corr. h	05 - 47 . 00

L. Tan. ⊙ to Range Jed - Hoe = 32° 46'
~~Range to R. Tan.~~
I.C.
S.D.⊙ +16
V_o 33 - 02

Log cos V_o 9.92343
" " h 9.99778
" " V_o = 9.92565
V_o = 32° 35'

Azimuth (from tables) 263 39
Azimuth Buoy Jed to Hoe 231° 04'

Computed:- R.F.A.S
Checked:- O.B.K

Hydrographic Sheet No. 1, Pensacola, Florida

AZIMUTHS BETWEEN BUOYS BY OBSERVATION OF SUN

Position:- at Buoy Jed Observer:- Mr. Reed
Lat:- 30 - 09.3 Sextant #
Long:- 86 48.9 I.C. O.K.
Range:- Al and Jed.
March 14, 1931

	h	m	s
C			
W			
C-W			
WT			
CT	6	38.	10
CC (+17[5])		(-)	36
GCT	28	37	34
E		(+) 09	24
GAT	23	28.	10
Long		5. 47.	16
LAT	17	40.	54

	°	'	"
Obs. h	02	47	
I.C.			
S.D.		+ 16	
Corr. h	03	03	

~~L. Tan. ⊙ to Range~~
Range to R. Tan. ⊙ 61 - 03
I.C.
S.D.⊙ + 16
V_o 61 - 19

Log cos V_o 9.68121
" " h 9.99938
" " V_c 9.68183
V_c 61 - 16
Azimuth (from tables) 265 - 21
Azimuth Buoy Jed To Al 326 - 37

Computed:- C.F.A.S.
Checked:- J.B.K.

Hydrographic Sheet No. 1, Pensacola, Florida

AZIMUTH BETWEEN BUOYS BY OBSERVATION ON SUN

Position:- at Buoy Jed
Lat:- 30.09
Long:- 86.49
Range:- Jed. ~~Lab~~

Observer:- Mr. Reed
Mr. Crosby
Sextant # OK
I.C.

	h m s
C	
W	
C-W	
WT	
CT	8 16 11
CC (+5h)	(-) 33
GCT	13 - 15 - 38
E	(-) 6 18
GAT	13 - 09 - 20
Long	5 47 - 16
LAT	7 - 22 - 04

	° ' "
Obs. h	18 19
I.C.	
S.D.	+ 16
Corr. h	18° 35'

	° '
L.Tan.⊙ to Range	65° 27'
~~Range to R. Tan.~~	
I.C.	
S.D.⊙	+ 16
Corr. V_o	65 43

S = +1° 34'

Log cos V_o	9.61411
" " h	9.47674
" " V_c	9.63737
V_c	64° 17'
Azimuth (from tables)	99 13
Azimuth Buoy Jed to ~~Lab~~ Range	34° 56'

Computed:- O.B.N.
Checked:- T.B.R.

BUOY POSITIONS

OFF SANTA ROSA ISLAND, PENSACOLA, FLORIDA

PROJECT NO. 74 March and April 1931

To accompany Descriptive Report of Hydrographic Sheet No.1.

BUOY	Lat.	Seconds in Meters	Long.	Seconds in Meters	
Al	30°-12'	1228	86°-51'	807	Plotted on Al. Sheet by. T.B.R.
Ben	30-13	509	86-53	1195	Plotting checked by K.G.C.
Cat	30-13	189	86-56	1036	
Dog	30-12	152	86-59	243	Plotted on Al. Sheet
Elk	30-09	1279	86-58	932	by T.B.R.
Fox	30-07	495	86-57	1590	Checked by O.B.H.
Goat	30-07	647	86-55	534	D.Ms and D.Ps scaled from Aluminum sheet by
Hoe	30-07	689	86-51	982	O.B.H.
Jed	30-09	461	86-48	1472	Checked by T.B.R.
Kay	30-13	86	86-48	1562	Plotted and D.Ms and D.Ps scaled by K.B.J.
Lab	30-12	1019	86-46	426	Checked by T.B.R.
Mate	30-09	255	86-46	60	
Nun	30-09	863	86-45	1178	

Copy ✓ by HBOR

Section of Field Records.

Report on Sheet No. 5115
Chief of Party F.L. Peacock
J.O. Gilbert
Protracted by O.B. Hartzog.
Verified and inked by J.T. Walker

Surveyed in 1930, 1931
Surveyed by F.L.P., L.O.C.
Soundings plotted by
O.B. Hartzog.

The sounding records were neat and complete.

The protracting was good where strong fixes were recorded.

The soundings were plotted according to time.

The sheet when received was clean and neat.

Respectfully submitted,
J.T. Walker
aug 28, 1931.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. H. 5115.
Off Santa Rosa Island, Florida.
Surveyed in 1930 and 1931.
Instructions dated Jan. 29, 1930 and Jan. 31, 1931 (Oceanographer).

Hand Lead and Fathometer Soundings - Shore and Buoy Control.

Chief of Party - F. L. Peacock, L. O. Colbert.
Surveyed by - F. L. Peacock, L. O. Colbert.
Protracted and soundings plotted by - O. B. Hartzog.
Verified and inked by - J. T. Walker.

1. Records.

The records for this survey conform to the requirements of the Hydrographic Manual with the exception that no computations for fathometer corrections were submitted with the sheet.

2. Specific Instructions.

The work conforms to the specific instructions and adequately fills the gaps left in the work of 1927 in this area (H. 4604).

3. Sounding Line Crossings.

The sounding line crossings are adequate. There were differences of 3 and 4 feet in a number of cases but the discrepancies seldom exceeded one fathom. This is considered very satisfactory in an area characterized by numerous undulations in the bottom.

There are several disagreements in the two closely spaced lines between ⊙ Hoe and ⊙ Boat. Some of the deep soundings on the lower line appear to be strays, but a study of the north and south lines run on F and H days in the vicinity shows that abrupt changes in depths are to be expected here. The soundings mentioned were therefore accepted.

4. Comparison with old surveys.

a. H. 4604 (surveyed in 1927).

A close comparison was made with this survey as the present survey is intended to supplement the work shown thereon. Where the old work, which was up and down soundings throughout, crossed the lead line work on the present sheet the agreement was almost perfect, and where the old work crossed the fathometer work on the new survey the differences with one exception (an 11 foot difference in lat. 30°-12.6', long. 86°-51.2') were no greater than the differences noted between the cross lines on the new survey. The two sheets can therefore be considered a harmonious whole and no difficulty should be experienced in combining them on the charts.

While the soundings from H. 4604 have not been transferred to the new survey, the 20 fathom curve has been made to conform to both surveys.

H. 5115.

b. H. 1309 (surveyed in 1875).

The comparison with this survey has already been considered in the review of H. 4604 and since the present survey supplements the latter survey and no marked differences have been found between these surveys, whatever has been said in that review will apply equally well to the present survey.

5. Field drafting.

The usual field drafting was completed and the work was found satisfactory.

6. Additional Work.

No additional work is required within the limits of this survey.

7. Reviewed by A. L. Shalowitz. Aug. 1931.

Approved: A. M. Sobieralski. (Signed)

RAE

July 29, 1931.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 5115

Locality Off Santa Rosa Island, Coast of Florida

Chief of Party: F. L. Peacock in 1930 and L. O. Colbert in 1931
Plane of reference is mean low water, reading
8.0 ft. on tide staff at Pensacola
7.1 ft. below B. M. 6

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.

Paul Schureman

Acting Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5115

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

Number of positions on sheet	752
Number of positions checked	173
Number of positions revised	2
Number of soundings recorded	4440
Number of soundings revised	14
Number of signals erroneously plotted or transferred	0

Date: Aug. 27, 1931

Cartographer: J. F. Walker

applied to chart 1264. 7 Feb. 1938. G.H.S.