

8598

Diag. Chart. No. 1255-2.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. S0-102-60 Office No. H-8598

LOCALITY

State Florida

General locality West Coast

Locality South Pine Island Sound

1960-61

CHIEF OF PARTY

R. C. Munson & F. J. Tucker, Jr.

LIBRARY & ARCHIVES

DATE August 27, 1962

USCOMM-DC 5087

8598

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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.

REGISTER No. H 8598

Field No. SO-10-2-60

State FLORIDA

General locality WEST COAST ~~OF FLORIDA~~

Locality SOUTH PINE ISLAND SOUND

Scale 1:10,000 Date of survey 11/15/60 - 9/14/61
1960-1961

Instructions dated 8 September 1958, Amended 23 February 1961

Vessel Ship SOSBEE

Chief of party R.C. Munson (till 2/16/61)
Floyd J. Tucker, Jr.

Surveyed by R. C. Munson, F. J. Tucker, W. D. O'Neill, B. F. Galloway,
E. D. Schwantes, and F. D. Moran

Soundings taken by fathometer, ~~graphic recorder~~, hand lead, ~~wire~~ & sounding pole

Fathograms scaled by Personnel, Ship SOSBEE

Fathograms checked by Personnel, Ship SOSBEE

Protracted by D.C. Calland

Soundings penciled by D.C. Calland

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~ and are true depths

REMARKS: All corrections have been entered and checked. Ship soundings

have been reduced and checked. Launch soundings have been reduced. Skiff

soundings have been reduced thru "w" day, plus "ra" and "va" and "xa".

All corrections entered and checked.

J. W.

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H - 8598

(Field Number SO-10-2-60)

West Coast of Florida	South Pine Island Sound
Scale 1:10,000	USC&GS Ship SOSBEE ✓
1960-61 Chief of Party	Robert C. Munson (fill 2/16/61)
1961 Chief of Party	Floyd J. Tucker, Jr.

A. PROJECT

Project OPR-353, Charlotte Harbor and Vicinity, Florida.
Revised Instructions dated 8 September 1968, Amended Instructions, ✓
dated 23 February 1961, and Supplemental Instructions, dated
1 September 1961.

B. AREA SURVEYED

This is a survey of Pine Island Sound south from Redfish
Pass to the north end of Sanibel Island and along the coast
of Captiva Island. ✓

The limits are:

North Latitude	26° 33.9'N	
East Pine Island		
South Latitude	26° 29.6'N	
West Longitude	82° 13.0'W	North edge
	82° 12.4'W	South edge

Junctions were made with contemporary surveys as follows:

Direction	Registry No.	Field No.	Date	Scale	
North	H-8555	SO-10-1-60	1960	1:10,000	✓
South	H-8632	SO-10-1-61	1961	1:10,000	✓
West	H-8362	SO-2256	1956-61	1:20,000	✓
SW	H-8363	SO-2356	1956-61	1:20,000	✓

C. SOUNDING VESSEL

The Ship SOSBEE performed most of the hydrography offshore
from approximately the 12 foot curve. It has a turning radius
of 100 meters at 1400 and 1500 rpm. The sounding speed was ✓

reduced to 1000 rpm in the shoal water near the beach. The turning radius at the reduced speed is also 100 meters. The ship used blue to identify its work.

Part of the offshore and most of the deeper work in Pine Island Sound was performed by Launch CS 182. Launch CS 182 is a 26-foot fiberglass launch powered by a 75 H.P. Hercules Diesel engine, and has a maximum speed of about 6 knots and a turning radius of about 15 meters. The launch used violet to identify its work.

All the remaining work was performed by Skiff 735, a 25-foot wooden-hull, flat-bottom skiff powered by two ten-horsepower outboard motors. It has a maximum speed of about 6 knots and a turning radius of 25 meters. The skiff used blue to identify its work.

D. SOUNDING EQUIPMENT

All soundings were obtained with either an 808 fathometer, hand lead, or a sounding pole. Four 808 fathometers were used, numbers 150, 57-35-57-36, and 57-37. All 808's were calibrated for 820 fm/sec. Pole soundings were generally obtained in depths less than three feet.

All velocity corrections were determined from bar checks.

E. SMOOTH SHEET

Norfolk Processing Office.

F. CONTROL

All hydrography was controlled by visual sextant fixes, except in sloughs through mangroves and minor tributaries, where the position of the skiff was determined on the boat sheet for the shoreline.

Signal locations were obtained from Advance Manuscripts T-11407, T-11408, T-11410, T-11411, T-11413, and T-11414, with the exceptions as shown on attached list of stations.

G. SHORELINE

All shoreline and topographic details were transferred to the boat sheet from photogrammetric compilations listed in F. All shoreline and topographic details were found to be correct, except around Galt Island, where a new fill is in progress, and the east side of the north end of Captiva Island, where a channel is filled in. The existing and proposed fills at Galt Island are shown in red on the boat sheet. The existing fill was located by sextant fixes.

See
Review
Par. 2.

A new spoil area, which is the result of the new intracoastal waterway, is shown in red. ✓

The low-water line is not defined for the following reasons:

Along the offshore coast, because of the exposed coast and tide range. ✓

Inside, because of the tide range and the overhanging mangroves.

H. CROSSLINES

56.5 nautical miles, or 7.4% of the hydrography, are crosslines. There are no notable discrepancies at the crossings. ✓

I. JUNCTIONS

Junctions with adjoining surveys are satisfactory, with no holidays. Depth curves can be adequately drawn. ✓

J. COMPARISON WITH PRIOR SURVEYS

Lat. 26°32.55, Long. 82°12.50

Preliminary Review Item No. 20, a wrecked barge off of Redfish Pass, was not located. A total of seven hours was spent searching for this wreck by the ship and skiff, in addition to the regular system of lines. As the reported size of this wreck is so small, its existence will be proved or disproved only by wire drag. Therefore it is recommended that it be re-charted as "existence doubtful." ✓

See
Review
Par. 7.

A comparison was made with H-1480a, 1879-80, 1:20,000, and the agreement was generally good, except at Redfish Pass and the intracoastal waterway. The entrance at Redfish Pass has changed, probably because of hurricane damage over the years. ✓

K. COMPARISON WITH THE CHART

A comparison with Chart 1255, 7th edition, 14 August 1961, is as follows:

<u>Charted Depth</u> <u>feet</u>	<u>New Depth</u> <u>feet</u>	<u>Latitude</u> <u>North</u>	<u>Longitude</u> <u>West</u>
15	81	26° 32.70' .85	82° 12.46' ⁴
15	54	26° 33.16'	82° 12.46' Shoaler - N. & W.
19	16	26° 32.52'	82° 12.52'
7	3	26° 32.67' 33.7	82° 11.08'
5	2	26° 32.77' .8	82° 11.40'
5	1	26° 32.10' .18	82° 11.49'
3	0	26° 31.87' .9	82° 11.51' 0
5	1	26° 31.99' 32.0	82° 11.28'
4	-3	26° 32.26'	82° 11.16'

<u>Charted Depth</u> <u>feet</u>	<u>New Depth</u> <u>feet</u>	<u>Latitude</u> <u>North</u>	<u>Longitude</u> <u>West</u>
5	0	26° 30.97' 31.0	82° 11.28'
1	0	26° 31.18' .08	82° 11.14'
5	1	26° 30.63'	82° 11.25'
5	2 4	26° 30.35' .4	82° 11.18'
5	2	26° 31.90'	82° 10.83' 0
5	3	26° 31.60' 3	82° 10.00'
3	2 1/2	26° 31.00' 18	82° 10.87' 5
5	3	26° 30.73'	82° 10.64' 6
6	0	26° 30.05'	82° 10.54'
8	2 8	26° 30.06'	82° 07.25'
5	3	26° 30.07'	82° 07.03'
8	2 1	26° 30.47'	82° 06.88'
2	0-fill	26° 30.93'	82° 06.16' .2
5	3	26° 33.04'	82° 08.72'

All other soundings agree within two feet.

Important newly found dangers to navigation:

<u>Charted Depth</u> <u>feet</u>	<u>New Depth</u> <u>feet</u>	<u>Latitude</u> <u>North</u>	<u>Longitude</u> <u>West</u>
15	2 1	26° 32.83'	82° 12.47' 4
15	2	26° 33.01' .18	82° 12.59' .49
8	1	26° 32.54'	82° 10.04'
8	1	26° 32.44'	82° 09.99' 10.00
7	bares - 3	26° 31.75'	82° 09.58'
7	bares - 3	26° 31.69'	82° 09.57' 4
3	0	26° 32.11'	82° 08.83'
7	1	26° 31.39'	82° 08.85'
5	2 4	26° 33.61'	82° 08.59'
7	2	26° 32.86'	82° 10.26'
9	3	26° 30.38' .48	82° 08.23'

The channel between Captiva Island and Buck Key is open with local knowledge. It has a controlling depth of two feet. ✓

L. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede prior surveys for charting. ✓

See Review
Par. 6.

M. AIDS TO NAVIGATION

Refer to Form 576, Non-Floating Aids for Charts, dated 16 October 1961, from Tampa District Officer, for intracoastal waterway aids. ✓

A comparison was made with the latest light list and with Chart 1255. The aids adequately serve the area. ✓

The following are unofficial aids for small-boat channel to Captiva Island. These aids are maintained by Ladd's Mail Boat, Fort Myers, Florida, but are not numbered.

<u>Description</u>	<u>Latitude North</u>	<u>Longitude West</u>
Four braced mangrove stakes with white target	26° 30.86'	82° 09.62'
2" x 6" post	26° 30.93'	82° 09.80'
Mangrove stake with white target	26° 30.92'	82° 09.81'
Mangrove stake with white target	26° 30.98'	82° 09.93'
Mangrove stake	26° 30.92'	82° 09.94'
Mangrove stake	26° 31.04'	82° 10.08'
Mangrove stake	26° 31.04'	82° 10.08'
Mangrove stake with white target	26° 31.11'	82° 10.28'
Mangrove stake	26° 31.11'	82° 10.28'
Mangrove stake	26° 31.15'	82° 10.38'
Mangrove stake	26° 31.15'	82° 10.38'
Mangrove stake with white target	26° 31.22'	82° 10.58'
Mangrove stake	26° 31.22'	82° 10.58'
2" x 6" post with white target	26° 31.21'	82° 11.17'
Mangrove stake	26° 31.28'	82° 11.08'
1" x 6" board	26° 31.28'	82° 11.08'
2" x 4" board	26° 31.32'	82° 11.04'
Mangrove stake	26° 31.32'	82° 11.04'
Double mangrove stakes with two white targets	26° 31.33'	82° 11.00'
Mangrove stake	26° 31.30'	82° 10.80'
Mangrove stake with white target	26° 31.30'	82° 10.80'

N. STATISTICS

	<u>Number of Positions</u>	<u>Nautical Miles</u>	<u>Square Nautical Miles</u>	<u>Bottom Samples</u>
Ship	148	41.2		
Launch	1483	291.0		
Skiff	2810	417.1		
TOTAL	4441	749.3	24.8	197

P. RECOMMENDATIONS

This survey is complete and adequate to supersede prior surveys for charting.

*See Review
Par. 6*

Q. REFERENCES TO REPORTS

Nonfloating Aids for Charts, from Tampa District Officer, dated 16 October 1961.

TIDE NOTE
for

H-8598

(SO-10-2-60)

The portable tide gage on the pier at Andy's Fish Camp, Captiva Island, Florida, was used to control the survey in Pine Island Sound. No corrections were applied to the observed tides.

Hourly heights were furnished from the Washington Office for 2, 7, 14 and 17 August 1961.

The gage was located at Latitude $26^{\circ} 31.3'$ N., Longitude $82^{\circ} 11.3'$ W. Mean Low Water on the staff was 2.3 feet.

The portable tide gage at Punta Rasa, Florida, was used to control the survey in the Gulf of Mexico. The tide zone limit is shown on the boat sheet by a red line across Redfish Pass.

The gage was located at Latitude $26^{\circ} 29.3'$ N., Longitude $82^{\circ} 00.8'$ W. Mean Low Water on the staff was 2.1 feet.

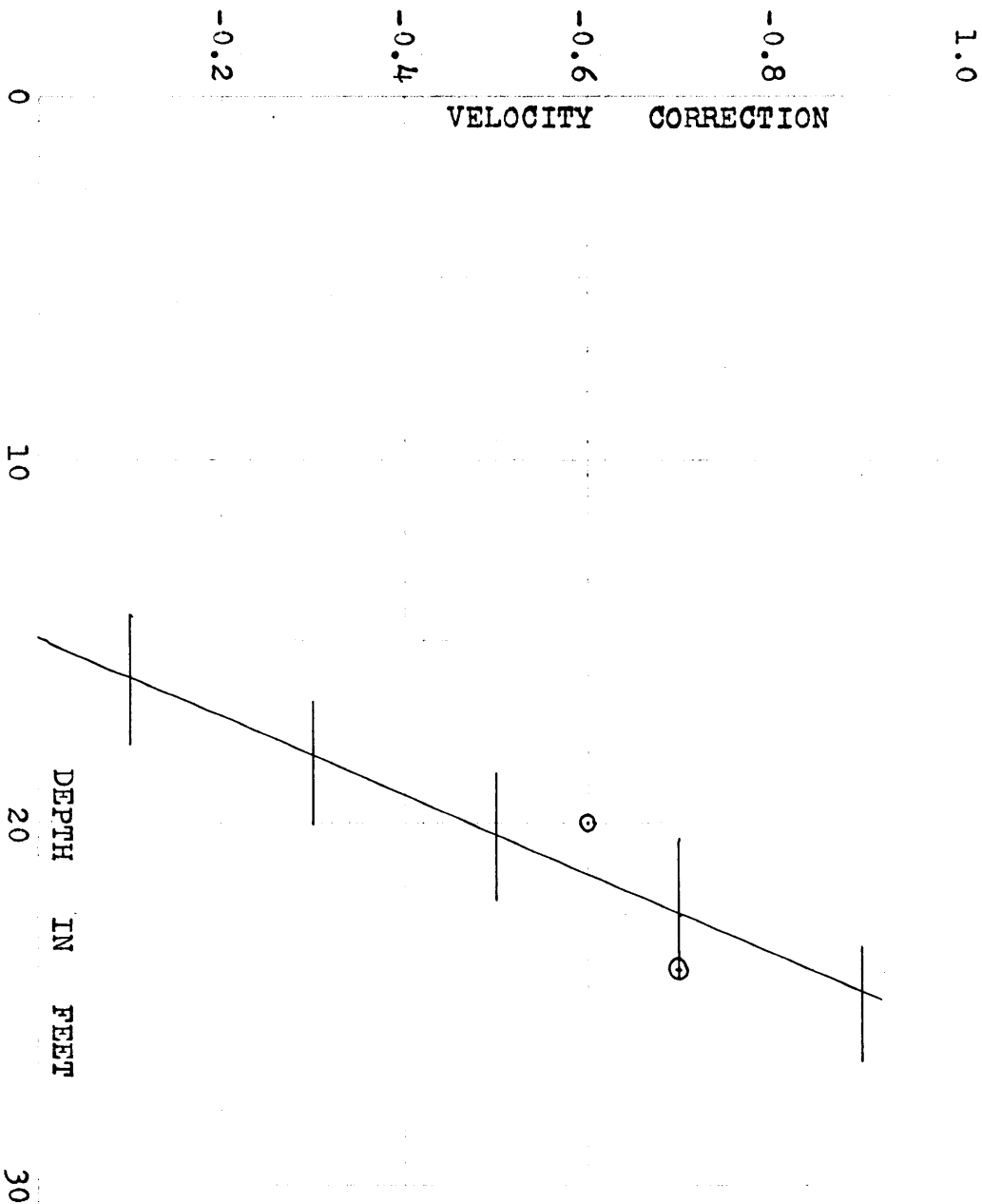
The 75th time meridian was used for both stations.

VELOCITY CORRECTION CURVE

for

H - 8598 (SO-10-2-60)

Ship SOSBEE



Depth	Velocity Correction
0.0 - 16.2	0.0
16.4 - 18.2	-0.2
18.4 - 20.4	-0.4
20.6 - 22.6	-0.6
22.8 - 24.6	-0.8

ABSTRACT OF BAR CHECKS LAUNCH 182

H - 8598

(SO-10-2-60)

DATE	DAY	LEFT	4	6	DEPTH	8	10	IN	12	FEEET	14	16	INT.	VOL.	PAGE	FATH	NO	TL	FATH	CORR
3/20/61	a	0.0	0.0	0.0	0.0	0.0	+0.1	0.0	0.0	0.0			1.8	8	4	150		20.0	20.0	0.0
3/22/61	b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	+0.1	0.0			2.0	8	12	150		7.0	7.0	0.0
4/14/61	c	0.0	0.0	+0.1	0.0	0.0	+0.1	+0.1	0.0	0.0			2.0	8	26	57-35		13.2	13.2	0.0
4/18/61	c	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	8	36	"		12.8	12.8	0.0
4/19/61	d	+0.1	+0.2	+0.2	+0.2	+0.2	0.0	0.0	0.0	0.0			2.0	8	38	"		10.6	10.6	+0.2
4/24/61	e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	8	56	"		11.4	11.4	0.0
4/25/61	f	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	9	58	"		12.0	12.0	0.0
4/26/61	g	+0.1	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2					2.0	9	10	"		11.6	11.6	+0.2
5/4/61	h	0.0	0.0	+0.1	+0.1	+0.1	+0.1	0.0	0.0	0.0			2.0	9	11	"		10.4	10.4	0.0
5/5/61	i	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	9	30	"		13.4	13.4	0.0
5/8/61	j	+0.1	0.0	0.0	0.0	0.0	+0.1	0.0	0.0	0.0			2.0	9	31	"		12.8	12.8	0.0
5/22/61	k	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	9	44	"		12.0	12.0	0.0
5/24/61	l	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	9	63	"		13.1	13.1	+0.1
5/25/61	m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	9	64	"		15.0	15.0	0.0
5/29/61	n	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	10	18	"		12.0	12.0	0.0
5/30/61	o	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			2.0	10	20	"		11.6	11.6	0.0
5/30/61	p	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			2.0	10	36	"		16.8	16.8	0.0
5/30/61	q	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3			2.0	10	53	"		11.0	11.0	+0.2
5/30/61	r	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4			2.0	10	56	"		18.0	18.0	-0.2
5/30/61	r	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4			2.0	10	9	"		11.2	11.2	-0.2
5/30/61	r	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			2.0	10	11	"		16.4	16.4	0.0
5/30/61	r	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			2.0	10	31	"		10.2	10.2	+0.2
5/30/61	r	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			2.0	10	33	"		17.4	17.4	+0.4
5/30/61	r	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			2.0	10	50	"		10.4	10.4	0.0
5/30/61	r	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			2.0	10	51	"		17.0	17.0	-0.4
5/30/61	r	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2			2.0	10	69	"		11.0	11.0	+0.4



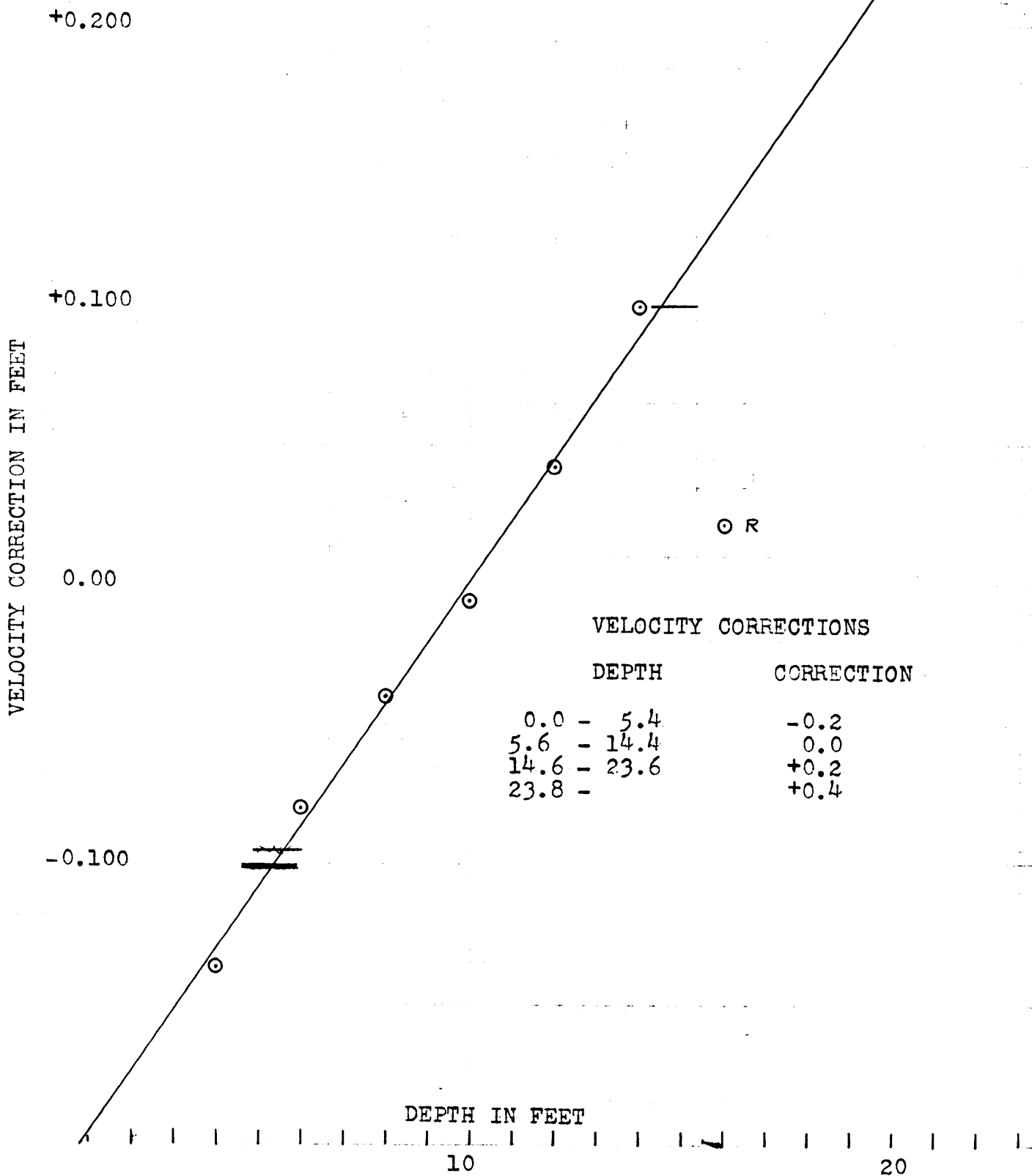
* DATE	DAY LET	4	6	DEPTH 8	IN 10	FEEET 12	14	16	INT 18	VOL 20	PAGE 22	FATH NO 24	LL 26	FATH 28	COBR 30
5/31/61	S S	-0.3	-0.4	-0.2	-0.1	0.0	0.0	0.0	2.0	13	5	57-36	16.2	16.2	0.0
5/31/61	S S	-0.3	-0.2	0.0	-0.2	0.0	0.0	0.0	2.0	13	24	"	11.4	11.4	0.0
6/1/61	T S	-0.2	-0.3	0.0	0.0	0.0	0.0	0.0	2.0	13	25	"	16.4	16.4	0.0
6/7/61	U S	-0.2	-0.1	-0.2	0.0	0.0	0.0	0.0	2.0	13	32	"	11.8	11.6	+0.2
6/13/61	V S	-0.2	-0.1	0.0	0.0	+0.2	+0.4	+(+0.6)	2.0	13	49	"	17.2	16.6	+0.6
6/14/61	V S	-0.2	0.0	0.0	0.0	+0.3	+0.2	+0.2	2.0	14	72	"	14.6	14.6	+0.6
6/14/61	W S	-0.2	0.0	-0.1	-0.1	0.0	+0.1	+0.2	2.0	14	4	"	11.4	11.4	-0.2
6/15/61	W S	-0.2	0.0	-0.2	0.0	0.0	+0.2	+0.2	2.0	14	20	"	16.0	15.6	+0.4
6/15/61	X S	-0.2	-0.2	-0.1	-0.2	0.0	+0.2	+0.2	2.0	14	22	"	11.6	11.4	+0.4
6/19/61	X S	-0.2	-0.2	-0.3	-0.3	+0.2	+0.3	+0.2	2.0	14	40	"	15.6	15.4	+0.2
6/19/61	Y S	-0.4	-0.3	0.0	0.0	-0.2	-0.2	-0.2	2.0	14	62	"	14.6	15.0	-0.4
TOTAL		-5.3	-3.2	-1.5	-0.2	+0.9	+1.4	+0.2							
MEAN		-0.136	-0.08	-0.04	-0.01	+0.04	+0.10	+0.02							

VELOCITY CORRECTION CURVE

for

H-8598 (80-10-2-60)

Launch 182



OR

SETTLEMENT & SQUAT
 LAUNCH 182
 14 April 1961

Initial corrected to 2.0 feet

	RPM	Pos. No.	Time	Fath.	Tide Red.	Corr't Sound.	Mean	Depth MLW	Corr'n
	0								
	00	lc	1221	8.5	1.5	7.0			
	00	kk	1240	8.8	1.6	7.2	7.1	7.1	0.00
	1000	a	1131	8.4	1.6	6.8			
	"	b	1132	8.5	1.6	6.9			
	"	c	1134	8.5	1.6	6.9			
	"	d	1138	8.4	1.6	6.8	6.85	7.1	+0.25
	1200	e	1141	8.5	1.6	6.9			
	"	f	1144	8.5	1.6	6.9			
	"	g	1147	8.5	1.6	6.9			
	"	h	1149	8.5	1.6	6.9	6.90	7.1	+0.20
	1400	i	1152	8.5	1.6	6.9			
	"	j	1154	8.5	1.6	6.9			
	"	k	1155	8.5	1.6	6.9			
	"	l	1157	8.5	1.6	6.9	6.90	7.1	+0.20
	1600	m	1200	8.5	1.6	6.9			
	"	n	1202	8.5	1.6	6.9			
	"	o	1203	8.4	1.6	6.8			
	"	p	1204	8.4	1.6	6.8			
	"	q	1206	8.5	1.6	6.9			
	"	r	1208	8.4	1.6	6.8	6.85	7.1	+0.25
	1800	s	1209	8.4	1.6	6.8			
	"	t	1211	8.4	1.6	6.8			
	"	u	1212	8.3	1.6	6.7			
	"	v	1214	8.4	1.6	6.8			
	"	w	1216	8.4	1.6	6.8			
	"	x	1218	8.4	1.6	6.8	6.78	7.1	+0.32
	2000	y	1219	8.4	1.6	6.8			
	"	z	1221	8.3	1.6	6.7			
	"	aa	1223	8.3	1.6	6.7			
	"	bb	1224	8.3	1.6	6.7			
	"	cc	1226	8.2	1.6	6.6			
	"	dd	1228	8.3	1.6	6.7	6.70	7.1	+0.40
	2100	ee	1229	8.4	1.6	6.8			
	"	ff	1231	8.3	1.6	6.7			
	"	gg	1233	8.3	1.6	6.7			
	"	hh	1234	8.3	1.6	6.7			
	"	ii	1236	8.2	1.6	6.6			
	"	jj	1237	8.2	1.6	6.6	6.68	7.1	+0.42

Settlement and Squet Corrections

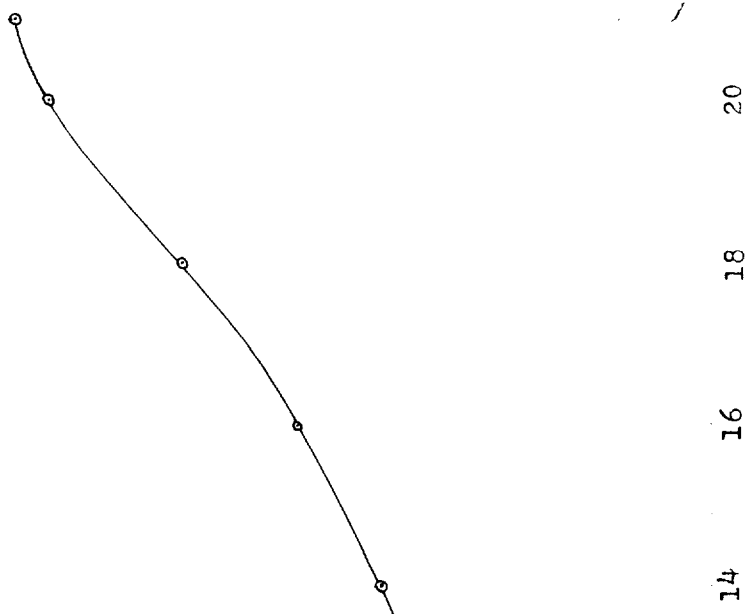
Launch CS - 182

14 April 1961

- 0 - 920 r.p.m. = 0.0 feet
- 920 - 1750 r.p.m. = +0.2 feet
- 1750 - 2200 r.p.m. = +0.4 feet

+0.6
 +0.5
 +0.4
 +0.3
 +0.2
 +0.1
 0.0

Corrections in Feet



RPM X 100

ABSTRACT OF BAR CHECKS

H-8598 (80-10-2-60)
 8417 735 Initial 0.0

DATE	DAY LETTER	3	5	DEPTH 7	9	IN 11	FEET 13	15	VOL. PAGE	L.L. FATH.	CORR. FATH.	NO.	
4/10/61	w	+ 0.3	+ 0.4	+ 0.5	+ 0.2	+ 0.4			7	13.4	12.6	+0.8	150
5/23/61	x	+ 0.0	+ 0.2	+ 0.3	+ 0.5	+ 0.4			4	12.6	12.4	+0.2	57-37
6/8/61	y	+ 0.3	+ 0.6	+ 0.7	+ 1.0	+ 1.0			22	11.0	10.8	+0.2	"
6/12/61	z	+ 0.2	+ 0.6	+ 0.7	+ 0.8	+ 0.9	+ 1.0	+ 1.2	35	17.6	16.2	+1.4	"
6/20/61	aa	+ 0.1	+ 0.4	+ 0.6	+ 0.8	+ 0.8			47	13.6	12.6	+1.0	"
6/26/61	aa	+ 0.2	+ 0.4	+ 0.7					68	8.4	8.4	0.0	"
6/27/61	ba	+ 0.1	+ 0.3	+ 0.4	+ 0.5	+ 0.8			20	8.0	7.6	+0.4	"
6/28/61	ca	+ 0.2	+ 0.4	+ 0.2	+ 0.2				21	10.8	10.4	+0.4	"
6/29/61	da	+ 0.2	+ 0.2	+ 0.2	+ 0.2				47	9.2	8.6	+0.6	"
6/29/61	da	+ 0.3	+ 0.2	+ 0.2	+ 0.4				69	9.0	8.4	+0.6	"
6/29/61	ea	+ 0.3	+ 0.4	+ 0.4	+ 0.6	+ 0.4			4	8.8	8.4	+0.4	"
6/29/61	ea	+ 0.2	+ 0.4	+ 0.3	+ 0.4	+ 0.4			20	14.6	13.8	+0.8	"
7/4/61	ea	+ 0.2	+ 0.3	+ 0.4	+ 0.4	+ 0.4	+ 0.4	+ 0.4	25	17.2	16.4	+0.8	"
7/5/61	fa	+ 0.2	+ 0.3	+ 0.4	+ 0.4	+ 0.5	+ 0.4	+ 0.4	51	16.8	16.2	+0.6	"
7/5/61	ga	+ 0.2	+ 0.4	+ 0.4	+ 0.4	+ 0.4	+ 0.4	+ 0.6	55	19.2	18.4	+0.8	"
7/9/61	ga	+ 0.3	+ 0.3	+ 0.4	+ 0.4	+ 0.6	+ 0.4	+ 0.6	7	9.0	8.4	+0.6	"
7/9/61	la	+ 0.3	+ 0.4	+ 0.5	+ 0.4	+ 0.6			50	10.6	9.6	+1.0	"
TOTAL		+ 3.6	+ 6.2	+ 7.3	+ 7.6	+ 6.4	+ 2.4	+ 2.8					
MEAN		+ 0.21	+ 0.36	+ 0.43	+ 0.51	+ 0.58	+ 0.60	+ 0.70					

a thru u days - no velocity corrections.

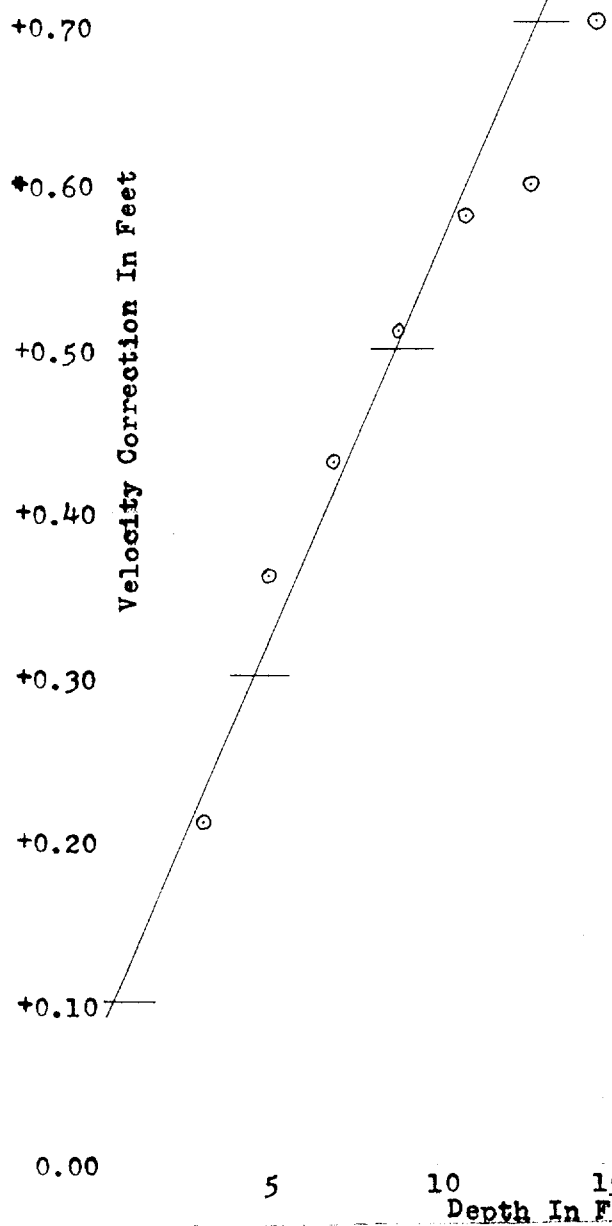
VELOCITY CORRECTION CURVE

for

H - 8598

(SO-10-2-60)

Skiff 735



a thru u day no Velocity Correction

VELOCITY CORRECTION

w thru ab day

DEPTH	CORRECTIONS
0.0 - 0.2	0.0
0.4 - 4.4	+ 0.2
4.6 - 8.6	+ 0.4
8.8 - 13.2	+ 0.6
13.4 - 17.4	+ 0.8
17.6 -	+ 1.0

LIST OF STATIONS ON H-8598 (SO-10-2-60)

Name used in Hydrographic Survey	Number	Origin of station
ABE	1113	T-11411
ACE	1453	T-11414
ACO	PINE ISLAND SOUND DAYBEACON "22", 1956	T-11410
ACT	1050	T-11410
AND	PINE ISLAND SOUND DAYBEACON "22A", 1956	
AMY	1061	T-11410 & Vol. 20, Page 43
ANY	1026	T-11410
ART	1445	T-11414
AXE	1323	T-11413
BAG	1114	T-11411
BANK		BANK 1956
BAY	1118	T-11411
BEA	PINE ISLAND SOUND DAYBEACON 21, 1956	T-11410
BIG	1035	T-11410
BLA	PINE ISLAND SOUND LIGHT "23"	Vol. 7, Page 4 - T-11413 Vol. 11, Page 45
BOA	1051	T-11410
BOB	1330	T-11413
BON	1448	T-11414
BOX	1052	T-11410
BUS	1452	T-11414
CAB	1117	T-11411
CAM	1338	T-11413
CAP	CAPTIVA CHANNEL LIGHT "2", 1956	Vol. 20, Page 21 T-11410
CAR (H)	1119	Vol. 19, Pages 43 & 44 WEST 1956 T-11411
CAT		
CHINO		CHINO 1938 R.P. #1 USE T-11410, 11411
COD	1054A	T-11410
CON	1027	T-11410
COO	1358 (133)	T-11413
CUE	1008A	T-11410
CUT	PINE ISLAND SOUND LIGHT "28"	Vol. 7, Page 5 ^{Form 567} 11413
DAY	PINE ISLAND SOUND DAYBEACON 20, 1956	T-11410
DOC	1189	T-11411
DOG	1131	T-11411, Vol. 8, Page 13
DON	PINE ISLAND SOUND DAYBEACON "21A", 1956	T-11410
DOT	1324	T-11413
DUN	1009A	T-11410
EAR	1105	T-11411
EGG	1129	T-11411
FAT	1126	T-11411
FEW	1108	T-11411

Name used in Hydrographic Survey	Number	Origin of station
FIT	1130	T-11411
FIX	1055	T-11410
FLAT		FLAT, 1956 - T-11411
FLY	1124	T-11411
FOE	1024	T-11410
FOX	1029	T-11410
GAD	1010	T-11410
GAG	1033	T-11410
GAM	0809	T-11408
GAS	1141	T-11411
GIG	1112	T-11411
GLO	PINE ISLAND SOUND LIGHT "16", 1956	T-11413
HAN	CAPTIVA CHANNEL RANGE FRONT DAYBEACON, 1956, Vol. 20, Page 21	T-11410
HAT	0736	T-11407
HAVELOCK (N.P.)		HAVELOCK, 1858
HEM	1056	T-11410
HEX	0807	T-11408
HID	1046	T-11410
HIG		HIGH 1956 T-11410
HOE	1127	T-11411
HON	1038	T-11410
HOW	0810	T-11411
HUG	1020	T-11410
HUM	1106	T-11411
HUT	1028	T-11410
IDA	1187	T-11411
INE	PINE ISLAND SOUND DAYBEACON "21B", 1956	T-11410
IRK	1041	T-11410
ITS	1055 ⁷	T-11410
IVA	CAPTIVA CHANNEL DAYBEACON "6", 1956	T-11410
IVY	1032	T-11410
JAN	1121	T-11411
JIM	1049A	T-11410
JOB	1015	T-11410
JOY	1016	T-11410
JUG	PINE ISLAND SOUND LIGHT "39"	Vol. 8, Page 12 T-11410
JUT	1030	T-11410
KEN	1301	T-11413
KID	1339	T-11413
KIM	1135	T-11411
LAM	1366	T-11413
LAN	PINE ISLAND SOUND DAYBEACON 19, 1956	T-11410
LAY	1120	T-11411
LET(H)	1053 Relocated hydrographically	Vol. 4, Pages 7 & 8
LIP	PINE ISLAND SOUND LIGHT "26"	Vol. 7, Page 5 T-11413

Name used in Hydrographic Survey	Number	Origin of station
LUG	1328	T-11413
LUV	14126	T-11414
LUX	1449	T-11414
MAG	1137	T-11411
MAL	1103	T-11411
MIC		MICK 1956 T-11410
MID(H)		Vol. 8, Page 13; Vol. 9, Page 34; Vol. 19, Page 14
MIX	1042	T-11410
MOO	1303	T-11413
NAT	PINE ISLAND SOUND LIGHT "32"	Vol. 8, Page 12; Vol. 19, Page 51
NAY	1322	T-11413
NEE		NEE (1943) 1956 T-11410
NEL	CAPTIVA CHANNEL RANGE REAR DAYBEACON, 1956	Vol. 20, Page 21 T-11410
NEW(H)		Vol. 16, Pages 22- 24 -23
NIP	1036	T-11410
NOD	1040	T-11410
NUB	1111	T-11411
NUL	1320	T-11413
NUT	1126A	T-11411
OAK	1125	T-11411
OBI	1104	T-11411
ODD	1123	T-11411
OFF	1139	T-11411
OHM	1126	T-11411
ORE		ORE (1943) 1956 T-11410
PAL	1019	T-11410
PEG(H)	1128 Relocated by hydro methods	Vol. 4, Page 51
PET	1034	T-11410
PIE	0811	T-11411
PIN	PINE ISLAND SOUND DAYBEACON "22B", 1956	T-11410
PIX	1045	T-11410
POT	1047	T-11410
PRO	1454	T-11414
PUP	1447	T-11414
QUO	1122	T-11411
PAG	1133	T-11411
RAM	1140	T-11411
RAT	1109	T-11411
REV	1446	T-11414
RON	1014	T-11410
SIP	1451	T-11414
SKI	1188	T-11411
SOL	1329	T-11413
SOP	1321	T-11413

PUS - T-11410

Name used in
Hydrographic
Survey

Name used in Hydrographic Survey	Number	Origin of station
SOW	1025A	T-11410
SUB	0735	T-11407
SUE	PINE ISLAND SOUND LIGHT "18", 1956	T-11410
TAP	0758	T-11407
TAX	1022	T-11410
TEN	1032A	T-11410
TIN	1044	T-11410
TIP		TT83 JFS-1, 1956 (TEMP) T-11410
TIV	CAPTIVA CHANNEL DAYBEACON "4", 1956	T-11410
TRY	1115	T-11411
TUB	1450	T-11414
USE	1001	T-11410
VET	1136	T-11411
WAR	1048A	T-11410
WEE	1107	T-11411
WHO	1110	T-11411
YAK (H)		Vol. 6, Page 5
YES		TT83 JES-3 (TEMP)
ZAG	1132	T-11411
ZOO	1039	T-11410

SHIP SOSBEE

PROJECT OPR - 353

INDEX OF

HYDROGRAPHIC SHEETS

WEST COAST OF FLORIDA

SOUTH PINE ISLAND SOUND

PROJECT OPR-353

J. J. Tucker, Jr.

Chief of Party

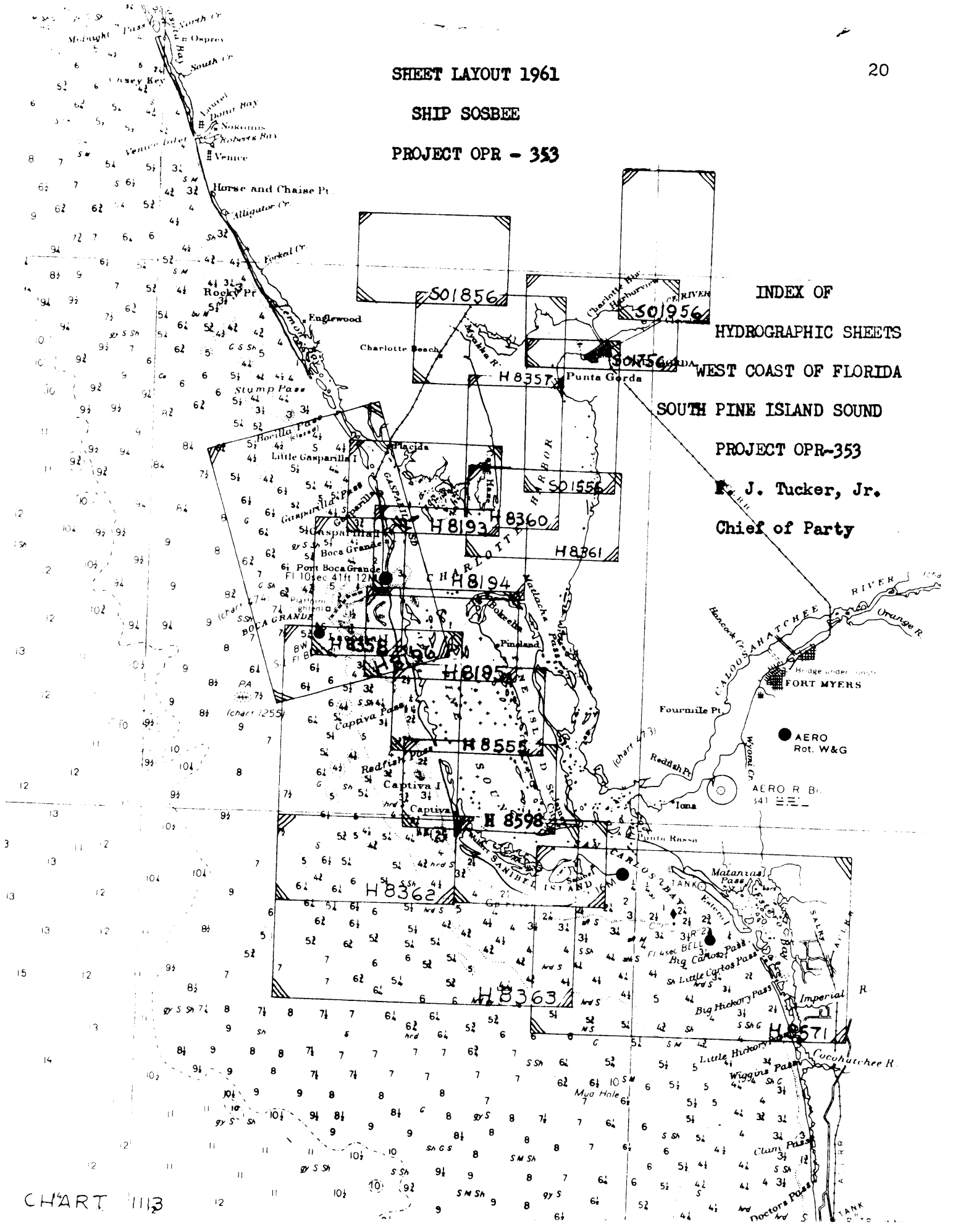



CHART 1113

APPROVAL SHEET

This survey is complete and adequate and no further field work is recommended.

The field work and boat sheet were inspected daily.

The boat sheet and processed records are approved.


Floyd J. Tucker, Jr.
LT., C&GS
C. O., Ship SOSBEE

NORFOLK PROCESSING OFFICE
ADDENDUM
TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8598 (SO-10-2-60)

GENERAL

This appears to be an excellent basic survey. Soundings are in good agreement at crossings as discrepancies amount to one foot or less.

Tide reducers were not available for 1 August, 1961, to show amount pilings are bare at positions 1 and 2pa day (blue), volume 19, page 5. *Reducers not required. Piling shown on smooth sheet as fish house ruins.*

Several topographic features such as oyster bars, piers and fish houses, not confirmed by hydrography, are shown on the smooth sheet in pencil from blue line prints. *These features inked during verification.*

Respectfully submitted

Woodrow W. Feazel
Woodrow W. Feazel
Cartographer

Norfolk Va.
22 August, 1962

TIDE NOTE FOR HYDROGRAPHIC SHEET

Nautical Chart Division: **R. H. Carstens**

November 1, 1962

Plane of reference approved in
21 volumes of sounding records for

HYDROGRAPHIC SHEET **8598**

Locality **South Pine Island Sound, Florida**

Chief of Party: **F. J. Tucker, Jr. (1961)**

Plane of reference is **mean low water reading**

2.3 ft. on tide staff at **Captiva, Florida**

3.8 ft. below B. M. No 1 (1961)

2.1 ft. on tide staff at Punta Rasa, Florida

5.5 ft. below B. M. 5 (1927)

Height of mean high water above plane of reference is:

1.3 feet in Pine Island Sound

1.7 feet along outer coast of Captiva Island

Condition of records satisfactory except as noted below:

Note: Tide reducers for positions listed below have been revised in red and verified.

<p>Vol. 7</p>	<p>Pos. 1u to 62u</p>	<p><i>Tide sta. Punta Rasa was used for this correction Corrected to tide sta Captiva Is.</i></p>
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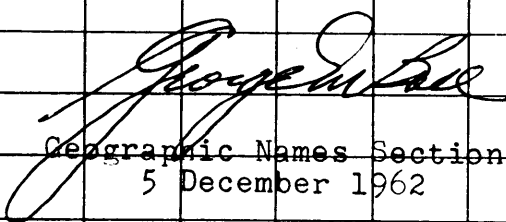
void

J. M. Symons

Chief, Tides and Currents Branch

GEOGRAPHIC NAMES
Survey No. H-8598

Name on Survey	<div style="display: flex; justify-content: space-between; font-size: small;"> On Chart No. 1255 On previous survey No. On U. S. quadrangle Maps From local information SC 243 On local Maps P. O. Guide or Map Rand McNally Atlas U. S. Light List </div>										
	A	B	C	D	E	F	G	H	K		
✓ Buck Key	x										1
✓ Captiva	x										2
✓ Captiva Island	x										3
✓ Chadwick Bayou				x							4
✓ Chadwick Lake				x							5
✓ Chino Island	x										6
✓ MacKeever Keys	x										7
✓ Mason Island	x										8
✓ Pine Island	x										9
✓ Pine Island Sound	x										10
✓ Redfish Pass				x							11
✓ Regla Island	x										12
✓ Roosevelt Channel				x							13
✓ Sanibel Island	x										14
✓ Galt Island	X										15
^{NEW} South Banks	x										16
Wulfert Channel		T-11413									17
Breynerd Bayou		T-11410									18
Long Cutoff		T-11414									19
BUCK Key Channel		T-11410									20
											21
											22
											23
											24
											25
											26
											27


 Geographic Names Section
 5 December 1962

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8598..

Records accompanying survey: Smooth sheets ¹.....;
 boat sheets ¹...; sounding vols. ²¹.....; wire drag vols.;
 Descriptive Reports ¹...; graphic recorder envelopes ²⁸.....;
 special reports, etc. ~~2-Overlay tracings~~.....

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

Number of positions on sheet	.....	4441
Number of positions checked	.....	425
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	20
Number of soundings erroneously spaced	.....	25
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	48
Junctions	Time	32
Verification of soundings from graphic record	Time	8
Special adjustments	Time	0

Verification by *J. B. Shankus*..... Total time *348*... Date *7/9/63*...

Reviewed by ... *Dale E. Westbrook*..... Time *59.0*... Date *7/30/64*...

Inspected by *JR Engle*..... *Carstens*.....
 140
 2-13-75
 2/21/75

H-8598

Information for Future Pre-Survey Reviews

Pine Island Sound, in the area of this survey, seems to be shoaling at the slow rate of about 1-ft. in 100 years.

The mangrove islands throughout the sound appear to be increasing in size somewhat.

The Gulf of Mexico shoreline of Captiva Island seems to have moved eastward since the prior surveys. During the same period of time, Redfish Pass was formed, and further changes can be expected in this vicinity.

Future pre-survey reviews should emphasize the necessity of carefully delineating all natural and artificial channels, as considerable difficulty was encountered in drawing depth curves in these areas.

Resurvey Cycle Information:

<u>Position Index</u>		<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
262	0822	3	2	50 Years
262	0821	3	2	50 Years
263	0822	5	0	50 Years
263	0821	4	0	50 Years

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8598

FIELD NO. SO-10-2-60

Florida, West Coast, South Pine Island Sound

SURVEYED: November 1960 - September 1961

PROJECT NO.: OPR-353

SCALE: 1:10,000

SOUNDINGS: 808 Depth Recorders
Sounding Pole

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party R. C. Munson
..... F. J. Tucker, Jr.
Surveyed by R. C. Munson
..... F. J. Tucker, Jr.
..... W. D. O'Neill
..... D. F. S. Galloway
..... E. D. Schwantes
..... F. D. Moran
Protracted by D. C. Calland
Soundings Plotted by D. C. Calland
Verified and Inked by J. C. Chambers
Reviewed by D. E. Westbrook
Date: July 30, 1964
Inspected by D. R. Engle

1. Description of the Area

This survey covers the southern part of Pine Island Sound from the north end of Sanibel Island to Redfish Pass. A portion of the Gulf of Mexico, along the outer coast, inshore from the vicinity of the 18-ft. depth curve, has also been included on this survey.

The Pine Island Sound area is, in general, quite shallow. It is characterized by irregular shoreline, numerous mangrove islands, and both sand and oyster shoals. The bottom is irregular and is composed of sand, shells, mud, and grass growing in many shallow water areas.

As a result of dredging of the Intracoastal Waterway channel through Pine Island Sound, spoil areas are found along the west side of the channel.

Numerous private markers and regular aids to navigation exist in Pine Island Sound.

Most of the outer coastline is relatively straight. The sand bottom is gently sloping, and few dangers to navigation exist. An exception to this generality can be found at Redfish Pass where shifting sand shoals guard the entrance. Here, depths of 2 ft. occur as far as 0.5 mile offshore. Redfish Pass is relatively deep between North Captiva and Captiva Islands, but both the Gulf and Pine Island Sound entrances are blocked by depths of six feet or less.

2. Control and Shoreline

The control is adequately described in the Descriptive Report.

The shoreline originates with Reviewed Photogrammetric Manuscripts T-11407 and T-11408 of 1953-58; Advance Photogrammetric Manuscripts T-11410, 11411 and 11414 of 1953-61; and Advance Manuscript T-11413 of 1953-60.

Reviewed Manuscripts exist for all of the above sheets, but field edit revisions were inadvertently omitted from the latter four sheets. Therefore, these four "Reviewed" sheets were not used for shoreline.

Shoreline changes shown on the present survey subsequent to the dates of photography are as follows:

(a) Lat. $26^{\circ}33.8'$, long. $82^{\circ}12.2'$, on North Captiva Island. Dashed red shoreline transferred from H-8555 (1960).

(b) Lat. $26^{\circ}30.67'$, long. $82^{\circ}06.07'$, fill extends from Pine Island to Galt Island.

(c) Lat. $26^{\circ}31.70'$, long. $82^{\circ}09.55'$, two spoil banks above mean high water.

(d) Lat. $26^{\circ}32.85'$, long. $82^{\circ}11.75'$, dashed red shoreline change.

(e) Lat. $26^{\circ}32.48'$, long. $82^{\circ}11.72'$, fill has closed channel.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves are adequately delineated except that the zero depth curve inshore could not be completely defined due to overhanging mangrove growth and the small range of tide.

The 3-ft. depth curve was added for better definition of the bottom configuration.

C. The development of the bottom configuration and the investigation of least depths are considered adequate, except that a sounding line should have been run along the centerline of the privately maintained mailboat channel leading to the town of Captiva on Captiva Island. It is believed that the channel has a controlling depth of about 3-4 ft.

4. Condition of the Survey

The field plotting, sounding records, and the Descriptive Report are adequate, and conform to the requirements of the Hydrographic Manual.

5. Junctions

Adequate junctions were effected with H-8362 (1956, 59-60) on the west, H-8555 (1960) on the north, and both H-8363 (1956-61) and H-8632 (1961) on the south.

6. Comparison with Prior Surveys

H-1479b (1:20,000) 1879-80
H-1480a (1:20,000) 1879-80
H-4823 (1:10,000) 1928 Recon.

Taken together, these surveys comprise the prior coverage of the present survey area.

Numerous changes have taken place since 1879-80. Redfish Pass was non-existent at that time so the bottom configuration and shoreline in that area have changed extensively. During the same period of time that Redfish Pass was formed, Captiva Island's outer coast eroded about 0.2 mile just north of the pass and about 0.1 mile to the south of the pass. In other portions of the offshore area, the prior survey, H-1479b, agrees substantially with the present survey.

In Pine Island Sound, a comparison with prior survey H-1480a indicates general shoaling of from $\frac{1}{2}$ to 1 foot. In addition, due to the closer line spacing and larger scale of the present survey, a number of shoals were found which were not previously located.

A 4-ft. shoal in lat. $26^{\circ}31.26'$, long. $82^{\circ}09.07'$, not considered disproved by the present survey, has been carried forward to the present survey.

The present survey shows the Intracoastal Waterway Channel and the contiguous spoil banks which, of course, do not appear on the prior survey.

Reconnaissance survey H-4823 shows the privately maintained channel along the north end of Sanibel Island.

With the addition of the 4-ft. shoal mentioned above the present survey is adequate to supersede the prior surveys within the common area.

7. Comparison with Chart 856-SC, 1st Ed., 1963A. Hydrography

Most of the hydrography charted at the date of this review originates with the boat sheet and smooth sheet of the present survey before verification and review.

A complete reapplication of the present survey is required when the chart is next revised because of numerous changes that have been made to the survey during processing.

* (Inspector's Note: Items below, numbers (1) through (6) have been accomplished subsequent to the date of this review. Item number (7), a sunken wreck, has been deleted from the chart by authority of Chart Letter 756 (1971) subsequent to the date of this review.)

Attention is called to the following items:

* (1) The islet charted in lat. $26^{\circ}29.59'$, long. $82^{\circ}10.96'$ does not appear either on T-11413 (1953-58) or on the present survey. These surveys show a pile in this location. The islet should be deleted from the chart and the pile substituted as shown on T-11413 (1953-58).

* (2) The islet charted in lat. $26^{\circ}29.69'$, long. $82^{\circ}09.71'$ is thought to have originated with an erroneous interpretation of a marker on H-8632 (1961). The islet should be deleted from the chart and a marker substituted in its place as shown on the present survey.

* (3) The pole charted in lat. $26^{\circ}29.70'$, long. $82^{\circ}09.70'$ is shown as a submerged pile on the present survey and should be charted accordingly.

* (4) The sunken wreck charted in lat. $26^{\circ}29.64'$, long. $82^{\circ}09.62'$ originates with reconnaissance survey H-4823. It was verified on the present survey and should be

retained as charted. However, the abbreviation WK is redundant and should be removed from the chart. In addition, the dangerous wreck symbol should be used.

* (5) The pier charted in lat. $26^{\circ}30.02'$, long. $82^{\circ}11.09'$ originates with an undetermined source. It does not appear on either the present survey on T-11410 (1953-61) and is not believed to exist. The pier should be deleted from the chart.

* (6) The pile charted in lat. $26^{\circ}30.47'$, long. $82^{\circ}07.69'$ was originally shown erroneously on the smooth sheet of the present survey as piling and should be deleted from the chart. The reference in the sounding volume was to a group of piling in lat. $26^{\circ}30.47'$, long. $82^{\circ}07.56'$. These piling should be charted as shown on the present survey.

* (7) The sunken wreck PD charted in lat. $26^{\circ}32.55'$, long. $82^{\circ}12.50'$ originates with H.O. Notice to Mariners No. 17 (1950). This wreck was searched for by the hydrographic party for seven hours (see Part J. Descriptive Report), but no permanent record of the area of search was made. Thus, the wreck may be some distance away from the search area as its original position was only approximate. In view of this possibility, and until such time as a wire-drag party can verify or disprove the existence of the wreck, it is recommended that it be retained as charted. (See Inspector's note above.)

The present survey is adequate to supersede the charted hydrography within the common area.

B. Controlling Depth

The Intracoastal Waterway controlling depth note as charted, originates with U.S. Corps of Engineers survey of Apr.-Nov. 1960 (Bp 60708-14) and is in substantial agreement with the depths shown on the present survey.

C. Aids to Navigation

The aids shown on the present survey are in substantial agreement with their charted positions and adequately mark the features intended.

A number of aids shown on the present survey, and subsequently removed, are listed thereon.

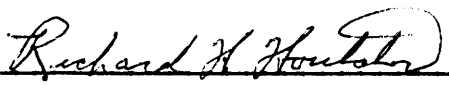
8. Compliance with Instructions

The survey adequately complies with the Project Instructions except that the privately maintained mail boat channel leading to the town of Captiva on Captiva Island should have been more clearly defined.

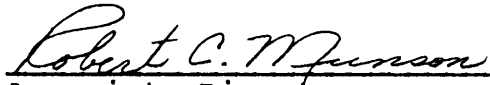
9. Additional Field Work

This survey is considered to be a very good basic survey. No additional field work is recommended.

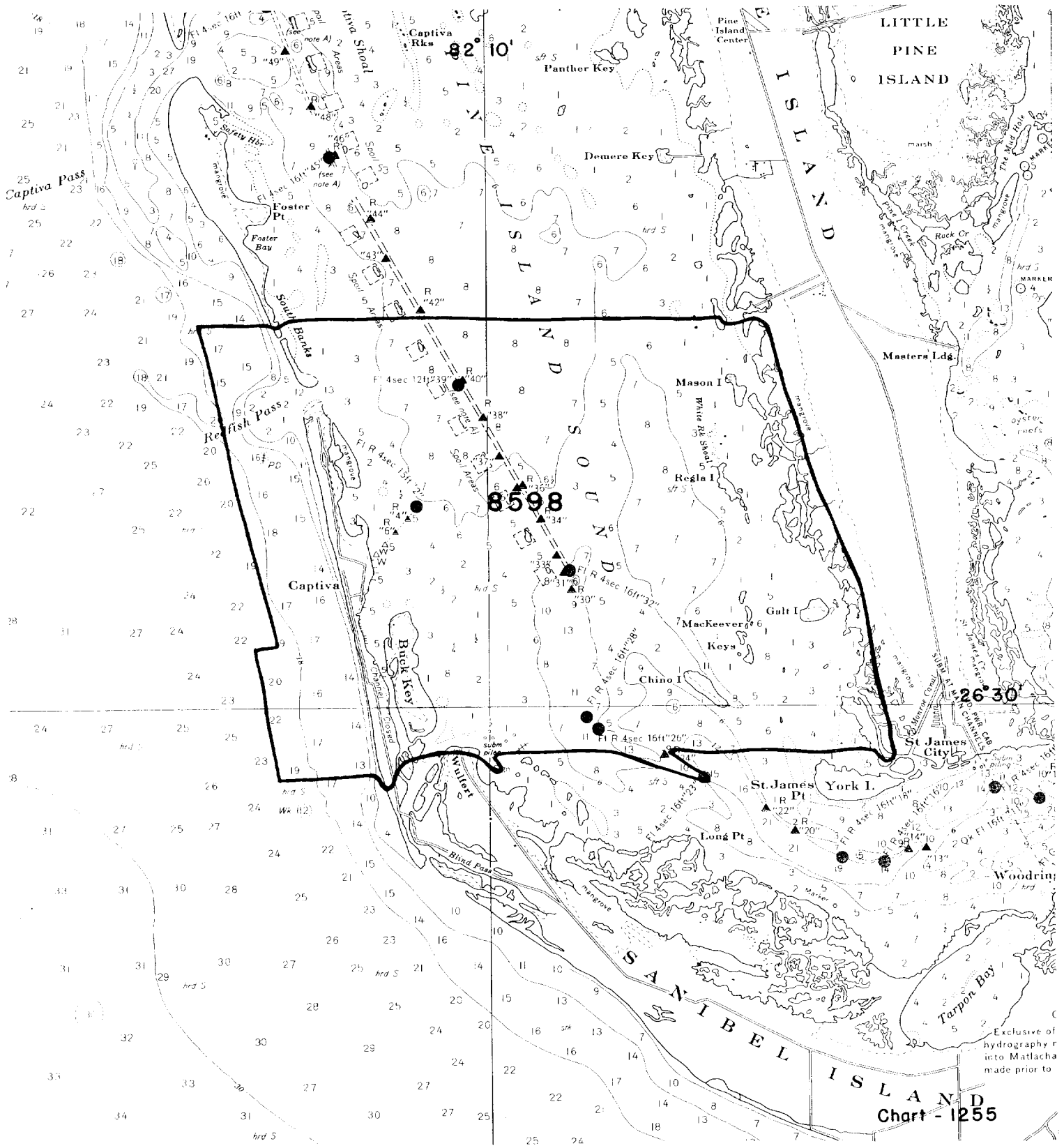
Examined and Approved:



Chief
Marine Chart Division



Associate Director
Office of Marine Surveys and Maps



Exclusive of hydrography r into Matlacha made prior to

Chart - 1255

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8598

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
Oct 62	856A4B	<i>Wills</i>	Before After Verification and Review <i>Complete application from Boat sheet.</i>
1/9/63	1113	<i>A. Quimby</i>	Before After Verification and Review <i>Examined no correction at this scale.</i>
6/1/63	1255	<i>John P. Wein</i>	Before After Verification and Review <i>Part. Applied</i>
5-17-67	856	<i>A. J. Sunday</i>	Before After Verification and Review <i>Part applied. (Prior to inspection of H-Review)</i>
6-3-67	1255	<i>H. Rodda</i>	Before <u>After</u> Verification and Review Inspection <i>App'd thru chrt. 8565C.</i>
7-16-68	1255	<i>W. H. Wall</i>	Before After Verification and Review <i>before inspect. Partly app.</i>
4-9-79	<i>856A4B 11427</i>	<i>Stephen J. King</i>	Before After Verification and Review INSPECTION <i>FULLY APPLIED</i>
12-18-8	11426	<i>C. Payne</i>	Before After Verification and Review INSPECTION <i>Fully Applied</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review
			Before After Verification and Review

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.