

8879

Diag. Cht. No. 1001-3.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HO-80-1-66 Office No. H-8879

LOCALITY

State Florida

General locality East Coast

Locality Off Daytona Beach

1966

CHIEF OF PARTY

H. D. Reed, Jr.

LIBRARY & ARCHIVES

DATE Sept. 19, 1967

8879

12111

HYDROGRAPHIC TITLE SHEET

H-8879

INSTRUCTIONS - 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.

HY-80-1-66

State FloridaGeneral locality ~~Atlantic Ocean~~ EAST COASTLocality ~~East Coast~~ OFF DAYTONA BEACHScale 1:80,000 Date of survey 4-2-66 to 5-31-66 & 6-13-66Instructions dtd 12-27-63, Memorandum dtdInstructions dated 3-25-66, Supp. Inst. dtd 1-12-66 Project No. OPR-447Vessel USC&GS Ship HYDROGRAPHERChief of party Harry D. Reed, Jr., CDR, USESSALCDR K.E. Taggart, LTJG J.P. Brown Jr., LTJG B.D. Edwards, LTJG W.T.Surveyed by McMullen, ENS D.E. Youngdahl, ENS A.P. Sibold III, ENS J.L. Wallace,
ENS H.M. CoghlanSoundings taken by echo sounder, ~~xxxxxxx~~ DE-723 Raytheon Survey FathometerGraphic record scaled by Ship's personnelGraphic record checked by Ship's personnelProtracted by to be smooth plotted, at FMC, Seattle Automated plot by P.M.C.Soundings penciled by FMC, SeattleSoundings in fathoms and tenths ~~xxxx~~ at MLW ~~xxxxxx~~

REMARKS: The ship's procedure for processing and disposition of records is as follows: The fathogram is scanned and corrected or insert soundings are entered on the original printout, by hand. A Corrected Raw Data Tape and Printout is made correcting errors in time, day of year, position and dropped digits. Also includes insert soundings and corrections to original soundings obtained by scanning the fathograms. Tide, Raydist and TRA correctors are computed and entered on the Corrected Raw Data Printout. The printout is proof-read. (Tide data furnished by the Washington Office). Tide curves were drawn by ship's personnel and the values used prior to verification. Tides & Currents Branch to furnish verification to FMC, Seattle. Using the Corrected Raw Data Printout, a Corrector Tape is made, with Printout. This is proof-read. Velocity corrections are computed on board ship and the values are included in this report. (See Chief, Operations Division Memorandum dated March 26, 1965 (copy in this report) for instructions pertaining to Tide and Velocity corrections). The Original Raw Data Printout, Corrected Raw Data Tape and Printout, Corrector Tape and Printout, Raydist Brush Recorder Tapes, Fathograms and Boat Sheet (with overlays) are forwarded to Pacific Marine Center, Seattle, Washington. Later, the Raydist Report, Corrections to Echo Soundings Report, and a copy of the Season's Report are forwarded to FMC, with copies to Atlantic Marine Center.

PROGRESS SKETCH

EAST COAST OF FLORIDA

PROJECT OPR-447

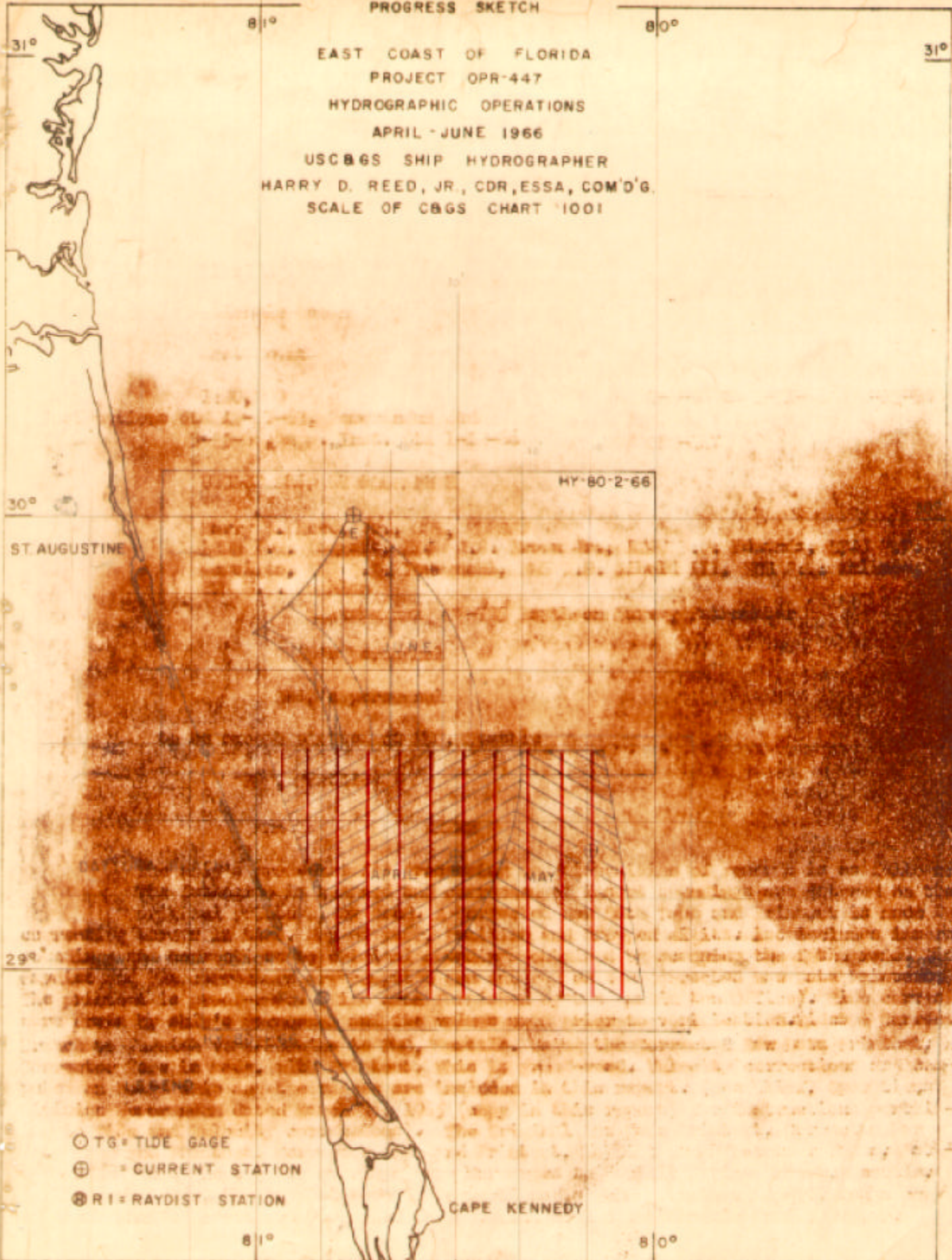
HYDROGRAPHIC OPERATIONS

APRIL - JUNE 1966

USCGS SHIP HYDROGRAPHER

HARRY D. REED, JR., CDR, ESSA, COM'D'G.

SCALE OF CGGS CHART 1001



ST. AUGUSTINE

HY-80-2-66

APRIL MAY

29°

- TG = TIDE GAGE
- ⊕ = CURRENT STATION
- ⊗ RI = RAYDIST STATION

CAPE KENNEDY

81°

80°

DESCRIPTIVE REPORT

To Accompany

Hydrographic Survey H-8879 (HY-80-1-66)

OPR-447, East Coast of Florida

1966

USC&GS Ship HYDROGRAPHER

Scale 1:80,000

Harry D. Reed, Jr., CDR, USESSA

Chief of Party

A. PROJECT

This survey was accomplished under Project Instructions 211, S-2-HY dated December 27, 1963; Memorandum from Acting Associate Director, Hydrography and Oceanography dated March 25, 1966, and Supplemental Instructions dated January 12, 1966.

B. AREA SURVEYED

This survey covers an area of ¹³²⁵1275 square nautical miles off the east coast of Florida. It is bounded on the west by the approximate 10 fathom curve and on the east by the 200 meter curve (110 fathoms), and lies between Lat. 28°55' North and Lat. 29°29' North.

Hydrography began on April 2, 1966 and was completed on June 13, 1966.

This survey junctions with prior survey H-8840 (HY-80-2-65) on the south, ^{on the south} and overlaps the following prior surveys: ^{H-8937 (1966)}

<u>Registry Number</u>	<u>Scale</u>	<u>Date</u>	<u>Registry Number</u>	<u>Scale</u>	<u>Date</u>
H-4377	1:40,000	1924	H-4804	1:40,000	1928
H-4434	1:100,000	1924	H-4931	1:120,000	1929
H-4485	1:40,000	1925	H-4932	1:40,000	1929
H-4803	1:120,000	1928	H-4935	1:40,000	1929

C. SOUNDING VESSEL

All hydrography was accomplished by USC&GS Ship HYDROGRAPHER.

D. SOUNDING EQUIPMENT

The Raytheon Survey Fathometer, Model DE-723, Serial Number was used for all hydrography.

Depths range from 6 to 131 fathoms.

Corrections to echo soundings were determined as follows:

- (a) Transducer draft corrections were derived from daily draft readings of the ship's internal draft gage.
- (b) Echo sounder instrument corrections were determined by simultaneous comparisons with vertical casts made in areas of smooth bottom during periods of calm weather and sea conditions.
- (c) Settlement and squat corrections were used as determined from tests made on August 20, 1963.
- (d) Echo sounder phase corrections were determined by means of phase comparisons made in areas of smooth bottom during periods of calm weather and sea conditions.
- (e) Sound velocity corrections were determined by means of temperature and salinity casts made each month in the area being surveyed.

For methods of applying these corrections, refer to Section "O" of this report.

E. SMOOTH SHEET

The smooth sheet ~~will~~^{was} be plotted, automatically, by the Gerber Plotter at the Pacific Marine Center.

F. CONTROL

All positions on this survey were located by Raydist. Single antenna systems were used on the ship and at each shore station.

The R1 (Violet) station was located at Flagler Beach, Florida. The mast was erected over a standard reference mark disk, stamped FLAGLER No. 4 1874 - 1934 - 1966 and located by ship's personnel using third-order traverse methods. The station was named FAG on this survey, and is located at Lat. 29°29'18.732" N., Long. 81°07'55.202" W.

DESCRIPTIVE REPORT - HY-80-1-66 (H-8879) - continued

The R2 (Green) station was located at New Smyrna Beach, Florida. The mast was erected over SCOT, Lat. 28°56'28.047" North, Long. 80°50'00.434" West. The station was marked with a standard hydrographic mark disk located by ship's personnel and personnel from USC&GS Field Party #366, using third-order traverse methods.

Raydist corrections were derived from simultaneous three-point sextant fixes and Raydist readings plotted on a 1:20,000 scale calibration sheet furnished by the Atlantic Marine Center.

The lane count was checked by circling a special calibration buoy and the buoyed Current Stations "a" and "b". The positions of the buoys were determined by Raydist traverse from the visual calibration.

An abstract of Raydist corrections is appended to this report.

For more detailed information, refer to Raydist Report, 1966 Field Season, OPR-447, East Coast of Florida, USC&GS Ship HYDROGRAPHER.

G. SHORELINE

There is no shoreline within the area of this survey.

H. CROSSLINES

Approximately 6% of the total linear miles of sounding lines were run as crosslines. All crossings were in excellent agreement.

I. JUNCTIONS

Junction was made with ^{contemporary} ~~prior~~ survey H-8840 on the south. Soundings were in good agreement, generally within one fathom.

J. COMPARISON WITH PRIOR SURVEYS

Comparison with the following surveys showed excellent agreement with differences seldom exceeding one fathom:

H-4377	H-4804
H-4434	H-4932
H-4485	H-4935
H-4803	H-8840

Good to fair agreement was obtained from comparison with H-4931. This off-shore survey was made in 1929 and weak control is believed to have been a

factor in the disagreement.

The following pre-survey review soundings were compared with observed depths that were not corrected for tide:

Latitude	Longitude	Depth	
		Prior Depths	Observed
29° 26' 30"	80° 50' 05"	9 ¹	12 ¹ -12 ²
29° 27' 50"	80° 45' 20"	10 ¹	12 10 ²
29° 22' 00"	80° 49' 40"	9 ²	10 9 ¹ -9 ²
29° 19' 50"	80° 50' 00"	10 9 ²	10 ¹
29° 18' 50"	80° 49' 20"	10 ¹	12 10 ²
29° 18' 00"	80° 50' 00"	10 9 ²	10 9 ²
29° 17' 45"	80° 51' 10"	8 8 ²	9 8 ²
29° 16' 00"	80° 49' 30" 30	10 ²	12 10 ² -11
29° 15' 20"	80° 46' 00"	11 ²	13 11 ²
29° 14' 45"	80° 48' 35"	10 ²	12 11 ²
29° 13' 15"	80° 44' 10"	12	13 12 ² to southeast of pos.
29° 13' 25"	80° 49' 05"	10 11	12 11 ² to " " " "
29° 11' 35"	80° 48' 10"	10 9 ²	10 9 ² to " " " "
29° 11' 10"	80° 46' 55"	10 9 ²	10 9 ² to southeast " "
29° 10' 40"	80° 46' 10"	8 9 ²	10 9 ² -9 ²
29° 07' 40"	80° 42' 25"	10 ¹	11 10 ²
29° 07' 30"	80° 44' 20"	10	11 10 ² to southwest of pos.
29° 06' 20"	80° 44' 05"	9 ²	11 10 ²
29° 05' 20"	80° 40' 02"	10 ²	10 ²
29° 05' 05"	80° 42' 00"	11 10 ²	10 ²
29° 03' 35"	80° 41' 25"	10	11 9 ² just north of pos.
29° 01' 05"	80° 33' 15" 50	10 ²	11-12 10 ²
28° 57' 50"	80° 33' 30"	8 ²	9-10 8 ²
28° 57' 30"	80° 30' 10"	10	11 10 ²
28° 57' 25"	80° 33' 25"	8 ²	9-10 8 ²
28° 57' 10"	80° 28' 10"	10 ²	11-12 10 ²

K. COMPARISON WITH NAUTICAL CHARTS

A comparison with C&GS Chart 1245 (5th Edition, January 4, 1966, corrected through Notice to Mariners 22 of May 28, 1966) indicates excellent agreement, generally to within one fathom. See Review

A comparison with C&GS Chart 1244 (3rd Edition, August 30, 1965, corrected through Notice to Mariners 22 of May 28, 1966) indicates excellent agreement in those areas where charted soundings are dense enough for meaningful comparison. See Review

DESCRIPTIVE REPORT - HY-80-1-66 (H-8879) - continued

A comparison with C&GS Chart 1111 (9th Edition, October 1, 1962, Revised December 21, 1964, corrected through Notice to Mariners 22 of May 28, 1966, indicates generally good agreement.

L. ADEQUACY OF SURVEY

This survey is considered to be complete and adequate to supersede prior surveys of the area.

M. AIDS TO NAVIGATION

There are no floating or fixed aids to navigation in the area surveyed.

N. STATISTICS

Number of Positions -----	4,496
Nautical Miles of Sounding Line -----	6,476
Area Surveyed - Square Nautical Miles ---	1,275
Number of Bottom Samples -----	15

O. MISCELLANEOUS

The submarine feature, believed to be a small, normal, fault parallel to the continental slope, shown on HY-80-2-65 (H-8840) and reported in CO HYDROGRAPHER memorandum dated July 19, 1965, was kept under observation. A special overlay, with copies of representative fathograms, has been forwarded to the Washington Office (June 17, 1966).

Three current station series were observed using a Geodyne meter. Each station was observed for a period of fifteen days. The Geodyne meter was monitored using a Roberts meter at the beginning and end of the fifteen day period. The Geodyne meter locations were as follows:

Station "a" - Latitude 29°13.3' N. Longitude 80°51.4' W. (4-13 to 4-28)

Station "b" - Latitude 29°14.9' N. Longitude 80°30.0' W. (4-29 to 5-14)

Station "c" - Latitude 29°16.5' N. Longitude 80°10.4' W. (5-16 to 5-31)

The exposed film, from the meter, was sent to the Atlantic Marine Center immediately after each series was completed.

DESCRIPTIVE REPORT - HY-80-1-66 (H-8879) - continued

The hydrographic field records for this survey were recorded automatically by the DATEX System. The authorized hydrographic record consists of a type-written printout and a coded punched paper tape, to be used in the computer processing and automatic plotting system.

The raw data tape was re-run and a corrected raw data tape and printout was made. This corrected raw data tape contains corrections to time and position number, inserted soundings, missed or dropped digits and corrections to original soundings obtained from scanning the fathograms. These have been proof-read.

Velocity corrections have been applied to the soundings on the boat sheet, but not to the punched tape record or to the printout. A velocity tape is to be made at Pacific Marine Center.

During the entire survey the following format was used:

Time	Indicator	Sounding	Position Number	Day of Year	Feet/Fathoms	R1	R2
232800	01	0205	4620	150	1	140630	199060

The corrector tape and printout, to supplement the corrected raw data tape has the following format:

Time	Indicates if correct- ed or added sounding	sounding	Position Number	Day of Year	Feet/Fathoms	R1 Correction	R2 Correction	Tide Correction	TRA	(not used)
232800	00	0205	4620	150	1	000250	100430	1010	110	000

DESCRIPTIVE REPORT - HY-80-1-66 (H-8879) - continued

For a complete understanding of the formats and procedures used in the HYDROGRAPHER'S operations, refer to the following memoranda to Commanding Officer, USC&GS Ship HYDROGRAPHER from:

- (1) Chief, Operations Division, dated March 26, 1965
- (2) Director, Pacific Marine Center, dated February 14, 1966
- (3) Director, Pacific Marine Center, dated April 14, 1966
- (4) Director, Pacific Marine Center, dated May 16, 1966

TRA - consists of the following corrections:

- (1) Initial correction
- (2) Phase correction
- (3) Settlement & squat correction
- (4) Instrument correction
- (5) Draft correction

Bottom samples were taken in accordance with Section 1-42 of the Hydrographic Manual. All bottom samples agreed with those presently charted.

There were numerous strays recorded during this survey, especially in the shoaler depths. Many of these were developed with more closely spaced lines and sometimes a line was re-run in order to resolve the stray. A stray sounding of 4 fathoms, after Fix No. 1047, was closely developed on an overlay (Lat. 29°20'N. Long. 80°54'W.) but no indication of either a stray or a submerged object could be found.

Strays which resemble side echos, at Lat. 29°28.5'N. Long. 80°49.0'W. were closely developed but our interpretation failed to turn up a hard object which would cause a side echo. Most of the lines plotted on the overlay were run to develop areas where stray signals needed resolving. In some cases, further development revealed nothing; in others, more random strays were recorded but nothing which could be interpreted as anything other than stray returns.

Adequate delineation of the sand ridge, depth curves in the western one third of the survey was accomplished using the regular system of R1 arcs. Therefore, the ridges were not further developed with lines parallel to the axis of the ridges as suggested in the Pre-Survey Review.

P. RECOMMENDATIONS

None.

Q. REFERENCES TO REPORTS

The reports which are listed below are necessary for a complete evaluation and understanding of this survey. Except for the Season's Report, all original reports will be forwarded to the Pacific Marine Center, where the sheet will be plotted, with a copy to Atlantic Marine Center.

TITLE OF REPORT

Raydist Report, 1966 Field Season, Project OPR-447, East Coast of Florida, USC&GS Ship HYDROGRAPHER.

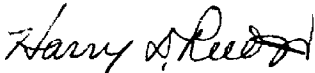
Report on Corrections to Echo Soundings, 1966 Field Season, Project OPR-447, East Coast of Florida, USC&GS Ship HYDROGRAPHER.

Season's Report, USC&GS Ship HYDROGRAPHER, 1966 Field Season.



Kelly E. Taggart
LCDR, USESSA

Approved and Forwarded:



Harry D. Reed, Jr.
CDR, USESSA
Commanding Officer
USC&GS Ship HYDROGRAPHER

Memorandum

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

Commanding Officer ^{MSR}
USC&GSS HYDROGRAPHER
Drawer M
Port Canaveral, Florida

DATE: June 9, 1966

In reply refer to:
C332B-109-CSS 4

FROM : Acting Chief, Tides Section
Oceanography Division

SUBJECT: Hourly heights for Daytona Beach

In reply to your request of April 26, 1966, we enclose
hourly heights for Daytona Beach for April 1966.

Heights are referred to a datum which is 7.4 feet below
Mean Low Water.

Times are 75°W.



S. C. Berkman

Enclosure



BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

TIDE NOTE

Field No. HY-80-1-66

Registry No. H-8879

Tide Station: Daytona Beach, Florida
Latitude 29°13.67' N.
Longitude 81°00.26' W.

Plane of Reference: 7.4 feet below MLW

Time Meridian: 75° West

Time Correction: None

Height Correction: None

Area Covered: All of the area surveyed during the month of April

Tide gage is a punched tape recorder type, mounted on the recreation pier at Daytona Beach, Florida.

Hourly Heights and Plane of Reference furnished by Tides and Currents Branch of the Washington Office. (Refer to Chief, Tides and Currents Branch memorandum dated June 9, 1966 - copy appended).

Tide Station: Mayport, Florida
Latitude 30°24' N.
Longitude 81°26' W.

Plane of Reference: 1.6 feet below MLW

Time Meridian: 75° West

Time & Height Corr: See Chief, Tides Section memorandum dated July 26, 1966 (copy appended)

Area Covered: All of the area surveyed during the months of May and June

Tide gage is a standard tide gage permanently installed at Mayport, Florida.

Hourly Heights and Plane of Reference furnished by Tides and Currents Branch of the Washington Office.

Memorandum ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

TO : The Commanding Officer
USC&GS Ship HYDROGRAPHER
P. O. Box 1259
St. Petersburg, Florida 33731

DATE: July 26, 1966

In reply refer to:
C3312-142-CSS 4

FROM : Chief, Tides Section
Oceanography Division

SUBJECT: Daytona Beach - Tidal data

Enclosed are copies of the hourly heights of the tide observed at Mayport during May and June 1966. The tapes from Daytona indicated a shifting datum and had to be discarded.

Tides at Daytona Beach occur about half an hour earlier than at Mayport. After referring the heights at Mayport to MLW, subtract 0.4 ft. from the high water heights. There is no further correction to the low water heights.

Martha A. Winn

Martha A. Winn

Enclosures

See Cahier for abstract of tide reducers



Memorandum

TO : Commanding Officer
USC&GS HYDROGRAPHER

DATE: March 26, 1965

In reply refer to: 210

FROM : Chief, Operations Division

SUBJECT: Logging of Hydrographic Data

- Reference: (a) Revised Instructions for Logging the Corrector Tape, dated 12-7-64.
(b) Instructions for Logging the Corrector Tape, dated 7-1-64.
(c) Instructions for Logging Original Data, dated 4-29-64.

During the 1965 field season, while conducting hydrographic surveys on Project OPR-447, in the Straits of Florida, you shall continue to furnish the Seattle Regional Office the following:

1. The original raw data tape.
2. The corresponding hand corrected raw data tape printout, as per example in Reference (b).
3. The corrector tape.
4. The corresponding corrector tape printout, as per example in Reference (a).

Velocity corrections are to be determined and checked by the HYDROGRAPHER and forwarded to the Seattle Regional Officer for use in smooth sheet plotting. On the corrector tape, you shall continue to enter 000 in the 3-digit space provided for the velocity correction. You will no longer be required to make the Velocity Tape, as this tape will be made by the Electronic Data Processing Branch in Seattle after the velocity corrections are received. If more than one set of velocity corrections are used on the same hydrographic sheet, a description of the area covered by each set of corrections shall be included with the data sent to Seattle, and also included in the Descriptive Report and in the Report on Corrections to Echo Soundings.

Tide corrections, determined from hourly heights, shall be submitted to the Rockville, Md. office on Form C&GS 8502 for verification at the earliest possible date. Upon completion



of verification, these tide corrections will be forwarded to the Seattle Regional Officer for use in smooth sheet plotting. The tide corrections determined by the HYDROGRAPHER shall be entered onto the corrector tape in the 4-digit space provided by the method explained on pages 3 and 4 of Reference (b). Any changes in tide corrections that are discovered during the verification will be entered into the computer process by the Electronic Data Processing Branch in Seattle.

An attempt is being made to get the raw data tape, the corresponding hand corrected raw data tape printout, the corrector tape, and the corresponding corrector tape printout into the hands of the Electronic Data Processing Branch as early as possible.

Horace G. Conerly
Horace G. Conerly

- cc: Seattle R.O.
- WSC-211
- WSC-35
- WSC-355 (Cdr. Jones)
- C-835

HY-80-1-66

H-8879

ABSTRACT OF TRA CORRECTIONS

Only times of actual hydrography are listed.

All corrections are listed in fathoms and tenths of fathoms.

<u>Day No.</u>	<u>Date 1966</u>	<u>Time From</u>	<u>To</u>	<u>Osc. Draft</u>	<u>Phase Corr'n.</u>	<u>Instr. Corr'n.</u>	<u>Initial Corr'n.</u>	<u>S & S Corr'n.</u>	<u>TRA Corr'n.</u>
92	4-2	130300	200000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		200100	202200	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		202300	224200	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		224300	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
93	4-3	000000	002800	+ 2.0	0.0	- 0.2	+ 0.1	+ 0.1	+ 2.0
		002900	085600	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		085700	093600	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		093700	113900	+ 2.0	0.0	- 0.2	- 0.2	+ 0.1	+ 1.7
		114000	121000	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		121100	123000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		154900	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
94	4-4	000000	075000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		131600	162000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		201200	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
95	4-5	000000	013000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		013100	015000	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		015100	073000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		132200	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
96	4-6	000000	033200	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		033300	044600	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		044700	083900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		084000	091600	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		091700	111000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		111100	154000	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		154100	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9

ABSTRACT OF TRA CORRECTIONS - HY-80-1-66 (H-8879) - continued

Day No.	Date 1966	Time		Osc. Draft	Phase Corr'n.	Instr. Corr'n.	Initial Corr'n.	S & S Corr'n.	TRA Corr'n.
		From	To						
97	4-7	000000	100000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		100100	101700	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		101800	110000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		110100	114700	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		114800	233000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		233100	235900	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
98	4-8	000000	002400	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		002500	044000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		044100	050700	+ 2.0	0.0	- 0.2	0.0	0.0	+ 1.8
103	4-13	185300	233400	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		233500	235900	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
104	4-14	000000	034600	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		034700	035500	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		035600	212000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		220000	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
105	4-15	000000	113200	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		113300	123000	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		123100	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
106	4-16	000000	182000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		182100	185100	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		185200	235900	+ 2.1	0.0	- 0.2	0.0	* 0.1	+ 2.0
107	4-17	000000	012600	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		012700	015100	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		015200	050000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		050100	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
108	4-18	000000	013500	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		013600	014500	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		014600	072700	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		072800	074600	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		074700	081400	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		081500	083500	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		083600	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
109	4-19	000000	200000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		200100	200800	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		200900	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9

ABSTRACT OF TRA CORRECTIONS - HY-80-1-66 (H-8879) - continued

Day No.	Date 1966	Time		Osc. Draft	Phase Corr'n.	Instr. Corr'n.	Initial Corr'n.	S & S Corr'n.	TRA Corr'n.
		From	To						
110	4-20	000000	090000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		090100	114500	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		114600	200000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		200100	201200	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		201300	210000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		210100	211600	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		211700	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
111	4-21	000000	022700	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
116	4-26	115700	125800	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		125900	142400	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		152800	160300	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		160400	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
117	4-27	000000	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
118	4-28	000000	083700	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		085100	144000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		154900	164500	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		200000	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
119	4-29	000000	023000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		023100	024500	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		024600	130000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		130100	142000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		174000	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
120	4-30	000000	024000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		024100	033900	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		034000	034400	+ 2.0	0.0	- 0.2	+ 0.2	+ 0.1	+ 2.1
		034500	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
121	5-1	000000	183000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		212100	223800	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		223900	231000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
122	5-2	014900	083500	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		114200	132000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		141300	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
123	5-3	000000	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9

ABSTRACT OF TRA CORRECTIONS - HY-80-1-66 (H-8879) - continued

Day No.	Date 1966	Time		Osc. Draft	Phase Corr'n.	Instr. Corr'n.	Initial Corr'n.	S & S Corr'n.	TRA Corr'n.
		From	To						
124	5-4	000000	093600	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		093700	100300	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		100400	112900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		115300	120400	+ 2.0	0.0	- 0.2	- 0.2	+ 0.1	+ 1.7
		120500	195000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		203700	240000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
133	5-13	022000	060000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		114300	212400	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		212500	213500	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		213600	215000	+ 2.1	0.0	- 0.2	- 0.2	+ 0.1	+ 1.8
		215100	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
134	5-14	000000	115000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		170500	214700	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		214800	224200	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		224300	231300	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		231400	232000	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		232100	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
135	5-15	000000	034100	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		034200	040800	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		040900	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
136	5-16	000000	083100	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		083200	084300	+ 2.1	0.0	- 0.2	- 0.1	+ 0.1	+ 1.9
		084400	153600	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		170300	185000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		204700	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
137	5-17	000000	080000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		080100	114000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		114100	120900	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		121000	145000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		174000	232700	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
144	5-24	190100	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
145	5-25	000000	063300	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		085600	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0

ABSTRACT OF TRA CORRECTIONS - HY-80-1-66 (H-8879) - continued

Day No.	Date 1966	Time		Osc. Draft	Phase Corr'n.	Instr. Corr'n.	Initial Corr'n.	S & S Corr'n.	TRA Corr'n.
		From	To						
146	5-26	000000	023000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		023100	025600	+ 2.1	0.0	- 0.2	0.0	0.0	+ 1.9
		025700	144000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		190700	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
147	5-27	000000	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
148	5-28	000000	235900	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
149	5-29	000000	090000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 2.0
		090100	165500	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		171900	191000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		210500	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
150	5-30	000000	041000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		043400	103400	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		123100	163000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		190700	235900	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
151	5-31	000000	072500	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		072600	074400	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		074500	092700	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		192600	193000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
		193100	194400	+ 2.0	0.0	- 0.2	- 0.1	+ 0.1	+ 1.8
		194500	225000	+ 2.0	0.0	- 0.2	0.0	+ 0.1	+ 1.9
164	6-13	205400	215000	+ 2.1	0.0	- 0.2	0.0	+ 0.1	+ 1.9

RAYDIST CORRECTIONS

PROJECT OPR-447, EAST COAST OF FLORIDA

1966 FIELD SEASON

BOAT SHEET HY-80-1-66 REGISTRY NUMBER H-8879

Using Raydist Stations - FAG (R₁) and SCOT (R₂).

Only times of actual hydrography are listed.

Day No.	Date (1966)	Time		Corrections	
		From	To	R ₁	R ₂
92	4-2	1303	2359	+ 0.4	+ 0.2
93	4-3	0000	1230	+ 0.4	+ 0.2
		1549	2359	+ 0.4	- 0.8
94	4-4	0000	0602	+ 0.4	- 0.8
		0603	0610	- 0.6	- 9.8
		0611	0750	- 0.6	-17.8
		1316	1620	+ 0.4	+ 0.2
		2012	2359	+ 0.4	+ 0.2
95	4-5	0000	0730	+ 0.4	+ 0.2
		1322	2359	+ 0.4	+ 0.2
96	4-6	0000	2359	+ 0.4	+ 0.2
97	4-7	0000	2359	+ 0.4	+ 0.2
98	4-8	0000	0507	+ 0.4	+ 0.2
103	4-13	1853	2359	+ 0.4	+ 0.2
104	4-14	0000	2120	+ 0.4	+ 0.2
		2200	2359	+ 0.4	+ 0.2
105	4-15	0000	2359	+ 0.4	+ 0.2
106	4-16	0000	2359	+ 0.4	+ 0.2

RAYDIST CORRECTIONS - HY-80-1-66 (H-8879) - continued

Day No.	Date (1966)	Time		Corrections	
		From	To	R1	R2
107	4-17	0000	2359	+ 0.4	+ 0.2
108	4-18	0000	2359	+ 0.4	+ 0.2
109	4-19	0000	2359	+ 0.4	+ 0.2
110	4-20	0000	2359	+ 0.4	+ 0.2
111	4-21	0000	0227	+ 0.4	+ 0.2
116	4-26	1157	1424	+ 0.4	+ 0.2
		1528	2359	+ 0.4	+ 0.2
117	4-27	0000	2359	+ 0.4	+ 0.2
118	4-28	0000	0837	+ 0.4	+ 0.2
		0851	1440	+ 0.4	+ 0.2
		1549	1645	+ 0.4	+ 0.2
		2000	2359	+ 0.4	+ 0.2
119	4-29	0000	1420	+ 0.4	+ 0.2
		1740	2359	+ 0.4	+ 0.2
120	4-30	0000	2359	+ 0.4	+ 0.2
121	5-1	0000	1830	+ 0.4	+ 0.2
		2121	2310	+ 0.4	+ 0.2
122	5-2	0149	0835	+ 0.4	+ 0.2
		1142	1320	+ 0.4	+ 0.2
		1413	2359	+ 2.4	- 1.8
123	5-3	0000	2359	+ 2.4	- 1.8
124	5-4	0000	1950	+ 2.4	- 1.8
		2037	2400	- 0.6	- 0.8
133	5-13	0220	0600	+ 0.4	+ 0.2
		1143	2359	+ 0.4	+ 0.2
134	5-14	0000	1150	+ 0.4	+ 0.2
		1705	2359	+ 0.4	+ 0.2

RAYDIST CORRECTIONS - HY-80-1-66 (H-8879) - continued

Day No.	Date (1966)	Time		Corrections	
		From	To	R ₁	R ₂
135	5-15	0000	2359	+ 0.4	+ 0.2
136	5-16	0000	1536	+ 0.4	+ 0.2
		1703	1850	+ 0.4	+ 0.2
		2047	2359	+ 0.4	+ 0.2
137	5-17	0000	0138	+ 0.4	+ 0.2
		0138	1450	+ 0.4	-15.8
		1740	2012	- 0.2	+ 0.2
		2013	2327	- 0.2	- 5.8
144	5-24	1901	2359	+ 0.4	+ 0.2
145	5-25	0000	0633	+ 0.4	+ 0.2
		0856	2359	+ 0.4	+ 0.2
146	5-26	0000	1440	+ 0.4	+ 0.2
		1907	2359	+ 0.4	+ 0.2
147	5-27	0000	2359	+ 0.4	+ 0.2
148	5-28	0000	2359	+ 0.4	+ 0.2
149	5-29	0000	1655	+ 0.4	+ 0.2
		1719	1910	+ 0.4	+ 0.2
		2105	2359	+ 0.4	+ 0.2
150	5-30	0000	0410	+ 0.4	+ 0.2
		0434	1034	+ 0.4	+ 0.2
		1231	1630	+ 0.4	+ 0.2
		1907	2359	+ 0.4	+ 0.2
151	5-31	0000	0927	+ 0.4	+ 0.2
		1926	2250	+ 1.4	- 0.8
164	6-13	2054	2150	+ 4.6	- 4.6

VELOCITY CORRECTIONS

HY-80-1-66 and HY-80-2-66

OPR-447, EAST COAST OF FLORIDA

1966 FIELD SEASON

The velocity corrections listed below are unverified except by ship's personnel and were compiled in accordance with Chief, Operations Division memorandum dated March 26, 1965 (copy appended to this report).

All values are in fathoms and tenths of fathoms.

ENTER THE TABLE USING THE OBSERVED SOUNDING AFTER CORRECTING FOR TRA.

<u>From</u>	<u>To</u>	<u>Correction</u>	<u>From</u>	<u>To</u>	<u>Correction</u>
0.0	3.5	0.0	39.2	43.3	+ 1.8
3.6	5.6	+ 0.1	43.4	47.9	+ 2.0
5.7	7.5	+ 0.2	48.0	52.3	+ 2.2
7.6	9.7	+ 0.3	52.4	57.2	+ 2.4
9.8	11.6	+ 0.4	57.3	62.0	+ 2.6
11.7	13.5	+ 0.5	62.1	67.1	+ 2.8
13.6	15.7	+ 0.6	67.2	72.2	+ 3.0
15.8	17.8	+ 0.7	72.3	78.0	+ 3.2
17.9	20.0	+ 0.8	78.1	83.8	+ 3.4
20.1	22.0	+ 0.9	83.9	90.1	+ 3.6
22.1	24.0	+ 1.0	90.2	97.0	+ 3.8
24.1	26.1	+ 1.1	97.1	104.2	+ 4.0
26.2	28.2	+ 1.2	104.3	113.2	+ 4.2
28.3	30.2	+ 1.3	113.3	140.1	+ 4.5
30.3	33.5	+ 1.4	140.2	150.0	+ 5.0
33.6	39.1	+ 1.6			

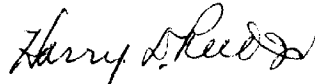
APPROVAL SHEET

Field No. HY-80-1-66

Registry No. H-8879

The field work accomplished on this survey was under my immediate supervision. Frequent inspections of the boat sheet, DATEX printout records and fathograms were made as the survey progressed.

On the basis of the boat sheet review, the survey is considered to be complete and adequate, and no additional field work is recommended.



Harry D. Reed, Jr.
CDR, USESSA
Commanding Officer
USC&GS Ship HYDROGRAPHER

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 30, 1969

~~XXXXXXXXXXXX~~ R. H. Carstens

Plane of reference approved
~~in place of sounding records~~ for

HYDROGRAPHIC SHEET 8879

Locality: East coast of Florida

Chief of Party: H. D. Reed, Jr., 1966

Plane of reference is mean low water

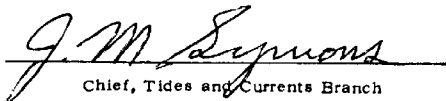
Tide Station Used (Form C&GS-681):

Mayport
Daytona Beach

Height of Mean High Water above Plane of Reference ^{at the working grounds} is as follows:

4.1 feet

Remarks


Chief, Tides and Currents Branch

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-8879

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1	BOAT SHEETS		1	
DESCRIPTIVE REPORT		1	OVERLAYS <i>Position (Mylar)</i>		3	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES	2					
CAHIERS	2		4			
VOLUMES						
BOXES						

SHEET PRINTS (List) *3-Pre-Survey Review Sheets (OPR-447) filed with H-8937*

SPECIAL REPORTS (List) *Raydist Report
Corrections to echo soundings* } *Sent to Archives 10-30-67*

OFFICE PROCESSING ACTIVITIES
The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				4946
POSITIONS CHECKED		4946		
POSITIONS REVISED		1		
DEPTH SOUNDINGS REVISED		1244		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		6		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS		8	8	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		16	2	
SPECIAL ADJUSTMENTS				
ALL OTHER WORK		510	193 147	
TOTALS		534	209 165	
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
VERIFICATION BY <i>A. E. Eichelberger</i>	12/13/66		8/24/67	
REVIEW BY <i>J. H. Engle</i>	2-18-69		3-25-69	

2.

areas are small mounds or ridges rising 1 to 1½ fathoms off the bottom and are relatively insignificant. Those in the vicinity of the 40 and 50 fathom curves, peculiar to that narrow strip of bottom, are very prominent ridges rising sharply 5 to 10 fathoms off the bottom. A very narrow ridge with least depths of 36½ fathoms runs parallel to and at an average distance of 800 meters inside the 50-fathom curve for nearly the entire extent of the survey. Other ridges with depths of less than 40 fathoms extend out into deeper water thus making the 40-fathom curve very irregular in sharp contrast to the 30- and 50-fathom curves which are relatively straight.

2. Control and Shoreline

The origin of the control is given in the descriptive report.

This is an offshore survey and no shoreline has been applied.

3. Hydrography

A. Depths at crossings are in adequate agreement.

B. The usual depth curves are adequately delineated.

C. The development of the bottom configuration and least depths is satisfactory except on some features in depths less than 10 fathoms where a larger scale would have been more appropriate.

4. Condition of Survey

The field plotting, records, and reports are adequate and conform to the requirements of the Hydrographic Manual and preliminary memoranda for automated surveys except that a number of soundings were scanned in error from the fathograms and were revised by the reviewer.

5. Junctions

Adequate junctions were effected with H-8937(1966) on the north and H-8840(1965) on the south.

This survey does not extend far enough offshore to effect a junction with the portion of H-8714(1962) by the Naval Oceanographic Office on the southeast.

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY
MARINE CHART DIVISION
HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8879

FIELD NO. HY-80-1-66

Florida, East Coast, Off Daytona Beach

SURVEYED: April 2, 1966 to June 13, 1966

SCALE: 1:80,000

PROJECT NO.: OPR-447

SOUNDINGS: DE-723 Depth
Recorder

CONTROL: Raydist

Chief of Party..... H. D. Reed, Jr.
Surveyed by..... K. E. Taggart
..... J. P. Brown, Jr.
..... B. D. Edwards
..... W. T. McMullen
..... D. E. Youngdahl
..... A. P. Sibold III
..... J. L. Wallace
..... H. M. Coghlan
Machine Plotted..... Pacific Marine Center
Soundings Machine Inked..... Pacific Marine Center
Verified by..... A. E. Eichelberger (PMC)
Reviewed by..... D. R. Engle
Inspected by..... R. H. Carstens

1. Description of Area

This survey falls about 30 miles east of Daytona Beach and covers an area of approximately 1325 square nautical miles. It extends offshore from the 10-fathom curve to the inner edge of the continental slope.

The sandy bottom slopes very gently from the 10 to the 20-fathom depth curve, moderately from the 20- to the 40-fathom curve and then more abruptly to the 100-fathom curve. It is relatively smooth except for the innumerable irregularities scattered throughout the shoaler areas of the survey and the ridges in the vicinity of the 40 and 50-fathom depth curves. Those features in the shoaler

3.

6. Comparison With Prior Surveys

H-770	(1866)	1:400,000	Reconnaissance
H-1365	(1876-77)	1:40,000	
H-1409	(1878)	1:40,000	
H-3223	(1910)	1:400,000	Trackline
H-3549	(1910-13)	1:400,000	Trackline
H-4377	(1924)	1:40,000	
H-4434	(1924)	1:100,000	
H-4485	(1925)	1:40,000	
H-4803	(1928)	1:120,000	
H-4804	(1928)	1:40,000	
H-4931	(1929)	1:120,000	
H-4932	(1929)	1:40,000	
H-4935	(1929)	1:40,000	

These prior surveys cover the area of the present survey. Comparison of the prior and present surveys reveals some differences, generally less than one fathom, in most of the survey area. In other areas, especially on slopes in the deeper water, differences of 2 to 5 fathoms are noted.

Differences on the inshore portions of the survey are attributed to natural changes in the bottom and to differences in survey methods. However, some features appear to be better developed on the larger scale of the surveys of the 1920's than on the present survey and are not disproved by the present soundings. Several least depths on these features, generally in depths less than 50 feet, have been carried forward where they are significant for charting.

Differences in deeper water are attributed to methods of surveying which include leadline, wire soundings, and early fathometer soundings versus modern fathometer for depths, and dead reckoning and visual fixes on survey buoys versus Raydist for horizontal control.

Together with the soundings carried forward the present survey is adequate to supersede the prior surveys in the common area.

7. Comparison With Charts 1244 (Latest print date 08/30/65)
1245 (Latest print date 07/03/67)
1111 (Latest print date 12/16/68)

4.

A. Hydrography

1. The charted hydrography originates with the previously discussed surveys supplemented by partial application of the boat sheet data and the present survey prior to review.

2. Much of the hydrography applied to Chart 1245 from the boat sheet of the present survey through Drawing No. 22 is faulty as explained below:

a. The 36-foot pseudo shoal charted in lat. $28^{\circ}59'6''$, long. $80^{\circ}42'5''$ is a result of field scanning of a stray on the fathogram.

b. Ten soundings from prior surveys, which were shown on the boat sheet for field use only, were erroneously applied to the chart. They were shown on the boat sheet in integral fathoms and converted to feet for charting. Fractions of fathoms were not considered in the conversion, thus introducing errors of as much as 4 feet.

c. Numerous boat sheet soundings from the present survey were converted to feet and applied to the chart without considering fractions of fathoms, thus introducing 4-ft. errors as discussed above. These errors had a very significant effect on the charted 10-fathom curve.

3. The present survey is adequate to supersede the charted hydrography with the following exception:

Added to Chrt 11486 Nov 17/81
4/2/81 REL

*

a. The wrecks charted in lat. $29^{\circ}27'2''$, long. $80^{\circ}52'8''$ and lat. $29^{\circ}14'0''$, long. $80^{\circ}10'3''$ from Oceanographic Office Wreck List are not considered disproved by present survey information and should be retained on the chart.

8. Compliance With Instructions

The survey adequately complies with the project instructions.


9. Additional Field Work

This is a good basic survey over most of the area and no additional field work is recommended on this survey. However, in order to verify or disprove prior least depths

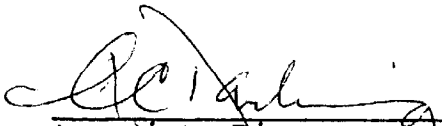
5.

and to provide adequate delineation of the bottom, areas within the 10-fathom curve and the detached offlying 10-fathom features should be developed when larger scale inshore surveys are accomplished in this area.

Examined and Approved:



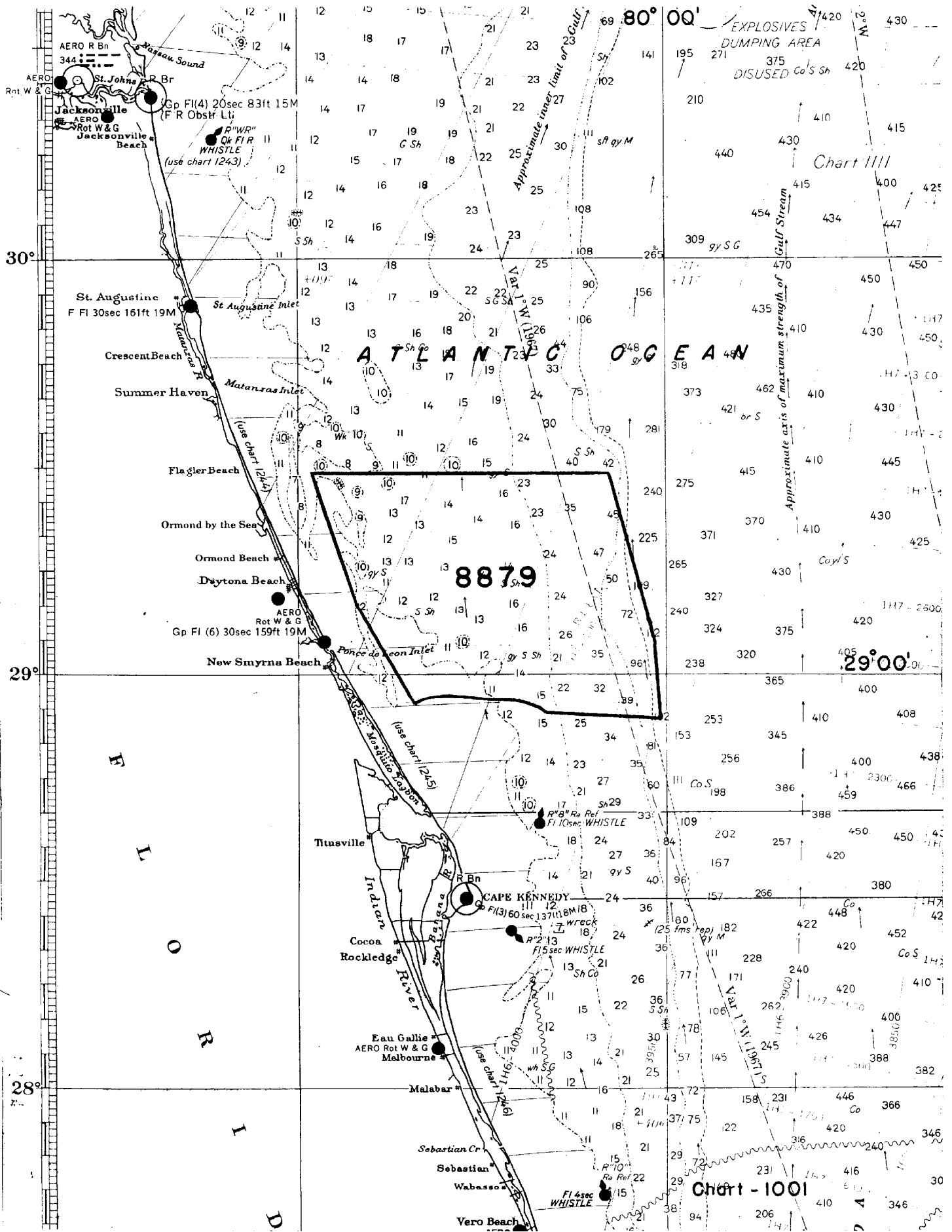
Chief
Marine Chart Division



Associate Director
Office of Hydrography
and Oceanography

INFORMATION FOR FUTURE PRE-SURVEY REVIEWS

1. The present survey fails to extend to a junction with H-8714 in a small area on the southeast.
2. In order to verify or disprove prior least depths in the western portion of the survey and to provide adequate delineation of the bottom, it would be desirable to develop depths less than ten fathoms on the larger scale surveys to be accomplished inshore.



RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. _____

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
1111	12-5-67	W. H. Hall	Full Part Before After Verification ^{Before} Review Inspection Signed Via Drawing No. EXAM, NO CORR
1007	2/24/68	T. Ann Ware	Full Part Before After Verification ^{Before} Review Inspection Signed Via Drawing No. Exam. Show Chart 1111, Dtg. 19. Forwarded until add'd to large scale charts, now 2/24/68
1244	12/20/68	J. H. McMillan	Full Part Before After Verification ^{Before} Review Inspection Signed Via Drawing No. 13. PART APPLIED CRITICAL CORRECTION APPLIED ONLY
1245	6/3/69	Harold Howard	Full Part Before After Verification ^{Before} Review Inspection Signed Via Drawing No. Part 14
1244	9/25/69	J. S. McMillan	Full Part Before After Verification Review Inspection Signed Via Drawing No. #14 Applied Full Application
1111	10-3-69	J. S. McMillan	Full Part Before After Verification Review Inspection Signed Via Drawing No. #21 - adequately applied under instructions Applied thru chart 1244 in that area
1001	10-9-69	J. T. Gallahan	Full Part Before After Verification Review Inspection Signed Via Drawing No. #35 revised sdyg & depth curves for full application - applied thru Drawg 1111 #21
1245	10/10/69	J. H. McMillan	Full Part Before After Verification Review Inspection Signed Via Drawing No. #24 Fully Applied
1007	8-21-70	Eric Frey	Full Part Before After Verification Review Inspection Signed Via ¹⁰⁰¹ Drawing No. 35 Revised sdyg & depth curves for full application Full Part Before After Verification Review Inspection Signed Via Drawing No.

Reg. No. 8879

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQ'D _____ INITIALS _____

REMARKS: