8019

Diag. Cht. No. 1007-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HY-20352 *Office No.* H-8019

LOCALITY

State Alabama - Florida

General locality Gulf of Mexico

Locality Central Gulf of Mexico

1952-53

CHIEF OF PARTY

Jack C. Sammons -- 1952
L. S. Hubbard -- 1953

LIBRARY & ARCHIVES

DATE OCT 27 1954

B-1870-1 (1)

8019

Form 537
(Ed. June 1946)

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-8019

Field No. HY-20352

State Alabama - Florida

General locality Gulf of Mexico

Locality Central Gulf of Mexico

Scale 1:200,000 Date of survey 16 August - 17 August 1952 / 23 July - 28 Sept. 1953

Instructions dated 20 March 1952 / 9 March 1953

Vessel Ship HYDROGRAPHER

Chief of party Jack C. Sammons - - 1952 Season / L. S. Hubbard - - - 1953 Season

Surveyed by R.E. Earle, I.R. Rubottom, R.M. Stone, M.T. Paulson, E.E. Jones

Soundings taken by fathometer, graphic recorder, ~~hand lead wire~~

Fathograms scaled by Personnel aboard Ship HYDROGRAPHER

Fathograms checked by A.G. Atwill

Protracted by A.G. Atwill

Soundings penciled by A.G. Atwill

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

REMARKS:

Offshore Survey

Control by E.P.I. System

U. S. GOVERNMENT PRINTING OFFICE 777032

2886

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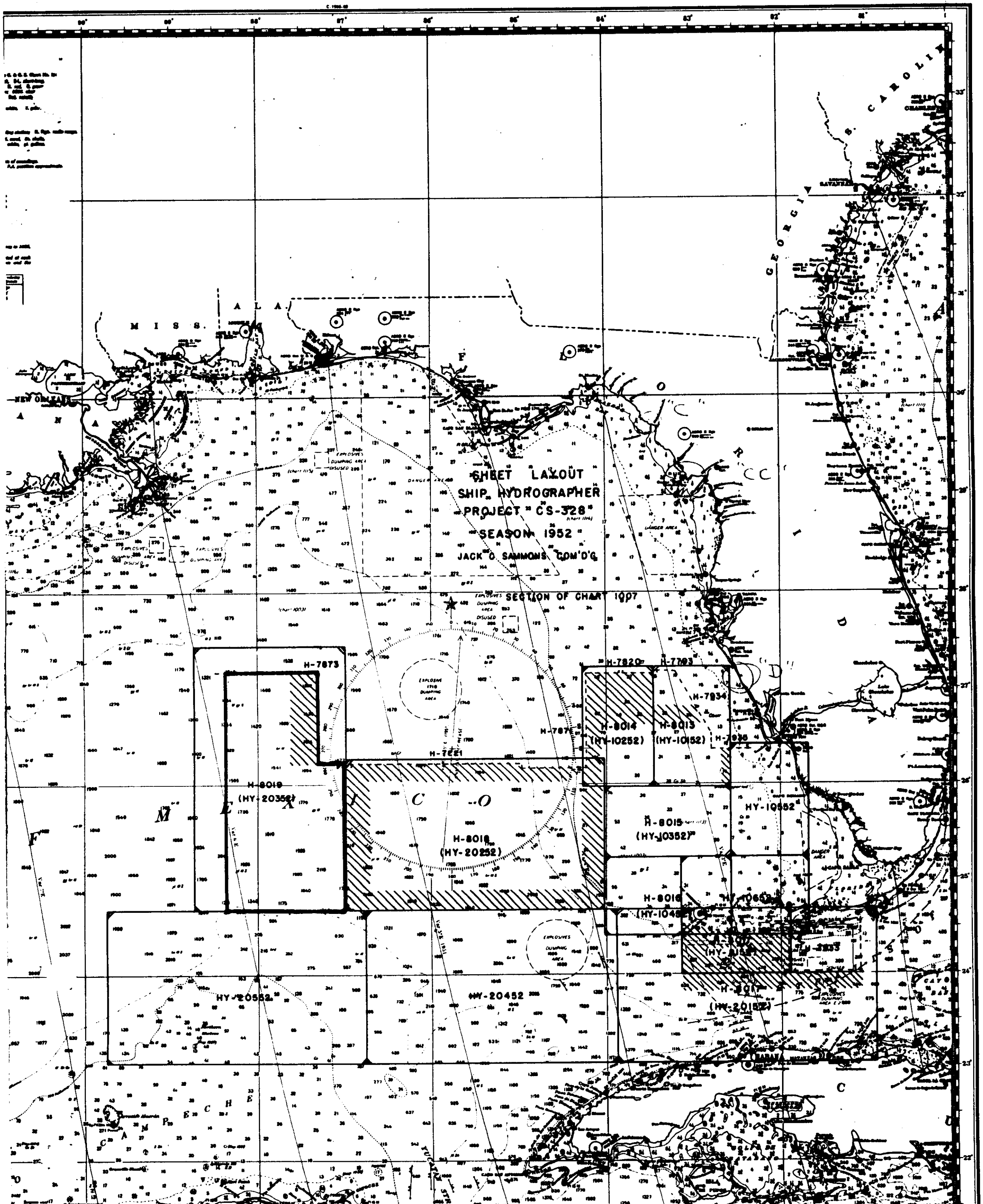
SHEET LAYOUT
SHIP HYDROGRAPHER
PROJECT "CS-328"
SEASON 1952
JACK O. SAMMONS, COM'D'G
SECTION OF CHART 1007
H-7873
H-8019
(HY-20352)
H-7221
H-8018
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H-7834
H-8014
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HY-10552
H-8016
(HY-10452)
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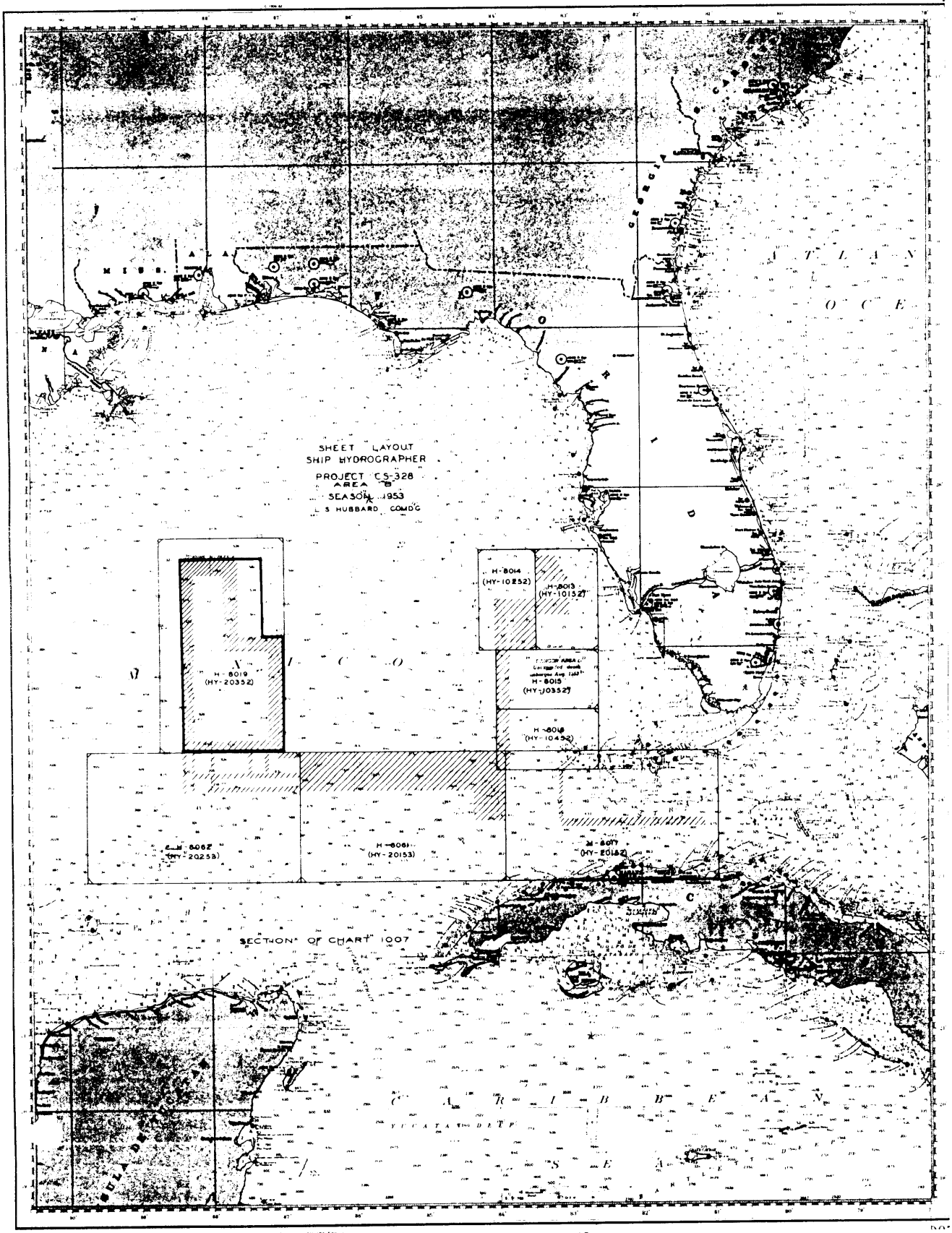
HY-20552
HY-20452
MISS.
NEW ORLEANS
SAVANNAH


SHEET LAYOUT
SHIP HYDROGRAPHER
PROJECT CS-328
AREA B
SEASON 1953
L S HUBBARD, COMDG
H-8014
(HY-10252)
H-8013
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H-8017
(HY-20152)
SECTIONS OF CHART 1007

DESCRIPTIVE REPORT

to Accompany

Hydrographic Survey H-8019 (HY-20352)

16 August to 17 August 1952
23 July to 28 September 1953

SHIP HYDROGRAPHER Scale 1:200,000

Chief of Party: Jack C. Sammons - - 1952
L. S. Hubbard - - 1953

A. PROJECT:

This survey was accomplished under Supplemental Instructions for Project CS - 328, dated 20 March 1952 and 9 March 1953. These instructions supersede all previous instructions for this project.

B. SURVEY LIMITS AND DATES:

This survey is offshore in the Gulf of Mexico, and the northeastern corner of the sheet lies approximately 230 miles west of the entrance to Tampa Bay, Florida.

The survey is joined by prior modern surveys as follows:

1. On the north by Survey H-7873, scale 1:200,000 surveyed during 1950.
2. On the northeast by Survey H-7821, scale 1:200,000, surveyed during 1950.

The survey joins contemporary surveys on the east by Survey H-8018, (HY-20252), scale 1:200,000; and on the south by Survey H-8062, (HY-20253), scale 1:200,000. Survey H-8018 was completed during the 1952 season, while Survey H-8062 was only partially completed during the 1953 season.

Only two days of hydrography was done on this survey during 1952,- on August 16 and 17th. Hydrography was resumed on 23 July 1953 and completed on 28 September 1953. This survey was made in conjunction with other surveys in the area with the ship based at St. Petersburg, Florida.

C. VESSEL AND EQUIPMENT:

All work on this survey was accomplished by the Ship HYDROGRAPHER. The ship has a turning radius of 80 to 120 meters depending on the wind and/or current. The "Settlement and Squat Report" forwarded 11/2/50 shows no corrections on the fathom scale and there have been no changes in the ship's trim or hull since that time.

No sub-parties were operated from the ship on this survey.

An NMC-2 fathometer was used as the sounding unit on this survey.

All soundings were recorded from the fathograms and they are the permanent records of the depths.

To obtain instrumental corrections, numerous simultaneous comparisons were made between the 808-J model fathometer and a wire sounding machine, with an accurately calibrated sheave, in depths of less than 25 fathoms, outside the limits of this sheet, as recommended in the Hydrographic Manual. The instrumental corrections of the NMC-2 fathometer were obtained by simultaneous comparisons with the 808-J fathometer, because of the impossibility of obtaining accurate wire soundings in greater depths.

The gyro compass was used at all times while the survey was in progress. Bearings on charted objects were taken when proceeding in and out of port and sun azimuths were observed on the working grounds to check the operation of the compass. The error was found to be negligible.

D. TIDE AND CURRENT STATIONS:

No tide or current stations were occupied within the limits of this survey.

Tidal data from the primary tide station at Key West, Florida, were used for the reduction of soundings.

The observed tides were used during the 1952 season, and predicted tides for the 1953 season. (Refer to Tidal Note for additional information).

E. SMOOTH SHEET:

The plotting of the smooth sheet will be accomplished by the Norfolk Processing Office.

F. CONTROL STATIONS:

The hydrography on this survey was controlled by two EPI shore stations, station EPIE on Grassy Key in the Florida Keys and station EPIF at the northern end of Boca Ciega Bay in the vicinity of Largo, Florida. Station EPIE was located by triangulation methods from triangulation station Key 1935. Station EPIF was located by triangulation methods from recoverable topographic stations located by air photographic plot.

Station	Latitude	Longitude
EPIE - Grassy Key	24° 45' 46".83 (1441 m.)	80° 57' 37".56 (1055 m.)
EPIF - Boca Ciega Bay	27° 50' 15".82 (487 m.)	82° 49' 22".46 (615 m.)

G. SHORELINE AND TOPOGRAPHY:

This is an offshore survey.

H. SOUNDINGS:

All soundings on this survey were taken with an NMC-2 fathometer. The effective length of the stylus arm for this machine was determined and checked.

The NMC-2 fathometer was equipped with a special gear which increased the travel speed of the paper four times its normal rate. This increase in speed does not effect the speed of the stylus arm or the disc on the visual red light, but makes for a more legible record on the fathogram.

The modified method of recording was used as requested in paragraph 34 of Supplemental Instructions and as outlined in paragraph 817 of the Hydrographic Manual. All corrections were computed to be applied mechanically as outlined in paragraph 562 of the Manual.

The fathograms have the following notations made on them:

(a) Fix marks, fix number, phase settings and the correct time on at least every sixth position mark.

(b) The velocity template to be used is noted at the beginning of each fathogram and at each change of velocity.

(c) Whenever a change occurs in the algebraic sum of all corrections (except velocity) the new corrector is entered at the bottom of the fathogram on the proper time ordinate if practicable. Otherwise the corrector is entered in a clear area on the fathogram paying due attention to the proper time ordinate. An abstract of the computations of these correctors is a part of this report.

The correctors as entered on the bottom of the NMC-2 fathogram should be set off from the zero line on the graph.

I. CONTROL OF HYDROGRAPHY:

All hydrography on this survey was controlled by the E.P.I. system using stations EPIE and EPIF. The boat sheets were prepared with the E.P.I. curves by the Norfolk Processing Office. A special test buoy was established near the edge of the working grounds, 38 miles south southwest of Sarasota, Latitude 26° 45'.8 N, Longitude 82° 50'.8 W, on a small obstruction that had previously been located by shoran. Routine calibrations on this test buoy were used in determining correction factors. These tests were made in accordance with the E.P.I. Manual and were recorded in a separate record book. The results were summarized in the "E.P.I. Calibration" report, and a copy of the final correctors is attached to this report.

The observed E.P.I. distances have been entered at the top of the horizontal space on the E.P.I. Plotting Abstracts. The corrected distances have been entered in ink, or typewritten under the observed values. E.P.I. fixes were observed at 15 minute intervals (ie. 0000, 0015, 0030, 0045, etc.). Other recorded times on the abstracts are to indicate when changes of course, speed and other items that effect the plotting took place.

On many occasions static caused interference with the E.P.I. signals. During thunder squalls the line was usually continued and good signals could be received after passing through the squall. These relative short portions of the lines can be adequately plotted by using dead reckoning methods.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate to supersede prior surveys for charting purposes. All junctions with contemporary adjoining surveys are satisfactory and no holidays or excessive differences exist. All depth curves can be drawn at the junctions with the other surveys without conflict.

Depth curves were drawn on the boat sheet in pencil as the survey progressed. When the survey was completed, the curves were inked in the colors specified in Table 27 of the Hydrographic Manual. The remaining curves were left in pencil.

K. CROSSLINES:

Approximately 7% of the hydrography on this survey is crosslines. No excessive discrepancies were noted on the boat sheet.

L. COMPARISON WITH PRIOR SURVEYS:
M. COMPARISON WITH EXISTING CHARTS:

Satisfactory junctions were obtained with surveys listed in paragraph "B". This survey supersedes all old surveys of the area. While the depths of the present Chart 1007 are in relative close agreement, the methods of sounding and of controlling the sounding vessel's position are superior to that used on the older surveys.

Review, Ps 5 & 6.

N. DANGERS AND SHOALS:

No dangers or shoals were found within the limits of this survey.

O. COAST PILOT INFORMATION:

This is an offshore survey and no applicable Coast Pilot Information was compiled.

P. AIDS TO NAVIGATION:

No aids to navigation are located within the limits of this survey.

U. OCEANOGRAPHIC SURVEYS:

Oceanographic surveys were conducted during the 1953 season in accordance with Supplemental Instructions dated 9 March 1953.

Special reports concerning oceanographic surveys are submitted separately as follows:

(a) Bathythermograph Observation Report, (July - Nov. 1953).
(b) Sea and Swell Observation Report, (July - Nov. 1953).
(c) Set and Drift Observation Report, (July - Nov. 1953).
(d) Oceanographic Activities Report, 1953 Season.

During the 1953 season, bathythermograph observations were obtained concurrently with bottom sample casts, while the vessel was stopped. The locations of these bottom sample and bathythermograph observations are indicated by a solid red circle on the boat sheet. A broken red circle was used when only bathythermograph observations were made.

Z. TABULATION OF APPLICABLE DATA:

The data listed below were forwarded to the Washington Office as indicated:

Date	Data Forwarded to the Washington Office
11/1/50	Report on Settlement and Squat Tests
1/6 /51	Method of Recording Hydrographic Data
1/21/53	Season's Report for 1952
1/21/53	E.P.I. Calibration for 1952
1/21/53	Fathometer Corrections 1952 See H-8011
1/22/53	Computation of Velocity Corrections 1952
1/23/53	Location of E.P.I. Stations EPIE and EPIF
2/10/53	Report on Calibration of Registering Sheaves - 1952
2/11/54	Bathythermograph Observation Report, (July - Nov. 1953)
2/11/54	Sea and Swell Observation Report, (July - Nov. 1953)
2/11/54	Set and Drift " " , (" - " ")
2/15/54	E.P.I. Calibration for 1953
2/15/54	Fathometer Corrections for 1953 See H-8014
2/15/54	Report on Calibration of Registery Sheaves - 1953
2/16/54	Seasons' Report for 1953
3/25/54	Computation of Velocity Corrections - 1953 See H-8060 for T. & S. Rep't.
4/2/54	Oceanographic Activities Report - - 1953 Season

The sounding volumes, fathograms, and E.P.I. plotting abstracts are being forwarded to the Officer in Charge, Norfolk Processing Office.

Raymond M. Stone
Lt. Comdr., USC&GS

Approved and Forwarded:

L. S. Hubbard
Captain, USC&GS
Commanding Officer
Ship HYDROGRAPHER

APPROVAL SHEET

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

The records and boat sheet as submitted to the Norfolk Processing Office have been reviewed and are approved by me.

L. S. Hubbard

L. S. Hubbard
Captain, USC&GS
Commanding Officer
Ship HYDROGRAPHER

1952

MTP/rab

COPY COPY

AIR MAIL 1 April 1952

To: The Director
U. S. Coast & Geodetic Survey
Dept. of Commerce Bldg.
Washington 25, D. C.

Subject: Supplemental Instructions - Project CS-328

Receipt of Supplemental Instructions - Project CS-228, dated 20 March 1952, is acknowledged.

Verification of the project number is requested. It is assumed that the project number CS-228 is in error and should read Project CS-328, since this was the previous project number for the area.

Refer to paragraph 5 - "LIMITS, Area A"

Verification of positions (c), (d), and (e) is requested. It is believed that the referred positions are listed in error and should be corrected to read:

Position (c) in Lat. 24° 32', Long. 83° 06'

Position (d) in Lat. 24° 25', Long. 83° 35'

Position (e) in Lat. 24° 25', Long. 82° 25'

Refer to paragraph 15 - "ELECTRONIC CONTROL, SHORAN CONTROL"

Attached is a tracing of the layout for boat sheet HY-8152 which has been constructed. The southern limit of this boat sheet (Lat. 24° 00') was the extreme southern limit for adequate shoran control in 1951. E.P.I. equipment will probably be required to control the survey of the area south from latitude 24° 00'.

Jack C. Sammons
Captain, USC&G Survey
Commadding, Ship HYDROGRAPHER

Enclosure: tracing Sheet Layout

(8)

1952

22/MEK
S-2-HY

COPY COPY

4 April 1952

To: Commanding Officer
USC&GS Ship HYDROGRAPHER
P. O. Box 1259
St. Petersburg 1, Florida

Subject: SUPPLEMENTAL INSTRUCTIONS -- PROJECT CS-328

Reference: Your letter dated 1 April 1952 - File MTP/rab

This office has verified the corrections noted in the reference letter and has found that your assumptions are correct. The copies in this office will be corrected in accordance with your letter.

With reference to the last paragraph in your letter, it is realized that the 5-mile strip located between latitudes 23° 55' North and 24° 00' North is beyond the limits of shoran control. Your offshore sheets for EPI-controlled hydrography will include this strip. It is now expected that EPI equipment will be ready for installation approximately 15 May for use in the control of this area before operations south of the Florida Keys are suspended.

/s/ R.F.A. Studds

Director

cc. Supervisor, Southern District
Supervisor, Southeastern District
Chief, Hydrography Section

(9)

1952

Refer: 36-rob

C
O
P
Y

C
O
P
Y

31 July 1952

To: The Commanding Officer
U.S.C.& G.S. Ship HYDROGRAPHER
Box 1259
St. Petersburg 1, Florida

Subject: Tide Reducers, Project CS-328

Reference is made to your letter of 24 July 1952 requesting the zoning of the area of Project CS-328 for tide reducers.

The tide station at St. Petersburg has been inoperative since June 30 and the date of its reactivation is uncertain. Therefore the entire project area will be zoned on the basis of Key West as a reference station.

For field sheets 20552, 20352, 20252, 10452, 10352 and 10252 the Key West record can be used with no correction for either time or height.

For field sheets 20152 and 20452 the Key West record can be used with no height correction but with a time correction of - 1 hour.

For field sheets 10152, 10552, and 10652 the Key West record can be used with no height correction but with a time correction of plus 1 hour.

Hourly heights from the Key West record for such dates as needed will be furnished upon further request. Your index map of the project area is returned herewith as requested.

/s/ Robert W. Knox

Acting Director

Enclosure

(10)

1952

223/MEK

COPY

COPY

1 December 1952

To: The Commanding Officer
USC&GS Ship HYDROGRAPHER
P. O. Box 1259
St. Petersburg 1, Florida

Subject: Registry Numbers for Hydrographic Survey
Project CS-328, Gulf of Mexico

In compliance with your request of 24 November 1952, IRR/cld, the following registry numbers have been assigned to the hydrographic surveys listed in your letter for Project CS-328 in the Gulf of Mexico:

Field Sheet	Registry Number
HY- 8152	H-8011
HY-10152	H-8013
HY-10252	H-8014
HY-10352	H-8015
HY-10452	H-8016
HY-20152	H-8017
HY-20252	H-8018
HY-20352	H-8019

Your sheet layout chart No. 1007 is returned, as requested.

/s/ Robert W. Knox

Acting Director

Enclosure:

cc. Chief, Hydrographic Section, Div. of Charts
Chief, Hydrography Section, Div. of Coastal Surveys

(11)

1953

Ref. No. 36-rjb

25 August 1953

To: The Commanding Officer
U.S.C.& G.S. Ship HYDROGRAPHER
P. O. Box 1259
St. Petersburg, Florida

Subject: Tide Reducers, Project CS-328

Reference is made to your letter of 19 August 1953 requesting that subject project area for the 1953 season be zoned for tide reducer purposes using St. Petersburg as the reference station.

The use of St. Petersburg as a reference station would result in relatively large time corrections. The inside location of the St. Petersburg station makes it subject to local tide conditions that would not necessarily be reflected in the project area. The project area is offshore where the time and range of tide have not been accurately determined. Under the circumstances therefore it is believed that tide reducers for the project area could be more effectively determined by using predicted tides for Key West rather than observed tides for St. Petersburg, and this procedure is authorized.

Zoning for project area using Key West as a reference station was furnished in my letter of 31 July 1952, a copy of which is enclosed.

/s/ Robert W. Knox

Acting Director

Enclosure

(12)

1952

STATISTICS

For Hydrographic Survey H-8019 (HY-20352)

Date	Day Letter	Volume Number	Number of Positions	Statute Miles of Soundings
1952				
16 Aug.	A	1	66	187.5
17 Aug.	B	1	75	216.8
		1	141	404.3

Number of Temperature and Salinity Observations in the Area ----7*

* Refer to "Computation of Velocity Correction Report ----1952")

Total Area Surveyed 1716 Square Statute Miles

1953

STATISTICS

For Hydrographic Survey No. H-8019 (HY-20352)

Date	Day Letter	Volume Number	Number of Positions	Statute Miles of Sounding
1953				
23 July	C	II	25	61.5
24 July	D	II	106	249.1
25 July	E	II	91	258.7
8 August	F	II	37	93.7
9 August	G	II	63	163.2
10 August	H	II	96	262.2
11 August	J	II	95	256.2
12 August	K	II	84	192.0
13 August	L	II	10	26.5
22 August	M	II	45	121.0
23 August	N	II	76	203.0
24 August	P	II & III	77	209.0
25 August	Q	III	95	261.3
26 August	R	III	56	134.5
7 September	S	III	98	215.0
8 September	T	III	101	256.7
9 September	U	III	65	157.6
24 September	V	III	77	204.7
25 September	W	III	27	59.1
			1324	3385.0
			141	
			1465	

Ck'd: PH

Number of temperature and salinity observations in this area: 5 *

Total area surveyed: 12,150 square statute miles (during 1953 only)

*——Refer to "Computation of Velocity Corrections"

Total Area surveyed (1952 & 1953 Seasons): 13,866 sq. stat. mi.

copy w/ HH

TIDE NOTE

Tide Station:	Key West, Florida
Latitude:	24° 33.2 N
Longitude:	81° 48.5 W
Plane of reference:	Mean Low Water = 6.0 feet on tide staff (Director's letter of 15 Aug. 1952).
Area Covered:	Entire area of Sheet HY-20352 (Director's letter of 31 July 1952).
Time Correction:	None(
	(Director's letter of 31 July 1952
Height Correction:	None(

Tide reducers for the project area were determined by using observed tides for Key West during the 1952 season and predicted tides for the 1953 season, as authorized in the Director's letter, 36-rjb, dated 25 August 1953, a copy of which is appended to this report.

Hourly heights for the 1952 season were furnished by the Washington Office. These heights were referred directly to Mean Low Water.

1952

EPI CORRECTORS

Ship HYDROGRAPHER - Season 1952

Dates		EPIF	EPIE
25 June to 1 July (Sheet 8152 only)		----	-4.1
17 July to 21 July (Sheet 8152 only)		-7.8	-5.7
21 July to 23 July		-6.9	-5.2
30 July to 4 August		+2.7	+1.8
4 Aug. to 5 Aug.	2356 to 0225	+2.7	+1.8
	0226 to 0450	+2.7	+1.6
	0451 to 0715	+2.7	+1.4
	0716 to 0940	+2.8	+1.2
	0941 to 1205	+2.8	+1.0
	1206 to 1430	+2.8	+0.8
5 August to 7 August		+2.8	+0.8
13 August to 2140		-3.3	-3.7
14 August to 0510		-2.8	-0.8
14 August after 1230 to 24 November (end of hydrography)		-3.3	-3.7

EPI CORRECTORS
(in microseconds)

1953

Ship HYDROGRAPHER - '- Season of 1953

Period "B"- - Gulf of Mexico

SURVEYS: H-8013, (HY-10152)
H-8014, (HY-10252)
H-8015, (HY-10352)
H-8016, (HY-10452)
H-8017, (HY-20152)
H-8019, (HY-20352)
H-8061, (HY-20153)
H-8062, (HY-20253)

DATE	SURVEYS	EPI CORRECTOR			
		EPIE		EPIF	
		Regular Set #31	Spare Set #11	Regular Set #32	Spare Set #10
13 July through 25 November 1953	All Surveys	(-5.1)	(-3.7)	(-4.8)	(-3.8)

Comp by: IRR
Ck'd by: RMS

(12)

FATHOMETER INSTRUMENTAL CORRECTORS 1952

PERIOD "E"

(5 August to end of season, 1952)

Surveys: H-8013 (HY-10152) H-8014 (HY-10252)
H-8015 (HY-10352) H-8016 (HY-10452)
H-8018 (HY-20252) H-8019 (HY-20352)

Fathometer, 808-J, No. 132-SG:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	+0.2	+0.4	0.0
Correctors to 0.5 fathoms:	---	---	+0.5	0.0

Fathometer, 808-J, No. 131-SG:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	+0.4	-0.2	-1.2
Correctors to 0.5 fathoms:	---	---	-0.5	-1.5

Fathometer, NMC-2:

Correctors to 0.5 fathoms:

Before 21 Sept. 1952, 1429, pos. 59 U .... -1.0
After 21 Sept. 1952, 1429, pos. 59 U ..... -0.0

Comp: EEJ
Ck'd: WVW

1953

FATHOMETER INSTRUMENTAL CORRECTORS

PERIOD "B"
(13 July to 25 November, 1953)

SURVEYS: H-8013, (HY-10152)
H-8014, (HY-10252)
H-8015, (HY-10352)
H-8016, (HY-10452)
H-8017, (HY-20152)
H-8019, (HY-20352)
H-8061, (HY-20153)
H-8062, (HY-20253)

Fathometer, 808-J, No. 132-SG:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	-0.8	-1.4	-1.4
Correctors to 0.5 fathoms:	----	----	-1.5	-1.5

Fathometer, 808-J, No. 153-SPX:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	+0.8	+1.0	+0.6
Correctors to 0.5 fathoms:	----	----	+1.0	+0.5

Fathometer, NMC-2:

Correctors to 0.5 fathoms: -1.5

Comp by: RMS
Ck'd by: PH

VELOCITY CORRECTION TEMPLATES

1952

AREA B

SURVEYS: H-8013 (HY-10152), H-8014 (HY-10252), H-8015 (HY-10352), H-8016 (HY-10452), H-8018 (HY-20252) & H-8019 (HY-20352).

PERIOD: 22 July through 7 August 1952
(Surveys concurrently with work in Area A during this period.)

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	48.0 - - - - - - -	1545
48.2	153 - - - - - - -	1530
154	267 - - - - - - -	1515
268	and deeper - - -	1500

PERIOD: 13 August through 9 October 1952

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	37.0 - - - - - - - -	1545
37.2	131 - - - - - - - -	1530
132	267 - - - - - - - -	1515
268	and deeper - - - -	1500

PERIOD: 16 October through 23 November 1952

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	98.0 - - - - - - -	1530
98.2	267 - - - - - - -	1515
268	and deeper - - - -	1500

1953

VELOCITY CORRECTION TEMPLATES

AREA B

Gulf of Mexico

SURVEYS: H - 8013, (HY-10152) H-8016, (HY-10452) H-8061, (HY-20153)
H-8014, (HY-10252) H-8017, (HY-20152) H-8062, (HY-20253)
H-8015, (HY-10352) H-8019, (HY-20352)

PERIOD: 13 July through 25 September 1953

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	28.6	1545
28.8	94.0	1530
94.2	210	1515
211	and deeper	1500

PERIOD: 6 October through 25 November 1953

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	111.5	1530
112	210	1515
211	and deeper	1500

Comp by: RMS
Ck'd by: GWT

Draft Correctors - 1952

Correctors in ±0.2 fms. & ±0.5 fms.

1952

Trip No.	Time & Date		±0.2	±0.5
1	1930-26 April	to 2000-26 April	0.0	0.0
	2001-26 April	to 1530-28 April	-0.2	0.0
2	0900- 7 May	to 2400- 7 May	0.0	0.0
	0001- 8 May	to 1900-12 May	-0.2	0.0
3	1100-24 May	to 1200-27 May	0.0	0.0
	1201-27 May	to 1500- 1 June	-0.2	0.0
4	0500- 9 June	to 0400-10 June	0.0	0.0
	0401-10 June	to 1600-13 June	-0.2	0.0
5	1200-24 June	to 2400-29 June	0.0	0.0
	0001-30 June	to 1230- 3 July	-0.2	0.0
6	0850-17 July	to 1610-23 July	-0.2	0.0
7	1600-29 July	to 2400- 2 August	0.0	0.0
	0001- 3 August	to 0800- 7 August	-0.2	0.0
8	1600-13 August	to 2400-16 August	0.0	0.0
	0001-17 August	to 2400-20 August	-0.2	0.0
	0001-21 August	to 1600-22 August	-0.2	-0.5
9	0800-28 August	to 2400- 4 September	0.0	0.0
	0001- 5 September	to 1545- 5 September	-0.2	0.0
10	0800-16 September	to 0800-22 September	0.0	0.0
	0801-22 September	to 1545-25 September	-0.2	0.0
11	0800- 1 October	to 2400- 5 October	0.0	0.0
	0001- 6 October	to 1050- 9 October	-0.2	0.0
12	0745-16 October	to 2400-22 October	0.0	0.0
	0001-23 October	to 0925-24 October	-0.2	0.0
13	0800- 5 November	to 0800-10 November	0.0	0.0
	0801-10 November	to 0940-13 November	-0.2	0.0
14	0750-18 November	to 2400-20 November	0.0	0.0
	0001-21 November	to 0800-24 November	-0.2	0.0
	0801-24 November	to 0915-25 November	-0.2	-0.5

Comp: RTK
Ck'd: EEJ

ABSTRACT OF DRAFT CORRECTORS - - 1953
(Correctors in ±0.2 fms. and ±0.5 fms.)

Trip No.	Time and Date		±0.2	±0.5
1	0000 - 20 April	to 1200 - 22 April	-0.2	0.0
	1201 - 22 April	to 2400 - 24 April	-0.2	-0.5
2	0000 - 26 April	to 1200 - 27 April	0.0	0.0
	1201 - 27 April	to 1200 - 28 April	-0.2	0.0
	1201 - 28 April	to 2400 - 1 May	-0.2	-0.5
3	0000 - 5 May	to 2400 - 9 May	0.0	0.0
	0000 - 10 May	to 0800 - 15 May	-0.2	0.0
	0800 - 15 May	to 2400 - 15 May	-0.2	-0.5
4	0000 - 18 May	to 1200 - 20 May	0.0	0.0
	1201 - 20 May	to 2400 - 29 May	-0.2	0.0
5	0000 - 9 June	to 0800 - 13 June	0.0	0.0
	0801 - 13 June	to 0800 - 18 June	-0.2	0.0
	0801 - 18 June	to 2400 - 19 June	-0.2	-0.5
6	0000 - 23 June	to 2400 - 25 June	0.0	0.0
	0000 - 26 June	to 2400 - 2 July	-0.2	0.0
7	0000 - 13 July	to 2400 - 15 July	0.0	0.0
	0000 - 16 July	to 2400 - 17 July	-0.2	0.0
8	0000 - 21 July	to 0400 - 22 July	0.0	0.0
	0401 - 22 July	to 2400 - 26 July	-0.2	0.0
	0000 - 27 July	to 2400 - 31 July	-0.2	-0.5
9	0000 - 6 August	to 1200 - 9 August	0.0	0.0
	1201 - 9 August	to 0400 - 12 August	-0.2	0.0
	0401 - 12 August	to 2400 - 14 August	-0.2	-0.5
10	0000 - 20 August	to 0800 - 26 August	0.0	0.0
	0801 - 26 August	to 2400 - 28 August	-0.2	0.0
11	0000 - 3 September	to 2400 - 7 September	0.0	0.0
	0000 - 8 September	to 2400 - 12 September	-0.2	0.0
12	0000 - 21 September	to 2400 - 27 September	0.0	0.0
13	0000 - 6 October	to 2400 - 10 October	0.0	0.0
14	0000 - 12 October	to 2400 - 15 October	0.0	0.0
	0000 - 16 October	to 2400 - 16 October	-0.2	0.0
15	0000 - 21 October	to 1800 - 28 October	0.0	0.0
	1801 - 28 October	to 2400 - 29 October	-0.2	0.0
16	0000 - 4 November	to 1200 - 9 November	0.0	0.0
	1201 - 9 November	to 2400 - 12 November	-0.2	0.0
17	0000 - 19 November	to 1200 - 21 November	0.0	0.0
	1201 - 21 November	to 2400 - 25 November	-0.2	0.0

Comp by: RMS
Ck'd by: PH

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8019 (Field No. Hy-20352)

GENERAL

All ove r the survey the EPI returns are erratic and sometimes non-existant. The survey has been plotted using the best possible combinations of EPI returns and dead reckoning methods. The slender angle of intersection of EPI arcs, at this distance from the stations, probably caused a slight displacement of positions.

Position adjustments were carefully made, and it is believed that the survey is entirely adequate for charting this off-shore area. The soundings agree very well at crossings, except between positions* 63 and 77V. The fathogram on this day is so indistinct that it is difficult to read with any degree of accuracy.

* Diffs. of 10-20 fms. considered adequate agreement in depths of 1600 fms.

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer.

Norfolk, Va.
19 Oct. 1954

[redacted]

GEOGRAPHIC NAMES

Survey No. H-8019

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Title only:										1
Alabama-Florida:			recommended in place of							2
			Florida only for State.							3
			Western limit of sheet							4
			is almost due south of							5
			Alabama-Mississippi line.							6
Gulf of Mexico										7
										8
										9
					Names approved					10
					10-28-54. L. Heck					11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8019

Records accompanying survey:

Boat sheets 1; sounding vols. 3 = 6 Normal Vol; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 2 Env.;

special reports, etc. 1 Descriptive Report; 1 Smooth Sheet; 2 Cahiers.

EPI Plotting Abstracts; Fathometer Corrections filed with H-8011;

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

Number of positions on sheet		1465
Number of positions checked		.....
Number of positions revised		.....
Number of soundings revised (refers to depth only)		.....
Number of soundings erroneously spaced		.....
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	.....

Survey inked as smooth plotted

Verification by Inking J.C. Chambers (Norfolk) Total time 141 Date .....

Reviewed by J.F.A. Dinsmore Time 24 Date 11 April 1955

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8019 FIELD NO. HY-20352

Alabama - Florida, Gulf of Mexico, Central Gulf of Mexico

Project No. CS-328

Surveyed - Aug., 1952, July-Sept., 1953 Scale 1:200,000

Soundings: Control:

NMC-2 Fathometer E.P.I.

Chief of Party - J. C. Sammons and L. S. Hubbard
Surveyed by - R. E. Earle, I. R. Rubottom, R. M. Stone
M. T. Paulson and E. E. Jones
Protracted by - A. G. Atwill
Soundings plotted by - A. G. Atwill
Verified and inked by-J. C. Chambers
Reviewed by - T. A. Dinsmore 11 April 1955
Inspected by - R. H. Carstens

1. Shoreline and Control

No shoreline falls within the limits of this offshore survey.

The origin of the control is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Submarine Relief

The usual depth curves are adequately delineated.

The survey covers a portion of the Gulf of Mexico south of Alabama and west of the Florida Peninsula. It includes for the most part a portion of the smooth basin of the Gulf in general depths of 1800 fms. On the northwest, the offshore protrusion of the 1500-fm. curve indicates the influence of sedimentary deposits from the Mississippi River Delta. On the

south, the continental slope off the Yucatan Peninsula is delineated by the 1500-fm curve.

4. Junctions with Contemporary Surveys

The junctions between the present survey and H-7873 (1950) on the north and northeast and H-8018 (1952) on the east will be discussed in the reviews of those surveys. Project surveys on the south have not yet been received in this office. Charted depths on the west appear to differ from present survey depths by 50-100 fms.

5. Comparison with Prior Surveys

H-1353 (1875-77), 1:600,000
H-5303c (1933), 1:970,000

A few dead-reckoning sounding lines from these reconnaissance surveys fall within the area of the present survey. A comparison between the prior and present surveys shows differences of as much as 280 fms in depths of 1800 fms. For example, the 2119-fm. sounding charted in lat. 25°08', long. 87°13', from H-1353 falls in present depths of 1840 fms. Such differences are attributed to the dead reckoning control and inaccuracies in soundings obtained on the early surveys. A few supplemental bottom characteristics have been retained from the prior surveys. With these additions, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 1003 (C.P. Drawing No. 4, 9 August 1954)

A. Hydrography

Charted hydrography originates with the previously discussed surveys, track-line soundings by the U. S. Navy as shown on H. O. Chart No. 1125 and partial application of the present survey through advance information furnished on blueprint 50887. There are numerous differences of 60-100 fms. with the charted soundings. The charted hydrography is entirely superseded by the present smooth-sheet depths.

B. Aids to Navigation

No aids to navigation are charted in this offshore area. No dangers to navigation are revealed by the survey.

7. Condition of Survey

a. The sounding records are complete; the Descriptive Report covers all matters of importance.

b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

This is an excellent basic survey and no additional field work is required.

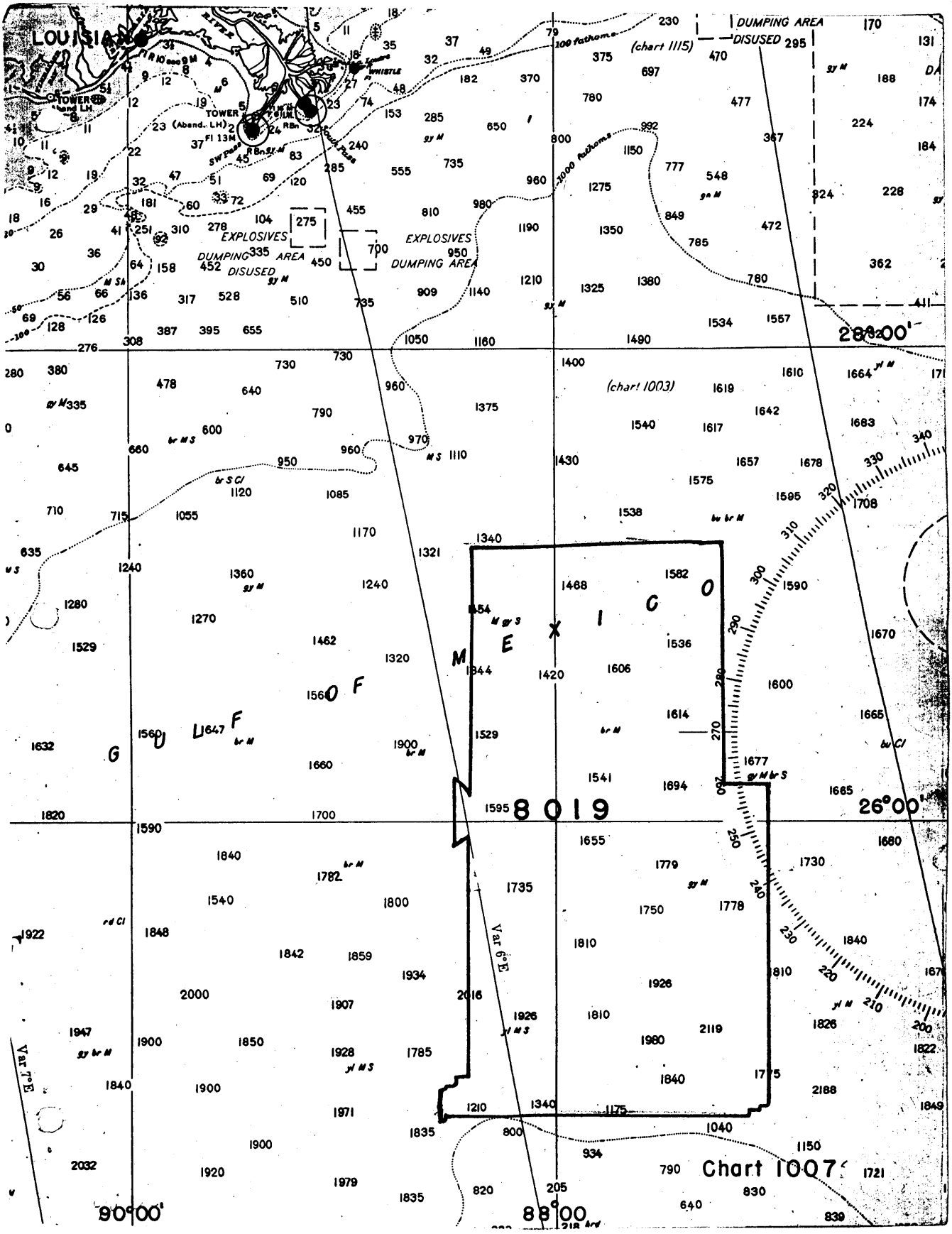
Examined and Approved:

H. R. Edmonston
Chief, Nautical Chart Branch

E. R. McCarthy
Acting Chief, Chart Division

J. C. Bull
Chief, Hydrography Branch

Earl O Heaton
Chief, Division of Coastal Surveys


LOUISIANA
DUMPING AREA
DISUSED
(chart 1115)
100 fathoms
1000 fathoms
EXPLOSIVES
DUMPING AREA
DISUSED
EXPLOSIVES
DUMPING AREA
(chart 1003)
28°00'
26°00'
90°00'
88°00'
MEXICO
OF
GULF
8019
Var 6°E
Var 7°E
Chart 1007

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8019

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
12/9/58	1003	H.W. Burgoyne	~~Before~~ After Verification and Review Completely Applied
1-20-59	1007	R.K. DeLauder	~~Before~~ After Verification and Review thru Cht 1003
~~2 Mar 59~~	~~1002~~	~~I. Nichols~~	~~Before After Verification and Review~~ thru 1003 above
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

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.