Received 4/5/82
#87
82005

POST CRUISE REPORT

SHIP: M/T FARNELLA

CRUISE NO: 82FARN-7

AREA OF OPERATION: Continental Slope, northern Gulf of Mexico

DATES: 2300 February 2 - 1300 February 24, 1982

PERSONNEL:

USGS

Mahlon Ball	(nav. watch)
Dann Blackwell	(photo. tech)
Sarah Eisner	(nav. watch, photo. tech)
Ed Escowitz	(nav. watch, XBTs)
Lou Garrison	(nav. watch, Ch. Sci.)
Kathy Scanlon	(nav. watch, bathy.)
Dick Sylwester	(elec. tech., data mgr.)
Dave Twichell	(GLORIA watch)
John West	(elec. tech., air gun)
Steve Wolf	(nav. watch)

IOS

Robin Bonner	(air gunner)
John Campbell	(GLORIA tech.)
Neil Kenyon	(Ch. Sci.)
Gareth Knight	(computer op.)
Adrian Lewis	(computer op.)
Mike Somers	(Ch. Engineer GLORIA)

OBJECTIVE: Survey of the Continental Slope in the northern Gulf of Mexico with the GLORIA long-range side scan sonar, a cooperative study with the Institute of Oceanographic Sciences, Godalming, England.

EQUIPMENT:
1) GLORIA 6 kHz, 6.0 kW
2) Bolt 1900 airgun, 40 in^3 and 80 in^3
3) Echo sounder, 10 kHz, 800 W
4) XBT

NAVIGATION:
1) Northstar 6000 Loran C
2) Magnavox MX 1107 satellite navigator

DATA ACQUIRED:

4,126 n. miles of trackline with the above. Data consist of:

1) GLORIA:

USGS { 6910 Km SSS
6910 Km Lg Airgun
6910 Km 10 kHz E.S.

a) 12 reels of 9-track digital magnetic tapes
b) 12 reels of analog magnetic tapes
c) 464 photo negatives, speed rectified side scan data
d) shipboard monitor records, photo prints

2) Air Gun:

IPOD { 732 Km SSS
732 Km Lg Air
732 Km 10 KHz

a) 59 reels of analog magnetic tape
b) shipboard monitor records

3) 10 kHz Echo Sounder

a) 2 sec sweep shipboard records
b) 0.5 sec sweep shipboard records

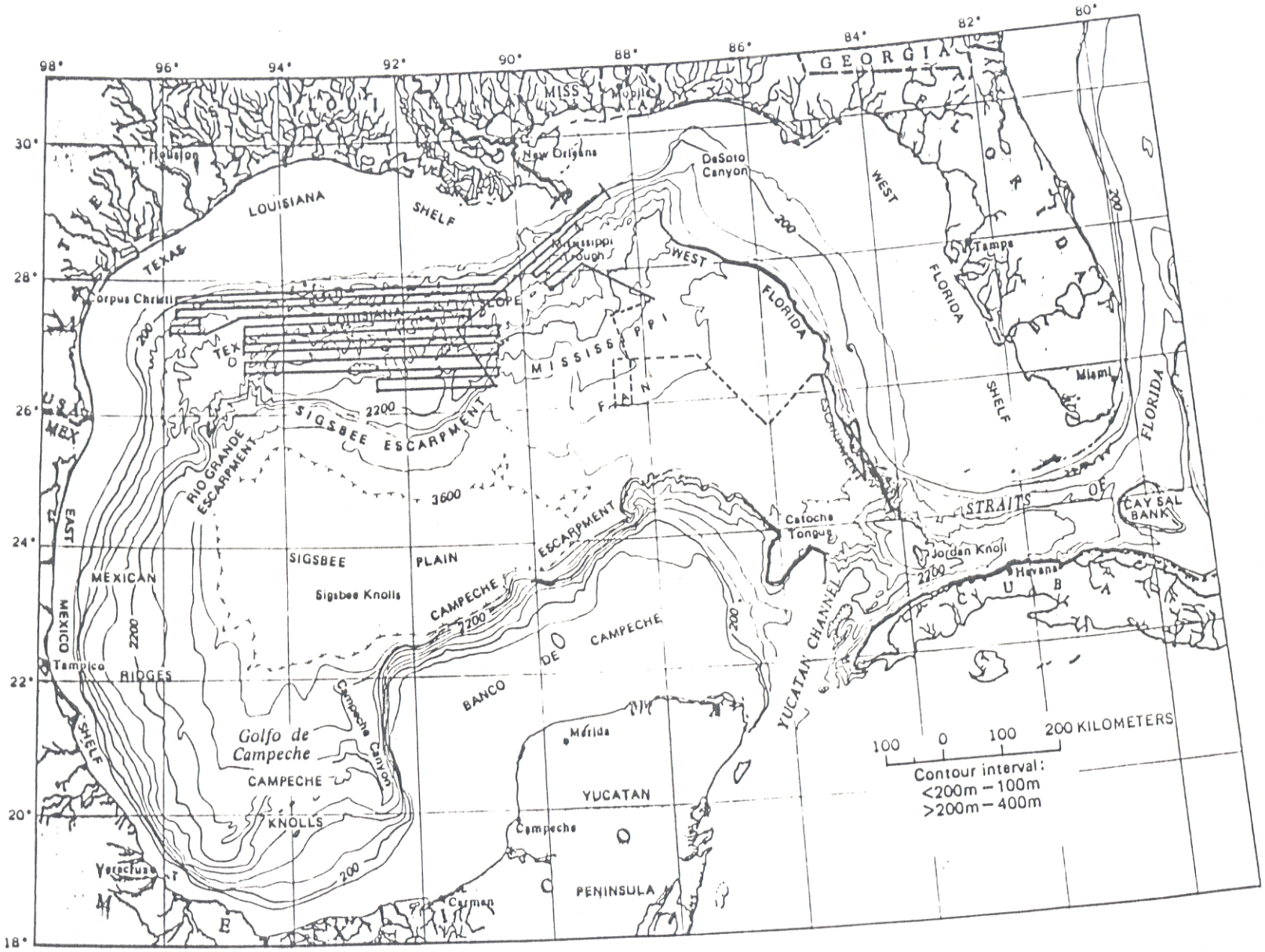
4) Navigation

a) 50 Northstar cassette recordings from bridge
b) 19 magnetic tapes from seismic lab
c) 8 rolls printout from bridge
d) 4 rolls printout from seis lab
e) 1 reel digital 9-track tape of Loran C plus Satellite fixes with water depths

5) XBT

69 XBT records

The cruise collected 3,731 nautical miles of data on the Continental Slope in 17 days for the USGS, and in 2 additional days, collected 395 nautical miles for an IPOD site survey on the Mississippi Fan. The IPOD data will be deposited in the IPOD data bank when processing is completed.



TRACKLINES OF 82FARN-7

IPOD SITE SURVEY ON MISSISSIPPI FAN WHERE DASHED

Sent here by Corpus. They submit ROSPOPs from there. XTRA Copy

FORM APPROVED: OMB NO. 41-R2765 - EXPIRES : 12-31-79

NOAA FORM 24-23 (1-76)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
ENVIRONMENTAL DATA SERVICE
NATIONAL OCEANOGRAPHIC DATA CENTER

A00 DATA CENTER

OCEANOGRAPHY - GENERAL CRUISE INVENTORY
(ROSCOP - II)

A40 REFERENCE NUMBER #87

A01 EXPEDITION/PROJECT

A11 CRUISE NUMBER OR NAME: 82FARN-7

A02 SHIP OR PLATFORM: M/T FARNELLA

A12 PLATFORM TYPE: 01

A03 COUNTRY: USA

A04 ORGANIZATION: US GEOLOGICAL SURVEY

A05 CHIEF SCIENTIST(S): LOUIS E. GARRISON/Neil Kenyon

	YES	NO	PART	
A91 Declared national program?				
A81 Exchange restricted?				
A92 Co-operative program?	✓		A72 NAME: USGS/IOS	
A82 Co-ordinated internationally?	✓		A62 BY WHOM? A1	

A06 NAME AND ADDRESSES OF ORGANIZATIONS AND PERSONS

WHOM TO QUERY	FINAL DISPOSITION OF DATA
A1 L.E. GARRISON, USGS, Box 6732, Corpus Christi	A2
B1 E. Escowitz, USGS, Reston, Va.	B2
C1	C2
D1	D2
E1	E2

DATE	DAY	MONTH	YEAR
A07 FROM	02	02	82
A17 TO	02	24	82

A08 GENERAL OCEAN AREAS: 26

A09 TYPE(S) OF MARINE ZONE(S): 08

GEOGRAPHIC AREA
If all data were collected at a fixed station, fill in the co-ordinates

A10 LATITUDE ° ' " N/S

A20 LONGITUDE ° ' " E/W

A15 FEDERAL SUPPORT: USGS

A25 REMARKS

A cooperative program between USGS and ~~the~~ IOS (U.K.) for GLORIA long-range side scan survey.

DISCIPLINE AND TYPE OF MEASUREMENTS	Index 10° x 10° Qc	L	G	G	INDEX 1° x 1°	DISCIPLINE AND TYPE OF MEASUREMENTS	Index 10° x 10° Qc	L	G	G	INDEX 1° x 1°
A G24 B	7	2	0	9		A B					
A G25 B	7	2	0	9		A B					
A G23 B	7	2	0	9		A B					
A H13 B	7	2	0	9		A B					
A B						A B					
A B						A B					
A B						A B					

82205

G – GEOLOGY GEOPHYSICS

GL MEASUREMENTS MADE AT A SPECIFIC LOCATION	NUMBER	i	l	FORMAT
G01 Dredge				
G02 Grab				
G03 Core rock *(no. of cores)*				
G04 Core–soft bottom *(no. of cores)*				
G05 Sampling by divers				
G06 Sampling by submersible				
G07 Drilling				
G08 Bottom photography				
G09 Sea floor temperature *(≤ 1 m from bottom)*				
G10 Accoustical properties of the sea floor				
G11 Engineering properties of the sea floor				
G12 Magnetic properties of the sea floor				
G13 Gravimetric properties of the sea floor				
G14 Radioactivity measurements				
G70 Other measurements				

GU MEASUREMENTS UNDERWAY				
G21 Motion picture of sea floor *(No. of nautical miles)*				
G22 Bathymetry-wide beam *(no. of nautical miles)*				
G23 Bathymetry-narrow beam *(no. of nautical miles)*	4,128	A	1	3
G24 Side scan sonor *(no. of nautical miles)*	4,128	A	1	7
G25 Seismic reflection *(no. of nautical miles)*	4,128	A	1	6
G26 Seismic refraction *(no. of nautical miles)*				
G27 Gravimetry				
G28 Magnetism				
G29 Other measurements				

G – GEOLOGY GEOPHYSICS *(Continued)*

GS TYPES OF STUDIES	NUMBER	i	l	FORMAT
G31 Physical analysis of sediments				
G32 Chemical analysis of sediments				
G33 Paleothermy				
G34 Paleomagnetism and rock magnetism				
G35 Paleontology				
G36 Geothermy				
G37 Geochronology				
G38 Mineral and fossil resources				
G39 Litteral zone studies				
G90 Other measurements				

D – DYNAMICS

D01 Current meters *(no. of stat.)*				
D02 Current meters *(Average duration of measurement days)*				
D03 Currents measured from ship drift				
D04 GEK				
D05 Drifters *(number)*				
D06 Swallow floats *(number)*				
D07 Drift cards *(no. released)*				
D08 Bottom drifters *(no. released)*				
D09 Tidal observation *(duration)*				
D10 Sea and swell *(no. of observations)*				
D90 Other measurements				

M – METEOROLOGY

M01 Upper air observations				
M02 Incident radiation				
M03 Air–sea interface studies				
M04 Ice observations				
M05 Occasional standard measurements				
M06 Systematic standard measurements				
M90 Other measurements				

H– HYDROGRAPHY

HS SURFACE	NUMBER	i	l	FORMAT
H01 Continuous temperature recording				
H02 Continuous salinity recording				
H03 Discrete temperature measurements				
H04 Discrete salinity measurements				
NEAR SEA FLOOR (≤ 10 m)				
H05 Continuous temperature recording				
H06 Continuous salinity recording				
H07 Discrete temperature measurements				
H08 Discrete salinity measurements				
HP PHYSICAL				
H09 Classical oceanographic stations				
H10 Vertical profiles (STD/CTD)				
H11 Sub–surface measurements underway				
H12 Mechanical bathythermograph (No. of drops)				
H13 Bathythermograph–expendable (No. of drops)	69	B	1	3
H14 Sound velocity stations				
H15 Acoustic stations				
H16 Transparency				
H17 Optics				
H18 Diffusion (Dynamic)				
H80 Other measurements				
HC CHEMICAL				
H21 Oxygen				
H22 Phosphates				
H23 Total–P				
H24 Nitrates				
H25 Nitrites				

HC CHEMICAL	NUMBER	i	l	FORMAT
H26 Silicates				
H27 Alkalinity				
H28 pH				
H29 Chlorinity				
H30 Trace elements				
H31 Radioactivity				
H32 Isotopes				
H33 Dissolved gases				
H90 Other measurements				

P – POLLUTION

P01 Suspended solids				
P02 Heavy metals				
P03 Petroleum residues				
P04 Chlorinated hydrocarbons				
P05 Other dissolved substances				
P06 Thermal pollution				
P07 Waste water: BOD				
P08 Waste water: Nitrates				
P09 Waste water: Microbiology				
P10 Waste water: Other				
P11 Discolored water				
P12 Bottom deposits				
P13 Contaminated organisms				
P90 Other measurements				

National Oceanic and Atmospheric Administration
Environmental Data Service
National Geophysical and Solar-Terrestrial Data Center

MARINE GEOPHYSICAL DATA DOCUMENTATION CODING FORM

CRUISE IDENTIFIER (as in data record)	FORMAT ACRONYM	DATA CENTER FILE NUMBER	NO. OF HEADERS: TYPE "1"	NO. OF HEADERS: TYPE "2"	NUMBER OF PARAMETERS	PARAMETERS SURVEYED: BATHYMETRY	MAGNETICS	GRAVITY	H.R. SEIS	D.P. SEIS	FILE CREATION DATE (Y Y M M D D)	CONTRIBUTING INSTITUTION	SEQ. NO.
1 82 FARN-7	MGD77	87			29						820401	US Geological Survey	01

COUNTRY	PLATFORM NAME	PLATFORM TYPE CODE	PLATFORM TYPE plain language	CHIEF SCIENTIST(S)	SEQ. NO.
UNITED STATES	M/T FARNELLA	1	SHIP	L GARRISON AND NEIL KENYON	02

PROJECT, CRUISE & LEG	FUNDING	SEQ. NO.
GLORIA LEG 82-7	USGS	03

DEPARTURE DATE (Y Y M M D D)	DEPARTURE PORT (CITY, COUNTRY)	ARRIVAL DATE (Y Y M M D D)	ARRIVAL PORT (CITY, COUNTRY)	SEQ. NO.
820202	NEW ORLEANS USA	820224	MIAMI USA	04

NAVIGATION INSTRUMENTATION	POSITION DETERMINATION METHOD	SEQ. NO.
LORAN C PLUS SATELLITE	LORAN C	05

BATHYMETRY INSTRUMENTATION	ADDITIONAL FORMS OF BATHYMETRY DATA	SEQ. NO.
10KHZ 2SEC SWEEP	.5SEC SWEEP	06

MAGNETICS INSTRUMENTATION	ADDITIONAL FORMS OF MAGNETICS DATA	SEQ. NO.
NONE		07

GRAVITY INSTRUMENTATION	ADDITIONAL FORMS OF GRAVITY DATA	SEQ. NO.
NONE		08

SEISMIC INSTRUMENTATION	FORMATS OF SEISMIC DATA	SEQ. NO.
GLORIA-SIDESCAN 40/80IN AIR GUN	DIGITAL-ANALOG TAPES PHOTOS	09

FORMAT TYPE	DATA FORMAT DESCRIPTION (IN FORTRAN)	SEQ. NO.
A	(I1,A8,F5.2,4I2,F5.3,F8.5,F9.5,I1,F6.4,F6.1,I2,I1,3F6.1,I1,F5.1,F6.0,F7.1,	10
	F6.1,F5.1,A8,4I1)	11

BATHYMETRY

DIGITIZING RATE (MIN)	SAMPLING RATE	SOUND VELOCITY (METERS/SEC)	BATHY. DATUM CODE	INTERPOLATION SCHEME	SEQ. NO.
06	2/SECOND	1500	00		12

MAGNETICS

DIGITIZING RATE (MIN)	SAMPLING RATE (SEC)	SENSOR TOW DIST. (METERS)	SENSOR DEPTH (METERS)	HORIZONTAL SENSOR SEPARATION (METERS)	REFERENCE FIELD CODE	REFERENCE FIELD	METHOD OF DERIVING RESIDUAL FIELD	SEQ. NO.
								13

GRAVITY

DIGITIZING RATE (MIN)	SAMPLING RATE (SEC)	CODE	THEORETICAL GRAV. FORMULA in plain language	CODE	REFERENCE SYSTEM in plain language	CORRECTIONS APPLIED	SEQ. NO.
							14

BASE STATION GRAVITY (MGAL)	DEPARTURE BASE STATION DESCRIPTION	BASE STATION GRAVITY (MGAL)	ARRIVAL BASE STATION DESCRIPTION	SEQ. NO.
				15

NO. OF AREA IDENTIFIERS	10-DEGREE AREA IDENTIFIERS	SEQ. NO.
		16
		17

ADDITIONAL DOCUMENTATION

	SEQ. NO.
	18
	19
	20
	21
	22
	23
	24