

**REPORT AND INDEX OF
UNDERWAY MARINE GEOPHYSICAL DATA**

GLORIA EXPEDITION

LEG 1

=====

R/V Melville

(Issued February 1993)

San Diego, California (6 October 1992)
to
Acapulco, Mexico (1 November 1992)

Chief Scientist:

Peter Lonsdale (Scripps Institution of Oceanography)

Resident Marine Technician - Seth Mogk

Computer Technician - Ron Moe

No Sea Beam/Underway Processor on board

Post-Cruise Processing and Report Preparation by the
Geological Data Center, Scripps Institution of Oceanography
La Jolla, California 92093

Data Collection and Processing Funded by:
NSF Grant Number OCE91-02183
ONR 1219

NOTE: This is an index of underway geophysical data edited and processed after the completion of the cruise leg and is intended primarily for informal use within the institution. This document is not to be reproduced or distributed outside Scripps without prior approval of the chief scientist or the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

GDC Cruise I.D.# 261

INFORMAL REPORT AND INDEX OF NAVIGATION AND UNDERWAY GEOPHYSICAL DATA

Processed by the Geological Data Center
Scripps Institution of Oceanography

Contents:

Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.

Track Charts - annotated with dates and hour ticks.

Profiles - depth, magnetic anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profile (airgun or watergun) records have a wide black line along the bottom of the profile.

Sample Index - list of beginning and end times and positions of all underway records as well as all other samples and measurements (geology, biology, physical oceanography, etc.) collected on the cruise leg.

NOTE: One or more of the underway data types may not be collected on a given cruise leg.

For information on the availability and reproduction costs of data in the following forms, contact S. M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, CA 92093-0223. Phone (619)534-2752. Fax (619)534-5306. Internet EMail:ssmith@ucsd.edu

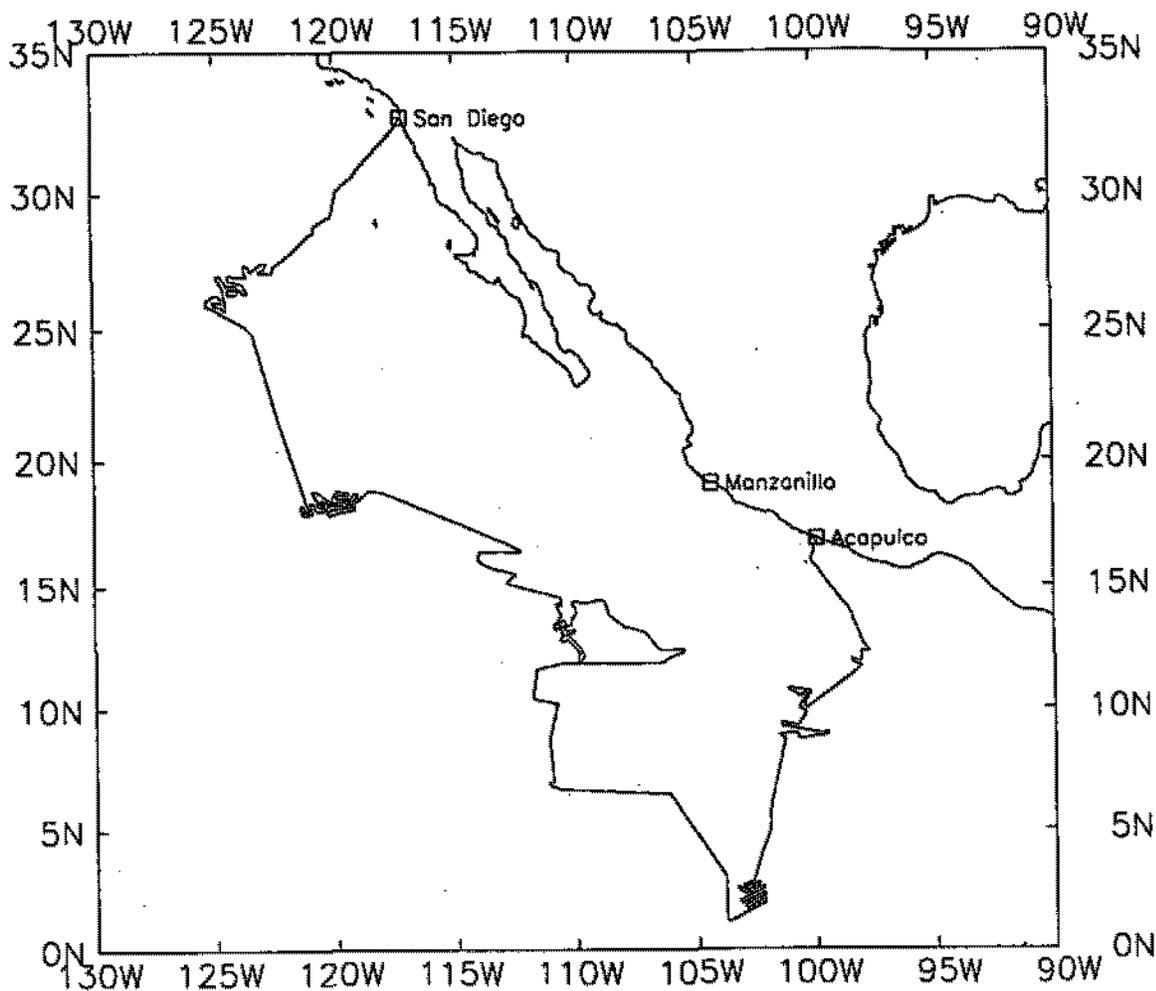
1. Navigation listing with times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$ degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of depths, magnetics or gravity profiles along track - custom plots at various map and profile scales on Mercator projection may be requested.
4. Separate time series files of navigation, depth, gravity and magnetics as well as these data merged in the MGD77 Exchange format on magnetic tape.
5. Microfilm or Xerox copies of:
 - a. Echosounder records - 12 and 3.5 kHz frequency
 - b. Subbottom profiler records
 - c. Magnetometer records
 - d. Underway data log book

SIO SeaBeam 2000 Data Information

The following forms are available, subject to approval of the cruise leg chief scientist:

- 1) Hardcopy of realtime contour swath records and records with vertical beam and sidescan grayscale display are available for inspection at the data center.
- 2) Microfilm (35mm flowfilm) of vertical beam/sidescan records.
- 3) Sea Beam merged tapes - Sea Beam data merged with GPS-based navigation. (Navigation is edited to the extent that DR courses and speeds are edited and poor fixes are removed after inspection of speeds and drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping Sea Beam swaths.)
- 4) Archive contour plots - 8"/degree chart scale, with contour interval nominally 50m, are generated for all transit lines. Some survey areas are plotted at appropriate scales as well. Available for inspection at data center; additional copies may be generated from plot files stored on tape.
- 5) Custom generated plots of Sea Beam swaths on Mercator projection in four colors at variable plot scales and contour intervals. There are provisions to adjust positions of individual track lines and to edit out beams (bad data or overlapping data on inside of turns).

Revised February 1992



GLORIA LEG ONE (GLOR01MV)

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GLORIA EXPEDITION LEG 1

CHIEF SCIENTIST: Peter Lonsdale, SIO

PORTS: San Diego-Acapulco, Mexico

DATES: 6 October - 1 November 1992

SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 7723 miles

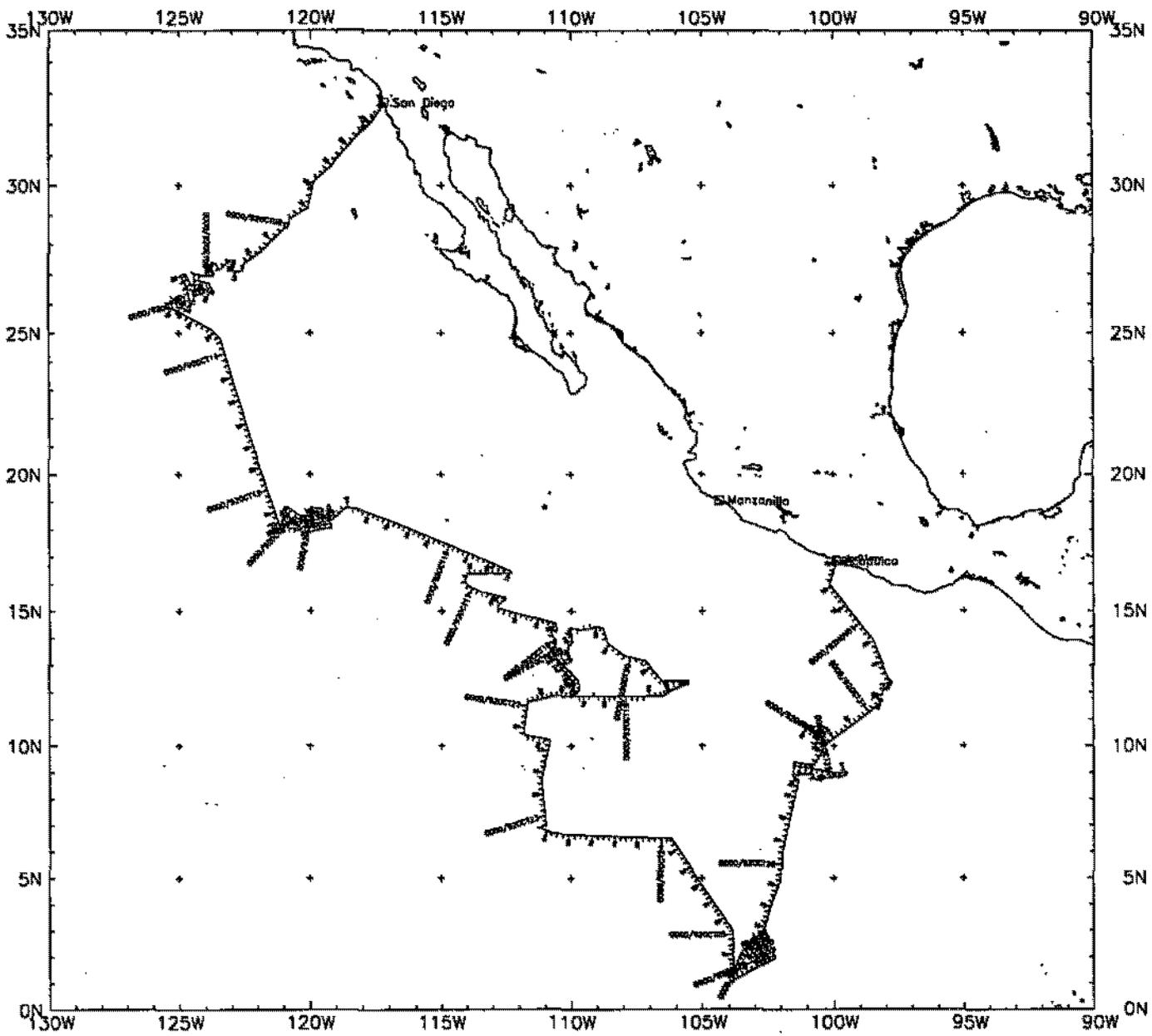
Magnetics - 7152 miles

Bathymetry - 7563 miles

Seismic Reflection - 150 miles

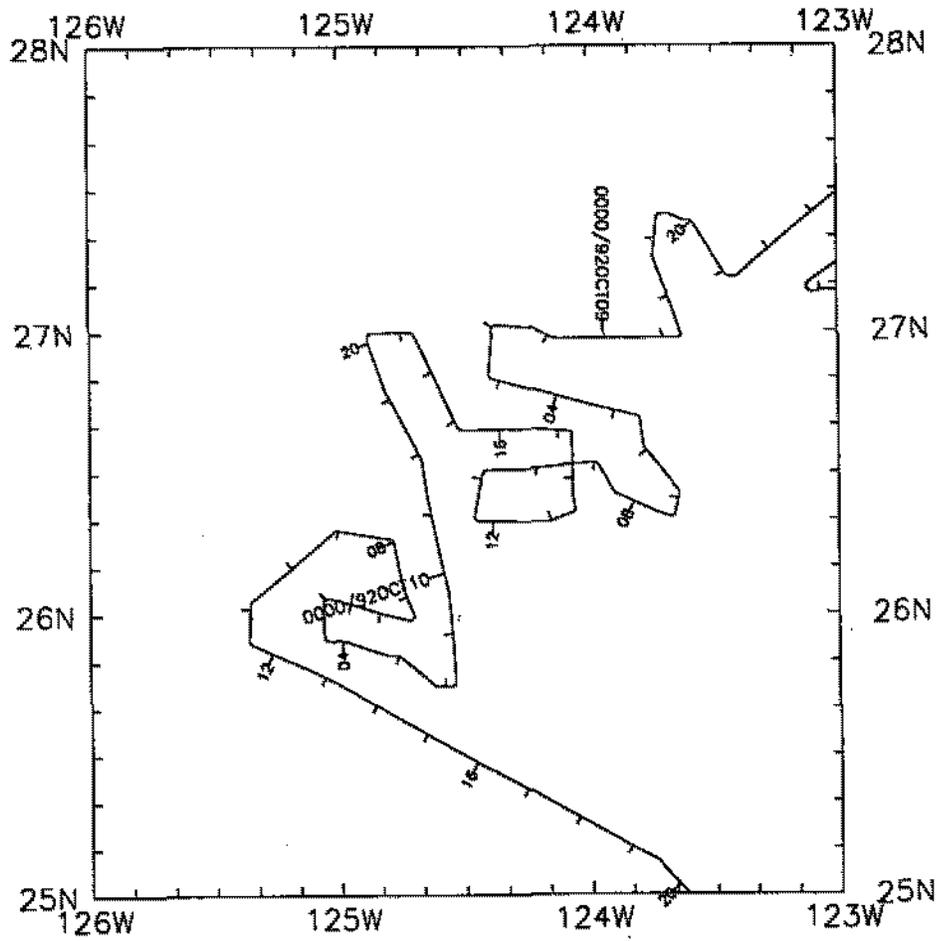
Sea Beam - 7563 miles

Gravity - none collected



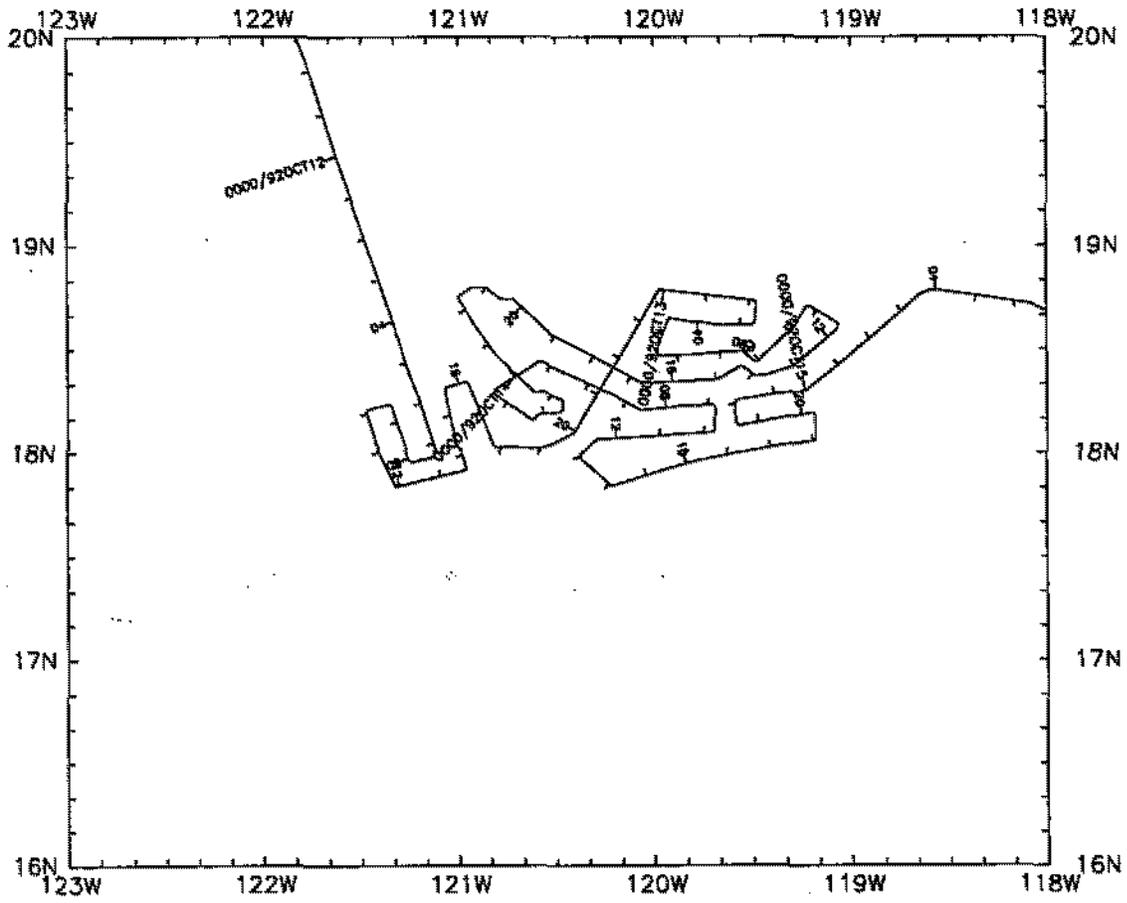
GLORIA LEG ONE (GLOR01MV)

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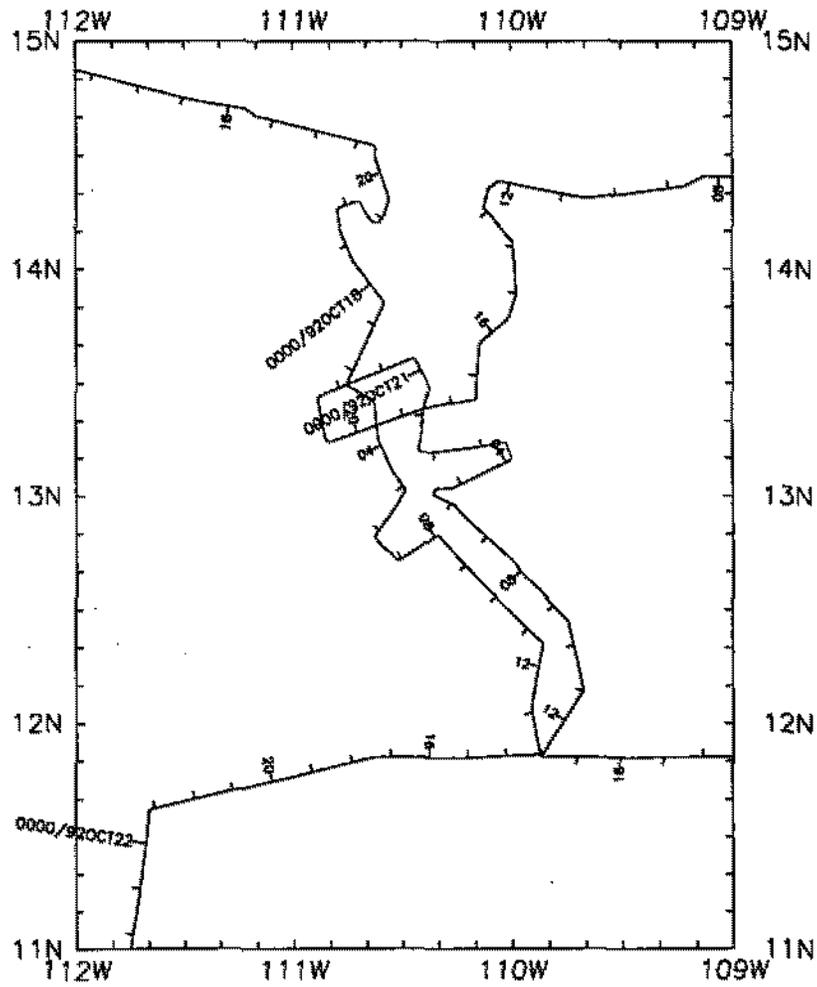
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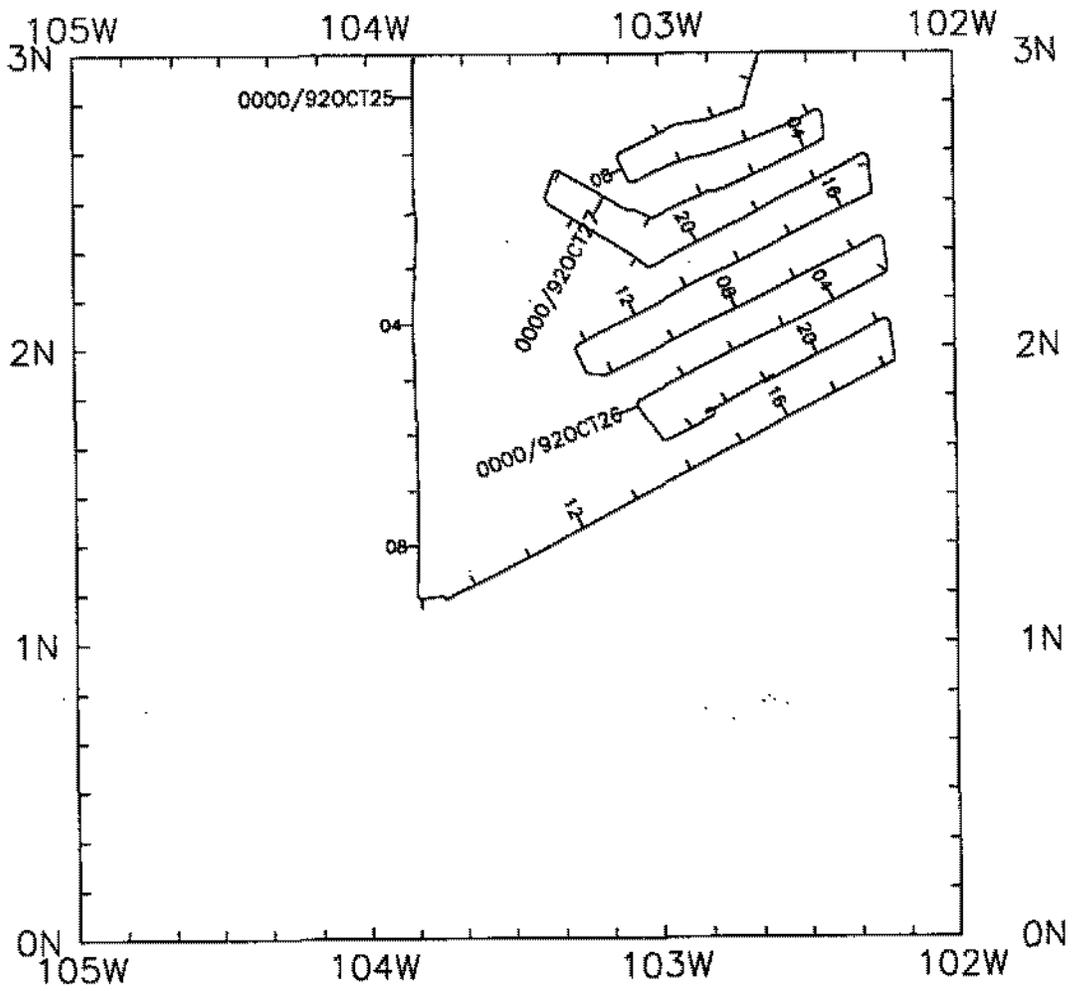
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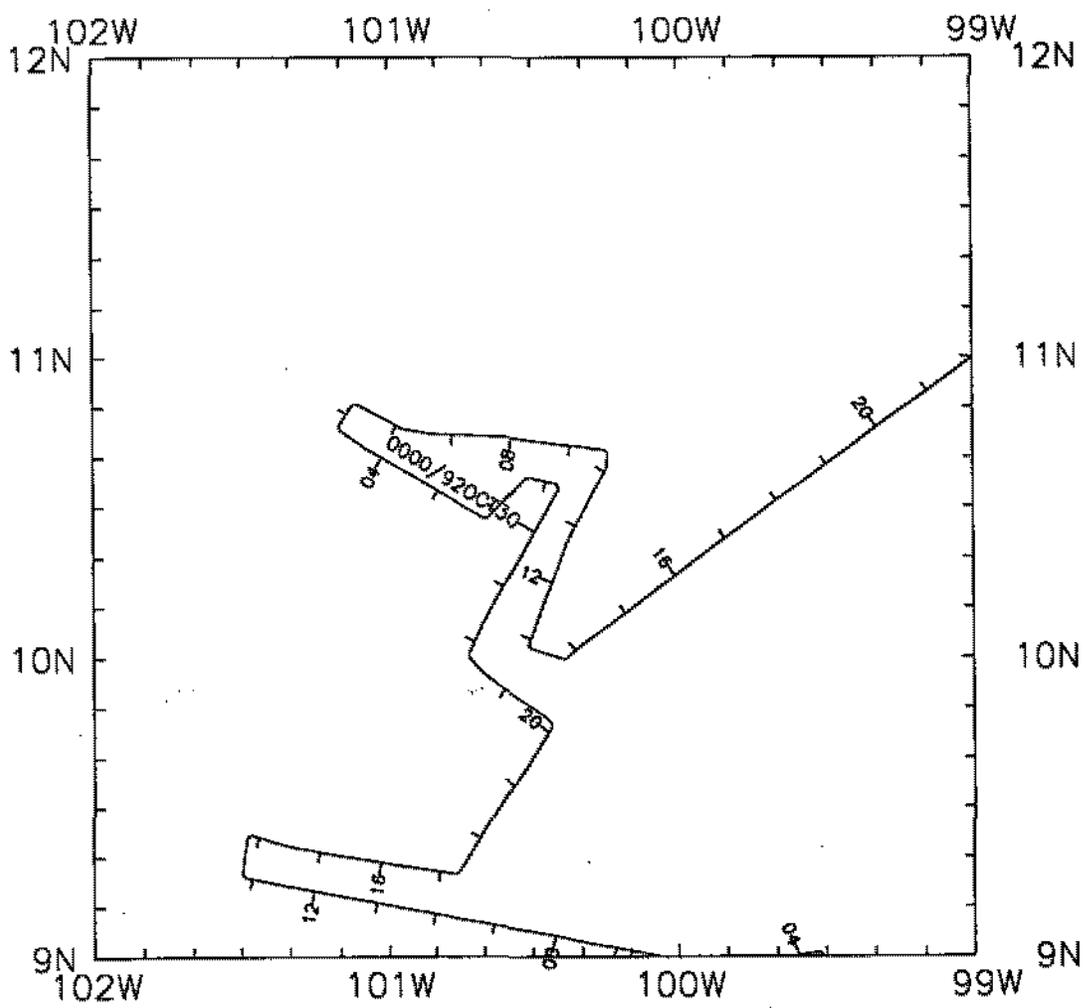
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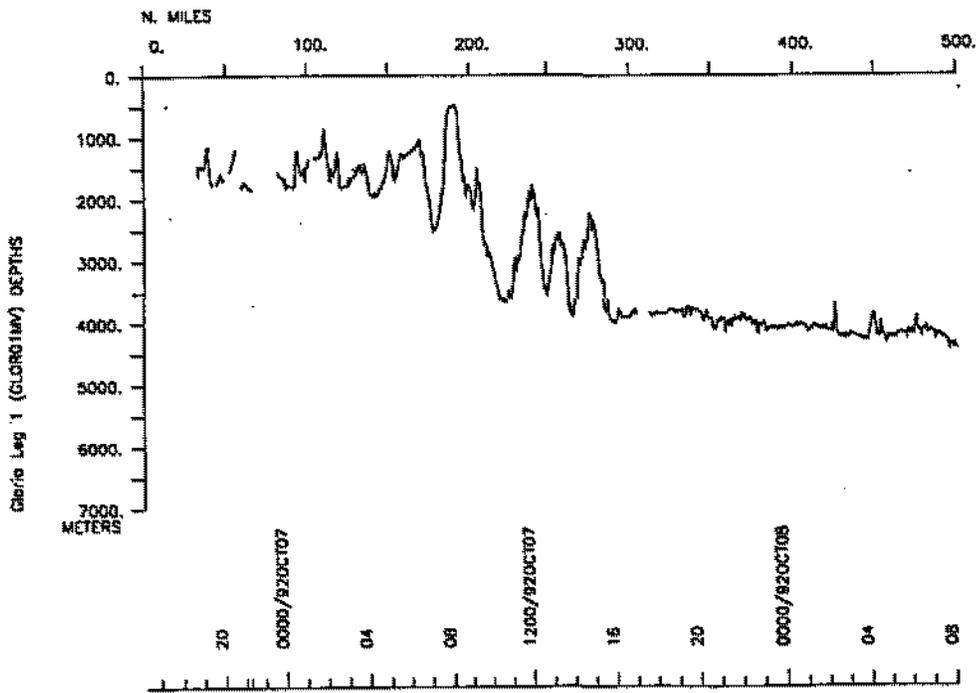
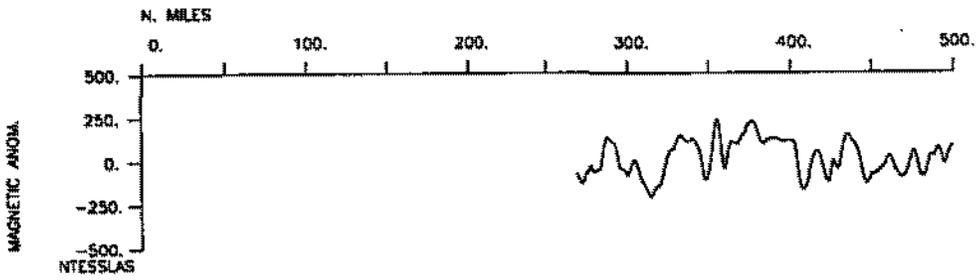
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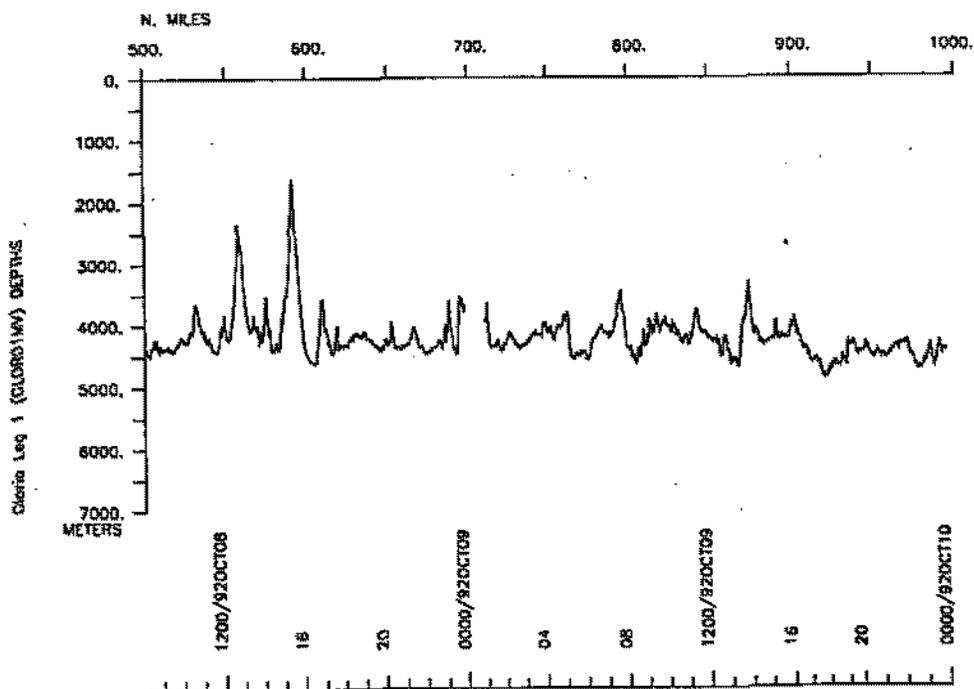
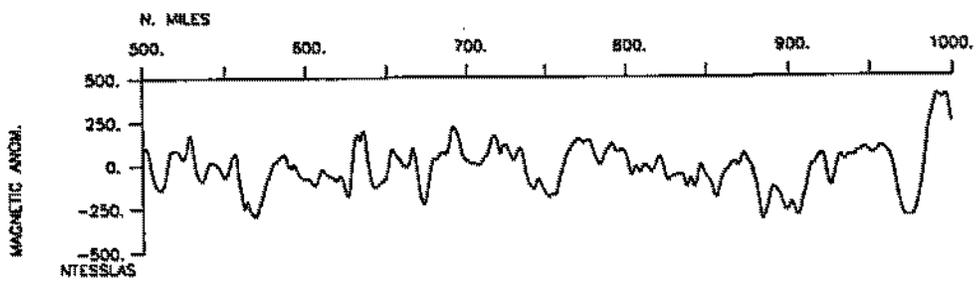
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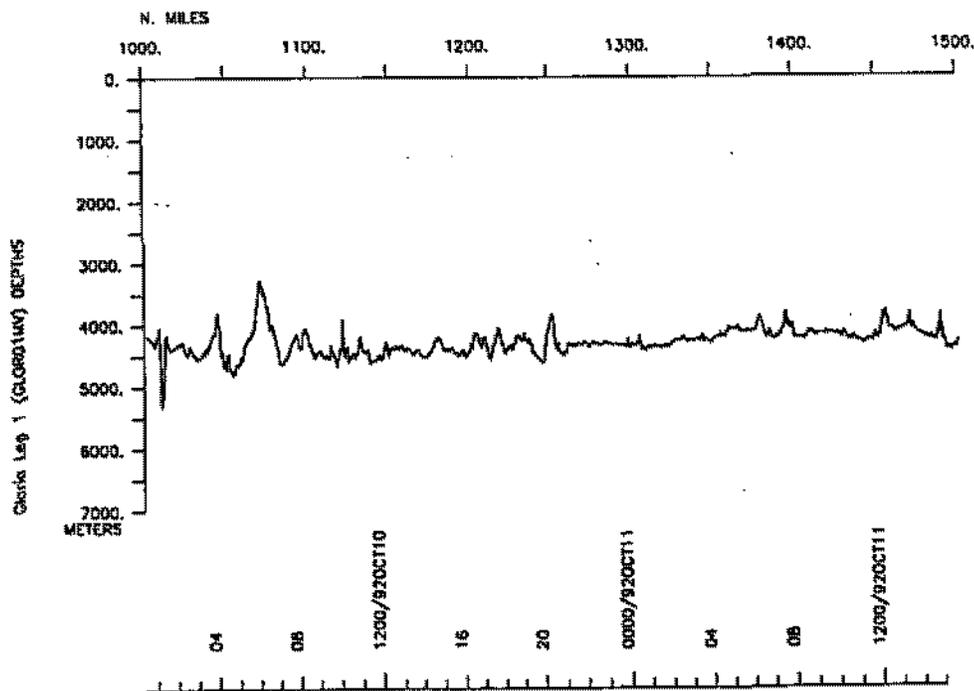
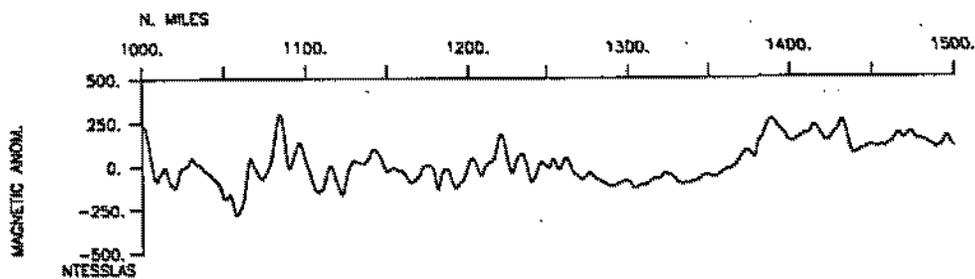


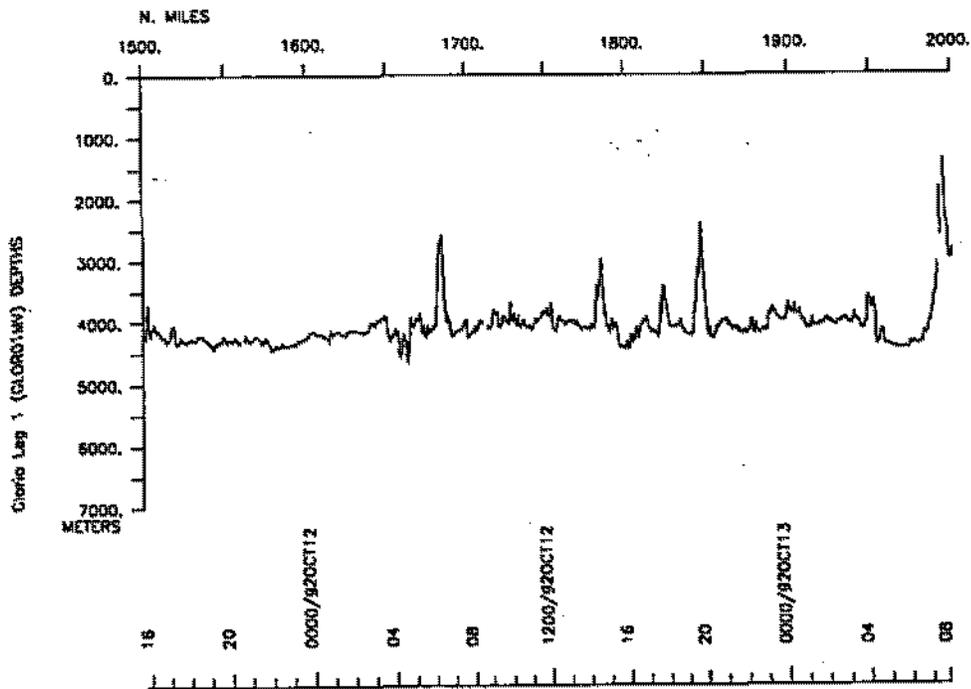
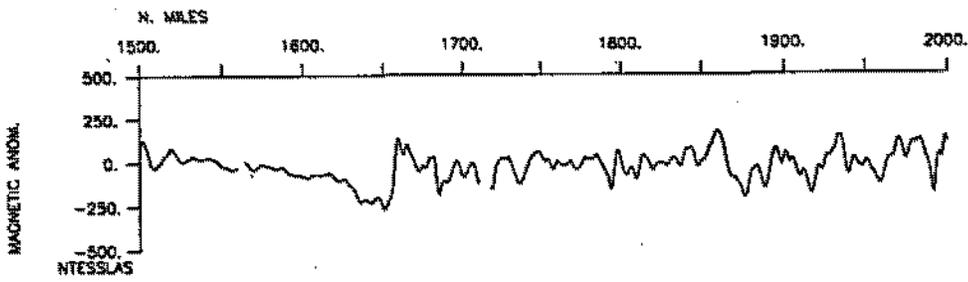
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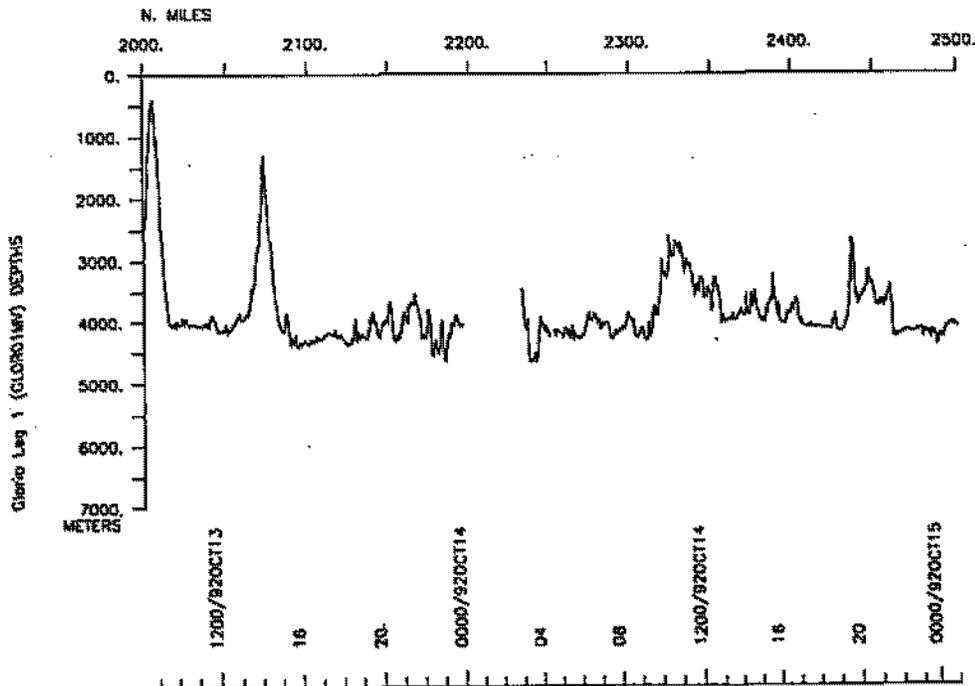
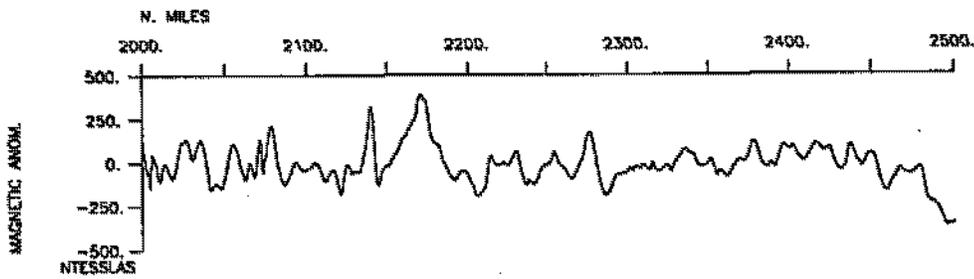
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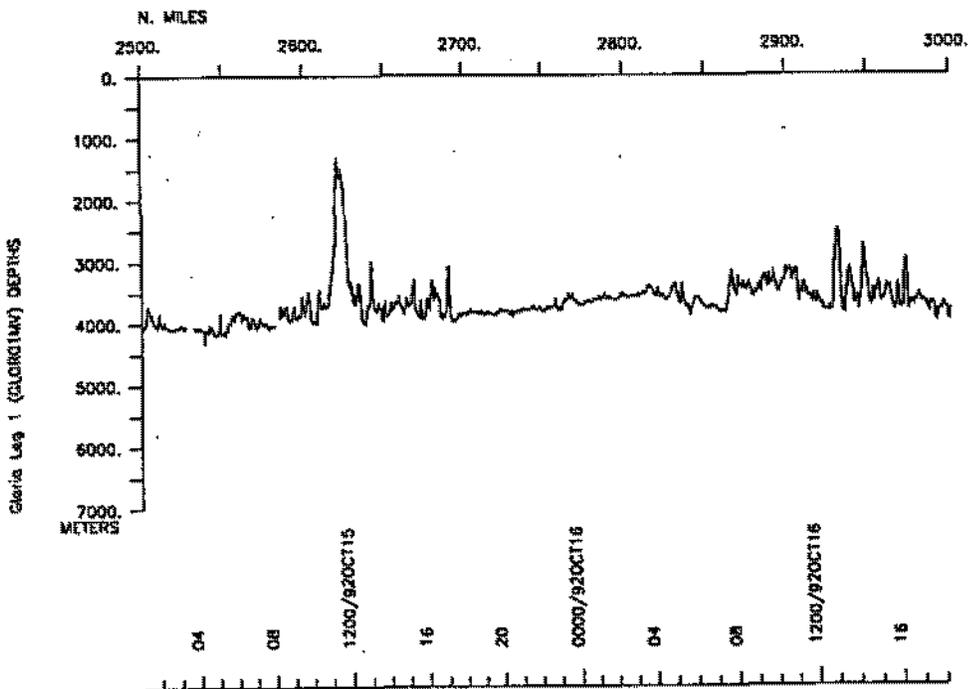
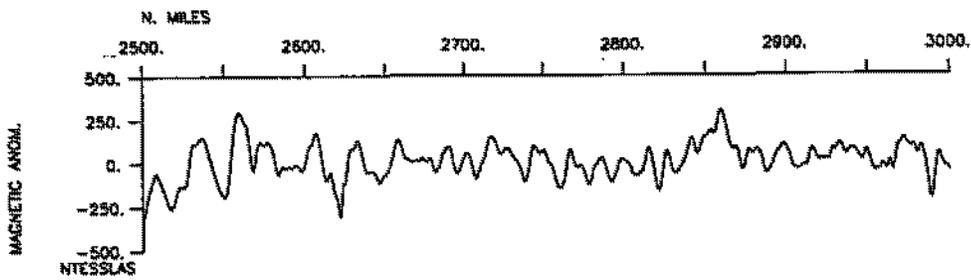


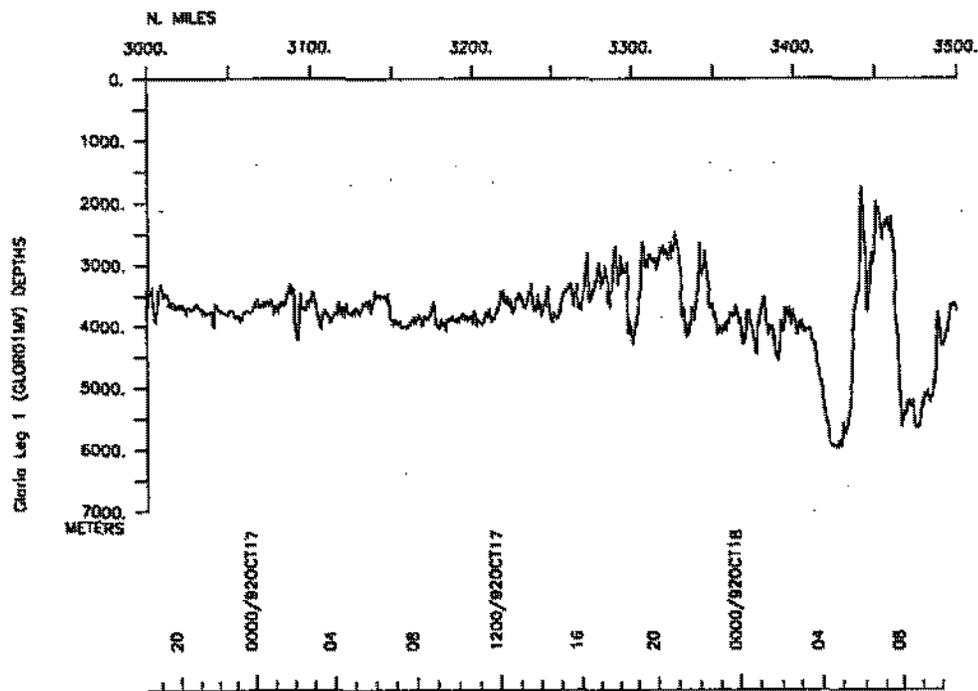
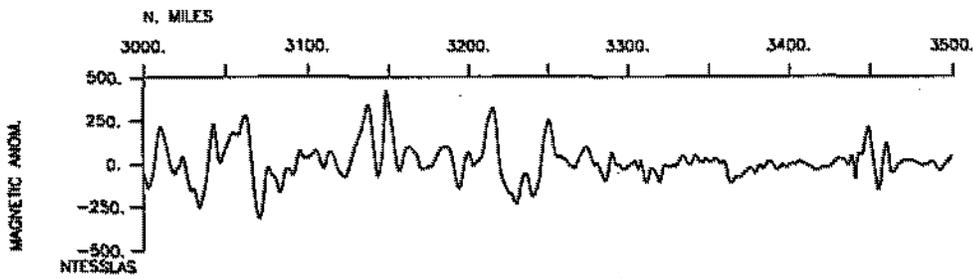


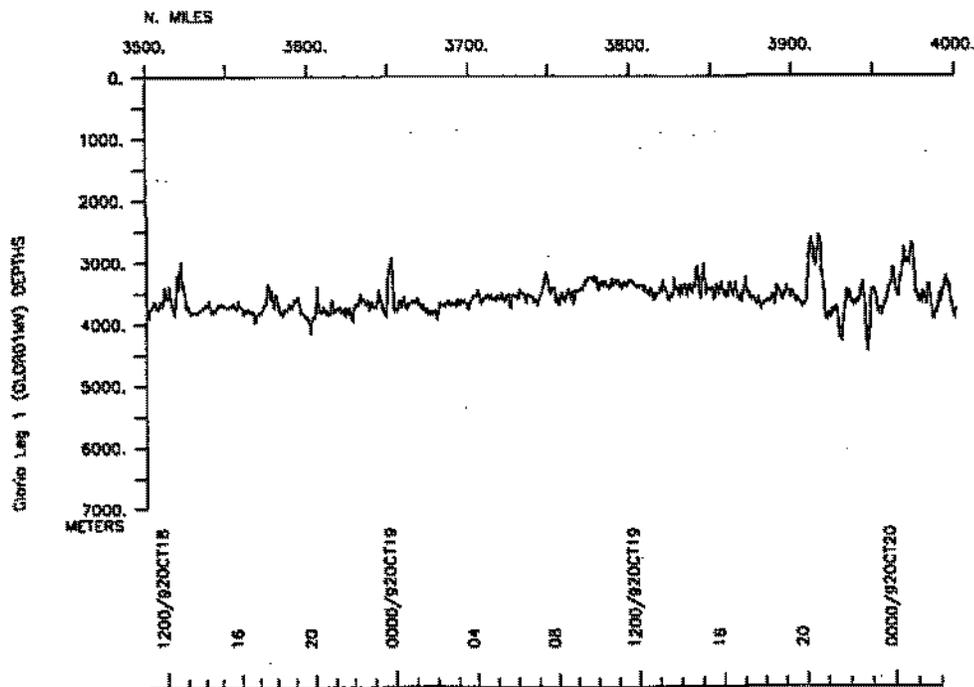
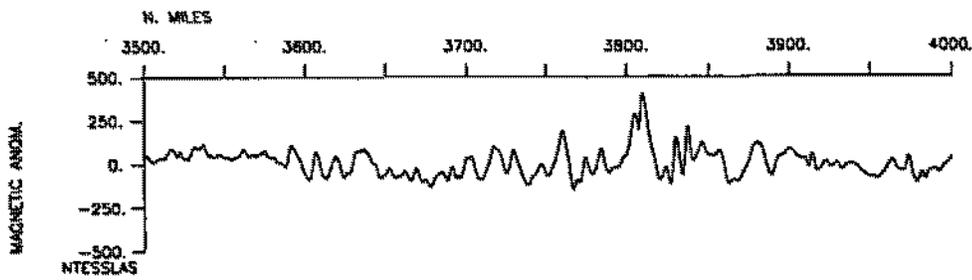


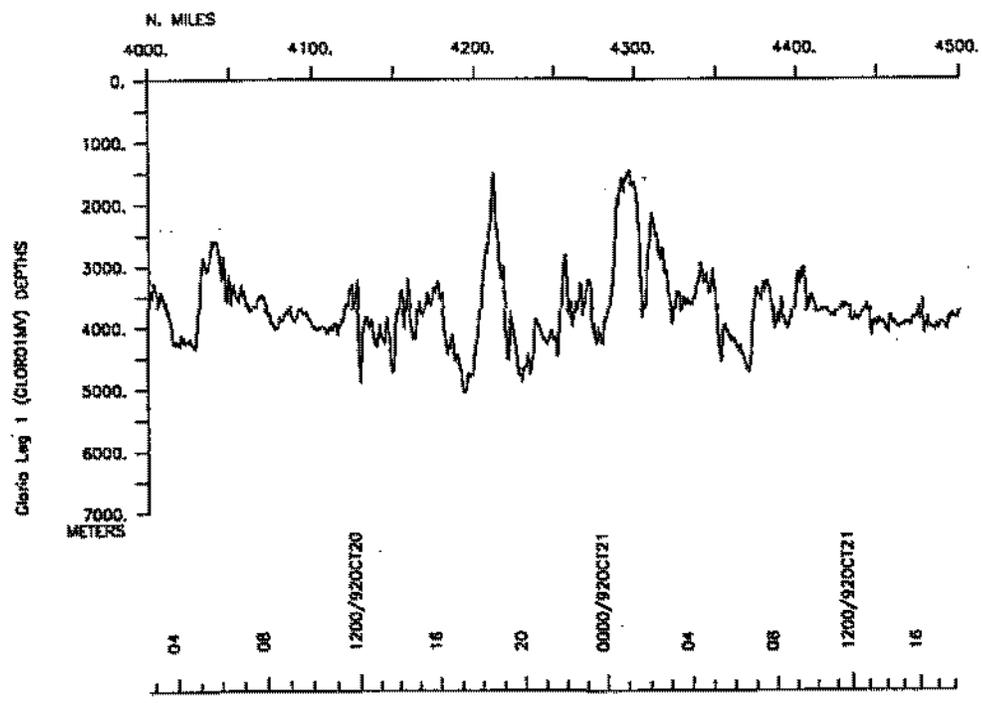
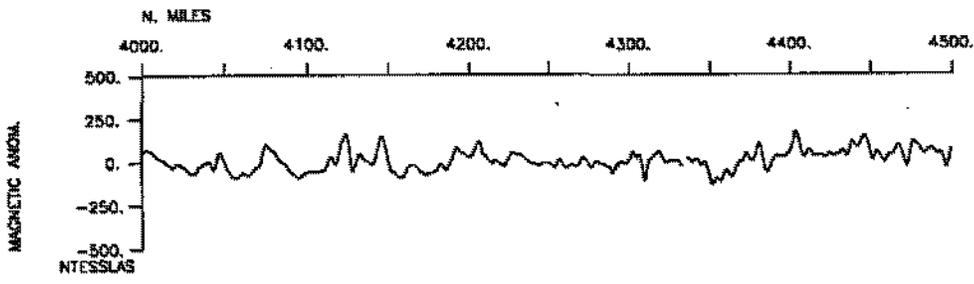


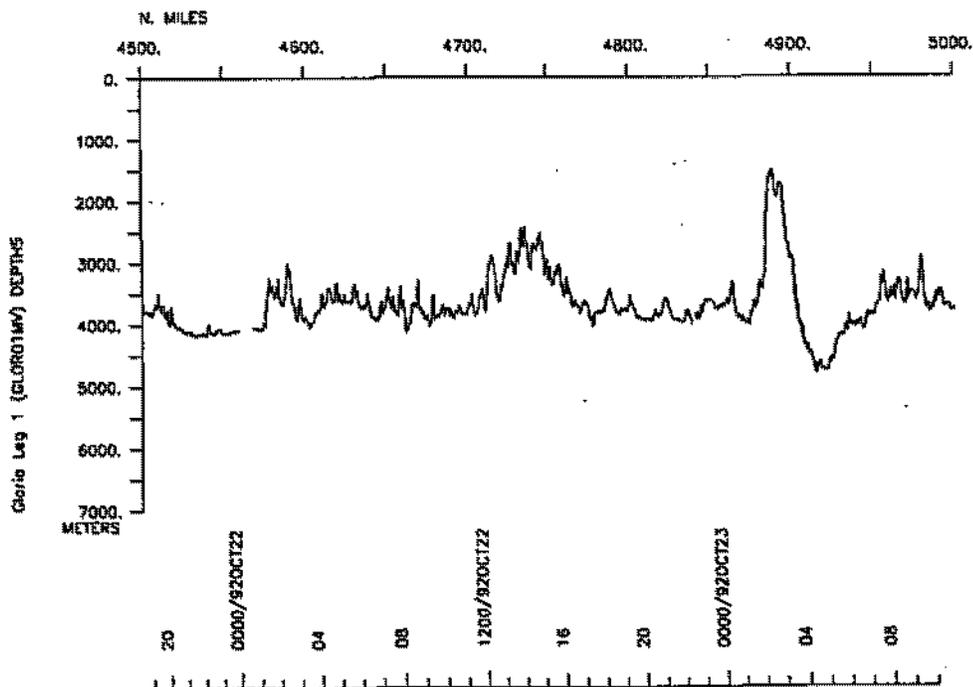
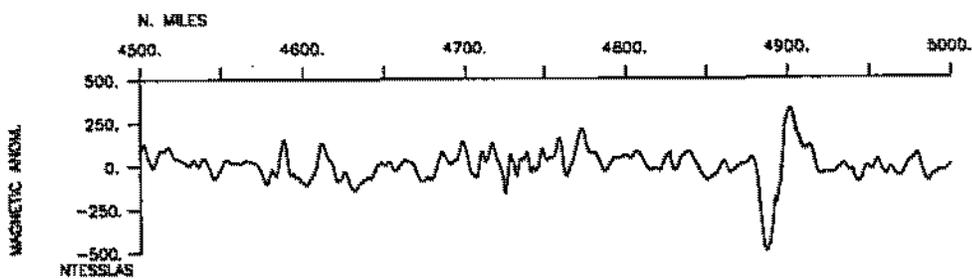


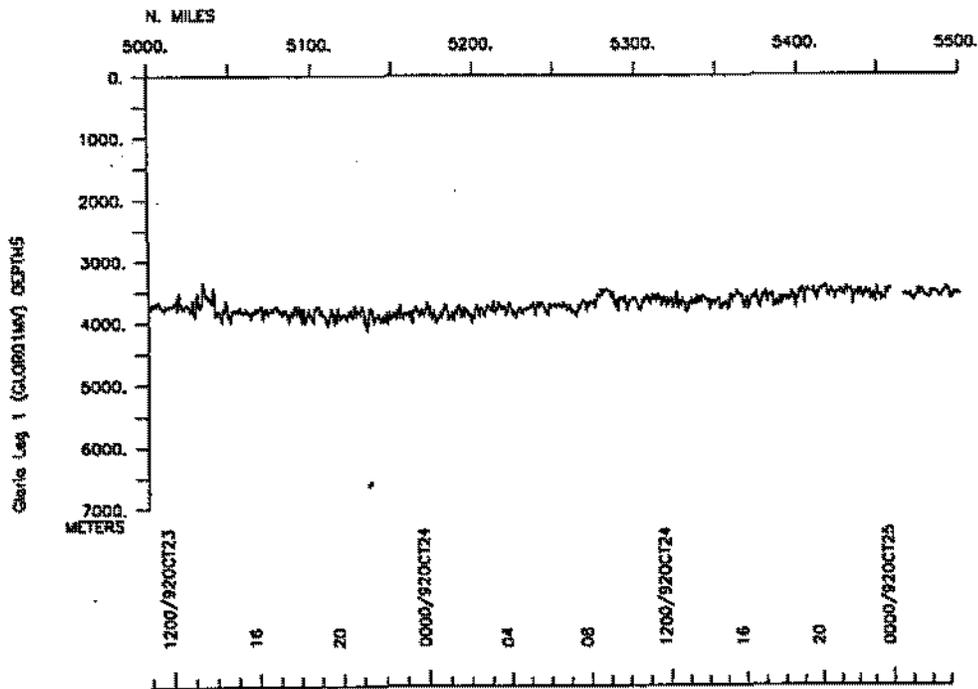
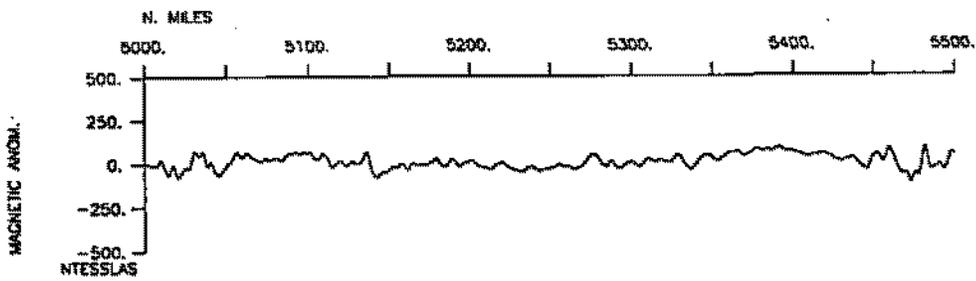


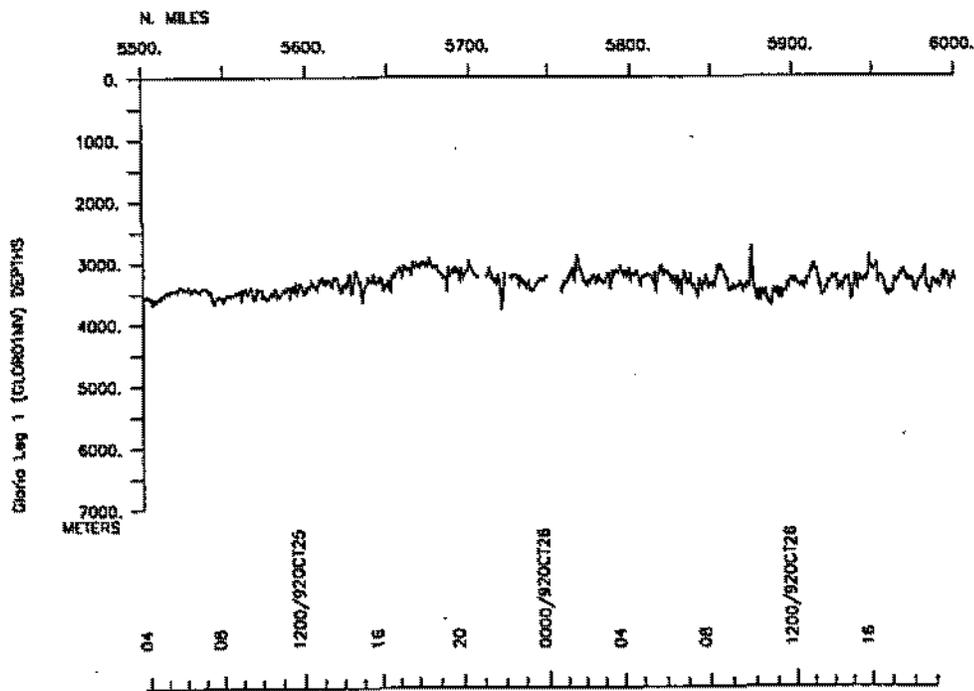
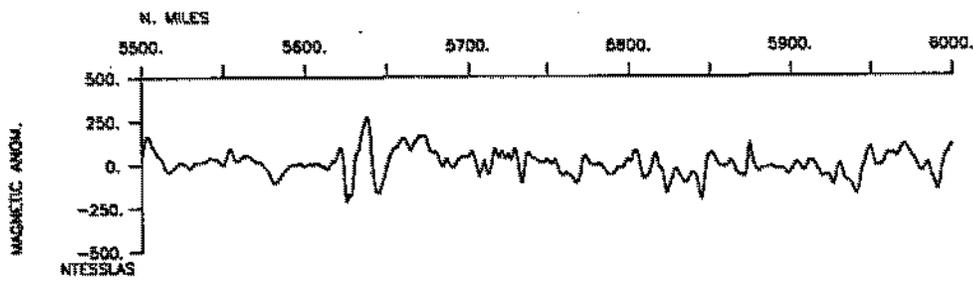


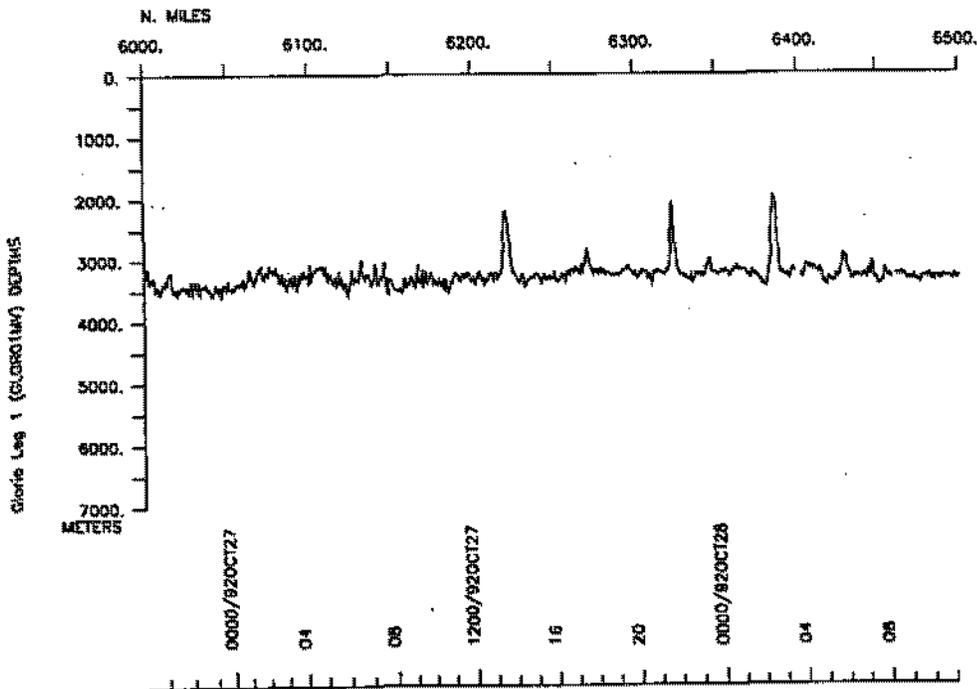
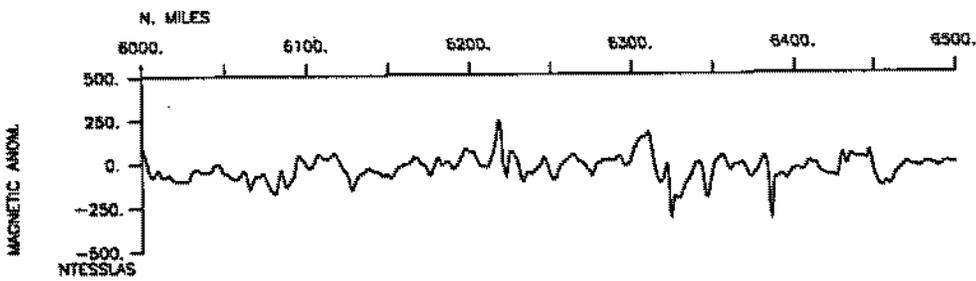


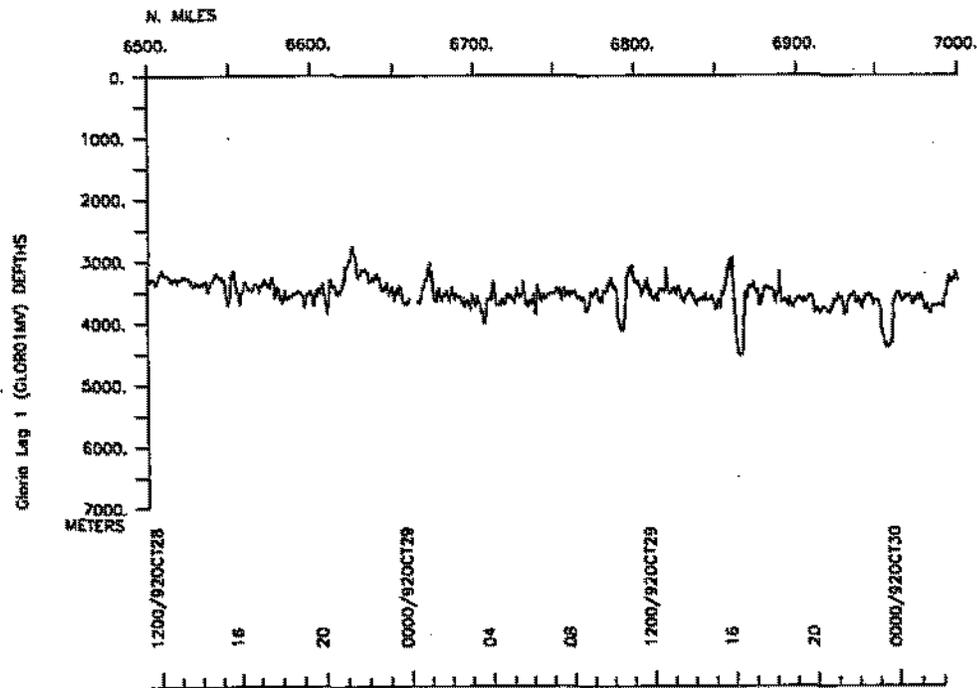
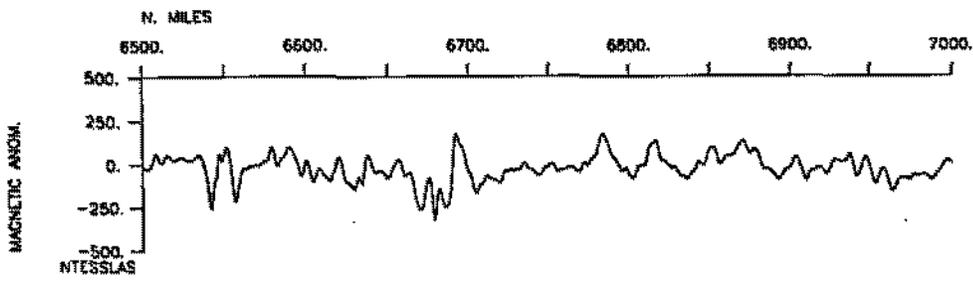


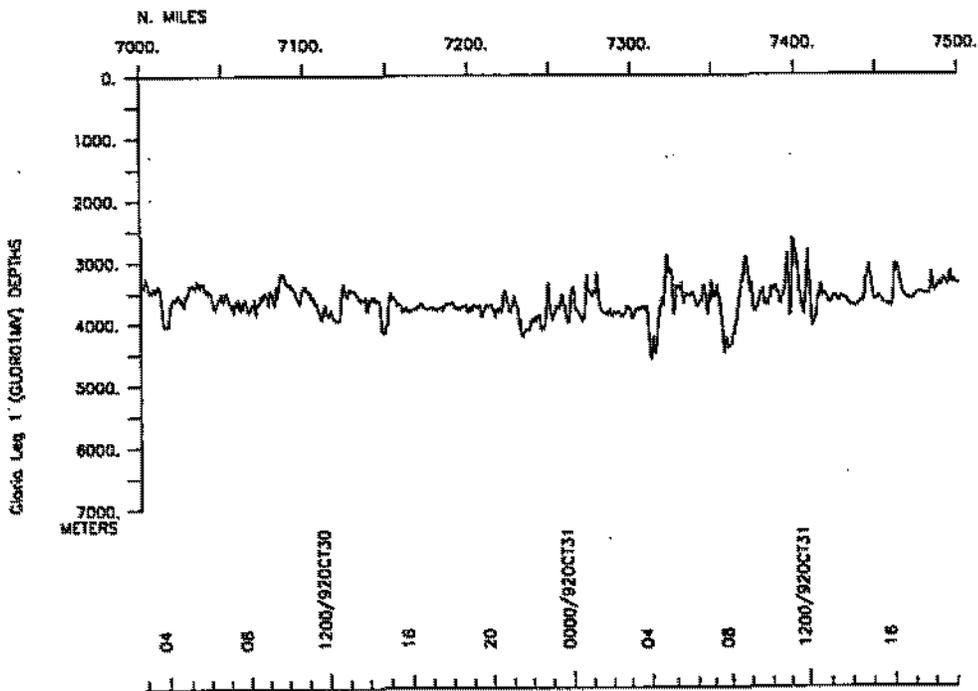
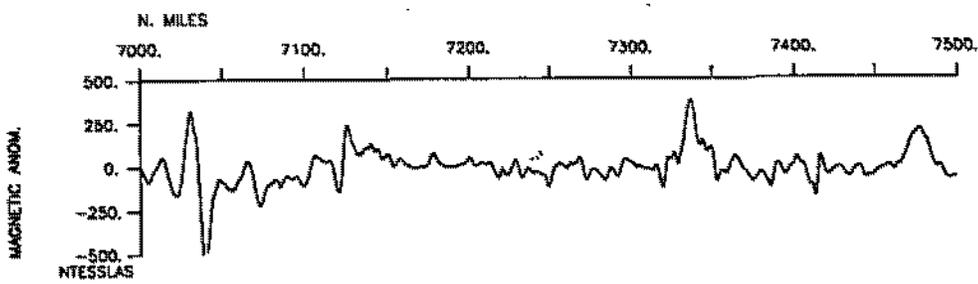


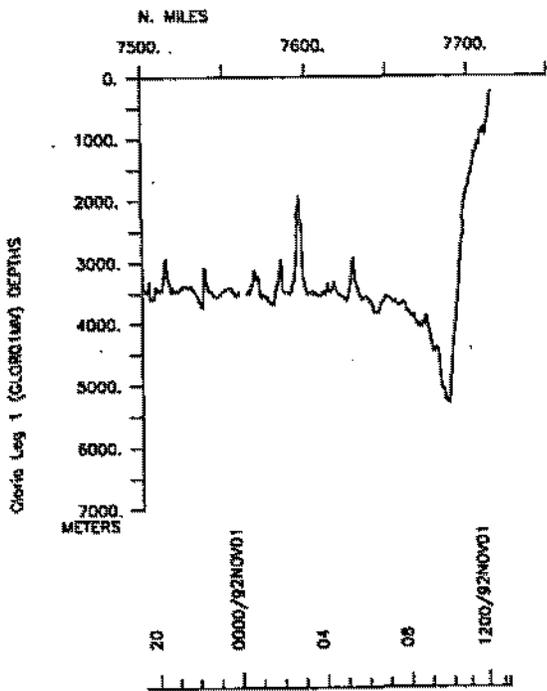
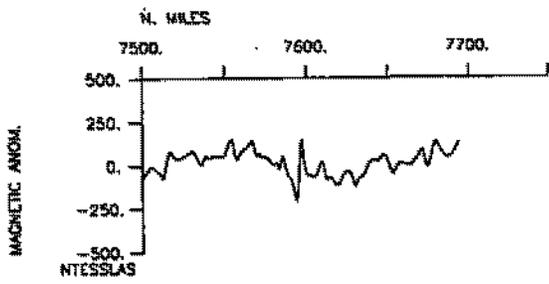












S.I.O. SAMPLE INDEX

(Issued February 1993)

GLORIA EXPEDITION

Leg 1

R/V Melville

San Diego, California (6 October 1992)
to
Acapulco, Mexico (1 November 1992)

Chief Scientist:

Peter Lonsdale (Scripps Institution of Oceanography)

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the resident marine technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive lines. Disposition and sample type are represented by three and four character codes to permit further computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 261

**** PORTS ***

| | | | | | | | | |
|------|--------|---|--------|-------------------|-----------|------------|---|----------|
| 1500 | 061092 | 0 | LGPT B | San Diego, Calif. | 32-14.57N | 117-31.99W | g | GLOR01MV |
| 1240 | 011192 | 0 | LGPT E | Acapulco, Mexico | 16-45.81N | 99-54.89W | g | GLOR01MV |

**** Personnel ****

| # | *****NAME***** | *****TITLE***** | *****AFFILIATION***** | **CRID** |
|------|------------------|-----------------|-----------------------|----------|
| PECS | MPL Lonsdale, P. | Chief Scientist | Scripps Institution | GLOR01MV |
| PEVL | VOL Goepfert, L. | Volunteer | Non-SIO employee | GLOR01MV |
| PEHT | SCG Heckman, E. | Computer Tech | Scripps Institution | GLOR01MV |
| PEVL | VOL Lord, J. | Volunteer | Non-SIO employee | GLOR01MV |
| PEVL | VOL Mattson, J. | Volunteer | Non-SIO employee | GLOR01MV |
| PEVL | VOL Mattioda, J. | Volunteer | Non-SIO employee | GLOR01MV |
| PECT | SCG Moe, R. | Computer Tech | Scripps Institution | GLOR01MV |
| PERT | STS Mogk, S. | Resident Tech | Scripps Institution | GLOR01MV |

**** NOTES ***

#An 'X' in the (B)egin/(E)nd column following the sample code indicates no #sample or data recovered. A 'C' indicates continuation of data collection #from before the beginning or after the end of a particular leg. (Moored #bottom instruments, for example.) The number appearing in the columns #between the sample identifier and the disposition code, for many sample #entries, is the water depth in corrected meters.

| #GMT #TIME | DDMMYY DATE | LOC TIME | T Z | SAMP CODE | SAMPLE IDENTIFIER | DISP CODE | LAT. (TENTHS OF MINS) | LONG. (TENTHS OF MINS) | CRUISE LEG-SHIP |
|--|----------------|-------------|--------|--------------|----------------------|--------------|--------------------------|---------------------------|--------------------|
| *** Underway Data Curator - S. M. Smith ext. 42752 *** | | | | | | | | | |
| *** Log Books *** | | | | | | | | | |
| 1845 | 061092 | 0 | LBUW | B | Underway log book | GDC | 32-13.66N | 117-32.70W | g GLOR01MV |
| 1240 | 011192 | 0 | LBUW | E | Underway log book | GDC | 16-45.81N | 99-54.89W | g GLOR01MV |
| *** Sea Beam and Side Scan Monitor *** | | | | | | | | | |
| 1845 | 061092 | 0 | MBSR | B | SB Sidescan roll 01 | GDC | 32-13.66N | 117-32.70W | g GLOR01MV |
| 2135 | 101092 | 0 | MBSR | E | SB Sidescan roll 01 | GDC | 24-46.90N | 123-24.79W | g GLOR01MV |
| 2135 | 101092 | 0 | MBSR | B | SB Sidescan roll 02 | GDC | 24-46.90N | 123-24.79W | g GLOR01MV |
| 0245 | 161092 | 0 | MBSR | E | SB Sidescan roll 02 | GDC | 17-13.14N | 114-10.82W | g GLOR01MV |
| 0245 | 161092 | 0 | MBSR | B | SB Sidescan roll 03 | GDC | 17-13.14N | 114-10.82W | g GLOR01MV |
| 0651 | 191092 | 0 | MBSR | E | SB Sidescan roll 03 | GDC | 11-54.03N | 106-25.40W | g GLOR01MV |
| 0653 | 191092 | 0 | MBSR | B | SB Sidescan roll 04 | GDC | 11-54.28N | 106-25.03W | g GLOR01MV |
| 0500 | 261092 | 0 | MBSR | E | SB Sidescan roll 04 | GDC | 2-15.20N | 102-14.00W | g GLOR01MV |
| 0500 | 261092 | 0 | MBSR | B | SB Sidescan roll 05 | GDC | 2-15.20N | 102-14.00W | g GLOR01MV |
| 2145 | 291092 | 0 | MBSR | E | SB Sidescan roll 05 | GDC | 10-00.32N | 100-43.04W | g GLOR01MV |
| 2145 | 291092 | 0 | MBSR | B | SB Sidescan roll 06 | GDC | 10-00.32N | 100-43.04W | g GLOR01MV |
| 1235 | 011192 | 0 | MBSR | E | SB Sidescan roll 06 | GDC | 16-45.05N | 99-55.14W | g GLOR01MV |
| *** Echo Sounder Records *** | | | | | | | | | |
| 1708 | 091092 | 0 | DPR3 | B | 3.5khz r-01 | GDC | 26-41.97N | 124-32.79W | g GLOR01MV |
| 0959 | 221092 | 0 | DPR3 | E | 3.5khz r-01 | GDC | 10-11.54N | 110-48.53W | g GLOR01MV |
| 1014 | 221092 | 0 | DPR3 | B | 3.5khz r-02 | GDC | 10-08.53N | 110-49.32W | g GLOR01MV |
| 1800 | 241092 | 0 | DPR3 | E | 3.5khz r-02 | GDC | 3-48.38N | 104-22.82W | g GLOR01MV |
| 1801 | 241092 | 0 | DPR3 | B | 3.5khz r-03 | GDC | 3-48.21N | 104-22.71W | g GLOR01MV |
| 1540 | 261092 | 0 | DPR3 | E | 3.5khz r-03 | GDC | 2-26.57N | 102-26.48W | g GLOR01MV |
| 1543 | 261092 | 0 | DPR3 | B | 3.5khz r-04 | GDC | 2-26.81N | 102-25.94W | g GLOR01MV |
| 2220 | 291092 | 0 | DPR3 | E | 3.5khz r-04 | GDC | 10-06.98N | 100-40.01W | g GLOR01MV |
| 2222 | 291092 | 0 | DPR3 | B | 3.5khz r-05 | GDC | 10-07.34N | 100-39.79W | g GLOR01MV |
| 0342 | 311092 | 0 | DPR3 | E | 3.5khz r-05 | GDC | 11-43.29N | 98-08.83W | g GLOR01MV |

| #GMT #TIME | DMMYY DATE | LOC TIME | T Z | SAMP CODE | SAMPLE IDENTIFIER | DISP CODE | LAT. (TENTHS | LONG. OF MINS) | CRUISE LEG-SHIP |
|---------------|---------------|-------------|--------|--------------|----------------------|--------------|-----------------|-------------------|--------------------|
|---------------|---------------|-------------|--------|--------------|----------------------|--------------|-----------------|-------------------|--------------------|

*** Magnetics (Earth Total Field) Records ***

| | | | | | | | | | |
|------|--------|---|------|---|----------------|-----|-----------|------------|------------|
| 1419 | 071092 | 0 | MGRA | B | Magnetics r-01 | GDC | 30-19.38N | 119-36.71W | g GLOR01MV |
| 1530 | 131092 | 0 | MGRA | E | Magnetics r-01 | GDC | 18-20.87N | 119-48.04W | g GLOR01MV |
| 1534 | 131092 | 0 | MGRA | B | Magnetics r-02 | GDC | 18-20.86N | 119-48.89W | g GLOR01MV |
| 0022 | 211092 | 0 | MGRA | E | Magnetics r-02 | GDC | 13-29.24N | 110-22.81W | g GLOR01MV |
| 0026 | 211092 | 0 | MGRA | B | Magnetics r-03 | GDC | 13-28.46N | 110-22.49W | g GLOR01MV |
| 1546 | 281092 | 0 | MGRA | E | Magnetics r-03 | GDC | 8-46.12N | 101-24.97W | g GLOR01MV |
| 1552 | 281092 | 0 | MGRA | B | Magnetics r-04 | GDC | 8-46.82N | 101-25.92W | g GLOR01MV |
| 1027 | 011192 | 0 | MGRA | E | Magnetics r-04 | GDC | 16-24.51N | 100-01.72W | g GLOR01MV |

*** Seismic Reflection ***

| | | | | | | | | | |
|------|--------|---|------|---|--------------------|-----|-----------|------------|------------|
| 1710 | 091092 | 0 | SPRF | B | Airgun (2Sec) r-01 | GDC | 26-42.33N | 124-32.96W | g GLOR01MV |
| 1922 | 091092 | 0 | SPRF | E | Airgun (2Sec) r-01 | GDC | 26-59.82N | 124-48.75W | g GLOR01MV |
| 1119 | 211092 | 0 | SPRF | B | Airgun (2Sec) r-02 | GDC | 12-06.68N | 109-41.96W | g GLOR01MV |
| 2312 | 211092 | 0 | SPRF | E | Airgun (2Sec) r-02 | GDC | 11-36.37N | 111-39.94W | g GLOR01MV |
| 1708 | 091092 | 0 | SPRS | B | Airgun (4Sec) r-01 | GDC | 26-41.97N | 124-32.79W | g GLOR01MV |
| 1922 | 091092 | 0 | SPRS | E | Airgun (4Sec) r-01 | GDC | 26-59.82N | 124-48.75W | g GLOR01MV |
| 1119 | 211092 | 0 | SPRS | B | Airgun (4Sec) r-02 | GDC | 12-06.68N | 109-41.96W | g GLOR01MV |
| 2312 | 211092 | 0 | SPRS | E | Airgun (4Sec) r-02 | GDC | 11-36.37N | 111-39.94W | g GLOR01MV |

*** End Sample Index GLOR01MV