# REPORT AND INDEX OF

# *UNDERWAY MARINE GEOPHYSICAL DATA*

## ENCORE EXPEDITION

## LEG 2

R/V Thomas Washington

(Issued July 1992)

Manzanillo, Mexico (9 May 1992)
to
San Diego, California (14 May 1992)

Chief Scientist:

Peter Lonsdale (Scripps Institution of Oceanography)

Resident Marine Technician - John Boaz

Computer Technician - George Bouchard

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 OCE91-03919



GDC Cruise I.D.# 257

# 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&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 Sea Beam Data Information

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

1) Archive copy of contour swath books generated in real time on board ship available for inspection at the data center.

2) Microfilm (35mm flowfilm) containing swath books plus, for some cruises, the Sea Beam monitor record and navigation list.

3) Sea Beam merged tapes - Sea Beam data merged with navigation. (Navigation is edited to the extent that DR courses and speeds are edited and poor fixes are removed after inspection of drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping Sea Beam swaths.)

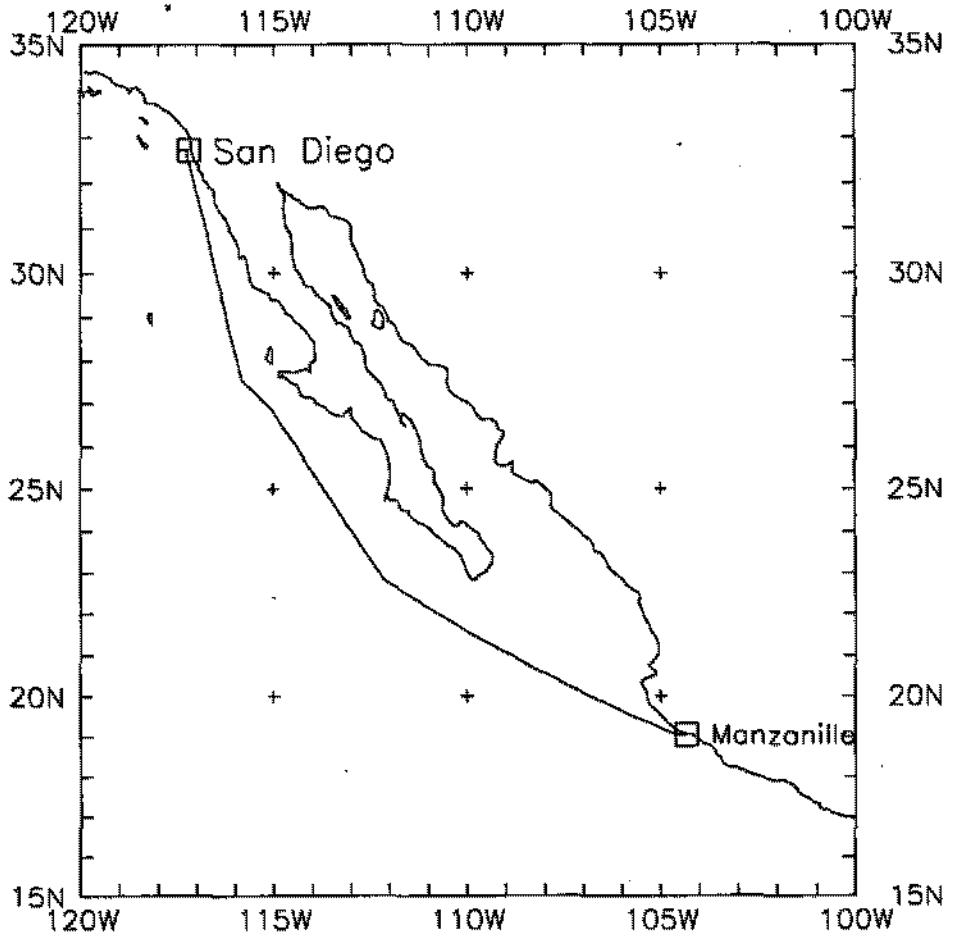
4) Archive contour plots - 16"/degree chart scale, with contour interval nominally 50m, are generated for all transit lines. Some survey areas are plotted at appropriate scales as well. Available for inspection at data center; additional copies may be generated from plot files stored on tape.

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 October 1986

NOTE: Sea Beam data collection and processing were not funded by extramural grants on this leg. Instead, they have been collected and processed in "transit mode" by the SIO Shipboard Technical Support group as part of an experimental program to optimize ship usage and to increase the amount of available Sea Beam data. At this time, policies for processing these data are under review. For more information, contact the Geological Data Center curator.

April 1989



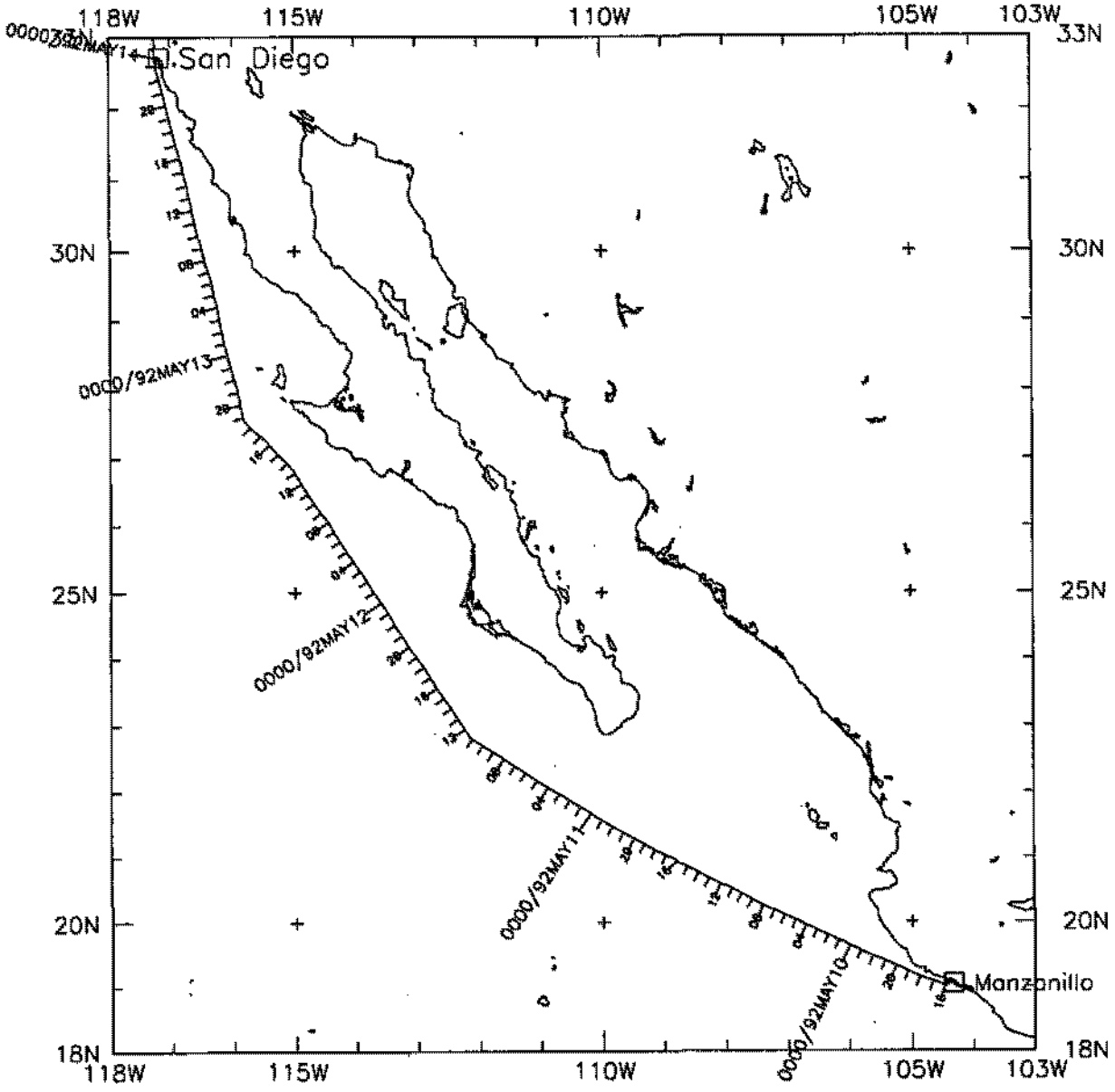

ENCORE Leg 2 (ENCR02WT)

## ENCORE EXPEDITION LEG 2

CHIEF SCIENTIST: Peter Lonsdale
Scripps Institution of Oceanography
*PORTS: Manzanillo, Mexico - San Diego*
DATES: 9 - 14 May 1992
SHIP: R/V T. Washington

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 1166 miles
Bathymetry - 1126 miles
Sea Beam - 1126 miles
Magnetics - 811 miles
Seismic Reflection - none collected
Gravity - collected by Marine Physical Lab




ENCORE Leg 2 (ENCR02WT)

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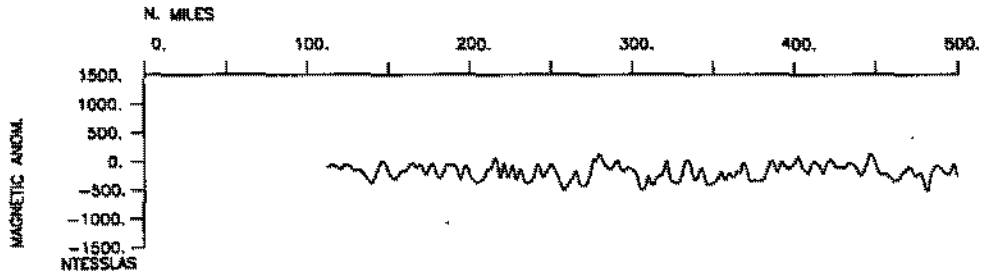
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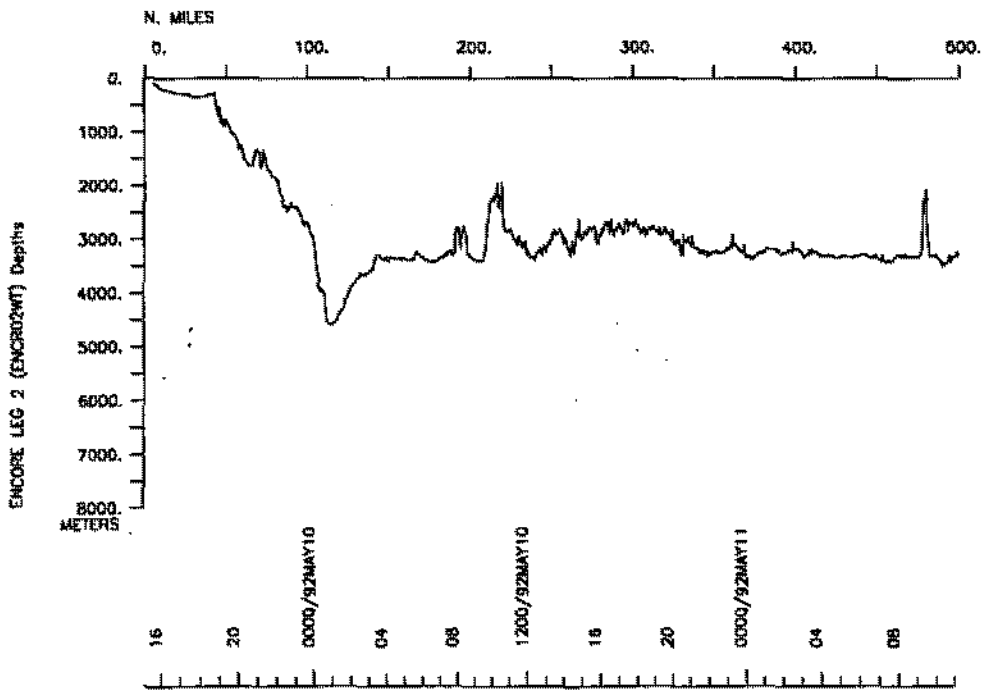
100.
200.
300.
400.
500.
1500.
1000.
500.
0.
-500.
-1000.
-1500.
NTESSLAS
MAGNETIC ANOM.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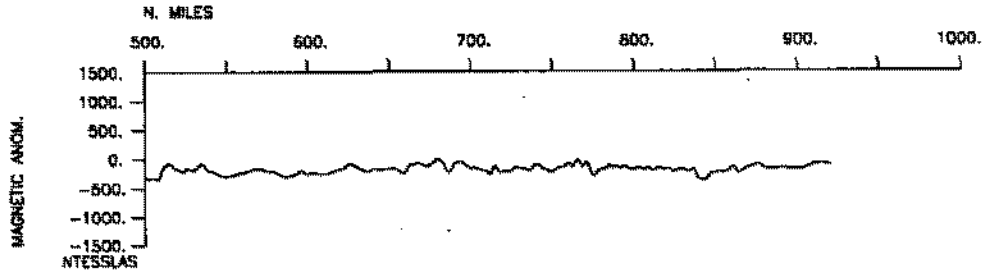
300.
400.
500.
0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
METERS
ENCORE LEG 2 (ENCR02WT) Depths
16
20
0000/92MAY10
04
08
1200/92MAY10
16
20
0000/92MAY11
04
08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700.
800.
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1500.
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0.
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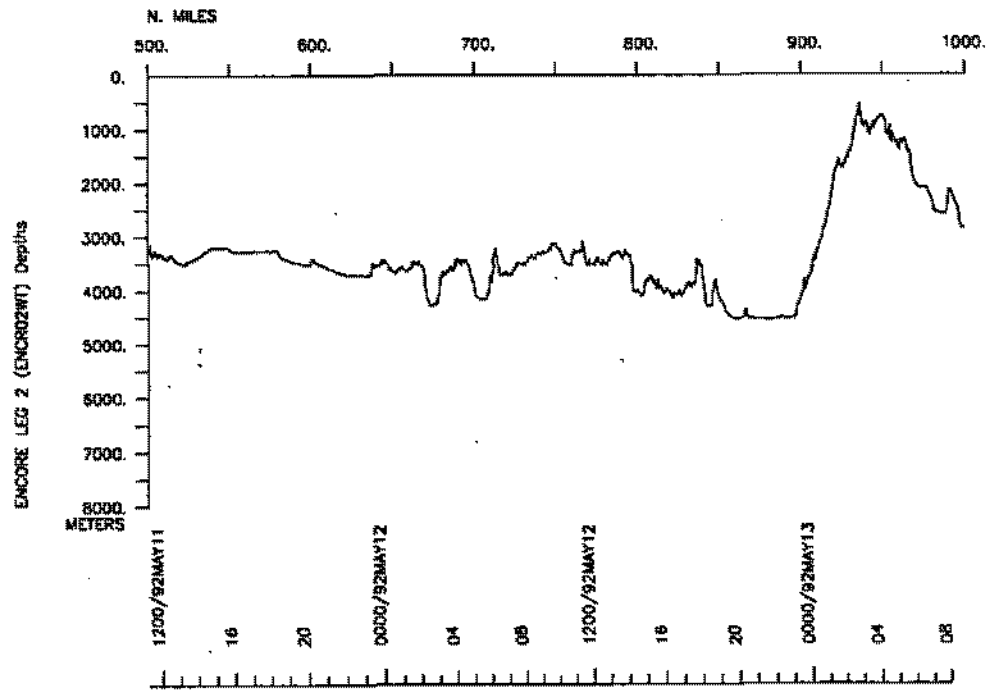
NTESSLAS
MAGNETIC ANOM.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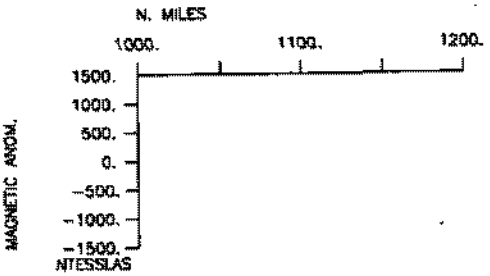
600.
700.
800.
900.
1000.
0.
1000.
2000.
3000.
4000.
5000.
6000.
7000.
8000.
METERS
ENCORE LEG 2 (ENCR02WI) Depths
1200/92MAY11
16
20
0000/92MAY12
04
08
1200/92MAY12
16
20
0000/92MAY13
04
08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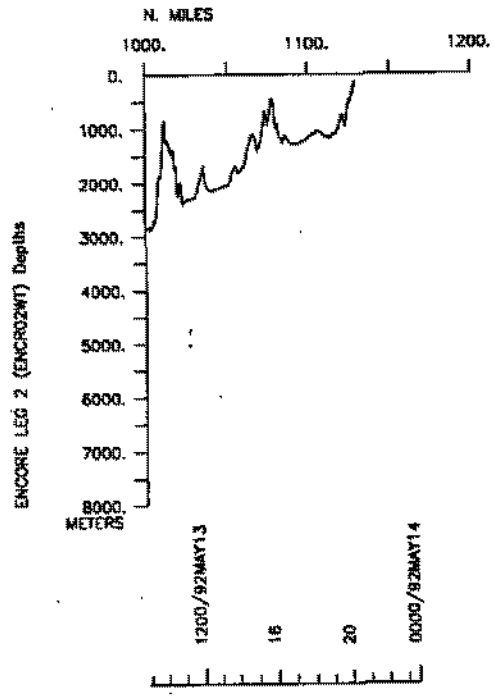
-1500.
NTESSLAS
MAGNETIC ANOM.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1100.
1200.
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2000.
3000.
4000.
5000.
6000.
7000.
8000.
METERS
ENCORE LEG 2 (ENCR02WT) Depths
1200/92MAY13
15
20
0000/92MAY14

# S.I.O. SAMPLE INDEX

(Issued July 1992)

## ENCORE EXPEDITION

**Leg 2**

R/V T. Washington

Manzanillo, Mexico (9 May 1992)
to
San Diego, California (14 May 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.# 257*

#*** Ports ***

| | | | |
|---|---|---|---|
| 1500 090592 | LGPT B Manzanillo, Mexico | 19-03 N 104-20 W | fENCR02WT |
| 0030 140592 | LGPT E San Diego, Ca. | 32-43 N 117-11 W | fENCR02WT |

#*** Personnel ***

| # ********NAME******** | ******TITLE****** | *****AFFILIATION**** | **CRID** |
|---|---|---|---|
| PECS MPL Lonsdale,P. | Chief Scientist | Scripps Institution | ENCR02WT |
| PERT STS Boaz,J. | Resident Tech | Scripps Institution | ENCR02WT |
| PECT STS Bouchard,G. | Computer Tech | Scripps Institution | ENCR02WT |
| PESP MPL Grittith,J. | Illustrator | Scripps Institution | ENCR02WT |
| PESP MPL Kennedy,B. | Secretary | Scripps Institution | ENCR02WT |

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

#*** Underway Data Curator - S. M. Smith  ext. 42752 ***


#*** No Log Books ***

#*** Sea Beam Swath Books ***

1600 090592         MBSB B SeaBeam swath book 01 GDC 19-011N 104-282W sENCR02WT
1035 100592         MBSB E SeaBeam swath book 01 GDC 20-291N 107-500W sENCR02WT

1035 100592         MBSB B SeaBeam swath book 02 GDC 20-291N 107-500W sENCR02WT
2038 110592         MBSB E SeaBeam swath book 02 GDC 24-174N 113-127W sENCR02WT

2038 110592         MBSB B SeaBeam swath book 03 GDC 24-174N 113-127W sENCR02WT
0118 130592         MBSB E SeaBeam swath book 03 GDC 28-434N 116-098W sENCR02WT


#*** Echo Sounder Records ***

1600 090592         MBMR B SeaBeam monitor 01    GDC 19-011N 104-282W sENCR02WT
0019 130592         MBMR E SeaBeam monitor 01    GDC 28-332N 116-068W sENCR02WT

0021 130592         MBMR B SeaBeam monitor 02    GDC 28-336N 116-069W sENCR02WT
 118 130592         MBMR E SeaBeam monitor 02    GDC 28-434N 116-098W sENCR02WT


1600 090592         DPR3 B 3.5 kHz r-01          GDC 19-011N 104-282W sENCR02WT
0051 100592         DPR3 E 3.5 kHz r-01          GDC 19-427N 106-090W sENCR02WT


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

2200 090592         MGRA B Magnetics r-01        GDC 19-283N 105-380W sENCR02WT
0118 130592         MGRA E Magnetics r-01        GDC 28-434N 116-098W sENCR02WT


#*** Shipboard Gravimeter ***
#** Gravity collected by J. Hildebrand (ext.44069) on Lacoste-Romberg
#** gravitymeter instead of on STS Bell gravitymeter.

1600 090592         GVCR B Shipboard gravity     MPL 19-011N 104-282W sENCR02WT
0030 140592         GVCR E Shipboard gravity     MPL 32-424N 117-141W sENCR02WT

#                          End Sample Index                          ENCR02WT
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