

REPORT AND INDEX OF
UNDERWAY MARINE GEOPHYSICAL DATA

WESTWARD EXPEDITION

LEG 15

(WEST15MV)

R/V MELVILLE

(Issued November 1995)

Ports:

San Diego, California (11 July 1995)
to
San Diego, California (12 August 1995)

Co-Chief Scientists:

Steve Cande & John Hildebrand (Scripps Institution)

Resident Marine Technician - Seth Mogk

Computer Technician - Todd Porteous

No Underway/SeaBeam Processor on board

Post-Cruise Processing and Report Preparation by the
Geological Data Center, Scripps Institution of Oceanography
La Jolla, California 92093-0223

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 92093-0223

GDC Cruise I.D.# 266

**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 and gravity free air anomaly vs. distance. (Sections of track with seismic reflection data have a wide black line along the bottom of the profile.)

Sample Index - list of begin/end times and positions of all underway records as well as samples and measurements from other disciplines if 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, California 92093-0223.

Phone: (619)534-2752, FAX: (619)534-5306, Internet email: ssmith@ucsd.edu

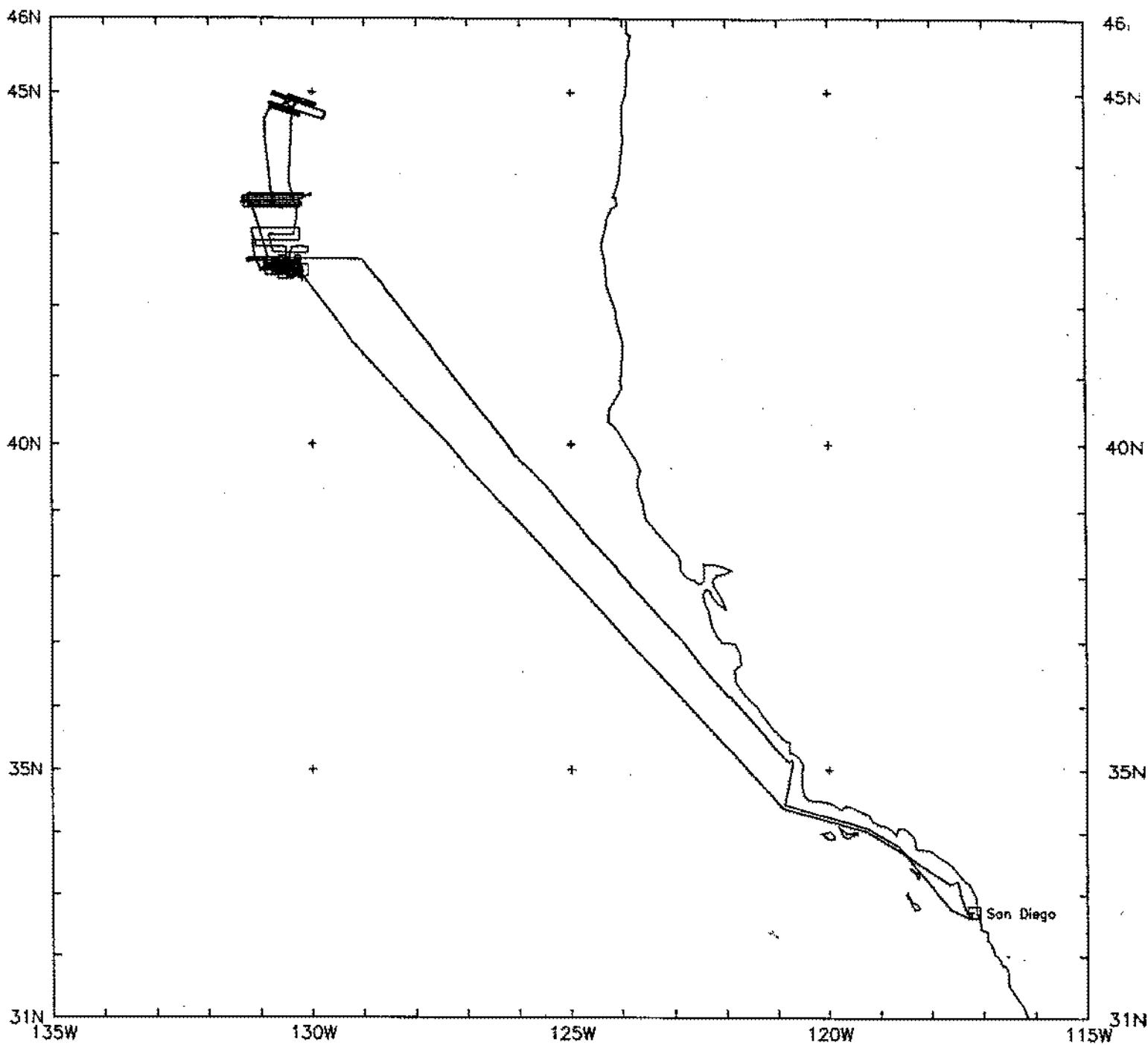
1. Files on Exabyte, DAT or 1/2 inch magnetic tape:
 - a) Separate time series ASCII files of navigation, single beam depth, gravity and magnetics.
 - b) These same data in a merged ASCII file in the MGD77 Exchange Format.
 - c) SeaBeam depth data (binary, Sun byte order) in SIO Swath Bathymetry Format (not available on 1/2" tape).
 - d) SeaBeam Sidescan data (not available on 1/2" tape).
2. Microfilm (35 mm flowfilm) or hard copies of:
 - a) Underway watch log book
 - b) SeaBeam vertical beam profile/Sidescan records.
 - c) Echosounder records - 3.5 kHz frequency.
 - d) Magnetometer records.
 - e) Seismic reflection profiler records.
3. Navigation listing with times and positions of fixes and course and speed changes.
4. Plots:
 - a) Copies of archived track plots.
 - b) Copies of archived SeaBeam contour plots.
 - c) Custom plots in Mercator projection:
 - 1) Track plots.
 - 2) SeaBeam depth contour plots.
 - 3) Depth, magnetic or gravity values printed or profiled along track.

Sea Beam 2000 Data Collected in Ancillary Mode

In the absence of funding for Sea Beam operations on this leg, Sea Beam data were collected in "ancillary mode". In this mode of operation, no Hardware Technician or SB/Underway Processor were on board and the types of realtime records and post-processed data products are reduced from those available under the fully funded mode.

The Sea Beam data remain proprietary to the SIO Shipboard Technical Support Group, not the chief scientist.

May 1993



WESTWARD EXPEDITION LEG 15

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CO-CHIEF SCIENTISTS: Steven Cande and John Hildebrand

Scripps Institution of Oceanography

PORTS: San Diego - San Diego, California

DATES: 11 July - 12 August 1995

SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 4430 miles

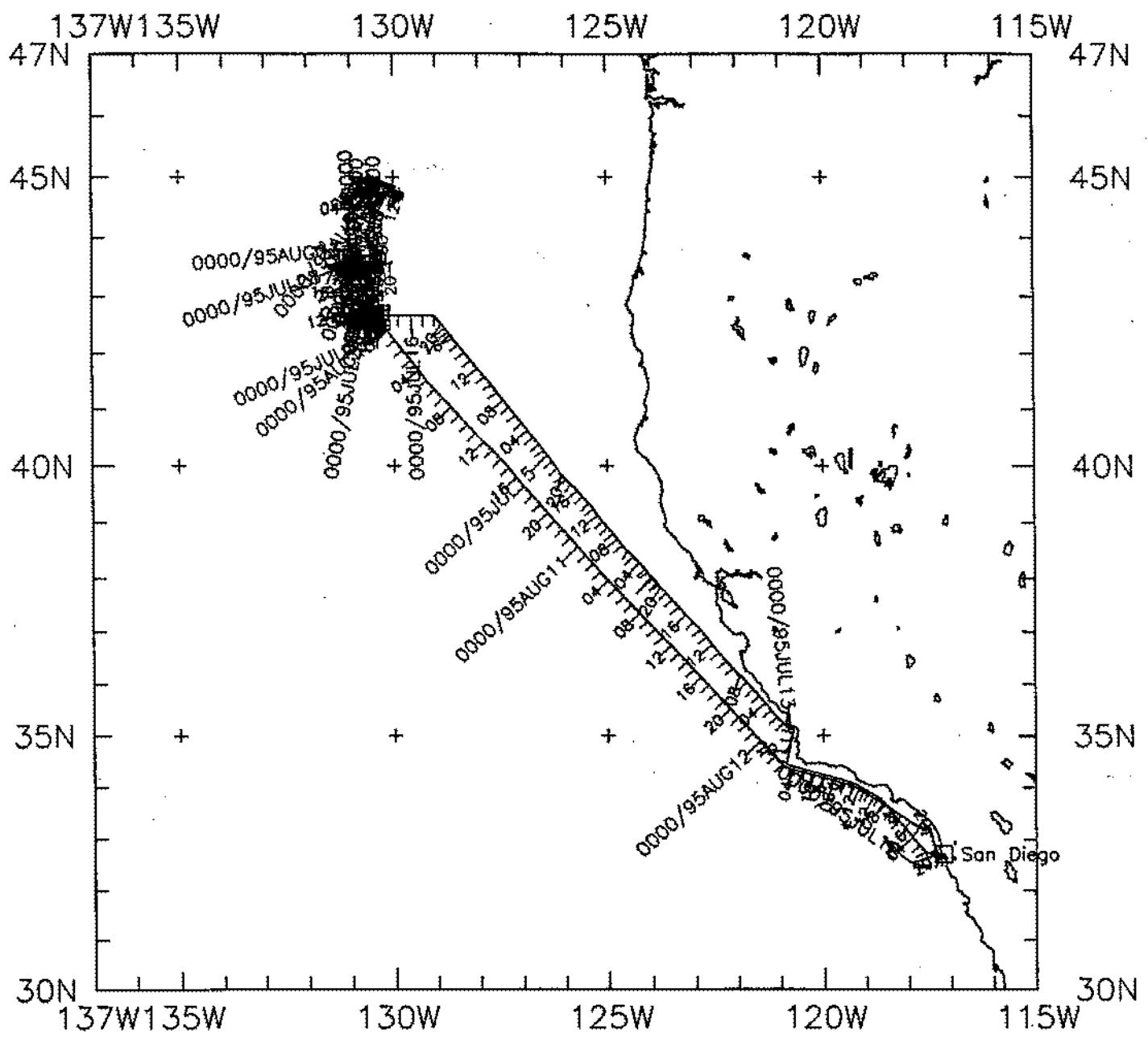
Magnetics - 3247 miles

Bathymetry - 3810 miles

Seismic Reflection - 1860 miles

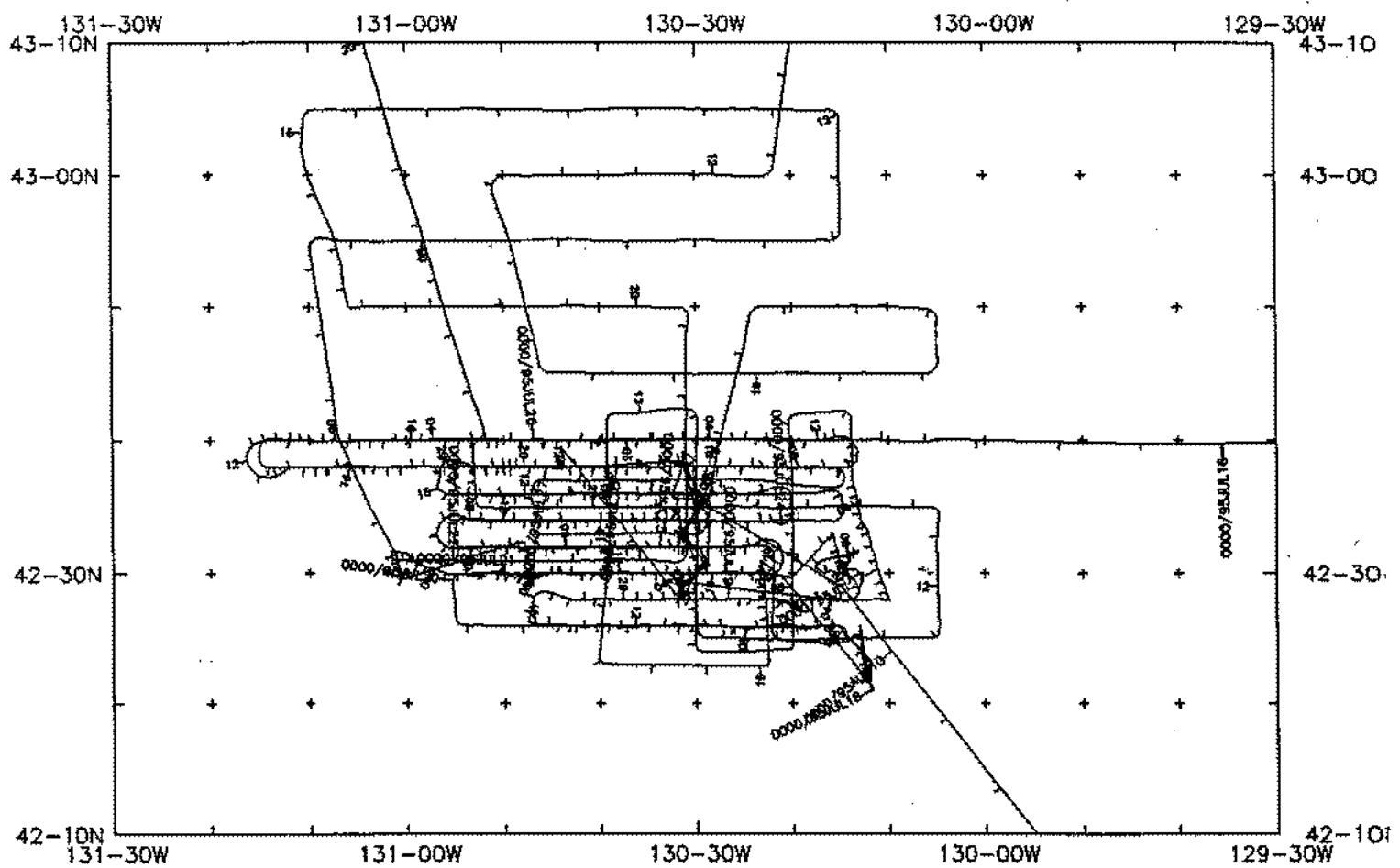
Sea Beam - 3810 miles

Gravity - none collected, meter malfunction

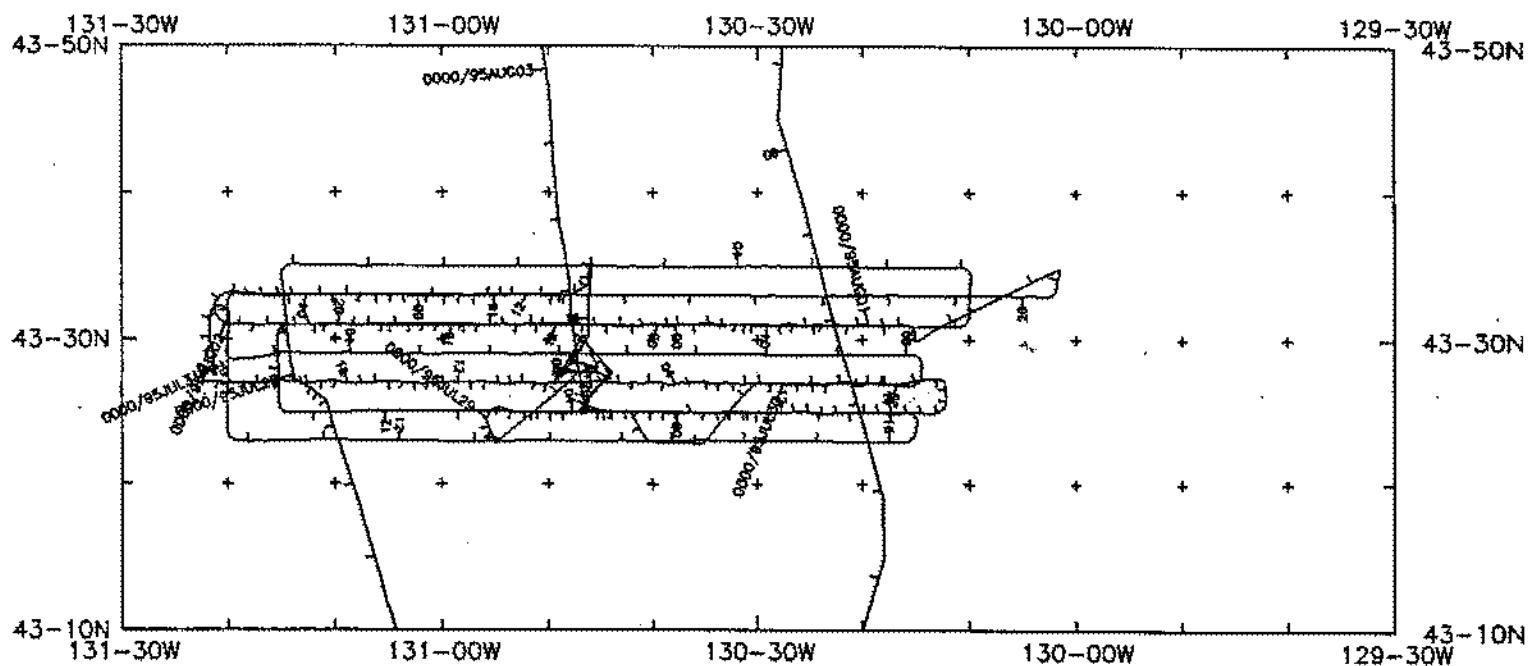


WESTWARD Leg 15 (WEST15MV)

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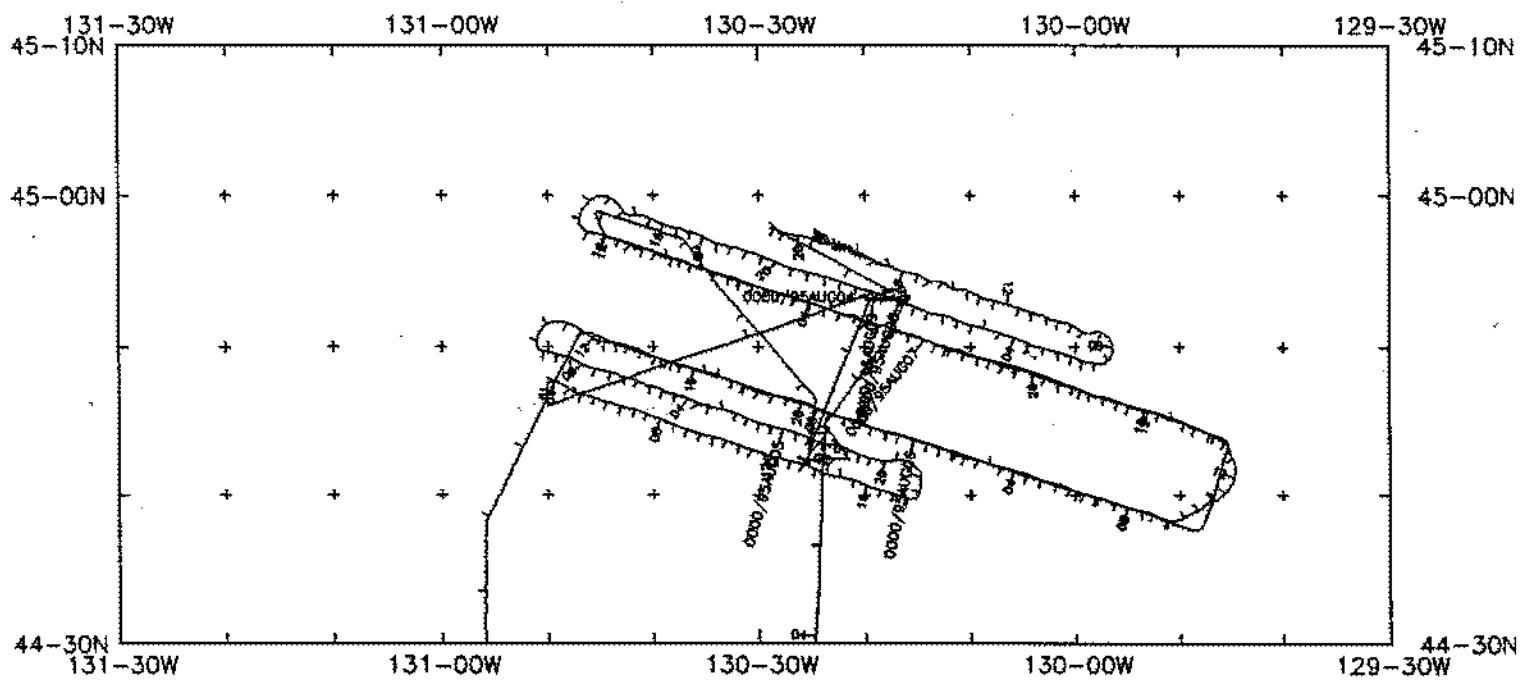


WESTWARD Leg 15 (WEST15MV)
Survey area A



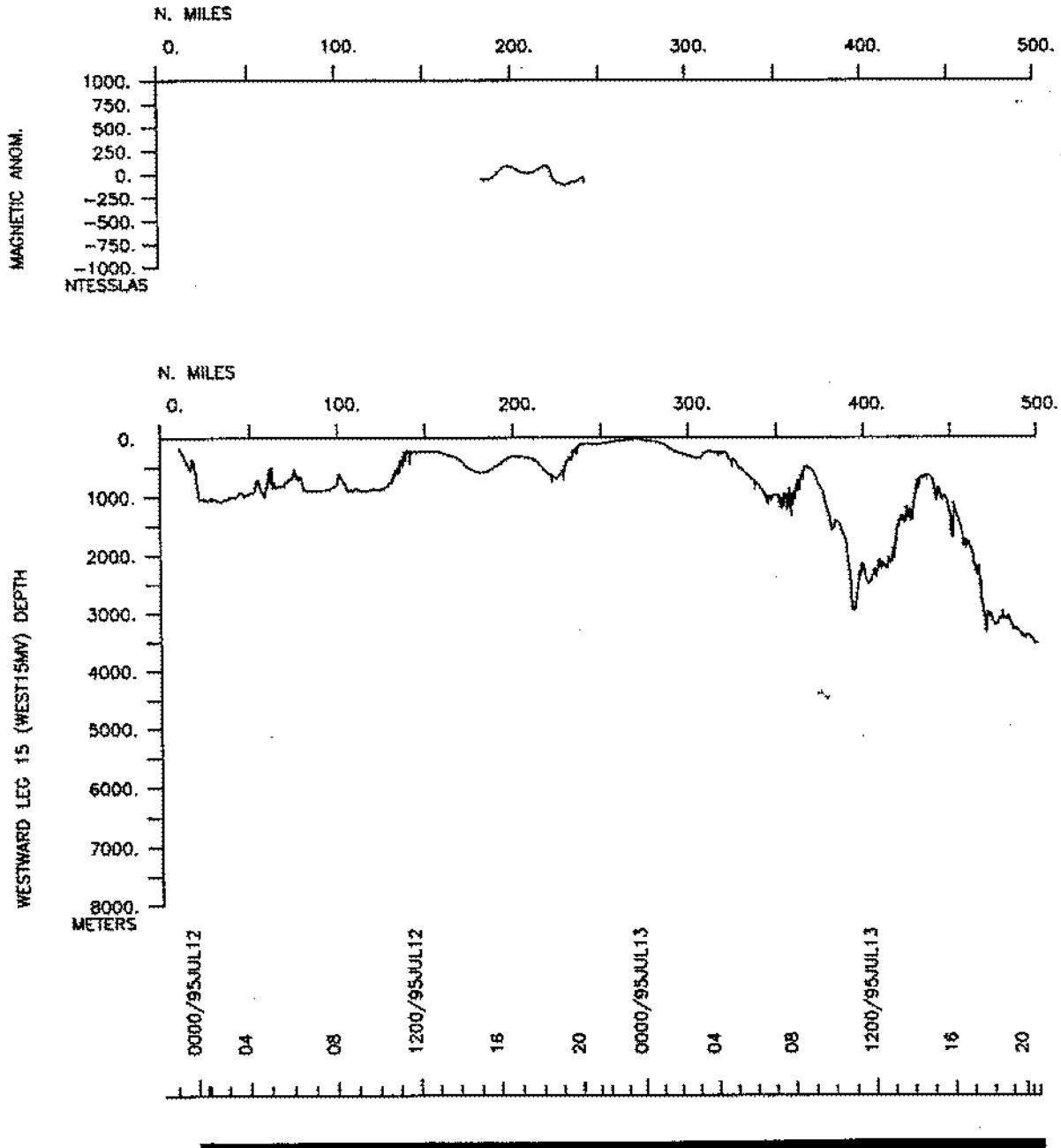
WESTWARD Leg 15 (WEST15MV)
Survey area B

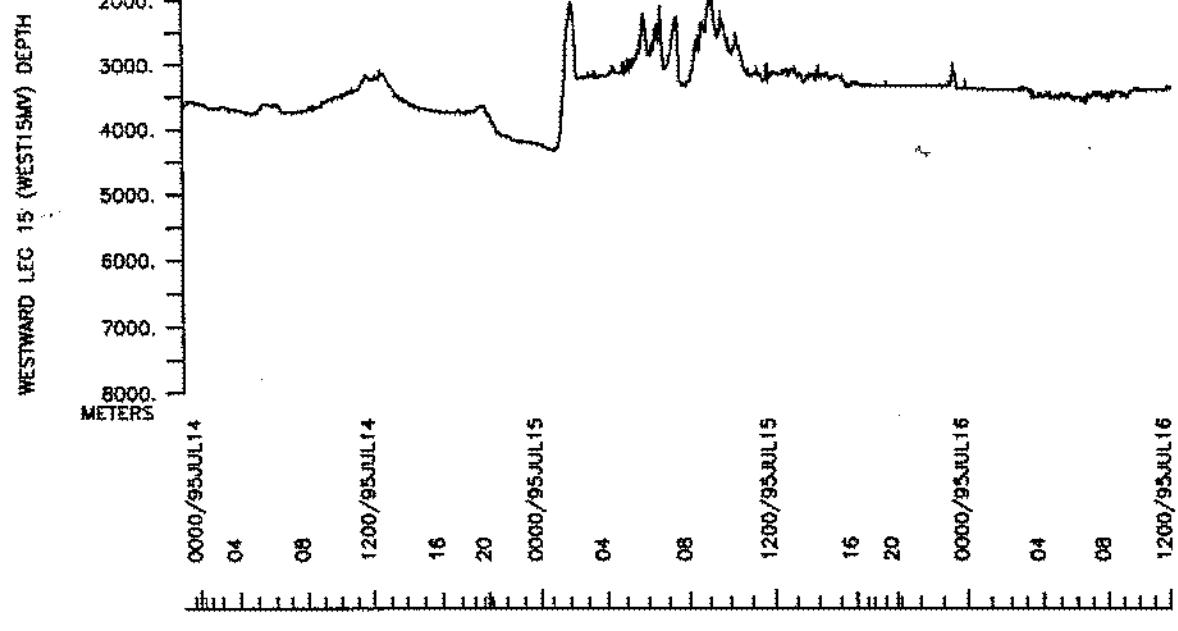
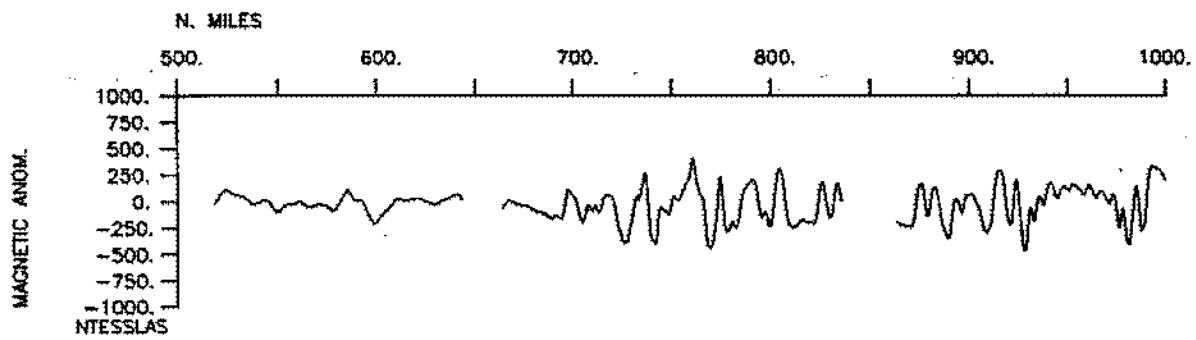
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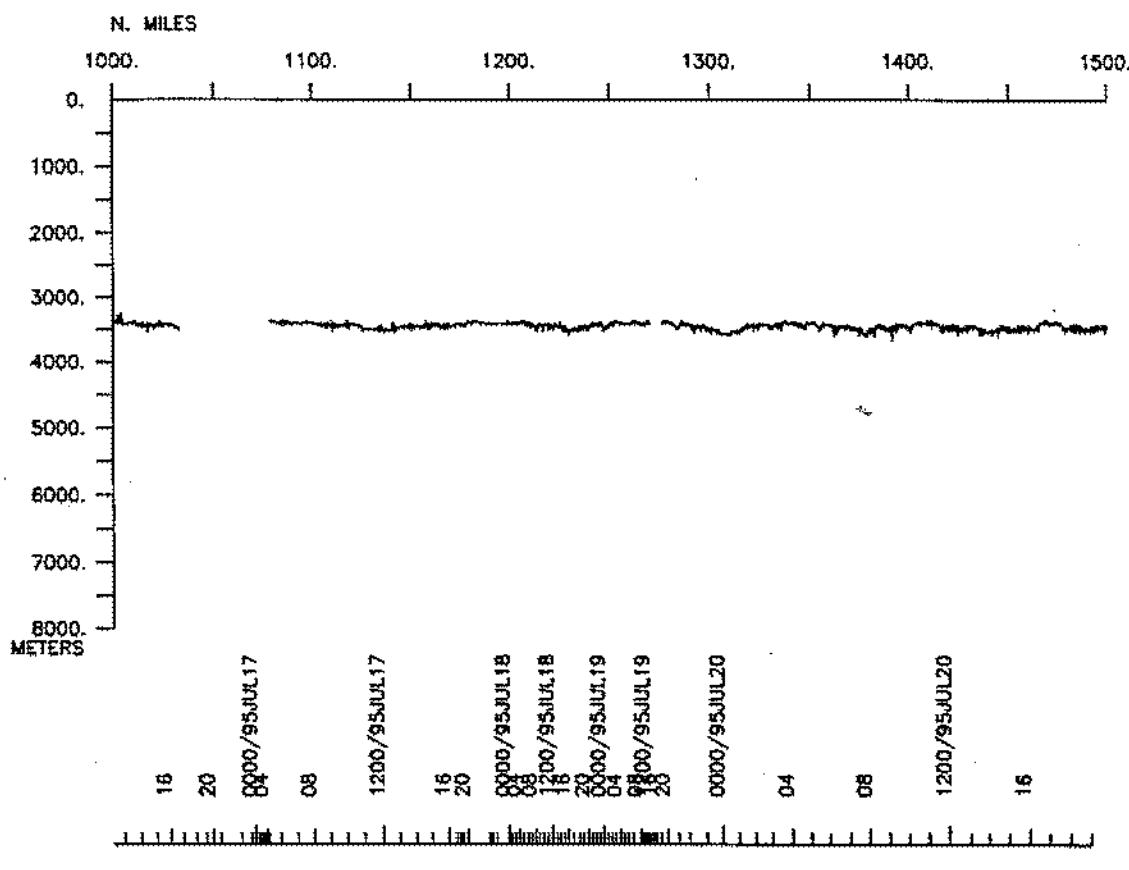
WESTWARD Leg 15 (WEST15MV)
Survey area C

*

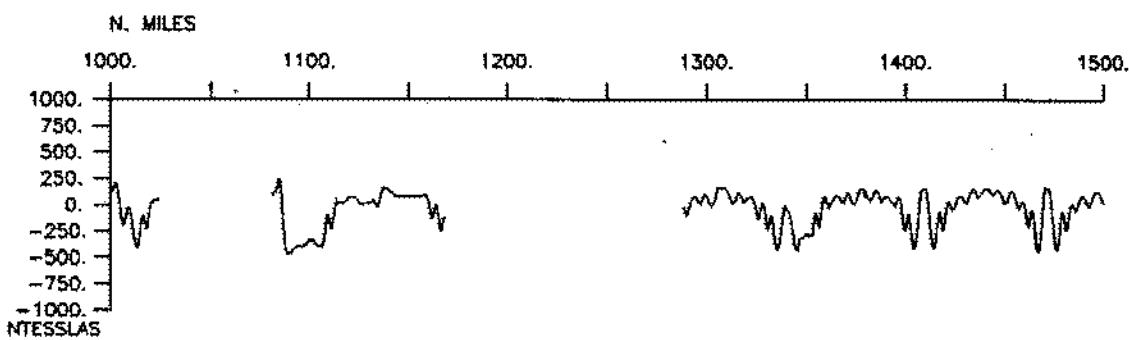


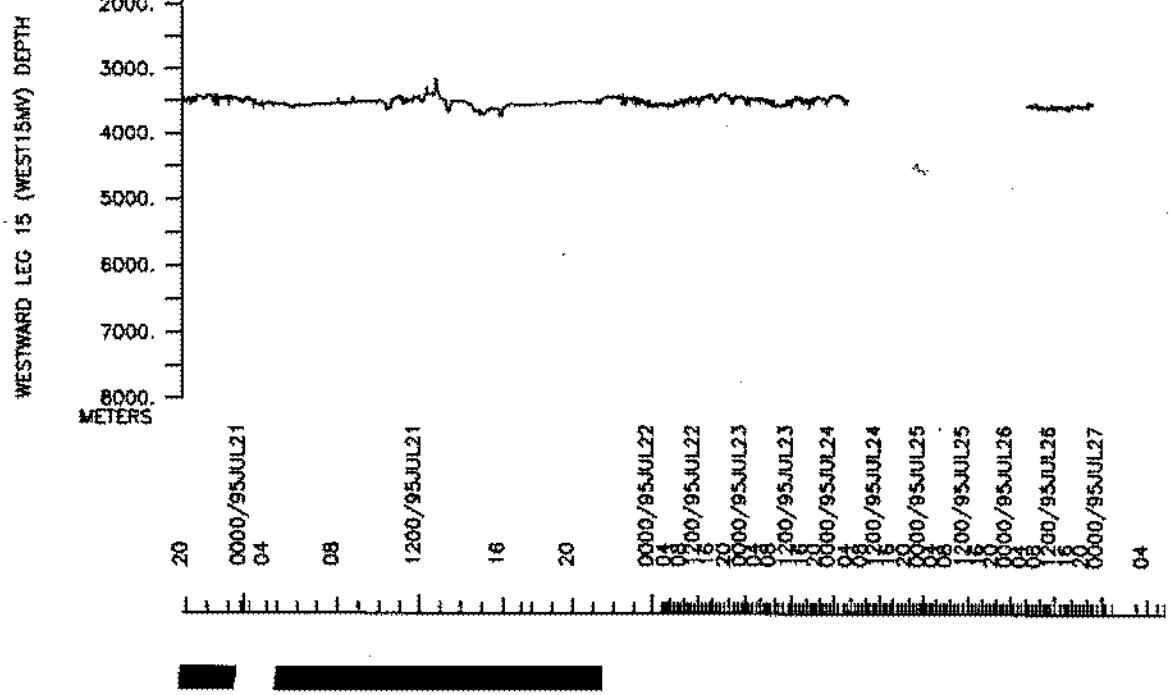
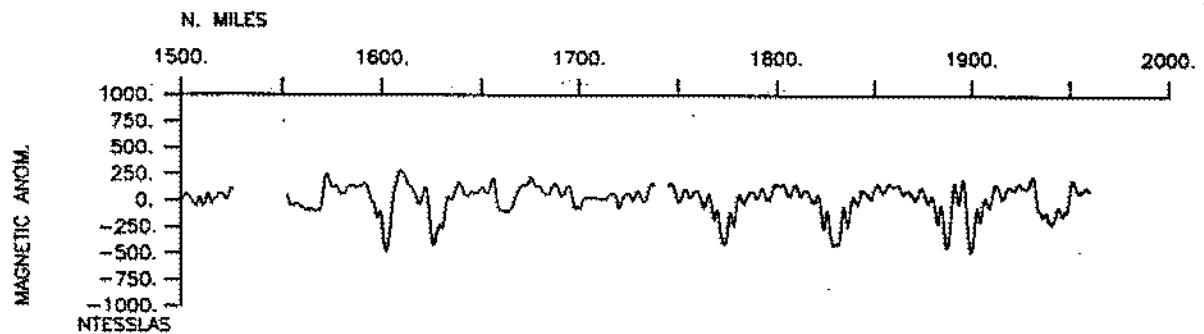


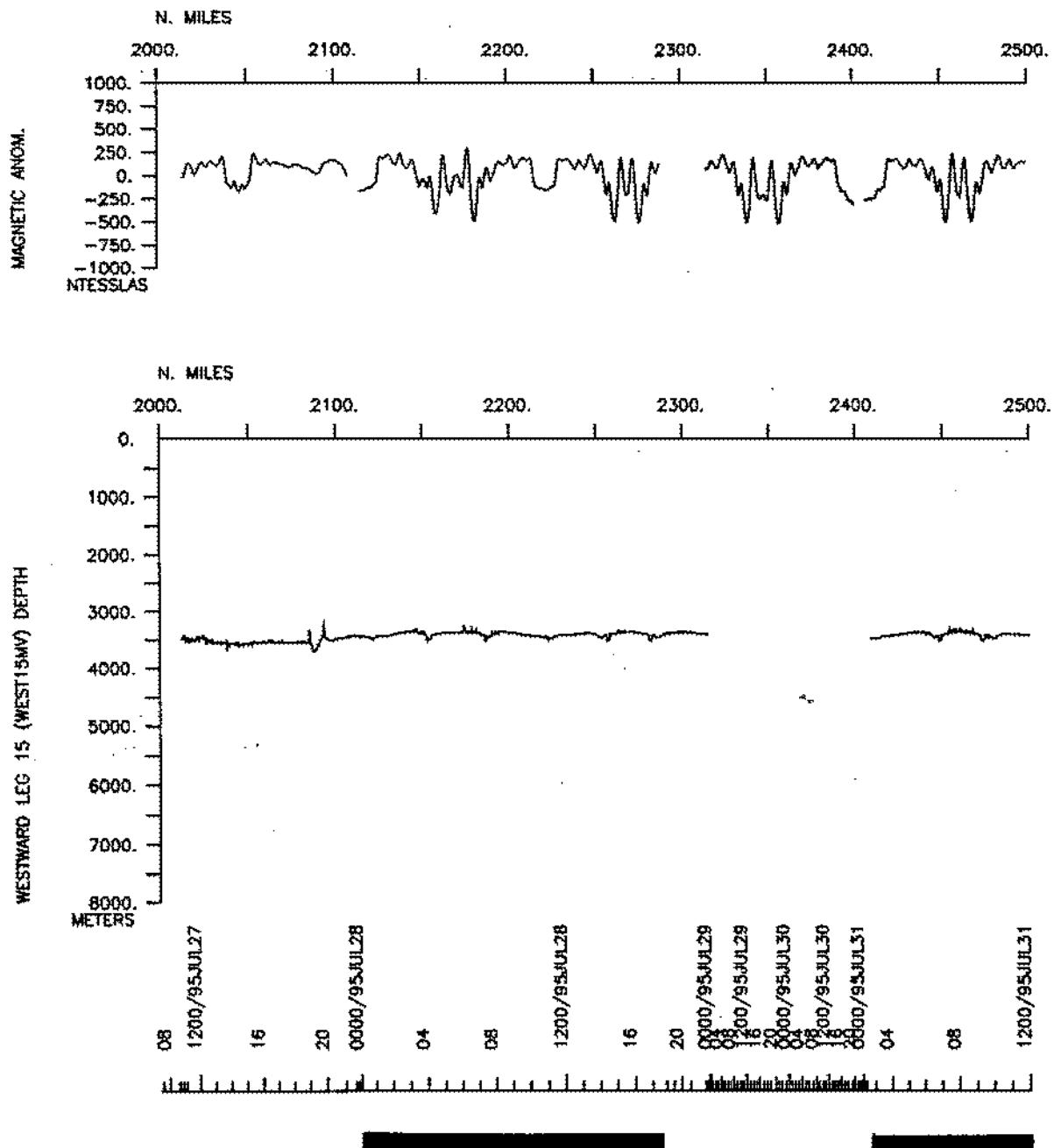
WESTWARD LEG 15 (WEST15MV) DEPTH



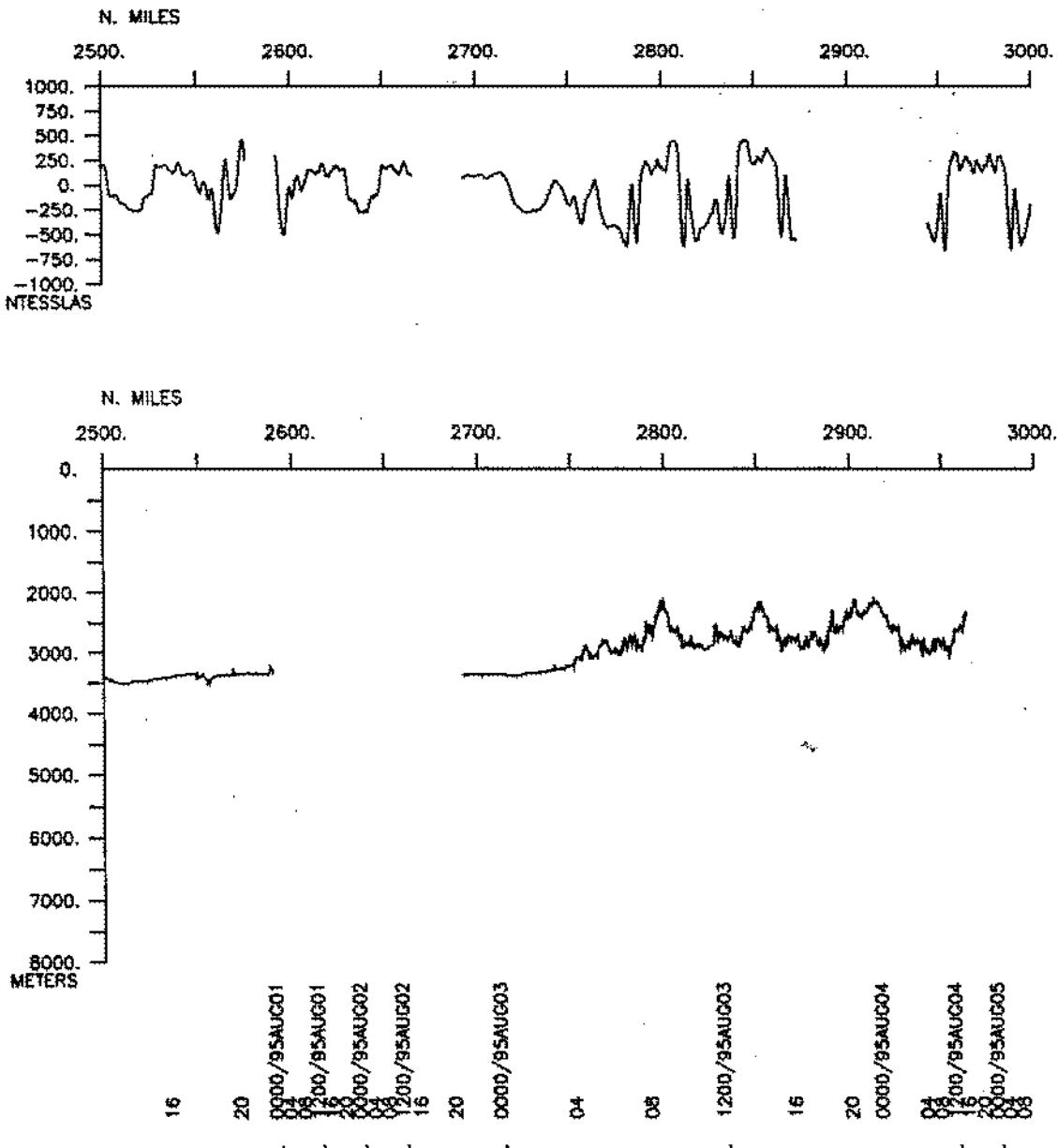
MAGNETIC ANOM.





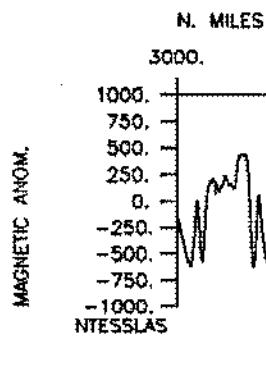
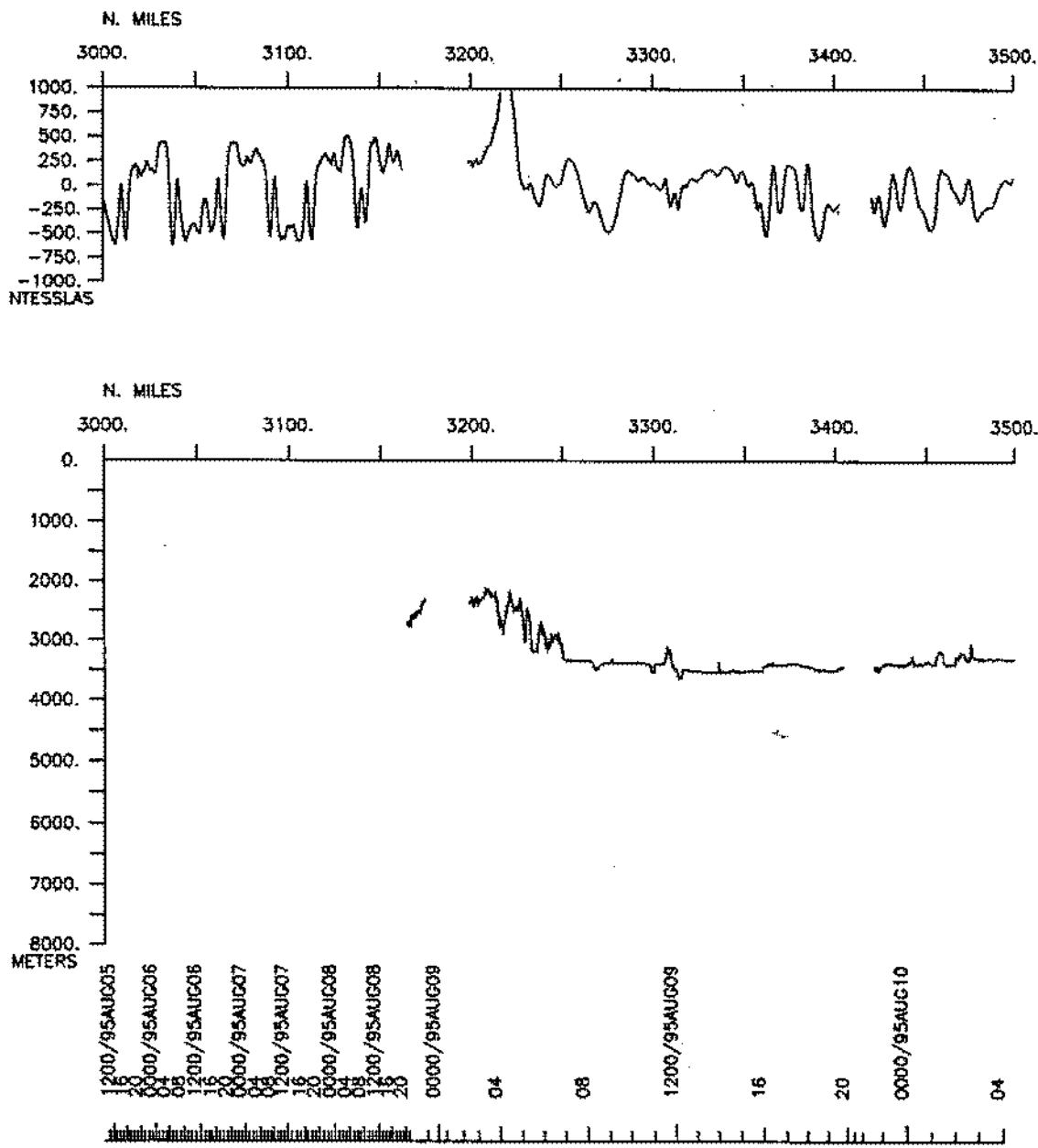


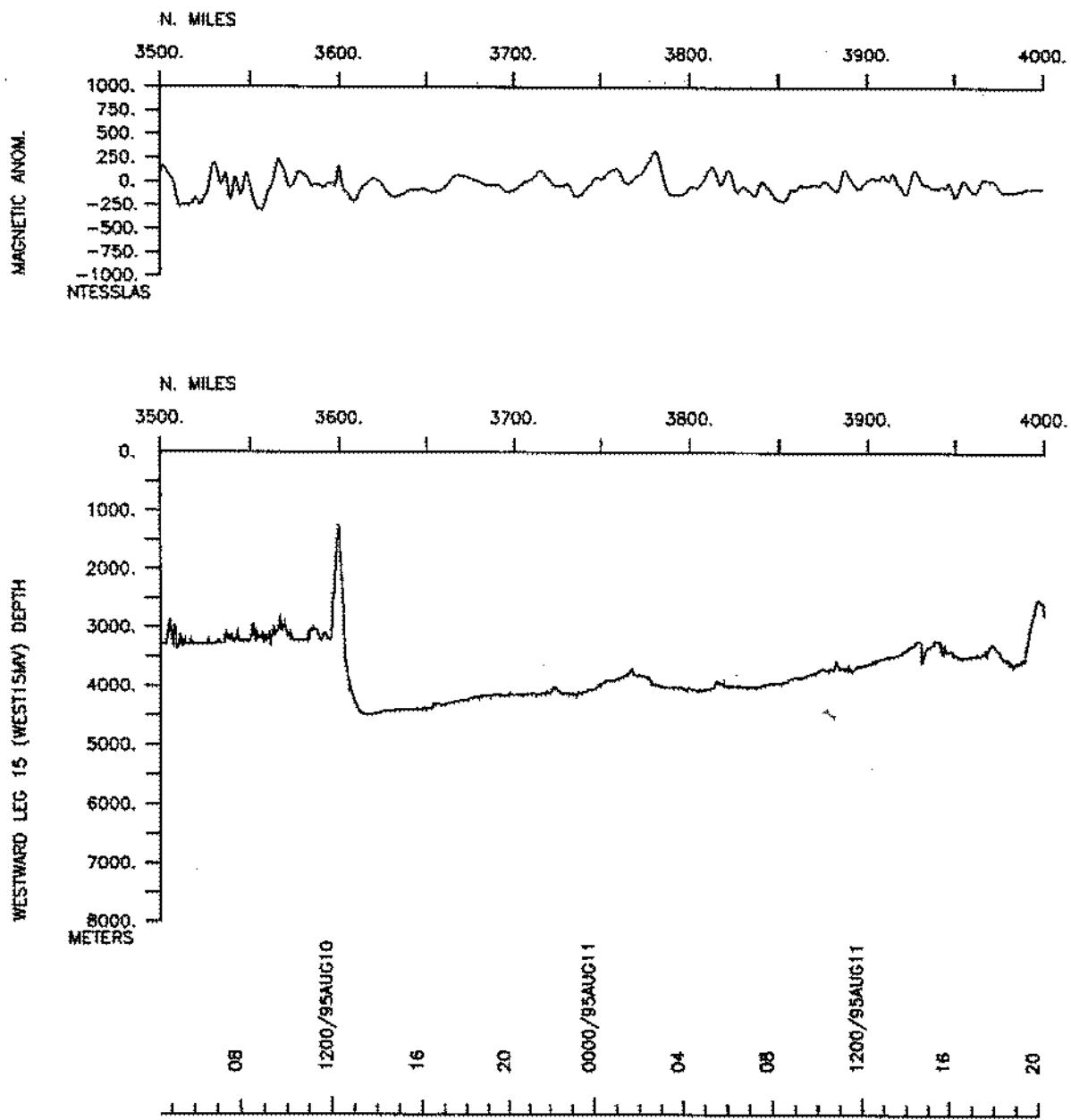
WESTWARD LEG 15 (WEST15MV) DEPTH



WESTWARD LEG 15 (WEST ISMV) DEPTH

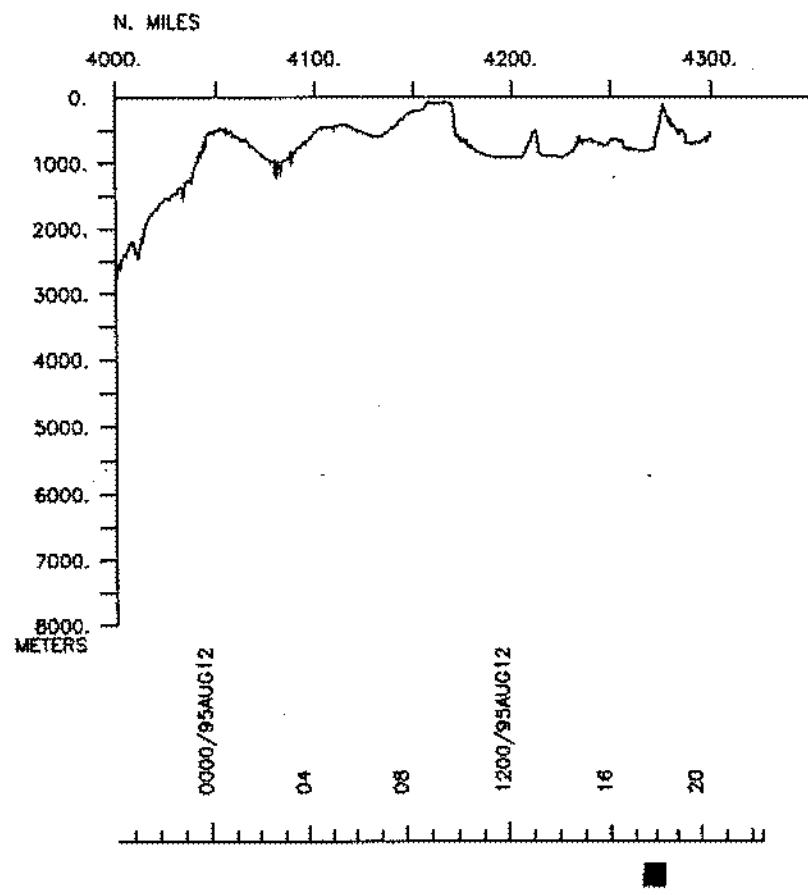
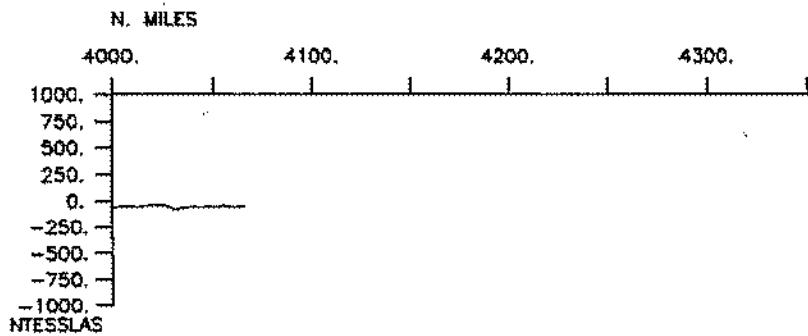
MAGNETIC ANOM.





WESTWARD LEG 15 (WEST15MV) DEPTH

MAGNETIC ANOM.



S.I.O. SAMPLE INDEX

(Issued November 1995)

WESTWARD EXPEDITION

Leg 15

(WEST15MV)

R/V Melville

San Diego, California (11 July 1995)
to
San Diego, California (12 August 1995)

Co-Chief Scientists:

Steve Cande & John Hildebrand (Scripps Institution)

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 future computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 266

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**** Ports ***

1500	110795	0	LGPT B	San Diego, Calif	32-43.00N	177-11.00W	f	WEST15MV
2300	120895	0	LGPT E	San Diego, Calif	32-43.00N	177-11.00W	f	WEST15MV

**** Personnel ***

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
---	----------------	-----------------	-----------------------	----------

PECS GRD	Cande, S.	Chief scientist	Scripps Institution	WEST15MV
PESP MPL	Hildebrand, J.	Co-chief scientist	Scripps Institution	WEST15MV
PESP MPL	Austin, G.	Development tech	Scripps Institution	WEST15MV
PEST IGP	Anderson, G.	Grad student	Scripps Institution	WEST15MV
PEST GRD	Bowers, N.	Grad student	Scripps Institution	WEST15MV
PESP STS	Crampton, P.	Geophys engr	Scripps Institution	WEST15MV
PESP UTK	Fujiwara, T.	Scientist	Univ. of Tokyo	WEST15MV
PEST SIX	Gleason, Z.	Undergrad	Scripps Institution	WEST15MV
PESP STS	Heckman, E.	Hardware tech	Scripps Institution	WEST15MV
PESP MPL	Jabson, D.	Electronic engr	Scripps Institution	WEST15MV
PESP MPL	Lawhead, R.	Programmer	Scripps Institution	WEST15MV
PERT STS	Mogk, S.	Resident tech	Scripps Institution	WEST15MV
PESP MPL	Pavlicek, V.	Electronic engr	Scripps Institution	WEST15MV
PECT STS	Porteous, T.	Computer tech	Scripps Institution	WEST15MV
PESP MPL	Price, D.	Development tech	Scripps Institution	WEST15MV
PESP SIX	Rotem, Z.	Volunteer	Scripps Institution	WEST15MV
PESP SIX	Simpson, J.	Volunteer	Scripps Institution	WEST15MV
PEST GRD	Tikku, A.	Grad student	Scripps Institution	WEST15MV
PESP MPL	Zimmerman, R.	Electronic engr	Scripps Institution	WEST15MV

**** 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.

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#GMT DDMMYY	SAMP	B SAMPLE	DISP	p CRUISE		
#TIME DATE TZ	CODE E	IDENTIFIER	CODE	LATITUDE	LONGITUDE	c LEG-SHIP

**** Underway data curator - S. M. Smith ext. 42752

**** Log books***

1507 110795	0	LBUW B Underway watch log	GDC	32-41.97N	117-14.27W	g	WEST15MV
2300 120895	0	LBUW E Underway watch log	GDC	32-42.39N	117-14.18W	g	WEST15MV
1507 110795	0	LBDT B Deep Tow log book	MPL	32-41.97N	117-14.27W	g	WEST15MV
2300 120895	0	LBDT E Deep Tow log book	MPL	32-42.39N	117-14.18W	g	WEST15MV

**** Sea Beam Records (vertical beam and side scan) ***

2300 110795	0	MBSR B v.beam&sidescan r-01	GDC	32-38.33N	117-18.02W	g	WEST15MV
1528 280795	0	MBSR E v.beam&sidescan r-01	GDC	43-24.98N	130-17.78W	g	WEST15MV
1530 280795	0	MBSR B v.beam&sidescan r-02	GDC	43-24.97N	130-17.35W	g	WEST15MV
2030 120895	0	MBSR E v.beam&sidescan r-02	GDC	32-53.65N	117-24.27W	g	WEST15MV

**** Magnetics ***

1900 120795	0	MGRA B Earth Total Field	GDC	34-28.85N	120-51.80W	g	WEST15MV
1941 240795	0	MGRA E analog r-01	GDC	42-37.99N	130-48.85W	g	WEST15MV
1945 240795	0	MGRA B Earth Total Field	GDC	42-37.98N	130-48.64W	g	WEST15MV
1540 070895	0	MGRA E analog r-02	GDC	44-58.34N	130-39.79W	g	WEST15MV
1543 070895	0	MGRA B Earth Total Field	GDC	44-58.28N	130-39.66W	g	WEST15MV
0130 120895	0	MGRA E analog r-03	GDC	34-39.73N	121-12.34W	g	WEST15MV
2300 110795	0	MGMT B Surface magnetics	GDC	32-38.33N	117-18.02W	g	WEST15MV
2300 120895	0	MGMT E data set	GDC	32-42.39N	117-14.18W	g	WEST15MV
2300 110795	0	MGXX B Shipboard 3-axis mag	UTK	32-38.33N	117-18.02W	g	WEST15MV
2300 120895	0	MGXX E data set	UTK	32-42.39N	117-14.18W	g	WEST15MV
0100 180795	0	MGDT B DT Mag 1 analog r-01	MPL	42-22.06N	130-11.93W	g	WEST15MV
0444 050895	0	MGDT E DT Mag 1 analog r-01	MPL	44-46.89N	130-38.49W	g	WEST15MV
0445 050895	0	MGDT B DT Mag 1 analog r-02	MPL	44-46.90N	130-38.53W	g	WEST15MV
0510 070895	0	MGDT E DT Mag 1 analog r-02	MPL	44-53.68N	130-28.61W	g	WEST15MV
0511 070895	0	MGDT B DT Mag 1 analog r-03	MPL	44-53.69N	130-28.65W	g	WEST15MV
0715 070895	0	MGDT E DT Mag 1 analog r-03	MPL	44-54.82N	130-33.43W	g	WEST15MV
0716 070895	0	MGDT B DT Mag 1 analog r-04	MPL	44-54.83N	130-33.48W	g	WEST15MV
1900 080895	0	MGDT E DT Mag 1 analog r-04	MPL	44-57.38N	130-24.31W	g	WEST15MV

#GMT DDMMMYY	SAMP B SAMPLE	DISP	P CRUISE	
#TIME DATE TZ CODE E IDENTIFIER		CODE LATITUDE	LONGITUDE	C LEG-SHIP

**** Seismic Reflection Profiler ***

0330 160795	0 SPRF B Watergun 1Sec r-01	GDC	42-40.01N	130-22.66W	g WEST15MV
1601 030895	0 SPRF E Watergun 1Sec r-01	GDC	44-57.40N	130-44.56W	g WEST15MV
1747 120895	0 SPRF B Watergun 1Sec r-02	GDC	33-10.51N	117-37.89W	g WEST15MV
1828 120895	0 SPRF E Watergun 1Sec r-02	GDC	33-13.16N	117-30.49W	g WEST15MV
0330 160795	0 SPRS B Watergun 2Sec r-01	GDC	42-40.01N	130-22.66W	g WEST15MV
1601 030895	0 SPRS E Watergun 2Sec r-01	GDC	44-57.40N	130-44.56W	g WEST15MV
1747 120895	0 SPRS B Watergun 2Sec r-02	GDC	33-10.51N	117-37.89W	g WEST15MV
1828 120895	0 SPRS E Watergun 2Sec r-02	GDC	33-13.16N	117-30.49W	g WEST15MV
2300 110795	0 SPDR B Watergun x 2 ch HS	GRD	32-38.33N	117-18.02W	g WEST15MV
2300 120895	0 SPDR E Watergun x 2 ch HS	GRD	32-42.39N	117-14.18W	g WEST15MV

**** Depth Recorders ***

0100 180795	0 DTDT B DT Profiler 4 khz	MPL	42-22.06N	130-11.93W	g WEST15MV
0420 290795	0 DTDT E roll 01	MPL	43-25.04N	130-46.83W	g WEST15MV
0425 290795	0 DTDT B DT Profiler 4 khz	MPL	43-25.06N	130-46.65W	g WEST15MV
2120 300795	0 DTDT E roll 02	MPL	43-27.92N	131-22.75W	g WEST15MV

**** Deep Tow digital data sets ***

0100 180795	0 DTMG B DT Mag1@fish depth	MPL	42-22.06N	130-11.93W	g WEST15MV
1900 080895	0 DTMG E data set	MPL	44-57.38N	130-24.31W	g WEST15MV
0100 180795	0 DTM2 B DT Mag2@fd -200m	MPL	42-22.06N	130-11.93W	g WEST15MV
1900 080895	0 DTM2 E data set	MPL	44-57.38N	130-24.31W	g WEST15MV
0100 180795	0 DTID B DT CTD	MPL	42-22.06N	130-11.93W	g WEST15MV
1900 080895	0 DTID E data set	MPL	44-57.38N	130-24.31W	g WEST15MV
0100 180795	0 DTFN B DT fish nav	MPL	42-22.06N	130-11.93W	g WEST15MV
1900 080895	0 DTFN E data set	MPL	44-57.38N	130-24.31W	g WEST15MV
0100 180795	0 DTSN B DT ship nav	MPL	42-22.06N	130-11.93W	g WEST15MV
1900 080895	0 DTSN E data set	MPL	44-57.38N	130-24.31W	g WEST15MV
0100 180795	0 DTWO B DT wire out	MPL	42-22.06N	130-11.93W	g WEST15MV
1900 080895	0 DTWO E data set	MPL	44-57.38N	130-24.31W	g WEST15MV
0100 180795	0 DTOA B DT obstacle avoidanc	MPL	42-22.06N	130-11.93W	g WEST15MV
1900 080895	0 DTOA E data set	MPL	44-57.38N	130-24.31W	g WEST15MV

#GMT DDMY	SAMP	B SAMPLE	DISP	P CRUISE		
#TIME DATE TZ	CODE E	IDENTIFIER	CODE	LATITUDE	LONGITUDE	C LEG-SHIP
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**** South Anomaly survey area***						
0336 160795	0	SPML B Watergun x 2 ch HS	GRD	42-40.04N	130-23.82W	g WEST15MV
1515 160795	0	SPML E line 01	GRD	42-29.41N	130-30.08W	g WEST15MV
1644 160795	0	DTXP B Green1 xponder dep	MPL	42-38.28N	130-31.33W	g WEST15MV
1022 270795	0	DTXP E Green1 xponder rcvr	MPL	42-38.34N	130-31.34W	g WEST15MV
1720 160795	0	DTXP X Red1 xponder lost	MPL	42-35.58N	130-29.14W	g WEST15MV
1828 160795	0	MGXX Seaflr 3-axis mag	MPL	42-33.06N	130-31.63W	g WEST15MV
1938 160795	0	DTXP B Green2 xponder dep	MPL	42-30.79N	130-28.90W	g WEST15MV
2153 090895	0	DTXP E Green2 xponder rcv	MPL	42-30.72N	130-28.72W	g WEST15MV
2015 160795	0	EFFV B ELF dep xponder dep	MPL	42-28.22N	130-31.34W	g WEST15MV
0526 270795	0	EFFV E ELF xponder rcvr	MPL	42-28.82N	130-31.53W	g WEST15MV
0535 170795	0	SPML B Watergun x 2 ch HS	GRD	42-39.03N	130-13.82W	g WEST15MV
1559 170795	0	SPML E line 02	GRD	42-22.91N	130-23.64W	g WEST15MV
0100 180795	0	DTWS B Deep tow 2 mag	MPL	42-22.06N	130-11.93W	g WEST15MV
0741 190795	0	DTWS E survey 01a	MPL	42-31.12N	130-16.42W	g WEST15MV
1944 190795	0	SPML B Watergun x 2 ch HS	GRD	42-31.60N	130-17.60W	g WEST15MV
2230 200795	0	SPML E line 03	GRD	42-31.02N	130-46.90W	g WEST15MV
0435 210795	0	SPML B Watergun x 2 ch HS	GRD	42-31.13N	131-01.01W	g WEST15MV
0045 220795	0	SPML E line 04	GRD	42-31.02N	131-00.82W	g WEST15MV
0430 220795	0	DTWS B Deep tow 2 mag	MPL	42-29.99N	130-56.09W	g WEST15MV
2126 260795	0	DTWS E survey 01b	MPL	42-38.00N	130-51.98W	g WEST15MV
2124 090895	0	DTXP Bluel xponder rcvr	MPL	42-32.90N	130-30.92W	g WEST15MV

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#	GMT DDMMYY	SAMP	B SAMPLE	DISP	P CRUISE		
#	TIME DATE	T2	CODE E IDENTIFIER	CODE	LATITUDE	LONGITUDE	C LEG-SHIP

**** North Anomaly survey area ***

1057	270795	0	SPML B Watergun x 2 ch HS	GRD	42-38.40N	130-33.34W	g WEST15MV
2117	270795	0	SPML E line 05	GRD	43-22.85N	131-09.66W	g WEST15MV
0012	280795	0	SPML B Watergun x 2 ch HS	GRD	43-28.33N	131-14.14W	g WEST15MV
1740	280795	0	SPML E line 06	GRD	43-23.03N	130-40.38W	g WEST15MV
1857	280795	0	EFFV B ELF xponder dep	MPL	43-25.59N	130-46.54W	g WEST15MV
2123	020895	0	EFFV E ELF xponder rcvr	MPL	43-25.87N	130-46.73W	g WEST15MV
1939	280795	0	DTXP B Red1 xponder dep	MPL	43-27.72N	130-43.97W	g WEST15MV
1849	020895	0	DTXP E Red1 xponder rcvr	MPL	43-27.40N	130-44.11W	g WEST15MV
2017	280795	0	DTXP B Blue1 xponder dep	MPL	43-29.94N	130-46.48W	g WEST15MV
1725	020895	0	DTXP E Blue1 xponder rcvr	MPL	43-29.87N	130-46.49W	g WEST15MV
2101	280795	0	DTXP B Green1 xponder dep	MPL	43-27.77N	130-48.99W	g WEST15MV
1808	020895	0	DTXP E Green1 xponder rcvr	MPL	43-27.66N	130-49.11W	g WEST15MV
0130	290795	0	DTWS B Deep tow 2 mag	MPL	43-25.05N	130-53.50W	g WEST15MV
2128	300795	0	DTWS E survey 2a	MPL	43-28.18N	131-22.79W	g WEST15MV
0223	310795	0	SPML B Watergun x 2 ch HS	GRD	43-31.11N	131-21.69W	g WEST15MV
2012	310795	0	SPML E line 07	GRD	43-32.98N	130-02.57W	g WEST15MV
2340	310795	0	DTWS B Deep tow 2 mag	MPL	43-30.98N	130-18.51W	g WEST15MV
1201	020895	0	DTWS E survey 2b	MPL	43-32.99N	130-52.12W	g WEST15MV

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#GMT DDMMYY	SAMP E SAMPLE	DISP	P CRUISE
#TIME DATE TZ CODE E IDENTIFIER		CODE	LATITUDE LONGITUDE C LEG-SHIP

**** Juan de Fuca Ridge survey area ***

2141 020895 0 SPML B Watergun x 2 ch HS	GRD	43-26.77N 130-46.92W g	WEST15MV
1601 030895 0 SPML E line 08	GRD	44-57.40N 130-44.56W g	WEST15MV
1856 030895 0 DTXP B Blue1 xponder dep	MPL	44-42.21N 130-25.79W g	WEST15MV
0154 090895 0 DTXP E Blue1 xponder rcvr	MPL	44-42.16N 130-25.73W g	WEST15MV
1957 030895 0 DTXP Red1 xponder dep	MPL	44-42.54N 130-21.75W g	WEST15MV
2031 030895 0 DTXP B Green1 xponder dep	MPL	44-44.67N 130-23.76W g	WEST15MV
0221 090895 0 DTXP E Green1 xponder rcvr	MPL	44-44.68N 130-23.76W g	WEST15MV
2153 030895 0 DTXP B Green2 xponder dep	MPL	44-53.54N 130-16.04W g	WEST15MV
2336 080895 0 DTXP E Green2 xponder rcvr	MPL	44-53.30N 130-15.88W g	WEST15MV
0001 040895 0 EFFV B ELF xponder dep	MPL	44-53.36N 130-19.83W g	WEST15MV
0035 090895 0 DTXP E ELF rcvr	MPL	44-53.22N 130-19.66W g	WEST15MV
0405 040895 0 DTWS B Deep tow 2 mag	MPL	44-47.63N 130-49.12W g	WEST15MV
1900 080895 0 DTWS E survey 3	MPL	44-57.38N 130-24.31W g	WEST15MV

**** Rose Canyon Fault survey ***

1747 120895 0 SPML B Watergun x 2 ch HS	GRD	33-10.51N 117-37.89W g	WEST15MV
1828 120895 0 SPML E line 09	GRD	33-13.16N 117-30.49W g	WEST15MV

**** Expendable Bathymeterograph ***

1644 160795 0 BTXP XBT-01	GDC	42-38.28N 130-31.33W g	WEST15MV
0213 310795 0 BTXP XBT-02	GDC	43-30.60N 131-21.70W g	WEST15MV

**** Intergrated Meteorological Acquisition System ***

2300 110795 0 IMET B IMET obs	GDC	32-38.33N 117-18.02W g	WEST15MV
2300 120895 0 IMET E IMET obs	GDC	32-42.39N 117-14.18W g	WEST15MV

**** End sample index WEST15MV