*Report and Index of*

*Underway Marine Geophysical Data*

**Vancouver Expedition**

**Leg 19**

**(VANC19MV)**

R/V Melville

(Issued Apr 2004)

**Ports:**
Cairns, Australia (08-Jan-04)
to
Port Moresby, PNG (12-Jan-04)

**Chief Scientist:** A. Ogston
Univ. of Washington
ogston@ocean.washington.edu

Computer Tech - Steve Foley
Resident Tech - Geoff Ravenhill

Post-Cruise processing and report preparation by the
Shipboard Technical Support Group,
Scripps Institution of Oceanography
La Jolla, CA 92093-0223



*STS Cruise ID#299*

**Report and Index of Navigation**
**and Underway Geophysical Data**

**Contents:**

**Index Chart -** give track of cruise leg, dates, ports.

**Track Charts -** annotated with dates and hour ticks.

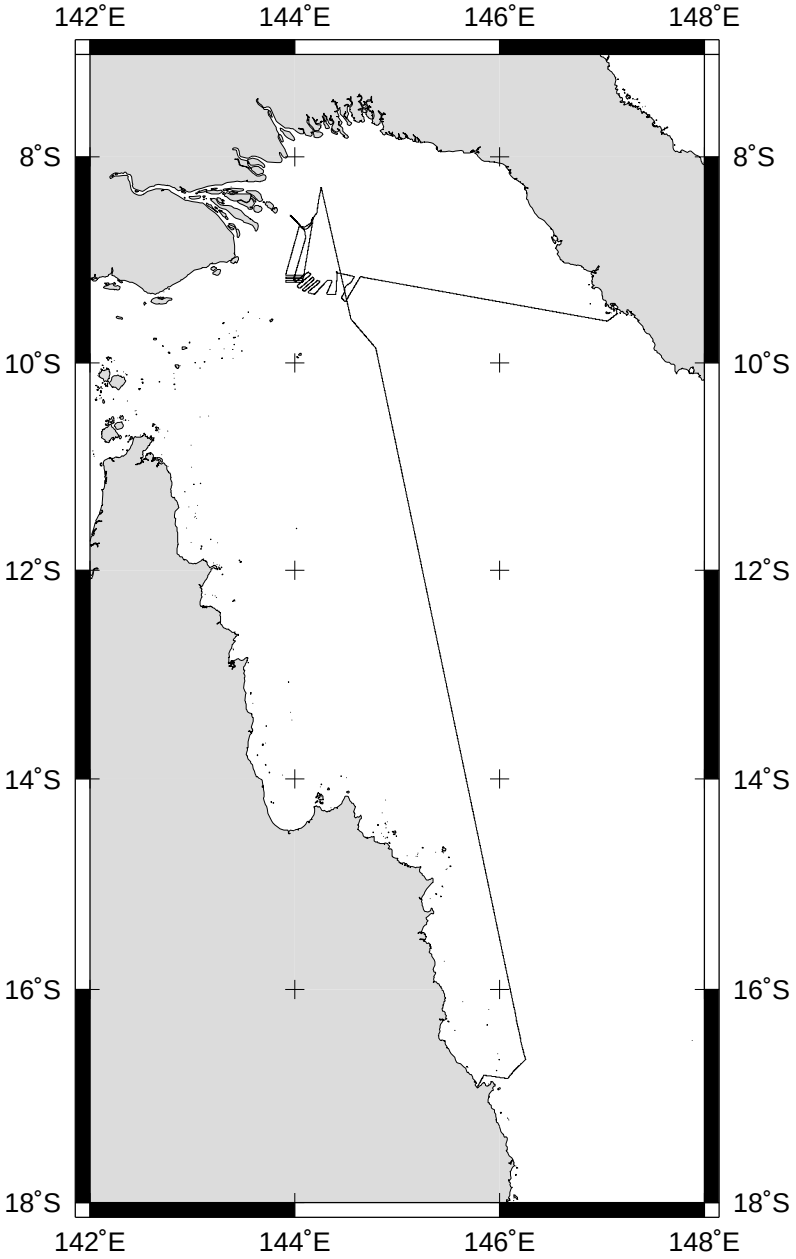
**Profiles -** depth, magnetic and gravity free air anomaly vs. distance.

**Sample Index -** list of begin/end times and positions of all underway records as well as samples and measurements from other disciplines collected on the leg.

**Note:**
For information on the availability of this current digital data as well as archived digital data contact:

Stephen P. Miller
Geological Data Center
Scripps Institution of Oceanography
La Jolla, California 92093-0220
Phone: (858) 534-1898
Internet email: spmiller@ucsd.edu; or his website: http://SIOExplorer@ucsd.edu

Rev 05/2002




**VANCOUVER EXPEDITION LEG 19 (VANC19MV)**

**CHIEF SCIENTIST: Andrea Ogston, University of Washington**

**PORTS: Cairns, Australia - Port Moresby, PNG**

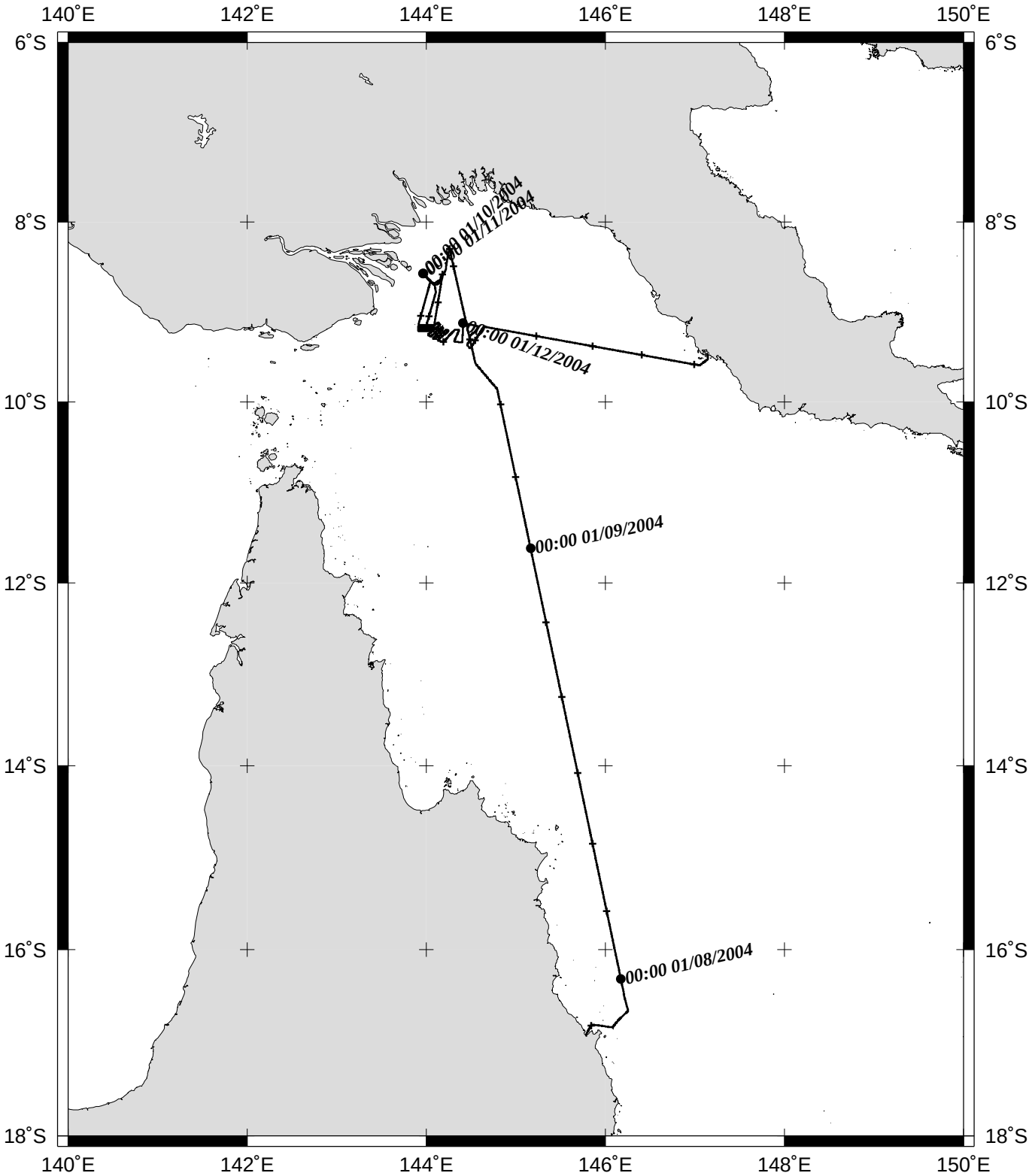
**DATES: 7 - 12 January 2004**

**SHIP: R/V Melville**

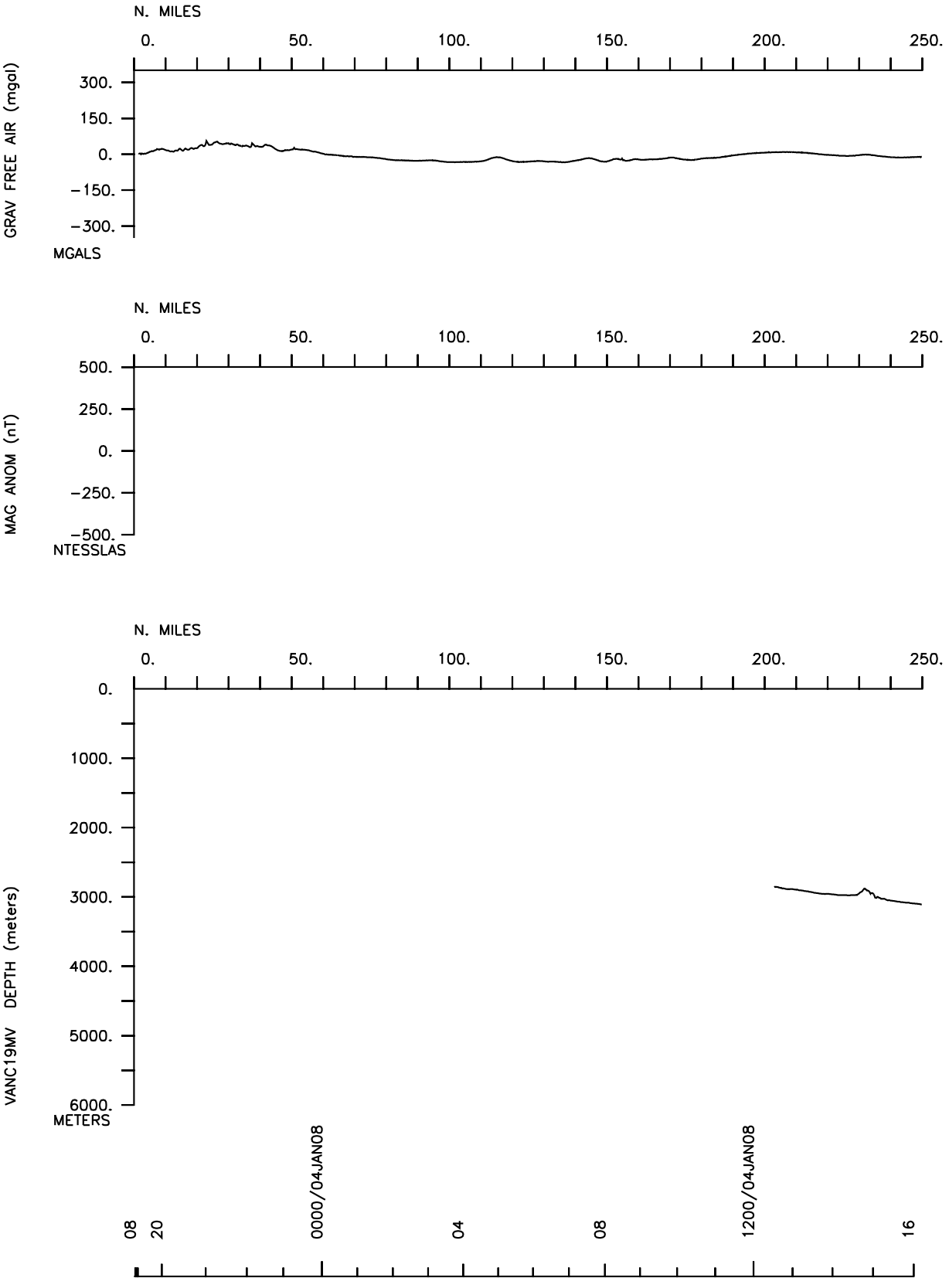
**TOTAL MILEAGE OF UNDERWAY DATA COLLECTED**

| | |
|---|---|
| **Cruise-1103 miles** | **Magnetics-none collected** |
| **Bathymetry-336 miles** | **Seismic Reflection-none collected** |
| **Multibeam-336 miles** | **Gravity-1103 miles** |

# VANC19MV




GMT 2004 Apr 6 10:56:06 **:Cairns, Australia - Port Moresby, Papua New Guinea 7 - 12 January 2004:**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100.
150.
200.
250.
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150.
0.
−150.
−300.
MGALS
N. MILES
0.
50.
100.
150.
200.
250.
MAG ANOM (nT)
500.
250.
0.
−250.
−500.
NTESSLAS
N. MILES
0.
50.
100.
150.
200.
250.
VANC19MV DEPTH (meters)
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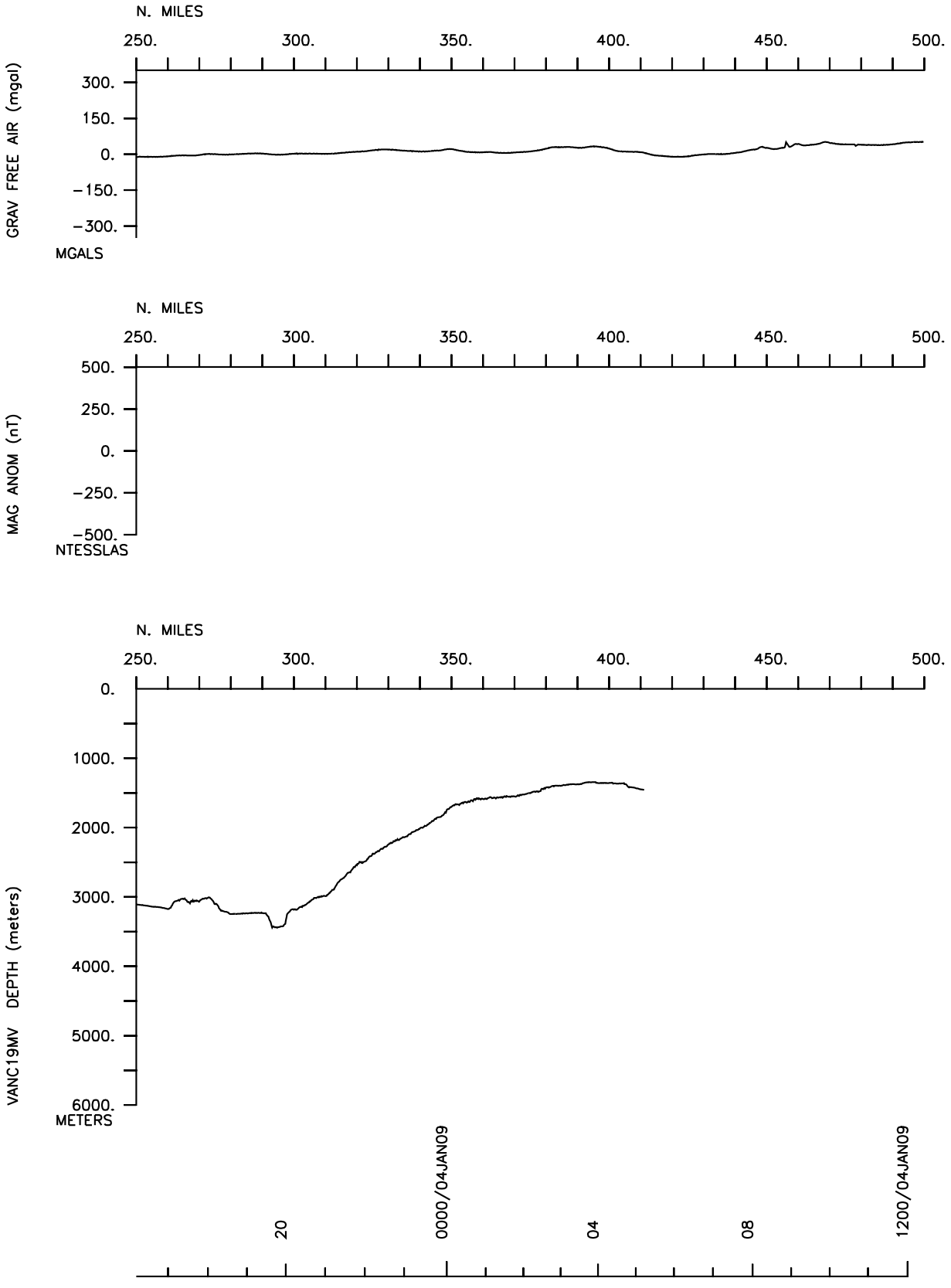
1000.
2000.
3000.
4000.
5000.
6000.
METERS
08
20
0000/04JAN08
04
08
1200/04JAN08
16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0.
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−300.
MGALS
N. MILES
250.
300.
350.
400.
450.
500.
MAG ANOM (nT)
500.
250.
0.
−250.
−500.
NTESSLAS
N. MILES
250.
300.
350.
400.
450.
500.
VANC19MV DEPTH (meters)
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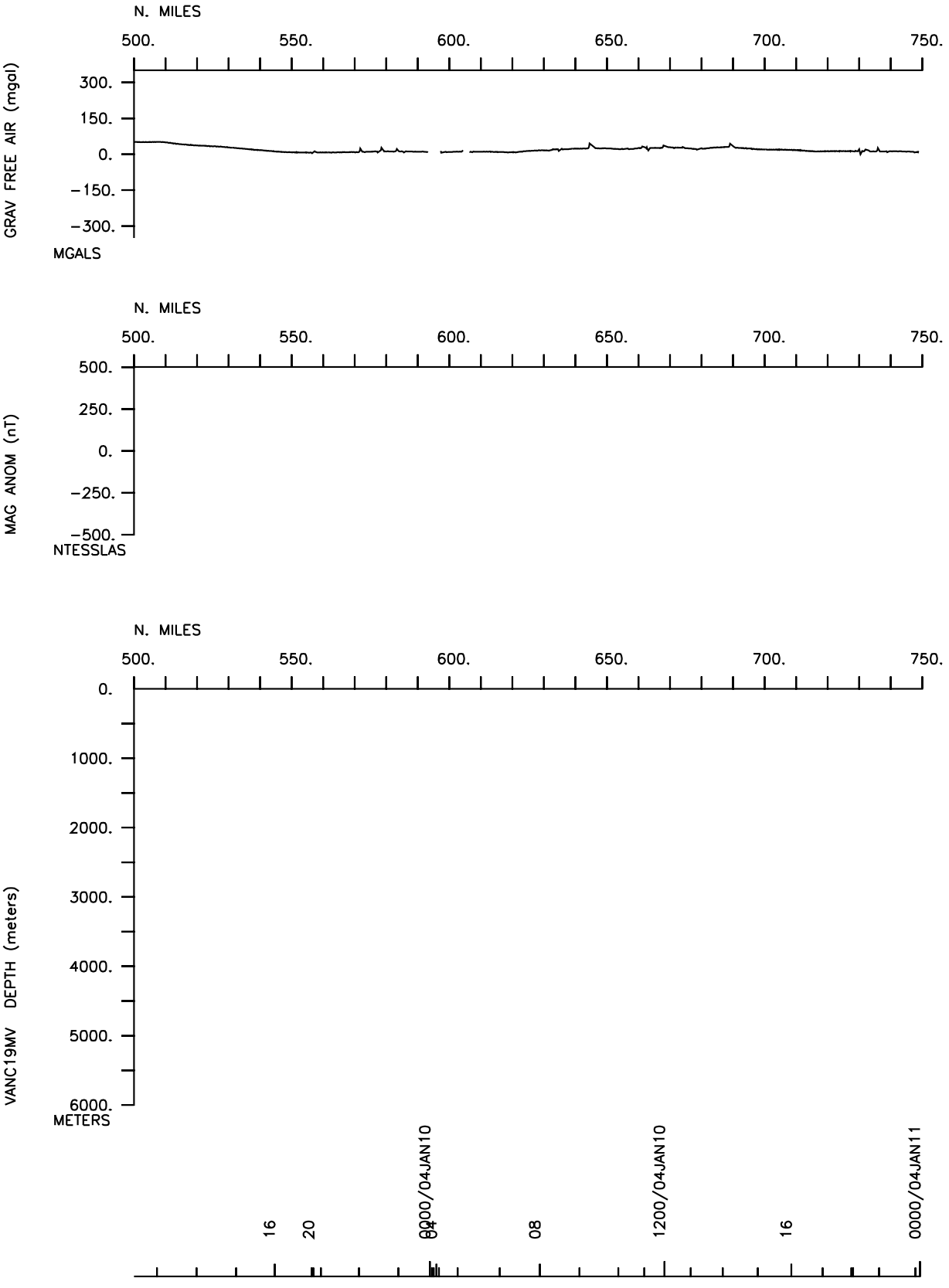
3000.
4000.
5000.
6000.
METERS
20
0000/04JAN09
04
08
1200/04JAN09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750.
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150.
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−300.
MGALS
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550.
600.
650.
700.
750.
MAG ANOM (nT)
500.
250.
0.
−250.
−500.
NTESSLAS
N. MILES
500.
550.
600.
650.
700.
750.
VANC19MV DEPTH (meters)
0.
1000.
2000.
3000.
4000.
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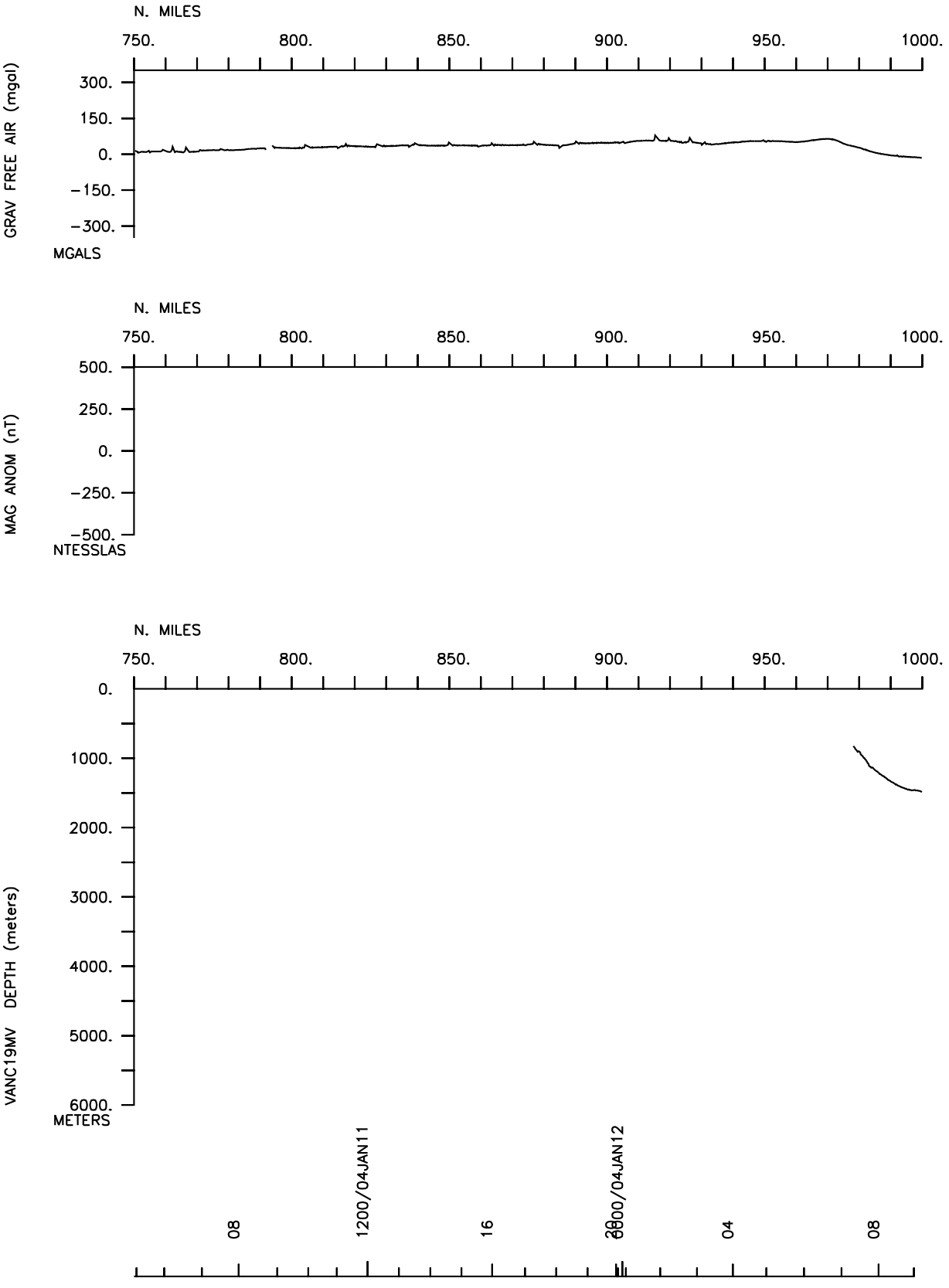
6000.
METERS
16
20
0000/04JAN10
04
08
1200/04JAN10
16
0000/04JAN11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900.
950.
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GRAV FREE AIR (mgal)
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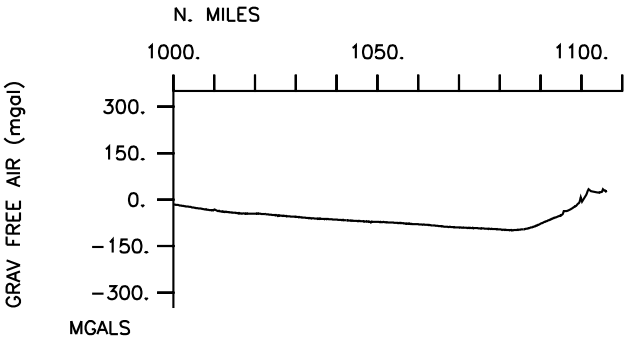
−150.
−300.
MGALS
N. MILES
750.
800.
850.
900.
950.
1000.
MAG ANOM (nT)
500.
250.
0.
−250.
−500.
NTESSLAS
N. MILES
750.
800.
850.
900.
950.
1000.
VANC19MV DEPTH (meters)
0.
1000.
2000.
3000.
4000.
5000.
6000.
METERS
08
1200/04JAN11
16
0000/04JAN12
04
08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GRAV FREE AIR (mgal)
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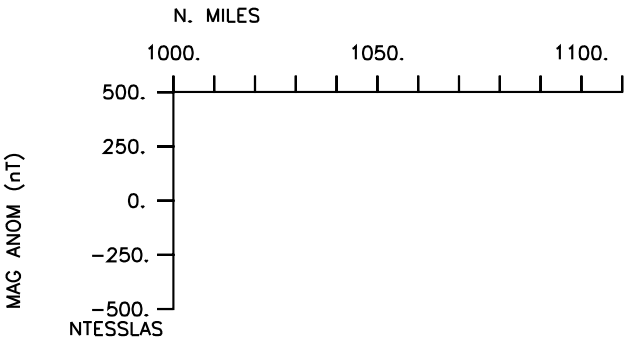
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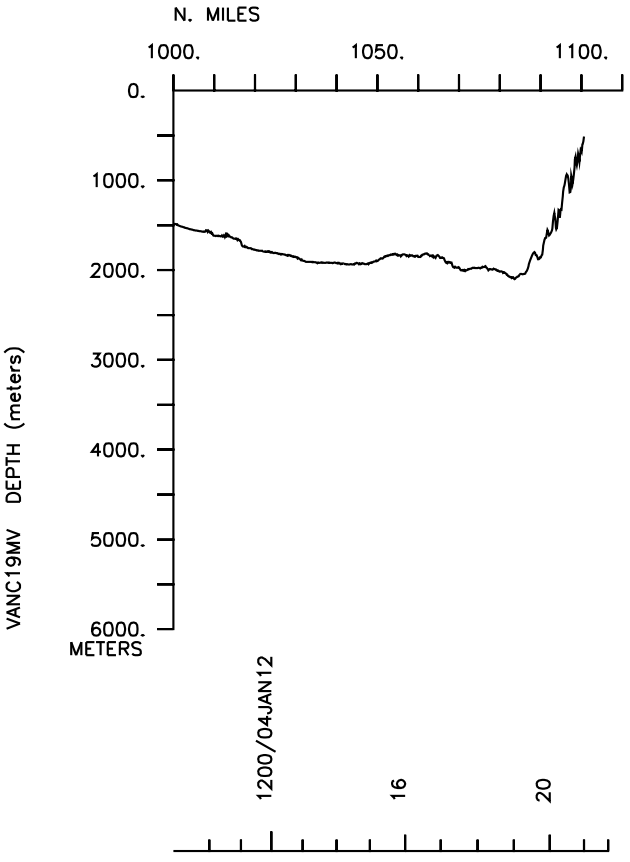
NTESSLAS


N. MILES
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1050.
1100.
VANC19MV DEPTH (meters)
0.
1000.
2000.
3000.
4000.
5000.
6000.
METERS
1200/04JAN12
16
20

```
#*** Ports ***

1854 070104    LGPT B Cairns, Australia         16 55.00S 145 47.00E f VANC19MV
0800 130104    LGPT E Pt.Moresby,PapuaNewGuinea  9-28.00S 147-09.00E f VANC19MV

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

PECS UWA  Ogston, A.           Chief Scientist    Univ. of Washington  VANC19MV
PEST UWA  Crockett, J.         Grad student       Univ. of Washington  VANC19MV
PECT STS  Foley, S.            Computer Tech      Scripps Institution  VANC19MV
PESP SIX  Goni, M.             Scientist          Univ. South Carolina VANC19MV
PEST SIX  Monacci, N.          Grad student       Univ. South Carolina VANC19MV
PEST UWA  Presto, M.           Grad student       Univ. of Washington  VANC19MV
PERT STS  Ravenhill, G.        Resident Tech      Scripps Institution  VANC19MV
PESP UWA  Sternberg, R.        Scientist          Univ. of Washington  VANC19MV
PEMT UWA  Sternberg, L.        Technician         Univ. of Washington  VANC19MV

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

#*** Underway Data Curator - Shipboard Technical Support Group ext.41899 ***
#*** Digital Data Curator - Geological Data Center, S.P. Miller, ext.41898 ***

#*** MultiBeam Data (vertical beam and side scan) ***

1232 080104  0 MBSR B multibeam&sidescan   GDC  13-58.45S 145-40.08E g VANC19MV
2100 120104  0 MBSR E multibeam&sidescan   GDC   9-32.79S 147-07.06E g VANC19MV


#*** Digital Gravity ***

1844 070104  0 GVDD B digital gravity      GDC  16-55.60S 145-46.83E g VANC19MV
2201 120104  0 GVDD E digital gravity      GDC   9-28.10S 147-08.23E g VANC19MV


#*** Integrated Meteorological Acquisition System ***

1854 070104  0 IMET B Weather Measurements GDC  16-55.60S 145-46.83E g VANC19MV
2201 120104  0 IMET E Weather measurements GDC   9-28.10S 147-08.23E g VANC19MV


#*** Acoustic Doppler Current Profiler ***

1854 070104  0 ADCP B 300khz Current Meas. GDC  16-55.60S 145-46.83E g VANC19MV
2201 120104  0 ADCP E Current Measurements GDC   9-28.10S 147-08.23E g VANC19MV


#*** Echosounder 3.5kHz ***

1854 070104  0 DPR3 B Echosounder 3.5Hz    GDC  16-55.60S 145-46.83E g VANC19MV
2201 120104  0 DPR3 E Echosounder 3.5kHz   GDC   9-28.10S 147-08.23E g VANC19MV


#*** Temperature, Density, Conductivity ***

2034 110104  0 TDCT   CTD   #1   68M       SIX   9-07.86S 144-24.84E g VANC19MV
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#GMT DDMMYY    SAMP B SAMPLE              DISP                        p CRUISE
#TIME DATE  TZ CODE E IDENTIFIER          CODE LATITUDE  LONGITUDE    c LEG-SHIP
#---- ----- -- ---- - -------------------- ---- --------- ---------- - --------


#*** Hydrocasts ***

1736 090104  0 HCXX B BLISP #1   20M       UWA   8-18.03S 144-15.51E g VANC19MV
1747 090104  0 HCXX E BLISP #1   20M       UWA   8-18.03S 144-15.51E g VANC19MV

1920 090104  0 HCXX B BLISP #2   20M       UWA   8-18.03S 144-15.51E g VANC19MV
1926 090104  0 HCXX E BLISP #2   20M       UWA   8-18.03S 144-15.51E g VANC19MV

0026 100104  0 HCXX B BLISP #3   16M       UWA   8-34.51S 143-57.79E g VANC19MV
0029 100104  0 HCXX E BLISP #3   16M       UWA   8-34.51S 143-57.79E g VANC19MV

1832 100104  0 HCXX B BLISP #4   20M       UWA   8-35.19S 144-10.90E g VANC19MV
1838 100104  0 HCXX E BLISP #4   20M       UWA   8-35.19S 144-10.90E g VANC19MV


#*** Box Cores ***

1822 090104  0 COBX B BOX   #1            UWA   8-18.03S 144-15.51E g VANC19MV
1832 090104  0 COBX E BOX   #1    20M     UWA   8-18.03S 144-15.51E g VANC19MV

1840 090104  0 COBX B BOX   #2            UWA   8-18.03S 144-15.51E g VANC19MV
1849 090104  0 COBX E BOX   #2    20M     UWA   8-18.03S 144-15.51E g VANC19MV

1858 090104  0 COBX B BOX   #3            UWA   8-18.03S 144-15.51E g VANC19MV
1905 090104  0 COBX E BOX   #3    18M     UWA   8-18.03S 144-15.51E g VANC19MV

0041 100104  0 COBX B BOX   #4            UWA   8-34.52S 143-57.80E g VANC19MV
0044 100104  0 COBX E BOX   #4    18M     UWA   8-34.51S 143-57.80E g VANC19MV

0101 100104  0 COBX B BOX   #5            UWA   8-34.53S 143-57.82E g VANC19MV
0104 100104  0 COBX E BOX   #5    18M     UWA   8-34.53S 143-57.82E g VANC19MV

0125 100104  0 COBX B BOX   #6            UWA   8-34.54S 143-57.82E g VANC19MV
0130 100104  0 COBX E BOX   #6    18m     UWA   8-34.54S 143-57.82E g VANC19MV

1853 100104  0 COBX B BOX   #7            UWA   8-35.19S 144-10.90E g VANC19MV
1900 100104  0 COBX E BOX   #7    20M     UWA   8-35.19S 144-10.90E g VANC19MV

1933 100104  0 COBX B BOX   #8            UWA   8-35.19S 144-10.90E g VANC19MV
1940 100104  0 COBX E BOX   #8    20M     UWA   8-35.19S 144-10.90E g VANC19MV

2100 110104  0 COBX B BOX   #9            UWA   9-07.86S 144-24.84E g VANC19MV
2110 110104  0 COBX E BOX   #9    70M     UWA   9-07.86S 144-24.84E g VANC19MV


#*** Current Measurements ***

2014 090104  0 CMXX   TRIPOD B            UWA   8-18.03S 144-15.51E g VANC19MV
2047 100104  0 CMXX   TRIPOD A            UWA   8-35.19S 144-10.90E g VANC19MV
0441 110104  0 CMXX   Rusty Tripod        UWA   8-34.56S 143-57.81E g VANC19MV

2347 110104  0 CMXX   Moring A            UWA   9-07.48S 144-24.55E g VANC19MV


#*** Expendable Bathythermographs ***

1211 080104  0 BTXP   MK21  #  1 Fast_Deep GDC  14-02.68S 145-40.98E g VANC19MV
0747 120104  0 BTXP   MK21  #  2 Fast_Deep GDC   9-15.82S 145-11.27E g VANC19MV

#                    End Sample Index                              VANC19MV
```