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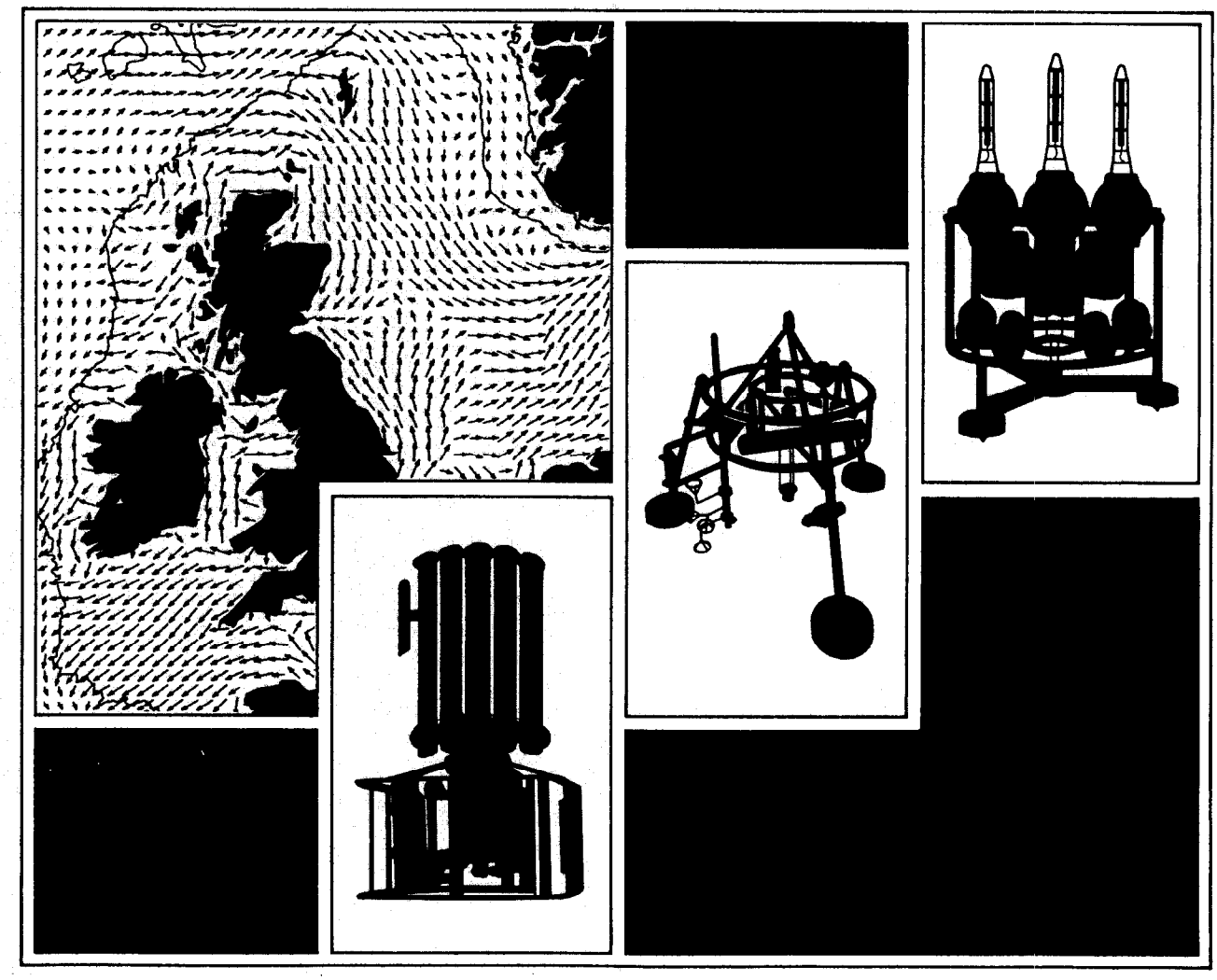
Current Profile, Water Level and Temperature Records

Cruises Challenger 78 and 88a, Cumbria Coast April - May 1991 and January - February 1992

R J Player

Report No 29 1993



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REPORT No. 29

Current profile, water level and temperature records
Cruises Challenger 78 and 88a

April - May 1991 and January - February 1992

Cumbrian Coast

R.J. Player

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ABSTRACT

Current profiles, water levels and temperatures were measured off the Cumbrian coast during April - May 1991, and January - February 1992 on cruises Challenger 78 and 88a.

This report describes the deployments and data collected during the cruises, and provides graphical and statistical results of the data.

The data were collected as part of a joint study with the Plymouth Marine Laboratory and the School of Ocean Sciences, Menai Bridge into sediment resuspension and its effects.

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DATA RESULTS

Challenger 78

Mooring (Rig)No.	Meter No.	
478A	8887 (Stable pressure)	33
479B	Metbuoy	35
480C	DP0004a	37
481D	WR0500	45
483F	Wavebuoy	48
484G	AA6443	50
485H	AA0568	57
485H	AS9633	64
486I	S41644	70
486I	S41196	76
487J	S41258	81
487J	S41112	87
998S	WR0444	92
999W	WR0445	97

Challenger 88

Mooring (Rig)No.	Meter No.	
539XE	DP0003	101
539XE	WR1038	109
540XK	AS9631	111
540XK	AS9680	118
533YB	Metbuoy	124
534YC	DP0004a	126
534YC	WR0444	136
535YF	Wavebuoy	138
536YG	AS9632	140
536YG	AA0568	147
537YI	S41113	153
537YI	S41119	159
538YJ	S41264	164
538YJ	S41261	170
541ZD	WR0445	175
542ZH	AS9959	178
542ZH	AA7570	185

1 INTRODUCTION

As part of a joint study with the Plymouth Marine Laboratory and the School of Ocean Sciences, Menai Bridge into sediment resuspension and its effects, currents were measured at three sites off the Cumbrian coast, Figure 1, from 20 April - 9 May 1991 (Challenger 78) and 9 January - 4 February 1992 (Challenger 88a). Current meters and sea bed mounted Acoustic Doppler Current Profilers (ADCPs) were deployed to measure the current profile from the sea surface to the sea bed. Winds, waves and sea bed pressures were also measured. In addition, two longer deployments of 3 months were attempted, although trawling resulted in shorter data sets being obtained for both rigs.

The report describes the records from 21 (11 + 10) moorings deployed during the two cruises, and from which data were extracted, Figure 2 and Table 2. Of the six ADCP's deployed, only three produced any data, and for two of these, only four of the bins produced 'reliable' data, the remaining one producing only good data from 1 bin. Of the eighteen current meters deployed, seventeen recorded good data. All six of the Water Level Recorders (WLRs) recorded good data. No equipment was lost. Section 2 contains a summary of the results of each deployment.

The calibrated data are presented in the form of time series and scatter plots, histograms, and progressive vector diagrams and statistics in order to indicate the content and quality of the data.

2 SUMMARY OF DEPLOYMENTS

The following information gives an overview of the data processed for the two cruises.

The bold letters in the **Mooring No.** column indicate site names. In the **Meter No.** column, prefix DP indicates an ADCP and a suffix of 'a' indicates operating at 1Mhz, otherwise the ADCP was operating at 250kHz. WR indicates a Water Level Recorder. S4 indicates an S4 current meter. AA and AS indicate an Aanderaa RCM 4 and 7 respectively. In the **Meter Ht.** column, a suffix of 'd' indicates a meter depth from surface, rather than height above sea bed.

2.1 Table of instruments and data details

Challenger 78

Mooring (Rig)No.	Meter No.	Deployment	Recovery	Meter Ht(m)	Length (days)	Comments
478A	Stable	26-APR-91	06-MAY-91	1.0	10.3	Pressure only
479B	Metbuoy	24-APR-91	07-MAY-91	surface	13.1	
480C	DP0004a	25-APR-91	06-MAY-91	0.5	10.8	Only 4 bins good data
481D	DP0002a	25-APR-91	06-MAY-91	0.5		No data
481D	WR0500	25-APR-91	06-MAY-91	0.5	10.6	Good data
482E	DP0009a	30-APR-91	02-MAY-91	0.5		No data
483F	Wave	25-APR-91	06-MAY-91	surface	11.0	Good data
484G	AA6443	24-APR-91	07-MAY-91	11.0	12.8	Good data
484G	AA4387	24-APR-91	07-MAY-91			No data, meter flooded
485H	AA0568	24-APR-91	07-MAY-91	11.0	12.9	Good data
485H	AS9633	24-APR-91	07-MAY-91	5.0	12.9	Good data
486I	S41644	25-APR-91	06-MAY-91	16.0	10.9	Good data
486I	S41196	25-APR-91	06-MAY-91	10.0	10.9	Good data
487J	S41258	25-APR-91	06-APR-91	4.0d	10.7	Good data
487J	S41112	25-APR-91	06-APR-91	10.0d	10.7	Good data
998S	WR0444	18-FEB-91	17-MAY-91	0.0	75.6	Good data
999W	WR0445	18-FEB-91	26-APR-91	0.0	61.8	Good data

Challenger 88

Mooring No.	Meter No.	Deployment	Recovery	Meter Ht(m)	Length (days)	Comments
539XE	DP0003	22-JAN-92	01-FEB-92	0.8	9.9	Good data
539XE	WR1038	22-JAN-92	01-FEB-92	0.8	9.9	Good data
540XK	AS9631	22-JAN-92	01-FEB-92	19.5	9.9	Good data
540XK	AS9680	22-JAN-92	01-FEB-92	2.5	9.9	Good data
532YA	Stable	21-JAN-92	02-FEB-92			No data
533YB	Metbuoy	21-JAN-92	02-FEB-92	surface	12.0	
534YC	DP0004a	21-JAN-92	21-FEB-92	0.5	26.9	1 bin good data
534YC	WR0444	21-JAN-92	21-FEB-92	0.5	30.7	Good data
535YF	Wave	21-JAN-92	01-FEB-92	surface	11.0	
536YG	AS9632	21-JAN-92	21-FEB-92	10.5	30.7	Good data
536YG	AA0568	21-JAN-92	21-FEB-92	2.5	30.7	Good data
537YI	S41113	22-JAN-92	02-FEB-92	15.0	10.7	Good data
537YI	S41119	22-JAN-92	02-FEB-92	10.0	10.6	Good data
538YJ	S41264	22-JAN-92	01-FEB-92	4.0d	10.0	Good data
538YJ	S41261	22-JAN-92	01-FEB-92	10.0d	10.0	Good data
541ZD	DP0010a	22-JAN-92	01-FEB-92	0.5		No data
541ZD	WR0445	22-JAN-92	01-FEB-92	0.5	10.0	Good data
542ZH	AS9959	22-JAN-92	01-FEB-92	10.5	9.9	Good data
542ZH	AA7570	22-JAN-92	01-FEB-92	2.5	9.9	Good data

2.2 Table of rig positions and water depths

Cruise	RigNo	Latitude	Longitude	Water depth (m)
C78	478	54 07.41N	03 27.59W	27.0
C78	479	54 05.93N	03 29.93W	24.5
C78	480	54 9.03N	03 26.85W	20.0
C78	481	54 06.78N	03 37.37W	20.0
C78	483	54 05.99N	03 28.07W	24.0
C78	484	54 07.69N	03 27.04W	20.0
C78	485	53 57.17N	03 19.49W	20.0
C78	486	54 06.00N	03 26.1 W	20.0
C78	487	54 08.90N	03 28.06W	24.0
Cir'a	998	54 13.48N	03 28.47W	22.0
Cir'a	999	54 22.50N	03 45.02W	39.0
C88A	533	54 08.39N	03 26.33W	20.0
C88A	534	54 07.53N	03 26.94W	19.0
C88A	535	54 06.52N	03 27.93W	19.0
C88A	536	54 07.52N	03 26.94W	19.0
C88A	537	54 06.64N	03 26.77W	22.0
C88A	538	54 08.39N	03 27.97W	19.0
C88A	539	54 06.80N	03 37.51W	28.0
C88A	540	54 06.95N	03 37.22W	28.0
C88A	541	53 57.35N	03 19.09W	19.0
C88A	542	53 57.08N	03 18.08W	19.0

3 RIG SYSTEM DESCRIPTION

The ADCP's were mounted on low profile frames positioned on the sea bed with acoustic releases, see Figure 3. On recovery the release was triggered by sending acoustic signals from the ship so that the frame separated from the ballast weight. The frame under its own buoyancy then rose to the surface ready for picking up.

Of the WLR's, four were attached to ADCP frames (see figure 3) and the remaining two were separate bottom mounted pressure recorders.

The S4's and Aanderaa's were deployed on vertical lines, (see Figure 4) and these were recovered by picking up the attached buoys. Rigs 487J and 538YJ were suspended from surface buoys held taught by ballast on the bottom of the mooring.

The STABLE pressure gauge was mounted on the STABLE frame (see figure 5), and the waverider buoy and metbuoy were surface floating (see Figures 6 and 7).

4 ACOUSTIC DOPPLER CURRENT PROFILER (POL 1 MHz and 250 kHz)

The ADCP measures the vertical profile of currents in bins from the sea bed to the surface. The ADCP sends out short acoustic pulses, typically lasting a few thousandths of a second, at a fixed frequency. The acoustic pulses, transmitted in two narrow beams at right angles to each other and 30° to the vertical, are reflected back to the ADCP by small particles, such as plankton or sediment, which move with the water. The frequency of the reflected signal is changed by a small amount proportional to the current speed, the Doppler shift. By measuring the frequency change along the two beams the speed and direction of the currents are determined. The currents at different heights through the water column are obtained by chopping the return signal into segments by time.

The 1MHz ADCP has a range of 30 m and the 250 kHz version has a range of up to 100m. Both can measure up to 24 bins. However, the technique has some limitations which reduce the amount of good data return. The bins nearest to the transducers may give erroneous data due to the time taken for transients to decay, whereas the far end bins may be affected by interference from side lobes reflected from the sea surface. Hence, the good data return bins are usually between 15% of depth from the surface and 10% of depth from the bottom.

4.1 Specification

Speed	Range	0 to 350 cm s^{-1}
	Accuracy	$\pm$4 cm s^{-1}
Direction	Refer to Section 13 ANGLE CORRECTION TO ADCP DATA	
Tilt	Two tilts measured at 90° to each other	

4.2 Set up details

Set up (1 MHz)	Sample period	10 minutes
	Number of bins (cells)	16
	Number of pings in ensemble	depends on depth
	First bin height/Bin separation	3.9 m / 1.4 m
	Bin heights (range) (1-16)	3.9 m / 5.3 m / 6.7 m / 8.1 m /

		9.5 m / 10.9 m / 12.4 m / 13.8 m / 15.2 m / 16.6 m / 18.0 m / 19.4 m / 20.8 m / 22.2 m / 23.6 m / 25.0 m
Set up (250 KHz)	Sample period	10 minutes
	Number of bins (cells)	8
	Number of pings in ensemble	depends on depth
	First bin height/Bin separation	7.9 / 4.5 m
	Bin heights (range) (1-16)	7.9 m / 12.4 m / 16.9 m / 21.4 m / 25.9 m / 30.4 m / 34.9 m / 39.4 m

5 INTEROCEAN S4 CURRENT METER

The InterOcean Systems model S4 electromagnetic current meter is a self contained 0.25 m diameter sphere, with no protruding sensors. It measures current by creating a magnetic field and sensing the voltage induced in two orthogonal directions, by the movement of sea water, an electrical conductor, through the field. This information combined with the Flux-Gate compass gives the North and East components of velocity computed. The S4 was used in vector average mode throughout the survey. It sampled every ½ second and averaged the vectors over a 10 minute recording interval.

5.1 Specification

Speed	Range	0 to 350 cm s^{-1}
	Accuracy	± 2 cm s^{-1}
Direction	Range	0 360°
	Accuracy	$\pm 2°$

6 WATER LEVEL RECORDER

The Aanderaa WLR Model 5 is a self recording high precision instrument for recording water level by measurement of hydrostatic pressure. The standard range is 270 meters, corresponding to a sensor range of 0-400 PSI (0-27.2 bars). The effects due to waves are averaged over a 40 second integration time. Temperature is obtained from a thermistor fitted on the top plate of the meter and extending into the water.

6.1 Specification

Pressure	Range	0.0 to 27.2 bars (0-400 PSI)
	Accuracy	0.01% of pressure
Temperature	Range	0.0 to 30.0°C
	Accuracy	±0.03°C

6.2 Conversion from bars to meters of water

The WLR has a sensitive pressure sensor which produces pressure in bars after calibration. The pressure measured includes water column pressure and atmospheric pressure. In order to produce a value for meters of water above the sensor instead of bars the atmospheric pressure must be subtracted from the calibrated value of pressure and the result multiplied by 9.94.

$$\mathbf{p = \rho * g * h}$$

hence $\mathbf{h = 9.94\ m}$

where
- $\mathbf{p}$ Pressure at 1 bar (10000 Pascals)
- ρ Water density assumed to be 1025 kg m^{-3}
- $\mathbf{g}$ Gravitational acceleration (9.81 m s^{-1})
- $\mathbf{h}$ Depth of water equivalent to 1 bar pressure

$$\mathbf{P = (P_{total} - P_{atm}) * 9.94}$$

where
- $\mathbf{P}$ Pressure in metres of water
- $\mathbf{P_{total}}$ Total recorded pressure in bars
- $\mathbf{P_{atm}}$ Atmospheric pressure in bars

7 AANDERAA RCM CURRENT METERS

These record current speed and direction at the deployed depth, and can also be fitted with temperature, conductivity and pressure recording devices. Temperature is measured by a thermistor fitted into a stud extending into the water. Conductivity is measured by an electrodeless induction conductivity cell and pressure is measured by a sensor consisting of a potentiometer driven by a Bourdon tube. Both types of current meter use similar sensors, but differ other respects. The RCM 4 meter uses a Savonious rotor, sampling 'snap' directions and records onto 6mm wide magnetic tape whereas the RCM 7 uses a paddle rotor, samples direction over 12 seconds, and records onto solid state memory. Both count the number of rotor rotations in either a resetting or incrementing mode.

7.5 Aanderaa sensor specifications

Temperature	Range	-2.46 to 21.4°C
	Accuracy	±0.05°C
Conductivity	Range	21 to 51 mmho cm^{-1}
	Accuracy	±0.025 mmho cm^{-1}
Pressure	Range	0 to 100 PSI or 0 to 200 PSI
	Accuracy	±1%

8 METBUOY

This records surface pressure, wind direction, windspeed, sea temperature, air temperature and solar radiation at 9.6 minute intervals. The data are uncalibrated and available in counts only, except for the windspeed and direction, for which calibration corrections have been applied (see below). The remaining instruments do not have a stable calibration correction in sea conditions and the data is only useful therefore, as an indication of the conditions during the recording periods.

Correction applied to windspeed counts to m/s = count * 0.074625

Correction applied to wind direction counts to convert to ° Nautical = count * 360.0 / 1024.0

9 WAVERIDER BUOY

This records significant wave height and zero crossing significant wave period by measuring vertical acceleration using a Datawell accelerator sensor. Data is recorded in 3 hourly burst mode for 1/2 second measurements over 1024 seconds (17 mins), and data is recorded by a POL logger.

Sig. wave height Accuracy $\pm 1\%$

10 STABLE DATA

Results from a pressure recorder and a rotor stack fitted to STABLE (Sediment Transport and Boundary Layer Equipment), see Figure 5, are presented here.

Water depth was recorded by means of a pressure gauge Serial no. 18887. Data were recorded and averaged in one minute intervals.

To convert the pressure data to frequencies the counts were calibrated as follows:-

Frequency (Hz) = (count + 60000) * 32/60

Current speed at four heights above the sea bed was also measured. Savonius rotors were mounted at 330, 515, 690 and 870 mm above the sea bed as rotors 1-4 respectively. There is some discrepency as to whether the software downloaded the data from the data logger in the correct order, so the rotor order must be treated with care. Data was recorded at one minute intervals, averaged over the minute.

Conversion of the rotors from pure counts to speed in cm/sec was as follows:-

Speed = ((42.0 * (counts/2.0)) / sp) + 1.1

where *sp* is the sample period in seconds.

A current direction vane, and a compass to measure any frame drift were also set up but failed to record any sensible data, and so are not included in this report. No electo-magnetic current samples are included for the same reason.

No electro-magnetic burst samples of current speed and direction are available, for the same reason.

No data are available from Challenger 88a due to an equipment malfunction.

11 DATA PROCESSING STEPS

11.1 Raw data transfer

The data from the ADCPs and current meters were brought back to POL on standard magnetic cassette and 3½ inch disc formats. The data were then translated and stored on an IBM/PS2 and then transferred to the Silicon Graphics UNIX workstation via PC NFS on the IBM/PS2.

11.2 Processing stage

Two software systems, CALT and CALP, have been developed at POL for quick and efficient processing and display of times series data, such as current meter data. The CALT system calibrates and checks for errors and the CALP system produces standard graphical output statistical analyses. Before calibrating the data, all the information required for processing were input into an ORACLE data base. All the information could then be accessed easily with FORTRAN programs.

Processing was then initiated by CALTU, which calls a suite of FORTRAN programs for error checking and producing calibrated data. Any errors found from the initial run were edited out of the raw data and CALTU run again. After successful completion of the CALTU stage another suite of FORTRAN programs initiated by CALPT/DOPT were used to produce the output contained in this report. The types of plot obtained and details of the statistics are explained in more detail in the following sections.

Metbuoy, Waverider and STABLE data were all processed using the graphics package PV-WAVE.

12 DETAILS OF STATISTICS

12.1 Simple statistics

A simple statistical analysis was carried out on each calibrated current meter data set. The following statistics were calculated :-

(1) Mean, variance and standard deviation of the East and North components of velocity.
(2) The mean vector speed and direction were calculated from the above statistics.
(3) The maximum ten and minimum ten Northings and Eastings and the top speeds.

12.2 Variance ellipse statistics

Statistical analysis was also carried out on the ellipse which can be graphically represented by a scatter plot. The following statistics were calculated :-

(1) The maximum and minimum variances and their ratio (minimum/maximum). If the ratio is near to one the currents have no preferred direction, whilst if it is near to zero the flow is rectilinear.
(2) The direction associated with the maximum and minimum variance, in the range of -180° to +180°.
(3) The total variance which equals the sum of the North and East component variances or the sum of the maximum and minimum variances.
(4) The average direction for each half of the ellipse, related to the directions of maximum variance. If these directions differ by 180° the scatter plot is symmetrical.

13 ANGLE CORRECTION TO ADCP DATA

13.1 Direction measurement

During a previous Dover Strait Study (Knight et al,1992) the compasses produced errors due to magnetic interference caused by the frame and ballast and depending upon mooring orientation. The compasses used in the ADCP's during Challenger 78 and 88 also had these types of errors and have therefore been corrected using the same method outlined below.

13.2 Correction procedure

The ADCP data were first processed using the CALT and CALP software. The statistical analysis gave the angle α of maximum variance, and this angle α was taken to represent the M2 major axis tidal ellipse angle β. The compass, although giving incorrect readings of frame angle was recording direction to an unknown fixed position. It was therefore decided to correct the frame angle by adding a correction angle.

The correction angle was calculated from the difference between β taken from the closest S4 current meter or an angle representing the channel orientation and α calculated from the initial raw data analysis. The β corrections applied are listed on the meter information sheet for each ADCP. There is a 180° ambiguity in the calculation of α which was resolved by study of the M2 tidal phase given by the observations.

14 FORMAT OF DATA OUTPUT

All speeds and velocities are in m s^{-1}, directions in degrees true and time in GMT. The results are ordered by mooring number. Each mooring result is made up of mooring information, meter information, and graphical output and statistics.

14.1 Mooring information

Position latitude	: Latitude of deployment
Position longitude	: Longitude of deployment
Water depth(m)	: Depth measured from ship's echo sounder
Deployed on cruise	: Cruise identifier or ship name
Recovered on cruise	: Cruise identifier or ship name
Site name identification	: Additional site identifier
Magnetic deviation	: Taken from charts
Rig deployed on	: Time frame on the bottom
Rig recovered on	: Time release fired on rig
Period of deployment	: Total time of deployment
Comments	: Details regarding mooring

14.2 Meter information

Rig number	: Unique POL mooring/rig reference
Meter number	: Four digit current meter number
Frame angle correction	: Correction to ADCP frame angle
Sample interval	: Sampling interval in seconds
Meter height from bottom	: Height in metres
Position of meter on rig	: A for attached to frame
Meter type	: DP for ADCP
	: WR for water level recorder
	: S4 for S4 current meter
	: AA and AS for RCM 4 and 7 Aanderaa current meters
Meter started	: Date and time
Meter stopped	: Date and time
Time of last valid scan	: Used when good data ends before switch off
Period in days on record	: Total time meter switched on
Total number of scans	: Used to check timing
Timing error	: Error in seconds

Comments : Details regarding meter

14.3 Combined ADCP profile output

(1) North and East components of velocity against time. The semi-diurnal nature of the tides can be seen as well as the Spring/Neap cycle in both components of velocity.

(2) Scatter diagrams of North components of velocity against the East components. Shows the direction and magnitudes of the currents. This plot is often a good check on the quality of the data, in particular regarding direction and possible problems at low speeds.

(3) Combined statistics for each bin giving vector mean speed and direction, and maximum and minimum variance and directions of maximum and minimum variance.

14.4 Single ADCP bin or S4 current meter output

One bin only with statistics are shown for each ADCP, representing the bottom bin.

(1) North and East components of velocity against time.

(2) Eulerian progressive vector plot. The nature of the residual flow is emphasised, although the semi-diurnal tides are also apparent.

(3) This is followed by simple statistics of the calibrated data.

14.5 Temperature and Pressure output

(1) Temperature (°C) and pressure (Bars) against time. The semi-diurnal nature of the tides and Spring/Neap cycle can also be seen in the pressure record

ACKNOWLEDGEMENTS

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Current profile and sea-bed pressure and temperature records. May 1990 - July 1991. Dover Strait. Proudman Oceanographic Laboratory, Report No.22, 234pp.

FIGURE 1 Map showing location of mooring area

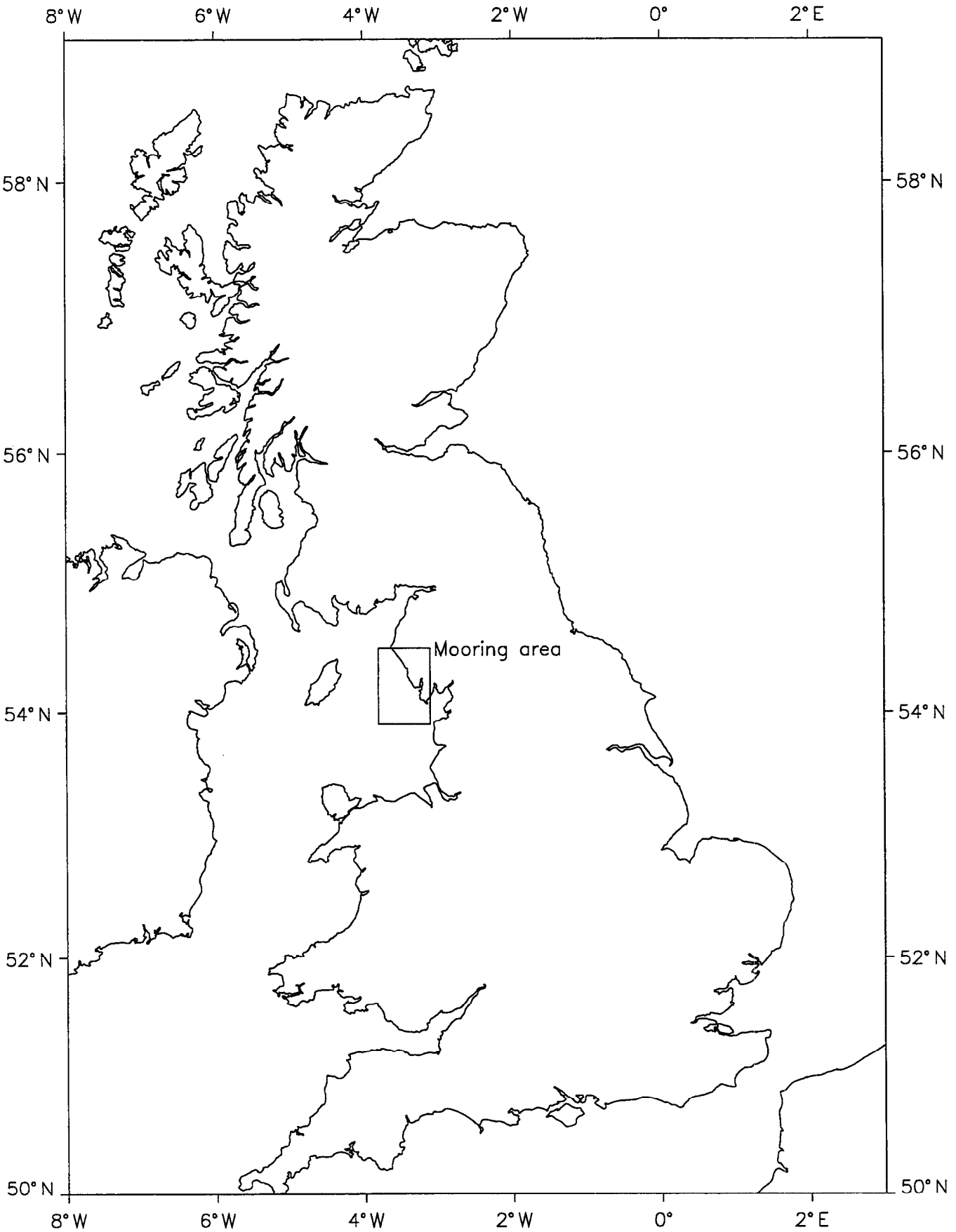


FIGURE 2 Map of mooring positions

Challenger 78 = single letters Challenger 88a = double letters

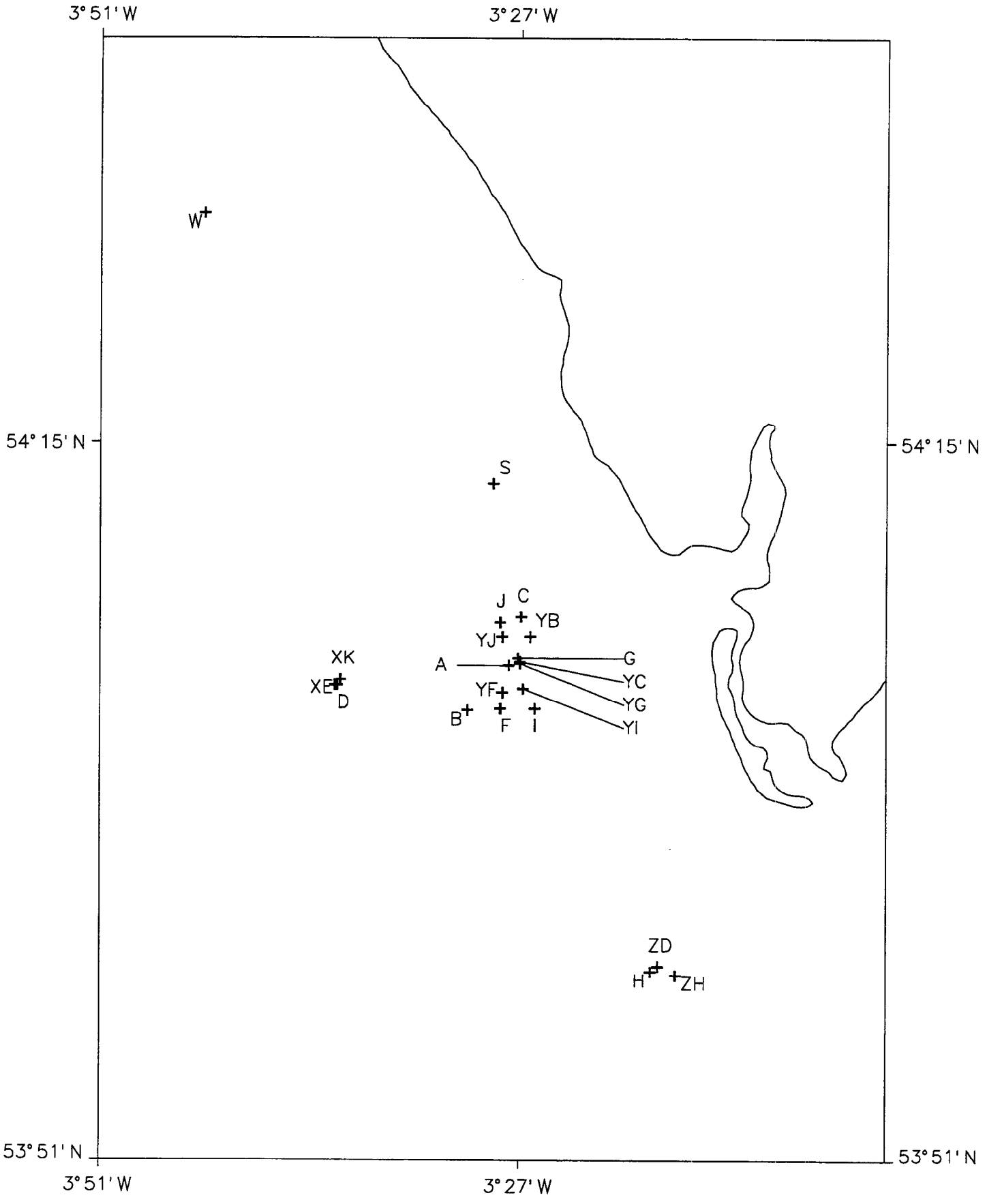


FIGURE 3 Diagram of frame incorporating the ADCP

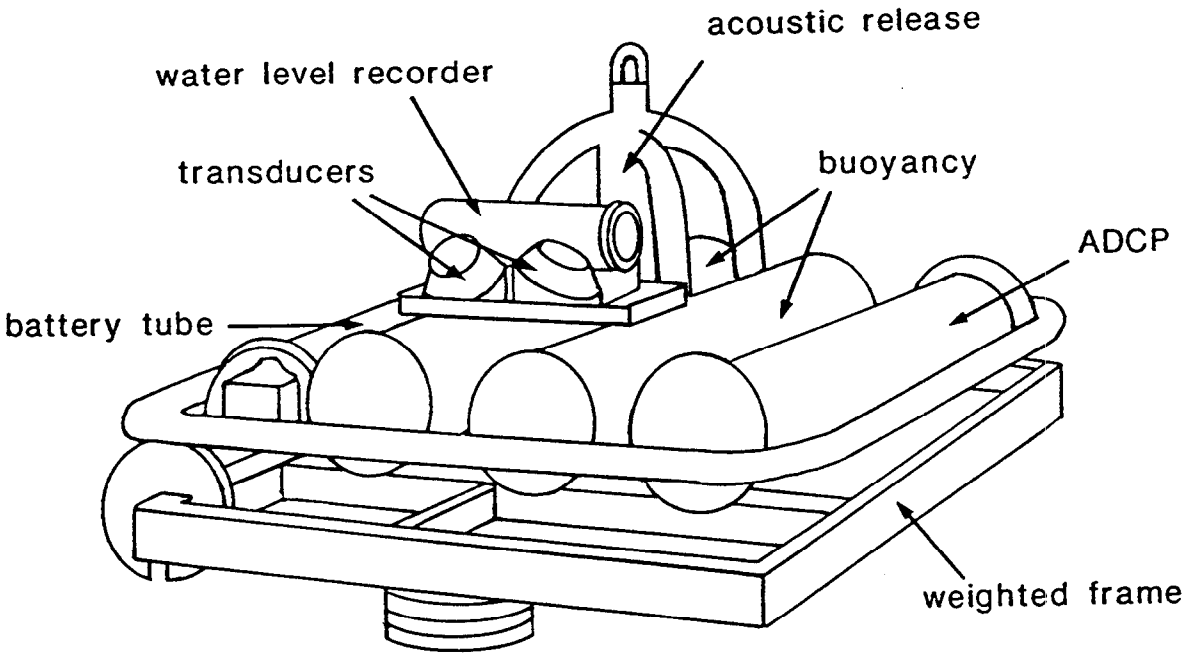


FIGURE 4 Diagram of S4 and Aanderaa deployment

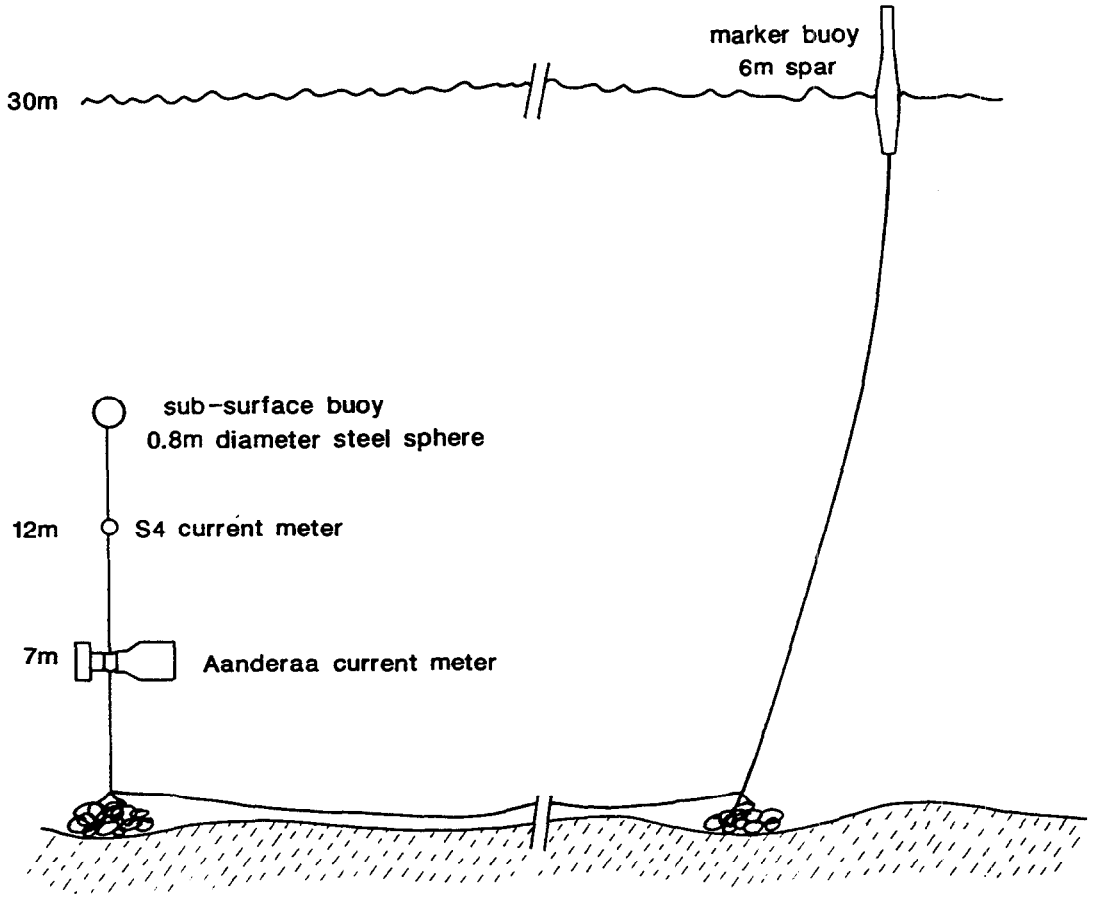


FIGURE 5 Diagram of STABLE with pressure gauge attached

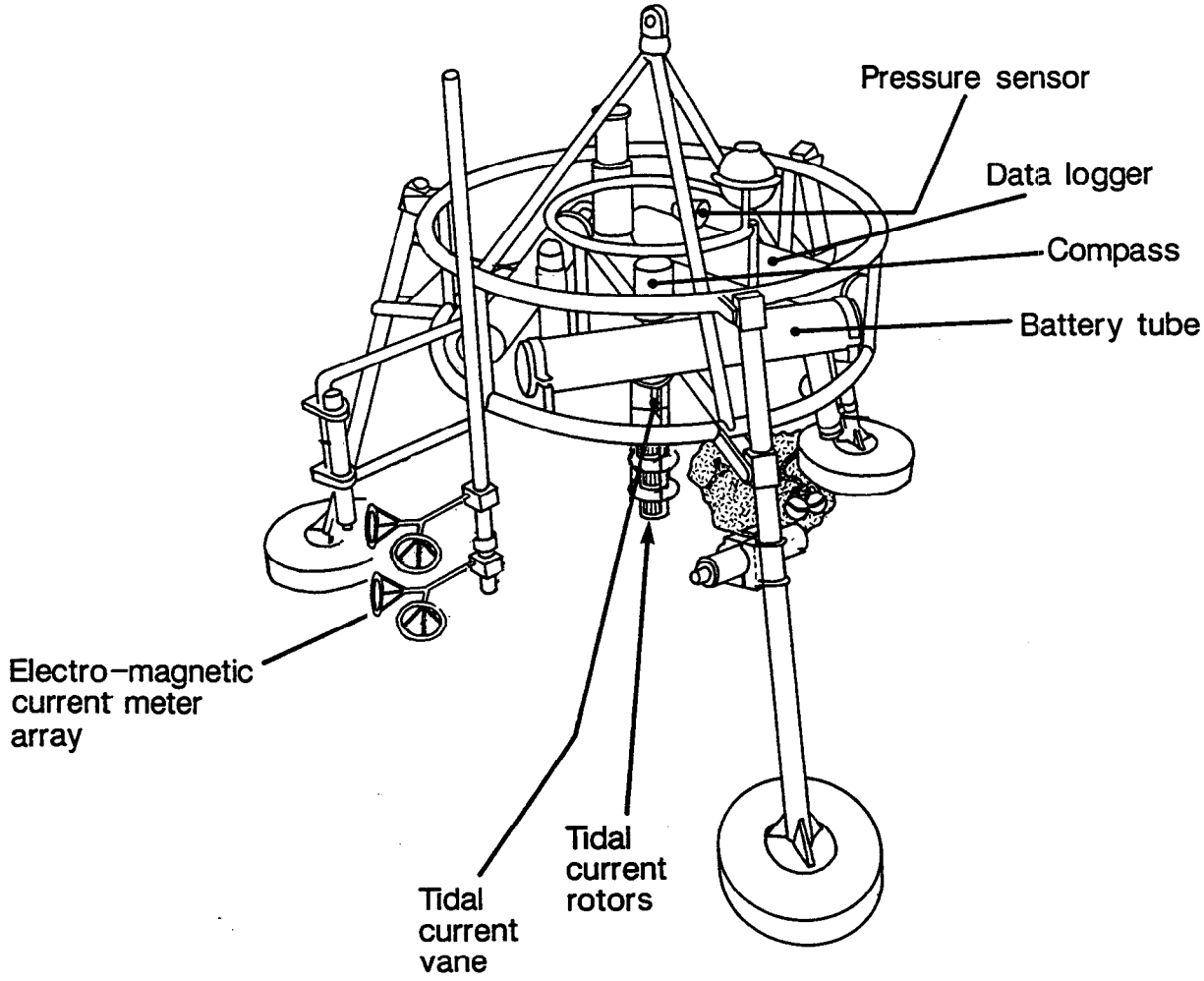


FIGURE 6 Diagram of Waverider Buoy

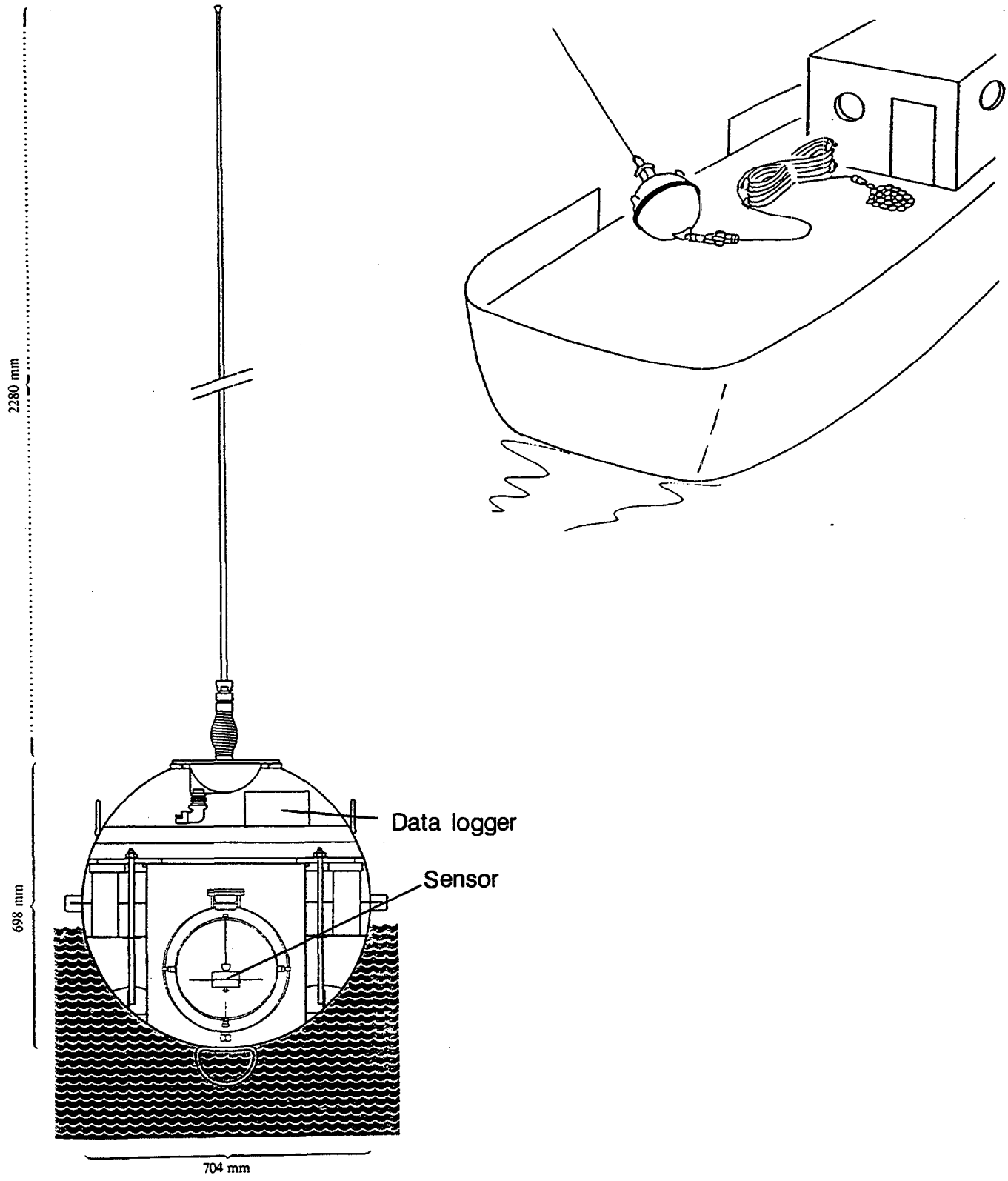
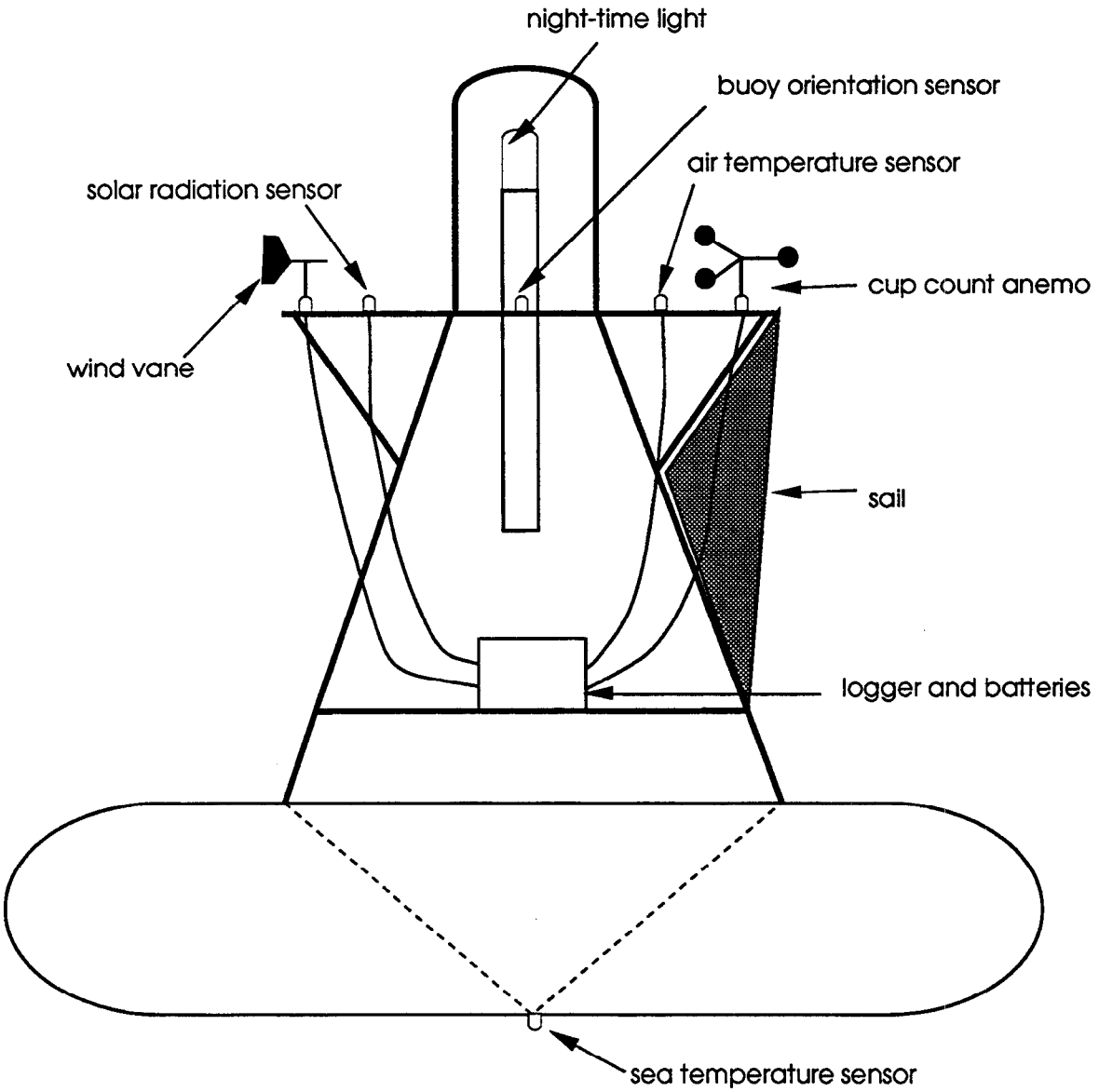
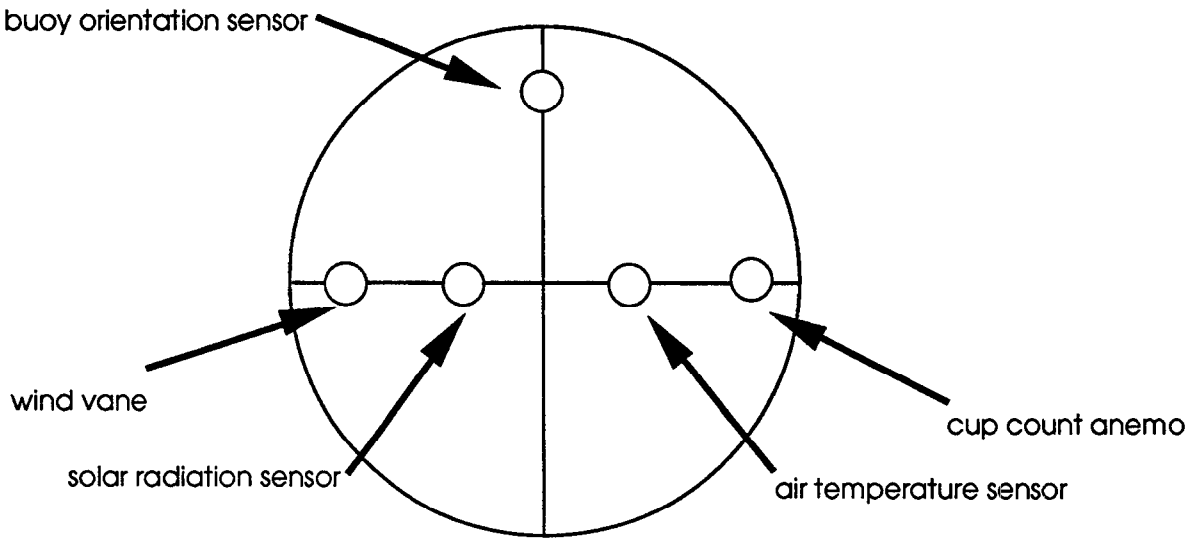


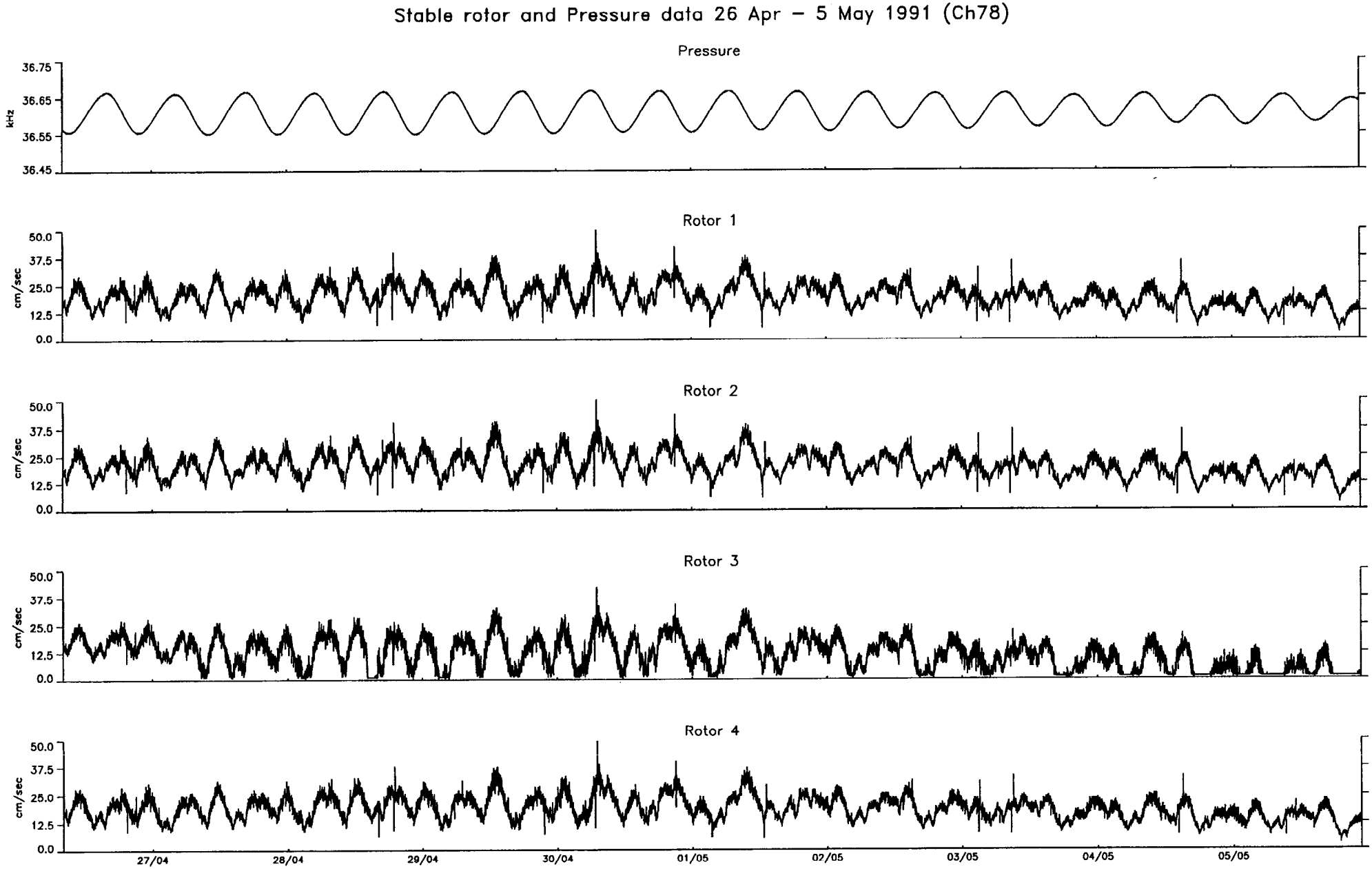
FIGURE 7 Diagram of Metbuoy





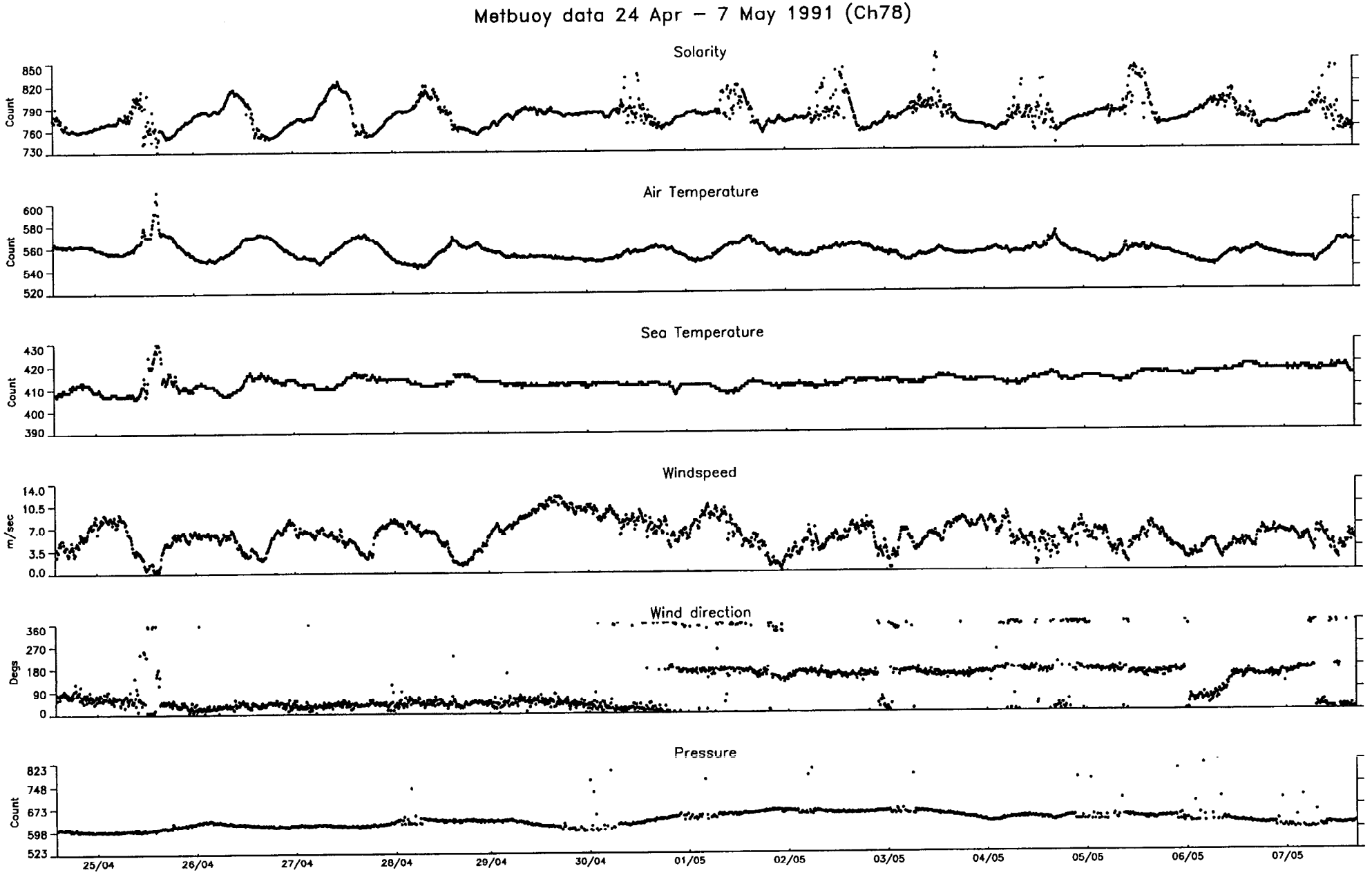
Rig information details for 78478

Position Latitude	:	54 07.41N
Position Longitude	:	03 27.59W
Water depth	:	27.0 m
Deployed on cruise	:	C78
Recovered on cruise	:	C78
Site name identification	:	A
Magnetic deviation	:	6.3 degrees west
Rig deployed on	:	26-APR-91 08:14:00
Rig recovered on	:	06-MAY-91 16:26:00
Period of deployment	:	10.3 days
Comments	:	Rotor order uncertain, due to problems in data transfer procedure. Rotor 3 has lowest speeds and is assumed to be the lowest rotor. Data is hourly.


Stable rotor and Pressure data 26 Apr – 5 May 1991 (Ch78)
Pressure
kHz
36.75
36.65
36.55
36.45
Rotor 1
cm/sec
50.0
37.5
25.0
12.5
0.0
Rotor 2
cm/sec
50.0
37.5
25.0
12.5
0.0
Rotor 3
cm/sec
50.0
37.5
25.0
12.5
0.0
Rotor 4
cm/sec
50.0
37.5
25.0
12.5
0.0
27/04
28/04
29/04
30/04
01/05
02/05
03/05
04/05
05/05

Rig information details for 78479

Position Latitude	:	54 05.93N
Position Longitude	:	03 29.93W
Water depth	:	24.5 m
Deployed on cruise	:	C78
Recovered on cruise	:	C78
Site name identification	:	B
Magnetic deviation	:	6.3 degrees west
Rig deployed on	:	24-APR-91 14:25:00
Rig recovered on	:	07-MAY-91 17:50:00
Period of deployment	:	13.1 days
Comments	:	None


Metbuoy data 24 Apr – 7 May 1991 (Ch78)
Solarity
Count
850
820
790
760
730
Air Temperature
Count
600
580
560
540
520
Sea Temperature
Count
430
420
410
400
390
Windspeed
m/sec
14.0
10.5
7.0
3.5
0.0
Wind direction
Degs
360
270
180
90
0
Pressure
Count
823
748
673
598
523
25/04
26/04
27/04
28/04
29/04
30/04
01/05
02/05
03/05
04/05
05/05
06/05
07/05

Rig information details for 78480

Position Latitude	:	54 9.03N
Position Longitude	:	03 26.85W
Water depth	:	20.0 m
Deployed on cruise	:	C78
Recovered on cruise	:	
Site name identification	:	C
Magnetic deviation	:	6.3 degrees west
Rig deployed on	:	25-APR-91 14:22:00
Rig recovered on	:	06-MAY-91 09:45:00
Period of deployment	:	10.8 days
Comments	:	None

Meter information details for 0004

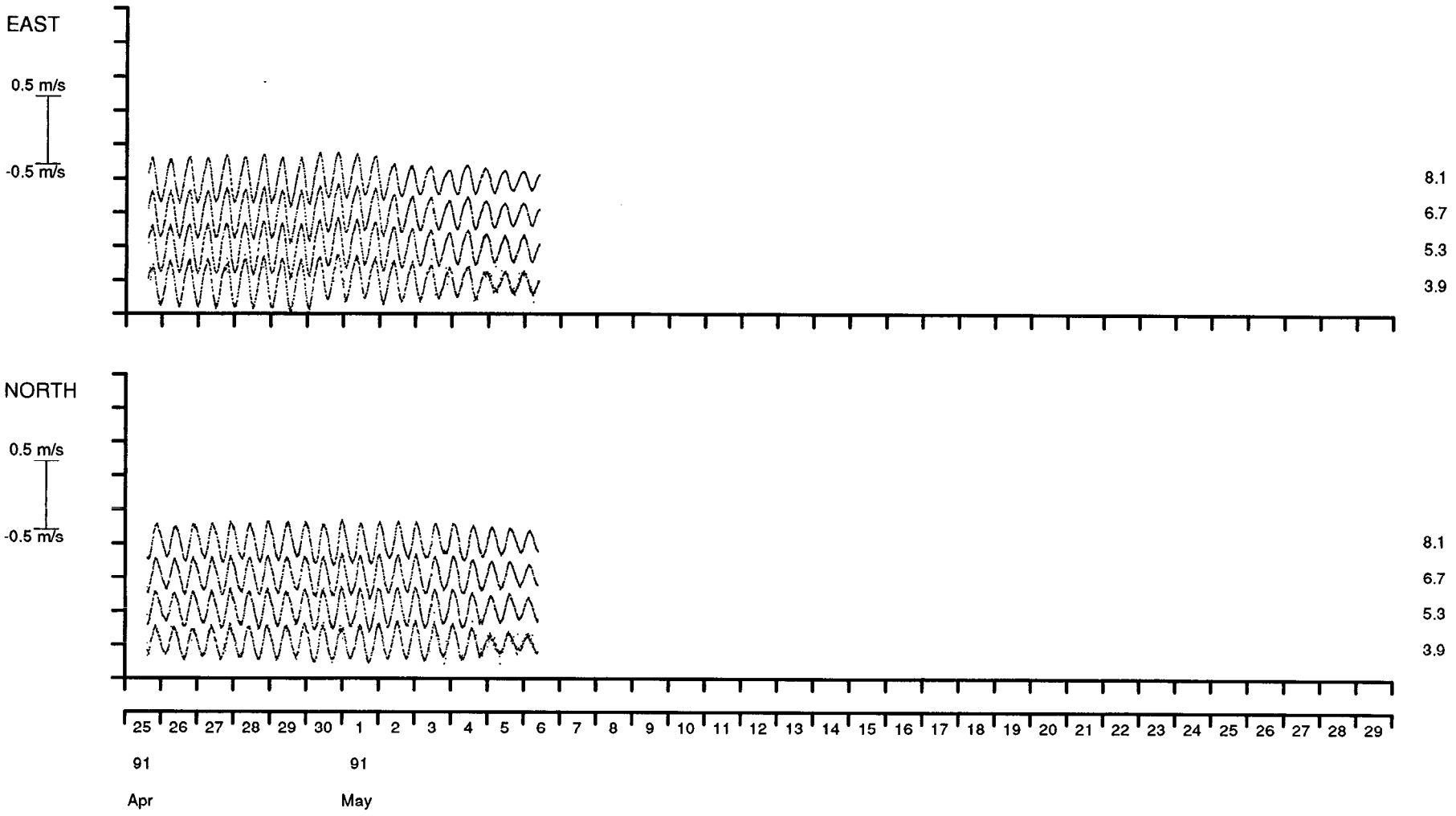
Rig No	:	78480
Meter No	:	0004
Frame angle correction	:	-84.8 degrees
Recording interval	:	600.0 seconds
Meter height from bottom	:	0.5 m
Meter type	:	DP
Meter started	:	25-APR-91 14:19:36
Meter stopped	:	06-MAY-91 09:39:26
Period switched on	:	10.8 days
Period of good data	:	10.8 days
Total number of scans	:	1556
Timing error	:	10 seconds fast
Comments	:	Doppler working at 1 Mhz assumed. Missing part scans at records 40,346 and 1028 due to translation problem. These were interpolated by hand in raw file. Only bottom 4 bins show sensible data, all others should be treated with care. Phase lag for this data set is approx. 170 degrees. Concurrent current meters are 200 degs, which suggests that the meter could have been started in BST instead of GMT. No correction has been applied because of this. Aanderaa 6433 correction of -84.8 degs. applied to correct for Doppler compass error.

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0004 Rig no. 78480 Depth of water(m) 20.0

Start/End 1991/04/25 AT 14:22:00 1991/05/06 AT 09:45:00

Position 54 9.03N 03 26.85W 3.90 Base Ht 1.41 Gap Ht

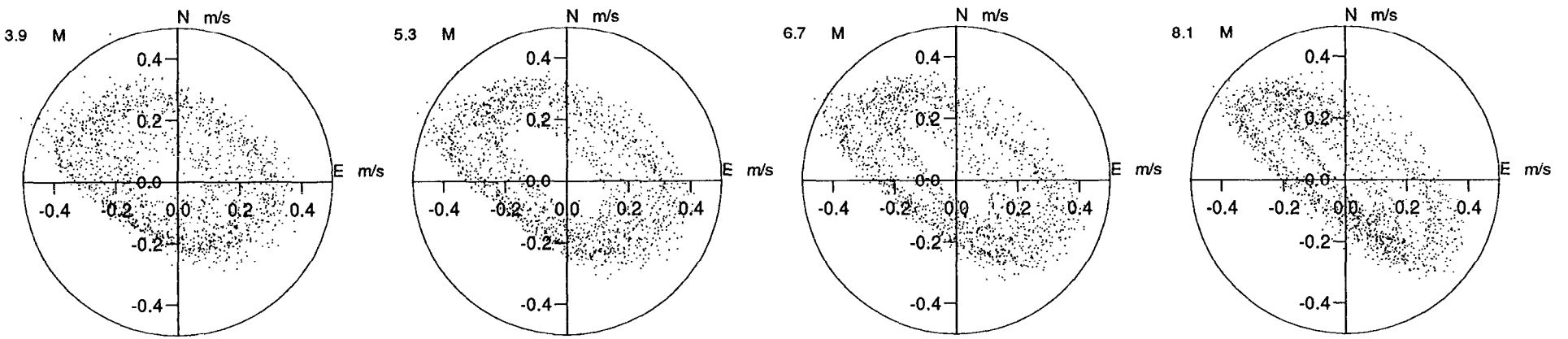


SCATTER PLOT

Meter no. 0004 Rig no. 78480 Depth of water(m) 20.0

Start/End 1991/04/25 AT 14:22:00 1991/05/06 AT 09:45:00

Position 54 9.03N 03 26.85W 3.90 Base Ht 1.41 Gap Ht

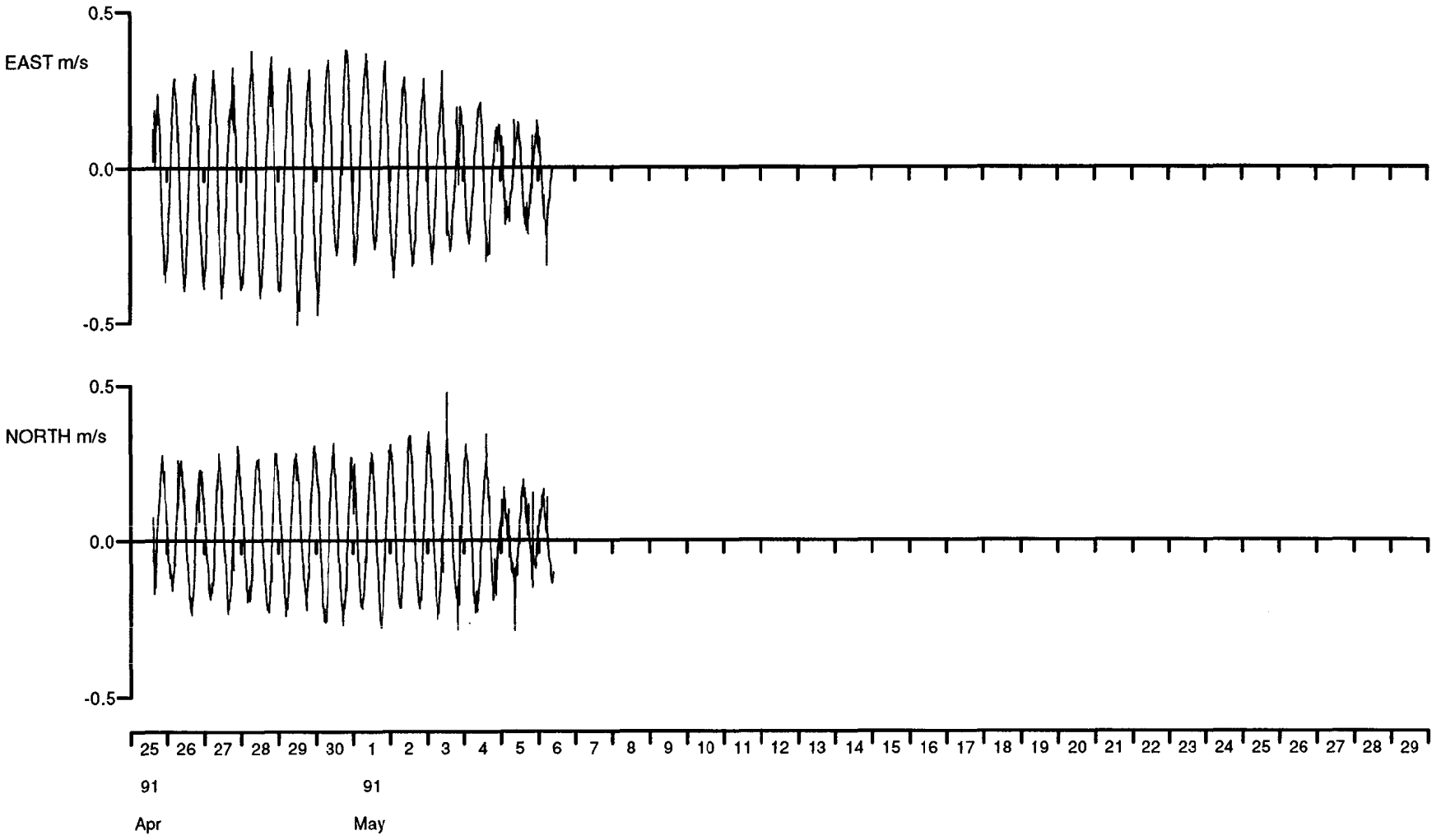


VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0004 Rig no. 78480 Depth of water(m) 20.0

Start/End 1991/04/25 AT 14:22:00 1991/05/06 AT 09:45:00

Position 54 9.03N 03 26.85W 3.90 Base Ht 1.41 Gap Ht 3.9 Bin Ht (m)

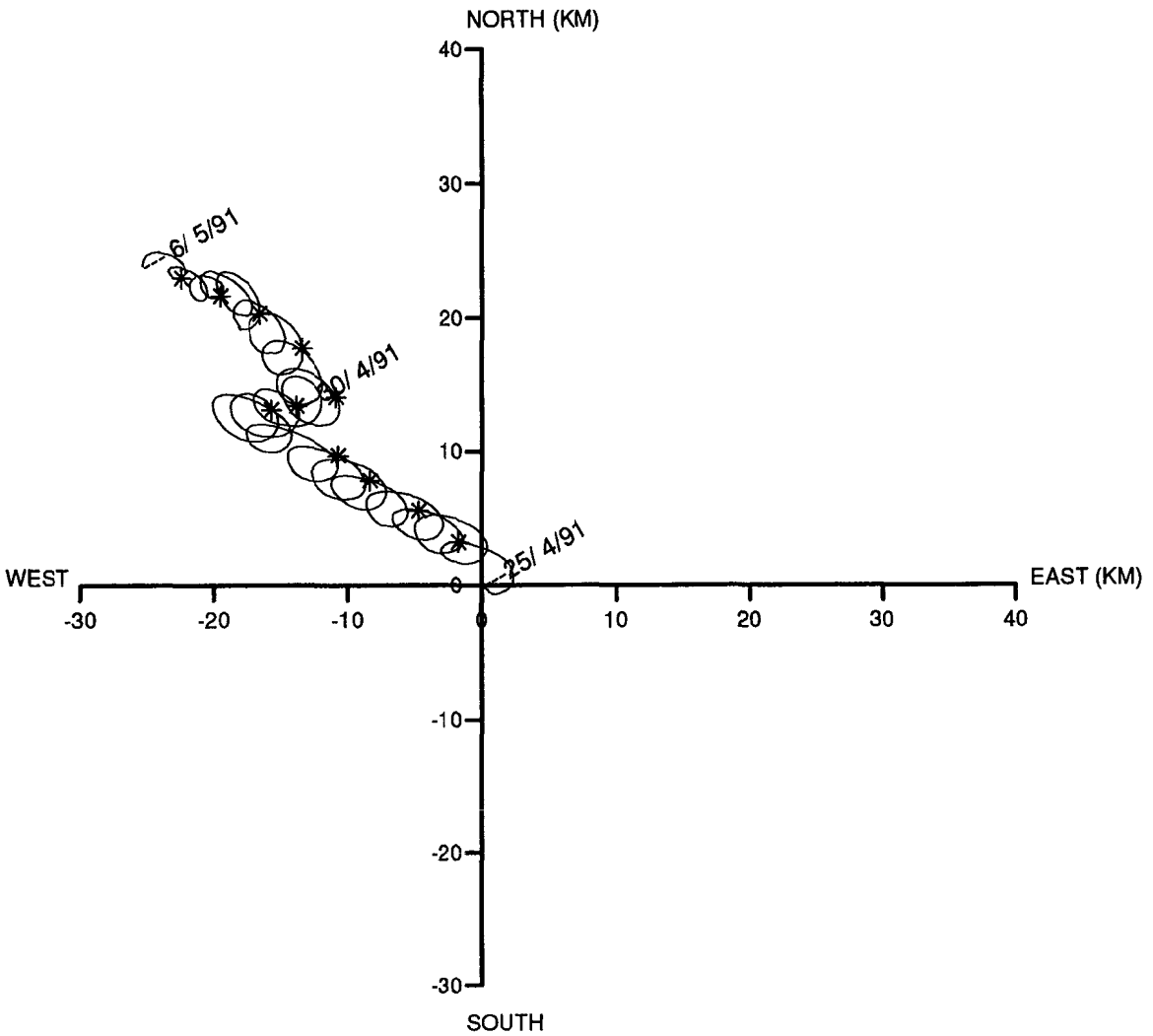


VECTOR PLOT

Meter no. 0004 Rig no. 78480 Depth of water(m) 20.0

Start/End 1991/04/25 AT 14:22:00 1991/05/06 AT 09:45:00

Position 54 9.03N 03 26.85W 3.90 Base Ht 1.41 Gap Ht 3.9 Bin Ht (m)



Statistics for dp0004.78480s1

Doppler bin number 1

	Mean	Variance	Standard deviation
Eastings	-0.0254	0.39754119E-01	0.19938435E+00
Northings	0.0226	0.21861067E-01	0.14785488E+00
Speed	0.2386	0.58042188E-02	0.76185420E-01

Vector mean speed 0.0340

Vector Mean Direction -48.4

Maximum ten values

Eastings					Northings				
0.374	0.365	0.365	0.364	0.364	0.442	0.326	0.319	0.315	0.315
0.361	0.360	0.358	0.353	0.349	0.314	0.309	0.308	0.306	0.303

Minimum ten values

Eastings					Northings				
-0.421	-0.424	-0.425	-0.432	-0.435	-0.239	-0.241	-0.242	-0.242	-0.244
-0.435	-0.446	-0.454	-0.460	-0.491	-0.251	-0.257	-0.257	-0.259	-0.265

Maximum speeds

0.519	0.484	0.480	0.466	0.464	0.458	0.457	0.449	0.445	0.445
0.444	0.439	0.436	0.435	0.429	0.427	0.419	0.416	0.415	0.415
0.412	0.412	0.407	0.407	0.403	0.402	0.400	0.398	0.397	0.396
0.395	0.395	0.394	0.394	0.393	0.392	0.391	0.391	0.389	0.389
0.389	0.386	0.385	0.385	0.385	0.384	0.384	0.383	0.382	0.382
0.382	0.382	0.382	0.381	0.381	0.381	0.380	0.380	0.378	0.378
0.378	0.378	0.378	0.377	0.376	0.376	0.375	0.375	0.374	0.374
0.374	0.373	0.373	0.373	0.372	0.371	0.370	0.369	0.369	0.367
0.366	0.366	0.366	0.366	0.365	0.365	0.364	0.363	0.363	0.362
0.362	0.361	0.361	0.361	0.360	0.360	0.358	0.357	0.356	0.356

Variance ellipse statistics

Maximum variance	0.4172E-01	Direction	-72.5
Minimum variance	0.1989E-01	Direction	17.5
Total variance	0.6162E-01	Ratio of variances	0.4769E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 25.1

Average direction. maxdir +PI/2 to maxdir -PI/2 179.7

Statistics for dp0004.78480

Statistics
For all good data bins

ADCP Bin Number	ADCP Bin Height	Vector Mean Speed	Vector Mean Direction	Maximum Variance	Direction of Maximum Variance	Minimum Variance	Direction of Minimum Variance
1	3.9	0.034	-48.4	0.0417	-72.5	0.0199	17.5
2	5.3	0.030	-39.7	0.0493	-65.5	0.0208	24.5
3	6.7	0.025	-35.1	0.0511	-57.7	0.0171	32.3
4	8.1	0.022	-31.5	0.0501	-50.6	0.0102	39.4

Rig information details for 78481

Position Latitude	:	54 06.78N
Position Longitude	:	03 37.37W
Water depth	:	20.0 m
Deployed on cruise	:	C78
Recovered on cruise	:	C78
Site name identification	:	D
Magnetic deviation	:	6.3 degrees west
Rig deployed on	:	25-APR-91 17:22:00
Rig recovered on	:	06-MAY-91 08:11:00
Period of deployment	:	10.6 days
Comments	:	None

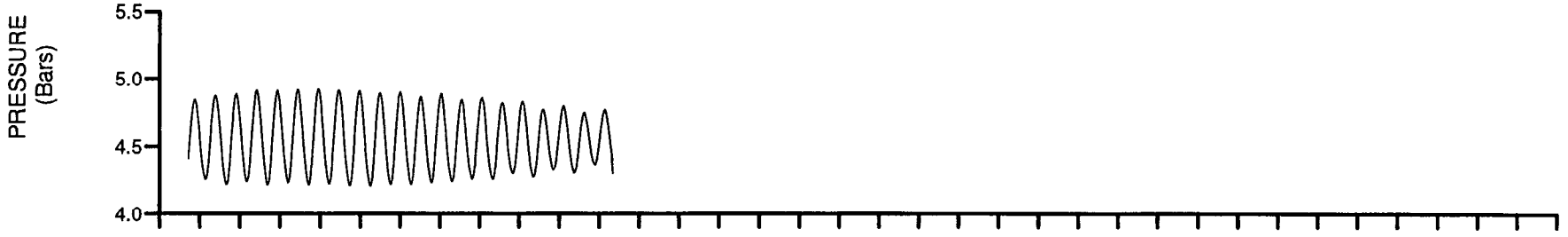
Meter information details for 0500

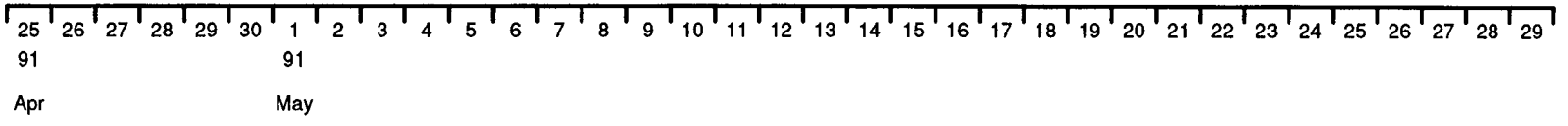
Rig No	:	78481
Meter No	:	0500
Recording interval	:	600.0 seconds
Meter height from bottom	:	0.5 m
Position of meter on rig	:	
Meter type	:	WR
Meter started	:	24-APR-91 09:00:57
Meter stopped	:	06-MAY-91 15:11:00
Period switched on	:	12.3 days
Period of good data	:	10.6 days
Total number of scans	:	1529
Timing error	:	3 seconds slow
Comments	:	None

Meter no. 0500 Rig no. 78481 Depth of water(m) 20.0

Start/End 1991/04/25 AT 17:22:00 1991/05/06 AT 08:11:00

Position 54 06.78N 03 37.37W Meter Height(m) 0.5



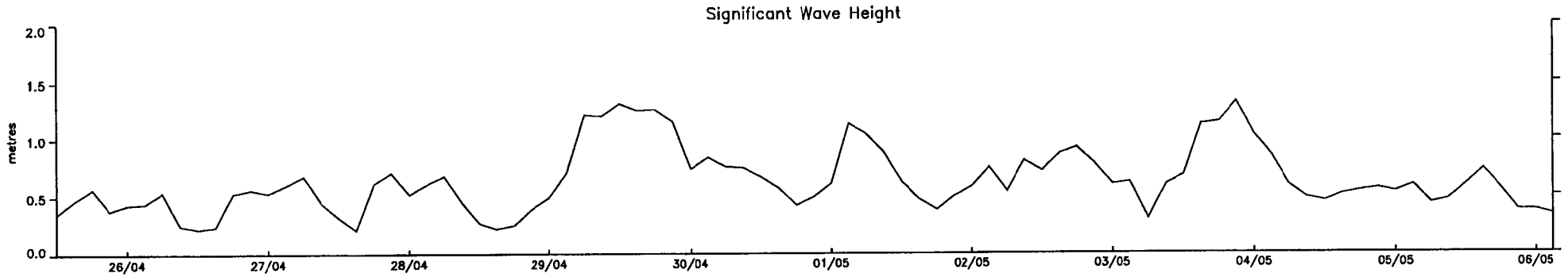


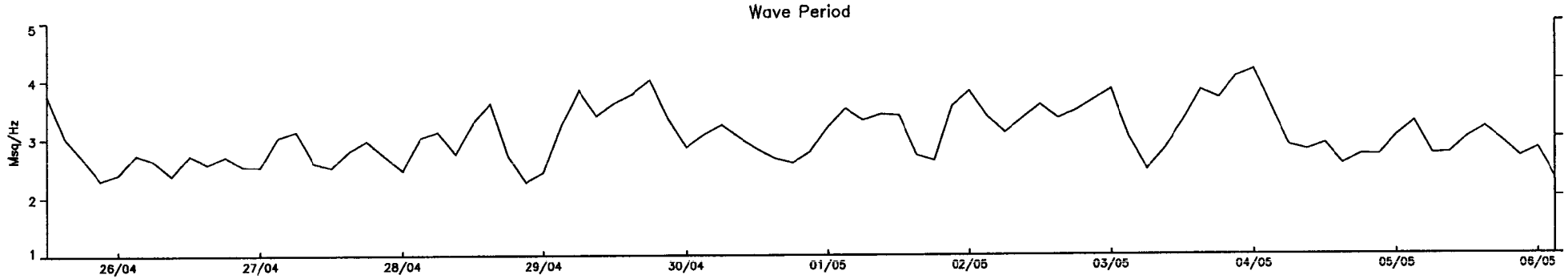
Rig information details for 78483

Position Latitude	:	54 05.99N
Position Longitude	:	03 28.07W
Water depth	:	24.0 m
Deployed on cruise	:	C78
Recovered on cruise	:	C78
Site name identification	:	F
Magnetic deviation	:	6.3 degrees west
Rig deployed on	:	25-APR-91 09:52:00
Rig recovered on	:	06-MAY-91 10:25:00
Period of deployment	:	11.0 days
Comments	:	None

Wavebuoy data 25 Apr – 6 May 1991 (Ch78)

3 hourly values





Rig information details for 78484

Position Latitude	:	54 07.69N
Position Longitude	:	03 27.04W
Water depth	:	20.0 m
Deployed on cruise	:	C78
Recovered on cruise	:	C78
Site name identification	:	G
Magnetic deviation	:	6.3 degrees west
Rig deployed on	:	24-APR-91 16:00:00
Rig recovered on	:	07-MAY-91 12:30:00
Period of deployment	:	12.9 days
Comments	:	None

Meter information details for 6443

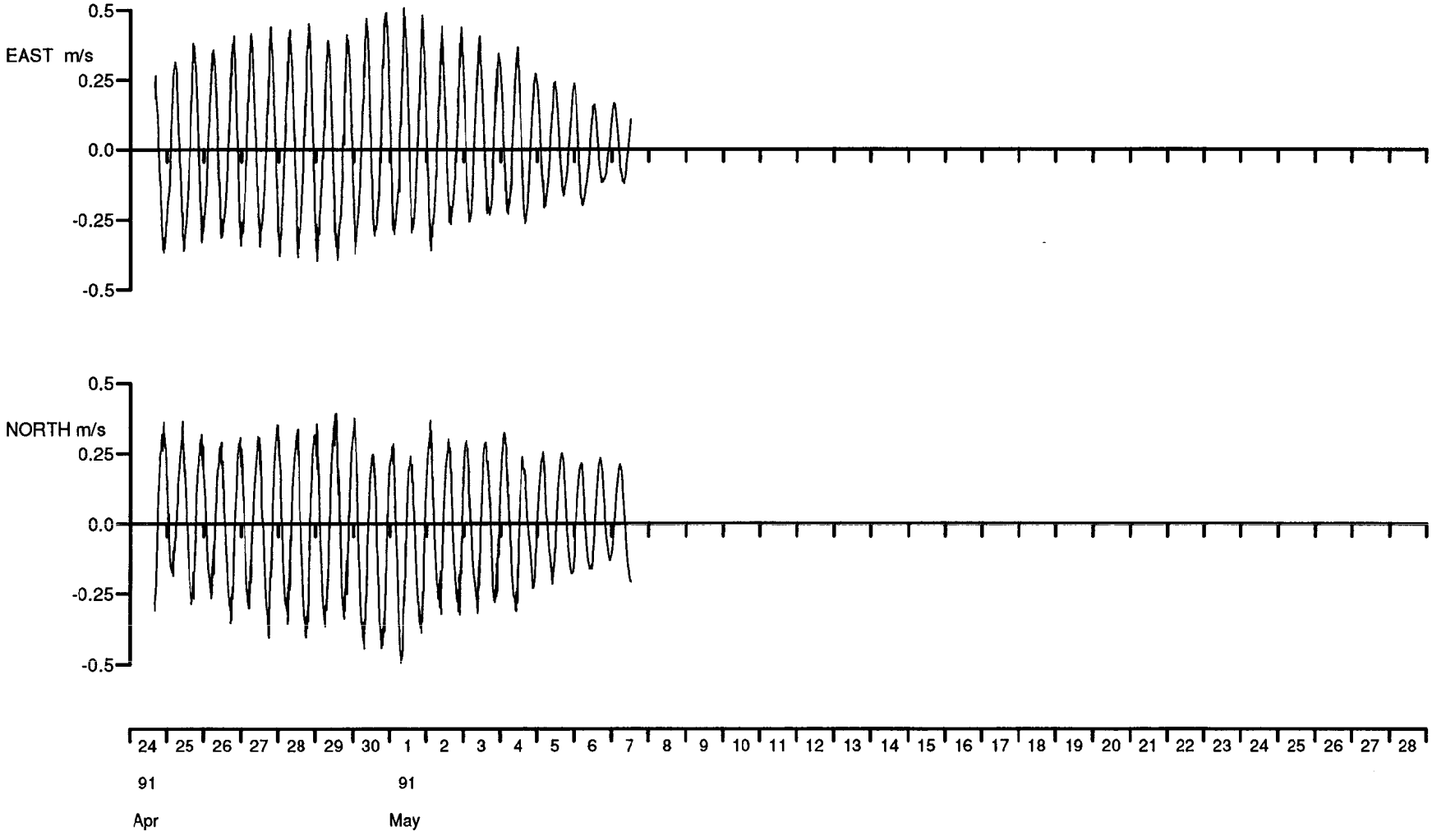
Rig No	:	78484
Meter No	:	6443
Recording interval	:	600.0 seconds
Meter height from bottom	:	11.0 m
Position of meter on rig	:	T
Meter type	:	AA
Meter started	:	24-APR-91 08:00:00
Meter stopped	:	07-MAY-91 18:10:00
Period switched on	:	13.4 days
Period of good data	:	12.8 days
Total number of scans	:	1850
Timing error	:	None
Comments	:	Conductivity failed, reason unknown.

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 6443 Rig no. 78484 Depth of water(m) 20.0

Start/End 1991/04/24 AT 16:00:00 1991/05/07 AT 12:30:00

Position 54 07.69N 03 27.04W Meter Height(m) 11.0

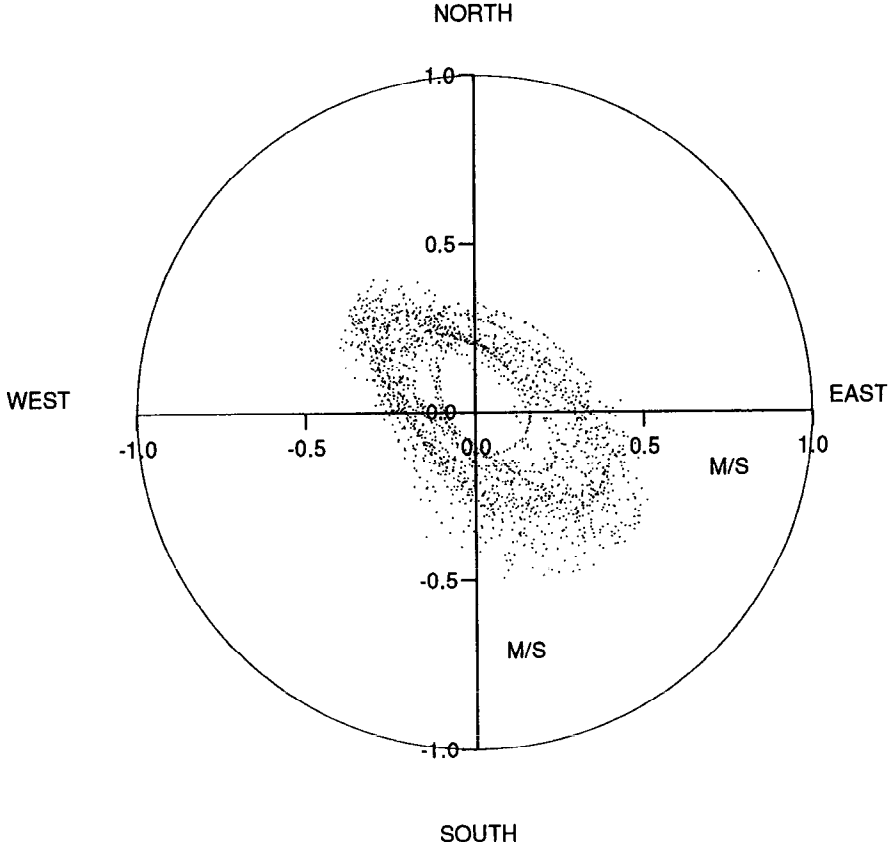


SCATTER PLOT

Meter no. 6443 Rig no. 78484 Depth of water(m) 20.0

Start/End 1991/04/24 AT 16:00:00 1991/05/07 AT 12:30:00

Position 54 07.69N 03 27.04W Meter Height(m) 11.0

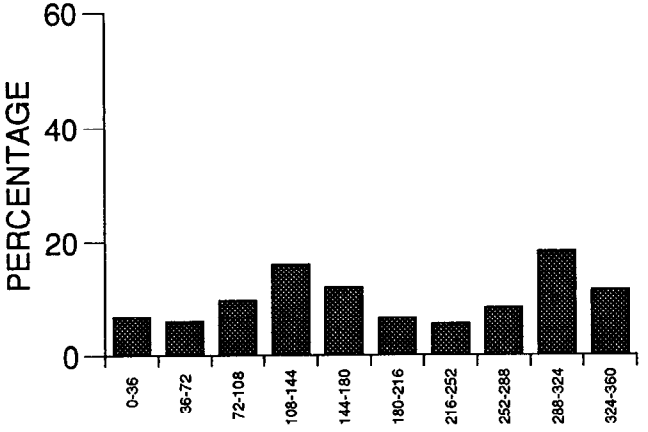


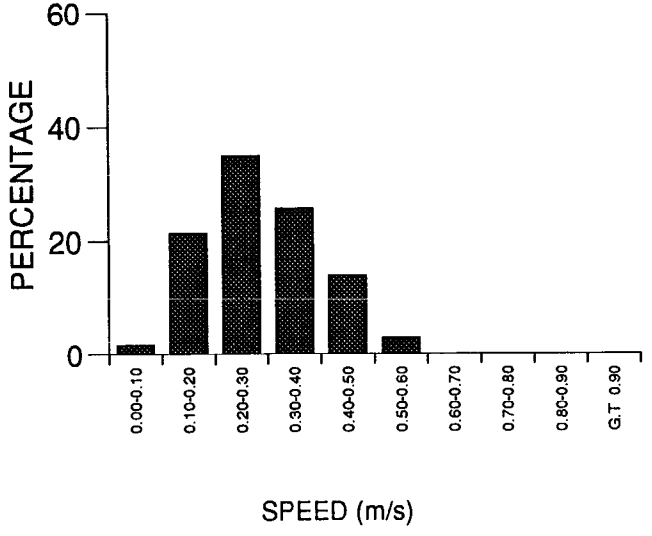
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 6443 Rig no. 78484 Depth of water(m) 20.0

Start/End 1991/04/24 AT 16:00:00 1991/05/07 AT 12:30:00

Position 54 07.69N 03 27.04W Meter Height(m) 11.0



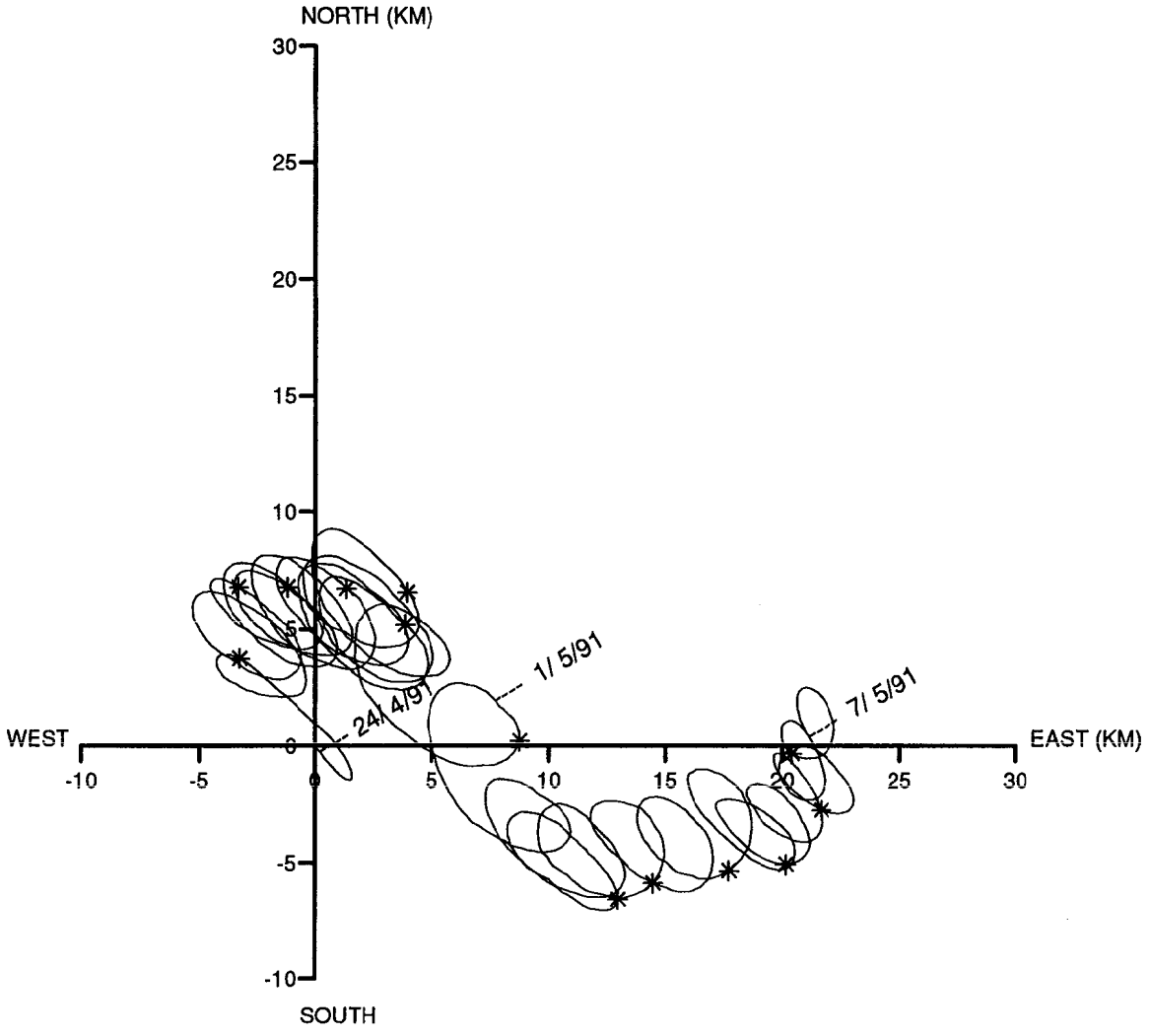


VECTOR PLOT

Meter no. 6443 Rig no. 78484 Depth of water(m) 20.0

Start/End 1991/04/24 AT 16:00:00 1991/05/07 AT 12:30:00

Position 54 07.69N 03 27.04W Meter Height(m) 11.0

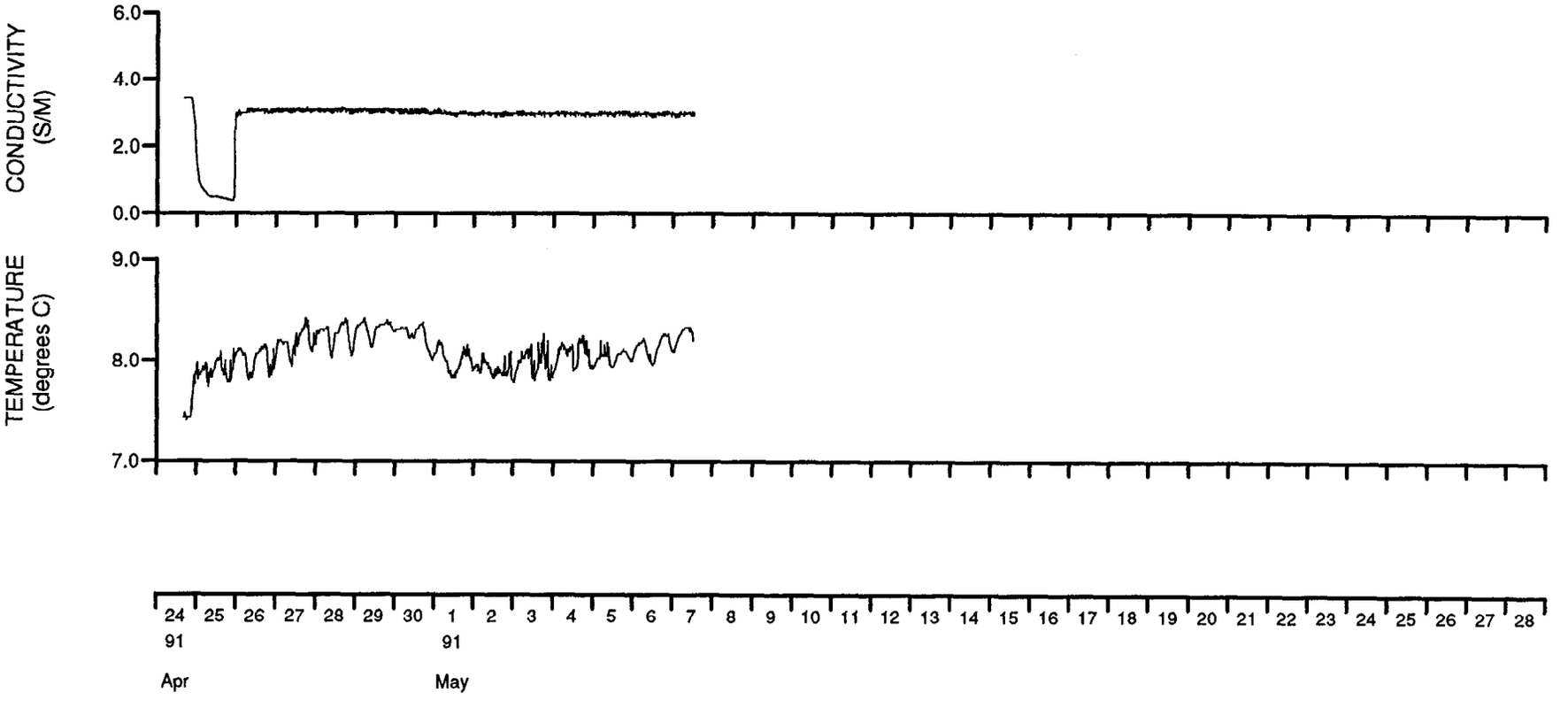


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 6443 Rig no. 78484 Depth of water(m) 20.0

Start/End 1991/04/24 AT 16:00:00 1991/05/07 AT 12:30:00

Position 54 07.69N 03 27.04W Meter Height(m) 11.0



Statistics for aa6443t.78484s

	Mean	Variance	Standard deviation
Eastings	0.0190	0.49129132E-01	0.22165093E+00
Northings	0.0004	0.43552376E-01	0.20869206E+00
Speed	0.2866	0.10838262E-01	0.10410698E+00
Vector mean speed	0.0190		
Vector Mean Direction	88.7		

Maximum ten values

Eastings					Northings				
0.507	0.490	0.487	0.484	0.482	0.393	0.392	0.385	0.375	0.374
0.482	0.481	0.480	0.475	0.471	0.367	0.366	0.364	0.362	0.361

Minimum ten values

Eastings					Northings				
-0.364	-0.367	-0.368	-0.372	-0.381	-0.458	-0.464	-0.467	-0.470	-0.471
-0.384	-0.384	-0.388	-0.394	-0.398	-0.471	-0.477	-0.479	-0.486	-0.494

Maximum speeds

0.585	0.583	0.583	0.576	0.575	0.574	0.572	0.571	0.571	0.567
0.567	0.565	0.564	0.562	0.561	0.560	0.555	0.555	0.553	0.551
0.548	0.546	0.546	0.544	0.541	0.541	0.539	0.537	0.537	0.536
0.536	0.534	0.527	0.526	0.526	0.520	0.520	0.520	0.519	0.515
0.515	0.513	0.513	0.513	0.512	0.511	0.506	0.506	0.501	0.501
0.501	0.501	0.498	0.498	0.498	0.498	0.494	0.492	0.492	0.491
0.491	0.490	0.490	0.485	0.484	0.484	0.483	0.481	0.481	0.481
0.481	0.480	0.480	0.480	0.480	0.478	0.478	0.477	0.477	0.476
0.474	0.473	0.471	0.471	0.471	0.470	0.470	0.470	0.469	0.469
0.469	0.467	0.467	0.467	0.467	0.467	0.466	0.466	0.464	0.464

Variance ellipse statistics

Maximum variance	0.7267E-01	Direction	-48.0
Minimum variance	0.2002E-01	Direction	42.0
Total variance	0.9268E-01	Ratio of variances	0.2754E+00
Average direction. maxdir -PI/2 to maxdir +PI/2	13.0		
Average direction. maxdir +PI/2 to maxdir -PI/2	179.8		

Rig information details for 78485

Position Latitude	:	53 57.17N
Position Longitude	:	03 19.49W
Water depth	:	20.0 m
Deployed on cruise	:	C78
Recovered on cruise	:	C78
Site name identification	:	H
Magnetic deviation	:	6.2 degrees west
Rig deployed on	:	24-APR-91 18:19:00
Rig recovered on	:	07-MAY-91 14:47:00
Period of deployment	:	12.9 days
Comments	:	None

Meter information details for 0568

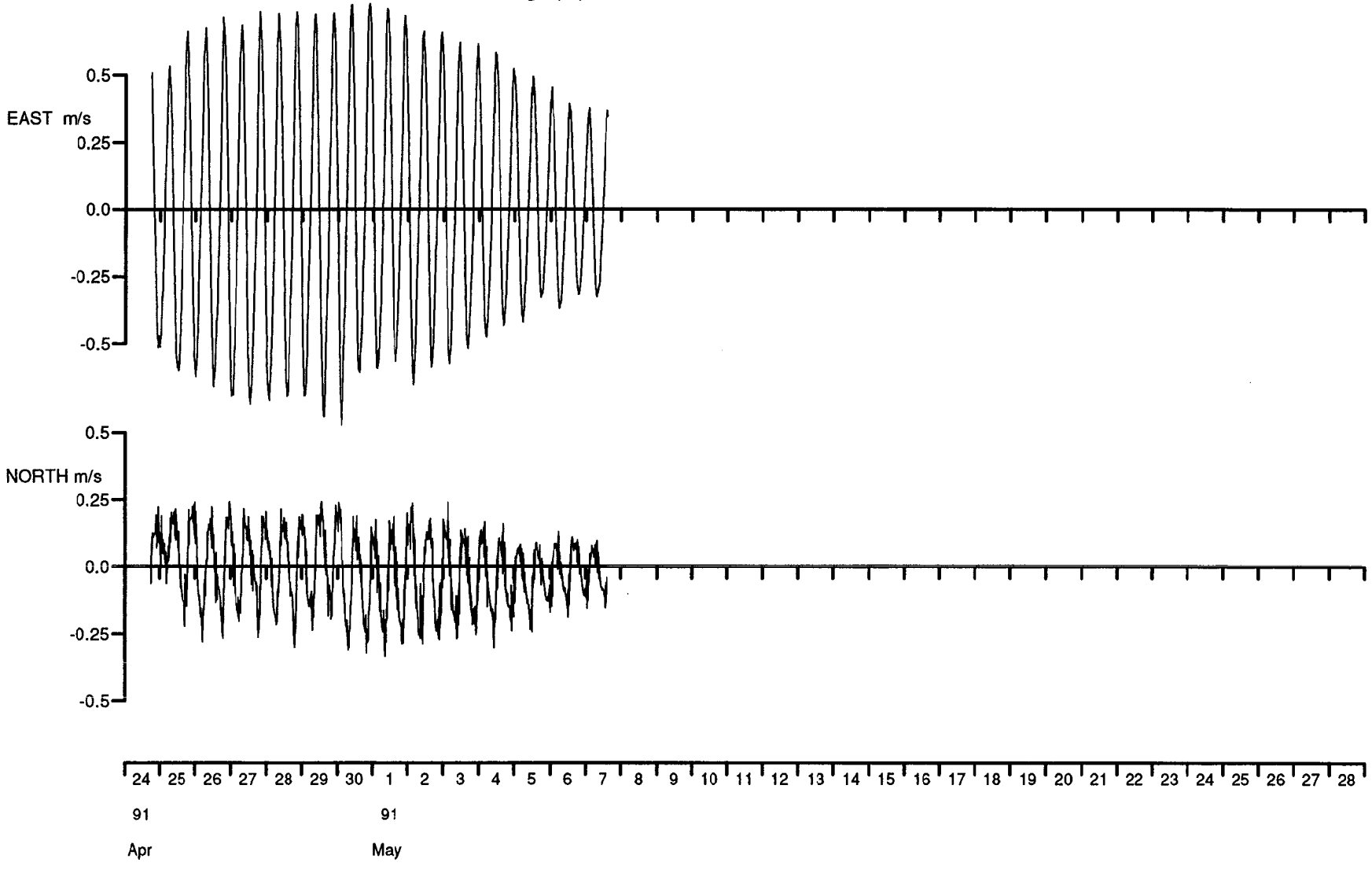
Rig No	:	78485
Meter No	:	0568
Recording interval	:	600.0 seconds
Meter height from bottom	:	11.0 m
Position of meter on rig	:	T
Meter type	:	AA
Meter started	:	24-APR-91 07:30:00
Meter stopped	:	07-MAY-91 18:30:00
Period switched on	:	13.5 days
Period of good data	:	12.9 days
Total number of scans	:	1851
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0568 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 11.0

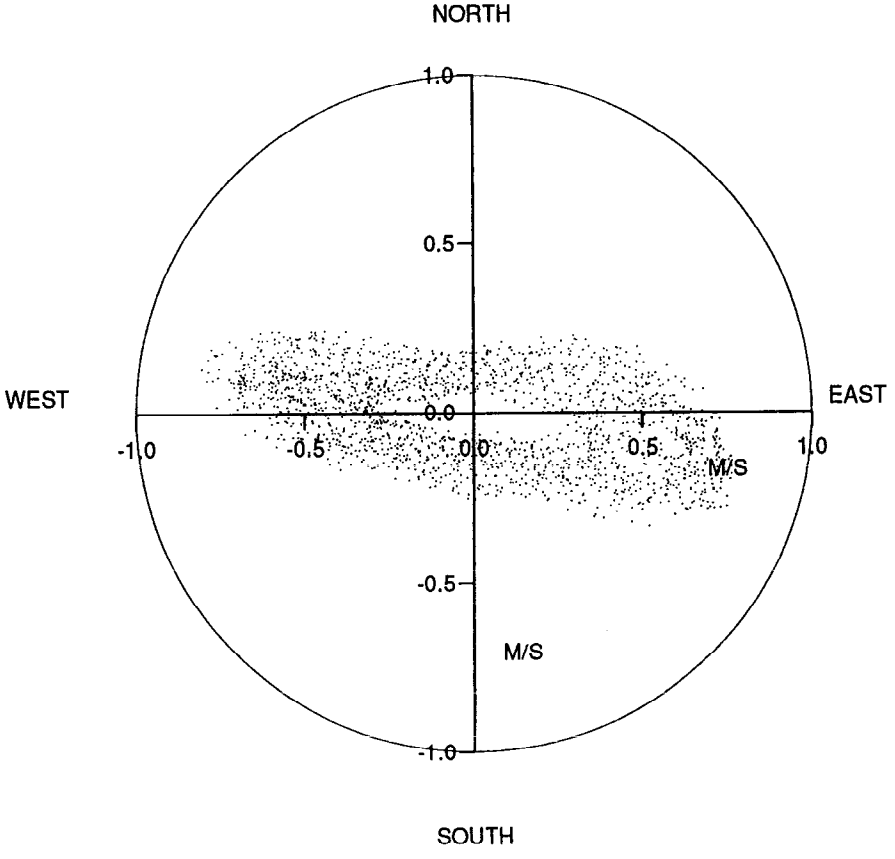


SCATTER PLOT

Meter no. 0568 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 11.0

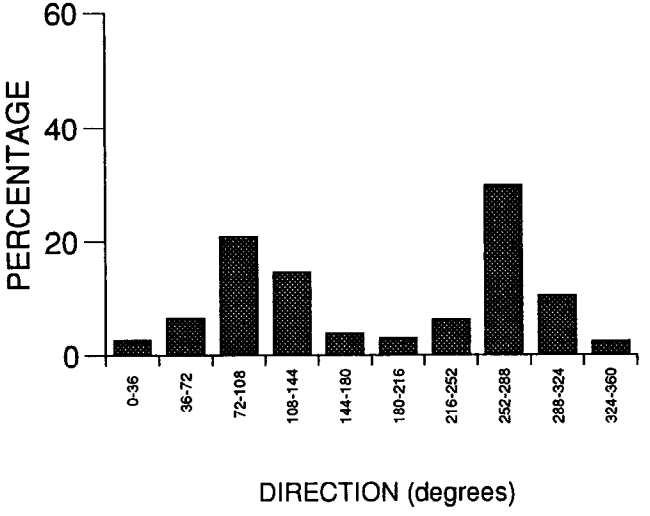


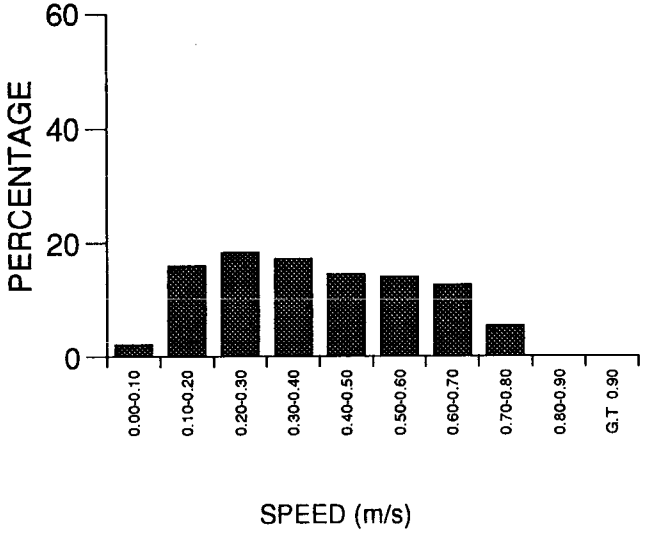
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 0568 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 11.0



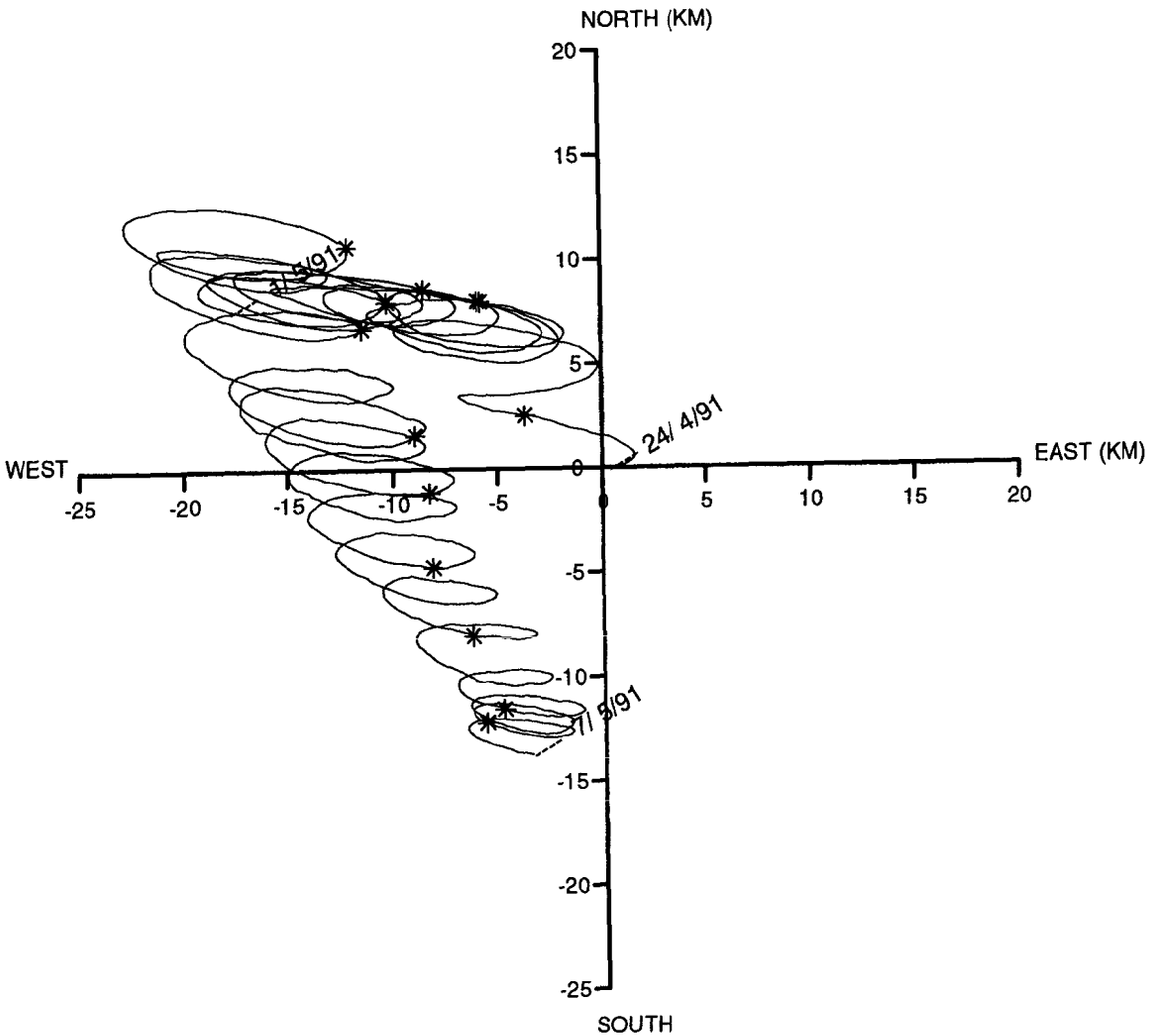


VECTOR PLOT

Meter no. 0568 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 11.0

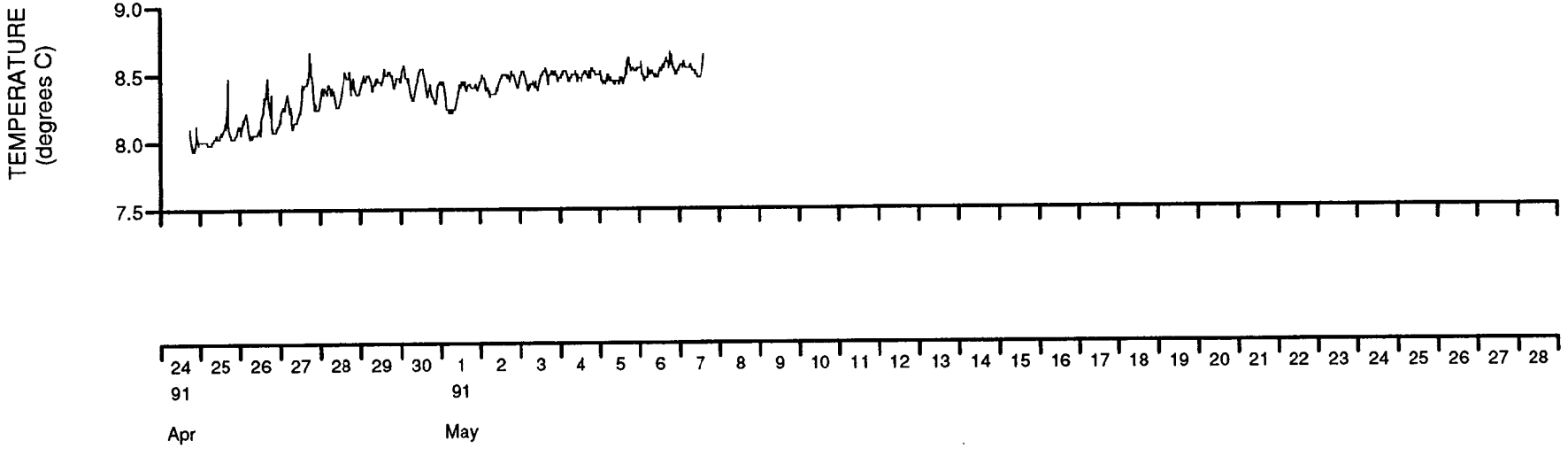


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 0568 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 11.0



Statistics for aa0568t.78485s

	Mean	Variance	Standard deviation
Eastings	-0.0032	0.17353544E+00	0.41657585E+00
Northings	-0.0123	0.17482463E-01	0.13222127E+00
Speed	0.3955	0.34676507E-01	0.18621629E+00

Vector mean speed 0.0127

Vector Mean Direction -165.4

Maximum ten values

Eastings					Northings				
0.763	0.761	0.760	0.757	0.757	0.243	0.242	0.241	0.241	0.240
0.757	0.753	0.752	0.748	0.746	0.240	0.236	0.231	0.230	0.228

Minimum ten values

Eastings					Northings				
-0.760	-0.762	-0.763	-0.768	-0.773	-0.287	-0.287	-0.291	-0.300	-0.301
-0.776	-0.786	-0.787	-0.791	-0.805	-0.302	-0.306	-0.311	-0.321	-0.334

Maximum speeds

0.816	0.802	0.799	0.796	0.796	0.796	0.788	0.788	0.782	0.782
0.782	0.779	0.779	0.779	0.779	0.774	0.771	0.771	0.768	0.765
0.765	0.765	0.765	0.765	0.763	0.763	0.763	0.760	0.757	0.757
0.757	0.757	0.754	0.754	0.754	0.754	0.751	0.749	0.746	0.746
0.746	0.743	0.743	0.740	0.740	0.737	0.737	0.737	0.737	0.737
0.735	0.735	0.732	0.732	0.732	0.732	0.732	0.732	0.729	0.729
0.729	0.726	0.726	0.726	0.726	0.726	0.723	0.723	0.721	0.721
0.721	0.721	0.721	0.718	0.718	0.718	0.715	0.715	0.715	0.715
0.715	0.715	0.715	0.712	0.712	0.712	0.712	0.709	0.709	0.707
0.707	0.707	0.704	0.704	0.704	0.704	0.704	0.704	0.704	0.701

Variance ellipse statistics

Maximum variance	0.1776E+00	Direction	-81.0
Minimum variance	0.1346E-01	Direction	9.0
Total variance	0.1910E+00	Ratio of variances	0.7582E-01

Average direction. maxdir -PI/2 to maxdir +PI/2 11.9

Average direction. maxdir +PI/2 to maxdir -PI/2 181.8

Meter information details for 9633

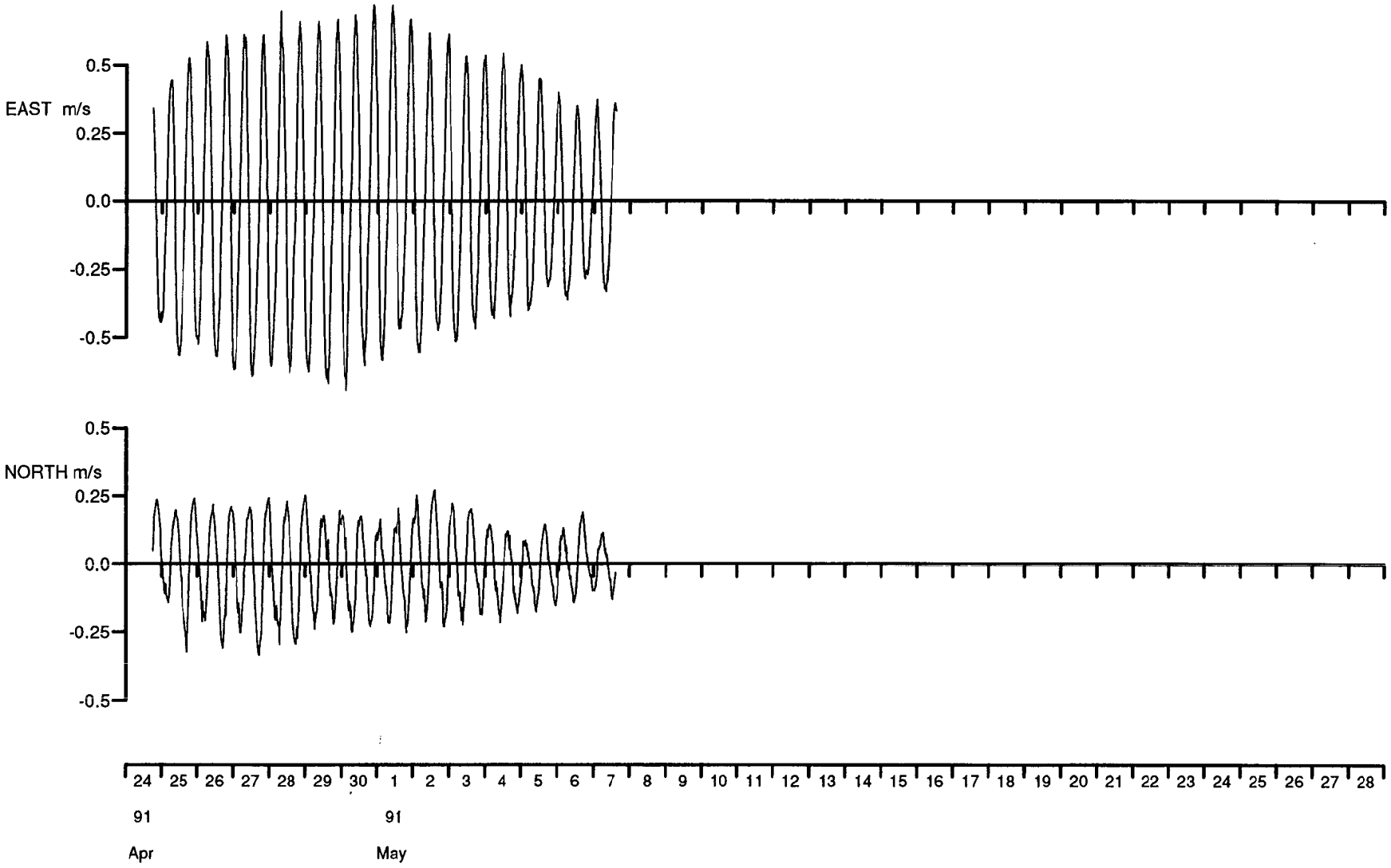
Rig No	:	78485
Meter No	:	9633
Recording interval	:	600.0 seconds
Meter height from bottom	:	5.0 m
Position of meter on rig	:	B
Meter type	:	AS
Meter started	:	24-APR-91 12:50:00
Meter stopped	:	07-MAY-91 18:40:00
Period switched on	:	13.2 days
Period of good data	:	12.9 days
Total number of scans	:	1851
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 9633 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 5.0

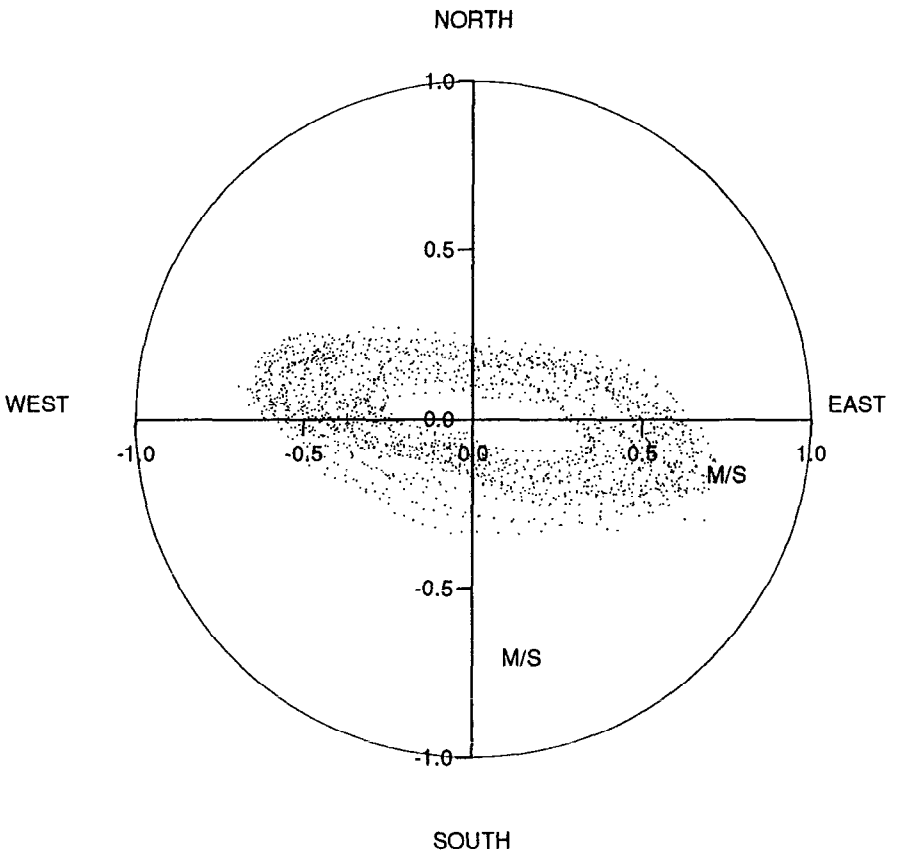


SCATTER PLOT

Meter no. 9633 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 5.0

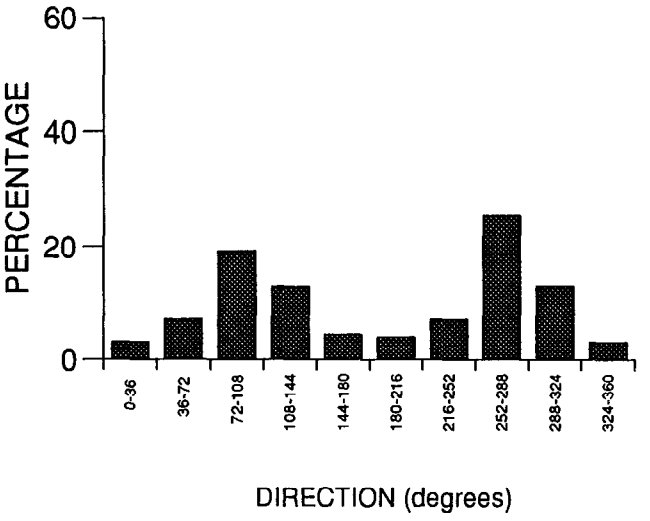


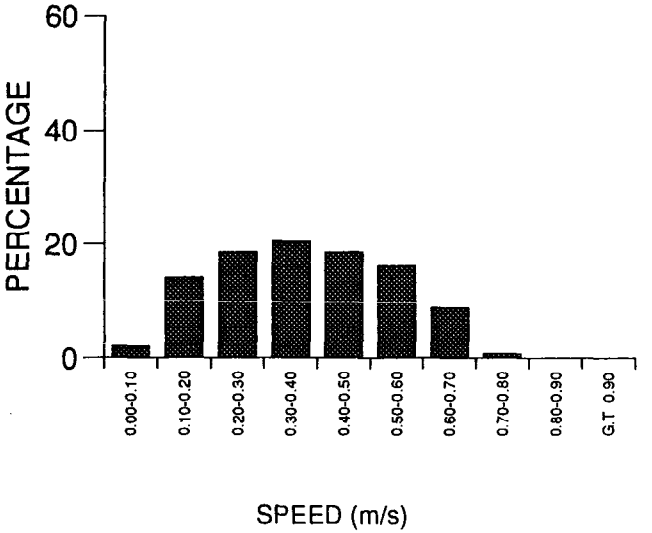
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 9633 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 5.0



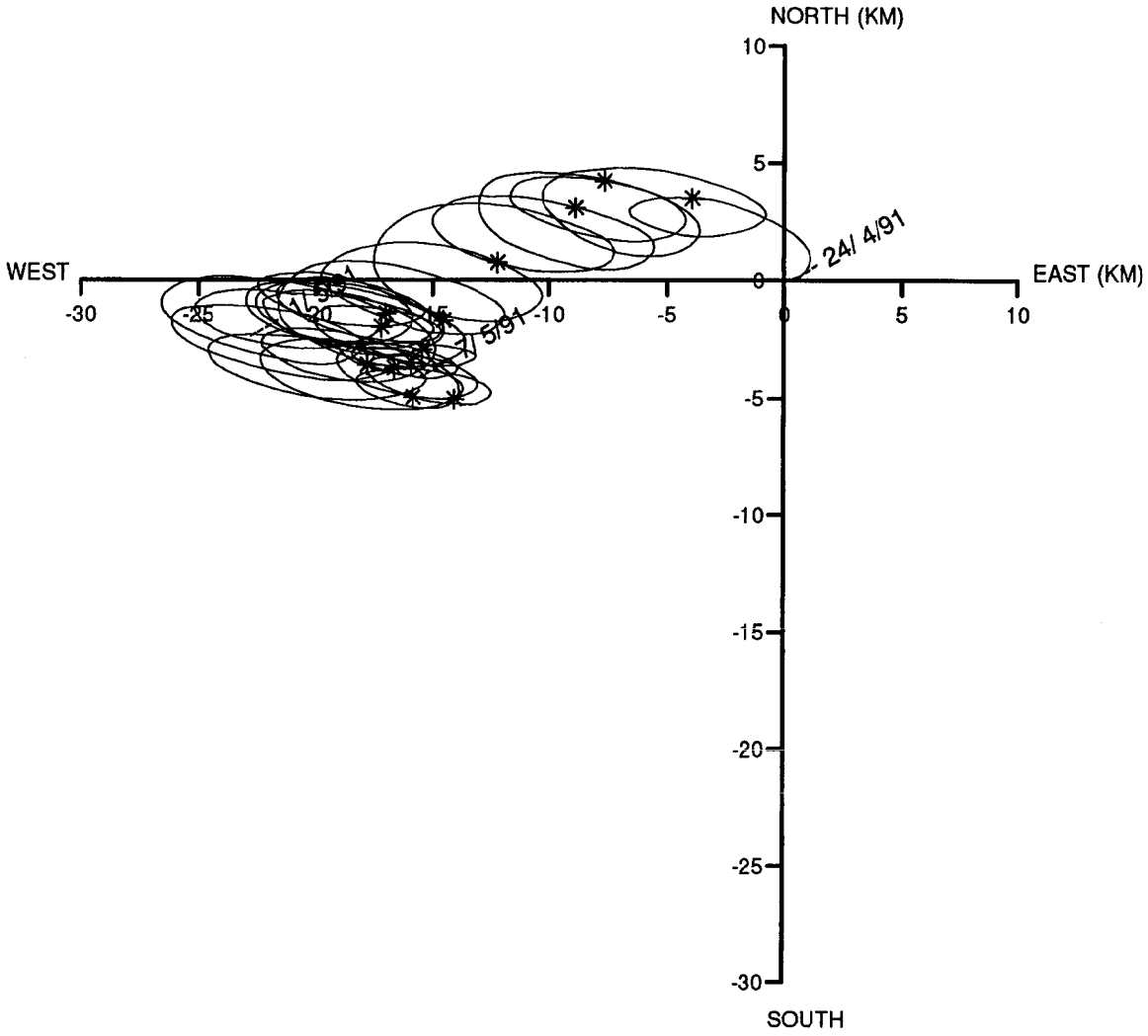


VECTOR PLOT

Meter no. 9633 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 5.0

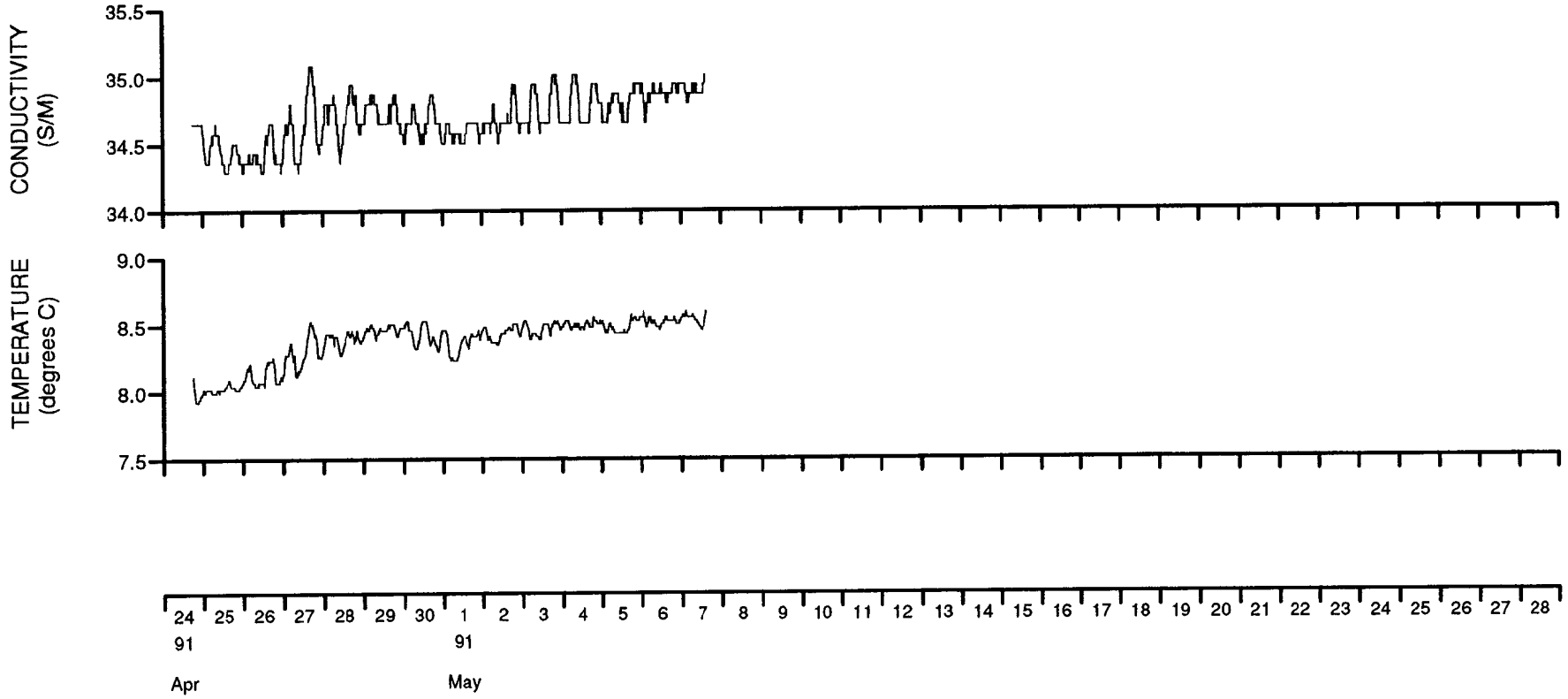


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 9633 Rig no. 78485 Depth of water(m) 20.0

Start/End 1991/04/24 AT 18:19:00 1991/05/07 AT 14:47:00

Position 53 57.17N 03 19.49W Meter Height(m) 5.0



Statistics for as9633b.78485s

	Mean	Variance	Standard deviation
Eastings	-0.0141	0.14678046E+00	0.38311940E+00
Northings	-0.0037	0.20656066E-01	0.14372218E+00
Speed	0.3773	0.25202433E-01	0.15875274E+00

Vector mean speed 0.0146

Vector Mean Direction -104.6

Maximum ten values

Eastings					Northings				
0.718	0.717	0.713	0.711	0.709	0.271	0.269	0.267	0.264	0.257
0.708	0.703	0.702	0.699	0.696	0.255	0.255	0.253	0.253	0.249

Minimum ten values

Eastings					Northings				
-0.641	-0.641	-0.642	-0.648	-0.650	-0.311	-0.318	-0.322	-0.325	-0.328
-0.654	-0.659	-0.663	-0.667	-0.693	-0.329	-0.330	-0.333	-0.334	-0.336

Maximum speeds

0.746	0.738	0.735	0.729	0.726	0.723	0.723	0.720	0.720	0.711
0.711	0.711	0.711	0.711	0.706	0.703	0.700	0.700	0.697	0.697
0.694	0.685	0.682	0.682	0.676	0.676	0.676	0.674	0.674	0.674
0.674	0.674	0.668	0.668	0.668	0.668	0.665	0.665	0.665	0.665
0.665	0.665	0.659	0.659	0.659	0.659	0.659	0.659	0.659	0.659
0.656	0.656	0.653	0.653	0.653	0.650	0.650	0.650	0.650	0.650
0.650	0.650	0.647	0.647	0.647	0.645	0.645	0.645	0.645	0.645
0.642	0.642	0.642	0.642	0.642	0.642	0.642	0.639	0.639	0.639
0.639	0.636	0.636	0.636	0.636	0.636	0.636	0.633	0.633	0.633
0.633	0.633	0.633	0.633	0.633	0.630	0.630	0.630	0.630	0.630

Variance ellipse statistics

Maximum variance	0.1508E+00	Direction	-80.0
Minimum variance	0.1659E-01	Direction	10.0
Total variance	0.1674E+00	Ratio of variances	0.1100E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 15.1

Average direction. maxdir +PI/2 to maxdir -PI/2 180.6

Rig information details for 78486

Position Latitude	:	54 06.00N
Position Longitude	:	03 26.1 W
Water depth	:	20.0 m
Deployed on cruise	:	C78
Recovered on cruise	:	C78
Site name identification	:	I
Magnetic deviation	:	6.3 degrees west
Rig deployed on	:	25-APR-91 08:50:00
Rig recovered on	:	06-MAY-91 05:24:00
Period of deployment	:	10.9 days
Comments	:	None

Meter information details for 1644

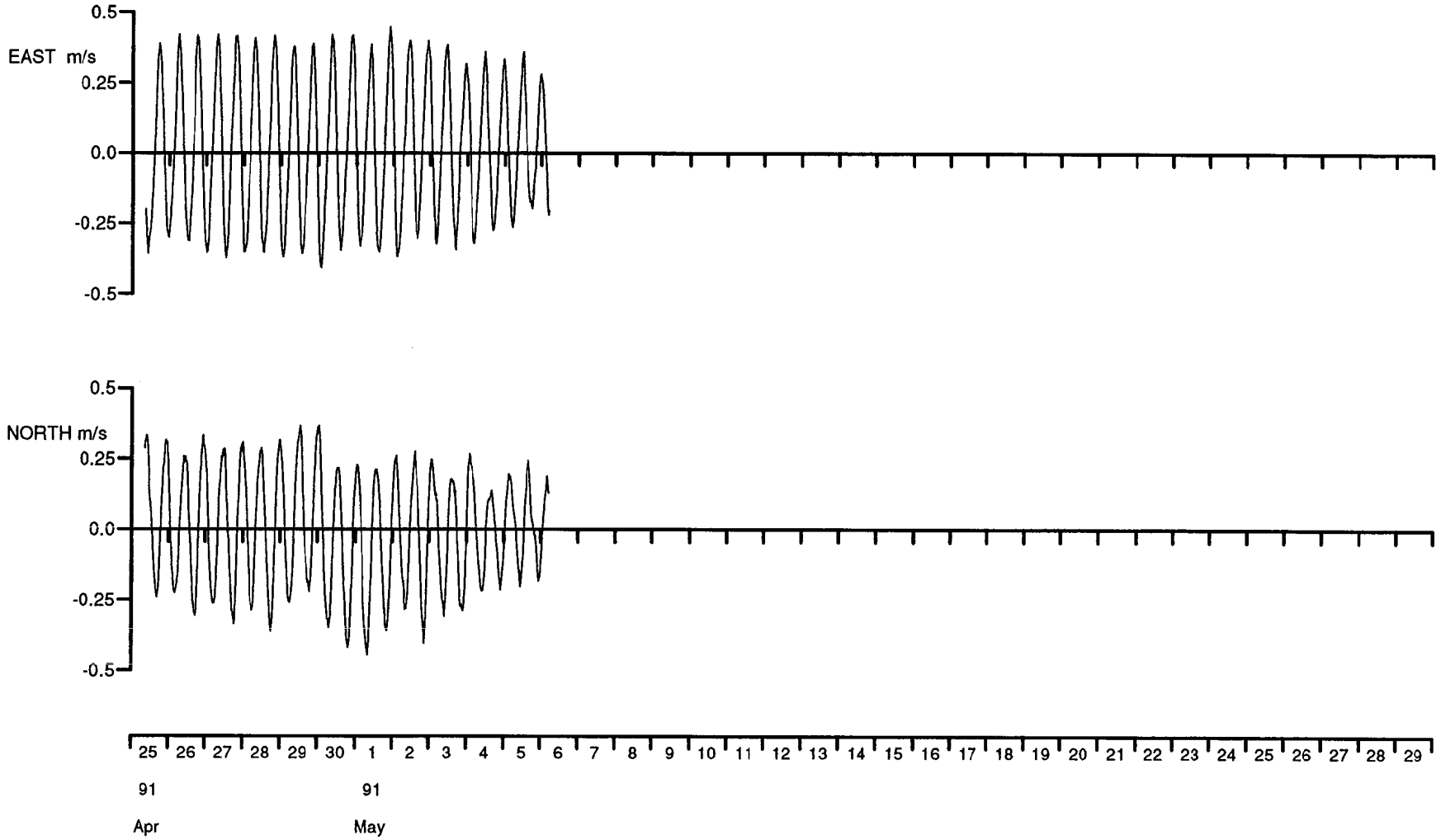
Rig No	:	78486
Meter No	:	1644
Recording interval	:	600.0 seconds
Meter height from bottom	:	16.0 m
Position of meter on rig	:	T
Meter type	:	S4
Meter started	:	25-APR-91 08:20:00
Meter stopped	:	06-MAY-91 18:10:00
Period switched on	:	11.4 days
Period of good data	:	10.9 days
Total number of scans	:	1563
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 1644 Rig no. 78486 Depth of water(m) 20.0

Start/End 1991/04/25 AT 08:50:00 1991/05/06 AT 05:24:00

Position 54 06.00N 03 26.1 W Meter Height(m) 16.0

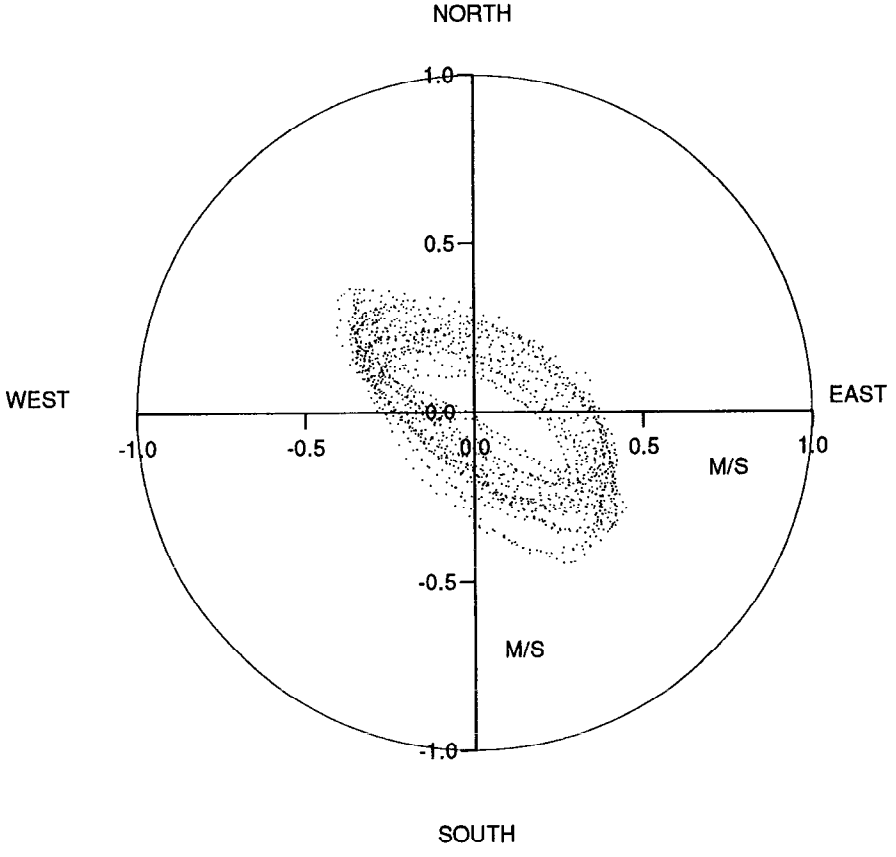


SCATTER PLOT

Meter no. 1644 Rig no. 78486 Depth of water(m) 20.0

Start/End 1991/04/25 AT 08:50:00 1991/05/06 AT 05:24:00

Position 54 06.00N 03 26.1 W Meter Height(m) 16.0

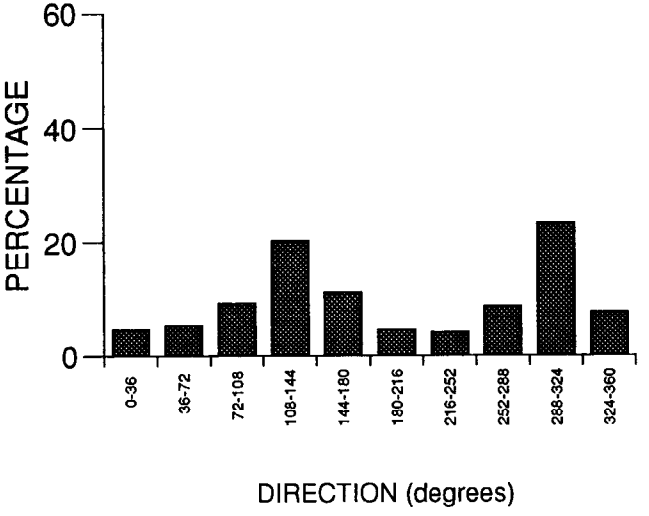


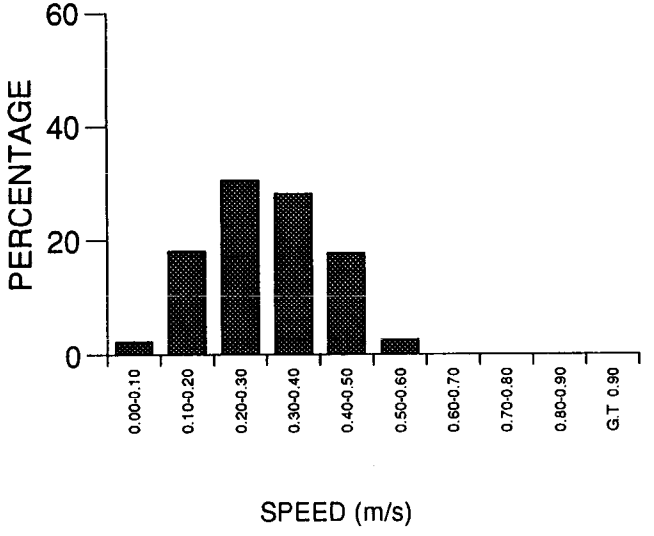
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 1644 Rig no. 78486 Depth of water(m) 20.0

Start/End 1991/04/25 AT 08:50:00 1991/05/06 AT 05:24:00

Position 54 06.00N 03 26.1 W Meter Height(m) 16.0



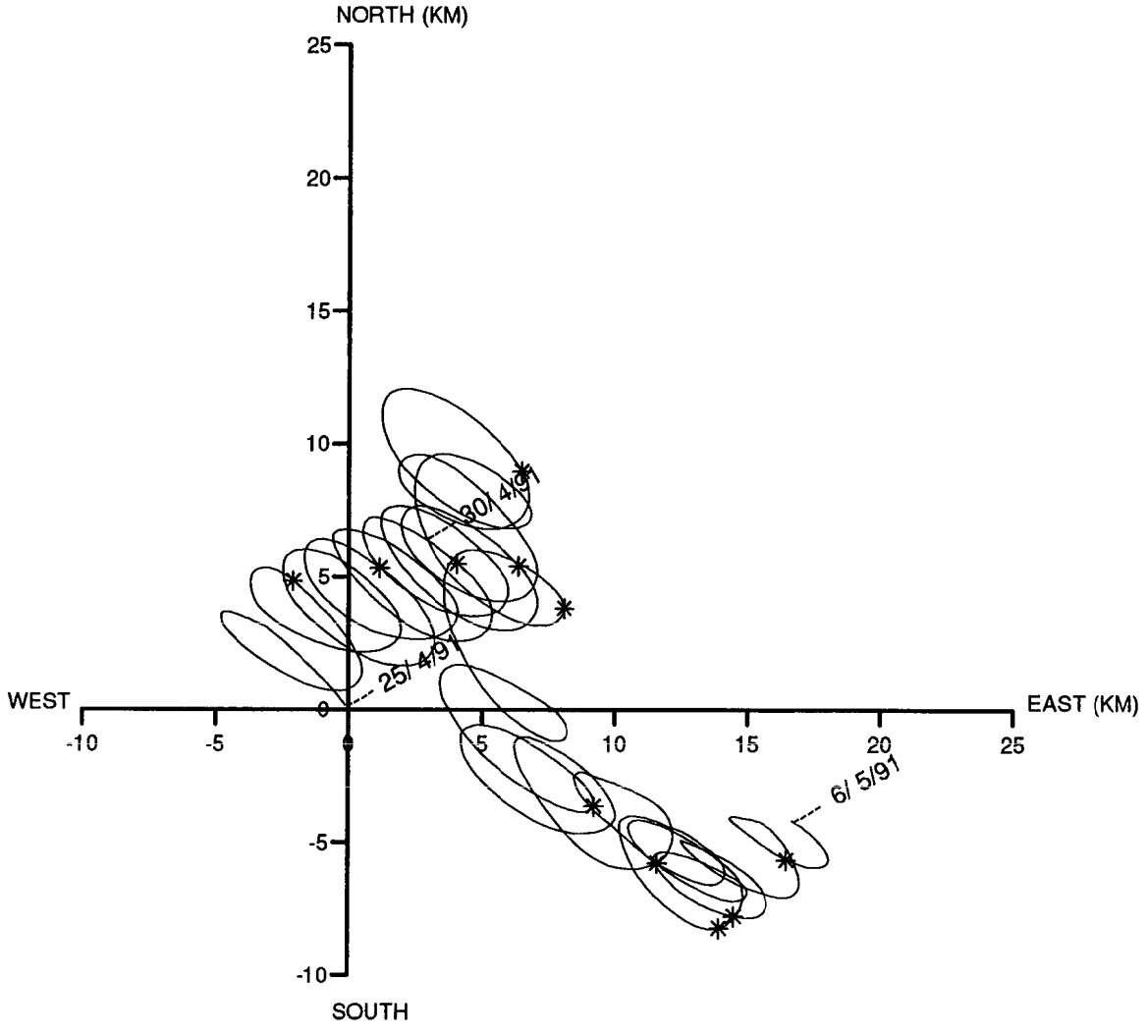


VECTOR PLOT

Meter no. 1644 Rig no. 78486 Depth of water(m) 20.0

Start/End 1991/04/25 AT 08:50:00 1991/05/06 AT 05:24:00

Position 54 06.00N 03 26.1 W Meter Height(m) 16.0



Statistics for s41644t.78486s

	Mean	Variance	Standard deviation
Eastings	0.0178	0.60923394E-01	0.24682665E+00
Northings	-0.0044	0.40763713E-01	0.20190026E+00
Speed	0.3003	0.11814938E-01	0.10869654E+00

Vector mean speed 0.0184

Vector Mean Direction 104.0

Maximum ten values

Eastings					Northings				
0.446	0.436	0.436	0.428	0.421	0.368	0.367	0.366	0.366	0.364
0.420	0.420	0.420	0.419	0.419	0.364	0.363	0.361	0.355	0.354

Minimum ten values

Eastings					Northings				
-0.369	-0.372	-0.385	-0.390	-0.393	-0.415	-0.415	-0.416	-0.418	-0.421
-0.397	-0.401	-0.403	-0.406	-0.408	-0.426	-0.434	-0.442	-0.444	-0.446

Maximum speeds

0.533	0.532	0.532	0.531	0.530	0.530	0.530	0.530	0.529	0.529
0.528	0.528	0.526	0.526	0.525	0.525	0.524	0.523	0.521	0.521
0.519	0.517	0.516	0.516	0.516	0.515	0.513	0.513	0.510	0.508
0.506	0.506	0.505	0.505	0.504	0.504	0.503	0.502	0.501	0.501
0.501	0.501	0.500	0.499	0.497	0.497	0.497	0.496	0.495	0.495
0.494	0.494	0.494	0.493	0.492	0.491	0.491	0.491	0.490	0.489
0.489	0.487	0.486	0.486	0.486	0.485	0.485	0.484	0.484	0.484
0.483	0.483	0.483	0.482	0.482	0.480	0.480	0.480	0.480	0.480
0.479	0.479	0.478	0.478	0.477	0.475	0.474	0.474	0.473	0.472
0.472	0.471	0.471	0.471	0.470	0.470	0.470	0.470	0.470	0.468

Variance ellipse statistics

Maximum variance	0.8540E-01	Direction	-53.5
Minimum variance	0.1629E-01	Direction	36.5
Total variance	0.1017E+00	Ratio of variances	0.1907E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 9.7

Average direction. maxdir +PI/2 to maxdir -PI/2 179.8

Meter information details for 1196

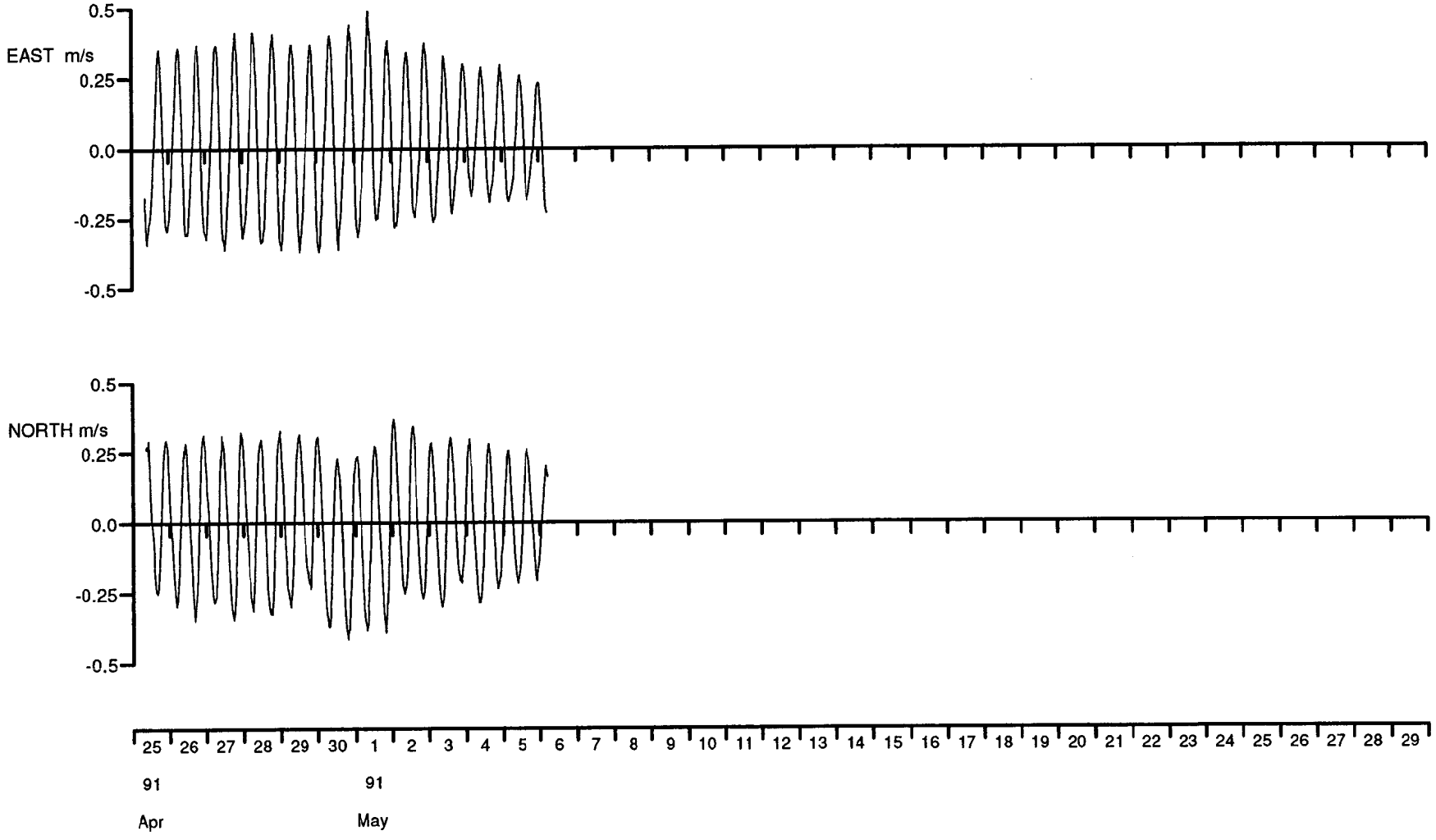
Rig No	:	78486
Meter No	:	1196
Recording interval	:	600.0 seconds
Meter height from bottom	:	10.0 m
Position of meter on rig	:	B
Meter type	:	S4
Meter started	:	25-APR-91 08:10:00
Meter stopped	:	06-MAY-91 18:01:00
Period switched on	:	11.4 days
Period of good data	:	10.9 days
Total number of scans	:	1564
Timing error	:	60 seconds slow
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 1196 Rig no. 78486 Depth of water(m) 20.0

Start/End 1991/04/25 AT 08:50:00 1991/05/06 AT 05:24:00

Position 54 06.00N 03 26.1 W Meter Height(m) 10.0

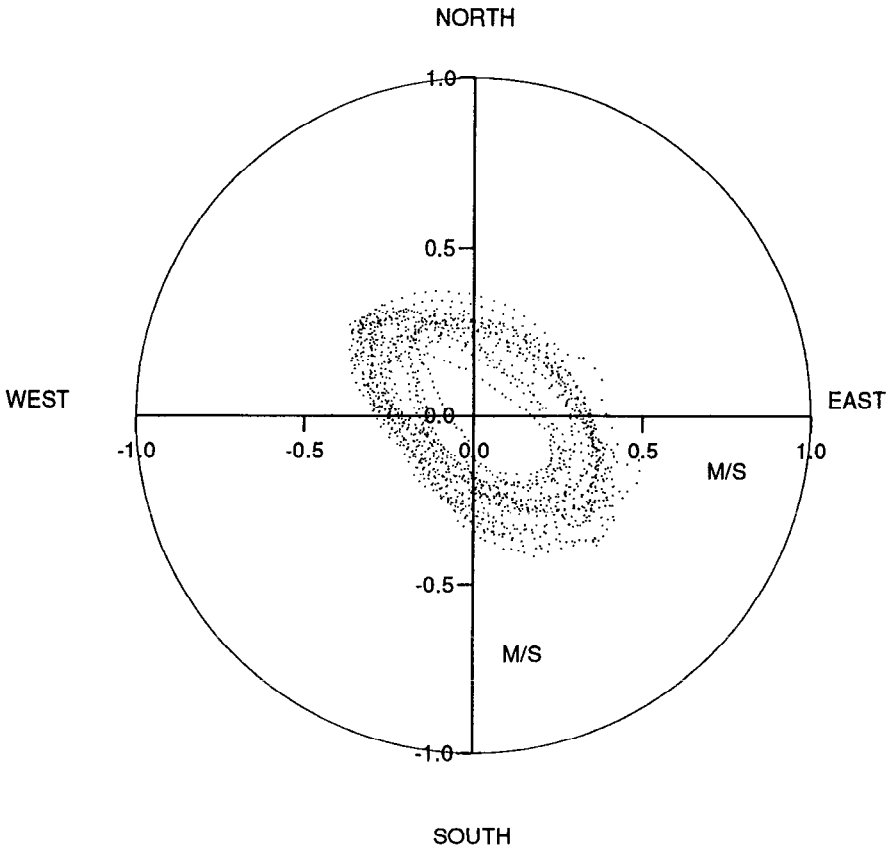


SCATTER PLOT

Meter no. 1196 Rig no. 78486 Depth of water(m) 20.0

Start/End 1991/04/25 AT 08:50:00 1991/05/06 AT 05:24:00

Position 54 06.00N 03 26.1 W Meter Height(m) 10.0

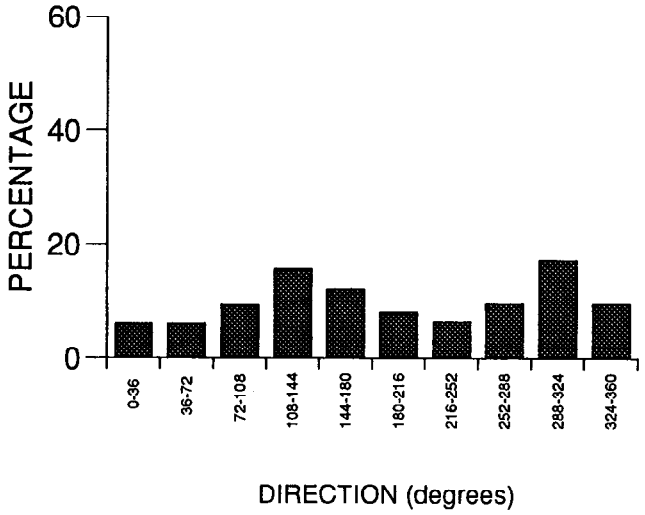


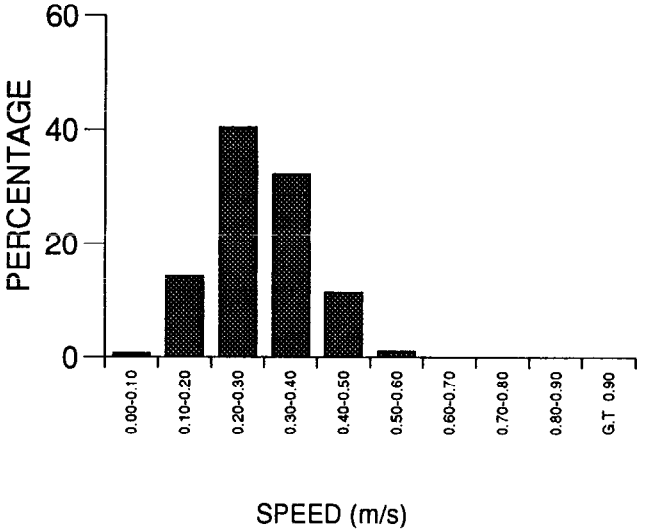
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 1196 Rig no. 78486 Depth of water(m) 20.0

Start/End 1991/04/25 AT 08:50:00 1991/05/06 AT 05:24:00

Position 54 06.00N 03 26.1 W Meter Height(m) 10.0



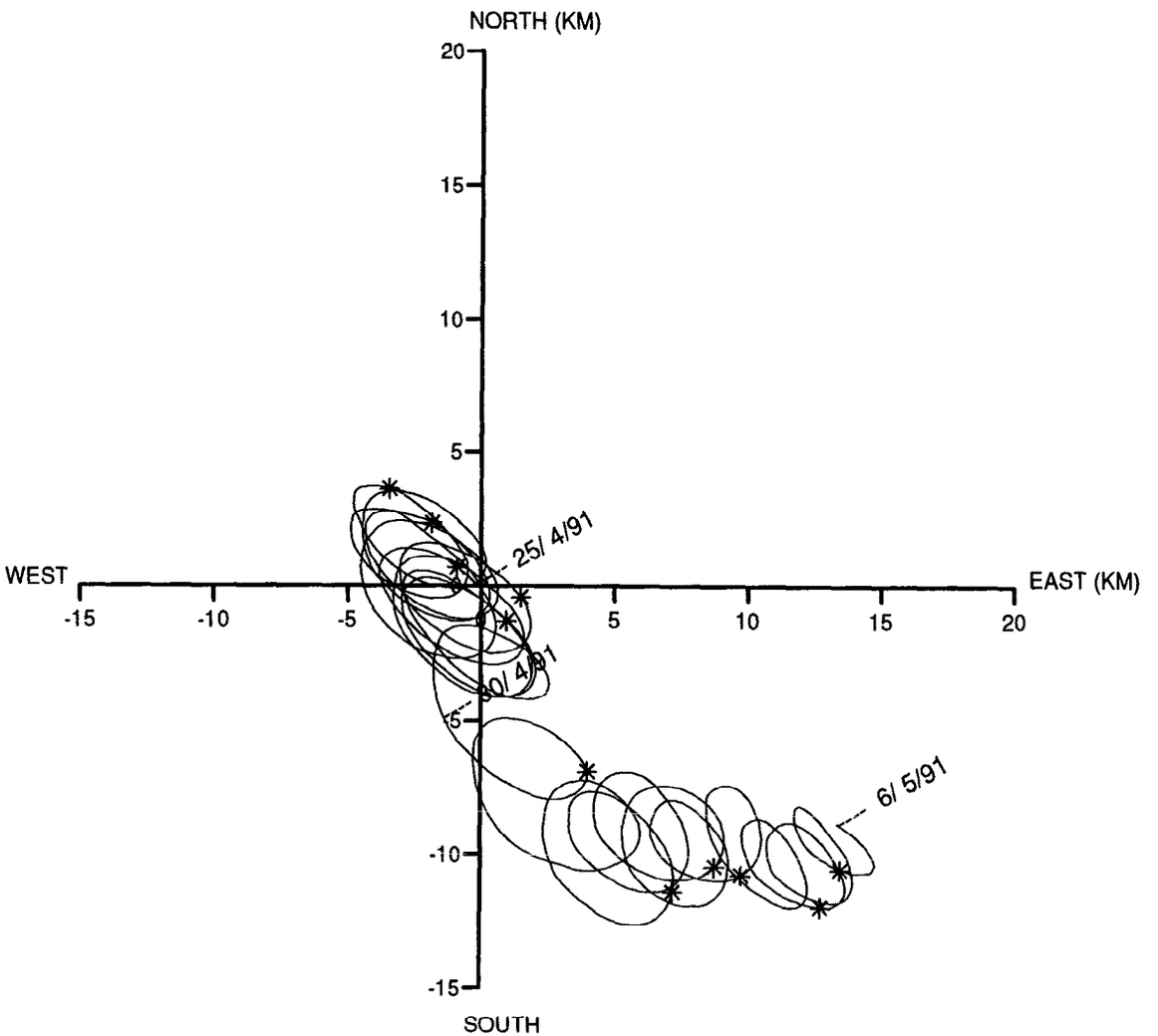


VECTOR PLOT

Meter no. 1196 Rig no. 78486 Depth of water(m) 20.0

Start/End 1991/04/25 AT 08:50:00 1991/05/06 AT 05:24:00

Position 54 06.00N 03 26.1 W Meter Height(m) 10.0



Statistics for s41196b.78486s

	Mean	Variance	Standard deviation
Eastings	0.0143	0.50655376E-01	0.22506750E+00
Northings	-0.0094	0.42894237E-01	0.20710924E+00
Speed	0.2937	0.75406488E-02	0.86836912E-01

Vector mean speed 0.0171

Vector Mean Direction 123.3

Maximum ten values

Eastings					Northings				
0.491	0.489	0.483	0.455	0.453	0.370	0.368	0.366	0.363	0.363
0.442	0.431	0.426	0.424	0.416	0.362	0.354	0.349	0.342	0.342

Minimum ten values

Eastings					Northings				
-0.359	-0.360	-0.361	-0.361	-0.361	-0.383	-0.390	-0.390	-0.390	-0.392
-0.361	-0.362	-0.363	-0.368	-0.368	-0.393	-0.398	-0.402	-0.404	-0.415

Maximum speeds

0.526	0.523	0.522	0.522	0.518	0.518	0.518	0.512	0.512	0.510
0.509	0.509	0.507	0.507	0.505	0.502	0.501	0.496	0.494	0.490
0.487	0.484	0.483	0.482	0.482	0.478	0.477	0.475	0.474	0.474
0.472	0.469	0.468	0.464	0.463	0.463	0.462	0.462	0.462	0.459
0.458	0.457	0.456	0.455	0.454	0.452	0.452	0.452	0.450	0.450
0.450	0.450	0.450	0.447	0.447	0.447	0.446	0.445	0.444	0.443
0.442	0.441	0.440	0.440	0.439	0.439	0.439	0.439	0.438	0.438
0.438	0.438	0.437	0.436	0.436	0.436	0.436	0.436	0.436	0.436
0.435	0.434	0.434	0.433	0.433	0.432	0.432	0.432	0.431	0.431
0.431	0.431	0.431	0.431	0.430	0.430	0.429	0.429	0.429	0.429

Variance ellipse statistics

Maximum variance	0.6992E-01	Direction	-49.8
Minimum variance	0.2363E-01	Direction	40.2
Total variance	0.9355E-01	Ratio of variances	0.3380E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 13.5

Average direction. maxdir +PI/2 to maxdir -PI/2 183.4

Rig information details for 78487

Position Latitude	:	54 08.90N
Position Longitude	:	03 28.06W
Water depth	:	24.0 m
Deployed on cruise	:	C78
Recovered on cruise	:	C78
Site name identification	:	J
Magnetic deviation	:	6.3 degrees west
Rig deployed on	:	25-APR-91 12:17:00
Rig recovered on	:	06-MAY-91 06:00:00
Period of deployment	:	10.7 days
Comments	:	None

Meter information details for 1258

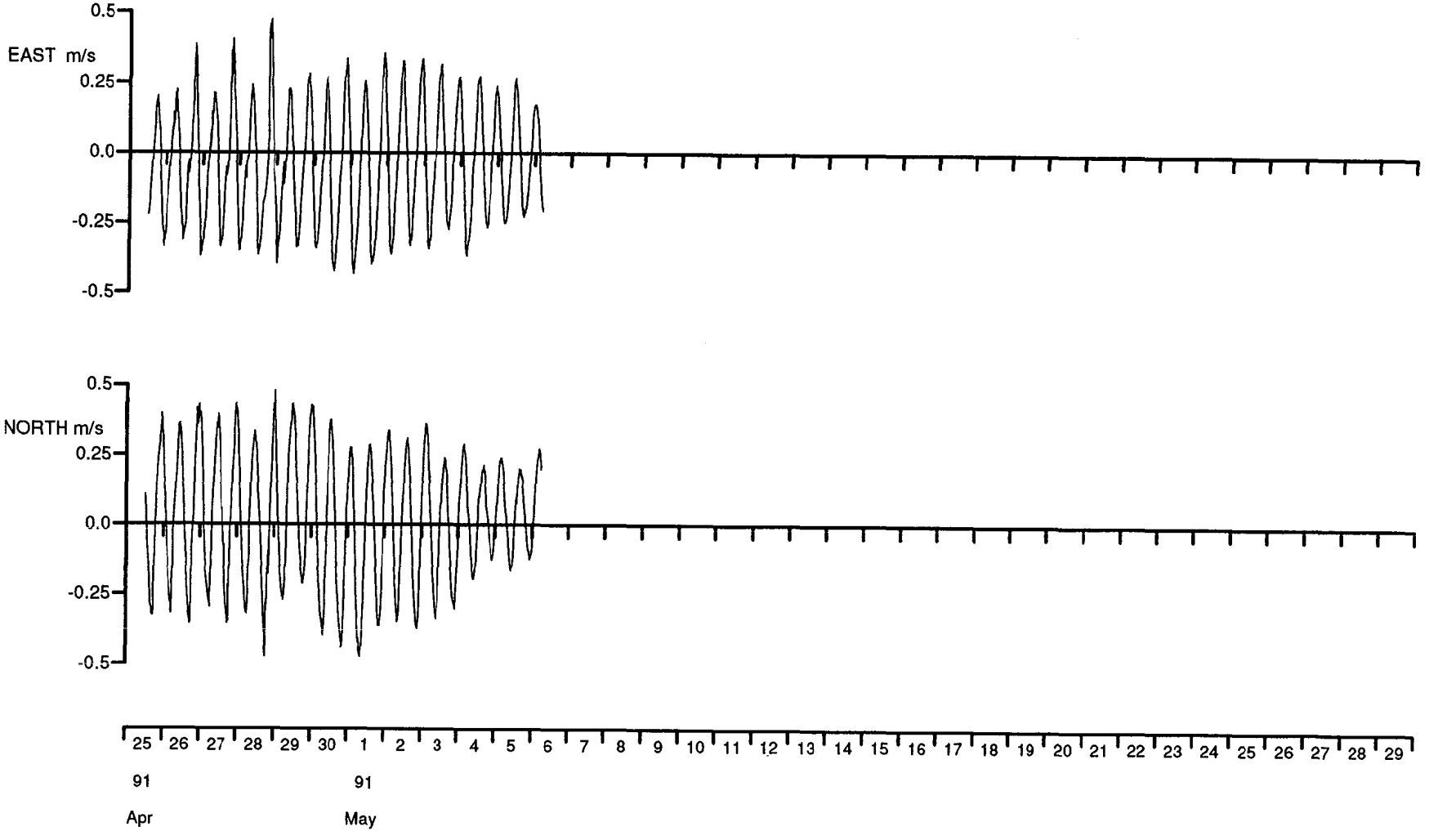
Rig No	:	78487
Meter No	:	1258
Recording interval	:	600.0 seconds
Meter depth	:	4.0 m
Position of meter on rig	:	T
Meter type	:	S4
Meter started	:	25-APR-91 10:20:00
Meter stopped	:	06-MAY-91 18:41:00
Period switched on	:	11.3 days
Period of good data	:	10.7 days
Total number of scans	:	1546
Timing error	:	60 seconds slow
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 1258 Rig no. 78487 Depth of water(m) 24.0

Start/End 1991/04/25 AT 12:17:00 1991/05/06 AT 06:00:00

Position 54 08.90N 03 28.06W Meter Depth(m) 4.0

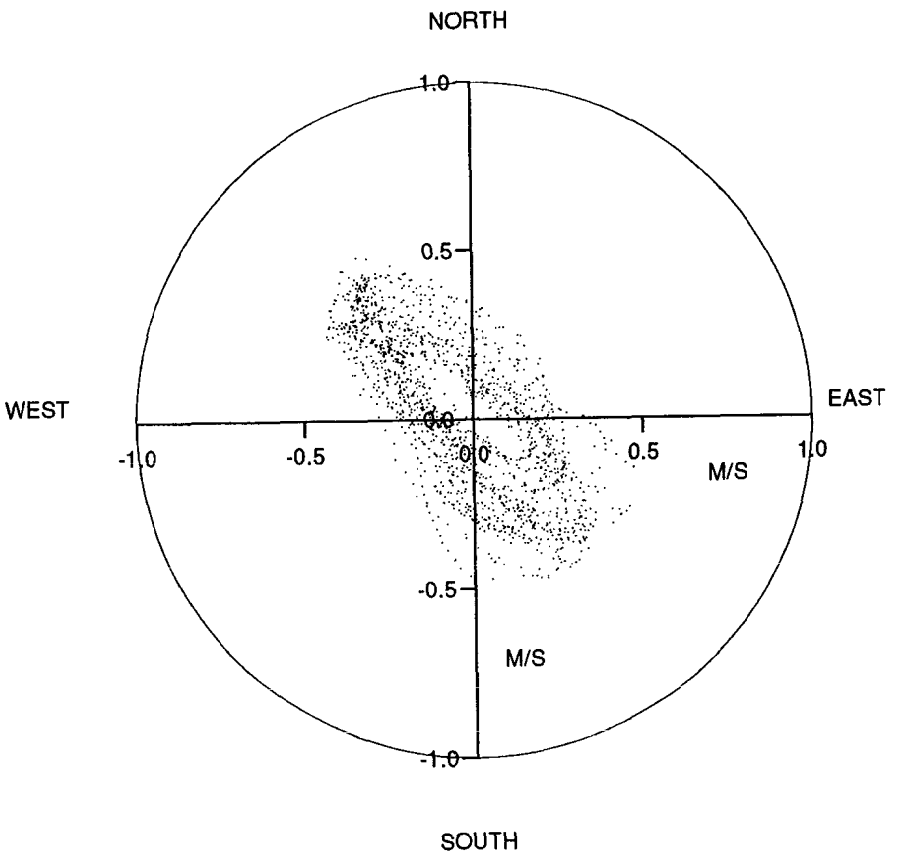


SCATTER PLOT

Meter no. 1258 Rig no. 78487 Depth of water(m) 24.0

Start/End 1991/04/25 AT 12:17:00 1991/05/06 AT 06:00:00

Position 54 08.90N 03 28.06W Meter Depth(m) 4.0

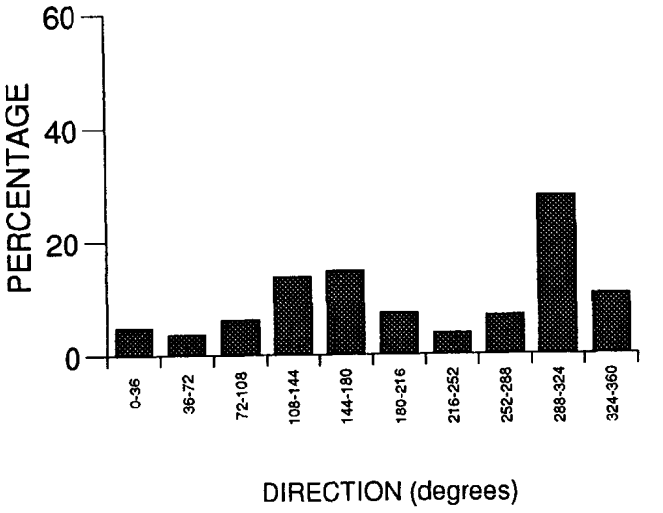


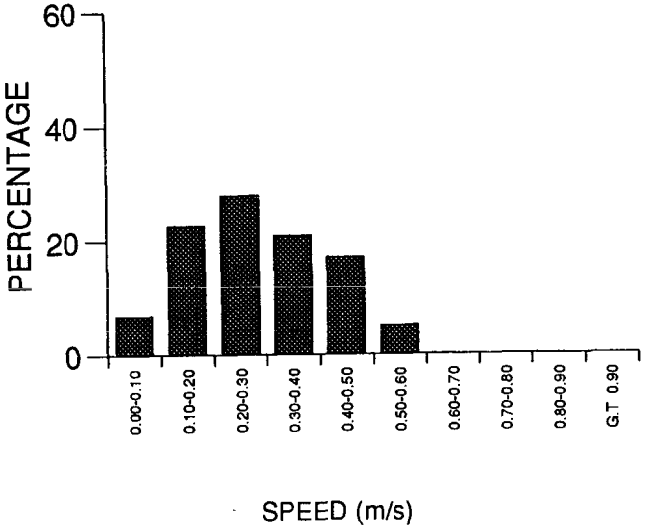
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 1258 Rig no. 78487 Depth of water(m) 24.0

Start/End 1991/04/25 AT 12:17:00 1991/05/06 AT 06:00:00

Position 54 08.90N 03 28.06W Meter Depth(m) 4.0



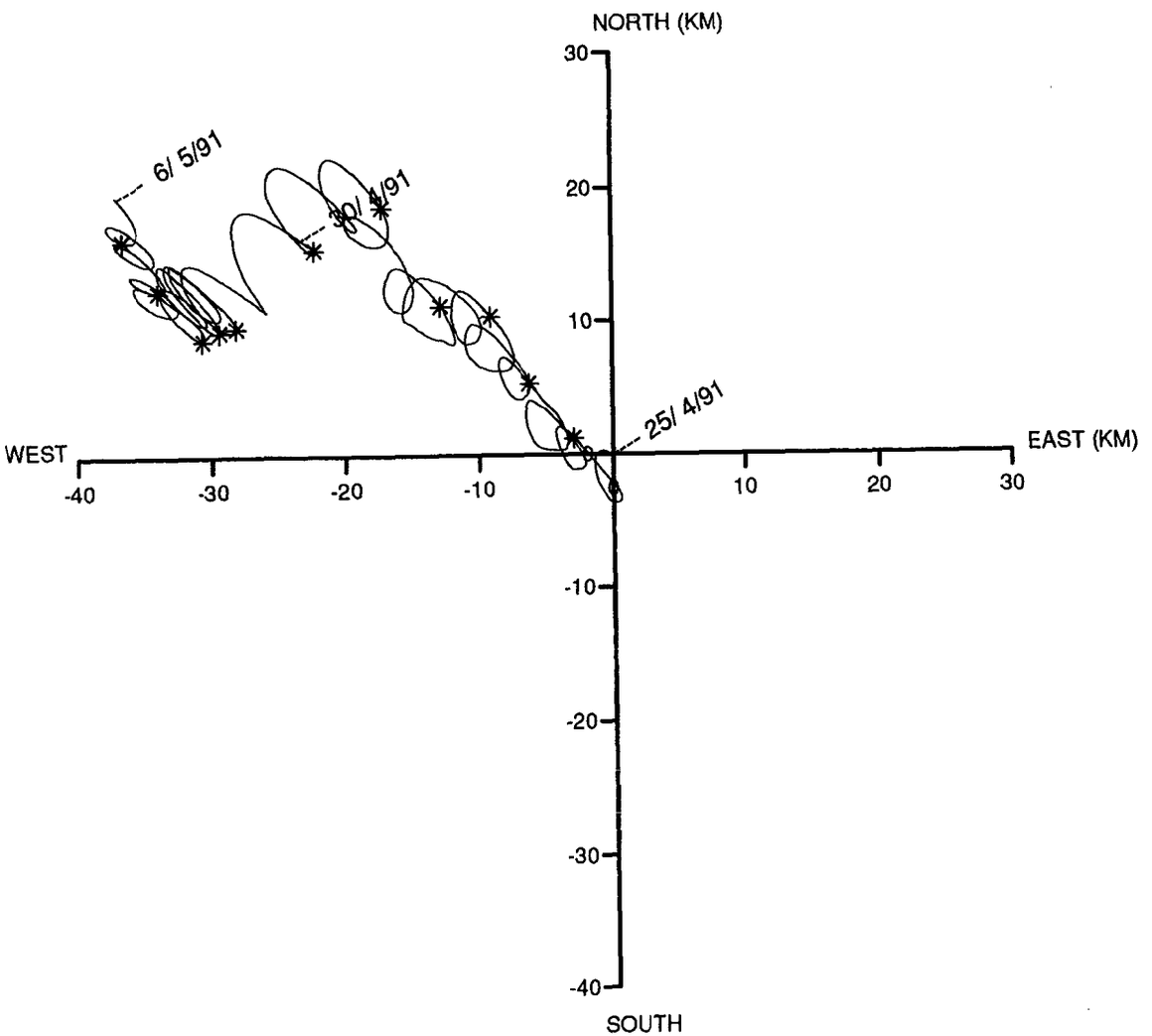


VECTOR PLOT

Meter no. 1258 Rig no. 78487 Depth of water(m) 24.0

Start/End 1991/04/25 AT 12:17:00 1991/05/06 AT 06:00:00

Position 54 08.90N 03 28.06W Meter Depth(m) 4.0



Statistics for s41258t.78487s

	Mean	Variance	Standard deviation
Eastings	-0.0401	0.42127110E-01	0.20524891E+00
Northings	0.0211	0.52399714E-01	0.22890984E+00
Speed	0.2842	0.15773484E-01	0.12559253E+00

Vector mean speed 0.0453

Vector Mean Direction -62.2

Maximum ten values

Eastings					Northings				
0.471	0.457	0.449	0.449	0.434	0.481	0.478	0.456	0.442	0.440
0.432	0.428	0.422	0.407	0.404	0.433	0.433	0.433	0.432	0.431

Minimum ten values

Eastings					Northings				
-0.413	-0.413	-0.418	-0.420	-0.420	-0.444	-0.448	-0.462	-0.462	-0.463
-0.424	-0.425	-0.426	-0.431	-0.434	-0.463	-0.465	-0.469	-0.473	-0.473

Maximum speeds

0.592	0.591	0.586	0.572	0.569	0.561	0.548	0.544	0.544	0.540
0.539	0.538	0.537	0.535	0.535	0.533	0.532	0.530	0.530	0.529
0.528	0.528	0.527	0.527	0.525	0.524	0.524	0.522	0.522	0.522
0.521	0.521	0.520	0.520	0.520	0.520	0.520	0.520	0.519	0.519
0.518	0.517	0.516	0.516	0.516	0.516	0.516	0.514	0.513	0.513
0.512	0.512	0.510	0.509	0.509	0.509	0.509	0.508	0.508	0.508
0.507	0.507	0.507	0.507	0.507	0.506	0.506	0.505	0.505	0.505
0.504	0.503	0.503	0.502	0.501	0.500	0.500	0.499	0.498	0.497
0.497	0.497	0.496	0.496	0.496	0.494	0.494	0.494	0.493	0.493
0.493	0.492	0.492	0.491	0.491	0.489	0.488	0.488	0.488	0.488

Variance ellipse statistics

Maximum variance	0.8178E-01	Direction	-40.7
Minimum variance	0.1275E-01	Direction	49.3
Total variance	0.9453E-01	Ratio of variances	0.1559E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 2.6

Average direction. maxdir +PI/2 to maxdir -PI/2 184.8

Meter information details for 1112

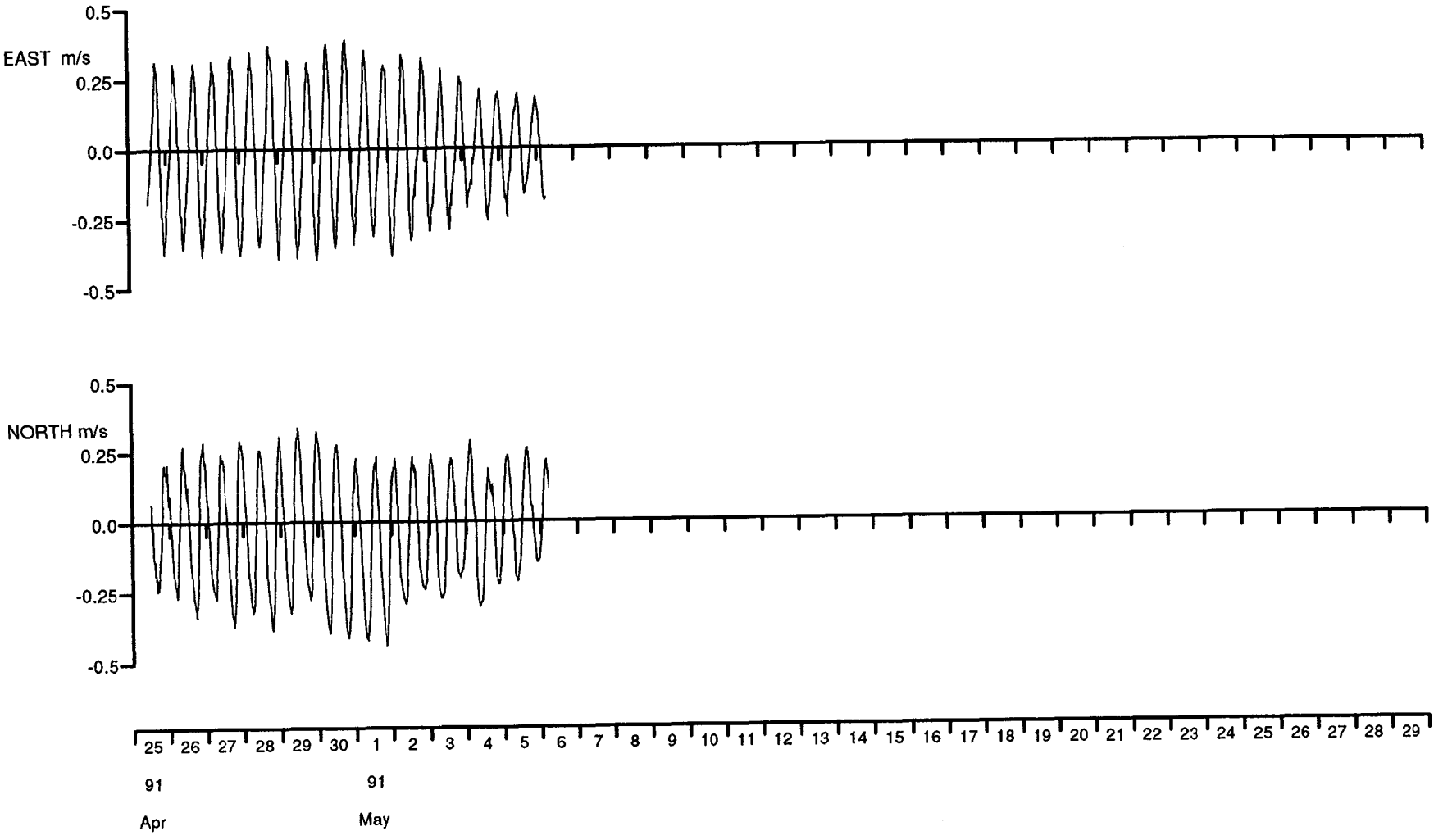
Rig No	:	78487
Meter No	:	1112
Recording interval	:	600.0 seconds
Meter depth	:	10.0 m
Position of meter on rig	:	B
Meter type	:	S4
Meter started	:	25-APR-91 11:10:00
Meter stopped	:	06-MAY-91 14:00:00
Period switched on	:	11.1 days
Period of good data	:	10.7 days
Total number of scans	:	1547
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 1112 Rig no. 78487 Depth of water(m) 24.0

Start/End 1991/04/25 AT 12:17:00 1991/05/06 AT 06:00:00

Position 54 08.90N 03 28.06W Meter Depth(m) 10.0

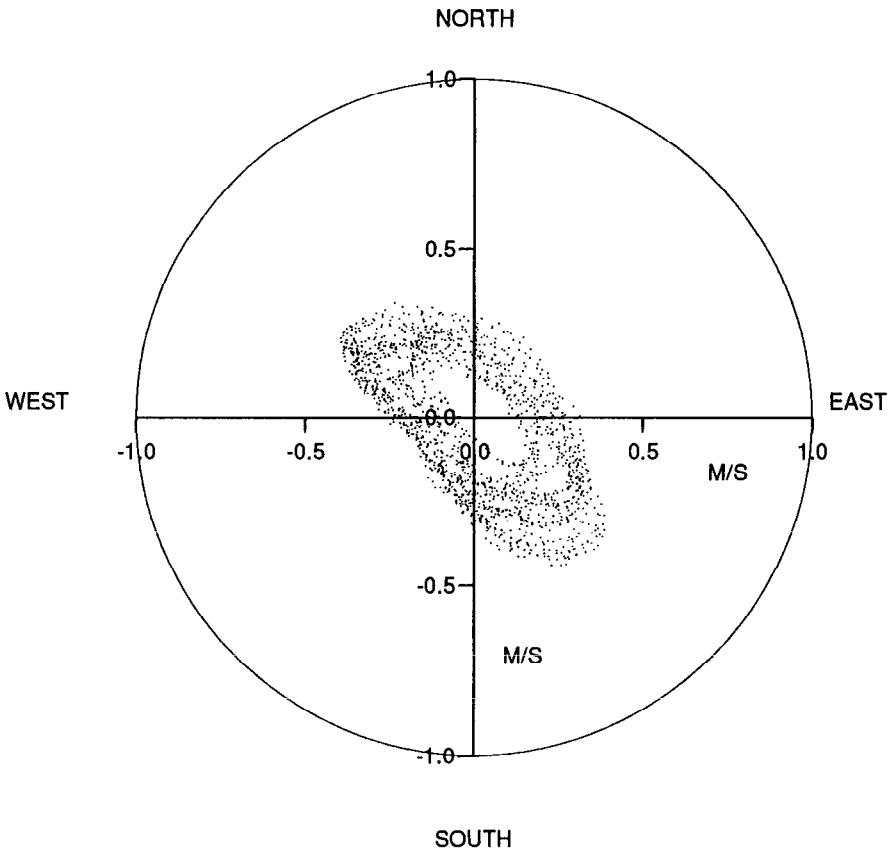


SCATTER PLOT

Meter no. 1112 Rig no. 78487 Depth of water(m) 24.0

Start/End 1991/04/25 AT 12:17:00 1991/05/06 AT 06:00:00

Position 54 08.90N 03 28.06W Meter Depth(m) 10.0

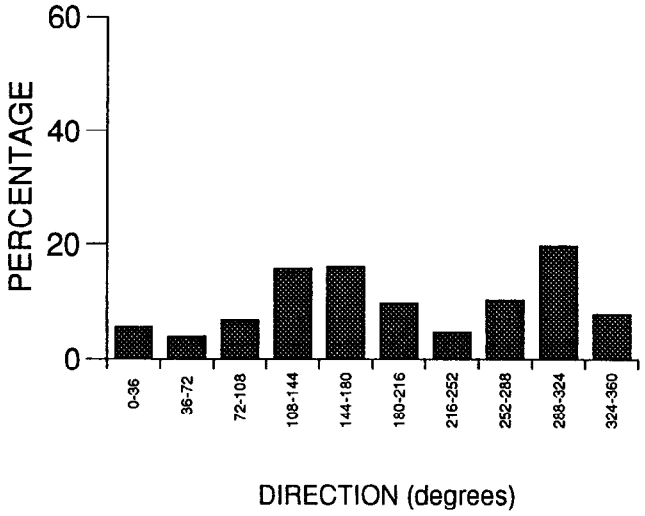


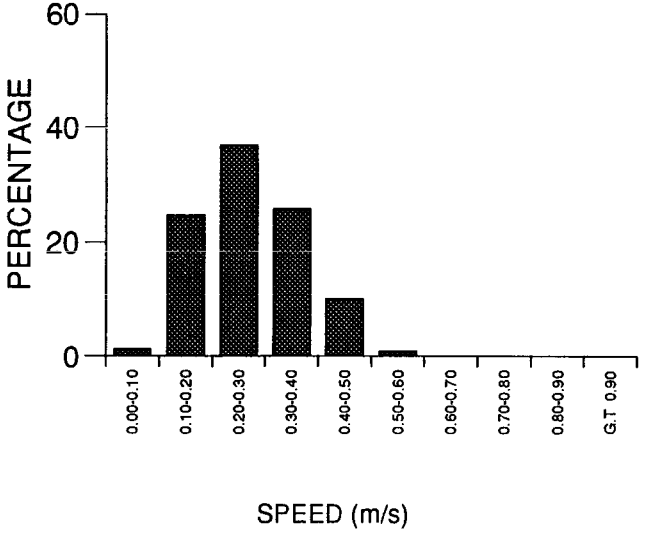
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 1112 Rig no. 78487 Depth of water(m) 24.0

Start/End 1991/04/25 AT 12:17:00 1991/05/06 AT 06:00:00

Position 54 08.90N 03 28.06W Meter Depth(m) 10.0



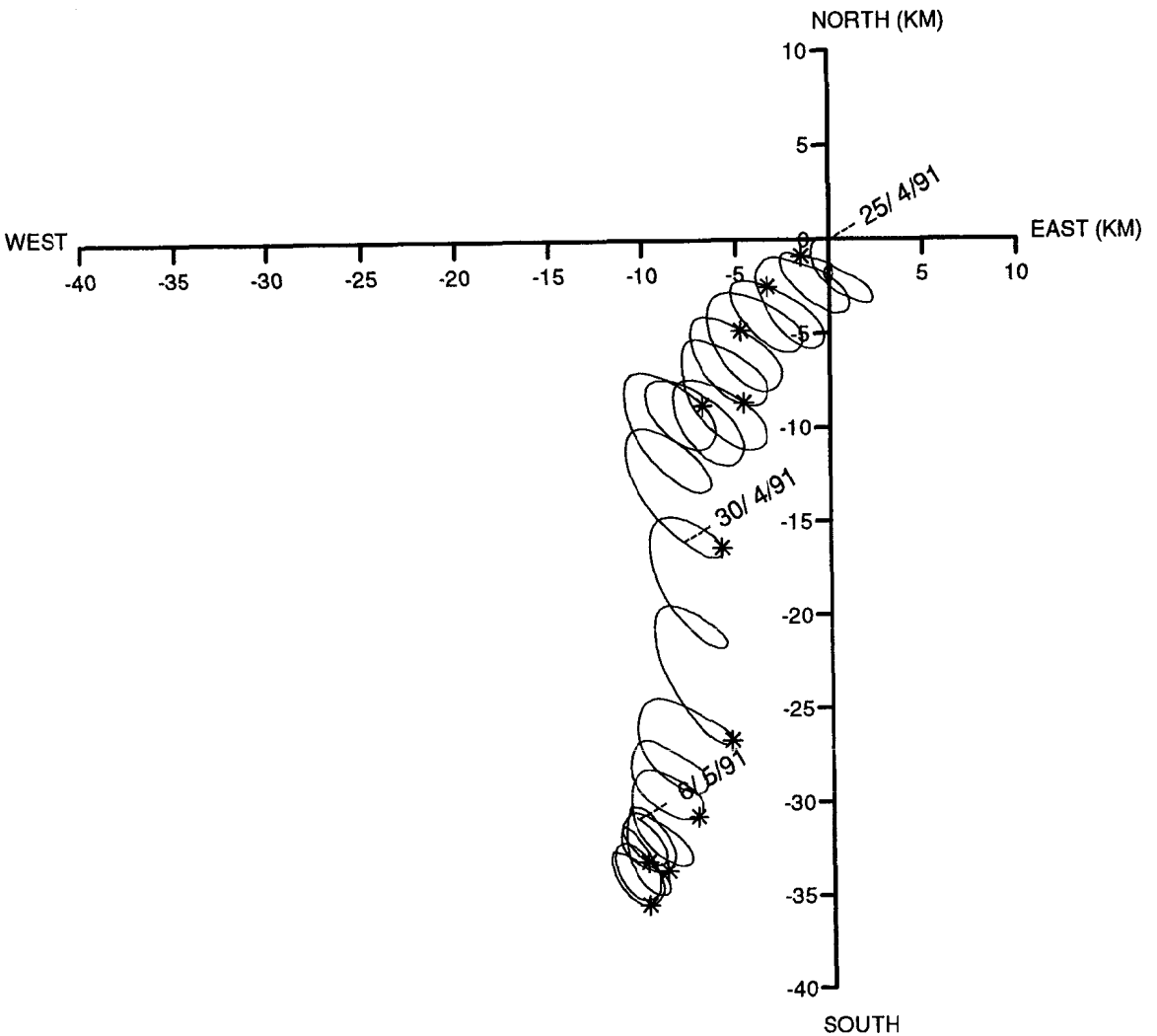


VECTOR PLOT

Meter no. 1112 Rig no. 78487 Depth of water(m) 24.0

Start/End 1991/04/25 AT 12:17:00 1991/05/06 AT 06:00:00

Position 54 08.90N 03 28.06W Meter Depth(m) 10.0



Statistics for s41112b.78487s

	Mean	Variance	Standard deviation
Eastings	-0.0114	0.41828029E-01	0.20451902E+00
Northings	-0.0331	0.40054195E-01	0.20013544E+00
Speed	0.2718	0.91936681E-02	0.95883615E-01

Vector mean speed 0.0350

Vector Mean Direction -161.1

Maximum ten values

Eastings					Northings				
0.386	0.385	0.381	0.379	0.379	0.338	0.327	0.327	0.324	0.317
0.373	0.372	0.368	0.367	0.366	0.312	0.309	0.309	0.308	0.307

Minimum ten values

Eastings					Northings				
-0.383	-0.384	-0.384	-0.386	-0.387	-0.414	-0.416	-0.416	-0.419	-0.421
-0.389	-0.389	-0.389	-0.395	-0.396	-0.424	-0.424	-0.439	-0.439	-0.440

Maximum speeds

0.530	0.529	0.519	0.519	0.517	0.511	0.511	0.510	0.510	0.509
0.509	0.508	0.507	0.505	0.502	0.501	0.499	0.498	0.496	0.496
0.495	0.494	0.494	0.492	0.492	0.492	0.490	0.490	0.490	0.485
0.484	0.482	0.481	0.479	0.479	0.473	0.472	0.471	0.469	0.469
0.468	0.467	0.466	0.465	0.465	0.465	0.463	0.461	0.460	0.459
0.459	0.459	0.458	0.457	0.456	0.456	0.455	0.453	0.453	0.452
0.452	0.451	0.450	0.449	0.449	0.447	0.447	0.446	0.445	0.445
0.444	0.443	0.442	0.442	0.442	0.441	0.440	0.440	0.440	0.439
0.439	0.439	0.439	0.438	0.437	0.435	0.435	0.434	0.433	0.433
0.432	0.432	0.431	0.431	0.431	0.430	0.429	0.429	0.428	0.428

Variance ellipse statistics

Maximum variance	0.6636E-01	Direction	-46.0
Minimum variance	0.1553E-01	Direction	44.0
Total variance	0.8188E-01	Ratio of variances	0.2340E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 4.2

Average direction. maxdir +PI/2 to maxdir -PI/2 189.2

Rig information details for 78998

Position Latitude	:	54 13.48N
Position Longitude	:	03 28.47W
Water depth	:	22.0 m
Deployed on cruise	:	CIROL'A
Recovered on cruise	:	TRAWLED
Site name identification	:	S
Magnetic deviation	:	6.4 degrees west
Rig deployed on	:	18-FEB-91 18:00:00
Rig recovered on	:	05-MAY-91 09:00:00
Period of deployment	:	75.6 days
Comments	:	Rig trawled by fishing vessel.

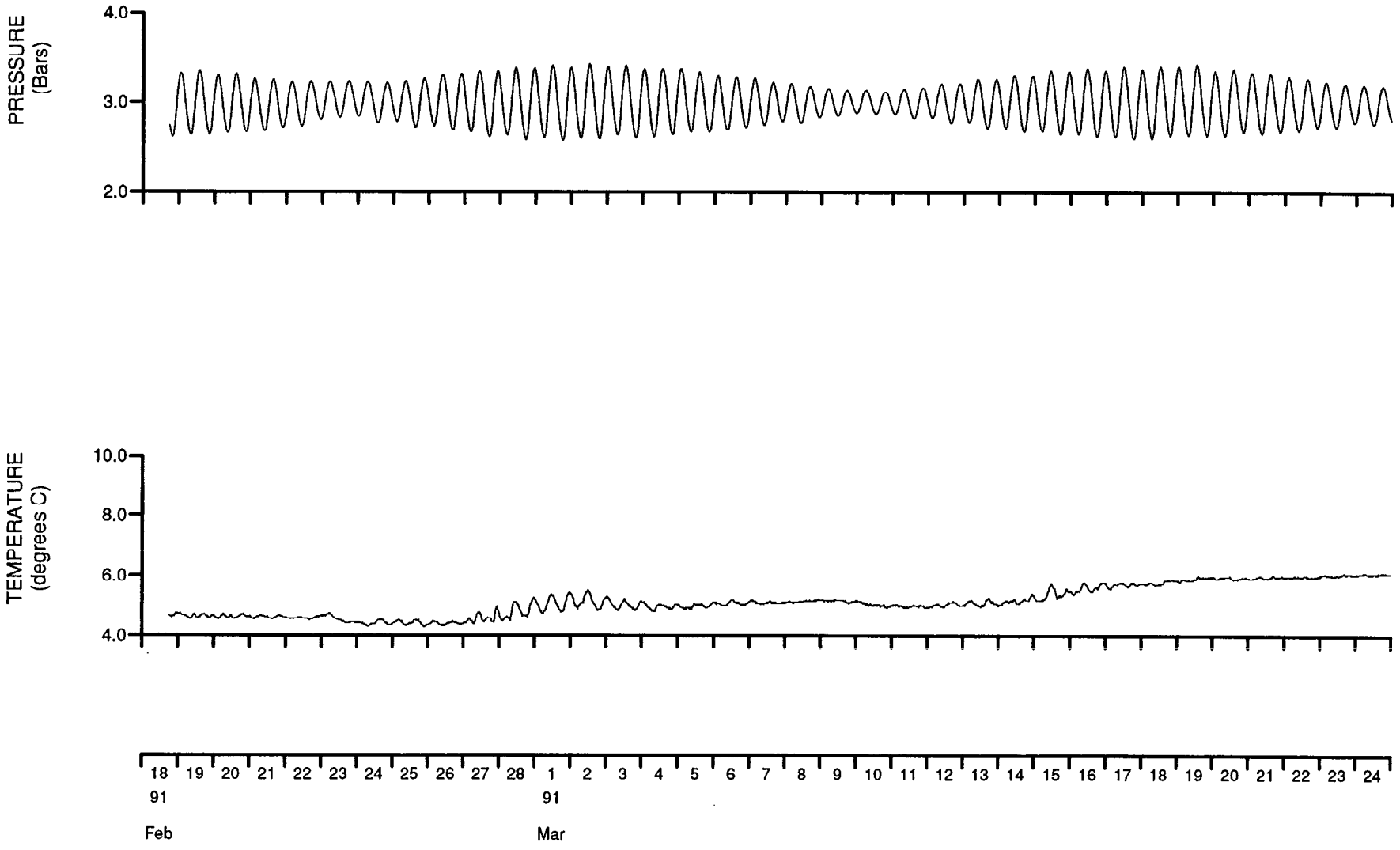
Meter information details for 0444

Rig No	:	78998
Meter No	:	0444
Recording interval	:	900.0 seconds
Meter height from bottom	:	0.8 m
Position of meter on rig	:	
Meter type	:	WR
Meter started	:	18-FEB-91 10:15:00
Meter stopped	:	17-MAY-91 09:00:00
Period switched on	:	87.9 days
Period of good data	:	75.6 days
Total number of scans	:	7259
Timing error	:	None
Comments	:	None

Meter no. 0444 Rig no. 78998 Depth of water(m) 22.0

Start/End 1991/02/18 AT 18:00:00 1991/05/05 AT 09:00:00

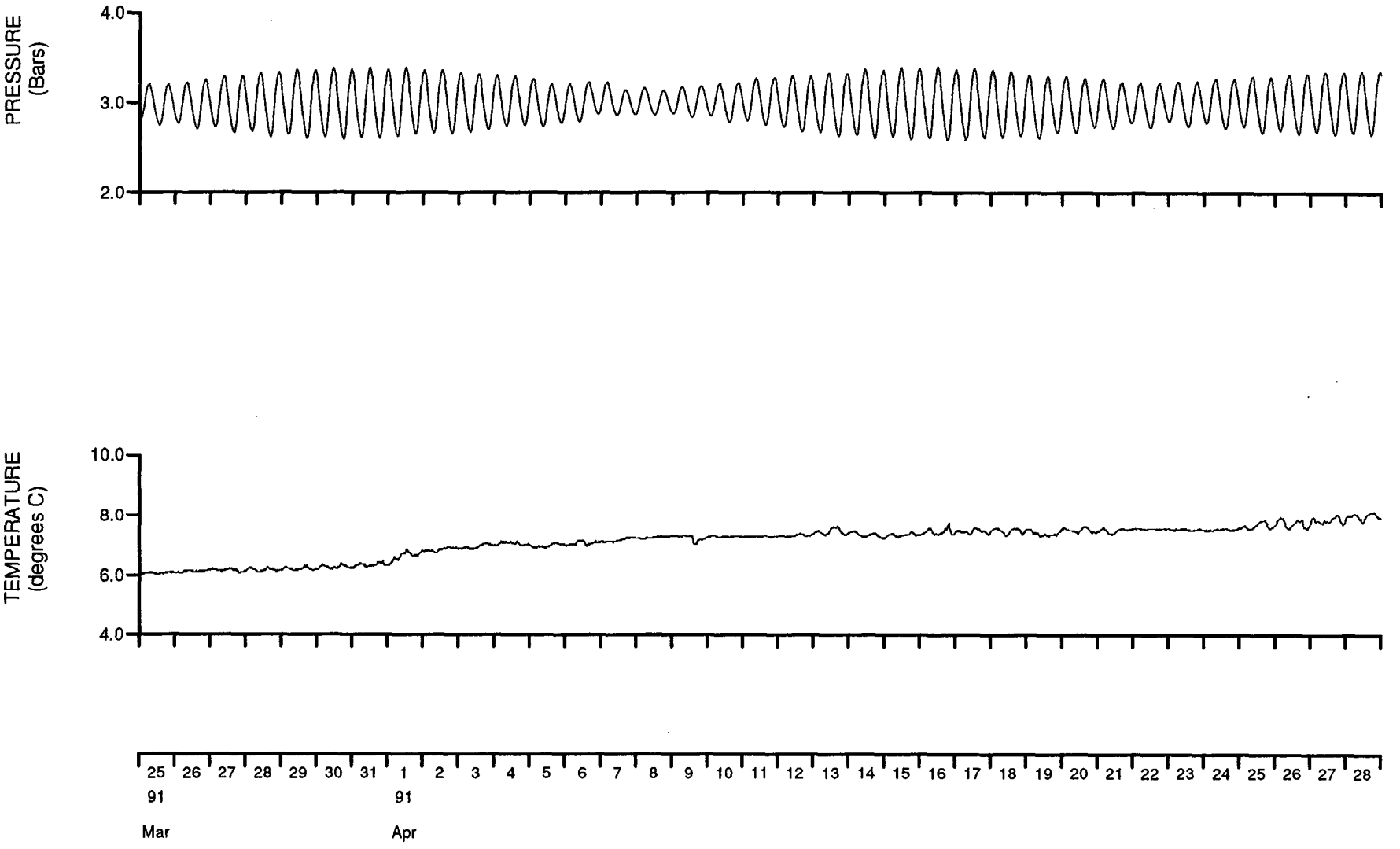
Position 54 13.48N 03 28.47W Meter Height(m) 0.0



Meter no. 0444 Rig no. 78998 Depth of water(m) 22.0

Start/End 1991/02/18 AT 18:00:00 1991/05/05 AT 09:00:00

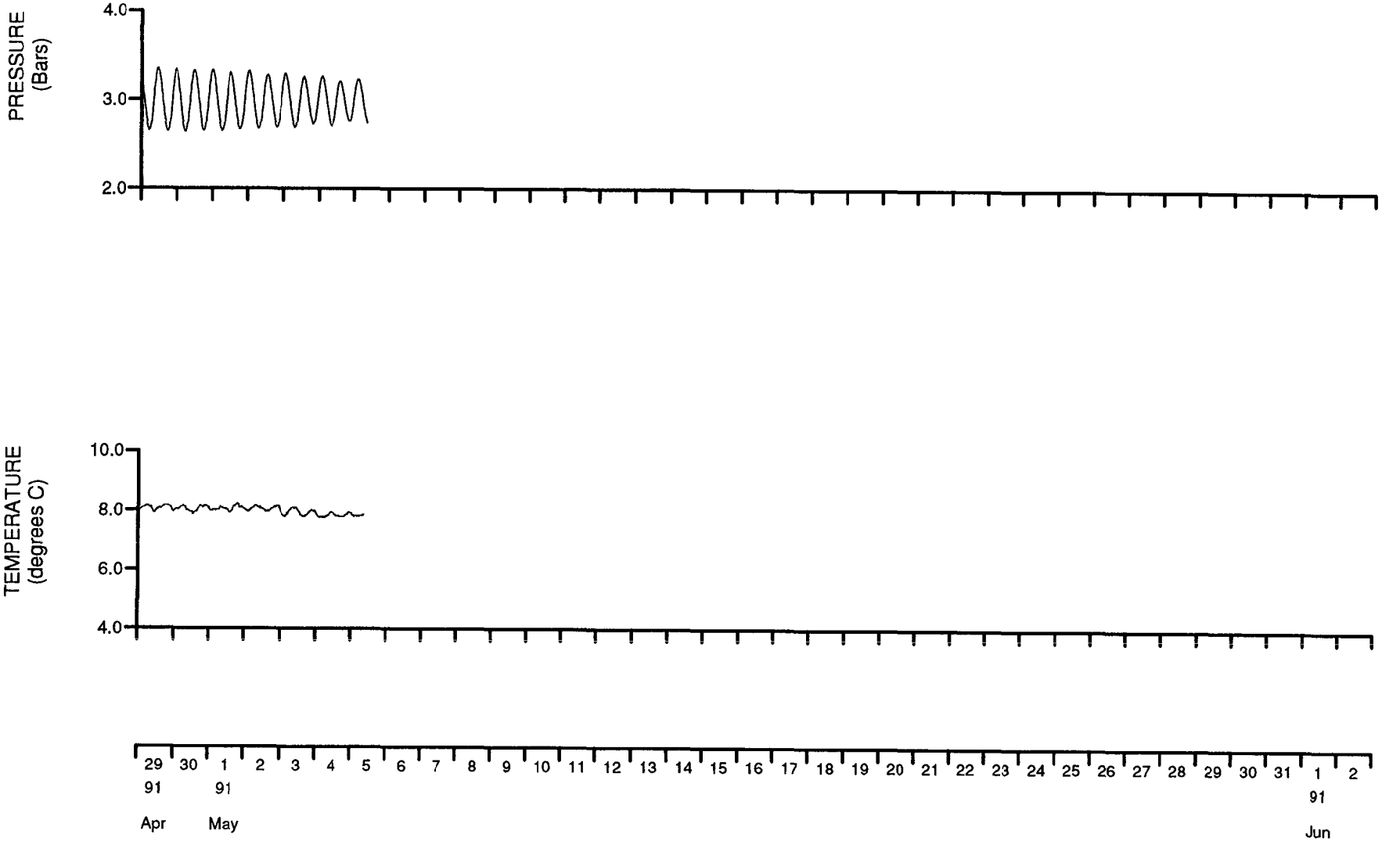
Position 54 13.48N 03 28.47W Meter Height(m) 0.0



Meter no. 0444 Rig no. 78998 Depth of water(m) 22.0

Start/End 1991/02/18 AT 18:00:00 1991/05/05 AT 09:00:00

Position 54 13.48N 03 28.47W Meter Height(m) 0.0



Rig information details for 78999

Position Latitude	:	54 22.50N
Position Longitude	:	03 45.02W
Water depth	:	39.0 m
Deployed on cruise	:	CIROL'A
Recovered on cruise	:	TRAWLED
Site name identification	:	W
Magnetic deviation	:	6.5 degrees west
Rig deployed on	:	18-FEB-91 16:03:00
Rig recovered on	:	21-APR-91 11:18:00
Period of deployment	:	61.8 days
Comments	:	Rig trawled by fishing vessel.

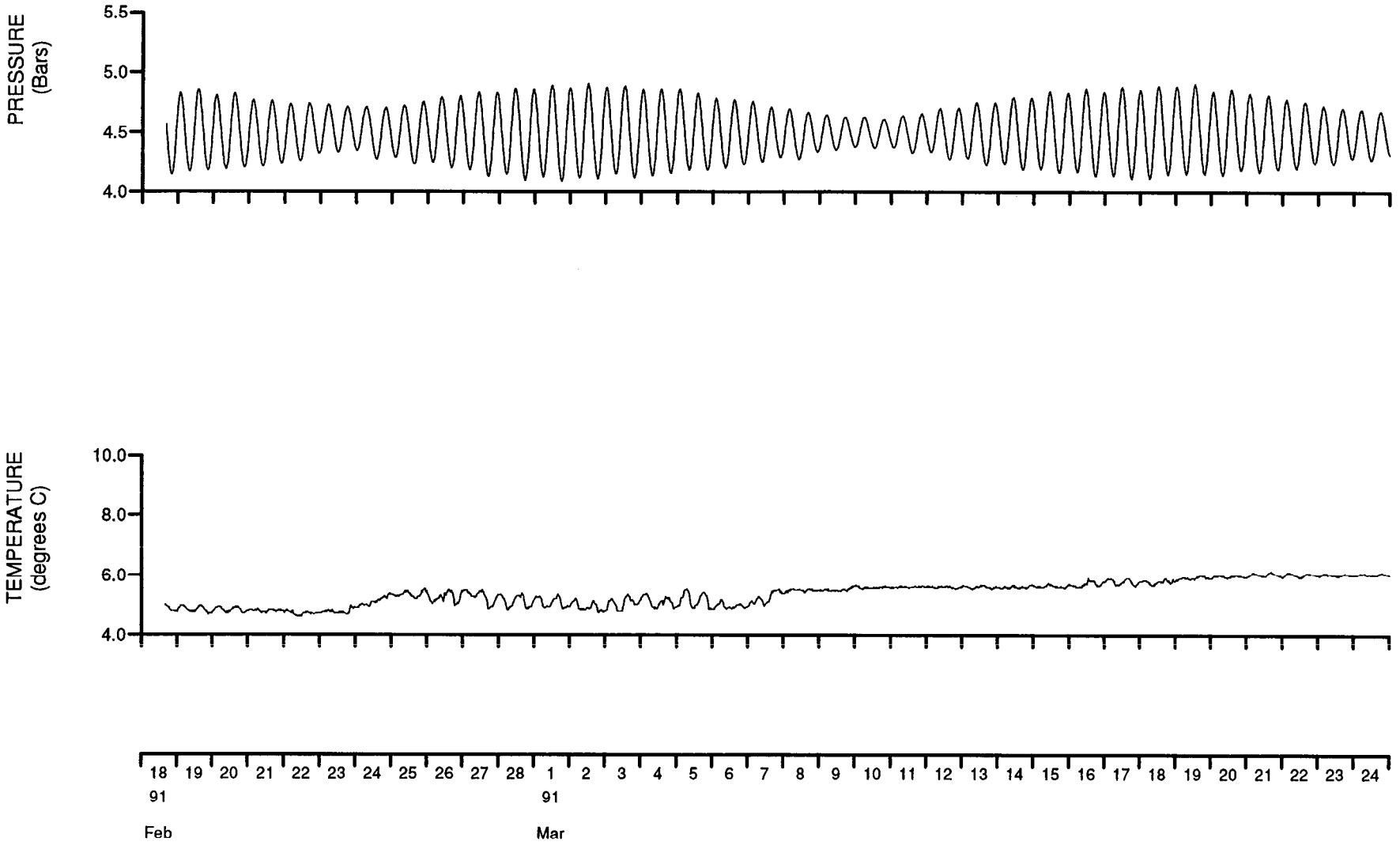
Meter information details for 0445

Rig No	:	78999
Meter No	:	0445
Recording interval	:	900.0 seconds
Meter height from bottom	:	0.8 m
Position of meter on rig	:	
Meter type	:	WR
Meter started	:	18-FEB-91 11:18:00
Meter stopped	:	26-APR-91 12:33:00
Period switched on	:	67.1 days
Period of good data	:	61.8 days
Total number of scans	:	5933
Timing error	:	None
Comments	:	None

Meter no. 0445 Rig no. 78999 Depth of water(m) 39.0

Start/End 1991/02/18 AT 16:03:00 1991/04/21 AT 11:18:00

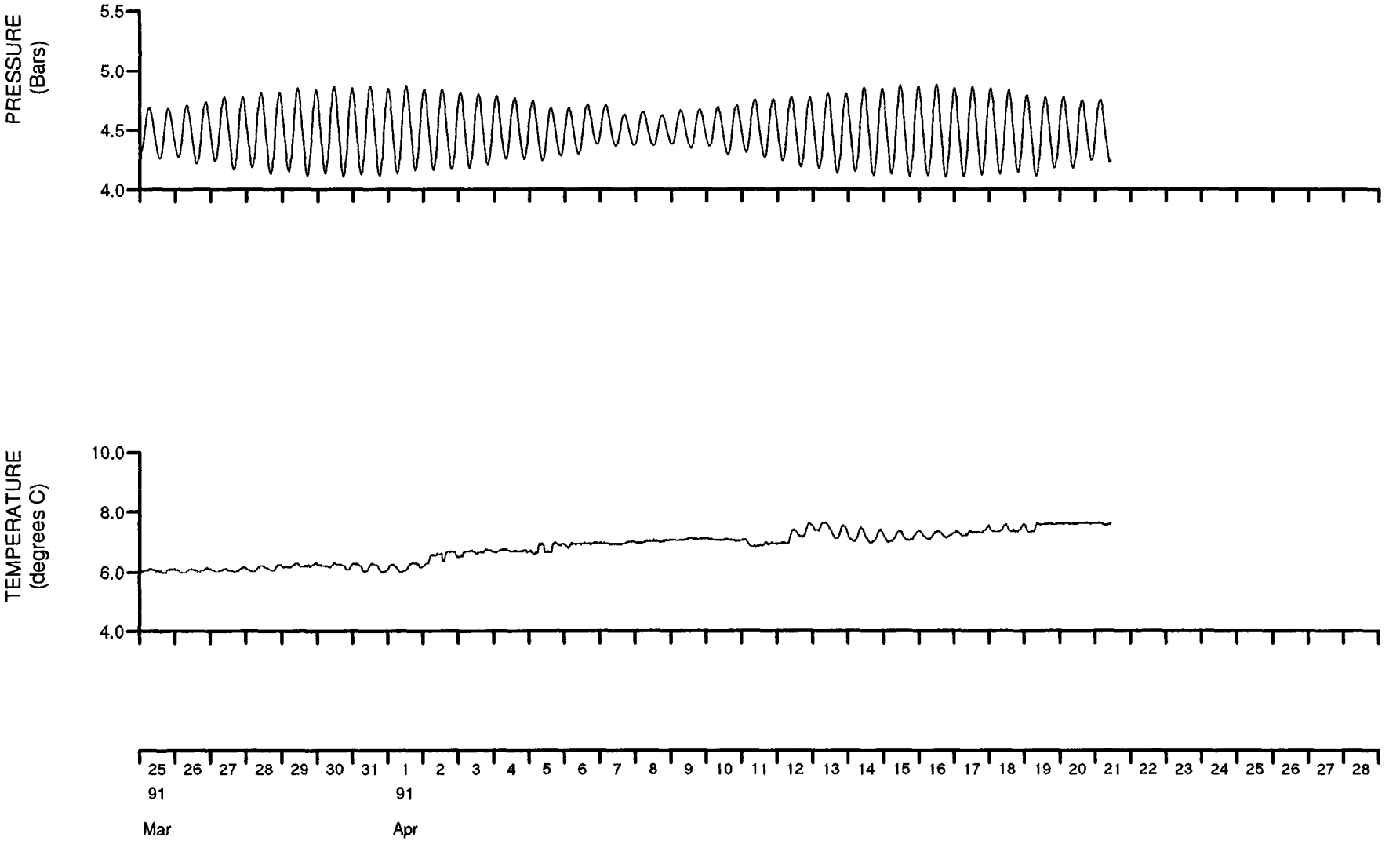
Position 54 22.50N 03 45.02W Meter Height(m) 0.0



Meter no. 0445 Rig no. 78999 Depth of water(m) 39.0

Start/End 1991/02/18 AT 16:03:00 1991/04/21 AT 11:18:00

Position 54 22.50N 03 45.02W Meter Height(m) 0.0



Rig information details for 88539

Position Latitude	:	54 06.80N
Position Longitude	:	03 37.51W
Water depth	:	28.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	C88A
Site name identification	:	XE
Magnetic deviation	:	6.1 degrees west
Rig deployed on	:	22-JAN-92 13:22:00
Rig recovered on	:	01-FEB-92 10:56:00
Period of deployment	:	9.9 days
Comments	:	None

Meter information details for 0003

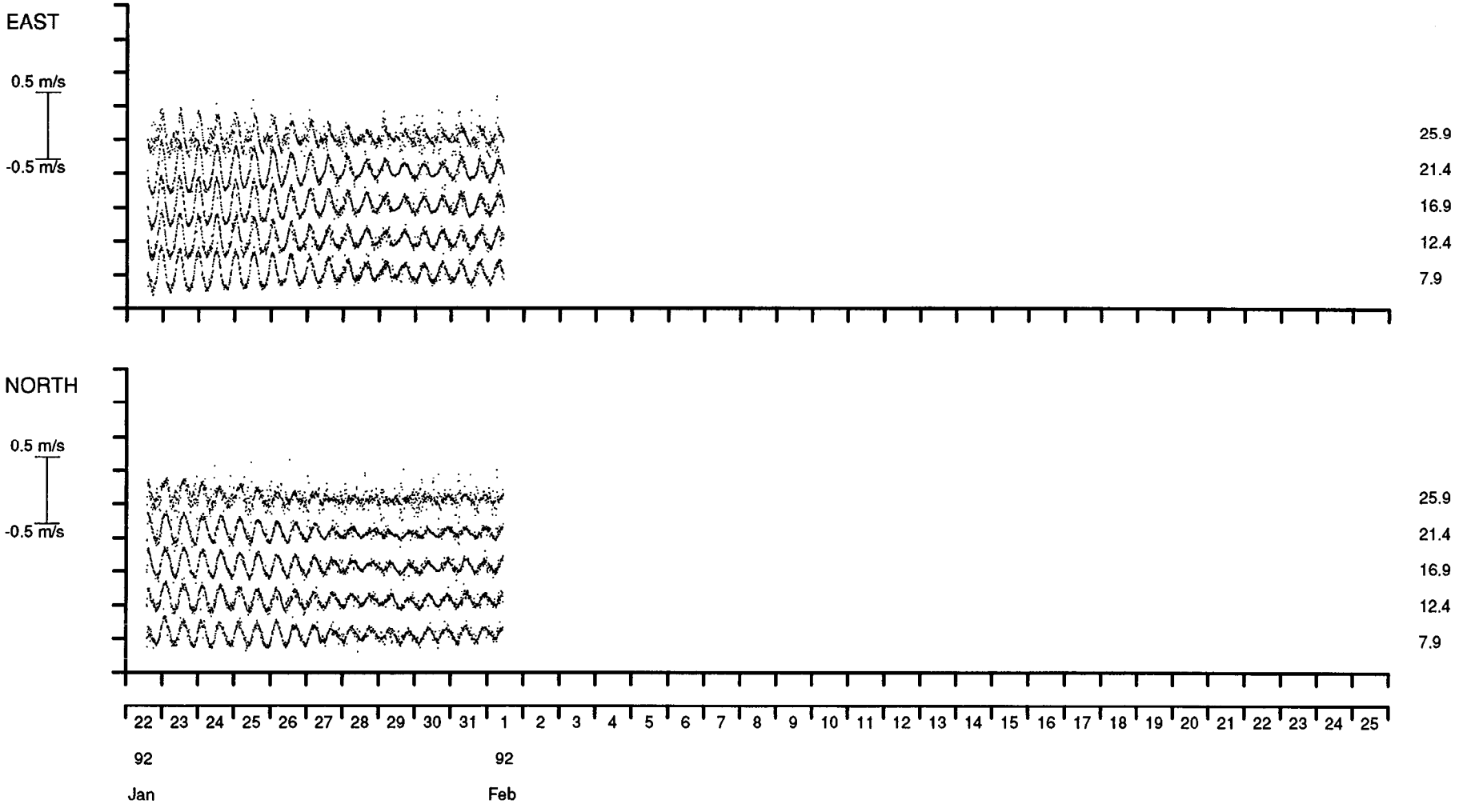
Rig No	:	88539
Meter No	:	0003
Frame angle correction	:	20.4 degrees
Recording interval	:	600.0 seconds
Meter height from bottom	:	0.8 m
Meter type	:	DP
Meter started	:	22-JAN-92 12:48:44
Meter stopped	:	01-FEB-92 11:08:39
Period switched on	:	9.9 days
Period of good data	:	9.9 days
Total number of scans	:	1425
Timing error	:	5 seconds fast
Comments	:	250 kHz doppler, with 8 bins. Aanderaa 9680 angle of 20.4 degs. used to correct Doppler compass error.

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0003 Rig no. 88539 Depth of water(m) 28.0

Start/End 1992/01/22 AT 13:22:00 1992/02/01 AT 10:56:00

Position 54 06.80N 03 37.51W 7.90 Base Ht 4.50 Gap Ht

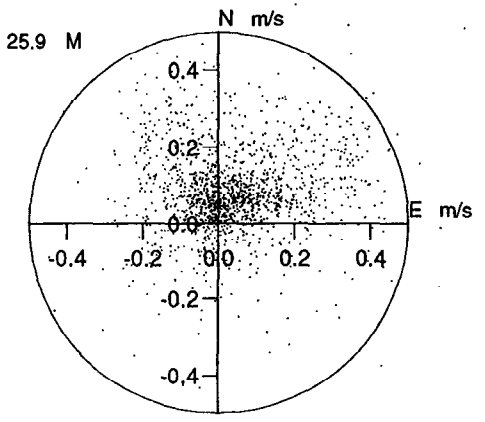


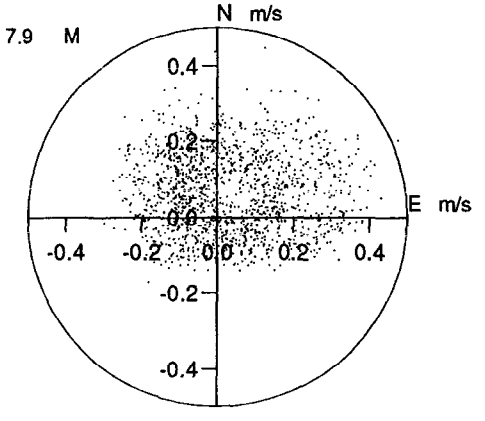
SCATTER PLOT

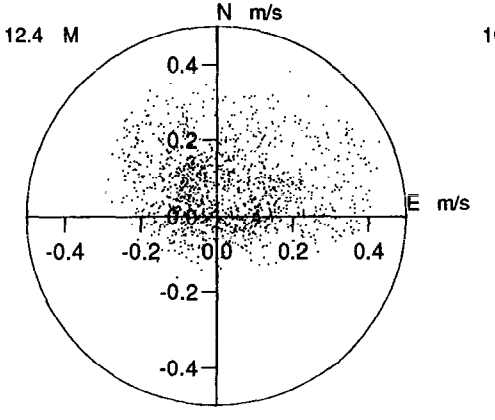
Meter no. 0003 Rig no. 88539 Depth of water(m) 28.0

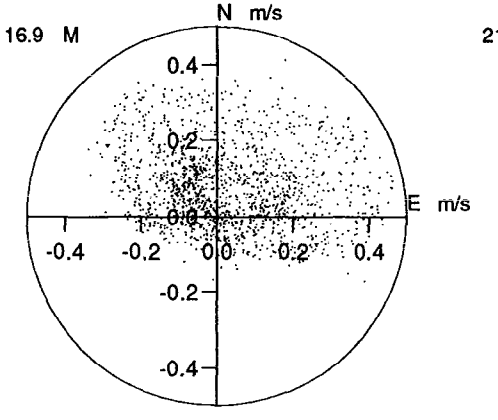
Start/End 1992/01/22 AT 13:22:00 1992/02/01 AT 10:56:00

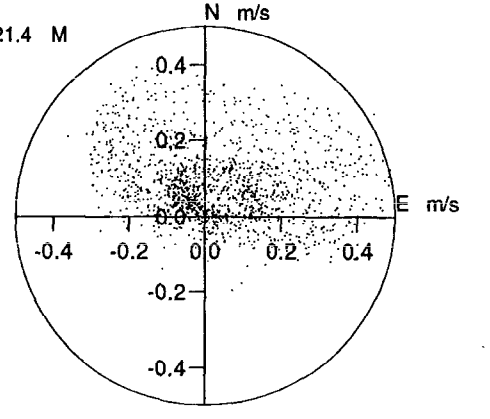
Position 54 06.80N 03 37.51W 7.90 Base Ht 4.50 Gap Ht









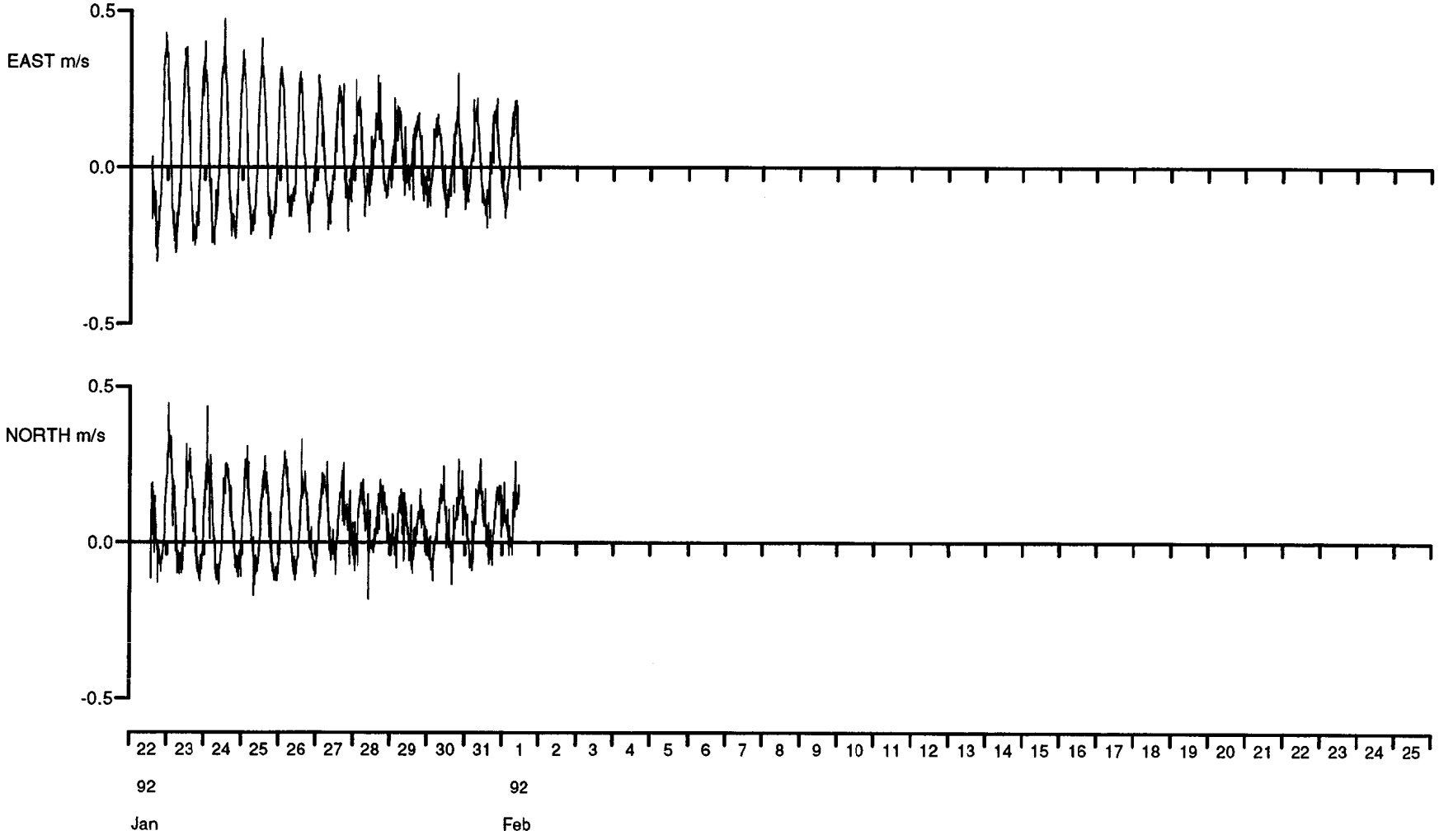


VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0003 Rig no. 88539 Depth of water(m) 28.0

Start/End 1992/01/22 AT 13:22:00 1992/02/01 AT 10:56:00

Position 54 06.80N 03 37.51W 7.90 Base Ht 4.50 Gap Ht 7.9 Bin Ht (m)

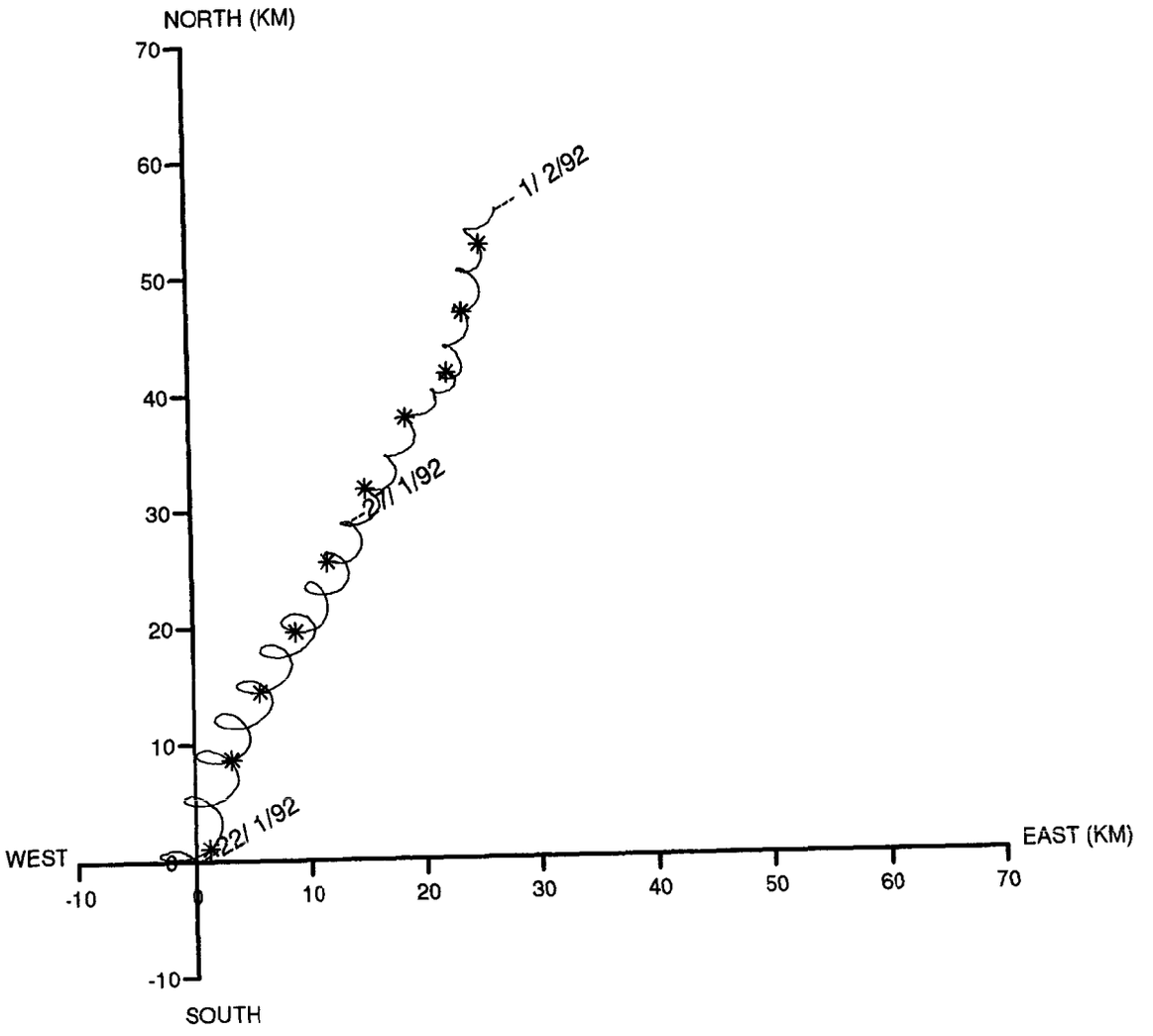


VECTOR PLOT

Meter no. 0003 Rig no. 88539 Depth of water(m) 28.0

Start/End 1992/01/22 AT 13:22:00 1992/02/01 AT 10:56:00

Position 54 06.80N 03 37.51W 7.90 Base Ht 4.50 Gap Ht 7.9 Bin Ht (m)



Statistics for dp0003.88539s1

Doppler bin number 1

	Mean	Variance	Standard deviation
Eastings	0.0314	0.22222625E-01	0.14907256E+00
Northings	0.0652	0.10466595E-01	0.10230639E+00
Speed	0.1740	0.76438989E-02	0.87429389E-01

Vector mean speed 0.0723

Vector Mean Direction 25.7

Maximum ten values

Eastings					Northings				
0.474	0.431	0.413	0.403	0.403	0.445	0.435	0.340	0.340	0.338
0.396	0.393	0.392	0.387	0.381	0.335	0.332	0.331	0.331	0.323

Minimum ten values

Eastings					Northings				
-0.244	-0.249	-0.251	-0.257	-0.258	-0.123	-0.124	-0.126	-0.130	-0.136
-0.259	-0.271	-0.274	-0.297	-0.304	-0.136	-0.136	-0.137	-0.173	-0.183

Maximum speeds

0.515	0.462	0.436	0.435	0.434	0.429	0.425	0.421	0.418	0.415
0.410	0.410	0.407	0.407	0.402	0.400	0.393	0.393	0.392	0.389
0.383	0.381	0.381	0.381	0.380	0.377	0.374	0.370	0.367	0.365
0.365	0.364	0.362	0.362	0.361	0.360	0.359	0.359	0.357	0.357
0.356	0.356	0.355	0.354	0.354	0.354	0.353	0.351	0.351	0.350
0.349	0.348	0.347	0.346	0.345	0.344	0.342	0.340	0.340	0.339
0.339	0.338	0.338	0.338	0.336	0.336	0.335	0.335	0.335	0.334
0.333	0.333	0.333	0.332	0.332	0.332	0.331	0.331	0.331	0.330
0.330	0.329	0.329	0.328	0.327	0.327	0.327	0.326	0.326	0.325
0.325	0.325	0.325	0.324	0.324	0.324	0.324	0.323	0.323	0.323

Variance ellipse statistics

Maximum variance	0.2223E-01	Direction	-89.0
Minimum variance	0.1046E-01	Direction	1.0
Total variance	0.3269E-01	Ratio of variances	0.4708E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 47.0

Average direction. maxdir +PI/2 to maxdir -PI/2 163.2

Statistics for dp0003.88539

Statistics
For all good data bins

ADCP Bin Number	ADCP Bin Height	Vector Mean Speed	Vector Mean Direction	Maximum Variance	Direction of Maximum Variance	Minimum Variance	Direction of Minimum Variance
1	7.9	0.072	25.7	0.0222	-89.0	0.0105	1.0
2	12.4	0.078	19.8	0.0217	-84.6	0.0093	5.4
3	16.9	0.086	21.9	0.0277	-79.0	0.0102	11.0
4	21.4	0.093	22.1	0.0293	-79.9	0.0090	10.1
5	25.9	0.093	26.5	0.0226	82.4	0.0135	172.4

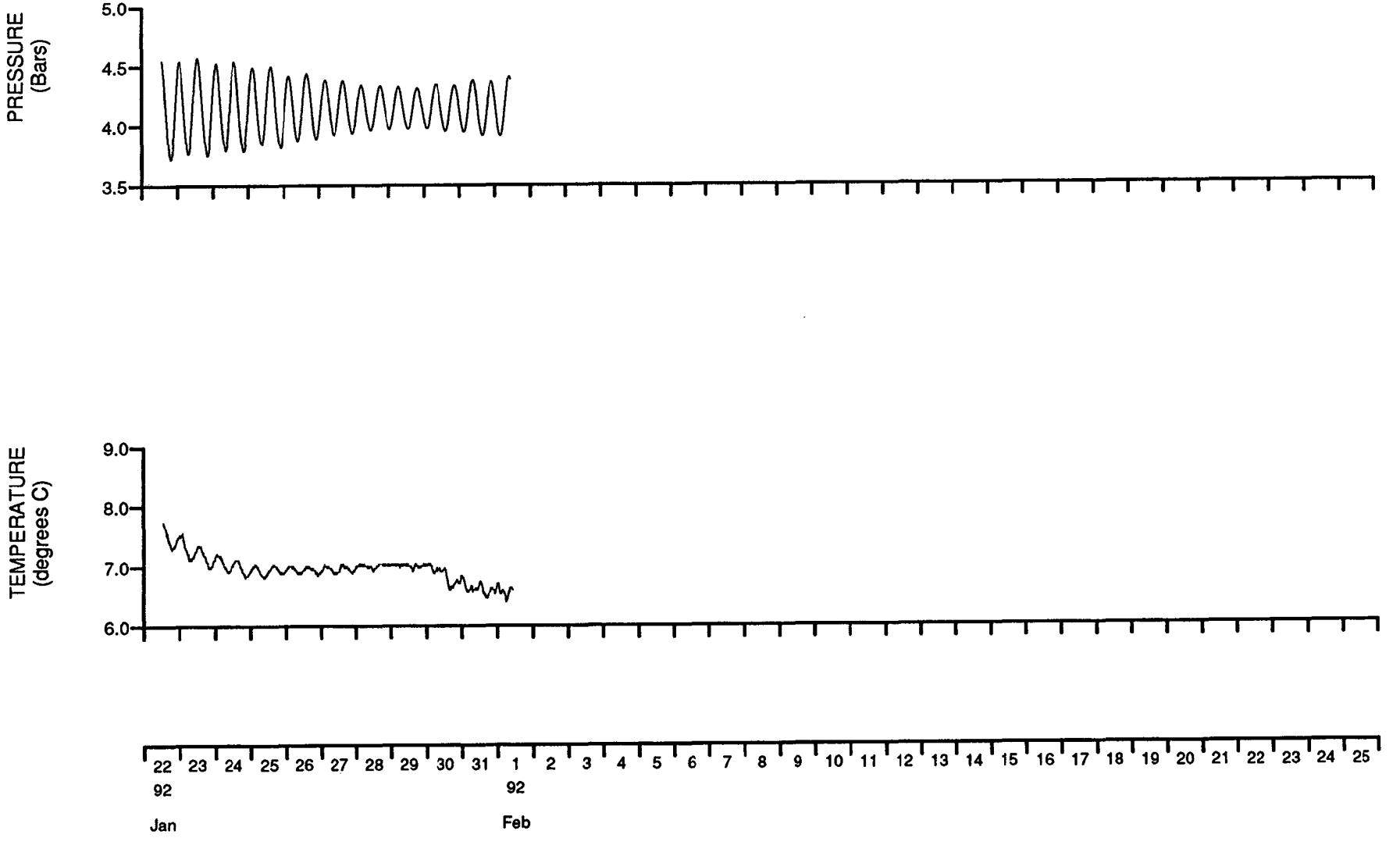
Meter information details for 1038

Rig No	:	88539
Meter No	:	1038
Recording interval	:	600.0 seconds
Meter height from bottom	:	0.8 m
Position of meter on rig	:	
Meter type	:	WR
Meter started	:	19-JAN-92 11:10:41
Meter stopped	:	05-FEB-92 15:10:47
Period switched on	:	17.2 days
Period of good data	:	9.9 days
Total number of scans	:	1425
Timing error	:	6 seconds slow
Comments	:	None

Meter no. 1038 Rig no. 88539 Depth of water(m) 25.0

Start/End 1992/01/22 AT 13:22:00 1992/02/01 AT 10:56:00

Position 54 06.80N 03 37.51W Meter Height(m) 0.8



Rig information details for 88540

Position Latitude	:	54 06.95N
Position Longitude	:	03 37.22W
Water depth	:	28.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	C88A
Site name identification	:	XK
Magnetic deviation	:	6.1 degrees west
Rig deployed on	:	22-JAN-92 14:30:00
Rig recovered on	:	01-FEB-92 11:47:00
Period of deployment	:	9.9 days
Comments	:	None

Meter information details for 9631

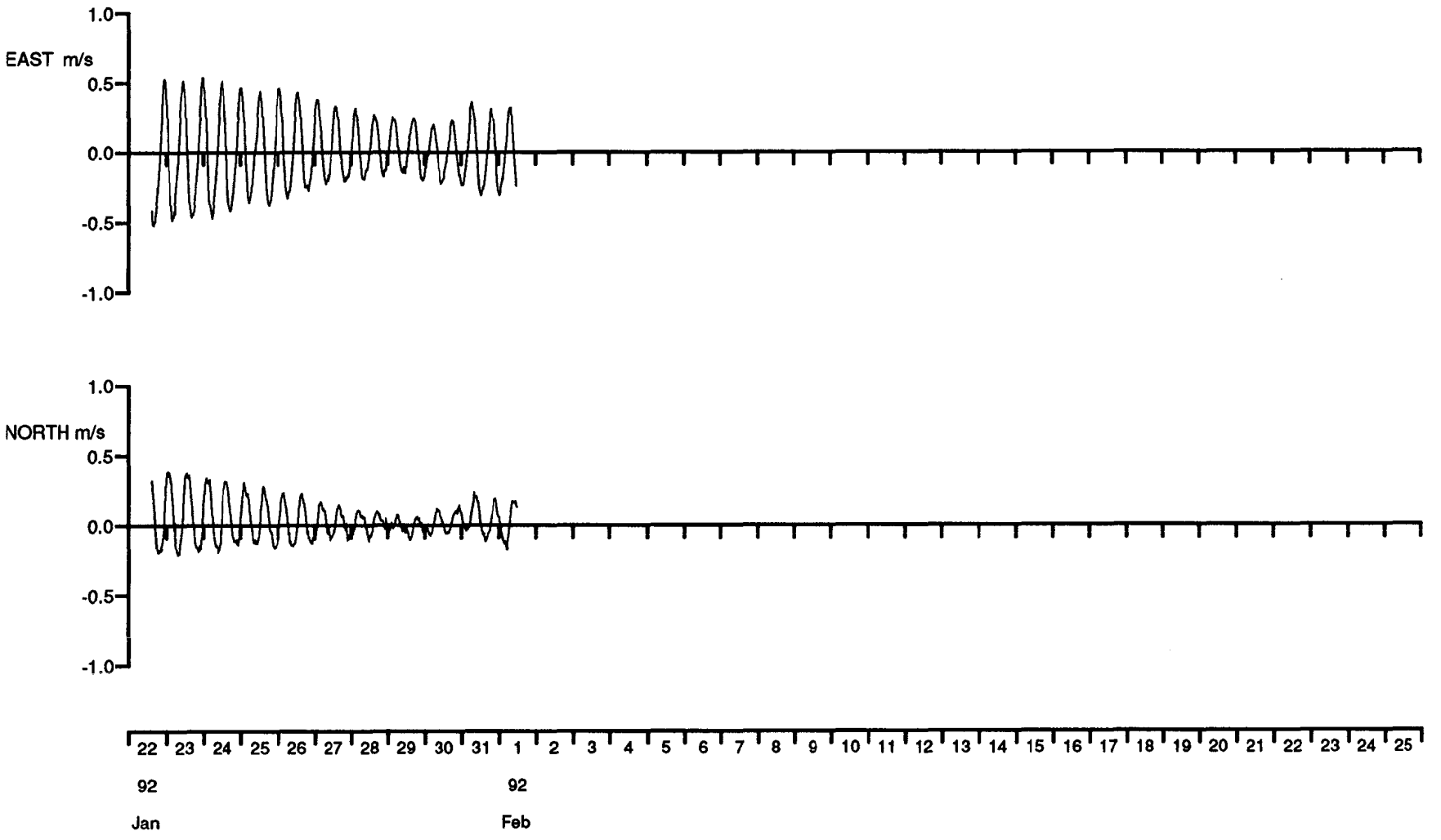
Rig No	:	88540
Meter No	:	9631
Recording interval	:	600.0 seconds
Meter height from bottom	:	19.5 m
Position of meter on rig	:	T
Meter type	:	AS
Meter started	:	19-JAN-92 16:40:00
Meter stopped	:	01-FEB-92 11:40:00
Period switched on	:	12.8 days
Period of good data	:	9.9 days
Total number of scans	:	1423
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 9631 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 19.5

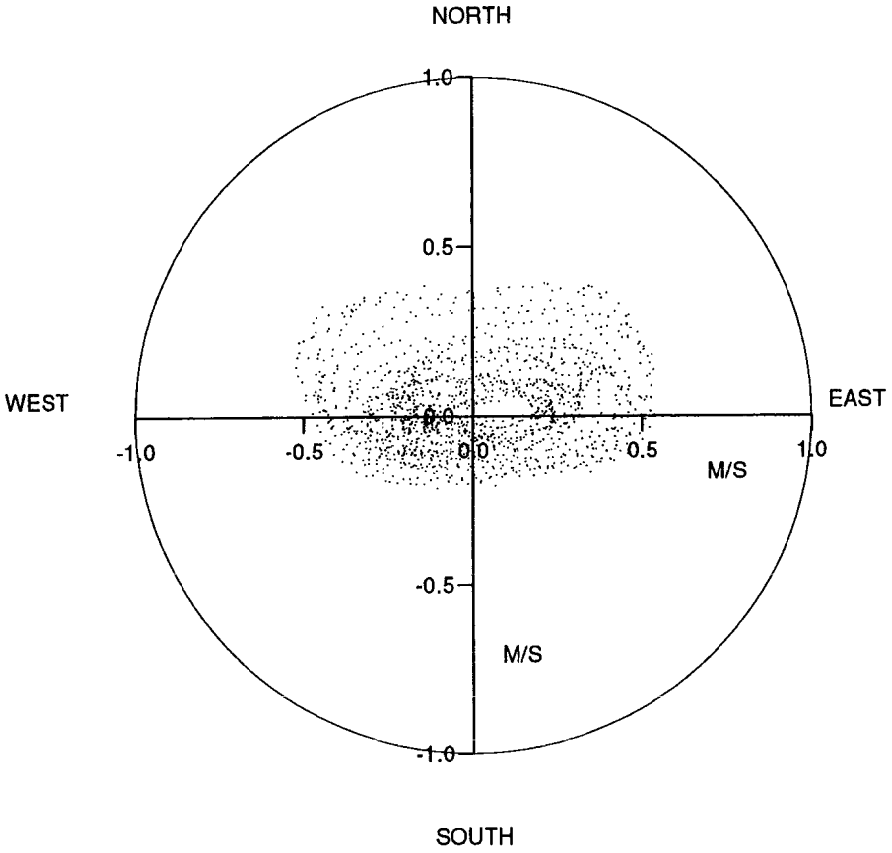


SCATTER PLOT

Meter no. 9631 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 19.5

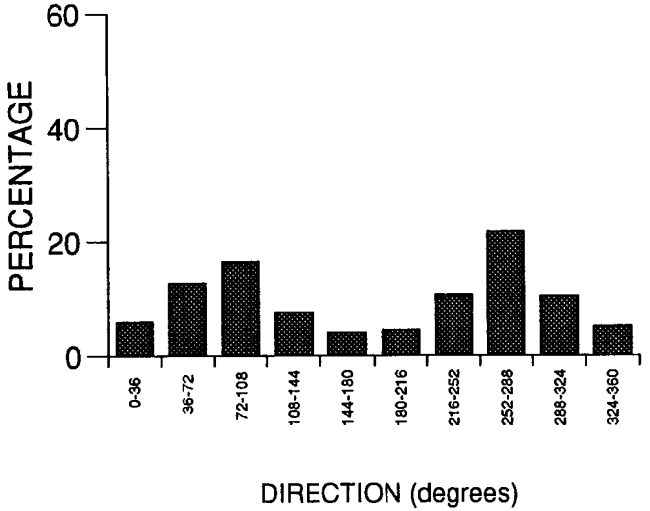


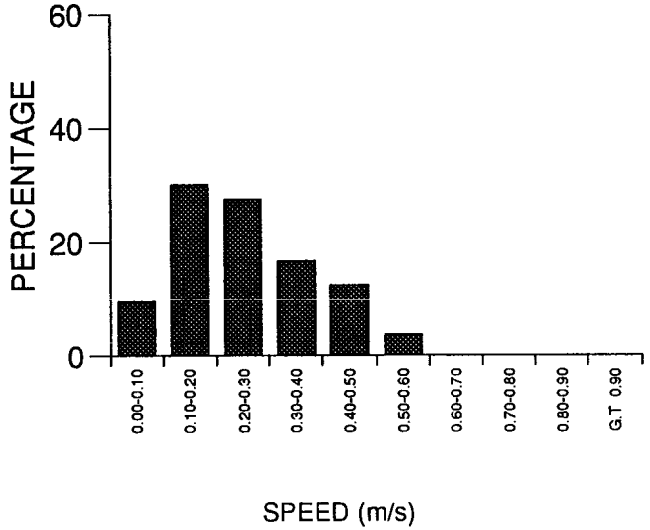
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 9631 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 19.5



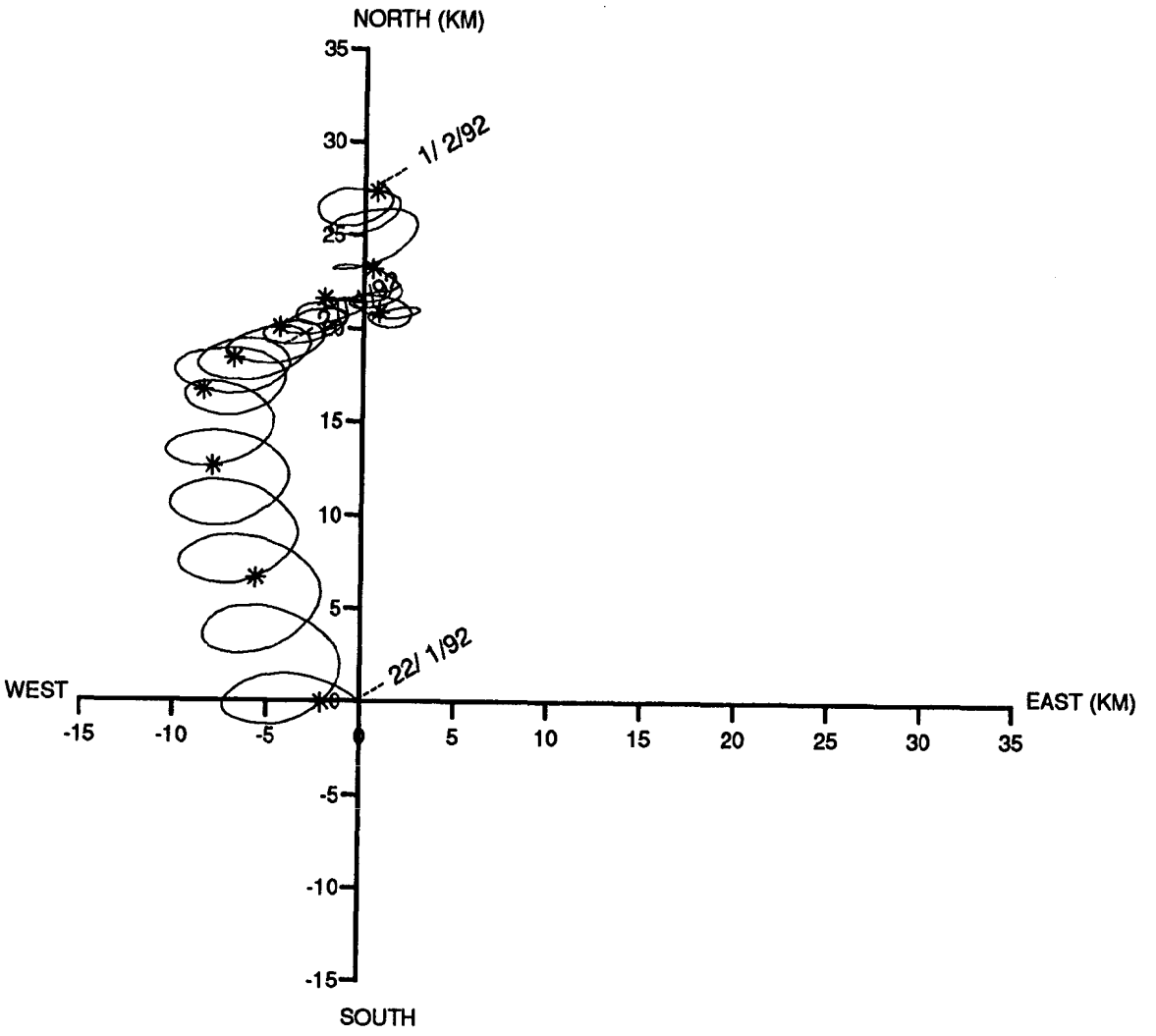


VECTOR PLOT

Meter no. 9631 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 19.5

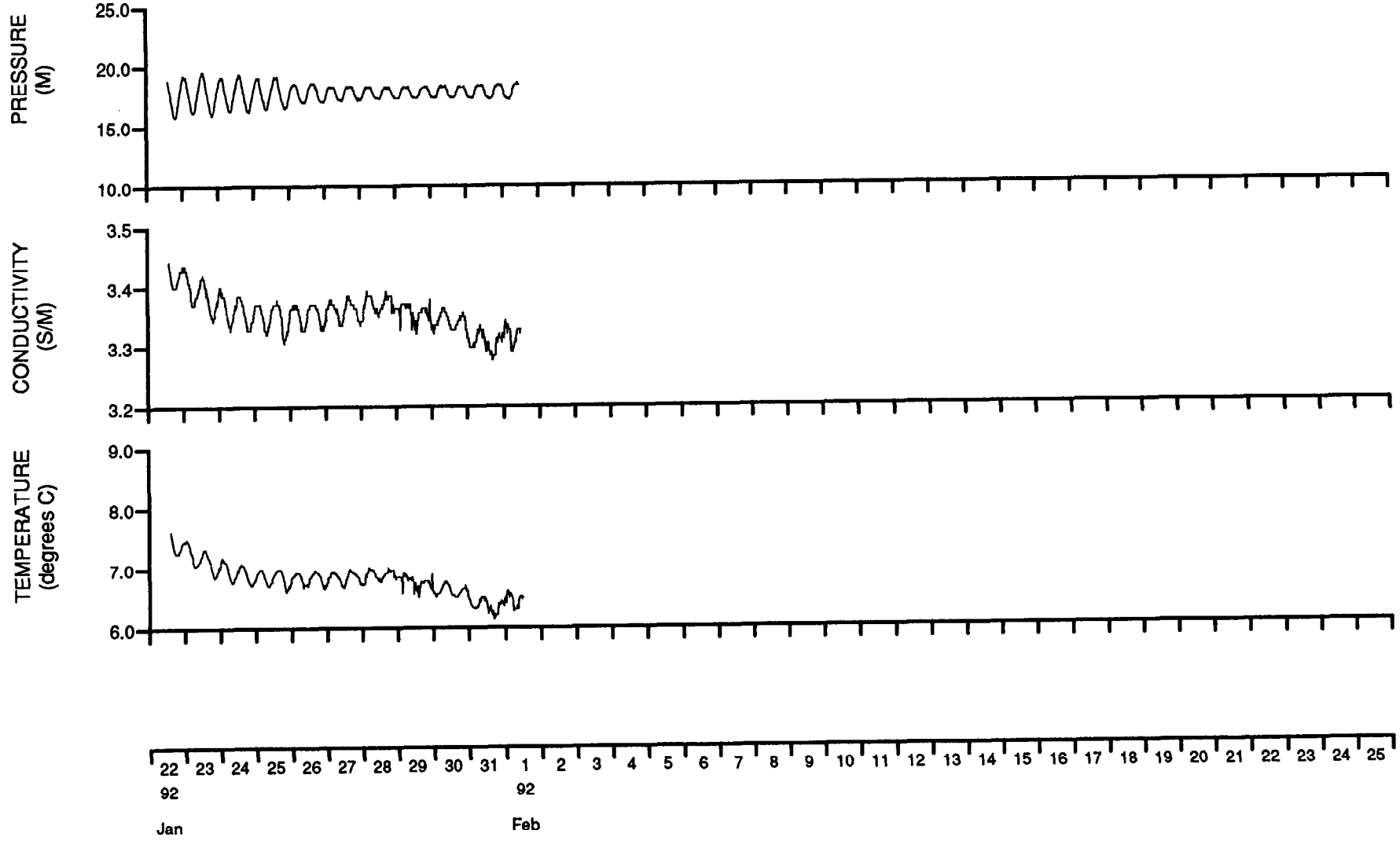


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 9631 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 19.5



Statistics for as9631t.88540s

	Mean	Variance	Standard deviation
Eastings	0.0007	0.61643310E-01	0.24828072E+00
Northings	0.0326	0.17492587E-01	0.13225955E+00
Speed	0.2539	0.15711395E-01	0.12534511E+00

Vector mean speed 0.0326

Vector Mean Direction 1.3

Maximum ten values

Eastings					Northings				
0.537	0.535	0.528	0.527	0.526	0.390	0.388	0.383	0.382	0.381
0.522	0.521	0.521	0.520	0.514	0.379	0.377	0.377	0.376	0.375

Minimum ten values

Eastings					Northings				
-0.487	-0.495	-0.497	-0.502	-0.507	-0.194	-0.199	-0.199	-0.200	-0.202
-0.514	-0.515	-0.518	-0.521	-0.524	-0.202	-0.203	-0.203	-0.208	-0.215

Maximum speeds

0.557	0.557	0.552	0.549	0.549	0.549	0.549	0.546	0.546	0.546
0.543	0.543	0.543	0.543	0.543	0.543	0.540	0.537	0.537	0.537
0.534	0.534	0.534	0.531	0.531	0.531	0.531	0.528	0.528	0.528
0.528	0.525	0.525	0.525	0.525	0.522	0.522	0.520	0.520	0.520
0.517	0.517	0.517	0.517	0.514	0.514	0.514	0.514	0.514	0.511
0.508	0.508	0.505	0.499	0.499	0.499	0.496	0.496	0.496	0.496
0.496	0.496	0.496	0.493	0.493	0.493	0.493	0.493	0.490	0.490
0.490	0.482	0.482	0.482	0.479	0.479	0.479	0.479	0.476	0.476
0.476	0.476	0.476	0.473	0.473	0.473	0.473	0.473	0.470	0.470
0.470	0.470	0.470	0.467	0.467	0.467	0.467	0.467	0.467	0.464

Variance ellipse statistics

Maximum variance	0.6183E-01	Direction	86.3
Minimum variance	0.1731E-01	Direction	176.3
Total variance	0.7914E-01	Ratio of variances	0.2800E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 -4.2

Average direction. maxdir +PI/2 to maxdir -PI/2 183.1

Meter information details for 9680

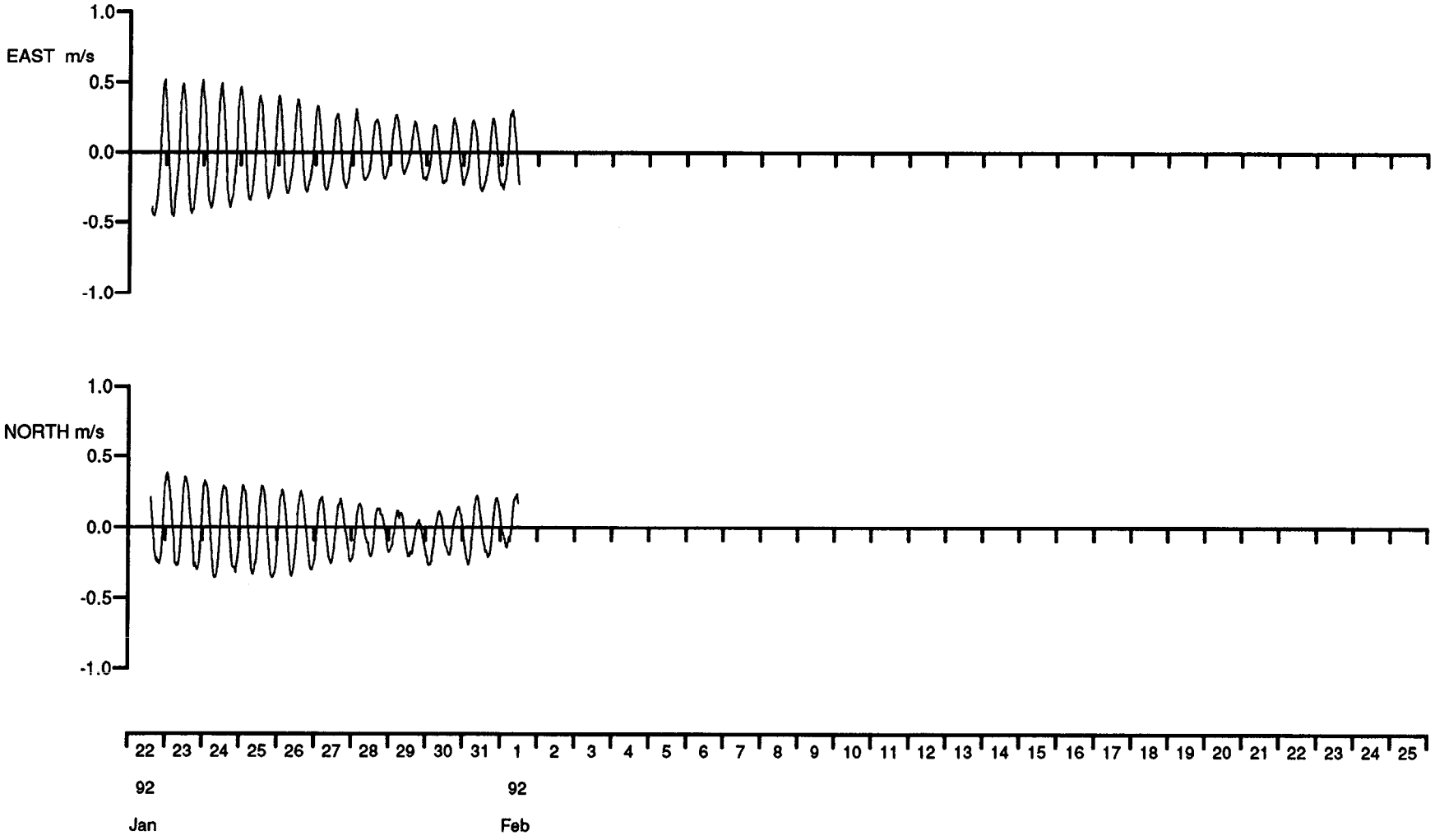
Rig No	:	88540
Meter No	:	9680
Recording interval	:	600.0 seconds
Meter height from bottom	:	2.5 m
Position of meter on rig	:	B
Meter type	:	AS
Meter started	:	19-JAN-92 15:50:00
Meter stopped	:	02-FEB-92 14:40:00
Period switched on	:	14.0 days
Period of good data	:	9.9 days
Total number of scans	:	1423
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 9680 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 2.5

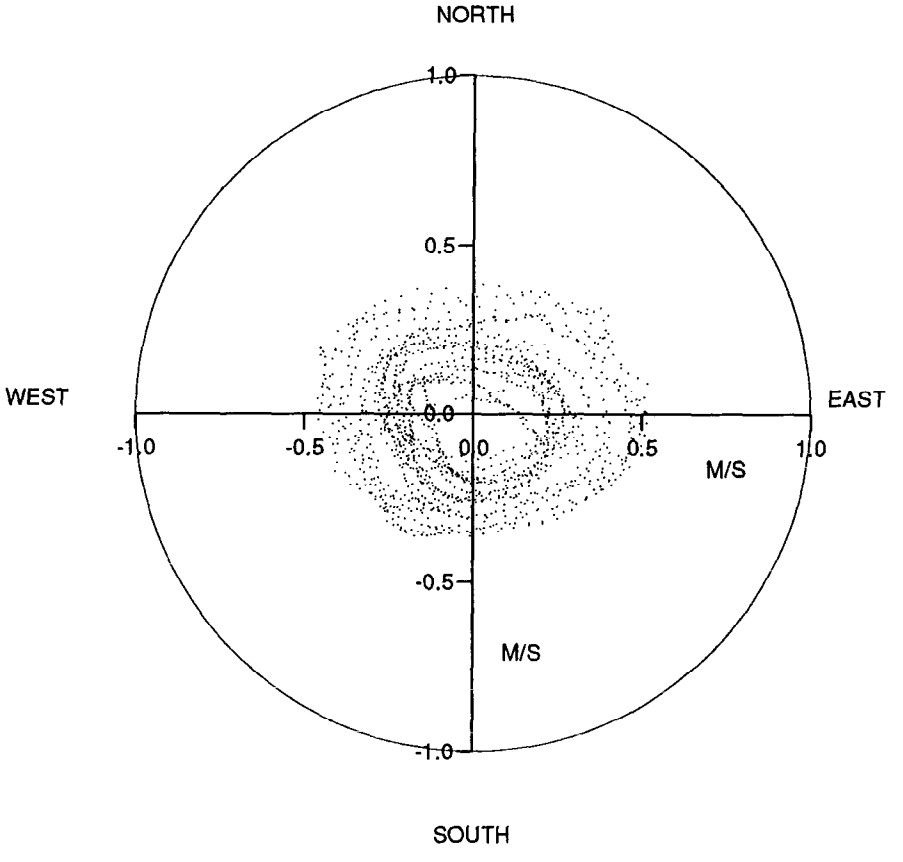


SCATTER PLOT

Meter no. 9680 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 2.5

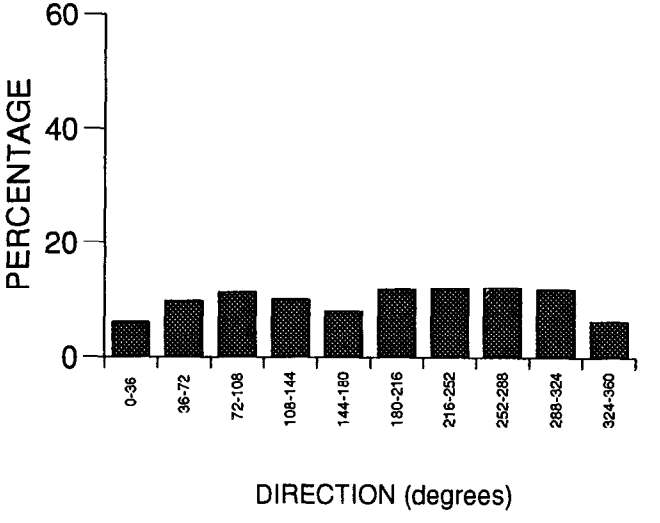


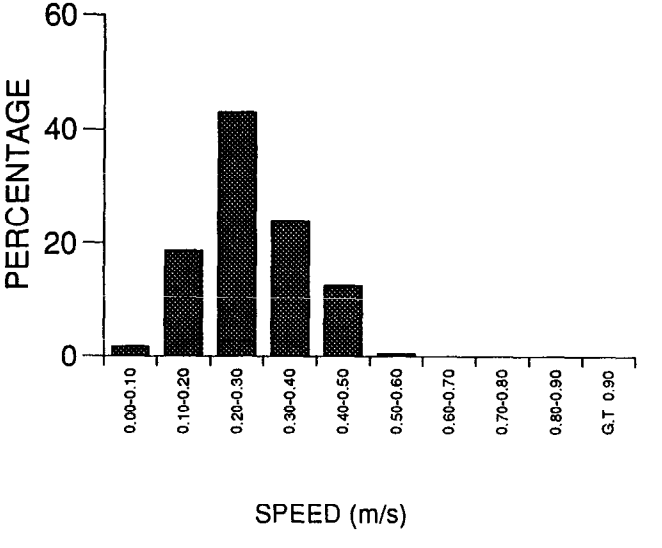
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 9680 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 2.5



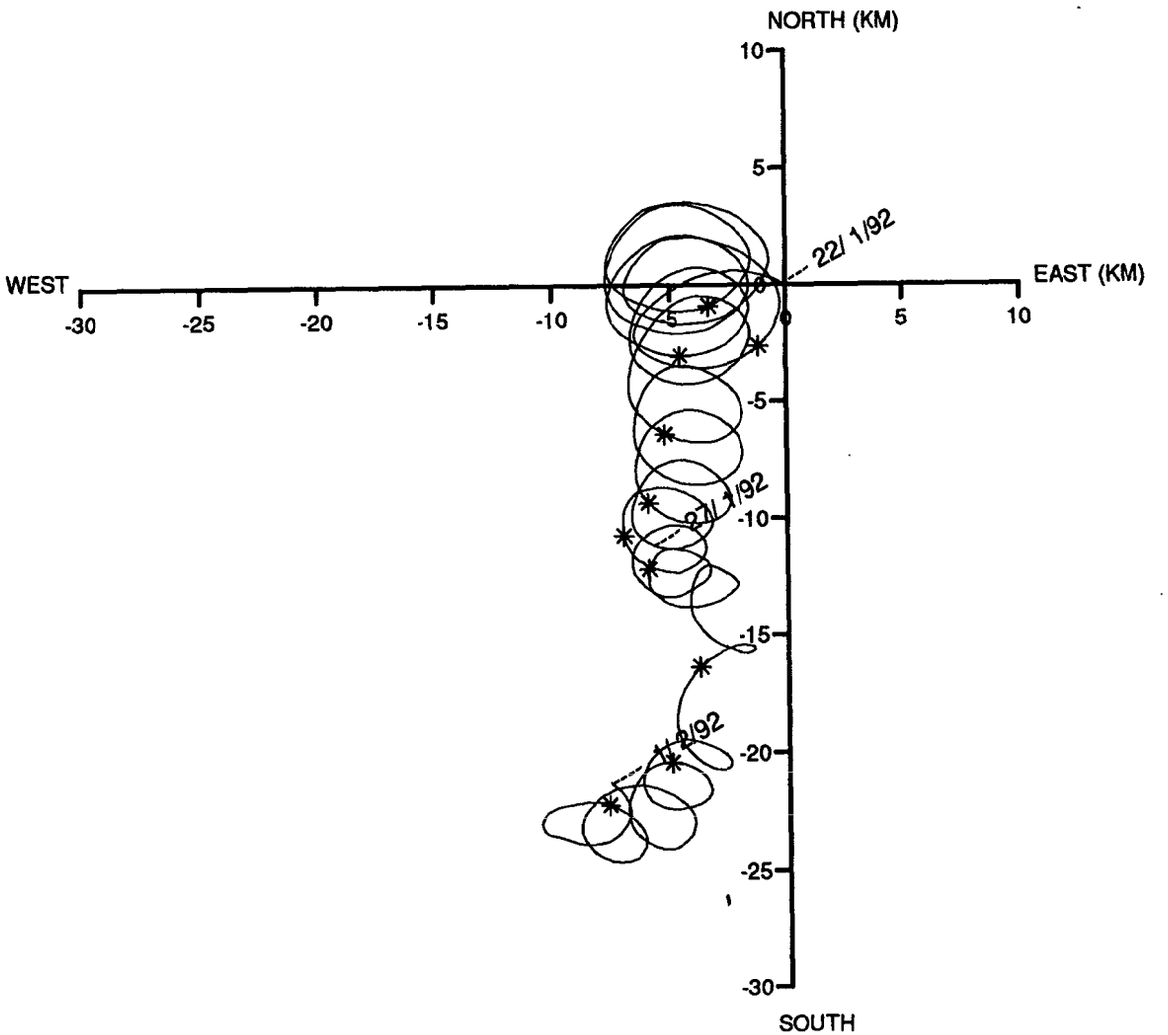


VECTOR PLOT

Meter no. 9680 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 2.5

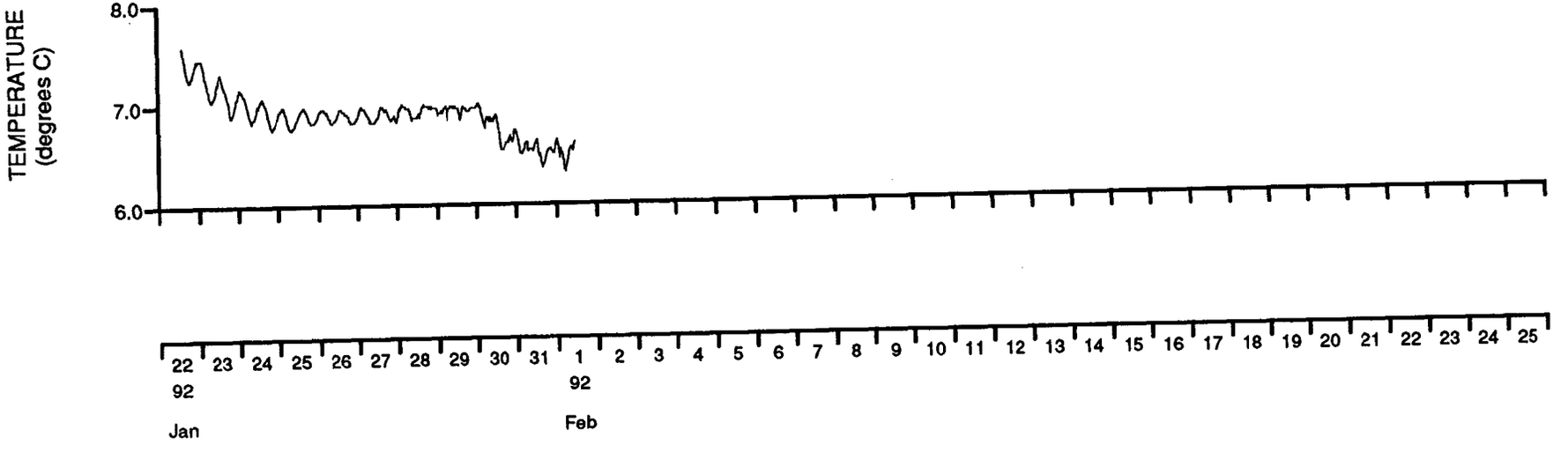


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 9680 Rig no. 88540 Depth of water(m) 28.0

Start/End 1992/01/22 AT 14:30:00 1992/02/01 AT 11:47:00

Position 54 06.95N 03 37.22W Meter Height(m) 2.5



Statistics for as9680b.88540s

	Mean	Variance	Standard deviation
Eastings	-0.0089	0.53396039E-01	0.23107582E+00
Northings	-0.0248	0.33100698E-01	0.18193598E+00
Speed	0.2799	0.87930989E-02	0.93771525E-01

Vector mean speed 0.0264

Vector Mean Direction -160.2

Maximum ten values

Eastings					Northings				
0.514	0.514	0.513	0.508	0.507	0.382	0.379	0.371	0.369	0.361
0.506	0.496	0.493	0.493	0.492	0.360	0.358	0.355	0.353	0.351

Minimum ten values

Eastings					Northings				
-0.446	-0.447	-0.447	-0.449	-0.449	-0.353	-0.353	-0.353	-0.353	-0.356
-0.453	-0.454	-0.456	-0.458	-0.462	-0.356	-0.358	-0.360	-0.360	-0.360

Maximum speeds

0.522	0.514	0.514	0.511	0.508	0.508	0.505	0.499	0.496	0.493
0.493	0.493	0.493	0.493	0.490	0.490	0.490	0.490	0.488	0.485
0.485	0.482	0.479	0.476	0.476	0.476	0.476	0.476	0.473	0.473
0.473	0.473	0.473	0.473	0.473	0.473	0.470	0.470	0.470	0.470
0.467	0.467	0.467	0.464	0.464	0.464	0.464	0.464	0.464	0.464
0.464	0.464	0.461	0.461	0.461	0.459	0.459	0.459	0.459	0.459
0.459	0.456	0.456	0.456	0.456	0.453	0.453	0.453	0.453	0.453
0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450
0.450	0.450	0.447	0.447	0.447	0.444	0.444	0.444	0.441	0.441
0.441	0.441	0.441	0.441	0.441	0.438	0.438	0.438	0.438	0.435

Variance ellipse statistics

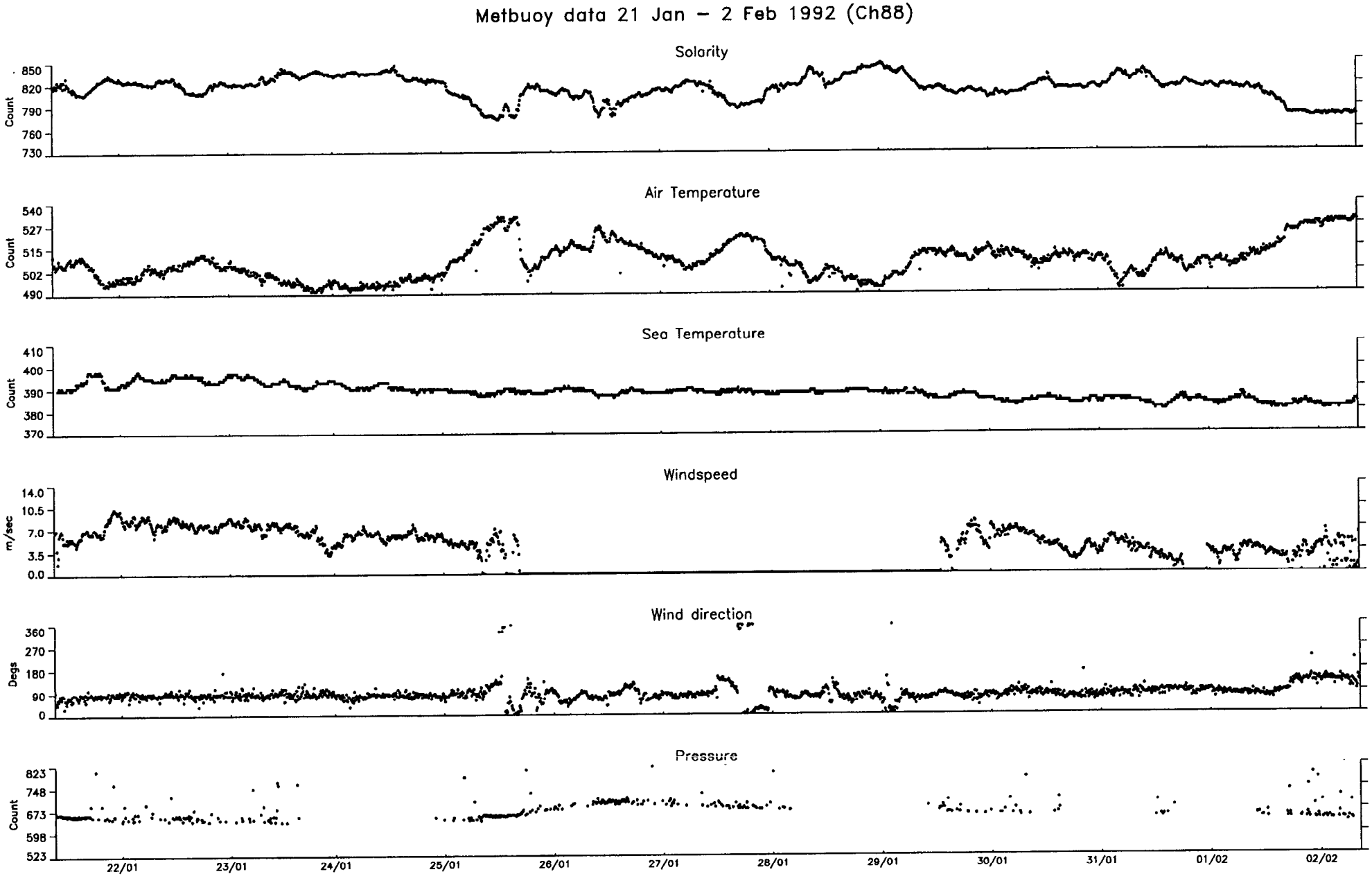
Maximum variance	0.5340E-01	Direction	-89.0
Minimum variance	0.3310E-01	Direction	1.0
Total variance	0.8650E-01	Ratio of variances	0.6197E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 36.5

Average direction. maxdir +PI/2 to maxdir -PI/2 183.3

Rig information details for 88533

Position Latitude	:	54 08.39N
Position Longitude	:	03 26.33W
Water depth	:	20.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	C88A
Site name identification	:	YB
Magnetic deviation	:	6.1 degrees west
Rig deployed on	:	21-JAN-92 10:20:00
Rig recovered on	:	02-FEB-92 09:45:00
Period of deployment	:	12.0 days
Comments	:	None


Metbuoy data 21 Jan – 2 Feb 1992 (Ch88)
Solarity
Count
850
820
790
760
730
Air Temperature
Count
540
527
515
502
490
Sea Temperature
Count
410
400
390
380
370
Windspeed
m/sec
14.0
10.5
7.0
3.5
0.0
Wind direction
Degs
360
270
180
90
0
Pressure
Count
823
748
673
598
523
22/01
23/01
24/01
25/01
26/01
27/01
28/01
29/01
30/01
31/01
01/02
02/02

Rig information details for 88534

Position Latitude	:	54 07.53N
Position Longitude	:	03 26.94W
Water depth	:	19.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	P.MADOG
Site name identification	:	YC
Magnetic deviation	:	6.1 degrees west
Rig deployed on	:	21-JAN-92 13:43:00
Rig recovered on	:	17-FEB-92 09:39:18
Period of deployment	:	26.8 days
Comments	:	One month deployment.

Meter information details for 0004

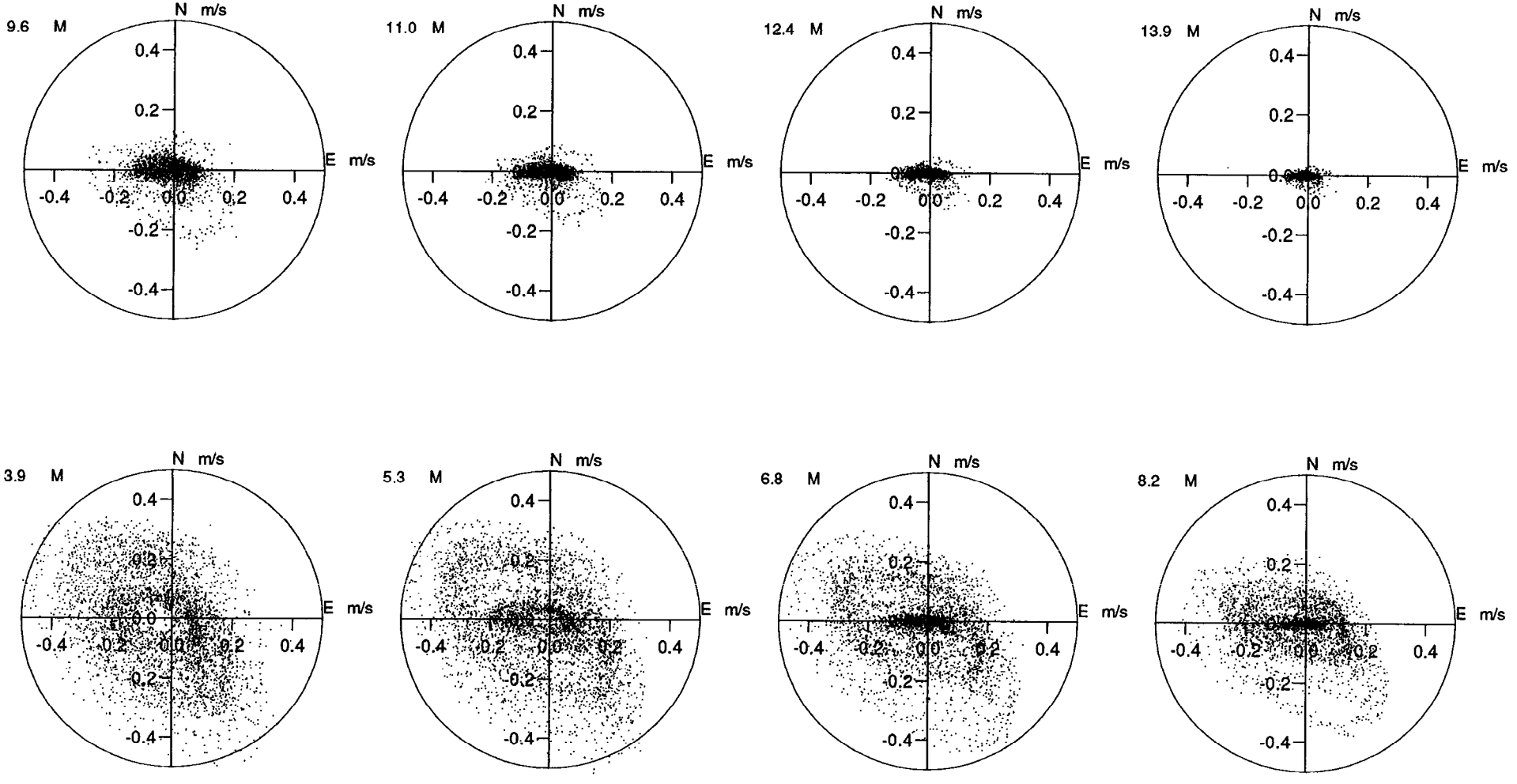
Rig No	:	88534
Meter No	:	0004
Frame angle correction	:	197.5 degrees
Recording interval	:	600.0 seconds
Meter height from bottom	:	0.5 m
Meter type	:	DP
Meter started	:	21-JAN-92 11:29:35
Meter stopped	:	17-FEB-92 11:39:17
Period switched on	:	27.0 days
Period of good data	:	26.8 days
Total number of scans	:	3863
Timing error	:	18 seconds fast
Comments	:	1 MHz doppler, 16 bins. All bins suffering from apparent loss of tidal signal. First bin usable only with discretion. S4 1261 angle of 197.5 degrees applied to correct for Doppler compass error. Data finishes prematurely.

SCATTER PLOT

Meter no. 0004 Rig no. 88534 Depth of water(m) 19.0

Start/End 1992/01/21 AT 13:43:00 1992/02/17 AT 09:39:18

Position 54 07.53N 03 26.94W 3.91 Base Ht 1.42 Gap Ht

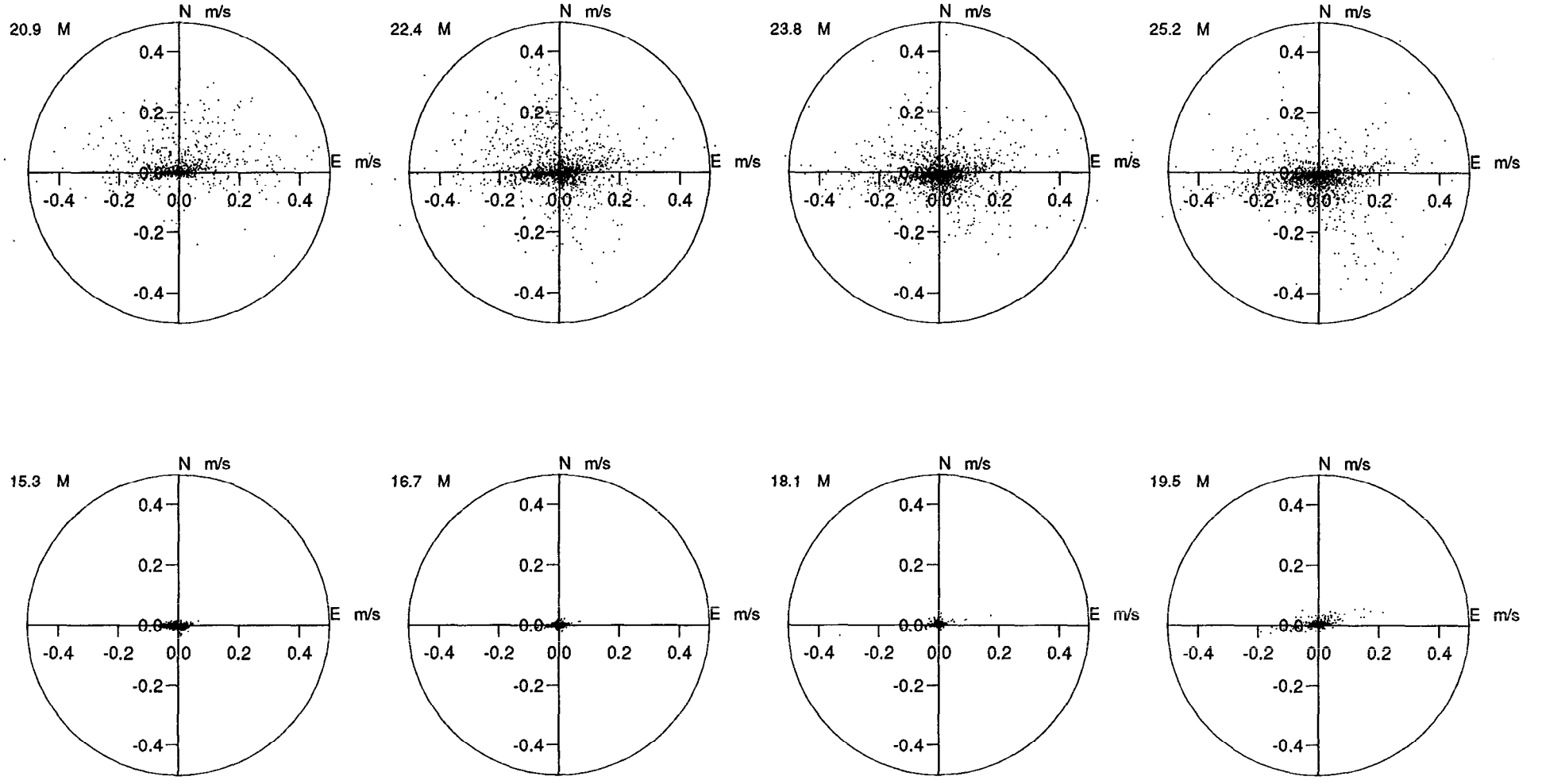


SCATTER PLOT

Meter no. 0004 Rig no. 88534 Depth of water(m) 19.0

Start/End 1992/01/21 AT 13:43:00 1992/02/17 AT 09:39:18

Position 54 07.53N 03 26.94W 3.91 Base Ht 1.42 Gap Ht

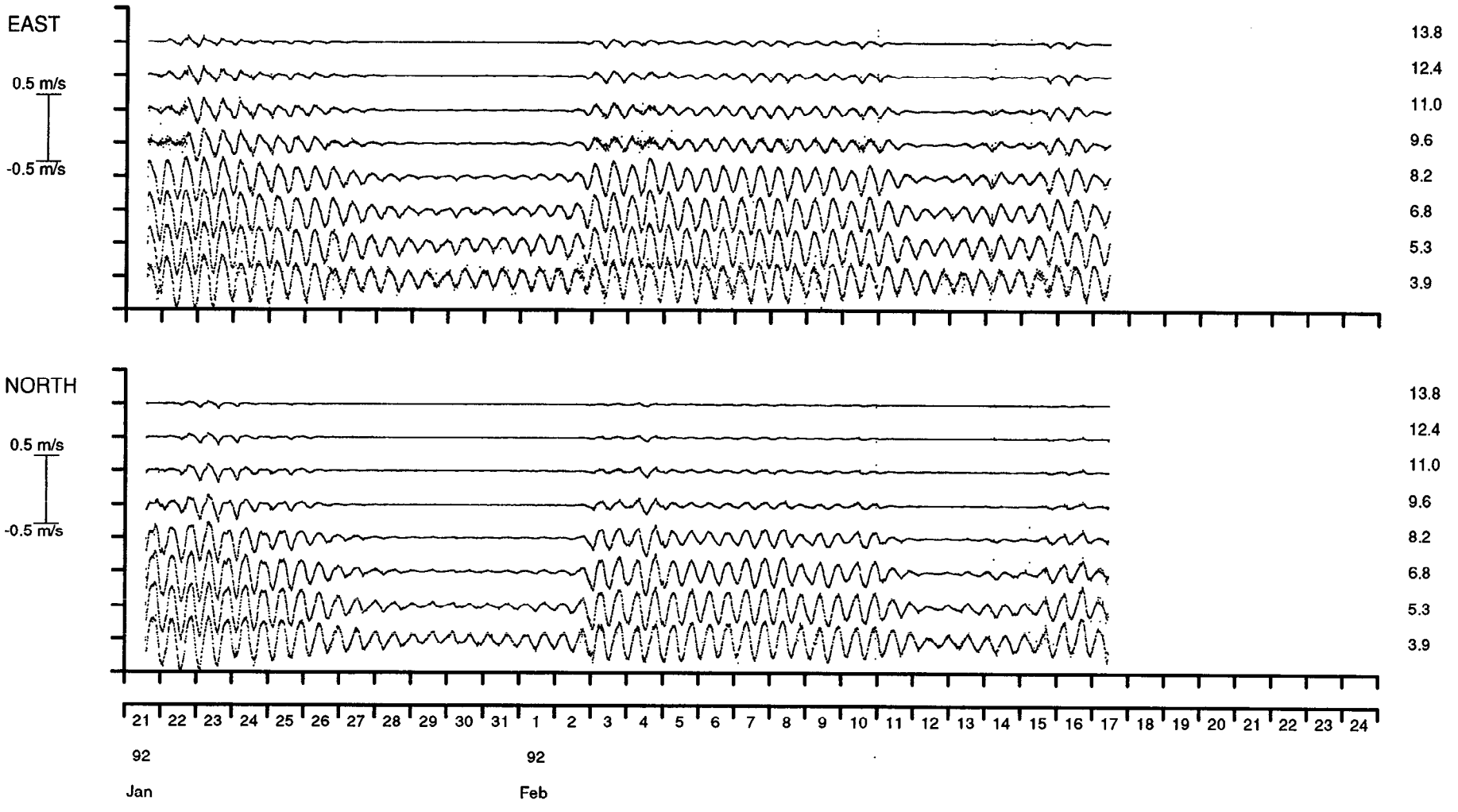


VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0004 Rig no. 88534 Depth of water(m) 19.0

Start/End 1992/01/21 AT 13:43:00 1992/02/17 AT 09:39:18

Position 54 07.53N 03 26.94W 3.91 Base Ht 1.42 Gap Ht

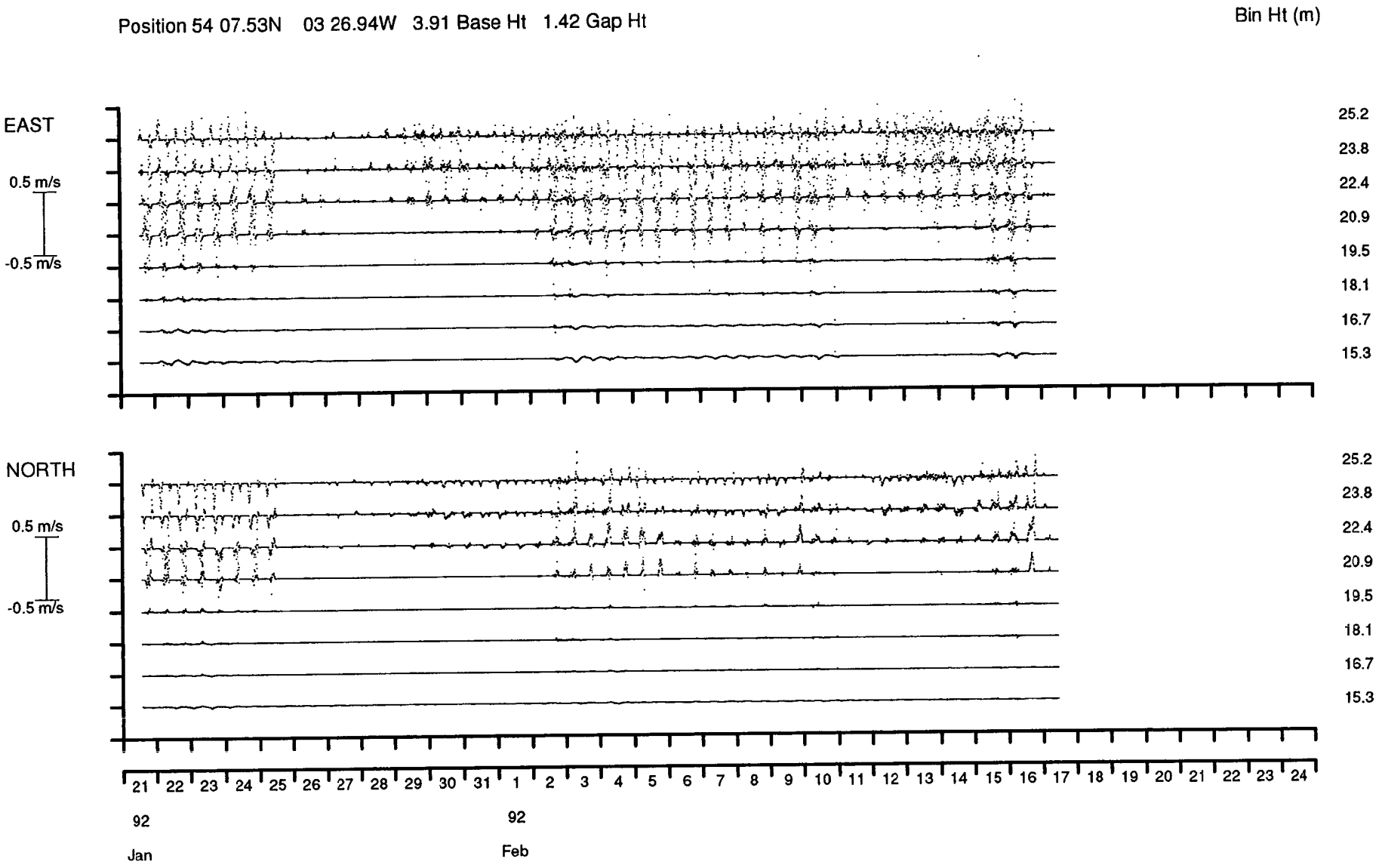


VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0004 Rig no. 88534 Depth of water(m) 19.0

Start/End 1992/01/21 AT 13:43:00 1992/02/17 AT 09:39:18

Position 54 07.53N 03 26.94W 3.91 Base Ht 1.42 Gap Ht

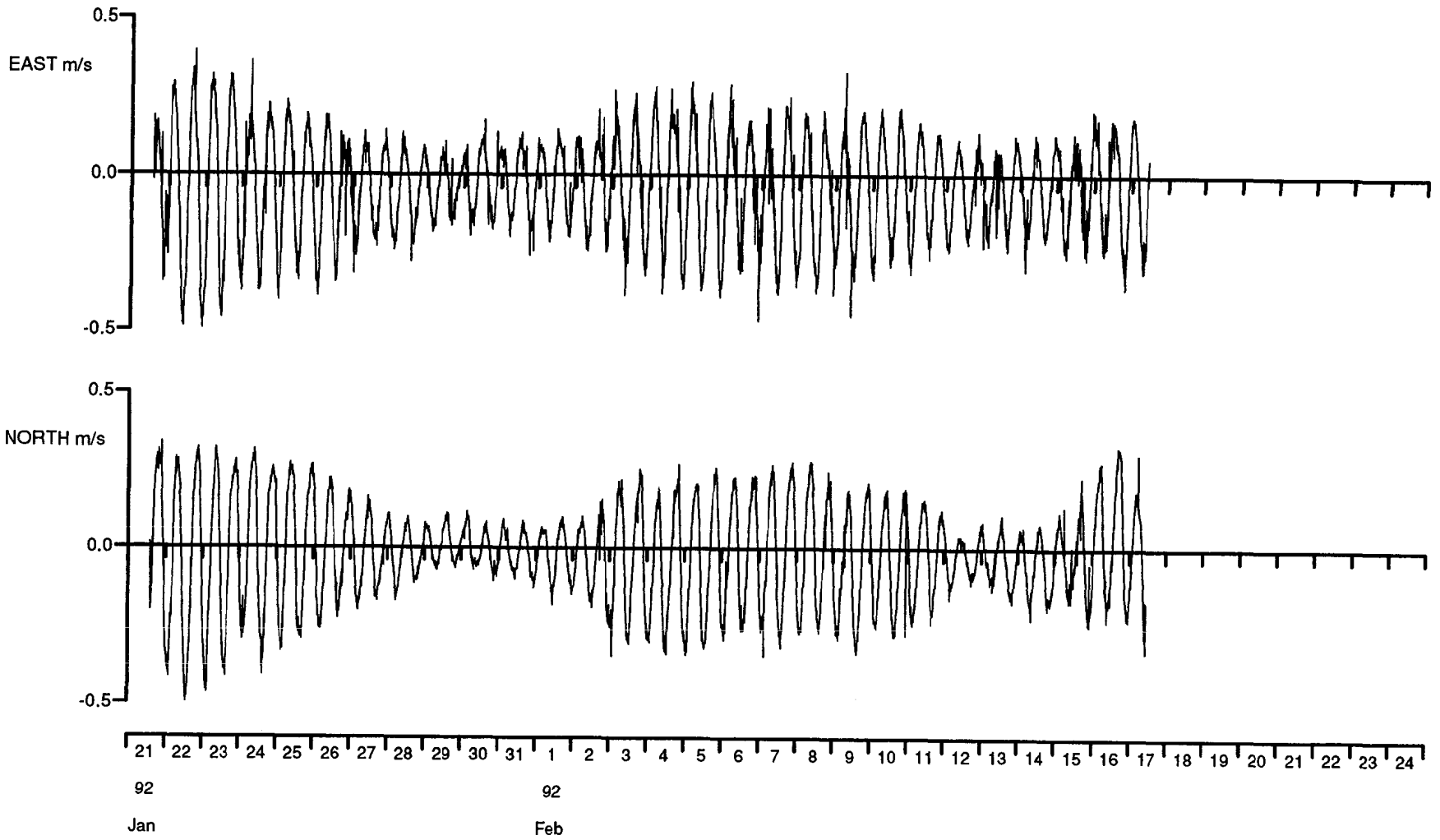


VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0004 Rig no. 88534 Depth of water(m) 19.0

Start/End 1992/01/21 AT 13:43:00 1992/02/17 AT 09:39:18

Position 54 07.53N 03 26.94W 3.91 Base Ht 1.42 Gap Ht 3.9 Bin Ht (m)

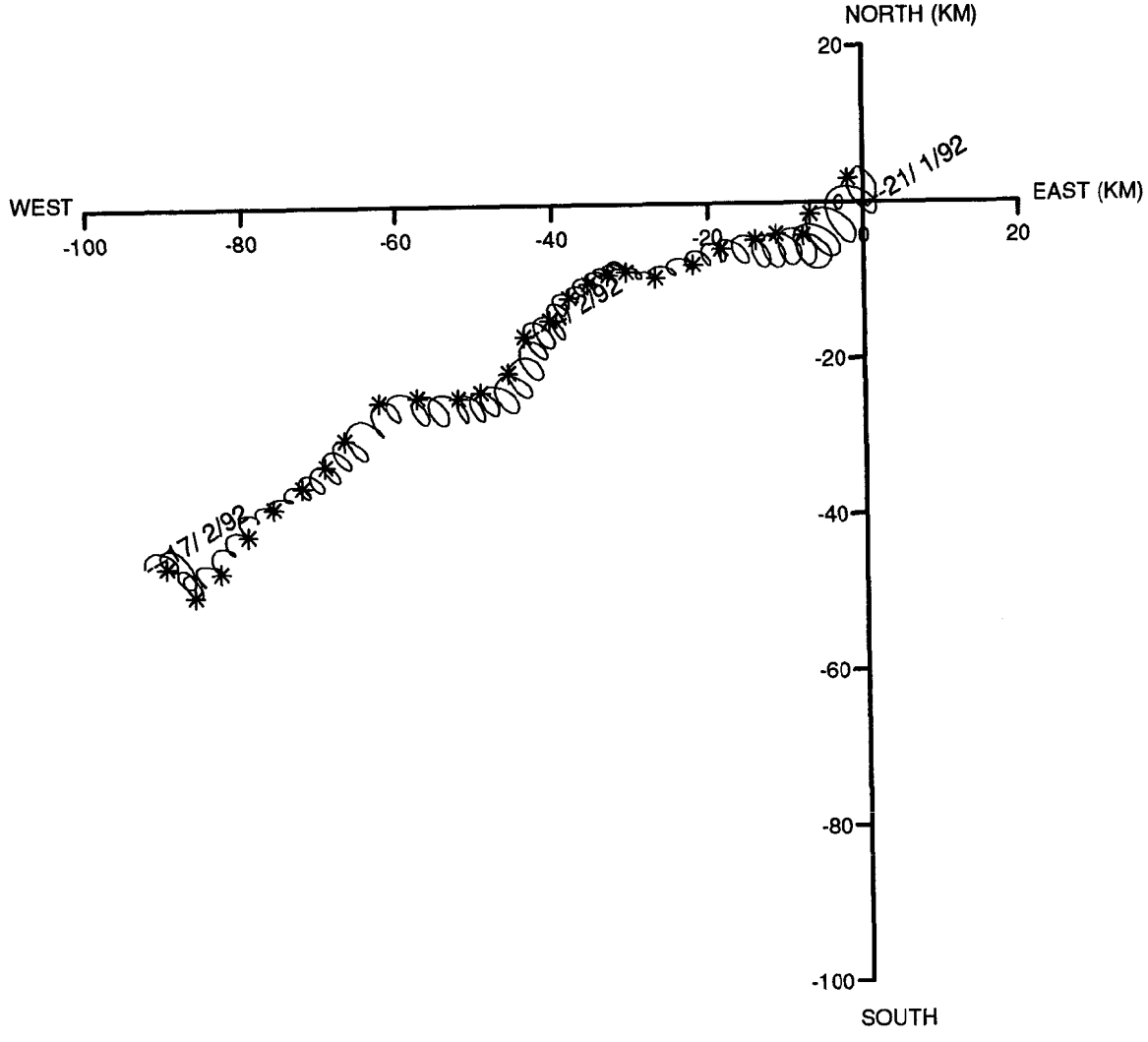


VECTOR PLOT

Meter no. 0004 Rig no. 88534 Depth of water(m) 19.0

Start/End 1992/01/21 AT 13:43:00 1992/02/17 AT 09:39:18

Position 54 07.53N 03 26.94W 3.91 Base Ht 1.42 Gap Ht 3.9 Bin Ht (m)



Statistics for dp0004.88534s1

Doppler bin number 1

	Mean	Variance	Standard deviation
Eastings	-0.0400	0.24587918E-01	0.15680535E+00
Northings	-0.0197	0.24889449E-01	0.15776390E+00
Speed	0.2033	0.10123053E-01	0.10061339E+00

Vector mean speed 0.0446

Vector Mean Direction -116.3

Maximum ten values

Eastings					Northings				
0.394	0.362	0.338	0.329	0.317	0.338	0.329	0.325	0.324	0.323
0.316	0.316	0.313	0.303	0.300	0.322	0.321	0.321	0.320	0.318

Minimum ten values

Eastings					Northings				
-0.458	-0.461	-0.461	-0.466	-0.466	-0.446	-0.454	-0.454	-0.458	-0.460
-0.469	-0.471	-0.481	-0.487	-0.494	-0.463	-0.467	-0.479	-0.487	-0.496

Maximum speeds

0.537	0.537	0.527	0.522	0.519	0.513	0.510	0.508	0.503	0.502
0.501	0.501	0.501	0.499	0.497	0.496	0.494	0.494	0.494	0.492
0.491	0.491	0.491	0.489	0.483	0.483	0.480	0.478	0.476	0.475
0.474	0.473	0.471	0.471	0.470	0.470	0.470	0.470	0.469	0.468
0.468	0.467	0.467	0.466	0.466	0.464	0.464	0.463	0.462	0.460
0.458	0.456	0.456	0.454	0.453	0.452	0.449	0.449	0.448	0.445
0.445	0.444	0.442	0.442	0.442	0.441	0.438	0.436	0.436	0.435
0.433	0.433	0.432	0.430	0.430	0.429	0.429	0.428	0.427	0.426
0.426	0.425	0.424	0.424	0.424	0.422	0.422	0.419	0.419	0.419
0.419	0.419	0.418	0.417	0.416	0.415	0.415	0.414	0.414	0.413

Variance ellipse statistics

Maximum variance	0.3497E-01	Direction	-44.6
Minimum variance	0.1450E-01	Direction	45.4
Total variance	0.4948E-01	Ratio of variances	0.4147E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 8.2

Average direction. maxdir +PI/2 to maxdir -PI/2 186.6

Statistics for dp0004.88534

Statistics
For all good data bins

ADCP Bin Number	ADCP Bin Height	Vector Mean Speed	Vector Mean Direction	Maximum Variance	Direction of Maximum Variance	Minimum Variance	Direction of Minimum Variance
1	3.9	0.045	-116.3	0.0350	-44.6	0.0145	45.4
2	5.3	0.041	-113.2	0.0351	-53.3	0.0144	36.7
3	6.8	0.032	-115.9	0.0374	85.2	0.0175	175.2
4	8.2	0.023	-118.7	0.0327	89.6	0.0068	179.6
5	9.6	0.009	-123.4	0.0035	-81.6	0.0012	8.4
6	11.0	0.007	-118.3	0.0022	-88.2	0.0005	1.8
7	12.4	0.004	-118.6	0.0008	-88.2	0.0002	1.8
8	13.8	0.002	-118.3	0.0003	-89.5	0.0001	0.5
9	15.3	0.001	-109.9	0.0001	87.8	0.0000	177.8
10	16.7	0.001	-103.6	0.0001	86.1	0.0000	176.1
11	18.1	0.001	-89.1	0.0001	83.9	0.0000	173.9
12	19.5	0.001	-61.3	0.0002	80.9	0.0000	170.9
13	20.9	0.005	5.3	0.0031	86.7	0.0010	176.7
14	22.4	0.005	-23.3	0.0049	-84.7	0.0021	5.3
15	23.8	0.004	-159.8	0.0049	-88.7	0.0014	1.3
16	25.2	0.009	-170.4	0.0050	-89.7	0.0017	0.3

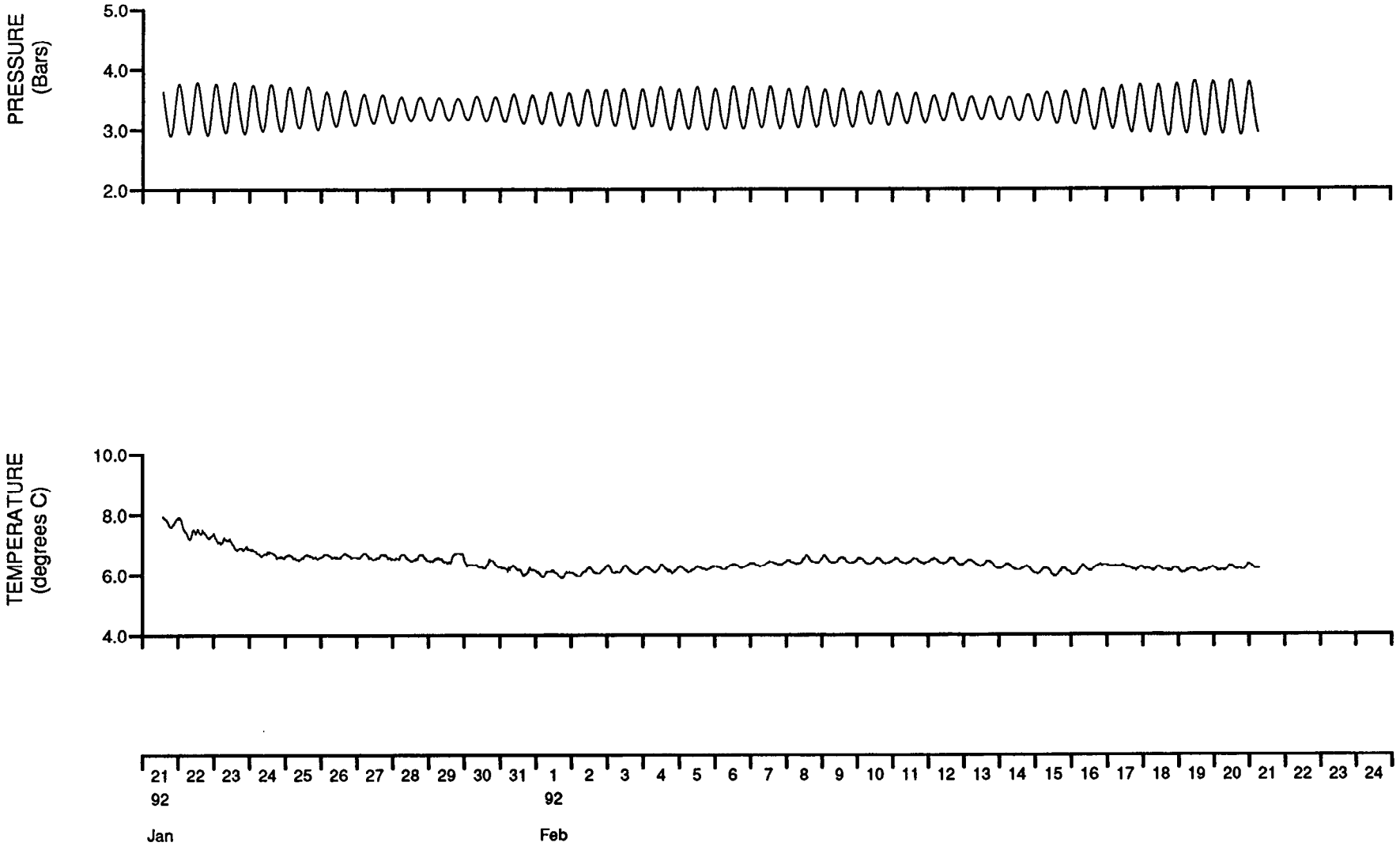
Meter information details for 0444

Rig No	:	88534
Meter No	:	0444
Recording interval	:	600.0 seconds
Meter height from bottom	:	3.9 m
Position of meter on rig	:	
Meter type	:	WR
Meter started	:	19-JAN-92 10:00:41
Meter stopped	:	24-FEB-92 10:40:40
Period switched on	:	36.0 days
Period of good data	:	26.8 days
Total number of scans	:	3863
Timing error	:	1 seconds fast
Comments	:	None

Meter no. 0444 Rig no. 88534 Depth of water(m) 25.0

Start/End 1992/01/21 AT 13:33:00 1992/02/21 AT 07:00:00

Position 54 07.53N 03 26.94W Meter Height(m) 3.9

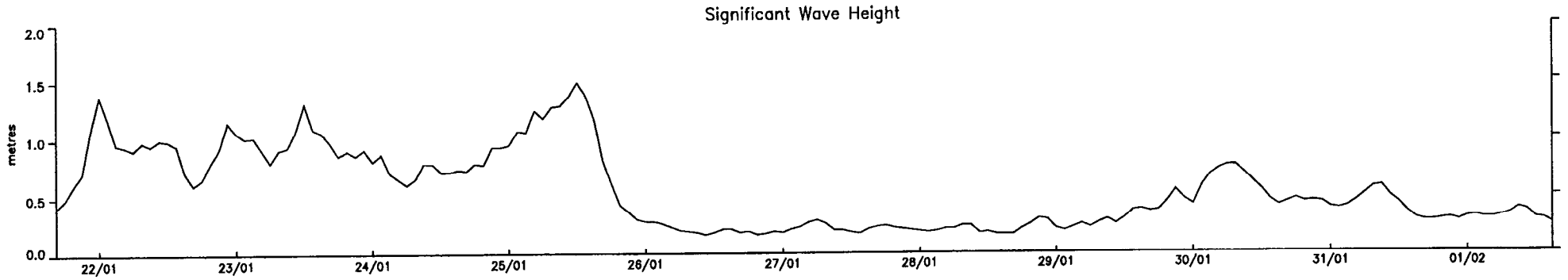


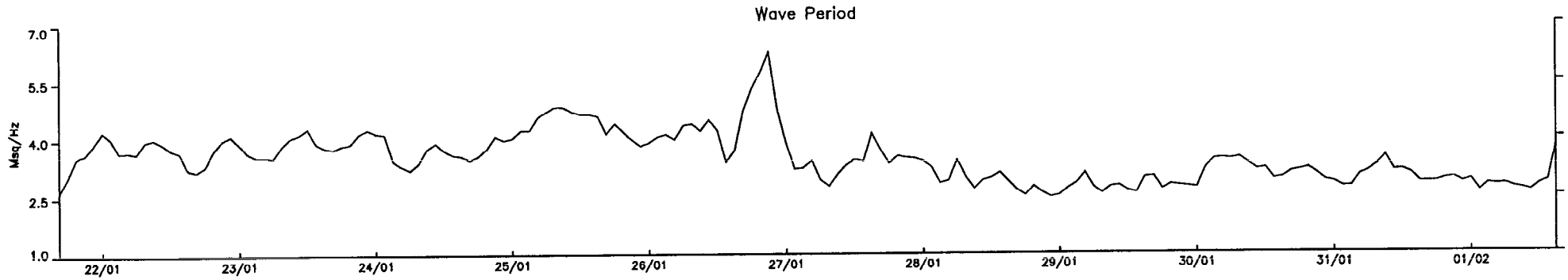
Rig information details for 88535

Position Latitude	:	54 06.52N
Position Longitude	:	03 27.93W
Water depth	:	19.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	C88A
Site name identification	:	YF
Magnetic deviation	:	6.1 degrees west
Rig deployed on	:	21-JAN-92 15:54:00
Rig recovered on	:	01-FEB-92 15:13:00
Period of deployment	:	11.0 days
Comments	:	None

Wavebuoy data 21 Jan – 1 Feb 1992 (Ch88)

90 minute values





Rig information details for 88536

Position Latitude	:	54 07.52N
Position Longitude	:	03 26.94W
Water depth	:	19.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	P.MADOG
Site name identification	:	YG
Magnetic deviation	:	6.1 degrees west
Rig deployed on	:	21-JAN-92 15:27:00
Rig recovered on	:	21-FEB-92 07:30:00
Period of deployment	:	30.7 days
Comments	:	One month deployment.

Meter information details for 0568

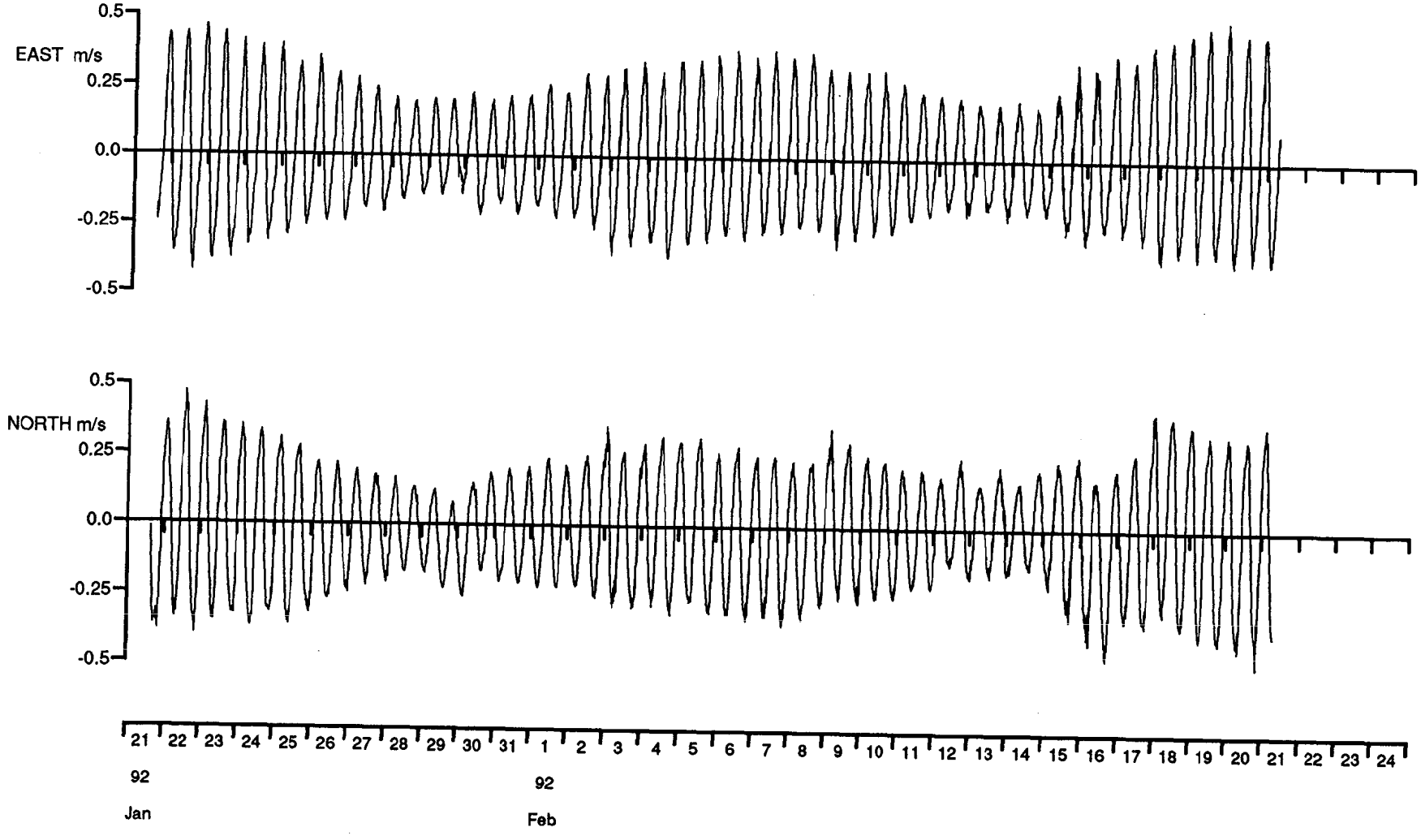
Rig No	:	88536
Meter No	:	0568
Recording interval	:	600.0 seconds
Meter height from bottom	:	2.5 m
Position of meter on rig	:	B
Meter type	:	AA
Meter started	:	19-JAN-92 18:00:00
Meter stopped	:	24-FEB-92 10:39:00
Period switched on	:	35.7 days
Period of good data	:	30.7 days
Total number of scans	:	4417
Timing error	:	60 seconds fast
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 0568 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:17:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 2.5

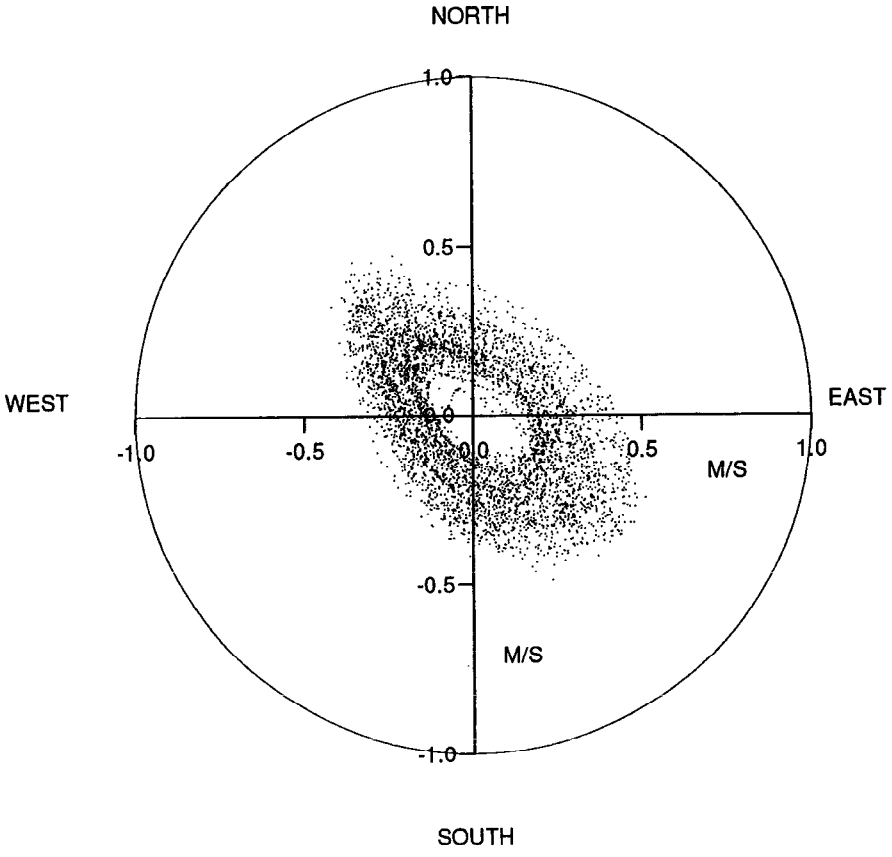


SCATTER PLOT

Meter no. 0568 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:27:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 2.5

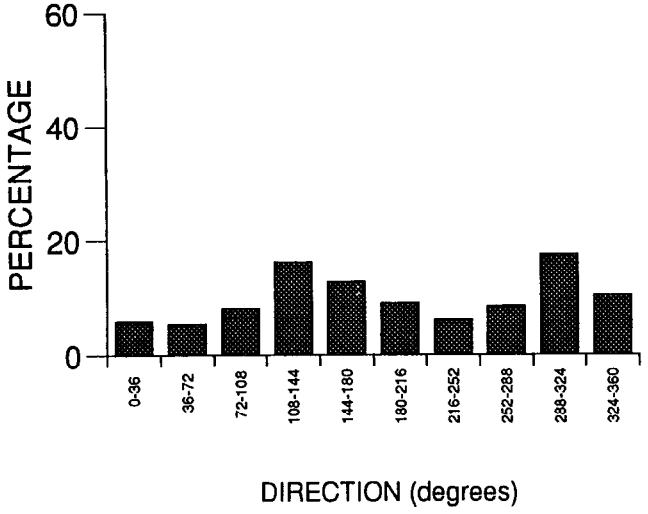


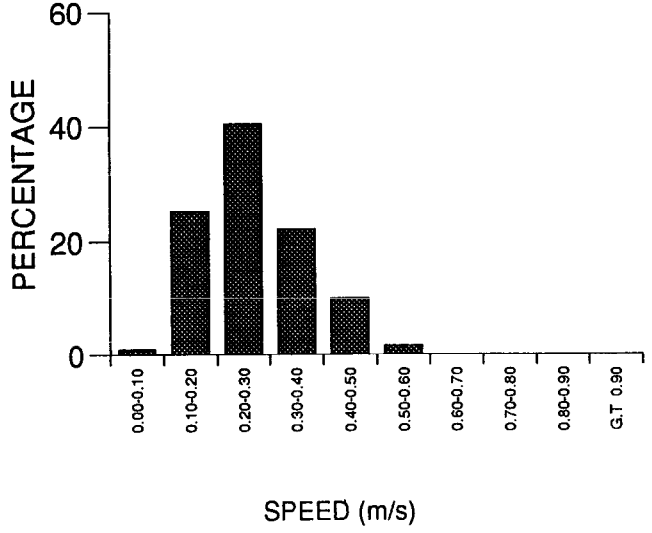
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 0568 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:27:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 2.5



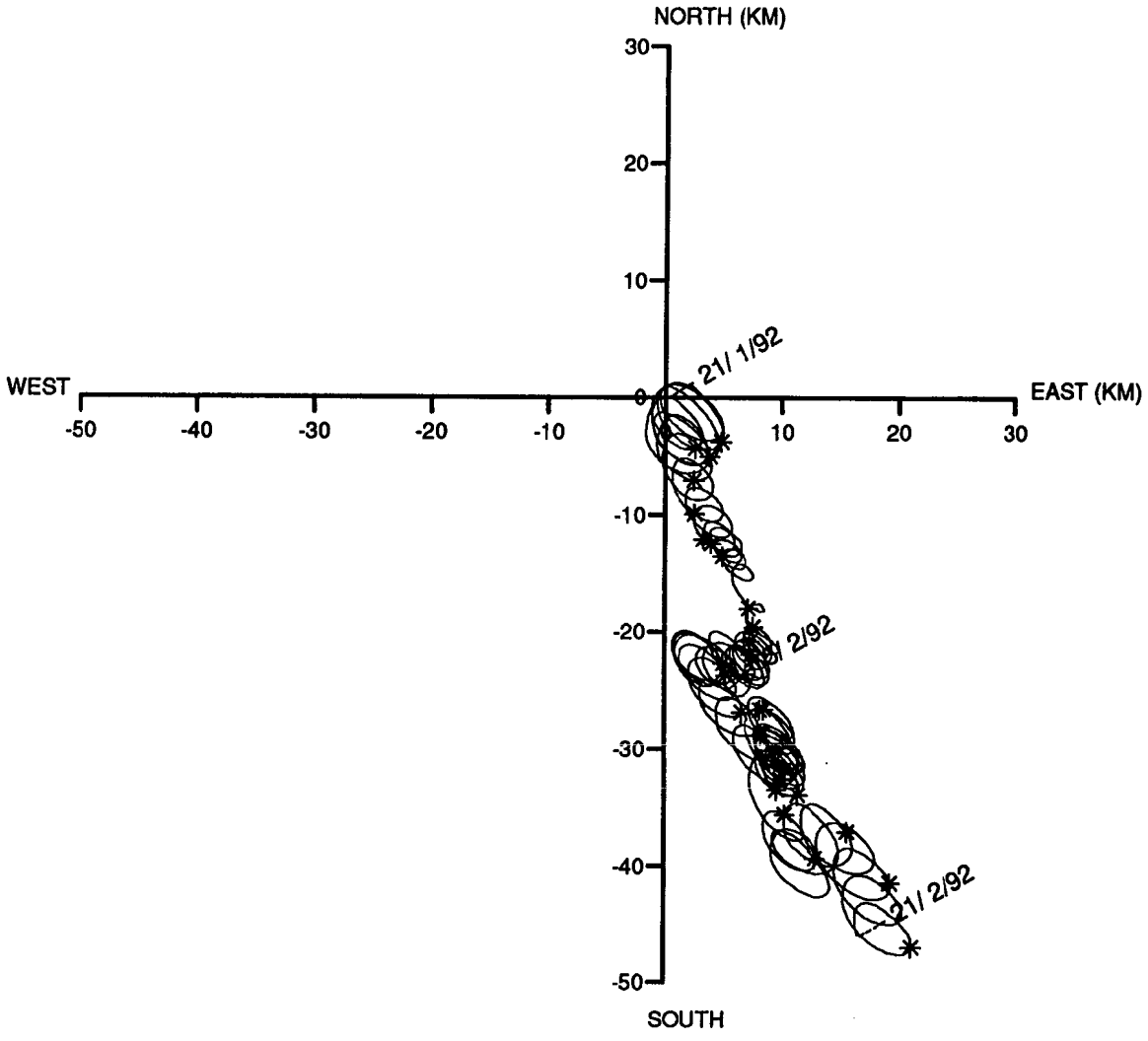


VECTOR PLOT

Meter no. 0568 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:17:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 2.5

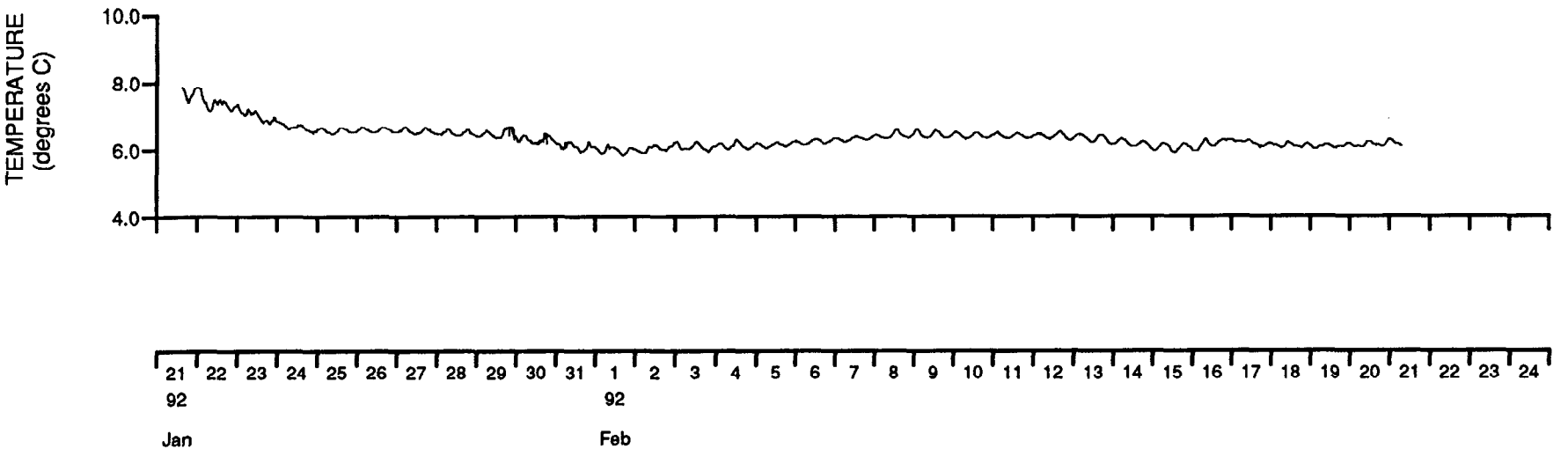


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 0568 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:17:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 2.5



Statistics for aa0568b.88536s

	Mean	Variance	Standard deviation
Eastings	0.0063	0.41387141E-01	0.20343830E+00
Northings	-0.0173	0.39902244E-01	0.19975546E+00
Speed	0.2688	0.93812430E-02	0.96856810E-01
Vector mean speed	0.0184		
Vector Mean Direction	160.1		

Maximum ten values

Eastings					Northings				
0.509	0.485	0.480	0.480	0.478	0.473	0.454	0.453	0.449	0.431
0.475	0.467	0.466	0.463	0.463	0.427	0.422	0.420	0.420	0.418

Minimum ten values

Eastings					Northings				
-0.375	-0.376	-0.376	-0.378	-0.380	-0.415	-0.415	-0.418	-0.422	-0.430
-0.380	-0.382	-0.389	-0.397	-0.421	-0.435	-0.444	-0.450	-0.464	-0.488

Maximum speeds

0.578	0.572	0.564	0.564	0.564	0.561	0.558	0.555	0.553	0.553
0.553	0.550	0.550	0.547	0.547	0.547	0.544	0.544	0.544	0.544
0.541	0.539	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.533
0.533	0.530	0.530	0.527	0.527	0.527	0.527	0.525	0.525	0.522
0.522	0.522	0.522	0.522	0.519	0.519	0.516	0.516	0.516	0.516
0.516	0.513	0.513	0.511	0.508	0.508	0.508	0.508	0.508	0.505
0.505	0.505	0.505	0.505	0.505	0.502	0.502	0.502	0.502	0.502
0.499	0.499	0.499	0.497	0.497	0.497	0.497	0.497	0.497	0.497
0.497	0.497	0.494	0.494	0.494	0.494	0.494	0.494	0.494	0.491
0.491	0.491	0.491	0.491	0.491	0.488	0.488	0.488	0.488	0.488

Variance ellipse statistics

Maximum variance	0.6159E-01	Direction	-46.0
Minimum variance	0.1970E-01	Direction	44.0
Total variance	0.8129E-01	Ratio of variances	0.3198E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 10.9

Average direction. maxdir +PI/2 to maxdir -PI/2 184.7

Meter information details for 9632

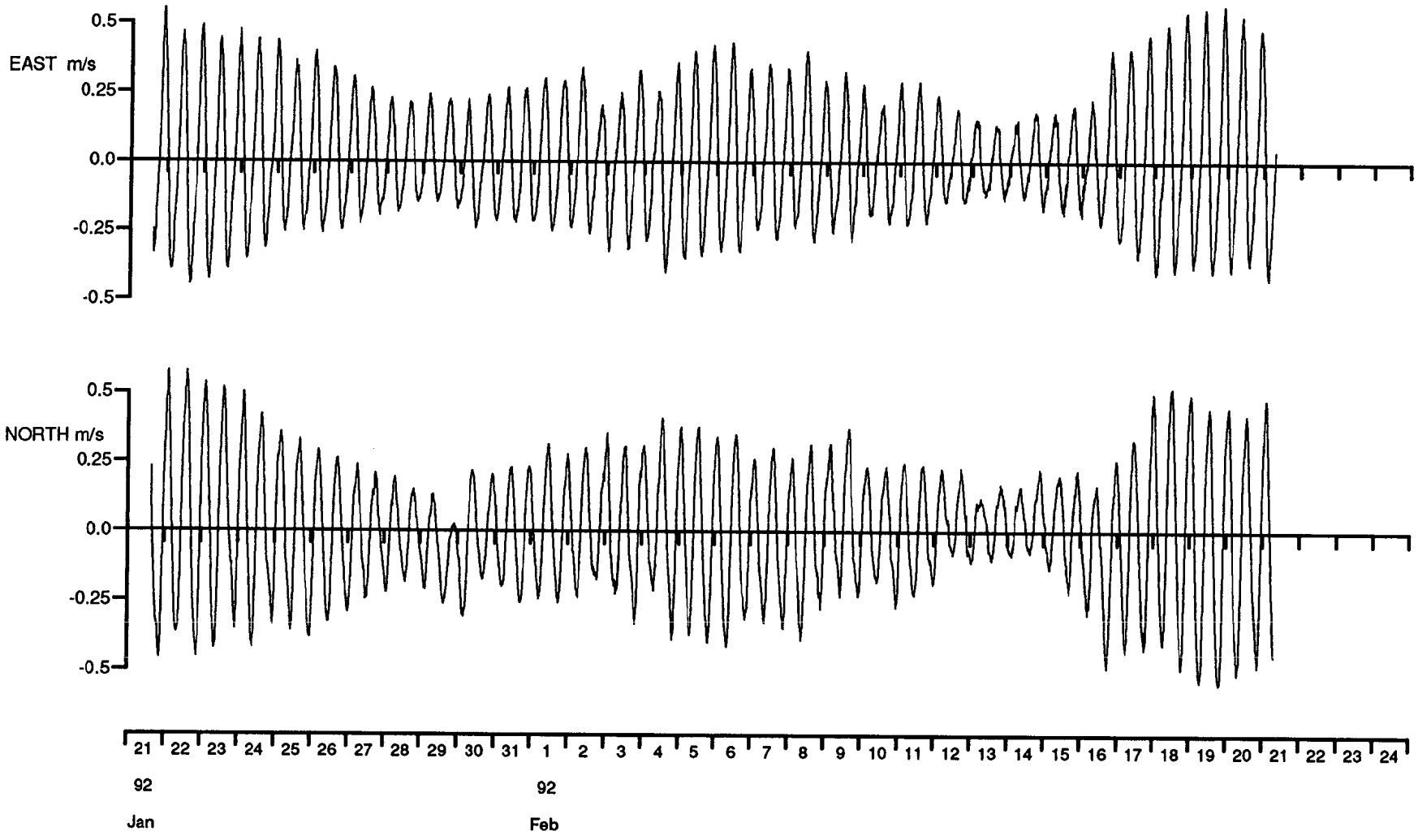
Rig No	:	88536
Meter No	:	9632
Recording interval	:	600.0 seconds
Meter height from bottom	:	10.5 m
Position of meter on rig	:	T
Meter type	:	AS
Meter started	:	19-JAN-92 15:50:00
Meter stopped	:	24-FEB-92 11:20:00
Period switched on	:	35.8 days
Period of good data	:	30.7 days
Total number of scans	:	4416
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 9632 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:17:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 10.5

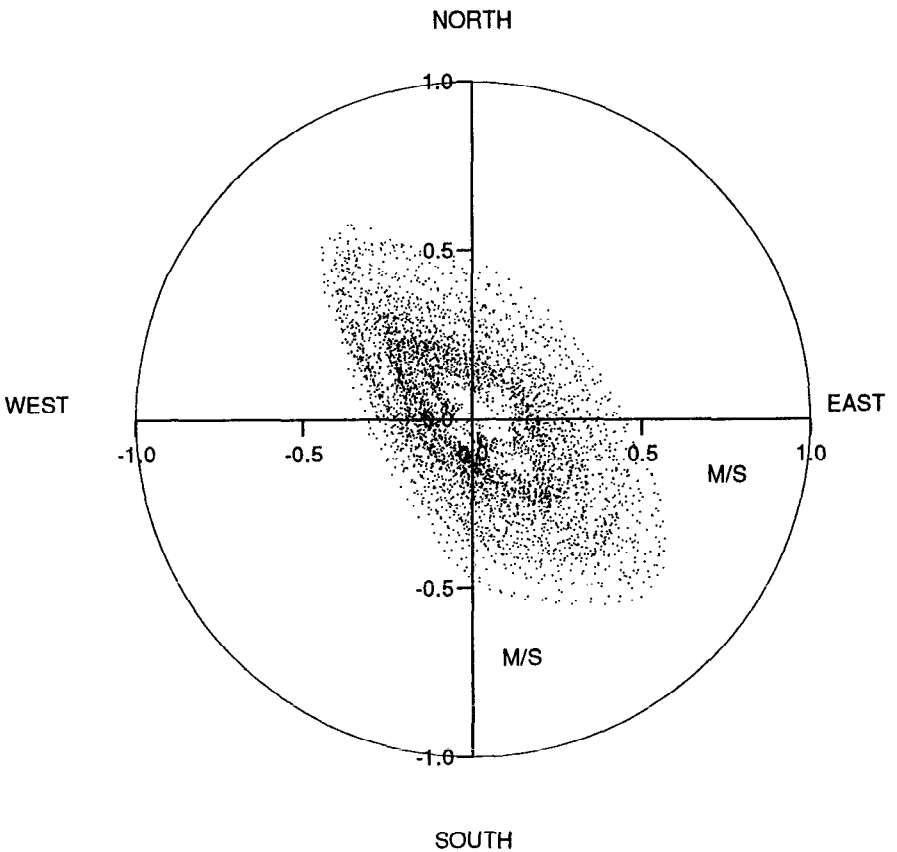


SCATTER PLOT

Meter no. 9632 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:27:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 10.5

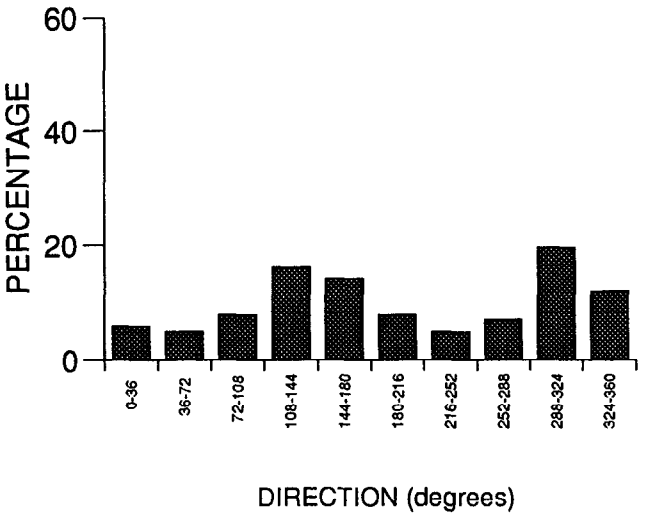


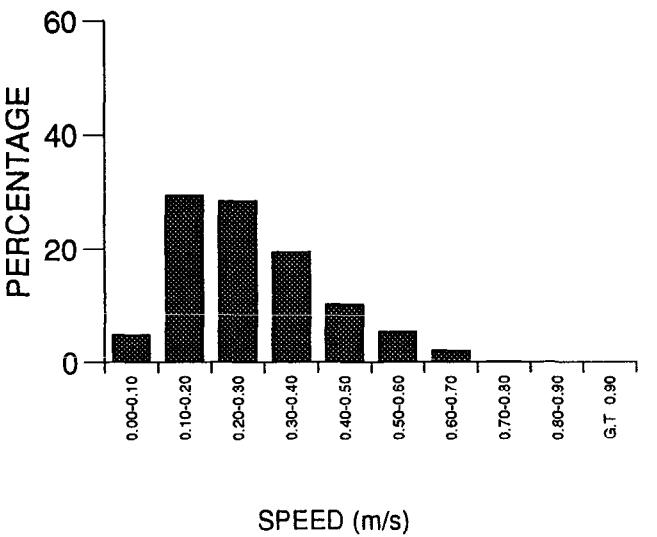
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 9632 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:27:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 10.5



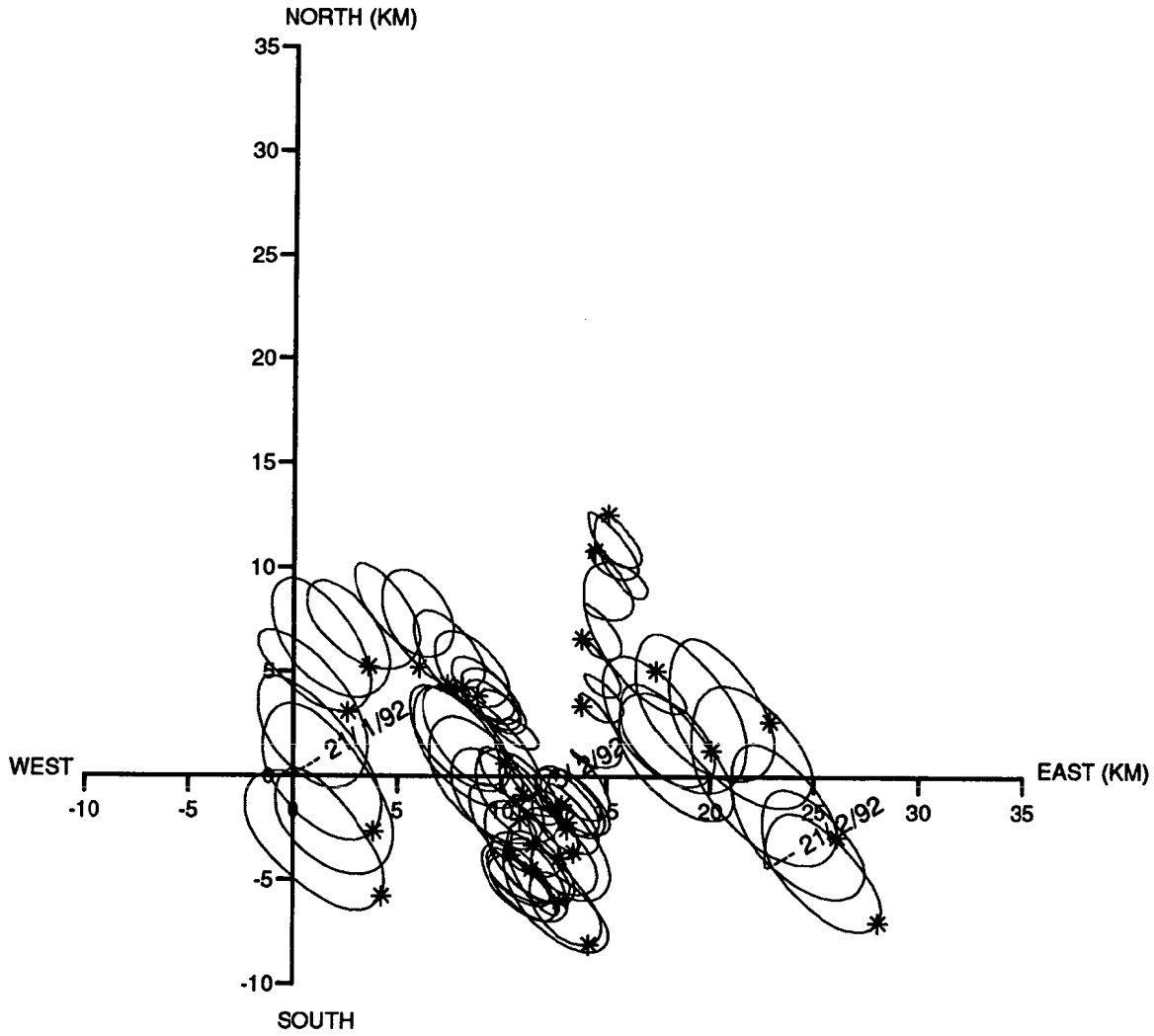


VECTOR PLOT

Meter no. 9632 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:17:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 10.5

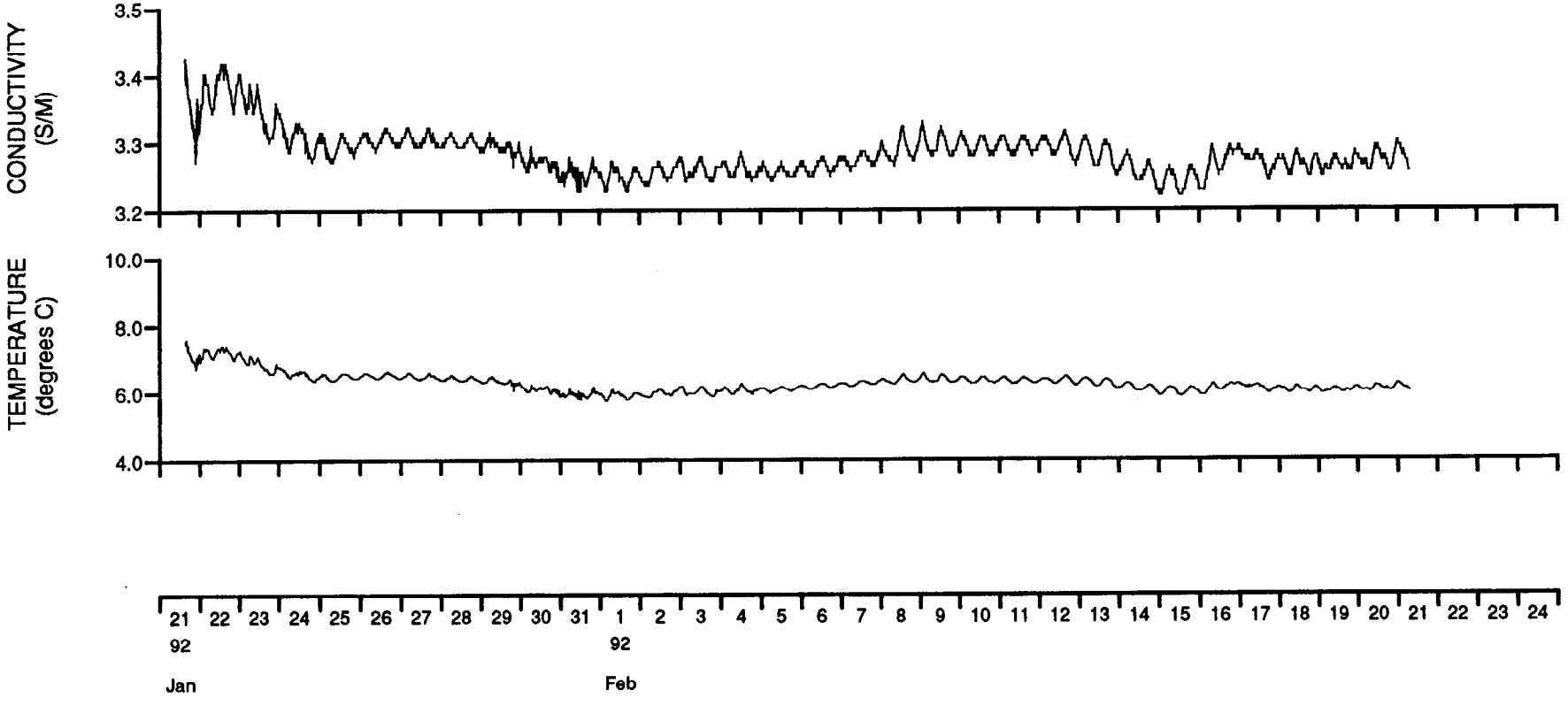


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 9632 Rig no. 88536 Depth of water(m) 19.0

Start/End 1992/01/21 AT 15:17:00 1992/02/21 AT 07:30:00

Position 54 07.52N 03 26.94W Meter Height(m) 10.5



Statistics for as9632t.88536s

	Mean	Variance	Standard deviation
Eastings	0.0086	0.44121888E-01	0.21005210E+00
Northings	-0.0016	0.50006337E-01	0.22362097E+00
Speed	0.2760	0.17993765E-01	0.13414085E+00

Vector mean speed 0.0087

Vector Mean Direction 100.7

Maximum ten values

Eastings					Northings				
0.566	0.563	0.562	0.561	0.554	0.577	0.575	0.575	0.564	0.564
0.554	0.551	0.550	0.549	0.548	0.551	0.537	0.536	0.534	0.533

Minimum ten values

Eastings					Northings				
-0.422	-0.424	-0.427	-0.427	-0.436	-0.533	-0.535	-0.536	-0.539	-0.539
-0.437	-0.437	-0.443	-0.444	-0.446	-0.541	-0.543	-0.543	-0.547	-0.549

Maximum speeds

0.723	0.723	0.714	0.714	0.711	0.700	0.697	0.694	0.691	0.688
0.685	0.685	0.685	0.682	0.682	0.682	0.682	0.679	0.679	0.679
0.676	0.676	0.671	0.671	0.668	0.668	0.668	0.665	0.665	0.665
0.662	0.662	0.659	0.659	0.659	0.659	0.653	0.653	0.650	0.647
0.647	0.647	0.645	0.645	0.645	0.645	0.645	0.645	0.642	0.639
0.639	0.639	0.639	0.639	0.636	0.636	0.636	0.636	0.630	0.627
0.627	0.624	0.624	0.624	0.621	0.621	0.621	0.618	0.618	0.618
0.613	0.613	0.613	0.613	0.610	0.610	0.610	0.610	0.610	0.610
0.610	0.610	0.610	0.607	0.607	0.607	0.604	0.604	0.604	0.604
0.604	0.604	0.601	0.601	0.601	0.601	0.601	0.601	0.598	0.598

Variance ellipse statistics

Maximum variance	0.7557E-01	Direction	-42.0
Minimum variance	0.1856E-01	Direction	48.0
Total variance	0.9413E-01	Ratio of variances	0.2455E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 8.6

Average direction. maxdir +PI/2 to maxdir -PI/2 182.3

Rig information details for 88537

Position Latitude	:	54 06.64N
Position Longitude	:	03 26.77W
Water depth	:	22.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	C88A
Site name identification	:	YI
Magnetic deviation	:	6.1 degrees west
Rig deployed on	:	22-JAN-92 16:18:00
Rig recovered on	:	02-FEB-92 07:50:00
Period of deployment	:	10.6 days
Comments	:	None

Meter information details for 1113

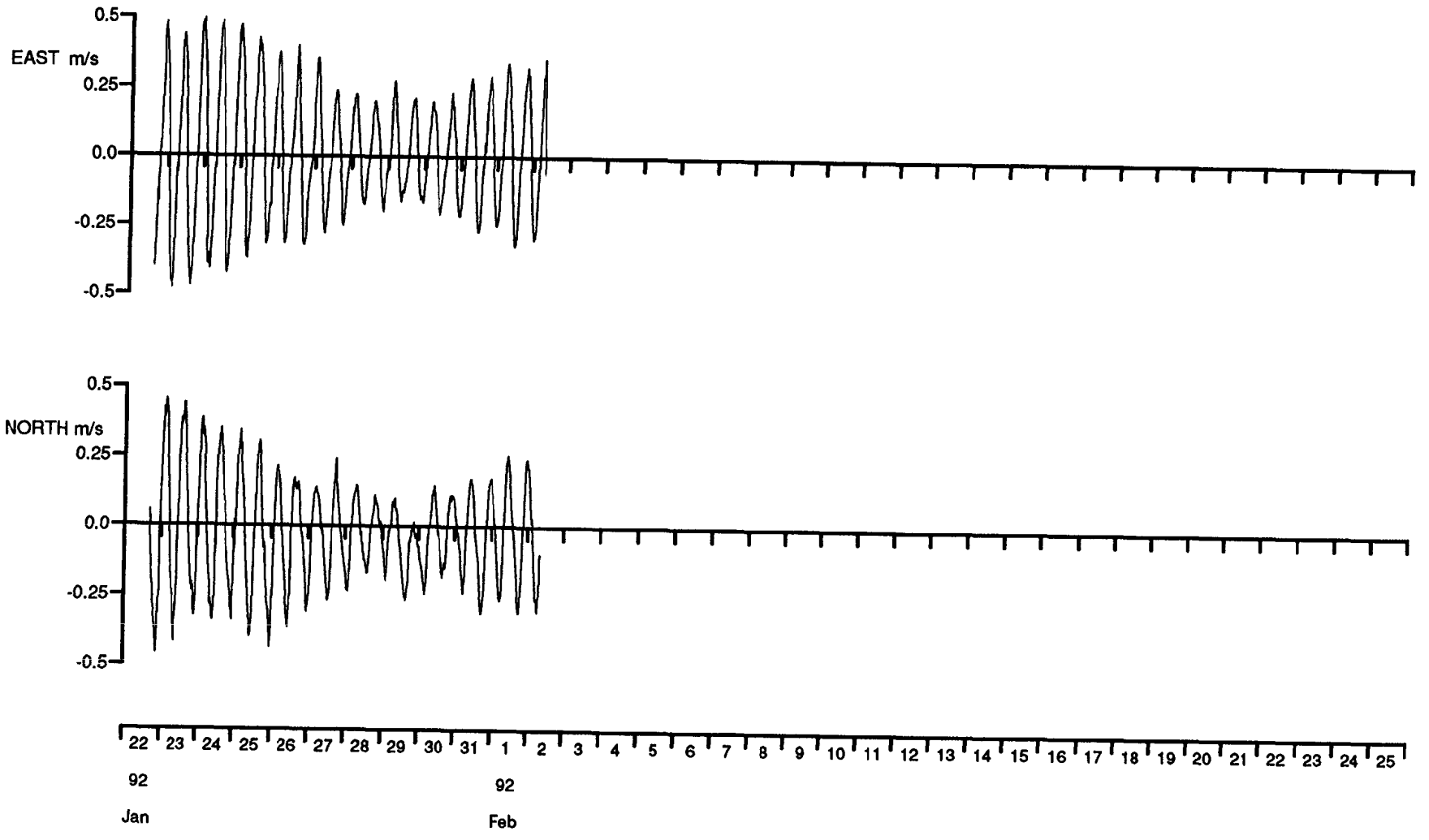
Rig No	:	88537
Meter No	:	1113
Recording interval	:	600.0 seconds
Meter height from bottom	:	15.0 m
Position of meter on rig	:	T
Meter type	:	S4
Meter started	:	22-JAN-92 15:19:00
Meter stopped	:	02-FEB-92 12:10:00
Period switched on	:	10.9 days
Period of good data	:	10.7 days
Total number of scans	:	1534
Timing error	:	60 seconds slow
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 1113 Rig no. 88537 Depth of water(m) 22.0

Start/End 1992/01/22 AT 16:18:00 1992/02/02 AT 07:50:00

Position 54 06.64N 03 26.77W Meter Height(m) 15.0

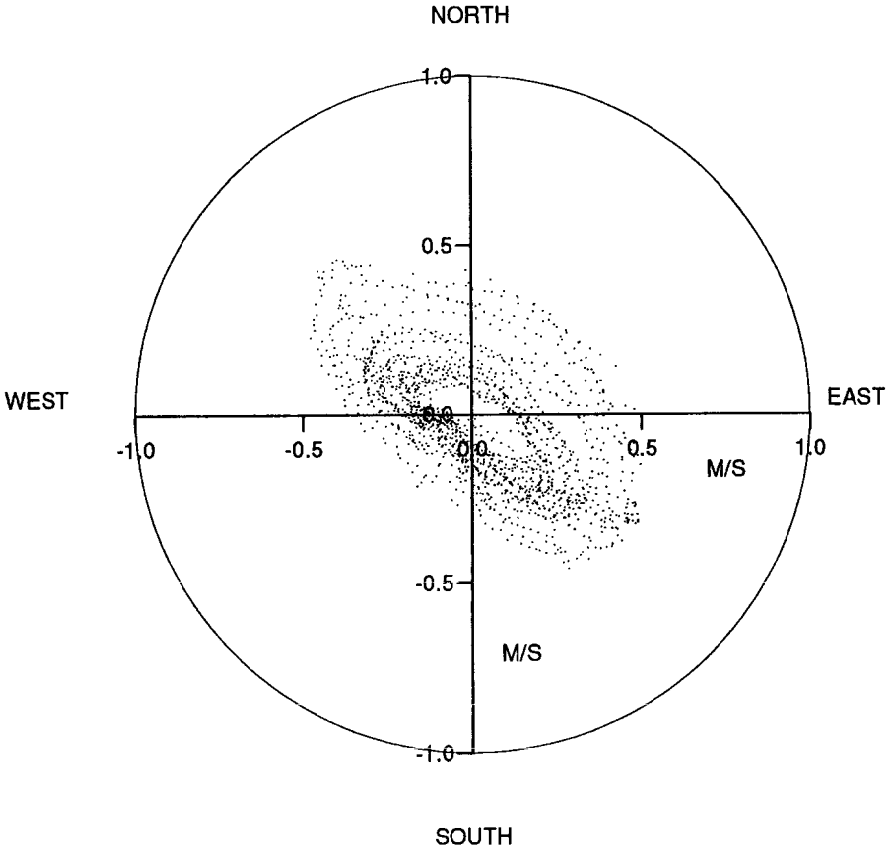


SCATTER PLOT

Meter no. 1113 Rig no. 88537 Depth of water(m) 22.0

Start/End 1992/01/22 AT 16:18:00 1992/02/02 AT 07:50:00

Position 54 06.64N 03 26.77W Meter Height(m) 15.0

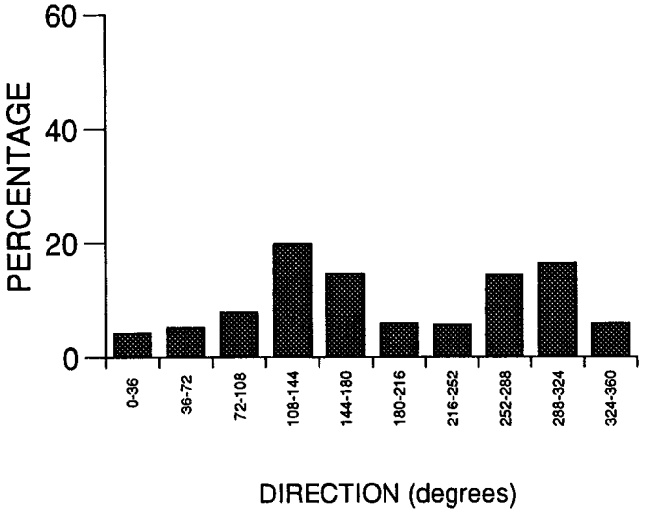


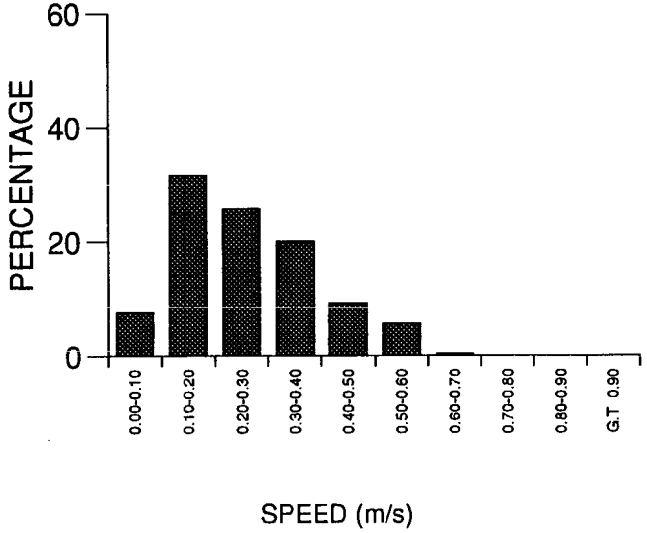
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 1113 Rig no. 88537 Depth of water(m) 22.0

Start/End 1992/01/22 AT 16:18:00 1992/02/02 AT 07:50:00

Position 54 06.64N 03 26.77W Meter Height(m) 15.0



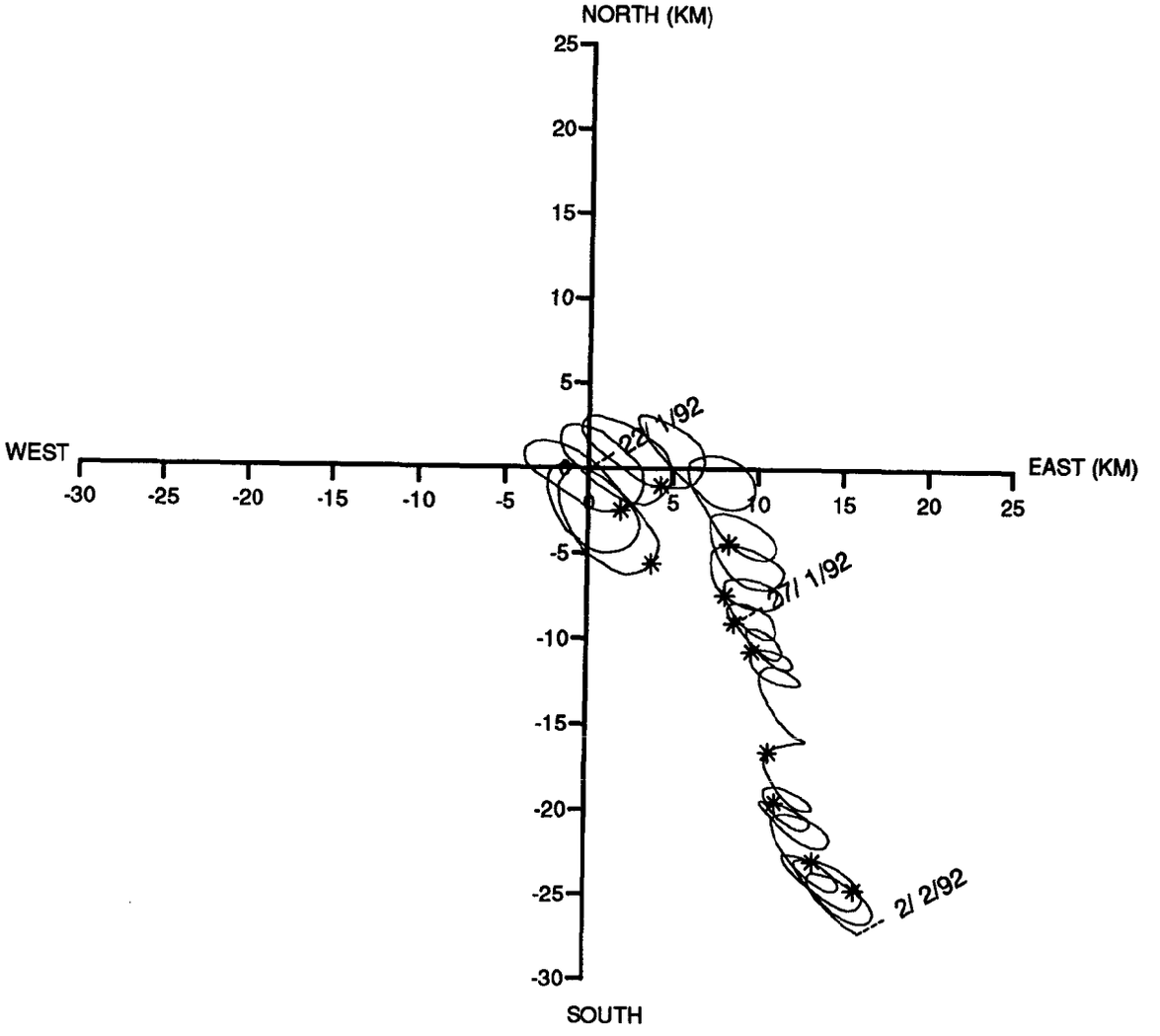


VECTOR PLOT

Meter no. 1113 Rig no. 88537 Depth of water(m) 22.0

Start/End 1992/01/22 AT 16:18:00 1992/02/02 AT 07:50:00

Position 54 06.64N 03 26.77W Meter Height(m) 15.0



Statistics for s41113t.88537s

	Mean	Variance	Standard deviation
Eastings	0.0174	0.49065366E-01	0.22150703E+00
Northings	-0.0295	0.34382988E-01	0.18542650E+00
Speed	0.2608	0.16559416E-01	0.12868339E+00

Vector mean speed 0.0343

Vector Mean Direction 149.5

Maximum ten values

Eastings					Northings				
0.495	0.487	0.486	0.486	0.484	0.456	0.452	0.449	0.441	0.441
0.481	0.479	0.478	0.477	0.477	0.441	0.440	0.436	0.431	0.427

Minimum ten values

Eastings					Northings				
-0.448	-0.452	-0.457	-0.458	-0.460	-0.411	-0.411	-0.411	-0.414	-0.417
-0.463	-0.467	-0.469	-0.469	-0.479	-0.428	-0.430	-0.437	-0.440	-0.459

Maximum speeds

0.624	0.609	0.608	0.607	0.606	0.598	0.593	0.591	0.583	0.582
0.580	0.579	0.579	0.579	0.578	0.577	0.569	0.568	0.568	0.567
0.567	0.566	0.566	0.564	0.563	0.559	0.559	0.558	0.558	0.558
0.556	0.556	0.554	0.551	0.551	0.550	0.549	0.549	0.549	0.549
0.548	0.547	0.547	0.546	0.544	0.544	0.541	0.540	0.539	0.539
0.537	0.536	0.535	0.533	0.532	0.530	0.530	0.529	0.529	0.529
0.527	0.526	0.525	0.524	0.524	0.523	0.522	0.522	0.521	0.520
0.520	0.519	0.518	0.517	0.515	0.515	0.513	0.512	0.512	0.511
0.506	0.505	0.505	0.505	0.505	0.505	0.504	0.504	0.503	0.503
0.502	0.502	0.498	0.496	0.496	0.494	0.494	0.493	0.491	0.491

Variance ellipse statistics

Maximum variance	0.6744E-01	Direction	-53.3
Minimum variance	0.1601E-01	Direction	36.7
Total variance	0.8345E-01	Ratio of variances	0.2374E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 6.5

Average direction. maxdir +PI/2 to maxdir -PI/2 185.3

Meter information details for 1119

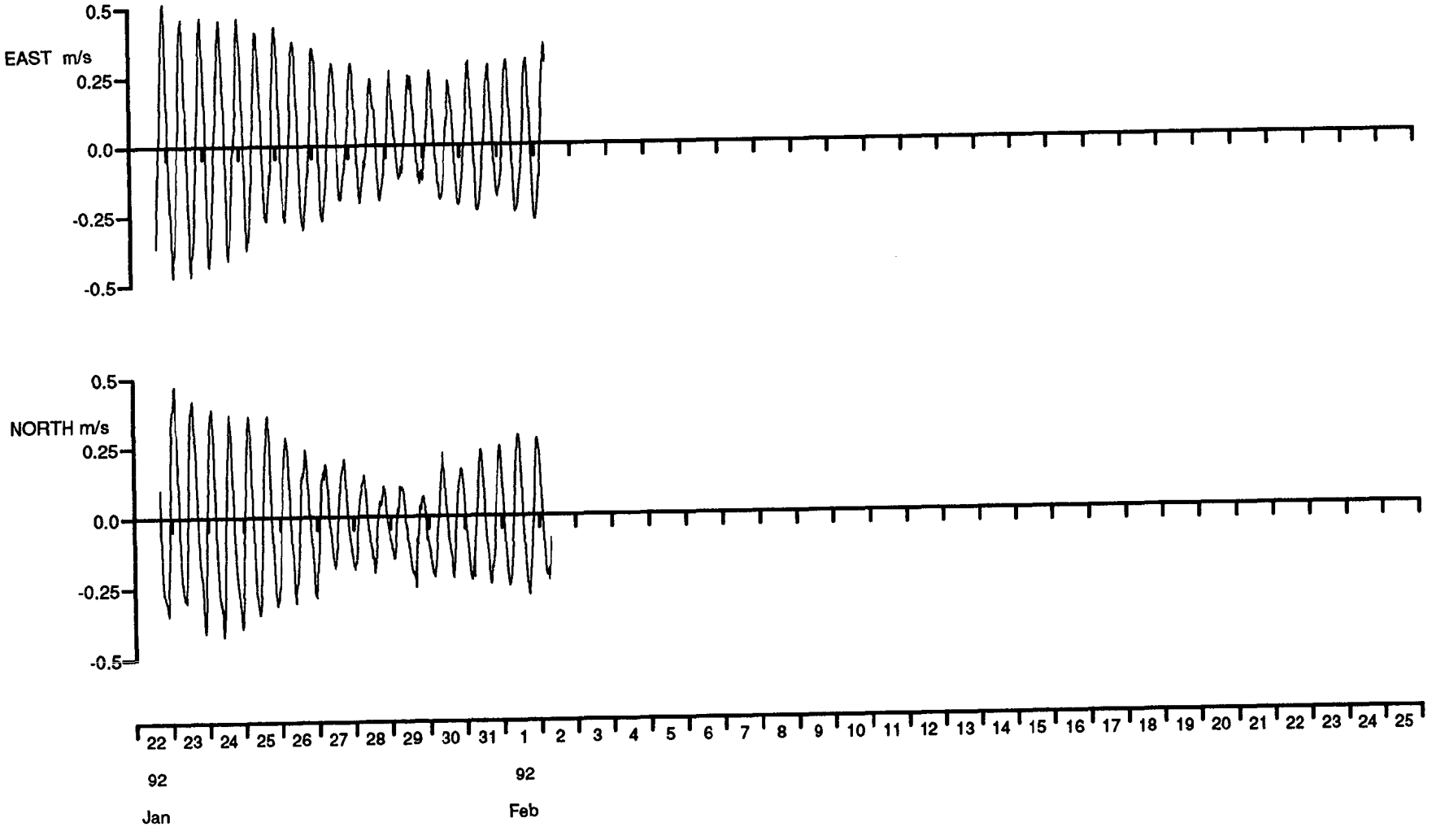
Rig No	:	88537
Meter No	:	1119
Recording interval	:	600.0 seconds
Meter height from bottom	:	10.0 m
Position of meter on rig	:	B
Meter type	:	S4
Meter started	:	22-JAN-92 15:30:00
Meter stopped	:	02-FEB-92 12:40:00
Period switched on	:	10.9 days
Period of good data	:	10.6 days
Total number of scans	:	1533
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 1119 Rig no. 88537 Depth of water(m) 22.0

Start/End 1992/01/22 AT 16:18:00 1992/02/02 AT 07:50:00

Position 54 06.64N 03 26.77W Meter Height(m) 10.0

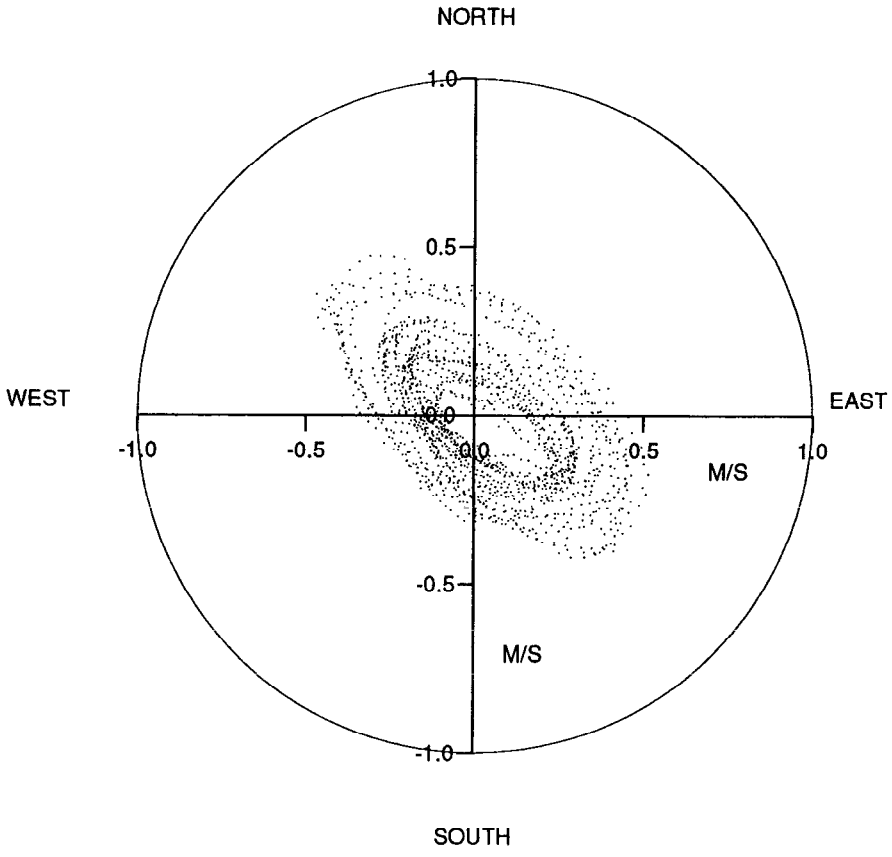


SCATTER PLOT

Meter no. 1119 Rig no. 88537 Depth of water(m) 22.0

Start/End 1992/01/22 AT 16:18:00 1992/02/02 AT 07:50:00

Position 54 06.64N 03 26.77W Meter Height(m) 10.0

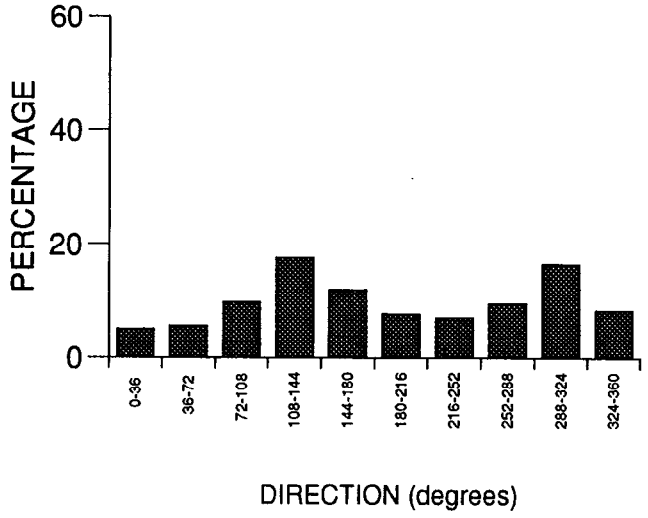


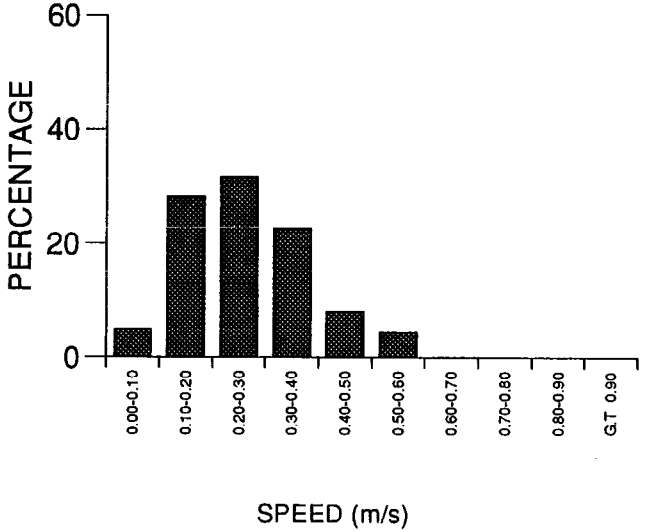
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 1119 Rig no. 88537 Depth of water(m) 22.0

Start/End 1992/01/22 AT 16:18:00 1992/02/02 AT 07:50:00

Position 54 06.64N 03 26.77W Meter Height(m) 10.0



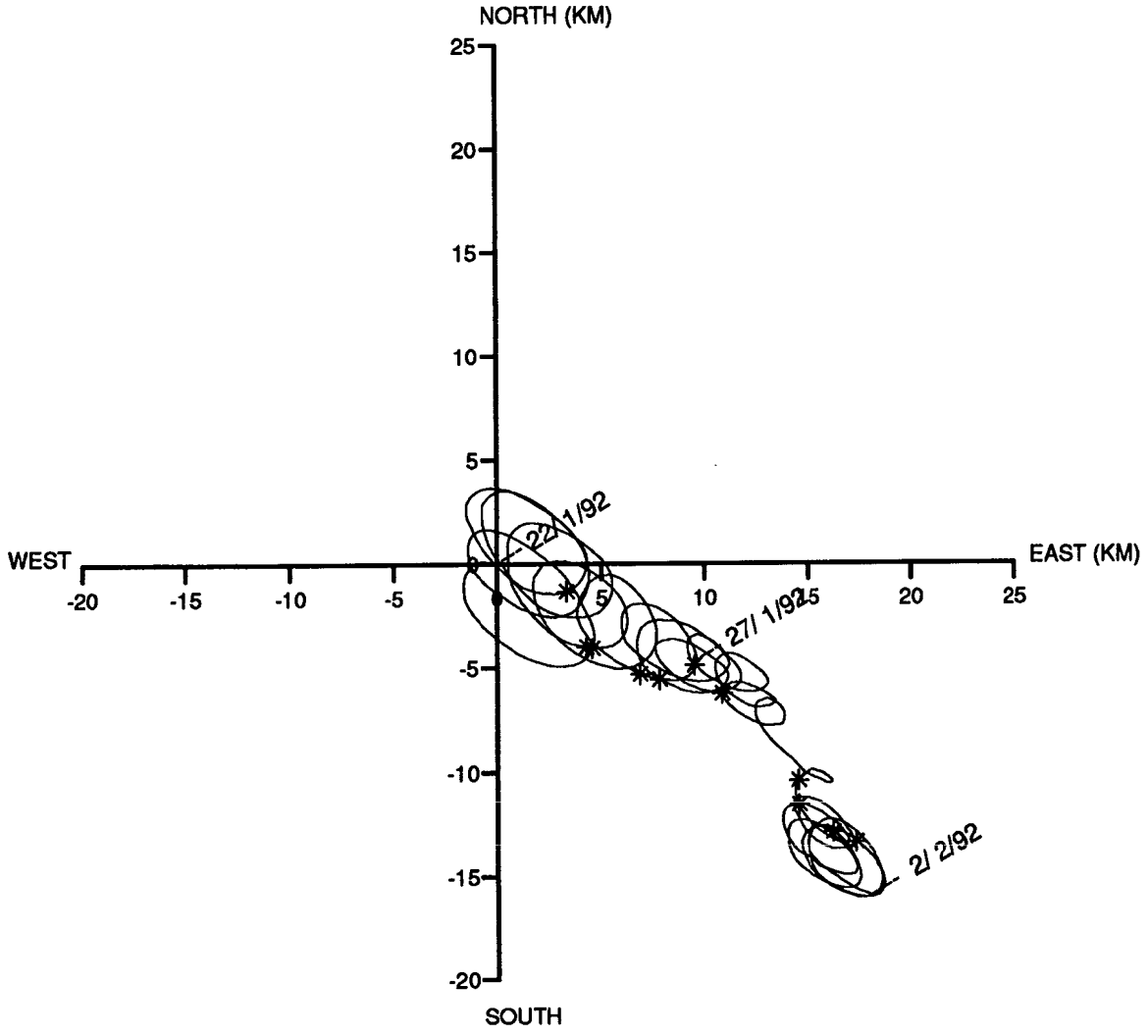


VECTOR PLOT

Meter no. 1119 Rig no. 88537 Depth of water(m) 22.0

Start/End 1992/01/22 AT 16:18:00 1992/02/02 AT 07:50:00

Position 54 06.64N 03 26.77W Meter Height(m) 10.0



Statistics for s41119b.88537s

	Mean	Variance	Standard deviation
Eastings	0.0195	0.46078611E-01	0.21465929E+00
Northings	-0.0172	0.35513319E-01	0.18844979E+00
Speed	0.2624	0.13375578E-01	0.11565284E+00

Vector mean speed 0.0260

Vector Mean Direction 131.5

Maximum ten values

Eastings					Northings				
0.515	0.508	0.502	0.497	0.495	0.472	0.471	0.469	0.462	0.452
0.489	0.466	0.464	0.463	0.462	0.430	0.427	0.419	0.418	0.409

Minimum ten values

Eastings					Northings				
-0.425	-0.428	-0.429	-0.434	-0.441	-0.397	-0.399	-0.402	-0.406	-0.407
-0.446	-0.450	-0.454	-0.467	-0.471	-0.407	-0.409	-0.412	-0.422	-0.422

Maximum speeds

0.591	0.577	0.572	0.568	0.568	0.567	0.567	0.565	0.561	0.559
0.559	0.557	0.556	0.554	0.554	0.554	0.553	0.552	0.550	0.549
0.549	0.548	0.548	0.547	0.546	0.546	0.544	0.544	0.543	0.542
0.542	0.542	0.541	0.540	0.539	0.538	0.537	0.533	0.529	0.528
0.527	0.527	0.526	0.526	0.522	0.521	0.520	0.520	0.520	0.517
0.516	0.514	0.513	0.513	0.513	0.510	0.510	0.508	0.506	0.505
0.505	0.505	0.504	0.504	0.503	0.502	0.502	0.501	0.500	0.500
0.496	0.495	0.492	0.492	0.492	0.489	0.488	0.486	0.483	0.483
0.483	0.481	0.480	0.479	0.479	0.479	0.479	0.478	0.478	0.477
0.474	0.473	0.473	0.473	0.472	0.472	0.472	0.469	0.469	0.469

Variance ellipse statistics

Maximum variance	0.6283E-01	Direction	-51.9
Minimum variance	0.1876E-01	Direction	38.1
Total variance	0.8159E-01	Ratio of variances	0.2986E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 13.0

Average direction. maxdir +PI/2 to maxdir -PI/2 183.8

Rig information details for 88538

Position Latitude	:	54 08.39N
Position Longitude	:	03 27.97W
Water depth	:	19.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	C88A
Site name identification	:	YJ
Magnetic deviation	:	6.1 degrees west
Rig deployed on	:	22-JAN-92 14:50:00
Rig recovered on	:	01-FEB-92 14:08:00
Period of deployment	:	10.0 days
Comments	:	None

Meter information details for 1264

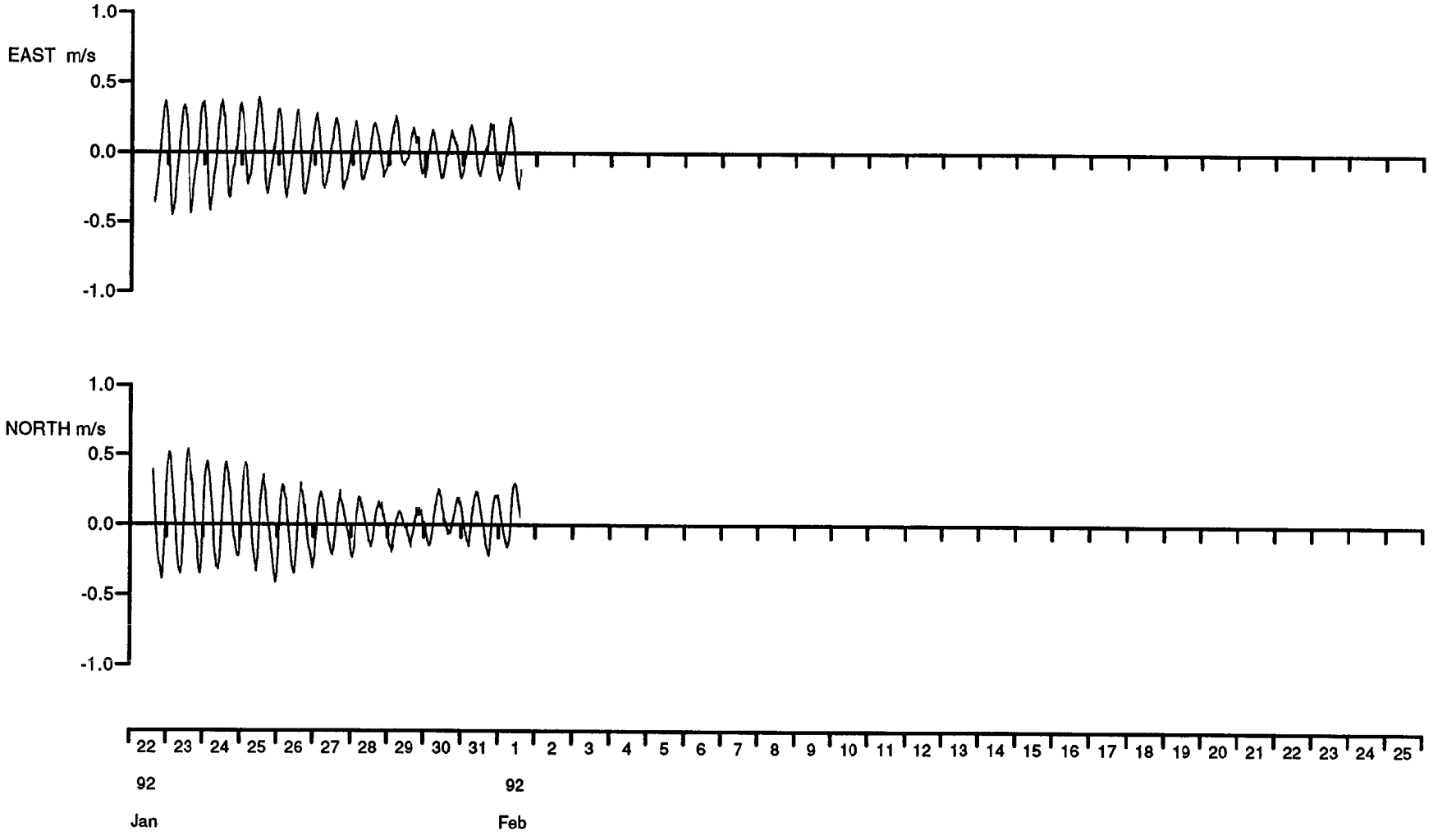
Rig No	:	88538
Meter No	:	1264
Recording interval	:	600.0 seconds
Meter depth	:	4.0 m
Position of meter on rig	:	T
Meter type	:	S4
Meter started	:	21-JAN-92 15:50:00
Meter stopped	:	02-FEB-92 13:30:00
Period switched on	:	11.9 days
Period of good data	:	10.0 days
Total number of scans	:	1436
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 1264 Rig no. 88538 Depth of water(m) 19.0

Start/End 1992/01/22 AT 14:50:00 1992/02/01 AT 14:18:00

Position 54 08.39N 03 27.97W Meter Depth(m) 4.0

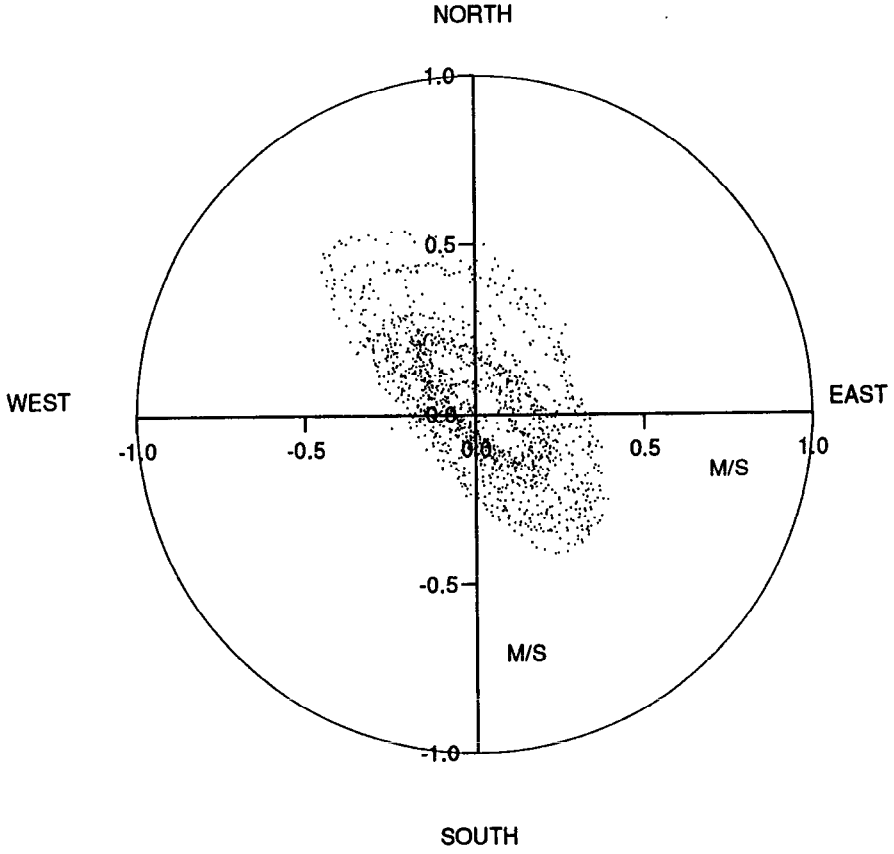


SCATTER PLOT

Meter no. 1264 Rig no. 88538 Depth of water(m) 19.0

Start/End 1992/01/22 AT 14:50:00 1992/02/01 AT 14:18:00

Position 54 08.39N 03 27.97W Meter Depth(m) 4.0

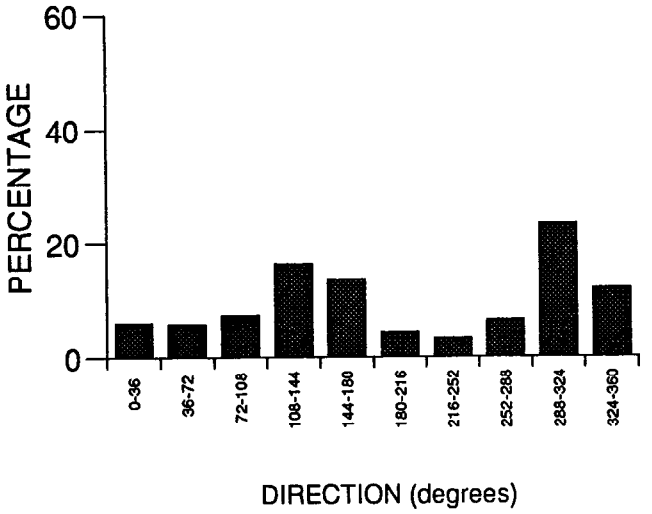


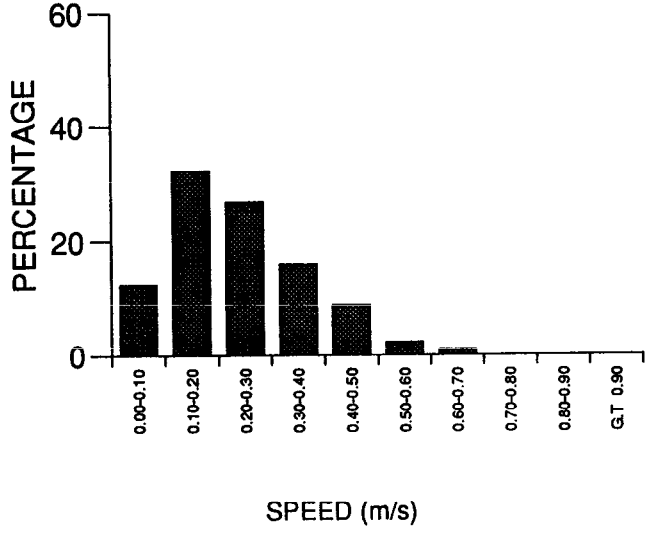
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 1264 Rig no. 88538 Depth of water(m) 19.0

Start/End 1992/01/22 AT 14:50:00 1992/02/01 AT 14:18:00

Position 54 08.39N 03 27.97W Meter Depth(m) 4.0



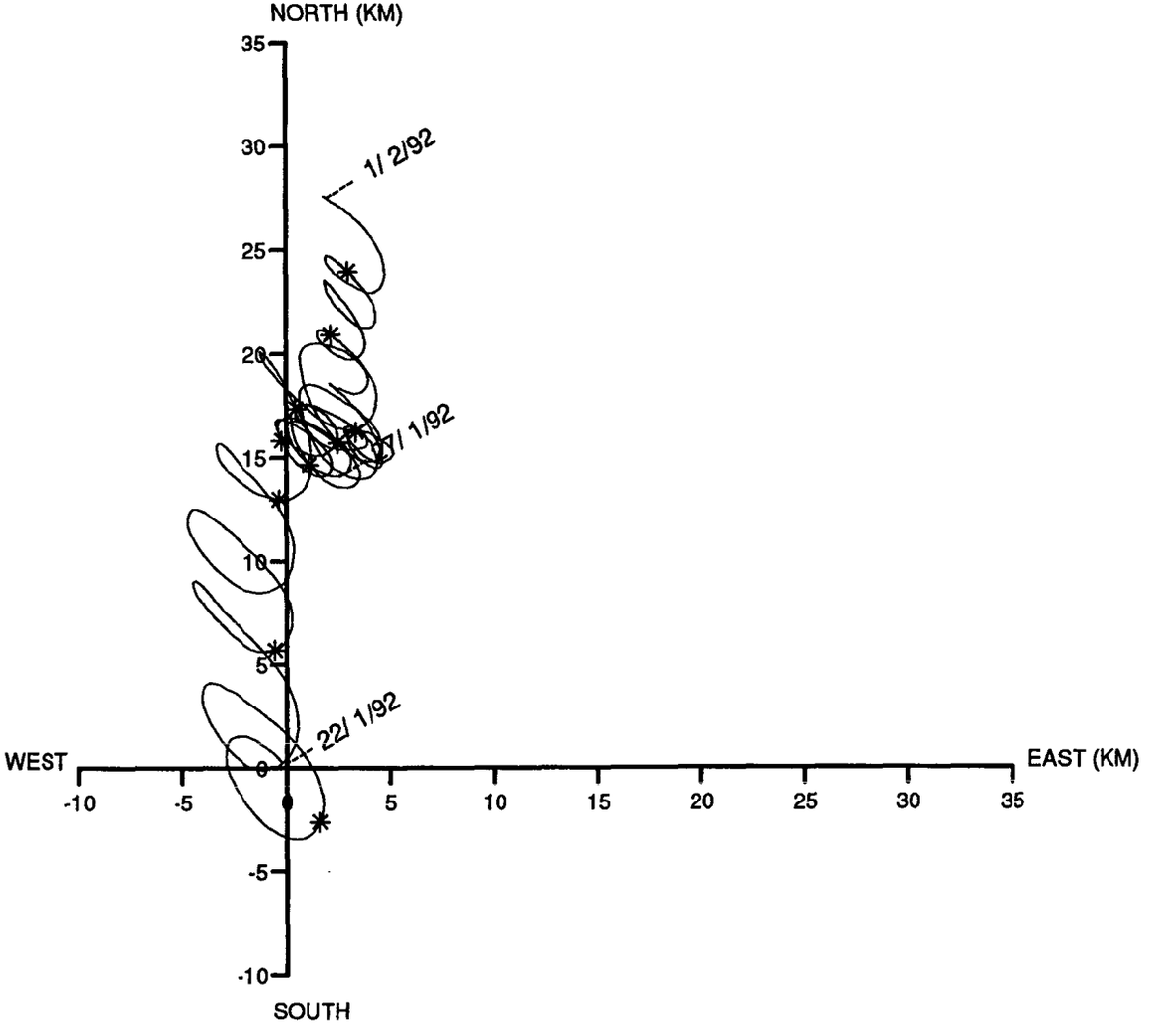


VECTOR PLOT

Meter no. 1264 Rig no. 88538 Depth of water(m) 19.0

Start/End 1992/01/22 AT 14:50:00 1992/02/01 AT 14:18:00

Position 54 08.39N 03 27.97W Meter Depth(m) 4.0



Statistics for s41264t.88538s

	Mean	Variance	Standard deviation
Eastings	0.0021	0.32781288E-01	0.18105604E+00
Northings	0.0320	0.39330855E-01	0.19832009E+00
Speed	0.2386	0.16177544E-01	0.12719098E+00

Vector mean speed 0.0321

Vector Mean Direction 3.8

Maximum ten values

Eastings					Northings				
0.389	0.377	0.373	0.372	0.371	0.539	0.537	0.531	0.528	0.527
0.366	0.365	0.364	0.362	0.361	0.523	0.522	0.516	0.513	0.513

Minimum ten values

Eastings					Northings				
-0.420	-0.420	-0.423	-0.426	-0.428	-0.373	-0.379	-0.381	-0.385	-0.387
-0.437	-0.437	-0.442	-0.445	-0.452	-0.395	-0.401	-0.406	-0.411	-0.412

Maximum speeds

0.651	0.648	0.645	0.640	0.638	0.637	0.636	0.628	0.620	0.615
0.615	0.614	0.613	0.603	0.593	0.592	0.590	0.582	0.578	0.577
0.576	0.570	0.566	0.564	0.564	0.564	0.563	0.561	0.560	0.548
0.546	0.545	0.544	0.540	0.538	0.537	0.535	0.529	0.524	0.522
0.520	0.508	0.508	0.503	0.501	0.498	0.498	0.497	0.497	0.497
0.495	0.494	0.494	0.492	0.489	0.488	0.488	0.487	0.486	0.485
0.484	0.484	0.484	0.484	0.483	0.482	0.482	0.482	0.479	0.478
0.478	0.478	0.477	0.477	0.476	0.476	0.474	0.474	0.474	0.473
0.472	0.471	0.471	0.470	0.467	0.466	0.466	0.465	0.465	0.464
0.464	0.462	0.462	0.460	0.460	0.458	0.458	0.456	0.456	0.454

Variance ellipse statistics

Maximum variance	0.5912E-01	Direction	-40.9
Minimum variance	0.1299E-01	Direction	49.1
Total variance	0.7211E-01	Ratio of variances	0.2198E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 8.0

Average direction. maxdir +PI/2 to maxdir -PI/2 175.4

Meter information details for 1261

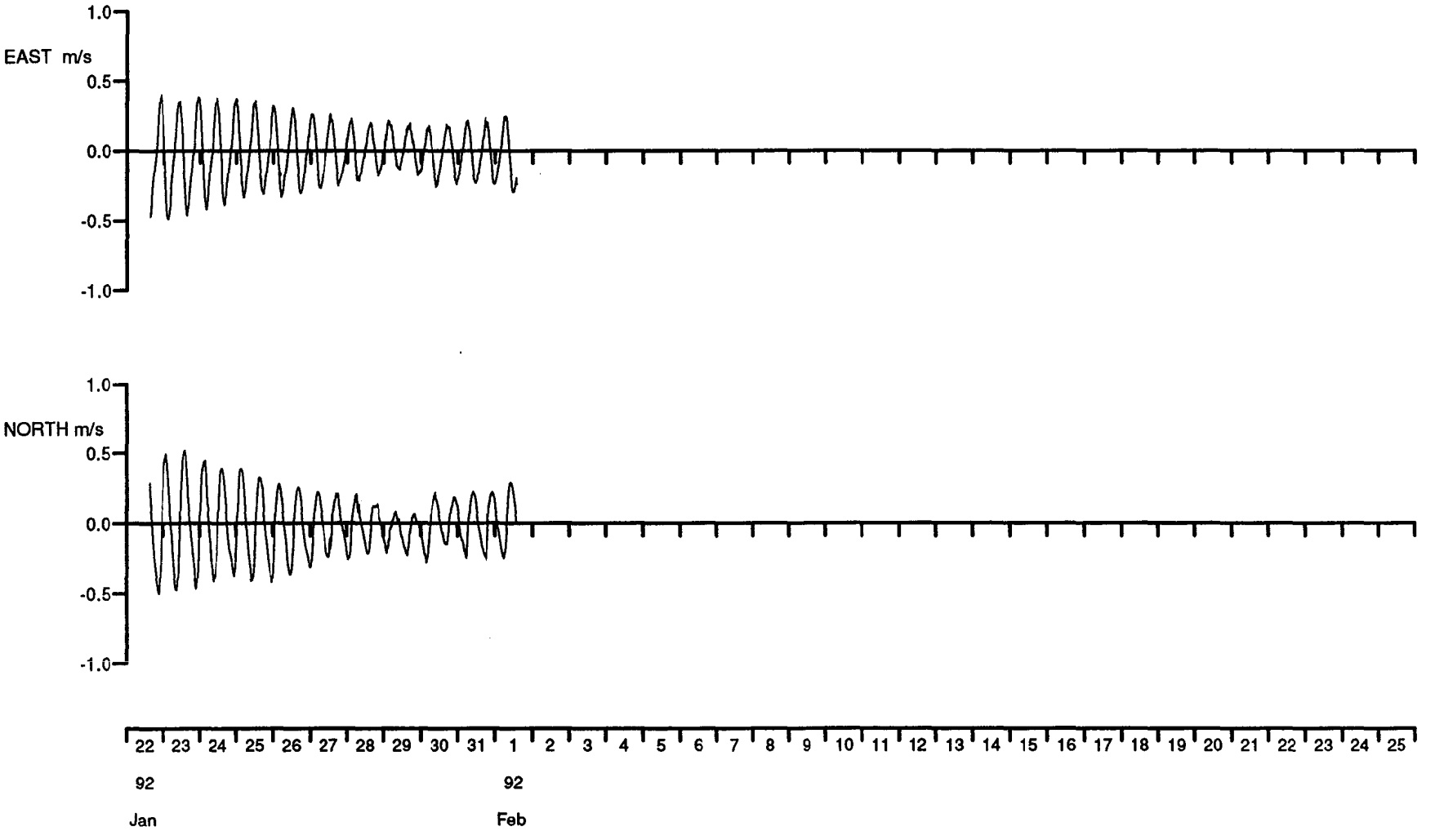
Rig No	:	88538
Meter No	:	1261
Recording interval	:	600.0 seconds
Meter depth	:	10.0 m
Position of meter on rig	:	B
Meter type	:	S4
Meter started	:	21-JAN-92 16:00:00
Meter stopped	:	02-FEB-92 13:40:00
Period switched on	:	11.9 days
Period of good data	:	10.0 days
Total number of scans	:	1436
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 1261 Rig no. 88538 Depth of water(m) 19.0

Start/End 1992/01/22 AT 14:50:00 1992/02/01 AT 14:08:00

Position 54 08.39N 03 27.97W Meter Depth(m) 10.0

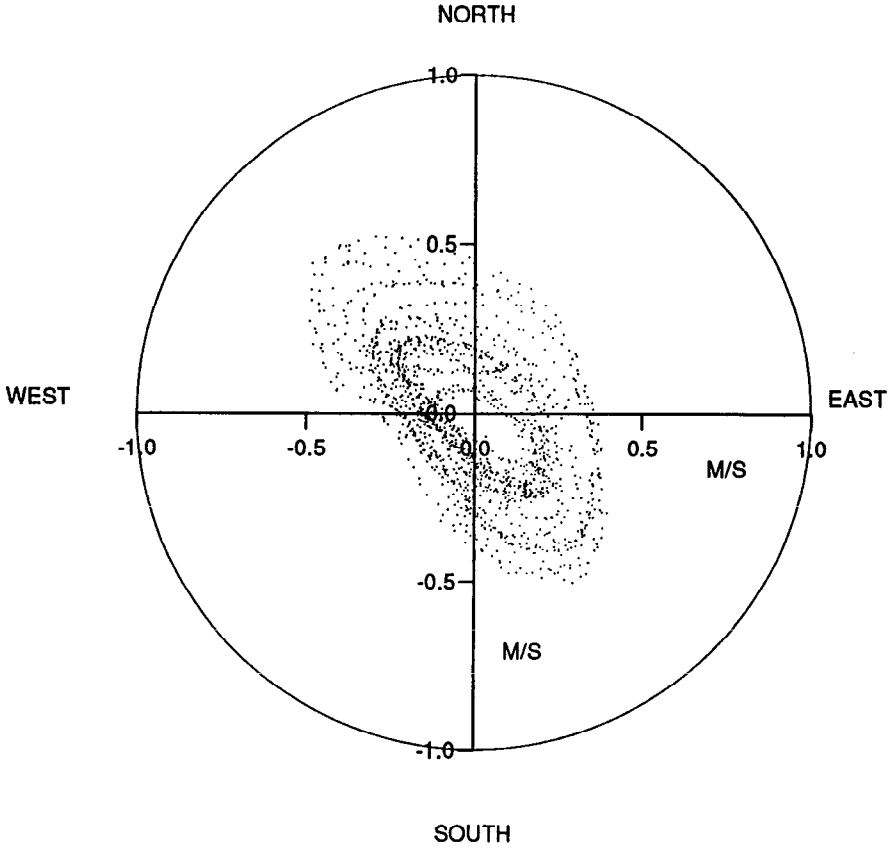


SCATTER PLOT

Meter no. 1261 Rig no. 88538 Depth of water(m) 19.0

Start/End 1992/01/22 AT 14:50:00 1992/02/01 AT 14:08:00

Position 54 08.39N 03 27.97W Meter Depth(m) 10.0

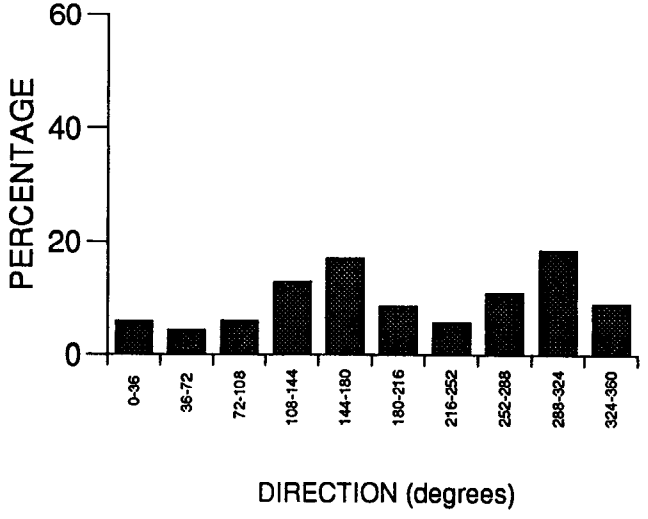


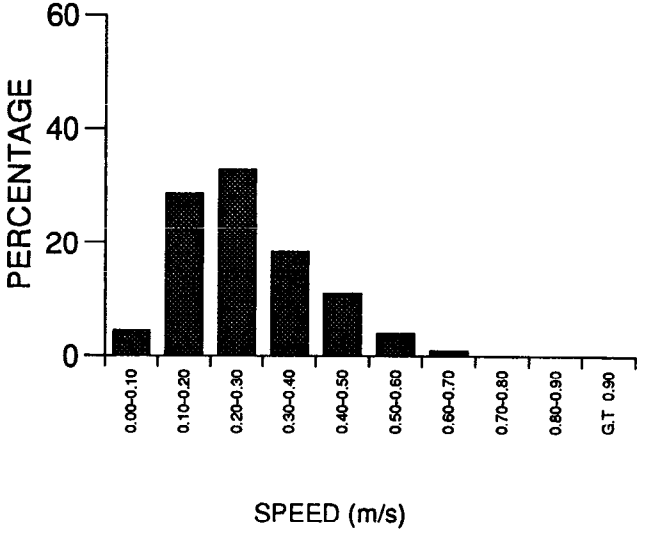
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 1261 Rig no. 88538 Depth of water(m) 19.0

Start/End 1992/01/22 AT 14:50:00 1992/02/01 AT 14:08:00

Position 54 08.39N 03 27.97W Meter Depth(m) 10.0



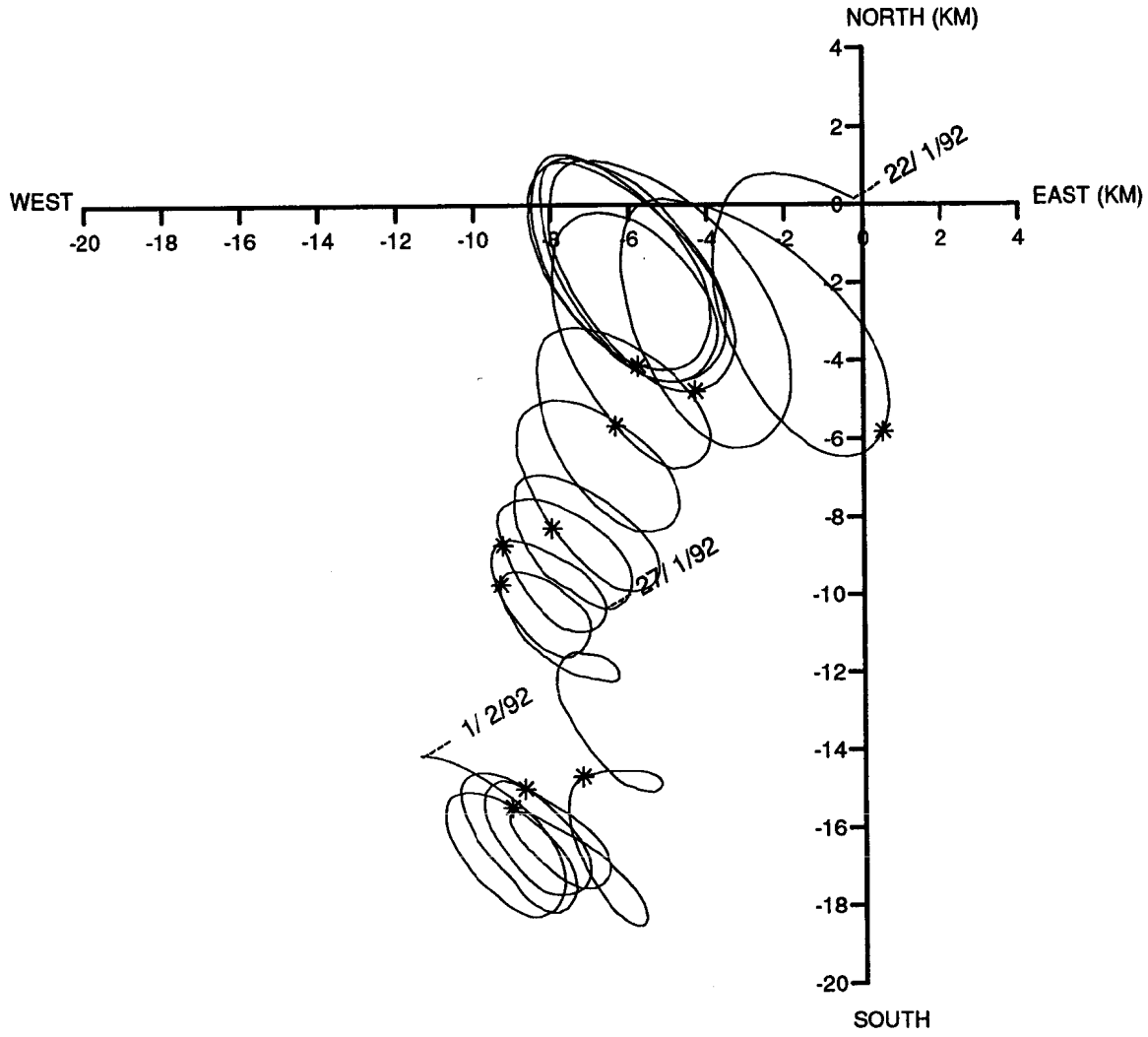


VECTOR PLOT

Meter no. 1261 Rig no. 88538 Depth of water(m) 19.0

Start/End 1992/01/22 AT 14:50:00 1992/02/01 AT 14:08:00

Position 54 08.39N 03 27.97W Meter Depth(m) 10.0



Statistics for s41261b.88538s

	Mean	Variance	Standard deviation
Eastings	-0.0133	0.39420106E-01	0.19854498E+00
Northings	-0.0163	0.47503527E-01	0.21795303E+00
Speed	0.2690	0.14973752E-01	0.12236729E+00

Vector mean speed 0.0210

Vector Mean Direction -140.7

Maximum ten values

Eastings					Northings				
0.396	0.382	0.380	0.380	0.379	0.519	0.517	0.516	0.511	0.508
0.379	0.376	0.376	0.375	0.373	0.495	0.494	0.492	0.492	0.488

Minimum ten values

Eastings					Northings				
-0.465	-0.471	-0.472	-0.477	-0.478	-0.472	-0.473	-0.474	-0.474	-0.475
-0.482	-0.484	-0.485	-0.486	-0.491	-0.477	-0.485	-0.487	-0.494	-0.503

Maximum speeds

0.655	0.640	0.638	0.637	0.633	0.628	0.628	0.624	0.621	0.616
0.610	0.608	0.606	0.598	0.589	0.586	0.586	0.584	0.584	0.583
0.581	0.581	0.579	0.576	0.569	0.564	0.563	0.561	0.560	0.560
0.559	0.558	0.557	0.551	0.551	0.550	0.549	0.542	0.542	0.542
0.541	0.539	0.537	0.535	0.534	0.534	0.533	0.532	0.530	0.530
0.529	0.528	0.528	0.528	0.527	0.524	0.524	0.521	0.518	0.516
0.513	0.512	0.509	0.507	0.506	0.505	0.504	0.503	0.500	0.499
0.499	0.499	0.498	0.496	0.496	0.495	0.493	0.492	0.492	0.492
0.491	0.490	0.490	0.489	0.489	0.488	0.486	0.486	0.485	0.485
0.484	0.482	0.481	0.480	0.480	0.479	0.478	0.478	0.477	0.477

Variance ellipse statistics

Maximum variance	0.6877E-01	Direction	-40.4
Minimum variance	0.1815E-01	Direction	49.6
Total variance	0.8692E-01	Ratio of variances	0.2639E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 3.5

Average direction. maxdir +PI/2 to maxdir -PI/2 187.1

Rig information details for 88541

Position Latitude	:	53 57.35N
Position Longitude	:	03 19.09W
Water depth	:	19.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	C88A
Site name identification	:	ZD
Magnetic deviation	:	6.0 degrees west
Rig deployed on	:	22-JAN-92 08:54:00
Rig recovered on	:	01-FEB-92 07:50:00
Period of deployment	:	10.0 days
Comments	:	None

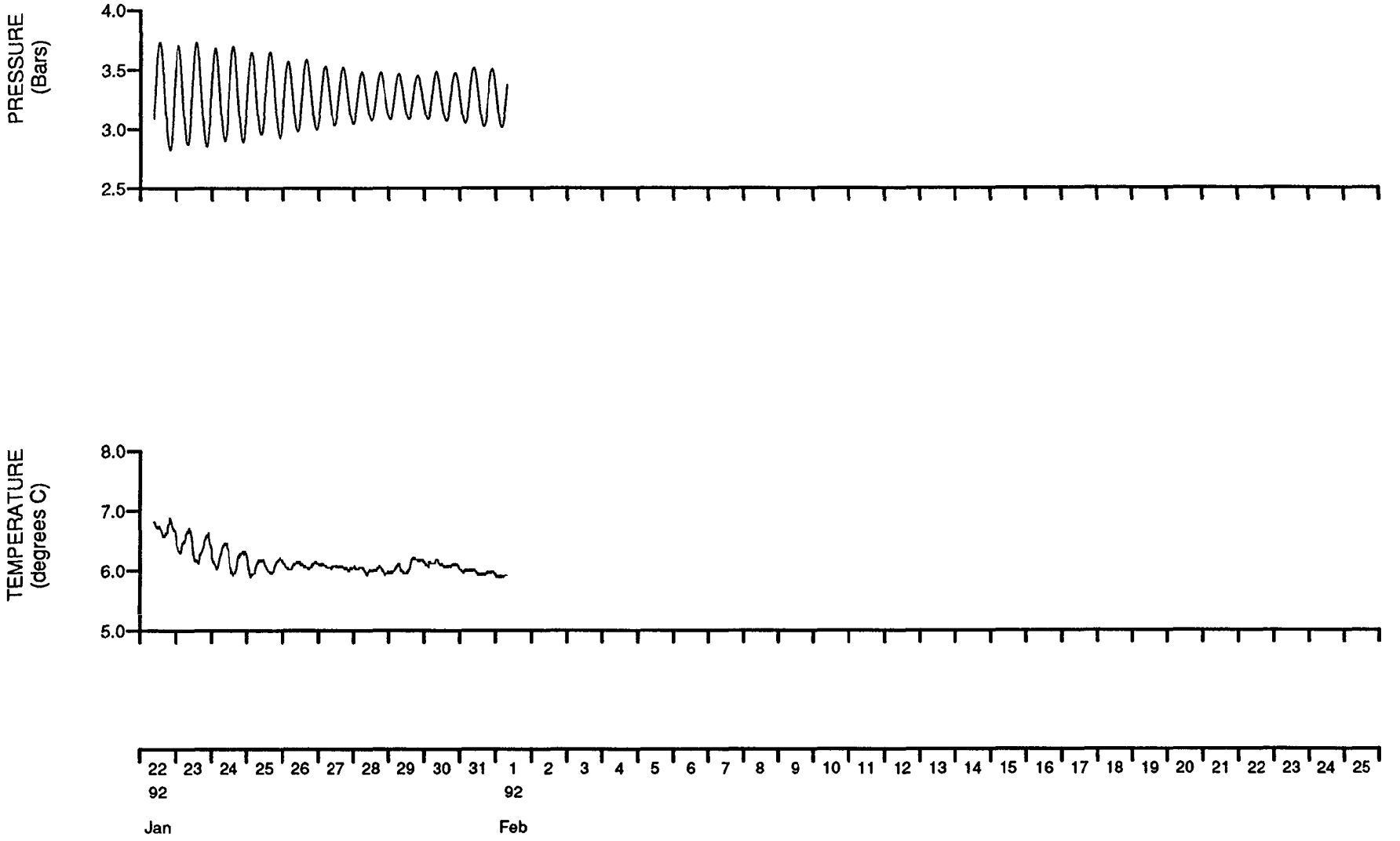
Meter information details for 0445

Rig No	:	88541
Meter No	:	0445
Recording interval	:	600.0 seconds
Meter height from bottom	:	3.9 m
Position of meter on rig	:	
Meter type	:	WR
Meter started	:	19-JAN-92 11:10:41
Meter stopped	:	05-FEB-92 15:10:47
Period switched on	:	17.2 days
Period of good data	:	10.0 days
Total number of scans	:	1433
Timing error	:	6 seconds slow
Comments	:	None

Meter no. 0445 Rig no. 88541 Depth of water(m) 25.0

Start/End 1992/01/22 AT 08:54:00 1992/02/01 AT 07:50:00

Position 53 57.35N 03 19.09W Meter Height(m) 3.9



Rig information details for 88542

Position Latitude	:	53 57.08N
Position Longitude	:	03 18.08W
Water depth	:	19.0 m
Deployed on cruise	:	C88A
Recovered on cruise	:	C88A
Site name identification	:	ZH
Magnetic deviation	:	6.0 degrees west
Rig deployed on	:	22-JAN-92 10:01:00
Rig recovered on	:	01-FEB-92 08:49:00
Period of deployment	:	9.9 days
Comments	:	None

Meter information details for 9959

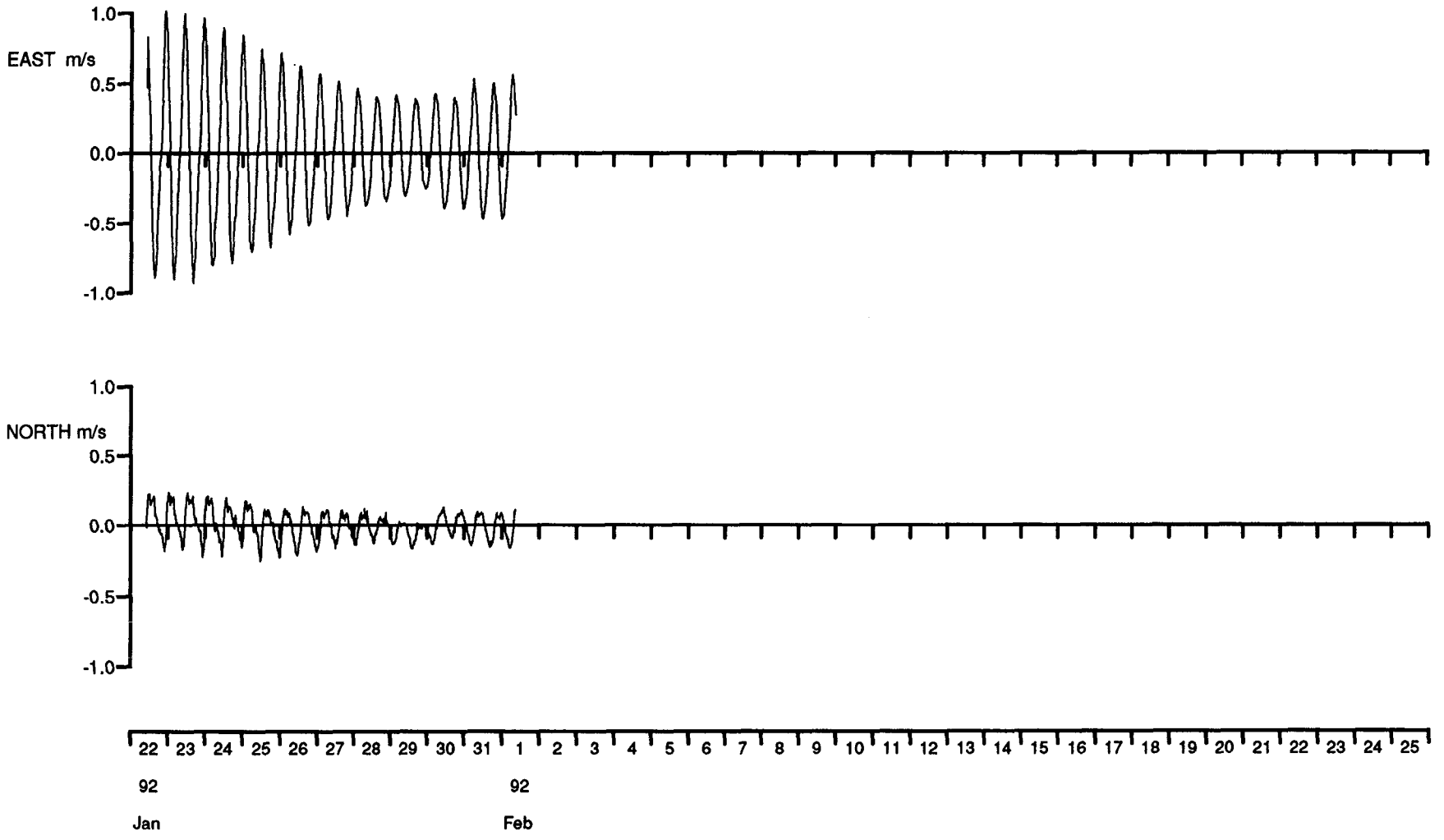
Rig No	:	88542
Meter No	:	9959
Recording interval	:	600.0 seconds
Meter height from bottom	:	10.5 m
Position of meter on rig	:	T
Meter type	:	AS
Meter started	:	19-JAN-92 16:40:00
Meter stopped	:	02-FEB-92 15:00:00
Period switched on	:	13.9 days
Period of good data	:	9.9 days
Total number of scans	:	1432
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 9959 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 09:09:00

Position 53 57.08N 03 18.08W Meter Height(m) 10.5

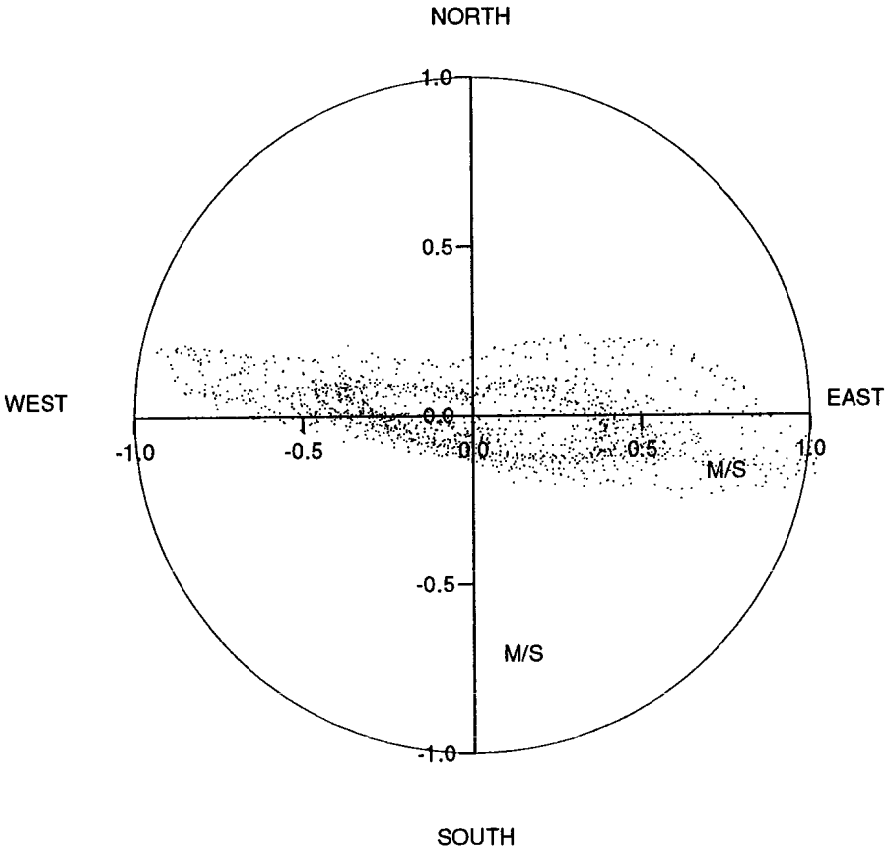


SCATTER PLOT

Meter no. 9959 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 08:49:00

Position 53 57.08N 03 18.08W Meter Height(m) 10.5

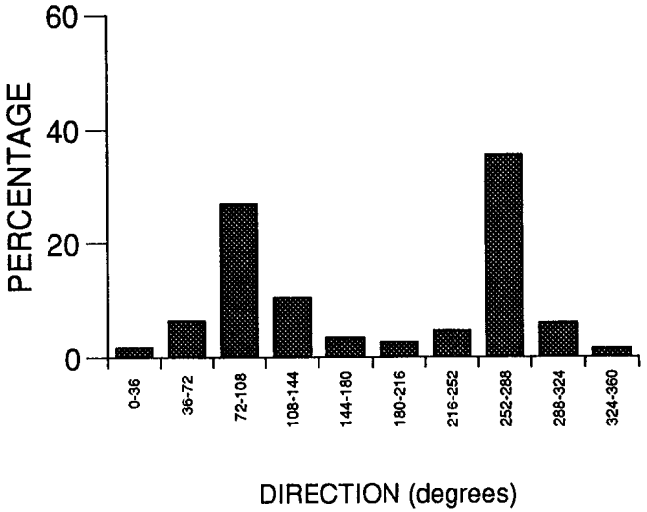


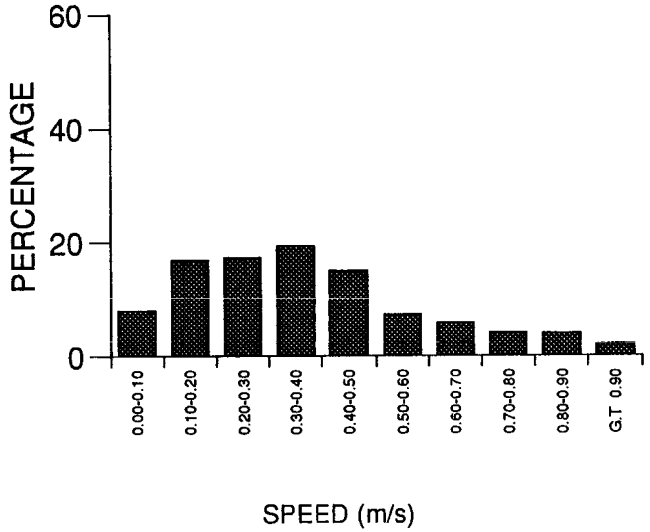
HISTOGRAMS FOR SPEEDS AND DIRECTIONS

Meter no. 9959 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 08:49:00

Position 53 57.08N 03 18.08W Meter Height(m) 10.5



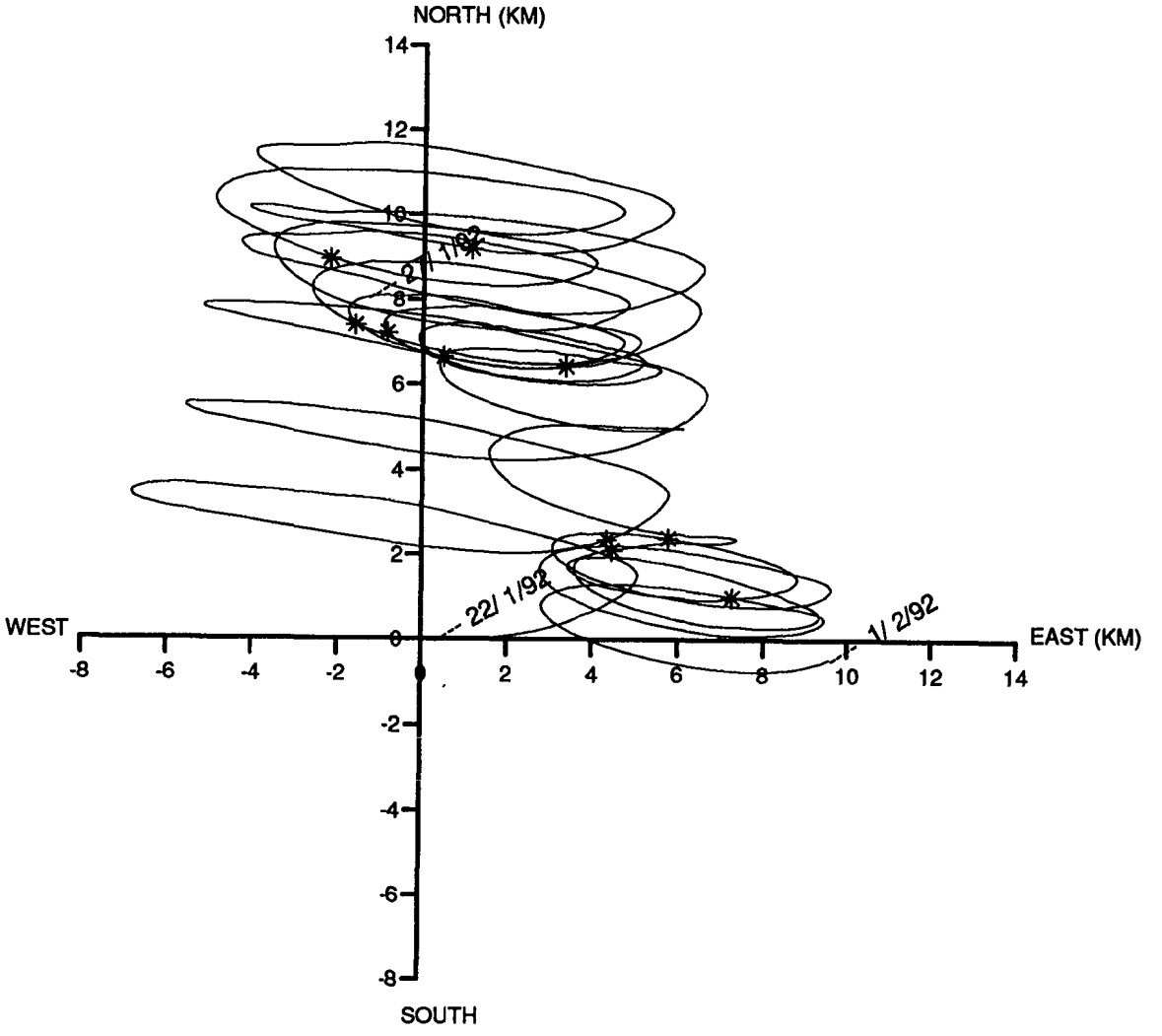


VECTOR PLOT

Meter no. 9959 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 09:09:00

Position 53 57.08N 03 18.08W Meter Height(m) 10.5

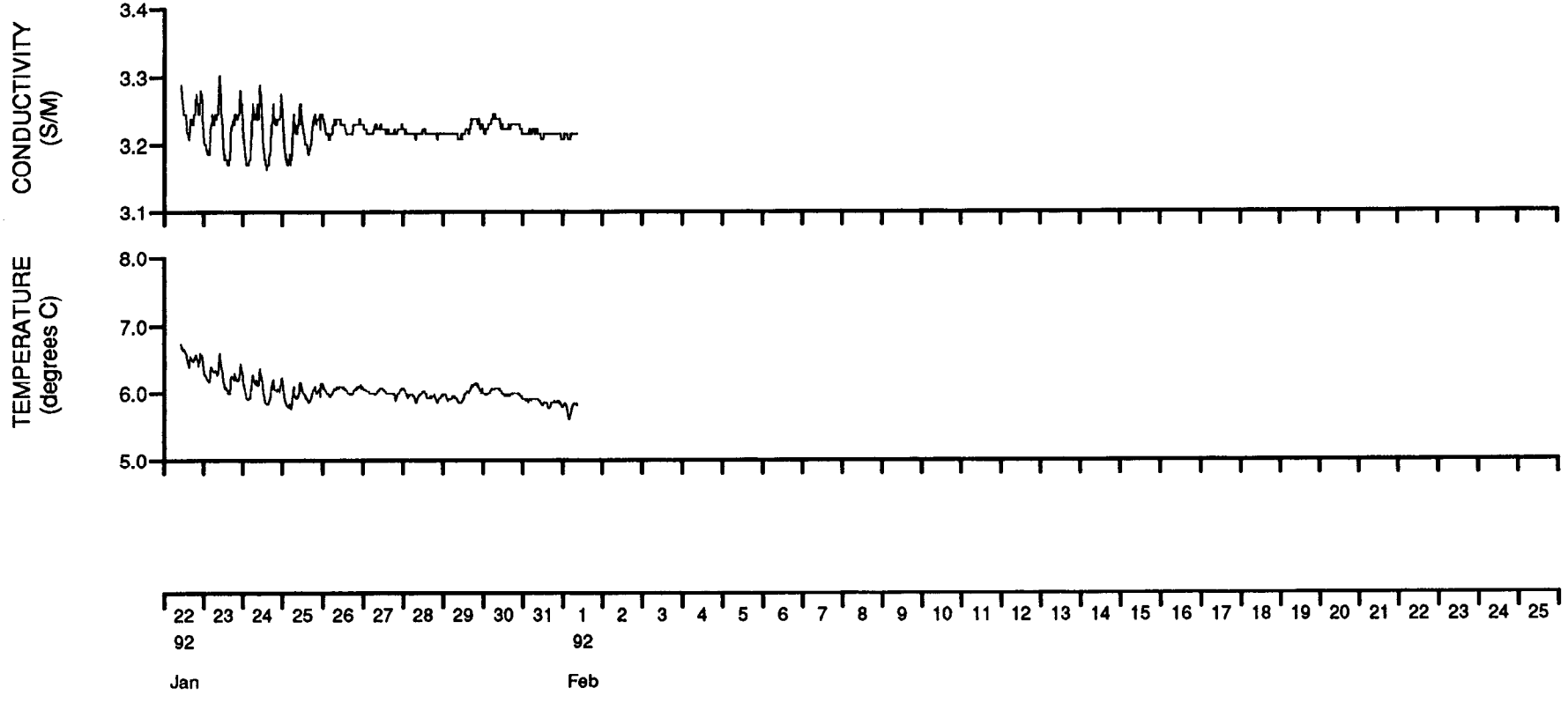


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 9959 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 09:09:00

Position 53 57.08N 03 18.08W Meter Height(m) 10.5



Statistics for as9959t.88542s

	Mean	Variance	Standard deviation
Eastings	0.0111	0.17770895E+00	0.42155540E+00
Northings	-0.0005	0.99868793E-02	0.99934377E-01
Speed	0.3732	0.48477191E-01	0.22017536E+00

Vector mean speed 0.0111

Vector Mean Direction 92.7

Maximum ten values

Eastings					Northings				
1.016	1.012	1.009	1.008	1.001	0.235	0.233	0.224	0.223	0.223
0.997	0.985	0.983	0.983	0.969	0.223	0.222	0.219	0.218	0.216

Minimum ten values

Eastings					Northings				
-0.874	-0.875	-0.877	-0.878	-0.882	-0.215	-0.217	-0.219	-0.219	-0.220
-0.889	-0.893	-0.903	-0.922	-0.933	-0.222	-0.223	-0.227	-0.235	-0.248

Maximum speeds

1.028	1.025	1.019	1.019	1.005	1.002	0.993	0.990	0.987	0.979
0.979	0.973	0.973	0.961	0.953	0.950	0.944	0.944	0.941	0.938
0.929	0.926	0.921	0.915	0.912	0.906	0.906	0.903	0.900	0.900
0.897	0.897	0.894	0.892	0.889	0.889	0.886	0.883	0.883	0.883
0.880	0.874	0.868	0.865	0.865	0.862	0.862	0.857	0.857	0.854
0.851	0.851	0.851	0.851	0.851	0.848	0.845	0.845	0.842	0.842
0.839	0.839	0.836	0.836	0.836	0.833	0.828	0.828	0.828	0.822
0.819	0.819	0.819	0.816	0.816	0.813	0.813	0.810	0.810	0.807
0.807	0.807	0.804	0.801	0.801	0.801	0.801	0.799	0.796	0.796
0.796	0.796	0.796	0.793	0.784	0.784	0.778	0.778	0.778	0.775

Variance ellipse statistics

Maximum variance	0.1799E+00	Direction	-83.5
Minimum variance	0.7760E-02	Direction	6.5
Total variance	0.1877E+00	Ratio of variances	0.4313E-01

Average direction. maxdir -PI/2 to maxdir +PI/2 8.8

Average direction. maxdir +PI/2 to maxdir -PI/2 181.3

Meter information details for 7570

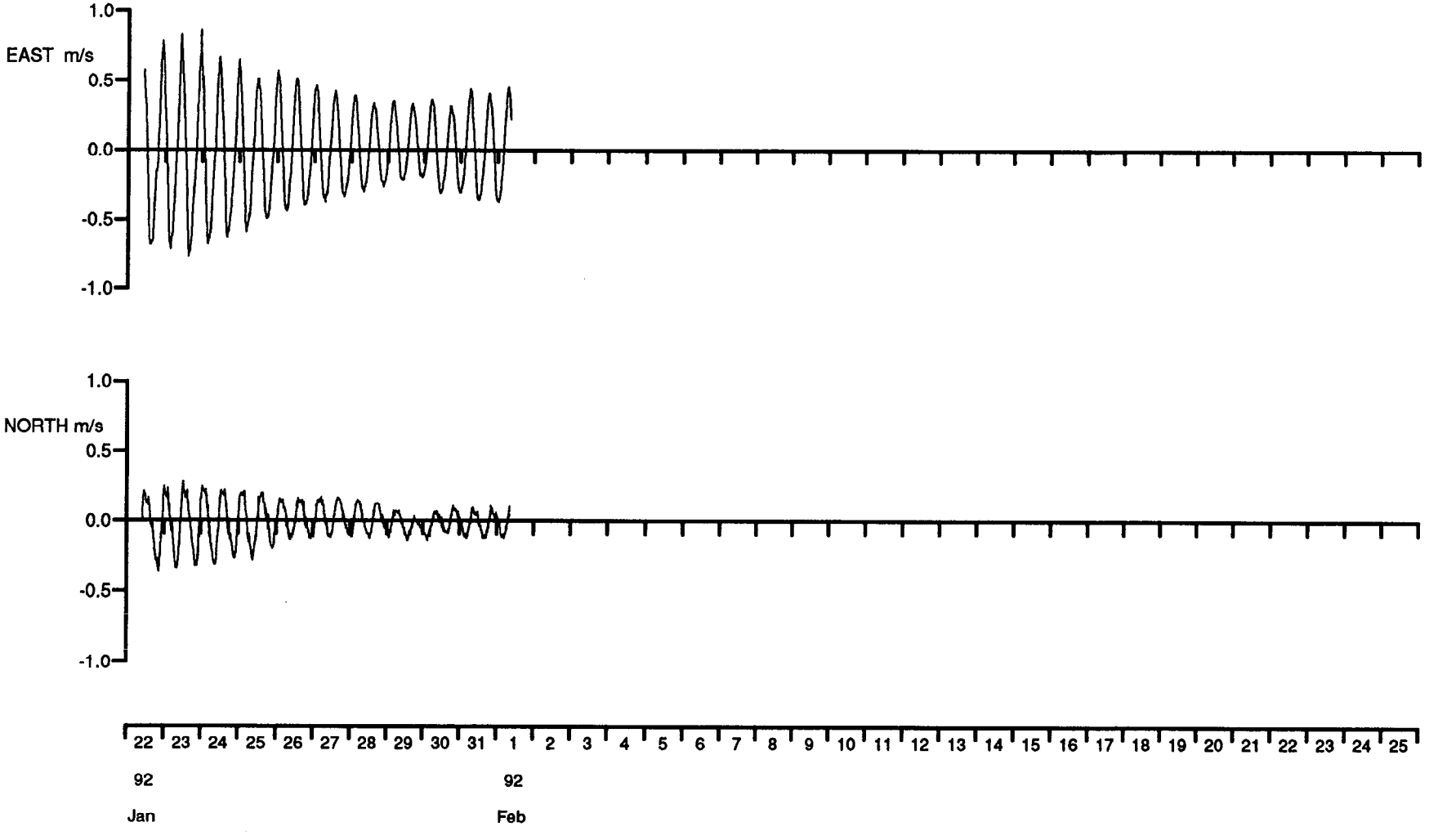
Rig No	:	88542
Meter No	:	7570
Recording interval	:	600.0 seconds
Meter height from bottom	:	2.5 m
Position of meter on rig	:	B
Meter type	:	AA
Meter started	:	19-JAN-92 17:00:00
Meter stopped	:	06-FEB-92 11:10:00
Period switched on	:	17.8 days
Period of good data	:	9.9 days
Total number of scans	:	1432
Timing error	:	None
Comments	:	None

VELOCITY COMPONENT TIME SERIES PLOT

Meter no. 7570 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 08:49:00

Position 53 57.08N 03 18.08W Meter Height(m) 2.5

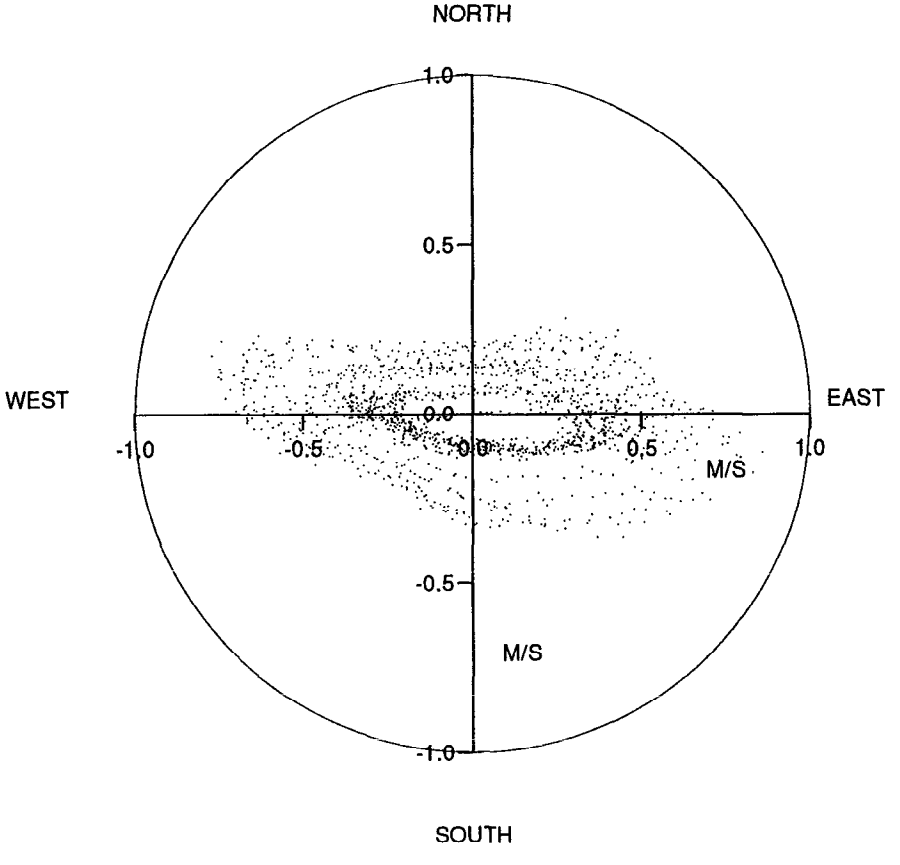


SCATTER PLOT

Meter no. 7570 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 08:49:00

Position 53 57.08N 03 18.08W Meter Height(m) 2.5

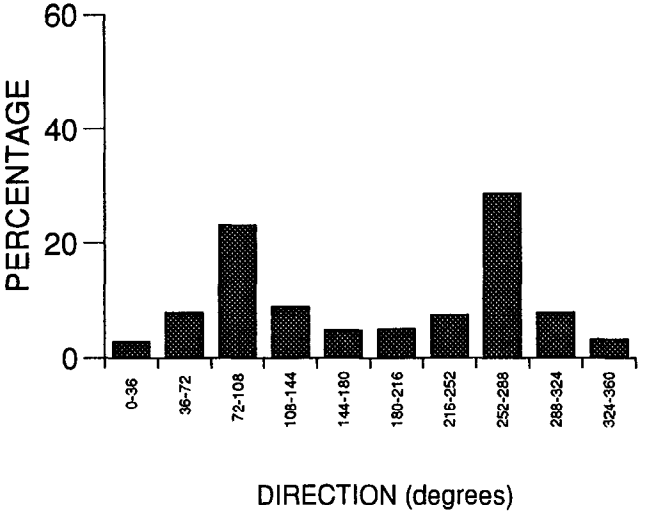


HISTOGRAMS FOR SPEEDS AND DIRECTIONS

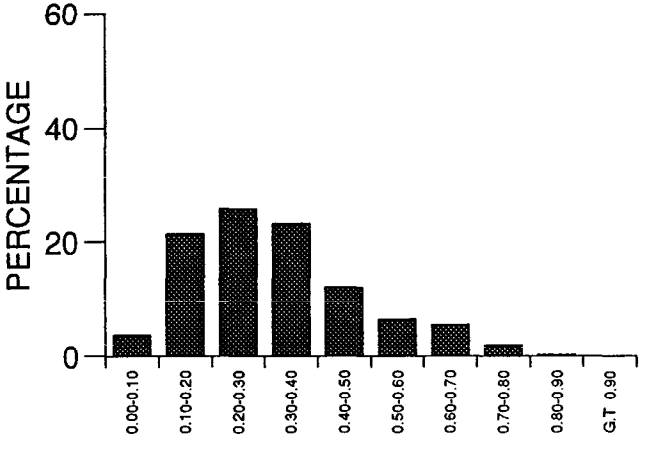
Meter no. 7570 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 08:49:00

Position 53 57.08N 03 18.08W Meter Height(m) 2.5



DIRECTION (degrees)



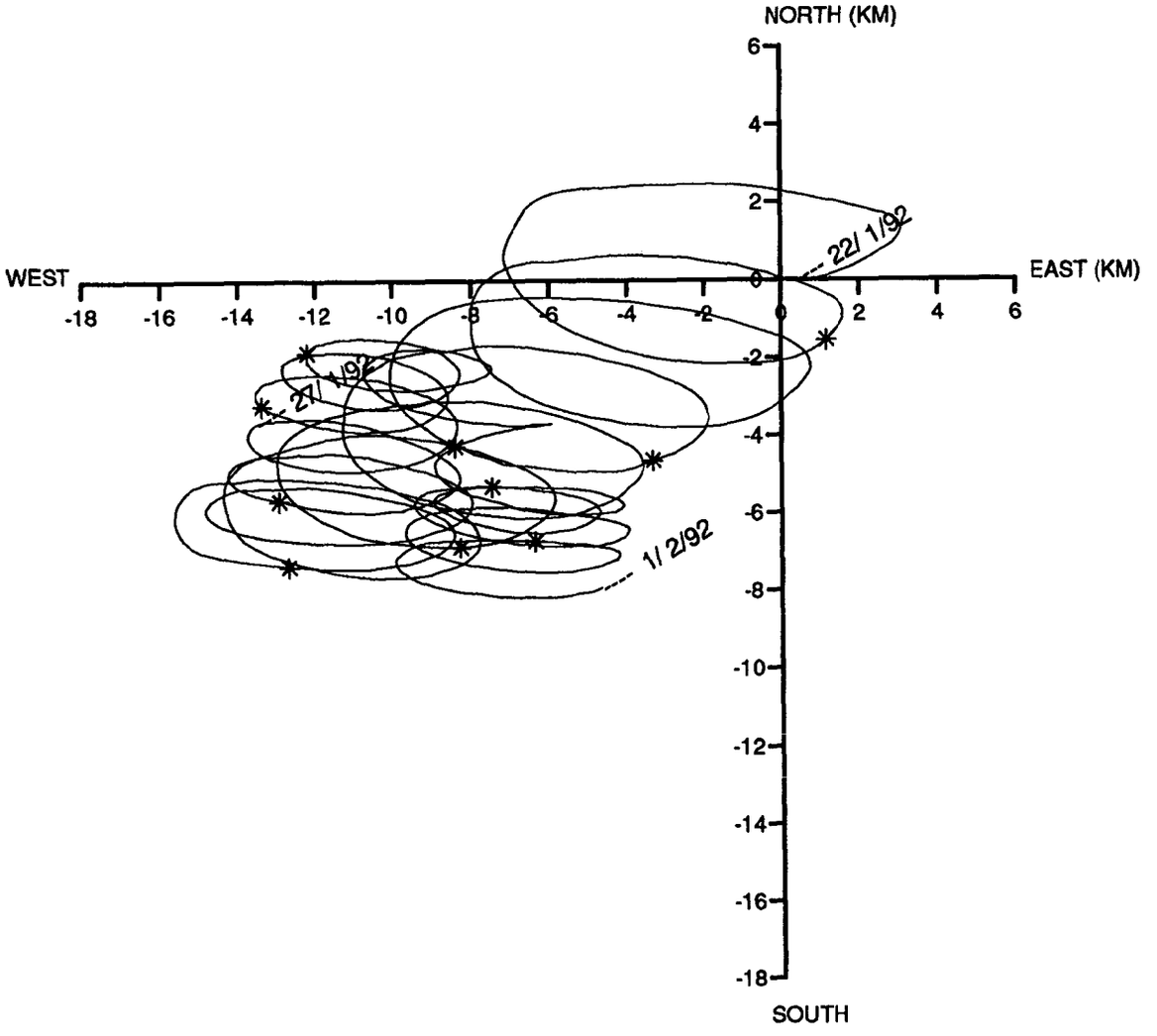
SPEED (m/s)

VECTOR PLOT

Meter no. 7570 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 08:49:00

Position 53 57.08N 03 18.08W Meter Height(m) 2.5

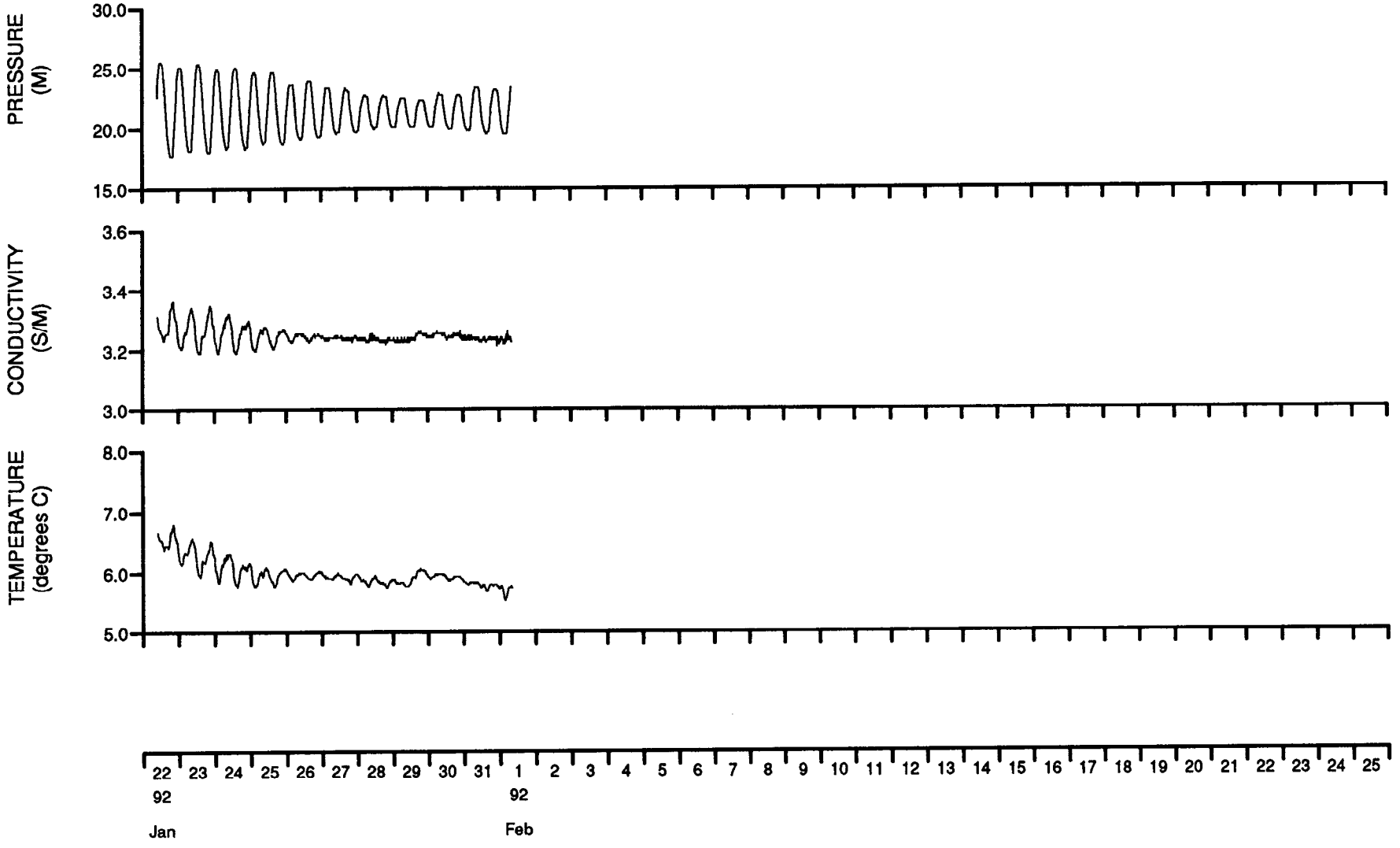


TEMPERATURE,CONDUCTIVITY AND PRESSURE TIME SERIES PLOTS

Meter no. 7570 Rig no. 88542 Depth of water(m) 19.0

Start/End 1992/01/22 AT 10:01:00 1992/02/01 AT 08:49:00

Position 53 57.08N 03 18.08W Meter Height(m) 2.5



Statistics for aa7570b.88542s

	Mean	Variance	Standard deviation
Eastings	-0.0054	0.11282159E+00	0.33588925E+00
Northings	-0.0092	0.15460181E-01	0.12433897E+00
Speed	0.3206	0.25538331E-01	0.15980716E+00

Vector mean speed 0.0107

Vector Mean Direction -149.5

Maximum ten values

Eastings					Northings				
0.859	0.829	0.794	0.791	0.781	0.281	0.253	0.245	0.245	0.236
0.759	0.754	0.742	0.740	0.730	0.236	0.231	0.230	0.229	0.227

Minimum ten values

Eastings					Northings				
-0.705	-0.717	-0.730	-0.730	-0.743	-0.325	-0.326	-0.328	-0.329	-0.333
-0.744	-0.744	-0.748	-0.752	-0.772	-0.337	-0.337	-0.343	-0.361	-0.363

Maximum speeds

0.866	0.847	0.805	0.793	0.791	0.791	0.774	0.763	0.760	0.760
0.760	0.754	0.751	0.746	0.746	0.746	0.746	0.743	0.732	0.732
0.732	0.721	0.718	0.715	0.712	0.709	0.701	0.701	0.701	0.701
0.698	0.693	0.693	0.690	0.690	0.687	0.687	0.684	0.681	0.681
0.681	0.681	0.681	0.681	0.681	0.679	0.679	0.676	0.673	0.673
0.673	0.673	0.670	0.670	0.667	0.667	0.667	0.667	0.665	0.665
0.662	0.662	0.656	0.653	0.651	0.651	0.651	0.651	0.648	0.648
0.648	0.648	0.645	0.645	0.645	0.642	0.642	0.639	0.639	0.637
0.634	0.628	0.628	0.628	0.628	0.628	0.625	0.623	0.623	0.620
0.620	0.620	0.617	0.617	0.617	0.617	0.614	0.611	0.611	0.609

Variance ellipse statistics

Maximum variance	0.1136E+00	Direction	-85.0
Minimum variance	0.1470E-01	Direction	5.0
Total variance	0.1283E+00	Ratio of variances	0.1294E+00

Average direction. maxdir -PI/2 to maxdir +PI/2 19.6

Average direction. maxdir +PI/2 to maxdir -PI/2 181.0