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Data Report F.S. Meteor Cruises 69/5 and 69/6
October to November 1984

by

T.J. Müller, M. Finke, W. Dasch and R.-R. Wittstock

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Summary

Hydrographic data and one year long records from six mooring sites in the North-East Atlantic Ocean between 20°N and 41°N and east of 27°W were collected during F.S. METEOR cruise No. 69, legs 5 and 6 in October and November 1984. We show sections of temperature, salinity and density as measured by an in-situ calibrated Neil Brown CTD-system as well as sections from XBT casts together with measurements of a GEK (Geomagnetic Electrokinetograph) and of near surface temperature and salinity. From current meter mooring site N1 (33°N, 22°W) the continuation of the low pass filtered ($\omega \leq 1/48$ cph) time series which started in 1980 is shown. Five further sites along 28°N were equipped with two long (400 m) thermistor cable moorings and one current meter in the main thermocline.

Zusammenfassung

Während der METEOR-Fahrt 69, Fahrtabschnitte 5 und 6, wurden im Oktober und November 1984 auf mehreren Schnitten im Nordostatlantik zwischen 20°N und 41°N und östlich von 27°W hydrographische Daten gewonnen sowie auf sechs Positionen verankerte Geräte aufgenommen. In diesem Datenband zeigen wir die hydrographischen Schnitte zusammen mit Messungen vom GEK (Geomagnetischer Elektrokinetograph) und Thermosalinographen, die Fortsetzung der seit 1980 vorliegenden Zeitreihen verankerter Strömungsmesser von Position N1 (33°N, 22°W) sowie die ersten Zeitreihen von Strömung und Temperatur auf fünf Positionen entlang 28°N. Alle Zeitreihen sind tiefpaßgefilterte ($\omega \leq 1/48$ cph) Tagesmittel.

Contents page

1. Introduction

Since 1980 several intensive oceanographic surveys have been conducted north and south-east of the Azores within the framework of the Kiel research programme "Warmwassersphäre des Atlantiks". The hydrographic and mooring work north of the Azores has partly been reported by Fahrbach et al. (1983a, 1983b, 1985).

South east of the Azores the investigations concentrated on the subtropical Azores Front in the Canary Basin (Käse and Siedler, 1982; Siedler et al., 1985; Breitenbach et al., 1985) with which most of the transport of the subtropical recirculation regime in the North-East Atlantic ocean may be associated (Stramma, 1984; Gould, 1985; Pollard and Pu, 1985). At present there is some lack in data from long sections across the southern extension of the recirculation, i.e. the Canary Current system south of the Canary Islands. Previous hydrographic work off North-West Africa was restricted to the upwelling region over the shelf and shelf break and did not extend over the whole width of the current (see Hempel, 1982). Only the IGY section near 28°N was repeated in 1981 with better spatial resolution (Roemnich and Wunsch, 1985).

F.S. Meteor cruise 69 (figure 1.1) thus was designed to further investigate the recirculation east and south-east of the Azores (leg 5, Lisbon to Sta. Cruz de Tenerife) and to investigate the Canary Current south of the Canary Islands (leg 6, Sta. Cruz to Hamburg).

Some basic information about the cruise is compiled from the cruise report (Meincke et al., 1985) in table 1.1 and the station lists of CTD and XBT-profiles (tables 4.1 and 4.2). During leg 5 the long-term current meter mooring N1, IfM-No 276, at 33N, 22W, where continuous data are now available since March 1980 (see Müller, 1984), was replaced for another year. Replaced for a second year were also five moorings, each with two 400 m thermistor cables in the main thermocline at positions R, O, P, E and X on a zonal section from 28°N, 26°30'W towards the Canary Islands. Additional three thermistor cable moorings U, B, and T, were launched to be in position for one year on a meridional section south of the Azores. The time left was used to obtain a XBT section from Lisbon to position U, to cross the Azores Front near N1 with XBT and CTD profiles and to take CTD profiles along a meridional section from U to R and zonally from R towards the Canary Islands.

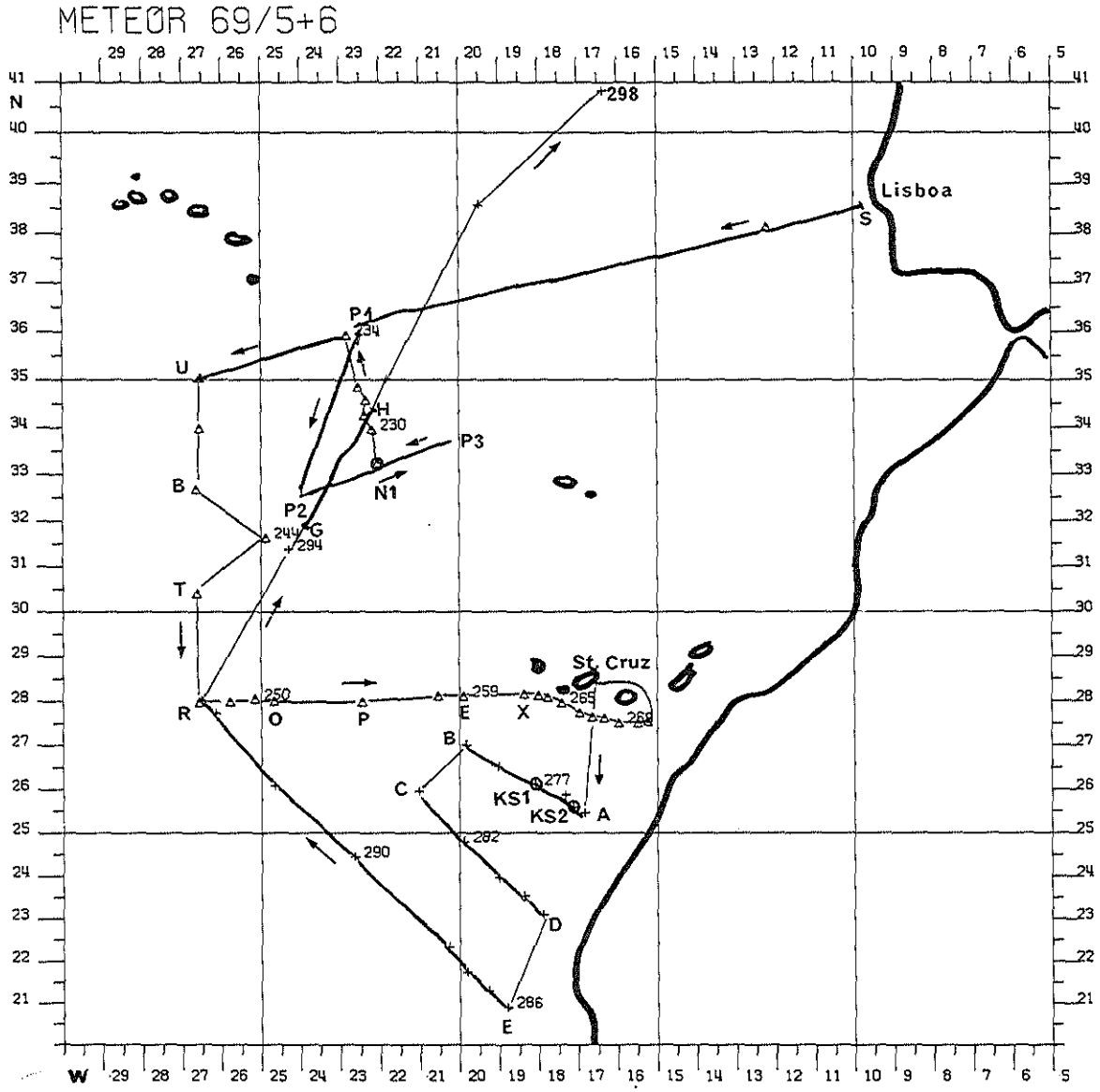

Fig. 1.1: Meteor cruises 69/5 and 69/6, cruise track, XBT sections (bold lines), CTD stations (triangles leg 5 and crosses leg 6) and mooring positions (U, B, T, R, O, P, E, X, N1, KS1, KS2).

Table 1.1: Meteor 69/5 and 69/6, overall time table and key positions
CM: Current meter mooring
TC: Thermistor cable mooring

Date 1984	Z-time end of station	latitude North	longitude West	Remark
20.10.				Sail Lisbon, start of leg 5
20.10.	2108	38°32.0'	09.46.0'	S, start XBT section
23.10.	2303	36°00.0'	22°29.0'	P1
24.10.	1931	32°30.0'	23°59.0'	P2
25.10.	1400	33°09.5'	21°57.3'	N1, CM 276 replaced
25.10.	2243	33°42.0'	20°17.0'	P3
29.10.	1154	35°01.8'	26°28.9'	U, TC 300 launched
30.10.	1142	32°38.9'	26°30.5'	B, TC 301 launched
31.10.	0242	31°30.8'	24°50.3'	Station 244
31.10.	2100	30°21.3'	26°29.2'	T, TC 302 launched
02.11.	1142	28°00.4'	26°29.1'	R, TC 297 replaced
03.11.	1836	28°00.3'	24°30.0'	O, TC 296 replaced
04.11.	1842	27°59.3'	22°23.4'	P, TC 295 replaced
05.11.	1900	28°00.8'	20°25.5'	E, TC 294 replaced
06.11.	1730	28°00.9'	18°18.3'	X, TC 293 replaced
07.11.	2036	27°30.3'	15°08.7'	Station 271
08.11.	0924	-	-	port call Sta. Cruz de Tenerife, end of leg 5
10.11.	1200			Sail Sta. Cruz de Tenerife, start of leg 6
11.11.	0736	25°22.6'	17°46.4'	A, station 272
11.11.	1712	25°32.5'	17°03.7'	KS2, CM 304 launched
12.11.	1200	26°02.3'	17°59.9'	KS1, CM 303 launched
13.11.	0530	27°00.0'	19°50.0'	B, station 280
13.11.	1700	25°51.6'	21°01.1'	C, station 281
15.11.	0136	22°58.8'	17°52.1'	D, station 285
15.11.	1718	20°48.6'	18°43.5'	E, station 286
18.11.	1954	27°57.5'	26°26.4'	R, station 293
21.11.	0359	32°20.0'	23°34.0'	G
21.11.	1915	34°25.0'	22°09.0'	H
25.11.	1100	46°50.6'	07°33.2'	station 300
30.11.				arrive Hamburg, end of leg 6

During leg 6 two current meter moorings, KS1 and KS2, were set south of the Canary Islands for one year. Hydrographic sections with XBTs and some additional CTD profiles were obtained along sections AB, CD, ER and again across the Azores front (GH). On all tracks of leg 6 a GEK was towed which measured some vertically integrated value of the current component normal to the ship's heading.

In this report the data from the hydrographic work and the GEK as well as results from current meter and thermistor cable moorings are presented.

2. Instruments and calibration

In the following sections we decribe methods of calibrations and expected accuracies. All formulas are published by Fofonoff and Millard (1983).

2.1 Near-surface temperature and salinity

Temperature was measured at 4 m depth at the ship's hull with a resistance thermometer, and with a preliminary calibration data was fed into the ship's navigational and meteorological data stream INDAS at a nominal sampling interval of 300 s. Obviously wrong positions between satellite fixes have been corrected, short interrupts due to break-downs of the INDAS computer system have been interpolated where reasonable.

Preliminary near surface salinity values were computed from temperature and conductivity data from an Aanderaa recording system (Aanderaa, 1983) placed within a steady stream of sea water pumped from 4 m depth into a laboratory. To avoid fouling on the inductive conductivity cell the instrument was kept in complete darkness.

Using the time information both data streams were merged. Temperature and salinity were then calibrated using near-surface values of the CTD stations which are available from the whole area (table 2.1). A test showed that within estimated accuracy both sensors were free of drift.

Table 2.1: Linear corrections applied to near-surface measurements of temperature and salinity. The corrected value Ψ of a measured quantity Ψ_m is given by $\Psi = a + (1+b)\Psi_m$.
The mean of the differences between calibration points and calibrated values is not significantly different from zero and has standard deviation σ. Accuracy is estimated as maximum of $2*\sigma$ or resolution.

	Temperature	Salinity
Comparisons	47	45
degrees of freedom	46	44
a	0.11 K	24.69
b	$-1.07 \cdot 10^{-3}$	-0.6762
σ	0.05 K	0.10
accuracy	0.10 K	0.20

2.2 Conductivity-temperature-depth profiling system (CTD):

During both legs a standard Neil Brown CTD system MK-III was used together with a 24 bottle rosette manufactured by General Oceanics and 16 protected and 4 unprotected reversing deep sea thermometers. Salinities of water probes were determined with two Guildline bench salinometers, Model 8400. All reversing thermometers had been temperature calibrated at Gohla, Kiel, just before the cruise, but we had to use the somewhat older original pressure coefficients of the unprotected thermometers. One out of two salinometers worked for all but two stations, the second one for the last two stations. The salinometers proved to be free of drift (less than 10^{-3} in salinity) over several days. The calibration of the CTD proceeded as follows:

Pressure calibration:

First the pressure sensor was calibrated for down-profiles using the deck values of the sensor (which proved to be stable over all 51 stations by $\pm$0.5 dbar) and pressure values of unprotected reversing thermometers at the

deepest (turning-) point of the profile (figure 2.2.1). Although only few measurements at these points in the deep sea are available, they fit well the estimates of near-bottom pressure resulting from sounding depths and bottom distances of the CTD (dots in figure 2.2.1) which are available at seven stations.

In order to calibrate the up-profiles of pressure which were used for bottles, all available measurements of unprotected reversing thermometers were used. The resulting linear regression cuts the surface pressure reading at a correction value of -4.5 dbar that corresponds well to the deck value of -4.0 dbar before lowering (figure 2.2.2). Within the given accuracy no dependency on temperature was detected.

Temperature calibration:

Because of the slow response of reversing thermometers check values were taken only in regions with weak temperature gradients, i.e. the mixed surface layer and below 1500 m depth. Sixteen thermometers were used alternatively in different depths to avoid systematic errors. Slight differences between thermometers and CTD temperature readings were detected which, although not significant on the 95%-confidence limits, were corrected because the last calibration of the CTD's temperature was several months old (figure 2.2.3).

Conductivity calibration:

Experience from earlier cruises showed that rosette bottles often leak on their way up. Thus water probes for the determination of salinity were taken only from pairs of rosette bottles closed at the same nominal depth. From such pairs all probes were rejected that show salinity differences larger than $3 \cdot 10^{-3}$. Although samples were also taken in the upper thermocline we only used those from the mixed layer and the deep ocean (>1500 m) for calibration. Calibrated pressures (up-profile) and temperatures of the CTD together with sample salinities give in-situ conductivities of the samples which were then compared with CTD-values and linearly corrected (figure 2.2.4).

The effect of calibration on salinity differences before and after recalculation is shown in figure 2.2.5. Note that the non-linear dependence of salinity on conductivity results in a non-linearly dependent salinity difference even if the conductivity difference is linear (figures 2.2.4a and 2.2.5a). After linear correction of conductivity and recalculation of salinity this non-linearity in salinity-differences is removed (figures 2.2.4 b and 2.2.5b).

We also note that no linear trend with time (station number) of conductivity differences could be detected (figure 2.2.6). All stations have at least one calibration point within the estimated 95% confidence limit for the mean difference after correction.

Precision and accuracy:

In table 2.2 we give calibration coefficients, precision and estimated accuracy of the CTD-measurement after calibration. Precision of a sensor over the cruise is given by the ratio $2\sigma/\sqrt{N}$ where σ is the standard deviation of differences of reference- to CTD-value after correction, and N is the number of calibration points of each sensor. Since the performance of the instrument proved to be good we estimate as accuracy the maximum value of $2\sigma/\sqrt{N_e}$ or possible systematic errors in reference values. Here N_e is the effective number of degrees of freedom, i.e. independent realisations in the calibration procedure with random errors. N_e is estimated as the number of used thermometers for temperature and pressure and as number of stations for conductivity and salinity. For the pressure sensor the systematic error is less than overall precision at low pressures and about 10 dbar in the deep sea. For temperature it depends on the qualitiy of calibration of reversing thermometers and is conservatively estimated as 5 mK. The calibration of the bench salinometers seemed to be stable and precise to 10^{-3} in salinity. On the other hand accuracy of salinity depends on slight differences of individual stations from the overall calibration. Thus we estimate 3×10^{-3} as accuracy of salinity over all stations.

Table 2.2: Linear corrections applied to CTD-data.
The corrected value Ψ of a measured quantity Ψ_m is given by $\Psi = a + (1 + b)\Psi_m$. After correction the differences between calibration points and corrected values have means not significantly different from zero on 95%-confidence limits with standard deviations σ. The precision of the calibration is estimated by $2\sigma/\sqrt{N}$, where N is the number calibration points. N_e is the number of independent realisations in the calibration. For estimates of accuracy see text.

	pressure		temperature	conductivity	salinity
	up	down			
Stations	21	53	37	34	34
N	21	15+53	169	124	124
N_e	2	3	15	34	34
a	-4.5 dbar	-4.0 dbar	5.5 mK	-75.5µS/cm	-
b	-2.054E-3	-1.962E-32	-3.60×10^{-4}	$1.2915 \cdot 10^{-3}$	-
σ	4 dbar	2 dbar	9.4 mK	3.5µS/cm	$3.5 \cdot 10^{-3}$
precision	1.7 dbar	1.7 dbar	1.5 mK	1µS/cm	10^{-3}
accuracy	0.2% of value		5 mK	3µS/cm	$3 \cdot 10^{-3}$

As one result of our calibration we compare our independent deep sea ΘS-relation from rosette samples with a linear relationship for the deep North-East Atlantic Ocean described by Saunders (1986) to be stable over many years (figure 2.2.7). We note that no significant difference can be detected. Station 244 is near a reference station (31°30'N, 25°W) with 3 deep current meter moorings run by IOS Wormley from 1984 to 1986 (Saunders, 1986). We therefore chose this station as an example for a plot and print-out of calibrated data (figure 2.2.8).

Data processing:

The processing of the CTD-data generally followed a procedure recommended by SCOR WG 51 (P.L. Grose, unpublished manuscript). After rejection of obviously erroneous data in a profile a linear integral filter was applied to the conductivity sensor readings to correct for the mismatch in temperature and conductivity readings due to different time constants. Next, data cycles were rejected that did not monotonically increase in pressure. After linear interpolation to 1 dbar intervals and calibration of pressure, temperature and conductivity, salinity and density were recalculated. Applying a running-mean filter over 11 dbar and interpolating to 10 dbar this reduced data set provided the basis for the construction of sections in part 4.1 of this report.

2.3 Expendable Bathythermograph (XBT)

During the cruise a total of 192 Deep Blue (T7) probes were launched. Of these, 163 probes provided usable profiles down to 760 m. All data were recorded digitally using the system described by Emery et al. (1985). From 144 XBT stations corrected near surface temperature measurements were available and were used for an offset correction of -0.2 K $\pm$ 0.05 K in all XBT raw temperatures.

2.4 Geomagnetic Elektrokinetograph (GEK)

The GEK measurements follow in principle the method described by v. Arx (1950, 1962). The method was modified technically, including a data acquisition system, in the Kiel Institute of Applied Physics (Breitenbach et al., 1985). Although still under development the system showed sufficient stability and magnitude of output signals to produce preliminary estimates of the vertically integrated current component normal to the ship's track in the ocean's upper layer.

Data were recorded during leg 6 from Tenerife on along all sections and are presented in figure 2.4.1 and as sections in part 4.3 of this report.

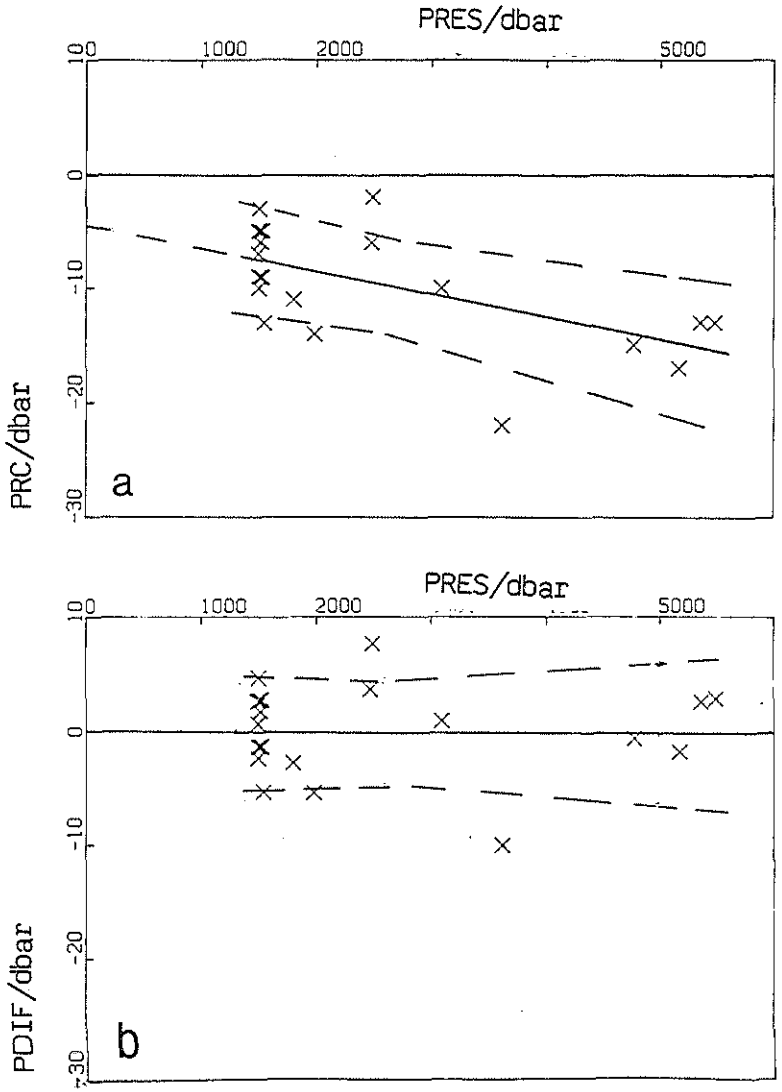

Fig. 2.2.1: Calibration of CTD-pressure sensor, hoist profile as a function of pressure
a) reference minus CTD reading
b) reference minus CTD after calibration.

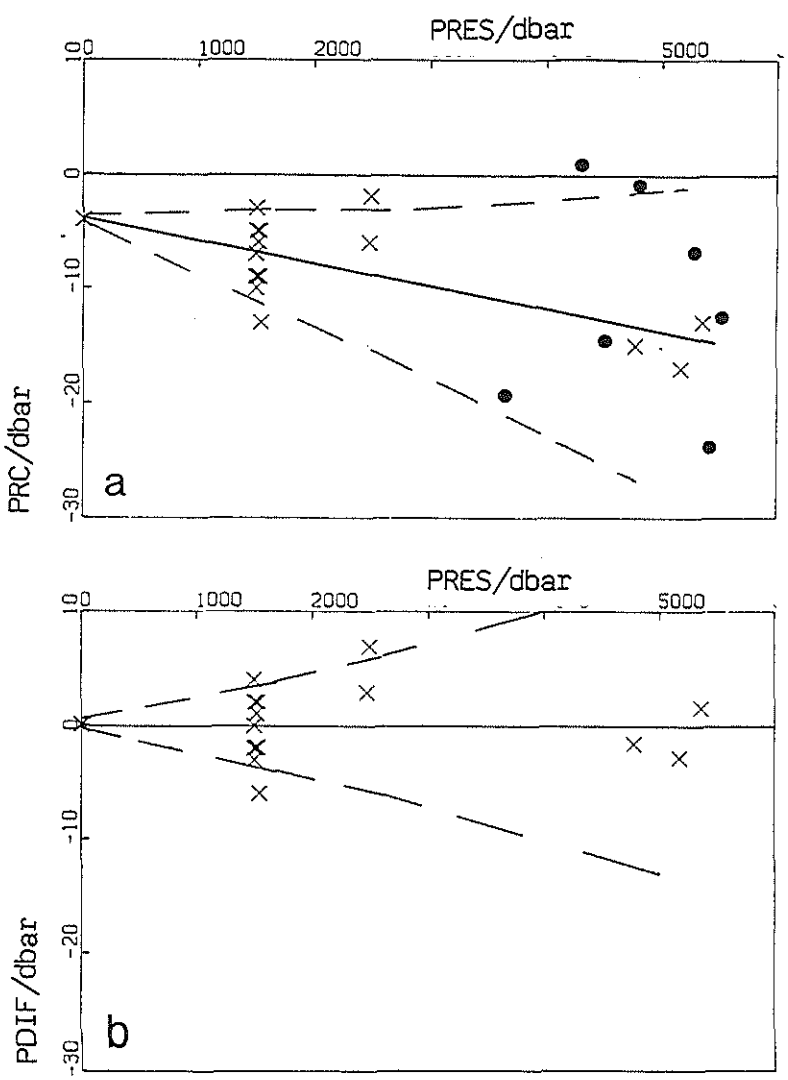

Fig. 2.2.2: as 2.2.1 for pressure sensor, down-profile, dots indicate pressure differences calculated from soundings and near bottom pressure.

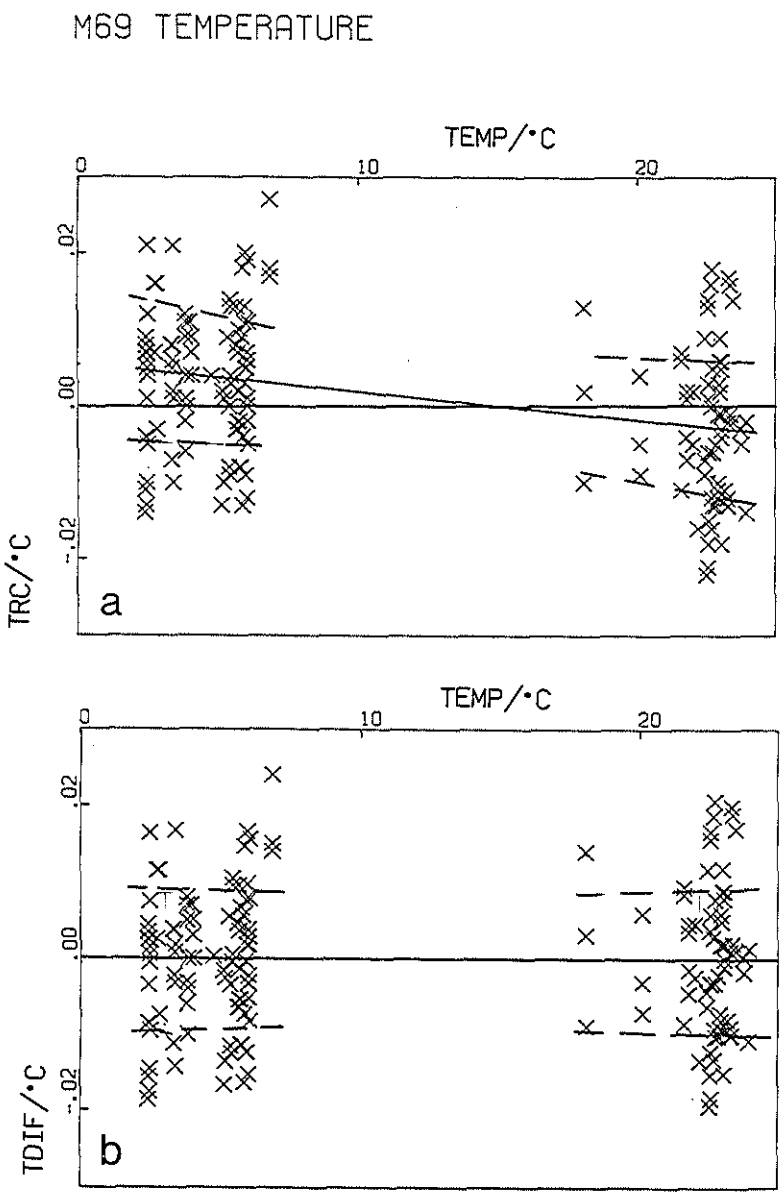

Fig. 2.2.3: as 2.2.1 for temperature sensor.

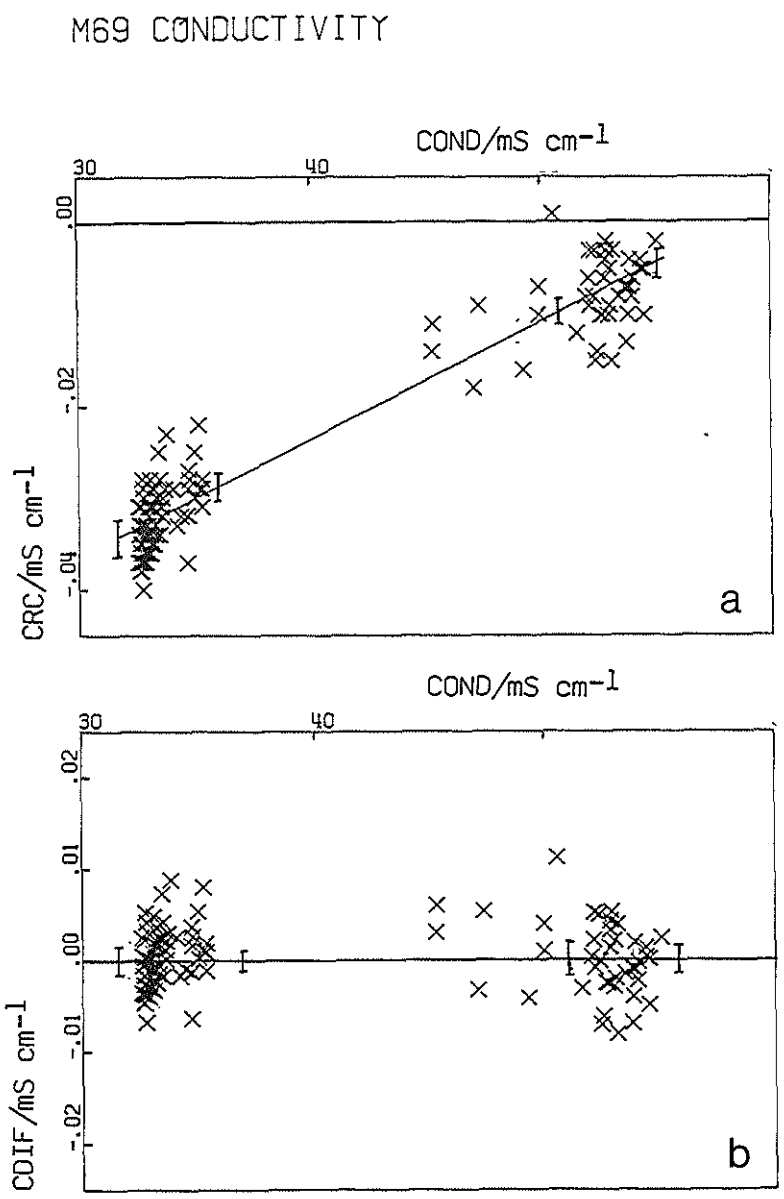

Fig. 2.2.4: as 2.2.1 for conductivity sensor.

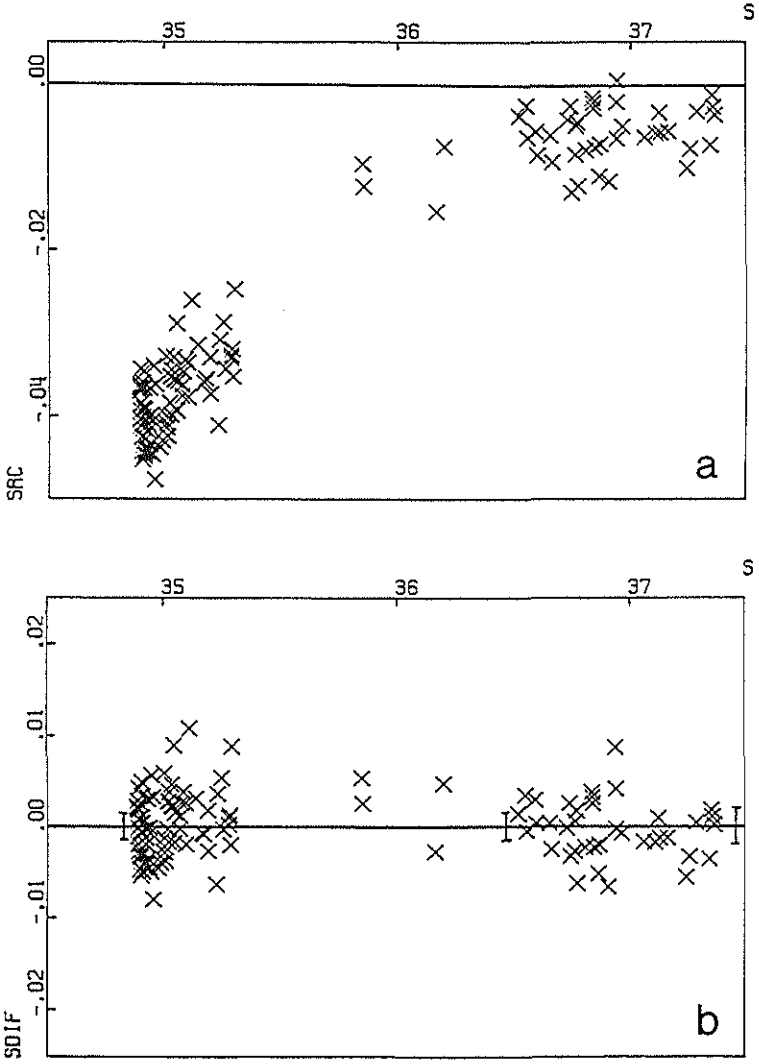

Fig. 2.2.5: as 2.2.1 for salinity.

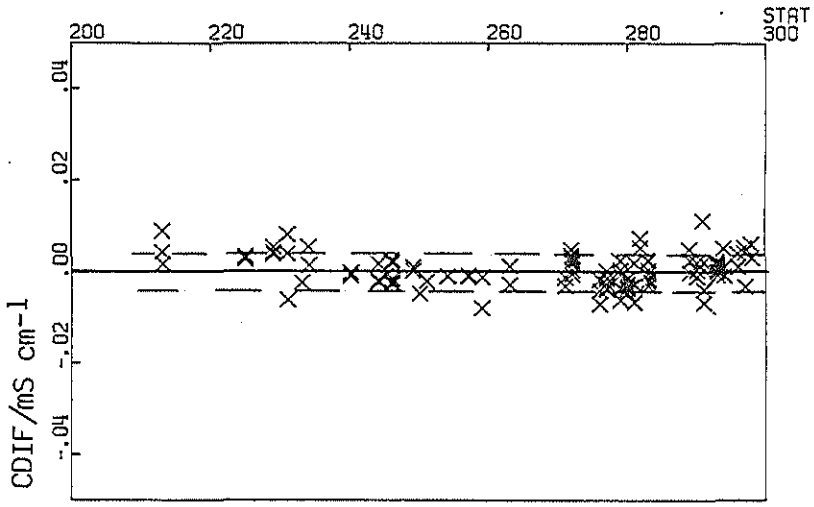

Fig. 2.2.6: Dependence of reference minus CTD-conductivity after correction on time (station number).

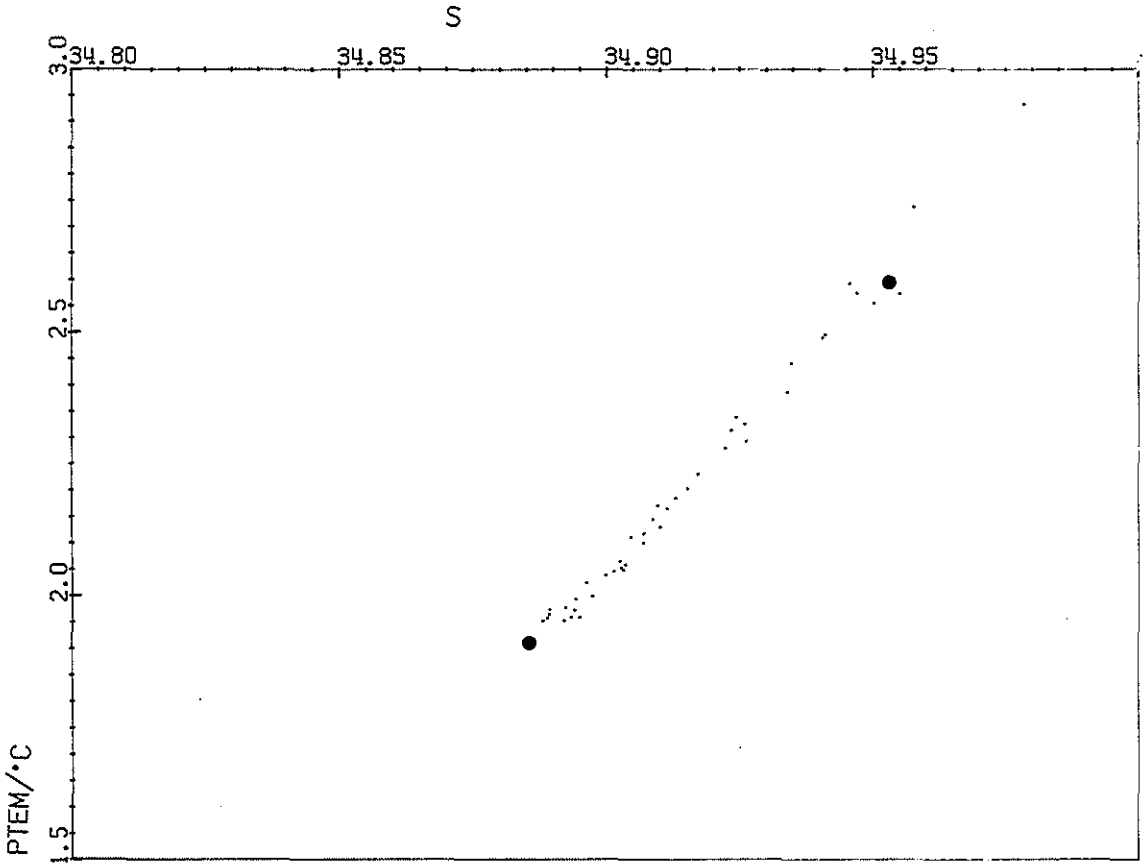

Fig. 2.2.7: Potential temperature-salinity relationship from rosette probes Meteor cruise 69 (dots) and two points (large dots) of a linear regression valid at potential temperatures below 2.6°C (Saunders, 1985).

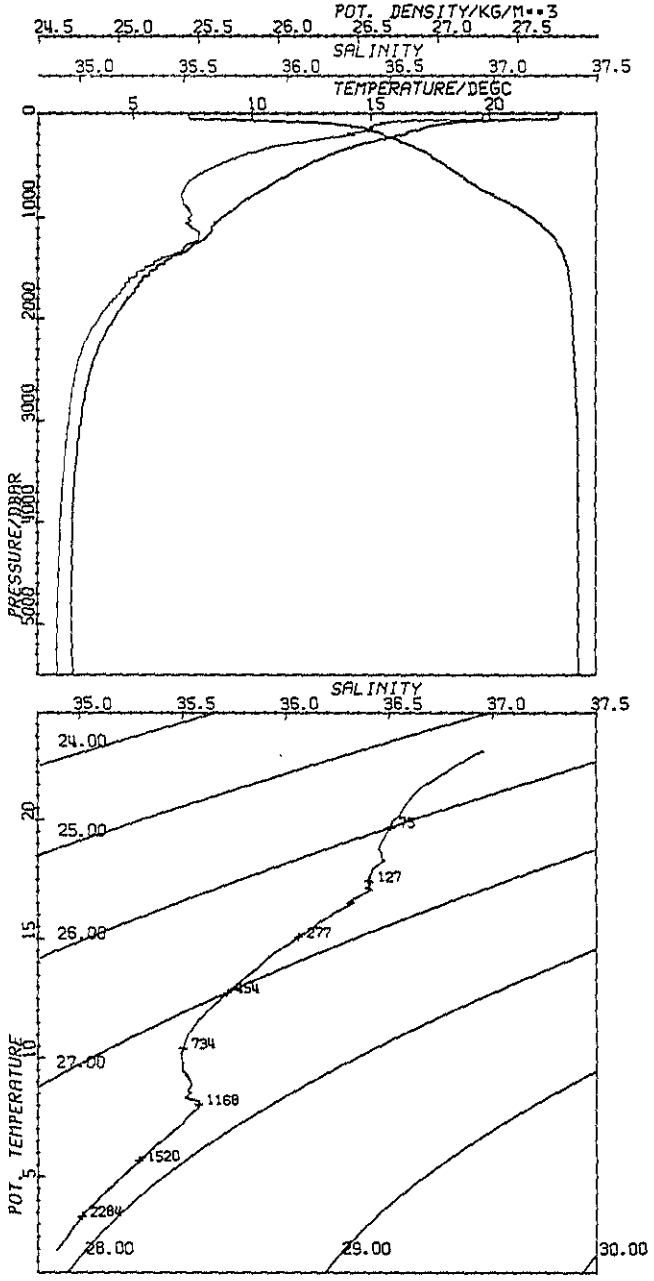

Fig. 2.2.8: Meteor 69/5 Station 244

METEOR 69
DATE : 30.10.84 STATION : 244 PROFILE : 0
LATITUDE N: 31 30.80 LONGITUDE E: -24 -50.30

PR	TE	CD	SA	TP	ST	DE
1.0	22.860	53.359	36.955	22.860	25.459	1.0
20.0	22.896	53.398	36.949	22.892	25.445	19.9
40.0	22.890	53.397	36.946	22.882	25.446	39.7
60.0	21.886	52.093	36.759	21.874	25.590	59.6
80.0	19.389	49.111	36.483	19.374	26.060	79.4
100.0	18.202	47.848	36.457	18.184	26.344	99.3
120.0	17.621	47.193	36.403	17.601	26.447	119.1
140.0	17.277	46.847	36.405	17.253	26.533	139.0
160.0	17.066	46.636	36.403	17.040	26.583	158.8
180.0	16.624	46.090	36.315	16.594	26.622	178.7
200.0	16.518	45.998	36.322	16.485	26.652	198.5
250.0	15.584	44.867	36.142	15.545	26.731	248.1
300.0	14.649	43.770	35.981	14.604	26.816	297.7
350.0	13.938	42.971	35.879	13.887	26.891	347.3
400.0	13.304	42.264	35.786	13.247	26.952	396.8
450.0	12.833	41.754	35.721	12.770	26.999	446.4
500.0	12.345	41.233	35.660	12.278	27.049	495.9
550.0	11.855	40.717	35.601	11.783	27.099	545.5
600.0	11.475	40.328	35.562	11.397	27.140	595.0
650.0	11.059	39.912	35.527	10.977	27.190	644.5
700.0	10.693	39.562	35.507	10.606	27.242	694.0
750.0	10.340	39.231	35.494	10.248	27.295	743.5
800.0	9.960	38.888	35.494	9.864	27.362	792.9
850.0	9.592	38.565	35.500	9.492	27.429	842.4
900.0	9.329	38.357	35.522	9.224	27.491	891.8
950.0	9.075	38.154	35.540	8.966	27.547	941.3
1000.0	8.721	37.827	35.527	8.608	27.594	990.7
1100.0	8.326	37.516	35.546	8.205	27.672	1089.5
1200.0	8.053	37.328	35.575	7.923	27.738	1188.3
1300.0	7.404	36.693	35.503	7.268	27.778	1287.0
1400.0	6.642	35.932	35.401	6.502	27.803	1385.6
1500.0	5.994	35.299	35.316	5.851	27.822	1484.3
1600.0	5.413	34.742	35.242	5.267	27.835	1582.8
1700.0	5.092	34.455	35.200	4.939	27.841	1681.4
1800.0	4.769	34.167	35.159	4.610	27.847	1779.9
1900.0	4.478	33.912	35.122	4.313	27.850	1878.3
2000.0	4.204	33.677	35.089	4.033	27.854	1976.7
2200.0	3.724	33.279	35.032	3.541	27.859	2173.3
2400.0	3.360	33.001	34.995	3.163	27.865	2369.8
2600.0	3.137	32.865	34.975	2.924	27.872	2566.1
2800.0	2.945	32.759	34.960	2.716	27.879	2762.2
3000.0	2.809	32.704	34.948	2.562	27.883	2958.2
3200.0	2.690	32.664	34.937	2.425	27.886	3153.9
3400.0	2.613	32.662	34.928	2.328	27.887	3349.5
3600.0	2.553	32.674	34.920	2.248	27.888	3544.9
3800.0	2.510	32.703	34.915	2.184	27.888	3740.1
4000.0	2.477	32.739	34.909	2.129	27.888	3935.2
4200.0	2.455	32.785	34.905	2.085	27.889	4130.1
4400.0	2.440	32.837	34.901	2.047	27.889	4324.8
4600.0	2.431	32.893	34.898	2.014	27.889	4519.4
4800.0	2.429	32.954	34.895	1.987	27.889	4713.7
5000.0	2.438	33.025	34.894	1.971	27.889	4908.0
5200.0	2.455	33.103	34.893	1.961	27.889	5102.0
5400.0	2.478	33.185	34.893	1.958	27.889	5295.9
5510.0	2.493	33.232	34.892	1.958	27.889	5402.4

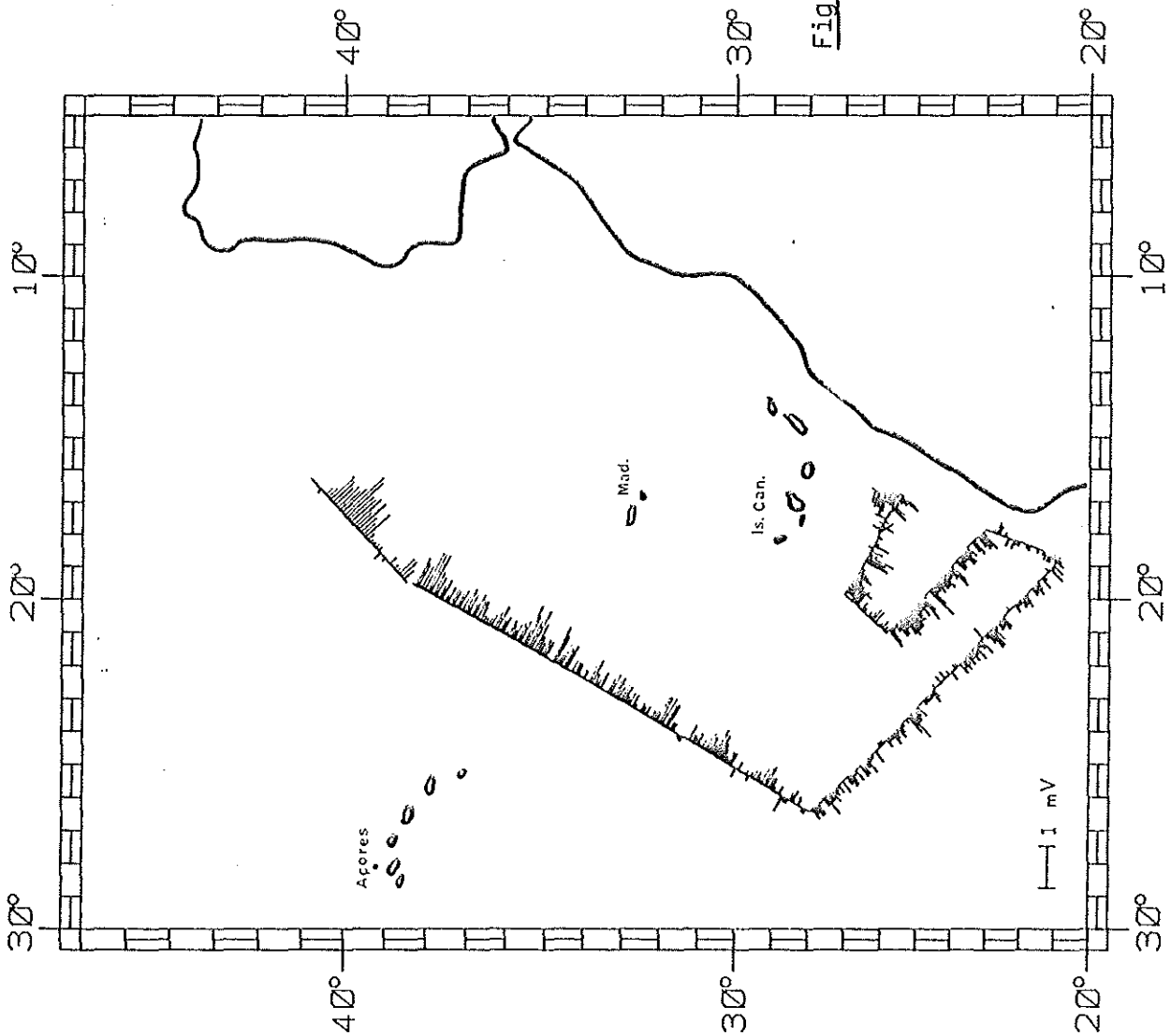

Fig. 2.4.1: Track line and signal output of GEK

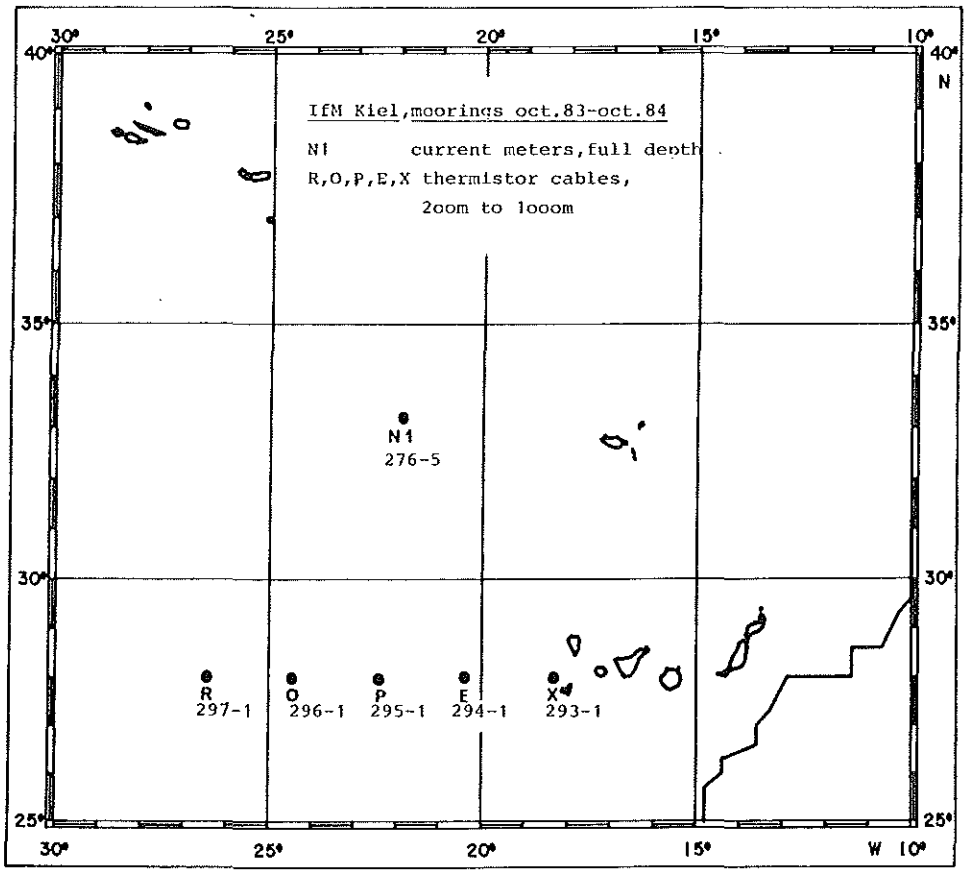

Fig. 2.5.1: Map of sites with recovered moorings.

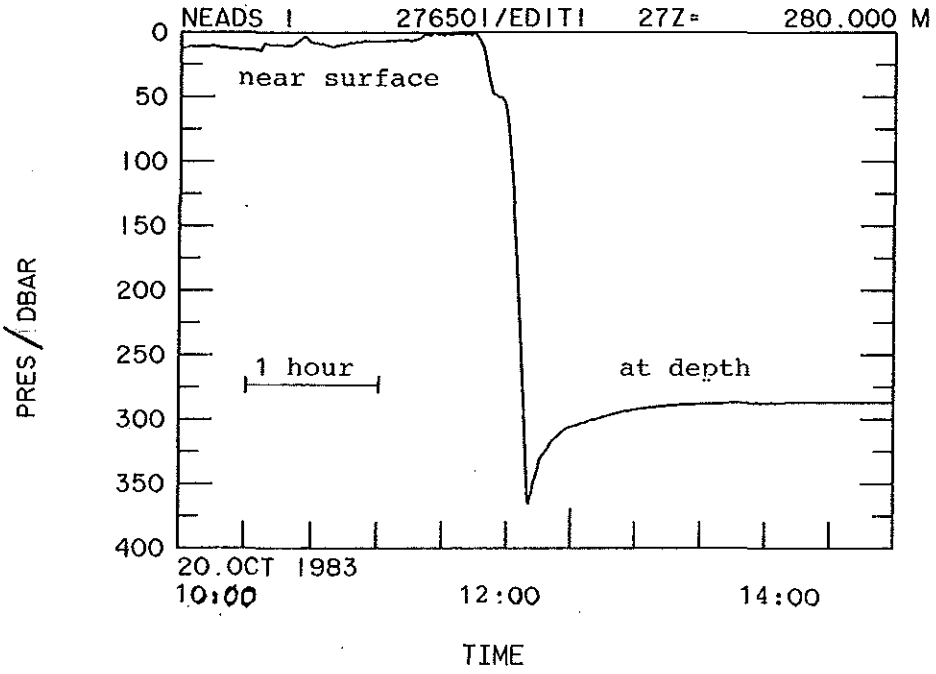

Fig. 2.5.2: Pressure measurements in the upper instrument of mooring N1, IfM No. 276-5, during launching.

2.5 Moored current meters and thermistor cables

Moored instruments were replaced at six sites after one year of deployement (fig. 2.5.1). From site N1 (IfM No 276) near the subtropical Azores Front at 33°N, 22°W now data from up to seven depth levels are available since 1980 (Müller, 1981; Müller and Zenk, 1983; Müller, 1984). At sites R, O, P, E, and X, where one current meter and two long (400 m) thermistor cables were distributed below 200 m within the main thermocline, the first of two years records have been obtained. All records were low-pass filtered with more than 98% response at frequencies less 0.5 d^{-1} and less than 1% at frequencies higher than $1d^{-1}$. Daily means then provided for the low-frequency statistics and time series plots. All temperature und salinity records have been calibrated at the start and the end against CTD profiles where available. Details of data processing are found in earlier reports, e.g. Müller (1984).

In order to investigate how a mooring behaves when launched using the method 'buoy first' the uppermost instrument recorded pressure at a sampling rate of 30 s (fig. 2.5.2). During the first phase the instrument is suspended well below the main buoyancy element. Then, after slipping of the anchor at 11:38 the mooring line gets tighter and the instrument approaches the surface because it is being towed towards the position of the falling anchor, and at 12:15 it begins to drop very quickly. Within 30 minutes it has reached it's maximum depth 75 m below it's nominal depth which may be explained by the tilt angle between the mooring line and the vertical in the launching phase. Within 2 hours after slipping of the anchor the motion due to launching has damped out, and the instrument has reached it's nominal depth.

Acknowledgement:

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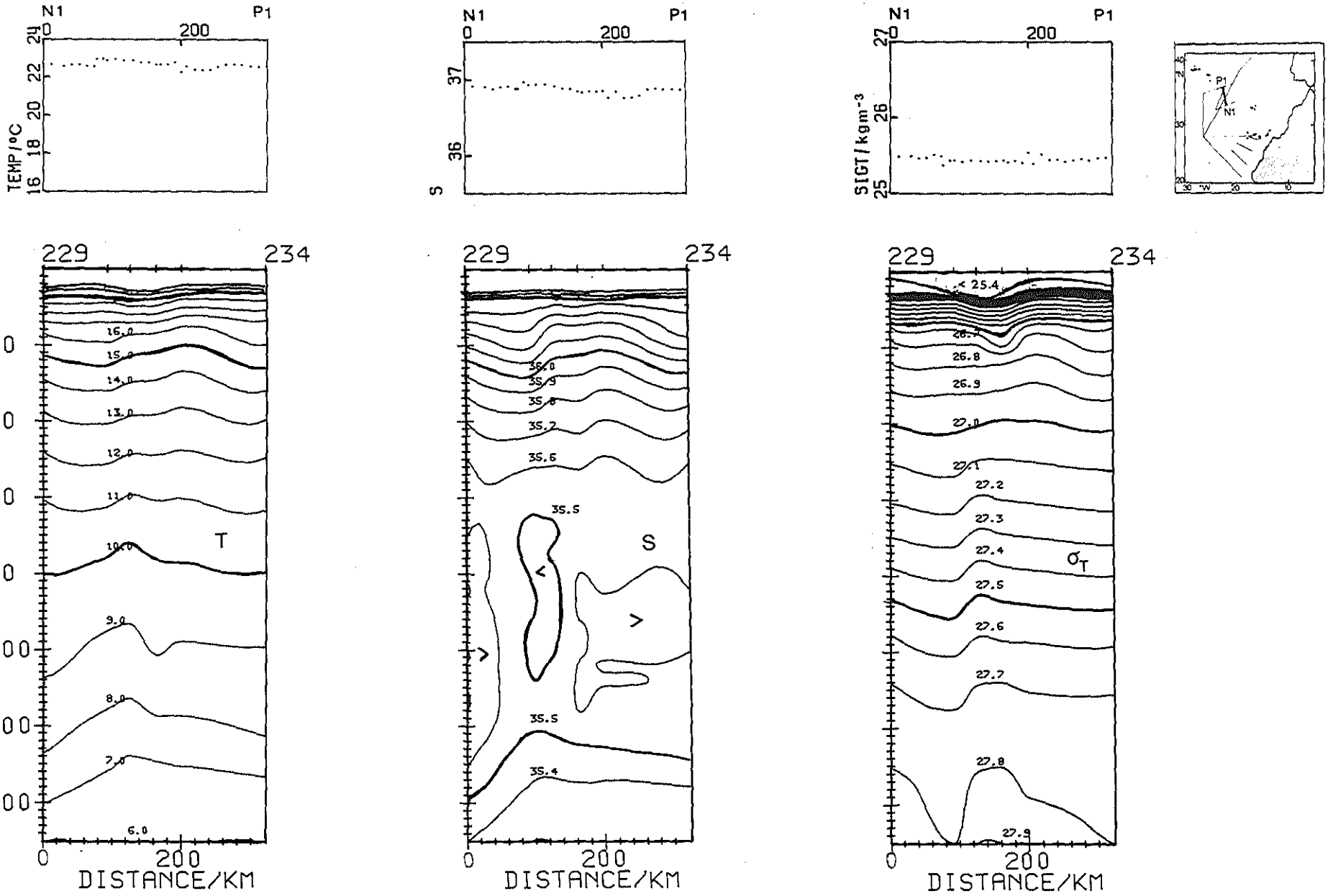
4.1 CTD inventory and sections

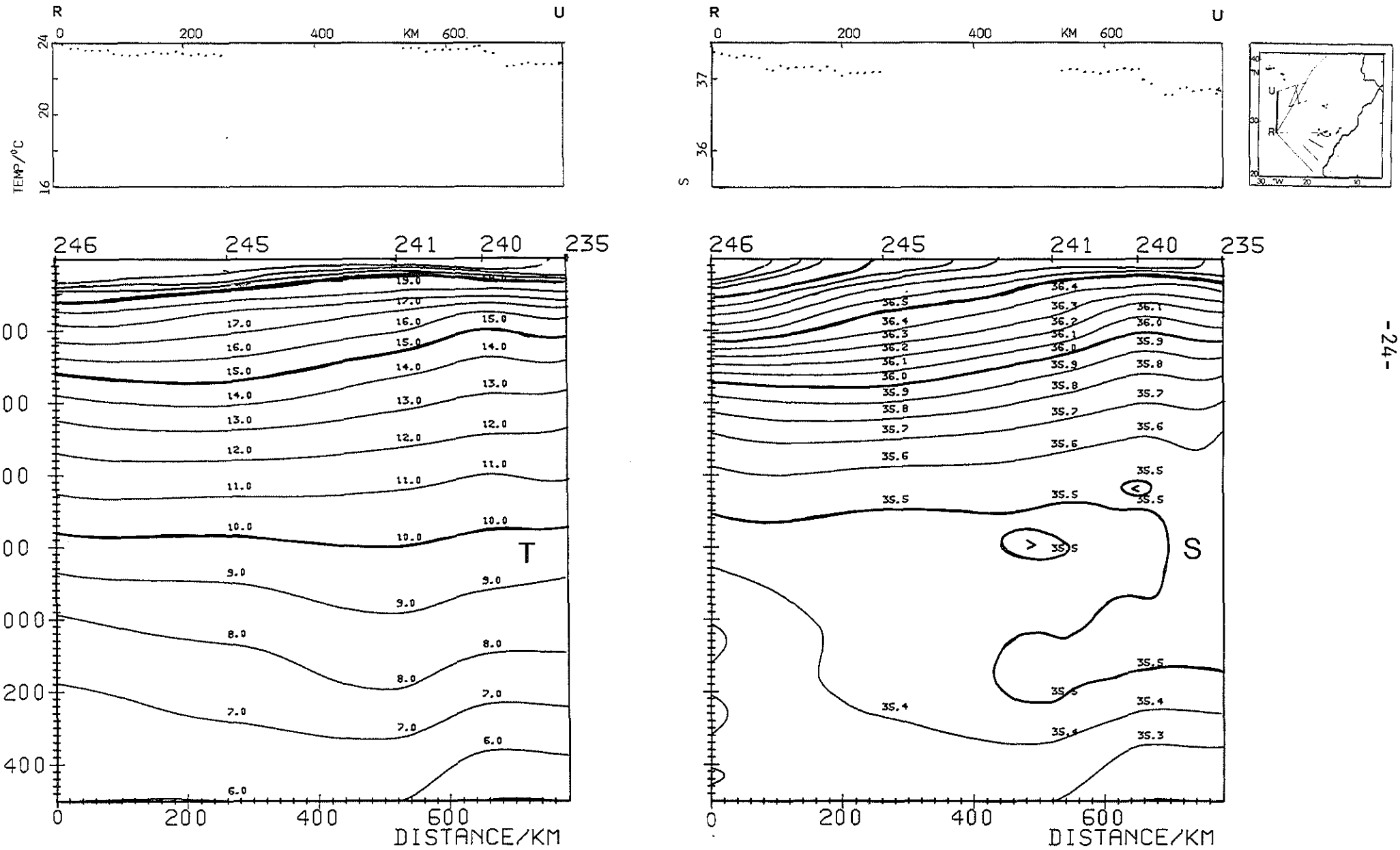
STAT	DATE	Z-TIME	LATIT.-N	LONG.-E	SOUNDING	PRESS.-RANGE
213	21.10.84	1220	38 5.3	-12 -7.6	5000.	1. 5090.
225	25.10.84	0645	33 7.8	-22 -0.9	5220.	2. 2000.
229	26.10.84	1350	33 7.3	-21-53.5	5230.	3. 5360.
230	27.10.84	0005	33 56.1	-22 -8.9	5320.	1. 1530.
231	27.10.84	0320	34 13.0	-22-15.0	5260.	2. 1500.
232	27.10.84	0700	34 32.2	-22-22.0	4930.	1. 1510.
233	27.10.84	1025	34 51.0	-22-28.5	5040.	4. 1480.
234	27.10.84	1824	35 54.2	-22-50.8	4570.	2. 1510.
235	28.10.84	2015	35 1.2	-26-31.0	4175.	3. 1510.
240	29.10.84	2220	33 50.9	-26-30.3	4590.	1. 1540.
241	30.10.84	0600	32 40.1	-26-29.9	4590.	1. 1490.
244	30.10.84	2347	31 30.8	-24-50.3	5375.	1. 5510.
245	31.10.84	1958	30 20.6	-26-29.7	4930.	2. 1490.
246	1.11.84	1350	27 59.4	-26-31.3	5240.	4. 5360.
249	2.11.84	1535	28 0.0	-25-47.0	5210.	1. 1490.
250	2.11.84	2050	28 0.2	-25 -7.7	4900.	1. 1480.
251	3.11.84	0145	28 0.0	-24-31.3	5150.	2. 1490.
254	4.11.84	1130	27 59.6	-22-23.6	4950.	3. 1480.
257	5.11.84	1200	28 1.4	-20-24.1	4570.	5. 2480.
259	5.11.84	2240	28 0.6	-19-45.1	4390.	1. 2470.
260	6.11.84	1106	28 1.0	-18-20.3	3635.	1. 3670.
263	6.11.84	2120	28 7.2	-18 0.0	3410.	1. 1480.
264	7.11.84	0033	27 57.9	-17-40.6	3030.	2. 1490.
265	7.11.84	0307	27 51.7	-17-19.4	2865.	1. 1490.
266	7.11.84	0050	27 45.0	-16-58.0	3355.	1. 1500.
267	7.11.84	0835	27 38.1	-16-36.3	3498.	21. 1490.
268	7.11.84	1123	27 31.6	-16-14.7	3483.	1. 1480.
269	7.11.84	1410	27 26.5	-15-53.6	2340.	4. 1480.
270	7.11.84	1638	27 28.2	-15-30.0	2686.	1. 1490.
271	7.11.84	1920	27 30.3	-15 -8.7	2536.	1. 1490.
272	11.11.84	0500	25 22.6	-16-46.4	2800.	1. 2820.
275	11.11.84	1724	25 30.6	-17 -3.4	3210.	1. 3240.
276	11.11.84	2136	25 43.9	-17-20.0	3360.	2. 1980.
277	12.11.84	0424	26 4.3	-17-59.6	3450.	1. 3490.
279	12.11.84	1800	26 29.2	-18-55.6	3590.	1. 3640.
280	13.11.84	0248	27 0.0	-19-50.0	4203.	1. 4270.
281	13.11.84	1418	25 51.6	-21 -1.1	4485.	1. 4570.
282	14.11.84	0248	24 40.8	-19-51.2	3700.	1. 1990.
283	14.11.84	1136	23 56.2	-18-56.4	4190.	3. 1980.
284	14.11.84	1742	23 29.3	-18-20.2	2805.	2. 1990.
285	14.11.84	2318	22 58.8	-17-52.1	2245.	1. 2250.
286	15.11.84	1448	20 48.6	-18-43.5	2665.	1. 2690.
287	15.11.84	2106	21 15.3	-19-14.2	3350.	1. 1980.
288	15.11.84	0242	21 44.1	-19-44.5	3828.	1. 2000.
289	16.11.84	0830	22 14.6	-20-15.1	4025.	1. 1980.
290	17.11.84	0400	24 21.6	-22-36.3	4770.	1. 4860.
291	17.11.84	2118	26 4.1	-24-33.7	5045.	1. 1980.
292	18.11.84	1154	27 36.8	-26 -8.1	5210.	1. 810.
293	18.11.84	1554	27 57.5	-26-26.4	5170.	1. 5300.
294	19.11.84	1936	31 20.2	-24-12.6	5350.	3. 1990.
296	20.11.84	2230	34 53.8	-21-48.2	5070.	2. 1980.
297	21.11.84	2345	38 29.5	-19-28.1	5065.	2. 1990.
298	21.11.84	2210	40 50.0	-16-14.8	4650.	1. 1990.

Table 4.1: CTD station inventory

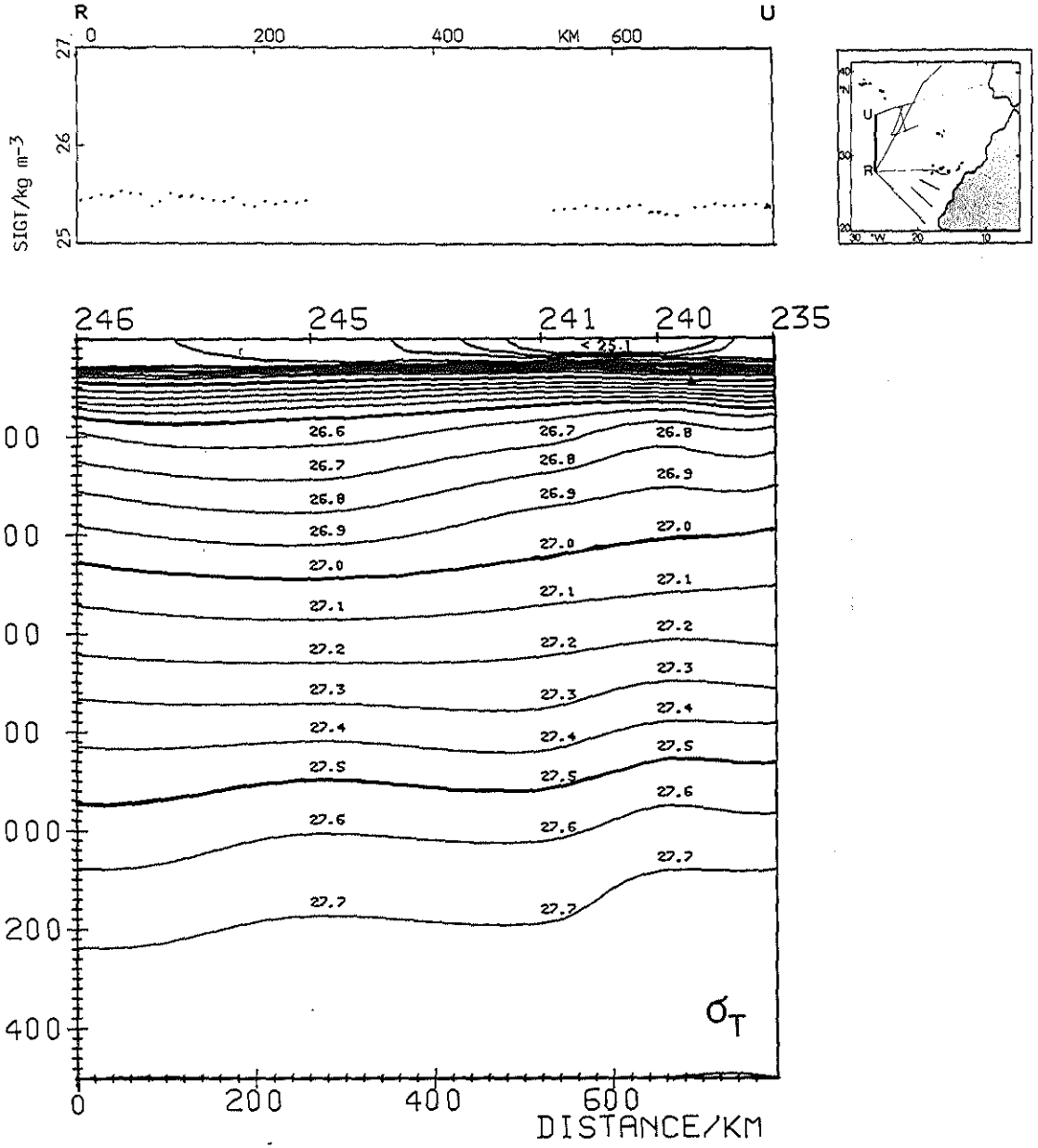
CTD section from N1 to P1: temperature, salinity, density



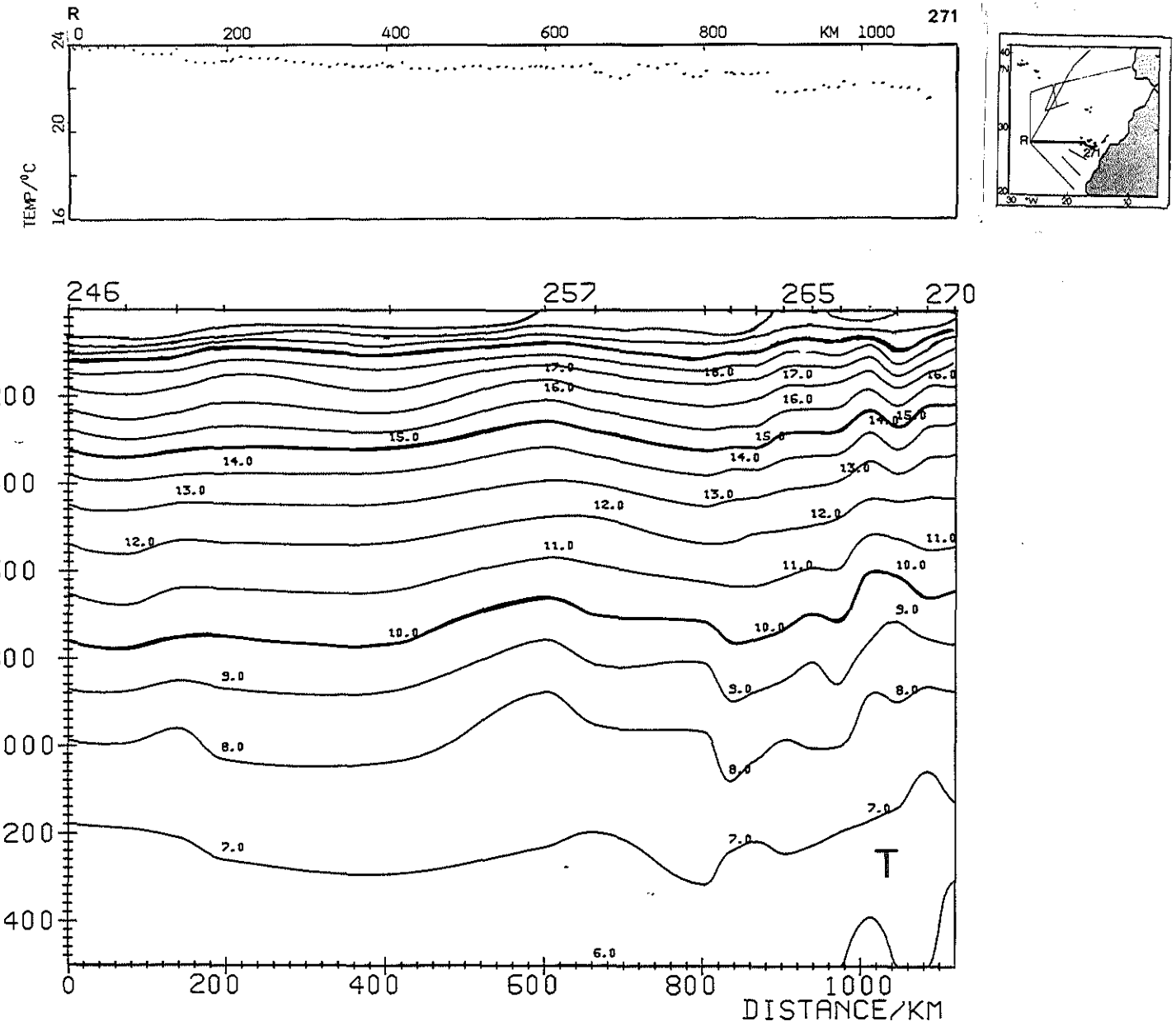
CTD section R - T - B - U: temperature, salinity



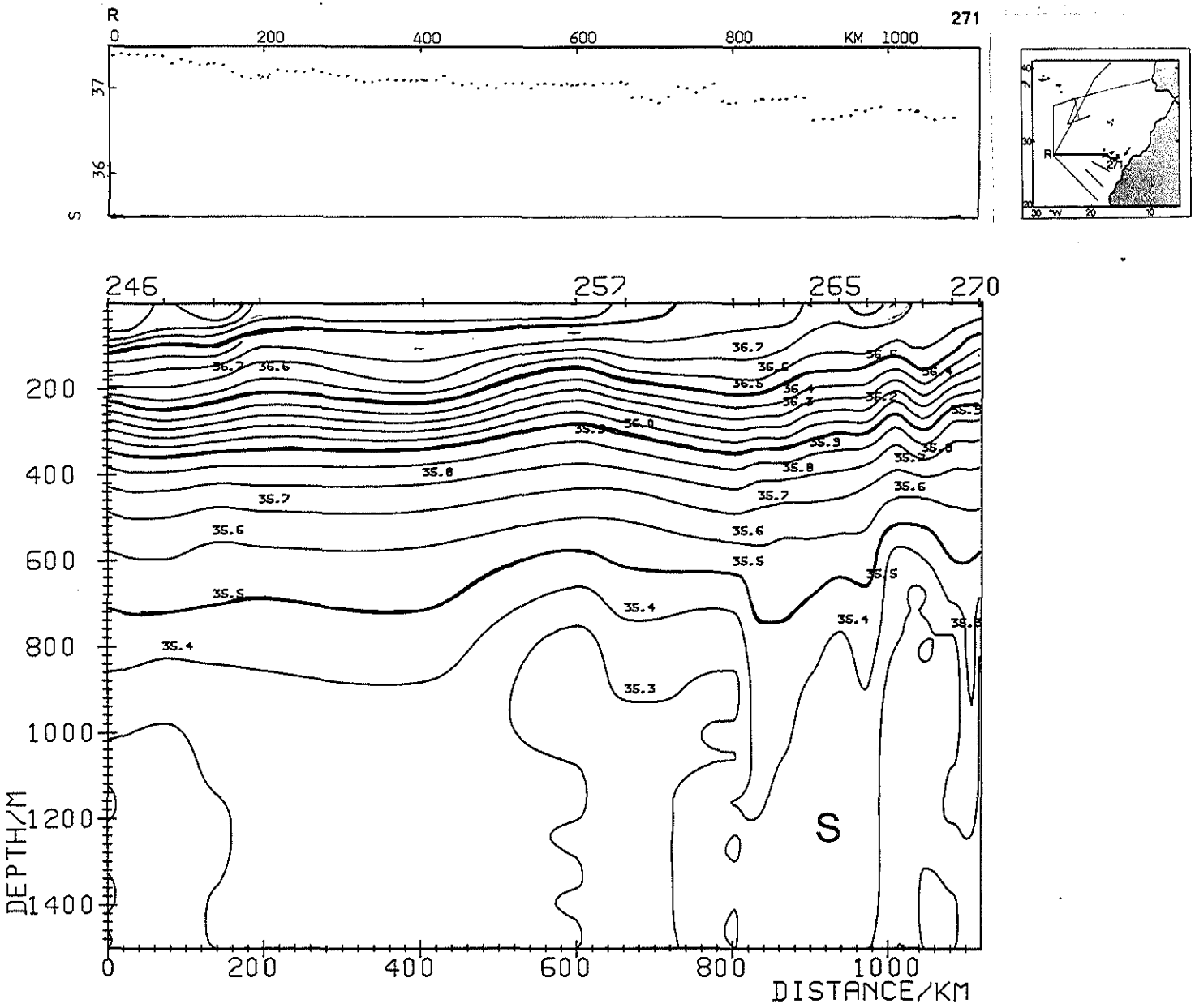
CTD section R - T - B - U: density



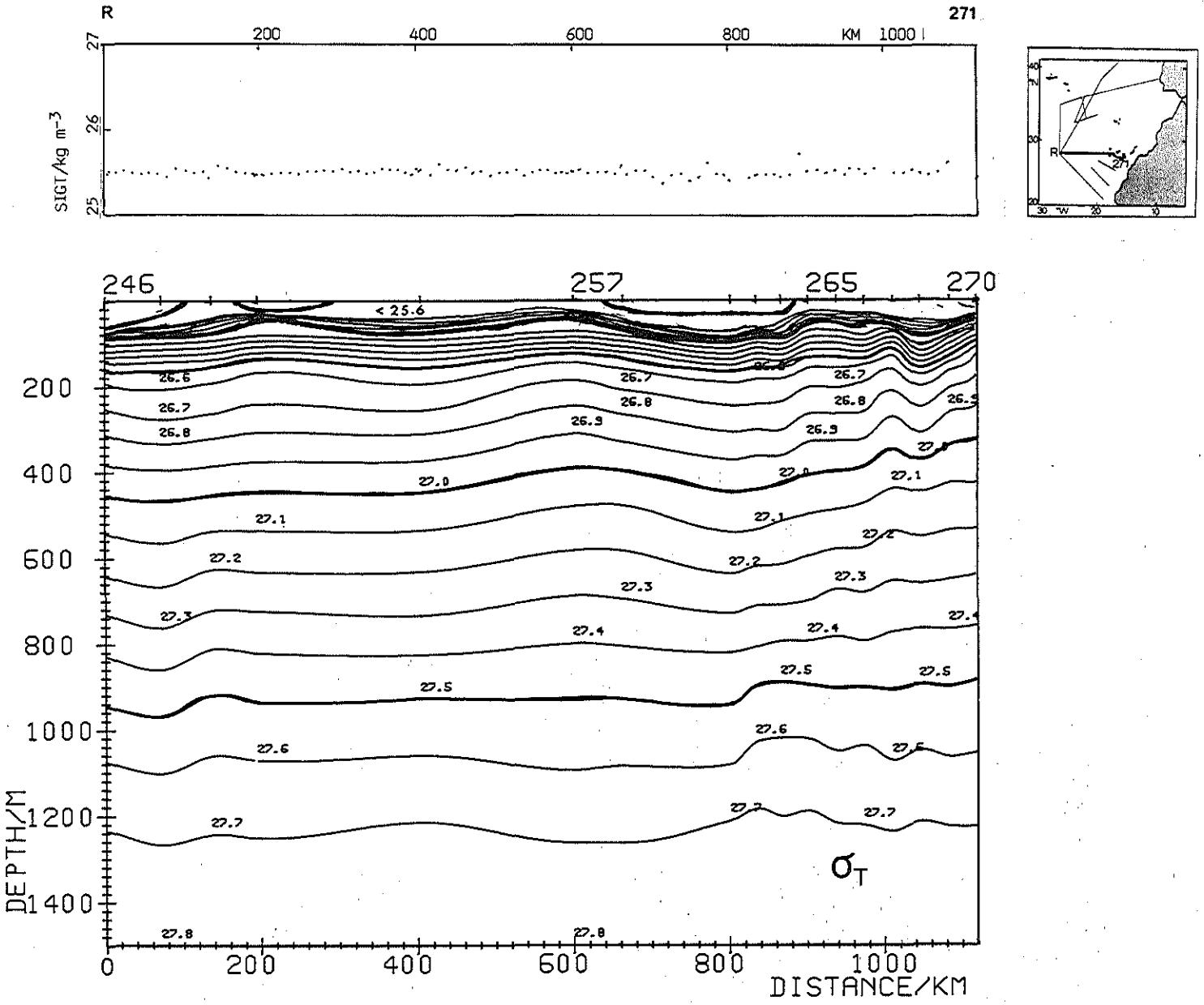
- CTD section from R to the Canary Islands: temperature



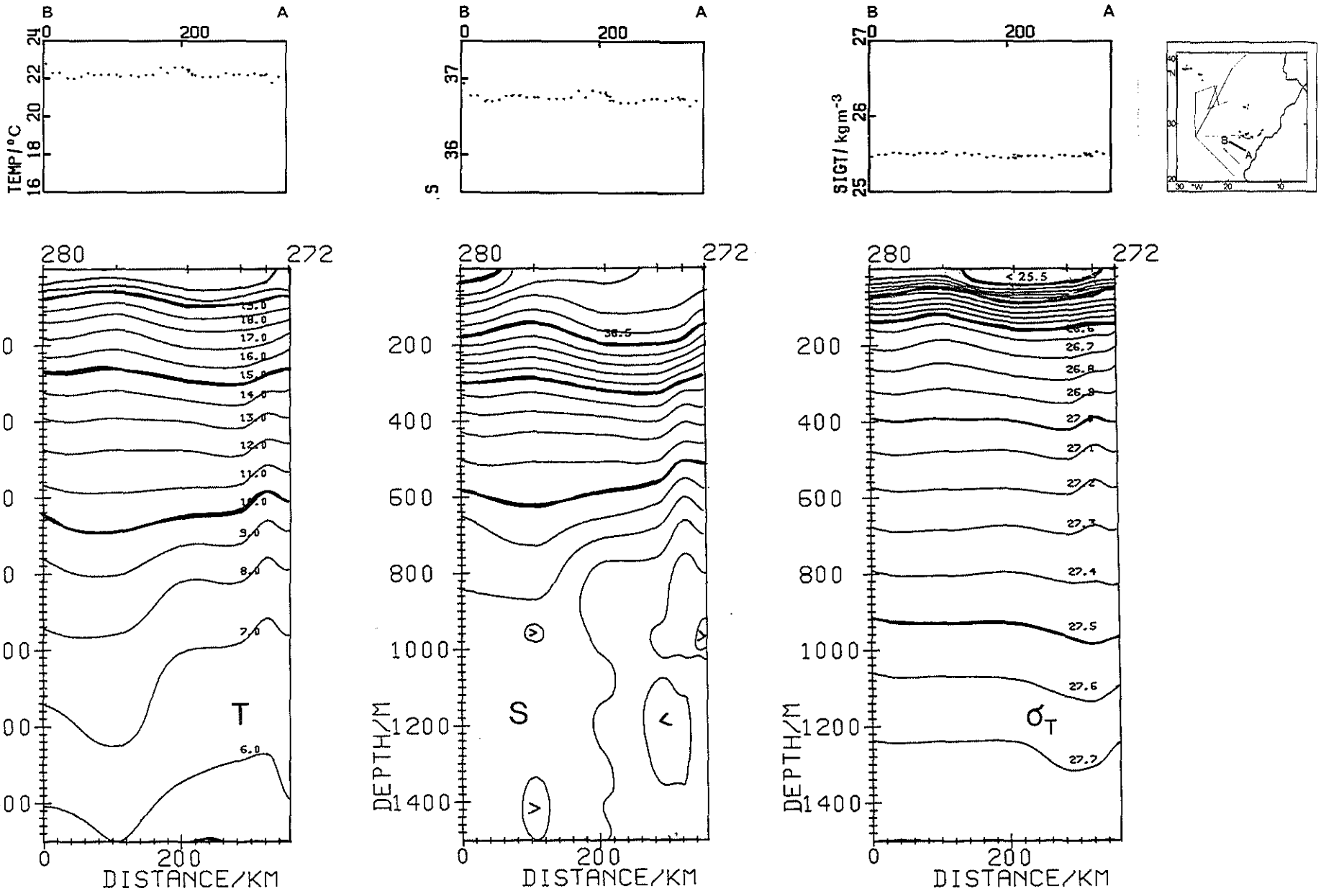
CTD section from R to the Canary Islands: salinity



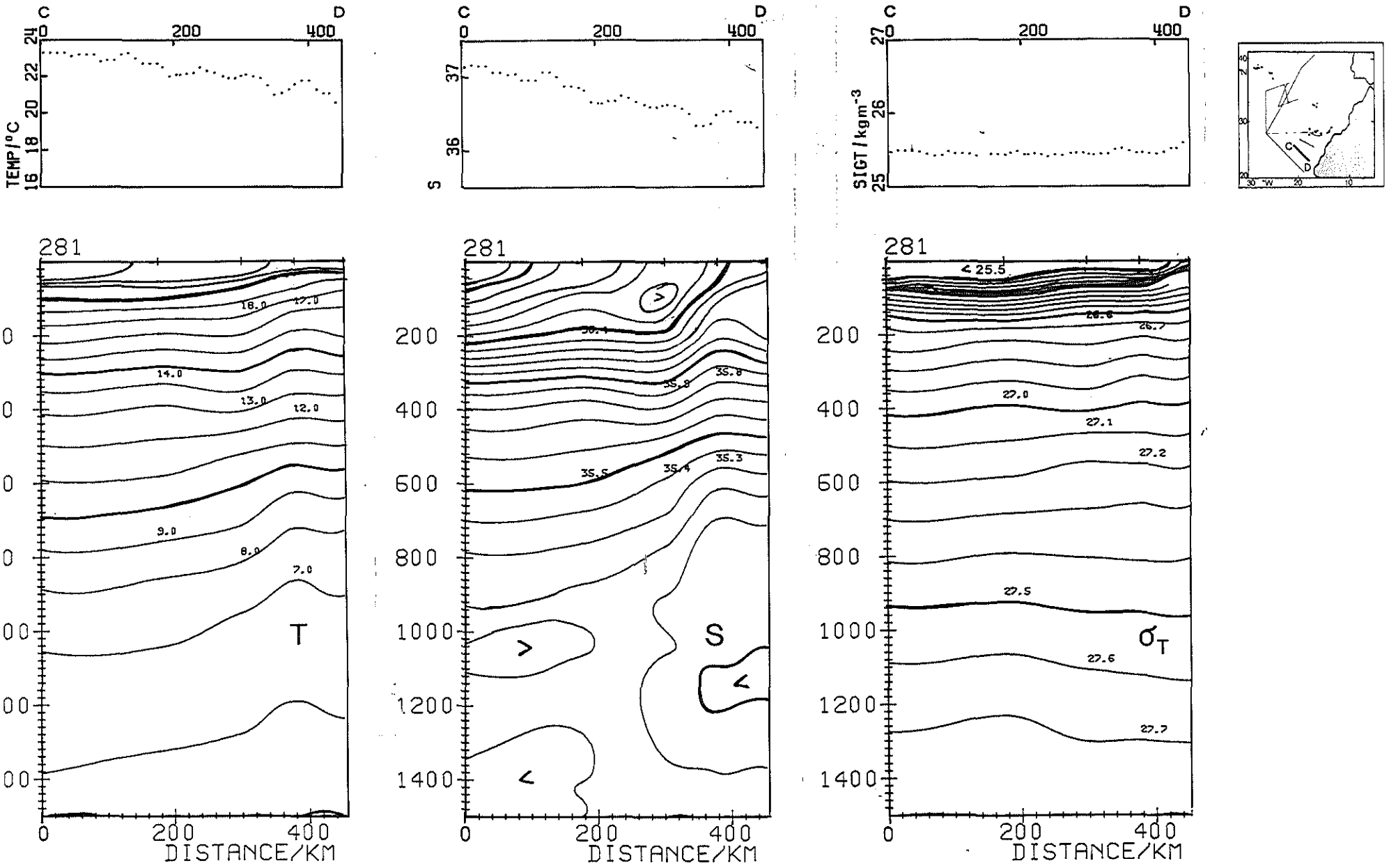
CTD section from R to the Canary Islands: density



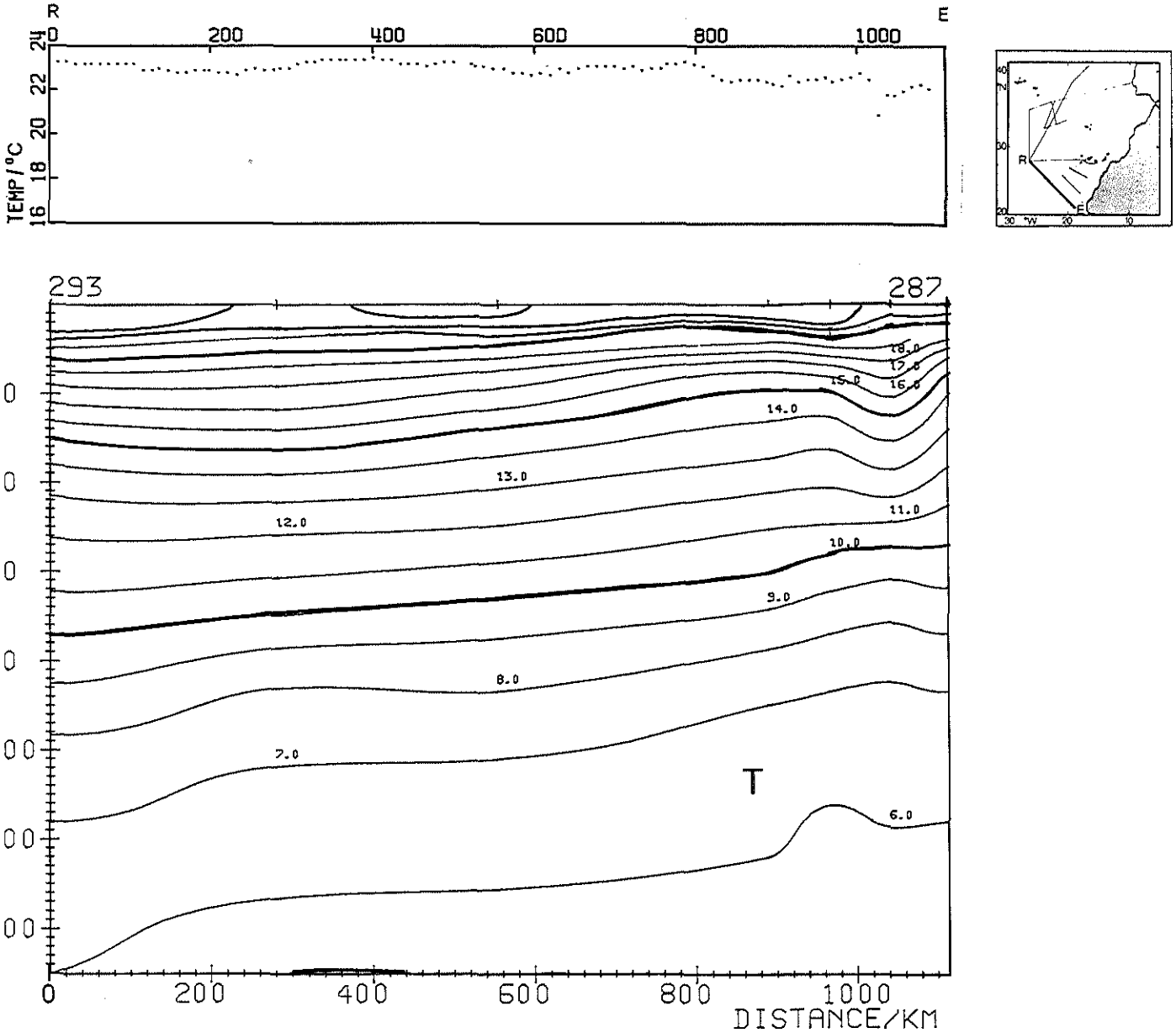
CTD section from B to A: temperature, salinity, density

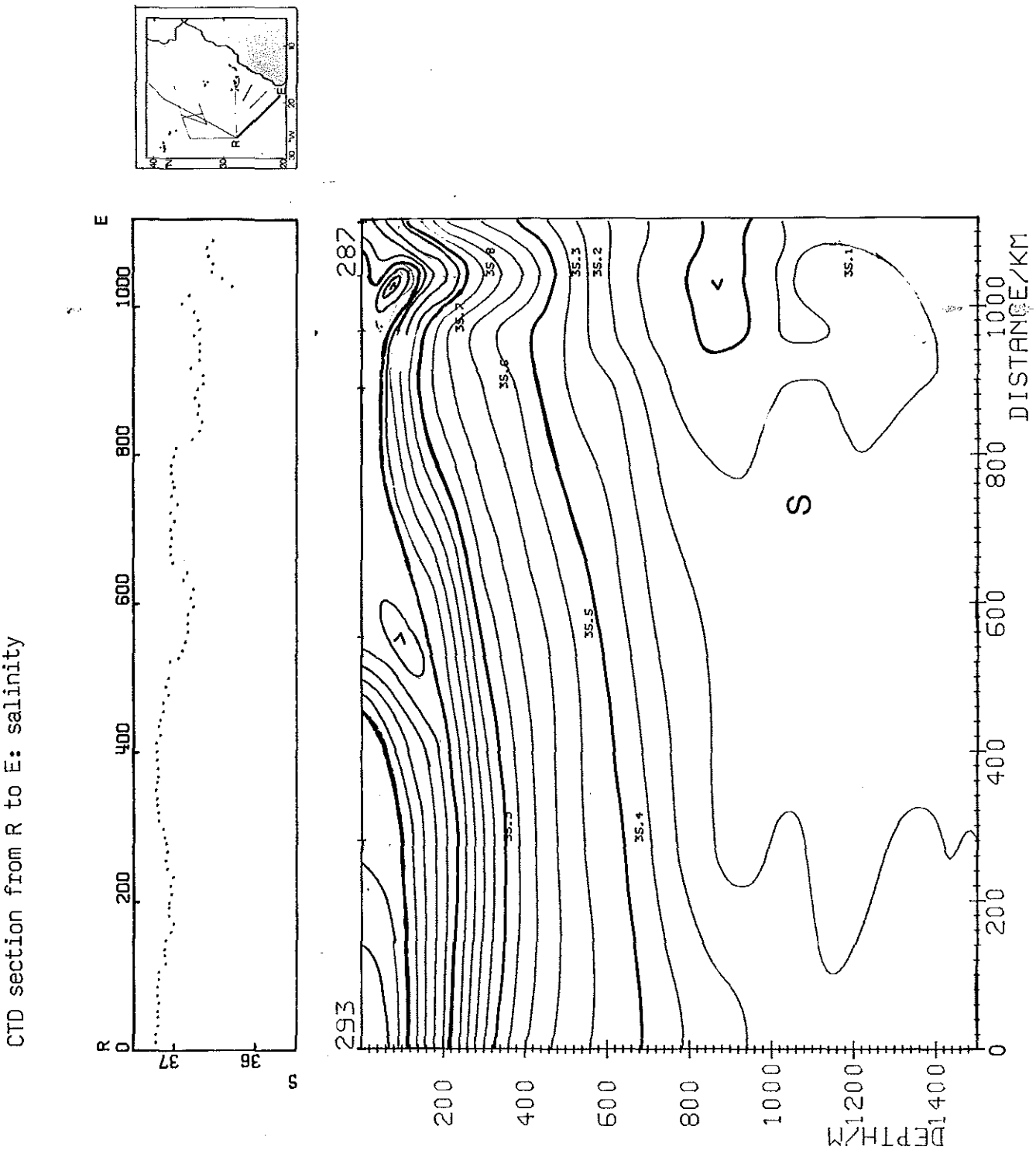


CTD section from C to D: temperature, salinity, density

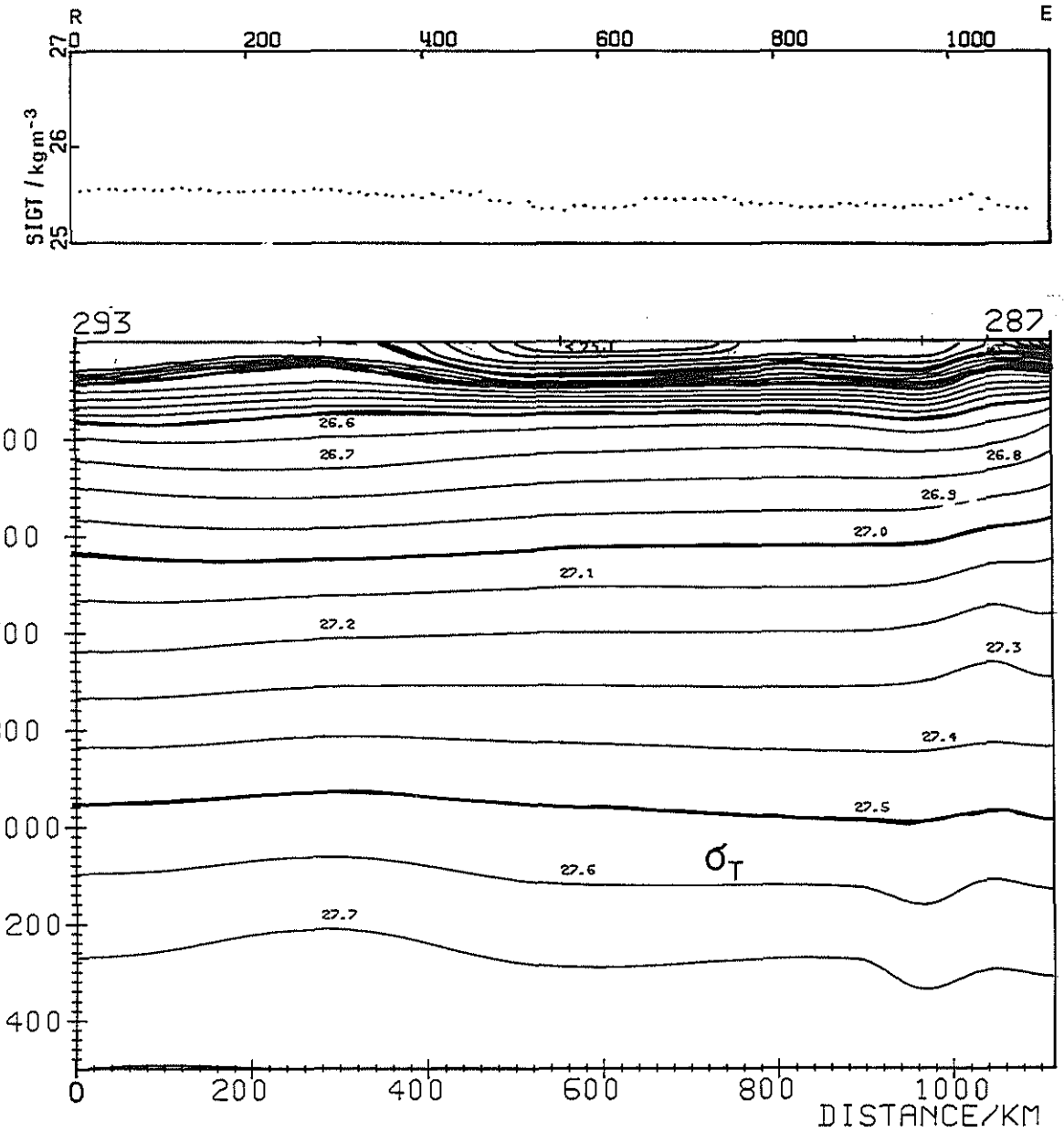


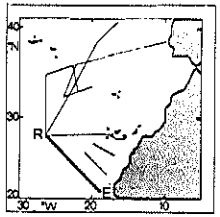
CTD section from R to E: temperature



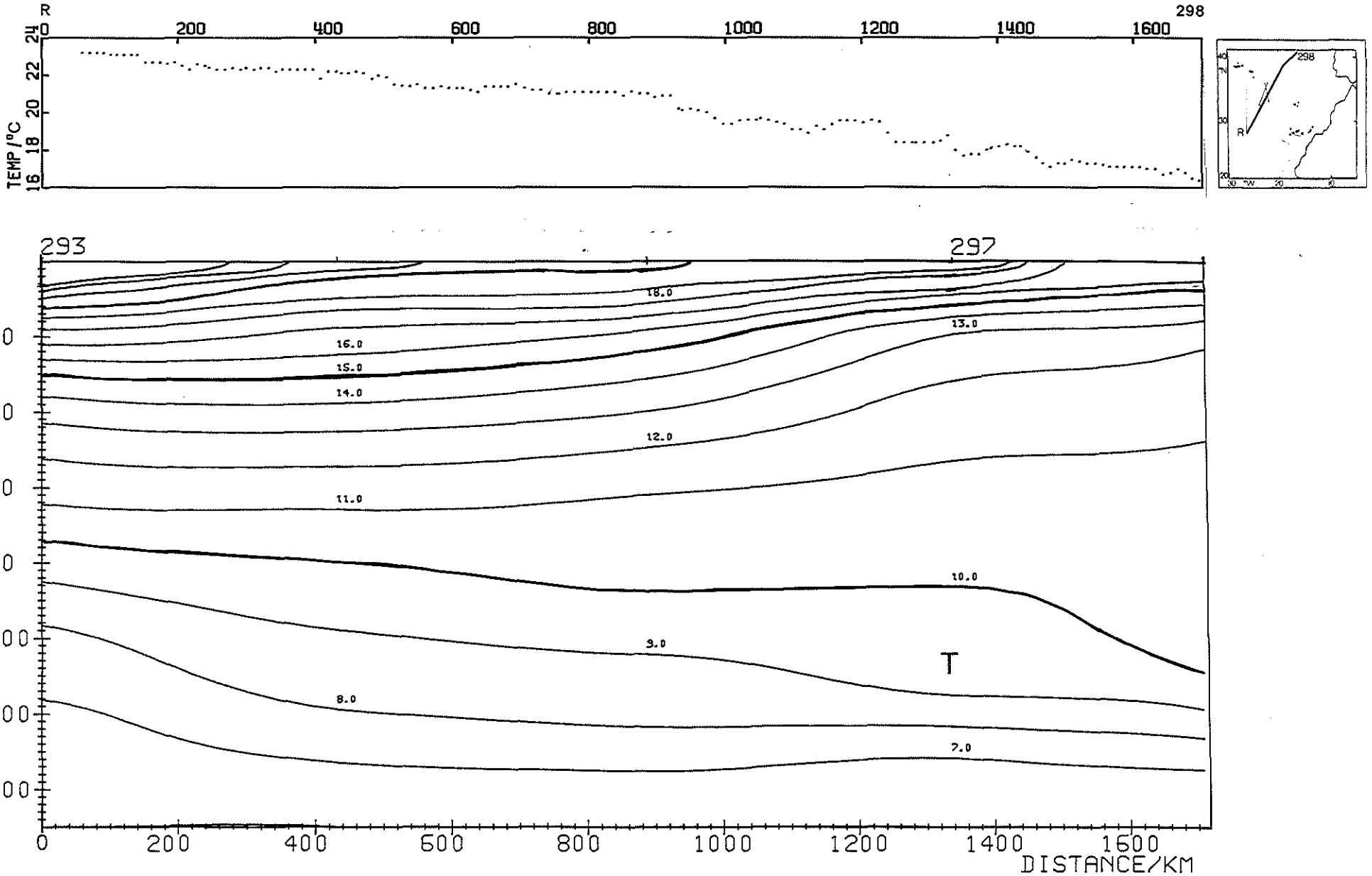

CTD section from R to E: salinity
R
E
0
200
400
600
800
1000
36
37
S
287
293
35.1
35.2
35.3
35.4
35.5
35.6
35.7
35.8
T
S
DEPTH/M
DISTANCE/KM

CTD section from R to E: density

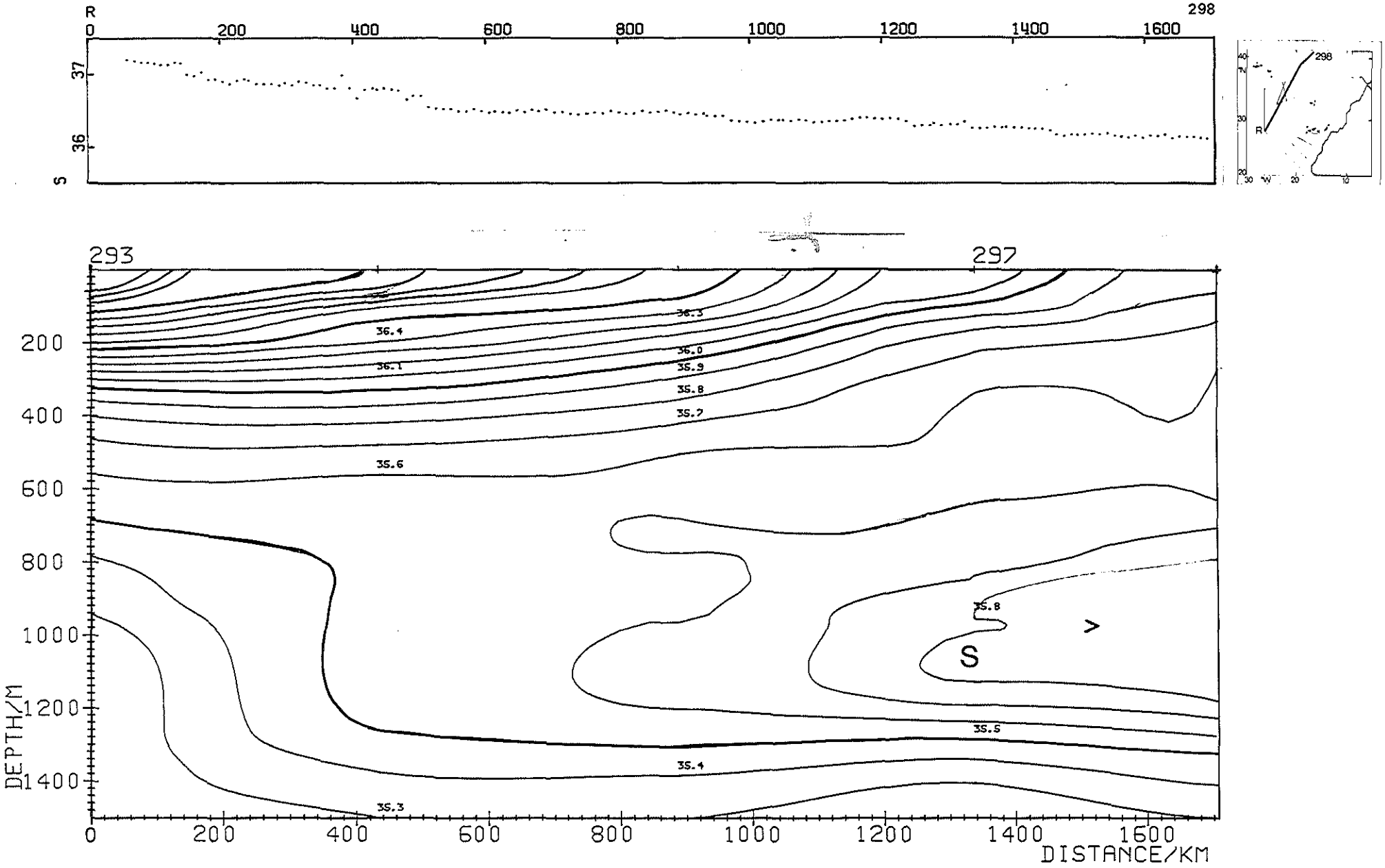




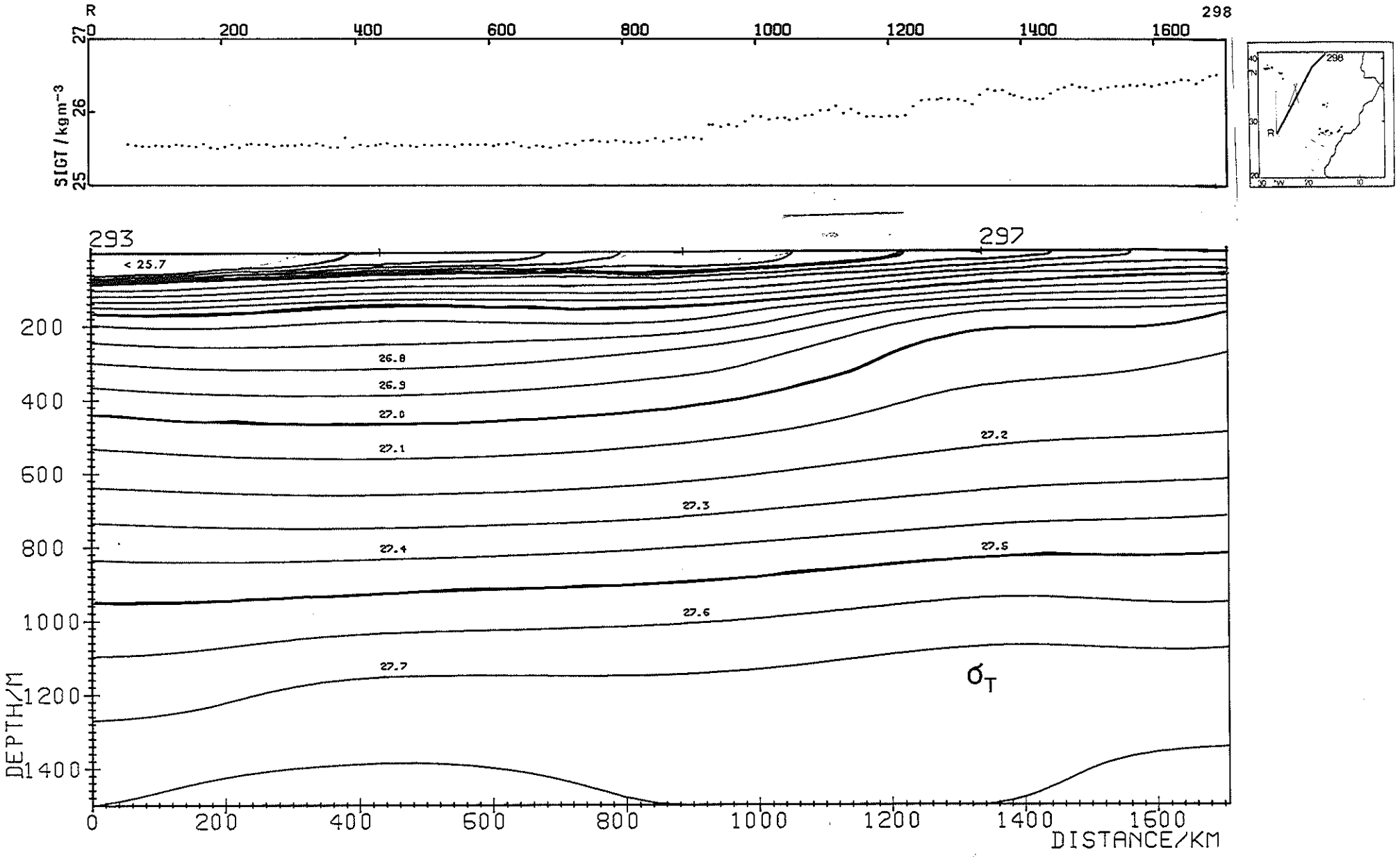
CTD section from R to station 298: temperature



CTD section from R to station 298: salinity



CTD section from R to station 298: density



4.2 XBT inventory and sections, near surface measurements, GEK

STAT	DATE	Z-TIME	LATIT.-N	LONG.-E	SOUNDING	DEPTH-RANGE	
1	20.10.84	2108	38 32.0	-9-46.0	1500.	2.	749.
2	20.10.84	2202	38 30.0	-9-57.0	3500.	2.	749.
3	20.10.84	2300	38 28.0	-10 -9.0	4000.	2.	749.
4	20.10.84	2359	38 26.0	-10-22.0	4750.	2.	748.
5	21.10.84	0100	38 23.0	-10-36.0	4840.	2.	748.
6	21.10.84	0159	38 20.0	-10-49.0	4900.	2.	748.
7	21.10.84	0300	38 17.0	-11 -3.0	4950.	51.	750.
8	21.10.84	0359	38 14.0	-11-16.0	4980.	2.	750.
9	21.10.84	0500	38 11.0	-11-29.0	5000.	1.	750.
10	21.10.84	0559	38 8.0	-11-44.0	5020.	2.	748.
11	21.10.84	0658	38 6.0	-11-56.0	5020.	60.	750.
12	21.10.84	0756	38 4.0	-12 -9.0	5040.	2.	750.
13	21.10.84	1759	38 3.0	-12-16.0	4980.	2.	749.
14	21.10.84	1859	38 0.0	-12-30.0	4870.	2.	749.
15	21.10.84	2059	37 55.0	-12-52.0	4690.	2.	749.
16	21.10.84	2258	37 50.0	-13-16.0	4300.	2.	749.
17	22.10.84	0100	37 45.0	-13-41.0	3940.	2.	749.
18	22.10.84	0301	37 41.0	-14 -5.0	3880.	2.	749.
19	22.10.84	0500	37 36.0	-14-31.0	3900.	2.	749.
20	22.10.84	0658	37 32.0	-14-52.0	4470.	2.	750.
21	22.10.84	0857	37 28.0	-15-20.0	4300.	2.	750.
22	22.10.84	1057	37 23.0	-15-45.0	4200.	2.	750.
23	22.10.84	1257	37 20.0	-16 -8.0	4600.	2.	750.
24	22.10.84	1457	37 15.0	-16-35.0	4230.	2.	748.
25	22.10.84	1659	37 9.0	-16-59.0	4660.	2.	750.
26	22.10.84	1856	37 4.0	-17-24.0	4720.	2.	750.
27	22.10.84	2056	36 58.0	-17-49.0	5090.	2.	748.
28	22.10.84	2256	36 52.8	-18 -7.0	5440.	2.	749.
29	23.10.84	0055	36 48.8	-18-37.0	5200.	2.	748.
30	23.10.84	0255	36 43.8	-18-58.0	5370.	1.	750.
31	23.10.84	0456	36 37.8	-19-25.0	5240.	2.	748.
32	23.10.84	0654	36 32.8	-19-50.0	5110.	2.	749.
33	23.10.84	0856	36 27.8	-20-14.0	5050.	2.	750.
34	23.10.84	1055	36 23.8	-20-38.0	4930.	2.	750.
35	23.10.84	1259	36 19.8	-21 -1.0	4770.	2.	749.
36	23.10.84	1459	36 17.8	-21-28.0	4670.	2.	749.
37	23.10.84	1659	36 11.8	-21-52.0	4720.	2.	750.
39	23.10.84	2029	36 0.8	-22-30.0	4300.	1.	750.
40	23.10.84	2303	36 0.0	-22-29.0	4700.	2.	750.
41	23.10.84	2358	35 35.8	-22-32.0	4730.	2.	750.
42	24.10.84	0058	35 39.8	-22-36.0	4500.	2.	750.
43	24.10.84	0158	35 29.8	-22-41.0	4800.	2.	750.
45	24.10.84	0326	35 14.8	-22-48.0	4940.	2.	750.
46	24.10.84	0357	35 8.8	-22-50.0	4960.	2.	750.
47	24.10.84	0458	34 57.8	-22-55.0	4900.	2.	750.
49	24.10.84	0624	34 43.8	-23 -1.0	5100.	2.	750.
50	24.10.84	0659	34 40.8	-23 -4.0	5080.	2.	750.
51	24.10.84	0757	34 30.8	-23 -9.0	4930.	2.	750.
52	24.10.84	0857	34 20.8	-23-14.0	5200.	2.	750.
53	24.10.84	0957	34 9.8	-23-17.0	5220.	1.	750.
54	24.10.84	1101	33 59.8	-23-22.0	5290.	2.	750.
55	24.10.84	1202	33 48.8	-23-27.0	5320.	2.	750.
56	24.10.84	1301	33 38.8	-23-31.0	5330.	2.	750.
57	24.10.84	1402	33 28.8	-23-36.0	5340.	2.	748.
58	24.10.84	1501	33 18.8	-23-41.0	5350.	2.	750.
59	24.10.84	1605	33 6.8	-23-45.0	5360.	2.	750.
60	24.10.84	1700	32 56.8	-23-49.0	5350.	2.	750.
61	24.10.84	1800	32 47.8	-23-54.0	5350.	2.	750.
62	24.10.84	1900	32 36.8	-23-59.0	5360.	2.	750.
63	24.10.84	1931	32 30.8	-23-59.0	5370.	2.	750.

Table 4.2:XBT station list

4.2 XBT inventory and sections, near surface measurements, GEK

STAT	DATE	Z-TIME	LATIT.-N	LONG.-E	SOUNDING	DEPTH-RANGE
1	20.10.84	2108	38 32.0	-9-46.0	1500.	2. 749.
2	20.10.84	2202	38 30.0	-9-57.0	3500.	2. 749.
3	20.10.84	2300	38 28.0	-10 -9.0	4000.	2. 749.
4	20.10.84	2359	38 26.0	-10-22.0	4750.	2. 748.
5	21.10.84	0100	38 23.0	-10-36.0	4840.	2. 748.
6	21.10.84	0159	38 20.0	-10-49.0	4900.	2. 748.
7	21.10.84	0300	38 17.0	-11 -3.0	4950.	51. 750.
8	21.10.84	0359	38 14.0	-11-16.0	4980.	2. 750.
9	21.10.84	0500	38 11.0	-11-29.0	5000.	1. 750.
10	21.10.84	0559	38 8.0	-11-44.0	5020.	2. 748.
11	21.10.84	0658	38 6.0	-11-56.0	5020.	60. 750.
12	21.10.84	0756	38 4.0	-12 -9.0	5040.	2. 750.
13	21.10.84	1759	38 3.0	-12-16.0	4980.	2. 749.
14	21.10.84	1859	38 0.0	-12-30.0	4870.	2. 749.
15	21.10.84	2059	37 55.0	-12-52.0	4690.	2. 749.
16	21.10.84	2258	37 50.0	-13-16.0	4300.	2. 749.
17	22.10.84	0100	37 45.0	-13-41.0	3940.	2. 749.
18	22.10.84	0301	37 41.0	-14 -5.0	3880.	2. 749.
19	22.10.84	0500	37 36.0	-14-31.0	3900.	2. 749.
20	22.10.84	0658	37 32.0	-14-52.0	4470.	2. 750.
21	22.10.84	0857	37 28.0	-15-20.0	4300.	2. 750.
22	22.10.84	1057	37 23.0	-15-45.0	4200.	2. 750.
23	22.10.84	1257	37 20.0	-16 -8.0	4600.	2. 750.
24	22.10.84	1457	37 15.0	-16-35.0	4230.	2. 748.
25	22.10.84	1659	37 9.0	-16-59.0	4660.	2. 750.
26	22.10.84	1856	37 4.0	-17-24.0	4720.	2. 750.
27	22.10.84	2056	36 58.0	-17-49.0	5090.	2. 748.
28	22.10.84	2256	36 52.8	-18 -7.0	5440.	2. 749.
29	23.10.84	0055	36 48.8	-18-37.0	5200.	2. 748.
30	23.10.84	0255	36 43.8	-18-58.0	5370.	1. 750.
31	23.10.84	0456	36 37.8	-19-25.0	5240.	2. 748.
32	23.10.84	0654	36 32.8	-19-50.0	5110.	2. 749.
33	23.10.84	0856	36 27.8	-20-14.0	5050.	2. 750.
34	23.10.84	1055	36 23.8	-20-38.0	4930.	2. 750.
35	23.10.84	1259	36 19.8	-21 -1.0	4770.	2. 749.
36	23.10.84	1459	36 17.8	-21-28.0	4670.	2. 749.
37	23.10.84	1659	36 11.8	-21-52.0	4720.	2. 750.
39	23.10.84	2029	36 0.8	-22-30.0	4300.	1. 750.
40	23.10.84	2303	36 0.0	-22-29.0	4700.	2. 750.
41	23.10.84	2358	35 35.8	-22-32.0	4730.	2. 750.
42	24.10.84	0058	35 39.8	-22-36.0	4500.	2. 750.
43	24.10.84	0158	35 29.8	-22-41.0	4800.	2. 750.
45	24.10.84	0326	35 14.8	-22-48.0	4940.	2. 750.
46	24.10.84	0357	35 8.8	-22-50.0	4960.	2. 750.
47	24.10.84	0458	34 57.8	-22-55.0	4900.	2. 750.
49	24.10.84	0624	34 43.8	-23 -1.0	5100.	2. 750.
50	24.10.84	0659	34 40.8	-23 -4.0	5080.	2. 750.
51	24.10.84	0757	34 30.8	-23 -9.0	4930.	2. 750.
52	24.10.84	0857	34 20.8	-23-14.0	5200.	2. 750.
53	24.10.84	0957	34 9.8	-23-17.0	5220.	1. 750.
54	24.10.84	1101	33 59.8	-23-22.0	5290.	2. 750.
55	24.10.84	1202	33 48.8	-23-27.0	5320.	2. 750.
56	24.10.84	1301	33 38.8	-23-31.0	5330.	2. 750.
57	24.10.84	1402	33 28.8	-23-36.0	5340.	2. 748.
58	24.10.84	1501	33 18.8	-23-41.0	5350.	2. 750.
59	24.10.84	1605	33 6.8	-23-45.0	5360.	2. 750.
60	24.10.84	1700	32 56.8	-23-49.0	5350.	2. 750.
61	24.10.84	1800	32 47.8	-23-54.0	5350.	2. 750.
62	24.10.84	1900	32 36.8	-23-59.0	5360.	2. 750.
63	24.10.84	1931	32 30.8	-23-59.0	5370.	2. 750.

Table 4.2: XBT station list

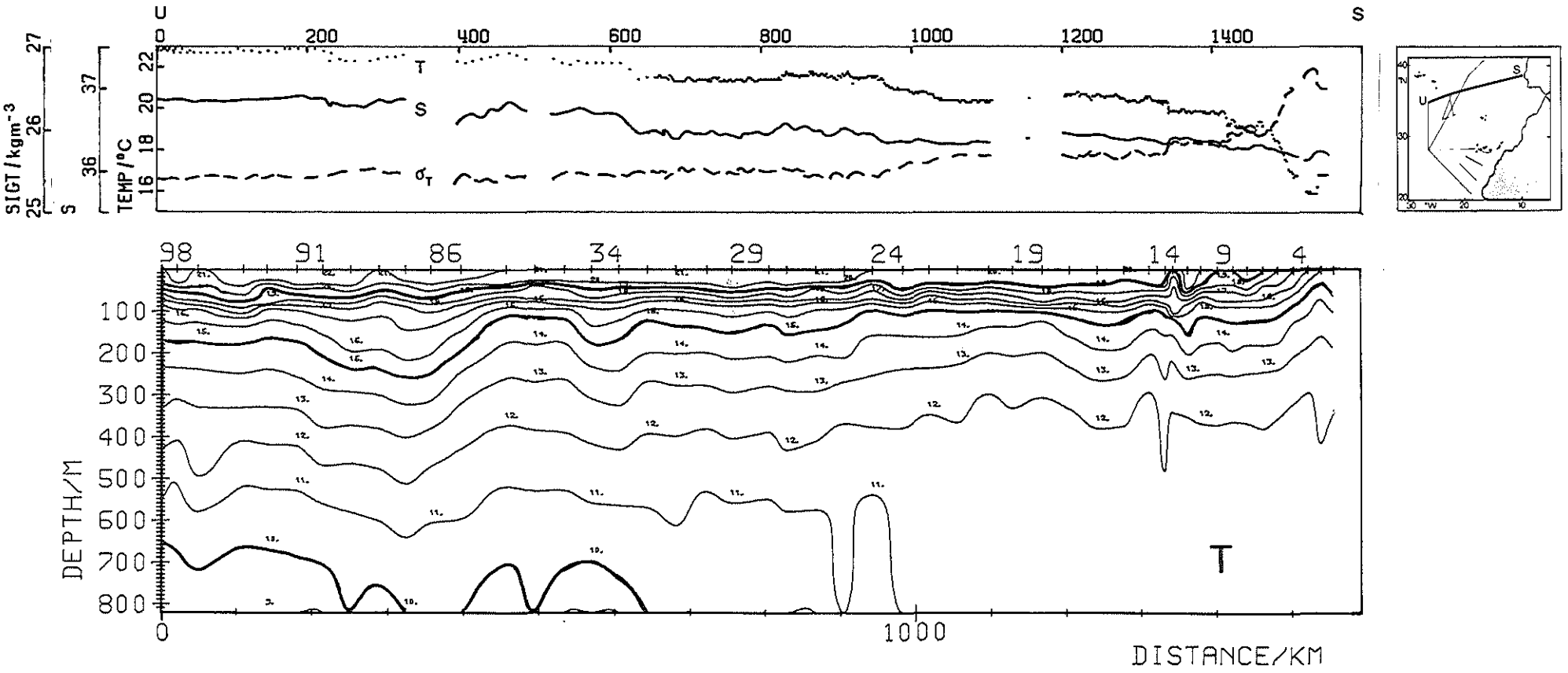
STAT	DATE	Z-TIME	LATIT.-N	LONG.-E	SOUNDING	DEPTH-RANGE
64	24.10.84	2101	32 36.0	-23-42.0	5350.	2. 750.
65	24.10.84	2200	32 40.0	-23-30.0	5350.	2. 750.
66	24.10.84	2300	32 43.0	-23-19.0	5330.	2. 748.
67	24.10.84	2359	32 47.0	-23 -7.0	5310.	2. 749.
68	25.10.84	0100	32 51.0	-22-55.0	5295.	2. 748.
69	25.10.84	0201	32 54.0	-22-43.0	5280.	2. 748.
71	25.10.84	0400	33 2.0	-22-19.0	5250.	2. 748.
72	25.10.84	0500	33 7.0	-22 -6.0	5230.	2. 750.
73	25.10.84	0529	33 9.0	-22 -1.0	5220.	2. 750.
74	25.10.84	1402	33 10.0	-21-57.0	5230.	2. 750.
75	25.10.84	1459	33 15.0	-21-43.0	5250.	2. 750.
76	25.10.84	1558	33 18.0	-21-33.0	5240.	2. 750.
77	25.10.84	1658	33 22.0	-21-22.0	5250.	2. 748.
78	25.10.84	1758	33 26.0	-21-10.0	5250.	2. 748.
79	25.10.85	1858	33 28.0	-21 0.0	5210.	2. 748.
80	25.10.84	1958	33 32.0	-20-49.0	5180.	2. 748.
81	25.10.84	2058	33 36.0	-20-36.0	5160.	2. 748.
83	25.10.84	2206	33 39.0	-20-24.0	5130.	2. 750.
84	25.10.84	2243	33 42.0	-20-17.0	5130.	2. 750.
86	27.10.84	2014	35 53.0	-22-55.0	4670.	2. 750.
87	27.10.84	2156	35 47.0	-23-16.0	4540.	2. 750.
88	27.10.84	2357	35 42.0	-23-38.0	4600.	2. 748.
89	28.10.84	0154	35 37.0	-24 -2.0	4200.	2. 748.
90	28.10.84	0356	35 31.0	-24-25.0	4760.	2. 750.
91	28.10.84	0559	35 26.0	-24-47.0	4470.	2. 749.
92	28.10.84	0759	35 20.0	-25-12.0	4580.	2. 750.
93	28.10.84	1002	35 15.0	-25-32.0	4700.	2. 749.
96	28.10.84	1359	35 5.0	-26-10.0	4270.	2. 750.
97	28.10.84	1559	35 2.0	-26-28.0	4180.	2. 750.
98	29.10.84	0059	34 58.0	-26-41.0	4190.	2. 750.
100	11.11.84	0841	25 24.0	-16-56.0	3090.	2. 749.
101	11.11.84	0858	25 26.0	-16-59.0	3110.	2. 741.
105	11.11.84	2057	25 40.0	-17-16.0	3410.	2. 750.
106	11.11.84	2355	25 46.0	-17-23.0	3400.	2. 748.
108	12.11.84	0155	25 54.0	-17-45.0	3460.	1. 748.
109	12.11.84	0256	25 57.0	-17-55.0	3420.	2. 748.
111	12.11.84	1259	26 5.0	-18 -4.0	3470.	2. 749.
112	12.11.84	1400	26 9.0	-18-14.0	3480.	2. 749.
113	12.11.84	1459	26 13.0	-18-24.0	3560.	2. 749.
114	12.11.84	1559	26 18.0	-18-34.0	3520.	2. 749.
115	12.11.84	1659	26 22.0	-18-44.0	3580.	2. 750.
116	12.11.84	2034	26 29.0	-18-55.0	3600.	1. 749.
119	12.11.84	2217	26 37.0	-19-11.0	3720.	2. 749.
120	12.11.84	2258	26 39.0	-19-17.0	3820.	2. 749.
121	12.11.84	2359	26 44.0	-19-26.0	3930.	2. 749.
122	13.11.84	0058	26 49.0	-19-35.0	4080.	2. 750.
123	13.11.84	0158	26 54.0	-19-45.0	4150.	2. 750.
124	13.11.84	0245	26 59.0	-19-51.0	4210.	2. 749.
128	13.11.84	1822	25 42.0	-20-52.0	4450.	2. 749.
131	13.11.84	2058	25 22.0	-20-32.0	4300.	2. 748.
132	13.11.84	2200	25 16.0	-20-24.0	4150.	2. 748.
133	13.11.84	2258	25 10.0	-20-17.0	4027.	2. 748.
134	13.11.84	2357	25 1.0	-20-11.0	4010.	2. 749.
135	14.11.84	0055	24 54.0	-20 -3.0	3900.	2. 749.
137	14.11.84	0416	24 42.0	-19-49.0	3710.	2. 748.
138	14.11.84	0457	24 38.0	-19-43.0	3610.	2. 748.
139	14.11.84	0558	24 32.0	-19-35.0	3390.	2. 749.
141	14.11.84	0756	24 19.0	-19-24.0	3250.	2. 749.
143	14.11.84	0920	24 10.0	-19-13.0	3180.	2. 749.
144	14.11.84	0957	24 6.0	-19 -8.0	3180.	2. 749.

Table 4.2:continued

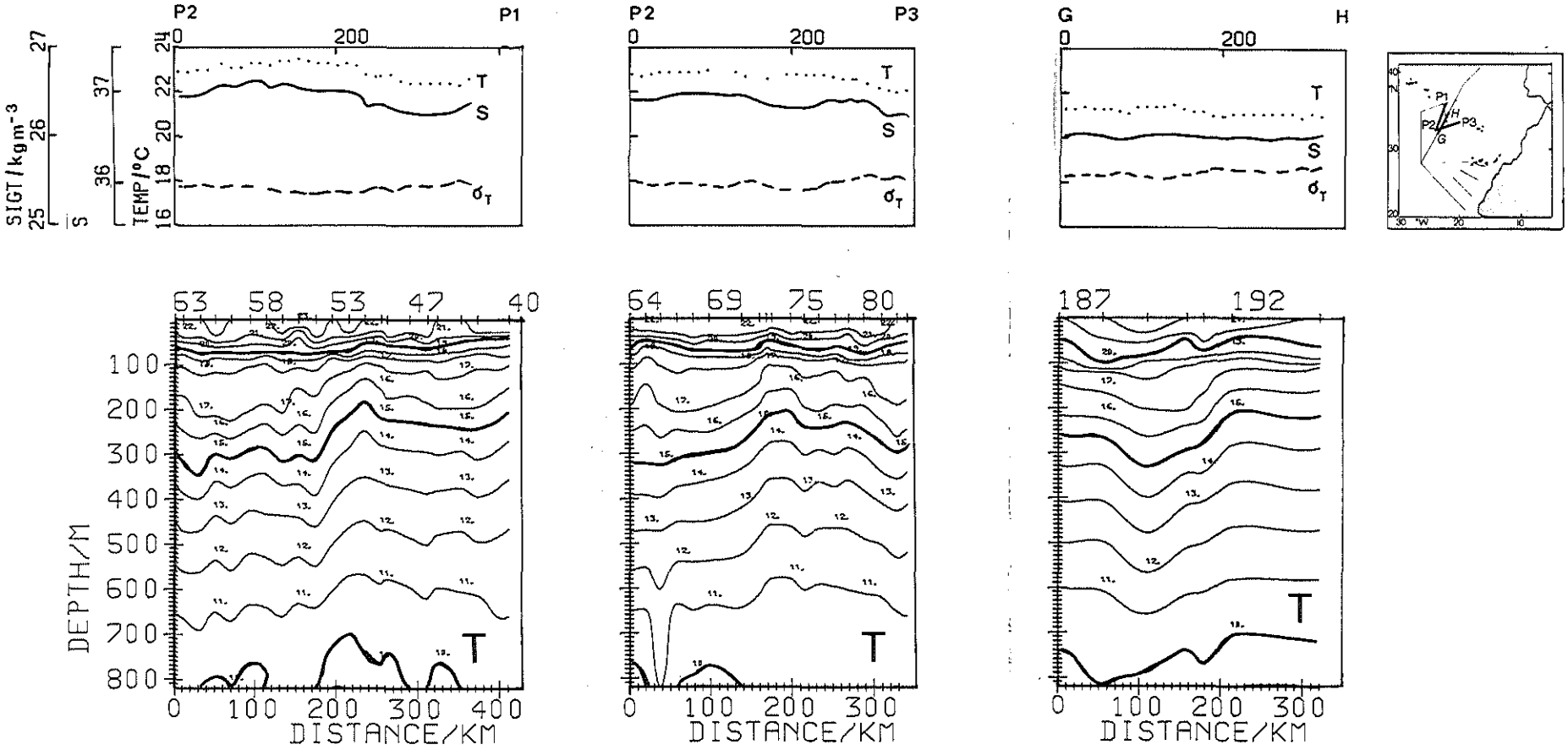
STAT	DATE	Z-TIME	LATIT.-N	LONG.-E	SOUNDING	DEPTH-RANGE
145	14.11.84	1055	24 1.0	-19 -1.0	3240.	2. 749.
146	14.11.84	1315	23 57.0	-18-55.0	3200.	2. 749.
147	14.11.84	1354	23 53.0	-18-50.0	3100.	2. 750.
148	14.11.84	1454	23 47.0	-18-42.0	3050.	2. 749.
149	14.11.84	1536	23 42.0	-18-36.0	3000.	2. 750.
151	14.11.84	1654	23 25.0	-18-24.0	2870.	1. 734.
152	14.11.84	1910	23 28.0	-18-20.0	2800.	2. 741.
158	14.11.84	2256	23 2.0	-17-52.0	2300.	2. 698.
159	15.11.84	1722	20 51.0	-18-45.0	2920.	2. 706.
160	15.11.84	1851	21 0.0	-18-57.0	3060.	2. 693.
161	15.11.84	2051	21 14.0	-19-13.0	3350.	2. 693.
162	15.11.84	2351	21 24.0	-19-24.0	3780.	2. 742.
163	16.11.84	0151	21 39.0	-19-40.0	3780.	2. 694.
164	16.11.84	0500	21 49.0	-19-52.0	3830.	2. 706.
165	16.11.84	0700	22 4.0	-20 -6.0	4010.	2. 726.
166	16.11.84	1100	22 18.0	-20-20.0	3530.	2. 719.
167	16.11.84	1259	22 40.0	-20-35.0	4160.	2. 749.
168	16.11.84	1457	22 47.0	-20-52.0	4250.	2. 749.
169	16.11.84	1656	23 2.0	-21 -9.0	4280.	2. 750.
170	16.11.84	1857	23 16.0	-21-22.0	4370.	2. 750.
171	16.11.84	2102	23 31.0	-21-40.0	4500.	2. 750.
172	16.11.84	2259	23 45.0	-21-59.0	4560.	2. 750.
173	17.11.84	0056	24 0.0	-22-12.0	4670.	2. 748.
174	17.11.84	0259	24 14.0	-22-29.0	4730.	2. 748.
175	17.11.84	0658	24 26.0	-22-37.0	4780.	2. 748.
176	17.11.84	0956	24 48.0	-23 -5.0	4920.	2. 748.
177	17.11.84	1301	25 9.0	-23-29.0	4980.	2. 748.
178	17.11.84	1556	25 29.0	-23-55.0	5060.	2. 748.
179	17.11.84	1855	25 49.0	-24-17.0	5090.	2. 748.
180	17.11.84	2355	26 9.0	-24-40.0	5120.	2. 748.
181	18.11.84	0253	26 31.0	-25 -4.0	5180.	2. 748.
182	18.11.84	0554	26 53.0	-25-25.0	5200.	2. 748.
183	18.11.84	0855	27 15.0	-25-47.0	5000.	2. 748.
184	18.11.84	1143	27 36.0	-26 -7.0	5220.	2. 748.
185	18.11.84	1544	27 57.0	-26-27.0	5230.	2. 748.
187	20.11.84	0116	31 54.0	-23-51.0	5360.	2. 750.
188	20.11.84	0359	32 20.0	-23-34.0	5350.	2. 750.
189	20.11.84	0700	32 45.0	-23-16.0	5330.	2. 750.
190	20.11.84	0959	33 11.0	-23 -7.0	5330.	2. 750.
191	20.11.84	1104	33 21.0	-23 -1.0	5330.	2. 749.
192	20.11.84	1400	33 34.0	-22-42.0	5320.	2. 750.
195	20.11.84	1629	33 58.0	-22-25.0	5300.	2. 319.
196	20.11.84	1915	34 25.0	-22 -9.0	5200.	2. 750.

Table 4.2:continued

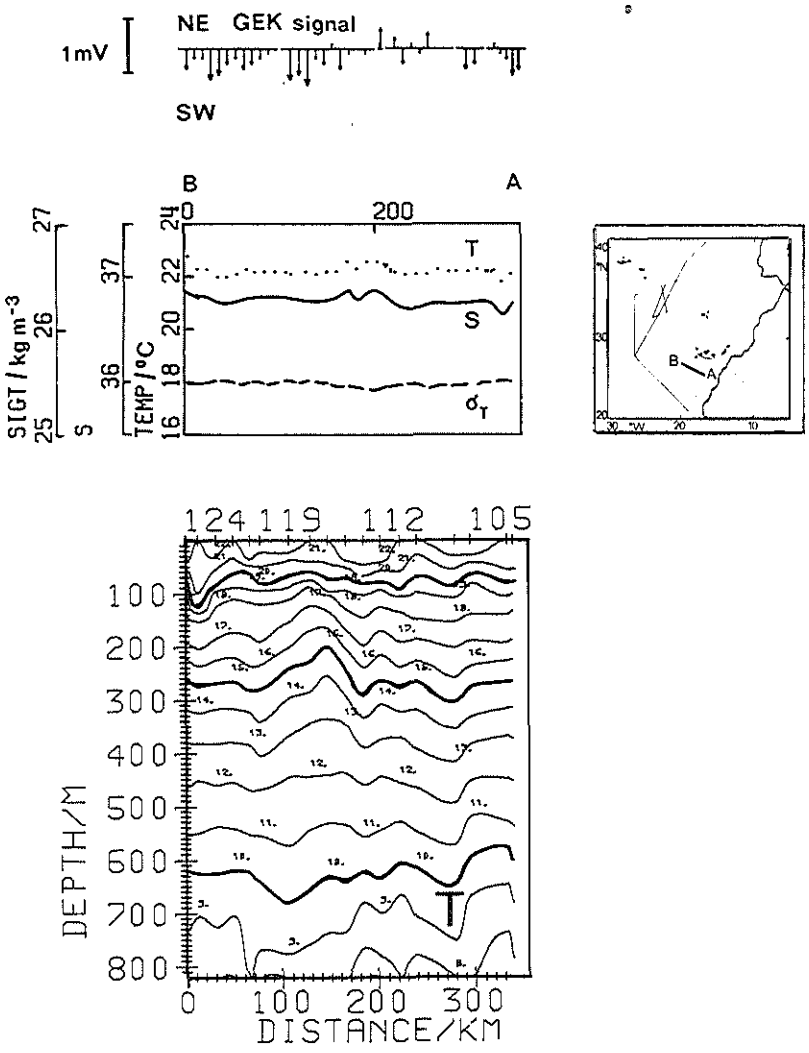
Section from U to S: near-surface temperature salinity and density, and temperature from XBTs.

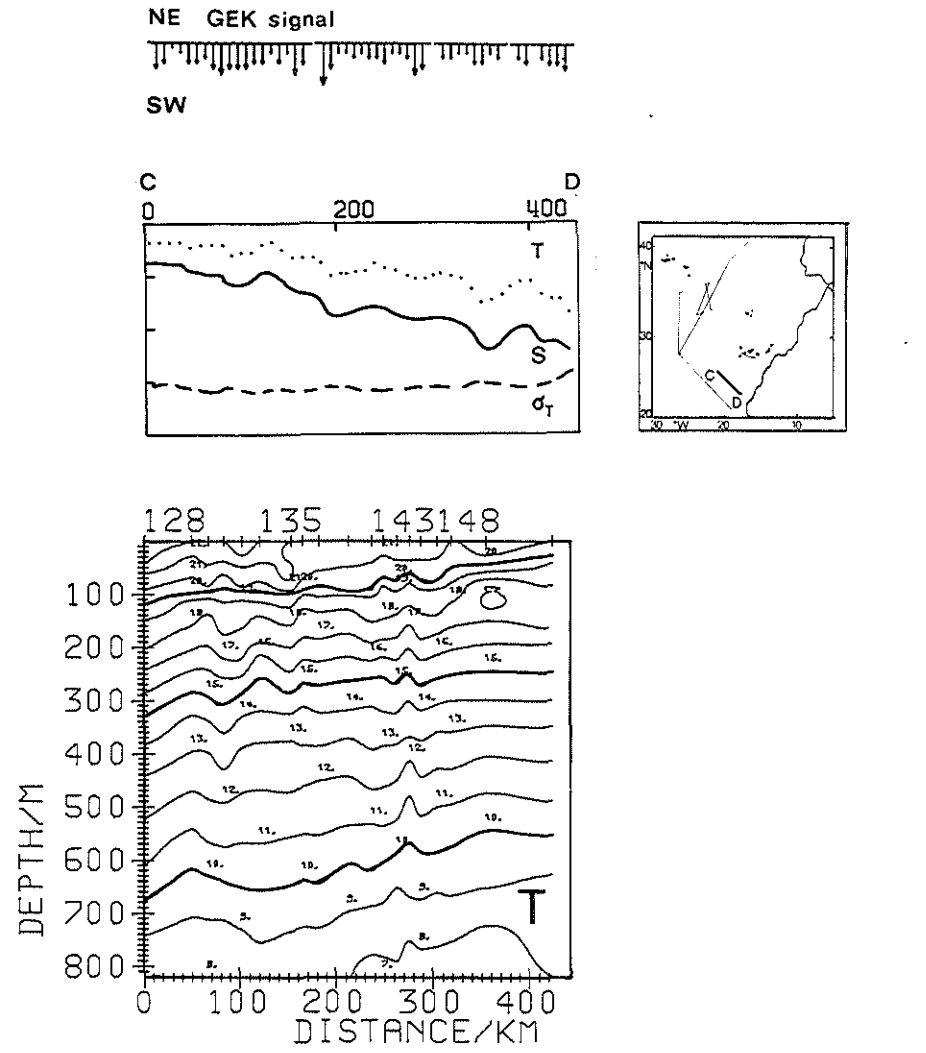


Section from P2 to P1, from P2 to P3 and from G to H: near-surface temperature salinity and density, and temperature vom XBTs.

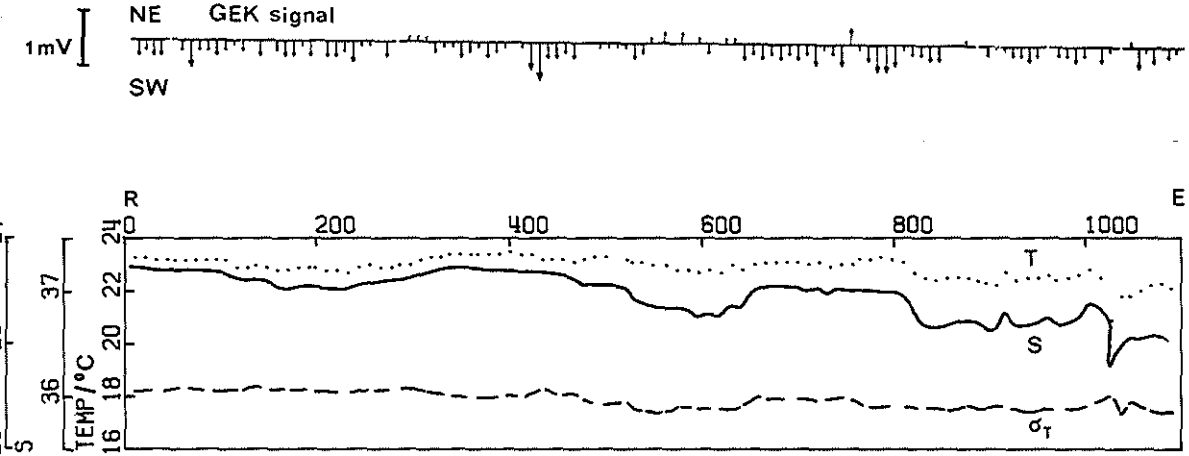


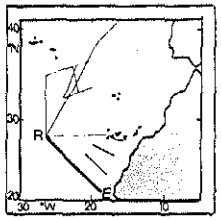
Section from A to B and from C to D: GEK signal, near-surface temperature, salinity and density and temperature from XBTs.

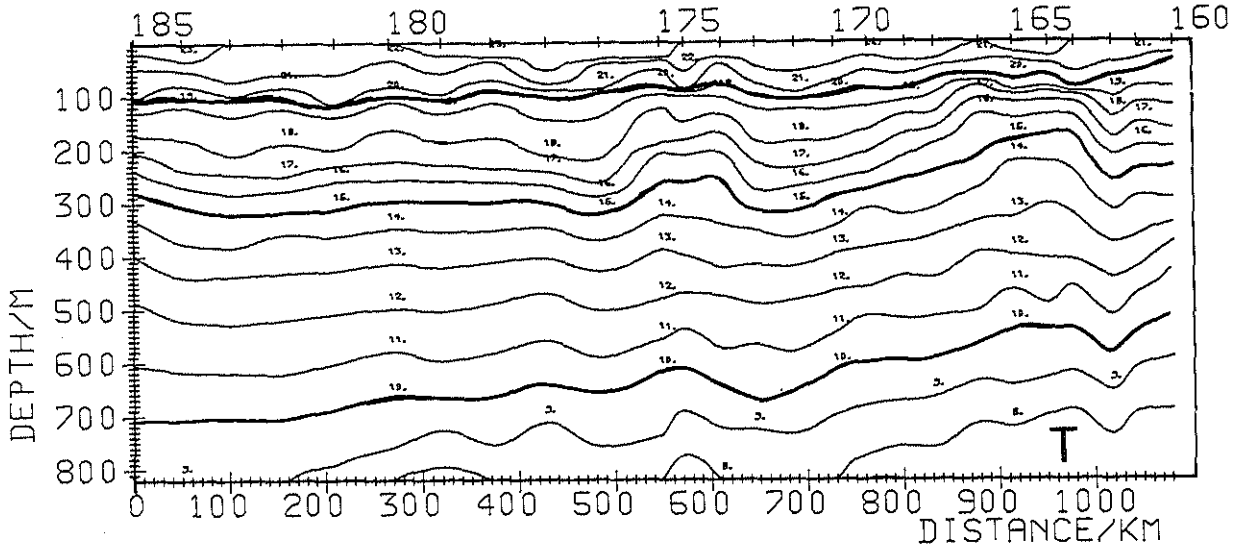




Sections from R to E: GEK signal, near-surface temperature, salinity and density, and temperature from XBTs.







4.3 Current meter mooring N1, IfM No 276-5

IfM mooring No: 276-5 External name: N1

Latitude: 33° 10.8'N Longitude: 21° 55.4'W

Sounding: 5230 m Water depth: 5285 m

Deployed: 20 Oct 83 Recovered: 25 Oct 84

Start of record: 20 Oct 83, 1500 Z End of record: 25 Oct 84, 0900 Z

Remarks: depth of instrument 276507 has been changed from 1649 m to 1060 m.

Identification	instrument				Remarks
	type	No	depth (m)	sampling (min.)	
276501	A-TP	778	280	0.5	To measure launching of mooring $\lvert \tilde{u} \rvert$ interpolated for 934 ‹N‹1246
502	A-VTPC	776	330	60	$\lvert \tilde{u} \rvert$ bad for N›6116 S = S + 1.16 + 7.2E-5*N
503	A-T50	181/530	32-382	120	
504	A-VT	6051	560	60	
505	A-VT	5882	760	60	
507	A-CM2	74	1060	10	no data after 02 Jun 84, 0700 Z, calibration of current uncertain
506	A-VTL	6682	1160		T = T + 0.30°C S = S - 0.42+3.6E-5*N
508	A-VT	6161	1660	60	T = T + 0.25°C
509	A-VT	5881	3050	60	T = T + 0.06°C
510	A-VT	6160	5240	60	T = T + 0.02°C no data after 27 Aug 84, 0500Z

A-VT(PC) : Aanderaa current meter RCM4/5 with sensors for P and C (optional)

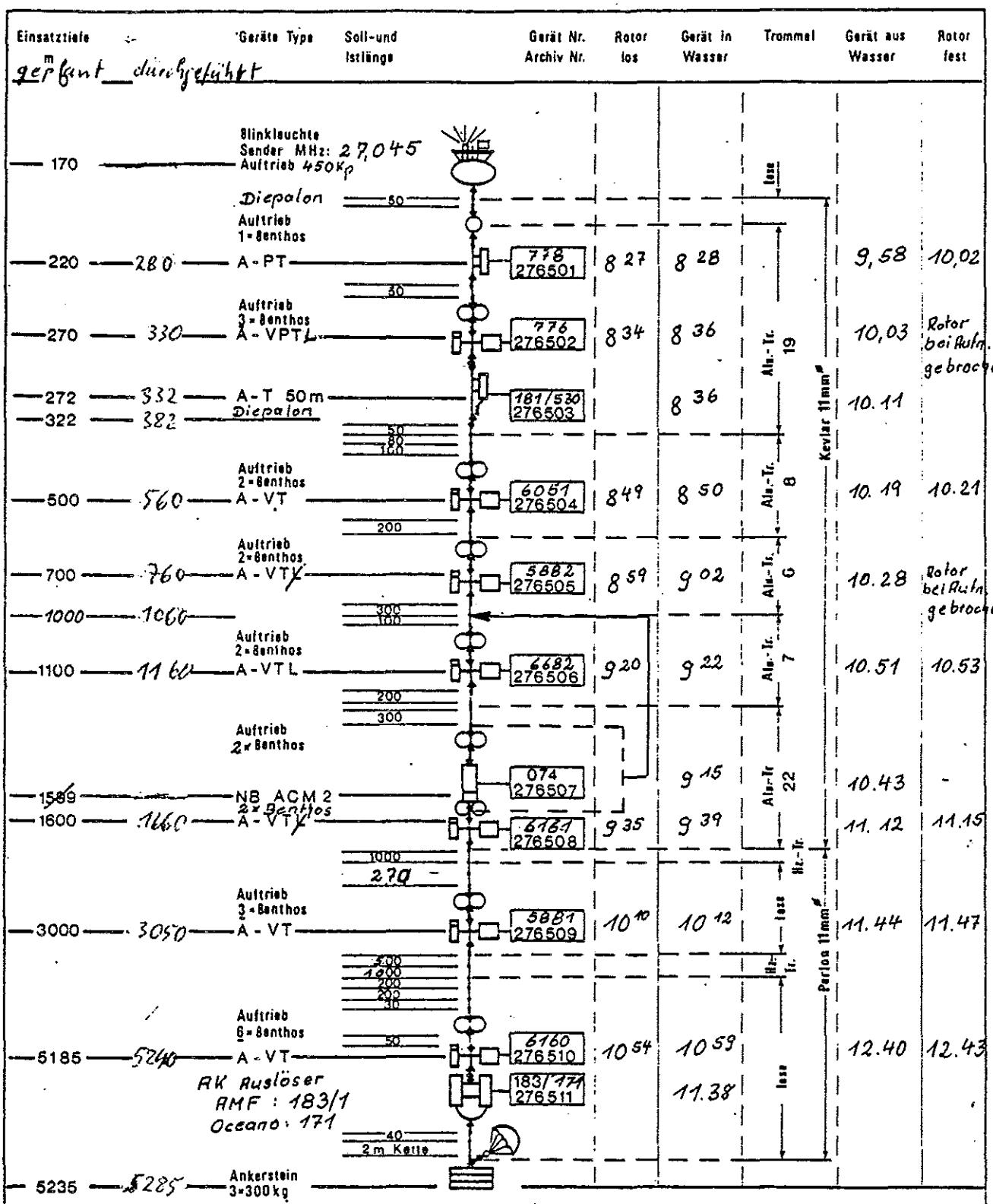
A-T50 : Aanderaa thermistorcable 50 m or 400 m

ACM-2 : Neil Brown acoustic vector averaging current meter

P, T, C, S : Pressure, temperature, conductivity, salinity

$\lvert \tilde{u} \rvert$, φ : Current speed and direction true north

N : Record number



Verbindungssymbole: ○ Ring ● Schäkel (Schlüsselweite 30 mm) △ Anschluß an Gerät ∞ Drehwirbel

Institut für Meereskunde, Kiel (Germany)

Kiste Nr. 1

Auslegedatum: 20.10.1983
Protokollführer: Meyer
Lottiefe: 5230 korr. 5285
Auslegetiefe: -
Auf Tiefe: 12.21
Zeitmeridian: GMT

Aufnahmedatum: 25.10.1984
Protokollführer: Podewski
von Tiefe: 09.32
Positionsbestimmung: (Astron., Dopp. Loran, Satellit)
33° 10,8' N
21° 55,4' W

VERANKERUNG NR.: 276-5
Nr.: SFB 133-C1

Schiff: F.S. Poseidon
Expedition: Poseidon-Reise 104c
Seegebiet: N.O.-Atlantik
Wassertiefe: 5235 m
Auslegedatum: 20.10.83
Aufnahmedatum: 25.10.84

Zeichnung korrigiert am 19.12.85

FILE. NEADS ! 276502/EDITI MOORING ID. 276502 START-CYCLE. 1. STOP-CYCLE. 365. NUMBER OF VALUES. 365.

TIME RANGE. 23.10.1983 9. 0. 0. 0/21.10.1984 9. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 330M

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	PRES	[DBAR]	0.3301E+03	0.3977E+03	0.3345E+03	0.5497E+00	0.1103E+03	0.1050E+02	0.4325E+01	0.2199E+02
2	TEMP	[DEG.C]	0.1300E+02	0.1501E+02	0.1383E+02	0.2525E-01	0.2326E+00	0.4823E+00	-0.3029E-01	0.2022E+01
3	S	[1/1000]	0.3565E+02	0.3598E+02	0.3579E+02	0.4480E-02	0.7325E-02	0.8558E-01	0.1290E+00	0.2116E+01
4	SIGT	[KG/M**3]	0.2672E+02	0.2693E+02	0.2683E+02	0.2469E-02	0.2224E-02	0.4716E-01	-0.2184E+00	0.2121E+01
5	UC	[CM/S]	-0.1247E+02	0.1580E+02	-0.1517E+00	0.3158E+00	0.2483E+02	0.4983E+01	0.5717E+00	0.3882E+01
6	VC	[CM/S]	-0.1948E+02	0.2455E+02	-0.1591E+01	0.5419E+00	0.7313E+02	0.8552E+01	0.4750E+00	0.3283E+01

VARIABLES			COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1	PRES	2 TEMP	-0.5335E+04	-0.1053E+04	0.4266E+05	0.2066E+03	0.1309E+02
1	PRES	3 S	-0.1371E+05	-0.1525E+05	0.1968E+06	0.4436E+03	0.2811E+02
1	PRES	4 SIGT	-0.1027E+05	-0.2074E+05	0.1162E+06	0.3408E+03	0.2160E+02
1	PRES	5 UC	0.4610E+02	0.8809E+00	0.2926E+07	0.1711E+04	0.1084E+03
1	PRES	6 VC	0.2947E+03	0.3281E+01	0.8813E+07	0.2969E+04	0.1881E+03
2	TEMP	3 S	-0.5733E+03	-0.1389E+05	0.3420E+03	0.1849E+02	0.1172E+01
2	TEMP	4 SIGT	-0.4295E+03	-0.1888E+05	0.1558E+03	0.1248E+02	0.7910E+00
2	TEMP	5 UC	0.7376E+00	0.3069E+00	0.4734E+04	0.6880E+02	0.4360E+01
2	TEMP	6 VC	0.9638E+01	0.2337E+01	0.1360E+05	0.1166E+03	0.7392E+01
3	S	4 SIGT	-0.1104E+04	-0.2736E+06	0.1365E+01	0.1168E+01	0.7404E-01
3	S	5 UC	0.2475E+01	0.5804E+01	0.3179E+05	0.1783E+03	0.1130E+02
3	S	6 VC	0.2651E+02	0.3622E+02	0.9349E+05	0.3058E+03	0.1938E+02
4	SIGT	5 UC	0.1905E+01	0.8106E+01	0.1788E+05	0.1337E+03	0.8474E+01
4	SIGT	6 VC	0.2001E+02	0.4960E+02	0.5272E+05	0.2296E+03	0.1455E+02
5	UC	6 VC	-0.1417E+01	-0.3326E-01	0.1532E+04	0.3914E+02	0.2480E+01

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
5	6	0.1090E+01	0.4898E+02	0.6999E+01	0.3663E+00	185.45

FILE. NEADS 1 276503/A 12 MOORING ID. 276503 START-CYCLE. 1. STOP-CYCLE. 365. NUMBER OF VALUES. 365.

TIME RANGE. 23.10.1983 9. 0. 0. 0/21.10.1984 9. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 332M-382M

	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.1288E+02	0.1496E+02	0.1372E+02	0.2531E-01	0.2337E+00	0.4835E+00	-0.1733E-01	0.2058E+01
2	TEMP	[DEG.C]	0.1285E+02	0.1490E+02	0.1368E+02	0.2504E-01	0.2288E+00	0.4784E+00	-0.2039E-01	0.2047E+01
3	TEMP	[DEG.C]	0.1280E+02	0.1481E+02	0.1361E+02	0.2469E-01	0.2224E+00	0.4716E+00	-0.2705E-01	0.2020E+01
4	TEMP	[DEG.C]	0.1273E+02	0.1472E+02	0.1354E+02	0.2430E-01	0.2155E+00	0.4642E+00	-0.2930E-01	0.2015E+01
5	TEMP	[DEG.C]	0.1247E+02	0.1463E+02	0.1348E+02	0.2409E-01	0.2118E+00	0.4602E+00	-0.5019E-01	0.2026E+01
6	TEMP	[DEG.C]	0.1244E+02	0.1445E+02	0.1343E+02	0.2369E-01	0.2048E+00	0.4526E+00	-0.7434E-01	0.1976E+01
7	TEMP	[DEG.C]	0.1234E+02	0.1436E+02	0.1336E+02	0.2335E-01	0.1990E+00	0.4461E+00	-0.8248E-01	0.1974E+01
8	TEMP	[DEG.C]	0.1250E+02	0.1422E+02	0.1327E+02	0.2296E-01	0.1925E+00	0.4387E+00	-0.8199E-01	0.1935E+01
9	TEMP	[DEG.C]	0.1246E+02	0.1415E+02	0.1323E+02	0.2257E-01	0.1859E+00	0.4312E+00	-0.8045E-01	0.1920E+01
10	TEMP	[DEG.C]	0.1242E+02	0.1409E+02	0.1318E+02	0.2234E-01	0.1821E+00	0.4268E+00	-0.8576E-01	0.1912E+01
11	TEMP	[DEG.C]	0.1237E+02	0.1401E+02	0.1312E+02	0.2199E-01	0.1764E+00	0.4200E+00	-0.8747E-01	0.1919E+01

FILE. NEADS ! 276504/A 24 MOORING ID. 276504 START-CYCLE. !. STOP-CYCLE. 365. NUMBER OF VALUES. 365.

TIME RANGE. 23.10.1983 9. 0. 0. 0/21.10.1984 9. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 560M

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.1084E+02	0.1187E+02	0.1137E+02	0.1404E-01	0.7195E-01	0.2682E+00	-0.3643E+00	0.1895E+01
2	UC	[CM/S]	-0.9694E+01	0.1552E+02	-0.5517E+00	0.2503E+00	0.2286E+02	0.4781E+01	0.7295E+00	0.3746E+01
3	VC	[CM/S]	-0.1024E+02	0.1886E+02	-0.6288E+00	0.3042E+00	0.3378E+02	0.5812E+01	0.1051E+01	0.3726E+01

VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1 TEMP	2 UC	-0.4384E+00	-0.3419E+00	0.2977E+04	0.5456E+02	0.2856E+01
1 TEMP	3 VC	-0.3029E+00	-0.1943E+00	0.4338E+04	0.6587E+02	0.3448E+01
2 UC	3 VC	0.2844E+01	0.1024E+00	0.1030E+04	0.3209E+02	0.1680E+01

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
2	3	0.8365E+00	0.2832E+02	0.5322E+01	0.2785E+00	221.26

FILE. NEADS ! 276505/A 24 MOORING ID. 276505 START-CYCLE. !. STOP-CYCLE. 365. NUMBER OF VALUES. 365.

TIME RANGE. 23.10.1983 9. 0. 0. 0/21.10.1984 9. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 760M

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.9418E+01	0.1105E+02	0.1002E+02	0.1686E-01	0.1037E+00	0.3221E+00	0.2148E+00	0.3107E+01
2	UC	[CM/S]	-0.7212E+01	0.2098E+02	-0.5474E+00	0.2498E+00	0.2277E+02	0.4772E+01	0.2109E+01	0.9295E+01
3	VC	[CM/S]	-0.6850E+01	0.2293E+02	0.4033E+00	0.2749E+00	0.2759E+02	0.5253E+01	0.1887E+01	0.7174E+01

VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1 TEMP	2 UC	0.2695E+00	0.1754E+00	0.2491E+04	0.4991E+02	0.2612E+01
1 TEMP	3 VC	0.5354E+00	0.3165E+00	0.2978E+04	0.5457E+02	0.2856E+01
2 UC	3 VC	0.8383E+01	0.3344E+00	0.2399E+04	0.4898E+02	0.2564E+01

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
2	3	0.6800E+00	0.2518E+02	0.5018E+01	0.2627E+00	306.38

FILE. NEADS ! 276507/A 24 MOORING ID. 276507 START-CYCLE. !. STOP-CYCLE. 220. NUMBER OF VALUES. 220.

TIME RANGE. 23.10.1983 9.25. 0. 0/29. 5.1984 9.25. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 1060M

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.7695E+01	0.1014E+02	0.8362E+01	0.3734E-01	0.3067E+00	0.5538E+00	0.1521E+01	0.4822E+01
2	UC	[CM/S]	-0.1538E+02	0.2256E+02	-0.1762E+01	0.5595E+00	0.6886E+02	0.8298E+01	0.7956E+00	0.3699E+01
3	VC	[CM/S]	-0.1231E+02	0.2369E+02	-0.2811E+01	0.5996E+00	0.7910E+02	0.8894E+01	0.1254E+01	0.3551E+01

VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1 TEMP	2 UC	0.1809E+01	0.3936E+00	0.5516E+04	0.7427E+02	0.5007E+01
1 TEMP	3 VC	0.2119E+01	0.4303E+00	0.6008E+04	0.7751E+02	0.5226E+01
2 UC	3 VC	0.1954E+02	0.2648E+00	0.3871E+04	0.6222E+02	0.4195E+01

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
2	3	0.3317E+01	0.7398E+02	0.8601E+01	0.5799E+00	212.08

FILE. NEADS ! 276506/A 24 MOORING ID. 276506 START-CYCLE. !. STOP-CYCLE. 365. NUMBER OF VALUES. 365.

TIME RANGE. 23.10.1983 9. 0. 0. 0/21.10.1984 9. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 1160M

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.7150E+01	0.1001E+02	0.8171E+01	0.2691E-01	0.2642E+00	0.5140E+00	0.7231E+00	0.4231E+01
2	UC	[CM/S]	-0.5623E+01	0.1472E+02	-0.1021E+01	0.1837E+00	0.1232E+02	0.3510E+01	0.1934E+01	0.7273E+01
3	VC	[CM/S]	-0.3312E+01	0.1649E+02	0.1442E+01	0.1854E+00	0.1255E+02	0.3542E+01	0.1746E+01	0.6969E+01
4	S	[1/1000]	0.3556E+02	0.3610E+02	0.3567E+02	0.5147E-02	0.9670E-02	0.9834E-01	0.1759E+01	0.6523E+01
5	SIGT	[KG/M**3]	0.2768E+02	0.2786E+02	0.2778E+02	0.2584E-02	0.2436E-02	0.4936E-01	-0.4812E+00	0.1975E+01

VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1 TEMP	2 UC	0.4173E+00	0.2313E+00	0.9074E+03	0.3012E+02	0.1577E+01
1 TEMP	3 VC	0.5595E+00	0.3073E+00	0.1007E+04	0.3174E+02	0.1661E+01
1 TEMP	4 S	0.4010E-01	0.7932E+00	0.3626E+03	0.1904E+02	0.9967E+00
1 TEMP	5 SIGT	-0.9762E-02	-0.3848E+00	0.2000E+03	0.1414E+02	0.7403E+00
2 UC	3 VC	0.4241E+01	0.3411E+00	0.5305E+03	0.2303E+02	0.1206E+01
2 UC	4 S	0.1463E+00	0.4238E+00	0.1576E+05	0.1255E+03	0.6571E+01
2 UC	5 SIGT	0.4635E-01	0.2676E+00	0.9513E+04	0.9753E+02	0.5105E+01
3 VC	4 S	0.1781E+00	0.5113E+00	0.1613E+05	0.1270E+03	0.6647E+01
3 VC	5 SIGT	0.4754E-01	0.2719E+00	0.9693E+04	0.9845E+02	0.5153E+01
4 S	5 SIGT	0.1244E-02	0.2562E+00	0.1302E+02	0.3608E+01	0.1889E+00

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
2	3	0.1767E+01	0.1243E+02	0.3526E+01	0.1846E+00	324.70

FILE. NEADS ! 276508/A 24 MOORING ID. 276508 START-CYCLE. !. STOP-CYCLE. 365. NUMBER OF VALUES. 365.

TIME RANGE. 23.10.1983 9. 0. 0. 0/21.10.1984 9. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 1660M

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.4207E+01	0.5910E+01	0.5175E+01	0.2158E-01	0.1700E+00	0.4124E+00	-0.8479E+00	0.2956E+01
2	UC	[CM/S]	-0.1464E+02	0.1454E+02	-0.1783E+01	0.2397E+00	0.2097E+02	0.4579E+01	0.4564E+00	0.5528E+01
3	VC	[CM/S]	-0.4159E+01	0.1335E+02	0.1777E+01	0.1929E+00	0.1358E+02	0.3685E+01	0.1148E+01	0.3719E+01

VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1 TEMP	2 UC	0.1700E+00	0.9005E-01	0.4368E+03	0.2090E+02	0.1094E+01
1 TEMP	3 VC	-0.8005E+00	-0.5268E+00	0.2912E+03	0.1707E+02	0.8933E+00
2 UC	3 VC	-0.5409E+01	-0.3206E+00	0.1114E+04	0.3337E+02	0.1747E+01

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
2	3	0.2517E+01	0.1727E+02	0.4156E+01	0.2175E+00	314.90

FILE. NEADS ! 276509/A 24 MOORING ID. 276509 START-CYCLE. !. STOP-CYCLE. 365. NUMBER OF VALUES. 365.

TIME RANGE. 23.10.1983 9. 0. 0. 0/21.10.1984 9. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 3050M

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.2764E+01	0.2871E+01	0.2789E+01	0.9975E-03	0.3632E-03	0.1906E-01	0.1959E+01	0.7782E+01
2	UC	[CM/S]	-0.4533E+01	0.2269E+01	-0.1164E+01	0.7659E-01	0.2141E+01	0.1463E+01	-0.8167E-02	0.2627E+01
3	VC	[CM/S]	-0.2502E+01	0.4202E+01	0.6963E+00	0.7441E-01	0.2021E+01	0.1422E+01	0.2483E+00	0.2440E+01

VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1 TEMP	2 UC	-0.7890E-02	-0.2830E+00	0.1674E+02	0.4091E+01	0.2142E+00
1 TEMP	3 VC	0.1391E-01	0.5134E+00	0.1586E+02	0.3982E+01	0.2084E+00
2 UC	3 VC	-0.1031E+01	-0.4955E+00	0.1388E+02	0.3726E+01	0.1950E+00

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
2	3	0.1356E+01	0.2081E+01	0.1443E+01	0.7551E-01	300.90

FILE, NEADS ! 276510/A 24 MOORING ID, 276510 START-CYCLE, !. STOP-CYCLE, 306. NUMBER OF VALUES, 306.

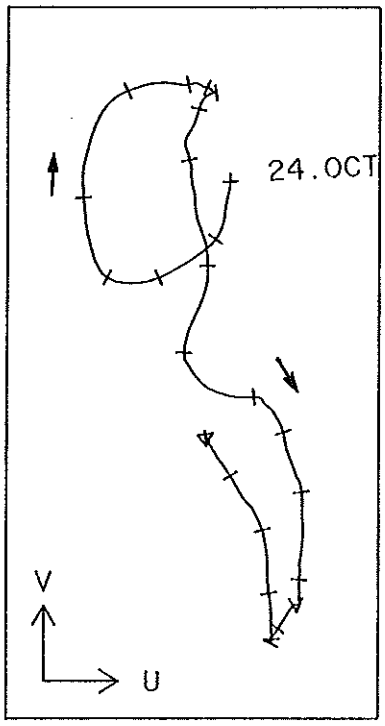
TIME RANGE, 23.10.1983 9, 0, 0, 0/23. 8.1984 9, 0, 0, 0/ SAMPLING INTERVAL (MINUTES) , 0.14400D+04 5240M

	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.2457E+01	0.2474E+01	0.2464E+01	0.2595E-03	0.2060E-04	0.4539E-02	0.7929E-01	0.2372E+01
2	UC	[CM/S]	-0.7092E+01	0.4204E+01	-0.1679E+01	0.1165E+00	0.4151E+01	0.2037E+01	-0.1003E+00	0.2957E+01
3	VC	[CM/S]	-0.4490E+01	0.5030E+01	0.6276E+00	0.9970E-01	0.3042E+01	0.1744E+01	-0.2936E+00	0.3014E+01

	VARIABLES	COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1	TEMP 2 UC	0.8543E-04	0.9238E-02	0.2520E+02	0.5020E+01	0.2870E+00
1	TEMP 3 VC	0.1802E-03	0.2276E-01	0.1845E+02	0.4296E+01	0.2456E+00
2	UC 3 VC	-0.1671E+01	-0.4701E+00	0.3182E+02	0.5641E+01	0.3225E+00

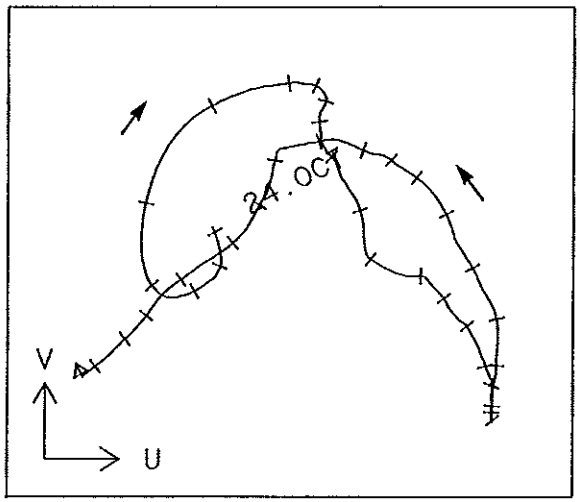
PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
2	3	0.1793E+01	0.3596E+01	0.1896E+01	0.1084E+00	290.49

NEADS I 276502/EDITI 27Z= 330.000 M



100 KM 11 CM/S

NEADS I 276504/A 24 27Z= 560.000 M

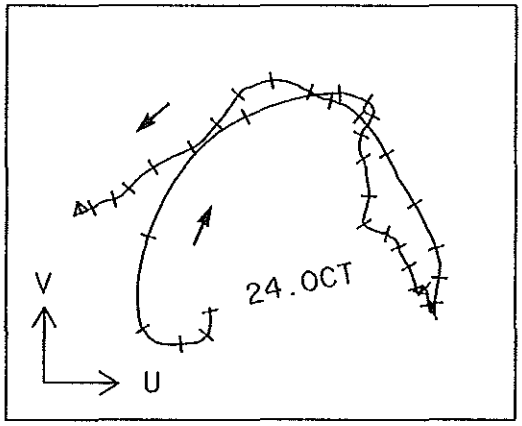


200 KM 23 CM/S

START 24 OCT 1983

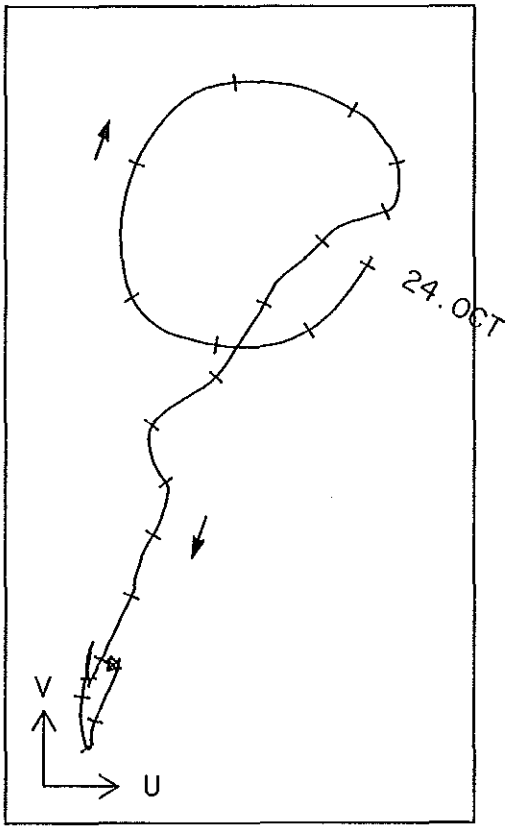
TICKMARK EVERY 10 DAYS

NEADS I 276505/A 24 27Z= 760.000 M



200 KM 23 CM/S

NEADS I 276507/A 24 27Z= 1060.000 M

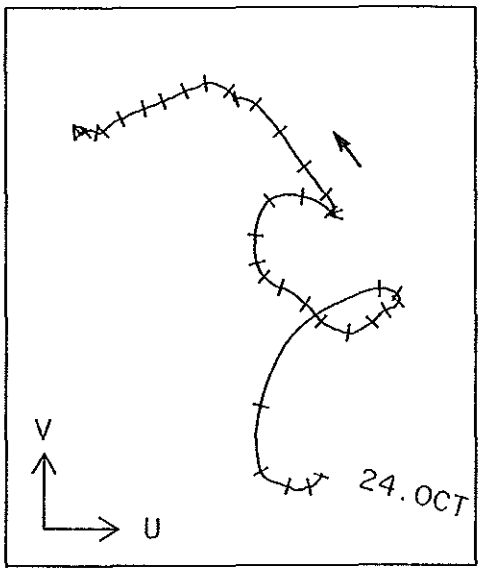


200 KM 23 CM/S

START 24 OCT 1983

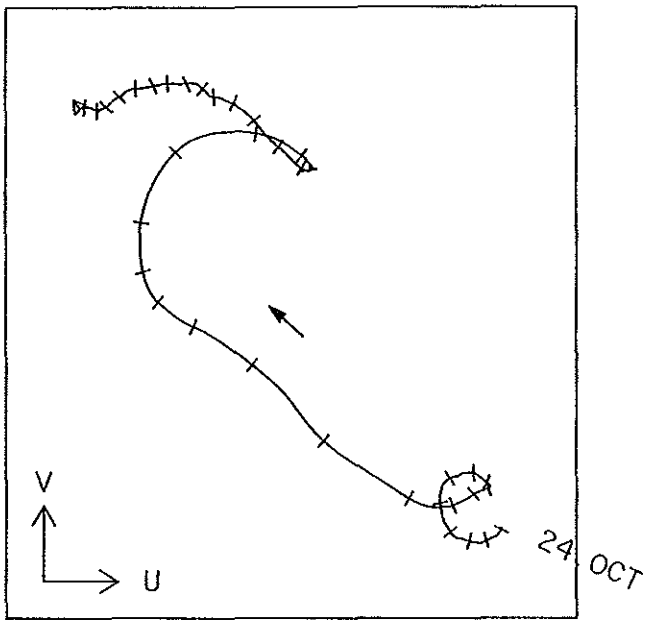
TICKMARK EVERY 10 DAYS

NEADS I 276506/A 24 27Z= 1160.000 M



200 KM 23 CM/S

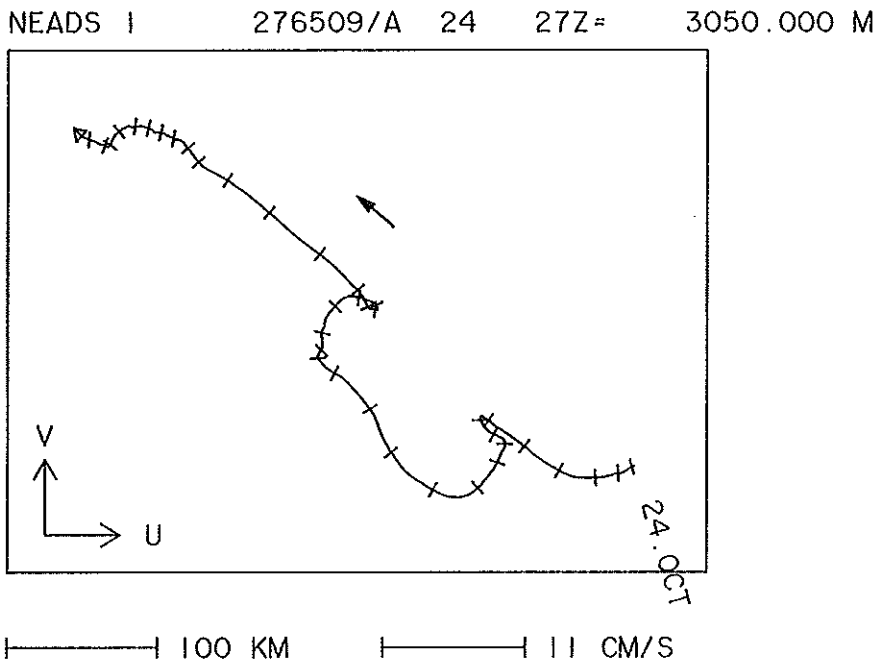
NEADS I 276508/A 24 27Z= 1660.000 M

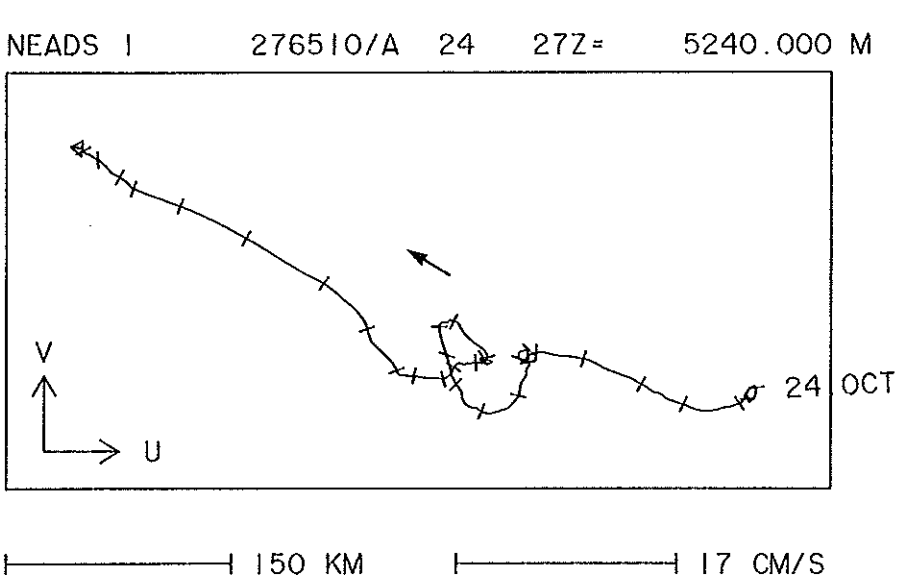


200 KM 23 CM/S

START 24 OCT 1983

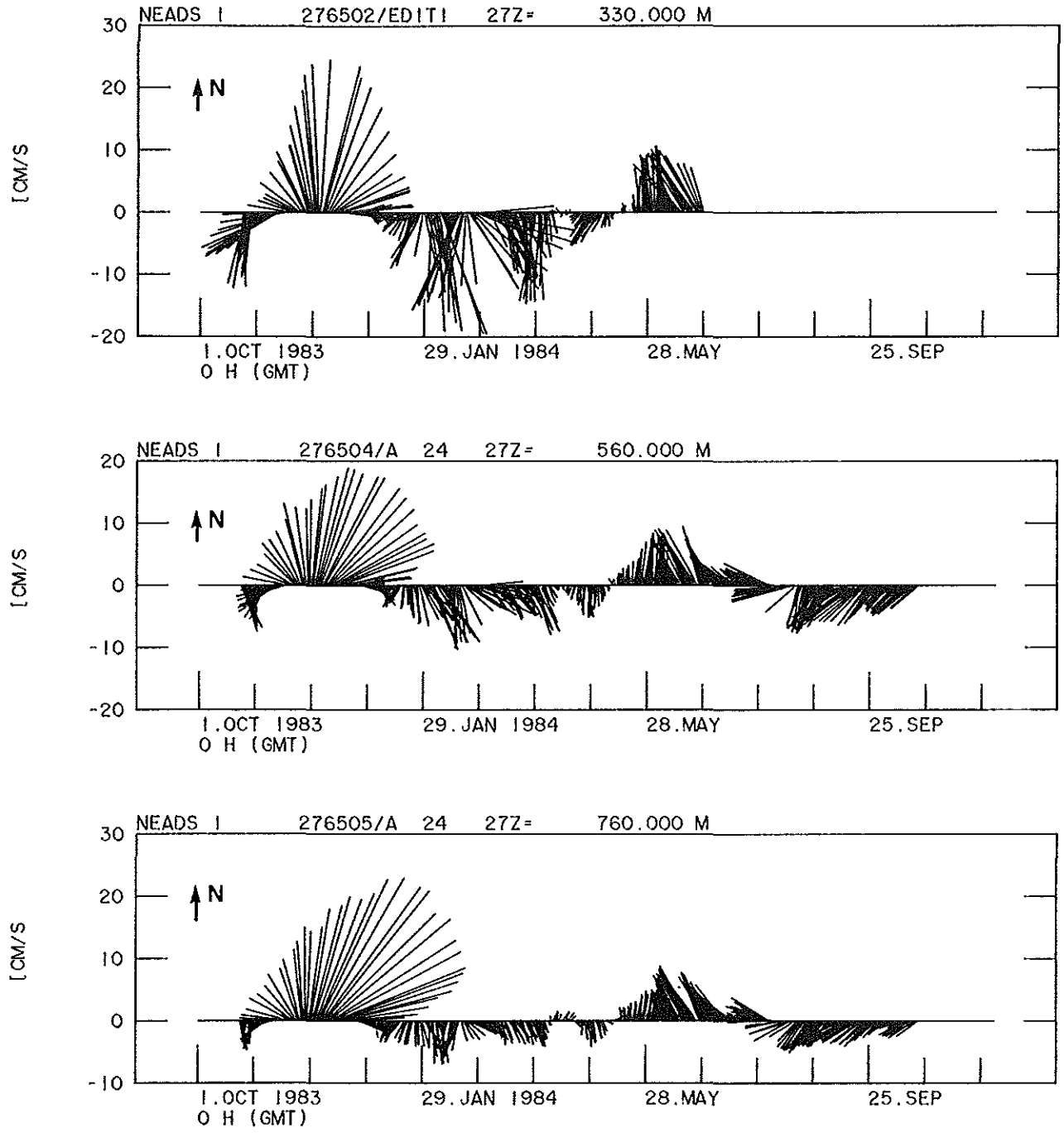
TICKMARK EVERY 10 DAYS

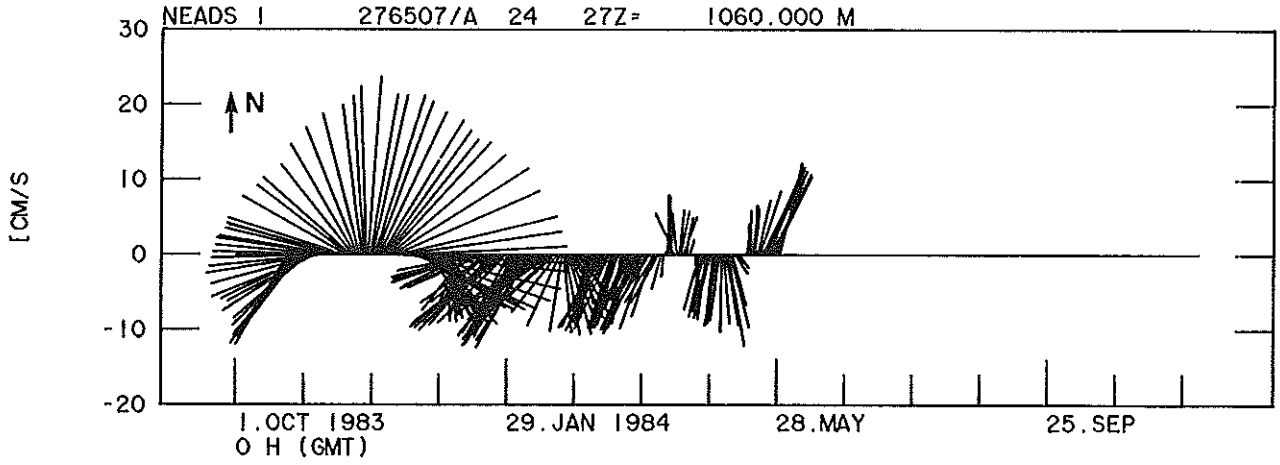




START 24 OCT 1983

TICKMARK EVERY 10 DAYS


NEADS I 276502/EDIT1 27Z= 330.000 M
30
20
10
0
-10
-20
N
[CM/S
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP
NEADS I 276504/A 24 27Z= 560.000 M
20
10
0
-10
-20
N
[CM/S
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP
NEADS I 276505/A 24 27Z= 760.000 M
30
20
10
0
-10
N
[CM/S
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP


NEADS I 276507/A 24 27Z= 1060.000 M
30
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10
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-10
-20
N
[CM/S
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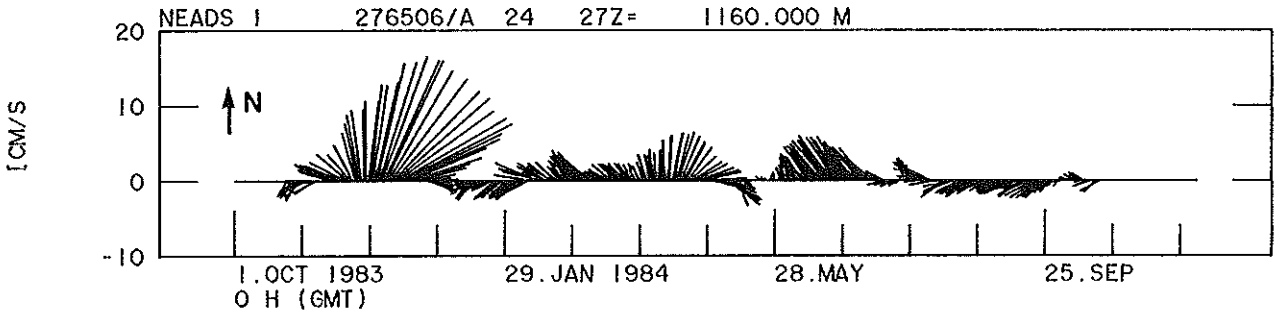
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP


NEADS I 276506/A 24 27Z= 1160.000 M
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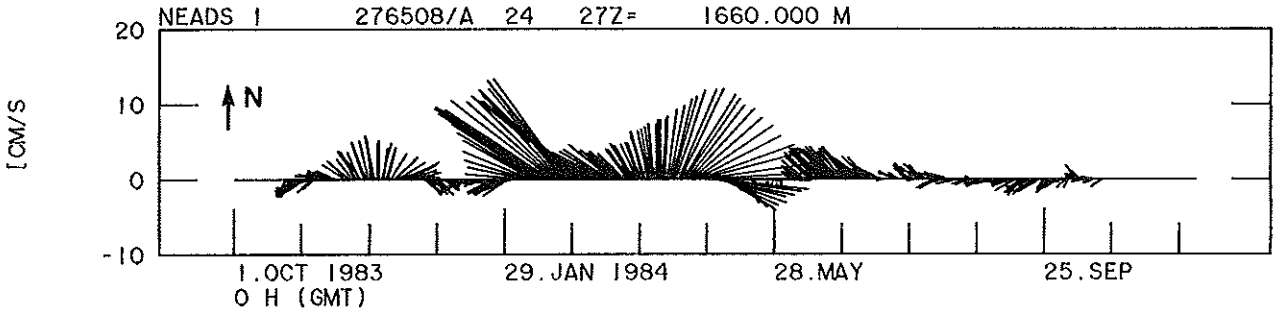
10
0
-10
N
[CM/S
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP


NEADS I 276508/A 24 27Z= 1660.000 M
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10
0
-10
N
[CM/S
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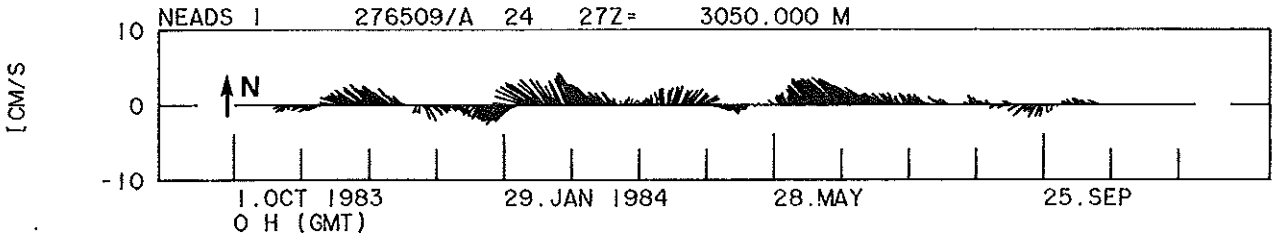
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP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0
-10
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[CM/S
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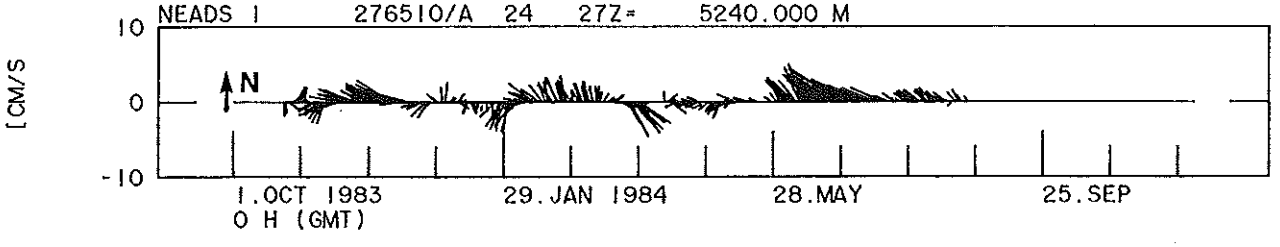
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP


NEADS I 276510/A 24 27Z= 5240.000 M
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0
-10
N
[CM/S
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0 H (GMT)
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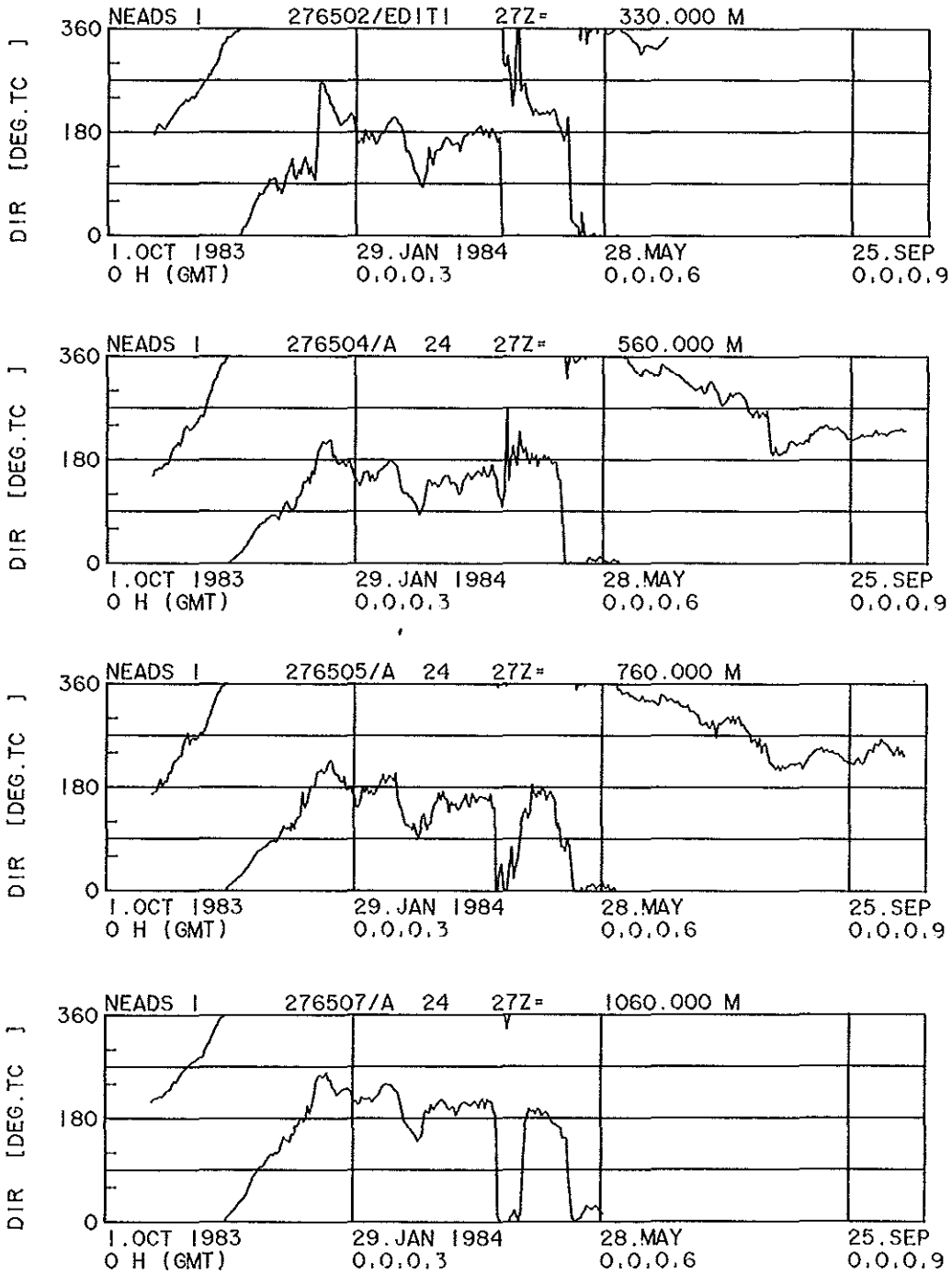
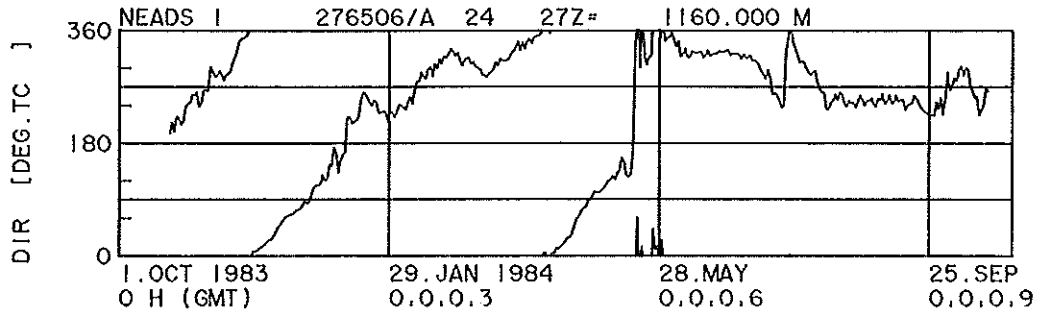
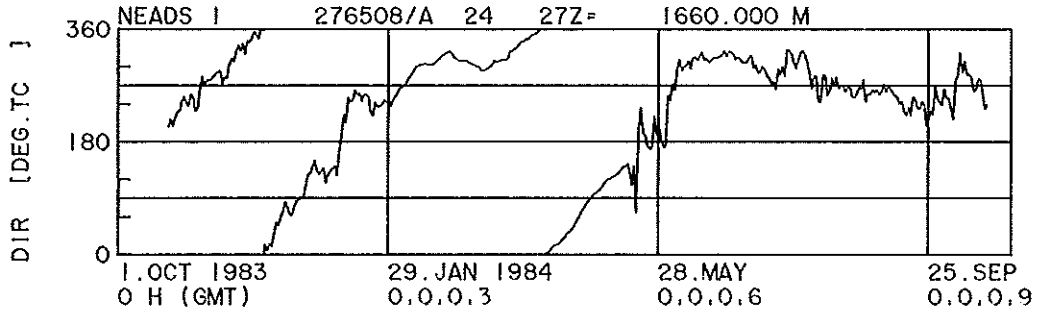
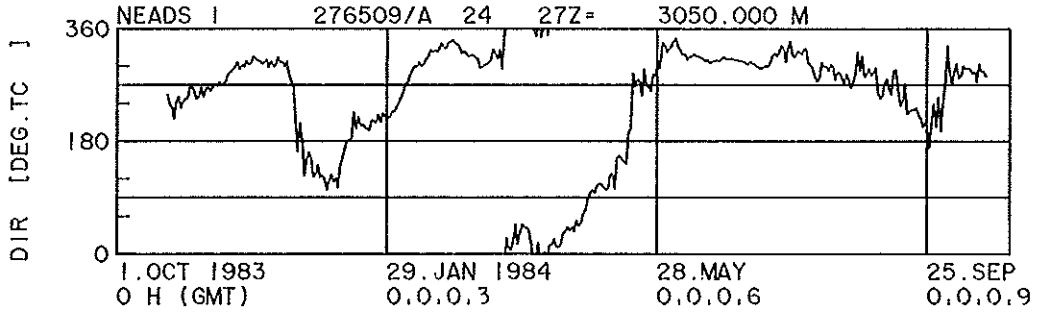
28.MAY
25.SEP


NEADS I 276502/EDIT1 27Z= 330.000 M
NEADS I 276504/A 24 27Z= 560.000 M
NEADS I 276505/A 24 27Z= 760.000 M
NEADS I 276507/A 24 27Z= 1060.000 M
DIR [DEG.TC]
360
180
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS I 276506/A 24 27Z= 1160.000 M
DIR [DEG.TC]
360
180
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS I 276508/A 24 27Z= 1660.000 M
DIR [DEG.TC]
360
180
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS I 276509/A 24 27Z= 3050.000 M
DIR [DEG.TC]
360
180
0
1.OCT 1983
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29.JAN 1984
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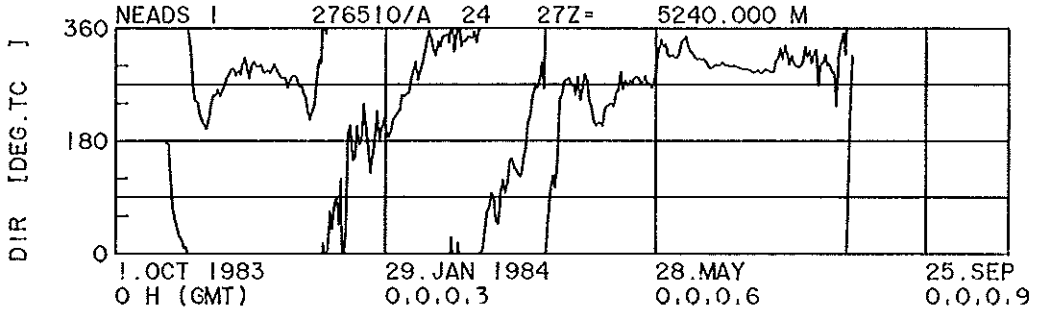
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS I 276510/A 24 27Z= 5240.000 M
DIR [DEG.TC]
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180
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1.OCT 1983
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29.JAN 1984
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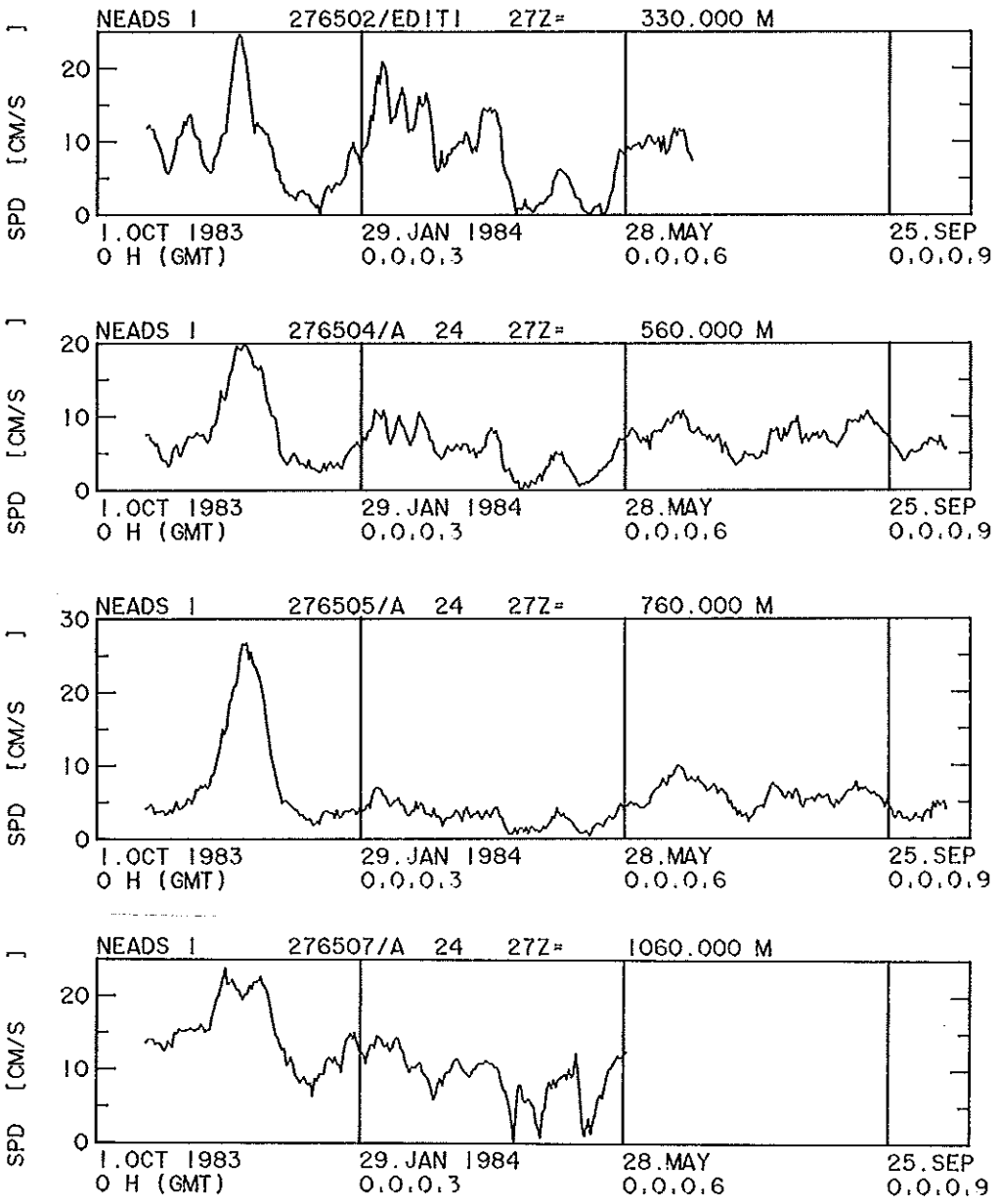
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS I 276502/EDITI 27Z= 330.000 M
SPD [CM/S]
20
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9
NEADS I 276504/A 24 27Z= 560.000 M
SPD [CM/S]
20
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9
NEADS I 276505/A 24 27Z= 760.000 M
SPD [CM/S]
30
20
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9
NEADS I 276507/A 24 27Z= 1060.000 M
SPD [CM/S]
20
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
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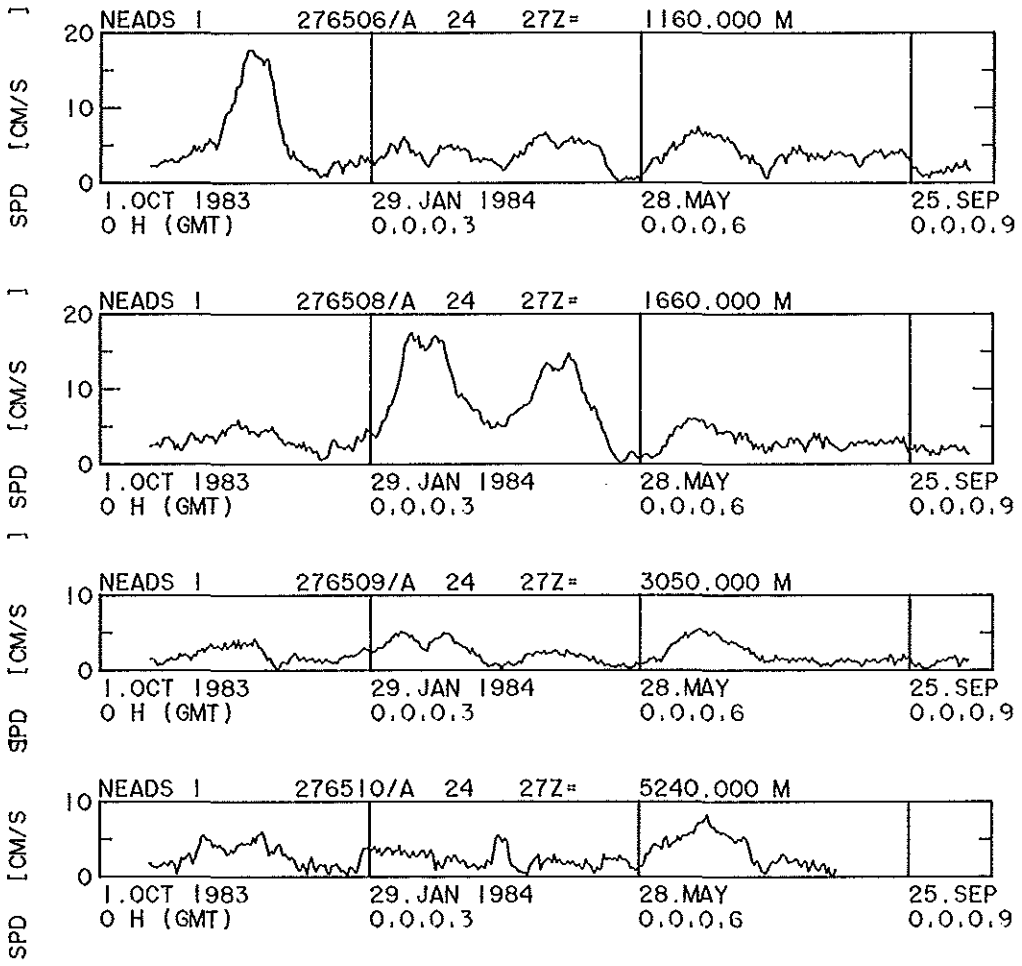
NEADS 1 276506/A 24 27Z= 1160.000 M
SPD [CM/S]
20
10
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1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 1 276508/A 24 27Z= 1660.000 M
SPD [CM/S]
20
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 1 276509/A 24 27Z= 3050.000 M
SPD [CM/S]
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 1 276510/A 24 27Z= 5240.000 M
SPD [CM/S]
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
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28.MAY
0,0,0,6
25.SEP
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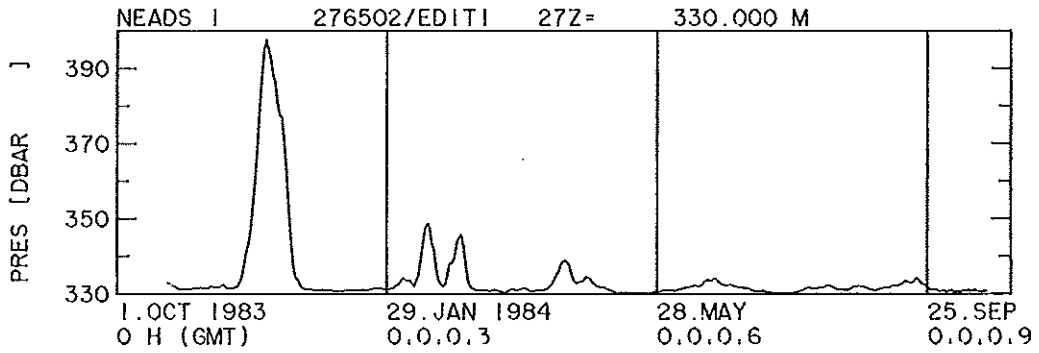
NEADS I 276502/EDITI 27Z= 330.000 M
PRES [DBAR]
390
370
350
330
1.OCT 1983
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29.JAN 1984
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28.MAY
0.0.0.6
25.SEP
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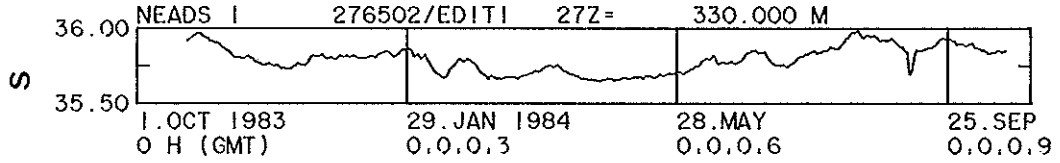
NEADS I 276502/EDITI 27Z= 330.000 M
S
36.00
35.50
1.OCT 1983
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29.JAN 1984
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0.0.0.6
25.SEP
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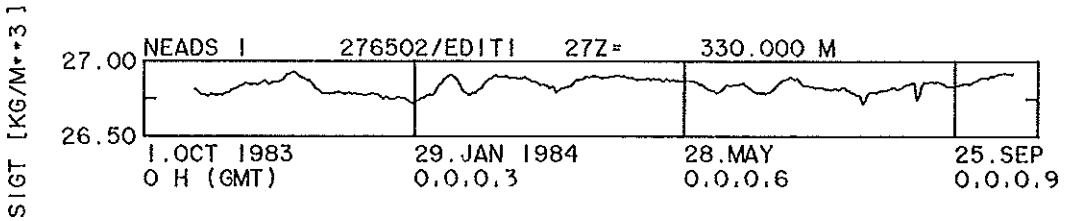
NEADS I 276502/EDITI 27Z= 330.000 M
SIGT [KG/M**3]
27.00
26.50
1.OCT 1983
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29.JAN 1984
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28.MAY
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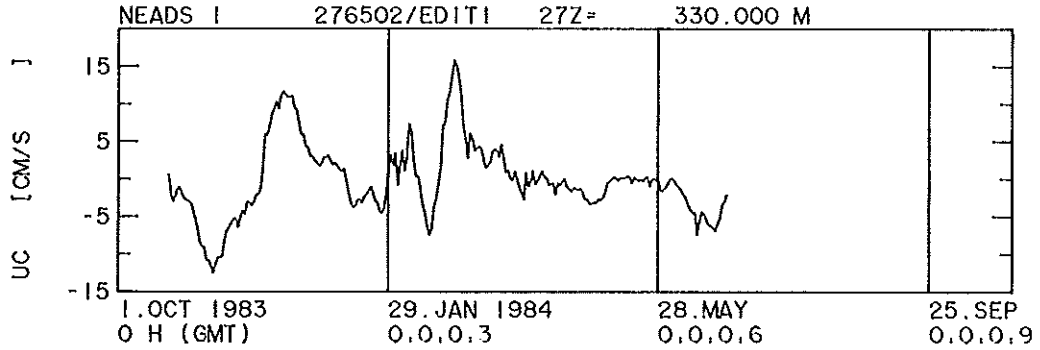
NEADS I 276502/EDITI 27Z= 330.000 M
UC [CM/S]
15
5
-5
-15
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
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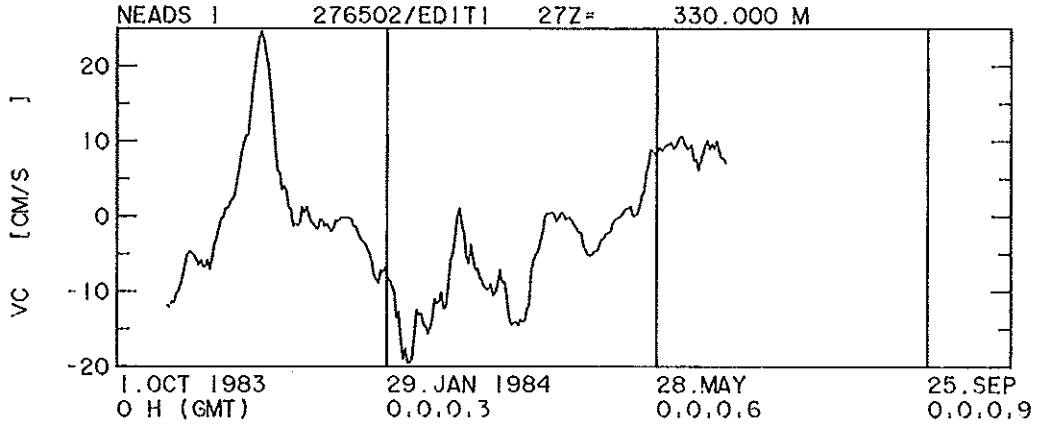
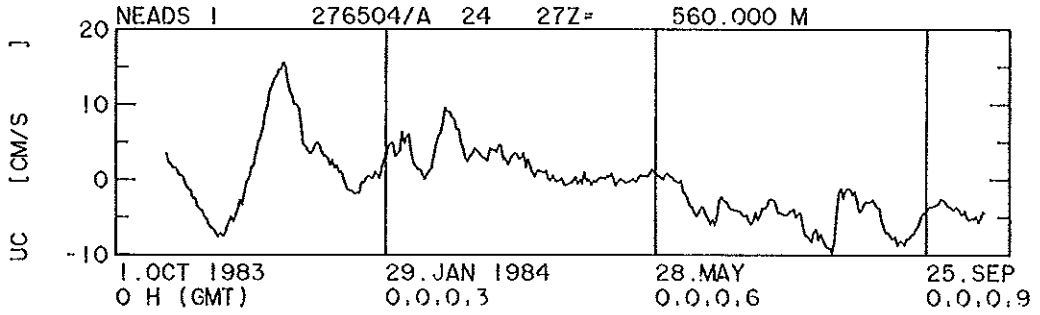

NEADS I 276502/EDITI 27Z= 330.000 M
VC [CM/S]
20
10
0
-10
-20
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS I 276504/A 24 27Z= 560.000 M
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-10
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25.SEP
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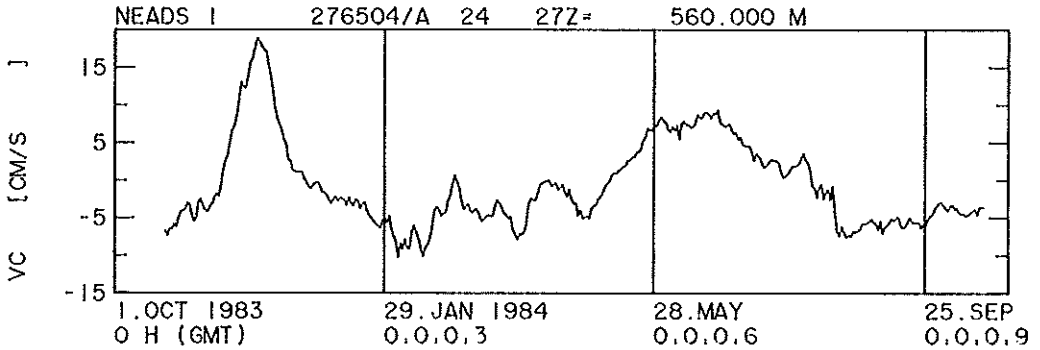
NEADS I 276504/A 24 27Z= 560.000 M
VC [CM/S]
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-5
-15
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
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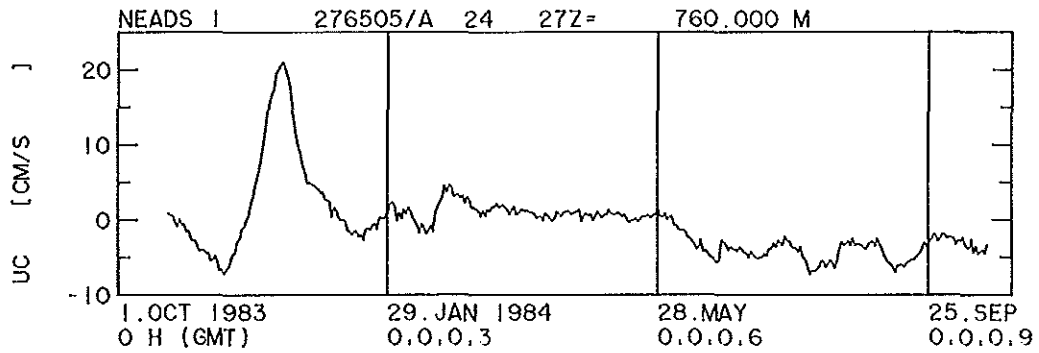
NEADS I 276505/A 24 27Z= 760.000 M
UC [CM/S]
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10
0
-10
1.OCT 1983
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29.JAN 1984
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28.MAY
0.0.0.6
25.SEP
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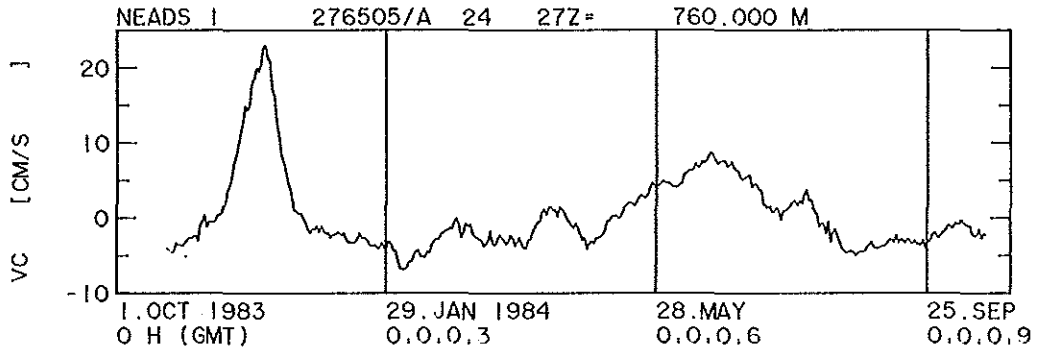
NEADS I 276505/A 24 27Z= 760.000 M
VC [CM/S]
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10
0
-10
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29.JAN 1984
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28.MAY
0.0.0.6
25.SEP
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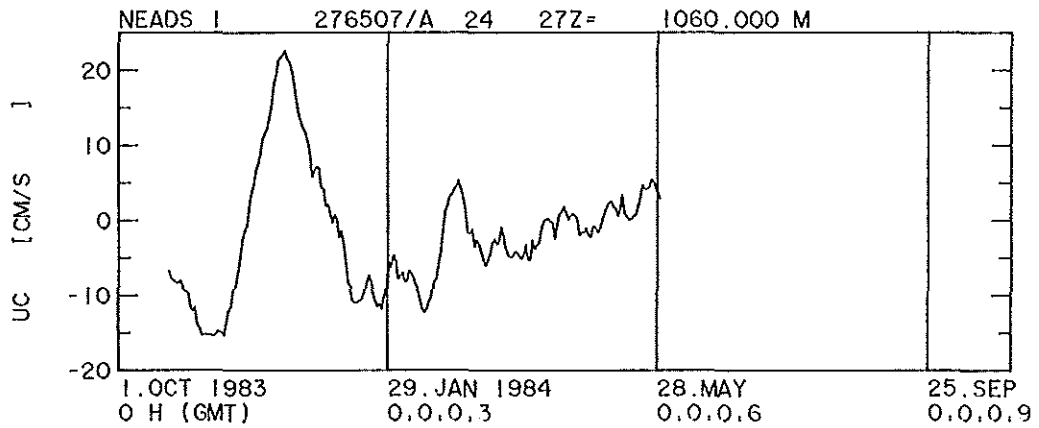
NEADS I 276507/A 24 27Z= 1060.000 M
UC [CM/S]
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10
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-10
-20
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29.JAN 1984
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0.0.0.6
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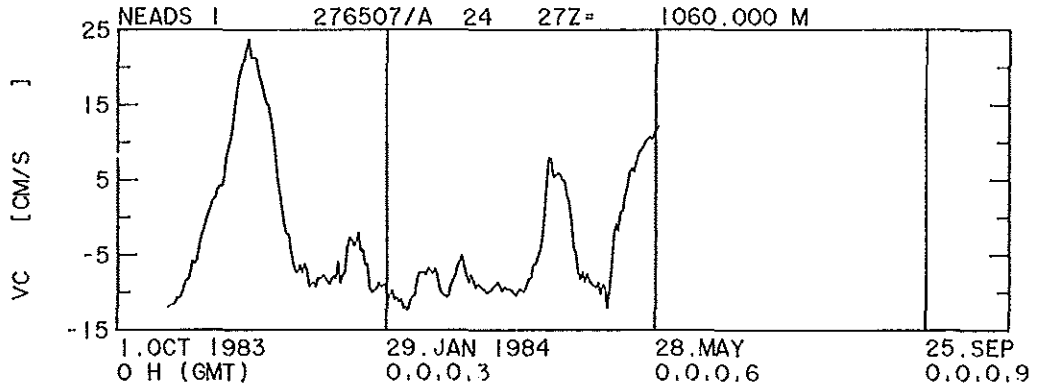
NEADS I 276507/A 24 27Z= 1060.000 M
VC [CM/S]
25
15
5
-5
-15
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29.JAN 1984
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0.0.0.6
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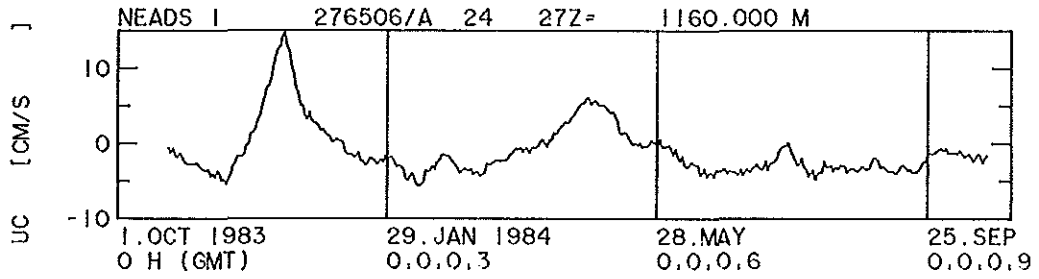
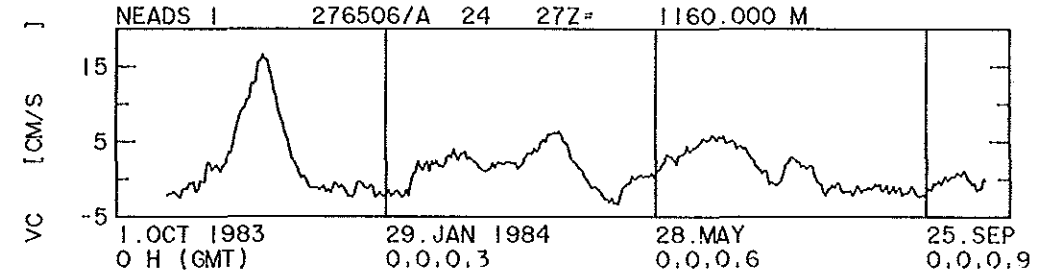

NEADS I 276506/A 24 27Z= 1160.000 M
UC [CM/S]
10
0
-10
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS I 276506/A 24 27Z= 1160.000 M
VC [CM/S]
15
5
-5
1.OCT 1983
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29.JAN 1984
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28.MAY
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25.SEP
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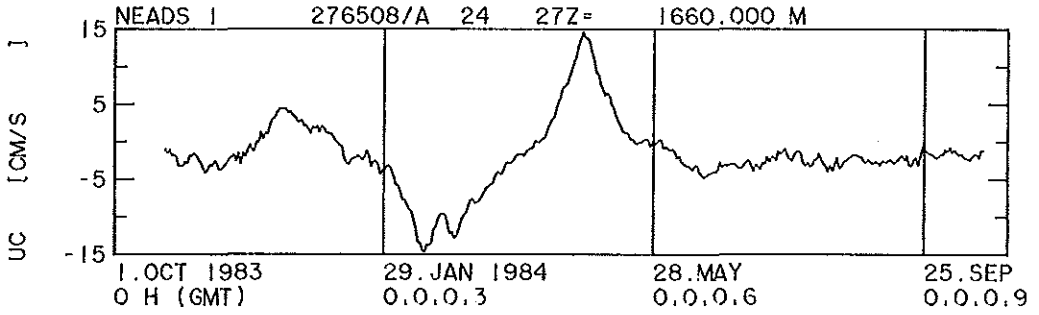
NEADS I 276508/A 24 27Z= 1660.000 M
UC [CM/S]
15
5
-5
-15
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
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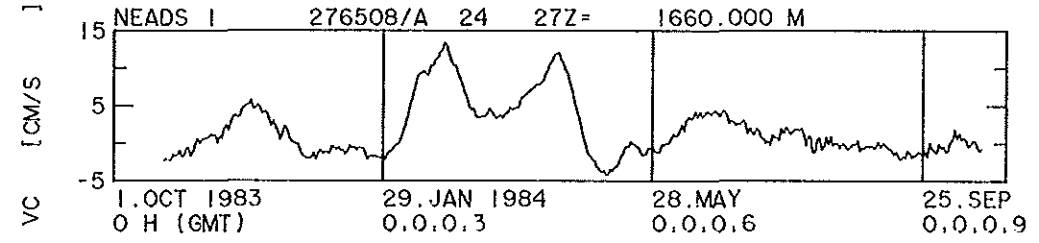
NEADS I 276508/A 24 27Z= 1660.000 M
VC [CM/S]
15
5
-5
1.OCT 1983
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29.JAN 1984
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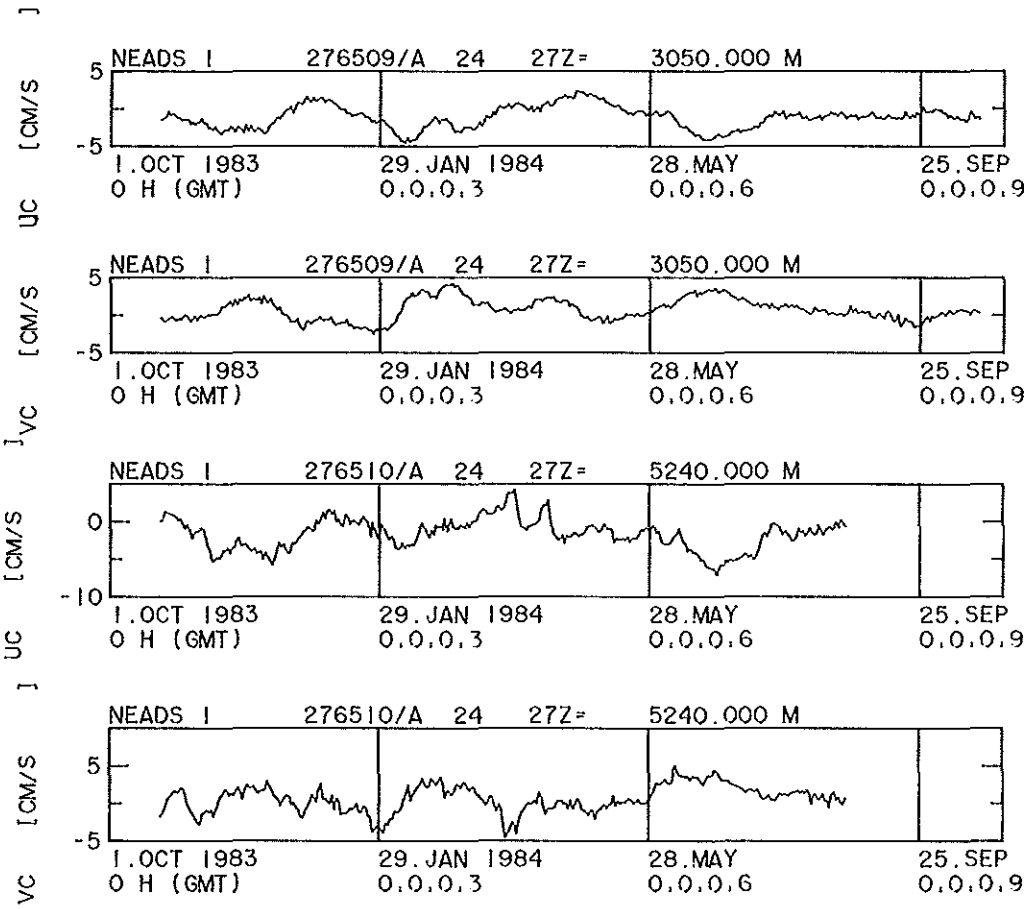
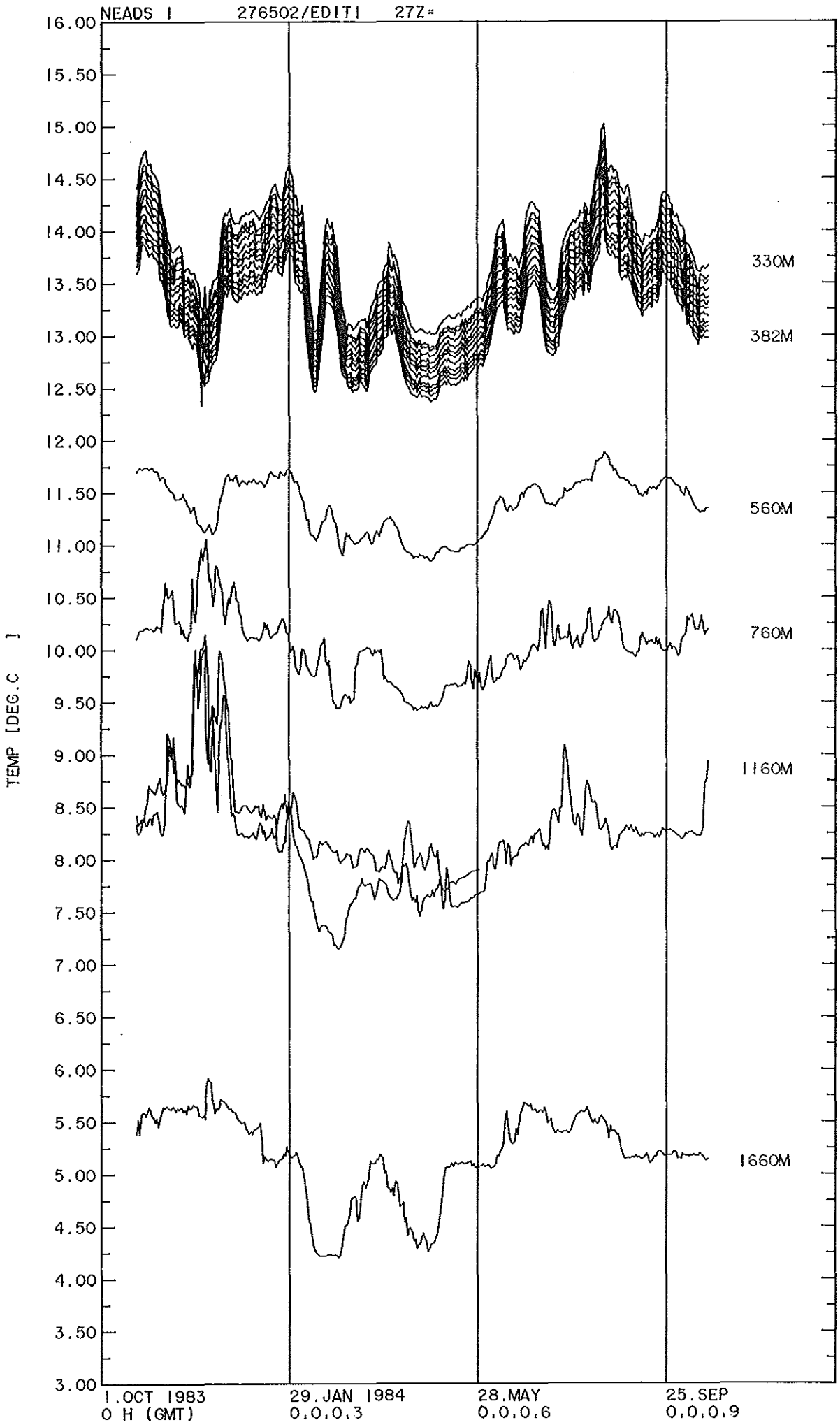
28.MAY
0,0,0,6
25.SEP
0,0,0,9


UC [CM/S]
NEADS I 276509/A 24 27Z= 3050.000 M
5
-5
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9
VC [CM/S]
NEADS I 276509/A 24 27Z= 3050.000 M
5
-5
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9
UC [CM/S]
NEADS I 276510/A 24 27Z= 5240.000 M
0
-10
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9
VC [CM/S]
NEADS I 276510/A 24 27Z= 5240.000 M
5
-5
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9


NEADS I 276502/EDITI 27Z=
TEMP [DEG.C]
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15.00
14.50
14.00
13.50
13.00
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11.50
11.00
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10.00
9.50
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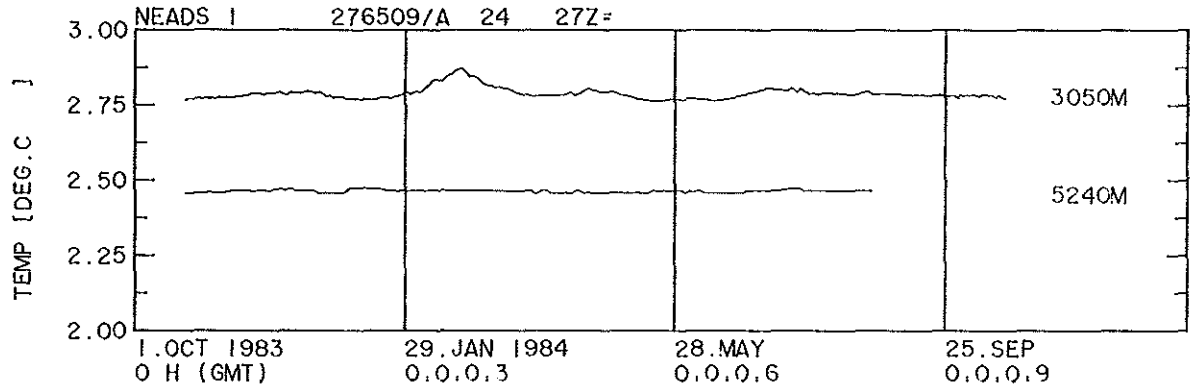
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
330M
382M
560M
760M
1160M
1660M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9


NEADS I 276509/A 24 27Z=
TEMP [DEG.C]
3.00
2.75
2.50
2.25
2.00
3050M
5240M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9

4.4 Thermistorcable mooring R, IfM No 297-1

IfM mooring No: 297-1 External name: R

Latitude: 27° 59.5'N Longitude: 26° 30.8'W

Sounding: 5035 m Water depth: 5075 m

Deployed: 24 Oct 83 Recovered: 01 Nov 84

Start of record: 24 Oct 83, 1200 Z End of record: 01 Nov 84, 1000 Z

Remarks:

Identification	instrument				Remarks
	type	No	depth (m)	sampling (min.)	
297101	A-VTC	1407	299	60	$\lvert \underset{\sim}{u} \rvert$ and γ bad S = S+1.96+6.032E-5*N
102	A-PT400	18/984	300-700	120	
103	A-T400	801/ 1062	900- 1300	120	no data

A-VT(PC) : Aanderaa current meter RCM4/5 with sensors for P and C (optional)

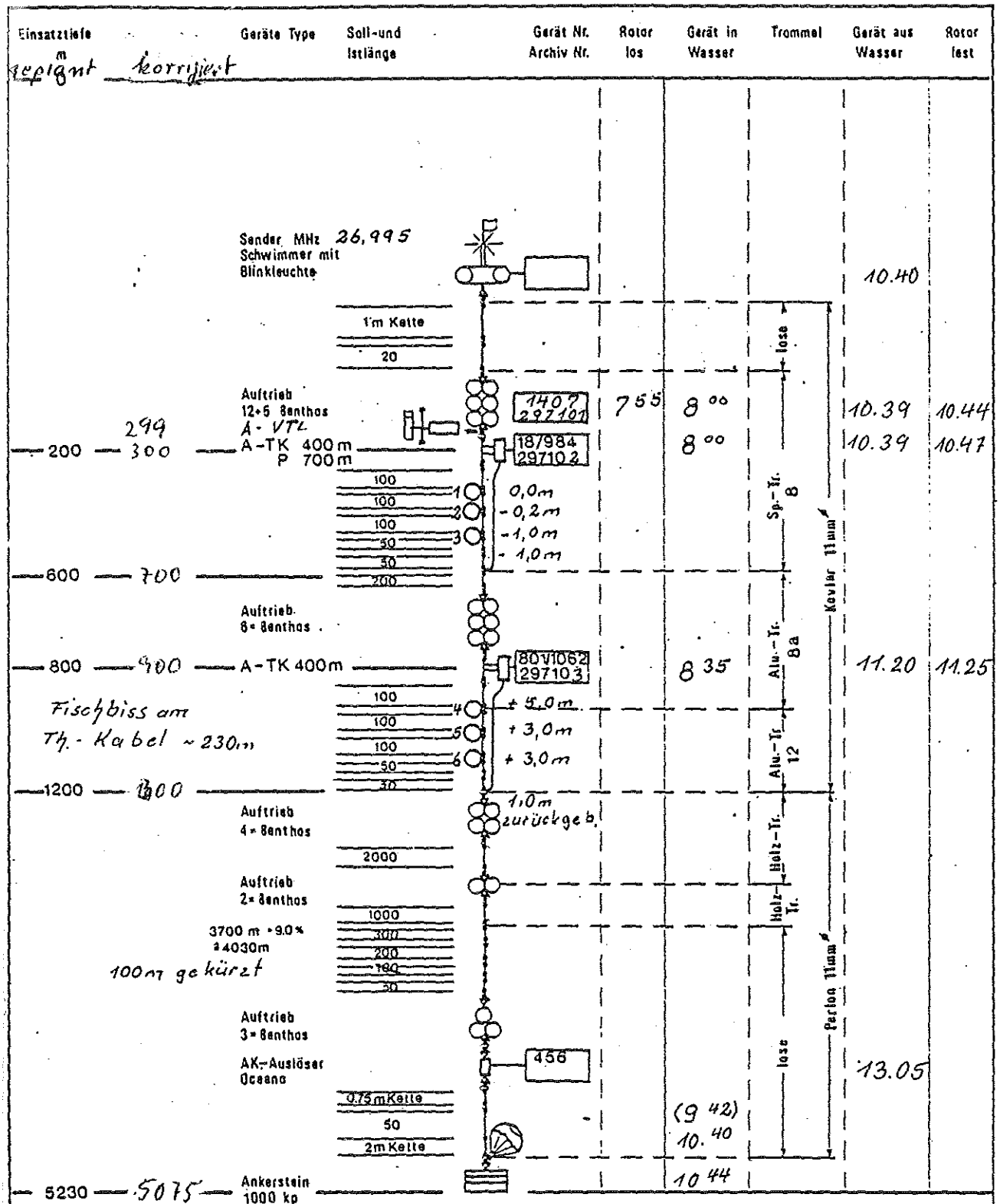
A-T50 : Aanderaa thermistorcable 50 m or 400 m

ACM-2 : Neil Brown acoustic vector averaging current meter

P, T, C, S : Pressure, temperature, conductivity, salinity

$\lvert \underset{\sim}{u} \rvert$, γ : Current speed and direction true north

N : Record number



Auslegedatum: 24. 10. 83	Aufnahmedatum: 1. 11. 84	VERANKERUNG NR.: 297
Protokollführer: Meyer	Protokollführer: Podewski	Nr.: R
Lottiefe: 5035 korr. 5075	von Tiefe: 10.13	(-geplant-):
Auslegetiefe: -	Positionsbestimmung: (Astron., Decca, Loran, Satellit)	Schiff: F.S. Poseidon
Auf Tiefe: 10.44	29° 59.5' N	Expedition: Poseidon-Reise 104c
Zeitmeridian: GMT	26° 30.8' W	Seegebiet: N.O.-Atlantik
		Wassertiefe: 5230 m
		Auslegedatum: 24. 10. 83
		Aufnahmedatum: 1. 11. 84

korrigiert am 19.12.85

FILE. NEADS R 297101ROUTIN MOORING ID. 297102 START-CYCLE. 1. STOP-CYCLE. 368. NUMBER OF VALUES. 368.

TIME RANGE. 27.10.1983 6. 0. 0. 0/28.10.1984 6. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 299M

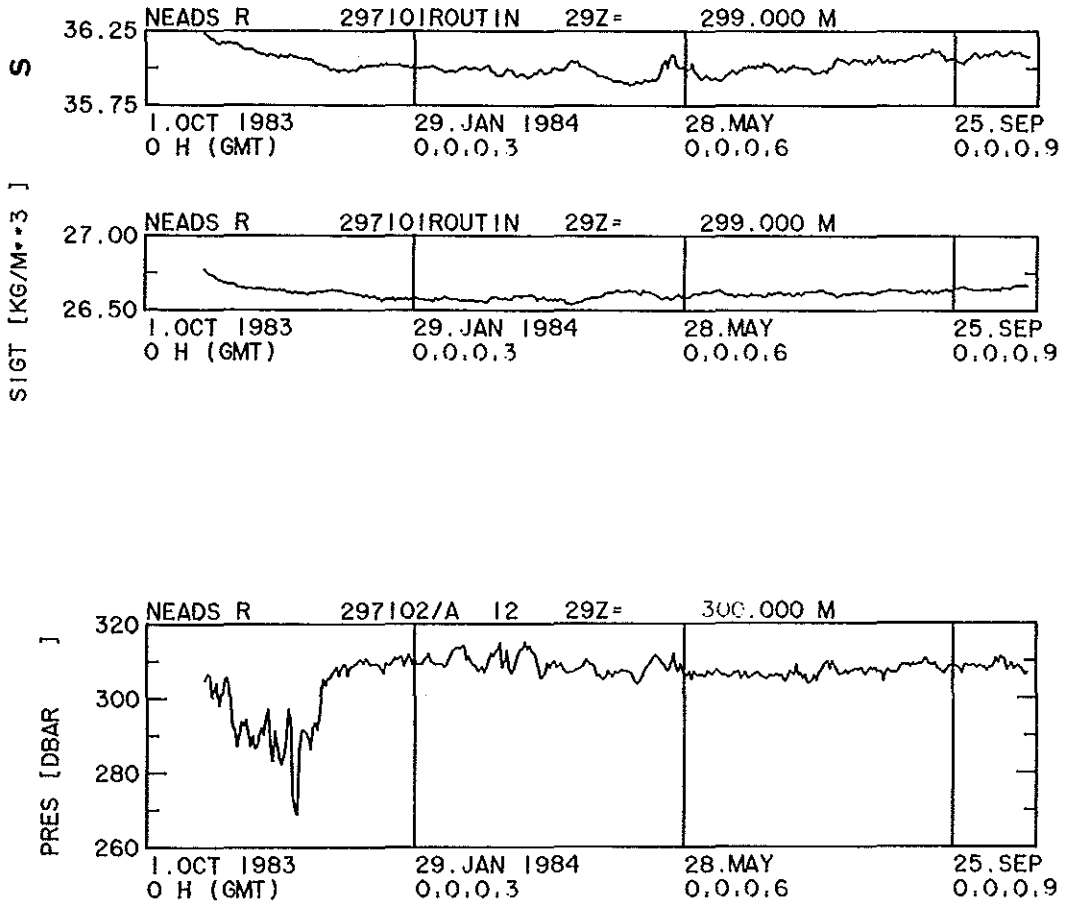
	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.1512E+02	0.1605E+02	0.1566E+02	0.9403E-02	0.3254E-01	0.1804E+00	-0.8347E+00	0.3391E+01
2	S	[1/1000]	0.3589E+02	0.3623E+02	0.3602E+02	0.3308E-02	0.4027E-02	0.6346E-01	0.4612E+00	0.3204E+01
3	SIGT	[KG/M**3]	0.2654E+02	0.2677E+02	0.2661E+02	0.1796E-02	0.1187E-02	0.3445E-01	0.8992E+00	0.5482E+01

	VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1	TEMP	2 S	0.8237E-02	0.7195E+00	0.5240E+02	0.7239E+01	0.3773E+00
1	TEMP	3 SIGT	-0.1035E-02	-0.1665E+00	0.2248E-02	0.4741E+01	0.2471E+00
2	S	3 SIGT	0.1235E-02	0.5650E+00	0.6773E+01	0.2602E+01	0.1357E+00

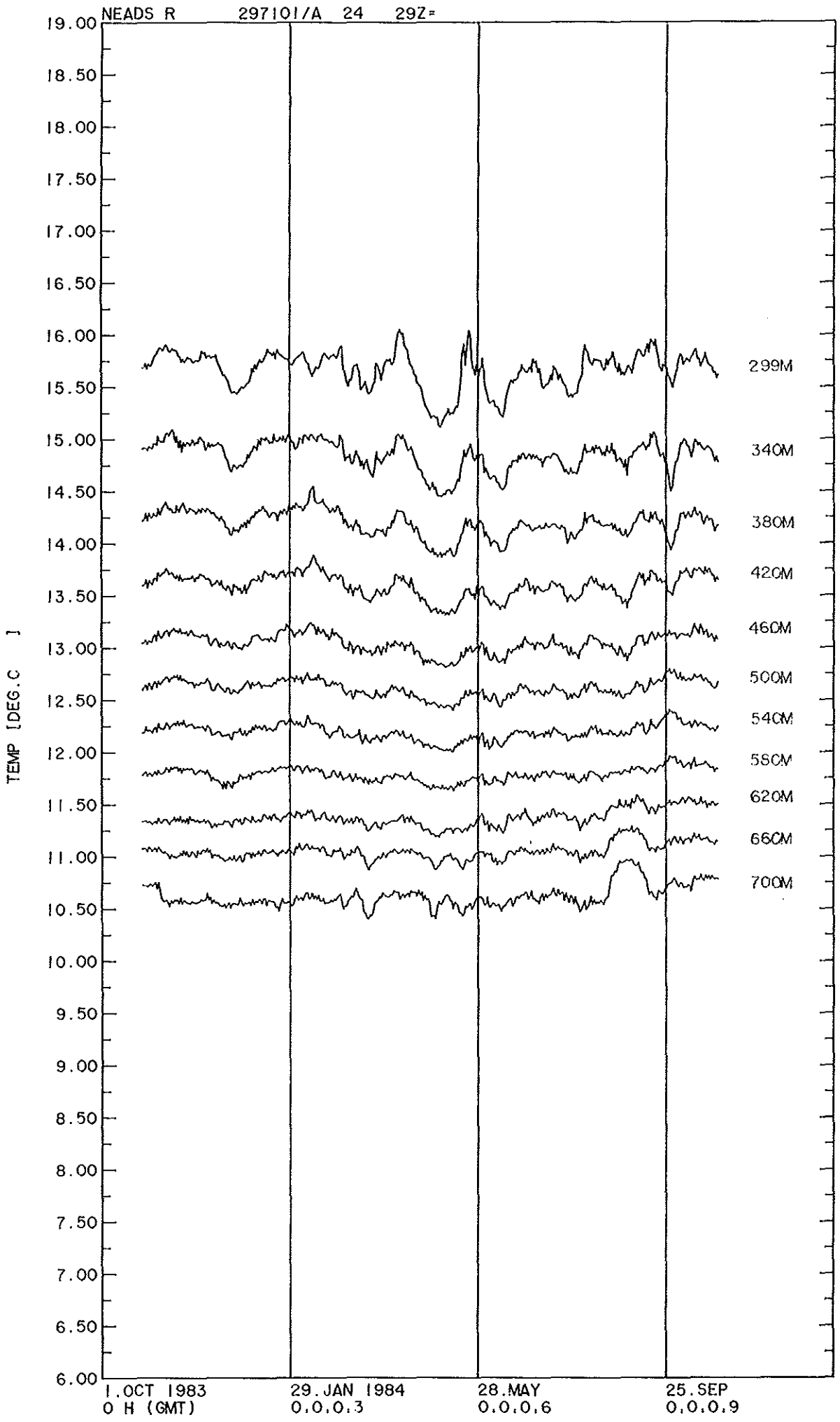
FILE. NEADS R 297102/A 12 MOORING ID. 297102 START-CYCLE. 1. STOP-CYCLE. 368. NUMBER OF VALUES. 368.

TIME RANGE. 27.10.1983 6. 0. 0. 0/28.10.1984 6. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 300M-700M

	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	PRES	[DBAR]	0.2688E+03	0.3149E+03	0.3058E+03	0.3481E+00	0.4458E+02	0.6677E+01	-0.2541E+01	0.1033E+02
2	TEMP	[DEG.C]	0.1445E+02	0.1509E+02	0.1485E+02	0.7474E-02	0.2055E-01	0.1434E+00	-0.8190E+00	0.3123E+01
3	TEMP	[DEG.C]	0.1387E+02	0.1455E+02	0.1419E+02	0.6572E-02	0.1590E-01	0.1261E+00	-0.4159E+00	0.2977E+01
4	TEMP	[DEG.C]	0.1332E+02	0.1389E+02	0.1360E+02	0.5848E-02	0.1258E-01	0.1122E+00	-0.4109E+00	0.2698E+01
5	TEMP	[DEG.C]	0.1281E+02	0.1324E+02	0.1304E+02	0.4894E-02	0.8814E-02	0.9388E-01	-0.3962E+00	0.2550E+01
6	TEMP	[DEG.C]	0.1240E+02	0.1280E+02	0.1261E+02	0.4115E-02	0.6230E-02	0.7893E-01	-0.2440E+00	0.2538E+01
7	TEMP	[DEG.C]	0.1201E+02	0.1240E+02	0.1219E+02	0.3905E-02	0.5612E-02	0.7491E-01	-0.1435E+00	0.3003E+01
8	TEMP	[DEG.C]	0.1163E+02	0.1196E+02	0.1179E+02	0.3310E-02	0.4033E-02	0.6350E-01	-0.3065E-01	0.2822E+01
9	TEMP	[DEG.C]	0.1118E+02	0.1158E+02	0.1137E+02	0.4209E-02	0.6519E-02	0.8074E-01	0.4505E+00	0.2872E+01
10	TEMP	[DEG.C]	0.1087E+02	0.1128E+02	0.1105E+02	0.3858E-02	0.5479E-02	0.7402E-01	0.7013E+00	0.3877E+01
11	TEMP	[DEG.C]	0.1041E+02	0.1097E+02	0.1062E+02	0.5543E-02	0.1131E-01	0.1063E+00	0.1217E+01	0.4692E+01


S
36.25
35.75
NEADS R 297101ROUTIN 29Z= 299.000 M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
SIGT [KG/M**3]
27.00
26.50
NEADS R 297101ROUTIN 29Z= 299.000 M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9

PRES [DBAR]
320
300
280
260
NEADS R 297102/A 12 29Z= 300.000 M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS R 297101/A 24 29Z=
19.00
18.50
18.00
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
TEMP [DEG.C]
299M
340M
380M
420M
460M
500M
540M
580M
620M
660M
700M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9

4.5 Thermistorcable mooring 0, IfM No 296-1

IfM mooring No: 296-1 External name: 0

Latitude: 28° 00.0'N Longitude: 24° 27.6'N

Sounding: 5161 m Water depth: 5190 m

Deployed: 23 Oct 83 Recovered: 03 Nov 84

Start of record: 23 Oct 83, 1200 Z End of record: 03 Nov 84, 0600 Z

Remarks:

Identification	instrument				Remarks
	type	No	depth (m)	sampling (min.)	
296101	A-VTC	4352	239	60	bad for N>2838 S = 0.12 + S
102	A-PT400	711/ 1068	240-640	120	
103	A-VTPL	6158	840	60	P bad S = S+0.39+6.189E-5*N
104	A-T50	712/ 647	1190- 1240	120	thermistor 1, 4, 10, 11 bad

A-VT(PC) : Aanderaa current meter RCM4/5 with sensors for P and C (optional)

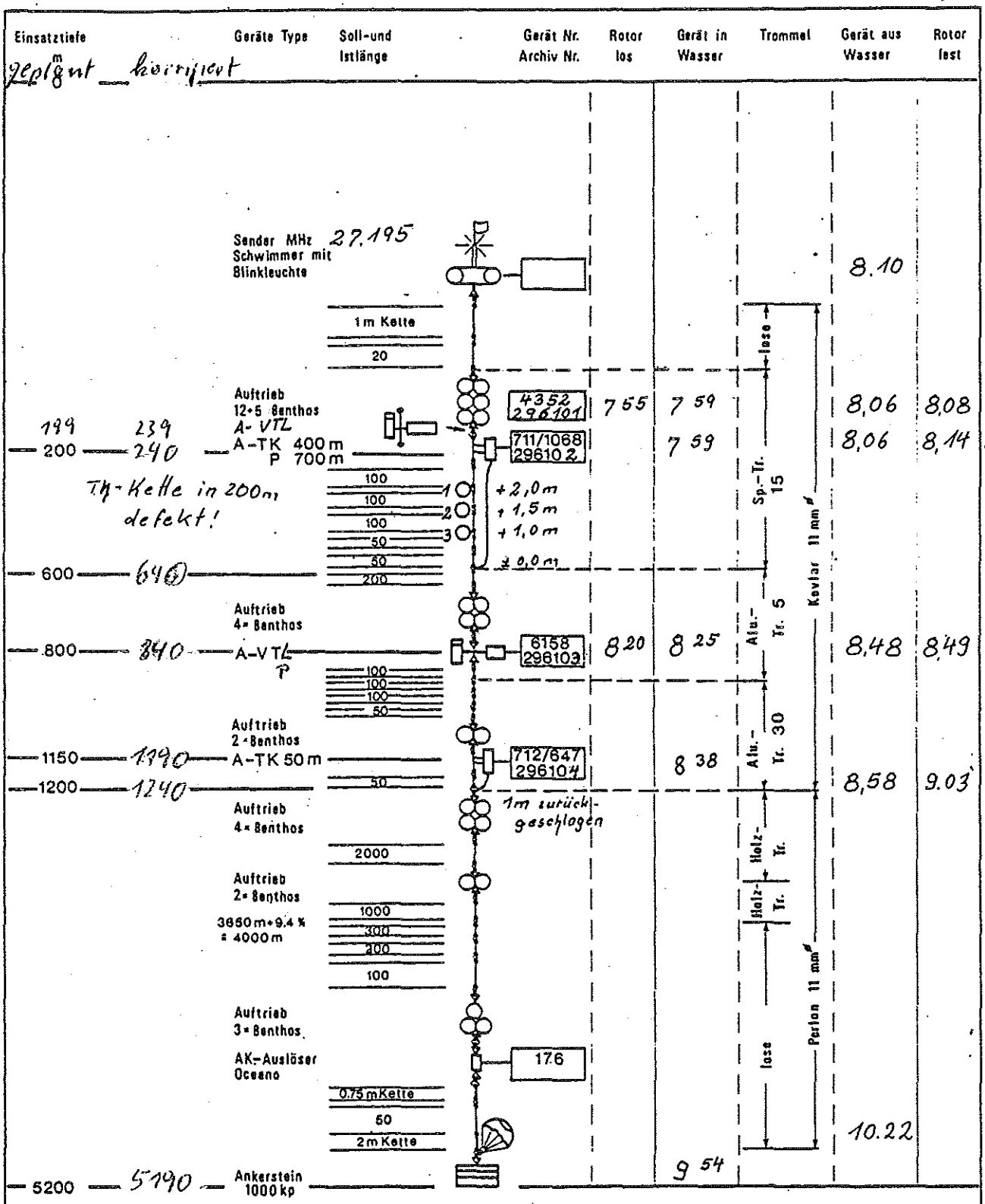
A-T50 : Aanderaa thermistorcable 50 m or 400 m

ACM-2 : Neil Brown acoustic vector averaging current meter

P, T, C, S : Pressure, temperature, conductivity, salinity

$|\underset{\sim}{u}|, \varphi$: Current speed and direction true north

N : Record number



Auslegedatum: 23.10.83	Aufnahmedatum: 3.11.84	VERANKERUNG NR.: 296
Protokollführer: Meyer	Protokollführer: Podewski	Nr.: 0
Lottiefe: 5161 korr. 5190	von Tiefe: 7.41	(-geplant-):
Auslegetiefe	Positionsbestimmung: (Astron., Decca, Loran, Satellit)	Schiff: F.S. Poseidon
Auf Tiefe: 10.35	28° 00,0' N	Expedition: Poseidon-Reise 104c
Zeitmeridian: GMT	24° 27,6' W	Seegebiet: N.O.-Atlantik
		Wassertiefe: 5200m
		Auslegedatum: 23.10.83
		Aufnahmedatum: 3.11.84

korrigiert am 9.12.85

FILE, NEADS 0 29610!/A 24 MOORING ID, 29610! START-CYCLE, 1. STOP-CYCLE, 371. NUMBER OF VALUES, 371.

TIME RANGE, 26.10.1983 6, 0, 0, 0/30.10.1984 6, 0, 0, 0/ SAMPLING INTERVAL (MINUTES) , 0.14400D+04 239M

	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.1541E+02	0.1881E+02	0.1727E+02	0.4056E-01	0.6102E+00	0.7812E+00	-0.6404E+00	0.2429E+01
2	S	[1/1000]	0.3629E+02	0.3660E+02	0.3642E+02	0.6650E-02	0.4953E-02	0.7038E-01	0.1724E+00	0.2298E+01
3	UC	[CM/S]	-0.1560E+02	0.7961E+01	-0.3419E+01	0.1630E+00	0.9858E+01	0.3140E+01	0.2161E+00	0.4946E+01
4	VC	[CM/S]	-0.1127E+02	0.1410E+02	-0.3635E+01	0.2569E+00	0.2449E+02	0.4948E+01	0.1067E+01	0.3701E+01
5	SIGT	[KG/M**3]	0.2669E+02	0.2683E+02	0.2677E+02	0.3389E-02	0.1286E-02	0.3587E-01	-0.5923E+00	0.2271E+01

	VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1	TEMP	2 S	-0.1492E+04	-0.2715E+05	0.2713E+03	0.1647E+02	0.1557E+01
1	TEMP	3 UC	0.5923E+03	0.2415E+03	0.2573E+04	0.5073E+02	0.4793E+01
1	TEMP	4 VC	0.6196E+03	0.1603E+03	0.1064E+05	0.1031E+03	0.9746E+01
1	TEMP	5 SIGT	-0.1097E+04	-0.3915E+05	0.1161E+03	0.1077E+02	0.1018E+01
2	S	3 UC	0.2859E+03	0.1294E+04	0.1290E+05	0.1136E+03	0.1073E+02
2	S	4 VC	0.2824E+03	0.8110E+03	0.5305E+05	0.2303E+03	0.2176E+02
2	S	5 SIGT	-0.1985E-02	-0.7863E+00	0.1387E+01	0.1178E+01	0.1113E+00
3	UC	4 VC	-0.1111E+03	-0.7149E+01	0.4571E+03	0.2138E+02	0.2020E+01
3	UC	5 SIGT	0.2100E+03	0.1865E+04	0.6963E+04	0.8345E+02	0.7885E+01
4	VC	5 SIGT	0.2075E+03	0.1169E+04	0.2864E+05	0.1692E+03	0.1599E+02

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
3	4	0.4990E+01	0.1717E+02	0.4144E+01	0.2151E+00	223.25

FILE, NEADS 0 29610 2/A 12 MOORING ID, 29610 2 START-CYCLE, 1. STOP-CYCLE, 371. NUMBER OF VALUES, 371.

TIME RANGE, 26.10.1983 6, 0, 0, 0/30.10.1984 6, 0, 0, 0/ SAMPLING INTERVAL (MINUTES) , 0.14400D+04 240M-640M

	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	PRES	[DBAR]	0.2380E+03	0.2579E+03	0.2445E+03	0.2524E+00	0.2364E+02	0.4862E+01	0.6608E+00	0.2474E+01
2	TEMP	[DEG.C]	0.1466E+02	0.1713E+02	0.1594E+02	0.3035E-01	0.3417E+00	0.5846E+00	-0.3659E+00	0.2426E+01
3	TEMP	[DEG.C]	0.1398E+02	0.1578E+02	0.1503E+02	0.2385E-01	0.2111E+00	0.4594E+00	-0.4781E+00	0.2450E+01
4	TEMP	[DEG.C]	0.1341E+02	0.1489E+02	0.1428E+02	0.2020E-01	0.1514E+00	0.3891E+00	-0.6558E+00	0.2520E+01
5	TEMP	[DEG.C]	0.1288E+02	0.1420E+02	0.1367E+02	0.1762E-01	0.1152E+00	0.3394E+00	-0.6665E+00	0.2487E+01
6	TEMP	[DEG.C]	0.1240E+02	0.1350E+02	0.1304E+02	0.1491E-01	0.8248E-01	0.2872E+00	-0.6149E+00	0.2440E+01
7	TEMP	[DEG.C]	0.1202E+02	0.1299E+02	0.1260E+02	0.1249E-01	0.5786E-01	0.2405E+00	-0.5529E+00	0.2364E+01
8	TEMP	[DEG.C]	0.1171E+02	0.1251E+02	0.1217E+02	0.1079E-01	0.4318E-01	0.2078E+00	-0.5700E+00	0.2406E+01
9	TEMP	[DEG.C]	0.1134E+02	0.1205E+02	0.1176E+02	0.9455E-02	0.3317E-01	0.1821E+00	-0.5647E+00	0.2432E+01
10	TEMP	[DEG.C]	0.1110E+02	0.1167E+02	0.1144E+02	0.7436E-02	0.2051E-01	0.1432E+00	-0.6150E+00	0.2510E+01
11	TEMP	[DEG.C]	0.1081E+02	0.1129E+02	0.1110E+02	0.6155E-02	0.1406E-01	0.1186E+00	-0.4618E+00	0.2407E+01

FILE. NEADS 0 296103ROUTIN MOORING ID. 296103 START-CYCLE. 1. STOP-CYCLE. 371. NUMBER OF VALUES. 371.

TIME RANGE. 26.10.1983 6. 0. 0. 0/30.10.1984 6. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 840M

	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	PRES	[DBAR]	0.8504E+03	0.8565E+03	0.8508E+03	0.6312E-01	0.1478E+01	0.1216E+01	0.3938E+01	0.1752E+02
2	TEMP	[DEG.C]	0.8800E+01	0.9795E+01	0.9254E+01	0.1177E-01	0.5143E-01	0.2268E+00	0.1896E+00	0.2135E+01
3	S	[1/1000]	0.3520E+02	0.3546E+02	0.3533E+02	0.2959E-02	0.3248E-02	0.5699E-01	-0.1666E+00	0.2008E+01
4	UC	[CM/S]	-0.8987E+01	0.2969E+01	-0.1795E+01	0.1214E+00	0.5470E+01	0.2339E+01	-0.7380E+00	0.3441E+01
5	VC	[CM/S]	-0.7979E+01	0.5279E+01	-0.7528E+00	0.1481E+00	0.8138E+01	0.2853E+01	-0.2147E+00	0.2720E+01
6	SIGT	[KG/M**3]	0.2722E+02	0.2740E+02	0.2734E+02	0.1248E-02	0.5780E-03	0.2404E-01	-0.4271E-01	0.5040E+01

	VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1	PRES	2 TEMP	0.2262E-01	0.8203E-01	0.3771E+05	0.1942E+03	0.1008E+02
1	PRES	3 S	0.2824E-02	0.4076E-01	0.4366E+04	0.6608E+02	0.3431E+01
1	PRES	4 UC	-0.1273E+01	-0.4476E+00	0.3973E+07	0.1993E+04	0.1035E+03
1	PRES	5 VC	-0.8599E+00	-0.2479E+00	0.5899E+07	0.2429E+04	0.1261E+03
1	PRES	6 SIGT	-0.1487E-02	-0.5089E-01	0.1453E+04	0.3812E+02	0.1979E+01
2	TEMP	3 S	0.1090E-01	0.8430E+00	0.7162E+02	0.8463E+01	0.4394E+00
2	TEMP	4 UC	-0.1019E+00	-0.1921E+00	0.4784E+03	0.2187E+02	0.1136E+01
2	TEMP	5 VC	-0.3220E-01	-0.4977E-01	0.6936E+03	0.2634E+02	0.1367E+01
2	TEMP	6 SIGT	0.6552E-04	0.1202E-01	0.3851E+02	0.6205E+01	0.3222E+00
3	S	4 UC	-0.1217E-01	-0.9133E-01	0.6835E+04	0.8267E+02	0.4292E+01
3	S	5 VC	-0.4370E-01	-0.2688E+00	0.1015E+05	0.1008E+03	0.5231E+01
3	S	6 SIGT	0.7507E-03	0.5480E+00	0.4597E+01	0.2144E+01	0.1113E+00
4	UC	5 VC	0.1304E+01	0.1955E+00	0.1521E+03	0.1233E+02	0.6403E+00
4	UC	6 SIGT	0.7033E-02	0.1251E+00	0.4087E+04	0.6393E+02	0.3319E+01
5	VC	6 SIGT	-0.2892E-01	-0.4218E+00	0.6080E+04	0.7797E+02	0.4048E+01

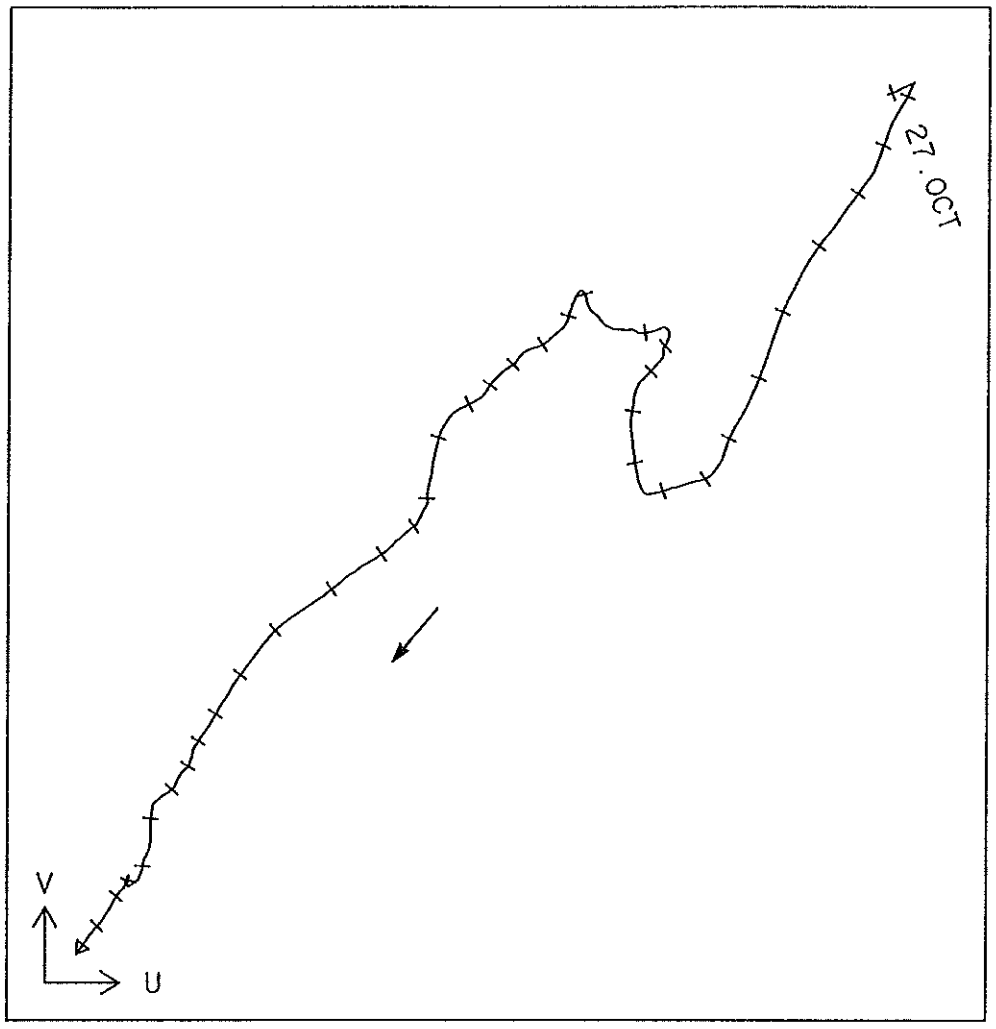
PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
4	5	0.1946E+01	0.6804E+01	0.2608E+01	0.1354E+00	247.25

FILE. NEADS 0 296104/A 12 MOORING ID. 296104 START-CYCLE. 1. STOP-CYCLE. 371. NUMBER OF VALUES. 371.

TIME RANGE. 26.10.1983 6. 0. 0. 0/30.10.1984 6. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 1190M-1240M

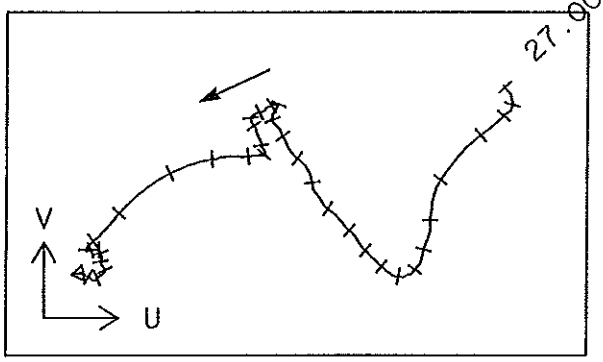
	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.6806E+01	0.8286E+01	0.7401E+01	0.9633E-01	0.2227E+00	0.4719E+00	0.5195E+00	0.1914E+01
2	TEMP	[DEG.C]	0.6886E+01	0.8461E+01	0.7423E+01	0.1124E-01	0.4684E-01	0.2164E+00	0.6981E+00	0.5846E+01
3	TEMP	[DEG.C]	0.6870E+01	0.8522E+01	0.7860E+01	0.1372E-01	0.6985E-01	0.2643E+00	-0.1604E+01	0.6612E+01
4	TEMP	[DEG.C]	0.6613E+01	0.8326E+01	0.7691E+01	0.2144E-01	0.1614E+00	0.4017E+00	-0.1488E+00	0.2213E+01
5	TEMP	[DEG.C]	0.6837E+01	0.8385E+01	0.7974E+01	0.1783E-01	0.1179E+00	0.3434E+00	-0.1288E+01	0.4412E+01
6	TEMP	[DEG.C]	0.6867E+01	0.8346E+01	0.7618E+01	0.1281E-01	0.6084E-01	0.2467E+00	-0.3787E+00	0.3473E+01
7	TEMP	[DEG.C]	0.6827E+01	0.9373E+01	0.7602E+01	0.2288E-01	0.1943E+00	0.4408E+00	0.1436E+01	0.5434E+01
8	TEMP	[DEG.C]	0.6754E+01	0.8228E+01	0.7260E+01	0.1292E-01	0.6192E-01	0.2488E+00	0.2372E+00	0.3221E+01
9	TEMP	[DEG.C]	0.6766E+01	0.8128E+01	0.7334E+01	0.1334E-01	0.6600E-01	0.2569E+00	0.1529E+00	0.2547E+01
10	TEMP	[DEG.C]	0.4321E+01	0.9677E+01	0.7981E+01	0.4131E-01	0.6331E+00	0.7957E+00	-0.1790E+01	0.7137E+01

NEADS 0 296101/A 24 29Z= 239.000 M



300 KM 34 CM/S

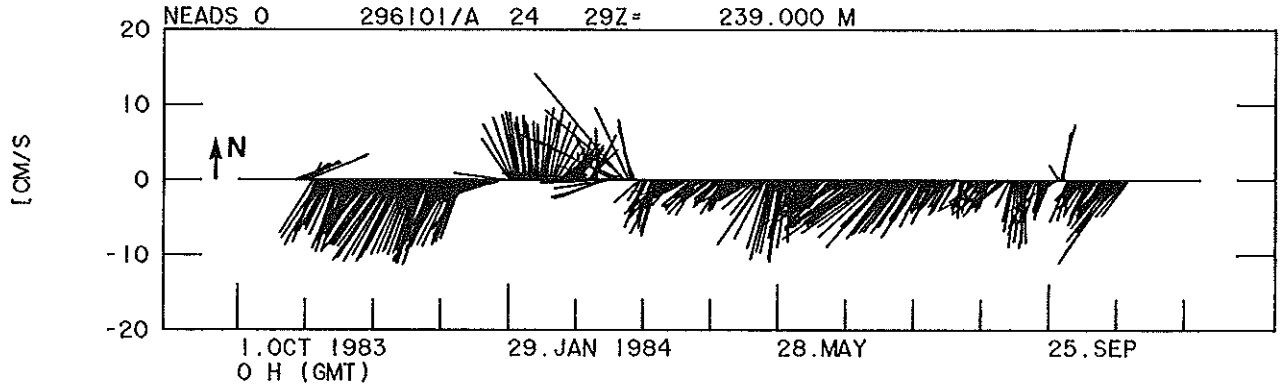
NEADS 0 296103/A 24 29Z= 840.000 M

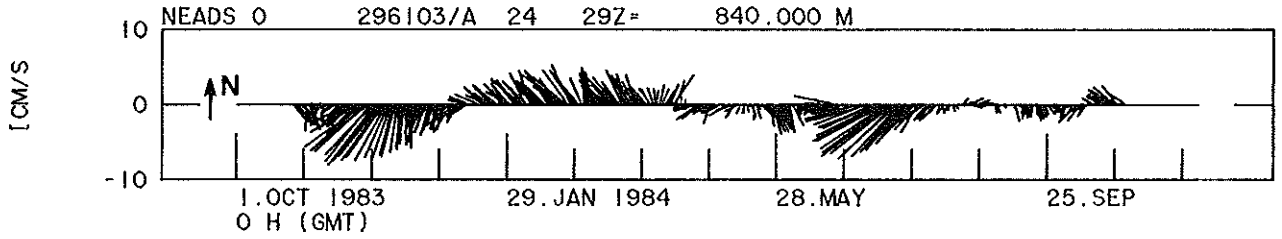


200 KM 23 CM/S

START 27 OCT 1983

TICKMARK EVERY 10 DAYS


NEADS 0 296101/A 24 29Z= 239.000 M
20
10
0
-10
-20
N
[CM/S
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP


NEADS 0 296103/A 24 29Z= 840.000 M
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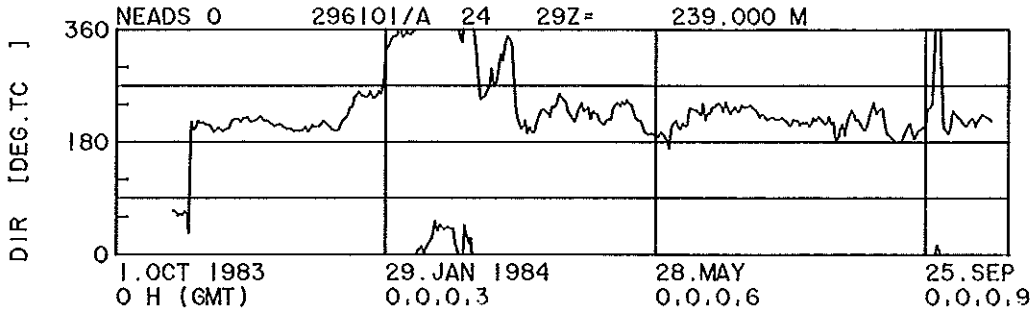
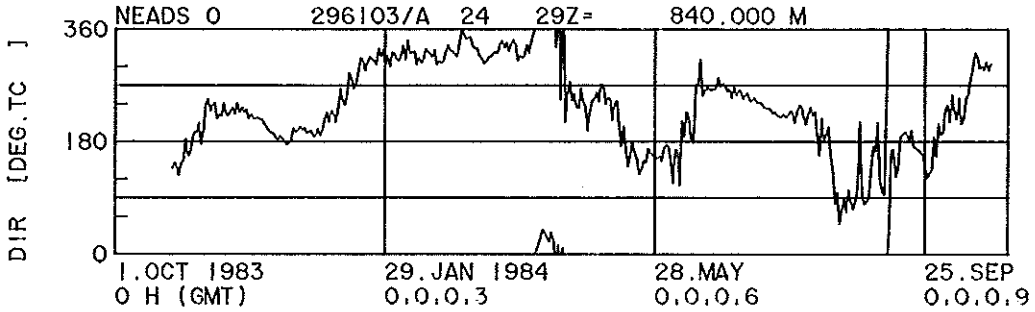
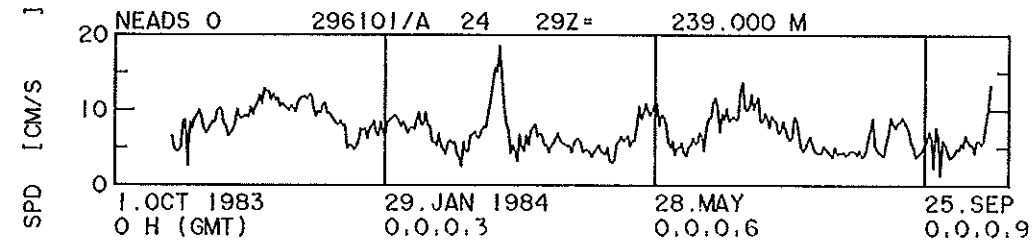
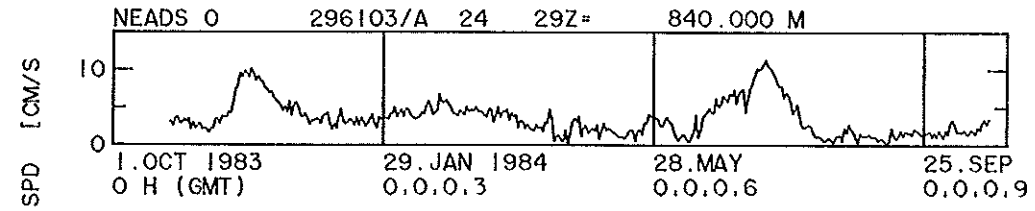
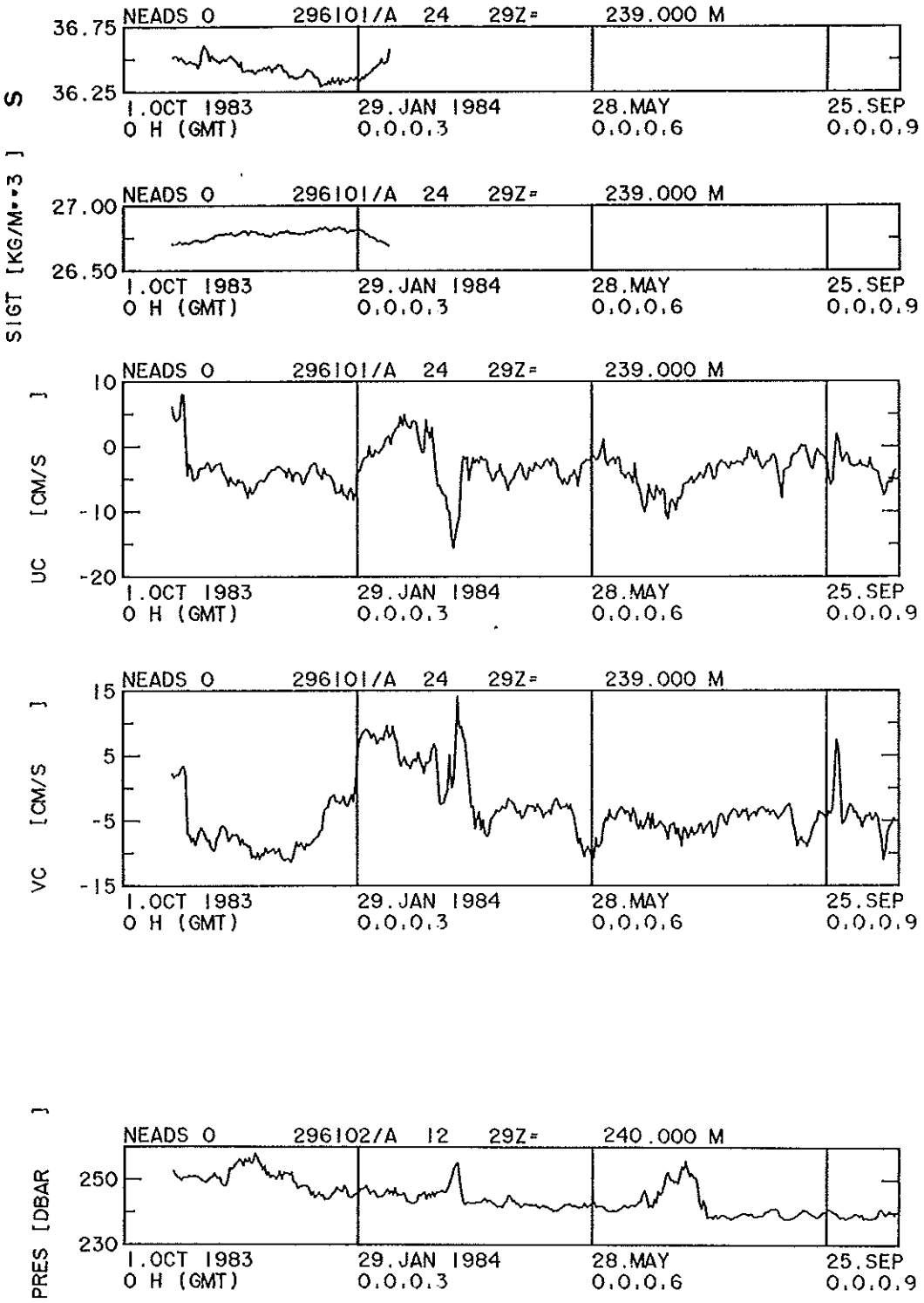
0
-10
N
[CM/S
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP

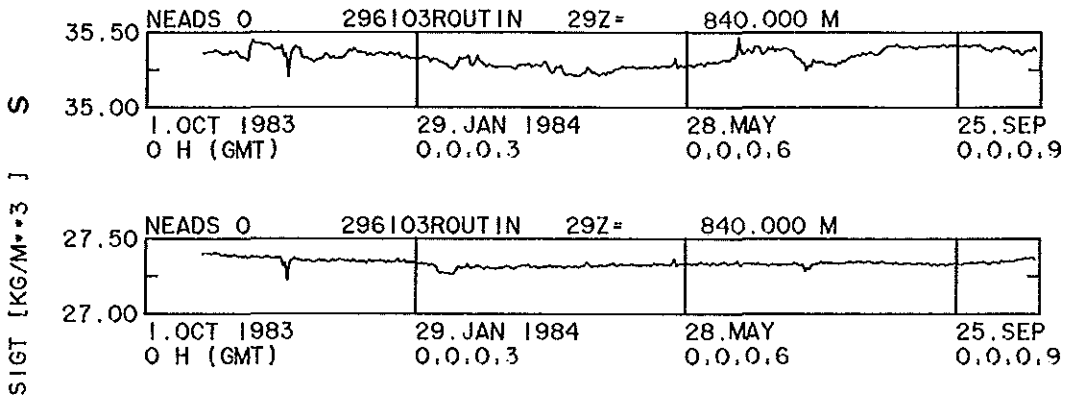

NEADS 0 296101/A 24 29Z= 239.000 M
DIR [DEG.TC]
360
180
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9

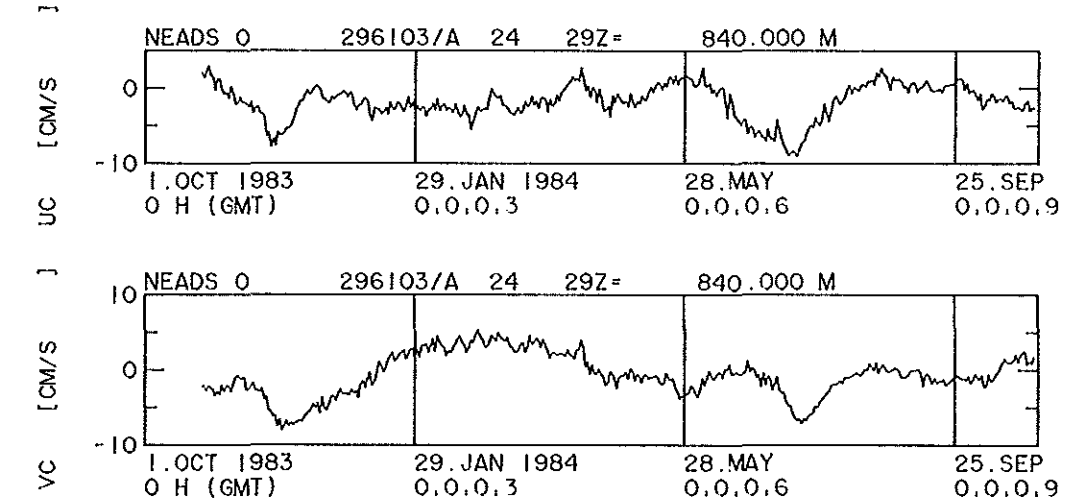

NEADS 0 296103/A 24 29Z= 840.000 M
DIR [DEG.TC]
360
180
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9

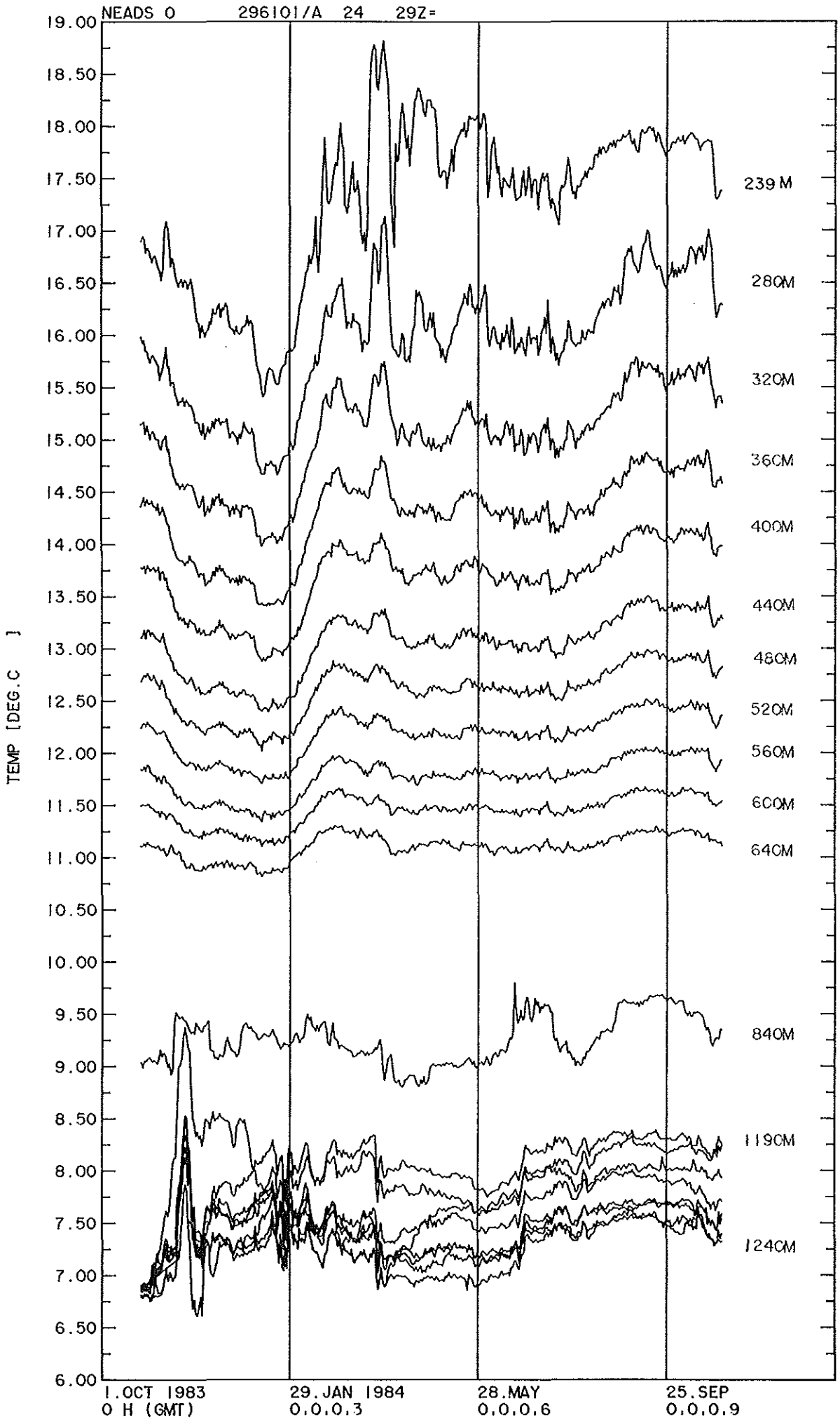

NEADS 0 296101/A 24 29Z= 239.000 M
SPD [CM/S]
20
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS 0 296103/A 24 29Z= 840.000 M
SPD [CM/S]
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS 0 296101/A 24 29Z= 239.000 M
36.75
36.25
S
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 0 296101/A 24 29Z= 239.000 M
27.00
26.50
SIGT [KG/M**3]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 0 296101/A 24 29Z= 239.000 M
10
0
-10
-20
UC [CM/S]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 0 296101/A 24 29Z= 239.000 M
15
5
-5
-15
VC [CM/S]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 0 296102/A 12 29Z= 240.000 M
250
230
PRES [DBAR]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS 0 296103ROUTIN 29Z= 840.000 M
35.50
35.00
S
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 0 296103ROUTIN 29Z= 840.000 M
27.50
27.00
SIGT [KG/M**3]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS 0 296103/A 24 29Z= 840.000 M
0
-10
UC [CM/S]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS 0 296103/A 24 29Z= 840.000 M
10
0
-10
VC [CM/S]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS 0 296101/A 24 29Z=
TEMP [DEG.C]
19.00
18.50
18.00
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
239M
280M
320M
360M
400M
440M
480M
520M
560M
600M
640M
840M
1190M
1240M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9

4.6 Thermistorcable mooring P, IfM No 295-1

IfM mooring No: 295-1 External name: P

Latitude: 27° 59.6'N Longitude: 22° 23.6'W

Sounding: 4870 m Water depth: 4914 m

Deployed: 22 Oct 83 Recovered: 04 Nov 84

Start of record: 22 Oct 83, 1100Z End of record: 04 Nov 84, 0500 Z

Remarks:

Identification	instrument				Remarks
	type	No	depth (m)	sampling (min.)	
295101	A-VTP	94	239	60	Stop after 31 Mar 84, 0500 Z
102	A-PT400	19/1069	240-640	120	thermistor 2 bad for 367<N<388 and for 832<N<1195 thermistor 9 bad for 688<N<716
103	A-T400	6/983	840-1240	120	

A-VT(PC) : Aanderaa current meter RCM4/5 with sensors for P and C (optional)

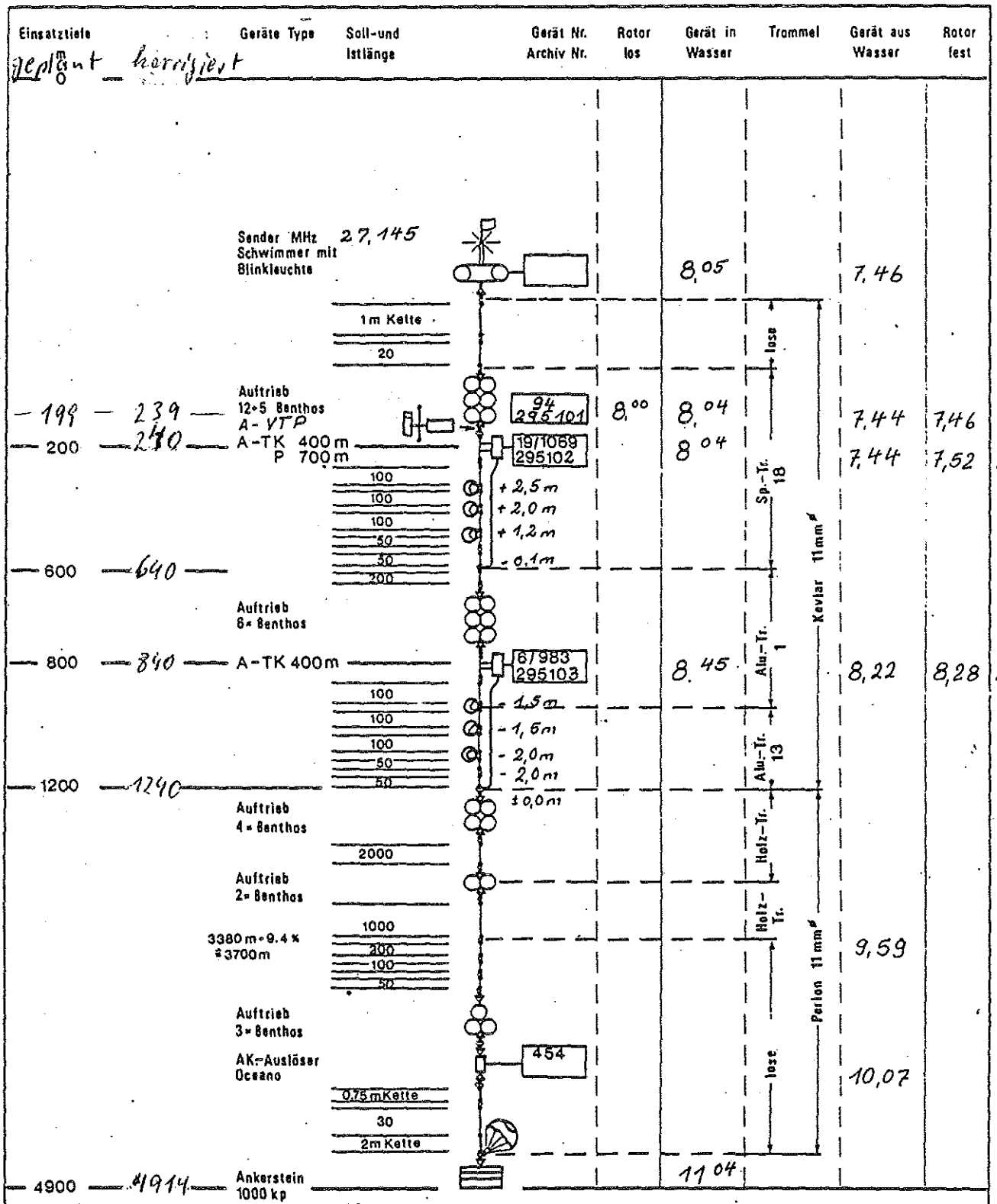
A-T50 : Aanderaa thermistorcable 50 m or 400 m

ACM-2 : Neil Brown acoustic vector averaging current meter

P, T, C, S : Pressure, temperature, conductivity, salinity

$|\underset{\sim}{u}|$, φ : Current speed and direction true north

N : Record number



Auslegedatum: 22.10.83
Protokollführer: Meyer
Lottiefe: 4870 korr. 4914
Auslagetiefe
Auf Tiefe: 12.02
Zeitmeridian: GMT

Aufnahmedatum: 4.11.84
Protokollführer: Podewski
von Tiefe: 7.22
Positionsbestimmung: (Astron., Decca, Loran, Satellit)
27°59,6' N
22° 23,6' W

VERANKERUNG NR.: 295
Nr.: P
(-geplant-):
Schiff: F.S. Poseidon
Expedition: Poseidon-Reise 104 c
Seegebiet: N.O.-Atlantik
Wassertiefe: 4900 m
Auslegedatum: 22.10.83
Aufnahmedatum: 4.11.84

FILE. NEADS P 29510I/A 24 MOORING ID. 29510I START-CYCLE. I. STOP-CYCLE. I55. NUMBER OF VALUES. I55.

TIME RANGE. 25.10.1983 5. 0. 0. 0/27. 3.1984 5. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 239M

	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	PRES	[DBAR]	0.2154E+03	0.2234E+03	0.2171E+03	0.1060E+00	0.1741E+01	0.1320E+01	0.2561E+01	0.1030E+02
2	TEMP	[DEG.C]	0.1612E+02	0.1732E+02	0.1691E+02	0.2166E-01	0.7274E-01	0.2697E+00	-0.5809E+00	0.2606E+01
3	UC	[CM/S]	-0.1354E+01	0.3243E+01	0.7194E+00	0.6824E-01	0.7217E+00	0.8495E+00	0.4133E+00	0.2714E+01
4	VC	[CM/S]	-0.1754E+01	0.6138E+01	0.5233E+00	0.1245E+00	0.2402E+01	0.1550E+01	0.1134E+01	0.3654E+01

	VARIABLES		COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1	PRES	2 TEMP	-0.2254E+00	-0.6335E+00	0.2286E+04	0.4782E+02	0.3841E+01
1	PRES	3 UC	-0.1232E+00	-0.1099E+00	0.3391E+05	0.1841E+03	0.1479E+02
1	PRES	4 VC	0.1201E+01	0.5874E+00	0.1150E+06	0.3391E+03	0.2724E+02
2	TEMP	3 UC	0.7991E-01	0.3488E+00	0.2087E+03	0.1445E+02	0.1160E+01
2	TEMP	4 VC	-0.1211E+00	-0.2898E+00	0.6731E+03	0.2595E+02	0.2084E+01
3	UC	4 VC	0.5778E-01	0.4388E-01	0.3635E+01	0.1907E+01	0.1531E+00

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
3	4	0.8896E+00	0.1562E+01	0.1250E+01	0.1004E+00	53.97

FILE. NEADS P 295102/A 12 MOORING ID. 295102 START-CYCLE. 1. STOP-CYCLE. 373. NUMBER OF VALUES. 373.

TIME RANGE. 25.10.1983 5. 0. 0. 0/31.10.1984 5. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 240M-640M

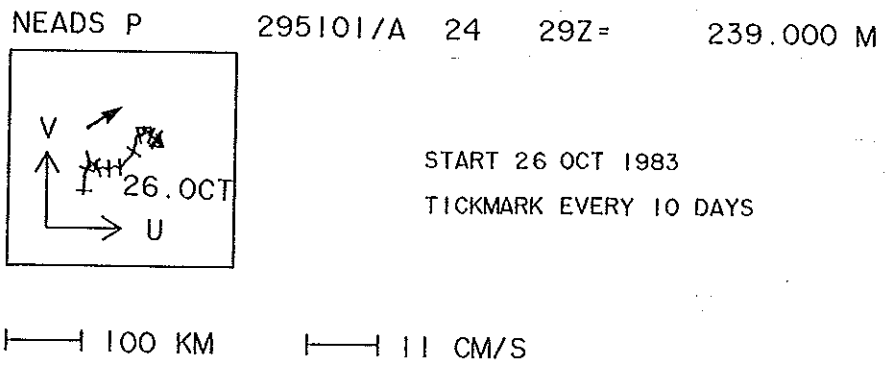
VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	PRES	[DBAR]	0.2156E+03	0.2383E+03	0.2289E+03	0.1753E+00	0.1146E+02	0.3385E+01	-0.1253E+00	0.4530E+01
2	TEMP	[DEG.C]	0.1495E+02	0.1769E+02	0.1589E+02	0.2823E-01	0.2614E+00	0.5113E+00	0.1515E+01	0.5586E+01
3	TEMP	[DEG.C]	0.1427E+02	0.1674E+02	0.1515E+02	0.2132E-01	0.1696E+00	0.4118E+00	0.1718E+01	0.6486E+01
4	TEMP	[DEG.C]	0.1367E+02	0.1553E+02	0.1433E+02	0.1542E-01	0.8864E-01	0.2977E+00	0.1741E+01	0.7308E+01
5	TEMP	[DEG.C]	0.1312E+02	0.1455E+02	0.1366E+02	0.1201E-01	0.5382E-01	0.2320E+00	0.1461E+01	0.6000E+01
6	TEMP	[DEG.C]	0.1269E+02	0.1377E+02	0.1310E+02	0.9947E-02	0.3691E-01	0.1921E+00	0.1076E+01	0.4439E+01
7	TEMP	[DEG.C]	0.1222E+02	0.1314E+02	0.1266E+02	0.1073E-01	0.4298E-01	0.2073E+00	0.1086E+00	0.2316E+01
8	TEMP	[DEG.C]	0.1187E+02	0.1262E+02	0.1226E+02	0.6610E-02	0.1630E-01	0.1277E+00	0.2975E+00	0.3335E+01
9	TEMP	[DEG.C]	0.1134E+02	0.1289E+02	0.1207E+02	0.1759E-01	0.1127E+00	0.3357E+00	0.5133E+00	0.2534E+01
10	TEMP	[DEG.C]	0.1120E+02	0.1170E+02	0.1145E+02	0.4842E-02	0.8743E-02	0.9351E-01	0.4237E+00	0.3308E+01
11	TEMP	[DEG.C]	0.1085E+02	0.1137E+02	0.1111E+02	0.4866E-02	0.8832E-02	0.9398E-01	0.9225E-01	0.3282E+01

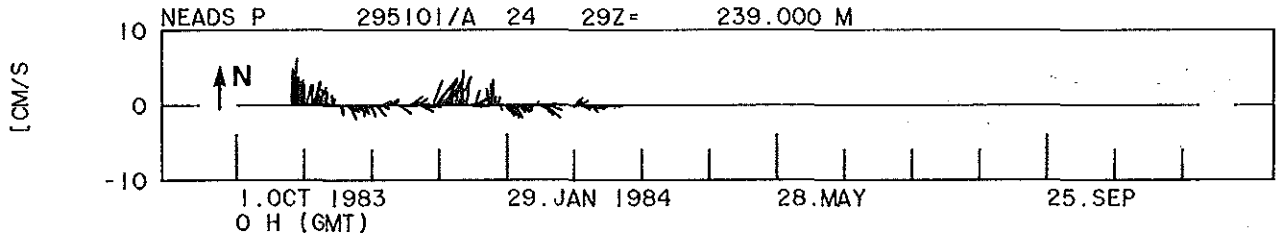
999999

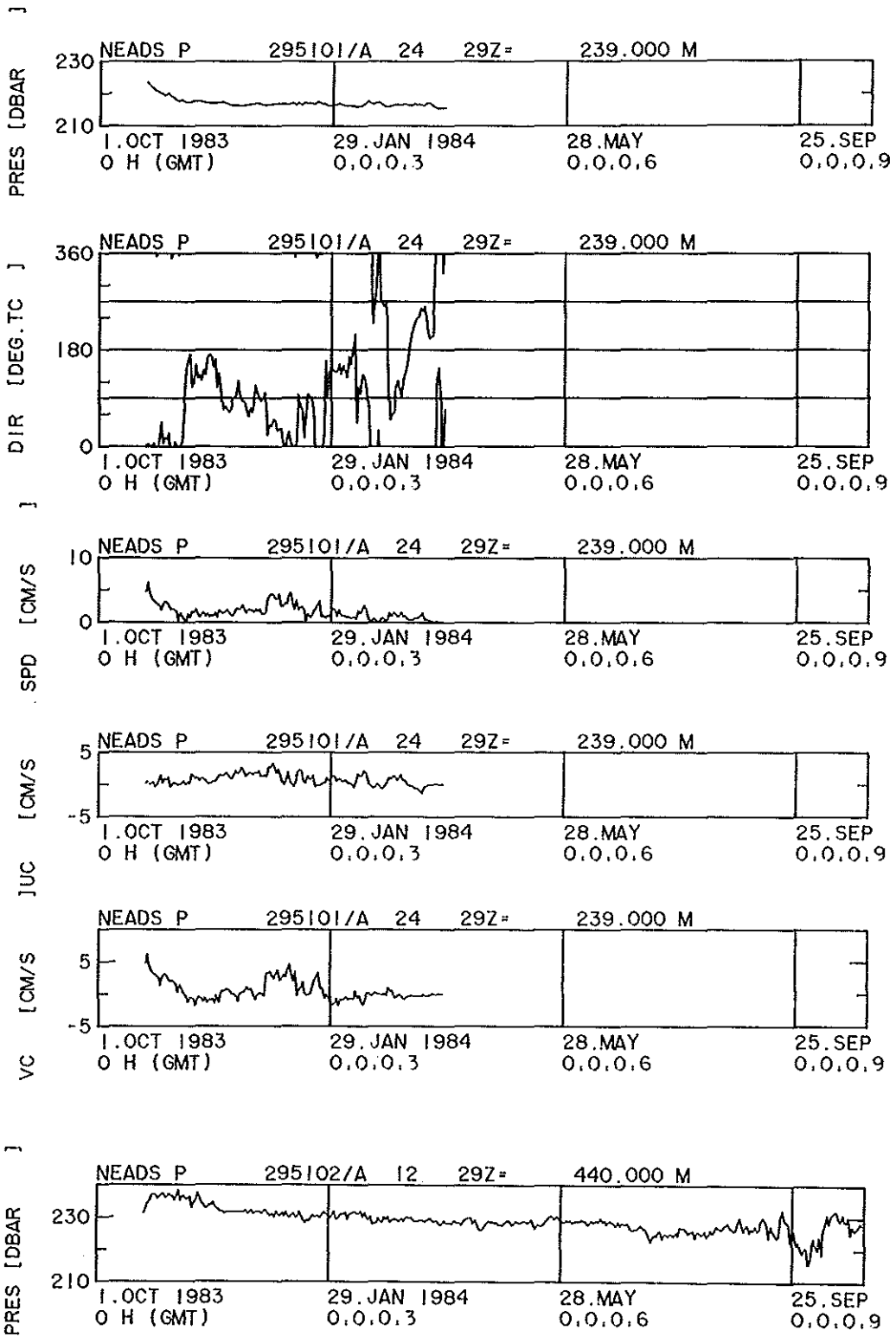
FILE. NEADS P 295103/A 12 MOORING ID. 295103 START-CYCLE. 1. STOP-CYCLE. 373. NUMBER OF VALUES. 373.

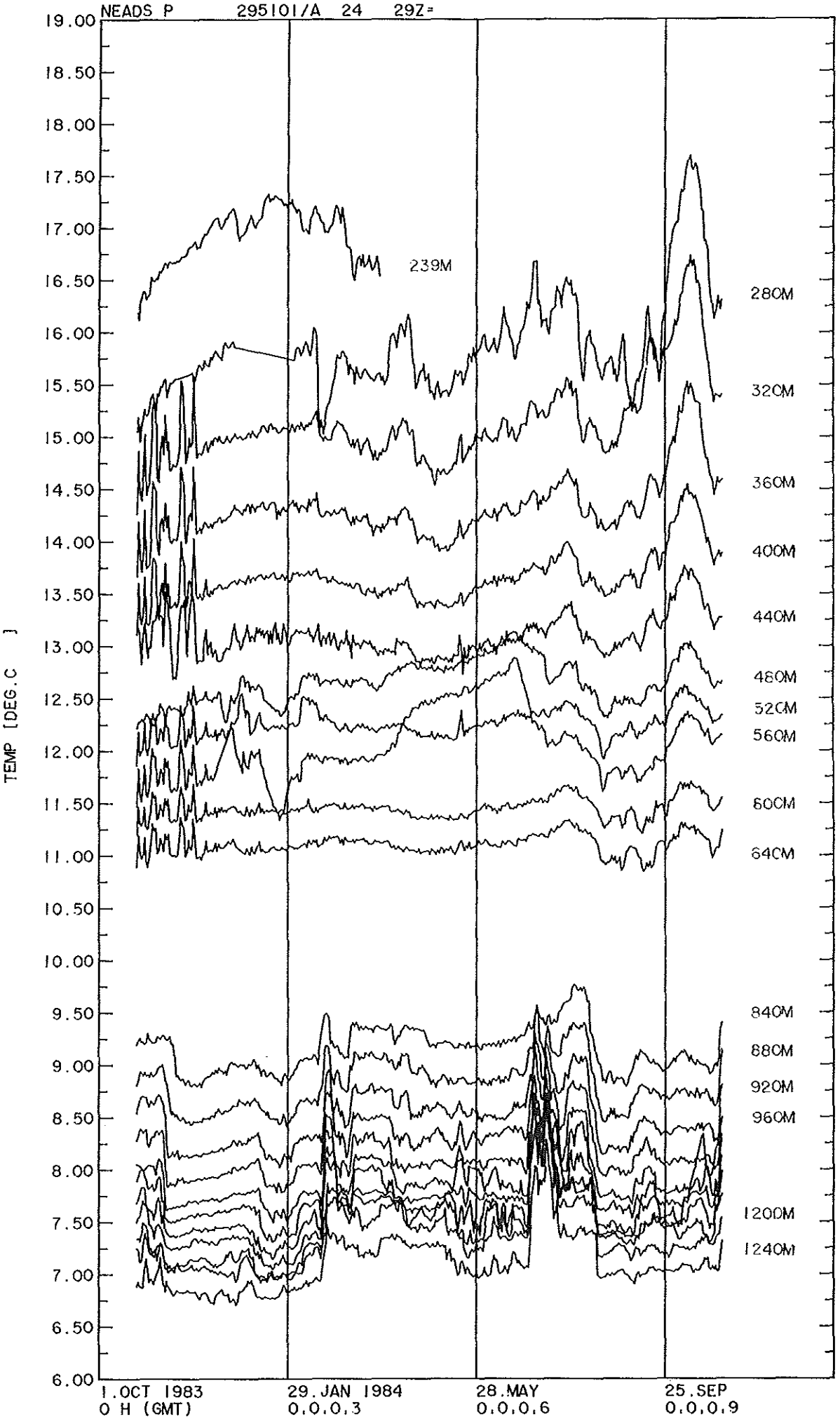
TIME RANGE. 25.10.1983 5. 0. 0. 0/31.10.1984 5. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 840M-1240M

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.8790E+01	0.9766E+01	0.9152E+01	0.1113E-01	0.4619E-01	0.2149E+00	0.4831E+00	0.2839E+01
2	TEMP	[DEG.C]	0.8413E+01	0.9556E+01	0.8813E+01	0.1262E-01	0.5944E-01	0.2438E+00	0.4795E+00	0.2658E+01
3	TEMP	[DEG.C]	0.8020E+01	0.9305E+01	0.8484E+01	0.1371E-01	0.7011E-01	0.2648E+00	0.5273E+00	0.2765E+01
4	TEMP	[DEG.C]	0.7780E+01	0.9225E+01	0.8226E+01	0.1398E-01	0.7289E-01	0.2700E+00	0.7191E+00	0.3231E+01
5	TEMP	[DEG.C]	0.7494E+01	0.8903E+01	0.7977E+01	0.1425E-01	0.7569E-01	0.2751E+00	0.7946E+00	0.3340E+01
6	TEMP	[DEG.C]	0.7311E+01	0.8733E+01	0.7821E+01	0.1407E-01	0.7388E-01	0.2718E+00	0.8213E+00	0.3670E+01
7	TEMP	[DEG.C]	0.7148E+01	0.8735E+01	0.7669E+01	0.1424E-01	0.7564E-01	0.2750E+00	0.8424E+00	0.3980E+01
8	TEMP	[DEG.C]	0.7050E+01	0.8656E+01	0.7542E+01	0.1460E-01	0.7952E-01	0.2820E+00	0.1080E+01	0.4923E+01
9	TEMP	[DEG.C]	0.6947E+01	0.8723E+01	0.7502E+01	0.1806E-01	0.1217E+00	0.3489E+00	0.7095E+00	0.3557E+01
10	TEMP	[DEG.C]	0.6916E+01	0.8579E+01	0.7342E+01	0.1497E-01	0.8363E-01	0.2892E+00	0.1251E+01	0.5363E+01
11	TEMP	[DEG.C]	0.6708E+01	0.8284E+01	0.7096E+01	0.1344E-01	0.6738E-01	0.2596E+00	0.1349E+01	0.5884E+01


NEADS P 295101/A 24 29Z= 239.000 M
V
26.OCT
U
START 26 OCT 1983
TICKMARK EVERY 10 DAYS
100 KM
11 CM/S


NEADS P 295101/A 24 29Z= 239.000 M
[CM/S
10
0
-10
N
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP


PRES [DBAR]
NEADS P 295101/A 24 29Z= 239.000 M
230
210
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
DIR [DEG.TC]
NEADS P 295101/A 24 29Z= 239.000 M
360
180
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
SPD [CM/S]
NEADS P 295101/A 24 29Z= 239.000 M
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
UC [CM/S
NEADS P 295101/A 24 29Z= 239.000 M
5
-5
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
VC [CM/S
NEADS P 295101/A 24 29Z= 239.000 M
5
-5
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
PRES [DBAR]
NEADS P 295102/A 12 29Z= 440.000 M
230
210
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS P 295101/A 24 29Z=
TEMP [DEG.C]
19.00
18.50
18.00
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
239M
280M
320M
360M
400M
440M
480M
520M
560M
600M
640M
840M
880M
920M
960M
1200M
1240M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9

4.7 Thermistorcable mooring E, IfM No 294-1

IfM mooring No: 294-1 External name: E

Latitude: 28° 01.4'N Longitude: 20° 24.1'W

Sounding: 4450 m Water depth: 4590 m

Deployed: 26 Oct 83 Recovered: 05 Nov 84

Start of record: 26 Oct 83, 1200 Z End of record: 05 Nov 84, 0400 Z

Remarks:

Identification	instrument				Remarks
	type	No	depth (m)	sampling (min.)	
294101	A-VTL	1409	279	60	S = S-0.20-2.66E-5*N
102	A-PT400	800/ 1064	280-680	120	
103	A-T400	454/ 1065	880-1280	120	thermistors 4, 6, 7 bad for N>3122 thermistors 9, 10, 11 bad for N>2702

A-VT(PC) : Aanderaa current meter RCM4/5 with sensors for P and C (optional)

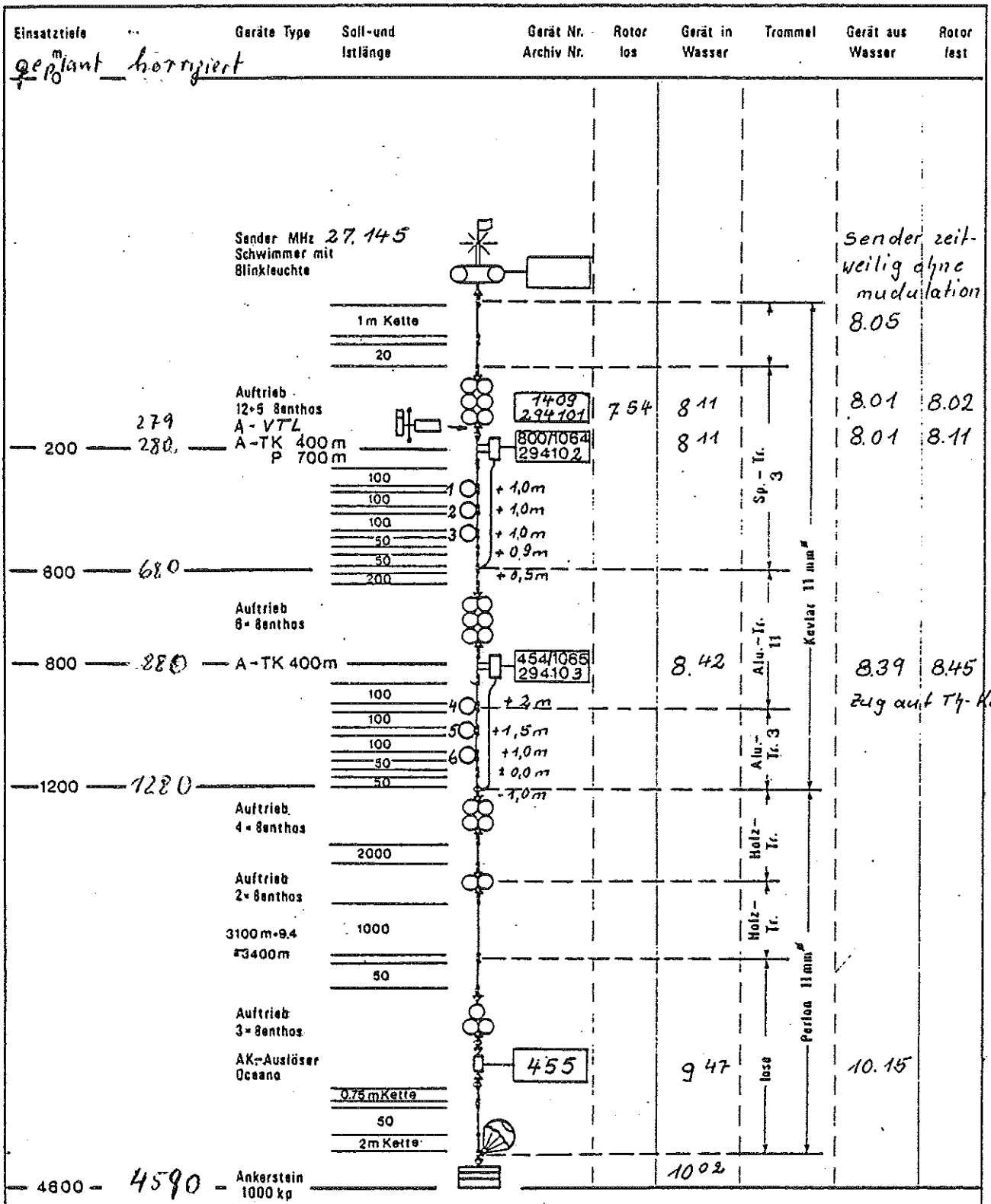
A-T50 : Aanderaa thermistorcable 50 m or 400 m

ACM-2 : Neil Brown acoustic vector averaging current meter

P, T, C, S : Pressure, temperature, conductivity, salinity

$|\underset{\sim}{u}|$, φ : Current speed and direction true north

N : Record number



Auslegedatum: 26.10.83	Aufnahmedatum: 5.11.84	VERANKERUNG NR.: 294
Protokollführer: Meyer	Protokollführer: Podewski	Nr.: m
Lottiefe: 4550 korr. 4590	von Tiefe: 7.20	(-geplant-):
Auslegetiefe	Positionsbestimmung: (Astron., Decca, Loran, Satellit)	Schiff: F.S. Poseidon
Auf Tiefe: 10 59	28°01,4'N	Expedition: Poseidon-Reise 104c
Zeitmeridian: GMT	20°24,1'W	Seegebiet: N.O.-Atlantik
		Wassertiefe: 4600 m
		Auslegedatum: 26.10.83
		Aufnahmedatum: 5.11.84

Zeichnung korrigiert am 19.11.85

FILE. NEADS E 29410IROUTIN MOORING ID. 29410I START-CYCLE. !. STOP-CYCLE. 370. NUMBER OF VALUES. 370.

TIME RANGE. 29.10.1983 6. 0. 0. 0/ 1.11.1984 6. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04

VARIABLE		UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
!	TEMP	[DEG.C]	0.1432E+02	0.1751E+02	0.1591E+02	0.2961E-01	0.3245E+00	0.5696E+00	0.2528E+00	0.3448E+01
2	S	[1/1000]	0.3600E+02	0.3667E+02	0.3630E+02	0.6319E-02	0.1478E-01	0.1216E+00	0.9452E-01	0.3791E+01
3	UC	[CM/S]	-0.2884E+02	0.1116E+02	-0.1638E+01	0.3033E+00	0.3404E+02	0.5834E+01	-0.1588E+01	0.8145E+01
4	VC	[CM/S]	-0.1789E+02	0.9490E+01	-0.1181E+01	0.2467E+00	0.2252E+02	0.4745E+01	-0.1257E+00	0.2867E+01
5	SIGT	[KG/M**3]	0.2659E+02	0.2694E+02	0.2677E+02	0.4499E-02	0.7488E-02	0.8653E-01	0.1098E-01	0.1841E+01

VARIABLES			COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
!	TEMP	2 S	0.5222E-01	0.7543E+00	0.4923E+03	0.2219E+02	0.1154E+01
!	TEMP	3 UC	-0.6532E+00	-0.1965E+00	0.9388E+04	0.9689E+02	0.5037E+01
!	TEMP	4 VC	-0.7217E+00	-0.2670E+00	0.5727E+04	0.7568E+02	0.3934E+01
!	TEMP	5 SIGT	-0.3471E-01	-0.7042E+00	0.2046E+03	0.1430E+02	0.7436E+00
2	S	3 UC	-0.4891E-01	-0.6896E-01	0.4517E+05	0.2125E+03	0.1105E+02
2	S	4 VC	-0.2116E+00	-0.3669E+00	0.2969E+05	0.1723E+03	0.8959E+01
2	S	5 SIGT	-0.6870E-03	-0.6531E-01	0.1912E+02	0.4373E+01	0.2273E+00
3	UC	4 VC	0.5620E+00	0.2030E-01	0.1815E+04	0.4260E+02	0.2215E+01
3	UC	5 SIGT	0.1180E+00	0.2338E+00	0.2428E+05	0.1558E+03	0.8100E+01
4	VC	5 SIGT	0.3134E-02	0.7633E-02	0.1614E+05	0.1270E+03	0.6605E+01

PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
3	4	0.2019E+01	0.2828E+02	0.5318E+01	0.2765E+00	234.21

FILE. NEADS E 294102/A 12 MOORING ID. 294102 START-CYCLE. 1. STOP-CYCLE. 370. NUMBER OF VALUES. 370.

TIME RANGE. 29.10.1983 6. 0. 0. 0/ 1.11.1984 6. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 280M-680M

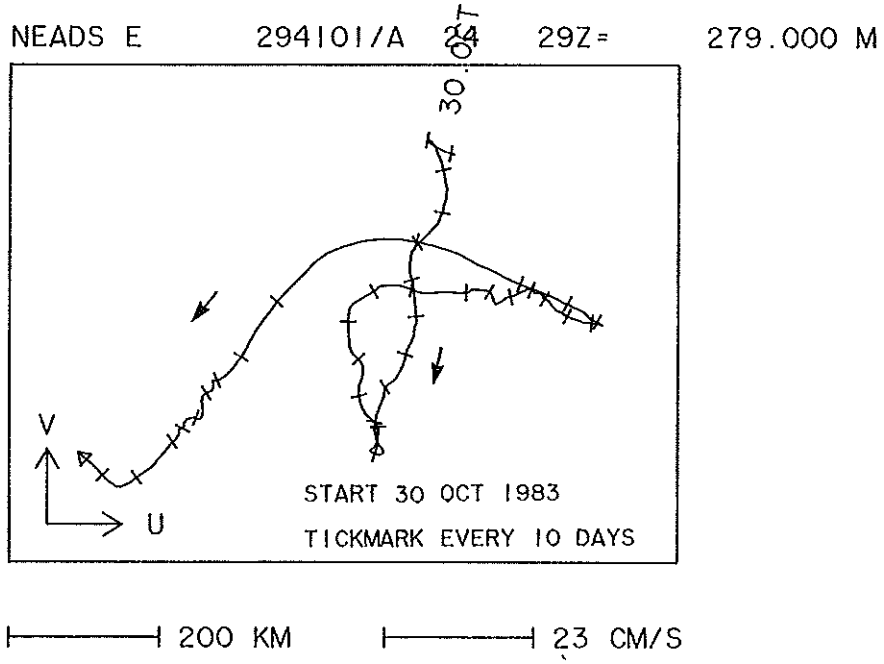
	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	PRES	[DBAR]	0.2251E+03	0.3040E+03	0.2807E+03	0.6119E+00	0.1385E+03	0.1177E+02	-0.1935E+01	0.7574E+01
2	TEMP	[DEG.C]	0.1382E+02	0.1630E+02	0.1492E+02	0.2194E-01	0.1781E+00	0.4220E+00	0.2202E+00	0.3370E+01
3	TEMP	[DEG.C]	0.1334E+02	0.1518E+02	0.1415E+02	0.1739E-01	0.1118E+00	0.3344E+00	0.3042E+00	0.3015E+01
4	TEMP	[DEG.C]	0.1294E+02	0.1424E+02	0.1354E+02	0.1413E-01	0.7388E-01	0.2718E+00	0.3135E+00	0.2563E+01
5	TEMP	[DEG.C]	0.1249E+02	0.1358E+02	0.1300E+02	0.1207E-01	0.5390E-01	0.2322E+00	0.2966E+00	0.2466E+01
6	TEMP	[DEG.C]	0.1206E+02	0.1298E+02	0.1246E+02	0.1049E-01	0.4070E-01	0.2017E+00	0.3845E+00	0.2446E+01
7	TEMP	[DEG.C]	0.1174E+02	0.1248E+02	0.1206E+02	0.9309E-02	0.3206E-01	0.1791E+00	0.3506E+00	0.2347E+01
8	TEMP	[DEG.C]	0.1128E+02	0.1208E+02	0.1168E+02	0.8722E-02	0.2815E-01	0.1678E+00	0.2821E+00	0.2467E+01
9	TEMP	[DEG.C]	0.1090E+02	0.1170E+02	0.1129E+02	0.8624E-02	0.2752E-01	0.1659E+00	0.1900E+00	0.2527E+01
10	TEMP	[DEG.C]	0.1053E+02	0.1138E+02	0.1098E+02	0.9200E-02	0.3132E-01	0.1770E+00	0.5840E-01	0.2767E+01
11	TEMP	[DEG.C]	0.1001E+02	0.1101E+02	0.1058E+02	0.1033E-01	0.3951E-01	0.1988E+00	-0.7342E-01	0.3037E+01

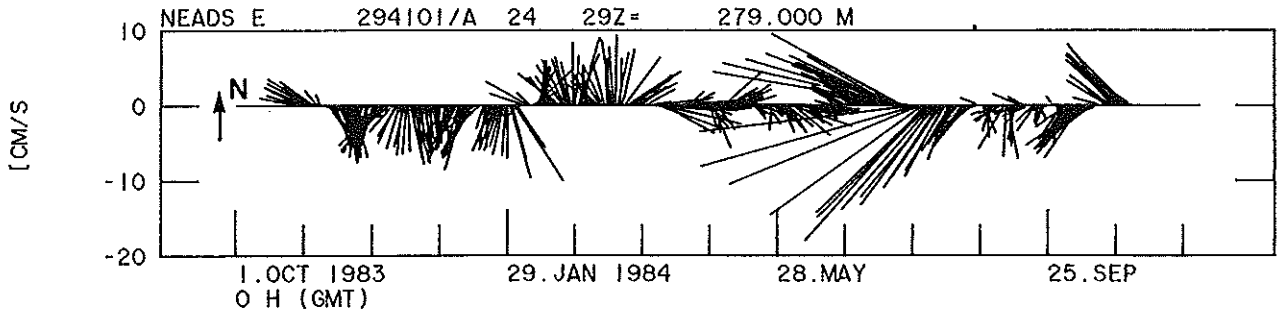
999999

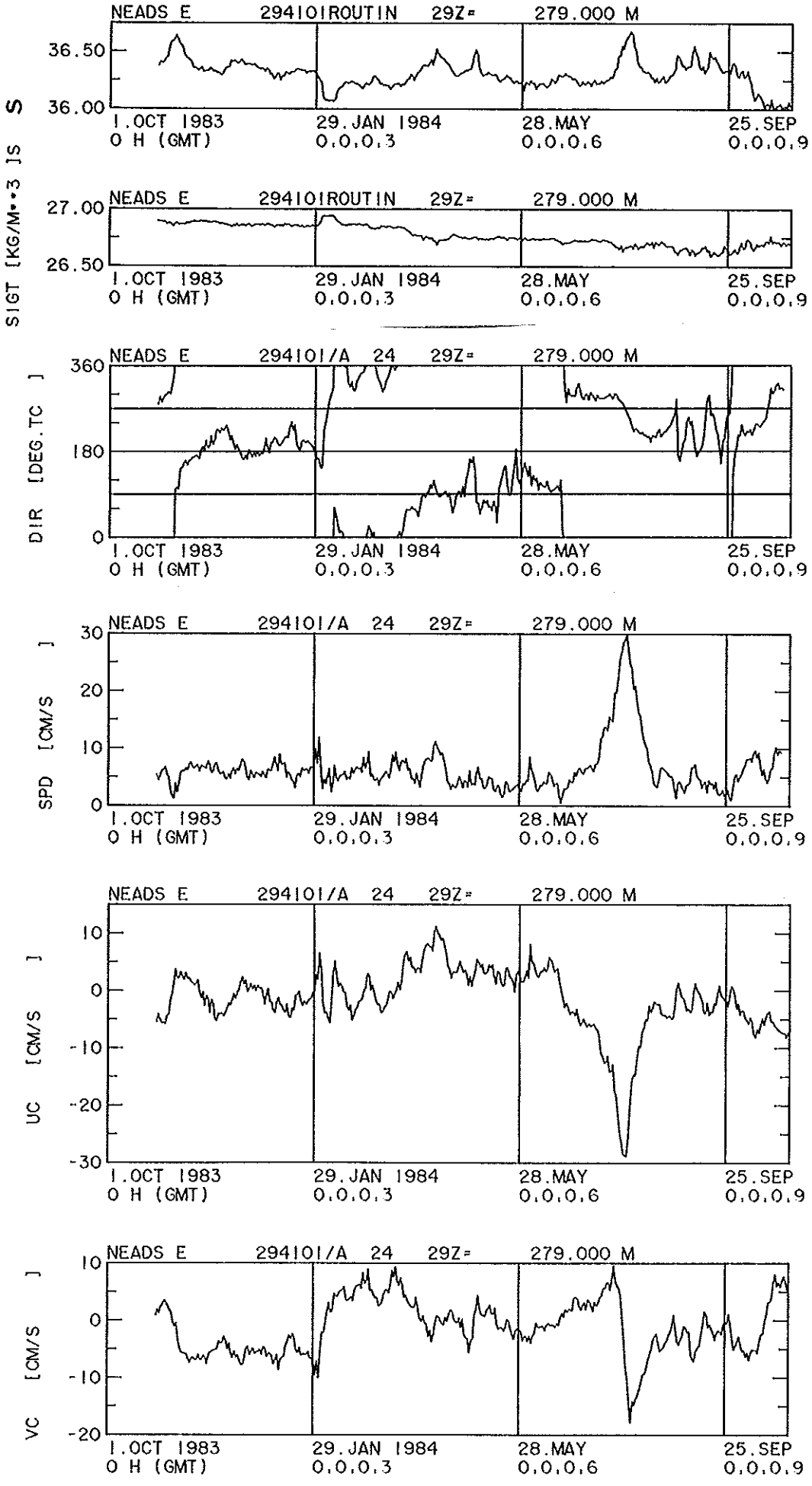
FILE. NEADS E 294103/A 12 MOORING ID. 294103 START-CYCLE. 1. STOP-CYCLE. 370. NUMBER OF VALUES. 370.

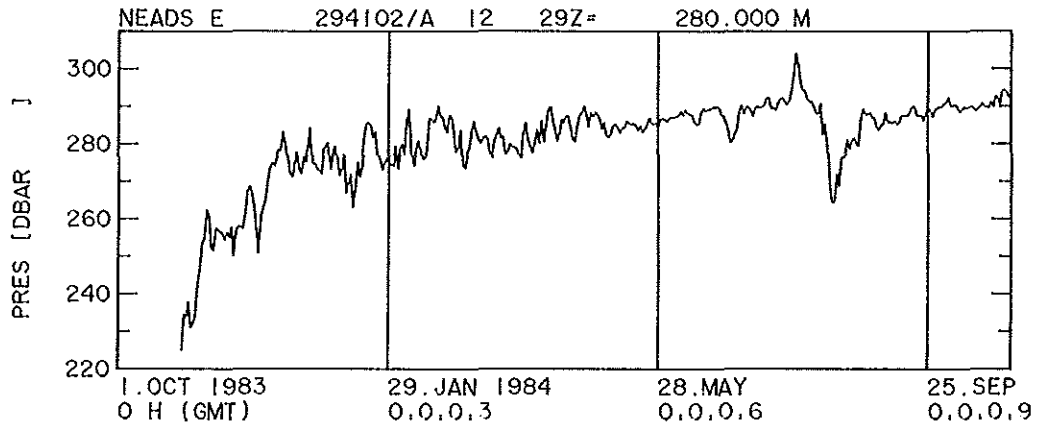
TIME RANGE. 29.10.1983 6. 0. 0. 0/ 1.11.1984 6. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 880-1280M

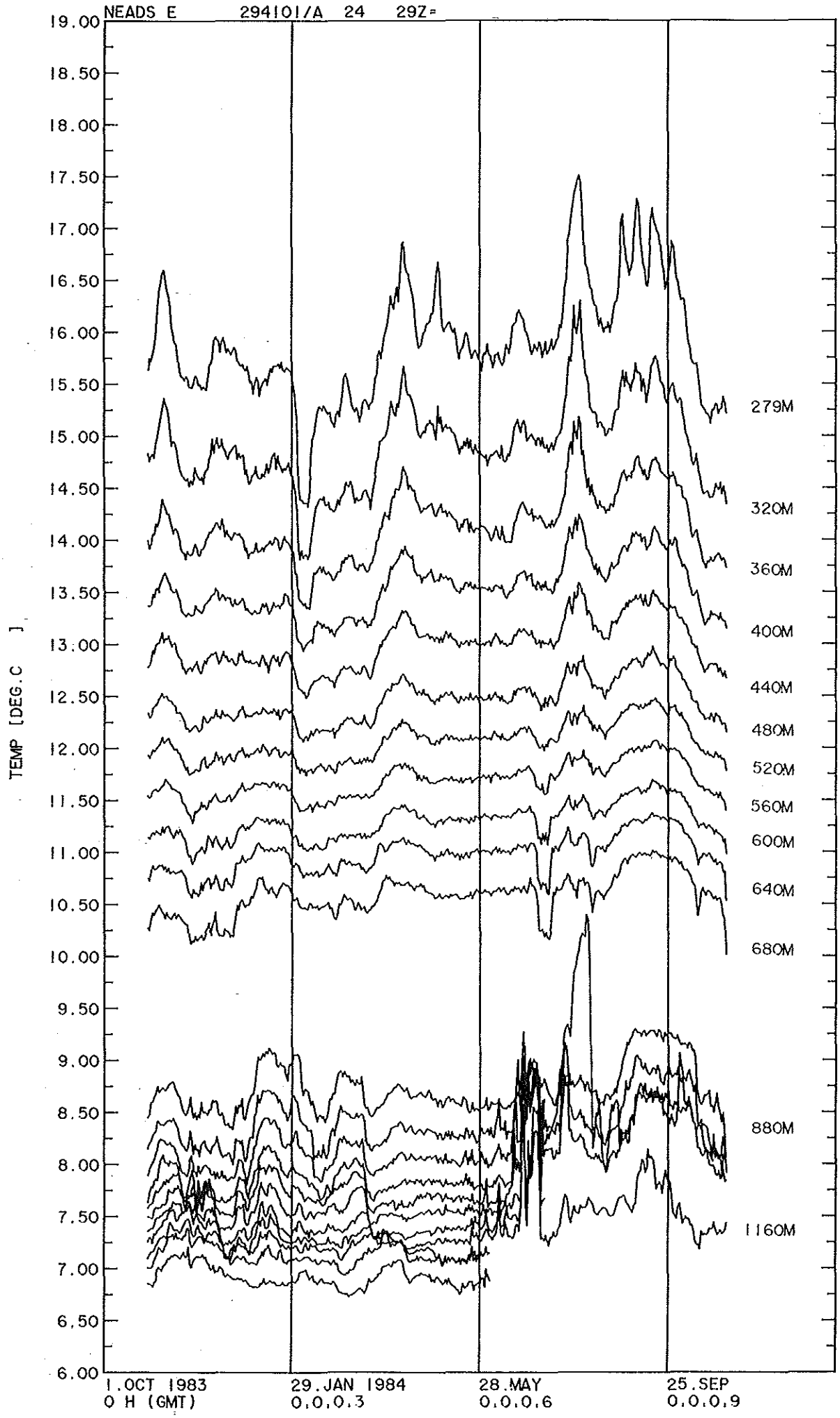
	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.8060E+01	0.9299E+01	0.8738E+01	0.1243E-01	0.5721E-01	0.2392E+00	0.7830E+00	0.2910E+01
2	TEMP	[DEG.C]	0.7919E+01	0.9162E+01	0.8419E+01	0.1332E-01	0.6562E-01	0.2562E+00	0.8519E+00	0.2898E+01
3	TEMP	[DEG.C]	0.7799E+01	0.8918E+01	0.8168E+01	0.1289E-01	0.6146E-01	0.2479E+00	0.1106E+01	0.3434E+01
4	TEMP	[DEG.C]	0.7630E+01	0.8888E+01	0.7889E+01	0.1332E-01	0.4510E-01	0.2124E+00	0.2360E+01	0.9734E+01
5	TEMP	[DEG.C]	0.7492E+01	0.1040E+02	0.8038E+01	0.2883E-01	0.3075E+00	0.5545E+00	0.1894E+01	0.7034E+01
6	TEMP	[DEG.C]	0.7368E+01	0.8575E+01	0.7605E+01	0.1147E-01	0.3345E-01	0.1829E+00	0.3143E+01	0.1584E+02
7	TEMP	[DEG.C]	0.7215E+01	0.8807E+01	0.7479E+01	0.1807E-01	0.8298E-01	0.2881E+00	0.3323E+01	0.1410E+02
8	TEMP	[DEG.C]	0.7090E+01	0.8320E+01	0.7418E+01	0.1172E-01	0.5078E-01	0.2253E+00	0.1698E+01	0.6173E+01
9	TEMP	[DEG.C]	0.7054E+01	0.7473E+01	0.7221E+01	0.6437E-02	0.9074E-02	0.9526E-01	0.3597E+00	0.2439E+01
10	TEMP	[DEG.C]	0.6935E+01	0.7386E+01	0.7130E+01	0.6210E-02	0.8444E-02	0.9189E-01	0.5063E+00	0.2662E+01
11	TEMP	[DEG.C]	0.6728E+01	0.7206E+01	0.6916E+01	0.6875E-02	0.1035E-01	0.1017E+00	0.6171E+00	0.2655E+01


NEADS E 294101/A 24 29Z= 279.000 M
30 OCT
V
U
START 30 OCT 1983
TICKMARK EVERY 10 DAYS
200 KM
23 CM/S


NEADS E 294101/A 24 29Z= 279.000 M
[CM/S
10
0
-10
-20
N
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP


NEADS E 29410IROUTIN 29Z= 279.000 M
36.50
36.00
SIGT [KG/M**3 JS S
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS E 29410IROUTIN 29Z= 279.000 M
27.00
26.50
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS E 294101/A 24 29Z= 279.000 M
360
180
0
DIR [DEG.TC]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS E 294101/A 24 29Z= 279.000 M
30
20
10
0
SPD [CM/S]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS E 294101/A 24 29Z= 279.000 M
10
0
-10
-20
-30
UC [CM/S]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9
NEADS E 294101/A 24 29Z= 279.000 M
10
0
-10
-20
VC [CM/S]
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS E 294102/A 12 29Z= 280.000 M
PRES [DBAR]
300
280
260
240
220
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9


NEADS E 294101/A 24 29Z=
TEMP [DEG.C]
19.00
18.50
18.00
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
279M
320M
360M
400M
440M
480M
520M
560M
600M
640M
680M
880M
1160M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9

4.8 Thermistorcable mooring X, IfM No 293-1

IfM mooring No: 293-1 External name: X

Latitude: 28° 01.0'N Longitude: 18° 20.2'N

Sounding: 3700 m Water depth: 3710 m

Deployed: 27 Oct 83 Recovered: 06 Nov 84

Start of record: 27 Oct 83, 1100 Z End of record: 06 Nov 84, 0700 Z

Remarks:

Identification	instrument				Remarks
	type	No	depth (m)	sampling (min.)	
293101	A-VT	5327	279	60	
102	A-PT400	20/1070	280-680	120	Stop after 93 hours
103	A-T400	673/895	880-1280	120	no data

A-VT(PC) : Aanderaa current meter RCM4/5 with sensors for P and C (optional)

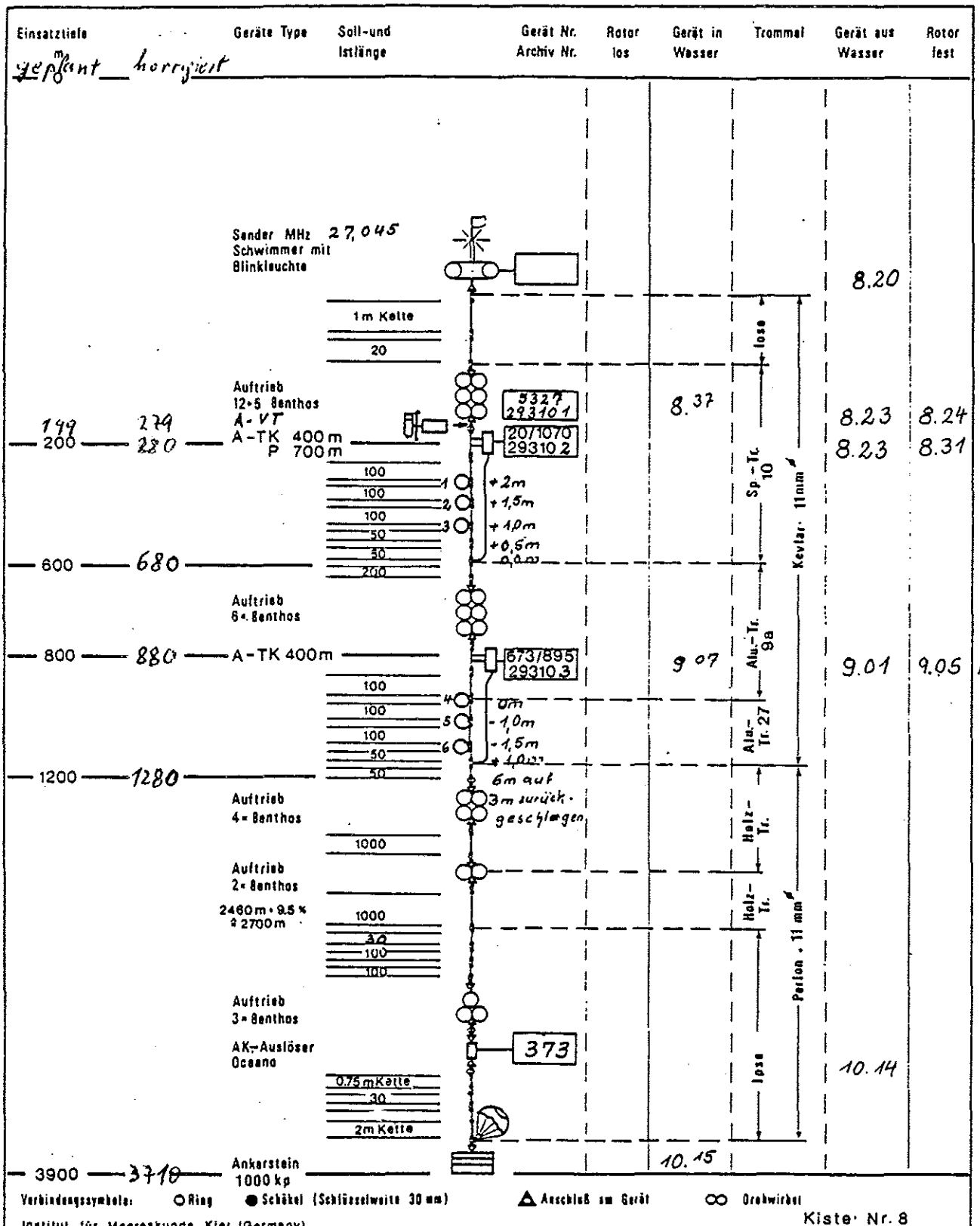
A-T50 : Aanderaa thermistorcable 50 m or 400 m

ACM-2 : Neil Brown acoustic vector averaging current meter

P, T, C, S : Pressure, temperature, conductivity, salinity

$|\underset{\sim}{u}|$, φ : Current speed and direction true north

N : Record number



Auslegedatum: 27. 10. 1983	Aufnahmedatum: 6. 11. 84	VERANKERUNG NR.: 293
Protokollführer: Meyer	Protokollführer: Podewski	Nr.: X
Lottiefe: 3700 korr. 3710	von Tiefe: 07.33	(-geplant-):
Auslegetiefe	Positionsbestimmung: (Astron., Decca, Loran, Satellit)	Schiff: F.S. Poseidon
Auf Tiefe: 10.43	28° 01'0 N	Expedition: Poseidon-Reise 104 c
Zeitmeridian: GMT	18° 20'2 W	Seegebiet: N.O.-Atlantik
		Wassertiefe: 3900 m
		Auslegedatum: 27. 10. 1983
		Aufnahmedatum: 6. 11. 1984

Kamyjnl am 9.12.85

FILE. NEADS X 293101/A 24 MOORING ID. 293101 START-CYCLE. 1. STOP-CYCLE. 370. NUMBER OF VALUES. 370.

TIME RANGE. 30.10.1983 5. 0. 0. 0/ 2.11.1984 5. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 279M

	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	TEMP	[DEG.C]	0.1473E+02	0.1880E+02	0.1631E+02	0.3147E-01	0.3663E+00	0.6052E+00	0.3380E+00	0.3495E+01
2	UC	[CM/S]	-0.2784E+02	0.1846E+02	-0.4140E+01	0.4291E+00	0.6812E+02	0.8253E+01	-0.2818E+00	0.3736E+01
3	VC	[CM/S]	-0.2897E+02	0.1624E+02	-0.3601E+01	0.4856E+00	0.8724E+02	0.9340E+01	-0.7379E+00	0.3057E+01

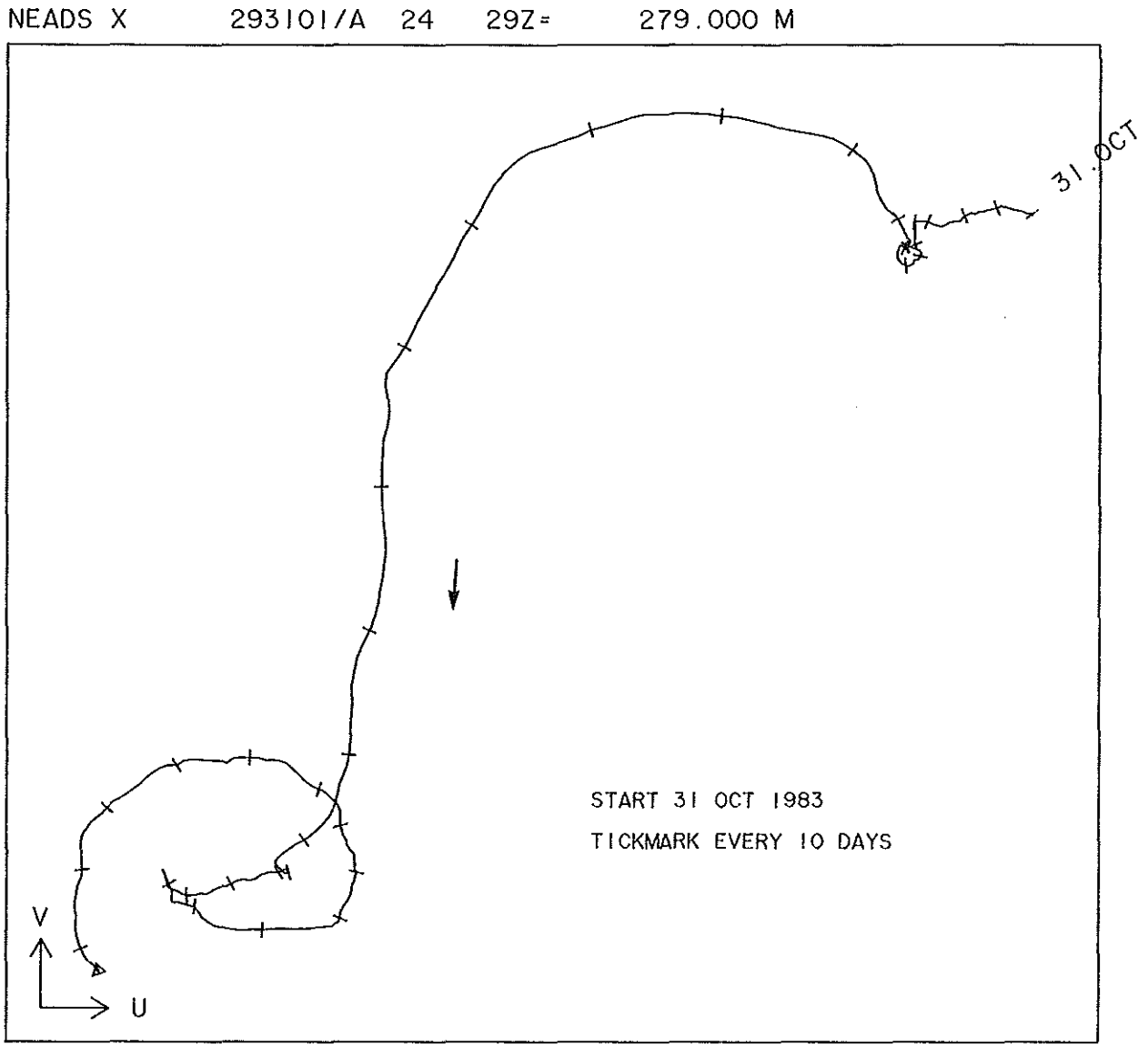
	VARIABLES	COVAR	CORCOEFF	VARCORRL	STDEVCOV	STERRCOV
1	TEMP 2 UC	-0.7361E+00	-0.1474E+00	0.1887E+05	0.1374E+03	0.7142E+01
1	TEMP 3 VC	-0.9138E+00	-0.1616E+00	0.2443E+05	0.1563E+03	0.8125E+01
2	UC 3 VC	0.3165E+01	0.4106E-01	0.7378E+04	0.8590E+02	0.4465E+01

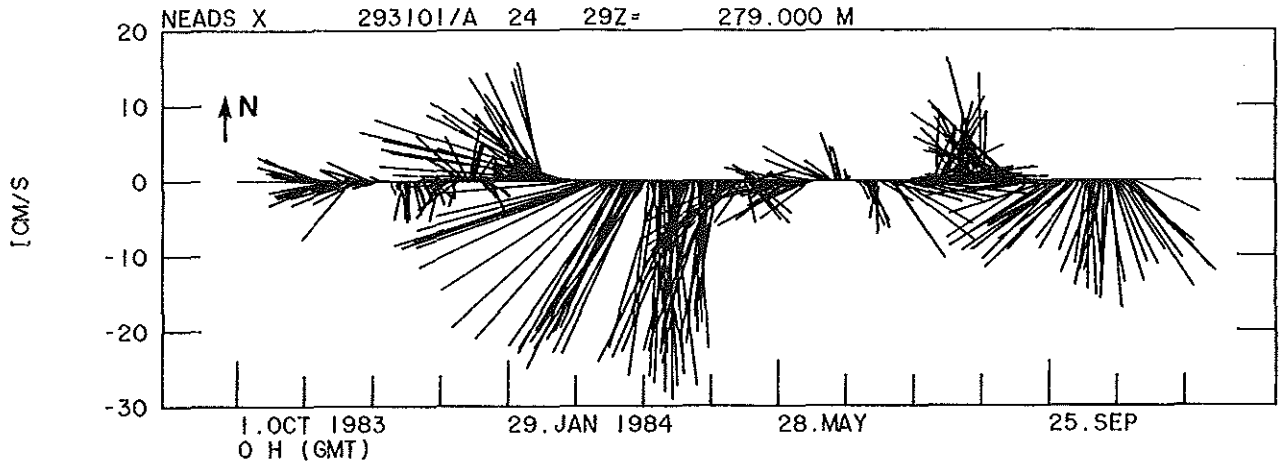
PAIR		VECTOR-MEAN	VECTOR-VAR	STDVECMEAN	VECMEANERR	DIR-MEAN
2	3	0.5487E+01	0.7768E+02	0.8814E+01	0.4582E+00	228.98

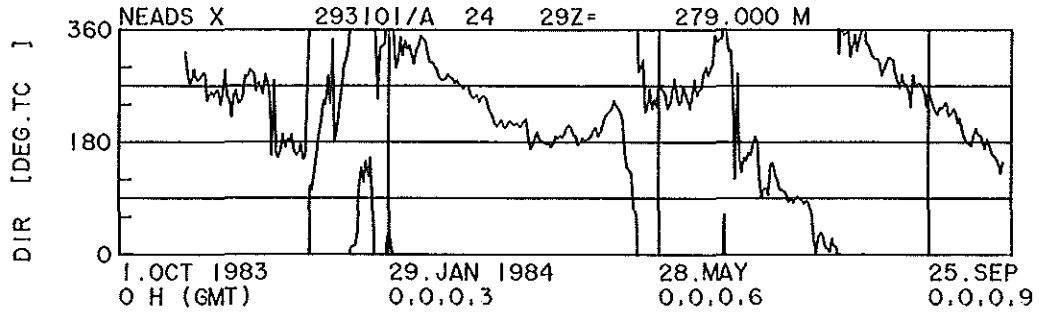
FILE. NEADS X 293102/A 12 MOORING ID. 293102 START-CYCLE. 1. STOP-CYCLE. 10. NUMBER OF VALUES. 10.

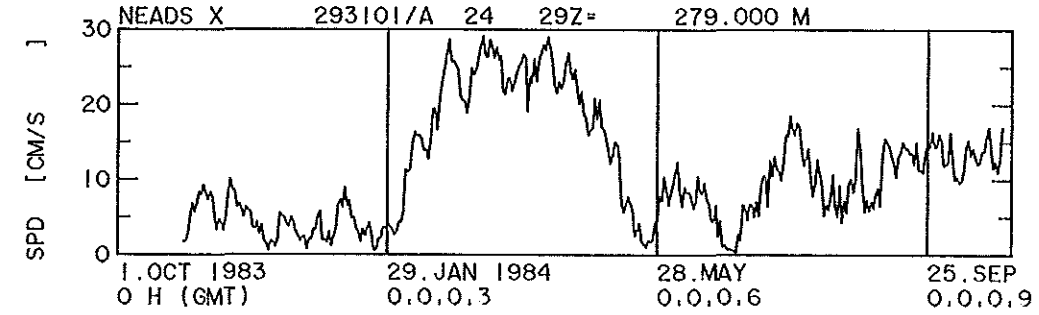
TIME RANGE. 30.10.1983 5. 0. 0. 0/ 8.11.1983 5. 0. 0. 0/ SAMPLING INTERVAL (MINUTES) . 0.14400D+04 280M-680M

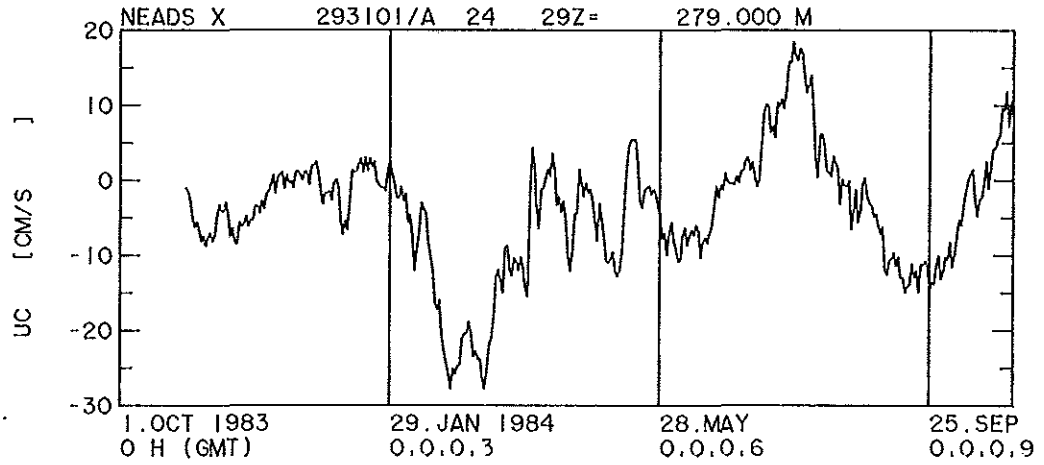
	VARIABLE	UNITS	MINIMUM	MAXIMUM	MEAN	STERMEAN	VARIANCE	STRDDEV	SKEWNESS	KURTOSIS
1	PRES	[DBAR]	0.2817E+03	0.2848E+03	0.2832E+03	0.2406E+00	0.5791E+00	0.7610E+00	0.2399E+00	0.3594E+01
2	TEMP	[DEG.C]	0.1458E+02	0.1483E+02	0.1473E+02	0.2530E-01	0.6399E-02	0.8000E-01	-0.5230E+00	0.2108E+01
3	TEMP	[DEG.C]	0.1392E+02	0.1411E+02	0.1402E+02	0.2007E-01	0.4028E-02	0.6347E-01	-0.5650E-01	0.1747E+01
4	TEMP	[DEG.C]	0.1320E+02	0.1350E+02	0.1337E+02	0.2763E-01	0.7636E-02	0.8739E-01	-0.4461E+00	0.2368E+01
5	TEMP	[DEG.C]	0.1272E+02	0.1293E+02	0.1282E+02	0.1995E-01	0.3979E-02	0.6308E-01	0.5134E-01	0.2073E+01
6	TEMP	[DEG.C]	0.1231E+02	0.1245E+02	0.1238E+02	0.1115E-01	0.1243E-02	0.3525E-01	0.1368E-01	0.3004E+01
7	TEMP	[DEG.C]	0.1196E+02	0.1204E+02	0.1200E+02	0.8770E-02	0.7691E-03	0.2773E-01	-0.2132E+00	0.1779E+01
8	TEMP	[DEG.C]	0.1158E+02	0.1168E+02	0.1164E+02	0.9397E-02	0.8830E-03	0.2972E-01	-0.8100E+00	0.2821E+01
9	TEMP	[DEG.C]	0.1125E+02	0.1134E+02	0.1129E+02	0.8370E-02	0.7006E-03	0.2647E-01	0.1892E+00	0.2046E+01
10	TEMP	[DEG.C]	0.1095E+02	0.1107E+02	0.1101E+02	0.1203E-01	0.1448E-02	0.3805E-01	-0.2422E+00	0.1861E+01
11	TEMP	[DEG.C]	0.1054E+02	0.1072E+02	0.1065E+02	0.2094E-01	0.4385E-02	0.6622E-01	-0.5028E+00	0.1744E+01

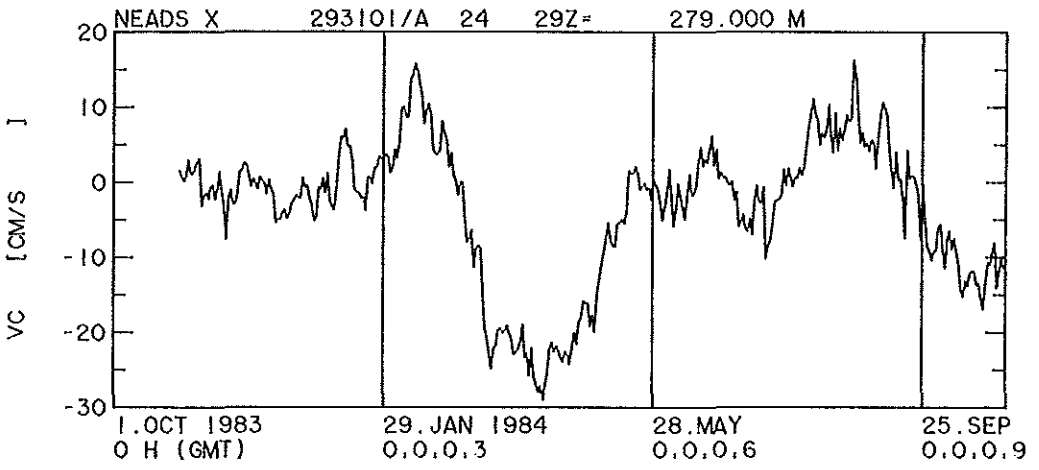

NEADS X 293101/A 24 29Z= 279.000 M
31.OCT
START 31 OCT 1983
TICKMARK EVERY 10 DAYS
V
U
400 KM
46 CM/S

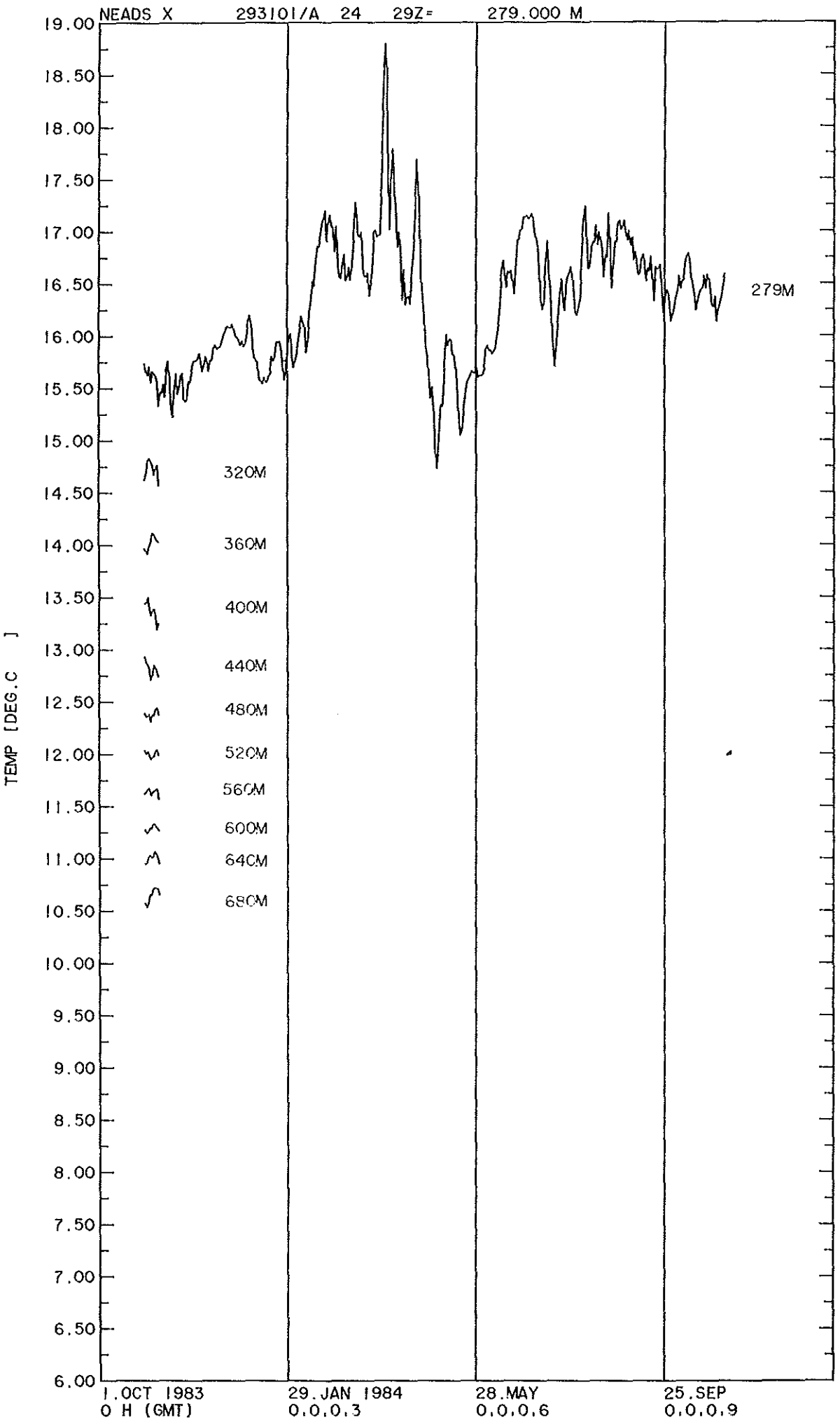

NEADS X 293101/A 24 29Z= 279.000 M
[CM/S
20
10
0
-10
-20
-30
N
1.OCT 1983
0 H (GMT)
29.JAN 1984
28.MAY
25.SEP


NEADS X 293101/A 24 29Z= 279.000 M
DIR [DEG.TC]
360
180
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS X 293101/A 24 29Z= 279.000 M
SPD [CM/S]
30
20
10
0
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS X 293101/A 24 29Z= 279.000 M
UC [CM/S]
20
10
0
-10
-20
-30
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9


NEADS X 293101/A 24 29Z= 279.000 M
VC [CM/S]
20
10
0
-10
-20
-30
1.OCT 1983
0 H (GMT)
29.JAN 1984
0,0,0,3
28.MAY
0,0,0,6
25.SEP
0,0,0,9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19.00
18.50
18.00
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
TEMP [DEG.C]
279M
320M
360M
400M
440M
480M
520M
560M
600M
640M
680M
1.OCT 1983
0 H (GMT)
29.JAN 1984
0.0.0.3
28.MAY
0.0.0.6
25.SEP
0.0.0.9

4.9 List of symbols

P, PR, PRES	pressure/dbar
T, TE, TEMP	temperature/°C
C, CD, COND	specific electrical conductivity of seawater, $C_{15,\ 0,\ 35}$ = 42.914 mS/cm
TP	potential temperature/°C referred to atmospheric pressure
S, SA	practical salinity
σ_t, ST, SIGT	density excess over 1000 kg m^{-3} at in-situ temperature and salinity and at atmospheric pressure
DE	depth/m
VC, UC	north- and east-component of current vector / cm s^{-1}
SPD	speed of current / cm s^{-1}
DIR	direction true north of current vector

4.10 Guide to figures