

SACLANTCEN MEMORANDUM
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**SACLANT UNDERSEA
RESEARCH CENTRE**

VOLUME 2 OF 2

MEMORANDUM



**Icelandic Current Experiment
GIN Sea
Cruise 88**

**Data Report
Hydrography and Circulation**

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Appendix B

CTD and bottle data from the upcasts

CTD and bottle data from the upcasts are presented in Figs. B1–B40. The header information on each data sheet corresponds to the matching CTD cast. The depths, temperature, salinity, sigma-t, opacity and dissolved oxygen values were taken from the time-averaged (1 min) data acquisition of the CTD at the bottle depth. The remaining variables were obtained by chemical analysis. The depths nominally correspond to the nearest integer 5 m value. Note, the data will not correspond to the depth-averaged data of the downcasts.

SACLANTCEN SM-260

station : 1 date : 2 NOV 1988 Lat. : 62 43.11 N
 bottom : 217 m time (GMT) : 15:38 Long. : 6 22.56 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
4.5	8.692	35.173	27.304	13.8	6.25	4.6	10.8		0.36 0.59
18.9	8.694	35.173	27.303	13.8	6.76	4.6	11.3		0.44 0.49
34.9	8.648	35.163	27.303	13.8	7.00	4.7	11.2	5.86	0.42 0.43
55.3	8.554	35.152	27.308	13.8	6.63	4.5	11.0		0.44 0.44
79.2	8.384	35.137	27.323	13.7	6.16	4.3	10.8		0.36 0.40
105.4	8.364	35.137	27.327	13.7	6.14	4.2	10.8		0.46 0.58
140.4	8.374	35.139	27.327	13.7	6.14	4.3	10.8		
195.7	8.373	35.142	27.329	13.6	6.13	4.6	11.5	6.18	

station : 2 date : 2 NOV 1988 Lat. : 62 48.45 N
 bottom : 425 m time (GMT) : 16:54 Long. : 6 17.73 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
4.3	8.206	35.110	27.329	12.5	6.20	7.4	10.1		0.45 0.57
18.9	8.211	35.109	27.328	12.5	6.19	4.5	10.6		0.45 0.57
33.6	8.215	35.109	27.328	12.5	6.19	4.5	10.7	6.28	0.48 0.58
54.1	8.215	35.110	27.328	12.5	6.18	4.5	10.7		0.46 0.61
73.6	8.229	35.111	27.327	12.5	6.18	4.5	10.7		0.46 0.57
107.9	8.248	35.113	27.326	12.5	6.17	4.4	10.7		0.49 0.58
155.7	8.267	35.117	27.325	12.5	6.16	4.4	10.7		
206.4	8.039	35.206	27.430	11.7	6.03	6.6	11.1		
306.1	7.602	35.190	27.483	11.7	6.04	7.2	13.9		
401.5	6.253	35.116	27.612	11.9	6.18	7.5	14.3	6.14	

station : 3 date : 2 NOV 1988 Lat. : 62 52.07 N
 bottom : 613 m time (GMT) : 18:01 Long. : 6 14.21 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.8	8.506	35.155	27.318	12.1	6.12	4.8	11.0		0.47 0.56
18.6	8.509	35.153	27.316	12.1	6.12	4.7	11.3		0.47 0.57
34.9	8.438	35.139	27.316	12.0	6.14	4.9	11.3	6.22	0.43 0.55
54.5	8.453	35.141	27.316	12.1	6.13	4.7	11.3		0.48 0.59
80.1	8.431	35.135	27.314	12.0	6.14	4.6	11.3		0.46 0.54
104.7	8.418	35.131	27.314	12.0	6.13	4.7	11.4		0.45 0.52
156.5	8.159	35.192	27.401	11.2	6.04	6.4	14.2		
204.4	7.985	35.214	27.445	11.1	6.01	7.2	15.1	5.99	
307.6	7.373	35.173	27.502	11.3	6.05	7.6	15.2		
406.9	2.991	34.936	27.835	11.3	6.49	7.2	14.4		
508.5	1.148	34.917	27.969	11.2	6.54				
595.6	-0.509	34.905	28.055	12.1	6.57	11.6	15.7	6.61	

Figure B1

SACLANTCEN SM-260

station : 4 date : 2 NOV 1988 Lat. : 62 54.68 N
 bottom : 909 m time (GMT) : 19:35 Long. : 6 10.76 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
3.6	7.625	35.022	27.347	11.8	6.32	4.7				0.46	0.69
19.9	7.628	35.022	27.347	11.8	6.30					0.00	0.00
35.0	7.653	35.026	27.346	11.8	6.30			6.63		0.01	0.05
52.9	7.616	35.019	27.346	11.8	6.31	6.4				0.01	0.07
79.0	7.615	35.018	27.346	11.8	6.31	6.5				0.00	0.09
104.4	7.594	35.013	27.345	11.8	6.31	7.5				0.00	0.09
204.3	7.879	35.210	27.457	10.8	6.01	6.9		6.04		0.46	0.64
306.5	6.289	35.103	27.597	11.0	6.16	4.8					
406.7	2.946	34.934	27.837	10.9	6.50	4.7					
508.6	2.068	34.954	27.929	10.9	6.48	4.9					
657.8	-0.409	34.902	28.048	10.9	6.57	4.8					
890.8	-0.679	34.906	28.064	12.0	6.56	4.8		6.35			

station : 5 date : 2 NOV 1988 Lat. : 62 59.24 N
 bottom : 1489 m time (GMT) : 20:48 Long. : 6 3.76 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
3.4	6.372	34.842	27.380	12.1	6.58	5.2	10.7			0.61	0.57
34.6	6.364	34.841	27.380	12.1	6.56	5.1	10.6	6.49		0.57	0.58
55.1	6.366	34.841	27.380	12.1	6.56	5.1	10.6			0.59	0.63
79.7	6.392	34.856	27.388	12.1	6.52	5.3	10.7			0.58	0.57
104.4	6.259	34.844	27.396	12.2	6.54	5.2	10.7			0.58	0.60
205.2	6.744	34.981	27.440	11.7	6.32	5.8	11.7			0.33	0.39
406.8	2.503	34.967	27.904	10.7	6.46	6.3	13.8			0.01	0.11
606.3	0.301	34.896	28.005	10.7	6.57	7.7	14.6				
805.7	-0.452	34.903	28.051	10.6	6.55	9.4	14.9	6.69			
1008.6	-0.595	34.905	28.059	10.6	6.55	9.4	14.8				
1110.6	-0.669	34.907	28.064	10.5	6.55	10.3	15.1				
1455.7	-0.872	34.907	28.073	11.0	6.55	12.5	15.4	6.73			

station : 6 date : 2 NOV 1988 Lat. : 63 2.00 N
 bottom : 1761 m time (GMT) : 22:49 Long. : 6 0.60 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
3.3	6.443	34.850	27.376	12.0	6.56	4.7	10.4			0.53	0.61
35.0	6.407	34.842	27.375	12.0	6.57	4.6	10.4	6.57		0.53	0.60
54.8	6.406	34.841	27.374	12.0	6.56	4.6	10.4			0.43	0.72
80.1	6.386	34.837	27.374	12.0	6.57	4.6	10.3			0.48	0.70
104.8	6.405	34.839	27.373	12.0	6.56	4.7	10.2			0.56	0.66
204.7	7.298	35.146	27.492	10.9	6.10	6.5	10.2	6.06		0.06	0.13
406.1	2.405	34.979	27.921	10.7	6.46	5.7	13.6			0.02	0.08
607.3	0.233	34.899	28.012	10.6	6.57	7.0	13.3				
808.7	-0.397	34.901	28.046	10.6	6.56	8.8	14.3	6.70			
1210.7	-0.734	34.908	28.068	10.5	6.54	10.2	14.5				
1412.2	-0.817	34.909	28.072	10.5	6.54		14.9				
1713.2	-0.896	34.908	28.075	11.1	6.54	11.8	15.3				

Figure B2

SACLANTCEN SM-260

station : 7 date : 3 NOV 1988 Lat. : 63 14.20 N
 bottom : 2080 m time (GMT) : 01:39 Long. : 5 32.70 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.5	6.547	34.850	27.363	12.1	6.56	4.5	10.7		0.50 0.59
34.4	6.606	34.860	27.363	12.1	6.54	4.5	10.7	6.45	0.51 0.54
54.7	6.685	34.876	27.365	12.0	6.52	4.4	10.7		0.53 0.59
78.8	6.623	34.869	27.368	12.0	6.53	4.5	10.7		0.49 0.51
105.8	7.176	35.144	27.508	11.0	6.13	6.7	14.7		0.04 0.07
205.7	3.181	34.908	27.795	11.0	6.53	7.4	14.5	6.57	
405.3	1.713	34.949	27.953	10.6	6.53	5.8	14.0		
608.5	0.039	34.899	28.023	10.5	6.61	6.9	14.7		
810.3	-0.460	34.904	28.052	10.5	6.60	8.5	15.0	6.74	
1211.0	-0.773	34.909	28.070	10.5	6.60	10.4	15.2		
1610.7	-0.866	34.908	28.073	10.6	6.59	11.2	15.4		
2020.0	-0.900	34.907	28.074	11.0	6.59	10.6	15.1	6.68	

station : 8 date : 3 NOV 1988 Lat. : 63 28.66 N
 bottom : 1066 m time (GMT) : 06:51 Long. : 7 26.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.8	7.510	35.002	27.348	11.2	6.34	4.7	11.3		0.47 0.51
34.2	7.370	34.979	27.350	11.3	6.38	4.9	11.2	6.42	0.48 0.49
54.2	7.309	34.970	27.352	11.3	6.39	4.8	11.3	0.03	0.50 0.51
80.6	7.315	34.972	27.352	11.3	6.38	4.7	11.3		0.47 0.54
106.0	7.351	34.979	27.353	11.3	6.38	4.7	11.2		0.53 0.61
204.7	7.662	35.197	27.480	10.3	6.07	6.7	14.6	6.45 0.17	0.00 0.11
408.2	1.685	34.908	27.923	10.4	6.59	7.3	14.4		
612.0	-0.194	34.898	28.034	10.2	6.62	8.1	15.1	0.15	
805.3	-0.554	34.904	28.056	10.4	6.61	10.0	15.4	0.21	
1019.9	-0.773	34.907	28.069	11.2	6.61	11.2	15.6	6.63	

station : 9 date : 3 NOV 1988 Lat. : 63 49.74 N
 bottom : 1106 m time (GMT) : 10:30 Long. : 8 3.84 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.9	5.643	34.702	27.362	10.7	6.78	5.7	9.7		0.52 0.59
33.4	5.635	34.701	27.363	10.7	6.78	4.7	9.8	6.57	0.53 0.59
53.9	5.607	34.697	27.363	10.7	6.78	4.7	9.7		0.51 0.53
79.6	5.581	34.694	27.363	10.7	6.79	4.7	9.8		0.50 0.49
104.8	5.559	34.692	27.364	10.7	6.78	4.7	9.7		0.47 0.62
205.6	3.051	34.889	27.792	9.1	6.56	7.1	14.3	6.40	0.03 0.10
405.9	-0.023	34.892	28.020	8.7	6.63	8.1	14.8		
608.0	-0.466	34.905	28.053	8.6	6.61	9.6	15.3		
807.1	-0.610	34.909	28.063	8.7	6.60	10.3	15.1		
1007.1	-0.714	34.909	28.067	9.3	6.60	11.3	15.4	6.65	

Figure B3

SACLANTCEN SM-260

station : 10 date : 3 NOV 1988 Lat. : 64 25.16 N
 bottom : 1800 m time (GMT) : 17:37 Long. : 8 13.80 W

press db	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
4.5	5.073	34.660	27.397	13.4	6.85	4.6	9.5		0.85	0.56
47.3	5.020	34.654	27.399	10.6	6.86	4.5	9.5	6.70 -0.05	0.83	0.55
80.2	4.891	34.733	27.476	10.0	6.74	5.3	11.0		0.41	0.35
110.3	4.447	34.925	27.679	9.5	6.48	7.4	14.4		0.09	0.12
205.4	1.315	34.824	27.883	9.0	6.72	7.2	14.8	6.90 0.08	0.03	0.13
416.5	0.246	34.897	28.009	8.6	6.64	7.0	14.5			
609.0	-0.178	34.894	28.030	8.6	6.63	8.1	15.2			
819.5	-0.535	34.907	28.058	8.5	6.61	9.0	15.0	0.02		
1194.4	-0.758	34.909	28.070	8.6	6.60	10.8	15.2			
1580.6	-0.827	34.910	28.073	8.6	6.60	11.8	15.1			
1589.4	-0.828	34.910	28.073	8.6	6.60	11.8	15.1	6.71 0.14		

station : 11 date : 3 NOV 1988 Lat. : 64 16.70 N
 bottom : 1695 m time (GMT) : 21:16 Long. : 8 30.50 W

press db	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.6	4.825	34.618	27.392	13.6	6.91	4.3	8.8		0.66	0.62
52.7	4.668	34.636	27.425	10.4	6.89	4.1	8.9	6.82	0.60	0.66
81.8	4.555	34.671	27.465	10.1	6.84	4.2	9.3		0.38	0.66
102.8	4.101	34.847	27.654	9.5	6.60	6.3	12.7		0.10	0.23
197.7	1.628	34.844	27.876	9.1	6.67	7.2	14.2	6.78	0.02	0.11
410.1	0.049	34.901	28.024	8.6	6.63	7.0	14.0			
605.9	-0.415	34.905	28.051	8.7	6.62		14.8			
802.1	-0.550	34.907	28.059	8.6	6.61	9.2	14.3			
1211.0	-0.755	34.911	28.071	8.6	6.60	9.2	14.5			
1518.6	-0.828	34.910	28.074	8.7	6.60	10.4	14.7	6.93		

station : 12 date : 4 NOV 1988 Lat. : 63 9.99 N
 bottom : 1320 m time (GMT) : 00:25 Long. : 8 45.86 W

press db	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.6	6.333	34.831	27.376	11.0	6.61	4.8	10.4		0.62	0.66
54.0	6.002	34.794	27.390	10.7	6.66	4.7	10.1	6.70 0.10	0.61	0.64
79.7	5.256	34.708	27.414	10.4	6.78	4.4	9.5		0.67	0.67
103.3	4.714	34.653	27.433	10.3	6.87	4.1	9.5		0.61	0.58
204.7	3.782	34.933	27.756	9.6	6.47	7.7	14.6	6.35 0.05	0.02	0.06
406.3	0.205	34.878	27.996	8.9	6.65	7.5	14.6			
610.7	-0.315	34.904	28.045	8.7	6.62	8.2	14.7			
810.0	-0.559	34.907	28.060	8.8	6.61	9.5	15.4	0.14		
1218.3	-0.801	34.911	28.073	8.9	6.60	11.2	15.4	5.78		

Figure B4

SACLANTCEN SM-260

station : 13 date : 4 NOV 1988 Lat. : 64 2.24 N
 bottom : 835 m time (GMT) : 03:21 Long. : 9 4.80 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
5.2	6.698	34.884	27.370	10.4	6.52	5.0	11.2		0.53	0.63
34.6	6.715	34.890	27.371	10.4	6.52	4.9	11.2		0.52	0.62
55.4	6.693	34.886	27.372	10.4	6.52	4.9	11.2	6.49	0.55	0.56
79.2	6.691	34.886	27.371	10.4	6.52	4.9	11.2		0.55	0.57
106.9	6.711	34.891	27.373	10.4	6.51	4.9	11.2		0.54	0.58
207.9	5.803	35.070	27.633	9.3	6.26	7.5	15.1	6.07	0.01	0.08
403.0	0.848	34.848	27.934	9.0	6.69	7.2	14.8			
605.4	-0.411	34.903	28.049	9.0	6.61	9.7	15.1			
717.5	-0.596	34.908	28.062	10.2	6.61	10.6	15.3	6.69		

station : 14 date : 4 NOV 1988 Lat. : 63 54.22 N
 bottom : 720 m time (GMT) : 06:18 Long. : 9 24.31 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.6	7.134	34.944	27.356	10.2	6.49	4.9	11.8		0.63	0.55
53.7	7.155	34.949	27.357	10.3	6.43	4.8	11.7	6.42 0.03	0.58	0.49
79.6	7.176	34.954	27.358	10.3	6.42	4.8	11.9		0.60	0.50
104.7	7.197	34.961	27.361	10.3	6.41	4.8	11.9		0.62	0.49
203.9	6.569	35.099	27.556	9.1	6.21	7.0	15.2	6.55 0.14	0.02	0.08
309.2	2.327	34.864	27.836	9.2	6.62	7.5	15.2			
405.6	0.813	34.874	27.957	8.9	6.64	7.6	15.0	0.06		
640.3	-0.527	34.906	28.057	10.3	6.62	10.3	15.6	6.70		

station : 15 date : 4 NOV 1988 Lat. : 63 45.29 N
 bottom : 620 m time (GMT) : 09:20 Long. : 9 45.90 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.3	7.213	34.962	27.360	10.6	6.42	4.8	11.7		0.58	0.51
60.6	7.230	34.963	27.358	10.5	6.41	4.8	11.7	6.41	0.52	0.54
75.9	7.226	34.962	27.357	10.5	6.41	4.9	11.8		0.54	0.55
108.7	7.226	34.961	27.356	10.5	6.40	4.9	11.7		0.64	0.45
200.3	7.542	35.184	27.487	9.1	6.08	6.8	14.7	5.99	0.02	0.04
300.9	4.238	34.955	27.725	9.8	6.45	7.9	14.6			
411.7	0.805	34.868	27.952	9.3	6.66	8.6	14.2			
566.6	-0.292	34.901	28.042	11.5	6.62	10.2	14.8	6.65		

Figure B5

SACLANTCEN SM-260

station : 16 date : 4 NOV 1988 Lat. : 63 39.60 N
 bottom : 563 m time (GMT) : 11:38 Long. : 9 58.18 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.9	7.761	35.049	27.349	10.6	6.30	4.2	10.5		0.57 0.49
54.9	7.766	35.049	27.348	10.0	6.29	4.1	10.5	6.36 0.01	0.54 0.45
79.1	7.756	35.047	27.348	10.0	6.29	4.1	10.7		0.56 0.47
99.2	7.736	35.044	27.349	10.0	6.30	4.1	10.5		0.56 0.45
202.4	7.384	35.182	27.508	8.9	6.10	6.9	14.4	5.92 0.13	
314.3	2.507	34.889	27.841	9.6	6.58	7.5	14.8		
399.0	0.811	34.876	27.958	9.2	6.65	7.7	14.3		
504.2	-0.198	34.899	28.035	11.2	6.63	10.0	14.7	6.57 0.01	

station : 18 date : 6 NOV 1988 Lat. : 67 33.01 N
 bottom : 1050 m time (GMT) : 11:02 Long. : 14 18.04 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
8.7	1.265	34.471	27.602	13.0	8.31	3.1	6.3	-0.04	0.74 0.59
54.1	1.252	34.484	27.613	12.9	7.35	4.1	4.1	7.41	0.52 0.45
81.1	-0.372	34.702	27.884	11.4	7.21	5.5	10.0		0.10 0.20
104.5	-0.544	34.755	27.935	11.2	7.23	5.6	12.9	-0.07	0.06 0.09
207.1	-0.160	34.857	27.999	11.1	7.21	4.8	12.9	7.20	
407.1	0.052	34.922	28.041	11.0	6.90				
607.9	-0.320	34.912	28.052	11.0	6.80				
808.3	-0.522	34.910	28.060	11.0	6.75				
869.8	-0.571	34.907	28.060	11.0	6.77			6.73 0.06	

station : 19 date : 6 NOV 1988 Lat. : 67 24.42 N
 bottom : 942 m time (GMT) : 14:12 Long. : 14 32.22 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
9.4	1.448	34.476	27.593	13.0	8.16	3.6	3.7	-0.01	0.56 0.50
54.7	1.455	34.480	27.596	12.9	7.41	4.0	6.5	7.39	0.52 0.52
79.4	0.904	34.667	27.784	12.0	7.14	5.5	8.5		0.19 0.21
105.3	-0.517	34.741	27.923	11.2	7.24	4.2		-0.09	0.06 0.10
206.7	-0.090	34.855	27.994	11.1	7.20	3.8	9.6	7.21	0.06 0.11
406.2	0.043	34.918	28.038	11.0	6.88	6.7	8.1	-0.04	
607.5	-0.339	34.912	28.053	11.0	6.79	9.7	11.1	-0.00	
809.0	-0.567	34.911	28.062	11.0	6.76			6.73	

Figure B6

SACLANTCEN SM-260

station : 20 date : 6 NOV 1988 Lat. : 66 54.25 N
 bottom : 1503 m time (GMT) : 23:29 Long. : 12 8.67 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
8.6	1.749	34.583	27.657	13.3	8.33	2.4	5.0			0.75	0.53
54.9	-0.694	34.699	27.897	11.4	7.35	4.6	11.8	7.38		0.11	0.13
76.1	-0.315	34.781	27.946	11.2	7.27	4.9	12.6			0.06	0.08
105.8	0.136	34.861	27.986	11.2	7.23	5.3	12.9			0.04	0.08
206.2	0.030	34.884	28.011	11.1	7.20	5.6	13.4	7.24		0.02	0.06
405.5	0.008	34.913	28.036	11.1	6.89	4.0	8.6				
607.5	-0.329	34.909	28.050	11.0	6.81	8.1	14.1				
808.3	-0.547	34.907	28.058	11.0	6.77	8.8	13.6				
1010.1	-0.652	34.907	28.063	11.0	6.72	9.7	14.2				
1207.1	-0.722	34.907	28.067	11.1	6.71	10.2	14.2	6.76			
1417.7	-0.782	34.907	28.069	11.1	6.66		10.6				
1416.4	-0.781	34.907	28.069	11.1	6.68			6.72			

station : 21 date : 7 NOV 1988 Lat. : 66 8.43 N
 bottom : 1094 m time (GMT) : 07:07 Long. : 11 14.24 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
7.2	3.487	34.730	27.623	12.8	7.59	4.8	7.1			0.64	0.60
55.3	3.402	34.720	27.624	12.8	7.08	4.8	9.1	7.10		0.65	0.60
80.1	3.510	34.735	27.625	12.8	7.09	4.8	9.3			0.25	0.20
104.6	4.532	35.036	27.757	11.8	6.46	7.6	8.7			0.02	0.06
205.7	0.418	34.820	27.937	11.6	7.04	6.5	13.8	6.98		0.05	0.09
406.5	0.031	34.903	28.027	11.1	6.91	6.7	14.3				
609.2	-0.274	34.907	28.046	11.1	6.81	8.1	14.4				
809.6	-0.539	34.905	28.057	11.1	6.79	9.3	14.5				
1010.0	-0.674	34.903	28.061	11.4	6.75	10.8	14.8	6.67			

station : 22 date : 7 NOV 1988 Lat. : 66 4.56 N
 bottom : 934 m time (GMT) : 08:42 Long. : 11 24.24 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
8.4	3.253	34.663	27.593	12.8	7.53	4.9	8.9	-0.03		0.67	0.53
54.6	3.353	34.676	27.594	12.7	7.16	2.7	5.1	7.07		0.61	0.55
79.5	4.355	34.944	27.704	12.0	6.66	5.3	9.5			0.13	0.17
104.5	4.365	35.039	27.778	12.4	6.47	6.4	10.6		0.07	0.02	0.07
206.2	2.621	34.948	27.878	12.2	6.71	5.0	8.8	6.79		0.02	0.07
406.4	-0.047	34.888	28.019	11.1	7.08	4.8	10.3		0.10		
608.0	-0.400	34.908	28.052	11.4	6.82	5.5	8.6				
808.1	-0.600	34.907	28.061	11.2	6.79	9.9	14.4				
860.4	-0.622	34.907	28.062	11.5	6.79			6.70	0.16		

Figure B7

SACLANTCEN SM-260

station : 23 date : 11 NOV 1988 Lat. : 65 49.34 N
 bottom : 262 m time (GMT) : 19:37 Long. : 13 6.58 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.9	4.322	34.798	27.591	11.0	6.87	5.3	9.4		0.66 0.63
64.6	4.335	34.798	27.590	10.7	6.87	5.3	9.5		0.64 0.59
96.8	4.477	34.992	27.729	10.0	6.40	7.6	13.8	6.38	0.12 0.18
105.6	4.352	35.016	27.761	10.0	6.28	7.5	14.3		0.04 0.09
155.4	4.007	35.027	27.807	10.1	6.25	8.8	15.3		0.17 0.21

station : 24 date : 11 NOV 1988 Lat. : 65 57.80 N
 bottom : 302 m time (GMT) : 22:09 Long. : 12 16.21 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
1.7	4.102	34.786	27.605	11.3	7.27	5.0	8.6		0.62 0.60
95.8	4.144	34.795	27.608	10.3	6.80	5.1	9.3		0.49 0.54
104.6	4.286	34.858	27.643	10.1	6.66	5.0	9.3		0.43 0.33
276.8	2.290	34.929	27.891	11.3	6.62	5.7	10.6	6.50	0.03 0.08

station : 25 date : 12 NOV 1988 Lat. : 66 6.74 N
 bottom : 930 m time (GMT) : 00:39 Long. : 11 26.91 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.7	4.090	34.782	27.603	10.4	6.90	5.8	10.0		0.64 0.53
71.9	4.076	34.777	27.601	10.4	6.97	5.8	10.0		0.59 0.53
103.2	4.496	34.896	27.650	9.9	6.64	6.7	12.0	6.63	0.32 0.31
132.4	4.802	35.063	27.748	9.7	6.26	8.9	15.3		0.05 0.13
202.4	3.726	35.022	27.832	10.2	6.32	9.4	15.5	6.30	0.02 0.06
404.8	-0.138	34.916	28.045	9.2	6.81				
611.8	-0.452	34.920	28.065	9.2	6.82	10.0	14.5		
849.2	-0.698	34.918	28.075	9.2	6.79	12.3	14.8	6.75	

Figure B8

SACLANTCEN SM-260

station : 26 date : 12 NOV 1988 Lat. : 66 3.40 N
 bottom : 1022 m time (GMT) : 02:12 Long. : 11 14.98 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.5	3.201	34.678	27.609	10.4	7.09	5.1	9.1		0.58	0.53
65.5	3.125	34.683	27.620	10.4	7.01	4.7	8.7		0.54	0.56
128.1	3.184	34.979	27.851	9.8	6.53	8.8	15.0	6.47	0.03	0.06
153.5	2.259	34.940	27.902	9.9	6.59	8.7	14.9		0.03	0.08
269.0	-0.555	34.816	27.986	9.1	7.43	6.0	12.9	7.49	0.02	0.09
401.3	0.030	34.919	28.039	8.9	6.92					
611.8	-0.304	34.922	28.059	8.9	6.84	9.0	14.3			
800.6	-0.578	34.920	28.071	8.9	6.81	10.5	14.5			
958.6	-0.686	34.918	28.074	9.2	6.80	11.8	14.8	6.69		

station : 27 date : 12 NOV 1988 Lat. : 66 9.00 N
 bottom : 1152 m time (GMT) : 04:15 Long. : 11 10.02 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.5	3.071	34.666	27.612	10.6	7.08	4.8	8.7		0.59	0.54
45.1	2.910	34.647	27.612	10.4	7.15	4.4	8.4		0.51	0.50
107.0	3.188	34.989	27.859	9.8	6.48	8.6	15.2	6.41	0.04	0.09
206.0	1.039	34.885	27.950	9.6	6.83	7.7	14.4		0.02	0.07
290.2	-0.107	34.879	28.014	9.0	7.24	5.9	13.3	7.34		
400.8	0.033	34.921	28.041	8.9	6.92	6.8	14.1			
609.1	-0.361	34.921	28.062	8.9	6.79	8.6	14.4			
809.1	-0.574	34.920	28.071	8.8	6.80	9.6	14.4	6.88		
1123.6	-0.815	34.916	28.078	9.6	6.72	12.7	15.1			

station : 28 date : 12 NOV 1988 Lat. : 66 22.80 N
 bottom : 1270 m time (GMT) : 07:53 Long. : 10 9.90 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.8	3.083	34.686	27.627	10.6	7.10	3.8	7.3		0.83	0.54
70.1	2.122	34.863	27.852	9.4	6.66	6.8	13.7	6.81	0.11	0.11
105.6	0.535	34.827	27.936	9.2	7.16	6.4	13.5		0.03	0.10
206.1	-0.477	34.842	28.003	8.9	7.36	5.6	12.6	7.46	0.02	0.06
405.5	-0.118	34.923	28.050	8.8	6.83	7.7	14.0			
608.1	-0.397	34.921	28.063	8.8	6.81	8.6	14.1			
810.7	-0.590	34.919	28.070	8.8	6.79	9.8	14.3			
1009.5	-0.711	34.918	28.075	8.7	6.80	10.8	14.5			
1211.9	-0.808	34.917	28.078	8.9	6.71	12.7	15.0	6.71		

Figure B9

SACLANTCEN SM-260

station : 29 date : 12 NOV 1988 Lat. : 66 32.84 N
 bottom : 1400 m time (GMT) : 11:14 Long. : 9 1.50 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.6	2.889	34.724	27.675	16.4	7.26	3.1	7.2		0.70	0.51
64.5	3.359	34.846	27.728	10.3	6.88	3.5	8.5		0.54	0.52
104.8	-0.324	34.794	27.957	9.0	7.38	5.2	13.0	7.48	0.07	0.13
122.3	-0.596	34.797	27.972	8.9	7.50	5.3	12.8		0.06	0.10
203.8	-0.253	34.866	28.011	8.8	7.25	5.8	13.4	7.28	0.02	0.07
404.2	-0.089	34.924	28.050	8.7	6.81	7.6	14.5			
606.9	-0.436	34.920	28.064	8.7	6.82	8.8	14.7			
804.7	-0.628	34.918	28.072	8.7	6.77	10.1	14.8			
1009.4	-0.727	34.918	28.075	8.7	6.74	11.2	15.0			
1315.7	-0.861	34.915	28.079	8.8	6.74	13.2	15.6	6.70		

station : 30 date : 12 NOV 1988 Lat. : 66 39.52 N
 bottom : 1750 m time (GMT) : 13:57 Long. : 8 20.92 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.7	2.709	34.706	27.677	10.4	7.18	3.3	7.3		0.73	0.54
55.1	2.755	34.725	27.687	10.3	7.23	3.0	7.5	-0.09	0.61	0.52
105.3	0.908	34.751	27.851	8.9	7.28	5.6	13.2	7.41	0.04	0.11
154.4	0.617	34.890	27.982	8.8	7.35	5.6	13.1		0.03	0.07
203.8	0.487	34.905	28.002	8.8	7.19	5.8	13.4	7.25	0.02	0.07
409.2	-0.012	34.926	28.047	8.6	6.87	7.3	14.6			
609.5	-0.378	34.920	28.061	8.6	6.84	8.3	15.0	0.27		
804.5	-0.588	34.918	28.069	8.6	6.83	9.3	14.9			
1009.8	-0.706	34.916	28.073	8.6	6.82	10.1	15.2	-0.04		
1210.9	-0.797	34.915	28.076	8.6	6.81	11.0	15.2			
1663.1	-0.923	34.912	28.079	8.7	6.84			6.79	-0.00	

station : 31 date : 12 NOV 1988 Lat. : 66 47.61 N
 bottom : 1950 m time (GMT) : 17:31 Long. : 7 41.80 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
4.4	3.744	34.906	27.738	10.2	7.05	4.0	8.5		0.66	0.56
63.8	3.647	34.895	27.739	10.2	6.95	3.9	8.6		0.67	0.54
105.4	3.471	34.897	27.758	9.9	6.88	3.9	8.9	7.03	0.03	0.08
207.9	0.956	34.914	27.979	8.8	7.24	5.8	12.9		0.02	0.06
304.9	0.397	34.903	28.006	8.8	7.14	6.0	13.3		0.47	0.45
407.9	0.303	34.932	28.034	8.7	6.86	6.8	14.3			
605.8	-0.172	34.924	28.054	8.7	6.81	7.8	14.6			
809.6	-0.488	34.920	28.067	8.6	6.81	8.9	14.6	6.78		
1007.5	-0.648	34.919	28.073	8.6	6.81	9.8	14.8			
1208.8	-0.748	34.917	28.076	8.6	6.78	10.5	14.8			
1613.9	-0.897	34.914	28.080	8.6	6.78	11.5	15.2			
1870.7	-0.940	34.912	28.080	8.9	6.82	12.3	15.3	6.77		

Figure B10

SACLANTCEN SM-260

station : 32 date : 12 NOV 1988 Lat. : 66 48.60 N
 bottom : 2370 m time (GMT) : 20:50 Long. : 6 49.10 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.4	4.814	35.090	27.768	9.7	6.81	4.1	8.9		0.37	0.40
75.4	4.818	35.098	27.774	9.3	6.76	4.1	8.9	0.11	0.33	0.33
125.6	3.470	35.098	27.919	8.8	6.73	5.7	12.9	6.90	0.02	0.09
205.0	3.164	35.109	27.957	8.7	6.84	5.6	12.7	-0.05	0.01	0.05
408.5	1.433	34.991	28.008	8.7	6.82	6.0	13.4			
604.9	0.193	34.934	28.042	8.6	6.78	6.8	13.9	-0.00		
809.6	-0.339	34.920	28.059	8.6	6.73	8.0	14.3	6.77		
1010.3	-0.574	34.919	28.070	8.5	6.82	8.8	14.0	0.17		
1212.1	-0.728	34.918	28.075	8.5	6.80	9.7	14.4			
1613.4	-0.867	34.914	28.078	8.6	6.82	10.8	14.7	0.08		
2012.8	-0.927	34.912	28.079	8.7	6.84	10.1	14.6			
2317.7	-0.929	34.912	28.079	8.9	6.81	12.4	14.9	6.85	-0.02	

station : 33 date : 13 NOV 1988 Lat. : 66 51.48 N
 bottom : 3155 m time (GMT) : 00:11 Long. : 6 5.14 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
4.1	5.389	35.137	27.738	9.4	6.73	4.4	9.5		0.32	0.38
45.9	5.394	35.139	27.739	9.4	6.68	4.5	9.5		0.33	0.44
103.9	4.422	35.133	27.846	8.8	6.71	5.5	12.3	6.64	0.06	0.14
204.6	3.330	35.119	27.949	8.7	6.81	5.7	12.8		0.01	0.07
403.1	1.653	35.031	28.024	8.7	6.91	6.1	13.4	-0.04		
605.2	0.204	34.934	28.042	8.6	6.78	7.2	14.1			
807.5	-0.342	34.919	28.059	8.6	6.71	8.5	14.5	6.74	0.03	
1212.2	-0.706	34.908	28.067	8.5	6.75	10.5	14.8			
1611.1	-0.857	34.915	28.079	8.5	6.76	11.9	15.0	0.15		
2014.3	-0.917	34.913	28.080	8.6	6.81	12.7	15.4	6.83		
2415.7	-0.920	34.912	28.079	8.7	6.83	13.0	15.2	0.10		
3080.0	-0.872	34.912	28.077	8.8	6.84	14.0	15.3	6.84	0.31	

station : 34 date : 13 NOV 1988 Lat. : 66 36 96 N
 bottom : 2520 m time (GMT) : 04:19 Long. : 6 42.66 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
4.0	5.140	35.112	27.748	9.5	6.72	5.0	9.8		0.38	0.40
62.7	5.144	35.115	27.750	9.6	6.70	5.1	10.0		0.41	0.37
125.4	3.376	35.089	27.921	8.8	6.76	6.2	13.3	6.75	0.01	0.08
205.1	2.975	35.091	27.960	8.7	6.83	6.2	13.3		0.01	0.05
408.3	1.182	34.978	28.016	8.6	6.80	6.6	14.1			
608.7	0.002	34.929	28.049	8.6	6.82	7.5	14.2			
808.8	-0.441	34.920	28.064	8.5	6.78	8.8	14.6	6.79		
1010.2	-0.638	34.909	28.065	8.5	6.75	10.0	15.0			
1213.6	-0.768	34.918	28.078	8.5	6.77	11.4	15.1			
1611.8	-0.896	34.910	28.077	8.6	6.82	11.9	15.1			
2013.7	-0.934	34.911	28.078	8.7	6.83	12.4	15.1	6.85		
2465.4	-0.918	34.911	28.078	9.1	6.83	13.2	15.5	6.82		

Figure B11

SACLANTCEN SM-260

station : 35 date : 13 NOV 1988 Lat. : 66 17.94 N
 bottom : 1790 m time (GMT) : 08:30 Long. : 7 34.62 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.2	4.530	35.024	27.748	9.9	6.82	4.3	9.3		0.48	0.44
77.1	4.217	35.088	27.834	9.1	6.68	5.3	11.1		0.18	0.22
156.6	3.038	35.097	27.959	8.7	6.76	6.0	13.2	7.09	0.01	0.06
205.5	2.558	35.067	27.979	8.7	6.68	6.7	13.9		0.01	0.04
410.0	0.446	34.935	28.029	8.7	6.89	7.9	14.3			
607.7	-0.217	34.960	28.086	8.6	6.79	9.0	14.4			
810.3	-0.484	34.967	28.104	8.6	6.78	10.1	14.6			
1009.3	-0.610	34.918	28.070	8.6	6.77	10.9	14.7	6.80		
1207.2	-0.707	34.916	28.073	8.6	6.75	12.9	15.2			
1612.2	-0.850	34.913	28.077	8.7	6.71	13.0	15.2			
1711.7	-0.871	34.915	28.079	8.8	6.73			6.72		

station : 36 date : 13 NOV 1988 Lat. : 66 4.80 N
 bottom : 1455 m time (GMT) : 11:41 Long. : 8 10.49 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.7	3.015	34.823	27.742	10.3	7.12	1.6	8.5		0.71	0.57
87.0	2.615	34.842	27.794	9.6	7.14	2.1	9.5		0.35	0.41
132.5	0.590	34.871	27.968	8.7	7.33	3.6	12.7	7.44 -0.05	0.03	0.09
204.6	0.299	34.895	28.005	8.7	7.16	4.1	13.1	0.09	0.02	0.06
405.8	-0.046	34.925	28.048	8.5	6.80	5.8	14.2			
607.7	-0.397	34.920	28.062	8.4	6.77	7.0	14.4	6.87 0.15		
808.4	-0.607	34.918	28.070	8.5	6.79	7.4	14.5			
1008.6	-0.746	34.919	28.077	8.5	6.74	11.0	14.9			
1209.6	-0.819	34.915	28.078	8.5	6.71	12.9	15.2			
1436.6	-0.900	34.914	28.080	9.4	6.69			6.74 0.05		

station : 37 date : 13 NOV 1988 Lat. : 65 56.04 N
 bottom : 969 m time (GMT) : 14:15 Long. : 8 37.90 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.2	3.037	34.504	27.486	10.8	7.12	3.5	7.6		0.73	0.58
67.2	2.362	34.628	27.644	9.4	6.96	4.8	10.4		0.26	0.26
124.7	0.248	34.751	27.892	8.9	7.25	6.2	13.4	7.28	0.03	0.10
165.8	0.060	34.790	27.933	8.8	7.25	6.2	13.5		0.02	0.08
204.4	0.027	34.849	27.983	8.7	7.06	6.1	13.3		0.02	0.08
405.5	-0.221	34.867	28.011	8.6	6.76	7.9	14.4			
611.0	-0.525	34.886	28.040	8.5	6.80	9.7	14.4			
804.7	-0.697	34.908	28.066	8.6	6.73	11.0	14.7	6.80		
897.9	-0.744	34.909	28.069	8.9	6.72	11.5	15.0			
948.4	-0.796	34.909	28.071	9.4	6.67	12.6	15.2	6.69		

Figure B12

SACLANTCEN SM-260

station : 38 date : 13 NOV 1988 Lat. : 65 44.94 N
 bottom : 794 m time (GMT) : 16:59 Long. : 9 6.06 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
2.4	3.201	34.526	27.488	10.3	7.13	4.2	7.7			0.57	0.47
64.5	3.195	34.576	27.528	10.1	7.11	3.5	7.6			0.50	0.57
114.7	0.865	34.737	27.843	8.9	7.13	6.3	13.4	7.17	-0.07	0.05	0.11
156.4	0.267	34.754	27.893	8.9	7.21	4.9	13.4			0.03	0.09
206.7	0.045	34.784	27.929	8.8	7.28	6.1	13.2		0.17	0.03	0.07
404.4	-0.184	34.896	28.032	8.6	6.76	7.8	14.4				
606.5	-0.530	34.903	28.055	8.6	6.74	9.6	14.6		0.15		
719.5	-0.653	34.907	28.064	9.2	6.66	12.0	15.0				
767.6	-0.667	34.909	28.065	9.6	6.65	12.2	15.1	6.63	-0.15		

station : 39 date : 13 NOV 1988 Lat. : 65 34.02 N
 bottom : 817 m time (GMT) : 10:10 Long. : 9 36.12 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
2.7	3.170	34.558	27.516	10.3	7.08	4.7	8.4			0.76	0.55
44.9	3.182	34.560	27.517	10.1	7.02	3.8	8.2			0.71	0.48
96.4	0.794	34.760	27.866	8.9	7.18	6.6	13.4	7.26		0.05	0.11
185.5	0.398	34.840	27.955	8.8	7.07	7.0	13.8			0.02	0.09
207.5	0.251	34.862	27.981	8.7	6.98	7.2	14.0			0.02	0.06
407.4	-0.301	34.901	28.042	8.5	6.78	8.4	14.5				
742.7	-0.656	34.910	28.066	9.1	6.70	12.7	15.1				
793.3	-0.671	34.910	28.066	10.1	6.71	12.7	15.1	6.65			

station : 40 date : 13 NOV 1988 Lat. : 65 23.16 N
 bottom : 842 m time (GMT) : 21:33 Long. : 10 5.60 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
2.5	3.427	34.520	27.462	10.2	7.12	4.0	8.0			0.79	0.61
74.9	3.084	34.535	27.506	10.1	7.16	3.5	7.7			0.73	0.60
105.3	2.537	34.622	27.625	9.5	6.98	4.6	9.5	6.71	0.05	0.32	0.32
155.2	0.645	34.745	27.863	8.9	7.14	6.5	13.7			0.05	0.10
206.0	0.329	34.794	27.921	8.8	7.20	6.3	13.2		-0.26	0.03	0.08
405.9	-0.150	34.896	28.030	8.5	6.78	7.8	14.4				
608.6	-0.486	34.904	28.053	8.5	6.71	9.7	14.9		0.14		
758.1	-0.651	34.909	28.065	8.7	6.69	11.8	14.9				
822.0	-0.687	34.908	28.066	9.1	6.69			7.07	0.17		

Figure B13

SACLANTCEN SM-260

station : 41 date : 14 NOV 1988 Lat. : 65 12.00 N
 bottom : 610 m time (GMT) : 00:12 Long. : 10 33.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.1	3.637	34.525	27.446	10.6	7.14	4.2	8.8		0.60 0.55
88.1	3.625	34.542	27.460	9.9	7.09	4.5	9.2		0.50 0.50
101.7	4.974	34.957	27.644	9.3	6.35	7.7	14.3	6.27	0.05 0.15
123.8	4.550	34.958	27.693	9.4	6.26	7.8	14.7		0.05 0.09
202.5	1.120	34.798	27.875	9.0	6.88	7.4	14.3		0.02 0.08
411.2	-0.362	34.901	28.045	9.1	6.81	10.1	14.7		
593.8	-0.627	34.909	28.064	10.2	6.80	12.0	15.0	6.74	

station : 42 date : 14 NOV 1988 Lat. : 65 1.04 N
 bottom : 590 m time (GMT) : 02:28 Long. : 11 3.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.6	4.204	34.554	27.410	10.1	7.03	4.0	8.6		0.58 0.57
54.9	4.201	34.552	27.409	10.1	7.01	3.9	8.7		0.57 0.56
74.1	4.038	34.586	27.453	9.8	6.94	4.2	9.3	7.04	0.46 0.33
145.1	2.116	34.819	27.818	9.1	6.67	6.7	14.1		0.02 0.07
205.4	0.767	34.794	27.895	9.0	6.99	6.7	14.5	0.01	0.03 0.08
404.2	-0.373	34.902	28.047	8.7	6.79	8.4	14.6		
569.6	-0.598	34.911	28.065	10.0	6.73	11.2	15.0	6.61 0.02	

station : 43 date : 14 NOV 1988 Lat. : 64 46.98 N
 bottom : 439 m time (GMT) : 04:21 Long. : 11 1.02 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.1	4.347	34.591	27.424	10.3	6.93	5.1	9.3		0.47 0.46
45.1	4.010	34.561	27.436	10.0	6.99	5.0	9.3		0.51 0.49
85.0	4.340	34.672	27.489	9.6	6.69	5.8	10.8	6.82 -0.16	0.29 0.32
125.7	4.841	34.861	27.584	9.4	6.30	7.7	13.6		0.11 0.15
206.0	0.732	34.784	27.889	9.0	7.02	7.6	14.1	0.04	0.02 0.07
358.0	-0.532	34.908	28.059	9.5	6.80	11.8	14.9		
417.3	-0.564	34.909	28.061	10.1	6.87	12.1	14.9	6.71 0.15	

Figure B14

SACLANTCEN SM-260

station : 44 date : 14 NOV 1988 Lat. : 64 49.02 N
 bottom : 410 m time (GMT) : 06:08 Long. : 11 31.98 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.6	4.190	34.590	27.440	10.0	6.88	5.4	9.8		0.71 0.51
64.5	4.182	34.593	27.444	10.0	6.80	5.4	9.9		0.62 0.56
105.6	4.461	34.777	27.560	9.4	6.34	7.3	12.8	6.59 0.06	0.24 0.24
176.0	2.664	34.851	27.797	9.4	6.44	8.8	15.1		0.03 0.07
221.0	1.381	34.822	27.876	9.3	6.76	8.2	14.6	0.09	0.02 0.07
357.8	-0.181	34.882	28.021	10.1	6.94	8.9	14.6		
387.3	-0.233	34.890	28.030	9.6	6.97	9.3	14.5	6.83 0.01	

station : 45 date : 14 NOV 1988 Lat. : 65 4.98 N
 bottom : 263 m time (GMT) : 08:05 Long. : 11 31.02 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.5	4.079	34.577	27.441	9.9	7.00	5.2	9.7		0.62 0.49
54.5	4.080	34.592	27.454	10.0	6.91	5.2	9.9		0.62 0.48
75.4	4.240	34.678	27.505	9.6	6.66	6.2	11.9	6.67	0.40 0.30
205.0	0.568	34.824	27.932	9.4	6.96	7.7	14.3		0.02 0.09
246.5	-0.137	34.871	28.010	9.4	7.04			6.91	

station : 46 date : 14 NOV 1988 Lat. : 65 25.02 N
 bottom : 317 m time (GMT) : 10:15 Long. : 11 42.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.1	3.765	34.555	27.456	9.9	7.26	5.6	10.1		0.51 0.54
43.8	3.836	34.575	27.465	9.8	6.97	5.6	10.1		0.54 0.44
126.2	3.661	34.827	27.683	11.1	6.52	8.2	14.3		0.09 0.13
165.9	2.972	34.858	27.775	9.8	6.61	8.7	15.1	6.44 -0.05	0.04 0.10
203.7	1.167	34.817	27.887	9.1	6.94	7.9	14.6		0.02 0.07
295.5	0.120	34.857	27.984	9.1	7.05	7.9	14.3	6.96 -0.01	

Figure B15

SACLANTCEN SM-260

station : 47 date : 14 NOV 1988 Lat. : 65 31.98 N
 bottom : 663 m time (GMT) : 11:55 Long. : 11 22.98 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
1.7	3.567	34.517	27.446	12.2	7.88	4.6	8.3		0.68 0.50
44.4	3.567	34.523	27.451	10.0	7.00	4.3	8.4		0.67 0.53
84.3	3.492	34.589	27.510	9.8	6.98	4.9	9.4	6.94	0.47 0.35
154.9	1.083	34.756	27.844	8.9	6.90	7.3	14.7		0.05 0.09
235.9	-0.116	34.765	27.923	8.8	7.23	6.2	13.7		0.02 0.09
405.9	-0.073	34.890	28.021	8.6	6.82	7.8	14.5	6.86	
627.3	-0.510	34.908	28.058	9.0	6.79	10.0	14.8	6.74	

station : 48 date : 14 NOV 1988 Lat. : 65 40.98 N
 bottom : 980 m time (GMT) : 14:04 Long. : 10 57.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
1.8	3.445	34.515	27.456	10.2	7.07	4.4	4.8		0.76 0.56
63.9	3.441	34.524	27.463	10.1	7.10	4.3	8.1		0.68 0.57
104.8	2.582	34.824	27.782	9.1	6.52	8.0	14.9	6.53 0.20	0.05 0.08
167.3	0.033	34.768	27.917	8.8	7.18	6.6	13.8		0.02 0.08
206.1	-0.237	34.787	27.947	8.7	7.24	6.4	13.5		0.01 0.07
409.9	-0.106	34.897	28.029	8.5	6.84	8.1	14.6	0.09	
608.9	-0.457	34.908	28.055	8.5	6.81	9.7	14.7		
947.1	-0.693	34.911	28.069	9.7	6.78	12.1	15.0	6.71 0.22	

station : 49 date : 14 NOV 1988 Lat. : 65 50.40 N
 bottom : 1127 m time (GMT) : 16:00 Long. : 10 31.38 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.9	3.807	34.553	27.451	10.2	6.98	7.3	9.1		0.73 0.55
64.2	3.778	34.559	27.458	10.0	7.06	6.8	9.1		0.64 0.53
107.0	3.526	34.876	27.736	9.1	6.39	11.7	15.0	6.43	0.05 0.09
212.9	0.432	34.813	27.931	9.1	6.95	10.8	14.1		0.02 0.05
317.7	-0.173	34.846	27.991	8.5	7.08	8.9	13.7		0.01 0.05
410.2	-0.010	34.883	28.012	8.5	6.93	10.1	14.1		
602.8	-0.307	34.903	28.044	8.5	6.81	12.2	14.2		
812.3	-0.614	34.910	28.064	8.5	6.78		14.5		
1112.0	-0.760	34.912	28.072	9.4	6.72		15.2	6.65	

Figure B16

SACLANTCEN SM-260

station : 50 date : 14 NOV 1988 Lat. : 66 3.00 N
 bottom : 1170 m time (GMT) : 20:03 Long. : 9 52.02 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.6	3.228	34.509	27.472	11.4	7.11	6.1	8.1		0.71 0.48
54.8	3.213	34.512	27.476	10.1	7.04	2.9	8.2		0.69 0.50
156.9	-0.151	34.769	27.928	8.7	7.35	5.9	13.2	7.28	0.02 0.07
185.3	-0.162	34.797	27.951	8.7	7.27	8.7	13.4	-0.09	0.02 0.07
203.9	-0.321	34.805	27.966	8.6	7.31	8.9	13.3		0.02 0.06
405.2	-0.110	34.897	28.029	8.5	6.83	8.7	14.0	0.27	
615.1	-0.487	34.921	28.067	8.4	6.82	10.6	14.1		
812.7	-0.642	34.912	28.067	8.4	6.82	12.6	14.7	-0.08	
1007.3	-0.770	34.912	28.072	8.5	6.76		15.1		
1144.4	-0.847	34.912	28.076	9.3	6.65		15.7	6.58 0.23	

station : 51 date : 14 NOV 1988 Lat. : 65 49.34 N
 bottom : 801 m time (GMT) : 22:28 Long. : 9 35.15 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.3	3.300	34.519	27.473	10.8	7.24	4.1	8.0		0.62 0.63
33.6	3.236	34.529	27.487	10.1	7.10	4.0	8.0		0.69 0.51
95.7	1.575	34.757	27.810	9.0	6.94	7.5	15.0	6.96	0.06 0.12
154.3	0.141	34.762	27.907	8.8	7.26	5.9	12.2		0.03 0.09
204.6	-0.018	34.817	27.960	8.7	7.10	5.8	10.8	7.23	0.02 0.06
411.5	-0.208	34.900	28.036	8.5	6.83	8.2	14.2		
608.1	-0.553	34.909	28.061	8.5	6.81	10.5	14.7		
787.4	-0.655	34.911	28.067	9.4	6.74	12.0	13.9	6.68	

station : 52 date : 15 NOV 1988 Lat. : 65 36.72 N
 bottom : 820 m time (GMT) : 01:09 Long. : 9 14.34 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
5.2	3.104	34.551	27.517	13.2	7.28	3.8	8.0		0.62 0.47
67.9	3.077	34.554	27.522	10.0	7.24	3.7	8.0		0.60 0.40
85.5	2.570	34.684	27.672	9.2	7.03	5.0	10.8	7.09	0.20 0.26
160.0	0.833	34.765	27.868	8.8	7.19	6.8	14.2		0.03 0.09
216.6	0.179	34.784	27.922	8.8	7.29	6.7	13.6	7.27	0.03 0.07
405.0	-0.144	34.897	28.031	8.5	6.83	8.0	14.8		
610.8	-0.523	34.909	28.059	8.5	6.81	10.0	14.8		
777.2	-0.710	34.913	28.071	9.3	6.73	13.0	15.4	6.62	

Figure B17

SACLANTCEN SM-260

station : 53 date : 15 NOV 1988 Lat. : 65 22.56 N
 bottom : 910 m time (GMT) : 04:10 Long. : 8 52.86 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.0	3.151	34.564	27.523	11.7	7.25	3.5	8.2		0.62	0.52
45.2	3.087	34.595	27.554	10.4	7.23	3.6	8.4		0.62	0.52
85.9	0.734	34.741	27.854	9.1	7.29	5.9	13.5	7.32	0.03	0.05
150.7	0.182	34.786	27.923	8.9	7.40				0.02	0.07
212.4	0.049	34.844	27.978	8.9	7.10	5.7	13.6			
406.6	-0.245	34.901	28.039	8.7	6.84	6.6	14.5			
605.2	-0.540	34.909	28.060	8.8	6.82	8.3	15.3			
820.9	-0.686	34.912	28.069	9.0	6.78	9.4	15.3	6.77		

station : 54 date : 15 NOV 1988 Lat. : 65 2.28 N
 bottom : 1528 m time (GMT) : 08:53 Long. : 8 34.97 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.7	3.531	34.567	27.489	10.1	7.05	4.3	8.5		0.56	0.52
79.2	3.288	34.594	27.534	9.8	7.02	4.4	8.8		0.48	0.39
116.2	1.904	34.770	27.795	9.0	6.96	6.8	13.3		0.09	0.15
163.4	1.294	34.852	27.906	8.8	7.02	6.9	13.7	7.07	0.02	0.10
201.9	1.588	34.920	27.939	8.7	6.96	6.8	14.4		0.01	0.08
406.8	0.309	34.900	28.008	8.5	6.90	7.4	14.6			
605.8	-0.308	34.904	28.045	8.5	6.83	8.8	14.8			
803.5	-0.565	34.909	28.061	8.5	6.75	9.5	15.0			
1008.4	-0.694	34.911	28.068	8.5	6.69	11.1	15.3			
1491.8	-0.834	34.912	28.075	8.7	6.70	12.8		6.79		

station : 55 date : 15 NOV 1988 Lat. : 64 53.34 N
 bottom : 2558 m time (GMT) : 12:51 Long. : 8 59.88 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
6.0	4.132	34.603	27.457	10.1	7.06	4.4	9.0		0.62	0.57
73.2	4.182	34.649	27.488	9.7	6.90	4.9	9.7		0.54	0.50
105.6	4.166	34.693	27.525	9.5	6.87	5.1	10.6	6.99	0.40	0.30
170.8	2.419	34.872	27.835	8.9	6.93	6.7	13.9		0.03	0.09
207.8	2.206	34.919	27.890	8.8	7.00	6.3	13.8	7.04	0.02	0.08
411.6	0.768	34.912	27.990	8.5	6.92	6.5	14.1			
617.3	-0.092	34.901	28.032	8.4	6.87	7.5	14.4			
804.9	-0.386	34.907	28.051	8.5	6.82	8.5	14.6			
1010.6	-0.593	34.908	28.062	8.4	6.83	9.4	14.7	6.85		
1308.4	-0.747	34.912	28.072	8.4	6.82	10.5	14.9			
1721.1	-0.861	34.911	28.076	8.4	6.84	11.4	15.2			
2519.2	-0.905	34.908	28.075	8.7	6.85	12.7	15.4	6.85		

Figure B18

SACLANTCEN SM-260

station : 56 date : 15 NOV 1988 Lat. : 64 44.05 N
 bottom : 2070 m time (GMT) : 16:52 Long. : 9 24.54 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.9	4.572	34.609	27.414	10.0	6.93	4.9	9.3		0.60 0.52
34.5	4.579	34.615	27.418	10.0	6.94	4.7	9.3		0.49 0.61
60.2	3.917	34.659	27.524	9.6	6.71	4.8	10.2	6.97	0.48 0.37
106.9	1.690	34.801	27.837	8.9	6.97	4.8	9.8		0.05 0.12
205.5	0.822	34.880	27.961	8.7	6.88	6.9	14.2	7.05 0.01	0.02 0.07
408.9	0.027	34.827	27.966	8.5	6.79	7.8	14.7		
607.1	-0.478	34.919	28.065	8.5	6.79	9.3	15.0	0.15	
812.9	-0.629	34.895	28.053	8.5	6.78	10.5	15.1	6.81	
1012.0	-0.674	34.912	28.068	8.5	6.80	11.3	15.1	0.13	
1313.3	-0.691	34.911	28.068	8.6	6.78	11.4	15.4	0.01	
1717.8	-0.741	34.910	28.070	8.6	6.76	11.9	15.4		
1992.1	-0.744	34.910	28.070	8.6	6.75	12.1	15.2	-0.01	

station : 57 date : 15 NOV 1988 Lat. : 64 40.66 N
 bottom : 1453 m time (GMT) : 19:10 Long. : 9 32.55 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.6	5.065	34.664	27.402	12.5	7.16	5.1	9.8		0.51 0.48
34.6	5.055	34.670	27.407	9.9	6.75	5.0	9.7		0.46 0.40
94.6	3.495	34.583	27.505	9.8	6.98	4.2	8.4	7.13	0.63 0.62
154.6	1.870	34.787	27.811	8.9	6.86	6.7	13.2		0.05 0.18
226.8	1.054	34.843	27.915	8.8	6.97	6.9	13.7	7.08	0.03 0.09
406.8	0.055	34.936	28.052	8.6	6.81	8.1	14.4		
608.3	-0.441	34.907	28.053	8.8	6.72	10.3	14.7		
812.2	-0.524	34.941	28.085	8.9	6.77	10.7	14.7		
1009.8	-0.505	34.907	28.057	8.9	6.76	10.8	15.1	6.73	
1209.7	-0.548	34.908	28.060	8.9	6.71	11.1	14.9		
1408.7	-0.545	34.907	28.058	9.0	6.74	11.2	14.8	6.74	

station : 58 date : 15 NOV 1988 Lat. : 64 38.84 N
 bottom : 785 m time (GMT) : 20:43 Long. : 9 34.88 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
4.0	4.515	34.596	27.410	10.0	6.90	4.8	8.2		0.59 0.50
64.2	3.734	34.562	27.465	10.0	7.04	4.1	7.8		0.66 0.50
125.3	2.756	34.733	27.694	9.1	6.79	6.0	12.2	6.91	0.17 0.20
165.1	1.486	34.783	27.837	8.9	6.80	7.3	14.2		0.03 0.08
204.5	0.806	34.786	27.886	8.8	7.00	7.0	13.9	7.17	0.04 0.11
405.5	0.012	34.894	28.020	8.6	6.82	8.2	14.4		
606.5	-0.480	34.908	28.057	8.8	6.70	10.5	15.0		
739.2	-0.657	34.912	28.068	8.9	6.78	11.5	14.8	6.65	

Figure B19

SACLANTCEN SM-260

station : 59 date : 15 NOV 1988 Lat. : 64 33.17 N
 bottom : 553 m time (GMT) : 22:26 Long. : 9 48.08 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.7	5.643	34.755	27.404	10.1	6.76	5.1	10.2		0.47 0.36
35.4	5.494	34.858	27.504	10.1	6.71	5.0	10.1		0.46 0.40
83.9	3.936	34.553	27.437	9.9	7.02	4.1	8.6	7.04	0.56 0.45
125.6	4.453	34.727	27.521	9.5	6.61	5.6	11.1	6.69	0.09 0.10
305.7	0.842	34.844	27.931	8.9	6.91	7.6	14.0		
533.0	-0.481	34.906	28.054	10.2	6.80	10.6	14.8	6.69	

station : 60 date : 16 NOV 1988 Lat. : 64 25.62 N
 bottom : 535 m time (GMT) : 00:56 Long. : 10 8.70 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.0	5.010	34.566	27.330	11.4	6.88	5.8	10.2		0.37 0.35
46.1	5.014	34.573	27.335	11.3	6.88	5.9	9.6		0.42 0.30
75.8	4.582	34.587	27.396	10.3	6.97	5.0	8.9	6.90	0.51 0.31
171.4	5.471	34.954	27.582	9.4	6.28	7.4	13.1		0.08 0.13
214.0	4.808	34.953	27.661	9.5	6.39	8.1	14.7		0.04 0.10
462.9	-0.417	34.905	28.051	9.8	6.84	10.5	14.8		
510.7	-0.458	34.907	28.054	10.2	6.83	10.9	14.9	6.78	

station : 61 date : 16 NOV 1988 Lat. : 64 17.76 N
 bottom : 517 m time (GMT) : 03:20 Long. : 10 28.08 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
4.3	6.909	34.882	27.339	11.3	6.53	6.2	11.7		0.43 0.36
33.9	6.949	34.887	27.337	11.2	6.55	6.2	11.7		0.44 0.38
86.8	8.094	35.168	27.392	8.9	6.09	6.7	14.1	6.05	0.05 0.08
155.0	7.567	35.136	27.446	9.1	6.09	7.3	14.4		0.02 0.14
209.9	7.004	35.143	27.531	8.6	5.96	8.5	15.5		0.01 0.04
402.0	0.486	34.814	27.928	9.4	7.09	7.8	14.3		
431.6	0.061	34.858	27.989	9.2	7.04	8.5	14.5	6.91	

Figure B20

SACLANTCEN SM-260

station : 62 date : 16 NOV 1988 Lat. : 63 54.72 N
 bottom : 545 m time (GMT) : 06:04 Long. : 10 20.04 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.3	5.005	34.652	27.399	11.1	6.85	5.5	10.0		0.50 0.45
32.9	5.134	34.667	27.396	10.4	6.81	5.5	10.1		0.45 0.43
93.9	4.169	34.660	27.498	10.0	6.77	6.0	10.9	6.71	0.24 0.29
134.8	4.245	34.797	27.599	9.6	6.51	7.3	13.1		0.14 0.17
195.9	3.477	34.900	27.760	9.4	6.36	8.5	15.0		0.03 0.10
471.0	-0.436	34.905	28.052	10.2	6.82	11.4	15.0		
519.8	-0.443	34.906	28.053	10.3	6.86	11.4	15.0	6.74	

station : 63 date : 16 NOV 1988 Lat. : 63 30.86 N
 bottom : 491 m time (GMT) : 09:04 Long. : 10 19.12 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
4.9	7.629	35.051	27.369	9.5	6.32	5.3	12.0		0.40 0.32
83.7	7.560	35.031	27.364	9.5	6.34	5.3	12.0		0.43 0.31
133.0	6.894	34.924	27.374	9.6	6.51	5.3	11.2	6.39	0.38 0.30
165.7	7.656	35.106	27.409	8.9	6.19	6.4	13.4		0.09 0.12
208.5	7.450	35.136	27.462	8.8	6.19	6.8	14.2		0.05 0.08
412.6	1.779	34.919	27.924	12.0	6.70	9.5	14.8		
466.0	0.211	34.898	28.012	12.0	6.86	10.3	15.0	6.66	

station : 64 date : 16 NOV 1988 Lat. : 63 36.95 N
 bottom : 540 m time (GMT) : 10:38 Long. : 10 3.54 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
4.4	7.785	35.077	27.367	9.5	6.29	5.3	12.1		0.40 0.34
122.9	7.794	35.076	27.364	9.4	6.28	5.4	12.2		0.40 0.27
155.7	7.889	35.133	27.395	8.9	6.11	6.2	13.3	6.11	0.13 0.13
184.1	7.932	35.177	27.423	8.7	5.99	6.9	14.3		0.02 0.07
204.9	7.909	35.186	27.434	8.6	5.93	7.2	14.4		0.01 0.06
404.6	1.185	34.908	27.959	9.7	6.63	9.3	14.9		
465.6	-0.227	34.897	28.035	10.1	6.80	10.2	14.8		
520.1	-0.238	34.897	28.035	10.7	6.84	10.2	14.9	6.71	

Figure B21

SACLANTCEN SM-260

station : 65 date : 16 NOV 1988 Lat. : 63 45.96 N
 bottom : 629 m time (GMT) : 12:32 Long. : 9 44.82 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
7.3	7.493	35.023	27.367	9.6	6.44	5.3	11.7		0.42	0.38
104.8	7.405	35.005	27.366	9.6	6.44	5.2	11.4		0.88	0.59
133.9	7.133	34.976	27.381	9.5	6.43	5.6	12.2	6.34	0.31	0.29
184.8	8.016	35.182	27.415	8.6	6.03	6.7	14.1		0.03	0.06
209.2	7.763	35.158	27.434	8.9	6.11	7.0	14.3		0.04	0.08
406.4	2.105	34.843	27.838	9.0	6.76	7.9	14.6			
558.8	-0.291	34.902	28.043	10.9	6.81	10.6	15.3			
612.1	-0.438	34.906	28.053	11.4	6.83	10.9	14.8	6.72		

station : 66 date : 16 NOV 1988 Lat. : 63 53.70 N
 bottom : 717 m time (GMT) : 14:30 Long. : 9 24.84 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.6	7.971	35.115	27.369	9.4	6.25	5.2	12.0		0.37	0.28
164.6	7.995	35.112	27.363	9.2	6.26	5.1	12.0		0.36	0.31
206.1	8.025	35.175	27.408	8.7	5.90	6.8	14.1	6.03	0.03	0.07
265.4	7.744	35.181	27.455	8.6	6.06	7.1	14.5		0.02	0.06
350.1	4.993	35.040	27.708	9.2	6.21	8.5	15.3	6.13	0.01	0.07
403.0	1.809	34.838	27.857	8.9	6.78	8.2	14.6			
620.2	-0.449	34.905	28.052	9.2	6.81		14.9			
691.4	-0.542	34.908	28.059	10.4	6.82	9.8	15.0	6.63		

station : 67 date : 16 NOV 1988 Lat. : 64 2.82 N
 bottom : 857 m time (GMT) : 16:25 Long. : 9 4.26 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
4.2	6.429	34.878	27.400	10.0	6.54	5.4	11.1		0.46	0.32
55.7	6.506	34.886	27.397	10.0	6.60	5.4	11.2		0.31	0.24
94.9	6.420	34.875	27.400	9.9	6.52	5.4	11.1		0.35	0.25
113.8	6.287	34.873	27.416	9.9	6.51	5.5	11.0		0.21	0.21
156.7	5.495	34.819	27.473	9.5	6.52	5.6	11.3		0.46	0.29
207.3	5.077	34.966	27.639	9.2	6.29					
412.6	0.170	34.883	28.003	8.8	6.87	5.6	11.3			
602.3	-0.470	34.907	28.055	8.9	6.80	7.4	14.0			
791.8	-0.640	34.910	28.066	9.8	6.80	8.4	14.3			
833.3	-0.639	34.910	28.065	9.8	6.81	9.9	14.7	6.74		

Figure B22

SACLANTCEN SM-260

station : 68 date : 16 NOV 1988 Lat. : 64 10.44 N
 bottom : 1075 m time (GMT) : 18:29 Long. : 9 6.66 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
5.4	5.956	34.800	27.400	10.1	6.62	5.4	10.3		0.44	0.33
74.0	5.935	34.813	27.413	9.9	6.64	5.4	10.6	6.49	0.39	0.26
116.2	6.666	35.030	27.488	9.0	6.16	6.5	12.9		0.07	0.13
142.4	5.926	34.992	27.556	9.2	6.04	6.9	13.2		0.07	0.11
207.0	3.524	34.912	27.765	9.2	6.43	7.7	14.2		0.02	0.08
262.1	1.375	34.807	27.864	8.9	7.01	7.0	13.8			
403.7	0.036	34.886	28.012	8.7	6.89	8.4	14.1			
604.3	-0.443	34.900	28.048	8.6	6.83	9.4	14.3			
813.6	-0.585	34.912	28.064	8.6	6.81	10.1	14.5			
998.3	-0.674	34.912	28.068	8.8	6.81	10.9	14.7			
1045.5	-0.682	34.913	28.069	9.0	6.80	10.9	14.7	6.79		

station : 69 date : 16 NOV 1988 Lat. : 64 9.57 N
 bottom : 1320 m time (GMT) : 20:25 Long. : 8 46.27 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.7	5.240	34.701	27.410	11.1	6.80	4.8	9.7		0.48	0.45
64.7	5.247	34.703	27.411	10.0	6.83	7.4	13.9		0.49	0.46
104.2	4.472	34.622	27.435	9.8	6.92	4.7	9.8	6.85	0.52	0.33
156.7	3.529	34.883	27.741	9.2	6.52	4.4	9.1		0.05	0.10
241.1	1.136	34.639	27.746	9.0	6.88	7.3	13.9		0.01	0.08
406.4	-0.159	34.886	28.023	8.6	6.80	8.5	14.2			
615.7	-0.474	34.906	28.054	8.5	6.83	9.4	14.4			
811.6	-0.610	34.903	28.059	8.5	6.82	10.3	14.5			
1007.6	-0.688	34.895	28.055	8.6	6.79	10.8	14.7			
1228.1	-0.749	34.900	28.062	8.9	6.79	11.4	14.7			
1268.7	-0.810	34.907	28.070	9.2	6.79	11.3	14.7	6.75		

station : 70 date : 16 NOV 1988 Lat. : 64 16.67 N
 bottom : 1633 m time (GMT) : 22:43 Long. : 8 31.67 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.5	4.508	34.615	27.426	10.0	6.93	4.7	9.3		1.26	
73.6	4.204	34.590	27.439	9.9	6.99	4.5	9.2		1.10	
133.4	2.817	34.859	27.790	9.1	6.70	7.2	14.0	6.72	0.05	0.17
185.4	1.411	35.366	28.311	9.0	6.77	7.8	14.6			
251.0	0.683	34.835	27.934	8.8	6.96	7.5	14.2	7.00	0.02	0.07
408.7	-0.027	34.937	28.057	8.5	6.87					
609.5	-0.385	34.952	28.087	8.5	6.80	8.9	14.8			
805.8	-0.541	34.911	28.061	8.5	6.78	10.1	14.9			
1007.7	-0.677	34.928	28.082	8.5	6.78	10.5	14.9	6.79		
1210.2	-0.749	34.912	28.072	8.5	6.77	11.4	15.3			
1513.6	-0.817	34.912	28.074	8.5	6.78	11.8	15.3			
1591.6	-0.851	34.911	28.075	8.7	6.79	12.3	15.4	6.80		

Figure B23

SACLANTCEN SM-260

station : 71 date : 17 NOV 1988 Lat. : 64 23.58 N
 bottom : 1870 m time (GMT) : 01:15 Long. : 8 14.64 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
5.1	5.240	34.710	27.418	10.0	6.84	5.1	10.2		0.50	0.39
64.7	5.244	34.710	27.417	9.9	6.83	4.9	10.2		0.43	0.48
145.0	3.472	34.890	27.753	9.0	6.62	7.2	14.3	6.61	0.04	0.12
224.8	2.463	34.966	27.906	8.7	6.92	6.1	13.8		0.04	0.02
405.7	0.647	34.924	28.007	8.5	6.87	6.9	14.6			
612.0	-0.264	34.937	28.070	8.5	6.80	8.5	14.9			
807.9	-0.506	34.910	28.059	8.5	6.72	9.2	15.1			
1009.5	-0.654	34.936	28.087	8.4	6.76	10.0		6.85		
1211.4	-0.741	34.898	28.060	8.5	6.71	11.1	15.1			
1612.6	-0.844	34.926	28.087	8.5	6.73	11.9	15.3			
1842.7	-0.861	34.911	28.076	8.6	6.79	12.2	15.5	6.84		

station : 72 date : 17 NOV 1988 Lat. : 64 10.86 N
 bottom : 2270 m time (GMT) : 05:25 Long. : 7 13.44 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
4.5	5.041	34.678	27.416	9.9	6.81	5.1	9.8		0.44	0.41
64.2	5.044	34.679	27.416	9.9	6.75	4.9	9.8		0.50	0.37
106.3	4.836	34.762	27.506	9.3	6.55	5.3	10.6	6.70	0.25	0.33
207.2	1.771	34.980	27.974	8.8	6.88	7.2	13.9		0.00	0.15
406.6	0.303	34.899	28.008	8.5	6.87	7.0	14.3			
608.1	-0.288	34.907	28.046	8.4	6.79	9.9	14.6			
811.1	-0.540	34.911	28.062	8.5	6.75	9.7	14.8			
1005.3	-0.703	34.914	28.071	8.4	6.72	10.3	14.9	6.77		
1212.5	-0.803	34.914	28.076	8.5	6.74	11.6	15.2			
1612.1	-0.883	34.911	28.077	8.5	6.77	12.0	15.3			
2249.9	-0.905	34.910	28.077	8.9	6.83	12.4	15.3	6.80		

station : 73 date : 17 NOV 1988 Lat. : 63 57.77 N
 bottom : 1545 m time (GMT) : 08:43 Long. : 7 36.72 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.4	6.108	34.790	27.373	11.2	7.26	5.1	10.5		0.49	0.49
54.9	5.180	34.667	27.390	10.0	6.77	4.8	9.7		0.69	0.17
85.3	6.416	34.939	27.450	9.3	6.16	5.9	12.3	6.32	0.15	0.15
104.3	6.563	35.063	27.529	9.0	5.98	7.0	14.1		0.04	0.08
223.3	2.113	34.873	27.861	8.9	6.70	7.2	13.9		0.01	0.10
407.5	0.381	34.899	28.003	8.6	6.75	7.0	14.2			
608.6	-0.229	34.894	28.033	8.5	6.72	8.2	14.5			
806.8	-0.514	34.889	28.043	8.5	6.75	9.3	14.6	5.87		
1010.5	-0.652	34.920	28.074	8.5	6.74	10.3	14.7			
1213.7	-0.739	34.913	28.072	8.5	6.75	11.3	15.1			
1506.3	-0.833	34.913	28.076	8.7	6.77	10.8	14.9	6.75		

Figure B24

SACLANTCEN SM-260

station : 74 date : 17 NOV 1988 Lat. : 63 46.83 N
 bottom : 1082 m time (GMT) : 11:20 Long. : 8 1.67 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
4.6	6.007	34.786	27.383	9.7	6.68	5.2	10.5		0.47	0.46
54.6	5.858	34.735	27.362	9.8	6.53	5.0	10.5		0.41	0.51
85.3	5.267	34.684	27.394	9.9	6.78	4.9	9.8	6.81	0.46	0.37
115.8	5.943	35.044	27.595	9.0	6.10	7.8	14.3		0.01	0.07
205.4	3.767	34.976	27.792	9.2	6.30	8.4	14.6		0.03	0.07
366.0	0.160	34.891	28.009	8.7	6.68	8.6	14.4			
607.3	-0.430	34.907	28.053	8.6	6.65	9.9	14.7	6.71		
808.0	-0.603	34.918	28.070	8.7	6.69	11.2	14.9			
1041.8	-0.713	34.913	28.071	9.5	6.73	12.0	15.0	6.65		

station : 75 date : 17 NOV 1988 Lat. : 63 34.94 N
 bottom : 740 m time (GMT) : 13:48 Long. : 8 24.08 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.3	6.102	34.850	27.421	10.1	6.78	5.0	11.1		0.45	0.47
93.9	6.349	34.865	27.401	9.8	6.60	4.8	11.1		0.46	0.41
144.4	5.430	34.729	27.410	9.9	6.76	4.6	9.9	6.68	0.25	0.23
166.1	5.062	34.706	27.435	9.6	6.74	4.7	10.0		0.52	0.47
210.1	5.627	35.031	27.624	9.0	6.17	7.3	14.4		0.03	0.07
401.1	0.406	34.983	28.070	9.4	6.73	9.3	14.7			
608.3	-0.620	34.911	28.066	8.7	6.76	10.4	14.9	6.65		
667.2	-0.731	34.913	28.072	9.9	6.77	11.3	15.0			
718.4	-0.732	34.913	28.072	10.0	6.79	11.5	15.0	6.84		

station : 76 date : 17 NOV 1988 Lat. : 63 24.06 N
 bottom : 580 m time (GMT) : 15:57 Long. : 8 48.86 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
0.0						5.4	11.9			
120.0						5.3	11.8		0.43	0.23
150.0						6.7	13.0	6.33	0.40	0.26
176.3	7.025	35.015	27.428	9.5	6.15	7.1	13.8		0.11	0.13
206.2	7.397	35.119	27.456	8.8	6.02	8.9	14.8		0.04	0.07
405.5	3.166	34.946	27.827	9.4	6.30	10.4	14.7	6.39		
510.3	-0.137	34.898	28.031	11.1	6.77	10.5	14.7	6.67	0.01	0.07
551.1	-0.205	34.899	28.036	11.4	6.78				0.01	0.07

Figure B25

SACLANTCEN SM-260

station : 77 date : 17 NOV 1988 Lat. : 63 11.88 N
 bottom : 500 m time (GMT) : 18:21 Long. : 9 10.47 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
4.5	7.407	35.014	27.373	9.6	6.61	5.4	11.6		0.36 0.29
119.6	7.390	35.008	27.370	9.6	6.46	5.4	11.6		0.36 0.24
160.9	6.047	34.843	27.423	9.5	6.69	5.9	11.3	6.44	0.18 0.16
182.9	6.086	34.879	27.446	9.4	6.65	6.2	11.8		0.14 0.14
198.4	6.858	35.023	27.457	9.1	6.44	6.7	12.8		0.03 0.04
418.4	1.117	34.884	27.944	9.5	6.76	9.6	14.5		0.00 0.02
471.6	0.091	34.887	28.010	10.7	6.81	10.7	14.3	6.65	0.00 0.02

station : 78 date : 17 NOV 1988 Lat. : 62 46.98 N
 bottom : 452 m time (GMT) : 20:58 Long. : 9 12.84 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
0.2	8.410	35.157	27.335	10.4	6.65	4.7			0.31 0.19
126.9	8.409	35.154	27.333	9.0	6.24	4.7	10.9	0.19	0.32 0.27
157.3	8.407	35.174	27.349	8.8	6.20	5.4	11.2	6.10	0.17 0.15
288.9	7.831	35.193	27.451	8.5	6.14	7.1	12.1	0.14	0.01 0.06
338.7	6.891	35.142	27.546	8.5	6.22	7.9	13.9		
379.2	4.960	35.014	27.691	9.0	6.47	8.4	14.3	0.20	0.02 0.06
419.9	4.118	35.025	27.794	9.1	6.50	8.7	14.3	6.28 -0.01	0.01 0.06

station : 79 date : 17 NOV 1988 Lat. : 62 36.12 N
 bottom : 520 m time (GMT) : 22:49 Long. : 8 58.21 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
1.2	8.625	35.164	27.306	9.0	6.40	4.2	11.1		0.33 0.35
123.5	8.642	35.159	27.300	9.0	6.25	3.6	11.0		0.34 0.27
197.5	8.497	35.194	27.351	8.6	6.15	5.7	13.4	5.96	0.05 0.08
247.8	8.323	35.199	27.382	8.6	6.13	6.2	13.8		0.02 0.07
299.6	7.909	35.190	27.437	8.6	6.12	6.1	13.5		0.00 0.04
437.8	4.702	35.067	27.763	8.7	6.38	8.3	15.5		0.01 0.04
492.8	4.101	35.044	27.811	8.7	6.48	8.4	14.9	6.27	

Figure B26

SACLANTCEN SM-260

station : 80 date : 18 NOV 1988 Lat. : 62 41.79 N
 bottom : 492 m time (GMT) : 00:33 Long. : 8 43.32 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
0.1	8.615	35.174	27.316	9.0	6.39	4.4	11.5		0.31	0.27
87.9	8.630	35.172	27.312	9.0	6.27	4.6	11.5	0.31	0.31	0.27
158.0	8.629	35.172	27.312	9.0	6.22	4.7	11.6	6.18	0.26	0.25
199.1	8.356	35.198	27.375	8.6	6.17	5.5	13.3	-0.06	0.04	0.08
297.5	7.890	35.192	27.441	8.5	6.18	7.1	14.2			
415.3	5.846	35.109	27.659	8.6	6.27	8.2	15.8	0.16	0.01	0.04
469.0	5.198	35.085	27.720	8.8	6.36	9.0	15.6	6.02 0.14	0.01	0.04

station : 81 date : 18 NOV 1988 Lat. : 62 45.05 N
 bottom : 481 m time (GMT) : 01:51 Long. : 8 32.81 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.2	8.545	35.165	27.320	8.9	6.39	4.5	11.2		0.31	0.28
97.5	8.464	35.156	27.326	8.9	6.27	4.5	11.3		0.28	0.26
148.3	8.137	35.107	27.338	9.1	6.36	4.5	11.3	6.24	0.34	0.26
197.2	8.276	35.202	27.391	8.6	6.16	6.0	13.6		0.03	0.07
302.3	7.461	35.175	27.491	8.6	6.20	6.9	14.5			
397.8	5.305	35.087	27.708	8.7	6.31	9.1	16.0		0.00	0.04
455.0	3.809	35.014	27.817	9.2	6.53	8.4	14.6	6.35	0.01	0.06

station : 82 date : 18 NOV 1988 Lat. : 62 53.01 N
 bottom : 466 m time (GMT) : 03:27 Long. : 8 18.85 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.5	7.586	35.036	27.364	9.4	6.57	5.1	11.6		0.44	0.36
148.7	7.618	35.036	27.359	9.4	6.45	5.1	11.7	0.25	0.41	0.46
200.5	7.936	35.177	27.423	8.6	6.21	6.8	14.2	6.05	0.08	0.16
250.8	7.806	35.183	27.447	8.5	6.21	7.3	14.3	0.07	0.01	0.06
299.3	7.571	35.167	27.469	8.5	6.24	7.2	14.5			
379.3	6.355	35.112	27.595	8.7	6.31	8.0	15.0	0.15	0.01	0.06
435.1	4.682	35.059	27.759	8.9	6.45	8.7	15.0	6.27 0.19	0.01	0.05

Figure B27

SACLANTCEN SM-260

station : 83 date : 18 NOV 1988 Lat. : 63 0.96 N
 bottom : 627 m time (GMT) : 05:09 Long. : 8 1.44 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.9	7.664	35.054	27.366	9.3	6.53	4.9	11.3		0.43	0.38
67.6	7.660	35.051	27.365	9.3	6.45	4.8	11.4		0.41	0.35
179.0	7.673	35.052	27.363	9.3	6.40	5.0	11.5	6.44	0.46	0.29
210.0	8.035	35.194	27.421	8.5	6.18	6.4	13.9		0.01	0.06
400.6	4.906	35.056	27.731	8.8	6.39	7.8	14.4		0.01	0.05
540.5	0.702	34.902	27.986	10.1	6.77	9.5	14.5		0.01	0.05
587.0	0.147	34.899	28.017	10.2	6.80	9.9		6.69		
587.0	0.147	34.899	28.017	10.2	6.80					

station : 84 date : 18 NOV 1988 Lat. : 63 7.92 N
 bottom : 842 m time (GMT) : 06:52 Long. : 7 44.76 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.0	7.453	35.016	27.367	9.3	6.59	4.9	11.5		0.40	0.34
147.7	7.474	35.013	27.362	9.3	6.46	4.9	11.5	0.11	0.42	0.36
178.7	7.831	35.134	27.404	8.8	6.24	5.6	13.3	6.12 0.10	0.12	0.13
257.7	7.396	35.162	27.491	8.6	6.20	6.9	14.4		0.01	0.06
410.2	3.343	34.985	27.841	9.1	6.58	8.3	14.9	0.11		
595.4	-0.311	34.901	28.042	8.7	6.80	9.0	14.5			
758.9	-0.682	34.906	28.064	9.6	6.80	10.7	14.9	0.03		
808.6	-0.691	34.906	28.064	9.6	6.80	10.5	14.9	6.71 0.15		

station : 85 date : 18 NOV 1988 Lat. : 63 16.88 N
 bottom : 853 m time (GMT) : 08:58 Long. : 7 45.95 W

press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
0.8	7.617	35.050	27.370	9.7	6.54	4.9	11.7		0.40	0.31
76.6	7.634	35.047	27.366	9.2	6.44	4.9	11.7		0.43	0.41
155.2	7.657	35.053	27.367	9.2	6.41	5.1	11.9	6.35	0.42	0.29
248.4	7.561	35.173	27.475	8.6	6.18	7.0	14.5		0.01	0.07
296.9	6.789	35.124	27.546	8.7	6.25	7.7	15.0			
368.2	4.136	34.998	27.770	8.9	6.50	8.3	15.1			
553.6	-0.052	34.900	28.028	8.8	6.80	8.9	14.8	6.82		
770.8	-0.709	34.908	28.067	9.6	6.81	11.3	15.1			
826.1	-0.733	34.907	28.067	9.8	6.82	11.5	15.2	6.76		

Figure B28

SACLANTCEN SM-260

station : 86 date : 18 NOV 1988 Lat. : 63 27.93 N
 bottom : 1332 m time (GMT) : 11:50 Long. : 7 2.24 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.3	7.047	34.960	27.381	9.5	6.66	5.2	11.4		0.42	0.48
156.4	6.975	34.952	27.384	9.4	6.57	5.4	11.5		0.42	0.34
179.2	7.707	35.174	27.455	8.7	6.21	6.9	14.4	6.16	0.05	0.03
294.3	5.332	35.030	27.660	8.9	6.42	7.9	14.4		0.01	0.06
402.1	2.554	34.946	27.882	8.9	6.65	8.2	14.6			
609.5	-0.162	34.898	28.033	8.6	6.80	8.4	14.6			
797.8	-0.503	34.905	28.055	8.5	6.79	9.4	14.8	6.82		
1001.9	-0.657	34.911	28.067	8.5	6.79	10.3	14.8			
1289.0	-0.830	34.912	28.075	9.1	6.81	11.9	15.3	6.81		

station : 87 date : 18 NOV 1988 Lat. : 63 36.90 N
 bottom : 1654 m time (GMT) : 14:21 Long. : 6 38:16 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.6	7.539	35.048	27.380	9.4	6.52	5.1	11.3		0.36	0.41
118.8	7.566	35.045	27.373	9.3	6.43	5.1	11.4		0.38	0.31
163.0	7.772	35.180	27.450	8.6	6.21	6.8	13.8	6.03	0.02	0.06
293.0	4.603	34.986	27.710	9.0	6.50	7.9	14.2		0.01	0.07
402.5	1.133	34.879	27.940	8.8	6.80	7.8	13.9			
605.1	-0.280	34.898	28.039	8.6	6.79	8.4	14.1	6.83		
792.3	-0.541	34.904	28.056	8.6	6.78	9.5	14.1			
1004.7	-0.679	34.910	28.067	8.6	6.78	10.8	14.5			
1209.1	-0.765	34.913	28.073	8.5	6.79	10.8	14.5			
1407.3	-0.826	34.915	28.077	8.5	6.80	11.2	14.5			
1601.7	-0.886	34.914	28.079	8.8	6.81	11.2	14.6	6.77		

station : 88 date : 18 NOV 1988 Lat. : 63 46.27 N
 bottom : 2305 m time (GMT) : 17:00 Long. : 6 21.13 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.0	5.498	34.728	27.401		6.97	5.0	10.2		0.48	0.42
68.3	5.512	34.727	27.398		6.86	5.1	10.2	6.71	0.45	0.42
117.8	6.469	35.007	27.497		6.40	6.6	13.2		0.09	0.13
197.7	3.341	34.883	27.740		6.63	7.8	14.5	-0.05	0.03	0.08
397.6	0.348	34.889	27.997		6.78	7.4	14.2			
597.2	-0.279	34.898	28.038		6.76	8.3	14.5	6.83		
803.7	-0.593	34.904	28.058		6.75	9.4	14.7	0.14		
999.8	-0.700	34.907	28.066		6.76	10.2	14.7	6.83		
1208.1	-0.805	34.910	28.072		6.76	10.5	15.1			
1610.6	-0.932	34.911	28.079		6.79	11.7	15.2	0.02		
1807.3	-0.957	34.911	28.080		6.78	11.9	15.3	6.84	0.06	
2273.6	-0.952	34.911	28.079		6.82	11.9	15.3	0.14		

Figure B29

SACLANTCEN SM-260

station : 88 bis date : 18 NOV 1988 Lat. : 63 46.86 N
 bottom : 2366 m time (GMT) : 19:38 Long. : 6 21.54 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
4.1	5.504	34.729	27.401	10.0	6.93	4.9	9.9			
64.3	5.517	34.728	27.398	9.9	6.92	5.0	9.9	6.75		
125.5	6.168	35.004	27.534	9.0	6.33	6.9	13.7			
205.3	2.804	34.865	27.795	9.0	6.77	7.7	14.3			
404.1	0.283	34.894	28.005	8.6	6.95	7.6	14.0			
606.5	-0.272	34.905	28.044	8.4	6.91	8.4	14.3	6.82		
808.2	-0.546	34.911	28.062	8.4	6.89	9.2	14.1			
1009.5	-0.684	34.913	28.070	8.4	6.88	10.1	14.6	6.82		
1210.2	-0.775	34.913	28.040	8.3	6.89	10.8	14.6			
1610.6	-0.882	34.912	28.077	8.3	6.90	11.9	15.1			
1813.9	-0.914	34.911	28.078	8.4	6.95	12.3	15.2	6.87		
2266.0	-0.925	34.909	28.077	8.8	6.94	13.2	15.2	6.83		

station : 89 date : 18 NOV 1988 Lat. : 63 55.74 N
 bottom : 3335 m time (GMT) : 22:44 Long. : 6 7.92 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.4	5.858	34.810	27.421	9.9	6.81	3.5	10.2		0.37	0.44
76.7	5.863	34.807	27.418	9.7	6.72	3.6	10.3	0.10	0.37	0.46
119.4	5.467	34.968	27.594	9.1	6.43	5.7	13.2	6.25	0.01	0.07
236.9	2.363	34.901	27.863	8.7	6.72	5.7	13.1	0.01	0.05	0.12
399.5	1.321	34.925	27.963	8.5	6.71	5.1	13.4	0.01		
598.8	0.061	34.894	28.018	8.4	6.73	6.0	13.8	6.90	0.16	
1000.2	-0.569	34.901	28.055	8.4	6.72	8.1	14.4	0.07		
1405.0	-0.789	34.907	28.070	8.3	6.75	10.0	14.5	6.73	0.22	
1806.9	-0.906	34.910	28.077	8.4	6.77	10.5	14.7	-0.01		
2207.1	-0.944	34.908	28.077	8.4	6.80	11.8	14.7	6.89	0.22	
2612.3	-0.931	34.906	28.075	8.6	6.82	12.6	14.9	-0.07		
3061.6	-0.900	34.906	28.073	8.6	6.85	12.9	14.8	6.86	0.04	

station : 90 date : 19 NOV 1988 Lat. : 63 14.76 N
 bottom : 2077 m time (GMT) : 04:26 Long. : 5 52.44 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.3	6.626	34.902	27.393	9.5	6.60	4.9	10.6		0.36	0.44
56.7	6.649	34.900	27.389	9.5	6.58	4.9	10.6		0.37	0.36
138.5	6.664	34.903	27.388	9.5	6.58	4.9	10.6	6.54	0.38	0.43
184.6	7.043	35.101	27.492	8.9	6.25	6.6	13.4		0.03	0.09
380.3	2.636	34.981	27.903	8.6	6.65	5.6	13.4			
596.4	0.452	34.898	27.998	8.5	6.74	6.6	13.8	6.89		
799.3	-0.326	34.896	28.039	8.5	6.72	8.0	13.9			
1003.1	-0.609	34.904	28.059	8.5	6.74	9.4	14.7			
1201.7	-0.716	34.907	28.066	8.5	6.74	9.9	14.2			
1408.0	-0.782	34.908	28.070	8.4	6.76	10.4	14.8	6.84		
1603.1	-0.819	34.909	28.073	8.4	6.78		15.0			
2029.3	-0.898	34.911	28.077	9.0	6.81	11.4	15.1	6.82		

Figure B30

SACLANTCEN SM-260

station : 91 date : 19 NOV 1988 Lat. : 63 4.33 N
 bottom : 1861 m time (GMT) : 06:39 Long. : 6 1.26 W

press dB	temp deg C	sal	sigma-t kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
1.8	7.511	35.045	27.382	9.2	6.39	5.0	11.1			0.36	0.34
56.4	7.531	35.043	27.377	9.2	6.36	4.9	11.1			0.27	0.31
138.2	7.532	35.042	27.376	9.2	6.37	4.9	10.9	6.38		0.33	0.35
198.9	8.017	35.175	27.409	8.7	6.16	6.0	12.9		0.23	0.05	0.17
402.1	2.778	34.936	27.854	8.7	6.67	6.6	12.9				
600.7	-0.076	34.895	28.025	8.4	6.75	6.6	13.6	6.85	0.15		
802.8	-0.513	34.901	28.052	8.5	6.75	9.3	13.9				
1003.3	-0.701	34.908	28.066	8.5	6.75	10.3	14.0		0.02		
1201.3	-0.798	34.909	28.072	8.4	6.76	10.8	14.1	6.71			
1603.9	-0.900	34.912	28.078	8.5	6.78	11.4	14.3		0.22		
1814.4	-0.930	34.912	28.079	8.9	6.80	11.7	14.3	6.86	0.06		

station : 92 date : 19 NOV 1988 Lat. : 62 57.17 N
 bottom : 1247 m time (GMT) : 09:09 Long. : 6 3.95 W

press dB	temp deg C	sal	sigma-t kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
3.1	7.844	35.092	27.370	9.1	6.30	5.0	11.0			0.38	0.54
118.3	7.825	35.085	27.367	9.1	6.32	4.6	10.8			0.43	0.45
197.0	7.842	35.099	27.376	9.0	6.28	5.8	11.9	6.27		0.23	0.24
238.7	7.704	35.158	27.443	8.8	6.16	6.6	13.8		0.23	0.03	0.08
401.7	3.865	34.978	27.783	8.8	6.52	7.4	14.1				
603.6	-0.217	34.897	28.034	8.6	6.76	8.1	14.4	6.81			
802.3	-0.623	34.905	28.060	8.5	6.76	9.7	14.5		-0.03		
1002.1	-0.775	34.907	28.069	8.9	6.77	11.0	14.6				
1223.4	-0.904	34.911	28.077	8.9	6.79	11.7	15.2	6.80	0.22		

station : 93 date : 19 NOV 1988 Lat. : 62 56.70 N
 bottom : 1074 m time (GMT) : 11:02 Long. : 6 13.44 W

press dB	temp deg C	sal	sigma-t kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
1.9	7.616	35.057	27.376	9.2	6.36	4.9	11.2			0.34	0.38
97.7	7.641	35.055	27.371	9.2	6.33	4.8	11.1		0.09	0.36	0.33
169.0	7.667	35.061	27.372	9.1	6.34	4.8	11.2	6.43		0.32	0.33
202.6	7.882	35.179	27.433	8.6	6.15	6.4	13.5			0.03	0.09
400.7	4.780	35.048	27.739	9.0	6.38	7.7	14.3		0.01		
596.4	0.022	34.900	28.024	8.7	6.76	8.0	14.0	6.85			
798.4	-0.568	34.905	28.058	8.6	6.77	9.7	14.2		0.11		
991.9	-0.736	34.909	28.069	9.3	6.77	10.9	14.5				
1035.7	-0.759	34.910	28.071	9.4	6.78	11.0	14.6	6.77	0.02		

Figure B31

SACLANTCEN SM-260

station : 94 date : 19 NOV 1988 Lat. : 62 52.61 N
 bottom : 613 m time (GMT) : 13:10 Long. : 6 8.88 W

	press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
9	1.7	8.035	35.128	27.369	9.0	6.26	4.7	11.5		0.31	0.38
164	158.4	8.053	35.126	27.365	9.0	6.26	4.7	11.5	0.31	0.31	0.41
187	182.3	8.139	35.189	27.402	8.6	6.13	6.7	13.3	6.29	0.07	0.07
242	237.2	7.972	35.192	27.429	8.5	6.12	6.7	14.0		0.01	0.05
302	298.0	7.617	35.167	27.463	8.6	6.13	6.7	14.2	-0.06	0.01	0.07
403	400.7	5.918	35.089	27.634	8.7	6.25	7.5	14.6	6.10		
539	537.8	0.936	34.909	27.977	9.3	6.72	8.8	14.5		0.04	
594	593.8	-0.363	34.901	28.045	9.4	6.78	9.8	14.7			
595	595.0	-0.360	34.899	28.044	9.4	6.79	9.8	14.6	6.73	0.03	

station : 95 date : 19 NOV 1988 Lat. : 62 50.67 N
 bottom : 504 m time (GMT) : 14:39 Long. : 6 9.76 W

	press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.8	8.090	35.144	27.374	9.0	6.22	4.9	11.0			0.29	0.36
148.6	8.119	35.144	27.369	9.0	6.23	4.9	11.1			0.30	0.31
201.0	8.203	35.202	27.402	8.5	6.11	6.4	13.0			0.00	0.05
247.2	8.118	35.197	27.411	8.4	6.12	6.8	13.4			0.00	0.03
294.1	7.956	35.174	27.417	8.4	6.15	6.5	13.1	6.04		0.00	0.04
418.2	6.721	35.138	27.566	8.6	6.22	7.4	13.6	6.08	0.21		
469.4	5.721	35.104	27.670	9.0	6.31	7.6	13.7	6.16	-0.02		

station : 96 date : 19 NOV 1988 Lat. : 62 47.58 N
 bottom : 396 m time (GMT) : 15:36 Long. : 6 11.92 W

	press dB	temp deg C	sal	sigma-t Kg/mc	apac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.4	8.231	35.152	27.359	9.1	6.23	4.4	10.9			0.29	0.33
160.0	8.140	35.140	27.363	9.0	6.25	4.5	11.0		0.06	0.28	0.36
180.2	8.163	35.172	27.385	8.7	6.18	5.4	12.3		0.20	0.07	0.15
197.8	8.157	35.192	27.402	8.6	6.14	5.7	12.7			0.04	0.09
237.8	8.043	35.187	27.415	8.7	6.15	5.8	12.7	6.13	0.17	0.04	0.08
322.3	7.799	35.190	27.454	8.5	6.15	6.3	13.5				
370.7	7.331	35.170	27.506	8.6	6.19	6.5	13.5	6.00	0.22		

Figure B32

SACLANTCEN SM-260

station : 97 date : 19 NOV 1988 Lat. : 62 41.03 N
 bottom : 155 m time (GMT) : 16:42 Long. : 6 15.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
1.8	8.465	35.163	27.331	9.1	6.21	4.3	10.4		0.29 0.32
28.0	8.472	35.164	27.330	9.1	6.22	4.3	10.4		0.27 0.30
59.6	8.474	35.162	27.329	9.1	6.22	4.3	10.4	6.26	0.31 0.31
102.2	8.480	35.162	27.328	9.1	6.20	4.3	10.4		
140.4	8.481	35.161	27.327	9.1	6.20	4.3	10.5	6.27 0.23	

station : 98 date : 19 NOV 1988 Lat. : 62 49.74 N
 bottom : 671 m time (GMT) : 19:00 Long. : 5 38.28 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
1.9	8.044	35.127	27.368	9.1	6.27	4.3	10.7		0.37 0.33
46.0	8.049	35.125	27.365	9.0	6.29	4.3	10.8		0.36 0.27
99.9	8.040	35.123	27.365	9.0	6.28	4.3	10.7	6.30	0.40 0.27
142.9	7.975	35.115	27.368	9.1	6.31	4.6	10.8		0.35 0.32
233.5	8.175	35.199	27.404	8.6	6.14	5.8	13.6		0.04 0.08
397.2	6.495	35.117	27.580	8.7	6.25	6.8	13.7		
590.4	0.140	34.910	28.026	9.7	6.75	9.4	13.8		
642.0	0.015	34.908	28.031	9.7	6.78	9.3	13.9	6.65	

station : 99 date : 19 NOV 1988 Lat. : 62 52.50 N
 bottom : 923 m time (GMT) : 20:20 Long. : 5 37.10 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
3.4	7.794	35.101	27.384	9.1	6.32	4.7	10.9		0.41 0.38
78.2	7.811	35.099	27.380	9.1	6.31	4.5	11.0		0.38 0.31
139.3	7.836	35.100	27.378	9.1	6.32	4.5	10.9	6.34	0.40 0.31
188.8	7.984	35.148	27.393	8.8	6.23	4.9	11.5		0.24 0.27
238.9	7.900	35.194	27.441	8.6	6.15	6.2	13.3		0.01 0.06
398.1	5.584	35.048	27.643	8.8	6.35	7.0	13.6		
600.9	0.576	34.915	28.004	9.3	6.73	8.4	13.6	6.70	
795.2	-0.644	34.911	28.067	9.4	6.76	10.0	13.9		
850.1	-0.763	34.912	28.072	9.3	6.77	10.5	14.0		
897.3	-0.807	34.914	28.076	9.1	6.78	10.7	14.0	6.81	

Figure B33

SACLANTCEN SM-260

station : 100 date : 19 NOV 1988 Lat. : 62 54.85 N
 bottom : 1250 m time (GMT) : 21:49 Long. : 5 33.03 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
1.9	7.907	35.123	27.385	9.1	6.28	4.4	10.1			0.30	0.34
78.0	7.919	35.120	27.381	9.1	6.26	4.5	10.9			0.26	0.22
139.0	7.957	35.126	27.380	9.0	6.27	4.6	11.1	6.30		0.27	0.28
168.6	8.025	35.150	27.389	8.9	6.21	5.0	11.7			0.20	0.21
201.2	8.012	35.199	27.429	8.6	6.13	6.1	13.1			0.00	0.06
405.6	3.241	34.914	27.794	8.8	6.68	6.5	12.9				
594.9	1.167	34.917	27.968	8.6	6.75	6.0	12.9	6.96			
810.7	-0.283	34.904	28.043	8.8	6.76	8.1	13.2				
990.4	-0.748	34.911	28.071	8.6	6.76	9.9	14.1				
1203.1	-0.893	34.914	28.080	9.1	6.78	11.1	14.0				
1263.3	-0.902	34.915	28.080	9.0	6.78	11.1	13.8	6.80			

station : 101 date : 20 NOV 1988 Lat. : 62 57.42 N
 bottom : 1972 m time (GMT) : 00:41 Long. : 4 56.94 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
2.3	7.132	34.999	27.400	9.3	6.43	5.5	11.8			0.40	0.35
98.3	7.157	34.997	27.395	9.3	6.44	5.3	11.9			0.37	0.37
157.5	7.527	35.152	27.464	8.8	6.16	6.2	12.5	6.09		0.02	0.08
200.6	6.215	35.072	27.582	8.9	6.30	6.1	13.6			0.01	0.07
398.2	2.532	34.984	27.915	8.6	6.64	7.5	14.7				
598.0	0.387	34.900	28.004	8.5	6.75	7.0	14.3				
806.0	-0.270	34.900	28.039	8.4	6.75	8.3	14.7	6.89			
1008.9	-0.569	34.907	28.059	8.5	6.75	9.8	15.1				
1205.5	-0.715	34.911	28.070	8.5	6.76	10.6	15.1				
1512.2	-0.831	34.913	28.076	8.7	6.78	11.8	15.1				
1805.2	-0.913	34.914	28.080	8.9	6.81	11.5	15.2				
1826.7	-0.922	34.914	28.081	9.1	6.81	12.5	15.3	6.91			

station : 102 date : 20 NOV 1988 Lat. : 62 52.44 N
 bottom : 1232 m time (GMT) : 02:37 Long. : 5 1.80 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 ml/L	d 180 SMOW	Chl a ug/L	Phaeoph a ug/L
1.5	7.068	34.989	27.401	9.4	6.46	5.3	11.8			0.34	0.35
117.2	7.089	34.986	27.396	9.3	6.46	5.1	11.6			0.36	0.33
163.5	7.709	35.174	27.454	8.7	6.18	7.0	14.6	6.15		0.03	0.09
195.5	7.129	35.127	27.501	8.8	6.21	7.3	14.8			0.01	0.07
396.8	2.482	34.971	27.908	8.6	6.69	6.1	13.0				
598.2	0.556	34.903	27.996	8.5	6.76	7.1	14.4				
802.8	-0.220	34.902	28.039	8.5	6.77	8.2	14.8	6.85			
1008.5	-0.592	34.909	28.062	8.6	6.76	10.4	15.2				
1184.4	-0.762	34.913	28.073	9.4	6.78	11.6	15.3				
1177.1	-0.756	34.912	28.072	9.3	6.78	11.5	15.3	6.83			

Figure B34

SACLANTCEN SM-260

station : 103 date : 20 NOV 1988 Lat. : 62 49.08 N
 bottom : 977 m time (GMT) : 03:59 Long. : 5 5.34 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
1.4	7.153	35.006	27.402	9.7	6.44	5.1	11.7		0.13 0.14
55.5	7.166	35.004	27.399	9.3	6.45	5.1	11.8		0.34 0.34
121.2	7.165	35.002	27.397	9.3	6.43	5.2	11.8	6.48	0.33 0.36
166.9	7.172	35.003	27.397	9.3	6.45	5.1	11.8		0.35 0.36
198.5	7.691	35.178	27.460	8.7	6.15	6.8	14.6		0.07 0.18
395.4	2.643	34.963	27.888	8.6	6.69	6.1	13.5		
614.4	0.792	34.904	27.982	8.6	6.78	7.0	14.4		
732.6	0.251	34.902	28.013	8.5	6.76	7.5	14.6	6.89	
961.1	-0.671	34.908	28.065	10.0	6.77	11.7	15.4	6.75	

station : 104 date : 20 NOV 1988 Lat. : 62 46.74 N
 bottom : 892 m time (GMT) : 05:10 Long. : 5 8.16 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
2.2	6.929	34.962	27.399	9.4	6.52	5.3	11.8		0.36 0.38
58.3	6.921	34.959	27.397	9.4	6.52	5.4	11.8		0.33 0.41
119.6	6.935	34.958	27.395	9.4	6.52	5.4	11.7	6.45	0.35 0.34
175.2	6.948	34.958	27.393	9.4	6.53	5.3	11.7		0.35 0.36
247.8	5.562	34.893	27.523	9.2	6.59	6.4	12.9		0.10 0.19
398.4	2.812	34.935	27.851	8.7	6.70	6.7	13.9		
597.4	1.320	34.915	27.955	8.6	6.78	6.9	14.4	7.02	
751.7	0.088	34.906	28.026	8.8	6.78	9.1	15.2		
808.1	-0.464	34.906	28.054	9.3	6.79	11.2	15.5	6.75	

station : 105 date : 20 NOV 1988 Lat. : 62 42.75 N
 bottom : 663 m time (GMT) : 06:25 Long. : 5 12.34 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a Phaeoph a ug/L ug/L
1.7	7.663	35.072	27.381	9.2	6.36	5.3	12.6		0.32 0.36
55.6	7.667	35.070	27.379	9.1	6.34	4.9	11.7		0.31 0.37
105.8	7.652	35.065	27.377	9.2	6.36	4.9	11.9	6.38	0.31 0.32
167.9	7.587	35.072	27.392	9.1	6.36	5.4	12.7		0.26 0.29
199.9	7.900	35.184	27.434	8.6	6.16	6.8	14.9		0.05 0.08
400.2	5.273	35.070	27.699	8.9	6.35			6.20	
590.7	1.230	34.918	27.963	8.8	6.78	7.4	14.8		
639.4	0.247	34.911	28.020	9.6	6.78	9.5	15.2	6.77	

Figure B35

SACLANTCEN SM-260

station : 106 date : 20 NOV 1988 Lat. : 62 37.99 N
 bottom : 492 m time (GMT) : 07:35 Long. : 5 17.12 W

	press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
8	1.2	8.135	35.155	27.376	9.0	6.23	6.5			0.26 0.25
64	57.2	8.162	35.151	27.369	8.9	6.24	6.1			0.29 0.20
125	119.7	8.169	35.153	27.369	8.9	6.24	5.3	6.32		0.26 0.24
182	177.2	8.194	35.190	27.394	8.7	6.15	6.3			0.06 0.11
201	196.5	8.135	35.193	27.405	8.7	6.15				0.05 0.08
413	410.1	6.469	35.138	27.600	8.8	6.24	7.6			
462	459.9	4.867	35.056	27.735	8.9	6.42	9.4	6.18		

station : 107 date : 20 NOV 1988 Lat. : 62 33.02 N
 bottom : 210 m time (GMT) : 08:43 Long. : 5 21.41 W

	press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
0.5	8.384	35.163	27.343	9.2	6.22	4.9	11.6			0.27 0.21
37.1	8.389	35.162	27.342	9.1	6.24	5.0	11.9			0.29 0.21
80.4	8.390	35.160	27.340	9.2	6.22	5.1	12.1	6.27		0.38 0.15
117.8	8.391	35.159	27.340	9.1	6.23	5.5	13.3			0.24 0.22
148.5	8.375	35.159	27.342	9.1	6.23	5.5	13.8			0.24 0.25
180.9	8.373	35.160	27.343	9.1	6.23	5.0		6.47		

station : 108 date : 20 NOV 1988 Lat. : 61 42.24 N
 bottom : 201 m time (GMT) : 13:10 Long. : 5 12.84 W

	press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a Phaeoph a ug/L ug/L
0.6	7.906	35.126	27.387	9.1	6.30	4.8	11.7			0.28 0.25
38.5	7.905	35.124	27.386	9.1	6.30	4.9	11.7	6.17		0.29 0.22
77.6	7.912	35.123	27.384	9.1	6.31	4.9	11.9			0.28 0.27
121.2	7.924	35.125	27.384	9.0	6.31	5.0	11.9			0.24 0.22
158.4	7.659	35.149	27.442	9.5	6.23	6.5	13.8			0.06 0.09
182.5	7.640	35.149	27.445	9.6	6.24	6.5	13.9	6.24		

Figure B36

SACLANTCEN SM-260

station : 109 date : 20 NOV 1988 Lat. : 61 30.02 N
 bottom : 346 m time (GMT) : 15:08 Long. : 4 46.91 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.1	8.315	35.144	27.340	9.3	6.24	4.0	10.8		0.30	0.28
48.0	8.197	35.124	27.342	9.3	6.27	4.0	12.1		0.34	0.33
71.2	7.967	35.091	27.350	9.2	6.34	4.5	12.1	6.39	0.36	0.29
98.3	7.967	35.092	27.352	9.2	6.34	4.3	12.1		0.33	0.30
147.9	7.613	35.086	27.399	8.9	6.31	5.6	13.4		0.10	0.13
198.0	7.125	35.103	27.483	8.8	6.29	6.7	14.7	0.33	0.04	0.08
251.3	5.849	35.070	27.628	8.9	6.35	7.5	15.6			
299.8	5.669	35.060	27.642	8.9	6.39	7.5	15.7	-0.04		
329.2	5.665	35.060	27.643	8.9	6.39	7.6	15.7	6.20		

station : 110 date : 20 NOV 1988 Lat. : 61 27.60 N
 bottom : 611 m time (GMT) : 16:13 Long. : 4 27.60 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.3	8.473	35.170	27.336	9.3	6.20	4.2	11.0		0.39	0.35
50.2	8.503	35.172	27.333	9.1	6.19	4.1	11.2	0.04	0.32	0.40
69.5	8.505	35.171	27.331	9.1	6.19	4.0	11.1	6.39	0.35	0.33
97.4	8.507	35.172	27.331	9.1	6.19	4.1	11.1		0.38	0.32
146.5	8.812	35.276	27.365	8.6	6.00	5.5	13.3		0.03	0.06
196.2	7.802	35.195	27.457	8.7	6.13	6.4	14.4	6.81	0.01	0.06
298.7	5.450	35.056	27.666	8.8	6.39	6.9	14.5			
398.5	2.701	34.943	27.867	8.8	6.68	6.9	14.1			
494.9	1.354	34.919	27.956	8.6	6.75	6.6	14.0			
602.9	0.533	34.906	28.000	8.8	6.78	6.9	14.3	6.07	0.26	

station : 111 date : 20 NOV 1988 Lat. : 61 25.02 N
 bottom : 800 m time (GMT) : 17:32 Long. : 4 36.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 180 ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.8	8.425	35.157	27.333	9.2	6.22	4.0	10.7		0.15	0.13
48.3	8.439	35.156	27.329	9.2	6.22	3.9	10.8	0.36	0.45	0.32
96.8	8.452	35.157	27.328	9.2	6.22	5.4	12.8	6.07	0.07	0.13
146.0	8.279	35.182	27.375	8.7	6.15	6.7	14.3		0.03	0.17
204.8	7.116	35.145	27.517	8.7	6.22	6.9	14.3	0.02	0.00	0.10
296.8	4.789	35.020	27.716	9.0	6.46	6.7	14.0			
401.2	2.263	34.933	27.896	8.7	6.69	7.7	15.0	6.89	0.16	
599.1	0.217	34.903	28.016	8.8	6.76	8.4	14.7		0.15	
704.0	-0.226	34.902	28.039	8.7	6.78		14.3			
778.1	-0.550	34.906	28.058	9.1	6.78		15.1	6.74	0.07	

Figure B37

SACLANTCEN SM-260

station : 112 date : 20 NOV 1988 Lat. : 61 16.98 N
 bottom : 1039 m time (GMT) : 19:28 Long. : 4 19.98 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
3.7	7.754	35.071	27.367	9.3	6.34	4.1	10.5		0.40	0.49
48.8	7.764	35.071	27.365	9.3	6.35	4.1	10.5		0.43	0.40
73.6	7.770	35.070	27.363	9.3	6.34	4.1	10.5	6.33	0.47	0.34
126.8	7.095	35.117	27.498	8.7	6.27	6.2	13.8		0.04	0.09
194.7	5.662	35.069	27.650	8.9	6.38	6.9	14.4	-0.02	0.00	0.06
294.9	2.490	34.951	27.892	8.8	6.64	7.2	14.3			
401.4	0.743	34.906	27.987	8.6	6.74	7.3	14.6	6.86		
509.4	-0.024	34.899	28.026	8.6	6.76	8.0	14.7			
595.6	-0.326	34.904	28.046	8.7	6.76	8.9	15.3	0.17		
804.5	-0.631	34.911	28.066	9.1	6.76	10.5	15.1			
899.1	-0.709	34.914	28.071	8.5	6.77	10.5	15.3			
1074.5	-0.799	34.915	28.077	9.2	6.78	11.6		6.75 0.06		

station : 113 date : 20 NOV 1988 Lat. : 61 10.02 N
 bottom : 1060 m time (GMT) : 21:33 Long. : 4 3.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.4	7.942	35.092	27.355	9.3	6.32	4.1	10.4		0.45	0.49
47.2	7.873	35.081	27.357	9.3	6.33	4.1	10.5		0.41	0.39
71.8	7.753	35.064	27.361	9.2	6.35	4.3	10.8	6.46	0.50	0.36
122.1	7.747	35.065	27.363	9.3	6.35	4.4	10.8		0.41	0.50
199.9	6.155	35.098	27.610	8.8	6.32	7.1	14.4	0.16	0.02	0.04
297.2	3.171	34.952	27.831	8.7	6.64	7.1	14.1			
398.1	1.101	34.911	27.967	8.6	6.73	7.1	14.4	6.83		
499.6	0.025	34.900	28.024	8.6	6.75	8.1	14.6			
601.9	-0.344	34.902	28.045	8.5	6.74	9.0	15.0	0.01		
800.9	-0.657	34.908	28.065	8.6	6.75	10.7	15.2			
1004.1	-0.859	34.914	28.078	9.7	6.76	12.5	15.4			
1037.2	-0.867	34.913	28.078	10.0	6.77	12.4	15.6	6.78 0.09		

station : 114 date : 20 NOV 1988 Lat. : 61 3.01 N
 bottom : 1145 m time (GMT) : 23:25 Long. : 3 48.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.6	8.299	35.118	27.321	9.2	6.26	4.3	10.0		0.39	0.48
47.7	8.332	35.121	27.318	9.2	6.26	4.3	9.9	0.27	0.41	0.43
69.7	8.323	35.115	27.316	9.2	6.27	5.7	12.2	7.07	0.11	0.15
120.4	8.176	35.160	27.373	8.7	6.14	7.2	13.9		0.01	0.06
201.3	6.797	35.149	27.565	8.8	6.23	7.6	14.0	0.18	0.01	0.07
296.5	3.679	34.988	27.810	8.8	6.55	7.6	14.0			
394.1	1.137	34.913	27.966	8.6	6.71	8.3	14.5	6.81		
496.8	0.013	34.895	28.021	8.6	6.72		14.7			
602.0	-0.392	34.902	28.047	8.6	6.73	8.3	14.4	0.14		
799.7	-0.688	34.908	28.066	8.5	6.75	9.3	14.5			
1001.2	-0.854	34.913	28.077	8.7	6.77	9.7	14.5	0.21		
1105.6	-0.909	34.914	28.080	9.1	6.78	12.4	15.1	6.82 0.01		

Figure B38

SACLANTCEN SM-260

station : 115 date : 21 NOV 1988 Lat. : 60 57.00 N
 bottom : 1145 m time (GMT) : 01:23 Long. : 3 33.00 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.0	8.039	35.097	27.345	9.3	6.29	4.0	10.2		0.43	0.25
47.6	7.796	35.070	27.359	9.2	6.35	4.2	10.5		0.37	0.59
72.3	7.774	35.064	27.359	9.2	6.35	4.2	10.6	6.42	0.47	0.33
122.7	7.749	35.062	27.360	9.2	6.36	4.3	10.7		0.41	0.32
196.0	7.118	35.147	27.519	8.8	6.20	6.8	14.4	0.08	0.01	0.07
299.3	4.716	35.035	27.736	8.8	6.43	7.0	14.2			
404.0	1.335	34.919	27.958	8.7	6.70	7.3	14.5	6.81		
501.5	-0.148	34.899	28.032	8.6	6.74	8.4	14.7			
599.0	-0.483	34.903	28.053	8.5	6.74	9.4	15.0	0.20		
800.8	-0.752	34.909	28.070	8.6	6.75	11.1	15.1			
901.8	-0.862	34.913	28.078	9.0	6.76	8.2	14.7			
1048.8	-0.924	34.914	28.080	9.3	6.77	12.6	15.4	6.80 -0.00		

station : 116 date : 21 NOV 1988 Lat. : 60 53.16 N
 bottom : 787 m time (GMT) : 02:23 Long. : 3 24.06 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
0.4	7.739	35.067	27.366	9.2	6.34	4.7	10.8		0.47	0.34
50.1	7.739	35.063	27.363	9.2	6.36	4.5	11.0	-0.06	0.44	0.34
70.2	7.747	35.063	27.362	9.2	6.35	4.4	10.8		0.49	0.31
100.0	7.749	35.064	27.362	9.2	6.36	4.4	10.9		0.51	0.33
144.0	7.759	35.063	27.359	9.2	6.36	4.5	11.0		0.51	0.31
199.0	7.843	35.177	27.437	8.7	6.14	6.4	14.1	0.04	0.04	0.09
298.5	6.330	35.108	27.596	8.8	6.30	7.0	14.6			
396.0	3.472	34.980	27.824	8.9	6.58	7.2	14.3			
506.4	1.071	34.912	27.970	8.6	6.74	7.4	14.7			
595.7	-0.328	34.904	28.045	8.6	6.75	9.3	15.2	0.09		
704.8	-0.668	34.907	28.064	8.6	6.76	10.5	15.3			
742.5	-0.712	34.908	28.067	8.5	6.77	11.1	15.3	0.17		

station : 117 date : 21 NOV 1988 Lat. : 60 50.58 N
 bottom : 645 m time (GMT) : 04:06 Long. : 3 17.88 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.7	8.200	35.142	27.355	9.2	6.22	4.4	11.6		0.44	0.41
48.8	7.993	35.111	27.363	9.1	6.29	4.8	11.5	0.18	0.39	0.29
70.7	7.897	35.096	27.365	9.1	6.31	4.7	11.5	6.44	0.41	0.29
96.2	7.864	35.091	27.366	9.1	6.28	4.7	11.7		0.42	0.27
146.4	7.747	35.084	27.378	9.0	6.33	4.9	11.5		0.26	0.29
199.6	7.911	35.169	27.421	9.0	6.16	6.2	13.6	0.13	0.06	0.10
299.0	7.409	35.181	27.504	8.7	6.18	6.9	14.7			
402.1	5.496	35.055	27.659	8.8	6.41	7.1	14.6	6.35		
500.8	2.552	34.940	27.877	8.7	6.71	6.9	14.3			
590.1	1.284	34.938	27.976	8.8	6.71	8.4	15.0			
621.7	0.529	34.914	28.006	8.7	6.76	5.1	12.1	6.36 0.09		

Figure B39

SACLANTCEN SM-260

station : 118 date : 21 NOV 1988 Lat. : 60 45.73 N
 bottom : 484 m time (GMT) : 05:26 Long. : 3 9.60 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
1.9	9.215	35.275	27.299	9.1	6.03	4.0	11.0		0.44	0.36
46.9	9.229	35.274	27.296	9.1	6.02	4.0	11.1		0.41	0.35
73.3	9.231	35.274	27.296	9.1	6.03	4.0	11.0	6.08	0.42	0.36
95.7	9.240	35.274	27.294	9.1	6.03	4.0	11.1		0.41	0.31
147.3	9.250	35.277	27.295	9.1	6.02	4.0	11.0		0.33	0.28
197.7	9.361	35.332	27.320	8.7	5.88	5.5	13.1	0.34	0.03	0.09
297.8	8.794	35.291	27.380	8.5	5.98	6.0	13.5			
397.8	7.184	35.179	27.534	8.7	6.18	7.0	14.4	6.10		
455.0	5.550	35.062	27.659	9.1	6.41	7.2	14.4			
481.7	5.230	35.074	27.707	8.9	6.41	7.4	14.4	6.41 0.18		

station : 119 date : 21 NOV 1988 Lat. : 60 42.42 N
 bottom : 355 m time (GMT) : 06:48 Long. : 3 0.06 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
2.4	9.897	35.297	27.202	9.3	5.96	3.1	9.5		0.45	0.27
48.9	9.888	35.294	27.201	9.3	5.97	3.1	9.4		0.37	0.29
74.0	9.745	35.294	27.225	9.1	6.00	3.1	9.7	6.03	0.45	0.32
124.5	9.373	35.250	27.254	9.1	6.06	3.0	10.4		0.40	0.32
196.9	8.772	35.188	27.302	9.1	6.18	3.5	11.0	0.04	0.41	0.34
295.8	7.714	35.116	27.408	8.9	6.27	4.0	13.0			
330.4	7.611	35.196	27.486	8.7	6.15	5.7	13.8	6.05 0.11		

station : 120 date : 21 NOV 1988 Lat. : 60 38.94 N
 bottom : 200 m time (GMT) : 07:54 Long. : 2 52.26 W

press dB	temp deg C	sal	sigma-t Kg/mc	opac %	Ox conc ml/L	SiO2 uM	NO3 uM	O2 d 18O ml/L SMOW	Chl a ug/L	Phaeoph a ug/L
0.6	10.052	35.301	27.179	9.4	5.94	3.1	9.6		0.36	0.34
45.2	10.068	35.300	27.175	9.4	5.94	3.2	9.6	0.42	0.33	0.35
72.6	10.073	35.298	27.173	9.3	5.95	3.2	9.6	5.89	0.36	0.33
121.4	10.075	35.299	27.173	9.3	5.96	3.2	9.6		0.38	0.31
178.9	10.084	35.302	27.174	9.5	5.96	3.5	10.0	5.81 0.23	0.32	0.32

Figure B40

Appendix C

Statistical tables

The statistics (mean, maximum, minimum, and standard deviation) of the current meter records are presented in tabular form for all measured and calculated variables. The current meter data are given for the three files: MEASURED, H35, and H35ROT. The start and end times for each file are also given.

- Figures C1–C12: Buoy 1–3 (period 1 and 2)

SACLANTCEN SM-260Current Meter Statistics

Cruise : GI SEA 88 Version : MEASURED
 Station : EC 1_000 Inst. Num : 9019
 Water Depth : 10 On Inst. Depth : 134m
 Data File : HIST_DIRROOT:(GINSEA_88.BOAL_000)MEASURED.CUR;1

Statistics for the period from : 02-NOV-1988 16:24:00.00
 to : 26-MAY-1989 14:24:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	1.1000	95.3917	36.6852	17.0940	0.1031
Current Velocity X	-44.6869	92.6582	29.3178	20.1272	-0.1597
Current Velocity Y	-62.7074	44.8380	-7.6542	17.7446	-0.0046
Temperature	1.6753	8.4312	6.6986	1.1063	-1.3249
Pressure	133.8432	469.3928	173.9969	39.3601	1.3424
Conductivity	30.7071	36.8656	35.1960	1.0773	-1.2920
Salinity	34.7933	35.2672	35.1157	0.0919	-0.8986
Sound Velocity	1459.9515	1486.6793	1480.4229	4.3993	-1.4776
Potential Temp	1.6500	8.4168	6.6828	1.1056	-1.3215
Sigma(S, T, 0)	27.3386	27.9978	27.5447	0.0913	0.3656
Sigma(S, PT, 0)	27.3408	27.9998	27.5469	0.0912	0.3934
Sigma(S, T, P)	27.9585	30.2005	28.3425	0.2285	0.9836

Data File : HIST_DIRUSER:(GINSEA_88.BOAL_000)H35.CUR

Statistics for the period From : 07-NOV-1988 07:23:32.00
 To : 21-MAY-1989 21:23:32.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	3.0588	73.3314	34.5217	14.5049	0.0526
Current Velocity X	-31.3250	71.5681	29.9115	15.7698	-0.3204
Current Velocity Y	-42.1307	34.8723	-7.5054	14.2310	0.0363
Pressure	133.5718	268.5489	174.9884	30.0622	0.7471
Temperature	2.1495	8.4049	6.6557	1.0549	-1.1467
Conductivity	30.8709	36.8349	35.1541	1.0267	-1.1308
Salinity	34.8755	35.2336	35.1134	0.0829	-0.7912
Sound Velocity	1460.7870	1486.6014	1480.2748	4.2128	-1.3498
Potential Temp	2.1421	8.3898	6.6398	1.0540	-1.1430
Sigma(S, T, 0)	27.3642	27.8599	27.5494	0.0889	0.2867
Sigma(S, PT, 0)	27.3666	27.8605	27.5516	0.0887	0.2718
Sigma(S, T, P)	27.9898	28.9272	28.3519	0.1886	0.3157

Data File : HIST_DIRUSER:(GINSEA_88.BOAL_000)H35ROT_100.CUR

Statistics for the period From : 07-NOV-1988 07:23:32.00
 To : 21-MAY-1989 21:23:32.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	3.0588	73.3314	34.5217	14.5049	0.0526
Current Velocity X	-40.9290	37.4539	2.1973	13.9043	-0.1185
Current Velocity Y	-29.9985	73.2268	30.7604	16.0586	-0.2905

Figure C1

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA 88 Version : MEASURED
 Station : BOA1_001 Inst. Num : 9020
 Water Depth : 1000m Inst. Depth : 494m
 Data File : HIST_DIRROOT:[GINSEA_88.BOA1_001]MEASURED.CUR;1

Statistics for the period From : 02-NOV-1988 16:41:00.00
 To : 26-MAY-1989 14:41:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	1.1000	72.1417	13.0603	9.1166	0.9044
Current Velocity X	-47.1763	72.1412	2.2696	13.7609	0.0865
Current Velocity Y	-28.0086	37.2006	-0.3482	7.6865	0.3838
Temperature	-0.5579	5.0694	0.7390	0.8768	0.9400
Pressure	498.5793	718.3779	513.9205	16.5941	2.9846
Conductivity	28.7361	33.6555	29.8364	0.7593	0.9902
Salinity	34.8164	35.0105	34.8995	0.0212	1.2803
Sound Velocity	1454.7418	1479.1554	1460.7184	3.8636	0.8355
Potential Temp	-0.5835	5.0286	0.7152	0.8734	0.9399
Sigma(S, T, 0)	27.5844	28.0924	27.9768	0.0637	-1.0532
Sigma(S, PT, 0)	27.5892	28.0933	27.9783	0.0632	-1.1274
Sigma(S, T, P)	29.9076	31.4786	30.4012	0.1206	0.8123

Data File : HIST_DIRUSER:[GINSEA_88.BOA1_001]H35.CUR

Statistics for the period From : 07-NOV-1988 07:40:48.00
 To : 21-MAY-1989 21:40:48.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.1853	35.2574	8.7674	5.5845	1.1478
Current Velocity X	-25.1323	35.0370	2.1404	9.3159	0.0375
Current Velocity Y	-12.0869	16.8272	-0.4532	4.0633	0.8107
Pressure	497.9558	582.7679	514.1896	12.0900	1.4926
Temperature	-0.4797	3.4156	0.7193	0.8182	0.7758
Conductivity	28.7764	32.2237	29.8195	0.7085	0.8115
Salinity	34.8494	34.9491	34.9001	0.0139	34.3845
Sound Velocity	1454.9460	1472.6268	1460.6398	3.6348	0.8483
Potential Temp	-0.4978	3.3802	0.6955	0.8149	0.7757
Sigma(S, T, 0)	27.7815	28.0613	27.9792	0.0569	-0.8113
Sigma(S, PT, 0)	27.7847	28.0623	27.9807	0.0564	-0.8740
Sigma(S, T, P)	30.1429	30.8168	30.4051	0.0965	0.1033

Data File : HIST_DIRUSER:[GINSEA_88.BOA1_001]H35ROT_100.CUR

Statistics for the period From : 07-NOV-1988 07:40:48.00
 To : 21-MAY-1989 21:40:48.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.1853	35.2574	8.7674	5.5845	1.1478
Current Velocity X	-15.4318	9.8649	0.0746	3.8349	-0.8197
Current Velocity Y	-25.6141	35.1883	2.1866	9.4123	0.0139

Figure C2

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : BOA1_002 Inst. Num : 9006
 Water Depth : 1000m Inst. Depth : 903m
 Data File : HIST_DIRROOT:[GINSEA_88,BOA1_002]MEASURED.CUR;1

Statistics for the period From : 02-NOV-1988 17:00:00.00
 To : 26-MAY-1989 14:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	1.1000	63.1000	14.5600	11.0189	0.9052
Current Velocity X	-41.0509	62.5087	6.9118	15.6540	0.1832
Current Velocity Y	-24.9642	27.4361	-1.1382	6.2710	0.3369
Temperature	-0.8676	-0.4685	-0.7166	0.0536	0.7289
Pressure	911.3979	939.4711	915.1209	2.0441	1.8536
Conductivity	28.6379	28.9661	28.7605	0.0439	0.9739
Salinity	34.8572	34.9312	34.8973	0.0109	-73.0515
Sound Velocity	1459.9512	1461.8295	1460.6718	0.2422	560.2855
Potential Temp	-0.9011	-0.5050	-0.7513	0.0532	0.7290
Sigma(S, T, 0)	28.0257	28.0888	28.0583	0.0098	30.1389
Sigma(S, PT, 0)	28.0272	28.0903	28.0599	0.0098	-70.9554
Sigma(S, T, P)	32.3532	32.5152	32.3942	0.0148	95.7651

Data File : HIST_DIRUSER:[GINSEA_88,BOA1_002]H35.CUR

Statistics for the period From : 07-NOV-1988 07:59:31.00
 To : 21-MAY-1989 21:59:31.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.2633	42.4018	12.5309	8.1656	0.8781
Current Velocity X	-27.4576	42.4002	6.4779	13.0785	-0.0463
Current Velocity Y	-11.0499	12.6006	-1.1170	3.0809	0.5551
Pressure	912.4709	925.1728	915.1784	1.4518	2.4451
Temperature	-0.8396	-0.5448	-0.7168	0.0457	0.6798
Conductivity	28.6627	28.9103	28.7602	0.0373	0.9218
Salinity	34.8731	34.9093	34.8972	0.0075	-121.7362
Sound Velocity	1460.0873	1461.5466	1460.6715	0.2071	511.2356
Potential Temp	-0.8734	-0.5811	-0.7515	0.0454	0.6795
Sigma(S, T, 0)	28.0360	28.0725	28.0583	0.0070	58.0409
Sigma(S, PT, 0)	28.0376	28.0740	28.0588	0.0070	9.5772
Sigma(S, T, P)	32.3630	32.4490	32.3944	0.0114	-32.2603

Data File : HIST_DIRUSER:[GINSEA_88,BOA1_002]H35ROT_100.CUR

Statistics for the period From : 07-NOV-1988 07:59:31.00
 To : 21-MAY-1989 21:59:31.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.2633	42.4018	12.5309	8.1656	0.8781
Current Velocity X	-10.0036	7.2464	-0.0248	2.6051	-0.5251
Current Velocity Y	-27.6384	41.8218	6.5734	13.1815	-0.0789

Figure C3

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : B0A2_000 Inst. Num : 9021
 Water Depth : 1000m Inst. Depth : 129m

Data File : HIST_DIRROOT:[GINSEA_88.B0A2_000]MEASURED.CUR;1

Statistics for the period From : 03-NOV-1988 18:22:00.00
 To : 29-MAY-1989 07:22:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	1.1000	63.4229	22.4708	11.3830	0.3978
Current Velocity X	-52.4515	60.0388	8.4825	16.0685	-0.2297
Current Velocity Y	-63.3966	46.6985	-6.3624	16.2468	-0.1568
Temperature	0.0553	7.7400	4.5051	1.9703	-0.2898
Pressure	127.7054	313.1938	141.7439	18.0354	3.3443
Conductivity	29.2027	36.2042	33.0585	1.8401	-0.2119
Salinity	34.6331	35.1947	34.9586	0.1092	0.4433
Sound Velocity	1453.7545	1484.2941	1470.7798	8.2396	-0.3219
Potential Temp	0.0437	7.7251	4.4957	1.9682	-0.2899
Sigma(S, T, 0)	27.3814	28.1312	27.6753	0.1535	0.3920
Sigma(S, PT, 0)	27.3831	28.1318	27.6765	0.1531	0.3916
Sigma(S, T, P)	27.9818	29.5659	28.3330	0.1924	1.1187

Data File : HIST_DIRUSER:[GINSEA_88.B0A2_000]H35.CUR

Statistics for the period From : 08-NOV-1988 09:21:37.00
 To : 24-MAY-1989 15:21:37.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.7113	50.2240	17.7860	8.7274	0.5972
Current Velocity X	-38.9476	39.9352	8.4713	11.3777	-0.7023
Current Velocity Y	-49.8074	23.9489	-5.9779	12.4758	-0.2064
Pressure	128.2005	185.5424	141.9902	9.9786	1.4309
Temperature	0.5887	7.5040	4.4041	1.9185	-0.2223
Conductivity	29.5165	35.9010	32.9617	1.7879	-0.1490
Salinity	34.7760	35.1807	34.9540	0.0979	0.5715
Sound Velocity	1453.9550	1482.9690	1470.3683	8.0387	-0.2488
Potential Temp	0.5827	7.4906	4.3938	1.9164	-0.2224
Sigma(S, T, 0)	27.4015	27.9958	27.6841	0.1497	0.2930
Sigma(S, PT, 0)	27.4033	27.9963	27.6853	0.1493	0.2903
Sigma(S, T, P)	28.0331	28.8437	28.3432	0.1677	0.5387

Data File : HIST_DIRUSER:[GINSEA_88.B0A2_000]H35POT_125.CUR

Statistics for the period From : 08-NOV-1988 09:21:37.00
 To : 24-MAY-1989 15:21:37.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.7113	50.2240	17.7860	8.7274	0.5972
Current Velocity X	-29.9258	37.6768	0.0378	12.9366	-0.0281
Current Velocity Y	-30.4033	39.1457	10.3681	10.8509	-0.2042

Figure C4

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : BOP2_001 Inst. Num : 9022
 Water Depth : 1000m Inst. Depth : 487m

Data File : HIST_DIRROOT:(GINSEA_88.BOP2_001)MEASURED.CUR;1

Statistics for the period From : 03-NOV-1988 17:34:00.00
 To : 29-MAY-1989 07:34:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0000	55.9958	15.4672	8.7001	0.5206
Current Velocity X	-39.1813	48.8247	3.0579	12.6880	0.0587
Current Velocity Y	-45.7928	34.5363	-1.6459	11.9107	-0.0428
Temperature	-0.5510	0.9508	-0.1780	0.1985	1.2200
Pressure	487.8565	624.0416	496.5265	11.4970	3.9820
Conductivity	28.7430	30.0067	29.0364	0.1650	1.2657
Salinity	34.8546	34.9424	34.9001	0.0125	26.6862
Sound Velocity	1454.6285	1461.3370	1456.2853	0.8931	3.1444
Potential Temp	-0.5728	0.9272	-0.1972	0.1978	1.2189
Sigma(S, T, 0)	27.9587	28.0769	28.0348	0.0178	1.6761
Sigma(S, PT, 0)	27.9602	28.0779	28.0358	0.0177	-4.6340
Sigma(S, T, P)	30.2754	31.0119	30.3903	0.0600	3.3969

Data File : HIST_DIRUSER:(GINSEA_88.BOP2_001)H35.CUR

Statistics for the period From : 08-NOV-1988 08:34:04.00
 To : 24-MAY-1989 14:34:04.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0990	18.1023	6.1405	3.3848	0.6099
Current Velocity X	-12.0660	17.3936	3.0739	4.9811	-0.0580
Current Velocity Y	-13.2261	8.2882	-1.6713	3.4814	-0.1203
Pressure	488.6396	530.1011	496.7163	6.4039	2.0153
Temperature	-0.4995	0.7145	-0.1865	0.1886	1.2866
Conductivity	28.7633	29.8007	29.0296	0.1572	1.3340
Salinity	34.8778	34.9199	34.9007	0.0077	-20.0141
Sound Velocity	1454.7966	1460.3057	1456.2500	0.8494	-0.4682
Potential Temp	-0.5174	0.6918	-0.2057	0.1879	1.2863
Sigma(S, T, 0)	27.9796	28.0623	28.0357	0.0150	-5.8485
Sigma(S, PT, 0)	27.9810	28.0632	28.0367	0.0149	-4.2134
Sigma(S, T, P)	30.3054	30.5716	30.3922	0.0369	1.2371

Data File : HIST_DIRUSER:(GINSEA_88.BOP2_001)H35ROT_125.CUR

Statistics for the period From : 08-NOV-1988 08:34:04.00
 To : 24-MAY-1989 14:34:04.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0990	18.1023	6.1405	3.3848	0.6099
Current Velocity X	-14.9424	13.3372	-0.3940	4.3162	0.1239
Current Velocity Y	-6.7991	15.9846	3.4766	4.2781	0.1675

Figure C5

Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : B0A2_002 Inst. Num : 9007
 Water Depth : 1000m Inst. Depth : 885m

Data File : HIST_DIRROOT:[GINSEA_88.B0A2_002]MEASURED.CUR;1

Statistics for the period From : 03-NOV-1988 18:05:00.00
 To : 29-MAY-1989 07:05:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0000	48.8917	16.0058	8.9634	0.4633
Current Velocity X	-32.3723	45.9967	3.9353	12.6131	0.1235
Current Velocity Y	-40.3773	34.4582	-1.8898	12.5868	-0.0957
Temperature	-0.8192	-0.5628	-0.6893	0.0427	-0.1836
Pressure	893.2687	917.9509	893.9109	1.8885	2.7331
Conductivity	28.6547	28.9001	28.7832	0.0355	-3.3826
Salinity	34.8645	34.9492	34.9091	0.0117	154.7775
Sound Velocity	1459.8367	1461.0627	1460.4650	0.2026	378.4947
Potential Temp	-0.8522	-0.5977	-0.7233	0.0424	-0.1828
Sigma(S, T, 0)	28.0300	28.1006	28.0667	0.0103	-98.6337
Sigma(S, PT, 0)	28.0315	28.1021	28.0682	0.0102	-85.9251
Sigma(S, T, P)	32.2619	32.4242	32.3023	0.0137	63.1932

Data File : HIST_DIRUSER:[GINSEA_88.B0A2_002]H35.CUR

Statistics for the period From : 08-NOV-1988 09:04:18.00
 To : 24-MAY-1989 15:04:18.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0367	19.0854	6.7457	3.9770	0.6818
Current Velocity X	-12.9164	18.9027	3.9601	5.5221	0.1207
Current Velocity Y	-12.6198	8.0348	-1.9080	3.3933	-0.0999
Pressure	892.8962	900.6245	893.9312	1.0832	3.2027
Temperature	-0.8003	-0.5852	-0.6905	0.0397	-0.1561
Conductivity	28.6716	28.8697	28.7824	0.0328	0.4226
Salinity	34.8842	34.9278	34.9095	0.0078	187.4807
Sound Velocity	1459.9054	1460.9417	1460.4601	0.1828	279.0746
Potential Temp	-0.8334	-0.6199	-0.7245	0.0394	-0.1552
Sigma(S, T, 0)	28.0457	28.0816	28.0671	0.0070	-18.7487
Sigma(S, PT, 0)	28.0472	28.0830	28.0686	0.0070	5.8760
Sigma(S, T, P)	32.2797	32.3329	32.3028	0.0090	24.4698

Data File : HIST_DIRUSER:[GINSEA_88.B0A2_002]H35ROT_125.CUR

Statistics for the period From : 08-NOV-1988 09:04:18.00
 To : 24-MAY-1989 15:04:18.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0367	19.0854	6.7457	3.9770	0.6818
Current Velocity X	-12.6146	13.6353	-0.7085	4.5226	0.1670
Current Velocity Y	-10.9433	17.5138	4.3383	4.6427	0.2252

Figure C6

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : BOA3_000 Inst. Num : 9024
 Water Depth : 998m Inst. Depth : 140m
 Data File : HIST_DIRROOT:(GINSEA_88,BOA3_000)MEASURED.CUR;1

Statistics for the period From : 05-NOV-1988 17:00:00.00
 To : 30-MAY-1989 00:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0000	50.1833	13.3449	7.3387	0.6557
Current Velocity X	-40.1973	30.7564	-0.2051	8.8299	-0.2420
Current Velocity Y	-43.3872	47.3775	1.7010	12.2913	-0.0561
Temperature	-0.6981	4.8767	1.2339	1.3459	0.8503
Pressure	139.4057	157.1543	141.6303	1.8432	3.9542
Conductivity	28.4520	33.4592	30.0753	1.1951	1.0368
Salinity	34.5955	35.0899	34.8660	0.1070	-0.2556
Sound Velocity	1448.1045	1472.6237	1456.7461	5.9406	0.8303
Potential Temp	-0.7025	4.8658	1.2273	1.3443	0.8503
Sigma(S, T, 0)	27.6620	28.1748	27.9101	0.1196	-0.0283
Sigma(S, PT, 0)	27.6627	28.1751	27.9106	0.1194	-0.0282
Sigma(S, T, P)	28.3241	28.8446	28.5791	0.1221	-0.0135

Data File : HIST_DIRUSER:(GINSEA_88,BOA3_000)H35.CUR

Statistics for the period From : 10-NOV-1988 07:59:31.00
 To : 24-MAY-1989 23:59:31.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.1578	28.6922	7.2558	4.6990	1.2473
Current Velocity X	-21.2685	16.7104	-0.2807	5.8064	-0.0167
Current Velocity Y	-15.8029	24.2788	1.9398	6.0985	0.5591
Pressure	140.4388	146.4578	141.6439	1.0706	1.8376
Temperature	-0.6436	4.6418	1.2288	1.3182	0.8875
Conductivity	28.5049	33.2391	30.0658	1.1696	1.0814
Salinity	34.6603	35.0522	34.8600	0.1028	-0.1306
Sound Velocity	1448.3700	1471.6488	1456.7194	5.8163	0.8802
Potential Temp	-0.6480	4.6312	1.2221	1.3166	0.8875
Sigma(S, T, 0)	27.6721	28.1080	27.9061	0.1166	-0.0105
Sigma(S, PT, 0)	27.6727	28.1082	27.9066	0.1165	-0.0349
Sigma(S, T, P)	28.3345	28.7829	28.5752	0.1188	0.0022

Data File : HIST_DIRUSER:(GINSEA_88,BOA3_000)H35ROT_140.CUR

Statistics for the period From : 10-NOV-1988 07:59:31.00
 To : 24-MAY-1989 23:59:31.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.1578	28.6922	7.2558	4.6990	1.2473
Current Velocity X	-27.5841	17.5671	-1.0318	6.4458	-0.6192
Current Velocity Y	-18.1226	9.8521	-1.6664	5.4182	-0.4958

Figure C7

Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : B0A3_001 Inst. Num : 9026
 Water Depth : 998m Inst. Depth : 502m

Data File : HIST_DIRROOT:(GINSEA_88.B0A3_001)MEASURED.CUR;1

Statistics for the period From : 05-NOV-1988 16:20:00.00
 To : 29-MAY-1989 23:20:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	1.1000	25.6417	7.5927	5.3393	0.5525
Current Velocity X	-17.0724	18.2189	1.0709	4.4024	0.3162
Current Velocity Y	-24.5733	24.9531	-0.8696	8.0551	0.0745
Temperature	-0.5753	-0.0363	-0.3044	0.0972	-0.2553
Pressure	501.5795	512.0046	503.7215	0.7146	20.3862
Conductivity	28.6851	29.1829	28.9380	0.0912	-0.3609
Salinity	34.8497	34.9691	34.9090	0.0170	7.2695
Sound Velocity	1454.5321	1457.0995	1455.8322	0.4647	-43.1537
Potential Temp	-0.5931	-0.0564	-0.3234	0.0968	-0.2553
Sigma(S, T, 0)	28.0082	28.0997	28.0485	0.0116	55.2744
Sigma(S, PT, 0)	28.0091	28.1006	28.0495	0.0116	40.2001
Sigma(S, T, P)	30.4013	30.4924	30.4398	0.0119	-20.5060

Data File : HIST_DIRUSER:(GINSEA_88.B0A3_001)H35.CUR

Statistics for the period From : 10-NOV-1988 07:20:38.00
 To : 24-MAY-1989 23:20:38.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0436	15.2149	5.0769	3.1031	0.7065
Current Velocity X	-8.8950	14.3167	1.1115	3.1323	0.2985
Current Velocity Y	-13.6825	12.7209	-0.8363	4.8649	0.3542
Pressure	503.2704	505.8487	503.7503	0.4406	-1.1227
Temperature	-0.5399	-0.0754	-0.3099	0.0931	-0.2799
Conductivity	28.7150	29.1538	28.9328	0.0872	-0.2459
Salinity	34.8719	34.9402	34.9084	0.0122	-71.2639
Sound Velocity	1454.6968	1456.9257	1455.8064	0.4423	32.3404
Potential Temp	-0.5578	-0.0953	-0.3289	0.0927	-0.2799
Sigma(S, T, 0)	28.0267	28.0675	28.0483	0.0065	-4.0932
Sigma(S, PT, 0)	28.0275	28.0685	28.0492	0.0066	29.4769
Sigma(S, T, P)	30.4197	30.4626	30.4397	0.0065	-52.7280

Data File : HIST_DIRUSER:(GINSEA_88.B0A3_001)H35ROT_140.CUR

Statistics for the period From : 10-NOV-1988 07:20:38.00
 To : 24-MAY-1989 23:20:38.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0436	15.2149	5.0769	3.1031	0.7065
Current Velocity X	-11.5508	9.8678	-0.3139	3.5581	-0.2022
Current Velocity Y	-11.9711	14.6706	1.3551	4.5628	-0.0407

Figure C8

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : BOA3_002 Inst. Num : 9008
 Water Depth : 998m Inst. Depth : 922m

Data File : HIST_DIRFOOT:(GINSEA_88,BOA3_002)MEASURED.CUR;1

Statistics for the period From : 05-NOV-1988 17:10:00.00
 To : 29-MAY-1989 23:10:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	1.1000	32.1000	7.5586	5.3635	0.5871
Current Velocity X	-13.8891	21.5375	2.0570	4.1810	0.3884
Current Velocity Y	-31.4995	21.4159	-2.8092	7.5036	-0.1187
Temperature	-0.8145	-0.5820	-0.6888	0.0462	-0.4287
Pressure	922.9074	925.1777	924.4188	0.9875	-4.3489
Conductivity	28.6578	28.8925	28.7865	0.0385	-3.6599
Salinity	34.8175	34.9869	34.8951	0.0220	8.5941
Sound Velocity	1460.3604	1461.4912	1460.9525	0.2017	2211.7761
Potential Temp	-0.8490	-0.6183	-0.7242	0.0459	-0.4288
Sigma(S, T, 0)	27.9901	28.1296	28.0553	0.0185	-6.8610
Sigma(S, PT, 0)	27.9917	28.1312	28.0569	0.0185	7.9244
Sigma(S, T, P)	32.3715	32.5005	32.4341	0.0168	-18.5350

Data File : HIST_DIRUSER:(GINSEA_88,BOA3_002)H3S.CUR

Statistics for the period From : 10-NOV-1988 08:09:35.00
 To : 24-MAY-1989 22:09:35.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0430	17.8804	5.5126	3.6877	0.9744
Current Velocity X	-4.9602	12.7517	2.1126	2.8322	0.4570
Current Velocity Y	-17.2421	14.7575	-2.8352	4.8448	0.3806
Pressure	922.8608	925.2367	924.4350	0.8854	59.8596
Temperature	-0.8082	-0.6048	-0.6910	0.0450	-0.4027
Conductivity	28.6913	28.8472	28.7844	0.0355	-0.4102
Salinity	34.8551	34.9428	34.8947	0.0149	11.4335
Sound Velocity	1460.4080	1461.3359	1460.9420	0.2138	-57.5314
Potential Temp	-0.8427	-0.6409	-0.7264	0.0446	-0.4028
Sigma(S, T, 0)	28.0195	28.0959	28.0551	0.0130	-1.7523
Sigma(S, PT, 0)	28.0212	28.0974	28.0567	0.0130	-21.7174
Sigma(S, T, P)	32.4000	32.4683	32.4340	0.0108	18.8702

Data File : HIST_DIRUSER:(GINSEA_88,BOA3_002)H3SROT_140.CUR

Statistics for the period From : 10-NOV-1988 08:09:35.00
 To : 24-MAY-1989 22:09:35.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0430	17.8804	5.5126	3.6877	0.9744
Current Velocity X	-11.4967	9.9618	0.2041	2.9165	-0.4386
Current Velocity Y	-11.6780	17.4738	3.5298	4.7946	0.0600

Figure C9

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : BOA3_000 Inst. Num : 9024
 Water Depth : 998m Inst. Depth : 140m

Data File : HIST_DIRROOT:[GINSEA_88,BOA3_000]MEASURED.CUR;1

Statistics for the period From : 30-MAY-1989 00:00:00.00
 To : 30-SEP-1989 23:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	1.1000	47.2771	14.7474	8.4792	0.8641
Current Velocity X	-31.6791	35.3430	-0.6131	10.3025	0.3052
Current Velocity Y	-45.5248	42.2653	-2.1494	13.3535	-0.2745
Temperature	-0.5401	3.5676	1.0564	0.9841	0.3764
Pressure	140.4056	183.4023	142.0991	3.4313	5.9802
Conductivity	28.6015	32.3008	29.9862	0.8723	0.4373
Salinity	34.8701	35.0845	34.9546	0.0336	2.4647
Sound Velocity	1448.8812	1467.2238	1456.1233	4.4152	0.2639
Potential Temp	-0.5447	3.5582	1.0498	0.9830	0.3764
Sigma(S, T, 0)	27.8059	28.1289	27.9989	0.0583	0.1162
Sigma(S, PT, 0)	27.8069	28.1291	27.9994	0.0581	-0.1510
Sigma(S, T, P)	28.4836	28.8861	28.6707	0.0625	0.1581

Data File : HIST_DIRUSER:[GINSEA_88,BOA3_000]H35.CUR

Statistics for the period From : 25-MAY-1989 00:00:00.00
 To : 26-SEP-1989 06:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.6169	35.3590	9.2719	6.0109	1.3487
Current Velocity X	-22.4761	27.6950	-0.8046	7.6246	0.2358
Current Velocity Y	-28.3219	16.6692	-2.0972	7.6795	-0.6899
Pressure	139.9968	158.6234	141.9089	2.1438	4.5368
Temperature	-0.5403	3.0605	0.9359	0.9213	0.3486
Conductivity	28.6061	31.8039	29.8795	0.8100	0.4053
Salinity	34.8946	35.0305	34.9531	0.0274	-7.1328
Sound Velocity	1448.8811	1465.0079	1455.5850	4.1358	0.3805
Potential Temp	-0.5448	3.0517	0.9296	0.9202	0.3487
Sigma(S, T, 0)	27.9017	28.1121	28.0066	0.0576	-0.0053
Sigma(S, PT, 0)	27.9024	28.1123	28.0070	0.0575	-0.1039
Sigma(S, T, P)	28.5616	28.7851	28.6779	0.0609	0.0648

Data File : HIST_DIRUSER:[GINSEA_88,BOA3_000]H35ROT_140.CUR

Statistics for the period From : 25-MAY-1989 00:00:00.00
 To : 26-SEP-1989 06:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.6169	35.3590	9.2719	6.0109	1.3487
Current Velocity X	-16.4161	20.8614	1.9644	6.8139	-0.1280
Current Velocity Y	-17.4087	34.9630	1.0894	8.4071	0.7773

Figure C10

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : BOA3_001 Inst. Num : 9026
 Water Depth : 998m Inst. Depth : 502m
 Data File : HIST_DIRROOT:(GINSEA_88,BOA3_001)MEASURED.CUR;1

Statistics for the period From : 30-MAY-1989 00:00:00.00
 To : 01-OCT-1989 06:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0000	25.3188	6.0303	4.7511	0.7357
Current Velocity X	-11.6674	16.4561	1.0516	4.0354	0.5442
Current Velocity Y	-25.2165	21.9178	-0.1103	6.4457	-0.1808
Temperature	-0.5603	-0.0256	-0.2661	0.0892	-0.2742
Pressure	502.8206	517.7135	504.1327	1.2470	7.7839
Conductivity	28.6851	29.1992	28.9673	0.0819	-0.2144
Salinity	34.8563	34.9623	34.9041	0.0145	35.7874
Sound Velocity	1454.5906	1457.2749	1456.0100	0.4209	81.3177
Potential Temp	-0.5781	-0.0458	-0.2852	0.0888	-0.2745
Sigma(S, T, 0)	28.0101	28.0882	28.0427	0.0105	5.6547
Sigma(S, PT, 0)	28.0110	28.0892	28.0436	0.0105	31.3793
Sigma(S, T, P)	30.4046	30.5062	30.4353	0.0121	48.9510

Data File : HIST_DIRUSER:(GINSEA_88,BOA3_001)H35.CUR

Statistics for the period From : 25-MAY-1989 00:00:00.00
 To : 26-SEP-1989 14:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.1675	11.6699	4.1497	2.4822	0.8163
Current Velocity X	-7.1782	10.1146	1.0143	3.1004	0.5884
Current Velocity Y	-11.1575	10.4932	-0.1857	3.5660	-0.1792
Pressure	503.2821	509.1748	504.0695	0.7851	3.3579
Temperature	-0.5621	-0.0550	-0.2645	0.0857	-0.4244
Conductivity	28.6987	29.1656	28.9689	0.0788	-0.5375
Salinity	34.8712	34.9299	34.9045	0.0094	-8.6073
Sound Velocity	1454.6412	1457.0751	1456.0166	0.4056	27.5153
Potential Temp	-0.5700	-0.0751	-0.2837	0.0853	-0.4248
Sigma(S, T, 0)	28.0298	28.0559	28.0429	0.0053	-155.9184
Sigma(S, PT, 0)	28.0306	28.0569	28.0439	0.0054	-53.7440
Sigma(S, T, P)	30.4207	30.4667	30.4352	0.0063	42.0164

Data File : HIST_DIRUSER:(GINSEA_88,BOA3_001)H35ROT_140.CUR

Statistics for the period From : 25-MAY-1989 00:00:00.00
 To : 26-SEP-1989 14:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.1675	11.6699	4.1497	2.4822	0.8163
Current Velocity X	-9.2314	7.3840	-0.6576	3.0151	-0.2360
Current Velocity Y	-7.1254	11.4412	0.7942	3.6384	0.4750

Figure C11

SACLANTCEN SM-260Current Meter Statistics

Cruise : GINSEA_88 Version : MEASURED
 Station : BOA3_002 Inst. Num : 9008
 Water Depth : 998m Inst. Depth : 922m
 Data File : HIST_DIRROOT:[GINSEA_88.BOA3_002]MEASURED.CUR;1

Statistics for the period From : 30-MAY-1989 00:00:00.00
 To : 01-OCT-1989 03:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.3161	22.7354	6.0704	4.5986	0.6098
Current Velocity X	-11.8313	16.2732	1.7907	3.7459	0.6111
Current Velocity Y	-22.6307	13.6356	-2.2433	5.9780	-0.3644
Temperature	-0.7920	-0.5595	-0.6693	0.0365	-0.3794
Pressure	925.1777	925.1777	925.1777	0.1509	-8451.9336
Conductivity	28.6725	28.8925	28.7928	0.0337	-5.6747
Salinity	34.8273	34.9314	34.8807	0.0173	2.4046
Sound Velocity	1460.4462	1461.5381	1461.0371	0.1659	1824.2992
Potential Temp	-0.8267	-0.5958	-0.7048	0.0382	-0.3795
Sigma(S, T, 0)	27.9981	28.0870	28.0429	0.0143	-50.1135
Sigma(S, PT, 0)	27.9997	28.0885	28.0444	0.0143	-16.1048
Sigma(S, T, P)	32.3794	32.4704	32.4247	0.0145	-67.1879

Data File : HIST_DIRUSER:[GINSEA_88.BOA3_002]H35.CUR

Statistics for the period From : 25-MAY-1989 00:00:00.00
 To : 26-SEP-1989 12:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0922	13.0879	4.1822	2.5254	0.7368
Current Velocity X	-2.8204	10.3047	1.7427	2.4568	0.5283
Current Velocity Y	-10.4287	4.7760	-2.2620	3.1121	-0.1026
Pressure	925.1777	925.1777	925.1777	0.0000	0.0000
Temperature	-0.7887	-0.5642	-0.6670	0.0379	-0.4254
Conductivity	28.6948	28.8724	28.7948	0.0317	-0.2622
Salinity	34.8621	34.9086	34.8808	0.0078	-115.4075
Sound Velocity	1460.4840	1461.5055	1461.0476	0.1839	-1455.9606
Potential Temp	-0.8234	-0.6005	-0.7026	0.0376	-0.4254
Sigma(S, T, 0)	28.0244	28.0687	28.0428	0.0068	33.7117
Sigma(S, PT, 0)	28.0260	28.0702	28.0444	0.0068	-88.8545
Sigma(S, T, P)	32.4035	32.4524	32.4247	0.0073	-95.3410

Data File : HIST_DIRUSER:[GINSEA_88.BOA3_002]H35ROT_140.CUR

Statistics for the period From : 25-MAY-1989 00:00:00.00
 To : 26-SEP-1989 12:00:00.00

	Min	Max	Mean	Std. Dev	Skewness
Velocity Modulus	0.0922	13.0879	4.1822	2.5254	0.7368
Current Velocity X	-6.1402	6.1585	0.1190	2.2430	-0.1180
Current Velocity Y	-3.0171	12.8295	2.8530	3.2695	0.4297

Figure C12

SACLANTCEN SM-260

Appendix D

Histograms

Histograms of the archived data for all relevant parameters are shown in for the current meters. The scales on the plots are maintained the same, wherever possible, to facilitate comparisons.

- Figures D1–D24: Buoys 1–3 (period 1 and 2).

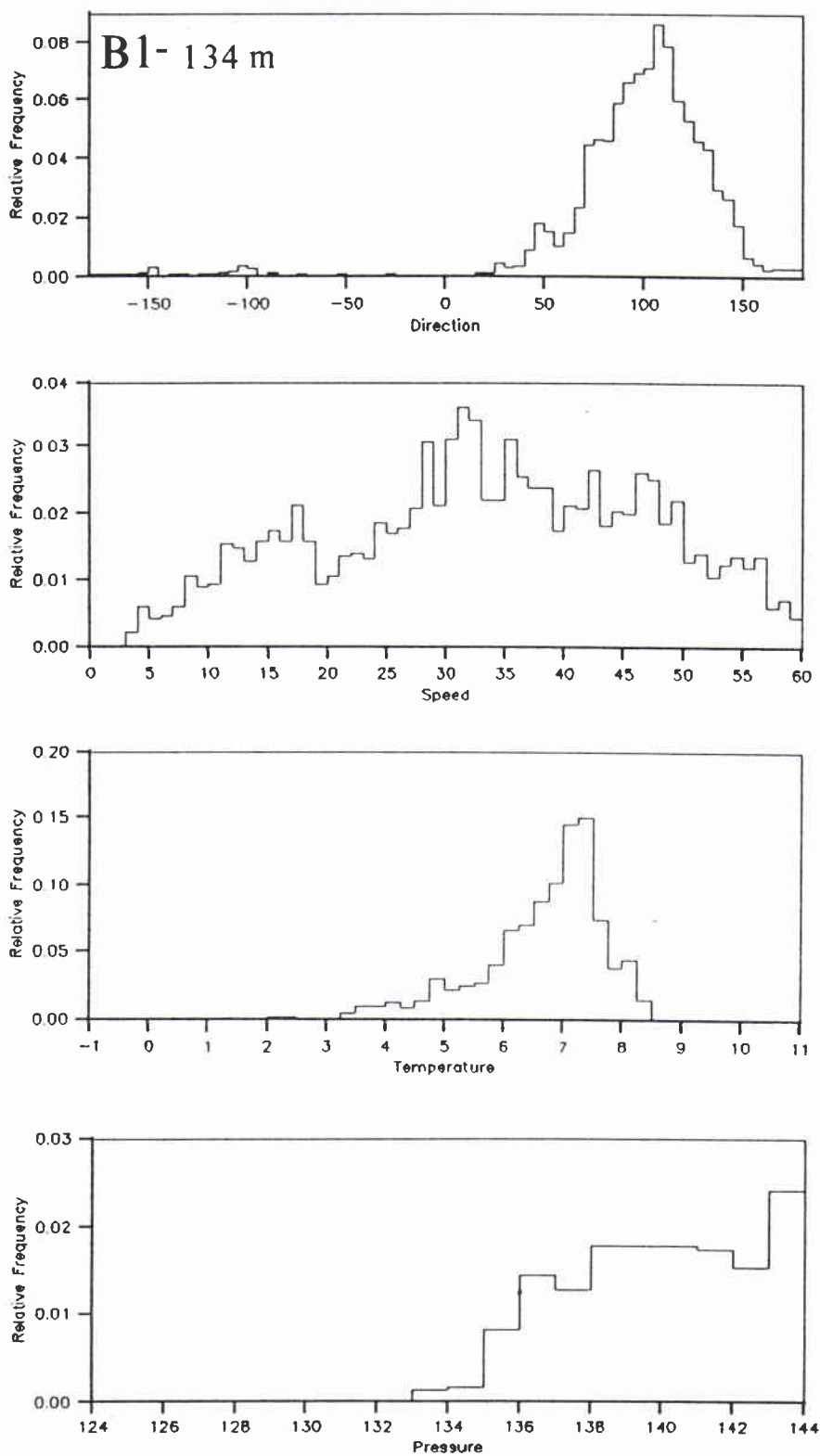


Figure D1

SACLANTCEN SM-260

Cruise	: GINSEA_B8	Instrument No.	: 9019
Station	: B0A1_000	Instrument Depth	: 134
Version	: H35	Water Depth	: 1000
Latitude	: 62 55.9'N	From	: 07-NOV-1988 00:00
Longitude	: 6 13.1'W	To	: 21-MAY-1989 21:23

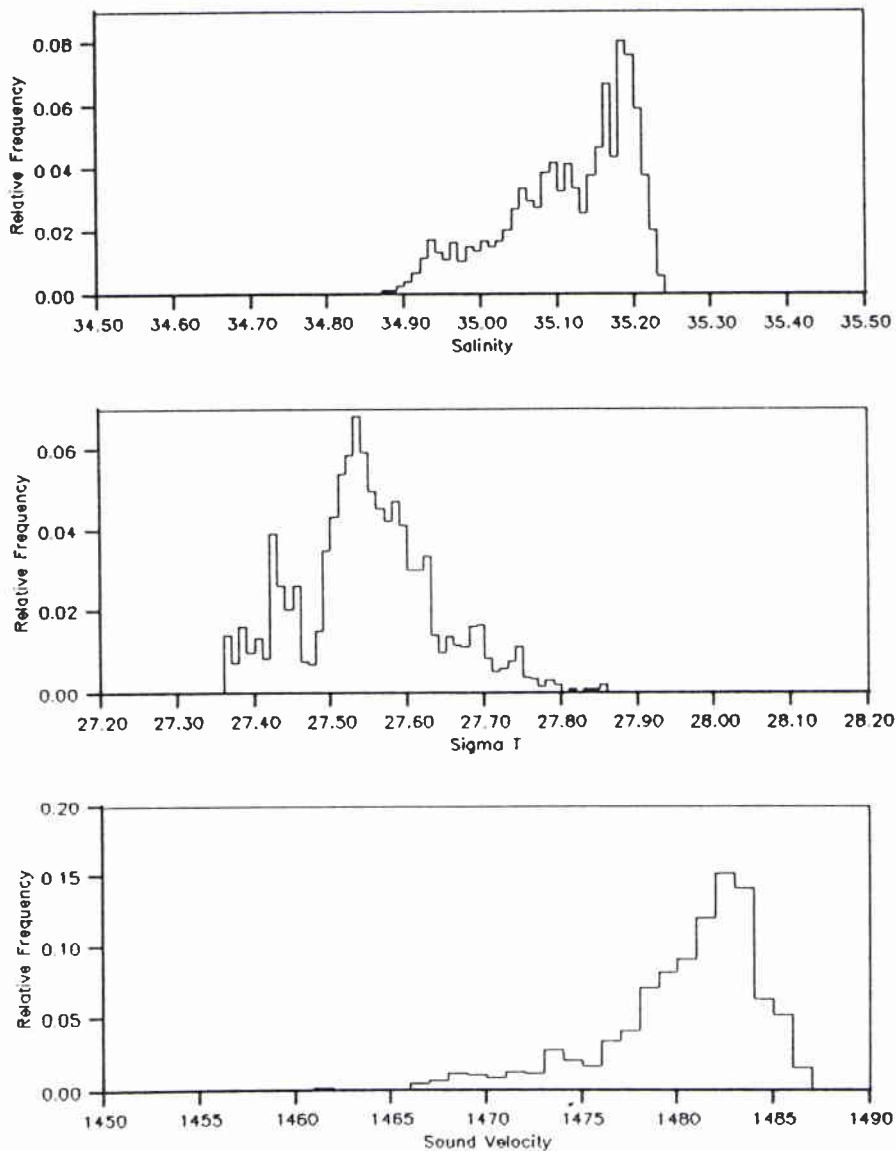


Figure D2

SACLANTCEN SM-260

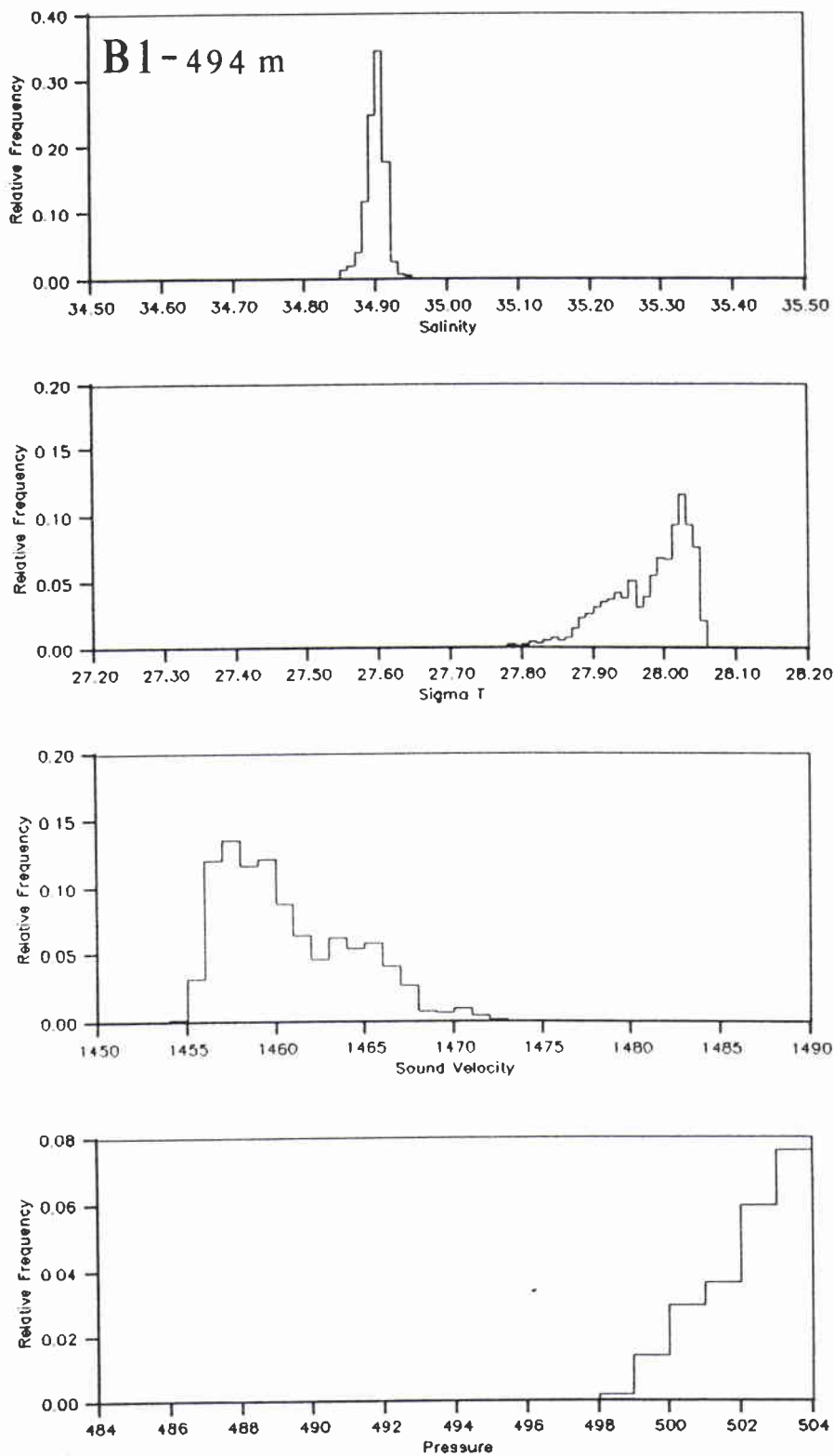


Figure D3

SACLANTCEN SM-260

Cruise	: GINSEA_88	Instrument No.	: 9020
Station	: BOA1_001	Instrument Depth	: 494
Version	: H35	Water Depth	: 1000
Latitude	: 62 55.9'N	From	: 07-NOV-1988 00:00
Longitude	: 6 13.1'W	To	: 21-MAY-1989 21:40

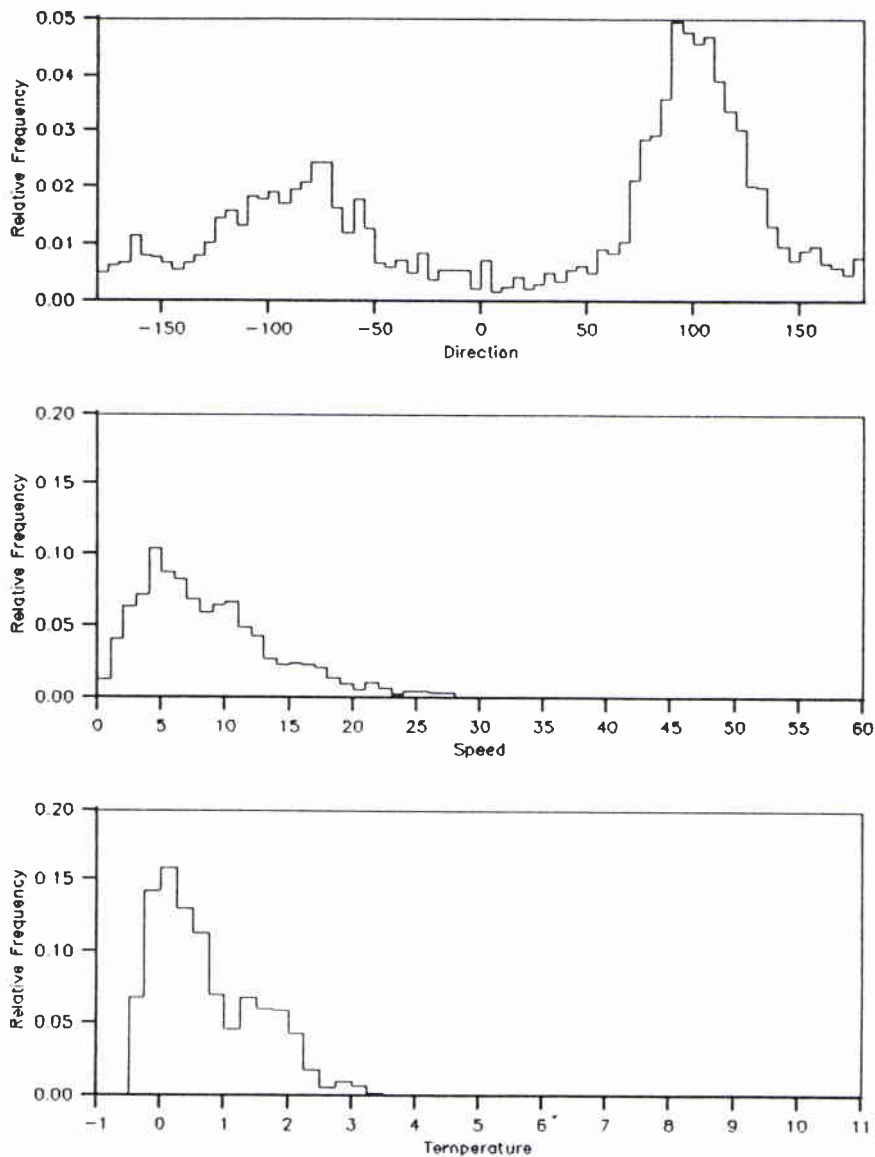


Figure D4

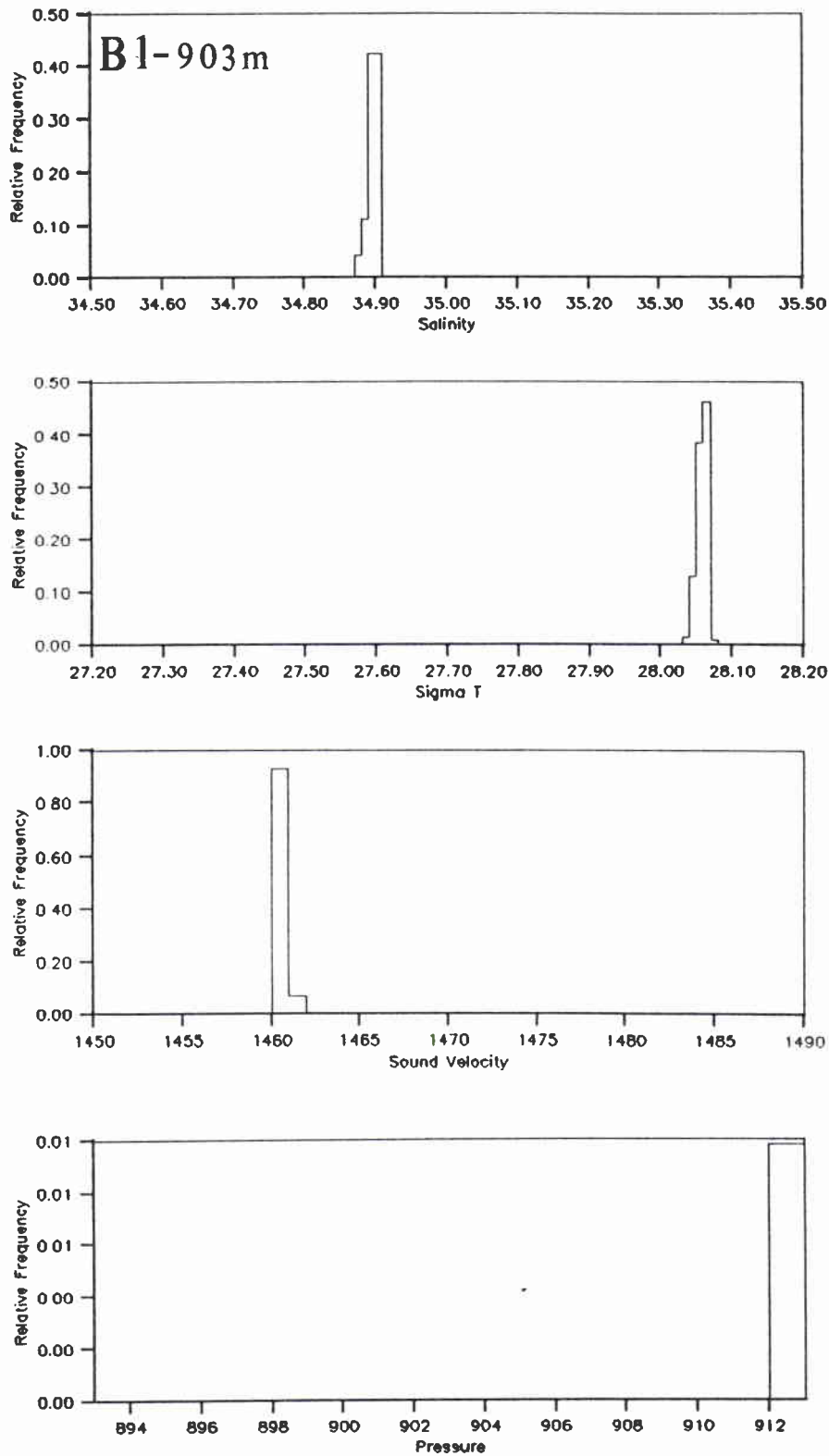


Figure D5

SACLANTCEN SM-260

Cruise	: GINSEA_B8	Instrument No.	: 9006
Station	: BOA1_002	Instrument Depth	: 903
Version	: H35	Water Depth	: 1000
Latitude	: 62 55.9'N	From	: 07-NOV-1988 00:00
Longitude	: 6 13.1'W	To	: 21-MAY-1989 21:59

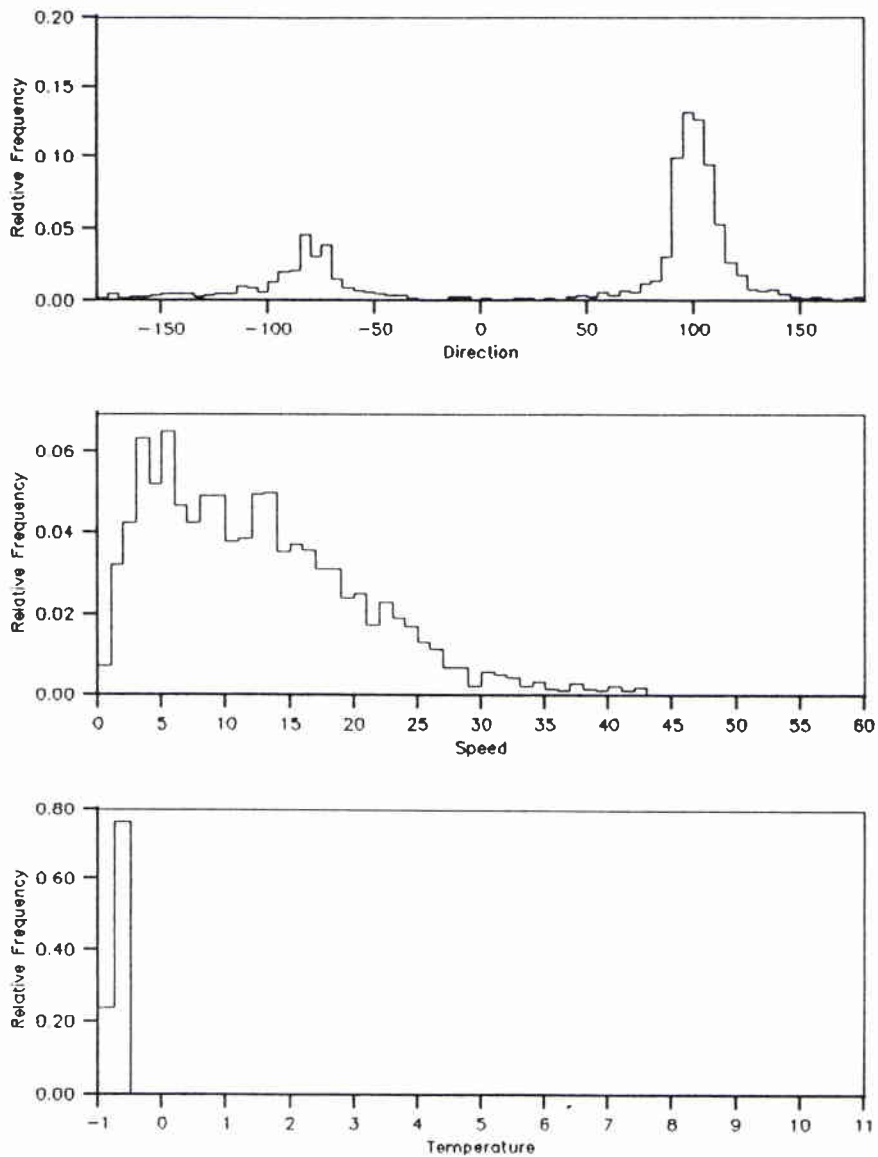
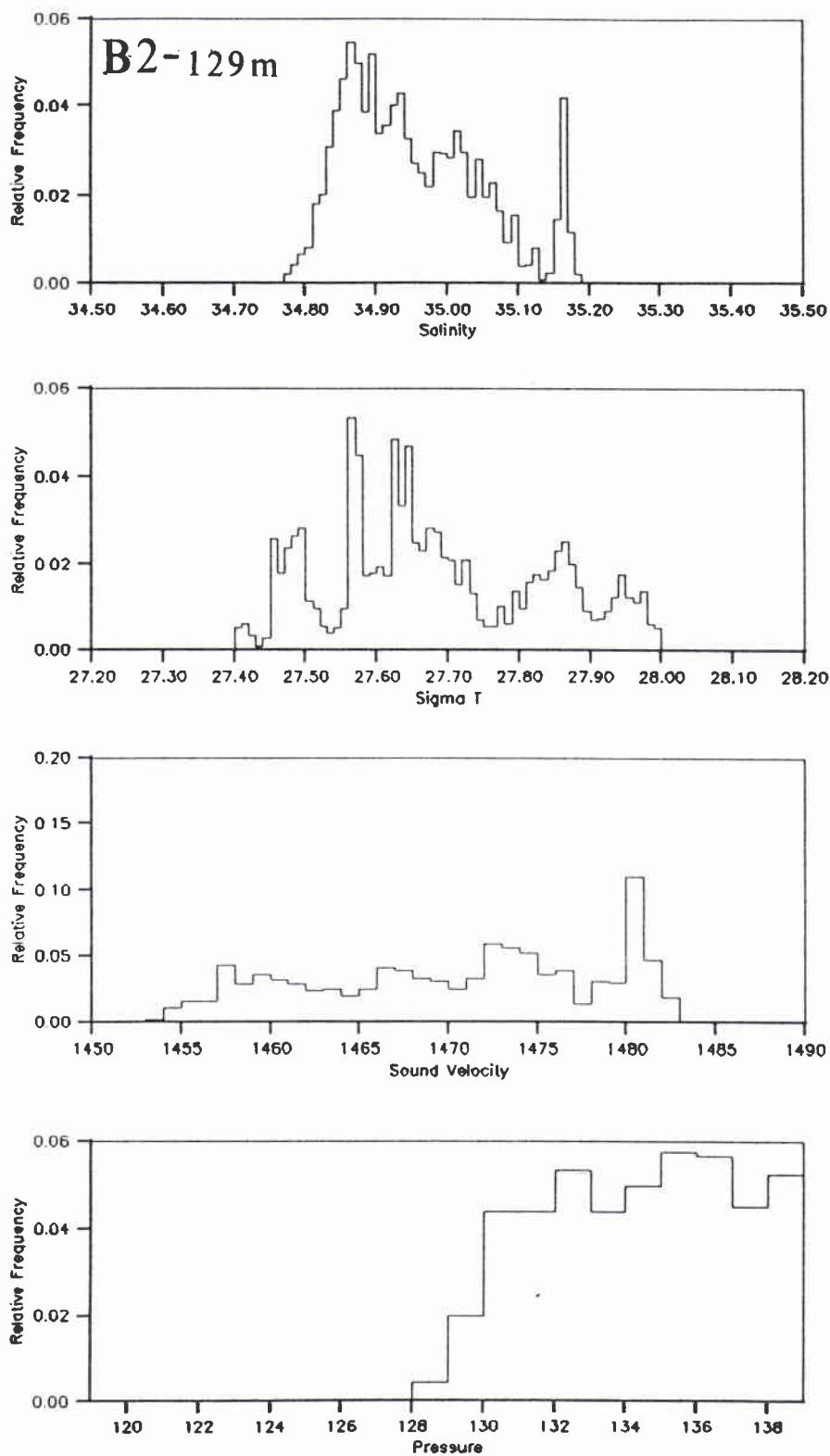


Figure D6

**Figure D7**

SACLANTCEN SM-260

Cruise	: GINSEA_B8	Instrument No.	: 9021
Station	: BOA2_000	Instrument Depth	: 129
Version	: H35	Water Depth	: 1000
Latitude	: 64 4.6'N	From	: 07-NOV-1988 00:00
Longitude	: 8 43.9'W	To	: 24-MAY-1989 15:21

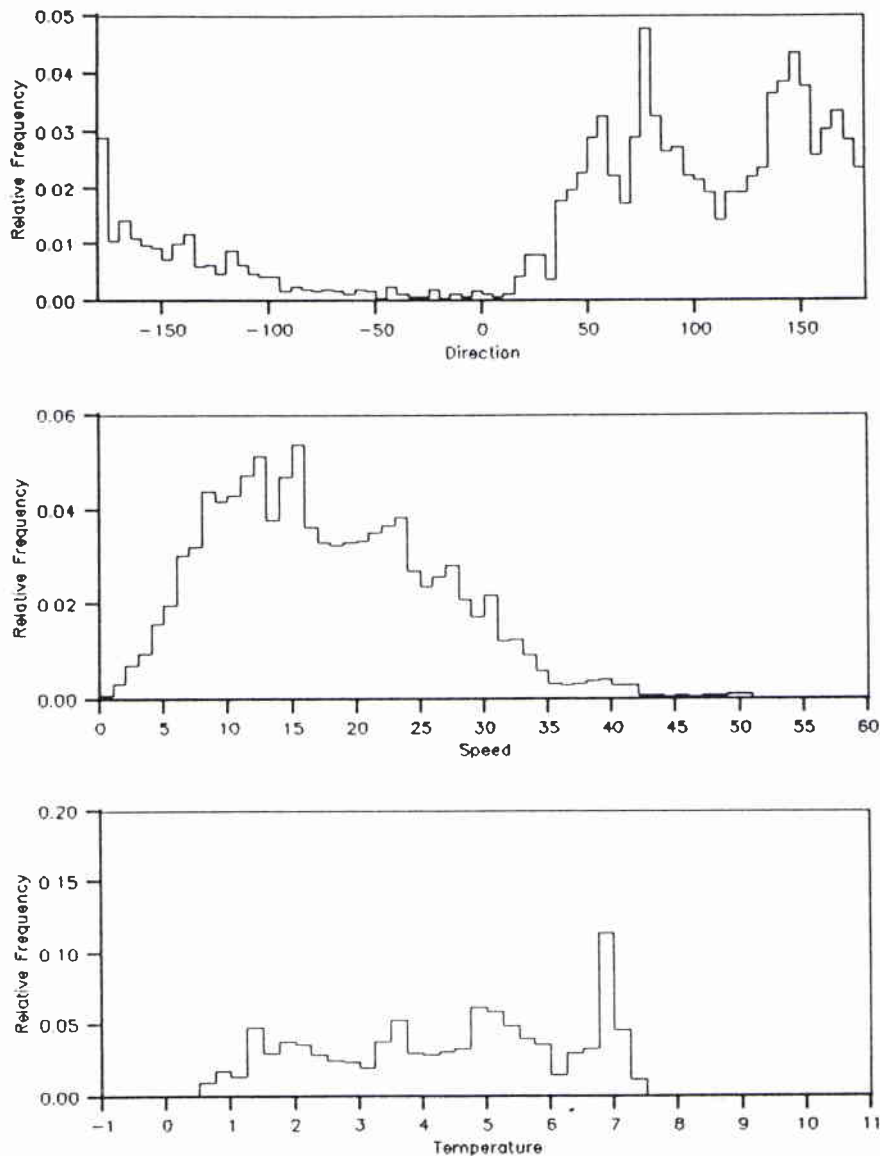
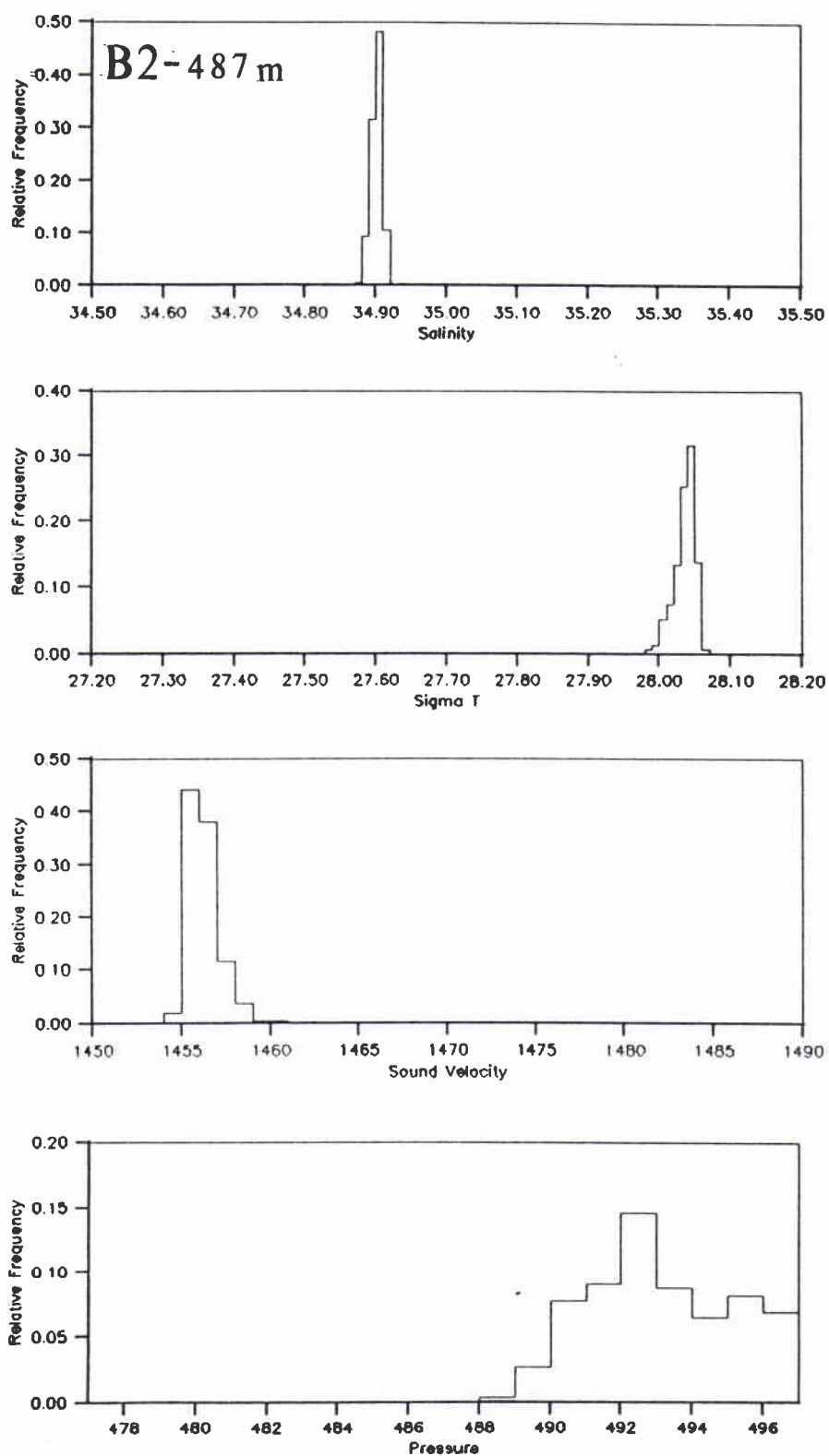


Figure D8

SACLANTCEN SM-260**Figure D9**

SACLANTCEN SM-260

Cruise	: GINSEA_88	Instrument No.	: 9022
Station	: BOA2_001	Instrument Depth	: 487
Version	: H35	Water Depth	: 1000
Latitude	: 64 4.6'N	From	: 07-NOV-1988 00:00
Longitude	: 8 43.9'W	To	: 24-MAY-1989 14:34

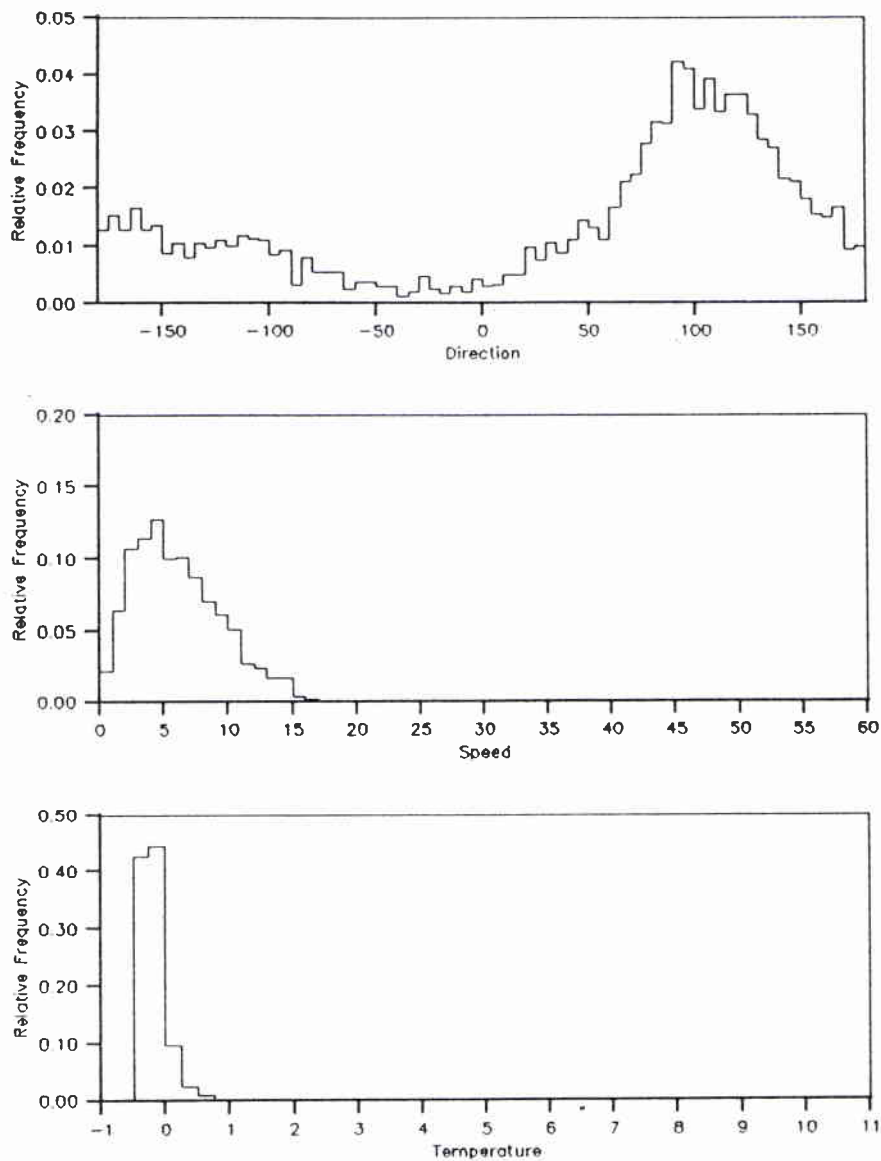
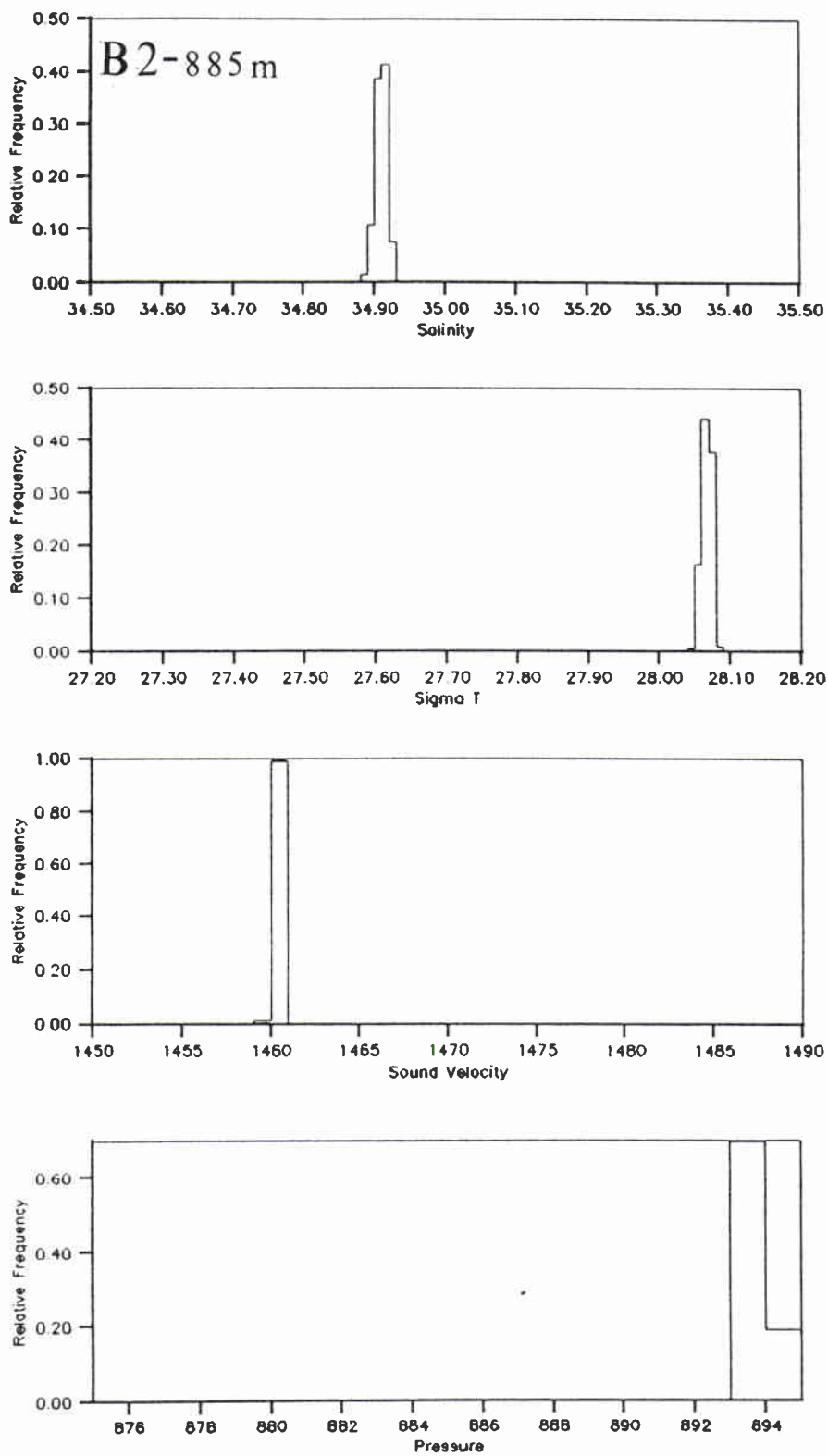


Figure D10

SACLANTCEN SM-260**Figure D11**

SACLANTCEN SM-260

Cruise	: GINSEA_88	Instrument No.	: 9007
Station	: BOA2_002	Instrument Depth	: 385
Version	: H35	Water Depth	: 1000
Latitude	: 64 4.6'N	From	: 07-NOV-1988 00:00
Longitude	: 8 43.9'W	To	: 24-MAY-1989 15:04

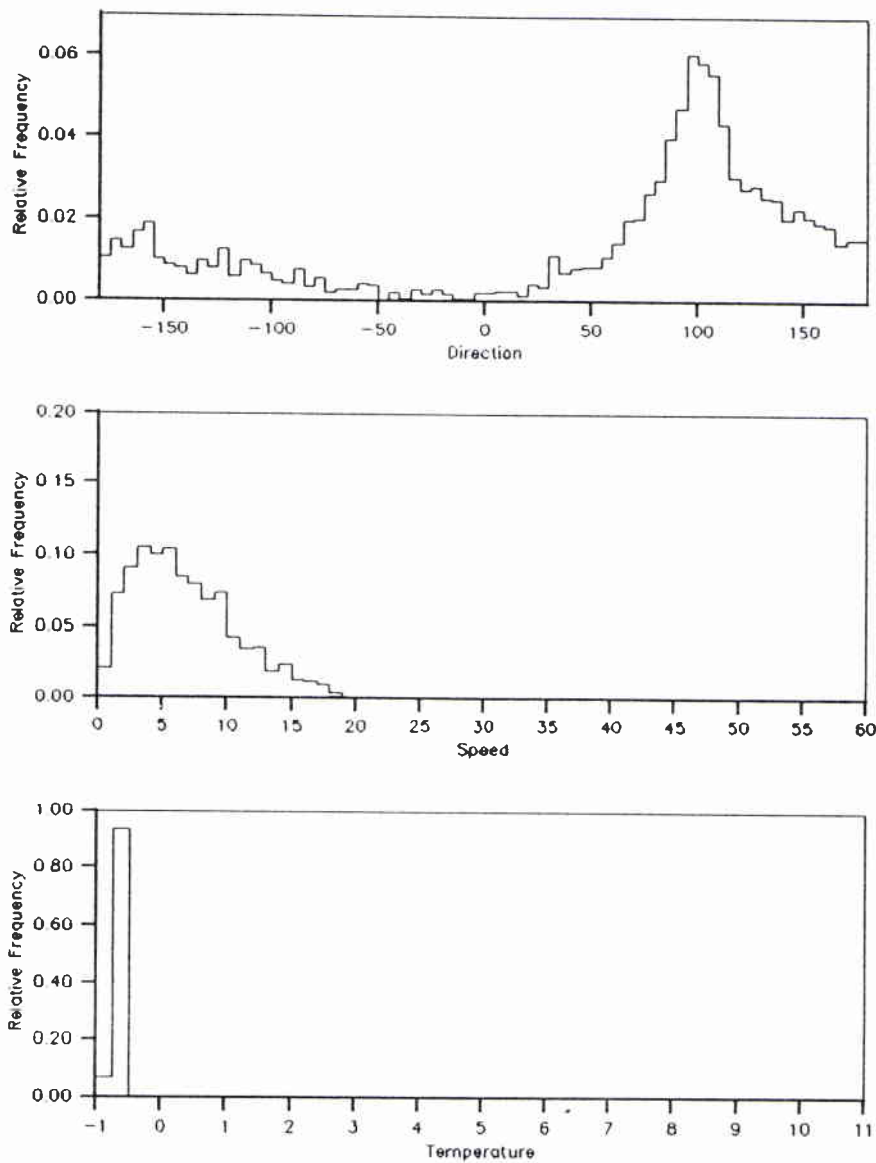


Figure D12

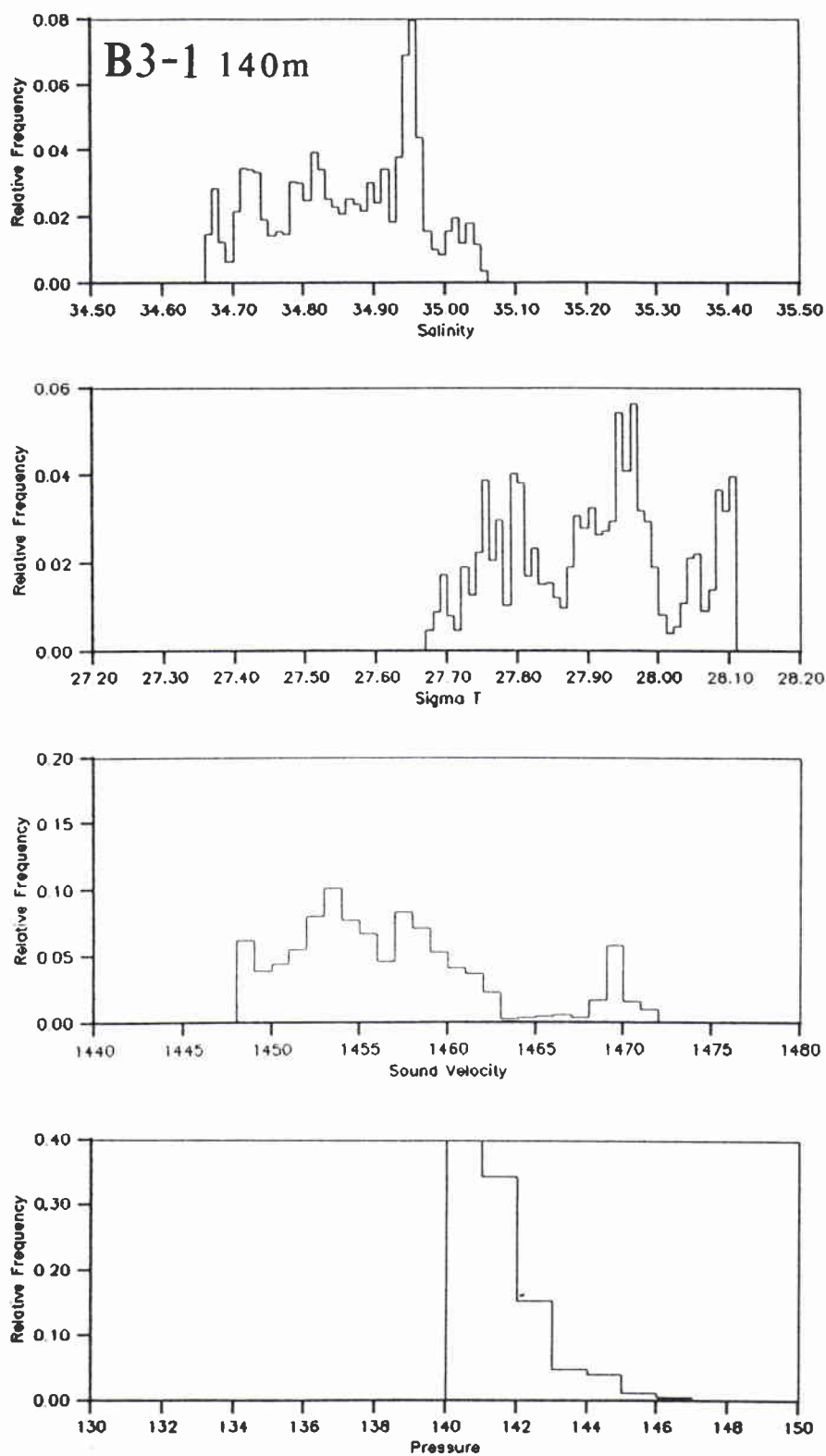


Figure D13

SACLANTCEN SM-260

Cruise	: GINSEA_88	Instrument No.	: 9024
Station	: B0A3_000	Instrument Depth	: 140
Version	: H35	Water Depth	: 998
Latitude	: 66 6.6'N	From	: 07-NOV-1988 00:00
Longitude	: 11 19.6'W	To	: 24-MAY-1989 23:59

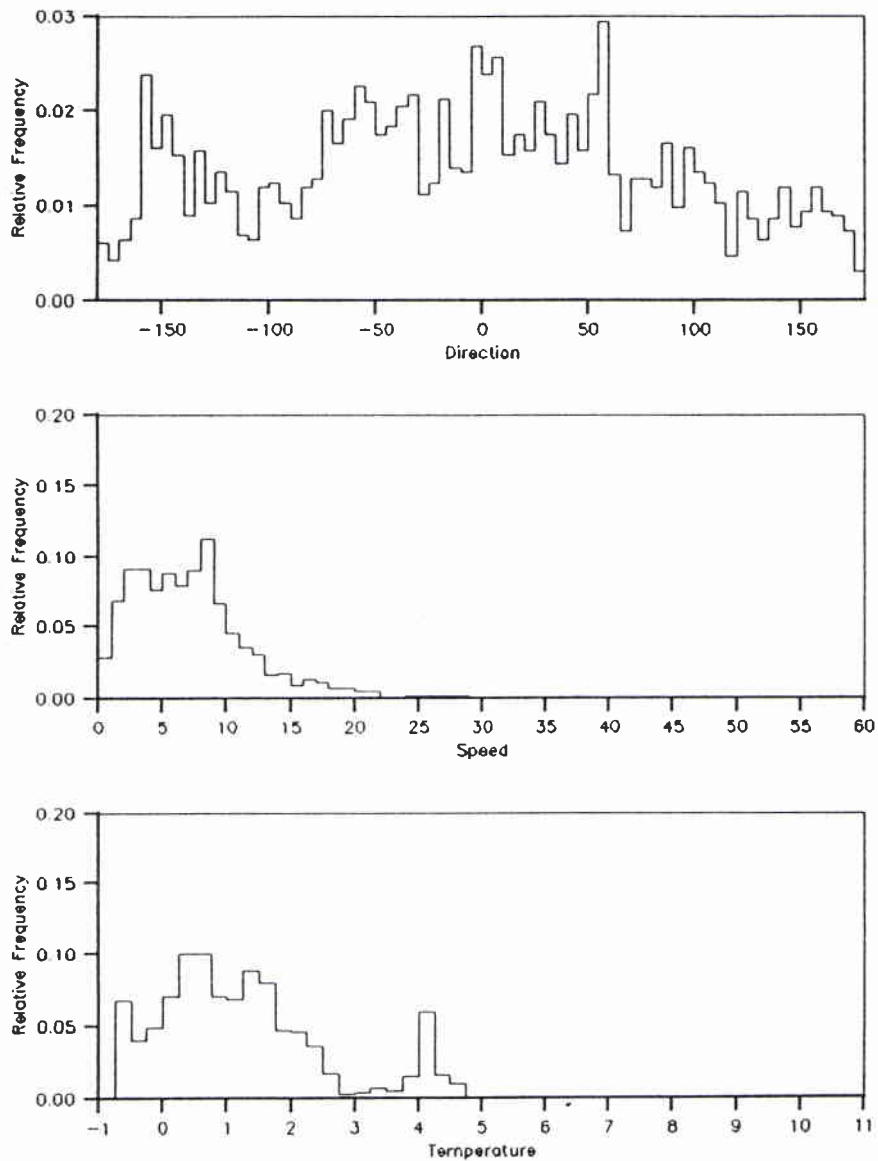


Figure D14

SACLANTCEN SM-260

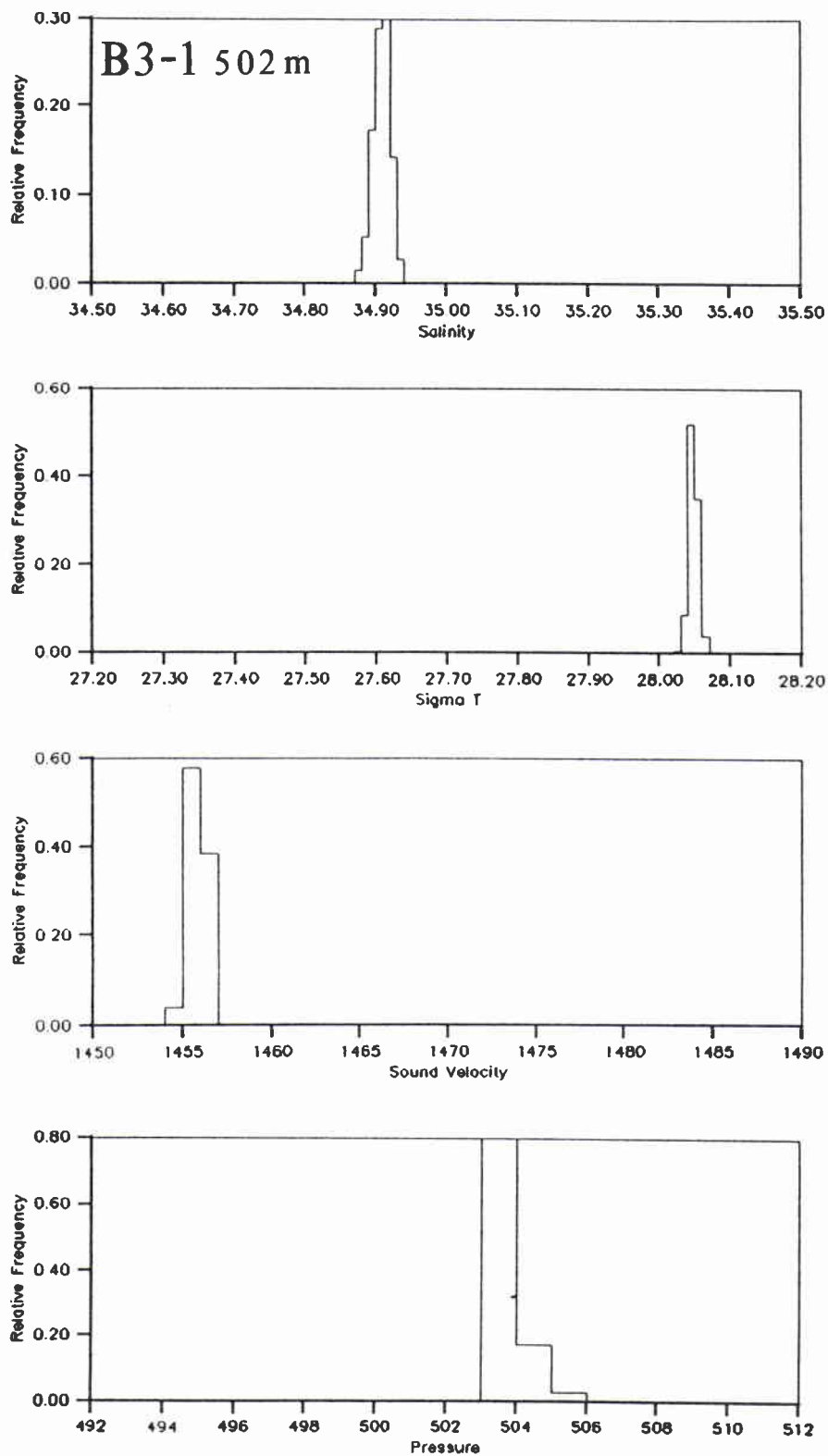


Figure D15

SACLANTCEN SM-260

Cruise	: GINSEA_88	Instrument No.	: 9026
Station	: BOA3_001	Instrument Depth	: 502
Version	: H35	Water Depth	: 998
Latitude	: 66 6.6'N	From	: 07-NOV-1988 00:00
Longitude	: 11 19.6'W	To	: 24-MAY-1989 23:20

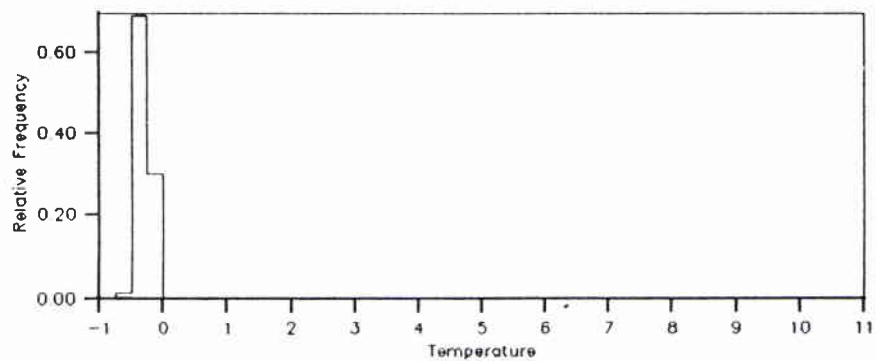
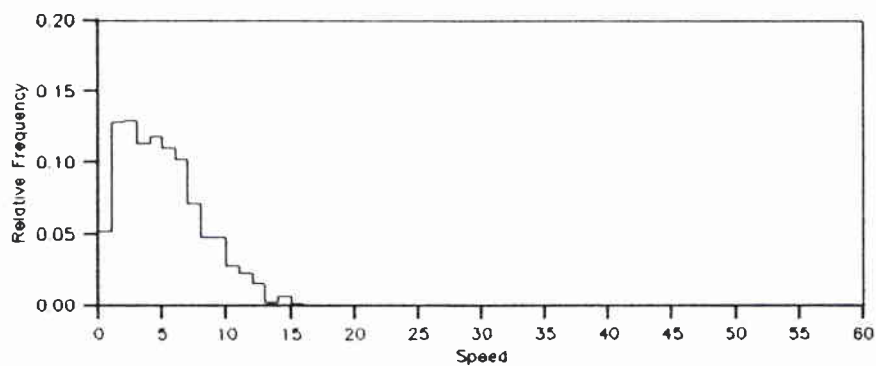
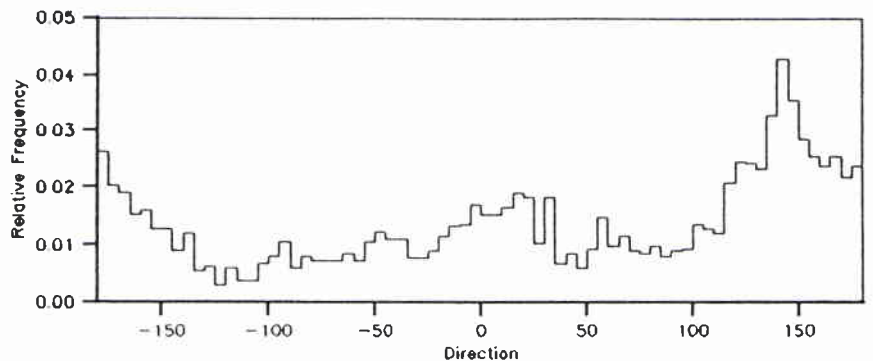
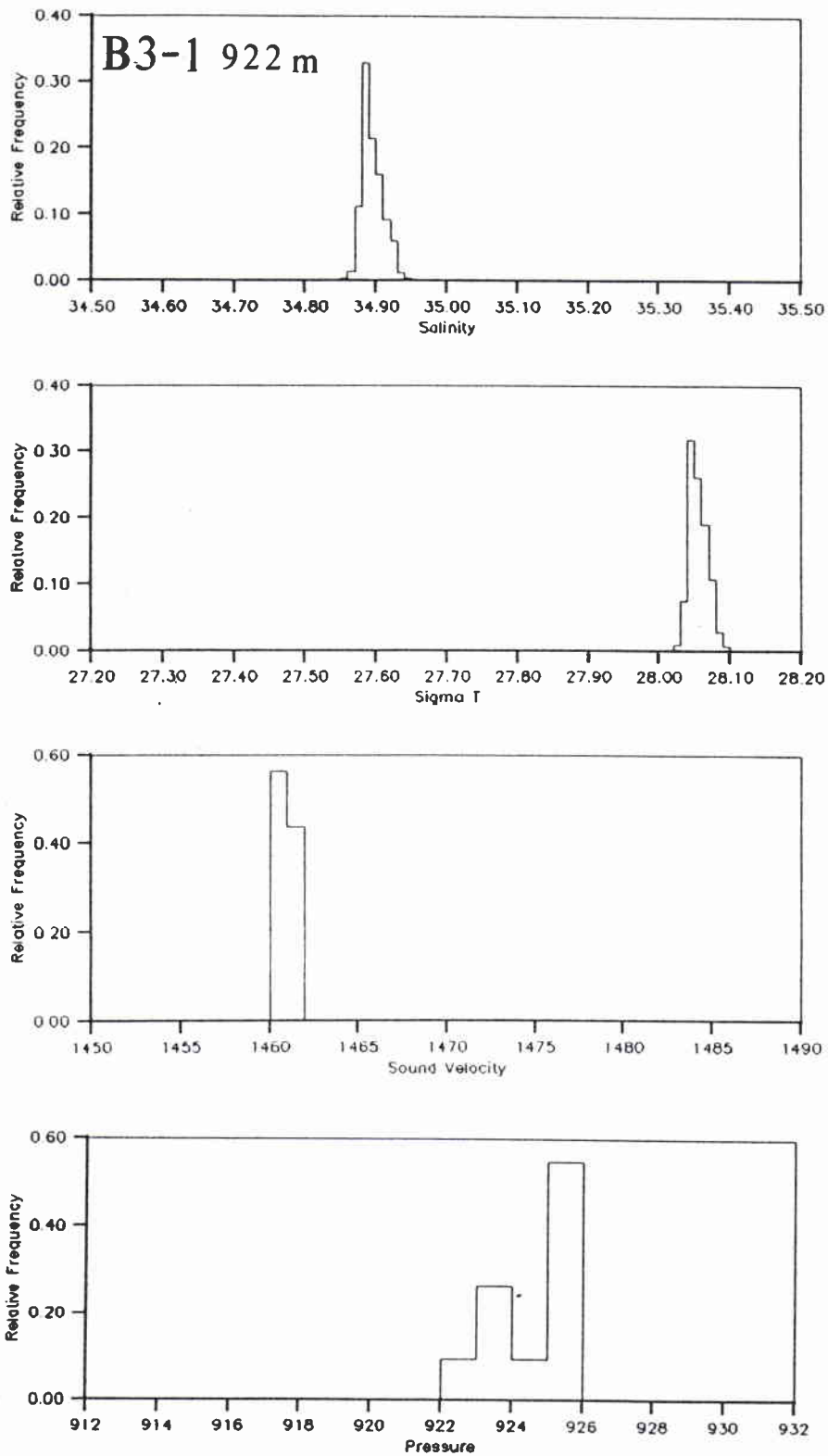


Figure D16

**Figure D17**

SACLANTCEN SM-260

Cruise	: GINSEA_B8	Instrument No.	: 9008
Station	: BOAJ_002	Instrument Depth	: 922
Version	: H35	Water Depth	: 998
Latitude	: 66 6.6'N	From	: 07-NOV-1988 00:00
Longitude	: 11 19.6'W	To	: 24-MAY-1989 22:09

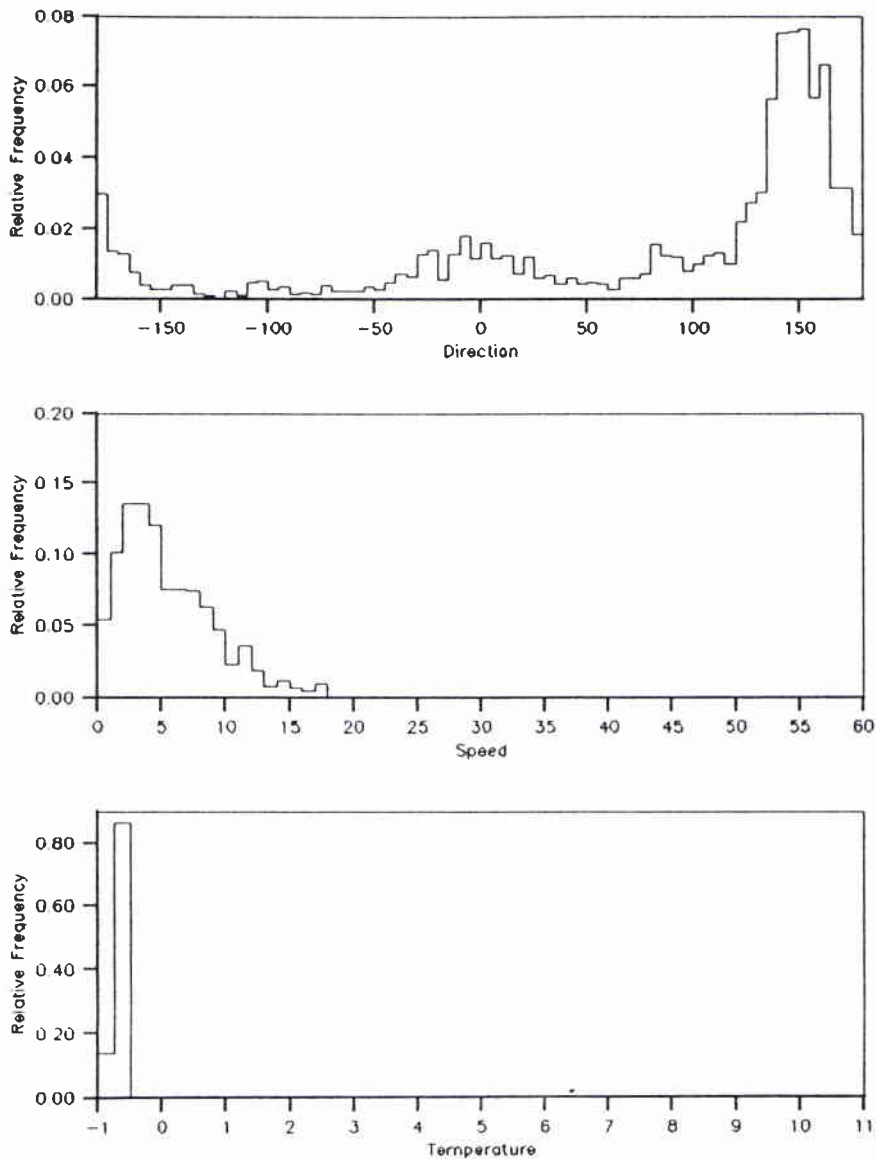


Figure D18

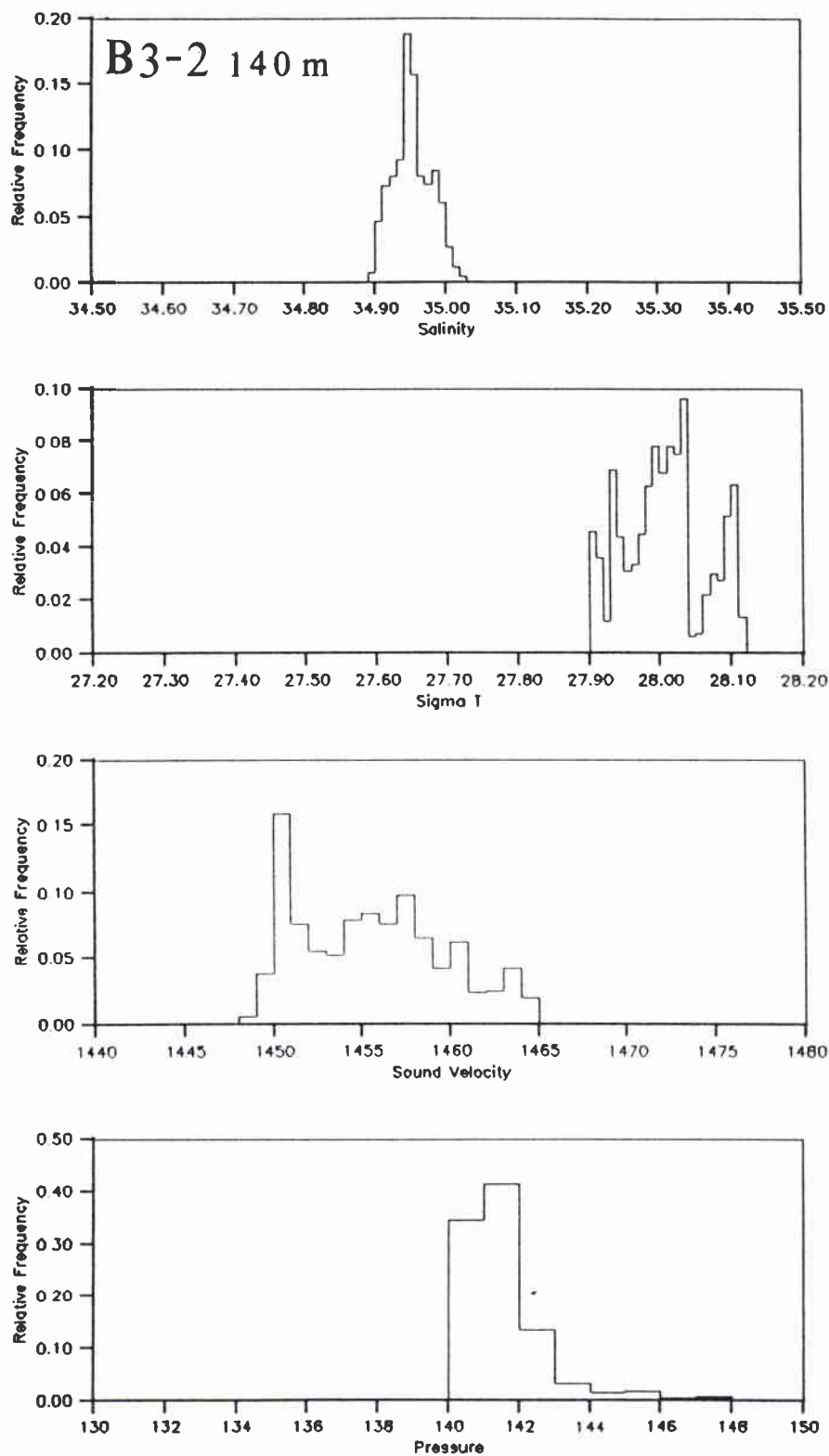


Figure D19

SACLANTCEN SM-260

Cruise	: CINSEA_B8	Instrument No.	: 9024
Station	: BOAJ_000	Instrument Depth	: 140
Version	: H35	Water Depth	: 998
Latitude	: 66 6.6'N	From	: 25-MAY-1989 00:00
Longitude	: 11 19.6'W	To	: 26-SEP-1989 06:00

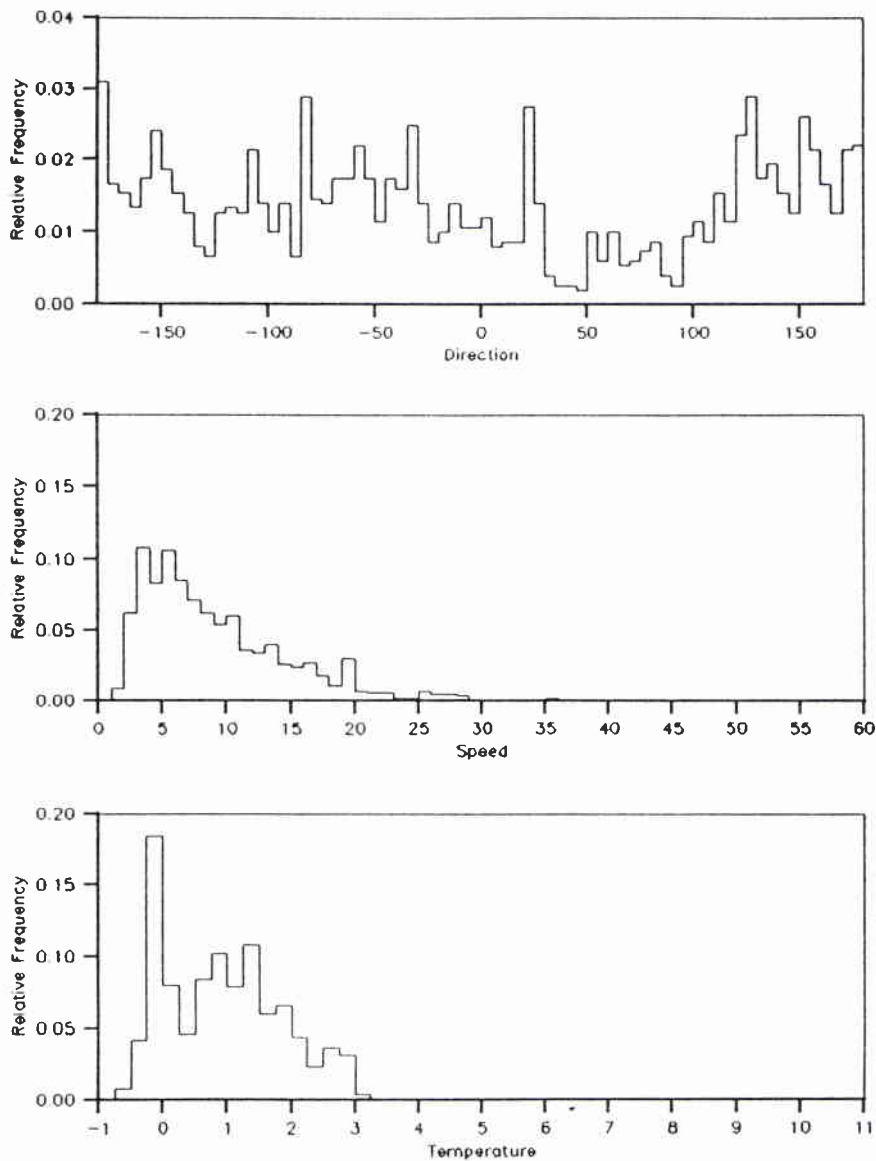
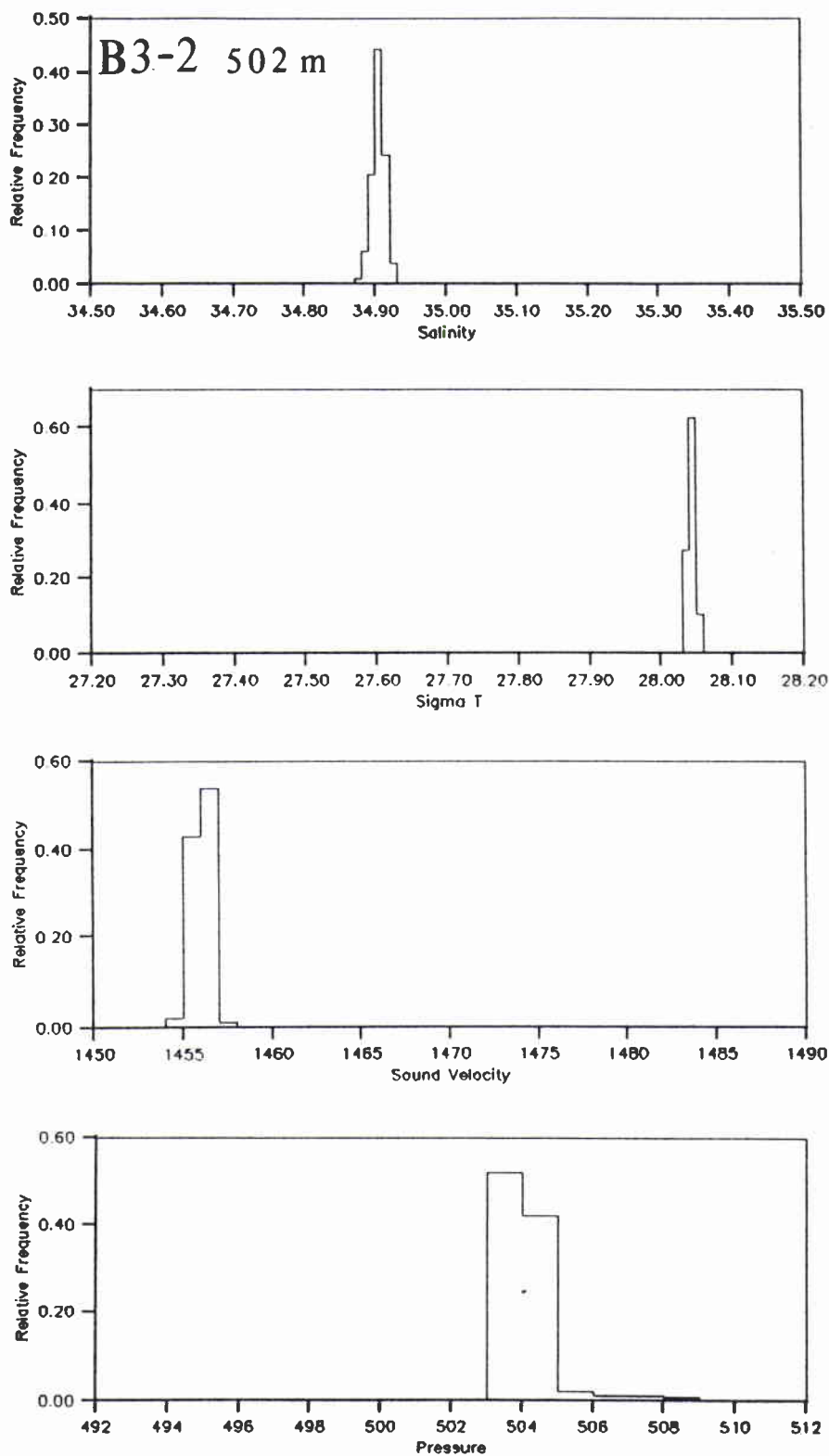


Figure D20

SACLANTCEN SM-260**Figure D21**

SACLANTCEN SM-260

Cruise	: GINSEA_88	Instrument No.	: 9026
Station	: BOA3_001	Instrument Depth	: 502
Version	: H35	Water Depth	: 998
Latitude	: 66 6.6'N	From	: 25-MAY-1989 00:00
Longitude	: 11 19.6'W	To	: 26-SEP-1989 14:00

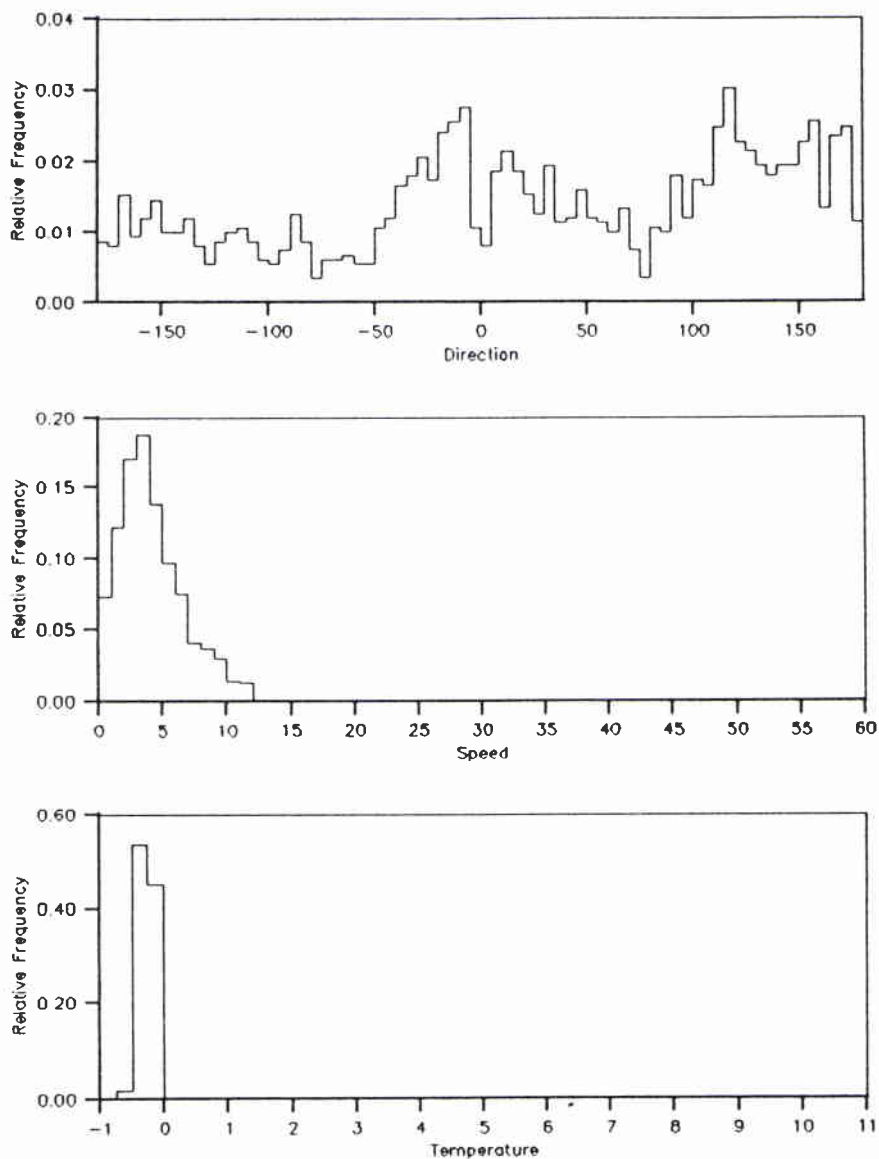
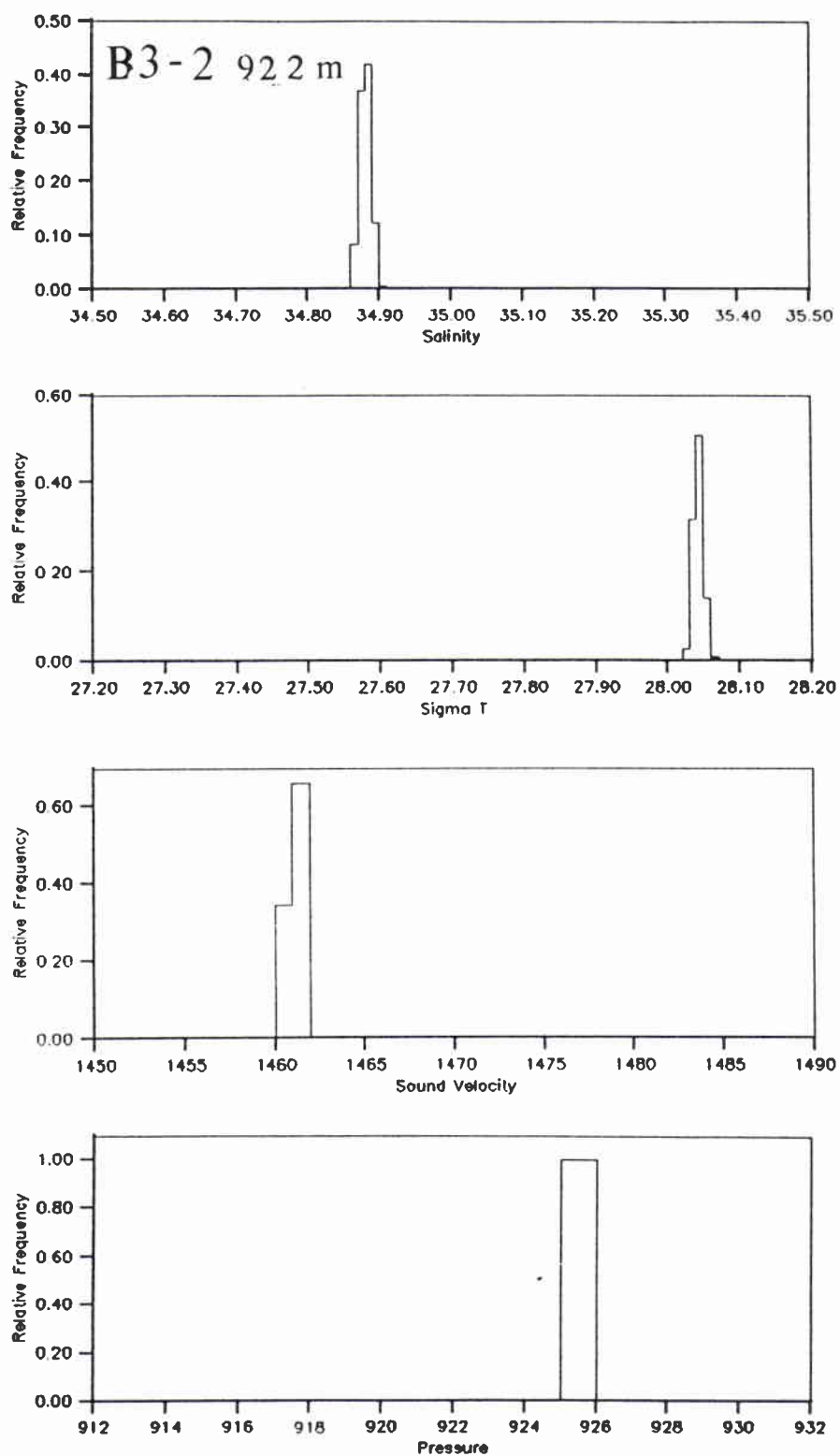


Figure D22

SACLANTCEN SM-260**Figure D23**

SACLANTCEN SM-260

Cruise	: GINSEA_88	Instrument No.	: 9008
Station	: BOA3_002	Instrument Depth	: 922
Version	: H35	Water Depth	: 998
Latitude	: 66 6.6'N	From	: 25-MAY-1989 00:00
Longitude	: 11 19.6'W	To	: 26-SEP-1989 12:00

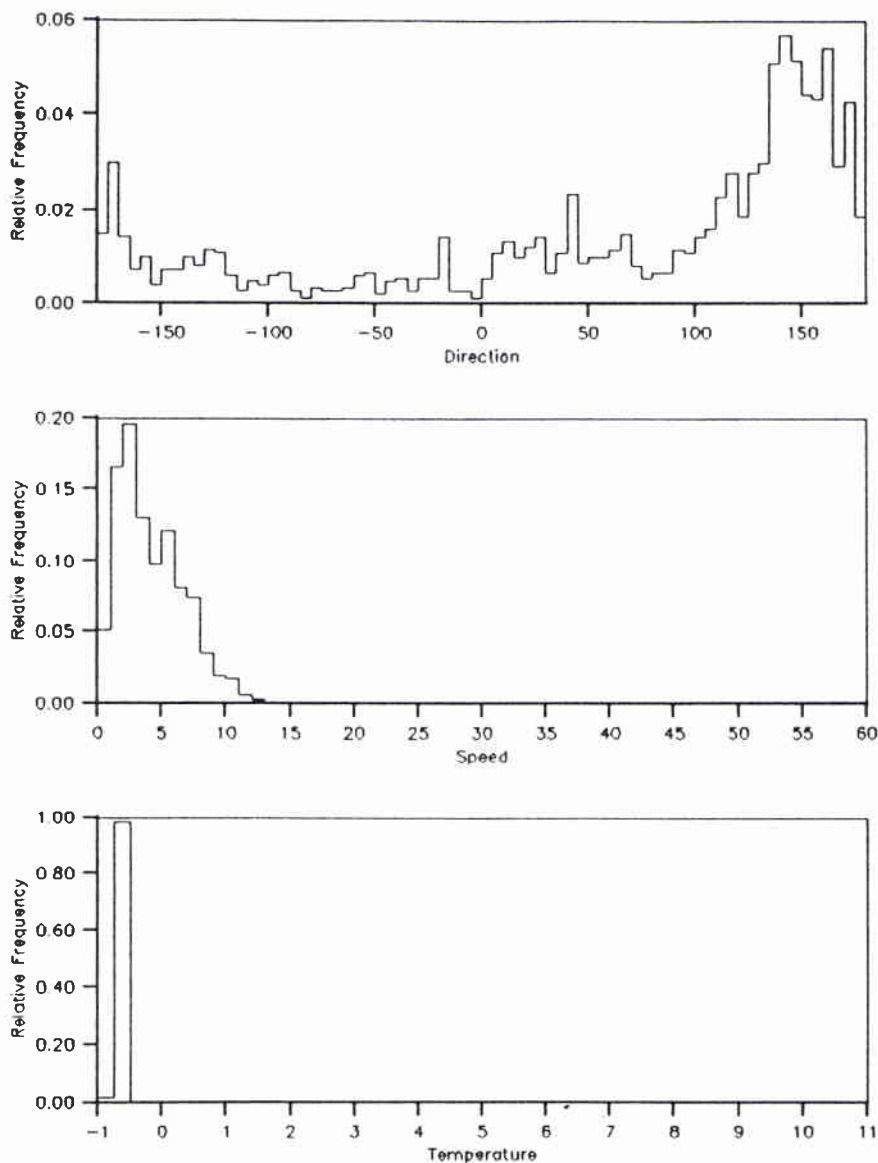


Figure D24

Appendix E

Scatter diagrams

Scatter plots are given of the velocity vectors from the various instruments. The north and east axes are indicated, the radii are labeled in cm/s, and for the current meter data the direction of the parabath is indicated at the bottom of the figure.

- Figures E1–E3: Buoys 1–3 (period 1 and 2).

SACLANTCEN SM-260

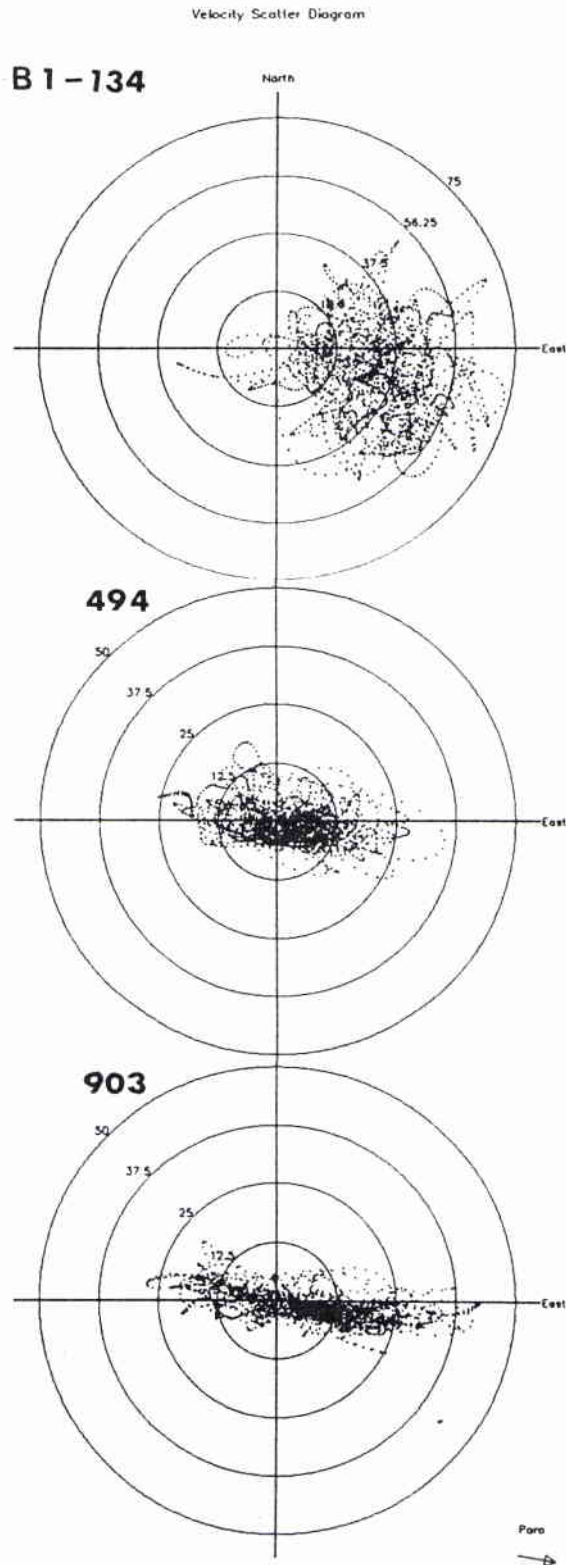


Figure E1

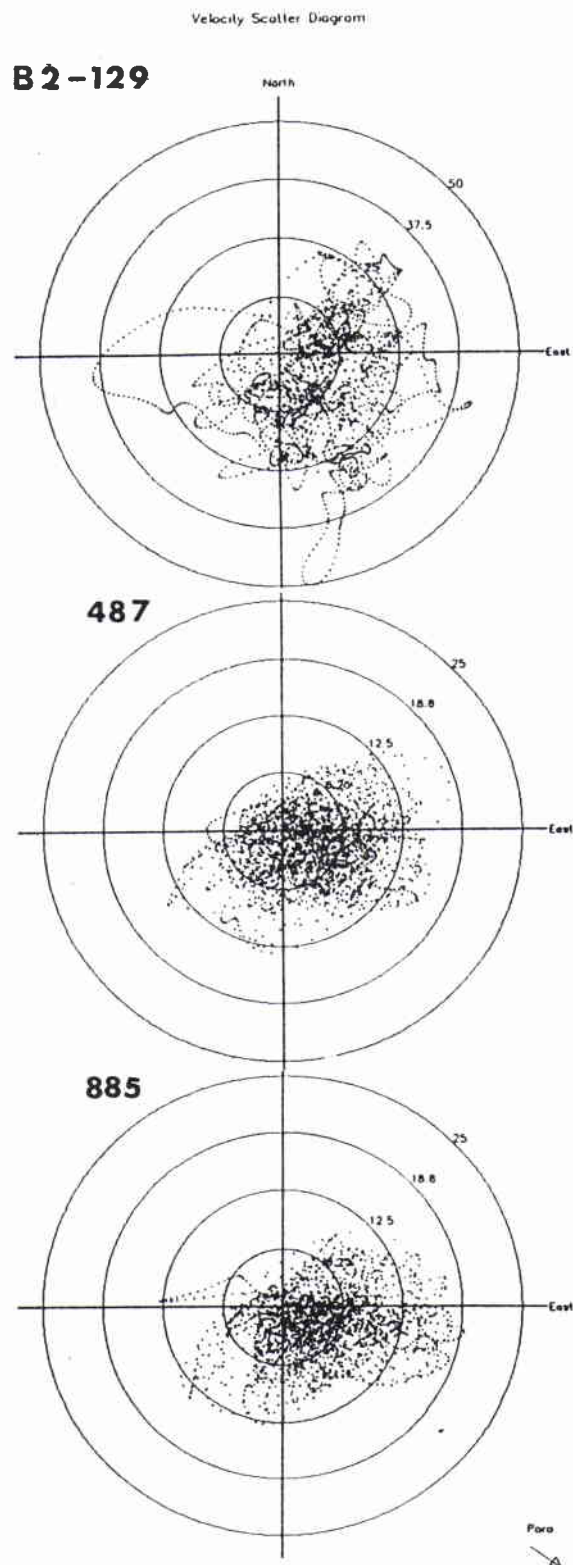


Figure E2

SACLANTCEN SM-260

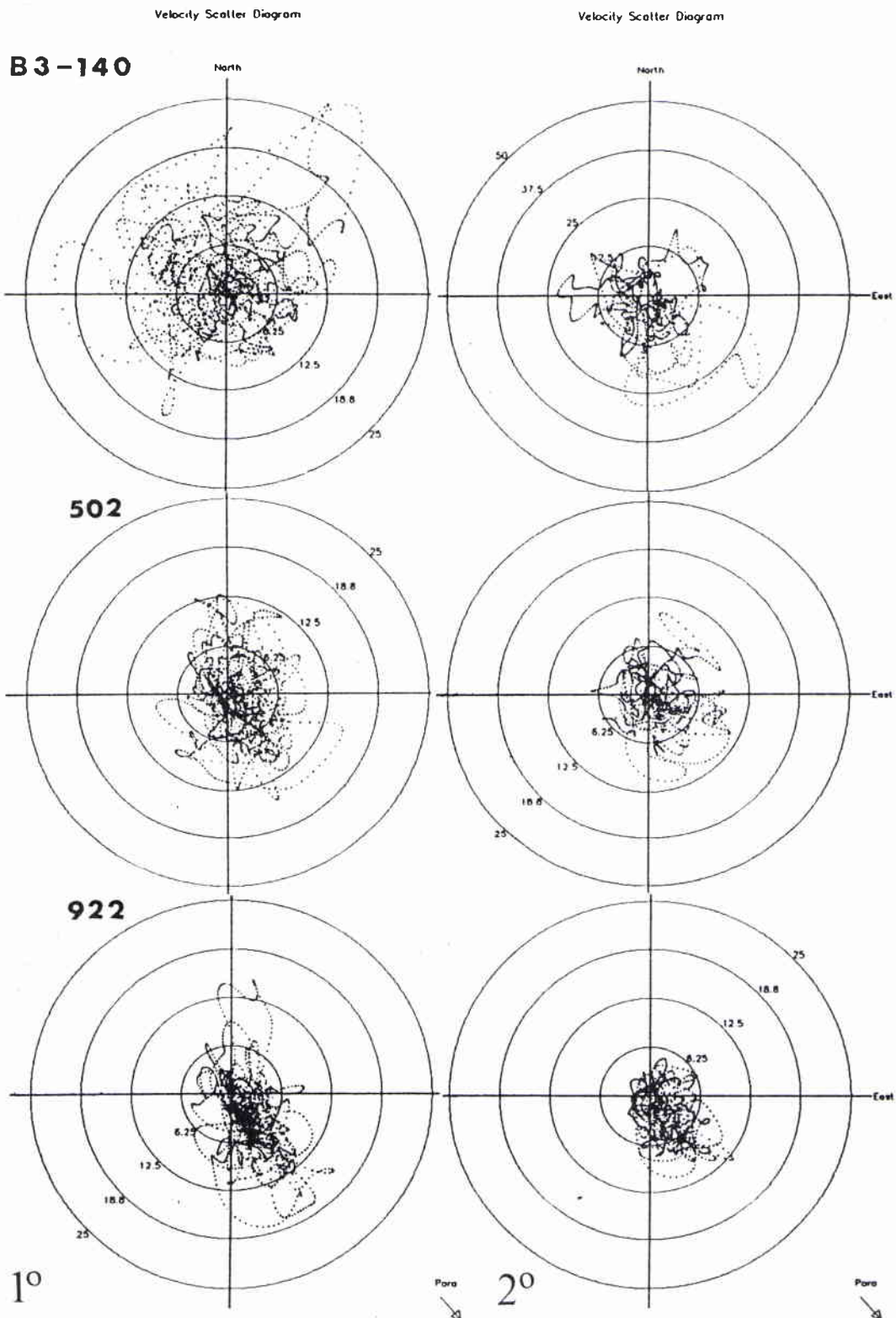


Figure E3

Appendix F

Time-series plots

The velocity data from the current meters were generated from the filtered-rotated (H35ROT file) and given for the parabathic and diabathic components. The time series from the other current meter variables are from the the H35 file. The abscissa is scaled in Julian days, and the reader may find the exact start and end times in the figure header of the statistics or in Table 1. To facilitate visual comparison, the scale of the ordinate is left the same for each variable in all the plots.

- Figures F1–F20: Buoys 1–3 (period 1 and 2).

SACLANTCEN SM-260

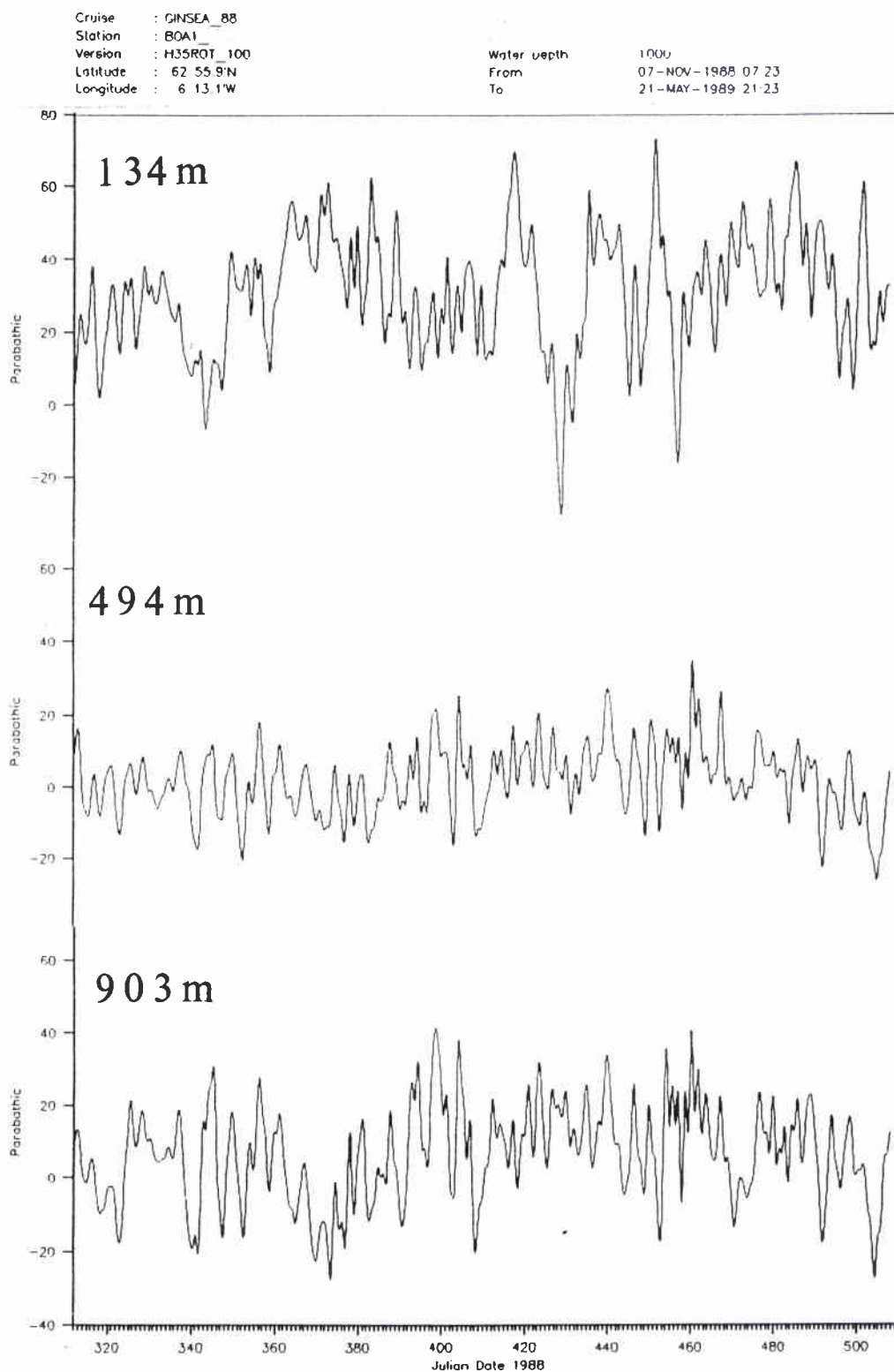


Figure F1

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BOA1
 Version : H35ROT_100
 Latitude : 62 55.9'N
 Longitude : 6 13.1'W

Water Depth : 1000
 From : 07-NOV-1988 07:23
 To : 21-MAY-1989 21:23

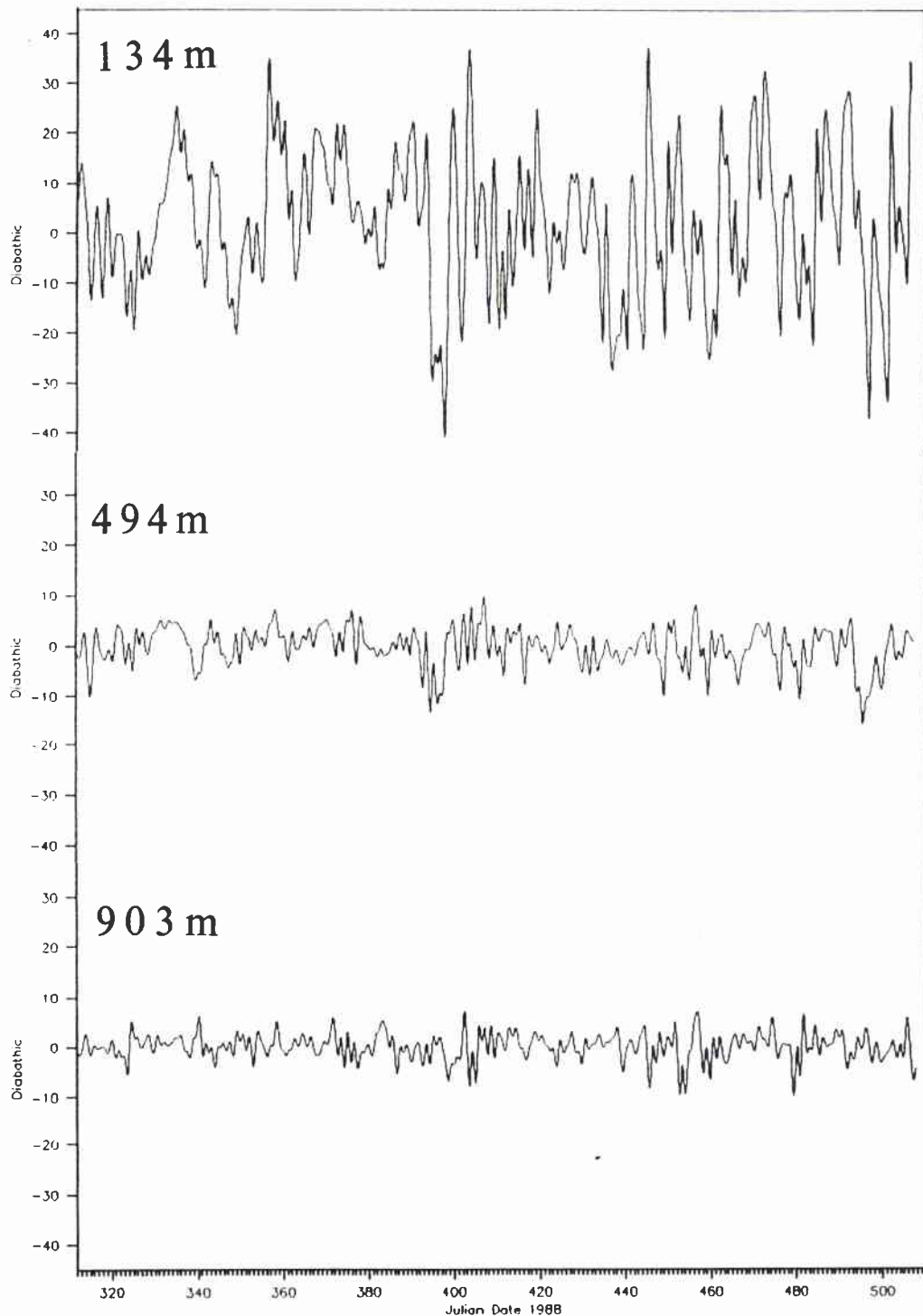


Figure F2

SACLANTCEN SM-260

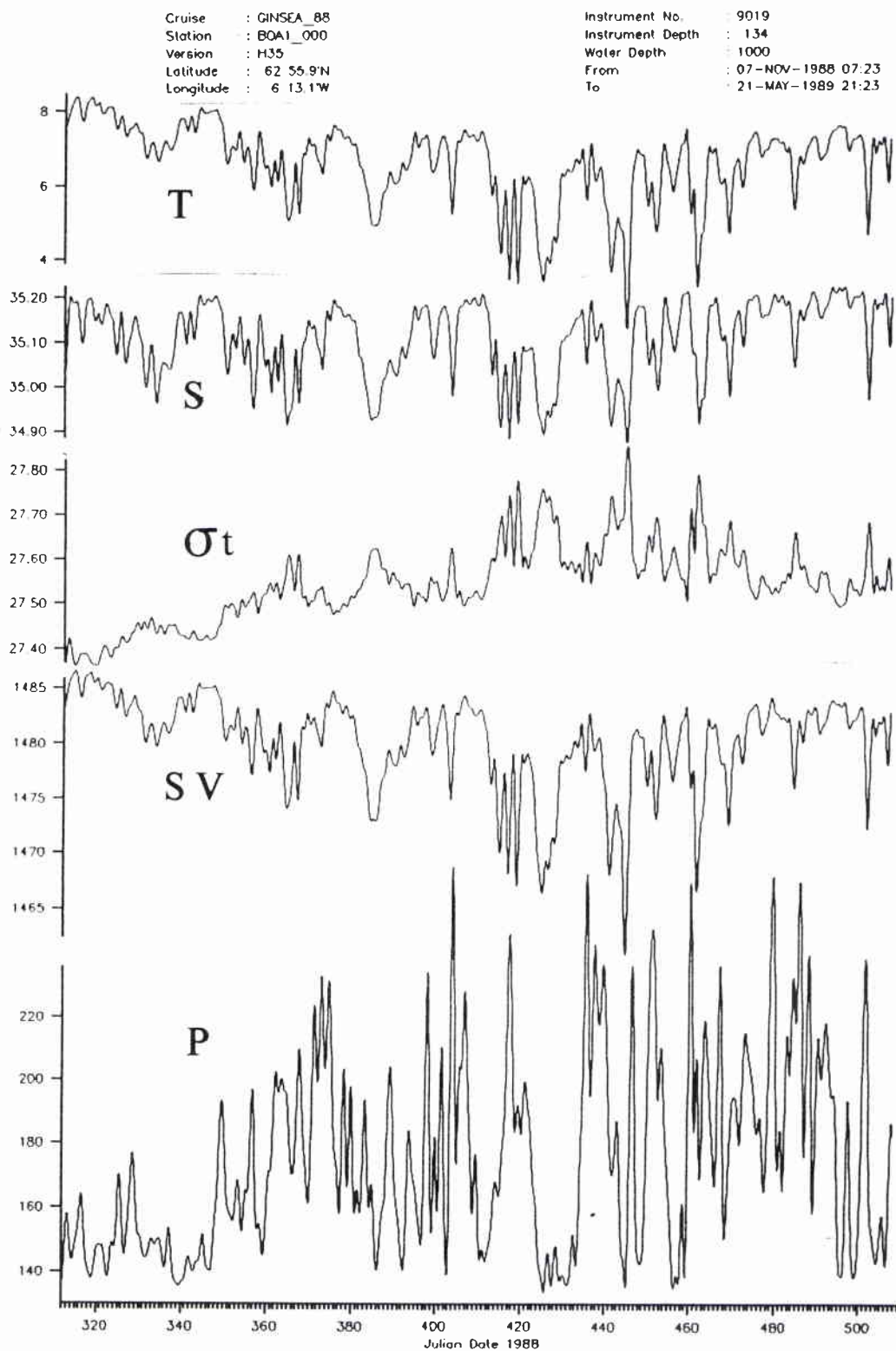


Figure F3

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BOA1_001
 Version : H35
 Latitude : 62 55.9'N
 Longitude : 6 13 1'W

Instrument No. : 9020
 Instrument Depth : 494
 Water Depth : 1000
 From : 07-NOV-1988 07:40
 To : 21-MAY-1989 21:40

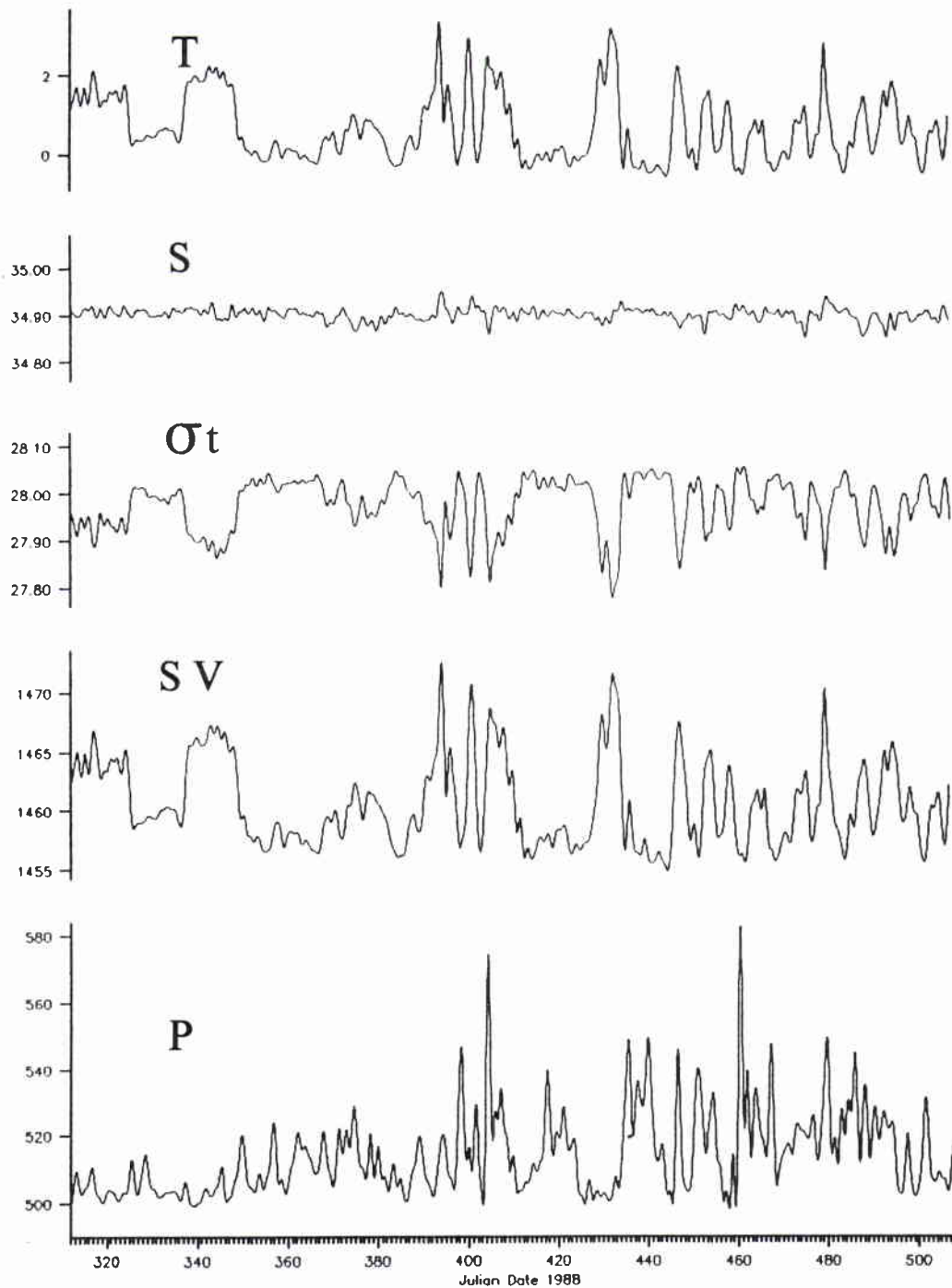


Figure F4

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BOA1_002
 Version : H35
 Latitude : 62 55.9'N
 Longitude : 6 13.1'W

Instrument No. : 9006
 Instrument Depth : 903
 Water Depth : 1000
 From : 07-NOV-1988 07:59
 To : 21-MAY-1989 21:59

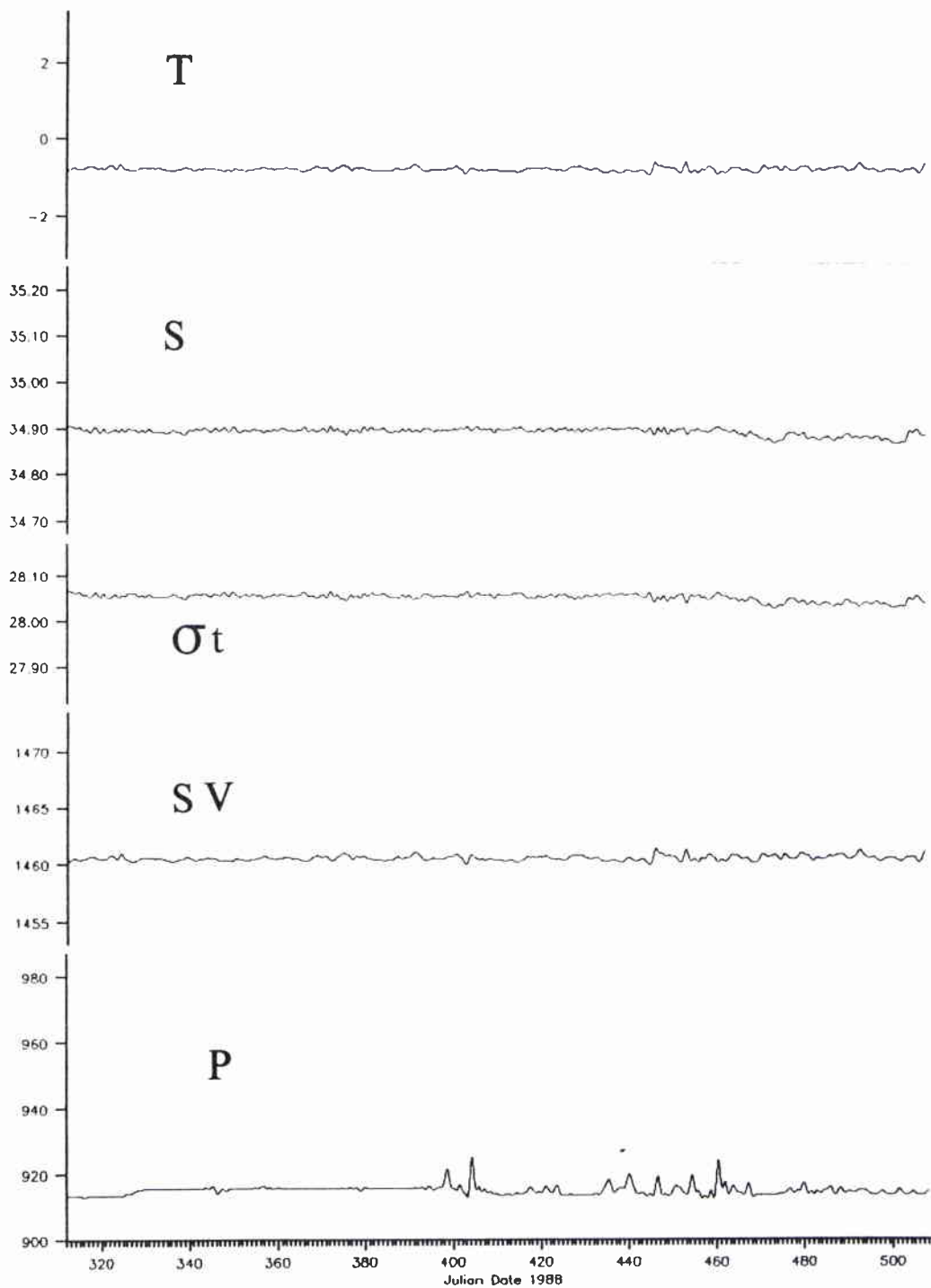


Figure F5

SACLANTCEN SM-260

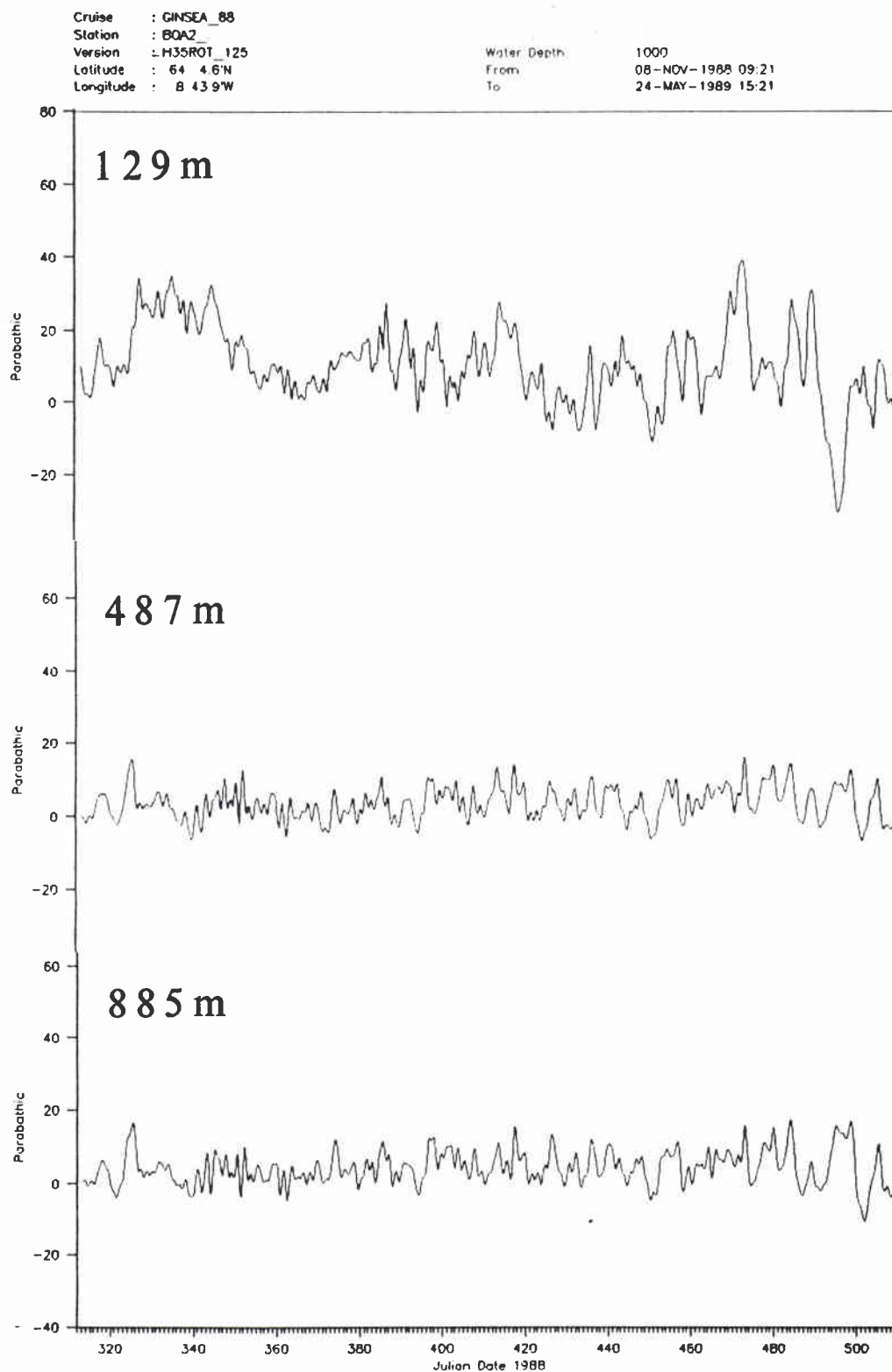


Figure F6

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : B0A2
 Version : H35P01_125
 Latitude : 54 46 N
 Longitude : 8 43 9 W

Water Depth : 1000
 From : 08-NOV-1988 09:21
 To : 24-MAY-1989 15:21

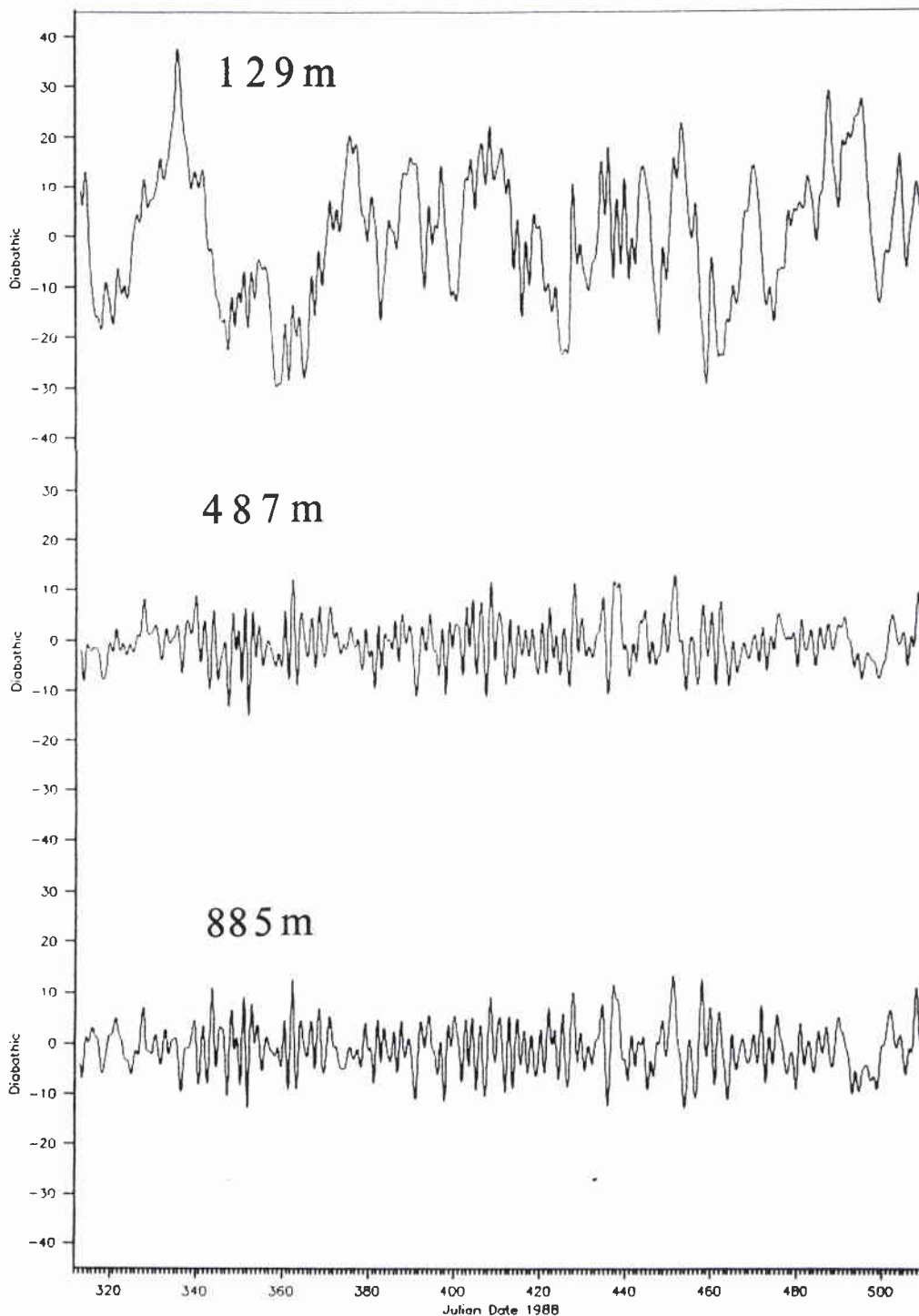


Figure F7

SACLANTCEN SM-260

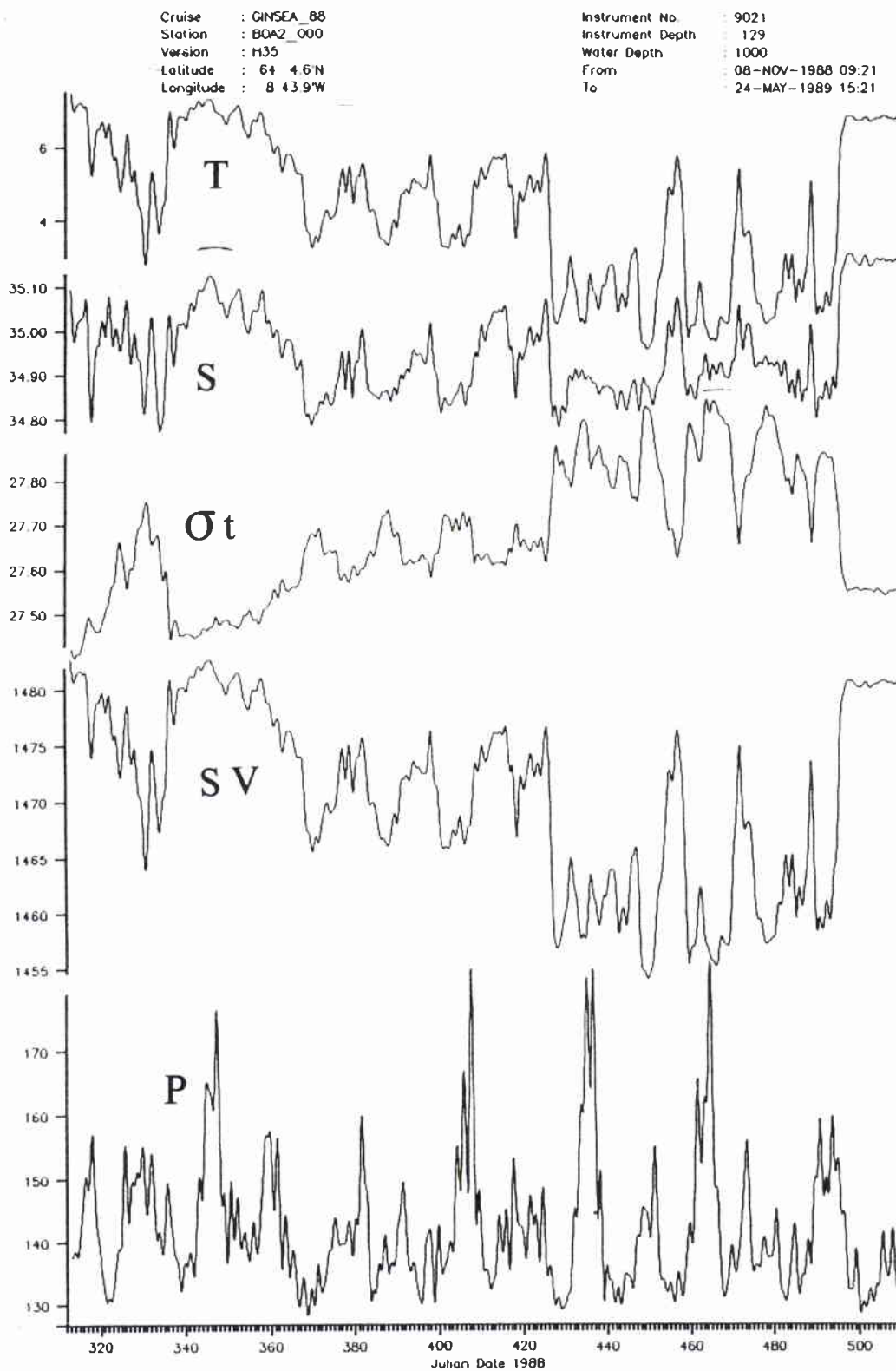


Figure F8

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BOA2_001
 Version : H35
 Latitude : 64 46'N
 Longitude : 8 43'9"W

Instrument No. : 9022
 Instrument Depth : 487
 Water Depth : 1000
 From : 08-NOV-1988 08:34
 To : 24-MAY-1989 14:34

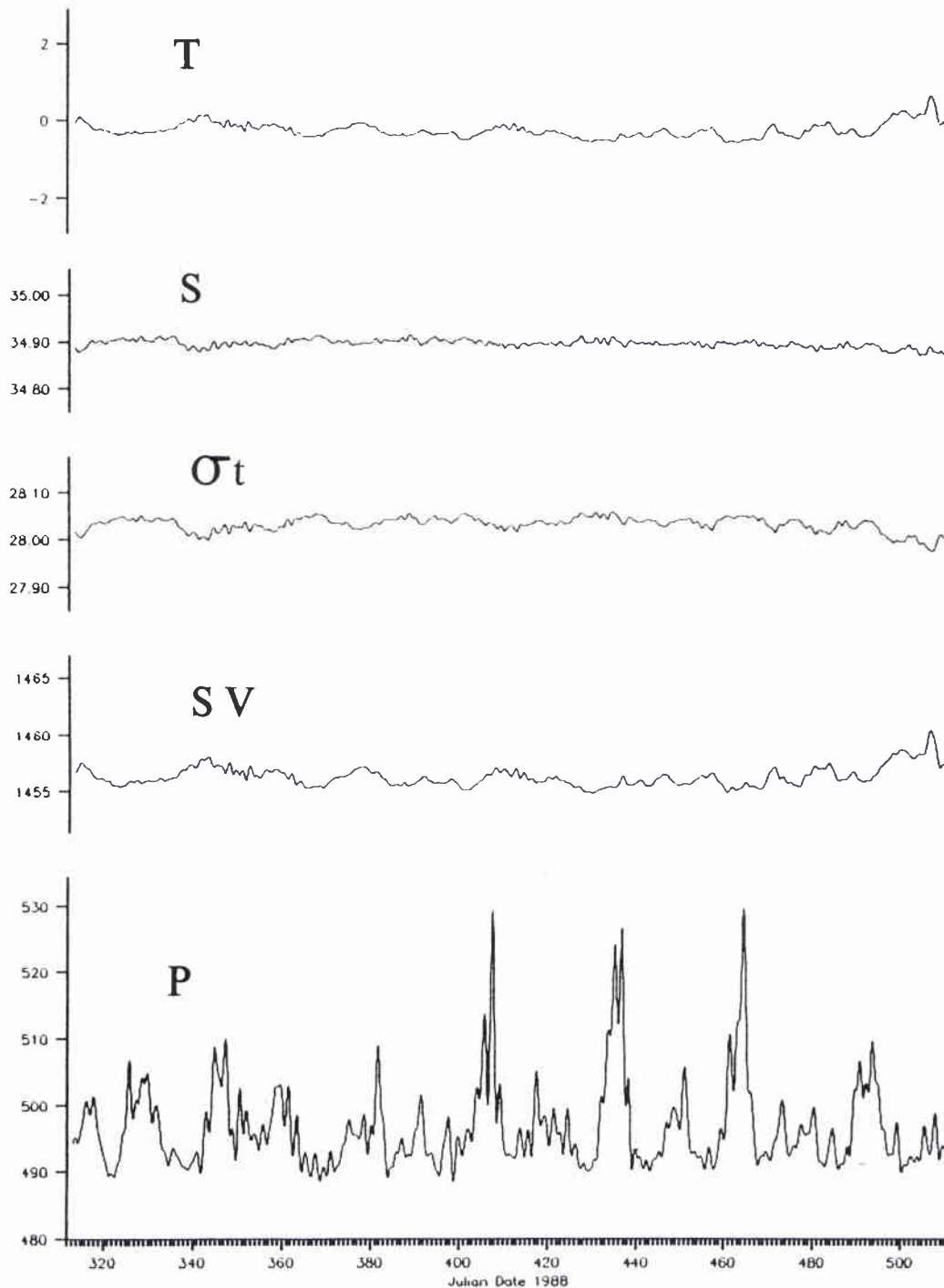


Figure F9

SACLANTCEN SM-260

Cruise : GINSEA 88
 Station : BOA2_002
 Version : H35
 Latitude : 64 4.6'N
 Longitude : 8 43.9'W

Instrument No. : 9007
 Instrument Depth : 885
 Water Depth : 1000
 From : 08-NOV-1988 09:04
 To : 24-MAY-1989 15:04

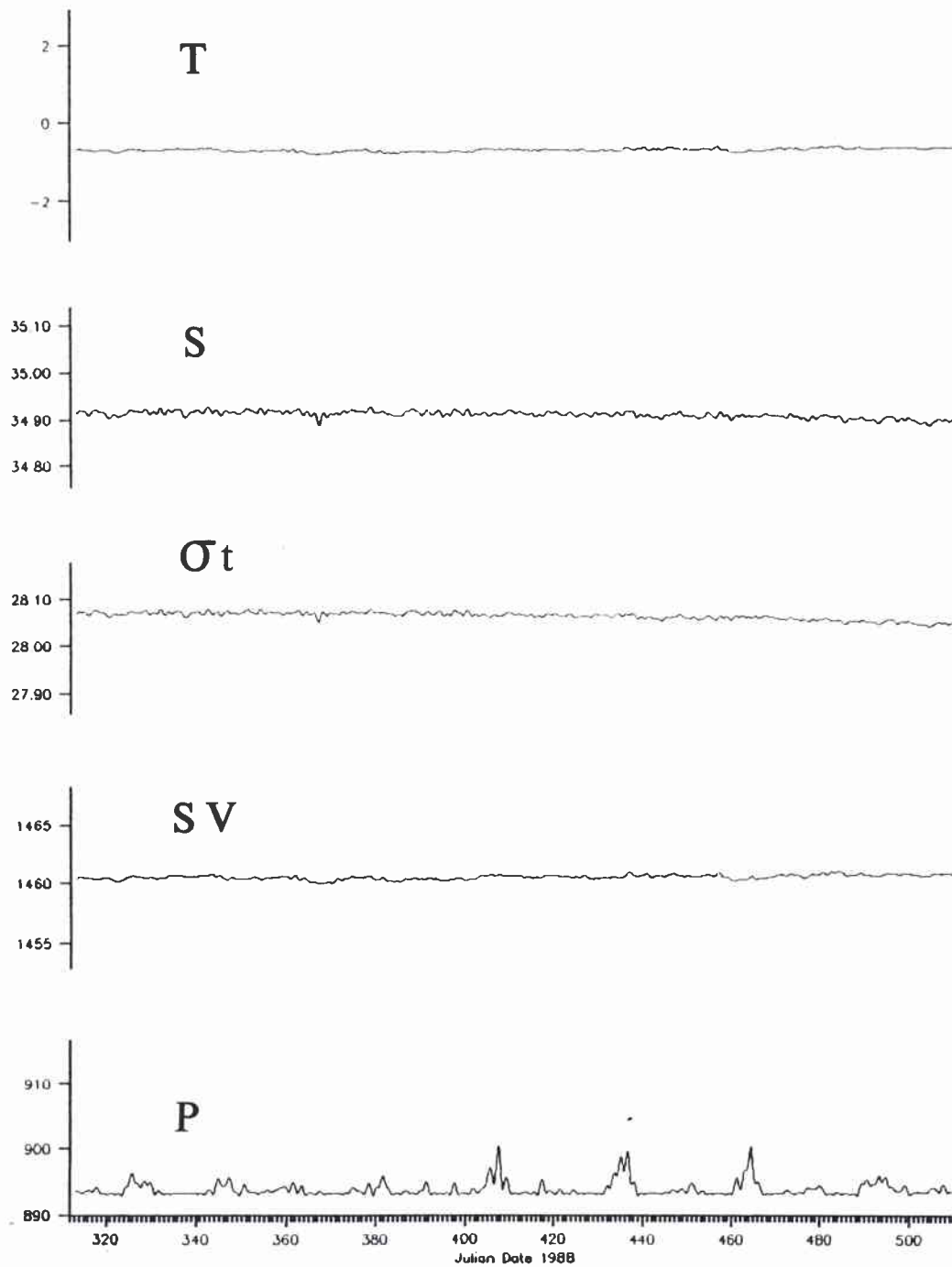


Figure F10

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BOAJ_
 Version : H35R01_140
 Latitude : 66 6.2'N
 Longitude : 11 19.6'W

Water Depth : 998
 From : 10-NOV-1988 07:59
 To : 24-MAY-1989 23:59

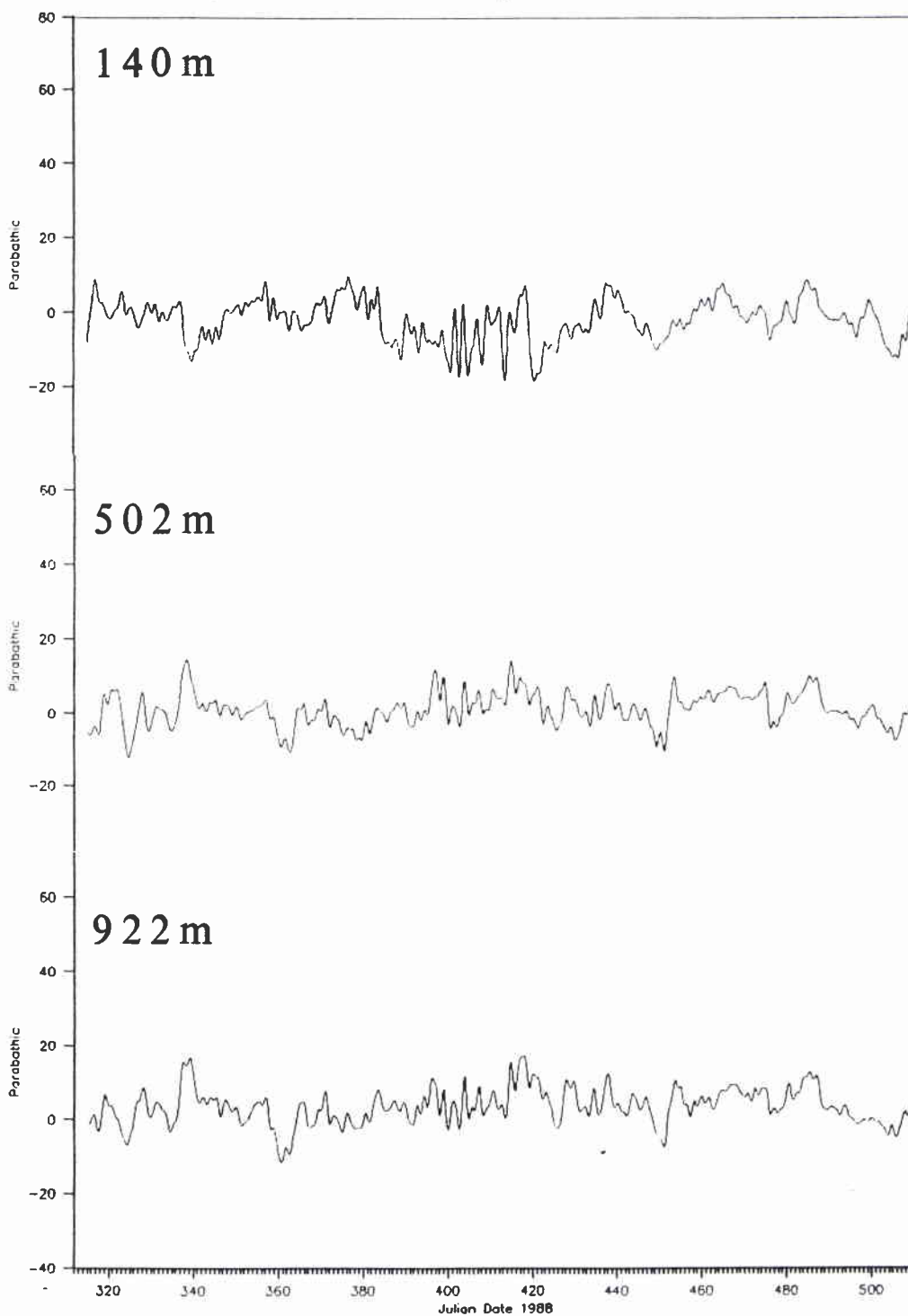


Figure F11

SACLANTCEN SM-260

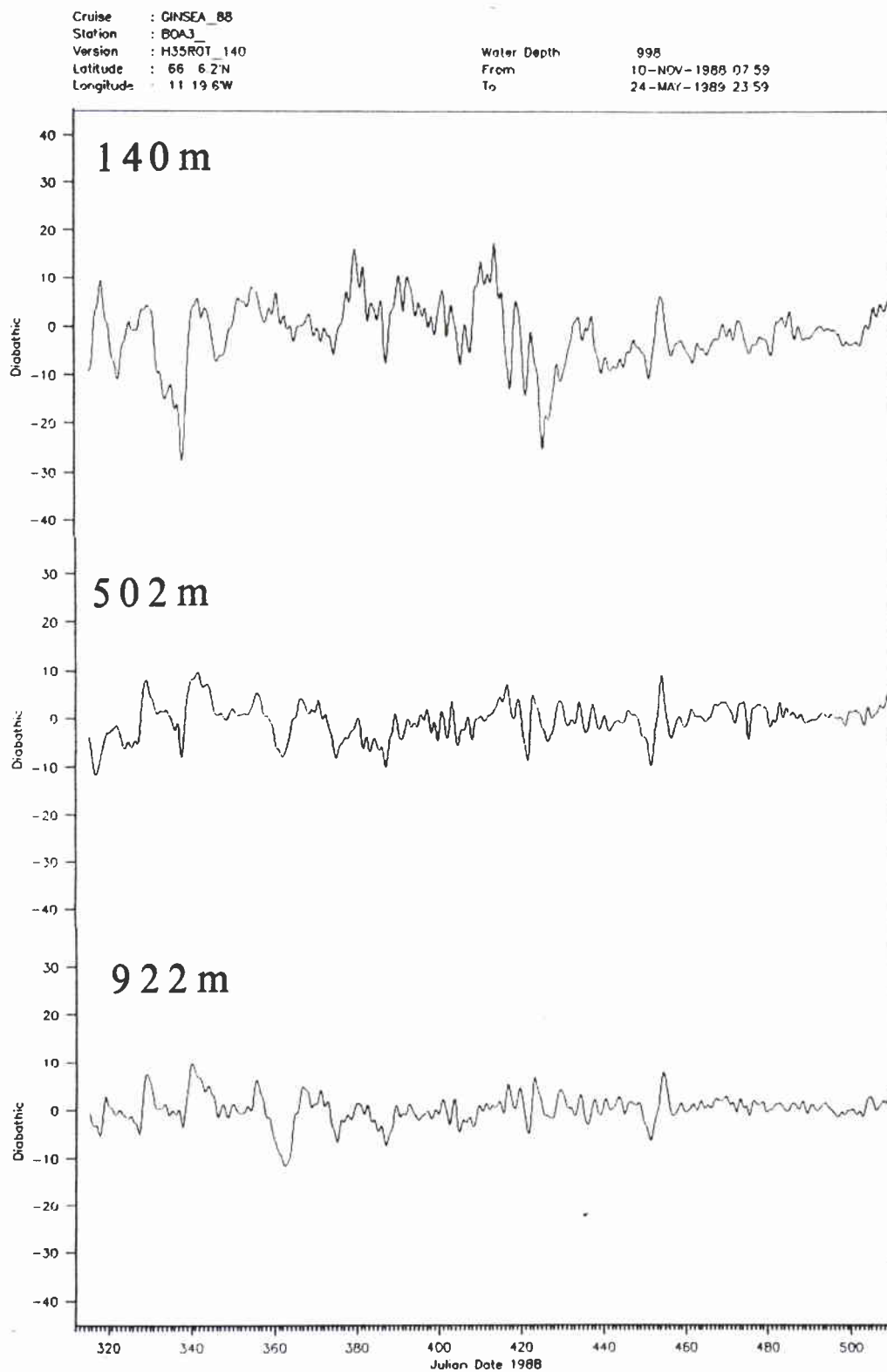


Figure F12

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BOAJ_000
 Version : H35
 Latitude : 66 6.6'N
 Longitude : 11 19 6'W

Instrument No. : 9024
 Instrument Depth : 140
 Water Depth : 898
 From : 10-NOV-1988 07:59
 To : 24-MAY-1989 23:59

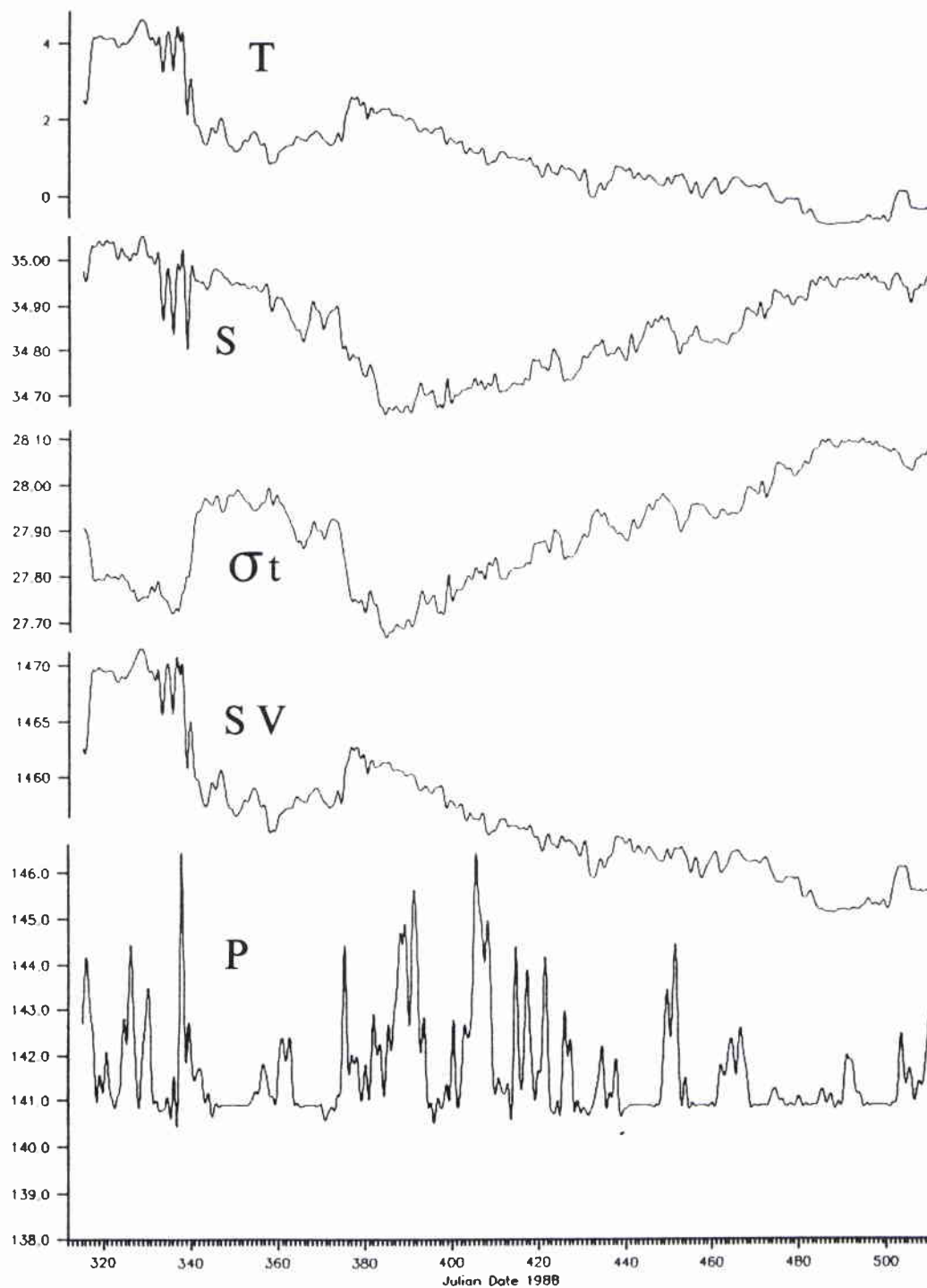


Figure F13

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BDAJ_001
 Version : H35
 Latitude : 66 6.6 N
 Longitude : 11 19.6 W

Instrument No. : 9026
 Instrument Depth : 502
 Water Depth : 998
 From : 10-NOV-1988 07:20
 To : 24-MAY-1989 23:20

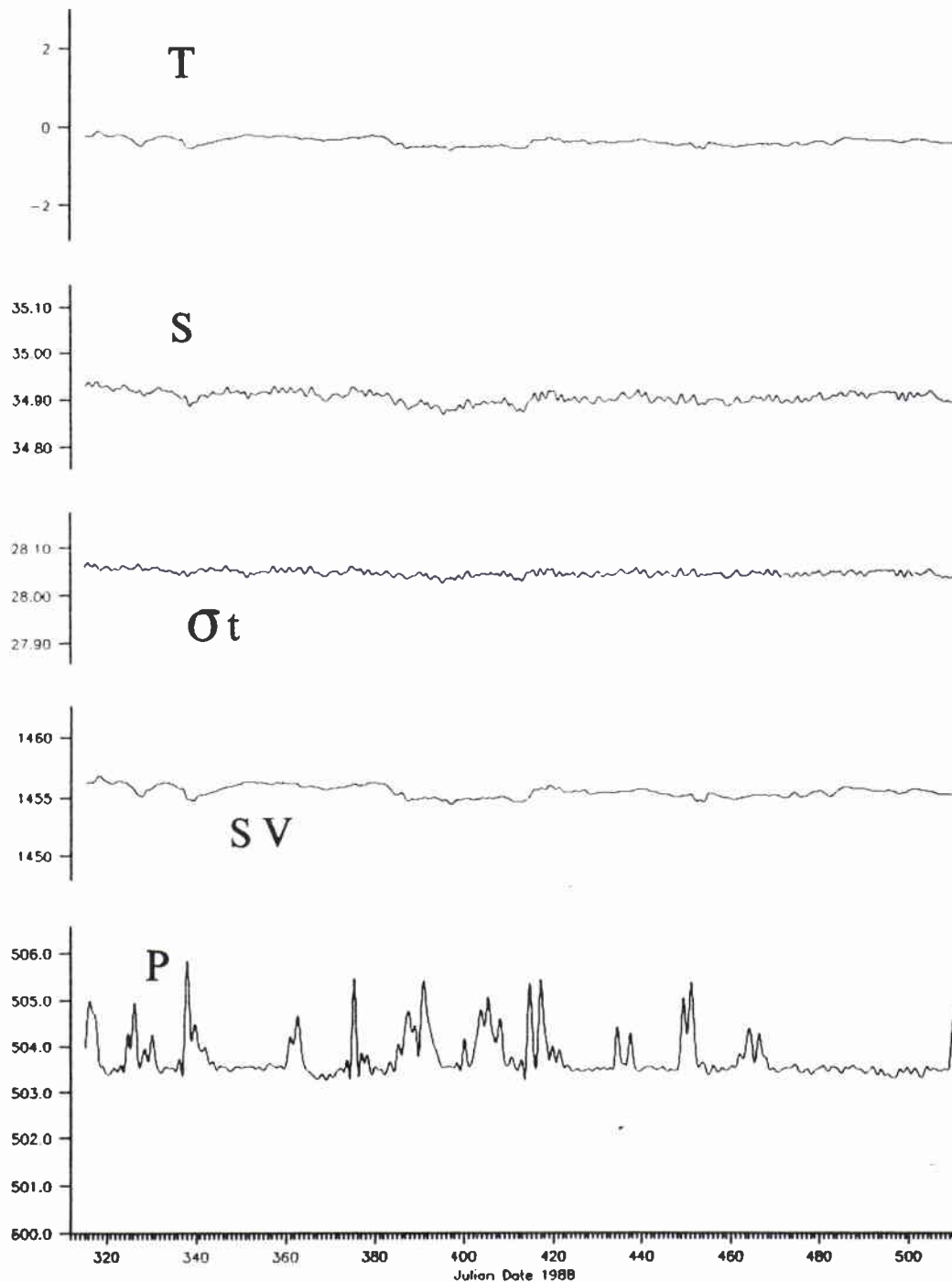


Figure F14

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BOA3_002
 Version : H35
 Latitude : 66 5.6'N
 Longitude : 11 19.6'W

Instrument No. : 9008
 Instrument Depth : 922
 Water Depth : 998
 From : 10-NOV-1988 08:09
 To : 24-MAY-1989 22:09

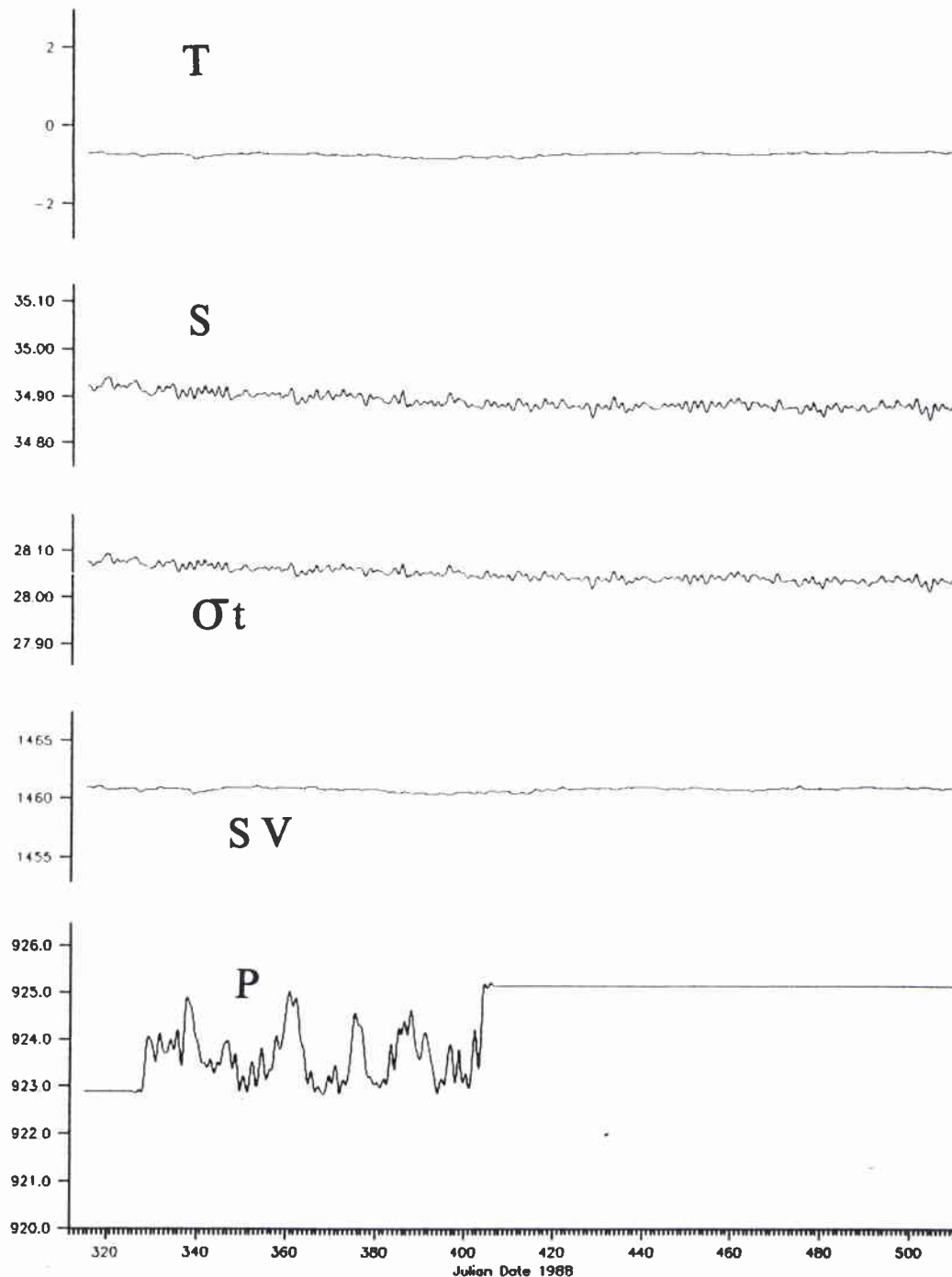


Figure F15

SACLANTCEN SM-260

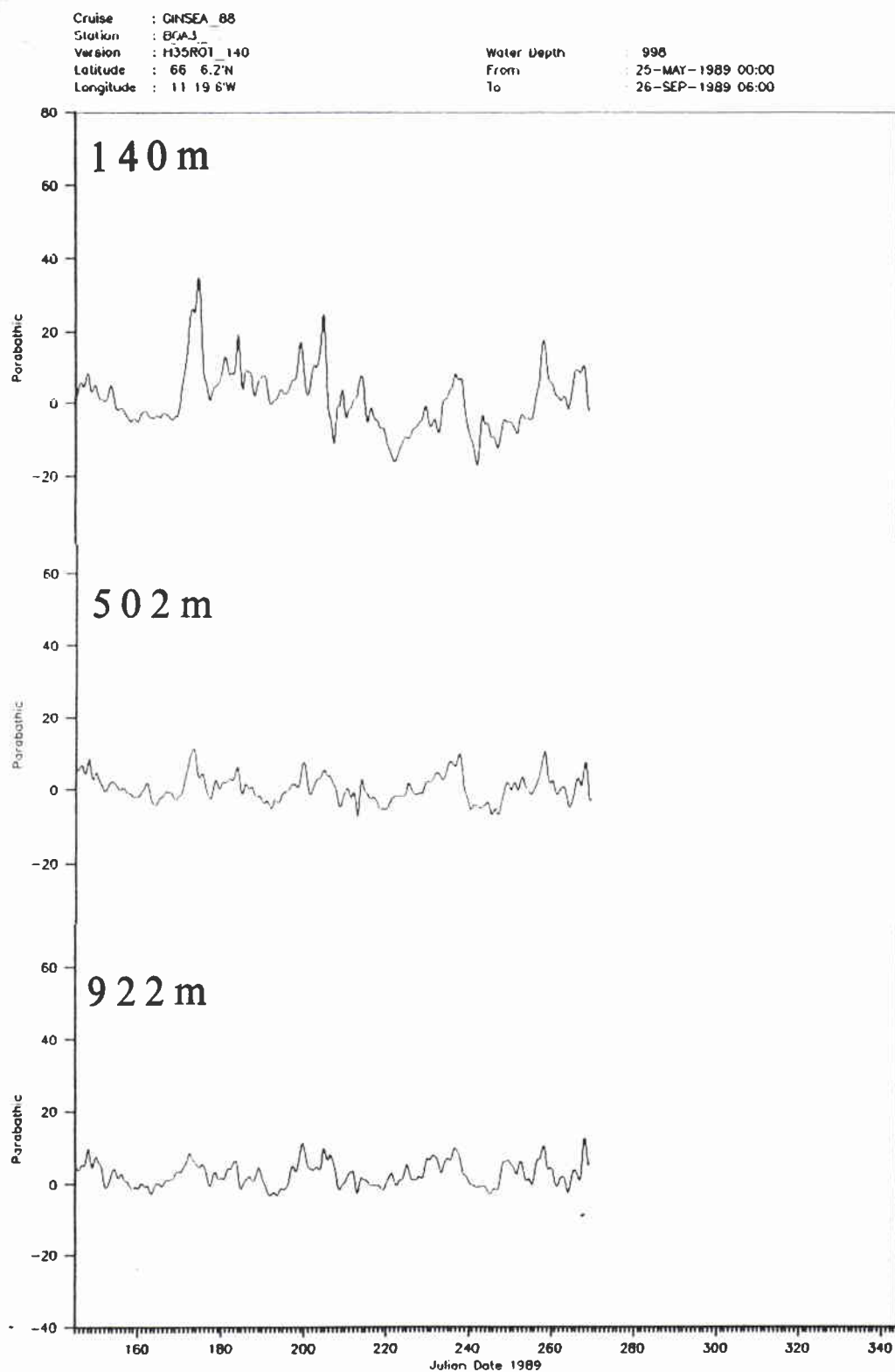


Figure F16

SACLANTCEN SM-260

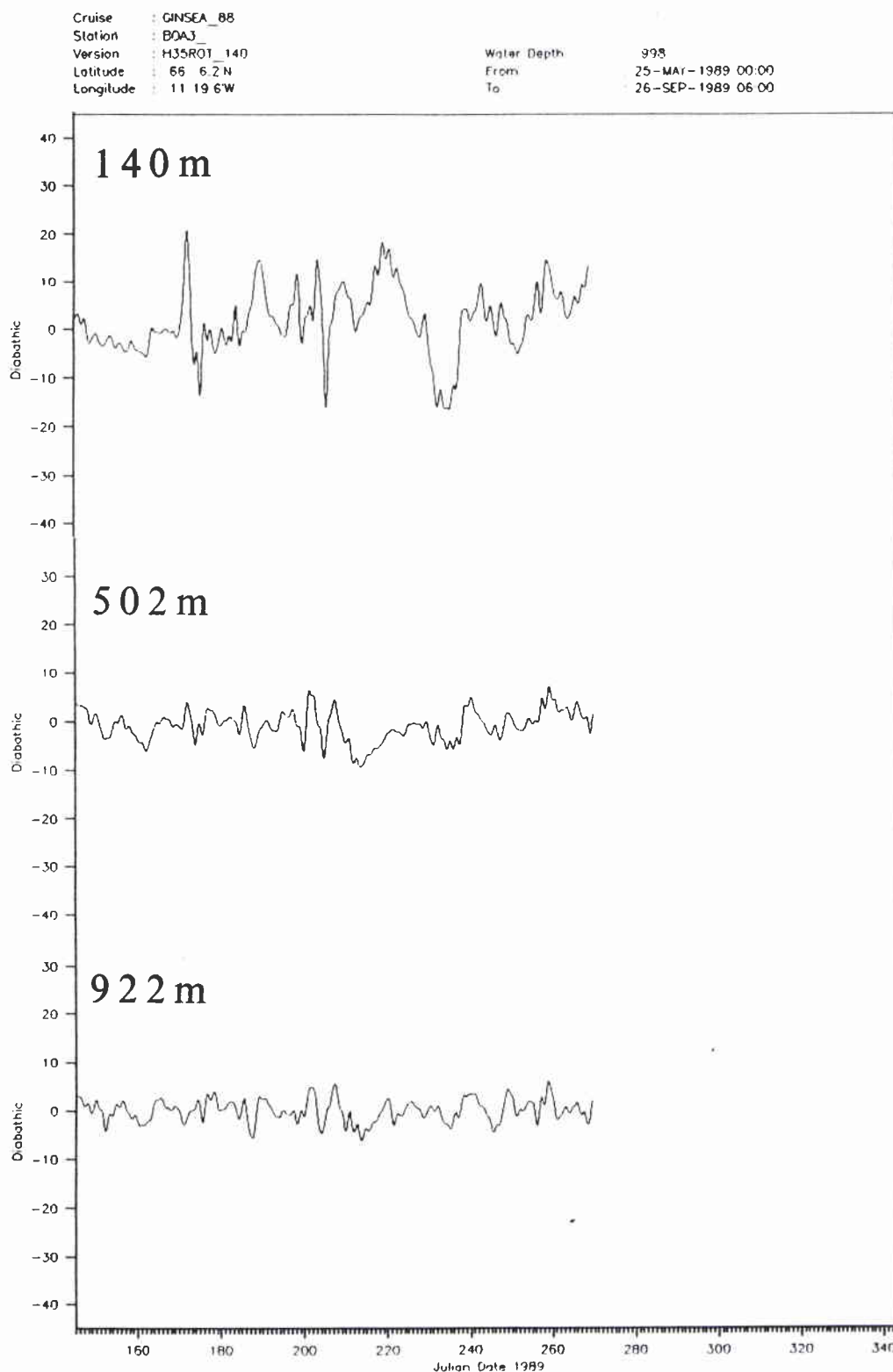


Figure F17

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : 80A3_000
 Version : H35
 Latitude : 66 6.6'N
 Longitude : 11 19.6'W

Instrument No. : 9024
 Instrument Depth : 140
 Water Depth : 998
 From : 25-MAY-1989 00:00
 To : 26-SEP-1989 06:00

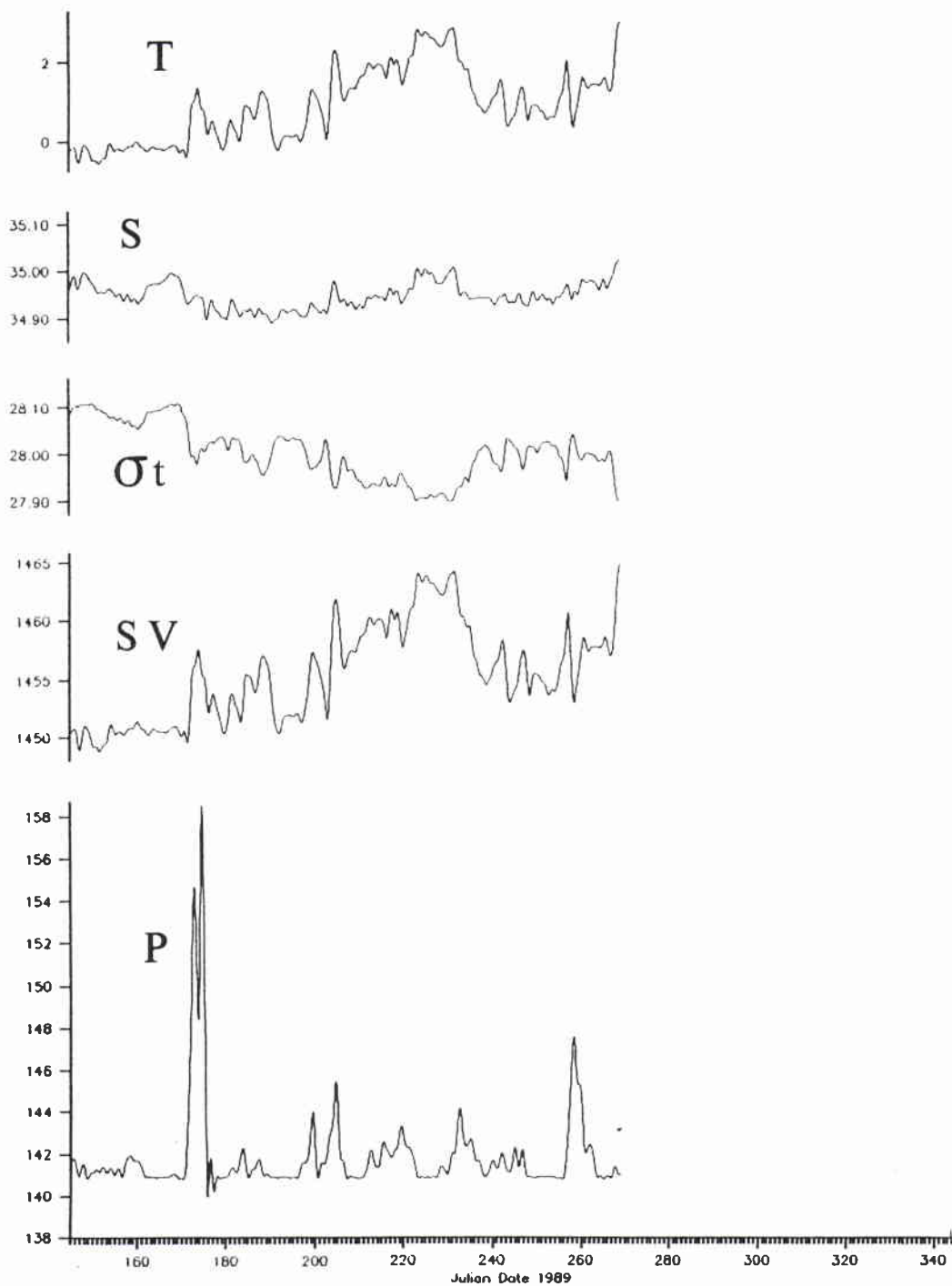


Figure F18

SACLANTCEN SM-260

Cruise : GINSEA_88
 Station : BOA3_001
 Version : H35
 Latitude : 65 6.5 N
 Longitude : 11 19.6 W

Instrument No. : 9026
 Instrument Depth : 502
 Water Depth : 998
 From : 25-MAY-1989 00:00
 To : 26-SEP-1989 14:00

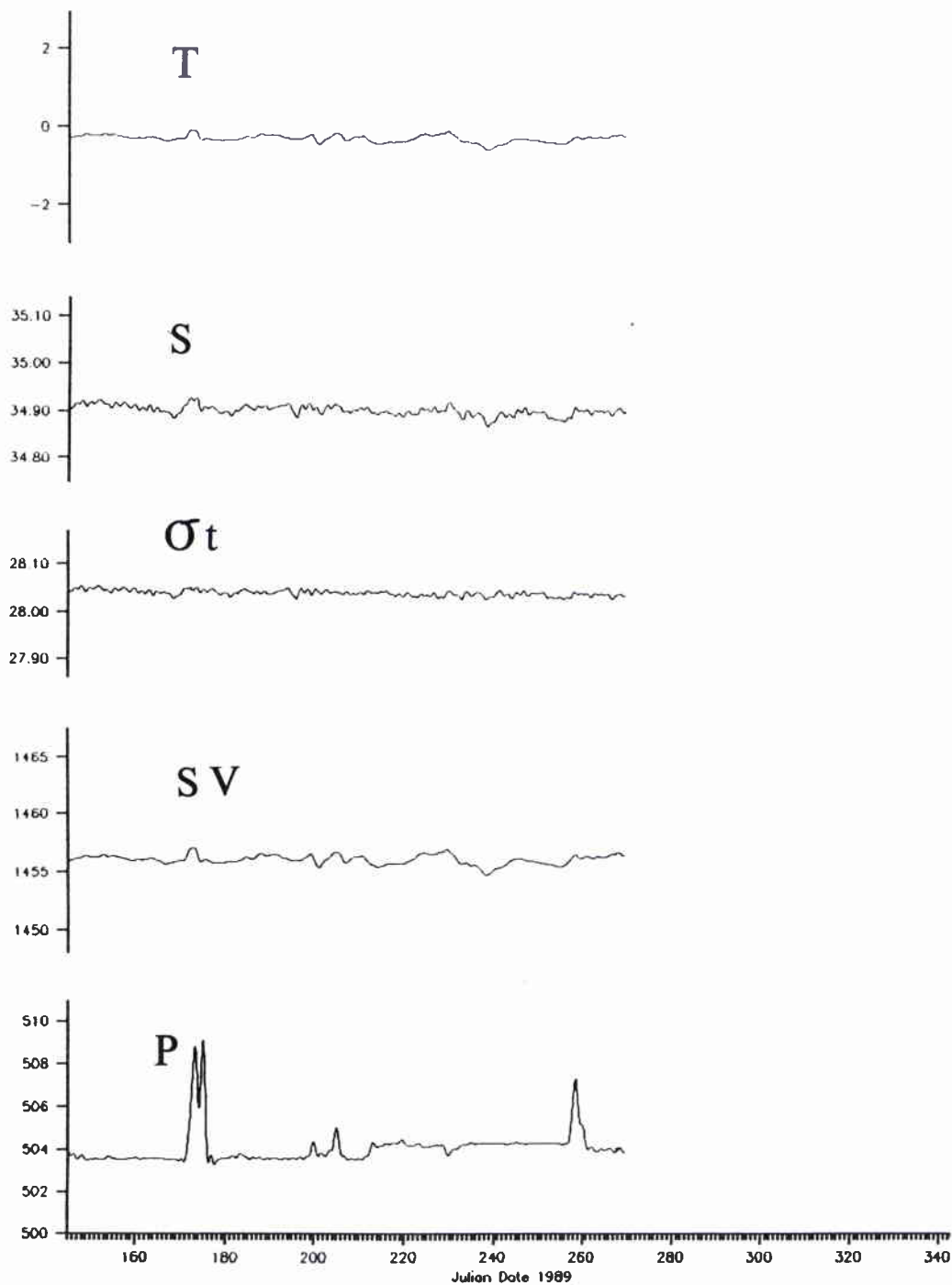
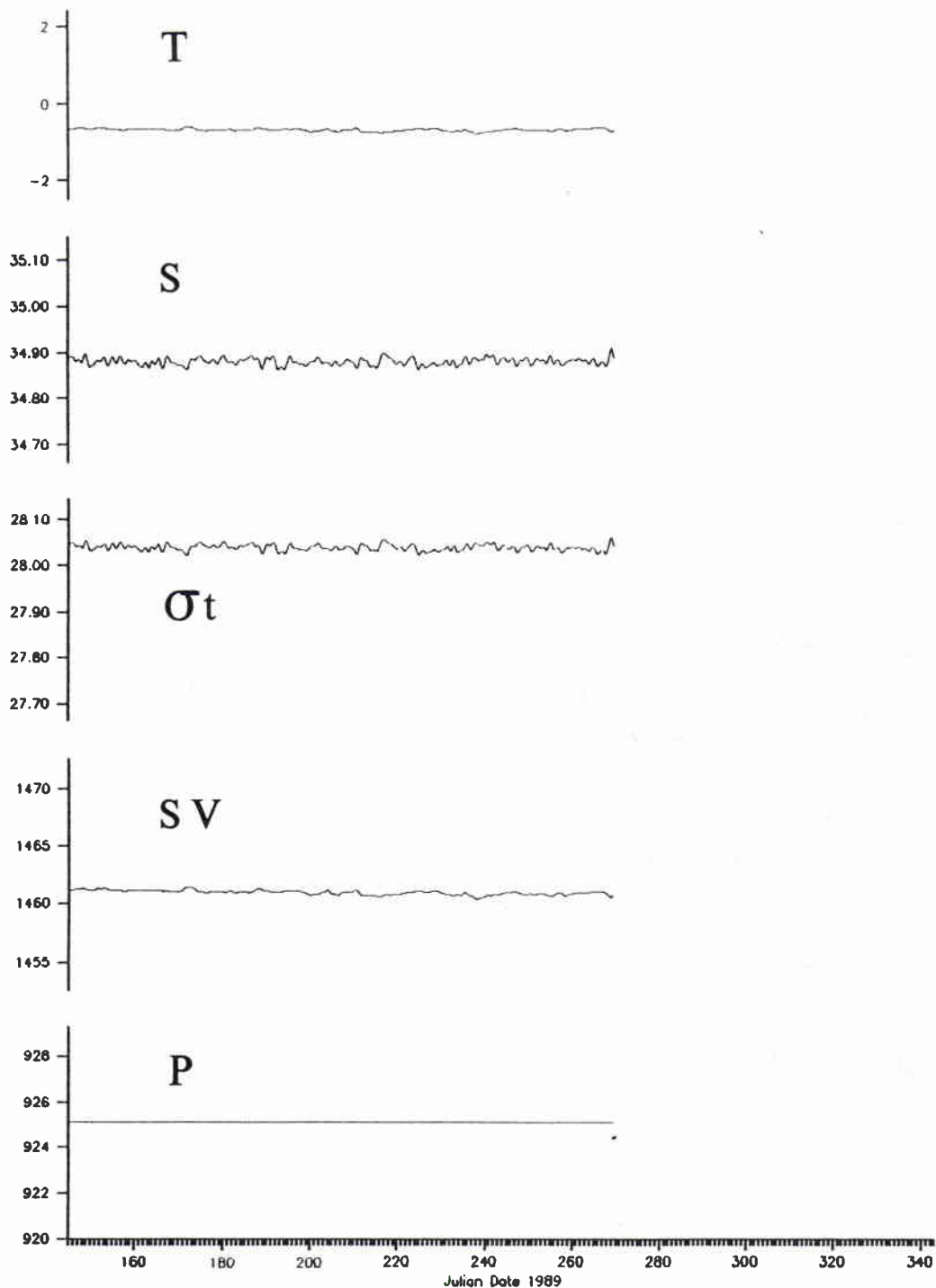


Figure F10

SACLANTCEN SM-260

Cruise : GINSEA_88
Station : BOAJ_002
Version : H35
Latitude : 66 5.6'N
Longitude : 11 19.6'W

Instrument No. : 9008
Instrument Depth : 922
Water Depth : 998
From : 25-MAY-1989 00:00
To : 26-SEP-1989 12:00

**Figure F20**

SACLANTCEN SM-260

Appendix G

Progressive vector diagrams

The progressive vector diagrams from the H35 file are given. Tick marks indicate the start of every day. Note that arrows indicating both true north and the parabathic direction are given.

- Figures G1-G4: Buoys 1-3 (period 1 and 2).

B1

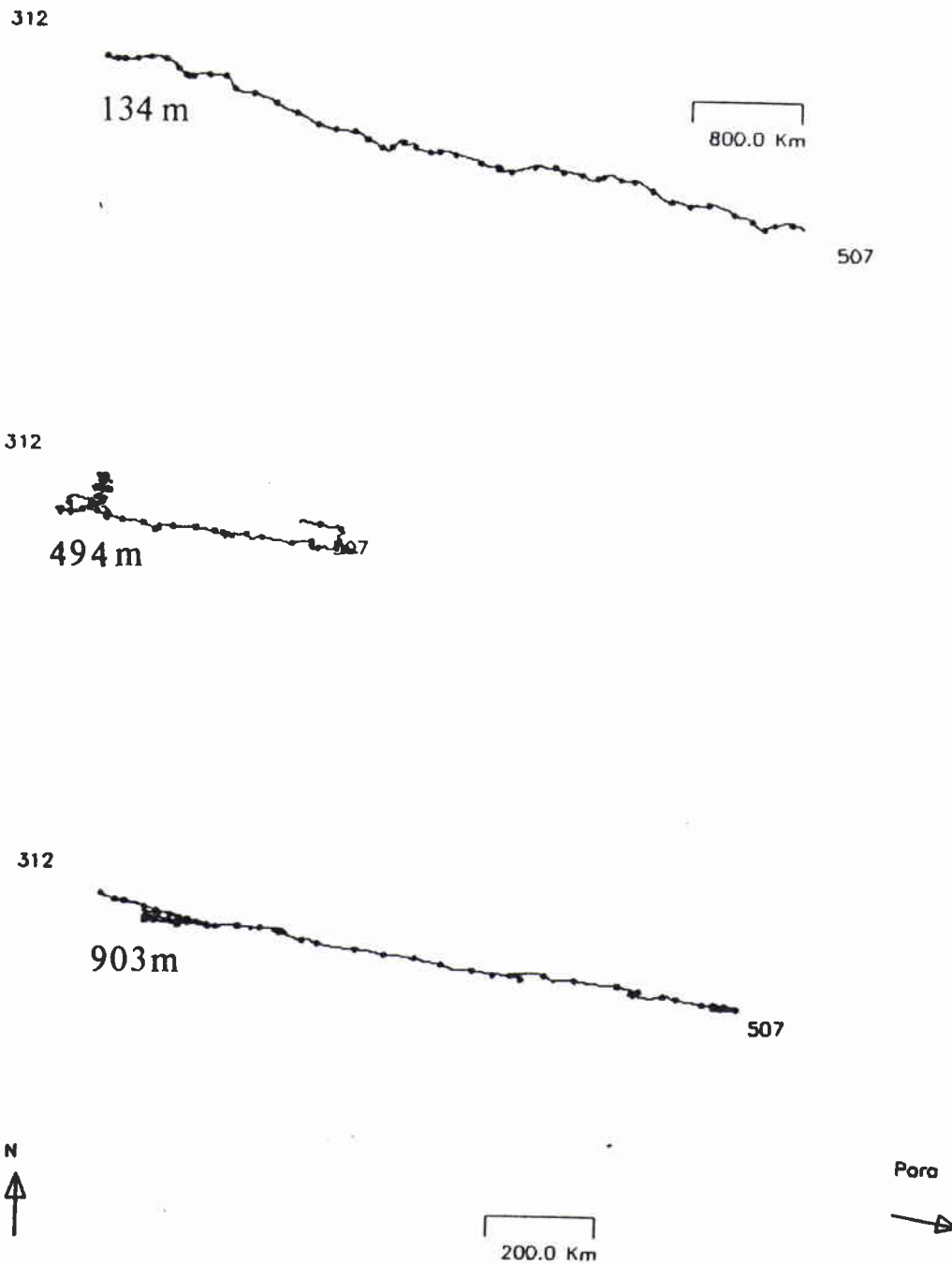


Figure G1

SACLANTCEN SM-260

B2

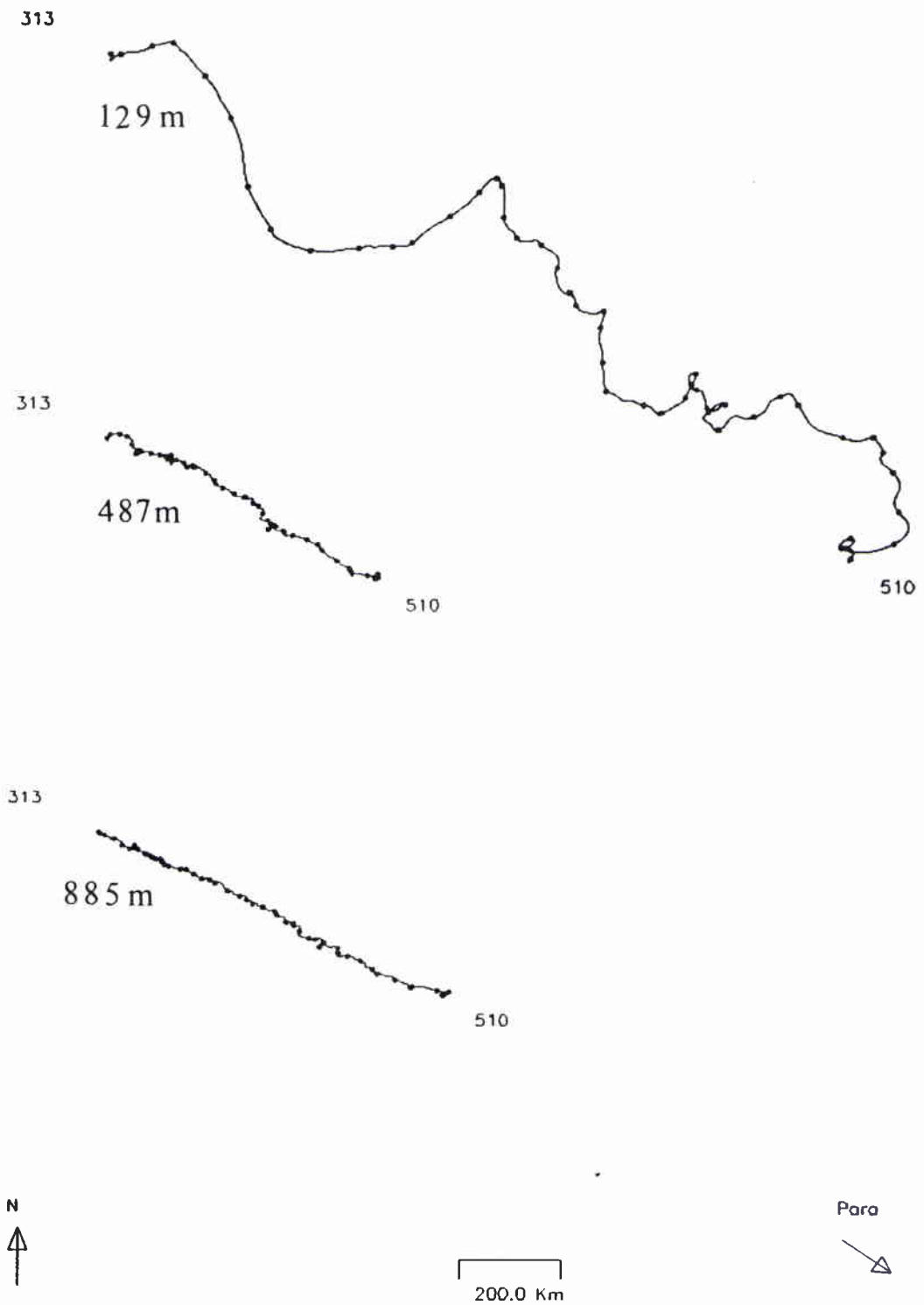


Figure G2

SACLANTCEN SM-260

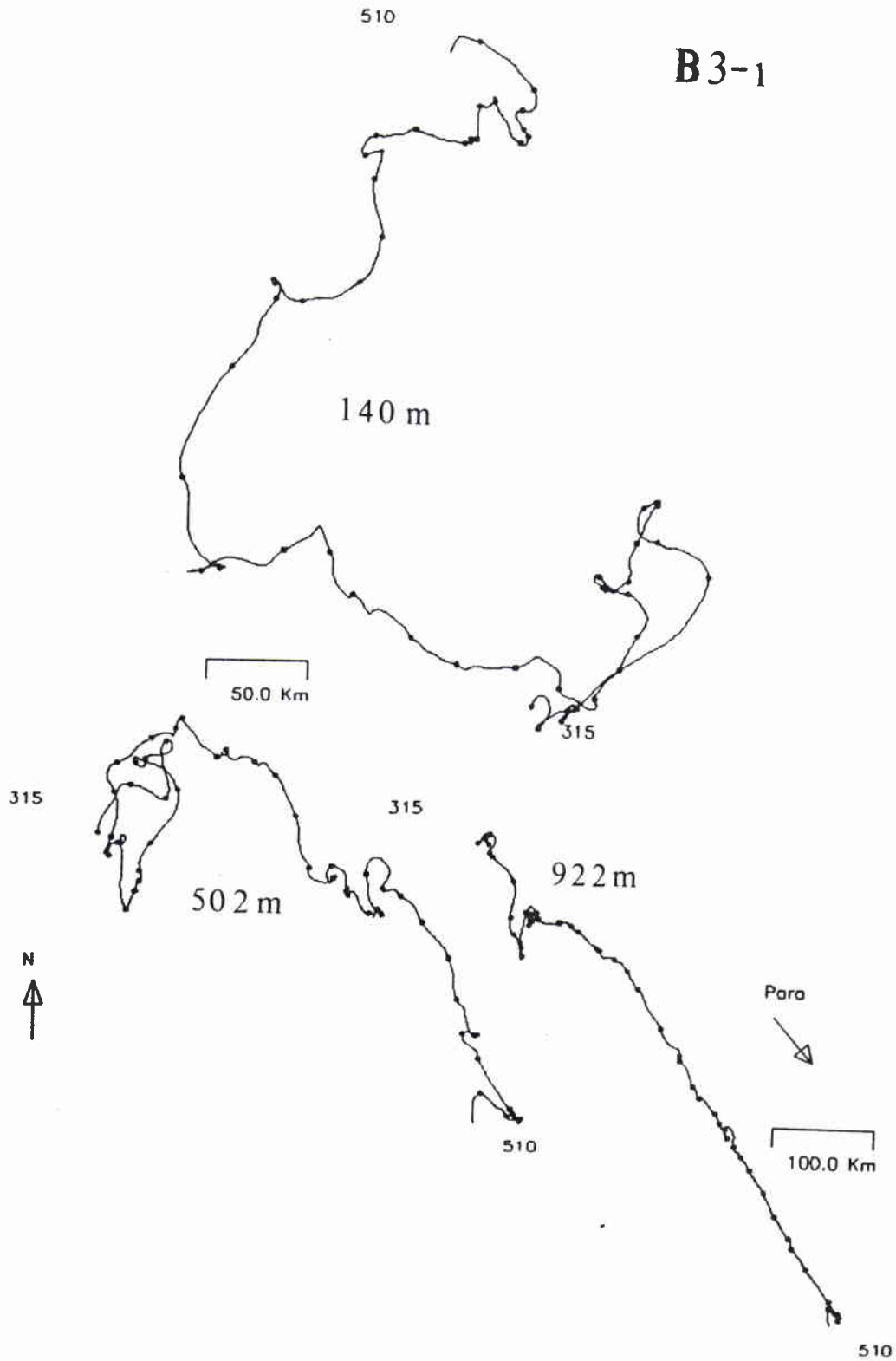


Figure G3

SACLANTCEN SM-260

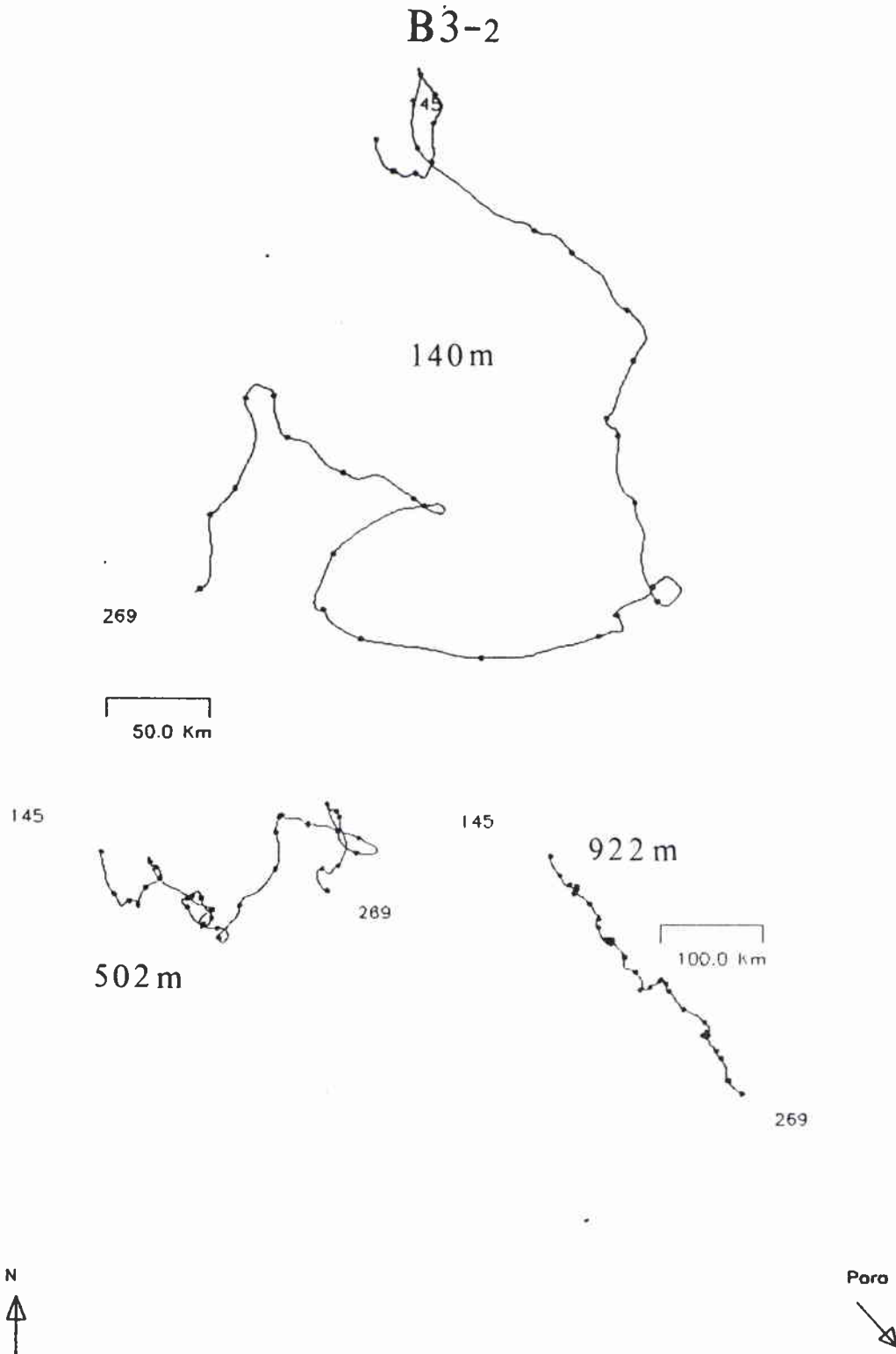


Figure G4

Appendix H

Stick diagrams

The stick diagrams were produced from a 12 h sub-sampling of the the filtered (H35) current meter data.

- Figures H1–H4: Buoys 1–3 (period 1 and 2),

SACLANTCEN SM-260

B 1

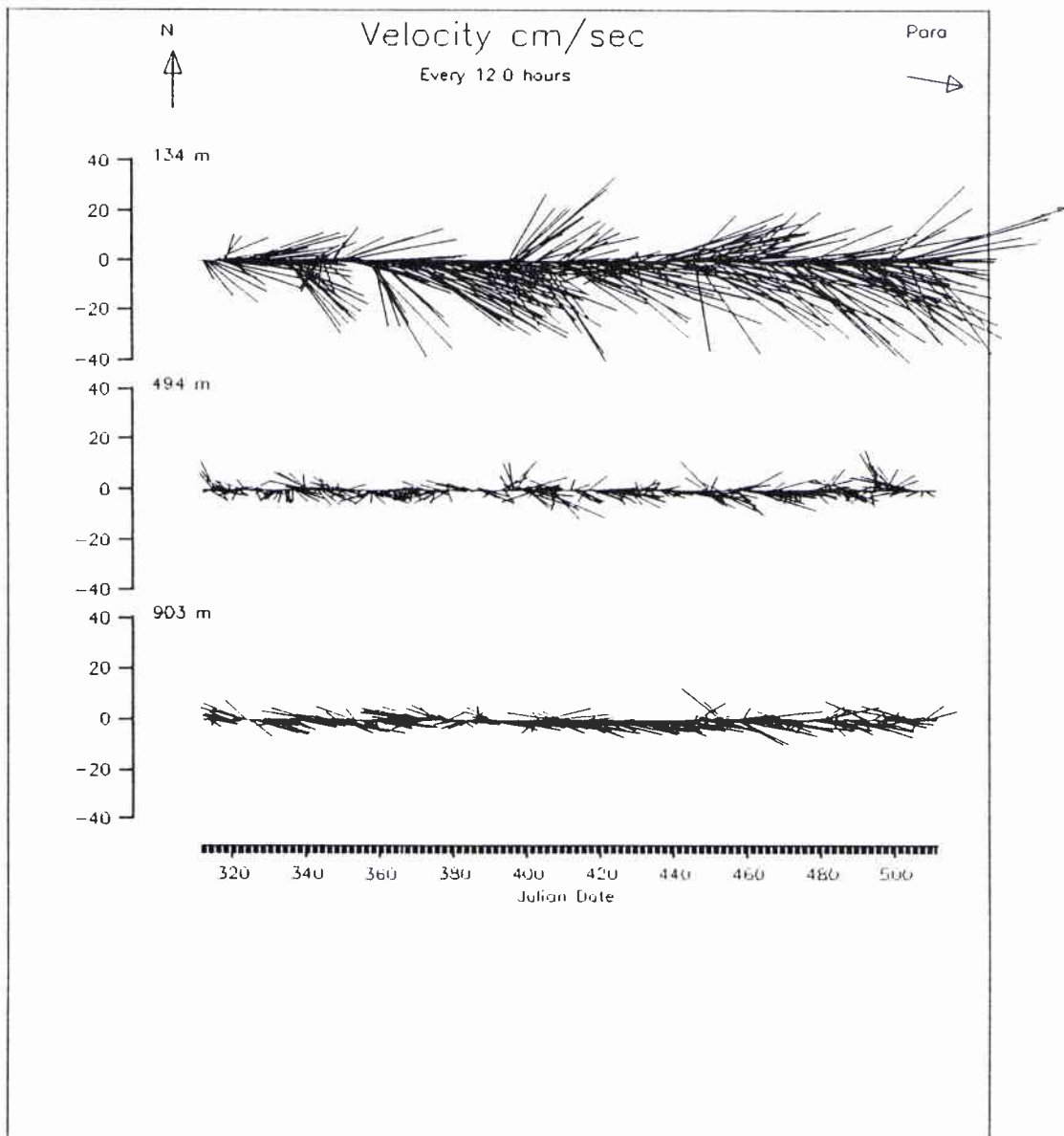


Figure H1

B 2

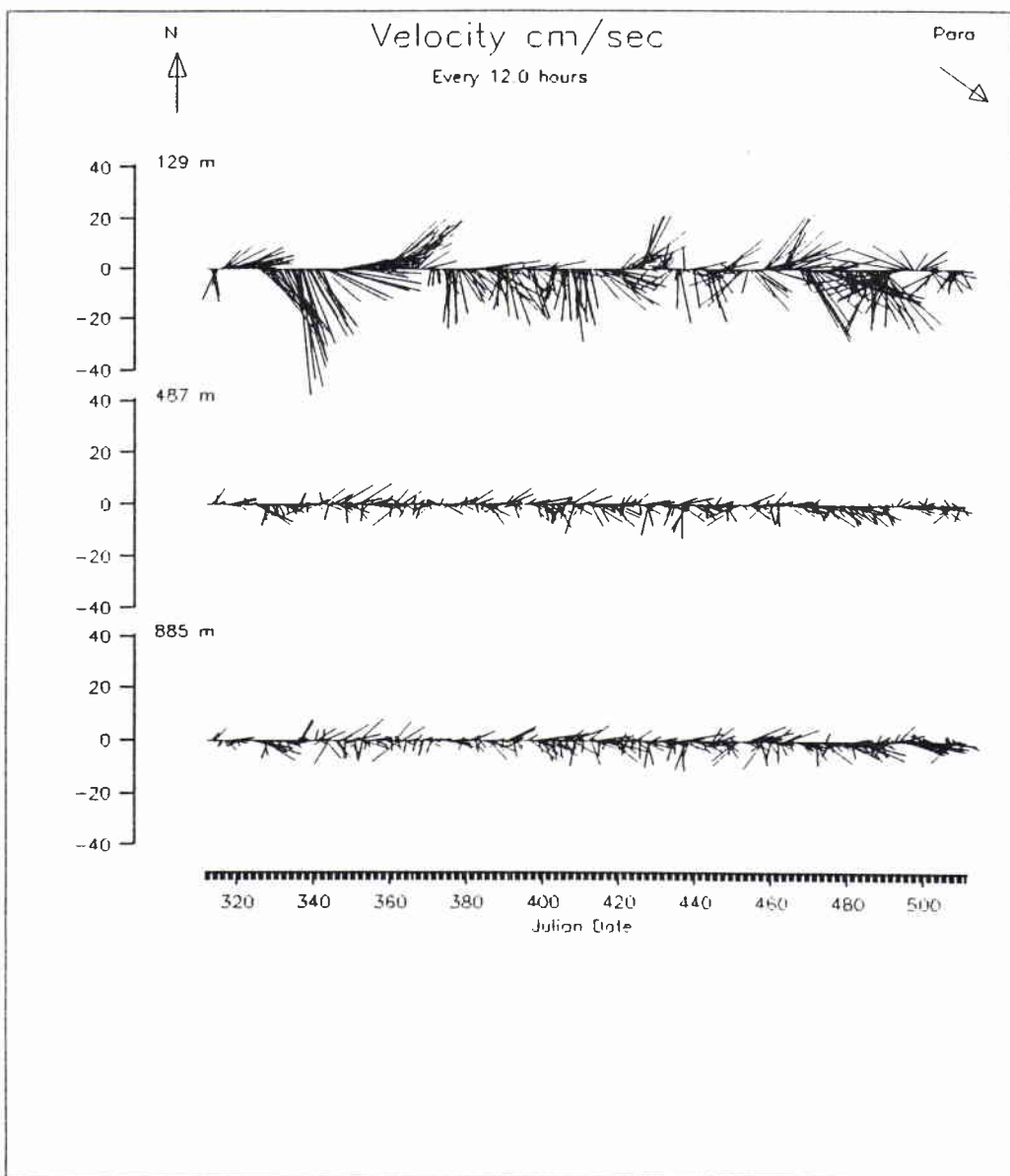


Figure H2

SACLANTCEN SM-260

B 3-1

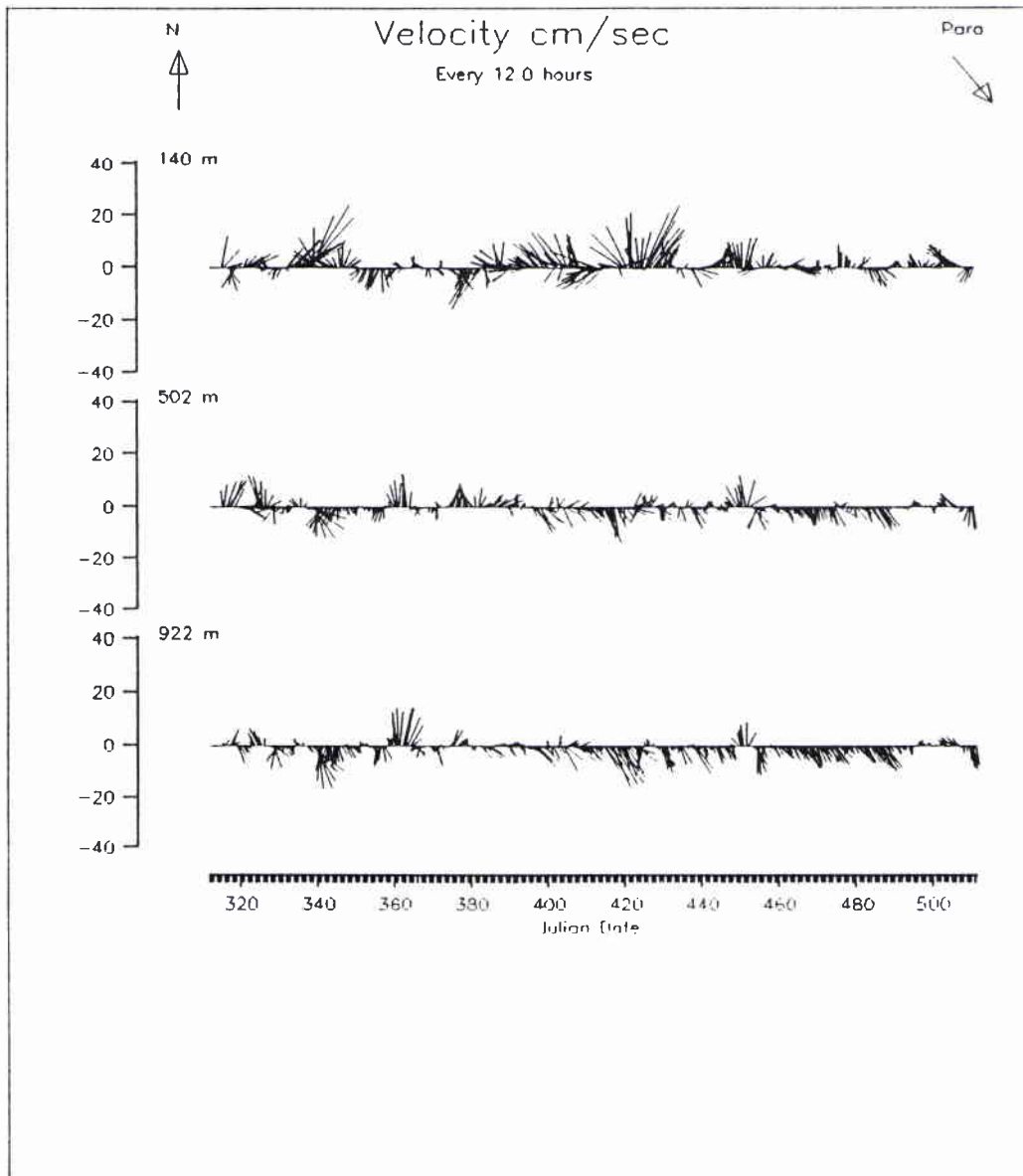


Figure H3

B 3-2

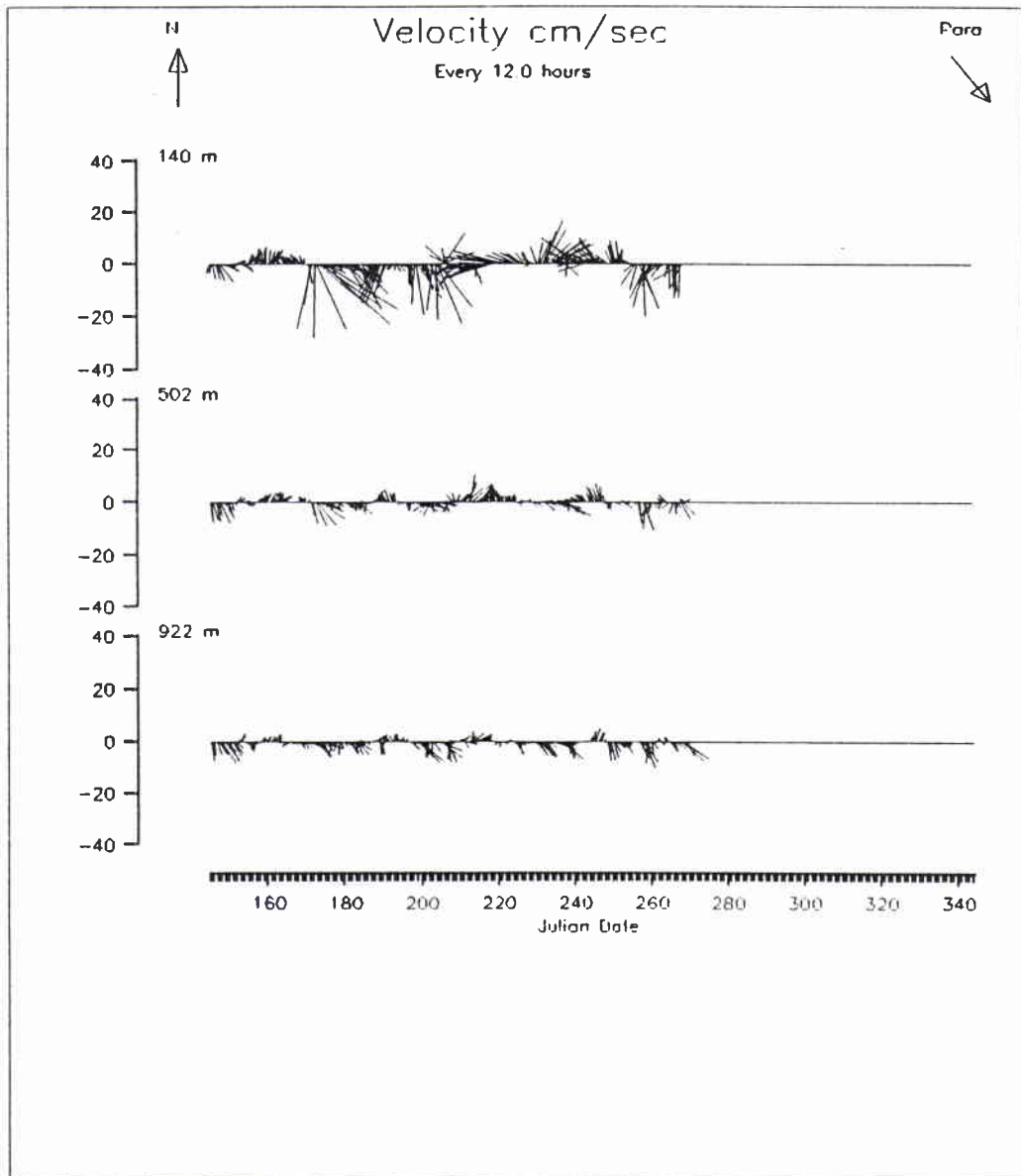


Figure H4

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Appendix I

Spectra

Autospectra and rotary spectra are given for the current meters. They are computed for the bathymetric coordinates. The autospectra are in a log-log format and the rotary spectra in a log-lin format. The 90% confidence limits and the frequency resolution for the rotary spectra are indicated in the upper right corner.

- Figures I1-I9: Buoys 1-3.

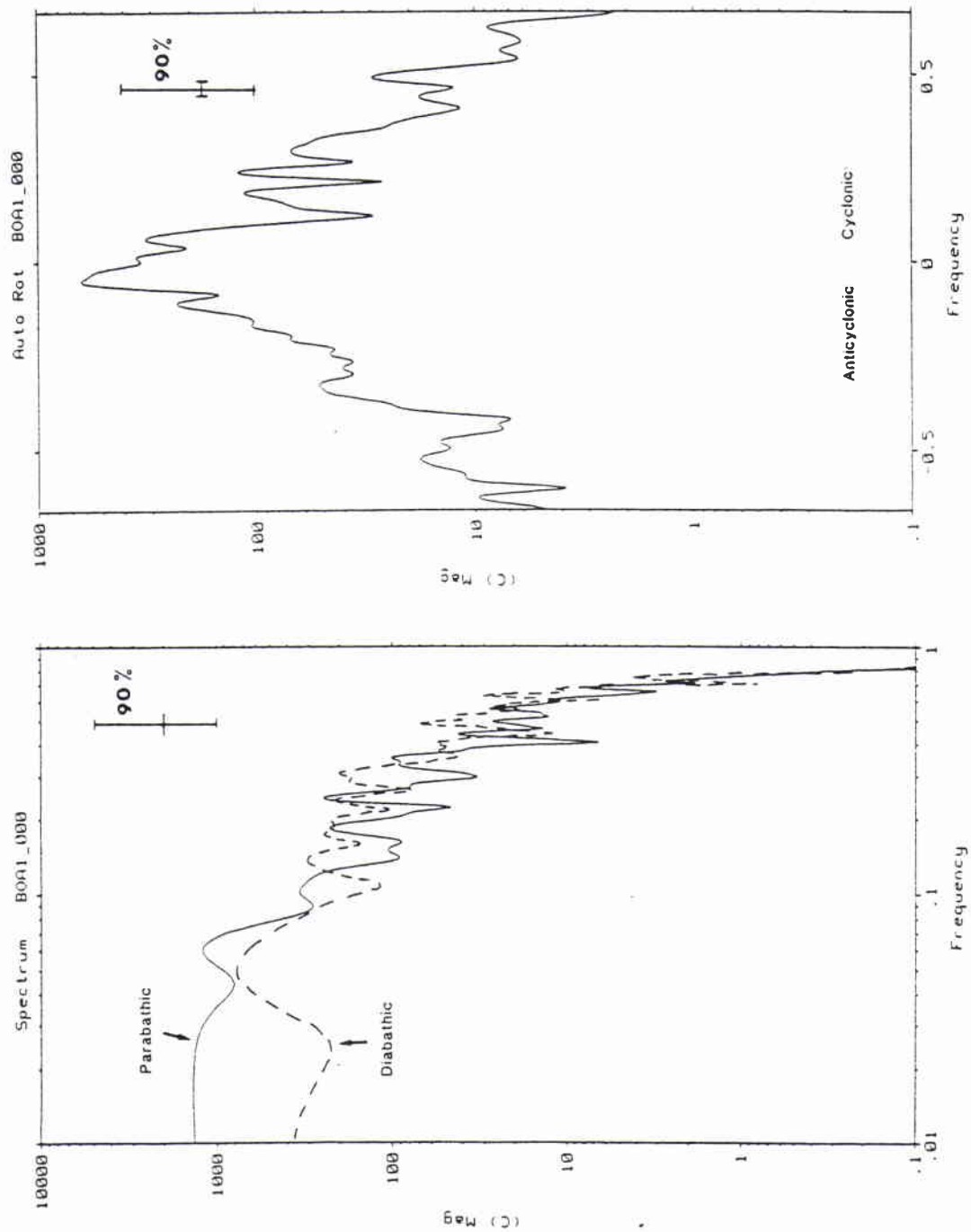


Figure I1

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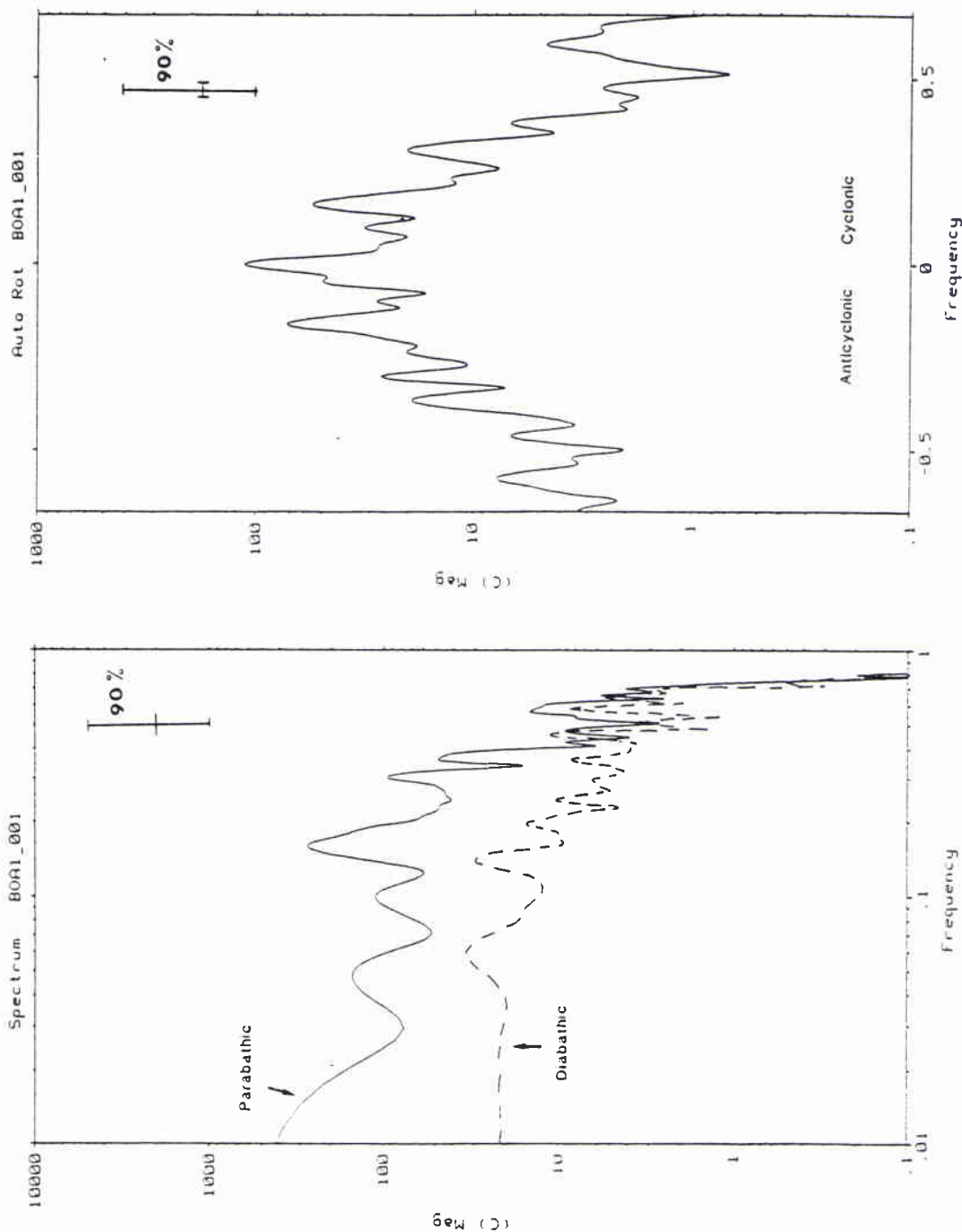


Figure I2

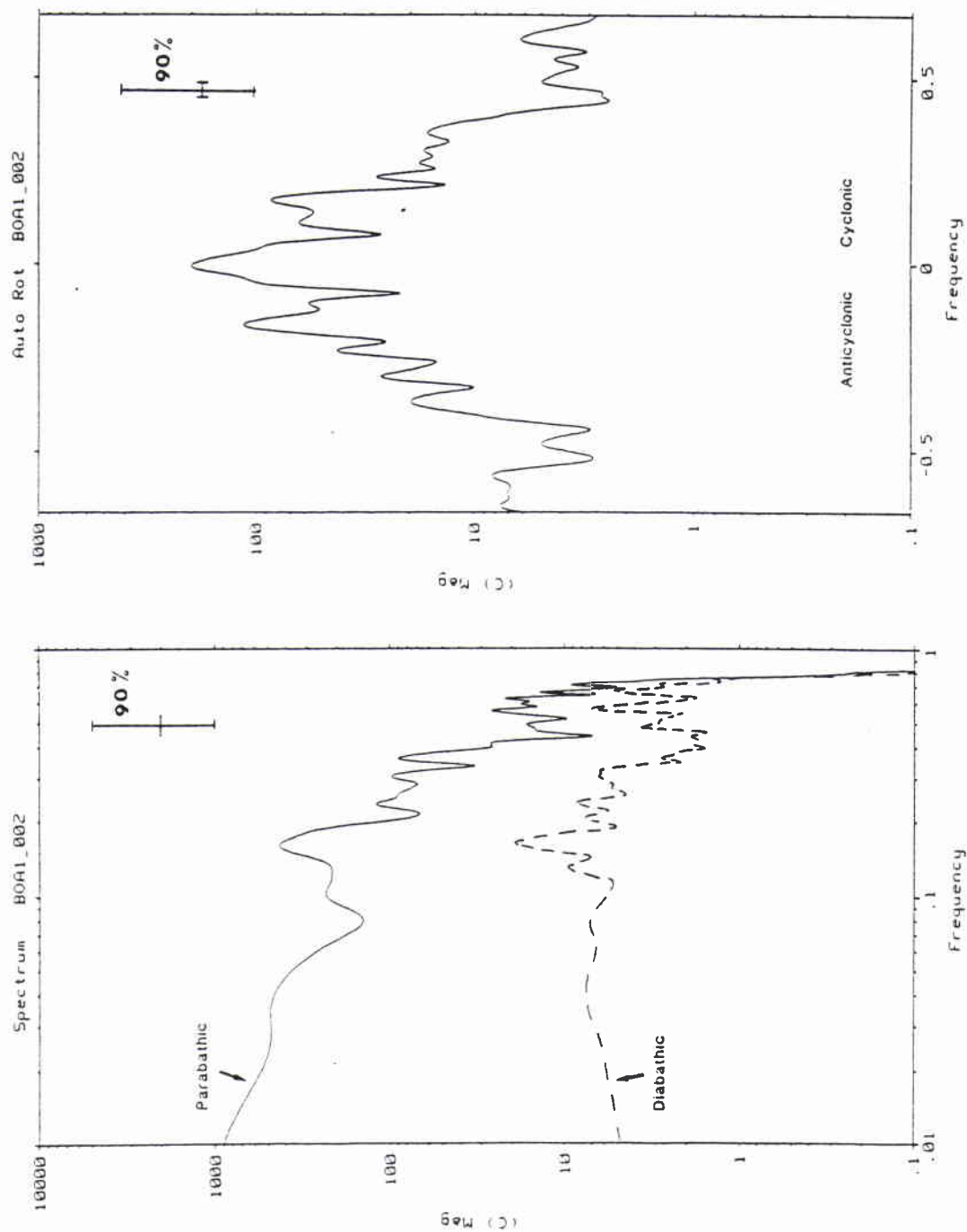


Figure I3

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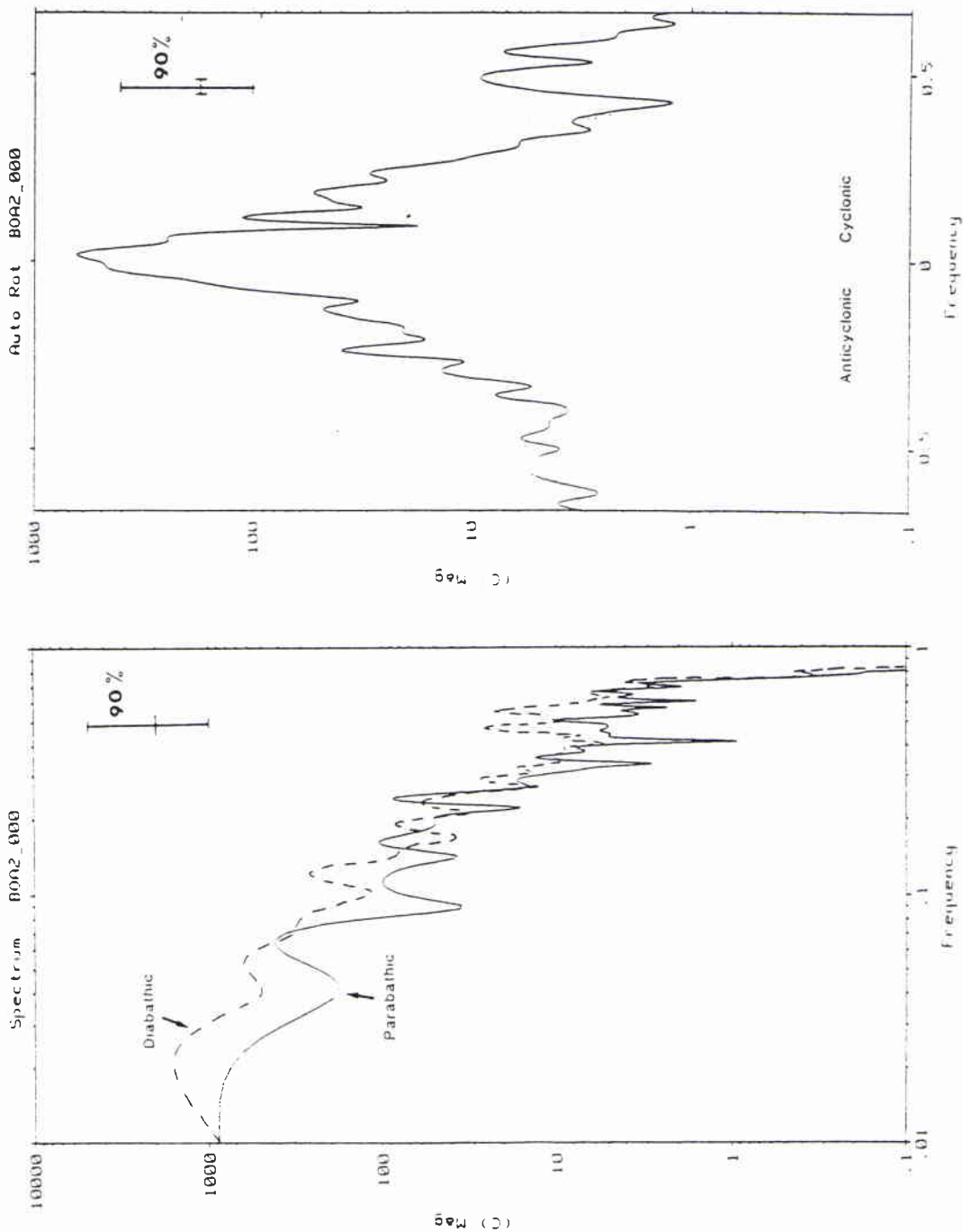


Figure I4

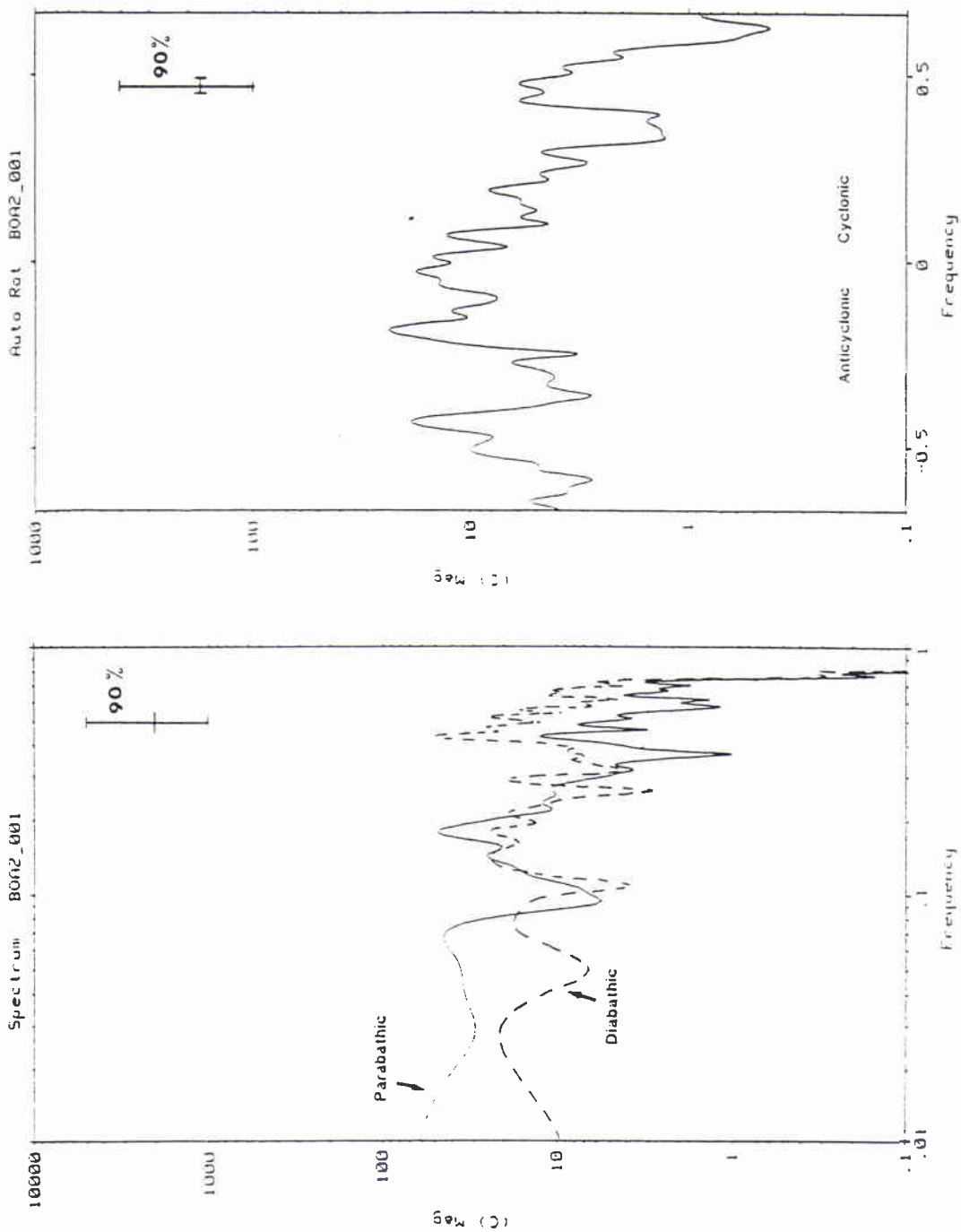


Figure I5

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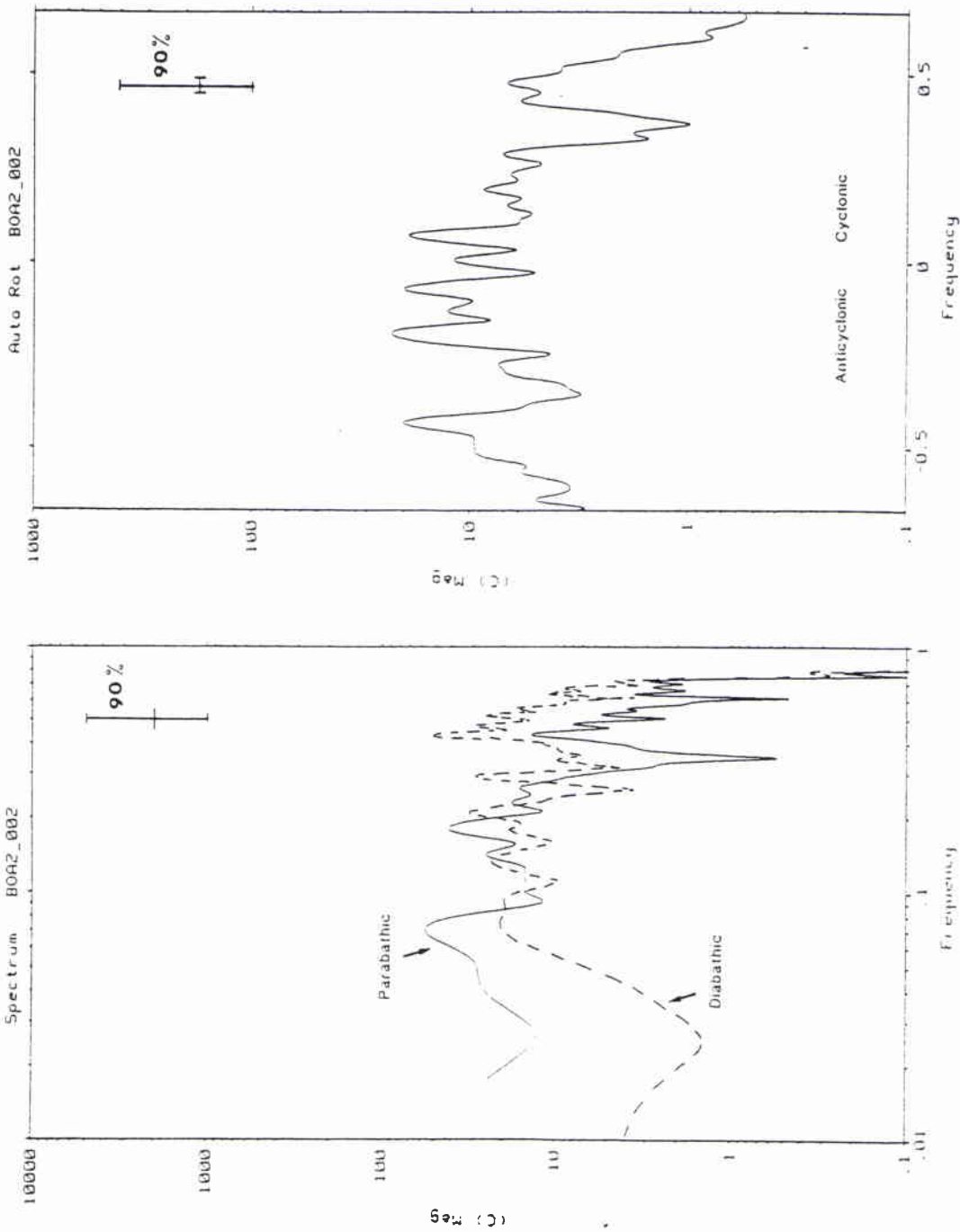


Figure I6

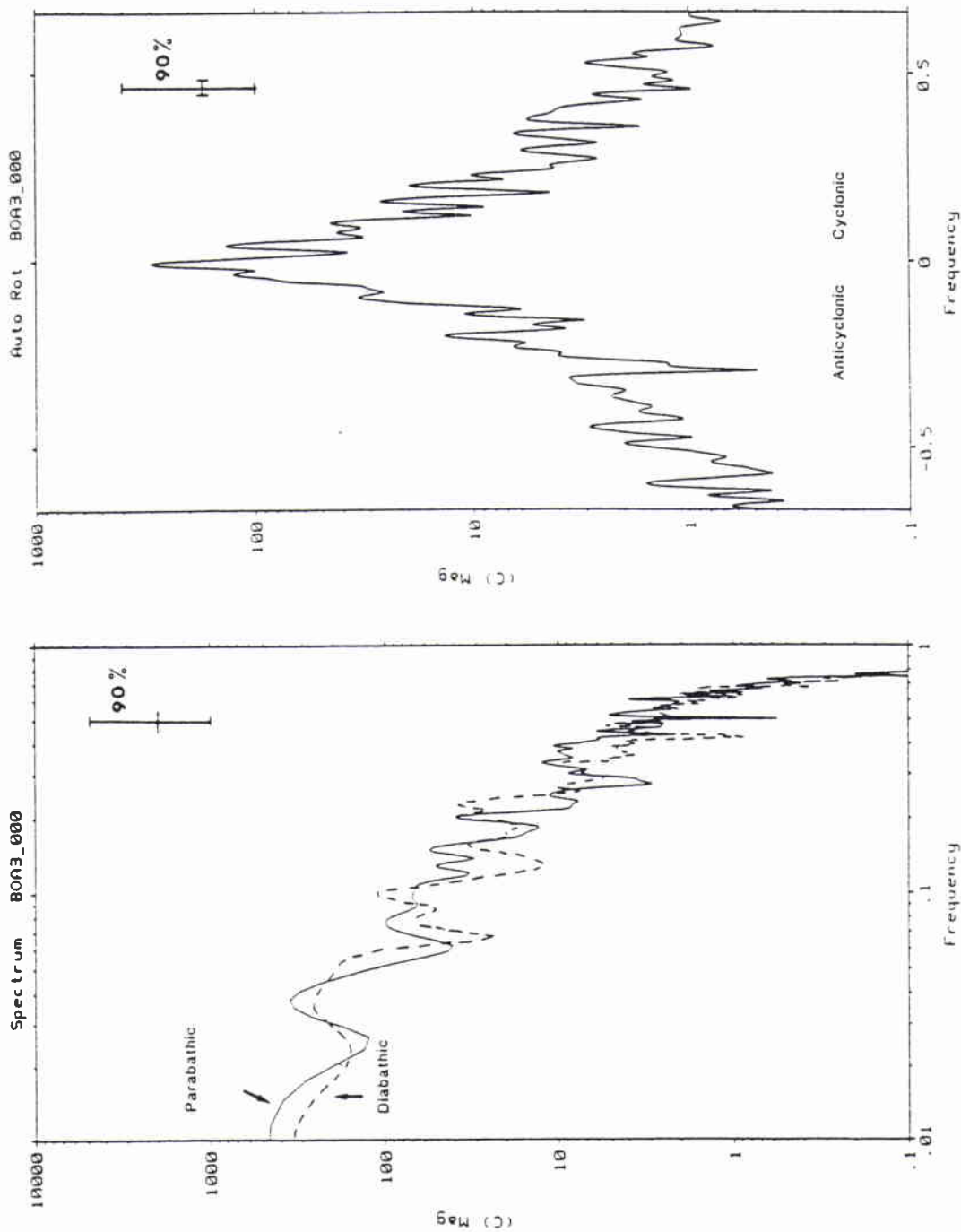


Figure I7

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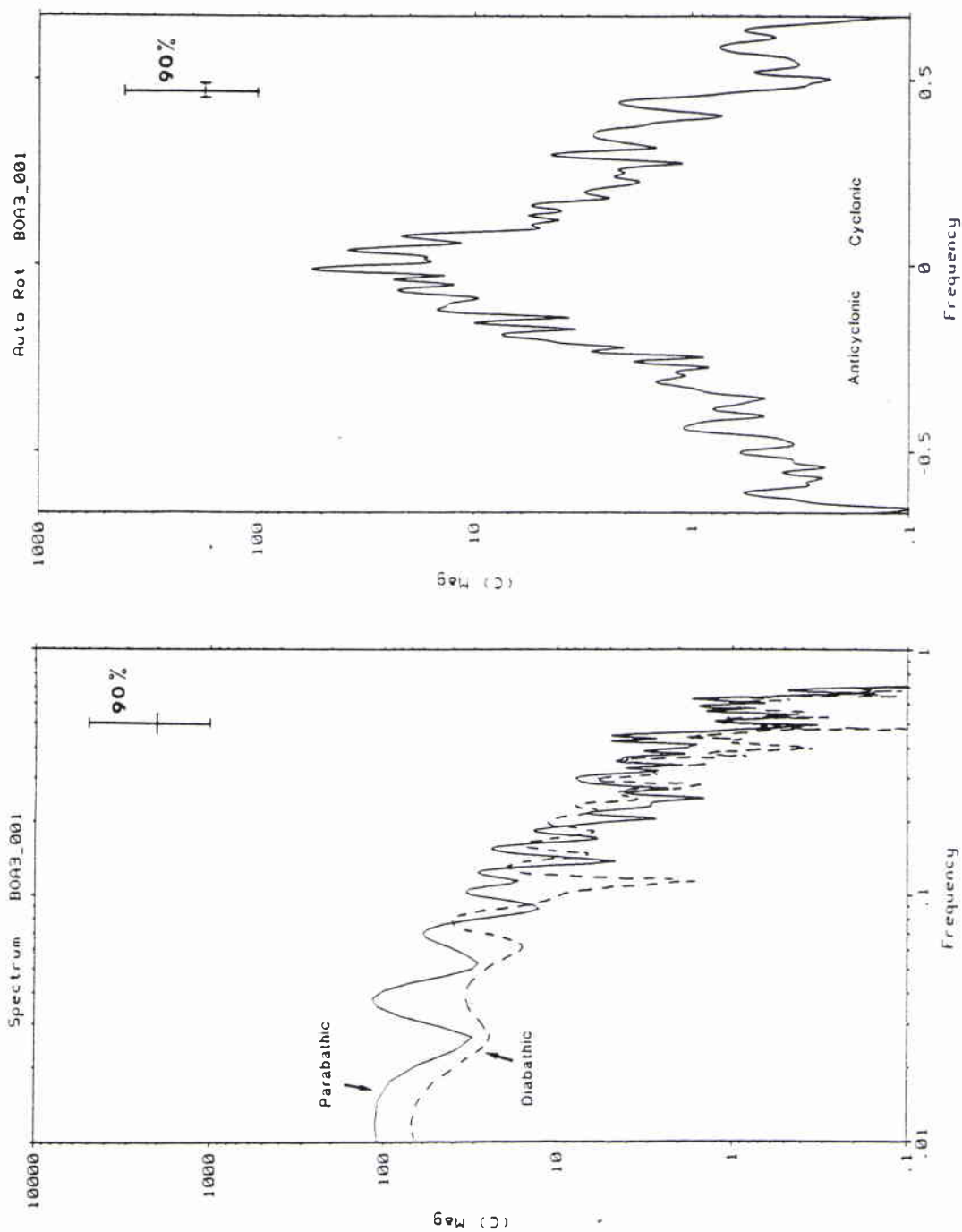


Figure I8

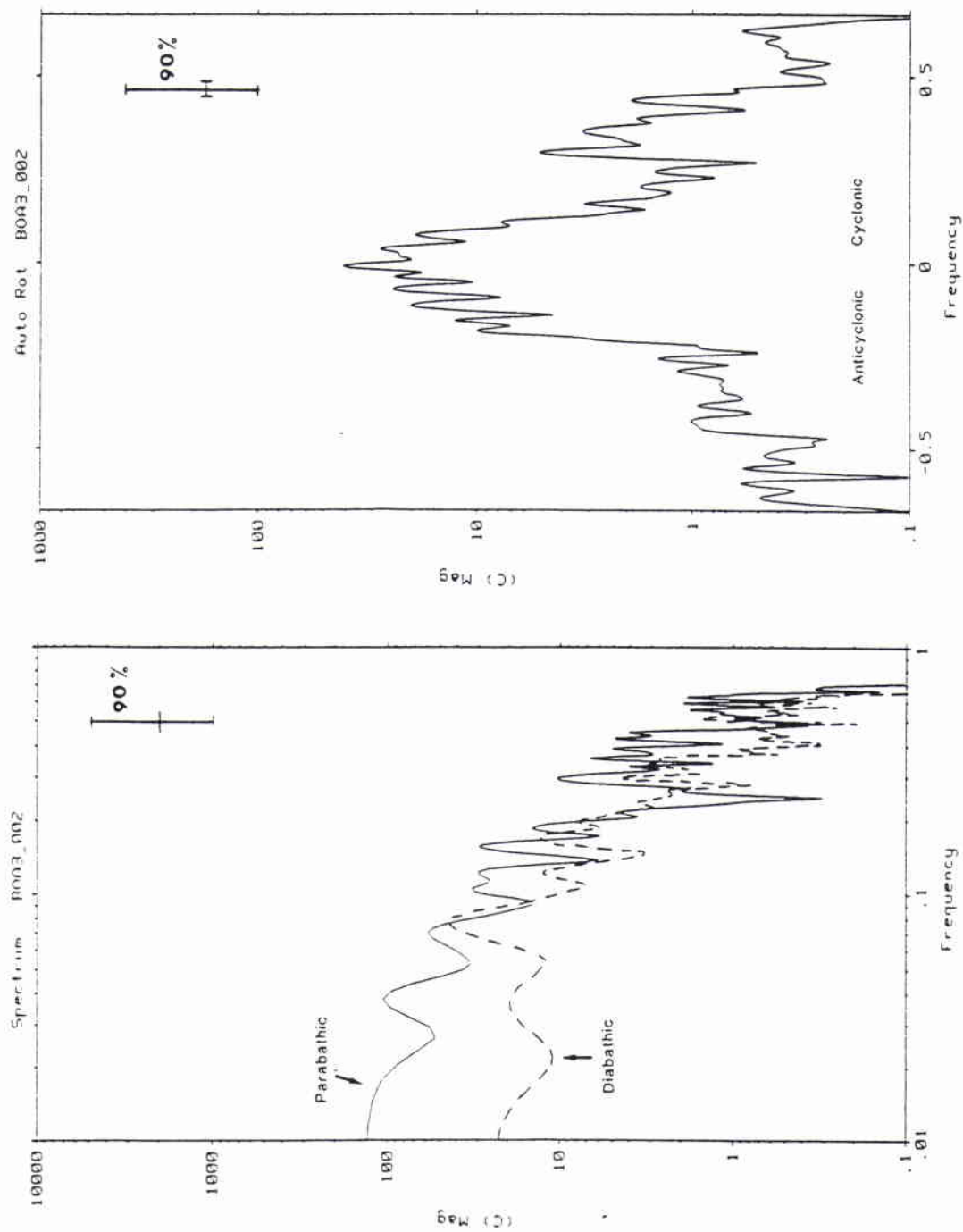


Figure I9

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Document Serial No. SM-260	Date of Issue September 1992	Total Pages 345 pp.
Author(s) T.S. Hopkins, G. Baldasserini, P. Minnett, P. Povero and P. Zanasca		
Title Icelandic Current Experiment GIN Sea Cruise 88 Data Report Hydrography and Circulation		
Abstract The hydrographic and circulation data from the GIN '88 cruise on board the R/V <i>Alliance</i> are summarised in this data report. This cruise constituted the first component of the Icelandic Current Experiment, an observational project designed to investigate the structure and dynamics of the Iceland-Faeroe Front and the associated transport of the Icelandic Current. The cruise was conducted between 31 October-23 November 1988, in the vicinity of the Iceland-Faeroe Ridge in the southern Norwegian and Iceland Seas. Pressure, temperature, conductivity, dissolved oxygen, and light transmittance were recorded <i>in situ</i> using sensors mounted on a CTD and water sampler. Water samples were taken for the analysis of salinity, dissolved oxygen, nitrate, nitrite, silicate, oxygen-18, chlorophyll-a and phaeophytin florescence, and particulate organic carbon. The circulation data from deployed instrumentation during the GIN '88 cruise are also summarized in this data report. Three long-term moorings were deployed during the cruise and recovered during subsequent cruises. Two meteorological/drifted thermister chain buoys were deployed and meteorological data from shipboard temperature, wind, relative humidity and solar insolation were also acquired. This report describes the methods used in the hydrographic data acquisition and reduction and it presents the data in a selected sequence of plots and tables. The data from the moored current meters are presented in the form of instrument statistics, histograms, velocity scatter diagrams, time-series plots, progressive vector diagrams, velocity stick diagrams, and velocity spectra.		
Keywords Greenland-Iceland-Norwegian Sea, Iceland-Faroes Front		
Issuing Organization North Atlantic Treaty Organization SACLANT Undersea Research Centre Viale San Bartolomeo 400, 19138 La Spezia, Italy [From N. America: SACLANTCEN CMR-426 (New York) APO AE 09613] tel: 0187 540 111 fax: 0187 524 600 telex: 271148 SACENT I		

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