

DUPLICATE ALSO



TWENTY - SEVENTH QUARTERLY REPORT

ON DRIFTING BUOYS

IN THE NORTH ATLANTIC

25-60 degN, 60 degW to 10 degE

JULY TO SEPTEMBER 1993

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Twenty-seventh quarterly report
on drifting bouys in the North Atlantic 25-60 deg N,
60 deg W to 10 deg E. July to September 1993.
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1. INTRODUCTION

Drifting buoys operated by European countries, the United States, Canada and E.G.O.S. (European Group on Ocean Stations) provide valuable meteorological data in the North Atlantic Ocean. This report is a summary of the performance of these buoys giving information on the number of buoys operating, the accuracy of reported locations and data quality, timeliness and availability. It is compiled by looking at observations received in the Met. Office Meteorological Data Bank (M.D.B.) and by comparisons of observations with background fields from the Met. Office forecast model. Additional information on buoy operations and data quality is extracted from E.G.O.S. Technical Secretariat reports.

2. SUMMARY OF PRESSURE PERFORMANCE

(a) Buoy deployments, etc.

North of 50deg N

There were 13 buoys reporting pressure at the beginning of the period and 17 at the end. (Buoy 44775 which had a mean position north of 50 degN last quarter has drifted south this quarter and is included in the statistics below.). 13 new buoys were deployed during the period (44513, 44515, 44613, 44711, 44778, 44779, 44780, 62673, 64539, 64540, 64542, 64543 and 65562). 9 buoys ceased reporting (44513, 44711, 44762, 44766, 44772, 44773, 44774, 44780 and 62802). (N.B. Buoys 44513 and 44772 ceased reporting pressure on 1/9/93 but continued to report other elements until the end of the quarter.)

South of 50deg N

There were 13 buoys reporting pressure at the beginning of the period and 10 at the end. Buoys 41504, 41521, 41523 and 62601 drifted out of the reporting area during the quarter. 5 new buoys were deployed (12501, 12502, 61542, 62519 and 62520). 8 buoys ceased reporting (41502, 41524, 61525, 62511, 62516, 62517, 62713 and 62714).

(b) Location Accuracy

The location accuracy was similar to last quarter (45 out of 50) with 38 out of 44 of the buoys reporting having a '% of observations with acceptable positions' greater than 95%. There were 45 gross errors in location during the quarter, compared with 9 last quarter (see under Data Quality).

(c) Data timeliness

(see note 9 of section 5 for definition of terms.)

Timeliness	Last quarter.	This quarter.
Very Good	27	27
Good	13	9
Satisfactory	3	6
Poor	5	1
Very Poor	2	1
Total no. of buoys	50	44

(d) Data availability

(see note 9 of section 5 for definition of terms.)

Availability	South of 50 degN		North of 50 degN	
	Previous Quarter	Present Quarter	Previous Quarter	Present Quarter
Very Good	--	--	4	4
Good	1	1	6	6
Satisfactory	2	1	3	11
Poor	26	16	2	4
Very Poor	3	--	3	1

The total number of buoy days in the quarter was 2,493 [obtained by summing the number of reporting days for each buoy] (last quarter the total was 3,096) and the number of 'buoy hours' with at least one observation was 27,935 (compared with 31,378 last quarter). Thus, the mean number of hours per day, for days with at least one observation (averaged over all buoys operating in the area) was 11.21 (last quarter the figure was 10.14).

(e) Data Quality - Pressure

Revised RMS Differences

The technique used to assess the quality of pressure data in this report is based on the Revised RMS differences between the observations and the background field from the Global Forecast Model (see note 8 in Explanatory Notes). For buoys south of 50 degN the Revised RMS differences should be less than 2.0 hPa and for buoys north of 50 degN they should be below 3.0 hPa. The buoys whose revised RMS difference were found to lie outside these limits have had their performance described as 'suspect' and are included in the section below. Examination of the time-series plots (see Annex B) indicates the performance of these buoys:-

- 12501 - Pressure data showed a bias of -1.9 hPa from 23/8 to the end of the quarter.
- 12502 - Pressure data showed a bias of -1.9 hPa from 23/8 to the end of the quarter.
- 41502 - Data from this buoy showed a large positive bias of approximately 15.0 to 20.0 hPa from 9/7 to 12/7.
- 44772 - Pressure data from this buoy became erroneous around 20/8. The data were ordered to be removed from the GTS on 24/8. Unfortunately the LUT at Sondre Stromfjord continued to disseminate erroneous data till 1/9.

Biases

11 buoys (excluding those mentioned in the previous section) showed pressure biases greater than 0.5 hPa (pressure biases are determined using the mean value for unflagged data from Annex A). Those buoys whose pressure data showed a bias of greater than 0.5 hPa have also had their performance described as 'suspect'.

WMO No.	Position	Buoy bias(hPa)	Ship bias(hPa)	Period of reports
41524	W of SCOS	-1.3	0.0	1/7 - 7/7
44766	SOBA	+1.0	+0.1	1/7 - 2/7
44778	SOBA	+10.0	+0.3	21/7 - 8/8
44779	S of SOBA	+10.0	+0.1	21/7 - 8/8
61542	S of France	-1.3	+0.4	23/9 - 30/9
62518	SCOS	+0.6	0.0	1/7 - 30/9
62673	SOBA	+2.0	-0.3	30/8 - 30/9
62694	SCOS	+0.8	-0.3	1/7 - 30/9
62802	SOBA	+1.3	-0.4	1/7 - 17/9
64540	SOBA	+0.8	-0.1	30/8 - 30/9
64542	SOBA	+0.6	+0.2	30/8 - 30/9

The ship bias represents the mean pressure biases reported from ships within a radius of 500 nautical miles of the mean position of each buoy.

Gross errors

The observations which appear to lie outside the expected distribution - the 'gross' errors (see Time-series graphs) - have been ringed. Of the 217 gross errors this quarter, 62 occurred at the end of the life of buoy 44772. The remaining observations have been individually examined to see whether the errors lie with the pressure, location or the background field. Out of 155 occasions the results are as follows -

ERROR	NUMBER Last quarter	NUMBER This quarter	COLLECTING CENTRE
bg field	0	0	-
location	8	28	Oslo
location	0	15	Sondre Stromfjord
location	1	2	Paris
location	0	0	US Air Force
location	0	0	Not in list
pressure	122	24	Oslo
pressure	57	7	Sondre Stromfjord
pressure	80	49	Paris
pressure	14	30	US Air Force
pressure	0	0	Not in list
Total no. of buoy hours	31,378	27,935	

During the quarter only 110 gross pressure errors were transmitted as compared to 273 last quarter. The number of gross location errors from the Local User Terminals increased (45 compared to only 9 last quarter).

(3) Air Temperatures and Sea Surface Temperatures

The following table shows the mean and standard deviation of observation minus background differences for air temperatures and sea surface temperatures. Figures in brackets are for the observations from voluntary observing ships within a radius of about 500 nautical miles of the mean position of each buoy.

(Note : The calculations below include gross errors. Therefore, in some instances, the figures may be slightly misleading.)

WMO No.	Air Temperature		No. of Obs	Sea Surface Temperature		No. of Obs.
	Mean	St.Dev		Mean	St.Dev	
12501	-0.8(1.0)	3.1(2.6)	321	-0.3(0.4)	0.9(1.8)	351
12502	0.2(0.6)	1.4(2.4)	354	0.1(0.1)	0.4(1.7)	385
41502	1.3(1.5)	1.8(3.1)	226	0.2(-0.4)	0.4(4.9)	230
41524	2.0(1.8)	1.3(2.7)	54	-0.1(-0.4)	0.4(4.3)	58
44513	9.4(-0.6)	5.0(1.3)	603	-4.1(-0.4)	0.5(1.8)	630
44515	-0.3(-0.3)	1.2(2.9)	376	-0.3(-0.7)	0.6(2.4)	405
44613	0.1(-0.3)	1.8(2.9)	519	4.5(-0.7)	0.9(2.4)	202
44711	0.2(1.3)	1.6(1.6)	243	- -	- -	-
44762	1.3(0.4)	4.4(2.5)	206	0.5(0.5)	2.6(1.8)	338
44765	- -	- -	-	-0.1(0.0)	0.4(2.6)	779
44766	1.9(-0.4)	1.6(1.4)	59	1.0(-0.5)	1.2(1.6)	41
44770	0.7(0.7)	1.6(2.2)	3831	-0.1(0.3)	0.8(1.4)	2104
44772	1.2(1.7)	1.9(2.0)	2939	-0.1(-0.1)	0.8(1.5)	2260
44773	-15.4(1.9)	15.1(2.9)	46	-8.1(0.2)	10.7(2.6)	22
44774	0.6(1.3)	2.3(2.6)	1639	-0.4(-0.1)	1.3(4.8)	1044
44775	2.0(1.1)	3.2(1.8)	2556	-0.1(-0.2)	1.0(5.4)	1453
44777	0.9(0.5)	3.7(1.4)	1400	-0.2(-0.8)	1.5(2.4)	809
44778	5.6(-0.5)	8.1(1.7)	1575	0.0(-0.3)	0.7(1.5)	1148
44779	0.4(-0.3)	1.3(3.0)	1470	0.2(-0.7)	1.0(2.5)	971
44780	-0.3(0.2)	1.4(3.1)	845	0.0(-0.7)	0.9(2.5)	557
47606	1.1(1.6)	3.3(3.2)	110	- -	- -	-
61525	0.6(0.7)	2.0(2.2)	15	0.4(-0.1)	0.8(5.0)	20
61542	1.2(1.0)	2.4(2.7)	56	-1.4(0.1)	1.0(1.6)	60
62511	- -	- -	-	0.5(-0.2)	0.7(4.3)	173

Statistics of (ob-bg) differences for buoys reporting this
quarter and all ships within 500 nautical miles

WMO No.	Air Temperature		No. of	Sea Surface Temperature		No. of
	Mean	St.Dev	Obs	Mean	St.Dev	Obs.
62516	- -	- -	-	0.1(-0.2)	0.3(4.5)	669
62517	- -	- -	-	0.7(-0.1)	0.4(4.5)	460
62518	- -	- -	-	0.2(-0.1)	0.4(4.6)	747
62519	- -	- -	-	-0.4(-0.2)	0.0(4.6)	18
62520	- -	- -	-	-1.0(-0.1)	0.1(4.6)	17
62673	0.0(1.5)	0.7(2.0)	437	0.0(0.4)	0.2(1.1)	462
62694	3.0(1.3)	2.6(1.6)	1911	0.3(0.1)	1.4(1.2)	1258
62711	0.4(-0.2)	2.3(1.2)	1550	-0.1(-0.5)	1.3(1.7)	1154
62712	0.3(1.6)	1.3(1.9)	2909	-0.1(0.3)	0.5(1.1)	851
62713	- -	- -	-	0.2(0.2)	0.5(1.2)	771
62714	- -	- -	-	0.1(0.1)	0.5(1.4)	361
62802	1.3(1.7)	1.4(2.0)	2196	-0.1(-0.1)	0.5(1.5)	1711
62805	0.8(1.7)	1.4(3.3)	1001	0.3(-0.3)	0.5(3.9)	794
64539	1.8(0.7)	1.9(1.7)	531	0.8(-0.2)	1.4(1.2)	567
64540	-0.4(0.7)	0.8(1.9)	328	0.1(0.7)	0.7(2.2)	350
64542	0.6(3.0)	1.4(3.4)	455	0.0(0.2)	0.3(2.6)	486
64543	-0.1(1.8)	1.1(2.0)	517	-0.4(0.2)	0.3(1.1)	550
65562	0.9(2.1)	5.2(3.2)	1749	2.4(0.8)	3.0(2.3)	1355
65596	0.7(1.8)	2.7(2.2)	3471	-0.6(0.3)	0.5(1.4)	2534
65597	0.4(0.7)	2.3(1.4)	3616	-0.6(-0.2)	0.5(1.2)	2302

Statistics of (ob-bg) differences for buoys reporting this
quarter and all ships within 500 nautical miles

Buoys 41524, 44513, 44773, 44775, 44778 and 62694 showed significant air temperature biases of 2.0 degC, 9.0 degC, -15.4 degC, 2.0 degC, 5.6 degC and 3.0 degC respectively.

Buoys 44513, 44613, 44773, 61542, 62520 and 65562 showed significant sea surface temperature biases of -4.1 degC, 4.5 degC, -8.1 degC, -1.4 degC, -1.0 degC and 2.4 degC respectively. Data from buoy 65562 improved towards the end of the quarter, but the values often fluctuated by up to 1.5 degC depending on which LUT (Paris or Sondre Stromfjord) the data were being sent through.

(4) Winds

The following table shows the mean and standard deviation of observation minus background differences for wind speed and direction. Figures in brackets are for the observations from voluntary observing ships within a radius of about 500 nautical miles of the mean position of each buoy (Note - it is not known what proportion of the ships' winds were measured rather than estimated visually using the Beaufort Scale). The statistics for this report can be compared with those for ships and the relative quality of the wind data from each buoy can be assessed. (N.B. Buoys 44777, 44778 and 44779 are not fitted with wind sensors. However both wind speed and direction observations have been coded up as 0 when reported via the Paris LUT, hence producing a misleading value for the percentage of wind data present in the Table of Statistics (Annex A)).

WMO No.	Period	Wind speed(kn)		Wind direction(Deg)		Number of Obs.
		Mean	St.Dev	Mean	St.Dev	
44513	18/08- 30/09	-9.5(1.2)	5.9(5.6)	-63.9(-15.5)	137.2(21.6)	494(49)
62518	01/07- 30/09	-0.3(3.1)	3.2(5.6)	-2.6(-3.4)	17.1(33.6)	649(341)
62520	29/09- 30/09	0.5(2.8)	4.5(5.5)	-0.2(-5.3)	30.2(32.0)	14(333)
62712	01/07- 30/09	-4.9(0.6)	4.7(8.1)	9.3(0.1)	22.7(16.8)	1170(97)

Statistics of (ob-bg) differences for buoys reporting this
quarter and all ships within 500 nautical miles

Buoys 44513 and 62712 show significant wind speed biases of -10 knots and -5 knots respectively.

Buoy 44513 showed a significant wind direction bias of -64 degrees and also showed a large standard deviation of 137 degrees.

5. EXPLANATORY NOTES:

1. Buoy owners are as follows,

CA - Canada	P - Portugal
F - France	UK - United Kingdom
D - Germany	US - United States
N - Norway	EG - EGOS
NL - Netherlands	?? - unknown
IR - Ireland	

2. Number of observations received is the number received at Bracknell in the Meteorological Data Bank (MDB). If identical reports are received which have originated at different Collecting Centres, the earliest one received at Bracknell is stored in the MDB.

3. An observation with valid Time and Date is one that contains no coding errors in the Date/Time group.

4. An acceptable position for an observation is within a distance d of the last acceptable position where $d=vt$ and,

v = maximum drift speed = 1/4 knot
 t = time between observations.

5. The percentage of elements present is calculated from the total number of observations received.

6. The delay is (Time of Receipt at Bracknell) - (Time of Observation).

7. The mean number of observations per day is calculated from the total number of observations received divided by the number of days in the period. It therefore includes 'quasi-identical' observations, ie those made within a few minutes of one another. For this reason the mean number of hours per day with at least one observation and the % of hour periods without an observation has been included, where an 'hour period' is defined as the period from HH-30 to HH+29 minutes.

8. Mean (OB-BG) is the mean value of (Observation-Background) Pressure, where the Background is the 6-hour forecast from the Global Forecast Model. RMS (OB-BG) is the Root Mean Square value of (Observation-Background) Pressure differences.

Unflagged data are those data used in model analyses.

Flagged data (ie. unused observations) are those observations of suspect quality and all observations reported by a buoy at a frequency greater than 5 times every 6 hours, with accepted observations being at least one hour apart. Thus, those buoys which report most frequently have a higher percentage of flagged data.

The Mean calculated over Unflagged Data gives an indication of the instrument bias, since any gross errors have been excluded from the calculation.

The Revised RMS is based on all data except for the few that contain gross errors (as indicated on the time-series graphs - see Annex B).

9. The performance categories are defined in the table below.

Performance	Availability (mean no. obs/day)	Timeliness (Median delay in mins)
Very Good	> 35	< 60
Good	25-35	60-119
Satisfactory	15-24	120-179
Poor	5-14	180-239
Very Poor	< 5	> 240

(N.B. WMO requirements state the need for only 4 observations per day from marine stations.)

The pressure quality is assessed from the Revised RMS and the Mean (for unflagged data).

Performance	Pressure Quality			
	North of 50 degN		South of 50 degN	
	RMS	MEAN	RMS	MEAN
	(hPa)		(hPa)	
Acceptable	< 3.0	< 0.5	< 2.0	< 0.5
Suspect	> 3.0	> 0.5	> 2.0	> 0.5

ANNEX A - TABLE OF STATISTICS

WMO NUMBER/COUNTRY ¹	12501/US	12502/US	41502/US
ARGOS Id No.	3959	5259	3956
PERIOD WITHIN AREA	23/08-30/09	23/08-30/09	01/07-28/07
AREA	E of SCOS	E of SCOS	W of SCOS
MEAN LATITUDE	35.8	38.4	31.7
MEAN LONGITUDE	-1.9	4.0	-57.2
NO. OF OBS RECEIVED ²	351	387	228
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	100.0	100.0	100.0
% OF PRESENT ⁵			
PRESSURE	99.1	99.7	100.0
P. TENDENCY	0.0	0.0	0.0
AIR TEMPERATURE	99.1	99.5	100.0
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	99.7	99.7	100.0
MEDIAN DELAY (MIN) ⁶	270.0	24.0	88.0
NUMBER OF DAYS	39.0	39.0	28.0
MEAN NO. OF OBS/DAY	9.0	9.9	8.1
NO. OF HOURS WITH OBS	334.0	359.0	216.0
MEAN NO. OF HOURS/DAY WITH OBS	8.6	9.2	7.7
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	64.2	61.7	67.9
MEAN (OB-BG) unflagged	-1.9	-1.9	-0.9
RMS (OB-BG) data ⁸	2.4	2.2	1.4
MEAN (OB-BG) all	-2.1	-1.9	1.8
RMS (OB-BG) data ⁸	2.5	2.2	7.1
REVISED RMS (OB-BG) ⁸	2.5	2.2	2.9
% OF DATA FLAGGED ⁸	19.0	14.0	22.0
OPERATING AT END OF PERIOD	YES	YES	NO
PERFORMANCE ⁹			
AVAILABILITY	POOR	POOR	POOR
PRESSURE QUALITY	SUSPECT	SUSPECT	SUSPECT
TIMELINESS	VERY POOR	VERY GOOD	GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	41524/US	44513/US	44515/US
ARGOS Id No.	5095	14633	5524
PERIOD WITHIN AREA	01/07-07/07	18/08-30/09	30/08-30/09
AREA	W of SCOS	SOBA	S of SOBA
MEAN LATITUDE	30.3	57.6	53.1
MEAN LONGITUDE	-59.4	-39.3	-44.3
NO. OF OBS RECEIVED ²	54	636	409
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	100.0	99.1	100.0
% OF PRESENT ⁵			
PRESSURE	100.0	32.5	98.8
P. TENDENCY	0.0	0.0	0.0
AIR TEMPERATURE	100.0	99.4	98.8
WIND SPEED/DIRECTION	0.0/0.0	98.4/97.3	0.0/0.0
SEA SURFACE TEMP.	100.0	99.5	99.0
MEDIAN DELAY (MIN) ⁶	33.0	108.0	32.0
NUMBER OF DAYS	7.0	44.0	32.0
MEAN NO. OF OBS/DAY	7.7	14.4	12.8
NO. OF HOURS WITH OBS	51.0	528.0	350.0
MEAN NO. OF HOURS/DAY WITH OBS	7.3	12.0	10.9
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	69.6	50.0	54.6
MEAN (OB-BG) unflagged	-1.3	0.2	0.2
RMS (OB-BG) data ⁸	1.6	1.1	1.6
MEAN (OB-BG) all	-1.3	0.5	0.3
RMS (OB-BG) data ⁸	1.6	3.6	1.6
REVISED RMS (OB-BG) ⁸	1.6	1.3	1.6
% OF DATA FLAGGED ⁸	9.0	28.0	24.0
OPERATING AT END OF PERIOD	NO	YES	YES
PERFORMANCE ⁹			
AVAILABILITY	POOR	SATISFACTORY	POOR
PRESSURE QUALITY	SUSPECT	ACCEPTABLE	ACCEPTABLE
TIMELINESS	VERY GOOD	GOOD	VERY GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	44613/N	44711/??	44762/UK
ARGOS Id No.	3676	????	1253
PERIOD WITHIN AREA	10/09-30/09	25/08-15/09	01/07-31/08
AREA	S of SOBA	SOBA	E of Iceland
MEAN LATITUDE	51.6	62.7	67.2
MEAN LONGITUDE	-44.2	-33.3	6.6
NO. OF OBS RECEIVED ²	559	260	451
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	99.8	68.5	100.0
% OF PRESENT ⁵			
PRESSURE	97.0	100.0	100.0
P. TENDENCY	93.2	97.3	0.0
AIR TEMPERATURE	97.3	100.0	99.6
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	36.1	0.0	73.4
MEDIAN DELAY (MIN) ⁶	23.0	52.0	23.0
NUMBER OF DAYS	21.0	22.0	62.0
MEAN NO. OF OBS/DAY	26.6	11.3	7.3
NO. OF HOURS WITH OBS	313.0	205.0	233.0
MEAN NO. OF HOURS/DAY WITH OBS	14.9	9.3	3.8
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	37.9	61.3	84.2
MEAN (OB-BG) unflagged	-0.3	-0.1	0.3
RMS (OB-BG) data ⁸	1.4	1.6	0.9
MEAN (OB-BG) all	-0.4	0.1	-1.2
RMS (OB-BG) data ⁸	1.4	2.2	11.1
REVISED RMS (OB-BG) ⁸	1.4	2.2	1.1
% OF DATA FLAGGED ⁸	54.0	35.0	57.0
OPERATING AT END OF PERIOD	YES	NO	NO
PERFORMANCE ⁹			
AVAILABILITY	GOOD	POOR	POOR
PRESSURE QUALITY	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE
TIMELINESS	VERY GOOD	VERY GOOD	VERY GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	44765/UK	44766/N	44770/UK
ARGOS Id No.	1255	3675	6287
PERIOD WITHIN AREA	01/07-30/09	01/07-02/07	01/07-30/09
AREA	SCOS	SOBA	E of Iceland
MEAN LATITUDE	27.8	57.9	63.4
MEAN LONGITUDE	-39.2	-37.9	2.1
NO. OF OBS RECEIVED ²	951	56	3875
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	90.4	91.1	99.3
% OF PRESENT ⁵			
PRESSURE	99.5	96.4	99.8
P. TENDENCY	0.0	96.4	97.8
AIR TEMPERATURE	0.0	96.4	99.9
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	81.4	64.3	53.2
MEDIAN DELAY (MIN) ⁶	43.0	90.0	13.0
NUMBER OF DAYS	92.0	2.0	92.0
MEAN NO. OF OBS/DAY	10.3	28.0	42.1
NO. OF HOURS WITH OBS	749.0	26.0	1653.0
MEAN NO. OF HOURS/DAY WITH OBS	8.1	13.0	18.0
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	66.3	45.8	25.0
MEAN (OB-BG) unflagged	0.1	1.0	-0.2
RMS (OB-BG) data ⁸	0.8	2.2	0.9
MEAN (OB-BG) all	0.1	1.0	-0.2
RMS (OB-BG) data ⁸	0.8	2.4	1.0
REVISED RMS (OB-BG) ⁸	0.8	2.4	0.9
% OF DATA FLAGGED ⁸	28.0	55.0	63.0
OPERATING AT END OF PERIOD	YES	NO	YES
PERFORMANCE ⁹			
AVAILABILITY	POOR	VERY GOOD	VERY GOOD
PRESSURE QUALITY	ACCEPTABLE	SUSPECT	ACCEPTABLE
TIMELINESS	VERY GOOD	GOOD	VERY GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	44772/UK	44773/UK	44774/UK
ARGOS Id No.	2960	4624	2961
PERIOD WITHIN AREA	01/07-30/09	01/07-21/09	01/07-21/09
AREA	SOBA	S of SOBA	W of Ireland
MEAN LATITUDE	60.4	54.6	52.7
MEAN LONGITUDE	-29.7	-27.2	-13.7
NO. OF OBS RECEIVED ²	2949	1971	1617
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	99.2	99.0	98.8
% OF PRESENT ⁵			
PRESSURE	78.8	99.7	99.8
P. TENDENCY	25.7	56.0	66.2
AIR TEMPERATURE	99.8	2.4	99.5
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	75.2	1.1	62.4
MEDIAN DELAY (MIN) ⁶	16.0	39.0	22.0
NUMBER OF DAYS	92.0	83.0	83.0
MEAN NO. OF OBS/DAY	32.1	23.7	19.5
NO. OF HOURS WITH OBS	1505.0	977.0	752.0
MEAN NO. OF HOURS/DAY WITH OBS	16.4	11.8	9.1
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	31.7	50.8	62.1
MEAN (OB-BG) unflagged	-0.1	0.3	0.0
RMS (OB-BG) data ⁸	1.3	1.2	1.1
MEAN (OB-BG) all	-2.9	0.2	0.0
RMS (OB-BG) data ⁸	8.8	4.3	1.9
REVISED RMS (OB-BG) ⁸	8.4	1.2	1.1
% OF DATA FLAGGED ⁸	67.0	57.0	59.0
OPERATING AT END OF PERIOD	YES	NO	NO
PERFORMANCE ⁹			
AVAILABILITY	GOOD	SATISFACTORY	SATISFACTORY
PRESSURE QUALITY	SUSPECT	ACCEPTABLE	ACCEPTABLE
TIMELINESS	VERY GOOD	VERY GOOD	VERY GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	44775/UK	44777/UK	44778/UK
ARGOS Id No.	2962	1257	1259
PERIOD WITHIN AREA	01/07-30/09	01/07-30/09	21/07-30/09
AREA	N of SCOS	S of SOBA	SOBA
MEAN LATITUDE	47.6	52.4	55.8
MEAN LONGITUDE	-16.9	-39.4	-41.4
NO. OF OBS RECEIVED ²	2598	1464	1736
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	99.0	96.0	99.1
% OF PRESENT ⁵			
PRESSURE	99.8	100.0	89.6
P. TENDENCY	36.3	87.4	36.6
AIR TEMPERATURE	99.1	99.1	95.0
WIND SPEED/DIRECTION	0.0/0.0	14.2/14.9	13.9/13.8
SEA SURFACE TEMP.	54.9	55.9	66.4
MEDIAN DELAY (MIN) ⁶	23.0	176.0	33.0
NUMBER OF DAYS	92.0	92.0	72.0
MEAN NO. OF OBS/DAY	28.2	15.9	24.1
NO. OF HOURS WITH OBS	1334.0	951.0	903.0
MEAN NO. OF HOURS/DAY WITH OBS	14.5	10.3	12.5
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	39.6	57.1	47.9
MEAN (OB-BG) unflagged	0.1	-0.1	0.9
RMS (OB-BG) data ⁸	1.1	1.3	1.3
MEAN (OB-BG) all	-0.1	-0.6	0.4
RMS (OB-BG) data ⁸	3.5	5.0	2.8
REVISED RMS (OB-BG) ⁸	1.2	1.9	2.7
% OF DATA FLAGGED ⁸	54.0	45.0	99.0
OPERATING AT END OF PERIOD	YES	YES	YES
PERFORMANCE ⁹			
AVAILABILITY	GOOD	SATISFACTORY	GOOD
PRESSURE QUALITY	ACCEPTABLE	ACCEPTABLE	SUSPECT*
TIMELINESS	VERY GOOD	SATISFACTORY	VERY GOOD
COMMENTS	-	-	*positive bias of +10.0 hPa from 21/7 - 8/8

WMO NUMBER/COUNTRY ¹	44779/UK	44780/UK	47606/??
ARGOS Id No.	1260	4629	????
PERIOD WITHIN AREA	21/07-30/09	20/07-09/09	01/07-30/09
AREA	S of SOBA	SW of SOBA	W of SOBA
MEAN LATITUDE	53.0	52.5	61.4
MEAN LONGITUDE	-41.4	-48.3	-52.3
NO. OF OBS RECEIVED ²	1595	842	130
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	99.8	100.0	100.0
% OF PRESENT ⁵			
PRESSURE	89.0	100.0	100.0
P. TENDENCY	39.9	0.0	0.0
AIR TEMPERATURE	96.6	100.0	100.0
WIND SPEED/DIRECTION	14.7/14.5	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	61.5	64.3	0.0
MEDIAN DELAY (MIN) ⁶	21.0	34.0	132.0
NUMBER OF DAYS	72.0	52.0	92.0
MEAN NO. OF OBS/DAY	22.2	16.2	1.4
NO. OF HOURS WITH OBS	898.0	594.0	130.0
MEAN NO. OF HOURS/DAY WITH OBS	12.5	11.4	1.4
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	47.9	52.5	94.2
MEAN (OB-BG) unflagged	-0.1	0.1	-0.3
RMS (OB-BG) data ⁸	1.3	1.1	1.5
MEAN (OB-BG) all	0.1	0.1	-0.4
RMS (OB-BG) data ⁸	3.9	1.1	1.6
REVISED RMS (OB-BG) ⁸	2.2	1.1	1.6
% OF DATA FLAGGED ⁸	53.0	37.0	2.0
OPERATING AT END OF PERIOD	YES	NO	NO
PERFORMANCE ⁹			
AVAILABILITY	SATISFACTORY	SATISFACTORY	VERY POOR
PRESSURE QUALITY	SUSPECT*	ACCEPTABLE	ACCEPTABLE
TIMELINESS	VERY GOOD	VERY GOOD	SATISFACTORY
COMMENTS	*positive bias of +10.0 hPa from 21/7 - 8/8	-	-

WMO NUMBER/COUNTRY ¹	61525/US	61542/US	62511/F
ARGOS Id No.	15354	15356	1354
PERIOD WITHIN AREA	01/07-03/07	23/09-30/09	01/07-27/07
AREA	E of Spain	S of France	E of SCOS
MEAN LATITUDE	39.5	43.1	46.1
MEAN LONGITUDE	-0.2	6.4	-6.1
NO. OF OBS RECEIVED ²	16	62	169
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	100.0	100.0	97.6
% OF PRESENT ⁵			
PRESSURE	100.0	96.8	100.0
P. TENDENCY	0.0	0.0	0.0
AIR TEMPERATURE	93.7	98.4	0.0
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	100.0	96.8	100.0
MEDIAN DELAY (MIN) ⁶	33.0	40.0	119.0
NUMBER OF DAYS	3.0	8.0	27.0
MEAN NO. OF OBS/DAY	5.3	7.8	6.3
NO. OF HOURS WITH OBS	15.0	60.0	169.0
MEAN NO. OF HOURS/DAY WITH OBS	5.0	7.5	6.3
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	79.2	68.8	73.8
MEAN (OB-BG) unflagged	0.4	-1.3	-0.2
RMS (OB-BG) data ⁸	0.9	1.8	0.9
MEAN (OB-BG) all	0.5	-1.4	-0.1
RMS (OB-BG) data ⁸	0.9	1.8	1.1
REVISED RMS (OB-BG) ⁸	0.9	1.8	1.1
% OF DATA FLAGGED ⁸	13.0	5.0	2.0
OPERATING AT END OF PERIOD	NO	YES	NO
PERFORMANCE ⁹			
AVAILABILITY	POOR	POOR	POOR
PRESSURE QUALITY	ACCEPTABLE	SUSPECT	ACCEPTABLE
TIMELINESS	VERY GOOD	VERY GOOD	GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	62516/F	62517/F	62518/F
ARGOS Id No.	10107	10108	10113
PERIOD WITHIN AREA	01/07-21/09	01/07-12/09	01/07-30/09
AREA	SCOS	N of SCOS	SCOS
MEAN LATITUDE	45.4	48.6	42.4
MEAN LONGITUDE	-12.4	-12.0	-14.4
NO. OF OBS RECEIVED ²	658	456	735
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	100.0	100.0	100.0
% OF PRESENT ⁵			
PRESSURE	100.0	100.0	99.9
P. TENDENCY	99.7	100.0	99.3
AIR TEMPERATURE	0.0	0.0	0.0
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	99.7/96.2
SEA SURFACE TEMP.	99.5	100.0	99.7
MEDIAN DELAY (MIN) ⁶	19.0	235.0	140.0
NUMBER OF DAYS	83.0	74.0	92.0
MEAN NO. OF OBS/DAY	7.9	6.2	8.0
NO. OF HOURS WITH OBS	626.0	430.0	698.0
MEAN NO. OF HOURS/DAY WITH OBS	7.5	5.8	7.6
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	67.1	75.8	68.3
MEAN (OB-BG) unflagged	0.5	-0.2	0.6
RMS (OB-BG) data ⁸	1.3	1.0	1.1
MEAN (OB-BG) all	0.6	-0.1	0.6
RMS (OB-BG) data ⁸	1.4	1.0	1.2
REVISED RMS (OB-BG) ⁸	1.4	1.0	1.2
% OF DATA FLAGGED ⁸	10.0	9.0	8.0
OPERATING AT END OF PERIOD	NO	NO	YES
PERFORMANCE ⁹			
AVAILABILITY	POOR	POOR	POOR
PRESSURE QUALITY	ACCEPTABLE	ACCEPTABLE	SUSPECT
TIMELINESS	VERY GOOD	POOR	SATISFACTORY
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	62519/F	62520/F	62673/US
ARGOS Id No.	10112	10114	6817
PERIOD WITHIN AREA	29/09-30/09	29/09-30/09	30/08-30/09
AREA	N of SCOS	N of SCOS	SOBA
MEAN LATITUDE	46.9	48.3	58.3
MEAN LONGITUDE	-13.8	-14.0	-31.9
NO. OF OBS RECEIVED ²	18	18	474
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	100.0	100.0	100.0
% OF PRESENT ⁵			
PRESSURE	100.0	94.4	97.9
P. TENDENCY	94.4	0.0	0.0
AIR TEMPERATURE	0.0	0.0	98.1
WIND SPEED/DIRECTION	0.0/0.0	88.9/94.4	0.0/0.0
SEA SURFACE TEMP.	100.0	94.4	97.7
MEDIAN DELAY (MIN) ⁶	18.0	27.0	92.0
NUMBER OF DAYS	2.0	2.0	32.0
MEAN NO. OF OBS/DAY	9.0	9.0	14.8
NO. OF HOURS WITH OBS	17.0	17.0	392.0
MEAN NO. OF HOURS/DAY WITH OBS	8.5	8.5	12.3
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	64.6	64.6	48.8
MEAN (OB-BG) unflagged	-0.4	0.2	2.0
RMS (OB-BG) data ⁸	1.6	1.2	2.4
MEAN (OB-BG) all	-0.2	0.1	1.9
RMS (OB-BG) data ⁸	1.5	1.2	2.4
REVISED RMS (OB-BG) ⁸	1.5	1.2	2.4
% OF DATA FLAGGED ⁸	13.0	19.0	33.0
OPERATING AT END OF PERIOD	YES	YES	YES
PERFORMANCE ⁹			
AVAILABILITY	POOR	POOR	SATISFACTORY
PRESSURE QUALITY	ACCEPTABLE	ACCEPTABLE	SUSPECT
TIMELINESS	VERY GOOD	VERY GOOD	GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	62694/UK	62711/UK	62712/UK
ARGOS Id No.	2598	1258	1247
PERIOD WITHIN AREA	01/07-30/09	01/07-30/09	01/07-30/09
AREA	SCOS	SOBA	SOBA
MEAN LATITUDE	40.8	58.0	59.0
MEAN LONGITUDE	-19.8	-38.8	-31.6
NO. OF OBS RECEIVED ²	2195	1590	2948
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	98.0	61.4	87.2
% OF PRESENT ⁵			
PRESSURE	99.7	99.9	95.3
P. TENDENCY	65.9	41.5	46.6
AIR TEMPERATURE	87.1	99.8	99.7
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	46.7/46.7
SEA SURFACE TEMP.	56.1	71.4	29.0
MEDIAN DELAY (MIN) ⁶	20.0	76.0	19.0
NUMBER OF DAYS	92.0	92.0	92.0
MEAN NO. OF OBS/DAY	23.9	17.3	32.0
NO. OF HOURS WITH OBS	1204.0	1088.0	1504.0
MEAN NO. OF HOURS/DAY WITH OBS	13.1	11.8	16.3
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	45.4	50.8	32.1
MEAN (OB-BG) unflagged	0.8	-0.4	0.3
RMS (OB-BG) data ⁸	1.4	1.3	1.5
MEAN (OB-BG) all	0.7	-0.2	0.1
RMS (OB-BG) data ⁸	2.9	2.2	3.0
REVISED RMS (OB-BG) ⁸	1.4	1.6	2.0
% OF DATA FLAGGED ⁸	52.0	40.0	58.0
OPERATING AT END OF PERIOD	YES	YES	YES
PERFORMANCE ⁹			
AVAILABILITY	SATISFACTORY	SATISFACTORY	GOOD
PRESSURE QUALITY	SUSPECT	ACCEPTABLE	ACCEPTABLE
TIMELINESS	VERY GOOD	GOOD	VERY GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	62713/UK	62714/UK	62802/UK
ARGOS Id No.	1363	1364	4627
PERIOD WITHIN AREA	01/07-27/09	01/07-08/08	01/07-17/09
AREA	SCOS	N of SCOS	SOBA
MEAN LATITUDE	42.2	49.6	60.2
MEAN LONGITUDE	-23.7	-24.8	-29.0
NO. OF OBS RECEIVED ²	1000	444	2183
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	97.8	98.2	98.8
% OF PRESENT ⁵			
PRESSURE	97.0	99.5	99.9
P. TENDENCY	0.0	0.0	0.0
AIR TEMPERATURE	0.0	0.0	100.0
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	75.4	80.6	77.2
MEDIAN DELAY (MIN) ⁶	34.0	21.0	21.0
NUMBER OF DAYS	89.0	39.0	79.0
MEAN NO. OF OBS/DAY	11.2	11.4	27.6
NO. OF HOURS WITH OBS	630.0	270.0	1096.0
MEAN NO. OF HOURS/DAY WITH OBS	7.1	6.9	13.9
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	70.4	71.3	42.1
MEAN (OB-BG) unflagged	0.1	0.3	1.3
RMS (OB-BG) data ⁸	0.9	1.2	1.8
MEAN (OB-BG) all	-0.1	0.3	1.2
RMS (OB-BG) data ⁸	3.7	1.2	2.3
REVISED RMS (OB-BG) ⁸	0.9	1.2	1.9
% OF DATA FLAGGED ⁸	42.0	45.0	57.0
OPERATING AT END OF PERIOD	NO	NO	NO
PERFORMANCE ⁹			
AVAILABILITY	POOR	POOR	GOOD
PRESSURE QUALITY	ACCEPTABLE	ACCEPTABLE	SUSPECT
TIMELINESS	VERY GOOD	VERY GOOD	VERY GOOD
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	62805/UK	64539/US	64540/US
ARGOS Id No.	6285	5521	5522
PERIOD WITHIN AREA	01/07-30/09	30/08-30/09	30/08-30/09
AREA	W of SCOS	SOBA	SOBA
MEAN LATITUDE	30.8	62.6	59.5
MEAN LONGITUDE	-47.1	-37.0	-41.3
NO. OF OBS RECEIVED ²	1021	580	353
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	88.8	100.0	100.0
% OF PRESENT ⁵			
PRESSURE	99.8	98.4	98.6
P. TENDENCY	0.0	0.0	0.0
AIR TEMPERATURE	99.8	98.3	99.2
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	76.4	98.4	99.7
MEDIAN DELAY (MIN) ⁶	21.0	83.0	143.0
NUMBER OF DAYS	92.0	32.0	32.0
MEAN NO. OF OBS/DAY	11.1	18.1	11.0
NO. OF HOURS WITH OBS	758.0	446.0	300.0
MEAN NO. OF HOURS/DAY WITH OBS	8.2	13.9	9.4
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	65.8	42.1	60.8
MEAN (OB-BG) unflagged	0.0	0.5	0.8
RMS (OB-BG) data ⁸	0.8	1.3	1.7
MEAN (OB-BG) all	0.0	0.4	0.7
RMS (OB-BG) data ⁸	0.8	1.4	1.7
REVISED RMS (OB-BG) ⁸	0.8	1.4	1.7
% OF DATA FLAGGED ⁸	34.0	36.0	28.0
OPERATING AT END OF PERIOD	YES	YES	YES
PERFORMANCE ⁹			
AVAILABILITY	POOR	SATISFACTORY	POOR
PRESSURE QUALITY	ACCEPTABLE	ACCEPTABLE	SUSPECT
TIMELINESS	VERY GOOD	GOOD	SATISFACTORY
COMMENTS	-	-	-

WMO NUMBER/COUNTRY ¹	64542/US	64543/US	65562/N
ARGOS Id No.	6639	14293	4272
PERIOD WITHIN AREA	30/08-30/09	30/08-30/09	20/07-30/09
AREA	SOBA	SOBA	W of SOBA
MEAN LATITUDE	61.3	61.7	62.6
MEAN LONGITUDE	-25.7	-31.7	-55.2
NO. OF OBS RECEIVED ²	496	553	1832
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	100.0	100.0	99.8
% OF PRESENT ⁵			
PRESSURE	97.8	99.3	98.1
P. TENDENCY	0.0	0.0	88.2
AIR TEMPERATURE	98.4	99.6	97.9
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	98.4	99.6	73.1
MEDIAN DELAY (MIN) ⁶	93.0	157.0	96.0
NUMBER OF DAYS	32.0	32.0	73.0
MEAN NO. OF OBS/DAY	15.5	17.3	25.1
NO. OF HOURS WITH OBS	410.0	452.0	1086.0
MEAN NO. OF HOURS/DAY WITH OBS	12.8	14.1	14.9
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	46.7	41.3	37.9
MEAN (OB-BG) unflagged	0.6	0.4	0.0
RMS (OB-BG) data ⁸	1.3	1.3	1.1
MEAN (OB-BG) all	0.6	0.3	-0.2
RMS (OB-BG) data ⁸	1.3	1.3	3.8
REVISED RMS (OB-BG) ⁸	1.3	1.3	1.1
% OF DATA FLAGGED ⁸	30.0	35.0	49.0
OPERATING AT END OF PERIOD	YES	YES	YES
PERFORMANCE ⁹			
AVAILABILITY	SATISFACTORY	SATISFACTORY	GOOD
PRESSURE QUALITY	SUSPECT	ACCEPTABLE	ACCEPTABLE
TIMELINESS	GOOD	SATISFACTORY	GOOD
COMMENTS	-	-	-

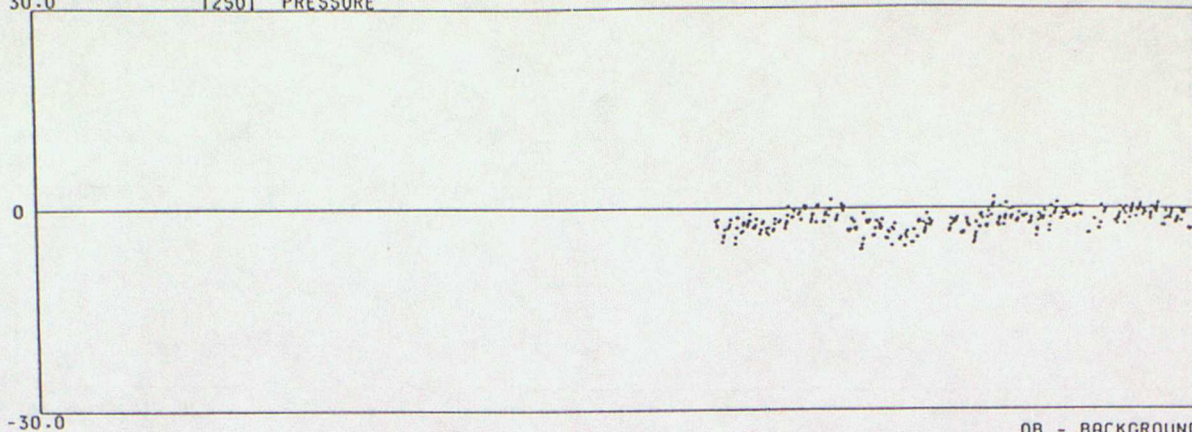
WMO NUMBER/COUNTRY ¹	65596/NL	65597/N
ARGOS Id No.	4271	4270
PERIOD WITHIN AREA	01/07-30/09	01/07-30/09
AREA	SOBA	SOBA
MEAN LATITUDE	61.4	58.5
MEAN LONGITUDE	-32.7	-37.9
NO. OF OBS RECEIVED ²	3517	3681
% OF OBS WITH VALID TIME AND DATE ³	100.0	100.0
% OF OBS WITH ACCEPTABLE POSITION ⁴	99.1	99.2
% OF PRESENT ⁵		
PRESSURE	99.7	99.4
P. TENDENCY	90.5	64.6
AIR TEMPERATURE	99.6	99.5
WIND SPEED/DIRECTION	0.0/0.0	0.0/0.0
SEA SURFACE TEMP.	71.0	61.6
MEDIAN DELAY (MIN) ⁶	16.0	169.0
NUMBER OF DAYS	92.0	92.0
MEAN NO. OF OBS/DAY	38.2	40.0
NO. OF HOURS WITH OBS	1585.0	1621.0
MEAN NO. OF HOURS/DAY WITH OBS	17.2	17.6
% OF HOUR-PERIODS WITHOUT AN OB. ⁷	28.3	26.7
MEAN (OB-BG) unflagged	-0.1	-0.1
RMS (OB-BG) data ⁸	1.3	1.4
MEAN (OB-BG) all	-0.1	-0.2
RMS (OB-BG) data ⁸	1.5	2.8
REVISED RMS (OB-BG) ⁸	1.3	1.5
% OF DATA FLAGGED ⁸	61.0	62.0
OPERATING AT END OF PERIOD	YES	YES
PERFORMANCE ⁹		
AVAILABILITY	VERY GOOD	VERY GOOD
PRESSURE QUALITY	ACCEPTABLE	ACCEPTABLE
TIMELINESS	VERY GOOD	SATISFACTORY
COMMENTS	-	-

ANNEX B - TIME SERIES PLOTS OF PRESSURE

01/07/1993

30/09/1993

30.0 12501 PRESSURE

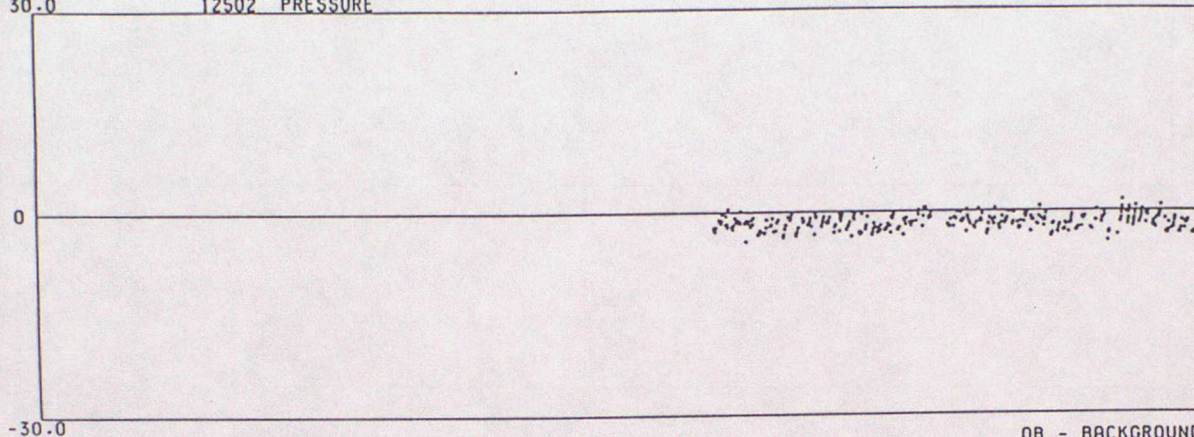


OB - BACKGROUND

01/07/1993

30/09/1993

30.0 12502 PRESSURE

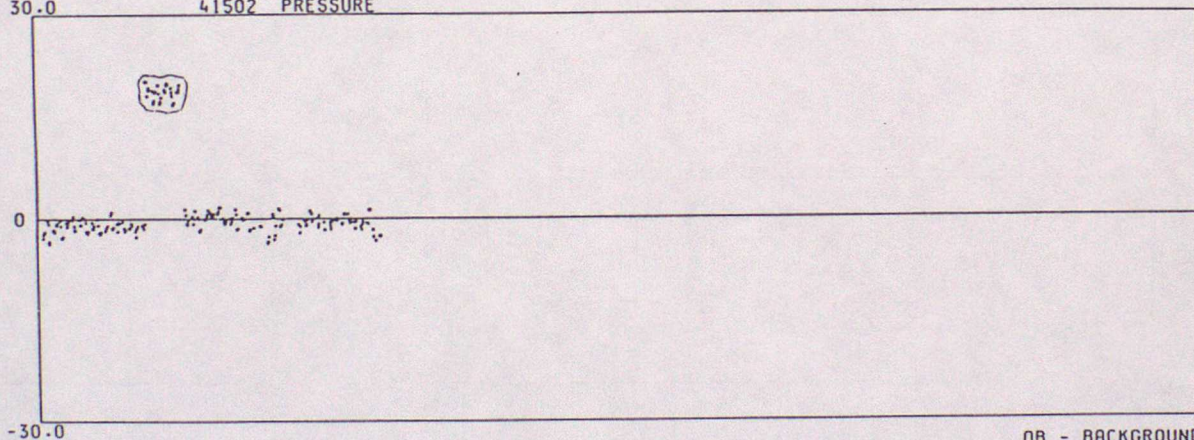


OB - BACKGROUND

01/07/1993

30/09/1993

30.0 41502 PRESSURE

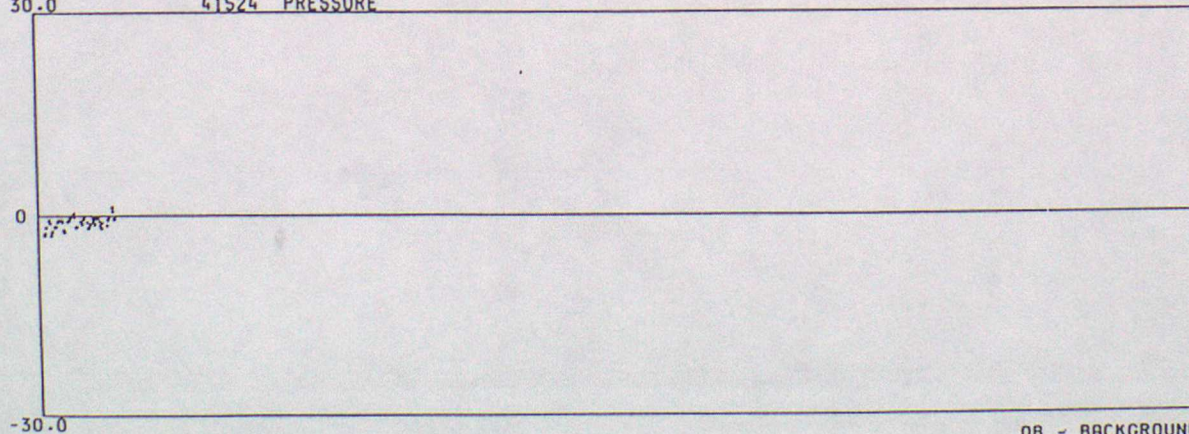


OB - BACKGROUND

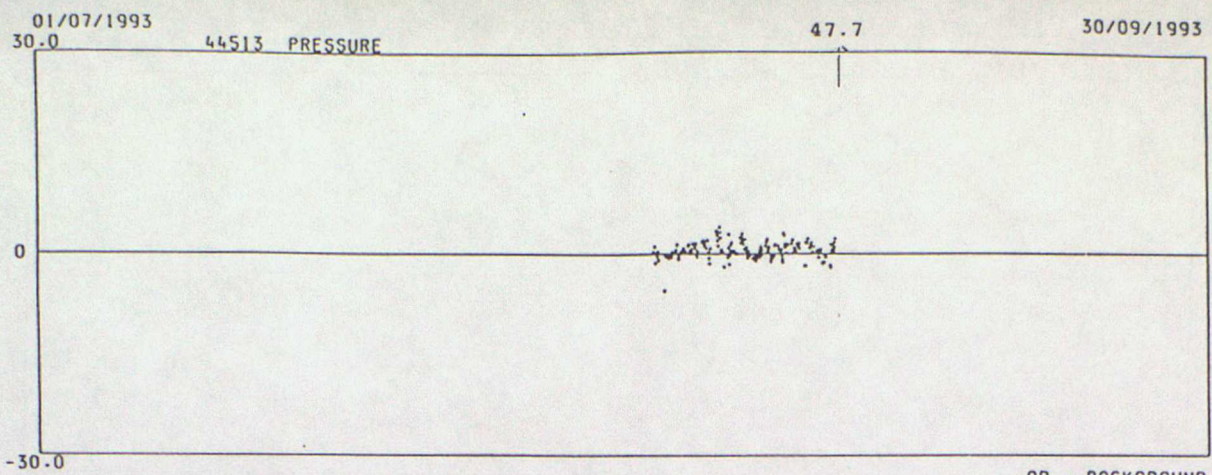
01/07/1993

30/09/1993

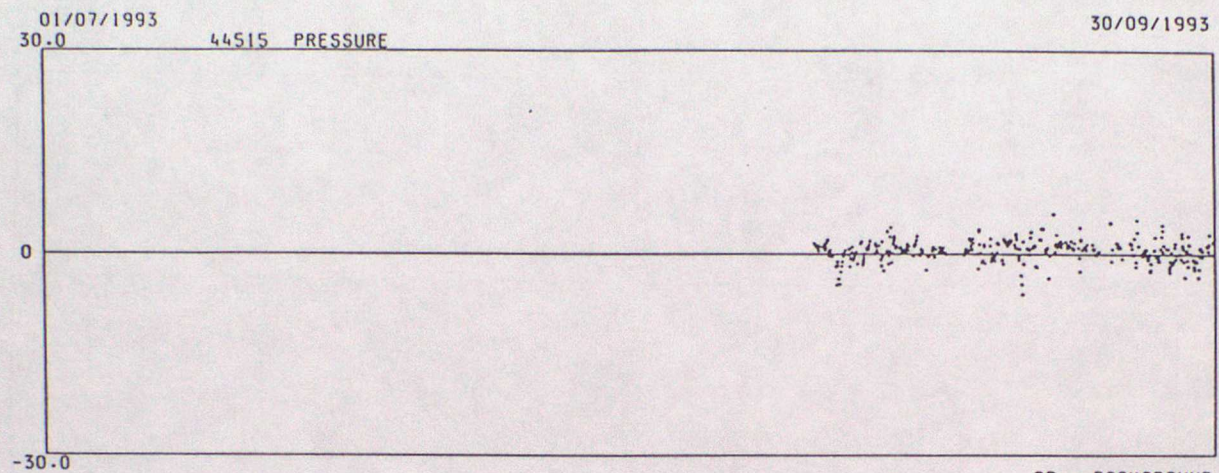
30.0 41524 PRESSURE



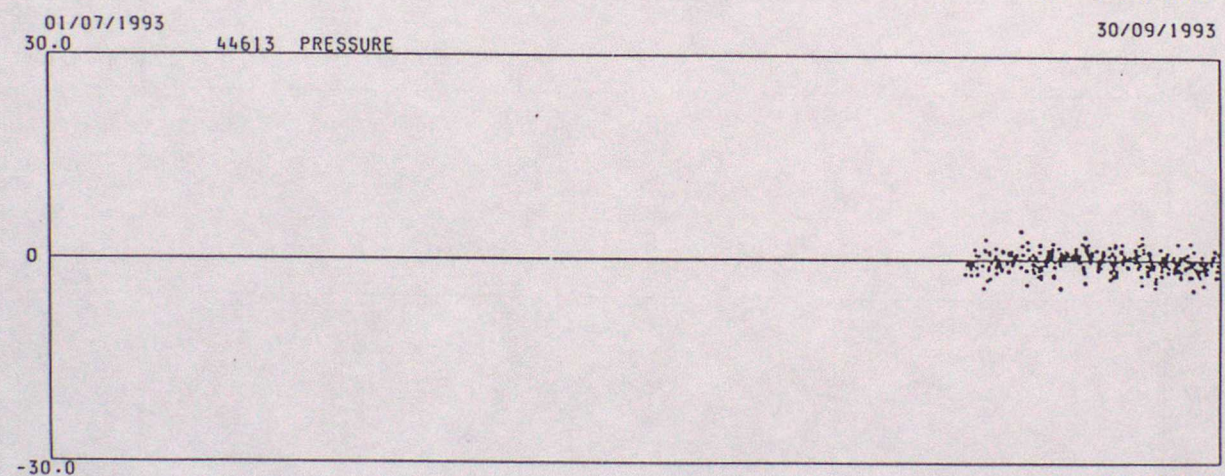
OB - BACKGROUND



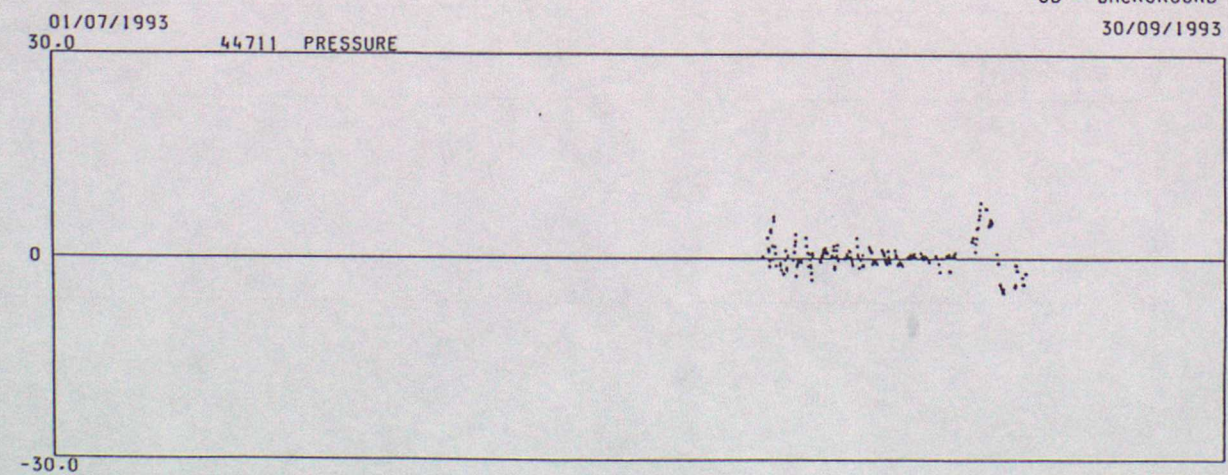
OB - BACKGROUND



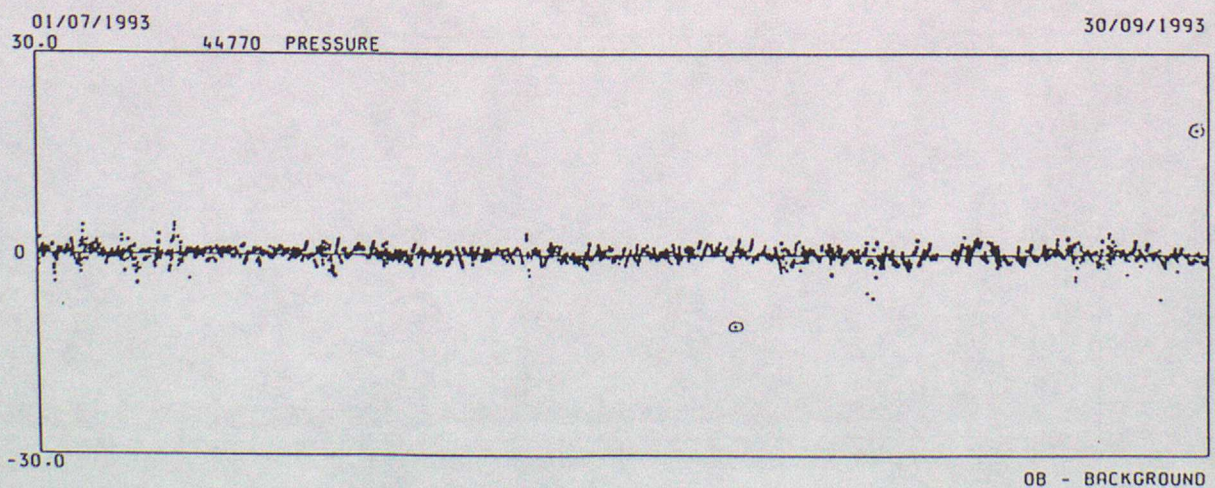
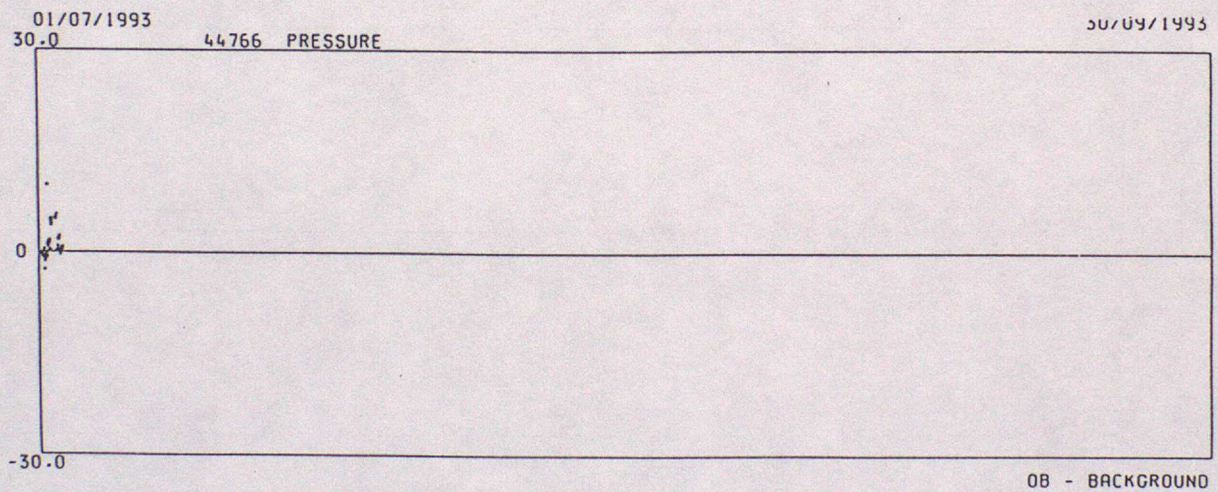
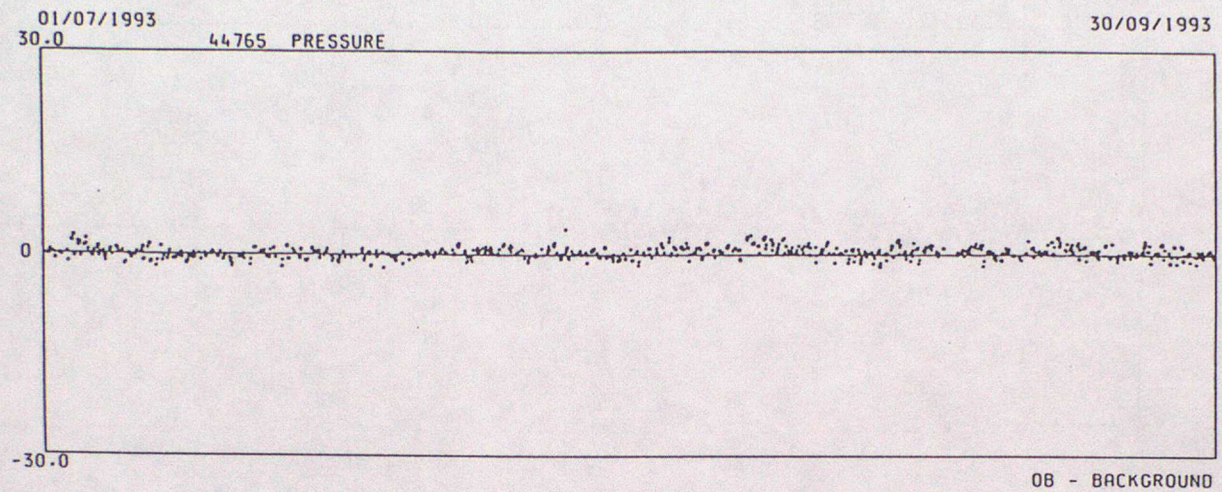
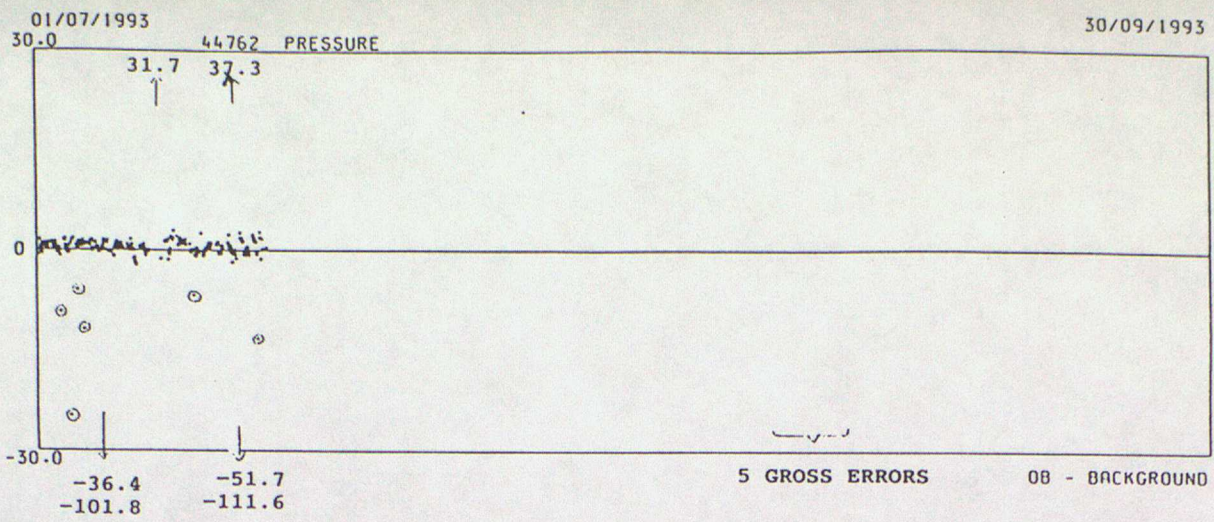
OB - BACKGROUND



OB - BACKGROUND

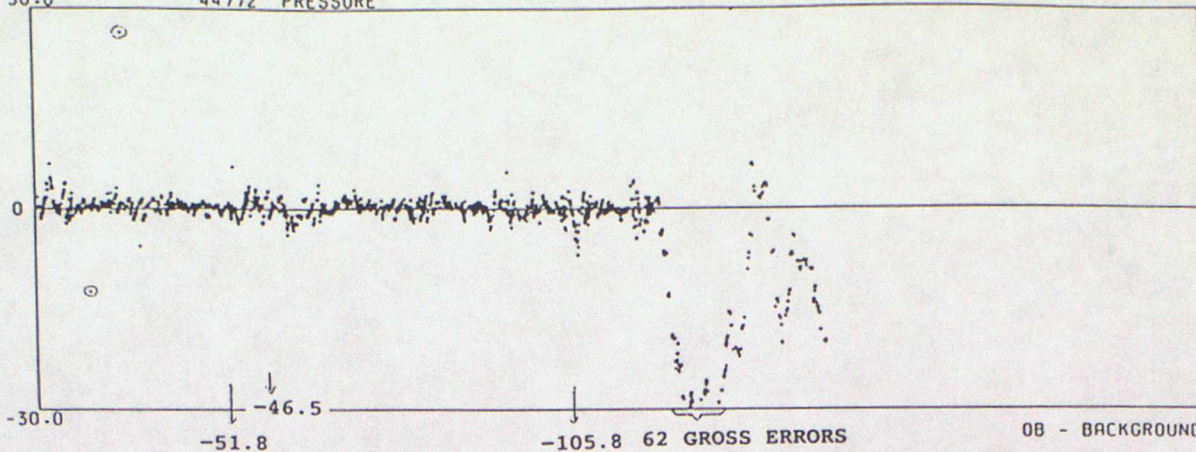


OB - BACKGROUND



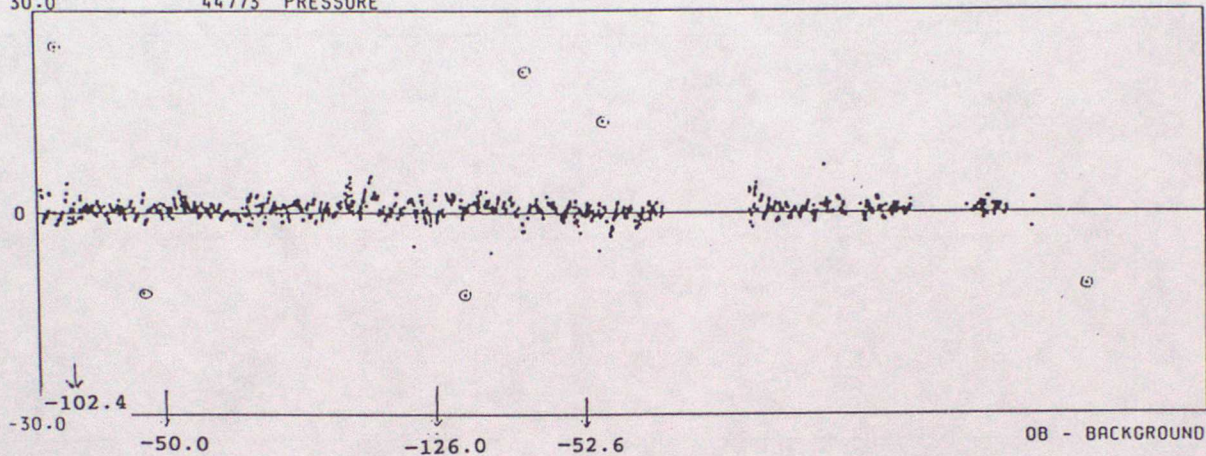
01/07/1993 44772 PRESSURE

30/09/1993



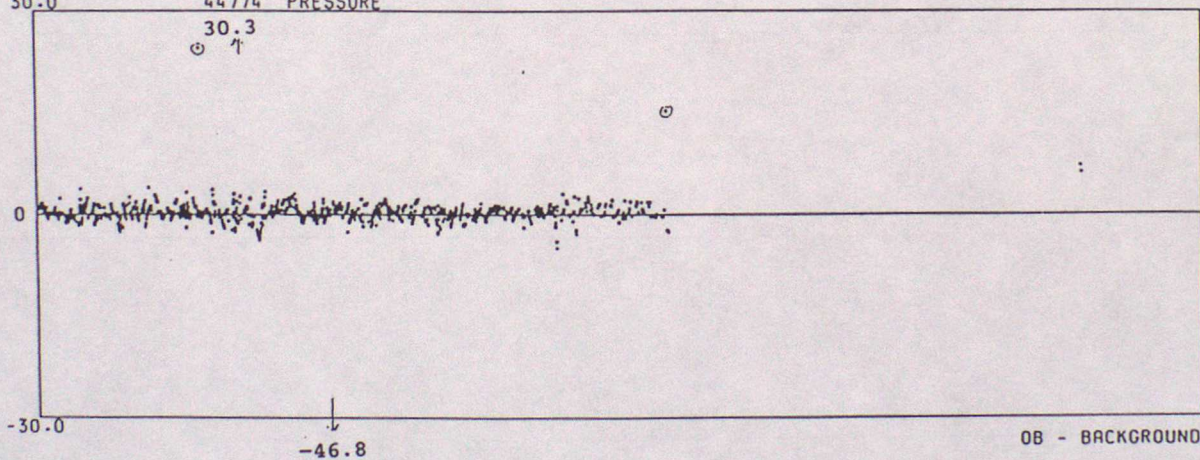
01/07/1993 44773 PRESSURE

30/09/1993



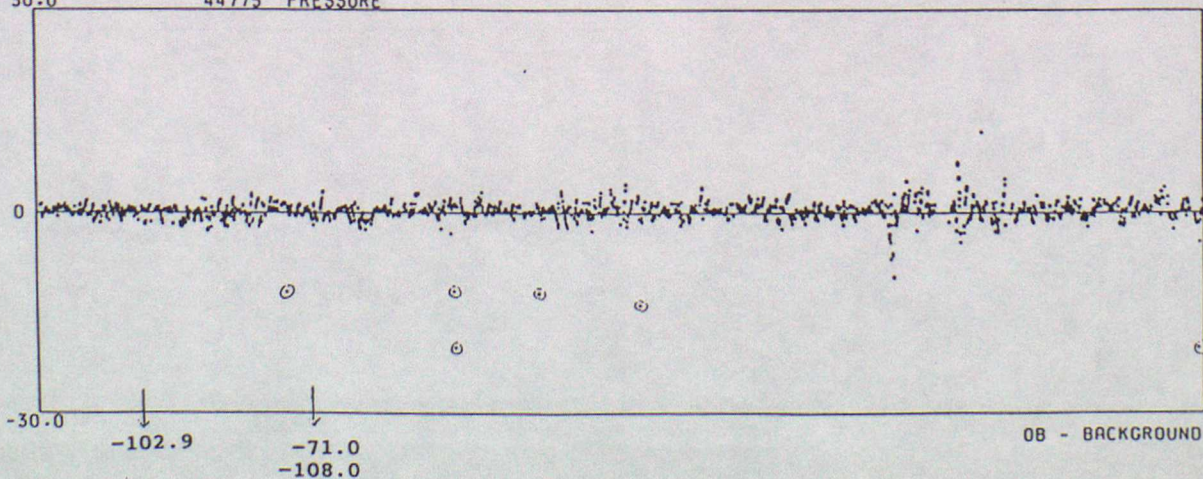
01/07/1993 44774 PRESSURE

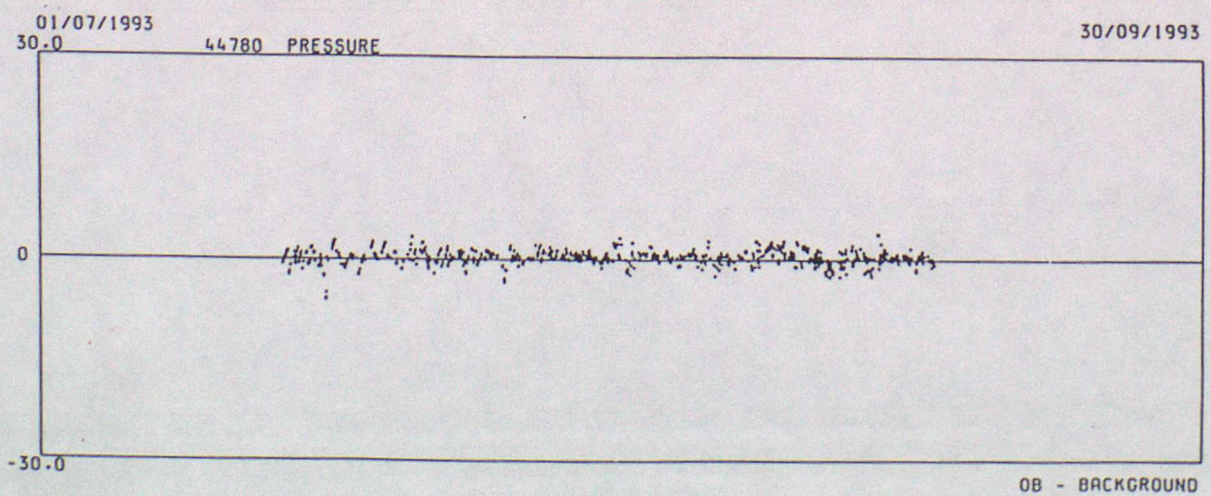
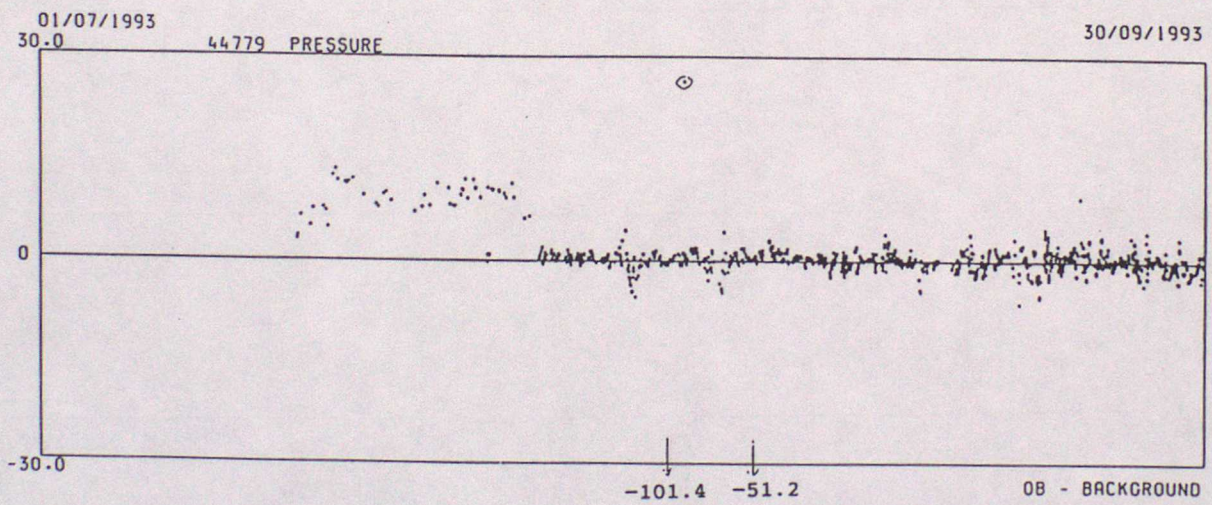
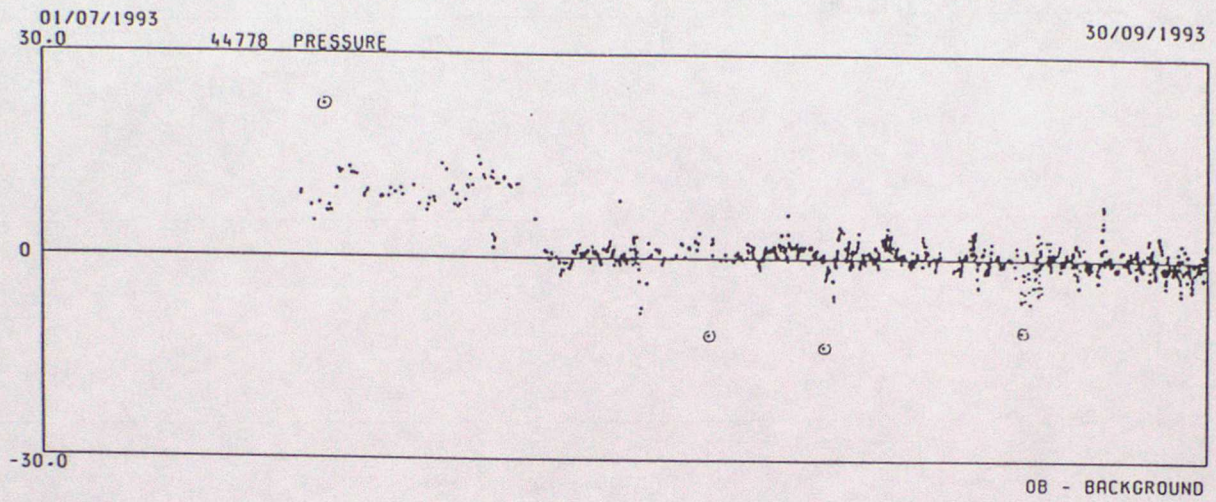
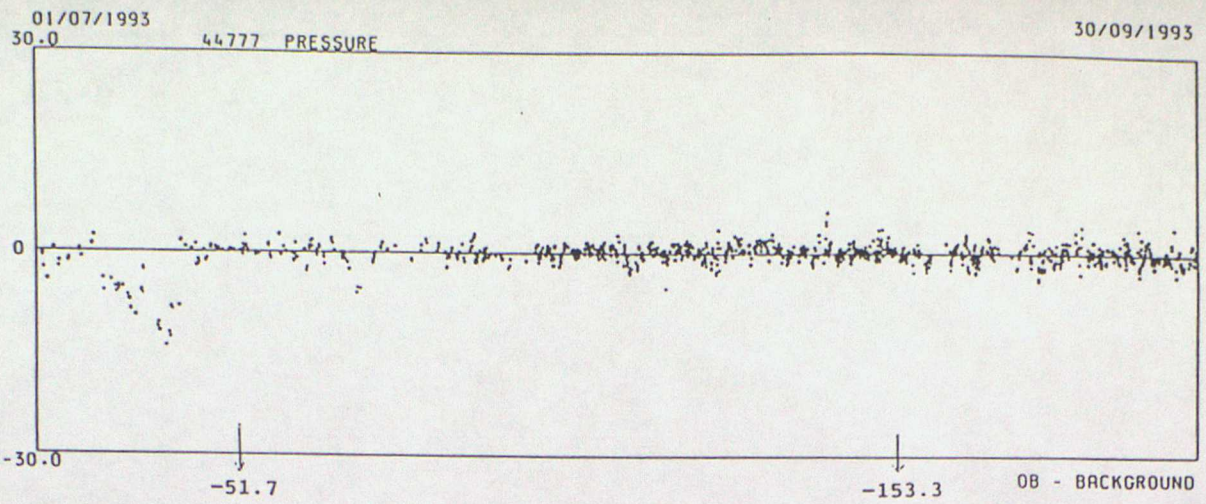
30/09/1993



01/07/1993 44775 PRESSURE

30/09/1993



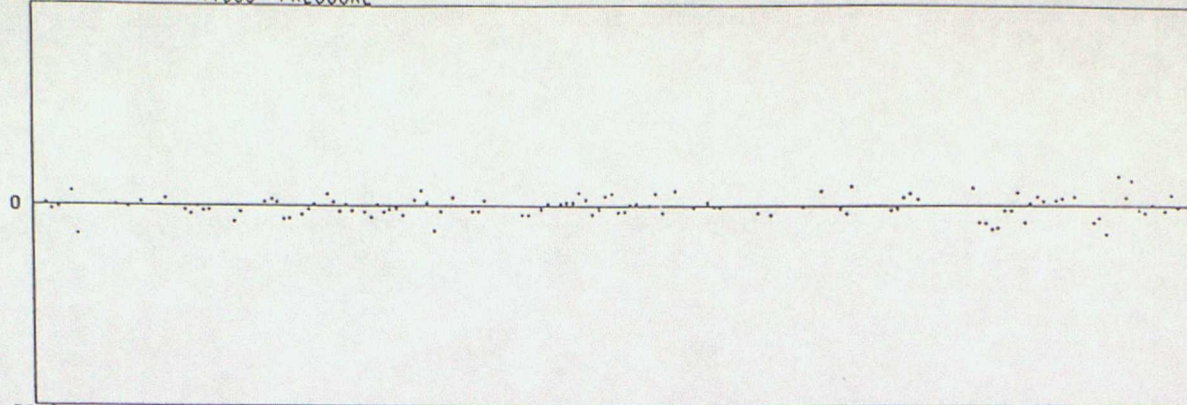


01/07/1993

30/09/1993

30.0

47606 PRESSURE



-30.0

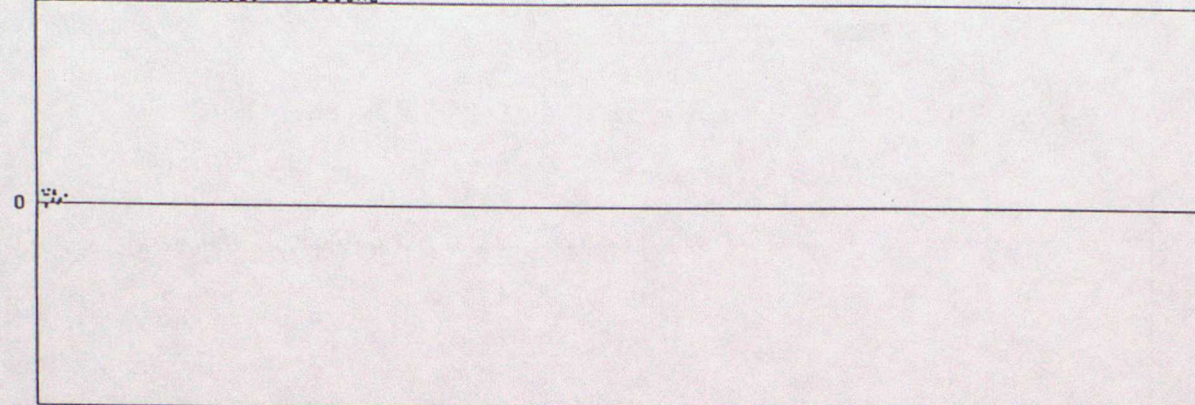
08 - BACKGROUND

01/07/1993

30/09/1993

30.0

61525 PRESSURE



-30.0

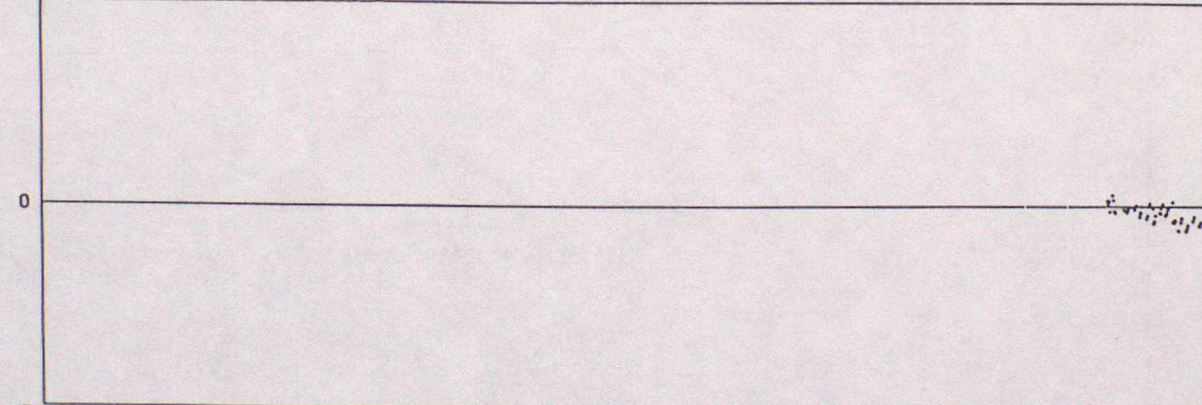
08 - BACKGROUND

01/07/1993

30/09/1993

30.0

61542 PRESSURE



-30.0

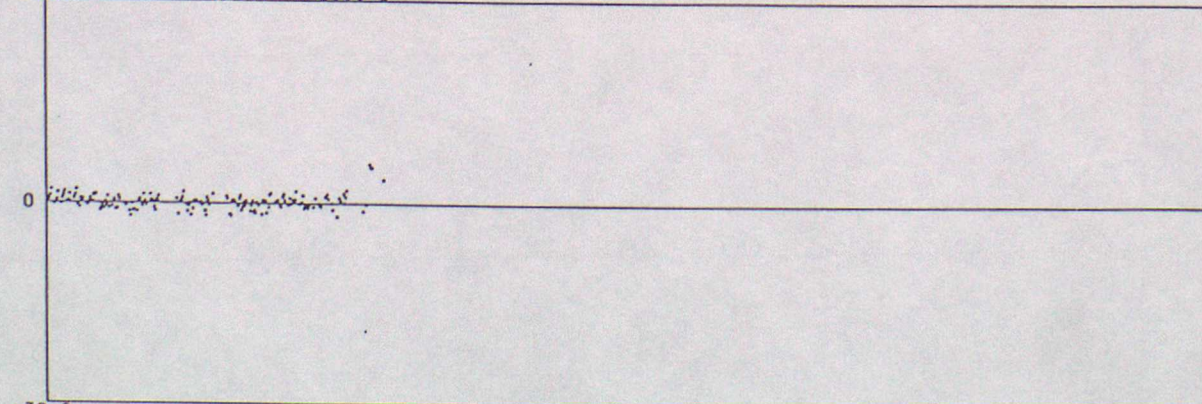
08 - BACKGROUND

01/07/1993

30/09/1993

30.0

62511 PRESSURE



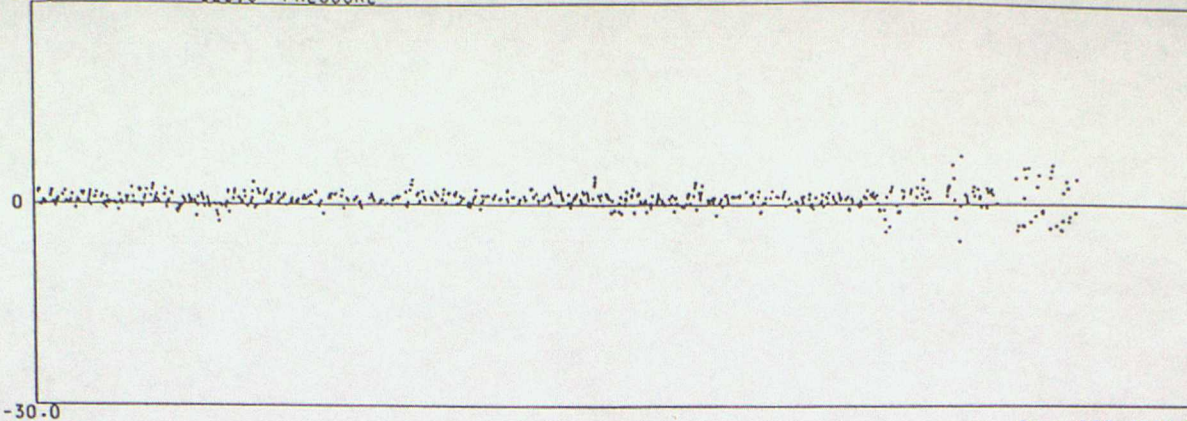
-30.0

08 - BACKGROUND

01/07/1993

30/09/1993

30.0 62516 PRESSURE

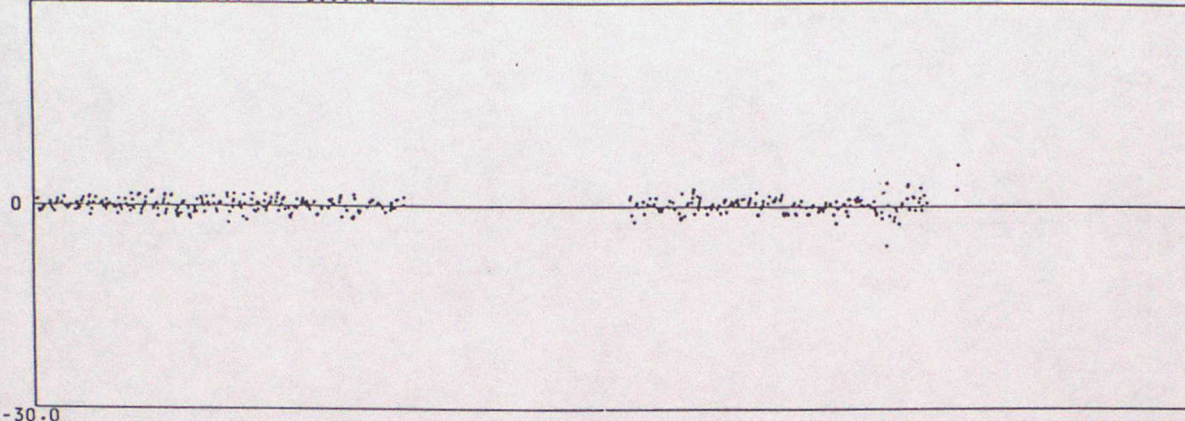


OB - BACKGROUND

01/07/1993

30/09/1993

30.0 62517 PRESSURE

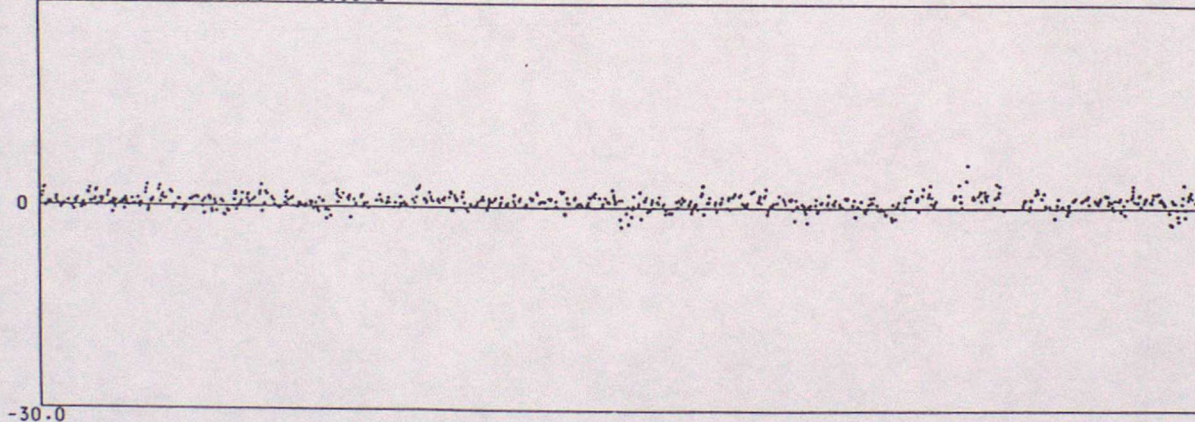


OB - BACKGROUND

01/07/1993

30/09/1993

30.0 62518 PRESSURE

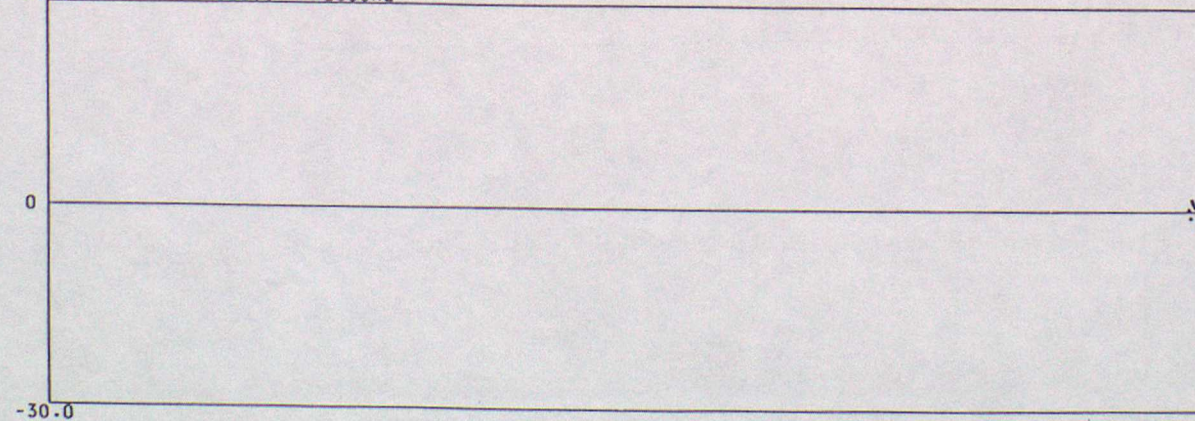


OB - BACKGROUND

01/07/1993

30/09/1993

30.0 62519 PRESSURE

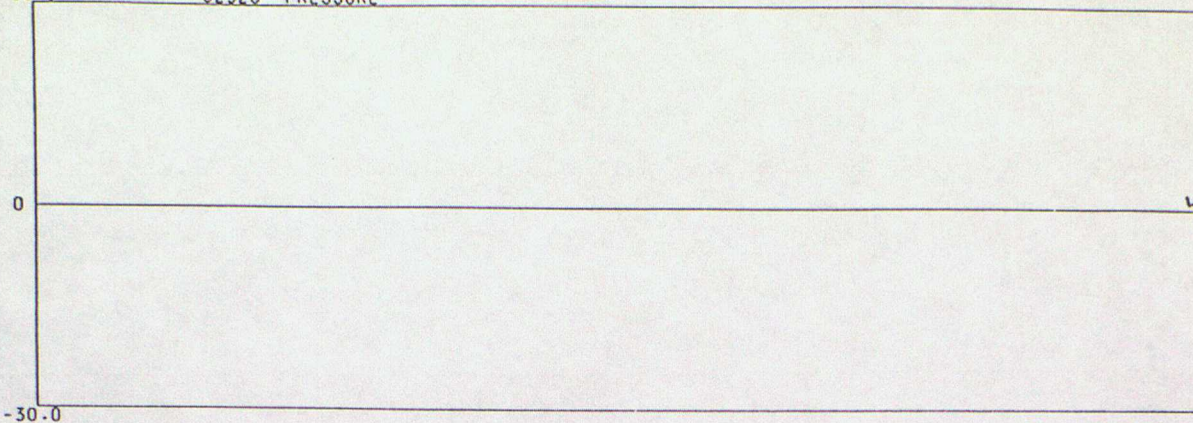


OB - BACKGROUND

01/07/1993
30.0

62520 PRESSURE

30/09/1993

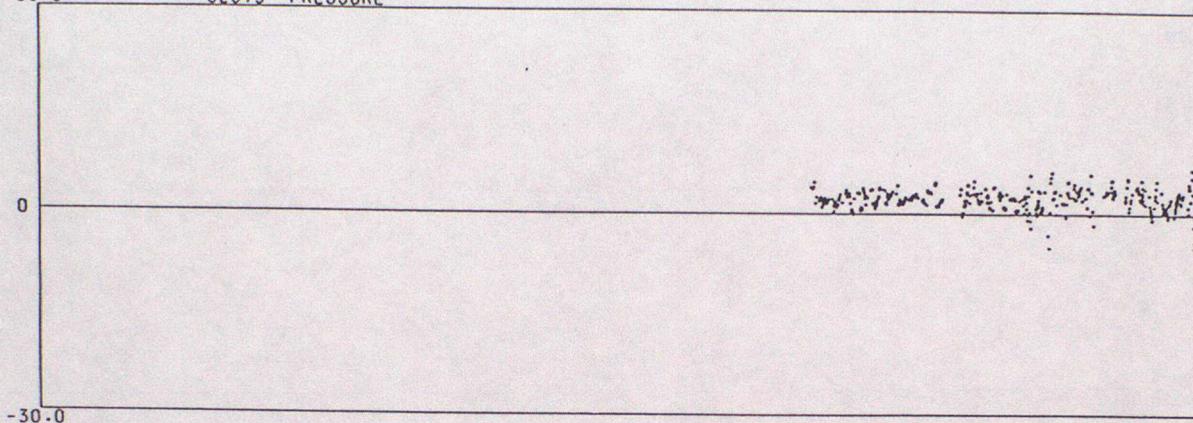


OB - BACKGROUND

01/07/1993
30.0

62673 PRESSURE

30/09/1993

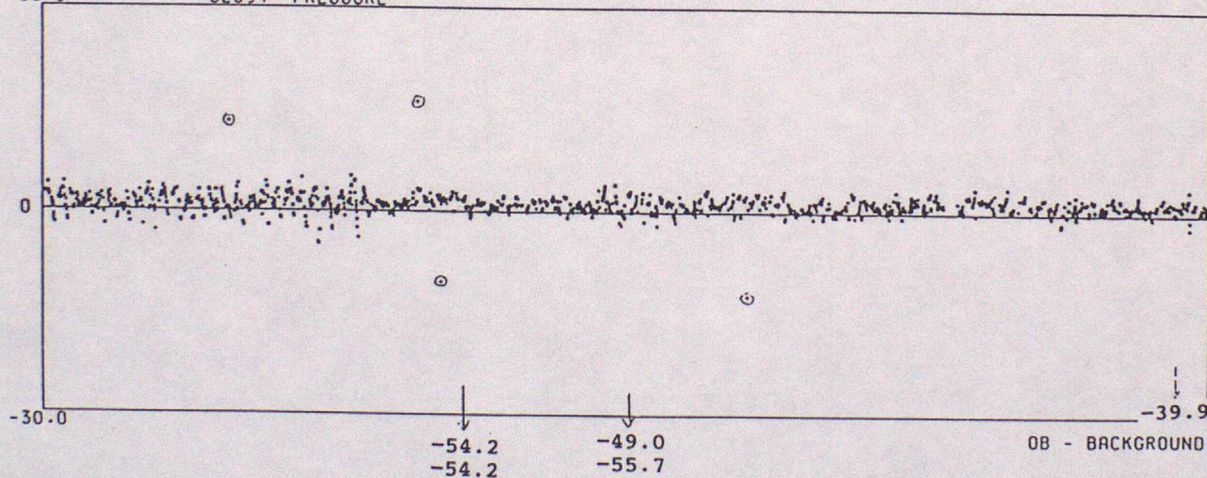


OB - BACKGROUND

01/07/1993
30.0

62694 PRESSURE

30/09/1993

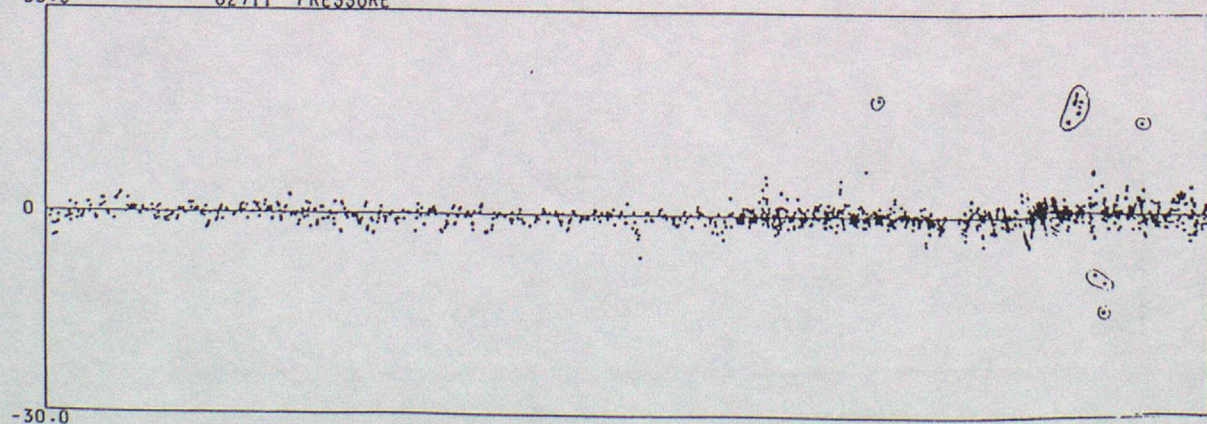


OB - BACKGROUND

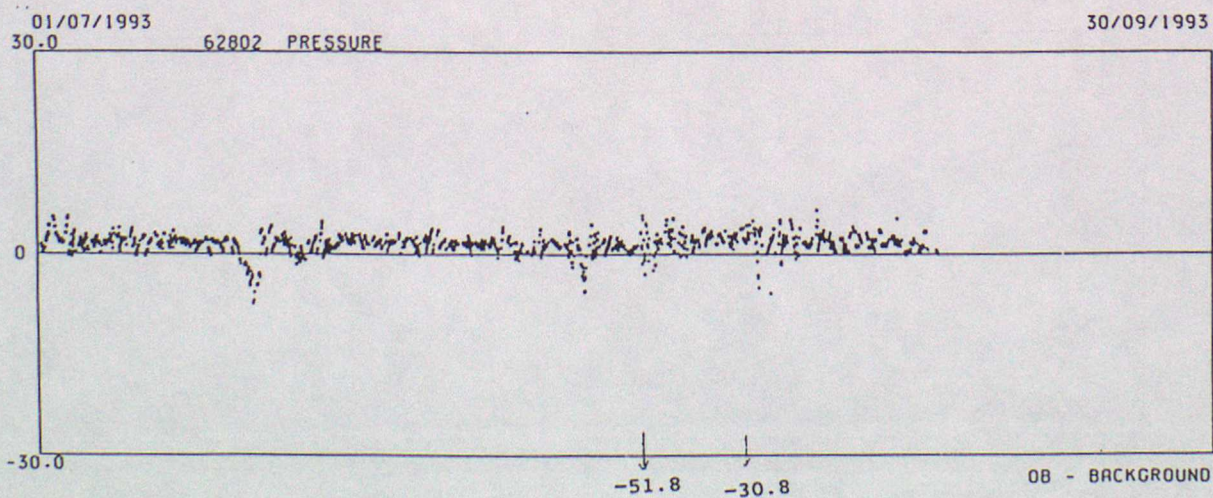
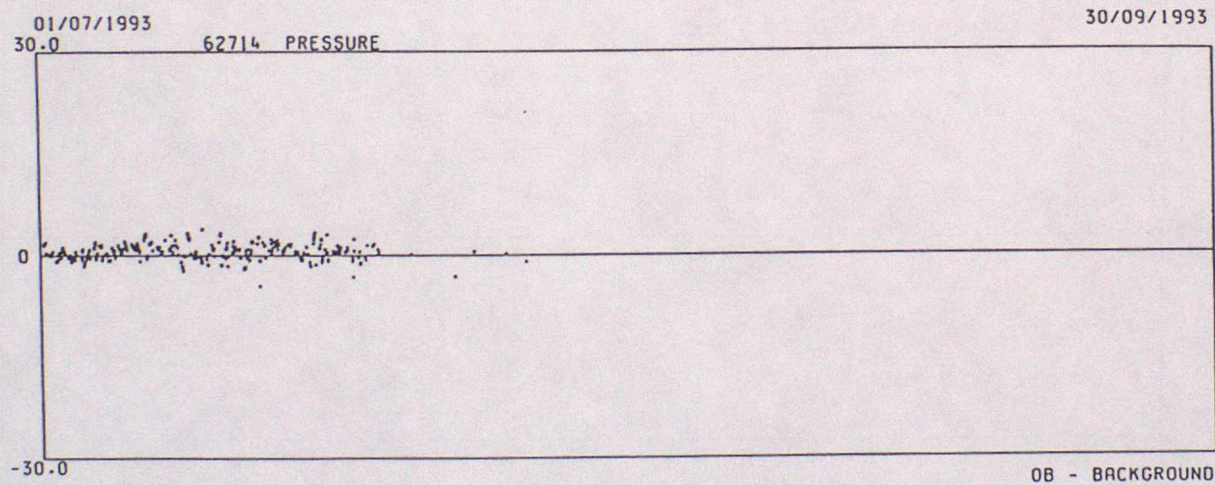
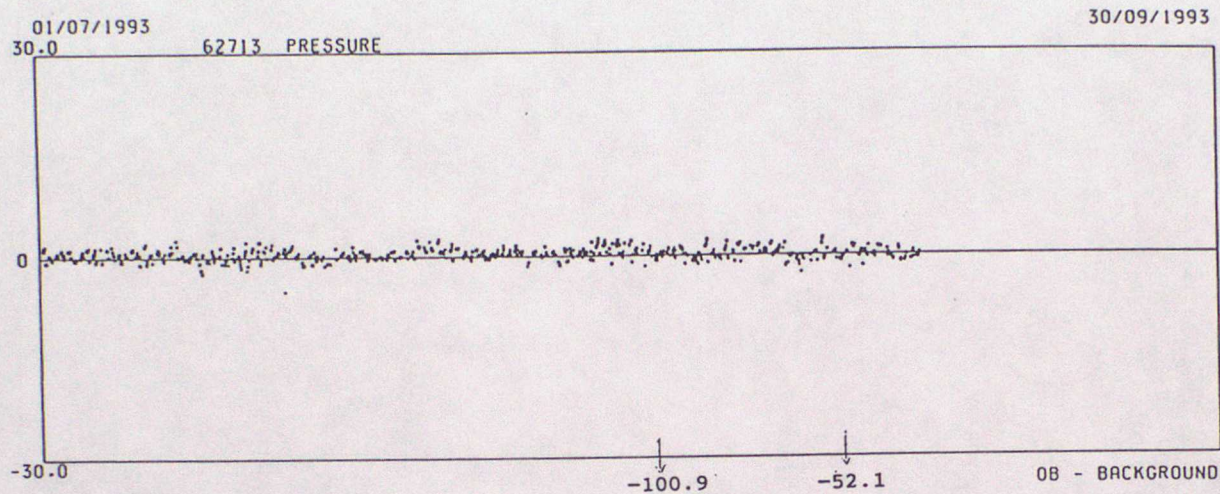
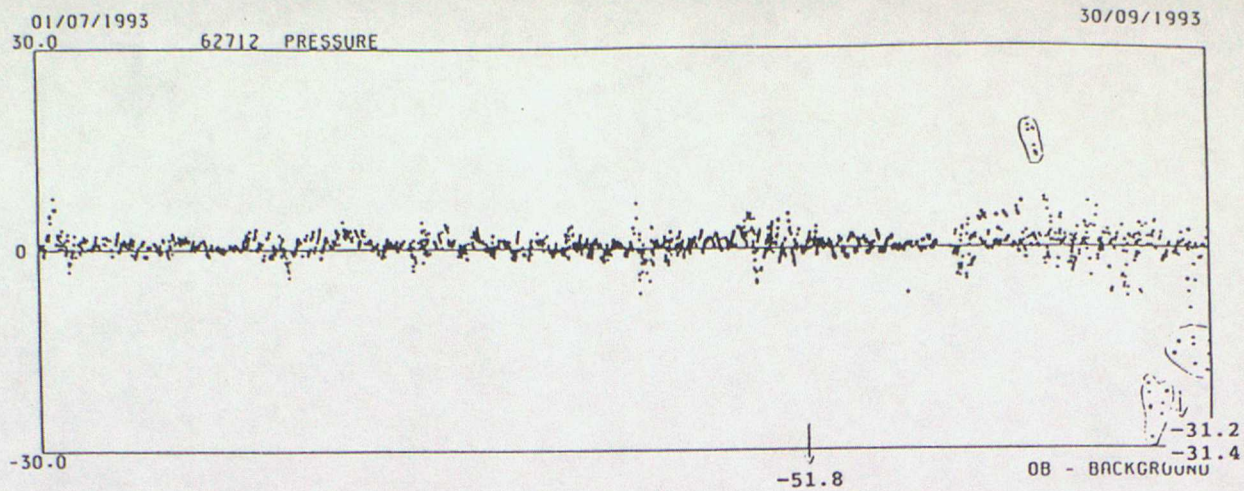
01/07/1993
30.0

62711 PRESSURE

30/09/1993



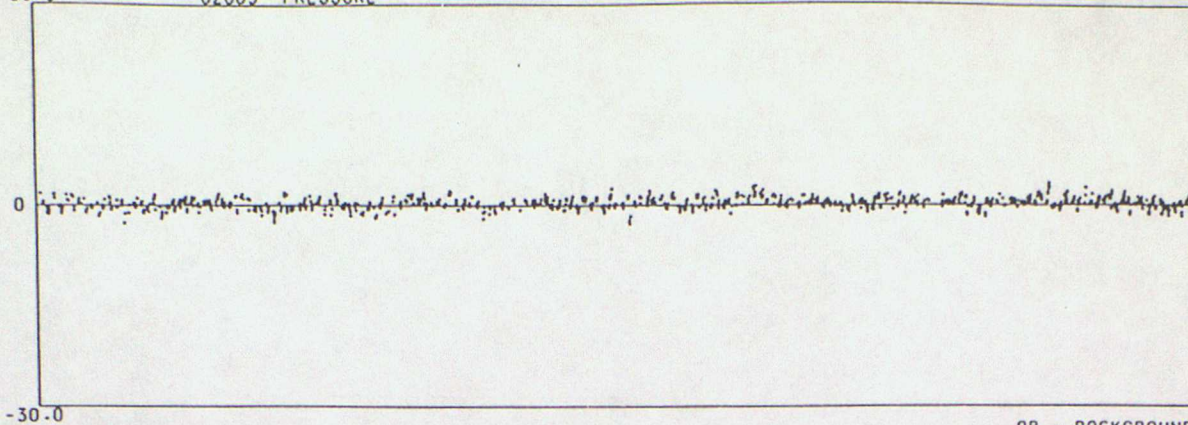
OB - BACKGROUND



01/07/1993
30.0

62805 PRESSURE

30/09/1993

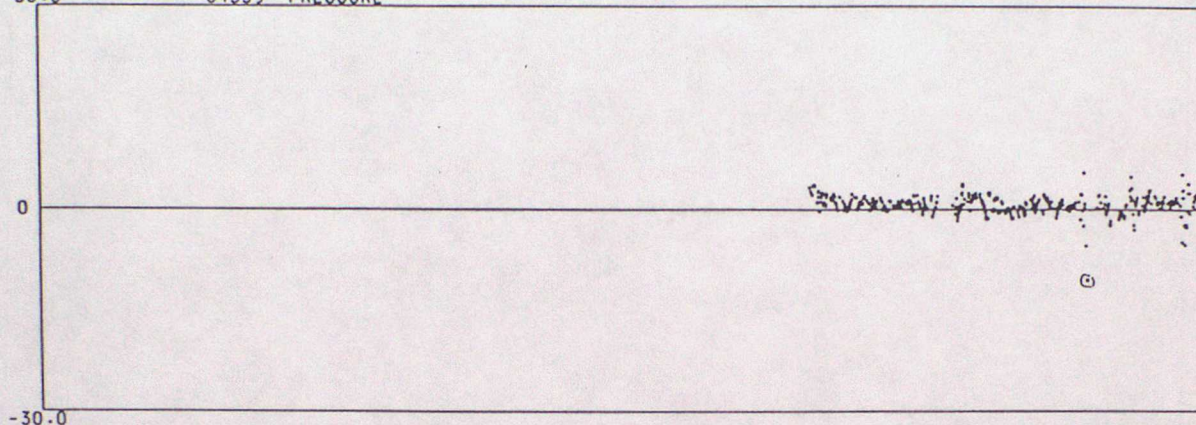


OB - BACKGROUND

01/07/1993
30.0

64539 PRESSURE

30/09/1993

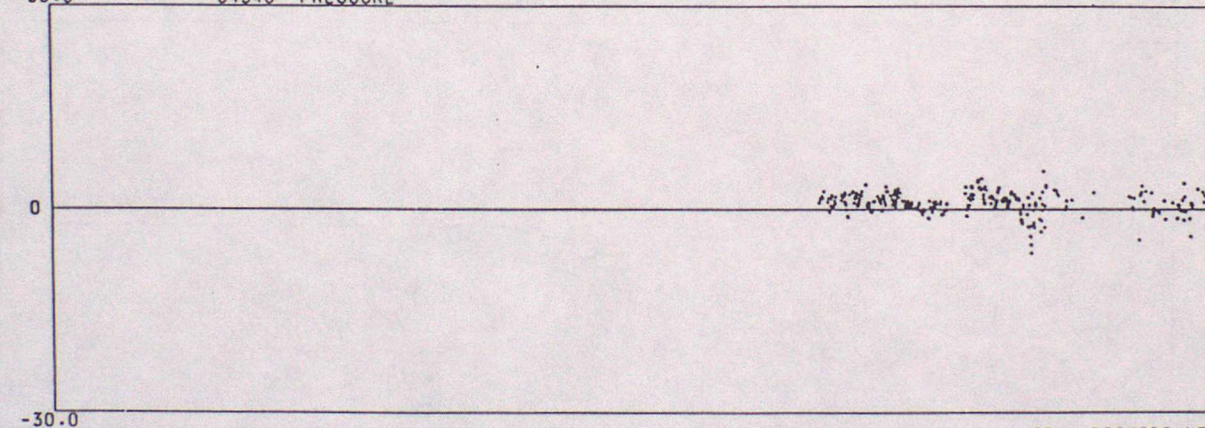


OB - BACKGROUND

01/07/1993
30.0

64540 PRESSURE

30/09/1993

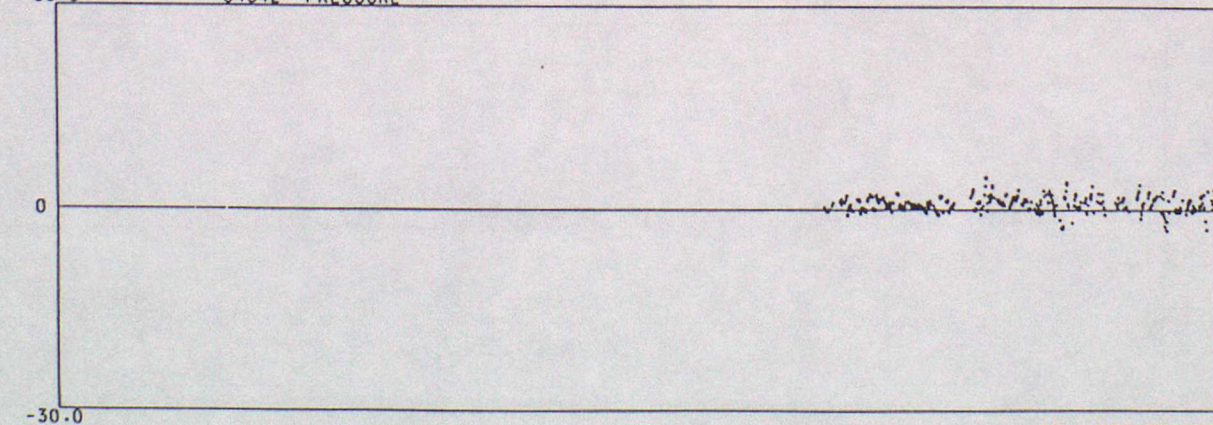


OB - BACKGROUND

01/07/1993
30.0

64542 PRESSURE

30/09/1993



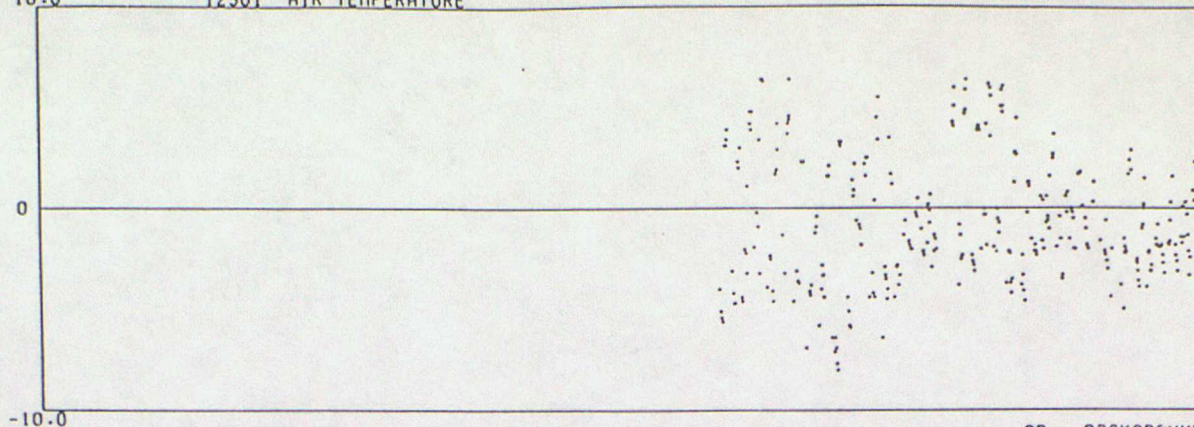
OB - BACKGROUND

ANNEX C - TIME SERIES PLOTS OF AIR TEMPERATURE

01/07/1993

30/09/1993

10.0 12501 AIR TEMPERATURE

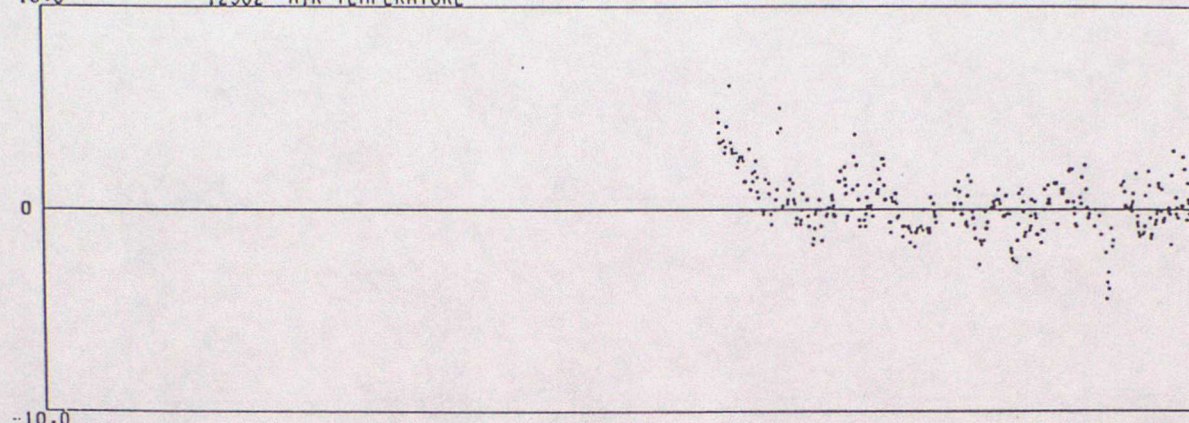


08 - BACKGROUND

01/07/1993

30/09/1993

10.0 12502 AIR TEMPERATURE

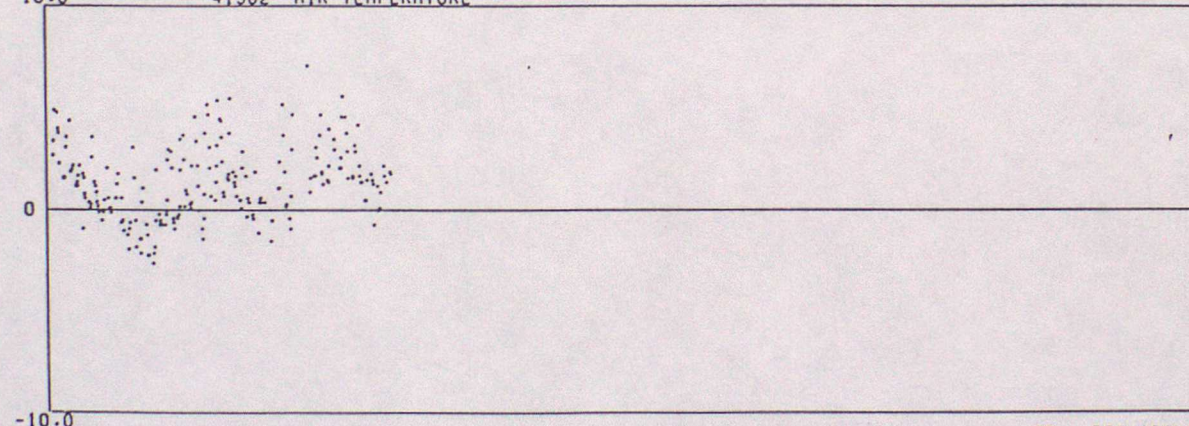


08 - BACKGROUND

01/07/1993

30/09/1993

10.0 41502 AIR TEMPERATURE

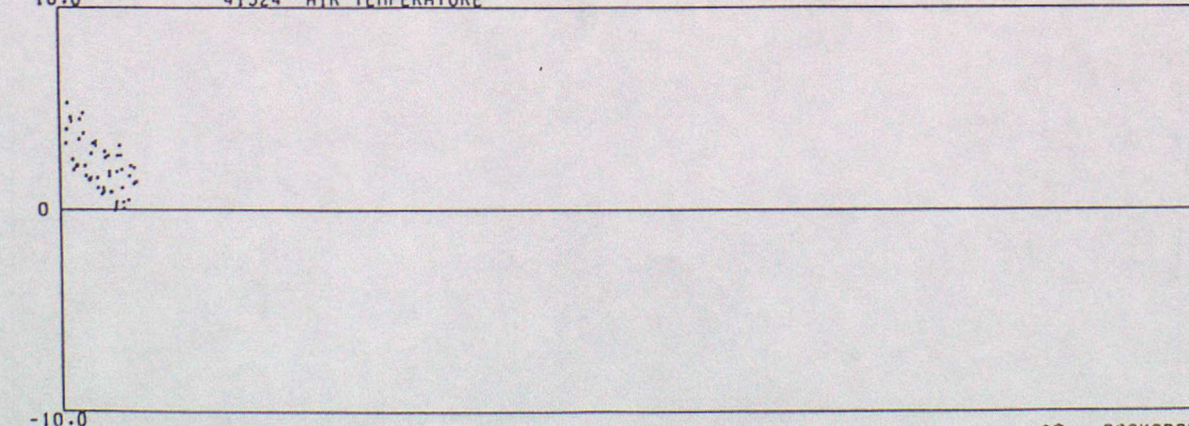


08 - BACKGROUND

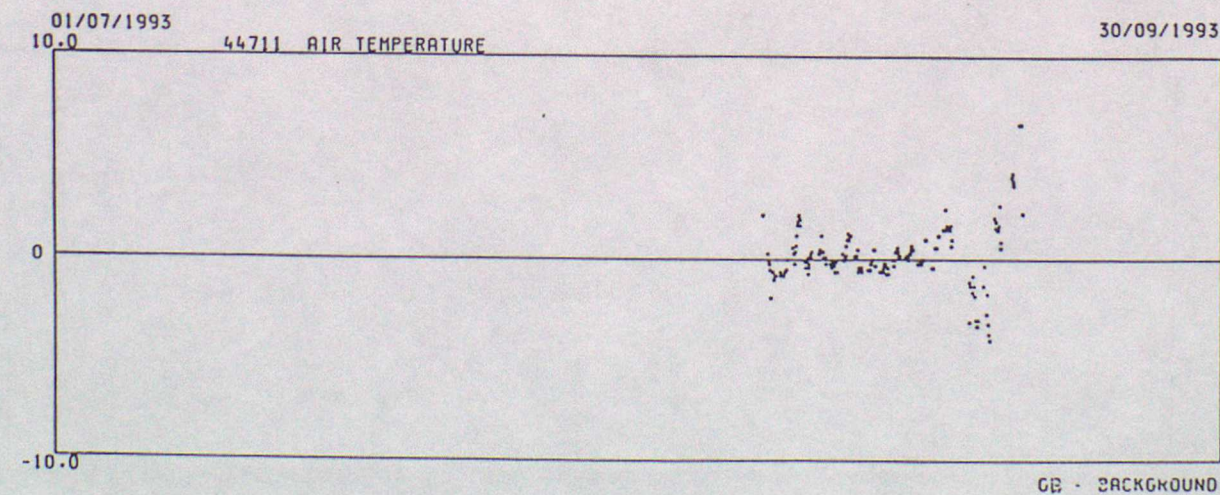
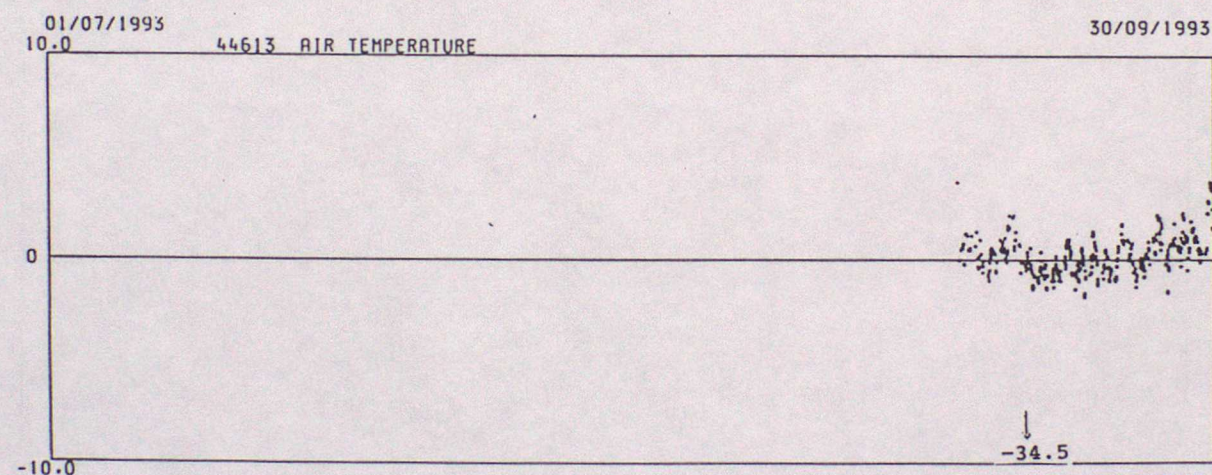
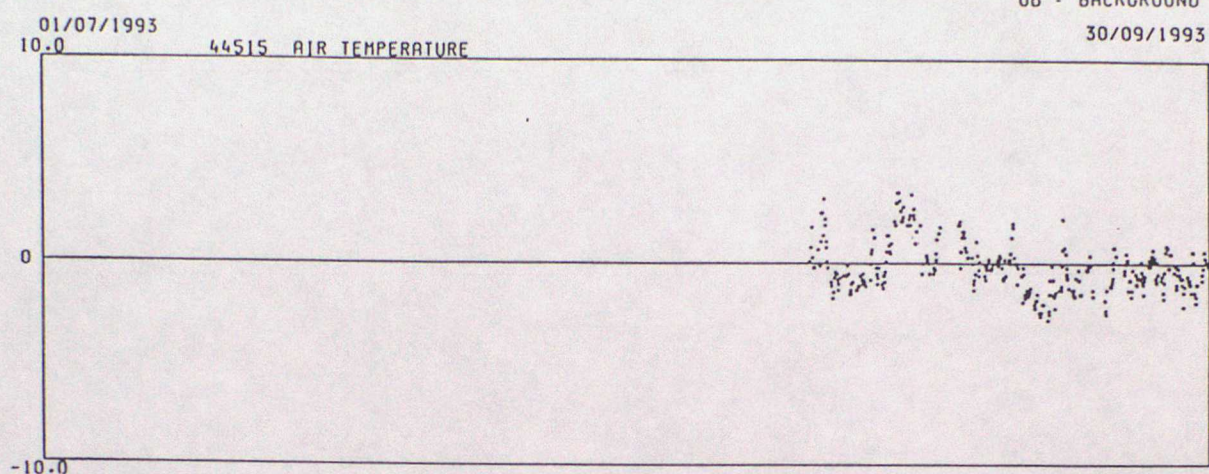
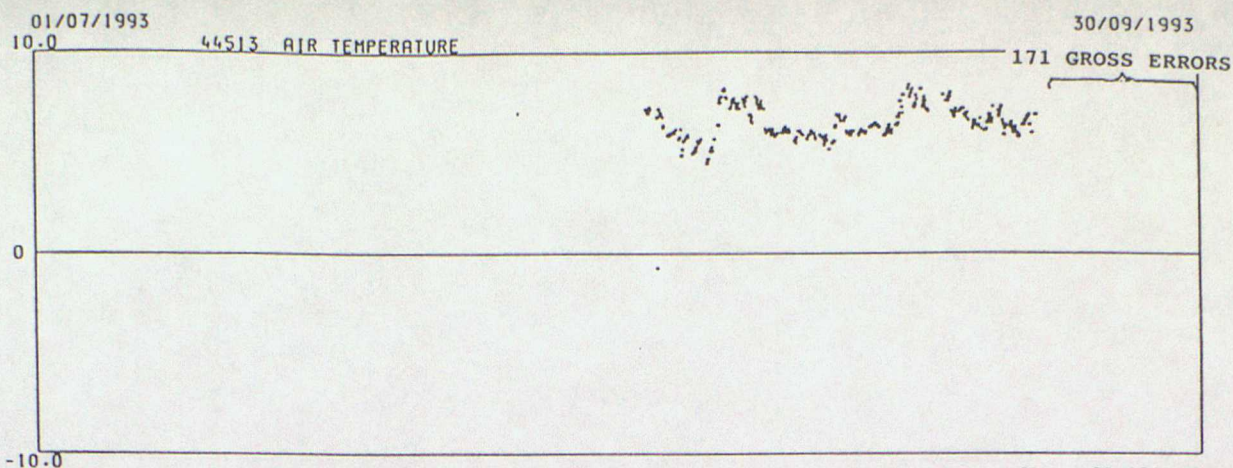
01/07/1993

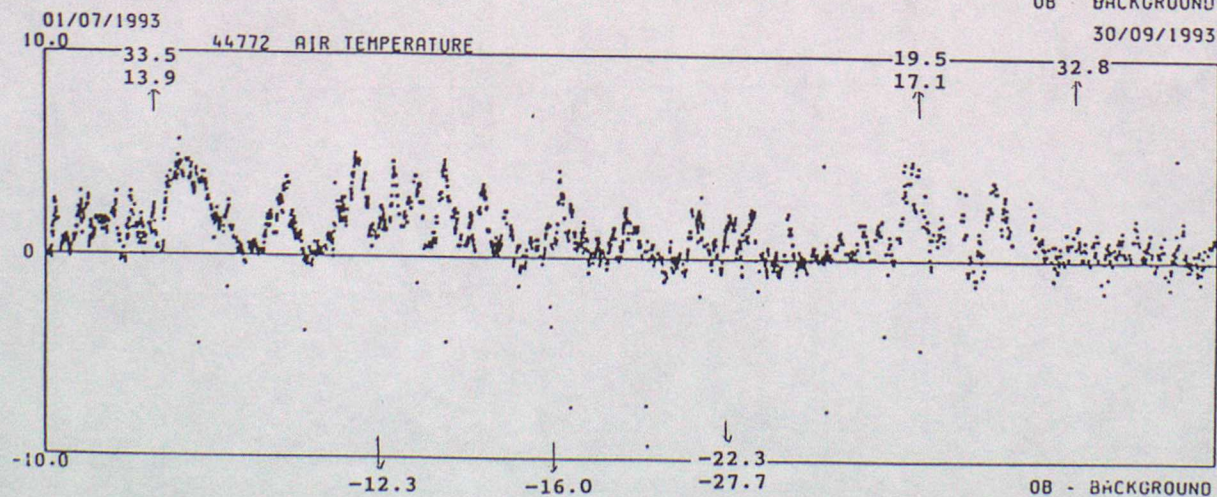
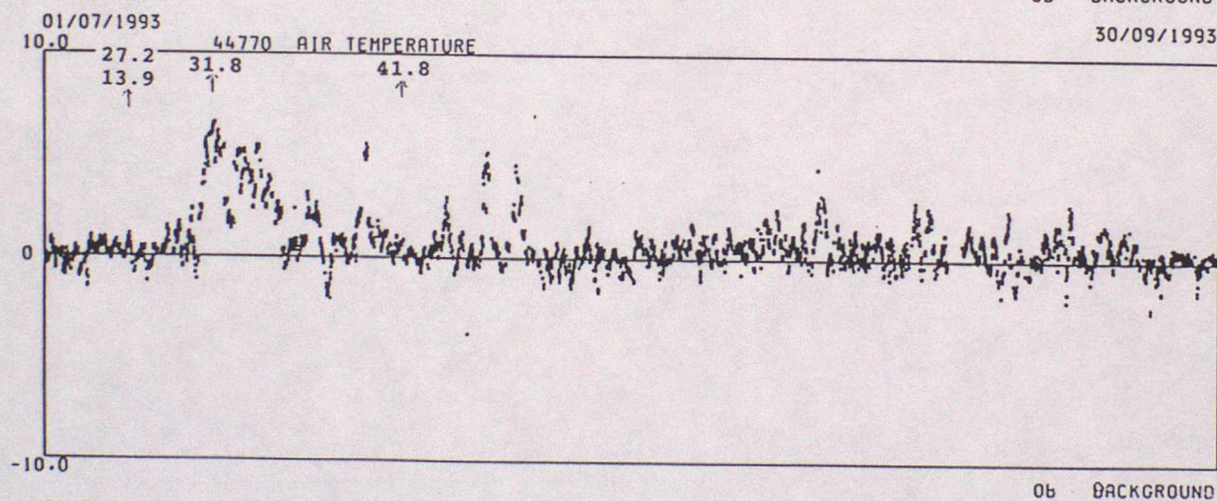
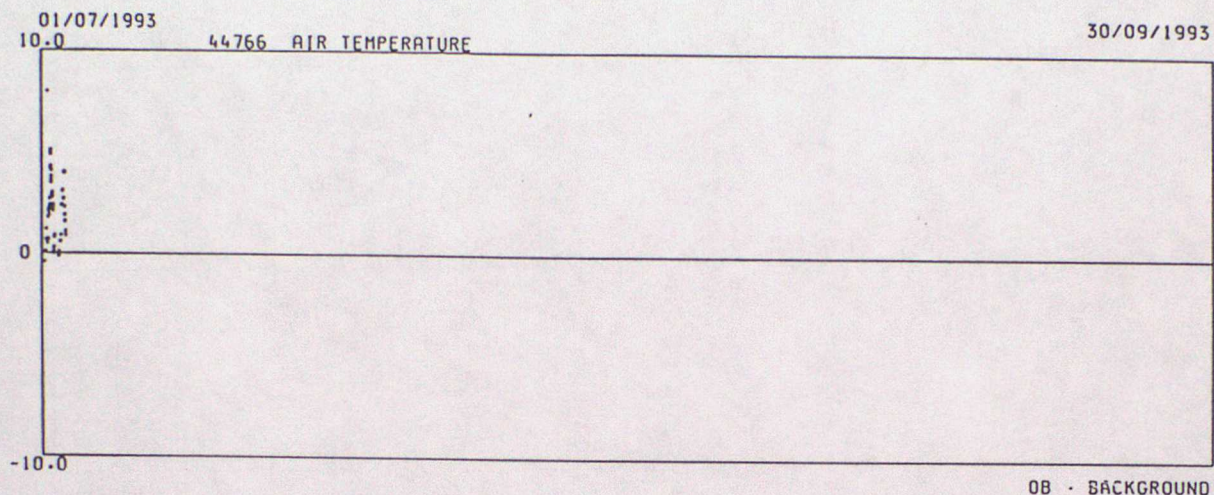
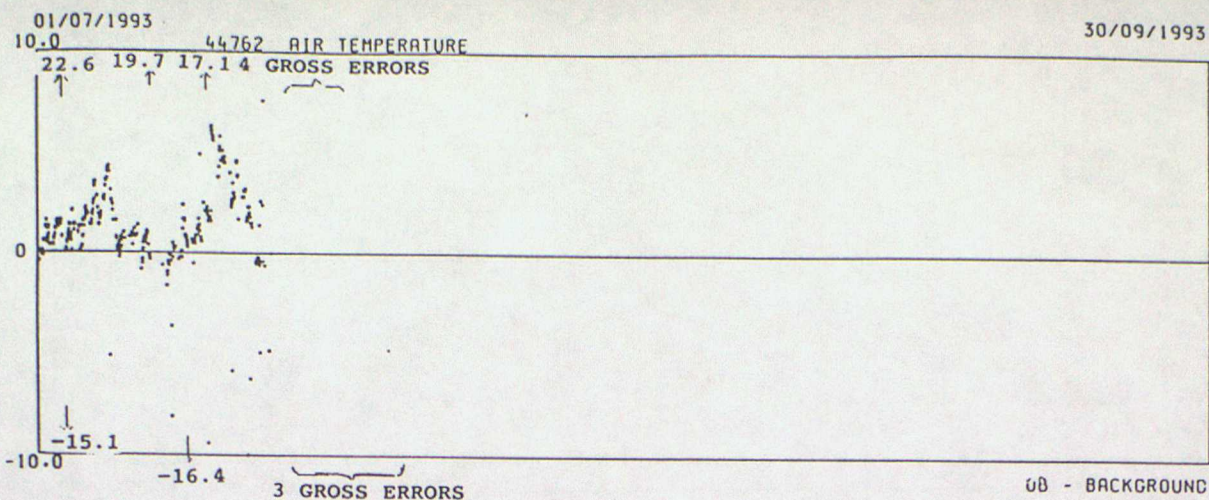
30/09/1993

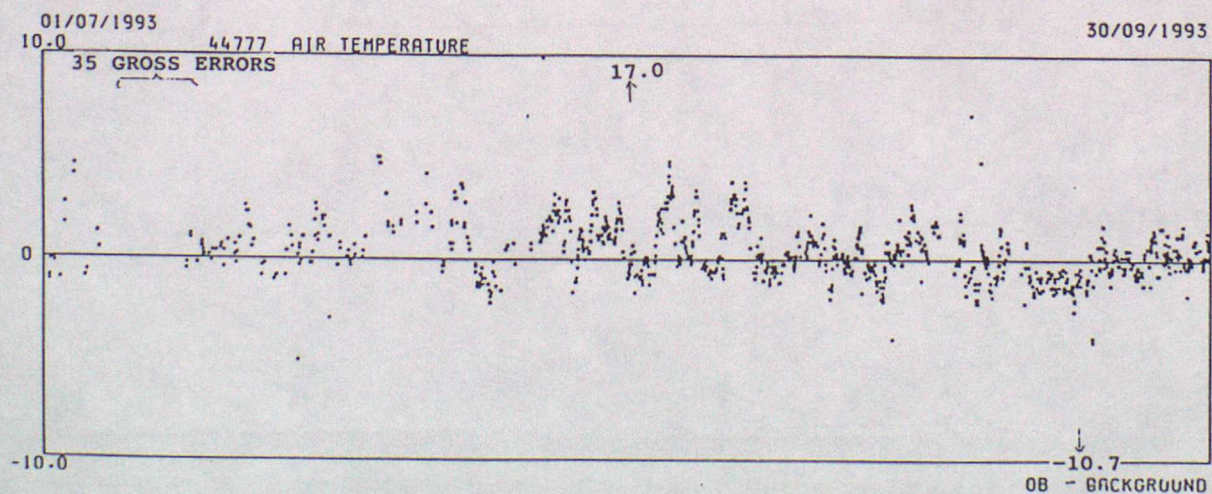
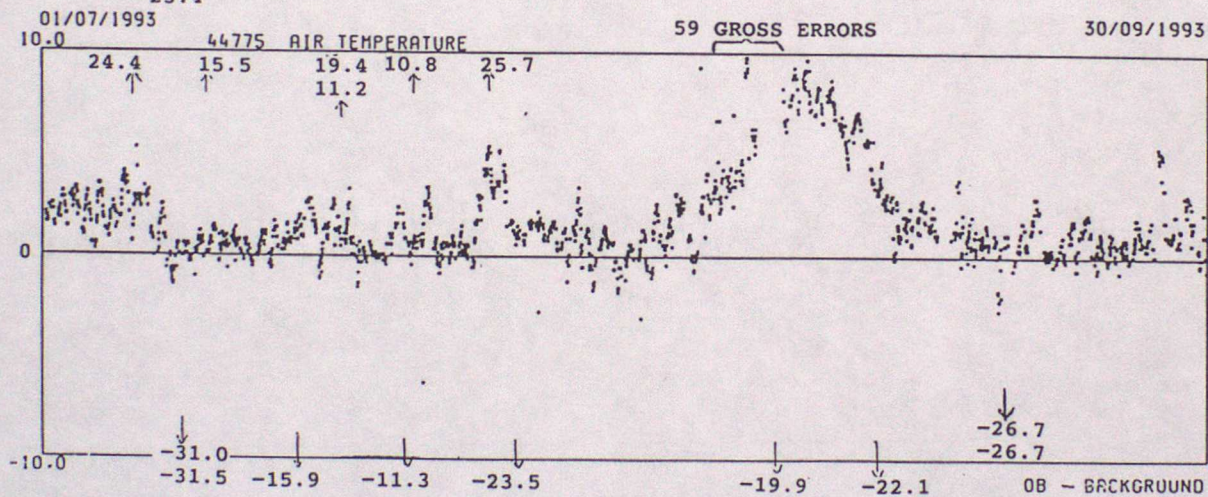
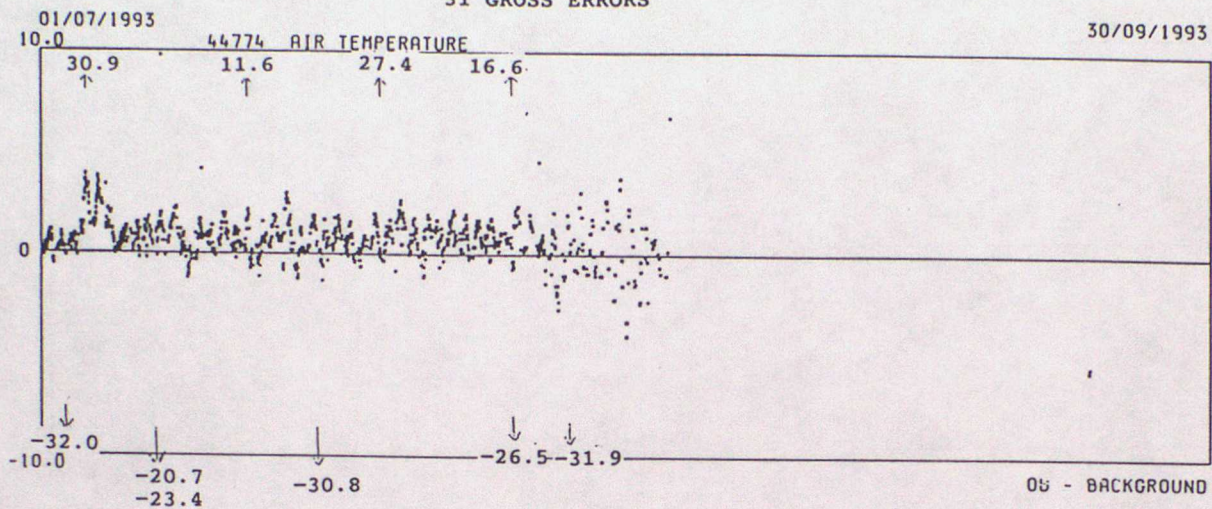
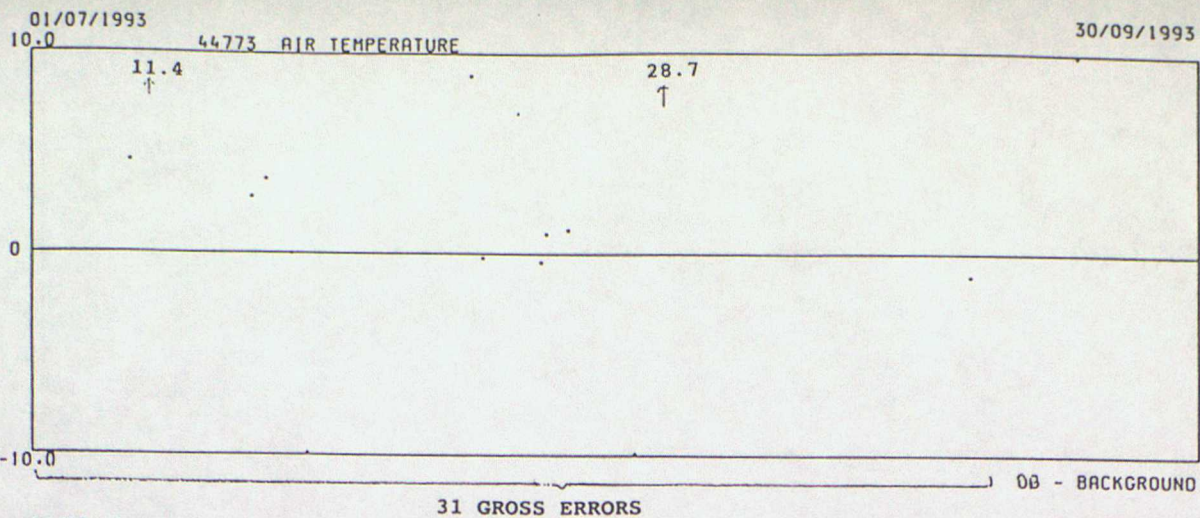
10.0 41524 AIR TEMPERATURE

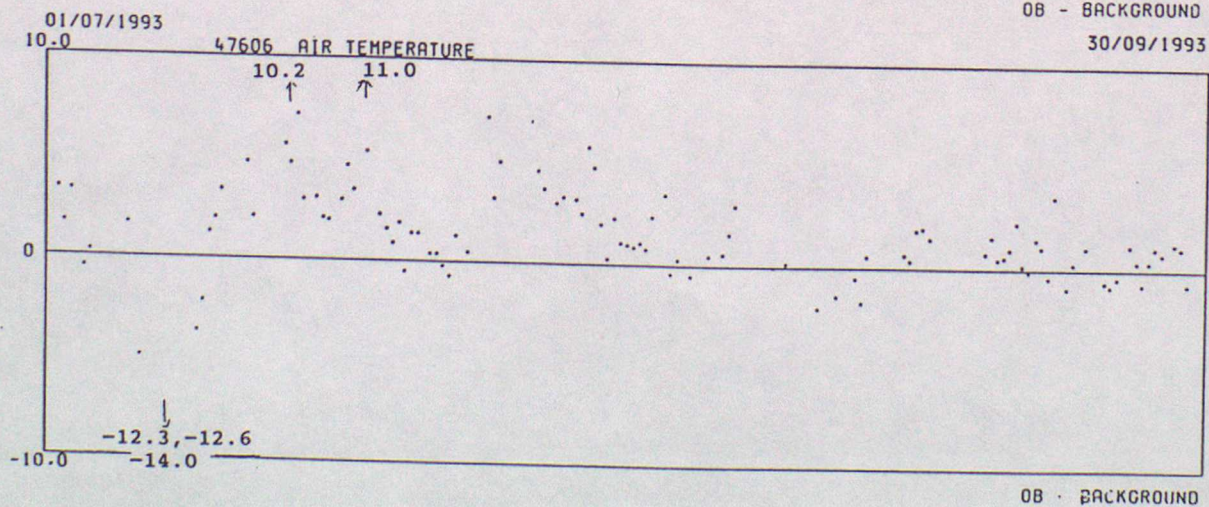
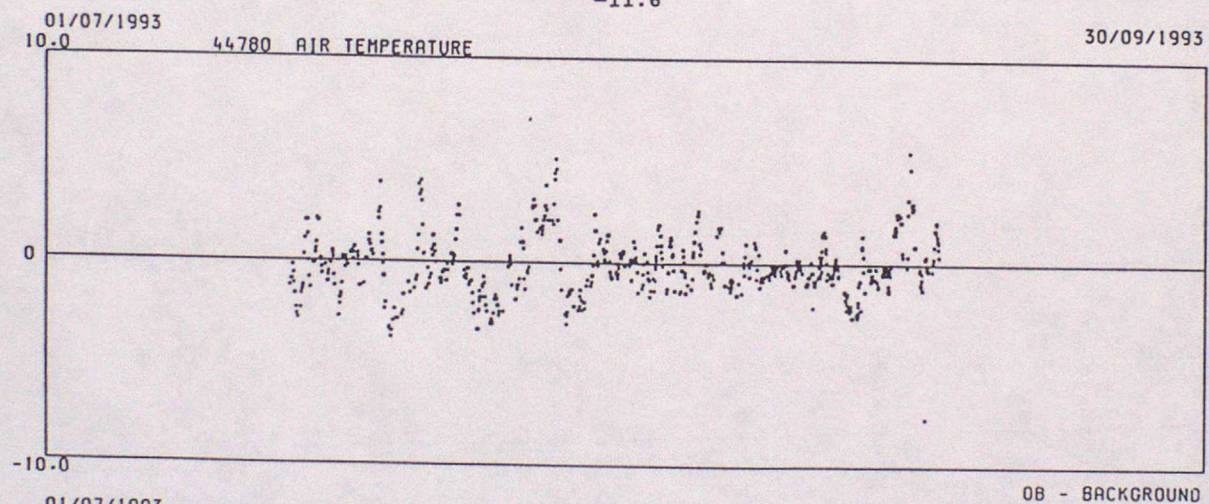
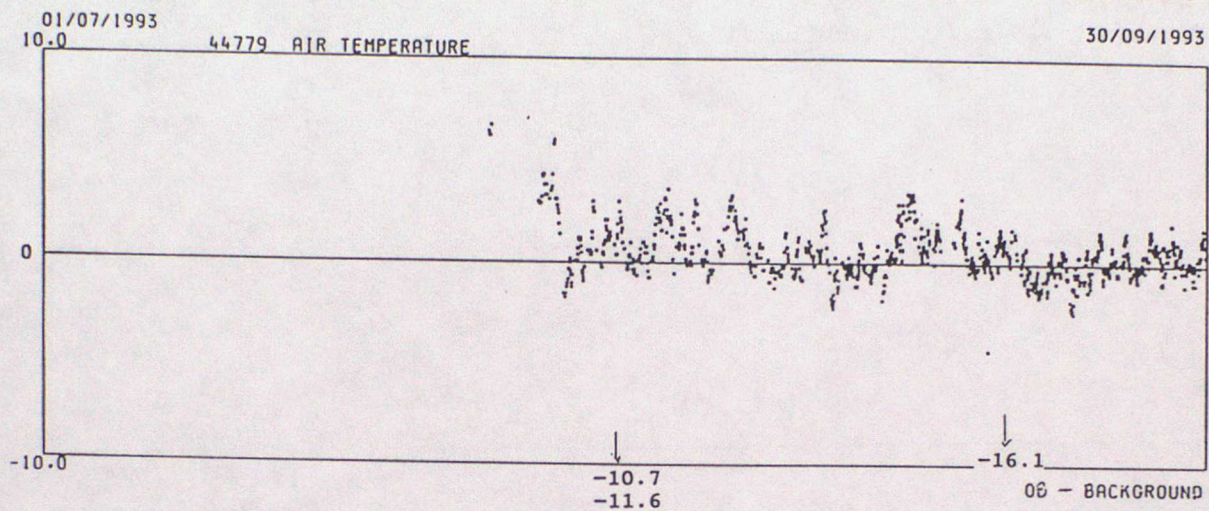
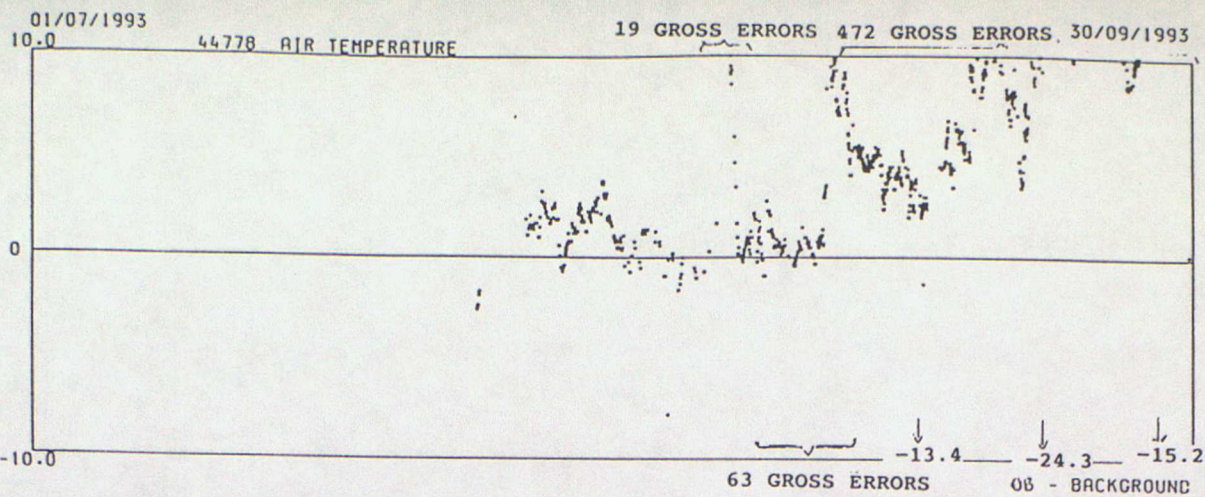


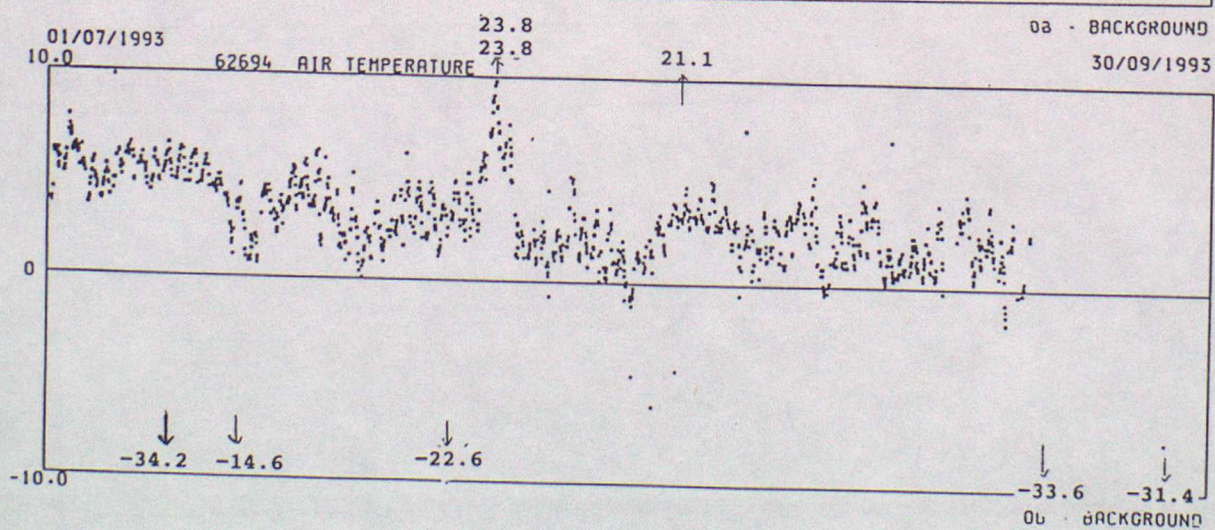
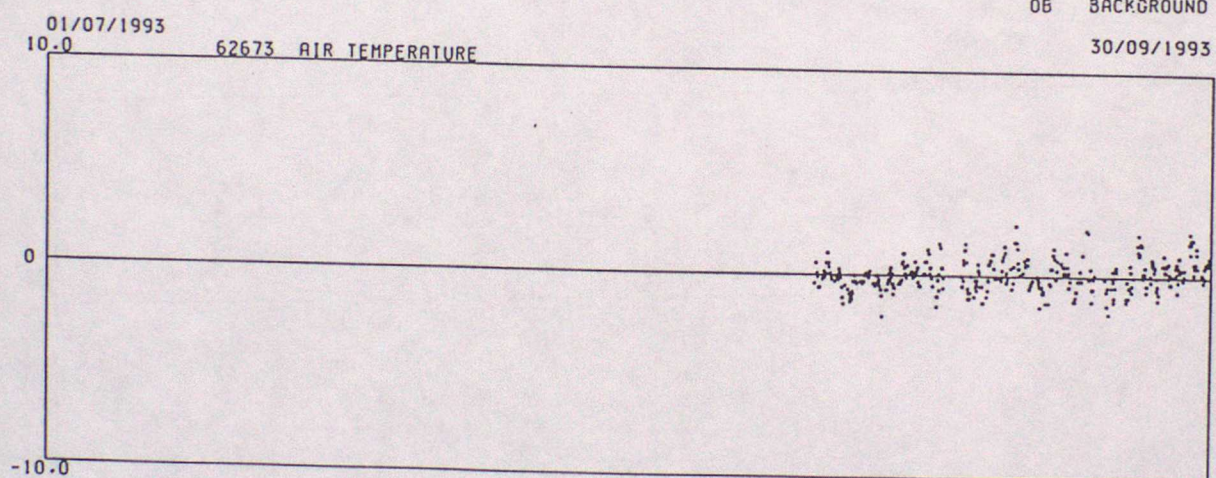
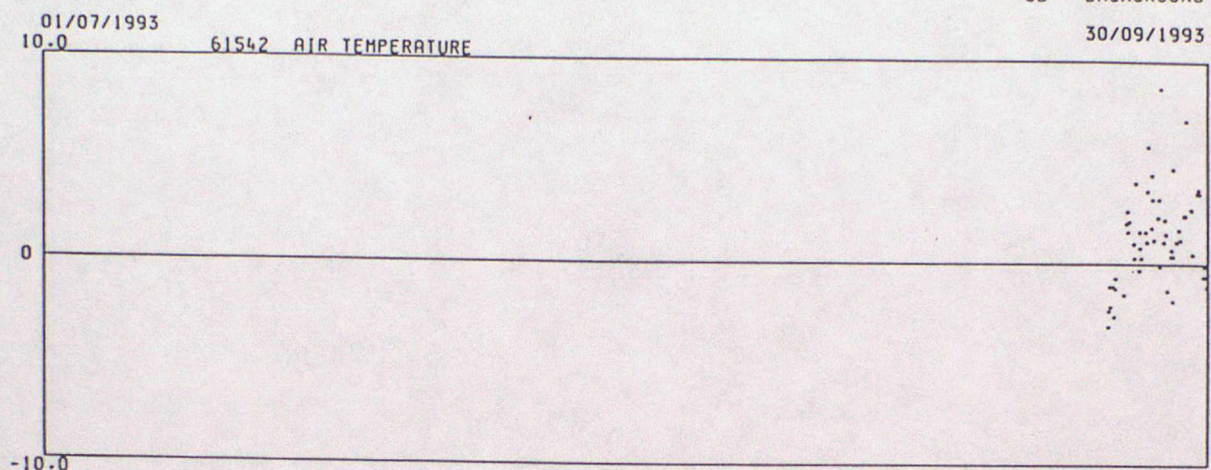
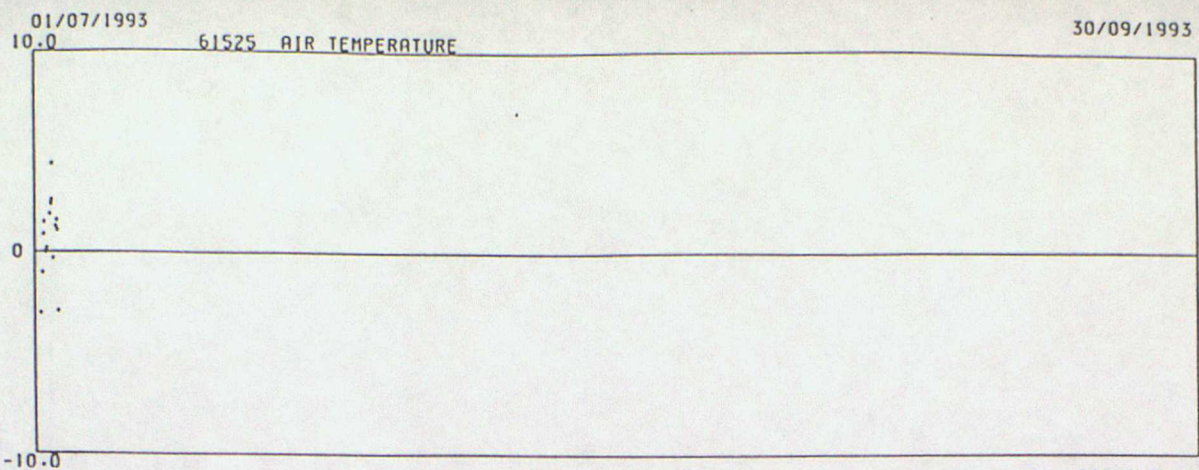
08 - BACKGROUND

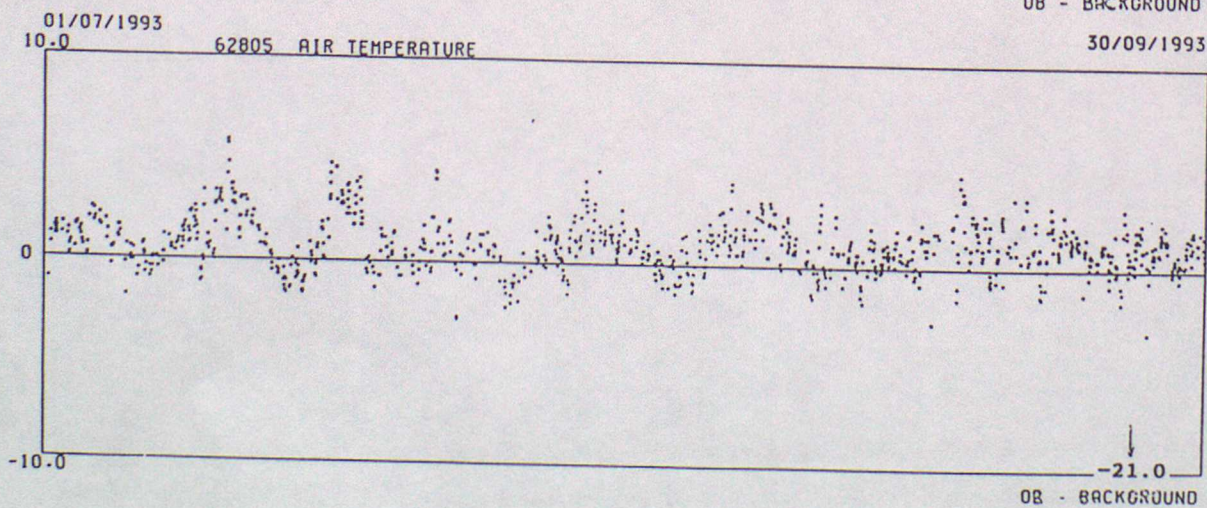
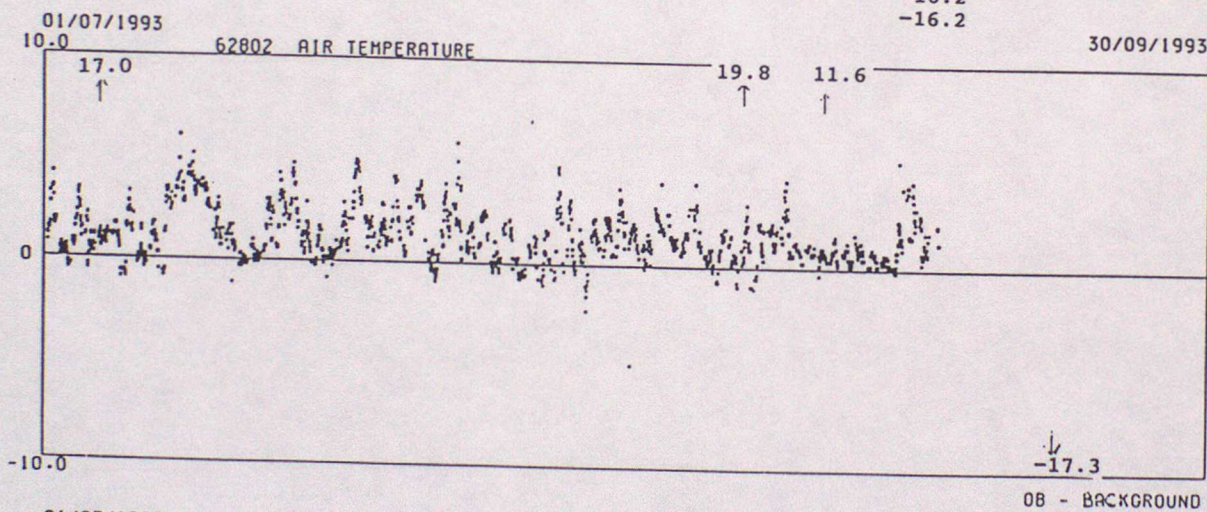
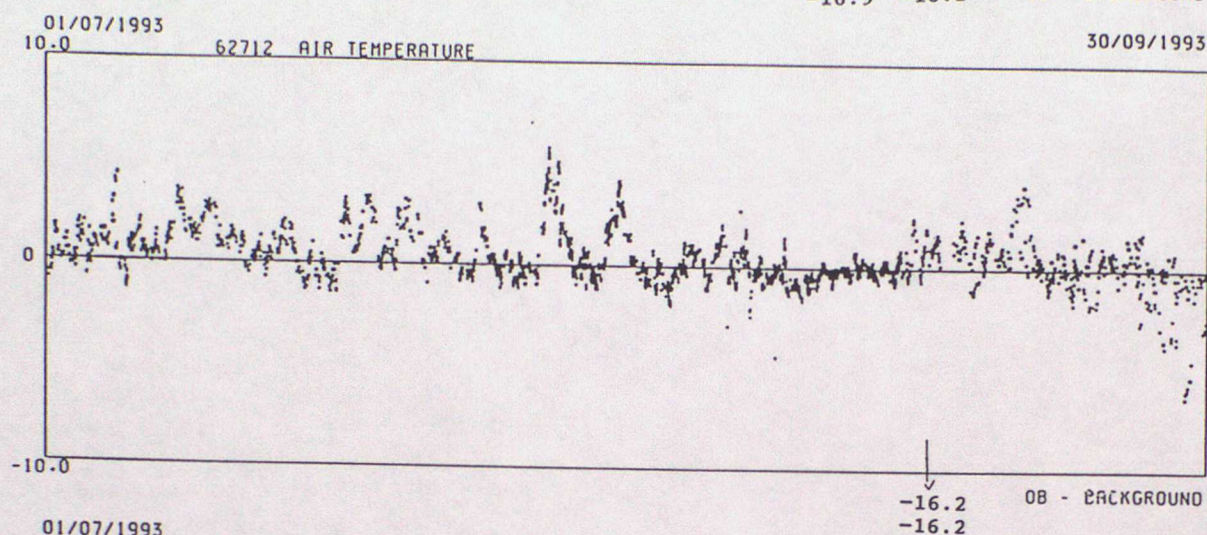
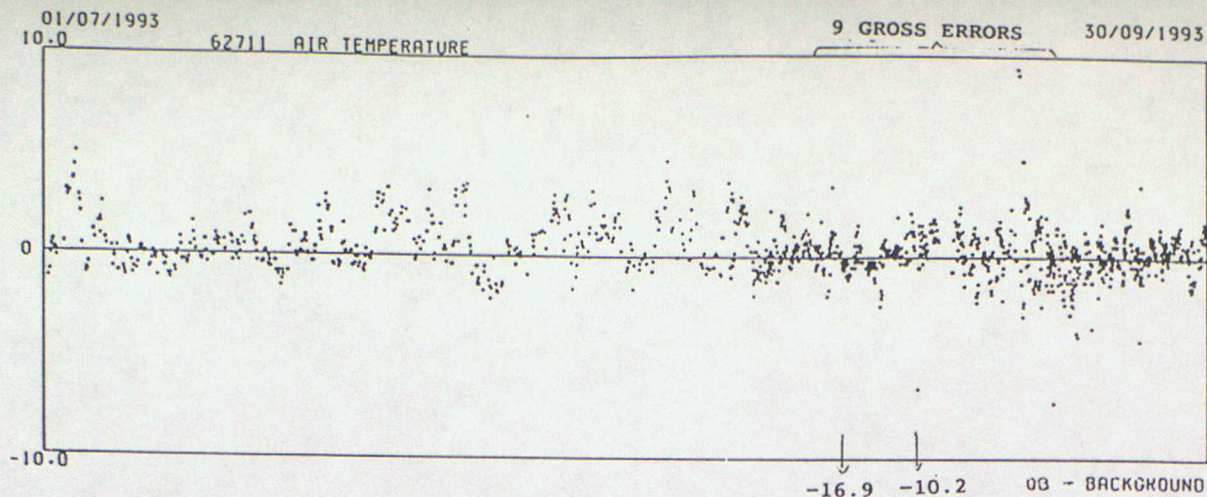












01/07/1993

30/09/1993

10.0

64539 AIR TEMPERATURE

0

-10.0

03 - BACKGROUND

01/07/1993

30/09/1993

10.0

64540 AIR TEMPERATURE

0

-10.0

03 - BACKGROUND

01/07/1993

30/09/1993

10.0

64542 AIR TEMPERATURE

0

-10.0

03 - BACKGROUND

01/07/1993

30/09/1993

10.0

64543 AIR TEMPERATURE

0

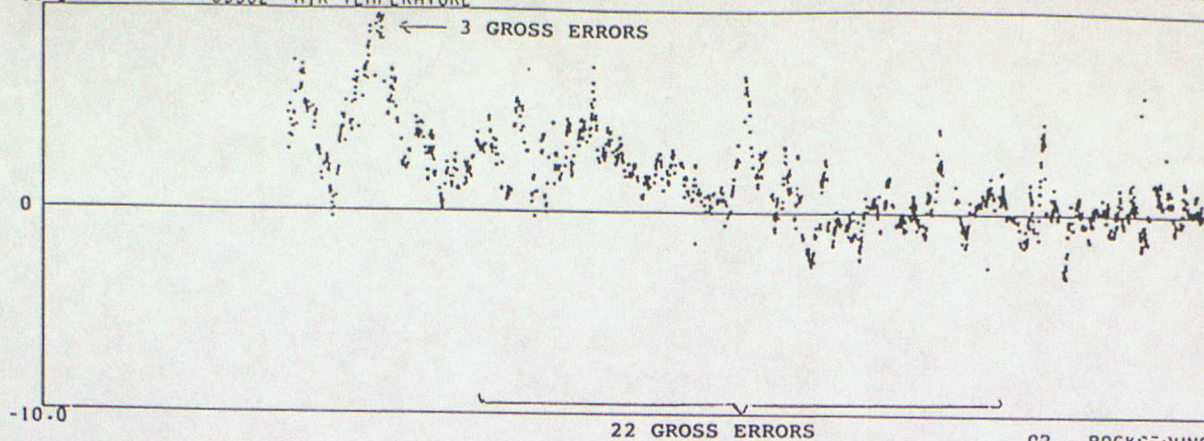
-10.0

03 - BACKGROUND

01/07/1993
10.0

65562 AIR TEMPERATURE

30/09/1993

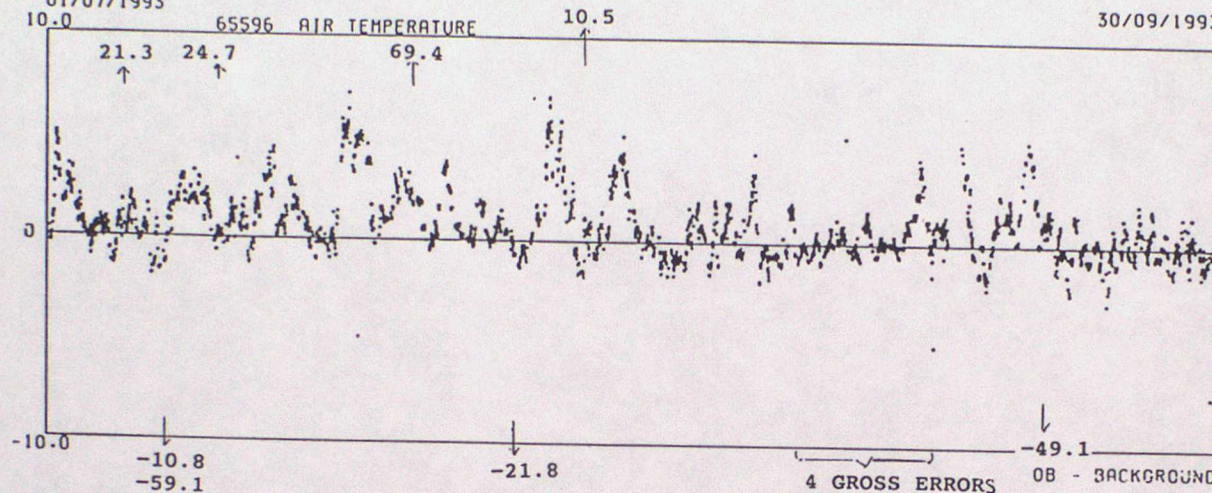


01/07/1993
10.0

65596 AIR TEMPERATURE

C3 - BACKGROUND

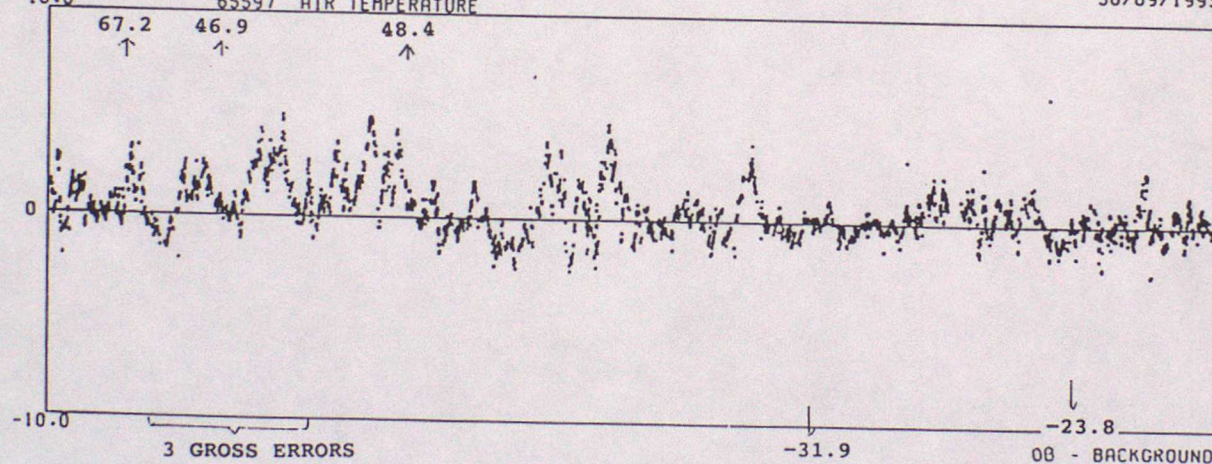
30/09/1993



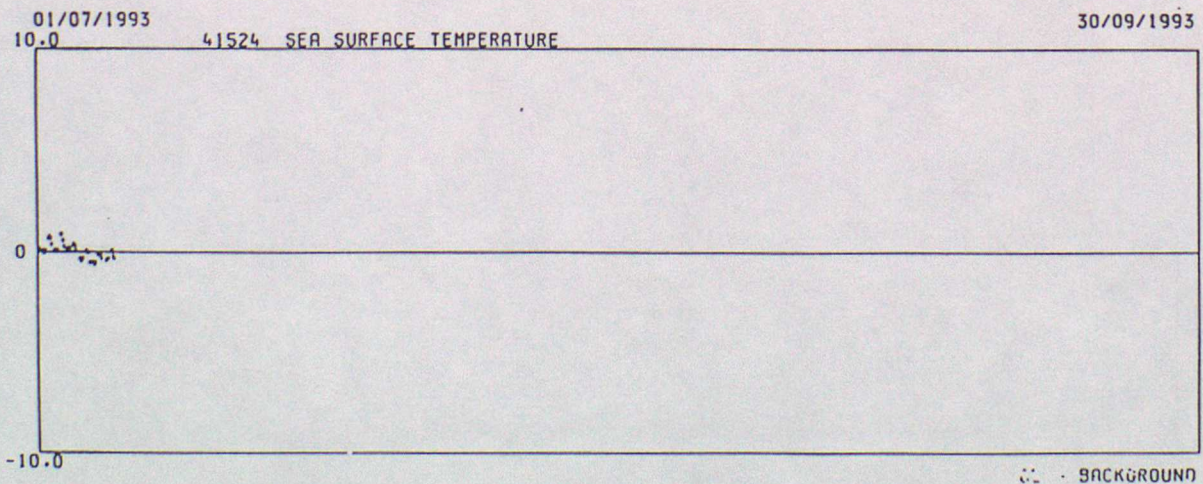
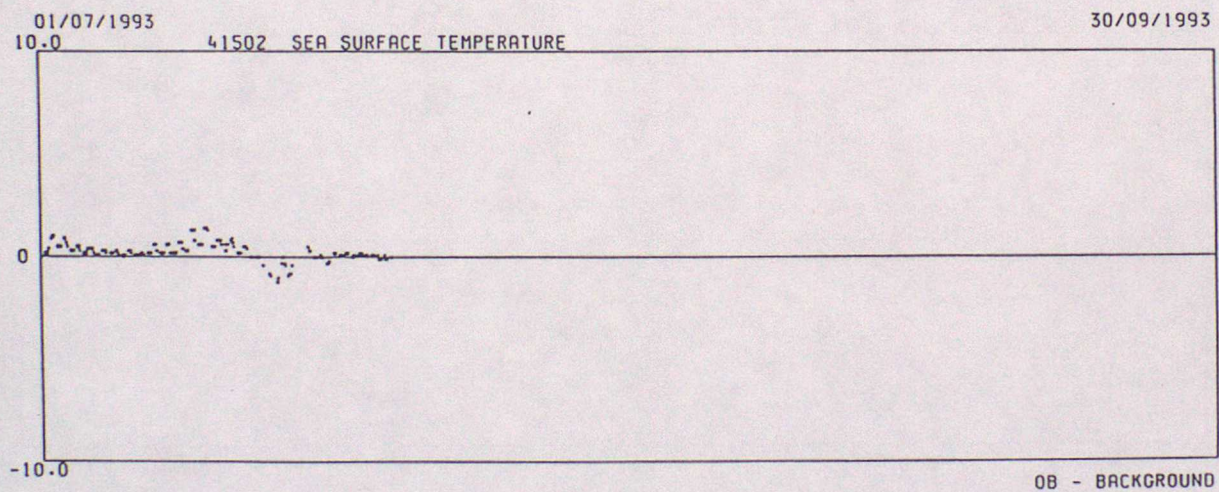
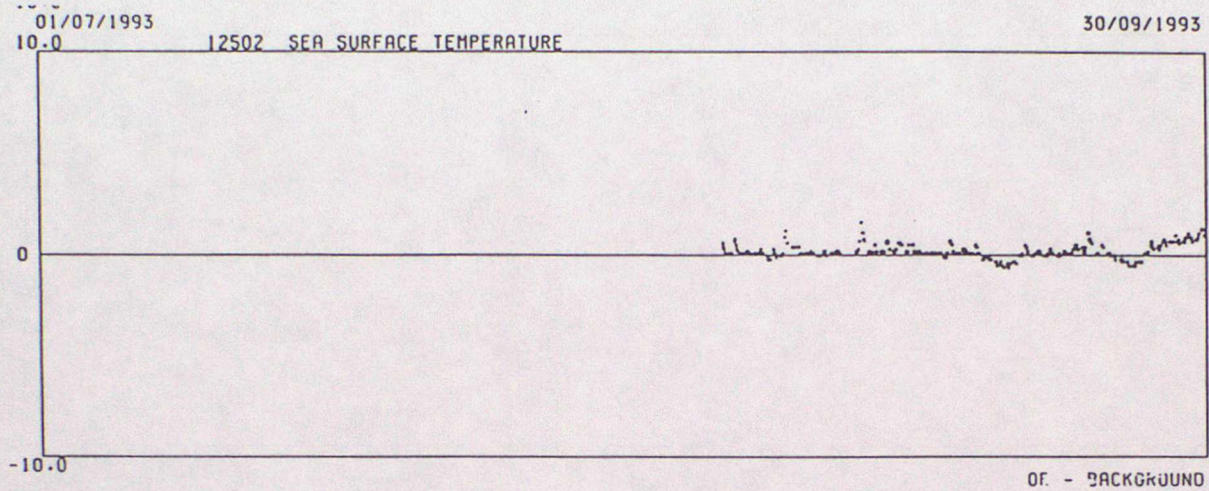
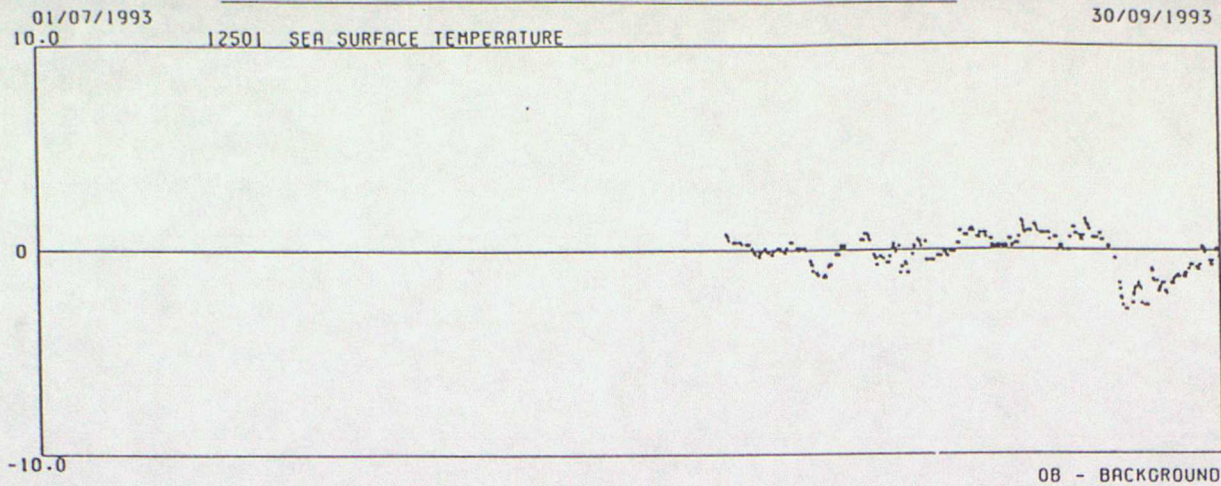
01/07/1993
10.0

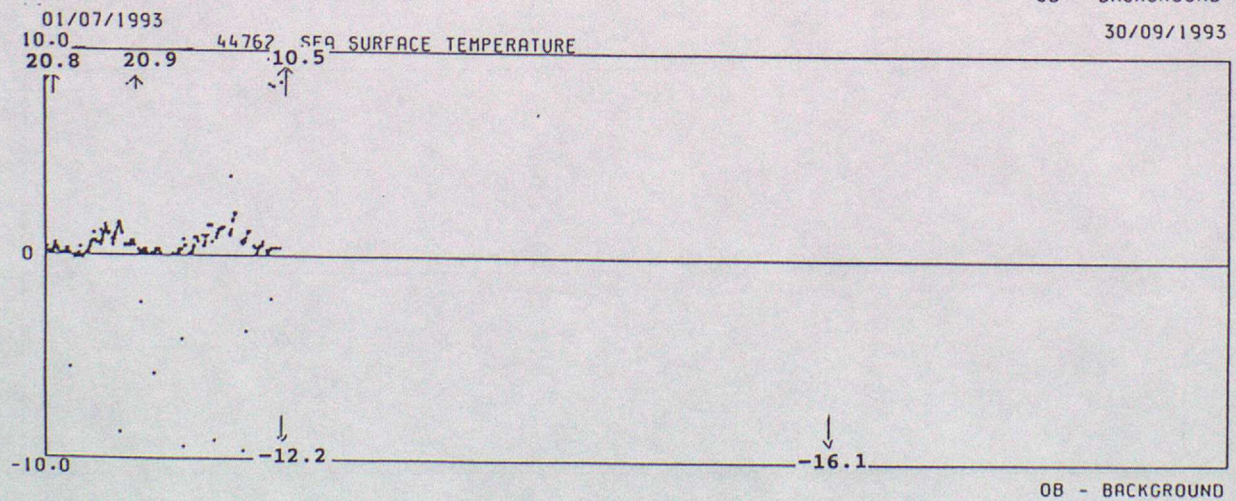
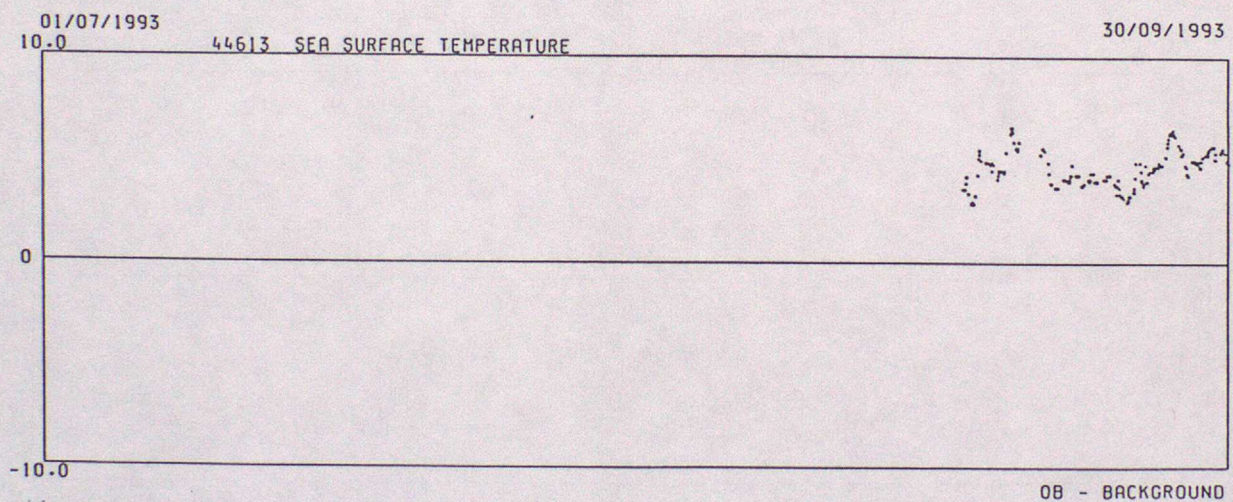
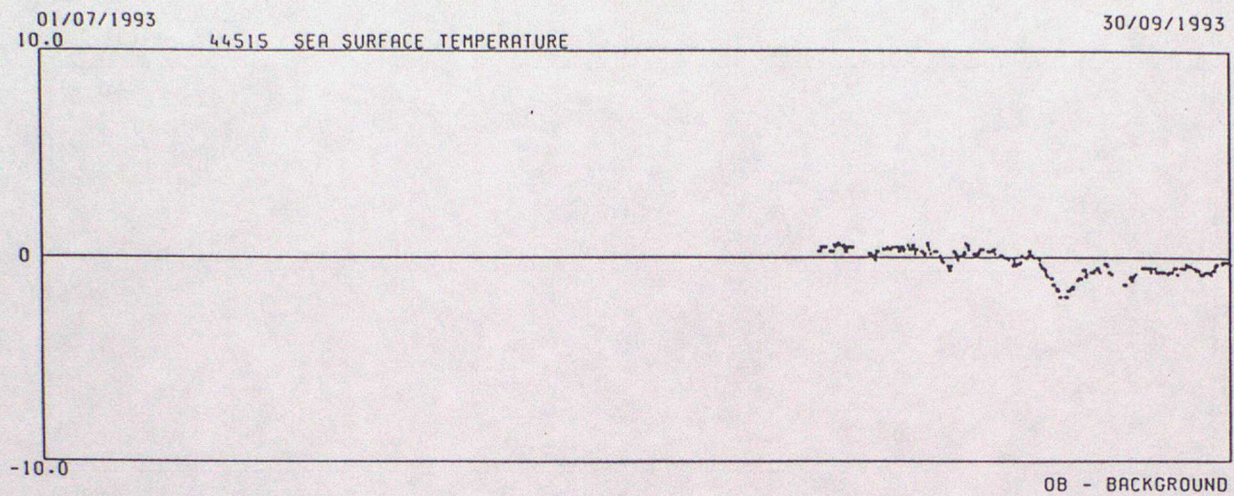
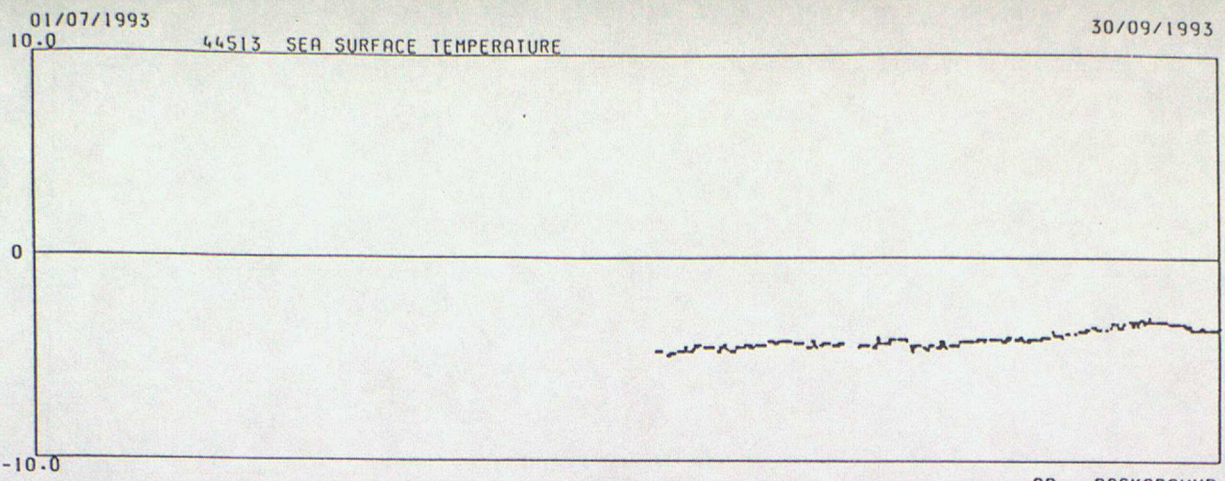
65597 AIR TEMPERATURE

30/09/1993



ANNEX D - TIME SERIES PLOTS OF SEA SURFACE TEMPERATURE

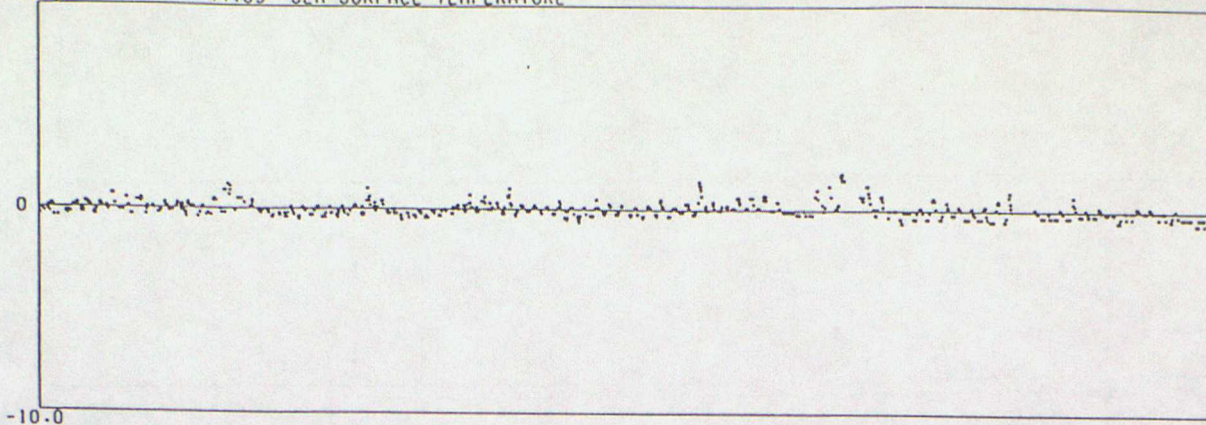




01/07/1993
10.0

44765 SEA SURFACE TEMPERATURE

30/09/1993

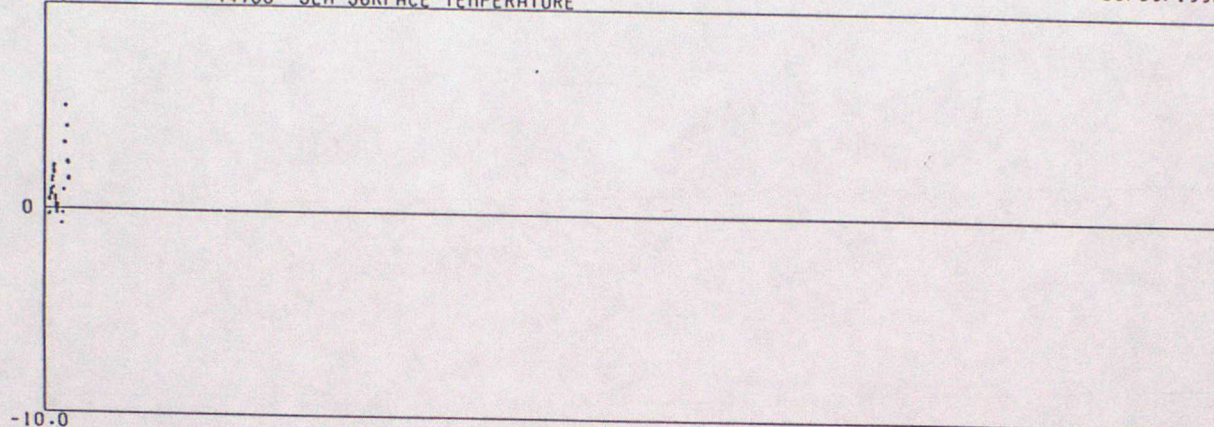


OB - BACKGROUND

01/07/1993
10.0

44766 SEA SURFACE TEMPERATURE

30/09/1993

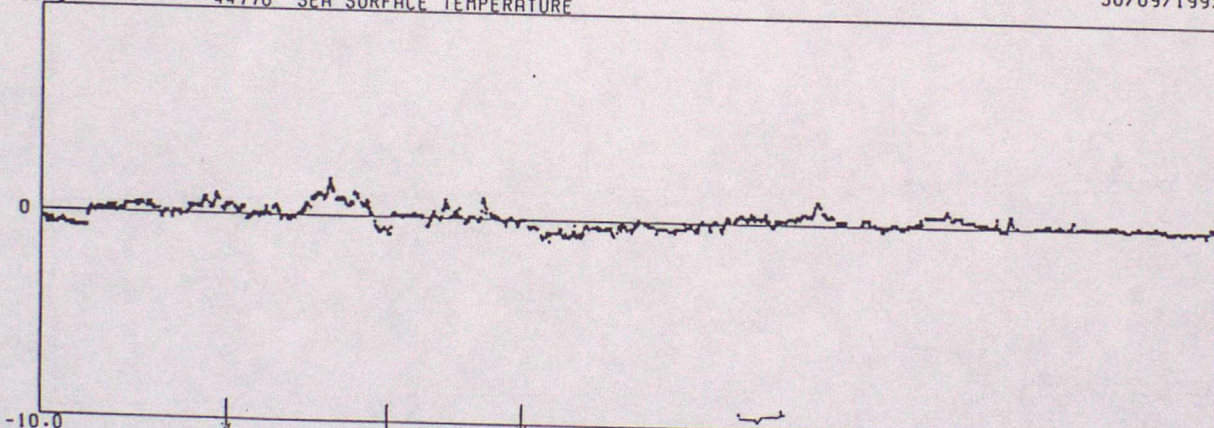


OB - BACKGROUND

01/07/1993
10.0

44770 SEA SURFACE TEMPERATURE

30/09/1993

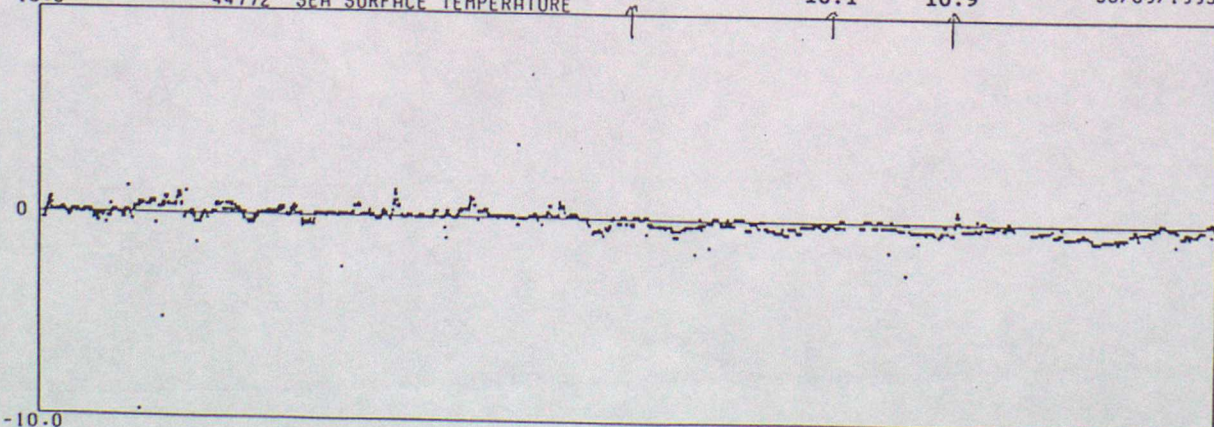


OB - BACKGROUND

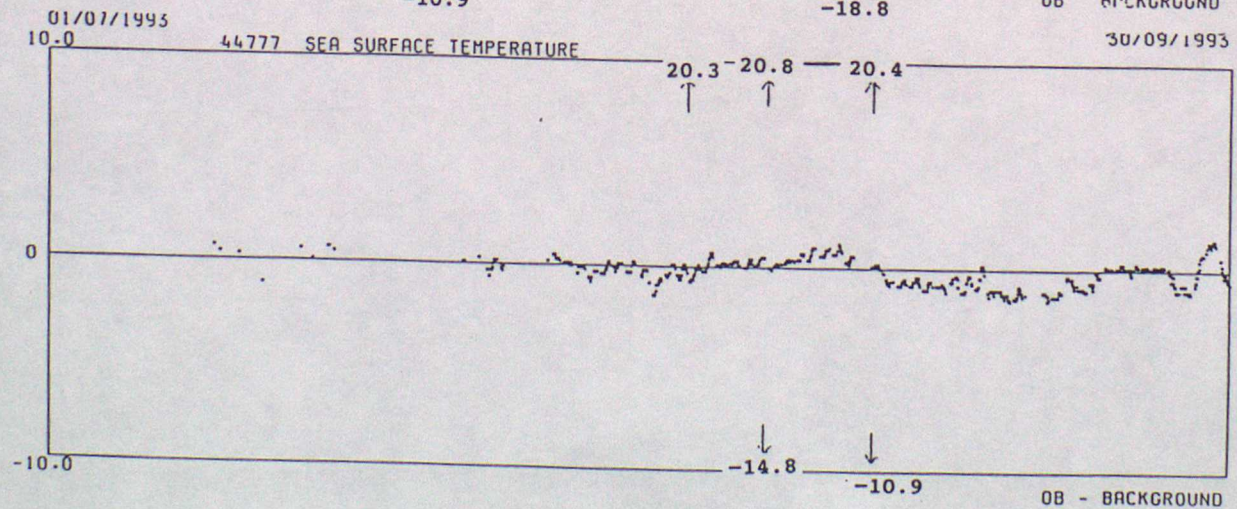
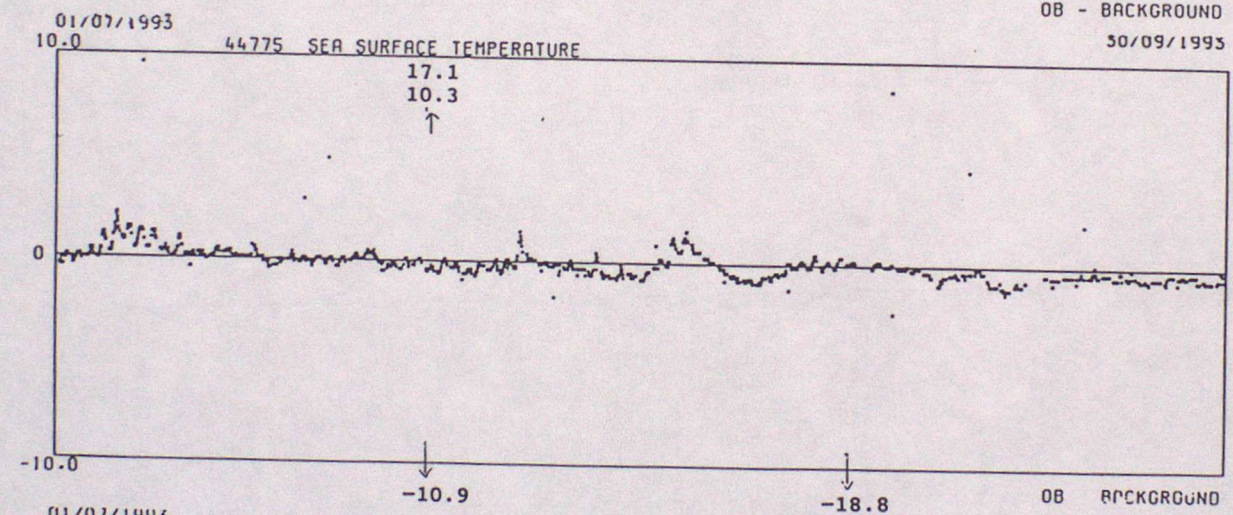
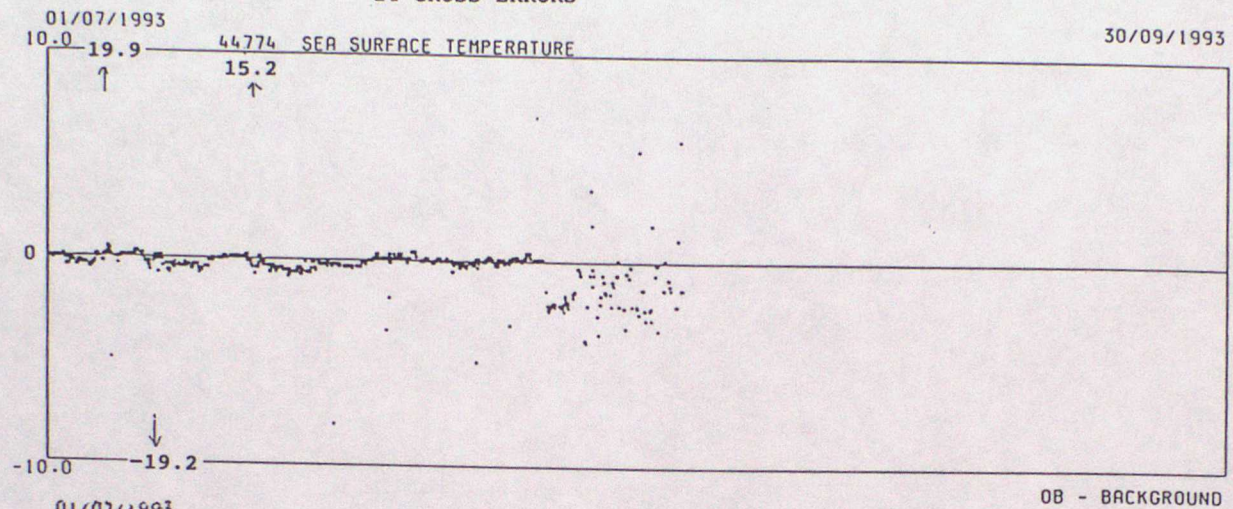
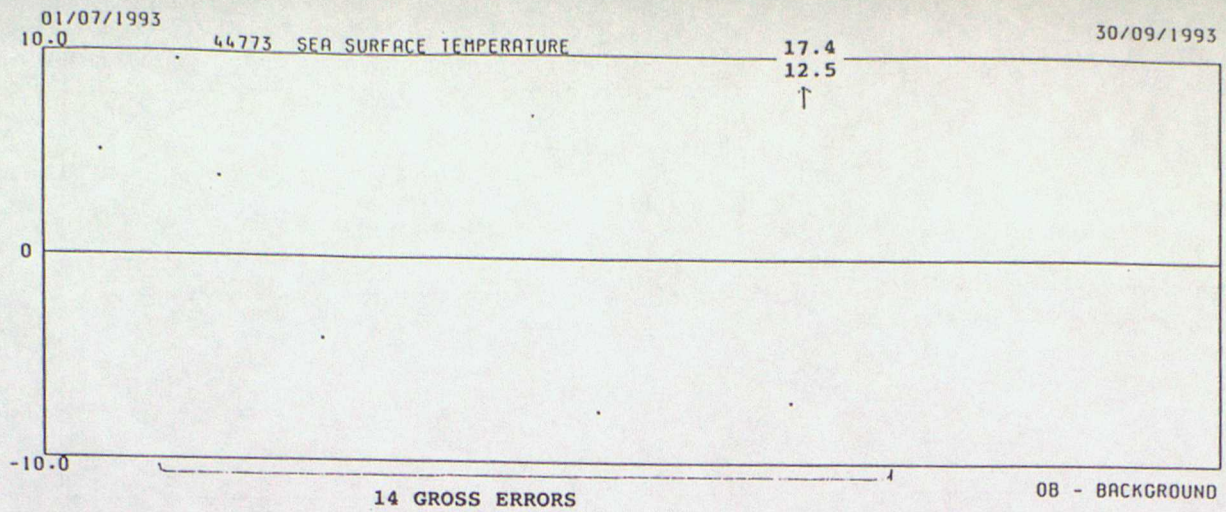
01/07/1993
10.0

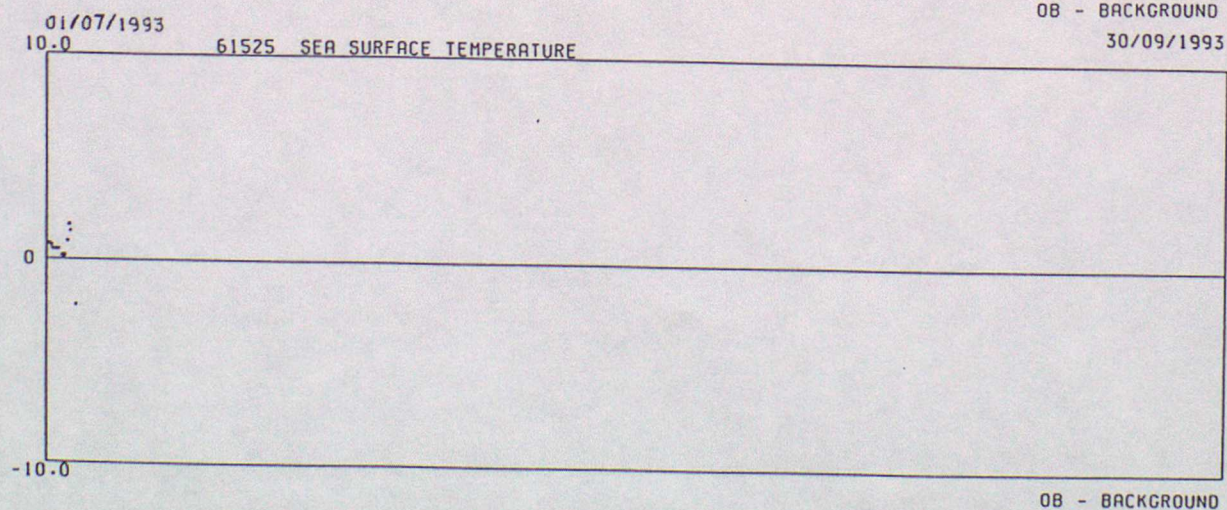
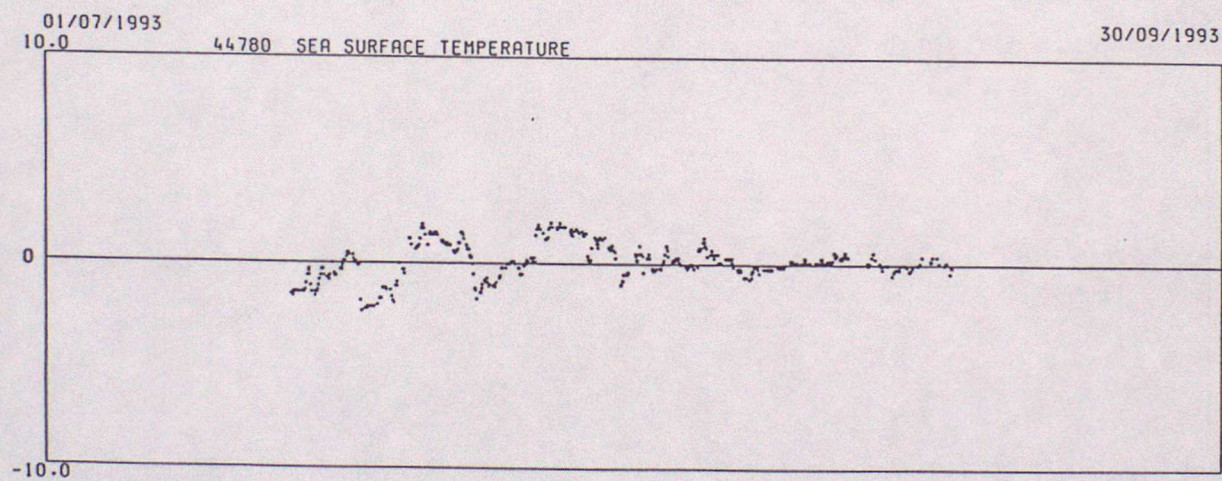
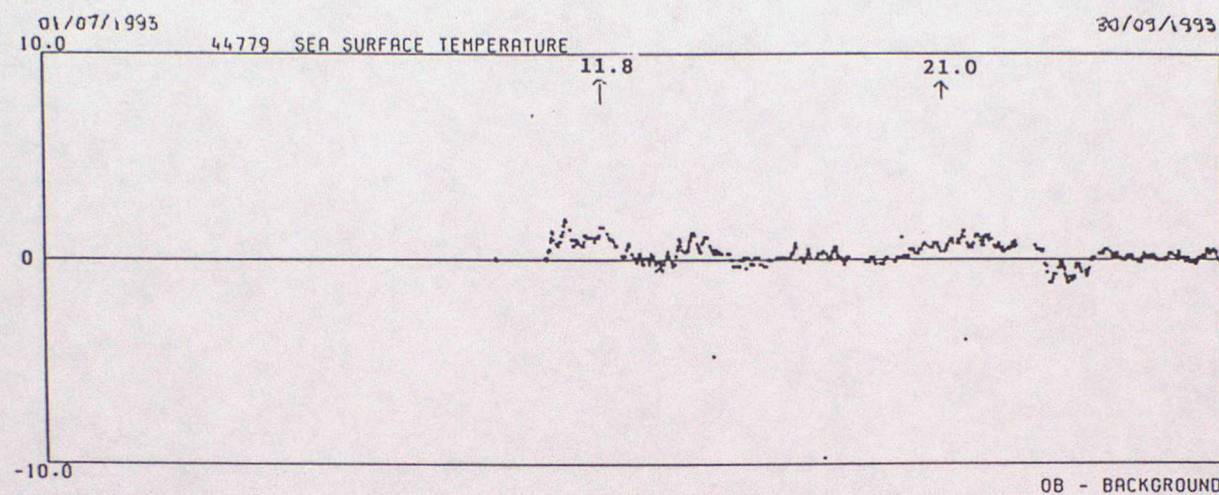
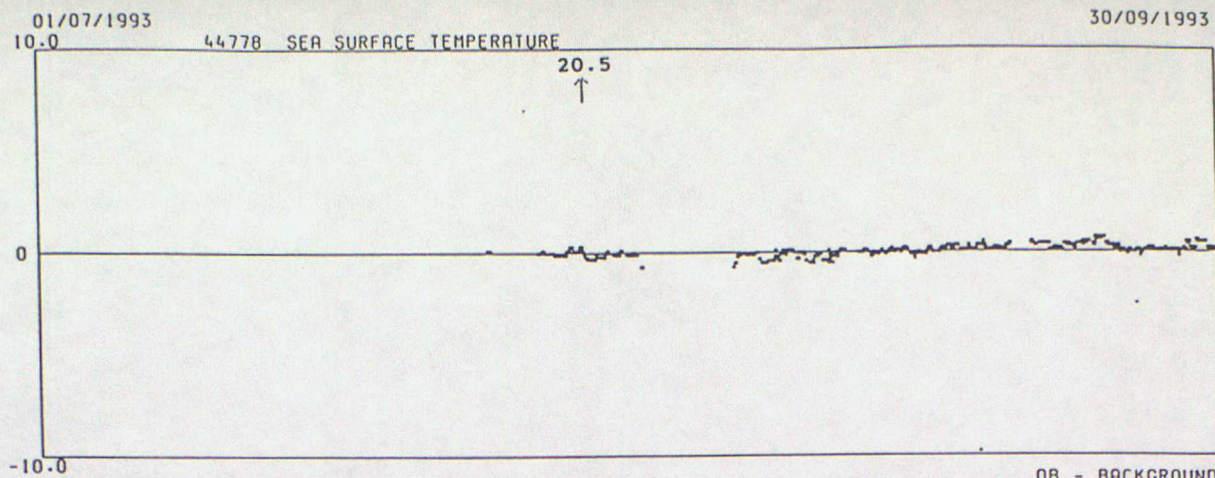
44772 SEA SURFACE TEMPERATURE

30/09/1993



OB - BACKGROUND





01/07/1993

10.0

61542 SEA SURFACE TEMPERATURE

30/09/1993

0

-10.0

OB - BACKGROUND

01/07/1993

10.0

62511 SEA SURFACE TEMPERATURE

30/09/1993

0

-10.0

OB - BACKGROUND

01/07/1993

10.0

62516 SEA SURFACE TEMPERATURE

30/09/1993

0

-10.0

OB - BACKGROUND

01/07/1993

10.0

62517 SEA SURFACE TEMPERATURE

30/09/1993

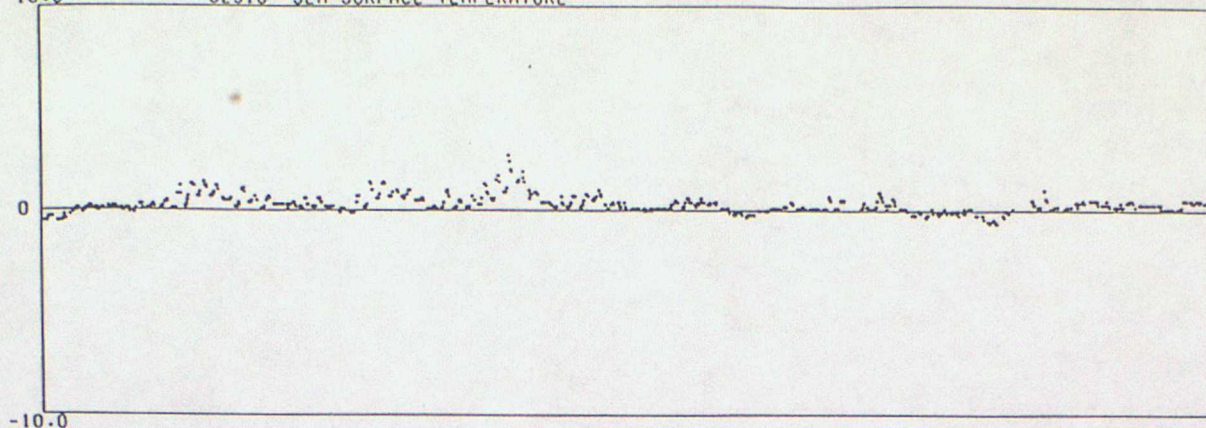
0

-10.0

OB - BACKGROUND

01/07/1993 62518 SEA SURFACE TEMPERATURE

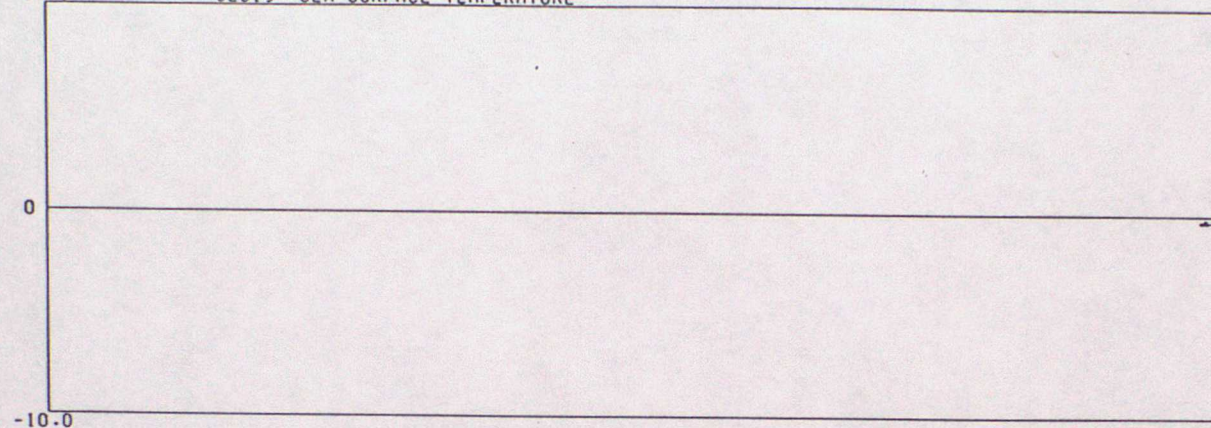
30/09/1993



08 - BACKGROUND

01/07/1993 62519 SEA SURFACE TEMPERATURE

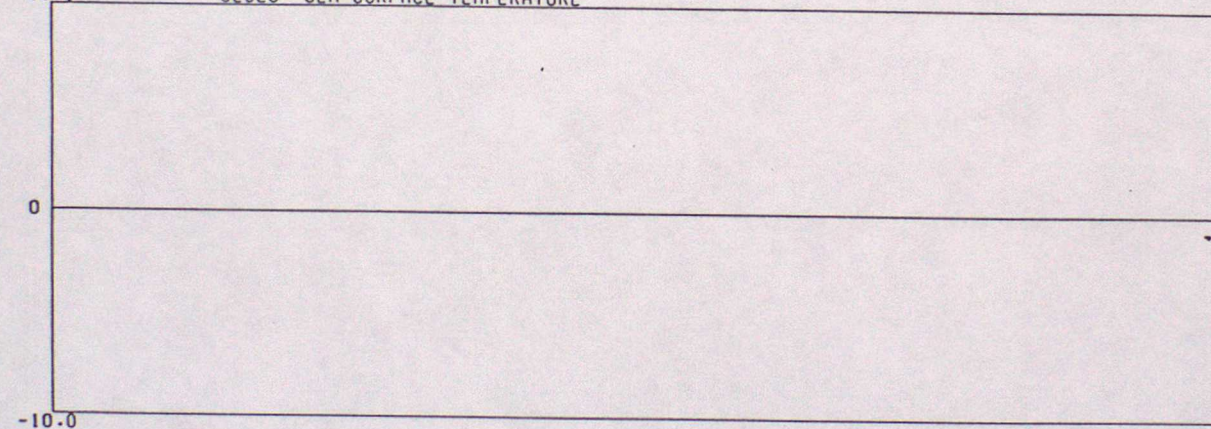
30/09/1993



08 - BACKGROUND

01/07/1993 62520 SEA SURFACE TEMPERATURE

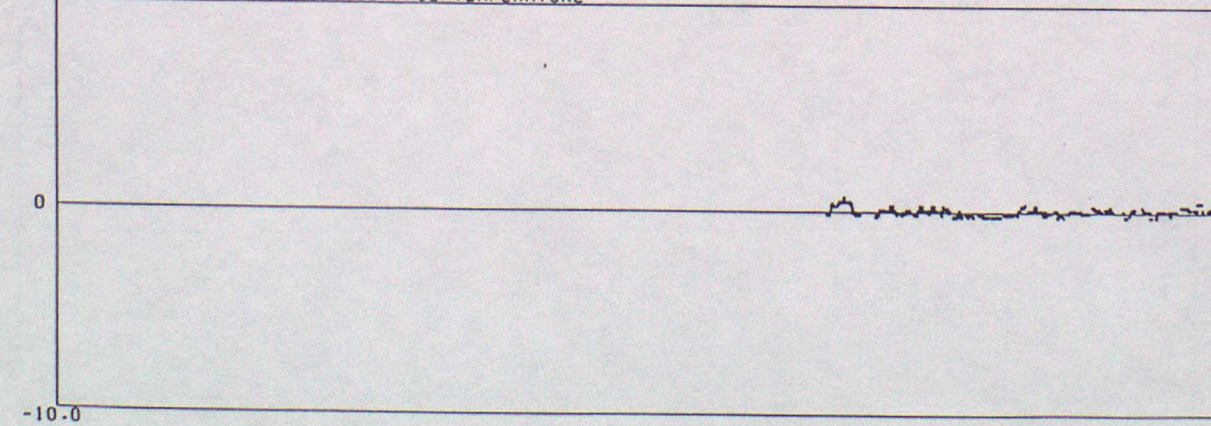
30/09/1993



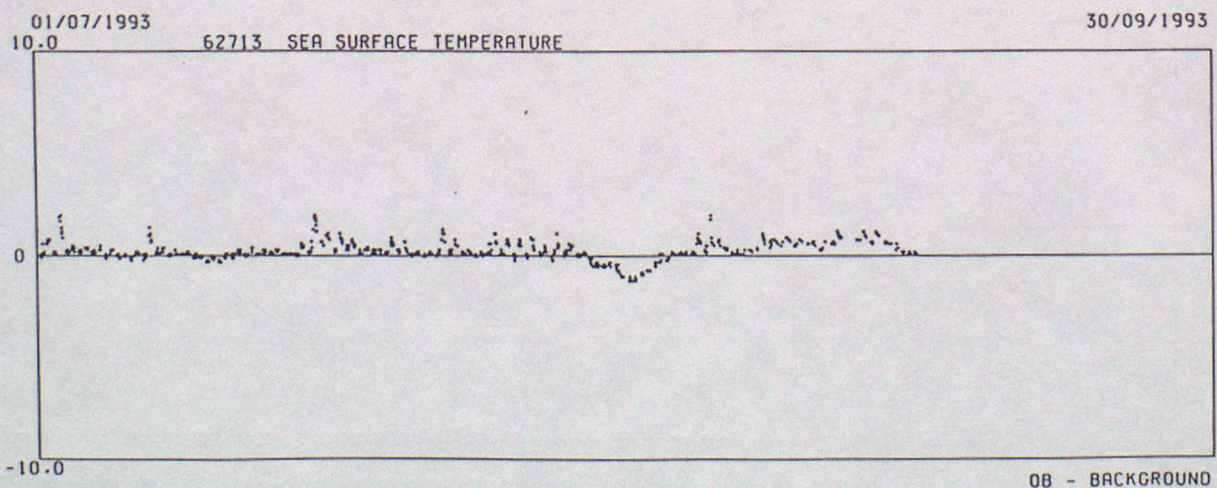
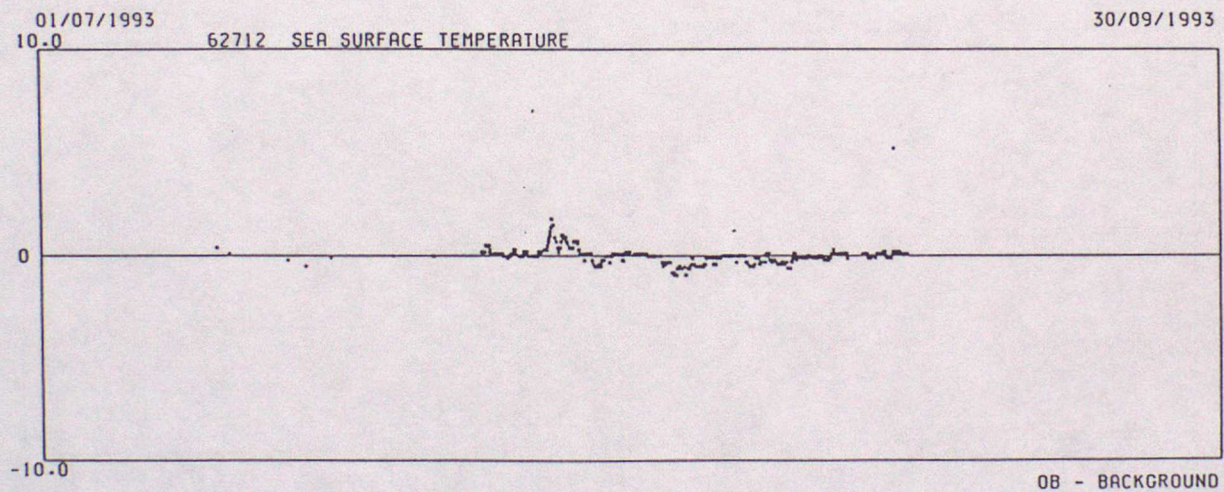
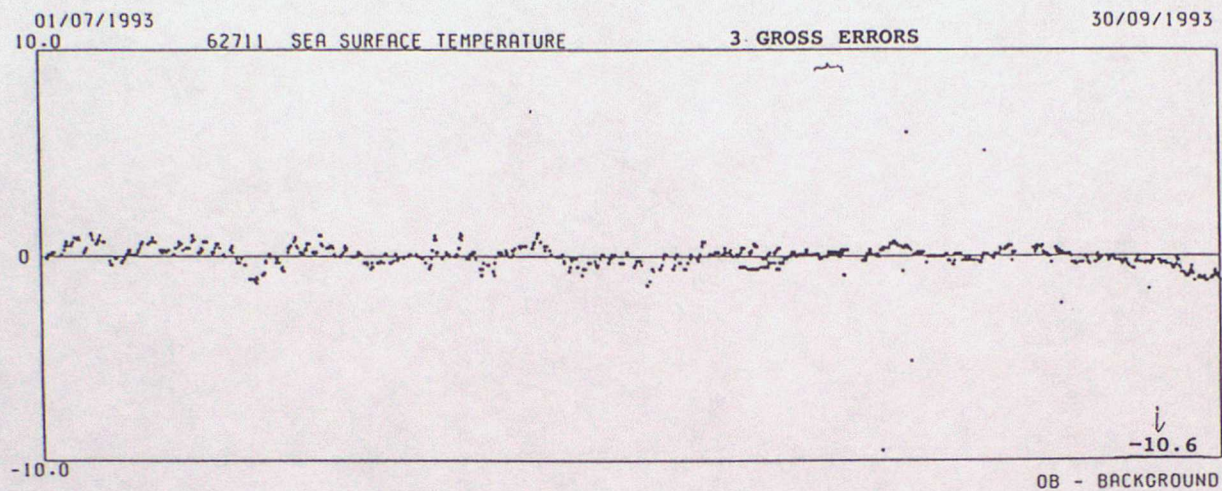
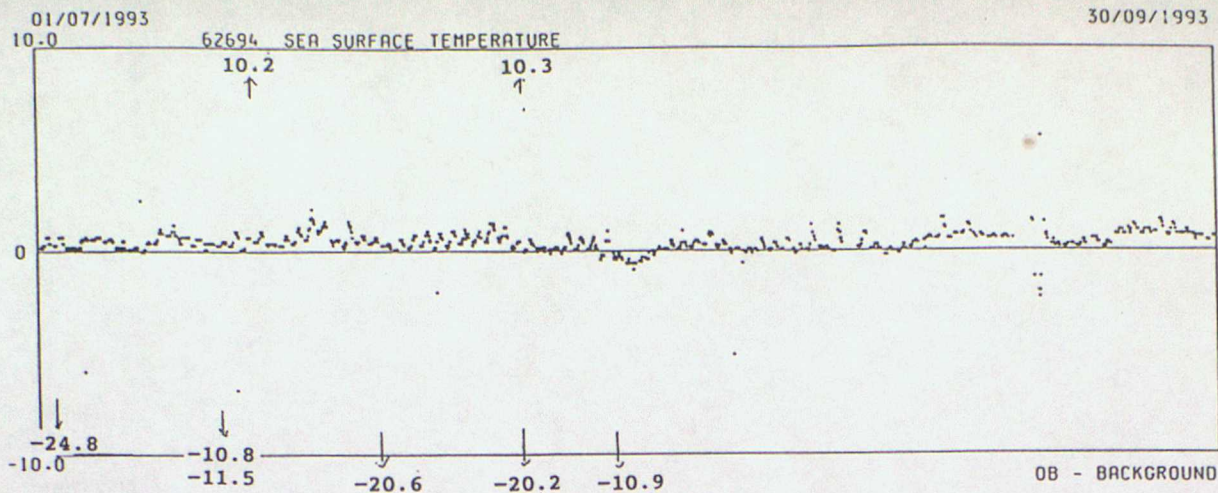
08 - BACKGROUND

01/07/1993 62673 SEA SURFACE TEMPERATURE

30/09/1993



08 - BACKGROUND

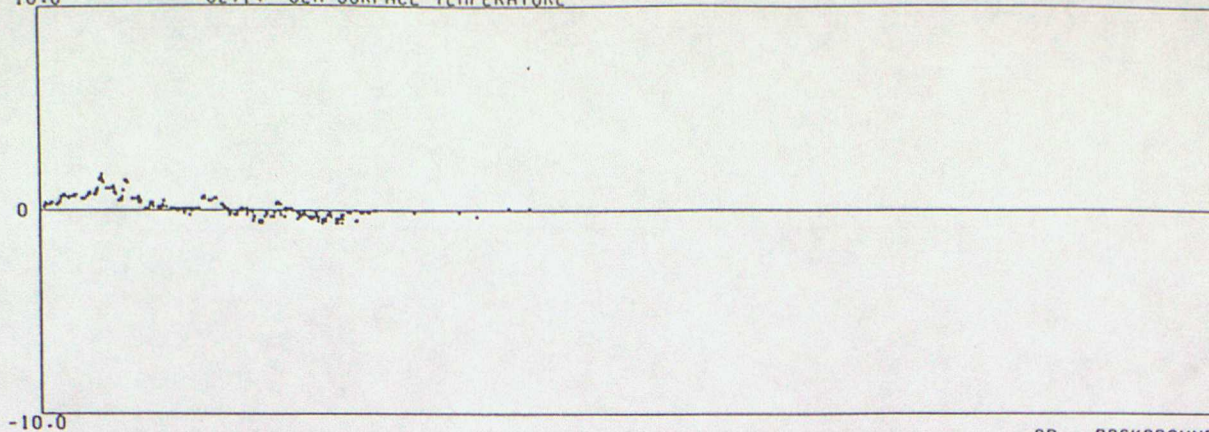


01/07/1993

30/09/1993

10.0

62714 SEA SURFACE TEMPERATURE



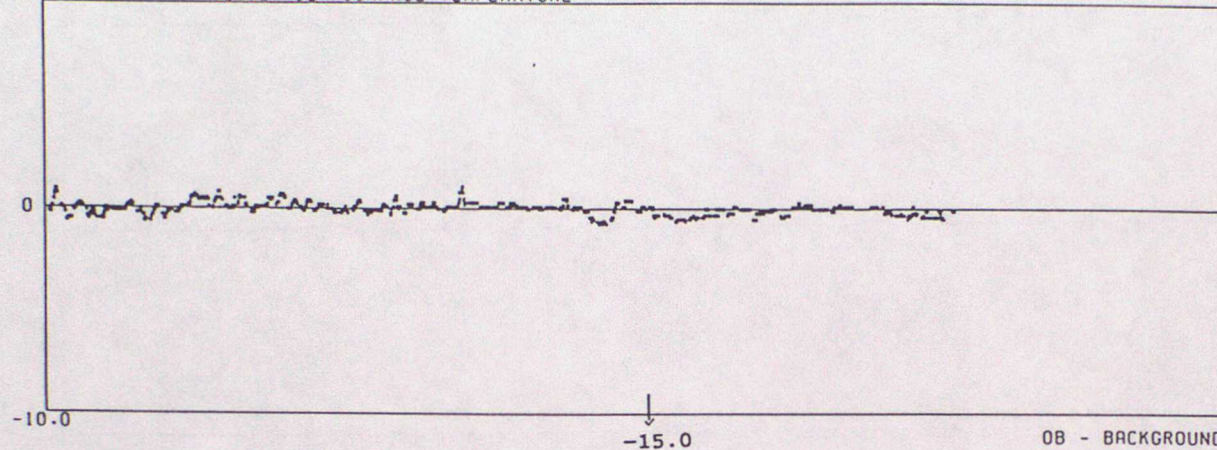
08 - BACKGROUND

01/07/1993

30/09/1993

10.0

62802 SEA SURFACE TEMPERATURE



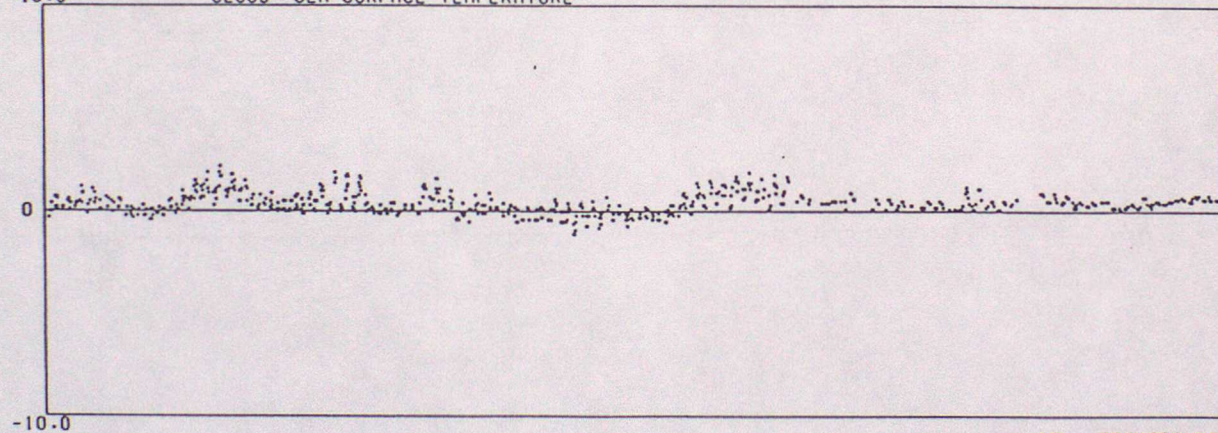
08 - BACKGROUND

01/07/1993

30/09/1993

10.0

62805 SEA SURFACE TEMPERATURE



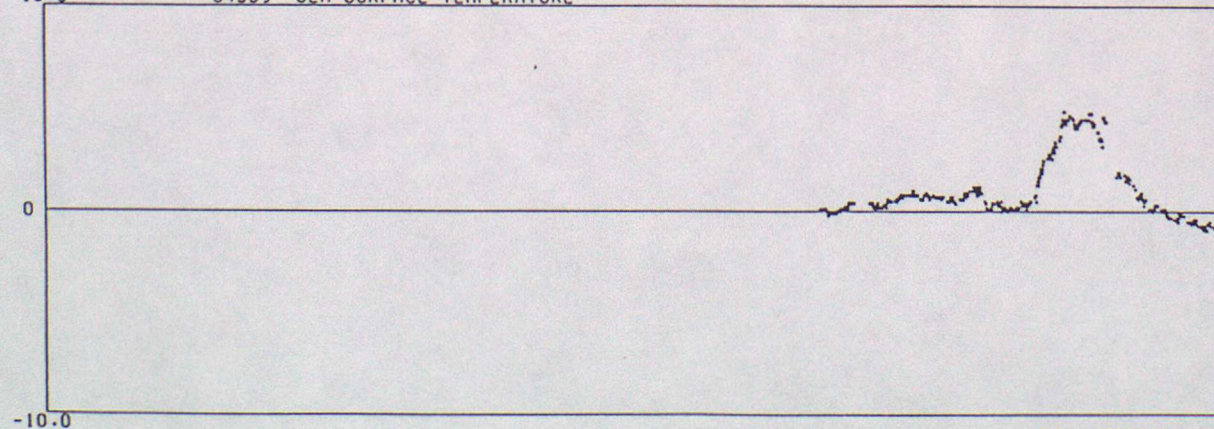
08 - BACKGROUND

01/07/1993

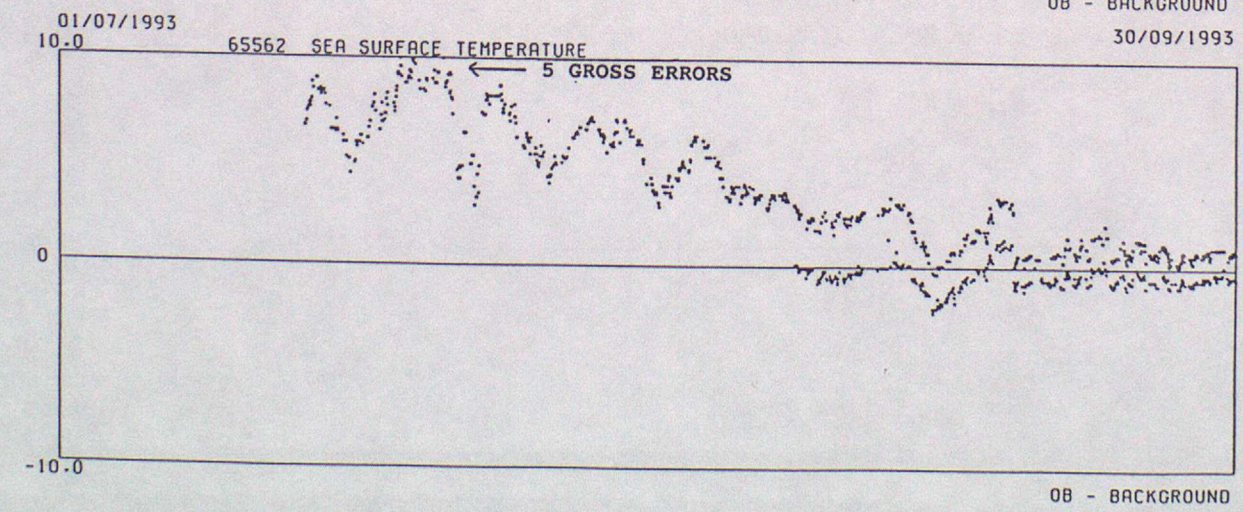
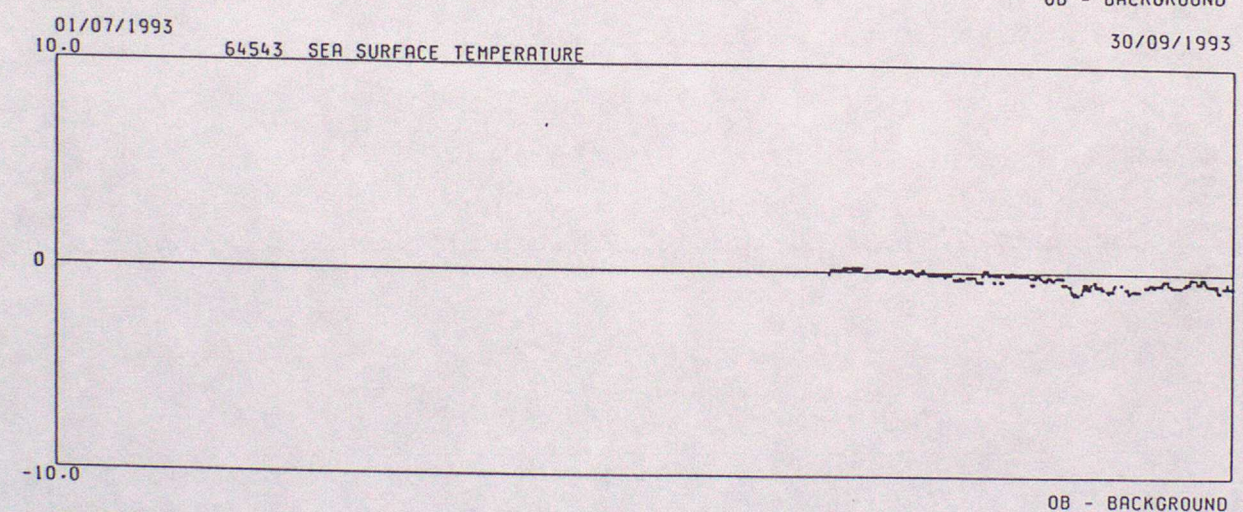
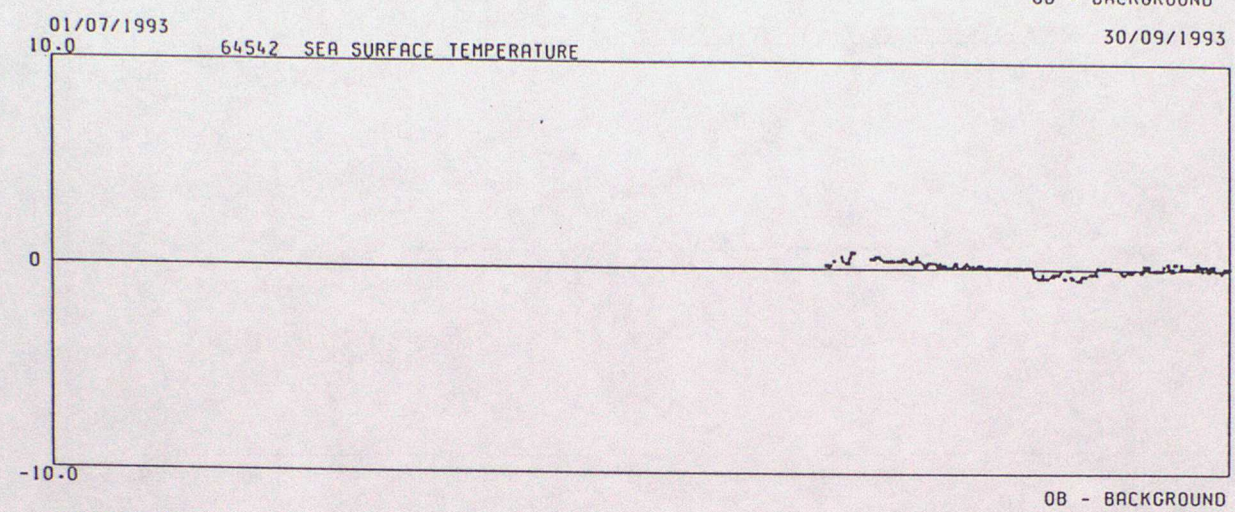
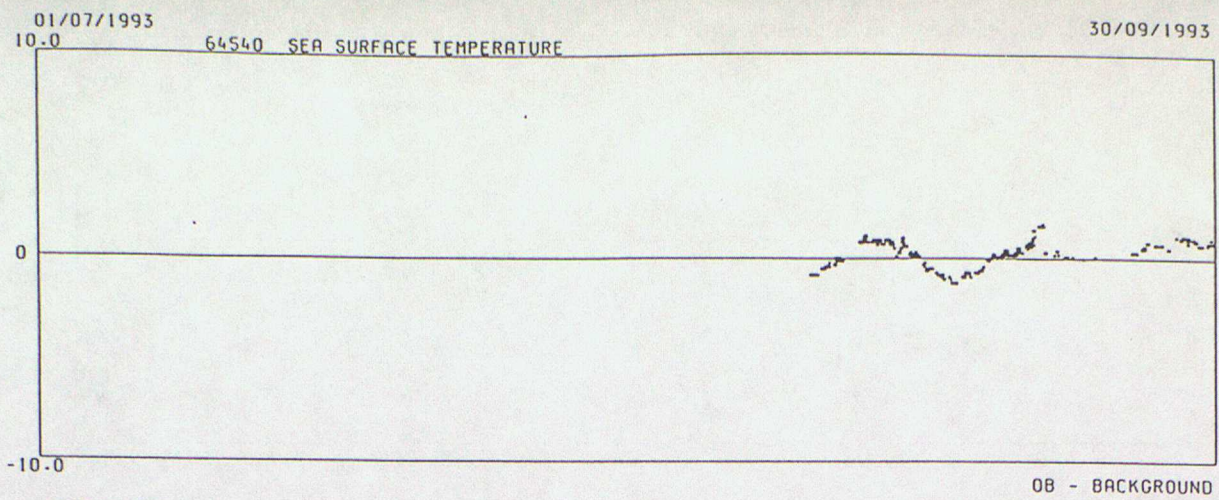
30/09/1993

10.0

64539 SEA SURFACE TEMPERATURE



08 - BACKGROUND

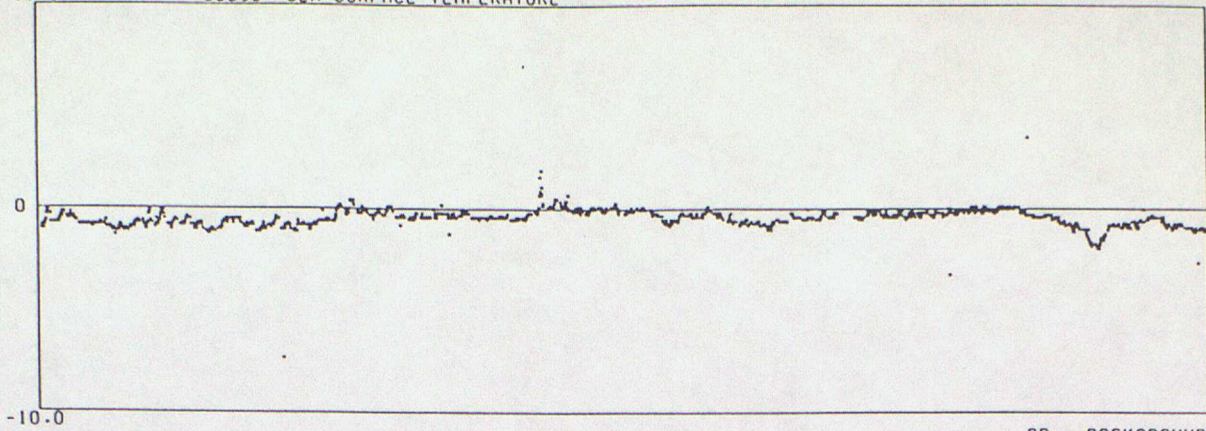


01/07/1993

30/09/1993

10.0

65596 SEA SURFACE TEMPERATURE



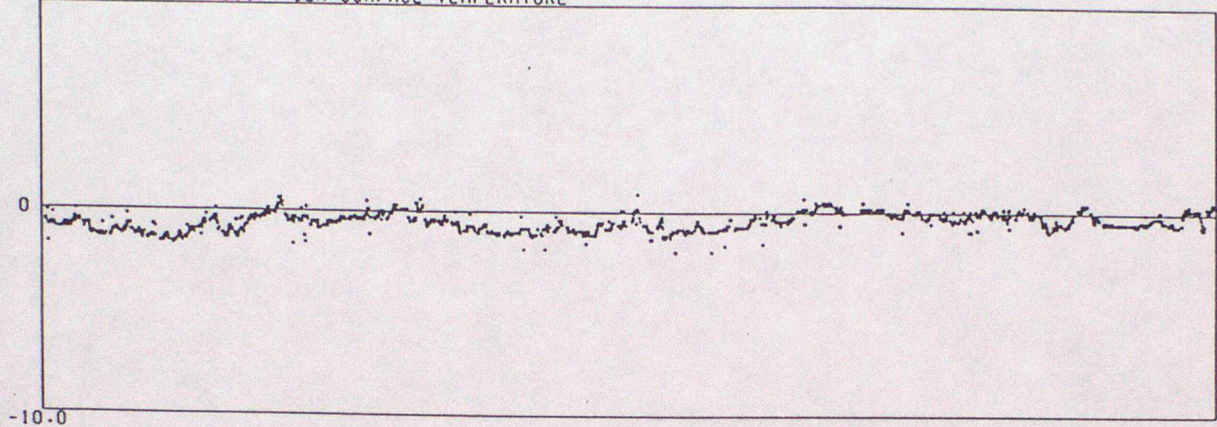
08 - BACKGROUND

01/07/1993

30/09/1993

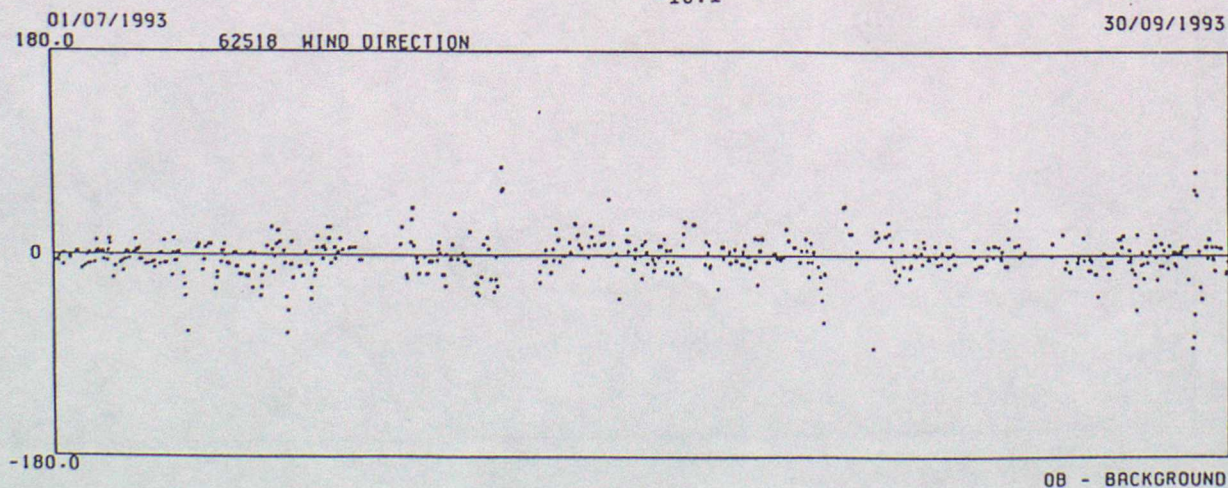
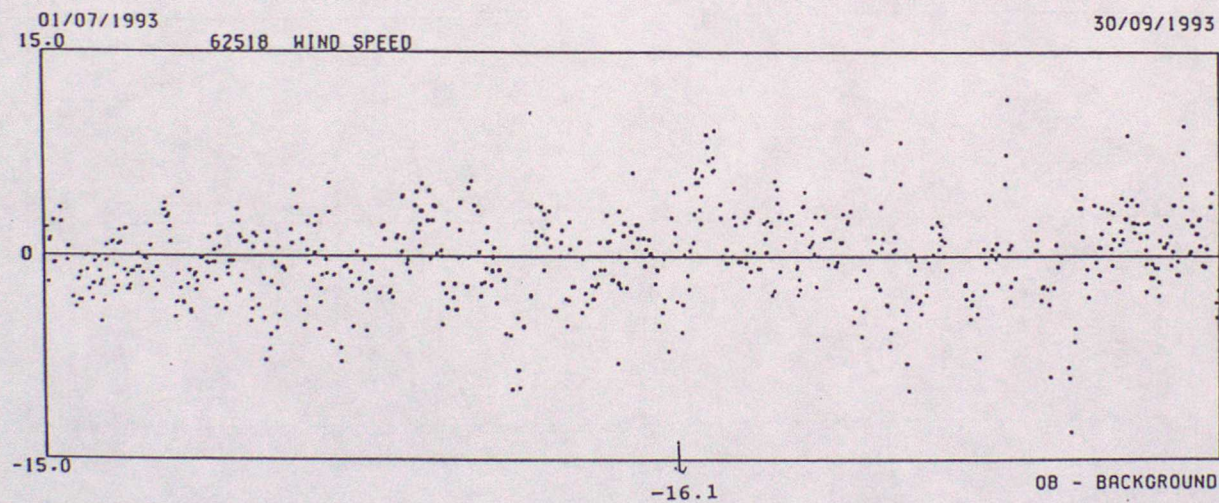
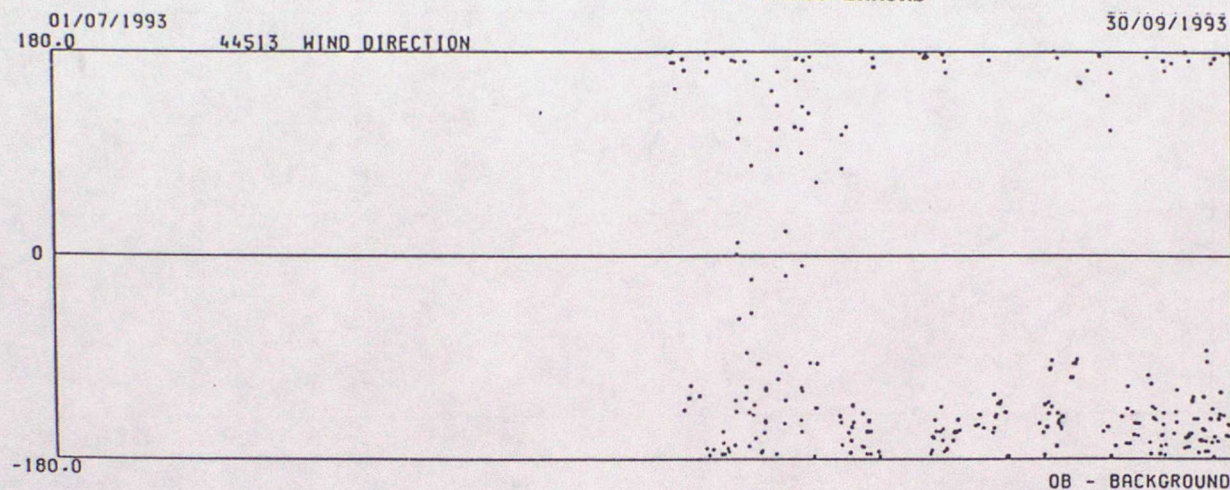
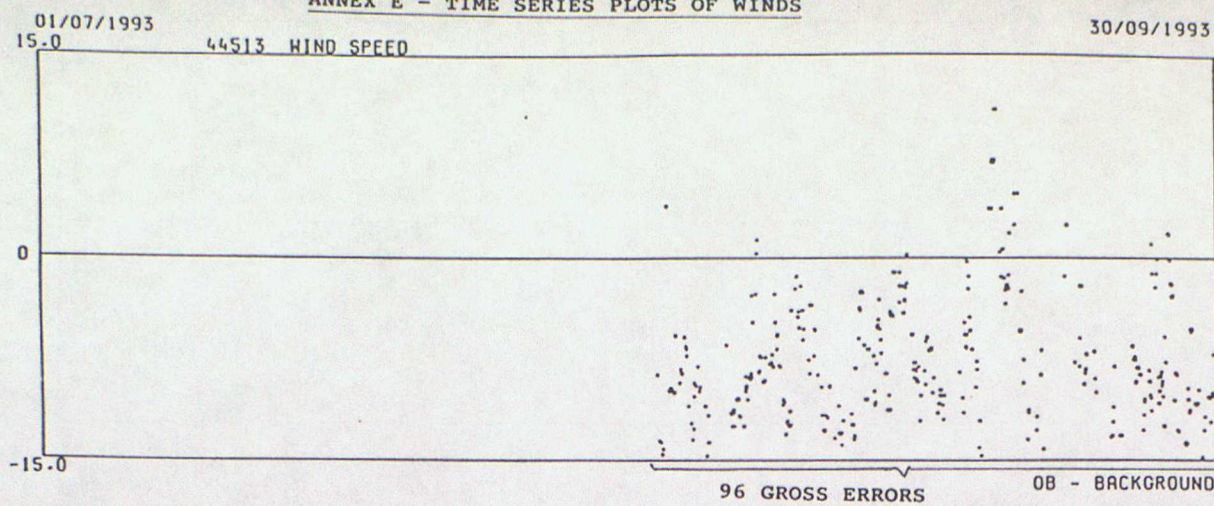
10.0

65597 SEA SURFACE TEMPERATURE



08 - BACKGROUND

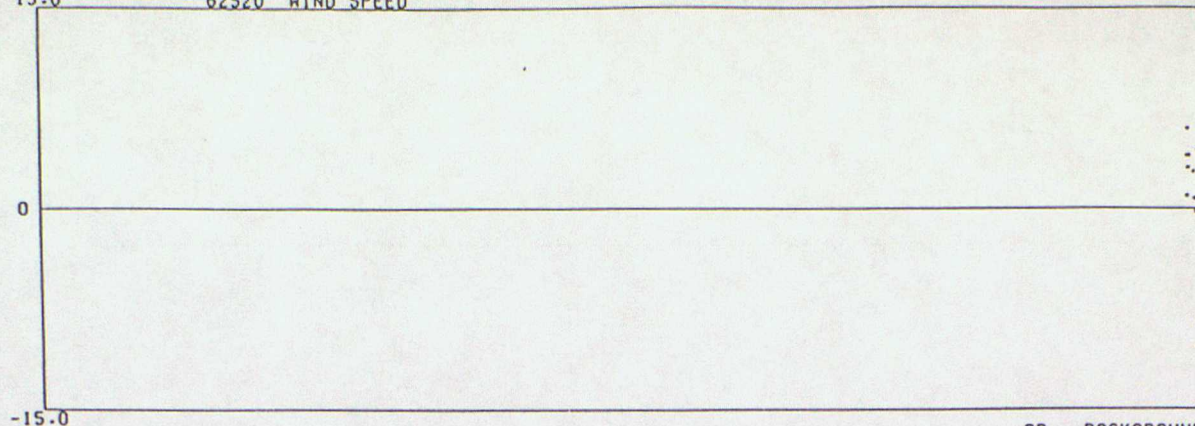
ANNEX E - TIME SERIES PLOTS OF WINDS



01/07/1993

30/09/1993

15.0 62520 WIND SPEED

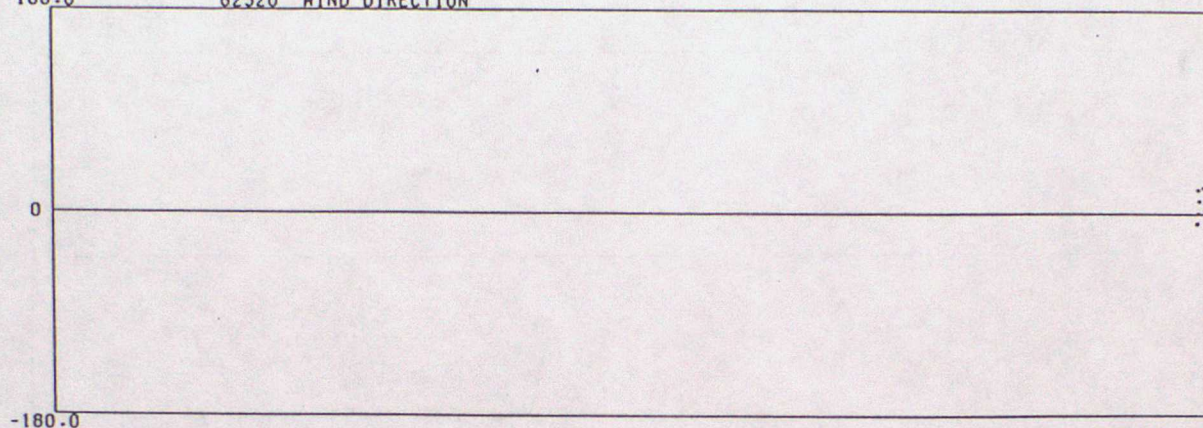


OB - BACKGROUND

01/07/1993

30/09/1993

180.0 62520 WIND DIRECTION

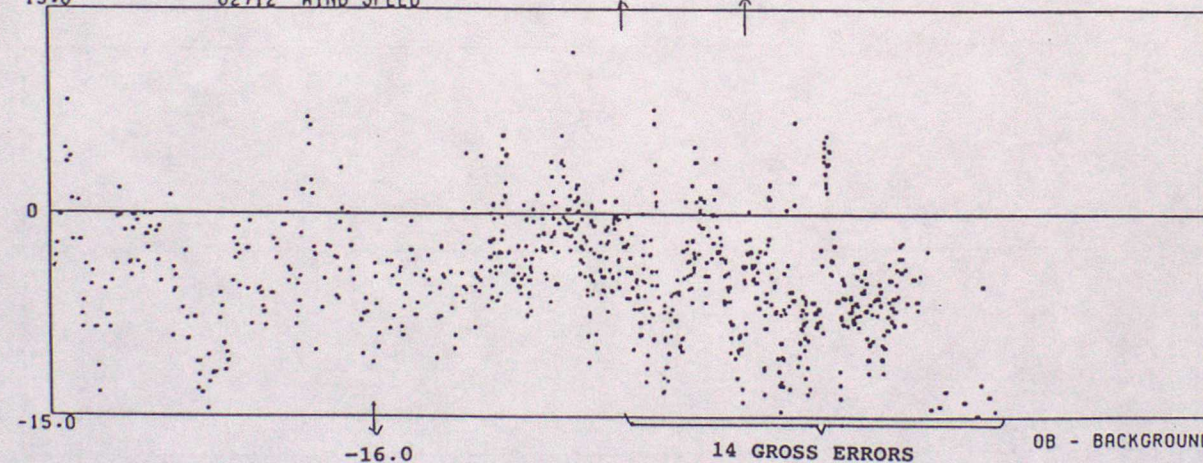


OB - BACKGROUND

01/07/1993

30/09/1993

15.0 62712 WIND SPEED

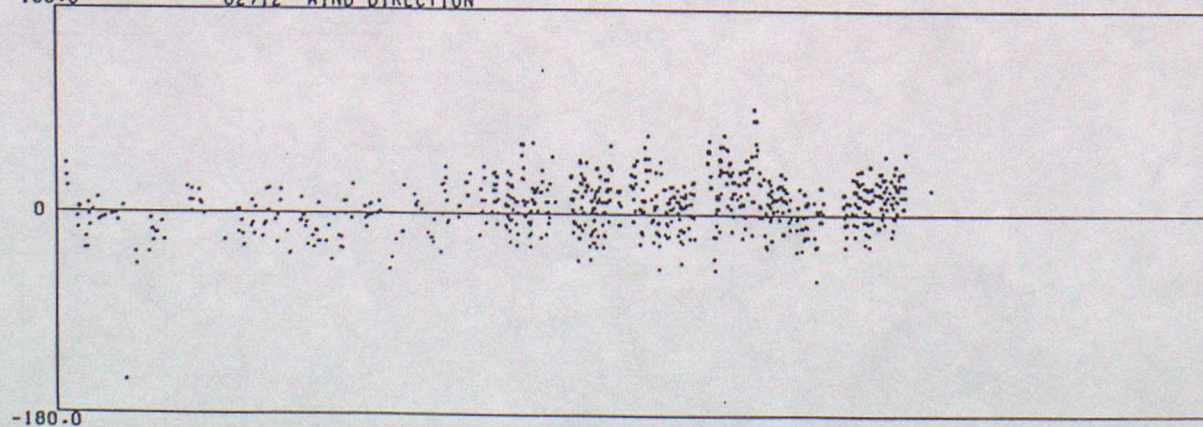


OB - BACKGROUND

01/07/1993

30/09/1993

180.0 62712 WIND DIRECTION



OB - BACKGROUND

ANNEX F - SUMMARY TABLE OF OPERATIONAL DRIFTING BUOYS

W.M.O No.	Argos No.	Owner	Elements Reported						Reporting Period
			PP	Pt	TT	FF	DD	SST	
12501	3959	U.S.	*		*			*	23/08 - 30/09
12502	5259	U.S.	*		*			*	23/08 - 30/09
41502	3956	U.S.	*		*			*	01/07 - 28/07
41524	5095	U.S.	*		*			*	01/07 - 07/07
44513	14633	U.S.	*		*	*	*	*	18/08 - 30/09 +
44515	5524	U.S.	*		*			*	30/08 - 30/09
44613	3676	N.	*	*	*			*	10/09 - 30/09
44711	????	?.?.	*	*	*				25/08 - 15/09
44762	1253	U.K.	*		*			*	01/07 - 31/08
44765	1255	U.K.	*					*	01/07 - 30/09
44766	3675	N.	*	*	*			*	01/07 - 02/07
44770	6287	U.K.	*	*	*			*	01/07 - 30/09
44772	2960	U.K.	*	*	*			*	01/07 - 30/09 +
44773	4624	U.K.	*	*	*			*	01/07 - 21/09
44774	2961	U.K.	*	*	*			*	01/07 - 21/09
44775	2962	U.K.	*	*	*			*	01/07 - 30/09
44777	1257	U.K.	*	*	*			*	01/07 - 30/09
44778	1259	U.K.	*	*	*			*	21/07 - 30/09
44779	1260	U.K.	*	*	*			*	21/07 - 30/09
44780	4629	U.K.	*		*			*	20/07 - 09/09

PP - Pressure Pt - Pressure tendency TT - Air temperature
FF - Wind speed DD - Wind direction SST - Sea surface temperature

+ - These buoys stopped reporting pressure before the end of the quarter but continued to report other elements.

W.M.O No.	Argos No.	Owner	Elements Reported						Reporting Period
			PP	Pt	TT	FF	DD	SST	
47606	????	?.?.	*		*				01/07 - 30/09
61525	15354	U.S.	*		*			*	01/07 - 03/07
61542	15356	U.S.	*		*			*	23/09 - 30/09
62511	1354	F.	*					*	01/07 - 27/07
62516	10107	F.	*	*				*	01/07 - 21/09
62517	10108	F.	*	*				*	01/07 - 12/09
62518	10113	F.	*	*		*	*	*	01/07 - 30/09
62519	10112	F.	*	*				*	29/09 - 30/09
62520	10114	F.	*			*	*	*	29/09 - 30/09
62673	6817	U.S.	*		*			*	30/08 - 30/09
62694	2598	U.K.	*	*	*			*	01/07 - 30/09
62711	1258	U.K.	*	*	*			*	01/07 - 30/09
62712	1247	U.K.	*	*	*	*	*	*	01/07 - 30/09
62713	1363	U.K.	*					*	01/07 - 27/09
62714	1364	U.K.	*					*	01/07 - 08/08
62802	4627	U.K.	*		*			*	01/07 - 17/09
62805	6285	U.K.	*		*			*	01/07 - 30/09
64539	5521	U.S.	*		*			*	30/08 - 30/09
64540	5522	U.S.	*		*			*	30/08 - 30/09
64542	6639	U.S.	*		*			*	30/08 - 30/09

PP - Pressure Pt - Pressure tendency TT - Air temperature
FF - Wind speed DD - Wind direction SST - Sea surface temperature

W.M.O No.	Argos No.	Owner	Elements			Reported			Reporting Period
			PP	Pt	TT	FF	DD	SST	
64543	14293	U.S.	*		*			*	30/08 - 30/09
65562	4272	N.	*	*	*			*	20/07 - 30/09
65596	4271	NL.	*	*	*			*	01/07 - 30/09
65597	4270	N.	*	*	*			*	01/07 - 30/09

PP - Pressure Pt - Pressure tendency TT - Air temperature
FF - Wind speed DD - Wind direction SST - Sea surface temperature

