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FIFTY-FIFTH QUARTERLY REPORT ON DRIFTING BUOYS IN THE NORTH ATLANTIC

By Sue Holton
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1st July to 30th September 2000

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1th April 2001

This report has not been published.
Permission to quote from it should be obtained from the
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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 Base (Met.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. GENERAL PERFORMANCE

The following few sub-sections describe the general performance of the drifting buoys throughout the quarter.

(a) Location Accuracy

75 out of 78 of the buoys reporting, gave a '% of observations with acceptable positions' greater than 95% (64 out of 68 last quarter).

(b) Data timeliness

(see note 9 of section 6 for definition of terms.)

| Timeliness | Last quarter. | This quarter |
|--------------------|---------------|--------------|
| Very Good | 37 | 37 |
| Good | 23 | 33 |
| Satisfactory | 4 | 3 |
| Poor | 0 | 0 |
| Very poor | 4 | 5 |
| Total no. of buoys | 68 | 78 |

(c) Data availability

(see note 9 of section 6 for definition of terms.)

| Availability | South of 50 deg N | | North of 50 deg N | |
|--------------|-------------------|-----------------|-------------------|-----------------|
| | Previous Quarter | Present Quarter | Previous Quarter | Present Quarter |
| Very Good | 7 | 9 | 18 | 16 |
| Good | 4 | 3 | 2 | 4 |
| Satisfactory | 18 | 20 | 7 | 11 |
| Poor | 12 | 14 | 0 | 0 |
| Very Poor | 0 | 0 | 0 | 1 |

The total number of buoy days in the quarter was 5746 [obtained by summing the number of reporting days for each buoy] (last quarter the total was 5352) and the number of 'buoy hours' with at least one observation was 101682 (compared with 94727 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 17.70 (last quarter the figure was 17.70).

3. SUMMARY OF PRESSURE PERFORMANCE

(a) Buoy deployments, etc.

North of 50deg N

There were 26 buoys reporting pressure at the beginning of the period. 21 buoys were operating at the end of the period. 6 buoys were deployed during the period (44767, 44768, 44769, 44770, 64771 and 64521). 11 buoys ceased reporting pressure (44607, 44630, 44721, 44760, 44768, 44769, 62597, 64519, 64520, 64547 and 65598).

South of 50deg N

There were 36 buoys reporting pressure at the beginning of the period. 38 buoys were reporting at the end of the period. 10 buoys were deployed during the period (41505, 41523, 44762, 44764, 44772, 56542, 61522, 61523, 62517 and 62519). 8 buoys ceased reporting pressure (44615, 44773, 62515, 62723, 62725, 62761, 62762 and 62763).

(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°N the Revised RMS differences should be less than (or equal to) 2.0 hPa and for buoys north of 50°N they should be below (or equal to) 3.0 hPa. The buoys whose revised RMS differences were found to lie outside these limits have had their performances described as 'suspect' and are included in the section below. Examination of the time-series plots (see Annex B) indicates the performances of these buoys:-

56542 - Pressure was only reported for 2 days (29/09/00 – 30/09/00 at the end of the period.

62515 - Data from this buoy became erratic until it ceased reporting on 01/09/00.

Biases

14 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 had their performance described as 'suspect'.

| WMO No. | Buoy bias (hPa) | Period of reports |
|---------|-----------------|-------------------|
| 44607 | -1.0 | 01/07 – 02/09 |
| 44723 | -0.7 | 01/07 – 30/09 |
| 61522 | -0.6 | 09/09 – 30/09 |
| 61523 | -0.7 | 09/09 – 30/09 |
| 62513 | -1.0 | 01/07 – 30/09 |
| 62519 | -0.9 | 26/09 – 30/09 |
| 62723 | -0.6 | 01/07 – 30/07 |
| 62762 | 0.6 | 01/07 – 24/07 |
| 64519 | -0.7 | 01/07 – 12/09 |
| 64546 | 0.8 | 01/07 – 30/09 |
| 64698 | -0.6 | 01/07 – 30/09 |
| 65593 | -0.6 | 01/07 – 30/09 |
| 65600 | -0.7 | 01/07 – 30/09 |
| 65602 | -0.6 | 01/07 – 30/09 |

Summary of Pressure Performance

| Pressure Summary | Last Quarter | This Quarter |
|--------------------|--------------|--------------|
| Acceptable | 58 | 62 |
| Suspect – RMS | Nil | 2 |
| Suspect – Bias | 10 | 14 |
| Total no. of buoys | 68 | 78 |

(4) Air Temperatures

The following table shows the mean and standard deviation of observation minus background differences for air temperatures.

(Note : The calculations below exclude the majority of gross errors. However, gross errors within +/-20 °C of the background value are included. Therefore, in some instances, the figures may be slightly misleading.)

| Air Temperature | | | | Air Temperature | | | |
|-----------------|-------|---------|------------|-----------------|-------|---------|------------|
| WMO No. | Mean | St. Dev | No. of Obs | WMO No. | Mean | St. Dev | No. of Obs |
| 41521 | 0.92 | 1.33 | 904 | 44613 | 0.85 | 0.62 | 2065 |
| 44626 | 0.41 | 1.28 | 3859 | 44628 | 0.16 | 1.15 | 3489 |
| 44630 | 0.46 | 1.44 | 4510 | 44743 | 0.36 | 1.09 | 2977 |
| 44765 | 0.46 | 1.19 | 1679 | 44772 | 0.08 | 1.27 | 2096 |
| 44773 | -0.05 | 0.95 | 102 | 56542 | 12.27 | 4.21 | 22 |
| 62508 | 0.21 | 0.80 | 1482 | 62723 | 0.66 | 1.09 | 214 |
| 62725 | 0.67 | 1.14 | 305 | 62721 | 0.96 | 1.42 | 474 |
| 62762 | 0.54 | 1.46 | 169 | 62763 | 0.74 | 1.68 | 311 |
| 64546 | 0.35 | 1.25 | 3754 | 64547 | -0.32 | 0.98 | 53 |
| 64548 | 0.34 | 1.16 | 3292 | 65593 | 0.34 | 1.21 | 4371 |
| 65598 | 1.62 | 1.98 | 2907 | 65000 | 0.32 | 1.01 | 4248 |
| 65601 | 0.47 | 1.33 | 3937 | 65602 | 0.40 | 1.20 | 4372 |

Summary

Buoys 56542 (12.27) and 65598 (1.62) both showed significant air temperature bias. Also buoy 56542 (4.21) showed a significant standard deviation.

Air temperature data from buoy 44773 was only available from the start of the period until 04/07/00.

Buoy 56542 (29/09/00 - 30/09/00) and 64547 (01/07/00 – 12/07/00) only reported for a few days.

(5) Winds

The following table shows the mean and standard deviation of observation minus background differences for wind speed and direction.

| WMO No. | Wind Speed (kt) | | | Wind Direction (deg) | | |
|---------|-----------------|----------|------------|----------------------|----------|------------|
| | Mean | St. Dev. | No. of Obs | Mean | St. Dev. | No. of Obs |
| 41505 | 6.93 | 7.08 | 232 | 10.76 | 27.30 | 221 |
| 41521 | -1.83 | 3.52 | 766 | -8.09 | 27.36 | 653 |
| 41523 | -0.08 | 4.53 | 536 | -25.36 | 42.73 | 453 |
| 41571 | 0.44 | 4.90 | 612 | 9.94 | 14.85 | 557 |
| 44607 | 1.12 | 3.40 | 1116 | 2.28 | 27.23 | 1061 |
| 44724 | 8.86 | 7.07 | 172 | 19.16 | 28.00 | 293 |
| 44726 | 4.50 | -2.49 | 939 | -5.09 | 33.68 | 581 |
| 44743 | -1.03 | 3.56 | 2470 | 7.55 | 38.49 | 2169 |
| 44772 | -0.66 | 3.66 | 1538 | 14.92 | 84.25 | 1318 |
| 44773 | -0.44 | 3.48 | 225 | 52.82 | 92.56 | 196 |
| 62508 | 0.02 | 2.56 | 2009 | -3.13 | 16.16 | 1665 |
| 62597 | -2.29 | 3.25 | 2559 | -6.51 | 50.65 | 1838 |

Summary

Buoys 41505 (6.93), 44724 (8.86), 44726 (4.50) and 62597 (-2.29) all showed a significant **wind speed** bias throughout their reporting lives. Buoy 41505 (7.08) and 44724 (7.07) also showed a significant standard deviation.

Buoys 44773 (52.82), showed a significant **wind direction** bias and buoy 44772 (84.25) and 44773 (52.82) showed significant standard deviations for **wind direction**.

6. EXPLANATORY NOTES:

1. Buoy owners are as follows,

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

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

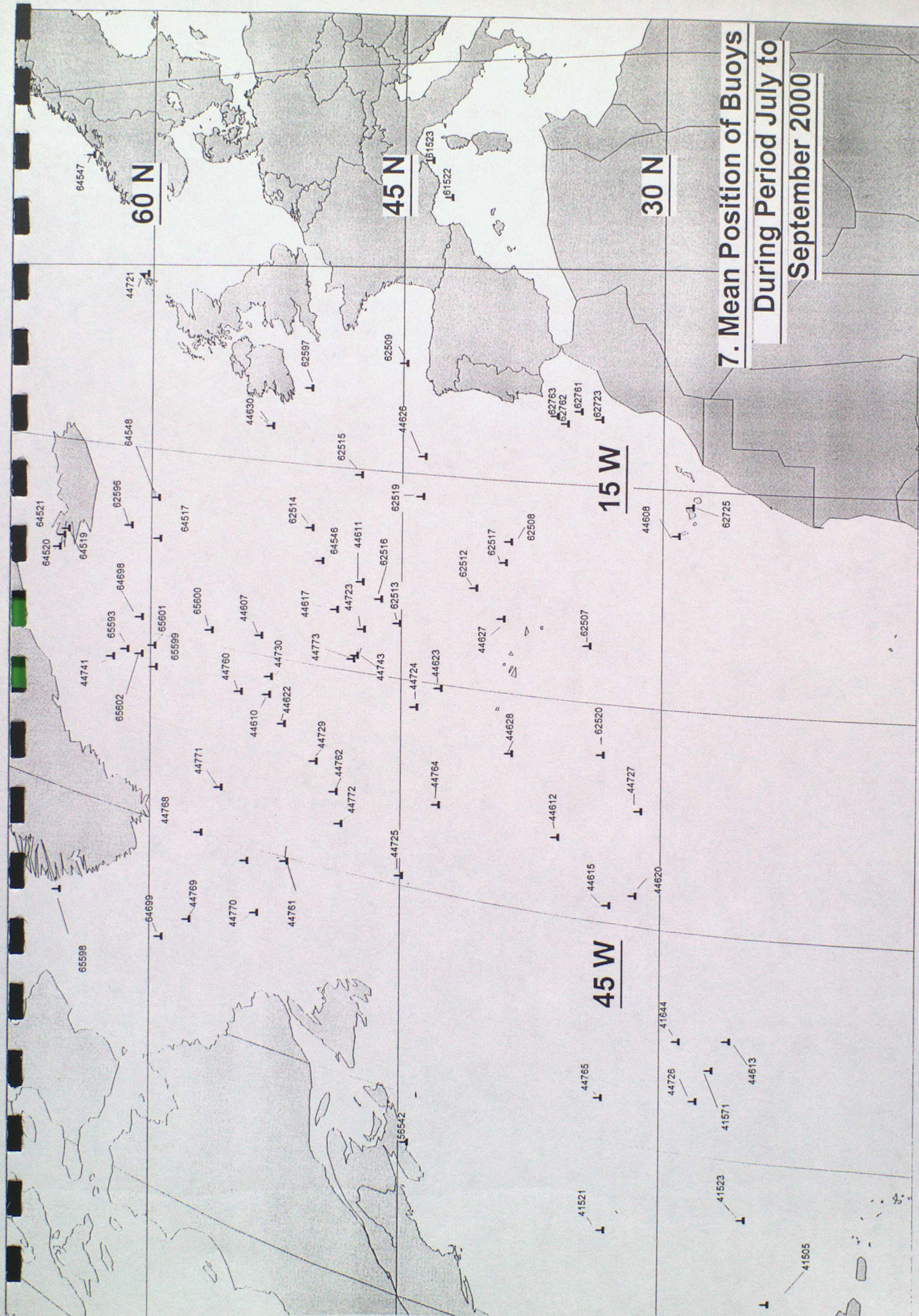
9. The performance categories are defined in the table below.

| Performance | Availability (mean no. of 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 (in hPa) | | | |
|-------------|---------------------------|------------|------------------|------------|
| | North of 50 degN | | South of 50 degN | |
| | RMS | MEAN | RMS | MEAN |
| Acceptable | ≤ 3.0 | ≤ 0.5 | ≤ 2.0 | ≤ 0.5 |
| Suspect | > 3.0 | > 0.5 | > 2.0 | > 0.5 |



Annex A - TABLE OF STATISTICS

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 41505 | 41521 | 41523 |
| Argos Id No. | | | |
| Period Within Area | 03/08 - 30/09 | 01/07 - 30/09 | 03/08 - 30/09 |
| Mean Latitude | 23.8 | 33.3 | 25.2 |
| Mean Longitude | -69.4 | -66.2 | -63.9 |
| No. of Obs Received | 648 | 951 | 618 |
| % of obs with Acceptable Position | 100.0 | 99.9 | 99.7 |
| % of Present Pressure | 54.9 | 97.6 | 93.7 |
| P. Tendency | 0.0 | 0.0 | 0.0 |
| Air Temperature | 0.0 | 97.6 | 0.0 |
| Wind Speed/Dir | 58.6/ 52.6 | 83.3/ 97.0 | 91.9/ 92.2 |
| Sea-Surface Temp. | 70.7 | 97.4 | 93.4 |
| Median delay (min) | 36 | 28 | 44 |
| Number of days | 59 | 92 | 59 |
| Mean No. of obs/day | 11.0 | 10.3 | 10.5 |
| No. of Hours with obs | 521 | 867 | 488 |
| Mean no. of hours/day with obs | 8.8 | 9.4 | 8.3 |
| % of hour periods without an ob | 62.7 | 60.7 | 65.1 |
| Mean (Ob-Bg) | -0.2 | 0.4 | 0.2 |
| RMS (Ob-Bg) unflagged data | 1.0 | 0.8 | 0.7 |
| Mean (Ob-Bg) | -0.2 | 0.4 | 0.0 |
| RMS (Ob-Bg) all data | 1.0 | 0.8 | 3.5 |
| Revised RMS (Ob-Bg) | 1.0 | 0.8 | 0.7 |
| % of data flagged | 27 | 15 | 21 |
| Operating at end of period | YES | YES | YES |
| Performance Availability | Poor | Poor | Poor |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Very Good | Very Good | Very Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 41571 | 41644 | 44607/F |
| Argos Id No. | | | 6216 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 02/09 |
| Mean Latitude | 27.1 | 29.0 | 53.5 |
| Mean Longitude | -54.1 | -52.4 | -28.5 |
| No. of Obs Received | 1020 | 1142 | 1455 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 100.0 |
| % of Present | | | |
| Pressure | 98.1 | 93.3 | 80.1 |
| P. Tendency | 74.0 | 0.0 | 79.9 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 72.5/ 72.6 | 0.0/ 0.0 | 79.7/ 79.5 |
| Sea-Surface Temp. | 97.9 | 93.5 | 80.1 |
| Median delay (min) | 150 | 36 | 87 |
| Number of days | 92 | 92 | 64 |
| Mean No. of obs/day | 11.1 | 12.4 | 22.7 |
| No. of Hours with obs | 1013 | 801 | 1394 |
| Mean no. of hours/day with obs | 11.0 | 8.7 | 21.8 |
| % of hour periods without an ob | 54.0 | 63.6 | 8.5 |
| Mean (Ob-Bg) | 0.5 | 0.1 | -1.0 |
| RMS (Ob-Bg) | 0.7 | 0.7 | 1.3 |
| unflagged data | | | |
| Mean (Ob-Bg) | 0.5 | 0.1 | -0.9 |
| RMS (Ob-Bg) | 0.7 | 0.7 | 1.3 |
| all data | | | |
| Revised RMS (Ob-Bg) | 0.7 | 0.7 | 1.3 |
| % of data flagged | 1 | 31 | 0 |
| Operating at end of period | YES | YES | NO |
| Performance | | | |
| Availability | Poor | Poor | Acceptable |
| Pressure Quality | Acceptable | Acceptable | Suspect |
| Timeliness | Acceptable | Very Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|-----------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44608 | 44610/F | 44611/F |
| Argos Id No. | 14540 | 12734 | 27616 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 29.2 | 53.0 | 47.5 |
| Mean Longitude | -18.1 | -32.9 | -23.3 |
| No. of Obs Received | 6570 | 7932 | 1889 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 100.0 |
| % of Present Pressure | 69.9 | 62.6 | 91.8 |
| P. Tendency | 69.7 | 62.5 | 91.7 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 69.7 | 62.7 | 91.6 |
| Median delay (min) | 157 | 105 | 92 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 71.4 | 86.2 | 20.5 |
| No. of Hours with obs | 2122 | 2083 | 1859 |
| Mean no. of hours/day with obs | 23.1 | 22.6 | 20.2 |
| % of hour periods without an ob | 3.9 | 5.7 | 15.7 |
| Mean (Ob-Bg) | 0.3 | -0.3 | 0.3 |
| RMS (Ob-Bg) unflagged data | 0.7 | 1.0 | 0.8 |
| Mean (Ob-Bg) | 0.3 | -0.3 | 0.2 |
| RMS (Ob-Bg) all data | 0.7 | 1.1 | 1.0 |
| Revised RMS (Ob-Bg) | 0.7 | 1.0 | 1.0 |
| % of data flagged | 75 | 87 | 0 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Very Good | Very Good | Acceptable |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Acceptable | Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44612UK | 44613/UK | 44615 |
| Argos Id No. | 27619 | 28467 | 27620 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 12/09 |
| Mean Latitude | 36.1 | 26.1 | 33.1 |
| Mean Longitude | -39.6 | -52.0 | -43.8 |
| No. of Obs Received | 1828 | 2177 | 1433 |
| % of obs with Acceptable Position | 100.0 | 99.9 | 100.0 |
| % of Present Pressure | 95.5 | 97.3 | 92.3 |
| P. Tendency | 95.2 | 95.3 | 92.1 |
| Air Temperature | 0.0 | 97.4 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 95.3 | 0.0 | 89.2 |
| Median delay (min) | 97 | 56 | 104.5 |
| Number of days | 92 | 92 | 74 |
| Mean No. of obs/day | 19.9 | 23.7 | 19.4 |
| No. of Hours with obs | 1793 | 1341 | 1391 |
| Mean no. of hours/day with obs | 19.5 | 14.6 | 18.8 |
| % of hour periods without an ob | 18.7 | 39.2 | 21.3 |
| Mean (Ob-Bg) | 0.1 | 0.2 | 0.1 |
| RMS (Ob-Bg) unflagged data | 0.7 | 0.7 | 0.7 |
| Mean (Ob-Bg) | 0.1 | 0.2 | 0.1 |
| RMS (Ob-Bg) all data | 2.6 | 1.1 | 0.7 |
| Revised RMS (Ob-Bg) | 0.7 | 1.1 | 0.7 |
| % of data flagged | 1 | 47 | 0 |
| Operating at end of period | YES | YES | NO |
| Performance | | | |
| Availability | Acceptable | Acceptable | Acceptable |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Good | Very Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44617/UK | 44620/UK | 44622/UK |
| Argos Id No. | 27621 | 27622 | 27623 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 49.0 | 31.6 | 52.1 |
| Mean Longitude | -25.6 | -42.9 | -34.9 |
| No. of Obs Received | 1918 | 1798 | 2011 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 100.0 |
| % of Present Pressure | 90.7 | 94.7 | 92.1 |
| P. Tendency | 90.4 | 94.6 | 92.1 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 90.4 | 94.6 | 92.0 |
| Median delay (min) | 92.5 | 106 | 79 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 20.8 | 19.5 | 21.9 |
| No. of Hours with obs | 1855 | 1763 | 1955 |
| Mean no. of hours/day with obs | 20.2 | 19.2 | 21.3 |
| % of hour periods without an ob | 15.9 | 20.1 | 11.4 |
| Mean (Ob-Bg) | -0.1 | 0.1 | -0.2 |
| RMS (Ob-Bg) unflagged data | 0.8 | 0.7 | 0.8 |
| Mean (Ob-Bg) | 0.1 | 0.1 | -0.2 |
| RMS (Ob-Bg) all data | 1.5 | 0.7 | 0.8 |
| Revised RMS (Ob-Bg) | 1.5 | 0.7 | 0.9 |
| % of data flagged | 2 | 0 | 0 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Acceptable | Acceptable | Acceptable |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Good | Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44623/UK | 44626/UK | 44627/UK |
| Argos Id No. | 27624 | 12284 | 12285 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 42.9 | 43.9 | 39.3 |
| Mean Longitude | -30.3 | -13.7 | -24.8 |
| No. of Obs Received | 1847 | 4051 | 2818 |
| % of obs with Acceptable Position | 100.0 | 98.7 | 98.1 |
| % of Present Pressure | 91.7 | 98.2 | 99.1 |
| P. Tendency | 91.6 | 94.5 | 96.7 |
| Air Temperature | 0.0 | 97.8 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 91.6 | 98.0 | 5.9 |
| Median delay (min) | 93 | 21 | 20 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 20.1 | 44.0 | 30.6 |
| No. of Hours with obs | 1807 | 1535 | 1241 |
| Mean no. of hours/day with obs | 19.6 | 16.7 | 13.5 |
| % of hour periods without an ob | 18.1 | 30.3 | 43.7 |
| Mean (Ob-Bg) | -0.1 | 0.1 | 0.1 |
| RMS (Ob-Bg) unflagged data | 0.8 | 0.8 | 0.7 |
| Mean (Ob-Bg) | -0.1 | -0.3 | -0.2 |
| RMS (Ob-Bg) all data | 0.9 | 6.3 | 5.2 |
| Revised RMS (Ob-Bg) | 0.9 | 0.8 | 1.0 |
| % of data flagged | 0 | 70 | 64 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Acceptable | Very Good | Good |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Good | Very Good | Very Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44628/UK | 44630/UK | 44721/UK |
| Argos Id No. | 12287 | 12376 | 28475 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 22/09 | 01/07 - 21/07 |
| Mean Latitude | 38.8 | 52.9 | 60.6 |
| Mean Longitude | -34.2 | -12.3 | -0.7 |
| No. of Obs Received | 3661 | 4799 | 819 |
| % of obs with Acceptable Position | 97.4 | 99.7 | 99.1 |
| % of Present Pressure | 98.1 | 97.3 | 98.7 |
| P. Tendency | 94.2 | 93.3 | 96.3 |
| Air Temperature | 97.7 | 96.5 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 98.0 | 0.0 | 98.8 |
| Median delay (min) | 20 | 21 | 20 |
| Number of days | 92 | 84 | 21 |
| Mean No. of obs/day | 39.8 | 57.1 | 39.0 |
| No. of Hours with obs | 1550 | 1553 | 318 |
| Mean no. of hours/day with obs | 16.8 | 18.5 | 15.1 |
| % of hour periods without an ob | 29.6 | 22.3 | 35.0 |
| Mean (Ob-Bg) | 0.0 | 0.1 | -0.1 |
| RMS (Ob-Bg) unflagged data | 0.7 | 0.7 | 0.5 |
| Mean (Ob-Bg) | -0.4 | -0.2 | 0.0 |
| RMS (Ob-Bg) all data | 7.9 | 5.5 | 0.9 |
| Revised RMS (Ob-Bg) | 0.8 | 0.7 | 0.9 |
| % of data flagged | 64 | 73 | 67 |
| Operating at end of period | YES | NO | NO |
| Performance | | | |
| Availability | Very Good | Very Good | Very Good |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Very Good | Very Good | Very Good |
| Comments | | | |

Annex A - cont'd

| WMO No./Country | 44723/NL | 44724/UK | 44725/UK |
|--------------------------------------|---------------|---------------|---------------|
| Argos Id No. | 16392 | 27922 | 27923 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 47.4 | 44.3 | 45.1 |
| Mean Longitude | -26.8 | -31.9 | -44.3 |
| No. of Obs Received | 1855 | 1855 | 1504 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 97.9 |
| % of Present | | | |
| Pressure | 90.9 | 90.0 | 67.6 |
| P. Tendency | 90.4 | 89.3 | 66.4 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 18.9/ 18.8 | 0.0/ 0.0 |
| Sea-Surface Temp. | 90.7 | 89.6 | 67.4 |
| Median delay (min) | 94.5 | 97.5 | 119 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 20.2 | 20.2 | 16.3 |
| No. of Hours with obs | 1803 | 1823 | 1448 |
| Mean no. of hours/day with obs | 19.6 | 19.8 | 15.7 |
| % of hour periods without an ob | 18.2 | 17.4 | 34.3 |
| Mean (Ob-Bg) | -0.7 | -0.4 | -0.4 |
| RMS (Ob-Bg) unflagged data | 1.1 | 0.9 | 0.9 |
| Mean (Ob-Bg) | -0.7 | -0.4 | -0.4 |
| RMS (Ob-Bg) all data | 1.1 | 0.9 | 1.1 |
| Revised RMS (Ob-Bg) | 1.1 | 0.9 | 1.1 |
| % of data flagged | 1 | 0 | 1 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Acceptable | Acceptable | Acceptable |
| Pressure Quality | Suspect | Acceptable | Acceptable |
| Timeliness | Good | Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44726/UK | 44727/UK | 44729/UK |
| Argos Id No. | 27924 | 27925 | 25375 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 28.0 | 31.3 | 50.2 |
| Mean Longitude | -56.3 | -37.1 | -37.2 |
| No. of Obs Received | 1900 | 1485 | 1916 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 99.5 |
| % of Present | | | |
| Pressure | 94.2 | 54.8 | 90.0 |
| P. Tendency | 93.7 | 54.4 | 89.8 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 56.5/ 93.8 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 93.9 | 54.7 | 89.7 |
| Median delay (min) | 116 | 153 | 90.5 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 20.7 | 16.1 | 20.8 |
| No. of Hours with obs | 1735 | 1413 | 1869 |
| Mean no. of hours/day with obs | 18.9 | 15.4 | 20.3 |
| % of hour periods without an ob | 21.3 | 35.9 | 15.3 |
| Mean (Ob-Bg) | 0.2 | -0.2 | -0.2 |
| RMS (Ob-Bg) unflagged data | 0.8 | 0.7 | 0.9 |
| Mean (Ob-Bg) | 0.2 | -0.2 | -0.2 |
| RMS (Ob-Bg) all data | 1.0 | 0.7 | 0.9 |
| Revised RMS (Ob-Bg) | 1.0 | 0.7 | 0.9 |
| % of data flagged | 8 | 1 | 0 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Acceptable | Acceptable | Acceptable |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Good | Acceptable | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44730/UK | 44741/UK | 44743/UK |
| Argos Id No. | 25378 | 25373 | 12414 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 52.9 | 62.6 | 48.0 |
| Mean Longitude | -31.5 | -32.7 | -29.1 |
| No. of Obs Received | 2054 | 2087 | 3525 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 99.5 |
| % of Present Pressure | 93.3 | 86.2 | 97.1 |
| P. Tendency | 93.3 | 86.0 | 93.4 |
| Air Temperature | 0.0 | 0.0 | 86.1 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 72.2/ 94.6 |
| Sea-Surface Temp. | 93.2 | 86.2 | 86.3 |
| Median delay (min) | 82 | 79 | 24 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 22.3 | 22.7 | 38.3 |
| No. of Hours with obs | 1963 | 2000 | 1593 |
| Mean no. of hours/day with obs | 21.3 | 21.7 | 17.3 |
| % of hour periods without an ob | 11.0 | 9.3 | 27.7 |
| Mean (Ob-Bg) | 0.0 | 0.2 | 0.1 |
| RMS (Ob-Bg) unflagged data | 0.9 | 0.9 | 0.8 |
| Mean (Ob-Bg) | 0.0 | 0.3 | -0.2 |
| RMS (Ob-Bg) all data | 0.9 | 1.1 | 4.5 |
| Revised RMS (Ob-Bg) | 0.9 | 1.1 | 0.9 |
| % of data flagged | 2 | 0 | 62 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Acceptable | Acceptable | Very Good |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Good | Good | Very Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44760/UK | 44761/UK | 44762/UK |
| Argos Id No. | 12373 | 27615 | 28466 |
| Period Within Area | 01/07 - 29/08 | 01/07 - 30/09 | 08/08 - 30/09 |
| Mean Latitude | 54.7 | 51.9 | 49.0 |
| Mean Longitude | -33.1 | -45.3 | -39.2 |
| No. of Obs Received | 1880 | 1965 | 1008 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 99.4 |
| % of Present | | | |
| Pressure | 93.8 | 92.9 | 80.5 |
| P. Tendency | 86.6 | 92.9 | 80.0 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 91.3 | 92.9 | 80.5 |
| Median delay (min) | 34 | 80.5 | 103.5 |
| Number of days | 60 | 92 | 54 |
| Mean No. of obs/day | 31.3 | 21.4 | 18.7 |
| No. of Hours with obs | 887 | 1924 | 967 |
| Mean no. of hours/day with obs | 14.8 | 20.9 | 17.9 |
| % of hour periods without an ob | 37.7 | 12.8 | 24.9 |
| Mean (Ob-Bg) | -0.5 | -0.5 | 0.3 |
| RMS (Ob-Bg) unflagged data | 1.0 | 1.0 | 0.8 |
| Mean (Ob-Bg) | -0.6 | -0.5 | 0.2 |
| RMS (Ob-Bg) all data | 4.3 | 1.0 | 1.3 |
| Revised RMS (Ob-Bg) | 1.2 | 1.0 | 1.3 |
| % of data flagged | 60 | 0 | 1 |
| Operating at end of period | NO | YES | YES |
| Performance | | | |
| Availability | Good | Acceptable | Acceptable |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Very Good | Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44764/UK | 44765/UK | 44767/UK |
| Argos Id No. | 21541 | 28466 | 21580 |
| Period Within Area | 08/08 - 30/09 | 01/07 - 30/09 | 09/08 - 30/09 |
| Mean Latitude | 43.0 | 33.5 | 54.3 |
| Mean Longitude | -38.7 | -57.1 | -46.1 |
| No. of Obs Received | 1077 | 1781 | 976 |
| % of obs with Acceptable Position | 100.0 | 86.9 | 100.0 |
| % of Present Pressure | 92.7 | 98.0 | 85.9 |
| P. Tendency | 92.3 | 96.1 | 85.5 |
| Air Temperature | 0.0 | 97.9 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 92.7 | 0.0 | 85.6 |
| Median delay (min) | 90.5 | 17 | 97 |
| Number of days | 54 | 92 | 53 |
| Mean No. of obs/day | 19.9 | 19.4 | 18.4 |
| No. of Hours with obs | 1045 | 1101 | 935 |
| Mean no. of hours/day with obs | 19.4 | 12.0 | 17.6 |
| % of hour periods without an ob | 18.9 | 50.1 | 26.1 |
| Mean (Ob-Bg) | 0.1 | 0.3 | -0.3 |
| RMS (Ob-Bg) unflagged data | 0.8 | 0.8 | 0.9 |
| Mean (Ob-Bg) | 0.1 | 0.1 | -0.2 |
| RMS (Ob-Bg) all data | 0.8 | 3.9 | 1.0 |
| Revised RMS (Ob-Bg) | 0.8 | 0.9 | 1.0 |
| % of data flagged | 0 | 47 | 1 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Acceptable | Acceptable | Acceptable |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Good | Very Good | Good |
| Comments | | | |

Annex A - cont'd

| WMO No./Country | 44768/UK | 44769/UK | 44770/UK |
|--------------------------------------|---------------|---------------|---------------|
| Argos Id No. | 21588 | 21627 | 25377 |
| Period Within Area | 09/08 - 24/09 | 09/08 - 05/09 | 09/08 - 30/09 |
| Mean Latitude | 57.1 | 57.8 | 53.7 |
| Mean Longitude | -45.0 | -52.2 | -49.9 |
| No. of Obs Received | 1011 | 713 | 1139 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 100.0 |
| % of Present Pressure | 88.7 | 32.1 | 92.1 |
| P. Tendency | 88.7 | 20.8 | 91.8 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 58.4 | 32.0 | 92.0 |
| Median delay (min) | 84 | 103 | 85.5 |
| Number of days | 47 | 28 | 53 |
| Mean No. of obs/day | 21.5 | 25.5 | 21.5 |
| No. of Hours with obs | 962 | 335 | 1100 |
| Mean no. of hours/day with obs | 20.5 | 12.0 | 20.8 |
| % of hour periods without an ob | 14.1 | 49.7 | 13.1 |
| Mean (Ob-Bg) | -0.3 | -0.2 | -0.2 |
| RMS (Ob-Bg) unflagged data | 1.0 | 0.7 | 0.7 |
| Mean (Ob-Bg) | -0.3 | -0.1 | -0.2 |
| RMS (Ob-Bg) all data | 1.0 | 0.7 | 0.7 |
| Revised RMS (Ob-Bg) | 1.0 | 0.7 | 0.7 |
| % of data flagged | 1 | 40 | 1 |
| Operating at end of period | NO | NO | YES |
| Performance | | | |
| Availability | Acceptable | Good | Acceptable |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Good | Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 44771/UK | 44772/UK | 44773/UK |
| Argos Id No. | 25377 | 12412 | 12415 |
| Period Within Area | 30/07 - 30/09 | 02/08 - 30/09 | 01/07 - 29/08 |
| Mean Latitude | 55.9 | 48.7 | 47.8 |
| Mean Longitude | -41.0 | -41.5 | -28.8 |
| No. of Obs Received | 1182 | 2886 | 347 |
| % of obs with Acceptable Position | 100.0 | 99.5 | 98.6 |
| % of Present Pressure | 82.1 | 97.6 | 98.3 |
| P. Tendency | 81.6 | 95.0 | 89.9 |
| Air Temperature | 0.0 | 73.6 | 30.8 |
| Wind Speed/Dir | 0.0/ 0.0 | 91.0/ 54.5 | 66.0/ 66.0 |
| Sea-Surface Temp. | 82.1 | 73.8 | 32.0 |
| Median delay (min) | 108 | 18 | 18 |
| Number of days | 63 | 60 | 60 |
| Mean No. of obs/day | 18.8 | 48.1 | 5.8 |
| No. of Hours with obs | 1039 | 1088 | 248 |
| Mean no. of hours/day with obs | 16.5 | 18.1 | 4.1 |
| % of hour periods without an ob | 30.4 | 24.1 | 82.7 |
| Mean (Ob-Bg) | -0.1 | -0.5 | -0.2 |
| RMS (Ob-Bg) unflagged data | 0.9 | 1.0 | 1.0 |
| Mean (Ob-Bg) | 0.0 | -0.8 | -0.3 |
| RMS (Ob-Bg) all data | 2.1 | 4.7 | 3.3 |
| Revised RMS (Ob-Bg) | 1.2 | 1.0 | 1.7 |
| % of data flagged | 13 | 69 | 40 |
| Operating at end of period | YES | YES | NO |
| Performance | | | |
| Availability | Acceptable | Very Good | Poor |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Good | Very Good | Very Good |
| Comments | | | |

Annex A - cont'd

| WMO No./Country | 56542 | 61522 | 61523 |
|-----------------------------------|---------------|---------------|---------------|
| Argos Id No. | | | |
| Period Within Area | 29/09 - 30/09 | 09/09 - 30/09 | 09/09 - 30/09 |
| Mean Latitude | 44.7 | 42.5 | 43.6 |
| Mean Longitude | -63.6 | 5.1 | 7.8 |
| No. of Obs Received | 22 | 225 | 253 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 100.0 |
| % of Present | | | |
| Pressure | 100.0 | 96.0 | 97.2 |
| P. Tendency | 63.6 | 0.0 | 0.0 |
| Air Temperature | 100.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 100.0 | 97.3 | 98.0 |
| Median delay (min) | 16 | 30 | 33 |
| Number of days | 2 | 22 | 22 |
| Mean No. of obs/day | 11.0 | 10.2 | 11.5 |
| No. of Hours with obs | 18 | 204 | 224 |
| Mean no. of hours/day with obs | 9.0 | 9.3 | 10.2 |
| % of hour periods without an ob | 37.9 | 59.8 | 56.3 |
| Mean (Ob-Bg) | -4.2 | -0.6 | -0.7 |
| RMS (Ob-Bg) unflagged data | 4.2 | 0.9 | 1.1 |
| Mean (Ob-Bg) | -4.8 | -0.7 | -0.7 |
| RMS (Ob-Bg) all data | 4.9 | 0.9 | 1.1 |
| Revised RMS (Ob-Bg) | 4.9 | 0.9 | 1.1 |
| % of data flagged | 55 | 17 | 18 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Poor | Poor | Poor |
| Pressure Quality | Suspect | Suspect | Suspect |
| Timeliness | Very Good | Very Good | Very Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 62507/F | 62508/F | 62509/F |
| Argos Id No. | 10111 | 5822 | 14537 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 34.3 | 38.9 | 45.0 |
| Mean Longitude | -26.1 | -19.3 | -7.0 |
| No. of Obs Received | 3441 | 2269 | 3748 |
| % of obs with Acceptable Position | 94.4 | 100.0 | 100.0 |
| % of Present Pressure | 96.7 | 95.2 | 90.7 |
| P. Tendency | 88.8 | 86.2 | 90.4 |
| Air Temperature | 0.0 | 67.1 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 93.7/ 92.7 | 0.0/ 0.0 |
| Sea-Surface Temp. | 96.9 | 95.4 | 90.7 |
| Median delay (min) | 19 | 24 | 102 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 37.4 | 24.7 | 40.7 |
| No. of Hours with obs | 1649 | 1532 | 2069 |
| Mean no. of hours/day with obs | 17.9 | 16.7 | 22.5 |
| % of hour periods without an ob | 25.3 | 30.6 | 6.3 |
| Mean (Ob-Bg) | -0.2 | -0.4 | -0.2 |
| RMS (Ob-Bg) unflagged data | 0.6 | 1.4 | 0.7 |
| Mean (Ob-Bg) | -0.4 | -0.4 | -0.2 |
| RMS (Ob-Bg) all data | 3.5 | 1.4 | 0.7 |
| Revised RMS (Ob-Bg) | 0.8 | 1.4 | 0.7 |
| % of data flagged | 62 | 45 | 45 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Very Good | Acceptable | Very Good |
| Pressure Quality | Acceptable | Acceptable | Acceptable |
| Timeliness | Very Good | Very Good | Good |
| Comments | | | |

Annex A - cont'd

| WMO No./Country | 62512/F | 62513/F | 62514/F |
|-----------------------------------|---------------|---------------|---------------|
| Argos Id No. | 12730 | 12731 | 7119 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 40.9 | 45.3 | 50.5 |
| Mean Longitude | -22.8 | -26.0 | -19.7 |
| No. of Obs Received | 2941 | 3135 | 2375 |
| % of obs with Acceptable Position | 100.0 | 99.8 | 100.0 |
| % of Present Pressure | 84.7 | 84.7 | 88.1 |
| P. Tendency | 0.0 | 0.0 | 87.8 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 45.3 | 46.0 | 87.9 |
| Median delay (min) | 425 | 421 | 87.5 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 32.0 | 34.1 | 25.8 |
| No. of Hours with obs | 1642 | 1704 | 2068 |
| Mean no. of hours/day with obs | 17.8 | 18.5 | 22.5 |
| % of hour periods without an ob | 25.6 | 22.8 | 6.3 |
| Mean (Ob-Bg) | 0.1 | -1.0 | -0.2 |
| RMS (Ob-Bg) unflagged data | 0.7 | 1.3 | 1.0 |
| Mean (Ob-Bg) | 0.1 | -1.0 | -0.2 |
| RMS (Ob-Bg) all data | 0.7 | 1.3 | 1.1 |
| Revised RMS (Ob-Bg) | 0.7 | 1.3 | 1.1 |
| % of data flagged | 41 | 42 | 12 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Good | Good | Good |
| Pressure Quality | Acceptable | Suspect | Acceptable |
| Timeliness | Very Poor | Very Poor | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 62515/F | 62516/F | 62517/US/F |
| Argos Id No. | 7242 | 7445 | 18674 |
| Period Within Area | 01/07 - 01/09 | 01/07 - 30/09 | 21/09 - 30/09 |
| Mean Latitude | 47.6 | 46.4 | 39.2 |
| Mean Longitude | -15.4 | -24.4 | -20.8 |
| No. of Obs Received | 1466 | 2238 | 209 |
| % of obs with Acceptable Position | 99.5 | 100.0 | 100.0 |
| % of Present Pressure | 76.8 | 84.0 | 88.0 |
| P. Tendency | 81.1 | 83.7 | 87.1 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 59.1 | 83.8 | 88.0 |
| Median delay (min) | 89 | 87.5 | 107 |
| Number of days | 63 | 92 | 10 |
| Mean No. of obs/day | 23.3 | 24.3 | 20.9 |
| No. of Hours with obs | 1374 | 2069 | 199 |
| Mean no. of hours/day with obs | 21.8 | 22.5 | 19.9 |
| % of hour periods without an ob | 8.3 | 6.2 | 11.2 |
| Mean (Ob-Bg) | 0.5 | -0.3 | -0.5 |
| RMS (Ob-Bg) unflagged data | 1.2 | 0.9 | 0.8 |
| Mean (Ob-Bg) | 9.9 | -0.3 | -0.5 |
| RMS (Ob-Bg) all data | 15.1 | 0.9 | 0.8 |
| Revised RMS (Ob-Bg) | 15.0 | 0.9 | 0.8 |
| % of data flagged | 46 | 3 | 0 |
| Operating at end of period | NO | YES | YES |
| Performance | | | |
| Availability | Acceptable | Acceptable | Acceptable |
| Pressure Quality | Suspect | Acceptable | Acceptable |
| Timeliness | Good | Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 62519 | 62520/F | 62596 |
| Argos Id No. | | 14431 | 16391/NL |
| Period Within Area | 26/09 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 44.0 | 33.5 | 61.5 |
| Mean Longitude | -16.6 | -33.5 | -21.5 |
| No. of Obs Received | 110 | 3348 | 2077 |
| % of obs with Acceptable Position | 100.0 | 94.7 | 100.0 |
| % of Present | | | |
| Pressure | 90.9 | 97.4 | 88.4 |
| P. Tendency | 91.8 | 89.4 | 88.6 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 91.8 | 96.7 | 88.5 |
| Median delay (min) | 115 | 19 | 78 |
| Number of days | 5 | 92 | 92 |
| Mean No. of obs/day | 22.0 | 36.4 | 22.6 |
| No. of Hours with obs | 107 | 1606 | 1997 |
| Mean no. of hours/day with obs | 21.4 | 17.5 | 21.7 |
| % of hour periods without an ob | 7.0 | 27.3 | 9.4 |
| Mean (Ob-Bg) | -0.9 | -0.5 | -0.3 |
| RMS (Ob-Bg) unflagged data | 1.1 | 0.7 | 0.8 |
| Mean (Ob-Bg) | -0.9 | -0.6 | -0.3 |
| RMS (Ob-Bg) all data | 1.1 | 3.6 | 0.8 |
| Revised RMS (Ob-Bg) | 1.1 | 0.9 | 0.8 |
| % of data flagged | 1 | 61 | 0 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Acceptable | Very Good | Acceptable |
| Pressure Quality | Suspect | Acceptable | Acceptable |
| Timeliness | Good | Very Good | Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 62597/UK | 62723 | 62725 |
| Argos Id No. | 28478 | | |
| Period Within Area | 01/07 - 11/09 | 01/07 - 30/07 | 01/07 - 11/08 |
| Mean Latitude | 50.6 | 33.7 | 28.4 |
| Mean Longitude | -9.2 | -10.4 | -16.1 |
| No. of Obs Received | 3105 | 258 | 357 |
| % of obs with Acceptable Position | 99.2 | 100.0 | 100.0 |
| % of Present | | | |
| Pressure | 96.8 | 93.8 | 95.8 |
| P. Tendency | 92.9 | 0.0 | 0.0 |
| Air Temperature | 0.0 | 93.4 | 93.6 |
| Wind Speed/Dir | 88.4/ 90.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 96.7 | 93.4 | 96.1 |
| Median delay (min) | 26 | 56 | 74 |
| Number of days | 73 | 30 | 42 |
| Mean No. of obs/day | 42.5 | 8.6 | 8.5 |
| No. of Hours with obs | 1202 | 240 | 339 |
| Mean no. of hours/day with obs | 16.5 | 8.0 | 8.1 |
| % of hour periods without an ob | 30.7 | 66.4 | 65.7 |
| Mean (Ob-Bg) | -0.1 | -0.6 | -0.2 |
| RMS (Ob-Bg) unflagged data | 0.8 | 0.8 | 0.9 |
| Mean (Ob-Bg) | -0.7 | -0.6 | -0.2 |
| RMS (Ob-Bg) all data | 6.1 | 0.8 | 1.0 |
| Revised RMS (Ob-Bg) | 1.6 | 0.8 | 1.0 |
| % of data flagged | 73 | 8 | 5 |
| Operating at end of period | NO | NO | NO |
| Performance | | | |
| Availability | Very Good | Poor | Poor |
| Pressure Quality | Acceptable | Suspect | Acceptable |
| Timeliness | Very Good | Very Good | Good |
| Comments | | | |

Annex A - cont'd

| WMO No./Country | 62761 | 62762 | 62763 |
|--------------------------------------|---------------|---------------|---------------|
| Argos Id No. | | | |
| Period Within Area | 01/07 - 29/08 | 01/07 - 24/07 | 01/07 - 10/08 |
| Mean Latitude | 34.9 | 35.7 | 36.3 |
| Mean Longitude | -9.9 | -10.8 | -10.3 |
| No. of Obs Received | 546 | 198 | 357 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 100.0 |
| % of Present | | | |
| Pressure | 94.5 | 98.0 | 95.2 |
| P. Tendency | 0.0 | 0.0 | 0.0 |
| Air Temperature | 94.0 | 96.0 | 93.6 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 95.8 | 97.0 | 95.2 |
| Median delay (min) | 54 | 53 | 58 |
| Number of days | 60 | 24 | 41 |
| Mean No. of obs/day | 9.1 | 8.3 | 8.7 |
| No. of Hours with obs | 503 | 192 | 335 |
| Mean no. of hours/day with obs | 8.4 | 8.0 | 8.2 |
| % of hour periods without an ob | 64.7 | 65.5 | 65.6 |
| Mean (Ob-Bg) | -0.2 | 0.6 | -0.5 |
| RMS (Ob-Bg) unflagged data | 0.7 | 0.9 | 0.8 |
| Mean (Ob-Bg) | -0.2 | 0.6 | -0.4 |
| RMS (Ob-Bg) all data | 0.7 | 0.9 | 1.0 |
| Revised RMS (Ob-Bg) | 0.7 | 0.9 | 1.0 |
| % of data flagged | 9 | 5 | 9 |
| Operating at end of period | NO | NO | NO |
| Performance | | | |
| Availability | Poor | Poor | Poor |
| Pressure Quality | Acceptable | Suspect | Acceptable |
| Timeliness | Very Good | Very Good | Very Good |
| Comments | | | |

Annex A - cont'd

| WMO No./Country | 64517/F | 64519/F | 64520/F |
|--------------------------------------|---------------|---------------|---------------|
| Argos Id No. | 14178 | 23618 | 23619 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 12/09 | 01/07 - 23/09 |
| Mean Latitude | 59.7 | 65.8 | 66.1 |
| Mean Longitude | -22.2 | -23.3 | -24.4 |
| No. of Obs Received | 3984 | 4535 | 4468 |
| % of obs with Acceptable Position | 100.0 | 100.0 | 100.0 |
| % of Present Pressure | 89.2 | 84.1 | 86.4 |
| P. Tendency | 89.1 | 0.0 | 0.0 |
| Air Temperature | 0.0 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 89.2 | 46.6 | 39.9 |
| Median delay (min) | 80 | 416 | 419 |
| Number of days | 92 | 74 | 85 |
| Mean No. of obs/day | 43.3 | 61.3 | 52.6 |
| No. of Hours with obs | 2114 | 1653 | 1715 |
| Mean no. of hours/day with obs | 23.0 | 22.3 | 20.2 |
| % of hour periods without an ob | 4.3 | 6.8 | 15.6 |
| Mean (Ob-Bg) | -0.4 | -0.7 | 0.0 |
| RMS (Ob-Bg) unflagged data | 0.8 | 1.0 | 1.5 |
| Mean (Ob-Bg) | -0.4 | -0.7 | 0.0 |
| RMS (Ob-Bg) all data | 0.9 | 1.1 | 1.9 |
| Revised RMS (Ob-Bg) | 0.9 | 1.1 | 1.7 |
| % of data flagged | 46 | 60 | 57 |
| Operating at end of period | YES | NO | NO |
| Performance | | | |
| Availability | Very Good | Very Good | Very Good |
| Pressure Quality | Acceptable | Suspect | Acceptable |
| Timeliness | Good | Very Poor | Very Poor |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 64521/F | 64546/F | 64547 |
| Argos Id No. | 23620 | 3675 | |
| Period Within Area | 04/07 - 30/09 | 01/07 - 30/09 | 01/07 - 12/07 |
| Mean Latitude | 65.5 | 49.9 | 64.1 |
| Mean Longitude | -22.7 | -22.1 | 9.3 |
| No. of Obs Received | 2791 | 3972 | 53 |
| % of obs with Acceptable Position | 100.0 | 99.3 | 100.0 |
| % of Present Pressure | 83.9 | 97.1 | 100.0 |
| P. Tendency | 0.0 | 94.3 | 98.1 |
| Air Temperature | 0.0 | 96.8 | 100.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 47.0 | 74.5 | 67.9 |
| Median delay (min) | 417 | 18 | 22.5 |
| Number of days | 89 | 92 | 12 |
| Mean No. of obs/day | 31.4 | 43.2 | 4.4 |
| No. of Hours with obs | 1051 | 1521 | 39 |
| Mean no. of hours/day with obs | 11.8 | 16.5 | 3.3 |
| % of hour periods without an ob | 50.3 | 31.0 | 85.5 |
| Mean (Ob-Bg) | -0.3 | 0.8 | -0.1 |
| RMS (Ob-Bg) unflagged data | 0.9 | 1.3 | 0.9 |
| Mean (Ob-Bg) | -0.4 | 0.6 | 0.0 |
| RMS (Ob-Bg) all data | 1.6 | 3.6 | 0.8 |
| Revised RMS (Ob-Bg) | 1.0 | 1.3 | 0.8 |
| % of data flagged | 57 | 68 | 36 |
| Operating at end of period | YES | YES | NO |
| Performance | | | |
| Availability | Good | Very Good | Very Poor |
| Pressure Quality | Acceptable | Suspect | Acceptable |
| Timeliness | Very Poor | Very Good | Very Good |
| Comments | | | |

Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 64548 | 64698/F | 64699/F |
| Argos Id No. | 1153 | 29867 | 29868/IR |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 59.8 | 60.8 | 59.5 |
| Mean Longitude | -18.9 | -28.9 | -54.4 |
| No. of Obs Received | 3751 | 3564 | 3643 |
| % of obs with Acceptable Position | 99.0 | 100.0 | 100.0 |
| % of Present | | | |
| Pressure | 90.3 | 91.8 | 94.8 |
| P. Tendency | 86.4 | 91.5 | 94.8 |
| Air Temperature | 89.9 | 0.0 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 73.0 | 91.6 | 94.7 |
| Median delay (min) | 18 | 43 | 43 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 40.8 | 38.7 | 39.6 |
| No. of Hours with obs | 1575 | 2160 | 2154 |
| Mean no. of hours/day with obs | 17.1 | 23.5 | 23.4 |
| % of hour periods without an ob | 28.5 | 2.2 | 2.4 |
| Mean (Ob-Bg) | -0.5 | -0.6 | -0.5 |
| RMS (Ob-Bg) unflagged data | 1.0 | 1.0 | 1.0 |
| Mean (Ob-Bg) | -0.6 | -0.6 | -0.5 |
| RMS (Ob-Bg) all data | 2.2 | 1.1 | 1.0 |
| Revised RMS (Ob-Bg) | 1.1 | 1.1 | 1.0 |
| % of data flagged | 66 | 38 | 40 |
| Operating at end of period | YES | YES | YES |
| Performance | | | |
| Availability | Very Good | Very Good | Very Good |
| Pressure Quality | Acceptable | Suspect | Acceptable |
| Timeliness | Very Good | Very Good | Very Good |
| Comments | | | |

Annex A - cont'd

| WMO No./Country | 65593/NL | 65598/D | 65599/UK |
|-----------------------------------|---------------|---------------|---------------|
| Argos Id No. | 4228 | 1298 | 28477 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 28/08 | 01/07 - 30/09 |
| Mean Latitude | 61.7 | 66.0 | 59.9 |
| Mean Longitude | -31.8 | -54.0 | -32.7 |
| No. of Obs Received | 4651 | 3267 | 6787 |
| % of obs with Acceptable Position | 99.8 | 99.2 | 99.7 |
| % of Present Pressure | 96.0 | 92.9 | 97.4 |
| P. Tendency | 70.2 | 59.9 | 93.8 |
| Air Temperature | 96.1 | 92.3 | 0.0 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 76.7 | 77.2 | 97.6 |
| Median delay (min) | 17 | 18 | 19 |
| Number of days | 92 | 59 | 92 |
| Mean No. of obs/day | 50.6 | 55.4 | 73.8 |
| No. of Hours with obs | 1724 | 1176 | 1909 |
| Mean no. of hours/day with obs | 18.7 | 19.9 | 20.8 |
| % of hour periods without an ob | 21.7 | 16.2 | 13.4 |
| Mean (Ob-Bg) | -0.6 | -0.5 | -0.2 |
| RMS (Ob-Bg) unflagged data | 1.0 | 1.0 | 0.9 |
| Mean (Ob-Bg) | -0.7 | -0.6 | -0.3 |
| RMS (Ob-Bg) all data | 2.0 | 3.3 | 5.3 |
| Revised RMS (Ob-Bg) | 1.1 | 1.1 | 0.9 |
| % of data flagged | 69 | 72 | 77 |
| Operating at end of period | YES | NO | YES |
| Performance | | | |
| Availability | Very Good | Very Good | Very Good |
| Pressure Quality | Suspect | Acceptable | Acceptable |
| Timeliness | Very Good | Very Good | Very Good |
| Comments | | | |

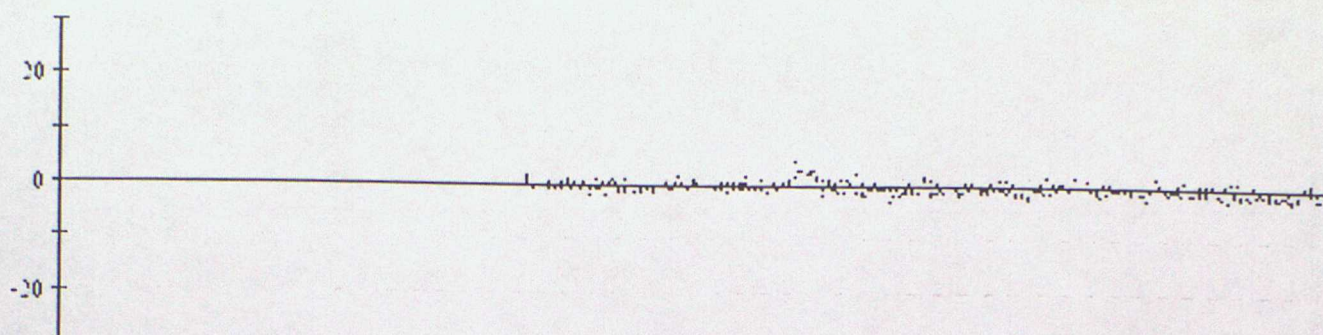
Annex A - cont'd

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| WMO No./Country | 65600/N | 65601/D | 65602/IR |
| Argos Id No. | 3676 | 3079 | 6667 |
| Period Within Area | 01/07 - 30/09 | 01/07 - 30/09 | 01/07 - 30/09 |
| Mean Latitude | 56.5 | 60.0 | 60.8 |
| Mean Longitude | -28.8 | -31.0 | -31.9 |
| No. of Obs Received | 4488 | 4278 | 4725 |
| % of obs with Acceptable Position | 99.7 | 98.5 | 99.1 |
| % of Present Pressure | 96.9 | 95.1 | 95.0 |
| P. Tendency | 73.1 | 91.8 | 92.6 |
| Air Temperature | 96.7 | 95.0 | 95.2 |
| Wind Speed/Dir | 0.0/ 0.0 | 0.0/ 0.0 | 0.0/ 0.0 |
| Sea-Surface Temp. | 76.6 | 83.3 | 83.7 |
| Median delay (min) | 17 | 18 | 18 |
| Number of days | 92 | 92 | 92 |
| Mean No. of obs/day | 48.8 | 46.5 | 51.4 |
| No. of Hours with obs | 1702 | 1647 | 1741 |
| Mean no. of hours/day with obs | 18.5 | 17.9 | 18.9 |
| % of hour periods without an ob | 22.7 | 25.2 | 21.0 |
| Mean (Ob-Bg) | -0.7 | -0.5 | -0.6 |
| RMS (Ob-Bg) unflagged data | 1.1 | 1.1 | 1.1 |
| Mean (Ob-Bg) | -0.8 | -0.7 | -0.7 |
| RMS (Ob-Bg) all data | 2.2 | 3.2 | 2.4 |
| Revised RMS (Ob-Bg) | 1.2 | 1.2 | 1.1 |
| % of data flagged | 69 | 70 | 71 |
| Operating at end of period | YES | YES | YES |
| Performance Availability | Very Good | Very Good | Very Good |
| Pressure Quality | Suspect | Acceptable | Suspect |
| Timeliness | Very Good | Very Good | Very Good |
| Comments | | | |

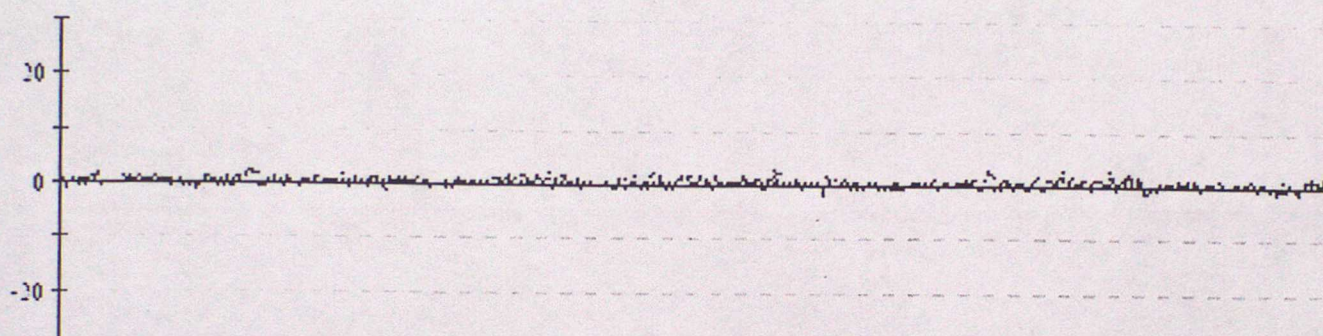
ANNEX B - TIME SERIES PLOTS OF PRESSURE

Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

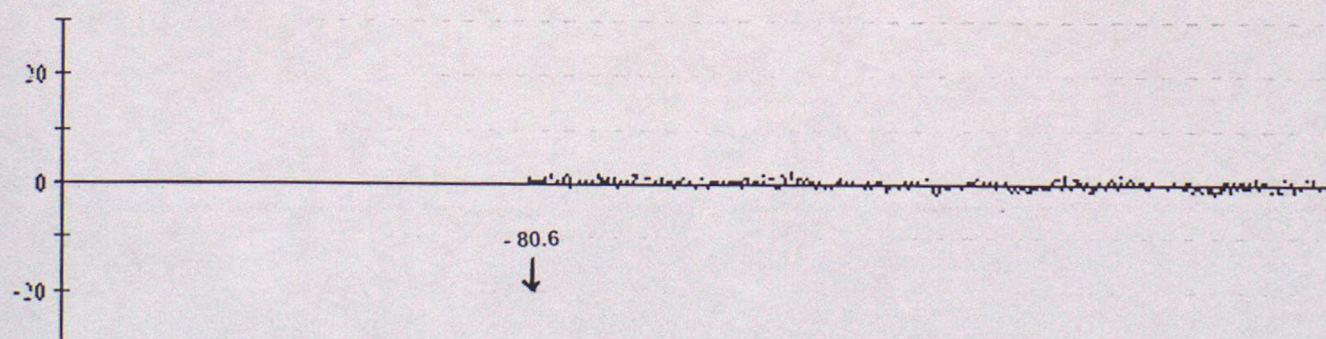
41505 Pressure



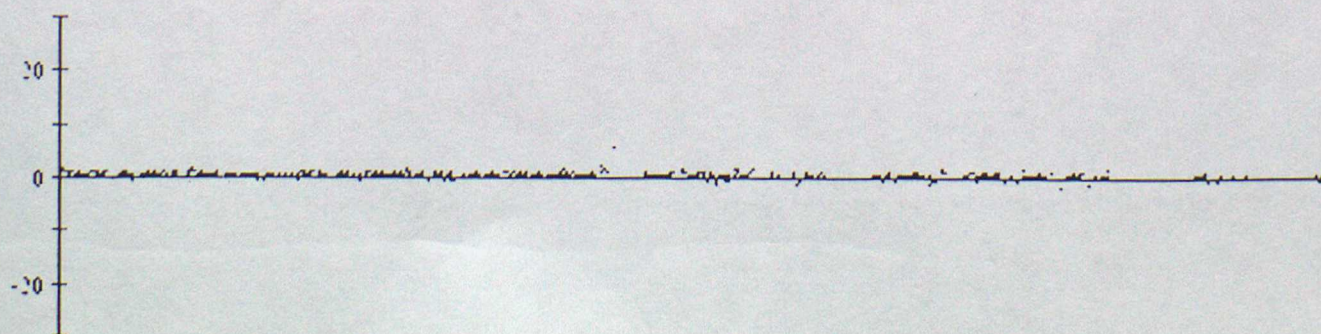
41521 Pressure



41523 Pressure

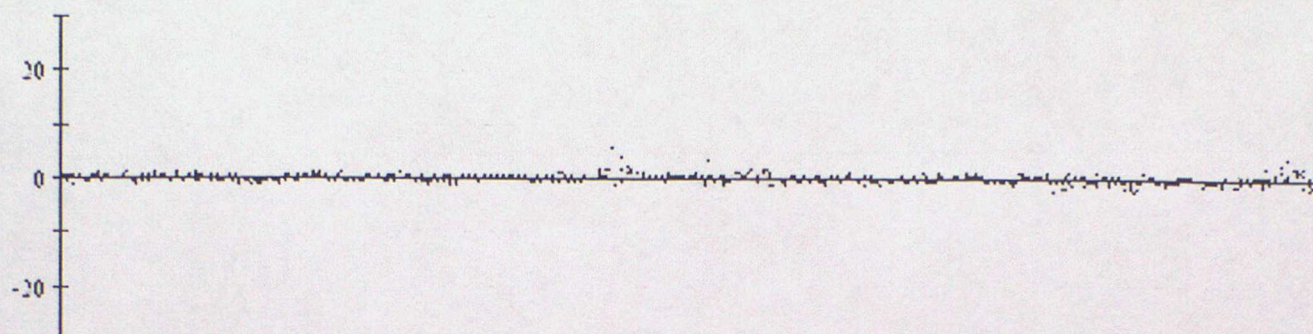


41571 Pressure

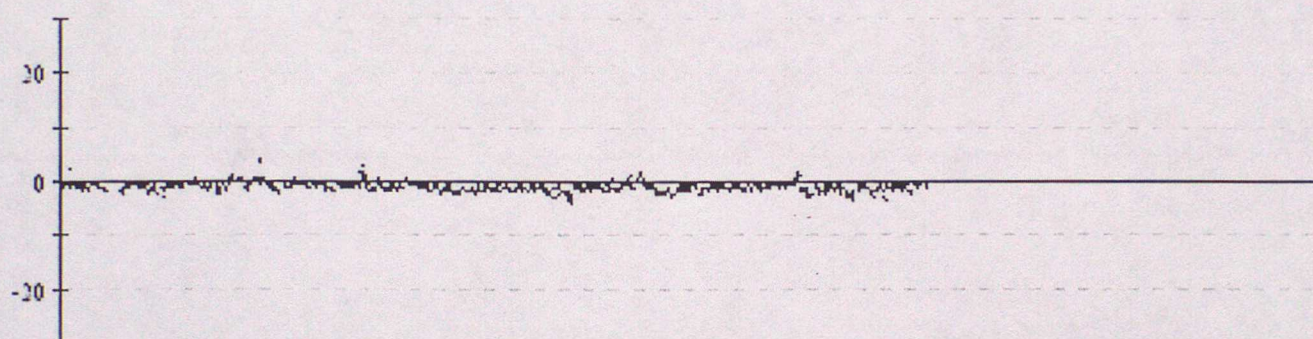


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

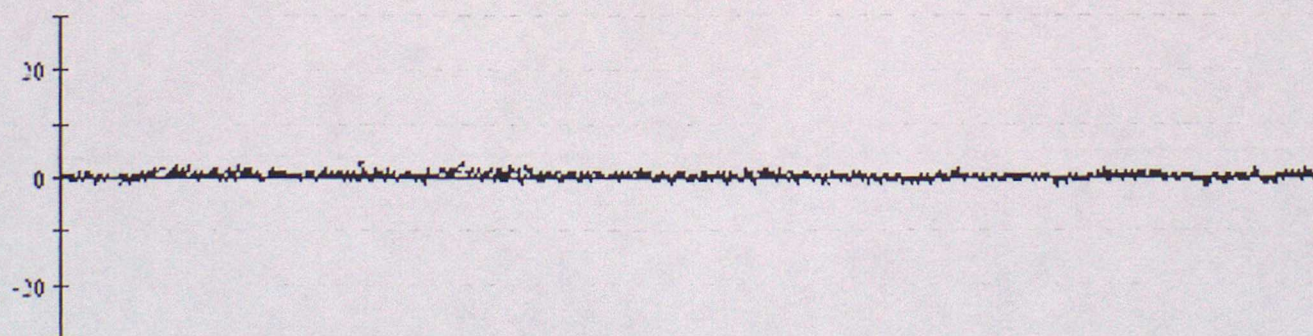
41644 Pressure



44607 Pressure



44608 Pressure

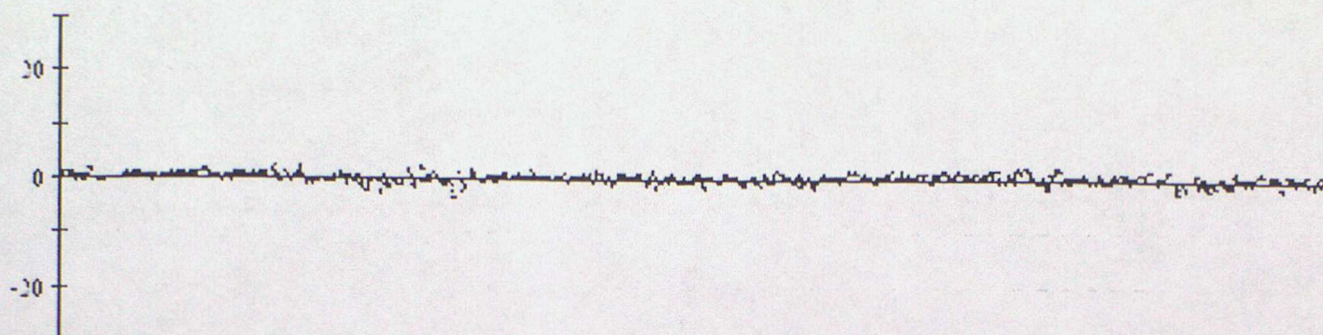


44610 Pressure

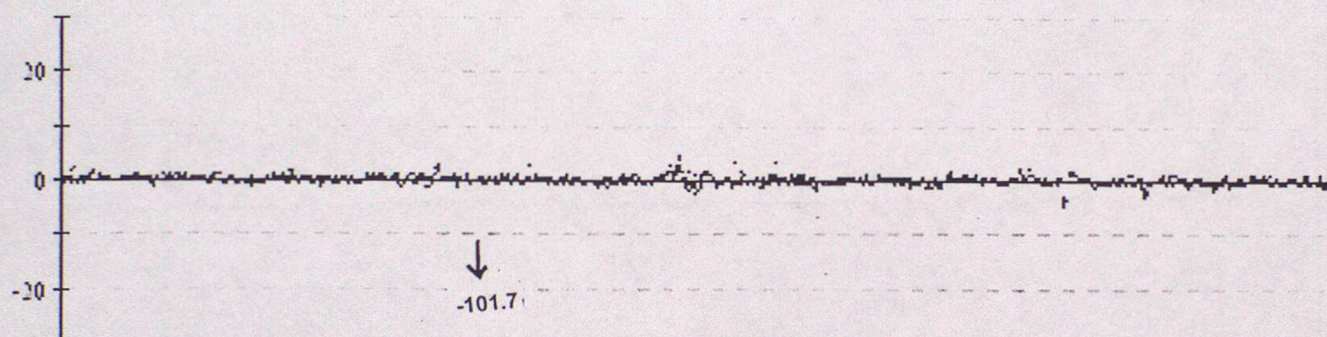


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

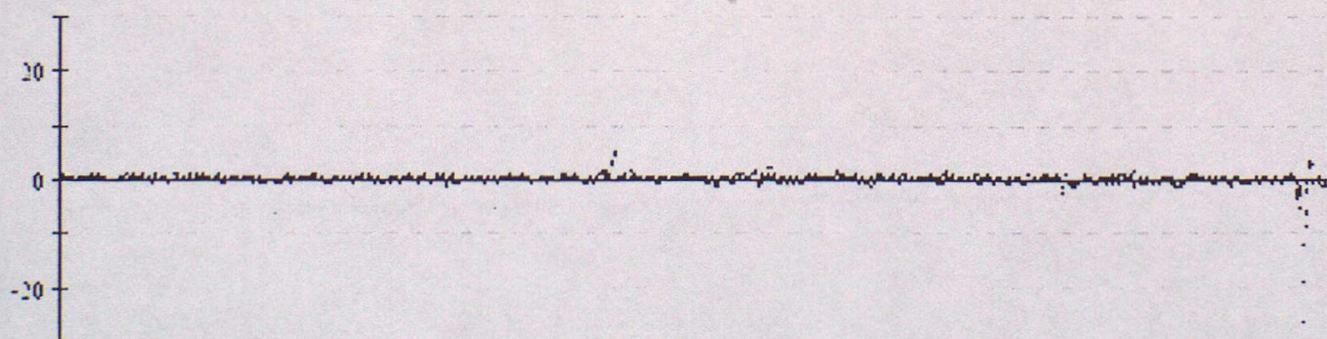
44611 Pressure



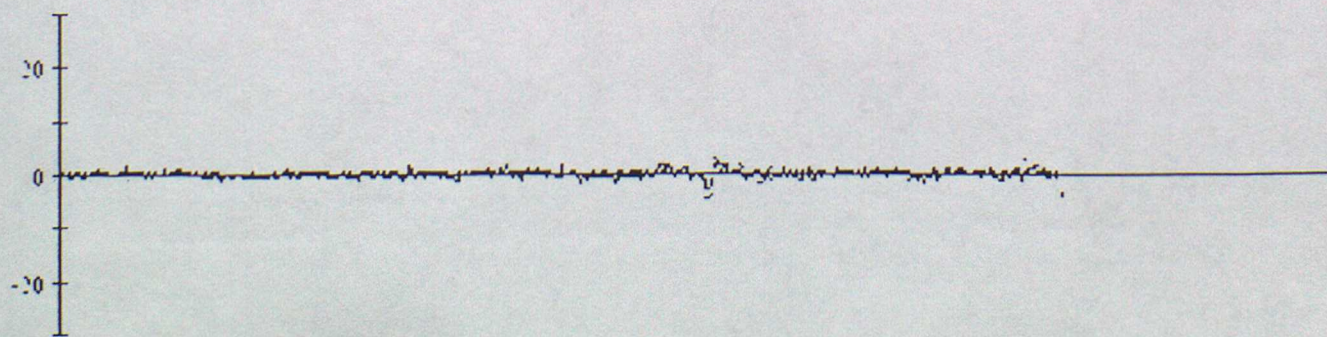
44612 Pressure



44613 Pressure

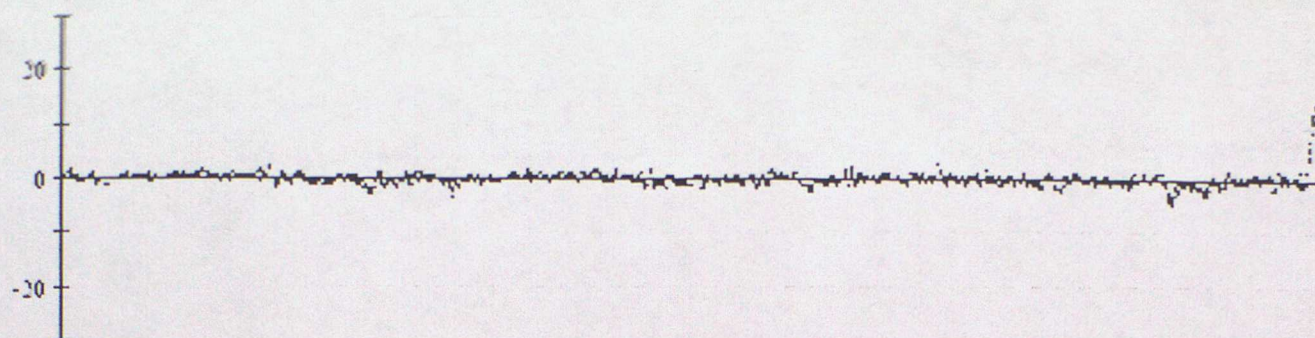


44615 Pressure

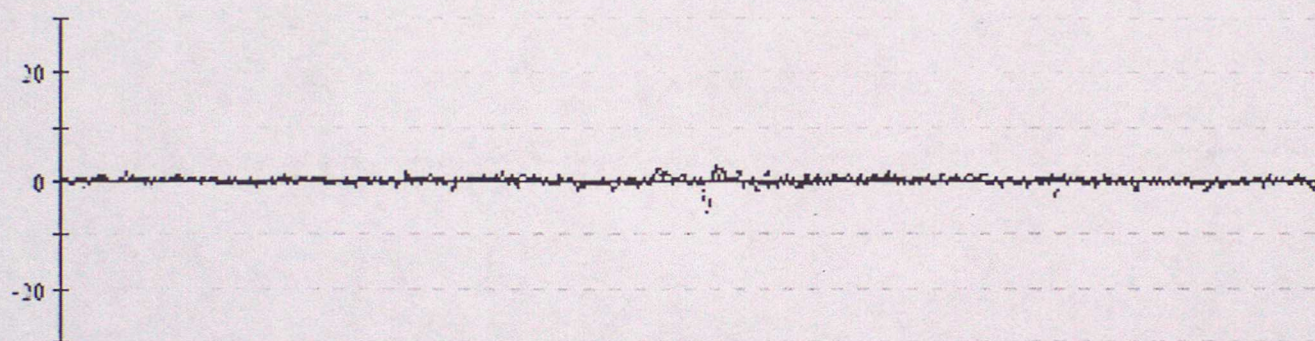


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

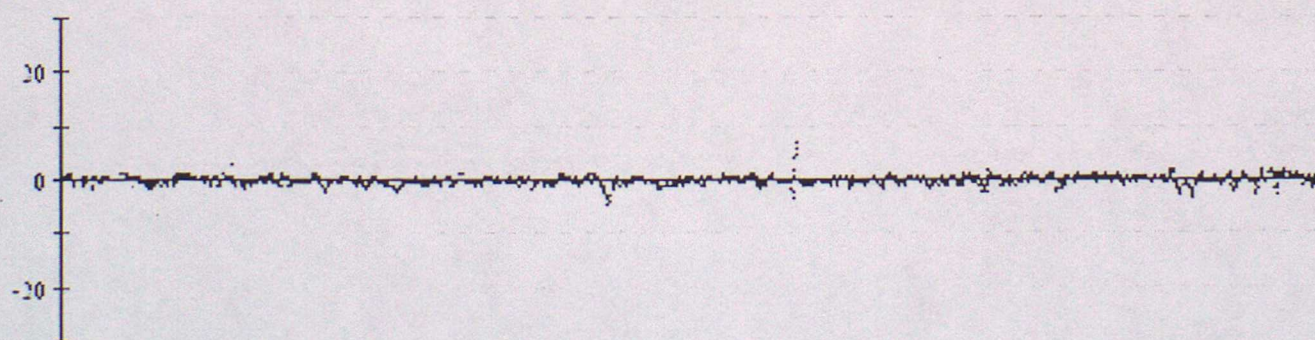
44617 Pressure



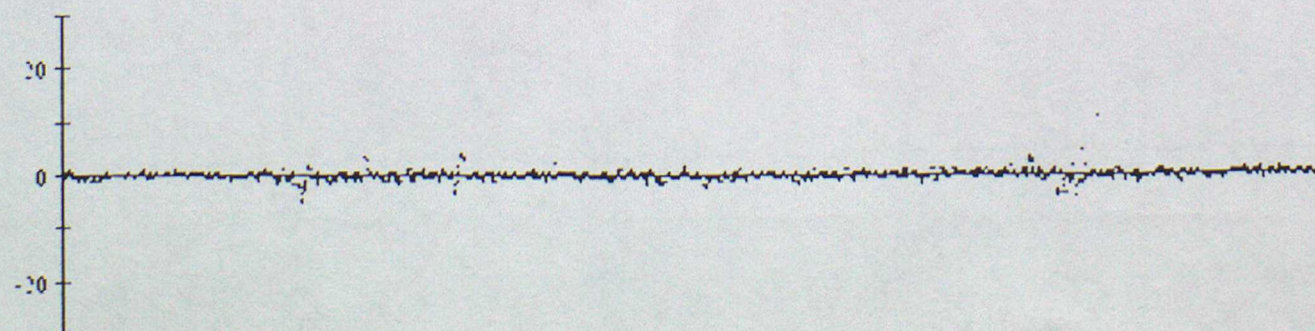
44620 Pressure



44622 Pressure

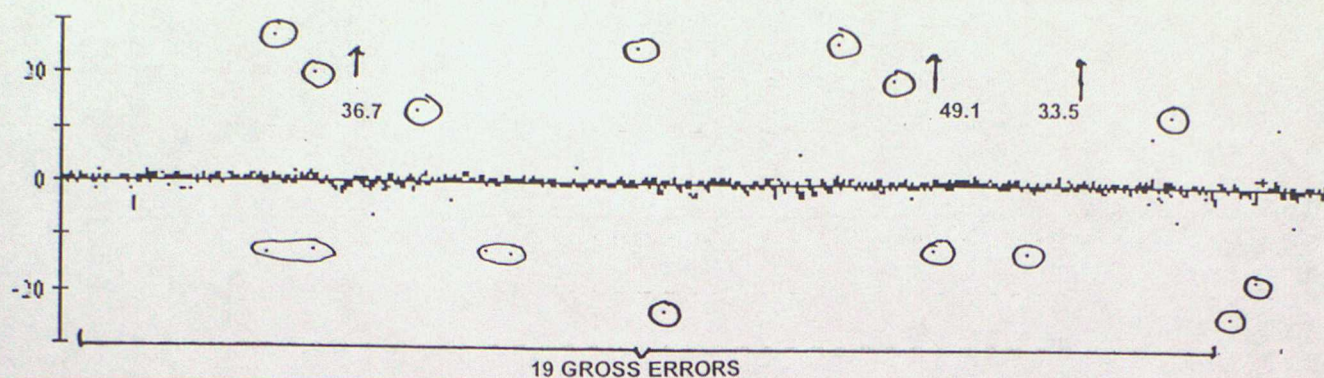


44623 Pressure

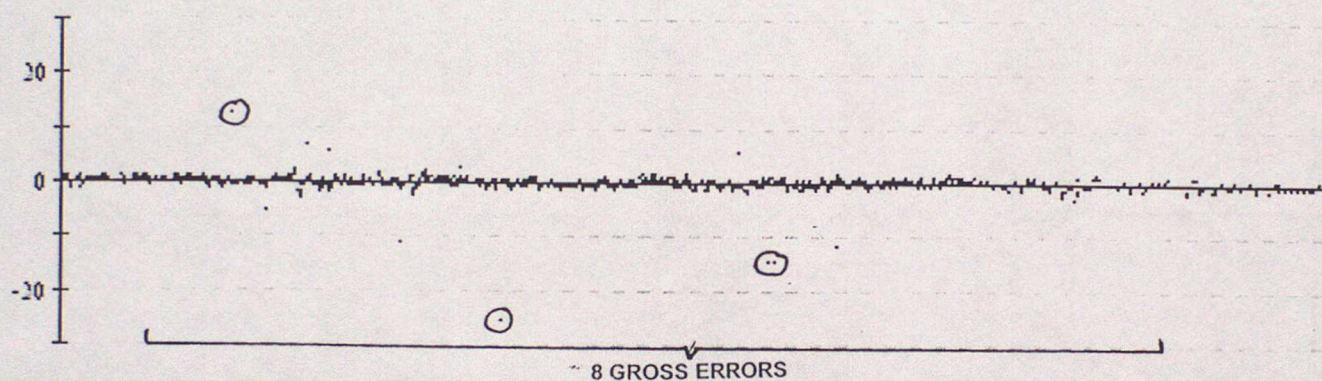


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

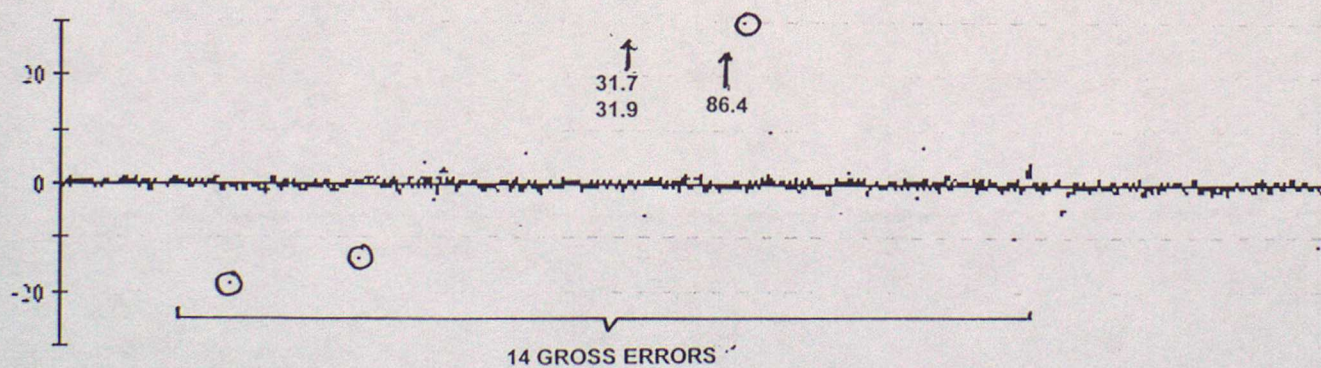
44626 Pressure



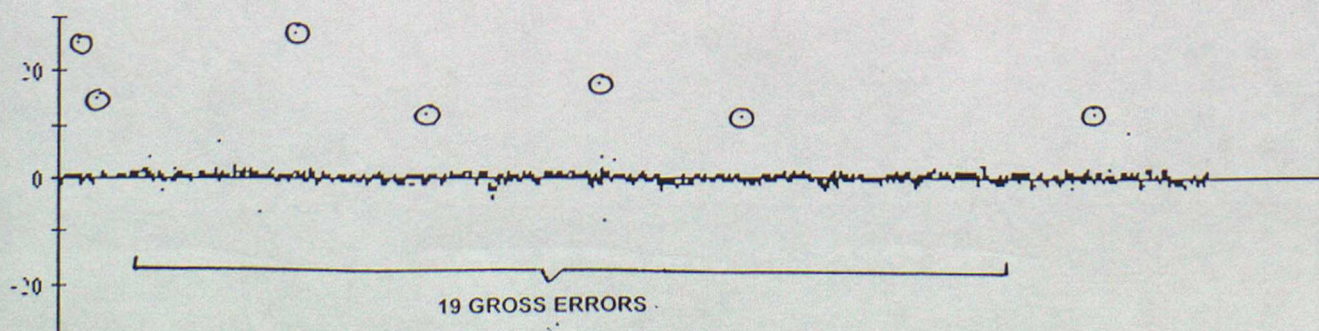
44627 Pressure



44628 Pressure

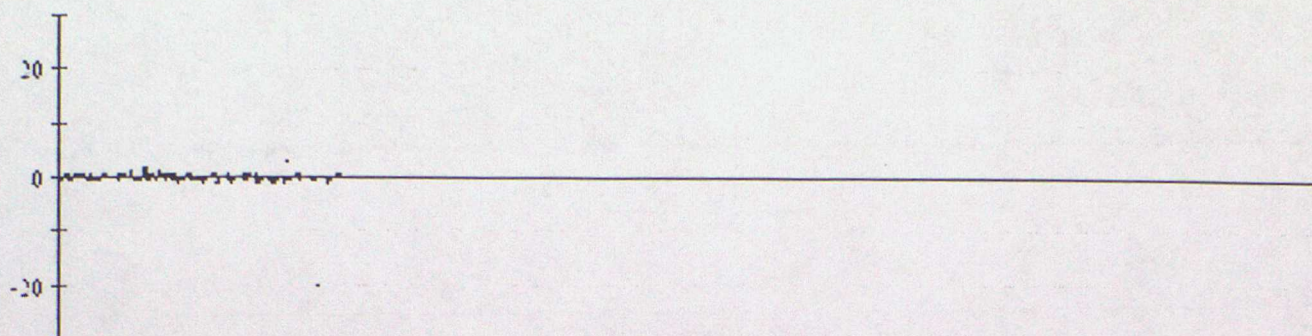


44630 Pressure

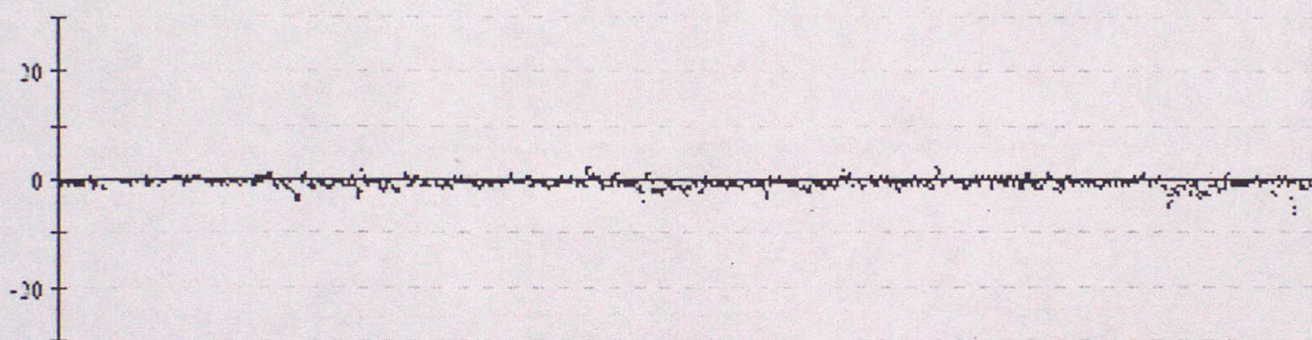


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

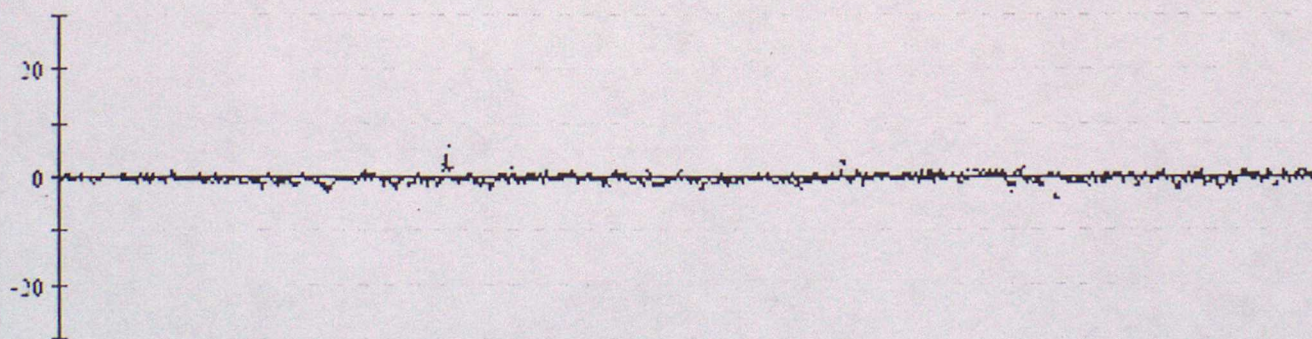
44721 Pressure



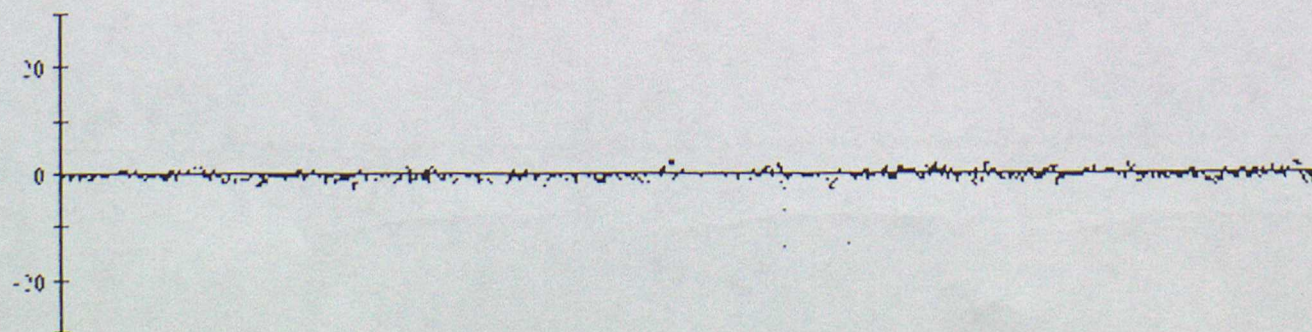
44723 Pressure



44724 Pressure

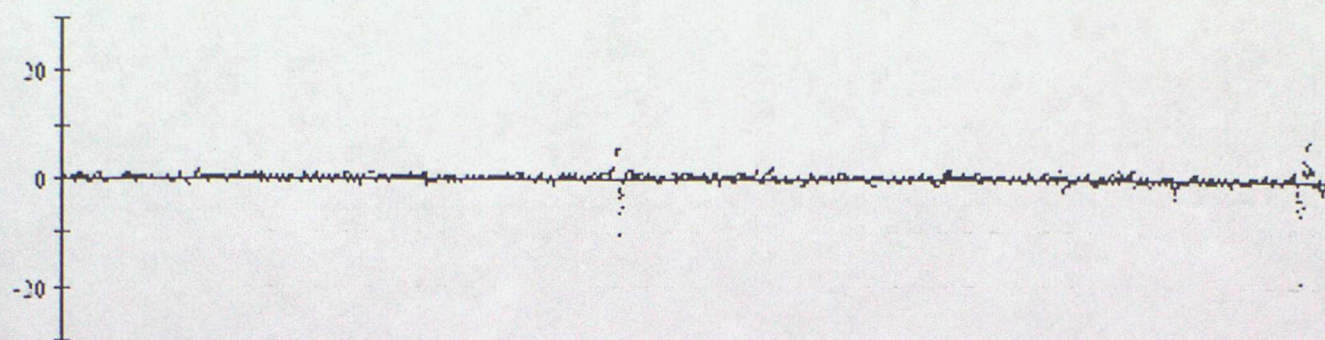


44725 Pressure

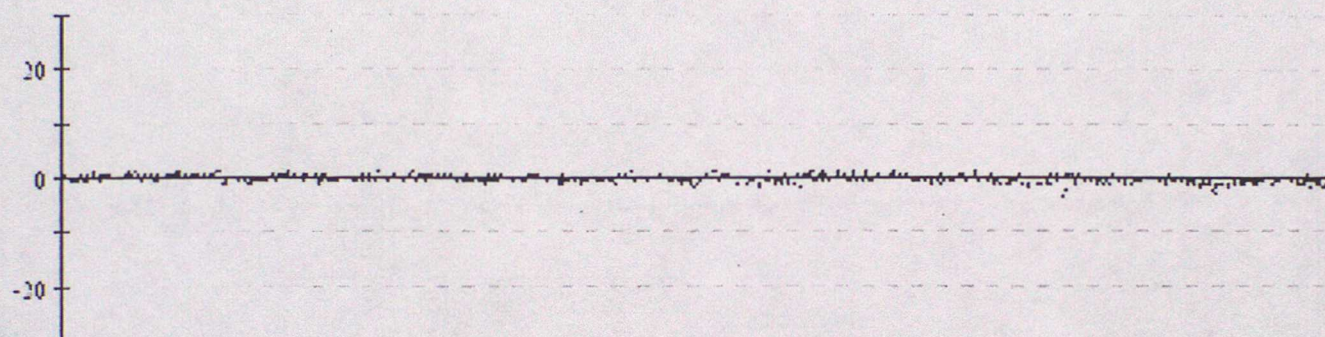


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

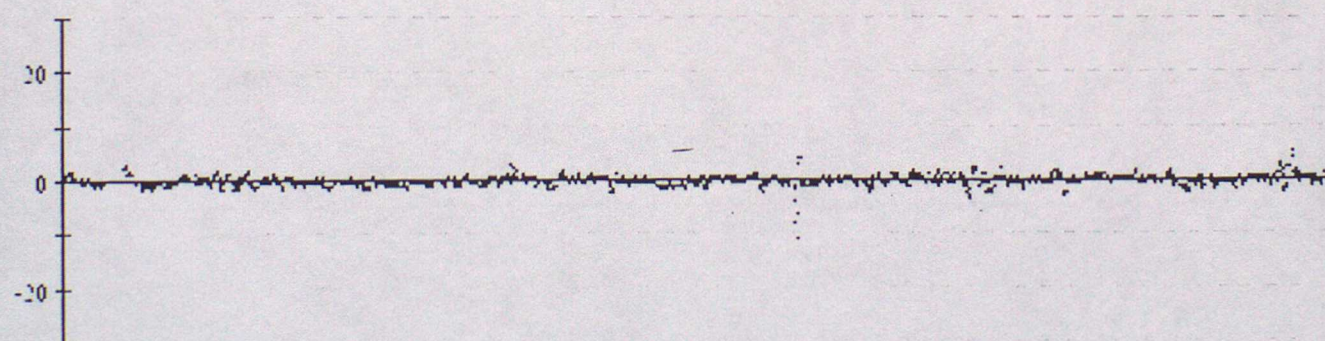
44726 Pressure



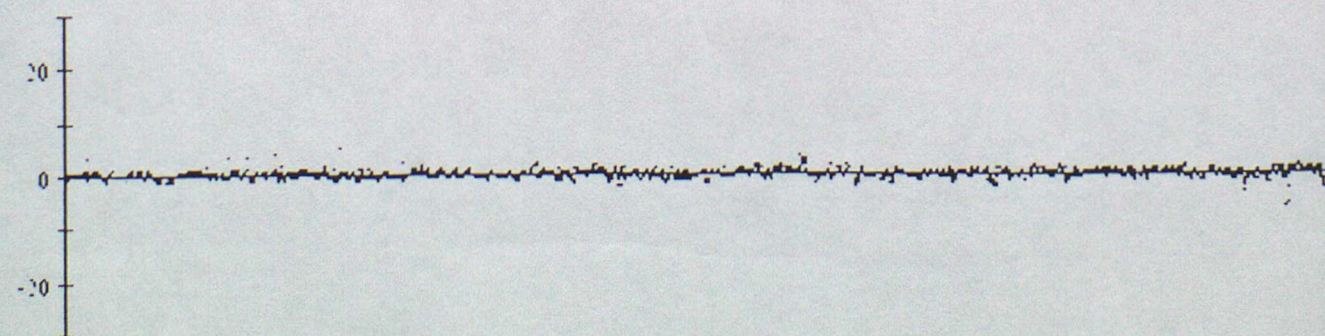
44727 Pressure



44729 Pressure

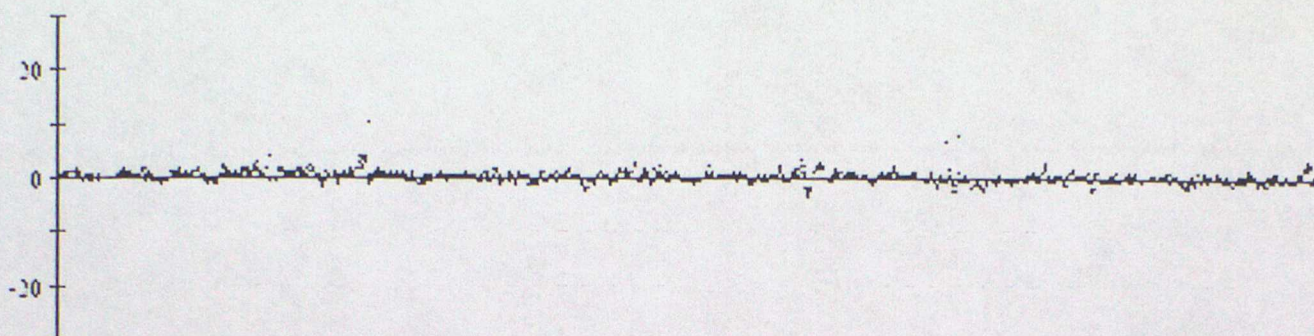


44730 Pressure

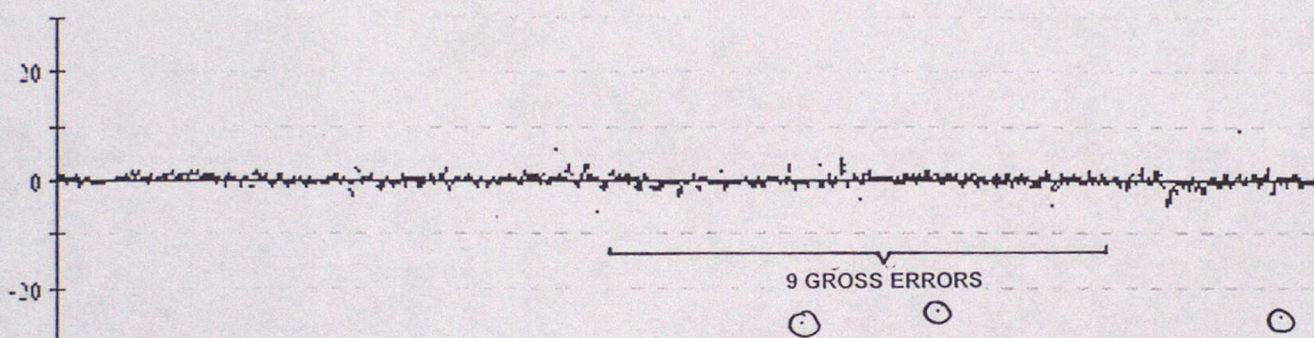


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

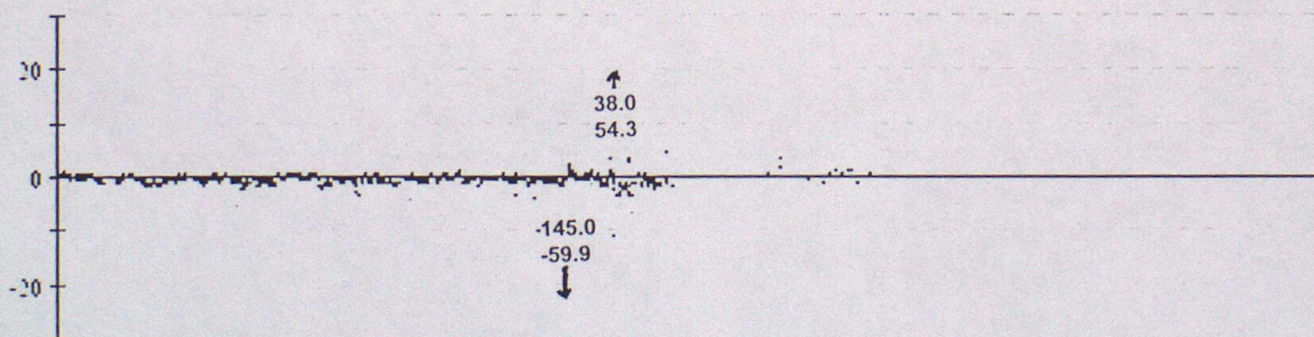
44741 Pressure



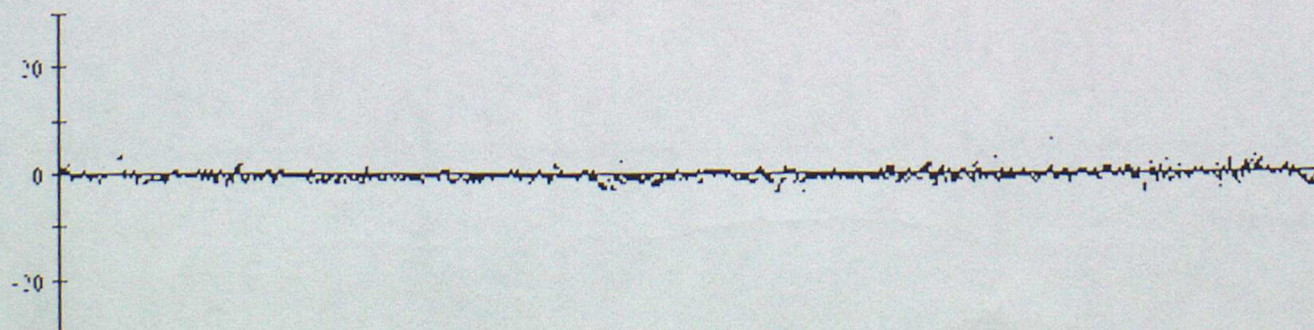
44743 Pressure



44760 Pressure

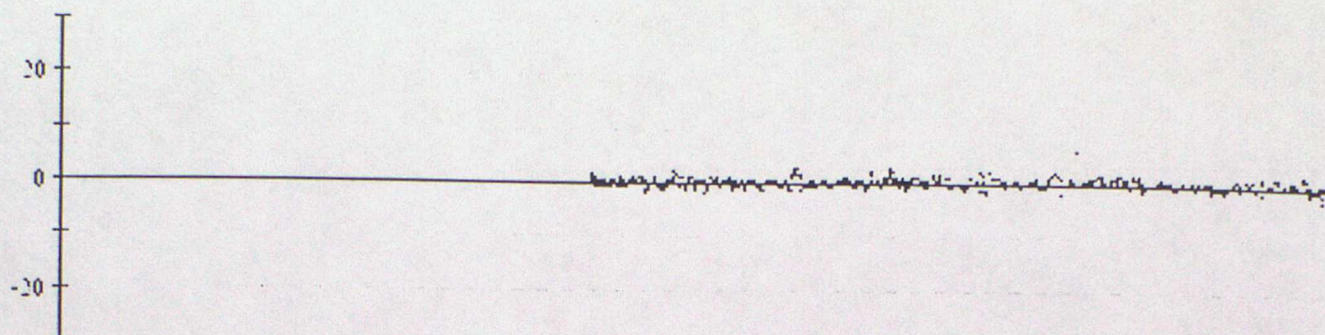


44761 Pressure

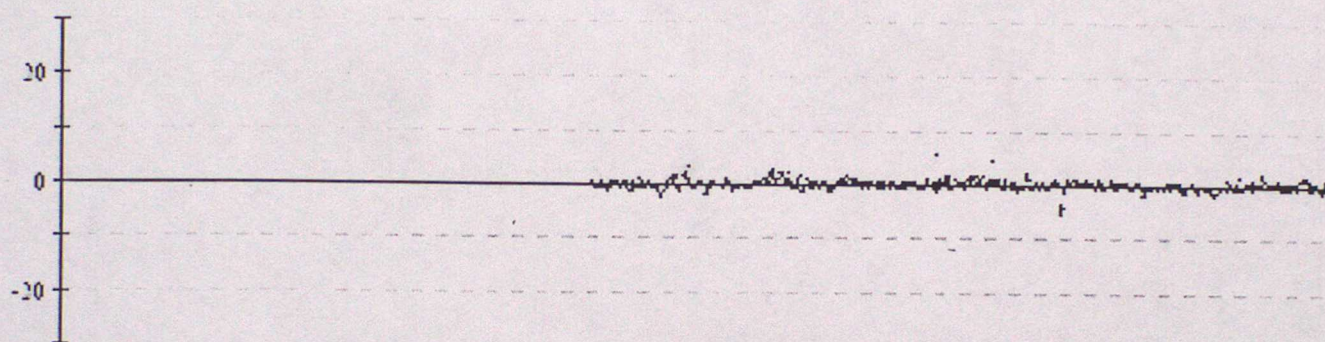


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

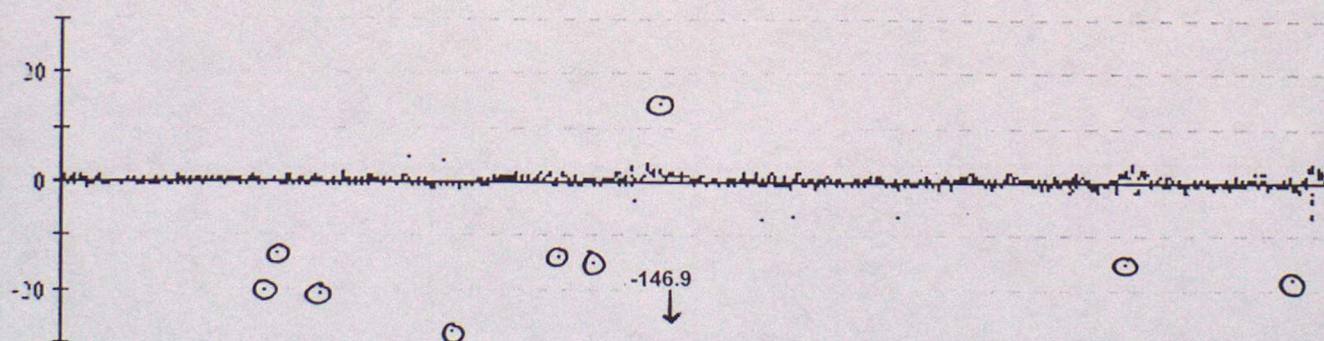
44762 Pressure



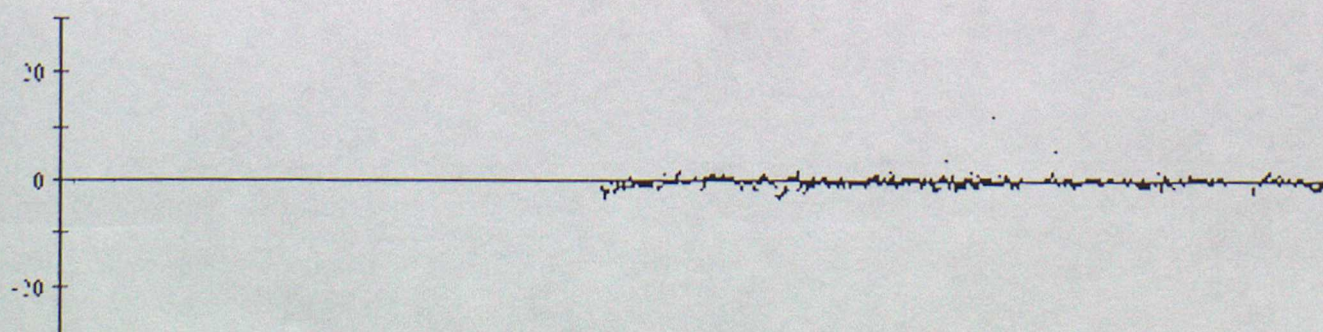
44764 Pressure



44765 Pressure

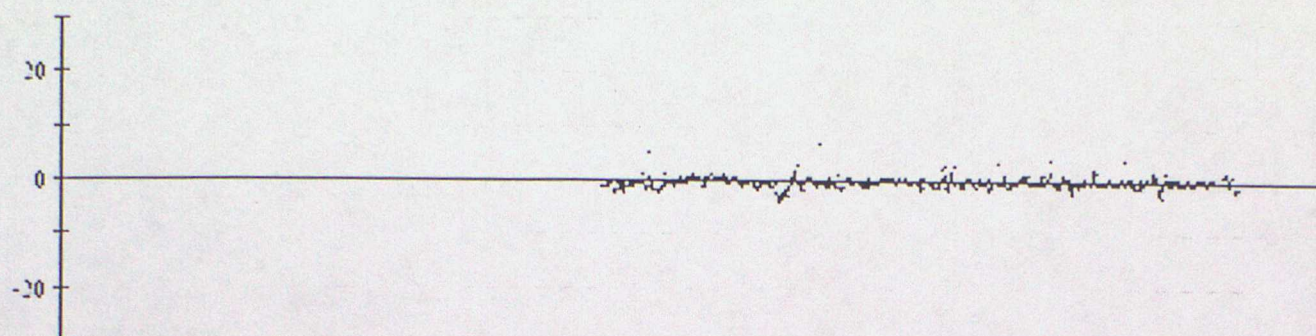


44767 Pressure

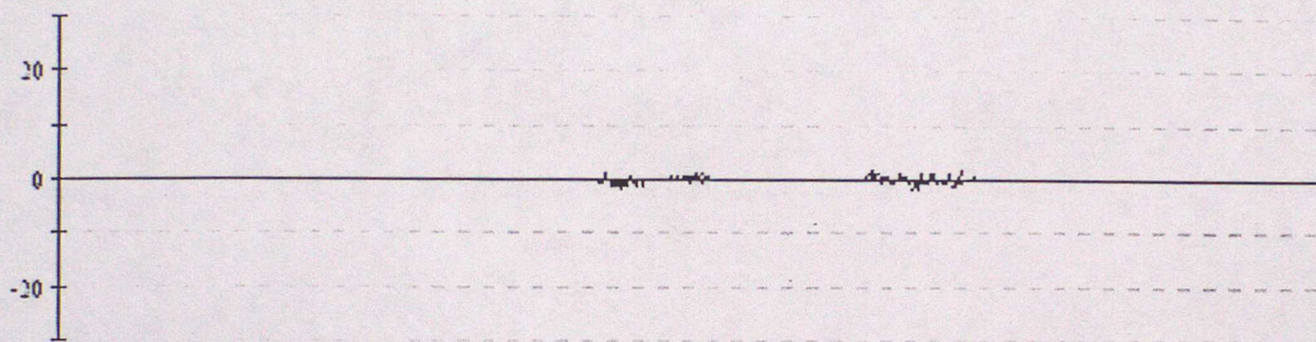


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

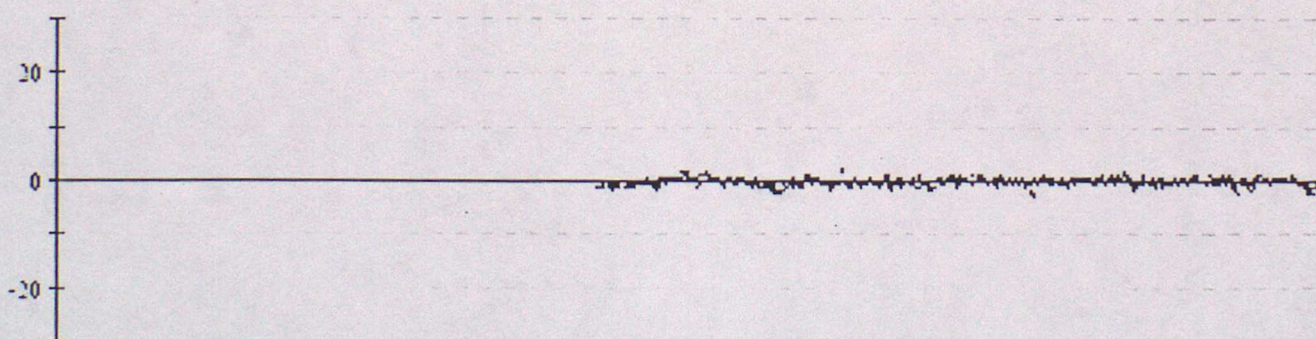
44768 Pressure



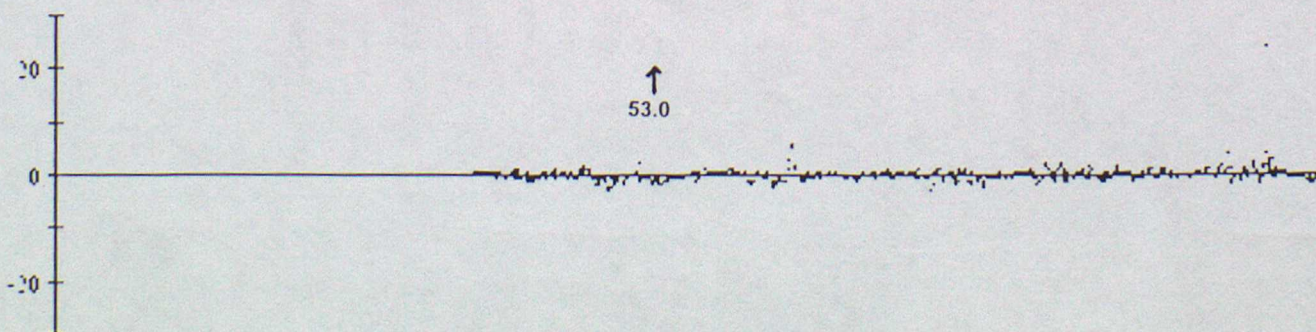
44769 Pressure



44770 Pressure

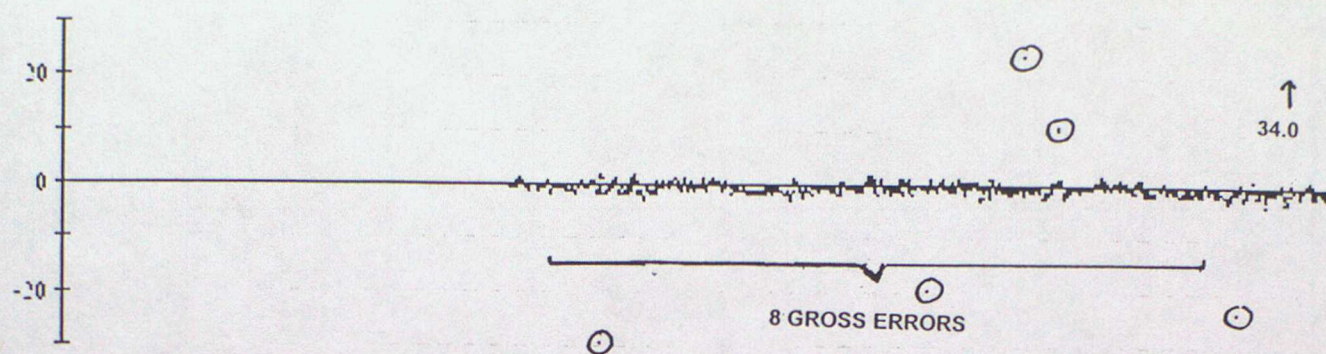


44771 Pressure

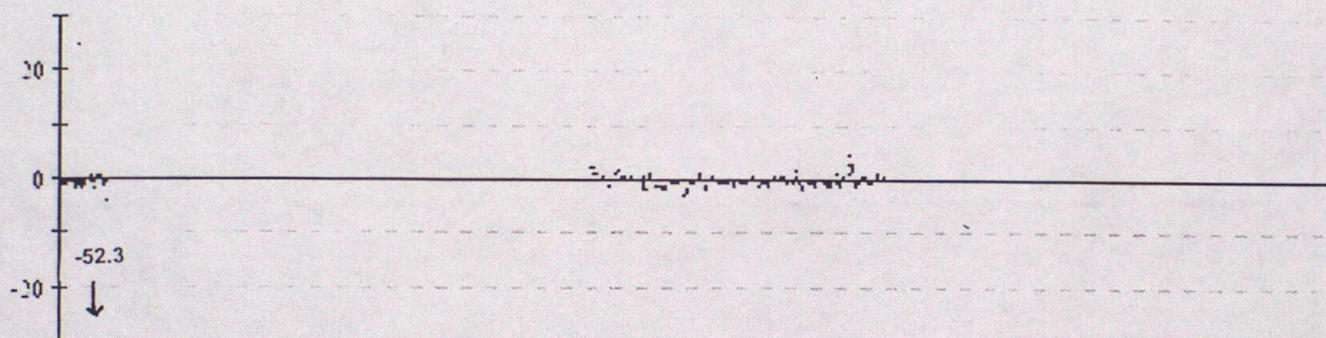


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

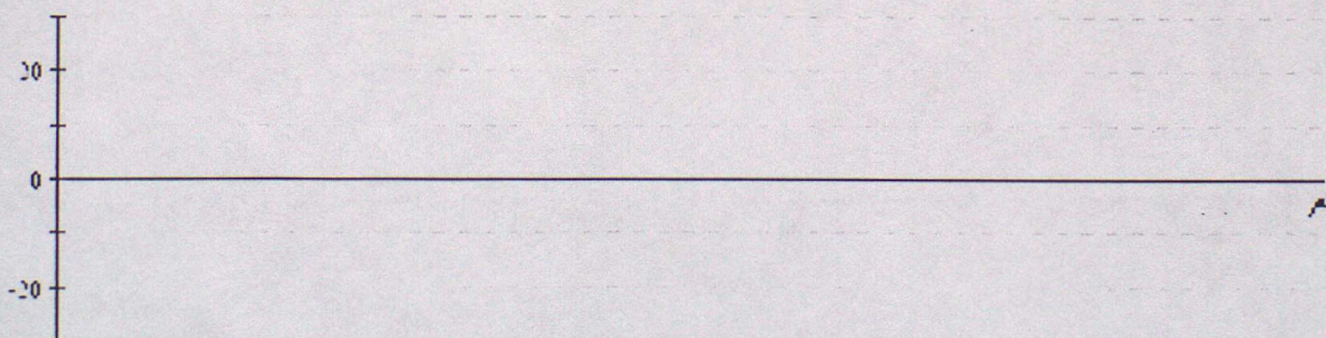
44772 Pressure



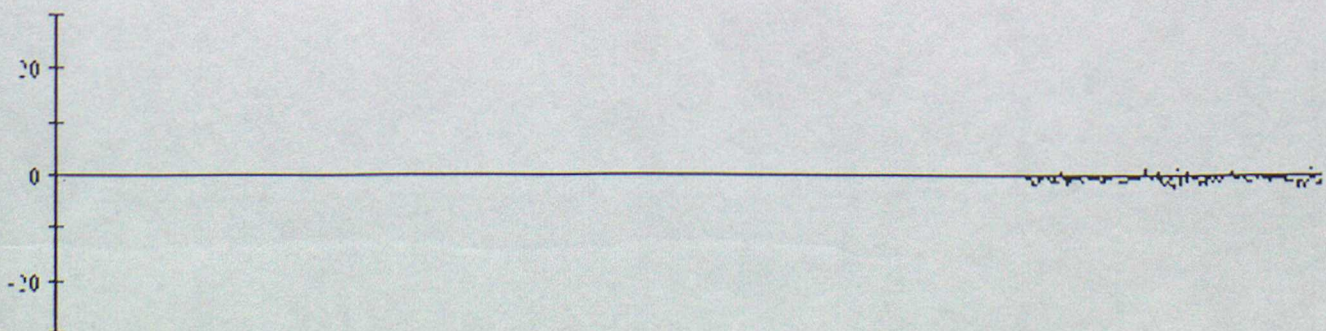
44773 Pressure



56542 Pressure

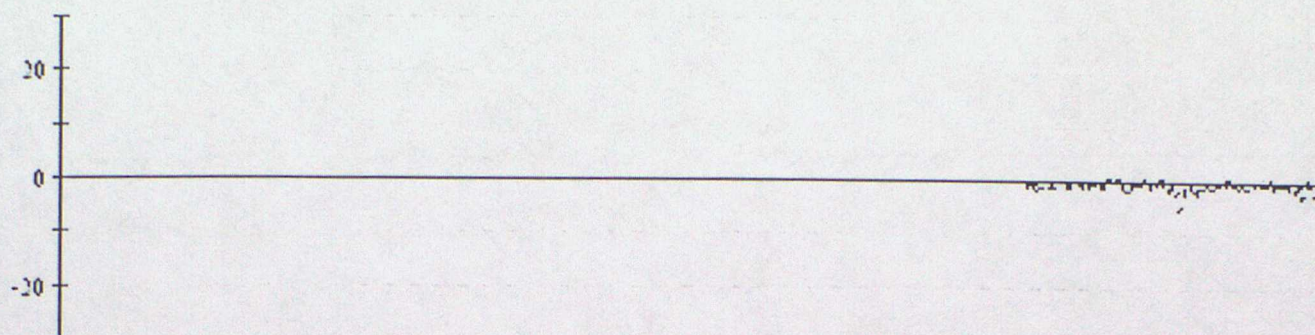


61522 Pressure

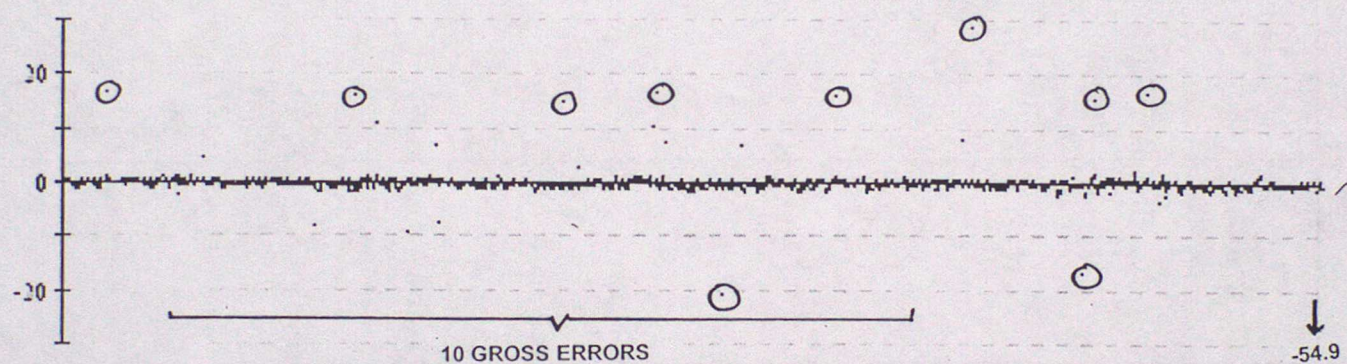


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

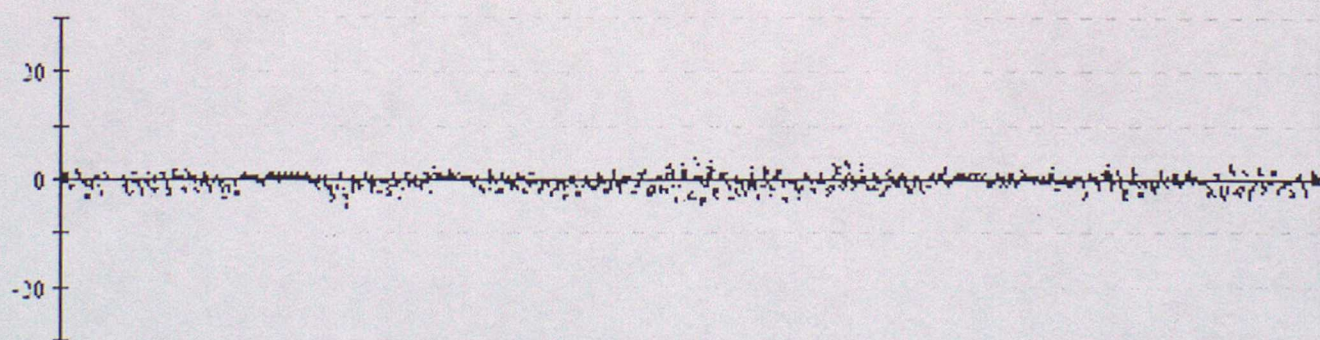
61523 Pressure



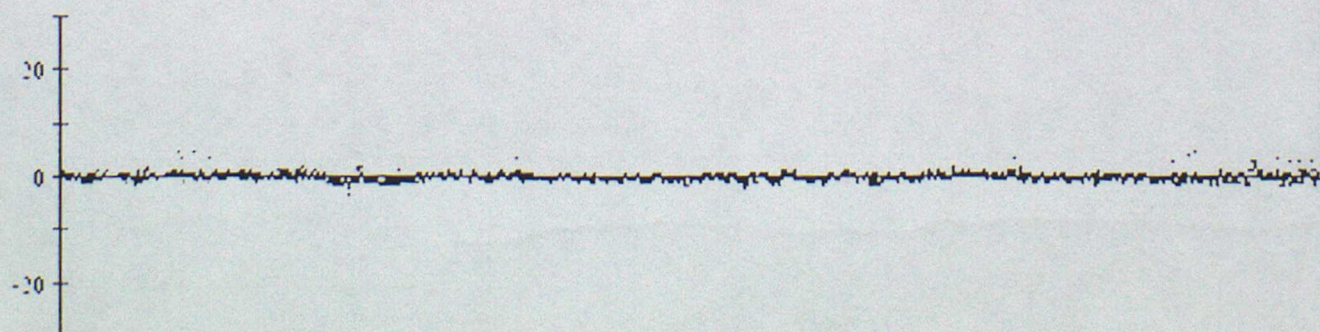
62507 Pressure



62508 Pressure

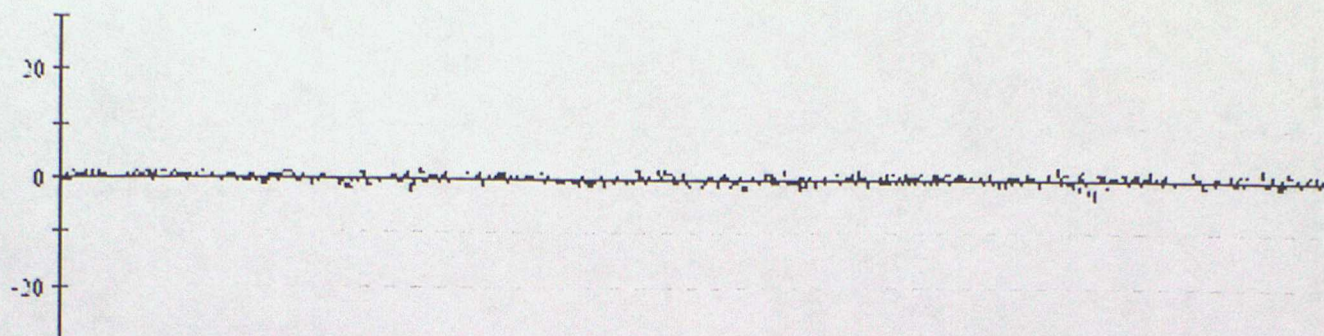


62509 Pressure

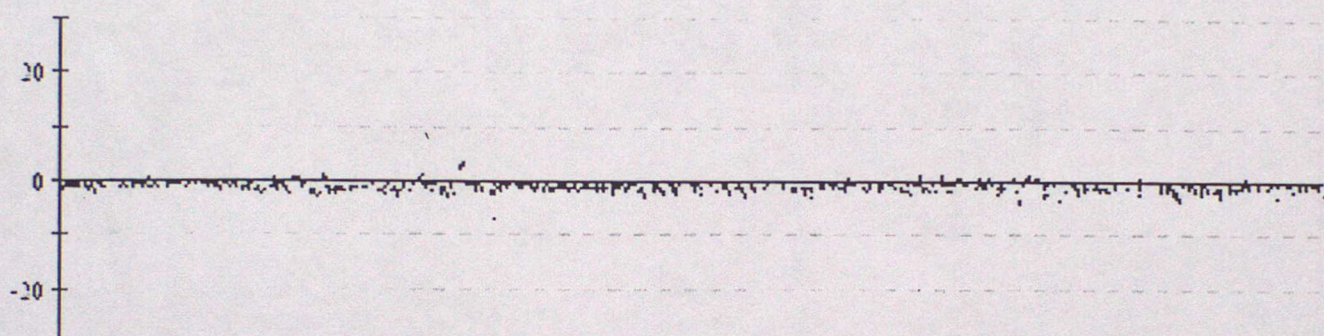


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

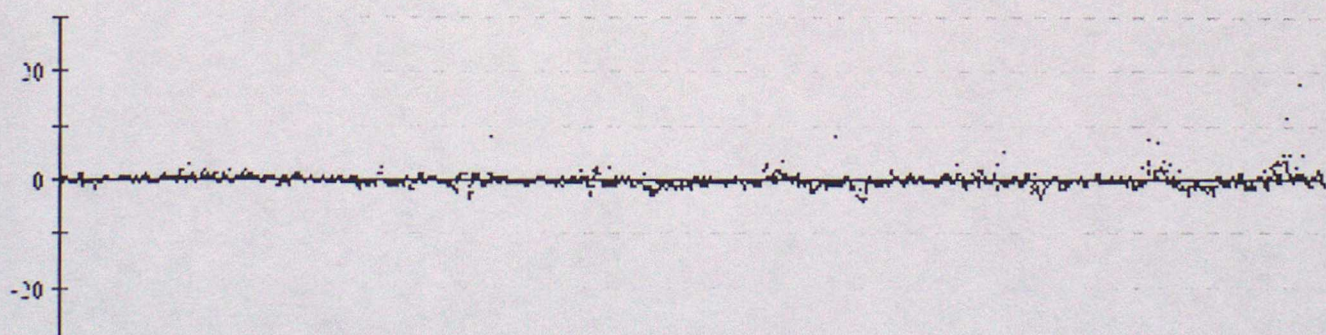
62512 Pressure



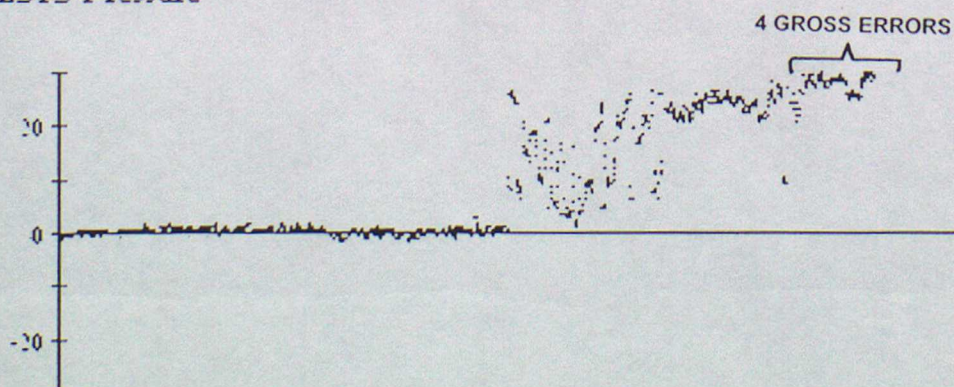
62513 Pressure



62514 Pressure

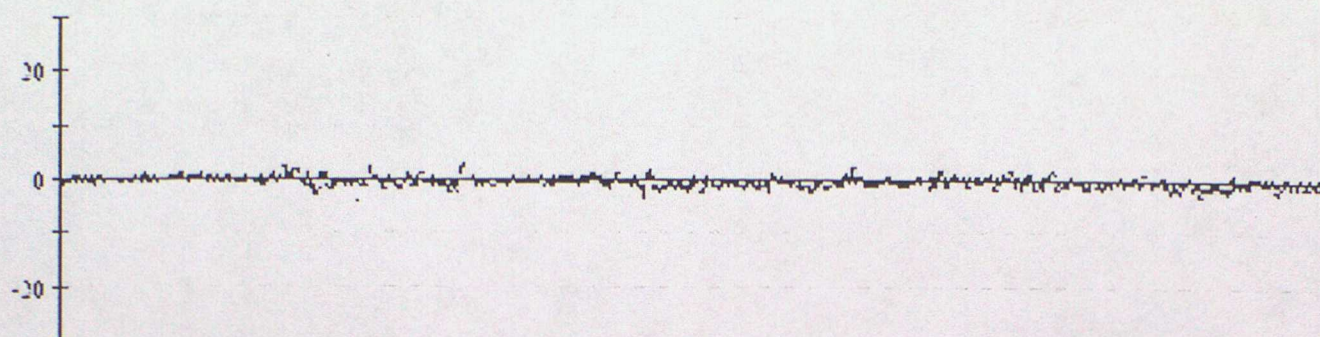


62515 Pressure

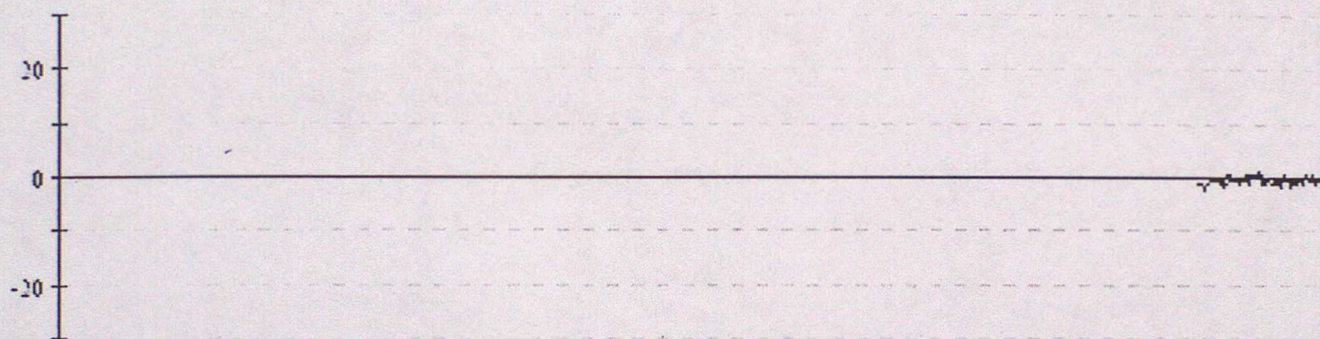


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

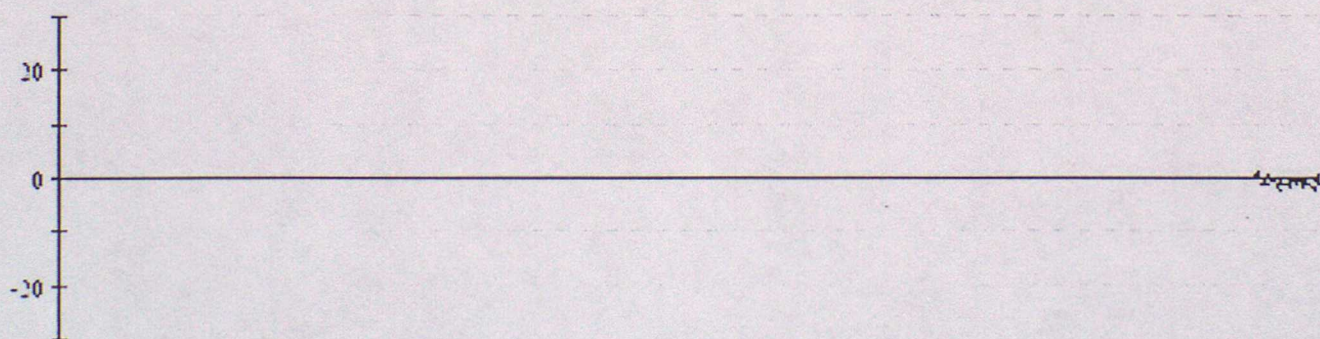
62516 Pressure



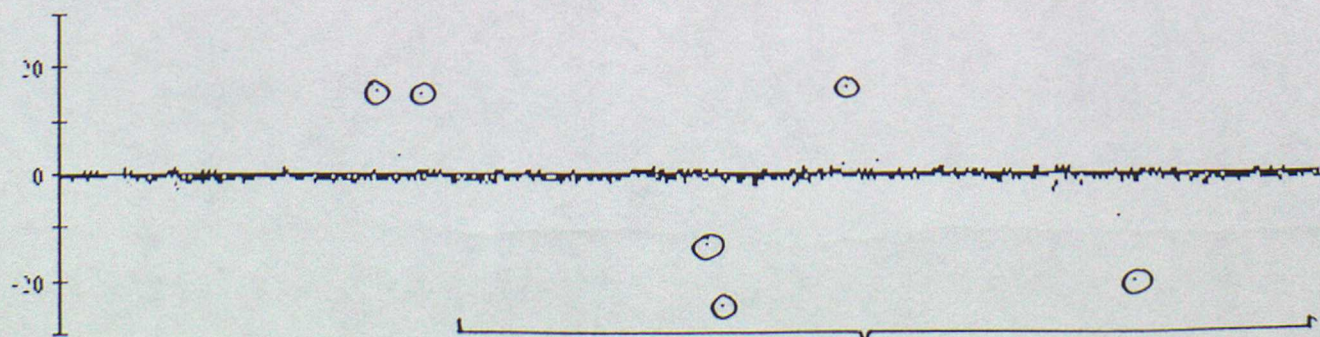
62517 Pressure



62519 Pressure



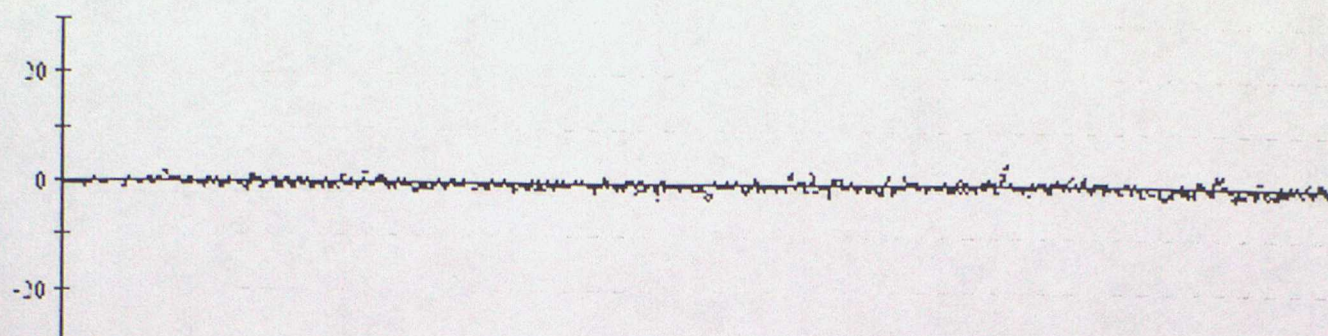
62520 Pressure



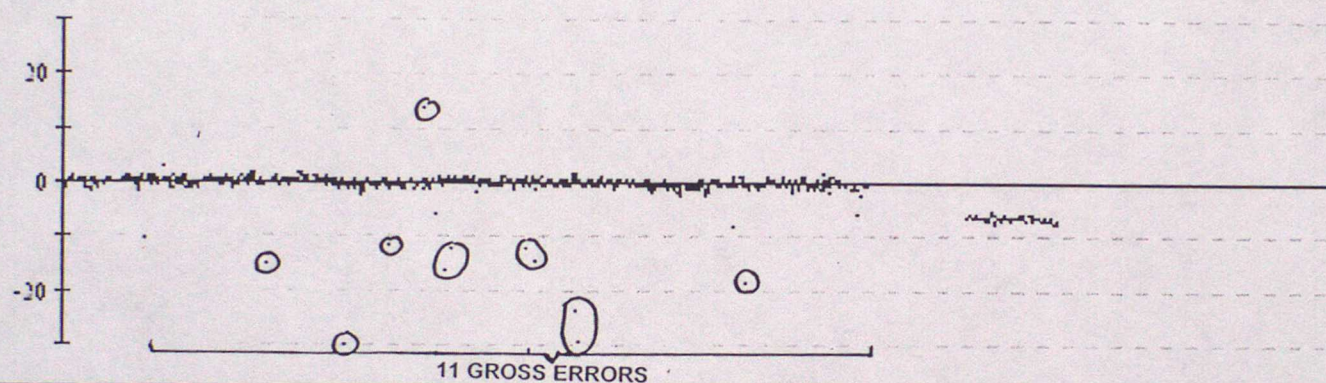
8 GROSS ERRORS

Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

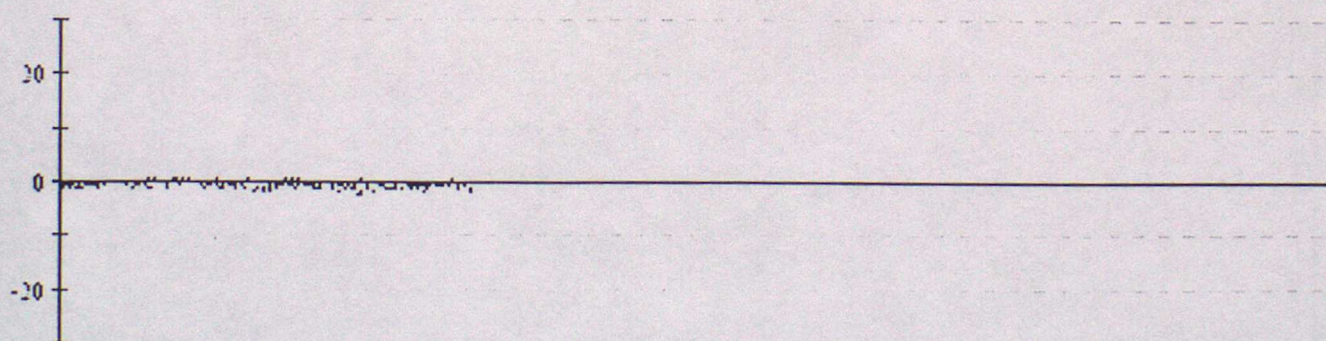
62596 Pressure



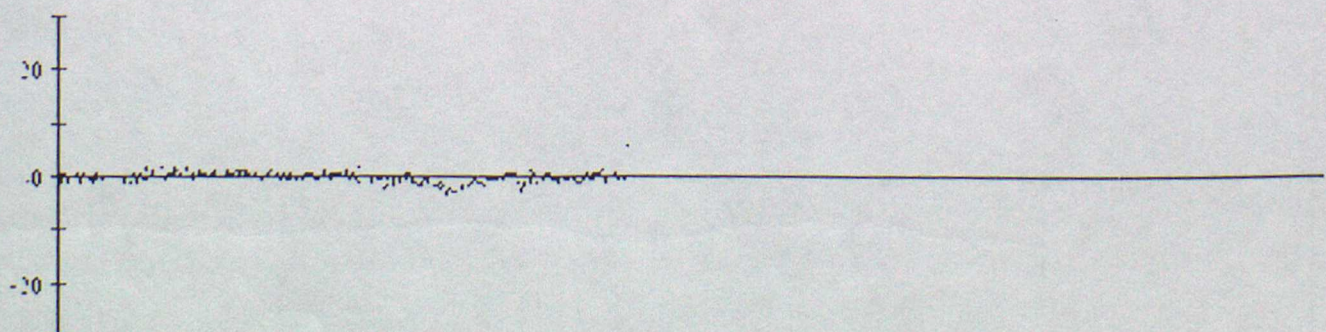
62597 Pressure



62723 Pressure

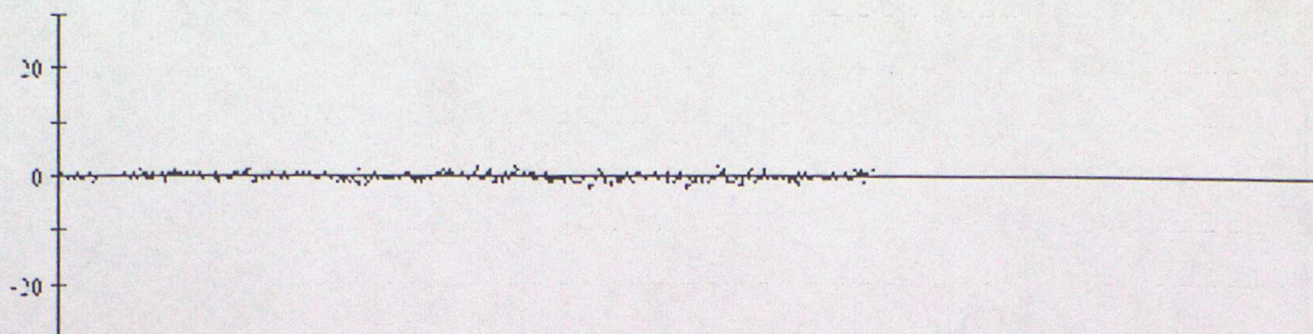


62725 Pressure

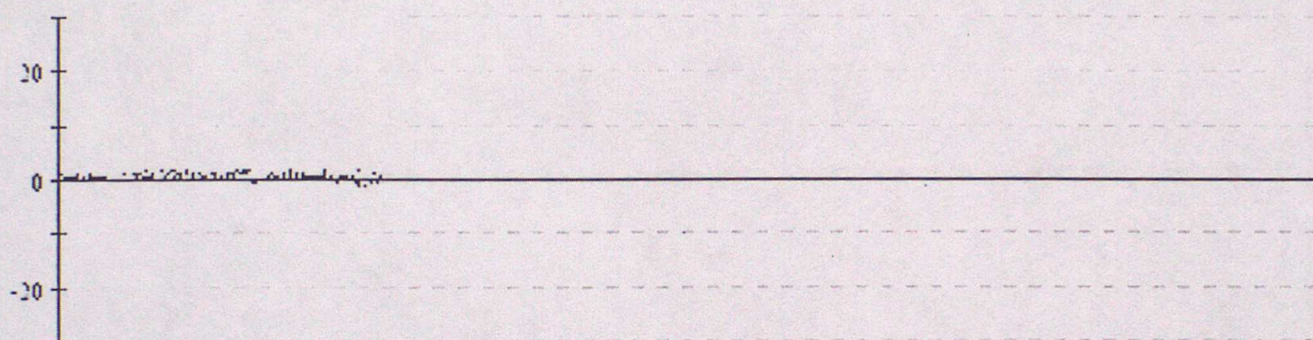


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

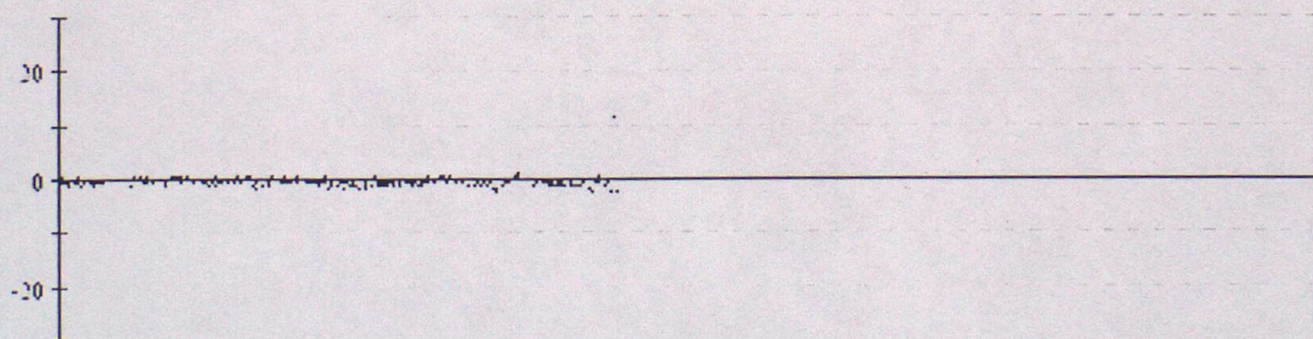
62761 Pressure



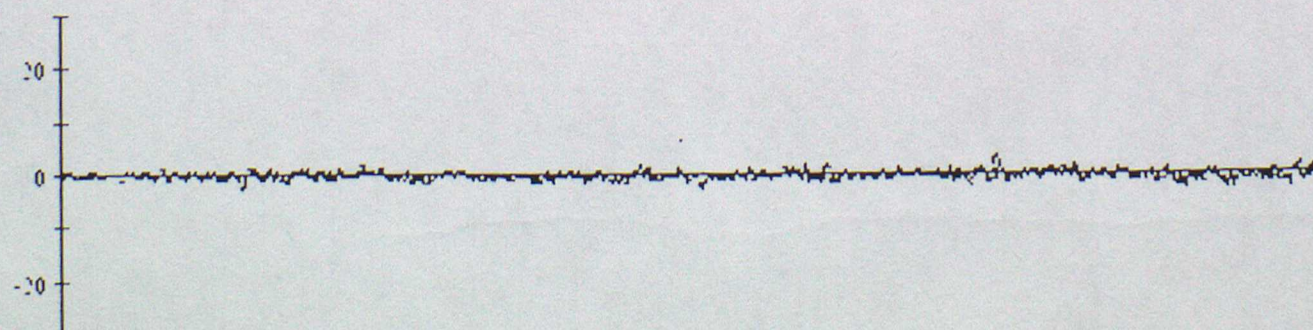
62762 Pressure



62763 Pressure

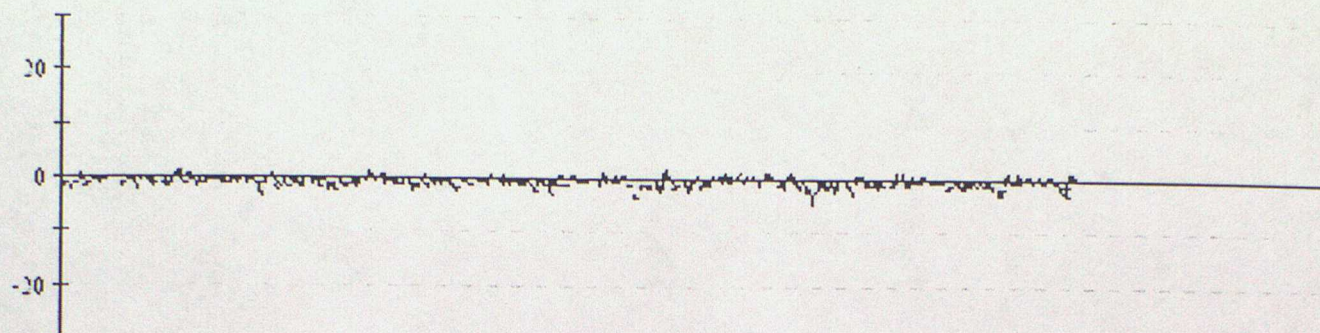


64517 Pressure

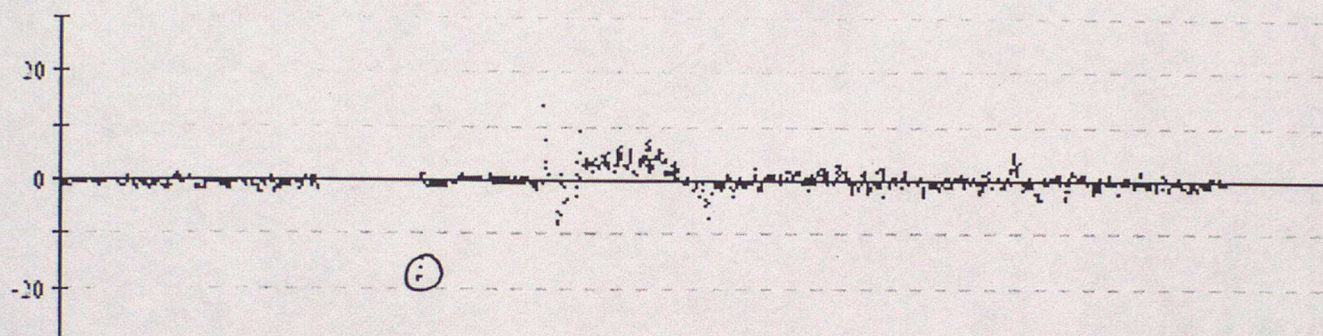


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

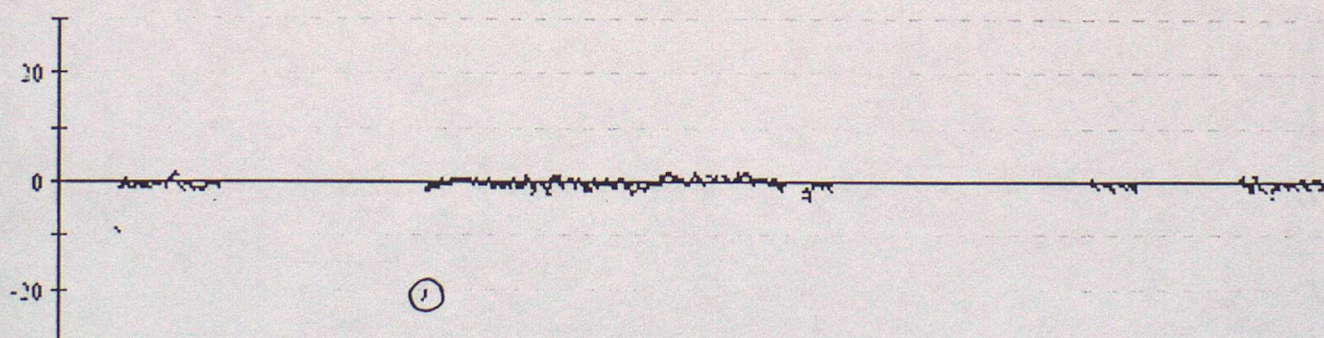
64519 Pressure



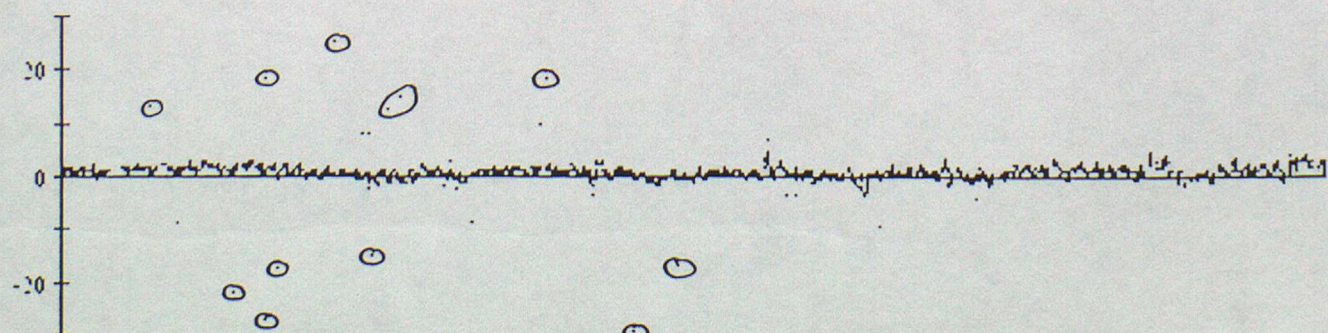
64520 Pressure



64521 Pressure



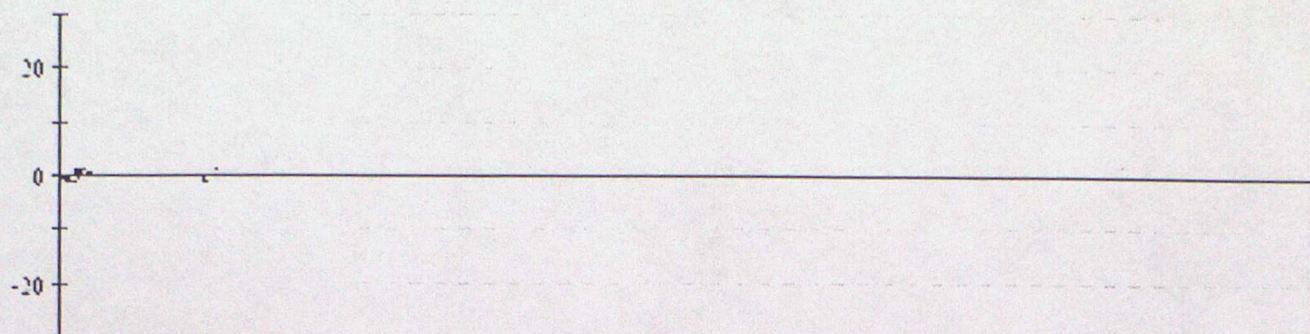
64546 Pressure



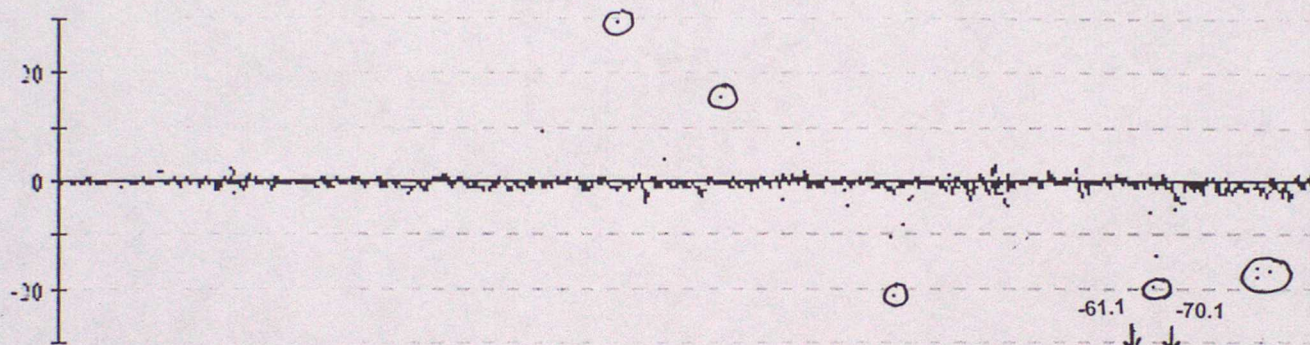
5 GROSS ERRORS

Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

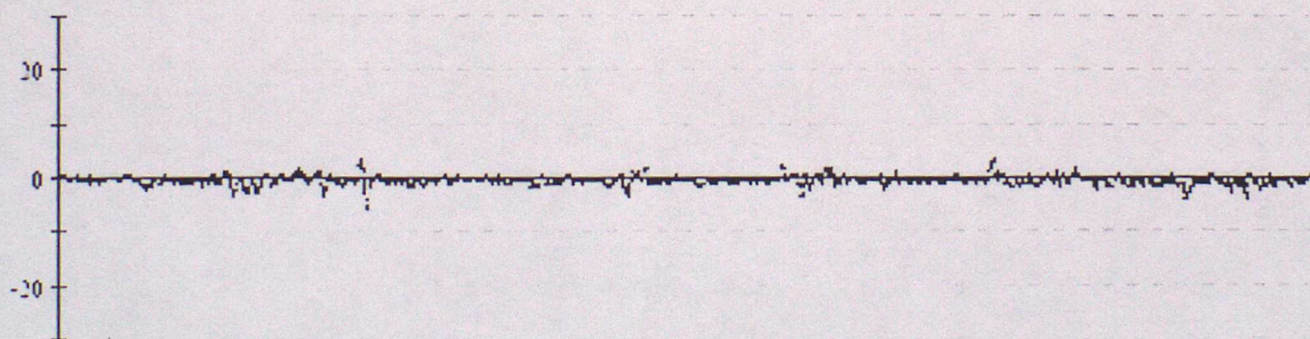
64547 Pressure



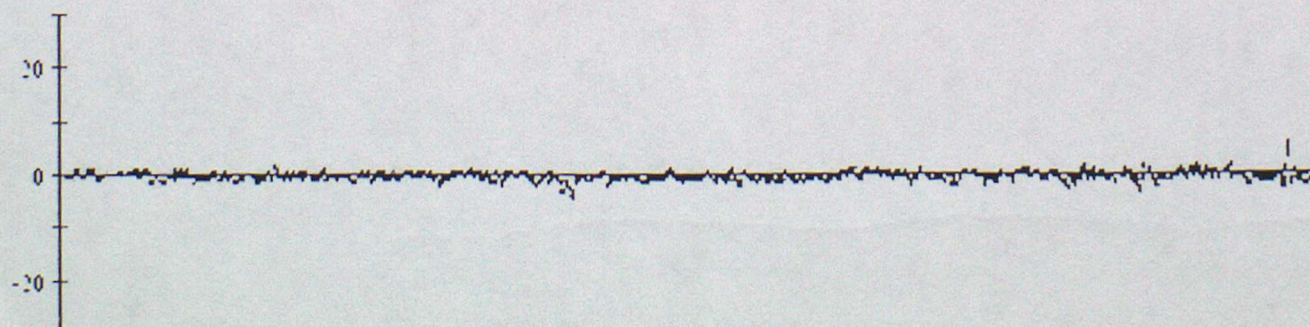
64548 Pressure



64698 Pressure

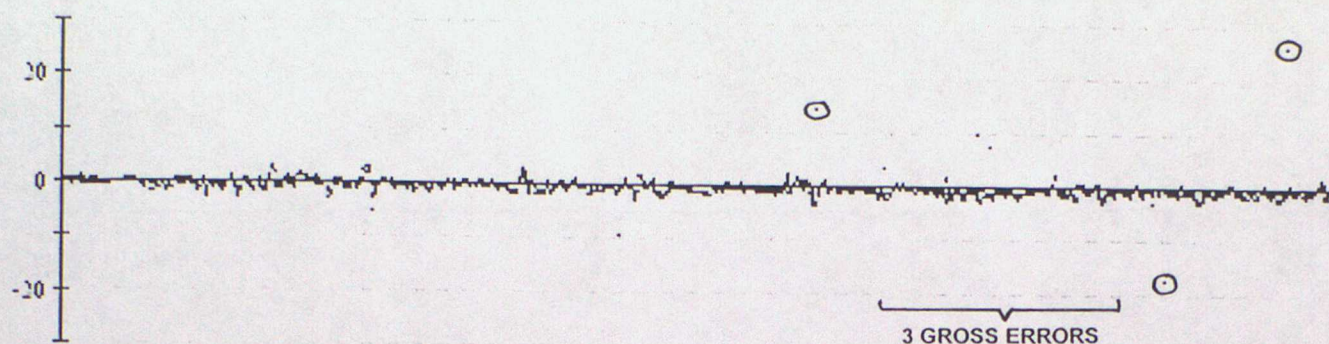


64699 Pressure

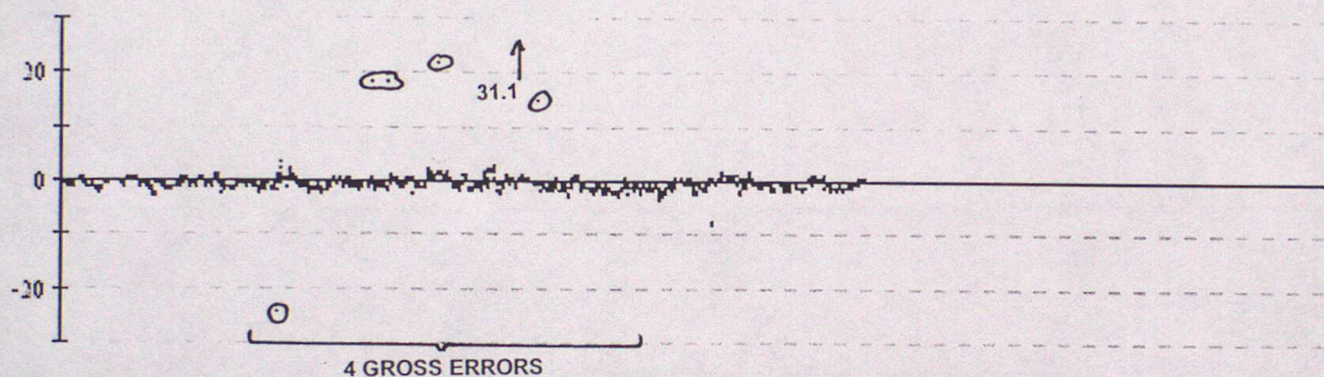


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

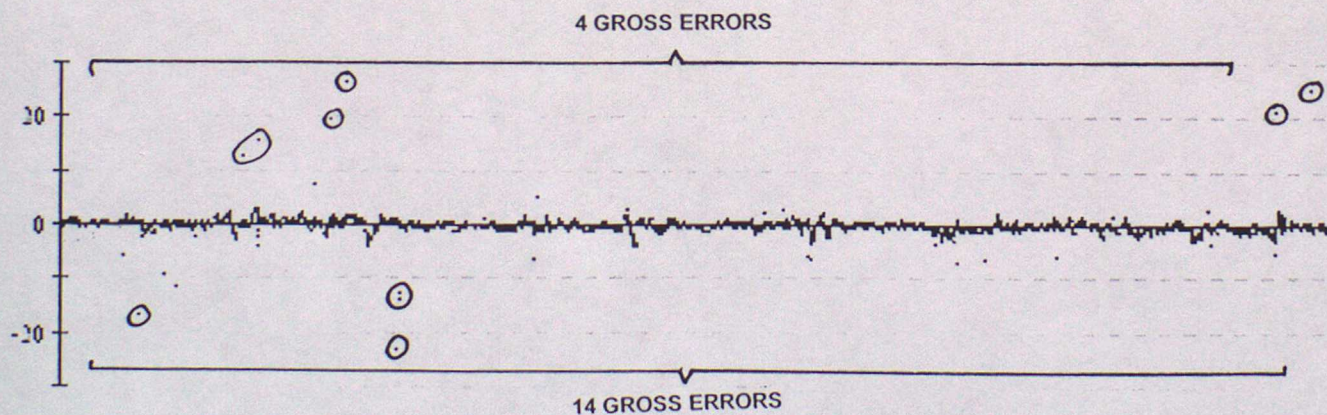
65593 Pressure



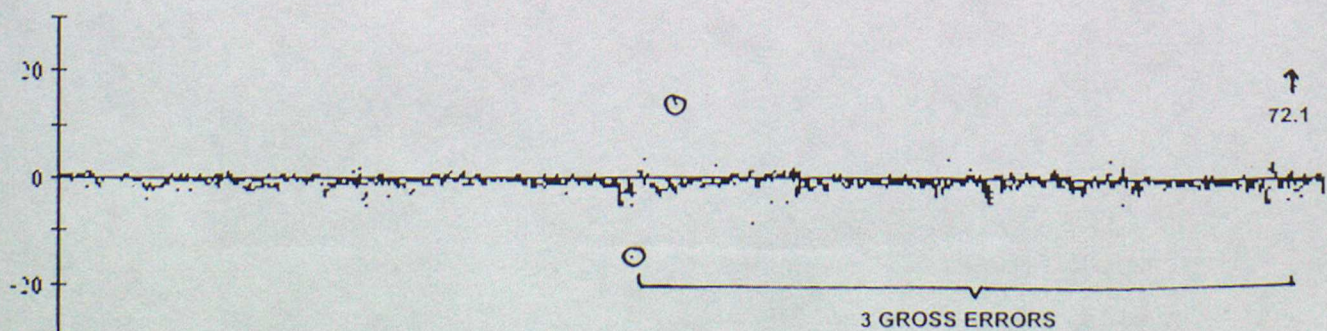
65598 Pressure



65599 Pressure

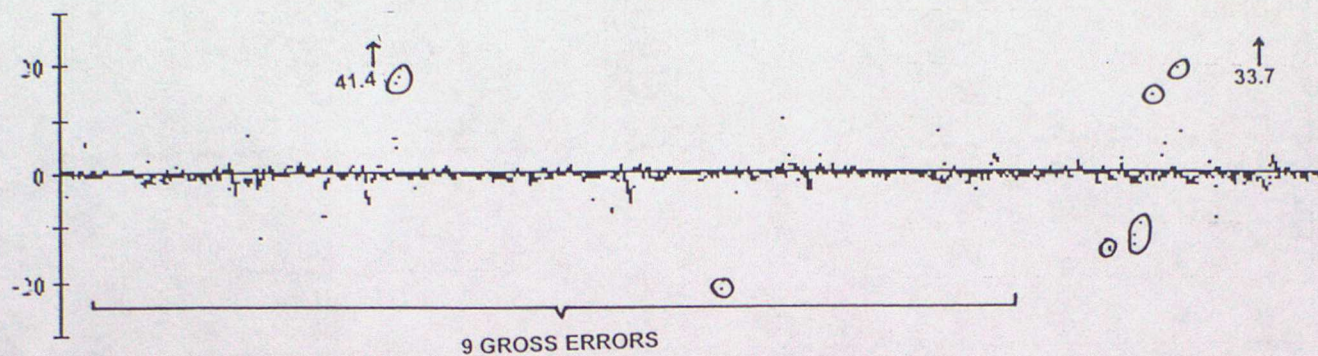


65600 Pressure

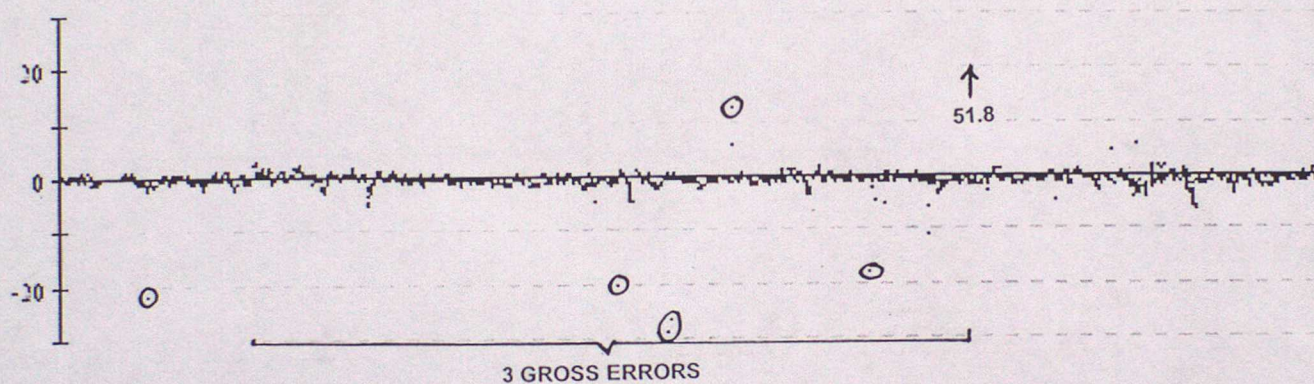


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

65601 Pressure



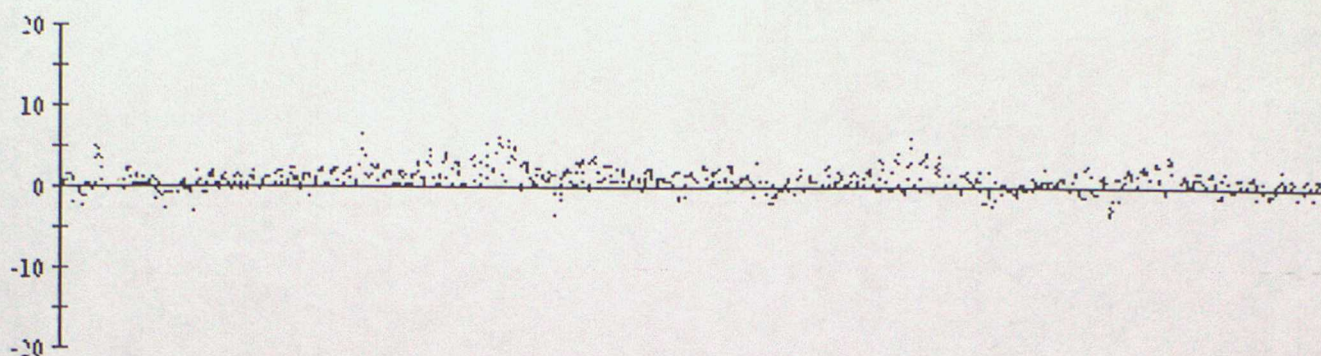
65602 Pressure



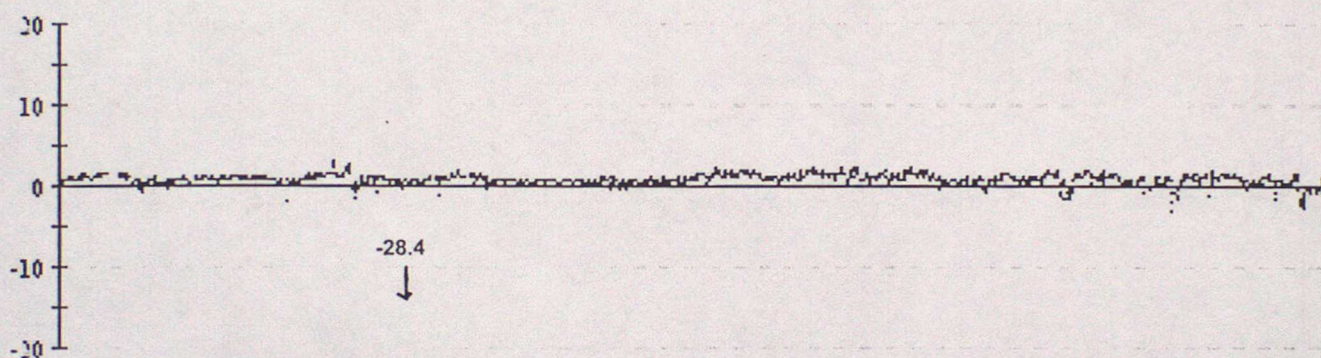
ANNEX C - TIME SERIES PLOTS OF AIR TEMPERATURE

Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

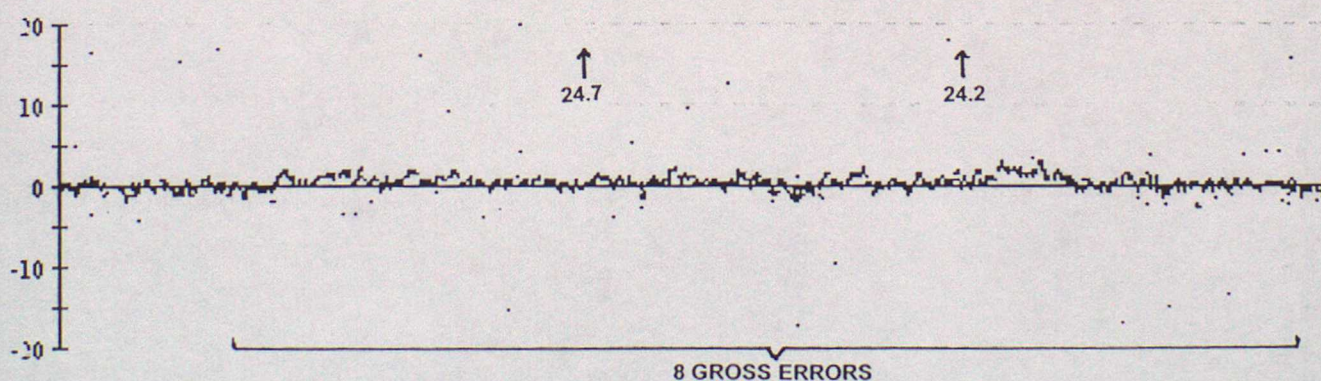
41521 Air Temperature



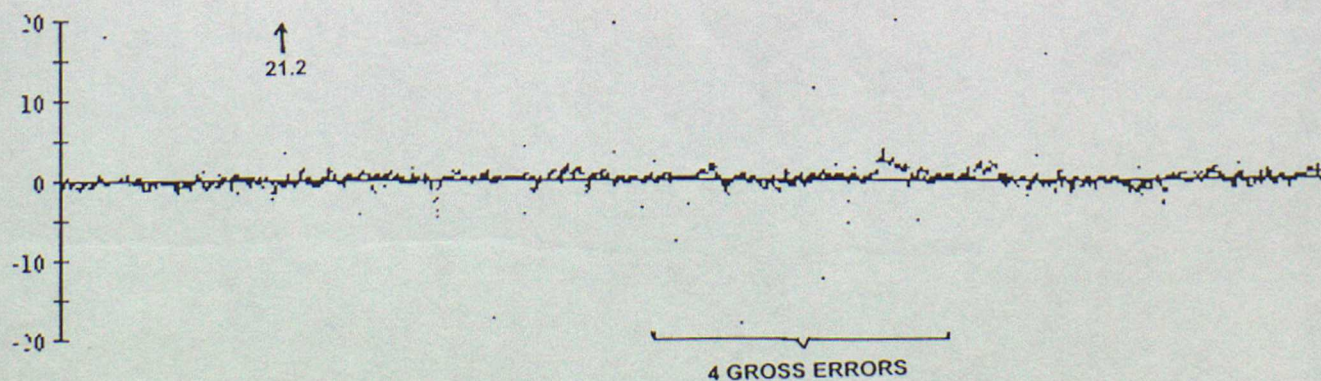
44613 Air Temperature



44626 Air Temperature

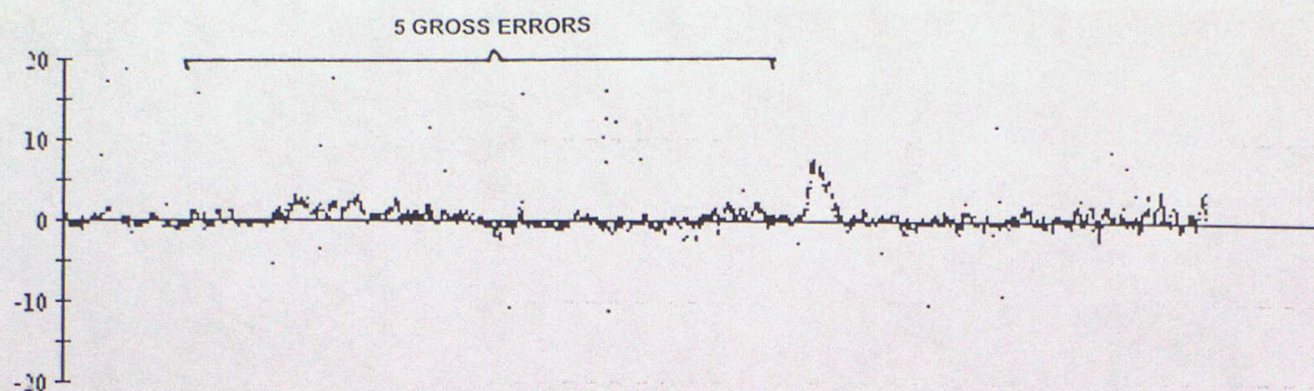


44628 Air Temperature

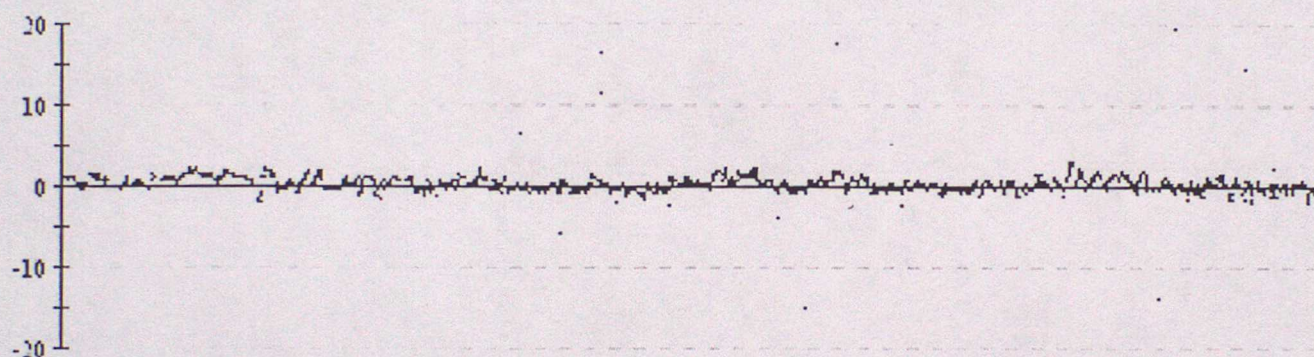


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

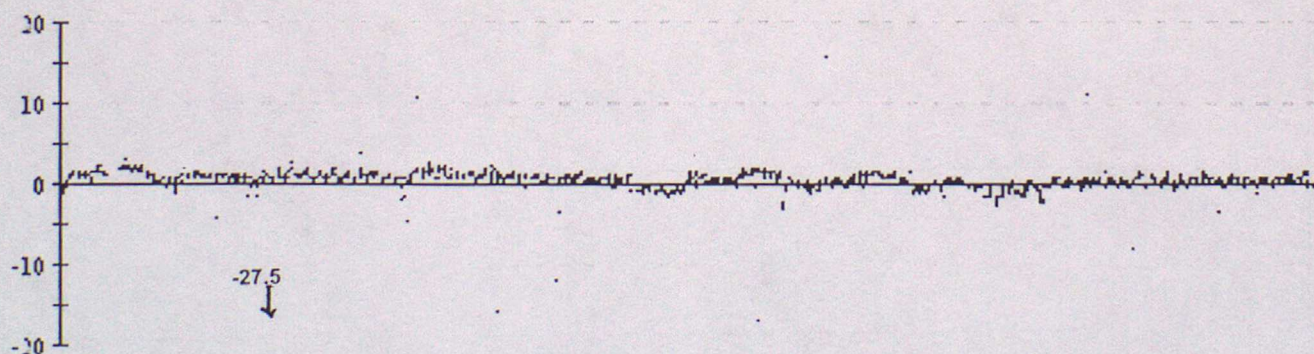
44630 Air Temperature



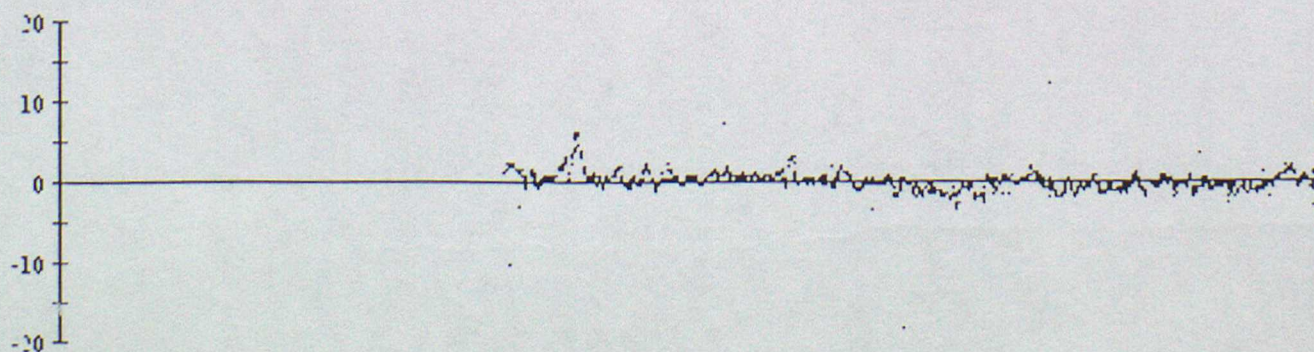
44743 Air Temperature



44765 Air Temperature

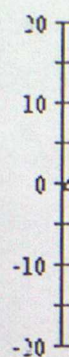


44772 Air Temperature

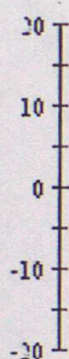


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

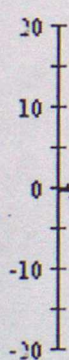
44773 Air Temperature



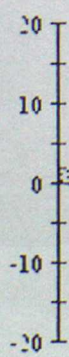
56542 Air Temperature



62508 Air Temperature

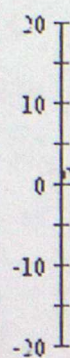


62723 Air Temperature

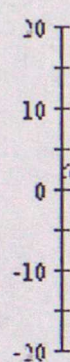


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

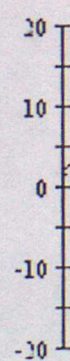
62725 Air Temperature



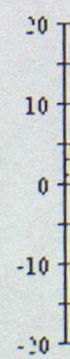
62761 Air Temperature



62762 Air Temperature

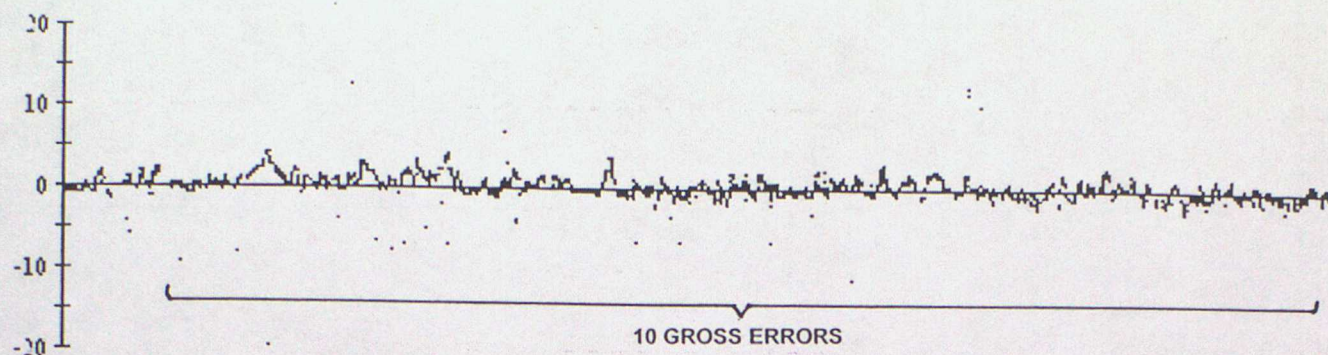


62763 Air Temperature

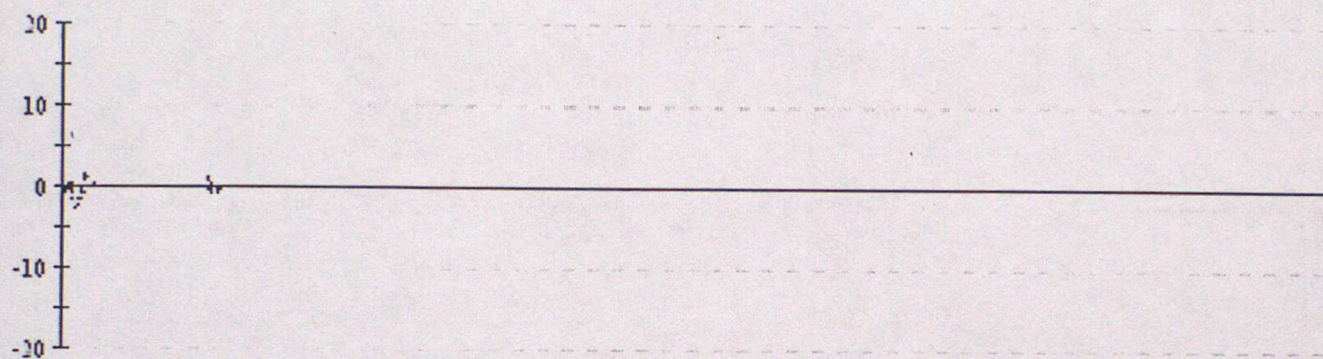


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

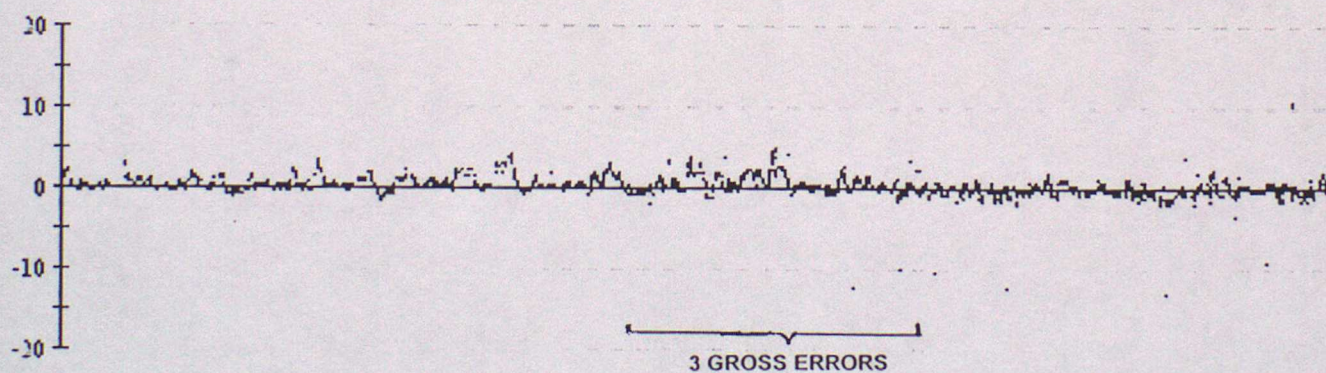
64546 Air Temperature



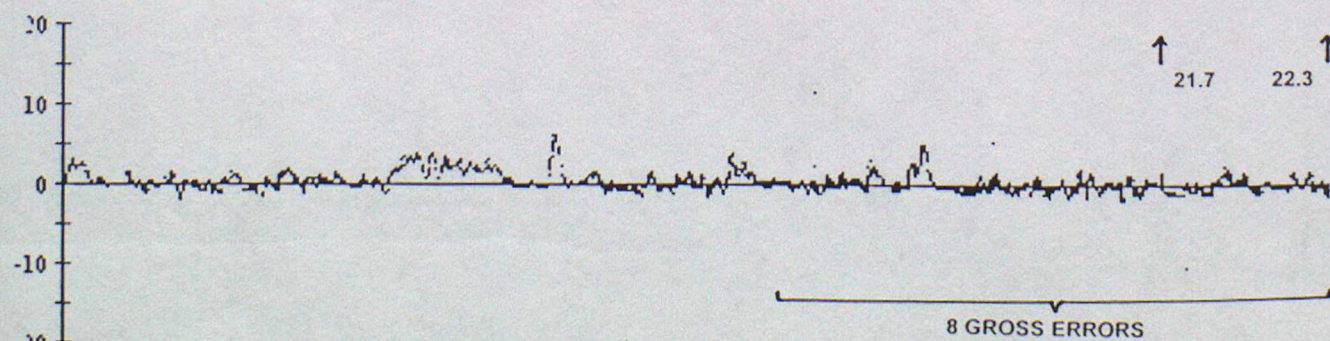
64547 Air Temperature



64548 Air Temperature

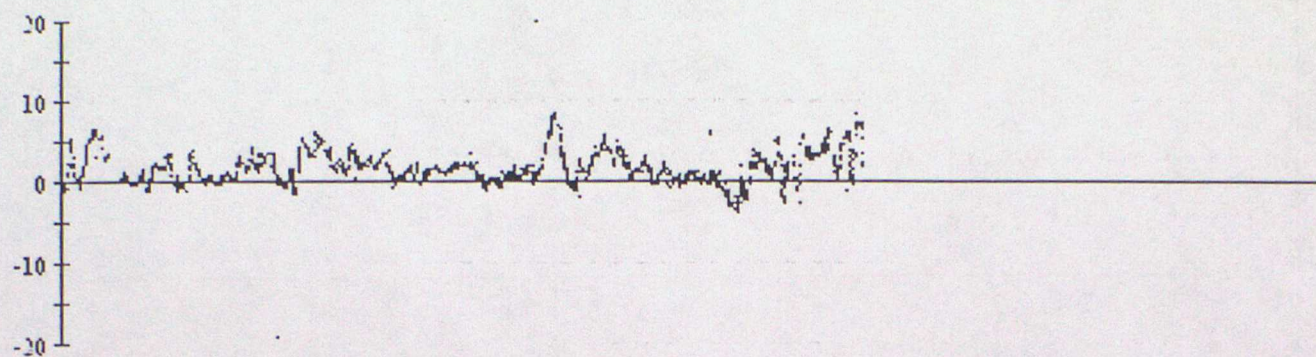


65593 Air Temperature

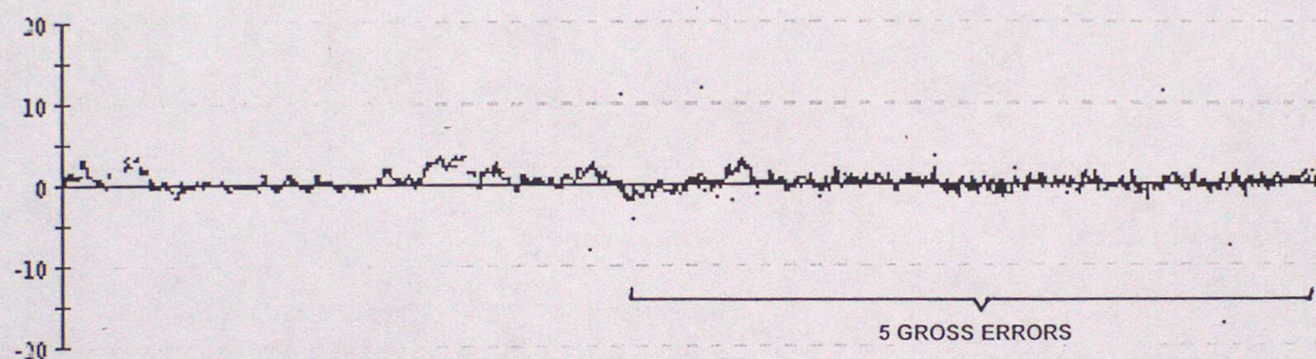


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

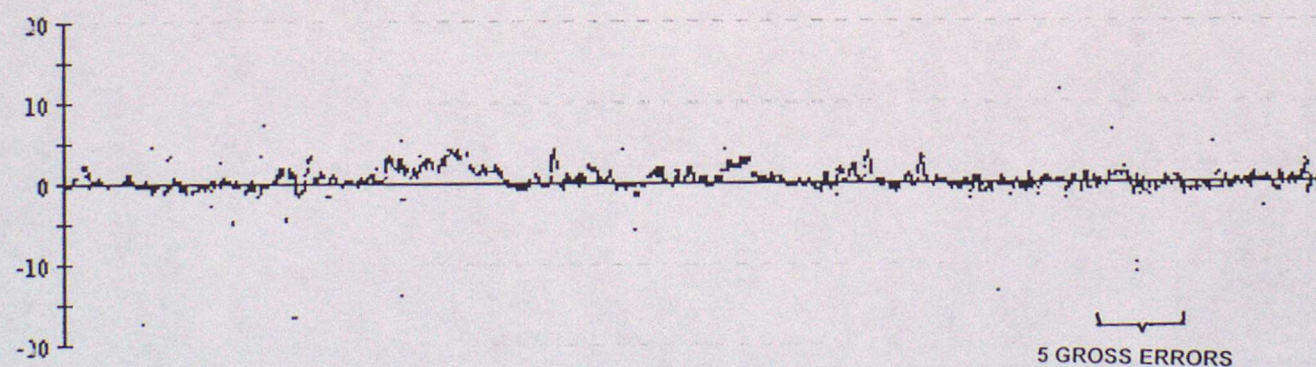
65598 Air Temperature



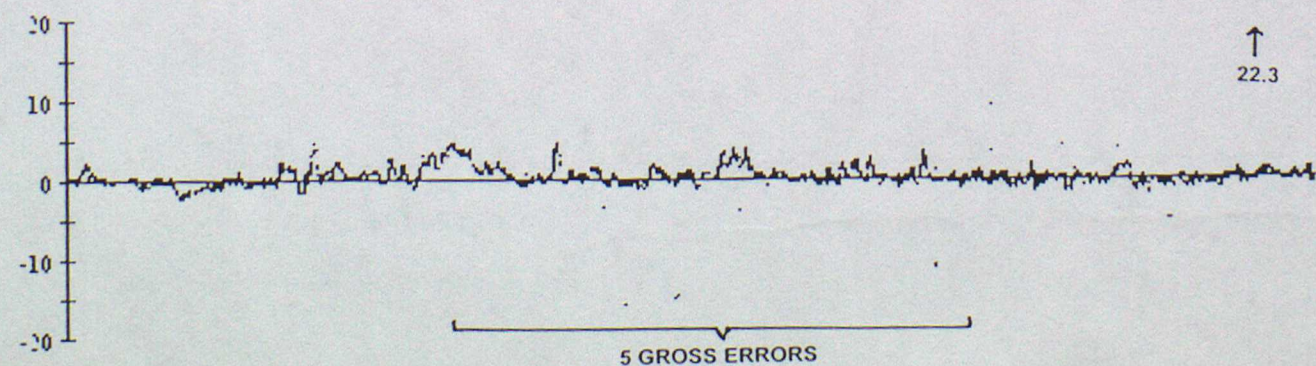
65600 Air Temperature



65601 Air Temperature



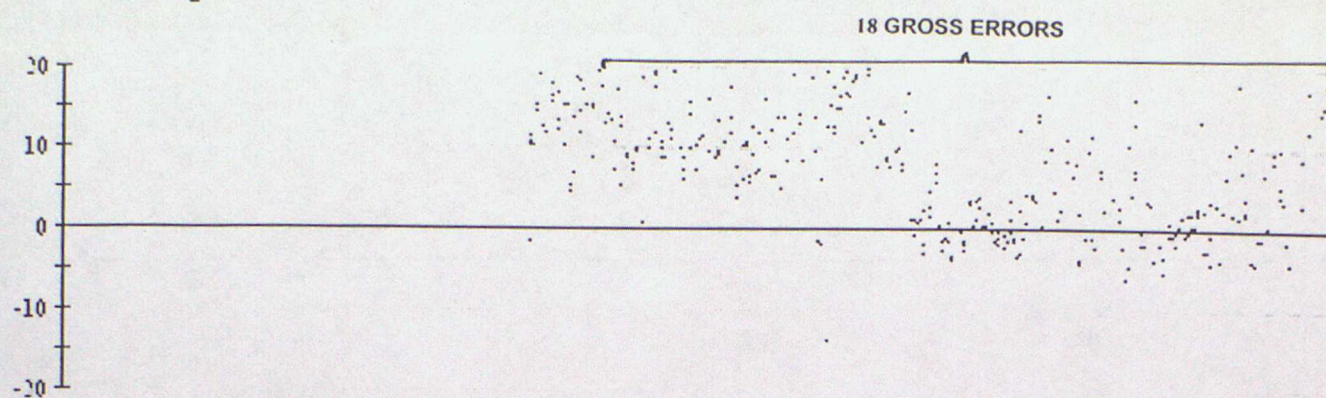
65602 Air Temperature



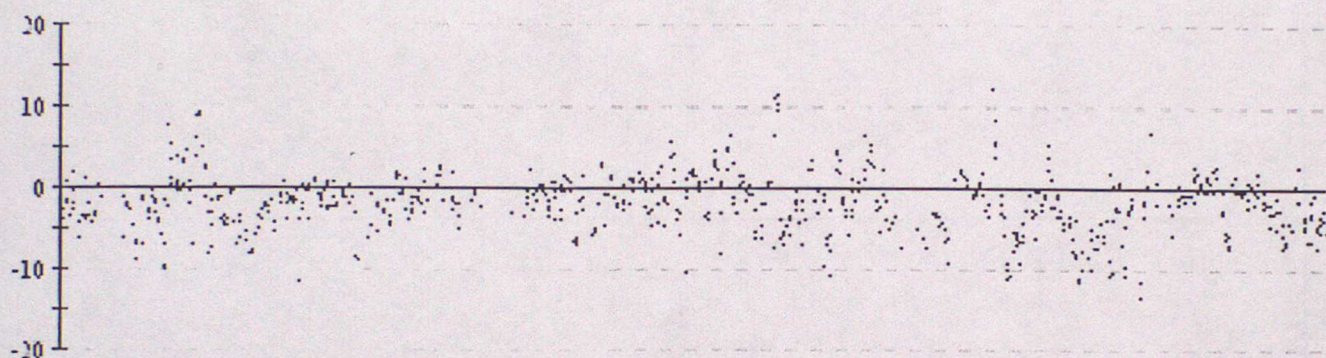
ANNEX D - TIME SERIES PLOTS OF WIND SPEED

Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

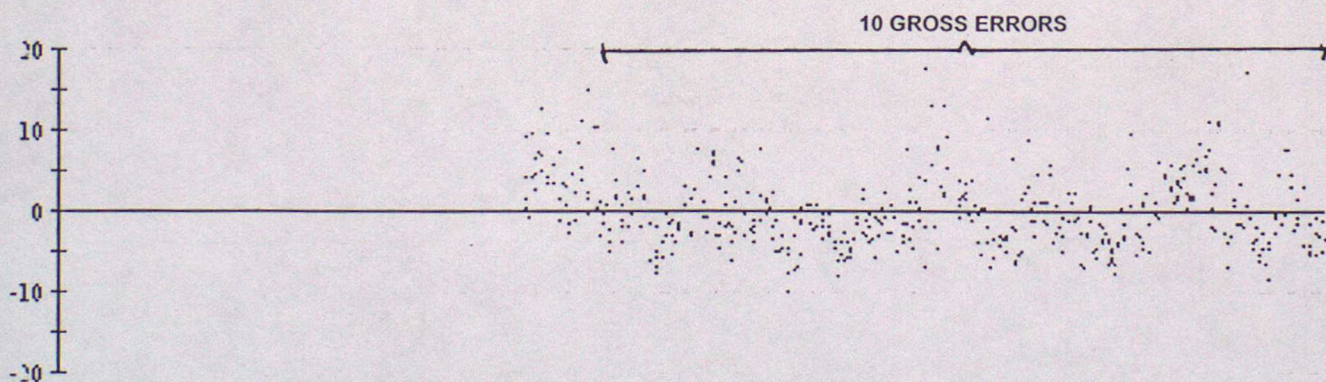
41505 Wind speed



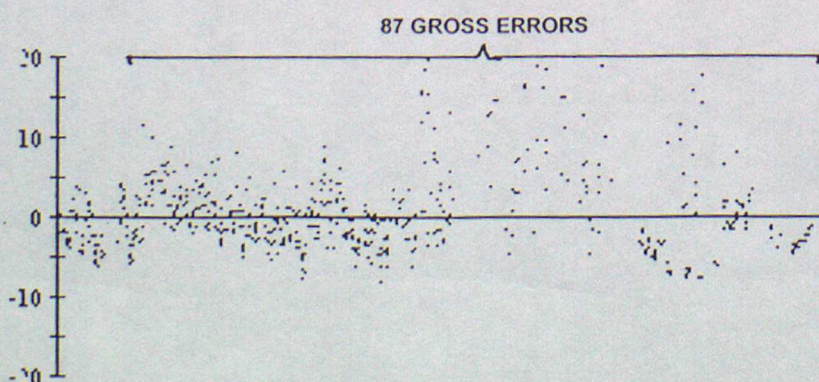
41521 Wind speed



41523 Wind speed

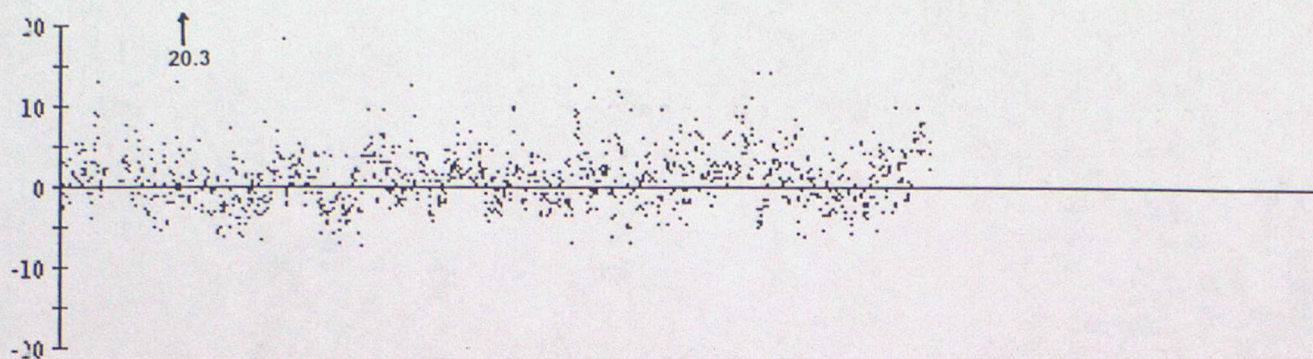


41571 Wind speed



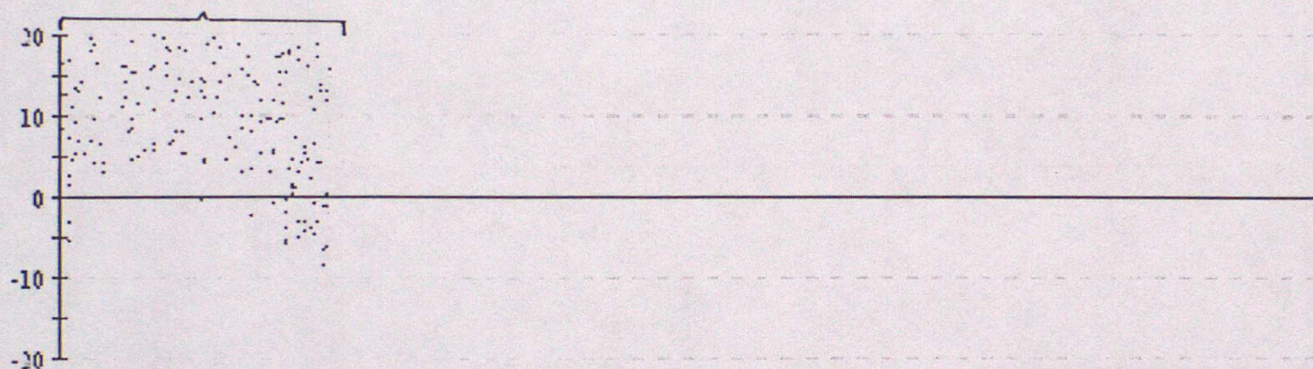
Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

44607 Wind speed



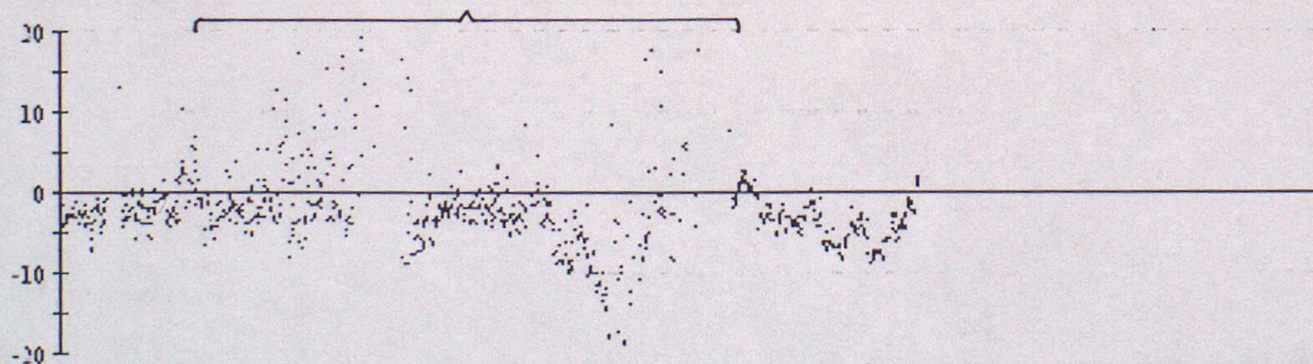
44724 Wind speed

119 GROSS ERRORS



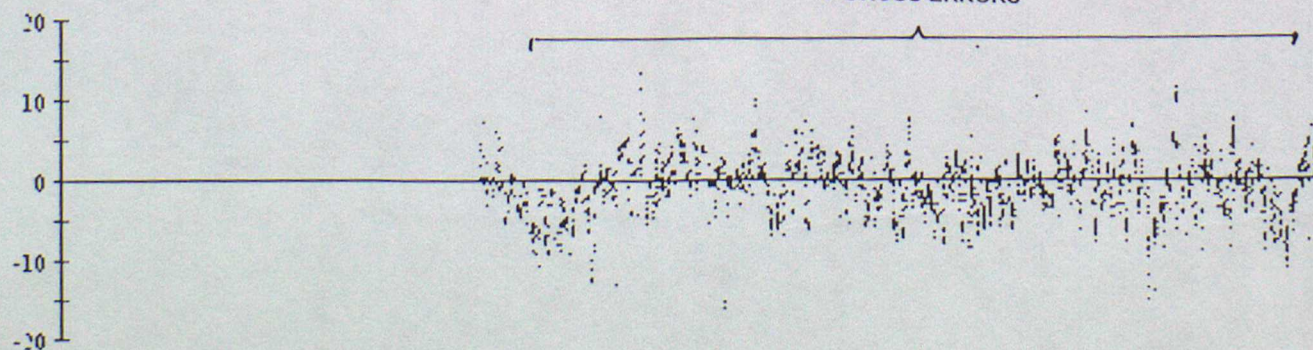
44726 Wind speed

110 GROSS ERRORS



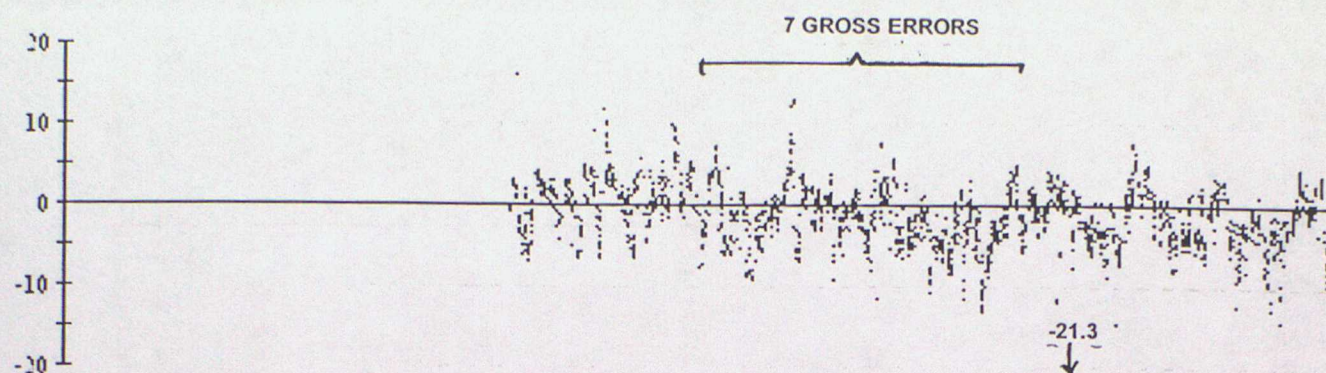
44743 Wind speed

7 GROSS ERRORS

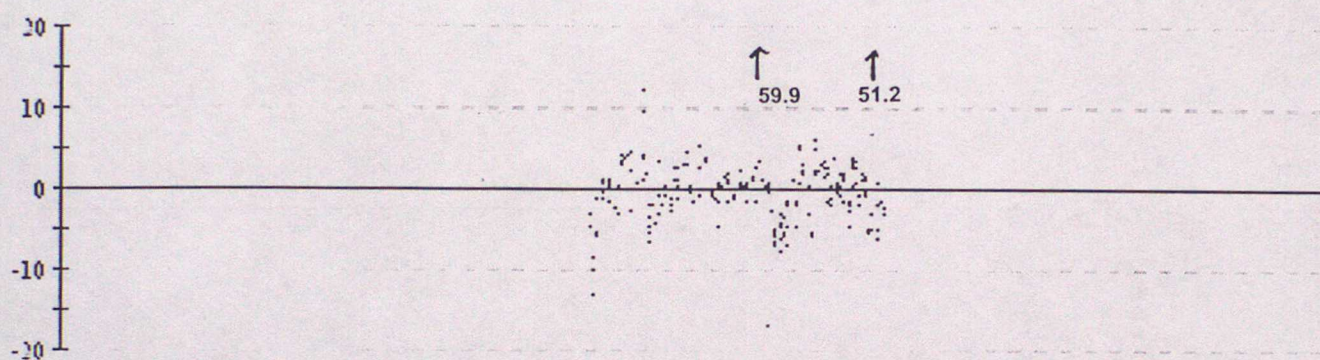


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

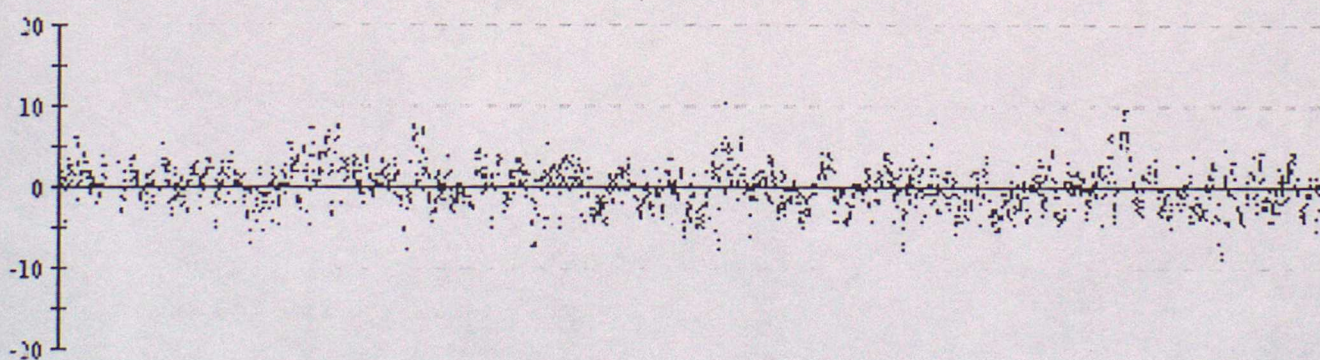
44772 Wind speed



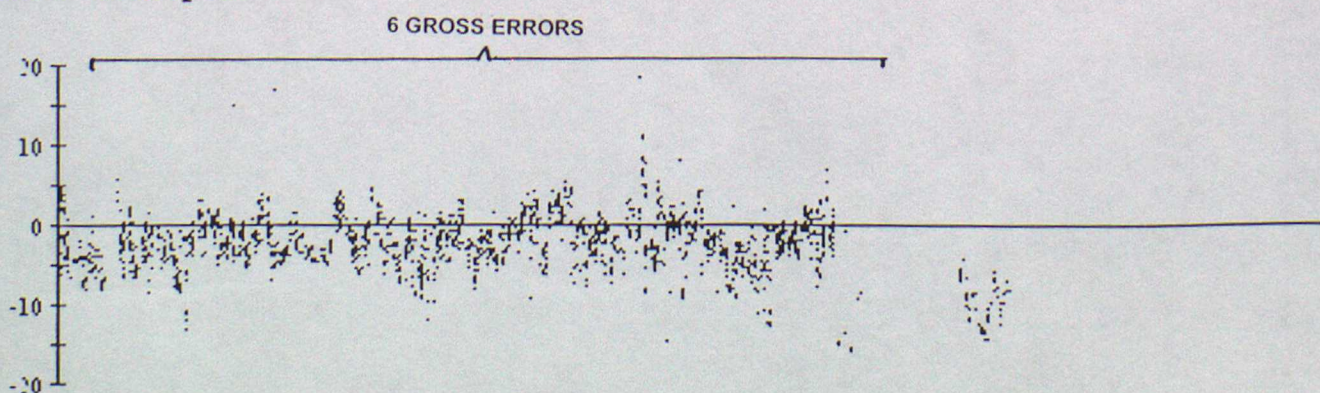
44773 Wind speed



62508 Wind speed



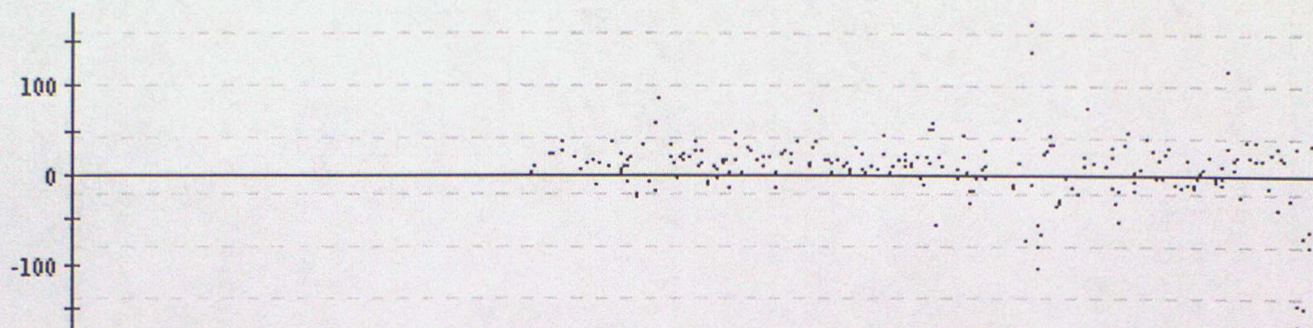
62597 Wind speed



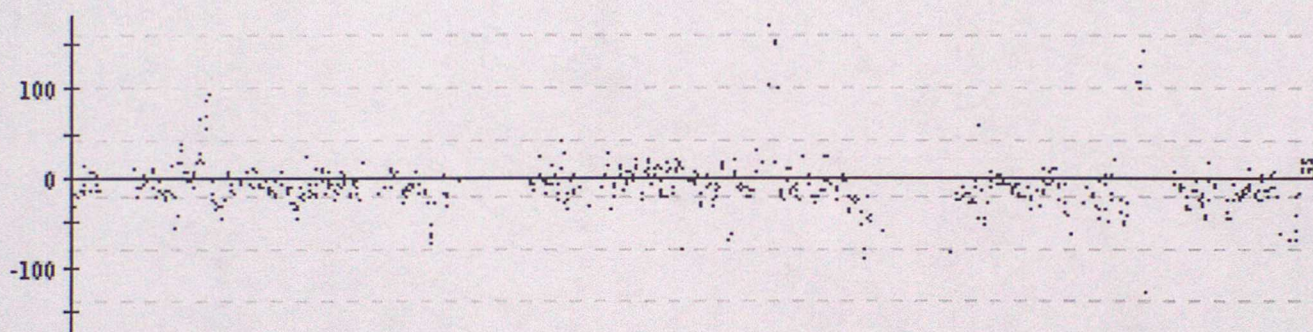
ANNEX E - TIME SERIES PLOTS OF WIND DIRECTION

Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

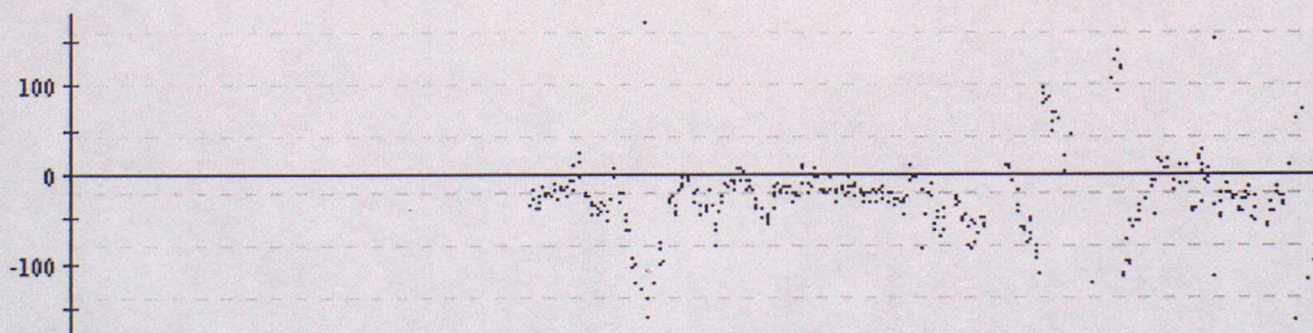
41505 Wind direction



41521 Wind direction



41523 Wind direction

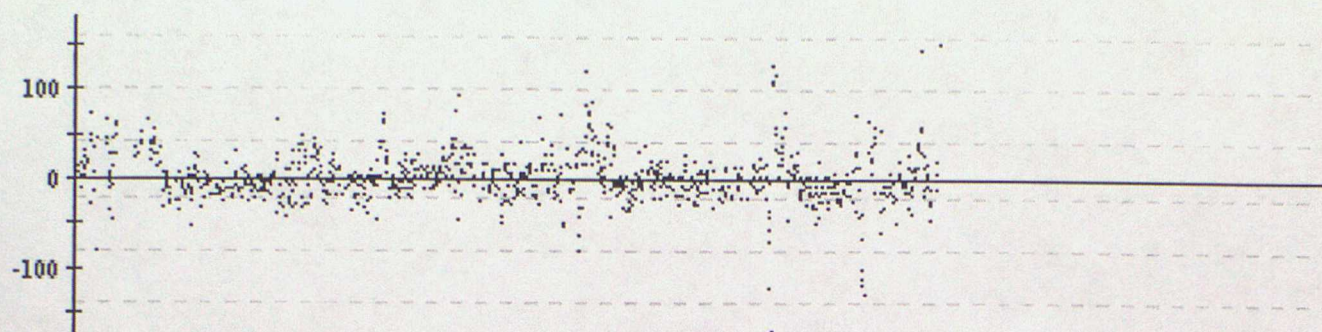


41571 Wind direction

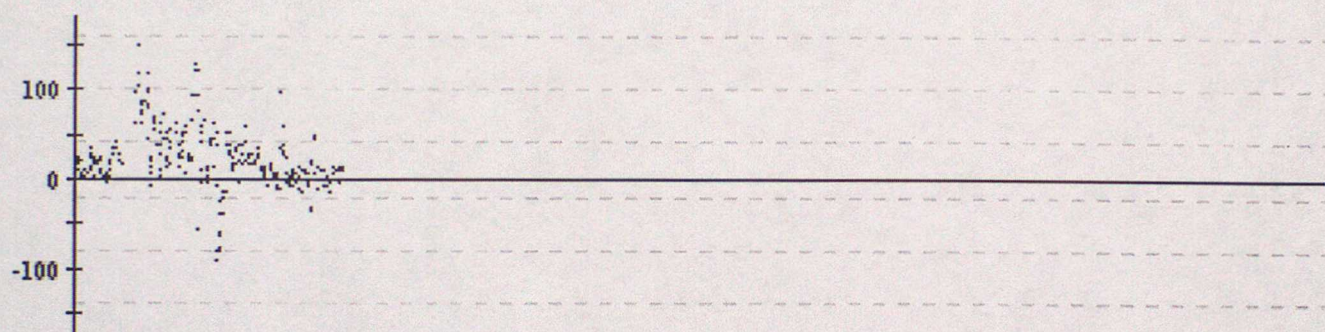


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

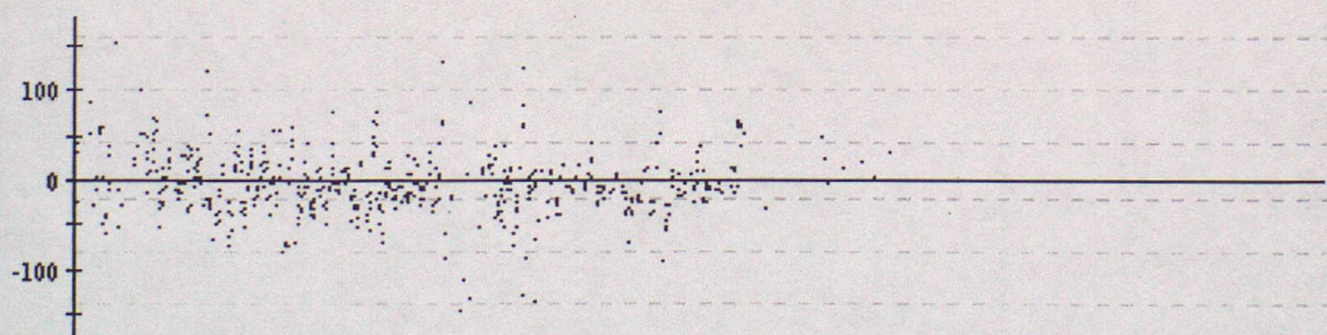
44607 Wind direction



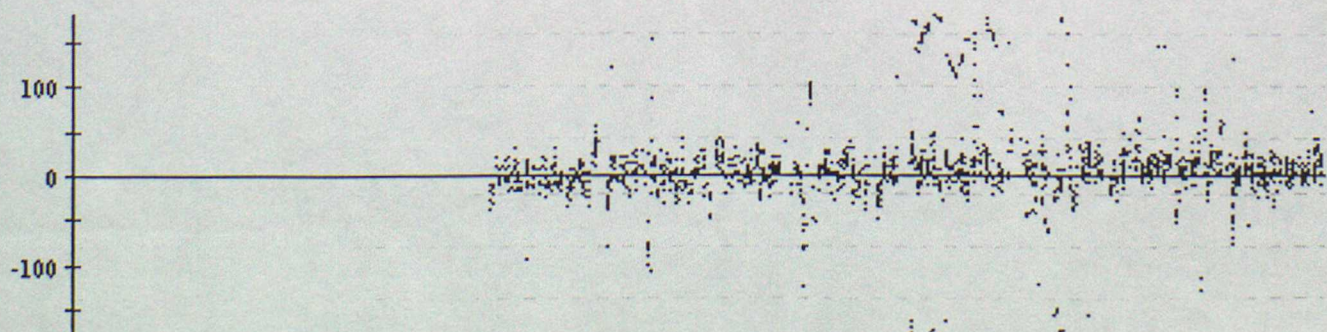
44724 Wind direction



44726 Wind direction

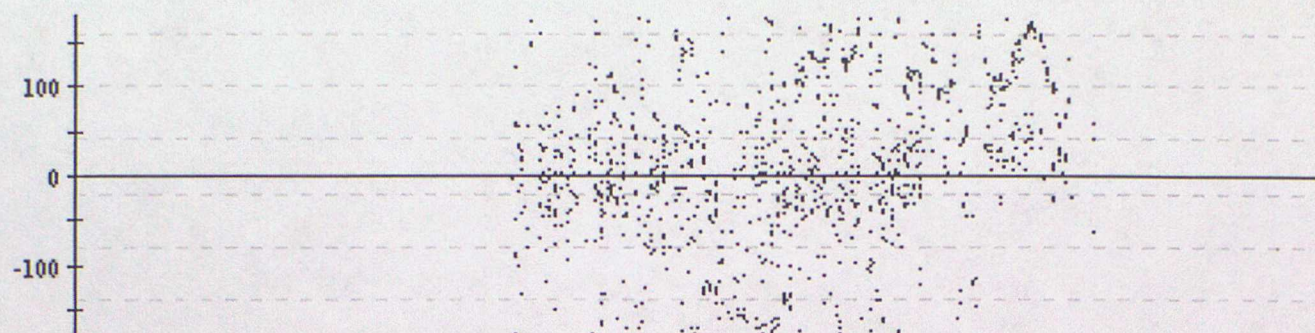


44743 Wind direction

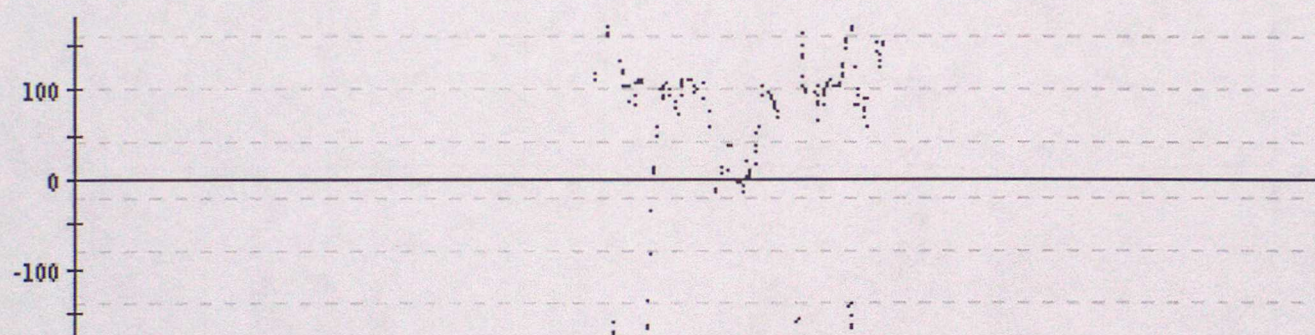


Data from 00z on 01/07/2000 to 23z on 30/09/2000 (OBS - Background field)

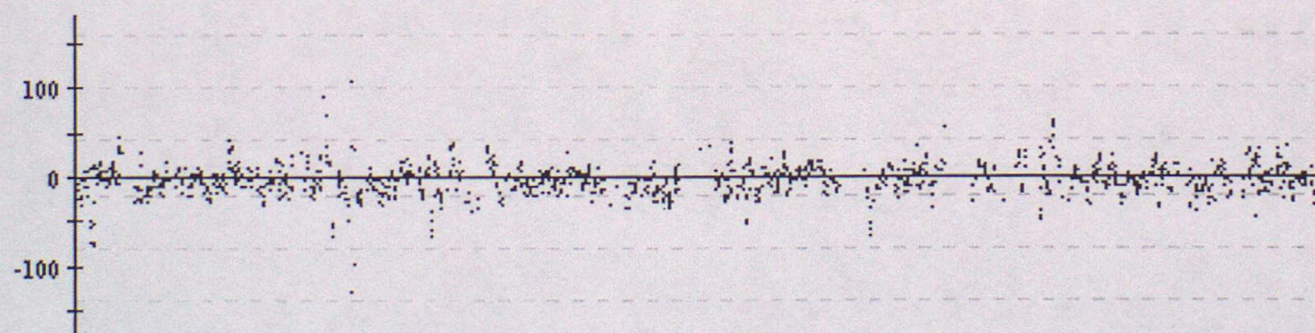
44772 Wind direction



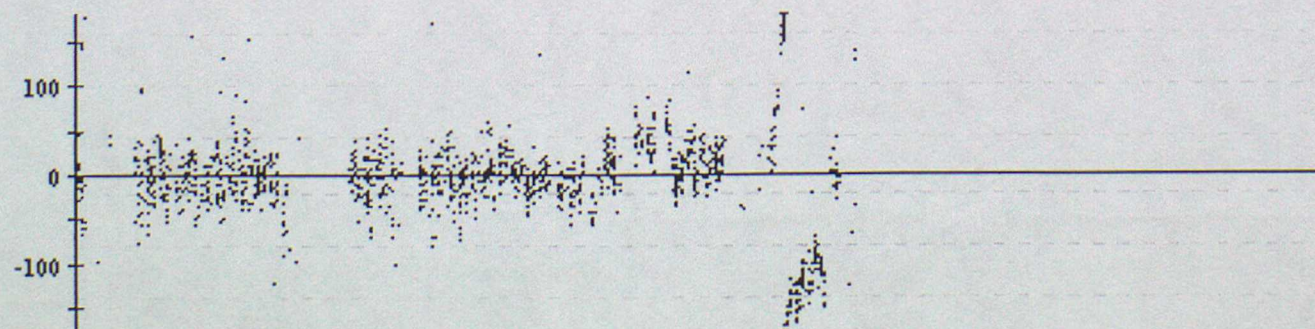
44773 Wind direction



62508 Wind direction



62597 Wind direction



ANNEX F - SUMMARY TABLE OF OPERATIONAL DRIFTING BUOYS

| WMO No. | Argos No. | Owner | Elements Reported | | | | | | Reporting Period |
|---------|-----------|-------|-------------------|----|----|----|----|-----|------------------|
| | | | PP | Pt | TT | FF | DD | SST | |
| 41505 | | | * | | | * | * | * | 03/08 - 30/09 |
| 41521 | | | * | | * | * | * | * | 01/07 - 30/09 |
| 41523 | | | * | | | * | * | * | 03/08 - 30/09 |
| 41571 | | | * | * | | * | * | * | 01/07 - 30/09 |
| 41644 | | | * | | | | | * | 01/07 - 30/09 |
| 44607 | | | * | * | | * | * | * | 01/07 - 02/09 |
| 44608 | | | * | * | | | | * | 01/07 - 30/09 |
| 44610 | | | * | * | | | | * | 01/07 - 30/09 |
| 44611 | | | * | * | | | | * | 01/07 - 30/09 |
| 44612 | | | * | * | | | | * | 01/07 - 30/09 |
| 44613 | | | * | * | * | | | | 01/07 - 30/09 |
| 44615 | | | * | * | | | | * | 01/07 - 12/09 |
| 44617 | | | * | * | | | | * | 01/07 - 30/09 |
| 44620 | | | * | * | | | | * | 01/07 - 30/09 |
| 44622 | | | * | * | | | | * | 01/07 - 30/09 |
| 44623 | | | * | * | | | | * | 01/07 - 30/09 |
| 44626 | | | * | * | * | | | * | 01/07 - 30/09 |
| 44627 | | | * | * | | | | * | 01/07 - 30/09 |
| 44628 | | | * | * | * | | | * | 01/07 - 30/09 |
| 44630 | | | * | * | * | | | | 01/07 - 22/09 |
| 44721 | | | * | * | | | | * | 01/07 - 21/07 |
| 44723 | | | * | * | | | | * | 01/07 - 30/09 |
| 44724 | | | * | * | | * | * | * | 01/07 - 30/09 |
| 44725 | | | * | * | | | | * | 01/07 - 30/09 |
| 44726 | | | * | * | | * | * | * | 01/07 - 30/09 |
| 44727 | | | * | * | | | | * | 01/07 - 30/09 |
| 44729 | | | * | * | | | | * | 01/07 - 30/09 |
| 44730 | | | * | * | | | | * | 01/07 - 30/09 |
| 44741 | | | * | * | | | | * | 01/07 - 30/09 |
| 44743 | | | * | * | * | * | * | * | 01/07 - 30/09 |
| 44760 | | | * | * | | | | * | 01/07 - 29/08 |
| 44761 | | | * | * | | | | * | 01/07 - 30/09 |
| 44762 | | | * | * | | | | * | 08/08 - 30/09 |
| 44764 | | | * | * | | | | * | 08/08 - 30/09 |
| 44765 | | | * | * | * | | | | 01/07 - 30/09 |
| 44767 | | | * | * | | | | * | 09/08 - 30/09 |

ANNEX F - CONT'd

| WMO No. | Argos No. | Owner | Elements Reported | | | | | | Reporting Period |
|---------|-----------|-------|-------------------|----|----|----|----|-----|------------------|
| | | | PP | Pt | TT | FF | DD | SST | |
| 44768 | | | * | * | | | | * | 09/08 - 24/09 |
| 44769 | | | * | * | | | | * | 09/08 - 05/09 |
| 44770 | | | * | * | | | | * | 09/08 - 30/09 |
| 44771 | | | * | * | | | | * | 30/07 - 30/09 |
| 44772 | | | * | * | * | * | * | * | 02/08 - 30/09 |
| 44773 | | | * | * | * | * | * | * | 01/07 - 29/08 |
| 56542 | | | * | * | * | | | * | 29/09 - 30/09 |
| 61522 | | | * | | | | | * | 09/09 - 30/09 |
| 61523 | | | * | | | | | * | 09/09 - 30/09 |
| 62507 | | | * | * | | | | * | 01/07 - 30/09 |
| 62508 | | | * | * | * | * | * | * | 01/07 - 30/09 |
| 62509 | | | * | * | | | | * | 01/07 - 30/09 |
| 62512 | | | * | | | | | * | 01/07 - 30/09 |
| 62513 | | | * | | | | | * | 01/07 - 30/09 |
| 62514 | | | * | * | | | | * | 01/07 - 30/09 |
| 62515 | | | * | * | | | | * | 01/07 - 01/09 |
| 62516 | | | * | * | | | | * | 01/07 - 30/09 |
| 62517 | | | * | * | | | | * | 21/09 - 30/09 |
| 62519 | | | * | * | | | | * | 26/09 - 30/09 |
| 62520 | | | * | * | | | | * | 01/07 - 30/09 |
| 62596 | | | * | * | | | | * | 01/07 - 30/09 |
| 62597 | | | * | * | | * | * | * | 01/07 - 11/09 |
| 62723 | | | * | | * | | | * | 01/07 - 30/07 |
| 62725 | | | * | | * | | | * | 01/07 - 11/08 |
| 62761 | | | * | | * | | | * | 01/07 - 29/08 |
| 62762 | | | * | | * | | | * | 01/07 - 24/07 |
| 62763 | | | * | | * | | | * | 01/07 - 10/08 |
| 64517 | | | * | * | | | | * | 01/07 - 30/09 |
| 64519 | | | * | | | | | * | 01/07 - 12/09 |
| 64520 | | | * | | | | | * | 01/07 - 23/09 |
| 64521 | | | * | | | | | * | 04/07 - 30/09 |
| 64546 | | | * | * | * | | | * | 01/07 - 30/09 |
| 64547 | | | * | * | * | | | * | 01/07 - 12/07 |
| 64548 | | | * | * | * | | | * | 01/07 - 30/09 |
| 64698 | | | * | * | | | | * | 01/07 - 30/09 |
| 64699 | | | * | * | | | | * | 01/07 - 30/09 |

ANNEX F - CONT'd

[illegible]

