

**WORLD METEOROLOGICAL ORGANIZATION**

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**INTERGOVERNMENTAL OCEANOGRAPHIC  
COMMISSION (OF UNESCO)**

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JOINT WMO / IOC TECHNICAL COMMISSION FOR  
OCEANOGRAPHY AND MARINE METEOROLOGY  
(JCOMM)

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SHIP OBSERVATIONS TEAM

ITEM III-3.3

FIFTH SESSION

GENEVA, SWITZERLAND, 18-22 MAY 2009

Original: ENGLISH

**ASAP QUALITY CONTROL MONITORING REPORTS**

*(Submitted by the Secretariat)*

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**Summary and purpose of the document**

This document contains the report by (i) ECMWF on the monitoring of the quality of ASAP data, and (ii) the ASAP monitoring centre which was established by Météo France, as agreed at the Seventh Session of the ASAP Co-ordination Committee (ACC, the ancestor of the ASAP Panel).

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**ACTION PROPOSED**

The Team will review the information contained in this report, and comment, and make decisions or recommendations as appropriate. See part A for the details of recommended actions.

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- Appendices:** A. ECMWF Summary report on the monitoring of ASAP ship data (2008)  
B. End-to-end report of the ASAP data dissemination performance – 2009

**- A - DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT**

**III.3.3.1 Monitoring activities of ECMWF in support of the ASAP**

III.3.3.1.1 The ECMWF representative, Mr Antonio Garcia-Mendez reported on the monitoring activities by ECMWF for the ASAP. ECMWF is monitoring ASAP data on a daily and monthly basis. As in previous years, the area covered by operating ASAP units is mostly the Atlantic Ocean and areas close to Japan. Several ASAP units covered areas in the Southern Hemisphere.

III.3.3.1.2 The number of ASAP reports received at ECMWF was slightly reduced compared to 2007. The percentage of ascents reaching 100 hPa was back to values around 95% in the second half of 2008. Some problems related to wrongly located reports were still noted. The Team noted with appreciation that the quality of ASAP profiles has continued to be good and extremely valuable.

III.3.3.1.3 The Team noted that the vertical statistics showed good quality data obtained in areas where high vertical resolution data with good quality is important for the NWP models. The number of pieces of information received at mid tropospheric levels during 2008 was similar to 2007 at 00, 06 and 12 UTC. At 18 UTC, there was a 35% reduction in the numbers compared to 2007. The percentage of ascents reaching 100 hPa was around 95% in the second half of 2008. These values were smaller in 2007. There is still a positive trend in the number of reports reaching the upper stratosphere.

III.3.3.1.4 The number of corrupted call-signs was reduced in 2008. There is still a problem of wrongly located reports although it is less severe than in 2007. This problem does not appear in the Japanese ASAP data.

III.3.3.1.5 Appendix A provides for the full ECMWF summary report on the monitoring of ASAP ship data (January-December 2008).

**III.3.3.2 Report by the ASAP Monitoring Centre**

III.3.3.2.1 The representative of Météo France, Mr Gérard Rey, reported on the status and operation of the ASAP monitoring centre.

III.3.3.2.2 The ASAP monitoring centre was established by Météo France, as agreed at the Seventh Session of the ASAP Co-ordination Committee in 1995 (the ACC is the ancestor of the ASAP Panel). Since that time, Météo France has been routinely providing annual monitoring report on behalf of the ASAP.

III.3.3.2.3 At its last Session, the SOT reviewed a proposal to enhance the functions of the ASAP Monitoring Centre by regularly producing an end-to-end report of the ASAP data dissemination performance. Required developments have been made during the last intersessional period with quarterly reports and annual reports produced accordingly in 2007 and 2008. The Team noted that the quarterly frequency was more appropriate to give to the ASAP operators an opportunity to correct quickly difficulties in the data dissemination. The Team thanked Météo France for its efforts and useful developments.

III.3.3.2.4 The Team noted that during 2008, Météo-France Toulouse received 7058 upper air messages (TEMP) from ships and platforms. This number of messages is similar to the 2007's one. The reports were received from 26 different call signs; two of them were test call signs.

III.3.3.2.5 The Team noted with appreciation that the quality of the ASAP reports was generally of a high standard, with only a small percentage of erroneous data. A few corrupted call signs can be seen from time to time but with a frequency much lower than in 2007. Japanese ships seem to follow a different procedure with an important shift between the sending of a message and the synoptic hour.

Some ships also improved significantly their delay of transmission. The Team noted that there was no significant degradation.

III-3.3.3 The Team thanked both ECMWF and Météo France for their activities in monitoring ASAP data.

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Appendices: 2

## APPENDIX A

### SUMMARY REPORT ON THE MONITORING OF ASAP SHIP DATA January-December 2008

(report submitted by Antonio Garcia Mendez, ECMWF)

#### European Centre for Medium-Range Weather Forecasts

#### 1. Summary:

The number of ASAP reports received at ECMWF were slightly reduced compared to 2007, the percentage of ascents reaching 100 hPa back to values of around 95% in the second half of 2008. Still some problems related to incorrectly located reports. Again, no Japanese ASAP were involved in this particular problem. The quality of ASAP profiles has continued to be good and extremely valuable.

#### 2. Data reception:

Time series showing the ASAP data reception at ECMWF since January 1994 can be seen in figures 1 to 3. The number of pieces of information received at mid tropospheric levels during 2008 was similar to 2007 at 00, 06 and 12 UTC. At 18 UTC, there was a 35% reduction in the numbers compared to 2007. Summaries for 2007 and 2008 can be found in tables 1 and 2 at the end of this report.

### Monthly counts of ASAP received at ECMWF Temperature 500 hPa - GLOBAL

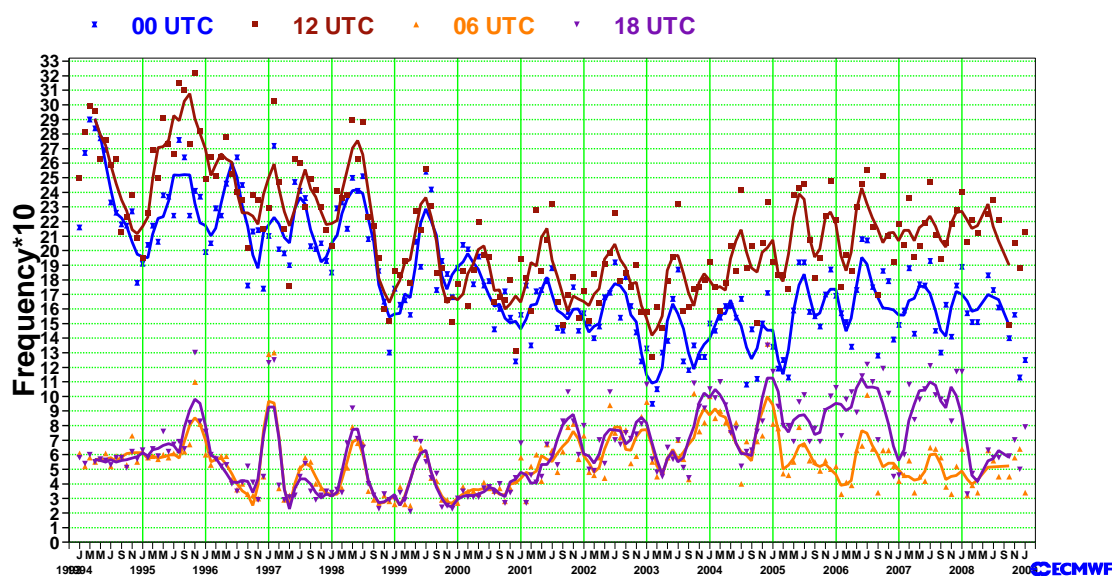


Figure 1

ASAP temperature data received at ECMWF 500 hPa (January 1994 to December 2008)

Figure 2 shows that the percentage of ascents reaching 100 hPa was around 95% in the second half of 2008. These values were smaller in 2007. The positive trend in the number of reports reaching the upper stratosphere is still in place as seen in figure 3.

As in previous years, the area covered by operating ASAP units is mostly the Atlantic Ocean and areas close to Japan (see figure 4). Several ASAP units covered areas in the Southern

Hemisphere. ASAP ASDE2 sent reports from the tropical Pacific, southern Atlantic and south Indian ocean, DBLK from the southern Atlantic and Arctic ocean (see figure 5) and WTEC was involved in VOCALS (VAMOS Ocean Cloud Atmosphere Land Study) in the south-eastern Pacific (see figure 9).

## Monthly counts of ASAP received at ECMWF Temperature reports reaching 100 hPa - GLOBAL

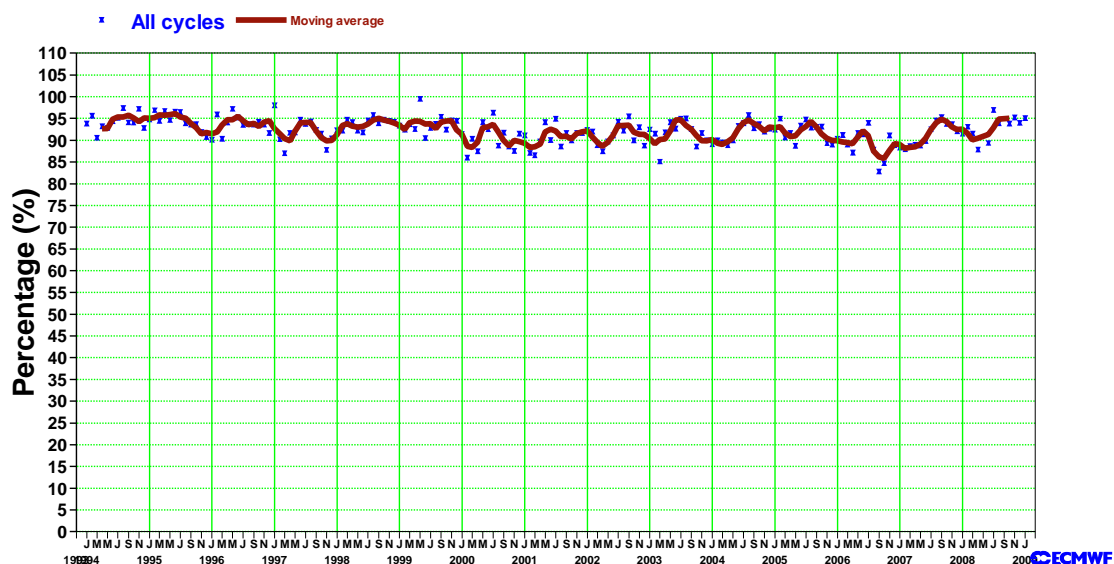


Figure 2  
Percentage of ASAP reports reaching the 100 hPa level Jan 1994 to Dec 2008

## Monthly counts of ASAP received at ECMWF Temperature 20 hPa - GLOBAL

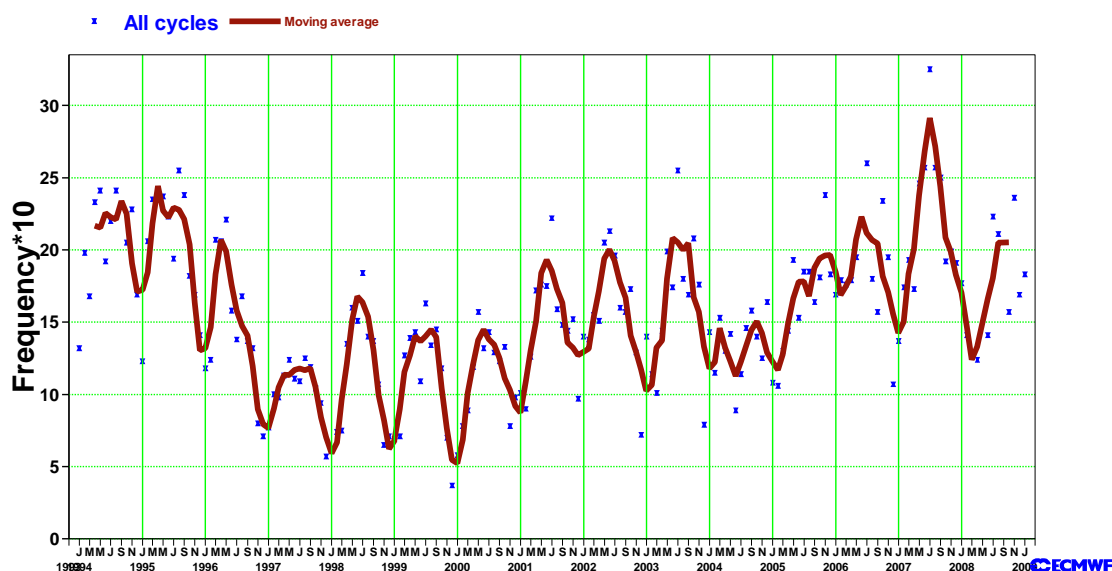
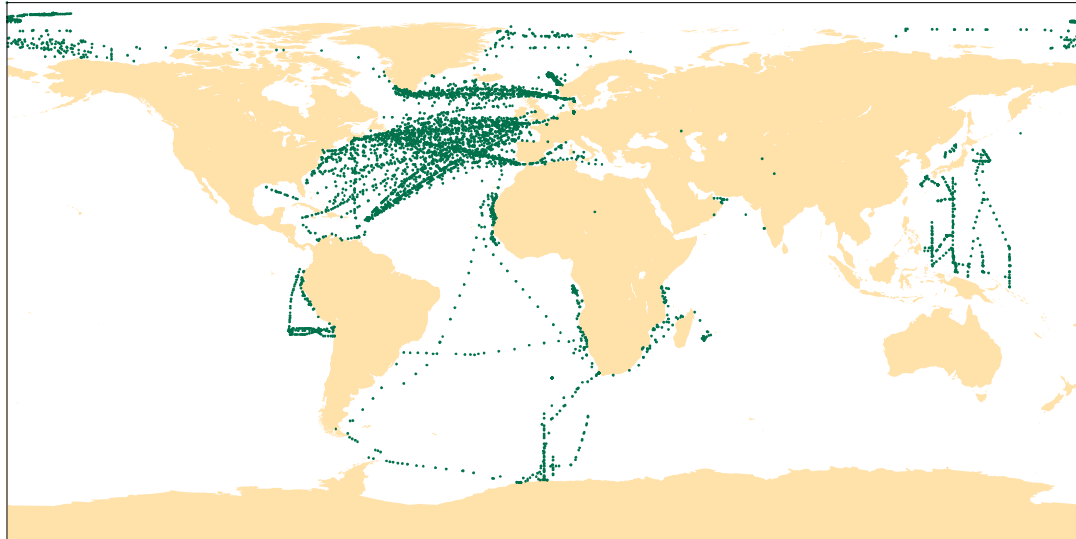


Figure 3  
ASAP temperature data received at 20 hPa Jan 1994 to Dec 2008 (all cycles together)

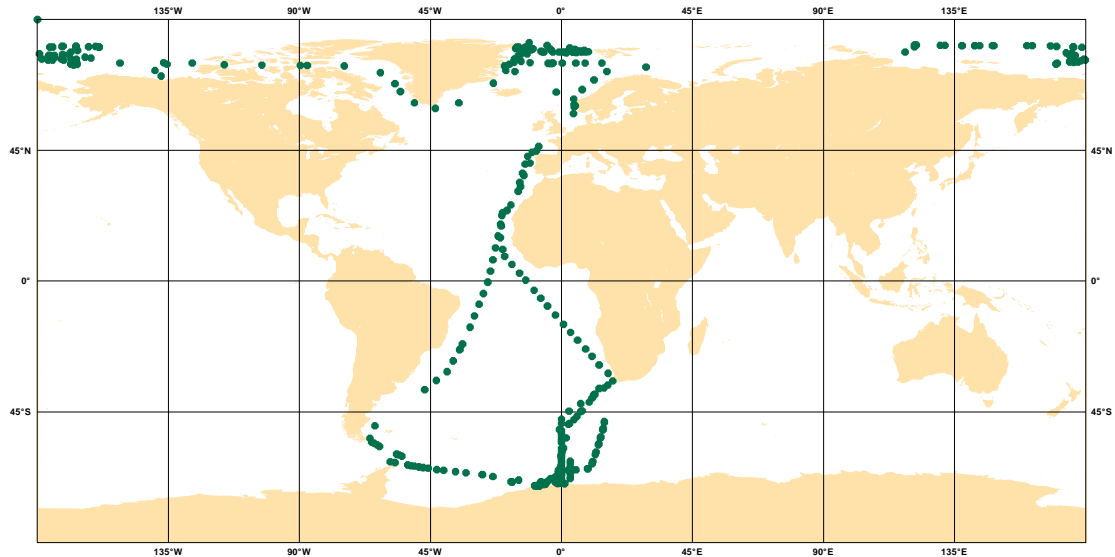
# ASAP 1 JAN-31 DEC 2008



ECMWF

Figure 4  
ASAP coverage January to December 2008

# ASAP DBLK 1 JAN-31 DEC 2008



OBS: 359 (188/ 187 levels rejected WIND/TEMP ELEMENTS)

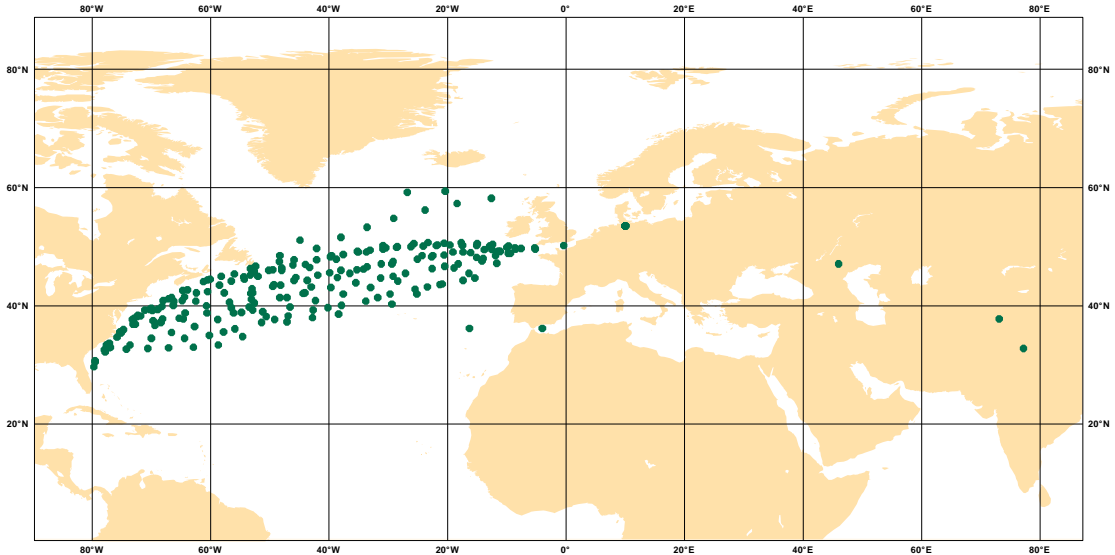
ECMWF

Figure 5  
ASAP DBLK coverage January to December 2008

### 3. Troubleshooting

The details of incorrectly located reports can be seen in table 3 at the end of this report. Figures 6 and 7 show the tracks of the ASAP units with a larger amount of

## ASAP ASDE3 1 JAN-31 DEC 2008

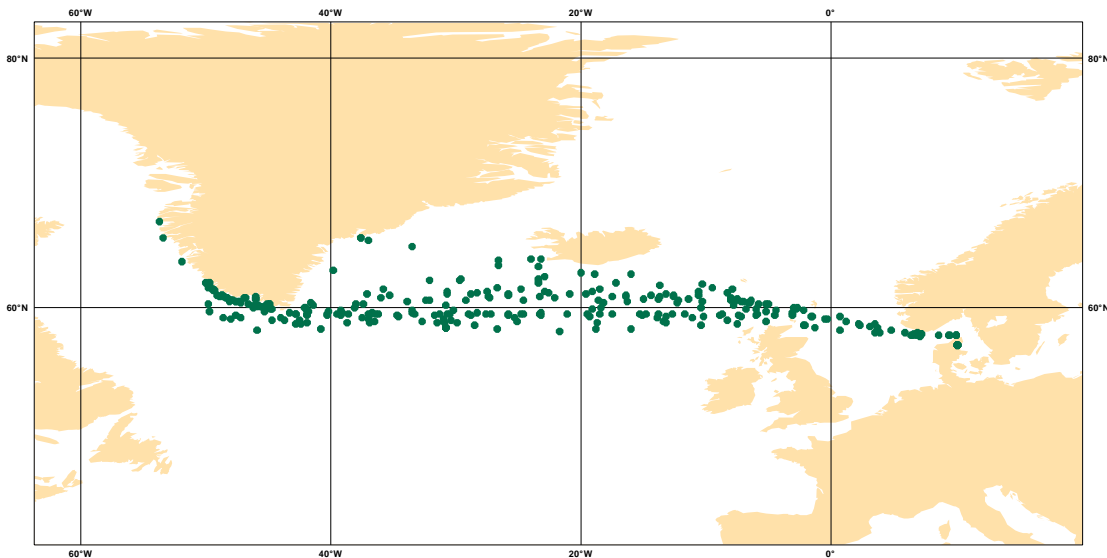


OBS: 248 (56/ 75 levels rejected WIND/TEMP ELEMENTS)



Figure 6  
ASAP ASDE3 coverage January to December 2008

## ASAP ASDK2 1 JAN-31 DEC 2008

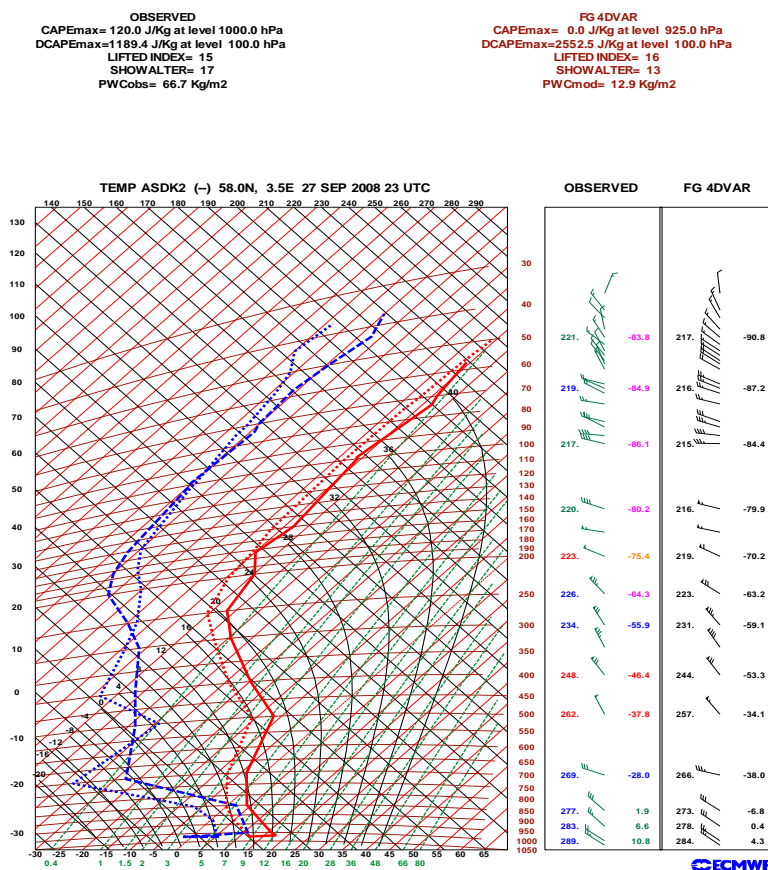


OBS: 324 (467/ 438 levels rejected WIND/TEMP ELEMENTS)



Figure 7  
ASAP ASDK2 coverage January to December 2008

incorrect positions. The bad positions are obvious in the tracking map of ASDE3, which are mainly produced by a change in the sign of the reported longitude. The case of ASDK2 is not at all clear having a look at the tracking chart. In most of the cases, the bad positions are reported as 57N, 10E which is a location in Denmark when actually the vessel was sailing in the middle of North Atlantic.



**Figure 8.a**

**ASDK2 tephigram 27 Sept 2008 23 UTC. An erroneously positioned report partially used in ECMWF 4DVAR.**

- Red full line: Observed temperature profile**
- Dotted red lines: FG temperature profile**
- Dashed blue line: Observed dew point profile**
- Dotted blue line: FG dew point profile**

The profile shown in figure 8.a has all the temperature profile rejected by ECMWF quality control but the departures from FG were not big enough to reject the wind profile and a few humidity data at the PBL. The case shown in figure 8.b is extreme and all data was rejected by quality control except, winds above 60 hPa and a few temperature and humidity data below 500 hPa.



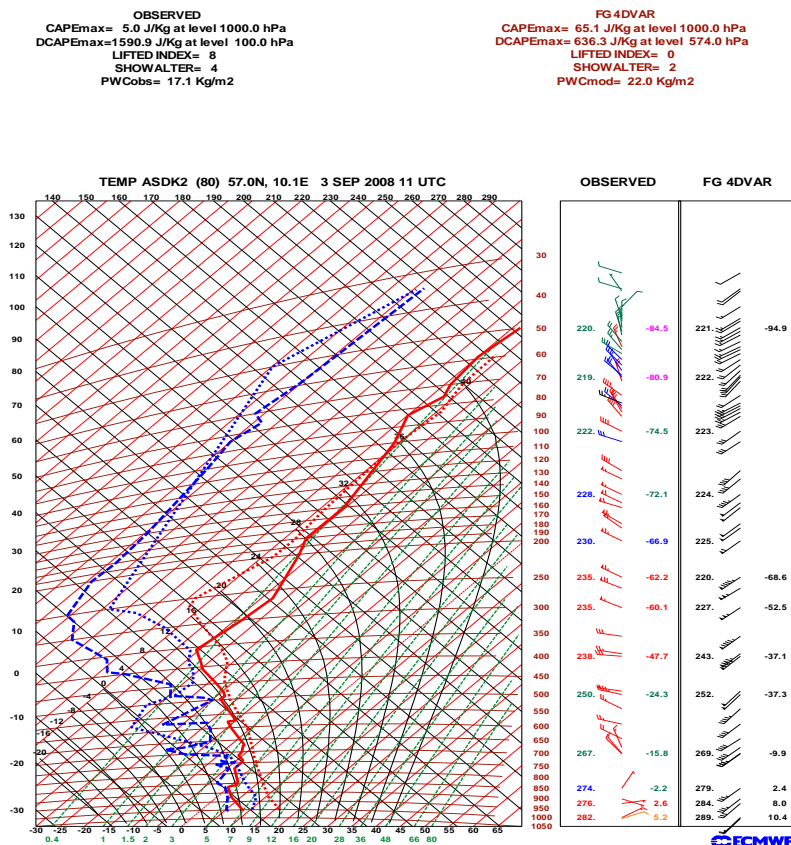


Figure 8.b

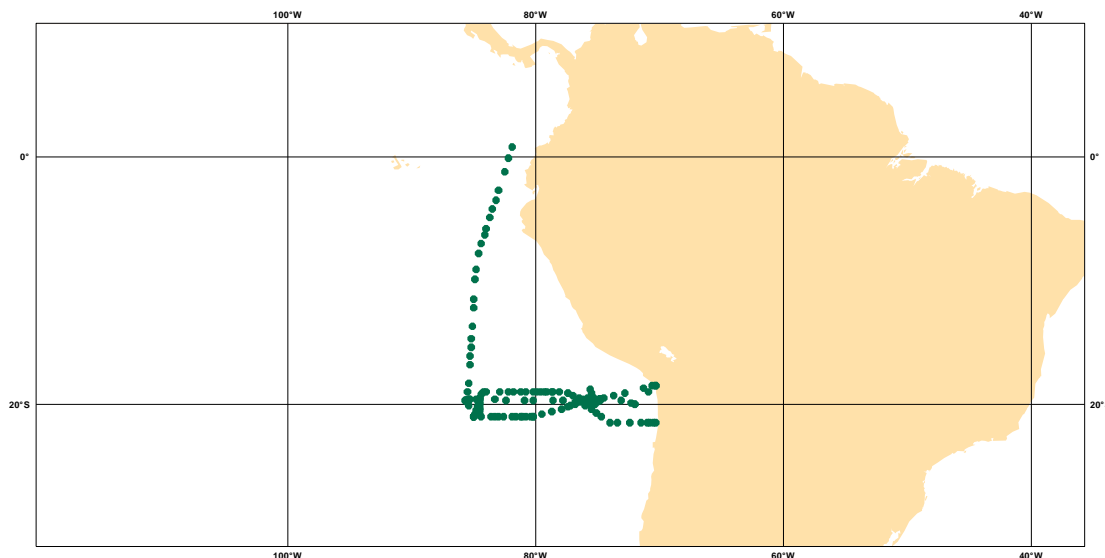
**ASDK2 tephigram 3 Sept 2008 11 UTC. An erroneous positioned report partially used in ECMWF 4DVAR**  
**Red full line: Observed temperature profile**  
**Dotted red lines: FG temperature profile**  
**Dashed blue line: Observed dew point profile**  
**Dotted blue line: FG dew point profile**

#### 4. ASAP data monitoring at ECMWF

We keep on monitoring ASAP data on a daily and monthly basis. The tephigrams and track charts included in this report are examples of the daily monitoring of ASAP reports. One example of the daily monitoring is shown in figures 9.a and 9.b. In November 2008, ASAP unit WTEC produced 116 reports in the tropical Pacific as part of VOCALS (VAMOS Ocean Cloud Atmosphere Land Study). Figure 9.b shows a tephigram of one of the ascents comparing the observed profiles and those from the model background fields.

The time series shown in figures 10 to 14 contain temperature and wind statistics computed every 6 hours from 1 January to 31 December 2008. Comparing these time series with daily values to those of 2007 there are no remarkable changes in quality for all monitored parameters. Figures 15 and 16 show composite statistics regarding wind speed and relative humidity. The statistics have been computed by stratifying the samples into Japanese and not Japanese ASAP. Again, in comparison to 2007, similar statistics shows no deterioration in the data quality.

# ASAP WTEC 1 OCT-30 NOV 2008



OBS: 166 (21/ 440 levels rejected WIND/TEMP ELEMENTS)



Figure 9.a

## Tracks WTEC October-November 2008

**OBSERVED**  
 CAPEmax= 71.1 J/Kg at level 1014.0 hPa  
 DCAPEmax=1434.0 J/Kg at level 500.0 hPa  
 LIFTED INDEX= 15  
 SHOWALTER= 30  
 PWCobs= 16.3 Kg/m2

**FG 4DVAR**  
 CAPEmax= 4.8 J/Kg at level 1012.0 hPa  
 DCAPEmax=1498.1 J/Kg at level 500.0 hPa  
 LIFTED INDEX= 16  
 SHOWALTER= 1  
 PWCmod= 15.5 Kg/m2

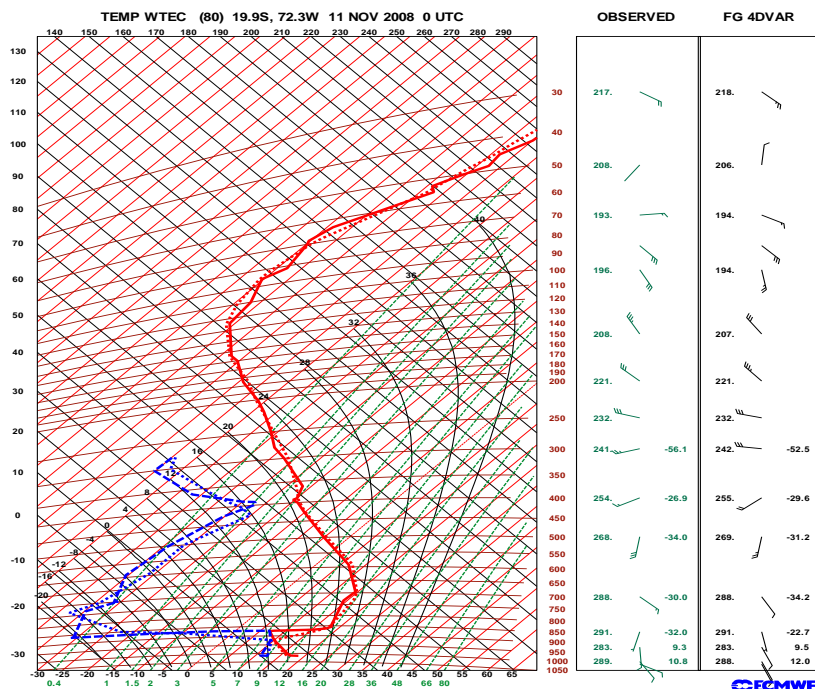
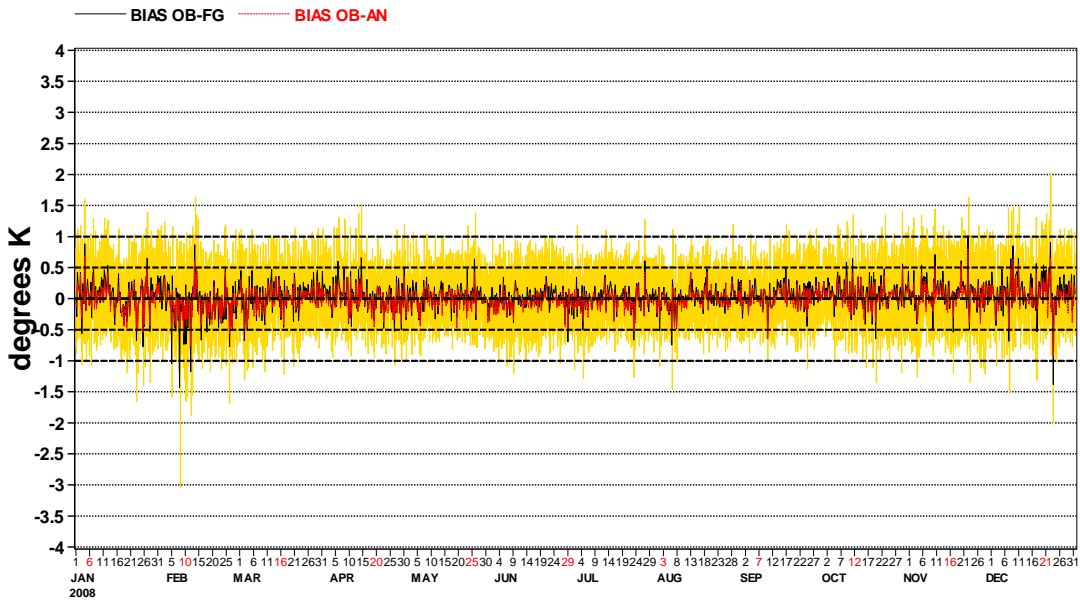


Figure 9.b

## Tephigram WTEC 11 November 2008 00 UTC

Red full line: Observed temperature profile  
 Dotted red lines: FG temperature profile  
 Dashed blue line: Observed dew point profile  
 Dotted blue line: FG dew point profile

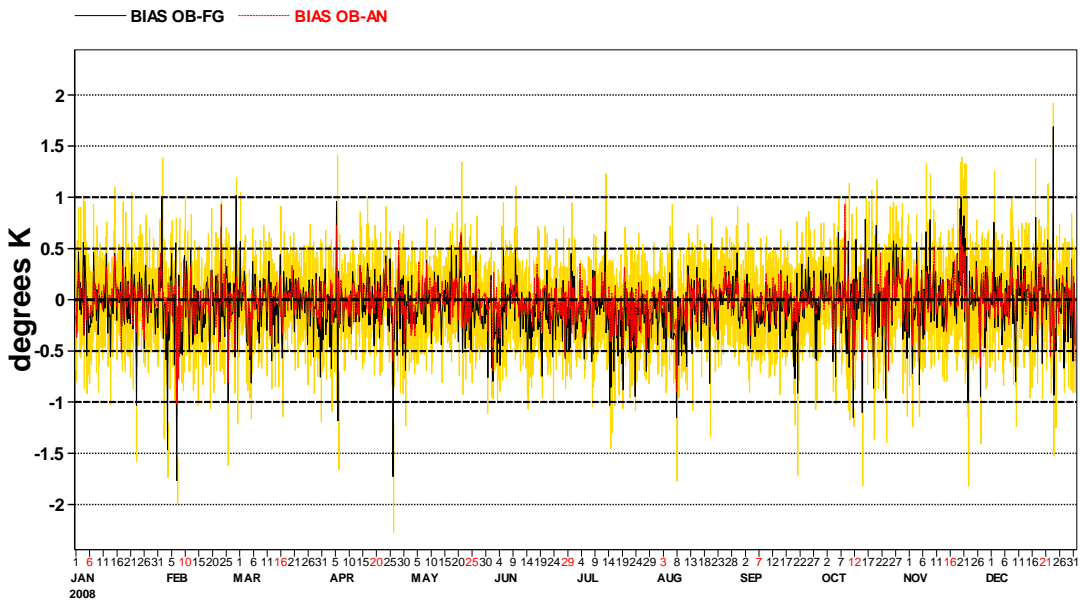
## ASAP temperature used data above 400 hPa



ECMWF

**Figure 10**  
ASAP temperature statistics time series. The vertical bars are the Std OB-FG  
Vertical yellow bars: Std OB-FG

## ASAP temperature used data 700-400 hPa



ECMWF

**Figure 11**  
ASAP temperature statistics time series. The vertical bars are the Std OB-FG  
Vertical yellow bars: Std OB-FG

## ASAP humidity used data 700-400 hPa

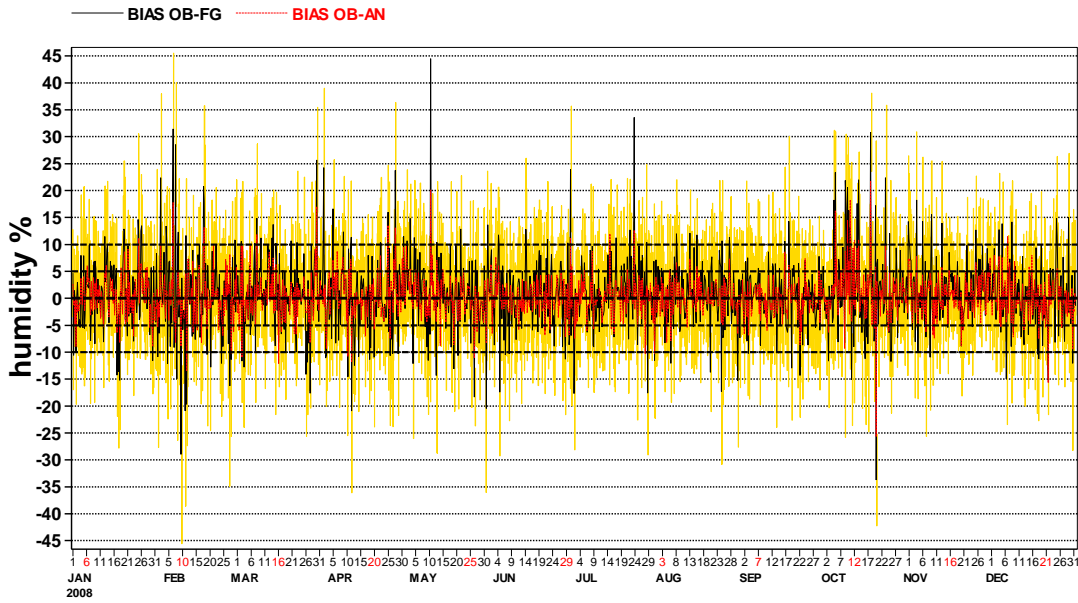


Figure 12

ASAP temperature statistics time series. The vertical bars are the Std OB-FG  
Vertical yellow bars: Std OB-FG

## ASAP wind used data 700-400 hPa

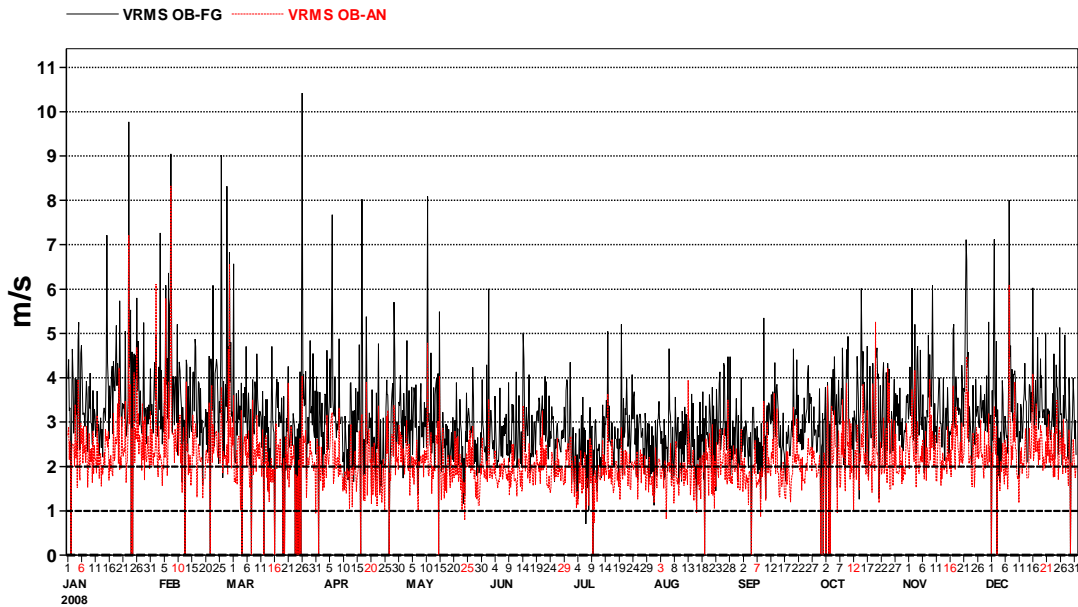
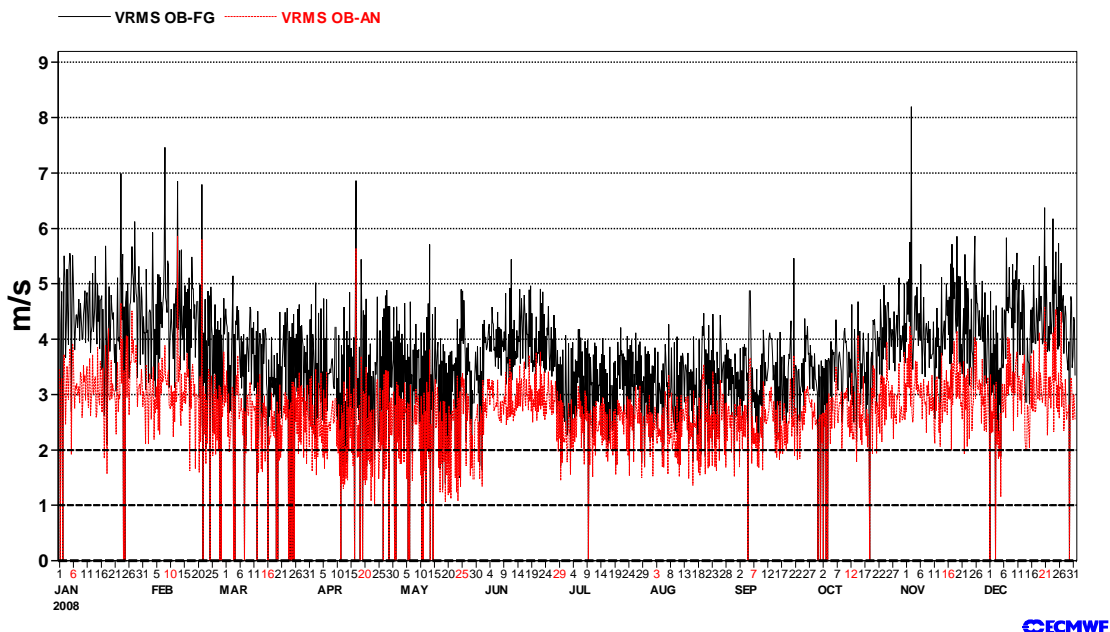


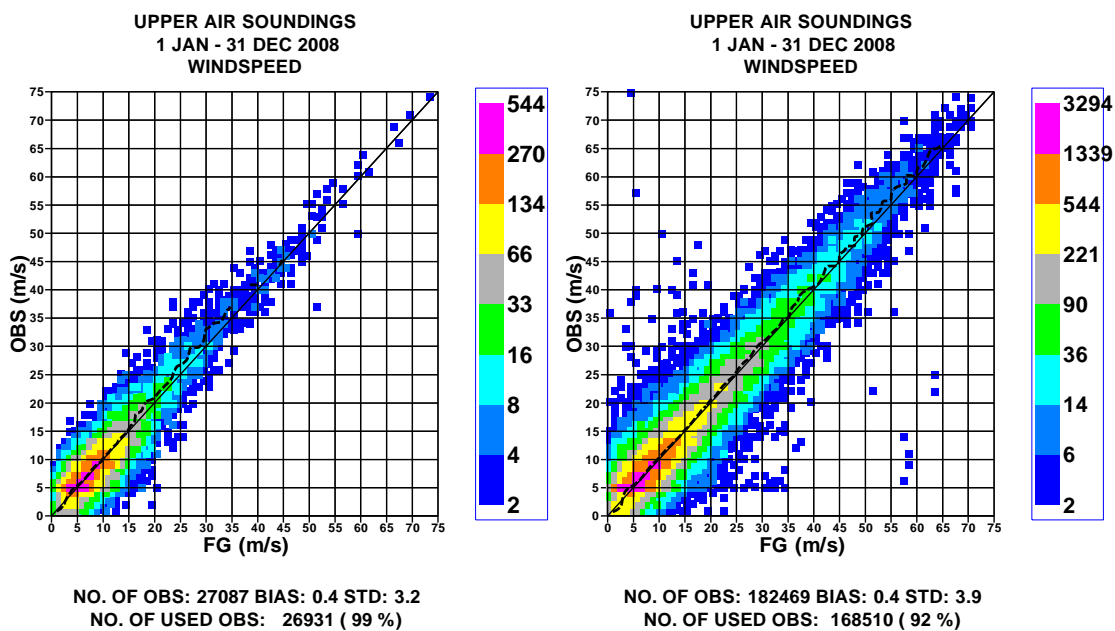
Figure 13

ASAP wind vector difference statistics time series

# ASAP wind used data above 400 hPa



**Figure 14**  
ASAP wind vector difference statistics time series

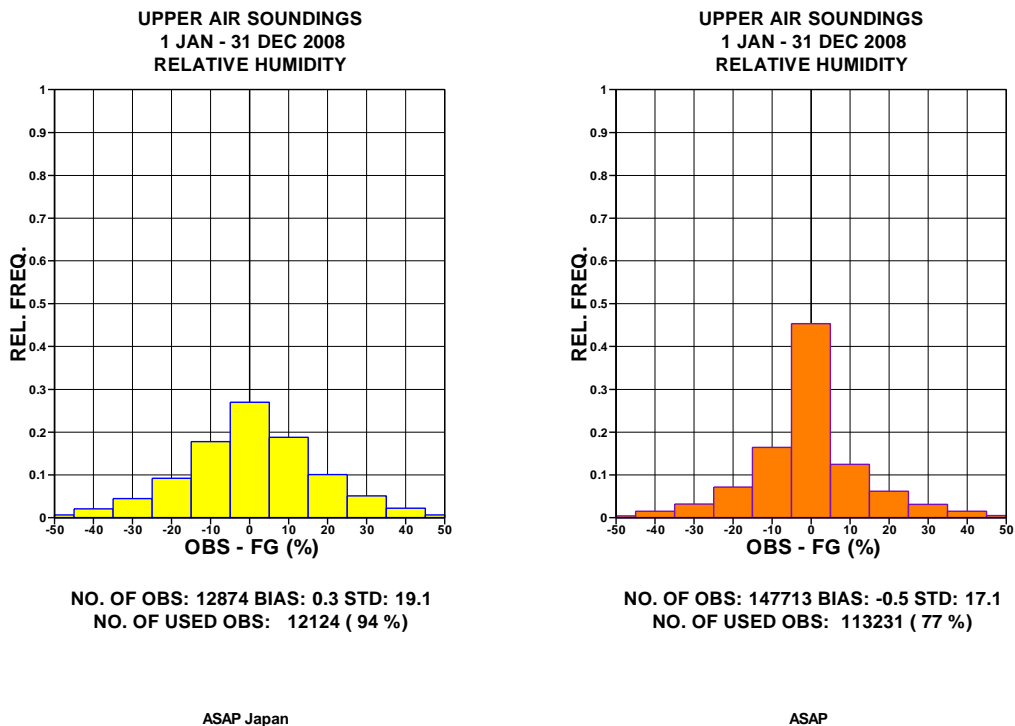


ASAP Japan

ASAP

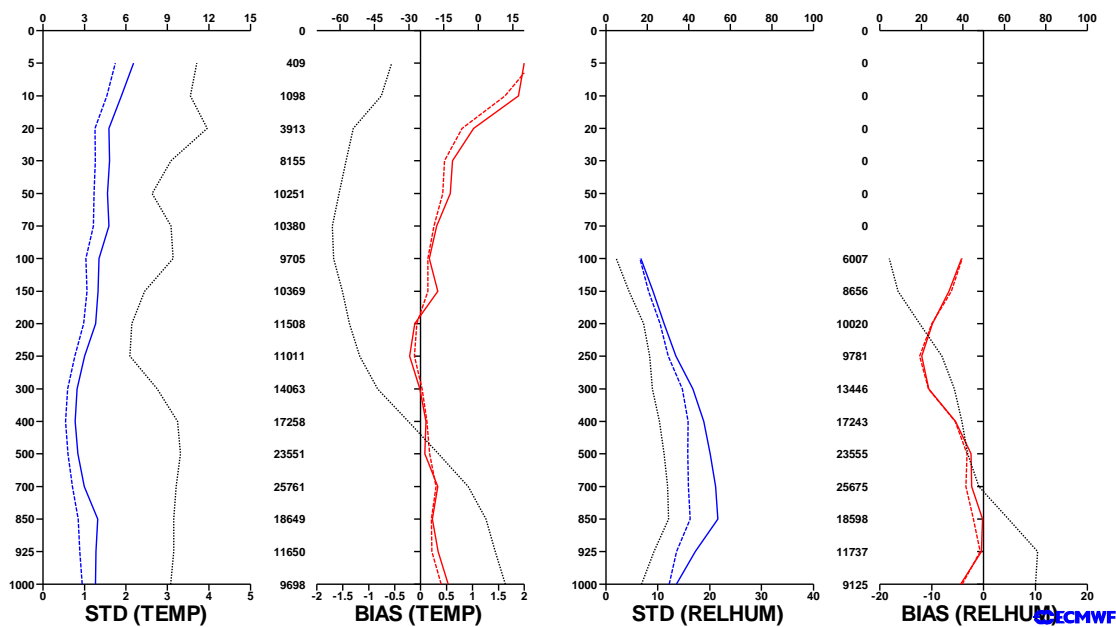
CECMWF

**Figure 15**  
ASAP wind speed statistics



**Figure 16**  
ASAP relative humidity statistics

ASAP used data  
ASAP not Japan  
1 JAN-31 DEC 2008  
90S-180W/90N-180E  
00/06/12/18 UTC uncorrected data combined



**Figure 17**  
ASAP temperature and humidity vertical statistics: not Japanese ASAP

ASAP used data  
 ASAP not Japan  
 1 JAN-31 DEC 2008  
 90S-180W/90N-180E  
 00/06/12/18 UTC uncorrected data combined

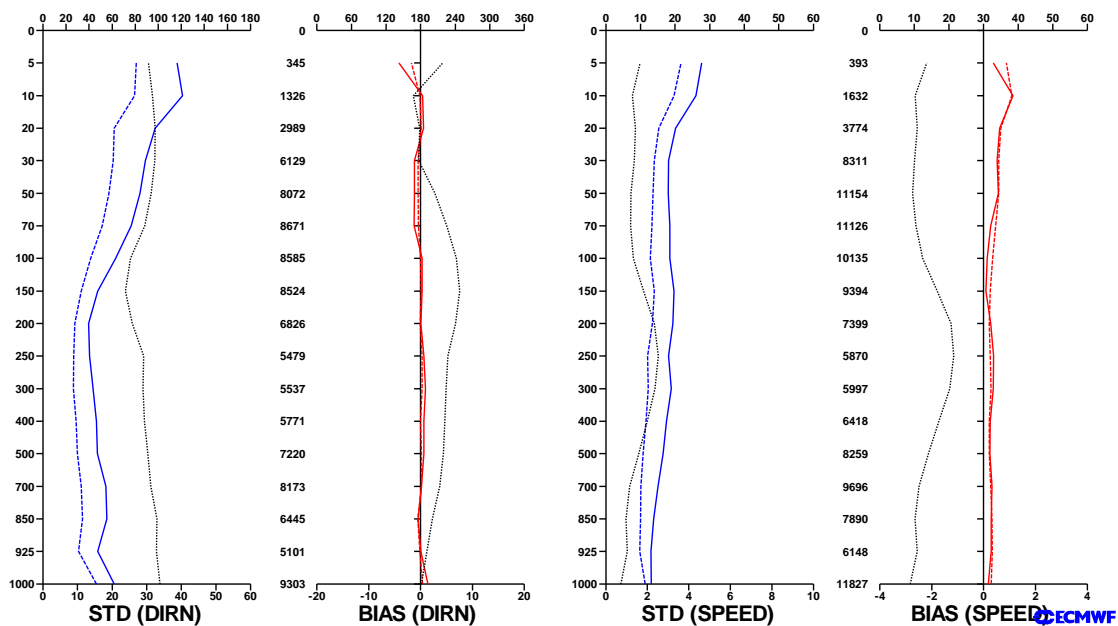


Figure 18

ASAP wind speed and direction vertical statistics: not Japanese ASAP

ASAP used data  
 ASAP Japan  
 1 JAN-31 DEC 2008  
 90S-180W/90N-180E  
 00/06/12/18 UTC uncorrected data combined

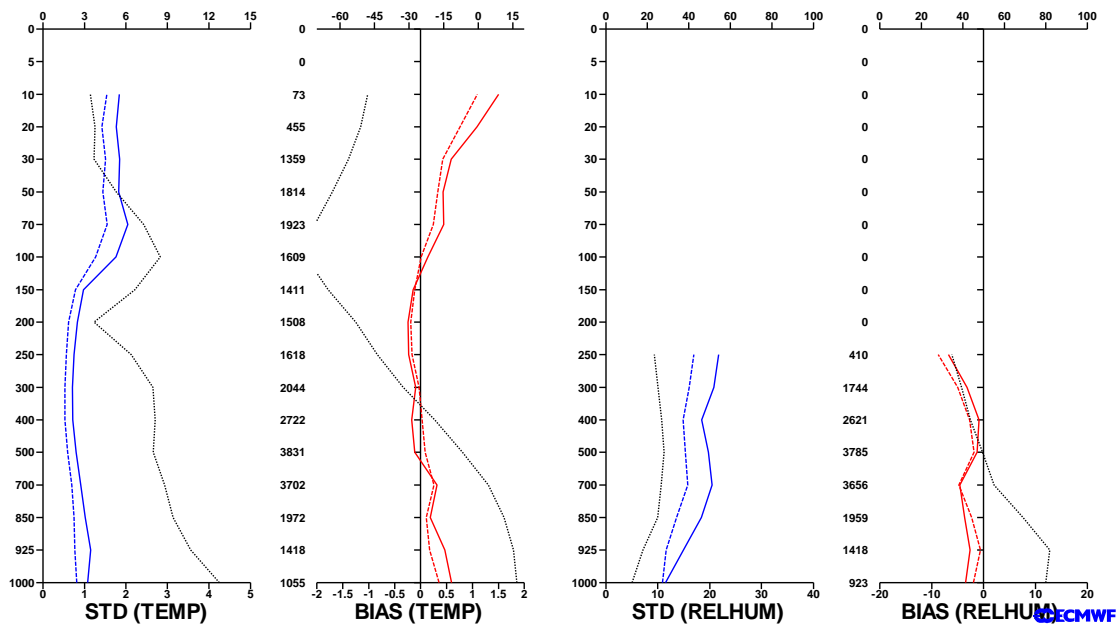


Figure 19

ASAP temperature and humidity vertical statistics: Japanese ASAP

ASAP used data  
 ASAP Japan  
 1 JAN-31 DEC 2008  
 90S-180W/90N-180E  
 00/06/12/18 UTC uncorrected data combined

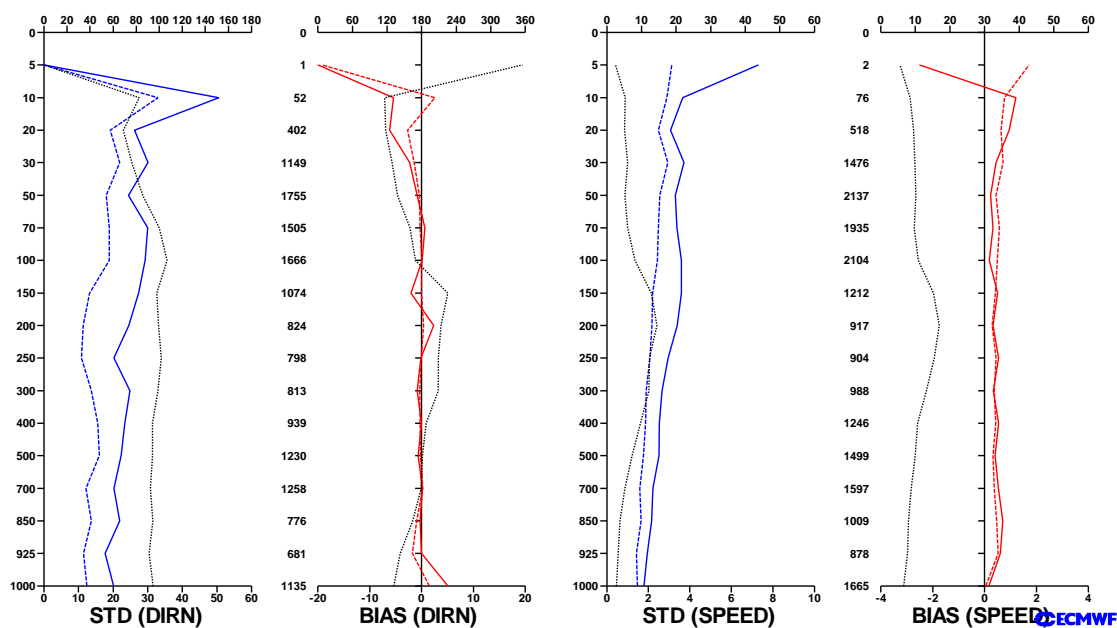


Figure 20

ASAP wind speed and direction vertical statistics: Japanese ASAP

Finally, figures 17 to 20 show composite vertical statistics for the whole year 2008. The vertical statistics show good quality data obtained in areas where high vertical resolution data with good quality is important for the NWP models.

## 5. Conclusions:

- The number of ASAP reports received at ECMWF in 2008 show a slight reduction compared to 2007.
- The percentage of ascents reaching 100 hPa back to values of around 95% in the second half of 2008.
- The number of corrupted call-signs reduced in 2008.
- The problem of wrongly located reports is still there although less severe than in 2007. This problem is absent in the Japanese ASAP.
- The quality of the ASAP data has continued to be good.



TABLE 1: ASAP reports received at ECMWF January-December 2007 at 500 hPa

ID	TEMPERATURE					WIND				
	00	06	12	18	TOTAL	00	06	12	18	TOTAL
ALEX	0	0	1	0	1	0	0	1	0	1
ASAP9	0	0	7	0	7	0	0	7	0	7
ASBG1	1	0	1	1	3	1	0	1	0	2
ASDE1	87	19	85	93	284	87	19	85	93	284
ASDE2	1	11	201	0	213	1	11	200	0	212
ASDE3	111	1	93	88	293	109	1	93	87	290
ASDE4	121	2	124	86	333	108	2	108	73	291
ASDE7	0	0	4	1	5	0	0	4	1	5
ASDE8	0	1	1	0	2	0	1	1	0	2
ASDE9	0	1	36	3	40	0	1	35	3	39
ASDK1	91	27	105	27	250	78	24	71	23	196
ASDK2	46	12	54	12	124	41	10	48	10	109
ASES1	0	0	4	0	4	0	0	5	0	5
ASEU1	97	1	98	85	281	97	1	98	84	280
ASEU2	83	0	72	61	216	83	0	71	60	214
ASEU3	64	7	62	68	201	64	6	61	68	199
ASEU4	56	9	59	49	173	56	9	59	49	173
ASEU5	121	3	125	51	300	119	3	124	51	297
ASFR1	105	1	100	0	206	105	1	100	0	206
ASFR2	78	0	91	0	169	78	0	91	0	169
ASGB1	74	0	86	74	234	62	0	75	64	201
ASIS1	4	1	11	1	17	3	1	11	1	16
DBLK	24	67	263	3	357	24	67	263	3	357
EBUQ	11	0	117	1	129	11	0	117	1	129
FQFL	6	0	8	0	14	6	0	8	0	14
FQFL/	22	0	27	0	49	22	0	27	0	49
FQFM	6	0	6	0	12	6	0	6	0	12
FQFM/	28	0	29	0	57	28	0	29	0	57
JCCX	43	15	46	15	119	43	15	46	15	119
JDWX	43	0	44	0	87	43	0	44	0	87
JGQH	92	0	91	0	183	92	0	91	0	183
JIVB	28	16	36	16	96	28	16	35	16	95
JNSR	1	6	3	3	13	1	6	3	3	13
LDWR	351	339	341	344	1375	333	321	319	320	1293
LFPW	1	0	0	0	1	1	0	0	0	1
OXGN2	70	17	65	18	170	55	13	34	8	110
OXTS2	21	12	19	11	63	15	10	13	6	44
RAN	0	0	0	0	0	0	0	0	0	0
S3539	0	0	0	0	0	0	0	0	0	0
SHIP	2	6	3	5	16	2	3	3	3	11
V2BD9	1	0	1	0	2	1	0	1	0	2
V2XM	16	0	21	0	37	16	0	22	0	38
WTEC	0	0	0	0	0	0	0	0	0	0
XXX	1	0	3	0	4	1	0	3	0	4
ZSAF	33	1	37	1	72	32	1	36	1	70
	1940	575	2580	1117	6212	1852	542	2449	1043	5886

TABLE 2: ASAP reports received at ECMWF January-December 2008 at 500 hPa

ID	TEMPERATURE					WIND				
	00	06	12	18	TOTAL	00	06	12	18	TOTAL
ARGU	3	1	1	0	5	3	1	1	0	5
ASDE1	110	17	103	37	267	110	17	103	37	267
ASDE2	1	4	216	2	223	1	4	216	2	223
ASDE3	95	5	115	24	239	94	5	115	24	238
ASDE4	129	0	120	7	256	118	0	109	3	230
ASDE9	0	1	55	1	57	0	1	54	1	56
ASDK1	125	22	126	27	300	117	21	113	26	277
ASDK2	98	29	115	40	282	91	26	104	38	259
ASES1	0	0	115	0	115	0	0	113	0	113
ASEU1	80	4	91	29	204	80	4	91	28	203
ASEU2	57	3	53	17	130	57	3	53	17	130
ASEU3	39	12	38	14	103	38	12	36	14	100
ASEU4	87	6	84	13	190	76	5	74	13	168
ASEU5	91	9	119	19	238	87	9	119	19	234
ASEU9	0	0	1	0	1	0	0	1	0	1
ASFR1	111	1	115	0	227	111	1	115	0	227
ASFR2	140	0	131	0	271	140	0	131	0	271
ASGB1	85	3	88	22	198	80	3	83	21	187
DBLK	42	50	221	40	353	42	50	221	40	353
JCCX	41	5	36	5	87	41	5	36	5	87
JDWX	14	0	14	0	28	14	0	14	0	28
JGQH	35	0	36	0	71	35	0	36	0	71
JIVB	29	1	29	2	61	29	1	29	2	61
JNSR	103	52	102	59	316	103	52	102	59	316
KNORR	0	0	1	1	2	0	0	0	1	1
LDWR	351	335	342	341	1369	346	321	329	326	1322
SHIP	1	0	1	4	6	1	0	1	3	5
UFTA	1	0	1	0	2	2	0	1	0	3
WTEC	34	34	30	36	134	34	34	30	36	134
XXX	1	0	10	0	11	1	0	10	0	11
ZSAF	37	0	23	0	60	37	0	23	0	60
	1940	594	2532	740	5806	1888	575	2463	715	5641

**TABLE 3: ASAP wrong positions detected January-December 2008**

ID:ASDE3

Date	Lat	Lon	Speed (*)
2008-02-14 23: 0:00	43.7	-20.9 -->	34.1 Km/hr
2008-02-15 05: 0:00	36.2	-4.0 -->	277.4 Km/hr ←
2008-02-15 23: 0:00	40.3	-29.4 -->	33.3 Km/hr
2008-02-16 11: 0:00	36.2	-16.3 -->	102.6 Km/hr ←
2008-07-25 11: 0:00	46.0	-48.0 -->	27.6 Km/hr
2008-07-25 17: 0:00	47.1	46.0 -->	1198.2 Km/hr ←
2008-08-13 11: 0:00	39.6	-70.0 -->	25.3 Km/hr
2008-08-13 23: 0:00	37.8	73.1 -->	1035.0 Km/hr ←
2008-08-23 23: 0:00	30.5	-79.5 -->	1.8 Km/hr
2008-08-24 11: 0:00	32.8	77.2 -->	1236.2 Km/hr ←

ID:ASDE4

Date	Lat	Lon	Speed (*)
2008-01-04 23: 0:00	21.0	-54.0 -->	25.3 Km/hr
2008-01-05 11: 0:00	19.0	57.0 -->	966.7 Km/hr ←

ID:ASDK2

Date	Lat	Lon	Speed (*)
2008-04-01 11: 0:00	61.0	-48.7 -->	8.7 Km/hr
2008-04-01 17: 0:00	58.4	-30.8 -->	174.2 Km/hr ←
2008-04-05 11: 0:00	58.4	-30.8 -->	13.3 Km/hr
2008-04-05 23: 0:00	60.4	-18.2 -->	62.3 Km/hr ←
2008-04-06 11: 0:00	58.4	-30.8 -->	62.3 Km/hr
2008-04-06 23: 0:00	59.9	-6.8 -->	114.9 Km/hr ←
2008-06-15 17: 0:00	59.6	-3.1 -->	27.6 Km/hr
2008-06-15 23: 0:00	58.4	-30.8 -->	265.3 Km/hr ←
2008-08-26 05: 0:00	60.1	-45.3 -->	12.0 Km/hr
2008-08-26 11: 0:00	57.0	10.1 -->	538.8 Km/hr ←
2008-09-01 17: 0:00	63.7	-51.9 -->	7.6 Km/hr
2008-09-02 11: 0:00	57.0	10.1 -->	193.9 Km/hr ←
2008-09-02 17: 0:00	60.2	-45.8 -->	543.0 Km/hr
2008-09-03 11: 0:00	57.0	10.1 -->	181.0 Km/hr ←
2008-09-03 17: 0:00	60.3	-38.0 -->	467.8 Km/hr
2008-09-03 23: 0:00	57.0	10.1 -->	467.8 Km/hr ←
2008-09-25 11: 0:00	58.9	-25.1 -->	27.8 Km/hr
2008-09-25 23: 0:00	57.0	10.1 -->	174.0 Km/hr ←
2008-11-05 11: 0:00	61.7	-49.7 -->	2.0 Km/hr
2008-11-06 05: 0:00	57.0	10.1 -->	190.5 Km/hr ←
2008-11-08 23: 0:00	59.5	-12.7 -->	24.5 Km/hr
2008-11-09 11: 0:00	57.0	10.1 -->	113.6 Km/hr ←
2008-11-25 23: 0:00	60.5	-48.1 -->	0.3 Km/hr
2008-11-26 11: 0:00	57.0	10.1 -->	281.6 Km/hr ←
2008-11-30 05: 0:00	59.3	-1.6 -->	27.5 Km/hr
2008-11-30 11: 0:00	57.0	10.1 -->	122.1 Km/hr ←
2008-12-07 11: 0:00	61.3	-27.5 -->	19.2 Km/hr
2008-12-07 23: 0:00	57.0	10.1 -->	183.1 Km/hr ←
2008-12-08 11: 0:00	57.0	10.1 -->	0.0 Km/hr ←
2008-12-09 11: 0:00	59.9	-44.7 -->	27.8 Km/hr
2008-12-09 17: 0:00	57.0	10.1 -->	534.1 Km/hr ←

ID:ASES1

Date	Lat	Lon	Speed (*)
2008-11-20 11: 0:00	18.1	-16.3 -->	9.3 Km/hr
2008-11-22 11: 0:00	20.0	17.0 -->	73.0 Km/hr ←

ID:DBLK

Date	Lat	Lon	Speed (*)
2008-03-04 11: 0:00	-70.6	-8.1 -->	0.0 Km/hr

DMCG-III/Doc. III-3.3, Appendix A, p. 17

2008-03-04 13: 0:00 90.0 180.0 --> 12979.7 Km/hr ←

ID:LDWR

Date	Lat	Lon	Speed (*)
2008-10-14 18: 0:00	65.6	2.0 -->	5.6 Km/hr
2008-10-15 00: 0:00	59.9	2.2 -->	105.6 Km/hr ←
2008-12-01 00: 0:00	65.9	1.9 -->	2.0 Km/hr
2008-12-01 06: 0:00	59.9	1.6 -->	111.2 Km/hr ←

ID:WTEC

Date	Lat	Lon	Speed (*)
2008-11-21 20: 0:00	-21.0	-85.0 -->	0.0 Km/hr
2008-11-22 00: 0:00	-18.5	-70.3 -->	390.8 Km/hr ←
2008-11-24 20: 0:00	-21.0	-82.6 -->	10.4 Km/hr
2008-11-25 00: 0:00	-18.5	-70.3 -->	329.2 Km/hr ←

(\*) The speed is computed using two consecutive reports and assuming the shortest trajectory between them

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**APPENDIX B****END-TO-END REPORT OF THE ASAP DATA DISSEMINATION PERFORMANCE – 2009***(report submitted by Gérard Rey, ASAP Monitoring Centre – Operated by Météo France)***1. Introduction**

Météo-France is in charge of an end-to-end report of the ASAP data dissemination performance.

A quarterly report and an annual report have been provided in 2007 and 2008. The quarterly frequency is more appropriate to give to the ASAP operators an opportunity to correct quickly, difficulties in the data dissemination.

TEMP-SHIP messages are mainly received at LFPW (Toulouse) from EGRR (Exeter) and EDZW (Offenbach). Some messages are now received from three ships directly by e-mail.

The following information is available:

<b>Reception at LFPW</b>	<b>Broadcast by LFPW</b>
Call sign	Call sign
Header	Channel
Channel	Broadcast date
Reception date	Time lapse
Size	Broadcast size
Format	Recipient
Error	
Operator	

**2. List of call signs available in 2007 and 2008**

<b>Country</b>	<b>Call sign</b>	<b>Country</b>	<b>Call sign</b>
Denmark	ASDK01	Japan	JCCX
	ASDK02		JGQH
	OXGN2		JIVB
E-ASAP	ASEU01		JDWX
	ASEU02		JNSR
	ASEU03	Norway	LDWR
	ASEU04	South Africa	ZSAF
	ASEU05	Spain	ASES01
France	ASFR1	United Kingdom	ASGB01
	ASFR2	USA	WTEC
Germany	ASDE01	Iceland	ASIS01
	ASDE02	Australia	3FPI7
	ASDE03		
	ASDE04	Test	SHIP
	DBLK	Test	ASDE09

### 3. Global system performance

In 2007:

Month	Origin	Nb of messages received	Nb of messages in error	Percentage of messages in error	Nb of messages with operator action	Percentage of messages with operator action
	Offenbach	16818	36	0,21		
	Exeter	6552	19	0,29		
	Telex	256	243	not relevant		
	Email	4465	4465	100		
	Mariner	40	not relevant	not relevant		
	X25	3	not relevant	not relevant		
	Supervis	39	12	30,77		
	<b>Total</b>	28173	55	0,24	39	0,17

In 2008:

Month	Origin	Nb of messages received	Nb of messages in error	Percentage of messages in error	Nb of messages with operator action	Percentage of messages with operator action
	Offenbach	18686	10	0,05		
	Exeter	6724	49	0,73		
	Telex	0	0	not relevant		
	Email	2793	2793	100		
	Mariner	0	not relevant	not relevant		
	X25	1	not relevant	not relevant		
	Supervis	28	12	42,86		
	<b>Total</b>	28232	59	0,23	28	0,11

Remark: Email messages were excluded from the number of messages in error and from the relative percentage as values are regarded as not relevant. Percentage of messages in error is indicated as "not relevant" when corresponding values are not relevant, or the total amount of data is equal to zero.

## 4. Global result of the syntactic check for the messages for each call sign.

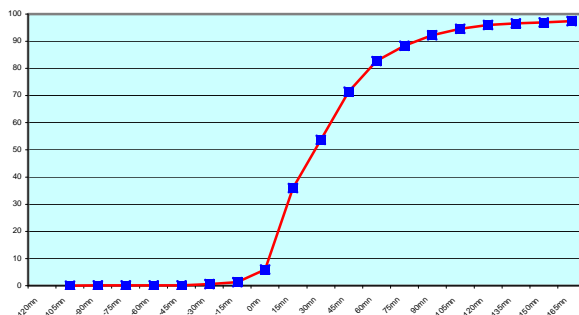
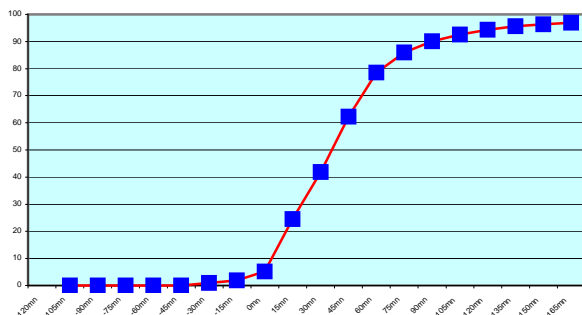
Call Sign	Nb of messages received		Nb of messages in error		Percentage of messages in error		Nb of messages with operator action		Percentage of messages with operator action	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
ASEU01	1108	797	2	0	0,18	0	0	0	0	0
ASEU02	804	518	2	0	0,25	0	0	0	0	0
ASEU03	778	429	0	0	0	0	7	0	0,9	0
ASEU04	718	778	8	0	1,11	0	4	0	0,56	0
ASEU05	1192	927	0	0	0	0	0	0	0	0
ASDE01	1149	1055	8	0	0,7	0	3	0	0,26	0
ASDE02	841	929	8	4	0,95	0,43	0	0	0	0
ASDE03	1172	1032	0	0	0	0	0	0	0	0
ASDE04	1353	1044	0	0	0	0	0	0	0	0
ASGB01	811	809	0	0	0	0	0	0	0	0
ASDK01	2009	2381	0	0	0	0	0	0	0	0
ASDK02	935	1119	0	0	0	0	0	0	0	0
ASFR1	1073	940	3	10	0,28	1,06	5	21	0,47	2,23
ASFR2	914	1083	4	0	0,44	0	6	1	0,66	0,09
ASES01	537	409	0	0	0	0	0	0	0	0
ASIS01	91	-	0	-	0	-	1	-	1,1	-
DBLK	1455	1461	4	0	0,27	0	0	0	0	0
OXGN2	644	-	0	-	0	-	0	-	0	-
LDWR	4142	5538	2	0	0,05	0	0	0	0	0
JCCX	339	326	0	0	0	0	0	0	0	0
JGQH	467	251	0	0	0	0	0	0	0	0
JIVB	349	118	0	0	0	0	0	0	0	0
JDWX	203	69	0	0	0	0	0	0	0	0
JNSR	65	1562	0	0	0	0	0	0	0	0
ZSAF	313	217	0	0	0	0	0	2	0	0,92
WTEC	21	34	13	14	61,9	41,18	0	0	0	0

**Remark:** Data transmitted through email displayed an error rate close to 100% due to email syntax and were thus regarded as not relevant and excluded from errors total amount.

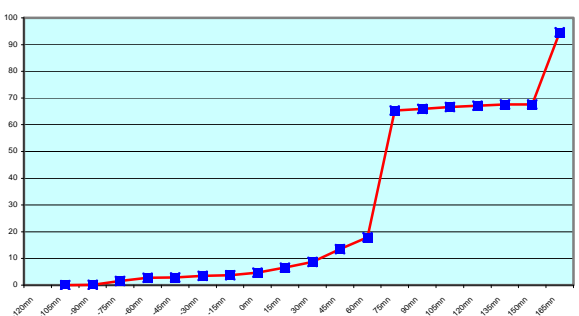
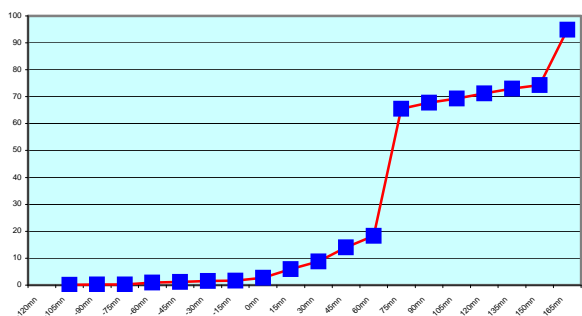
**5. Mean time before the integration of the messages in the GTS in Toulouse. HH is the synoptic hour of reference.**

2007

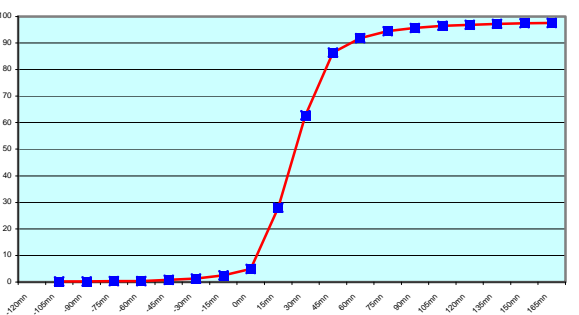
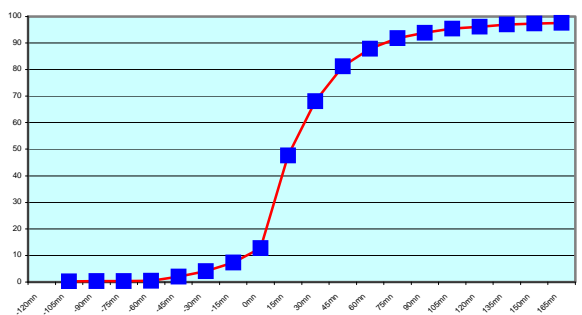
2008



Offenbach (16 818 and 18 686 reports)



Exeter (6 552 and 6 724 reports)

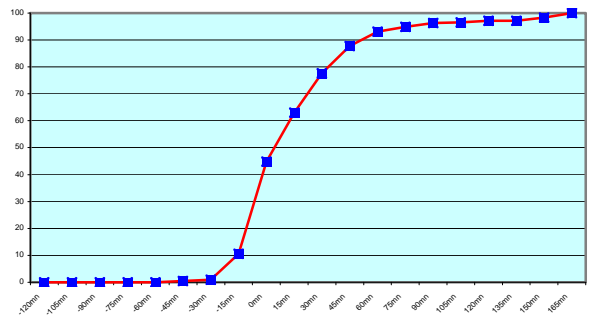
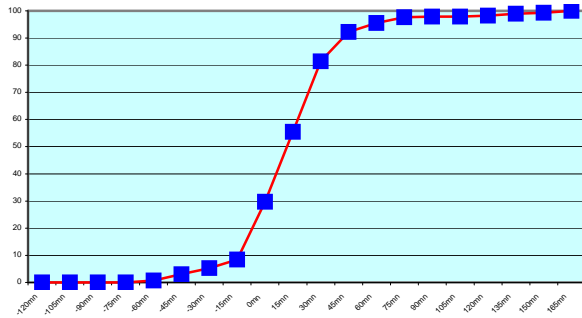


Email (4 465 and 2 793 reports)

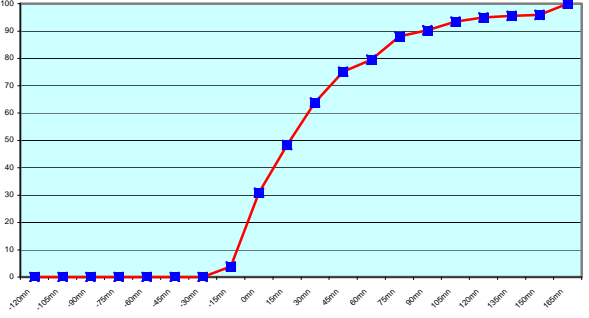
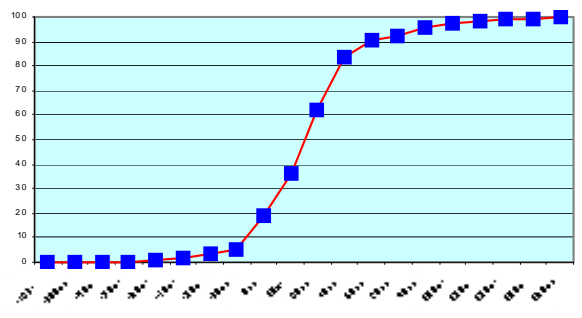


2007

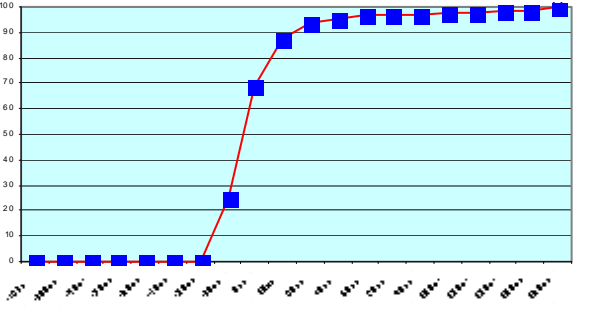
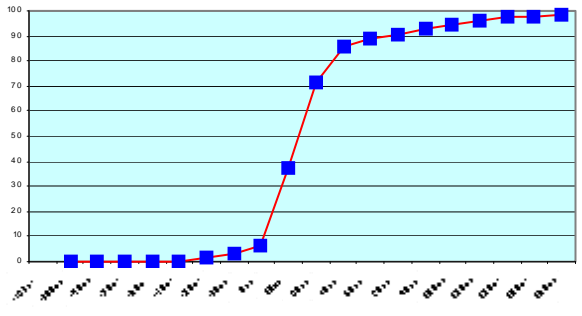
2008



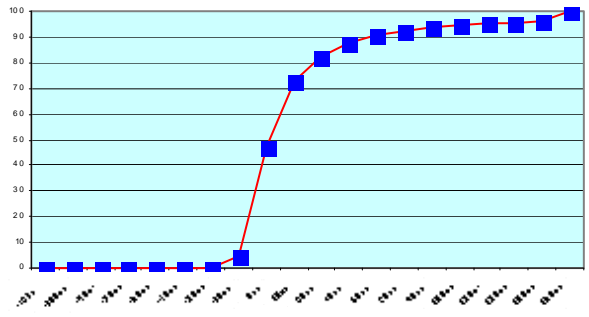
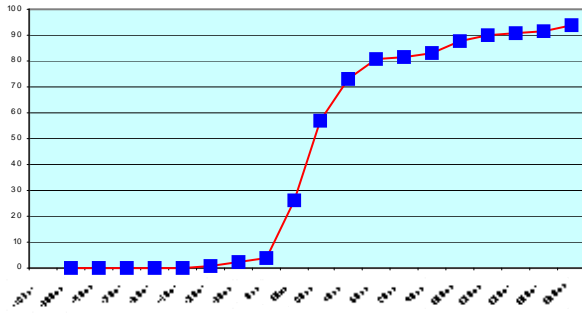
ASEU01 (1 808 and 797 reports)



ASEU02 (804 and 518 reports)

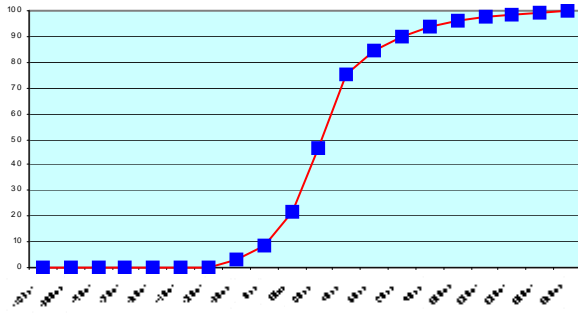


ASEU03 (778 and 429 reports)

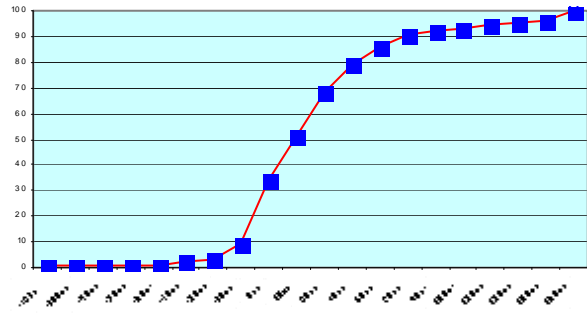


ASEU04 (718 and 778 reports)

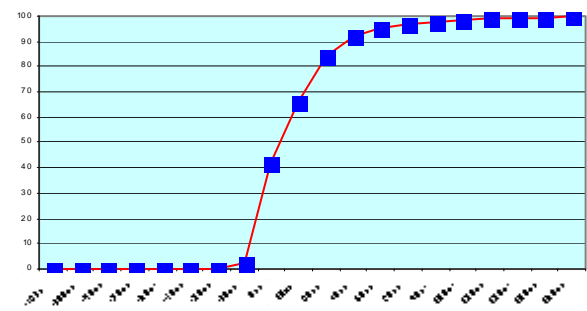
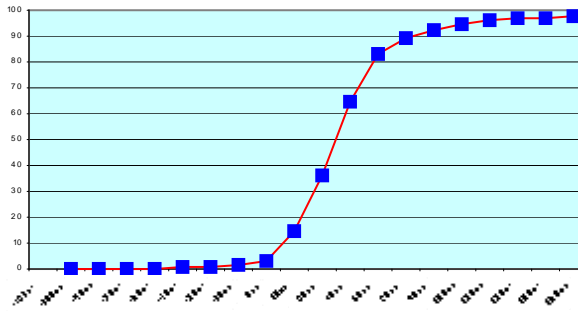
2007



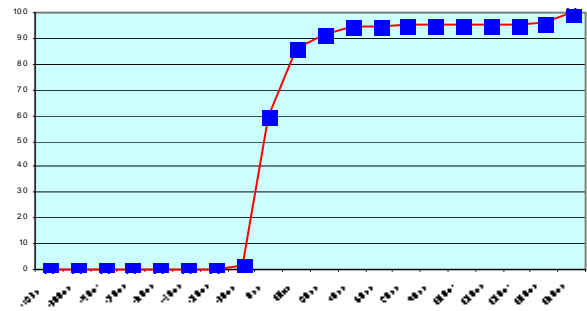
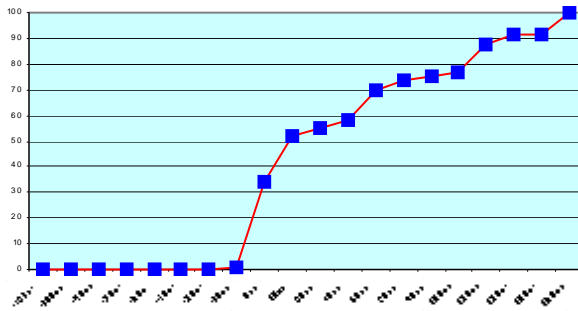
2008



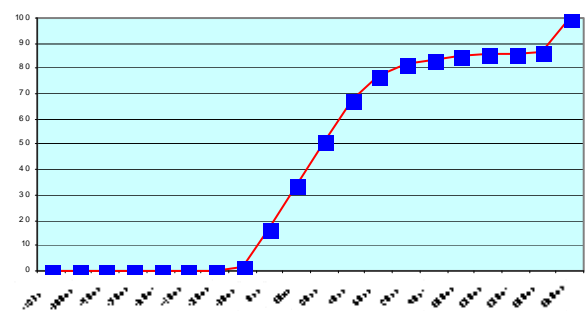
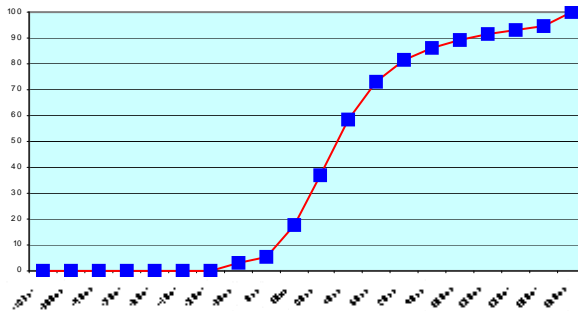
ASEU05 (1 192 and 927 reports)



ASDE01 (1 149 and 1 055 reports)

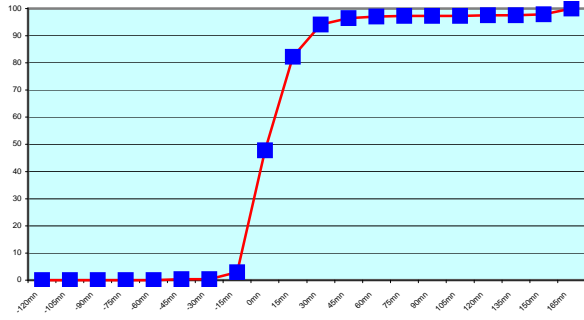


ASDE02 (841 and 929 reports)

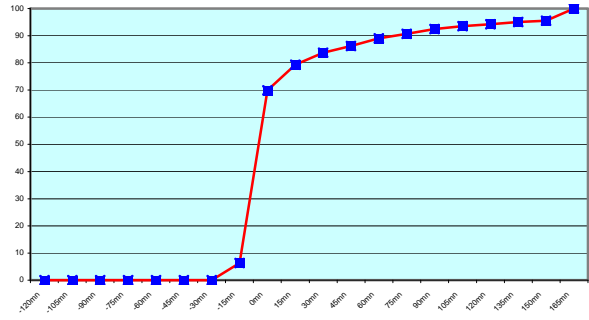


ASDE03 (1 172 and 1 032 reports)

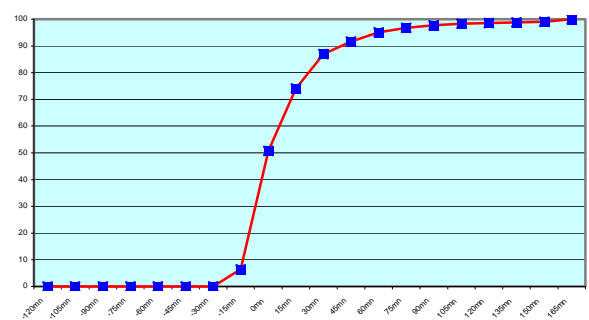
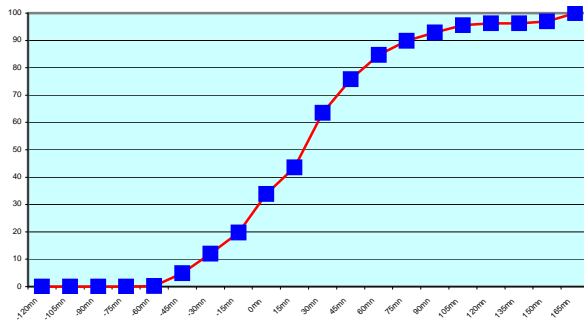
2007



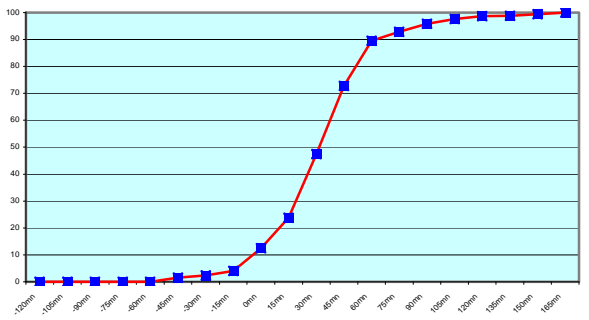
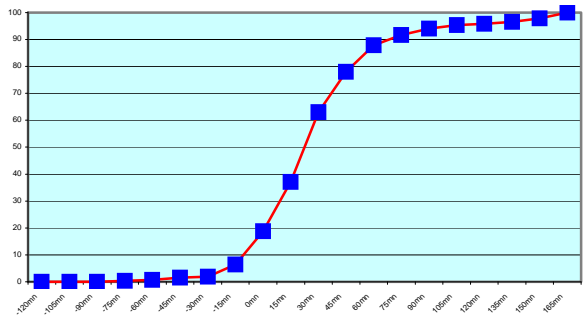
2008



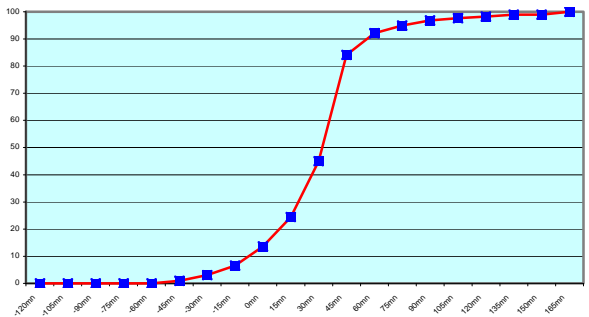
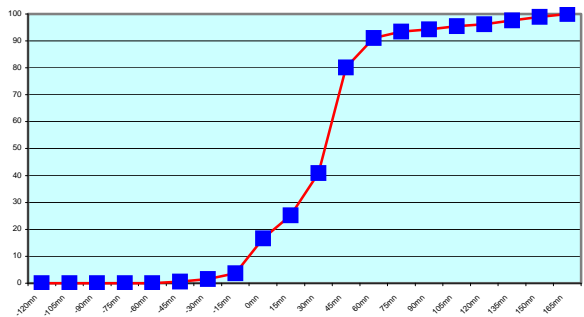
ASDE04 (1 353 and 1 044 reports)



ASGB01 (811 and 809 reports)

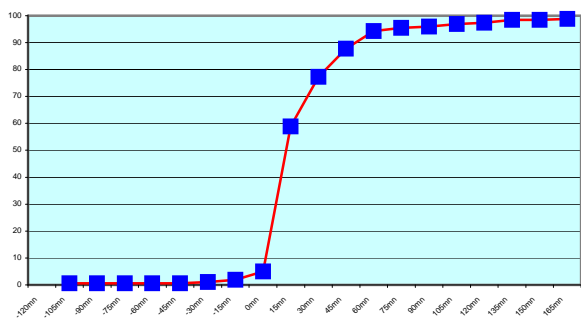


ASDK01 (2 009 and 2 381 reports)

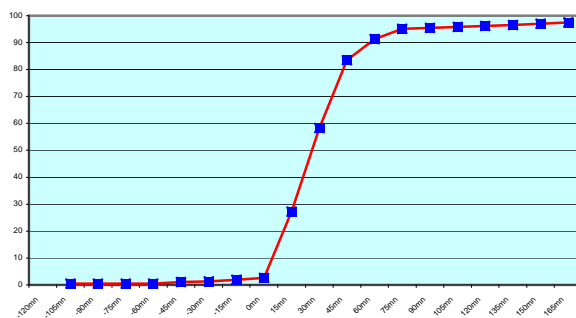


ASDK02 (935 and 1 119 reports)

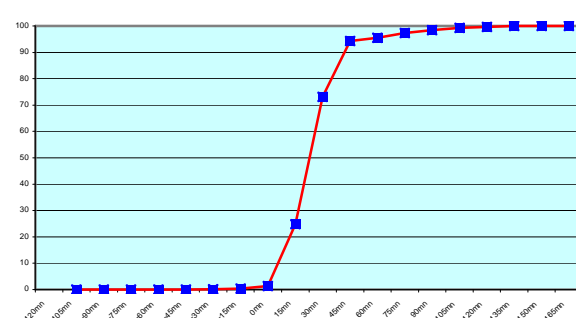
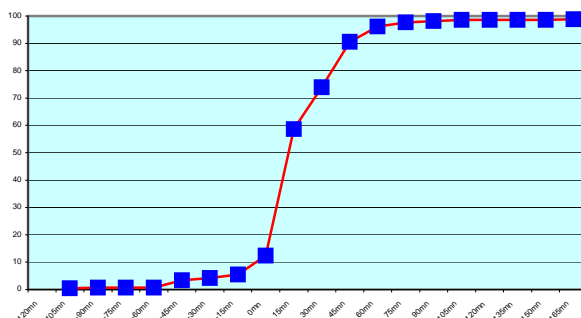
2007



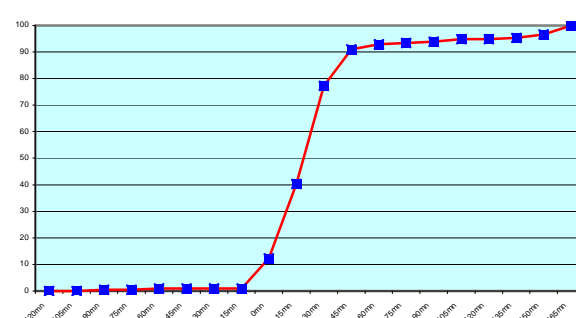
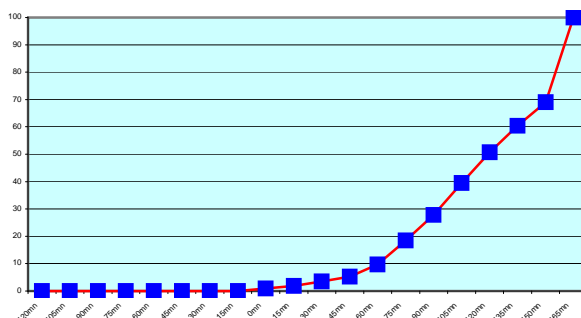
2008



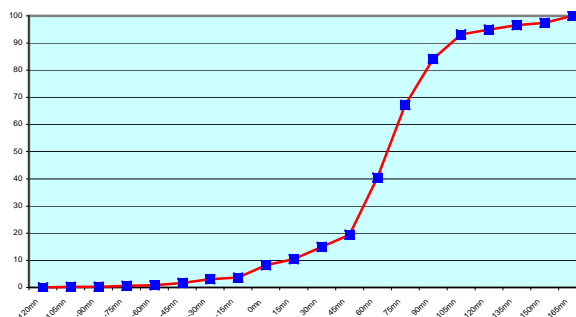
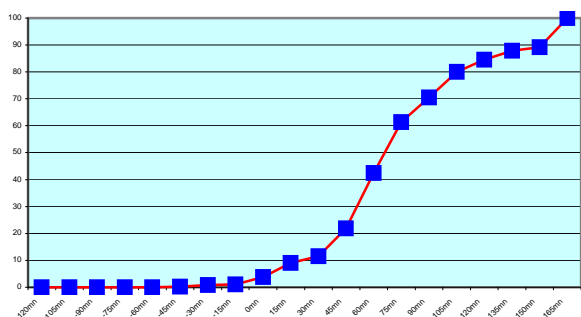
ASFR1 (1 073 and 940 reports)



ASFR2 (914 and 1 083 reports)

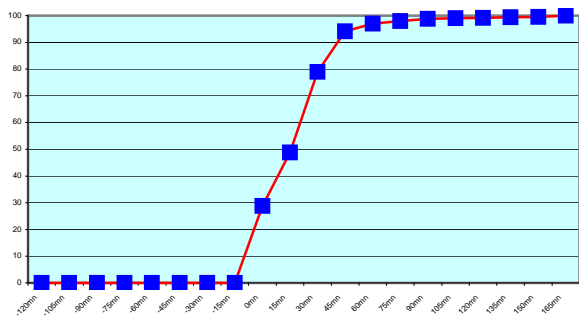


ASES01 (537 and 409 reports)

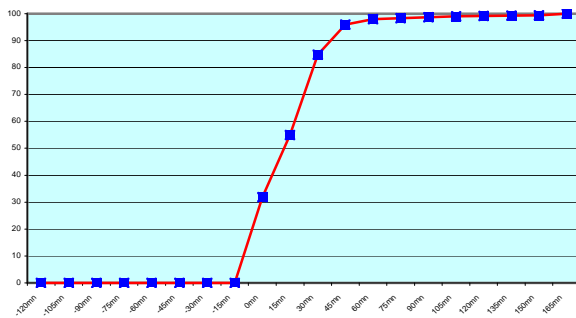


DBLK (1 455 and 1 461 reports)

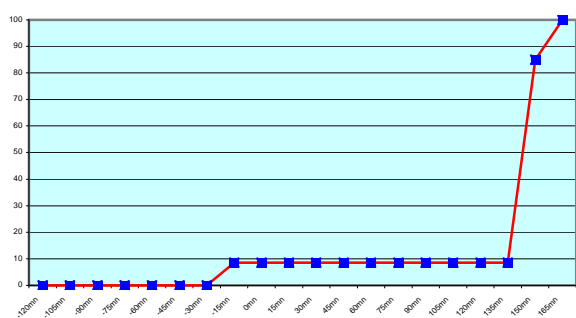
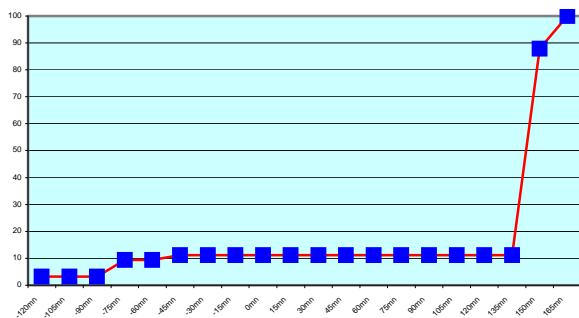
2007



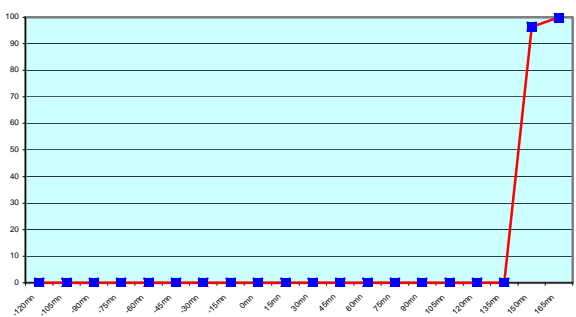
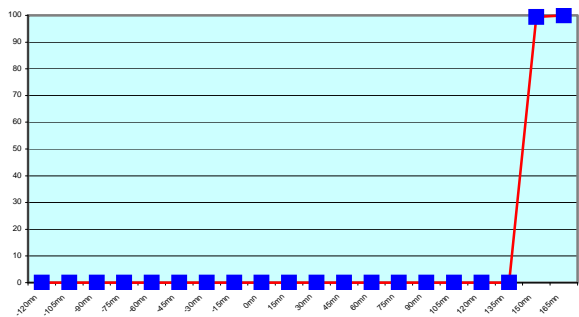
2008



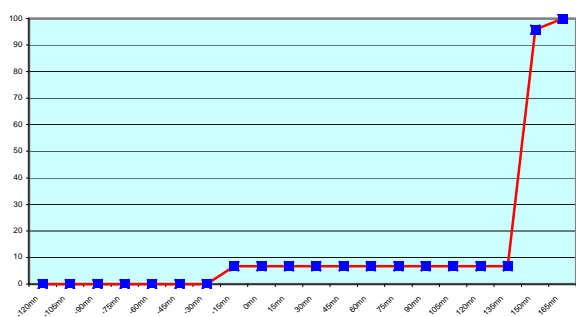
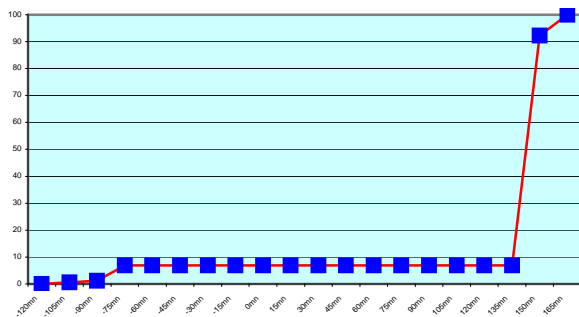
LDWR (4 142 and 5 538 reports)



JCCX (339 and 326 reports)

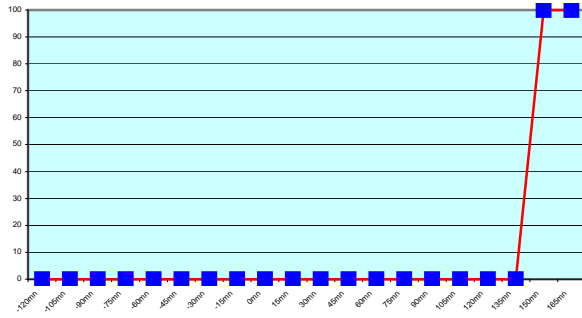


JGQH (467 and 251 reports)

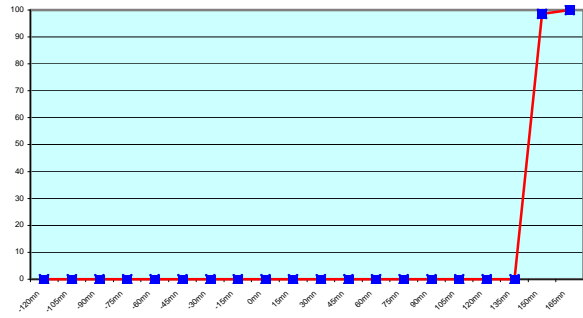


JIVB (349 and 251 reports)

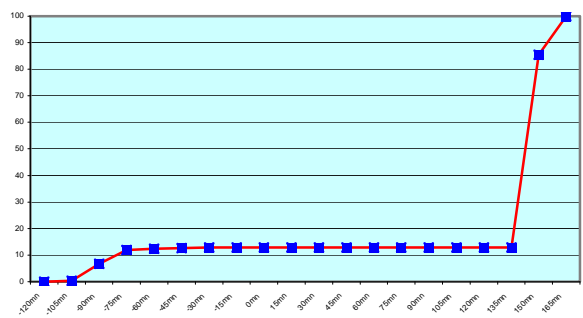
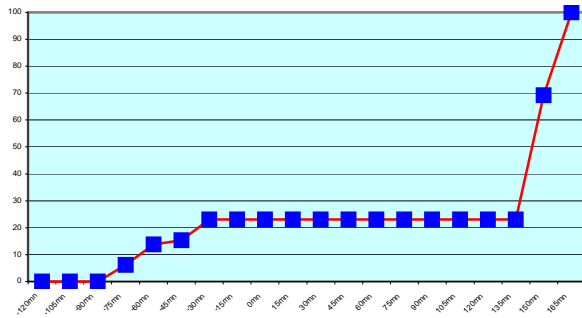
2007



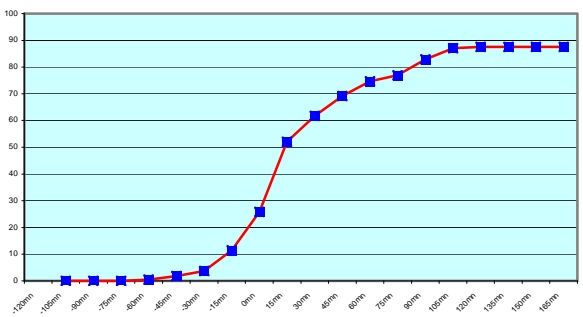
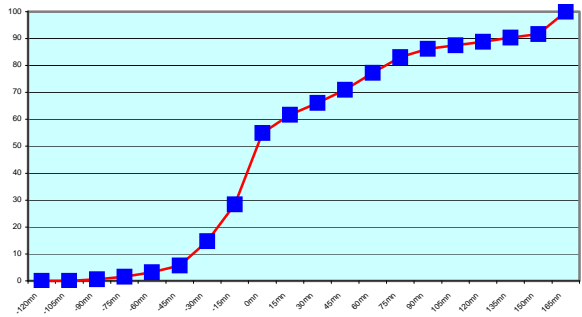
2008



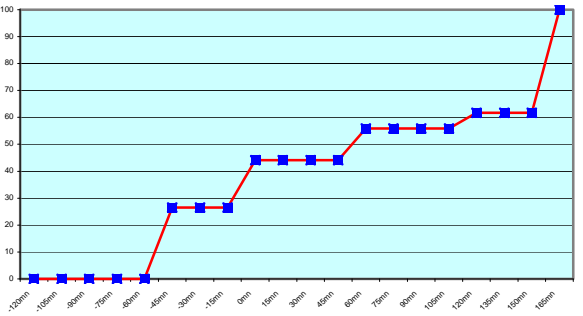
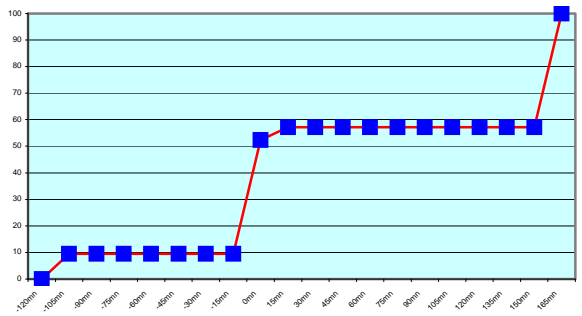
JDWX (203 and 69 reports)



JNSR (65 and 1 562 reports)

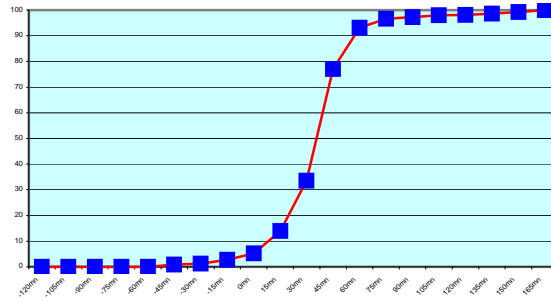


ZSAF (313 and 217 reports)

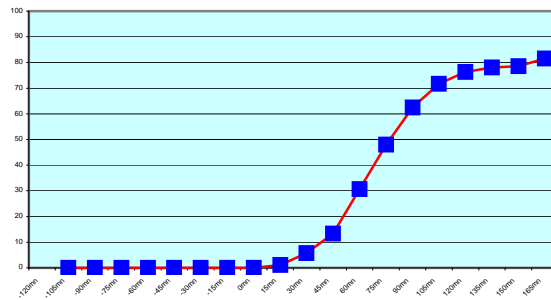


WTEC (21 and 34 reports)

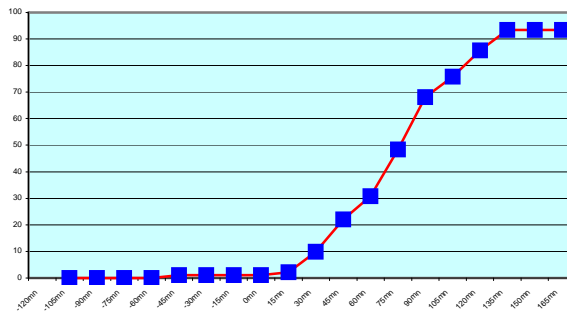
2007



OXGN2 (644 reports)



V2XM (173 reports)



ASIS01 (91 reports)

During 2008, Météo-France Toulouse received 7058 upper air message (TEMP) from ships and platform. This number of messages is similar to 2007's one.

The reports were received from 26 different call signs; two of them were test call signs. The quality of the ASAP reports was generally of a high standard, with only a small percentage of erroneous data.

A few corrupted call signs can be seen from time to time but with a frequency much lower than in 2007.

Japanese ships seems to follow a different procedure with an important shift between the sending of the message and the synoptic hour.

Some ships improved significantly their delay of transmission (visible on the charts above) from 2007 to 2008 : ASDE02, ASGB01, ASES01.

There is no significant degradation.