ECMWF Global Data Monitoring Report

March 2026

European Centre for Medium-Range Weather Forecasts
Europäisches Zentrum für mittelfristige Wettervorhersage
Centre européen pour les prévisions météorologiques à moyen terme

Contents

Summary of Revisions (in reverse order)

Revision 31 (Dec 25) – Due to decommissioning of NOAA-15 and NOAA-18 AMSU-A in 2025,
Figure 9.3 becomes Figure 8 (METOP-B ATOVS : AMSU-A)
Figure 9.2 becomes Figure 9 (METOP-C ATOVS : AMSU-A)
Removed Figure 9.1

Revision 30 (Nov 23) – Coverage charts for AIREP/AMDARs updated:
Added MODE-S and ADS-C to Figure 5 and Figure 18

Revision 29 (Dec 22) – Coverage charts for ATOVS AMSU-A updated:
METOP-C replaces Aqua-ATOVS (Figure 9.2)
METOP-B replaces METOP-ATOVS (Figure 9.3)
SATOB figures updated with METEOSAT-9, Dual-Metop,
METEOSAT-11, GOES-16, HIMAWARI-9, GOES-17 satellites

Revision 28 (Jun 15) – Monitoring of SYNOP and SYNOP-SHIPs now includes BUFR encoded
observations for those which were assimilated as well as
for those without TAC counterpart.

Revision 27 (Feb 15) – Selection criteria for SHIPs are modified as per
SOT-7/Doc.9.1.1.
Different criteria applied to Manual and Automatic SHIPs.

Revision 26 (Dec 14) – Coverage chart for ATOVS AMSU-A for Noaa_16 removed

Revision 25 (Mar 13) – Monitoring of Radiosondes and ASAPs now includes BUFR encoded
observations for those which were assimilated as well as
for those without TAC counterpart.
Tables 24 and 25 are also added to show the identifiers of
these BUFR observations separately.

Revision 24 (Aug 06) – North Atlantic Monitoring statistics replaced by
EUCOS Area Monitoring Statistics (tables 13 to 23).
Airep tables removed from this section.

Revision 23 (Dec 00) – Coverage charts for Noaa_14 MSU replaced by
ATOVS AMSU-A for Noaa_16.

Revision 22 (Aug 99) – Coverage charts for TOVS thickness 300-100
hPa replaced by (A)TOVS AMSU-A and MSU
(Noaa_15 and Noaa_14).

Revision 21 (May 99) – Monitoring statistics ceased for Noaa_11 as
satellite is no more available.

Revision 20 (Sep 98) – Changes to tables and annex to remove all
mention about data usage. Two more levels
(50 and 850 hPa) added to the COSNA statistics
for Sondes.

Revision 19 (Jul 98) – From June 29th, 1998 ECMWF model assimilates
temperature data instead of geopotential from

radiosondes. As a consequence the number of used geopotential data drops to zero in tables 7, 10, 13 and 15.

Revision 18 (Apr 98) - Changes to tables and annex to introduce the usage of accepted numbers and observations instead of precentage of rejection.

1 Introduction

The ECMWF global data monitoring report is a monthly publication intended to give an overview of the availability and quality of observations from the Global Observing System within the World Weather Watch of the World Meteorological Organisation. It should be recognised that the statistics given in this report refer to data as received at ECMWF in time for the appropriate analysis. The annex of the report gives further explanations of the methods applied to compile the statistics and on the reference used to establish the quality of observations.

The information presented on data quality is based on differences between observations and the values of the most recent ECMWF forecast ("first guess") of the same parameter. Depending on the time of the observation, the forecast range is between 9 and 15 hours. It should be recognised that although the quality of the first-guess is of a generally high standard this is only true to a limited extent in certain areas, such as the tropics and data-sparse areas of both northern and southern hemispheres. The data quality results should therefore be used with care when assessing the absolute quality of a particular observing platform. Other indicators such as long-term trends of station performance, particularly in comparison with nearby stations, can be more useful in this respect.

The global monitoring results presented in this report are meant to serve a wider meteorological community as well as to support special WMO programmes such as TOGA and EUCOS. The contents of the report may therefore be adapted for special requirements as necessary.

As recommended at the ninth session of the Commission for Basic Systems at Geneva 1988, lead centres have been appointed for each main type of observation which should liaise with the participating centres and co-ordinate all the results, inform the WMO Secretariat immediately of obvious problems, and produce every six months a consolidated list of observations of that particular type believed to be of low quality. The presently nominated centres are: RSMC Exeter for marine surface observations; RSMC ECMWF for radiosonde and pilot observations; WMC Washington for aircraft and satellite observations.

ECMWF produces this monthly report as part of its routine monitoring activity in order to facilitate the exchange of monitoring information. Tables are presented according to the CBS recommended standards for the exchange of monitoring results. Copies of the report will be provided to major GDPS centres participating in data monitoring activities as initiated and recommended at the ninth session of the Commission for Basic Systems in Geneva 1988, and to the WMO Secretariat and the International TOGA office in Geneva.

Any comments on the contents and the format of the report are welcome and should be addressed to:

ECMWF
Attn. Head of Evaluation Section
Shinfield Park
Reading, Berkshire, RG2 9AX
United Kingdom

2 Data summary - History of events

2.1 Radiosondes

The following is a list of land-based stations showing a change in reporting frequency (of 500 hPa geopotential) of at least 10 observations compared with the average over the previous 3 months. The number of reports received at ECMWF for the current and previous month is shown in addition to the observation time.

Ident	Time	Feb	Mar	Ident	Time	Feb	Mar
04360	(00)	28	17	41316	(00)	0	31
04360	(12)	27	16	43369	(12)	15	29
22008	(00)	28	2	48378	(00)	17	31
22008	(12)	28	1	48565	(00)	7	27
22217	(00)	28	2	48615	(12)	0	11
22217	(12)	28	1	74005	(12)	10	30
26038	(00)	16	2	82244	(00)	10	24
32477	(00)	28	1	94155	(00)	5	16
32618	(12)	28	0	-	-	-	-
34858	(00)	22	4	-	-	-	-
34858	(12)	23	1	-	-	-	-
40179	(00)	28	5	-	-	-	-
40179	(12)	27	9	-	-	-	-
40417	(00)	27	4	-	-	-	-
40417	(12)	28	12	-	-	-	-
40738	(12)	26	0	-	-	-	-
40766	(00)	16	0	-	-	-	-
40800	(00)	25	0	-	-	-	-
40809	(12)	26	0	-	-	-	-
40811	(12)	16	0	-	-	-	-
40841	(12)	27	0	-	-	-	-
40856	(00)	20	0	-	-	-	-
41217	(00)	28	0	-	-	-	-
41217	(12)	27	0	-	-	-	-
41256	(00)	27	7	-	-	-	-
42399	(00)	24	4	-	-	-	-
42492	(00)	17	0	-	-	-	-
42867	(00)	28	2	-	-	-	-
42867	(12)	24	2	-	-	-	-
42971	(00)	15	3	-	-	-	-
43014	(00)	27	11	-	-	-	-
43086	(00)	26	14	-	-	-	-
47741	(00)	29	16	-	-	-	-
48839	(00)	18	0	-	-	-	-
61024	(12)	28	12	-	-	-	-
72340	(00)	23	0	-	-	-	-
72340	(12)	24	0	-	-	-	-
72376	(12)	28	6	-	-	-	-
72451	(12)	28	7	-	-	-	-
72572	(12)	21	1	-	-	-	-
76225	(12)	26	9	-	-	-	-
78807	(00)	13	0	-	-	-	-
80259	(12)	27	0	-	-	-	-
82599	(00)	27	9	-	-	-	-
83208	(12)	27	11	-	-	-	-
98646	(00)	14	0	-	-	-	-
98646	(12)	13	0	-	-	-	-

2.2 Drifting Buoys

Surface pressure observations from **1177** drifting buoys were received during the month.

3 Global monitoring statistics

The following figures and tables provide information on both the availability and quality of various data types as received at ECMWF during the month. A brief description of each figure/table is given below. For a full explanation please refer to the Annex.

3.1 Data Availability

Figures 1-9 are global charts for each data type showing the average number of observations received in 24 hours in 5 degree boxes. The average daily number of observations (global) is also displayed with a breakdown, where appropriate, for each WMO region (figures 1, 3 and 4) and Ocean (figures 1-4).

Fig	Observation Type	Parameter	Level/Layer
1	SYNOP/SHIP	MSL Pressure	Surface
2	DRIFTER	MSL Pressure	Surface
3	TEMP	Geopotential	500 hPa
4	TEMP/PILOT	Wind	300 hPa
5	AIRCRAFT (AIREP/AMDAR etc.)	Wind	300-150 hPa
6	SATOB	Wind	400-150 hPa
7	SATOB	Wind	1000-700 hPa
9	TOVS (120 km) - NOAA14	Thickness	300-100 hPa

(Figure 1 includes data from fixed marine platforms e.g. moored buoys.)

3.2 Data Quality

Tables 1-8 contain lists of suspect stations in the format according to Recommendation 3 CBS-Ext(85).

Tab	Observation Type	Parameter	Level/Layer
1	SHIP	MSL Pressure	Surface
2	SHIP	Wind Speed	Surface
3	SHIP	Wind Direction	Surface
4	DRIFTER	MSL Pressure	Surface
5	DRIFTER	Wind Speed	Surface
6	DRIFTER	Wind Direction	Surface
7	TEMP	Geopotential	1000- 30 hPa
8	TEMP/PILOT	Wind	1000-100 hPa
9	TEMP/PILOT	Wind Direction	500-150 hPa

(SHIP tables include data from fixed marine platforms e.g. moored buoys.)

Figures 10-13 show the locations of suspect stations given in tables 7 and 8.

Fig	Observation Type	Parameter	Observation Time
10	TEMP	Geopotential	00 UTC
11	TEMP	Geopotential	12 UTC
12	TEMP/PILOT	Wind	00 UTC
13	TEMP/PILOT	Wind	12 UTC

Tables 10 and 11 provide quality statistics for all TEMPSHIPS and PILOTSHIPS received during the month.

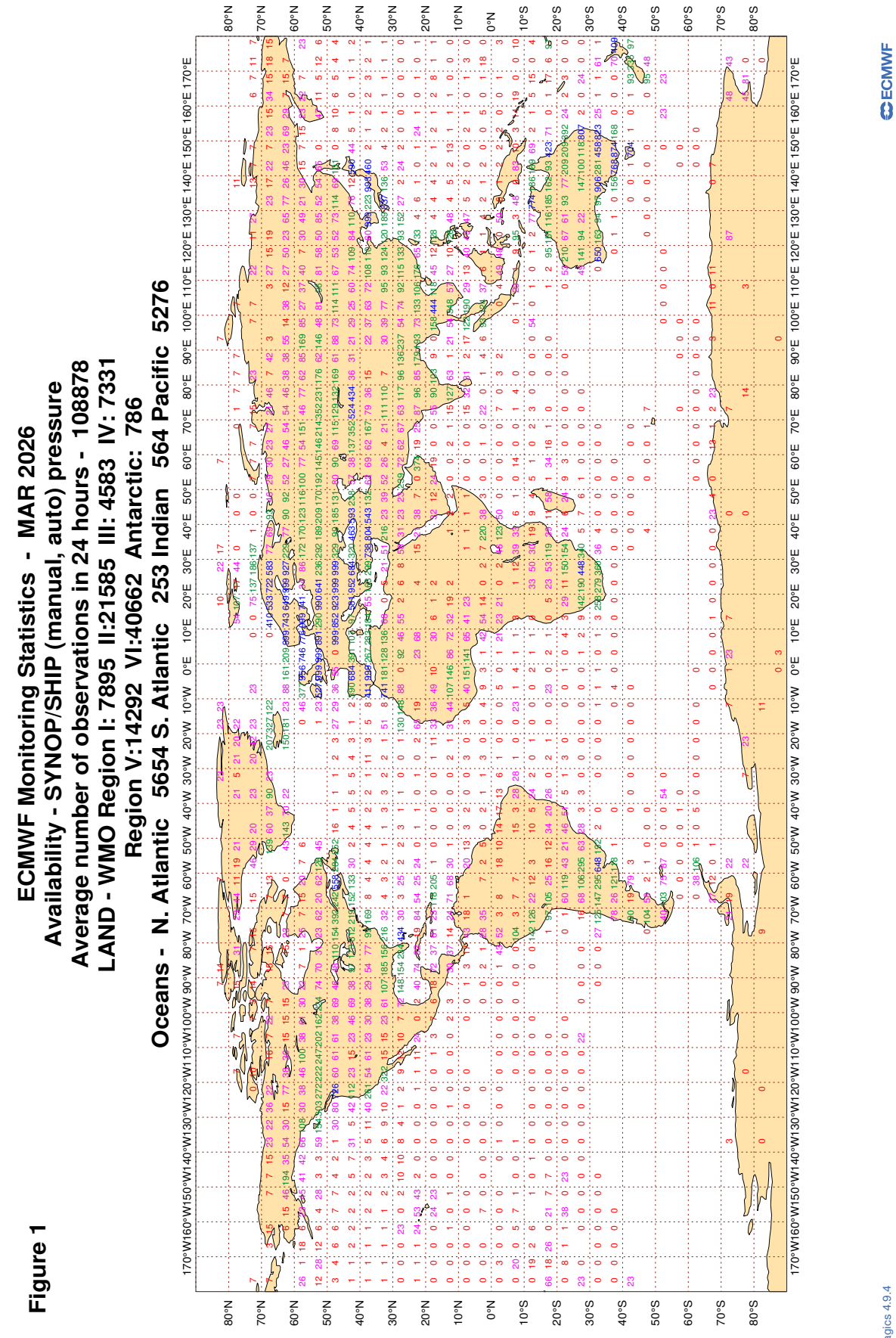
Tab	Parameter	Observation Time
10	Geopotential	00 and 12 UTC
11	Wind	00 and 12 UTC

Figures 14–18 show global charts of SATOB and aircraft wind statistics in the form of wind vectors averaged over 5 degree boxes.

Fig	Parameter	Level/Layer
14	SATOB - Mean observed wind	1000-700 hPa
15	SATOB - Mean observed wind	400-150 hPa
16	SATOB - Mean observed minus first-guess wind	1000-700 hPa
17	SATOB - Mean observed minus first-guess wind	400-150 hPa
18	AIRCRAFT WIND - Mean observed minus first-guess	300-150 hPa

Table 12 provides quality statistics of aircraft wind observations stratified by airline carrier.

3.2.1 Figure 1 - Availability - SYNOP PRESSURE



3.2.2 Figure 2 - Availability - DRIFTER PRESSURE

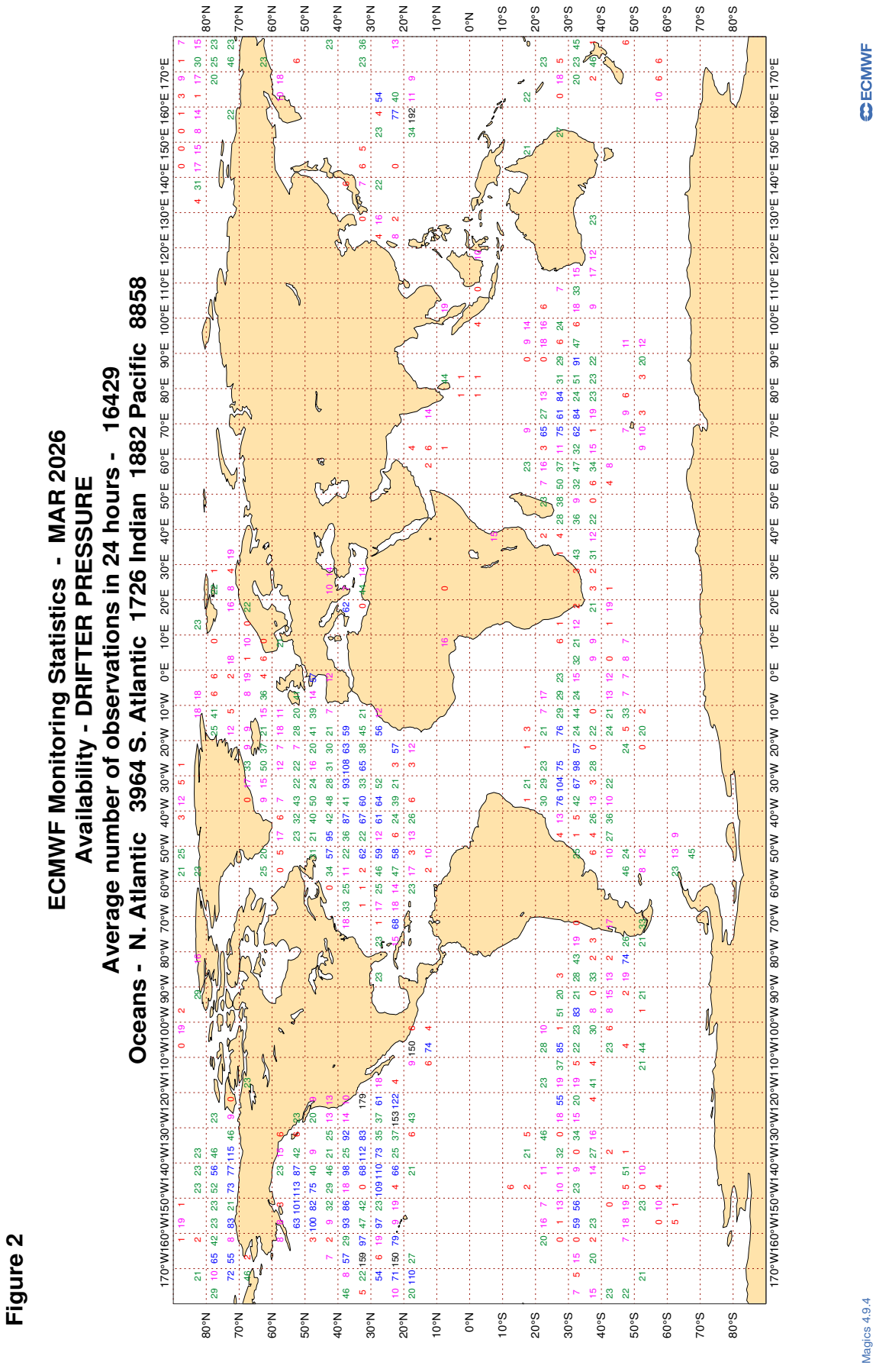


Figure 2

3.2.3 Figure 3 - Availability - TEMP 500 hPa geopotential

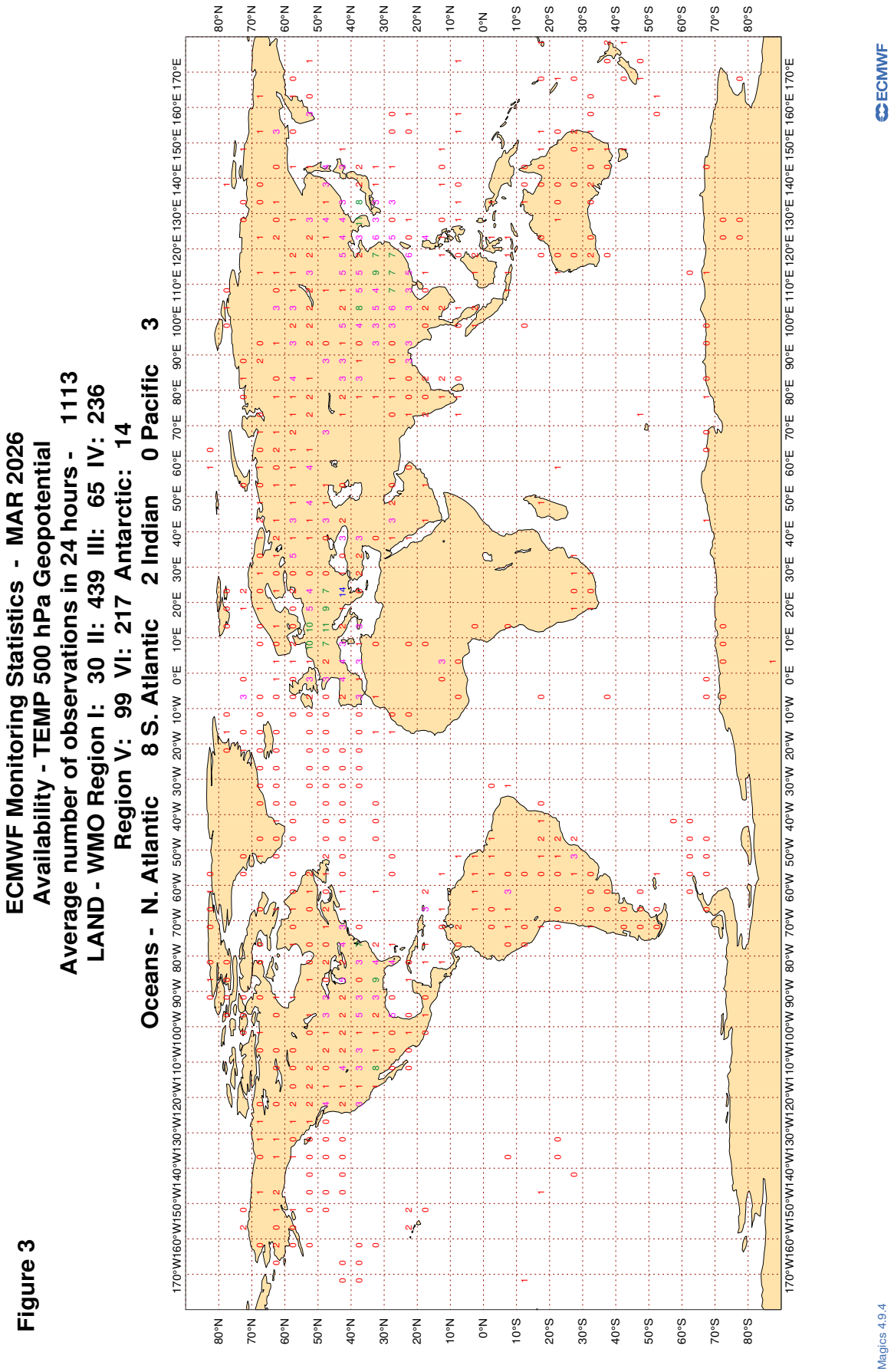
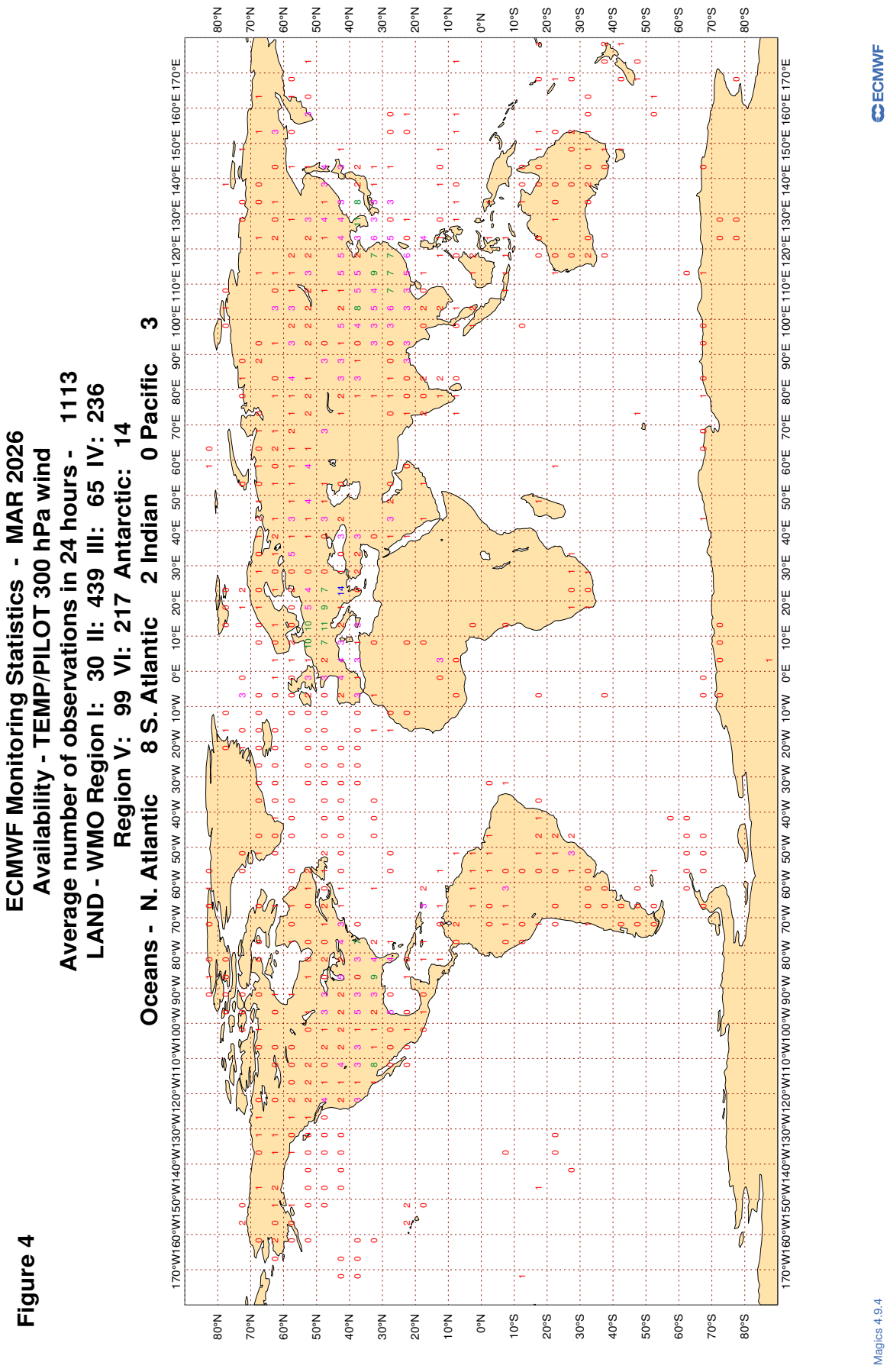


Figure 3

3.2.4 Figure 4 - Availability - TEMP/PILOT 300 hPa wind



3.2.5 Figure 5 - Availability - AIRCRAFT winds 300-150 hPa

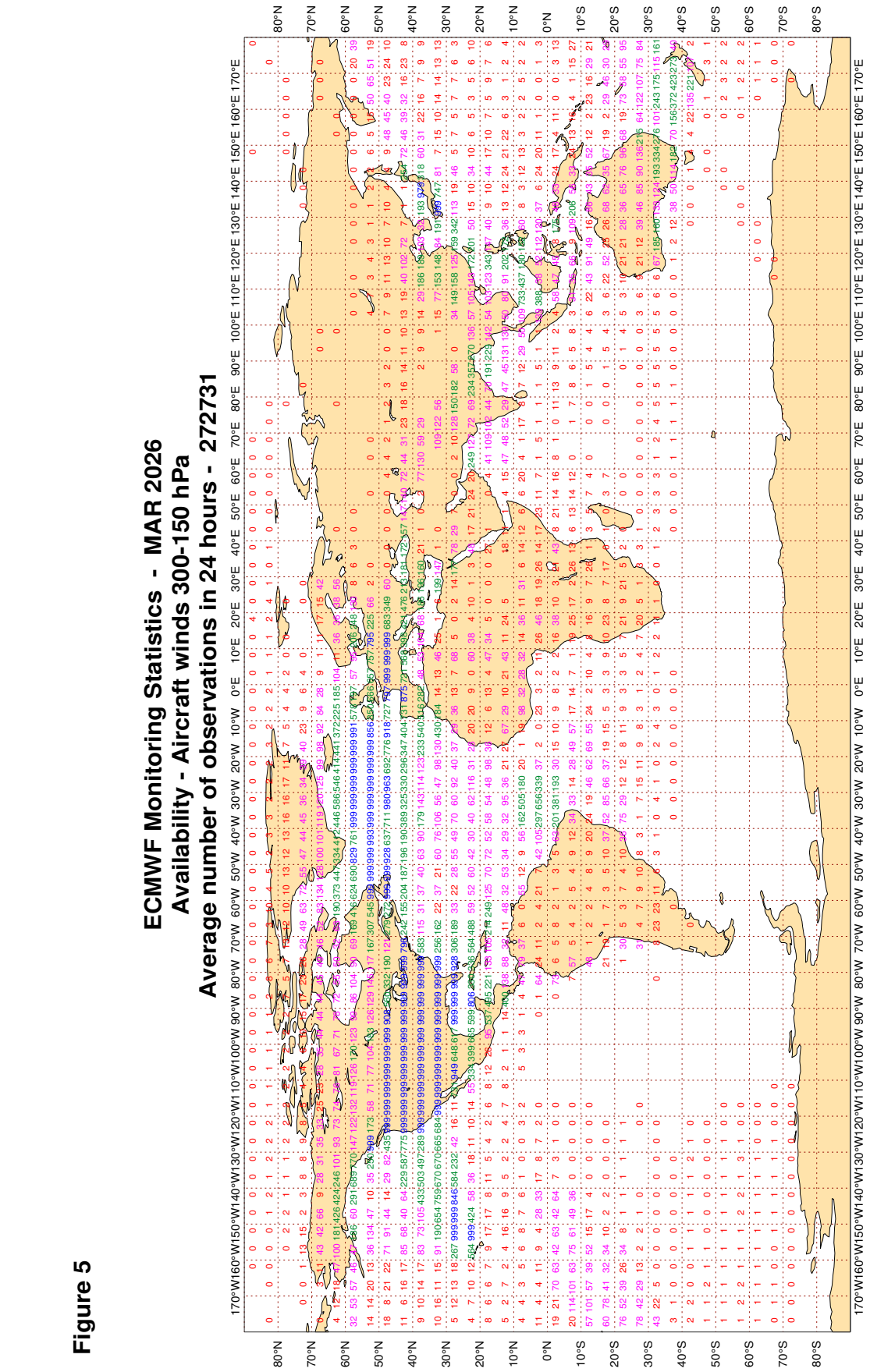


Figure 5

3.2.6 Figure 6 - Availability - SATOB winds 400-150 hPa

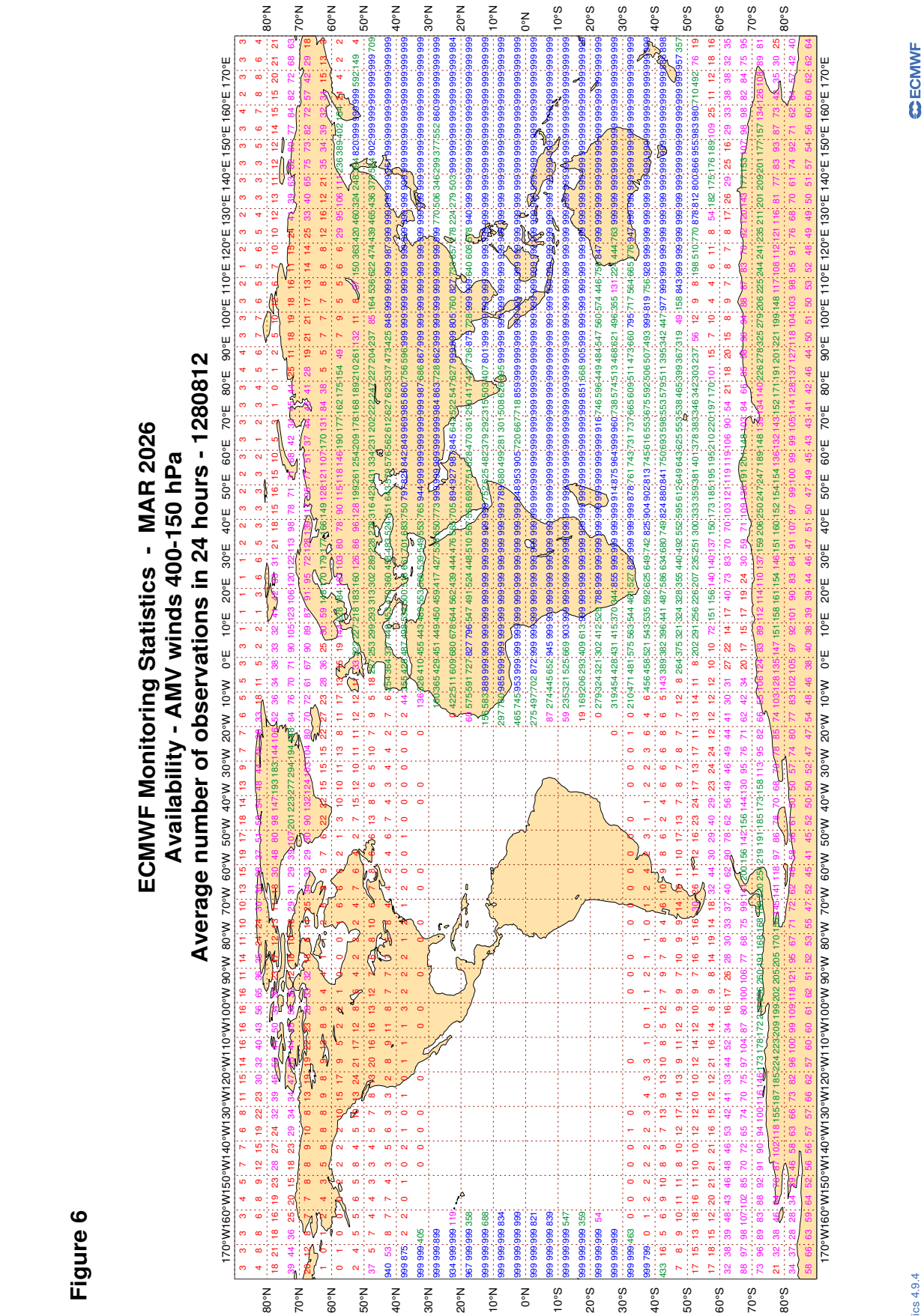


Figure 6

3.2.7 Figure 7 - Availability - SATOB winds 1000-700 hPa

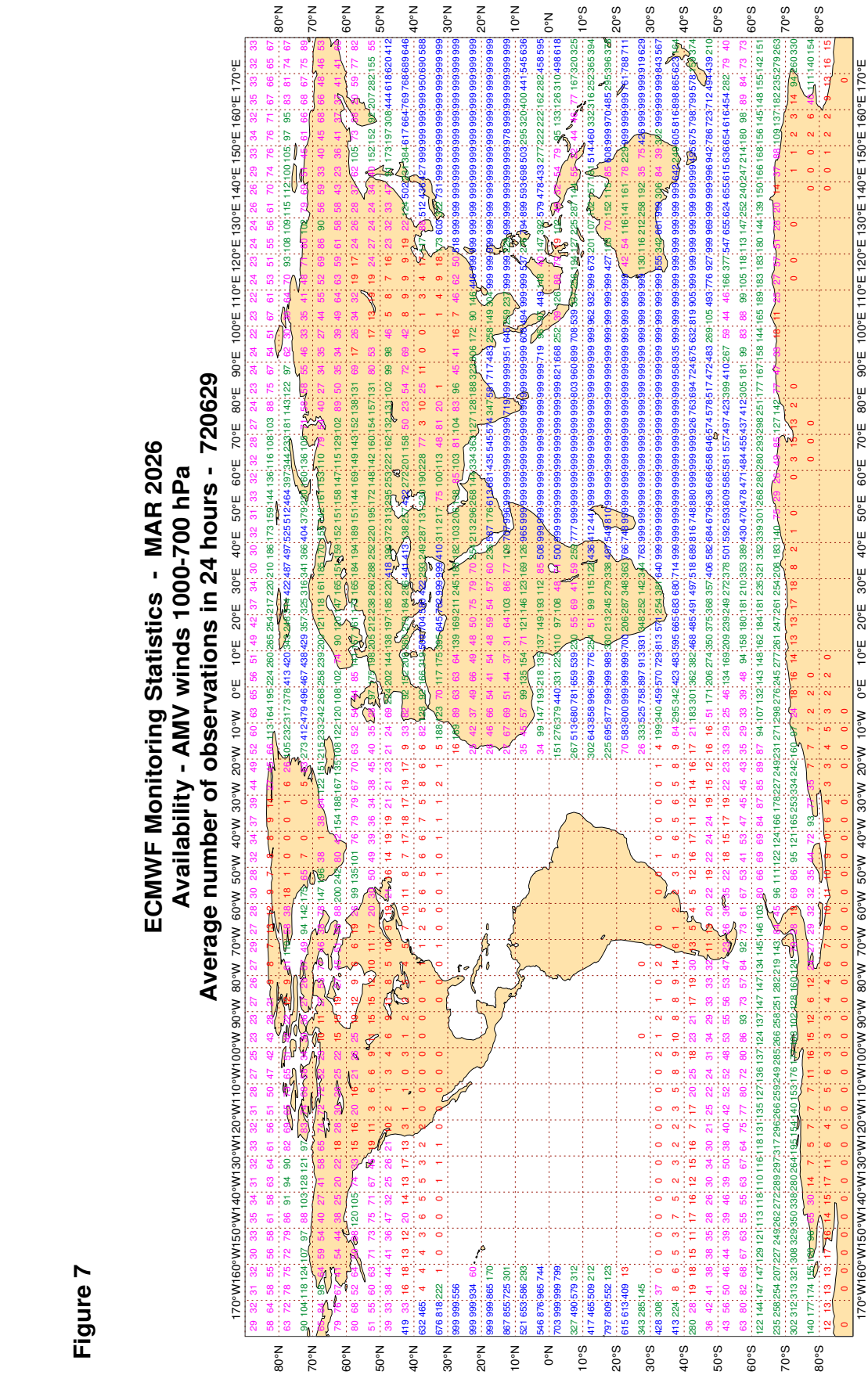


Figure 7

3.2.8 Figure 8 - Availability - METOP-B ATOVS : AMSU-A

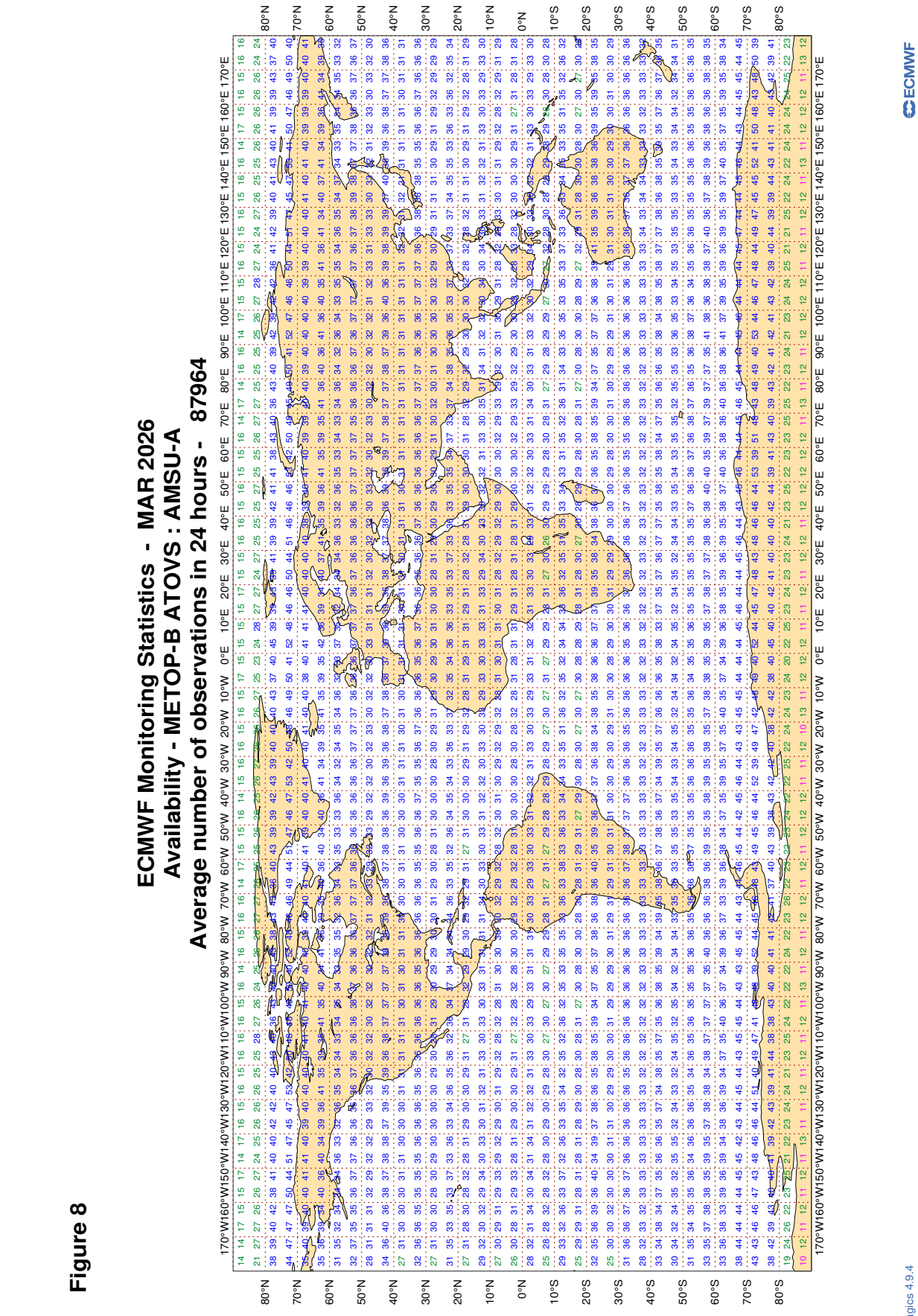


Figure 8

3.2.9 Figure 9 - Availability - METOP-C ATOVS : AMSU-A

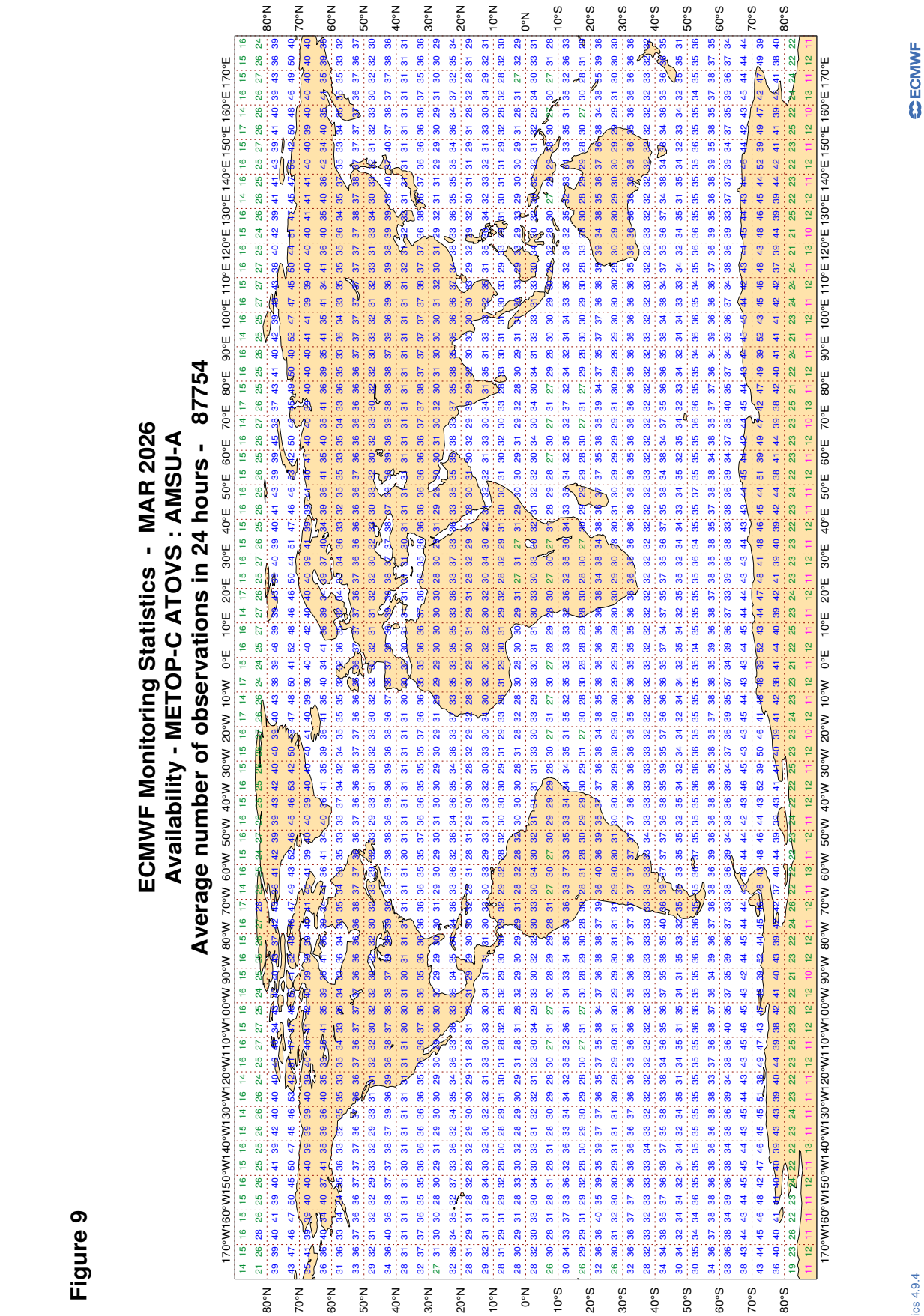


Figure 9

3.2.10 Table 1 - Suspect ships and fixed marine platforms: Surface pressure - (hPa)

```
          LIST OF SUSPECT STATIONS        : SHIPS + FIXED MARINE PLATFORMS
                    MONITORING CENTRE     : ECMWF
                    ELEMENT MONITORED     : SURFACE PRESSURE (HPA)
                    AREA                  : GLOBAL
                    PERIOD                : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: NO. OF OBS.           >= 15(50), AND,
Manual (Automatic)  ABSOLUTE BIAS         >= 3(2) HPA, OR,
                    STANDARD DEVIATION    >= 5(4) HPA, OR,
                    % GROSS ERROR         >= 25(15)
                    (GROSS ERROR LIMIT = 15 HPA)

TIME = 99 => AVERAGE OF 00, 06, 12 AND 18 UTC OBSERVATIONS
```

WMO IDENT	OBS TIME	ELM	LEVEL	NUM OBS	NUM GROSS	SD	BIAS	RMS
3E3566	99	P	SUR	50	0	1.4	7.2	7.4
3E4612	99	P	SUR	68	0	0.8	3.8	3.9
3E5193	99	P	SUR	69	0	0.4	3.2	3.2
3EBY2	99	P	SUR	31	29	0.0	14.3	14.3
3ETR7	99	P	SUR	33	0	3.1	5.1	6.0
3FAE4	99	P	SUR	18	0	5.2	10.1	11.4
5LYQ3	99	P	SUR	32	0	3.2	4.9	5.9
7JKC	99	P	SUR	19	0	2.2	3.0	3.8
7JUN	99	P	SUR	17	0	1.7	-4.4	4.7
7JYC	99	P	SUR	25	0	2.0	-3.6	4.2
7KJC	99	P	SUR	19	0	1.3	-5.2	5.4
7WFBSAS	99	P	SUR	15	0	2.2	4.3	4.8
9HA4638	99	P	SUR	29	1	2.6	12.0	12.2
9HA5209	99	P	SUR	63	9	6.0	1.4	6.2
9HJB9	99	P	SUR	19	0	1.4	4.8	5.0
9HJD9	99	P	SUR	31	0	1.2	-3.5	3.6
9QLJ93G	99	P	SUR	26	0	2.1	-3.5	4.1
9V2728	99	P	SUR	27	0	1.3	4.5	4.7
9V5247	99	P	SUR	45	0	0.8	3.9	4.0
9V7659	99	P	SUR	16	1	2.2	8.0	8.3
9V7661	99	P	SUR	17	2	5.0	5.5	7.4
9V7673	99	P	SUR	16	1	3.8	3.0	4.9
9V7754	99	P	SUR	42	0	1.9	5.6	5.9
C6CA7	99	P	SUR	78	0	0.6	5.1	5.2
C6CX3	99	P	SUR	24	0	0.5	3.7	3.8
C6DL4	99	P	SUR	23	0	1.9	-4.0	4.5
C6FJ9	99	P	SUR	21	7	7.3	-3.3	8.0
C6PT7	99	P	SUR	116	0	0.4	4.9	4.9
C6PZ8	99	P	SUR	34	0	0.9	-5.4	5.4
D5UC5	99	P	SUR	24	0	0.9	-4.7	4.8
H3FV	99	P	SUR	27	0	2.2	-3.5	4.1
KPSJ	99	P	SUR	71	0	0.5	6.4	6.4

LIST OF SUSPECT STATIONS : SHIPS + FIXED MARINE PLATFORMS
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : SURFACE PRESSURE (HPA)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	NUM OBS	NUM GROSS	SD	BIAS	RMS
LAPE7	99	P	SUR	82	0	1.7	3.2	3.7
LAQN7	99	P	SUR	17	0	1.6	6.2	6.4
LATL8	99	P	SUR	17	0	2.4	-5.3	5.8
NBTM	99	P	SUR	41	1	0.8	-3.0	3.1
OZFW2	99	P	SUR	17	0	1.6	3.7	4.0
S6NQ	99	P	SUR	22	0	1.8	-10.9	11.1
TEKW9TX	99	P	SUR	27	0	2.3	-3.4	4.1
UBRW	99	P	SUR	61	0	2.9	-3.6	4.6
V7A4788	99	P	SUR	99	2	3.6	3.8	5.2
V7A5727	99	P	SUR	16	0	1.7	-3.3	3.7
V7A6081	99	P	SUR	59	0	4.2	3.5	5.4
V7A6082	99	P	SUR	37	0	2.7	8.0	8.4
V7A6440	99	P	SUR	27	0	2.4	6.8	7.3
V7A6573	99	P	SUR	32	0	0.9	-4.4	4.5
V7TN8	99	P	SUR	20	0	2.7	4.5	5.2
VRGO6	99	P	SUR	62	0	3.4	-4.5	5.7
VRID2	99	P	SUR	77	0	1.6	3.3	3.7
VRJS3	99	P	SUR	43	0	0.6	6.0	6.0
VRJT5	99	P	SUR	37	0	0.9	4.3	4.4
VRLQ4	99	P	SUR	20	0	2.3	4.7	5.2
VRPP5	99	P	SUR	20	0	1.6	4.5	4.8
WFLH	99	P	SUR	31	0	0.9	3.0	3.2
WGEB	99	P	SUR	72	0	1.4	6.0	6.2
WMDQ	99	P	SUR	18	0	1.6	3.6	4.0
WMKQ	99	P	SUR	92	0	0.6	-4.9	4.9
YDDP2	99	P	SUR	22	0	0.4	-3.7	3.7

3.2.11 Table 2 - Suspect ships and fixed marine platforms: Wind speed (m/s)

```
          LIST OF SUSPECT STATIONS        : SHIPS + FIXED MARINE PLATFORMS
                    MONITORING CENTRE     : ECMWF
                    ELEMENT MONITORED     : WIND SPEED (M/S)
                    AREA                  : GLOBAL
                    PERIOD                : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: NO. OF OBS.           >= 15(50), AND,
Manual (Automatic)  ABSOLUTE BIAS         >= 4(4) M/S, OR,
                    % GROSS ERROR         >= 25(15)
                    (GROSS ERROR LIMIT FOR VECTOR WIND = 25 M/S)


TIME = 99 => AVERAGE OF 00, 06, 12 AND 18 UTC OBSERVATIONS
```

WMO IDENT	OBS TIME	ELM	LEVEL	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS

3.2.12 Table 3 - Suspect ships and fixed marine platforms: Wind direction (DEGREES)

```
          LIST OF SUSPECT STATIONS        : SHIPS + FIXED MARINE PLATFORMS
                    MONITORING CENTRE     : ECMWF
                    ELEMENT MONITORED     : WIND DIRECTION (DEGREES)
                    AREA                  : GLOBAL
                    PERIOD                : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: NO. OF OBS.           >= 15(50) (WIND SPEEDS > 3M/S), AND ,
Manual (Automatic)  ABSOLUTE BIAS         >= 30(25) DEGREES, OR,
                    STANDARD DEVIATION    >= 70(50) DEGREES
                    (GROSS ERROR LIMIT FOR VECTOR WIND = 25 M/S)


TIME = 99 => AVERAGE OF 00, 06, 12 AND 18 UTC OBSERVATIONS
```

WMO IDENT	OBS TIME	ELM	LEVEL	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
45186	99	DIRN	SUR	21	0	0	35.9	51.9	63.1
45187	99	DIRN	SUR	18	0	0	28.0	54.4	61.2
46092	99	DIRN	SUR	59	0	0	18.2	40.3	44.2
46120	99	DIRN	SUR	72	0	0	27.2	37.3	46.2

3.2.13 Table 4 - Suspect drifters: Surface pressure (HPA)

```
          LIST OF SUSPECT STATIONS         : DRIFTER
                    MONITORING CENTRE      : ECMWF
                    ELEMENT MONITORED      : SURFACE PRESSURE (HPA)
                    AREA                   : GLOBAL
                    PERIOD                 : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: NO. OF OBS.            >= 20, AND,
                    ABSOLUTE BIAS          >= 4 HPA, OR,
                    STANDARD DEVIATION     >= 6 HPA, OR,
                    % GROSS ERROR          >= 25
                    (GROSS ERROR LIMIT = 15 HPA)

TIME = 99 => AVERAGE OF ALL OBSERVATIONS
```

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
1601746	99	P	SUR	-47	-84	741	274	5.6	-4.6	7.2
1701664	99	P	SUR	-42	-92	742	141	4.9	-4.2	6.5
1701678	99	P	SUR	-34	74	142	67	2.0	-4.7	5.2
1801723	99	P	SUR	57	-161	471	111	7.4	0.3	7.4
2302627	99	P	SUR	11	73	477	44	6.9	0.0	6.9
2501555	99	P	SUR	79	-178	326	254	1.8	-12.5	12.6
2501557	99	P	SUR	75	170	737	737	0.0	0.0	0.0
2501559	99	P	SUR	80	-165	742	340	7.7	-3.0	8.2
2501586	99	P	SUR	76	-144	744	744	0.0	0.0	0.0
2501587	99	P	SUR	74	-157	744	282	1.7	-0.6	1.8
2501590	99	P	SUR	70	170	742	419	4.0	-3.4	5.3
2501591	99	P	SUR	71	180	744	266	6.7	5.0	8.4
2601524	99	P	SUR	69	-173	656	556	1.8	13.0	13.2
2601526	99	P	SUR	70	-174	721	71	6.5	6.2	9.0
2601548	99	P	SUR	74	-165	68	46	6.4	-7.1	9.5
2601549	99	P	SUR	74	-163	200	7	7.9	5.2	9.4
2802014	99	P	SUR	-41	32	472	1	1.7	4.9	5.2
3401636	99	P	SUR	-32	-96	459	0	0.4	-8.0	8.0
3801567	99	P	SUR	-3	119	282	282	0.0	0.0	0.0
4101867	99	P	SUR	6	81	739	11	1.5	-4.5	4.7
4601855	99	P	SUR	52	-131	66	42	4.8	-7.4	8.8
4701558	99	P	SUR	79	-18	62	0	0.5	-4.5	4.6
4701599	99	P	SUR	70	-172	473	473	0.0	0.0	0.0
4801639	99	P	SUR	70	-127	302	292	0.0	14.8	14.8
4801763	99	P	SUR	62	-13	744	11	2.6	-9.0	9.3
4802582	99	P	SUR	64	-18	620	0	0.8	-9.7	9.7
4804059	99	P	SUR	-45	114	148	0	2.2	6.4	6.8
5501735	99	P	SUR	-37	-103	744	744	0.0	0.0	0.0
5801971	99	P	SUR	-4	116	58	58	0.0	0.0	0.0
5802091	99	P	SUR	-25	50	310	310	0.0	0.0	0.0
5802227	99	P	SUR	48	-42	738	738	0.0	0.0	0.0
5802228	99	P	SUR	50	-58	737	298	5.3	1.5	5.5

LIST OF SUSPECT STATIONS : DRIFTER
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : SURFACE PRESSURE (HPA)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	ME LEVEL	LAT	N LONG	N OBS	GROSS	SD	BIAS	RMS
6203834	99	P	SUR	70	31	465	0	4.0	-4.1	5.7
7801693	99	P	SUR	18	167	743	23	0.0	-13.9	13.9
7801738	99	P	SUR	53	-129	679	28	5.3	4.4	6.9
7810369	99	P	SUR	-22	101	188	0	2.4	5.8	6.3

3.2.14 Table 5 - Suspect drifters: Wind speed (m/s)

```
          LIST OF SUSPECT STATIONS        : DRIFTER
                    MONITORING CENTRE     : ECMWF
                    ELEMENT MONITORED     : WIND SPEED (M/S)
                    AREA                  : GLOBAL
                    PERIOD                : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: NO. OF OBS.           >= 20, AND,
                    ABSOLUTE BIAS         >= 5 M/S, OR,
                    % GROSS ERROR         >= 25
                    (GROSS ERROR LIMIT FOR VECTOR WIND = 25 M/S)


TIME = 99 => AVERAGE OF ALL OBSERVATIONS
```

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
4400073	99	SPEED	SUR	43	-71	76	76	100	0.0	0.0	0.0
4804181	99	SPEED	SUR	-16	150	737	0	0	2.8	-7.7	8.2

3.2.15 Table 6 - Suspect drifters: Wind direction (degrees)

```
          LIST OF SUSPECT STATIONS         : DRIFTER
                    MONITORING CENTRE      : ECMWF
                    ELEMENT MONITORED      : WIND DIRECTION (DEGREES)
                    PERIOD                 : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: NO. OF OBS.            >= 20 (WIND SPEEDS > 3M/S), AND ,
                    ABSOLUTE BIAS          >= 20 DEGREES, OR,
                    STANDARD DEVIATION     >= 60 DEGREES
                    (GROSS ERROR LIMIT FOR VECTOR WIND = 25 M/S)


TIME = 99 => AVERAGE OF ALL OBSERVATIONS
```

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
2200193	99	DIRN	SUR	38	124	524	0	0	20.2	39.3	44.2
2300014	99	DIRN	SUR	2	67	191	0	0	9.9	-35.3	36.7
23099	99	DIRN	SUR	13	80	114	0	0	41.3	27.7	49.7
23491	99	DIRN	SUR	12	93	64	0	0	135.8	-14.6	136.6
4400073	99	DIRN	SUR	43	-71	76	76	0	42.5	-93.3	102.5
4500186	99	DIRN	SUR	42	-88	647	0	0	33.3	53.1	62.7
4500187	99	DIRN	SUR	42	-88	589	0	0	27.9	50.3	57.6
45186	99	DIRN	SUR	42	-88	116	0	0	39.1	53.1	65.9
45187	99	DIRN	SUR	43	-88	105	0	0	29.5	51.7	59.5
4600071	99	DIRN	SUR	51	180	320	1	0	48.0	-29.7	56.4
4600092	99	DIRN	SUR	37	-122	383	0	0	17.2	43.6	46.8
4600120	99	DIRN	SUR	48	-122	1530	0	0	26.0	40.5	48.1
4600185	99	DIRN	SUR	53	-130	654	0	0	21.8	27.2	34.8
4600204	99	DIRN	SUR	51	-129	640	0	0	18.1	28.5	33.8
4600303	99	DIRN	SUR	49	-123	528	0	0	26.2	21.6	34.0
4600304	99	DIRN	SUR	49	-123	328	0	0	29.7	25.0	38.8
46071	99	DIRN	SUR	51	180	53	1	0	45.8	-33.7	56.9
46092	99	DIRN	SUR	37	-122	347	0	0	20.1	36.8	41.9
46120	99	DIRN	SUR	48	-122	410	0	0	25.6	37.2	45.1
46185	99	DIRN	SUR	53	-130	643	0	0	21.0	27.9	34.9
46204	99	DIRN	SUR	51	-129	635	0	0	18.8	28.3	34.0
46303	99	DIRN	SUR	49	-123	522	0	0	24.8	21.9	33.1
46304	99	DIRN	SUR	49	-123	339	0	0	33.2	23.7	40.8
6100216	99	DIRN	SUR	42	12	711	0	0	102.0	58.6	117.6
6100281	99	DIRN	SUR	40	0	351	0	0	94.1	-112.6	146.7
6200024	99	DIRN	SUR	44	-3	373	0	0	86.4	0.5	86.4
6200086	99	DIRN	SUR	55	7	126	0	0	12.4	29.6	32.1
6600024	99	DIRN	SUR	55	13	172	0	0	11.6	34.8	36.7

3.2.16 Table 7 - Suspect radiosondes: Geopotential height (metres)

```
          LIST OF SUSPECT STATIONS        : RADIOSONDES
                    MONITORING CENTRE     : ECMWF
                    ELEMENT MONITORED     : GEOPOTENTIAL HEIGHT (METRES)
                    AREA                  : GLOBAL
                    PERIOD                : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: AT LEAST 3 LEVELS WITH
                    10 OBS AND 100 M WEIGHTED RMS


ONLY THE WORST LEVEL IS SHOWN (WITH UNWEIGHTED RMS)
```

WMO IDENT	OBS TIME	ELM	LEV	LAT	LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
01400	12	Z	1000	57	3	29	0	5.5	75.4	75.6
01400	00	Z	1000	57	3	27	0	5.5	76.6	76.8
25403	00	Z	300	66	151	30	0	50.8	-44.4	67.5
76644	12	Z	850	21	-90	25	0	17.4	29.8	34.5
78988	00	Z	1000	12	-69	20	0	26.4	15.9	30.8
78988	12	Z	1000	12	-69	22	0	30.1	15.9	34.0
83566	00	Z	1000	-20	-44	26	0	8.0	-64.4	64.9
83566	12	Z	1000	-20	-44	31	0	4.7	-56.3	56.5
89009	12	Z	1000	-90	0	12	8	8.5	-90.7	91.1
89009	00	Z	1000	-90	0	30	18	7.4	-90.7	91.0
89625	12	Z	1000	-75	123	23	20	13.6	-76.1	77.3
91212	12	Z	1000	13	145	32	0	33.4	21.7	39.8
91212	00	Z	1000	13	145	31	0	35.9	28.1	45.6
91680	00	Z	1000	-18	177	30	0	6.8	32.8	33.5
91680	12	Z	925	-18	177	28	0	2.7	35.1	35.2
JNKN7J	12	Z	1000	51	-12	12	0	7.5	40.0	40.7
JNKN7J	00	Z	925	49	-17	10	0	12.1	37.5	39.4
YLV96W	12	Z	1000	49	-14	11	0	31.0	16.1	34.9

3.2.17 Table 8 - Suspect radiosondes: Wind (m/s)

```
          LIST OF SUSPECT STATIONS        : RADIOSONDES
                    MONITORING CENTRE     : ECMWF
                    ELEMENT MONITORED     : WIND (M/S)
                    AREA                  : GLOBAL
                    PERIOD                : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: AT LEAST 10 OBS AND 15 M/S RMS VECTOR WIND


STANDARD LEVEL (1000-100 HPA) WITH HIGHEST RMS IS SHOWN
```

WMO IDENT	OBS TIME	ELM	LEV	LAT	LONG	NUM OBS	NUM GROSS	UBIAS	VBIAS	RMS

3.2.18 Table 9 - Suspect radiosondes: Wind direction (degrees)

```
          LIST OF SUSPECT STATIONS        : RADIOSONDES
                    MONITORING CENTRE     : ECMWF
                    ELEMENT MONITORED     : WIND DIRECTION (DEGREES)
                    AREA                  : GLOBAL
                    PERIOD                : MAR 2026
                    STANDARD OF COMPARISON: FIRST-GUESS FIELD


SELECTION CRITERIA: OBSERVED/FORECAST WIND SPEEDS >= 5 M/S
                    NO. OF OBSERVATIONS   >= 5, AND,
                    ABSOLUTE BIAS         >= 10 DEGREES, WITH
                    STANDARD DEVIATION    <  30 DEGREES, AND,
                    VERTICAL SPREAD       < 10 DEGREES
                    (AVERAGE BETWEEN 500 AND 150 HPA)
```

WMO IDENT	OBS TIME	ELM	LAT	LONG	NUM OBS	BIAS	MAX SPREAD	SD
34731	12	DD	47	40	27	-10.8	1.7	7.8
40179	12	DD	32	35	9	12.2	2.4	5.4
48568	00	DD	7	101	20	-10.6	2.9	9.3

3.2.19 Figure 10 - Suspect TEMP observations - geopotential : 00 UTC

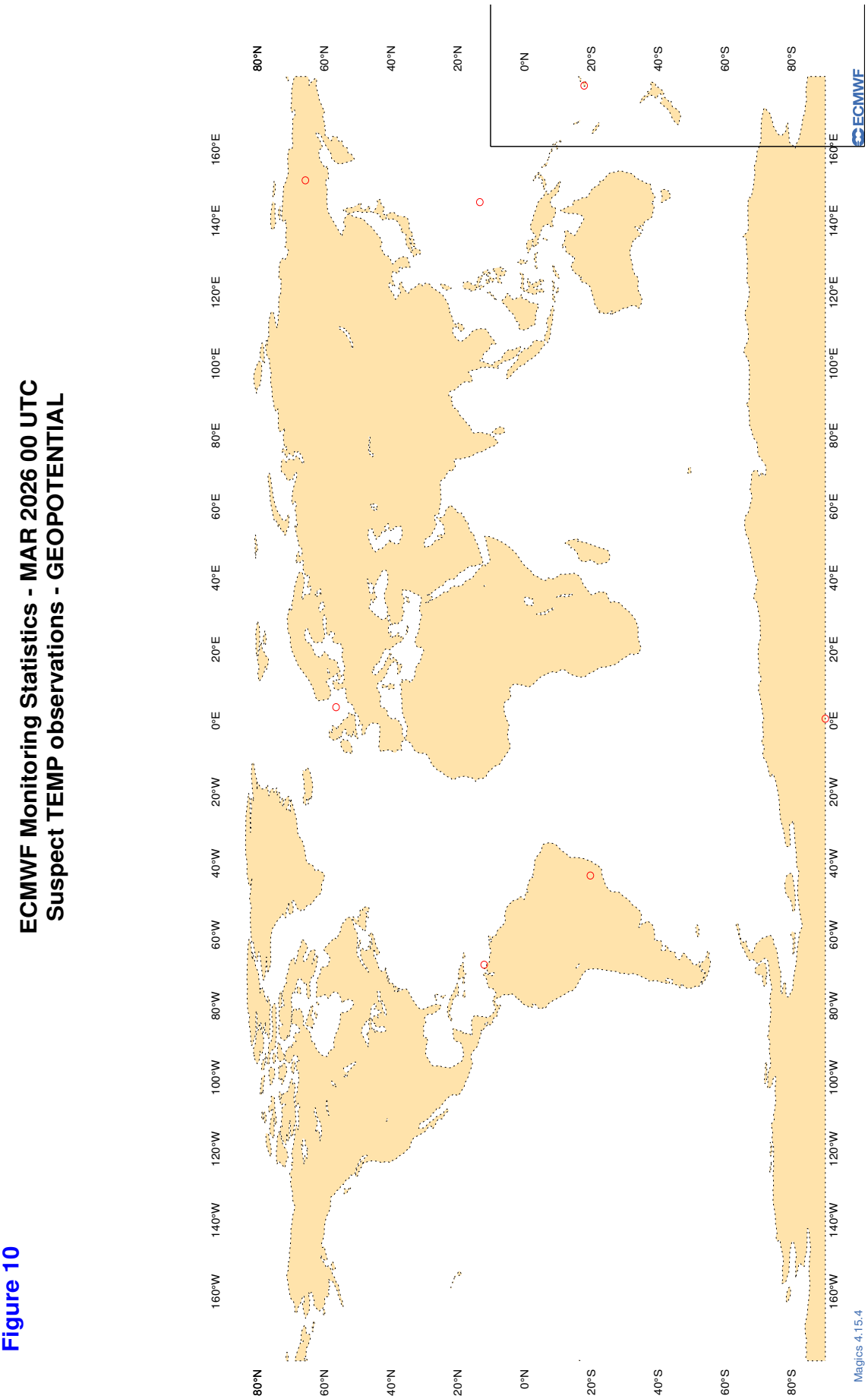
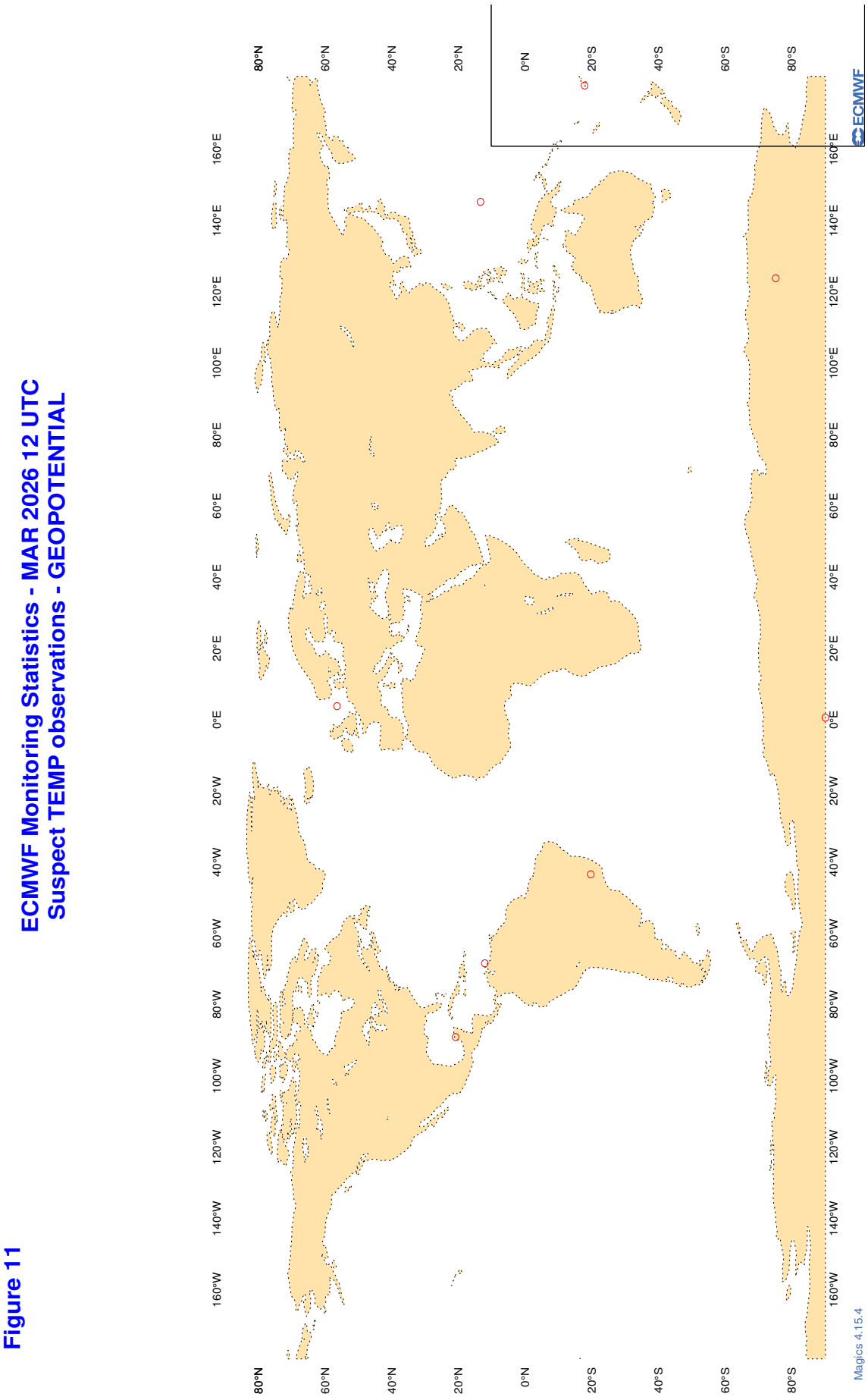
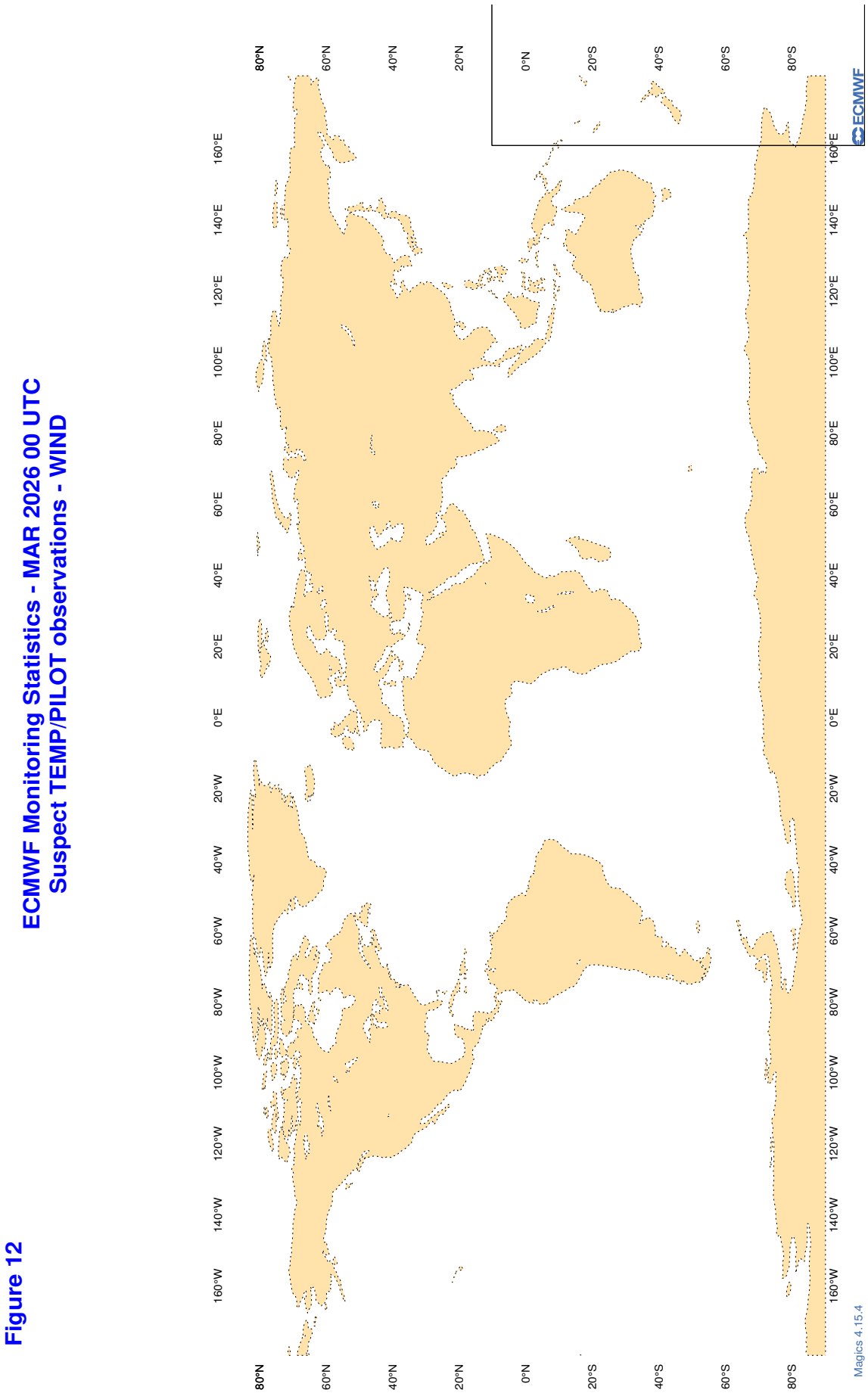


Figure 10

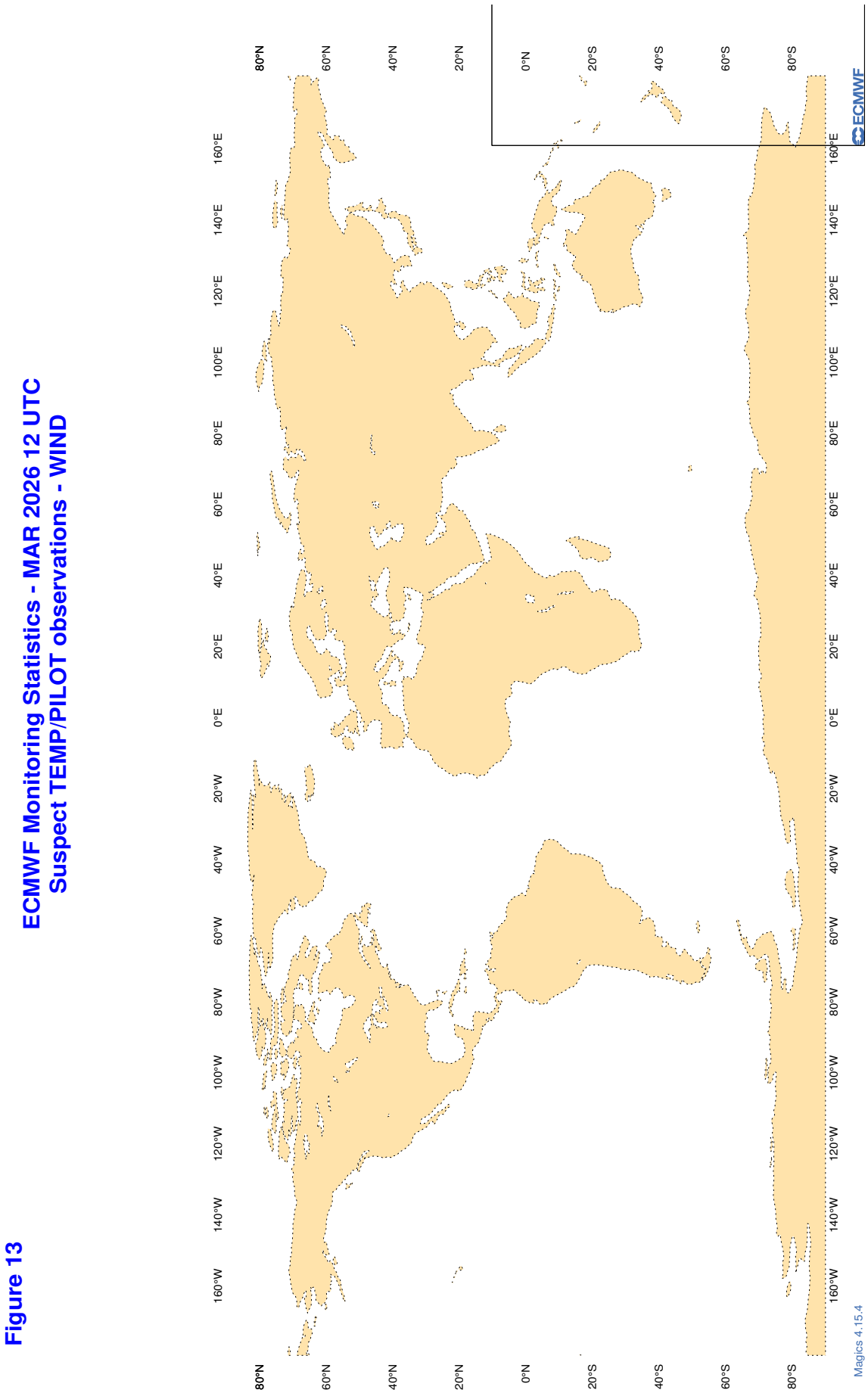
3.2.20 Figure 11 - Suspect TEMP observations - geopotential : 12 UTC



3.2.21 Figure 12 - Suspect TEMP/PILOT observations - wind : 00 UTC



3.2.22 Figure 13 - Suspect TEMP/PILOT observations - wind : 12 UTC



3.2.23 Table 10 - Radiosonde monitoring statistics (SHIPs): Geopotential height (metres)

```
RADIOSONDE MONITORING STATISTICS (SHIPS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : GEOPOTENTIAL HEIGHT (METRES)
         LEVEL                 : 100 HPA
         AREA                  : GLOBAL
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
```

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
2TDJJ8	12	Z	100	48	16.3	14.7
7JUNA4	12	Z	100	9	61.7	56.6
7JUNA4	00	Z	100	8	6.3	-0.9
9ZT9MR	12	Z	100	13	31.3	-28.5
9ZT9MR	00	Z	100	13	36.6	-33.8
ASDE09	12	Z	100	2	46.9	-19.9
ATGU3F	12	Z	100	6	29.5	-9.7
ATGU3F	00	Z	100	5	13.1	-7.4
CAUBC	00	Z	100	0	0.0	0.0
CYYD	12	Z	100	0	0.0	0.0
CYYD	00	Z	100	0	0.0	0.0
CYZY	12	Z	100	5	10.4	5.5
CYZY	00	Z	100	8	20.1	14.7
DEN	00	Z	100	0	0.0	0.0
DEN	12	Z	100	0	0.0	0.0
FPUW5G	12	Z	100	5	7.9	-1.1
GKA32C	00	Z	100	5	14.8	-13.4
GKA32C	12	Z	100	6	16.1	-14.1
JNKN7J	12	Z	100	12	47.4	33.6
JNKN7J	00	Z	100	10	62.4	42.3
KMPLHP	12	Z	100	12	22.3	-3.6
KMPLHP	00	Z	100	10	10.0	-3.4
LAGY8	00	Z	100	1	35.7	-35.7
LAGY8	12	Z	100	2	31.3	-27.6
LAGZ8	12	Z	100	3	64.2	48.9
LAR	12	Z	100	0	0.0	0.0
LAR	00	Z	100	0	0.0	0.0
LRYQE3	00	Z	100	7	11.6	-8.9
LRYQE3	12	Z	100	9	43.3	21.5
TLH	00	Z	100	1	151.6	151.6
TLH	12	Z	100	0	0.0	0.0
USALY	00	Z	100	3	6.5	1.2
USCLL	00	Z	100	3	11.8	10.9
USCOU	12	Z	100	0	0.0	0.0
USCOU	00	Z	100	0	0.0	0.0
USGHC	00	Z	100	0	0.0	0.0
USGHC	12	Z	100	0	0.0	0.0
USIUB	12	Z	100	1	19.0	19.0
USIUB	00	Z	100	4	31.0	15.7

RADIOSONDE MONITORING STATISTICS (SHIPS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
USOHS	00	Z	100	0	0.0	0.0
USSOM	00	Z	100	3	85.9	-47.6
USUND	00	Z	100	2	15.7	-15.5
WDK38H	12	Z	100	16	16.8	-13.9
WFF	00	Z	100	0	0.0	0.0
WFF	12	Z	100	0	0.0	0.0
XKQLWQ	12	Z	100	18	22.1	20.2
YLV96W	00	Z	100	8	78.8	32.9
YLV96W	12	Z	100	8	64.7	55.9

3.2.24 Table 11 - Radiosonde monitoring statistics (SHIPs): Wind (m/s)

```
RADIOSONDE MONITORING STATISTICS (SHIPS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : WIND (M/S)
         LEVEL                 : 100 HPA
         AREA                  : GLOBAL
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
```

WMO IDENT	OB TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
2TDJJ8	12	V	100	28	3.0	-0.1	-0.4
7JUNA4	12	V	100	9	3.2	-0.2	-0.4
7JUNA4	00	V	100	8	3.4	0.3	0.6
9ZT9MR	12	V	100	13	6.0	0.1	-1.3
9ZT9MR	00	V	100	12	3.3	-0.5	-0.4
ASDE09	12	V	100	2	2.6	1.4	1.0
ATGU3F	12	V	100	6	2.6	0.3	0.8
ATGU3F	00	V	100	5	2.6	-1.4	0.0
CAUBC	00	V	100	0	0.0	0.0	0.0
CYYD	12	V	100	0	0.0	0.0	0.0
CYYD	00	V	100	0	0.0	0.0	0.0
CYZY	12	V	100	4	3.0	-0.4	-1.1
CYZY	00	V	100	5	3.0	0.8	0.2
DEN	00	V	100	0	0.0	0.0	0.0
DEN	12	V	100	0	0.0	0.0	0.0
FPUW5G	12	V	100	5	3.9	0.3	-1.8
GKA32C	00	V	100	5	2.9	1.9	-0.3
GKA32C	12	V	100	6	3.5	-0.2	0.5
JNKN7J	12	V	100	12	4.0	0.1	-0.1
JNKN7J	00	V	100	10	2.8	-0.5	0.5
KMPLHP	12	V	100	12	2.4	0.2	1.6
KMPLHP	00	V	100	10	3.8	-1.0	0.4
LAGY8	00	V	100	1	3.3	3.2	-0.6
LAGY8	12	V	100	2	2.2	-0.2	0.8
LAGZ8	12	V	100	3	4.8	1.7	-2.1
LAR	12	V	100	0	0.0	0.0	0.0
LAR	00	V	100	0	0.0	0.0	0.0
LRYQE3	00	V	100	7	3.5	0.8	0.1
LRYQE3	12	V	100	9	3.8	-0.4	2.1
TLH	00	V	100	1	1.3	0.1	1.3
TLH	12	V	100	0	0.0	0.0	0.0
USALY	00	V	100	3	2.4	1.4	0.1
USCLL	00	V	100	2	4.4	-1.3	-3.8
USCOU	12	V	100	0	0.0	0.0	0.0
USCOU	00	V	100	0	0.0	0.0	0.0
USGHC	00	V	100	0	0.0	0.0	0.0
USGHC	12	V	100	0	0.0	0.0	0.0
USIUB	12	V	100	1	5.6	-3.0	4.7
USIUB	00	V	100	4	3.7	1.4	2.5

RADIOSONDE MONITORING STATISTICS (SHIPS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
USOHS	00	V	100	0	0.0	0.0	0.0
USSOM	00	V	100	3	4.2	-2.3	-1.7
USUND	00	V	100	2	4.5	3.7	-2.0
WDK38H	12	V	100	15	2.9	0.1	-0.8
WFF	00	V	100	0	0.0	0.0	0.0
WFF	12	V	100	0	0.0	0.0	0.0
XKQLWQ	12	V	100	17	2.4	-0.6	0.2
YLV96W	00	V	100	8	3.5	-0.2	0.2
YLV96W	12	V	100	8	4.1	0.4	-0.6

3.2.25 Figure 14 - SATOB Winds: 700-1000hPa

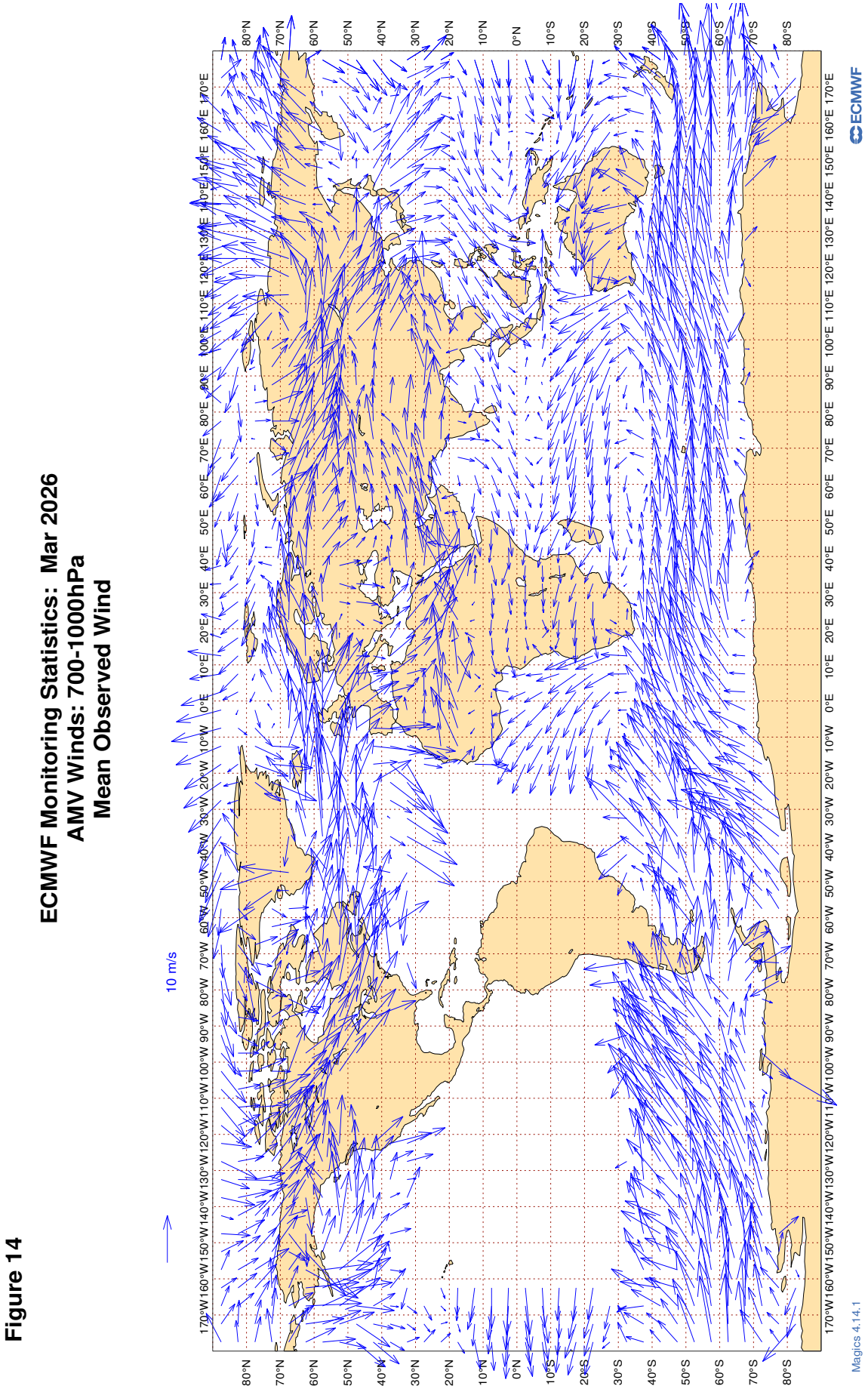


Figure 14

3.2.26 Figure 15 - SATOB Winds: 150- 400hPa

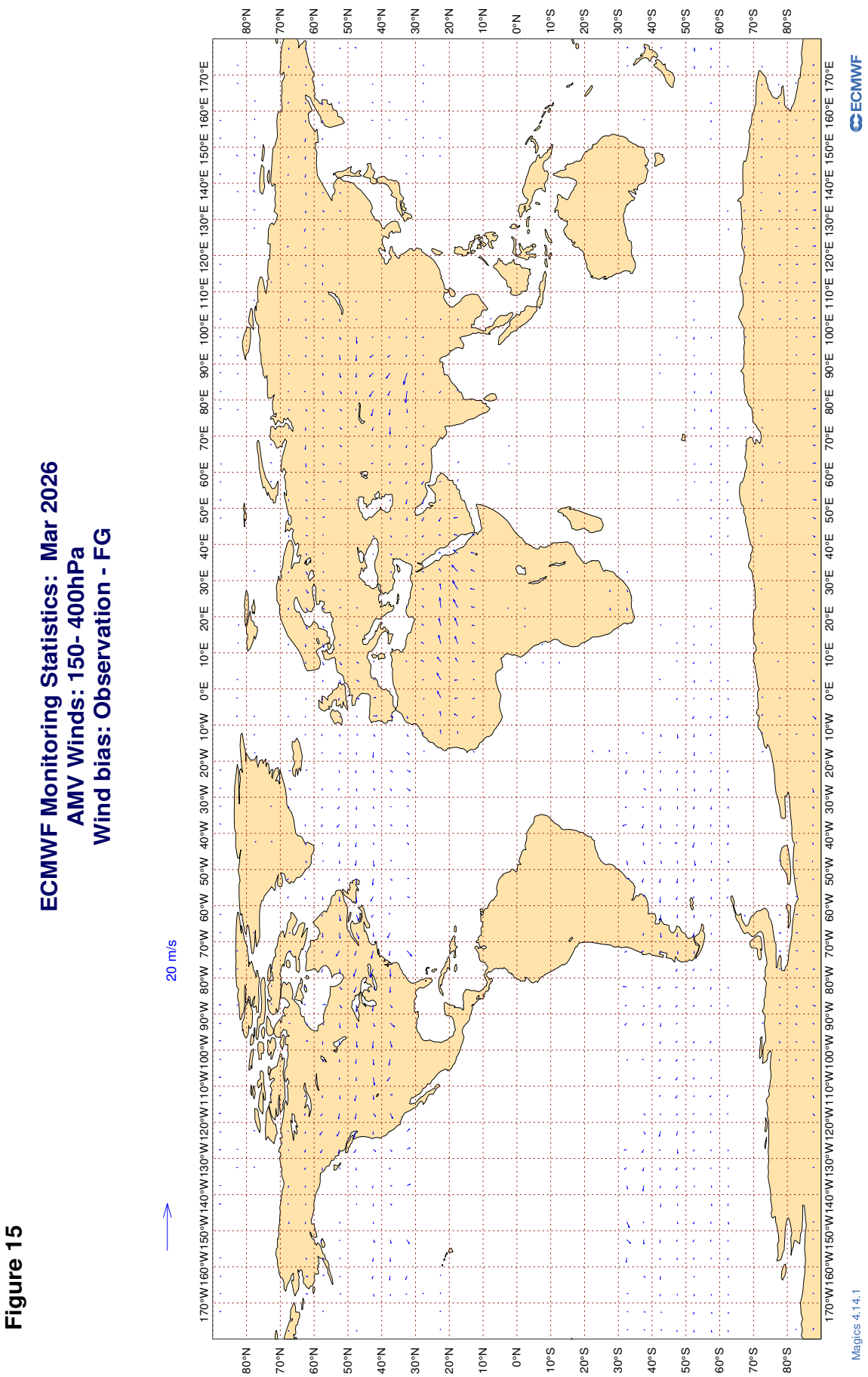


Figure 15

3.2.27 Figure 16 - SATOB Winds: 700-1000hPa

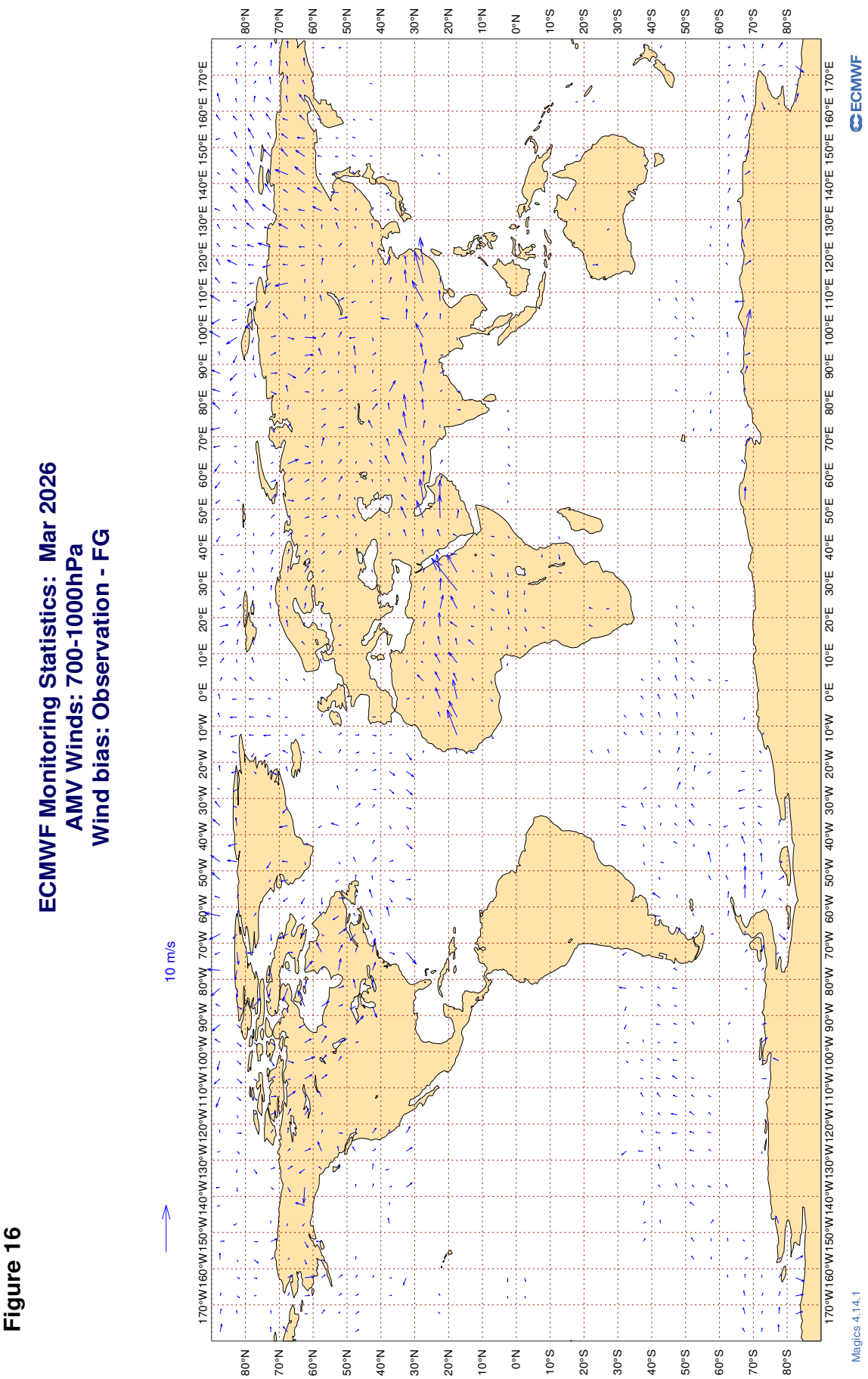


Figure 16

3.2.28 Figure 17 - SATOB Winds: 150- 400hPa

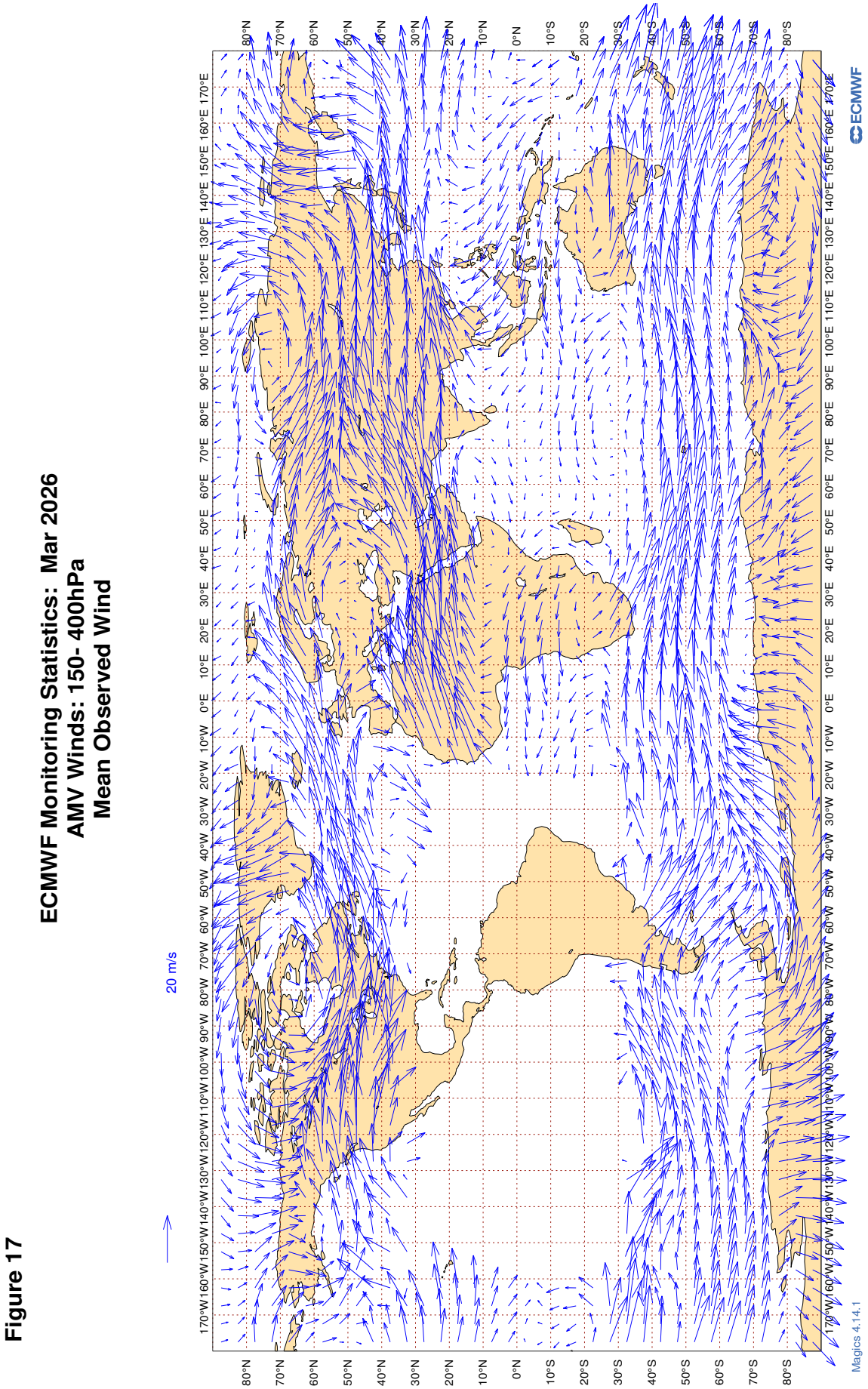


Figure 17

3.2.29 Figure 18 - AIRCRAFT Winds: 150- 300hPa

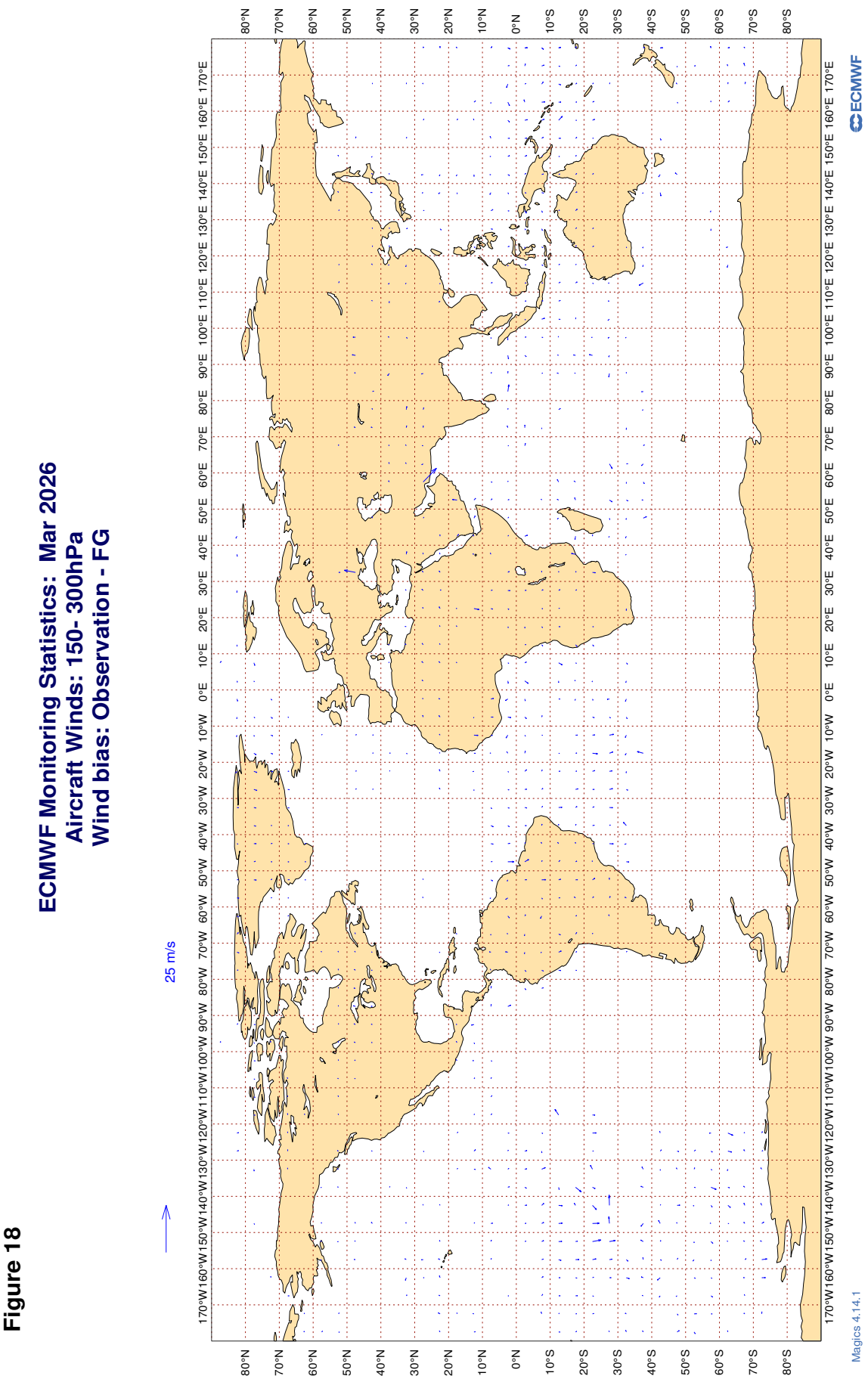


Figure 18

3.2.30 Table 12 - Airep Monitoring Statistics For Airline Carriers (Global)

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : VECTOR WIND (M/S)
AREA : GLOBAL
PERIOD : MAR 2026
STANDARD OF COMPARISON: FIRST-GUESS FIELD

SELECTION CRITERIA: NO. OF OBS. >= 20

TIME = 99 => AVERAGE OF ALL OBSERVATIONS
GROSS ERROR LIMIT ON VECTOR WIND = 40 M/S

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
AAL	99	V	300-150	35537	8	0	4.8	0.2
ABD	99	V	300-150	526	0	0	4.0	0.1
ABP	99	V	300-150	57	0	0	3.6	0.6
ACA	99	V	300-150	25267	5	0	4.3	0.2
ACI	99	V	300-150	299	0	0	4.3	0.5
AEA	99	V	300-150	370	12	0	5.4	0.4
AFR	99	V	300-150	31437	1	0	4.1	0.2
AHY	99	V	300-150	37	8	0	7.6	1.3
AIC	99	V	300-150	3676	0	0	3.8	0.2
AIH	99	V	300-150	153	1	0	4.1	-0.6
AIZ	99	V	300-150	129	0	0	3.7	0.2
AJT	99	V	300-150	152	0	0	3.7	1.0
AMX	99	V	300-150	3870	15	0	5.6	-0.1
ANA	99	V	300-150	51	0	0	3.8	0.7
ANZ	99	V	300-150	14726	0	0	4.0	0.4
AOJ	99	V	300-150	105	0	0	3.6	-0.3
ARG	99	V	300-150	20	0	0	3.5	0.3
ASA	99	V	300-150	1077	0	0	4.6	0.7
ASL	99	V	300-150	451	0	0	3.5	0.2
ASP	99	V	300-150	61	0	0	2.9	-0.4
ASY	99	V	300-150	38	0	0	3.4	0.0
ATN	99	V	300-150	423	0	0	4.4	0.2
AUA	99	V	300-150	3672	6	0	5.0	0.2
AUH	99	V	300-150	34	0	0	3.9	0.7

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
AVA	99	V	300-150	892	7	0	5.0	0.0
AWC	99	V	300-150	109	0	0	3.0	0.5
AXI	99	V	300-150	32	0	0	2.9	-1.1
AXS	99	V	300-150	30	0	0	3.8	1.0
AXY	99	V	300-150	44	0	0	3.8	0.9
AZG	99	V	300-150	797	0	0	7.0	1.3
BAH	99	V	300-150	55	0	0	3.8	0.2
BAW	99	V	300-150	44798	5	0	4.8	0.3
BBA	99	V	300-150	30	0	0	4.1	-1.1
BBB	99	V	300-150	61	0	0	3.8	0.3
BBC	99	V	300-150	283	15	0	6.1	0.7
BCS	99	V	300-150	783	0	0	3.6	0.3
BEL	99	V	300-150	919	0	0	3.3	0.2
BFD	99	V	300-150	27	0	0	3.9	-0.8
BFF	99	V	300-150	25	0	0	11.1	5.4
BLX	99	V	300-150	213	6	0	7.2	0.2
BMW	99	V	300-150	136	0	0	3.2	0.4
BOB	99	V	300-150	75	0	0	4.2	-0.6
BOX	99	V	300-150	4039	0	0	4.1	0.3
BOX	99	V	300-150	30	0	0	4.0	0.1
BRJ	99	V	300-150	63	0	0	3.9	1.4
BRK	99	V	300-150	37	0	0	5.6	-0.3
BTX	99	V	300-150	53	0	0	4.5	-0.4
CAL	99	V	300-150	610	0	0	5.7	0.7
CBE	99	V	300-150	34	0	0	4.2	-0.2
CBJ	99	V	300-150	71	0	0	3.5	0.1
CCA	99	V	300-150	28	0	0	4.3	0.9
CEB	99	V	300-150	80	0	0	3.5	0.4
CEF	99	V	300-150	24	0	0	3.8	-0.2
CES	99	V	300-150	950	0	0	4.0	0.3
CFC	99	V	300-150	270	0	0	3.9	0.6
CFG	99	V	300-150	4260	0	0	3.7	0.5
CHG	99	V	300-150	667	0	0	3.5	0.0
CHH	99	V	300-150	211	17	0	4.1	0.0
CHZ	99	V	300-150	24	0	0	5.2	0.7
CJT	99	V	300-150	294	0	0	4.2	0.5
CKS	99	V	300-150	1103	0	0	3.5	0.1
CLE	99	V	300-150	32	0	0	3.5	-1.8
CLF	99	V	300-150	49	0	0	3.3	-0.1
CLX	99	V	300-150	3474	0	0	4.0	-0.2
CLY	99	V	300-150	123	0	0	4.2	1.1
CMB	99	V	300-150	1640	1	0	4.0	0.1
CND	99	V	300-150	372	0	0	4.1	0.0

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
CNK	99	V	300-150	22	0	0	3.2	-0.2
CNV	99	V	300-150	135	0	0	3.5	0.6
COL	99	V	300-150	27	0	0	5.5	0.1
CPA	99	V	300-150	1631	0	0	4.7	0.0
CRL	99	V	300-150	1168	0	0	3.6	0.6
CSC	99	V	300-150	177	0	0	3.5	0.1
CSG	99	V	300-150	67	0	0	2.6	-0.1
CSN	99	V	300-150	108	0	1	3.5	0.6
CTM	99	V	300-150	39	0	0	3.8	-0.8
DAH	99	V	300-150	655	0	0	3.7	0.3
DAL	99	V	300-150	50747	0	0	3.4	0.3
DCM	99	V	300-150	31	0	0	4.1	0.1
DCW	99	V	300-150	44	0	0	3.4	0.3
DHK	99	V	300-150	3236	0	0	3.7	0.0
DHX	99	V	300-150	44	0	0	3.8	0.2
DJT	99	V	300-150	1601	0	0	3.7	0.7
DLH	99	V	300-150	22591	3	0	4.3	0.1
DSO	99	V	300-150	46	0	0	4.3	-0.1
DWC	99	V	300-150	52	0	0	4.3	1.4
EAL	99	V	300-150	51	0	0	3.0	-0.6
EAU	99	V	300-150	69	0	0	3.6	0.1
EDC	99	V	300-150	67	0	0	3.5	-0.2
EDG	99	V	300-150	25	0	0	2.7	-0.8
EDW	99	V	300-150	1321	0	0	5.0	0.3
EIN	99	V	300-150	18961	0	0	3.3	0.3
EJM	99	V	300-150	552	0	0	4.2	0.3
ELG	99	V	300-150	34	0	0	3.8	0.7
ELY	99	V	300-150	2017	13	0	5.9	0.1
ETD	99	V	300-150	2770	5	0	4.8	-0.2
ETH	99	V	300-150	3159	3	0	5.1	0.1
EUK	99	V	300-150	593	0	0	3.5	0.5
EVA	99	V	300-150	403	1	0	10.2	3.2
EVE	99	V	300-150	131	0	0	4.3	0.0
EXS	99	V	300-150	5115	0	0	3.0	0.3
EZY	99	V	300-150	293	0	0	2.7	0.1
FAD	99	V	300-150	40	0	0	5.7	1.8
FBU	99	V	300-150	2009	0	0	4.2	0.6
FDX	99	V	300-150	7243	0	0	4.0	0.4
FIN	99	V	300-150	1451	0	0	3.5	-0.1
FJI	99	V	300-150	2893	0	0	4.3	0.5
FJO	99	V	300-150	70	0	0	4.6	1.2
FWI	99	V	300-150	2741	0	0	3.7	0.3
FYL	99	V	300-150	47	0	0	4.7	-0.3

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
GAF	99	V	300-150	188	0	0	3.4	0.2
GBG	99	V	300-150	21	0	0	2.9	-0.2
GCK	99	V	300-150	133	0	0	4.2	0.3
GEC	99	V	300-150	924	0	0	3.8	0.1
GES	99	V	300-150	150	0	0	4.1	-0.2
GFA	99	V	300-150	252	0	0	4.8	0.7
GJE	99	V	300-150	60	0	0	3.4	1.0
GLJ	99	V	300-150	54	0	0	3.5	1.5
GNJ	99	V	300-150	76	0	0	5.2	0.7
GOL	99	V	300-150	63	0	0	10.0	3.5
GRB	99	V	300-150	32	0	0	16.5	-3.8
GSM	99	V	300-150	68	0	0	3.9	-0.1
GTI	99	V	300-150	2654	0	0	4.0	0.1
GTR	99	V	300-150	245	0	0	4.4	0.4
HFM	99	V	300-150	52	0	0	3.1	0.3
HFY	99	V	300-150	46	0	0	2.7	0.0
HIM	99	V	300-150	74	0	0	3.3	0.4
HKC	99	V	300-150	65	0	0	6.4	0.8
HRT	99	V	300-150	71	0	0	3.9	0.7
HTT	99	V	300-150	160	0	0	10.7	2.8
HUE	99	V	300-150	25	0	0	4.8	-0.5
HVN	99	V	300-150	358	0	0	4.7	0.1
HYP	99	V	300-150	52	0	0	5.2	1.3
HYS	99	V	300-150	365	0	0	3.5	0.2
IBE	99	V	300-150	4391	0	0	3.6	0.5
ICE	99	V	300-150	9302	0	0	3.3	0.1
ICL	99	V	300-150	410	0	0	3.7	0.0
ICV	99	V	300-150	112	0	0	4.3	-1.0
IFA	99	V	300-150	635	0	0	4.2	0.0
IGA	99	V	300-150	107	0	0	3.3	0.2
IJM	99	V	300-150	280	0	0	4.7	0.7
IRL	99	V	300-150	67	0	0	3.3	0.4
ITY	99	V	300-150	3767	0	0	3.8	0.6
JAL	99	V	300-150	76	7	0	4.7	0.0
JAS	99	V	300-150	72	0	0	4.0	0.3
JBD	99	V	300-150	79	0	0	4.0	0.9
JBU	99	V	300-150	6038	0	0	3.4	0.3
JCO	99	V	300-150	161	0	0	4.2	-0.3
JDI	99	V	300-150	58	0	0	3.6	0.8
JME	99	V	300-150	41	0	0	4.8	1.2
JML	99	V	300-150	65	0	0	3.9	0.7
JNY	99	V	300-150	102	0	0	4.3	1.0
JST	99	V	300-150	1821	0	0	3.7	0.4

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
KAF	99	V	300-150	56	0	0	3.7	0.5
KAI	99	V	300-150	133	1	0	6.2	0.6
KAL	99	V	300-150	197	0	0	5.4	0.9
KAY	99	V	300-150	179	0	0	3.6	0.6
KCE	99	V	300-150	57	0	0	5.5	1.4
KIW	99	V	300-150	24	0	0	3.6	1.3
KLM	99	V	300-150	18212	8	0	5.3	0.2
LCO	99	V	300-150	644	0	0	3.6	-0.5
LDX	99	V	300-150	102	0	0	3.3	0.7
LEA	99	V	300-150	78	0	0	5.1	1.2
LHA	99	V	300-150	27	0	0	2.8	-0.5
LNX	99	V	300-150	107	0	0	3.6	0.1
LOT	99	V	300-150	3341	12	0	6.5	-0.1
LVL	99	V	300-150	1397	0	0	3.9	0.6
LXJ	99	V	300-150	682	0	0	4.1	0.8
MAS	99	V	300-150	1269	0	0	3.9	0.5
MFX	99	V	300-150	147	2	0	11.7	5.3
MLM	99	V	300-150	77	0	0	3.5	0.8
MMD	99	V	300-150	364	0	0	3.8	-0.1
MMF	99	V	300-150	111	0	0	2.9	0.0
MNB	99	V	300-150	705	0	0	3.4	0.3
MOO	99	V	300-150	132	0	0	4.3	-0.1
MPH	99	V	300-150	321	0	0	3.2	0.2
MRS	99	V	300-150	20	0	0	3.4	-1.5
MSR	99	V	300-150	1675	5	0	4.6	0.1
MVJ	99	V	300-150	77	0	0	5.5	1.4
MXD	99	V	300-150	21	0	0	6.5	-0.5
NAF	99	V	300-150	22	0	0	5.0	0.0
NBT	99	V	300-150	361	5	0	8.1	0.3
NCR	99	V	300-150	602	0	0	3.7	0.1
NJE	99	V	300-150	471	0	0	4.0	0.5
NJU	99	V	300-150	36	0	0	3.6	0.5
NOS	99	V	300-150	1452	8	0	5.0	0.2
NSP	99	V	300-150	67	0	0	4.1	0.3
NUM	99	V	300-150	24	0	0	2.6	0.9
OAE	99	V	300-150	669	0	0	3.8	0.3
OCN	99	V	300-150	3708	0	0	3.8	0.5
OLI	99	V	300-150	48	0	0	2.7	0.3
OMA	99	V	300-150	298	5	0	5.5	0.2
PAL	99	V	300-150	43	2	0	3.2	-0.3
PEX	99	V	300-150	87	0	0	3.7	0.2
PGQ	99	V	300-150	36	0	0	4.4	1.7
PIA	99	V	300-150	59	0	0	2.6	0.7

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
PJZ	99	V	300-150	49	0	0	3.1	0.0
PLF	99	V	300-150	60	0	0	3.0	0.1
PVA	99	V	300-150	376	0	0	3.7	-0.4
QAF	99	V	300-150	35	0	0	3.7	0.1
QFA	99	V	300-150	4215	1	0	5.3	0.5
QFX	99	V	300-150	74	0	0	4.0	-0.2
QLK	99	V	300-150	157	0	0	4.0	0.5
QQE	99	V	300-150	321	0	0	4.0	0.6
QTR	99	V	300-150	2485	0	0	4.0	0.2
RAM	99	V	300-150	643	13	0	5.1	0.1
RCH	99	V	300-150	13761	0	0	4.8	0.3
RDN	99	V	300-150	73	0	0	2.8	-0.2
RHH	99	V	300-150	64	0	0	6.1	-0.1
RJA	99	V	300-150	1828	15	0	5.9	-0.1
RJR	99	V	300-150	51	0	0	3.6	0.8
RKK	99	V	300-150	63	0	0	4.5	-0.6
ROJ	99	V	300-150	42	0	0	3.5	0.5
RRR	99	V	300-150	209	0	0	4.0	0.4
RYR	99	V	300-150	499	0	0	3.1	0.4
RZO	99	V	300-150	191	0	0	4.0	0.2
SAM	99	V	300-150	276	0	0	3.9	0.3
SAS	99	V	300-150	5124	0	0	3.4	0.3
SAZ	99	V	300-150	53	0	0	3.9	0.5
SCO	99	V	300-150	24	0	0	3.0	0.4
SCX	99	V	300-150	68	0	3	6.2	0.9
SIA	99	V	300-150	5855	0	0	4.2	0.4
SIO	99	V	300-150	45	0	0	3.9	1.5
SLM	99	V	300-150	139	0	0	3.1	0.5
SON	99	V	300-150	68	0	0	3.6	0.9
SPA	99	V	300-150	108	0	0	4.6	0.2
SVA	99	V	300-150	2820	3	0	4.7	0.1
SVW	99	V	300-150	264	0	0	4.0	0.6
SWR	99	V	300-150	10283	0	0	4.1	0.6
SYB	99	V	300-150	90	0	0	3.8	0.1
TAM	99	V	300-150	62	0	0	2.4	0.5
TAP	99	V	300-150	3919	0	0	3.7	0.7
TAR	99	V	300-150	271	0	0	3.4	0.2
TAX	99	V	300-150	223	0	0	3.8	0.4
TAY	99	V	300-150	91	0	0	4.3	-0.5
TEU	99	V	300-150	63	0	0	4.5	0.4
TFL	99	V	300-150	1493	12	0	5.5	0.2
TGW	99	V	300-150	182	4	1	7.6	0.3
THA	99	V	300-150	1364	1	0	4.6	0.1

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
THT	99	V	300-150	1771	3	0	6.9	0.7
THY	99	V	300-150	17050	5	0	5.1	0.2
TIV	99	V	300-150	36	0	0	5.7	0.0
TMN	99	V	300-150	452	0	0	4.2	0.6
TOM	99	V	300-150	3987	11	0	6.2	0.2
TOR	99	V	300-150	103	0	0	4.0	0.6
TSC	99	V	300-150	6380	0	0	3.6	0.4
TUA	99	V	300-150	31	0	0	8.3	-0.3
TVR	99	V	300-150	51	0	0	2.7	0.1
TVS	99	V	300-150	92	0	1	4.8	1.2
TWY	99	V	300-150	355	0	0	4.0	0.4
UAE	99	V	300-150	7832	0	0	3.8	0.1
UAF	99	V	300-150	187	0	0	5.4	0.6
UAG	99	V	300-150	46	0	0	3.7	0.9
UAL	99	V	300-150	65943	3	1	4.5	0.2
UBT	99	V	300-150	1282	14	0	5.7	0.2
UKN	99	V	300-150	35	0	0	3.8	0.2
ULC	99	V	300-150	121	0	0	3.5	0.3
UPS	99	V	300-150	4308	0	0	4.2	0.1
UZB	99	V	300-150	196	5	0	9.4	1.5
VAJ	99	V	300-150	20	0	0	4.1	1.8
VCG	99	V	300-150	58	0	0	4.6	0.2
VCJ	99	V	300-150	50	0	0	4.1	-0.5
VIN	99	V	300-150	20	0	0	3.5	1.2
VIR	99	V	300-150	18415	4	0	4.4	0.3
VJH	99	V	300-150	191	0	0	4.3	-0.4
VJT	99	V	300-150	1473	0	0	3.9	0.5
VKG	99	V	300-150	277	0	0	3.9	0.5
VLZ	99	V	300-150	36	0	0	3.8	0.8
VOZ	99	V	300-150	736	0	0	3.3	0.1
VSV	99	V	300-150	36	0	0	3.6	0.6
VXS	99	V	300-150	35	0	0	3.8	0.0
WFL	99	V	300-150	296	0	0	3.2	0.3
WGN	99	V	300-150	64	0	0	4.4	1.2
WJA	99	V	300-150	1530	7	1	7.0	-0.1
WWI	99	V	300-150	226	0	0	4.3	0.4
XAX	99	V	300-150	235	0	0	3.4	0.3

4 EUCOS Area Monitoring Statistics

The following tables provide information on the quality of upper-air data and surface DRIFTER data over the EUCOS area as received at ECMWF during the month.

Tables 13, 14 (50 hPa level), 15, 16 (100 hPa level) 17, 18 (500 hPa level) 19 and 20 (850 hPa level) provide quality statistics for all TEMPSHIPS and PILOTSHIPS received during the month in the area $10\,^{\circ}$N - $90\,^{\circ}$N, $70\,^{\circ}$W - $40\,^{\circ}$E and for TEMPS and PILOTS from selected land stations within the same area. The statistics are in the same form as tables 10 and 11.
Tables 21-23 provides quality statistics of pressure and wind for all DRIFTER reports received in the area $10\,^{\circ}$N - $90\,^{\circ}$N, $70\,^{\circ}$W - $40\,^{\circ}$E. The statistics are in the same form as tables 4-6.

4.1 Table 13 - Radiosonde Monitoring Statistics (EUCOS): 50 hPa Geopotential height (metres)

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RADIOSONDE MONITORING STATISTICS (EUCOS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : GEOPOTENTIAL HEIGHT (METRES)
         LEVEL                 :  50 HPA
         AREA                  : 0 - 90N, 100W - 40E
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
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WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
01001	12	Z	50	31	9.6	-2.5
01001	00	Z	50	31	11.0	6.7
01028	00	Z	50	31	8.4	-3.2
01028	12	Z	50	29	8.7	-6.2
01400	00	Z	50	27	80.0	79.3
01400	12	Z	50	25	73.1	72.4
01415	00	Z	50	30	13.0	2.7
01415	12	Z	50	31	9.5	1.1
02836	12	Z	50	32	10.7	-7.2
02836	00	Z	50	29	14.5	-3.1
02963	00	Z	50	31	8.0	-3.6
02963	12	Z	50	32	8.0	-3.4
03005	12	Z	50	30	12.4	-7.7
03005	00	Z	50	28	46.7	-9.0
03238	00	Z	50	29	7.8	-1.0
03238	12	Z	50	1	14.9	-14.9
03808	00	Z	50	31	8.5	-1.4
03808	12	Z	50	30	8.7	-4.0
03918	00	Z	50	31	12.5	-4.2
03953	12	Z	50	31	8.1	-0.5
03953	00	Z	50	31	8.7	-0.8
04018	12	Z	50	28	14.2	-3.2
04018	00	Z	50	21	15.7	0.3
04220	12	Z	50	29	18.3	-15.7
04220	00	Z	50	30	18.9	-17.1
04270	00	Z	50	28	29.8	-21.7
04270	12	Z	50	29	19.1	-12.4
04320	00	Z	50	30	21.1	-15.1
04320	12	Z	50	31	18.1	-14.7
04339	12	Z	50	24	30.5	-27.3
04339	00	Z	50	23	24.6	-20.4
04360	12	Z	50	16	43.4	-33.9
04360	00	Z	50	15	49.0	-45.1
06011	12	Z	50	26	27.8	-23.0
06260	12	Z	50	4	2.2	0.1
06260	00	Z	50	31	11.4	2.4
06610	00	Z	50	31	11.5	-1.8
06610	12	Z	50	31	11.1	4.4
07110	12	Z	50	31	23.3	-21.5

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
07110	00	Z	50	30	17.3	-15.3
07510	12	Z	50	26	9.9	-3.9
07510	00	Z	50	29	9.1	-6.2
07645	00	Z	50	29	34.1	30.9
07645	12	Z	50	27	43.2	41.5
07761	00	Z	50	29	22.4	-19.8
07761	12	Z	50	28	23.2	-18.8
08001	12	Z	50	31	5.2	-0.9
08001	00	Z	50	31	8.2	5.6
08221	00	Z	50	31	7.8	5.2
08221	12	Z	50	31	6.9	1.4
08302	12	Z	50	26	9.7	-6.1
08302	00	Z	50	23	7.7	-4.0
08508	12	Z	50	31	6.5	-1.3
08522	12	Z	50	30	7.7	0.7
10035	12	Z	50	31	8.6	-5.0
10035	00	Z	50	30	5.5	2.0
10393	12	Z	50	31	6.7	-0.3
10393	00	Z	50	31	6.8	2.6
10410	00	Z	50	31	7.2	2.7
10410	12	Z	50	31	9.2	-6.4
10739	00	Z	50	30	11.3	-8.0
10739	12	Z	50	31	15.6	-12.8
11035	00	Z	50	30	8.9	2.4
11035	12	Z	50	28	15.2	9.0
12982	12	Z	50	31	7.9	6.3
12982	00	Z	50	31	9.8	3.6
16245	00	Z	50	31	5.8	4.2
16245	12	Z	50	29	5.3	1.1
16429	12	Z	50	31	7.7	4.4
16429	00	Z	50	29	9.9	5.8
16622	00	Z	50	24	7.9	-1.4
16754	00	Z	50	24	15.1	-12.0
17607	12	Z	50	27	9.9	4.2
26435	12	Z	50	5	13.2	0.4
60018	00	Z	50	28	10.2	8.3
60018	12	Z	50	31	9.3	1.9
7JUNA4	12	Z	50	8	134.8	123.7
7JUNA4	00	Z	50	8	9.7	-2.5
9ZT9MR	12	Z	50	12	39.0	-35.1
9ZT9MR	00	Z	50	12	39.1	-34.7
ASDE09	12	Z	50	2	47.3	-10.5
ATGU3F	12	Z	50	6	38.9	1.9

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
ATGU3F	00	Z	50	5	19.1	1.2
FPUW5G	12	Z	50	4	13.9	-1.4
GKA32C	00	Z	50	5	25.4	-24.2
GKA32C	12	Z	50	6	23.2	-19.8
JNKN7J	12	Z	50	11	68.5	36.3
JNKN7J	00	Z	50	10	82.2	49.8
KMPLHP	12	Z	50	9	47.8	14.7
KMPLHP	00	Z	50	9	14.6	-5.6
LRYQE3	00	Z	50	7	14.7	-10.8
LRYQE3	12	Z	50	8	97.4	57.4
TLH	00	Z	50	0	0.0	0.0
TLH	12	Z	50	0	0.0	0.0
USALY	00	Z	50	2	7.2	-2.0
USCLL	00	Z	50	0	0.0	0.0
USCOU	12	Z	50	0	0.0	0.0
USCOU	00	Z	50	0	0.0	0.0
USIUB	12	Z	50	0	0.0	0.0
USIUB	00	Z	50	2	39.1	29.6
USOHS	00	Z	50	0	0.0	0.0
USSOM	00	Z	50	2	3.7	-3.7
USUND	00	Z	50	0	0.0	0.0
WDK38H	12	Z	50	12	13.4	-10.8
WFF	00	Z	50	0	0.0	0.0
WFF	12	Z	50	0	0.0	0.0
XKQLWQ	12	Z	50	18	27.7	24.6
YLV96W	00	Z	50	7	87.6	42.2
YLV96W	12	Z	50	8	106.2	96.9

4.2 Table 14 - Radiosonde Monitoring Statistics (EUCOS): 50 hPa Wind (m/s)

```
RADIOSONDE MONITORING STATISTICS (EUCOS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : WIND (M/S)
         LEVEL                 :  50 HPA
         AREA                  : 0 - 90N, 100W - 40E
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
```

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
01001	12	V	50	31	4.3	0.3	-0.2
01001	00	V	50	28	3.1	0.6	-0.1
01028	00	V	50	30	3.2	0.7	-0.1
01028	12	V	50	29	3.1	-0.2	-0.3
01400	00	V	50	25	3.0	-0.4	0.6
01400	12	V	50	23	3.6	-0.4	-0.5
01415	00	V	50	24	3.8	-0.1	-0.3
01415	12	V	50	31	3.8	-0.3	-0.7
02836	12	V	50	1	1.8	-1.3	-1.3
02836	00	V	50	1	36.1	-17.6	31.5
02963	00	V	50	0	0.0	0.0	0.0
02963	12	V	50	17	4.3	0.4	-0.2
03005	12	V	50	30	3.2	0.7	0.2
03005	00	V	50	23	3.8	0.0	0.1
03238	00	V	50	27	3.3	0.4	-0.6
03238	12	V	50	1	4.3	1.5	-4.0
03808	00	V	50	27	3.4	0.2	-0.2
03808	12	V	50	30	2.8	0.0	-0.2
03918	00	V	50	27	3.4	0.0	-0.8
03953	12	V	50	31	3.2	0.1	0.0
03953	00	V	50	28	3.3	0.3	0.0
04018	12	V	50	24	5.2	0.7	-0.5
04018	00	V	50	18	4.0	-0.3	-0.4
04220	12	V	50	29	3.4	-0.2	-0.5
04220	00	V	50	28	3.9	0.4	-0.2
04270	00	V	50	27	4.1	0.7	-1.2
04270	12	V	50	29	4.8	0.5	-0.2
04320	00	V	50	26	3.5	0.1	0.3
04320	12	V	50	31	3.4	-0.6	-0.2
04339	12	V	50	24	3.8	0.9	0.1
04339	00	V	50	23	4.0	-0.2	-0.1
04360	12	V	50	16	5.5	0.5	0.4
04360	00	V	50	14	4.2	0.1	0.3
06011	12	V	50	26	3.2	0.0	-0.5
06260	12	V	50	4	4.4	-1.5	0.8
06260	00	V	50	28	2.3	0.3	-0.4
06610	00	V	50	30	3.1	0.4	-0.2
06610	12	V	50	30	3.4	0.3	0.3
07110	12	V	50	31	2.8	0.4	0.2

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
07110	00	V	50	25	2.7	-0.3	0.0
07510	12	V	50	26	2.1	-0.5	0.2
07510	00	V	50	26	2.7	-0.1	0.3
07645	00	V	50	25	2.6	-0.3	0.4
07645	12	V	50	27	3.1	-0.1	-0.9
07761	00	V	50	25	2.9	-0.4	0.1
07761	12	V	50	28	2.5	-0.2	0.1
08001	12	V	50	31	2.9	0.3	0.0
08001	00	V	50	25	2.8	-0.4	0.3
08221	00	V	50	28	3.4	0.4	0.2
08221	12	V	50	31	3.4	-0.4	0.3
08302	12	V	50	26	3.0	-0.1	0.1
08302	00	V	50	21	2.7	0.5	-0.1
08508	12	V	50	27	2.6	0.3	-0.5
08522	12	V	50	30	3.1	1.2	0.4
10035	12	V	50	31	3.2	0.4	0.0
10035	00	V	50	28	2.3	0.1	0.0
10393	12	V	50	30	2.4	0.1	-0.2
10393	00	V	50	28	3.1	0.5	-0.4
10410	00	V	50	30	2.6	0.3	-0.2
10410	12	V	50	30	2.9	-0.1	0.0
10739	00	V	50	28	2.4	-0.3	0.1
10739	12	V	50	31	2.4	0.4	-0.2
11035	00	V	50	27	3.2	-0.1	0.6
11035	12	V	50	28	2.5	-0.1	0.3
12982	12	V	50	31	2.9	0.2	0.1
12982	00	V	50	26	3.0	0.0	0.3
16245	00	V	50	30	3.0	0.4	-0.3
16245	12	V	50	29	2.6	-0.3	0.3
16429	12	V	50	31	2.8	0.5	-0.2
16429	00	V	50	28	3.4	-0.2	0.3
16622	00	V	50	21	3.6	0.0	-0.1
16754	00	V	50	22	3.7	0.9	-0.3
17607	12	V	50	26	3.9	1.1	-0.8
26435	12	V	50	3	1.9	0.1	-0.4
60018	00	V	50	24	3.7	0.3	0.4
60018	12	V	50	31	4.0	0.7	0.9
7JUNA4	12	V	50	8	4.5	1.5	0.5
7JUNA4	00	V	50	8	2.7	0.6	0.4
9ZT9MR	12	V	50	12	5.8	-1.0	2.0
9ZT9MR	00	V	50	11	4.3	1.5	0.4
ASDE09	12	V	50	2	1.7	0.4	-1.0
ATGU3F	12	V	50	6	5.0	-3.3	-2.0

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
ATGU3F	00	V	50	5	3.8	-0.9	2.1
FPUW5G	12	V	50	3	4.3	-2.4	0.5
GKA32C	00	V	50	5	1.9	0.2	-0.7
GKA32C	12	V	50	6	3.8	2.0	0.4
JNKN7J	12	V	50	11	4.0	1.2	1.0
JNKN7J	00	V	50	10	2.6	-0.1	0.8
KMPLHP	12	V	50	9	3.4	0.6	0.6
KMPLHP	00	V	50	9	2.8	-0.3	0.8
LRYQE3	00	V	50	7	5.1	0.4	-1.8
LRYQE3	12	V	50	8	3.2	-0.6	-1.7
TLH	00	V	50	0	0.0	0.0	0.0
TLH	12	V	50	0	0.0	0.0	0.0
USALY	00	V	50	2	4.2	-2.5	-2.8
USCLL	00	V	50	0	0.0	0.0	0.0
USCOU	12	V	50	0	0.0	0.0	0.0
USCOU	00	V	50	0	0.0	0.0	0.0
USIUB	12	V	50	0	0.0	0.0	0.0
USIUB	00	V	50	2	6.2	-3.1	3.5
USOHS	00	V	50	0	0.0	0.0	0.0
USSOM	00	V	50	2	5.1	-2.7	0.0
USUND	00	V	50	0	0.0	0.0	0.0
WDK38H	12	V	50	11	3.1	0.7	-1.2
WFF	00	V	50	0	0.0	0.0	0.0
WFF	12	V	50	0	0.0	0.0	0.0
XKQLWQ	12	V	50	17	3.3	-0.4	0.4
YLV96W	00	V	50	7	5.1	-0.2	0.9
YLV96W	12	V	50	8	3.0	0.4	-0.5

4.3 Table 15 - Radiosonde Monitoring Statistics (EUCOS): 100 hPa Geopotential height (metres)

```
RADIOSONDE MONITORING STATISTICS (EUCOS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : GEOPOTENTIAL HEIGHT (METRES)
         LEVEL                 : 100 HPA
         AREA                  : 0 - 90N, 100W - 40E
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
```

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
01001	12	Z	100	31	7.8	-1.6
01001	00	Z	100	31	9.5	4.9
01028	00	Z	100	31	8.0	-4.8
01028	12	Z	100	29	7.2	-5.4
01400	00	Z	100	27	78.5	77.9
01400	12	Z	100	28	73.2	72.7
01415	00	Z	100	30	11.2	2.0
01415	12	Z	100	32	8.2	1.3
02836	12	Z	100	34	11.1	-7.2
02836	00	Z	100	29	9.5	-3.5
02963	00	Z	100	31	4.8	-1.1
02963	12	Z	100	32	5.7	-1.8
03005	12	Z	100	31	10.0	-6.8
03005	00	Z	100	33	46.5	-9.7
03238	00	Z	100	29	8.0	-2.5
03238	12	Z	100	1	17.3	-17.3
03808	00	Z	100	31	6.9	-1.5
03808	12	Z	100	30	8.2	-2.3
03918	00	Z	100	32	11.2	-5.9
03953	12	Z	100	31	6.2	0.2
03953	00	Z	100	31	7.3	-1.8
04018	12	Z	100	29	10.2	-1.2
04018	00	Z	100	30	11.2	0.0
04220	12	Z	100	29	14.7	-12.3
04220	00	Z	100	31	13.8	-12.6
04270	00	Z	100	30	22.1	-18.1
04270	12	Z	100	29	16.7	-12.8
04320	00	Z	100	31	12.7	-8.7
04320	12	Z	100	31	11.6	-8.8
04339	12	Z	100	27	24.2	-19.1
04339	00	Z	100	25	20.9	-17.8
04360	12	Z	100	16	37.6	-31.2
04360	00	Z	100	17	41.6	-39.3
06011	12	Z	100	30	23.7	-19.3
06260	12	Z	100	5	4.7	-0.8
06260	00	Z	100	31	9.4	0.9
06610	00	Z	100	31	8.5	-2.0
06610	12	Z	100	31	9.8	3.6
07110	12	Z	100	31	17.0	-15.2

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
07110	00	Z	100	31	13.6	-11.8
07510	12	Z	100	27	8.0	-4.0
07510	00	Z	100	29	8.1	-6.2
07645	00	Z	100	31	24.9	21.1
07645	12	Z	100	31	30.2	29.0
07761	00	Z	100	30	18.2	-16.5
07761	12	Z	100	28	19.8	-16.9
08001	12	Z	100	31	5.1	1.6
08001	00	Z	100	31	6.5	4.5
08221	00	Z	100	31	8.8	5.4
08221	12	Z	100	31	6.4	2.2
08302	12	Z	100	26	9.3	-7.9
08302	00	Z	100	24	9.0	-6.4
08508	12	Z	100	31	6.8	3.7
08522	12	Z	100	31	8.0	2.3
10035	12	Z	100	31	7.3	-3.4
10035	00	Z	100	30	4.0	0.9
10393	12	Z	100	31	3.9	0.4
10393	00	Z	100	31	5.7	0.7
10410	00	Z	100	31	5.6	0.8
10410	12	Z	100	31	7.3	-4.6
10739	00	Z	100	31	10.4	-9.0
10739	12	Z	100	31	15.6	-12.7
11035	00	Z	100	31	6.7	1.2
11035	12	Z	100	30	10.9	6.7
12982	12	Z	100	31	6.5	4.8
12982	00	Z	100	31	6.2	1.5
16245	00	Z	100	31	4.1	2.4
16245	12	Z	100	30	4.1	1.1
16429	12	Z	100	31	5.2	2.6
16429	00	Z	100	30	8.2	4.7
16622	00	Z	100	27	8.0	-3.3
16754	00	Z	100	25	14.2	-11.9
17607	12	Z	100	27	5.5	1.5
26435	12	Z	100	7	14.9	2.5
60018	00	Z	100	30	8.7	6.5
60018	12	Z	100	31	8.6	4.3
7JUNA4	12	Z	100	9	61.7	56.6
7JUNA4	00	Z	100	8	6.3	-0.9
9ZT9MR	12	Z	100	13	31.3	-28.5
9ZT9MR	00	Z	100	13	36.6	-33.8
ASDE09	12	Z	100	2	46.9	-19.9
ATGU3F	12	Z	100	6	29.5	-9.7

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
ATGU3F	00	Z	100	5	13.1	-7.4
FPUW5G	12	Z	100	5	7.9	-1.1
GKA32C	00	Z	100	5	14.8	-13.4
GKA32C	12	Z	100	6	16.1	-14.1
JNKN7J	12	Z	100	12	47.4	33.6
JNKN7J	00	Z	100	10	62.4	42.3
KMPLHP	12	Z	100	12	22.3	-3.6
KMPLHP	00	Z	100	10	10.0	-3.4
LRYQE3	00	Z	100	7	11.6	-8.9
LRYQE3	12	Z	100	9	43.3	21.5
TLH	00	Z	100	1	151.6	151.6
TLH	12	Z	100	0	0.0	0.0
USALY	00	Z	100	3	6.5	1.2
USCLL	00	Z	100	3	11.8	10.9
USCOU	12	Z	100	0	0.0	0.0
USCOU	00	Z	100	0	0.0	0.0
USIUB	12	Z	100	1	19.0	19.0
USIUB	00	Z	100	4	31.0	15.7
USOHS	00	Z	100	0	0.0	0.0
USSOM	00	Z	100	3	85.9	-47.6
USUND	00	Z	100	2	15.7	-15.5
WDK38H	12	Z	100	16	16.8	-13.9
WFF	00	Z	100	0	0.0	0.0
WFF	12	Z	100	0	0.0	0.0
XKQLWQ	12	Z	100	18	22.1	20.2
YLV96W	00	Z	100	8	78.8	32.9
YLV96W	12	Z	100	8	64.7	55.9

4.4 Table 16 - Radiosonde Monitoring Statistics (EUCOS): 100 hPa Wind (m/s)

```
RADIOSONDE MONITORING STATISTICS (EUCOS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : WIND (M/S)
         LEVEL                 : 100 HPA
         AREA                  : 0 - 90N, 100W - 40E
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
```

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
01001	12	V	100	31	3.0	0.6	0.6
01001	00	V	100	30	3.6	0.3	-0.1
01028	00	V	100	30	2.8	-0.3	-0.8
01028	12	V	100	29	3.2	0.0	-0.4
01400	00	V	100	26	2.9	0.8	-0.2
01400	12	V	100	28	3.3	-0.2	0.2
01415	00	V	100	29	3.4	-0.2	-0.4
01415	12	V	100	31	3.3	-0.4	0.0
02836	12	V	100	2	2.2	0.8	-1.2
02836	00	V	100	3	15.0	-7.2	5.9
02963	00	V	100	0	0.0	0.0	0.0
02963	12	V	100	20	3.5	0.2	-0.3
03005	12	V	100	31	4.1	0.6	-0.6
03005	00	V	100	28	3.3	0.4	0.4
03238	00	V	100	28	3.6	0.3	-0.4
03238	12	V	100	1	1.4	0.6	-1.3
03808	00	V	100	30	2.9	0.0	0.5
03808	12	V	100	30	2.9	-0.4	0.1
03918	00	V	100	29	3.2	-0.2	0.1
03953	12	V	100	31	3.3	-0.5	0.1
03953	00	V	100	30	2.9	-0.5	0.3
04018	12	V	100	29	3.6	-0.2	-0.3
04018	00	V	100	27	4.2	0.4	-0.5
04220	12	V	100	29	2.8	0.3	0.1
04220	00	V	100	30	2.8	0.5	-0.2
04270	00	V	100	29	3.5	0.0	0.1
04270	12	V	100	29	2.9	0.4	-0.1
04320	00	V	100	30	2.8	0.2	0.5
04320	12	V	100	31	3.2	-0.1	0.0
04339	12	V	100	26	3.1	0.8	0.5
04339	00	V	100	25	3.2	0.3	0.1
04360	12	V	100	16	4.1	0.1	-0.6
04360	00	V	100	17	5.1	0.5	-1.5
06011	12	V	100	30	3.5	-0.5	0.1
06260	12	V	100	5	2.4	0.2	-1.6
06260	00	V	100	28	3.3	-0.3	0.2
06610	00	V	100	30	2.8	0.3	-0.9
06610	12	V	100	31	3.8	0.4	0.4
07110	12	V	100	31	2.9	-0.4	-0.5

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
07110	00	V	100	29	2.9	0.2	0.3
07510	12	V	100	27	2.3	0.0	0.3
07510	00	V	100	28	2.4	0.2	0.3
07645	00	V	100	29	4.0	0.3	-0.8
07645	12	V	100	31	3.2	0.3	0.2
07761	00	V	100	28	3.0	0.1	0.4
07761	12	V	100	28	2.9	0.4	-0.3
08001	12	V	100	31	3.0	-0.4	-0.3
08001	00	V	100	29	3.4	0.1	0.4
08221	00	V	100	30	3.8	-0.3	0.0
08221	12	V	100	31	3.3	-0.4	0.8
08302	12	V	100	26	3.5	1.2	-0.5
08302	00	V	100	22	2.7	-0.1	0.5
08508	12	V	100	27	3.3	-0.4	0.4
08522	12	V	100	31	2.9	0.0	-0.1
10035	12	V	100	31	2.7	-0.5	0.0
10035	00	V	100	29	3.1	0.1	-0.1
10393	12	V	100	31	2.9	0.0	0.5
10393	00	V	100	30	2.8	-0.4	0.4
10410	00	V	100	30	3.0	0.0	-0.2
10410	12	V	100	31	2.8	0.1	0.0
10739	00	V	100	29	2.4	-0.2	0.4
10739	12	V	100	31	3.1	-0.7	-0.4
11035	00	V	100	28	2.5	-0.3	-0.2
11035	12	V	100	30	2.5	-0.4	-0.3
12982	12	V	100	31	2.4	0.3	0.1
12982	00	V	100	30	2.5	1.0	-0.5
16245	00	V	100	30	3.2	0.4	-0.3
16245	12	V	100	30	3.0	0.1	-0.1
16429	12	V	100	31	3.6	0.0	0.3
16429	00	V	100	28	3.0	0.5	-0.2
16622	00	V	100	24	2.1	-0.1	-0.3
16754	00	V	100	23	3.5	1.1	0.0
17607	12	V	100	27	3.5	0.1	-0.4
26435	12	V	100	6	3.0	1.7	0.4
60018	00	V	100	29	4.3	0.8	0.2
60018	12	V	100	31	3.1	0.6	0.9
7JUNA4	12	V	100	9	3.2	-0.2	-0.4
7JUNA4	00	V	100	8	3.4	0.3	0.6
9ZT9MR	12	V	100	13	6.0	0.1	-1.3
9ZT9MR	00	V	100	12	3.3	-0.5	-0.4
ASDE09	12	V	100	2	2.6	1.4	1.0
ATGU3F	12	V	100	6	2.6	0.3	0.8

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
ATGU3F	00	V	100	5	2.6	-1.4	0.0
FPUW5G	12	V	100	5	3.9	0.3	-1.8
GKA32C	00	V	100	5	2.9	1.9	-0.3
GKA32C	12	V	100	6	3.5	-0.2	0.5
JNKN7J	12	V	100	12	4.0	0.1	-0.1
JNKN7J	00	V	100	10	2.8	-0.5	0.5
KMPLHP	12	V	100	12	2.4	0.2	1.6
KMPLHP	00	V	100	10	3.8	-1.0	0.4
LRYQE3	00	V	100	7	3.5	0.8	0.1
LRYQE3	12	V	100	9	3.8	-0.4	2.1
TLH	00	V	100	1	1.3	0.1	1.3
TLH	12	V	100	0	0.0	0.0	0.0
USALY	00	V	100	3	2.4	1.4	0.1
USCLL	00	V	100	2	4.4	-1.3	-3.8
USCOU	12	V	100	0	0.0	0.0	0.0
USCOU	00	V	100	0	0.0	0.0	0.0
USIUB	12	V	100	1	5.6	-3.0	4.7
USIUB	00	V	100	4	3.7	1.4	2.5
USOHS	00	V	100	0	0.0	0.0	0.0
USSOM	00	V	100	3	4.2	-2.3	-1.7
USUND	00	V	100	2	4.5	3.7	-2.0
WDK38H	12	V	100	15	2.9	0.1	-0.8
WFF	00	V	100	0	0.0	0.0	0.0
WFF	12	V	100	0	0.0	0.0	0.0
XKQLWQ	12	V	100	17	2.4	-0.6	0.2
YLV96W	00	V	100	8	3.5	-0.2	0.2
YLV96W	12	V	100	8	4.1	0.4	-0.6

4.5 Table 17 - Radiosonde Monitoring Statistics (EUCOS): 500 hPa Geopotential height (metres)

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RADIOSONDE MONITORING STATISTICS (EUCOS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : GEOPOTENTIAL HEIGHT (METRES)
         LEVEL                 : 500 HPA
         AREA                  : 0 - 90N, 100W - 40E
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
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WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
01001	12	Z	500	31	5.9	2.2
01001	00	Z	500	31	9.7	7.3
01028	00	Z	500	31	3.6	-1.4
01028	12	Z	500	29	3.3	-1.2
01400	00	Z	500	27	77.8	77.7
01400	12	Z	500	29	76.5	76.4
01415	00	Z	500	30	5.1	4.2
01415	12	Z	500	32	5.4	3.7
02836	12	Z	500	34	3.8	-0.7
02836	00	Z	500	29	2.9	0.0
02963	00	Z	500	31	3.6	1.7
02963	12	Z	500	32	3.4	2.1
03005	12	Z	500	31	3.7	-1.9
03005	00	Z	500	33	4.0	-0.4
03238	00	Z	500	29	4.0	2.2
03238	12	Z	500	1	4.5	-4.5
03808	00	Z	500	31	5.6	4.3
03808	12	Z	500	30	5.0	3.8
03918	00	Z	500	32	4.7	0.0
03953	12	Z	500	31	5.4	3.1
03953	00	Z	500	31	4.8	3.0
04018	12	Z	500	30	4.4	1.3
04018	00	Z	500	31	5.0	2.5
04220	12	Z	500	31	5.9	-4.0
04220	00	Z	500	31	7.6	-6.1
04270	00	Z	500	31	12.6	-11.3
04270	12	Z	500	32	11.7	-9.7
04320	00	Z	500	31	7.7	3.1
04320	12	Z	500	31	7.0	1.8
04339	12	Z	500	28	10.8	-8.0
04339	00	Z	500	26	13.6	-9.1
04360	12	Z	500	16	17.6	-15.9
04360	00	Z	500	17	21.1	-18.7
06011	12	Z	500	30	10.2	-7.0
06260	12	Z	500	5	3.9	3.4
06260	00	Z	500	30	3.7	2.8
06610	00	Z	500	32	4.1	1.4
06610	12	Z	500	32	3.3	1.9
07110	12	Z	500	31	4.7	-1.0

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
07110	00	Z	500	32	5.2	-1.1
07510	12	Z	500	31	5.3	-0.6
07510	00	Z	500	30	2.7	0.3
07645	00	Z	500	33	9.5	7.1
07645	12	Z	500	32	10.3	9.8
07761	00	Z	500	34	7.5	-5.5
07761	12	Z	500	30	6.2	-4.6
08001	12	Z	500	31	3.8	3.1
08001	00	Z	500	31	5.0	4.5
08221	00	Z	500	31	5.3	4.9
08221	12	Z	500	31	4.5	3.9
08302	12	Z	500	26	7.6	-7.2
08302	00	Z	500	24	6.6	-5.8
08508	12	Z	500	31	6.4	5.3
08522	12	Z	500	31	7.4	4.4
10035	12	Z	500	31	2.7	1.8
10035	00	Z	500	30	2.8	2.4
10393	12	Z	500	31	2.6	2.1
10393	00	Z	500	31	4.1	2.3
10410	00	Z	500	32	3.1	2.1
10410	12	Z	500	31	2.8	0.9
10739	00	Z	500	31	8.5	-7.9
10739	12	Z	500	31	12.4	-9.5
11035	00	Z	500	31	5.2	3.9
11035	12	Z	500	32	7.5	6.0
12982	12	Z	500	31	4.9	3.3
12982	00	Z	500	31	5.0	4.0
16245	00	Z	500	31	4.5	4.0
16245	12	Z	500	31	3.7	2.8
16429	12	Z	500	31	4.9	4.0
16429	00	Z	500	30	5.4	4.8
16622	00	Z	500	30	6.4	5.9
16754	00	Z	500	27	7.7	-4.6
17607	12	Z	500	28	4.4	3.5
26435	12	Z	500	15	1.7	0.9
60018	00	Z	500	30	5.8	4.1
60018	12	Z	500	31	7.1	5.1
7JUNA4	12	Z	500	10	7.7	2.9
7JUNA4	00	Z	500	8	5.3	1.3
9ZT9MR	12	Z	500	14	14.1	-12.1
9ZT9MR	00	Z	500	12	15.6	-14.5
ASDE09	12	Z	500	2	64.6	-28.6
ATGU3F	12	Z	500	7	18.2	-11.8

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
ATGU3F	00	Z	500	6	7.9	1.2
FPUW5G	12	Z	500	5	4.9	2.1
GKA32C	00	Z	500	6	6.9	-3.4
GKA32C	12	Z	500	6	5.2	-4.0
JNKN7J	12	Z	500	12	36.8	36.1
JNKN7J	00	Z	500	10	57.1	48.3
KMPLHP	12	Z	500	13	7.6	-0.3
KMPLHP	00	Z	500	12	8.4	-0.1
LRYQE3	00	Z	500	7	8.8	-1.0
LRYQE3	12	Z	500	9	9.0	-2.2
TLH	00	Z	500	3	24.3	23.2
TLH	12	Z	500	6	22.6	22.1
USALY	00	Z	500	2	5.3	-4.1
USCLL	00	Z	500	1	7.2	7.2
USCOU	12	Z	500	1	3.8	-3.8
USCOU	00	Z	500	0	0.0	0.0
USIUB	12	Z	500	1	15.5	15.5
USIUB	00	Z	500	4	39.0	25.0
USOHS	00	Z	500	3	51.5	-50.7
USSOM	00	Z	500	3	80.1	-49.8
USUND	00	Z	500	3	7.1	-7.0
WDK38H	12	Z	500	20	14.0	-12.1
WFF	00	Z	500	9	21.6	20.1
WFF	12	Z	500	7	22.1	21.2
XKQLWQ	12	Z	500	21	10.6	9.5
YLV96W	00	Z	500	9	26.2	11.2
YLV96W	12	Z	500	11	32.9	15.2

4.6 Table 18 - Radiosonde Monitoring Statistics (EUCOS): 500 hPa Wind (m/s)

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RADIOSONDE MONITORING STATISTICS (EUCOS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : WIND (M/S)
         LEVEL                 : 500 HPA
         AREA                  : 0 - 90N, 100W - 40E
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
```

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
01001	12	V	500	31	3.4	0.3	-0.8
01001	00	V	500	30	3.1	0.2	0.2
01028	00	V	500	30	3.1	-0.6	-0.4
01028	12	V	500	29	3.4	-0.6	0.7
01400	00	V	500	26	2.6	-0.3	0.4
01400	12	V	500	29	2.2	0.2	-0.4
01415	00	V	500	29	3.3	0.5	0.1
01415	12	V	500	31	3.0	-0.6	0.3
02836	12	V	500	28	2.7	0.7	0.2
02836	00	V	500	26	2.7	0.1	-0.2
02963	00	V	500	30	1.9	0.3	-0.2
02963	12	V	500	30	2.6	0.0	0.2
03005	12	V	500	31	3.0	0.4	0.8
03005	00	V	500	30	2.8	-0.3	0.5
03238	00	V	500	28	2.9	0.9	-0.1
03238	12	V	500	1	5.1	5.1	0.5
03808	00	V	500	30	2.4	-0.5	-0.5
03808	12	V	500	30	2.1	0.1	-0.3
03918	00	V	500	30	2.6	0.8	-0.2
03953	12	V	500	31	3.0	0.5	0.1
03953	00	V	500	30	3.2	0.2	0.4
04018	12	V	500	30	3.3	0.1	0.5
04018	00	V	500	30	3.2	-0.2	0.2
04220	12	V	500	31	2.7	0.3	-0.2
04220	00	V	500	30	3.5	-0.1	-0.2
04270	00	V	500	30	4.2	0.5	0.6
04270	12	V	500	31	3.3	-0.2	0.3
04320	00	V	500	30	3.0	-0.5	-0.1
04320	12	V	500	31	3.2	-0.2	0.9
04339	12	V	500	28	3.4	0.4	0.4
04339	00	V	500	26	4.3	0.5	-0.5
04360	12	V	500	16	3.5	0.1	-0.7
04360	00	V	500	17	3.5	1.0	1.3
06011	12	V	500	30	3.6	-0.5	0.3
06260	12	V	500	5	1.6	0.0	-0.4
06260	00	V	500	28	3.1	-0.2	0.4
06610	00	V	500	30	2.6	0.0	-0.2
06610	12	V	500	31	2.6	-0.7	0.2
07110	12	V	500	31	2.7	-0.2	-0.5

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
07110	00	V	500	30	2.1	0.3	0.1
07510	12	V	500	29	1.6	0.1	0.1
07510	00	V	500	29	2.4	-0.2	-0.8
07645	00	V	500	29	2.2	0.1	-0.2
07645	12	V	500	31	2.0	0.3	0.3
07761	00	V	500	31	2.8	0.4	0.3
07761	12	V	500	30	2.2	-0.4	-0.1
08001	12	V	500	31	2.1	0.4	-0.3
08001	00	V	500	30	2.5	0.0	-0.3
08221	00	V	500	30	2.0	0.3	-0.1
08221	12	V	500	31	2.4	0.2	-0.1
08302	12	V	500	26	2.2	0.3	-0.2
08302	00	V	500	23	2.1	-0.3	0.0
08508	12	V	500	27	2.3	0.2	-0.1
08522	12	V	500	31	2.6	0.6	-0.4
10035	12	V	500	31	2.2	0.3	0.1
10035	00	V	500	29	2.4	-0.4	-0.3
10393	12	V	500	31	2.9	-0.2	-0.7
10393	00	V	500	30	1.9	-0.3	-0.2
10410	00	V	500	30	2.5	0.2	0.0
10410	12	V	500	31	2.0	0.1	0.0
10739	00	V	500	29	1.7	-0.4	-0.1
10739	12	V	500	31	2.8	0.4	0.1
11035	00	V	500	30	2.1	0.2	0.5
11035	12	V	500	31	1.9	-0.3	0.1
12982	12	V	500	31	2.1	0.7	0.3
12982	00	V	500	30	2.3	0.1	-0.1
16245	00	V	500	30	2.4	0.0	-0.1
16245	12	V	500	31	2.8	0.3	0.3
16429	12	V	500	31	2.8	0.7	-0.1
16429	00	V	500	28	3.9	0.7	0.0
16622	00	V	500	29	1.9	-0.4	0.2
16754	00	V	500	26	2.5	0.1	-0.3
17607	12	V	500	28	2.9	0.5	0.7
26435	12	V	500	15	2.4	-0.2	-0.1
60018	00	V	500	29	2.8	0.3	0.0
60018	12	V	500	31	2.6	-0.2	-0.1
7JUNA4	12	V	500	10	3.7	0.3	0.4
7JUNA4	00	V	500	8	2.5	-0.1	0.3
9ZT9MR	12	V	500	14	7.5	-2.0	0.2
9ZT9MR	00	V	500	11	2.4	-0.7	0.1
ASDE09	12	V	500	2	1.7	-1.0	-0.6
ATGU3F	12	V	500	7	2.3	-1.1	-0.5

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
ATGU3F	00	V	500	6	3.4	-0.8	0.2
FPUW5G	12	V	500	5	2.8	1.0	-0.8
GKA32C	00	V	500	6	1.7	0.3	0.2
GKA32C	12	V	500	6	1.6	0.2	-0.7
JNKN7J	12	V	500	12	2.5	-0.1	0.7
JNKN7J	00	V	500	10	2.3	0.0	0.4
KMPLHP	12	V	500	13	2.5	0.8	0.4
KMPLHP	00	V	500	12	1.9	0.0	1.1
LRYQE3	00	V	500	7	4.0	-1.3	2.2
LRYQE3	12	V	500	9	2.3	0.3	-0.1
TLH	00	V	500	3	4.0	-1.2	2.5
TLH	12	V	500	6	2.1	0.8	0.6
USALY	00	V	500	2	2.2	1.3	-0.6
USCLL	00	V	500	1	4.9	3.9	-3.0
USCOU	12	V	500	1	4.0	3.0	2.7
USCOU	00	V	500	0	0.0	0.0	0.0
USIUB	12	V	500	1	10.1	6.9	7.4
USIUB	00	V	500	4	4.1	-0.7	-1.7
USOHS	00	V	500	3	2.6	0.8	1.5
USSOM	00	V	500	3	2.2	-1.1	1.0
USUND	00	V	500	3	3.5	2.8	1.8
WDK38H	12	V	500	20	4.6	0.8	-0.1
WFF	00	V	500	9	2.8	-0.1	1.1
WFF	12	V	500	7	2.1	0.3	0.0
XKQLWQ	12	V	500	21	2.3	-0.2	-0.4
YLV96W	00	V	500	9	2.7	0.0	1.8
YLV96W	12	V	500	11	2.0	0.2	0.2

4.7 Table 19 - Radiosonde Monitoring Statistics (EUCOS): 850 hPa Geopotential height (metres)

```
RADIOSONDE MONITORING STATISTICS (EUCOS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : GEOPOTENTIAL HEIGHT (METRES)
         LEVEL                 : 850 HPA
         AREA                  : 0 - 90N, 100W - 40E
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
```

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
01001	12	Z	850	31	5.6	1.9
01001	00	Z	850	32	8.4	7.3
01028	00	Z	850	31	2.5	0.4
01028	12	Z	850	29	3.2	-0.9
01400	00	Z	850	27	76.8	76.7
01400	12	Z	850	29	76.4	76.3
01415	00	Z	850	30	5.5	4.7
01415	12	Z	850	32	4.8	4.4
02836	12	Z	850	33	2.2	0.1
02836	00	Z	850	29	1.9	-0.5
02963	00	Z	850	31	2.0	1.6
02963	12	Z	850	32	3.1	2.2
03005	12	Z	850	31	3.0	-1.2
03005	00	Z	850	33	3.1	-0.8
03238	00	Z	850	29	3.4	2.5
03238	12	Z	850	1	2.6	2.6
03808	00	Z	850	31	4.2	3.9
03808	12	Z	850	30	4.1	3.4
03918	00	Z	850	32	3.5	0.3
03953	12	Z	850	31	3.8	0.6
03953	00	Z	850	31	2.1	0.6
04018	12	Z	850	30	5.0	2.7
04018	00	Z	850	31	4.7	2.9
04220	12	Z	850	31	3.8	-2.6
04220	00	Z	850	31	4.9	-3.7
04270	00	Z	850	32	8.8	-7.1
04270	12	Z	850	32	9.1	-8.0
04320	00	Z	850	31	6.5	0.7
04320	12	Z	850	31	5.2	0.3
04339	12	Z	850	28	14.3	-10.4
04339	00	Z	850	26	13.3	-10.4
04360	12	Z	850	16	12.0	-11.3
04360	00	Z	850	18	14.7	-11.8
06011	12	Z	850	30	4.5	-1.9
06260	12	Z	850	5	4.5	3.7
06260	00	Z	850	31	2.7	1.7
06610	00	Z	850	32	3.2	1.6
06610	12	Z	850	32	2.5	1.3
07110	12	Z	850	31	2.3	1.6

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
07110	00	Z	850	32	2.4	1.5
07510	12	Z	850	31	2.9	-1.9
07510	00	Z	850	30	2.9	-2.1
07645	00	Z	850	34	3.0	-2.4
07645	12	Z	850	32	3.2	-2.6
07761	00	Z	850	34	4.8	-3.4
07761	12	Z	850	30	5.6	-4.6
08001	12	Z	850	31	2.7	1.7
08001	00	Z	850	31	3.0	2.5
08221	00	Z	850	31	3.1	2.3
08221	12	Z	850	31	2.6	1.5
08302	12	Z	850	26	8.2	-8.0
08302	00	Z	850	24	7.9	-7.7
08508	12	Z	850	31	3.8	2.7
08522	12	Z	850	31	3.8	2.8
10035	12	Z	850	31	2.2	1.8
10035	00	Z	850	30	2.8	1.9
10393	12	Z	850	32	2.2	1.5
10393	00	Z	850	31	3.6	1.7
10410	00	Z	850	32	2.1	1.0
10410	12	Z	850	31	1.8	0.8
10739	00	Z	850	31	8.1	-7.5
10739	12	Z	850	31	11.8	-9.5
11035	00	Z	850	31	4.5	1.4
11035	12	Z	850	33	4.1	3.2
12982	12	Z	850	31	3.4	2.9
12982	00	Z	850	31	3.4	2.8
16245	00	Z	850	31	3.5	3.1
16245	12	Z	850	31	2.7	2.1
16429	12	Z	850	31	3.5	3.0
16429	00	Z	850	30	3.8	3.0
16622	00	Z	850	31	5.3	5.0
16754	00	Z	850	28	5.6	-5.3
17607	12	Z	850	28	2.4	0.5
26435	12	Z	850	15	2.4	0.2
60018	00	Z	850	30	4.3	-0.4
60018	12	Z	850	31	3.3	0.1
7JUNA4	12	Z	850	10	5.2	1.9
7JUNA4	00	Z	850	8	4.8	3.4
9ZT9MR	12	Z	850	14	12.7	-11.8
9ZT9MR	00	Z	850	13	14.4	-14.0
ASDE09	12	Z	850	2	72.3	-32.1
ATGU3F	12	Z	850	8	6.9	-4.4

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
ATGU3F	00	Z	850	8	8.9	-1.6
FPUW5G	12	Z	850	5	2.9	0.1
GKA32C	00	Z	850	6	6.8	-2.6
GKA32C	12	Z	850	6	8.0	-6.4
JNKN7J	12	Z	850	12	40.9	40.4
JNKN7J	00	Z	850	10	39.6	36.6
KMPLHP	12	Z	850	13	5.7	1.8
KMPLHP	00	Z	850	12	8.3	0.5
LRYQE3	00	Z	850	7	8.3	-0.9
LRYQE3	12	Z	850	9	8.6	-3.8
TLH	00	Z	850	8	13.4	-0.7
TLH	12	Z	850	6	13.2	2.9
USALY	00	Z	850	1	2.1	2.1
USCLL	00	Z	850	1	1.2	1.2
USCOU	12	Z	850	1	2.2	-2.2
USCOU	00	Z	850	0	0.0	0.0
USIUB	12	Z	850	1	24.4	24.4
USIUB	00	Z	850	4	44.0	29.4
USOHS	00	Z	850	4	45.9	-44.4
USSOM	00	Z	850	3	20.4	-7.2
USUND	00	Z	850	3	4.7	-0.2
WDK38H	12	Z	850	20	12.4	-10.1
WFF	00	Z	850	1	16.7	-16.7
WFF	12	Z	850	10	15.2	2.4
XKQLWQ	12	Z	850	21	3.4	2.7
YLV96W	00	Z	850	9	30.2	11.6
YLV96W	12	Z	850	11	34.6	14.8

4.8 Table 20 - Radiosonde Monitoring Statistics (EUCOS): 850 hPa Wind (m/s)

```
RADIOSONDE MONITORING STATISTICS (EUCOS)
         MONITORING CENTRE     : ECMWF
         ELEMENT MONITORED     : WIND (M/S)
         LEVEL                 : 850 HPA
         AREA                  : 0 - 90N, 100W - 40E
         PERIOD                : MAR 2026
         STANDARD OF COMPARISON: FIRST-GUESS FIELD
```

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
01001	12	V	850	31	4.8	1.0	1.3
01001	00	V	850	30	3.9	1.3	0.5
01028	00	V	850	30	3.3	1.0	-0.4
01028	12	V	850	29	2.5	0.7	-0.4
01400	00	V	850	26	2.4	0.6	0.0
01400	12	V	850	29	2.4	0.3	0.1
01415	00	V	850	29	2.4	-0.2	0.4
01415	12	V	850	31	2.6	-0.4	0.3
02836	12	V	850	30	3.1	-0.2	-0.7
02836	00	V	850	28	2.8	0.4	-0.4
02963	00	V	850	30	2.4	0.2	0.6
02963	12	V	850	30	2.0	0.2	0.2
03005	12	V	850	31	3.1	-0.1	0.1
03005	00	V	850	30	3.2	-0.4	-0.1
03238	00	V	850	28	2.3	-0.1	0.0
03238	12	V	850	1	3.8	2.7	-2.7
03808	00	V	850	30	3.5	0.7	-0.2
03808	12	V	850	30	2.4	0.5	0.6
03918	00	V	850	30	2.5	0.4	-0.1
03953	12	V	850	31	3.3	0.0	0.3
03953	00	V	850	30	2.4	-0.5	0.3
04018	12	V	850	30	3.6	1.1	0.5
04018	00	V	850	30	4.6	0.2	0.8
04220	12	V	850	31	3.7	0.3	-0.2
04220	00	V	850	30	3.3	0.2	0.3
04270	00	V	850	30	4.6	1.2	1.0
04270	12	V	850	31	4.2	0.0	0.3
04320	00	V	850	30	4.1	0.6	0.8
04320	12	V	850	31	5.2	0.5	1.8
04339	12	V	850	28	6.8	0.9	1.6
04339	00	V	850	26	8.3	0.9	3.9
04360	12	V	850	16	4.5	1.4	-0.1
04360	00	V	850	18	6.8	0.8	0.6
06011	12	V	850	30	3.5	0.4	-0.5
06260	12	V	850	5	2.7	0.8	-1.2
06260	00	V	850	29	2.3	0.2	0.2
06610	00	V	850	30	3.2	-0.5	0.1
06610	12	V	850	31	2.3	0.1	-0.2
07110	12	V	850	31	2.5	-0.5	-0.5

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
07110	00	V	850	30	2.6	-0.4	0.4
07510	12	V	850	29	2.7	0.6	-0.5
07510	00	V	850	29	1.8	0.4	0.6
07645	00	V	850	30	2.6	0.4	0.1
07645	12	V	850	31	3.5	0.1	0.5
07761	00	V	850	31	4.3	0.2	0.4
07761	12	V	850	30	2.8	0.1	0.2
08001	12	V	850	31	2.7	-0.4	-0.5
08001	00	V	850	30	2.2	-0.1	0.1
08221	00	V	850	30	2.7	0.3	0.8
08221	12	V	850	31	3.2	0.0	0.2
08302	12	V	850	26	2.7	0.0	0.1
08302	00	V	850	23	2.6	-0.1	-0.5
08508	12	V	850	27	3.0	-0.2	-0.6
08522	12	V	850	31	4.4	-1.3	0.7
10035	12	V	850	31	2.1	0.1	-0.1
10035	00	V	850	29	2.3	0.0	0.0
10393	12	V	850	31	1.6	0.2	-0.4
10393	00	V	850	30	1.9	-0.5	0.0
10410	00	V	850	30	2.3	-0.3	-0.2
10410	12	V	850	31	2.1	0.1	0.1
10739	00	V	850	29	2.1	0.4	0.2
10739	12	V	850	31	2.5	-0.3	0.2
11035	00	V	850	30	2.2	0.3	0.7
11035	12	V	850	31	2.7	0.6	-0.5
12982	12	V	850	31	1.9	0.0	-0.1
12982	00	V	850	30	2.1	0.2	-0.2
16245	00	V	850	30	2.8	0.3	-0.4
16245	12	V	850	31	2.7	0.5	0.3
16429	12	V	850	31	3.0	-0.5	0.6
16429	00	V	850	28	2.4	-0.7	0.1
16622	00	V	850	30	2.5	-0.1	-0.3
16754	00	V	850	26	2.9	0.0	-0.2
17607	12	V	850	28	2.5	0.3	0.1
26435	12	V	850	15	1.8	0.0	-0.3
60018	00	V	850	29	4.1	-0.4	-0.4
60018	12	V	850	31	3.8	-0.4	-0.8
7JUNA4	12	V	850	10	1.9	-0.4	0.1
7JUNA4	00	V	850	8	2.6	0.4	-0.4
9ZT9MR	12	V	850	14	2.7	0.6	0.1
9ZT9MR	00	V	850	12	2.6	-0.9	0.5
ASDE09	12	V	850	2	2.3	1.3	-1.6
ATGU3F	12	V	850	8	2.5	-0.7	0.0

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
ATGU3F	00	V	850	8	3.1	-0.3	0.7
FPUW5G	12	V	850	5	2.5	0.1	-0.8
GKA32C	00	V	850	6	2.2	-0.6	-0.2
GKA32C	12	V	850	6	1.9	0.8	-0.6
JNKN7J	12	V	850	12	3.1	-0.7	-0.2
JNKN7J	00	V	850	10	1.8	0.2	-0.3
KMPLHP	12	V	850	13	2.8	0.9	0.7
KMPLHP	00	V	850	12	2.5	0.2	0.6
LRYQE3	00	V	850	7	2.1	0.1	-0.4
LRYQE3	12	V	850	9	2.0	-0.4	-0.5
TLH	00	V	850	8	2.0	1.0	-0.6
TLH	12	V	850	6	3.7	-1.4	0.6
USALY	00	V	850	1	1.9	-1.3	1.4
USCLL	00	V	850	1	5.4	0.3	5.4
USCOU	12	V	850	1	2.2	-2.0	0.8
USCOU	00	V	850	0	0.0	0.0	0.0
USIUB	12	V	850	1	1.2	0.2	-1.2
USIUB	00	V	850	4	2.9	-1.4	-0.3
USOHS	00	V	850	4	4.3	-2.5	-0.7
USSOM	00	V	850	3	5.4	-0.7	4.0
USUND	00	V	850	3	2.9	-0.4	-0.1
WDK38H	12	V	850	20	3.1	-0.7	-0.9
WFF	00	V	850	1	3.8	3.4	-1.8
WFF	12	V	850	10	2.4	0.2	-0.2
XKQLWQ	12	V	850	21	2.3	0.0	-0.1
YLV96W	00	V	850	9	3.0	-0.8	-1.0
YLV96W	12	V	850	11	2.3	-0.3	-0.6

4.9 Table 21 - Drifter Monitoring Statistics (EUCOS): Surface pressure (hpa)

```
          DRIFTER MONITORING STATISTICS (EUCOS)
                   MONITORING CENTRE     : ECMWF
                   ELEMENT MONITORED     : SURFACE PRESSURE (HPA)
                   AREA                  : 10N - 90N, 70W - 40E
                   PERIOD                : MAR 2026
                   STANDARD OF COMPARISON: FIRST-GUESS FIELD


TIME = 99 => AVERAGE OF ALL OBSERVATIONS
GROSS ERROR LIMIT = 15 HPA
```

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
1300008	99	P	SUR	15	-38	566	0	0.2	0.2	0.3
1300130	99	P	SUR	28	-16	743	0	0.3	0.1	0.4
1300131	99	P	SUR	28	-17	743	0	0.4	0.2	0.5
1301622	99	P	SUR	34	-35	744	0	1.0	0.7	1.2
1301726	99	P	SUR	32	-51	743	0	0.6	0.1	0.6
1301773	99	P	SUR	35	-43	187	2	1.2	-0.1	1.2
1301778	99	P	SUR	22	-63	743	0	0.3	0.0	0.3
1301782	99	P	SUR	46	-12	742	0	0.3	0.1	0.4
1301784	99	P	SUR	28	-15	743	0	0.3	0.0	0.3
1301785	99	P	SUR	33	-24	743	0	0.3	0.2	0.4
1301805	99	P	SUR	64	-27	742	2	1.0	0.8	1.2
1301806	99	P	SUR	53	-46	742	0	0.8	0.2	0.8
1301808	99	P	SUR	63	-11	742	0	0.7	0.6	0.9
1301809	99	P	SUR	53	-45	742	0	0.8	0.2	0.8
1301810	99	P	SUR	26	-36	742	0	0.3	-0.1	0.3
1301814	99	P	SUR	27	-37	743	0	0.3	0.2	0.3
1301819	99	P	SUR	27	-52	743	0	0.3	-0.2	0.4
1301823	99	P	SUR	30	-52	743	0	0.4	0.2	0.4
1801670	99	P	SUR	52	-11	611	0	0.4	0.2	0.5
1801675	99	P	SUR	59	-26	514	0	0.8	0.3	0.9
1801695	99	P	SUR	51	-35	743	1	0.5	-0.4	0.7
1801716	99	P	SUR	27	-42	742	0	0.6	1.3	1.5
1801732	99	P	SUR	45	-18	742	0	0.3	0.0	0.3
1801777	99	P	SUR	36	-28	744	0	0.3	0.5	0.6
1801778	99	P	SUR	50	-19	742	0	0.4	-0.3	0.5
1801943	99	P	SUR	44	-50	743	0	0.4	0.4	0.6
1801944	99	P	SUR	44	-52	744	0	0.5	-0.4	0.6
1801945	99	P	SUR	47	-41	744	0	0.6	0.4	0.7
1801946	99	P	SUR	46	-33	744	0	0.4	0.1	0.4
1801951	99	P	SUR	35	19	708	0	0.4	0.5	0.7
2801968	99	P	SUR	50	-8	520	0	0.3	0.0	0.3
2801970	99	P	SUR	27	-16	743	0	0.3	-0.3	0.4
2801979	99	P	SUR	60	-58	742	2	0.7	-0.1	0.7
2801980	99	P	SUR	61	-53	743	0	0.9	0.3	0.9
2802007	99	P	SUR	21	-50	743	0	0.3	0.1	0.3
2802008	99	P	SUR	65	-40	589	0	1.4	0.0	1.4

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
2802010	99	P	SUR	19	-63	216	0	0.8	2.9	3.0
2802011	99	P	SUR	41	-27	743	0	0.4	-0.1	0.4
2802022	99	P	SUR	32	-37	742	0	0.3	-0.1	0.3
2802100	99	P	SUR	69	5	663	0	0.4	0.5	0.7
2802124	99	P	SUR	26	-36	650	0	0.3	0.2	0.3
2802243	99	P	SUR	43	-50	741	0	0.5	0.4	0.6
2802244	99	P	SUR	53	-32	743	0	1.4	-0.2	1.5
2802246	99	P	SUR	51	-49	741	0	0.7	0.2	0.7
3801571	99	P	SUR	39	-22	400	0	0.3	0.5	0.6
3801575	99	P	SUR	63	0	524	0	0.4	0.3	0.5
3801596	99	P	SUR	32	-43	742	0	0.3	-0.1	0.3
3801598	99	P	SUR	36	-42	743	0	0.3	0.1	0.3
3801612	99	P	SUR	24	-57	743	0	0.2	0.1	0.3
3801620	99	P	SUR	38	15	90	0	0.3	0.1	0.3
3801625	99	P	SUR	21	-53	737	0	0.5	0.8	1.0
3801834	99	P	SUR	43	-36	744	0	0.3	0.2	0.4
3801835	99	P	SUR	42	-38	742	0	0.3	0.3	0.5
3801836	99	P	SUR	44	-51	743	0	0.5	0.3	0.6
3801838	99	P	SUR	47	-42	744	0	0.6	0.1	0.6
3801839	99	P	SUR	50	-30	744	6	1.5	-0.5	1.6
3801840	99	P	SUR	46	-40	740	0	0.4	0.4	0.6
3801841	99	P	SUR	48	-47	742	0	0.5	-0.2	0.6
3801846	99	P	SUR	34	20	685	0	0.4	0.0	0.4
4100043	99	P	SUR	21	-65	4464	0	0.3	-0.5	0.6
4100044	99	P	SUR	22	-59	4464	0	0.3	-0.4	0.5
4100046	99	P	SUR	24	-68	4463	0	0.3	-0.1	0.3
4100049	99	P	SUR	28	-62	4464	0	0.3	-0.6	0.7
4100052	99	P	SUR	18	-65	3677	0	0.3	-0.8	0.8
4100053	99	P	SUR	18	-66	4036	0	0.3	-0.7	0.8
4100056	99	P	SUR	18	-65	3654	0	0.3	-0.6	0.7
4101725	99	P	SUR	18	-63	744	0	0.2	-0.1	0.2
4101727	99	P	SUR	34	-53	744	0	0.5	0.4	0.6
4101728	99	P	SUR	28	-31	744	0	0.6	0.4	0.8
4101729	99	P	SUR	26	-54	744	0	1.4	0.5	1.5
4101861	99	P	SUR	41	-28	495	0	0.5	0.3	0.6
4101870	99	P	SUR	23	-57	743	0	0.3	0.0	0.3
4101873	99	P	SUR	30	-40	500	0	0.3	0.1	0.3
4101875	99	P	SUR	20	-38	743	0	0.3	0.2	0.3
4101877	99	P	SUR	32	-19	737	0	0.3	0.2	0.4
4101878	99	P	SUR	27	-16	734	0	0.3	0.2	0.4
41043	99	P	SUR	21	-65	744	0	0.3	-0.5	0.6
41044	99	P	SUR	22	-59	744	0	0.3	-0.4	0.5
41046	99	P	SUR	24	-68	744	0	0.3	-0.1	0.3

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
41049	99	P	SUR	28	-62	744	0	0.3	-0.6	0.7
41052	99	P	SUR	18	-65	700	0	0.3	-0.7	0.8
41053	99	P	SUR	19	-66	642	0	0.3	-0.7	0.8
41056	99	P	SUR	18	-66	545	0	0.3	-0.6	0.7
4200060	99	P	SUR	16	-63	4464	0	0.2	-0.3	0.4
4200085	99	P	SUR	18	-67	3672	0	0.3	-0.5	0.6
42060	99	P	SUR	16	-63	744	0	0.3	-0.3	0.4
42085	99	P	SUR	18	-67	690	0	0.3	-0.6	0.6
4400008	99	P	SUR	40	-69	4464	0	0.5	-0.6	0.8
4400011	99	P	SUR	41	-67	4464	0	0.5	0.1	0.5
4400027	99	P	SUR	44	-67	4464	0	0.6	-1.0	1.2
4400137	99	P	SUR	42	-62	744	0	0.5	0.0	0.5
4400139	99	P	SUR	44	-57	644	0	0.5	-0.3	0.6
4400150	99	P	SUR	43	-64	739	0	0.5	-0.3	0.6
4400258	99	P	SUR	45	-63	741	0	0.6	-0.2	0.6
4400488	99	P	SUR	45	-61	744	0	0.6	-0.1	0.6
4400489	99	P	SUR	45	-61	743	0	0.6	-0.1	0.6
44008	99	P	SUR	41	-69	744	0	0.5	-0.6	0.8
44011	99	P	SUR	41	-67	744	0	0.5	0.1	0.5
4401582	99	P	SUR	46	-14	744	0	0.4	0.1	0.4
4401584	99	P	SUR	29	-62	744	0	0.3	0.2	0.4
4401588	99	P	SUR	69	15	704	0	0.4	0.2	0.5
44027	99	P	SUR	44	-67	744	0	0.6	-1.0	1.2
4402730	99	P	SUR	34	-33	680	0	0.4	0.0	0.4
4402737	99	P	SUR	56	-53	742	12	2.0	-0.8	2.2
4402743	99	P	SUR	46	-3	742	0	0.4	-1.3	1.3
4402744	99	P	SUR	35	-50	742	0	0.4	0.1	0.4
4402749	99	P	SUR	69	2	743	0	0.5	0.2	0.5
4402750	99	P	SUR	57	-19	743	0	0.6	-0.5	0.8
4403568	99	P	SUR	31	-35	743	0	0.2	0.4	0.5
44078	99	P	SUR	60	-40	718	0	1.0	-0.6	1.2
44137	99	P	SUR	42	-62	744	0	0.5	0.0	0.5
44139	99	P	SUR	44	-57	642	0	0.6	-0.3	0.7
44150	99	P	SUR	43	-64	739	0	0.6	-0.3	0.6
44258	99	P	SUR	45	-63	741	0	0.6	-0.2	0.6
44488	99	P	SUR	45	-61	744	0	0.6	-0.1	0.6
44489	99	P	SUR	46	-61	743	0	0.6	-0.1	0.6
4601782	99	P	SUR	35	-24	743	0	0.6	0.9	1.1
4701527	99	P	SUR	59	-36	743	0	0.8	-0.1	0.8
4701548	99	P	SUR	71	-19	720	0	0.8	0.1	0.8
4701555	99	P	SUR	64	-22	19	0	0.6	-5.3	5.3
4701558	99	P	SUR	79	-18	62	0	0.5	-4.5	4.6
4801763	99	P	SUR	62	-13	744	11	2.6	-9.0	9.3

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
4802582	99	P	SUR	64	-18	620	0	0.8	-9.7	9.7
4802594	99	P	SUR	61	-34	744	0	0.9	-0.2	0.9
4802664	99	P	SUR	83	-57	744	0	0.6	0.5	0.8
4803997	99	P	SUR	45	-17	699	0	0.4	0.0	0.4
4804003	99	P	SUR	52	-44	700	0	0.7	0.0	0.7
4804044	99	P	SUR	36	18	702	0	0.3	0.1	0.3
4804127	99	P	SUR	30	-35	742	0	0.3	0.2	0.4
4804130	99	P	SUR	14	-40	682	0	0.7	-0.6	0.9
4804178	99	P	SUR	84	-44	63	0	0.6	0.7	0.9
4804271	99	P	SUR	43	-59	743	0	0.5	0.3	0.6
4804282	99	P	SUR	37	19	669	0	0.3	0.1	0.4
5801972	99	P	SUR	33	-15	724	0	0.3	0.0	0.3
5802011	99	P	SUR	18	-50	742	0	0.3	0.2	0.3
5802026	99	P	SUR	36	-9	742	0	0.3	-0.2	0.4
5802033	99	P	SUR	22	-42	740	0	0.8	1.4	1.6
5802060	99	P	SUR	84	-26	744	0	0.7	0.0	0.7
5802095	99	P	SUR	48	-44	689	0	0.7	-0.1	0.7
5802112	99	P	SUR	20	-48	707	0	0.3	0.3	0.4
5802118	99	P	SUR	26	-45	495	0	0.2	0.3	0.4
5802227	99	P	SUR	48	-42	738	738	0.0	0.0	0.0
5802228	99	P	SUR	50	-58	737	298	5.3	1.5	5.5
5802253	99	P	SUR	44	-27	538	11	2.7	-0.3	2.7
5802267	99	P	SUR	33	21	703	0	0.4	0.1	0.4
6100001	99	P	SUR	43	8	738	0	0.5	-0.2	0.5
6100002	99	P	SUR	42	5	743	0	0.5	-0.2	0.5
6100196	99	P	SUR	42	4	744	0	0.6	0.1	0.6
6100197	99	P	SUR	40	4	744	0	0.5	0.4	0.6
6100198	99	P	SUR	37	-2	743	0	0.5	0.1	0.5
6100207	99	P	SUR	37	15	1245	0	0.3	-0.2	0.4
6100210	99	P	SUR	39	17	1425	0	0.4	0.4	0.6
6100211	99	P	SUR	39	16	1243	0	0.4	-0.2	0.4
6100213	99	P	SUR	41	8	58	0	0.3	0.0	0.3
6100214	99	P	SUR	41	13	1360	0	0.3	0.9	0.9
6100215	99	P	SUR	41	17	1459	0	0.4	0.0	0.4
6100216	99	P	SUR	42	12	1115	0	0.3	-0.7	0.8
6100217	99	P	SUR	42	15	1170	0	0.4	0.0	0.4
6100218	99	P	SUR	44	14	1118	0	0.3	0.0	0.3
6100219	99	P	SUR	44	10	528	0	0.4	-0.3	0.5
6100220	99	P	SUR	45	13	1341	0	0.5	0.6	0.7
6100280	99	P	SUR	41	1	744	0	0.5	0.1	0.5
6100281	99	P	SUR	40	0	744	0	0.5	0.2	0.5
6100430	99	P	SUR	40	2	744	0	0.3	0.3	0.4
6101031	99	P	SUR	42	8	741	0	0.4	0.0	0.4

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
6101032	99	P	SUR	42	10	672	0	0.4	0.2	0.4
6101033	99	P	SUR	43	8	743	0	0.4	0.1	0.5
6101034	99	P	SUR	42	6	743	0	0.5	-0.3	0.6
6101035	99	P	SUR	41	7	742	0	0.4	0.2	0.4
6101036	99	P	SUR	42	7	741	0	0.5	-0.1	0.5
6200001	99	P	SUR	45	-5	744	0	0.3	0.2	0.4
6200024	99	P	SUR	44	-3	744	0	0.4	0.3	0.5
6200025	99	P	SUR	44	-6	743	0	0.5	0.3	0.5
6200029	99	P	SUR	49	-12	740	0	0.4	-0.2	0.5
6200050	99	P	SUR	50	-4	740	0	0.3	0.0	0.3
6200081	99	P	SUR	51	-13	739	0	0.4	-0.3	0.5
6200082	99	P	SUR	44	-8	744	0	0.4	0.3	0.5
6200083	99	P	SUR	43	-9	744	0	0.5	0.0	0.5
6200084	99	P	SUR	42	-9	744	0	0.4	0.3	0.5
6200085	99	P	SUR	36	-7	744	0	0.4	0.1	0.4
6200086	99	P	SUR	55	7	141	0	0.2	-0.2	0.3
6200087	99	P	SUR	55	7	181	0	0.4	-0.2	0.4
6200091	99	P	SUR	53	-5	743	0	0.4	-0.1	0.4
6200092	99	P	SUR	51	-11	565	0	0.5	-0.3	0.5
6200093	99	P	SUR	55	-10	677	53	3.9	2.8	4.8
6200094	99	P	SUR	52	-7	743	0	0.4	-0.2	0.4
6200095	99	P	SUR	53	-16	743	0	0.5	-0.4	0.6
6200163	99	P	SUR	48	-8	741	0	0.4	-0.1	0.4
6200442	99	P	SUR	49	-16	742	0	0.5	-0.3	0.5
6201065	99	P	SUR	54	7	573	0	0.3	1.2	1.3
6201066	99	P	SUR	55	7	742	0	0.4	0.4	0.5
6202113	99	P	SUR	54	7	42	0	0.3	0.4	0.5
6202598	99	P	SUR	32	-45	744	0	0.5	0.3	0.6
6202599	99	P	SUR	51	-42	743	0	0.7	0.3	0.7
62029	99	P	SUR	49	-13	1477	0	0.4	-0.2	0.4
62030	99	P	SUR	50	-4	1484	0	0.3	-0.1	0.4
6203615	99	P	SUR	34	-28	744	0	0.8	0.6	1.0
6203625	99	P	SUR	36	-30	744	0	0.7	0.3	0.7
6203632	99	P	SUR	38	-20	744	0	0.8	0.7	1.0
6203639	99	P	SUR	34	-28	744	16	1.9	0.7	2.0
6203662	99	P	SUR	75	-19	743	0	0.7	-0.3	0.7
6203666	99	P	SUR	51	-49	744	3	1.8	0.2	1.8
6203668	99	P	SUR	80	14	744	0	0.5	-0.4	0.6
6203672	99	P	SUR	22	-50	744	0	0.3	0.4	0.5
6203674	99	P	SUR	57	-30	744	7	1.6	0.0	1.6
6203676	99	P	SUR	60	-31	744	2	1.1	0.7	1.3
6203677	99	P	SUR	31	-16	744	0	0.4	0.1	0.4
6203679	99	P	SUR	26	-34	743	0	0.3	0.1	0.3

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
6203680	99	P	SUR	61	-15	490	10	2.7	1.0	2.9
6203683	99	P	SUR	21	-30	744	0	0.2	0.3	0.4
6203684	99	P	SUR	46	-4	744	0	0.3	0.2	0.4
6203686	99	P	SUR	22	-53	743	0	0.3	0.2	0.4
6203689	99	P	SUR	78	-1	537	22	3.0	-0.2	3.0
6203773	99	P	SUR	35	-33	12	0	0.1	-0.8	0.8
6203829	99	P	SUR	71	26	144	0	0.5	-0.2	0.6
6203831	99	P	SUR	70	32	156	0	0.4	0.3	0.5
6203834	99	P	SUR	70	31	465	0	4.0	-4.1	5.7
6203836	99	P	SUR	65	-27	743	0	0.9	0.7	1.1
6203849	99	P	SUR	37	-18	743	0	0.4	0.1	0.4
6203853	99	P	SUR	78	25	743	0	0.5	0.2	0.5
6203854	99	P	SUR	70	17	743	0	0.4	0.5	0.7
6204523	99	P	SUR	43	-54	744	6	1.8	0.9	2.0
6204524	99	P	SUR	40	-48	744	0	0.6	0.6	0.9
6204525	99	P	SUR	43	-51	242	15	2.1	0.3	2.1
6204526	99	P	SUR	45	-35	539	115	5.2	-0.5	5.2
6204527	99	P	SUR	46	-37	743	0	0.4	0.5	0.7
6204528	99	P	SUR	48	-25	744	0	0.8	0.2	0.8
6204529	99	P	SUR	44	-33	515	0	0.5	0.4	0.6
6204530	99	P	SUR	48	-20	564	42	3.2	-0.2	3.2
6204532	99	P	SUR	40	-31	744	0	0.5	0.7	0.8
6204534	99	P	SUR	42	-48	743	0	0.7	0.3	0.8
6204535	99	P	SUR	39	-39	740	0	0.4	0.5	0.6
6204536	99	P	SUR	42	-52	554	23	1.9	0.6	2.0
6204537	99	P	SUR	43	-56	744	0	0.6	0.7	0.9
62050	99	P	SUR	50	-4	1483	0	0.4	0.0	0.4
62081	99	P	SUR	51	-13	1482	0	0.4	-0.3	0.5
62091	99	P	SUR	53	-5	743	0	0.4	-0.1	0.4
62092	99	P	SUR	51	-11	565	0	0.5	-0.2	0.5
62093	99	P	SUR	55	-10	677	53	3.9	2.8	4.8
62094	99	P	SUR	52	-7	743	0	0.4	-0.2	0.4
62095	99	P	SUR	53	-16	743	0	0.5	-0.4	0.6
62102	99	P	SUR	58	2	1488	0	0.4	0.1	0.4
62103	99	P	SUR	50	-3	1480	0	0.4	-0.1	0.4
62104	99	P	SUR	57	1	1488	0	0.4	-0.2	0.4
62105	99	P	SUR	55	-13	1482	0	0.6	0.0	0.6
62107	99	P	SUR	50	-6	1486	0	0.4	-0.5	0.6
62112	99	P	SUR	58	0	1488	0	0.4	-0.2	0.4
62113	99	P	SUR	58	0	1488	0	0.6	0.4	0.8
62114	99	P	SUR	58	0	1482	0	0.5	-0.4	0.6
62115	99	P	SUR	58	-3	922	0	0.4	0.0	0.4
62116	99	P	SUR	58	1	1486	0	0.5	0.0	0.5

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
62118	99	P	SUR	58	1	1488	0	0.4	0.3	0.5
62119	99	P	SUR	57	2	1486	0	0.4	0.2	0.4
62120	99	P	SUR	56	2	1484	0	0.4	-0.4	0.6
62121	99	P	SUR	54	3	1488	0	0.5	0.4	0.7
62122	99	P	SUR	57	2	1484	0	0.4	-0.1	0.4
62124	99	P	SUR	54	-4	1486	0	0.4	0.0	0.4
62127	99	P	SUR	54	1	1476	0	0.4	0.2	0.5
62129	99	P	SUR	58	0	1486	0	0.5	0.5	0.8
62130	99	P	SUR	59	1	1488	0	0.4	-0.5	0.6
62131	99	P	SUR	54	1	1478	0	0.3	0.5	0.6
62132	99	P	SUR	56	2	1484	0	0.6	0.5	0.8
62133	99	P	SUR	57	1	1482	0	0.4	0.1	0.5
62134	99	P	SUR	58	1	1478	0	0.5	0.3	0.6
62138	99	P	SUR	54	0	1286	0	0.4	0.6	0.7
62140	99	P	SUR	57	1	1488	0	0.3	0.2	0.4
62143	99	P	SUR	58	2	1488	0	0.7	0.7	1.0
62144	99	P	SUR	53	2	1488	0	0.4	0.1	0.4
62145	99	P	SUR	53	3	1482	0	0.4	0.1	0.4
62146	99	P	SUR	57	2	1488	0	0.6	0.2	0.6
62148	99	P	SUR	54	2	1488	0	0.5	0.2	0.5
62149	99	P	SUR	54	1	1488	0	0.3	0.3	0.5
62151	99	P	SUR	57	2	1486	0	0.4	0.4	0.5
62152	99	P	SUR	57	2	1486	0	0.4	0.5	0.7
62153	99	P	SUR	57	2	1482	0	0.4	0.2	0.5
62155	99	P	SUR	58	1	1478	0	0.4	0.6	0.7
62157	99	P	SUR	58	0	1484	0	0.4	-0.1	0.4
62160	99	P	SUR	57	2	1470	0	0.4	0.1	0.4
62161	99	P	SUR	58	1	1488	0	0.6	0.2	0.7
62162	99	P	SUR	57	1	1486	0	0.4	-0.1	0.4
62163	99	P	SUR	48	-9	1479	0	0.4	-0.1	0.4
62164	99	P	SUR	57	1	1488	0	0.4	0.2	0.4
62165	99	P	SUR	54	1	1478	0	0.5	0.2	0.5
62168	99	P	SUR	58	1	1488	0	0.4	0.1	0.4
62170	99	P	SUR	51	2	1482	0	0.4	-0.4	0.5
62302	99	P	SUR	61	-2	1486	0	0.8	0.2	0.9
62304	99	P	SUR	51	2	1476	0	0.4	0.0	0.4
62305	99	P	SUR	50	0	1484	0	0.4	-0.2	0.4
62442	99	P	SUR	49	-16	1484	0	0.5	-0.3	0.6
6301003	99	P	SUR	74	24	738	0	0.5	-0.2	0.6
6301004	99	P	SUR	72	20	470	0	0.4	0.0	0.4
6301537	99	P	SUR	73	29	2	0	0.0	5.3	5.3
6301541	99	P	SUR	79	7	1	0	0.0	10.6	10.6
6301584	99	P	SUR	79	-15	744	0	0.5	0.3	0.6

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
6301587	99	P	SUR	85	-55	744	0	0.6	0.7	1.0
6301634	99	P	SUR	67	-28	742	4	2.1	1.0	2.3
6301636	99	P	SUR	60	-39	89	6	3.9	2.3	4.6
6301638	99	P	SUR	81	-8	743	0	0.6	0.5	0.8
6301641	99	P	SUR	86	-29	742	0	0.5	0.3	0.6
63055	99	P	SUR	61	2	1486	0	0.5	0.3	0.6
63056	99	P	SUR	60	2	1488	0	0.5	0.5	0.7
63057	99	P	SUR	59	2	1452	0	0.4	-0.5	0.6
63058	99	P	SUR	53	2	992	0	0.3	0.0	0.3
63059	99	P	SUR	58	-1	1488	0	0.4	0.4	0.6
63102	99	P	SUR	61	1	1488	0	0.6	0.2	0.6
63108	99	P	SUR	61	2	1484	0	0.7	0.4	0.8
63109	99	P	SUR	60	2	1488	0	0.4	-0.3	0.5
63110	99	P	SUR	60	2	1488	0	0.4	-0.2	0.5
63111	99	P	SUR	61	2	1488	0	0.5	-0.4	0.6
63112	99	P	SUR	61	1	1488	0	0.4	-0.3	0.5
63115	99	P	SUR	62	1	1488	0	0.7	0.1	0.7
63118	99	P	SUR	58	1	1448	0	0.4	-0.4	0.6
6400045	99	P	SUR	59	-12	741	0	0.6	0.1	0.6
6400046	99	P	SUR	61	-4	743	0	0.4	-0.1	0.5
6401599	99	P	SUR	85	-57	744	0	0.6	0.8	1.0
6401601	99	P	SUR	73	-14	744	16	2.4	0.7	2.5
6401602	99	P	SUR	82	-15	744	0	0.6	0.5	0.8
6402616	99	P	SUR	30	-52	588	0	0.3	0.2	0.3
6402617	99	P	SUR	34	-39	678	0	0.3	0.4	0.5
6402621	99	P	SUR	27	-49	709	0	0.3	0.5	0.6
6402631	99	P	SUR	33	21	742	0	0.3	0.2	0.4
64041	99	P	SUR	61	-3	1486	0	0.5	-0.2	0.5
64045	99	P	SUR	59	-12	1480	0	0.6	0.0	0.6
64046	99	P	SUR	61	-4	1479	0	0.4	-0.2	0.5
6600021	99	P	SUR	55	14	151	0	0.5	-0.7	0.8
6600024	99	P	SUR	55	13	201	0	0.5	-1.1	1.2
6801771	99	P	SUR	44	-4	736	0	0.3	0.0	0.3
6801789	99	P	SUR	14	-54	741	0	0.2	0.0	0.2
6801791	99	P	SUR	43	-24	742	0	0.5	0.3	0.5
6801822	99	P	SUR	40	20	180	0	0.3	-0.4	0.5
6801824	99	P	SUR	38	21	121	0	0.2	-2.2	2.2
6801907	99	P	SUR	68	-5	709	0	0.5	0.4	0.7
6801929	99	P	SUR	24	-39	740	0	0.3	0.1	0.3
6802060	99	P	SUR	50	-38	743	0	0.5	0.2	0.5
6802073	99	P	SUR	40	20	596	0	0.5	0.5	0.7
7801572	99	P	SUR	21	-68	742	0	0.3	-0.2	0.3
7801593	99	P	SUR	59	-42	741	1	0.9	0.0	0.9

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
7801594	99	P	SUR	64	5	742	0	1.0	1.4	1.7
7801616	99	P	SUR	18	-42	627	0	0.6	0.3	0.6
7801627	99	P	SUR	21	-57	743	0	0.2	0.4	0.4
7801633	99	P	SUR	40	20	251	0	0.2	-0.5	0.5
7801645	99	P	SUR	33	25	449	0	0.3	0.0	0.3
7801647	99	P	SUR	29	-50	742	0	0.3	0.0	0.3
7801697	99	P	SUR	27	-31	744	4	1.0	0.0	1.0
7801699	99	P	SUR	38	-30	744	0	0.5	0.7	0.9
7801723	99	P	SUR	79	-13	728	0	0.5	0.3	0.6
7801742	99	P	SUR	24	-42	642	0	0.3	0.3	0.4
7801755	99	P	SUR	22	-38	510	0	0.3	0.0	0.3
7810095	99	P	SUR	55	-23	742	0	0.6	0.0	0.6
7810096	99	P	SUR	44	-38	742	0	0.4	0.2	0.4
7810097	99	P	SUR	44	-53	742	0	0.5	0.1	0.5
7810098	99	P	SUR	46	-28	743	0	0.5	-0.1	0.5
7810099	99	P	SUR	47	-16	742	0	0.4	-0.5	0.6
7810258	99	P	SUR	38	21	18	0	0.2	-0.3	0.4
7810262	99	P	SUR	43	15	737	0	0.4	-0.2	0.4
7810263	99	P	SUR	41	-50	742	0	0.4	-0.9	0.9
7810264	99	P	SUR	42	-40	742	0	0.3	-0.2	0.4
7810265	99	P	SUR	41	-39	742	0	0.3	0.1	0.3
7810266	99	P	SUR	41	-52	743	0	0.4	0.6	0.7
7810268	99	P	SUR	20	-30	739	0	0.2	0.2	0.3
7810290	99	P	SUR	38	-48	740	0	0.4	0.0	0.4
7810310	99	P	SUR	29	-24	742	0	0.3	-0.1	0.3
7810312	99	P	SUR	36	-20	740	0	0.4	0.1	0.4
7810437	99	P	SUR	52	-51	729	0	0.7	0.0	0.7
7810438	99	P	SUR	53	-53	736	62	1.5	0.2	1.6
7810439	99	P	SUR	53	-51	728	0	0.7	0.4	0.8
7810440	99	P	SUR	54	-51	733	0	0.7	0.2	0.7
7810441	99	P	SUR	52	-51	734	0	0.6	0.1	0.7
7810442	99	P	SUR	51	-46	716	0	0.7	-0.1	0.7
7810445	99	P	SUR	49	-42	727	0	0.8	0.3	0.9
7810446	99	P	SUR	44	-35	720	0	0.4	0.4	0.6
7810608	99	P	SUR	35	-40	741	0	0.3	0.3	0.5
7810609	99	P	SUR	39	-48	741	0	0.4	0.2	0.4
7810611	99	P	SUR	39	-27	741	0	0.4	0.0	0.4
7810612	99	P	SUR	39	-33	743	0	0.4	0.3	0.5
7810614	99	P	SUR	37	-33	574	0	0.3	0.2	0.4
7810615	99	P	SUR	41	-27	640	0	0.4	0.1	0.4
7810616	99	P	SUR	45	-43	741	0	0.4	0.3	0.5
7810617	99	P	SUR	37	19	681	0	0.4	0.1	0.5
7810618	99	P	SUR	39	19	653	0	0.4	0.5	0.6

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
7810765	99	P	SUR	36	-45	738	0	0.4	0.4	0.5
7810766	99	P	SUR	36	-25	738	0	0.4	0.6	0.7
7810767	99	P	SUR	38	-68	738	0	0.5	0.2	0.5
7810768	99	P	SUR	38	-56	735	0	0.5	0.2	0.6
7810770	99	P	SUR	39	-51	738	0	0.6	0.4	0.8
7810771	99	P	SUR	41	-57	733	0	0.5	0.0	0.5
7810772	99	P	SUR	38	-32	737	0	0.3	0.3	0.4
7810773	99	P	SUR	36	-41	739	0	0.3	0.2	0.3
7810774	99	P	SUR	37	-23	740	0	0.4	0.3	0.5
7810775	99	P	SUR	36	-29	739	0	0.3	0.4	0.5
7810776	99	P	SUR	36	-62	736	0	0.4	0.0	0.4
7810777	99	P	SUR	38	-37	736	0	0.3	0.1	0.3
7810778	99	P	SUR	36	-34	739	0	0.3	0.1	0.3
7810779	99	P	SUR	37	-68	735	0	0.4	0.2	0.4
7810780	99	P	SUR	36	-20	736	1	1.5	0.8	1.7
7810781	99	P	SUR	39	-54	732	0	0.4	0.2	0.5
7810782	99	P	SUR	40	-54	731	0	0.5	0.1	0.5
7810783	99	P	SUR	37	-47	738	0	0.4	0.3	0.5
7810784	99	P	SUR	37	-45	738	0	0.4	0.4	0.5
7894568	99	P	SUR	52	-24	511	10	1.8	-0.3	1.8
7894569	99	P	SUR	50	-29	547	19	2.1	-0.1	2.1
9193264	99	P	SUR	35	-51	18	0	0.5	-0.4	0.6
9290787	99	P	SUR	37	15	1	0	0.0	8.8	8.8

4.10 Table 22 - Drifter Monitoring Statistics (EUCOS): Wind speed (m/s)

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          DRIFTER MONITORING STATISTICS (EUCOS)
                   MONITORING CENTRE     : ECMWF
                   ELEMENT MONITORED     : WIND SPEED (M/S)
                   AREA                  : 10N - 90N, 70W - 40E
                   PERIOD                : MAR 2026
                   STANDARD OF COMPARISON: FIRST-GUESS FIELD


TIME = 99 => AVERAGE OF ALL OBSERVATIONS


GROSS ERROR LIMIT FOR VECTOR WIND = 25 M/S
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WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
1300008	99	SPEED	SUR	15	-38	566	0	0	1.1	0.0	1.2
1300130	99	SPEED	SUR	28	-16	742	0	0	1.5	-0.2	1.5
1300131	99	SPEED	SUR	28	-17	736	0	0	2.4	2.3	3.3
1801951	99	SPEED	SUR	35	19	708	0	0	3.0	1.3	3.3
4100043	99	SPEED	SUR	21	-65	4464	0	0	0.9	0.0	0.9
4100044	99	SPEED	SUR	22	-59	4460	0	0	1.0	0.1	1.0
4100046	99	SPEED	SUR	24	-68	4056	0	0	1.0	0.6	1.2
4100049	99	SPEED	SUR	28	-62	4463	0	0	1.0	0.0	1.0
4100052	99	SPEED	SUR	18	-65	3692	0	0	1.0	0.3	1.0
4100053	99	SPEED	SUR	18	-66	4038	0	0	1.7	0.7	1.9
4100056	99	SPEED	SUR	18	-65	3660	0	0	1.3	0.0	1.3
4100300	99	SPEED	SUR	16	-57	744	0	0	0.7	-0.4	0.8
41043	99	SPEED	SUR	21	-65	744	0	0	1.1	-0.5	1.2
41044	99	SPEED	SUR	22	-59	744	0	0	1.1	-0.5	1.2
41046	99	SPEED	SUR	24	-68	717	0	0	1.1	0.1	1.1
41049	99	SPEED	SUR	28	-62	744	0	0	1.1	-0.5	1.2
41052	99	SPEED	SUR	18	-65	700	0	0	1.1	-0.2	1.1
41053	99	SPEED	SUR	19	-66	643	0	0	1.8	-0.4	1.9
41056	99	SPEED	SUR	18	-66	546	0	0	1.4	-0.6	1.5
4200060	99	SPEED	SUR	16	-63	4462	0	0	0.9	0.0	0.9
4200085	99	SPEED	SUR	18	-67	3618	0	0	1.5	-0.1	1.5
42060	99	SPEED	SUR	16	-63	743	0	0	1.1	-0.4	1.2
42085	99	SPEED	SUR	18	-67	684	0	0	1.6	0.0	1.6
4400008	99	SPEED	SUR	40	-69	4423	0	0	1.4	-0.3	1.5
4400011	99	SPEED	SUR	41	-67	4464	0	0	1.4	-0.2	1.4
4400027	99	SPEED	SUR	44	-67	4463	0	0	1.5	-0.4	1.5
4400033	99	SPEED	SUR	44	-69	189	0	0	1.5	-1.0	1.8
4400034	99	SPEED	SUR	44	-68	3937	0	0	1.7	-0.7	1.9
4400137	99	SPEED	SUR	42	-62	744	0	0	1.8	-0.7	1.9
4400139	99	SPEED	SUR	44	-57	644	0	0	1.3	-0.4	1.3
4400150	99	SPEED	SUR	43	-64	739	0	0	2.0	0.6	2.1
4400258	99	SPEED	SUR	45	-63	741	0	0	1.6	0.2	1.6
4400488	99	SPEED	SUR	45	-61	728	1	0	1.7	0.7	1.9
4400489	99	SPEED	SUR	45	-61	739	2	0	1.9	2.1	2.8

DRIFTER MONITORING STATISTICS (EUCOS)
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : WIND SPEED (M/S) (CONTINU

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
44008	99	SPEED	SUR	41	-69	739	0	0	1.7	-1.0	2.0
44011	99	SPEED	SUR	41	-67	744	0	0	1.6	-0.9	1.9
44027	99	SPEED	SUR	44	-67	744	0	0	1.6	-1.0	1.9
44033	99	SPEED	SUR	44	-69	160	0	0	1.5	-1.3	2.0
44034	99	SPEED	SUR	44	-68	527	0	0	2.0	-1.5	2.5
44078	99	SPEED	SUR	60	-40	715	0	0	2.4	-2.9	3.8
44137	99	SPEED	SUR	42	-62	744	0	0	1.9	-1.2	2.3
44139	99	SPEED	SUR	44	-57	642	0	0	1.5	-1.0	1.8
44150	99	SPEED	SUR	43	-64	739	0	0	2.1	0.1	2.2
44258	99	SPEED	SUR	45	-63	741	0	0	1.7	-0.4	1.8
44488	99	SPEED	SUR	45	-61	728	1	0	1.9	0.6	2.0
44489	99	SPEED	SUR	46	-61	739	2	0	1.9	1.8	2.7
6100001	99	SPEED	SUR	43	8	738	0	0	1.7	0.7	1.8
6100002	99	SPEED	SUR	42	5	743	0	0	1.5	1.2	1.9
6100196	99	SPEED	SUR	42	4	722	0	0	1.3	-0.3	1.3
6100197	99	SPEED	SUR	40	4	729	0	0	1.3	-0.8	1.6
6100198	99	SPEED	SUR	37	-2	721	0	0	1.5	-0.2	1.5
6100207	99	SPEED	SUR	37	15	1245	0	0	1.6	2.1	2.7
6100210	99	SPEED	SUR	39	17	1425	0	0	1.6	1.3	2.1
6100211	99	SPEED	SUR	39	16	1243	0	0	2.2	1.2	2.5
6100213	99	SPEED	SUR	41	8	76	0	0	6.0	-2.4	6.5
6100214	99	SPEED	SUR	41	13	1360	0	0	1.5	0.5	1.6
6100215	99	SPEED	SUR	41	17	1460	0	0	1.7	1.1	2.0
6100216	99	SPEED	SUR	42	12	1115	0	0	1.4	0.8	1.6
6100217	99	SPEED	SUR	42	15	1170	0	0	1.4	0.8	1.6
6100218	99	SPEED	SUR	44	14	1118	0	0	1.6	0.4	1.7
6100219	99	SPEED	SUR	44	10	528	0	0	1.9	0.7	2.0
6100220	99	SPEED	SUR	45	13	1341	0	0	1.6	0.1	1.6
6100280	99	SPEED	SUR	41	1	706	0	0	1.6	-0.8	1.8
6100281	99	SPEED	SUR	40	0	691	0	0	2.1	0.0	2.1
6100417	99	SPEED	SUR	38	0	735	0	0	1.2	-0.4	1.3
6100430	99	SPEED	SUR	40	2	730	0	0	1.8	-0.7	2.0
6101031	99	SPEED	SUR	42	8	741	0	0	1.7	0.7	1.8
6101032	99	SPEED	SUR	42	10	672	0	0	1.4	0.5	1.5
6101033	99	SPEED	SUR	43	8	743	0	0	1.9	0.6	2.0
6101034	99	SPEED	SUR	42	6	743	0	0	1.8	1.3	2.2
6101035	99	SPEED	SUR	41	7	742	0	0	1.7	0.9	1.9
6101036	99	SPEED	SUR	42	7	741	0	0	1.5	0.5	1.5
6200001	99	SPEED	SUR	45	-5	744	0	0	1.0	0.5	1.1
6200024	99	SPEED	SUR	44	-3	648	0	0	1.5	-2.1	2.6
6200025	99	SPEED	SUR	44	-6	741	0	0	1.3	-0.6	1.4

DRIFTER MONITORING STATISTICS (EUCOS)
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : WIND SPEED (M/S) (CONTINU

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
6200029	99	SPEED	SUR	49	-12	740	0	0	1.2	0.5	1.3
6200050	99	SPEED	SUR	50	-4	740	0	0	1.2	0.0	1.2
6200081	99	SPEED	SUR	51	-13	739	0	0	1.3	-0.2	1.4
6200082	99	SPEED	SUR	44	-8	743	0	0	1.2	-0.4	1.2
6200083	99	SPEED	SUR	43	-9	740	0	0	1.1	-0.9	1.4
6200084	99	SPEED	SUR	42	-9	733	0	0	1.3	-0.8	1.5
6200085	99	SPEED	SUR	36	-7	724	0	0	1.4	-0.1	1.4
6200086	99	SPEED	SUR	55	7	141	0	0	1.4	1.0	1.7
6200087	99	SPEED	SUR	55	7	180	0	0	1.2	0.4	1.3
6200091	99	SPEED	SUR	53	-5	743	0	0	1.4	0.6	1.5
6200092	99	SPEED	SUR	51	-11	565	0	0	2.6	-0.8	2.7
6200093	99	SPEED	SUR	55	-10	677	0	0	1.7	0.1	1.7
6200094	99	SPEED	SUR	52	-7	743	0	0	1.2	-0.3	1.3
6200095	99	SPEED	SUR	53	-16	743	0	0	1.5	-0.3	1.5
6200163	99	SPEED	SUR	48	-8	741	0	0	1.1	0.2	1.1
6200442	99	SPEED	SUR	49	-16	742	0	0	1.2	0.3	1.2
6201065	99	SPEED	SUR	54	7	572	0	0	1.6	-0.8	1.8
6201066	99	SPEED	SUR	55	7	742	0	0	1.3	0.2	1.3
6202113	99	SPEED	SUR	54	7	42	0	0	1.8	-0.6	1.8
62029	99	SPEED	SUR	49	-13	1477	0	0	1.2	0.0	1.2
62050	99	SPEED	SUR	50	-4	1483	0	0	1.3	0.0	1.3
62081	99	SPEED	SUR	51	-13	1482	0	0	1.4	-0.2	1.4
62091	99	SPEED	SUR	53	-5	743	0	0	1.5	0.9	1.7
62092	99	SPEED	SUR	51	-11	565	0	0	2.6	-0.7	2.7
62093	99	SPEED	SUR	55	-10	677	0	0	1.7	0.2	1.7
62094	99	SPEED	SUR	52	-7	743	0	0	1.3	-0.2	1.3
62095	99	SPEED	SUR	53	-16	743	0	0	1.5	-0.2	1.5
62102	99	SPEED	SUR	58	2	1488	0	0	1.3	0.0	1.3
62103	99	SPEED	SUR	50	-3	898	0	0	1.4	0.0	1.4
62104	99	SPEED	SUR	57	1	1488	0	0	1.3	0.4	1.4
62105	99	SPEED	SUR	55	-13	1482	0	0	1.4	-0.2	1.4
62113	99	SPEED	SUR	58	0	1486	0	0	1.5	0.4	1.6
62114	99	SPEED	SUR	58	0	1482	0	0	1.5	1.3	2.0
62118	99	SPEED	SUR	58	1	1488	0	0	1.5	0.9	1.7
62119	99	SPEED	SUR	57	2	1486	0	0	1.9	-1.8	2.7
62120	99	SPEED	SUR	56	2	1484	0	0	1.4	-0.7	1.6
62121	99	SPEED	SUR	54	3	1488	0	0	1.3	-0.4	1.4
62122	99	SPEED	SUR	57	2	1484	0	0	1.2	-0.2	1.2
62129	99	SPEED	SUR	58	0	1486	0	0	1.4	0.8	1.6
62131	99	SPEED	SUR	54	1	1404	0	0	1.3	0.2	1.4
62133	99	SPEED	SUR	57	1	1482	0	0	1.4	-0.5	1.5

DRIFTER MONITORING STATISTICS (EUCOS)
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : WIND SPEED (M/S) (CONTINU

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
62134	99	SPEED	SUR	58	1	1478	0	0	1.1	-1.1	1.6
62140	99	SPEED	SUR	57	1	1318	0	0	1.3	0.4	1.3
62143	99	SPEED	SUR	58	2	1488	0	0	2.2	-1.0	2.4
62144	99	SPEED	SUR	53	2	1488	0	0	1.4	-0.2	1.5
62145	99	SPEED	SUR	53	3	1424	0	0	1.6	1.0	1.9
62146	99	SPEED	SUR	57	2	1446	0	0	1.2	0.1	1.2
62148	99	SPEED	SUR	54	2	1488	0	0	1.3	0.2	1.3
62149	99	SPEED	SUR	54	1	1488	0	0	1.2	0.1	1.2
62152	99	SPEED	SUR	57	2	1484	0	0	1.7	0.6	1.8
62154	99	SPEED	SUR	56	2	1486	0	0	1.5	0.3	1.5
62155	99	SPEED	SUR	58	1	1478	0	0	1.3	0.5	1.4
62163	99	SPEED	SUR	48	-9	1479	0	0	1.1	0.2	1.2
62164	99	SPEED	SUR	57	1	1488	0	0	1.8	-1.4	2.2
62165	99	SPEED	SUR	54	1	1478	0	0	1.5	-0.4	1.6
62170	99	SPEED	SUR	51	2	1482	0	0	1.4	0.9	1.7
62304	99	SPEED	SUR	51	2	1476	0	0	1.5	0.7	1.7
62305	99	SPEED	SUR	50	0	1484	0	0	1.4	0.8	1.6
62442	99	SPEED	SUR	49	-16	1484	0	0	1.2	0.3	1.3
6301003	99	SPEED	SUR	74	24	738	0	0	1.6	-0.7	1.7
6301004	99	SPEED	SUR	72	20	474	0	0	1.6	0.1	1.6
63056	99	SPEED	SUR	60	2	1488	0	0	1.4	0.8	1.6
63057	99	SPEED	SUR	59	2	1452	0	0	2.2	-0.1	2.2
63058	99	SPEED	SUR	53	2	992	0	0	1.3	0.0	1.3
63108	99	SPEED	SUR	61	2	1484	0	0	1.5	0.8	1.7
63109	99	SPEED	SUR	60	2	1488	0	0	1.4	0.8	1.6
63110	99	SPEED	SUR	60	2	1488	0	0	1.4	-0.3	1.5
63112	99	SPEED	SUR	61	1	1488	0	0	1.2	-0.7	1.4
63115	99	SPEED	SUR	62	1	1488	0	0	1.2	-0.8	1.5
6400046	99	SPEED	SUR	61	-4	743	0	0	1.4	0.2	1.5
64041	99	SPEED	SUR	61	-3	1476	0	0	1.5	-0.4	1.6
64046	99	SPEED	SUR	61	-4	1479	0	0	1.4	0.1	1.5
6600021	99	SPEED	SUR	55	14	151	0	0	1.0	0.0	1.0
6600024	99	SPEED	SUR	55	13	198	0	0	0.9	0.5	1.0
6802073	99	SPEED	SUR	40	20	596	0	0	1.0	-1.4	1.7
9193264	99	SPEED	SUR	35	-51	17	0	0	3.4	1.1	3.5
9290787	99	SPEED	SUR	37	15	1	0	0	0.0	0.8	0.8

4.11 Table 23 - Drifter Monitoring Statistics (EUCOS): Wind direction

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          DRIFTER MONITORING STATISTICS (EUCOS)
                   MONITORING CENTRE     : ECMWF
                   ELEMENT MONITORED     : WIND DIRECTION (DEGREES)
                   AREA                  : 10N - 90N, 70W - 40E
                   PERIOD                : MAR 2026
                   STANDARD OF COMPARISON: FIRST-GUESS FIELD


TIME = 99 => AVERAGE OF ALL OBSERVATIONS
GROSS ERROR LIMIT FOR VECTOR WIND = 25 M/S
WIND SPEEDS > 3M/S USED
```

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
1300008	99	DIRN	SUR	15	-38	560	0	0	10.9	2.7	11.3
1300130	99	DIRN	SUR	28	-16	688	0	0	12.4	6.3	13.9
1300131	99	DIRN	SUR	28	-17	473	0	0	14.6	-3.5	15.0
4100002	99	DIRN	SUR	32	-75	4114	0	0	12.9	8.0	15.2
4100004	99	DIRN	SUR	33	-79	3442	0	0	23.0	9.6	24.9
4100008	99	DIRN	SUR	31	-81	2955	0	0	16.8	9.7	19.4
4100009	99	DIRN	SUR	29	-80	3800	0	0	16.9	3.9	17.4
4100013	99	DIRN	SUR	33	-78	3694	0	0	17.4	7.9	19.1
4100024	99	DIRN	SUR	34	-78	240	0	0	16.4	3.9	16.9
4100025	99	DIRN	SUR	35	-75	4161	4	0	21.2	11.3	24.1
4100029	99	DIRN	SUR	33	-80	414	0	0	19.0	4.0	19.4
4100033	99	DIRN	SUR	32	-80	414	0	0	22.7	5.2	23.3
4100037	99	DIRN	SUR	34	-77	445	0	0	20.0	2.9	20.2
4100038	99	DIRN	SUR	34	-78	523	0	0	17.6	3.0	17.9
4100043	99	DIRN	SUR	21	-65	4438	0	0	11.5	8.5	14.3
4100044	99	DIRN	SUR	22	-59	4354	0	0	12.8	6.0	14.2
4100046	99	DIRN	SUR	24	-68	3979	0	0	11.9	3.1	12.3
4100049	99	DIRN	SUR	28	-62	4074	0	0	14.1	6.7	15.6
4100052	99	DIRN	SUR	18	-65	3632	0	0	13.2	3.3	13.6
4100053	99	DIRN	SUR	18	-66	3302	0	0	21.7	-2.9	21.9
4100056	99	DIRN	SUR	18	-65	3594	0	0	16.1	4.0	16.6
4100064	99	DIRN	SUR	34	-77	471	0	0	19.8	-14.8	24.8
4100066	99	DIRN	SUR	33	-80	444	0	0	21.8	4.4	22.3
4100068	99	DIRN	SUR	28	-80	559	0	0	17.7	-11.3	21.0
4100069	99	DIRN	SUR	29	-81	447	0	0	22.2	5.3	22.8
4100082	99	DIRN	SUR	36	-75	3319	0	0	16.0	-2.5	16.2
4100083	99	DIRN	SUR	36	-75	3733	0	0	16.5	-11.1	19.9
41002	99	DIRN	SUR	32	-75	675	0	0	13.1	8.3	15.5
4100300	99	DIRN	SUR	16	-57	734	0	0	8.8	1.1	8.9
41004	99	DIRN	SUR	33	-79	573	0	0	23.6	10.4	25.8
41008	99	DIRN	SUR	31	-81	490	0	0	18.7	10.1	21.2
41009	99	DIRN	SUR	29	-80	639	0	0	18.2	3.9	18.6

DRIFTER MONITORING STATISTICS (EUCOS)
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : WIND DIRECTION (DEGREES)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
41013	99	DIRN	SUR	33	-78	619	0	0	18.4	7.2	19.7
41024	99	DIRN	SUR	34	-79	217	0	0	17.5	4.5	18.1
41025	99	DIRN	SUR	35	-75	700	1	0	22.2	11.7	25.0
41029	99	DIRN	SUR	33	-80	403	0	0	19.2	2.9	19.4
41033	99	DIRN	SUR	32	-80	409	0	0	22.4	5.2	23.0
41037	99	DIRN	SUR	34	-77	440	0	0	18.6	2.7	18.8
41038	99	DIRN	SUR	34	-78	525	0	0	18.9	4.2	19.4
41043	99	DIRN	SUR	21	-65	739	0	0	12.1	8.2	14.7
41044	99	DIRN	SUR	22	-59	723	0	0	12.9	5.7	14.1
41046	99	DIRN	SUR	24	-68	706	0	0	11.9	2.7	12.2
41049	99	DIRN	SUR	28	-62	678	0	0	13.8	6.1	15.1
41052	99	DIRN	SUR	18	-65	684	0	0	13.3	2.8	13.6
41053	99	DIRN	SUR	19	-66	550	0	0	20.8	-2.9	21.0
41056	99	DIRN	SUR	18	-66	541	0	0	14.2	3.7	14.6
41064	99	DIRN	SUR	34	-77	465	0	0	21.1	-15.4	26.1
41066	99	DIRN	SUR	33	-80	65	0	0	21.3	-1.1	21.3
41068	99	DIRN	SUR	28	-80	559	0	0	18.5	-11.5	21.8
41069	99	DIRN	SUR	29	-81	453	0	0	24.7	6.3	25.5
41082	99	DIRN	SUR	36	-75	549	0	0	15.9	-3.0	16.2
41083	99	DIRN	SUR	36	-75	614	0	0	16.6	-11.5	20.2
4200013	99	DIRN	SUR	27	-83	837	0	0	19.6	0.5	19.6
4200022	99	DIRN	SUR	28	-84	48	0	0	18.4	-0.7	18.4
4200023	99	DIRN	SUR	26	-83	930	0	0	18.3	-0.8	18.4
4200026	99	DIRN	SUR	25	-83	1208	0	0	11.8	-3.2	12.2
4200036	99	DIRN	SUR	29	-85	3305	0	0	13.1	9.6	16.2
4200056	99	DIRN	SUR	20	-85	4046	0	0	11.2	4.0	11.9
4200057	99	DIRN	SUR	17	-82	4358	0	0	11.7	2.9	12.0
4200060	99	DIRN	SUR	16	-63	4241	0	0	9.1	6.6	11.3
4200085	99	DIRN	SUR	18	-67	3307	0	0	15.4	5.8	16.4
42013	99	DIRN	SUR	27	-83	416	0	0	21.2	2.6	21.4
42022	99	DIRN	SUR	28	-84	68	0	0	18.1	-3.0	18.3
42023	99	DIRN	SUR	26	-83	327	0	0	19.5	0.6	19.5
42026	99	DIRN	SUR	25	-84	609	0	0	12.7	-2.2	12.9
42036	99	DIRN	SUR	29	-85	543	0	0	13.8	9.6	16.8
42056	99	DIRN	SUR	20	-85	674	0	0	11.6	3.4	12.1
42057	99	DIRN	SUR	17	-82	724	0	0	12.3	2.3	12.5
42060	99	DIRN	SUR	16	-63	707	0	0	9.7	6.0	11.4
42085	99	DIRN	SUR	18	-67	597	0	0	17.1	4.0	17.6
4400007	99	DIRN	SUR	44	-70	3795	0	0	20.6	4.2	21.0
4400008	99	DIRN	SUR	40	-69	3602	0	0	17.1	9.7	19.6
4400009	99	DIRN	SUR	38	-75	3480	0	0	20.2	6.6	21.2

DRIFTER MONITORING STATISTICS (EUCOS)
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : WIND DIRECTION (DEGREES)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
4400011	99	DIRN	SUR	41	-67	3837	0	0	13.2	9.8	16.5
4400013	99	DIRN	SUR	42	-71	3586	0	0	21.4	3.2	21.6
4400020	99	DIRN	SUR	41	-70	3698	0	0	15.7	4.4	16.3
4400025	99	DIRN	SUR	40	-73	3532	0	0	16.7	8.4	18.7
4400027	99	DIRN	SUR	44	-67	4133	0	0	13.8	9.8	16.9
4400029	99	DIRN	SUR	43	-71	3502	0	0	20.0	6.6	21.1
4400030	99	DIRN	SUR	43	-70	3406	0	0	19.2	17.1	25.8
4400033	99	DIRN	SUR	44	-69	146	0	0	16.2	-4.3	16.7
4400034	99	DIRN	SUR	44	-68	3637	0	0	13.5	1.6	13.6
4400042	99	DIRN	SUR	38	-76	23	0	0	10.7	-16.1	19.3
4400065	99	DIRN	SUR	40	-74	3530	0	0	18.9	12.3	22.5
4400072	99	DIRN	SUR	37	-76	3637	0	0	29.9	5.2	30.3
4400073	99	DIRN	SUR	43	-71	76	76	0	42.5	-93.3	102.5
4400079	99	DIRN	SUR	36	-75	3341	0	0	15.1	-10.1	18.2
4400080	99	DIRN	SUR	39	-77	817	0	0	26.0	0.1	26.1
4400137	99	DIRN	SUR	42	-62	648	0	0	20.6	-9.8	22.8
4400139	99	DIRN	SUR	44	-57	608	0	0	13.9	4.7	14.7
4400150	99	DIRN	SUR	43	-64	678	0	0	15.4	-2.5	15.6
4400258	99	DIRN	SUR	45	-63	668	0	0	14.6	1.7	14.7
4400488	99	DIRN	SUR	45	-61	640	1	0	16.8	8.8	18.9
4400489	99	DIRN	SUR	45	-61	603	2	0	17.7	-2.1	17.8
44007	99	DIRN	SUR	44	-70	634	0	0	23.0	3.8	23.3
44008	99	DIRN	SUR	41	-69	597	0	0	17.4	9.6	19.9
44009	99	DIRN	SUR	39	-75	571	0	0	20.3	7.1	21.5
44011	99	DIRN	SUR	41	-67	629	0	0	13.9	9.2	16.7
44013	99	DIRN	SUR	42	-71	595	0	0	20.8	2.7	21.0
44020	99	DIRN	SUR	42	-70	611	0	0	14.7	4.3	15.3
44025	99	DIRN	SUR	40	-73	586	0	0	17.5	8.5	19.5
44027	99	DIRN	SUR	44	-67	680	0	0	14.5	9.2	17.2
44029	99	DIRN	SUR	43	-71	447	0	0	16.9	7.8	18.6
44030	99	DIRN	SUR	43	-70	428	0	0	20.3	17.0	26.5
44033	99	DIRN	SUR	44	-69	114	0	0	15.1	-4.5	15.8
44034	99	DIRN	SUR	44	-68	477	0	0	13.8	1.3	13.9
44042	99	DIRN	SUR	38	-76	5	0	0	7.8	-15.2	17.1
44065	99	DIRN	SUR	40	-74	573	0	0	20.2	12.0	23.5
44072	99	DIRN	SUR	37	-76	586	0	0	29.5	7.7	30.5
44073	99	DIRN	SUR	43	-71	12	12	0	64.9	-68.3	94.2
44078	99	DIRN	SUR	60	-40	687	0	0	15.4	-14.6	21.2
44079	99	DIRN	SUR	36	-75	550	0	0	15.0	-9.9	18.0
44080	99	DIRN	SUR	39	-77	201	0	0	27.0	3.7	27.2
44137	99	DIRN	SUR	42	-62	644	0	0	21.2	-10.5	23.7

DRIFTER MONITORING STATISTICS (EUCOS)
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : WIND DIRECTION (DEGREES)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
44139	99	DIRN	SUR	44	-57	604	0	0	13.9	4.1	14.5
44150	99	DIRN	SUR	43	-64	676	0	0	17.7	-3.3	18.0
44258	99	DIRN	SUR	45	-63	671	0	0	15.0	0.4	15.0
44488	99	DIRN	SUR	45	-61	635	1	0	17.7	8.5	19.7
44489	99	DIRN	SUR	46	-61	607	2	0	18.7	-2.9	18.9
6100198	99	DIRN	SUR	37	-2	535	0	0	19.5	6.3	20.5
6100281	99	DIRN	SUR	40	0	351	0	0	94.1	-112.6	146.7
6100417	99	DIRN	SUR	38	0	520	0	0	26.2	7.2	27.2
6200001	99	DIRN	SUR	45	-5	625	0	0	13.6	3.9	14.1
6200024	99	DIRN	SUR	44	-3	373	0	0	86.4	0.5	86.4
6200025	99	DIRN	SUR	44	-6	436	0	0	18.0	-4.2	18.5
6200029	99	DIRN	SUR	49	-12	683	0	0	12.7	0.4	12.7
6200050	99	DIRN	SUR	50	-4	682	0	0	13.5	6.7	15.1
6200081	99	DIRN	SUR	51	-13	708	0	0	12.9	-3.4	13.3
6200082	99	DIRN	SUR	44	-8	591	0	0	14.9	-1.5	15.0
6200083	99	DIRN	SUR	43	-9	568	0	0	16.5	1.9	16.7
6200084	99	DIRN	SUR	42	-9	543	0	0	13.2	0.9	13.2
6200085	99	DIRN	SUR	36	-7	546	0	0	21.3	-10.0	23.5
6200091	99	DIRN	SUR	53	-5	664	0	0	13.7	6.1	15.0
6200092	99	DIRN	SUR	51	-11	523	0	0	11.4	-1.1	11.5
6200093	99	DIRN	SUR	55	-10	638	0	0	10.9	8.2	13.6
6200094	99	DIRN	SUR	52	-7	657	0	0	12.7	2.3	12.9
6200095	99	DIRN	SUR	53	-16	714	0	0	11.5	5.4	12.7
6200163	99	DIRN	SUR	48	-8	688	0	0	18.2	-4.1	18.6
6200442	99	DIRN	SUR	49	-16	711	0	0	17.2	-2.7	17.5
62029	99	DIRN	SUR	49	-13	1366	0	0	12.9	-0.1	12.9
62050	99	DIRN	SUR	50	-4	1367	0	0	14.3	6.9	15.9
62081	99	DIRN	SUR	51	-13	1418	0	0	13.1	-3.6	13.6
62091	99	DIRN	SUR	53	-5	657	0	0	13.4	5.6	14.5
62092	99	DIRN	SUR	51	-11	522	0	0	11.6	-1.5	11.7
62093	99	DIRN	SUR	55	-10	637	0	0	11.2	7.8	13.6
62094	99	DIRN	SUR	52	-7	655	0	0	12.5	1.7	12.7
62095	99	DIRN	SUR	53	-16	713	0	0	11.7	4.9	12.7
62103	99	DIRN	SUR	50	-3	810	0	0	16.4	15.4	22.5
62105	99	DIRN	SUR	55	-13	1416	0	0	13.7	-15.5	20.6
62114	99	DIRN	SUR	58	0	1426	0	0	9.6	-2.1	9.8
62163	99	DIRN	SUR	48	-9	1365	0	0	18.3	-3.9	18.7
62305	99	DIRN	SUR	50	0	1304	0	0	15.0	8.0	17.0
62442	99	DIRN	SUR	49	-16	1422	0	0	17.5	-2.7	17.7
6400046	99	DIRN	SUR	61	-4	732	0	0	8.9	0.8	8.9
64041	99	DIRN	SUR	61	-3	1470	0	0	9.7	7.4	12.2

DRIFTER MONITORING STATISTICS (EUCOS)
MONITORING CENTRE : ECMWF
ELEMENT MONITORED : WIND DIRECTION (DEGREES)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
64046	99	DIRN	SUR	61	-4	1457	0	0	9.1	0.7	9.1
9193264	99	DIRN	SUR	35	-51	15	0	0	32.9	-4.9	33.3

4.12 Table 24 - List of Assimilated BUFR Encoded Radiosonde Stations

ASDE09	ATGU3FT	CAUBC	CYYD	CYZY	DEN	FPUW5GN	GKA32CV	JNKN7JF
KMPLHPW	LAGY8	LAGZ8	LRYQE3U	TLH	USALY	USCLL	uscou	USCOU
USGHC	USIUB	USOHS	USSOM	USUND	USVAL	USVPI	WDK38HS	WFF
XKQLWQB	YLV96WM	2TDJJ8J	7JUNA4N	9ZT9MRK	01001	01004	01010	01028
01241	01400	01415	01492	02836	02963	03005	03023	03238
03354	03502	03743	03808	03882	03918	03953	04018	04220
04270	04320	04339	04360	06011	06260	06458	06610	07110
07145	07510	07645	07761	08001	08023	08190	08221	08302
08383	08430	08508	08522	08536	10035	10113	10184	10238
10304	10393	10410	10548	10618	10739	10771	10868	10954
10962	11010	11035	11120	11240	11520	11747	11952	12120
12374	12425	12575	12843	12982	13275	13388	14015	14240
15420	15614	16045	16064	16113	16144	16245	16332	16429
16546	16622	16716	16754	17030	17064	17095	17196	17220
17240	17351	17607	20046	20292	20674	21824	22008	22217
22271	22522	22820	22845	23078	23205	23330	23415	23472
23802	23884	23921	23955	24266	24641	24688	24908	24947
25703	25913	26038	26075	26435	26477	26629	26708	27459
27707	27713	27962	28225	28275	28445	28661	28695	28722
29572	29612	29698	30557	30673	30935	31004	31770	31873
31977	32061	32215	32540	34122	34172	34731	35121	37055
40179	42079	42101	42123	42182	42339	42361	42369	42410
42516	42623	42647	42667	42675	42867	42874	42886	43063
43128	43150	43185	43243	43295	43346	43353	43466	45004
47102	47104	47138	47155	47169	47186	47230	47269	47401
47412	47418	47582	47600	47646	47678	47741	47778	47807
47827	47909	47918	47945	47971	47991	48615	48650	48698
50527	50557	50774	50953	51076	51243	51431	51463	51644
51656	51709	51777	51828	51839	52203	52267	52323	52418
52533	52652	52681	52818	52836	52866	52983	53068	53463
53513	53543	53614	53772	53845	53915	54102	54135	54161
54218	54292	54340	54374	54511	54662	54727	54857	55299
55591	56029	56046	56080	56137	56146	56187	56492	56571
56651	56691	56739	56778	56964	56985	57083	57127	57131
57178	57245	57461	57494	57516	57541	57687	57749	57816
57957	57972	57993	58027	58150	58203	58238	58362	58424
58457	58606	58633	58665	58725	58847	59023	59134	59211
59265	59280	59293	59316	59431	59758	59981	60018	60096
60155	60253	60390	60680	60715	60760	61901	61980	61998
65344	66160	67083	68263	68424	68442	68816	68842	70026
70200	70219	70231	70261	70273	70316	70326	70350	70361
70398	71043	71081	71082	71109	71119	71603	71722	71802
71811	71815	71816	71845	71867	71906	71907	71908	71909
71913	71917	71924	71925	71926	71934	71945	71957	71964
72201	72202	72206	72208	72210	72215	72230	72233	72235
72240	72248	72249	72250	72251	72261	72265	72293	72305
72317	72318	72327	72357	72363	72364	72365	72376	72388
72403	72413	72426	72440	72451	72456	72476	72489	72493
72501	72518	72520	72528	72558	72562	72572	72582	72597
72632	72634	72645	72649	72659	72662	72672	72681	72694
72712	72747	72764	72768	72776	72786	72797	72801	73033
73111	74389	74455	74560	76225	76256	76394	76405	76458
76526	76595	76612	76644	76654	76679	76692	76743	76805
76903	78384	78397	78486	78866	78897	78954	78988	80001
81405	82022	82026	82099	82107	82193	82244	82332	82532
82705	82824	82917	82965	83208	83378	83525	83554	83566
83612	83649	83768	83779	83827	83840	83899	83928	83937
84372	84516	84622	84754	85442	85586	85799	85934	87155
87344	87418	87585	87623	87715	87860	88889	89002	89055

89062	89504	89564	89571	89592	89611	89625	89642	91165
91212	91285	91334	91348	91376	91408	91413	91592	91765
91925	91938	91948	91958	93112	93417	93844	94001	94005
94113	94155	94170	94203	94299	94302	94312	94326	94332
94403	94430	94461	94510	94578	94610	94637	94653	94659
94672	94711	94767	94775	94802	94821	94865	94910	94995
94996	94998	95282	95527	96413	96441	96471	96481	96996

4.13 Table 25 - List of BUFR Encoded Radiosonde Stations with no TAC Counterpart

ASDE09	ATGU3FT	CAUBC	CYYD	DEN	FPUW5GN	GKA32CV	JNKN7JF	KMPLHPW
LAGY8	LAGZ8	LAR	LRYQE3U	TLH	uscou	USOHS	USUND	USVAL
USVPI	WDK38HS	WFF	XKQLWQB	YLV96WM	2TDJJ8J	7JUNA4N	9ZT9MRK	01001
01004	01010	01028	01241	01400	01415	01492	02836	02963
06610	07110	07145	07510	07645	07761	08001	08023	08190
08221	08302	08383	08430	08508	08522	08536	11010	11035
11120	11240	12575	14015	17607	40179	48698	50527	50557
50774	50953	51076	51243	51431	51463	51644	51656	51709
51777	51828	51839	52203	52267	52323	52418	52533	52652
52681	52818	52836	52866	52983	53068	53463	53513	53543
53614	53772	53845	53915	54102	54135	54161	54218	54292
54340	54374	54511	54662	54727	54857	55299	55591	56029
56046	56080	56137	56146	56187	56492	56571	56651	56691
56739	56778	56964	56985	57083	57127	57131	57178	57245
57461	57494	57516	57541	57687	57749	57816	57957	57972
57993	58027	58150	58203	58238	58362	58424	58457	58606
58633	58665	58725	58847	59023	59134	59211	59265	59280
59293	59316	59431	59758	59981	60096	60253	66160	67083
68442	72413	72801	76743	76903	89002	89504	89642	91925
91938	91948	91958	94001	94005	94113	94653	94767	94865

5 Annex - Explanations of figures and tables

5.1 General

All information presented in this report is based on data received at ECMWF before the appropriate analysis. Approximate cut-off times (UTC) are shown below:

Analysis	Obs Time	Cut-off
0000	2101-0300	1530 (16 hours)
1200	0901-1500	1900 (7 hours)

5.2 Data Availability

For each observation type/parameter the average number of reports received per day is displayed in boxes of 5 degrees square. The numbers plotted are the nearest integer values - e.g. if 40 reports were received during the month then the average daily value plotted will be 1. If the average number is greater than 1000 then 999 will be plotted. If the average number is less than 0.5 then the digit 0 will be plotted. If no observations were received then the box will be left blank.

5.3 Data Quality

The information presented on data quality is based on differences between observations and the values of the most recent ECMWF forecast ("first guess") of the same parameter. Depending on the time of the observation, the forecast range is between 9 and 15 hours. The ability of a modern data assimilation system to provide the diagnostic facilities to monitor the performance of the observational network is demonstrated by A. Hollingsworth et. al., Monthly Weather Review, Vol 114, No. 5, May 1986.

It should be noted that:

(i) all results are based on software that may undergo further development;

(ii) although the quality of the ECMWF first-guess fields is of a generally high standard this is only true to a limited extent in the tropics, where small-scale processes such as convection are of much greater importance than in mid-latitudes, and the observations will sometimes not be representative of the scales of motion given by the first-guess;

(iii) the first-guess fields themselves will vary in accuracy depending on the density and quality of data, particularly in the upstream regions and over Antarctica and the southern hemisphere mid-latitudes. Direct comparisons between stations (or airlines) should preferably be restricted to observations in a reasonably homogeneous climatic region.

Tables 1-9 contain lists of SHIPs (including fixed marine platforms), DRIFTERs, TEMPs and TEMPs/PILOTs believed to have supplied suspect reports of surface pressure, geopotential height or wind during the month. The format of the tables is according to Recommendation 3 CBS-Ext(85) and the criteria for stations or data platforms to be classified as suspect are given at the top of each table. For tables 7 and 8 data for the worst

standard pressure level are shown. Units of RMS, standard deviation and bias are hPa in tables 1 and 4, m in table 7 and ms^{-1} in tables 2, 5 and 8. In tables 7 and 8 the station position is indicated; in the case of TEMPSHIPs and PILOTSHIPs this position is obtained from the first report of the month. The gross error limits for first-guess deviations of geopotential in table 7 are as follows:

Level	Geop
1000	100m
925	100m
850	100m
700	100m
500	150m
400	175m
300	200m
250	225m
200	250m
150	275m
100	300m
70	375m
50	400m
30	450m

The corresponding limits for wind (table 8) are:

Level	Wind
1000	$35ms^{-1}$
925	$35ms^{-1}$
850	$35ms^{-1}$
700	$40ms^{-1}$
500	$45ms^{-1}$
400	$50ms^{-1}$
300	$60ms^{-1}$
250	$60ms^{-1}$
200	$50ms^{-1}$
150	$50ms^{-1}$
100	$45ms^{-1}$

In table 7 the weighted RMS values at standard levels are calculated using the following weights:

Level	Weight
1000	3.70
925	3.55
850	3.40
700	2.90
500	2.20
400	1.90
300	1.60
250	1.50
200	1.37
150	1.19
100	1.00
70	0.87
50	0.80
30	0.64

Tables 10 and 11 provide geopotential and wind quality statistics (100 hPa level) for TEMPSHIPs and PILOTSHIPs received during the month. Units and display format are identical to those in tables 7 and 8 respectively. Tables 13, 14 (50 hPa), 15 and 16 (100 hPa), 17 and 18 (500hPa), 19 and 20 (850hPa) provide similar radiosonde statistics for the EUCOS area.

Tables 21-23 are similar to tables 4-6 with data coverage restricted to the EUCOS area.

Figures 14-18 show global charts of SATOB and aircraft wind quality, where the statistics have been averaged over latitude/longitude boxes of 5 degrees square, and the mean observed minus first-guess (or 'bias') wind vectors have been plotted. All observations in the specified layers have been used. For comparison the mean observed wind (from the SATOB reports only) for each layer is shown in figures 14 and 15. A reference value of wind speed is plotted in the top right corner of each figure. An arrow is only plotted if 10 or more observations have been received in that 5 degree square.

Table 12 provides quality statistics of aircraft wind observations in the layer 300-150 hPa stratified by airline carrier. The format and specifications of the table have been defined by NMC Washington, the lead centre for the monitoring of aircraft and satellite data.

Table 24 shows list of Assimilated BUFR Encoded Radiosonde Stations monitored within the month.

Table 25 shows list of BUFR Encoded Radiosonde Stations with no TAC Counterpart monitored within the month.