



ECMWF Global Data Monitoring Report

July 2026

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

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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)
SATOBS 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 percentage 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	Jun	Jul	Ident	Time	Jun	Jul
16622	(00)	25	0	24641	(00)	17	28
16716	(12)	16	0	24688	(00)	16	29
20046	(00)	24	7	26038	(00)	2	23
20046	(12)	23	6	41256	(00)	8	26
21946	(12)	30	16	42220	(00)	2	26
23078	(00)	22	0	42299	(00)	1	28
23078	(12)	18	0	42299	(12)	2	20
25403	(00)	27	8	42399	(00)	4	25
25403	(12)	27	9	42701	(00)	15	30
30230	(00)	18	0	42727	(00)	17	28
30230	(12)	17	0	42874	(00)	6	24
30965	(00)	24	13	43128	(00)	4	28
31088	(00)	30	3	43128	(12)	0	13
31088	(12)	29	4	43295	(00)	2	21
32477	(12)	30	16	43346	(00)	3	20
35671	(00)	29	3	44288	(12)	16	31
35671	(12)	30	4	47058	(00)	0	11
42410	(00)	27	1	47058	(12)	0	22
42410	(12)	29	0	47102	(12)	12	29
42647	(00)	18	1	47135	(00)	17	34
42867	(00)	26	2	47135	(12)	17	32
42867	(12)	28	1	60715	(00)	24	46
74004	(12)	41	30	61024	(12)	13	30
74005	(00)	18	7	62414	(00)	0	11
74005	(12)	51	11	64384	(12)	0	11
76394	(12)	29	7	64400	(00)	12	26
80094	(12)	29	7	65548	(12)	2	27
80398	(12)	27	11	70200	(00)	8	31
82193	(00)	29	14	72340	(00)	0	21
82193	(12)	29	14	72340	(12)	0	22
82532	(00)	29	14	72456	(12)	16	31
82532	(12)	29	14	72645	(00)	0	11
83928	(12)	27	14	74626	(00)	2	16
87418	(12)	29	1	74626	(12)	18	30
-	-	-	-	74646	(12)	16	28
-	-	-	-	83612	(00)	20	31
-	-	-	-	83827	(00)	15	31
-	-	-	-	83827	(12)	15	29

2.2 Drifting Buoys

Surface pressure observations from **1152** 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

Figure 1

ECMWF Monitoring Statistics - JUL 2026

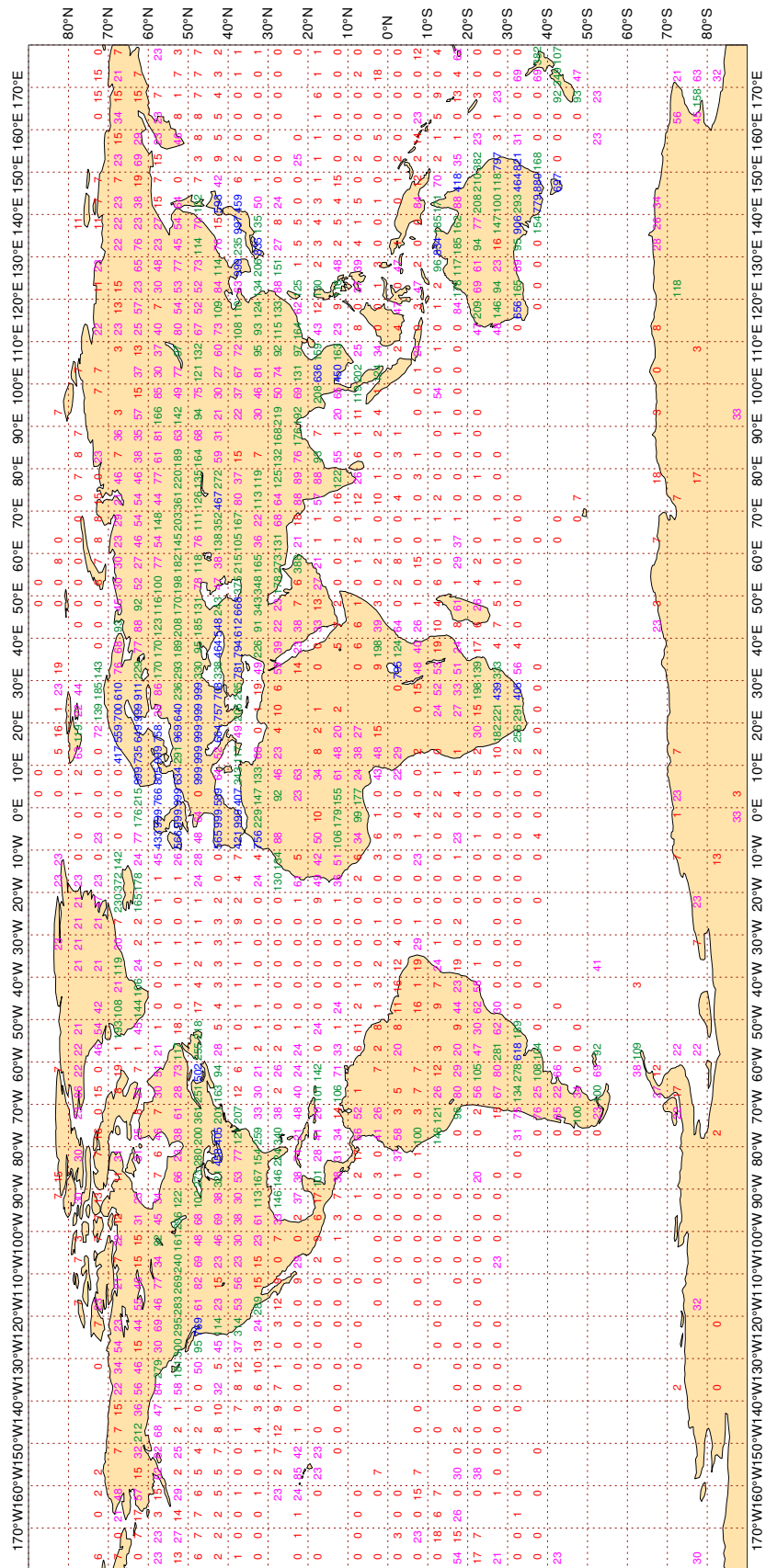
Availability - SYNOP/SHIP (manual, auto) pressure

Average number of observations in 24 hours - 116214

LAND - WMO Region I: 9158 II: 24083 III: 4462 IV: 8253

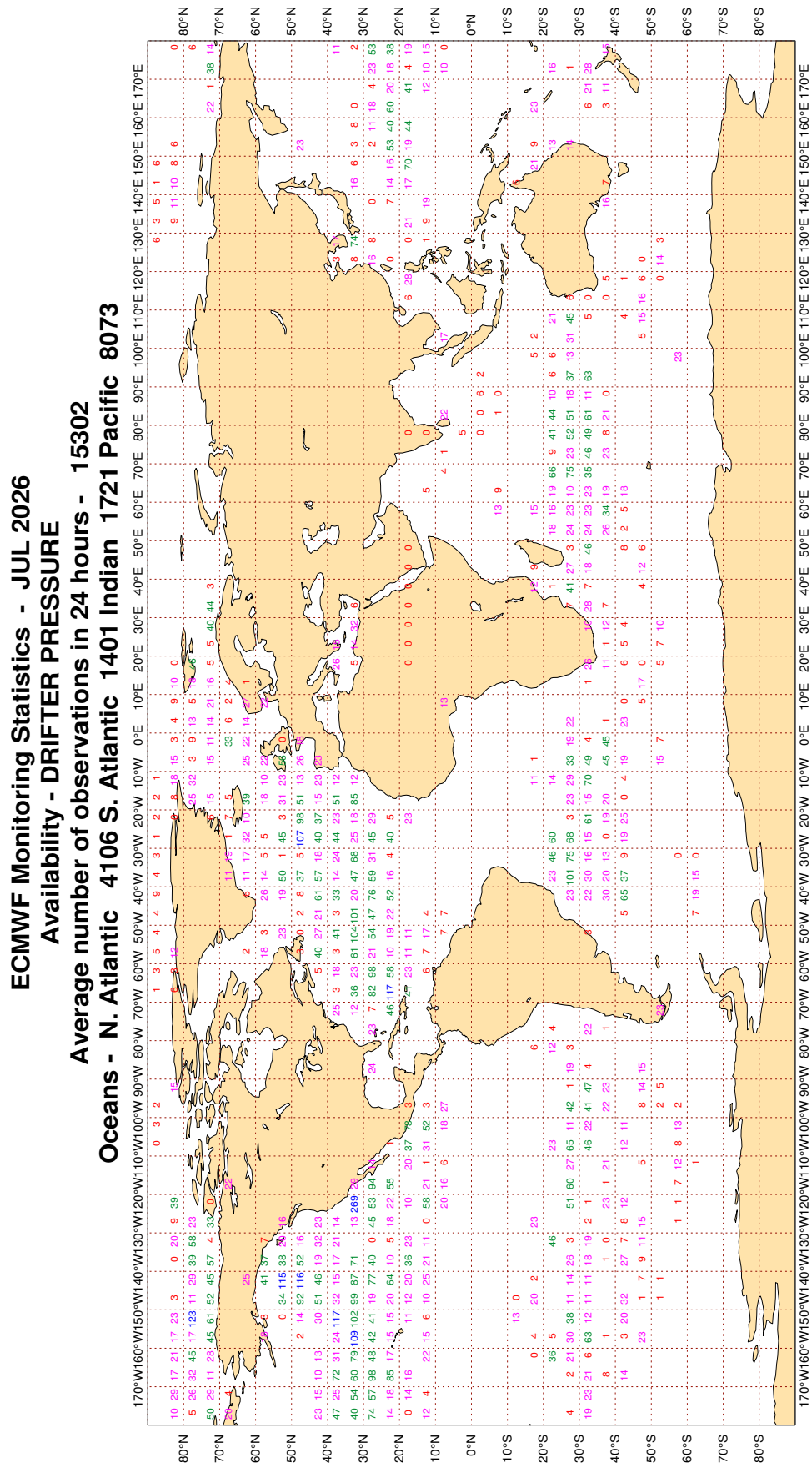
Region V: 14079 VI: 42040 Antarctic: 1171

Oceans - N. Atlantic 5858 S. Atlantic 111 Indian 497 Pacific 6502

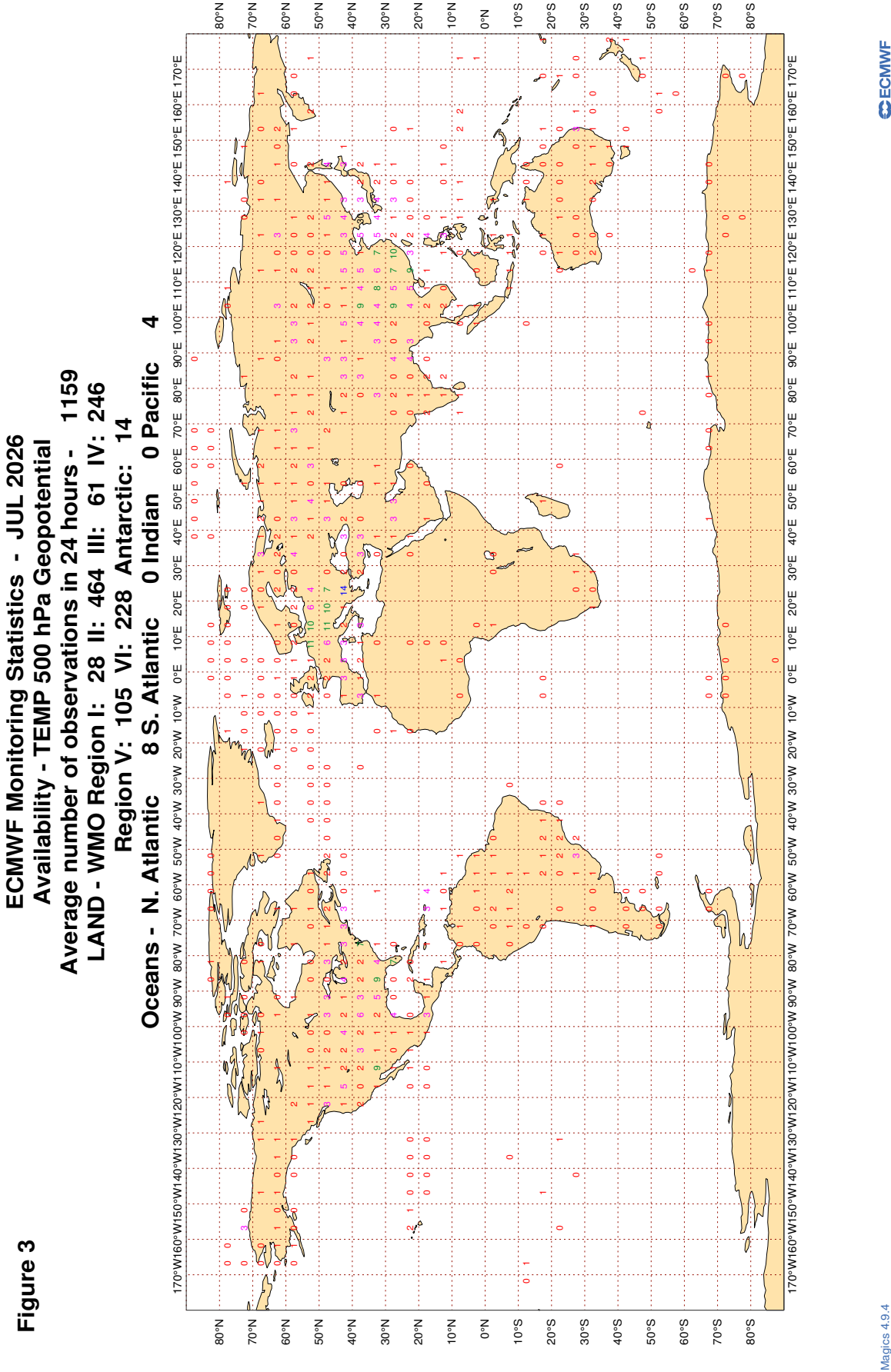


3.2.2 Figure 2 - Availability - DRIFTER PRESSURE

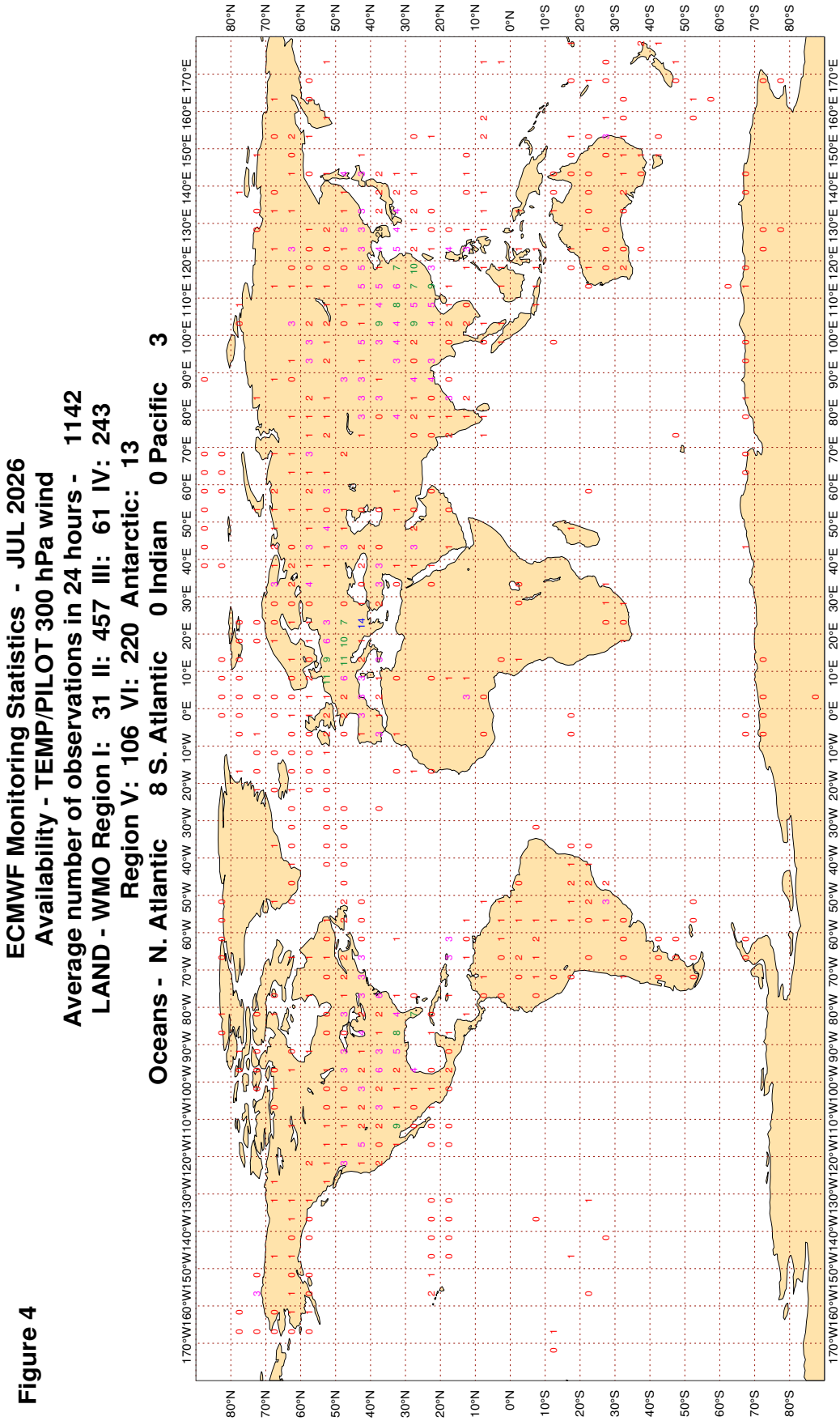
Figure 2



3.2.3 Figure 3 - Availability - TEMP 500 hPa geopotential



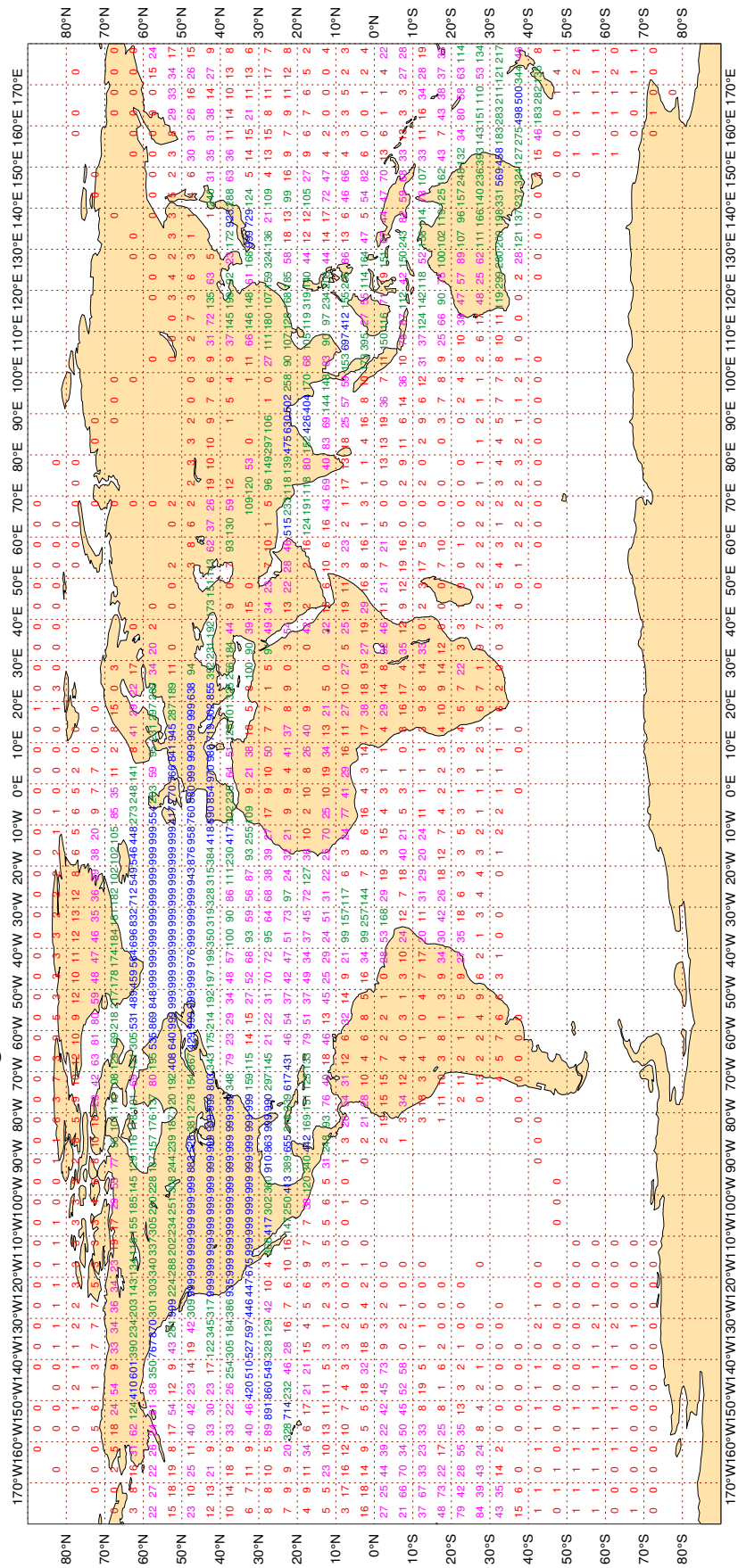
3.2.4 Figure 4 - Availability - TEMP/PILOT 300 hPa wind



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

Figure 5

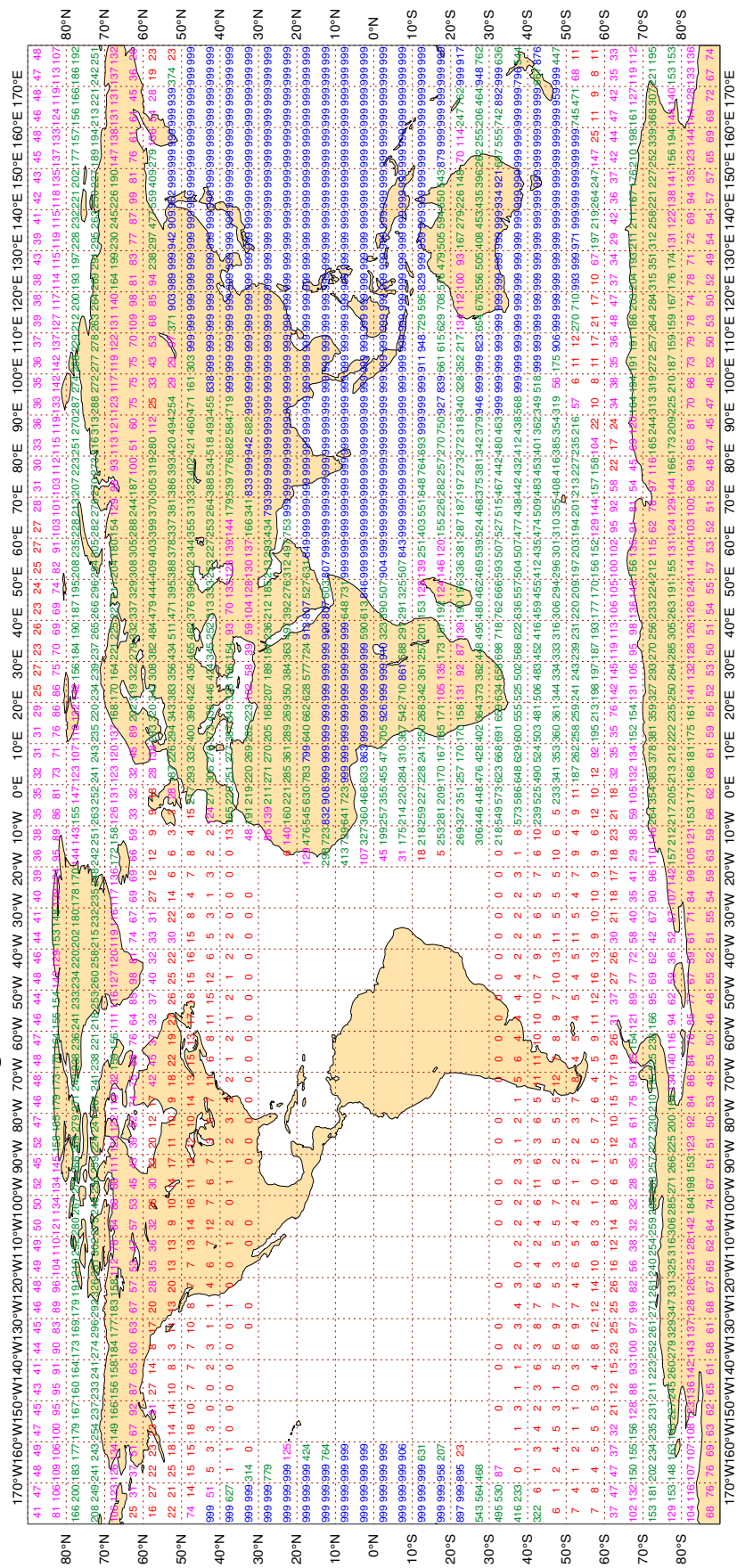
ECMWF Monitoring Statistics - JUL 2026
 Availability - Aircraft winds 300-150 hPa
 Average number of observations in 24 hours - 268144



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

Figure 6

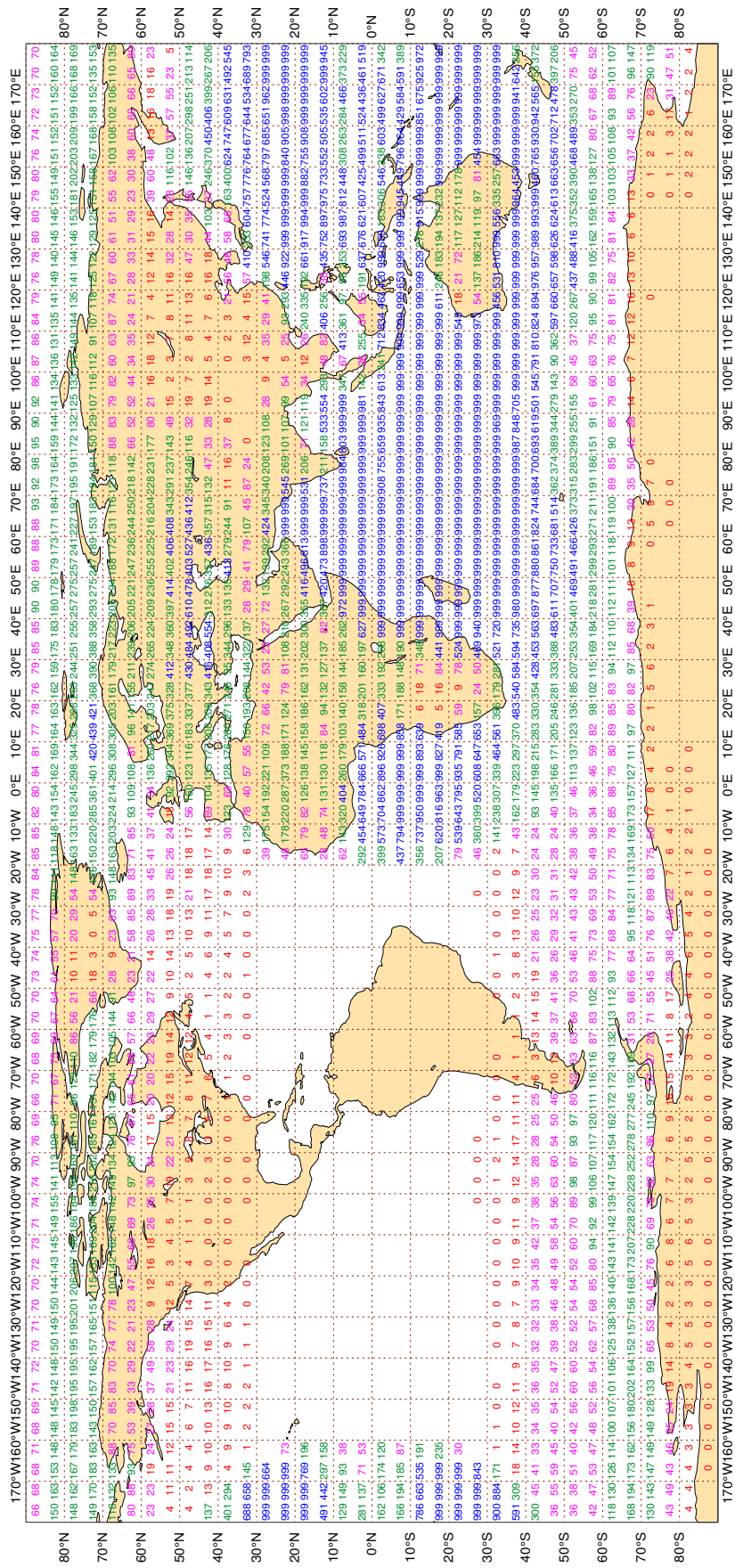
ECMWF Monitoring Statistics - JUL 2026
Availability - AMV winds 400-150 hPa
Average number of observations in 24 hours - 1294597



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

Figure 7

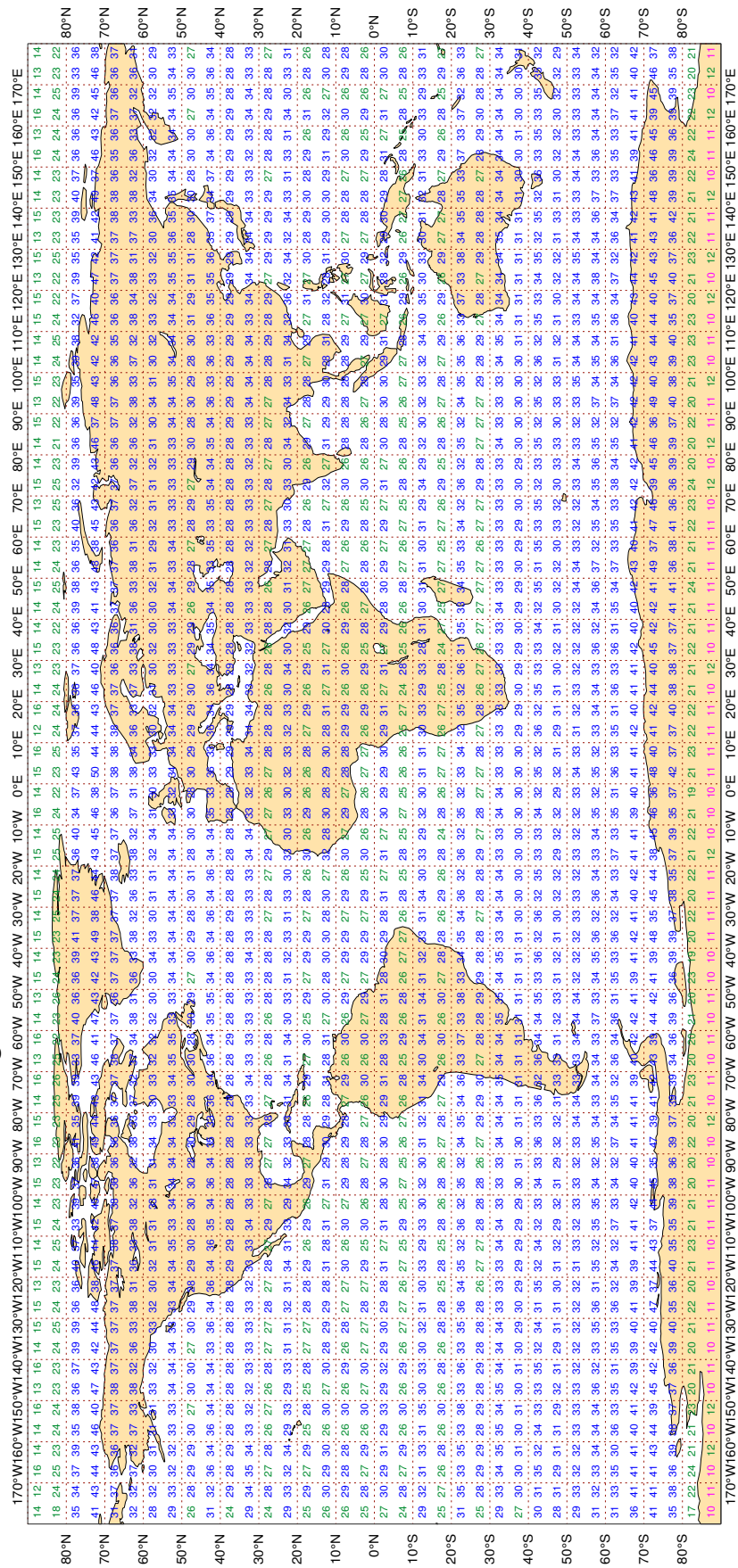
ECMWF Monitoring Statistics - JUL 2026
Availability - AMV winds 1000-700 hPa
Average number of observations in 24 hours - 715408



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

Figure 8

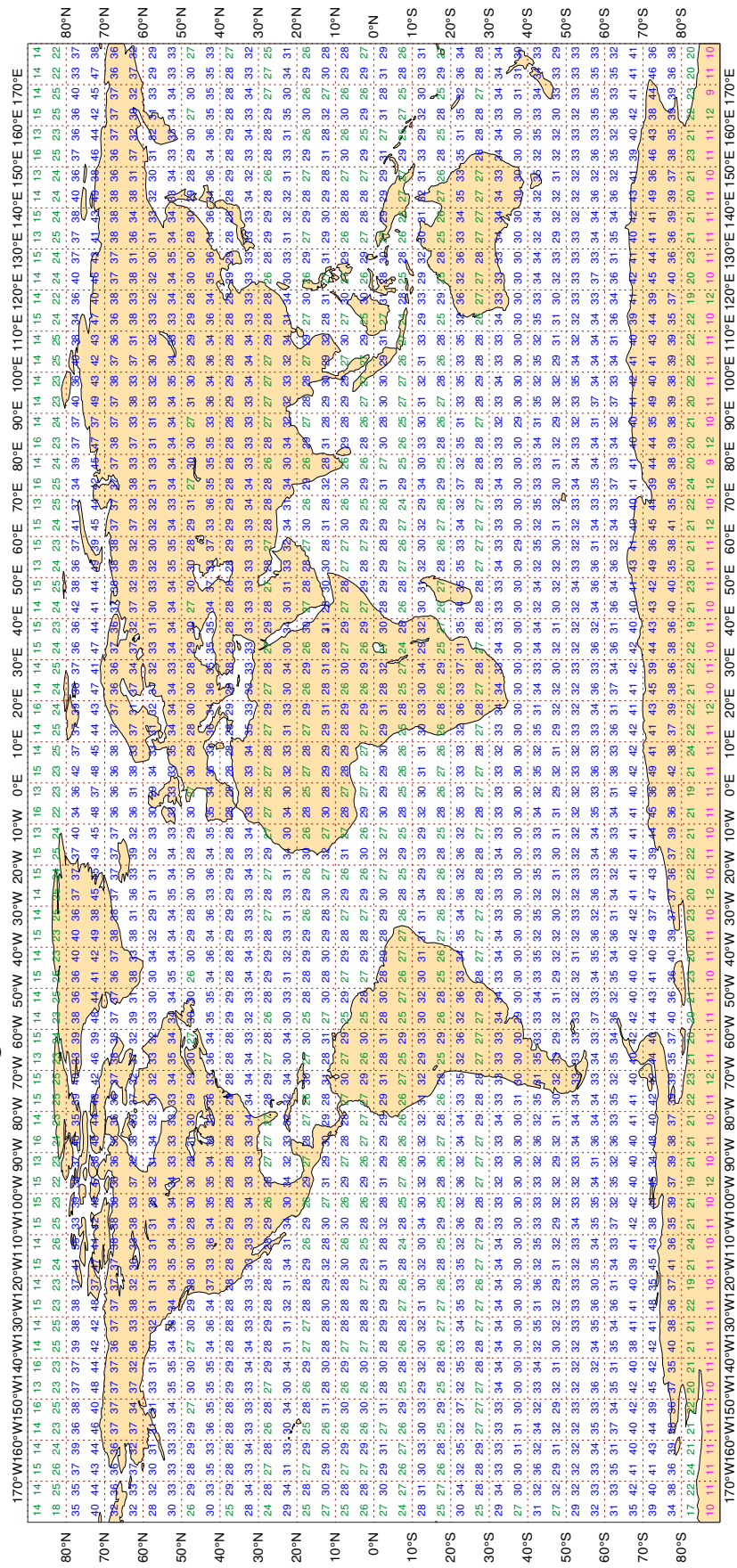
ECMWF Monitoring Statistics - JUL 2026
Availability - METOP-B ATOVS : AMSU-A
Average number of observations in 24 hours - 81369



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

Figure 9

ECMWF Monitoring Statistics - JUL 2026
 Availability - METOP-C ATOVS : AMSU-A
 Average number of observations in 24 hours - 81255



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 : JUL 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
3E2032	99	P	SUR	60	0	1.4	-3.5	3.8
3E4612	99	P	SUR	34	0	0.7	4.2	4.3
3E5193	99	P	SUR	15	0	0.6	3.3	3.4
3EBY2	99	P	SUR	21	19	1.2	12.8	12.8
3EPL4	99	P	SUR	23	0	2.2	5.3	5.8
3EPU6	99	P	SUR	32	0	2.2	4.6	5.1
3ETR7	99	P	SUR	40	0	1.2	4.5	4.7
45161	99	P	SUR	82	0	0.6	9.8	9.8
45174	99	P	SUR	123	0	0.9	3.6	3.8
45201	99	P	SUR	123	49	4.3	8.9	9.9
5LOH5	99	P	SUR	28	0	1.9	5.5	5.8
5LYQ3	99	P	SUR	52	0	2.9	7.5	8.0
7JJL	99	P	SUR	22	0	0.5	4.0	4.0
7JKC	99	P	SUR	22	0	0.6	3.9	4.0
7JLP	99	P	SUR	30	0	1.2	3.7	3.9
7JYC	99	P	SUR	39	0	1.2	3.5	3.8
7KJS	99	P	SUR	29	0	1.4	5.5	5.6
7KTE	99	P	SUR	18	0	3.1	4.3	5.3
9HA4638	99	P	SUR	51	1	3.2	10.9	11.3
9HA4777	99	P	SUR	58	0	1.9	5.6	5.9
9HA5209	99	P	SUR	38	1	4.8	9.2	10.3
9HA5782	99	P	SUR	26	0	1.7	-4.4	4.7
9V6625	99	P	SUR	19	0	2.3	4.0	4.6
9V7628	99	P	SUR	43	0	1.0	3.9	4.0
9V7629	99	P	SUR	26	0	1.6	4.2	4.5
9V7754	99	P	SUR	31	0	0.5	7.0	7.0
9VMY2	99	P	SUR	26	0	1.7	7.0	7.2
C6BU3	99	P	SUR	43	0	1.6	5.1	5.3
C6CA7	99	P	SUR	28	0	2.4	3.7	4.3
C6PZ8	99	P	SUR	40	0	2.0	-5.3	5.7
C6VV8	99	P	SUR	20	0	0.8	-3.2	3.3
C6WO8	99	P	SUR	66	0	0.8	4.8	4.9

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
D5HF3	99	P	SUR	16	0	1.6	10.2	10.3
H3FV	99	P	SUR	34	0	1.1	-4.6	4.7
KEP23GP	99	P	SUR	17	0	1.1	-4.0	4.1
LAOE5	99	P	SUR	15	0	0.4	6.6	6.6
LAOL5	99	P	SUR	16	0	2.7	3.5	4.4
LAQL7	99	P	SUR	34	0	1.6	4.6	4.9
LAQO7	99	P	SUR	42	0	2.4	4.2	4.8
LATL8	99	P	SUR	40	0	1.6	-5.9	6.1
MJKZ4	99	P	SUR	18	0	0.7	3.3	3.4
UCSJ	99	P	SUR	24	0	0.9	4.3	4.5
V7A4788	99	P	SUR	95	0	2.4	4.1	4.8
V7A5254	99	P	SUR	43	0	1.4	3.6	3.8
V7A5727	99	P	SUR	21	0	1.0	-3.1	3.3
V7A6073	99	P	SUR	19	0	0.7	3.5	3.6
V7A6440	99	P	SUR	21	0	1.2	3.6	3.8
V7WS5	99	P	SUR	20	0	1.1	7.6	7.7
VRCY7	99	P	SUR	64	0	2.3	-3.5	4.2
VRDW2	99	P	SUR	85	0	0.7	-4.2	4.3
VRID2	99	P	SUR	57	0	0.9	-4.0	4.1
VRJT5	99	P	SUR	18	0	0.5	3.9	3.9
VRLJ3	99	P	SUR	27	0	1.9	-5.7	6.0
VRMX8	99	P	SUR	20	0	1.3	3.7	3.9
VRRB5	99	P	SUR	21	0	0.9	8.7	8.7
VRTV2	99	P	SUR	26	0	0.5	-5.0	5.0
VRVO9	99	P	SUR	19	1	2.1	7.7	8.0
VRWY9	99	P	SUR	41	0	2.0	-4.8	5.2
WDG2754	99	P	SUR	67	0	0.5	3.1	3.1
WGEB	99	P	SUR	97	0	0.5	6.0	6.0
YDDP2	99	P	SUR	17	0	0.4	-3.9	3.9

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 : JUL 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
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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 : JUL 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
45165	99	DIRN	SUR	70	0	0	37.7	35.3	51.6
45201	99	DIRN	SUR	24	0	0	104.0	-18.0	105.5
45206	99	DIRN	SUR	47	0	0	28.4	-30.0	41.3
46118	99	DIRN	SUR	67	0	0	44.6	-62.4	76.7
46120	99	DIRN	SUR	32	0	0	17.3	35.1	39.1
46303	99	DIRN	SUR	56	0	0	34.6	34.2	48.6
63057	99	DIRN	SUR	97	0	0	12.3	31.9	34.2

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 : JUL 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
1701664	99	P	SUR	-35	-77	743	181	4.8	-4.5	6.6
1701678	99	P	SUR	-26	72	28	18	7.8	5.9	9.8
1801859	99	P	SUR	75	-167	492	199	0.4	0.3	0.5
1801946	99	P	SUR	49	-21	380	98	3.6	-1.0	3.7
2101868	99	P	SUR	50	-128	514	0	1.8	5.2	5.5
2501555	99	P	SUR	80	-162	284	264	2.1	10.7	10.8
2501586	99	P	SUR	76	-139	744	744	0.0	0.0	0.0
2501587	99	P	SUR	75	-155	744	0	1.5	5.9	6.1
2501590	99	P	SUR	70	170	495	124	3.7	-7.4	8.3
2601529	99	P	SUR	69	-180	331	4	5.2	5.3	7.4
2802165	99	P	SUR	-62	-138	56	56	0.0	0.0	0.0
4101867	99	P	SUR	6	81	734	119	3.5	-4.2	5.4
4500161	99	P	SUR	43	-86	1405	0	0.4	9.8	9.8
4500201	99	P	SUR	42	83	4317	1676	4.3	9.0	10.0
45161	99	P	SUR	43	-86	476	0	0.4	9.8	9.8
45201	99	P	SUR	42	83	736	285	4.3	9.0	9.9
4701558	99	P	SUR	79	-18	62	0	0.3	-4.2	4.2
4801639	99	P	SUR	70	-127	319	319	0.0	0.0	0.0
4801763	99	P	SUR	68	-1	721	0	1.6	-12.3	12.4
4802582	99	P	SUR	64	-18	630	0	0.0	-9.8	9.8
5501690	99	P	SUR	-29	153	469	0	0.4	-8.5	8.5
5501735	99	P	SUR	-37	-98	721	721	0.0	0.0	0.0
5802097	99	P	SUR	-27	166	56	56	0.0	0.0	0.0
5802227	99	P	SUR	50	-35	713	713	0.0	0.0	0.0
6301639	99	P	SUR	89	-99	231	72	0.4	0.1	0.5
6801944	99	P	SUR	16	-138	706	703	0.0	14.7	14.7
6801990	99	P	SUR	-42	-138	56	56	0.0	0.0	0.0
6801991	99	P	SUR	-54	-157	56	56	0.0	0.0	0.0
7801770	99	P	SUR	58	-153	712	0	2.6	-5.4	6.0
7801783	99	P	SUR	-16	-10	56	56	0.0	0.0	0.0
7810693	99	P	SUR	31	-152	743	0	0.4	-6.1	6.1
7810917	99	P	SUR	17	-110	729	720	4.4	7.5	8.7

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
7810921	99	P	SUR	17	-122	347	0	1.0	6.0	6.1

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 : JUL 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
4400069	99	SPEED	SUR	41	-73	2361	0	0	2.3	5.4	5.9

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

LIST OF SUSPECT STATIONS : DRIFTER
 MONITORING CENTRE : ECMWF
 ELEMENT MONITORED : WIND DIRECTION (DEGREES)
 PERIOD : JUL 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
2200185	99	DIRN	SUR	37	125	497	6	0	46.0	36.8	58.9
2200188	99	DIRN	SUR	34	128	225	0	0	19.8	48.9	52.7
2200193	99	DIRN	SUR	38	124	590	0	0	20.4	40.6	45.4
2200298	99	DIRN	SUR	35	125	538	0	0	21.0	20.3	29.3
2200300	99	DIRN	SUR	33	125	53	0	0	69.1	5.8	69.3
2200309	99	DIRN	SUR	34	128	638	0	0	19.4	-23.8	30.8
2200310	99	DIRN	SUR	38	129	160	0	0	50.3	-25.1	56.2
2300009	99	DIRN	SUR	15	89	265	1	0	120.3	-39.5	126.6
2300451	99	DIRN	SUR	15	69	221	0	0	28.3	34.1	44.3
2300453	99	DIRN	SUR	8	73	205	0	0	46.0	72.5	85.9
23099	99	DIRN	SUR	13	80	103	0	0	44.0	84.3	95.1
23451	99	DIRN	SUR	15	69	236	0	0	27.9	34.1	44.0
23453	99	DIRN	SUR	8	73	217	0	0	45.7	69.1	82.8
23497	99	DIRN	SUR	11	72	226	0	0	48.6	60.1	77.3
4400030	99	DIRN	SUR	43	-70	1572	0	0	18.6	21.3	28.3
4500001	99	DIRN	SUR	48	-88	2261	0	0	31.3	26.6	41.0
4500004	99	DIRN	SUR	48	-87	2208	0	0	27.1	25.7	37.3
4500029	99	DIRN	SUR	43	-86	2349	0	0	25.9	26.1	36.8
45001	99	DIRN	SUR	48	-88	381	0	0	32.0	27.2	42.0
4500136	99	DIRN	SUR	49	-87	295	2	0	43.6	24.3	49.9
4500165	99	DIRN	SUR	42	-83	2591	0	0	35.7	34.7	49.8
4500168	99	DIRN	SUR	42	-86	2077	0	0	28.0	28.2	39.7
4500196	99	DIRN	SUR	42	-82	2098	0	0	32.6	-21.6	39.1
4500201	99	DIRN	SUR	42	83	503	0	0	92.4	-19.8	94.5
4500204	99	DIRN	SUR	42	-82	2346	0	0	30.9	-27.8	41.5
4500206	99	DIRN	SUR	42	-82	1489	0	0	25.6	-29.2	38.8
4500209	99	DIRN	SUR	43	-82	1935	0	0	28.9	-23.1	37.0
45004	99	DIRN	SUR	48	-87	369	0	0	28.4	26.7	39.0
45029	99	DIRN	SUR	43	-86	415	0	0	27.7	27.2	38.8
45136	99	DIRN	SUR	49	-87	251	2	0	42.3	21.8	47.6
45165	99	DIRN	SUR	42	-83	410	0	0	35.2	34.8	49.5

LIST OF SUSPECT STATIONS : DRIFTER
 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
45168	99	DIRN	SUR	42	-86	338	0	0	30.1	27.1	40.5
45186	99	DIRN	SUR	42	-88	91	0	0	32.2	21.2	38.6
45196	99	DIRN	SUR	42	-82	370	0	0	32.2	-22.2	39.1
45201	99	DIRN	SUR	42	83	127	0	0	99.1	-21.4	101.3
45204	99	DIRN	SUR	42	-82	402	0	0	29.9	-28.3	41.2
45206	99	DIRN	SUR	42	-82	300	0	0	31.1	-27.2	41.3
45209	99	DIRN	SUR	43	-82	305	0	0	30.0	-22.4	37.4
4600081	99	DIRN	SUR	61	-148	1518	0	0	39.0	30.1	49.3
4600087	99	DIRN	SUR	48	-125	1249	0	0	25.4	24.9	35.6
4600092	99	DIRN	SUR	37	-122	460	0	0	14.5	-21.5	26.0
4600118	99	DIRN	SUR	49	-123	2180	0	0	40.6	-65.8	77.3
4600120	99	DIRN	SUR	48	-122	870	0	0	21.5	36.5	42.3
4600204	99	DIRN	SUR	51	-129	587	0	0	19.0	20.1	27.6
4600303	99	DIRN	SUR	49	-123	343	0	0	35.2	30.2	46.4
4600304	99	DIRN	SUR	49	-123	328	0	0	28.3	26.7	38.9
46081	99	DIRN	SUR	61	-148	274	0	0	40.1	28.4	49.2
46087	99	DIRN	SUR	49	-125	200	0	0	23.2	23.4	32.9
46092	99	DIRN	SUR	37	-122	395	0	0	14.6	-23.7	27.8
46118	99	DIRN	SUR	49	-123	396	0	0	44.5	-62.1	76.4
46120	99	DIRN	SUR	48	-122	224	0	0	19.4	33.4	38.7
46146	99	DIRN	SUR	49	-124	434	0	0	19.1	20.3	27.8
46303	99	DIRN	SUR	49	-123	333	0	0	35.8	32.1	48.1
46304	99	DIRN	SUR	49	-123	351	0	0	33.3	24.4	41.3
6100198	99	DIRN	SUR	37	-2	361	0	0	76.9	101.9	127.7
6100216	99	DIRN	SUR	42	12	646	0	0	109.2	-21.3	111.3
6100417	99	DIRN	SUR	38	0	318	0	0	73.6	24.9	77.8
6200083	99	DIRN	SUR	43	-9	361	0	0	30.6	-139.8	143.1
6200086	99	DIRN	SUR	55	7	181	0	0	14.5	25.3	29.2
63057	99	DIRN	SUR	59	2	1205	0	0	11.4	32.2	34.2
6600024	99	DIRN	SUR	55	13	147	0	0	20.9	33.4	39.4

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 : JUL 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	00	Z	1000	57	3	30	0	5.6	78.6	78.8
01400	12	Z	1000	57	3	30	0	4.0	80.1	80.2
22522	12	Z	50	65	35	29	0	57.1	-123.1	135.7
22522	00	Z	50	65	35	28	0	76.1	-143.0	162.0
23933	00	Z	250	61	69	30	0	14.4	-103.2	104.2
23933	12	Z	250	61	69	31	1	17.3	-106.2	107.6
25913	12	Z	50	60	151	26	0	83.8	-144.2	166.8
25913	00	Z	30	60	151	24	0	95.4	-187.2	210.1
26629	12	Z	1000	55	24	30	0	28.7	12.6	31.3
29231	00	Z	250	58	83	17	0	86.2	28.6	90.8
29839	12	Z	250	54	84	31	0	20.9	73.8	76.7
31873	00	Z	50	46	134	27	0	69.8	149.5	165.0
34172	12	Z	50	52	46	14	1	39.2	-161.5	166.2
34172	00	Z	50	52	46	14	0	54.4	-157.8	166.9
34882	12	Z	70	46	48	29	0	80.3	-106.4	133.3
42079	00	Z	50	32	77	24	6	128.5	108.5	168.2
42101	00	Z	70	30	76	17	2	128.2	98.7	161.8
42348	00	Z	925	27	76	23	0	8.2	41.5	42.3
42727	00	Z	850	24	93	28	0	4.0	-40.0	40.2
52323	00	Z	30	42	97	28	0	112.6	156.1	192.5
76644	12	Z	850	21	-90	23	0	3.6	32.9	33.1
76644	00	Z	850	21	-90	24	0	8.7	37.1	38.1
80371	12	Z	250	1	-78	15	10	9.2	211.2	211.4
91680	12	Z	1000	-18	177	29	0	2.5	32.3	32.4
91680	00	Z	1000	-18	177	28	0	3.6	33.2	33.4
94159	12	Z	1000	-28	153	31	0	15.4	41.0	43.8
94159	00	Z	1000	-28	153	31	0	13.7	41.5	43.7
JNKN7J	00	Z	1000	45	-56	10	0	2.8	40.4	40.5
JNKN7J	12	Z	1000	44	-61	11	0	2.8	38.9	39.0

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 : JUL 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
27459	12	V	850	56	44	10	4	-5.5	5.6	17.5
48381	00	V	100	16	103	16	0	15.7	3.9	20.6
WDK38H	12	V	300	62	2	17	0	-2.0	5.7	17.4

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 : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

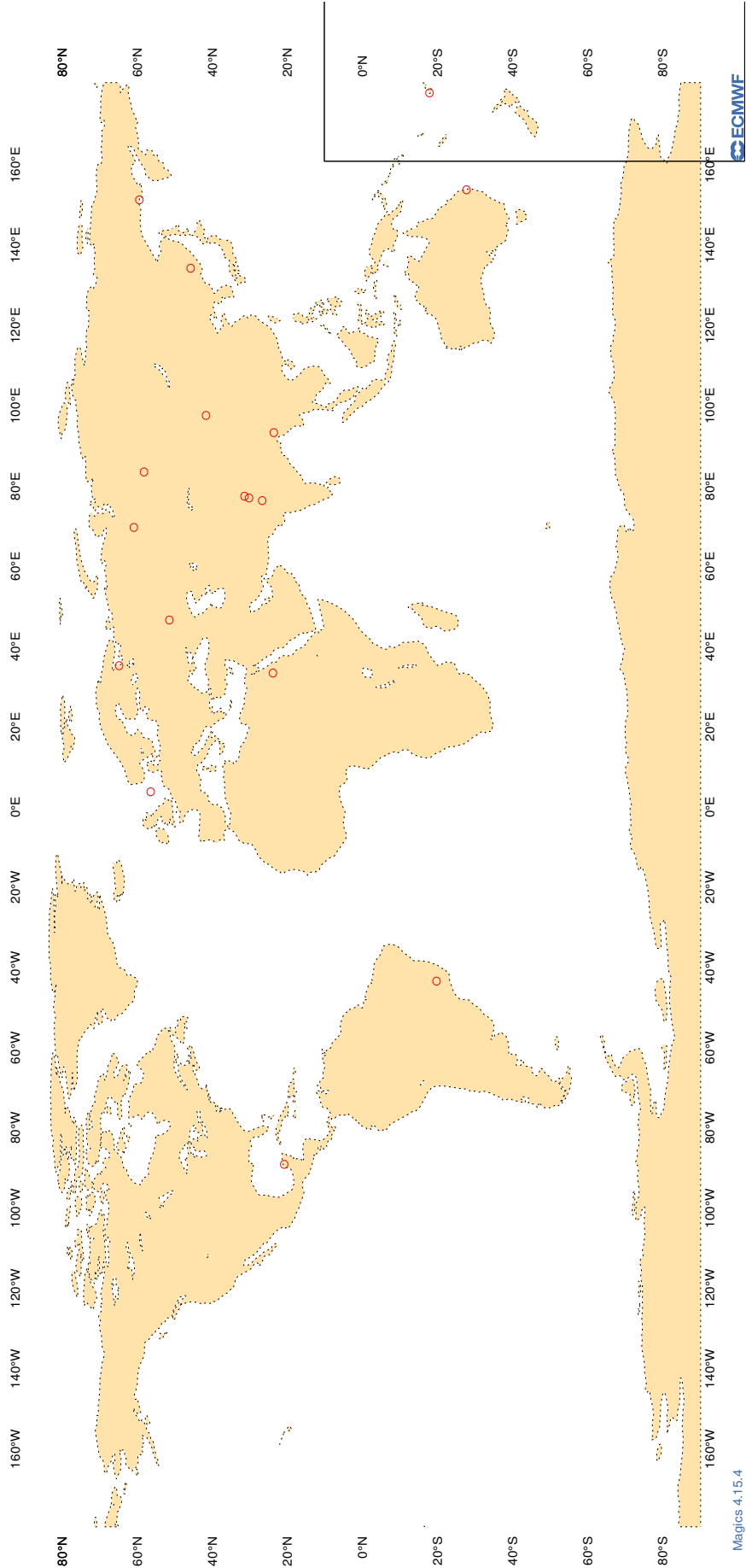
SELECTION CRITERIA: OBSERVED/FORECAST WIND SPEEDS ≥ 5 M/S
 NO. OF OBSERVATIONS ≥ 5 , AND,
 ABSOLUTE BIAS ≥ 10 DEGREES, WITH
 STANDARD DEVIATION < 30 DEGREES, AND,
 VERTICAL SPREAD < 10 DEGREES
 (AVERAGE BETWEEN 500 AND 150 HPA)

WMO IDENT	OBS TIME	ELM	LAT	LONG	NUM OBS	BIAS	MAX SPREAD	SD
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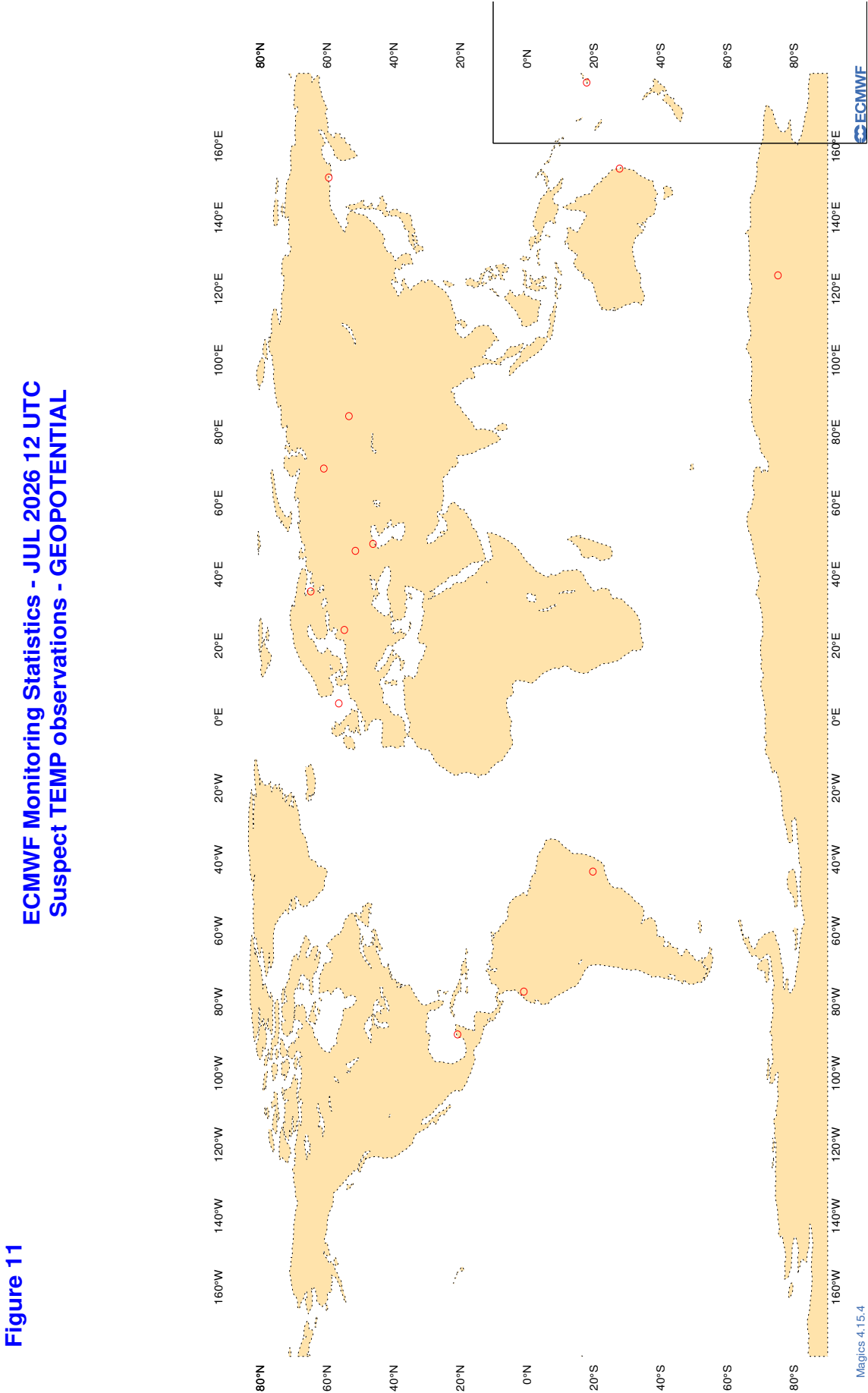
3.2.19 Figure 10 - Suspect TEMP observations - geopotential : 00 UTC

Figure 10

ECMWF Monitoring Statistics - JUL 2026 00 UTC
Suspect TEMP observations - GEOPOTENTIAL

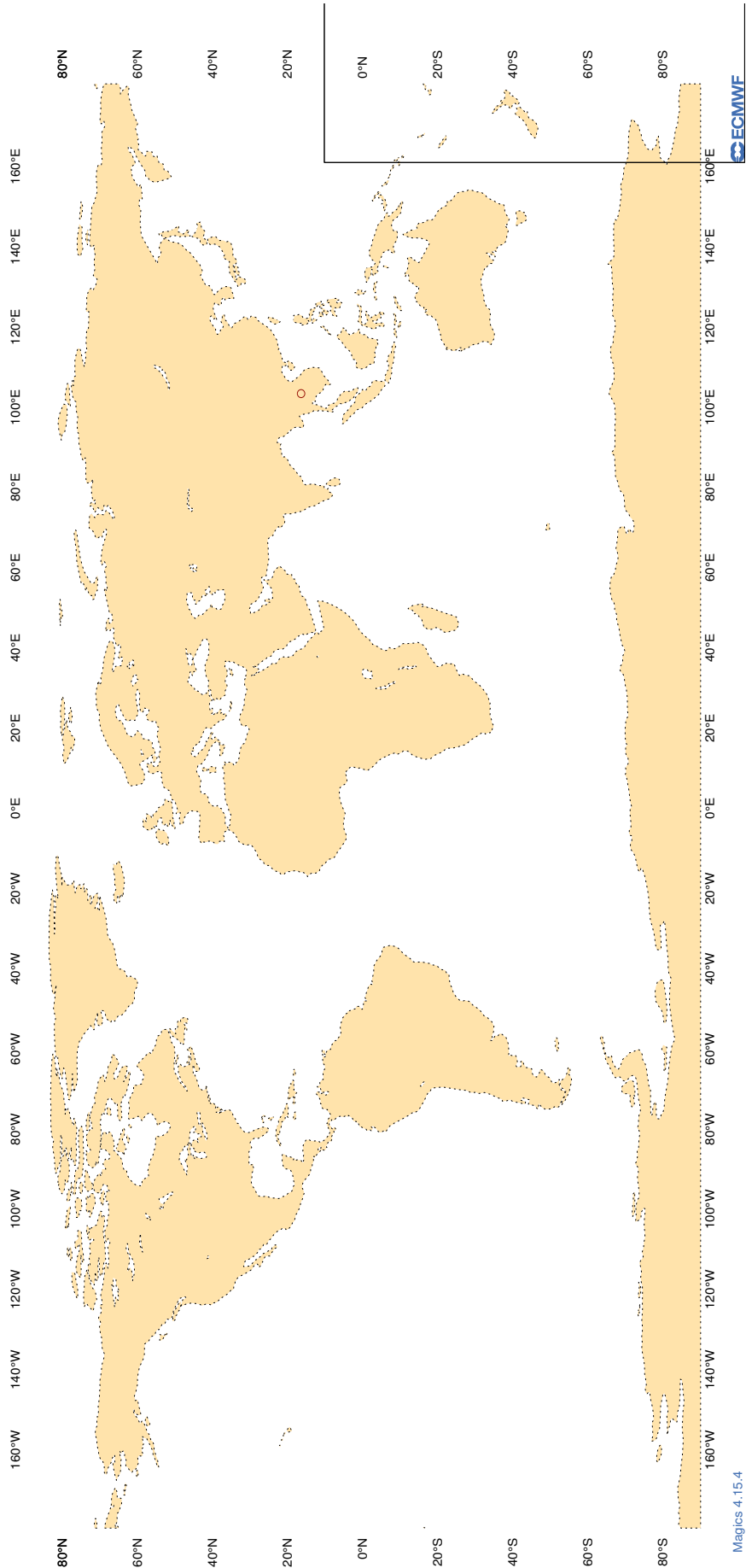


3.2.20 Figure 11 - Suspect TEMP observations - geopotential : 12 UTC



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

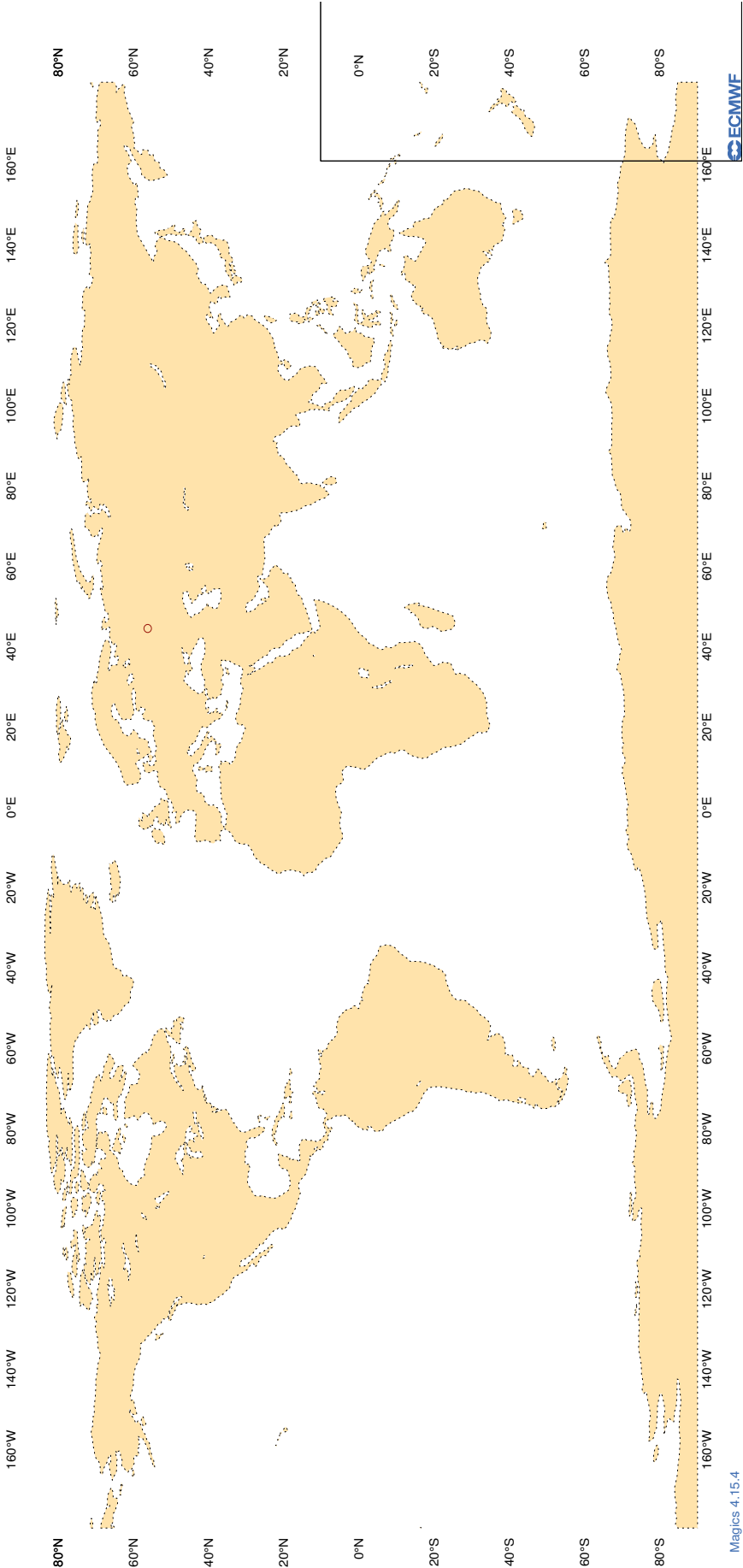
Figure 12
ECMWF Monitoring Statistics - JUL 2026 00 UTC
Suspect TEMP/PILOT observations - WIND



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

Figure 13

ECMWF Monitoring Statistics - JUL 2026 12 UTC
Suspect TEMP/PILOT observations - WIND



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 : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
2TDJJ8	12	Z	100	27	12.3	11.3
7JUNA4	12	Z	100	8	34.2	19.1
7JUNA4	00	Z	100	6	17.0	14.9
7KPB	00	Z	100	8	5.8	2.7
7KPB	12	Z	100	8	5.8	3.3
9ZT9MR	12	Z	100	11	25.0	-22.6
9ZT9MR	00	Z	100	7	31.2	-29.7
ASDE09	12	Z	100	1	35.2	-35.2
ATGU3F	12	Z	100	6	26.8	-23.2
ATGU3F	00	Z	100	8	37.2	-34.4
DEN	12	Z	100	0	0.0	0.0
DEN	00	Z	100	0	0.0	0.0
DSQL7	00	Z	100	4	3.8	-3.0
DSQL7	12	Z	100	6	3.7	-2.8
FPUW5G	12	Z	100	2	7.2	-6.9
GQBZLZ	12	Z	100	0	0.0	0.0
GQBZLZ	00	Z	100	0	0.0	0.0
JNKN7J	12	Z	100	11	19.8	18.2
JNKN7J	00	Z	100	11	25.3	24.9
JPBN	12	Z	100	19	5.0	1.3
JPBN	00	Z	100	5	5.6	5.3
KMPLHP	12	Z	100	10	31.6	-2.1
KMPLHP	00	Z	100	10	9.2	-2.7
LAGY8	12	Z	100	1	37.7	-37.7
LAGY8	00	Z	100	2	50.8	-50.8
LAGZ8	00	Z	100	1	32.4	32.4
LAGZ8	12	Z	100	1	59.0	59.0
LAR	12	Z	100	0	0.0	0.0
LAR	00	Z	100	0	0.0	0.0
LRYQE3	12	Z	100	8	57.6	51.4
LRYQE3	00	Z	100	10	14.9	-12.0
TLH	12	Z	100	0	0.0	0.0
TLH	00	Z	100	0	0.0	0.0
WDK38H	12	Z	100	16	13.9	-13.3
WDK38H	00	Z	100	3	12.6	-12.1
WFF	12	Z	100	1	156.9	156.9
WFF	00	Z	100	0	0.0	0.0
XKQLWQ	12	Z	100	21	21.3	18.3
YLV96W	12	Z	100	8	68.5	41.5

RADIOSONDE MONITORING STATISTICS (SHIPS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
YLV96W	00	Z	100	5	10.6	-9.3

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 : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OB TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
2TDJJ8	12	V	100	26	2.6	0.4	-0.3
7JUNA4	12	V	100	8	3.1	0.9	-0.2
7JUNA4	00	V	100	6	3.4	-2.0	0.3
7KPB	00	V	100	8	2.5	0.3	0.3
7KPB	12	V	100	8	3.5	0.0	1.4
9ZT9MR	12	V	100	11	2.4	0.5	-0.3
9ZT9MR	00	V	100	7	3.1	-0.1	0.6
ASDE09	12	V	100	1	2.3	-1.6	1.7
ATGU3F	12	V	100	6	2.9	0.8	-1.0
ATGU3F	00	V	100	8	2.2	-0.1	0.0
DEN	12	V	100	0	0.0	0.0	0.0
DEN	00	V	100	0	0.0	0.0	0.0
DSQL7	00	V	100	4	1.6	1.1	0.4
DSQL7	12	V	100	6	2.0	0.2	0.0
FPUW5G	12	V	100	2	2.0	1.1	-0.4
GQBZLZ	12	V	100	0	0.0	0.0	0.0
GQBZLZ	00	V	100	0	0.0	0.0	0.0
JNKN7J	12	V	100	11	2.5	0.3	0.1
JNKN7J	00	V	100	11	2.3	0.1	0.3
JPBN	12	V	100	19	3.5	0.5	-0.5
JPBN	00	V	100	5	3.6	0.6	-1.1
KMPLHP	12	V	100	10	3.3	0.0	0.0
KMPLHP	00	V	100	10	2.3	0.8	0.4
LAGY8	12	V	100	1	8.0	0.8	8.0
LAGY8	00	V	100	2	6.7	4.7	3.5
LAGZ8	00	V	100	1	4.6	-0.4	-4.6
LAGZ8	12	V	100	1	6.2	2.7	5.6
LAR	12	V	100	0	0.0	0.0	0.0
LAR	00	V	100	0	0.0	0.0	0.0
LRYQE3	12	V	100	8	1.8	0.9	0.3
LRYQE3	00	V	100	10	2.8	0.5	0.4
TLH	12	V	100	0	0.0	0.0	0.0
TLH	00	V	100	0	0.0	0.0	0.0
WDK38H	12	V	100	15	5.6	-0.6	1.6
WDK38H	00	V	100	3	11.6	-7.0	6.6
WFF	12	V	100	1	3.0	2.0	-2.3
WFF	00	V	100	0	0.0	0.0	0.0
XKQLWQ	12	V	100	21	3.0	0.0	-0.1
YLV96W	12	V	100	8	2.9	0.4	0.9

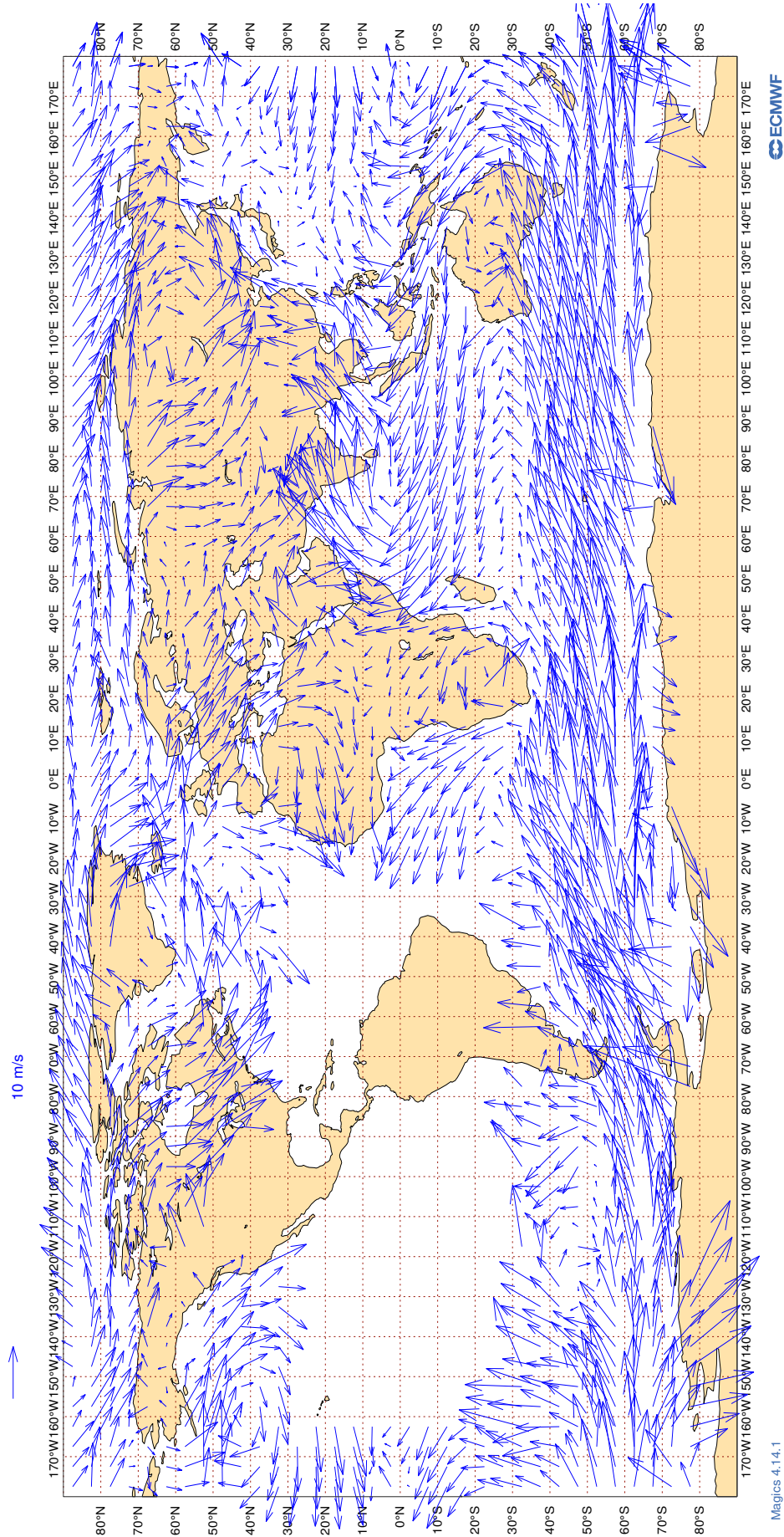
RADIOSONDE MONITORING STATISTICS (SHIPS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
YLV96W	00	V	100	4	3.2	0.3	1.8

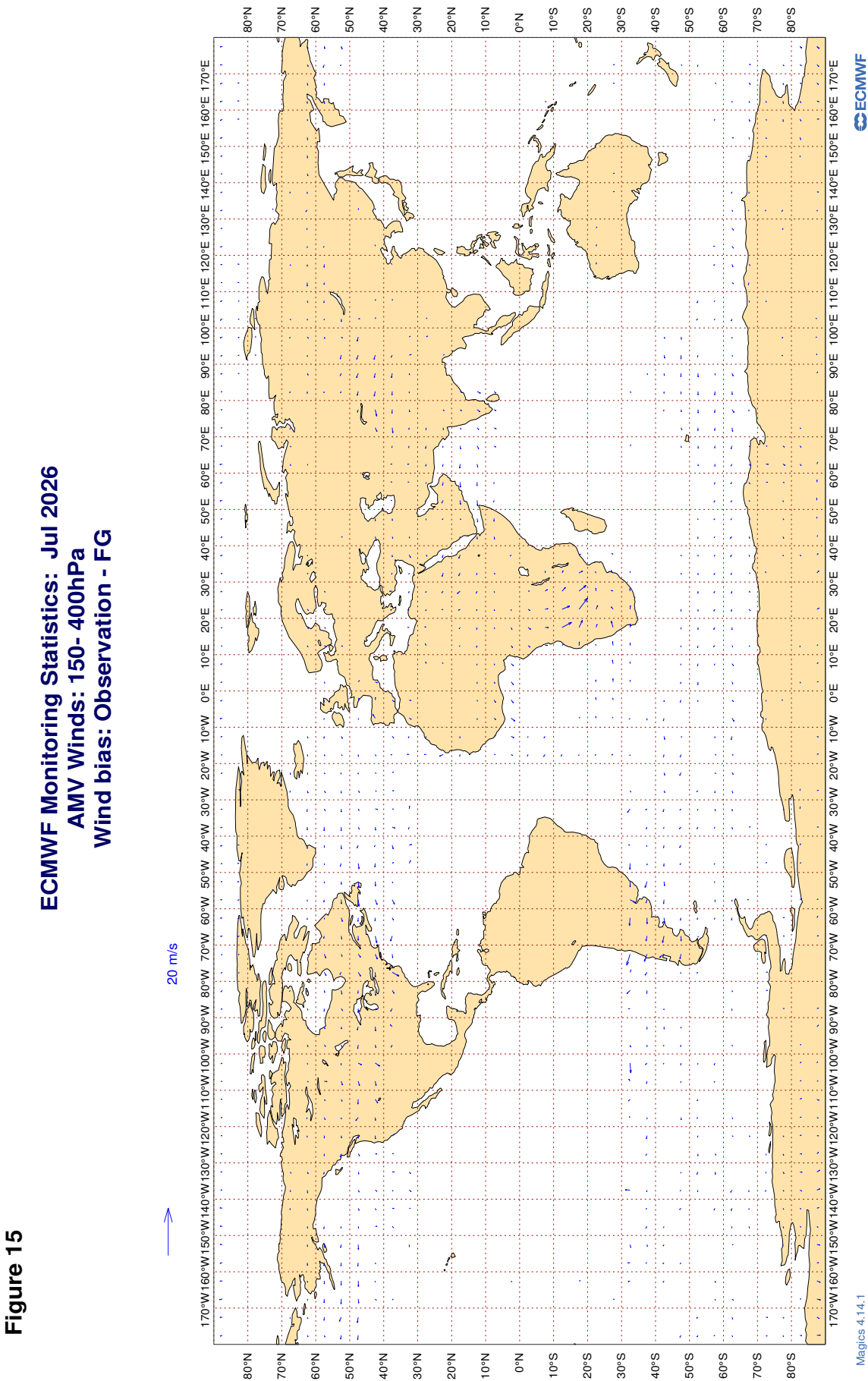
3.2.25 Figure 14 - SATOB Winds: 700-1000hPa

Figure 14

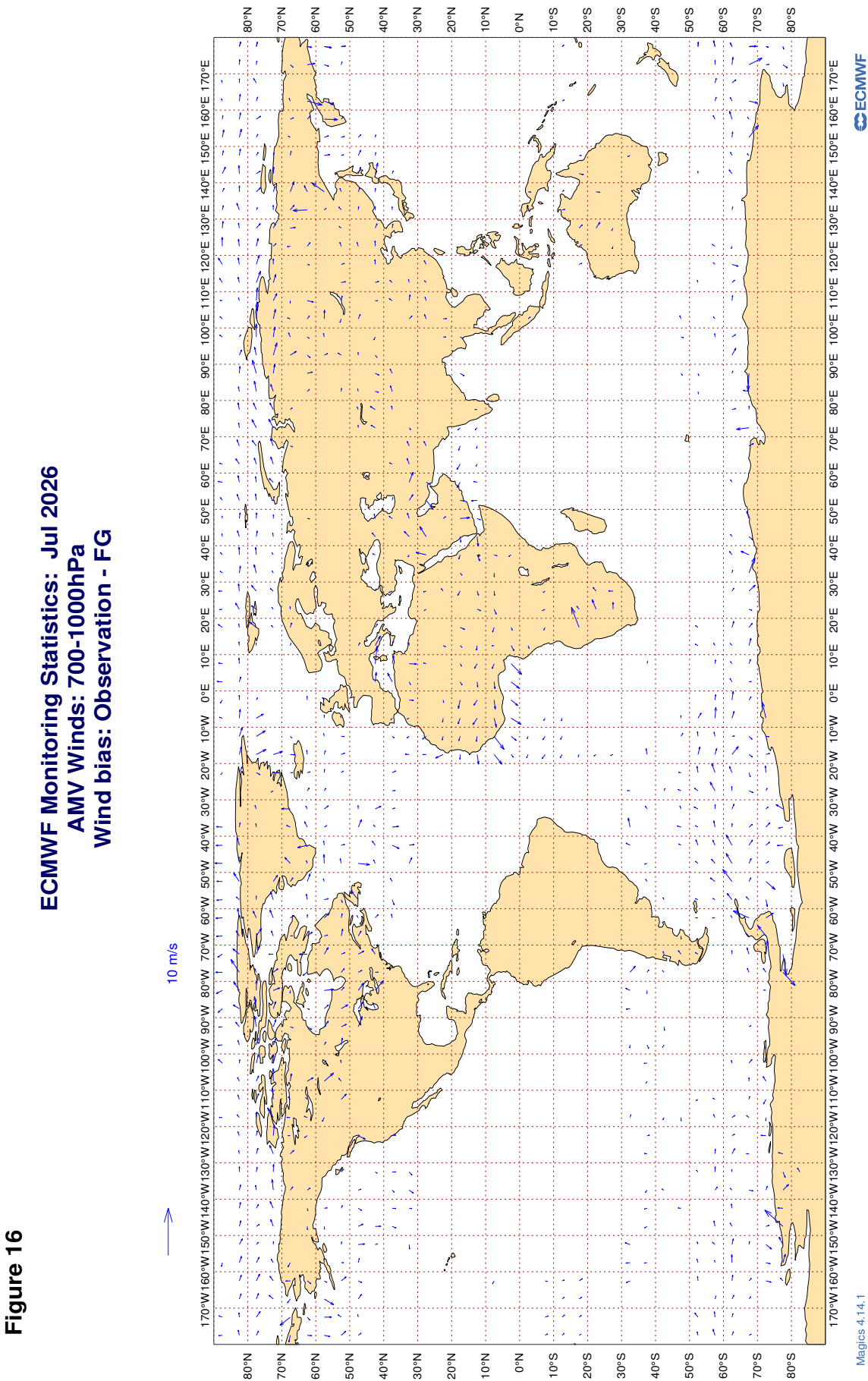
ECMWF Monitoring Statistics: Jul 2026
AMV Winds: 700-1000hPa
Mean Observed Wind



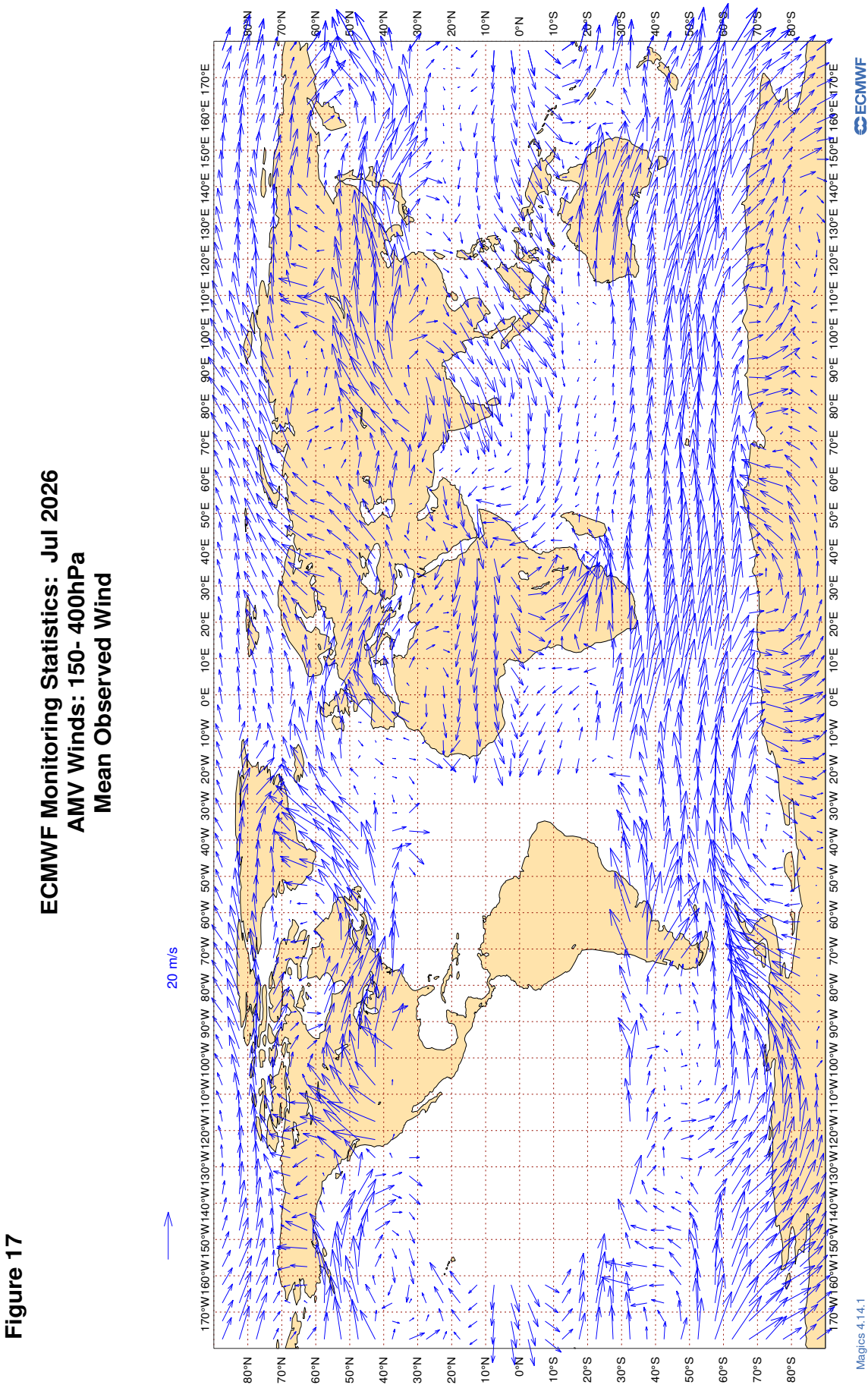
3.2.26 Figure 15 - SATOB Winds: 150- 400hPa



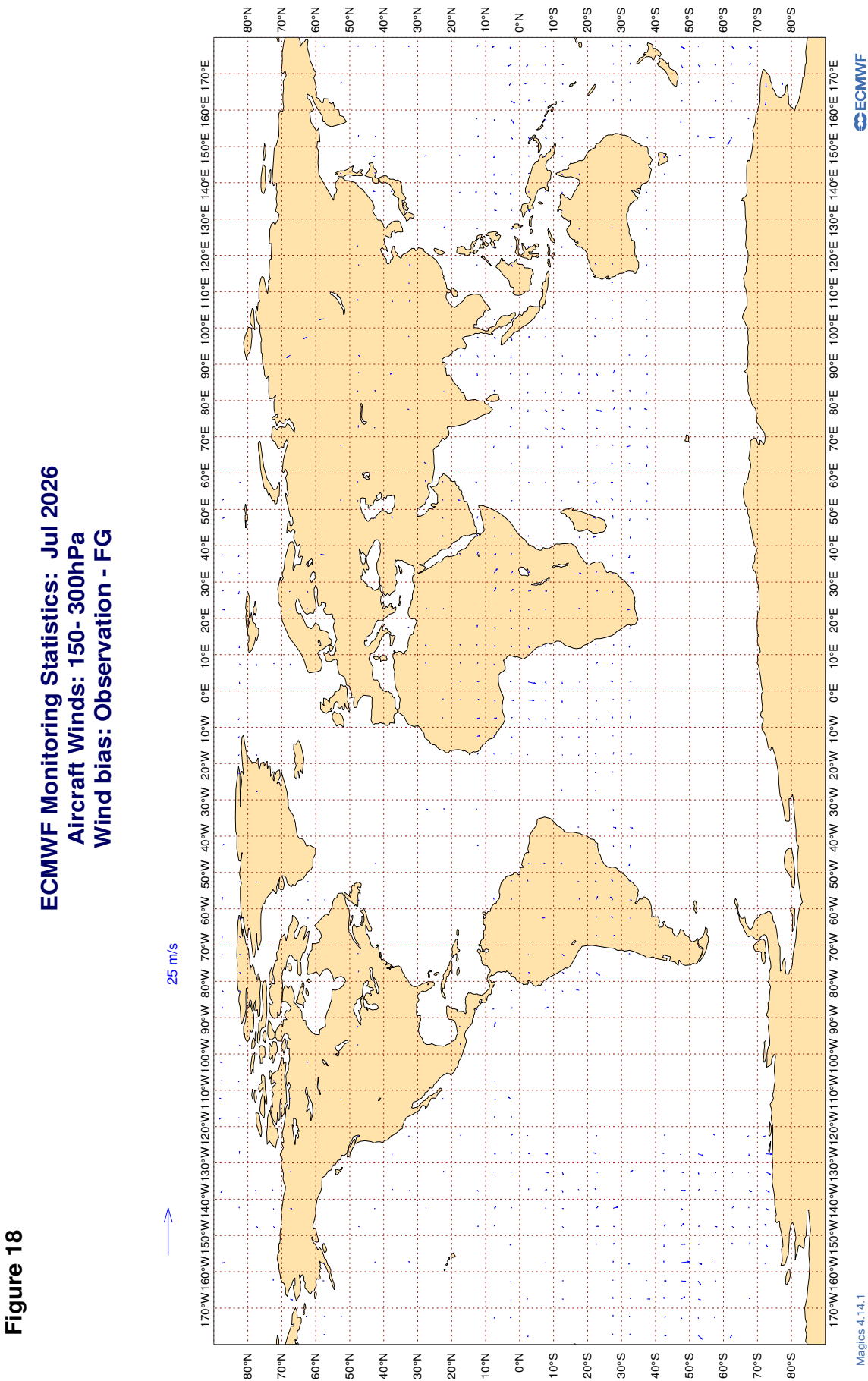
3.2.27 Figure 16 - SATOB Winds: 700-1000hPa



3.2.28 Figure 17 - SATOB Winds: 150- 400hPa



3.2.29 Figure 18 - AIRCRAFT Winds: 150- 300hPa



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 : JUL 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
AAB	99	V	300-150	70	0	0	3.3	0.2
AAE	99	V	300-150	33	0	0	4.5	-1.9
AAL	99	V	300-150	65847	5	0	5.2	0.0
ABB	99	V	300-150	43	0	0	3.3	-0.5
ABD	99	V	300-150	478	0	0	3.6	0.1
ABP	99	V	300-150	37	0	0	3.6	-0.5
ABY	99	V	300-150	20	0	0	3.0	-0.2
ACA	99	V	300-150	48404	3	0	4.4	0.1
ACI	99	V	300-150	407	0	0	4.2	0.7
AEA	99	V	300-150	460	8	0	7.7	-0.1
AEW	99	V	300-150	23	0	0	3.2	1.4
AFR	99	V	300-150	47585	0	0	3.3	0.0
AGI	99	V	300-150	20	0	0	6.5	2.5
AIB	99	V	300-150	51	0	0	3.3	0.5
AIC	99	V	300-150	4177	0	0	3.9	0.2
AIH	99	V	300-150	189	0	0	3.3	-0.4
AIZ	99	V	300-150	905	0	0	2.9	0.1
AJD	99	V	300-150	46	0	0	3.5	-0.4
AJT	99	V	300-150	123	0	0	2.8	0.0
AME	99	V	300-150	84	0	0	3.5	0.3

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
AMX	99	V	300-150	6084	10	0	7.0	-0.2
ANA	99	V	300-150	324	0	0	4.6	-0.2
ANZ	99	V	300-150	15866	0	0	3.3	0.5
AOJ	99	V	300-150	162	0	0	3.5	0.3
ASA	99	V	300-150	1941	5	1	5.3	0.1
ASL	99	V	300-150	1701	0	0	3.0	0.3
ASP	99	V	300-150	56	0	0	3.2	1.3
ASY	99	V	300-150	67	0	0	3.0	0.1
ATG	99	V	300-150	55	0	0	4.5	0.8
ATN	99	V	300-150	228	0	2	5.9	-0.1
AUA	99	V	300-150	5395	6	0	5.0	-0.1
AVA	99	V	300-150	869	6	0	6.3	-0.2
AWC	99	V	300-150	54	0	0	2.7	0.2
AXI	99	V	300-150	35	0	0	3.9	-0.3
AXY	99	V	300-150	218	0	0	3.5	-0.2
AZG	99	V	300-150	1686	0	0	4.0	0.6
BAF	99	V	300-150	98	0	0	3.4	0.3
BAW	99	V	300-150	55439	2	0	4.3	0.0
BBA	99	V	300-150	27	0	0	3.9	2.3
BBC	99	V	300-150	456	12	0	5.9	0.2
BCS	99	V	300-150	1509	0	0	3.4	0.3
BEL	99	V	300-150	1811	0	0	2.9	0.2
BMW	99	V	300-150	28	0	0	3.7	-1.0
BOX	99	V	300-150	4967	0	0	3.4	0.2
BOX	99	V	300-150	134	0	0	3.1	-0.1
BRJ	99	V	300-150	53	0	0	3.0	0.7
BRK	99	V	300-150	127	0	0	6.8	1.0
BTX	99	V	300-150	141	0	0	3.1	-0.1
BVR	99	V	300-150	75	0	0	3.0	0.1
CAL	99	V	300-150	1003	0	0	4.5	0.7
CBJ	99	V	300-150	317	0	0	5.2	0.2
CCA	99	V	300-150	168	0	0	4.3	0.8
CEB	99	V	300-150	400	0	0	5.0	0.8
CES	99	V	300-150	1013	0	0	3.8	0.8
CFC	99	V	300-150	298	0	0	3.4	-0.1
CFG	99	V	300-150	6387	0	0	2.9	0.2
CHG	99	V	300-150	430	0	0	3.1	-0.4
CHH	99	V	300-150	67	0	0	4.4	0.5
CHZ	99	V	300-150	70	0	0	3.1	0.2
CJT	99	V	300-150	389	0	0	3.6	0.2
CKS	99	V	300-150	1240	0	0	3.0	0.3
CLE	99	V	300-150	21	0	0	3.4	-0.5
CLX	99	V	300-150	4524	0	0	3.5	-0.2

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
CLY	99	V	300-150	76	0	0	3.3	0.0
CMA	99	V	300-150	89	0	0	4.9	0.7
CMB	99	V	300-150	1460	0	0	3.4	-0.3
CND	99	V	300-150	332	0	0	3.2	-0.2
CNV	99	V	300-150	90	0	0	4.0	0.0
COB	99	V	300-150	31	0	0	3.4	0.4
CPA	99	V	300-150	1932	0	0	4.3	0.6
CRL	99	V	300-150	893	0	0	2.3	0.1
CRV	99	V	300-150	112	0	0	3.6	0.1
CSC	99	V	300-150	389	0	1	4.7	0.1
CSG	99	V	300-150	47	0	0	5.5	1.4
CSN	99	V	300-150	582	0	0	4.2	0.9
CSS	99	V	300-150	23	0	0	5.1	-0.5
CTM	99	V	300-150	132	0	0	2.6	0.5
CWG	99	V	300-150	51	0	0	3.0	-0.2
CXF	99	V	300-150	32	0	0	3.9	0.1
DAH	99	V	300-150	1771	0	0	2.9	0.3
DAL	99	V	300-150	86402	0	0	3.0	0.1
DAM	99	V	300-150	34	0	0	3.1	0.4
DCS	99	V	300-150	27	0	0	2.7	0.6
DCW	99	V	300-150	33	0	0	3.0	0.4
DGX	99	V	300-150	38	0	0	2.0	-0.1
DHK	99	V	300-150	2839	0	0	3.4	0.0
DHX	99	V	300-150	123	0	0	4.3	0.7
DJT	99	V	300-150	1932	0	0	2.9	0.3
DLH	99	V	300-150	34241	1	0	3.7	0.0
DLX	99	V	300-150	23	0	0	2.9	1.0
DSO	99	V	300-150	37	0	0	3.0	0.7
DTA	99	V	300-150	84	0	1	3.8	0.1
DUB	99	V	300-150	21	0	0	2.3	-0.7
DWC	99	V	300-150	110	0	0	2.8	0.0
EAL	99	V	300-150	28	0	0	3.7	0.3
EAU	99	V	300-150	105	0	0	3.3	0.2
EDW	99	V	300-150	2079	0	0	3.0	0.0
EIN	99	V	300-150	23402	0	0	2.8	0.2
EJM	99	V	300-150	880	0	0	3.3	0.3
EJO	99	V	300-150	31	0	0	3.0	-0.1
ELG	99	V	300-150	36	0	0	4.1	0.8
ELY	99	V	300-150	6663	9	0	6.3	-0.1
EMO	99	V	300-150	37	0	0	2.4	0.5
ESW	99	V	300-150	34	0	0	4.3	1.5
ETD	99	V	300-150	11624	5	0	5.2	0.1
ETH	99	V	300-150	5696	5	0	5.5	0.2

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
EVA	99	V	300-150	1427	0	0	4.9	0.9
EVE	99	V	300-150	386	0	0	3.5	0.3
EXS	99	V	300-150	3980	0	0	2.6	0.0
EZY	99	V	300-150	126	0	0	2.8	0.1
FAZ	99	V	300-150	34	0	0	3.6	0.4
FBU	99	V	300-150	4039	0	0	3.2	0.0
FDX	99	V	300-150	7992	0	0	2.9	0.1
FIN	99	V	300-150	1965	0	0	4.2	0.4
FJI	99	V	300-150	2985	0	0	3.6	0.5
FJO	99	V	300-150	268	0	0	3.1	0.4
FLW	99	V	300-150	60	0	0	3.0	0.4
FWI	99	V	300-150	2040	0	0	2.5	0.0
FYG	99	V	300-150	96	0	0	3.3	0.3
GAF	99	V	300-150	223	0	0	3.0	-0.2
GCK	99	V	300-150	288	0	0	3.1	-0.1
GEC	99	V	300-150	1340	0	0	3.0	0.0
GES	99	V	300-150	140	0	0	3.1	0.0
GFA	99	V	300-150	1387	3	0	5.3	0.1
GIA	99	V	300-150	75	0	0	4.2	0.5
GJE	99	V	300-150	132	0	0	3.8	0.2
GJI	99	V	300-150	62	0	0	3.5	0.0
GNJ	99	V	300-150	27	0	0	3.9	0.5
GSM	99	V	300-150	120	0	0	4.5	-0.1
GTI	99	V	300-150	2990	0	0	3.3	0.0
GTR	99	V	300-150	117	0	0	4.9	0.8
HAI	99	V	300-150	43	0	0	4.4	-0.2
HGO	99	V	300-150	78	0	1	3.8	0.8
HKC	99	V	300-150	126	0	0	4.9	1.6
HKH	99	V	300-150	20	0	0	3.6	-0.3
HLF	99	V	300-150	47	0	0	4.9	1.7
HPJ	99	V	300-150	31	0	0	2.0	-0.1
HRN	99	V	300-150	24	0	0	3.2	2.4
HRT	99	V	300-150	75	0	0	3.6	0.2
HTT	99	V	300-150	110	0	0	9.9	0.9
HUE	99	V	300-150	89	0	0	3.9	-0.1
HUF	99	V	300-150	59	0	0	3.2	0.1
HAV	99	V	300-150	1458	0	0	5.0	0.2
HYP	99	V	300-150	64	0	0	3.5	0.7
HYS	99	V	300-150	464	0	0	3.0	0.0
HZA	99	V	300-150	58	0	0	3.2	0.0
HZM	99	V	300-150	59	0	0	3.3	-0.3
IAM	99	V	300-150	74	0	0	3.5	0.0
IBE	99	V	300-150	7249	0	0	3.0	0.1

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
ICE	99	V	300-150	12856	0	0	3.1	0.2
ICL	99	V	300-150	600	0	0	3.2	-0.1
ICV	99	V	300-150	157	0	0	3.5	-1.2
IFA	99	V	300-150	834	0	0	3.3	0.0
IFC	99	V	300-150	20	0	0	5.0	2.3
IGA	99	V	300-150	83	0	0	5.1	1.5
IJM	99	V	300-150	100	0	0	3.5	0.0
IND	99	V	300-150	36	0	0	3.3	0.4
ISR	99	V	300-150	51	0	0	3.2	-0.7
ITY	99	V	300-150	9412	0	0	2.9	0.2
IXR	99	V	300-150	51	0	0	3.0	-1.0
JAL	99	V	300-150	236	0	0	4.7	0.1
JAS	99	V	300-150	106	0	0	3.2	0.3
JBD	99	V	300-150	65	0	0	2.4	0.5
JBU	99	V	300-150	13591	0	0	2.8	0.2
JCO	99	V	300-150	123	0	0	3.3	-0.2
JCY	99	V	300-150	20	0	0	2.9	0.7
JDI	99	V	300-150	106	0	0	2.7	0.7
JEF	99	V	300-150	28	0	0	3.1	0.5
JME	99	V	300-150	70	0	1	4.2	0.3
JML	99	V	300-150	32	0	0	3.9	-0.6
JNY	99	V	300-150	84	0	0	4.7	1.0
JST	99	V	300-150	1987	0	0	3.5	0.5
JTH	99	V	300-150	31	0	0	3.4	-0.1
JVW	99	V	300-150	23	0	0	3.9	-0.6
KAC	99	V	300-150	1049	0	0	4.3	0.3
KAF	99	V	300-150	70	0	0	4.8	-0.2
KAI	99	V	300-150	135	0	0	3.8	0.5
KAL	99	V	300-150	408	0	0	4.6	0.1
KAY	99	V	300-150	424	0	0	2.9	0.1
KCE	99	V	300-150	33	0	0	3.2	-0.2
KFE	99	V	300-150	31	0	0	3.9	-0.1
KIW	99	V	300-150	30	0	0	4.9	1.6
KLM	99	V	300-150	21605	4	0	4.8	0.1
KPO	99	V	300-150	38	0	0	3.4	-0.1
KQA	99	V	300-150	75	1	0	7.3	3.1
LAN	99	V	300-150	58	0	0	3.3	-0.4
LCO	99	V	300-150	715	0	0	3.3	-0.7
LDX	99	V	300-150	78	0	0	3.4	0.0
LEA	99	V	300-150	57	0	0	3.4	-0.3
LHA	99	V	300-150	20	0	0	5.4	-1.7
LHO	99	V	300-150	40	0	0	4.0	0.5
LNK	99	V	300-150	90	0	0	3.2	0.4

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
LOT	99	V	300-150	5435	7	0	6.4	-0.2
LRQ	99	V	300-150	27	0	0	2.9	-0.1
LSI	99	V	300-150	85	0	0	3.5	0.2
LTG	99	V	300-150	283	0	0	3.6	-0.9
LUA	99	V	300-150	64	0	0	4.9	-1.4
LVL	99	V	300-150	1661	0	0	3.2	0.3
LXJ	99	V	300-150	1295	0	0	3.2	0.1
MAA	99	V	300-150	25	0	0	3.5	-0.2
MAS	99	V	300-150	2865	0	0	5.4	0.5
MED	99	V	300-150	87	0	0	2.8	0.2
MTX	99	V	300-150	186	0	0	5.6	1.7
MLM	99	V	300-150	92	0	0	3.2	-0.2
MMD	99	V	300-150	323	0	0	3.6	0.2
MMF	99	V	300-150	22	0	0	2.4	-0.7
MNB	99	V	300-150	519	0	0	3.9	0.5
MPH	99	V	300-150	227	0	0	3.2	-0.1
MSR	99	V	300-150	3285	3	0	4.8	-0.1
MVJ	99	V	300-150	86	0	0	3.5	0.8
MXD	99	V	300-150	340	0	0	5.6	0.6
NAS	99	V	300-150	31	0	0	3.7	-0.5
NBT	99	V	300-150	1989	10	0	6.7	-0.1
NCR	99	V	300-150	818	0	0	3.3	0.0
NEW	99	V	300-150	55	0	0	2.6	0.2
NJE	99	V	300-150	769	0	0	3.1	0.3
NJU	99	V	300-150	79	0	0	2.7	-0.5
NOJ	99	V	300-150	96	0	0	3.3	0.0
NOS	99	V	300-150	1065	6	0	5.7	-0.2
NUM	99	V	300-150	167	0	0	3.8	0.0
OAE	99	V	300-150	193	0	0	3.4	-0.4
OBD	99	V	300-150	34	0	0	2.7	0.0
OCN	99	V	300-150	5432	0	0	2.8	0.1
OLI	99	V	300-150	33	0	0	2.8	-0.4
OMA	99	V	300-150	1133	0	0	5.8	1.1
ORF	99	V	300-150	72	0	0	5.4	0.4
PAL	99	V	300-150	525	0	0	4.8	0.4
PEX	99	V	300-150	51	0	0	3.6	0.6
PIA	99	V	300-150	73	0	0	3.7	0.2
PLF	99	V	300-150	70	0	0	2.4	0.0
PVA	99	V	300-150	444	0	0	3.1	0.0
QFA	99	V	300-150	5505	0	0	4.2	0.4
QID	99	V	300-150	65	0	0	3.1	0.4
QLK	99	V	300-150	185	0	0	3.6	0.3
QQE	99	V	300-150	803	0	0	2.9	0.5

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
QTR	99	V	300-150	18507	0	0	3.8	0.2
RAM	99	V	300-150	1468	10	0	7.0	-0.1
RBA	99	V	300-150	186	0	0	6.4	0.9
RBI	99	V	300-150	37	0	0	3.2	-0.1
RCH	99	V	300-150	5758	0	0	4.2	0.3
RDN	99	V	300-150	173	0	0	3.0	0.1
RJA	99	V	300-150	4080	11	0	6.8	-0.1
RKK	99	V	300-150	38	0	0	3.6	1.6
ROU	99	V	300-150	899	0	0	2.8	0.1
RRR	99	V	300-150	365	0	0	4.0	0.3
RSF	99	V	300-150	37	0	3	2.4	0.9
RXI	99	V	300-150	29	0	0	3.1	-0.6
RYR	99	V	300-150	290	0	0	2.2	0.1
RZO	99	V	300-150	496	0	0	3.2	0.4
SAM	99	V	300-150	229	0	0	3.0	0.0
SAS	99	V	300-150	6765	0	0	2.9	0.2
SAZ	99	V	300-150	34	0	0	5.2	0.7
SCX	99	V	300-150	64	0	0	5.0	0.1
SIA	99	V	300-150	13370	0	0	4.8	0.5
SIO	99	V	300-150	48	0	0	3.3	0.0
SIS	99	V	300-150	49	0	0	6.3	-0.3
SJJ	99	V	300-150	54	0	0	3.7	0.3
SKV	99	V	300-150	149	0	0	3.2	0.3
SKY	99	V	300-150	36	0	0	2.7	0.0
SLM	99	V	300-150	125	1	0	2.3	0.1
SMB	99	V	300-150	45	0	0	4.2	-1.4
SPA	99	V	300-150	188	0	0	3.5	-0.1
SPM	99	V	300-150	167	0	0	3.0	0.2
SSG	99	V	300-150	39	0	0	2.8	0.1
SUI	99	V	300-150	31	0	0	2.7	1.3
SVA	99	V	300-150	5073	2	0	4.7	0.4
SVW	99	V	300-150	288	0	0	3.2	0.0
SWN	99	V	300-150	24	0	0	5.3	0.6
SWR	99	V	300-150	14250	0	0	3.2	0.3
SYB	99	V	300-150	346	0	0	3.1	0.3
TAM	99	V	300-150	139	1	0	4.9	0.1
TAP	99	V	300-150	4306	0	0	3.2	0.3
TAR	99	V	300-150	587	0	0	2.5	0.1
TAX	99	V	300-150	199	0	0	5.0	0.4
TAY	99	V	300-150	214	0	0	4.6	0.2
TBJ	99	V	300-150	29	0	0	4.4	2.1
TFF	99	V	300-150	149	0	0	3.7	1.3
TFL	99	V	300-150	1412	7	0	6.1	-0.2

AIREP MONITORING STATISTICS FOR AIRLINE CARRIERS
(CONTINUED)

IDENT	OBS TIME	ELM	LEVEL	NUM OBS	% GROSS	% CALM	VECTOR RMS	SPEE D BIAS
TGW	99	V	300-150	745	0	0	5.1	0.8
THA	99	V	300-150	5875	0	0	4.9	0.7
THT	99	V	300-150	2593	2	0	5.0	0.2
THY	99	V	300-150	27303	3	0	4.7	0.2
TMN	99	V	300-150	398	0	0	3.9	0.4
TOM	99	V	300-150	5042	8	0	6.3	-0.1
TOR	99	V	300-150	82	0	0	3.5	-0.1
TSC	99	V	300-150	28146	0	0	3.0	0.3
TUA	99	V	300-150	144	0	0	4.5	0.8
TVR	99	V	300-150	124	0	0	5.5	3.2
TVS	99	V	300-150	124	0	1	3.5	0.3
TWY	99	V	300-150	958	1	0	4.5	0.4
UAE	99	V	300-150	18914	0	0	3.8	0.1
UAF	99	V	300-150	105	0	0	6.1	0.0
UAG	99	V	300-150	93	0	0	10.6	1.8
UAL	99	V	300-150	98035	3	1	4.5	0.1
UBT	99	V	300-150	1983	10	0	6.4	-0.1
UKN	99	V	300-150	35	0	0	3.6	1.2
ULC	99	V	300-150	169	0	0	3.2	0.2
UPS	99	V	300-150	5227	0	0	3.3	0.0
USY	99	V	300-150	46	0	0	2.5	-0.3
UZB	99	V	300-150	504	2	0	7.0	0.8
VAJ	99	V	300-150	97	0	0	3.9	0.7
VAL	99	V	300-150	26	0	0	3.7	1.0
VCG	99	V	300-150	114	0	0	4.7	-0.4
VCJ	99	V	300-150	103	0	0	3.0	-0.2
VIR	99	V	300-150	24248	2	0	3.8	0.0
VJA	99	V	300-150	221	0	0	3.5	0.8
VJH	99	V	300-150	24	0	0	3.0	-0.2
VJT	99	V	300-150	2271	0	0	3.4	0.4
VLZ	99	V	300-150	89	0	0	3.0	-0.2
VOZ	99	V	300-150	761	0	0	3.2	0.3
VSV	99	V	300-150	44	0	0	5.6	0.4
WFL	99	V	300-150	33	0	3	3.4	-0.3
WGN	99	V	300-150	86	0	0	2.7	0.5
WJA	99	V	300-150	12182	1	0	3.8	0.1
WMN	99	V	300-150	25	0	0	3.1	0.7
WWI	99	V	300-150	260	0	0	3.6	0.3
XAX	99	V	300-150	645	0	0	5.6	0.8
XFL	99	V	300-150	96	0	0	3.7	0.4
YZR	99	V	300-150	30	0	0	3.3	0.5

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 °N - 90 °N, 70 °W - 40 °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 °N - 90 °N, 70 °W - 40 °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)

RADIOSONDE MONITORING STATISTICS (EUCOS)

MONITORING CENTRE : ECMWF
 ELEMENT MONITORED : GEOPOTENTIAL HEIGHT (METRES)
 LEVEL : 50 HPA
 AREA : 0 - 90N, 100W - 40E
 PERIOD : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
01001	12	Z	50	27	9.4	-5.7
01001	00	Z	50	31	8.1	5.5
01028	12	Z	50	31	5.6	-3.1
01028	00	Z	50	30	5.5	-0.7
01400	12	Z	50	28	77.8	77.4
01400	00	Z	50	27	81.4	80.7
01415	12	Z	50	31	9.1	-5.5
01415	00	Z	50	31	6.7	2.6
02591	12	Z	50	19	5.8	0.1
02591	00	Z	50	6	5.3	4.7
02836	00	Z	50	31	7.5	-5.0
02836	12	Z	50	32	12.9	-9.5
02963	12	Z	50	30	8.7	-6.4
02963	00	Z	50	31	12.3	-4.0
03005	12	Z	50	29	8.3	-4.2
03005	00	Z	50	29	6.0	-2.0
03238	12	Z	50	1	1.2	-1.2
03238	00	Z	50	31	7.3	-3.3
03808	12	Z	50	31	9.0	-6.7
03808	00	Z	50	31	4.8	1.3
03918	00	Z	50	31	6.9	-3.9
03918	12	Z	50	1	7.9	7.9
03953	12	Z	50	30	7.9	-0.8
03953	00	Z	50	31	8.8	2.1
04018	12	Z	50	26	12.2	-7.4
04018	00	Z	50	29	10.8	-7.1
04220	00	Z	50	31	21.5	-17.5
04220	12	Z	50	30	19.5	-12.3
04270	00	Z	50	29	41.5	-32.9
04270	12	Z	50	28	24.6	-22.0
04320	12	Z	50	31	13.6	-5.0
04320	00	Z	50	31	9.7	-2.2
04339	00	Z	50	29	28.6	-26.7
04339	12	Z	50	27	33.0	-30.3
04360	00	Z	50	27	46.4	-42.2
04360	12	Z	50	29	42.4	-40.4
06011	12	Z	50	29	13.7	-7.1
06260	12	Z	50	6	83.1	36.6
06260	00	Z	50	31	4.3	0.8

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
06610	00	Z	50	31	6.1	2.9
06610	12	Z	50	32	6.4	-4.2
07110	00	Z	50	28	9.8	1.7
07110	12	Z	50	28	9.9	-6.0
07510	00	Z	50	27	12.2	6.9
07510	12	Z	50	28	12.8	5.8
07645	12	Z	50	28	44.7	-32.9
07645	00	Z	50	28	39.8	-22.6
07761	12	Z	50	24	30.2	-19.3
07761	00	Z	50	14	26.6	-9.7
08001	00	Z	50	30	7.1	5.3
08001	12	Z	50	31	6.4	-5.2
08221	00	Z	50	28	7.2	4.2
08221	12	Z	50	29	8.7	-6.9
08302	12	Z	50	27	15.4	-14.7
08302	00	Z	50	24	4.5	-3.1
08508	12	Z	50	31	8.2	-5.0
08522	12	Z	50	30	8.2	-6.7
10035	12	Z	50	31	10.4	-8.5
10035	00	Z	50	31	6.8	-0.8
10393	00	Z	50	31	6.6	-0.5
10393	12	Z	50	31	8.9	-5.7
10410	00	Z	50	31	6.4	-0.9
10410	12	Z	50	31	14.7	-11.5
10739	12	Z	50	30	23.9	-23.2
10739	00	Z	50	30	13.3	-11.4
11035	00	Z	50	30	14.0	-2.2
11035	12	Z	50	31	13.5	-5.5
12982	12	Z	50	31	7.6	-3.3
12982	00	Z	50	31	8.1	2.2
16245	12	Z	50	31	6.9	-4.9
16245	00	Z	50	30	4.8	2.6
16429	12	Z	50	31	8.1	-5.6
16429	00	Z	50	31	9.3	7.7
16754	00	Z	50	21	8.8	-4.3
17607	12	Z	50	28	4.3	0.2
17607	00	Z	50	5	12.6	12.4
26435	12	Z	50	3	13.2	-9.6
2TDJJ8	12	Z	50	27	12.4	9.9
60018	00	Z	50	29	7.7	5.0
60018	12	Z	50	31	7.4	-5.4
7JUNA4	12	Z	50	7	45.2	21.0
7JUNA4	00	Z	50	6	17.4	11.9

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
9ZT9MR	12	Z	50	11	31.8	-29.6
9ZT9MR	00	Z	50	7	35.4	-34.0
ASDE09	12	Z	50	1	33.9	-33.9
ATGU3F	12	Z	50	6	29.8	-25.3
ATGU3F	00	Z	50	8	42.0	-38.8
FPUW5G	12	Z	50	2	6.4	-5.2
GQBZLZ	12	Z	50	1	74.5	-74.5
GQBZLZ	00	Z	50	0	0.0	0.0
JNKN7J	12	Z	50	11	13.9	10.2
JNKN7J	00	Z	50	11	26.9	26.1
KMPLHP	12	Z	50	7	25.0	-24.3
KMPLHP	00	Z	50	9	8.9	-3.5
LAGY8	12	Z	50	1	71.8	-71.8
LAGY8	00	Z	50	1	51.8	-51.8
LAGZ8	00	Z	50	1	40.0	40.0
LAGZ8	12	Z	50	1	64.1	64.1
LRYQE3	12	Z	50	8	123.4	113.0
LRYQE3	00	Z	50	9	18.5	-11.2
TLH	12	Z	50	0	0.0	0.0
TLH	00	Z	50	0	0.0	0.0
WDK38H	12	Z	50	15	12.8	-11.8
WFF	12	Z	50	1	342.3	342.3
WFF	00	Z	50	0	0.0	0.0
XKQLWQ	12	Z	50	19	24.5	21.3
YLV96W	12	Z	50	8	124.6	88.7
YLV96W	00	Z	50	4	11.9	-8.5

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 : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
01001	12	V	50	27	2.8	-0.8	0.8
01001	00	V	50	25	2.9	-0.7	-0.2
01028	12	V	50	29	3.1	-0.4	0.0
01028	00	V	50	24	2.6	-0.2	-0.2
01400	12	V	50	26	2.2	-0.6	0.0
01400	00	V	50	22	2.5	0.0	0.1
01415	12	V	50	31	2.6	0.1	-0.1
01415	00	V	50	26	2.3	0.0	-0.4
02591	12	V	50	19	2.8	0.3	0.0
02591	00	V	50	4	1.7	0.3	-1.2
02836	00	V	50	0	0.0	0.0	0.0
02836	12	V	50	0	0.0	0.0	0.0
02963	12	V	50	14	4.1	1.2	-0.4
02963	00	V	50	0	0.0	0.0	0.0
03005	12	V	50	29	2.7	-0.4	0.1
03005	00	V	50	24	2.7	0.5	0.2
03238	12	V	50	1	0.5	-0.2	0.5
03238	00	V	50	25	2.8	0.7	0.8
03808	12	V	50	31	3.1	0.5	0.4
03808	00	V	50	27	2.6	-0.4	0.0
03918	00	V	50	24	2.7	0.2	0.1
03918	12	V	50	1	1.3	-1.2	0.4
03953	12	V	50	30	2.7	0.1	0.6
03953	00	V	50	27	2.5	0.2	0.0
04018	12	V	50	26	3.1	0.0	0.0
04018	00	V	50	26	3.3	-0.8	-0.3
04220	00	V	50	25	2.5	-0.3	0.0
04220	12	V	50	30	2.6	-0.6	-0.2
04270	00	V	50	24	2.6	-0.3	0.2
04270	12	V	50	28	3.0	-0.3	0.7
04320	12	V	50	31	2.1	0.4	0.1
04320	00	V	50	24	2.7	0.0	0.5
04339	00	V	50	26	2.6	-0.3	-0.8
04339	12	V	50	27	2.5	0.3	-0.1
04360	00	V	50	22	2.3	-0.3	-0.5
04360	12	V	50	29	2.5	-0.3	-0.3
06011	12	V	50	29	2.3	-0.4	0.4
06260	12	V	50	5	3.3	-1.4	-0.7
06260	00	V	50	30	2.8	-0.4	0.6

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
06610	00	V	50	21	2.9	-0.1	-0.3
06610	12	V	50	31	2.7	-0.2	0.3
07110	00	V	50	25	3.0	-0.6	-0.5
07110	12	V	50	28	2.9	0.6	-0.7
07510	00	V	50	23	3.4	-0.2	-0.6
07510	12	V	50	28	3.2	-0.1	-0.1
07645	12	V	50	28	3.0	-0.3	0.2
07645	00	V	50	20	3.2	-0.2	0.2
07761	12	V	50	24	2.9	-0.1	0.1
07761	00	V	50	13	3.3	0.0	-0.7
08001	00	V	50	25	2.8	0.4	-0.2
08001	12	V	50	31	2.8	0.1	-0.2
08221	00	V	50	24	3.0	0.4	0.3
08221	12	V	50	29	2.9	-0.1	-0.2
08302	12	V	50	27	3.2	0.2	-0.1
08302	00	V	50	20	3.2	0.7	-0.8
08508	12	V	50	31	2.8	0.4	-0.3
08522	12	V	50	30	3.4	0.0	-0.1
10035	12	V	50	31	2.7	-0.4	0.6
10035	00	V	50	30	2.8	-0.1	0.4
10393	00	V	50	30	2.9	0.1	-0.6
10393	12	V	50	31	3.1	-0.1	0.7
10410	00	V	50	30	3.0	0.5	0.4
10410	12	V	50	31	3.1	-0.2	0.0
10739	12	V	50	30	3.3	-0.4	-0.2
10739	00	V	50	27	2.9	-0.5	-0.1
11035	00	V	50	26	3.2	0.5	0.2
11035	12	V	50	31	2.8	0.7	0.0
12982	12	V	50	31	3.3	0.4	0.3
12982	00	V	50	26	3.4	0.4	-0.4
16245	12	V	50	31	3.0	0.3	0.1
16245	00	V	50	29	3.4	-0.1	0.5
16429	12	V	50	31	3.4	-0.4	0.7
16429	00	V	50	24	3.0	0.3	0.0
16754	00	V	50	19	3.4	0.9	0.6
17607	12	V	50	28	3.5	-0.4	-1.0
17607	00	V	50	5	4.3	-1.7	2.1
26435	12	V	50	2	2.2	-1.5	0.0
2TDJJ8	12	V	50	26	2.2	0.1	0.5
60018	00	V	50	24	3.5	0.7	1.4
60018	12	V	50	31	3.3	-1.1	-0.2
7JUNA4	12	V	50	7	2.4	0.9	-0.3
7JUNA4	00	V	50	6	2.1	0.2	1.4

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
9ZT9MR	12	V	50	11	3.2	0.5	-0.1
9ZT9MR	00	V	50	7	1.8	-1.1	0.1
ASDE09	12	V	50	1	2.9	-2.3	1.7
ATGU3F	12	V	50	6	2.6	-0.3	0.6
ATGU3F	00	V	50	8	1.7	-0.1	-0.2
FPUW5G	12	V	50	2	3.0	2.0	1.6
GQBZLZ	12	V	50	1	3.9	0.1	3.9
GQBZLZ	00	V	50	0	0.0	0.0	0.0
JNKN7J	12	V	50	11	2.6	0.0	0.1
JNKN7J	00	V	50	11	2.6	1.0	-1.1
KMPLHP	12	V	50	7	3.7	-0.6	-0.4
KMPLHP	00	V	50	9	3.5	-1.6	1.2
LAGY8	12	V	50	1	2.2	-1.7	1.4
LAGY8	00	V	50	1	5.8	1.7	5.5
LAGZ8	00	V	50	1	0.9	0.7	-0.6
LAGZ8	12	V	50	1	3.6	-3.5	0.8
LRYQE3	12	V	50	8	2.5	0.6	1.1
LRYQE3	00	V	50	9	1.7	0.4	0.2
TLH	12	V	50	0	0.0	0.0	0.0
TLH	00	V	50	0	0.0	0.0	0.0
WDK38H	12	V	50	10	2.9	-1.0	0.5
WFF	12	V	50	1	1.7	-1.7	0.2
WFF	00	V	50	0	0.0	0.0	0.0
XKQLWQ	12	V	50	19	3.1	0.4	-0.9
YLV96W	12	V	50	8	2.4	0.2	0.5
YLV96W	00	V	50	4	2.5	1.5	-0.1

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 : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
01001	12	Z	100	27	8.2	-5.7
01001	00	Z	100	31	7.2	3.9
01028	12	Z	100	31	5.7	-4.0
01028	00	Z	100	31	5.9	-3.2
01400	12	Z	100	29	78.5	78.1
01400	00	Z	100	29	80.6	80.2
01415	12	Z	100	31	7.0	-3.3
01415	00	Z	100	31	5.1	0.7
02591	12	Z	100	21	5.4	1.3
02591	00	Z	100	14	7.1	6.2
02836	00	Z	100	31	8.4	-7.0
02836	12	Z	100	32	10.1	-8.8
02963	12	Z	100	30	7.3	-5.3
02963	00	Z	100	31	7.6	-3.4
03005	12	Z	100	29	7.7	-5.8
03005	00	Z	100	29	6.6	-4.6
03238	12	Z	100	1	3.8	3.8
03238	00	Z	100	31	7.1	-3.5
03808	12	Z	100	31	5.4	-4.0
03808	00	Z	100	31	3.8	0.2
03918	00	Z	100	31	8.1	-5.6
03918	12	Z	100	1	6.3	6.3
03953	12	Z	100	31	6.4	-0.1
03953	00	Z	100	31	5.6	1.3
04018	12	Z	100	26	10.2	-7.5
04018	00	Z	100	29	9.5	-7.1
04220	00	Z	100	31	18.2	-15.5
04220	12	Z	100	30	13.8	-10.0
04270	00	Z	100	29	26.4	-24.9
04270	12	Z	100	28	20.5	-19.2
04320	12	Z	100	31	9.7	-3.2
04320	00	Z	100	31	13.9	0.5
04339	00	Z	100	29	24.4	-23.2
04339	12	Z	100	27	25.1	-23.0
04360	00	Z	100	29	36.6	-34.3
04360	12	Z	100	29	34.4	-32.8
06011	12	Z	100	30	9.5	-5.4
06260	12	Z	100	6	57.1	25.7
06260	00	Z	100	31	5.2	-0.6

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
06610	00	Z	100	31	4.3	1.4
06610	12	Z	100	31	5.0	-3.0
07110	00	Z	100	28	7.1	0.7
07110	12	Z	100	29	6.3	-2.5
07510	00	Z	100	28	6.4	2.6
07510	12	Z	100	28	8.5	2.7
07645	12	Z	100	29	33.8	-24.7
07645	00	Z	100	28	30.1	-17.8
07761	12	Z	100	26	27.3	-19.5
07761	00	Z	100	16	25.8	-12.1
08001	00	Z	100	30	6.3	4.9
08001	12	Z	100	31	3.1	-1.5
08221	00	Z	100	28	6.0	3.0
08221	12	Z	100	29	6.6	-4.1
08302	12	Z	100	27	12.4	-11.9
08302	00	Z	100	24	6.0	-4.8
08508	12	Z	100	31	6.3	-2.1
08522	12	Z	100	30	4.5	-2.6
10035	12	Z	100	31	9.5	-7.8
10035	00	Z	100	31	5.1	-1.7
10393	00	Z	100	31	6.3	-0.5
10393	12	Z	100	31	7.0	-5.1
10410	00	Z	100	31	6.3	-0.5
10410	12	Z	100	31	12.5	-9.5
10739	12	Z	100	31	21.2	-20.3
10739	00	Z	100	30	16.1	-13.1
11035	00	Z	100	31	8.2	-0.4
11035	12	Z	100	31	10.2	-4.1
12982	12	Z	100	31	6.5	-2.8
12982	00	Z	100	31	6.2	1.8
16245	12	Z	100	31	6.5	-5.6
16245	00	Z	100	31	4.2	1.3
16429	12	Z	100	31	6.8	-5.4
16429	00	Z	100	31	6.4	4.7
16754	00	Z	100	21	6.2	-3.1
17607	12	Z	100	28	5.9	4.8
17607	00	Z	100	5	15.1	15.1
26435	12	Z	100	10	10.7	-9.5
2TDJJ8	12	Z	100	27	12.3	11.3
60018	00	Z	100	29	8.0	7.0
60018	12	Z	100	31	4.0	-0.6
7JUNA4	12	Z	100	8	34.2	19.1
7JUNA4	00	Z	100	6	17.0	14.9

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
9ZT9MR	12	Z	100	11	25.0	-22.6
9ZT9MR	00	Z	100	7	31.2	-29.7
ASDE09	12	Z	100	1	35.2	-35.2
ATGU3F	12	Z	100	6	26.8	-23.2
ATGU3F	00	Z	100	8	37.2	-34.4
FPUW5G	12	Z	100	2	7.2	-6.9
GQBZLZ	12	Z	100	0	0.0	0.0
GQBZLZ	00	Z	100	0	0.0	0.0
JNKN7J	12	Z	100	11	19.8	18.2
JNKN7J	00	Z	100	11	25.3	24.9
KMPLHP	12	Z	100	10	31.6	-2.1
KMPLHP	00	Z	100	10	9.2	-2.7
LAGY8	12	Z	100	1	37.7	-37.7
LAGY8	00	Z	100	2	50.8	-50.8
LAGZ8	00	Z	100	1	32.4	32.4
LAGZ8	12	Z	100	1	59.0	59.0
LRYQE3	12	Z	100	8	57.6	51.4
LRYQE3	00	Z	100	10	14.9	-12.0
TLH	12	Z	100	0	0.0	0.0
TLH	00	Z	100	0	0.0	0.0
WDK38H	12	Z	100	16	13.9	-13.3
WFF	12	Z	100	1	156.9	156.9
WFF	00	Z	100	0	0.0	0.0
XKQLWQ	12	Z	100	21	21.3	18.3
YLV96W	12	Z	100	8	68.5	41.5
YLV96W	00	Z	100	5	10.6	-9.3

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 : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
01001	12	V	100	27	2.5	0.2	-0.1
01001	00	V	100	26	2.3	0.0	0.0
01028	12	V	100	31	2.5	0.2	-0.3
01028	00	V	100	25	2.8	0.0	0.8
01400	12	V	100	28	2.5	-0.4	0.5
01400	00	V	100	26	2.7	-0.5	0.2
01415	12	V	100	31	3.2	-0.2	0.5
01415	00	V	100	29	2.8	0.4	0.1
02591	12	V	100	20	2.6	0.3	0.4
02591	00	V	100	9	2.7	-0.8	-0.2
02836	00	V	100	0	0.0	0.0	0.0
02836	12	V	100	2	3.6	-0.9	-2.2
02963	12	V	100	24	2.8	0.0	-0.5
02963	00	V	100	0	0.0	0.0	0.0
03005	12	V	100	29	2.8	0.1	0.1
03005	00	V	100	26	2.4	0.0	0.2
03238	12	V	100	1	2.2	-1.1	-1.9
03238	00	V	100	25	2.9	0.8	-0.2
03808	12	V	100	31	3.0	-0.4	0.0
03808	00	V	100	28	2.4	0.5	0.1
03918	00	V	100	24	2.8	-0.1	0.1
03918	12	V	100	1	3.9	-2.2	-3.2
03953	12	V	100	31	2.5	0.1	0.0
03953	00	V	100	28	2.8	0.2	0.2
04018	12	V	100	26	2.8	-0.5	-0.2
04018	00	V	100	28	3.3	-0.2	-0.6
04220	00	V	100	29	2.1	-0.3	0.1
04220	12	V	100	30	1.9	0.2	-0.1
04270	00	V	100	28	2.3	-0.6	0.1
04270	12	V	100	28	2.4	0.1	0.2
04320	12	V	100	31	2.1	-0.4	0.2
04320	00	V	100	30	2.5	0.0	0.0
04339	00	V	100	29	2.9	1.0	-0.5
04339	12	V	100	27	2.8	0.0	-0.6
04360	00	V	100	29	2.5	0.0	0.2
04360	12	V	100	29	2.7	0.1	0.7
06011	12	V	100	30	2.3	0.3	0.2
06260	12	V	100	5	3.8	-1.5	1.8
06260	00	V	100	30	3.0	0.0	-0.1

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
06610	00	V	100	29	3.0	-0.6	0.3
06610	12	V	100	31	3.5	-0.5	0.2
07110	00	V	100	25	2.6	-0.4	0.3
07110	12	V	100	29	2.4	0.5	0.3
07510	00	V	100	26	3.3	-0.2	-0.6
07510	12	V	100	28	2.9	0.3	-0.6
07645	12	V	100	29	3.0	0.0	-0.9
07645	00	V	100	20	3.1	-0.6	0.3
07761	12	V	100	26	3.6	1.4	0.6
07761	00	V	100	15	3.8	0.9	0.6
08001	00	V	100	25	3.7	1.5	0.0
08001	12	V	100	31	2.7	0.0	0.7
08221	00	V	100	24	3.5	0.3	0.0
08221	12	V	100	29	2.8	-0.8	0.1
08302	12	V	100	27	3.5	-0.3	-0.1
08302	00	V	100	20	3.1	0.6	-0.3
08508	12	V	100	31	2.5	0.7	-0.3
08522	12	V	100	30	3.2	-0.3	-0.4
10035	12	V	100	31	2.5	0.2	0.0
10035	00	V	100	30	2.6	0.3	0.3
10393	00	V	100	30	3.0	1.0	0.4
10393	12	V	100	31	3.0	-0.2	-0.1
10410	00	V	100	30	2.7	0.6	0.2
10410	12	V	100	31	3.0	-0.1	0.2
10739	12	V	100	31	3.2	-0.3	0.3
10739	00	V	100	27	3.3	-0.7	-0.4
11035	00	V	100	26	3.2	-0.3	0.2
11035	12	V	100	31	2.8	0.1	0.4
12982	12	V	100	31	3.3	0.4	0.8
12982	00	V	100	30	3.3	-0.6	0.8
16245	12	V	100	31	3.2	0.4	0.5
16245	00	V	100	30	3.8	-0.4	0.1
16429	12	V	100	31	2.9	0.0	0.2
16429	00	V	100	30	3.8	-0.1	0.6
16754	00	V	100	19	4.9	0.1	0.5
17607	12	V	100	28	3.3	0.1	-0.2
17607	00	V	100	5	2.8	-0.2	0.1
26435	12	V	100	9	2.0	0.4	0.1
2TDJJ8	12	V	100	26	2.6	0.4	-0.3
60018	00	V	100	24	3.7	0.4	0.3
60018	12	V	100	31	3.3	0.3	0.3
7JUNA4	12	V	100	8	3.1	0.9	-0.2
7JUNA4	00	V	100	6	3.4	-2.0	0.3

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
9ZT9MR	12	V	100	11	2.4	0.5	-0.3
9ZT9MR	00	V	100	7	3.1	-0.1	0.6
ASDE09	12	V	100	1	2.3	-1.6	1.7
ATGU3F	12	V	100	6	2.9	0.8	-1.0
ATGU3F	00	V	100	8	2.2	-0.1	0.0
FPUW5G	12	V	100	2	2.0	1.1	-0.4
GQBZLZ	12	V	100	0	0.0	0.0	0.0
GQBZLZ	00	V	100	0	0.0	0.0	0.0
JNKN7J	12	V	100	11	2.5	0.3	0.1
JNKN7J	00	V	100	11	2.3	0.1	0.3
KMPLHP	12	V	100	10	3.3	0.0	0.0
KMPLHP	00	V	100	10	2.3	0.8	0.4
LAGY8	12	V	100	1	8.0	0.8	8.0
LAGY8	00	V	100	2	6.7	4.7	3.5
LAGZ8	00	V	100	1	4.6	-0.4	-4.6
LAGZ8	12	V	100	1	6.2	2.7	5.6
LRYQE3	12	V	100	8	1.8	0.9	0.3
LRYQE3	00	V	100	10	2.8	0.5	0.4
TLH	12	V	100	0	0.0	0.0	0.0
TLH	00	V	100	0	0.0	0.0	0.0
WDK38H	12	V	100	15	5.6	-0.6	1.6
WFF	12	V	100	1	3.0	2.0	-2.3
WFF	00	V	100	0	0.0	0.0	0.0
XKQLWQ	12	V	100	21	3.0	0.0	-0.1
YLV96W	12	V	100	8	2.9	0.4	0.9
YLV96W	00	V	100	4	3.2	0.3	1.8

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

RADIOSONDE MONITORING STATISTICS (EUCOS)

MONITORING CENTRE : ECMWF
 ELEMENT MONITORED : GEOPOTENTIAL HEIGHT (METRES)
 LEVEL : 500 HPA
 AREA : 0 - 90N, 100W - 40E
 PERIOD : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
01001	12	Z	500	29	3.8	-1.6
01001	00	Z	500	31	9.6	8.7
01028	12	Z	500	31	2.9	0.4
01028	00	Z	500	31	2.4	1.2
01400	12	Z	500	30	83.5	83.4
01400	00	Z	500	30	83.2	83.0
01415	12	Z	500	31	5.3	4.4
01415	00	Z	500	31	4.9	3.9
02591	12	Z	500	23	9.5	8.2
02591	00	Z	500	23	8.8	8.3
02836	00	Z	500	31	3.1	-0.1
02836	12	Z	500	31	2.3	-0.1
02963	12	Z	500	30	3.9	0.6
02963	00	Z	500	31	3.2	1.3
03005	12	Z	500	29	3.6	-0.1
03005	00	Z	500	29	3.4	0.1
03238	12	Z	500	1	5.8	5.8
03238	00	Z	500	31	4.5	3.6
03808	12	Z	500	31	3.8	3.3
03808	00	Z	500	31	4.6	4.0
03918	00	Z	500	31	3.9	0.1
03918	12	Z	500	1	0.7	0.7
03953	12	Z	500	33	6.5	4.8
03953	00	Z	500	31	6.5	5.5
04018	12	Z	500	26	3.7	0.0
04018	00	Z	500	29	3.1	0.9
04220	00	Z	500	31	3.9	0.3
04220	12	Z	500	31	3.2	0.9
04270	00	Z	500	31	11.5	-10.8
04270	12	Z	500	30	10.0	-8.5
04320	12	Z	500	31	6.8	5.7
04320	00	Z	500	31	7.2	5.4
04339	00	Z	500	30	12.2	-10.3
04339	12	Z	500	29	9.9	-8.2
04360	00	Z	500	30	12.7	-11.7
04360	12	Z	500	29	12.5	-11.1
06011	12	Z	500	31	5.8	3.9
06260	12	Z	500	5	1.9	1.4
06260	00	Z	500	31	3.0	1.8

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
06610	00	Z	500	31	3.0	1.4
06610	12	Z	500	32	1.9	1.1
07110	00	Z	500	28	5.7	4.6
07110	12	Z	500	30	6.9	6.2
07510	00	Z	500	29	3.8	0.9
07510	12	Z	500	30	4.7	3.7
07645	12	Z	500	30	11.3	-3.7
07645	00	Z	500	30	11.4	-5.2
07761	12	Z	500	31	10.4	-6.9
07761	00	Z	500	33	10.2	-8.0
08001	00	Z	500	30	5.2	4.7
08001	12	Z	500	31	3.5	3.2
08221	00	Z	500	28	5.6	5.2
08221	12	Z	500	29	4.4	3.8
08302	12	Z	500	27	5.5	-5.0
08302	00	Z	500	24	4.6	-4.3
08508	12	Z	500	31	2.9	2.5
08522	12	Z	500	30	4.4	3.7
10035	12	Z	500	31	2.1	-0.3
10035	00	Z	500	31	2.6	1.2
10393	00	Z	500	31	2.6	0.6
10393	12	Z	500	31	2.3	0.5
10410	00	Z	500	31	2.4	0.4
10410	12	Z	500	32	2.8	-1.8
10739	12	Z	500	31	17.0	-16.1
10739	00	Z	500	30	11.6	-11.0
11035	00	Z	500	31	2.5	0.5
11035	12	Z	500	31	6.3	3.6
12982	12	Z	500	31	3.9	0.3
12982	00	Z	500	31	3.3	2.5
16245	12	Z	500	31	2.7	2.3
16245	00	Z	500	31	4.5	3.9
16429	12	Z	500	31	3.7	3.4
16429	00	Z	500	31	4.6	3.8
16754	00	Z	500	21	4.5	-3.8
17607	12	Z	500	28	4.4	3.4
17607	00	Z	500	5	4.9	4.7
26435	12	Z	500	15	4.4	-2.9
2TDJJ8	12	Z	500	27	17.1	17.0
60018	00	Z	500	29	4.8	3.6
60018	12	Z	500	31	4.0	2.8
7JUNA4	12	Z	500	8	39.5	27.0
7JUNA4	00	Z	500	6	22.9	21.0

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
9ZT9MR	12	Z	500	11	19.1	-14.9
9ZT9MR	00	Z	500	7	53.7	5.3
ASDE09	12	Z	500	1	38.4	-38.4
ATGU3F	12	Z	500	7	12.2	-11.1
ATGU3F	00	Z	500	8	22.6	-19.7
FPUW5G	12	Z	500	2	1.8	-1.7
GQBZLZ	12	Z	500	0	0.0	0.0
GQBZLZ	00	Z	500	0	0.0	0.0
JNKN7J	12	Z	500	11	37.6	37.5
JNKN7J	00	Z	500	11	37.2	36.9
KMPLHP	12	Z	500	10	10.8	5.0
KMPLHP	00	Z	500	10	7.8	2.9
LAGY8	12	Z	500	1	42.2	-42.2
LAGY8	00	Z	500	2	56.4	-56.4
LAGZ8	00	Z	500	1	54.7	54.7
LAGZ8	12	Z	500	1	69.8	69.8
LRYQE3	12	Z	500	9	8.0	2.4
LRYQE3	00	Z	500	10	7.0	-5.3
TLH	12	Z	500	2	18.0	17.8
TLH	00	Z	500	3	18.8	18.6
WDK38H	12	Z	500	19	9.2	-8.7
WFF	12	Z	500	6	22.7	22.0
WFF	00	Z	500	2	22.5	22.5
XKQLWQ	12	Z	500	21	9.3	8.8
YLV96W	12	Z	500	9	14.0	8.7
YLV96W	00	Z	500	7	5.2	-0.4

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

RADIOSONDE MONITORING STATISTICS (EUCOS)

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

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
01001	12	V	500	29	2.6	0.0	-0.4
01001	00	V	500	30	2.3	-0.3	0.4
01028	12	V	500	31	1.9	0.0	-0.2
01028	00	V	500	30	2.0	-0.2	0.1
01400	12	V	500	30	1.9	0.1	0.0
01400	00	V	500	29	2.0	-0.1	-0.2
01415	12	V	500	31	1.9	0.5	-0.2
01415	00	V	500	30	2.1	-0.1	0.0
02591	12	V	500	23	2.5	-0.3	0.4
02591	00	V	500	21	2.8	0.4	-0.4
02836	00	V	500	30	3.4	0.8	0.4
02836	12	V	500	28	2.4	0.4	-0.4
02963	12	V	500	30	2.5	-0.2	-0.3
02963	00	V	500	29	2.1	0.6	0.1
03005	12	V	500	29	2.1	0.0	0.3
03005	00	V	500	28	2.3	0.3	-0.2
03238	12	V	500	1	0.4	0.3	-0.2
03238	00	V	500	30	2.3	0.5	-0.4
03808	12	V	500	31	1.8	0.1	0.0
03808	00	V	500	30	2.3	-0.3	-0.1
03918	00	V	500	30	1.7	0.1	0.1
03918	12	V	500	1	1.9	1.6	1.0
03953	12	V	500	31	2.1	0.0	0.4
03953	00	V	500	29	2.5	0.1	0.0
04018	12	V	500	26	2.1	0.2	-0.1
04018	00	V	500	29	2.7	-1.1	-0.5
04220	00	V	500	30	2.3	0.0	0.0
04220	12	V	500	31	1.9	0.1	0.1
04270	00	V	500	29	1.8	-0.1	0.2
04270	12	V	500	30	2.5	-0.2	0.7
04320	12	V	500	31	1.7	-0.2	-0.5
04320	00	V	500	30	2.3	0.0	-0.2
04339	00	V	500	29	2.2	0.2	0.0
04339	12	V	500	29	2.6	0.8	-0.1
04360	00	V	500	29	2.1	0.3	0.1
04360	12	V	500	29	2.3	-0.3	0.2
06011	12	V	500	31	2.4	0.1	-0.5
06260	12	V	500	5	1.4	0.3	0.3
06260	00	V	500	30	1.6	0.1	-0.4

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
06610	00	V	500	29	2.7	1.0	-0.3
06610	12	V	500	31	2.1	1.0	-0.4
07110	00	V	500	27	1.9	0.3	0.2
07110	12	V	500	29	1.9	0.0	-0.2
07510	00	V	500	28	2.5	0.3	-0.2
07510	12	V	500	29	1.6	0.0	0.3
07645	12	V	500	29	2.1	-0.1	0.0
07645	00	V	500	27	2.4	0.7	0.2
07761	12	V	500	31	2.3	0.2	0.4
07761	00	V	500	30	2.4	0.8	0.3
08001	00	V	500	29	2.0	0.0	0.0
08001	12	V	500	31	1.9	0.4	0.4
08221	00	V	500	26	2.3	0.1	-0.2
08221	12	V	500	29	2.3	0.5	0.4
08302	12	V	500	27	2.1	0.0	0.2
08302	00	V	500	23	2.4	0.7	-0.1
08508	12	V	500	31	2.0	0.5	-0.3
08522	12	V	500	30	1.8	-0.3	0.0
10035	12	V	500	31	1.9	0.5	0.0
10035	00	V	500	30	2.2	0.1	0.0
10393	00	V	500	30	2.1	-0.4	-0.1
10393	12	V	500	31	2.1	0.1	0.1
10410	00	V	500	30	1.3	0.3	0.0
10410	12	V	500	31	1.8	-0.1	0.3
10739	12	V	500	31	1.7	0.0	0.0
10739	00	V	500	27	1.9	0.3	-0.4
11035	00	V	500	29	2.7	-0.1	0.1
11035	12	V	500	31	2.1	-0.4	0.2
12982	12	V	500	31	2.4	-0.2	0.0
12982	00	V	500	30	2.5	-0.1	0.5
16245	12	V	500	31	2.5	0.1	-0.8
16245	00	V	500	30	2.7	0.5	-0.4
16429	12	V	500	31	1.8	0.2	-0.4
16429	00	V	500	30	2.5	0.6	-0.6
16754	00	V	500	21	1.8	0.1	0.0
17607	12	V	500	28	1.9	0.7	0.4
17607	00	V	500	5	1.4	0.5	0.7
26435	12	V	500	15	2.9	-0.7	0.0
2TDJJ8	12	V	500	26	2.1	0.3	-0.2
60018	00	V	500	28	2.1	0.3	-0.1
60018	12	V	500	31	1.9	0.3	-0.1
7JUNA4	12	V	500	8	1.9	-0.2	0.4
7JUNA4	00	V	500	6	2.2	-0.8	0.1

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
9ZT9MR	12	V	500	11	2.1	0.3	0.8
9ZT9MR	00	V	500	7	4.0	1.1	1.1
ASDE09	12	V	500	1	0.4	-0.2	-0.3
ATGU3F	12	V	500	7	1.7	0.7	0.4
ATGU3F	00	V	500	8	3.1	0.1	-0.2
FPUW5G	12	V	500	2	2.0	0.0	-1.5
GQBZLZ	12	V	500	0	0.0	0.0	0.0
GQBZLZ	00	V	500	0	0.0	0.0	0.0
JNKN7J	12	V	500	11	2.1	-0.4	0.7
JNKN7J	00	V	500	11	1.3	0.4	0.2
KMPLHP	12	V	500	10	2.6	0.5	0.0
KMPLHP	00	V	500	10	2.2	-0.3	0.4
LAGY8	12	V	500	1	0.8	0.8	-0.1
LAGY8	00	V	500	2	2.5	0.5	-1.2
LAGZ8	00	V	500	1	1.8	-1.8	0.2
LAGZ8	12	V	500	1	2.0	1.9	0.5
LRYQE3	12	V	500	9	2.0	0.0	0.2
LRYQE3	00	V	500	10	2.0	0.5	-0.5
TLH	12	V	500	2	1.5	-0.4	1.3
TLH	00	V	500	3	6.2	-1.7	2.6
WDK38H	12	V	500	17	9.4	-1.1	2.7
WFF	12	V	500	6	3.4	0.6	-1.1
WFF	00	V	500	2	1.0	-0.3	-0.4
XKQLWQ	12	V	500	21	1.6	0.3	0.5
YLV96W	12	V	500	9	2.1	0.5	-0.4
YLV96W	00	V	500	6	1.7	-0.5	0.5

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 : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
01001	12	Z	850	29	4.4	-1.4
01001	00	Z	850	31	8.3	7.9
01028	12	Z	850	31	2.1	0.3
01028	00	Z	850	31	2.7	1.6
01400	12	Z	850	30	82.6	82.5
01400	00	Z	850	30	81.3	81.2
01415	12	Z	850	31	4.9	4.4
01415	00	Z	850	31	4.4	3.9
02591	12	Z	850	23	7.6	7.4
02591	00	Z	850	23	6.7	6.6
02836	00	Z	850	31	1.6	0.6
02836	12	Z	850	31	2.4	0.6
02963	12	Z	850	32	2.8	1.8
02963	00	Z	850	31	2.5	1.3
03005	12	Z	850	29	2.6	-0.3
03005	00	Z	850	29	2.5	-0.1
03238	12	Z	850	1	5.4	5.4
03238	00	Z	850	31	3.6	3.2
03808	12	Z	850	31	1.9	1.0
03808	00	Z	850	31	2.7	1.6
03918	00	Z	850	31	2.0	-0.3
03918	12	Z	850	1	2.3	-2.3
03953	12	Z	850	35	5.2	3.2
03953	00	Z	850	32	5.8	3.8
04018	12	Z	850	26	2.6	1.3
04018	00	Z	850	29	3.0	2.3
04220	00	Z	850	31	2.3	0.0
04220	12	Z	850	31	2.1	-0.7
04270	00	Z	850	32	11.2	-10.9
04270	12	Z	850	30	10.3	-9.9
04320	12	Z	850	31	4.7	3.2
04320	00	Z	850	30	7.7	5.9
04339	00	Z	850	29	10.5	-9.6
04339	12	Z	850	29	12.1	-10.1
04360	00	Z	850	31	5.9	-5.5
04360	12	Z	850	29	7.2	-6.7
06011	12	Z	850	31	3.5	1.2
06260	12	Z	850	5	0.8	-0.3
06260	00	Z	850	31	1.6	-0.1

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
06610	00	Z	850	32	4.1	0.7
06610	12	Z	850	32	2.7	1.7
07110	00	Z	850	28	1.6	-0.4
07110	12	Z	850	30	2.0	0.8
07510	00	Z	850	29	6.2	-5.2
07510	12	Z	850	31	5.4	-4.8
07645	12	Z	850	30	4.6	-2.2
07645	00	Z	850	30	5.8	-3.8
07761	12	Z	850	31	12.1	-11.2
07761	00	Z	850	33	12.7	-11.8
08001	00	Z	850	30	1.7	0.7
08001	12	Z	850	31	1.8	0.5
08221	00	Z	850	28	1.5	0.5
08221	12	Z	850	29	1.8	0.4
08302	12	Z	850	27	9.7	-9.5
08302	00	Z	850	24	9.6	-9.3
08508	12	Z	850	31	2.1	1.2
08522	12	Z	850	30	2.8	1.6
10035	12	Z	850	31	1.7	-0.6
10035	00	Z	850	31	1.5	-0.1
10393	00	Z	850	31	1.8	-0.8
10393	12	Z	850	32	1.7	-0.1
10410	00	Z	850	31	2.1	-1.4
10410	12	Z	850	32	3.3	-2.8
10739	12	Z	850	31	16.3	-15.3
10739	00	Z	850	30	13.0	-12.8
11035	00	Z	850	31	1.9	-0.5
11035	12	Z	850	31	3.5	2.3
12982	12	Z	850	31	3.9	3.1
12982	00	Z	850	31	2.1	0.8
16245	12	Z	850	32	3.2	2.9
16245	00	Z	850	31	2.6	1.8
16429	12	Z	850	31	2.2	1.6
16429	00	Z	850	31	2.3	1.1
16754	00	Z	850	21	5.4	-5.0
17607	12	Z	850	28	2.0	1.1
17607	00	Z	850	5	2.4	2.1
26435	12	Z	850	15	2.5	0.1
2TDJJ8	12	Z	850	27	17.5	17.4
60018	00	Z	850	29	1.7	-0.2
60018	12	Z	850	31	2.1	-0.8
7JUNA4	12	Z	850	8	16.9	15.5
7JUNA4	00	Z	850	6	23.2	21.1

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	BIAS
9ZT9MR	12	Z	850	11	12.3	-11.7
9ZT9MR	00	Z	850	7	14.8	-13.9
ASDE09	12	Z	850	1	41.2	-41.2
ATGU3F	12	Z	850	7	15.0	-13.9
ATGU3F	00	Z	850	8	13.8	-12.0
FPUW5G	12	Z	850	2	4.0	-3.3
GQBZLZ	12	Z	850	0	0.0	0.0
GQBZLZ	00	Z	850	0	0.0	0.0
JNKN7J	12	Z	850	11	38.6	38.5
JNKN7J	00	Z	850	11	40.2	39.9
KMPLHP	12	Z	850	11	12.1	9.0
KMPLHP	00	Z	850	10	9.4	4.8
LAGY8	12	Z	850	1	47.5	-47.5
LAGY8	00	Z	850	2	50.2	-50.2
LAGZ8	00	Z	850	1	60.0	60.0
LAGZ8	12	Z	850	1	78.3	78.3
LRYQE3	12	Z	850	9	8.3	-5.6
LRYQE3	00	Z	850	10	8.4	-5.8
TLH	12	Z	850	7	8.3	7.9
TLH	00	Z	850	5	8.1	7.8
WDK38H	12	Z	850	19	11.2	-10.6
WFF	12	Z	850	10	13.8	12.8
WFF	00	Z	850	5	13.9	12.3
XKQLWQ	12	Z	850	21	2.7	1.2
YLV96W	12	Z	850	9	9.1	4.8
YLV96W	00	Z	850	8	8.0	-0.8

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 : JUL 2026
 STANDARD OF COMPARISON: FIRST-GUESS FIELD

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
01001	12	V	850	29	3.2	0.3	-0.2
01001	00	V	850	30	3.0	-0.3	0.4
01028	12	V	850	31	2.6	-0.7	-0.2
01028	00	V	850	30	2.8	0.4	0.3
01400	12	V	850	30	2.1	-0.2	-0.2
01400	00	V	850	29	2.0	-0.3	0.0
01415	12	V	850	31	2.6	0.3	-0.4
01415	00	V	850	30	2.2	0.3	-0.1
02591	12	V	850	23	2.0	-0.7	-0.2
02591	00	V	850	21	2.6	0.3	0.2
02836	00	V	850	30	2.2	0.2	-0.3
02836	12	V	850	31	3.3	0.9	0.6
02963	12	V	850	31	2.9	0.0	0.4
02963	00	V	850	30	2.4	0.2	0.3
03005	12	V	850	29	2.4	-0.2	0.3
03005	00	V	850	28	2.5	-0.1	-0.3
03238	12	V	850	1	2.5	-1.7	-1.8
03238	00	V	850	30	2.1	0.1	-0.3
03808	12	V	850	31	1.8	0.4	-0.1
03808	00	V	850	30	2.0	-0.2	-0.1
03918	00	V	850	30	1.8	-0.3	0.0
03918	12	V	850	1	2.7	2.5	0.9
03953	12	V	850	31	2.0	-0.1	-0.5
03953	00	V	850	29	2.2	0.0	0.2
04018	12	V	850	26	2.4	0.3	-0.1
04018	00	V	850	29	2.2	0.1	0.2
04220	00	V	850	30	2.8	0.0	-0.8
04220	12	V	850	31	2.6	0.3	-0.4
04270	00	V	850	30	2.4	0.8	-0.1
04270	12	V	850	30	3.0	0.6	0.5
04320	12	V	850	31	2.5	-0.2	0.8
04320	00	V	850	29	2.9	0.0	-0.7
04339	00	V	850	28	3.6	0.6	0.0
04339	12	V	850	29	2.8	0.5	0.4
04360	00	V	850	29	3.1	1.2	0.2
04360	12	V	850	29	3.8	1.1	0.5
06011	12	V	850	31	2.1	0.2	-0.4
06260	12	V	850	5	2.7	0.5	-1.4
06260	00	V	850	30	1.8	-0.3	-0.2

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
06610	00	V	850	30	2.6	0.7	0.2
06610	12	V	850	31	3.0	0.6	0.1
07110	00	V	850	27	2.4	-0.3	-0.2
07110	12	V	850	29	2.2	0.0	-0.3
07510	00	V	850	28	3.6	0.3	-0.3
07510	12	V	850	30	2.6	-0.2	0.2
07645	12	V	850	29	4.0	0.1	0.3
07645	00	V	850	27	3.1	-0.6	0.4
07761	12	V	850	31	2.1	-1.0	0.1
07761	00	V	850	30	2.1	-0.1	0.1
08001	00	V	850	29	3.5	0.5	0.1
08001	12	V	850	31	2.0	0.1	0.1
08221	00	V	850	26	3.0	-0.1	-0.6
08221	12	V	850	29	2.1	0.1	-0.2
08302	12	V	850	27	3.0	0.6	0.3
08302	00	V	850	23	2.8	0.1	0.8
08508	12	V	850	31	2.1	-0.1	-0.1
08522	12	V	850	30	2.5	-0.3	0.7
10035	12	V	850	31	2.3	0.0	-0.7
10035	00	V	850	30	2.1	0.3	-0.2
10393	00	V	850	30	2.5	-0.5	0.2
10393	12	V	850	31	2.8	-0.1	-0.3
10410	00	V	850	30	2.2	0.5	-0.1
10410	12	V	850	31	2.4	0.4	-0.2
10739	12	V	850	31	2.4	-0.2	0.5
10739	00	V	850	27	2.2	0.1	0.2
11035	00	V	850	29	3.0	0.2	-0.3
11035	12	V	850	31	2.8	0.1	-0.1
12982	12	V	850	31	2.6	-0.3	0.3
12982	00	V	850	30	2.9	0.9	-0.7
16245	12	V	850	31	2.3	0.3	-0.4
16245	00	V	850	30	2.4	0.6	-0.6
16429	12	V	850	31	2.1	-0.6	0.1
16429	00	V	850	30	2.3	0.0	0.5
16754	00	V	850	21	2.0	-0.1	0.7
17607	12	V	850	28	3.3	-0.6	-0.1
17607	00	V	850	5	1.1	0.0	0.1
26435	12	V	850	15	2.6	-0.3	-0.1
2TDJJ8	12	V	850	26	2.2	-0.1	0.6
60018	00	V	850	28	3.7	1.6	0.9
60018	12	V	850	31	3.2	1.2	1.0
7JUNA4	12	V	850	8	3.0	0.8	0.0
7JUNA4	00	V	850	6	2.3	-0.8	0.6

RADIOSONDE MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	OBS RECD	RMS	UBIAS	VBIAS
9ZT9MR	12	V	850	11	2.5	0.3	0.1
9ZT9MR	00	V	850	7	6.0	1.6	-2.2
ASDE09	12	V	850	1	1.7	0.7	1.5
ATGU3F	12	V	850	7	1.5	0.3	0.1
ATGU3F	00	V	850	8	5.8	2.0	-2.1
FPUW5G	12	V	850	2	1.9	-0.7	0.4
GQBZLZ	12	V	850	0	0.0	0.0	0.0
GQBZLZ	00	V	850	0	0.0	0.0	0.0
JNKN7J	12	V	850	11	1.4	-0.1	0.2
JNKN7J	00	V	850	11	2.1	1.0	0.1
KMPLHP	12	V	850	11	2.0	-0.3	0.5
KMPLHP	00	V	850	10	2.7	-0.7	0.9
LAGY8	12	V	850	1	1.6	-1.6	0.3
LAGY8	00	V	850	2	4.2	2.6	1.4
LAGZ8	00	V	850	1	0.9	-0.6	-0.7
LAGZ8	12	V	850	1	3.1	-3.1	0.3
LRYQE3	12	V	850	9	4.5	-1.3	-0.6
LRYQE3	00	V	850	10	2.9	-0.2	0.2
TLH	12	V	850	7	3.1	0.7	1.4
TLH	00	V	850	5	3.2	-1.0	1.6
WDK38H	12	V	850	18	8.6	-0.9	2.8
WFF	12	V	850	10	2.7	-0.3	0.6
WFF	00	V	850	5	2.8	-1.1	-0.1
XKQLWQ	12	V	850	21	3.0	0.7	-0.8
YLV96W	12	V	850	9	2.1	-1.0	0.1
YLV96W	00	V	850	7	2.2	-1.0	-0.3

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 : JUL 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
1300130	99	P	SUR	28	-16	744	0	0.3	0.3	0.4
1300131	99	P	SUR	28	-17	744	0	0.5	0.3	0.6
1301622	99	P	SUR	32	-32	744	0	0.2	-0.2	0.3
1301726	99	P	SUR	33	-48	665	0	0.3	-0.2	0.3
1301773	99	P	SUR	38	-45	743	0	0.4	-0.4	0.6
1301778	99	P	SUR	26	-68	743	0	0.4	-0.2	0.4
1301782	99	P	SUR	46	-8	743	0	0.3	0.0	0.3
1301784	99	P	SUR	17	-25	742	0	0.7	-0.6	0.9
1301785	99	P	SUR	30	-24	735	0	0.2	-0.2	0.3
1301805	99	P	SUR	62	-30	743	0	0.4	-0.4	0.5
1301806	99	P	SUR	52	-40	743	0	0.4	-0.2	0.4
1301808	99	P	SUR	62	0	743	0	0.3	0.0	0.3
1301809	99	P	SUR	51	-29	743	0	0.3	0.0	0.3
1301810	99	P	SUR	26	-45	743	0	0.3	-0.3	0.4
1301814	99	P	SUR	24	-42	743	0	0.2	0.0	0.2
1301819	99	P	SUR	33	-54	743	0	0.3	-0.5	0.6
1301823	99	P	SUR	34	-48	743	0	0.3	0.0	0.3
1401617	99	P	SUR	57	-41	262	0	0.4	0.0	0.4
1801560	99	P	SUR	23	-66	1368	0	0.4	0.1	0.4
1801590	99	P	SUR	24	-67	1368	0	0.4	0.0	0.5
1801599	99	P	SUR	23	-65	1368	0	0.4	0.1	0.4
1801600	99	P	SUR	16	-66	1331	0	0.3	-0.1	0.3
1801607	99	P	SUR	20	-66	1241	0	0.5	0.2	0.6
1801670	99	P	SUR	51	-7	727	0	0.3	0.2	0.3
1801675	99	P	SUR	62	-19	639	0	0.3	0.1	0.3
1801695	99	P	SUR	50	-30	743	0	0.3	-0.3	0.4
1801716	99	P	SUR	27	-44	743	0	0.3	0.2	0.4
1801732	99	P	SUR	39	-14	743	0	0.3	-0.2	0.3
1801777	99	P	SUR	35	-34	744	0	0.3	-0.2	0.3
1801778	99	P	SUR	52	-12	743	0	0.3	-0.3	0.4
1801814	99	P	SUR	41	-63	122	0	0.4	-0.2	0.5
1801943	99	P	SUR	43	-47	741	0	0.4	0.0	0.4
1801944	99	P	SUR	44	-51	740	0	0.4	-0.3	0.6
1801945	99	P	SUR	44	-28	737	0	0.2	0.2	0.3
1801946	99	P	SUR	49	-21	380	98	3.6	-1.0	3.7
1801951	99	P	SUR	32	19	622	0	0.9	-0.1	0.9

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
2801968	99	P	SUR	49	-5	452	0	0.3	0.0	0.3
2801970	99	P	SUR	24	-26	742	0	0.3	-0.5	0.6
2801979	99	P	SUR	52	-54	743	0	0.3	-0.1	0.3
2801980	99	P	SUR	60	-59	743	0	0.3	0.2	0.4
2802007	99	P	SUR	21	-54	743	0	0.3	-0.1	0.3
2802010	99	P	SUR	26	-69	743	0	0.3	0.1	0.3
2802011	99	P	SUR	38	-22	743	0	0.2	-0.3	0.4
2802022	99	P	SUR	31	-42	743	0	0.3	-0.2	0.3
2802100	99	P	SUR	74	4	718	0	0.3	0.1	0.3
2802124	99	P	SUR	22	-40	684	0	0.3	-0.1	0.3
2802242	99	P	SUR	46	-26	521	0	0.5	0.7	0.8
2802243	99	P	SUR	46	-31	382	5	3.0	0.8	3.1
2802244	99	P	SUR	58	-15	735	0	0.3	0.0	0.3
2802246	99	P	SUR	50	-37	742	0	0.3	0.1	0.3
2802247	99	P	SUR	65	-6	738	0	0.3	0.1	0.3
2802258	99	P	SUR	51	-53	163	0	0.4	-3.5	3.5
3801575	99	P	SUR	71	21	599	0	0.3	0.1	0.3
3801596	99	P	SUR	28	-59	743	0	0.3	-0.3	0.4
3801598	99	P	SUR	30	-46	743	0	0.3	0.0	0.3
3801612	99	P	SUR	24	-61	743	0	0.3	0.1	0.3
3801625	99	P	SUR	21	-60	743	0	0.3	0.5	0.6
3801676	99	P	SUR	79	16	743	0	0.5	0.0	0.5
3801713	99	P	SUR	32	-17	742	0	0.3	-0.2	0.4
3801834	99	P	SUR	44	-29	737	0	0.3	0.1	0.3
3801835	99	P	SUR	42	-33	742	0	0.3	0.0	0.3
3801836	99	P	SUR	43	-51	739	0	0.4	0.1	0.4
3801837	99	P	SUR	67	-24	372	0	0.4	0.2	0.4
3801838	99	P	SUR	48	-27	740	0	0.2	0.1	0.2
3801839	99	P	SUR	51	-18	733	0	0.5	-0.5	0.7
3801840	99	P	SUR	47	-26	730	0	0.3	0.0	0.3
3801841	99	P	SUR	52	-45	744	0	0.4	-0.3	0.4
3801842	99	P	SUR	64	-6	741	0	0.3	0.0	0.3
3801846	99	P	SUR	34	29	636	0	0.3	0.0	0.3
4100040	99	P	SUR	15	-53	4463	0	0.3	-0.3	0.4
4100041	99	P	SUR	14	-46	4464	0	0.2	0.1	0.3
4100043	99	P	SUR	21	-65	4463	0	0.3	-0.6	0.7
4100044	99	P	SUR	22	-59	4462	0	0.3	-0.5	0.6
4100046	99	P	SUR	24	-68	4463	0	0.3	-0.2	0.3
4100048	99	P	SUR	32	-70	4463	0	0.4	0.0	0.4
4100049	99	P	SUR	28	-62	4464	0	0.3	0.2	0.4
4100052	99	P	SUR	18	-65	221	0	0.2	-0.6	0.7
4100053	99	P	SUR	18	-66	1383	0	0.3	-0.5	0.6
4100056	99	P	SUR	18	-65	1919	0	0.3	-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
4101725	99	P	SUR	18	-63	741	0	0.3	-0.1	0.3
4101727	99	P	SUR	33	-64	744	0	0.5	-0.1	0.5
4101728	99	P	SUR	26	-50	742	0	0.6	0.3	0.7
4101729	99	P	SUR	28	-63	744	0	0.3	0.0	0.3
4101863	99	P	SUR	29	-68	743	0	0.4	-0.3	0.5
4101870	99	P	SUR	29	-63	743	0	0.4	-0.2	0.4
4101873	99	P	SUR	28	-43	48	0	0.4	-0.3	0.5
4101875	99	P	SUR	23	-53	743	0	0.3	0.1	0.3
4101877	99	P	SUR	28	-25	740	0	0.2	-0.1	0.2
4101878	99	P	SUR	24	-24	728	0	0.2	-0.2	0.3
41040	99	P	SUR	15	-53	744	0	0.3	-0.3	0.4
41041	99	P	SUR	14	-46	744	0	0.3	0.1	0.3
41043	99	P	SUR	21	-65	744	0	0.3	-0.6	0.7
41044	99	P	SUR	22	-59	744	0	0.3	-0.5	0.6
41046	99	P	SUR	24	-68	744	0	0.3	-0.2	0.3
41048	99	P	SUR	32	-70	744	0	0.4	0.0	0.4
41049	99	P	SUR	28	-62	744	0	0.3	0.2	0.4
41052	99	P	SUR	18	-65	43	0	0.2	-0.6	0.6
41053	99	P	SUR	19	-66	263	0	0.3	-0.5	0.6
41056	99	P	SUR	18	-66	383	0	0.3	-0.6	0.7
4200059	99	P	SUR	15	-68	4461	0	0.3	-0.1	0.3
4200060	99	P	SUR	16	-63	4461	0	0.3	-0.2	0.3
42059	99	P	SUR	15	-68	744	0	0.3	-0.1	0.3
42060	99	P	SUR	16	-63	744	0	0.3	-0.2	0.3
4400008	99	P	SUR	40	-69	4463	0	0.5	-0.5	0.7
4400011	99	P	SUR	41	-67	4463	0	0.5	-0.1	0.5
4400027	99	P	SUR	44	-67	4463	0	0.4	-1.0	1.1
4400137	99	P	SUR	42	-62	735	0	0.5	-0.1	0.5
4400139	99	P	SUR	44	-57	738	0	0.5	-0.2	0.5
4400150	99	P	SUR	43	-64	743	0	0.5	-0.3	0.6
4400258	99	P	SUR	45	-63	741	0	0.4	-0.1	0.5
4400488	99	P	SUR	45	-61	737	0	0.4	0.0	0.4
4400489	99	P	SUR	45	-61	711	0	0.5	0.0	0.5
44008	99	P	SUR	41	-69	744	0	0.5	-0.5	0.7
44011	99	P	SUR	41	-67	744	0	0.5	-0.1	0.5
4401584	99	P	SUR	31	-59	743	0	0.4	0.0	0.4
44027	99	P	SUR	44	-67	744	0	0.4	-1.0	1.1
4402730	99	P	SUR	29	-38	681	0	0.3	-0.2	0.3
4402737	99	P	SUR	52	-37	743	0	0.3	-0.5	0.7
4402744	99	P	SUR	30	-52	743	0	0.3	0.0	0.3
4402749	99	P	SUR	70	-1	568	0	0.3	-0.2	0.4
4402750	99	P	SUR	60	-1	47	0	0.5	-0.8	1.0
4403568	99	P	SUR	29	-48	722	0	0.3	0.2	0.4

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
44078	99	P	SUR	60	-40	671	0	0.5	-0.6	0.7
44137	99	P	SUR	42	-62	735	0	0.5	-0.1	0.5
44139	99	P	SUR	44	-57	738	0	0.5	-0.2	0.5
44150	99	P	SUR	43	-64	743	0	0.5	-0.3	0.6
44258	99	P	SUR	45	-63	741	0	0.5	-0.1	0.5
44488	99	P	SUR	45	-61	737	0	0.4	-0.1	0.4
44489	99	P	SUR	46	-61	711	0	0.5	0.0	0.5
4601782	99	P	SUR	29	-32	743	0	0.2	0.4	0.4
4701550	99	P	SUR	87	-49	743	0	0.4	-0.3	0.5
4701555	99	P	SUR	64	-22	17	0	0.3	-5.8	5.8
4701558	99	P	SUR	79	-18	62	0	0.3	-4.2	4.2
4801763	99	P	SUR	68	-1	721	0	1.6	-12.3	12.4
4802582	99	P	SUR	64	-18	630	0	0.0	-9.8	9.8
4802664	99	P	SUR	82	-57	722	0	0.4	-0.4	0.5
4803997	99	P	SUR	45	-16	743	0	0.2	-0.1	0.3
4804044	99	P	SUR	32	15	74	0	0.3	-0.3	0.4
4804127	99	P	SUR	27	-50	743	0	0.3	0.0	0.3
4804130	99	P	SUR	13	-53	740	0	0.4	-0.8	0.9
4804271	99	P	SUR	41	-44	743	27	2.4	0.0	2.4
4804272	99	P	SUR	66	-5	744	0	0.3	0.0	0.3
4804282	99	P	SUR	36	19	708	0	0.3	0.1	0.4
4804311	99	P	SUR	51	-53	141	0	0.4	0.5	0.6
5801955	99	P	SUR	20	-66	1381	0	0.3	0.1	0.3
5801972	99	P	SUR	33	-15	734	0	0.2	-0.3	0.4
5802011	99	P	SUR	24	-56	743	0	0.3	0.2	0.4
5802026	99	P	SUR	28	-16	267	0	0.5	-0.6	0.8
5802033	99	P	SUR	18	-52	743	0	0.3	-0.1	0.3
5802060	99	P	SUR	75	-16	406	0	0.4	-0.2	0.4
5802095	99	P	SUR	52	-41	543	0	0.4	-0.2	0.5
5802112	99	P	SUR	18	-51	711	0	0.3	0.1	0.3
5802116	99	P	SUR	41	-61	112	0	0.5	-0.2	0.5
5802118	99	P	SUR	26	-46	742	0	0.3	0.0	0.3
5802227	99	P	SUR	50	-35	713	713	0.0	0.0	0.0
5802253	99	P	SUR	42	-20	742	0	0.3	0.3	0.4
5802254	99	P	SUR	57	-31	740	0	0.3	-0.1	0.3
5802255	99	P	SUR	59	-33	611	0	0.3	0.2	0.3
5802256	99	P	SUR	56	-28	610	0	0.3	-0.3	0.4
5802257	99	P	SUR	56	-26	607	0	0.3	0.1	0.3
6100001	99	P	SUR	43	8	1104	0	0.5	0.2	0.5
6100002	99	P	SUR	42	5	1108	0	0.5	0.0	0.5
6100196	99	P	SUR	42	4	84	0	0.3	0.5	0.6
6100197	99	P	SUR	40	4	744	0	0.4	0.4	0.6
6100198	99	P	SUR	37	-2	744	0	0.3	0.3	0.4

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
6100207	99	P	SUR	37	15	1316	0	0.4	-0.5	0.6
6100210	99	P	SUR	39	17	1385	0	0.4	-0.6	0.7
6100211	99	P	SUR	39	16	1367	0	0.4	-0.7	0.8
6100214	99	P	SUR	41	13	1223	0	0.4	0.5	0.6
6100215	99	P	SUR	41	17	1468	0	0.4	-0.3	0.5
6100216	99	P	SUR	42	12	1241	0	0.3	-0.8	0.9
6100217	99	P	SUR	42	15	1333	0	0.6	0.0	0.6
6100218	99	P	SUR	44	14	1037	0	0.6	-0.1	0.6
6100219	99	P	SUR	44	10	1191	0	0.5	-0.2	0.5
6100220	99	P	SUR	45	13	1301	0	0.5	-0.2	0.6
6100280	99	P	SUR	41	1	743	0	0.4	0.2	0.4
6100281	99	P	SUR	40	0	742	0	0.5	-0.4	0.6
6100417	99	P	SUR	38	0	743	0	0.4	0.2	0.4
6100430	99	P	SUR	40	2	744	0	0.4	0.2	0.5
6101031	99	P	SUR	42	8	1101	0	0.4	0.0	0.4
6101032	99	P	SUR	42	10	698	0	0.4	0.2	0.4
6101033	99	P	SUR	43	8	1097	0	0.5	0.2	0.6
6101034	99	P	SUR	42	6	1105	0	0.4	-0.1	0.4
6101035	99	P	SUR	40	7	700	0	0.4	0.0	0.4
6101036	99	P	SUR	42	7	1105	0	0.4	0.0	0.4
6200001	99	P	SUR	45	-5	696	0	0.4	0.1	0.4
6200024	99	P	SUR	44	-3	744	0	0.4	0.3	0.6
6200025	99	P	SUR	44	-6	744	0	0.4	0.1	0.4
6200029	99	P	SUR	49	-12	744	0	0.2	0.0	0.2
6200050	99	P	SUR	50	-4	741	0	0.3	0.0	0.3
6200081	99	P	SUR	51	-13	744	0	0.3	-0.1	0.3
6200082	99	P	SUR	44	-8	744	0	0.3	0.2	0.4
6200083	99	P	SUR	43	-9	744	0	0.4	0.2	0.5
6200084	99	P	SUR	42	-9	744	0	0.4	0.0	0.4
6200085	99	P	SUR	36	-7	744	0	0.3	0.2	0.3
6200086	99	P	SUR	55	7	198	0	0.3	-0.4	0.5
6200087	99	P	SUR	55	7	160	0	0.3	-0.3	0.5
6200091	99	P	SUR	53	-5	744	0	0.4	-0.1	0.4
6200092	99	P	SUR	51	-11	744	0	0.3	-0.1	0.3
6200094	99	P	SUR	52	-7	734	0	0.3	-0.2	0.3
6200095	99	P	SUR	53	-16	744	0	0.3	-0.1	0.3
6200103	99	P	SUR	50	-3	739	0	0.3	0.1	0.3
6200105	99	P	SUR	55	-13	341	0	0.3	0.0	0.3
6200163	99	P	SUR	47	-8	744	0	0.3	-0.1	0.3
6200442	99	P	SUR	49	-16	743	0	0.3	0.0	0.3
6201065	99	P	SUR	54	7	459	0	0.3	1.2	1.2
6201066	99	P	SUR	55	7	36	0	0.4	0.0	0.4
6202598	99	P	SUR	35	-47	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
6202599	99	P	SUR	45	-41	744	0	0.4	-0.1	0.5
62029	99	P	SUR	49	-13	1486	0	0.2	0.0	0.2
62030	99	P	SUR	50	-4	1484	0	0.3	-0.1	0.3
6203615	99	P	SUR	26	-36	743	0	0.2	0.3	0.3
6203625	99	P	SUR	31	-35	743	0	0.2	-0.3	0.4
6203632	99	P	SUR	31	-29	744	0	0.2	0.0	0.2
6203639	99	P	SUR	27	-38	742	0	0.2	-0.2	0.3
6203662	99	P	SUR	75	-19	744	0	0.5	-0.4	0.7
6203666	99	P	SUR	55	-18	744	0	0.3	0.1	0.4
6203668	99	P	SUR	79	15	744	0	0.5	-0.5	0.7
6203672	99	P	SUR	30	-57	744	0	0.4	0.2	0.4
6203674	99	P	SUR	61	-8	742	0	0.4	-0.1	0.4
6203676	99	P	SUR	59	-28	744	0	0.3	0.2	0.4
6203677	99	P	SUR	29	-25	679	0	0.2	-0.4	0.4
6203679	99	P	SUR	25	-45	744	0	0.3	-0.1	0.3
6203680	99	P	SUR	63	3	744	0	0.3	-0.2	0.3
6203683	99	P	SUR	23	-43	744	0	0.2	0.3	0.3
6203686	99	P	SUR	31	-56	742	0	0.4	0.1	0.4
6203831	99	P	SUR	70	32	681	0	0.3	-0.1	0.3
6203836	99	P	SUR	62	-39	743	0	0.3	-0.2	0.4
6203853	99	P	SUR	77	11	743	0	0.4	0.0	0.4
6203854	99	P	SUR	71	27	743	0	0.3	-0.1	0.3
6204523	99	P	SUR	45	-58	744	0	0.5	-0.1	0.5
6204524	99	P	SUR	42	-28	744	0	0.3	0.1	0.3
6204525	99	P	SUR	44	-43	743	0	0.5	-0.3	0.6
6204526	99	P	SUR	45	-26	744	0	0.4	0.0	0.4
6204527	99	P	SUR	42	-39	741	0	0.3	0.0	0.3
6204528	99	P	SUR	47	-15	743	0	0.4	0.0	0.4
6204529	99	P	SUR	40	-29	743	0	0.9	0.0	0.9
6204530	99	P	SUR	44	-11	744	0	0.3	0.2	0.3
6204531	99	P	SUR	46	-21	607	0	0.3	0.1	0.3
6204533	99	P	SUR	42	-22	742	0	0.7	-0.2	0.7
6204534	99	P	SUR	46	-28	743	0	0.3	-0.3	0.4
6204535	99	P	SUR	40	-41	605	0	0.4	0.0	0.4
6204536	99	P	SUR	45	-25	744	0	0.3	0.1	0.3
6204537	99	P	SUR	44	-57	743	0	0.5	0.2	0.5
62050	99	P	SUR	50	-4	1480	0	0.3	-0.1	0.3
62081	99	P	SUR	51	-13	1487	0	0.3	-0.1	0.3
62091	99	P	SUR	53	-5	743	0	0.4	-0.1	0.4
62092	99	P	SUR	51	-11	743	0	0.3	-0.1	0.3
62094	99	P	SUR	52	-7	733	0	0.3	-0.2	0.3
62095	99	P	SUR	53	-16	743	0	0.3	-0.1	0.3
62102	99	P	SUR	58	2	1486	0	0.3	0.0	0.3

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
62103	99	P	SUR	50	-3	1474	0	0.3	0.1	0.3
62104	99	P	SUR	57	1	1486	0	0.3	-0.2	0.3
62105	99	P	SUR	55	-13	1468	0	0.4	-0.1	0.4
62107	99	P	SUR	50	-6	1485	0	0.3	-0.5	0.5
62112	99	P	SUR	58	0	1484	0	0.3	0.0	0.3
62113	99	P	SUR	58	0	1486	0	0.4	-0.1	0.4
62114	99	P	SUR	58	0	1181	0	0.4	-0.2	0.5
62115	99	P	SUR	58	-3	560	0	0.3	0.1	0.3
62116	99	P	SUR	58	1	1486	0	0.3	-0.2	0.4
62118	99	P	SUR	58	1	1486	0	0.3	0.3	0.4
62119	99	P	SUR	57	2	1487	0	0.3	-0.2	0.3
62120	99	P	SUR	56	2	1456	0	0.4	-0.3	0.5
62121	99	P	SUR	54	3	1487	0	0.3	0.0	0.3
62122	99	P	SUR	57	2	1483	0	0.4	-0.1	0.4
62124	99	P	SUR	54	-4	1223	0	0.4	-0.2	0.4
62127	99	P	SUR	54	1	1481	0	0.3	0.2	0.4
62129	99	P	SUR	58	0	863	0	0.3	0.1	0.3
62130	99	P	SUR	59	1	1486	0	0.3	-0.3	0.4
62131	99	P	SUR	54	1	1487	0	0.3	0.4	0.5
62132	99	P	SUR	56	2	1479	0	0.5	0.1	0.5
62133	99	P	SUR	57	1	1487	0	0.3	-0.1	0.3
62134	99	P	SUR	58	1	1468	0	0.3	0.2	0.3
62138	99	P	SUR	54	0	1487	0	0.3	0.4	0.5
62140	99	P	SUR	57	1	1485	0	0.3	0.0	0.3
62141	99	P	SUR	58	0	1481	0	0.3	-0.1	0.3
62143	99	P	SUR	58	2	1486	0	0.4	0.6	0.7
62144	99	P	SUR	53	2	1481	0	0.2	0.1	0.3
62145	99	P	SUR	53	3	1487	0	0.3	0.2	0.3
62146	99	P	SUR	57	2	1485	0	0.4	0.2	0.4
62148	99	P	SUR	54	2	1184	0	0.3	0.2	0.4
62149	99	P	SUR	54	1	1487	0	0.3	0.4	0.5
62151	99	P	SUR	57	2	1487	0	0.2	0.0	0.2
62152	99	P	SUR	57	2	1485	0	0.3	0.3	0.4
62153	99	P	SUR	57	2	1482	0	0.3	0.2	0.4
62154	99	P	SUR	56	2	1487	0	0.2	-0.5	0.5
62155	99	P	SUR	58	1	1486	0	0.3	0.3	0.4
62157	99	P	SUR	58	0	1486	0	0.3	-0.2	0.3
62160	99	P	SUR	57	2	1487	0	0.3	0.1	0.3
62161	99	P	SUR	58	1	1486	0	0.3	-0.4	0.5
62162	99	P	SUR	57	1	1454	0	0.3	0.1	0.3
62163	99	P	SUR	48	-9	1487	0	0.3	-0.1	0.3
62164	99	P	SUR	57	1	1487	0	0.3	0.1	0.3
62165	99	P	SUR	54	1	1479	0	0.3	0.3	0.4

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
62168	99	P	SUR	58	1	1486	0	0.3	0.1	0.3
62170	99	P	SUR	51	2	1433	0	0.3	-0.4	0.5
62302	99	P	SUR	61	-2	1480	0	0.4	-0.2	0.5
62304	99	P	SUR	51	2	1486	0	0.3	-0.1	0.4
62305	99	P	SUR	50	0	1487	0	0.3	-0.2	0.4
62442	99	P	SUR	49	-16	1487	0	0.3	0.0	0.3
6301003	99	P	SUR	74	24	744	0	0.3	-0.3	0.4
6301004	99	P	SUR	72	20	661	0	0.3	-0.4	0.5
6301583	99	P	SUR	53	-19	744	0	0.3	0.1	0.3
6301584	99	P	SUR	79	-15	743	0	0.4	-0.1	0.4
6301587	99	P	SUR	83	-16	743	0	0.4	0.0	0.4
6301634	99	P	SUR	56	-38	252	0	0.7	-0.1	0.8
6301636	99	P	SUR	64	-30	741	0	0.4	0.1	0.4
6301638	99	P	SUR	66	-33	743	0	1.4	0.5	1.5
6301641	99	P	SUR	80	3	743	0	0.3	0.1	0.3
6301642	99	P	SUR	69	12	743	0	0.3	0.1	0.3
6301643	99	P	SUR	74	-4	740	0	0.3	0.1	0.3
6301644	99	P	SUR	73	5	744	0	0.3	-0.3	0.4
6301645	99	P	SUR	76	0	744	0	0.3	0.3	0.4
6301647	99	P	SUR	71	27	743	0	0.3	0.0	0.3
63055	99	P	SUR	61	2	1308	0	0.4	0.0	0.4
63056	99	P	SUR	60	2	1486	0	0.3	0.2	0.4
63057	99	P	SUR	59	2	1486	0	0.3	-0.4	0.5
63058	99	P	SUR	53	2	1465	0	0.3	0.0	0.3
63059	99	P	SUR	58	-1	590	0	0.2	0.5	0.5
63102	99	P	SUR	61	1	1486	0	0.3	0.0	0.3
63108	99	P	SUR	61	2	1468	0	0.4	0.0	0.4
63109	99	P	SUR	60	2	1486	0	0.3	-0.3	0.4
63110	99	P	SUR	60	2	1486	0	0.3	-0.3	0.4
63111	99	P	SUR	61	2	1126	0	0.3	-0.4	0.5
63112	99	P	SUR	61	1	1486	0	0.3	-0.3	0.5
63115	99	P	SUR	62	1	1483	0	0.3	0.1	0.4
63118	99	P	SUR	62	1	1485	0	0.6	-0.5	0.8
6400045	99	P	SUR	59	-12	676	0	0.4	-0.2	0.4
6400046	99	P	SUR	61	-4	743	0	0.3	-0.3	0.4
6401599	99	P	SUR	83	-21	743	0	0.4	0.0	0.4
6401600	99	P	SUR	85	-67	736	0	0.4	0.2	0.5
6401601	99	P	SUR	57	-43	606	0	1.3	0.2	1.3
6401602	99	P	SUR	73	-19	714	26	3.3	-0.6	3.4
6402617	99	P	SUR	39	-40	615	0	0.3	0.0	0.3
6402621	99	P	SUR	26	-52	636	0	0.3	0.4	0.5
6402631	99	P	SUR	32	28	638	0	0.3	0.0	0.3
64041	99	P	SUR	61	-3	1480	0	0.4	-0.1	0.4

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
64045	99	P	SUR	59	-12	1351	0	0.4	-0.2	0.4
64046	99	P	SUR	61	-4	1486	0	0.4	-0.3	0.5
6600021	99	P	SUR	55	14	200	0	0.3	-1.0	1.0
6600022	99	P	SUR	54	14	335	0	0.3	-0.3	0.5
6600024	99	P	SUR	55	13	252	0	0.5	-1.2	1.3
6801771	99	P	SUR	44	-7	738	0	0.3	-0.2	0.4
6801791	99	P	SUR	36	-18	743	0	0.3	0.1	0.3
6801907	99	P	SUR	67	-4	726	0	0.3	0.0	0.3
6801923	99	P	SUR	41	-64	131	0	0.4	-0.4	0.6
6801929	99	P	SUR	30	-59	743	0	0.4	-0.1	0.4
6802060	99	P	SUR	49	-27	732	0	0.3	0.2	0.3
6802061	99	P	SUR	61	-31	741	0	0.3	-0.2	0.3
6802079	99	P	SUR	55	-56	541	0	0.3	0.7	0.8
6802080	99	P	SUR	55	-56	541	0	0.3	0.1	0.4
7801593	99	P	SUR	63	-29	743	0	0.4	-0.2	0.4
7801594	99	P	SUR	71	30	743	0	0.4	-0.2	0.4
7801616	99	P	SUR	17	-53	742	0	0.3	-0.1	0.3
7801627	99	P	SUR	23	-65	743	0	0.3	0.3	0.5
7801647	99	P	SUR	34	-54	743	0	0.3	-0.3	0.4
7801697	99	P	SUR	23	-47	743	0	0.2	-0.3	0.4
7801699	99	P	SUR	35	-30	743	0	0.2	0.2	0.3
7801723	99	P	SUR	79	-13	721	0	0.4	0.0	0.4
7801742	99	P	SUR	22	-45	641	0	0.3	0.0	0.3
7801749	99	P	SUR	31	-19	742	0	0.3	-0.2	0.4
7801755	99	P	SUR	21	-42	533	0	0.2	-0.3	0.4
7810095	99	P	SUR	56	-25	743	0	0.3	0.1	0.4
7810096	99	P	SUR	43	-32	743	0	0.2	0.0	0.2
7810097	99	P	SUR	40	-43	207	0	0.3	-0.2	0.4
7810098	99	P	SUR	43	-17	742	0	0.3	0.0	0.3
7810099	99	P	SUR	43	-13	712	0	0.3	-0.6	0.7
7810263	99	P	SUR	45	-37	743	0	0.3	-1.3	1.3
7810264	99	P	SUR	45	-27	743	0	0.2	-0.4	0.5
7810265	99	P	SUR	42	-25	672	0	0.2	-0.1	0.3
7810266	99	P	SUR	46	-38	743	0	0.3	0.2	0.4
7810268	99	P	SUR	20	-35	681	0	0.2	0.1	0.2
7810290	99	P	SUR	41	-33	742	0	0.3	-0.2	0.4
7810310	99	P	SUR	22	-48	527	0	0.3	-0.2	0.4
7810312	99	P	SUR	28	-29	743	0	0.2	-0.2	0.3
7810437	99	P	SUR	48	-35	735	0	0.3	-0.2	0.4
7810438	99	P	SUR	47	-47	738	0	0.5	-0.1	0.5
7810439	99	P	SUR	53	-46	735	0	0.4	0.3	0.5
7810440	99	P	SUR	50	-49	740	0	0.4	0.0	0.4
7810441	99	P	SUR	46	-45	737	0	0.4	-0.1	0.5

DRIFTER MONITORING STATISTICS (EUCOS)
(CONTINUED)

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS
7810442	99	P	SUR	51	-30	738	0	0.3	-0.2	0.4
7810443	99	P	SUR	55	-52	652	0	0.4	-0.4	0.5
7810445	99	P	SUR	47	-29	738	0	0.3	0.2	0.3
7810446	99	P	SUR	44	-32	547	0	0.3	0.4	0.5
7810608	99	P	SUR	33	-42	316	0	0.4	0.0	0.4
7810609	99	P	SUR	35	-45	637	0	0.4	0.0	0.4
7810616	99	P	SUR	45	-39	475	0	1.4	0.0	1.4
7810617	99	P	SUR	37	20	677	0	0.4	0.1	0.4
7810618	99	P	SUR	37	19	654	0	0.3	0.6	0.7
7810765	99	P	SUR	34	-50	742	0	0.5	0.3	0.6
7810766	99	P	SUR	34	-29	743	0	0.3	0.1	0.3
7810767	99	P	SUR	40	-45	737	0	0.4	0.0	0.4
7810768	99	P	SUR	38	-63	736	0	0.5	-0.1	0.5
7810770	99	P	SUR	34	-55	736	0	0.4	0.3	0.5
7810771	99	P	SUR	35	-52	738	0	0.4	0.0	0.4
7810772	99	P	SUR	32	-19	741	0	0.3	0.0	0.3
7810773	99	P	SUR	33	-36	742	0	0.3	-0.2	0.4
7810774	99	P	SUR	38	-28	741	0	0.3	0.0	0.3
7810775	99	P	SUR	37	-21	737	0	0.3	0.0	0.3
7810776	99	P	SUR	33	-69	742	0	0.4	-0.2	0.5
7810777	99	P	SUR	34	-40	739	0	0.3	-0.1	0.3
7810778	99	P	SUR	32	-38	741	0	0.3	-0.2	0.3
7810780	99	P	SUR	36	-18	735	0	0.3	-0.1	0.3
7810781	99	P	SUR	46	-41	672	0	0.5	-0.1	0.5
7810782	99	P	SUR	46	-29	700	0	0.3	0.1	0.3
7810783	99	P	SUR	46	-23	730	0	0.2	0.2	0.3
7810784	99	P	SUR	37	-43	239	0	0.4	0.2	0.5
7811007	99	P	SUR	88	21	591	0	0.4	-0.4	0.5
7894568	99	P	SUR	56	-8	734	0	0.4	0.2	0.4
7894569	99	P	SUR	50	-9	731	0	0.2	0.4	0.5
7894570	99	P	SUR	50	-16	733	0	0.3	0.3	0.4
7894597	99	P	SUR	56	-60	283	0	0.3	-0.2	0.3

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

DRIFTER MONITORING STATISTICS (EUCOS)

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

TIME = 99 => AVERAGE OF ALL OBSERVATIONS

GROSS ERROR LIMIT FOR VECTOR WIND = 25 M/S

WMO IDENT	OBS TIME	ELM	LEVEL	MEAN LAT	MEAN LONG	NUM OBS	NUM GROSS	% GROSS	SD	BIAS	RMS
1300130	99	SPEED	SUR	28	-16	744	0	0	0.9	-0.3	0.9
1300131	99	SPEED	SUR	28	-17	703	0	0	2.5	1.4	2.8
1801560	99	SPEED	SUR	23	-66	1368	0	0	1.2	0.2	1.2
1801590	99	SPEED	SUR	24	-67	1368	0	0	1.2	0.4	1.3
1801599	99	SPEED	SUR	23	-65	1368	0	0	1.0	0.3	1.1
1801600	99	SPEED	SUR	16	-66	1331	0	0	0.8	0.5	1.0
1801607	99	SPEED	SUR	20	-66	1241	0	0	0.8	0.6	1.0
1801951	99	SPEED	SUR	32	19	649	0	0	1.8	-3.0	3.5
4100040	99	SPEED	SUR	15	-53	4461	0	0	0.7	0.0	0.7
4100041	99	SPEED	SUR	14	-46	4464	0	0	0.7	0.2	0.7
4100043	99	SPEED	SUR	21	-65	4462	0	0	0.8	0.1	0.8
4100044	99	SPEED	SUR	22	-59	4461	0	0	0.8	0.1	0.8
4100046	99	SPEED	SUR	24	-68	4460	0	0	0.9	0.3	1.0
4100048	99	SPEED	SUR	32	-70	4463	0	0	1.3	-0.1	1.3
4100049	99	SPEED	SUR	28	-62	4462	0	0	1.0	0.1	1.0
4100052	99	SPEED	SUR	18	-65	221	0	0	0.5	0.1	0.5
4100053	99	SPEED	SUR	18	-66	1383	0	0	1.1	1.5	1.9
4100056	99	SPEED	SUR	18	-65	1919	0	0	1.2	-0.2	1.2
41040	99	SPEED	SUR	15	-53	744	0	0	0.8	-0.5	0.9
41041	99	SPEED	SUR	14	-46	744	0	0	0.8	-0.5	0.9
41043	99	SPEED	SUR	21	-65	744	0	0	0.9	-0.3	1.0
41044	99	SPEED	SUR	22	-59	744	0	0	0.9	-0.3	1.0
41046	99	SPEED	SUR	24	-68	744	0	0	1.0	-0.1	1.0
41048	99	SPEED	SUR	32	-70	744	0	0	1.4	-0.5	1.5
41049	99	SPEED	SUR	28	-62	744	0	0	1.1	-0.1	1.1
41052	99	SPEED	SUR	18	-65	43	0	0	0.6	-0.4	0.8
41053	99	SPEED	SUR	19	-66	263	0	0	1.2	0.2	1.2
41056	99	SPEED	SUR	18	-66	383	0	0	1.4	-0.6	1.5
4200059	99	SPEED	SUR	15	-68	4461	0	0	0.8	-0.2	0.9
4200060	99	SPEED	SUR	16	-63	4458	0	0	1.1	-0.1	1.1
42059	99	SPEED	SUR	15	-68	744	0	0	0.9	-0.7	1.2
42060	99	SPEED	SUR	16	-63	743	0	0	1.2	-0.7	1.4
4400008	99	SPEED	SUR	40	-69	4425	0	0	1.8	0.0	1.8
4400011	99	SPEED	SUR	41	-67	4463	0	0	1.8	-0.5	1.9

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
4400027	99	SPEED	SUR	44	-67	4463	0	0	1.3	-0.7	1.5
4400032	99	SPEED	SUR	44	-69	3302	0	0	1.4	-0.7	1.5
4400033	99	SPEED	SUR	44	-69	1772	0	0	1.5	-0.3	1.5
4400034	99	SPEED	SUR	44	-68	3677	0	0	1.4	-1.6	2.1
4400137	99	SPEED	SUR	42	-62	735	0	0	1.3	-0.5	1.4
4400139	99	SPEED	SUR	44	-57	738	0	0	1.4	-1.0	1.7
4400150	99	SPEED	SUR	43	-64	743	0	0	1.4	-0.1	1.4
4400258	99	SPEED	SUR	45	-63	741	0	0	1.5	-0.3	1.5
4400488	99	SPEED	SUR	45	-61	736	0	0	1.5	0.3	1.5
4400489	99	SPEED	SUR	45	-61	710	0	0	1.4	1.2	1.9
44008	99	SPEED	SUR	41	-69	742	0	0	2.0	-0.6	2.1
44011	99	SPEED	SUR	41	-67	744	0	0	2.0	-1.0	2.2
44027	99	SPEED	SUR	44	-67	744	0	0	1.4	-1.5	2.1
44032	99	SPEED	SUR	44	-69	267	0	0	1.6	-1.8	2.4
44033	99	SPEED	SUR	44	-69	176	0	0	1.6	-1.1	1.9
44034	99	SPEED	SUR	44	-68	381	0	0	1.6	-2.6	3.0
44078	99	SPEED	SUR	60	-40	669	0	0	1.3	-1.0	1.7
44137	99	SPEED	SUR	42	-62	735	0	0	1.4	-0.4	1.5
44139	99	SPEED	SUR	44	-57	738	0	0	1.4	-1.0	1.7
44150	99	SPEED	SUR	43	-64	743	0	0	1.6	-0.6	1.7
44258	99	SPEED	SUR	45	-63	741	0	0	1.5	-0.7	1.7
44488	99	SPEED	SUR	45	-61	736	0	0	1.5	0.2	1.5
44489	99	SPEED	SUR	46	-61	710	0	0	1.5	0.7	1.6
5801955	99	SPEED	SUR	20	-66	1381	0	0	0.8	0.6	1.0
6100001	99	SPEED	SUR	43	8	1104	0	0	1.9	0.4	1.9
6100002	99	SPEED	SUR	42	5	1069	0	0	1.5	1.1	1.8
6100196	99	SPEED	SUR	42	4	732	0	0	1.6	-0.3	1.6
6100197	99	SPEED	SUR	40	4	734	0	0	1.2	-0.2	1.2
6100198	99	SPEED	SUR	37	-2	711	0	0	1.3	-0.9	1.5
6100207	99	SPEED	SUR	37	15	1316	0	0	1.6	1.5	2.2
6100210	99	SPEED	SUR	39	17	1385	0	0	1.6	0.8	1.8
6100211	99	SPEED	SUR	39	16	1367	0	0	1.7	0.8	1.8
6100214	99	SPEED	SUR	41	13	1223	0	0	1.4	0.5	1.5
6100215	99	SPEED	SUR	41	17	1468	0	0	1.5	1.3	2.0
6100216	99	SPEED	SUR	42	12	1241	0	0	1.3	0.6	1.4
6100217	99	SPEED	SUR	42	15	1333	0	0	1.8	0.7	1.9
6100218	99	SPEED	SUR	44	14	1037	0	0	1.9	0.8	2.1
6100219	99	SPEED	SUR	44	10	1191	0	0	1.6	0.6	1.7
6100220	99	SPEED	SUR	45	13	1301	0	0	1.9	0.5	1.9
6100280	99	SPEED	SUR	41	1	720	0	0	1.4	-0.6	1.5
6100281	99	SPEED	SUR	40	0	704	0	0	1.8	-0.2	1.8

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
6100417	99	SPEED	SUR	38	0	719	0	0	1.2	-0.3	1.3
6100430	99	SPEED	SUR	40	2	742	0	0	1.5	0.0	1.5
6101031	99	SPEED	SUR	42	8	1101	0	0	1.2	0.5	1.3
6101032	99	SPEED	SUR	42	10	699	0	0	1.5	0.1	1.5
6101033	99	SPEED	SUR	43	8	1097	0	0	1.7	0.2	1.7
6101034	99	SPEED	SUR	42	6	1105	0	0	1.3	1.0	1.6
6101035	99	SPEED	SUR	40	7	700	0	0	1.2	1.0	1.6
6101036	99	SPEED	SUR	42	7	1105	0	0	1.5	0.3	1.5
6200001	99	SPEED	SUR	45	-5	696	0	0	1.2	0.7	1.4
6200024	99	SPEED	SUR	44	-3	734	0	0	1.3	-0.7	1.5
6200025	99	SPEED	SUR	44	-6	701	0	0	1.3	-1.4	1.9
6200029	99	SPEED	SUR	49	-12	744	0	0	1.1	0.8	1.3
6200050	99	SPEED	SUR	50	-4	741	0	0	1.3	0.0	1.3
6200081	99	SPEED	SUR	51	-13	744	0	0	1.0	0.5	1.1
6200082	99	SPEED	SUR	44	-8	734	0	0	1.1	-0.5	1.2
6200083	99	SPEED	SUR	43	-9	681	0	0	1.3	-1.2	1.8
6200084	99	SPEED	SUR	42	-9	702	0	0	1.0	-0.8	1.3
6200085	99	SPEED	SUR	36	-7	743	0	0	1.4	-0.4	1.4
6200086	99	SPEED	SUR	55	7	198	0	0	1.6	0.6	1.8
6200087	99	SPEED	SUR	55	7	161	0	0	1.4	0.8	1.7
6200091	99	SPEED	SUR	53	-5	744	0	0	1.4	0.2	1.5
6200092	99	SPEED	SUR	51	-11	744	0	0	1.1	0.5	1.2
6200094	99	SPEED	SUR	52	-7	734	0	0	1.0	0.6	1.1
6200095	99	SPEED	SUR	53	-16	744	0	0	0.9	0.7	1.1
6200103	99	SPEED	SUR	50	-3	739	0	0	1.4	-0.3	1.4
6200105	99	SPEED	SUR	55	-13	341	0	0	1.1	0.2	1.1
6200163	99	SPEED	SUR	47	-8	744	0	0	1.4	0.7	1.5
6200442	99	SPEED	SUR	49	-16	743	0	0	1.0	0.5	1.1
6201065	99	SPEED	SUR	54	7	458	0	0	1.6	-1.0	1.9
6201066	99	SPEED	SUR	55	7	35	0	0	1.3	0.4	1.4
62029	99	SPEED	SUR	49	-13	1486	0	0	1.1	0.5	1.2
62050	99	SPEED	SUR	50	-4	1480	0	0	1.3	0.1	1.3
62081	99	SPEED	SUR	51	-13	1487	0	0	1.0	0.5	1.1
62091	99	SPEED	SUR	53	-5	743	0	0	1.5	0.5	1.5
62092	99	SPEED	SUR	51	-11	743	0	0	1.1	0.6	1.3
62094	99	SPEED	SUR	52	-7	733	0	0	1.0	0.6	1.2
62095	99	SPEED	SUR	53	-16	743	0	0	0.9	0.8	1.2
62102	99	SPEED	SUR	58	2	1486	0	0	1.1	0.0	1.2
62103	99	SPEED	SUR	50	-3	1474	0	0	1.4	-0.4	1.5
62104	99	SPEED	SUR	57	1	1486	0	0	1.2	-0.3	1.2
62105	99	SPEED	SUR	55	-13	1468	0	0	1.0	0.3	1.0

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
62112	99	SPEED	SUR	58	0	1484	0	0	1.2	-0.5	1.3
62113	99	SPEED	SUR	58	0	1486	0	0	1.1	-0.3	1.2
62114	99	SPEED	SUR	58	0	1179	0	0	1.3	0.4	1.4
62118	99	SPEED	SUR	58	1	1486	0	0	1.2	0.2	1.2
62120	99	SPEED	SUR	56	2	1452	0	0	1.1	-0.4	1.2
62121	99	SPEED	SUR	54	3	1487	0	0	1.1	-0.3	1.2
62122	99	SPEED	SUR	57	2	1483	0	0	1.1	-0.5	1.2
62129	99	SPEED	SUR	58	0	861	0	0	1.2	0.0	1.2
62131	99	SPEED	SUR	54	1	1487	0	0	1.2	-0.1	1.2
62133	99	SPEED	SUR	57	1	1487	0	0	1.1	-0.5	1.2
62134	99	SPEED	SUR	58	1	1468	0	0	1.1	-1.0	1.5
62140	99	SPEED	SUR	57	1	1483	0	0	1.2	0.1	1.2
62143	99	SPEED	SUR	58	2	1486	0	0	1.7	-0.7	1.8
62144	99	SPEED	SUR	53	2	1479	0	0	1.5	-0.6	1.6
62145	99	SPEED	SUR	53	3	1485	0	0	1.6	0.4	1.6
62146	99	SPEED	SUR	57	2	1471	0	0	1.2	0.2	1.2
62148	99	SPEED	SUR	54	2	1301	0	0	1.2	0.1	1.2
62149	99	SPEED	SUR	54	1	1487	0	0	1.4	-0.2	1.4
62152	99	SPEED	SUR	57	2	1485	0	0	1.3	-0.1	1.3
62154	99	SPEED	SUR	56	2	1487	0	0	1.1	-0.2	1.2
62155	99	SPEED	SUR	58	1	1484	0	0	1.2	0.1	1.2
62163	99	SPEED	SUR	48	-9	1487	0	0	1.3	0.7	1.5
62164	99	SPEED	SUR	57	1	1487	0	0	1.3	-0.7	1.5
62165	99	SPEED	SUR	54	1	1479	0	0	1.3	-0.4	1.4
62170	99	SPEED	SUR	51	2	1433	0	0	1.5	0.6	1.6
62304	99	SPEED	SUR	51	2	1486	0	0	1.6	0.8	1.8
62305	99	SPEED	SUR	50	0	1487	0	0	1.3	0.1	1.3
62442	99	SPEED	SUR	49	-16	1487	0	0	1.0	0.5	1.1
6301003	99	SPEED	SUR	74	24	744	0	0	1.1	-0.3	1.2
6301004	99	SPEED	SUR	72	20	665	0	0	1.0	0.1	1.0
63055	99	SPEED	SUR	61	2	1304	0	0	0.9	-0.8	1.2
63056	99	SPEED	SUR	60	2	1486	0	0	1.1	0.2	1.2
63057	99	SPEED	SUR	59	2	1486	0	0	1.7	-0.9	1.9
63058	99	SPEED	SUR	53	2	1465	0	0	1.4	-0.1	1.4
63108	99	SPEED	SUR	61	2	1468	0	0	1.1	-0.2	1.1
63109	99	SPEED	SUR	60	2	1482	0	0	1.1	0.0	1.1
63110	99	SPEED	SUR	60	2	1486	0	0	1.0	-0.4	1.1
63112	99	SPEED	SUR	61	1	1486	0	0	0.9	-0.4	1.0
63115	99	SPEED	SUR	62	1	1483	0	0	1.2	-0.6	1.4
6400045	99	SPEED	SUR	59	-12	274	0	0	0.9	0.5	1.1
6400046	99	SPEED	SUR	61	-4	743	0	0	1.0	0.2	1.0

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
64041	99	SPEED	SUR	61	-3	1480	0	0	1.2	-0.4	1.2
64045	99	SPEED	SUR	59	-12	547	0	0	1.0	0.5	1.1
64046	99	SPEED	SUR	61	-4	1486	0	0	1.1	0.2	1.1
6600021	99	SPEED	SUR	55	14	200	0	0	1.1	0.3	1.1
6600022	99	SPEED	SUR	54	14	334	0	0	1.2	0.0	1.2
6600024	99	SPEED	SUR	55	13	176	0	0	1.5	0.3	1.5

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

DRIFTER MONITORING STATISTICS (EUCOS)

MONITORING CENTRE : ECMWF
 ELEMENT MONITORED : WIND DIRECTION (DEGREES)
 AREA : 10N - 90N, 70W - 40E
 PERIOD : JUL 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
1300130	99	DIRN	SUR	28	-16	687	0	0	8.0	3.7	8.8
1300131	99	DIRN	SUR	28	-17	342	0	0	28.3	2.1	28.4
1801560	99	DIRN	SUR	23	-66	1322	0	0	17.5	1.7	17.6
1801590	99	DIRN	SUR	24	-67	1343	0	0	16.4	2.8	16.6
1801599	99	DIRN	SUR	23	-65	1297	0	0	12.5	-0.5	12.5
1801600	99	DIRN	SUR	16	-66	1324	0	0	9.7	-3.7	10.4
1801607	99	DIRN	SUR	20	-66	1239	0	0	9.5	-1.2	9.6
4100001	99	DIRN	SUR	35	-72	3582	0	0	24.3	4.0	24.6
4100002	99	DIRN	SUR	32	-75	3459	0	0	19.9	9.3	22.0
4100004	99	DIRN	SUR	33	-79	3196	0	0	18.5	5.4	19.3
4100008	99	DIRN	SUR	31	-81	1253	0	0	24.4	0.2	24.4
4100009	99	DIRN	SUR	29	-80	2826	0	0	23.4	9.2	25.1
4100010	99	DIRN	SUR	29	-78	3647	0	0	21.0	5.9	21.9
4100013	99	DIRN	SUR	33	-78	3286	0	0	18.4	5.4	19.2
4100024	99	DIRN	SUR	34	-78	385	0	0	17.3	7.7	18.9
4100025	99	DIRN	SUR	35	-75	3377	0	0	26.0	4.6	26.4
4100029	99	DIRN	SUR	33	-80	550	0	0	22.3	4.5	22.7
4100033	99	DIRN	SUR	32	-80	561	0	0	24.6	4.7	25.1
4100037	99	DIRN	SUR	34	-77	543	0	0	17.7	4.2	18.2
4100038	99	DIRN	SUR	34	-78	551	0	0	20.3	4.1	20.7
4100040	99	DIRN	SUR	15	-53	4459	0	0	7.0	-0.5	7.0
4100041	99	DIRN	SUR	14	-46	4457	0	0	7.2	0.1	7.2
4100043	99	DIRN	SUR	21	-65	4399	0	0	9.8	4.5	10.8
4100044	99	DIRN	SUR	22	-59	4366	0	0	12.3	2.8	12.6
4100046	99	DIRN	SUR	24	-68	3989	0	0	14.3	6.8	15.8
4100047	99	DIRN	SUR	28	-71	2602	0	0	19.1	7.1	20.4
4100048	99	DIRN	SUR	32	-70	3516	0	0	17.8	5.2	18.5
4100049	99	DIRN	SUR	28	-62	2971	0	0	14.7	12.9	19.6
4100052	99	DIRN	SUR	18	-65	221	0	0	4.3	-2.0	4.7
4100053	99	DIRN	SUR	18	-66	1267	0	0	8.8	-6.1	10.7
4100056	99	DIRN	SUR	18	-65	1905	0	0	12.5	-3.1	12.8
4100064	99	DIRN	SUR	34	-77	543	0	0	19.3	-11.3	22.4

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
4100066	99	DIRN	SUR	33	-80	552	0	0	19.7	9.4	21.8
4100068	99	DIRN	SUR	28	-80	358	0	0	29.5	7.5	30.4
4100069	99	DIRN	SUR	29	-81	471	0	0	27.0	-1.0	27.0
4100082	99	DIRN	SUR	36	-75	2987	0	0	28.5	-9.8	30.2
4100083	99	DIRN	SUR	36	-75	3269	0	0	31.0	-14.7	34.3
41001	99	DIRN	SUR	35	-72	592	0	0	24.1	3.2	24.3
41002	99	DIRN	SUR	32	-75	573	0	0	20.9	8.7	22.7
41004	99	DIRN	SUR	33	-79	535	0	0	18.5	5.5	19.3
41008	99	DIRN	SUR	31	-81	210	0	0	24.5	0.8	24.5
41009	99	DIRN	SUR	29	-80	464	0	0	22.7	9.4	24.6
41010	99	DIRN	SUR	29	-79	598	0	0	21.8	5.8	22.5
41013	99	DIRN	SUR	33	-78	548	0	0	18.2	4.3	18.7
41024	99	DIRN	SUR	34	-79	365	0	0	16.9	7.6	18.6
41025	99	DIRN	SUR	35	-75	560	0	0	27.2	4.7	27.6
41029	99	DIRN	SUR	33	-80	566	0	0	23.3	4.5	23.7
41033	99	DIRN	SUR	32	-80	563	0	0	24.3	3.1	24.5
41037	99	DIRN	SUR	34	-77	541	0	0	19.7	4.0	20.1
41038	99	DIRN	SUR	34	-78	572	0	0	22.6	3.1	22.8
41040	99	DIRN	SUR	15	-53	744	0	0	7.9	-1.1	8.0
41041	99	DIRN	SUR	14	-46	741	0	0	8.2	-0.5	8.2
41043	99	DIRN	SUR	21	-65	732	0	0	10.4	4.3	11.2
41044	99	DIRN	SUR	22	-59	719	0	0	12.7	2.5	12.9
41046	99	DIRN	SUR	24	-68	661	0	0	13.7	6.1	15.0
41047	99	DIRN	SUR	28	-72	431	0	0	19.6	7.7	21.0
41048	99	DIRN	SUR	32	-70	577	0	0	16.2	5.4	17.1
41049	99	DIRN	SUR	28	-62	474	0	0	14.9	13.8	20.3
41052	99	DIRN	SUR	18	-65	43	0	0	4.6	-2.3	5.2
41053	99	DIRN	SUR	19	-66	252	0	0	9.4	-5.9	11.1
41056	99	DIRN	SUR	18	-66	379	0	0	13.4	-2.0	13.6
41064	99	DIRN	SUR	34	-77	543	0	0	18.9	-11.5	22.1
41066	99	DIRN	SUR	33	-80	123	0	0	15.2	5.3	16.1
41068	99	DIRN	SUR	28	-80	352	0	0	33.2	6.5	33.8
41069	99	DIRN	SUR	29	-81	483	0	0	25.9	-2.1	26.0
41082	99	DIRN	SUR	36	-75	490	0	0	27.2	-10.3	29.1
41083	99	DIRN	SUR	36	-75	544	0	0	30.2	-14.5	33.4
4200013	99	DIRN	SUR	27	-83	812	0	0	23.6	-1.6	23.7
4200023	99	DIRN	SUR	26	-83	807	0	0	18.9	-5.5	19.7
4200026	99	DIRN	SUR	25	-83	962	0	0	17.1	-0.6	17.2
4200036	99	DIRN	SUR	29	-85	2766	0	0	29.6	11.2	31.6
4200056	99	DIRN	SUR	20	-85	3582	0	0	17.7	-0.9	17.7
4200057	99	DIRN	SUR	17	-82	4433	0	0	10.2	3.1	10.7

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
4200058	99	DIRN	SUR	14	-76	4461	0	0	4.7	2.1	5.2
4200059	99	DIRN	SUR	15	-68	4454	0	0	8.0	-2.8	8.5
4200060	99	DIRN	SUR	16	-63	4338	0	0	8.5	7.9	11.6
42013	99	DIRN	SUR	27	-83	409	0	0	25.3	-0.7	25.3
42022	99	DIRN	SUR	28	-84	65	0	0	24.7	-7.4	25.8
42023	99	DIRN	SUR	26	-83	214	0	0	20.5	-5.3	21.2
42026	99	DIRN	SUR	25	-84	488	0	0	16.7	-0.3	16.8
42036	99	DIRN	SUR	29	-85	454	0	0	28.2	11.1	30.3
42056	99	DIRN	SUR	20	-85	572	0	0	17.2	-1.5	17.2
42057	99	DIRN	SUR	17	-82	732	0	0	10.8	2.1	11.0
42058	99	DIRN	SUR	14	-76	743	0	0	5.5	1.4	5.6
42059	99	DIRN	SUR	15	-68	743	0	0	8.5	-3.7	9.3
42060	99	DIRN	SUR	16	-63	724	0	0	9.5	7.3	12.0
4400007	99	DIRN	SUR	44	-70	2497	0	0	22.7	9.0	24.5
4400008	99	DIRN	SUR	40	-69	3360	0	0	22.2	9.4	24.1
4400009	99	DIRN	SUR	38	-75	3265	0	0	21.2	2.8	21.3
4400011	99	DIRN	SUR	41	-67	3501	0	0	15.2	11.7	19.1
4400013	99	DIRN	SUR	42	-71	3054	0	0	18.2	11.0	21.3
4400020	99	DIRN	SUR	41	-70	3744	0	0	19.1	1.5	19.2
4400025	99	DIRN	SUR	40	-73	62	0	0	20.1	5.9	21.0
4400027	99	DIRN	SUR	44	-67	2981	0	0	17.5	16.7	24.2
4400029	99	DIRN	SUR	43	-71	1909	0	0	18.2	10.4	21.0
4400030	99	DIRN	SUR	43	-70	1572	0	0	18.6	21.3	28.3
4400032	99	DIRN	SUR	44	-69	2176	0	0	19.1	9.8	21.5
4400033	99	DIRN	SUR	44	-69	1022	0	0	21.3	4.3	21.7
4400034	99	DIRN	SUR	44	-68	1954	0	0	19.8	10.0	22.2
4400042	99	DIRN	SUR	38	-76	3404	0	0	25.4	1.0	25.4
4400058	99	DIRN	SUR	38	-76	3305	0	0	25.5	-3.2	25.7
4400062	99	DIRN	SUR	39	-76	3767	0	0	31.3	-0.9	31.3
4400063	99	DIRN	SUR	39	-76	2302	0	0	54.6	4.3	54.8
4400065	99	DIRN	SUR	40	-74	3341	0	0	23.4	10.3	25.6
4400072	99	DIRN	SUR	37	-76	3312	0	0	29.3	-3.4	29.5
4400074	99	DIRN	SUR	43	-71	479	0	0	20.5	-2.0	20.5
4400079	99	DIRN	SUR	36	-75	3017	0	0	19.1	-12.4	22.7
4400080	99	DIRN	SUR	39	-77	1269	0	0	29.9	-0.6	29.9
4400137	99	DIRN	SUR	42	-62	662	0	0	13.6	-2.9	13.9
4400139	99	DIRN	SUR	44	-57	678	0	0	15.8	6.0	16.9
4400150	99	DIRN	SUR	43	-64	641	0	0	16.6	3.6	17.0
4400258	99	DIRN	SUR	45	-63	542	0	0	16.7	0.1	16.7
4400488	99	DIRN	SUR	45	-61	459	0	0	28.5	-7.5	29.5
4400489	99	DIRN	SUR	45	-61	344	0	0	22.0	0.8	22.1

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
44007	99	DIRN	SUR	44	-70	440	0	0	24.8	9.6	26.6
44008	99	DIRN	SUR	41	-69	577	0	0	26.4	9.0	27.9
44009	99	DIRN	SUR	39	-75	546	0	0	21.9	3.0	22.1
44011	99	DIRN	SUR	41	-67	577	0	0	15.5	11.2	19.1
44013	99	DIRN	SUR	42	-71	483	0	0	19.4	11.8	22.7
44020	99	DIRN	SUR	42	-70	623	0	0	19.1	1.7	19.2
44025	99	DIRN	SUR	40	-73	2	0	0	15.5	13.6	20.6
44027	99	DIRN	SUR	44	-67	489	0	0	16.1	15.8	22.5
44029	99	DIRN	SUR	43	-71	118	0	0	16.4	6.9	17.8
44030	99	DIRN	SUR	43	-70	313	0	0	21.2	19.9	29.1
44032	99	DIRN	SUR	44	-69	168	0	0	22.1	10.1	24.3
44033	99	DIRN	SUR	44	-69	87	0	0	25.9	3.8	26.2
44034	99	DIRN	SUR	44	-68	192	0	0	18.1	10.5	20.9
4403586	99	DIRN	SUR	43	-79	1460	0	0	25.1	-1.6	25.2
44042	99	DIRN	SUR	38	-76	422	0	0	27.9	2.1	27.9
44058	99	DIRN	SUR	38	-76	408	0	0	25.8	-2.0	25.8
44062	99	DIRN	SUR	39	-76	502	0	0	34.0	-0.5	34.0
44063	99	DIRN	SUR	39	-76	288	0	0	52.3	-2.1	52.3
44065	99	DIRN	SUR	40	-74	557	0	0	22.9	11.3	25.5
44069	99	DIRN	SUR	41	-73	403	0	0	23.3	-4.8	23.8
44072	99	DIRN	SUR	37	-76	488	0	0	30.5	-3.6	30.7
44074	99	DIRN	SUR	43	-71	136	0	0	20.5	-1.3	20.6
44078	99	DIRN	SUR	60	-40	621	0	0	10.8	-17.5	20.6
44079	99	DIRN	SUR	36	-75	498	0	0	21.4	-13.9	25.5
44080	99	DIRN	SUR	39	-77	296	0	0	32.6	-0.4	32.6
44137	99	DIRN	SUR	42	-62	643	0	0	13.6	-4.0	14.2
44139	99	DIRN	SUR	44	-57	656	0	0	14.7	6.2	16.0
44150	99	DIRN	SUR	43	-64	631	0	0	16.9	2.8	17.1
44258	99	DIRN	SUR	45	-63	531	0	0	16.3	-0.5	16.3
44488	99	DIRN	SUR	45	-61	451	0	0	29.2	-7.8	30.2
44489	99	DIRN	SUR	46	-61	395	0	0	24.7	2.0	24.7
4500005	99	DIRN	SUR	42	-82	2774	0	0	27.7	9.5	29.3
4500012	99	DIRN	SUR	44	-77	2589	0	0	23.3	11.3	25.9
4500132	99	DIRN	SUR	42	-81	527	0	0	23.5	-1.2	23.5
4500135	99	DIRN	SUR	44	-77	513	0	0	23.6	1.8	23.7
4500137	99	DIRN	SUR	46	-81	529	0	0	22.7	1.7	22.8
4500139	99	DIRN	SUR	43	-80	378	0	0	35.1	1.4	35.1
4500142	99	DIRN	SUR	43	-79	567	0	0	24.7	6.5	25.6
4500143	99	DIRN	SUR	45	-81	508	0	0	25.6	4.6	26.0
4500159	99	DIRN	SUR	44	-79	319	0	0	34.0	4.6	34.3
4500162	99	DIRN	SUR	45	-83	142	0	0	33.9	3.9	34.2

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
4500163	99	DIRN	SUR	44	-84	545	0	0	25.9	6.7	26.8
4500164	99	DIRN	SUR	42	-82	1	0	0	0.1	-145.9	145.9
4500165	99	DIRN	SUR	42	-83	2591	0	0	35.7	34.7	49.8
4500167	99	DIRN	SUR	42	-80	1322	0	0	25.9	5.5	26.4
4500175	99	DIRN	SUR	46	-85	1112	0	0	25.5	7.2	26.5
4500176	99	DIRN	SUR	42	-82	2432	0	0	26.2	-11.0	28.4
4500178	99	DIRN	SUR	45	-73	683	0	0	19.7	3.0	19.9
4500190	99	DIRN	SUR	43	-77	1045	0	0	23.8	9.0	25.4
4500196	99	DIRN	SUR	42	-82	2098	0	0	32.6	-21.6	39.1
4500197	99	DIRN	SUR	42	-82	2123	0	0	27.2	-16.3	31.7
4500200	99	DIRN	SUR	42	-83	2084	0	0	32.6	9.7	34.0
4500202	99	DIRN	SUR	42	-83	2032	0	0	33.7	-13.7	36.4
4500203	99	DIRN	SUR	41	-83	1792	0	0	29.2	18.2	34.4
4500204	99	DIRN	SUR	42	-82	2346	0	0	30.9	-27.8	41.5
4500205	99	DIRN	SUR	42	-82	1666	0	0	26.7	13.1	29.8
4500206	99	DIRN	SUR	42	-82	1489	0	0	25.6	-29.2	38.8
4500207	99	DIRN	SUR	42	-81	2015	0	0	36.3	18.1	40.6
4500208	99	DIRN	SUR	42	-81	2116	0	0	28.7	10.7	30.7
4500209	99	DIRN	SUR	43	-82	1935	0	0	28.9	-23.1	37.0
4500220	99	DIRN	SUR	43	-79	2976	0	0	31.7	-7.6	32.6
4500221	99	DIRN	SUR	45	-73	2019	0	0	26.0	-2.6	26.1
45005	99	DIRN	SUR	42	-82	452	0	0	28.0	10.4	29.9
45012	99	DIRN	SUR	44	-77	437	0	0	23.1	10.8	25.5
45132	99	DIRN	SUR	43	-81	515	0	0	25.5	-2.1	25.6
45135	99	DIRN	SUR	44	-77	478	0	0	23.6	0.9	23.6
45137	99	DIRN	SUR	46	-81	512	0	0	22.2	0.5	22.2
45139	99	DIRN	SUR	43	-80	379	0	0	33.1	2.6	33.2
45142	99	DIRN	SUR	43	-79	545	0	0	24.0	5.6	24.7
45143	99	DIRN	SUR	45	-81	477	0	0	26.1	3.8	26.4
45147	99	DIRN	SUR	42	-83	388	0	0	31.5	-2.4	31.6
45149	99	DIRN	SUR	44	-82	438	0	0	24.0	-1.9	24.1
45151	99	DIRN	SUR	45	-79	409	0	0	24.4	0.4	24.4
45152	99	DIRN	SUR	46	-80	474	0	0	22.8	2.0	22.9
45154	99	DIRN	SUR	46	-83	463	0	0	24.3	8.2	25.6
45159	99	DIRN	SUR	44	-79	309	0	0	32.8	5.6	33.3
45162	99	DIRN	SUR	45	-83	56	0	0	35.1	-0.3	35.1
45163	99	DIRN	SUR	44	-84	182	0	0	27.2	6.0	27.9
45164	99	DIRN	SUR	42	-82	1	0	0	0.0	-150.4	150.4
45165	99	DIRN	SUR	42	-83	410	0	0	35.2	34.8	49.5
45167	99	DIRN	SUR	42	-80	479	0	0	26.3	5.2	26.8
45175	99	DIRN	SUR	46	-85	385	0	0	23.5	5.8	24.2

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
45176	99	DIRN	SUR	42	-82	438	0	0	29.7	-9.5	31.2
45178	99	DIRN	SUR	45	-73	317	0	0	26.9	1.8	26.9
45190	99	DIRN	SUR	43	-77	335	0	0	26.4	9.6	28.1
45196	99	DIRN	SUR	42	-82	370	0	0	32.2	-22.2	39.1
45197	99	DIRN	SUR	42	-82	330	0	0	25.0	-16.3	29.8
45200	99	DIRN	SUR	42	-83	334	0	0	31.1	8.9	32.3
45202	99	DIRN	SUR	42	-83	365	0	0	34.3	-14.2	37.1
45203	99	DIRN	SUR	41	-83	314	0	0	31.2	17.4	35.8
45204	99	DIRN	SUR	42	-82	402	0	0	29.9	-28.3	41.2
45205	99	DIRN	SUR	42	-82	276	0	0	28.2	11.7	30.5
45206	99	DIRN	SUR	42	-82	300	0	0	31.1	-27.2	41.3
45207	99	DIRN	SUR	42	-81	340	0	0	36.9	18.4	41.3
45208	99	DIRN	SUR	42	-81	351	0	0	28.9	10.9	30.9
45209	99	DIRN	SUR	43	-82	305	0	0	30.0	-22.4	37.4
45220	99	DIRN	SUR	43	-79	514	0	0	31.6	-7.2	32.4
45221	99	DIRN	SUR	45	-73	317	0	0	28.2	-1.9	28.2
5801955	99	DIRN	SUR	20	-66	1361	0	0	9.8	-2.5	10.1
6100198	99	DIRN	SUR	37	-2	361	0	0	76.9	101.9	127.7
6100281	99	DIRN	SUR	40	0	238	0	0	40.6	-12.1	42.4
6100417	99	DIRN	SUR	38	0	318	0	0	73.6	24.9	77.8
6200001	99	DIRN	SUR	45	-5	569	0	0	15.8	0.5	15.8
6200024	99	DIRN	SUR	44	-3	382	0	0	17.3	7.6	18.9
6200025	99	DIRN	SUR	44	-6	399	0	0	15.1	12.8	19.8
6200029	99	DIRN	SUR	49	-12	606	0	0	15.0	2.2	15.2
6200050	99	DIRN	SUR	50	-4	521	0	0	16.1	4.3	16.6
6200081	99	DIRN	SUR	51	-13	665	0	0	12.0	0.5	12.0
6200082	99	DIRN	SUR	44	-8	483	0	0	21.2	-9.2	23.1
6200083	99	DIRN	SUR	43	-9	361	0	0	30.6	-139.8	143.1
6200084	99	DIRN	SUR	42	-9	372	0	0	13.6	13.3	19.0
6200085	99	DIRN	SUR	36	-7	563	0	0	13.1	5.0	14.0
6200091	99	DIRN	SUR	53	-5	610	0	0	20.5	7.9	22.0
6200092	99	DIRN	SUR	51	-11	656	0	0	15.4	4.2	15.9
6200094	99	DIRN	SUR	52	-7	648	0	0	10.7	0.5	10.7
6200095	99	DIRN	SUR	53	-16	702	0	0	10.9	7.5	13.3
6200103	99	DIRN	SUR	50	-3	485	0	0	15.2	9.0	17.7
6200105	99	DIRN	SUR	55	-13	338	0	0	11.7	-1.7	11.8
6200163	99	DIRN	SUR	47	-8	593	0	0	14.0	1.2	14.1
6200442	99	DIRN	SUR	49	-16	666	0	0	12.0	1.1	12.0
62029	99	DIRN	SUR	49	-13	1231	0	0	14.8	1.7	14.9
62050	99	DIRN	SUR	50	-4	1037	0	0	16.6	3.5	17.0
62081	99	DIRN	SUR	51	-13	1332	0	0	12.3	0.7	12.3

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
62091	99	DIRN	SUR	53	-5	598	0	0	20.3	7.5	21.7
62092	99	DIRN	SUR	51	-11	640	0	0	15.5	3.9	16.0
62094	99	DIRN	SUR	52	-7	642	0	0	11.0	0.1	11.0
62095	99	DIRN	SUR	53	-16	694	0	0	10.9	7.2	13.1
62103	99	DIRN	SUR	50	-3	984	0	0	16.4	9.5	19.0
62105	99	DIRN	SUR	55	-13	1418	0	0	14.0	-5.6	15.1
62112	99	DIRN	SUR	58	0	1174	0	0	12.6	4.7	13.4
62114	99	DIRN	SUR	58	0	950	0	0	16.4	0.0	16.4
62163	99	DIRN	SUR	48	-9	1185	0	0	14.2	1.0	14.2
62305	99	DIRN	SUR	50	0	1177	0	0	23.6	7.0	24.6
62442	99	DIRN	SUR	49	-16	1327	0	0	12.3	0.9	12.4
6400045	99	DIRN	SUR	59	-12	263	0	0	10.1	1.6	10.2
6400046	99	DIRN	SUR	61	-4	551	0	0	10.7	1.0	10.7
64041	99	DIRN	SUR	61	-3	1002	0	0	10.2	7.7	12.8
64045	99	DIRN	SUR	59	-12	528	0	0	11.1	2.0	11.3
64046	99	DIRN	SUR	61	-4	1106	0	0	11.3	1.2	11.4

4.12 Table 24 - List of Assimilated BUFR Encoded Radiosonde Stations

ASDE09	ATGU3FT	DEN	DSQL7	FPUW5GN	GQBZLZL	JNKN7JF	JPBN	KMPLHPW
LAGY8	LAGZ8	LAR	LRQYE3U	TLH	USCLL	USSIO	WDK38HS	WFF
XKQLWQB	YLV96WM	2TDJJ8J	7JUNA4N	7KPB	9ZT9MRK	01001	01004	01010
01028	01241	01400	01415	02185	02591	02836	02963	03005
03023	03238	03354	03502	03743	03808	03882	03918	03953
04018	04220	04270	04320	04339	04360	06011	06260	06447
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	22271	22522	22820	22845	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	35671
37055	40179	42056	42079	42111	42182	42314	42339	42361
42369	42379	42410	42634	42647	42667	42675	42867	42886
42971	43041	43049	43150	43185	43243	43353	45004	47102
47104	47135	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	67083	68263	68424	68592	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	72340	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	73140	74389	74455	74560	76225	76256	76394	76405
76458	76526	76595	76612	76644	76654	76679	76692	76743
76805	76903	78397	78486	78583	78866	78897	78954	78970
78988	80001	81405	82022	82026	82099	82107	82193	82244
82332	82411	82532	82705	82824	82917	82965	83208	83378
83525	83554	83566	83612	83649	83746	83768	83779	83827
83840	83899	83928	83937	84372	84516	84622	84754	85442
85586	85799	85934	87155	87344	87418	87585	87860	88889
89002	89062	89504	89564	89571	89592	89611	89625	89642

89859	91165	91212	91285	91334	91348	91376	91408	91413
91592	91765	91925	91938	91948	91958	93112	93417	93844
94001	94005	94113	94155	94159	94160	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	96996						

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

ASDE09	ATGU3FT	DEN	DSQL7	edmonton		FPUW5GN	GQBZLZL	JNKN7JF
KMPLHPW	LAGY8	LAGZ8	LAR	LRYQE3U	TLH	WDK38HS	WFF	winnipeg
XKQLWQB	YLV96WM	2TDJJ8J	7JUNA4N	7KPB	9ZT9MRK	01001	01004	01010
01028	01241	01400	01415	02836	02963	06447	06610	07110
07145	07510	07645	07761	08001	08023	08190	08221	08302
08383	08430	08508	08522	08536	11010	11035	11120	11240
12575	14015	17607	44453	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	64384	67083	72413	72801
83952	89002	89504	89642	89859	91925	91938	91948	91958
94001	94005	94113	94159	94160	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 TEMP/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.