

**WORLD METEOROLOGICAL ORGANIZATION**

**COMMISSION FOR BASIC SYSTEMS**  
OPAG ON INTEGRATED OBSERVING SYSTEMS

**IMPLEMENTATION/COORDINATION TEAM ON  
INTEGRATED OBSERVING SYSTEMS**  
*Third Session*

Geneva, Switzerland, 6-10 September 2004

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(27.VIII.2004)

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## **STATUS OF WORLD WEATHER WATCH IMPLEMENTATION AND OPERATION**

*(Submitted by the Secretary-General)*

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### **Summary and Purpose of Document**

This document includes the results of the monitoring of the operation of the World Weather Watch as regards the availability of the observational data.

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### **ACTION PROPOSED**

The meeting is invited to review the results of the monitoring of the operation of the World Weather Watch as regards the availability of observational data and to consider recommendations to overcome the deficiencies revealed by the monitoring results.

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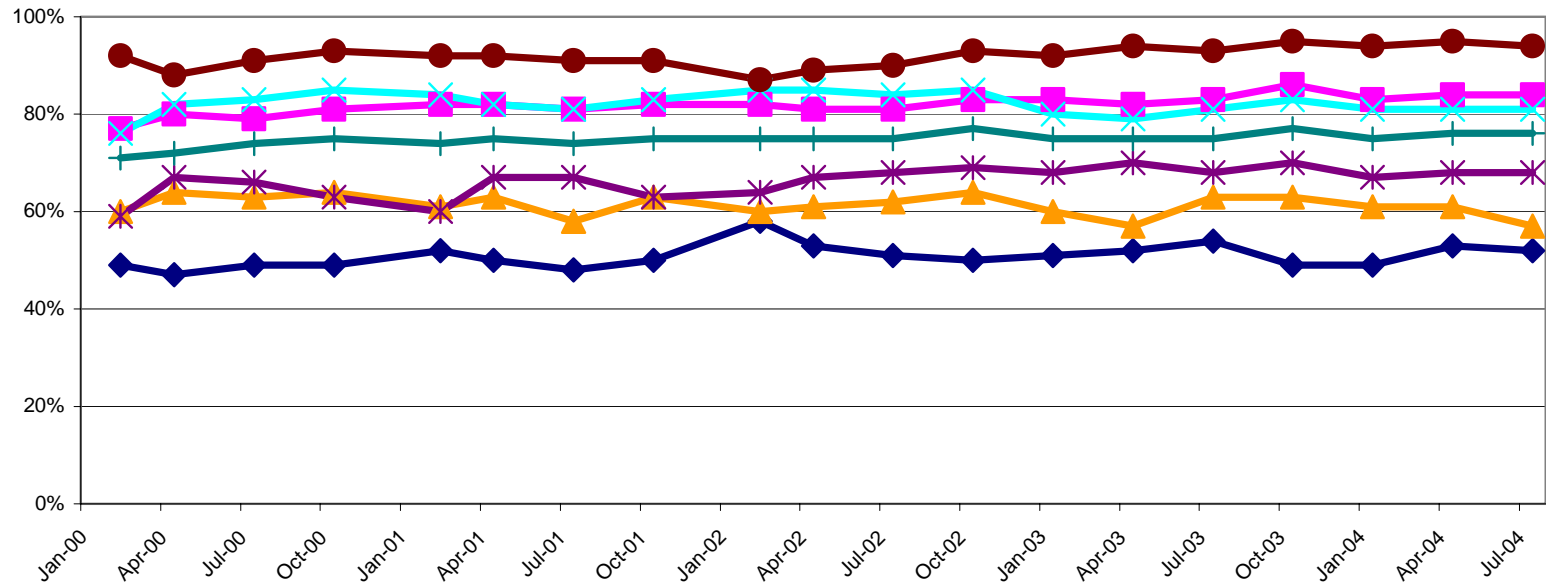
***Results of the monitoring of the availability of observational data***

1. The monitoring activities include two types of monitoring exercises: the Annual Global Monitoring (AGM) and the Special MTN Monitoring (SMM). About 90 WWW centres provided monitoring results for the AGM exercises, which are carried out from 1 to 15 October each year. Eight MTN centres from Regions I, II, V and VI participated in the SMM exercises, which are carried out from 1 to 15 January, April, July and October. Information on the AGM and SMM is available from <http://www.wmo.int/web/www/ois/monitor/monitor-home.htm>.
  2. The percentages of SYNOP and TEMP reports received by MTN centres during the 2000 to 2003 AGM exercises and the February, April and July 2000 to 2004 SMM exercises are given by Regions in Figures 1 and 2. The percentages of SYNOP and TEMP reports received from each station included in the Regional Basic Synoptic Networks (RBSNs) are shown in Figures 3 and 4. The percentages are calculated with reference to the numbers of reports required from the stations comprising the RBSNs.
  3. The percentage of SYNOP reports available at MTN centres in comparison with the number of reports required from RBSN stations was about 76 per cent during the period 2002-2004, with a slight oscillation of one per cent over the period. There were still deficiencies in the availability of SYNOP reports from areas in Region I (52 per cent in July 2004), in Region III (57 per cent) and in Region V (68 per cent).
  4. The percentage of TEMP reports available at MTN centres was about 63 per cent during the period 2002-2004, with a slight oscillation of one per cent over the period. The availability of TEMP reports was relatively satisfactory for the eastern and southern parts of Region II, the northern part of Region IV, some countries in Region V and the western part of Region VI. The availability of TEMP reports was generally insufficient for most of the other parts of the world.
  5. The Daily average numbers of reports received by SMM centres from mobile stations since 2000 are given in Figure 5. The locations, from which reports from mobile stations were received during the July 2004 SMM, are shown in Figures 6 to 9.
  6. There was no major evolution in the availability of SHIP reports during the period 2000-2004. The number of TEMP SHIP reports in July 2004 reached 23. The number of BUOY reports has increased from 8094 to 14079 from 2000 to 2004. The number of AIREP reports oscillated between 3149 (February 2002) and 4484 (July 2000). The numbers of AMDAR reports ranged from 21385 (July 2001) to 15101 (July 2004). The monitoring of BUFR aircraft reports within the SMM started in 2004. The number of BUFR aircraft reports was 105117 in July 2004. Except for AIREP and BUOY reports, a large part of the reports from mobile stations were issued from the Northern Hemisphere.
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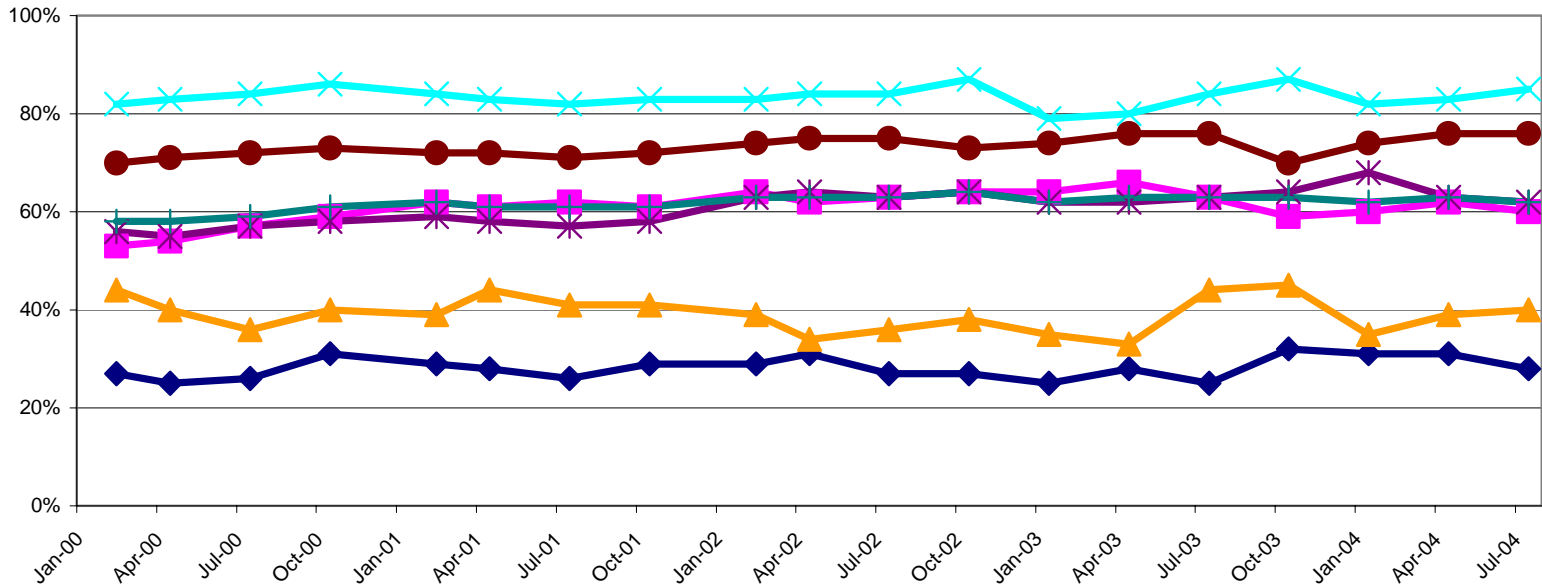
- Figure 1: Percentage of SYNOP reports received from each WMO Region during the 2000 to 2003 AGM, and the January/February, April and July 2000 to 2004 SMM, in comparison with the numbers of reports required from the RBSN stations*
- Figure 2: Percentage of TEMP reports received from each WMO Region during the 2000 to 2003 AGM, and the January/February, April and July 2000 to 2004 SMM, in comparison with the number of reports required from RBSN stations*
- Figure 3: Percentage of SYNOP reports received for 00, 06, 12 and 18 UTC from each RBSN station during the July 2004 SMM in comparison with the numbers of reports required*
- Figure 4: Percentage of parts A of SYNOP reports received for 00 and 12 UTC from each RBSN station during the July 2004 SMM in comparison with the numbers of reports required*
- Figure 5: Daily average number of reports received by SMM centres from mobile stations since 2000*
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- Figure 8: Locations from which TEMP SHIP reports were received during the July 2004 SMM*
- Figure 9: Locations from which AIREP, AMDAR and BUFR aircraft reports were received during the July 2004 SMM*

**Percentage of SYNOP reports received during the 2000 to 2003 October AGM, and the January/February, April and July 2000 to 2004 SMM in comparison with the numbers of reports required from the RBSN stations**



	Feb-00	Apr-00	Jul-00	Oct-00	Feb-01	Apr-01	Jul-01	Oct-01	Feb-02	Apr-02	Jul-02	Oct-02	Jan-03	Apr-03	Jul-03	Oct-03	Jan-04	Apr-04	Jul-04
Region I	49%	47%	49%	49%	52%	50%	48%	50%	58%	53%	51%	50%	51%	52%	54%	49%	49%	53%	52%
Region II	77%	80%	79%	81%	82%	82%	81%	82%	82%	81%	81%	83%	83%	82%	83%	86%	83%	84%	84%
Region III	60%	64%	63%	64%	61%	63%	58%	63%	60%	61%	62%	64%	60%	57%	63%	63%	61%	61%	57%
Region IV	76%	82%	83%	85%	84%	82%	81%	83%	85%	85%	84%	85%	80%	79%	81%	83%	81%	81%	81%
Region V	59%	67%	66%	63%	60%	67%	67%	63%	64%	67%	68%	69%	68%	70%	68%	70%	67%	68%	68%
Region VI	92%	88%	91%	93%	92%	92%	91%	91%	87%	89%	90%	93%	92%	94%	93%	95%	94%	95%	94%
Total	71%	72%	74%	75%	74%	75%	74%	75%	75%	75%	75%	77%	75%	75%	75%	77%	75%	76%	76%

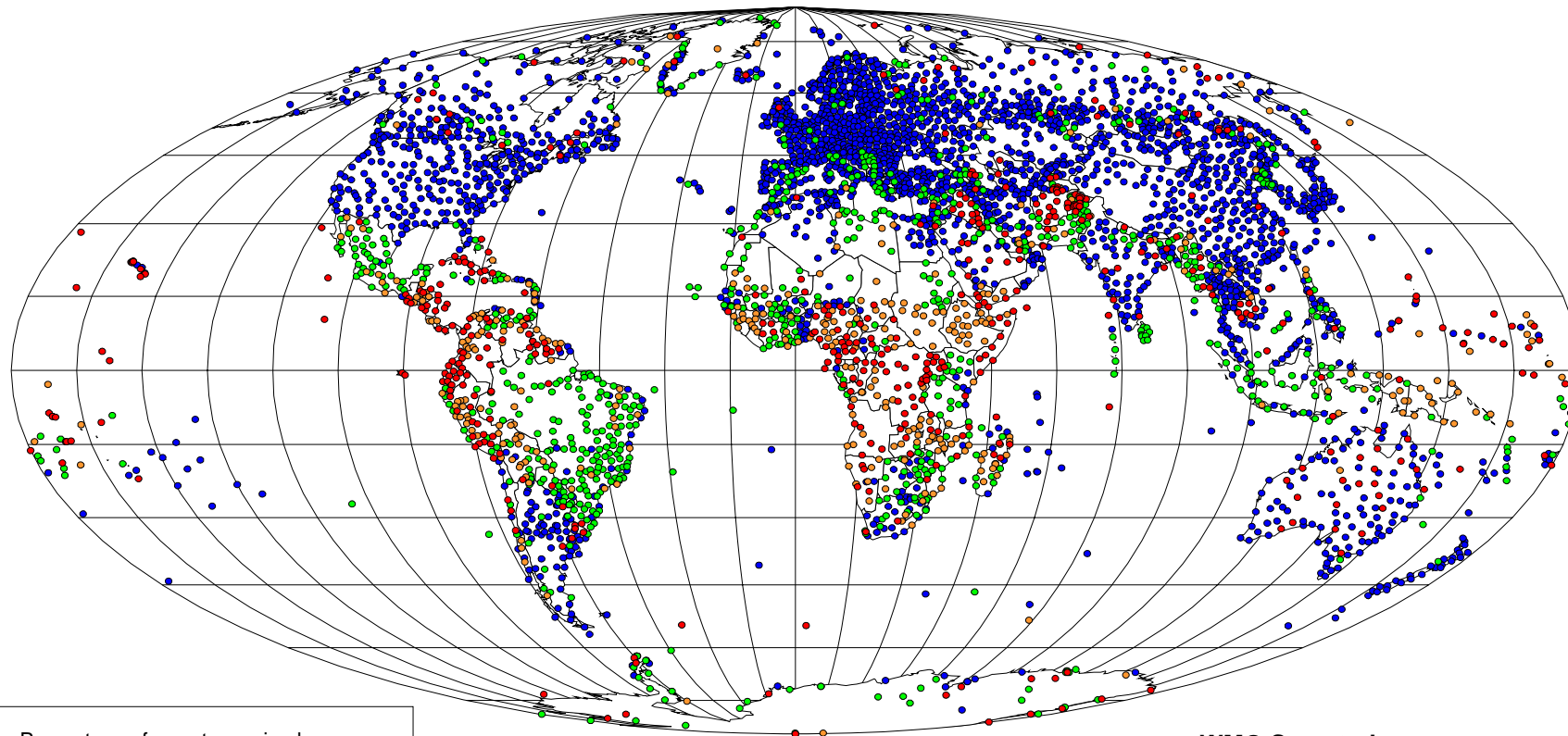
**Percentage of TEMP reports received during the 2000 to 2003 October AGM, and the January/February, April and July 2000 to 2004 SMM in comparison with the numbers of reports required from the RBSN stations**



	Feb-00	Apr-00	Jul-00	Oct-00	Feb-01	Apr-01	Jul-01	Oct-01	Feb-02	Apr-02	Jul-02	Oct-02	Jan-03	Apr-03	Jul-03	Oct-03	Jan-04	Apr-04	Jul-04
Region I	27%	25%	26%	31%	29%	28%	26%	29%	29%	31%	27%	27%	25%	28%	25%	32%	31%	31%	28%
Region II	53%	54%	57%	59%	62%	61%	62%	61%	64%	62%	63%	64%	64%	66%	63%	59%	60%	62%	60%
Region III	44%	40%	36%	40%	39%	44%	41%	41%	39%	34%	36%	38%	35%	33%	44%	45%	35%	39%	40%
Region IV	82%	83%	84%	86%	84%	83%	82%	83%	83%	84%	84%	87%	79%	80%	84%	87%	82%	83%	85%
Region V	56%	55%	57%	58%	59%	58%	57%	58%	63%	64%	63%	64%	62%	62%	63%	64%	68%	63%	62%
Region VI	70%	71%	72%	73%	72%	72%	71%	72%	74%	75%	75%	73%	74%	76%	76%	70%	74%	76%	76%
Total	58%	58%	59%	61%	62%	61%	61%	61%	63%	63%	63%	64%	62%	63%	63%	63%	62%	63%	62%

**SMM 1-15/7/2004**

**SYNOP reports made at 00, 06, 12 and 18 UTC at RBSN stations**



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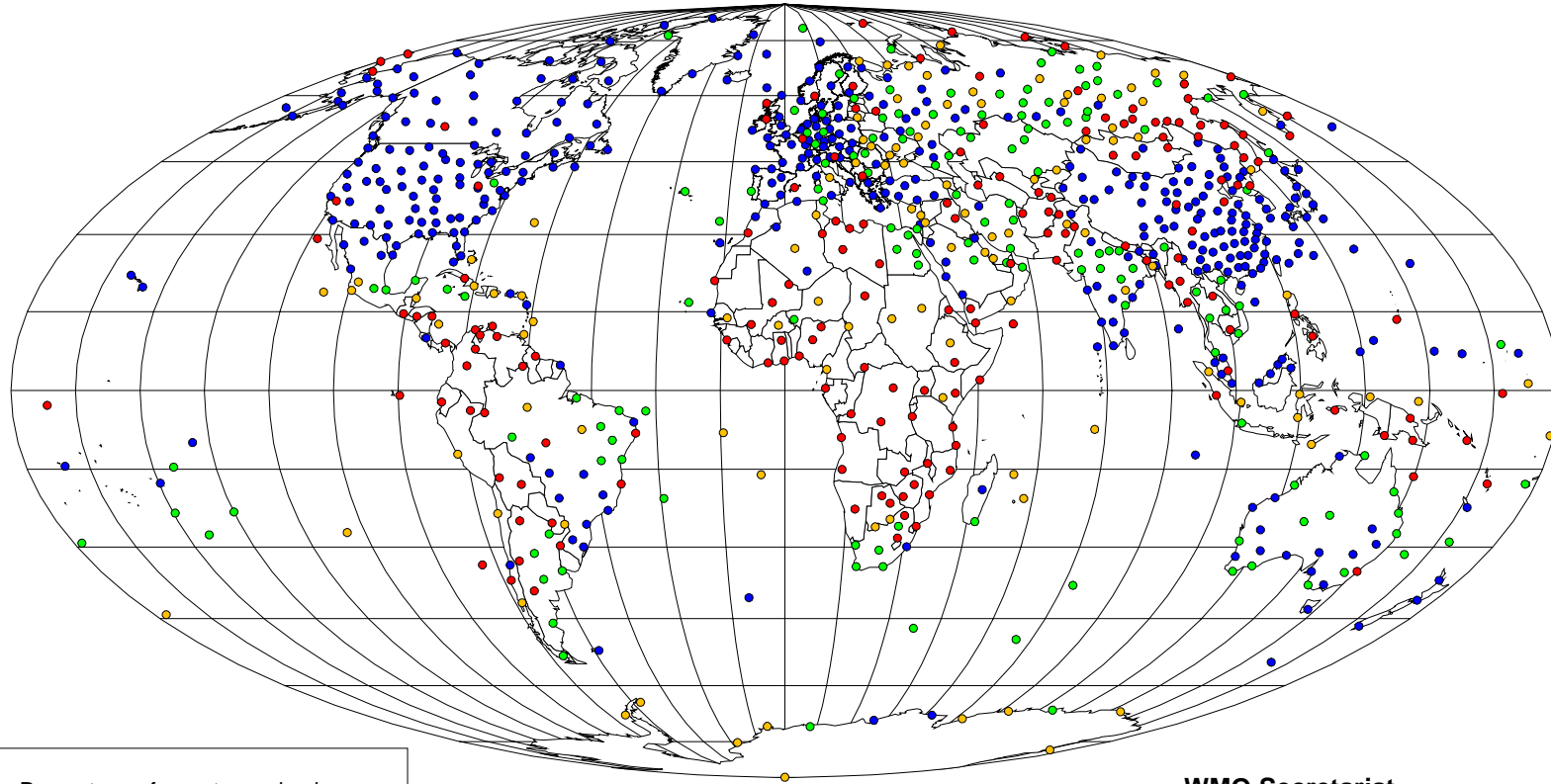
Percentage of reports received:

- 90 to 100 per cent (2451 stations)
- 50 to 90 per cent (752 stations)
- Less than 50 per cent (354 stations)
- Silent stations (475 stations)

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**SMM 1-15/7/2004**

**Parts A of TEMP reports made at 00 and 12 UTC at RBSN stations**



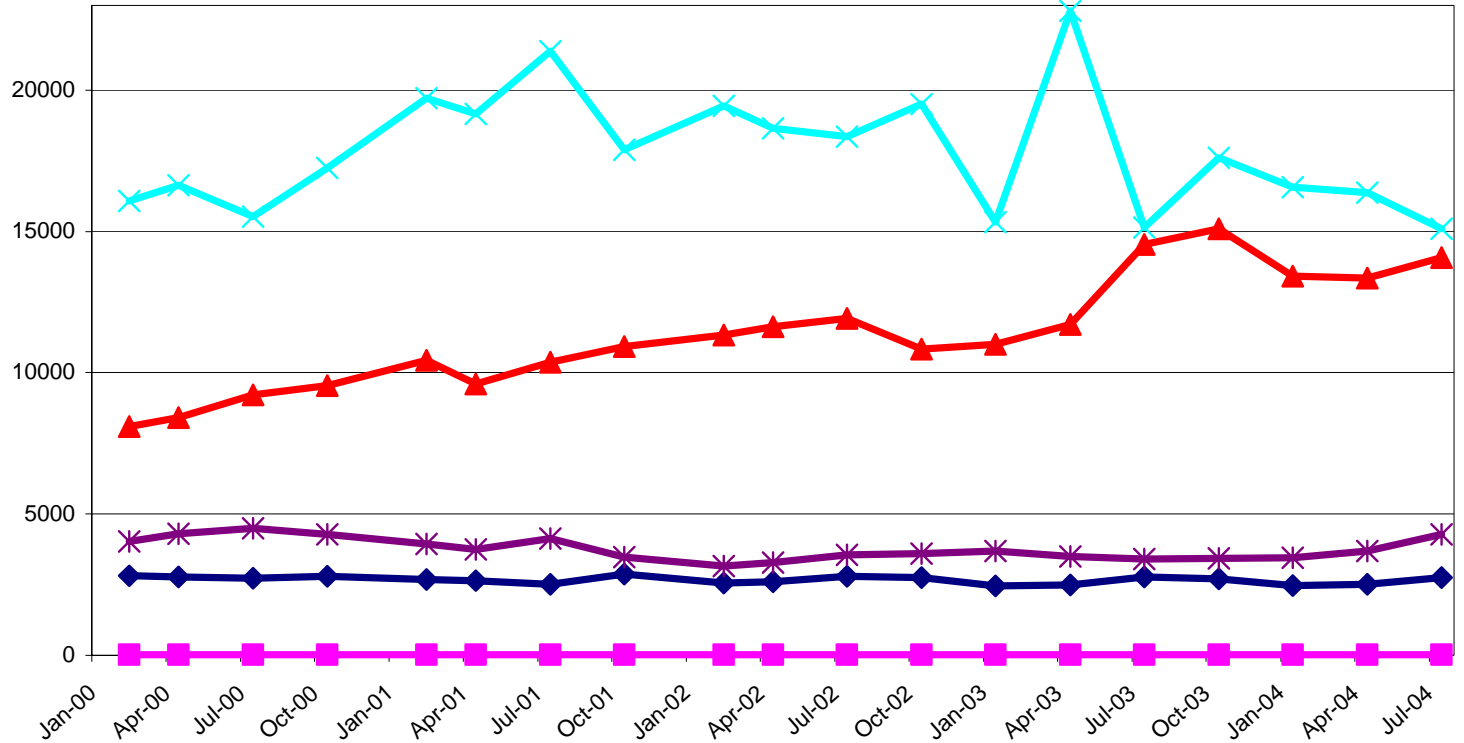
Percentage of reports received:

- 90 to 100 per cent (395 stations)
- 50 to 90 per cent (146 stations)
- Less than 50 per cent (109 stations)
- Silent stations (172 stations)

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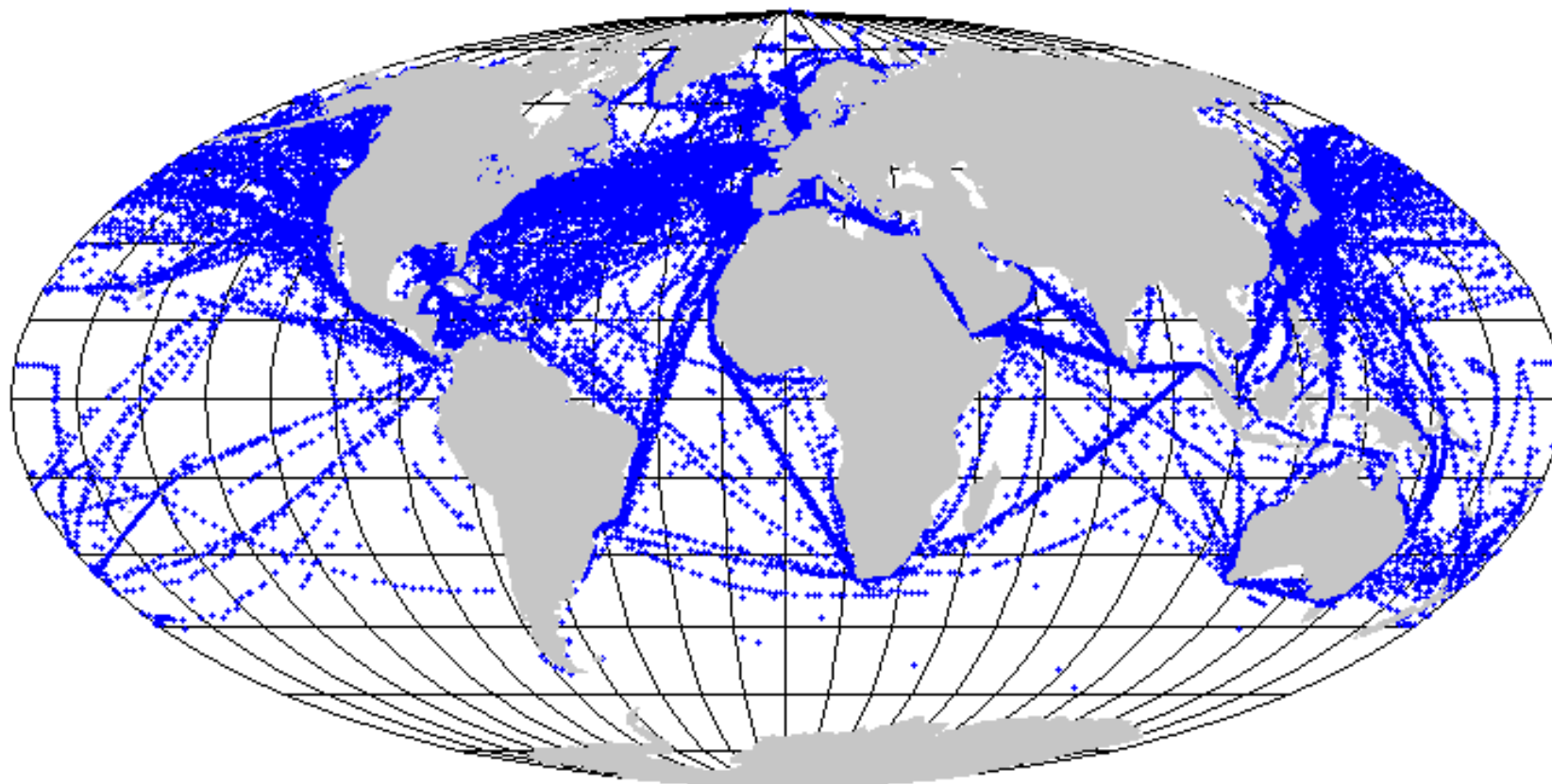
Daily average number of reports received by SMM centres from mobile stations since 2000



	Feb-00	Apr-00	Jul-00	Oct-00	Feb-01	Apr-01	Jul-01	Oct-01	Feb-02	Apr-02	Jul-02	Oct-02	Jan-03	Apr-03	Jul-03	Oct-03	Jan-04	Apr-04	Jul-04
◆ SHIP reports (00, 06, 12, 18 UTC)	2801	2777	2719	2793	2691	2631	2513	2870	2549	2603	2797	2742	2446	2499	2765	2696	2464	2518	2746
■ TEMP SHIP reports	18	16	18	14	19	19	17	18	18	17	19	16	15	14	21	19	15	18	23
▲ BUOY reports	8094	8405	9215	9542	10436	9613	10374	10919	11337	11620	11924	10841	11012	11706	14549	15100	13421	13351	14079
✕ AMDAR reports	16073	16642	15531	17252	19728	19164	21385	17886	19441	18651	18358	19514	15334	22804	15147	17611	16567	16367	15101
✱ AIREP reports	4031	4294	4484	4278	3935	3751	4128	3475	3149	3270	3561	3592	3680	3491	3407	3438	3452	3679	4287



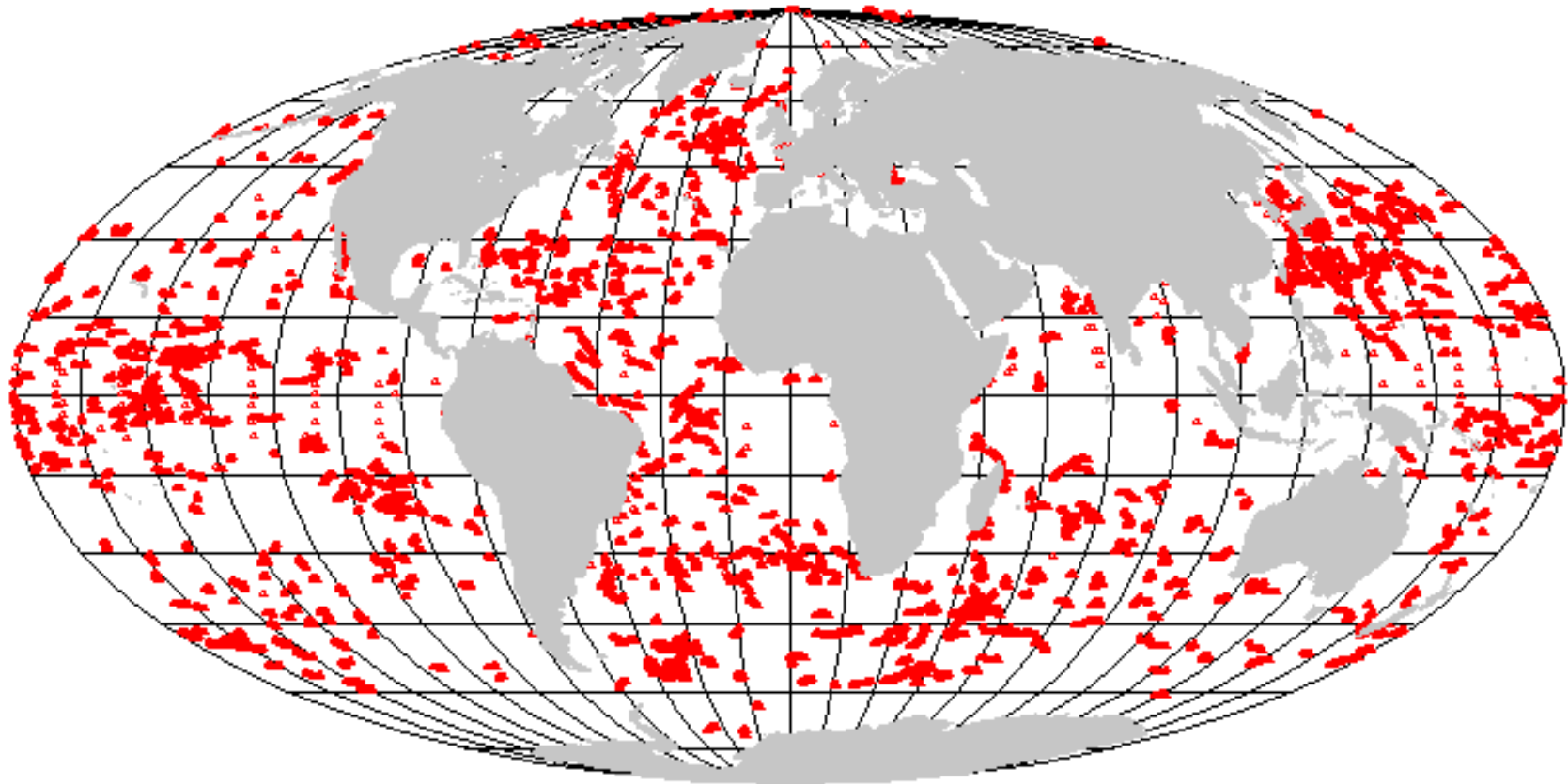
**SMM 1-15/7/2004**  
**SHIP reports made at 00, 06, 12 and 18 UTC**



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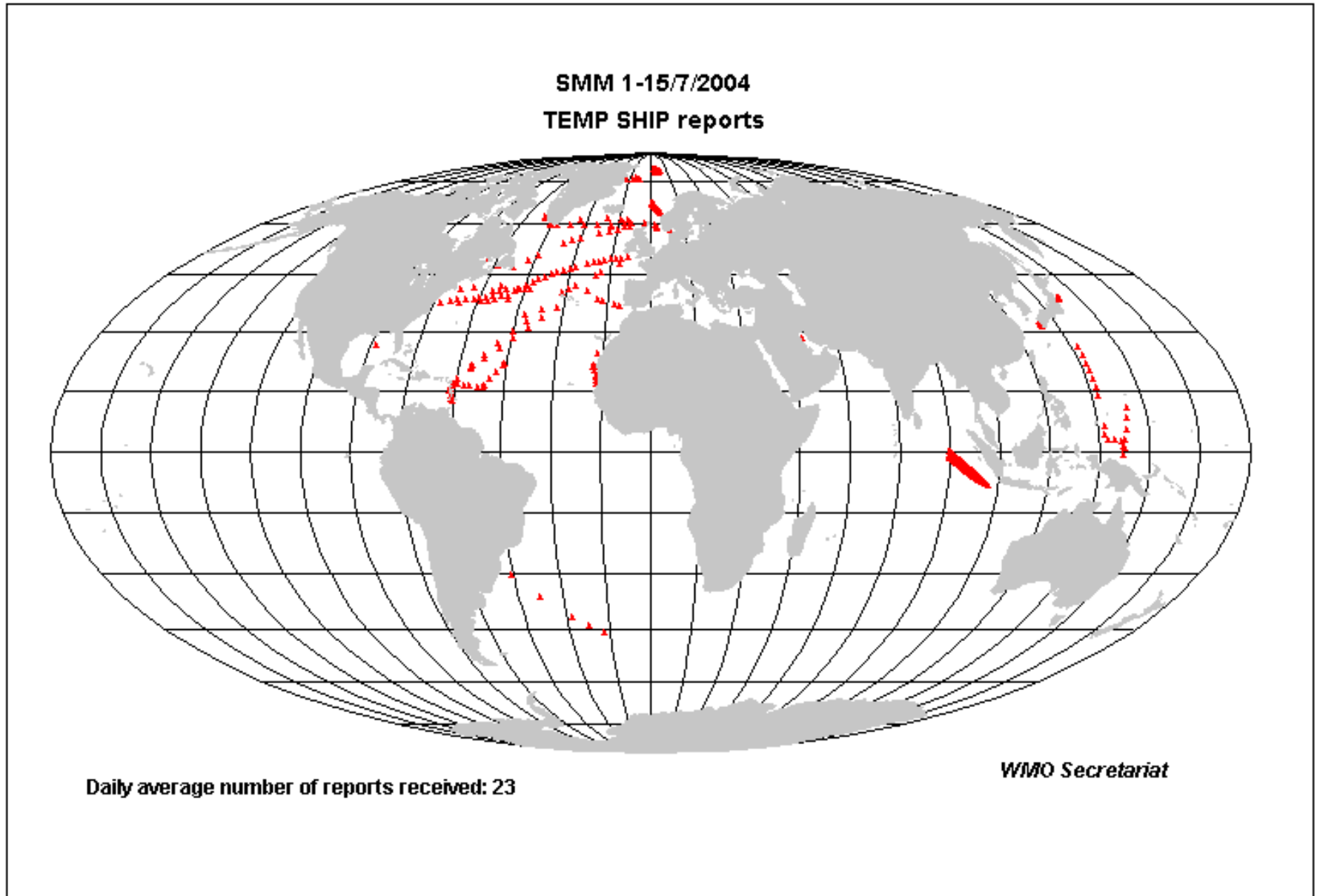
**Daily average number of reports received: 2746**

**SMM 1-15/7/2004  
BUOY reports**

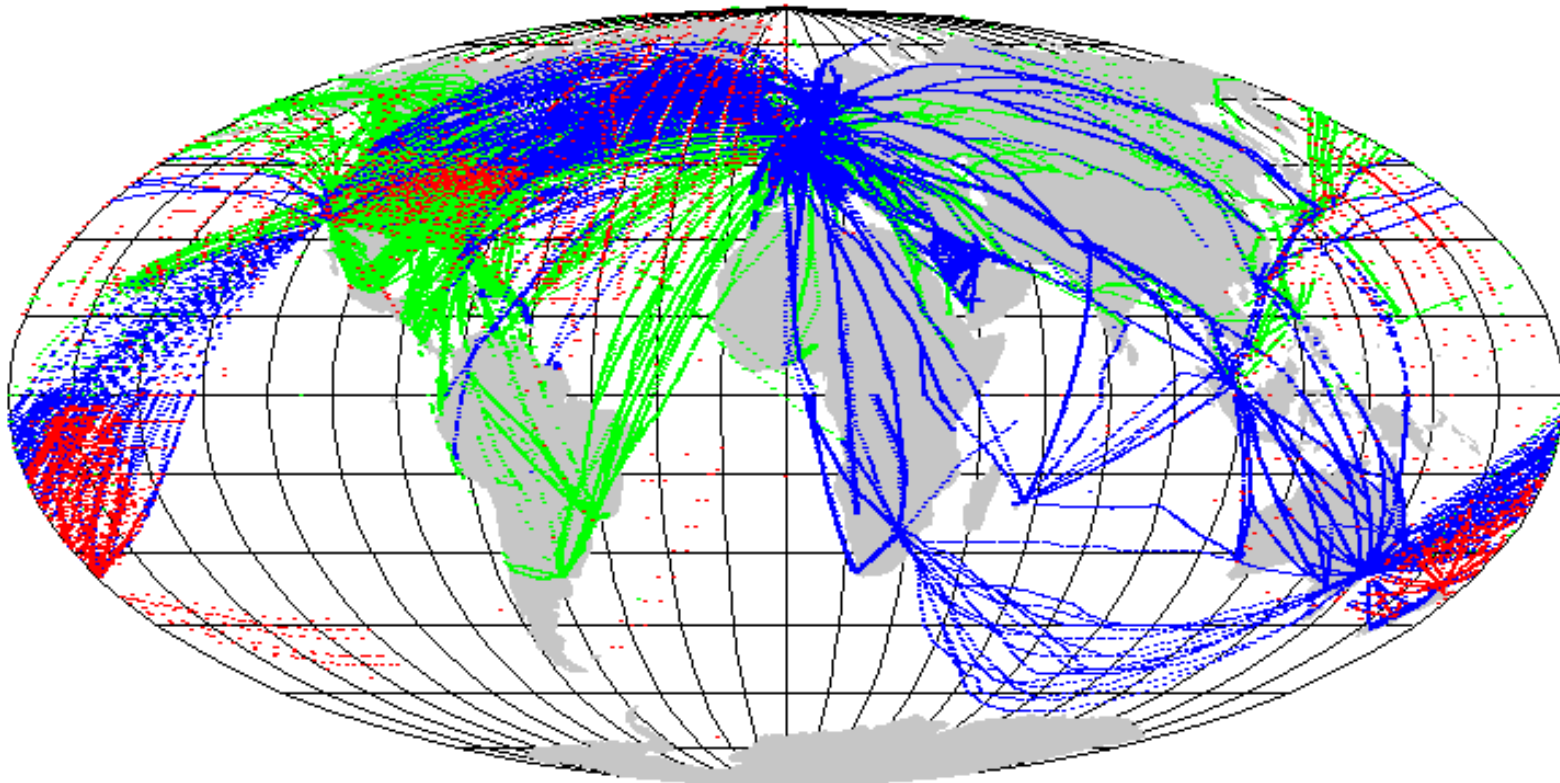


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**Daily average number of reports received: 14079**



**SMM 1-15/7/2004**  
**AIREP, AMDAR and BUFR aircraft reports**



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- 4287 AIREP reports received on average each day
- 15101 AMDAR reports received on average each day
- 105117 BUFR aircraft reports received on average each day