

**WORLD METEOROLOGICAL ORGANIZATION**

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(27.03.2014)

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**COMMISSION FOR BASIC SYSTEMS**  
OPEN PROGRAMMME AREA GROUP ON  
INTEGRATED OBSERVING SYSTEMS

ITEM: 4

**IMPLEMENTATION-COORDINATION TEAM**  
**ON INTEGRATED OBSERVING SYSTEM**  
**(ICT-IOS)**  
*Eighth Session*

Original: ENGLISH

GENEVA, SWITZERLAND, 7 – 10 APRIL 2014

**REVIEW OF THE STATUS OF THE SURFACE-BASED COMPONENTS OF THE GOS**

**REVIEW OF THE MONITORING RESULTS OF THE OPERATION OF THE WWW**

*(Submitted by the Secretariat)*

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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 SYNOP, TEMP and CLIMAT reports at MTN centres.

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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 SYNOP, TEMP and CLIMAT and to consider recommendations to overcome the deficiencies revealed by the monitoring results.

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**Appendices:** A. Results of World weather Watch Annual Global Monitoring

## **DISCUSSION**

1 Appendix A includes the results of the World Weather Watch Quantitative Monitoring exercises. It is worth noticing that while there had been some improvements in recent years, notably in RA III surface observations, the availability of upper air reports from RA I remains a problem.

2 In addition to the normal challenges of operating observing stations and maintaining the flow of information through the GTS (Global Telecommunications System), a substantial number of upper air reports are unlikely to be recorded in the WWW (World Weather Watch) monitoring statistics because they are not reported as being valid at one of the main synoptic hours.

3. ICT-IOS is invited to consider whether there is a need to review the reporting requirements for upper air stations in the Regional Basic Synoptic Networks in the light of this information, taking into account the ability of numerical weather prediction models to assimilate information that is not at the main synoptic hours.

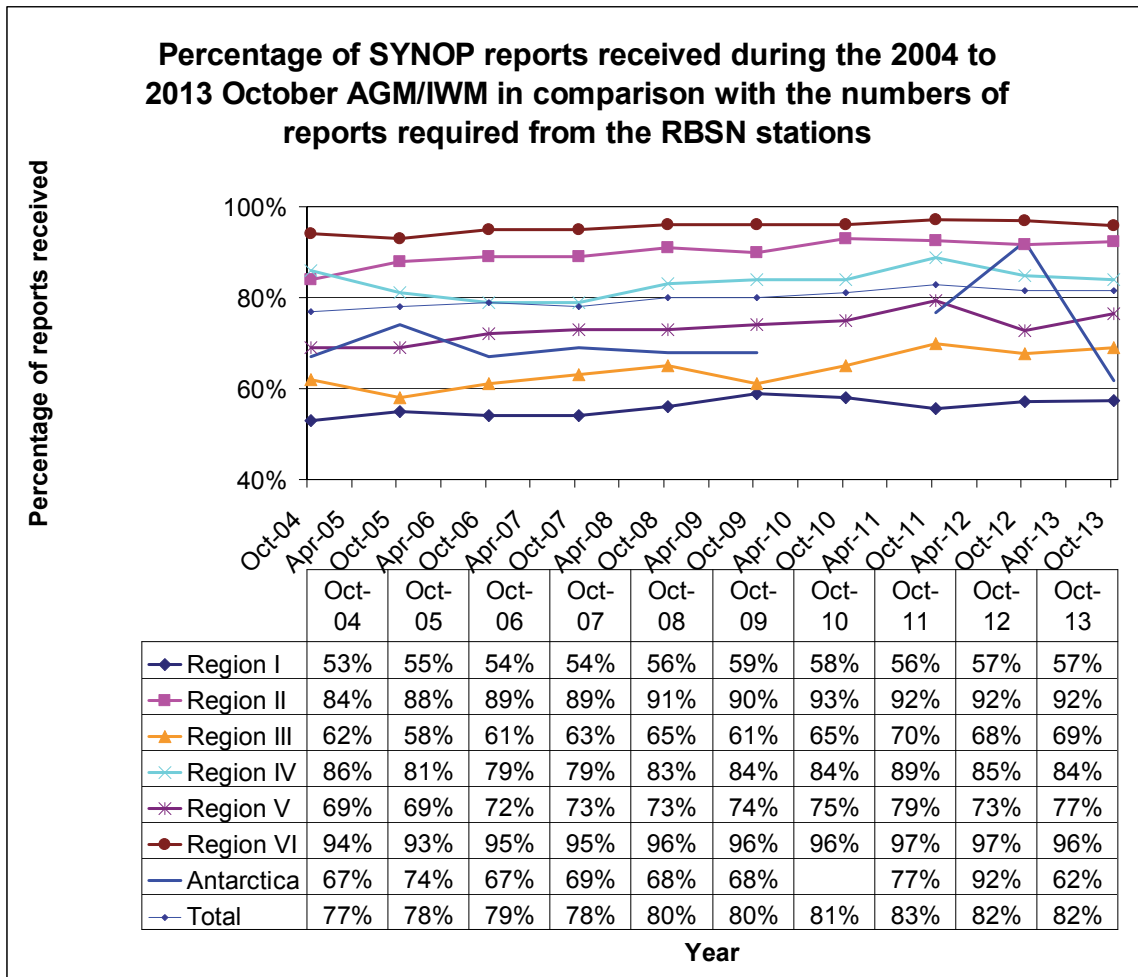
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**APPENDIX A**

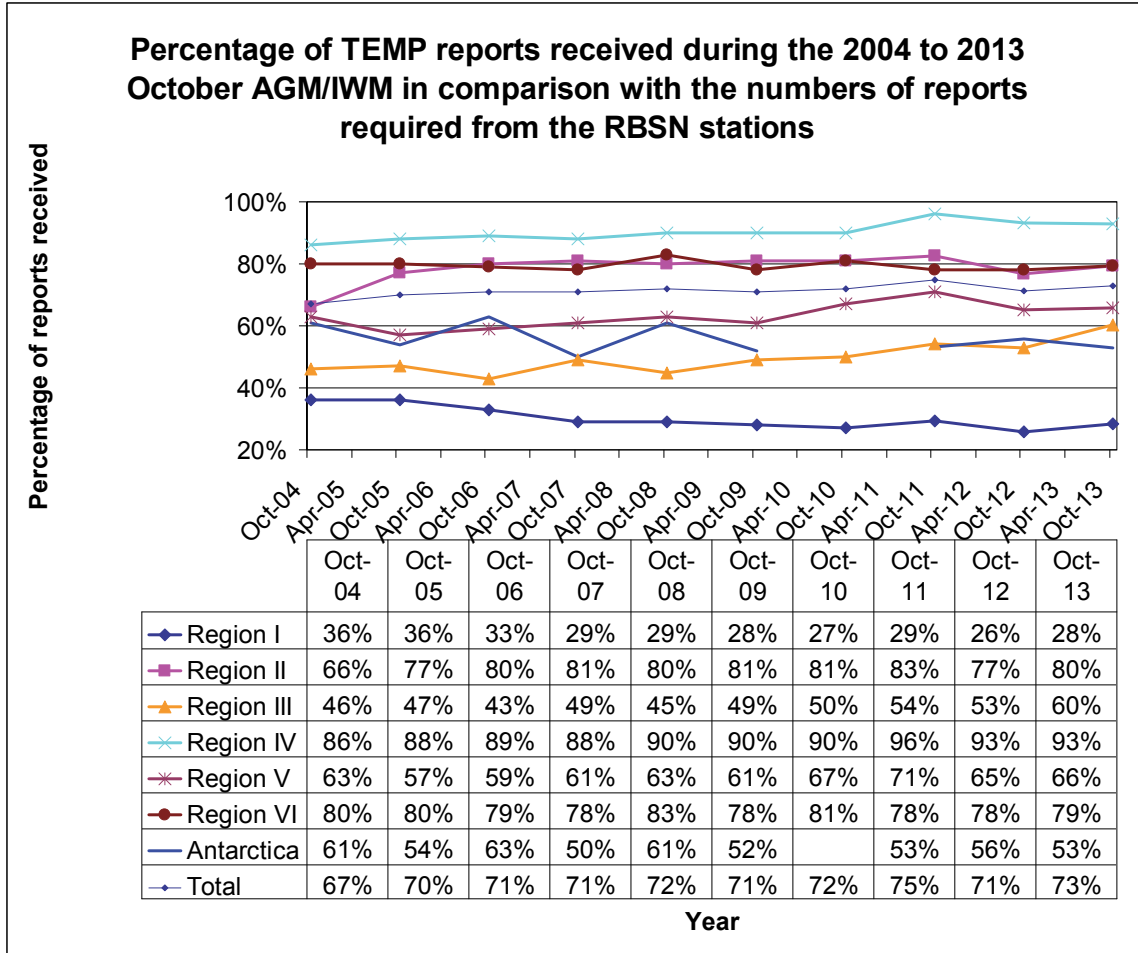
**RESULTS OF WORLD WEATHER WATCH ANNUAL GLOBAL MONITORING**

1 Four times a year, Regional Telecommunications Hubs of the Global Telecommunications System (GTS) record which observations are contained in the messages passing through the GTS. This forms the basis of the World Weather Watch (WWW) Quantitative monitoring. More RTHs take part in October than in the other quarters to produce the information to provide the Annual Global Monitoring statistics. Statistics are prepared that compare the number of reports actually received with the number expected from stations in the Regional Basic Synoptic Networks (RBSN) and the Regional Basic Climate Networks (RBCN). Reports for the main synoptic hours are recorded (00Z, 06Z, 12Z and 18Z for surface stations; 00Z and 12Z for upper air stations; one CLIMAT report each month for stations in the RBCN).

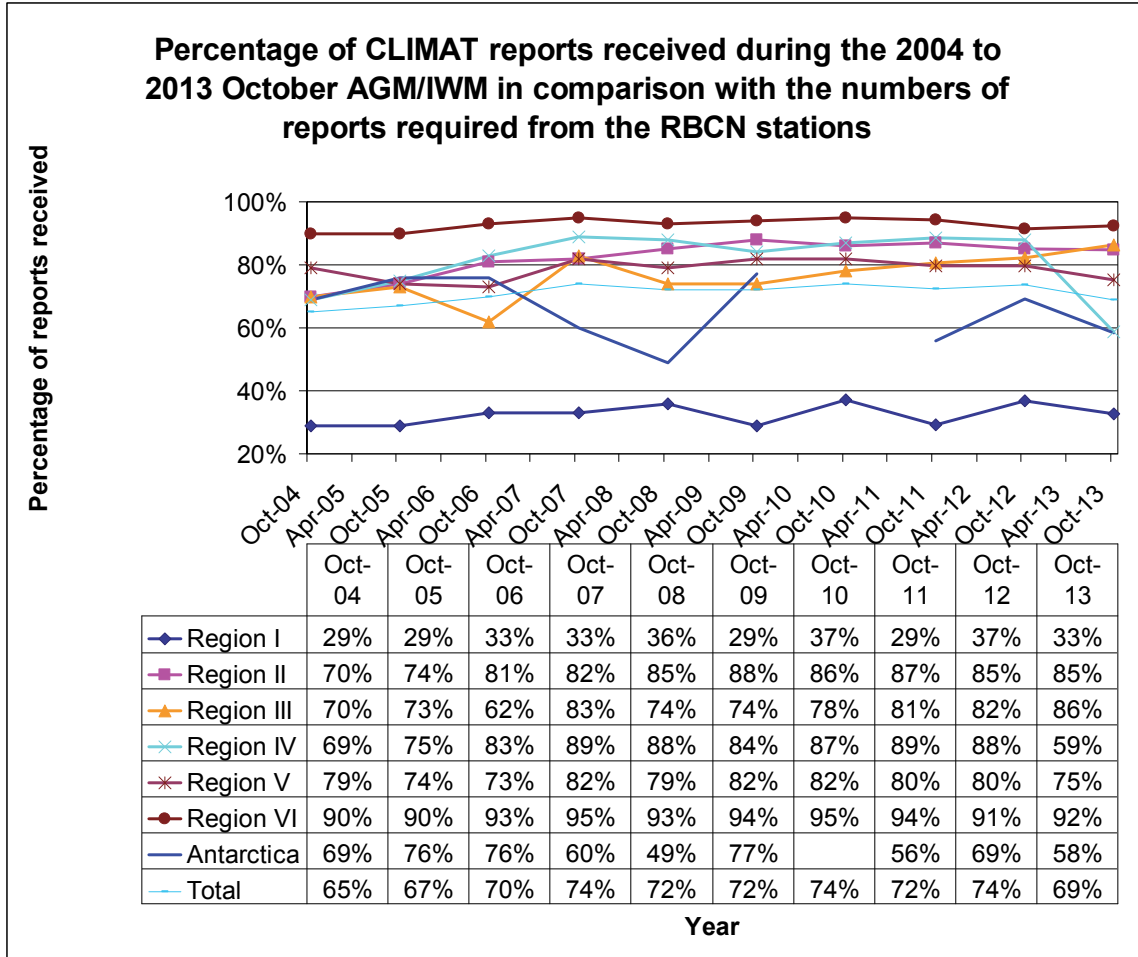
2 The annual trends in the percentage of reports received are shown in Figures 1 to 3.



**Figure 1. Trend in the percentages of SYNOP reports recorded in the WWW Annual Global Monitoring.**

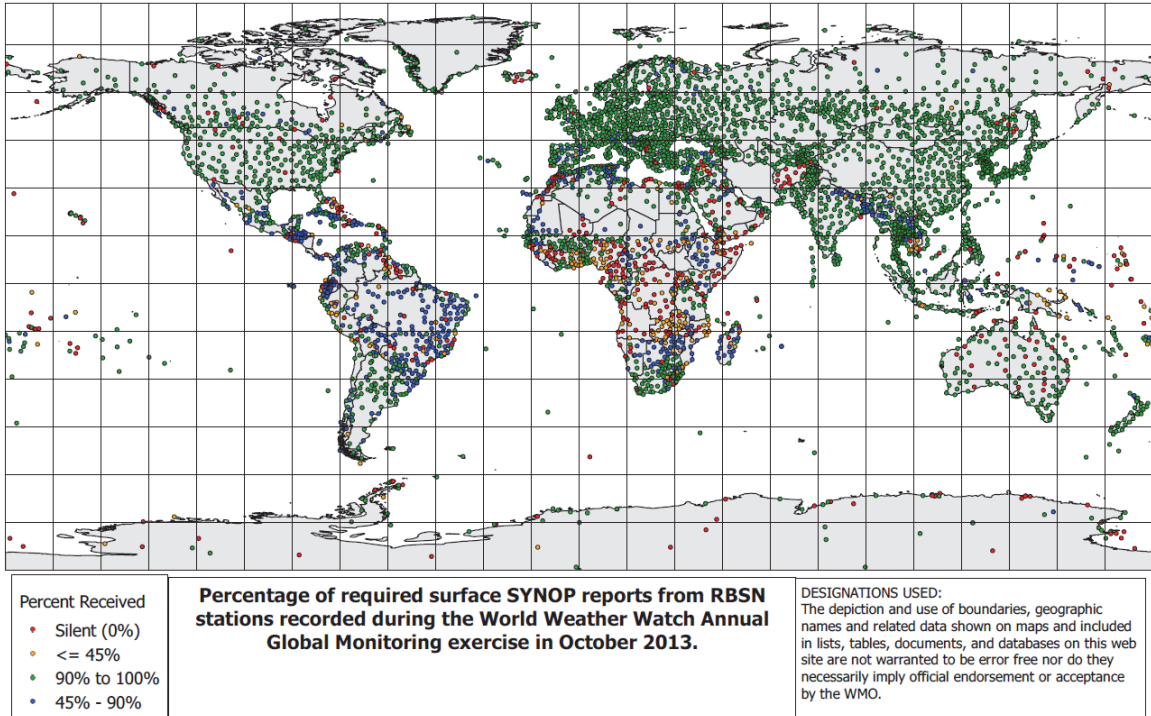


**Figure 2. Trend in the percentages of TEMP reports recorded in the WWS Annual Global Monitoring.**

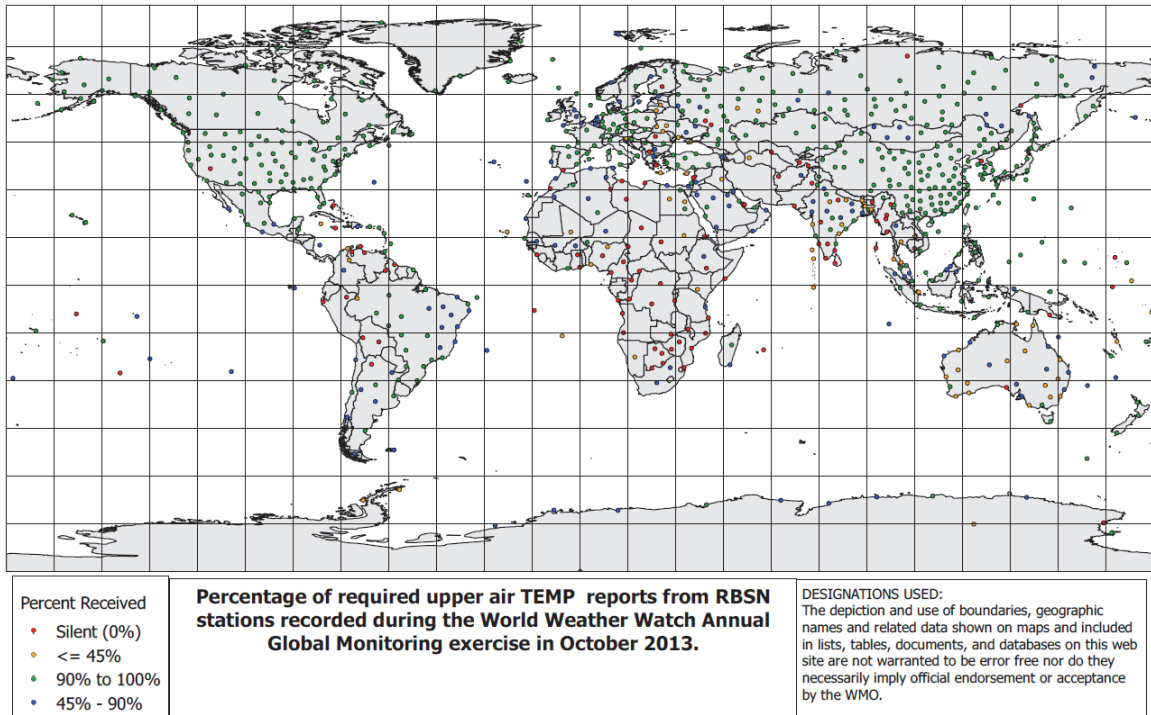


**Figure 3. Trend in the percentages of CLIMAT reports recorded in the WWW Annual Global Monitoring.**

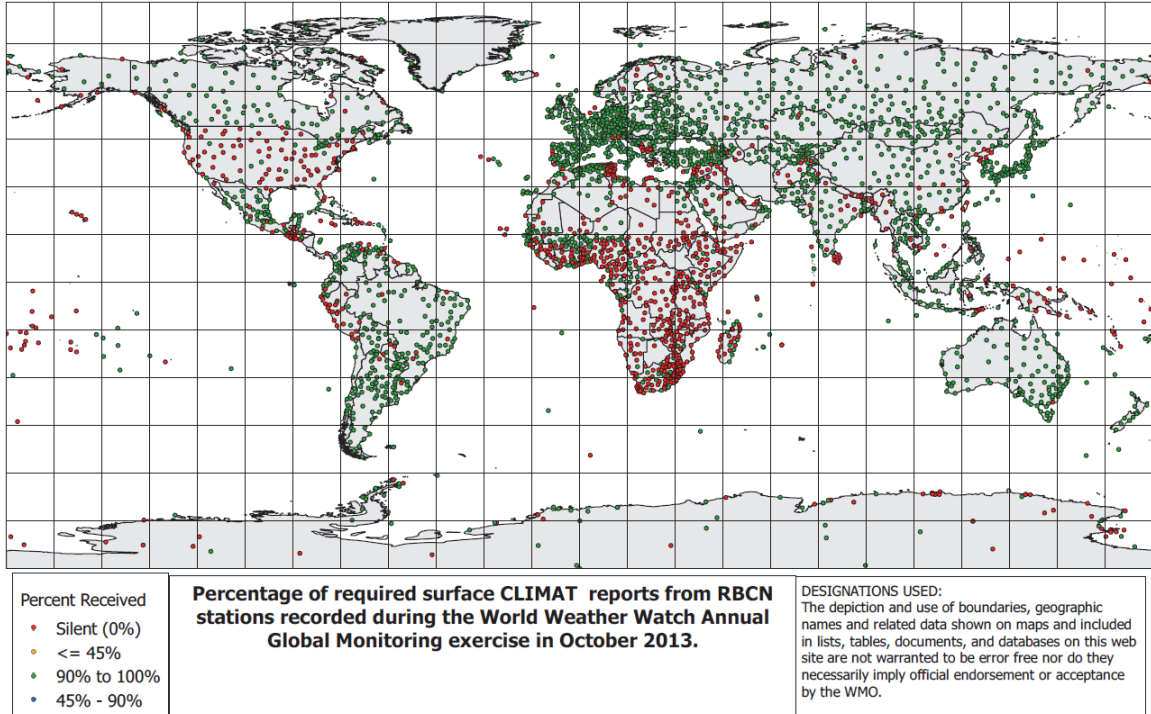
3 Figures 4 to 6 show the global distribution of reports.



**Figure 4. Percentage of SYNOP reports received from RBSN stations during the AGM of October 2013.**



**Figure 5. Percentage of TEMP reports received from RBSN stations during the AGM of October 2013.**



**Figure 6. Percentage of CLIMAT reports received from RBCN stations during the AGM of October 2013.**

4 Figure 7 shows the distribution by hour of day of all the upper air reports in BUFR format recorded during the Special MTN Monitoring of October 2013 (this captures all stations, rather than just those in the RBSN). Although these peak near the main synoptic hours, a substantial number of reports are labelled as being an hour after the nominal reporting time – and so would not be recorded in the AGM figures.

**Distribution of upper air reports through the day (in TDCF recorded in Special MTN Monitoring October 2013)**

