

DWD activities as CBS Lead Centre for GCOS for the WMO RA VI in the year 2010

Deutscher Wetterdienst (DWD)
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Summary of DWD Lead Centre activities and results in 2010

1. General remarks:

During 2010 several meteorological services resumed the provision of CLIMAT reports: Iceland, Cambodia and Cuba (since January 2010). Angola provides CLIMAT messages since August 2010. Libya, which did not send reports since 2009, even delivered the missing data from 2009. Reports were also received from Zimbabwe, the Democratic Republic of Congo (on an irregular base) and Madagascar (with severe format errors). And there was a considerable increase in the number of stations providing data from Germany (63) and the USA (89).

The DWD staff continued its effort in improving the receipt and quality of CLIMAT messages not only from GSN stations, but also from all CLIMAT stations included in the Regional Basic Climatological Network (RBCN). DWD contacted the NMHS's around the world, in case of missing or erroneous reports and supported several countries to overcome format problems in their messages (e.g. Georgia and Austria). But the most grave format problems could not be solved as they are caused by countries, which do not reply or react on hints.

2. Improving the availability and correctness of CLIMAT reports world-wide

2.1 Improving the availability:

DWD continued to insert CLIMAT reports received via e-mail into the GTS. There are about 20 to 30 countries every month ingested into the GTS via DWD like Moldavia, Slovenia, Macedonia, Cyprus, Bahrain, Saudi Arabia, Jordan, Syrian, Ghana, Senegal, French Guiana, Madagascar, Mauritius, Seychelles, Jamaica, Costa Rica, Mexico, Trinidad and Tobago, Venezuela, Bolivia, Uruguay, Chile, Fiji. Some countries use the automatic ingestion, DWD offered in 2009. There is still a considerable number of GSN stations in Africa, which does not report at all. DWD took the opportunity to inform representatives of the meteorological services of Zambia and South Africa about silent stations and specific problems of their CLIMAT data by colleagues, visiting these African NMHS in different missions.

2.2 Improving the correctness of the format of CLIMAT reports:

To point to missing GSN stations and format problems, DWD started in July 2010 to send the monthly monitoring results of the CLIMAT reports received up to the 20th of a month via e-mail to the chairs of the CBS Lead Centres for their area of responsibility. This monthly monitoring information is also provided to Mr. Kelvin Wong, RTH Focal Point at WMC Melbourne and Chair of the Expert Team on WIS-GTS Operations and Implementation (ET-OI), who supported markedly the work of the CBS Lead Centres in close co-operation with Richard Thigpen, GCOS Implementation Project Manager at GCOS Secretariat. Monitoring results are also shown on the web sites of the GCOS Surface Monitoring Centre at DWD (www.gsnmc.dwd.de) and for GSN and GUAN stations from NCDC (<http://gnsic.org/gcos/GSN/-gsnperformanceindicators.htm>) and <http://gnsic.org/gcos/GUAN/guanperformanceindicators.htm>).

Though, there were different activities by the CBS Lead Centres and Mr. Kelvin Wong, the correctness of world-wide CLIMAT reports actually has not improved. Especially countries, which seem to provide their reports via mechanical teleprinter like Indonesia, Venezuela and some African states disseminate CLIMAT bulletins with several format errors. Partly, plain text is included, causing significant problems with the decoding.

2.3 Improving the correctness of the contents of CLIMAT reports:

There are two frequent problems:

- One problem is the wrong time specification. Often CLIMAT bulletins of the recent month include the data, which are partly from another month. Usually data are from the previous month to that indicated. However, occasionally, they are for the same month of the previous year. This error is found at many times in CLIMAT bulletins from Indonesia and Saudi Arabia. E.g. within the CLIMAT reports of May from Indonesia several stations reported again the climate data from April. Among those were the GSN stations: 96145 Tarempa, 96163 Padang, 96745 Jakarta, 97502 Sorong, 97690 Jayapura. Since it is difficult to detect this kind of error, DWD informed the chairs of CBS Lead Centres.

- The other problem is the quality of the CLIMAT messages. They often show in group 8 and 9 of section 111 a high number of missing days in the calculation of monthly means or monthly totals. This frequently occurs in CLIMAT messages of Portugal, Canada and Antarctica. Formally, the CLIMAT reports are correct, but actually the provided data are not representative for the month.

Specific problems solved during 2010:

In all Australian CLIMAT reports from June 2010, but also from June 2009 and 2008 the sunshine duration was missing. DWD informed the chair of the CBS Lead centre for RA V, who notified, that this was caused by a program error.

All Finnish CLIMAT reports of March were sent with the April header (04010) and had a high number of missing days for different parameters, which are coded in group 8 and 9 of section 111. After having informed FMI, a rerun of the CLIMAT procedure resulted in correct reports.

The CLIMATs of Paraguay from October 2010 contained some parameter like monthly mean temperature and monthly precipitation totals from October 2009. After having informed DINAC, a correction was disseminated.

3. Availability and correctness of CLIMATs in the RA VI:

The availability of CLIMAT reports at MTN centres from RBCN stations in RA VI is very high and ranges from 93 % (Jan 2010) to 95 % (Apr 2010) (source: AGM-IWM-SMM, http://www.wmo.int/pages/prog/www/ois/monitor/index_en.html).

Due to the activity of Mr. Kelvin Wong, who addressed to NMHSs in case of data with severe coding errors, and that of the CBS Lead Centre for RA VI, the quality of the CLIMAT messages improved within RA VI. Most European Meteorological services reacted on advices which led to considerable improvements (e.g. Italy in particular). But there are still a number of systematic errors. E.g. the bulletins from Germany still include section 555, which should only be used for national data exchange. In 2010, the number of stations within the European GSN rose to 140. However, a few of them did not report continuously. The CBS Lead Centre contacted the responsible NMHSs and asked for the reasons. The reason, why the Swedish GSN station terminated reporting was resolved.

3.1. Silent GSN-Stations in RA VI:

Albania: 13615 Tirana since September 2010

Cyprus: 17600 Paphos since January 2010

Portugal: 08506 Horta since at least January 2009

Sweden: 02196 Haparanda was replaced by the automatic weather station 02197 Haparanda and created CLIMAT reports since June 2010, which were exchanged worldwide via GTS. This information was given to WMO, but the change was not included in the list of the Regional Basic Climatological Network (RBCN) updated in June 2010.

3.2 Not continuously reporting GUAN-Stations in RA VI:

33345 KYIV, Ukraine did not report in July and 37789 Yerevan, Armenia, only performed some ascents in April and May 2010 (26 in total).

4. Invalid e-mail addresses in the GCOS focal point list:

The e-mail addresses for Cyprus (spashiadis@ms.moa.gov.cy) and Latvia (meteo.climat@meteo.lv) are not valid. The nominated focal point of Armenia is no longer a member of the Meteorological Service.

5. Outlook for 2011:

DWD offered to host **the 3rd CBS Lead Centres Meeting**.

It will be hold in Hamburg from 11 to 13 October 2010.

C. Lefebvre, G. Asmussen, N. Frank K. Hansen, J. Kallies, J. Busche
Deutscher Wetterdienst
Business Unit: Climate and Environment (KU)
Bernhard Nocht-Str. 76
20459 Hamburg
GERMANY
E-mail: christiana.lefebvre@dwd.de