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AREA GROUP ON INTEGRATED OBSERVING SYSTEMS

CBS/GCOS EXPERT MEETING ON COORDINATION
OF THE GSN AND GUAN

Item : 5

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Review of the performance of GCOS network stations in 2001

(Submitted by H. Daan)

Summary and Purpose of Document

The document contains a review of the performance of GSN and GUAN stations, based on results provided by the responsible Monitoring Centres.

ACTION PROPOSED

The meeting is invited to take into consideration the information contained in this document when discussing differences and matches in the collection/dissemination of climate data.

- Appendices:**
- 1. Report on the preparation of a Regional Basic Climatological Network in Region VI (Europe) with reference to the GSN**
 - 2. Performance of GSN stations**
 - 3. Analysis of performance of GUAN stations and candidate stations**

DISCUSSION

1. In this document, a review of the performance of GSN and GUAN stations is made, based on results in the responsible Monitoring Centres. A summary of activities, relating to the GSN in Region VI is included in Appendix 1.

GSN

2. The review was based on the reception of CLIMAT reports in 2001 at the DWD and JMA and the data that had been transferred to NCDC by 2 April 2002. In Appendix 2, a summary of the findings is recorded, as follows.

- In the first column, the countries are listed, by WMO Region.
- Under **STN** the number of GSN stations is recorded.
- The column **WAC** gives the number of stations for which historical data have been transferred to the World Analysis Centre NCDC. An "R" indicates that only recent data have been transferred.
- The columns **OK**, **MOD**erate, **INC**idental, **SIL**ent represent the number of stations for which the CLIMAT reception rate was above 80%, 20-80%, below 20% and none, respectively.
- The columns **pf up** and **pf dn** refer to the number of stations for which the performance went up and down, respectively, when compared to 2000.
- In the column **Remarks**, the recent deletions have been recorded, together with some information from Appendix 1. For each Region, the number of stations which did observe all requirements so far (data transfer and OK status of CLIMAT provision) is recorded.

3. The following preliminary conclusions may be drawn.

1. The number of stations that are meeting requirements of data transfer and CLIMAT provision is now 251 (26%).
2. The number of stations that transferred historical data increased from 198 to 314.
3. The number of stations that provided CLIMATs (at least at a moderate level of frequency) increased from 624 to 688.
4. In 2001, 194 stations improved performance as opposed to 41 stations with deteriorating performance.
5. The increased transfer of historical data includes many larger countries. Many smaller countries did not take this action by this time. This could be a major problem for further progress in the near future. Region 3 is a problematic Region in this respect.

GUAN

4. From the monthly reports provided by ECMWF (Antonio Garcia-Mendez), an analysis was made on the types of insufficiencies for the 150 GUAN stations and 18 standby stations over the 9 months from June 2001 through February 2002. The results are summarised in Appendix 3.

5. The following preliminary conclusions may be drawn.

1. About 50% of the network stations is operating at a satisfactory level (Group 1-2), another 13% provides acceptable observations (Group 3-7).
2. The number of stations lacking wind data has reduced to 3. The effect of the termination of the Omega system seems to have been minimalised.

3. Two stations became silent recently. In particular 68110 Windhoek (Namibia) should get attention. This station was one of the best in Africa some years ago. The expertise is there, and probably the money for the consumables is the only problem.
4. It should be noted that the silent stations include 2 stations which have been replaced. These changes should be effectuated in the GUAN list now.

Report on the preparation of a Regional Basic Climatological Network in Region VI (Europe) with reference to the GSN

(Harald Daan, Regional co-ordinator for Observations, De Bilt, April 2002)

Introduction

In the Session of Regional Association VI (Geneva, May 2002), a proposal will be considered for establishment of a Regional Basic Climatological Network (RBCN). The proposal includes preliminary criteria for network stations: CLIMAT provision and a minimum spacing. A further development of the criteria is foreseen for the intersessional period 2002-2006.

GSN stations shall be included in the RBCN anyway.

In the preparation of the proposal and the list of stations in the RBCN, many contacts with RA-6 Member States were made; several provided relevant information on the status of GSN-stations. A summary of this information is contained in this report.

Norway

5 stations not yet providing CLIMAT reports have started this provision mid 2001.

Sweden

The station 02142 Jokkmokk has been closed definitely. As the area is well covered, there is no need for a substitute.

United Kingdom

Station 03026 Stornoway will be fully automated. It is not clear whether this allows continuation as a GSN station.

Denmark

The GSN station 04270 Narsassuaq will not provide CLIMAT reports. Reference is made to the nearby station 04380 Prins Christianssund. Actually, this station is 12 years older, and might be a better choice anyway. It was not selected originally, as the available basic information was incorrect at that time.

Netherlands

Data from 06260 De Bilt were transferred to NCDC around October 2001, according to local officials; however, the station is not listed on the GSN website.

Switzerland

Station 06717 Grand St-Bernard will start to provide CLIMATs on a short term.

Portugal

Azores stations 08506 Horta and 08513 Ponta Delgada will provide CLIMATs; no date was mentioned.

Austria

Station 11012 Kremsmuenster will start to provide CLIMATs on a short term. Provision seems to have started indeed.

Poland

Station 12385 will start to provide CLIMATs in October 2001. Provision has started.

FYR Macedonia

There was quite some discussion on the station 13577 Lazaropole as an RBCN station, and consequently as a GSN station. It was accepted finally. The commitment to provide CLIMAT reports should be clear now.

Bosnia & Herzegovina

Contacts together with Deutsche Wetterdienst have resulted in a procedure for dissemination of CLIMATs for station 14652 Bjelasnica by e-mail.

Bulgaria

The station 15615 Mussala is not usable as a GSN station. It was not accepted as an RBCN station either. The WMO Secretariat has been informed formally. This station was an additional high elevation station. There is no obvious substitute.

Greece

According to information from Greece, CLIMATs for all GSN stations are transmitted to NCDC. Only for 2 stations, these reports are transmitted in the GTS.

Turkey

Station 17375 Finike will start to provide CLIMATs. No date was mentioned.

Belarus

Station 33038 will start CLIMAT provision in November 2001. It seems to have started provision.