

WORLD METEOROLOGICAL ORGANIZATION

CBS/GCOS LC/Doc. 8.2
(30.X.2009)

**CBS LEAD CENTRES FOR GCOS
COORDINATION MEETING**

ITEM: 8

GENEVA, SWITZERLAND
10-12 NOVEMBER 2009

Original: ENGLISH

REPORTS FROM GCOS MONITORING CENTRES

Japan Meteorological Agency

(Submitted by Takifumi Umeda, Japan Meteorological Agency)

Summary and Purpose of Document

This document provides information on activities carried out by a GCOS Monitoring Centre, the Japan Meteorological Agency

ACTION PROPOSED

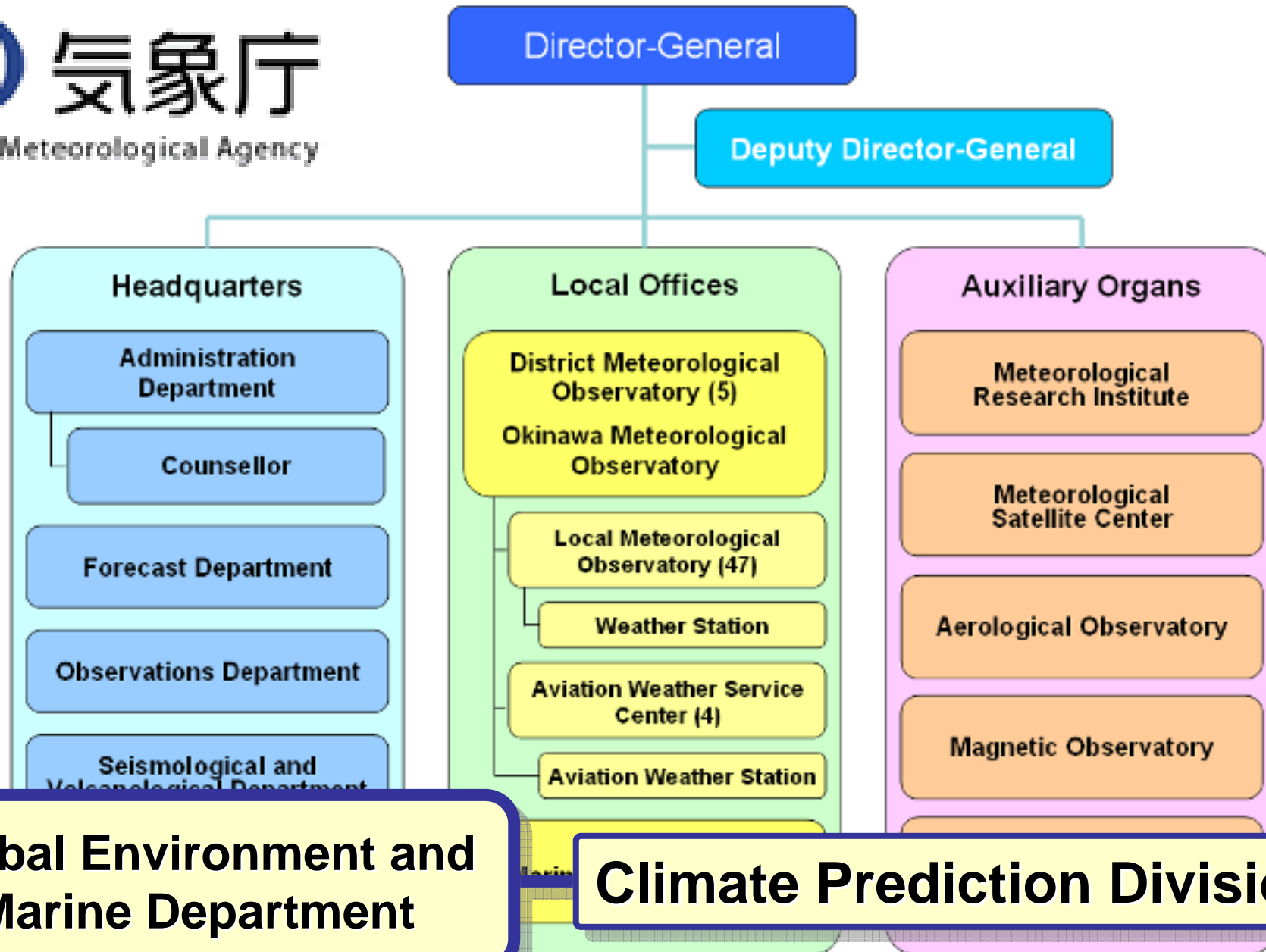
The meeting is invited to take into account the information provided in the document when discussing relevant agenda items

GSN Monitoring Centre



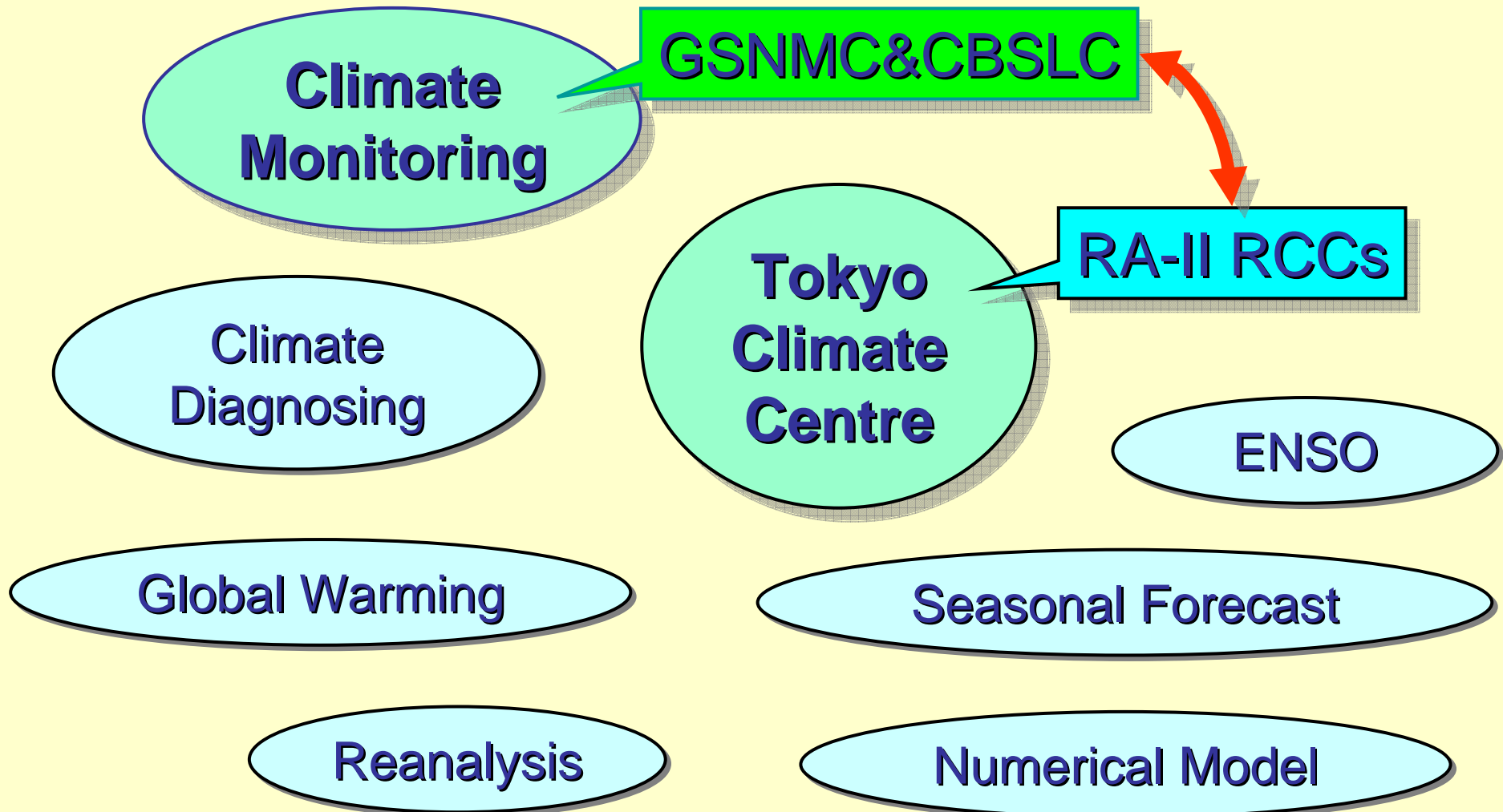
**Climate Prediction Division (CPD)
Japan meteorological Agency (JMA)
Takafumi Umeda**

JMA Organization



JMA Organization

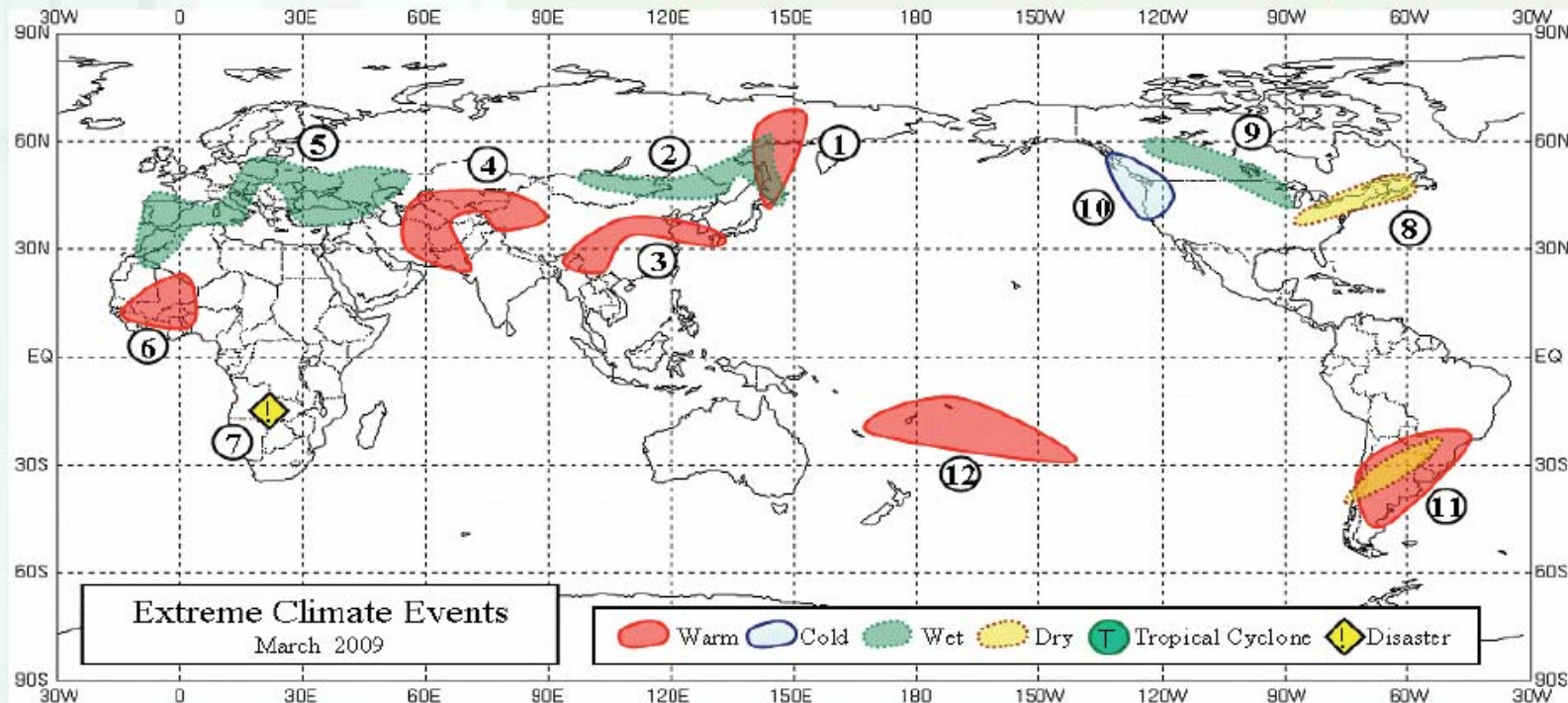
Climate Prediction Division



Global Climate Monitoring (by TCC)

Weekly, Monthly, Seasonal and Annual Temperature/Precipitation
Hazardous Climatic Events (Flood / Drought / Tropical Cyclone)

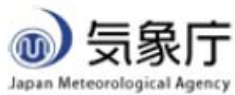
Distribution of Monthly Extreme Climate (March 2009)



1. High temperatures from eastern Siberia to Northern Japan
2. Heavy precipitation from southeastern Siberia to northern Mongolia
3. High temperature from western Japan to southern China
4. High temperature from western China to eastern Iran
5. Heavy precipitation from western Kazakhstan to Morocco
6. High temperature around Mali

7. Torrential rain in southern Africa
8. Light precipitation around the northeastern USA
9. Heavy precipitation from central Canada to the west area of the Great Lakes
10. Low temperature from southwestern Canada to the northwestern USA
11. High temperature and light precipitation in southern South America
12. High temperature around southern Polynesia

<http://ds.data.jma.go.jp/tcc/tcc/products/climate/index.html>



Welcome to Tokyo Climate Center

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Home	World Climate	Climate System Monitoring	El Niño Monitoring	NWP Model Prediction	Global Warming	Climate in Japan	Training Module	News Archive
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HOME > World Climate

World Climate

JMA monitors the global climate with CLIMAT and SYNOP reports from NMHSs through the Global Telecommunication System (GTS) of WMO. Quality-checked data on temperature and precipitation are assembled to assess extreme climate events. Weekly, monthly and seasonal monitoring reports on extreme climate events with brief descriptions of disastrous events are available on this page, along with world distribution maps of temperature and precipitation.

Climatological normals for temperature and precipitation are based on the period 1971-2000.

Main Products

Extreme Climate Monitoring

- ▶ [Weekly Report](#) (28 Oct 2009)
- ▶ [Weekly Anomaly](#) (28 Oct 2009)
- ▶ [Monthly Report](#) (30 Oct 2009)
- ▶ [Seasonal Report](#) (30 Sep 2009)
- ▶ [Annual Report](#) (30 Jan 2009)

- ▶ [Weekly circulations & convective activities in the Tropics](#) (28 Oct 2009)
- ▶ [Weekly atmospheric field in the extra-tropics](#) (28 Oct 2009)

Normal & Historical Data

- ▶ [ClimatView: Monthly Historical & Normal Data](#) (All available stations)
- ▶ [Normals of Monthly Mean Temperature and Precipitation \(Global Map\)](#) (10 May 2005)
- ▶ [Monthly Normals Data \(Principal Stations\)](#)

Data Descriptions & Analysis Procedures

Statistical Research

Links

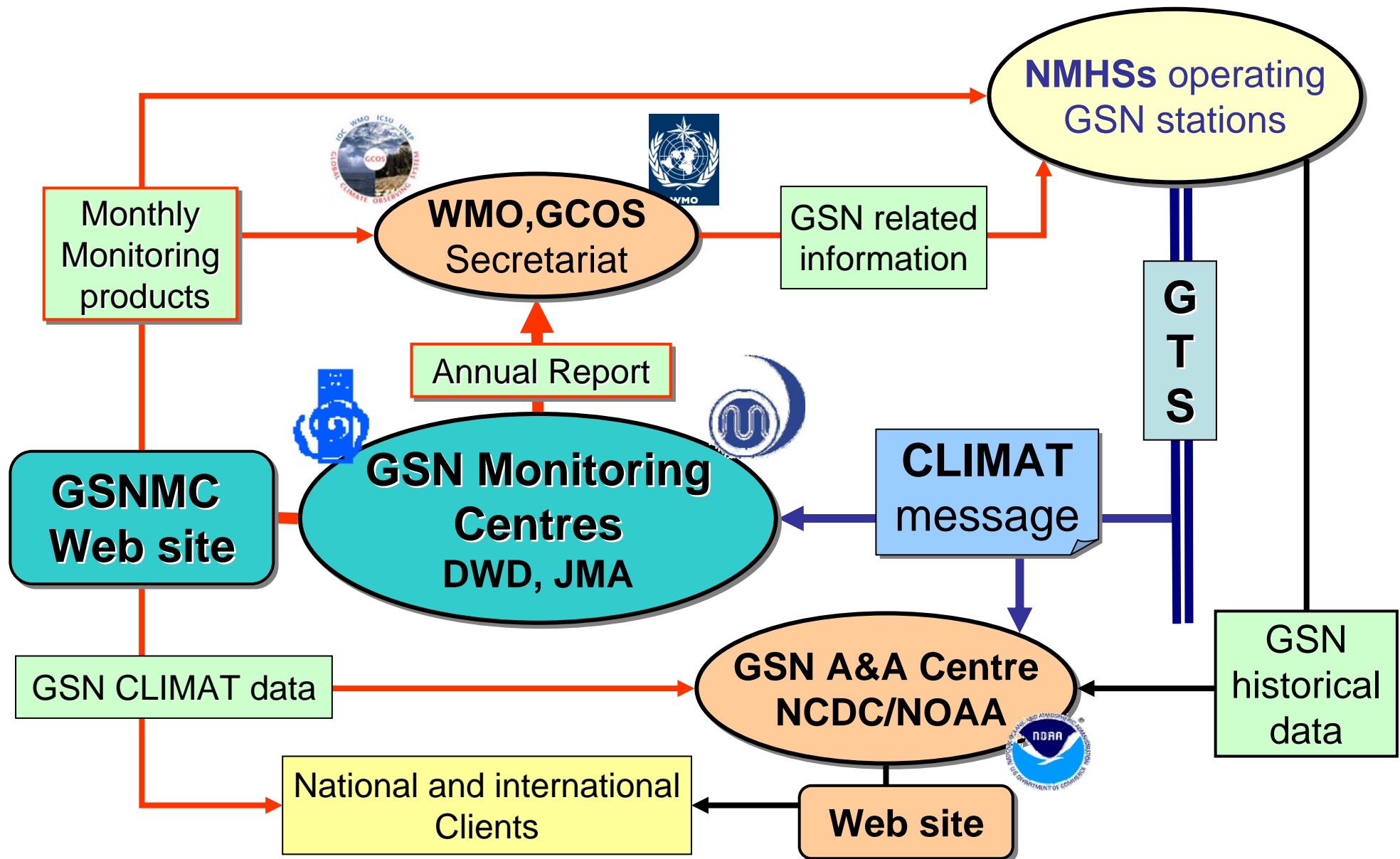
- ▶ [WMO DDB \(Various Climate-related Products and Data\)](#)
- ▶ [Monthly Climate Statistics for Japan](#)
- ▶ [Satellite Imagery of MTSAT-1R](#)
- ▶ [Tropical Cyclone Advisory : Tokyo Typhoon Center](#)
- ▶ [Japanese 25-year Reanalysis Project \(JRA-25\)](#)
- ▶ [JRA-25 Atlas](#) **NEW**
- ▶ [World Data Center for Greenhouse Gases \(WDCGG\)](#)
- ▶ [RSMC Tokyo - Typhoon Center](#)
- ▶ [Meteorological Research Institute, JMA](#)
- ▶ [Meteorological Satellite Center, JMA](#)
- ▶ [World Meteorological Organization \(WMO\)](#)
- ▶ [GCOS Surface Network Monitoring Center \(GSNMC\)](#)
- ▶ [CBS Lead Centres for GCOS](#)
- ▶ [Beijing Climate Center, China Meteorological](#)

GSN Monitoring Centre



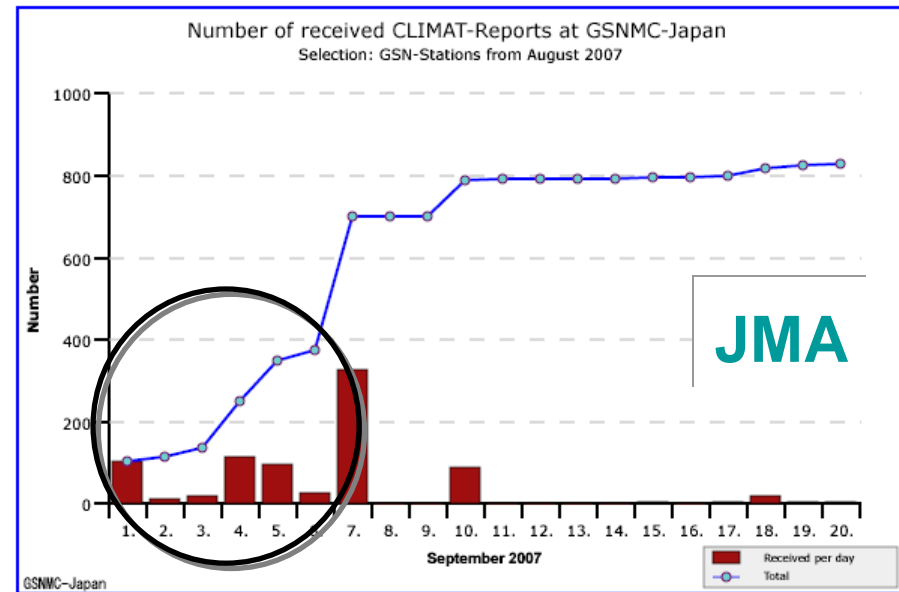
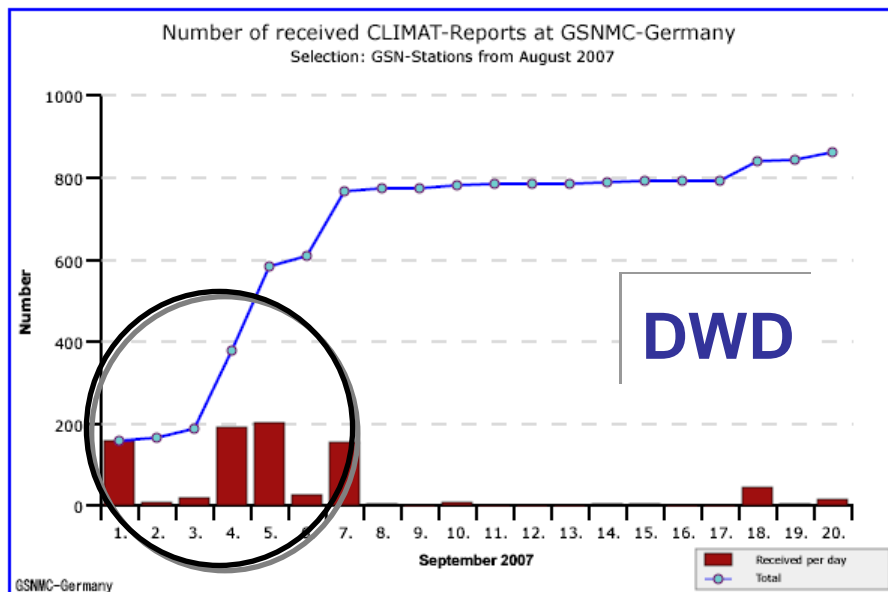
- ◆ **Outline**
- ◆ **Difference of CLIMAT reception**
- ◆ **Quality of temperature data in CLIMAT report**
- ◆ **BUFR-CLIMAT report**

Outline of GSN Monitoring Centre



Difference of GSN-CLIMAT reception

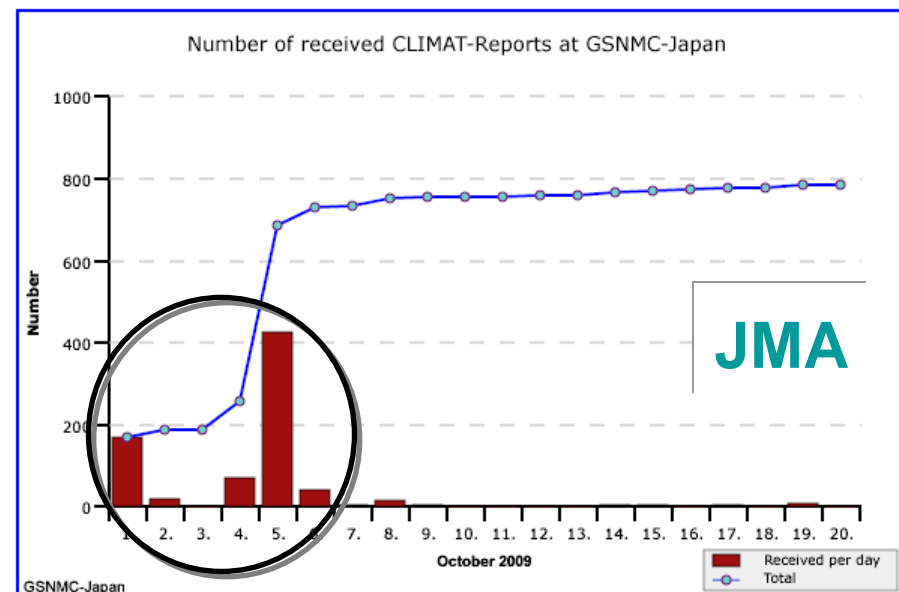
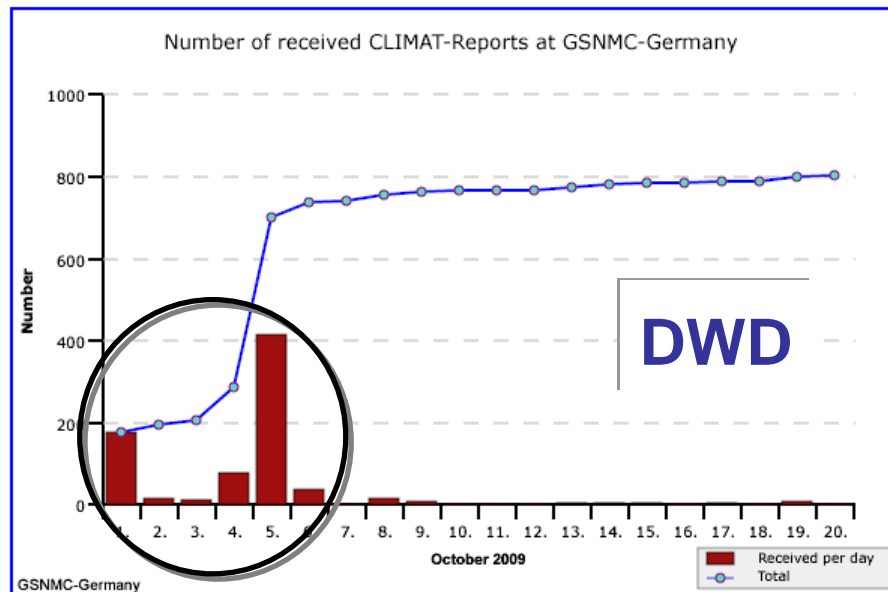
- Daily and total CLIMAT receptions are different between at DWD and JMA.



Number of daily and total CLIMAT reception (**September 2007**)

Difference of GSN-CLIMAT reception

- The differences have been reduced, but some are still remaining.



■ Receipt of the day ● Total

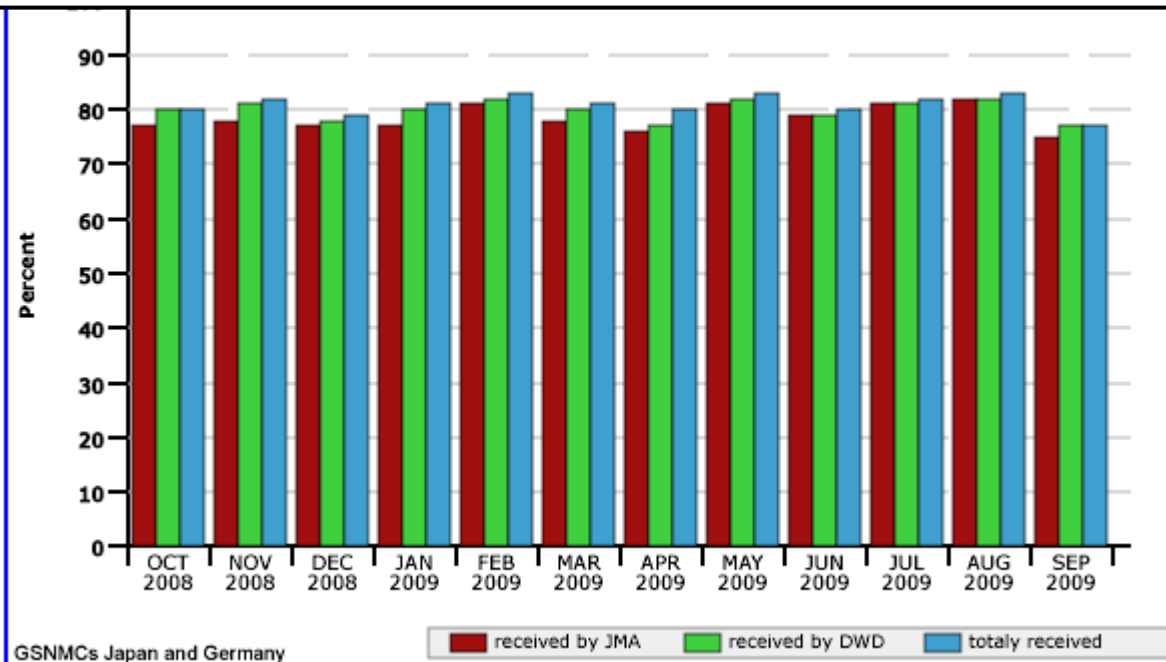
■ Receipt of the day ● Total

Number of daily and total CLIMAT reception (**October 2009**)

Difference of GSN-CLIMAT reception

- The difference of GSN-CLIMAT reception between DWD and JMA has been improved, but still remains.

Percentage of received GSN-CLIMAT report



JMA

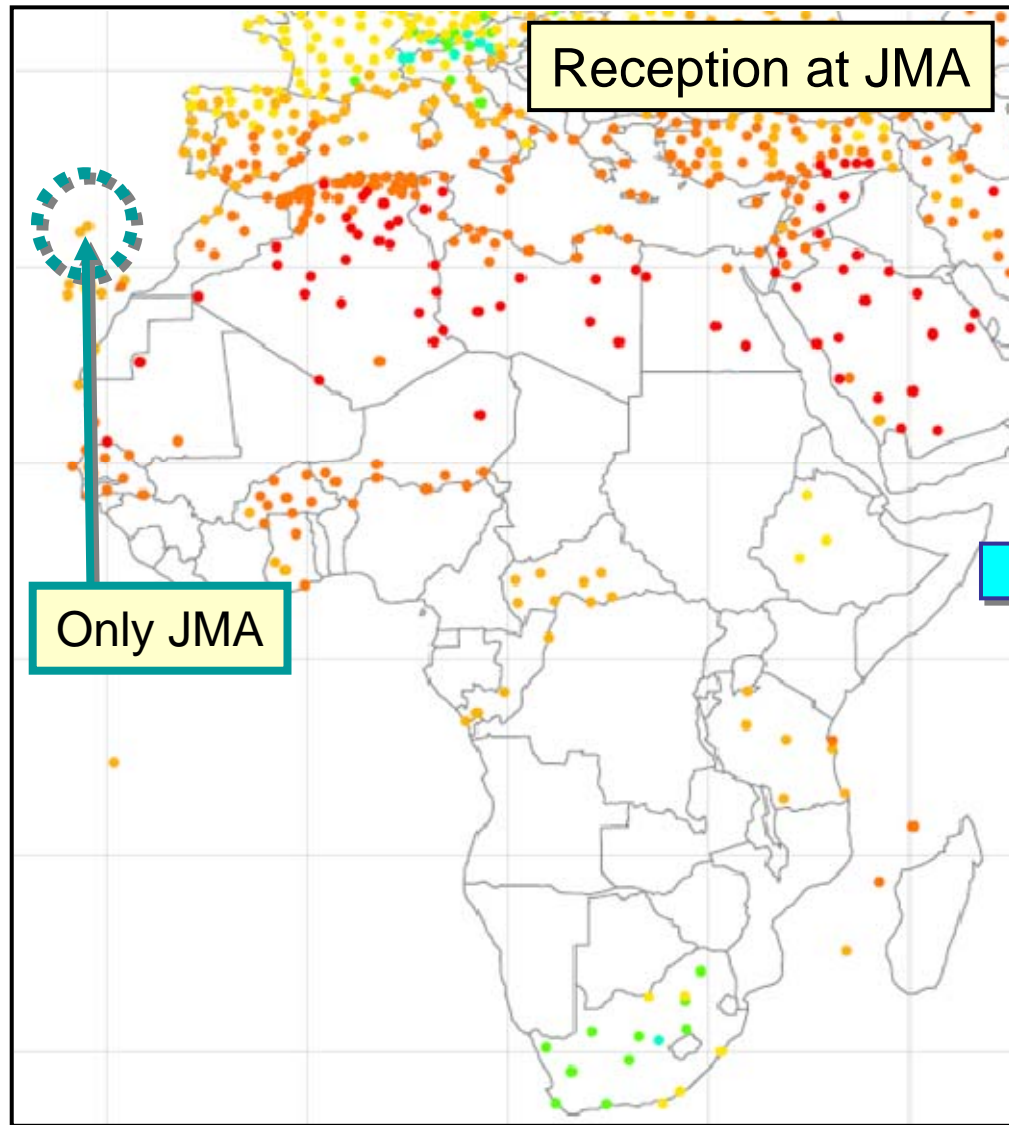


DWD

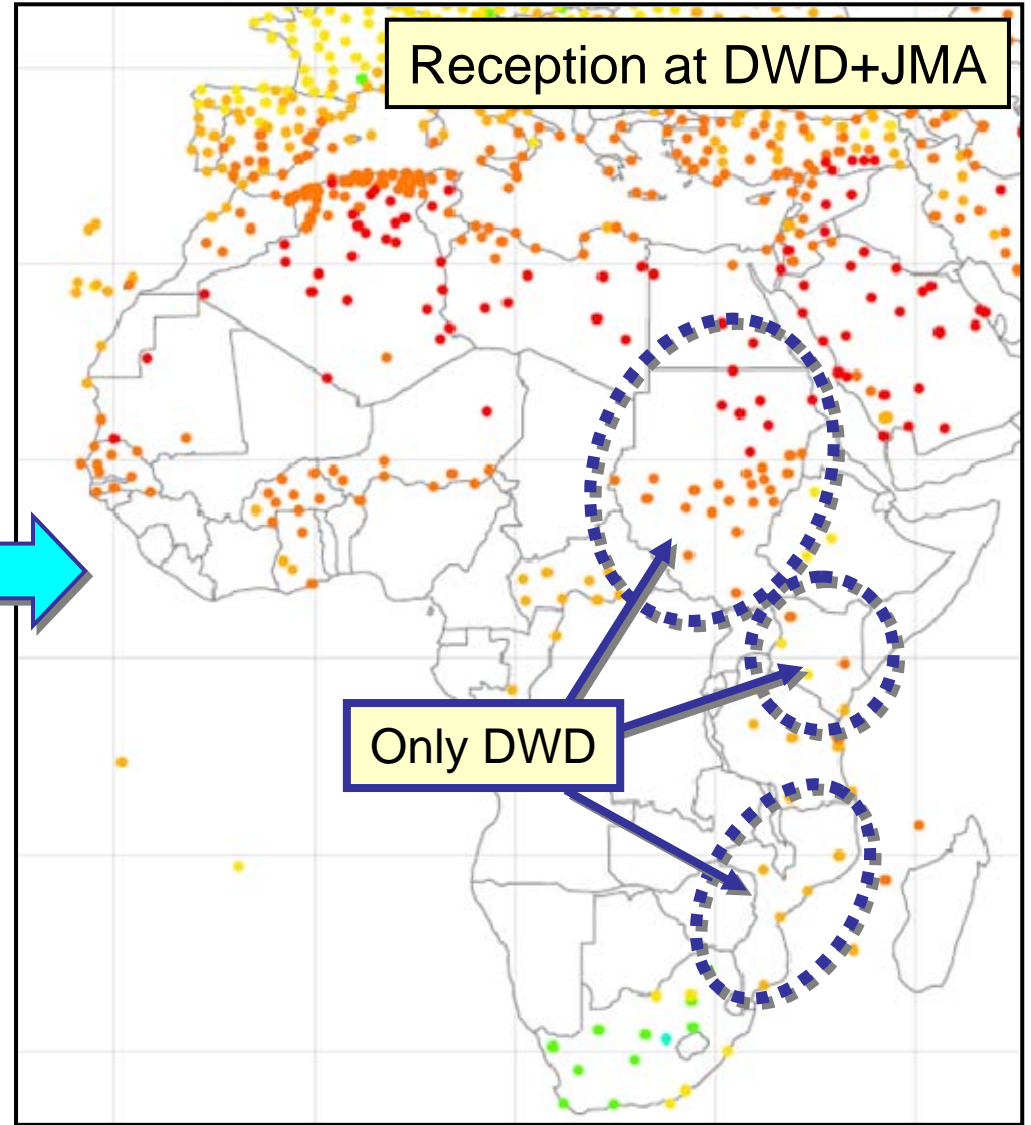
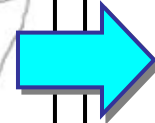


Merged

CLIMAT data harmonization

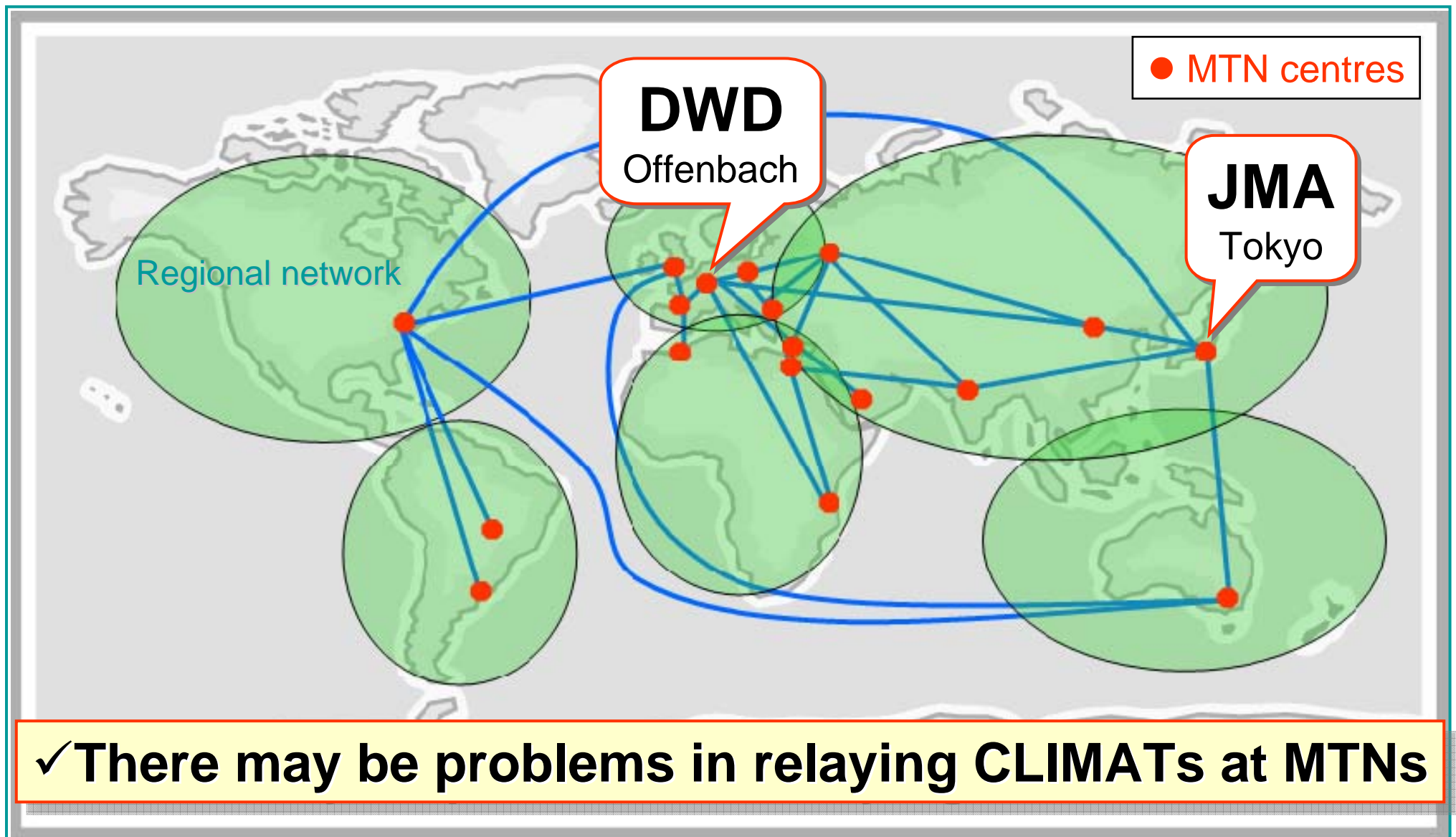


Updated on 14 Sep 2007

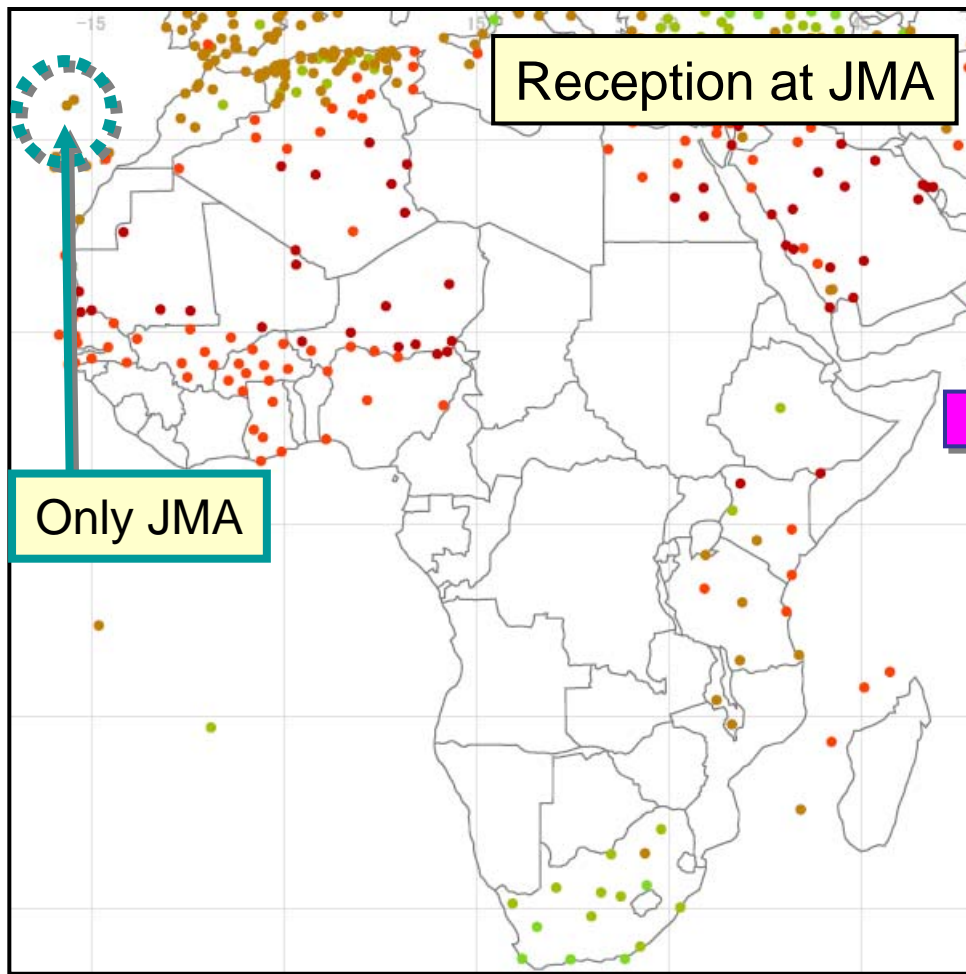


Updated on 30 Sep 2007

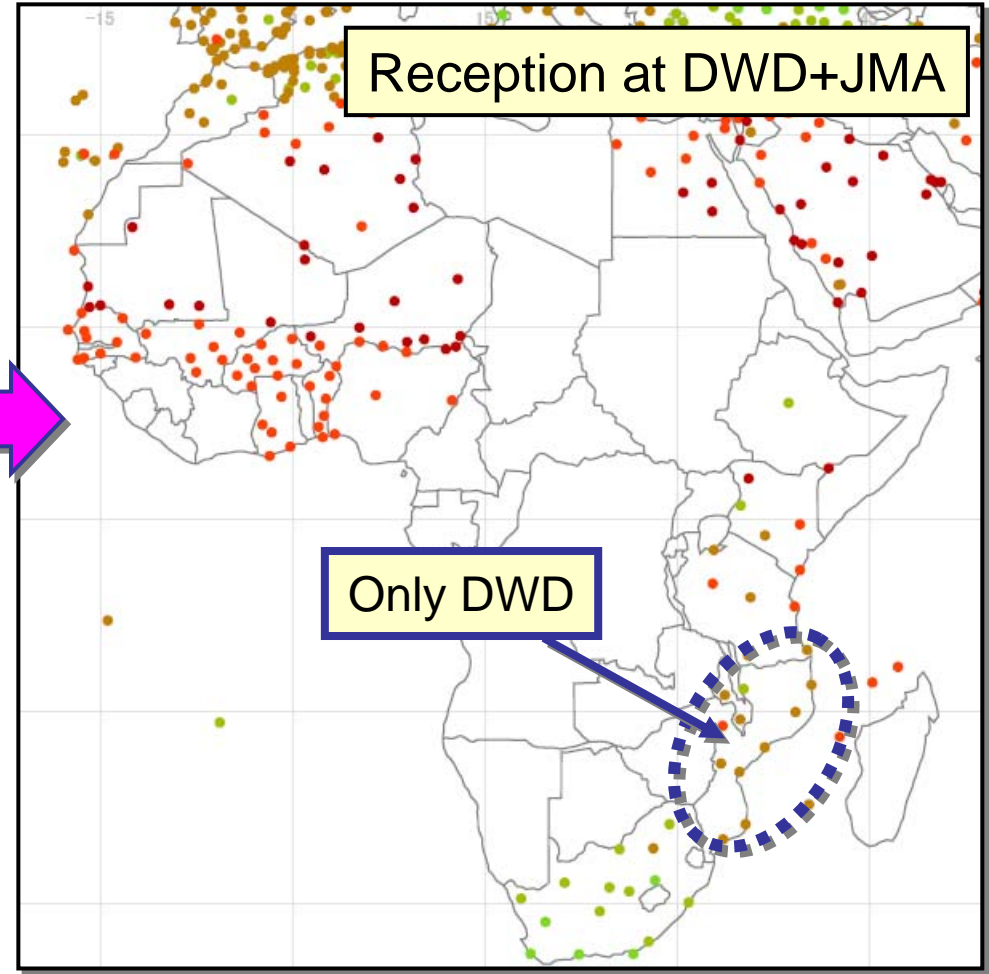
Main Telecommunication Network of GTS



CLIMAT data harmonization



Updated on 16 Oct 2009



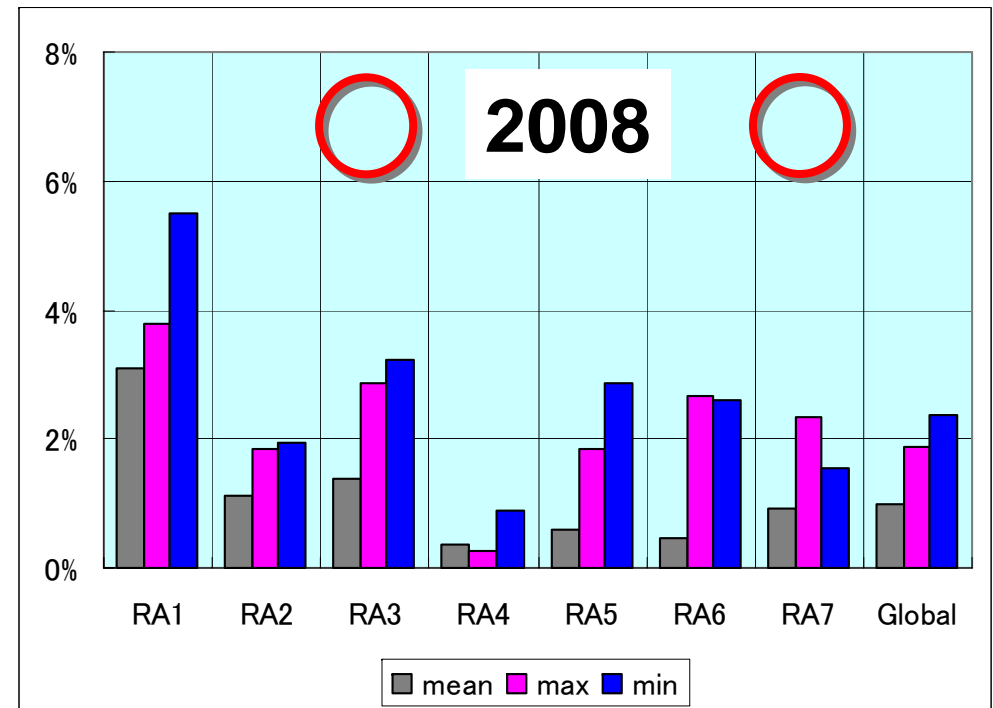
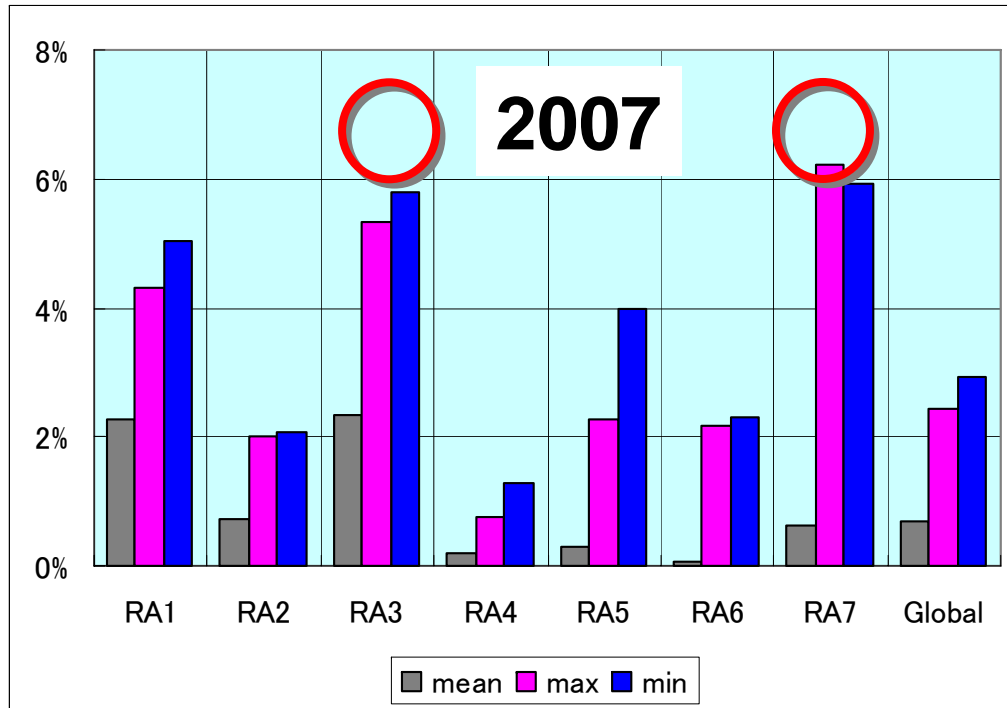
Updated on 30 Oct 2009

However, such situations do not always occur!

Report of GSNMC-JMA

➤ Quality of temperature data in CLIMAT report

✓ The qualities of monthly mean daily maximum and minimum temperature are improved in RA-3 and Antarctica.



Erroneous temperature data rates in reported CLIMATs

Response to the Code Migration

Code Migration Schedule of **BUFR-CLIMAT** report

- November 2005 --- Operational exchange start
- November 2010 --- Migration complete

Recommendation of **EMCGG-2 (2005)**

(v) Taking into account the migration to table-driven codes (CREX and BUFR), CBS Lead Centres and GCOS Monitoring Centres coordinate monitoring exercise with the migration process.



GSNMC-JMA has started preparing to monitor both of A/N and BUFR-CLIMATs.

JMA has already started sending BUFR-CLIMAT since November 2005.

Activities of GSNMC-JMA

➤ Trial monitoring of BUFR-CLIMAT (September 2009)

✓ It is reported that several NMHSs such as Czech started sending BUFR-CLIMAT to the GTS.

✓ But JMA receives BUFR-CLIMATs only from China, France, and Algeria.

✓ BUFR-CLIMATs may not be relayed at RTHs properly.

END...

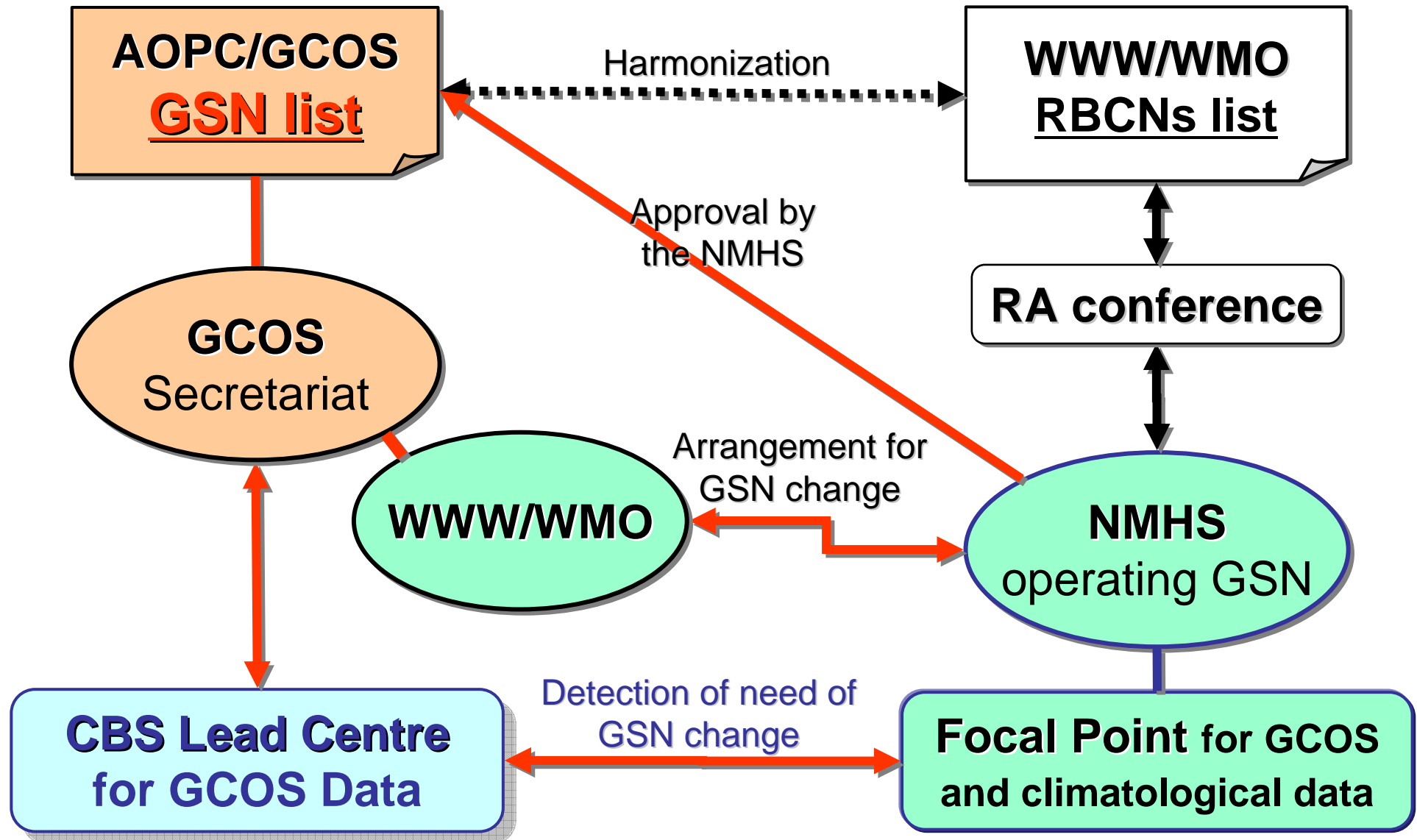
Changing and updating of GSN list

“GUIDE TO THE GSN AND GUAN” (GCOS – 73, p.15)

5. COMPOSITION OF THE NETWORKS

- ✓ Requests for additions to, or deletions from, the GSN should be made to the GCOS through the WMO.
- ✓ Such requests will be considered by the AOPC in the context of the GSN as a whole.
- ✓ AOPC proposals for modifications will be submitted for endorsement to the CBS and the RA Presidents concerned, since the GSN stations are to be included in the RBCN.

Changing and updating of GSN list



GSN and RBCN, RBSN

➤ **RBSN**: Regional Basic Synoptic Networks of surface and upper-air stations adequate to meet the requirements of WMO Members and of the World Weather Watch

SYNOP message

➤ **RBCN**: Regional Basic Climatological Networks necessary to provide a good representation of climate on the regional scale, in addition to global scale (**GSN**)

CLIMAT message

