WORLD WEATHER WATCH PROGRAMME

Global Observing System

Report to Plenary on item 3.1

REFERENCE:
Cg-XVI/C/WP 3.1(1)

APPENDICES:
A. Draft text for inclusion in the general summary on item 3.1
B. Draft Resolution 3.1.1/1 (Cg-XVI) – Global Observing System (GOS)

ACTION PROPOSED:
It is recommended that the draft text given in Appendix A be included in the general summary of the work of the session and that the draft resolution in Appendix B be adopted.
DRAFT TEXT FOR INCLUSION IN THE GENERAL SUMMARY OF Cg-XVI

3.1  WORLD WEATHER WATCH PROGRAMME (agenda item 3.1)

Global Observing System

3.1.1  Congress noted with appreciation that through the further integration of the surface and space-based components of the Global Observing System (GOS), the WMO Integrated Global Observing System (WIGOS) initial integration activities, as well as through coordinated efforts of Members, GOS continued to provide unique and sustainable observational data and information on the state of the Earth and its atmosphere to meet evolving requirements of various users. It agreed that along with the increasing amount of satellite data and services, further improvements were achieved globally in the quality and availability of data produced by other components, notably marine and aircraft-based observations.

3.1.1.2  Congress also noted that the implementation of stations and the availability of reports from RA I Regional Basic Synoptic and Climatological Networks (RBSN/RBCN) still remain low, and agreed that a concentrated effort on the part of the international community is needed to assist RA I Members in implementation and operation of RBSN/RBCN stations. Congress further noted that the reduced availability of, especially, upper-air data over Region I has a negative impact on the quality of medium-range forecast products over all Regions, not just over Region I itself. Congress was also informed that the availability of RBSN/RBCN reports from RA V was also low and this also resulted in impacts beyond the Region itself. Improving report availability in RA V also needs to be addressed.

3.1.1.3  Congress reaffirmed the importance of satellite systems on geostationary and on low-Earth orbits as a unique source of observational data, to be fully integrated into the WMO Global Observing System, while noting that satellite matters were addressed under agenda item 3.7.

3.1.1.4  Congress recognized the increased need for marine meteorological and other appropriate oceanographic observations to address the requirements of the Global Framework for Climate Services (GFCS), and urged Members to provide resources towards the further development of the global ocean observing system. It requested the Secretary-General to facilitate a systematic survey of marine meteorological and oceanographic observations to assess the strength and weaknesses of Member countries thus allowing interested Members to provide targeted assistance to those in need. Considering the substantial benefits expected for all parties in strengthening the partnership between developed countries and developing countries with regard to the implementation of the ocean observation systems, and the use of the collected data, Congress requested developed countries to consider providing support to capacity-building workshops and other technical capacity building activities related to ocean observation systems to be organized by JCOMM within the JCOMM Partnership for New GEOSS Applications Concept (PANGEA).

3.1.1.5  Congress welcomed that the evolution of the global observing systems was systematically adapted to user requirements and observing systems’ capabilities and was coordinated with Members so that it can provide the best possible value for investment. In this regard, the Rolling Review of Requirements (RRR) expanded to cover new application areas and the Observing System Experiments (OSEs) and Observing System Simulations Experiments (OSSEs) addressed new impact studies. In this context, Congress noted that Members will take into account the cost of individual observing systems, particularly radiosounding systems, in the design of their national or regional observing networks. The Fifth Workshop on the Impact of
Various Observing Systems on Numerical Weather Prediction, to be held in USA in 2012, will assist in addressing this issue.

3.1.1.6 Congress requested CBS to consider adding new application areas to RRR that are important from the WIGOS and climate perspectives, such as Polar Meteorology, including cryosphere, the global carbon cycle and Space Weather. Congress welcomed the decision of CBS to address the evolution of global observing systems in general and to rename the Expert Team for Evolution of the GOS to the Expert Team for Evolution of Global Observing Systems. In this regard, it noted development of the new implementation plans for the evolution of global observing systems and underlined the necessity that the new plans take into account not only the newly approved Vision for the GOS in 2025 and also WIGOS, GFCS and GAW and GCW developments. Congress noted that the CBS strategy for the evolution and future hosting of WMO databases of observational user requirements and observing systems’ capability is addressing sustainable solution of further development and maintenance of the RRR Database.

3.1.1.7 Congress welcomed CBS activities in support of the WMO Polar activities, while noting that WMO Polar activities were addressed under agenda item 11.9(1).

3.1.1.8 Congress noted the increased importance of aircraft-based observations for a cost-effective GOS, especially after implementation of reliable water vapour sensor into AMDAR sensor suite. Together with GPS Radio-occultation techniques, this would allow optimizing the upper-air observing network. In this regard, Congress appreciated that the WMO Secretariat took over the responsibility for technical coordination of AMDAR activities, through a staff position currently supported predominantly from the AMDAR Trust Fund. It requested Members to continue providing support to the AMDAR Trust Fund and the Secretary-General to consider, in future, funding this activity from the WMO Regular Budget.

3.1.1.9 Congress supported establishment of an international forum of users of satellite data telecommunication systems covering a wide user base, and to address remote data communication requirements - including tariff negotiations as needed - for automatic environment observing systems coordinated through WMO and partner organizations such as IOC and FAO. Congress requested the Secretariat to approach the partner organizations, and coordinate with the Argos Joint Tariff Agreement (JTA) with the view to establish such a forum during the next intersessional period. Congress emphasized that such a forum should not only consider tariff negotiations but should take a very broad view of available technologies, options and prices as well as cooperative mechanisms through the Data Collection Platform (DCP) services of meteorological satellites.

3.1.1.10 The Congress expressed its concern about the significant occurrence of intentional or unintentional damage to platforms used for ocean observation and marine scientific research, such as moored buoys essential for climate monitoring and storm surge and tsunameters and tide gauges necessary for tsunami early warning, and discussed this issue further in the Marine Meteorology Programme (agenda item 4.4).

3.1.1.11 Congress reaffirmed that GOS should continue its fundamental mission in providing, through coordinated efforts of Members, timely, reliable and consistent meteorological data to meet the national, regional and global requirements. It emphasized that GOS would become one of the core components of the WIGOS and that implementation of WIGOS would build upon and add value to it in fulfilling requirements of WMO and WMO co-sponsored Programmes in an effective and efficient way. In view of the growing significance of the GOS operations, Congress adopted Resolution 3.1.1/1 (Cg-XVI).
DRAFT RESOLUTION

Res. 3.1.1/1 (Cg-XVI) – GLOBAL OBSERVING SYSTEM (GOS)

THE CONGRESS,

Noting:
(1) Article 2 of the Convention of the WMO,
(2) Resolution 3 (Cg-XV) - Global Observing System (GOS),
(3) Draft Resolution 8.1/1 (Cg-XVI) – WMO Strategic Plan
(4) Draft Resolution 11.3/1 (Cg-XVI) – Implementation of the WMO Integrated Global Observing System (WIGOS),
(5) Draft Resolution 11.1/2 (Cg-XVI) – Implementation of the Global Framework for Climate Services
(6) Resolution 40 (Cg-XII) — WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in meteorological commercial activities,

Considering:
(1) That GOS is a unique international observing system consisting of surface-based and space-based components owned and operated by Members which provides unique and sustainable observational data and information on the state of the Earth and its atmosphere to meet evolving requirements of various users,
(2) That GOS, as a core component of the WWW Programme, is a backbone for the implementation of other WMO observational programmes and projects, including the Global Cryosphere Watch,
(3) That GOS will become one of the core components of the WMO Integrated Global Observing System (WIGOS), to be implemented in 2012-2015, and that the evolution of the GOS will be closely linked with the evolution of WIGOS,
(4) That investments of Members to the sustainable operation of evolving GOS have ensured a provision of operational data for a wide range of basic services Members provide to the user community, such as weather and climate analysis, forecasts and warnings on the national, regional and global levels, just to mention a few,
(5) That GOS ensures a continuous acquisition of the majority of Essential Climate Variables for the monitoring and forecasts of climate changes, and for the Global Framework for Climate Services (GFCS), as well as for other international initiatives,
Reaffirms:

(1) That sustainable operation of the GOS has a vital role and highest priority for WMO in providing observational data to meet the requirements of weather forecasts and warnings, climate monitoring and other strategic tasks of the Organization;

(2) The need for strengthening the GOS to meet the evolving requirements of various users and in particular, provision of a timely and reliable information for natural disaster prevention and mitigation;

(3) That GOS, through the coordinated efforts of Members, should continue its fundamental mission in providing timely, reliable and consistent meteorological data to meet the requirements of various users worldwide;

Urges Members:

(1) To give all possible support to the implementation of national observational programmes contributing to the GOS;

(2) To ensure sustainable operation of the GOS and encourage activities with respect to the optimization of observing elements and development and deployment of the advanced composite system, the priority should be given to projects in the following order:

   (a) Projects aiming at restoring and improving the existing, and building the new upper-air observational capabilities, of the RBSN/RBCN, with emphasis on GSN/GUAN stations, especially the activation of silent upper-air stations and the improvement of coverage over data-sparse areas;

   (b) Projects aiming at extending AMDAR coverage to developing countries, LDCs and SIDS to supplement scarce upper-air observations or to provide a cost-effective alternative to countries that cannot afford costly upper-air sounding systems;

   (c) Projects related to the improvement of data quality, regularity and coverage of surface observations of the RBSN/RBCN;

   (d) Projects related to the introduction and/or use of new observing equipment and systems including, where cost-effective, surface-based remote sensing systems (weather radars and wind profiles), AWSs, AMDAR, ASAP and drifting buoys;

(3) To follow guidelines and recommendations contained in the Implementation Plan for Evolution of Space and Surface-Based Sub-systems of the GOS (EGOS-IP), published as WMO/TD-No. 1267 and nominate/update a national point of contact responsible for reporting progress and plans in their country related to EGOS-IP;

(4) To continue providing contributions to the AMDAR Trust Fund for the support of technical developments and capacity building related to AMDAR;

Encourages Members:

(1) To keep supporting the Observing System Experiments (OSEs) and Observing System Simulation Experiments (OSSEs) aimed at testing the impact of the individual observing systems on NWP;
(2) To communicate historical data and metadata from their GSN/GUAN stations to CBS Lead Centres for GCOS;

(3) To increase the use of automatic weather observing systems where they enable cost effective real-time measurements, compatible with data from conventional systems, of quality and reliability suitable to all climate conditions;

Invites the regional associations to promote the coordinated implementation of the GOS in the Regions through sustainable functioning of RBSNs/RBCNs and to keep under continuous review related regional requirements;

Requests the Executive Council to continue its review and constructive guidance in the development of the GOS for the benefits of all Members;

Requests the Commission for Basic Systems:

(1) To develop the new Implementation Plan for the Evolution of global observing systems (EGOS-IP), taking into account the Vision for the GOS in 2025, WIGOS and GFCS, to guide Members in the implementation of their national observational programmes;

(2) To pursue its leading role in the technical planning and development of the GOS in close collaboration with relevant technical commissions in support of all WMO and related international Programmes and initiatives;

(3) To assist Members and regional associations in continued evolution of the global observing systems;

(4) To develop a mechanism to assess the performance of OSEs and OSSEs undertaken by Member countries and to communicate the benefits earned thereby, to other Member countries;

Requests the Secretary-General:

(1) To assist Members, within the budgetary resources available, in the implementation of the GOS Programme during the sixteenth financial period;

(2) To keep the Members informed of progress and developments in the planning and implementation of the GOS;

(3) To consider in future the funding of AMDAR activity from the WMO Regular Budget.

Note: This resolution replaces Resolution 3 (Cg-XV), which is no longer in force.