

WORLD METEOROLOGICAL ORGANIZATION

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COMMISSION FOR BASIC SYSTEMS

MANAGEMENT GROUP

THIRD SESSION (reduced)

MOSCOW, 31 MAY - 1 JUNE 2002



FINAL REPORT

DISCLAIMER

WMO General Regulations 42 and 43

Regulation 42

Recommendations of working groups shall have no status within the Organization until they have been approved by the responsible constituent body. In the case of joint working groups the recommendations must be concurred with by the presidents of the constituent bodies concerned before being submitted to the designated constituent body.

Regulation 43

In the case if a recommendation made by a working group between sessions of the responsible constituent body, either in a session of a working group or by correspondence, the president of the body may, as an exceptional measure, approve the recommendation on behalf of the constituent body when the matter is, in his opinion, urgent, and does not appear to imply new obligations for Members. He may then submit this recommendation for adoption by the Executive Council or to the President of the Organization for action in accordance with Regulation 9(5).

EXECUTIVE SUMMARY

The third (reduced) meeting of the CBS Management Group (MG) was held in Moscow at the Main Computer Centre of the Russian Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet) from 31 May to 1 June 2002.

The MG reviewed the contents of documents on CBS-related matters submitted to the upcoming EC-LIV, the status of preparatory work for CBS-Ext.(02) and the TECO on Data Processing and Forecasting Systems to be held in association with the CBS session.

The main goal of the discussions was to prepare a coordinated CBS position for EC-LIV on topics critical to CBS and the WWW. Appropriate comments and proposals resulting from the discussions were incorporated into "Proposed interventions of the president of CBS". The MG also reviewed the report of the CBS president to EC-LIV.

1. ORGANIZATION OF THE MEETING

1.1 Opening of the session

The session was opened at 10.00 a.m. on Friday, 31 May 2002 at the Main Computer Centre of the of Russian Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet) in Moscow, by Mr A. Gusev, acting president of CBS. In his opening remarks, Dr A. Frolov, Deputy Head of Roshydromet, on behalf of Dr A. Bedritsky, Permanent Representative of the Russian Federation with WMO, welcomed the participants to Moscow and stressed the importance of this MG meeting to assure effective participation of CBS representatives in the upcoming session of the EC and to discuss the preparation of CBS-Ext.(02). He underlined the effectiveness of the OPAGs which achieved through the active involvement of a large number of individual members from NHMSs. Mr D. Schiessl welcomed the participants on behalf of the Secretary-General and especially Mr Alexander Gusev, who became acting president of CBS as from 10 May 2002 following the resignation of the former president Dr Geoff Love. He thanked Roshydromet for hosting the meeting at such short notice before EC-LIV and congratulated them on the excellent facilities they had arranged. He also thanked the participants for coming, outlined the main objectives for this Management Group reduced session, and wished everyone a fruitful and productive meeting.

1.2 Adoption of the agenda

The adopted agenda and the list of participants are given in Annex I and II respectively.

1.3 Working arrangements for the meeting

The session agreed on the working hours and noted that the report would be compiled and produced by the WMO Secretariat after the meeting.

2. REVIEW OF THE REPORT OF THE CBS PRESIDENT TO EC-LIV

2.1 The MG reviewed the draft report by the president of CBS to EC-LIV.

2.2 In the light of comments provided by Mr K. O'Loughlin, chair of the OPAG-PWS, the MG agreed to update the president's presentation to EC-LIV with respect to Public Weather Services. In particular, the MG noted valuable results achieved in accomplishing the tasks assigned to this OPAG on the major issues of concern to Members such as visibility of the NMSs, the need for a single official voice in warnings, international exchange of warnings and public weather forecasts, relations between NMSs, the media and emergency management, capacity building to assist NMSs to improve their services to the public. The PWS Programme has successfully continued a series of regional seminars and training workshops as part of its capacity building efforts which would not be possible without assistance from several Members. The MG also noted that the upcoming session of ICT on PWS in November will give particular attention to how the PWS Programme can address the emerging issues identified at recent meetings on the role of NMHSs and the LTP.

2.3 Ms A. Simard, chair of the OPAG-DPFS, informed the meeting on the increasing potential and number of products and services based on NWP. In particular, she pointed to applications related to the atmospheric dispersion of chemical and radioactive material, volcanic ash, and viral diseases such as foot and mouth disease as useful contribution to decision-making in related emergency situations. Significant effort is put into developing probabilistic forecasts that open the door to a number of new applications, such as the assessment of the probability of a particular event to occur, the likelihood of a range of scenarios to develop, which also have impacts on decision-making in particular in emergency situations. Implementation support of GDPS-related functions in developing countries was identified as a priority area for action, which would include applications such as the prediction of extreme events (e.g., snow storms, high winds, heavy rain, hail). It was also noted that many OSEs are being carried out using GDPS facilities to assess the different components of the observing system, and are being used as input to the ongoing redesign of the GOS.

2.4 Following proposals by Mr M. Saloum, co-chair of the OPAG-IOS, the MG agreed to amend the text of president's presentation under " Global Observing Programme" to specify a positive work on the improvement of satellite system and data utilization for CBS members through working with the Coordination Group of Meteorological Satellites (CGMS), the development of the Virtual Laboratory for Satellite Data Utilization and updating of the WMO publication No. 258 "Guidelines for Education and Training of Personnel in Meteorology and Operational Hydrology" with an input on satellite matters to its present edition.

2.5 The text of the CBS president's presentation to EC-LIV is given in Annex III.

3. REVIEW OF THE OTHER WWW RELATED MATTERS TO BE DISCUSSED DURING EC-LIV

3.1 The MG recognised the crucial importance of EC-LIV, being the last session before Cg-XIV. The decisions will directly impact the future work of the Commission as well as the WWW and other programmes under CBS' responsibility. The group noted that along with core issues, new essential elements related to WWW activities including quality management, development of verification and certification system for the forecasts, and the Future WMO Information Systems will be discussed during EC-LIV.

3.2 The main goal of the discussions was to prepare a coordinated CBS position on the topics critical to CBS and the WWW. Comments and proposals resulted from discussions on

- Item 2.5 (Report of the 2001 and 2002 PTC Meetings)
- Item 3.3 (WMO Satellite Activities)
- Item 12 (Programme and Budget)
- Item 13.1 (Role and Operation of NMHSs)
- Item 14.1 (Evaluation of the implementation of the 5LTP)
- Item 14.2 (Preparation of the 6LTP)

which were incorporated into "Proposed interventions of the president of CBS" as given in Annex IV.

4. ANY OTHER BUSINESS

4.1 The MG considered the agenda, working arrangements, establishment of working committees and other issues pertinent to the upcoming extraordinary session of CBS. The group invited the OPAG chairs and co-chairs as well as the chairs of the ETs to review the progress in their areas of responsibility and give consideration to newly emerging tasks and changes in the composition of ETs, for discussion at the session.

4.2 A. Simard briefed the MG on the status of preparation of the TECO on Data Processing and Forecasting Systems to be held in association with CBS-Ext.(02). The MG noted that the selection of papers should be carried out as soon as possible. The MG felt that recommendations of the conference should be developed and presented to the session of CBS. The MG further noted that the conference organization will be discussed during ICT/DPFS meeting to be held in Moscow in the following week.

5. CLOSURE OF THE SESSION

Following appreciation expressed to the participants for their contributions and cooperation during the meeting, the acting president of CBS closed the meeting on Saturday, 1 June 2002.

CBS Management Group - Third (reduced) Session

**Main Computer Centre of Roshydromet
Moscow, Russian Federation**

31 May - 1 June 2002

AGENDA

- 1. ORGANISATION OF THE MEETING**
 - 2. REVIEW OF THE REPORT OF THE PRESIDENT OF CBS TO EC-LIV**
 - 3. REVIEW OF THE WWW-RELATED MATTERS TO BE DISCUSSED DURING EC-LIV**
 - 4. ANY OTHER BUSINESS**
 - 5. CLOSURE OF THE SESSION**
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CBS Management Group - The third (reduced) session

**Main Computer Centre of Roshydromet
Moscow, Russian Federation**

31 May - 1 June 2002

PARTICIPANTS

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**Report of the president of CBS to EC-LIV
Working Committee A, 11 June 2002, p.m.**

Agenda item 3.1

WWW basic systems and support functions; the report of the president of CBS

INTRODUCTION

Thank you Mr Chairman.

Some of the members of the Council may be surprised to see me here as the acting president of CBS. I became acting president only one month ago, with the resignation of the former president Dr Geoff Love. Therefore, this report will consist primarily of the activities of Dr Love, who was president for 11 of the past 12 months.

ACTIVITIES OF THE PRESIDENT

The president of CBS attended

- Two meetings of the Presidents of Technical Commissions;
- Consultative Committee on High-level Policy on Satellite Matters;
- EC Working Group on WMO Long-term Planning;

and held meetings of the CBS Management Group in December 2001 and in May 2002.

QUALITY MANAGEMENT

CBS had considered the concept of total quality management and ISO 9000 certification and had appointed a Rapporteur on Total Quality Management at its twelfth session to investigate whether and how the concept of total quality management could be applied to the WWW System. At its meeting last December the CBS-MG reviewed the preliminary reports of two rapporteurs. The CBS-MG considered all the options that appeared to be relevant to the WWW in connection with ISO 9000 and determined that the development of quality management processes within the existing framework of the WWW technical regulations, procedures and practices would be the most appropriate approach. The president of CBS submitted a document containing such a recommendation on this issue to the EC Advisory Group on the Role and Operation of NMHSs. This topic will be discussed under agenda item 13.1.

INNOVATIVE COLLABORATION

CBS-XII agreed that a study should be undertaken to investigate existing cooperative arrangements and agreements and requested a Rapporteur to undertake a study and report the findings to the Commission. The rapporteur's report has been completed and is being circulated among CBS members for review, and it will be discussed at the next session of CBS.

GLOBAL OBSERVING SYSTEM

Regarding the GOS, I am pleased to report that over the past year the overall implementation of surface and upper-air stations in the Regional Basic Synoptic Networks (RBSNs) has shown increasing stability. Nonetheless, the number of SYNOP reports received daily at MTN centres of the GTS varied from 51% in Region I to 92% in Region VI, giving a global average of 75% of expected reports. Availability of TEMP reports varied from 29% in Region I to 87% in Region IV with a global average of 61%. Gaps, especially in upper-air data coverage, have persisted over certain areas in Africa, Asia and South America mainly due to obsolete equipment and lack of consumables.

The OPAG on Integrated Observing Systems has held three meetings over the past year. These included the further development of the Virtual Laboratory for Satellite Data Utilization and updates to “Guidelines for Education and Training of Personnel in Meteorology and Operational Hydrology” (WMO-No. 258) to improve the utilization of satellite systems and data. The OPAG has also taken additional actions to enhance coordination and collaboration between CBS and GCOS on the regional level and the concept of a Regional Basic Climatological Network (RBCN) had already been adopted by five Regional Associations..

GLOBAL TELECOMMUNICATION SYSTEM AND DATA MANAGEMENT

Regarding the GTS, there has been continued progress in the upgrading of GTS connections and procedures. In Region I, despite serious economic difficulties, continuous efforts had enabled some improvement of GTS circuits via leased lines, satellite-based telecommunications or public data networks, including the Internet. Satellite-based data-distribution and data-collection systems continue to play a crucial role. The RMTN in Region II was being improved by the step-by-step implementation of data communication services, such as Frame Relay services, complemented by satellite-based distribution systems and the use of the Internet.

In South America, the RA III Regional Meteorological Data Communication Network project has progressed to the implementation phase, with the international tender being launched later this year. The two-way satellite-based RMTN of Region IV continued to be fully operational, but the replacement of PC-based terminal equipment at NMCs was becoming a high priority.

Significant progress has been made in the Region V RMTN with the implementation of Frame Relay services, the inclusion of additional circuits, in particular in the Pacific, and the expansion of satellite-based communications.

The RA VI RMDCN now connects 33 centres and provisions have been agreed to extend the RMDCN services, in particular to include inter-regional GTS circuits.

The development of the Future WMO Information System is an issue of particular importance. The vision of the Future WMO Information System has clarified and expanded and presented at the last session of the Council. Considering the needs and capabilities of less developed NMHSs, a strategic path has been developed that the NMHS could follow as WMO migrates to its future information system, which should make it possible for the NMCs to participate at various technical levels according to their capabilities and responsibilities. This path should ensure a smooth transition and coordination between the Future WMO Information System and the existing WWW structure.

We are now at a crossroads concerning the further development of the Future WMO Information System. Even as we discuss this issue technology continues its rapid advance. How should WMO proceed?

There are three possible approaches to further develop the concept:

- a. Continue the current Inter-programme Task Team, established and led by CBS and with representation of the other technical commissions. This team has performed well, however, the interest and commitment of the other technical commissions has not always been optimum.
- b. Establish an Executive Council Panel on the Future WMO Information System. An EC Panel would be best able to address policy-level issues that are connected with this concept..
- c. Establish an Inter-commission Task Team by resolution of EC. This would ensure that the interests of all of the affected technical commissions would be represented. However, it would require some time to organise and may not be the best group to ensure urgently-needed pilot projects are undertaken

I invite the Council to give this matter serious consideration.

GLOBAL DATA PROCESSING SYSTEM

Concerning the Global Data Processing System, four meetings were held in the past year with emphasis on the enhancements and capacity building of Members' data processing and forecasting facilities. Advanced Centres have further developed ensemble prediction systems, especially for medium range and long range forecasts. CBS has addressed issues related to procedures and arrangements for making EPS products widely available to Members as well as related necessary training, WWW aspects of provision of infrastructure for global long range forecasts and standards for their verification, in collaboration with CAS and CCI.

The emergency response and related activities focused on developing use of new technologies, notably password protected web site based on minimum standards for delivery of RSNC products but also that could be used for request reply of products and updates to products. Guidance on the role of NMHSs establishing collaboration with and disseminating information to local and national agencies in an emergency has been developed and included in WMO-TD/No. 778

Activities for co-operation in transport modelling with the Comprehensive Test-Ban Treaty Organization (CTBTO) and standards and procedures are being developed. Likewise arrangements to inject CTBTO meteorological observation into the GTS and provide CTBTO with radiosonde data through the RSMC Montreal (CMC Canada) have been made.

PUBLIC WEATHER SERVICES

As regards the Public Weather Services Programme, good progress has been achieved on the tasks assigned to the OPAG Teams on issues that relate to some of the major issues of concern to Members such as visibility of the NMSs, the need for a single official voice in warnings, international exchange of warnings and public weather forecasts, relations between NMSs, the media and emergency management, and capacity building to assist NMSs to improve their services to the public.

Each of the Expert Teams under the PWS OPAG has met in the past year and progress has been good on issues such as the development of Web sites for the collection of warnings and cities forecasts, formats for exchange of public weather forecasts, relations with the media and emergency management, translating benefits of research and technology into improved services, and forecast verification and user-based evaluations. The PWS will give consideration to developing further effective WMO links with and support for weather services in support of the Olympics, in particular the next event to be held in Athens (Greece).

The PWS programme, in concert with the GDPS programme, has continued a limited series of regional seminars and training workshops as part of its capacity building efforts. These are popular with Members and would not be possible without assistance from several Members with resource persons to assist with training.

CBS has also maintained productive dialogue with CAS and the World Weather Research programme through attendance of the Chair of the OPAG on PWS at meetings of the WWRP Scientific Steering Committee.

COOPERATION WITH REGIONAL ASSOCIATIONS

Over the next several months the CBS implementation/coordination teams pertaining to each of the four OPAGs will be meeting to prepare their recommendations to the Commission in December. The Council may recall that the CBS ICTs include as members all of the regional rapporteurs of the various components of the WWW. Through this arrangement and the continuing participation of the chairpersons of the regional working groups on the WWW, the regions have a strong voice in the work of the Commission.

CLOSING

Mr Chairman,

There are, of course, many other aspects of importance related to the WWW Programme and the CBS, and specifically to the corresponding Programme and Budget of the next Financial Period, which should

be highlighted and discussed. I will raise these over the next few days under the appropriate agenda items.

Since I have become acting president of CBS, I can no longer serve as vice-president. Therefore, a new vice president must be elected and I will initiate the procedure for election through correspondence in due course.

It is quite a challenge to step into the role of acting president of CBS, and is particularly difficult to follow in the footsteps of Dr Love, who has been an exceptionally enthusiastic and active president. I am honoured to be chosen for this task and will strive to meet the expectations of the Council and members of CBS.

Thank you, Mr Chairman.

EC-LIV

Proposed interventions of the president of CBSItem 2.5 (Report of the 2001 and 2002 PTC Meetings)

On the need to promote the Future WMO Information Systems in the next four years:

The presidents of Technical Commissions emphasized the importance of Information Systems and Services for all the WMO Programmes. CBS has taken the lead in the development of a Future WMO Information Systems, which could cost-effectively support the WWW and all other WMO Programmes. The rapid development of world-wide information and communication technologies and services give a crucial importance to the coming 4 year-period in undertaking the adequate development and implementation of a coordinated information system for all NMHSs. Missing such an opportunity may have a long lasting detrimental impact, because:

- NMHSs may not be able to benefit from new and cost-effective services;
- Growing dissatisfaction with the current GTS may encourage Members to seek solutions for their communication needs outside WMO;
- Developing NMHSs, but also many of the developed ones, may not be able to access the data they need for their activities.

EC may wish to consider establishing a special mechanism for ensuring coordinated and effective planning and implementation between all Technical Commissions.

Item 3.3 (WMO Satellite Activities)**Proposal on the establishment of a WMO Space Programme:**

Many of the activities of the WMO Satellite Activities programme are embedded in and carried out through CBS, specifically the Open Programme Area on Integrated Observing Systems and its expert teams. These teams include satellite experts from the WWW Programme, from other WMO Programmes and some satellite operators. The establishment of the proposed WMO Space Programme would strengthen the output of this programme.

Item 12 (Programme and Budget)**On the strong need to provide more financial resources to the WWW and the PWS Programmes in the next financial period:**

WMO Space Programme: The proposed budget for the WWW for the next financial period is already lower than in the current financial period, at least as far as the volume of the programme activities is concerned. A further reduction of the WWW budget that could result from the establishment of a WMO Space Programme, would put seriously into question the ability of CBS to carry out its mission and the tasks assigned to it by Congress and EC. While I believe an enhancement of the WMO Satellite Activity programme would be very desirable, I recommend to the Council to consider and link this with a realistic availability of the extra-budgetary resources for this purpose.

Global Observing System: One of the main goals of the WWW is the restructuring the Global Observing System into a future, more cost-effective composite observing system. To carry out this task and to bring to fruition the work begun in this financial period on the evolution of surface- and space-based components of the GOS, the WWW needs to have adequate financial resources for supporting the corresponding work of CBS and in the Regional Associations. Particular attention should be given to:

- The strengthening of the weather and climate observing systems through working arrangements between WWW and other related WMO programmes such as GCOS with the objective to improve the upper-air measurements and systematic observations for climate monitoring, especially in developing countries;

- The requirements for adjusted observing networks in support of disaster prevention and early warning activities.

Quality Management System and Certification: As regards the new priority activity on Quality Management Systems and Certification, I should like to emphasize that, if CBS is requested to carry out this work it would need additional resources for this purpose. It is unrealistic to expect that CBS could successfully accomplish this challenging task within existing budget allocations.

Public Weather Services Programme: In relation to the priority of the issues being addressed compared to the resources available, the present allocation is very modest. Impacts of real reductions will include reduced activity on efforts to increase the visibility of NMSs through improved service delivery, a slowing in the development of arrangements for international exchange of warnings and public weather forecasts, and reduced efforts on capacity building.

Capacity building: There is continuing concern that the rapid technological development will spread further and further the gap between the least and most developed NMHSs. As we all are aware, there are persistent shortcomings in GTS and GOS implementation in the developing countries. These call for CBS to strengthen its capacity building efforts. Plans are being developed, and will be presented at the forthcoming session of CBS in December, to consider and implement more effective mechanisms within the Commission dedicated to capacity building coordination, project definition and implementation. These will, inter alia, aim at catching up with new cost-effective technical opportunities in developing countries in support of the basic systems, and also include currently unfunded dedicated measures to enable developing countries to use modern binary and table-driven codes, in the context of the agreed WMO migration to a global use of such code forms in the next five years. However, such plans depend also on reinforced funding. The foreseen financial resources for the WWW Programme for the period 2004-2007 allow very little room for such capacity building activities. I recommend to Council to consider this proposal with a view to agreeing to measures that would facilitate the capacity building work of CBS.

Item 13.1 (Role and Operation of NMHSs)

Quality Management Certification

Development of additional documentation to incorporate specific quality management procedures into the WMO Technical Regulations, at a level of detail similar to the ISO 9001 procedures, would still amount to a challenging task because the Operational Manuals, such as the GOS, GTS and GDPS, have evolved over decades and would need fundamental revision and restructuring. Other, more recently produced guidance material, such as the Guide on Public Weather Services and the Guide on Data Management contain elements of Quality Management, which would need to be adjusted or expanded for that purpose. If CBS is requested to carry out this work it would need additional resources for this purpose.

Item 14.1 (Evaluation of the implementation of the 5LTP)

On the concern that the rapid technological development will widen the gap between the least and most developed NMHSs:

Although there have been significant improvements in all Regions, the monitoring of the 5LTP shows that there are persistent shortcomings in Information Systems and Services of the WWW. The rapid development of information system technology provides a unique opportunity for enabling a sustainable implementation of modern and much more cost effective information systems in NMHSs of developing countries, or with economies in transition. Catching up with this opportunity needs, however, reinforced activities and enhanced funding to develop adequate solutions for small NMCs; provide training on required information technologies and assist in implementation. Otherwise, the rapid technological development will widen the gap between the least and most developed NMHSs.

Item 14.2 (Preparation of the 6LTP)

On the strengthening of the dissemination of AMDAR data in the Regions

The use of AMDAR in developing countries is still unsatisfactory, partially because, for example in Africa, NMHSs do not receive such data via the GTS or have not had the chance or the knowledge to develop appropriate applications for such data. It is therefore recommended to include in Chapter 6 of the Draft 6LTP, in paragraph 6.1.12, an appropriate sentence, that could read: On a regional basis, observing networks that are adaptable to changing requirements should be developed and efforts should be enhanced to ensure the availability and use of AMDAR data, in particular in developing countries.

Natural Disaster Prevention: While this is an important issue and the need for a coordination mechanism is obvious, there is a concern about the need for a specific new program and budget. These seems to be a need to correctly analyse that the scope of the new programme in comparison with activities covered by existing programmes of WMO, specifically the Tropical Cyclone programme and the Emergency Response Activities programmes of the WWW, and the Public Weather Services of the AMP.