

# Executive Council

Fifty-ninth session

Geneva  
28–30 May 2007

Abridged final report with resolutions

WMO-No. 1027



**World  
Meteorological  
Organization**  
Weather • Climate • Water

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This report contains the text as adopted by Plenary and has been issued without formal editing.

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# GENERAL SUMMARY OF THE WORK OF THE SESSION

The Executive Council of the World Meteorological Organization (WMO) held its fifty-ninth session from 28 to 30 May 2007 at WMO Headquarters, under the chairmanship of Mr A.I. Bedritsky, President of the World Meteorological Organization, after the closure of Fifteenth Congress.

## 1. OPENING OF THE SESSION (*agenda item 1*)

### 1.1 OPENING OF THE SESSION (*agenda item 1.1*)

1.1.1 The President of the Organization opened the session at 10 a.m. on 28 May 2007.

1.1.2 In his opening remarks, the President stressed that the fifty-ninth session of the Executive Council was important as it was the first one after Fifteenth Congress. He congratulated members on their election to the Executive Council and especially welcomed the new members of the Council. A complete list of participants is given in [the appendix to the present report](#).

1.1.3 The President referred to the earlier meeting of Executive Council-elect, which was organized to facilitate the work of the fifty-ninth session, and reminded Council members, who were representing the Organization, of the role of the Executive Council, their important responsibilities and the many critical tasks they would have to carry out over the next four years. He drew attention to the guidance which the Executive Council had to provide in the implementation of the decisions of Congress.

1.1.4 During the short session of Council, immediately following Fifteenth Congress, a number of important actions relating to the mandatory annual work of the Executive Council, such as consideration and establishment of the Council's subsidiary bodies and matters relating to various prizes and awards were to be taken. The Council was also required to agree on the programme and budget for the first biennium (2008–2009) of the fifteenth financial period.

### 1.2 APPROVAL OF THE AGENDA (*agenda item 1.2*)

The Executive Council adopted the proposed annotated agenda, as contained in EC-LIX/Doc. 1.2.

### 1.3 ESTABLISHMENT OF COMMITTEES (*agenda item 1.3*)

1.3.1 The Executive Council decided not to set up the traditional working committees. All items were therefore considered in the Plenary. The following open subcommittees were established to consider specific items:

#### **Programme and Budget 2008–2009**

Chairperson	W. Kusch
Core members	G.B. Love J.J. Kelly, Jr.

#### **Scientific Lectures for EC-LX**

Chairperson:	M-K. Lee
Core members	M. Capaldo J.R. Mukabana K.S. Yap

### **World Meteorological Day 2009**

Chairperson: C.R.J. Viñas García  
 Core members M.A. Abbas  
 W. Gamarra Molina  
 D. Musoni  
 M. Ostojski

**1.3.2** The Council appointed Mr J.R. Mukabana as Rapporteur to review previous resolutions of the Executive Council.

#### **1.4 PROGRAMME OF WORK OF THE SESSION** (*agenda item 1.4*)

The necessary arrangements concerning the working hours and the allocation of agenda items to the Plenary were made.

#### **1.5 APPROVAL OF THE MINUTES** (*agenda item 1.5*)

The Executive Council noted the decision made by the Executive Council at its fiftieth session and confirmed by Thirteenth Congress that no minutes of plenary meetings at sessions of the Executive Council, regional associations and technical commissions should be prepared unless otherwise decided for special items. Tape recordings of plenaries would continue to be made and would be retained for record purposes.

### **2. REVIEW OF PANELS AND OTHER BODIES OF THE EXECUTIVE COUNCIL** (*agenda item 2*)

**2.1** The Council discussed decisions of Fifteenth Congress requiring follow-up action by the Council and decided to establish its working structure, comprising of panels of experts, working groups and committees, as follows:

**2.2** It was agreed to maintain the following Executive Council subsidiary bodies:

- (a) Audit Committee;
- (b) WMO Staff Pension Committee.

**2.3** It was agreed to establish or re-establish the following Executive Council subsidiary bodies:

- (a) EC Panel of Experts on Education and Training;
- (b) EC Panel of Experts on Antarctic Meteorology;
- (c) EC Working Group on WMO Strategic and Operational Planning;
- (d) EC Working Group on the WMO Integrated Global Observing System and the WMO Information System;
- (e) EC Working Group on Capacity Building;
- (f) EC Working Group on Climate and Related Water and Environment Matters;
- (g) EC Working Group on Disaster Risk Reduction [and Service Delivery];
- (h) EC Advisory Panel of Experts on Gender Mainstreaming.

**2.4** It was agreed to maintain the following selection committees for WMO awards and prizes:

- (a) Selection Committee for the IMO Prize;
- (b) Selection Committee for the WMO Research Award for Young Scientists;
- (c) Selection Committee for the Professor Dr Vilho Väisälä Award;
- (d) Selection Committee for the Norbert Gerbier-MUMM International Award.

**2.5** It was agreed to maintain the following other bodies reporting to the Executive Council:

- (a) Joint WMO/IOC/ICSU Scientific Committee for the World Climate Research Programme;
- (b) Steering Committee for the Global Climate Observing System;
- (c) Meetings of Presidents of Technical Commissions;
- (d) WMO Consultative Meetings on High-level Policy on Satellite Matters;
- (e) Intercommission Coordination Group on the WMO Information System;
- (f) Intercommission Task Team on Quality Management Framework;
- (g) Intercommission Task Group on the International Polar Year 2007–2008.

**2.6** The membership of Executive Council bodies and other bodies reporting to the Council as defined by the fifty-ninth session is given in [Annex I to the present report](#).

**2.7** The Council agreed on the terms of reference of the newly established bodies and amended the terms of reference of re-established bodies, as appropriate. The terms of reference of the Audit Committee would need to be reviewed at a future session of the Council. The Council requested those bodies to put in place, for the next biennium, a set of specific, measurable, achievable, relevant and time-bound targets and objectives related to their work. The Council emphasized that in view of budgetary constraints, the Organization would provide financial support for participation in meetings of its subsidiary bodies normally to experts from developing countries only, and that, as a general rule, alternates of Council members, elected in their personal capacity, would not be funded. Further in that connection, the Council encouraged its subsidiary bodies to use in their work, as much as possible, modern means of communication with a view to reducing the number of meetings to a minimum, and to optimizing their outputs. The Council adopted [Resolutions 1 \(EC-LIX\), 2 \(EC-LIX\), 3 \(EC-LIX\), 4 \(EC-LIX\), 5 \(EC-LIX\) and 6 \(EC-LIX\), 13 \(EC-LIX\) and 22 \(EC-LIX\)](#).

### **3. CONSIDERATION OF DECISIONS OF FIFTEENTH CONGRESS REQUIRING URGENT ACTION BY THE EXECUTIVE COUNCIL** (*agenda item 3*)

#### **Technical Cooperation Programme**

**3.1** The Executive Council noted that Fifteenth Congress decided that the WMO Voluntary Cooperation Programme (VCP) would be continued during the fifteenth financial period (Resolution 24 (Cg-XV) – The WMO Voluntary Cooperation Programme). Congress also agreed on the fields of cooperation covered by the VCP and the continuation of the use of the previously established rules and procedures for the Programme.

**3.2** Noting that various technical projects including training had been satisfactorily implemented in 2006 under the VCP coordinated programmes approved by the Council at its

fifty-eighth session and the priority areas were still valid, and taking into consideration the needs of Members for the support to capacity-building activities addressing the implementation of the Quality Management System at national and regional levels, the Council approved an addition of “Support to capacity-building for the Quality Management System” to the list of VCP coordinated programmes for 2007–2008.

**3.3** The Council noted that in 2006 the VCP(F) was used mainly for expert services, short-term fellowships and training activities, Technical Cooperation among Developing Countries activities, and high-priority programmes, in particular for support to upper-air and surface observing stations, for the improvement of telecommunication systems including the Internet capabilities, support to the African Centre of Meteorological Applications for Development, and mitigation of natural disasters and emergency assistance activities, in accordance with the guidelines approved by the Council at its fifty-eighth session, and approved the allocations of the VCP(F) for 2007, based on estimated income of approximately US\$ 190 000 as given in [Annex II to the present report](#). The Council authorized the Secretary-General to implement the projects as funds became available.

### **Natural Disaster Prevention and Mitigation Programme**

**3.4** The Executive Council recalled the recommendations of the second session of the Executive Council Advisory Group on Natural Disaster Prevention and Mitigation (29–31 January 2007), reviewed during Fifteenth Congress, and noted that Congress requested the Council to consider those issues for adoption and/or implementation as appropriate. The Council further recalled the decision of Fifteenth Congress to adopt the WMO strategic goals in disaster risk reduction and their reflection in the WMO Strategic Plan.

**3.5** The Council adopted the Vision Statement of WMO in disaster risk reduction as considered by Fifteenth Congress:

“To enhance the contributions of National Meteorological and Hydrological Services, in a more cost-effective, systematic and sustainable manner, towards the protection of lives, livelihoods and property, through strengthening of capabilities and cooperation in the field of disaster risk reduction at the national to international levels.”

**3.6** The Executive Council recalled the recommendations of the Advisory Group regarding changing the name of the WMO Natural Disaster Prevention and Mitigation Programme and noted that Fifteenth Congress considered that the name did not adequately reflect: (i) the complete scope of WMO and National Meteorological and Hydrological Services (NMHSs) in all components of disaster risk reduction including, prevention and mitigation, preparedness, response, recovery and reconstruction; and (ii) the scope of the Programme. The Council further noted that the name might not be in alignment with the international terminology and developments, as the term “natural disaster” implied that disasters happened naturally rather than being caused by natural hazards, and the term “disaster risk reduction” was the standard terminology used in the Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters, and adopted by the international community and agencies. The Council decided to change the name of the Programme to WMO “Disaster Risk Reduction Programme” and requested that the decision be henceforth reflected in all future documentation and references to the Programme.

### **Follow-up to the International Conference on Secure and Sustainable Living: Social and Economic Benefits of Weather, Climate and Water Services (Madrid, Spain, 19–22 March 2007)**

**3.7** The Council recalled that the International Conference on Secure and Sustainable Living: Social and Economic Benefits of Weather, Climate and Water Services, held in Madrid, Spain, from 19 to 22 March 2007, was a major activity aimed at promoting the recognition of the social and economic benefits of weather, climate and water services and products. It further recalled that Fifteenth Congress requested that an appropriate mechanism be put in place with the aim of ensuring effective and sustained follow-up to the conference.



**3.8** To promote concerted actions that would duly reflect the outcome of the conference, the Council recognized the Madrid Action Plan (see *Abridged Final Report with Resolutions of the Fifteenth World Meteorological Congress* (WMO-No. 1026), general summary, paragraphs 7.4.39 to 7.4.46) as a basis for the developing follow-up programme and activities. Consequently, the Council concluded that the follow-up programme and activities should give priority to:

- (a) Enhancing the WMO capability to respond to the changing needs of its Members and society in general;
- (b) Assembling authoritative feedback from the users of the services provided by NMHSs;
- (c) Furthering development and strengthening of techniques and methods to increase the utility and the socio-economic benefits of services NMHSs provided in all user sectors;
- (d) Promoting, at the national and international levels, closer dialogue, partnerships and multidisciplinary understanding between providers and users of weather, climate and water services.

**3.9** The Council urged the Secretary-General to encourage National Meteorological and Hydrological Services to take the initiative at the national level, through outreach workshops and in other ways. In that regard, it stressed the need to develop guidance materials that would enable the Services in establishing improved consultation and partnership arrangements with their major user community groups and other stakeholders. That should lead to further appreciation that resources provided for the development and/or improvement of weather, climate and water services should not be regarded as expenditures, but rather as investments.

**3.10** Recalling that Fifteenth Congress emphasized the importance of addressing social and economic benefits resulting from the provision of meteorological, hydrological and related services, the Council further urged the Secretary-General to take the following actions as a way of giving due attention to related issues arising from the Madrid conference:

- (a) Publication of materials arising from the conference;
- (b) Develop a programme to take into consideration relevant aspects of the Madrid Action Plan that would ensure closer and effective collaboration with users;
- (c) Coordinate, as appropriate, follow-up activities with regional associations and technical commissions;
- (d) Work with appropriate partners in ensuring delivery of activities;
- (e) Allocate adequate resources for implementation within the approved budget for the fifteenth financial period, as well as from extrabudgetary sources.

**3.11** The Council requested the Secretary-General to report to its sixtieth session on progress made on the implementation of the Madrid Action Plan, taking into account the results of the mechanism established by the Council in that connection.

#### **4. REPORTS OF SESSIONS OF CONSTITUENT BODIES** (*agenda item 4*)

##### **Report of the fourteenth session of the Commission for Instruments and Methods of Observation**

**4.1** The Executive Council noted with appreciation the report submitted by Mr John Nash (United Kingdom), the president of CIMO, who had been elected by acclamation at the fourteenth session of the Commission. The Council also congratulated Mr Rainer Dombrowsky (United States) on his election as vice-president of CIMO. It furthermore expressed its appreciation to Mr Ray Canterford for his outstanding leadership of the Commission, and for his considerable contribution to CIMO and the Instruments and Methods of Observation Programme.

**4.2** The Council noted the report of the fourteenth session of CIMO. It recognized the significant progress made in the standardization of instruments and methods of observations and in transferring technology and capacity-building in developing countries. The CIMO working structure proved to be responsive to Members' needs in ensuring accuracy, worldwide data compatibility and long-term stability of the WMO observing systems as preconditions for quality products and outputs of all WMO Programmes. CIMO had effectively increased its activities in support of the Natural Disaster Prevention and Mitigation Programme, the Group on Earth Observations and the WMO Integrated Observing System.

**4.3** Regarding the progress/activity report of the fourteenth session of CIMO and taking into account the relevant decisions of Fifteenth Congress, the Council:

- (a) Reiterated the importance for international standardization of instruments and methods of observation; it requested CIMO to update regularly the *Guide to Meteorological Instruments and Methods of Observation* (WMO-No. 8) and to identify guidelines/practices that could be promoted to become joint WMO and International Organization for Standardization standards;
- (b) Recognized that CIMO had an important role to play in developing methods of observation to ensure the sustainability of modern observing systems; it requested CIMO to initiate activities to improve methods of identifying degradation in modern remotely operated technologies in collaboration with relevant members of the Association of Hydro-Meteorological Equipment Industry;
- (c) Recognized the urgent need for ensuring the traceability of measurements to System International (SI) standards and requested CIMO to develop guidelines for Members and the Secretary-General to assist in their implementation in Regions, as appropriate;
- (d) Welcomed the effort of CIMO to strengthen the Regional Instrument and Regional Radiation Centres (RICs, RRCs); it requested the Secretary-General to assist in the implementation of the revised concept of RICs and RRCs. The Council also requested CIMO to identify a Centre(s) of excellence that would serve as the CIMO Lead Centre(s) for Instrument Development and Testing and to develop terms of reference for such a Centre(s);
- (e) Agreed that instrument intercomparisons implemented by CIMO in the intersessional period had a significant impact on data compatibility and accuracy; it noted that a preliminary list of urgently needed instrument intercomparisons had been approved by the Commission at its fourteenth session. It also agreed that even a partial funding of the intercomparison activities was an important contribution in achieving CIMO objectives in that area and that the Executive Council should keep the matter under review. A priority should be given to the WMO Field Intercomparisons of Rainfall Intensity Gauges and the WMO Combined Intercomparison of Thermometer Screens/Shield in conjunction with Humidity Measuring Instruments. It was also recommended that intercomparison efforts be extended to "test-bed" observing system evaluations where mixes of ground-based in situ and remote-sensing systems could be evaluated to best meet user requirements for increased temporal and spatial resolution of upper-air measurements;
- (f) Requested the Secretary-General to continue expanding the CIMO capacity-building activities and training workshops with a priority given to metrology and calibrations and upper-air measurements, especially in regions that had not yet benefited from such training;
- (g) Adopted [Resolution 7 \(EC-LIX\) – Report of the fourteenth session of the Commission for Instruments and Methods of Observation](#).

## Report of the thirteenth session of the Commission for Aeronautical Meteorology

**4.4** The Council noted with appreciation the report of the thirteenth session of the Commission for Aeronautical Meteorology (CAeM), held in Geneva from 23 to 30 November 2006. The Council congratulated Mr Carr McLeod (Canada) for his election as president of the Commission and Mr C.M. Shun (Hong Kong, China) for his election as vice-president.

**4.5** The Council appreciated the efforts of the Commission to cooperate effectively with the relevant teams and groups of the International Civil Aviation Organization (ICAO) in areas such as observations, forecasts and warnings, the World Area Forecast System (WAFS) and SADIS, and with regional implementation groups. Special emphasis was placed on joint working groups on a new terminal forecast, the migration of OPMET data to table-driven code forms, and on work related to new structures in air space and air traffic management, reflected by the introduction of the Single European Sky, the New Generation Air Traffic System (NGATS) of the United States, and projects such as SESAR and Flysafe. The Council in particular supported the nomination of focal points and experts to participate actively in those programmes that were expected to have a significant impact on the future service delivery in aeronautical meteorology.

**4.6** The Council agreed with the Commission that the difficulty of meeting the very demanding targets and goals of the programme with the limited resources both in financial and staffing terms justified a review of the structure of CAeM, with a smaller Management Group, three expert teams with a clear mandate (Training and Education, New Terminal Forecast, and Customer Relations), and an expert network ready to address all questions arising from the activities and cooperation that were outside the above-mentioned subject areas. A Rapporteur on Aviation and the Environment would complement the team and keep the Commission informed of the developments in that highly important subject area, following the publication of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). Regional representation in the Management Group was assured by co-opting the Rapporteurs on Aeronautical Meteorology of the regional associations.

**4.7** The Council was pleased to note the major achievements of the Commission during its intersessional period which included:

- (a) In the implementation of the Sixth WMO Long-Term Plan, CAeM had adopted at its thirteenth session a new and streamlined structure and an Operating Plan of the Aeronautical Meteorology Programme (AeMP) for the period 2008–2011;
- (b) The extra funds provided at the request of Congress to compensate for the extremely limited regular budget of the AeMP were used to hold a series of training events covering quality management systems, cost recovery, and modern methods in aeronautical meteorology, and had led to a visible improvement demonstrated by the results of two consecutive surveys of Members;
- (c) The areas where significant progress had been achieved, such as the establishment of a Training Web site ([www.caem.wmo.int](http://www.caem.wmo.int)) and holding of the Technical Conference were only possible due to the dedication of Experts who had been given the opportunity to meet as a team. Those teams without a funded meeting achieved limited progress;
- (d) On the issue of cost recovery for aeronautical meteorological service provision, the lack of coordination and clear guidance from the relevant government departments involved with aviation prevented the implementation of cost recovery mechanisms for some Members. It was therefore agreed that targeted action by the Secretary-General of WMO might be required to overcome the difficulties encountered in those countries where revenues from aviation were seen as a key to economic survival for the National Meteorological and Hydrological Services; the Council welcomed the imminent revision and dissemination of the *Guide to Aeronautical Meteorology Services Cost Recovery – Principles and Guidance* (WMO-No. 904);

- (e) The introduction of the new two-tier system in the classification of meteorological personnel as described in *Guidelines for the Education and Training of Personnel in Meteorology and Operational Hydrology* (WMO-No. 258) and its aeronautical supplement No. 1, *Training and Qualification Requirements for Aeronautical Meteorological Personnel*, still required a significant effort to ensure that aeronautical meteorological personnel fully complied with the new guidelines. That was an issue for many developing and developed countries for which Congress anticipated an increasing need for resources;
- (f) On the subject of customer focus, the rapid growth of air traffic in many regions had reinforced its critical dependence on forecasts and warnings of weather phenomena affecting the capacity of aerodromes and busy air routes. The Commission therefore decided to put strong emphasis on close cooperation with ICAO, air navigation service providers, airlines, pilots and airports in developing new and targeted forecast products for the wider Terminal Area of Aerodromes and formed a new Expert Team to deal with that;
- (g) The Commission noted intensifying pressure from user groups, air traffic management authorities and ICAO to reorganize airspace and Flight Information Regions, and thus the Meteorological Watch Offices responsible for the issuance of SIGMETs and AIRMETs, into larger blocks both for the sake of harmonizing warnings and reducing costs.

**4.8** The Council supported the emphasis given by CAeM to the topics of new scientific developments and products in aeronautical meteorology, cost recovery and quality management training. That training was considered essential in view of the high priority afforded by ICAO to the introduction of recognized quality management systems by all service providers, and the repercussions that policy would have on cost recovery by Members. The Council complimented the Commission for the successful training events already held and currently planned on those subjects.

**4.9** On the subject of AMDAR, the Council noted with interest the development and testing of a new humidity sensor for AMDAR. The sensor could significantly augment the value of ADMAR data, in particular the vertical profiles generated during ascent and descent. The Council noted, however, that for higher levels of the atmosphere, conventional upper-air data would remain highly important. It agreed that the significant cost of an operational implementation of that sensor in the existing and new AMDAR-equipped aircraft required a concerted effort by the National Meteorological and Hydrological Services that would most benefit from an improved data coverage and potential savings in conventional upper-air observations. The timing of the migration of the programme towards the Commission for Basic Systems and the World Weather Watch Department of WMO was seen by the Council as dependent on the operational readiness of the programme.

**4.10** The Council was pleased to note that the Commission at its thirteenth session had endorsed the proposed terms of reference of the trust fund in support of Members that were least developed countries to access WAFS products. The Council strongly encouraged Members to contribute to the fund, which was considered of vital importance to ensure that those least developed countries would continue to be able to provide service to aviation after the planned change to a second-generation satellite distribution system for the WAFS of ICAO.

**4.11** Referring to the increasing need for cross-cutting activities within the WMO programmes, the Council appreciated the initiatives of CAeM in the field of disaster prevention and mitigation by establishing two pilot projects aimed at supporting least developed countries and small island developing States in coping with tropical cyclones and natural disasters in their provision of services to aviation.

**4.12** The Council noted the significant support for the Aeronautical Meteorology Programme by Fifteenth Congress acknowledging its importance for the safety and efficiency of aviation. The

Council noted a call for adequate funding for the programme. The Executive Council adopted [Resolution 8 \(EC-LIX\) – Report of the thirteenth session of the Commission for Aeronautical Meteorology](#).

### **Report of the fourteenth session of the Commission for Agricultural Meteorology**

**4.13** The Council noted with appreciation the *Abridged Final Report with Resolutions and Recommendations of the Fourteenth Session of the Commission for Agricultural Meteorology* (WMO-No. 1014) (New Delhi, India, 28 October–3 November 2006). The Executive Council expressed its deep gratitude to all CAgM members for their valuable work undertaken since the last session of the Commission held in 2002. The Council thanked Mr R.P. Motha and Mr L.E. Akeh, the president and vice-president, for their leadership during the past eight years. The Council congratulated Mr James Salinger (New Zealand) and Mr L.S. Rathore (India) on their election as the new president and vice-president of the Commission, respectively.

**4.14** The Council congratulated the president on the progress made with the reorganization of the working structure of the Commission, adopted in 2002, to improve the efficiency and effectiveness of the Commission. The Council expressed its confidence that the structure would continue to contribute effectively to the Agricultural Meteorology Programme with a twenty-first century outlook in a cost-effective manner. Quality deliverables were authored by participants in a timely manner and had resulted in special issues of four scientific journals and two books by an International Publishing House.

**4.15** The Council noted with appreciation the progress made in the activities of the Commission. In particular the Council noted that meetings of all the nine Expert Teams and the three Implementation/Coordination Teams of the Commission were organized during the intersessional period with the limited resources available and many of the reports of the Expert Teams had already been published. The Council noted with interest that the Implementation/Coordination Teams of the Commission recommended several potential pilot projects for regional implementation. The Council encouraged members to actively examine the feasibility of implementing the pilot projects of interest to their region. Noting that most of those projects would necessitate external donor collaboration and partnerships for full implementation, the Council requested the Secretary-General to provide assistance in the resource mobilization efforts for such pilot projects.

**4.16** The Council noted that one international workshop, one interregional workshop and five training seminars/roving seminars were held during the intersessional period in different Regions. The Council congratulated the Secretariat on the initiative taken to organize two Regional Technical Meetings on Climate Information and Prediction Services (CLIPS) and Agrometeorological Applications in cooperation with the CLIPS programme of WMO. The Council noted that there was outstanding support from the host nations, not only logistically, but also by scientists and technical experts involved in the meetings of different Expert Teams of the Commission. The Council expressed its satisfaction that those meetings, workshops and deliverables could only be possible through the active participation of WMO Members and collaboration with other international, regional and national organizations. The Council noted the importance and expressed further support to the WMO Secretariat in its interaction with the Food and Agriculture Organization of the United Nations on the issue of desert locusts and food security, and with the United Nations Convention to Combat Desertification on drought, land degradation and desertification. Noting the growing incidence of forest fire, the Council agreed with the recommendation of the Commission that the forest meteorology aspect of the programme, in particular forest fire meteorology, be included in Members' training programmes.

**4.17** The Council suggested that the Commission also focused on animal husbandry and livestock issues as they related to public health. The Council noted that the CAgM Expert Team on Climate Risks in Vulnerable Areas: Agrometeorological Monitoring and Coping Strategies would examine the status of coping with climate risks in rangelands in different regions.

**4.18** The Council noted that the use of biofuels was one of the emerging issues in reducing greenhouse gas emissions and it suggested that the issue be considered by the CAgM Management Group at its next meeting.

**4.19** The Council expressed its satisfaction that the CAgM Management Group completed all its assigned tasks based upon the terms of reference for its re-establishment, and congratulated the Group and the WMO Secretariat for their excellent efforts in organizing the International Workshop on Agrometeorological Risk Management: Challenges and Opportunities that preceded the fourteenth session of the Commission in India. The Council noted with regret the passing away of Mr Wolfgang Baier, the past president of the Commission, and it recalled the dedicated services of Mr Baier to the Commission over the years.

**4.20** The Council noted that the World AgroMeteorological Information Service (WAMIS, [www.wamis.org](http://www.wamis.org)) had products from over 29 countries and provided tools and resources to help countries improve their bulletins and services. Considering the benefits of WAMIS to Members, the Council urged Members to participate and disseminate their products to the global community as those products could also aid in natural disaster assessments by providing bulletins in both real-time and from a historical perspective.

**4.21** The Council noted with appreciation the significant progress made in the rewrite of the *Guide to Agricultural Meteorological Practices* (WMO-No. 134) and fully supported the rewrite to complete that task in an efficient and effective manner. The Council also expressed its satisfaction that the Commission reappointed Working Groups on Agricultural Meteorology for all regional associations, and that those working groups were now active in all Regions. The Commission had benefited immensely from the working group meetings held in each of the Regions during the past intersessional period.

**4.22** The Council complimented the Commission for adopting “Agricultural products, services and coping strategies to sustain agricultural development for both effective short-term daily operational farming decisions and proactive long-term strategic agricultural planning measures”, as the theme upon which to focus its activities during the next intersessional period.

**4.23** The Council recorded its decision on the various resolutions and recommendations of the fourteenth session of the Commission for Agricultural Meteorology in [Resolution 9 \(EC-LIX\)](#).

### **Report of the extraordinary session (2006) of the Commission for Basic Systems**

**4.24** The Council noted with appreciation the *Abridged Final Report with Resolutions and Recommendations of the Extraordinary Session (2006) of the Commission for Basic Systems* (WMO-No. 1017) (9–16 November 2006, Seoul, Republic of Korea) and the activities of the Commission. Taking into account the views and directives of Fifteenth Congress, the Council considered the recommendations submitted by the extraordinary session (2006) of the Commission for Basic Systems concerning the adoption of a positioning reference system for meteorological applications; the review of the *Guide to the Global Observing System* (WMO-No. 488); amendments to the *Manual on the Global Telecommunication System* (WMO-No. 386), the *Manual on Codes* (WMO-No. 306) and the *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485). The recommendations comprised the following:

- (a) A standard geodetic reference system for 3-D positioning for meteorology;
- (b) Publication of a revised *Guide to the Global Observing System*;
- (c) Updates to telecommunication functions and procedures;
- (d) Amendments to table-driven code forms to meet new requirements;

- (e) Amendments to alphanumeric codes to meet requirements for aeronautical meteorology;
- (f) Amendments related to Ensemble Prediction Systems, Long-range Forecast activities and Emergency Response Activities;
- (g) Designation of Global Producing Centres for Long-range Forecasts.

**4.25** The Executive Council recorded its decisions on the recommendations adopted by the session in [Resolution 10 \(EC-LIX\)](#).

**4.26** The Executive Council emphasized the essential role of CBS in strengthening basic systems that were the “core” operational facility for all WMO Programmes, in the light of increasing requirements and to take early benefits from very rapid science and technology advances, especially in the area of information and communications. The Executive Council also underscored the critical role of the Commission as a formal and proven mechanism for ensuring sound technical and operational practices, which had significant implementation impact in all National Meteorological and Hydrological Services. It recalled that CBS had improved its working structure and had been very effective in providing important deliverables for the benefit of all NMHSs. The Executive Council consequently reaffirmed the need for one normal session and one extraordinary session of CBS during the financial period (i.e. every 2 years). In view of increasing requirements, the Council asked CBS to keep the matter under review and seek creative means for conducting the important technical work of the Commission.

#### **Report of the fourteenth session of Regional Association I**

**4.27** The Council expressed its appreciation to the Government of Burkina Faso, for having hosted the fourteenth session of Regional Association I (Africa) in Ouagadougou, from 14 to 23 February 2007, which recorded a high number of participants. The Council congratulated Mr Mamadou Lamine Bah (Guinea) and Mr Amos Makarau (Zimbabwe) for their election as president and vice-president of RA I, respectively.

**4.28** The Council noted that the Association approved a total of 23 resolutions, appointed 29 rapporteurs and a Regional Focal Point for Gender, re-established five Working Groups on: Planning and Implementation of the WWW, Tropical Cyclone Committee for the South-West Indian Ocean, Climate Matters, Agricultural Meteorology, and Hydrology and Water Resources and established two new Working Groups on Natural Disaster Prevention and Mitigation in RA I, and Education and Training. The Association also established an Advisory Working Group and a Task Team on WIS.

**4.29** The Council was pleased to note that the Association decided to develop the Strategic Plan for the Enhancement of National Meteorological and Hydrological Services (NMHSs) in RA I. The Advisory Working Group would take the lead to develop a broader-based strategic plan, which would be in harmony with the WMO Strategic Plan.

**4.30** The Council considered the report of the fourteenth session of Regional Association I (Africa) in line with the deliberations of Fifteenth Congress and embodied its decision in [Resolution 11 \(EC-LIX\)](#).

#### **Report of the fourteenth session of Regional Association III (South America)**

**4.31** The Council expressed its appreciation to the Government of Peru for having hosted the fourteenth session of Regional Association III (South America) in Lima, from 7 to 13 September 2006. The Council congratulated Mr Ramón Viñas García (Venezuela) and Mr Carlos Costa-Posada (Colombia) for their election as president and vice-president of RA III, respectively.

**4.32** The Council noted that the Association approved a total of 18 resolutions, appointed 8 Rapporteurs, re-established five Working Groups on: Planning and Implementation of the WWW; Climate Matters; Agricultural Meteorology; Hydrology and Water Resources; Natural Disaster Prevention and Mitigation in Region III. The Association also established the Working Group on Internal Matters of RA III and a Regional Information and Public Affairs Focal Point was also designated.

**4.33** The Council extended its appreciation to the Members of the Region and also to the Government of Spain for supporting the development of the National Meteorological and Hydrological Services of the Ibero-American Region, and to the United States for its support to the Region, in particular for moving the GOES-10 satellite for the continuous use by the countries of the Region.

**4.34** The Council was pleased to note that the Association decided, as a matter of highest priority, the development of a Strategic Development Plan and Action Plan for RA III in alignment with the WMO Strategic Plan.

**4.35** The Council considered the report of the fourteenth session of Regional Association III (South America) and embodied its decision in [Resolution 12 \(EC-LIX\)](#).

### **Coordination between regional associations and technical commissions**

**4.36** The Council stressed the need for a closer cooperation and a stronger coordination between regional associations and technical commissions for a more responsive and proactive implementation of WMO Programmes, in particular at the regional level. In that regard, the Council noted that the regional associations and technical commissions had established various mechanisms for strengthening their linkages, including the organization of an Informal Joint Meeting of the Presidents of Regional Associations and Presidents of Technical Commissions in conjunction with Congress and Executive Council sessions under the chairmanship of the President of WMO.

**4.37** The Council noted with appreciation the increasing number of good practices towards an improved overall coordination between regional associations and technical commissions, particularly in relation to cross-cutting programmes and activities such as strategic planning; and recognized that the Secretariat should play a key role in that context.

**4.38** The Council decided to discuss the coordination mechanism between regional associations and technical commissions during its next session and requested the Secretary-General to take the corresponding measures.

### **Volunteerism in the work of the technical commissions and regional associations**

**4.39** The Council recognized with Congress that the volunteerism for the membership in technical commissions and regional associations' subsidiary bodies (rapporteurs, working groups, Open Programme Area Groups, expert teams) was a difficult issue that needed to be addressed in order that appropriate national experts become involved.

**4.40** The Council noted that specific and limited practices, such as issuing certificates or addressing letters of appreciation to experts concerned, had improved the situation in some cases. The Council requested the Secretary-General to take steps to formalize the issuance of certificates to national experts in recognition of their contribution to the work of technical commissions and regional associations as appropriate.

**4.41** The Council further requested the Permanent Representatives to consider the participation of their national experts in the work of technical commissions and regional associations as Members' contribution to WMO.



## **5. REPORTS OF SESSIONS OF PANELS AND WORKING GROUPS REPORTING TO THE EXECUTIVE COUNCIL** (*agenda item 5*)

### **Report of the ninth session of the Executive Council Working Group on Antarctic Meteorology**

**5.1** The Executive Council noted with appreciation the report of the ninth session of the Executive Council Working Group on Antarctic Meteorology, held in St Petersburg, Russian Federation, from 28 to 30 November 2006, which summarized activities on the Antarctic Meteorology carried out during the intersessional period of the Working Group. It noted in particular the deliberations of the working group related to the planning and implementation of basic WWW systems in the Antarctic including observational and telecommunication networks, data processing and management, climate-related issues as well as cooperation with other international Antarctic programmes and organizations.

**5.2** Following the guidance given by Fifteenth Congress, the Council reviewed the amendments to the terms of reference of the working group as proposed by the ninth session of the Executive Council Working Group on Antarctic Meteorology. To reflect more adequately the expert-level membership of its Working Group on Antarctic Meteorology, the Council decided to change its name to the Executive Council Panel of Experts on Antarctic Meteorology with revised terms of reference. [Resolution 13 \(EC-LIX\)](#) was adopted.

**5.3** The Council considered the revised list of stations comprising the Antarctic Basic Synoptic Network (ABSN) and the Antarctic Basic Climatological Network (ABCN) proposed by the ninth session of the Working Group on Antarctic Meteorology and adopted [Resolution 14 \(EC-LIX\)](#) and [Resolution 15 \(EC-LIX\)](#) accordingly.

**5.4** The Council reiterated the importance of sustainable observations from ships and aircraft operating in the Antarctic and adopted [Resolution 16 \(EC-LIX\)](#).

**5.5** The Council noted the progress in implementing new observing systems and technologies in the Antarctic. It stressed the importance of an effective basic synoptic network in the Antarctic and the need to integrate the network with the overall Global Observing System to more fully meet requirements of the World Weather Watch and other WMO Programmes. Accordingly, it adopted [Resolution 17 \(EC-LIX\)](#).

**5.6** To respond to growing needs in data quality and availability, by adopting [Resolution 18 \(EC-LIX\)](#), the Council invited operators running permanently occupied stations in the Antarctic to continue their efforts to keep manned stations running in the long-term, and where possible restore observing programmes that had ceased.

**5.7** The Council stressed the importance of the WCRP/SCAR International Programme for Antarctic Buoys (IPAB) observations in the Antarctic sea-ice zone for the World Weather Watch, World Climate Research Programme, Global Climate Observing System, Global Ocean Observing System, Joint WMO/IOC Commission for Oceanography and Marine Meteorology and SCAR, and adopted [Resolution 19 \(EC-LIX\)](#).

**5.8** The Council agreed to the Working Group on Antarctic Meteorology proposal to update the Global Observing System regulatory material related to the Antarctic taking into account developments in observing programmes and adopted [Resolution 20 \(EC-LIX\)](#).

**5.9** Considering telecommunication issues related to the Antarctic, the Council approved the plan for the collection of data from ABSN and ABCN stations proposed by the Working Group on Antarctic Meteorology at its ninth session and adopted [Resolution 21 \(EC-LIX\)](#).

### **WMO/ICSU/IOC**

**5.10** The Executive Council welcomed the brief WCRP report presented by Mr V. Ramaswamy, the Vice-Chair of the Joint Scientific Committee for WCRP. The Executive

Council expressed satisfaction at the continuing progress in the implementation of the WCRP. Having noted the significant contribution made by WCRP to the WMO/UNEP Intergovernmental Panel on Climate Change Fourth Assessment Report and its proactive plans to contribute to the development of scenarios for a possible fifth IPCC Assessment, the Executive Council emphasized the unique role of WCRP as the coordinator and facilitator of global climate science research and its excellent work since its inception in 1980. The Executive Council also reiterated the importance of WCRP research on predictability of climate variations, especially in Africa.

**5.11** The Executive Council noted that WCRP was a high-priority area for WMO and confirmed its commitment to further support the work of WCRP. It was therefore with deep concern that the Executive Council noted the difficult financial situation of WCRP and expected shortage of funds for its activities in the next financial period. It urged the Secretary-General to find ways and means for maintaining the momentum of WCRP activities in implementing its new Strategy for 2005–2015. The Executive Council appealed to WCRP sponsors other than WMO to maintain and enhance their contributions to the Joint Climate Research Fund and called on WCRP to increase the efforts to seek extrabudgetary resources for its activities. The Executive Council also encouraged additional direct contributions from Members to the WCRP activities. The Executive Council would review the WCRP budget allocation for the next biennium. The Executive Council also suggested that as a temporary measure, WMO, in conjunction with WCRP, look towards achieving a balance of staffing costs and coordinating activities as existed in the previous financial period.

#### **Coordination activities within the Climate Agenda; the report of the Executive Council Advisory Group on Climate and Environment**

**5.12** The Executive Council noted that the Executive Council Advisory Group on Climate and Environment at its eighth meeting supported the idea that National Meteorological and Hydrological Services should develop a focus on weather-climate linkage and adaptation to climate variability and change for the benefit of sustainable development and emerging societal needs. It stressed that Members should classify their climate activities and deliverables, as well as dissemination mechanism, which were relevant to United Nations climate conventions, and to develop programmes as well as services that benefited policy importance and strengthened new multidisciplinary partnerships. It noted that the link between science issues and policymakers in climate activities was not so strong and required additional efforts to amplify that connection at the national and international levels.

**5.13** The Council noted that the Climate Agenda, which emerged from the Intergovernmental Meeting in 1993, with many elements, inter-agency issues and climate practices under four components of the World Climate Programme (WCP), was still valid and composed the backbone of the scientific and policy level of global climate activities. It noted that the Advisory Group, at its eighth session, took into consideration developments and changes that had taken place in the course of time in international climate coordination activities and took note of the decision made by Fifteenth Congress in that regard.

**5.14** The Council recalled that in a follow-up to the decision taken at its fifty-fifth session, the Secretary-General had established an ad hoc exploratory committee to determine funding sources, requirements, venue and science programme for a World Climate Conference-3 (WCC-3). It then took note that a Provisional Organizing Committee (POC) was established with 15 members to develop a meeting plan for WCC-3 including scope, science programme, content of high-level segment, timing and budget for it. The POC met three times in 2005 and 2006 and submitted reports to the Council at its fifty-seventh and fifty-eighth sessions and subsequently to Fifteenth Congress for its decision. The Council expressed its appreciation to the Secretary-General for providing support to the work of POC and requested him to continue the support to the work on WCC-3 through establishing a WCC-3 International Organizing Committee (WCC-3/IOC). The Council welcomed the adoption of Resolution 9 (Cg-XV) by Fifteenth Congress and agreed to the terms of reference for a WCC-3 International Organizing Committee (WCC-3/IOC), as given in [Annex III to the present report](#).

**5.15** The Council, in view of the importance of ensuring the WMO technical leadership and effective role in partnership to climate-related activities, adopted [Resolution 22 \(EC-LIX\)](#), re-establishing the Group, based on Resolution 8 (Cg-XV), as the Executive Council Working Group on Climate and Related Water and Environment Matters with revised terms of reference.

**5.16** The Council requested the chairperson of the Executive Council Working Group on Climate and Related Water and Environmental Matters to coordinate with the President and the Secretary-General in order to finalize the agreed draft terms of reference by 31 December 2007.

### **WMO/IOC/UNEP/ICSU Global Climate Observing System**

**5.17** The Council noted the report of the fourteenth session of the WMO/IOC/UNEP/ICSU Steering Committee for the Global Climate Observing System (GCOS) and endorsed the overall strategy for further development of GCOS as summarized in the report. It welcomed the progress made in implementing the GCOS networks and thanked the Members involved for their support, while recognizing the continuing need to improve the overall performance of the networks and many individual stations. The Council urged Members to continue, and where possible to strengthen, their support for those components of their observational systems contributing to GCOS, in particular the GCOS Surface Network (GSN), the GCOS Upper-air Network (GUAN) and the Global Atmosphere Watch stations. It also urged those Members operating GSN stations to provide all historical data for those stations to the GSN Archive if they had not already done so.

**5.18** The Council noted the work towards establishing a reference network of high-quality observing sites, including surface and upper-air measurements, being carried out through the GCOS/WCRP Atmospheric Observation Panel for Climate in cooperation with the Commission for Instruments and Methods of Observation and other relevant technical commissions, and its endorsement by the GCOS Steering Committee. It agreed that such a network, which would largely be a subset of the broader GCOS Upper-air Network, should in no way diminish the requirements for the GUAN and the wider Global Observing System upper-air network. The Council noted with appreciation that Germany had offered to serve as a lead centre for a limited network of such stations for an initial period, leading to further refinement of the network in cooperation with all partners. The Council looked forward to an update on progress at its next session.

**5.19** The Council welcomed the plans for a joint GCOS-WCRP-IGBP-IPCC workshop in Sydney, Australia in October 2007 to learn from the IPCC Fourth Assessment Report, with the objective of assisting the GCOS Steering Committee, the WCRP Joint Scientific Committee and the IGBP Scientific Committee in identifying future priorities for climate observations and research. It suggested that the WCC-3/International Organizing Committee could benefit from that workshop in planning for WCC-3 and encouraged appropriate collaboration toward that end. The Council looked forward to a report on results of the workshop at its next session.

**5.20** The Council noted the increasing emphasis of the Conference of the Parties to the United Nations Framework Convention on Climate Change on adaptation to climate change and stressed the importance of an effectively-operating GCOS in providing the data needed for a comprehensive adaptation agenda for both developed and developing countries.

**5.21** The Council recognized the increasing demands on the GCOS Programme and Secretariat and the urgent need for additional resources to meet those demands. It suggested that the GCOS sponsors review their funding plans for GCOS to ensure adequate levels of support and urged Members to consider support to GCOS in the form of secondments of qualified staff, and/or contributions to the Climate Observing System Fund.

## **6. PROGRAMME AND BUDGET (2008–2009) (agenda item 6)**

**6.1** The Executive Council adopted [Resolution 23 \(EC-LIX\)](#) concerning the budget and contributions for the biennium 2008–2009. The appropriations thus approved amounted to CHF 134 900 000.

**6.2** The Executive Council furthermore approved the list of possible sessions of panels and working groups and of symposia, technical conferences, seminars and workshops as contained in [Annex IV to the present report](#). The implementation of those events should take place subject to the availability of funds within the approved budget following the guidelines set by Fifteenth Congress. It also authorized the Secretary-General to approve amendments to that list as necessary.

**6.3** The Executive Council noted the decisions of Fifteenth Congress contained in the *Abridged Final Report with Resolutions of the Fifteenth World Meteorological Congress* (WMO-No. 1026), general summary, agenda item 8, regarding the implementation of the budget. It recognized that, as a consequence, budgetary transfers might be necessary in accordance with the financial regulations.

**6.4** The Executive Council noted that the budget for the first biennium (2008–2009) in conformity with the maximum expenditure for the fifteenth financial period was based on staff salaries and allowances prevailing in May 2007.

**6.5** The Council further noted the contributions of WMO to the jointly funded activities. They included a WMO contribution of CHF 1 078 400 for the Global Climate Observing System with an estimated budget of CHF 3 418 000 for 2008–2009; a WMO contribution of CHF 865 800 for the Intergovernmental Panel on Climate Change with an estimated budget of CHF 10 301 600 for 2008–2009; and a WMO contribution of CHF 3 797 000 for the World Climate Research Programme with an estimated budget of CHF 5 933 700 for 2008–2009.

**6.6** The Council made provisions for sessions in 2008 and 2009 of the following technical commissions and regional associations:

2008

Regional Association II (fourteenth session)  
Commission for Basic Systems (fourteenth session)  
Commission for Hydrology (thirteenth session)

2009

Regional Association IV (fifteenth session)  
Regional Association VI (fifteenth session)  
Commission for Atmospheric Sciences (fifteenth session)  
Commission for Climatology (fifteenth session)  
Commission for Aeronautical Meteorology (fourteenth session)  
Joint WMO/IOC Commission for Oceanography and Marine Meteorology (third session)

## **7. GENERAL AND ADMINISTRATIVE MATTERS** (*agenda item 7*)

### **7.1 FIFTY-SECOND INTERNATIONAL METEOROLOGICAL ORGANIZATION PRIZE** (*agenda item 7.1*)

**7.1.1** The Executive Council Selection Committee for the IMO Prize comprised Messrs Moura (chairperson), Bah, Love and Rosengaus Moshinsky.

**7.1.2** The Executive Council awarded the fifty-second IMO Prize to Mr Jagadish Shukla (India/United States).

**7.1.3** The Executive Council further replaced Mr Rosengaus Moshinsky with Mr Zheng Guoguang as a member of the Selection Committee for the IMO Prize.

## 7.2 OTHER AWARDS (*agenda item 7.2*)

### Norbert Gerbier-MUMM International Award

**7.2.1** The Council approved the proposal of the Selection Committee for the Norbert Gerbier-MUMM International Award and conferred the 2008 award on Mr A. Yeshanew from the National Meteorological Services Agency, Ethiopia, and Mr M.R. Jury of the University of Zululand, South Africa, for the paper entitled “North African climate variability. Part 1: Tropical thermocline coupling; Part 2: Tropical Circulation Systems; and Part 3: Resource prediction” published in *Theoretical and Applied Climatology*, Volume 89, pages 25–36; 37–49 and 51–62 respectively (published online in 2006 doi:10.1007/s00704-006-0242-8; 0243-7; and 0262-4 respectively).

### WMO Research Award for Young Scientists

**7.2.2** Based on the recommendation of its Selection Committee, the Council conferred the 2007 WMO Research Award for Young Scientists jointly upon the following:

- Ms G. De Lannoy (Belgium) for the paper entitled “Assessment of model uncertainty for soil moisture through ensemble verification”;
- Ms Paola Salio (Argentina) for the paper entitled “Mesoscale convective systems over Southeastern South America and their relationship with the South American low-level jet”.

**7.2.3** The Council appointed the following four members to serve on its Selection Committee to determine the winner(s) of the 2008 award:

F. Cadarso González (chairperson)  
 M-K. Lee  
 D. Musoni  
 M.M. Rosengaus Moshinsky

## 7.3 ARRANGEMENTS FOR THE SCIENTIFIC LECTURES AT THE SIXTIETH SESSION OF THE EXECUTIVE COUNCIL (*agenda item 7.3*)

**7.3.1** The Executive Council selected two lecture themes for the scientific lectures to be delivered during its sixtieth session. The following two themes were chosen:

- (a) Hydrometeorological Security: realities and challenges for National Meteorological and Hydrological Services;
- (b) Climate change and freshwater resources.

**7.3.2** The Secretary-General was requested to make the necessary arrangements.

## 7.4 WORLD METEOROLOGICAL DAY THEME (*agenda item 7.4*)

The Executive Council decided that the theme for the World Meteorological Day in 2009 would be “Weather, climate and the air we breathe”.

## 7.5 STAFF MATTERS (*agenda item 7.5*)

### Amendments to Staff Rules

**7.5.1** The Executive Council noted the amendments to the Staff Rules applicable to Secretariat staff made by the Secretary-General since the fifty-eighth session of the Council.

## Report on appointments, promotions, nominations and transfers of staff in the Professional category and above

**7.5.2** In accordance with Article 21 (b) of the Convention, the Council examined and approved the appointments made by the Secretary-General since its fifty-eighth session, as follows:

### Appointments made through competition after issuance of vacancy notices

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Effective date</i>
RABIOLO, Mr M.A. (Argentina)	WMO Director (D.1) for the Americas	19 June 2007
LAFEUILLE, Mr J.D. (France)	Chief (P.5), Space-based Observing Systems Division, Space Programme Office, Office of the Deputy Secretary-General	22 September 2006
JACOB, Mr C. (Belgium)	Chief (P.5), Joint WMO/EUMETNET Office, Cabinet and External Relations, Office of the Secretary-General	1 October 2006
RICHARDS, Mr D.L. (United States)	Chief, (P.5), Evaluations and Performance Audit Services, Internal Oversight Office, Office of the Secretary-General	1 January 2007
CASAS GARATE, Mr M. (Spain)	IT Applications Manager (P.4), Information Technology Division, Resource Management Department	30 October 2006
SILLAYO, Mr S.M. (United Republic of Tanzania)	Scientific Officer (P.4), Aeronautical Meteorology Unit, Applications Programme Department	13 December 2006
RABADI, Dr J.K. (Jordan)	WMO Representative for West Asia (P.4), Regional Office for Asia and the South-West Pacific, Development Cooperation and Regional Activities Department	14 January 2007
SIMPLER, Ms A. (Sweden)	Translator/Editor (P.4), Linguistic Services and Publications Department	1 February 2007
NAZAROV, Mr R. (Russian Federation)	Translator/Editor (P.4), Linguistic Services and Publications Department	2 April 2007
ADIGUZEL, Mr M. (Turkey)	Scientific Officer (P.4), Training Activities Division, Education and Training Department	2 April 2007
TRAVERSO SAIBANTE, Ms C. (Italy)	Information and Communications Specialist (P.3), Intergovernmental Panel on Climate Change	27 August 2006
GEDDES, Ms P. (United Kingdom)	Head (P.3), Staffing and Staff Development Unit, Human Resources Division, Resource Management Department	14 May 2007
MANOHARAN, Ms A.D. (Australia)	Internal Auditor (P.2), Internal Oversight Office, Office of the Secretary-General	25 September 2006
SAALMUELLER, Mr J. (Germany)	Project Officer (P.2), Associated Programme on Flood Management, Hydrology and Water Resources Department	1 March 2007

### Appointment made without issuance of a vacancy notice (according to reasons given)

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Effective date</i>
THOMAS, Mr D.J. (Australia)	WIS Project Manager (P.5), Information Systems and Services Division, World Weather Watch Department [Memorandum of understanding with donor country]	1 March 2007

**7.5.3** The Council further approved the extensions of appointment of staff beyond the statutory age of retirement initiated by the Secretary-General since its fifty-eighth session, as follows:

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Duration</i>
SCHIESSL, Mr D.C. (Germany)	Director (D.2), Crosscutting Coordination, Office of the Deputy Secretary-General	a further 12 months to 31 August 2007
KARPOV, Dr A.V. (Russian Federation)	Chief (P.5), Observing System Division, World Weather Watch Department	12 months to 31 December 2007
LEI, Dr Z. (China)	Chief (P.5), Weather Prediction Research and Tropical Meteorology Division, Atmospheric Research and Environment Programme Department	4 months to 31 July 2007

**7.5.4** The Council noted the nominations and/or promotions made by the Secretary-General as a result of competition after issuance of vacancy notices since its fifty-eighth session, as follows:

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Effective date</i>
BARRIE, Dr L.A. (Canada)	Director (D.1), Atmospheric Research and Environment Programme Department	15 September 2006
LOMARDA, Mrs N.C. (Philippines)	Senior Scientific Officer (P.5), Weather Prediction Research and Tropical Meteorology Division, Atmospheric Research and Environment Programme Department	21 August 2006
BÉLIVEAU, Mrs S. (Canada)	Editor (P.4), Linguistic Services and Publications Department (reclassification from P.3)	1 January 2006
CRUZ, Mrs B.M.C. (Philippines)	Accountant (P.4), Finance Division, Resource Management Department	15 February 2007
<b>Secretariat of the Group on Earth Observations</b>		
BRUTSCH, Mrs N. (Switzerland)	Programme Manager (P.3)	1 July 2006

**7.5.5** The Council noted the transfers and/or changes initiated by the Secretary-General since its fifty-eighth session, as follows:

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Effective date</i>
TAALAS, Dr P. (Finland)	Director (D.2), Development Cooperation and Regional Activities Department	22 November 2006
KONARÉ, Mr K. (Mali)	Designated Director (D.1), Office for LDCs and Regional Coordination, Development Cooperation and Regional Activities Department	2 January 2007
SOMMERIA-KLEIN, Mr G. (France)	Senior Scientific Officer (P.5), Secretariat of the Global Climate Observing System [transfer from the World Climate Research Programme]	1 August 2006
GUERRERO, Mrs V.H. (Chile)	Head (P.5) Recruitment and Staff Development Unit, Human Resources Division, Resource Management Department [on loan to UNAIDS]	1 October 2006
GRANADOS-FERNANDEZ, Mr J. (Colombia)	Designated Senior Information Management Adviser (P.5), Information Technology Division, Resource Management Department	3 January 2007
ORIAS BLEICHNER, Mr A.E. (Bolivia)	Programme Officer (Americas) (P.4), Regional and Technical Cooperation Activities for Development Department [transfer from Linguistic Services and Publications Department]	15 May 2006

## Other matters

**7.5.6** The Council was informed that the Geneva Public Prosecutor opened a preliminary investigation into the circumstances surrounding the procedure for the appointment of the Secretary-General during Fourteenth Congress in 2003 and that the testimony of the Secretary-General had been requested in that context by the magistrate in charge of the investigation. In that connection, the President received a request to waive the immunity of the Secretary-General.

**7.5.7** The Council noted that the Secretary-General was willing to give testimony and that he could do so on a voluntary basis under the Vienna Convention on Diplomatic Relations. The Council saw no need for a decision on the waiver of his immunity and welcomed the initiative and commitment of the Secretary-General to continue cooperating with the investigation. The Council renewed its support both to the Secretary-General and to the Swiss authorities in the pursuance of the investigation.

**7.5.8** The Council requested the President to inform the Swiss authorities accordingly.

**7.5.9** The Council also noted that the WMO basic texts contained no provision concerning the authority responsible for the waiver of the immunity of the Executive Head of WMO or applicable procedures for such a waiver. It therefore requested the Secretariat to prepare at the earliest convenience a study on the authorities and procedures applicable to the organizations in the United Nations system for the waiver of the immunity of their Executive Head, and to propose a procedure for WMO.

## **7.6 FINANCIAL MATTERS** (*agenda item 7.6*)

### **Consideration of the accounts for the year 2006**

**7.6.1** The Executive Council considered and approved the audited financial accounts of the World Meteorological Organization for the year 2006. The Executive Council noted that the External Auditor had issued an unqualified opinion on the accounts for the year 2006. The Executive Council expressed appreciation for the work of the External Auditor.

**7.6.2** The Council noted the regular budget expenditure of CHF 72.1 million for 2006. The Council took note of the assurance provided by the Secretary-General that the implementation of the regular budget for the biennium 2006–2007 proceeded in accordance with the approval provided by Members and within available resources.

**7.6.3** The Council noted that the available surplus for 2006 amounted to CHF 5.5 million. The Council also noted that there remained substantial amounts of outstanding assessed contributions of CHF 21.1 million by the end of 2006, an increase of CHF 3.1 million from 2005. The Council urged the Members to clear their dues at an early date. In that context, the Council considered the proposals put forward by the Secretary-General at Fifteenth Congress (*Abridged Final Report with Resolutions of the Fifteenth World Meteorological Congress* (WMO-No. 1026), general summary, agenda item 10.2).

**7.6.4** The Council noted that the cash balance under the General Fund amounted to CHF 18.9 million by the end of 2006, which reflected, among others, an increase in arrears (CHF 3.1 million) and expenditure of the surplus from the thirteenth financial period approved for expenditure in the 2006–2007 biennium. The Council noted that the Operating Reserve had decreased from CHF 6.5 million in 2004 to CHF 5.0 million by the end of 2006, mainly reflecting the liquidation of remaining obligations for the construction of the WMO Headquarters building.

**7.6.5** The Council noted that extrabudgetary expenditure amounted to CHF 31.0 million in 2006 and extrabudgetary income to CHF 23.5 million in 2006, the annual deficit having been funded by surpluses from prior years. The Council also noted that the cash balance for



extrabudgetary activities amounted to CHF 34.7 million, reflecting the WMO policy to engage in expenditure only after the extrabudgetary contributions had been received.

**7.6.6** The Council considered the financial situation of the World Meteorological Organization as sound in view of the specific programme situation and operating principles.

**7.6.7** Noting the recommendation of the Financial Advisory Committee, the Council adopted [Resolution 24 \(EC-LIX\)](#).

#### **Appointment of the External Auditor**

**7.6.8** The Executive Council noted that in accordance with Resolution 20 (EC-LV) – Appointment of the External Auditor, the term of office of the External Auditor of WMO would expire on 30 June 2008.

**7.6.9** The Executive Council decided to appoint the Comptroller and Auditor-General of the United Kingdom to serve as the External Auditor of WMO as from 1 July 2008 for a term of office to terminate on 30 June 2012.

**7.6.10** Noting the recommendation of the Financial Advisory Committee, the Executive Council adopted [Resolution 25 \(EC-LIX\)](#).

#### **Terms of office of the External Auditor**

**7.6.11** Noting the recommendation of the Financial Advisory Committee, the Executive Council agreed that an External Auditor could serve any number of terms, but no more than two consecutively.

**7.6.12** Noting the recommendation of the Financial Advisory Committee, the Executive Council adopted [Resolution 26 \(EC-LIX\)](#).

#### **Report of the chairperson of the Financial Advisory Committee**

**7.6.13** The Executive Council considered the report of the Financial Advisory Committee and noted with appreciation the recommendations of the Committee. The Executive Council took account of those recommendations in making its decisions under the various related agenda items.

#### **7.7 COOPERATION WITH THE UNITED NATIONS AND OTHER INTERNATIONAL ORGANIZATIONS** (agenda item 7.7)

#### **High-Level Dialogue with the International Maritime Organization on Ship Owners and Masters' concerns with regard to VOS Data Exchange**

**7.7.1** The Council noted with appreciation the report on the results of the High Level Dialogue established by the Secretary-General with the International Maritime Organization (IMO) on ship owners and masters' concerns with regard to VOS data exchange, as requested in Resolution 7 (EC-LVIII).

**7.7.2** The Council acknowledged the proposals made by the JCOMM Ship Observations Team (SOT) on ship callsign masking and encoding, and stressed the importance of developing a general and universally acceptable solution to the issue that would address ship owners and masters' concerns, as well as the operational, data monitoring and quality information feedback, and climate requirements. The Council therefore decided to keep in force Resolution 7 (EC-LVIII) and adopted [Resolution 27 \(EC-LIX\)](#).

## **8. INTERNAL MATTERS OF THE EXECUTIVE COUNCIL** (*agenda item 8*)

### **Rules of Procedure of the Executive Council**

**8.1** The Executive Council noted that the Rules of Procedure of the Executive Council, which contains relevant information on the conduct of its business, was a useful tool to members of the Council. In that regard, the Secretary-General was requested to update and re-publish the Rules of Procedure of the Executive Council after its fifty-ninth session.

**8.2** The Council also noted that the period for conducting an election by correspondence of an acting member of the Council was shortened to at least 130 days.

**8.3** In order to increase the transparency of the work of the Council, the Council agreed to provide open access to all non-confidential Executive Council documents as well as its subsidiary bodies through the WMO Website, commencing with its fifty-ninth session.

**8.4** The Council accordingly adopted [Resolution 28 \(EC-LIX\) – Amendments to the Rules of Procedure of the Executive Council](#).

### **Follow-up to Resolution 33 (Cg-XV)**

**8.5** The Executive Council noted Resolution 33 (Cg-XV) – Increased transparency and involvement of Members in governance issues of WMO between Congresses, and considered how best to follow up on the requests addressed to it by Congress.

**8.6** In addition to the decision to make non-confidential documents of the Executive Council and its subsidiary bodies public, some members were of the view that some additional immediate steps could be taken in line with the requests addressed to the Council by Congress, such as the invitation to Members to attend the sixtieth session of the Executive Council without the right to speak. Other members believed that no decision should be rushed without first conducting an in-depth study of the legal and practical implications of the implementation of the Congress resolution.

**8.7** Taking into consideration the time frame contained in the Congress resolution that the Members should be invited to sessions of the Executive Council no later than 2009, the Executive Council agreed to request the Secretariat to prepare a detailed analysis of the legal and practical implications of the Congress resolution together with proposed changes to the Rules of Procedure of the Executive Council.

**8.8** The Executive Council also requested the Secretariat to review its Rules of Procedure with a view to limiting duplication of discussions at sessions of the Executive Council consecutive to a session of Congress and to make proposals to the Executive Council.

**8.9** The Executive Council decided that the analysis prepared by the Secretariat should be considered first by its Working Group on WMO Strategic and Operational Planning. The working group should report to the Council at its sixtieth session.

## **9. REVIEW OF PREVIOUS RESOLUTIONS OF THE EXECUTIVE COUNCIL** (*agenda item 9*)

In accordance with Rule 27 of its Rules of Procedure, the Executive Council reviewed those of its previous resolutions that were still in force at the time of the fifty-ninth session and adopted [Resolution 29 \(EC-LIX\)](#).

**10. DATE AND PLACE OF THE SIXTIETH AND SIXTY-FIRST SESSIONS OF THE EXECUTIVE COUNCIL** (*agenda item 10*)

**10.1** The Executive Council agreed that the sixtieth session of the Council be held at the Headquarters of the Organization from Wednesday, 18 June 2008 to Friday, 27 June 2008.

**10.2** The sixty-first session of the Council would be held at the Headquarters of the Organization from Wednesday, 3 June 2009 to Friday, 12 June 2009, subject to any change which might be decided by the Executive Council.

**11. CLOSURE OF THE SESSION** (*agenda item 11*)

The fifty-ninth session of the Executive Council closed at 18.12 p.m. on 30 May 2007.

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# RESOLUTIONS ADOPTED BY THE SESSION

## Resolution 1 (EC-LIX)

### EXECUTIVE COUNCIL PANEL OF EXPERTS ON EDUCATION AND TRAINING

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 2 (EC-LV) – Executive Council Panel of Experts on Education and Training,
- (2) Resolution 23 (Cg-XV) – Education and Training Programme,

**Considering** that education and training in meteorology, hydrology and related disciplines is a major cross-cutting activity of WMO that has a large impact on enhancing the knowledge and expertise available to National Meteorological and Hydrological Services (NMHSs) and improving the quality of products and services delivered to users,

**Decides** to maintain the Panel of Experts on Education and Training to serve as the advisory body of the Executive Council on all aspects of education and training in meteorology, hydrology and related disciplines, with the following terms of reference:

- (a) Provide advice relating to the planning, implementation and evaluation of the WMO Education and Training Programme (ETRP); in particular, the monitoring of the effectiveness of the Programme in implementing training events and awarding fellowships; and helping to prepare the ETRP input in the Strategic Plan of WMO;
- (b) Provide advice to and foster cooperation between WMO regional associations and technical commissions in the identification and prioritization of the education and training needs within their respective areas of competence; and recommend joint actions towards meeting those needs;
- (c) Stimulate the partnership of the ETRP with education and training institutions, particularly WMO Regional Training Centres (WMO-RTCs) and national training centres of NMHSs, as well as with other national and international agencies and organizations relevant to the implementation of the ETRP;
- (d) Encourage and strengthen collaboration between national training institutions, WMO-RTCs and higher education institutions aimed at enhancing the quality and scope of the education and training that can be provided in meteorology, hydrology and related disciplines;
- (e) Establish, as appropriate, Expert Teams to assist in carrying out in-depth studies of technical issues, and in preparing training publications and guidance documents relating to education and training requirements in meteorology, hydrology and related disciplines;
- (f) Recommend actions to train trainers in modern teaching-learning methods, as well as developing their expertise in subject areas needed to support current and future activities of NMHSs including sensitive subjects such as climate change, water resources management, disaster risk reduction, air quality and public health, and subjects not directly addressed by other WMO Programmes such as leadership and change management, client services, and school and popular education, including outreach activities;

- (g) Advise on training tools, methodologies and materials suitable for use by training units of NMHSs, WMO-RTCs, and other educational institutions;
- (h) Assist in monitoring the WMO-RTCs; review their biennial self-assessment reports; carry out the eight-year cycle of external assessment of each Centre; and advise on possible designation of other suitable training institutions as WMO-RTCs;
- (i) Consider any other matters, including policy issues relating to education and training, which the Executive Council may specifically request;

**Requests** the Secretary-General to take relevant actions to support the Panel's activities.

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**Note:** This resolution replaces Resolution 2 (EC-LV), which is no longer in force.

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### Resolution 2 (EC-LIX)

#### EXECUTIVE COUNCIL WORKING GROUP ON WMO STRATEGIC AND OPERATIONAL PLANNING

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 27 (Cg-XV) – WMO Strategic Plan,
- (2) Resolution 28 (Cg-XV) – Preparation of the WMO Strategic Plan for 2012–2015,
- (3) Resolution 29 (Cg-XV) – Evolution of National Meteorological and Hydrological Services and WMO,
- (4) Resolution 33 (Cg-XV) – Increased transparency and involvement of Members in governance issues of WMO between Congresses,
- (5) Madrid Action Plan (*Abridged Final Report with Resolutions of the Fifteenth World Meteorological Congress* (WMO-No. 1026), Annex III),

**Decides** to establish an Executive Council Working Group on WMO Strategic and Operational Planning to:

- (1) Improve and align the organization-wide strategic, operational and budget planning process according to the relevant decisions and requests of Fifteenth Congress, in particular with respect to:
  - (a) Refinement of the key performance indicators;
  - (b) Monitoring of progress made in the implementation of the WMO Strategic Plan and evaluation of programme performance within the framework of the WMO Strategic Plan and Operating Plan 2008–2011, and develop recommendations with respect to priorities concerning additional initiatives for surplus funding (see Resolution 35 (Cg-XV) – Maximum expenditure for the fifteenth financial period (2008–2011));
  - (c) Development of WMO-wide Operating Plan 2008–2011;
  - (d) Development of the next WMO Strategic Plan and WMO Operating Plan 2012–2015;

- (2) Address and keep under review the evolution of National Meteorological and Hydrological Services (NMHSs) and WMO, in particular with respect to:
- (a) The Statement on the role and operation of NMHSs;
  - (b) Assessment of status and trend in the evolution of the role and operation of NMHSs;
  - (c) Development of effective guidance materials that would enable NMHSs to become more responsive, proactive and relevant at the national level;
  - (d) Development of recommendations for improving the functioning of and linkages between WMO constituent bodies;
  - (e) Review, assessment and report on activities as regards increased transparency and involvement of Members in governance issues of WMO between Congresses, according to Resolution 33 (Cg-XV);
  - (f) Encouragement and facilitation of cooperation arrangements and partnerships among relevant stakeholders;
  - (g) Development of guidance on how to enhance the visibility of NMHSs and WMO through adequate communication and advocacy;
  - (h) Effective follow-up arising from the WMO International Conference on Secure and Sustainable Living: Social and Economic Benefits of Weather, Climate and Water Services (Madrid, Spain, March 2007) and the Madrid Action Plan;

**Authorizes** the Working Group to establish sub-groups and task teams as and when required.

**Requests** the Secretary-General, within the available budgetary resources, to:

- (1) Support the activities of the working group;
- (2) Take appropriate actions on the related issues and to keep Members and other relevant international organizations informed as appropriate.

### **Resolution 3 (EC-LIX)**

#### **EXECUTIVE COUNCIL WORKING GROUP ON THE WMO INTEGRATED GLOBAL OBSERVING SYSTEM AND THE WMO INFORMATION SYSTEM**

THE EXECUTIVE COUNCIL,

**Noting** Resolution 30 (Cg-XV) – Towards enhanced integration between WMO Observing Systems,

**Considering** the request expressed in Resolution 30 (Cg-XV) for the Executive Council to:

- (1) Establish a mechanism to steer and monitor the activity and to achieve the broadest possible collaboration and cooperation,
- (2) Ensure the active participation and representation of the principal bodies concerned and also the participation, as appropriate, of technical experts and representatives of agencies undertaking co-sponsored observing initiatives,
- (3) Ensure that this mechanism is closely coordinated with the institutional arrangements for planning and overseeing the WMO Information System,
- (4) Submit a comprehensive report on the integration between the WMO observing systems to Sixteenth Congress,

**Decides** to establish an Executive Council Working Group on the WMO Integrated Global Observing System and the WMO Information System with terms of reference as follows:

- (1) Provide advice and guidance in the preparation of an overarching WIGOS Development and Implementation Plan;
- (2) Refine the WIS Development and Implementation Plan and ensure coordination between WIGOS and WIS plans to allow for an integrated WMO end-to-end system of systems;
- (3) Monitor the development and implementation of WIGOS and WIS through a “rolling review” mechanism;
- (4) Monitor the development and implementation of WIGOS/WIS “Pilot Projects”, as suggested by Fifteenth Congress, to test concepts, identify problem areas, and to help in elaborating the Development and Implementation Plan;

**Requests:**

- (1) Regional associations and technical commissions to provide input into an overarching Development and Implementation Plan and to include relevant activities in their strategic plans and work programmes, in particular those activities that require joint actions by regional associations and/or technical commissions for “Pilot Projects”;
- (2) The Working Group on WIGOS/WIS to report to subsequent sessions of the Council on the progress in the development and implementation of WIGOS/WIS;

**Further** requests the Intercommission Coordination Group on WIS (ICG-WIS) to report to the working group to ensure the coordination of the respective WIGOS and WIS Development and Implementation Plan, especially as regards WIS meeting WIGOS data collection, exchange and access requirements;

**Authorizes:**

- (1) The Executive Council Working Group to establish sub-groups and task teams as and when required;
- (2) The working group to undertake intersessional activities that require urgent action while keeping the President immediately informed of such actions and in providing specific descriptions of such activities to the next session of the Executive Council;

**Decides further:**

- (1) That a high-level representative from each regional association and technical commission, to be designated by its president, participates in relevant activities of the working group or its sub-groups;
- (2) That the WMO/IOC/UNEP/ICSU Steering Committee for the Global Climate Observing System (GCOS), the WMO/ICSU/IOC Joint Scientific Committee for the World Climate Research Programme (WCRP), the WMO/FAO Joint Scientific Committee for the Global Terrestrial Observing System, and WMO/IOC/UNEP/ICSU Steering Committee for the Global Ocean Observing System participate in the working group or its sub-groups;
- (3) That the chairperson may seek advice from, or invite experts, in particular from satellite operators, as necessary;

**Requests** the Secretary-General to provide the necessary assistance and Secretariat support for this working group, within the available budgetary resources.

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**Resolution 4 (EC-LIX)****EXECUTIVE COUNCIL WORKING GROUP ON CAPACITY BUILDING**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 1 (EC-LV) — Executive Council Advisory Group of Experts on Technical Cooperation,
- (2) Resolution 24 (Cg-XV) — The WMO Voluntary Cooperation Programme,

**Considering** the need for a continued mechanism to review on a regular basis issues related to development cooperation activities, including those related to the WMO Voluntary Cooperation Programme (VCP) and the WMO Programme for the Least Developed Countries,

**Decides:**

- (1) To establish the Executive Council Working Group on Capacity Building, which is requested to address all aspects of development cooperation, in particular, resource mobilization, socio-economic benefit studies, and strategic partnerships with external stakeholders, with the following terms of reference:
  - (a) Provide advice on the development and implementation of the WMO overall policy and strategy for resource mobilization to enhance the level of externally funded development projects in the Member countries;
  - (b) Advise on building partnership relationships with other organizations and institutions leading to successful applications for funding, making use of the know-how and expertise of WMO to strengthen the project proposals;
  - (c) Recommend actions on the existing and new partnerships between users and providers of weather, climate and water services to share responsibility for effective delivery of services, and evaluate their performance;
  - (d) Advise on the development of ability to evaluate the socio-economic benefits of hydrometeorological infrastructure, services and know-how;
  - (e) Advise on further enhancement of the management and efficiency of the Voluntary Cooperation Programme and identify and advise on requirements that could be met with VCP support, including the VCP(F);
  - (f) Advise on policy regarding all technical cooperation matters, in particular on the coordination of VCP and Trust Fund approaches to develop and implement technical cooperation projects to support the development of the National Meteorological and Hydrological Services in developing countries;
  - (g) Advise on the development and implementation of the WMO Programme for the Least Developed Countries and monitor the progress made and assist in the mobilization of resources for the National Meteorological and Hydrological Services of the least developed countries;
  - (h) Advise on the role of WMO concerning commitments of the Programme of Action for the Least Developed Countries for the Decade 2001–2010;
  - (i) Consider any other matters, including policy issues relating to resource mobilization, which the Executive Council may specifically request;



- (2) To invite relevant funding and development agencies including the World Bank and European Commission to participate in the work of the working group;
- (3) To invite Australia, Brazil, Canada, China, Finland, France, Germany, Japan, the Republic of Korea, Spain, the United Kingdom and the United States of America to designate experts in capacity-building to participate in the work of the working group and attend sessions of the working group at their own expense;

**Authorizes** the working group to establish sub-groups and task teams as and when required;

**Requests** the Secretary-General to take relevant actions to support the activities of the working group.

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**Note:** This resolution replaces Resolution 1 (EC-LV), which is no longer in force.

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### Resolution 5 (EC-LIX)

#### EXECUTIVE COUNCIL WORKING GROUP ON DISASTER RISK REDUCTION [AND SERVICE DELIVERY]

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 25 (Cg-XV) – Natural Disaster Prevention and Mitigation Programme,
- (2) Resolution 16 (Cg-XV) – Public Weather Services Programme,
- (3) Resolution 18 (Cg-XV) – Aeronautical Meteorology Programme,
- (4) Resolution 19 (Cg-XV) – Marine Meteorology and Oceanography Programme,
- (5) Madrid Action Plan (*Abridged Final Report with Resolutions of the Fifteenth World Meteorological Congress* (WMO-No. 1026), Annex III),

**Decides** to establish an Executive Council Working Group on Disaster Risk Reduction [and Service Delivery] with the following terms of reference:

To provide guidance on the cross-cutting Disaster Risk Reduction Programme, in particular with respect to:

- (a) Further development and implementation of the Programme's activities in alignment with the WMO Strategic Plan and Fifteenth Congress decisions;
- (b) The development of a coordination framework for the WMO Disaster Risk Reduction Programme involving all WMO Programmes, technical commissions and regional associations, Members and external partners, such as United Nations bodies and other international organizations, particularly related to the role and responsibilities of National Meteorological and Hydrological Services in:
  - (i) Multi-hazard early warning systems;
  - (ii) Hazard analysis and risk assessment;

- (iii) Cooperation with civil protection and disaster risk management authorities;
  - (iv) Service delivery to disaster risk reduction community under a multi-hazard framework;
  - (v) Capacity-building and public education;
- (c) Provide recommendations regarding alignment of the WMO Disaster Risk Reduction Programme with the Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters, and strengthened International Strategy for Disaster Reduction (ISDR) System, and the outcomes related to Actions 1 to 5, 7 and 11 of the Madrid Action Plan;
  - (d) Ensure effective coordination with other relevant Executive Council subsidiary bodies on issues pertaining to disaster risk reduction;
  - (e) Invite relevant ISDR-system agencies to participate in the work of the working group;
  - (f) Any other matters relating to disaster risk reduction that the Executive Council may specifically request;

**Requests** the chairperson of the working group, in consultation with members of the Group, the presidents of the technical commissions, and the Secretary-General, to refine the terms of reference of the Group, and to take the agreed revised terms of reference into account when confirming the title of the working group;

**Authorizes** the working group to establish sub-groups and task teams as and when required.

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### Resolution 6 (EC-LIX)

#### EXECUTIVE COUNCIL ADVISORY PANEL OF EXPERTS ON GENDER MAINSTREAMING

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 33 (Cg-XIV) – Equal opportunities for the participation of women in meteorology and hydrology,
- (2) Resolution 34 (Cg-XV) – Gender mainstreaming,
- (3) WMO Policy on Gender Mainstreaming,
- (4) Results of the Expert Meeting on Gender Mainstreaming (Geneva, 26–29 March 2007),

**Considering:**

- (1) The Fourth World Conference on Women (Beijing, 1995) and its recognition of the importance of women and their contributions to science,
- (2) The United Nations Millennium Development Goal to promote gender equality and empower women,
- (3) That WMO is one of the last United Nations agencies to have adopted a policy on gender mainstreaming,

- (4) The urgent need to effect gender mainstreaming in the design, implementation, monitoring and evaluation of policies and programmes of National Meteorological and Hydrological Services (NMHSs), WMO regional associations, WMO technical commissions and the Secretariat,
- (5) The requirement to ensure that trained, qualified and diligent professionals, regardless of gender, perform the work of WMO,

**Decides** to establish an Executive Council Advisory Panel of Experts on Gender Mainstreaming with the following terms of reference:

- (1) Oversee, advise and regularly report to the Executive Council on implementation of the activities of WMO on gender mainstreaming at all levels of WMO;
- (2) Contribute effectively to the WMO efforts in promoting, encouraging and facilitating gender equality across WMO, including Members and the Secretariat in line with the WMO Strategic Plan;
- (3) Recommend specific strategies and activities to ensure gender mainstreaming in NMHSs, WMO regional associations and WMO technical commissions in the areas of employment, policymaking, enhanced provision of services, and effective monitoring and evaluation;
- (4) Recommend and support resource mobilization strategies for gender mainstreaming activities in NMHSs;
- (5) Consider any other matters relating to gender mainstreaming that the Executive Council may request;

**Requests** the Secretary-General to take the relevant actions to support the activities of this panel.

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### Resolution 7 (EC-LIX)

#### REPORT OF THE FOURTEENTH SESSION OF THE COMMISSION FOR INSTRUMENTS AND METHODS OF OBSERVATION

THE EXECUTIVE COUNCIL,

**Noting** the *Abridged Final Report with Resolutions and Recommendations of the Fourteenth Session of the Commission for Instruments and Methods of Observation* (WMO-No. 1019),

**Decides:**

- (1) To note the report;
- (2) To note Resolutions 1 to 4 (CIMO-XIV);
- (3) To take action on each of the recommendations as follows:

#### **Recommendation 1 (CIMO-XIV) – Measurements in severe icing conditions**

- (a) Approves this recommendation;

- (b) Requests the Secretary-General to bring this recommendation to the attention of Members as well as technical commissions concerned; requesting they provide their requirements for measurements in severe icing conditions;

**Recommendation 2 (CIMO-XIV) – Standardized procedure for laboratory calibration of catchment type rainfall intensity gauges**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to bring this recommendation to the attention of Members; that to improve accuracy of rainfall intensity measurements they need to apply the standardized calibration procedures;

**Recommendation 3 (CIMO-XIV) – Procedure and reference instruments for field rainfall intensity intercomparisons**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to bring this recommendation to the attention of Members; that to improve field intercomparison results they need to apply standardized procedures;

**Recommendation 4 (CIMO-XIV) – Terms of reference of the World, Regional, and National Radiation Centres for Solar Radiation**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General and regional associations to implement this recommendation in the practices of the World, Regional, and National Radiation Centres;

**Recommendation 5 (CIMO-XIV) – Development of UV Calibration Centres**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to bring this recommendation to the attention of Members as well as technical commissions concerned to consider establishing UV Calibration Centres;

**Recommendation 6 (CIMO-XIV) – Establishment of the Primary WMO Reference Centre for Aerosol Optical Depth Measurements**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to bring this recommendation to the attention of Members and technical commissions concerned to provide further technical/scientific guidance to the World Optical Depth Research and Calibration Centre in the World Radiation Centre, Davos, Switzerland, in its capacity as the WMO Reference Centre for Aerosol Optical Depth Measurements;

**Recommendation 7 (CIMO-XIV) – WRC Infrared Radiometry Section**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to bring this recommendation to the attention of Members and Instrument manufacturers and request World Radiation Centre and regional associations to implement this recommendation in the practice of the Regional Radiation Centres;

**Recommendation 8 (CIMO-XIV) – Use of GPS geometric height to derive pressure and geopotential height for operational radiosondes**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to bring this recommendation to the attention of Members to explore with the manufacturers how the benefits from this technological advance can be exploited to reduce the cost of consumables for upper-air operations;

**Recommendation 9 (CIMO-XIV) – Suitable temperature measurements for high quality reference upper-air stations**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to bring this recommendation to the attention of Members to maintain the highest possible standards in radiosonde measurements;

**Recommendation 10 (CIMO-XIV) – Usefulness of interoperable upper-air systems**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to bring this recommendation to the attention of Members as a possible mechanism for reducing the cost of upper-air operations;

**Recommendation 11 (CIMO-XIV) – Regional Instrument Centre with full capabilities and functions**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General and regional associations to implement this recommendation in the practice of the Regional Instrument Centres;

**Recommendation 12 (CIMO-XIV) – Regional Instrument Centre with basic capabilities and functions**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General and regional associations to implement this recommendation in the practice of the Regional Instrument Centres;

**Recommendation 13 (CIMO-XIV) – Review of the resolutions of the Executive Council related to the Commission**

- (a) Approves this recommendation;
- (b) Agrees to keep in force Resolution 13 (EC-XXXIV) – Development and comparison of radiometers;

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**Note:** This resolution replaces Resolution 7 (EC-LV), which is no longer in force.

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**Resolution 8 (EC-LIX)****REPORT OF THE THIRTEENTH SESSION OF THE  
COMMISSION FOR AERONAUTICAL METEOROLOGY**

THE EXECUTIVE COUNCIL,

**Having considered** the report of the thirteenth session of the Commission for Aeronautical Meteorology (CAeM),

**Decides:**

- (1) To note the report;
- (2) To note Resolutions 1 to 5 (CAeM-XIII);
- (3) To note Resolution 18 (Cg-XV) – Aeronautical Meteorology Programme, and keep under review the financial situation of the Programme;

- (4) To take action on the recommendation of the Commission for Aeronautical Meteorology at its thirteenth session, as follows:

**Recommendation 1 (CAeM-XIII) – Review of the resolutions of the Executive Council based on previous recommendations of the Commission for Aeronautical Meteorology**

**Approves** the recommendation that Resolutions 9 (EC-LV), 10 (EC-LV) and 4 (EC-LVI) no longer be kept in force.

**Resolution 9 (EC-LIX)**

**REPORT OF THE FOURTEENTH SESSION OF THE COMMISSION FOR AGRICULTURAL METEOROLOGY**

THE EXECUTIVE COUNCIL,

**Noting** the *Abridged Final Report with Resolutions and Recommendations of the Fourteenth Session of the Commission for Agricultural Meteorology* (WMO-No. 1014),

**Decides:**

- (1) To note Resolutions 1 to 4 (CAgM-XIV);
- (2) To take action on the recommendations of the Commission for Agricultural Meteorology at its fourteenth session, as follows:

**Recommendation 1 (CAgM-XIV) – National reports on progress made in agricultural meteorology**

- (a) Approves the recommendation;
- (b) Requests the Secretary-General:
- (i) To bring the recommendation to the attention of Members;
  - (ii) To arrange for the update of a comprehensive database on agrometeorology by 31 July 2007;
  - (iii) To publish brief summaries of progress in agricultural meteorology for information of Members, before the next session of the Commission;

**Recommendation 2 (CAgM-XIV) – Review of resolutions of the Executive Council based on previous recommendations of the Commission for Agricultural Meteorology**

- (a) Approves the recommendation;

**Recommendation 3 (CAgM-XIV) – Drought and desertification**

- (a) Approves the recommendation;
- (b) Requests the Secretary-General:
- (i) To bring the relevant recommendations on the follow-up to the decisions of the Conference of the Parties to the United Nations Convention to Combat Desertification to the attention of all Members;
  - (ii) To continue to circulate to Members for information and appropriate action any relevant decisions of the Conference of the Parties to the United Nations Convention to Combat Desertification that may have implications for Member countries of WMO;

- (iii) To continue to take steps towards the implementation of actions recommended by the Conference of the Parties to the United Nations Convention to Combat Desertification that are of direct relevance to WMO;
- (iv) To cooperate, as appropriate, within the budgetary resources, with other relevant international and regional organizations in the implementation of the United Nations Convention to Combat Desertification;
- (v) To ensure that WMO continues to participate effectively, as appropriate, in the implementation activities in support of the United Nations Convention to Combat Desertification;

**Recommendation 4 (CAgM-XIV) – Training and education in agricultural meteorology**

- (a) Approves the recommendation;
- (b) Requests the Members:
  - (i) To encourage training in agricultural meteorology, as a matter of great importance and to expand their training programmes, as appropriate, to provide training at Class I (meteorologists), seeking assistance where required, for example through Voluntary Cooperation Programme funds;
  - (ii) To promote the inclusion of graduate and postgraduate level education in agricultural meteorology in the curriculum of universities, colleges, meteorological schools, and agricultural and forestry institutes;
  - (iii) To encourage short-term internships of personnel from agrometeorological services from developing countries to respective services in developed countries and other developing countries with appropriate facilities for training.

**Resolution 10 (EC-LIX)**

**REPORT OF THE EXTRAORDINARY SESSION (2006) OF THE  
COMMISSION FOR BASIC SYSTEMS**

THE EXECUTIVE COUNCIL,

**Having considered** the *Abridged Final Report with Resolutions and Recommendations of the Extraordinary Session (2006) of the Commission for Basic Systems (WMO-No. 1017)*,

**Noting:**

- (1) Resolutions 1 and 2 (CBS-Ext.(06)),
- (2) Recommendations 1 to 9 (CBS-Ext.(06)),
- (3) The progress made in the CBS work programme, including further planning,

**Decides** to take action on each of the recommendations as follows:

**Recommendation 1 (CBS-Ext.(06)) – Adoption of a World Geodetic System and a Global GEOID Model as references for positioning the observing station**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to ensure with relevant WMO bodies that the WMO *Technical Regulations* (WMO-No. 49) and the appropriate WMO manuals and guides are updated accordingly;

**Recommendation 2 (CBS-Ext.(06)) – Review of the *Guide to the Global Observing System* (WMO-No. 488)**

- (a) Approves this recommendation;
- (b) Requests the Secretary-General to make arrangements for publishing the revised *Guide to the Global Observing System* as soon as possible;

**Recommendation 3 (CBS-Ext.(06)) – Amendments to the *Manual on the Global Telecommunication System* (WMO-No. 386), Volume I, Global Aspects, Parts I and II**

- (a) Approves this recommendation to take effect for operational use from 7 November 2007;
- (b) Requests the Secretary-General to incorporate the amendments in the *Manual on the Global Telecommunication System*;
- (c) Authorizes the Secretary-General, in consultation with the president of the Commission for Basic Systems, to make any consequent purely editorial amendments to the *Manual on the Global Telecommunication System*;

**Recommendation 4 (CBS-Ext.(06)) – Amendments to the *Manual on Codes* (WMO-No. 306), Volume I.2, for FM XIII GRIB 2, FM XIII BUFR and FM XIII CREX**

- (a) Approves this recommendation to take effect for operational use from 7 November 2007;
- (b) Requests the Secretary-General to incorporate these amendments in the *Manual on Codes*;

**Recommendation 5 (CBS-Ext.(06)) – Amendments to the *Manual on Codes* (WMO-No. 306), Volume I.1**

- (a) Approves this recommendation to take effect for operational use from 5 November 2008;
- (b) Requests the Secretary-General to incorporate these amendments in the *Manual on Codes*;

**Recommendation 6 (CBS-Ext.(06)) – Amendments to the *Manual on Codes* (WMO-No. 306), Volume I.2, Part C, Common Features to Binary and Alphanumeric Codes**

- (a) Approves this recommendation to take effect for operational use from 7 November 2007;
- (b) Requests the Secretary-General to incorporate these amendments in the *Manual on Codes*, to be made available on the WMO Web server;

**Recommendation 7 (CBS-Ext.(06)) – Amendments to the *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485)**

- (a) Approves this recommendation to take effect from 1 July 2007;
- (b) Requests the Secretary-General to incorporate the amendments in the *Manual on the Global Data-processing and Forecasting System*;
- (c) Authorizes the Secretary-General, in consultation with the president of Commission for Basic Systems, to make any consequent purely editorial amendments to the *Manual on the Global Data-processing and Forecasting System*;

**Recommendation 8 (CBS-Ext.(06)) – Designation of Global Producing Centres for Long-range Forecasts**

- (a) Approves this recommendation to take effect from 1 July 2007;
- (b) Requests the Secretary-General to incorporate the newly designated Global Producing Centres in the *Manual on the Global Data-processing and Forecasting System*;

**Recommendation 9 (CBS-Ext.(06)) – Review of resolutions of the Executive Council based on previous recommendations of the Commission for Basic Systems or related to the World Weather Watch**

- (a) Notes this recommendation;
  - (b) Agrees to keep in force Resolutions 2 and 9 (EC-LVI) and Resolutions 3 and 15 (EC-LVIII).
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**Resolution 11 (EC-LIX)****REPORT OF THE FOURTEENTH SESSION OF REGIONAL ASSOCIATION I (AFRICA)**

THE EXECUTIVE COUNCIL,

**Having considered** the report of the fourteenth session of RA I,

**Decides:**

- (1) To note the report;
- (2) To note Resolutions 1 to 23 (XIV-RA I);

**Requests** the Secretary-General to support the implementation of these resolutions and to bring the above decision to the attention of all concerned.

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**Note:** This resolution replaces Resolution 6 (EC-LV), which is no longer in force.

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**Resolution 12 (EC-LIX)****REPORT OF THE FOURTEENTH SESSION OF  
REGIONAL ASSOCIATION III (SOUTH AMERICA)**

THE EXECUTIVE COUNCIL,

**Having considered** the report of the fourteenth session of RA III,

**Decides:**

- (1) To note the report;
- (2) To note Resolutions 1 to 18 (XIV-RA III);

**Requests** the Secretary-General to support the implementation of these resolutions and to bring the above decision to the attention of all concerned.

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**Note:** This resolution replaces Resolution 8 (EC-LIV), which is no longer in force.

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**Resolution 13 (EC-LIX)****EXECUTIVE COUNCIL PANEL OF EXPERTS ON ANTARCTIC METEOROLOGY**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 10 (EC-LI) – Executive Council Working Group on Antarctic Meteorology,

- (2) Resolution 7 (Cg-XV) – WMO Antarctic Activities,
- (3) That Fifteenth Congress welcomed the proposal that WMO will create a Global Cryosphere Watch,

**Considering** that there is a need for meteorological and other environmental data from the Antarctic for the full implementation of the World Weather Watch, for research and monitoring of climate change and of the ozone layer over the Antarctic,

**Decides:**

- (1) To establish the Executive Council Panel of Experts on Antarctic Meteorology with the following terms of reference:
  - (a) To promote the execution of the resolutions of Congress and the Executive Council in the area from 60°S to 90°S;
  - (b) To provide guidance in the development of the relevant parts of the WMO Strategic Plan related to the Antarctic;
  - (c) To coordinate programmes of surface and upper-air meteorological observations in the Antarctic;
  - (d) To develop the most appropriate schemes for the collection and dissemination of meteorological data for operational and research purposes;
  - (e) To stimulate the development and regular updating of national databases of non-real-time meteorological data for the Antarctic;
  - (f) To develop and recommend regional coding practices which are to be applied in the Antarctic;
  - (g) To study, in coordination with the Commission for Instruments and Methods of Observation, problems relating to instruments and methods of observation peculiar to the Antarctic;
  - (h) To discuss scientific issues and to make recommendations on meteorological research and operations related to the Antarctic;
  - (i) To maintain active contacts with other groups or bodies, such as the Scientific Committee on Antarctic Research, the WCRP Joint Scientific Committee, the Council of Managers of National Antarctic Programmes, the Intergovernmental Oceanographic Commission of UNESCO, and the WMO technical commissions, with regard to aspects of Antarctic meteorology of particular relevance to their functions;
  - (j) To provide, as necessary, through its chairperson or other representative, information on meteorological activities in the Antarctic to the Antarctic Treaty Consultative Meeting, including its Committee for Environmental Protection;
  - (k) To support, as necessary, the international programmes related to climate change studies and prediction, such as the World Climate Research Programme, the Global Climate Observing System and the Global Ocean Observing System;
  - (l) To ensure the coordination of planning and implementation of specific observing programmes and services in the Antarctic during International Polar Year 2007–2008 and to facilitate the exchange and assessment of data and products generated by International Polar Year 2007–2008 projects;

- (2) That the Panel of Experts make recommendations, as necessary, to the Executive Council within its terms of reference;
- (3) That the Panel of Experts will be composed of members nominated by the Permanent Representatives of Members that are Parties to the Antarctic Treaty and of Members that have not yet acceded to the Treaty but that have active meteorological programmes in the Antarctic;
- (4) That observers from other groups may be invited to attend meetings of the Panel of Experts;
- (5) That the Panel of Experts shall put in place, for the next biennium, a set of specific measurable, achievable, relevant, time-bound targets and objectives, related to its work;

**Requests the Secretary-General,**

- (1) To arrange for necessary sessions of the Panel of Experts and to provide the necessary Secretariat support;
- (2) To arrange that the relevant recommendations of the Panel of Experts be transmitted to Members that are Parties to the Antarctic Treaty for comment prior to their consideration by the Executive Council.

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**Note:** This resolution replaces Resolution 10 (EC-LI), which is no longer in force.

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**Resolution 14 (EC-LIX)**

**ANTARCTIC BASIC SYNOPTIC NETWORK**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 12 (EC-LV) – Antarctic Basic Synoptic Network,
- (2) WMO Strategic Plan as it relates to the World Weather Watch and to the Antarctic,
- (3) The *Manual on the Global Observing System* (WMO-No. 544), Volume I – Global Aspects, Part III, paragraphs 2.1.3 and 2.1.4,

**Considering:**

- (1) That the establishment and maintenance of a basic synoptic network of surface and upper-air stations in the Antarctic, adequate to meet the requirements of Members and of the World Weather Watch, constitutes one of the most important obligations of Members under Article 2 of the WMO Convention,
- (2) That the density of the current network of surface and upper-air stations is generally much less than that desirable,
- (3) That global models can at present identify biases in station elevation measurements and are being rerun on past observations,

**Recommends:**

- (1) That the stations and the observational programmes listed in the annex to this resolution constitute the Antarctic Basic Synoptic Network (ABSN);
- (2) That Members be urged:
  - (a) To spare no effort in their endeavours to secure full implementation of the network of stations and observational programmes set forth in the annex to this resolution;
  - (b) To seek to maintain, and where possible restore, radiosonde stations in Antarctica;
  - (c) To consider the possibility of cooperating with other Members in sharing the costs of re-opening and operating previously functioning stations;
  - (d) To comply fully with the standard times of observation, the coding procedures and the data-collection standards, as laid down in the *WMO Technical Regulations* (WMO-No. 49) and the *Manual on the Global Observing System* (WMO-No. 544), *Manual on Codes* (WMO-No. 306), *Manual on the Global Telecommunication System* (WMO-No. 386) and the *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485);
  - (e) To validate station positions and elevations using modern surveying techniques against those given in *Weather Reporting* (WMO-No. 9), Volume A, and to communicate the results of these measurements to the WMO Secretariat;

**Requests** the Secretary-General to bring any changes to the Antarctic Basic Synoptic Network to the attention of WMO Members.

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**Annex to Resolution 14 (EC-LIX)**

**PROPOSED LIST OF STATIONS COMPRISING  
THE ANTARCTIC BASIC SYNOPTIC NETWORK**

STATIONS	OBSERVATIONS
<b>STATIONS OPERATED BY ARGENTINA</b>	
88963      BASE ESPERANZA	S
88968      BASE ORCADAS	S
89034      BASE BELGRANO II	S
89053      BASE JUBANY	S
89055      BASE MARAMBIO (CENTRO MET. ANTARTICO)	S / W R
89066      BASE SAN MARTIN	S
<b>STATIONS OPERATED BY AUSTRALIA</b>	
89564      MAWSON	S / W R
89568      LAMBERT GLACIER BASIN, LGB 35 AWS	S
89570      DAVIS (WHOOOP WHOOOP)	S
89571      DAVIS	S / W R
89576      LGB 69 AWS	S
89577      DOME A	S
89578      EAGLE	S
89586      MT. BROWN-A	S
89610      CASEY (CAPE POINSETT)	S
89611      CASEY	S / W R
89612      CASEY AIRSTRIP AWS 2	S
89614      CASEY (PETERSON)	S

STATIONS		OBSERVATIONS
89767	AMERY ICE SHELF AWS (G3)	S
89773	AM01	S
89775	AM02	S
89803	WILKES LAND, GF 08 AWS	S
89807	SNYDER ROCKS	S
89811	LAW DOME SUMMIT AWS	S
89815	HAUPT NUNATAKS	S
<b>STATIONS OPERATED BY BRAZIL</b>		
89253	JOINVILLE ISLAND	S
<b>STATIONS OPERATED BY CHILE</b>		
89056	CENTRO MET.ANTARTICO "PDTE.EDUARDO FREI"	S
89059	BASE BERNARDO O'HIGGINS	S
<b>STATIONS OPERATED BY CHINA</b>		
89058	GREAT WALL	S
89573	ZHONGSHAN	S
<b>STATIONS OPERATED BY FINLAND</b>		
89014	NORDENSKIOLD BASE	S
<b>STATIONS OPERATED BY FRANCE</b>		
89642	DUMONT D'URVILLE	S / W R
<b>STATIONS OPERATED BY GERMANY</b>		
89002	NEUMAYER	S / W R
<b>STATIONS OPERATED BY THE NETHERLANDS</b>		
89016	WASA EP5	S
89018	SVEA EP6	S
89507	KOHNEN EP9	S
A3823	HALVFARRYGGEN EP11	S
<b>STATIONS OPERATED BY INDIA</b>		
89514	MAITRI	S
<b>STATIONS OPERATED BY ITALY</b>		
89625	CONCORDIA	S / W R
89646	SITRY POINT	S
89648	MID POINT	S
89659	PRIESTLY GLACIER	S
89661	CAPE PHILLIPS	S
89662	MARIO ZUCHELLI STATION	S / W R
89666	CAPE ROSS	S
<b>STATIONS OPERATED BY JAPAN</b>		
89532	SYOWA	S / W R
<b>STATIONS OPERATED BY THE REPUBLIC OF KOREA</b>		
89251	KING SEJONG AWS	S
<b>STATIONS OPERATED BY NORWAY</b>		
89504	TROLL AWS	S
<b>STATIONS OPERATED BY THE RUSSIAN FEDERATION</b>		
89050	BELLINGSHAUSEN	S
89512	NOVOLAZAREVSKAJA	S / W R
89574	PROGRESS	S
89592	MIRNYJ	S / W R
89606	VOSTOK	S
<b>STATIONS OPERATED BY SOUTH AFRICA</b>		
89004	S.A.N.A.E.	S

STATIONS	OBSERVATIONS
<b>STATIONS OPERATED BY SPAIN</b>	
89064 JUAN CARLOS 1 AWS	S
<b>STATIONS OPERATED BY UKRAINE</b>	
89063 VERNADSKY	S
<b>STATIONS OPERATED BY THE UNITED KINGDOM</b>	
89020 BRUNT ICE SHELF	S (Until 2007)
89022 HALLEY	S / W R
89062 ROTHERA	S / W R
89065 FOSSIL BLUF	S
<b>STATIONS OPERATED BY URUGUAY</b>	
89054 DINAMET-URUGUAY	S
<b>STATIONS OPERATED BY THE UNITED STATES</b>	
89009 AMUNDSEN-SCOTT	S / W R
89061 PALMER STATION	S
89664 MCMURDO	S / W R
<b>STATIONS MAINTAINED BY THE UNIVERSITY OF WISCONSIN, UNITED STATES</b>	
89108 UNIV. WI ID 8985 (HENRY)	S
89208 UNIV. WI ID 8987 (CLEAN AIR)	S
89257 UNIV. WI ID 8925 (LIMBERT )	S
89262 UNIV. WI ID 8926 (LARSEN ICE SHELF)	S
89266 UNIV. WI ID 8902 (BUTLER ISLAND)	S
89269 UNIV. WI ID 8923 (BONAPARTE POINT)	S
89272 UNIV. WI ID 8917 (SKY-BLU)	S
89314 UNIV. WI ID 21358 (THERESA)	S
89324 UNIV. WI ID 8903 (BYRD STATION)	S
89327 UNIV. WI ID 8981 (MOUNT SIPLE)	S
89329 UNIV. WI ID 8900 (HARRY)	S
89332 UNIV. WI ID 21361 (ELIZABETH)	S
89345 UNIV. WI ID 8900 (SIPLE DOME)	S
89376 UNIV. WI ID 8911 (GILL)	S
89377 UNIV. WI ID 8908 (LETTAU)	S
89528 UNIV. WI ID 20654 (AGO-3)	S
89667 UNIV. WI ID 8927 (PEGASUS NORTH)	S
89734 UNIV. WI ID 8904 (DOME FUJI)	S
89744 UNIV. WI ID 8918 (RELAY STATION)	S
89768 UNIV. WI ID 8939 (MINNA BLUFF)	S
89799 UNIV. WI ID 8924 (NICO)	S
89828 UNIV. WI ID 8989 (DOME C II)	S
89834 UNIV. WI ID 8916 (D-47)	S
89864 UNIV. WI ID 8905 (MANUELA)	S
89866 UNIV. WI ID 8906 (MARBLE POINT)	S
89868 UNIV. WI ID 8913 (SCHWERDTFEGER)	S
89869 UNIV. WI ID 8931 (MARILYN)	S
89872 UNIV. WI ID 8929 (FERRELL)	S
89873 UNIV. WI ID 8915 (ELAINE)	S
89879 UNIV. WI ID 8984 (POSSESSION IS.)	S
AAPET UNIV. WI ID 8933 (PETER I OYA)	S

**Note:** S indicates a SYNOP station, W an upper-air wind station and R a radiosonde station. All Antarctic upper-air stations produce TEMP messages which include winds; however some also produce PILOT messages.

**Resolution 15 (EC-LIX)****ANTARCTIC BASIC CLIMATOLOGICAL NETWORK**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) The *WMO Technical Regulations* (WMO-No. 49), Regulation [B.1] 3.1.1.2,
- (2) Resolution 13 (EC-LV) – Antarctic Basic Climatological Network,
- (3) The *Manual on the Global Observing System* (WMO-No. 544), Volume II – The Antarctic, paragraph 7.2,

**Considering:**

- (1) That the Antarctic Basic Climatological Network (ABCN) is established to provide a comprehensive network of CLIMAT and CLIMAT TEMP reporting stations based on ABSN stations and including all Global Climate Observing System (GSN and GUAN) stations needed for description of climate features,
- (2) That ABCN concept facilitates applying more fully World Weather Watch monitoring procedures for climatological data,

**Recommends:**

- (1) That the stations listed in the annex to this resolution constitute the Antarctic Basic Climatological Network in the Antarctic;
- (2) That Members be urged:
  - (a) To spare no effort in their endeavours to secure full implementation of the network of ABCN stations set forth in the annex to this resolution;
  - (b) To comply fully with the global and regional coding procedures and the data-collection standards in accordance with procedures laid down in the *WMO Technical Regulations* (WMO-No. 49) and the *Manual on the Global Observing System* (WMO-No. 544), *Manual on Codes* (WMO-No. 306) and the *Manual on the Global Telecommunication System* (WMO-No. 386) when operating the Antarctic Basic Climatological Network;

**Requests** the Secretary-General to bring any changes to the Antarctic Basic Climatological Network to the attention of the Members of WMO.

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## Annex to Resolution 15 (EC-LIX)

PROPOSED LIST OF STATIONS COMPRISING THE  
ANTARCTIC BASIC CLIMATOLOGICAL NETWORK

INDEX	STATION NAME	CLIMAT	CLIMAT TEMP	GSN	GUAN
<b>STATIONS OPERATED BY ARGENTINA</b>					
88963	BASE ESPERANZA	X		X	
88968	BASE ORCADAS	X		X	
89034	BASE BELGRANO II	X			
89053	BASE JUBANY	X			
89055	BASE MARAMBIO (CENTRO MET. ANTARTICO)	X	X	X	X
89066	BASE SAN MARTIN	X			
<b>STATIONS OPERATED BY AUSTRALIA</b>					
89564	MAWSON	X	X	X	X
89571	DAVIS	X	X	X	X
89577	DOME A AWS	X		X	
89611	CASEY	X	X	X	X
<b>STATIONS OPERATED BY CHILE</b>					
89056	CENTRO MET. ANTARTICO "PDTE. EDUARDO FREI"	X		X	
89059	BASE BERNARDO O'HIGGINS	X			
<b>STATIONS OPERATED BY CHINA</b>					
89058	GREAT WALL	X			
89573	ZHONGSHAN	X		X	
<b>STATIONS OPERATED BY FRANCE</b>					
89642	DUMONT D'URVILLE	X	X	X	X
<b>STATIONS OPERATED BY GERMANY</b>					
89002	NEUMAYER	X	X	X	X
<b>STATIONS OPERATED BY INDIA</b>					
89514	MAITRI	X		X	
<b>STATIONS OPERATED BY ITALY</b>					
89625	CONCORDIA	X	X	X	
89662	MARIO ZUCHELLI STATION	X	X	X	
<b>STATIONS OPERATED BY JAPAN</b>					
89532	SYOWA	X	X	X	X
<b>STATIONS OPERATED BY NORWAY</b>					
89504	TROLL AWS	X			
<b>STATIONS OPERATED BY THE RUSSIAN FEDERATION</b>					
89050	BELLINGSHAUSEN	X		X	
89512	NOVOLAZAREVSKAJA	X	X	X	X
89574	PROGRESS	X		X	
89592	MIRNYJ	X	X	X	X
89606	VOSTOK	X		X	
<b>STATIONS OPERATED BY SOUTH AFRICA</b>					
89004	SANAE	X			
<b>STATIONS OPERATED BY UKRAINE</b>					
89063	VERNADSKY	X		X	
<b>STATIONS OPERATED BY THE UNITED KINGDOM</b>					
89022	HALLEY	X	X	X	X
89062	ROTHERA	X	X	X	
89065	FOSSIL BLUFF AWS	X		X	
<b>STATIONS OPERATED BY URUGUAY</b>					
89054	DINAMET-URUGUAY	X			



INDEX	STATION NAME	CLIMAT	CLIMAT TEMP	GSN	GUAN
<b>STATIONS OPERATED BY THE UNITED STATES</b>					
89009	AMUNDSEN-SCOTT	X	X	X	X
89061	PALMER STATION AWS	X			
89664	MCMURDO	X	X	X	X
<b>STATIONS MAINTAINED BY THE UNIVERSITY OF WISCONSIN, UNITED STATES</b>					
89108	UNIV. WI ID 8985 (HENRY)	X			
89257	UNIV. WI ID 8925 (LIMBERT)	X			
89262	UNIV. WI ID 8926 (LARSEN ICE SHELF)	X		X	
89266	UNIV. WI ID 8902 (BUTLER ISLAND)	X		X	
89272	UNIV. WI ID 8917 (SKY-BLU)	X		X	
89324	UNIV. WI ID 8903 (BYRD STATION)	X		X	
89327	UNIV. WI ID 8981 (MOUNT SIPLE)	X		X	
89329	UNIV. WI ID 8900 (HARRY)	X		X	
89345	UNIV. WI ID 8900 (SIPLE DOME)	X		X	
89376	UNIV. WI ID 8911 (GILL)	X		X	
89377	UNIV. WI ID 8908 (LETTAU)	X		X	
89667	UNIV. WI ID 8927 (PEGASUS NORTH)	X			
89744	UNIV. WI ID 8918 (RELAY STATION)	X		X	
89799	UNIV. WI ID 8924 (NICO)	X			
89828	UNIV. WI ID 8989 (DOME C II)	X		X	
89865	UNIV. WI ID 8921 (WHITLOCK)	X		X	
89866	UNIV. WI ID 8906 (MARBLE POINT)	X		X	
89869	UNIV. WI ID 8931 (MARILYN)	X		X	
89872	UNIV. WI ID 8929 (FERRELL)	X		X	
89879	UNIV. WI ID 8984 (POSSESSION IS.)	X		X	

**Note:** Those stations which are AWS are often visited at infrequent intervals, and consequently data from them may be out of calibration.

### Resolution 16 (EC-LIX)

#### OBSERVATIONS FROM SHIPS AND AIRCRAFT OPERATIONS IN THE ANTARCTIC

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) That supply ships operating in the Antarctic have adequate communication facilities and may carry meteorological staff,
- (2) That research ships frequently operate in the Antarctic,
- (3) That aircraft are extensively used for the supplying of bases in the Antarctic,

**Considering:**

- (1) That supply ships do not at present always make and transmit meteorological observations,
- (2) That most supply ships are also suitable for the carrying out of upper-air observations,
- (3) That additional marine observations are required for improved forecast capability,
- (4) That aircraft reports are of particular importance in the area south of 60°S to supplement data from radiosonde/radiowind stations,

**Urges** Members to ensure that:

- (1) All research vessels, supply vessels and tourist ships operating in the Antarctic make regular surface synoptic observations at main synoptic hours, and transmit these data to appropriate radio or coastal ground stations in accordance with the procedures presented in the *Manual on the Global Telecommunication System* (WMO-No. 386), Volume I, Part I, Attachment I-1 and *Weather Reporting* (WMO-No. 9), TP:4, Volume D;
- (2) Supply vessels, whenever practicable, also make upper-air observations and transmit these reports on a real-time basis;
- (3) Research vessels make additional observations such as ocean currents and subsurface temperature and salinity to 500 m;
- (4) Aircraft operating south of 60°S make observations as a matter of routine and transmit them to the appropriate radio stations or satellites for further distribution on the Global Telecommunication System in an agreed format;

**Requests** the Secretary-General to invite Members, in particular Parties to the Antarctic Treaty, to obtain the maximum collaboration from operators of ships and aircraft in implementing this resolution.

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**Note:** This resolution replaces Resolution 17 (EC-XXXIX), which is no longer in force.

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### Resolution 17 (EC-LIX)

#### FURTHER DEVELOPMENT OF THE GLOBAL OBSERVING SYSTEM IN THE ANTARCTIC

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 6 (Cg-XII) — WMO Antarctic Activities,
- (2) Resolution 12 (EC-XLVI) — Further development of the Global Observing System in the Antarctic,
- (3) The progress being made in the implementation of the AMDAR, ASAP and drifting buoy programmes,
- (4) The requirements of the WMO Strategic Plan,
- (5) The report of the Scientific Committee on Antarctic Research (SCAR) on “The Role of Antarctica in Global Change, Part II — An International Plan for a Regional Research Programme”,

**Considering:**

- (1) That the density of observing stations in the Antarctic is generally much less than that desirable,

- (2) The importance of an effective basic synoptic network in the Antarctic and the need to integrate the network with the overall Global Observing System for World Weather Watch purposes,
- (3) The importance of Antarctic observational data in climate research,
- (4) The need to have comprehensive and realistic information on the operational value of new observing systems in Antarctica, their cost and their interfaces with other parts of the regional programme,

**Invites** Members, particularly those which are Parties to the Antarctic Treaty:

- (1) To participate in the deployment and use of new observing systems and to evaluate the effectiveness of these systems and their integration in the World Weather Watch;
- (2) To install automatic weather stations when staffed stations have to be closed in order to maintain the climatic records;
- (3) To provide additional surface observations in the Antarctic by using automatic weather stations and automatic geophysical observatories on land, by recruiting additional voluntary observing ships, by equipping aircraft with suitable instrumentation and by deploying drifting buoys at sea;
- (4) To provide extended surface observations in the Antarctic to meet the needs of sophisticated forecast models;
- (5) To arrange for the transmission of additional and extended surface observations obtained from weather stations and geophysical observatories as well as from ships and drifting buoys on the Global Telecommunication System;
- (6) To consider the possibility of deploying automated meteorological data reporting systems on aircraft flying suitable routes over the Antarctic;
- (7) To examine the communication facilities and data quality control procedures to ensure that the data are of high quality and received at the data-processing centres in a timely fashion.

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**Note:** This resolution replaces Resolution 12 (EC-XLVI), which is no longer in force.

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### **Resolution 18 (EC-LIX)**

#### **MAINTENANCE OF MANNED METEOROLOGICAL AND CLIMATOLOGICAL STATIONS IN THE ANTARCTIC**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) The sensitivity of Antarctica to global climate change,
- (2) The importance of manned stations in order to maintain a continual record of meteorological and climatological data from Antarctica,

- (3) The progress also made to develop and to run GSN and GUAN stations at coastal and continental areas during recent years,
- (4) The need for meteorological data as an input for global numerical models, such as the European Centre for Medium-Range Weather Forecasts, in order to keep the quality of those models that force regional high resolution forecast models in Antarctica,
- (5) The need for high-quality climate data over the Antarctic as an input for climate analysis and prediction,

**Considering:**

- (1) The growing need of high-quality (high-resolution) weather forecast products to support increasing logistic activities such as intercontinental and intra-continental aircraft operations (among them NSF, ANAP, DROMCAN) as well as long-distance continental field expeditions,
- (2) The quality of forecast products for selected Antarctic regions also significantly depends on the data quality and number of synoptic and upper-air stations currently operated in the Antarctic region,

**Invites** Members, particularly those currently running permanently occupied stations, to continue their efforts to keep staffed stations running in the long-term, and where possible restore observing programmes that have ceased, and by so doing to keep the quality of global and regional forecast models at the necessary level for demanding operations in Antarctica and monitor the progress of global change in Antarctica;

**Requests** the Secretary-General to bring this resolution to the attention of the Antarctic Treaty Members.

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**Note:** This resolution replaces Resolution 14 (EC-LV), which is no longer in force.

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**Resolution 19 (EC-LIX)**

**MAINTENANCE OF, AND SUPPORT TO, THE INTERNATIONAL PROGRAMME FOR  
ANTARCTIC BUOYS OF THE WORLD CLIMATE RESEARCH PROGRAMME AND  
THE SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 11 (EC-XLVI) – Organization of an International Programme for Antarctic Buoys,
- (2) Resolution 15 (EC-LV) – Maintenance of, and Support to, the International Programme for Antarctic Buoys of the World Climate Research Programme,
- (3) The report of the third session of the World Climate Research Programme (WCRP) ACSYS/CliC Scientific Steering Group (Beijing, China, 21–25 October 2002),
- (4) The report of the ninth session of the Executive Council Working Group on Antarctic Meteorology (St Petersburg, Russian Federation, 28–30 November 2006),

- (5) That the International Programme for Antarctic Buoys (IPAB) is an Action Group of the Data Buoy Cooperation Panel,

**Considering** the importance of IPAB observations in the Antarctic sea-ice zone for the World Weather Watch, the World Climate Research Programme, the Global Climate Observing System, the Global Ocean Observing System, the programme activities of the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology, and as well for the research activities of the Scientific Committee on Antarctic Research (SCAR),

**Recognizing:**

- (1) The positive impact of existing IPAB observations on operational weather prediction as shown in the *World Weather Watch – Twenty-first status report on implementation* (WMO-No. 957),
- (2) That the desired density of the buoy array in the Antarctic sea-ice zone with a spacing of 500 km has never been achieved despite the efforts of the Programme participants,
- (3) That shortage or lack of atmospheric pressure and temperature observations will lead to detrimental consequences for satellite gravity measurements with subsequent implications for meteorological and oceanographic uses,
- (4) The limited lifetime of drifting buoys in the Antarctic sea-ice zone,

**Urges** Members, in particular those that have active meteorological and oceanographic programmes in the Antarctic and that use satellite gravity and altimetry data in their operational and research activities:

- (1) To participate actively in the WCRP and SCAR International Programme for Antarctic Buoys by provision and/or deployment of sea-ice buoys capable of measuring sea-level atmospheric pressure, air temperature and sea-ice drift, or to support the Programme through other appropriate means;
- (2) To spare no efforts in the maintenance of the drifting buoy network in the Antarctic sea-ice zone, particularly through using internationally-coordinated deployment opportunities with the goal that buoys are more frequently deployed in areas of minimal data coverage;
- (3) To undertake necessary actions to ensure that observations from buoys deployed in the area of IPAB interest are reported through the Global Telecommunication System.

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**Note:** This resolution replaces Resolution 15 (EC-LV), which is no longer in force.

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**Resolution 20 (EC-LIX)**

**AMENDMENTS TO THE *MANUAL ON THE GLOBAL OBSERVING SYSTEM*  
(WMO-No. 544), VOLUME II, REGIONAL ASPECTS – THE ANTARCTIC**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Resolution 6 (Cg-XII) – WMO Antarctic Activities,

- (2) Resolution 2 (EC-LVIII) – Amendments to the *Manual on the Global Observing System* (WMO-No. 544), Volume I – Global Aspects,
- (3) The WMO Strategic Plan as it relates to the World Weather Watch and to the Antarctic,

**Recommends** adoption of the amendments to the *Manual on the Global Observing System* (WMO-No. 544), Volume II, Regional Aspects – The Antarctic, given in the annex to this resolution;

**Requests** the Secretary-General to make the appropriate amendments as given in the annex to this resolution.

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### Annex to Resolution 20 (EC-LIX)

#### AMENDMENTS TO THE *MANUAL ON THE GLOBAL OBSERVING SYSTEM* (WMO-No. 544), VOLUME II, REGIONAL ASPECTS – THE ANTARCTIC

To replace the text of section 7 “THE ANTARCTIC” by the following:

#### **7.1 Basic Synoptic Network of surface and upper-air observing stations in the Antarctic**

##### **7.1.1 Composition of the Basic Synoptic Network in the Antarctic (ABSN)**

The ABSN of surface and upper-air observing stations is reviewed at each session of the Executive Council Panel of Experts on Antarctic Meteorology (EC-PEAM) and adopted by resolution of the WMO Executive Council on the recommendation of the EC-PEAM. The list of stations constituting the ABSN is given in the annex to a Resolution approved by the EC. Changes are announced in the monthly “Operational Newsletter” issued by the Secretariat (see paragraph 7.1.4 below).

Staffed surface land stations included in the ABSN shall conform to the specifications laid down for land stations in Volume I of this Manual.

##### **7.1.2 Surface synoptic observations**

All staffed surface stations included in the ABSN should make surface observations at the four main standard times of observation, i.e. 0000, 0600, 1200 and 1800 UTC. Whenever possible and desirable observations should also be made at some or all of the four intermediate standard times of observation, i.e. 0300, 0900, 1500 and 2100 UTC. The carrying out of the observations at the main standard times of observations should be given first priority.

##### **7.1.3 Upper-air synoptic observations**

All upper-air stations included in the ABSN should make radiosonde and/or radiowind observations at 0000 and 1200 UTC. Other considerations permitting, those stations which are unable to carry out the full upper-air observing programme should give priority to the observations that maintain the historic record. Stations which are separated by no more than about 250 km may wish to consider bilateral arrangements whereby each undertakes one of the ascents so as to complete between them the full observing programme required.

##### **7.1.4 Arrangements and procedures for updating and amending the ABSN**

Certain minor changes in the ABSN of surface and upper-air synoptic stations which do not affect the data requirements for the Antarctic as a whole are inevitable from time to time. To provide a simple and rapid means of effecting such changes proposed by the Members concerned, the following procedure shall be followed:

- (a) The WMO Executive Council authorizes the President of the Organization to approve, at the request of the Member concerned and in consultation with the Secretary-General, minor changes to the ABSN/ABCN as may be required. Any change of substance would still require a formal notification to the WMO Members operating in the Antarctic;
- (b) The Secretary-General shall notify all Members of WMO by circular letter of changes agreed with the President of the WMO.

## **7.2 Basic Climatological Network of surface and upper-air observing stations in the Antarctic**

### **7.2.1 Composition of the Basic Climatological Network in the Antarctic (ABCN)**

**7.2.1.1** The ABCN is established to provide a comprehensive network of CLIMAT and CLIMAT TEMP reporting stations. It is based on ABSN stations and includes all GCOS (GSN and GUAN) stations supplemented by other CLIMAT and CLIMAT TEMP reporting stations needed for description of climate features. These supplemental surface stations should be selected under the same criteria used for GSN stations.

**7.2.1.2** Members are urged to comply fully with the global coding procedures and data collection standards in accordance with procedures laid down in the WMO Technical Regulations and the Manuals on the GOS, on Codes, and on the GTS when operating the ABCN stations.

**7.2.1.3** The WMO Executive Council authorizes the President of the Organization to approve, at the request of the Members concerned and in consultation with the Secretary-General, minor amendments to the list of ABCN stations without a formal consultation between WMO Members operating in the Antarctic, following similar procedures to those specified for the ABSN.

CLIMAT and CLIMAT TEMP reports from ABCN stations shall be regarded as essential data in the sense of Resolution 40 (Cg-XII).

### **7.2 Weather reporting by traverse parties**

Members operating stations in the Antarctic are encouraged to instruct all traverse parties to make surface observations wherever circumstances permit when they are more than 200 km away from their base. The observations, which should be carried out as close as possible to the standard times of observations, should be transmitted at least once a day.

### **7.4 Automatic weather stations in the Antarctic**

Members are encouraged to use automatic weather stations as a part of the basic synoptic network of stations, taking advantage of the data-collection capabilities of the near –polar-orbiting satellites and, in some case, of the geostationary meteorological satellites.

### **7.5 Aircraft reports**

Members are encouraged to arrange for making, recording and distributing AIREP, AMDAR and BUFR reports from all flights into and within the Antarctic.

### **7.6 Additional and extended observations**

Members are encouraged to arrange for making, recording and distributing additional and extended observations from ships and stations in the Antarctic.

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**Resolution 21 (EC-LIX)****AMENDMENTS TO THE *MANUAL ON THE GLOBAL TELECOMMUNICATION SYSTEM*  
(WMO-No. 386), VOLUME II, REGIONAL ASPECTS – THE ANTARCTIC****THE EXECUTIVE COUNCIL,****Noting:**

- (1) Resolution 6 (Cg-XII) – WMO Antarctic Activities,
- (2) Resolution 16 (EC-LV) – Amendments to the *Manual on the Global Telecommunication System* (WMO-No. 386), Volume II, Regional Aspects, The Antarctic,
- (3) The WMO Strategic Plan as it relates to the World Weather Watch and to the Antarctic,

**Recommends** adoption of the amendments to the *Manual on the Global Telecommunication System* (WMO-No. 386), Volume II, Regional Aspects – The Antarctic, given in the annex to this resolution;

**Requests** the Secretary-General to make the appropriate amendments as given in the annex to this resolution.

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**Annex to Resolution 21 (EC-LIX)****AMENDMENTS TO THE *MANUAL ON THE GLOBAL TELECOMMUNICATION SYSTEM*  
(WMO-No. 386), VOLUME II, REGIONAL ASPECTS – THE ANTARCTIC**

To replace pages B.ANT-3 to B.ANT-5 by the following pages:

**ANTARCTIC DATA TELECOMMUNICATION ARRANGEMENTS****1. GENERAL**

1.1.1 The telecommunication network within the Antarctic and the interconnecting links between the Antarctic and the GTS should ensure the rapid and reliable collection, exchange and further distribution of Antarctic meteorological data to satisfy the needs of Members of WMO.

1.1.2 Meteorological services at many Antarctic stations are run by National Antarctic Programmes and not by the Meteorological Authority of the operating country.

**2. DATA TO BE TRANSMITTED**

The data transmitted from the Antarctic should be composed of:

- (a) Surface synoptic reports for main and intermediate standard hours (0000, 0300, 0600, 0900, 1200, 1500, 1800 and 2100 UTC), radiosonde data for 0000 and 1200 UTC (and if available for other hours) from all stations in the Antarctic Basic Synoptic Network (ABSN) and also reports from additional stations as available;
- (b) All reports from ships, aircraft and buoys;



- (c) CLIMAT and CLIMAT TEMP reports;
- (d) Priority reports, such as warnings of dangerous weather phenomena;
- (e) Other types of information as agreed.

### 3. COLLECTION AND DISTRIBUTION OF DATA

3.1 The responsibility of collecting centres for the distribution of observational data from Antarctic stations is as follows:

Collecting Centre	Station index numbers
Davis	89571, 89573
Exeter	89020, 89022, 89062, 89065, 89108, 89208, 89257, 89262, 89266, 89269, 89272, 89314, 89324, 89327, 89329, 89332, 89345, 89376, 89377, 89667, 89734, 89744, 89768, 89769, 89799, 89828, 89834, 89847, 89864, 89866, 89868, 89869, 89872, 89873, 89879, AAPET
Frei	89054, 89056, 89058, 89059, 89251
Helsinki	89014
Hobart	89564, 89611
Marambio	88963, 88968, 89034, 89053, 89055, 89066
McMurdo	89009, 89664
St Petersburg <sup>[Note]</sup>	89050, 89512, 89574, 89592, 89606
New Delhi	89514
Darmstadt (EUMETSAT)	89002, 89064
Oslo	89504
Pretoria	89004
Rome	89625, 89646, 89648, 89659, 89661, 89662, 89666
Tokyo	89532
Toulouse	89642
Toulouse (ARGOS)	89016, 89018, 89253, 89507, 89568, 89576, 89577, 89578, 89586, 89610, 89612, 89614, 89620, 89757, 89762, 89767, 89774, 89803, 89807, 89811, 89815
Landover (ARGOS)	89108, 89208, 89257, 89261, 89262, 89266, 89272, 89314, 89324, 89327, 89332, 89345, 89376, 89377, 89528, 89667, 89744, 89799, 89828, 89834, 89864, 89866, 89868, 89869, 89873, 89879
Washington	89061, 89063

**Note:** Novalazarevskaya is a back-up collecting centre.

3.2 The principal routes by which Antarctic meteorological data enter the GTS are given in Figure 1.

3.3 The Antarctic Meteorological Centres at Frei and Marambio operate HF broadcasts including forecasts and other products. Details of the transmission programmes are included in the WMO Publication No. 9 – Volume C2.

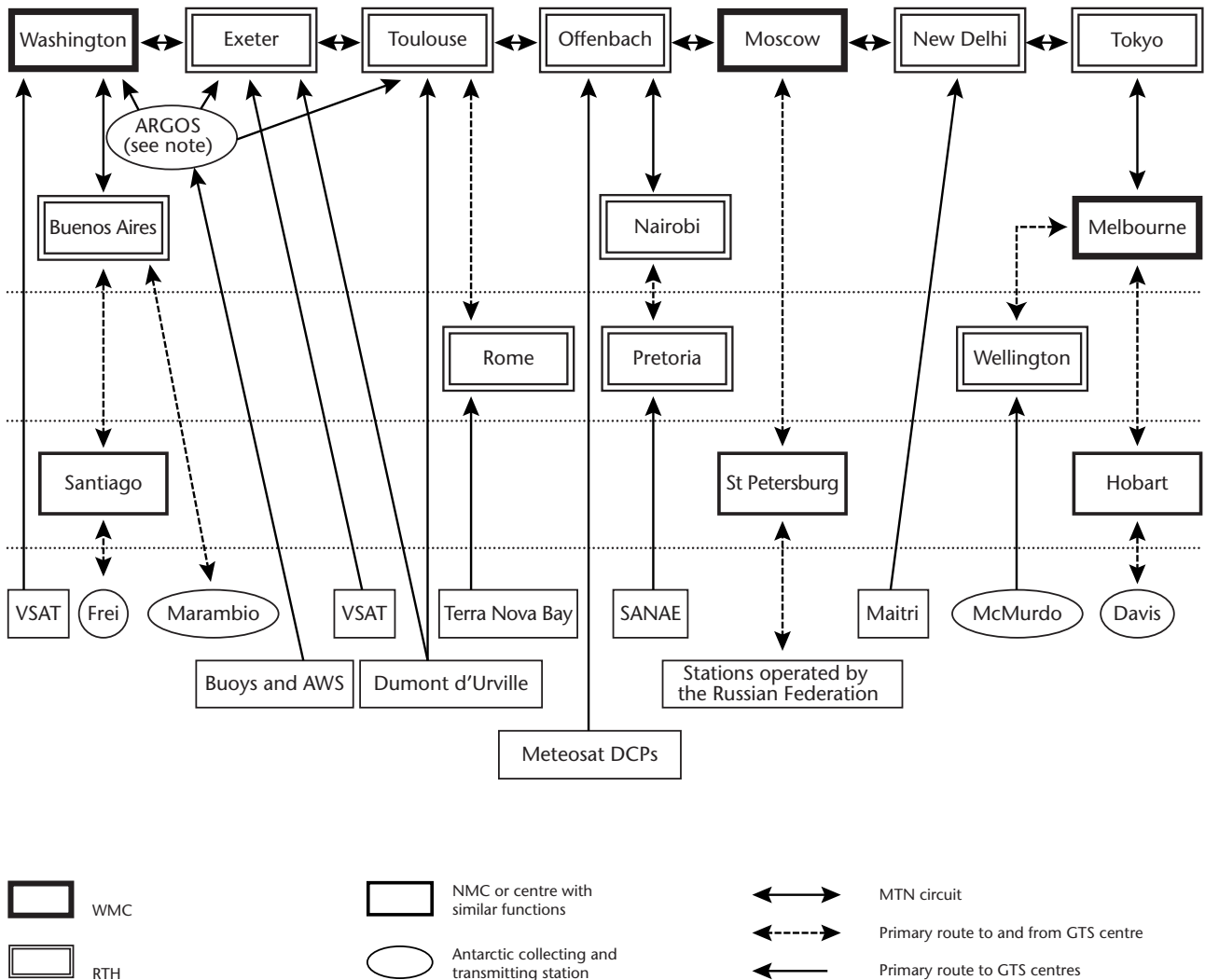
**4. SPECIFIC ARRANGEMENTS FOR THE EXCHANGE OF OBSERVATIONAL DATA**

4.1 As regards ship's reports, Antarctic collecting stations should make every effort to collect reports from ships which do not otherwise transmit to GTS centres outside Antarctica.

4.2 Data from buoys and AWS in the Antarctic are normally collected by ARGOS and disseminated by reception centres located in Toulouse (France) and Landover (United States). Data from some AWS may also be additionally processed by the British Antarctic Survey and disseminated by Exeter (United Kingdom).

**5. MONITORING THE OPERATION OF THE GTS**

In addition to participating in the annual specific monitoring on the exchange of Antarctic data, Members may carry out their own monitoring. When shortcomings are identified, the results of such a survey should be communicated to the relevant GTS centres, including the Antarctic collecting stations, and to the WMO Secretariat, to take appropriate action.



Note: ARGOS centres located in Landover (United States) and Toulouse (France)

**Figure 1. The principal routes by which Antarctic meteorological data enter the GTS**

**Resolution 22 (EC-LIX)****COORDINATION OF CLIMATE ACTIVITIES****THE EXECUTIVE COUNCIL,****Noting:**

- (1) Resolution 18 (EC-LV) – Executive Council Advisory Group on Climate and Environment,
- (2) *The Abridged Final Report with Resolutions and Recommendations of the Fourteenth Session of the Commission for Climatology* (WMO-No. 996) (Beijing, China, 3–10 November 2005),
- (3) Resolution 7 (Cg-XII) – World Climate Programme and its coordination,
- (4) Resolution 8 (Cg-XV) – World Climate Programme and its coordination,
- (5) Resolution 7 (EC-XLV) – Report on WMO Special Trust Fund for Climate and Atmospheric Environment Activities,
- (6) The assessment reports of the Intergovernmental Panel on Climate Change,
- (7) The Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change of the United Nations Framework Convention on Climate Change,
- (8) The outcomes and statements of important WMO Conferences such as the Conference on Living with Climate Variability and Change: understanding the uncertainties and managing the risks (Espoo, Finland, 17–21 July 2006) and the International Conference on Secure and Sustainable Living: Social and Economic Benefits of Weather, Climate and Water Services (Madrid, Spain, 19–22 March 2007),
- (9) The Sixth WMO Long term-Plan and the WMO Strategic Plan,

**Recognizing:**

- (1) That climate change and climate services and climate adaptation are major concerns for sustainable development, both scientifically and politically around the world,
- (2) That impacts of climate variability and change on water and environment are a major concern around the world,
- (3) That continuation of the effective role of WMO in climate, water and environmental issues is critical to the National Meteorological and Hydrological Services of its Members,
- (4) That the scientific assessments on climate change and variability have gained wide acceptance,
- (5) That there is a need to establish a more effective framework for coordination of climate, water and environmental matters,

**Appreciating:**

- (1) That a number of global programmes, agencies and Conventions, such as the World Climate Research Programme, Global Climate Observing System, Intergovernmental Panel on Climate Change, United Nations Framework Convention on Climate Change, United Nations Convention to Combat Desertification and the Convention on Biological Diversity, have been making concerted efforts to address various aspects of climate change and variability including their societal impacts,
- (2) That WMO and its Members have also played a key role in monitoring, research, scientific assessments and delivery of services related to climate variability and change,

**Decides** that the Executive Council Working Group on Climate and Related Water and Environmental Matters is established with the terms of reference as contained in the annex to this resolution are adopted by the Executive Council; the membership of the working group is indicated in [Annex I to the present report](#);

**Contributing to the following expected results of WMO:**

Expected result 7

Enhanced capabilities of Members to provide and use weather, climate, water and environmental applications and services,

Expected result 8

Broader use of weather, climate and water outputs for decision-making and implementation by Members and partner organizations,

Expected result 9

Enhanced capabilities of National Meteorological and Hydrological Services in developing countries, particularly least developed countries, to fulfil their mandates,

**By conducting reviews and reporting on the following initiatives:**

- (1) Consider WMO partnerships with other United Nations agencies and regional bodies involved in climate matters, including the water-related aspects of climate, and advise on how to strengthen and increase the effectiveness of those partnerships;
- (2) Identify opportunities to leverage outside resources to support achievement of the WMO expected results in the area of climate, including through innovative public-private partnerships;
- (3) Identify challenges related to the establishment of Regional Climate Centres, review their criteria with a view to updating them, and advise the Executive Council and Members on ways to expedite the Regional Climate Centres becoming operational;

**Authorizes** the working group to establish sub-group(s) and task team(s) as required.

**Annex to Resolution 22 (EC-LIX)**

**TERMS OF REFERENCE OF THE EXECUTIVE COUNCIL WORKING GROUP ON CLIMATE AND RELATED WATER AND ENVIRONMENTAL MATTERS**

The Executive Council Working Group on Climate and Related Water and Environmental Matters will advise the Executive Council on all matters related to the climate activities of WMO in order to promote better coordination among WMO bodies and programmes and to strengthen the WMO partnership with other United Nations and scientific organizations concerned with climate. The working group will also seek to promote the valuable contribution of National Meteorological and Hydrological Services to the adaptation strategies of Members. The working group will carry out the following activities:

- (a) Review present climate-relevant activities of WMO, and to assess their effectiveness in view of the expected results of the WMO supporting national and international activities related to sustainable development, and make recommendations for improvement;
- (b) Provide recommendations to promote and strengthen collaboration between and coordination of efforts among all WMO technical commissions with regard to climate matters;

- (c) Provide recommendations on the effectiveness and coordination between the co-sponsored programmes (World Climate Research Programme and Global Climate Observing System) and panels (Intergovernmental Panel on Climate Change) as required on climate issues;
  - (d) Identify implications for WMO of the decisions of other international organizations and conventions on the functioning and activities of all climate-related programmes of WMO and recommend appropriate actions;
  - (e) Recommend actions on follow-up on the outcomes of the climate and water-related conferences, taking into account the needs of developing and least developed countries;
  - (f) Collaborate with the Executive Council Working Group on Capacity Building to mobilize resources in support of sustained climate services, input for and adaptation strategies, particularly for developing and least developed countries;
  - (g) Establish close collaboration with the Executive Council Working Group on Disaster Risk Reduction [and Service Delivery], to oversee a mechanism for strengthening effective international partnership with disaster risk reduction agencies and activities of the International Strategy for Disaster Reduction system.
- 

### Resolution 23 (EC-LIX)

#### BUDGET FOR THE BIENNIUM 2008–2009

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Paragraph 6.5 of Article 6 and paragraph 7.7 of Article 7 of the Financial Regulations,
- (2) Resolution 35 (Cg-XV) – Maximum expenditure for the fifteenth financial period (2008–2011),
- (3) Resolution 40 (Cg-XV) – Assessment of proportional contributions of Members for the fifteenth financial period,

**Adopts** the budget for the biennium 2008–2009 as given in the annex to this resolution;

**Decides** that the contribution of Members will be assessed as defined in the annex to Resolution 40 (Cg-XV);

**Requests** the Secretary-General:

- (1) To present a detailed cost plan and options for the International Public Sector Accounting Standards project with a view to reducing budget requirements below the ceiling of CHF 4.0 million;
- (2) To fund, as far as possible, priority activities approved by Congress and the Executive Council through savings resulting from additional efficiencies;
- (3) To mobilize voluntary contributions for high priority activities as agreed by Congress;

- (4) To facilitate the involvement of members in the budget process, including the continuation of the informal group of experts on the expected results and key performance indicators for the fifteenth financial period 2008–2011 established by the Executive Council at its fifty-eighth session, to consider the application of key performance indicators in consultation with the Working Group on WMO Strategic and Operational Planning.

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**Annex to Resolution 23 (EC-LIX)**

**BUDGET FOR THE FIRST BIENNIUM (2008–2009) OF THE FIFTEENTH FINANCIAL PERIOD  
(CHF'000)**

<i>Revenue</i>		<i>Expenditures</i>		<i>Budget</i>
Assessed contributions	124 900.0	1	Enhanced capabilities of Members to produce better weather forecasts and warnings	9,067.3
Other regular resources	10 000.0	2	Enhanced capabilities of Members to provide better climate predictions and assessments	8,455.2
		3	Enhanced capabilities of Members to provide better hydrological forecasts and assessments	2,571.8
		4	Integration of WMO observing systems	9,009.6
		5	Development and implementation of the new WMO Information System	3,677.1
		6	Enhanced capabilities of Members in multi-hazard early warning and disaster prevention and preparedness	5,616.0
		7	Enhanced capabilities of Members to provide and use weather, climate, water and environmental applications and services	27,773.6
		8	Broader use of weather, climate and water outputs for decision-making and implementation by Members and partner organizations	14,764.9
		9	Enhanced capabilities of National Meteorological and Hydrological Services in developing countries, particularly least developed countries, to fulfil their mandates	11,457.5
		10	Effective and efficient functioning of constituent bodies	35,245.5
		11	Effective and efficient management performance and oversight of the Organization	7,261.5
<b>TOTAL</b>	<b>134 900.0</b>	<b>TOTAL</b>		<b>134 900.0</b>

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**Resolution 24 (EC-LIX)****CONSIDERATION OF THE ACCOUNTS OF THE  
WORLD METEOROLOGICAL ORGANIZATION FOR THE YEAR 2006**

THE EXECUTIVE COUNCIL,

**Recalling** Resolution 10 (EC-LVII) – Consideration of the accounts of the World Meteorological Organization for the year 2004,

**Noting** Article 15 of the Financial Regulations,

**Considering** the financial report of the Secretary-General on the accounts of the Organization for the year ended 31 December 2006 and the report of the External Auditor to the Executive Council,

**Gives formal approval** to the audited financial accounts of the World Meteorological Organization for the year 2006;

**Requests** the Secretary-General to transmit the financial statements of the accounts together with his report and the report of the External Auditor thereon to all Members of the World Meteorological Organization;

**Noting with concern** the substantial amounts of outstanding assessed contributions of certain Members,

**Urges** the Members to clear their dues at an early date.

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**Resolution 25 (EC-LIX)****APPOINTMENT OF THE EXTERNAL AUDITOR**

THE EXECUTIVE COUNCIL,

**Noting** Article 15 of the Financial Regulations,

**Noting** also that the term of office of the External Auditor expires on 30 June 2008,

**Decides** to appoint the Comptroller and Auditor-General of the United Kingdom to serve as the External Auditor of the World Meteorological Organization as from 1 July 2008 for a second consecutive term of office, to terminate on 30 June 2012.

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**Resolution 26 (EC-LIX)****TERM OF APPOINTMENT OF THE EXTERNAL AUDITOR**

THE EXECUTIVE COUNCIL,

**Noting** Article 15 of the Financial Regulations,

**Decides** that an External Auditor can serve any number of terms, but no more than two consecutively.

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### **Resolution 27 (EC-LIX)**

#### **SHIP OWNERS AND MASTERS' CONCERNS WITH REGARD TO VOS DATA EXCHANGE**

THE EXECUTIVE COUNCIL,

**Recalling:**

- (1) The request by the Executive Council at its fifty-seventh session to the JCOMM Ship Observations Team (SOT) to assess the risks associated with allowing Voluntary Observing Ships (VOS) callsigns and position data being made freely available on external Websites not maintained by the National Meteorological or Hydrometeorological Services (NMHSs), and to provide options to address the issue, as appropriate,
- (2) The request by the Executive Council at its fifty-eighth session to the Secretary-General to establish, as a high-priority issue, a high-level dialogue, involving Members affected, the International Maritime Organization, the International Chamber of Shipping, shipping companies, and relevant organizations and technical commissions, in order to determine if there is a link between VOS data availability on external Websites and piracy and other ship security issues; to review the implementation and impact of masking; and to propose a general and universally acceptable solution to the issue that would address ship owners and masters' concerns as well as the data monitoring and quality information feedback requirements, for consideration by the Executive Council at its fifty-ninth session in 2007,
- (3) The recommendation by the Executive Council at its fifty-eighth session to Members who, in consultation with ship owners, wish to protect the identity of VOS may implement ship callsign masking, for a trial period of one year, a process which would facilitate open distribution of masked data on the Global Telecommunication System,
- (4) The recommendation by the Executive Council at its fifty-eighth session to all Members implementing such a process to provide for the secure exchange of ship callsigns and report affected by the masking process, so as to assist in resolving real-time monitoring and climate analysis problems,

**Noting:**

- (1) The outcome, recommendations, and agreed principles by the high-level WMO/IMO Consultative Meeting (Geneva, February 2007), and its recommendation to seek a universally accepted global and standardized solution using an agreed international system of masked callsigns, yet to be developed,
- (2) The outcome and recommendations by the second session of the JCOMM Expert Team on Marine Climatology (Geneva, March 2007) and the fourth session of the JCOMM Ship Observations Team (Geneva, April 2007),
- (3) The trial ship masking schemes implemented by a few Members and their technical implications for quality monitoring, and climate related applications,



**Recognizing:**

- (1) That it is difficult to establish a relationship between VOS data availability on external Websites and piracy and other ship security issues, but that there is a perception that a connection exists in the shipping industry, and that such security concerns have to be addressed,
- (2) That there are also concerns on commercial considerations amongst the shipping companies,

**Acknowledging:**

- (1) The seriousness of the situation, which if not adequately addressed could lead to a decline of ships participating in the Voluntary Observing Ship (VOS) Scheme, and therefore a significant decrease of VOS reports available on the Global Telecommunication System,
- (2) The concerns expressed by ship owners and masters with regard to VOS data exchange,

**Recommends:**

- (1) Members who, in consultation with ship owners, wish to protect the identity of VOS may extend the trial period for the implementation of their current callsign masking schemes as per Resolution 7 (EC-LVIII) – Ship owners and masters' concern with regard to VOS data exchange;
- (2) Members who, in consultation with ship owners, wish to protect the identity of VOS and have not implemented such schemes yet, may implement a callsign masking scheme, as a process which would facilitate open distribution of masked data on the Global Telecommunication System;
- (3) All Members implementing such a process to:
  - (a) Provide for the secure exchange of International Telecommunication Union callsigns and reports affected by the masking process;
  - (b) Assist in the timely resolving of real-time monitoring and climate analysis problems;
  - (c) Minimize the technical implications on the Quality Monitoring of Marine Data set by the Commission for Basic System Lead Centre;
- (4) All Members implementing such a process, to seek long-term solutions in a way consistent with recommendations raised by the high-level WMO/IMO Consultative Meeting (Geneva, February 2007), the second session of the JCOMM Expert Team on Marine Climatology (Geneva, March 2007), and the fourth session of the JCOMM Ship Observations Team (Geneva, April 2007);
- (5) To continue the trial masking schemes in successive years, unless decided otherwise by the Executive Council, while pending the universal acceptance and implementation of a more suitable solution and the Commission for Basic System migration to table-driven codes;

**Requests** the Secretary-General, as a high-priority issue:

- (1) To continue the high-level dialogue, involving affected Members, the International Maritime Organization, the International Chamber of Shipping, shipping companies, and other relevant organizations and technical commissions, for example JCOMM, the Commission for Basic Systems and the Commission for Climatology, in order to review the implementation and impact of masking;

- (2) To propose a general and universally acceptable solution to the issue that would address ship owners and masters' concerns as well as the operational, data monitoring and quality information feedback, and climate requirements;
  - (3) To bring this resolution to the attention of all persons concerned.
- 

### **Resolution 28 (EC-LIX)**

#### **AMENDMENTS TO THE RULES OF PROCEDURE OF THE EXECUTIVE COUNCIL**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) The *Abridged Final Report with Resolutions of the Eleventh Session of the Executive Committee* (WMO-No. 87), general summary, paragraph 3.8,
- (2) The *Abridged Final Report with Resolutions of the Third World Meteorological Congress* (WMO-No. 88), general summary, paragraph 3.8,
- (3) The *Abridged Final Report with Resolutions of the Thirteenth World Meteorological Congress* (WMO-No. 902), general summary, paragraphs 11.3.10 and 11.3.11,
- (4) The practice of other United Nations specialized agencies on the distribution of Executive Body documentation,

**Considering:**

- (1) Rule 12 of the Rules of Procedure of the Executive Council providing that non-confidential documentation (documents, working papers and minutes) for a session of the Executive Council shall be marked "Restricted",
- (2) Resolution 33 (Cg-XV) – Increased transparency and involvement of Members in governance issues of WMO between Congresses,

**Decides** to change the sentence "All such documentation shall be marked "Restricted" to "All such non-confidential documentation shall be made available to the public through the WMO Website" in Rule 12 of the Rules of Procedure of the Executive Council.

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### **Resolution 29 (EC-LIX)**

#### **REVIEW OF PREVIOUS RESOLUTIONS OF THE EXECUTIVE COUNCIL**

THE EXECUTIVE COUNCIL,

**Noting:**

- (1) Regulation 155 (9) of the General Regulations, concerning the review of Executive Council resolutions,

(2) Rule 27 of the Rules of Procedure of the Executive Council on the same subject,

**Having examined** its previous resolutions still in force,

**Decides:**

(1) To keep in force the following resolutions:

EC-X	2
EC-XII	6, 30
EC-XIX	9
EC-XXI	15
EC-XXV	8, 12
EC-XXXIV	13
EC-XXXV	18, 21
EC-XXXVI	6
EC-XXXVII	13
EC-XXXIX	24
EC-XL	4
EC-XLI	6
EC-XLII	19
EC-XLIV	14 (except paragraphs under DECIDES), 15
EC-XLV	7, 13, 16
EC-XLVIII	3, 4, 12
EC-LI	5
EC-LIV	12, 15
EC-LV	19, 20
EC-LVI	2, 9, 11, 12, 13, 18, 19, 20, 21
EC-LVII	3, 4, 5, 6, 7, 8, 10, 13, 14, 15, 17, 18
EC-LVIII	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 17

(2) Not to keep in force the other resolutions adopted before its fifty-ninth session.

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**Note:** This resolution replaces Resolution 18 (EC-LVIII), which is no longer in force.

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# ANNEXES

## ANNEX I

Annex to [paragraph 2.6](#) of the general summary

### MEMBERSHIP OF BODIES REPORTING TO THE EXECUTIVE COUNCIL

#### EXECUTIVE COUNCIL PANELS OF EXPERTS

##### Executive Council Panel of Experts on Education and Training

A.I. Bedritsky	–	Russian Federation (chairperson)
A. Lagha	–	Algeria
G. Necco	–	Argentina
J. Wilson	–	Australia
K. Johnson	–	Canada
Wang Meihua	–	China
V. Castro	–	Costa Rica
C. Billard	–	France
J. Wellens Mensah	–	Ghana
Kwang-Joon Park	–	Republic of Korea
C. García-Legaz	–	Spain
D. Carrington	–	United Kingdom
T. Spangler	–	United States
A. Salcedo	–	Venezuela

*(Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)*

##### Executive Council Panel of Experts on Antarctic Meteorology

The panel of experts (former Executive Council Working Group on Antarctic Meteorology) is composed of members nominated by the Permanent Representatives of countries that are Parties to the Antarctic Treaty and experts designated by Permanent Representatives of Members who have not yet acceded to the Treaty but have active meteorological programmes in the Antarctic. The present membership is as follows:

G.B. Love	–	Australia (chairperson)
S. Pendlebury	–	Australia
J. Carrasco	–	Chile
Ju Damski	–	Finland
J. Lei	–	Argentina
A.W. Setzer	–	Brazil
Lingen Bian	–	China
J.-P. Mac Veigh	–	France
W. Seifert	–	Germany
M. Ferri	–	Italy
P. Van Velthoven	–	Netherlands
C. Mauritzen	–	Norway
Expert <i>(to be nominated)</i>	–	India
H. Sasaki	–	Japan
S. Nichol	–	New Zealand
C. del Carmen	–	Peru
M. Mietus	–	Poland
J. Stander	–	South Africa
V.I. Lipinsky	–	Ukraine
M.L. Bernasconi	–	Uruguay

Yu Tsaturov	–	Russian Federation
A. Labajo	–	Spain
J.D. Shanklin	–	United Kingdom
B. Lettau	–	United States

### **Executive Council Advisory Panel of Experts on Gender Mainstreaming**

L. Makuleni (Ms)	–	South Africa (chairperson)
A. McMillan (Ms)	–	Canada
S.W.B. Harijono (Ms)	–	Indonesia
M. Jabbari (Ms)	–	Islamic Republic of Iran
S. Pasquini	–	Italy
B. Mine (Ms)	–	Mauritania
K. Quevedo Cañia (Ms)	–	Peru
A. Diougue (Ms)	–	Senegal

*(Additional experts can be invited by the chairperson at the cost of governments; presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)*

## **EXECUTIVE COUNCIL WORKING GROUPS**

### **Executive Council Working Group on WMO Strategic and Operational Planning**

#### **A.I. Bedritsky (chairperson)**

M.A. Abbas  
 R.C. Bhatia  
 P.-E. Bisch  
 W. Gamarra Molina  
 D. Grimes  
 D.K. Keuerleber-Burk  
 T. Hiraki  
 L. Makuleni (Ms)  
 J. Mitchell  
 J.R. Mukabana  
 A.M. Noorian  
 P. Plathan  
 K.S. Yap

*(Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)*

### **Executive Council Working Group on the WMO Integrated Global Observing System and the WMO Information System**

#### **A.D. Moura (chairperson)**

R.C. Bhatia  
 M. Capaldo  
 H.H. Ciappesoni  
 T. Hiraki  
 J.J. Kelly, Jr.  
 G.B. Love  
 J.R. Mukabana  
 D. Musoni  
 M. Ostojski  
 T.W. Sutherland  
 F. Uirab  
 Zheng Guoguang

*(Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)*

### **Executive Council Working Group on Capacity Building**

#### **T.W. Sutherland (chairperson)**

M.A. Abbas  
 M.L. Bah  
 O.M.L. Bechir  
 S.A. Bukhari  
 C. Fuller  
 C.R.J. Viñas García  
 F. Cadarso González  
 A.M.H. Isa  
 M-K. Lee  
 A. Ngari  
 P. Plathan  
 F. Uirab

*(Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)*

### **Executive Council Working Group on Climate and Related Water and Environment Matters**

#### **A.M. Noorian (chairperson)**

Y. Boodhoo  
 D. Musoni  
 S.A. Bukhari  
 C. Fuller  
 M.M. Rosengaus Moshinsky  
 K.S. Yap  
 W. Kusch  
 W. Gamarra Molina  
 A.M.H. Isa  
 J. Mitchell  
 A.D. Moura  
 M. Ostojski

Ex officio members:

President of CCI  
 President of CHy  
 President of CAS  
 Chairman of Joint Scientific Committee of WCRP  
 Chairman of GCOS Steering Committee  
 Chairman of IPCC  
 Representative of GEO

*(Presidents of other relevant technical commissions may be invited as experts by the chairperson, as appropriate)*

### **Executive Council Working Group on Disaster Risk Reduction [and Service Delivery]**

#### **J.J. Kelly, Jr. (chairperson)**

Y. Boodhoo  
 O.M.L. Bechir  
 Zheng Guoguang  
 D. Grimes  
 C.R.J. Viñas García  
 M.M. Rosengaus Moshinsky  
 S.W.B. Harijono (Ms)  
 P.-E. Bisch

M-K. Lee  
 F. Cadarso González  
 M. Capaldo  
 W. Kusch  
 A.M. Noorian

*(Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)*

## **EXECUTIVE COUNCIL COMMITTEES**

### **Audit Committee** *(elects a chair)*

M.L. Bah  
 P.-E. Bisch  
 W. Kusch  
 J.J. Kelly, Jr.  
 Zheng Guoguang

Two alternate members of the Executive Council:

M. Capaldo  
 L. Makuleni (Ms)

Four financial experts proposed by the Secretary-General and appointed by the President of WMO.

### **WMO Staff Pension Committee**

**T.W. Sutherland (chairperson)**  
 P.-E. Bisch  
 L. Makuleni (Ms)

Alternate member

P. Garnier (Switzerland)

## **EXECUTIVE COUNCIL SELECTION COMMITTEES**

### **Selection Committee for the IMO Prize**

**A.D. Moura (chairperson)**  
 M.L. Bah  
 G.B. Love  
 Zheng Guoguang

### **Selection Committee for the WMO Research Award for Young Scientists**

**F. Cadarso González (chairperson)**  
 D. Musoni  
 M-K. Lee  
 M.M. Rosengaus Moshinsky

### **Selection Committee for the Professor Dr Vilho Väisälä Award**

**R.C. Bhatia (chairperson)**  
 F. Uirab  
 President of CIMO

### **Selection Committee for the Norbert Gerbier-MUMM International Award**

#### **P.-E. Bisch (chairperson)**

O.M.L. Bechir  
J.J. Kelly, Jr.  
President of CAgM

### **OTHER BODIES REPORTING TO THE EXECUTIVE COUNCIL**

#### **Joint WMO/IOC/ICSU Scientific Committee for the World Climate Research Programme**

<b>J. Church (chairperson)</b>	– <b>Australia</b>
V. Ramaswamy (Vice-chair)	– United States
C.S. Vera	– Argentina
I. Wainer (Ms)	– Brazil
G. Flato	– Canada
Guoxiong Wu (Officer)	– China
P. Cornejo R. de Grunauer	– Ecuador
H. Le Treut	– France
J. Marotzke	– Germany
K.A. Anaman	– Ghana
J. Shukla	– India/United States
R. Ardakanian	– Islamic Republic of Iran
T. Yasunari	– Japan
L.A. Ogallo	– Kenya
S. Gulev (Officer)	– Russian Federation
J. Slingo	– United Kingdom
D.J. Griggs	– United Kingdom
A. Busalacchi	– United States

#### **Steering Committee for the Global Climate Observing System**

<b>J. Zillman (chairperson)</b>	– <b>Australia</b>
A. Afouda	– Benin
I. Wainer (Ms)	– Brazil
Renhe Zhang	– China
S. Roesner	– Germany
D. Kumar	– India
H. Dolman	– Netherlands
O.M. Johannessen	– Norway
A. Zaytsev	– Russian Federation
L. Kajfez-Bogataj	– Slovenia
E. Hill	– United Kingdom
A. Hollingsworth	– United Kingdom
P.J. Mason	– United Kingdom
A. Simmons	– United Kingdom
D. Williams	– United Kingdom
D.E. Harrison	– United States
J. Kaye	– United States
G.W. Withee	– United States

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**ANNEX II**  
Annex to **paragraph 3.3** of the general summary

**VCP(F) STATUS AND PROPOSAL FOR ALLOCATIONS IN 2007**  
(in United States dollars)

<i>Currently active projects and new proposed projects</i>		<i>Balance (01/01/06)</i>	<i>Allocations and adjustment approved by EC-LVIII for 2006</i>	<i>Balance after 2006 allocations</i>	<i>Expenditure* and obligations 2006 (excluding admin. costs)</i>	<i>Commitment for ongoing supported activities</i>	<i>Allocations and adjustment for approval by EC-LIX for 2007</i>	<i>Balance after 2007 allocations</i>
1	VCP Spares/shipping of equipment in good working condition	25,102	-5,000	20,102	1,480			18,622
2	Expert services	27,418	20,000	47,418			-5,000	42,418
3	Short-term fellowships and training activities	113,323	10,000	123,323	40,954	63,000	60,000	79,369
3.1	Group training activities	31,985	-5,000	26,985				26,985
4	TCDC activities	15,486	22,000	37,486	14,852	16,000	20,000	26,634
5	Improvement of GTS General	34,686	100,000	134,686		54,000	20,000	100,686
5.1	Improvement of GTS Caribbean	19,059	-19,059	0				0
5.2	Improvement of GTS Asia/Pacific	29,898	-23,898	6,000		6,000		0
5.3	Improvement of GTS Africa	30,525	-30,525	0				0
5.4	Improvement of GTS South America	14,571	-14,571	0				0
5.5	Improvement of GTS South-East RA VI	21,204	-21,204	0				0
5.6	Improvement of GTS Central and Eastern Europe/Newly Independent States (NIS)	22,809	-22,809	0				0
6	Improvement of observing subsystem of GOS and GCOS General	58,175	20,000	78,175		33,000	20,000	65,175
6.1	Upper-air stations in Central and Eastern Europe/Newly Independent States (NIS)	37,003		37,003	5,846	8,000		23,157
7	Improvement of GDPS	21,921		21,921	4,065			17,856
8	Agricultural meteorology activities	6,249		6,249				6,249
9	Support to CDMS and climatological activities	30,224	10,000	40,224			-5,000	35,224
10	Mitigation of natural disasters	7,501	30,756	38,257	2,810		10,000	45,447
10.1	Emergency disaster assistance	28,756	-10,756	18,000	13,328	14,000	10,000	672
11	ASMC	8,431		8,431				8,431
12	ACMAD	-3,719	15,000	11,281	6,427		10,000	14,854
13	EAMAC	13,384	5,000	18,384	8,705			9,679
14	Operational hydrology activities	22,001	10,000	32,001			10,000	42,001
15	Improvement of satellite reception	19,565		19,565			-10,000	9,565
16	Internet capabilities	31,183	10,000	41,183				41,183
17	Reserve	1,129		1,129				1,129
18	Transfer to Emergency Assistance Fund	0	100,000					0
19	Transfer to LDC Trust Fund	0					50,000	0
	<b>TOTAL</b>	<b>667,869</b>	<b>199,934</b>	<b>767,803</b>	<b>98,467</b>	<b>194,000</b>	<b>190,000</b>	<b>615,336</b>

\* Provisional, interim figures which will be audited with the 2006–2007 biennium accounts.

**ANNEX III**  
**Annex to paragraph 5.14 of the general summary**

**TERMS OF REFERENCE FOR WCC-3/IOC**

**Considering** that Fifteenth Congress requested the Secretary-General to establish a WCC-3/ International Organizing Committee (WCC-3/IOC) for the purpose of organizing and executing by late October 2009 a World Climate Conference 3 (WCC-3) on the basis of the theme of climate prediction for decision-making focusing on seasonal-to-interannual timescales taking into account multi-decadal prediction.

**Decides that:**

- (1) The IOC shall be composed of 18 to 24 experts from among the following groups:
    - (a) WMO Members
    - (b) WMO Secretariat
    - (c) Relevant scientific organizations
    - (d) Relevant international organizations and conventions
    - (e) International financial institutions
    - (f) Relevant private sector organizations
    - (g) Relevant non-governmental organizations
    - (h) Major financial contributors
  - (2) At least one third of IOC members shall come from WMO Members.
  - (3) The membership shall have extensive scientific representation.
  - (4) IOC shall organize WCC-3 on the basis of the theme agreed by Fifteenth Congress (i.e. climate prediction for decision-making focusing on seasonal-to-interannual timescales, taking into account multidecadal prediction).
  - (5) IOC should endeavour to organize WCC-3 so that it produces significant concrete outcomes of both near-term and long-term economic and social benefit to WMO Members, the private sector, and the general public.
  - (6) IOC shall assist in resource mobilization for WCC-3, whose organization and execution shall be financed entirely by voluntary contributions provided to WMO for WCC-3. Costs associated with IOC are part of the organization of WCC-3.
  - (7) IOC shall consult and coordinate with WMO Members and relevant organizations whose experts are not members of IOC on a regular basis.
  - (8) IOC shall report on its work to the President and Secretary-General at least quarterly.
  - (9) IOC shall submit annual written reports on its activities and on plans and preparations for WCC-3, especially contributing to WMO expected results to EC for review, guidance, and approval. These reports shall also be provided to WMO Members through their Permanent Representatives and their Missions in Geneva.
  - (10) IOC's mandate shall expire two months after WCC-3 is held or at the time of the sixty-second session of the Executive Council, whichever comes first.
-

**ANNEX IV****Annex to agenda item 6.2 of the general summary****LIST OF PROPOSED SESSIONS OF PANELS AND WORKING GROUPS AND OF SYMPOSIUMS, TECHNICAL CONFERENCES, SEMINARS AND WORKSHOPS*****IMPLEMENTATION COORDINATION MEETINGS*****World Weather Watch Department**

- 2 WIS Intercommission Coordination Group ICG-WIS Meetings
- 2 Implementation Coordination Meetings on the IOS
- 1 Implementation Coordination Meeting on specific ICTs
- 1 Implementation Coordination Meeting on MTN-Core WIS Com.
- 1 Coordination Meeting on AM and IPY activities

**Applications Programme Department**

- 1 TC RSMC/TCWC Technical Coordination Meeting
- 1 JCOMM Data Management Coordination Group
- 1 JCOMM Observation Coordination Group
- 1 JCOMM Services Coordination Group
- 1 Meeting of PWS Implementation Coordination Team

**Atmospheric Research and Environment Programme**

- 1 Implementation Coordination Meeting of CAS JSC OPAG WWRP
- 1 Implementation Coordination Meeting of CAS JSSC OPAG EPAC
- 1 Implementation Coordination Meeting of CAS MG

**World Climate Programme Department**

- CAGM Implementation Coordination Team on Agrometeorological Services
- CAGM Implementation Coordination Team on Climate Change and Variability
- CAGM Implementation Coordination Team on Agrometeorological Services Support Systems
- CCI Implementation Coordination Team Meeting

**Regional and Technical Cooperation Activities for Development Department and DCR Field Office**

- 2 LDC Action Plan Implementation Coordination Meetings

***INSTITUTIONAL SUPPORT TO CONSTITUENT BODIES AND PROGRAMMES*****Cabinet and External Relations**

- 2 Meetings of Presidents of TCs
- 4 Meetings of WMO Bureau

**Strategic Planning Office**

- 2 Meetings of EC Working Group on WMO Strategic and Operational Planning

**World Weather Watch Department**

- 1 Meeting on High-priority EC tasking
- 1 CBS/GCOS Expert Meeting on GUAN & GSN
- 1 Expert Meeting on AWS
- 2 Expert Meetings on integr. obs. systems
- 1 Meeting on the GOS regul. material

- 2 Expert Meetings on the evolution of the GOS
- 1 Expert Meeting on techniques & procedures
- 2 Expert Meetings on RF coordination
- 1 Expert Meeting on specific ICTs
- 1 Expert Meeting on the GTS-WIS core communication structure
- 2 Expert Meetings on WIS centre functions and resp.
- Expert Meeting on extended and long-range forecasting
- Expert Meeting on the development of GDPFS for DPM/early warning
- 2 Expert Meetings on short-range forecasting, nowcasting, and severe and high-impact weather
- 1 ICT-DPFS Meeting
- Meetings/Workshops on implementing local data processing
- 2 Expert Meetings on the migration to TDCF
- 4 Expert Meetings on WIS-WWW data management (metadata, catalogues, monitoring, data representation and codes, etc.)
- 2 Meetings on the improvement of techn. stand.
- 1 CIMO Expert Team Meeting on RIC & QMS
- 1 CIMO Management Group Meeting
- 2 IOC Meetings on comparisons
- 3 CIMO Expert Team Meetings on surface observation technology
- 3 CIMO Expert Team Meetings on upper-air observation technology
- 2 Non-Nuclear ERA Expert Meetings
- 1 CG-Nuclear ERA Meeting
- 1 Meeting of EC Panel of Experts on Antarctic Meteorology
- 2 Meetings of EC Working Group on WIGOS and WIS

### **Applications Programme Department**

- 1 Expert Meeting on Tropical Cyclone Warnings
- 1 RA I Tropical Cyclone Committee for the South-West Indian Ocean
- 1 RA V Tropical Cyclone Committee for the South Pacific and South-East Indian Ocean
- 1 Regional Conference on Tropical Cyclones
- 2 Forecaster Attachments
- 2 RA IV Hurricane Committees
- 2 WMO/ESCAP Panels on Tropical Cyclones
- 2 ESCAP/WMO Typhoon Committees
- 2 workshops on Hurricane Forecasting and Warning, and Public Weather Services
- 3 regional workshops on Probability Tropical Cyclones Forecasts
- 1 CAeM Expert Team on Customer Relations
- 1 CAeM Expert Team on New Terminal Forecasts
- 1 CAeM Expert Team on Education and Training
- 1 CAeM Management Group Meeting
- 1 JCOMM Expert Team on Data Management Practices
- 1 JCOMM Expert Team on Marine Accident and Emergency Support
- 1 JCOMM Expert Team on Marine Climatology
- 1 JCOMM Expert Team on Meeting on Maritime Safety Services
- 1 JCOMM Expert Team on Sea Ice
- 1 JCOMM Expert Team on Wind Waves and Storm Surges
- 1 JCOMM Management Committee
- 1 JCOMM Ship Observations Team Meetings
- 1 PWS Expert Team on Services and Products Improvement
- 1 Expert Team on PWS Support of DRR
- 1 Expert Team on Communication Aspects of PWS
- 1 Task Force Meeting on PWS Social and Economic Applications
- 1 PWS Expert Team on Public Education and Outreach

### **Atmospheric Research and Environment Programme**

- 4 Meetings of GAW SAG for Ozone or for UV Radiation
- 1 Meeting of GAW SAG for Aerosols
- 1 Meeting of GAW SAG for Greenhouse Gases
- 2 Meetings of GAW SAGs for Reactive Gases or for Precipitation Chemistry
- 1 Meeting of GAW ET on GAW SIS and World Data Centres
- 1 Meeting of GAW SAG on GURME
- 1 Meeting of GAW ET on Near Real Time Chemical Data Delivery
- 2 Meetings of WWRP WG for Mesoscale Meteorology or for Nowcasting
- 2 Meetings of WWRP WG for Tropical Meteorology Research
- 1 Meeting of WWRP WG for Forecast Verification Research
- 1 Meeting of WWRP WG for SERA
- 1 Meeting of the Expert Team on Weather Modification Research
- 1 Co-sponsored Meeting of WWRP Steering Committee for the Sand and Dust Storm Warning System
- 2 Co-sponsored meetings with WCRP of the WGNE Committee
- 1 meeting of the Intergovernmental GESAMP Working Group on Atmospheric Input to the Oceans
- 1 Author/reviewer meeting to discuss the 2010 Scientific Assessment of Ozone Depletion, Les Diablerets, Switzerland

### **Hydrology and Water Resource Department**

- 1 AWG Meeting
- 1 WIAG Meeting
- WMO/UNESCO Liaison Committee

### **WMO Space Programme Office**

- 2 Consultative Meetings on High-level Policy on Satellite Matters
- 1 meeting of CBS/OPAG IOS Expert team on satellite utilization and products

### **World Climate Programme Department**

- CCI Management Group Meeting
- 2 EC Working Group on Climate and Related Water and Environment Matters (EC-WGCM)
- 2 WCC-3 International Organizing Committee Meetings (WWW-3/IOC) (extrabudgetary)
- World Climate Conference-3 (WCC-3) (extrabudgetary)
- Expert Meeting on early drought warning systems
- Expert Meeting on climate change interactions
- Expert Meeting on climate change detection and indices
- Expert Meeting on climate monitoring, including the use of satellite and marine data
- 1 Regional Expert Meeting on climate-related matters
- 2 EU COST Action Meetings
- 1 CCI/CBS Meeting to revise VolA and the GDPFS Manual, and to support RCC implementation
- Expert Team 3.1 on Research Needs for Interseasonal, Seasonal, and interannual Prediction
- Expert Team 4.3 on Climate and Tourism
- Expert Team 4.4 on Urban and Building Climatology
- CAGM Advisory Working Group
- Expert Meeting on Agromet Aspects of Sustainable Agriculture
- Expert Meeting on Climate Risks in Critical Areas
- Expert Meeting on Communication of Agrometeorological Products
- Expert Meeting on Drought and Extreme Temperatures
- Expert Meeting on Operational Agrometeorological Tools
- Expert Meeting on Transferring Agromet Products to Farmers

### **Disaster Risk Reduction Programme**

- EC Working Group on DRR Meetings

## **Regional and Technical Cooperation Activities for Development Department and DCR Field Office**

1st Session of the EC Working Group on Capacity Building  
 Informal Planning Meeting on VCP/TCO  
 1 RA I Tropical Cyclone Committee for the South-West Indian Ocean  
 1 RA V Tropical Cyclone Committee for the South Pacific and South-East Indian Ocean  
 2 RA IV Hurricane Committee  
 Advisory Working Group of RA I  
 Management Group of RA IV  
 Management Group of RA V  
 Management Group of RA VI  
 WG on Climate of RA I  
 WG on Climate of RA II  
 WG on Climate of RA IV  
 WG on Climate of RA VI  
 WG on Hydrology of RA V  
 WG on Hydrology of RA VI  
 WG on Internal Matters of RA III  
 WG on WWW of RA III  
 WG on WWW of RA IV  
 WG on WWW of RA V  
 WG on WWW of RA VI  
 Reg. Seminar in RA II  
 Reg. Seminar in RA IV  
 Reg. Seminar in RA VI

## **Education and Training Department**

1 Meeting of EC Panel of Experts on Education and Training

## **Office of the Assistant Secretary-General**

6 Meetings of the EC Audit Committee

## ***SYMPOSIUMS, TECHNICAL CONFERENCES, SEMINARS, WORKSHOPS, AND TRAINING COURSES***

## **Communications and Public Affairs Office**

2 media training workshops for NMHSs  
 1 training workshop for IPA focal points (NMHSs)  
 Seminars for media representatives

## **External Relations**

2 symposiums on External Relations for focal points (NMHSs)

## **World Weather Watch Department**

2 Subregional Training Seminars on CLIMAT Reports  
 1 Workshop on the role of instruments in WIGOS  
 1 Workshop on the Impact of Obs. Systems on NWP  
 1 Roving seminar and 2 video conf. on GTS-WIS operation  
 2 Roving seminars on GTS-WIS implementation  
 1 Workshop on RFC  
 1 Workshop on GTS-WIS support to early-warning systems  
 Joint training workshop on GPC LRF products and applications (e.g. WCP)  
 Training on migration to TDCF (CAL, roving seminars, video conferences)  
 1 Training Seminar on QM  
 Training (QM) in combination with other events

Training on Metrology for RA II  
 Training on UA Measurements for RA II  
 1 Technical Conference on Met instruments  
 Training workshop on Atmos. transport dispersion in ERA

### **Applications Programme Department**

1 RA I Training Course on Tropical Cyclones  
 1 Southern Hemisphere Training Course on Tropical Cyclones  
 1 Workshop on Storm Surges  
 1 Seminar on Cost Recovery of Aeronautical Meteorological Services  
 1 Seminar on Quality Management in the Provision of Aeronautical Meteorological Services to Aviation  
 1 Seminar on use of radar and Satellite Imagery for Aviation  
 1 Technical Conference – CAeM-XIV  
 1 Technical Conference – JCOMM-III  
 1 PWS Training Workshop for Media

### **Atmospheric Research and Environment Programme**

15<sup>th</sup> WMO/IAEA International GHG Measurements Experts Meeting  
 8th Quadrennial Carbon Dioxide Conference Germany  
 Quadrennial “International GAW2009 Workshop” Geneva  
 4 Co-sponsored training workshops of GAWTEC  
 2 Co-sponsored meetings of the UN-ECE Task Force on Measurements and Modelling  
 1 Co-sponsored symposium on atmospheric chemistry with IGBP/ IGAC  
 1 Co-sponsored symposium Quadrennial Meeting of IAMAS International Ozone Commission  
 WMO/UNEP Triennial Meeting of the Ozone Research Managers  
 5th Quadrennial WMO international symposium on data assimilation Australia  
 4th WMO International Workshop on Monsoons (IWM-IV)  
 1 Technical Meeting/Workshops on Implementation of the WMO Sand and Dust Storm Warning System  
 1 Technical meeting implementing GCOS/GAW global aerosol network  
 2 Technical regional meetings on GAW observations, data management, WIS integration and applications  
 2 Technical workshops on transfer of new methods and technologies in high-impact weather prediction  
 1 workshop on forecast system development  
 2 co-sponsored regional workshops on WWRP-THORPEX research plans  
 4 UV/O3 instrument regional intercalibration workshops  
 2 GURME Air Quality Forecasting expert meeting/training workshops  
 2 AREP Technical representations at American Meteorological Society (AMS) meeting  
 1 WMO/GAW/GURME Expert meeting on Passive Samplers  
 1 co-sponsored SPARC 4th General Assembly, Bologna, Italy  
 4 technical Workshops to define and implement IGACO-Ozone/UV, GHG Aerosol and Air Quality Activities  
 1 Technical Meeting on development of UV guidelines

### **Hydrology and Water Resource Department**

Regional Workshops on the use of Design Flood Estimation Manuals  
 Regional/National Seminars/Workshops on the use of Hydrological Forecasting and Flood Hazard Mapping Manuals, including the development of promotional material  
 Regional/National Seminars/Workshops to promote the Water Resource Assessment Manual and other manuals  
 Roving Seminars  
 Workshop on Management, Planning, Financing, and Outreach Processes for NHSs

### **WMO Space Programme Office**

1 SAT MET training course

### **World Climate Programme Department**

Technical Conference preceding CCI-XV

1 Regional Workshop on the policy aspect of IPCC AR4

Interdisciplinary Workshop on climate adaptation (agriculture, health, energy, and development)

2 Regional Technical Meetings on climate change and desertification

Workshop on adapting to climate change - coping with extremes

1 Regional Workshop/Seminar on climate monitoring and the analysis of climate variability and change, including climate watch systems

1 Training Workshop on climate data management systems

1 Training Workshop on the recovery, preservation, and digitization of climate records

2 Training Workshops on applications (e.g. health, tourism), SIP, and ENSO

Symposium on drought indices

Workshop on climate adaptation strategies in agriculture

### **Disaster Risk Reduction Programme**

Regional training on DRR, methodologies, service improvement, and thematic areas (in conjunction with WMO programmes and partners)

### **Regional and Technical Cooperation Activities for Development Department and DCR Field Office**

4 National Workshops for LDC Strategic Plan

Regional Resource Mobilization Workshops

Regional Workshop for NMHS capacity in LDCs/Africa

Regional Workshop for NMHS capacity in LDCs/Asia

Regional Workshop for SIDS

2 Specialized Training in Applications

Regional Technical Conference in RA I

Regional Technical Conference in RA III

Regional Technical Conference in RA IV

Regional Technical Conference in RA V

Regional Technical Conference in RA VI

### **Education and Training Department**

1 Regional Training for National Trainers of RA II/V

1 Training Seminar on the Management of Training Institutions

Training Seminar on Curriculum Development

1 Regional Training Seminar for National Trainers of RA III/IV

1 Training Workshop on Meteorology for RA V

3 GAW Training workshops on measurement and quality assurance

3 Roving seminars on weather, climate, and farmers

3 Training workshops on monsoon studies

1 Training workshop on extended and long-range forecasting

1 Training workshop on very-short and short-range forecasting

Training courses on hydrological forecasting according to the E&T strategy for hydrology

Training courses on hydrology according to the E&T strategy for hydrology

1 Training Seminar on PWS

3 Regional seminars on capacity-building

2 Workshops on Hurricane Forecasting and Warning and Public Weather Services

1 Training Course on Aviation Meteorology (HPA)

Training workshop on CLIPS product generation and users

Training workshops on climate forecasting and varif.

Training workshop on agromet.

Training workshop on climate early-warning systems

1 training seminar on GDPFS

1 Seminar on Sat. meteorology



**WORKING GROUPS, STUDY GROUPS, AND EXPERT MEETINGS FUNDED  
BY THE WMO/ICSU/IOC JOINT CLIMATE RESEARCH FUND (JCRF)**

**World Climate Research Programme**

Annual JSC Session  
WCRP Modelling Summit  
WCRP Obs. and Assimilation Panel  
COPEs Task Force Planning Mtg.  
CAS/JSC WG Num. Exp.  
WG on Coupled Modelling  
GEWEX Modelling Panel  
CLIVAR Prediction Panel  
Seasonal Prediction Workshop  
Regional Climate Modelling Workshop  
Cryospheric Modelling Panel  
Workshop on Atmos. Reanalysis  
GEWEX SSG  
GEWEX Hydromet. Panel  
GEWEX Radiation Panel  
Biennial BSRN Workshop  
Panel Cloud System Studies  
Workshop on Land-Surface Processes  
Workshop on GEWEX Field Exp.  
Data Man. for GEWEX Projects  
CEOP Coordination Mtg.  
CLIVAR SSG  
CLIVAR Monsoon Panel  
CLIVAR African Climate Var.  
Decadal to Centennial Climate  
Detection of Climate Change  
WG on Air-Sea Fluxes  
Ocean Observations Panel  
Impl. Coord. Ocean Obs.  
CLIVAR Conference  
CliC SSG  
Impl. Coord. Cryosph. Obs.  
CliC Polar Year Workshop  
Cryosphere Data Man.  
SPARC SSG  
Trends of Stratos. Parameters  
Stratospheric Processes  
Chemistry and Climate Workshop  
Chemistry and Climate Implementation Mtg.  
Panel on the Carbon Cycle  
Panel on the GEC and Water Res.  
Panel on the GEC and Food Sys.  
Panel on Climate and Health  
Climate Observations Panel  
Anthropogenic Climate Change Workshop  
Monsoons Workshop  
Extreme Events and Climate Workshop  
Decadal Predictability Workshop

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# APPENDIX

## LIST OF PARTICIPANTS

### 1. Presidency

A.I. Bedritsky	President
A.M. Noorian	First Vice-President
T.W. Sutherland	Second Vice-President
A.D. Moura	Third Vice-President

### 2. Presidents of regional associations

M.L. Bah	President of RA I
A.M.H. Isa	President of RA II
R.J. Viñas García	President of RA III
C. Fuller	President of RA IV
D.K. Keuerleber-Burk	President of RA VI

### 3. Elected members of the Executive Council

M.A. Abbas  
O.M.L. Bechir  
R.C. Bhatia  
P.-E. Bisch  
S.A. Bukhari  
F. Cadarso González  
M. Capaldo  
W. Gamarra Molina  
S.W.B. Harijono (Ms)  
W. Kusch  
M-K. Lee  
G.B. Love  
L. Makuleni (Ms)  
J. Mitchell  
J.R. Mukabana  
D. Musoni  
M. Ostojski  
P. Plathan  
M.M. Rosengaus Moshinsky  
F. Uirab  
K.S. Yap

### 4. Alternates and advisors to Executive Council members

A.S. Zaytsev	Alternate to A.I. Bedritsky
A.A. Nurullaev	Adviser to A.I. Bedritsky
S.G. Tulinov	Adviser to A.I. Bedritsky
P. Pourkiani	Adviser to A.M. Noorian
C.A.C. Leal Silva	Adviser to A.D. Moura
S. Tusi Brewer (Ms)	Adviser to A.D. Moura
L.M. Michaud	Adviser to A.D. Moura
P. Manso	Adviser to C. Fuller
J. Napat	Alternate to A. Ngari

P. Garnier	Alternate to D.K. Keuerleber-Burk
A. Rubli	Adviser to D.K. Keuerleber-Burk
M.H. Doss	Alternate to M.A. Abbas
M.I.R. Sallam	Adviser to M.A. Abbas
C. Blondin	Alternate to P.-E. Bisch
J.M. Marcos-Espinosa	Alternate to F. Cadarso González
A. Conesa-Margeli	Adviser to F. Cadarso González
F. Ferrini	Alternate to M. Capaldo
I. Zevallos Aguilar	Alternate to W. Gamarra Molina
B. Angle	Alternate to D. Grimes
D. Gunawan	Adviser to S.W.B. Harijono (Ms)
M.A. Ratag	Adviser to S.W.B. Harijono (Ms)
K. Sakurai	Alternate to T. Hiraki
T. Hashida	Adviser to T. Hiraki
T. Kimura	Adviser to T. Hiraki
Y. Tanaka	Adviser to T. Hiraki
R. Masters	Alternate to J.J. Kelly, Jr.
C. Ashley	Adviser to J.J. Kelly, Jr.
M.J. Browne (Ms)	Adviser to J.J. Kelly, Jr.
C. Corvington (Ms)	Adviser to J.J. Kelly, Jr.
C.J. Draggon (Ms)	Adviser to J.J. Kelly, Jr.
A. Chick (Ms)	Adviser to J.J. Kelly, Jr.
D. Frömming	Alternate to W. Kusch
Park Kwang-Joon	Alternate to M-K. Lee
Nam Jae-Cheol	Adviser to M-K. Lee
Shin Dong-Chul	Adviser to M-K. Lee
V.K. Tsui	Alternate to G.B. Love
K. Charles (Ms)	Adviser to G.B. Love
J. Mphepya	Alternate to L. Makuleni (Ms)
B. Garnier-Schofield (Ms)	Alternate to J. Mitchell
S.W. Kahuha	Adviser to J.R. Mukabana
W. Nyakwada	Adviser to J.R. Mukabana
M. Kultamaa (Ms)	Adviser to P. Plathan
Z. Abdullah	Alternate to K.S. Yap
X. Shen	Alternate to G. Zheng
J. Yu	Adviser to G. Zheng

## 5. Presidents of technical commissions

C. McLeod	President of CAeM
J. Salinger	President of CAgM
A.I. Gusev	President of CBS
B.J. Stewart	President of CHy
J. Nash	President of CIMO

## 6. Invited experts

V. Ramaswamy	Invited expert
A. Badger	Invited expert
G. Miller	Invited expert

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