EXPECTED RESULT 1

AGENDA ITEM 3: IMPROVING SERVICE QUALITY AND SERVICE DELIVERY

AGENDA ITEM 3.1: SERVICE DELIVERY

AERONAUTICAL METEOROLOGY- PRIORITY

SUMMARY

DECISIONS/ACTIONS REQUIRED:

(a) Request Congress to review the progress of the Aeronautical Meteorology Programme in the various implementation areas and agree on the proposed actions for improving the service to international air navigation and enhance the compliance with the WMO and ICAO regulations;

(b) Adopt draft Resolution 3.1(2)/1 (Cg-17) – WMO Aeronautical Meteorology Programme;

(c) Financial implication: request for continued support to the programme as a priority area.

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APPENDIX A:
DRAFT TEXT FOR INCLUSION IN THE GENERAL SUMMARY

3.1 Service Delivery (agenda item 3.1)

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Aeronautical Meteorology – Priority

3.1(2).1 Congress acknowledged that the activities under the Aeronautical Meteorology Programme (AeMP) during the intersessional period were guided by the following agreed priorities: support to Members in the implementation of the ICAO and WMO requirements for QMS and competence; development of proposals for meteorological services to Air Traffic Management (ATM); improvement of SIGMET provision and resolution of long-standing deficiencies; and development of proposals to mitigate the impacts of large-scale, high-impact events such as volcanic ash (VA), nuclear emergencies and space weather. Congress recognized that, as one of the constitutional purposes of the Organization, furthering the application of meteorology to aviation will become ever more important in the next 10 to 15 years during which time substantial changes will happen in all areas of air navigation services in response to the significant growth of air traffic, rigorous requirements for reducing environmental impacts of aviation, and the need to increase efficiency of air traffic operations whilst maintaining the highest standards of flight safety. Therefore, Congress agreed that the AeMP should strive to maintain the WMO role in the development of effective methods for the provision of meteorological services to aviation, in partnership with ICAO and other aviation stakeholders (further discussion under agenda item 9.2).

Progress in the implementation of QMS

3.1(2).2 Congress appreciated the significant progress made by Members during the intersessional period in achieving compliance with the ICAO and WMO requirements for the establishment of a quality management system (QMS) for the provision of aeronautical meteorological service. It was recalled that, as of 15 November 2012, the QMS requirement became a standard practice, supplemented by a set of recommendations on the conformity of the QMS with the International Organization for Standardization (ISO) 9000 series of quality assurance standards.

3.1(2).3 Congress commended the CAeM and its task team on QMS (TT-QMS) for the substantial assistance provided to Members in the implementation of the QMS requirements. Thanks to a concerted effort involving TT-QMS, the Secretariat, a number of Members with advanced expertise in QMS, and partner international organizations, the attained level of compliance with the QMS requirements at the end of the intersessional period reached 110 Members whose aeronautical meteorological service providers (AMSP) have implemented a QMS. Moreover, the majority of those Members had also obtained the recommended ISO 9001:2008 certification.

3.1(2).4 Congress considered the implementation of QMS for the aeronautical meteorological services as a good showcase of a well guided and closely monitored implementation of the WMO technical regulations, supported by appropriate capacity development actions. Congress recognized that the QMS brought tangible benefits to the NMHSs and other AMSPs through optimized processes and procedures, accountability and continuous improvement culture. Congress noted further that the ISO 9000 certification requires a continuous resource-consuming maintenance effort through regular checks and re-certification audits. In this regard, Congress emphasized the link between the sustainability of the QMS and the cost recovery, in particular, for the developing and least developed countries.
3.1(2).5 Noting that there were still a number of Members that had been unable to reach the required level of compliance with the QMS requirements and that such a situation was classified as a serious deficiency against the ICAO requirements, Congress requested the Secretariat to analyse the reasons for all those cases, in particular the Members where the implementation had not yet been started. Congress reaffirmed its strong encouragement to all Members to complete and sustain the QMS for the provision of meteorological service to aviation and requested the Secretary-General, supported by the CAeM, to continue to provide assistance to the Members in need. Recognizing the effective use of the twinning and coaching arrangements between Members, Congress strongly recommended further utilization of these approaches on bi-lateral and multi-lateral bases.

**Implementation of competency standards for aeronautical meteorological personnel**

3.1(2).6 Congress recalled that during the intersessional period, the provisions of the WMO Technical Regulations (WMO-No. 49, Volume I, Chapter 5) concerning the required competency of aeronautical meteorological personnel (AMP, including aeronautical meteorological forecasters (AMF) and aeronautical meteorological observers (AMO)), became standard practices as of 1 December 2013. Consequently, all Members were expected to undertake the necessary measures to ensure compliance with those standards and inform the Secretariat thereof.

3.1(2).7 Congress appreciated the development of underpinning guidance material on the implementation of the competency requirements by the CAeM Expert Team on Education, Training and Competencies (ET-ETC) well in advance of the applicability date, which was made accessible on-line (http://www.wmo.int/aemp/?q=implementation_areas and http://www.caem.wmo.int/moodle). In addition, an extensive training programme had been developed and implemented by the CAeM, together with the Secretariat and active support by a number of Members, which resulted in more than 10 training workshops in all WMO Regions during the intersessional period and more than 280 experts trained as competency assessors.

3.1(2).8 Congress noted that the Secretariat has been monitoring the status of implementation of the competency standards through various means and communication channels. Recognizing that the competency assessment was a time- and resource-consuming task, Congress encouraged all Members who have not completed their competency assessment programmes for the AMP, to do so as soon as possible and report to the Secretariat on the achieved level of compliance. Congress further emphasized that such programmes should be an integral part of a continuous career development process to ensure that operational aeronautical meteorological personnel remain fully competent and able to demonstrate compliance with user demands for quality and performance of the service. Congress requested the Secretariat to maintain the rigorous tracking and reporting practices with regular reports to the Executive Council on the attained compliance by Members, related deficiencies and capacity development needs. Congress further requested the CAeM to continue its efforts in assisting Members’ implementation and maintenance of the AMP competency standards through appropriate guidance and training activities based on an ongoing analysis of prioritized needs by the regional associations.

**Qualification standards**

3.1(2).9 Congress recalled that the qualification requirements for AMF in the WMO Technical Regulations will become a standard practice on 1 December 2016. Consequently, Members will be required to ensure that the level of qualification of the operational AMF personnel follows the WMO qualification standard, i.e., to be compliant with the relevant sections of the Basic Instruction Package for Meteorologist (BIP-M), and inform the Secretariat thereof.

3.1(2).10 Congress urged Members to initiate preparation for compliance with the qualification requirements in due time in order to avoid a big lag between the applicability date and actual implementation. Such preparation would require an assessment of the qualification records of
existing operational AMF, job descriptions, and consultation with relevant educational institutions to ensure the conformity of their curricula and training programmes with the WMO BIP-M. In instances of identified gaps in the qualification of existing AMF personnel, Members should arrange for appropriate training, where necessary in consultation with the relevant training institutions. Congress agreed that the Regional Training Centres (RTC) could be instrumental in this process by providing focused training courses on such components of the BIP-M for which there is a regional demand. Congress requested the CAeM and its ET-ETC, in coordination with the Education and Training Programme, to develop and make available clear guidance on the necessary steps to be undertaken by Members and the relevant training institutions in order to facilitate national and regional implementation actions including Members’ resource planning.

**Meteorological services to air traffic management (ATM)**

3.1(2).11 Congress appreciated the work done by the CAeM Expert Teams, in close cooperation with the relevant bodies of ICAO, on the development of advanced products and services to support ATM, including meteorological services for the terminal area (MSTA) and for trajectory based operations (TBO). Considerable effort has been done to strengthen the consultation with representatives of the user groups, in view of the evolving user requirements expressed in regional ATM modernization projects, such as NextGen and SESAR. The former CAeM Expert Team on Meteorological Services for ATM and Meteorological Information Exchange (ET-M&M) had a major task to provide an overview of the current and foreseen meteorological capabilities in support to ATM, associated with comprehensive information on verification techniques and results that could help understand the current skill in forecasting high-impact weather. ET-M&M also contributed to the development of a MET Information Integration for the TBO Concept and Roadmap that was considered by the Conjoint ICAO/WMO MET Divisional Meeting (July 2014). Congress requested the CAeM and its Expert Team on Information and Services for Aviation (ET-ISA) to continue its work on the development of advanced methods and services in support of ATM envisaged in the Global Air Navigation Plan (GANP) and Aviation System Block Upgrades (ASBU), in collaboration with CBS and CAS, and to provide experts to work closely with the relevant bodies of ICAO in the development of respective provisions and guidance material.

**Aeronautical meteorological information exchange**

3.1(2).12 Congress noted the cooperation between CAeM and CBS through the CBS OPAG-ISS Task Team on the Aviation XML (TT-AvXML). The Task Team had developed XML/GML representations of METAR/SPECI, TAF and SIGMET, to be known collectively as ICAO meteorological information exchange model (IWXXM), together with a mechanism for combining several reports into one message. Congress noted further that in the next intersessional period, ICAO planned to move to the use of XML/GML for the exchange of operational aeronautical meteorological information; such an exchange would be a major step towards the realization of the GANP objectives for a ‘data-centric’ rather than ‘product-centric’ information delivery model based on a digital exchange envisaged by the ICAO System-Wide Information Management (SWIM). The logical data models supporting IWXXM contain components that describe the basic meteorological information (primarily WMO’s area of expertise), and others that govern how that information is applied for international air navigation purposes (primarily ICAO’s area of expertise). Although WMO had taken the lead in developing IWXXM, the governance responsibilities for further development and maintenance of the components of IWXXM should be defined so that each component would be managed by the appropriate organization. Noting that such arrangements should be a distributed responsibility between WMO and ICAO, Congress recommended that this issue should be properly addressed in the forthcoming review and amendment of the Working Arrangements between WMO and ICAO.

3.1(2).13 Congress recognized that WMO would need to work strategically with ICAO to ensure that Members continued to be able to meet the needs of international civil aviation, most notably: the standards used in WIS and SWIM would need to be interoperable, and so WIS experts should
participate in the design and specification of the SWIM; to ensure that the benefits that international civil aviation currently derives from the authoritative source of fit-for-purpose information and the additional knowledge applied during the creation of products would be retained under the data-centric approach; and to identify and implement standards needed to ensure that end-users, such as pilots, were able to use the information effectively when making their decisions.

**Volcanic ash**

3.1(2).14 Congress recognized that widespread and prolonged disruptions of international air navigation caused by the eruptions of volcanoes in different part of the world had resulted in significant pressure placed by the aviation industry on the aviation meteorology community and particularly on the nine Volcanic Ash Advisory Centres (VAACs), hosted by WMO Members. There had been a strong demand for the provision of enhanced levels of volcanic ash information, to allow users to make informed decisions on their operations without compromising the safety.

3.1(2).15 Congress was pleased to recognize the scientific contributions of the Volcanic Ash Scientific Advisory Group (VASAG) co-sponsored by the WMO and the International Union of Geodesy and Geophysics (IUGG). Assisted by the VASAG, WMO had provided inputs to the ‘ICAO Roadmap for IAVW in Support of International Air Navigation’ for consideration by the Conjoint ICAO/WMO MET Divisional Meeting (July 2014) which would be the basis for further development of the International Airways Volcano Watch (IAVW).

3.1(2).16 Congress expressed appreciation to Members providing experts to the WMO/IUGG VASAG, who had not only provided excellent scientific inputs into the ICAO processes, but were so far practically unfunded by WMO. Given the evolving nature of volcanic ash science pulled through into operations, Congress agreed on the need for the continuation of the VASAG work with updated terms of reference and requested the Executive Council to consider to re-establish the group, in accordance with the working arrangements between WMO and IUGG (WMO-No. 60, Working Arrangements with the International Union of Geodesy and Geophysics).

**Nuclear emergencies**

3.1(2).17 Congress noted that in the aftermath of the Fukushima nuclear accident, significant work has been done to improve the provision of SIGMET for radioactive clouds. Issues related to the operational access to near real-time at-source monitoring information, through the International Atomic Energy Agency (IAEA), and near-source atmospheric data, in particular wind information needed for the dispersion models, remained high priority. WMO had provided inputs to the draft ‘ICAO Concept of Operations for Radioactive Material Information Services’ considered by the Conjoint ICAO/WMO MET Divisional Meeting and will work with ICAO to develop further provisions for information on the release of radioactive material in the atmosphere, consistent with the GANP and ASBU.

**MET deficiencies, governance, cost recovery and business model issues**

3.1(2).18 Congress expressed concern that some deficiencies in the provision of aeronautical meteorological service persisted despite the efforts to resolve them. Among those deficiencies, the inadequate provision of SIGMET information by some Members was a major safety concern. Congress noted that a new approach to overcome the limited capabilities of such Members to provide effective SIGMET service was discussed by the Conjoint ICAO/WMO MET Divisional Meeting and a proposal for a regionalization of the SIGMET provision in such areas was to be further developed in the ASBU framework (further discussion under agenda item 9.2).

3.1(2).19 Congress noted that lack of adequate cost-recovery for the provision of meteorological service to aviation continued to be an issue for many Members. Congress appreciated that several VCP-funded projects have been carried out in Region I and Region II in an attempt to promote the
best practices in cost recovery and establish the needed national agreement between the stakeholders, following the relevant ICAO and WMO guidance. It was expected that more requests for such projects would be coming from Members in the near future. Development of an appropriate cost recovery mechanism for those Members with low traffic volumes (i.e., the SIDS), with due consideration of the specifics of the flight operations, should also be considered. Congress encouraged Members to share experience with existing different cost recovery mechanisms and requested the CAeM through its Expert Team on Governance, supported by the Secretariat, to continue their effort in advising and assisting the NMHSs of developing countries to establish cost recovery mechanisms.

3.1(2).20 Congress noted that in an increasing number of Members, the meteorological services for aviation are provided outside the NMHSs by different entities, including private sector providers. Congress noted further that the expansion of the private sector in the provision of aeronautical meteorological services may have a negative impact not only on the capabilities of NMHSs to provide services to aviation, but also to the sustainability of their basic infrastructure. Therefore, Congress recommended that the related issue of cost-recovery should be approached from a risk management perspective and that such risk analysis should be conducted during the intersessional period to evaluate the impacts on Members and their NMHSs. Congress requested the president of CAeM to coordinate related activities and provide guidance to interested Members.

**Future of the Aeronautical Meteorology Programme**

3.1(2).21 Considering the numerous challenges facing Members in the provision of aeronautical meteorological service and its further development in the coming 10 to 15 years, Congress decided that the Aeronautical Meteorology Programme should continue to be a priority area and be suitably resourced to meet the Members’ needs for guidance and advice. Congress agreed with the proposed amendments to the AeMP description as given in the Annex to this paragraph, including its long-term objectives, purpose and scope, governances and priorities, and adopted Resolution 3.1(2)/1 (Cg-17) – WMO Aeronautical Meteorology Programme.
Annex to paragraph 3.1(2).21 of the general summary

AERONAUTICAL METEOROLOGY PROGRAMME DESCRIPTION

1. **Historical background**

As stated in the Convention, one of the purposes of the WMO is “to further the application of meteorology to aviation”. To pursue this goal, WMO had established the Aeronautical Meteorology Programme (AeMP) to mainstream the activities of the Organization related to aviation and to ensure effective coordination with partners, including the International Civil Aviation Organization (ICAO).

International cooperation in aeronautical meteorology can be dated back to the International Meteorological Organization (IMO) years. The Commission for the Application of Meteorology to Air Navigation (CAMAN) was established by the Paris Conference of Directors (CD) of the IMO as early as 1919. In 1935, CAMAN was replaced by a new International Commission for Aeronautical Meteorology (ICAeM) consisting of members appointed by governments in order that it could work effectively with the International Commission for Air Navigation (ICAN) – the predecessor of ICAO. Thus, ICAeM became the first intergovernmental body in meteorology and its experience influenced the transformation of IMO after World War II into the intergovernmental World Meteorological Organization (WMO). In 1951, the First Congress of WMO established Technical Commissions including the Commission for Aeronautical Meteorology (CAeM) on the basis of the ICAeM.

2. **Main long-term objectives**

The main long-term objectives of the Aeronautical Meteorology Programme are:

(a) To contribute to a globally harmonized meteorological service to the international air navigation meeting the requirements of the aviation users for meteorological information and services and contributing to safety, efficiency and regularity of aviation transport;

(b) To support the continuous improvement of the meteorological service to aviation through coordinating the underpinning science and technology activities and their transfer to operational practice;

(c) To achieve the highest possible level of compliance of the WMO Members with the technical regulations, standard and recommended practices established by WMO and ICAO for the provision of aeronautical meteorological service;

(d) To promote effective and efficient services through international cooperation;

(e) To contribute to the assessment of the linkages between the aviation and environment including the impacts of the climate change and variation on future aviation operations;

(f) To establish globally agreed requirements for the qualification and competence of the aeronautical meteorological personnel as part of the quality management system (QMS) for the provision of aeronautical meteorological services.
3. Purpose and scope

The aeronautical meteorology services are governed jointly by the ICAO and WMO as “sister” UN agencies with the common goal of establishing a global regulatory framework that provides the basis for the Member countries to establish their national service provision programmes in a highly coordinated and interoperable manner. Therefore, the main purpose of the AeMP is to coordinate all WMO activities related to aeronautical meteorology and to ensure an effective liaison with ICAO. To this end, WMO and ICAO established working arrangements specifying the roles and responsibilities of the two Organizations in order to ensure the efficiency of the joined work and avoid duplication of resources. The AeMP supports the major WMO role in the development of the meteorological techniques and practices for the provision of services, based on the identified user requirements as coordinated and conveyed by ICAO. The AeMP coordinates with other WMO Programmes on all matters related to aeronautical meteorology, including: the basic meteorological networks and facilities required for effective provision of meteorological service to international air navigation; setting standards on aeronautical climatological information; responsibility for the definition of aeronautical meteorological personnel qualification and competency standards; and the advancement of science and technology in support of the ever growing demand for interoperable, fit-for-purpose, quality information and services by the aviation transport sector.

The AeMP plays a major role in providing targeted assistance to Members, particularly in developing and least developed countries, to develop their capacity to meet the international requirements for quality, competency and performance of the aeronautical meteorological service. The governance and partnership element of the programme provides guidance material, exchange of best practice models, documentation and training to Members in providing services to the required standards. In this regard, the AeMP promotes the establishment of fair, equitable and transparent cost-recovery mechanisms needed for a sustainable and high quality aeronautical meteorological service.

A major task for the AeMP is to ensure the effective coordination of the WMO in following up the recommendations of the Conjoint ICAO/WMO MET Divisional Meeting (MET DIV 2014). To that end, the scope of the AeMP has necessarily been expanded to coordinate the meteorological aspects of the ICAO Global Air Navigation Plan (GANP) and its Aviation System Block Upgrades (ASBU) methodology. The GANP will cover the broad spectrum of institutional, regulatory, technological and operational aspects of the envisaged performance improvements in support of the “One Sky” global ATM concept with a horizon of the year 2028 and beyond. Among these aspects are the integration of the meteorological information in the System-Wide Information Management (SWIM), the enhancement of the international facilities like the World Area Forecast System (WAFS) and the International Airways Volcano Watch (IAVW), and the development of new generation of services, to support safe, effective and efficient Air Traffic Management (ATM), Trajectory Based Operations (TBO) and to mitigate the impacts of the “space weather”. The Meteorology Divisional Meeting (2014) also recommended that the AeMP should investigate the impacts of climate change and variability on global aviation operations.

4. Governance and work structure

The constituent body providing technical guidance to the AeMP is the Commission for Aeronautical Meteorology (CAeM). The Commission meets in session every four years and occasionally, conjointly with the ICAO Meteorology Divisional Meeting (the latest one took place in Montreal, Canada, in July 2014). The fifteenth session of CAeM established a new structure including a Management Group (CAeM-MG) and the following expert teams:

(a) Expert Team on Communication, Coordination and Partnership (ET-CCP);
(b) Expert Team on Aviation, Science and Climate (ET-ASC);
(c) Expert Team on Education, Training and Competency (ET-ETC); 
(d) Expert Team on Governance (ET-GOV);
(e) Expert Team on Information and Services for Aviation (ET-ISA);
(f) Task Team on Quality Management Systems (TT-QMS) (to remain active until Cg-17).

The work of CAeM and its subsidiary bodies is supported by the AEM Division in the Secretariat, which is part of the Weather and Disaster Risk Reduction Services (WDS) Department.

5. Programme priorities for the intersessional period 2016–2019

CAeM-15 (July 2014), in considering the GANP and ASBU timeline covering the period to 2028 and beyond, recommended to Congress to endorse a long-term planning approach to support aeronautical meteorology as a WMO strategic priority. Such an approach will allow the AeMP to provide a level of coordination that is consistent with ICAO ASBU planning and implementation roadmaps.

The CAeM Technical Conference “Aviation Meteorology – Building Blocks for the Future” (Montreal, Canada, July 2014) collated Members’ support for the AeMP to play an important role in guiding Members’ activities in the following priority areas:

- **Evolving global air traffic management (ATM) and related meteorology (MET) support**
  - Raising Members’ awareness of the GANP and ASBU, their MET components and timelines, and associated institutional and regulatory impacts;
  - Integration of WMO-related aspects of MET information management to ensure interoperability and compliance with ICAO System-Wide Information Management (SWIM);
  - Support ICAO in the development of provisions for operational space weather services for international air navigation;
  - Support further development of the WAFS, IAVW, and the services for nuclear and chemical emergencies based on the concepts of operation and roadmaps endorsed by MET Divisional Meeting 2014;
  - Investigate the impacts of climate change and variability on global aviation operations and associated provision of services to respond to these.

- **Enhanced compliance with ICAO and WMO regulations**
  - Continued assistance to Members in implementing and sustaining QMS for the provision of aeronautical meteorological services;
  - Guide the implementation of competency and qualification standards for Aeronautical Meteorological Personnel through further development of appropriate guidance material and learning opportunities;
  - Assist Members in the development of cost-recovery mechanisms, in particular in the developing and least developed countries;
  - Promote a culture of quality and continuous improvement for all aspects of aviation MET service provision.
• **Enhanced governance and partnership**
  
  o Develop further governance guidance for Members to respond to the envisaged institutional changes to the service delivery and business models and address related cost-recovery aspects;
  o Assist Members to keep pace with the global and regional developments – work on scalable solutions with inclusiveness principle to ensure sustainability of basic infrastructures;
  o Promote improved communication, engagement and collaboration with aviation stakeholders;
  o Promote efficiency and effectiveness through regional cooperation in providing meteorological service to international air navigation;
  o Develop appropriate risk assessment methodology to assist Members in their national planning aligned with the ASBU timelines.

*(Further information is available on the WMO AeMP website: [http://www.wmo.int/aemp/](http://www.wmo.int/aemp/))
APPENDIX B: DRAFT RESOLUTION

Draft Resolution 3.1(2)/1 (Cg-17)

WMO AERONAUTICAL METEOROLOGY PROGRAMME

THE WORLD METEOROLOGICAL CONGRESS,

Noting:

(1) Resolution 53 (Cg-XVI) – Aeronautical Meteorology Programme,

(2) The Abridged Final Report with Resolutions and Recommendations of the Fifteenth Session of the Commission for Aeronautical Meteorology (WMO-No. 1139),

(3) The Executive Council position at its sixty-sixth session (Abridged Final Report with Resolutions of the Sixty-second Session of the Executive Council (WMO-No. 1136, Annex XV)) on issues related to the Conjoint ICAO/WMO Meteorology Divisional Meeting,

(4) The report of the ICAO/WMO Meteorology (MET) Divisional Meeting 2014 http://www.icao.int/Meetings/METDIV14/Pages/YellowCoverReport.aspx

(5) The reports of all regional associations during the intersessional period 2011-2015,

Considering:

(1) That the next intersessional period 2016-2019 will be a period of significant developments in the aeronautical meteorology as part of the Aviation System Block Upgrades (ASBU) of the ICAO Global Air Navigation Plan (GANP),

(2) The need to provide further assistance to Members in enhancing their compliance with the WMO and ICAO regulations, in particular those related to the implementation of QMS, competency and qualification of aeronautical meteorological personnel,

(3) The challenges and opportunities for Members regarding the envisaged changes in the service delivery and business models for the provision of aeronautical meteorological service, and the need to assess the related risks and impacts,

Decides:

(1) That the WMO Aeronautical Meteorology Programme (AeMP) shall continue to be a high-priority programme and suitably resourced to enable it to maintain the role and the position of the WMO in the international collaborative governance of the aeronautical meteorological service provision;

(2) That the AeMP should continue to provide targeted assistance to Members in need to achieve the required level of compliance with the international requirements promulgated by the WMO and ICAO;

(3) To align the AeMP with the new developments in the field of meteorological service for international air navigation;
Requests the Secretary-General:

(1) To apply, in coordination with the president of the CAeM, a longer-term planning approach to the Aeronautical Meteorology Programme consistent with the ICAO Global air Navigation Plan and its Aviation System Block Upgrades methodology and timeline (2013-2028);

(2) To continue the rigorous monitoring of the Members’ compliance with the WMO Technical Regulations related to aeronautical meteorology, in particular, the implementation of the QMS and the aeronautical meteorological personnel competency and qualification requirements, and to address identified deficiencies thereof;

Urges Members:

(1) To consider establishing longer term national plans for the development of the aeronautical meteorological services, taking due account of the GANP and ASBU timelines and in consultation with the national aviation stakeholders;

(2) To strive to enhance their compliance with the international requirements, in particular those related to the implementation of QMS, competency and qualification of aeronautical meteorological personnel, including through bilateral and multilateral arrangements, such as “twinning” and “mentoring”;

Requests the regional associations, through their appropriate regional subsidiary bodies, to define the needs for and facilitate the provision of assistance to their Members in resolving identified deficiencies in the provision of aeronautical meteorological services, and to support, monitor and report on capacity development activities in this regard.

Note: This resolution replaces Resolution 53 (Cg-XVI), which is no longer in force.