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**REPORT OF THE TECHNICAL COMMISSION
ON
AGENDA ITEM 36**

(Presented by the Chairman of the Technical Commission)

The attached report on Agenda Item 36 has been approved by the Technical Commission. Resolutions 36/1 is recommended for adoption by the Plenary.

Note.— After removal of this covering sheet, this paper should be inserted in the appropriate place in the report folder.

(12 pages)

Agenda Item 36: Aviation safety and air navigation implementation support**Guidance**

36.1 The Commission reviewed A39-WP/37, presented by the Council, which reported on impact assessments and implementation task lists introduced over the course of the current triennium for application during the standards-making process and as an activity that can assist implementation. The Commission recognized the value of robust impact assessments and implementation task list and agreed that subject to appropriate prioritization, the ICAO Council should ensure they are improved and more detailed and continue to be utilized into the next triennium, and ensure their continued efficacy through periodic review.

36.2 The Commission reviewed A39-WP/205, presented by Canada, and agreed that the Assembly should support the approaches and efforts outlined in this working paper to put forward strategies to improve States' implementation of Standards and Recommended Practices (SARPs) related to aviation safety. The Commission also reaffirmed the support to the No Country Left Behind (NCLB) initiative that would promote increased compliance with SARPs.

36.3 The Commission considered A39-WP/277 Revision No. 1, presented by Japan, which described how Japan had increased the age limit to 68 years for pilots engaged in domestic multi-crew commercial air transport operations, with appropriate mitigating measures, and also described the implementation of airline health management for pilots in Japan. The Commission noted the information contained in the working paper and commended Japan for establishing requirements for operators to implement a health management system for pilots, thus already fulfilling the requirement in Amendment 173 to Annex 1 — *Personnel Licensing* to “implement appropriate aviation-related health promotion for licence holders subject to a Medical Assessment to reduce future medical risks to flight safety” which would become applicable on 8 November 2018. It further encouraged States to implement similar health management systems for pilots. The Commission also encouraged States to exchange information on upper age limit of commercial pilots and the health management system of each airline.

36.4 A39-WP/216, presented by the International Coordinating Council of Aerospace Industries Associations (ICCAIA), looked at the implementation and impact of required navigation performance (RNP) approach chart name changes. The Commission noted the concerns of some States regarding the implementation of the name change, and also recognized the value of developing a transition plan to manage the change. The Commission also noted a suggestion by the United States that in light of the information presented, a reassessment of the charting specification was warranted. The Commission was informed by the Secretariat that work was already underway to address the RNP chart name issue, including the points raised in the paper. The Commission supported the action items and encouraged ICAO to continue the work in line with these actions to update the guidance available and develop a regionally coordinated transition plan to support the effective rollout of the changes.

Safety information

36.5 The Commission reviewed A39-WP/110, presented by Peru and supported by the countries of the South American (SAM) Region and twenty-two Member States of the Latin American Civil Aviation Commission (LACAC)¹, related to the implementation of recently adopted provisions in Annex 19 — *Safety Management* on the protection of safety data, safety information and related sources. The Commission recognized the importance of the issues raised in the paper and acknowledged that they were related to the implementation of Amendment 1 to Annex 19. The Commission recommended that ICAO provide implementation support to States through the development of guidance material and regional workshops, including but not limited to right-to-know laws, and other measures to protect safety data and safety information.

36.6 The Commission considered A39-WP/271, presented by the Air Crash Victims' Families' Federation International (ACVFFI), which recalled that USOAP audits indicated lack of compliance by many States in establishing an accident investigation authority and ensuring its functional independence, as called for in Annex 13 — *Aircraft Accident and Incident Investigation* and associated guidance material. The Commission was informed that Amendment 15 to Annex 13, which would become applicable on 10 November 2016, required States to establish an independent Accident Investigation authority, and that compliance with such requirement would be identified through USOAP CMA activities starting in January 2018. The Commission agreed that the Council, taking into account existing priorities funded through the 2017-2019 Budget and the availability of extra-budgetary resources, should give consideration to the expansion of AIG guidance material relating to functional independence of States' accident investigation authorities.

36.7 The Commission considered A39-WP/193, presented by the Civil Aviation Air Navigation Services Organization (CANSO), regarding the vital role just culture principles played in a successful safety culture, and supported the actions in the paper.

36.8 The Commission reviewed A39-WP/117, presented by the International Air Transport Association (IATA), which highlighted the importance of State and industry collaboration in establishing safety data collection and processing system (SDCPS) models that meet the needs of a State Safety Programme (SSP), address the concerns of service providers, and adhere to the protection principles as provided in Amendment 1 to Annex 19. The Commission expressed its support for State and industry collaboration in developing SDCPS models that address service provider concerns and adhere to the protection principles as provided in Amendment 1 to Annex 19 and encouraged Member States to implement recently adopted provisions related to the protection of safety data, safety information and related sources.

36.9 The Commission reviewed A39-WP/123 Revision No. 1, presented by IATA, which presented the on-going project for an enhanced ICAO Air Operator Certificate (AOC) Registry database intended to facilitate the process of foreign operators' applications. Despite some uncertainty about the benefits provided by the Registry database, the Commission expressed support for harmonizing AOCs

¹ Presented by twenty-two Contracting States (Argentina, Aruba, Belize, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela (Bolivarian Republic of)).

and operations specifications requirements and recommended that States be requested to contribute to the beta testing of an enhanced ICAO AOC Registry and to support its use. The Commission was also informed that the ICAO AOC Registry database was a project underway and was for optional use by the States.

36.10 Information papers were provided by China (A39-WP/408), Nepal (A39-WP/436), Venezuela (A39-WP/314) and the Interstate Aviation Committee (A39-WP/308).

Regional cooperation

36.11 The Commission reviewed A39-WP/38, presented by the Council, which outlined the global implementation support plans and programmes that support the No Country Left Behind initiative and reported on the regional implementation support mechanisms: namely planning and implementation regional groups (PIRGs), regional aviation safety groups (RASGs), and regional safety oversight organizations (RSOOs).

36.12 The Commission agreed that States should be urged to provide sufficient support, including technical expertise, participation and contributions, to the PIRG, RASG and RSOO work programmes and implementation activities. The Commission also recommended that the Council be requested to promote the use of the GANP and GASP by the PIRGs and RASGs, respectively, to achieve global safety, capacity and efficiency objectives and to encourage the sharing of best practices from the PIRGs and RASGs across regions. The Commission also agreed that ICAO should be requested to provide necessary guidance and tools for the implementation of the Global Air Navigation Plan (GANP) and Global Aviation Safety Plan (GASP), when requested by Member States and others.

36.13 The Commission reviewed A39-WP/102, presented by Argentina with the support of Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Panama, Paraguay, Peru, Uruguay, Suriname, Venezuela (Bolivarian Republic of) and Caribbean Aviation Safety and Security Oversight System (CASSOS)). The Commission noted the establishment of AIG Regional Cooperation Mechanism (ARCM) of South America and recommended that States and regional accident and incident investigation organizations worldwide consider entering into agreements with the ARCM to strengthen global AIG cooperation and support it in achieving its objectives.

36.14 A39-WP/338, presented by Costa Rica and supported by LACAC, recognized the implementation of a regional safety programme (RSP) for Central American States by ACSA/COCESNA. The Commission recommended that States be encouraged to support the Central American region by participating in the project's activities, by contributing experts, training and documentation, by sponsoring events, and by exchanging safety information, experience, and tools; and encouraged to consider the Agency on Aeronautical Safety for Central America (ACSA) for the provision of assistance to other States and regions in the area of state safety programme (SSP) implementation, including regional safety programme (RSP) development.

36.15 The Commission reviewed A39-WP/367, presented by El Salvador and supported by LACAC. The Commission noted and commended the work undertaken and agreed that States and industry stakeholders should be encouraged to make use of the existing PANS-TRG provisions relating to aircraft maintenance personnel to further harmonize standards of performance regionally and internationally.

36.16 The Commission considered A39-WP/93, presented by Slovakia on behalf of the European Union and its Member States², the other Member States of the European Civil Aviation Conference (ECAC)³; and by EUROCONTROL. Noting the potential benefits and efficiency gains, the Commission acknowledged the growing existence of regional aviation systems and other frameworks for regional cooperation among States. It recognized and supported the need to better integrate them in the ICAO context. It also agreed that a review of ICAO provisions and practices should be undertaken, with the involvement of relevant stakeholders, to identify where changes or interpretations would better enable recognition and integration of regional aviation systems, including their RSOO components, and other cooperative arrangements. The Commission agreed to recommend that, subject to budgetary considerations, ICAO be tasked to develop proposals to ensure that provisions and practices take fully into account regional aviation systems. The Commission further agreed to submit for adoption by the Plenary the following Assembly resolution to supersede Resolution A38-5:

Resolution 36-1: Regional cooperation and assistance to resolve safety deficiencies, establishing priorities and setting measurable targets

Whereas a primary objective of the Organization continues to be that of ensuring the safety of international civil aviation worldwide;

Whereas ensuring the safety of international civil aviation is also the responsibility of Member States both collectively and individually;

Whereas in accordance with Article 37 of the Convention on International Civil Aviation each Member State undertakes to collaborate in securing the highest practicable degree of uniformity in regulation, standards, procedures and organization in relation to aircraft, personnel, airports, airways and auxiliary services in all matters in which uniformity will facilitate and improve air navigation;

Whereas the improvement of the safety of international civil aviation on a worldwide basis requires the active collaboration of all stakeholders;

Whereas the Convention and its Annexes provide the legal and operational framework for Member States to build a civil aviation safety system based on mutual trust and recognition, requiring that all Member States implement the SARPs as far as practicable and adequately perform safety oversight;

Whereas the results of the audits and ICAO Coordinated Validation Missions (ICVMs) conducted under the Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP-CMA) indicate that several Member States have not yet been able to establish a satisfactory national safety oversight system and some Member States have been identified as having significant safety concerns (SSCs);

² Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom

³ Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine

Whereas ICAO plays a leadership role in facilitating the implementation of SARPs and the rectification of safety-related deficiencies by coordinating support and harnessing resources among aviation safety partners;

Recognizing that the ICAO Plans of Action developed for individual Member States serve as platforms to provide, in coordination with other stakeholders, direct assistance and guidance to those States in resolving their SSCs as well as addressing low effective implementation (EI) of critical elements;

Whereas ICAO has a Policy on Regional Cooperation which is committed to render assistance, advice and any other form of support, to the extent possible, in the technical and policy aspects of international civil aviation to Member States in carrying out their responsibilities pertaining to the Convention on International Civil Aviation and ICAO Strategic Objectives, inter alia by promoting regional cooperation through close partnerships with regional organizations and regional civil aviation bodies;

Recognizing that not all Member States have the requisite human, technical and financial resources to adequately perform safety oversight;

Recognizing that the establishment of subregional and regional aviation safety and safety oversight bodies, including regional safety oversight organizations (RSOOs), has great potential to assist States in complying with their obligations under the Chicago Convention through economies of scale and harmonization on a larger scale resulting from the collaboration among Member States in establishing and operating a common safety oversight system;

Recalling that Member States are responsible for implementing ICAO Standards and may, in this respect, decide on a voluntary basis to delegate certain functions to RSOOs, and that, when applicable, the word “States” should be read to include RSOOs;

Acknowledging the recognition given in Annex 19 to RSOOs and their role in discharging delegated State safety management functions on behalf of States;

Recognizing that groups of Member States may decide to establish regional aviation systems, the legal basis of which may be an international Treaty and would encompass common rules and oversight applicable in the participating States;

Recognizing that the assistance available to Member States experiencing difficulties in correcting deficiencies identified through the safety oversight audits, particularly with priority given to those States with SSCs, would be greatly enhanced by coordination amongst all Member States, ICAO and other concerned parties in civil aviation operations; and

Recognizing that established regional aviation safety groups (RASGs) have the objective of establishing objectives, priorities and indicators and the setting of measurable targets to address safety-related deficiencies in each region while ensuring consistency of action and coordination of efforts;

The Assembly:

1. *Directs* the Council, in partnership with all aviation safety partners, to implement a comprehensive assistance programme that will help Member States to correct deficiencies identified through USOAP-CMA, with priority given to the resolution of SSCs;
2. *Directs* the Council to promote the concepts of regional cooperation, including the strengthening of RSOOs and RASGs, as well as the establishment of objectives, priorities and indicators and the setting of measurable targets to address SSCs and safety-related deficiencies;
3. *Directs* the Council to take the appropriate actions to ensure that the specificities of a regional aviation system established by a group of Member States are recognized and integrated in the ICAO framework;
4. *Directs* the Council to continue to partner with Member States, industry and other aviation safety partners for coordinating and facilitating the provision of financial and technical assistance to States and subregional and regional safety and safety oversight bodies, including RSOOs and RASGs, in order to enhance safety and strengthen safety oversight capabilities;
5. *Directs* the Council to continue the analysis of relevant safety-critical information for determining effective means of providing assistance to States and subregional and regional safety and safety oversight bodies, including RSOOs and RASGs;
6. *Directs* the Secretary General to continue to foster coordination and cooperation between ICAO, RASGs, RSOOs and other organizations with aviation safety-related activities in order to reduce the burden on States caused by repetitive audits or inspections and to decrease the duplication of monitoring activities;
7. *Urges* Member States to give the highest priority to the resolution of SSCs in order to ensure that there are no immediate safety risks to international civil aviation and that the minimum requirements established by the Standards set forth in the ICAO Annexes are met;
8. *Urges* Member States to utilize the Flight Procedures Programme, where available, for PBN implementation;
9. *Urges* Member States to develop and further strengthen regional and subregional cooperation in order to promote the highest degree of aviation safety;
10. *Calls* upon all Member States and relevant aviation safety partners, wherever possible, to assist requesting States with financial and technical resources to ensure the immediate resolution of identified SSCs and the longer-term sustainability of the State safety oversight system;
11. *Encourages* Member States to establish partnerships with other States, industry, financial institutions and other aviation safety partners to strengthen safety oversight capabilities, in order to better discharge State responsibilities and foster a safer international civil aviation system;
12. *Encourages* Member States to foster the creation of regional or subregional partnerships to collaborate in the development of solutions to common problems to build State safety oversight

capability, and to participate in, or provide tangible support for, the strengthening and furtherance of subregional and regional aviation safety and safety oversight bodies, including RSOOs;

13. *Requests* the Secretary General to play a leading role in coordinating efforts to assist States to resolve SSCs through the development of ICAO Plans of Action and/or specific project proposals and to assist States to obtain the necessary financial resources to fund such assistance projects;

14. *Requests* the Council to report to the next ordinary session of the Assembly on the overall implementation of the comprehensive assistance programme; and

15. *Declares* that this resolution supersedes Resolution A38-5.

36.17 The Commission reviewed A39-WP/172, presented by fifty-four Contracting States and members of the African Civil Aviation Commission (AFCAC)⁴, and recognized the achievements made by the AFI Planning and Implementation Regional Group (APIRG) and Regional Aviation Safety Group (RASG-AFI) in addressing their respective terms of reference and endorsed the organization of high-level (DGCA) meetings back-to-back with the APIRG and RASG-AFI meetings which would facilitate ownership of the outcomes and implementation thereof. The Commission agreed that States, industry and donors should be urged to support the implementation of priority activities identified by APIRG and RASG-AFI and encouraged all Member States to provide the necessary support and technical expertise to their respective PIRGs and RASGs.

36.18 Information papers were provided by: Argentina (A39-WP/188); Jamaica with the support of Aruba, Bahamas, Cayman Islands, Curacao, Dominican Republic, Haiti, Mexico, Panama, Saint Maarten, United States and COCESNA on behalf of all Central American States (A39-WP/389); Jamaica on behalf of the CASSOS Members States: Barbados, Guyana, Haiti, Jamaica, the OECS, Suriname and Trinidad and Tobago (A39-WP/396 and A39-WP/398); Slovakia on behalf of the EU and its Member States, the other Member States of the ECAC and by EUROCONTROL (A39-WP/415); Turkey and United Kingdom (A39-WP/124); the Agency for Air Navigation Safety in Africa and Madagascar (ASECNA) (A39-WP/386); and IATA (A39-WP/309).

Aerodromes

36.19 A39-WP/295, presented by Egypt, addressed the topic of minimum qualification requirements for key aerodrome personnel, in the context of aerodrome certification. The Commission supported the actions taken by the Egyptian Civil Aviation Authority (ECAA) to identify the key areas of operational safety competency for aerodrome operators in the context of aerodrome certification.

⁴ Presented by 54 Contracting States (Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, the Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, the Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, the Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South, Sudan, Sudan, Swaziland, Togo, Tunisia, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe).

36.20 The Commission reviewed A39-WP/332, presented by Egypt, which outlined the activities conducted in Egypt in relation to heliport certification. The Commission acknowledged the initiatives taken by Egypt. Also presented by Egypt was A39-WP/378, which related to a regional approach for the management of obstacle limitation surfaces. The Commission acknowledged the approach by Egypt and its overall positive impact on the safety of operations and agreed that ICAO should undertake further analysis through the already established groups of experts.

36.21 A39-WP/143 and A39-WP/144, presented by India, called for updating and reviewing parts of Doc 9137, *Airport Services Manual, Part 2 — Pavement Surface Conditions*, in order to reflect recent developments and best practices concerning rubber removal from runways, and to remove inconsistencies found in the document. The Commission was informed that Doc 9137, Part 2, was planned to be updated as part of Amendment 13 to Annex 14, Volume I, concerning the new global reporting format for runway surface condition assessment and reporting and agreed that the proposals by India should be considered for inclusion during the update of Doc 9137, Part 2.

36.22 The Commission considered A39-WP/158, presented by the United Arab Emirates (UAE), which described their activities in the Middle East (MID) Region to support ICAO's global initiatives, including the "No Country Left Behind" (NCLB) initiative, runway safety activities, and participation in training and support missions. The Commission noted and supported the United Arab Emirates activities.

36.23 The Commission reviewed A39-WP/437, presented by the United States, which highlighted the importance of international aerodrome certification programmes and the ICAO efforts in this area and proposed further development of relevant guidance material. The Commission noted the recent publication of PANS-Aerodromes in relation to this matter. The Commission acknowledged the actions proposed and was informed that ICAO was already addressing the subject of aerodrome certification through development of procedures for air navigation services and guidance material. The Commission recommended that ICAO be requested to consider the contents of the paper in future updates of provisions, as well as the offer by the United States to assist ICAO in its efforts.

36.24 An information paper was provided by the Interstate Aviation Committee (A39-WP/122).

Aviation system block upgrades (ASBUs)

36.25 The Commission reviewed A39-WP/341, presented by the Dominican Republic, and recognized the importance of defining performance targets instead of implementation targets at national, regional and global levels in order to follow a performance-based approach to define national implementation strategies as recommended by ICAO. Therefore, the Commission agreed that there was a need for ICAO to define global performance objectives for the GANP 2019 edition and subsequent regional performance targets. The Commission also noted the lack of performance results from ASBU elements implementation and recommended that ICAO be encouraged to make use of the already existing tools to monitor, collect, analyse and report these results taking into account the proposal in the paper and the performance framework of the GANP.

36.26 The Commission supported A39-WP/276 and A39-WP/278, presented by Japan. A39-WP/276 proposed advancing the concept of minimum path described in the fifth edition of the *Global Air Navigation Plan (GANP, Doc 9750)*. The Commission recognized the importance of defining

a feasible minimum path and welcomed the recommendations in A39-WP/276. A39-WP/278 outlined the long-term vision for future air traffic systems in Japan within the context of the Collaborative Actions for Renovation of Air Traffic Systems (CARATS), and involving international collaboration, to address technical issues and improve air navigation services towards the achievement of trajectory-based operations in alignment with the GANP. The Commission encouraged States to collaboratively research and deploy technologies in support of the GANP.

36.27 The Commission reviewed A39-WP/239, presented by Canada and the United States, that outlined their approach to defining specific technological or procedural implementations associated with each ASBU module in order to identify which would contribute to the aviation improvements required for their operational environments. The Commission acknowledged the difficulty faced by States in understanding ASBU modules and elements and agreed with the proposal to identify ASBU elements in order to increase global understanding. The Commission was informed that ICAO was developing a web-based application, as part of the development of the GANP 2019 edition, that would provide an update of the ASBU framework, including the identification of ASBU elements and enablers, and would assist States to define implementation strategies. The Commission supported ICAO's continued development of this web-based application.

36.28 The Commission discussed A39-WP/358 Revision No. 1, also presented by Canada and the United States, which called for endorsement of a proposed standardized methodology for assessing and reporting ASBU implementation to support timely identification of implementation challenges and provide more precise information concerning the capabilities being implemented by States and ICAO Regions. The Commission emphasized the importance of a performance-based approach and the need for a globally applicable, performance-based decision-making method to assist States in defining strategies for a cost-effective implementation of air navigation improvements. The Commission agreed on the importance of a coherent reporting structure to track the progress of groups of States in implementing agreed programmes to support their performance requirements, but requested that any global implementation reporting regime take account of existing reporting arrangements. The Commission recommended that ICAO be requested to consider the proposed methodology within the scope of the GANP 2019 developments.

36.29 Information papers were provided by China (A39-WP/405); Honduras (A39-WP/441); Slovakia on behalf of the European Union and its Member States, the other Member States of the European Civil Aviation Conference and by EUROCONTROL (A39-WP/97); and ASECNA (A39-WP/379).

Air navigation services (ANS)

36.30 The Commission considered A39-WP/266, presented by Brazil, and acknowledged the preparedness of Brazil's national search and rescue (SAR) system through regular exercises and encouraged all administrations to conduct regular SAR exercises. The Commission agreed with the recommendations to share knowledge and to address SAR matters in a systematic manner, all of which were consistent with the Annex 12 SARPs as well as IAMSAR guidance.

36.31 The Commission considered A39-WP/452, presented by the Russian Federation, which presented information on the current status of the Russian GLONASS GNSS constellation and issues

associated with international regulatory control of the use of multiple GNSS constellations. The Commission agreed to recommend that the matter be referred to Council for further consideration.

36.32 The Commission reviewed A39-WP/118, presented by IATA, IAOPA, IBAC, IFALPA and IFATCA, discussing the impact on flight and ATM operations from harmful interference to GNSS. The Commission acknowledged the concerns expressed in the paper, particularly in light of the critical role of GNSS in supporting performance-based navigation (PBN) and automatic-dependent surveillance – broadcast (ADS-B). The Commission also noted that ICAO guidance material on GNSS interference mitigation was currently available in the *Global Navigation Satellite System (GNSS) Manual* (Doc 9849), and that an enhanced version of the guidance was being developed, and it recommended that A39-WP/118 be referred to the relevant expert working group for its information and consideration.

36.33 The Commission reviewed A39-WP/243 Revision No. 2, presented by Thailand on behalf of Australia, China, Indonesia, Lao People's Democratic Republic, Malaysia, Philippines, Singapore, Thailand, CANSO and IATA, which detailed the collaborative effort by the States in the Asia Pacific Region in the implementation of the distributed multi-nodal air traffic flow management (ATFM) network. The Commission agreed that the distributed multi-nodal ATFM network was one of the solutions to implement cross-border ATFM and that the concept should be considered in the review of the *Manual on Collaborative Air Traffic Flow Management* (Doc 9971).

36.34 The Commission reviewed A39-WP/245, presented by Singapore and supported by CANSO and IATA, which highlighted the need for enhanced integration between MET and ATM service provision and called for stronger collaboration and joint innovation between MET authorities and ANSPs. The Commission agreed that Member States should consider adopting the proposed MET and ATM integration framework on a national level and that ICAO and WMO should continue to provide strategic guidance for MET and ATM integration.

36.35 Information papers were provided by China (A39-WP/400, A39-WP/401, A39-WP/402, A39-WP/403, A39-WP/404, A39-WP/405 and A39-WP/409); Sudan (A39-WP/391 Revision No. 1); Russian Federation (A39-WP/344 and A39-WP/345); Slovakia on behalf of EU, ECAC and EUROCONTROL (A39-WP/89); ASECNA (A39-WP/384) and the Interstate Aviation Committee (IAC) (A39-WP/390).

Emerging issues

36.36 The Commission reviewed A39-WP/99 Revision No. 1, presented by the United States and Slovakia on behalf of the European Union and its Member States, the other Member States of the European Civil Aviation Conference, and EUROCONTROL, which highlighted the need for additional efforts to increase global awareness of cyber-threats and vulnerabilities in aviation, and that States should consider the development of guidelines for managing current and future cyber-threats and vulnerabilities. The Commission also reviewed A39-WP/236 Revision No. 1, presented by ICCAIA, which noted Assembly Resolution A38-15 and the ongoing work of the Industry High-level Group, and called on ICAO to establish an expert group to steer and coordinate work on cybersecurity, cyber-safety and cyber-resilience.

36.37 The Commission noted that actions a) and c) of A39-WP/99 Revision No. 1 had been discussed under Agenda Item 16, Aviation Security Policy. Regarding actions b) and d), the Commission

agreed on the need to increase the promotion and awareness of cyber-threats and vulnerabilities and, in particular, the need to take cyber-resilience into account at the organizational level through safety management systems, as well as at the State level in State Safety Programmes and, where appropriate, regional aviation safety programmes. The Commission further agreed to recommend that ICAO develop provisions for managing current and future cyber-threats and vulnerabilities. Regarding action e) of A39-WP/99 Revision No. 1, which was supported by A39-WP/236 Revision No. 1, the Commission strongly agreed to recommend that ICAO lead and seek to attain a comprehensive cybersecurity, cyber-safety and cyber-resilience work plan and steering structure with all relevant stakeholders.

36.38 The Commission reviewed A39-WP/194, presented by CANSO, on the Project Loon and noted that ICAO had initiated work on enhancing current Standards regarding unmanned free balloons, which would facilitate such operations. It was noted that this paper had also been discussed under Agenda Item 29, United Nations 2030 Agenda – Sustainable Development Goals (SDGs).

36.39 Information papers were provided by China (A39-WP/406 and A39-WP/407), the United States (A39-WP/337) and the International Federation of Air Traffic Safety Electronics Associations (IFATSEA) (A39-WP/370).

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