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FOURTEENTH AIR NAVIGATION CONFERENCE

Montréal, 26 August to 6 September 2024

REPORT OF THE COMMITTEE ON AGENDA ITEM 2

The attached report has been approved by the Committee for submission to the Plenary.

Mr. Padhraic Kelleher
Committee Chairperson

Note.— After removal of this covering sheet, this paper should be inserted in the appropriate place in the Report Folder¹.

¹ (12 pages)

Agenda Item 2: Timely and safe use of new technologies
2.1: Evolving aircraft technologies contributing to LTAG

2.1 The Conference reviewed AN-Conf/14-WP/6, presented by the Secretariat, concerning future aerodromes to accommodate new aircraft technologies. The Conference noted that integration of new aircraft technologies may have an impact on various aspects of aviation disciplines, among which aerodrome compatibility is an essential element. New aircraft technologies, such as sustainable aviation fuel-powered, hydrogen-powered, electric and hybrid aircraft and modified aircraft dimensions would have a major impact on aerodrome infrastructure and operational procedures, including those for aerodrome rescue and firefighting, and ground handling. The Conference agreed that ICAO, States and industry should work together to plan for the safe and timely integration of these new technologies into aerodromes, to assist in achieving the ICAO long-term aspirational goal (LTAG). In this regard, the Conference emphasized the role of ICAO in the development of a standardization roadmap.

Electric vertical take-off and landing, and hybrid aircraft operations

2.2 The Conference reviewed AN-Conf/14-WP/148, presented by the Republic of Korea, and AN-Conf/14-WP/37, presented by the United Arab Emirates, relating to advanced air mobility (AAM) and the integration and operation of electric and hybrid aircraft.

2.3 The Conference broadly supported the importance of Standards and guidance material to ensure the safe integration of new technologies such as electric and hybrid propulsion aircraft, and recognized the experiences of States in implementing such technologies as important to the continuation of this work. The Conference was informed that the ICAO work programme already included some elements for the development of Standards for the integration of electric and hybrid propulsion into legacy aircraft. However, it agreed that an assessment of the work programme would help identify additional elements that need to be considered to accommodate the unique requirements of electric and hybrid aircraft. It was also agreed to provide relevant material from the working papers to the appropriate expert group(s) working on early implementation guidance for electric and hybrid operations, including any air traffic management (ATM) considerations.

2.4 The Conference agreed on the importance of States using regulatory sandboxes in performing real-world data collection and analysis to support the development of robust regulatory frameworks, where appropriate. The Conference further supported the development and implementation of public awareness and engagement programmes related to AAM to address the social acceptance considerations.

Contributions of industry towards meeting the long-term aspirational goal

2.5 AN-Conf/14-WP/32, presented by Iran (Islamic Republic of), provided a review of technologies that could be leveraged to support LTAG and highlighted the need for effective collaboration to maximize the potential benefits of these new technologies. AN-Conf/14-WP/90, presented by Japan, further highlighted the need to achieve the maximum possible progress on implementing aviation in-sector CO₂ emissions reduction using new technologies, operations and fuels. The Conference noted the importance of sharing experiences, collaborating to support the safe and timely integration of new aircraft technologies contributing to LTAG, the development of Standards, where necessary, and adapting operations to the impact of global climate change.

2.6 AN-Conf/14-WP/53, presented by Airports Council International (ACI) and co-sponsored by Japan, outlined the challenges faced due to climate change, which could impact aerodrome and flight operations. The Conference supported the need for such considerations to be included in the development of ICAO provisions, but cautioned that careful consideration should be given to retroactive actions towards existing aircraft requirements

and aerodrome infrastructure. The Conference noted the ongoing efforts of the Conference on Aviation Environmental Protection (CAEP) related to the climate risk assessment, adaptation, and resilience topics and noted that guidance had already been developed on this topic to help States and aviation organizations, including airports to adapt and build resilience against climate change risks.

2.7 The Conference reviewed AN-Conf/14-WP/52, presented by the Air Transport Action Group (ATAG), ACI, Civil Air Navigation Services Organisation (CANSO), International Air Transport Association (IATA), International Business Aviation Council (IBAC) and International Coordinating Council of Aerospace Industries Associations (ICCAIA), which provided an overview of the industry efforts to meet the LTAG. The Conference welcomed the report on the actions taken and the associated information provided, and expressed support for further collaboration in this area. Continued support for the development of the Standardization Roadmap was also expressed.

2.8 Information papers provided by: China (AN-Conf/14-WP/180 and AN-Conf/14-WP/185); Japan (AN-Conf/14-WP/95); the United Arab Emirates (AN-Conf/14-WP/123); ICCAIA (AN-Conf/14-WP/22, AN-Conf/14-WP/23, AN-Conf/14-WP/24 and AN-Conf/14-WP/28), ACI and ICCAIA (AN-Conf/14-WP/25); and IATA and IBAC (AN-Conf/14-WP/79) were noted.

2.9 As a result of the discussion, the Conference agreed on the following recommendation:

Recommendation 2.1/1 – Evolving aircraft technologies contributing to the long-term aspirational goal

That States:

- a) working with industry, assess the compatibility of existing aerodrome infrastructure, systems and operational procedures with the upcoming new aircraft technologies and identify the changes that would be required to achieve full integration;
- b) in collaboration with industry and academia, collect and share information and experience with ICAO on the possible impact of new aircraft technologies on the global aviation system, including aerodrome infrastructure, new energy infrastructure, aircraft performance and characteristics and flight operations;
- c) initiate planning for aerodrome infrastructure and operational changes, where necessary, to integrate new aircraft technologies and with consideration to the economic impact as well as potential climate change impacts;
- d) use regulatory sandboxes, where appropriate, to facilitate the collection and analysis of real-world data to support the development of harmonized, robust regulatory frameworks aligned with ICAO guidance; and
- e) develop comprehensive public awareness and engagement programmes regarding benefits, safety and environmental advantages of new and emerging technologies such as electric -powered aircraft;

that ICAO:

- f) work with States and industry to analyse, identify and plan for global provisions, where necessary, to facilitate the safe and timely integration of new aircraft technologies at aerodromes and other relevant aviation domains; and
- g) when developing provisions related to aerodrome operations and infrastructure, consider where necessary the impact of climate change on the aviation system.

Agenda Item 2: Timely and safe use of new technologies

2.2: Addressing safety risks related to evolving aviation technologies

2.10 The Conference reviewed AN-Conf/14-WP/7, presented by the Secretariat, which highlighted the impact of new and emerging aviation technologies and concepts on the aviation system. The Conference supported the importance of industry collaboration to facilitate the safe introduction of these new technologies into the existing Standards and Recommended Practices (SARPs) and proposed that better ways of engaging with aviation innovators be developed. It also proposed that such new and evolving technologies and concepts that have global application and that were mature, be integrated with minimum changes to existing established requirements, and prioritizing anticipated safety benefits when contemplating retrofit. The Conference also agreed that new safety risk management methodologies, based on systems-thinking, should be considered to support evolving aviation technologies and concepts as they are developed.

Global navigation satellite system interference

2.11 In considering the effects of global navigation satellite system (GNSS) radio frequency interference (RFI), the Conference reviewed: AN-Conf/14-WP/63, presented by Hungary on behalf of the European Union and its Member States², the other Member States of the European Civil Aviation Conference (ECAC)³ and the European Organisation for the Safety of Air Navigation (EUROCONTROL); AN-Conf/14-WP/151, presented by the Republic of Korea; AN-Conf/14-WP/118, presented by Singapore and co-sponsored by Japan, Malaysia, the Philippines, Thailand and Viet Nam and the Flight Safety Foundation; and AN-Conf/14-WP/76, presented by IATA, IBAC, ICCAIA, the International Federation of Air Line Pilots' Associations (IFALPA), International Federation of Air Traffic Controllers' Associations (IFATCA) and International Federation of Air Traffic Safety Electronics Associations (IFATSEA).

2.12 The Conference expressed wide support for the proposals and voiced significant concerns with the recent escalation of GNSS jamming and spoofing, and the significant safety risk it poses to civil aviation operations, particularly on areas surrounding conflict zones. The Conference recalled the need for States to abide by the measures adopted under the International Telecommunication Union (ITU) Constitution and Convention and the ITU Radio Regulations to reduce, where possible, the likelihood of such interference and to notify aviation authorities, regulators and air navigation services providers regarding any intentional GNSS interference activity.

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

³ Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, North Macedonia, Norway, San Marino, Serbia, Switzerland, Türkiye, Ukraine, and the United Kingdom

2.13 The Conference also recommended that States develop regional GNSS RFI reporting procedures through the planning and implementation regional groups, leveraging the existing guidance material contained in the *Global Navigation Satellite System (GNSS) Manual* (Doc 9849) to raise awareness of geographic areas of GNSS interferences and to use this information in the context of planning contingency operations.

2.14 The Conference was informed that work was ongoing within ICAO to develop a concept of operations for next generation equipment functions to enable an aircraft on-board detection of GNSS RFI and the provision of a status downlink to air traffic control units. Furthermore, it encouraged States to consider deploying monitoring and reporting mechanisms for GNSS RFI events. The Conference noted the ongoing work to develop a related update to the GANP navigation systems Aviation System Block Upgrade thread.

2.15 The Conference requested ICAO to: continue assessing the impact of GNSS interference on aviation safety and continuity of civil aviation operations; define adequate mitigation measures while reminding States of their obligations; and to develop guidance material to facilitate, to the extent feasible, the exchange of GNSS RFI information through a centralized repository, as well as the notification about GNSS harmful interference from military authorities to civil aviation, and additional NOTAM codes for GNSS interference events.

2.16 Considering the impact of GNSS RFI on aircraft in-flight, the Conference agreed with the proposal for States to work with aircraft and avionics manufacturers on providing further guidance to maintain safe and efficient aircraft operations in case of disruption caused by GNSS RFI. It also agreed to consider how aircraft systems may be made more resilient to RFI events, and ensure that GNSS navigation capability is resumed as quickly as possible.

Navigation infrastructure and contingency planning

2.17 The Conference also discussed rationalization of existing navigation infrastructure and the need for contingency planning, particularly in respect of GNSS outages. The discussion was facilitated by: AN-Conf/14-WP/120, presented by Cameroon; AN-Conf/14-WP/61, presented by Hungary on behalf of the European Union¹ and its Member States, the other Member States of ECAC², EUROCONTROL and Singapore; and AN-Conf/14-WP/78, presented by IATA, IFATCA, ICCAIA, IFALPA, IFATSEA and IBAC.

2.18 The Conference agreed on the importance of establishing and maintaining a sufficient network of conventional navigation aids, supported by very high frequency omnidirectional radio range, distance measuring equipment and instrument landing system facilities, to ensure operational safety as well as sufficient airspace capacity during times of GNSS interference. Considering the need to phase out legacy navigation systems, the Conference agreed that the removal of such systems should take into account the need for effective GNSS RFI mitigation, and that aircraft minimum equipment lists would need to be updated to reflect this requirement.

2.19 The Conference was informed that work was ongoing within ICAO on developing an implementation package (i.e., iPack for mitigation of GNSS RFI) to assist States in managing GNSS RFI incidents and to ensure continued, safe and regular provision of air navigation services during disruptions caused by GNSS RFI.

2.20 The Conference requested ICAO to continue awareness activities on GNSS RFI and noted the planned regional workshops.

Unmanned aircraft systems technologies

2.21 The Conference reviewed: AN-Conf/14-WP/83, presented by the African Civil Aviation Commission (AFCAC) on behalf of 54 Member States⁴; AN-Conf/14-WP/67 and Corrigendum No. 1, presented by China; AN-Conf/14-WP/140, presented by Colombia; and AN-Conf/14-WP/130, presented by Saudi Arabia, which discussed unmanned aircraft systems (UAS) operations and UAS traffic management (UTM). While noting that work in these areas was ongoing as part of the assessment of the AAM ecosystem and the gap analysis of the work to be done by ICAO, the Conference expressed its support for the approach taken by the Organization and a strong ICAO leadership but cautioned against premature development of provisions. The Conference agreed that the content of these working papers be referred to the appropriate expert group(s) for further consideration, taking into account the outcomes of the Conference discussions.

2.22 In considering the integration of UAS into the air navigation system, the Conference noted ongoing work with respect to UAS training, capacity building and skills enhancement, and the development of UTM guidance material. It was agreed that the working papers would be provided to the appropriate expert group(s) for their consideration. The Conference supported the development of harmonized regional regulatory frameworks and interoperable systems to ensure effective integration of UAS, as well as an integrated, rather than segregated, airspace approach for UAS, where appropriate.

2.23 With regard to the need for additional guidance on the use of UAS for flight inspection activities, the Conference noted the ongoing work and the suggestion to include other aerodrome inspection activities. The Conference agreed to provide the contents of the working paper to the appropriate expert groups for their consideration.

2.24 Furthermore, the Conference recalled Assembly Resolution A39-22: *Formulation and implementation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) and notification of differences* that instructed the ICAO Council to utilize, to the maximum extent appropriate and subject to the adequacy of a verification and validation process, the work of other recognized standards-making organizations. Consequently, the proposals to develop technical standards, contained in AN-Conf/14-WP/140, might be better addressed by such organizations.

Electric vertical take-off and landing and advanced air mobility technologies

2.25 The Conference reviewed AN-Conf/14-WP/137, presented by Brazil, which discussed electric vertical take-off and landing (eVTOL) certification, AN-Conf/14-WP/92, presented by Japan, which discussed broader considerations related to eVTOL and AN-Conf/14-WP/146, presented by the Republic of Korea, which discussed the safety considerations related to AAM. It was recalled that the work on AAM emanated from the 41st Session of the ICAO Assembly with the objective to assess the entire AAM ecosystem and perform a gap analysis. The Conference supported that the development of SARPs for eVTOL should not advance prematurely, but only after the completion of the ongoing AAM ecosystem assessment and gap analysis.

2.26 The Conference expressed its support and agreed on the approach taken by ICAO to address AAM, as well as the importance of a global and holistic approach on AAM. It also acknowledged the importance for States

⁴ Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, 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, Togo, Tunisia, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.

and ICAO to monitor ongoing activities related to AAM, including eVTOL, and to share information, challenges and best practices.

2.27 The Conference also agreed on the need to provide guidance on identifying hazards and managing safety risks related to emerging issues to safely implement eVTOL operations and other AAM-related activities.

Other new and emerging technologies

2.28 The Conference reviewed AN-Conf/14-WP/56, presented by Hungary on behalf of the European Union and its Member States⁵, the other Member States of ECAC⁶, EUROCONTROL, Canada and the United States, on managing interacting aviation risks. The Conference expressed its strong support and interest for this subject, noting that work in this area within ICAO would soon commence. It also agreed to forward the contents of the working paper and the outcomes of the discussion, to the appropriate expert group(s) to allow for these to be properly examined.

2.29 The Conference reviewed AN-Conf/14-WP/65, presented by China, and noted the challenges associated with constructing high elevation aerodromes such as the site selection and design elements. The Conference agreed to refer the working paper to the appropriate expert group(s) for consideration.

2.30 The Conference reviewed AN-Conf/14-WP/66, presented by China, which discussed radiotelephony communication proficiency in non-routine situations for non-native English speakers. The Conference recalled that the language proficiency requirements contained in Annex 1 – *Personnel Licensing*, were applicable to the use of both phraseologies and plain language. The Conference also recalled that Annex 10 – *Aeronautical Telecommunications, Volume II – Communication Procedures including those with PANS status and Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444)* provided phraseology-related provisions. Noting that scenario-based training methods could benefit the aviation community, the Conference agreed to refer work on this issue to the appropriate expert group(s) for further consideration.

2.31 The Conference reviewed AN-Conf/14-WP/86, presented by AFCAC on behalf of 54 Member States⁷, noting the challenges and recognizing the successful collaboration agreement made by AFCAC States regarding the implementation of satellite-based augmentation systems in Africa.

2.32 The Conference reviewed AN-Conf/14-WP/106, presented by Canada and co-sponsored by Australia, Brazil, Japan, New Zealand, the United Kingdom and IATA, on the topic of pilot upper age limit. The Conference acknowledged the ongoing work, emphasized the need for robust safety cases supported by scientific data and agreed to refer AN-Conf/14-WP/106 to the appropriate expert group(s). Additionally, the Conference urged States to respond to the recently issued survey to States (ICAO State Letter AN 5/16.1-24/77).

⁵ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden

⁶ Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, North Macedonia, Norway, San Marino, Serbia, Switzerland, Türkiye, Ukraine, and the United Kingdom

⁷ Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, 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, Togo, Tunisia, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.

2.33 The Conference reviewed AN-Conf/14-WP/116, presented by the International Transport Workers' Federation (ITF), which emphasized that any potential changes to Annex 1 — *Personnel Licensing* to enable system-based air traffic control officer (ATCO) licensing would need to maintain or improve aviation safety. The Conference broadly supported the potential of system-based ATCO licensing but noted that a careful and balanced approach would be necessary to ensure that there would be no negative safety impacts from introducing this approach. The Conference was informed that ATCO licensing was on the work programme and agreed to refer the working paper to the appropriate expert group(s) for further consideration. The Conference further noted that the minimum and maximum age limits of ATCOs should also be considered by the appropriate expert group(s).

2.34 The Conference reviewed AN-Conf/14-WP/150, presented by the Republic of Korea and agreed on the need to address the challenges associated with hazardous lighting in the vicinity of aerodromes. It also agreed on the need to develop strategies for the assessment and management of hazardous lights in evolving airport environments to enhance aviation safety and sustainability.

2.35 Information papers provided by: Brazil (AN-Conf/14-WP/167); France and the European Space Agency (ESA) (AN-Conf/14-WP/196); Germany (AN-Conf/14-WP/16); Hungary (AN-Conf/14-WP/59); Japan and co-sponsored by Philippines, Thailand, and Airports Council International (AN-Conf/14-WP/99); Malaysia (AN-Conf/14-WP/161); Spain (AN-Conf/14-WP/163); United Arab Emirates (AN-Conf/14-WP/36, AN-Conf/14-WP/122, AN-Conf/14-WP/168 and AN-Conf/14-WP/170); United States and co-sponsored by Australia (AN-Conf/14-WP/102); United States (AN-Conf/14-WP/201); Flight Safety Foundation (AN-Conf/14-WP/164); ICCAIA and IFALPA and co-sponsored by IBAC (AN-Conf/14-WP/26) and IFATSEA (AN-Conf/14-WP/172) were noted.

2.36 As a result of the discussion, the Conference agreed on the following recommendations:

Recommendation 2.2/1 – Addressing safety risks related to new and evolving aviation technologies and concepts

That States:

- a) enhance the sharing and exchange of information, challenges, regulatory approaches and best practices with appropriate ICAO expert groups, symposia and conferences regarding the safe introduction of new and evolving aviation technologies and concepts;
- b) and industry, recognize the need for new and evolving aircraft to comply with the existing provisions to ensure the safety of international air navigation, and identify and implement measures necessary to facilitate the safe and timely integration of new and evolving aviation technologies and concepts;
- c) in coordination with industry, engage in collective efforts to address the emerging challenges posed by hazardous lighting in the vicinity of aerodromes, and develop and implement strategies for assessing and mitigating the associated risks; and
- d) develop, through appropriate regional mechanisms, harmonized regional regulatory frameworks and interoperable systems to ensure effective integration of unmanned aircraft systems, where appropriate;

that ICAO:

- e) along with States and industry, identify how to better engage with aviation innovators in order to benefit from a wider range of experience and expertise in addressing the safe introduction of new and evolving aviation technologies and concepts;
- f) support the safe integration of mature technologies and concepts of global interest by developing Standards and Recommended Practices, when necessary, and with minimal required changes to the existing provisions to facilitate global integration;
- g) develop guidance to support States in identifying hazards and managing safety risks related to emerging issues in order to safely implement advanced air mobility, including electric vertical take-off and landing operations;
- h) consider how hazard identification and risk assessment methodologies and tools based on systems-thinking may be used to further support safety risk management and address the interaction between the different types of risks encountered across the various domains (safety, security, facilitation, environment, economic, etc.) through the involvement of the appropriate ICAO expert groups and to foster collaboration across the different domains; and
- i) develop guidance for managing the risks associated with hazardous lights in airport environments.

Recommendation 2.2/2 – Addressing global navigation satellite system interference and contingency planning

That States:

- a) ensure that effective global navigation satellite system radio frequency interference mitigation measures are implemented, based on measures developed by ICAO and industry, including the need to maintain a sufficient network of conventional navigation aids to ensure operational safety as well as sufficient airspace capacity during times of global navigation satellite system interference;
- b) through the mechanism of the planning and implementation regional groups, develop regional global navigation satellite system reporting mechanisms to raise operational awareness of affected geographical areas, to the extent feasible, as described in the *Global Navigation Satellite System (GNSS) Manual* (Doc 9849);
- c) work with industry to identify means to make aircraft systems more resilient to radio frequency interference events, and to provide guidance on detecting global navigation satellite system jamming or spoofing and maintaining safe and efficient aircraft operation in case of global navigation satellite system anomalies; and
- d) review aircraft minimum equipage lists to ensure compatibility with States' implemented minimum operational networks.

that ICAO:

- e) continue to assess the impact of global navigation satellite system interference on aviation safety and continuity of civil aviation operations and define adequate mitigation measures, while reminding States of their obligations;
- f) develop a standardized implementation package to assist and guide States in implementing effective global navigation satellite system radio frequency interference mitigation measures, including optimization and rationalization of conventional navigation aids, commensurate with their local conditions, to ensure continuity in the provision of air navigation services;
- g) develop guidance on GNSS interference information exchange and civil-military coordination in relation to harmful interference to global navigation satellite system(s) originated or detected by military authorities; and
- h) develop recommendations for globally harmonized minimum aircraft equipage lists to ensure that provided navigation infrastructure can be used by airspace users in line with available air traffic services.

Agenda Item 2: Timely and safe use of new technologies

2.3: 2026-2028 edition of the Global Aviation Safety Plan (GASP)

2.37 The Conference reviewed AN-Conf/14-WP/8, presented by the Secretariat, containing proposals for the evolution of the GASP, including the list of global safety issues for inclusion in the draft 2026-2028 edition of the GASP; the update of the GASP goals and targets; as well as the review of the GASP structure, related guidance material and tools, for agreement in principle, by the Conference.

Global organizational challenges

2.38 The Conference reviewed the following working papers on the draft 2026-2028 edition of the GASP, and specifically on global organizational challenges: AN-Conf/14-WP/97, presented by Japan and co-sponsored by Australia, the Philippines, Thailand and ACI; and AN-Conf/14-WP/109, presented by Canada and co-sponsored by North American, Central American and Caribbean Contracting States⁸ and South American Contracting States⁹ Regions.

2.39 The Conference agreed on the need to continue evolving the GASP, addressing global organizational challenges to improve aviation safety across all regions, including: the need for States and industry to share best practices to strengthen safety culture, notably in relation to safety promotion and data protection; foster collaborative approaches and sharing programmes (such as, collaborative safety teams) that strengthen collaboration

⁸ Antigua and Barbuda, Bahamas, Barbados, Belize, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago and United States.

⁹ Argentina, Bolivia (Plurinational State of), Brazil, Chile Colombia, Ecuador, Guyana, Panama, Paraguay, Peru, Suriname, Uruguay and Venezuela (Bolivarian Republic of).

at regional and national levels; and expand the use of industry safety assessment and safety data sharing programmes.

Global operational safety risks

2.40 The Conference reviewed the following working papers on the draft 2026-2028 edition of the GASP, and specifically on global operational safety risks: AN-Conf/14-WP/19, presented by Brazil, Singapore, the United Kingdom, ACI, CANSO, Flight Safety Foundation, IATA, IFALPA and IFATCA; AN-Conf/14-WP/91, presented by Japan; AN-Conf/14-WP/149 presented by the Republic of Korea; AN-Conf/14-WP/98 presented by Japan and Singapore and co-sponsored by the Philippines, Thailand, ACI and IATA; and AN-Conf/14-WP/88 presented by CANSO and IFATCA.

2.41 The Conference agreed on the need to continue focusing global efforts on runway safety, primarily the prevention of runway excursions and incursions, as well as mid-air collisions, as part of the global high-risk categories of occurrences prioritized through the GASP. Additionally, the Conference expressed its support for the inclusion of turbulence encounters as one of the additional categories of occurrences, and as part of the global operational safety risks addressed in the 2026-2028 edition of the GASP. It also recognized the need to implement mitigation strategies including the issuance and availability of updated special air-reports, further improvement of meteorological forecast for clear air turbulence, and a means for collecting and sharing turbulence-related data among States and industry.

2.42 Furthermore, the Conference agreed on the need for global efforts for the management of operational safety risks to focus on more proactive safety performance measurement and safety performance indicators beyond regulatory compliance, human factors considerations and the sharing of best practices.

2.43 The Conference noted the progress made in the ICAO Runway Safety Programme, in collaboration with the Runway Safety Programme Partners, including the publication of the second edition of the Global Runway Safety Action Plan, the Global Action Plan for the Prevention of Runway Excursions and the Global Action Plan for the Prevention of Runway Incursions.

Proposals for the 2026-2028 edition of the GASP

2.44 The Conference expressed broad support for the changes proposed for the draft 2026-2028 edition of the GASP and agreed on the need for the appropriate expert group to examine suitable means to consider the input from the Conference and the online questionnaire on the GASP update, in preparation for the subsequent endorsement of the GASP at the 42nd Session of the ICAO Assembly.

2.45 Information papers provided by: Canada and co-sponsored by Australia and the United Kingdom (AN-Conf/14-WP/107); Brazil (AN-Conf/14-WP/188); Japan (AN-Conf/14-WP/93); Venezuela (Bolivarian Republic of) (AN-Conf/14-WP/157); ICCAIA and IFALPA, co-sponsored by IBAC (AN-Conf/14-WP/27); and the International Society of Air Safety Investigators (ISASI) (AN-Conf/14-WP/31) were noted.

2.46 As a result of the discussion, the Conference agreed on the following recommendation:

Recommendation 2.3/1 – Draft 2026-2028 edition of the Global Aviation Safety Plan (GASP, Doc 10004)

That States:

- a) agree to include the proposed goals and targets in the draft 2026-2028 edition of the Global Aviation Safety Plan; and
- b) agree, in principle, with the changes proposed, including the selection of global high-risk categories of occurrences, for the draft 2026-2028 edition of the Global Aviation Safety Plan;

that ICAO:

- c) take into consideration input from the Conference, as well as the responses from the online questionnaire on the Global Aviation Safety Plan update for the revision of the 2026-2028 edition of the Global Aviation Safety Plan, and its subsequent endorsement at the 42nd Session of the Assembly.

Recommendation 2.3/2 – Turbulence encounters as a global operational safety risk

That States:

- a) share experiences and best practices related to turbulence encounters; and
- b) establish mechanisms to improve the availability of air-reports, including special air-reports, especially those made routinely and containing quantitative turbulence information;

that ICAO:

- c) identify means for collecting and sharing turbulence-related data among Member States and industry to actively monitor global turbulence risk;
- d) consider the need for additional provisions to improve the collecting and sharing of turbulence-related data among States and industry; and
- e) in collaboration with the scientific and meteorological communities, investigate ways to enhance clear-air turbulence forecasting models and narrow down areas of probability.

— END —