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ASSEMBLY — 39TH SESSION

REPORT OF THE TECHNICAL COMMISSION ON THE GENERAL SECTION OF ITS REPORT AND ON AGENDA ITEMS 32 AND 33

(Presented by the Chairman of the Technical Commission)

The attached report on the General Section and Agenda Items 32 and 33 has been approved by the Technical Commission.

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

(13 pages)

REPORT OF THE TECHNICAL COMMISSION TO THE ASSEMBLY

General

1. The Technical Commission held six meetings between 29 September and 4 October 2016.
2. Mr. G. Harris (New Zealand) was elected Chairman at the Second Plenary Meeting of the Assembly. The Commission, at its first meeting, elected as First Vice-Chairman Mr. P. Henttu (Finland) on a nomination by Brazil and seconded by Singapore. Also based on a nomination by Brazil, seconded by Singapore, the Commission elected as Second Vice-Chairman, Ms. P. Assoumou Koki (Cameroon).
3. Representatives from some 180 Contracting States and 50 Observer Delegations attended one or more meetings of the Commission.
4. The Secretary of the Commission was Mr. S.P. Creamer, Director of the Air Navigation Bureau. Messrs. H. Gourджи, Deputy Director of Monitoring and Oversight, R. MacFarlane, Deputy Director of Air Navigation Capacity and Efficiency, C. Radu, Deputy Director of Aviation Safety served as Deputy Secretaries. The Commission was assisted by Mrs. D. Cooper and also by:

Mr. M. Costa, Chief, Accident Investigation Section (AIG)
Mr. C. Dalton, Chief, Airspace Management and Optimization Section (AMO)
Mr. Y. Wang, Chief, Airport Operations and Interoperability Section (AOI)
Mr. M. Fox, Programme Manager, Crisis and Rapid Response (CRR)
Ms. K. Rooney, Chief Cargo Safety (CSS)
Mr. M. Merens, Chief, Integrated Aviation Analysis (IAA)
Mr. S. Da Silva, Chief, Implementation Planning and Support – Air Navigation (IMP/AN)
Mr. M. Vreedenburgh, Chief, Implementation Planning and Support – Safety Section (IMP/SAF)
Ms. J. Jordaan, Chief, Aviation Medicine Section (MED)
Mr. Y. Fattah, Programme Manager, Multidisciplinary Priorities (MP)
Mr. N. Rallo, Chief, Safety and Air Navigation Oversight Audit Section (OAS)
Mr. M. Marin, Acting Chief, Operations Section (OPS)
Mr. T. Mistos, Chief, Oversight Support Unit (OSU)
Mr. E. Lassooij, Programme Manager, Performance-based Navigation (PBN)
Ms. L. Cary, Programme Manager, Remotely Piloted Aircraft Systems (RPAS)
Ms. E. Gnehm, Programme Coordinator, Safety Management (SM)

and other members of the Secretariat.

Agenda and working arrangements

5. The Assembly had agreed to the suspension of minutes for the Technical Commission of the 39th Session of the Assembly.

6. The following agenda items were considered by the Commission:

- Agenda Item 32: Annual Reports of the Council to the Assembly for 2013, 2014 and 2015
- Agenda Item 33: Aviation safety and air navigation monitoring and analysis
- Agenda Item 34: Aviation safety and air navigation policy
- Agenda Item 35: Aviation safety and air navigation standardization
- Agenda Item 36: Aviation safety and air navigation implementation support
- Agenda Item 37: Other issues to be considered by the Technical Commission

7. The documents and working papers associated with the work of the Commission are listed by agenda item in the appendix to this report.

8. The action taken by the Commission in respect of each item is reported on separately in the paragraphs which follow. The material is arranged according to the numerical sequence of the agenda items considered by the Commission.

Agenda Item 32: Annual Reports of the Council to the Assembly for 2013, 2014 and 2015

32.1 The Technical Commission reviewed those parts of the Annual Reports of the Council to the Assembly for 2013, 2014 and 2015, and the supplementary report covering the first six months of 2016, falling within its field of competence. (The Annual Reports are now in a new online format available at <http://www.icao.int/Meetings/a39/Pages/documentation-reference-documents.aspx>).

32.2 The Commission noted, without comment, the work accomplished in the air navigation field during the past three years, as indicated under the Safety and Air Navigation Capacity and Efficiency Strategic Objectives, and expressed its gratitude.

Agenda Item 33: Aviation safety and air navigation monitoring and analysis

33.1 The Commission reviewed A39-WP/30, presented by the Council, and noted the current status of the objectives, priorities and enablers of the 2014-2016 edition of the *2014-2016 Global Aviation Safety Plan* (GASP, Doc 10004), the priorities of the *2013-2028 Global Air Navigation Plan* (GANP, Doc 9750) and the status and results of Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA). The Commission encouraged States to take action on achieving objectives of the GASP and aligning with the priorities of the GANP and to support the regional aviation safety groups (RASGs) and planning and implementation regional groups (PIRGs) in implementing regional priorities. The Commission also encouraged States to provide data on their progress and status of implementation and urged them to provide timely reports of their progress in implementing USOAP corrective action plans (CAPs) and performing self-assessments on the online framework (OLF).

33.2 The Commission reviewed A39-WP/31, presented by the Council, which reported on progress made on the outcomes of the second High-level Safety Conference (HLSC 2015) and provided updates regarding some additional emerging issues. The Commission recognized the benefit of holding divisional-type meetings as a formal means to recommend inputs for additional technical work to be undertaken by ICAO so that the meeting outcomes could be considered in the context of all other demands as part of the budget approval for the next triennium. The Commission agreed that Council should consider instituting this practice.

Aircraft tracking

33.3 The Commission reviewed A39-WP/290, presented by Singapore, which highlighted the importance of operators developing a capability to track aircraft during abnormal operations. The Commission noted that ICAO was developing guidance on abnormal event monitoring as part of the ongoing work on aircraft tracking, which was planned to be complete by the end of the first quarter of 2017.

33.4 The Commission reviewed A39-WP/168, presented by the African Civil Aviation Commission (AFCAC) on the Global Aeronautical Distress and Safety System (GADSS) Concept of Operations and the expected benefits for search and rescue (SAR) in the Africa-Indian Ocean (AFI) Region. The Commission encouraged ICAO to complete the development of the GADSS Concept of Operations and publish the associated guidance for States. The Commission agreed that ICAO should promote the development of efficient SAR capabilities in the AFI Region, and supported initiatives already underway to achieve this. States were also encouraged to support ICAO's position on the GADSS at the next International Telecommunication Union (ITU) meeting. The Commission was also reminded of the potential suitability of existing space system for search of vessels in distress search and rescue satellite-aided tracking (COSPAS / SARSAT) to assist with implementing the GADSS Concept.

33.5 Information papers, provided by China (A39-WP/274), the United States (A39-WP/269) and the International Mobile Satellite Organization (IMSO) (A39-WP/394), were noted.

Remotely piloted aircraft system (RPAS)

33.6 The Commission reviewed A39-WP/439, presented by Brazil, and A39-WP/303, presented by the Dominican Republic, which addressed the need for guidance material to support safe remotely piloted aircraft systems (RPAS) operations and user-friendly and effective awareness and educational campaigns among unmanned aircraft system (UAS) users.

33.7 The Commission noted A39-WP/281 Revision No. 1, presented by Japan, which introduced an overview of their new rules on unmanned aircraft and requested States to share their unmanned aviation regulations.

33.8 The Commission noted A39-WP/335, presented by China, which outlined the main challenges in China regarding regulation of unmanned aircraft and proposed a cloud-based system for the regulation of small UAS. Concern was raised regarding technical aspects and cyber-resiliency of such a system. The Commission recommended that studies in that regard be conducted and brought to ICAO for further consideration.

33.9 The Commission reviewed A39-WP/103, presented by the United States. The paper addressed the rapidly developing sector of UAS and requested adjustments in the global framework in order to accommodate new non-traditional entrants.

33.10 The Commission reviewed A39-WP/146, presented by Mexico supported by Argentina, Aruba, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay, Venezuela and Brazil, which urged States to give high priority to UAS regulations and oversight within their State safety programme (SSP) and for ICAO to expand its scope of work to include other UAS in the regulatory framework with a properly funded mechanism to accomplish this expansion. The Commission also reviewed A39-WP/289 Revision No. 1, presented by Singapore, Malaysia, Marshall Islands, New Zealand, Palau, Papua New Guinea and Solomon Islands, which also requested ICAO to lead efforts to harmonize key regulatory practices for small UAS operations.

33.11 The Commission reviewed A39-WP/95, presented by Slovakia on behalf of the European Union (EU) and its Member States¹, the other Member States of the European Civil Aviation Conference (ECAC)²; and by the European Organisation for the Safety of Air Navigation (EUROCONTROL). The paper outlined the importance of establishing a coherent framework for RPAS operations.

33.12 The Commission reviewed A39-WP/116, presented by the Airports Council International (ACI), Civil Air Navigation Services Organisation (CANSO), International Air Transport Association (IATA), International Coordinating Council of Aerospace Industries Associations (ICCAIA), International Federation of Air Line Pilots' Associations (IFALPA), International Federation of Air Traffic Controllers' Associations (IFATCA), the International Council of Aircraft Owner and Pilot

¹ 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

² 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

Associations (IAOPA), which requested the development of Standards in support of harmonized UAS operations.

33.13 The Commission noted information on the online toolkit being developed by ICAO. The toolkit would include guidance material to support regulators in developing and implementing national regulations. In addition, it would include best practices and examples from States that had regulations in place. The toolkit was expected to be available shortly after the conclusion of the 39th Session of the Assembly.

33.14 The Commission noted wide support for the ICAO work on RPAS and agreed that development of a global baseline of provisions and guidance material for the proper harmonization of regulations on UAS that remain outside of the international instrument flight rules (IFR) framework was justified. In order to facilitate this expansion of ICAO's work programme, an innovative and flexible approach should be adopted, taking into account ongoing developments at national, regional and international levels including the Joint Authorities for Rulemaking on Unmanned Systems (JARUS).

33.15 The Commission agreed that ICAO should develop guidance material to support safe RPAS/UAS operations including awareness and educational campaigns amongst users and to promote the exchange of information amongst States regarding their unmanned aviation regulations. The Commission agreed that the Council should review the proposals with respect to existing priorities funded through the 2017-2019 Budget and the availability of extra-budgetary resources.

33.16 Information papers were provided by Brazil (A39-WP/265), Cuba (A39-WP/454), Indonesia (A39-WP/226), Russian Federation (A39-WP/296 Revision No. 1), United States (A39-WP/82), and Slovakia on behalf of the EU, ECAC and EUROCONTROL (A39-WP/107). A related information paper under Agenda Item 16 was provided by Spain (A39-WP/132).

Conflict zones

33.17 The Commission reviewed A39-WP/108 Revision No. 1, presented by Slovakia on behalf of the EU, ECAC and EUROCONTROL, Australia and Malaysia. The paper outlined proposals to: complete the work programme recommended by the Task Force on Risks to Civil Aviation arising from Conflict Zones (TF RCZ); complement the existing work programme on conflict zones through a review of all relevant Annex provisions; and, upon completion of the work programme on conflict zones, called upon the Council to reconsider the inclusion of conflict zones in the work programme of the Legal Committee. The Commission supported the actions proposed in A39-WP/108 Revision No. 1 and A39-WP/200, presented by CANSO, and agreed the Council should afford priority to the action items in light of the 2017-2019 Budget and the availability of extra-budgetary resources. Furthermore, the Commission highlighted the importance of information sharing and the need for member States to engage in these efforts.

33.18 The Commission reviewed A39-WP/376, presented by the Russian Federation which proposed that the Council reassess the Conflict Zone Information Repository (CZIR) operations to ensure consistency with the Convention and the Code of Conduct for Sharing and Using Safety Information. The paper also outlined a recommendation that the Repository be accessible through a secure website. In light of an existing Council decision directing the Secretariat to consider further improvements to the Repository and to prepare appropriate proposals for consideration during its 209th Session, the

Commission agreed that the points raised in this paper be considered by Council in its further deliberations concerning the future status and operation of to the Repository.

33.19 An information paper presented by Slovakia on behalf of the EU ECAC, EUROCONTROL, Australia and Malaysia (A39-WP/297) was noted.

Safety management

33.20 The Commission reviewed A39-WP/283, presented by Brazil, regarding the extension of safety management systems (SMS) applicability to other sectors of aviation. The Commission also reviewed A39-WP/324 and A39-WP/359 presented by Venezuela (Bolivarian Republic of) supporting regional initiatives to establish guidance and a common reference framework for the acceptable level of safety performance (ALoSP) metrics used by States. A39-WP/324 also addressed the challenges faced by States in implementing the recent amendment to Annex 19 — *Safety Management* and updates required to the State safety programme (SSP) gap analysis. Although support was expressed for these proposals, the Commission recognized that relevant expert groups were currently addressing these issues. In addition, the need for each State to consider the unique aspects of its aviation system in establishing the ALoSP was highlighted.

33.21 Working paper A39-WP/342, presented by China, highlighted the results of pilot projects carried out by the Civil Aviation Administration of China (CAAC) related to safety performance management and specific proposals for ICAO to provide additional implementation support. The Commission was informed that work programme items to address the need for additional implementation support were identified pursuant to HLSC 2015, Recommendation 2/1, and States were encouraged to consider means to support the ICAO Safety Management Programme, as indicated in State letter AN 8/3-16/89, dated 27 September 2016.

33.22 The Commission reviewed A39-WP/109, presented by Peru and endorsed by the countries of the South American (SAM) Region and the twenty-two Member States of the Latin American Civil Aviation Commission (LACAC), proposing that the inclusion of SSPs in the scope of USOAP audits be postponed. The Commission was informed that SSP would only be audited by ICAO on a voluntary but non-confidential basis starting in January 2018 and that, as of 2020, SSP would be audited for the States meeting the criteria to be established by ICAO in line with the GASP. The Commission agreed that ICAO should clarify and communicate this information to all States.

33.23 The Commission reviewed A39-WP/195, presented by CANSO, which contained information on the Standard of Excellence in Air Navigation Services – Safety (SEANS-Safety) programme. The Commission noted and recognized the initiative by CANSO to assist air navigation service providers (ANSPs) in identifying weaknesses in their SMS.

33.24 Information papers were also presented by Cuba (A39-WP/362), India (A39-WP/135), Republic of Korea (A39-WP/420) Spain (A39-WP/419), and the Agency for Air Navigation Safety in Africa and Madagascar (ASECNA) (A39-WP/385).

Monitoring and analysis

33.25 The Commission reviewed A39-WP/285, presented by Brazil, which invited States with high effective implementation (EI) rates and ICAO to provide technical assistance to States with lower EIs rates. The Commission noted that ICAO continuously performed analyses of USOAP results and disseminated them on the integrated Safety Trend Analysis and Reporting System (iSTARS) and through the annual safety and air navigation reports which helped identify specific needs for assistance. The Commission noted the support for the work currently being done under the ICAO IMPLEMENT initiatives and also the direct involvement of ICAO ROs in implementation initiatives. The Commission supported the proposals acknowledging the initiatives already put in place by ICAO, and noted that assistance was also provided by States to each other on a bilateral basis.

33.26 The Commission reviewed A39-WP/190 and A39-WP/192 presented by Canada. A39-WP/190 focused on the value of the information in the USOAP CMA OLF proposing that the OLF be enhanced to allow comparisons of similarities and differences in States' safety oversight systems as a basis for States to reach bilateral agreements. The Commission noted that the Secretariat would continue to make enhancements to the OLF and that this proposed functionality would be considered and prioritized amongst all other design improvements that were planned. The Commission also noted that the information on the OLF would be supplemented by bilateral exchanges between States. A39-WP/192 encouraged States to recognize the value of using the OLF protocol questions (PQs) self-assessment as part of the safety assurance component of their SSP. The Commission agreed that ICAO should continue to inform States about the benefit of using the PQ self-assessment as part of their SSP and promote the value of the information contained in the PQ self-assessment.

33.27 The Commission reviewed A39-WP/197, presented by South Africa, proposing that ICAO review the flight operations inspector experience requirements in the *Manual of Procedures for Operations Inspection, Certification and Continued Surveillance* (Doc 8335). The paper also requested ICAO to not use a minimum of 5 000 flight hours experience as a measure of the suitability of an aviation safety inspector (ASI). The Commission noted advice from the Secretariat that ICAO should not use that criteria in USOAP audits, evaluating the qualification of those inspectors according to States' national requirements. The Commission also noted that the experience for flight operations inspectors in Doc 8335 should be aligned with the new *Manual on the Competencies of Civil Aviation Safety Inspectors* (Doc 10070). The Commission agreed to recommend that ICAO consider amending the minimum number of flight hours experience for flight operations ASI in Doc 8335.

33.28 The Commission reviewed A39-WP/213, presented by Australia, Bangladesh, Chile, France, India, Japan, Malaysia, Nepal, New Zealand, Republic of Korea, Russian Federation, Singapore, Tonga and Vanuatu, which recognized that the USOAP CMA had brought significant benefits to both ICAO and States and had been critical in delivering aviation safety. It acknowledged that in order for the programme to continue being valuable and efficient, ICAO should undertake a review of the USOAP CMA including its processes and methodology. The Commission agreed that ICAO should, using available resources, perform a structured review to identify adjustments to USOAP CMA with a view of the further evolution and strengthening of the programme, taking into consideration the evolving safety strategy of ICAO and States' progress in implementing Annex 19, in particular, SSP requirements. The Commission also agreed that, to ensure sufficient independence and to avoid a possible transition to a permanent oversight function, the review should be conducted by a temporary group composed of selected experts, including from Member States and the Secretariat, under the guidance of the ANC, with

the results reported to the ICAO Council. Such a review should be completed in a timely manner in order to be considered for the next triennium budget.

33.29 Information papers were provided by the Republic of Korea (A39-WP/432 and A39-WP/433), Spain (A39-WP/418), Thailand (A39-WP/399) and IATA (A39-WP/126).

Harmonization

33.30 The Commission reviewed A39-WP/115, presented by Chile with the support of Argentina, Bolivia, Brazil, Colombia, Ecuador, Guyana, Panama, Paraguay, Peru, Uruguay, Suriname, and Venezuela, and A39-WP/142 Revision No. 1, presented by India, that described the progress made to reduce duplication of activities concerning certification and oversight of approved maintenance organizations (AMOs) and approved training organizations (ATOs). The Commission noted the existing ICAO framework for the oversight of ATOs and supported the ongoing work to develop recognition processes for the approval by another State of ATOs, leveraging existing approvals. It recommended that States be urged to use these processes or conclude agreements for recognition with other States. Additionally, the Commission noted and supported the ongoing work by ICAO to facilitate a globally harmonized approach for the approval and recognition or reciprocal acceptance of AMOs and further recommended that States be urged to harmonize their regulations related to AMOs and ATOs

33.31 The Commission reviewed A39-WP/162, presented by the United Arab Emirates, which focused on the need to reduce the regulatory and oversight burden regarding the approval of maintenance organizations. The Commission noted the information, and recognized the benefits of using the Maintenance Organization Review Certificate (MORC) Scheme.

Other issues

33.32 The Commission reviewed A39-WP/220, presented by Indonesia, which contained a case study of the implementation of performance-based navigation (PBN) navigation specifications. The Commission noted the information and recommended that ICAO be requested to continue work on the development of visual guided approaches (VGA) which could be used to facilitate airport access.

33.33 The Commission reviewed A39-WP/113, presented by Chile with the support of Argentina, Bolivia, Brazil, Colombia, Ecuador, Guyana, Panama, Paraguay, Peru, Suriname, Uruguay and Venezuela (Bolivarian Republic of), which contained a progress report on the attainment of the safety and air navigation goals for 2016 set in the Declaration of Bogota. The Commission acknowledged the concerns expressed in the paper noting that it would not be practical (nor in line with other global statistics) for ICAO to produce statistics based on the attribution of causes or contributing factors to States involved in an accident or serious incident. Mindful of the needs of the Latin American States, the Commission recommended that the Council consider the development of a system for the validation of data and classification of accidents and incidents on a State or regional basis. Such system should allow for the classification of occurrences based on the causes and contributing factors taking into account existing priorities funded through the 2017-2019 Budget and the availability of extra-budgetary resources.

33.34 The Commission reviewed A39-WP/260 Revision No. 1, presented by Trinidad and Tobago with the support of Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Canada, Costa Rica, Cuba, Curaçao, Dominican Republic, El Salvador, France (French Antilles), Grenada,

Guatemala, Haiti, Honduras, Jamaica, Mexico, Netherlands (Bonaire, Saba and Saint Eustatius), Nicaragua, Saint Kitts and Nevis, Saint Lucia, Saint Maarten, Saint Vincent and the Grenadines, Trinidad and Tobago, United Kingdom (Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat and Turks and Caicos Islands) and the United States, which contained a progress report on measuring performance with regard to its different strategic objectives from the North American, Central American and Caribbean (NAM/CAR) States, and noted the information.

33.35 An information paper provided by Cuba (A39-WP/453) was noted.

— END —