



WORKING PAPER

ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 35: Aviation Safety and Air Navigation Standardization

**PROMOTING GLOBAL STANDARDIZATION THROUGH THE APPLICATION OF
STANDARDIZATION PLANS, INCLUDING ROADMAPS, AND OTHER
STANDARDS-MAKING ACTIVITIES OVER THE NEXT TRIENNIUM**

(Presented by the Council of ICAO)

EXECUTIVE SUMMARY

This paper reports on standards-making activities concerning the development of an air navigation (AN) work programme and standardization roadmap, the re-activation of a Standards Roundtable initiative, and an outlook for the next triennium and beyond of the ICAO provisions. Collectively, these activities are intended to support the strategic direction of the Organization in the areas of aviation safety and air navigation capacity and efficiency aligned with the *Global Aviation Safety Plan* (GASP, Doc 10004) and *Global Air Navigation Plan* (GANP, Doc 9750), including for Block 1 of the Aviation System Block Upgrades (ASBU) methodology of the GANP.

Action: The Assembly is invited to:

- a) note the work undertaken since 38th Session of the Assembly; and
- b) note that, subject to appropriate prioritization, Council will continue to undertake standards-making activities that evolve and mature in line with the global plans and emerging issues.

<i>Strategic Objectives:</i>	This working paper relates to the Safety and Air Navigation Capacity and Efficiency Strategic Objectives.
<i>Financial implications:</i>	The activities referred to in this paper will be undertaken subject to the resources available in the 2017-2019 Regular Programme Budget and/or from extra budgetary contributions.
<i>References:</i>	A39-WP/37 A39-WP/39 Doc 10022, <i>Assembly Resolutions in Force</i> (as of 4 October 2013) Doc 10007, <i>Twelfth Air Navigation Conference Report (AN-Conf/12)</i> Doc 10004, <i>Global Aviation Safety Plan (GASP)</i> Doc 9750, <i>Global Air Navigation Plan (GANP)</i> Doc 7300, <i>Convention on International Civil Aviation</i>

1. BACKGROUND

1.1 Standards-making and the promotion of global standardization are among the core functions of ICAO. Indeed, Article 37 to the *Convention on International Civil Aviation*, signed at Chicago on 7 December 1944 and amended by the ICAO Assembly (Doc 7300) requires that ICAO adopt and amend from time to time, as may be necessary, international standards and recommended practices and procedures dealing with matters concerned with the safety, regularity and efficiency of air navigation as may from time to time appear appropriate. Moreover, Article 38 to the Convention requires that any State give immediate notification to ICAO of differences between its own practice and that established by the international standard.

1.2 At the Twelfth Air Navigation Conference (AN-Conf/12) in 2012, the Conference formulated Recommendation 6/13 concerning the development of Standards and Recommended Practices (SARPs), procedures and guidance material. This recommendation proposed, inter alia, that ICAO improve its project management and coordination of contributing ICAO expert groups tasked with the development of ICAO provisions and related work. The Conference formulated this recommendation mindful of the fact that ICAO provisions would continue to make a significant contribution in enhancing global aviation safety, interoperability, harmonization and efficiency, and that after analysing States mature modernization plans and ICAO's aviation system block upgrade (ASBU) methodology within the Global Air Navigation Plan (GANP) there was an acknowledged need to develop new, revise existing and remove obsolete ICAO provisions. In addition, the Conference formulated Recommendation 1/1 related to the GANP, wherein sub-item e) recommended that ICAO, taking a total systems and performance-based approach, create a SARPs development plan for the ASBUs including the establishment of agreed global priorities between the different blocks and modules.

1.3 In addition, the ICAO Assembly, at its 38th Session (A38) in 2013, formulated Resolution A38-2 which, inter alia, instructed the Council to use the guidance in the GANP to develop and prioritize the technical work programme of ICAO in the field of air navigation, and urged the Council to provide States with a standardization roadmap, as announced in the GANP, as a basis for the work programme of ICAO.

1.4 In the interest of promoting global standardization, the Council herewith reports on the standards-making activities during the current triennium and an outlook for the next triennium and beyond.

2. DISCUSSION

2.1 Air Navigation Work Programme

2.1.1 In relation to the referred resolution and recommendations of the A38 and AN-Conf/12 respectively, during the current triennium the Air Navigation Commission (ANC) with the assistance of the Secretariat has established a work programme focused on regulatory and operational improvements in the areas of aviation safety and air navigation capacity and efficiency. The air navigation (AN) work programme provides concise details on standards-making activities, particularly those that concern the updating of existing ICAO provisions or the development of new ICAO provisions, necessary to support the GASP and GANP objectives through to 2019 and beyond. Indeed, the AN work programme is aligned with the priorities set forth in the *Global Aviation Safety Plan* (GASP, Doc 10004) and the *Global Air Navigation Plan* (GANP, Doc 9750), and is reviewed and approved by the Commission on at least an annual basis.

2.1.2 In parallel with the foregoing and consistent with referred AN-Conf/12 Recommendation 6/13, the ANC during the course of the current triennium has undertaken a

modernization of the ANC Panels structure, entailing the establishment of new panels and the dissolution or repurposing of existing panels. This modernization activity has been designed to ensure, inter alia, the efficient and effective delivery of work programme elements identified in the AN work programme and, where needed, cross-discipline coordination between ANC Panels. At time of writing, seventeen ANC Panels exist, each with one or more contributory working group. A centralized resource for all ANC Panels was launched in year 2015 on the ICAO Secure Portal to facilitate the management and operation of the panels.

2.1.3 Also during the course of the current triennium the ANC has undertaken a review and update of its procedures and practices, so as to improve working methodologies, and has developed a guide to the drafting of SARPs and Procedures for Air Navigation Services (PANS), so-called “*Standards for Standards*”, as a means to ensure uniformity and consistency in drafting style, for intended use by the panels/expert groups, the Secretariat and the ANC. Moreover, the introduction of impact assessments and implementation task lists including an outline of guidance material (A39-WP/37 refers) are other notable achievements during this triennium.

2.2 Standardization Roadmap

2.2.1 Arising from the 38th Session of the ICAO Assembly, Resolution A38-2 urged the Council to provide States with a standardization roadmap, as announced in the GANP, as a basis for the work programme of ICAO.

2.2.2 The AN work programme, outlined above, contains information directly relevant to ICAO standards-making activities in the areas of aviation safety and air navigation capacity and efficiency through to 2019 and beyond. From the AN work programme, it is possible to derive an outlook of the ICAO provisions already available or in need of development to support, for example, the Block 1 modules of the ASBU methodology contained in the GANP. Thus, the AN work programme is already equipped to serve as a standardization roadmap.

2.2.3 As the AN work programme evolves in line with the evolving global plans, so too will the standardization roadmap evolve. But, it is worthwhile to note that, as indicated in the proposed fifth edition of the GANP (2017 to 2019) (A39-WP/39 refers), the standardization roadmap is not only reflecting ICAO’s planned work but also serving as the basis of cooperation with other standards-making organizations. This is consistent with the instruction given to the Council by the 38th Session of the ICAO Assembly to, inter alia, 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 in the development of SARPs, PANS and ICAO technical guidance material (Assembly Resolution A38-11 refers).

2.3 Standards Roundtable

2.3.1 To facilitate the above-mentioned developments, a Standards Roundtable initiative, first conceived in year 2008 under the direction of the Director of the Air Navigation Bureau, was re-activated in year 2015 through the initiation of informal videoconference meetings. The Standards Roundtable provides a venue where appropriate standards-making organizations and industry representatives can, in an independent expert capacity, share ideas and best practices, discuss latest developments of mutual interest, agree appropriate principles of engagement, including appropriate working arrangements, and develop common strategies to progress work in support of the ICAO standards-making process. In addition to collaboration through correspondence, further videoconference meetings and/or face-to-face meetings of the Standards Roundtable are envisaged, supporting progress in the context of the standardization roadmap, recognition of other standards-making organizations, development of performance specifications and identification of associated technical specifications, including verification and validation thereof.

2.3.2 This collaboration will, in particular, benefit the identification and alignment of performance specifications (of ICAO) and technical specifications (of other standards-making organizations) used in ICAO Annexes and PANS through the next triennium and beyond, in concert with the associated activities undertaken by the ANC Panels and other ICAO expert groups. Moreover, this collaboration is consistent with Assembly Resolution A38-11 alluded to at Paragraph 2.2.3 above. It is worthwhile to note that, in some instances, existing Annexes will be restructured in parallel with the development of new PANS, so as to more suitably prescribe performance specifications and technical specifications, especially where technical specifications of other recognized standards-making organizations serve as acceptable means of compliance of performance specifications.

2.4 Standards-making activities to be expected during the next triennium and beyond

2.4.1 SARPs and PANS dealing with matters concerned with the safety, regularity and efficiency of air navigation have, over the course of the current triennium, transitioned predominantly to a two-year cycle of amendment, with the latest round of amendments adopted in 2016 predominantly having 2016, 2018 and 2020 applicability. During the next triennium and beyond, States and other concerned stakeholders can expect ICAO to amend its safety- and air navigation-related ICAO provisions routinely in 2018, 2020, 2022 and so on, with amendments on intervening years occurring only on an exceptional basis such as to address an immediate safety issue. In addition, it is worthwhile to note that ICAO intends to make its technical guidance material available, to the extent practicable, not later than the applicability date of amendments to Annexes and PANS, so as to provide the greatest opportunity for the ICAO provisions to be efficiently and effectively implemented by States.

2.4.2 In the context of the next triennium, an outlook of ICAO provisions to be expected through to 2019 and beyond, including those necessary to support the Block 1 modules of the ASBU methodology in the GANP, has been extracted from the AN work programme and is available via the ICAO website¹.

2.4.3 At time of writing, forty per cent of ICAO provisions related to safety and air navigation capacity and efficiency planned for the year of 2018 concern amendments to Annexes, twenty-seven per cent concern amendments to PANS, and thirty-three per cent concern amendments to supporting ICAO technical guidance material.

3. CONCLUSION

3.1 Over the course of the current triennium, there has been much progress in the standards-making activities of the Organization in the areas of aviation safety and air navigation capacity and efficiency. The new AN work programme, ongoing development of a standardization roadmap, re-activation of a Standards Roundtable initiative, modernization of the ANC Panel structure, update of ANC procedures and practices, development of a new guide to the drafting of SARPs and PANS, and establishment of a new web-based centralized resource for all ANC Panels, as well as new impact assessment and implementation task lists including an outline of guidance material, are notable achievements that promote global standardization and facilitate implementation. Subject to appropriate prioritization, Council will ensure that these standards-making activities evolve and mature in line with the global plans (GASP and GANP) and emerging issues.

— END —

¹ <http://www.icao.int/about-icao/AirNavigationCommission/> (click on ‘Air Navigation Work Programme’).