



International Civil Aviation Organization
North American, Central American and Caribbean Office (NACC)
**Thirty-Third Eastern Caribbean Working Group Meeting
(E/CAR/WG/33)**
Christ Church, Barbados, 4 to 8 June 2012

E/CAR/WG/33 — IP/04
27/04/12

Agenda Item 3: Air Navigation matters
3.1 Global/Regional Air Navigation Developments

UPDATES TO ICAO SARPS AND CURRENT WORKS OF ICAO EXPERT PANELS

(Presented by the Secretariat)

SUMMARY

This Information paper presents a briefing on the recent relevant ICAO Standard and Recommended Practices (SARPs) and guidance material updates and shows a general overview of the current Works by the ICAO panels of Experts. This information shall be considered by the Working Groups for their implementation activities and corresponding coordination.

**ICAO Strategic
Objectives**

This Information papers is linked to objectives A and C.

1. Introduction

1.1 In support of the coordination and development of the working groups activities, the following paper provides a resume/briefing of the latest amendments and valid references of ICAO Standards and Recommended Practices (SARPs), as well as the information of the current and planned works of ICAO, which are being developed by its panels of experts to facilitate and standardize the implementation of services and systems, ensuring an harmonized interregional implementation process to obtain in the short and medium terms, the operational benefits foreseen for the Air Navigation community.

1.2 During the subregional working group meetings (C/CAR/WG, CA/ANE/WG and E/CAR/WG), ICAO had presented the progress on the ICAO SARPs amendments as well as the work programme of its Expert panels, which is now based on the Performance and in the Aviation System Block Upgrade (ASBU) methodology.

2. ICAO SARPs Amendments

Aerodromes and Visual Aids

2.1 Amendment to Annex 14 volume II, Ref. State Letter AN 4/1.1.51-11/3 dated April 2011 with application date of 15 November 2012, is intended to amend the SARPs in Annex 14, Volume II – Heliports relating to the design of heliports, addressing the second part of a two-part comprehensive review and updating of the document. As such there are multiple proposals covering various subjects, including definitions, heliport data, physical characteristics, obstacle restriction and removal and visual aids. Currently comments have been requested to States not later than 31 July, 2012.

2.2 Amendment to Annex 14 volume I, Annex 15 and PANS-ATM (Doc 4444), Ref. State Letter AN 4/1.1.52-11/41 dated May 2011 is intended to amend the SARPs in Annex 14, Volume I – Aerodrome Design and Operations, Annex 15 – Aeronautical Information Services, and Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444) relating to design and operations of aerodromes, SNOWTAM format and ATC phraseologies:

- a) Annex 14: includes provides draft guidance material on RESA (to be included in the Aerodrome Design Manual, Part 1 — Runways (Doc 9157) and associated mitigating measures, including arresting systems. It is amendments in regard to maximum allowable tire pressure category in the reporting of strength of pavements; runway surface friction measurement and reporting; runway end safety areas (RESA) and arresting systems; strength of blast pads; visual aids for navigation, including simple touchdown zone lights, enhanced taxiway centre line marking, stop bars, runway guard lights (RGLs) and obstacle lighting; rescue and fire fighting (RFF); including performance level C foam; siting of equipment and installations on operational areas and aerodrome maintenance.
- b) Annex 15 relates to SNOWTAM format concerning runway surface conditions, including friction characteristics. And the amendment proposal to PANSATM covers ATC phraseologies with respect to runway surface condition and aircraft braking action.
- c) The proposed amendment to Annex 14, Volume I is envisaged for applicability on 15 November 2012, to Annex 15 on 14 November 2013, and to PANS-ATM on 13 November 2014.

Communications, navigation and Surveillance

2.3 Amendment 87 to Annex 10 volume I, ref. State Letter AN 7/1.3.98-11/25 31 dated March 2011 and application date of 15 November 2012 is expected to be adopted by Council in March 2012. It deals with a number of global navigation satellite systems (GNSS) SARPs issues:

- changes to satellite-based augmentation system (SBAS) received signal power requirements;
- introduction of two new SBAS service provider identifiers;
- changes to the encoding of the runway number field in the final approach segment (FAS) data block; and
- Changes to GNSS antenna gain requirements.

2.4 Amendment 86 to Annex 10, Volume I is applicable since November 17, 2011 and it amends the SARPs concerning the GNSS ground-based augmentation system (GBAS) requirements for CAT 1 operations, reflecting experience gained with initial implementation of the GNSS/GBAS.

2.5 For more details on the ICAO expert panel activities you can access the ICAO Air Navigation Bureau website: <http://www.icao.int/safety/AirNavigation/Pages/default.aspx> and check all the different areas of specialty.

3. Current and Schedule work activities by ICAO Expert Panels

3.1 In **Appendix** to this paper, the relevant current work activities of the different ICAO expert panels are detailed.

4. Conclusion

5.1 The meeting is invited to take note of this information and to consider it on the working groups' activities.

APPENDIX

A. *Main ICAO AIM global issues and developments*

- Development and implementation of AIS-AIM transition
 - Development of Annex 15 Amendment 37 and 38
 - PANS-AIM
 - Global AIM operational concept and roadmap
 - Implementation programmes and updates (Next-Gen, SESAR and CARATS)
- AIM Data collection and requirements
 - Electronic Terrain and Obstacle Data (e-TOD)
 - Aerodrome Mapping Database (AMDB)
- AIM information and data assembly, exchange, and promulgation
 - Aeronautical Information Exchange Model (AIXM)
 - Digital NOTAM
 - Integrated briefing: Flight Information Exchange Model (FIXM)
 - Use of the public Internet
 - AIP Template and Charting
- Integration with other services
 - SWIM
 - MET integration
- AIM quality system
 - AIM Quality Manual and Data integrity
- AIM staff training guidance
- Legal and institutional issues

B. AGA Expert Panel: Document PANS-AGA is on its final revision phase with a scheduled publication date for 2013. This document is a complement to Annex 14, Vol. I regarding the operational part of the airport.

C. *Aeronautical Communication Panel (ACP)*

- WRC-2012 participation and preparation of new ICAO Position for WRC 2015.
- Preparation of new Handbook on radio frequency spectrum requirements for civil aviation; Part II Frequency assignment planning criteria for aeronautical communication and navigation systems.
- Development of material for ITU-R meetings, regional telecommunication organization meetings and guidance material for interference from non-aeronautical sources.
- Future Communication System Candidate Technology assessment and recommendations
- Updates to guidance material on UAT and VDL M2 y M4.
- Amendments to AMHS implementation based on validation activities and lessons learned.

D. Navigation Systems Panel (NSP) Working Group

- Preparation of documentation for the Twelfth Air Navigation Conference (AN-CONF/12), with specific regard to navigation issues:
 - Rationalization of ground navigation aids
 - GNSS vulnerability/mitigations
 - maximizing the benefits of multi-frequency, multi-constellations GNSS solutions
 - GNSS implementation issues
 - Navigation Roadmap
- Future work will be based on the outcome of the Conference to address SARPs and guidance material for future GNSS signals and constellations, and related augmentation systems, together with maintenance of current ICAO provisions for GNSS and other nav aids.

E. Aeronautical Surveillance Panel (ASP)

- Amendment proposal for Annex 10 Volume IV. The proposed amendment contains changes to several sections of the SSR, extended squitter, and ACAS systems SARPs, including:
 - a number of updates to existing provisions, editorial changes and clarifications in light of new developments and operational experience relating to surveillance and collision avoidance systems;
 - updates to transponder requirements for compatibility with the new 1090 extended squitter ADS-B version 2 formats;
 - technical improvements based on operational experience. These include solutions for BDS swap events (i.e. inconsistent replies from transponders which result in wrong airborne information displayed to controllers) and provisions for reporting of on-the-ground status by aircraft without an automatic means for on-the-ground determination;
 - technical provisions for the reduction of 1090 MHz radio frequency pollutions; and
 - removal of the ACAS-related guidance material contained in the attachment to Annex 10, Volume IV.
- Updates to Doc 9871, Vol III.
- 1st Amendment to Doc 9863.
- 1st Amendment to Doc 9924.