



International Civil Aviation Organization

MIDANPIRG Communication, Navigation and Surveillance Sub-Group

Thirteenth Meeting (CNS SG/13)

(Jeddah, Saudi Arabia, 20 – 23 October 2024)

Agenda Item 4: Frequency Management Working Group (FM WG/3) Main Matters

PREPARATION FOR THE WRC-27

(Presented by the Secretariat)

SUMMARY

This paper recalls the ICAO position to the World Radiocommunication Conference 2023 (WRC23) and highlight the need to be prepared for the upcoming WRC-27 considering the outcomes of the ICAO Assembly resolutions: Resolution A41-7 (superseding A38-6).and Resolution A41-8 (superseding A35-15)

Action by the meeting is at paragraph 3.

REFERENCE(S)

- Resolution A41-7 (superseding A38-6).
- Resolution A41-8 (superseding A35-15)
- ICAO SL E 3/5-21/37

1. INTRODUCTION

1.1 The radio spectrum is a scarce natural resource with finite capacity for which demand is constantly increasing. Aeronautical radio services are recognized internationally to be prime users of radio frequencies, without which aircraft operation would not be capable of meeting the global demand for safe, efficient and cost-effective transport.

2. DISCUSSION

2.1 The meeting may wish to recall that the the ICAO Position, available in Arabic, Chinese, English, French, Russian and Spanish at this link: <https://www.icao.int/safety/fsmg/documents/itu-wrc23>, was approved by the ICAO Council and sent to all ICAO Contracting States and relevant international organizations under cover of ICAO State letter E 3/5-21/37 dated 18 August 2021. Active support from States is deemed to be the only means to ensure that the results of the WRC-23 reflect civil aviation’s need for spectrum.

2.2 The meeting may wish to note the below Assembly 41 Resolutions in relation with CNS.

Resolution A41-7: Support of the ICAO policy on radio frequency spectrum matters

2.3 The meeting may wish to recall that the Assembly urges Member States, international organizations and other civil aviation stakeholders to support firmly the ICAO frequency spectrum strategy and the ICAO position at WRCs and in regional and other international activities conducted in preparation for WRCs, including by the following means:

- a) working together to deliver spectrum-efficient aeronautical systems as well as frequency management that meet current “best practices”;
- b) supporting ICAO activities relating to the aviation frequency spectrum strategy and policy through relevant expert group meetings and regional planning groups;
- c) undertaking to provide for aviation interests to be fully integrated in the development of their positions presented to regional telecommunications fora involved in the preparation of joint proposals to the WRC;
- d) including in their proposals to the WRC, to the extent possible, material consistent with the ICAO position;
- e) supporting the ICAO position and the ICAO policy statements at ITU WRCs as approved by Council and incorporated in the Handbook on Radio Frequency Spectrum Requirements for Civil Aviation (Doc 9718);
- f) undertaking to provide civil aviation experts to fully participate in the development of States’ and regional positions and development of aviation interests at the ITU; and
- g) ensuring, to the maximum extent possible, that their delegations to regional conferences, ITU study groups and WRCs include experts from their civil aviation authorities and other civil aviation stakeholders who are fully prepared to represent aviation interests.

2.4 The meeting may wish to note that the Assembly urges Member States to consider, as a priority, public and aviation safety when deciding how to enable new or additional services, and to consult with aviation safety regulators, subject matter experts and airspace users, to provide all necessary considerations and to establish regulatory measures to ensure that incumbent aviation systems and services are free from harmful interference.

2.5 The meeting may wish to note that the Assembly Requests the Secretary General to bring to the attention of ITU the importance of adequate radio frequency spectrum allocation and protection for the safety of aviation;

2.6 The meeting may wish to note that the Assembly instructs the Council and the Secretary General, as a matter of high priority within the budget adopted by the Assembly, to ensure that the resources necessary to support the development and implementation of a comprehensive aviation frequency spectrum strategy as well as increased participation by ICAO in international and regional spectrum management activities are made available.

Resolution A41-8: Consolidated statement of continuing ICAO policies and practices related to a global air traffic management (ATM) system and communications, navigation, and surveillance/air traffic management (CNS/ATM) systems

2.7 The meeting may wish to note that the A41-8 emphasized on the harmonization of the implementation of the ICAO CNS/ATM systems and ensuring their resilience.

2.8 The meeting may wish to note that the Assembly:

- a) encouraged States to transition towards optimized, secure CNS systems based on complementary integration of suitable and independent aircraft capabilities, satellite- and

ground-based infrastructure which maximize resiliency and robustness to any type of interference;

- b) encouraged standardization bodies and industry to develop appropriate interference detection, mitigation and reporting capabilities for the aircraft on-board, satellite- and ground-based CNS system components, in order to ensure higher CNS resiliency, continuity of operations and prevent any cascading effects from the use of compromised position, velocity or time data;
- c) encouraged States to ensure that sufficient terrestrial CNS capabilities remain available to ensure safe operations and complement aircraft-level integration of position, velocity and time with independent surveillance information;
- d) invited ICAO to develop high-level principles on how to integrate CNS ground, space and on-board systems and capabilities to obtain more resilient positioning and timing services;
- e) urged States to apply necessary measures to avoid the commercialization/proliferation and the use of illegal transmitters such as jammers and the misuse of test and maintenance equipment which may impact CNS systems;
- f) urged States to ensure close collaboration between aviation authorities, military authorities, service providers, radio regulatory and spectrum enforcement authorities to put in place any special measures required to ensure that spectrum used by all CNS systems, and GNSS in particular, is free from harmful interference;
- g) urged States to refrain from any form of jamming, or spoofing affecting civil aviation;
- h) urged States to coordinate and notify to the maximum extent possible in advance with the air navigation services provider (ANSP) responsible for the affected airspace in case of military or other State authorized security or defence-related operations or training, potentially causing any form of jamming, or spoofing affecting civil aviation; and
- i) urged States and operators, when assessing the interference risks associated with conflict zones, to consider that the use of satellite-based CNS systems can potentially be impacted beyond those zones.

2.9 The meeting may wish to note that States are encouraged to develop their proposals and delegation briefs in preparation to the WRC-27, to ensure that decisions taken by the conference are in favour of the aeronautical requirements. Therefore, it is necessary that States:

- a) in preparing their proposals to the ITU WRC-27, include the outcomes of the A41-7 and A41-8.
- c) include representatives of their civil aviation administrations and experts from aviation in their national delegations to the extent possible, when participating in the ITU-R and regional preparatory activities for WRC-27; and
- d) ensure, to the extent possible, that their delegations to the WRC-27 include representatives of their civil aviation administrations.

2.10 The meeting may wish to note that ICAO MID Office will explore the possibility to conduct a WRC27 Preparatory Workshop in coordination with HQ in 2025.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the outcomes of the A41-7 and A41-8; and
- b) urge States to be prepared for the active participation in the WRC-27.