



ICAO

International Civil Aviation Organization

FIFTH MEETING OF SPECTRUM REVIEW WORKING GROUP (SRWG/5)

Video Teleconference, 15 – 17 March 2021

Agenda Item 2: Review outcomes of relevant meetings

UPDATES ON THE PROMINENT GIST OF THE OUTCOMES OF FSMP WG/11 MEETING

(India/Airports Authority of India)

SUMMARY

This flimsy provides updates on the outcomes of the recent 11th Working Group Meeting (Virtual) of the Frequency Spectrum Management Panel (FSMP/WG-11) held on 1-12 March, 2021

1. Flimsy-02

This flimsy is related to the prominent gist of the outcomes of the recent FSMP/WG-11 (Virtual) meeting held on 1-12 March, 2021.

2. Outcomes of FSMP/WG-11 (Virtual) meeting

The noteworthy outcomes of the FSMP/WG-11 (Virtual) meeting are as under:

2.1 National efforts to implement broadband mobile near 4200-4400 MHz

It may be pertinent to note that different administrations have already begun or are under consideration to deploy new cellular broadband technologies such as 5G in the frequency bands (portions of the 3700-4200 MHz band) adjacent to the radio altimeter frequency band 4 200 – 4 400 MHz. A number of contributions on this critical issue were received and discussed. FSMP members expressed serious concern that these deployments may cause harmful interference to radio altimeters. The meeting emphasized that the radar altimeter is one of the most critical components to an aircraft's operations and the only sensor onboard an aircraft providing a direct measurement of the aircraft's clearance over the terrain or other obstacles. This information is the most critical information in many automated landing and collision avoidance systems. Undetected failure of this sensor can therefore lead to catastrophic results and false alarms have the potential to undermine trust in the avionics systems. Considering the criticality of radio altimeter operations, the FSMP agreed for several follow-up actions inter alia the following:

- A state letter was drafted to sensitize the states to ensure public and aviation safety when deciding how to enable cellular broadband/5G services in radio frequency bands near that used by radio altimeters.
- A correspondence group on radio altimeters (CG-RA) was formed to collect information on a number of topics related to 5G/altimeter compatibility. States were urged to provide information on any technical studies on radio altimeter compatibility with other services operating in nearby frequency ranges to the CG-RA.
- The need to refine the Recommendation ITU-R M.2059 on operational and technical

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characteristics and protection criteria of radio altimeters utilizing the band 4 200-4 400 MHz was also emphasized.

2.2 ICAO Position for WRC-23

- **Completion of ICAO Position for WRC-23:** The meeting perused a consolidated list of State responses to ICAO draft WRC-23 position and completed ICAO Position for WRC-23.
- **WRC-23 Agenda Item 1.7:** This agenda item considers a new aeronautical mobile-satellite (R) service (AMS(R)S) allocation in accordance with Resolution 428 (WRC-19) for both the Earth-to-space and space-to-Earth directions of aeronautical VHF communications in the VHF band 117.975-137 MHz (i.e. space based VHF). A number of contributions, particularly on response ITU-R WP5B questions to facilitate studies on WRC-23 agenda item 1.7, were discussed.
- **WRC-23 AI 1.8 Resolution 155/FSS for UAS:** The meeting endorsed that ICAO continue to support the use of FSS in accordance with the principles contained in the current Resolution 155 (Rev. WRC-19) for C2 Links (command/control of remotely piloted aircraft). The meeting discussed the proposed text for a liaison to ITU-R WP5B to inform about the already developed SARPs concerning C2 Links and agreed to forward the revised text.
- **WRC-23 AI 1.9 Wideband HF:** A contribution providing technical considerations concerning digital technologies for commercial aviation safety-of-life applications using WideBand HF (WBHF) systems was discussed. Since actual WBHF technical characteristics are not fully available for the time being, the meeting agreed to include this contribution into the materials being developed for the next WP 5B meeting to allow WRC-23 efforts to progress.

2.3 Revision of ICAO Frequency Spectrum Handbook (Doc 9718)

- **Restructure of Volume I & Volume II:** The changes proposed to Chapters 7 and 8 of Volume I of the current Handbook, the meeting approved the changes after comments and corrections. Similarly, draft amendments to the current Handbook Volume II developed by the Navigation Systems Panel (NSP), were discussed and agreed to include the materials after minor editorial changes.
- **Materials for future Handbook Volume-B.** The meeting perused the materials concerning ITU provisions supporting the safety aspects of aeronautical systems for inclusion in the proposed new Volume-B of the revised materials Doc-9718 ICAO Spectrum handbook. During the discussion, the meeting noted the need to review and revise Recommendation ITU-R SM. 1535-0 (07/2001) on the protection of safety services from unwanted emissions. The meeting informed that the review proposals should be eventually taken up by administrations not from ICAO.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this flimsy; and
- b) also note that further elaborate information/updates are available in the FSMP site.
