



INTERNATIONAL CIVIL AVIATION ORGANIZATION

Third Meeting of APIRG Infrastructure and Information Management Sub Group (IIM/SG/3)
(Virtual Meeting, 12-14 October 2020)

Agenda Item 04: Status of Implementation of the Regional Projects Adopted by APIRG: AFI
Aeronautical Communication, Navigation, Surveillance, Infrastructure, Spectrum and Systems
Regional Projects (CNS)

Summary of Outcomes of African Telecommunication Union (ATU) and Frequency Spectrum
Management Panel (FSMP) Preparations to World Radio Conference 2023 (WRC-23)

(Presented by Gerald Agaba)

Table with 1 column and 4 rows. Row 1: SUMMARY. Row 2: This paper provides highlights of the works of the ICAO Frequency Spectrum Management Panel (FSMP) in preparation for the World Radiocommunication Conference 2023 (WRC-23). Row 3: This paper also highlights the works of ATU in preparation for WRC-23. Row 4: Action by the meeting is at paragraph 4. Row 5: REFERENCE: Draft 10th FSMP report, APM23-1 report. Row 6: Related ICAO Strategic Objective (s):, Related ASBU KPIs & B0 Modules:

1. INTRODUCTION

1.1 The ICAO Frequency Spectrum Management Panel (FSMP) at its 10th working group meeting held from 17- 26 August 2020, virtually discussed the draft ICAO position for the International Telecommunication Union (ITU) World Radiocommunication conference 2023. Although the positions have not yet been agreed upon, these provide a good building block for States to follow up with their respective frequency regulators. The goal of the positions is to ensure the protection of frequencies for radiocommunication and radionavigation systems for the current and future safety of flight applications.



- 1.2 ATU held its first African Preparatory Meeting for World RadioCommunication conference 2023 (APM23-1) virtually from 3 to 7 August 2020. The meeting was attended by over 450 participants from 42 African states and organizations across the region, including some aviation administration representatives. The main objectives included the following;
- a) Discussion of key lessons from WRC-19
  - b) Establishing the ATU preparatory work plan for WRC-23, including the appointment of leadership to the working groups
  - c) Noting the implementation status of ATU strategic plan elements related to radiocommunications that included the special case of AU COVID-19 Action plan,
  - d) Consider preliminary views on WRC-23 agenda items from countries, sub-regions, and the general industries' views on critical issues, including recommended focus areas.

## DISCUSSION

### 2. **The Outcome of FSMP on Development of Draft ICAO Position to WRC-23**

The draft ICAO position to WRC-23 will contains text for consideration by States on protecting the aeronautical spectrum from any form of interference, considering that some frequencies are used for safety of life services. The full draft report can be accessed from the FSMP page on the ICAO website. The following are the key WRC-23 agenda items of interest to aviation;

- 2.1 **Agenda Item 1.1:** To consider, based on the results of the ITU R studies, possible measures to address, in the frequency band 4 800-4 990 MHz, protection of stations of the aeronautical and maritime mobile services located in international airspace and waters from other stations located within national territories, and to review the pfd criteria in No. 5.441B in accordance with Resolution 223 (Rev.WRC 19).
- 2.2 **Agenda Item 1.2:** To consider identification of the frequency bands 3 300-3 400 MHz, 3 600 3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz, and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 245 (WRC 19).
- 2.3 **Agenda Item 1.3:** To consider primary allocation of the band 3 600 3 800 MHz to mobile service within Region 1 and take appropriate regulatory actions, in accordance with Resolution 246 (WRC 19).
- 2.4 **Agenda item 1.4:** To consider, in accordance with Resolution 247 (WRC 19), the use of high-altitude platform stations as IMT base stations (HIBS) in the mobile service in certain frequency bands below 2.7 GHz already identified for IMT, on a global or regional level.



- 2.5 **Agenda Item 1.6:** to consider, in accordance with Resolution 772 (WRC 19), regulatory provisions to facilitate radiocommunications for sub-orbital vehicles.
- 2.6 **Agenda Item 1.7:** to consider 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 all or part of the frequency band 117.975-137 MHz, while preventing any undue constraints on existing VHF systems operating in the AM(R)S, the ARNS, and in adjacent frequency bands.
- 2.7 **Agenda Item 1.8:** to consider, on the basis of ITU R studies in accordance with Resolution 171 (WRC 19), appropriate regulatory actions, with a view to reviewing and, if necessary, revising Resolution 155 (Rev.WRC 19) and No. 5.484B to accommodate the use of fixed-satellite service (FSS) networks by control and non-payload communications of unmanned aircraft systems.
- 2.8 **Agenda Item 1.9:** to review Appendix 27 of the Radio Regulations and consider appropriate regulatory actions and updates based on ITU R studies, in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (route) service and ensure the coexistence of current HF systems alongside modernized HF systems, in accordance with Resolution 429 (WRC 19).
- 2.9 **Agenda Item 1.10:** To conduct studies on spectrum needs, coexistence with radiocommunication services, and regulatory measures for possible new allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications, in accordance with Resolution 430 (WRC 19).
- 2.10 **Agenda Item 1.11:** To consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System (GMDSS) and the implementation of e navigation, in accordance with Resolution 361 (Rev.WRC 19).
- 2.11 **Agenda Item 1.13:** to consider a possible upgrade of the allocation of the frequency band 14.8-15.35 GHz to the space research service, in accordance with Resolution 661 (WRC 19).
- 2.12 **Agenda Item 1.15:** to harmonize the use of the frequency band 12.75-13.25 GHz (Earth-to-space) by earth stations on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service globally, in accordance with Resolution 172 (WRC 19).
- 2.13 **Agenda Item 1.16:** to study and develop technical, operational, and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by non-geostationary fixed-satellite service earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution 173 (WRC 19).
- 2.14 **Agenda Item 1.17:** to determine and carry out, on the basis of ITU R studies in accordance with Resolution 773 (WRC 19), the appropriate regulatory actions for the provision of inter-satellite



links in specific frequency bands, or portions thereof, by adding an inter-satellite service allocation where appropriate.

2.15 **Agenda Item 4:** In accordance with Resolution 95 (Rev.WRC 19), to review the Resolutions and Recommendations of previous conferences with a view to their possible revision, replacement, or abrogation.

2.16 **Agenda Item 7:** to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution 26 (Rev.WRC 19).

### 3. **ATU AMP 23-1 Outcome.**

3.1 **Key Lessons from WRC-19.** It was noted that the preparations of the region to the WRC-19 resulted in significant successes at the conference. Most of the outcomes favored the region's positions, which were attributed to the excellent coordination made within the region under the ATU General secretariat's stewardship. The following were the main observations and lessons learned;

- a) Regional voices were the primary basis for the conference, especially in deadlock situations.
- b) The ATU spectrum and leadership groups proved effective during the conference through decision-making in caucus meetings and urgent situations.
- c) Most of the decisions from the meeting were in line with the common African position
- d) Although the region had reached common positions on about 95% of the agenda items, there were still some contentious items on some frequency band, which included 3600- 3800MHz
- e) Partial participation of members of some administrations

3.2 **ITU Preparatory Work plan for WRC-23:** The meeting considered the work plan for ITU to WRC-23. The meeting also considered the outcome of the first conference preparatory meeting for WRC-23 (CPM 23-1). These included the structure; which comprised of four topics and 19 agenda items for consideration at the meeting as follows;

- a) Fixed-mobile and broadcasting issues (agenda items 1.1 to 1.5);
- b) aeronautical and maritime issues (agenda items 1.6 to 1.11);
- c) science issues (agenda items 1.12 to 1.14);
- d) satellite issues (agenda items 1.15 to 1.19 and agenda item 7);

The texts of the agenda items to consider at WRC23 are contained in Resolution 811(WRC-19).

3.3 **Work plan and proposed leadership for ATU in preparation for WRC-23:** The meeting considered in principal the appointment of the leadership of the ATU WRC-23 working groups, which included the chair, vice-chair, and agenda item leadership. The sub-regional proposals on working group leadership and agenda item champions were endorsed. The following are Africa's sub-regional groups, EACO, ECCAS, ECOWAS, SADC, and North Africa.

3.4 **ATU strategic plan elements on radiocommunications included the special case of AU COVID-19 Action plan:** The meeting noted the implementation of ATU strategic plan 2019 to



2022 elements including the African Union COVID-19 Action plan, which is based on the ATU strategic plan 2019-2022, which includes the African spectrum allocation plan (AfriSAP), harmonization of frequency for emergency Telecoms (PPDR), satellite resources strategy for Africa, satellite licensing model framework for Africa and recommendations on emerging technologies and spectrum recommendations.

3.5 **Preliminary views on WRC-23 agenda items.** The meeting noted some preliminary views on WRC23 agenda item 1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8, 9.1 topic c, 1.11,1.15, 1.17, 1.18 from various countries and administrations.

#### 4. **ACTION BY THE MEETING**

4.1 The meeting is invited to:

- a) Note the content of this Working Paper.
- b) Support the works of the Aeronautical Frequency Management Project.
- c) Take appropriate actions to follow up with State frequency Regulators when the final position is developed and shared.

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