



International Civil Aviation Organization

**MIDANPIRG Communication Navigation and Surveillance
Sub-Group (CNS SG)**

Sixth Meeting

(Tehran, Iran, 9 – 11 September 2014)

Agenda Item 5: Performance Framework for CNS Implementation in the MID Region

SUPPORTING ICAO POSITION TO WRC 15

(Presented by Oman)

SUMMARY

This paper provides proposals on the ICAO Position relating to the forthcoming International Telecommunication Union (ITU) World Radio Communication Conference (2015) (WRC-15) developed by the Secretariat with the assistance of the Aeronautical Communications Panel (ACP), Working Group F (frequency).

Action by the meeting is at paragraph 3.

REFERENCES

- ICAO Position to WRC 15
- MIDANPIRG/12 Report

1. INTRODUCTION

1.1 MID The MIDANPIRG/14 meeting was held in Jeddah, Saudi Arabia, from 15 to 19 December 2013. The meeting adopted thirty eight (38) Conclusions and Decisions of which ten (10) Conclusions and two (2) Decisions are considered relevant to the work of the CNS Sub-group. Concerning the ICAO Position to WRC it was agreed that States provide support and ICAO to send State Letter to further educate the higher authorities in the States.

2. DISCUSSION

2.1 The meeting is reminded that Frequency Spectrum is limited resource which is in demand by all States and Organizations. It should also be noted that Frequency Spectrum is now becoming very commercial as it can bring a lot of revenue to the State. The Telecommunication Authorities have now realised this and have started to utilise this.

2.2 The meeting may wish to note that the ITU WRC 15 meeting is scheduled to be held in Geneva at the end of 2015. All WRC meetings are preceded by a Conference Pre Meeting (CPM) and for the WRC 12 meeting the CPM was held in Geneva the Fourth Quarter of 2014. CPM will represent the best information on technical, operational and regulatory/procedural issues relevant to the WRC Agenda available at the time of its preparation and should provide a good basis for the discussions at the Conference (WRC 15). The CPM meeting will develop all the methods to satisfy each Agenda Item of the WRC Conference.

2.3 The meeting is requested to note that the report of the CPM will be used as the basis of all the discussions during the WRC meeting. WRC 12 Agenda Items have been distributed into 6 different chapters:

CHAPTER 1 – Maritime and aeronautical issues
CHAPTER 2 – Radiolocation and amateur issues
CHAPTER 3 – Fixed, mobile and broadcasting issues
CHAPTER 4 – Science issues
CHAPTER 5 – Satellite issues
CHAPTER 6 – Future work programme and other issues

Each chapter will have Agenda Items which are related to it.

2.4 During the CPM these Agenda Items are discussed in length and methods to satisfy them proposed. It is normal practice to have several methods suggested by different Organizations tabled during the meeting. If there are several methods which can be consolidated they are. These methods are then put in CPM Report. States then have to select the best method to satisfy their position and this is then discussed within the ITU Groupings such as ASMG (Arab Spectrum Management Group). These Groupings will take their position to the WRC meeting and usually they are shared between them. It should be noted also that States and Groupings will lobby a lot during the period between the CPM and the WRC meetings.

2.5 ICAO attends ITU meetings as a UN Organization but as an observer only they do not have any voting power. States only have the voting power. Thus it is very important for all Civil Aviation Authorities to convince their corresponding Telecommunication Authorities in their States to support the position of ICAO in the WRC meetings.

2.6 The ICAO position on the WRC Agenda Items is a general one and is supposed to be used as a guideline. The CPM Report for the WRC 15 is now being discussed in all the ITU Groupings and will be finalized in the CPM meeting to be held later this year. The ITU Groupings are holding regular meetings now to agree on a common stand at the CPM. The Civil Aviation Authorities in the MID Region should now present to their Telecommunication Regulatory Authorities counterparts in their States the ICAO Stand on the WRC 15 Agenda Items. There are several Agenda Items which are very critical to us that it is important to concentrate on them. The following is a summary of these Items with the effect on the ICAO Frequency allocations:

- a) **Agenda Item 1.1** To consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution 233 (WRC-12). ITU are studying all the bands below 6 GHz. Some of the bands which are below 6GHz are not of interest to IMT but ICAO has so many allocations which are of interest to IMT and if no support is there then we might face major problems in the future. Some examples of these are:

- 1) DME 960-1215 MHz. Initial ITU studies have indicated that this is one of the bands which can be looked at for IMT allocations.

- 2) 1030 & 1090 MHz used for MSSR, ADS-B, MLAT and ACAS. Studies are being conducted to determine if these can be candidates for IMT.
 - 3) 978 MHz for ADS-B UAS. Studies are being conducted to determine if these can be candidates for IMT Dangerous.
 - 4) GNSS 1164- 1215 MHz. ICAO conducted studies to make sure that this allocation to GNSS will not interfere with DME. ITU is also trying to allocate to IMT.
 - 5) 960 1164 MHz ICAO are conducting studies to use this for Aeronautical Communications Future Communication System without affecting DME operations. ITU is also trying to allocate to IMT.
 - 6) 1215-1350 MHz PSR. Studies are being conducted to determine if these can be candidates for IMT.
 - 7) 1559 1610 MHz Global Navigation Satellite System (GPS, GLONASS....) Studies have shown no sharing is possible but ITU is still conducting further studies.
 - 8) 1545-1555 & 1646.5-1656.5 & 1610-1626.5 MHz for Aeronautical Mobile Satellite Communication System. Studies have shown no sharing is possible but ITU is still conducting further studies.
 - 9) 3400-4200 & 4500-4800 MHz FSS. Studies have shown potential interference from IMT but still further studies are being conducted.
 - 10) 4200-4400 MHz Aircraft Radio Altimeter. Studies are being conducted to determine if these can be candidates for IMT.
 - 11) 5000-5250 MHz MLS. Initially this band was allocated to MLS. Since this system has not been successful, most of the band is now allocated to other ICAO uses as approved in WRC 07 & 12. The allocations are 5000-5150 MHz UAS Terrestrial & Satellite Communications, 5091-5150 MHz Aero MACs, 5091-5250 MHz Aeronautical Telemetry. ITU wants to use this as pretext to allocate this band to IMT which is not possible now.
 - 12) 5350-5470 MHz Airborne Weather Radar. Studies are being conducted to determine if these can be candidates for IMT.
 - 13) 5850-6425 MHz FSS. Studies are being conducted to determine if these can be candidates for IMT. Dangerous.
 - 14) 2700-3100 MHz PSR & Weather Radars. Studies are being conducted to determine if these can be candidates for IMT.
- b) **Agenda Item 1.4** To consider possible new allocation to the amateur service on a secondary basis within the band 5 250-5 450 kHz in accordance with Resolution 649 (WRC-12)

New allocation 5250-5450 MHz Allocation for Amateur. We need to make sure regulations are there that they will not interfere with the adjacent AM(R)S allocations.

- c) **Agenda Item 1.5** To consider the use of frequency bands allocated to the fixed-satellite service not subject to Appendices 30, 30A and 30B for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces, in accordance with Resolution 153 (WRC-12).

Need to make sure ICAO is involved in the operational requirements of the UAS during ITU Studies.

- d) **Agenda Item 1.6** To consider possible additional primary allocations:
- to the fixed-satellite service (Earth-to-space and space-to-Earth) of 250 MHz in the range between 10 GHz and 17 GHz in Region 1; and
 - to the fixed-satellite service (Earth-to-space) of 250 MHz in Region 2 and 300 MHz in Region 3 within the range 13 – 17 GHz; and review the regulatory provisions on the current allocations to the fixed-satellite service within each range, taking into account the results of ITU-R studies, in accordance with Resolutions 151 (WRC-12) and 152 (WRC-12), respectively.

Request ITU to conduct studies to make sure no interference to ICAO Systems.

- e) **Agenda Item 1.7** To review the use of the band 5 091 – 5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to feeder links of the non-geostationary mobile-satellite systems in the mobile-satellite service) in accordance with Resolution 114 (Rev.WRC-12).

Make sure this allocation is made permanent to ICAO and request to remove the protections set in WRC 12.

- f) **Agenda Item 1.10** To consider spectrum requirements and possible additional spectrum allocations for the mobile-satellite service in the Earth-to-space and space-to-Earth directions, including the satellite component for broadband applications, including International Mobile Telecommunications (IMT), within the frequency range from 22 GHz to 26 GHz, in accordance with Resolution 234 (WRC-12)

Make sure the ICAO allocation 24.25-24.65 GHz is not affected.

- g) **Agenda Item 1.11** To consider a primary allocation for the Earth exploration-satellite service (Earth-to-space) in the 7-8 GHz range, in accordance with Resolution 650 (WRC-12).

Make sure the ICAO allocation 8750-8850 MHz is not affected.

- h) **Agenda Item 1.12** To consider an extension of the current worldwide allocation to the Earth exploration-satellite (active) service in the frequency band 9 300 – 9 900 MHz by up to 600 MHz within the frequency bands 8 700 – 9 300 MHz and/or 9 900 – 10 500 MHz, in accordance with Resolution 651 (WRC-12).

ICAO opposes allocations in 9000-9200 until studies have been conducted and if done no protection should be requested.

- i) **Agenda Item 1.16** To consider regulatory provisions and spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radio communication in accordance with Resolution 360 (WRC-12).

Make sure these do not affect SAR Aircrafts.

- j) **Agenda Item 1.17** To consider possible spectrum requirements and regulatory actions, including appropriate aeronautical allocations, to support wireless avionics intra-communications (WAIC), in accordance with Resolution 423 (WRC-12).

To support the allocations for WAIC and make studies that existing systems are not affected.

- k) **Agenda Item 8** 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-07).

Footnote number 5.430A for African States to remove names for protection of VSAT to be used for safe operations of Aviation and MET Services.

2.7 The meeting is requested to use this information when addressing this issue with their corresponding Telecommunication Authorities on an urgent basis as States and ITU Groupings are now taking their final position prior to the CPM and WRC 15 Meetings. It should be noted the ITU Groupings including the ASMG Group are having their last meetings where they will formulate their last stand and States should make the effort to attend the ITU Groupings meetings, the CPM and the WRC15 meetings to support the ICAO Stand. The Civil Aviation Community should understand that without their support, ICAO are not capable of doing it alone.

DRAFT CONCLUSION 6/XX: SUPPORT ICAO POSITION TO WRC 15

That, MID States be urged to,

- a) *include ICAO Position on WRC-15 in their State Position to the extent possible;*
- b) *support Civil Aviation Authorities, aviation spectrum experts to participate actively in the national and regional level activities related to WRC-15 including ITU study groups to support ICAO Position;*
- c) *support Civil Aviation Authorities, aviation spectrum experts to participate in WRC-15 and coordinate with the ICAO delegation to the conference; and*
- d) *use the methods suggested for the WRC15 meeting when prepared in addressing the ICAO position.*

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information in this working paper; and
- b) endorse Conclusion in para 2.5.

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