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WORKING PAPER

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Mexico City, Mexico, 9 to 12 December 2014

Agenda Item 5: World Radiocommunication Conference (2015) (WRC-2015) Activities

**THE ICAO POSITION FOR THE INTERNATIONAL TELECOMMUNICATION UNION (ITU)
WORLD RADIOCOMMUNICATION CONFERENCE (2015) (WRC-15) AND STATE SUPPORT
REQUESTED**

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This working paper recalls the State support for the ICAO position for WRC-2015, including the support for the C-band aeronautical telecommunications.	
Action:	The suggested actions are detailed in Section 3
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Environmental Protection
<i>References:</i>	<ul style="list-style-type: none">• Regional Preparatory Workshop for International Telecommunications Union World Radiocommunication Conference (ITU WRC-15) and Twenty-eighth Meeting of the Aeronautical Communication Panel Working Group - F (ACP WG-F/28), ICAO SAM Regional Office, Lima, Peru, March 2013• Assembly – 38th Session of the Assembly, 24 September to 4 October 2013, ICAO Headquarters, Montreal, Canada• Electronic Bulletin Ref: E 3/5. 15-13/57, ICAO Position for the ITU WRC-15, 2 July 2013.• First NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/1), Mexico City, Mexico, 29 July to 1 August 2013• Fourth North American, Central American and Caribbean Working Group Meeting (NACC/WG/4), Ottawa, Canada, 24 to 27 March 2014• Twenty-sixth MEVA Technical Management Group Meeting (MEVA TMG/26) ICAO NACC Regional Office, Mexico City, Mexico, 4 to 7 June 2013

1. Introduction

1.1 The radio frequency spectrum is a scarce natural resource with finite capacity limits and for which demand is constantly increasing. The availability of the necessary radio frequency spectrum is a critical aspect for safety of civil aviation and the effective implementation of existing and future communications, navigation and surveillance systems and air traffic management.

1.2 Radio frequency spectrum congestion imposes on all users the duty of spectrum-efficient operation. The adequate allotment/assignment of frequencies for aeronautical national/international use, based on regional agreements and coordinated between States and ICAO, is an indispensable task for the optimum use of radio frequency spectrum and safety of aviation operations.

1.3 Due to the importance of this matter, States and Territories adopted the ICAO Twelfth Air Navigation Conference Assembly Recommendation 1/12 (*Development of the aeronautical frequency spectrum resource*) and the Assembly Resolution A38-6 (*Support of the ICAO policy on radio frequency spectrum matters*), urging 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.

1.4 ICAO submitted the ICAO position as approved by the ICAO Council through an electronic bulletin, Ref: E 3/5. 15-13/57, dated 2 July 2013.

2. Discussion

2.1 Major threats to aviation include the possibility of harmful interference to essential aeronautical radionavigation and radiocommunication systems. This could have a direct and severe impact on the safety, as well as the efficiency of flight operations. To satisfy the future frequency spectrum needs of aviation, long term planning and engagement is required. In order to provide a proactive response to the increasing pressure of other frequency spectrum dependent industries, active participation by the aviation regulatory authorities and industry is required in the national and international fora leading to and including WRC-15.

2.2 To this extend, ICAO and the CAR region has expressed its support to this position:

- the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) formulated Conclusion ANI/WG/1/10 - *Active State Support to ICAO Position for WRC-15*; urging States to include ICAO WRC-2015 Position to their ITU related meetings and the inclusion of aviation experts in the national delegations that participate in the ITU and regional preparatory activities for WRC-15.
- Assembly Resolution A38-6 instructs the Council, the Secretary General and the States to take action as a high priority matter
- The NACC/WG/04 formulated conclusion 4/5

2.3 ICAO has undertaken several activities for assisting the States for this support:

- a) Regional Preparatory Workshop for International Telecommunications Union World Radiocommunication Conference (ITU WRC-15) conducted to support States in the appropriate management of the frequency spectrum and preparing to support the ICAO position at ITU WRC-15. The workshop noted the importance of protecting the C- band in context with WRC-15 Agenda item 1.1 (the mobile industry is looking for over 1000 MHz of additional spectrum between 300 – 5000 MHz, and a number of aeronautical bands are under scrutiny), and that all interference cases to aeronautical VSAT must be duly recorded and documented for appropriate presentation within the ITU-R and WRC process when discussing future use and access of the Fixed Satellite-based Service (FSS) C-band. The workshop formulated several recommendations and observations for the States/Territories and International Organizations to take note. These recommendations are included on the summary of discussion of the workshop: http://www.lima.icao.int/MeetProg/mt_MeetingDocumentation.asp?wShortTitle=PREPITUWRC15&wLanguage=S&wYear=2013;
- b) introduce this topic in all the working group meetings such as the ANI/WG and in GREPECAS; and
- c) maintains a list of States Points of Contact (PoCs) in support of the ICAO WRC-15 Position for coordination and mutual support

2.4 During the MEVA TMG/26 Meeting, ICAO highlighted the recommendation of the Regional Preparatory Workshop for ITU to ensure protection for these WRC-agenda items for the Aeronautical VSAT networks in the CAR/SAM Regions, providing several studies and other information to ensure protection of the C-band for aeronautical purposes:

- Report ITU-R S.2199: Studies on compatibility of broadband wireless access systems and FSS networks in the 3400-4200 MHz band
- Recommendation ITU-R SF.1486: Sharing methodology between fixed wireless access systems in the fixed service and VSAT in the FSS in the 3400-3700 MHz band
- Recommendation 724 (WRC-07): Use by civil aviation of frequency allocations on a primary basis

2.5 Similarly, Conclusion MEVA TMG/26/21 was formulated:

CONCLUSION 26/21 **REVIEW AND AGREEMENT ON ACTIONS TO FOLLOW-UP
ON AN-CONF/12 RECOMMENDATION 1/14 AND
RECOMMENDATIONS FROM THE REGIONAL
PREPARATORY WORKSHOP FOR ITU WRC-15**

That in order to protect the use of the C-band of the MEVA Network, all MEVA Administrations:

- a) contact their national radiofrequency spectrum authorities to obtain their support for C-band protection as presented in AN-Conf/12 Recommendation 1/14 - *Long-term very small aperture terminal spectrum availability and protection* and the Regional Preparatory Workshop for ITU WRC-15 Recommendation: *To ensure protection for these WRC-agenda items for the Aeronautical VSAT networks in the CAR/SAM Regions*;
- b) consider the studies for C-band protection; and
- c) report all aeronautical VSAT interference cases to the MEVA TMG, including recording and documenting each case.

2.6 The process of international competition between expanding radio services, which takes place in the ITU, obliges all existing spectrum users, aeronautical and non-aeronautical alike, to continually defend and justify the retention of frequency bands or the addition of new bands to those already allocated to their service. Civil aviation requirements continue to grow, requiring more navigation and communication facilities, thus creating ever-increasing pressure to an already stretched resource, similarly to other, non-aviation users, with whom aviation shares the frequency spectrum resource. Accordingly, civil aviation must develop and present its agreed policies and its quantified and qualified statements of requirement for radio frequency spectrum, so as to ensure continuing availability and access to the frequency spectrum resource and, ultimately, the on-going viability of air navigation services throughout the world.

2.7 For the CAR Region, the Interamerican Commission of Telecommunication, CITELE, is the regional forum for expressing this support. CITELE may receive all the States position, individually or as a group, as for e.g., The Caribbean Telecommunication Union (CTU).

2.8 Currently, the States are still providing their decision for the different positions to present in the WRC-2015 (November 2015). The last CITELE meeting in Merida Yucatan, the XXIV Meeting of the Permanent Consultative Commission: Radio communications (XXIV PCC.II) (September 2014) expressed some support to ICAO position item; however no Caribbean support was presented. Similarly the need to register Aeronautical VSAT nodes/network was commented. The next two meetings for States to expressed their support to these positions are in February 2015 (Medellin: (XXV PCC.II) and August 2015 (Ottawa: (XXVI PCC.II).

2.9 The ICAO Position as introduced in 2013 will in all likelihood have some updates in time before WRC-15. None of the updates will however change the position; they will merely be clarifications in light of studies within ICAO and ITU-R. There is one notable exception to this. A position in support of Satellite reception of ADS-B transmissions by means of 1090ES will be developed. ICAO had started working on updates to the ICAO position during the latest meeting of ACP (FSMP) WG-F, 6-10 October. The WG-F will finish drafting any proposed updates in February, after which these updates will be addressed by the ANC before eventual approval by Council in the June timeframe (2015).

3. Suggested Action

3.1 The Meeting is invited to:

- a) take note of the efforts of the States/Territories and ICAO to protect and ensure the optimum use of the aeronautical spectrum;
- b) report any progress regarding conclusion MEVA TMG/26/21, paragraph 2.5;
- c) support ICAO position including the protection of the C-Band considering the lack of decision by Caribbean States and the need to register the VSAT Nodes as informed in paragraphs 2.7 and 2,8 ; and
- c) take any other action as deemed necessary.

— END —