



*International Civil Aviation Organization*

**REGIONAL PREPARATORY GROUP (RPG) MEETING FOR ITU  
WORLD RADIOCOMMUNICATION CONFERENCE 2015  
(WRC-2015)**

Pattaya, Thailand, 11 – 12 March 2014

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**Agenda Item 1: Introduction**

**OUTCOME OF ANC/12, REGIONAL FOLLOW-UP AND PREPARATION  
FOR ITU WRC-2015**

(Presented by Secretariat)

**SUMMARY**

Next World Radiocommunication Conferences (WRC-15) is scheduled to be held in November 2015. ICAO Position on the Agenda Items of interest to civil aviation was approved by the ICAO Council on 28<sup>th</sup> May 2013. This paper provides the approved ICAO position, follow-up by APANPIRG's groups and invites States to support ICAO Position at national and regional forums.

**1. INTRODUCTION**

1.1 World Radiocommunication Conferences (WRC) is held once every three to four years. The next WRC that is World Radiocommunication Conference 2015 (WRC-15) will be held in Geneva, Switzerland from 2 to 27 November 2015.

**2. DISCUSSION**

2.1 International agreements on the allocation and use of the radio frequency spectrum are made at the World Radiocommunication Conferences (WRCs). These agreements are laid out in the ITU Radio Regulations, which specify the allocation of radio frequency spectrum to the user services. ICAO has been recognized by both the States and the ITU as the international body with the competence to coordinate the aeronautical input to ITU discussions on radio frequency spectrum matters. ICAO retains a privileged position at the WRCs as an observer in a special advisory capacity, while not accorded the right of a direct vote or making direct technical proposals.

2.2 ICAO Position at WRC reflects the coordinated requirements of the international civil aviation community. The development and review of the proposed ICAO Position for WRC-15 has followed the established process, as shown in the table below:

Subject	Preliminary review by ANC and WP no.	State letter and date	Final review by the ANC and WP no.	No. of replies at final review <sup>1</sup>
Draft ICAO Position on items of interest to aviation on the agenda of the ITU WRC-15	30 October 2010 (ANC 191-7) AN-WP/8696	E 3/5-12/62 dated 28 November 2010	30 April 2013 (ANC 193-6) AN-WP/8742 and Add No. 1	41 (18) States 2 Int. Orgs Total: 43

2.3 The ICAO Position for WRC-15 was approved by the ICAO Council on 28 May 2013. A copy of the approved ICAO Position is provided in the **Appendix** to this paper.

### **Nature and scope of the ICAO Position**

2.4 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, the ICAO Position, aims at protecting aeronautical spectrum for all radiocommunication and radionavigation systems used for ground facilities and on board aircraft.

2.5 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 ongoing viability of air navigation services throughout the world.

2.6 The ICAO Position addresses all regulatory aspects on aeronautical matters on the agenda for the WRC-15. The items of main concern to aviation include the following:

- identification of additional frequency bands for the International Mobile Telecommunications (IMT). Under this agenda item, the telecommunications industry is seeking up to 1200 MHz of additional spectrum in the 300 MHz to 6 GHz range for mobile and broadband applications. It is expected that a number of aeronautical frequency bands will come under pressure for potential repurposing, especially some of the Primary Surveillance Radar (PSR) bands. Existing frequency allocations which are vital for the operation of aeronautical very small aperture terminal (VSAT) ground-ground communication networks, especially in tropical regions, are also expected to come under pressure. Due to decisions made by a previous WRC, this has already become a problematic issue in Africa. WRC-15 agenda items 1.1 and 9.1.5 refer;
- potential radioregulatory means to facilitate the use of non-safety satellite service frequency bands for a very safety critical application, the command and control link for remotely piloted aircraft systems (RPAS) in non-segregated airspace. The fixed satellite service bands in question are being used today to support RPAS in segregated airspace, however these frequency bands do not enjoy the freedom of

interference typical to aeronautical safety allocations and there are no special measures in the Radio Regulations applicable to the protection of these frequency bands. WRC-15 agenda item 1.5 refers;

- review the continued use of the band 5 091 – 5 150 MHz by the fixed satellite service. A potential solution to this item may improve spectrum access for safety critical aeronautical radionavigation and radiocommunication systems in this frequency band. WRC-15 agenda item 1.7 refers; and
- possible aeronautical allocations to support wireless avionics intra-communications (WAIC). WAIC systems have been identified by the aerospace industry as a means to increase cost-efficiency and environmental friendliness, while maintaining required levels of safety, through the use of wireless technology, potentially making more efficient airframe designs possible. WRC-15 agenda item 1.17 refers.

2.7 In addition to WRC-15 agenda item 1.1, potential solutions to a number of other agenda items to be addressed during WRC-15 may negatively impact aeronautical spectrum. These include new allocations to the fixed and mobile satellite services (items 1.6 and 1.10), extended allocation to the earth exploration satellite service (items 1.11 and 1.12), a potential new allocation to the amateur service in the 5 MHz band (item 1.4), regulatory provisions and spectrum allocations to enable possible new maritime Automatic Identification System (AIS) technology applications (item 1.16).

2.8 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.

### **Active Support of the ICAO Position**

2.9 Support for the ICAO Position (which is available at <http://www.icao.int/safety/acp/repository/057e.pdf>) within States, when developing their proposals and delegation briefs in preparation to the WRC-15, is required to ensure that decisions taken by the ITU WRC are in favour of the aeronautical requirements (Assembly Resolution A36-25 refers). Therefore, it is necessary that States:

- a) in preparing their proposals to the ITU WRC-15, include, to the maximum extent possible, the material contained in Appendix;
- b) undertake to provide for aviation authorities to fully participate in the development of States' positions to ensure support for the ICAO Position at the WRC-15;
- 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-15; and
- d) ensure, to the extent possible, that their delegations to the WRC-15 include representatives of their civil aviation administrations.

2.10 Assembly Resolution A36-25 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 increased participation by ICAO to international and regional spectrum management activities are made available. With a view to increasing the awareness of and support for the aviation requirements of ITU WRC-15, ICAO will undertake, within the budget limits of the Organization and wherever possible, to present the ICAO Position to regional telecommunication organizations, such as the Asia-Pacific Telecommunity (APT), African Telecommunication Union (ATU), European Conference of Postal and Telecommunications Administrations (CEPT), Inter-American Telecommunication Commission (CITEL), Arab Spectrum Management Group (ASMG) and the Regional Commonwealth in the Field of Communications (RCC).

#### **Follow-up by CNS SG/17 and APANPIRG/24**

2.11 The CNS SG/17 meeting held from 14 to 17 May 2013 discussed the WRC-2015 and aeronautical spectrum management related issues. The meeting noted the ICAO's draft position on various Agenda Items. States were urged to support ICAO Position at various forums and to reflect such approach in their national position for the WRC 2015. New Zealand informed the CNS SG/17 that forums in Australia and New Zealand usually gather ANSP, frequency planners and CAAs. It was confirmed that the ICAO's position would be considered as a basis for aviation position in the New Zealand's forum.

2.12 The APANPIRG/24 meeting noted that the ICAO's position on various Agenda Items for WRC-2015 was approved by the ICAO Council on 28 May 2013. A copy of the approved ICAO Position was provided in the Appendix to IP/09. States/Administrations were requested to defend ICAO Position at various national/regional forums where spectrum allocation issues are discussed. States were also urged to make sure that ICAO Position is suitably reflected in the national position of the State.

2.13 Issues related to spectrum management of the radio frequency bands used for aeronautical applications were also discussed in the 12<sup>th</sup> Air Navigation Conference under Agenda Item 1 and Agenda Item 6. The AN-Conf/12 developed Recommendation 2/3 on Security of air navigation systems, Recommendation 6/7 – Assistance to States in mitigating global navigation satellite system vulnerability, and the Recommendation 6/8 – Planning for mitigation of global navigation satellite system vulnerabilities.

2.14 The CNS SG/17 and APANPIRG/24 meetings reviewed the related recommendations of the AN-Conf/12: Recommendation 2/3 on Security of air navigation systems, Recommendation 6/7 – Assistance to States in mitigating global navigation satellite system vulnerability, and the Recommendation 6/8 – Planning for mitigation of global navigation satellite system vulnerabilities.

2.15 The APANPIRG/24 meeting was informed about the latest status of the updated Volume I - of Doc 9718 Vol. I which includes the ICAO Position for WRC-15, the Frequency Spectrum Policy Statements (Chapter 7) and the new Frequency Spectrum Strategy (Chapter 8). The updated document was reviewed and agreed by the Air Navigation Commission on 2 May 2013.

2.16 The material in the new Volume II of Doc 9718, which is in support of Amendment 88 to Annex 10 Vol. V, is mature and stable. It was approved by the ICAO Secretary General. The final version was published in September 2013.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to note the information provided in this Paper as an introduction to the meeting and to ICAO's position regarding WRC-15, available at <http://www.icao.int/safety/acp/repository/057e.pdf>.

3.2 Moreover, States/Administrations, benefiting from the work done during the Regional Preparatory Group meeting, are urged to:

- a) to defend ICAO Position at various national/regional platforms where spectrum allocation issues are discussed; and
- b) to make sure that ICAO Position is suitably reflected in the national position of the State.

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