



WG-F Update

AFC Winter 2015

10-11 March 2015

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- ICAO Semi-annual meeting on spectrum issues
 - WRC
 - International coordination
 - ICAO Spectrum handbook
- Being revised to panel status
 - Frequency Spectrum Management Panel
 - ASRI has been offered panel member status

Last Meeting



- 16-25 Feb 2015 in Cairo
 - Penultimate meeting before WRC-15
 - Preparing for new FSMP meeting to replace WG-F
- Primary aim was finalizing the ICAO position for WRC-15
 - Draft position already published
 - Outstanding issues on 1.5 (UAS) and global flight tracking

Agenda Items Relevant to ICAO



- 1.1 – Mobile Broadband
- 1.5 – FSS use of UAS
- 1.12 – Extended EESS service into PAR bands
- 1.17 – Wireless networks for avionics
- 1.18 – Automotive radar
- 8 – Removal of redundant footnotes
- 10 – Future agenda items
- GFT – Global flight tracking

1.1 – New IMT



- Oppose any new IMT allocation in or adjacent to ARNS, AM(R)S, AMS(R)S allocations unless it has been demonstrated through agreed studies that there will be no impact on aeronautical services.
 - Includes RNSS and any bands used for aeronautical safety applications.
 - Includes FSS links systems for ATM backhaul or for AMS(R)S feeder links.
- Specific mention of impacts to aeronautical radar systems in 1 350-1 400 MHz and 2 700-2 900 MHz bands
 - Protection conditions for country specific implementations
- Any new IMT in frequency bands/ranges adjacent to radio altimeters (4 200-4 400 MHz) should be contingent on successful completion of studies to demonstrate no harmful interference.

1.5 – FSS for UAS



- Ensure UAS operation does not introduce risks to the safety of life.
 - ICAO should support studies in the ITU-R to ensure that the safety of life concerns could be sufficiently addressed.
1. That the technical and regulatory actions should be limited to the case of UAS using satellites, as studied, and not set a precedent that puts other aeronautical safety services at risk.
 2. That all frequency bands which carry aeronautical safety communications need to be clearly identified in the ITU Radio Regulations.
 3. That the assignments and use of the relevant frequency bands have to be consistent with article 4.10 of the ITU Radio Regulations which recognizes that safety services require special measures to ensure their freedom from harmful interference.

1.12 – EESS in PAR bands



- Oppose any allocation to the Earth exploration-satellite service in the frequency band 9 000 – 9 200 MHz unless it has been demonstrated through agreed studies that there EESS will not impact on aviation use, and will place no additional constraints on the use of the frequency band by aeronautical systems.
- No change to Nos. 5.337, 5.427, 5.474 and 5.475.

1.17 – Wireless avionics network



- Support a global aeronautical mobile (route) service allocation in the frequency band 4 200 – 4 400 MHz exclusively reserved for Wireless Avionics Intra-Communications (WAIC) systems operating in accordance with recognized international aeronautical standards.

1.18 – Automotive radar



- Support the allocation of the frequency band 77.5-78 GHz to the radiolocation service in such a way as not to preclude its use on an advisory basis by taxiing aircraft.



- Support consideration of all possible options for support of ICAO global flight tracking as supported by studies. This should include:
 - a new provision in the Earth-to-space direction only for an AMS(R)S allocation at 1090 MHz for the satellite reception of existing aircraft ADS-B signals that operate in accordance with recognised international aeronautical standards under the condition that it not constrain existing aeronautical safety systems
 - a future Conference (WRC-19) agenda item to address evolving GFT requirements.

10 - Global aeronautical distress and safety system (GADSS)



- Support the inclusion of an item on the agenda of a future World Radiocommunication Conference to address the need of the global aeronautical distress and safety system.

Missing Agenda Items



- 1.4 – Amateur HF use
- 1.7 – Satellite footnotes/AeroMACS
- 9.1.5 – VSAT in region 2

Other topics



- EuroControl Spectrum Strategy
- Adjacent channel planning consolidation (ICAO/Euro)
- 5 GHz band planning (UAS and AeroMACS)
- Radio altimeter protection (SARPS?)
- Concept for rationalization of aircraft RF comms systems

Summary



- ICAO position now ready for state approval
 - IATA position being drafted
 - ASRI/AFC position to be discussed at the next AFC
- Biggest issues for WRC-15
 - IMT, UAS and GFT
- Next meeting 24-28 Aug – Montreal
 - First FSMP (and last before WRC-15)

Adjacent Channel Separation



	Handbook, Volume II	EUR DOC 11	
Adjacent frequency separation:	Min Separation	Min Separation	Remarks
25 kHz	10 NM ¹⁾	0 NM ²⁾	Interferer and victim both 25 kHz.
8,33 kHz	10 NM ¹⁾	0 NM ²⁾	Interferer and victim both 8.33 kHz.
8.33 kHz	As for co-frequency	As for co-frequency	Interferer 25 kHz and victim 8.33 kHz or vice versa
16,67 kHz	33 NM	10 ¹⁾ ³⁾	Interferer 25 kHz and victim 8.33 kHz or vice versa
25 kHz	4 NM	0	Interferer 25 kHz and victim 8.33 kHz or vice versa

¹⁾ Separation between edges of DOC

²⁾ Separation of 10 NM between ground transmitter station and adjacent ground receiver station to be maintained

³⁾ when both stations are broadcast stations, the separation distance is measured from the edge of coverage of one station to the location of the other station (Re, § 3.3 d)