

## EUROPEAN COMMON PROPOSALS

### Part 6

#### **Agenda Item 1.6** **Protection of MSS feeder links in the band 5150 – 5250 MHz**

##### **Introduction**

This agenda item addresses the provision of regulatory measures to protect MSS feeder links operating in the band 5 150-5 250 MHz, in view of the use of this band by wireless access systems including RLAN applications. It has to be noted that new allocation to the mobile service in this band for the implementation of wireless access systems including RLAN are dealt with under WRC-03 agenda item 1.5.

The following regulatory measures should be implemented which will allow the successful introduction of mobile applications in this band, whilst ensuring the protection of the MSS feeder links:

1. The transmission limits and indoor usage restrictions for RLANs contained in Recommendation ITU-R M.1454 should be inserted in the Radio Regulations;
2. A Resolution inviting the ITU-R to continue work on regulatory mechanisms and further mitigation techniques to avoid incompatibility which may result from aggregate interference from a possible prolific growth in the number of RLAN devices.

The CEPT supports Method A in the CPM Report and considers that it should be implemented as follows:

**Proposals**

**ARTICLE 5**  
**Frequency allocations**

**MOD EUR/1.6/1**

**4 800-5 830 MHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>5 150-5 250</b>	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (Earth-to-space) 5.447A ADD MOBILE 5.XX 5.446 5.447 5.447B 5.447C	

**ADD EUR/1.6/2**

**5.XX** Use of the 5 150-5 250 MHz band by the mobile service is for the implementation of wireless access systems, including RLANs. Stations in the Mobile Service shall be operated in accordance with the conditions below:

- In the band 5150 – 5250 MHz, the use of stations shall be restricted to indoor use with a maximum mean e.i.r.p. of 200 mW (averaged over the transmission burst at the highest power setting), with a mean e.i.r.p. density not exceeding 0.04 mW/4 kHz in any 4 kHz bandwidth.

**ADD EUR/1.6/3**

**RESOLUTION [RLAN1] (WRC-03)**

**Provisions to protect feeder links of non-geostationary satellite systems in the mobile-satellite service in the 5 150-5 250 MHz band**

The World Radiocommunication Conference (Geneva, 2003),

*considering*

- a) that this conference adopted an allocation of the band 5 150-5 250 MHz to the mobile service for wireless access systems (WAS), including radio local area networks (RLANs);
- b) that FSS (Earth-to-space) is allocated worldwide on a primary basis in the band 5 150-5 250 MHz, this allocation being limited to feeder links of non-geostationary-satellite systems in the mobile-satellite service (No. **5.447A**);
- c) that results of studies in ITU-R indicate that sharing in the band 5 150-5 250 MHz between RLANs, and the FSS is feasible under specified conditions;

- d) that RLAN devices are planned to be distributed on a license exempt basis and comply with the restrictions stated in No. 5.XX;
  - e) that the interference from a single RLAN device complying with the operational restrictions above will not on its own cause any unacceptable increase in the satellite noise;
  - f) that the MSS feeder link satellite receivers may experience an unacceptable effect due to the aggregate interference from these RLAN devices especially in the case of a prolific growth in the number of these RLAN devices;
  - g) that the aggregate effect will be due to the global deployment of RLAN devices and it may not be possible to apportion the cause of the effect between individual administrations,
- recognizing*
- a) that a means is required to prevent the aggregate interference from the worldwide deployment of RLANs from becoming detrimental to the feeder links of non-geostationary-satellite systems in the mobile-satellite service;
  - b) that an aggregate pfd level has been developed in Recommendation ITU-R S.1426;
  - c) that there is a degree of uncertainty in the means to measure or calculate the aggregate pfd level specified in Recommendation ITU-R S.1426,

*resolves to invite ITU-R*

to continue work on regulatory mechanisms and further mitigation techniques to avoid incompatibilities which may result from aggregate interference from a possible prolific growth in the number of RLAN devices.

## **Reasons**

*CEPT is supporting the introduction of wireless access systems including RLANs in the 5 GHz bands, including 5150 – 5250 MHz and is making proposals for a primary mobile allocation under agenda item 1.5 in support of these applications. Furthermore, CEPT recognises the need for protection of the existing MSS feeder links, operating under the fixed satellite service (Earth to space) allocation, in this band.*

*At the present time it is difficult to assess compliance with the PFD levels specified in Recommendation ITU-R S.1426, however, it is recognised that very large numbers of RLANs would be needed to reach these levels. CEPT therefore believes that the application of relevant operational limits from Recommendation ITU-R M.1454, combined with a new WRC Resolution inviting further study, provides the most suitable solution placing necessary restrictions on RLANs, whilst providing a mechanism to continue technical and regulatory studies to deal with potential incompatibilities resulting from aggregate interference within an appropriate timescale.*