

EUROPEAN RADIOCOMMUNICATIONS COMMITTEE

ERC Decision
of 19 October 2000
on the use of the band 10.7 – 12.5 GHz
by the fixed service and Earth stations
of the broadcasting-satellite and fixed-satellite service
(space-to-Earth)

(ERC/DEC/(00)08)



EXPLANATORY MEMORANDUM

1 INTRODUCTION

This ERC Decision addresses the use of the band 10.7 - 12.5 GHz by the fixed service and Earth stations of the broadcasting-satellite service and fixed-satellite service (space-to-Earth) in relation to the requirements and priorities of CEPT administrations.

2 REQUIREMENT FOR AN ERC DECISION

In order to provide a clear regulatory framework for future investment and deployment of fixed, broadcasting satellite and fixed-satellite systems an ERC Decision is necessary.

3 BACKGROUND

This ERC Decision covers the bands 10.7 - 11.7 GHz which is allocated to both the fixed and fixed-satellite service (space-to-Earth) on a primary basis, and the bands 11.7 - 12.5 GHz allocated to the fixed (FS), broadcasting-satellite (BSS) and N-GSO fixed-satellite service (FSS) in the Radio Regulations.

In order to enable coexistence between the fixed and the fixed-satellite service in the band 10.7 - 11.7 GHz without imposing undue constraints on either of the services, the approach of 'sharing' should be applied. In view of an ever increasing number of radio systems world-wide, and that the electromagnetic spectrum is a limited and valuable resource, sharing is more necessary than ever before. The development and application of sharing criteria provides adequate access to the frequency spectrum for the allocated services without the need to introduce other concepts such as band segmentation that would decrease efficient and flexible use as well as the amount of spectrum available for a service.

The band 10.7 - 11.7 GHz is a key fixed service band for provision of terrestrial telecommunication network infrastructure and the propagation features make this band suitable for longer path lengths and delivery of high capacity fixed services. The installation of millions of satellite dishes for TV reception has led to a slowdown in the development of the fixed service in the band 10.7 - 11.7 GHz in some European countries despite the number of interference cases being very low. Consequently there are concerns for the future implementation of the FS.

Satellite systems are also a key medium for delivery of future telecommunication services, enabling communication to rapidly be established over wide areas. They may be especially useful as a complement to the terrestrial networks in remote areas. The band 11.7 - 12.5 GHz is already heavily used by a high number of satellite dishes for direct TV reception, and is subject to a plan for BSS according to AP S30 of the Radio Regulations. Moreover, there is not much use of this band for FS in CEPT countries. Moreover, this band is also considered by some NGSO operators for the use of a high number of FSS earth stations.

4 SCOPE OF THE ERC DECISION

This ERC Decision sets out the priorities and regulatory framework for the use of the band 10.7 - 12.5 GHz.

This ERC Decision limits the deployment of new FS links in the band 10.7 - 11.7 GHz to point-to-point high capacity fixed links and gives the priority to these new links over the uncoordinated FSS Earth stations. It will thus allow some administrations to continue to deploy new FS links while limiting the number of these links because of the capacity and type of links imposed. This band will then not be a high density FS band. It is expected that in the longer term, the number of FS links in this band could stabilise, or even decrease when some FS operators move to fibre optic. However, administrations should always have the possibility to deploy new FS links when needed.

The Decision also offers the possibility for some other administrations to take any practical measures to protect uncoordinated FSS Earth stations from new FS links, to take account of the existing situation.

In the band 11.7 - 12.5 GHz, the priority is clearly given to FSS and BSS, to balance the need of FS and FSS/BSS in this frequency range.

**ERC Decision
of 19 October 2000**

**on the use of the band 10.7 - 12.5 GHz by the fixed service and
earth stations of the broadcasting-satellite and fixed-satellite service (space-to-earth)**

(ERC/DEC(00)08)

“The European Conference of Postal and Telecommunications Administrations,

considering

- a) that the band 10.7 - 11.7 GHz is allocated, among other services, to both the fixed service and the fixed-satellite service on a primary basis in the Radio Regulations;
- b) that the band 11.7 - 12.5 GHz is allocated, among other services, to the fixed service, the broadcasting-satellite service and the fixed-satellite service, limited to non-geostationary systems (RR S5.487A) on a primary basis in the Radio Regulations and subject to the provisions of Resolution 538;
- c) that a large number of fixed service systems have already been deployed in CEPT countries in the 10.7 - 11.7 GHz band according to ERC Recommendation 12-06;
- d) that the future use of the fixed service in the band 10.7 - 11.7 GHz is of vital importance to provide Europe's telecommunication infrastructure;
- e) that the band 11.7 - 12.5 GHz is lightly used in CEPT countries by the fixed service;
- f) that a number of GSO/NGSO FSS systems are currently in use or being planned to operate in this frequency range, which intend to deploy large numbers of user terminals;
- g) that a high number of FSS and BSS user terminals are already in use in this frequency range;
- h) that sharing studies between FS and uncoordinated FSS Earth stations have shown that the use of mitigation techniques can improve the sharing in the band 10.7 - 11.7 GHz;
- i) that sharing between FS and coordinated FSS is achieved via the current coordination procedures as defined in the RR;
- j) that FS/FSS band segmentation is not appropriate in the band 10.7 - 11.7 GHz within CEPT administrations due to the extensive deployment of existing terrestrial and satellite services and the desire to utilise the spectrum to maximum efficiency by promoting the use of frequency sharing techniques;

DECIDES

1. that in the band 10.7 - 11.7 GHz:
2. new fixed service systems deployment is to be limited to high capacity (140 Mbit/s or higher) point to point fixed links used for trunk network (i.e. not for direct customer access);
3. uncoordinated FSS Earth stations shall operate on a non-protected basis;
4. CEPT administrations shall to the extent practicable, take measures to protect uncoordinated FSS terminals from new fixed links;
5. that CEPT administrations shall not deploy new fixed service systems in the band 11.7 - 12.5 GHz;
6. that this Decision shall enter into force on 19.10.00;
7. that CEPT Administrations shall communicate the national measures implementing this Decision to the ERC Chairman and the ERO when the Decision is nationally implemented.”

Note:

Please check the ERO web site (www.ero.dk) under “Documentation / Implementation” for the up to date position on the implementation of this and other ERC Decisions.