ELECTRONIC COMMUNICATIONS COMMITTEE

ECC Decision
of 24 June 2005
on the availability of frequency bands for
high density applications in the
Fixed-Satellite Service (space-to-Earth and Earth-to-space)

(ECC/DEC/(05)08)

EXPLANATORY MEMORANDUM

INTRODUCTION

This ECC Decision deals with frequency bands for high density applications in the fixed-satellite service (HDFSS) (space-to-Earth and Earth-to-space) in relation to the requirements and priorities of CEPT administrations.

BACKGROUND

Satellite systems are a key medium for delivery of future telecommunication services enabling broadband communication to rapidly be established over wide areas. Recent proposals for new GSO and NGSO systems in the fixed-satellite service FSS indicate that large numbers of user terminals are intended to be deployed on a basis for direct customer access in some frequency bands.
Within the ITU, such concept of large number of user terminals has been named "High-density fixed satellite service" (HDFSS). It is expected to provide access to a wide range of broadband telecommunication applications supported by fixed telecommunication networks (including the Internet), and thus will complement other telecommunication systems, helping at reducing the digital divide.

WRC-03 identified a number of frequency bands for high-density applications in the fixed satellite service (HDFSS) through No. **5.516B** and also adopted RESOLUTION 143 (WRC-03) providing "Guidelines for the implementation of high-density applications in the fixed-satellite service in frequency bands identified for these applications."

Among the bands covered by this Decision, the bands 17.3-17.7 GHz, 19.7-20.2 GHz and 29.50-30 GHz are not allocated to any terrestrial service on a primary basis; the band 39.5-40.5 GHz, while also allocated in the Radio Regulations to terrestrial services on a primary basis, has already been designated for FSS (space-to-Earth) within CEPT through ERC/DEC(00)02; and finally the bands 47.5-47.9 GHz, 48.2-48.54 GHz and 49.44-50.2 GHz are shared with the mobile and fixed service on a primary basis (FS use of the latter band in some CEPT countries is subject to CEPT/ERC/REC 12-10, adopted in The Hague 1998). This distinction is reflected by the provisions of this Decision.
Due to the specific sharing situation of the 27.5-29.5 GHz band resulting, *inter alia*, in the former ERC/DEC(00)09, this band, also partly identified for HDFSS by WRC-03 through No. **5.516B**, is covered by another ECC Decision (ECC/DEC/(05)01).

It should be noted that WRC-03 requested the Director to include *inter alia* an additional item in his report to WRC‑07 dealing with the provision of a definition of the term "HDFSS". This item is part of the ITU-R preparatory studies for WRC-07. More specifically, it is under the responsibility of SG4. At CEPT level, it is under the scope of CPG/PT1. It is expected that once a definition for HDFSS is approved at ITU level, it could be incorporated in the present ECC Decision during a future review.

REQUIREMENT FOR AN ECC DECISION

In order to provide a clear regulatory framework for future investment and deployment of HDFSS, to facilitate the use of transportable FSS Earth stations and to take into account the decision taken by WRC-03 with regard to HDFSS, clearly indicating the bands where HDFSS should be deployed in CEPT, a regulatory framework is necessary.

This ECC Decision identifies bands for HDFSS, taking into account the existing other services, if any, in the same bands.

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on high density applications in the
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"The European Conference of Postal and Telecommunications Administrations,

considering

a) that the introduction of future FSS systems will enhance broadband communications over wide areas in CEPT and enable it in areas where terrestrial means are not available;

b) that WRC-03 has identified a number of frequency bands for high-density applications in the fixed satellite service (HDFSS) through No. **5.516B** which also refers to Resolution **143**;

c) that in this Decision, coordinated and uncoordinated Earth stations refer to stations for which the process of coordination as per Art. 9 of the RR has been applied or not, respectively;

d) that a number of GSO/NGSO FSS systems are currently being planned to operate in some of the bands identified for HDFSS by WRC-03, and that some of them intend to deploy large numbers of user terminals on an uncoordinated basis;

e) that some FSS systems intend to deploy a small number of large antenna Earth Stations on a coordinated basis;

f) that some CEPT administrations are promoting GSO FSS systems in some of these bands in the context of removing the "digital divide" at European level;

g) that the band 17.3-17.7 GHz is subject to the provisions of RR Appendix 30A and of No. **5.516A**;

h) that Decision (05)01 sets out the arrangements for use of the 27.5-29.5 GHz band within CEPT including those parts identified by WRC-03 for HDFSS in Region 1;

i) that ERC Decision (00)02 designates the band 39.5-40.5 GHz for FSS (space-to-Earth);

j) that ITU-R has adopted several Recommendations providing technical characteristics applicable to HDFSS stations, such as ITU-R S.524 and ITU-R S.1594;

DECIDES

1. that some or all of the following bands are made available by administrations for HDFSS deployment subject to market demand:
    - in the space to Earth direction: 17.3-17.7 GHz, 19.7-20.2 GHz;
    - in the Earth to space direction: 29.50-30 GHz;

2. to identify in the space-to-Earth direction the bands 47.5-47.9 GHz, 48.2-48.54 GHz and 49.44-50.2 GHz for HDFSS;

3. that the identification of the bands in Decides 2 does not preclude the use of these bands by other applications in the FSS or other services to which these bands are allocated and does not establish priority among users of the bands operating in services of the same regulatory status;

4. that the designation of the band 17.3-17.7 GHz is without prejudice to the use of this band by BSS feeder links according to the provisions of the RR;

5. that CEPT administrations shall authorise the deployment of uncoordinated FSS Earth stations in the bands that they have made available as per Decides 1;

6. that this Decision enters into force on 24 June 2005;

7. that the preferred* date for implementation of this decision shall be 1 October 2005;

8. that CEPT administrations shall communicate the national measures implementing this Decision, in particular the bands made available as per Decides 1, to the ECC Chairman and the ERO when the Decision is nationally implemented."

Notes:

** Please check the Office web site (www.ero.dk) for the up to date position on the implementation of this and other ERC/ECTRA/ECC Decisions.*