ELECTRONIC COMMUNICATIONS COMMITTEE

ECC Decision
of 12 November 2004
on the designation of the bands
1518 - 1525 MHz and 1670 - 1675 MHz
for the Mobile-Satellite Service

(ECC/DEC/(04)09)

EXPLANATORY MEMORANDUM

1 INTRODUCTION

The bands 1626.5-1660.5 MHz and 1525-1559 MHz have been heavily used by MSS for many years prior to 2003, leaving little scope for further expansion in these bands. New systems, some of which are planned for the 1.6/1.5 GHz bands, would therefore have to seek access to other bands. The congestion of the 1.6/1.5 GHz band MSS spectrum has been confirmed by successive 1.6/1.5 GHz MSS operators' review meetings.

To respond to these issues and based on European proposals, WRC-03 allocated the bands 1518-1525 MHz and 1668-1675 MHz to the MSS. The band 1518-1525 MHz, which is used by the fixed and mobile service in a number of European countries, was allocated to the MSS at WRC-03 with the internationally applicable provision that MSS shall not claim protection from the fixed service (see RR footnote 5.348).

2 BACKGROUND

ECC Decision ECC/DEC/(02)07 withdrew the "ERC Decision on the frequency bands to be designated for the coordinated introduction of the Terrestrial Flight Telecommunications System (TFTS)" (ERC/DEC/(92)01) and reserved the bands 1670-1675 MHz and 1800-1805 MHz for harmonised European use. ECC/DEC/(02)07 however also noted that "Since the future use of these bands will partly depend on the results of WRC-03 on MSS which is one possible service proposed for the band 1670 - 1675 MHz, it is suitable to postpone the identification of new harmonised applications until after the WRC-03.". With the decision of WRC-03 to allocate spectrum to the MSS it is now appropriate to designate the bands 1518-1525 MHz and 1668-1675 MHz to the MSS.

According to the ITU SRS database, globally there are about 30 radio astronomy stations operating in the band 1668-1670 MHz, of which 18 are in CEPT countries. Protection of the radioastronomy stations would require separation distances of the order of 500 km. In view of the number of radio astronomy stations in Europe operating in this frequency band sharing between radio astronomy and MSS would be hardly feasible in most of the CEPT area, whereas sharing elsewhere on a global basis would be feasible considering the large areas outside CEPT where there are no radio astronomy stations operating in this band.

ITU-R studies conducted prior to WRC-03 concluded that if the unwanted emission limits of Recommendation ITU-R M.1480 are used as a guide for the level of unwanted emissions for MESs operating above 1670 MHz, then in order to protect radio astronomy in the band 1660-1670 MHz, separation distances in the range of about 20 to 58 km are required to meet the protection criteria of recommendations ITU-R RA.769 and RA.1513. Hence, exclusion zones would be required with regard to radio astronomy stations operating in the band 1660-1670 MHz. Due to the number and distribution of radio astronomy sites in CEPT that operate in the band 1668-1670 MHz, this band is not included with those designated for harmonised MSS operations.

RESOLUTION 744 (WRC-03) *"Sharing between the mobile-satellite service (Earth-to-space) and the space research (passive) service in the band 1 668-1 668.4 MHz and between the mobile-satellite service (Earth-to-space) and the fixed and mobile services in the band 1 668.4-1 675 MHz"* notes *"that MSS systems in the band 1668-1675 MHz are not expected to become operational prior to 2007."* This is in accordance with the ECP for WRC-03 Agenda Item 1.31.

3 REQUIREMENT FOR AN ECC DECISION

Following the WRC-03 decision to allocate the bands 1518-1525 MHz and 1668-1675 MHz to the MSS an ECC Decision is now appropriate to facilitate the harmonised introduction of the MSS in these bands in Europe and beyond. The allocation or designation of a frequency band for its use by a service or a system under specified conditions in CEPT member countries is laid down by law, regulation or administrative action. The ECC recognises that for the successful global expansion of the MSS, manufacturers and operators must be encouraged to make the necessary investments in this global radiocommunication system and service. An ECC Decision in advance of the expected date of deployment of 2007 would provide this confidence for the MSS community.

ECC Decision
of 12 November 2004

on the designation of the bands 1518-1525 MHz and 1670 - 1675 MHz for the Mobile-Satellite Service

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"The European Conference of Postal and Telecommunications Administrations,

considering

a) that, recognising the MSS congestion in the bands 1525-1559 MHz and 1626.5-1660.5 MHz, the CEPT proposed to extend these allocations at WRC-03;

b) that WRC-03 allocated the bands 1518-1525 MHz and 1668-1675 MHz to the Mobile-Satellite Service;

c) that ECC Decision (02)07 reserved the band 1670-1675 MHz for harmonised European use, but postponed the identification of new harmonised applications until after the WRC-03;

d) that the band 1668-1670 MHz is heavily used by the radio astronomy service in Europe and therefore in order to protect radio astronomy use, it is not appropriate for the mobile-satellite service to operate in the band 1668-1670 MHz within CEPT countries;

e) that, in a number of European countries, the band 1518-1525 MHz is also used by the fixed and mobile services, and according to ITU RR 5.342, by telemetry services in the aeronautical mobile service in a number of European countries;

f) that in accordance with ITU RR 5.348, MSS shall not claim protection from the fixed service and is subject to technical conditions for coordination given in Appendix 5 in respect of ITU RR 5.342;

g) that administrations may take measures in order to reduce the impact of terrestrial systems on MSS operations in the bands 1518-1525 MHz and 1670-1675 MHz;

h) that the majority of fixed links currently operating in the band 1670-1675 MHz within CEPT countries are expected to be removed by 1 April 2007;

i) that MSS systems in the band 1668-1675 MHz are not expected to become operational prior to 2007;

j) that Resolution 744 of WRC-03 invites ITU-R to study the use of the band 1668.4-1675 MHz by the mobile service, and to complete any sharing studies between the Mobile Service and the Mobile Satellite Service in time for WRC-07.

DECIDES

1. to designate the band 1518-1525 MHz to the Mobile-Satellite Service (space-to-Earth) and the band 1670-1675 MHz to the Mobile-Satellite Service (Earth-to-space) from 1 April 2007;

2. that this Decision will enter into force on 12 November 2004;

3. that CEPT administrations shall communicate the national measures implementing this Decision to the ECC Chairman and the Office when the Decision is nationally implemented."

Note:
Please check the Office web site (http//:www.ero.dk) for the up to date position on the implementation of this and other ECC decisions.