EUROPEAN COMMUNICATIONS COMMITTEE

ECC Decision
of 26 June 2009
on the harmonisation of the bands 1610-1626.5 MHz and 2483.5-2500 MHz for use by systems in the Mobile-Satellite Service

(ECC/DEC/(09)02)

EXPLANATORY MEMORANDUM

1 INTRODUCTION

The ECC review of the regulatory framework of Decisions affecting the mobile-satellite service for the bands 1610-1626.5 MHz and 2483.5-2500 MHz has been undertaken to take account of changes since 1997, when satellite PCS systems were in development.

The aim of this Decision is to:

– reflect the provisions already made by CEPT for a common approach to the mobile satellite service (MSS) allocations and to harmonise the use of spectrum within the bands 1610- 1626.5 MHz and 2483.5-2500 MHz for Mobile Earth Stations (MES's);

– allow the future withdrawal of ERC/DEC/(97)03.

2 BACKGROUND

WARC-92 allocated spectrum to mobile-satellite service on a worldwide basis in the bands 1610-1626.5 MHz (Earth-to-space), 1613.8-1626.5 MHz (space-to-Earth) and 2483.5-2500 MHz (space-to-Earth).

Within CEPT, a regulatory scheme applicable for Satellite Personal Communications Services (S-PCS) was established in 1997. The relevant Decisions, which provided the basis for authorising S-PCS systems throughout Europe, were:

- ERC/DEC/(97)03 relating to the Harmonised Use of Spectrum for Satellite Personal Communications Services (S-PCS) operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz;
- ERC/DEC/(97)05 on Free Circulation, Use and Licensing of Mobile Earth Stations of Satellite Personal Communications Services (S-PCS) operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz within the CEPT; and
- ECTRA/DEC(97)02 on Harmonisation of Authorisation Conditions and Co-ordination of Procedures in the field of Satellite Personal Communications Services (S-PCS) in Europe, operating within the bands 1610-1626.5 MHz, 2483.5-2500 MHz, 1980-2010 MHz and 2170-2200 MHz.

The regulatory scheme established under these Decisions related to systems that were planned to be brought into operation by 31 December 2000. Two such systems were brought into operation by that date and continue to provide commercial service in CEPT countries. Several other systems were identified at the beginning of this process but have not been developed to an operational status in the CEPT.

The two MSS networks, Globalstar and Iridium, currently providing service within the bands 1610-1626.5 MHz and 2483.5-2500 MHz in the CEPT are registered in the United States and subject to the licensing regime of the Federal Communications Commission. Whilst CEPT administrations are not obliged to follow the terms of any licences granted by the FCC, these MSS operators will need to consider any impact of their licence conditions when operating outside the US.

3 REQUIREMENT FOR AN ECC DECISION

The ECC recognised that a harmonised framework for the implementation of mobile-satellite service in the bands 1610-1626.5 MHz and 2483.5-2500 MHz was beneficial to satellite operators and manufacturers, and benefited the public with the availability of innovative new services.

The ECC believes that the trans-national nature of satellite services necessitates the harmonised use of the considered frequency bands across the CEPT, and a commitment by CEPT member countries to implement this Decision will provide a clear framework to National Regulatory Authorities and operators to continue and enhance the applications available through these satellite services.

This ECC Decision provides the necessary provisions for the harmonisation of the bands 1610-1626.5 MHz and 2483.5-2500 MHz for use by systems in the mobile-satellite service.

4 ADOPTION OF THE DECISION

Administrations that reference ERC/DEC/(97)03 within their national legislation should note that this new Decision will eventually allow the abrogation of ERC/DEC/(97)03.

The date of coming into force of this Decision is set as 26 June 2009 and that ERC/DEC/(97)03 would be abrogated after 26 June 2009+2 years.

These timeframes will allow administrations to update their national regulations.

ECC Decision
of 26 June 2009

on the harmonisation of the bands
1610-1626.5 MHz and 2483.5-2500 MHz
for use by systems in the Mobile-Satellite Service

(ECC/DEC/(09)02)

"The European Conference of Postal and Telecommunications Administrations,

considering

a) that WARC-92 allocated the bands 1610-1626.5 MHz (Earth to space), 2483.5-2500 MHz (space to Earth), to the mobile-satellite service (MSS) on a primary basis, and the band 1613.8-1626.5 MHz (space to Earth) on a secondary basis;

b) that the use of the frequencies mentioned in considering (a) above is subject to co-ordination under Radio Regulations No. 9.11A;

c) that the transmissions from mobile satellite user terminals in the band 1610-1626.5 MHz are subject to the e.i.r.p. limits given in Radio Regulations No. 5.364;

d) that Radio Regulations No. 5.372 requires that harmful interference shall not be caused to stations of the radio astronomy service using the band 1610.6-1613.8 MHz by stations of the mobile-satellite service in the bands 1610-1626.5 MHz;

e) that ERC Report 25 indicates the major utilisation expected in the bands 1610-1626.5 MHz and 2483.5-2500 MHz is for mobile satellite applications in the mobile-satellite service;

f) that currently two satellite systems providing voice and data communication have been brought into operation in the bands mentioned in considering (a) above;

g) that ECC Report 45 on "Sharing and adjacent band compatibility between UMTS/IMT-2000 in the band 2500-2690 MHz and other services" provides the result of compatibility studies between MSS and terrestrial IMT around 2500 MHz;

h) that the free circulation and licence exemption of the mobile satellite user terminals is subject to separate ECC Decisions;

i) that harmonised frequency assignment for mobile satellite user terminals in satellite systems in Europe has facilitated the efficient use of spectrum;

j) that ECC Report 95 has concluded that for the most likely operational scenarios, the more appropriate way to achieve compatibility is for frequency separation of satellites systems using CDMA and TDMA technologies;

k) that ECC Report 112 assessed the impact of interference generated by one NGSO system currently operating in the band 1618.25-1626.5 MHz, on the radioastronomy service in the band 1610.6-1613.8 MHz (space-to-Earth). The level of assessed RAS data loss produced in one single 20 kHz channel would not exceed a percentage of 0.7%, against the 2% criterion contained in Recommendation ITU-R RA.1513;

l) that the assumptions made in ECC Report 112 regarding the applicable parameters for assessing interference into RAS need to be reviewed since the basis for this Report, the parameters given in Recommendation ITU-R RA.1513 and its applicability are under discussion;

m) that spectrum sharing arrangements for use of the band 1610-1626.5 MHz and 2483.5-2500 MHz should preferably be developed between the MSS operators;

n) that frequency band 1610-1620 MHz is used for GNSS receivers brought into operation before 2006, appropriate measures should be taken by MSS operator in accordance with ITU-R Recommendation M.1343-1 to avoid interference into such receivers from MSS terminals operating in the band 1610- 1626.5 MHz;

o) that some administrations have authorised mobile satellite user terminals and/or MSS systems in a specific segmentation of the band between CDMA and TDMA operation in accordance with earlier ERC Decisions and that any changes to existing national licences and regulations as a result of this new Decision may take some time to implement;

p) that in EU/EFTA countries the radio equipment that is under the scope of this Decision shall comply with the R&TTE Directive. Conformity with the essential requirements of the R&TTE Directive may be demonstrated by compliance with the applicable harmonised European standard(s) or by using the other conformity assessment procedures set out in the R&TTE Directive.

DECIDES

1. that the frequency bands 1610-1626.5 MHz, (Earth-to-space), 1613.8-1626.5 MHz (space-to-Earth) and 2483.5-2500 MHz (space-to-Earth) are harmonised for use by systems of the mobile-satellite service;
2. that, pending the review of ECC Report 112, administrations shall only authorise operation of mobile earth stations operating under the control of MSS systems using downlinks in the frequency band 1613.8-1621.35 MHz (space-to-Earth) subject to acceptable compatibility with the radioastronomy service operating below 1613.8 MHz having been demonstrated in an appropriate future ECC Report;
3. that the harmonisation of frequency bands in Decide 1) for use by systems of the mobile-satellite service compliant with Decide 2 is without prejudice to the mobile-satellite systems licensed in these bands in countries where such licenses are still valid at the date of adoption of this ECC Decision;
4. that ECC Report 112, in respect of compatibility between the radioastronomy service operating in the band 1610.6-1613.8 MHz and systems of the mobile satellite service operating in the band 1610-1626.5 MHz, should be reviewed as a matter of urgency with a view to amending this Decision if necessary;
5. that this Decision shall enter into force on 26 June 2009;
6. that the preferred date for implementation of this Decision shall be 31 December 2009;
7. that ERC/DEC/(97)03 shall be withdrawn on 26 June 2011;
8. that CEPT Member 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 (www.ero.dk) under "Documentation / Implementation" for the up to date position on the implementation of this and other ECC/ERC Decisions.