CEPT ECC
Electronic Communications Committee

ECC Recommendation (26)04

Guidance related to the authorisation and/or renewal of Mobile-Satellite Service (MSS) satellite systems operating downlinks within 1613.8−1626.5 MHz (space-to-Earth) as per ECC/DEC/(09)02 and potential relevant mechanisms to deal with non-compliance in a coordinated action of CEPT administrations

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INTRODUCTION

This Recommendation has been developed on the basis of ECC Decision (09)02 [1] on the harmonisation of the bands 1610−1626.5 MHz and 2483.5−2500 MHz for use by systems in the Mobile-Satellite Service (MSS), and provides guidance to the authorisation of MSS satellite systems and/or their renewal, which may be of assistance to some administrations, including potential mechanisms to deal with non−compliant downlinks in a coordinated action of CEPT administrations.

Other ECC deliverables also provide information that can be taken into account by CEPT administrations when considering the authorisation and/or renewal of MSS satellite network services:

- ECC Report 095 [2] also includes information about the sharing between MSS systems using TDMA and MSS systems using CDMA in the band 1610−1626.5 MHz;
- ECC Report 349 [3] includes information on “unwanted emissions of IRIDIUM NEXT satellites in the band 1610.6−1613.8 MHz, monitoring campaign of November 2020 to May 2021”. Further measurements were conducted by the Leeheim satellite monitoring station on an annual basis with up to three measurement campaigns p.a. within the 2022−2026 timeframe. While the measured exceedance of the RAS protection levels still exists, the situation has improved following improvements by the concerned satellite operator in 2024, but still requires that a radioastronomy protection mode is used over Europe. Using a radioastronomy protection mode, the concerned satellite system operates in the band 1621.35−1626.5 MHz (space-to-Earth) since 2022. This Recommendation proposes that CEPT administration take this aspect into account, which is needed in addition to the application of ECC Decision (12)01 [4] on the exemption from individual licensing and free circulation and use of satellite mobile terminals operating under the control of networks in the range 1 to 3 GHz.

ECC RECOMMENDATION (26)04 OF 9 OCTOBER 2026 ON GUIDANCE RELATED TO THE AUTHORISATION AND/OR RENEWAL OF MOBILE-SATELLITE SERVICE (MSS) SATELLITE SYSTEMS OPERATING DOWNLINKS WITHIN 1613.8−1626.5 MHZ (SPACE-TO-EARTH) AS PER ECC/DEC/(09)02 AND POTENTIAL RELEVANT MECHANISMS TO DEAL WITH NON-COMPLIANCE IN A COORDINATED ACTION OF CEPT ADMINISTRATIONS

"The European Conference of Postal and Telecommunications Administrations,

considering

a) that some CEPT administrations require a form of notification/registration from the MSS satellite operator/service provider to provide services in their country;

b) that an individual authorisation for the MSS network/system with which the MSS user terminals communicate can be used by an administration;

c) that a CEPT administration can restrict the use of earth stations/user terminals to only be allowed to communicate with a satellite that comply with the Radio regulations;

d) that there is a need that the authorisation to the MSS satellite system contains specific conditions for the protection of national radioastronomy sites or those in neighbouring countries;

e) that ECC Decision (09)02 [1] reflects 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);

f) 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;

g) that Radio Regulations No. 5.372 as well as Recommendation ITU-R RA.769 [5] and Recommendation ITU-R RA.1513 [6] require 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;

h) that some administrations have authorised mobile satellite user terminals and/or MSS systems in a specific segmentation of the band between Code Division Multiple Access (CDMA) and Time Division Multiple Access (TDMA) operation;

i) that the compliance with the conditions for use of radio frequencies by the IRIDIUM NEXT systems in the band 1621.35−1626.5 MHz (space-to-Earth) and the degree of interference in the frequency band 1610.6−1613.8 MHz caused by this usage is monitored regularly (e.g. once a year) by a competent body and the results be reported to the ECC;

j) that a summary of the responses to the questionnaire to CEPT administrations to collect information about authorisation for the IRIDIUM NEXT system and earth stations under the control of the IRIDIUM NEXT system in CEPT countries which was collected in the 2024/25 timeframe [7] can be used by CEPT administrations in their considerations;

k) that ECC Report 095 [2] includes information about the sharing between MSS systems using TDMA and MSS systems using CDMA in the band 1610−1626.5 MHz;

l) that some CEPT administrations have a general authorisation regime that do not specify the edges of authorised downlinks and only refer to ECC Decision (12)01 [4] and ECC Decision (09)02 [1];

m) that some CEPT administrations do not regulate earth stations receivers.

recommends

1. that CEPT administration should consider including a provision in their general authorisation or their individual authorisation for satellite networks to terminals communicating with MSS satellite systems operating downlinks within the band 1613.8−1626.5 MHz, which allows them to enforce, on a national basis, the limitation of communications to satellites in order to comply with the technical conditions of ECC Decision (09)02 [1] and the technical conditions of footnote 5.372 of the Radio Regulations adopted by the WRC-19;
2. that CEPT administrations when licencing may also consider:
   a) limiting downlink tranmissions/into their national territoryto the frequency band 1621.35−1626.5 MHz;
   b) requiring thata radioastronomy protection mode, or equivalent mitigation, is used for downlink operations;

3. that when an instance of non-compliance downlink operations cannot be resolved at national level, CEPT administrations should commonly identify the level of non-compliance, i.e. mutual assessment or confirmation of an interference or non-compliance situation, and discuss a collective action.

Note:

Please check the ECO Documentation Database https://docdb.cept.org/ for the up-to-date position on the implementation of this and other ECC Recommendations.

ANNEX 1: LIST OF REFERENCES

[1] ECC Decision (09)02: "On the harmonisation of the bands 1610-1626.5 MHz and 2483.5-2500 MHz for use by systems in the Mobile-Satellite Service", approved June 2009, amended November 2012

[2] ECC Report 095: "Sharing between MSS systems using TDMA and MSS systems using CDMA in the band 1610-1626.5 MHz", approved February 2007

[3] ECC Report 349: "Unwanted emissions of IRIDIUM NEXT satellites in the band 1610.6-1613.8 MHz, monitoring campaign of November 2020 to May 2021", approved February 2023

[4] ECC Decision (12)01: "Exemption from individual licensing and free circulation and use of satellite mobile terminals operating under the control of networks in the range 1 to 3 GHz", approved June 2012, latest amended March 2022

[5] Recommendation ITU-R RA.769: "Protection criteria used for radio astronomical measurements"

[6] Recommendation ITU-R RA.1513: "Levels of data loss to radio astronomy observations and percentage-of-time criteria resulting from degradation by interference for frequency bands allocated to the radio astronomy service on a primary basis"

[7] WG FM Chair's Report, Doc. FM(25)126 Annex 12: "Summary of the responses to the questionnaire to CEPT administrations to collect information about authorisation for the Iridium mobile satellite system and earth stations under the control of the Iridium system in CEPT countries", approved October 2025