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| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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| PLENARY MEETING | **Addendum 2 to Document 16-E** |
|  | **7 October 2019** |
|  | **Original: English** |
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| European Common Proposals | |
| Proposals for the work of the conference | |
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| Agenda item 1.2 | |

1.2 to consider in-band power limits for earth stations operating in the mobile-satellite service, meteorological-satellite service and Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz, in accordance with **Resolution 765 (WRC-15)**;

Introduction

In order to ensure long term continuity for the operation of satellite data collection systems, CEPT supports the establishment of in-band e.i.r.p. limits, as appropriate, for earth stations in the EESS and MetSat in the frequency band 401-403 MHz (for GSO and non-GSO) and in the MSS frequency band, specified per emission within reference bandwidth (4 kHz) as well as within whole allocated band, to avoid possible power aggregation of closely spaced narrowband carriers, notified for earth stations, taking into account the result of studies.

In addition, CEPT proposes specific provisions for the frequency band 399.9-400.05 MHz until 22 November 2024 and for the frequency band 401-403 MHz until 22 November 2027 for existing and planned satellite systems exceeding these e.i.r.p. limits, for which complete notification information has been received by the Radiocommunication Bureau, and that have been brought into use before 22 November 2019.

Proposals

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

MOD EUR/16A2/1

335.4-410 MHz

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| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 399.9-400.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.220 ADD 5.A12 | | |
| ... | | |
| 401-402 METEOROLOGICAL AIDS  SPACE OPERATION (space-to-Earth)  EARTH EXPLORATION-SATELLITE (Earth-to-space)  METEOROLOGICAL-SATELLITE (Earth-to-space)  Fixed  Mobile except aeronautical mobile ADD 5.B12 | | |
| 402-403 METEOROLOGICAL AIDS  EARTH EXPLORATION-SATELLITE (Earth-to-space)  METEOROLOGICAL-SATELLITE (Earth-to-space)  Fixed  Mobile except aeronautical mobile  ADD 5.B12 | | |

ADD EUR/16A2/2

5.A12 In the frequency band 399.9-400.05 MHz, the maximum e.i.r.p of any emission of the earth stations in the mobile-satellite service shall not exceed 5 dBW in any 4 kHz and maximum e.i.r.p. of each earth station in the mobile-satellite service shall not exceed 5 dBW in the whole 399.9-400.05 MHz frequency band. Until 22 November 2024, this limit shall not apply to satellite systems for which complete notification information has been received by the Radiocommunication Bureau by 22 November 2019 and that have been brought into use by that date. After 22 November 2024, these limits shall apply to all systems within mobile-satellite service operating in this frequency band and No. **11.50** shall apply after 22 November 2024.     (WRC-19)

**Reasons:** Establishment of in-band e.i.r.p. limits, as appropriate, for earth stations in the MSS in the frequency band 399.9-400.05 MHz, specified per emission within reference bandwidth (4 kHz) as well as within whole allocated band, to avoid possible power aggregation of closely spaced narrowband carriers, notified for earth stations, taking into account the result of studies. It is to be noted that this frequency band is limited to non-geostationary networks (see RR No. **5.209**). Specific provisions are proposed for satellite systems exceeding these e.i.r.p. limits, for which complete notification information has been received by the Radiocommunication Bureau by 22 November 2019, and that have been brought into use by that date.

ADD EUR/16A2/3

5.B12 In the frequency band 401-403 MHz, the maximum e.i.r.p. of any emission of the earth stations in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 22 dBW in any 4 kHz for geostationary systems and non-geostationary systems with an orbit of apogee equal or greater than 35 786 km and 7 dBW in any 4 kHz for non-geostationary systems with an orbit of apogee lower than 35 786 km and maximum e.i.r.p. of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 22  dBW for geostationary systems and non-geostationary systems with an orbit of apogee equal or greater than 35 786 km and 7 dBW for non-geostationary systems with an orbit of apogee lower than 35 786 km in the whole 401-403 MHz frequency band.

These provisions shall not apply to all systems in the meteorological-satellite service and the Earth exploration-satellite service in this frequency band for which complete notification information has been received by the Radiocommunication Bureau before 22 November 2019 and brought into use before 22 November 2019.

After 22 November 2027, these limits shall apply to all systems in the meteorological-satellite service and the Earth exploration-satellite service operating in this frequency band (No. **11.50** applies after that date) excluding non-geostationary satellite systems for which complete notification information has been received by the Radiocommunication Bureau before 28 April 2007, for which maximum e.i.r.p. of earth stations within the 401.898-402.522 MHz frequency band can be increased to 12 dBW.     (WRC-19)

**Reasons:** Establishment of in-band e.i.r.p. limits for earth stations in the EESS and MetSat in the frequency band 401-403 MHz, specified per emission within reference bandwidth (4 kHz) as well as within whole allocated band, to avoid possible power aggregation of closely spaced narrowband carriers, notified for earth stations, taking into account the result of studies. In addition, for the frequency band 401-403 MHz, different sets of limits are established for GSO/HEO and non-geostationary systems. Specific provisions are proposed for satellite systems exceeding these e.i.r.p. limits, for which complete notification information has been received by the Radiocommunication Bureau by 22 November 2019, and that have been brought into use by that date.

SUP EUR/16A2/4

RESOLUTION 765 (WRC-15)

Establishment of in-band power limits for earth stations operating   
in mobile-satellite service, the meteorological-satellite service and   
the Earth exploration-satellite service in the frequency bands   
401-403 MHz and 399.9-400.05 MHz

**Reasons:** The Resolution is no longer necessary.

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