**Final Report of the Agenda Item 1.2 Coordinator during WRC-19**

Wang Xiaodong , wxd@srrc.org.cn

Report Date: 2019.11.08

1. **Agenda Item**

*Agenda item 1.2 is 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);*

1. **APT Common Proposals and APT Views for WRC-19 (which has been submitted to WRC-19)**

APT supports **Method C** and **Method E in CPM report** for the frequency bands 399.9-400.05 MHz and 401-403 MHz respectively.

1. **Topics proposed by other regional Groups or ITU Members which are not included in no. 2 above**

|  |  |  |
| --- | --- | --- |
|  | 399.9-400.05 MHz | 401-403 MHz |
| CITEL | New method. Introduce in-band power limit only in 399.9-399.99MHz, apply after 22 November 2029. | Approximately method E.  Without limit in 4kHz and apply after 22 November 2029. |
| RCC | Method C. | Method E. Apply after 22 November 2027. |
| CEPT | Method C. | Method E Apply after 22 November 2027. |
| ATU | Change to Method C from No change | Approximately method E. not apply to TT&C even after 22 November 2029 |
| ASMG | Method C | Method E |
| CHN | Method C | Method E |
| J | - | Mehtod E, Apply after 22 November 2029. |
| AUS | Method C | - |
| India | Method C | Method E |
| Luxembourg | Supports in-band power limits, while maintaining filing original status when changing the limits. | - |
| Slovenia | Requests WRC-19 to exclude the NEMO-HD satellite network from the application of possible e.i.r.p. limits due to force majeure. | |

1. **Progress of discussion during WRC-19 on the Agenda Item**

At the meeting of WG5C this morning, It was smoothly adopted the footnote completed by SWG 5C1 with a little editorial modification on item 1.2.

The outcomes footnotes of the AI 1.2 and our ACPs are listed below for reference.

**For frequency band 399.9-400.05MHz,**

|  |  |  |
| --- | --- | --- |
| 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 ADD 5.B12 | | |
| ... | | |

|  |  |
| --- | --- |
| **The Footnote approved by WP5C** | **The ACPs** |
| 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 the 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 2022, 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 2022 these limits shall apply to all systems within the mobile-satellite service operating in this frequency band.  In the frequency band 399.99-400.02 MHz, the e.i.r.p. limits as specified above shall apply after 22 November2022 to all systems within the mobile-satellite service. Administrations are requested that their mobile-satellite service satellite links in the 399.99-400.02 MHz frequency band comply with the e.i.r.p. limits as specified above, after 22 November 2019.     (WRC‑19)  **5.B12** In the frequency band 400.02-400.05 MHz the provisions of No. 5.A12 are not applicable for telecommand uplinks within the mobile-satellite service.     (WRC‑19) | 5.B12 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 the mobile-satellite service operating in this frequency band.     (WRC‑19) |

**For the frequency band 401-403MHz**

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| ... | | |
| 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.C12 ADD 5.D12 | | |
| 402-403 METEOROLOGICAL AIDS  EARTH EXPLORATION-SATELLITE (Earth-to-space)  METEOROLOGICAL-SATELLITE (Earth-to-space)  Fixed  Mobile except aeronautical mobile  ADD 5.C12 ADD 5.D12 | | |
| … | | |

|  |  |
| --- | --- |
| **The Footnote approved by WP5C** | **The ACPs** |
| 5.C12 In the frequency band 401-403 MHz, the maximum e.i.r.p. of any emission of each earth station 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.  The maximum e.i.r.p. of any emission of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 7 dBW in any 4 kHz for non-geostationary systems with an orbit of apogee lower than 35 786 km.  The 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 in the whole 401-403 MHz frequency band. The maximum e.i.r.p. of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 7 dBW for non-geostationary systems with an orbit of apogee lower than 35 786 km in the whole 401-403 MHz frequency band.  Until 22 November 2029, these limits 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 2029 these limits shall apply to all systems within meteorological-satellite service and the Earth exploration-satellite service operating in this frequency band.     (WRC‑19)  5.D12 Non-geostationary satellite systems in the meteorological-satellite service and the Earth exploration-satellite service, for which complete notification information has been received by the Radiocommunication Bureau before 28 April 2007 are exempt from provisions of No. **5.C12** and may continue to operate in the frequency band 401.898-402.522 MHz on a primary basis without exceeding a maximum e.i.r.p. level of 12 dBW.     (WRC‑19) | 5.D12 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 2024 or 2029 (date to be agreed on at WRC‑19), these limits shall apply to all systems in the meteorological-satellite service and the Earth exploration-satellite service operating in this frequency band 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) |

1. **Issues which require discussion at APT Coordination Meetings and seek guidance thereafter**

**None.**

*Note: Coordinators are encouraged to conduct informal consultation with interested APT Members on the issues/topics under no. 3 and inform the outcomes of consultation to the Coordination Meeting*. *Coordinators can also organize coordination meetings on the respective agenda items whenever necessary.*