

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

Agenda Item 1.12: to consider possible changes in response to Resolution **86 (Rev. Marrakesh, 2002)** of the Plenipotentiary Conference: “Advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks” in accordance with Resolution **86 (WRC-03)**;

Background information: Resolution **86 (Rev. Marrakesh, 2002)** requested that WRC-03 and subsequent Conferences review the regulatory procedures associated with the advance publication, coordination, notification and recording of frequency assignments pertaining to satellite networks. WRC-03 identified in Resolution **86 (WRC-03)** the scope and the criteria to be used for the implementation of Resolution **86 (Rev. Marrakesh, 2002)**. Resolves 1 of Resolution **86 (WRC-03)** specifically states that WRC-07 should “consider any proposals which deal with deficiencies in the advance publication, coordination, notification and recording procedures of the Radio Regulations (RR) for space services which have either been identified by the Board and included in the Rules of Procedure or which have been identified by administrations or by the Bureau as appropriate.”

Currently, Appendix **4** makes certain data elements optional for the case of “Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9”. These fields include i) the necessary bandwidth; ii) the carrier frequency or frequencies of the emission; iii) the maximum value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type; iv) the minimum value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type; v) the minimum power density, in dB(W/Hz), supplied to the input of the antenna for each carrier type; and vi) the required C/N ratio. This information is required in order to determine whether unacceptable interference may be caused by the planned satellite network or system and communicate this information to the publishing administration and the Bureau under No. **9.3**. To only require this information at the notification stage makes any analysis too late to benefit either administration. While most administrations have been supplying this data as part of the Advance Publication Information (API), there have been instances where the information was not made available. Therefore modifications to Appendix **4** are necessary to allow necessary analysis to take place during API.

Proposal

APPENDIX 4

ANNEX 2 Characteristics of satellite networks, earth stations or radio astronomy stations

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Table of characteristics to be submitted for space and radio astronomy services

(WRC-0307)

Items in Appendix	<p align="center">C – CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR A SATELLITE ANTENNA BEAM OR AN EARTH STATION OR RADIO ASTRONOMY ANTENNA</p>	<p align="center">Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9</p>
C.7	<p>NECESSARY BANDWIDTH AND CLASS OF EMISSION (in accordance with Article 2 and Appendix 1)</p>	
C.7.a	<p>the necessary bandwidth and the class of emission: for each carrier In the case of Appendix 30B, required only for notification under Article 8</p>	<p align="center">OX</p>
C.7.b	<p>the carrier frequency or frequencies of the emission(s)</p>	<p align="center">OX</p>
C.8	<p>POWER CHARACTERISTICS OF THE TRANSMISSION</p>	
C.8.a	<p>For the case where individual carriers can be identified:</p>	
C.8.a.1	<p>the maximum value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type Required if C.8.b.1 is not provided</p>	<p align="center">O_±</p>
C.8.a.2	<p>the maximum power density, in dB(W/Hz), supplied to the input of the antenna for each carrier type² Required if C.8.b.2 is not provided</p>	<p align="center">+</p>
C.8.b	<p>For the case where it is not appropriate to identify individual carriers:</p>	
C.8.b.1	<p>the total peak envelope power, in dBW, supplied to the input of the antenna For coordination or notification of an Appendix 30A earth station the values shall include the maximum range of power control Required if C.8.a.1 is not provided</p>	<p align="center">O_±</p>
C.8.b.2	<p>the maximum power density, in dB(W/Hz), supplied to the input of the antenna² For coordination or notification of an Appendix 30A earth station the values shall include the maximum range of power control Required if C.8.a.2 is not provided</p>	<p align="center">+</p>
C.8.c.1	<p>the minimum value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type If not provided, the reason for absence under C.8.c.2</p>	<p align="center">O_±</p>
C.8.c.2	<p>if C.8.c.1 is not provided, the reason for absence of the minimum value of the peak envelope power</p>	<p align="center">±</p>
C.8.c.3	<p>the minimum power density, in dB(W/Hz), supplied to the input of the antenna for each carrier type² If not provided, the reason for absence under C.8.c.4</p>	<p align="center">O_±</p>
C.8.c.4	<p>if C.8.c.3 is not provided, the reason for absence of the minimum power density</p>	<p align="center">±</p>
C.8.d.1	<p>the maximum total peak envelope power, in dBW, supplied to the input of the antenna for each contiguous satellite bandwidth For a satellite transponder, this corresponds to the maximum saturated peak envelope</p>	<p align="center">O</p>

	power Required only for a space-to-Earth or space-to-space link	
C.8.d.2	each contiguous satellite bandwidth For the maximum saturated peak envelope power of the satellite transponder, this corresponds to the bandwidth of each transponder Required only for a space-to-Earth or space-to-space link	<u>0</u>
C.8.e.1	for space-to-Earth, Earth-to-space or space-to-space links. for each carrier type, the greater of either the carrier-to-noise ratio, in dB, required to meet the performance of the link under clear-sky conditions or the carrier-to-noise ratio, in dB, required to meet the short-time objectives of the link inclusive of necessary margins If not provided, the reason for absence under C.8.e.2	<u>0±</u>
C.8.e.2	if C.8.e.1 is not provided, the reason for absence of the carrier-to-noise ratio	<u>±</u>

Reasons: In order to allow for meaningful interference analysis to take place for the case of “Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9”, make additional technical information mandatory at the API stage.
