

Ms. Mindel De La Torre
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA), on behalf of the Executive Branch agencies, approve the release of a draft Executive Branch proposal for WRC-12 agenda item 2. NTIA proposes modifications to Resolution 27 to add cross reference data to the table of contents for recommendations incorporated by reference.

NTIA considered the Federal agencies' input toward the development of U.S. proposals for WRC-12. NTIA forwards this package for consideration and review by your WRC-12 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

(Original Signed September 24, 2010)

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

UNITED STATES OF AMERICA
DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 2: *to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 28 (Rev.WRC-03), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the Annex 1 to Resolution 27 (Rev.WRC-07)*

Background Information: A number of provisions of the Radio Regulations incorporate by reference specific versions of ITU-R Recommendations. As these referenced ITU-R Recommendations are updated at future ITU-R meetings, it is then necessary for later WRCs to review the corresponding Radio Regulations to see if the references they contain should be revised to reflect the new version of the cited ITU-R Recommendation. Otherwise, the older version of the ITU-R Recommendation remains in effect. As a result, this is a standing item on every WRC agenda, and its main purpose is to examine revised ITU-R Recommendations to determine their suitability for incorporation by reference.

Resolution 27 (Rev.WRC-07) provides principles and procedures for use of incorporation by reference in the Radio Regulations. WRC-07 made improvements to Resolution 27. In particular, WRC-07 updated the Resolution with an additional principle stating that where a mandatory reference to an ITU-R Recommendation is included in the *resolves* of a WRC Resolution, which is itself cited in a provision or footnote using mandatory language, that ITU-R Recommendation shall also be considered as incorporated by reference. Also, the revised resolution provides further clarification for the application of mandatory and non-mandatory references. Resolution 28 (Rev.WRC-03) directs WRCs to review ITU-R Recommendations incorporated by reference in the Radio Regulations that have been revised during the elapsed study period (based on the list to be provided by the Radiocommunication Assembly).

These Resolutions provide clear instructions and guidance for both the Radiocommunication Bureau and administrations to assist them in their preparations for future conferences. To facilitate this task, the Report of the Director of the Radiocommunication Bureau to the Conference Preparatory Meeting (CPM) is to include an initial list of those ITU-R Recommendations containing texts incorporated by reference that have been revised or approved since the previous WRC, or that may be revised in time for the upcoming WRC. The Report will also identify the provisions and footnotes to the Radio Regulations containing references to 1) ITU-R recommendations, and 2) WRC resolutions that contain references to ITU-R recommendations, and propose suggestions on any future action.

WRC-12 could revise the “Table of Contents” in RR Volume 4 to include, for each of the ITU-R recommendations incorporated by reference (or portions thereof), the corresponding mandatory reference(s) in the RR. An example of a revised table of contents, based on the 2008 edition of the RR, can be found in attachment 1 to this document. Note that the Radiocommunication Bureau may wish to review the proposed additions for completeness. A reference table in this manner would be useful for general reference purposes and would also assist administrations in their preparatory work for this agenda item prior to CPM and WRC. Each WRC would need to

revise this table and provide appropriate instructions to the Bureau and General Secretariat for its inclusion in Volume 4 of the subsequent edition of the RR. To implement these changes, some revisions to Resolution 27 (Rev. WRC-07) are required.

Proposals:

MOD USA/2/1

RESOLUTION 27 (REV.WRC-12)

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Use of incorporation by reference in the Radio Regulations

The World Radiocommunication Conference (Geneva, 2012),

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considering

a) that the principles of incorporation by reference were adopted by WRC-95, and revised by subsequent conferences (see Annexes 1 and 2 to this Resolution);

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b) that there are provisions in the Radio Regulations containing references which fail to distinguish adequately whether the status of the referenced text is mandatory or non-mandatory,

noting

that references to Resolutions or Recommendations of a world radiocommunication conference (WRC) require no special procedures, and are acceptable for consideration, since such texts will have been agreed by a WRC,

resolves

1 that for the purposes of the Radio Regulations, the term “incorporation by reference” shall only apply to those references intended to be mandatory;

2 that when considering the introduction of new cases of incorporation by reference, such incorporation shall be kept to a minimum and made by applying the following criteria:

- only texts which are relevant to a specific WRC agenda item may be considered;
- the correct method of reference shall be determined on the basis of the principles set out in Annex 1 to this Resolution;
- the guidance contained in Annex 2 to this Resolution shall be applied in order to ensure that the correct method of reference for the intended purpose is employed;

3 that the procedure described in Annex 3 to this Resolution shall be applied for approving the incorporation by reference of ITU-R Recommendations or parts thereof;

4 that existing references to ITU-R Recommendations shall be reviewed to clarify whether the reference is mandatory or non-mandatory in accordance with Annex 2 to this Resolution;

5 that ITU-R Recommendations, or parts thereof, incorporated by reference at the conclusion of each WRC, and a cross reference list of the corresponding references (e.g. Articles, Resolutions, etc.) to these referenced texts in the Radio Regulations, shall be collated and published in a volume of the Radio Regulations (see Annex 3 to this Resolution),

instructs the Director of the Radiocommunication Bureau

1 to bring this Resolution to the attention of the Radiocommunication Assembly and the ITU-R Study Groups;

2 to identify the provisions and footnotes of the Radio Regulations containing references to ITU-R Recommendations and make suggestions on any further action to the second session of the Conference Preparatory Meeting (CPM) for its consideration, as well as for inclusion in the Director's Report to the next WRC;

3 to identify the provisions and footnotes of the Radio Regulations containing references to WRC Resolutions that contain references to ITU-R Recommendations, and make suggestions on any further action to the second session of the Conference Preparatory Meeting (CPM) for its consideration, as well as for inclusion in the Director's Report to the next WRC,

invites administrations

to submit proposals to future conferences, taking into account the CPM Report, in order to clarify the status of references, where ambiguities remain regarding the mandatory or non-mandatory status of the references in question, with a view to amending those references:

- i) that appear to be of a mandatory nature, identifying such references as being incorporated by reference by using clear linking language in accordance with Annex 2;
- ii) that are of a non-mandatory character, so as to refer to "the most recent version" of the Recommendations.

Reasons: MOD to resolves 5 includes the concept that, for each ITU-R Recommendation incorporated by reference and published in Volume 4 of the Radio Regulations, the corresponding references in the RR are to be included. Also, the MOD to considering a) is intended to capture, yet simplify the concept that this Resolution was revised by WRC-97, WRC-2000, WRC-03 and WRC-07 and may be revised at WRC-12 and future conferences.

NOC USA/2/2

ANNEX 1 TO RESOLUTION 27 (REV.WRC-07)

Principles of incorporation by reference

Reasons: No change is needed for Annex 1.

NOC USA/2/3

ANNEX 2 TO RESOLUTION 27 (REV.WRC-07)

Application of incorporation by reference

Reasons: No change is needed for Annex 2.

MOD USA/2/4

ANNEX 3 TO RESOLUTION 27 (REV.WRC-12)

Procedures applicable by WRC for approving the incorporation by reference of ITU-R Recommendations or parts thereof

The referenced texts shall be made available to delegations in sufficient time for all administrations to consult them in the ITU languages. A single copy of the texts shall be made available to each administration as a conference document.

During the course of each WRC, a list of the texts incorporated by reference, and a cross reference list of the corresponding references (e.g. Articles, Resolutions, etc.) to these referenced texts in the Radio Regulations shall be developed and maintained by the committees. This list shall be published as a conference document in line with developments during the conference.

Following the end of each WRC, the Bureau and General Secretariat will update the volume of the Radio Regulations which serves as the repository of texts incorporated by reference in line with developments at the conference as recorded in the above-mentioned document.

Reasons: MOD to Annex 3 includes the concept that the list of the texts incorporated by reference prepared at the conference include the corresponding references in the RR and that, following the end of each WRC, the Bureau and General Secretariat are to update Volume 4 of the RR based on these texts and the developments at the conference.

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ATTACHMENT 1
(Example of Revised Table of Contents to Volume 4 of the RR)

**List of ITU-R Recommendations incorporated by reference
in Volume 4 of the Radio Regulations (Edition of 2008)**

TABLE OF CONTENTS

| Recommendation ITU-R | Title of the Recommendation | <u>Parts of the RR including references to the ITU-R Rec.</u> | Page |
|------------------------------------|---|---|------|
| TF.460-6 | Standard-frequency and time-signal emissions | <u>No. 1.14</u> | 1 |
| M.476-5 | Direct-printing telegraph equipment in the maritime mobile service | <u>Nos. 19.83, 19.96A, 51.41</u> | 7 |
| M.489-2 | Technical characteristics of VHF radiotelephone equipment operating in the maritime mobile service in channels spaced by 25 kHz | <u>Nos. 51.77, 52.231, Appendix 18 Notes referring to the Table note e)</u> | 19 |
| M.492-6 | Operational procedures for the use of direct-printing telegraph equipment in the maritime mobile service | <u>Nos. 56.2</u> | 21 |
| P.525-2 | Calculation of free-space attenuation | <u>No. 5.444B + Resolution 748 (WRC-07) resolves 3</u> | 31 |
| P.526-10 | Propagation by diffraction | <u>No. 5.444B + Resolution 748 (WRC-07) resolves 3</u> | 35 |
| M.541-9 | Operational procedures for the use of digital selective-calling equipment in the maritime mobile service | <u>Nos. 51.35, 52.112, 52.149, 52.153, 54.2</u> | 73 |
| M.585-4 (Annexes 1 to 5) | Assignment and use of maritime mobile service identities (See Annexes 1 to 5) | <u>Nos. 19.99, 19.102, 19.111</u> | 111 |
| M.625-3 | Direct-printing telegraph equipment employing automatic identification in the maritime mobile service | <u>Nos. 19.83, 51.41</u> | 119 |

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| Recommendation ITU-R | Title of the Recommendation | <u>Parts of the RR including references to the ITU-R Rec.</u> | Page |
|-------------------------|--|---|------|
| M.633-3 | Transmission characteristics of a satellite emergency position-indicating radio beacon (satellite EPIRB) system operating through a satellite system in the 406 MHz band | <u>No. 34.1</u> | 179 |
| S.672-4 | Satellite antenna radiation pattern for use as a design objective in the fixed-satellite service employing geostationary satellites | <u>Article 22 Table 22-2 (and 22.5D.3), Table 22-3 (and 22.5F.3)</u> | 181 |
| M.690-1 | Technical characteristics of emergency position-indicating radio beacons (EPIRBs) operating on the carrier frequencies of 121.5 MHz and 243 MHz | <u>Appendix 15 Table 15-2</u> | 207 |
| P.838-3 | Specific attenuation model for rain for use in prediction methods | <u>Appendix 30A Annex 3 § 2.2</u> | 209 |
| M.1084-4 | Interim solutions for improved efficiency in the use of the band 156-174 MHz by stations in the maritime mobile service (See Tables 1 and 3 of Annex 4) | <u>Appendix 18, NOTE B (prior to the table)</u> | 217 |
| SM.1138-1 | Determination of necessary bandwidths including examples for their calculation and associated examples for the designation of emissions | <u>Appendix 1 § 1.2) and § 2.3.1)</u> | 229 |
| SA.1154 | Provisions to protect the space research (SR), space operations (SO) and Earth-exploration satellite services (EES) and to facilitate sharing with the mobile service in the 2 025-2 110 MHz and 2 200-2 290 MHz bands | <u>No. 5.391</u> | 237 |
| M.1171 | Radiotelephony procedures in the maritime mobile service | <u>Nos. 52.192, 52.195, 52.213, 52.224, 52.234, 52.240, 57.1,</u> | 267 |

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| Recommendation ITU-R | Title of the Recommendation | <u>Parts of the RR including references to the ITU-R Rec.</u> | Page |
|---------------------------------------|--|--|-------------|
| M.1172 | Miscellaneous abbreviations and signals to be used for radiocommunications in the maritime mobile service | <u>Nos. 19.48</u> | 277 |
| M.1173 | Technical characteristics of single-sideband transmitters used in the maritime mobile service for radiotelephony in the bands between 1 606.5 kHz (1 605 kHz Region 2) and 4 000 kHz and between 4 000 kHz and 27 500 kHz | <u>Nos. 52.181, 52.229, Appendix 17 Part B § 6 a) and b)</u> | 311 |
| M.1174-2 | Technical characteristics of equipment used for on-board vessel communications in the bands between 450 and 470 MHz | <u>No. 5.287, 5.288</u> | 313 |
| M.1187-1 | A method for the calculation of the potentially affected region for a mobile-satellite service network in the 1-3 GHz range using circular orbits | <u>Appendix 4 Annex 2 item C.11.b</u> | 315 |
| S.1256 | Methodology for determining the maximum aggregate power flux-density at the geostationary-satellite orbit in the band 6 700-7 075 MHz from feeder links of non-geostationary satellite systems in the mobile-satellite service in the space-to-Earth direction | <u>No. 22.5A</u> | 321 |
| RS.1260-1 | Feasibility of sharing between active spaceborne sensors and other services in the range 420-470 MHz | <u>No. 5.279A</u> | 329 |
| BO.1293-2 (Annexes 1 and 2) | Protection masks and associated calculation methods for interference into broadcast-satellite systems involving digital emissions | <u>Appendix 30 Annex 5 § 3.4, Appendix 30A Annex 3 § 3.3</u> | 345 |

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| S.1341 | Sharing between feeder links for the mobile-satellite service and the aeronautical radionavigation service in the space-to-Earth direction in the band 15.4-15.7 GHz and the protection of the radio astronomy service in the band 15.35-15.4 GHz | <u>No. 5.511A</u> | 373 |
| S.1428-1 | Reference FSS earth-station radiation patterns for use in interference assessment involving non-GSO satellites in frequency bands between 10.7 GHz and 30 GHz | <u>Article 22 Table 22-1A (and 22.5C.6), Table 22-1B (and 22.5C.6), Table 22-1C (and 22.5C.6)</u> | 387 |
| BO.1443-2 (Annex 1) | Reference BSS earth station antenna patterns for use in interference assessment involving non-GSO satellites in frequency bands covered by RR Appendix 30 | <u>Article 22 Table 22-1D (and 22.5C.11)</u> | 391 |
| M.1583 | Interference calculations between non-geostationary mobile-satellite service or radionavigation-satellite service systems and radio astronomy telescope sites | <u>No. 5.443B + Resolution 741 (WRC-03) resolves 2, Appendix 4 Annex 2 item A.17.b.3 + Resolution 741 (WRC-03) resolves 2</u> | 399 |
| S.1586-1 | Calculation of unwanted emission levels produced by a non-geostationary fixed-satellite service system at radio astronomy sites | <u>No. 5.551H</u> | 409 |

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| F.1613 | Operational and deployment requirements for fixed wireless access systems in the fixed service in Region 3 to ensure the protection of systems in the Earth exploration-satellite service (active) and the space research service (active) in the band 5 250-5 350 MHz | <u>No. 5.447E</u> | 417 |
| RA.1631 | Reference radio astronomy antenna pattern to be used for compatibility analyses between non-GSO systems and radio astronomy service stations based on the epfd concept | <u>No. 5.551H,</u> <u>No. 5.443B +</u> <u>Resolution 741</u> <u>(WRC-03) resolves</u> <u>2</u> <u>Appendix 4 Annex</u> <u>2 item A.17.b.3 +</u> <u>Resolution 741</u> <u>(WRC-03) resolves</u> <u>2</u> | 433 |
| RS.1632 | Sharing in the band 5 250-5 350 MHz between the Earth exploration-satellite service (active) and wireless access systems (including radio local area networks) in the mobile service | <u>No. 5.447F</u> | 437 |
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| M.1643 (Annex 1) | Technical and operational requirements for aircraft earth stations of aeronautical mobile-satellite service including those using fixed-satellite service network transponders in the band 14-14.5 GHz (Earth-to-space) | <u>Nos. 5.504B, 5.504C, 5.508A, 5.509A</u> | 491 |
| M.1652 (Annex 1) | Dynamic frequency selection (DFS) in wireless access systems including radio local area networks for the purpose of protecting the radiodetermination service in the 5 GHz band (See Annex 1) | <u>No. 5.446A + Resolution 229 (WRC-03) resolves 8</u> | 497 |
| M.1827 | Technical and operational requirements for stations of the aeronautical mobile (R) service (AM(R)S) limited to surface application at airports and for stations of the aeronautical mobile service (AMS) limited to aeronautical security (AS) applications in the band 5 091-5 150 MHz | <u>No. 5.444B + Resolution 419 (WRC-07) resolves 2,</u> <u>No. 5.444B + Resolution 748 (WRC-07) resolves 2</u> | 517 |

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