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| **World Radiocommunication Conference (WRC-15)Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Document 84-E** |
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| Austria/Spain/Finland/France/Italy/Lithuania (Republic of)/Luxembourg/Monaco (Principality of)/Norway/Poland (Republic of)/Slovak Republic/Czech Republic/Romania |
| Proposals for the work of the conference |
|  |
| Agenda item 1.14 |

1.14to consider the feasibility of achieving a continuous reference time-scale, whether by the modification of coordinated universal time (UTC) or some other method, and take appropriate action, in accordance with Resolution **653 (WRC‑12)**;

Introduction

In accordance with Resolution 653 (WRC-12) the required studies have concluded on four possible methods to satisfy the agenda item in order to achieve a continuous time-scale. In the current definition of Universal Coordinated Time (UTC) the time-scale is adjusted to the mean solar time UT1 by inserting or removing a second whenever the difference between UTC and UT1 approaches 0.9 s. This extra second is known as the leap second.

Method A of the CPM Report proposes to stop the leap second procedure in the definition of UTC, this proposal is consistent with this particular method and in particular Method A1 when the acronym UTC is kept.

Removing the leap second from the definition of UTC will allow the dissemination of a continuous time-scale while removing the need to adjust UTC with the leap second with the associated risk of errors that in the past led to mishaps in telecommunication and computer systems.

However since some systems such astronomical instruments rely on UT1 or its current approximation UTC, software for these systems may need to be modified to be able to recover UT1 from UTC with a difference bigger than 0.9 s. It is then proposed to delay the suppression of the leap second insertion by 5 years and implement the proposed modifications of the Radio Regulation in 2021.

The following proposals are based on Method A1 of the CPM Report.

ARTICLE 1

Terms and definitions

Section I – General terms

MOD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/1

1.14 *Coordinated Universal Time (UTC):*Time scale, based on the second (SI) and maintained by the Bureau International des Poids et Mesures (BIPM), that forms the basis for the coordinated dissemination of standard frequencies and time signals.     (WRC-15)

**Reasons:** To remove the incorporation by reference of Recommendation ITU-R TF.460-6, which defines the use of leap seconds in UTC, add a reference to the international organization responsible for the maintenance of the UTC time-scale, and remove the equivalence between UTC and the mean solar time at the prime meridian.

ARTICLE 2

Nomenclature

Section II – Dates and times

MOD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/2

2.5 Whenever a date is used in connection with Coordinated Universal Time (UTC), this date is that at the prime meridian, the prime meridian corresponding to zero degrees geographical longitude.

**Reasons:** Consequential changes resulting from the MOD to RR No. 1.14.

MOD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/3

2.6 Whenever a specified time is used in international radiocommunication activities, UTC shall be applied, and it shall be presented as a four-digit group (0000-2359). The abbreviation UTC shall be used in all languages.

**Reasons:** Consequential changes resulting from the MOD to RR No. 1.14.

MOD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/4

CHAPTER X

Provisions for entry into force of the Radio Regulations    (WRC‑15)

MOD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/5

ARTICLE 59

Entry into force and provisional application
of the Radio Regulations    (WRC‑15)

MOD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/6

59.1 These Regulations, which complement the provisions of the Constitution and Convention of the International Telecommunication Union, and as revised and contained in the Final Acts of WRC‑95, WRC‑97, WRC‑2000, WRC‑03, WRC‑07, WRC‑12 and WRC‑15, shall be applied, pursuant to Article 54 of the Constitution, on the following basis.    (WRC‑15)

ADD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/7

59.13 The other provisions of these Regulations, as revised by WRC‑15, shall enter into force on 1 January 2017, with the following exceptions:     (WRC‑15)

ADD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/8

59.14 – the revised provisions for which other effective dates of application are stipulated in Resolution:

 **[84-A114-UTC] (WRC‑15)**.    (WRC‑15)

SUP AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/9

RESOLUTION 653 (WRC‑12)

Future of the Coordinated Universal Time time-scale

**Reasons:** No need for Resolution 653 (WRC-12).

ADD AUT/E/FIN/F/I/LTU/LUX/MCO/NOR/POL/SVK/CZE/ROU/84/10

Draft New Resolution [84-A114-UTC] (WRC‑15)

Provisional application of certain provisions of the Radio Regulations
as revised by WRC‑15 and abrogation of certain
Resolutions and Recommendations

The World Radiocommunication Conference (Geneva, 2015),

considering

*a)* that this Conference has adopted modifications of Nos. **1.14**, **2.5** and**2.6** regarding the modification of UTC to achieve a continuous reference time-scale;

*b)* that this Conference has, in accordance with its terms of reference, adopted a partial revision to the Radio Regulations, which will enter into force on 1 January 2017;

*c)* that some of the provisions, as amended by this Conference, need to apply after that date;

*d)* that to ensure sufficient time for legacy systems to update hardware and/or software to accommodate the stopping of insertion of leap seconds in UTC, Nos. **1.14**, **2.5** and**2.6** need to apply at a later stage,

resolves

that, as of 1 January 2021, Nos. **1.14**, **2.5** and **2.6**, as revised by WRC‑15, shall apply.

**Reasons:** To ensure sufficient time for legacy systems to update hardware and/or software to accommodate the stopping of insertion of leap seconds in UTC.

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