

The future of Coordinated Universal Time (UTC) and the leap second (Forwarded)

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STATEMENT FOR RELEASE TO THE PRESS

THE FUTURE OF COORDINATED UNIVERSAL TIME (UTC) AND THE LEAP SECOND

A working party of the International Telecommunication Union - Radiocommunication Sector (ITU-R) has considered a proposed change to UTC at a meeting in Geneva on 8 -11 November 2005. The proposal is based on studies done by an ITU-R Special Rapporteur Group (SRG) that was established due to some evidence of the difficulties experienced by communication, navigation and other electronic systems caused by leap seconds and the general proliferation of continuous system "time scales".

The proposed change is intended to make UTC a continuous time scale. This would however cause UTC to gradually diverge from UT1, the astronomical time scale based on the irregular rotation of the Earth. At present, leap seconds are added to UTC to limit its divergence from UT1 by no more than 0.9 seconds. The proposal recommends that the maximum difference allowed between UTC and UT1 be increased to one hour (an event predicted to occur

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only once every several hundred years).

The working party has discussed the proposed change and options, and decided that more time is required to build consensus. In addition, the forthcoming leap second just prior to 01 January 2006 00:00:00 h UTC -- the first for seven years -- provides an opportunity to further document current problems.

UTC has been adopted as the basis of civil time in most of the world. It is derived from more than 200 atomic clocks operated in some 50 time standards laboratories around the world. The Bureau International des Poids et Mesures (BIPM) is responsible for computing UTC on the basis of data from those laboratories. UT1 is maintained by the International Earth Rotation and Reference Systems Service (IERS) and it is this body that decides when leap second adjustments should be applied. The procedures for maintaining UTC are described by Recommendation ITU-R TF.460-6.

Attention: The information contained in this document is temporary in nature and does not necessarily represent material that has been agreed by the group concerned. Since the material may be subject to revision during the meeting, caution should be exercised in using the document for the development of any further contribution on the subject.

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