

## Coordinated Universal Time (UTC) to Retain Leap Second Until At Least 2023

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The ITU World Radiocommunication Conference (WRC-15), which convened in Geneva from 2 to 27 November 2015, decided that further studies are required on the effect and application of a future reference time-scale, including modifying the current time reference Coordinated Universal Time (UTC) and eliminating the leap second. A new reference time scale is to be considered by World Radiocommunication Conference in 2023.



Leap seconds are added periodically to adjust for irregularities in Earth's rotation with respect to UTC so that it remains within  $\pm 0.9$  seconds of mean solar time (UT1). A leap second was added most recently on 30 June 2015 at 23:59:60 UTC (image right ©2015 W. Reeve). To view a screen videos of the leap second being inserted go to:

<http://www.reeve.com/Time/Time.htm>.

The proposal to suppress the leap second was to make a continuous reference time-scale available for use with electronic navigation and computerized systems while eliminating the need for specialized time systems.



WRC-15 called for further studies regarding current and potential future reference time-scales, and a report will be considered by the World Radiocommunication Conference in 2023. Until then, UTC will continue to be applied as described in Recommendation ITU-R TF.460-6 and as maintained by the International Bureau of Weights and Measures (BIPM). The recommendation includes definitions of UT, UTC, TAI, and DUT, among others, and may be downloaded from:

<https://www.itu.int/rec/R-REC-TF.460-6-200202-I/en>

WRC-15 also calls for reinforcing the links between ITU and BIPM. ITU would continue to be responsible for the dissemination of time signals via radio communication and BIPM for establishing and maintaining the second used in the International System of Units (SI) and its dissemination through the reference time scale.



The studies noted above will be coordinated by ITU along with international organizations including *International Maritime Organization (IMO)*, *International Civil Aviation Organization (ICAO)*, *General Conference on Weights and Measures (CGPM)*, *International Committee for Weights and Measures (CIPM)*, *International Bureau of Weights and Measures (BIPM)*, *International Earth Rotation and Reference Systems Service (IERS)*, *International Union of Geodesy and Geophysics (IUGG)*, *International Union of Radio Science (URSI)*, *International Organization for Standardization (ISO)*, *World Meteorological Organization (WMO)*, and *International Astronomical Union (IAU)*.