CONSULTATIVE COMMITTEE FOR TIME AND FREQUENCY (CCTF)

The CCTF is concerned with the **definition and realization of the second**, the establishment and diffusion of **Coordinated Universal Time (UTC)**, and the **coordination of time and frequency metrology.**

IMPACT

Global communication, navigation, computing, transport, finance and science all run on precise time. The CCTF makes this possible by disseminating UTC and coordinating international comparisons of high-accuracy frequency standards.

KEY ACHIEVEMENTS SINCE 2022

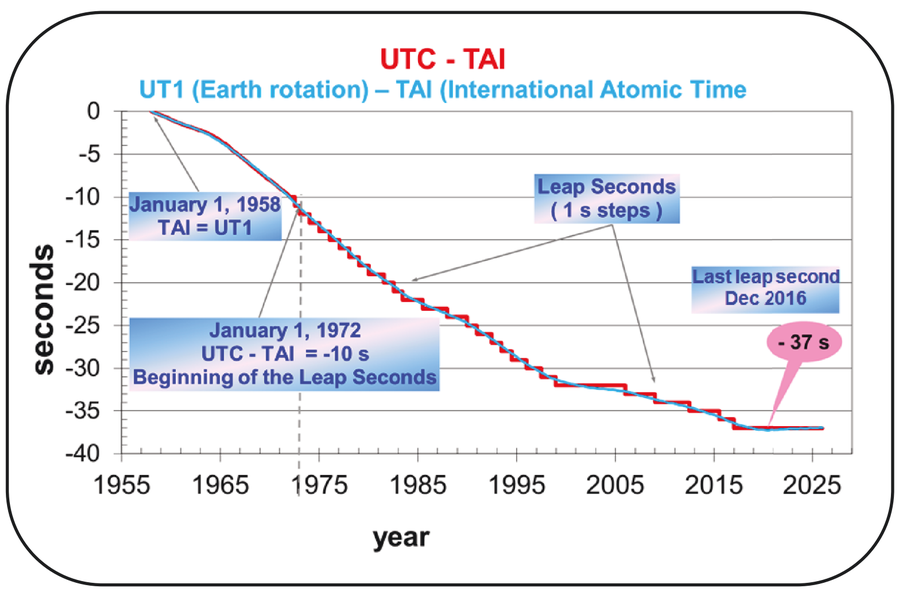
Draft Resolution B "On the future definition of the second"

The CCTF is working towards a **new definition of the second** to be presented at the 29th meeting of the CGPM (2030). NMIs are committed to work together to support high-accuracy comparisons and the development of optical frequency standards.



Credit: OP, NIM, NICT, NIST, PTB, KRISS,NPL.

Draft Resolution C "On the technical actions needed to ensure the continuity of UTC"



Credit : BIPM

- The growing probability of a negative leap second creates a significant risk to time-dependent infrastructures that ask for an implementation "*as soon as possible*".
- The CCTF recommends that continuous UTC becomes effective on 20 May 2027.
- The maximum value for **the difference |UT1-UTC| will be 3 600 seconds** (1 hour), **ensuring the long-term continuity of UTC for several centuries.**

Draft Resolution D "On the definition of an international lunar reference time scale and its traceability to UTC"

- There is growing interest among space agencies in the development of **lunar infrastructure,** including Positioning, Navigation, and Timing (PNT) systems.
- The CCTF is committed to support **reliable and internationally coordinated timekeeping on the Moon and other planets.**



Credit: Canva AI