

**PROPOSED RECOMMENDATION CCTF # (2009)
Characterization of delays of GNSS time transfer equipment in TAI contributing laboratories**

The Consultative Committee for Time and Frequency,

considering that

- the characterization of the delays of time transfer equipment is essential to ensure the accuracy of the time links for International Atomic Time (TAI),
- uncompensated changes of the hardware delays in a time link may cause a significant instability in TAI,
- the Consultative Committee for the Definition of the Second (CCDS) and the Consultative Committee for Time and Frequency (CCTF) have stressed the importance of calibration of time transfer equipment in laboratories participating to the calculation of TAI at the BIPM;

aware that

- the Time, frequency and gravimetry section of the BIPM makes efforts for measuring the relative delays of GNSS equipment in laboratories contributing data to the formation of TAI,
- considerable human resources and equipment are necessary to calibrate all GNSS equipment in TAI, and to keep them updated;

recommends that

- the BIPM continues organizing and running campaigns of measurement of delays in GNSS equipment in laboratories,
- these campaigns be principally organized for calibrating equipment in a selected subset of laboratories, and that they constitute a primary comparison,
- the Regional Metrology Organizations (RMOs) support the BIPM by organizing campaigns of measurement of delays within the frame of regional comparisons to be linked to the primary one conducted by the BIPM.