

RECOMMENDATION ITU-R TF.458-3

INTERNATIONAL COMPARISONS OF ATOMIC TIME SCALES

(Question ITU-R 102-1/7)

(1970-1978-1990-1998)

The ITU Radiocommunication Assembly,

considering

- a) the need for comparisons between independent local atomic time scales of various laboratories and observatories;
- b) the need for clarity, precision and the minimum delay in the communication of data to the user,

recommends

- 1** that when a laboratory or observatory “k” keeps both independent local atomic time and an approximation to coordinated universal time, designated herein as TA(k) and UTC(k), the laboratory or observatory should publish the numerical expression of the difference TA(k) – UTC(k) for each period of validity;
 - 2** that time markers having a negligible time departure from UTC(k) should be immediately accessible;
 - 3** that the published time comparisons should relate to UTC(k);
 - 4** that the published phase comparisons should relate to UTC(k);
 - 5** that the published times of emission of radio time signals conforming to the UTC system should relate to UTC(k);
 - 5.1** in the case of a radio time-signal emission generated directly by the laboratory or observatory “k”, the measured delay between the time signals and UTC(k) should be published;
 - 5.2** in the case of a radio time-signal emission controlled by a clock at the transmitting station and measured at the laboratory or observatory “k”, it should be stated explicitly whether the published times in relation to UTC(k) refer to reception or emission and what corrections for propagation and receiver delays should be or have been applied;
 - 6** that any laboratories or observatories not conforming to the UTC system, but desiring to take part in international comparisons and in the formation of International Atomic Time, should publish detailed data compatible, as far as possible, with the principles of § 1 to 5.
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