

Table 7. Mean fractional deviation of the TAI scale interval from that of TT

The fractional deviation d of the scale interval of TAI from that of TT (in practice the SI second on the geoid), and its relative uncertainty, are computed by the BIPM for all the intervals of computation of TAI, according to the method described in 'Azoubib J., Granveaud M., Guinot B., Metrologia 13, 1977, pp. 87-93', using all available measurements from the most accurate primary frequency standards CRL-O1, NIST-7, NIST-F1, NRLM-4, PTB CS1, PTB CS2, PTB CS3, PTB CSF1, SYRTE-FO2, SYRTE-FOM and SYRTE-JPO consistently corrected for the black-body radiation shift.

In this computation, a model for the instability of EAL is needed. Starting in 1998, it has been expressed as the quadratic sum of three components: a white frequency noise $6.0 \times 10^{-15} / \sqrt{\tau}$, a flicker frequency noise 0.6×10^{-15} and a random walk frequency noise $1.6 \times 10^{-16} \times \sqrt{\tau}$, with τ in days. The relation between EAL and TAI is given in Table 5.

Month	Interval	$d/10^{-15}$	uncertainty/ 10^{-15}
Jan. 2000	51539-51574	+4.5	2.1
Feb. 2000	51574-51599	+4.8	1.7
Mar. 2000	51599-51634	+5.6	1.9
Apr. 2000	51634-51664	+6.4	2.1
May 2000	51664-51694	+6.8	2.2
Jun. 2000	51694-51724	+6.2	2.1
Jul. 2000	51724-51754	+6.6	2.0
Aug. 2000	51754-51784	+7.4	1.4
Sep. 2000	51784-51814	+7.1	1.5
Oct. 2000	51814-51844	+7.2	1.5
Nov. 2000	51844-51874	+7.4	1.7
Dec. 2000	51874-51909	+5.4	1.8
Jan. 2001	51909-51939	+5.5	2.0
Feb. 2001	51939-51964	+4.8	1.5
Mar. 2001	51964-51999	+5.7	1.8
Apr. 2001	51999-52029	+6.6	1.6
May 2001	52029-52059	+6.7	1.8
Jun. 2001	52059-52089	+8.2	1.5
Jul. 2001	52089-52119	+8.9	1.2
Aug. 2001	52119-52149	+8.4	1.6
Sep. 2001	52149-52179	+9.2	1.4
Oct. 2001	52179-52209	+8.2	1.7
Nov. 2001	52209-52239	+10.2	1.1
Dec. 2001	52239-52274	+9.3	1.7
Jan. 2002	52274-52304	+9.7	1.9
Feb. 2002	52304-52329	+10.2	1.5
Mar. 2002	52329-52364	+10.6	1.4
Apr. 2002	52364-52394	+9.7	1.7
May 2002	52394-52424	+10.2	1.7
Jun. 2002	52424-52454	+9.5	1.9
Jul. 2002	52454-52484	+10.8	1.5
Aug. 2002	52484-52514	+8.9	1.9
Sep. 2002	52514-52544	+8.8	1.4
Oct. 2002	52544-52574	+8.6	1.7
Nov. 2002	52574-52604	+9.7	1.6
Dec. 2002	52604-52639	+10.5	1.5