

Table 7. Mean fractional deviation of the TAI scale interval from that of TT(File available at <ftp://62.161.69.5/pub/tai/scale/sitai09.ar>)

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 1977, 13, pp. 87-93](#)', using all available measurements from the most accurate primary frequency standards (PFS) IT-CSF1, NICT-CSF1, NICT-O1, NIST-F1, NMIJ-F1, NPL-CSF1, PTB-CS1, PTB-CS2, PTB-CSF1, SYRTE-FO1, SYRTE-FO2, SYRTE-FOM and SYRTE-JPO consistently corrected for the black-body radiation shift.

In this computation, the uncertainty of the link to TAI has been computed using the standard uncertainty of [UTC-UTC(k)], following the recommendation of the CCTF working group on PFS. The model for the instability of EAL has been expressed as the quadratic sum of three components: a white frequency noise $1.7 \times 10^{-15} / \sqrt{\tau}$, a flicker frequency noise 0.35×10^{-15} and a random walk frequency noise $1.0 \times 10^{-16} \times \sqrt{\tau}$, with τ in days. The relation between EAL and TAI is given in Table 5.

Month	Interval	$d/10^{-15}$	uncertainty/ 10^{-15}
Jan. 2007	54099-54129	+1.3	0.8
Feb. 2007	54129-54159	+1.0	0.6
Mar. 2007	54159-54189	+1.9	0.8
Apr. 2007	54189-54219	+2.7	0.3
May 2007	54219-54249	+3.4	0.5
Jun. 2007	54249-54279	+2.5	0.5
Jul. 2007	54279-54309	+2.7	0.5
Aug. 2007	54309-54339	+3.7	0.4
Sep. 2007	54339-54369	+4.0	0.5
Oct. 2007	54369-54404	+3.3	0.4
Nov. 2007	54404-54434	+3.3	0.6
Dec. 2007	54434-54464	+3.9	0.6
Jan. 2008	54464-54494	+3.1	0.4
Feb. 2008	54494-54524	+3.2	0.6
Mar. 2008	54524-54554	+3.6	0.6
Apr. 2008	54554-54584	+4.0	0.4
May 2008	54584-54614	+4.3	0.4
Jun. 2008	54614-54644	+3.4	0.4
Jul. 2008	54644-54674	+3.7	0.3
Aug. 2008	54674-54709	+4.1	0.5
Sep. 2008	54709-54739	+3.3	0.5
Oct. 2008	54739-54769	+3.7	0.5
Nov. 2008	54769-54799	+4.9	0.4
Dec. 2008	54799-54829	+4.8	0.4
Jan. 2009	54829-54859	+4.8	0.3
Feb. 2009	54859-54889	+5.2	0.4
Mar. 2009	54889-54919	+4.6	0.4
Apr. 2009	54919-54949	+5.2	0.4
May 2009	54949-54979	+5.0	0.4
Jun. 2009	54979-55009	+5.6	0.6
Jul. 2009	55009-55039	+6.3	0.6
Aug. 2009	55039-55074	+5.4	0.4
Sep. 2009	55074-55104	+5.1	0.4
Oct. 2009	55104-55134	+3.9	0.3
Nov. 2009	55134-55164	+3.6	0.3
Dec. 2009	55164-55194	+3.9	0.5