

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 1977, 13, pp. 87-93](#)', using all available measurements from the most accurate primary frequency standards (PFS) IT-CSF2, METAS-FOC2, NIM5, NIST-F1, PTB-CS1, PTB-CS2, PTB-CSF1, PTB-CSF2, SU-CSFO2, SYRTE-FO1, SYRTE-FO2, SYRTE-FOM and secondary frequency standard (SFS) SYRTE-FORb, SYRTE-SR2, SYRTE-SrB and NICT-Sr1 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 $1.7 \times 10^{-15}/\sqrt{\tau}$ in 2013 and 2014 and $1.4 \times 10^{-15}/\sqrt{\tau}$ from 2015 to 2018, a flicker frequency noise 0.35×10^{-15} in 2013 and 2014 and 0.3×10^{-f} from 2015 to 2018 and a random walk frequency noise $0.4 \times 10^{-16} \times \sqrt{\tau}$ in 2013 and $0.2 \times 10^{-16} \times \sqrt{\tau}$ from 2014 to 2018, with τ in days. The relation between EAL and TAI is given in the following <ftp://ftp2.bipm.org/pub/tai/other-products/ealtai/feal-ftai>.

Month	Interval	$d/10^{-15}$	uncertainty/ 10^{-15}
Jan. 2016	57384-57414	-0.36	0.25
Feb. 2016	57414-57444	-0.42	0.26
Mar. 2016	57444-57474	-0.78	0.23
Apr. 2016	57474-57504	-1.00	0.16
May 2016	57504-57539	-0.80	0.23
Jun. 2016	57539-57569	-0.49	0.17
Jul. 2016	57569-57599	-0.55	0.18
Aug. 2016	57599-57629	-0.75	0.16
Sep. 2016	57629-57659	-0.89	0.21
Oct. 2016	57659-57689	-1.33	0.21
Nov. 2016	57689-57719	-1.55	0.22
Dec. 2016	57719-57749	-1.34	0.20
Jan. 2017	57749-57784	-1.57	0.22
Feb. 2017	57784-57809	-1.28	0.23
Mar. 2017	57809-57839	-0.79	0.21
Apr. 2017	57839-57869	-0.47	0.20
May 2017	57869-57904	0.35	0.19
Jun. 2017	57904-57934	0.06	0.21
Jul. 2017	57934-57964	-0.02	0.24
Aug. 2017	57964-57994	-0.20	0.24
Sep. 2017	57994-58024	-0.25	0.22
Oct. 2017	58024-58054	-0.33	0.20
Nov. 2017	58054-58084	-0.04	0.19
Dec. 2017	58084-58114	-0.16	0.20
Jan. 2018	58114-58149	-0.06	0.22
Feb. 2018	58149-58174	-0.03	0.18
Mar. 2018	58174-58204	-0.21	0.18
Apr. 2018	58204-58234	-0.01	0.18
May 2018	58234-58269	0.34	0.19
Jun. 2018	58269-58299	0.42	0.21
Jul. 2018	58299-58329	0.65	0.24
Aug. 2018	58329-58359	0.49	0.23
Sep. 2018	58359-58389	0.67	0.17
Oct. 2018	58389-58419	0.39	0.19
Nov. 2018	58419-58449	0.62	0.17
Dec. 2018	58449-58479	0.65	0.19