

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, NIM5, NIST-F1, NIST-F2, NPL-CSF2, NPLI-CSF1, PTB-CS1, PTB-CS2, PTB-CSF1, PTB-CSF2, SU-CSFO2, SYRTE-FO1, SYRTE-FO2 and secondary frequency standard (SFS) SYRTE-FORb 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 $1.4 \times 10^{-15}/\sqrt{\tau}$ in 2015, 2016 and 2017, a flicker frequency noise 0.35×10^{-15} in 2013 and 2014 and 0.3×10^{-15} in 2015, 2016 and 2017 and a random walk frequency noise $0.4 \times 10^{-16}\chi\sqrt{\tau}$ in 2013 and $0.2 \times 10^{-16}\chi\sqrt{\tau}$ in 2014, 2015, 2016 and 2017, with τ in days. The relation between EAL and TAI is given at <ftp://ftp2.bipm.org/pub/tai/other-products/ealtai/feal-ftai>.

Month	Interval	$d/10^{-15}$	uncertainty/ 10^{-15}
Jan. 2015	57019-57049	+0.15	0.26
Feb. 2015	57049-57079	-0.42	0.23
Mar. 2015	57079-57109	-0.13	0.23
Apr. 2015	57109-57139	-0.10	0.23
May 2015	57139-57169	+0.36	0.21
Jun. 2015	57169-57199	+0.81	0.17
Jul. 2015	57199-57234	+0.56	0.24
Aug. 2015	57234-57264	+0.36	0.26
Sep. 2015	57264-57294	+0.09	0.21
Oct. 2015	57294-57324	+0.29	0.24
Nov. 2015	57324-57354	+0.05	0.29
Dec. 2015	57354-57384	-0.11	0.28
Jan. 2016	57384-57414	-0.32	0.25
Feb. 2016	57414-57444	-0.38	0.26
Mar. 2016	57444-57474	-0.76	0.23
Apr. 2016	57474-57504	-1.05	0.17
May 2016	57504-57539	-0.88	0.26
Jun. 2016	57539-57569	-0.55	0.18
Jul. 2016	57569-57599	-0.52	0.20
Aug. 2016	57599-57629	-0.74	0.17
Sep. 2016	57629-57659	-0.85	0.22
Oct. 2016	57659-57689	-1.30	0.21
Nov. 2016	57689-57719	-1.51	0.22
Dec. 2016	57719-57749	-1.32	0.20
Jan. 2017	57749-57784	-1.54	0.23
Feb. 2017	57784-57809	-1.25	0.23
Mar. 2017	57809-57839	-0.76	0.21
Apr. 2017	57839-57869	-0.45	0.20
May 2017	57869-57904	0.37	0.19
Jun. 2017	57904-57934	0.07	0.21
Jul. 2017	57934-57964	0.02	0.25
Aug. 2017	57964-57994	-0.16	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	-0.17	0.20