

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, NPL-CsF2, NRC-FCs2, PTB-CS1, PTB-CS2, PTB-CSF1, PTB-CSF2, SU-CSFO2, SYRTE-FO1, SYRTE-FO2, SYRTE-FOM and secondary frequency standard (SFS) IT-Yb1, NICT-Sr1, NIST-Yb1, NMIJ-Yb1, SYRTE-FORb, SYRTE-SR2 and SYRTE-SrB 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 2020, a flicker frequency noise 0.35×10^{-15} in 2013 and 2014 and 0.3×10^{-15} in from 2015 to 2017 and 0.2×10^{-15} from 2018 to 2020 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 2020, with τ in days. The relation between EAL and TAI is given in the following <https://webtai.bipm.org/ftp/pub/tai/other-products/ealtai/feal-ftai>.

Month	Interval	$d/10^{-15}$	uncertainty/ 10^{-15}
Jan. 2018	58114-58149	-0.09	0.20
Feb. 2018	58149-58174	0.01	0.17
Mar. 2018	58174-58204	-0.15	0.17
Apr. 2018	58204-58234	0.03	0.17
May 2018	58234-58269	0.33	0.17
Jun. 2018	58269-58299	0.46	0.19
Jul. 2018	58299-58329	0.64	0.23
Aug. 2018	58329-58359	0.50	0.22
Sep. 2018	58359-58389	0.66	0.16
Oct. 2018	58389-58419	0.39	0.18
Nov. 2018	58419-58449	0.60	0.16
Dec. 2018	58449-58479	0.63	0.13
Jan. 2019	58479-58514	0.57	0.13
Feb. 2019	58514-58539	0.56	0.15
Mar. 2019	58539-58569	0.51	0.16
Apr. 2019	58569-58599	0.44	0.16
May 2019	58599-58634	0.57	0.14
Jun. 2019	58634-58664	0.59	0.14
Jul. 2019	58664-58694	0.55	0.16
Aug. 2019	58694-58724	0.31	0.13
Sep. 2019	58724-58754	-0.10	0.13
Oct. 2019	58754-58784	-0.36	0.12
Nov. 2019	58784-58814	-0.38	0.12
Dec. 2019	58814-58844	-0.67	0.13
Jan. 2020	58844-58879	-0.60	0.12
Feb. 2020	58879-58904	-0.49	0.14
Mar. 2020	58904-58939	-0.49	0.12
Apr. 2020	58939-58969	-0.43	0.13
May 2020	58969-58999	-0.46	0.12
Jun. 2020	58999-59029	-0.59	0.13
Jul. 2020	59029-59059	-0.59	0.11
Aug. 2020	59059-59089	-0.65	0.13
Sep. 2020	59089-59119	-0.57	0.12
Oct. 2020	59119-59149	-0.29	0.12
Nov. 2020	59149-59179	-0.02	0.12
Dec. 2020	59179-59214	-0.19	0.14