

UTC(MIKE) Atomic Bulletin 2025-07

VTT MIKES Metrology monthly Time & Frequency bulletin.

Comments and questions to: time "at" vtt.fi

Date of publication: 2025-07-15 (60871)

Circular-T issues used for analysis: [445](#), [446](#), [447](#), [448](#), [449](#), [450](#),

First day of analysis interval: 2025-01-04 (60679)

Last day of analysis interval: 2025-06-28 (60854)

ClockData for analysis: [CDMI_25.01](#), [CDMI_25.02](#), [CDMI_25.03](#), [CDMI_25.04](#), [CDMI_25.05](#), [CDMI_25.06](#),

The Atomic Bulletin is archived at: https://monitor.mikes.fi/ftp/atomic_bulletin/

Notes

60139 (2023-07-14) remove AHM1, add AHM2 to analysis.

60321 (2024-01-12) missing ClockData 60304-60309 due to database-issue.

60424 (2024-04-24) AHM3 ion pump failure, phase step -1428.2ns

60433 (2024-05-02) AHM2 to master clock, AHM2 phase step +48759.63 ns

60496 (2024-07-05) AHM3 to master clock.

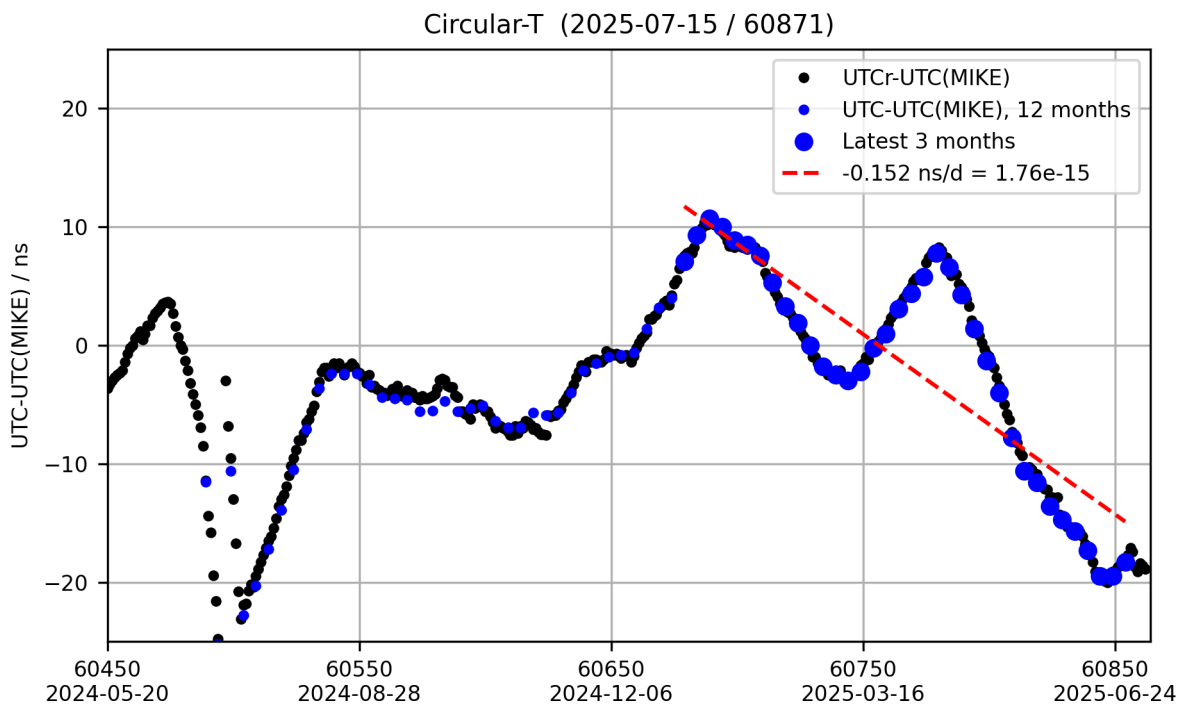
60502 (2024-07-11) AB2024-07: AHM3 fit to to 60434->. Steering $-7\text{e-}15 = +18 \text{ ns/30days}$.

60536 (2024-08-14) AB2024-08: set steering to zero.

60845 (2025-06-19) AB2025-06: fit to 6 months. set steering to $+20\text{ns/60days} = -3.8\text{e-}15$.

60871 (2025-07-15) AB2025-07: keep steering $+20\text{ns/60days} = -3.8\text{e-}15$.

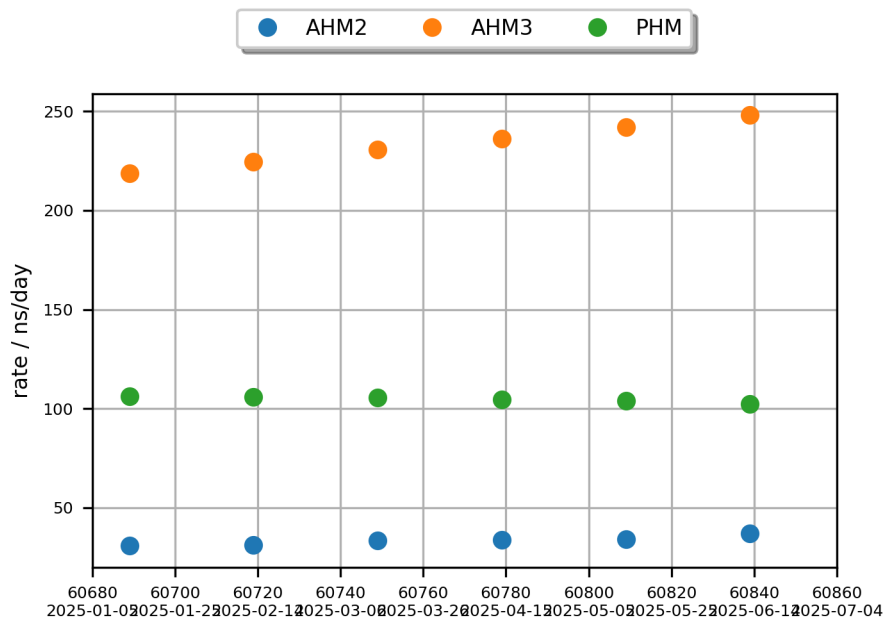
UTC-UTC(MIKE) as reported in Circular-T

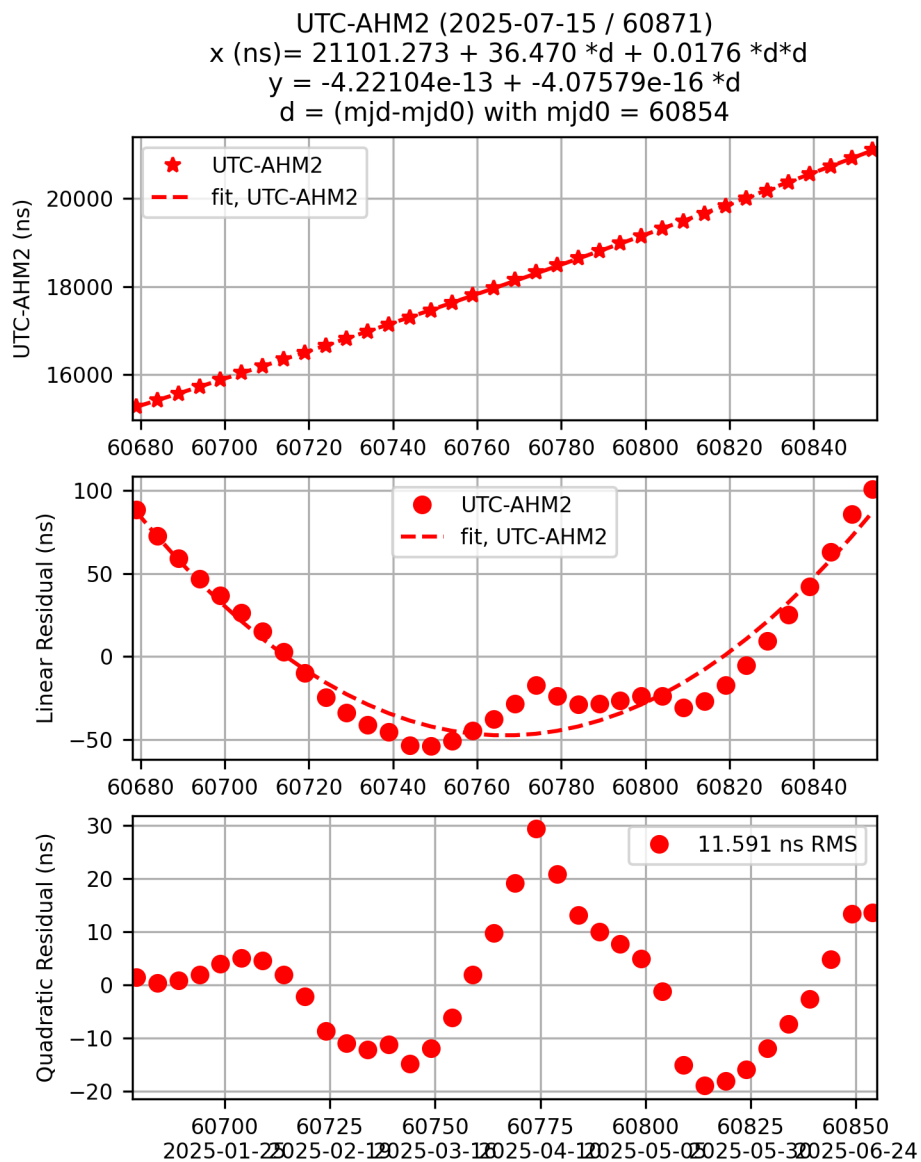


UTC-UTC(MIKE) is available on 5 day intervals on MJD dates ending with 4 or 9. Values are published monthly by the BIPM in Circular-T.

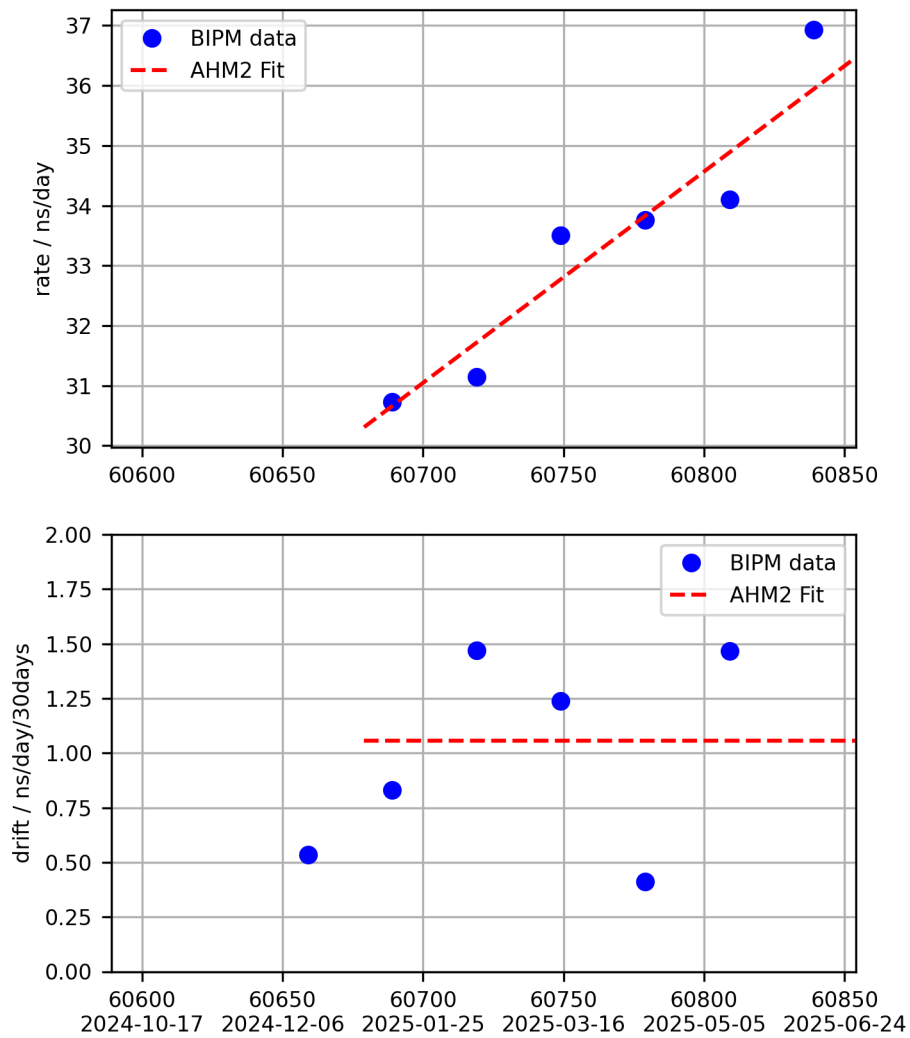
Clock Rates - Summary

Clock rates as reported by the BIPM in the monthly r-report.

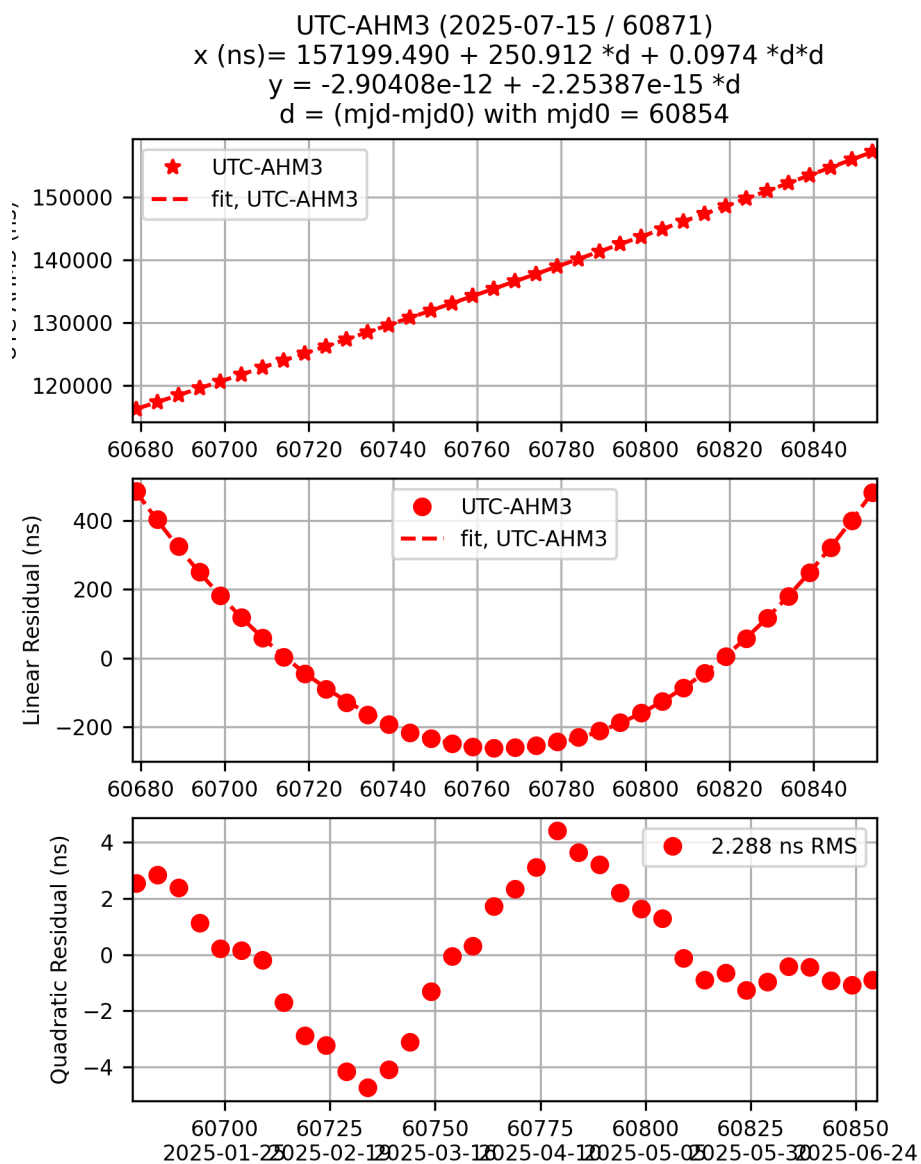


UTC - AHM2 Fit

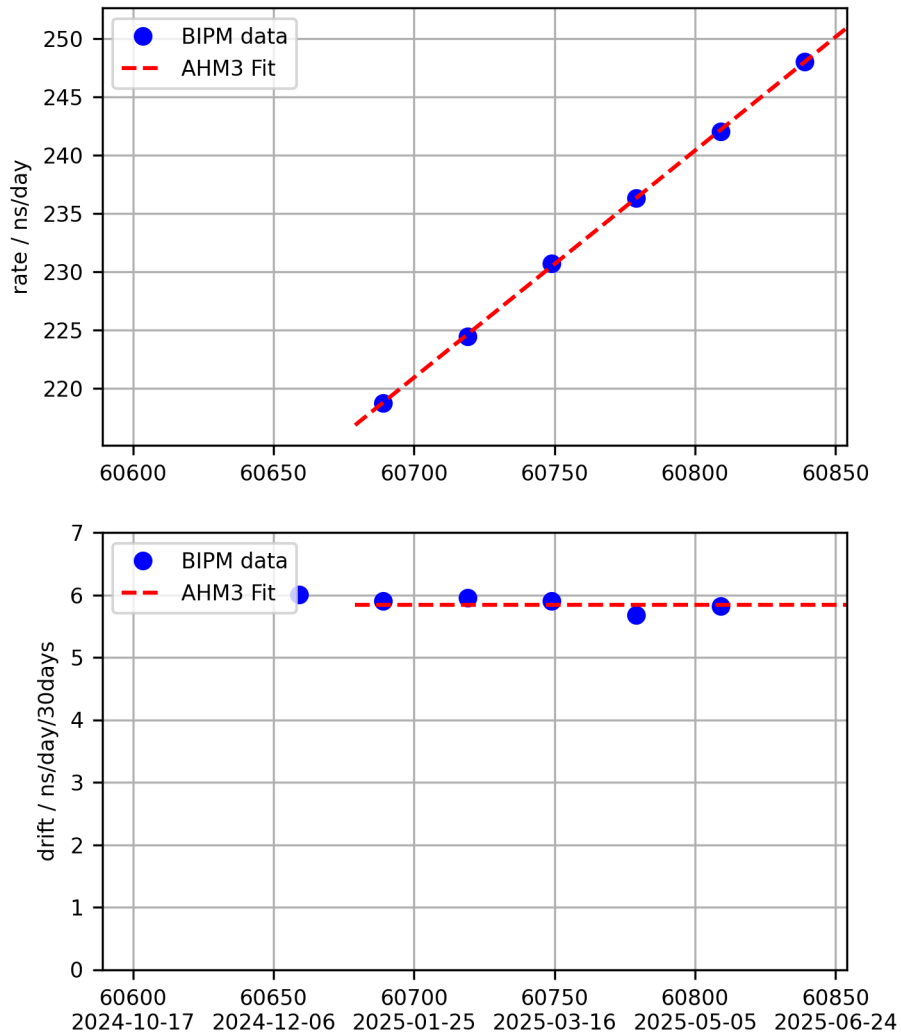
AHM2 Rate and Drift



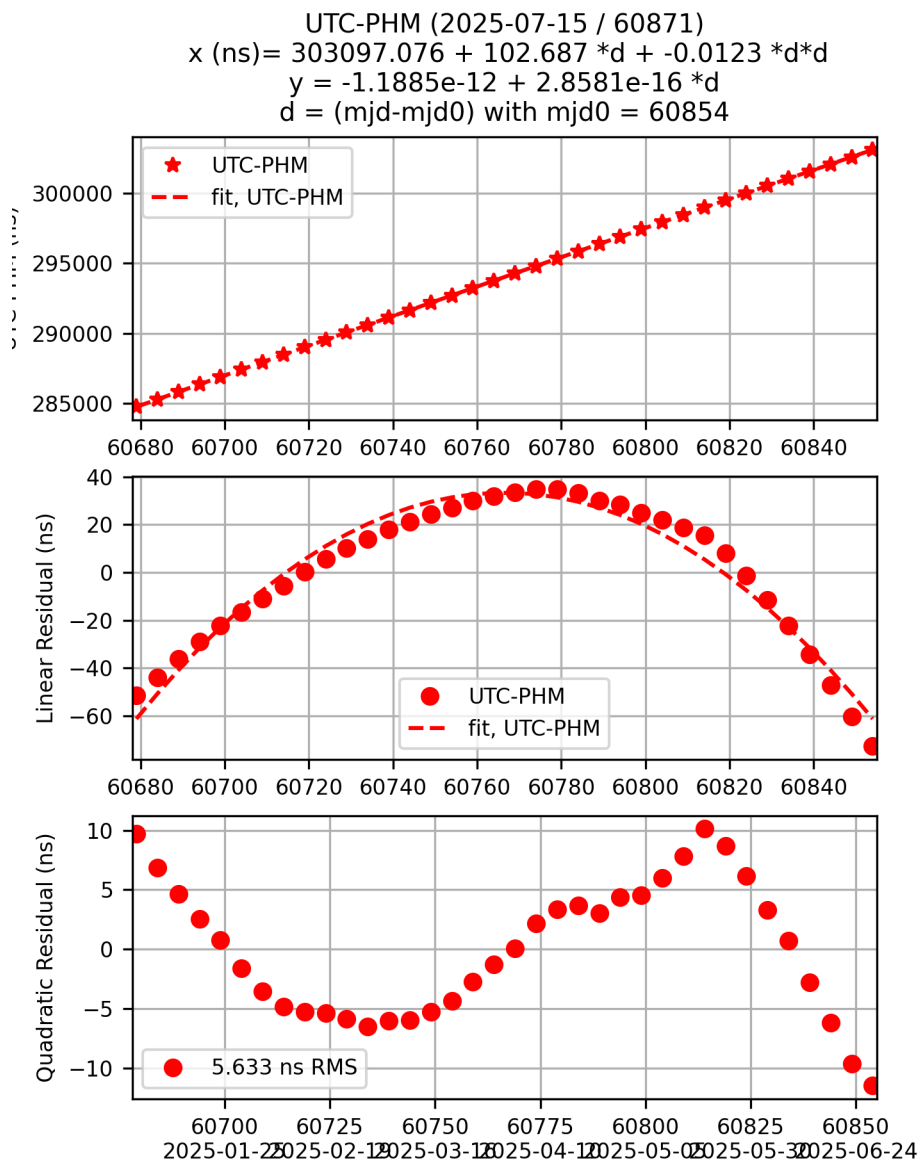
UTC - AHM3 Fit



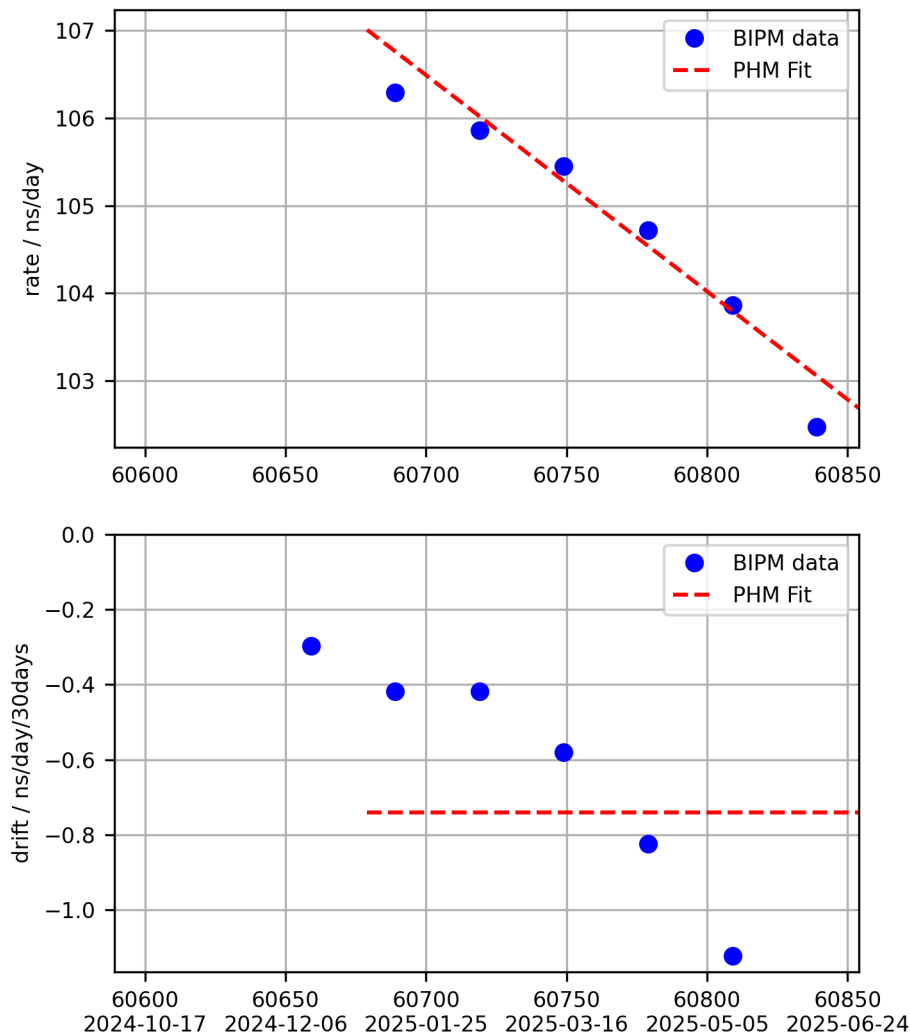
AHM3 Rate and Drift



UTC - PHM Fit

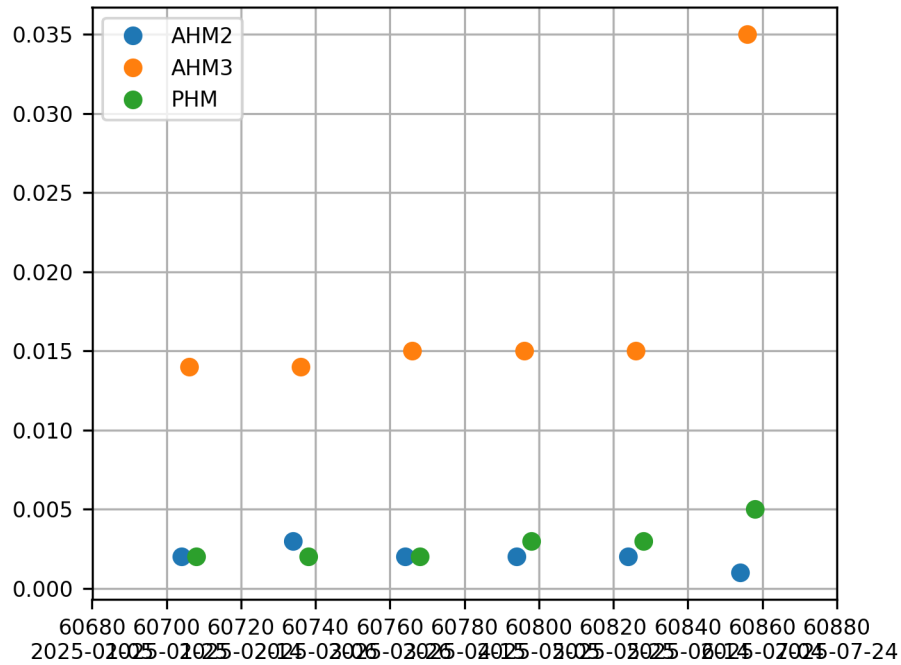


PHM Rate and Drift



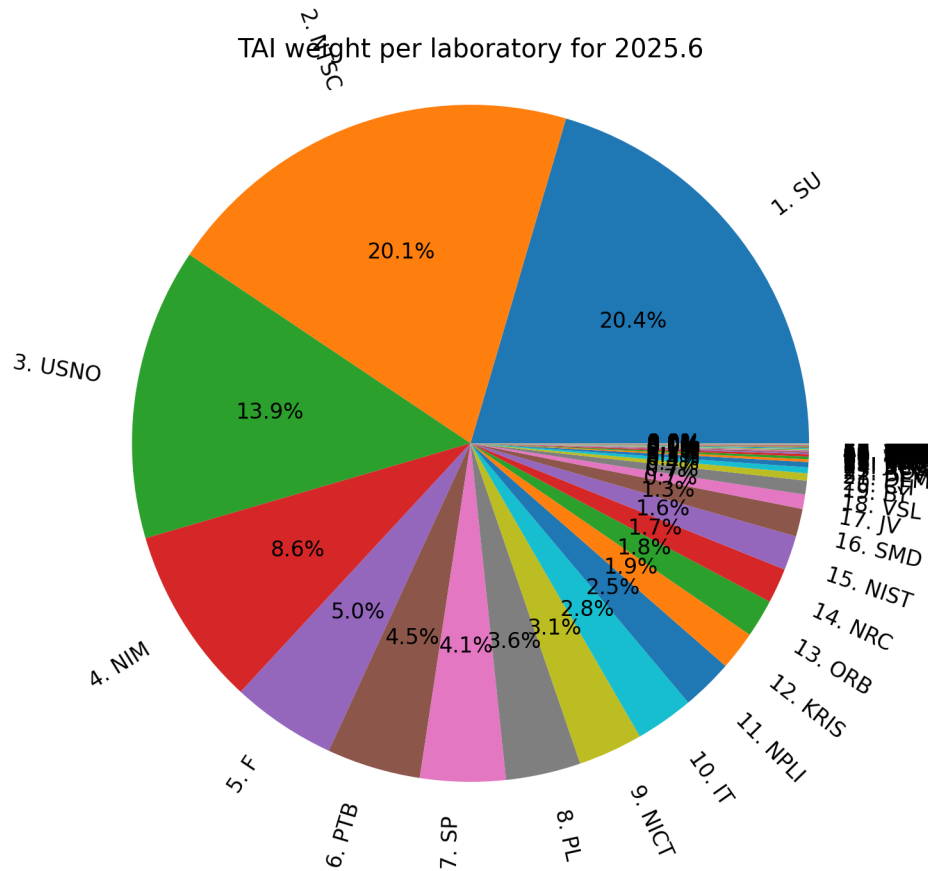
VTT MIKES Clock Weights

RELATIVE WEIGHTS (IN PERCENT) OF THE CLOCKS FOR INTERVALS OF ONE MONTH ENDING AT THE GIVEN DATES



Clock Weights per Laboratory

Relative TAI Weight per laboratory



Weight-file for 2025.06

Number of clocks 412

Number of labs 68

Number of clock types 13

Sum of weights per lab 99.990, Sum of weights per clock type 99.990

Weight Clock Type

0.624 35 MICROSEMI 5071A HIGH PERFORMANCE TUBE.

59.805 40 UNSPECIFIED HYDROGEN MASER

33.864 41 HYDROGEN MASER

0.051 36 MICROSEMI 5071A LOW/STANDARD PERFORMANCE TUBE

0.018 18 MICROSEMI Cs 4000

0.011 37 OSCILLOQUARTZ OSA 3300

0.002 22 OSCILLOQUARTZ OSA 3230B/3235B

0.010 32 OSCILLOQUARTZ OSA 3300-SHP

0.000 44 Other clocks

0.043 42 Commercial Rubidium clock

0.022 38 Chengdu Spaceon Electronics Company TA1000

5.524 93 GROUND-STATE HYPERFINETRANSITION OF 87 Rb

0.016 92 GROUND-STATE HYPERFINE TRANSITION OF 133 Cs

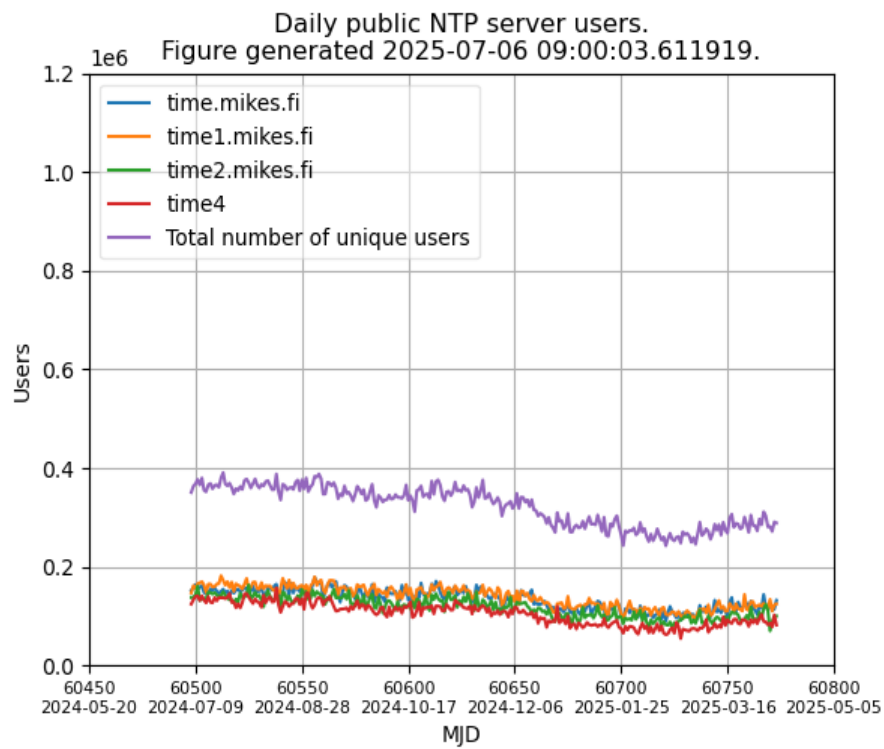
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Rank Weight Lab

1 20.444 SU
2 20.145 NTSC
3 13.931 USNO
4 8.595 NIM
5 5.005 F
6 4.474 PTB
7 4.074 SP
8 3.575 PL
9 3.087 NICT
10 2.781 IT
11 2.454 NPLI
12 1.859 KRIS
13 1.819 ORB
14 1.668 NRC
15 1.644 NIST
16 1.326 SMD
17 0.688 JV
18 0.654 VSL
19 0.350 BY
20 0.282 CH
21 0.252 DFM
22 0.130 BEV
23 0.130 ROA
24 0.112 SCL
25 0.069 IFAG
26 0.052 JATC
27 0.041 MIKE
28 0.040 BIRM
29 0.040 TL
30 0.038 ONRJ
31 0.035 TP
32 0.033 NAO
33 0.024 ESA
34 0.023 NPL
35 0.018 BIM
36 0.016 CAO
37 0.011 NIMT
38 0.009 AUS
39 0.009 CNMP
40 0.009 INPL
41 0.006 MSL

NTP Usage Statistics

Number of unique IPv4 addresses using our public NTP-servers.



End of Bulletin.