

# UTC(MIKE) Atomic Bulletin 2025-02

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2025-02-13 (60719)

Circular-T issues used for analysis: [443](#), [444](#), [445](#),

First day of analysis interval: 2024-11-05 (60619)

Last day of analysis interval: 2025-01-29 (60704)

ClockData for analysis: [CDMI\\_24.11](#), [CDMI\\_24.12](#), [CDMI\\_25.01](#),

The Atomic Bulletin is archived at: [https://monitor.mikes.fi/ftp/atomic\\_bulletin/](https://monitor.mikes.fi/ftp/atomic_bulletin/)

## Notes

60100 (2023-06-05) AHM1 maser stopped working (out of Hydrogen?).

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

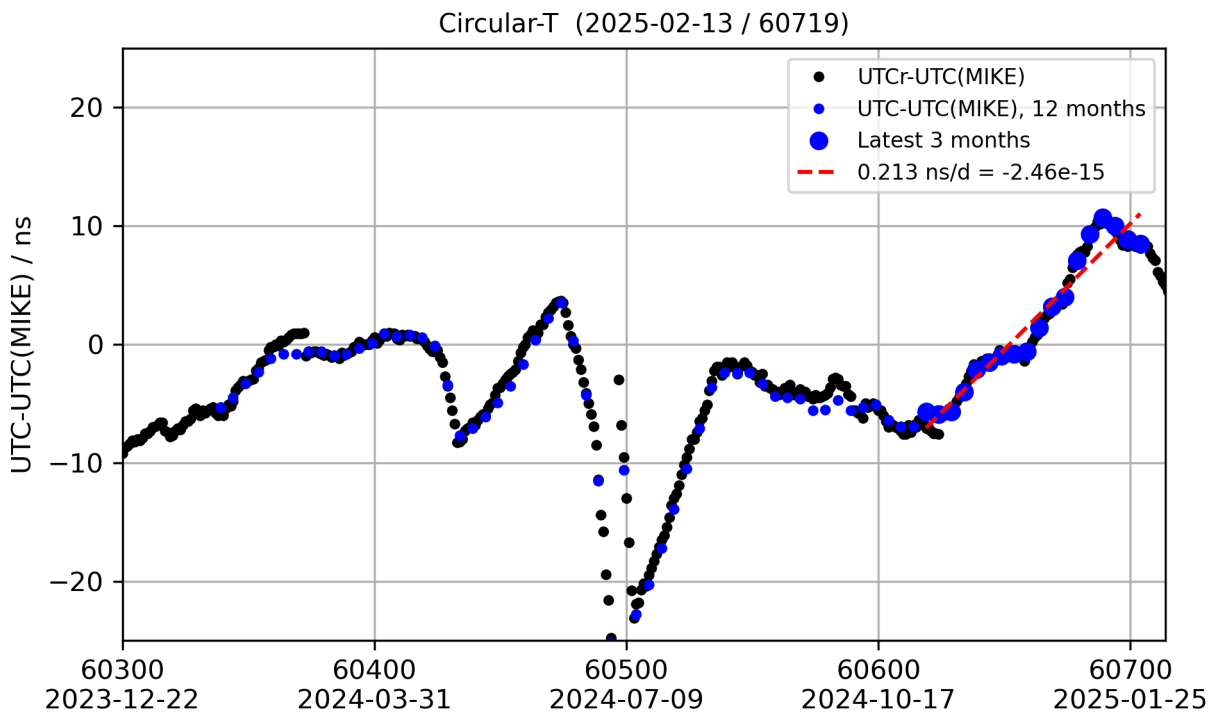
60433 (2024-05-02) AHM2 to master clock, AHM2 phase step +48759.63 ns

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

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

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

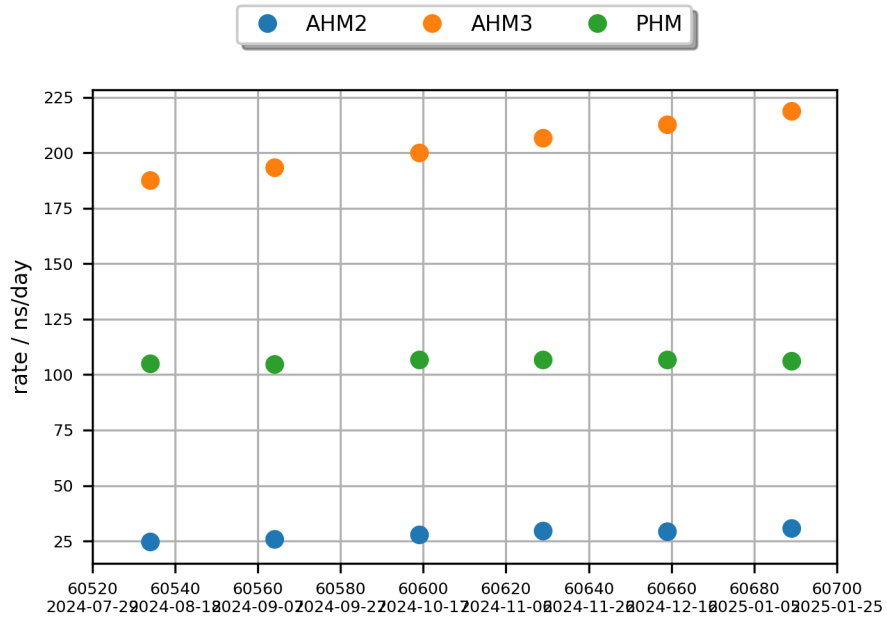
## UTC-UTC(MIKE) as reported in Circular-T



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.

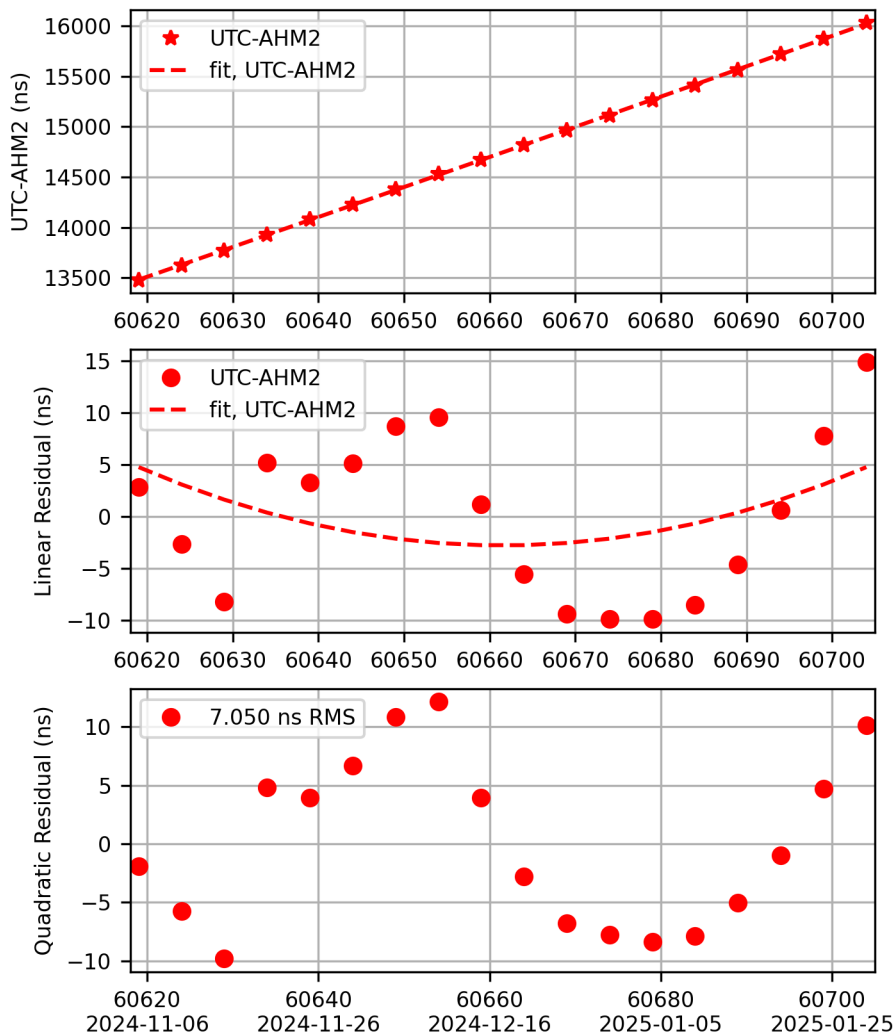
## Clock Rates - Summary

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

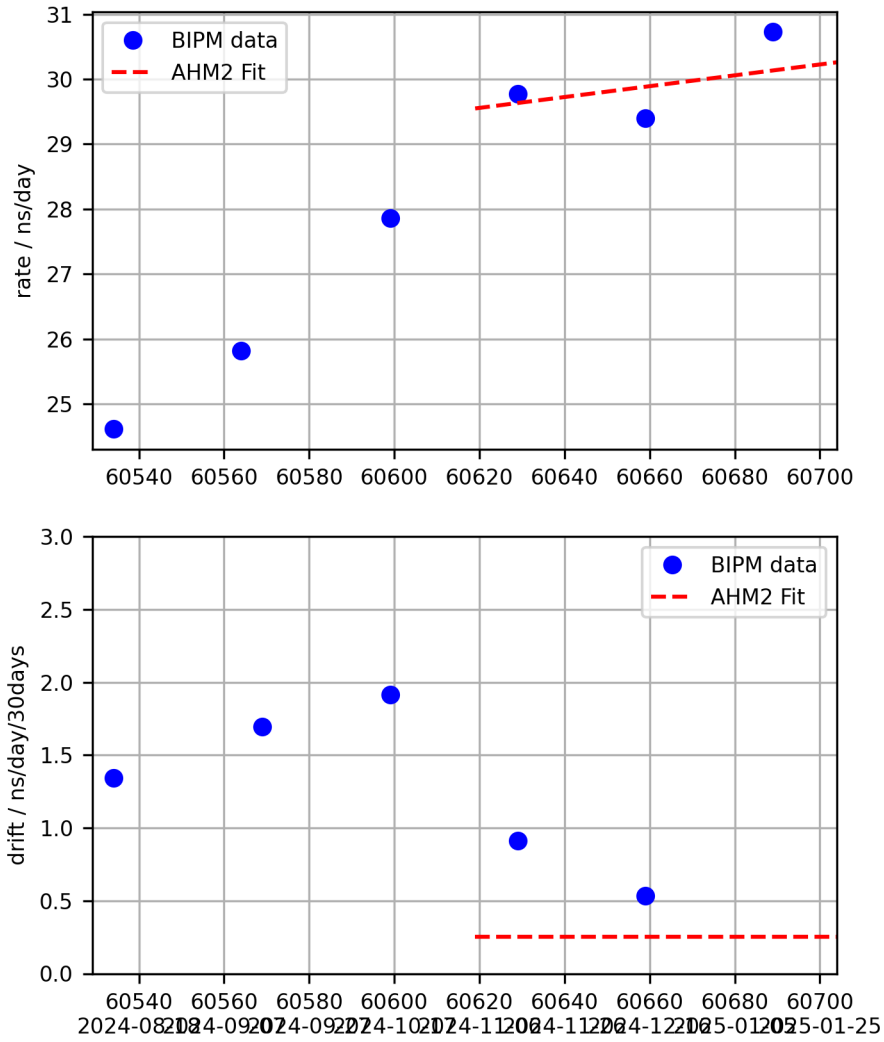


## UTC - AHM2 Fit

UTC-AHM2 (2025-02-13 / 60719)  
 $x \text{ (ns)} = 16021.982 + 30.260 *d + 0.0042 *d*d$   
 $y = -3.50227e-13 + -9.67552e-17 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 60704$

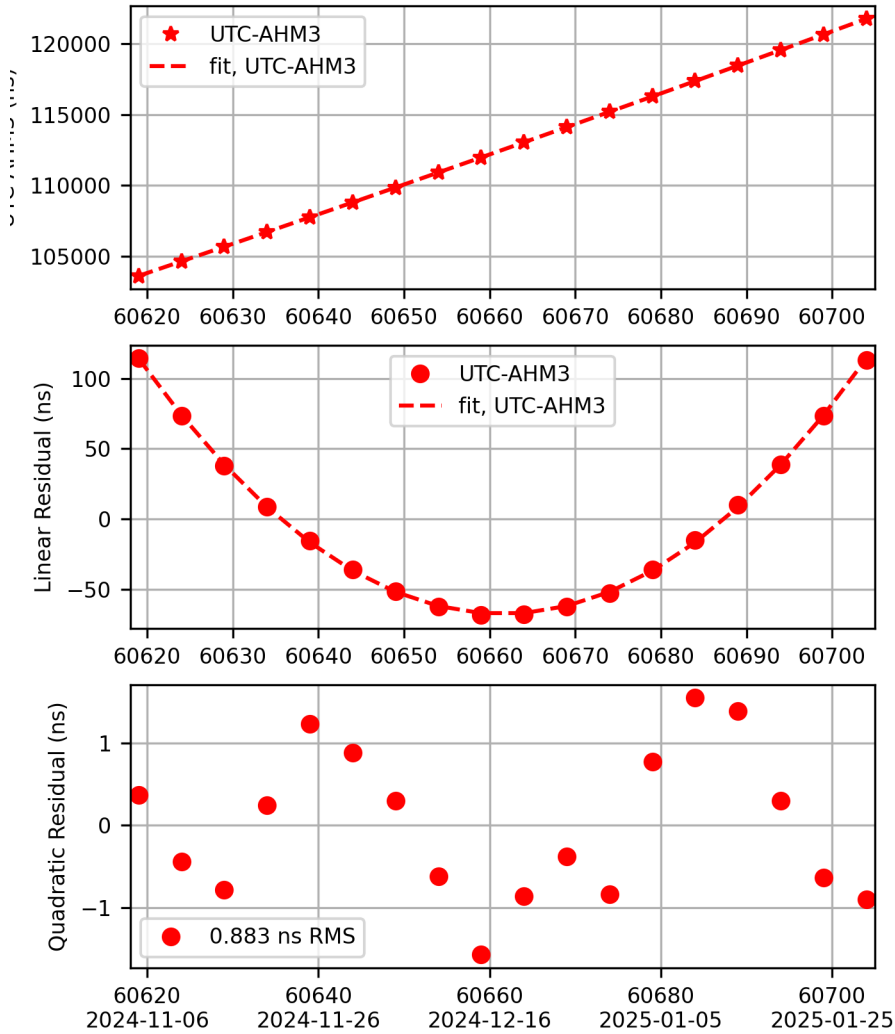


### AHM2 Rate and Drift

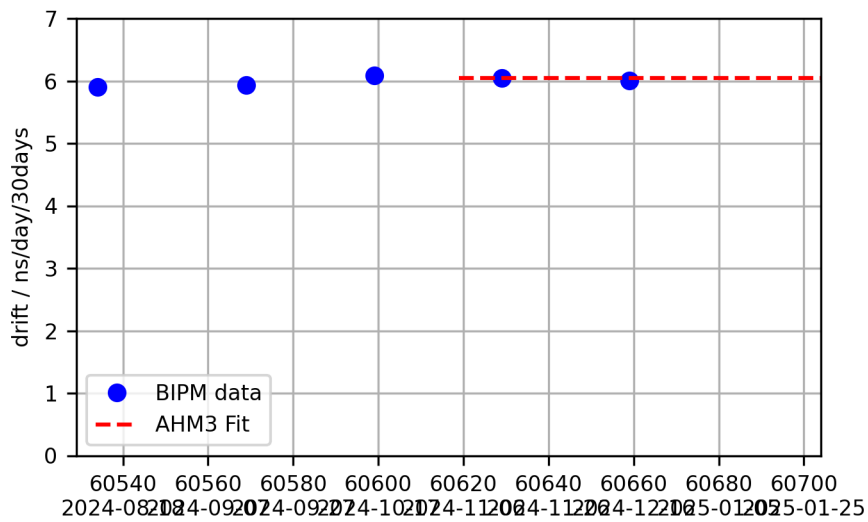
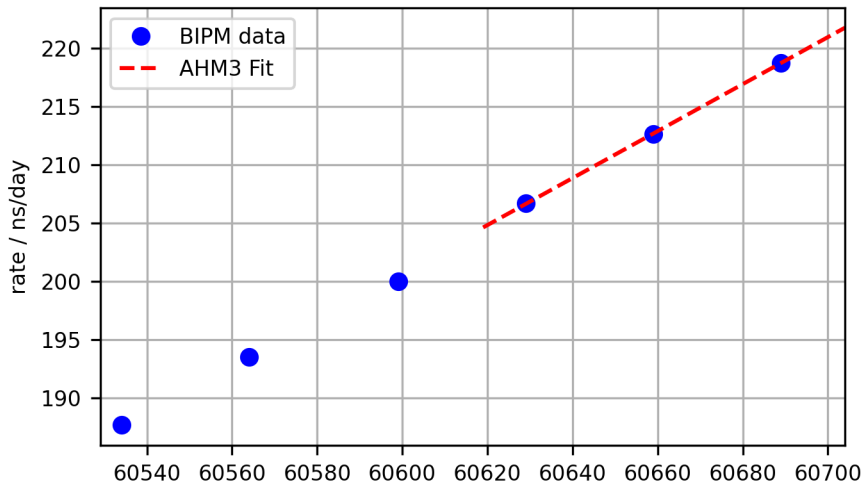


## UTC - AHM3 Fit

UTC-AHM3 (2025-02-13 / 60719)  
 $x \text{ (ns)} = 121754.483 + 221.756 *d + 0.1007 *d*d$   
 $y = -2.56662e-12 + -2.33091e-15 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 60704$

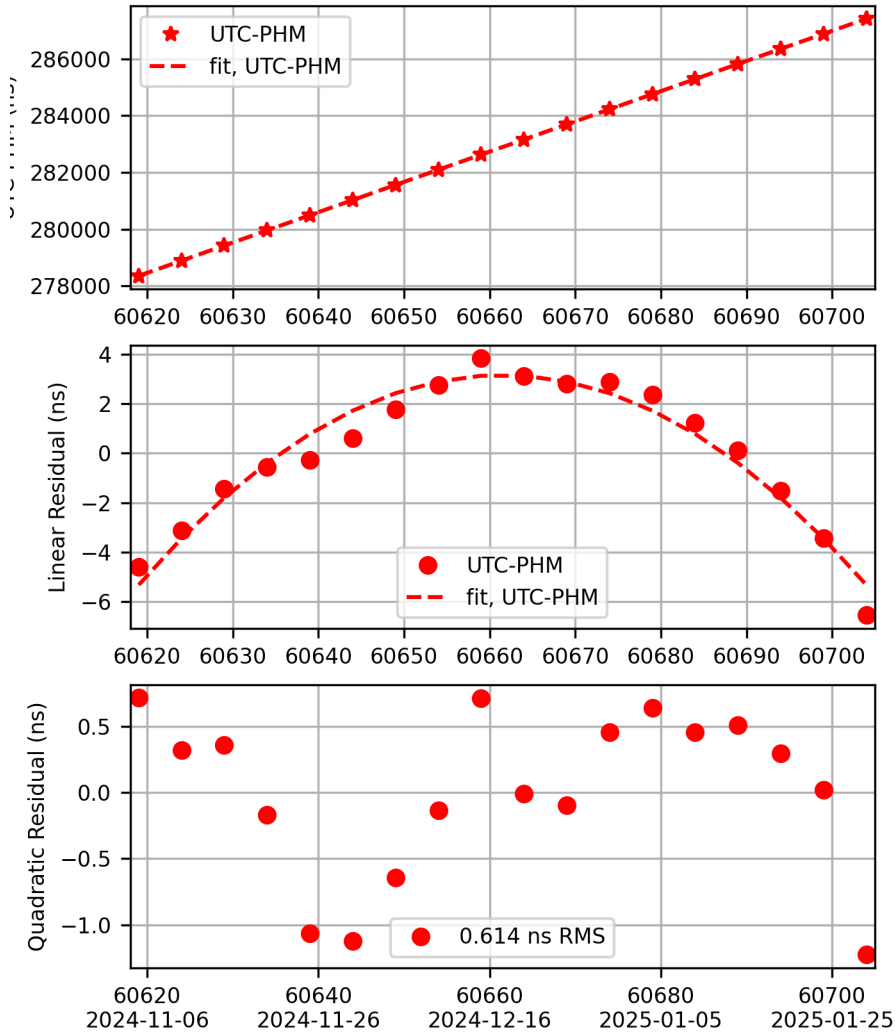


### AHM3 Rate and Drift

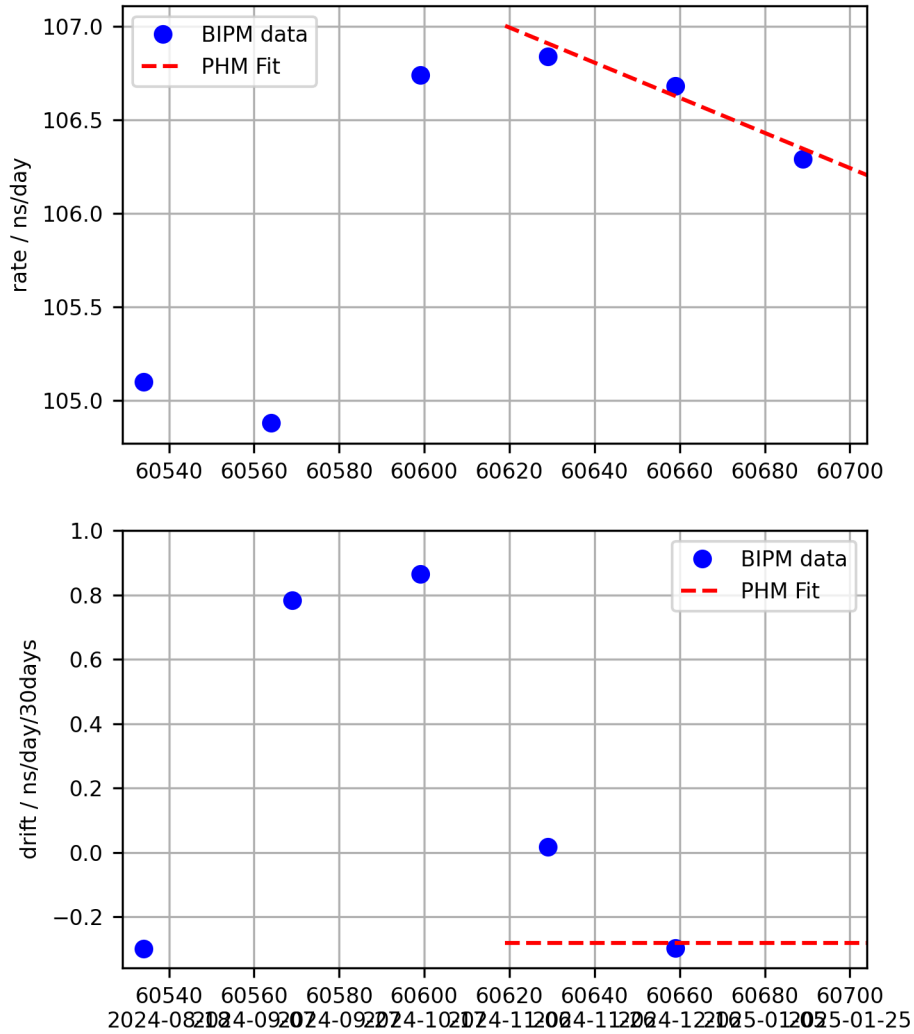


## UTC - PHM Fit

UTC-PHM (2025-02-13 / 60719)  
 $x \text{ (ns)} = 287415.926 + 106.205 * d + -0.0047 * d*d$   
 $y = -1.22923e-12 + 1.08598e-16 * d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 60704$



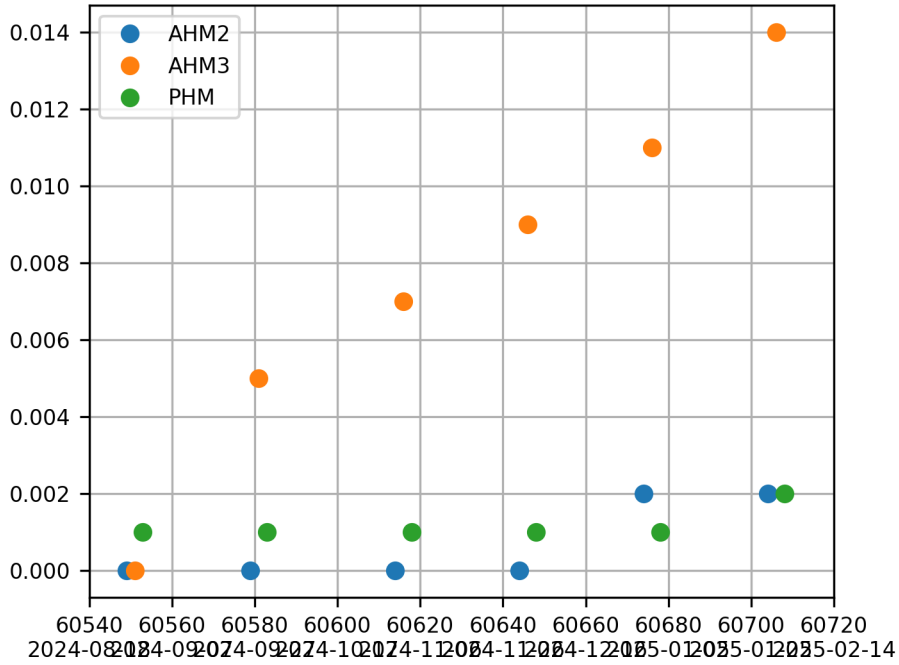
## PHM Rate and Drift





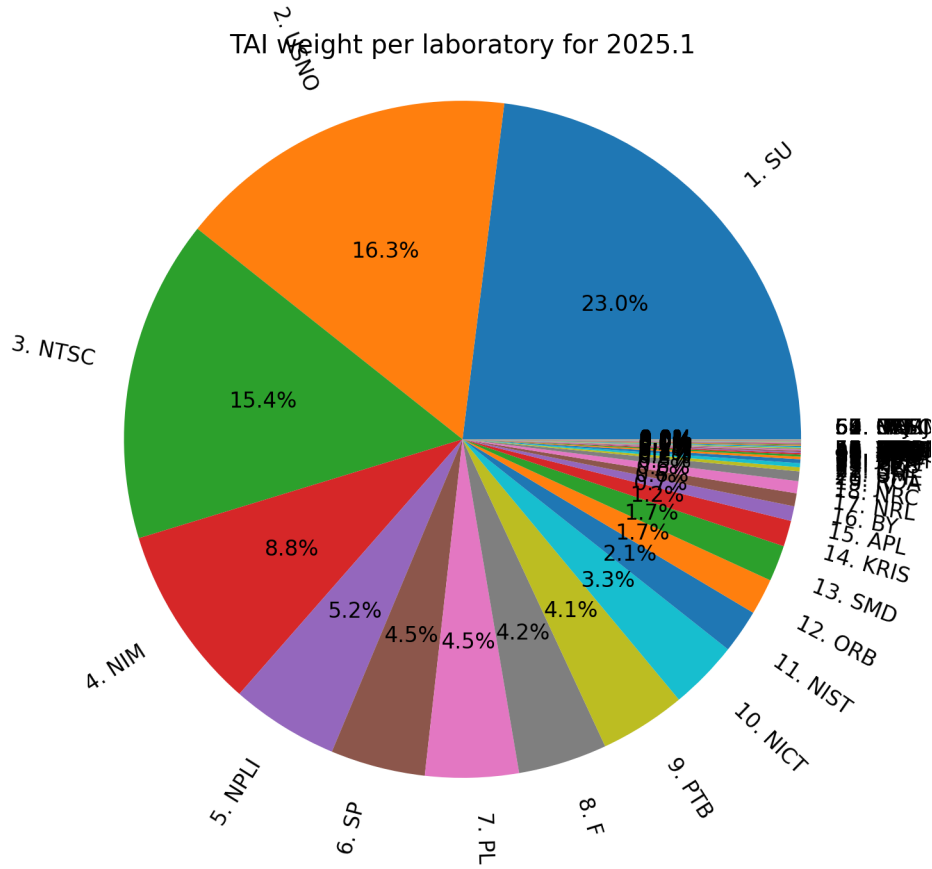
### VTT MIKES Clock Weights

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



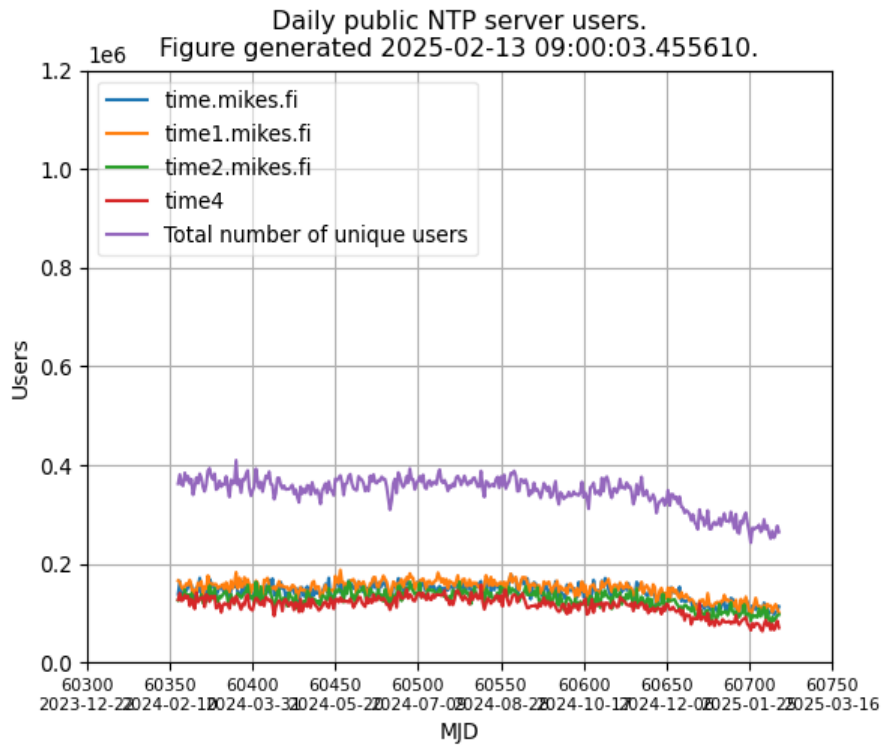
### Clock Weights per Laboratory

Relative TAI Weight per laboratory



## NTP Usage Statistics

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



**End of Bulletin.**