

UTC(MIKE) Atomic Bulletin 2022-04

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2022-04-12 (59681)

Circular-T issues used for analysis: [409](#), [410](#), [411](#),

First day of analysis interval: 2022-01-05 (59584)

Last day of analysis interval: 2022-03-31 (59669)

ClockData for analysis: [CDMI 22.01](#), [CDMI 22.02](#), [CDMI 22.03](#),

The Atomic Bulletin is archived at: <ftp://monitor.mikes.fi/time-scale/>

Notes

59285 (2021-03-12) AB2021-03, Set steering correction to zero.

(2021-08-24) AHM3 OCXO-voltage at limit, maser re-started, DDS adjustment

SETFSREL=+4.47E-12 giving DDS_old = 1420405750.291768, DDS_new =

1420405750.298116. set DRIFTCOMP=+3.93E-15;

(2021-11-11) add AHM3 analysis (input data only partial, not full 3 months of ClockData)

(2022-01-21) Master clock AHM2 sudden change of frequency drift (autotuner issue?)

(2022-01-28) Change master clock to AHM3

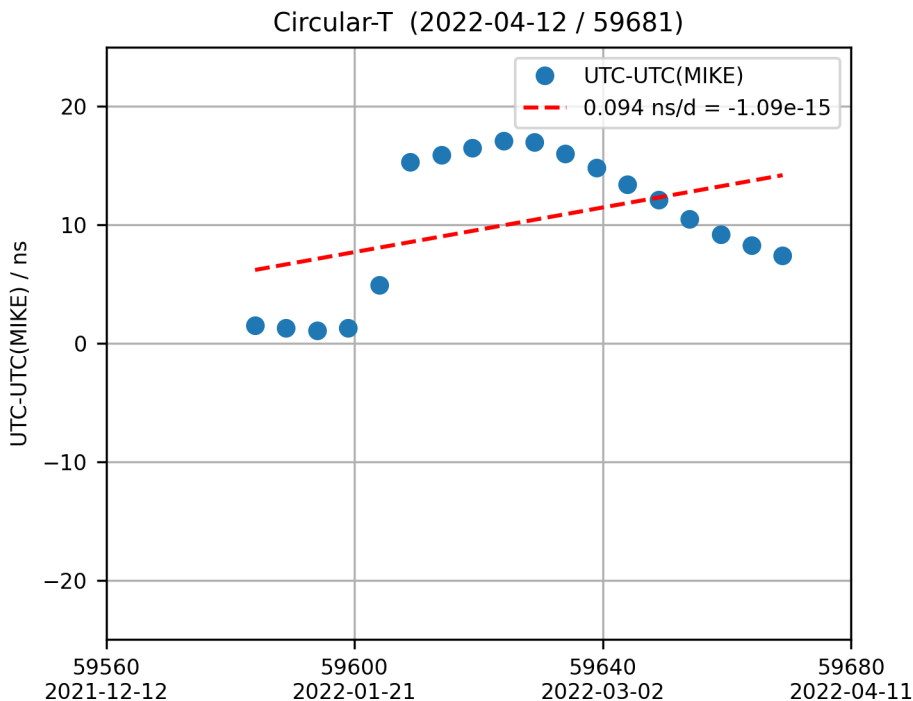
(2022-02-14) No Remote Clocks reported in 2022-02 bulletin due to network issues.

59626 (2022-02-16) Steering correction of 8 ns / 30 days = +3e-15 applied to UTC(MIKE) microstepper

59652 (2022-03-14) AB2022-03 keep steering correction +3e-15

59681 (2022-04-12) AB2022-04 reduce steering correction to +1.5e-15

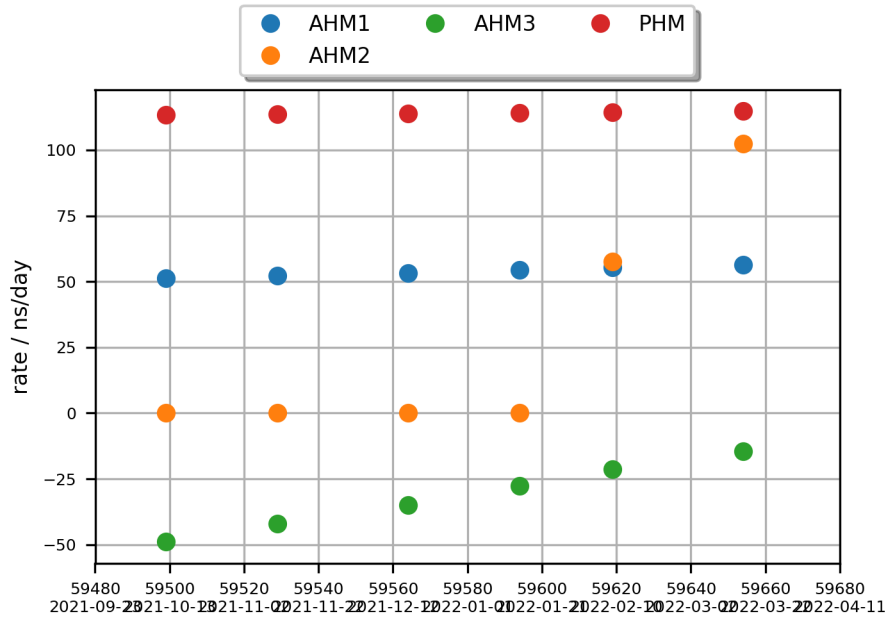
UTC-UTC(MIKE) as reported in Circular-T



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.

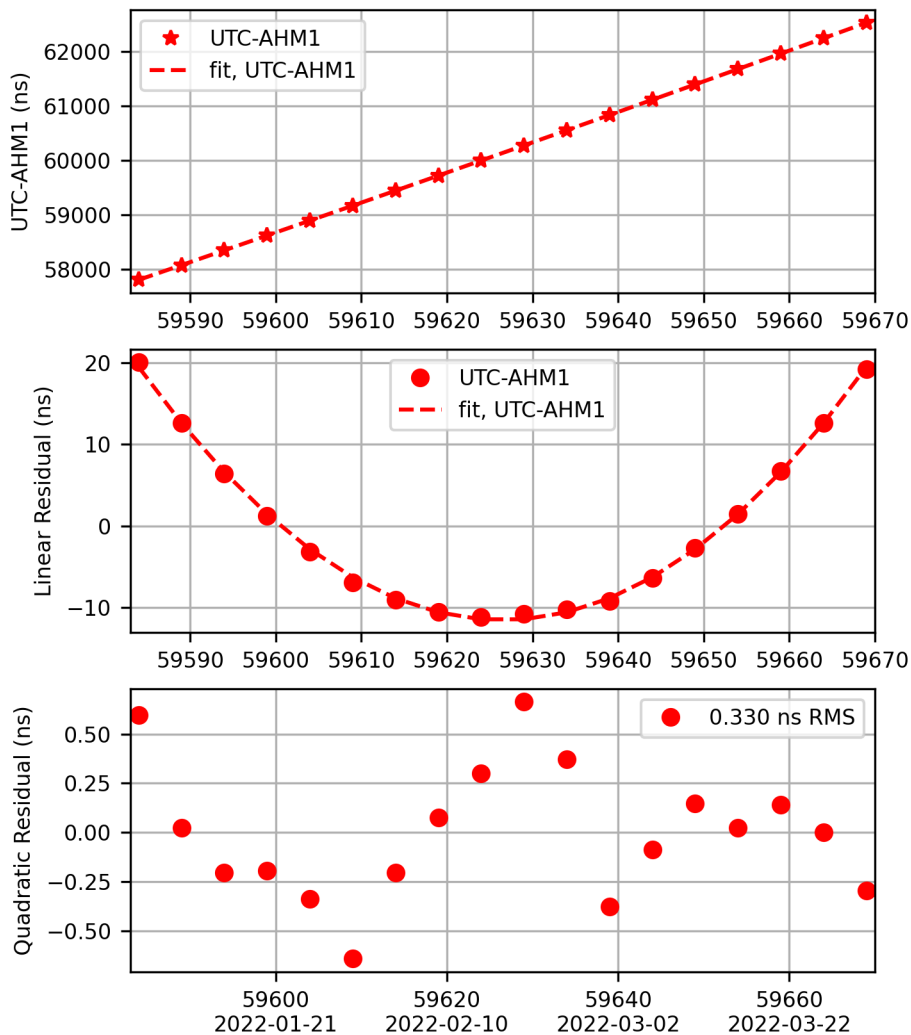
Clock Rates - Summary

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

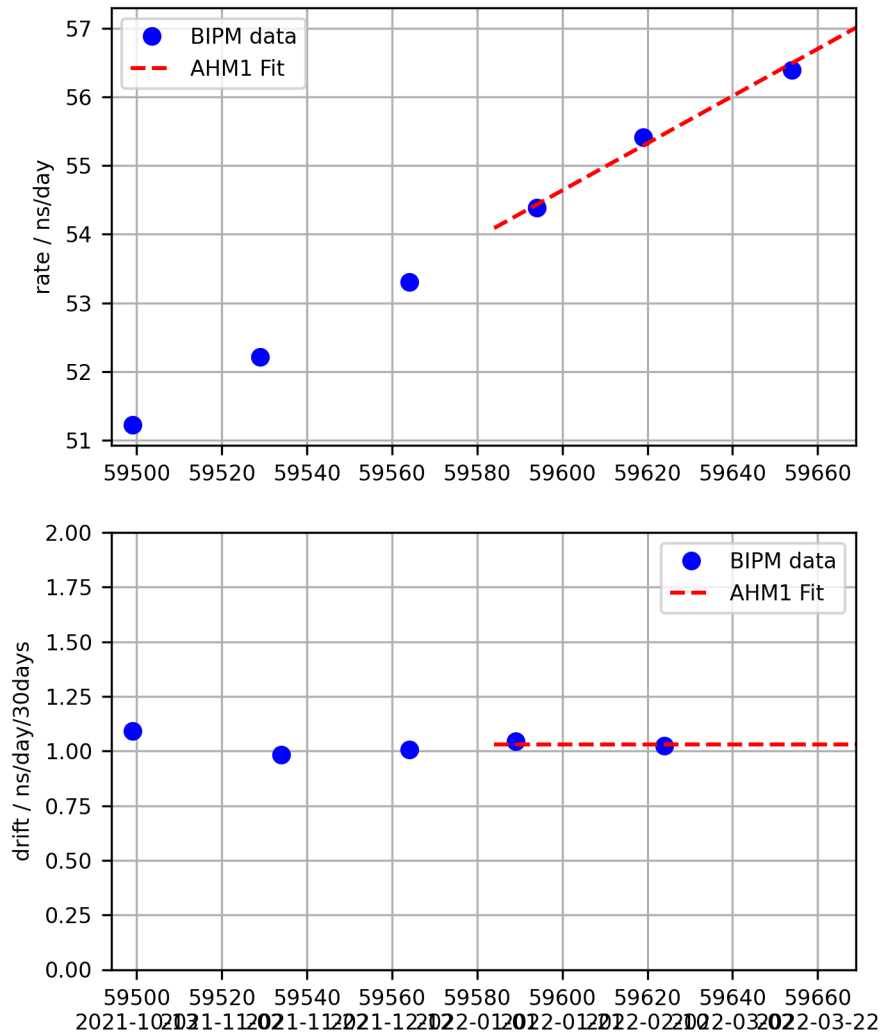


UTC - AHM1 Fit

UTC-AHM1 (2022-04-12 / 59681)
 $x \text{ (ns)} = 62532.196 + 57.005 *d + 0.0172 *d*d$
 $y = -6.59784e-13 + -3.9715e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 59669$

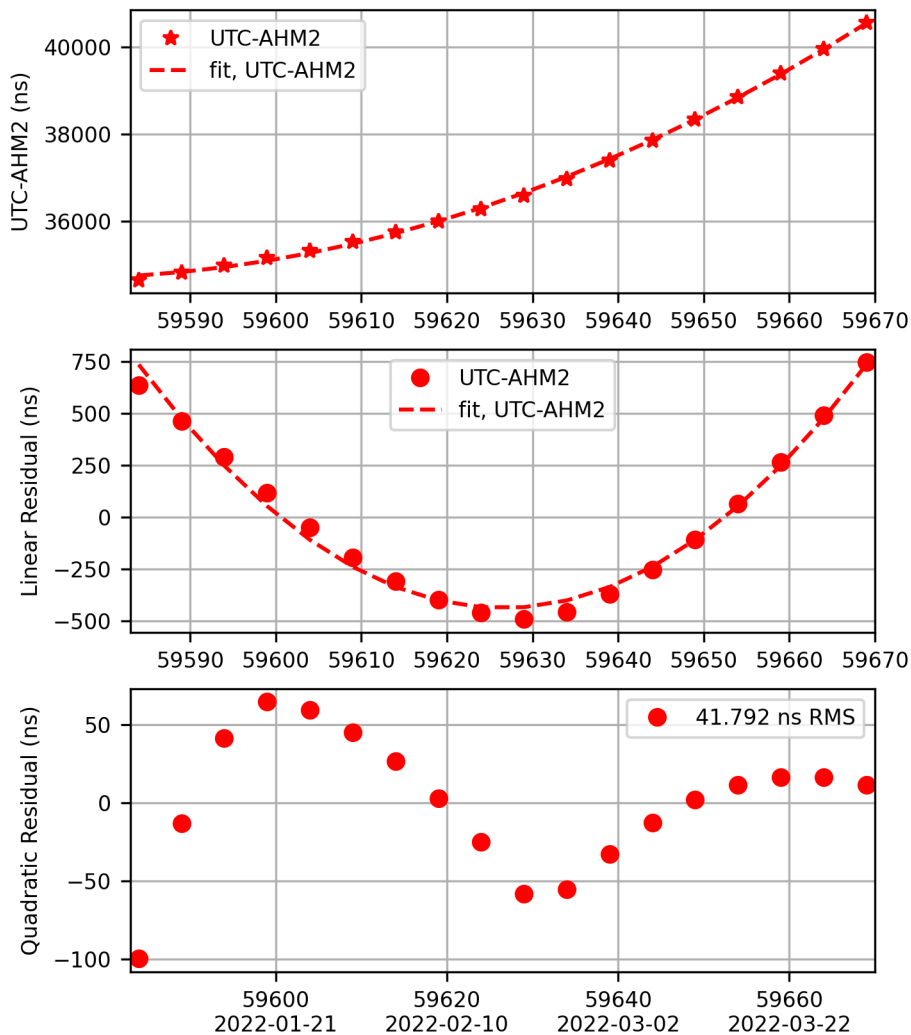


AHM1 Rate and Drift

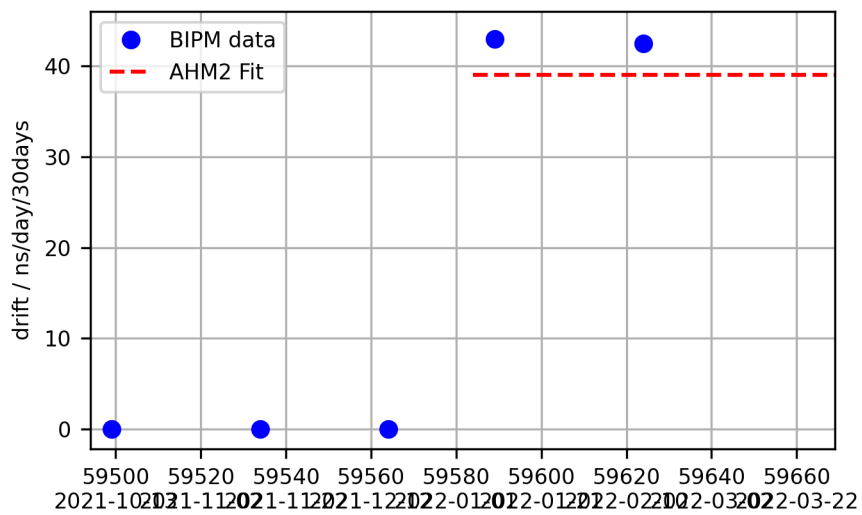
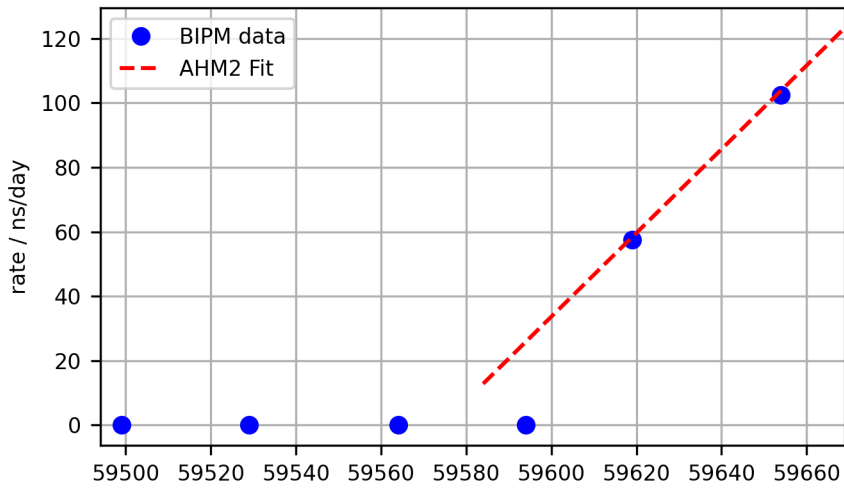


UTC - AHM2 Fit

UTC-AHM2 (2022-04-12 / 59681)
 $x \text{ (ns)} = 40539.187 + 123.312 * d + 0.6498 * d * d$
 $y = -1.42722e-12 + -1.50409e-14 * d$
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 59669$

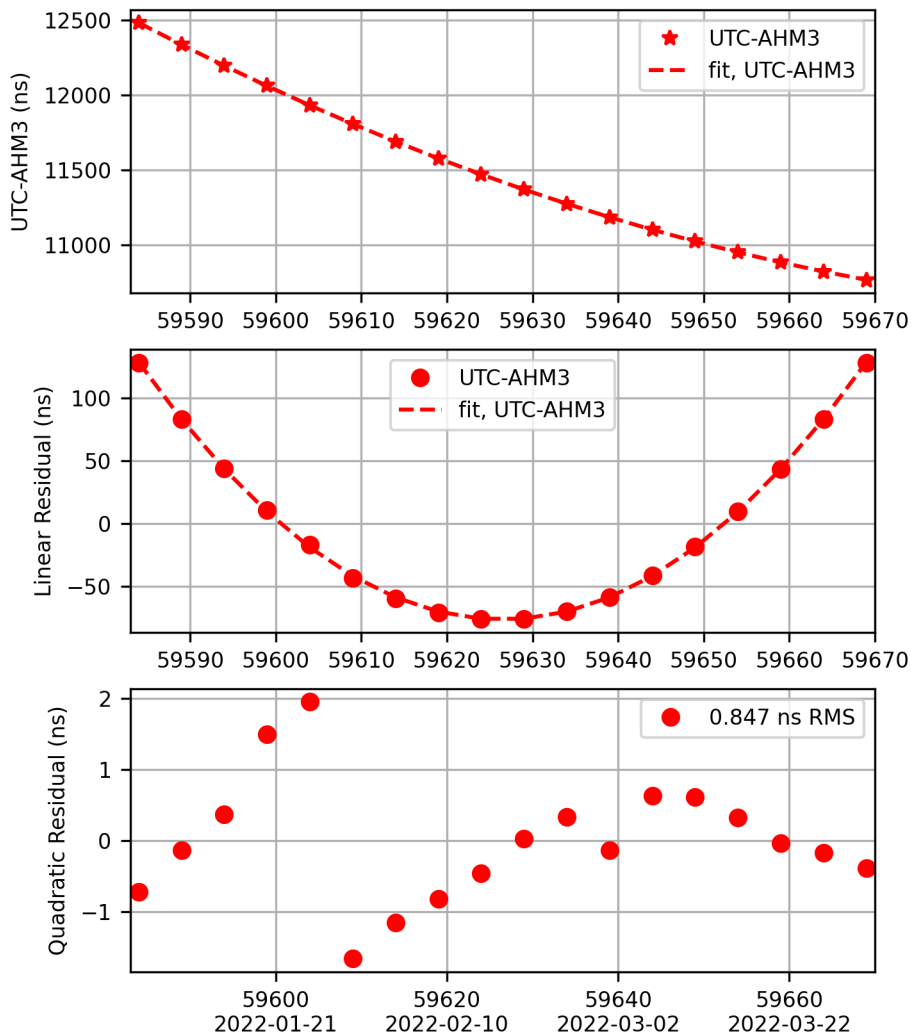


AHM2 Rate and Drift

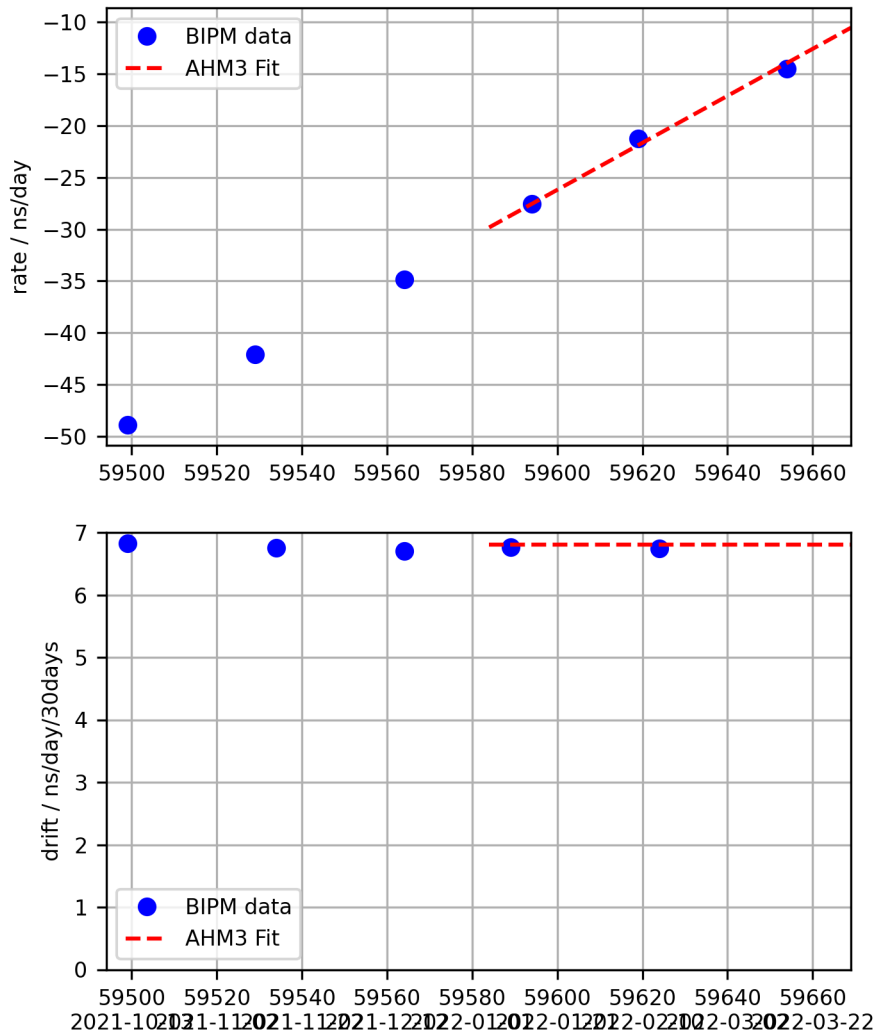


UTC - AHM3 Fit

UTC-AHM3 (2022-04-12 / 59681)
 $x \text{ (ns)} = 10768.090 + -10.530 *d + 0.1135 *d*d$
 $y = 1.21876e-13 + -2.62712e-15 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 59669$

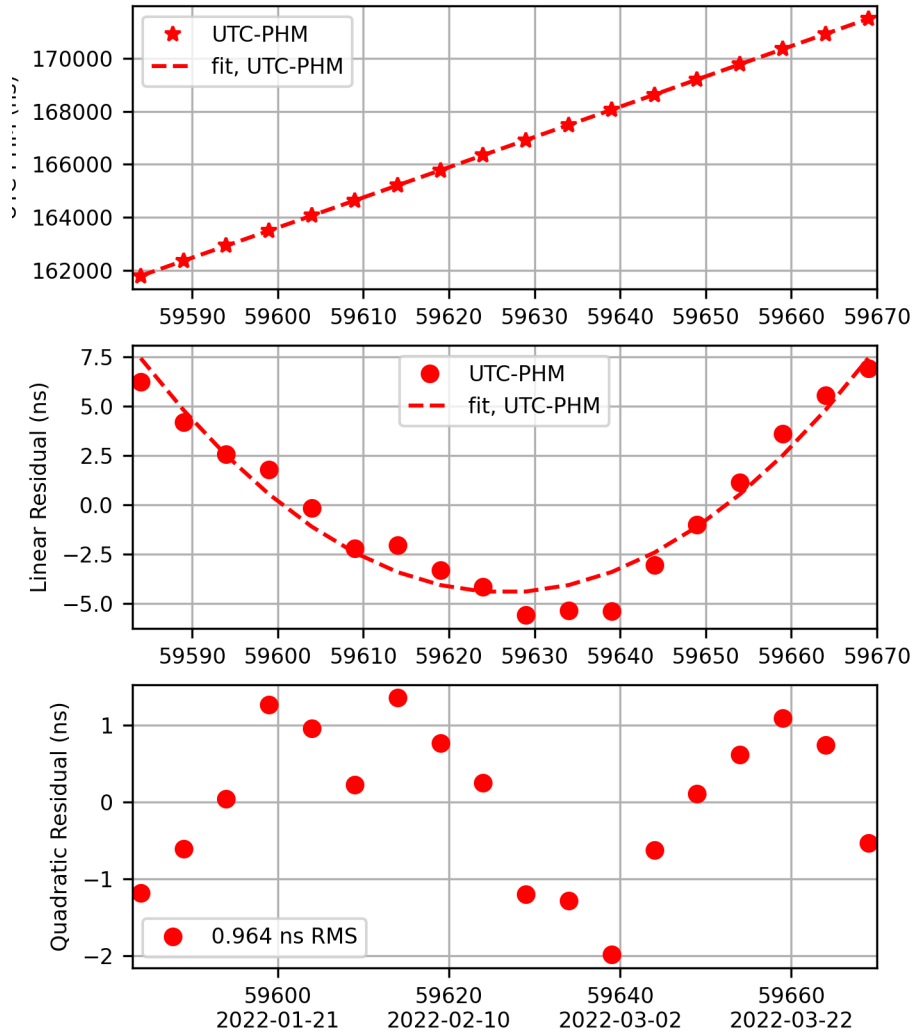


AHM3 Rate and Drift

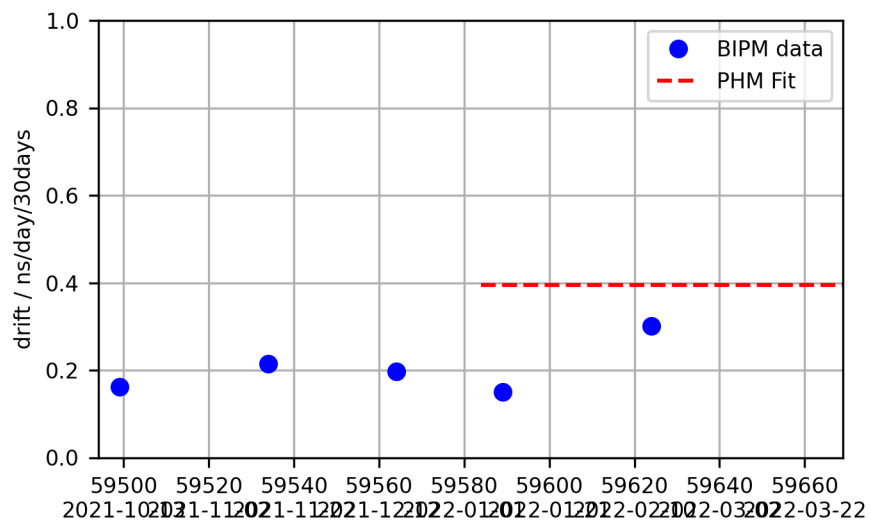
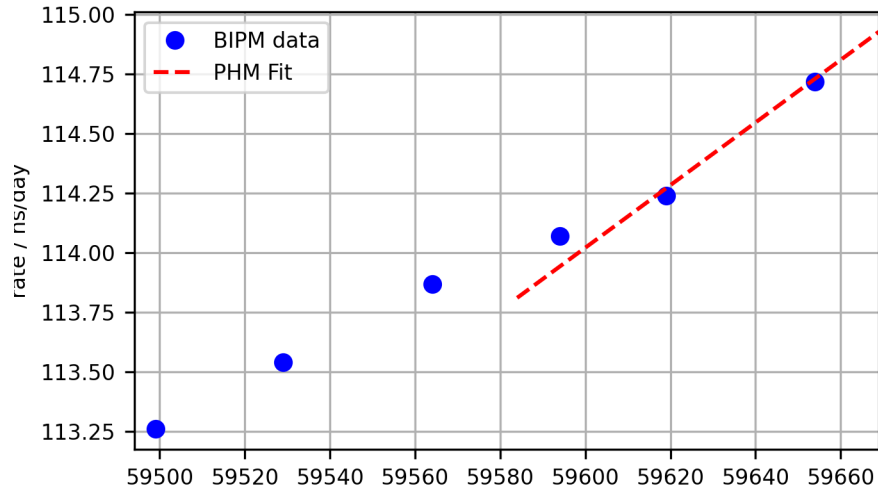


UTC - PHM Fit

UTC-PHM (2022-04-12 / 59681)
 $x \text{ (ns)} = 171505.233 + 114.929 *d + 0.0066 *d*d$
 $y = -1.33019e-12 + -1.52135e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 59669$

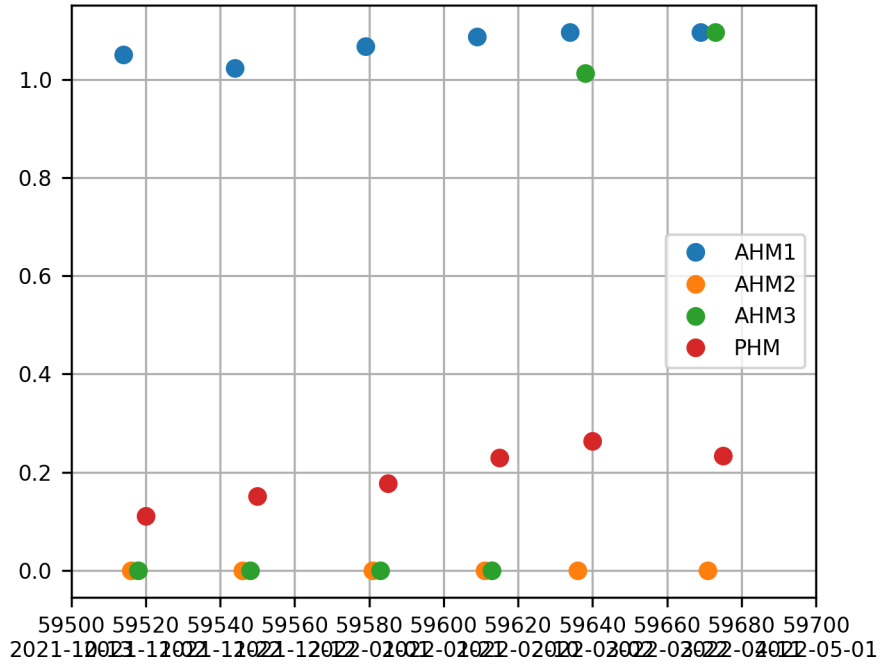


PHM Rate and Drift



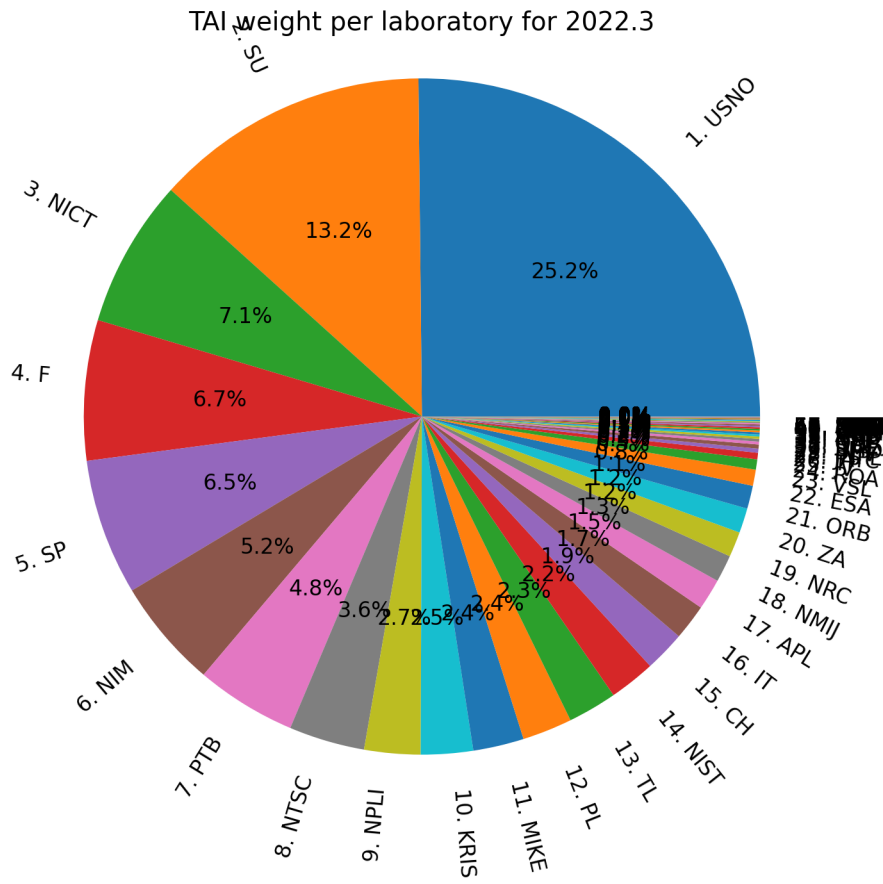
VTT MIKES Clock Weights

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



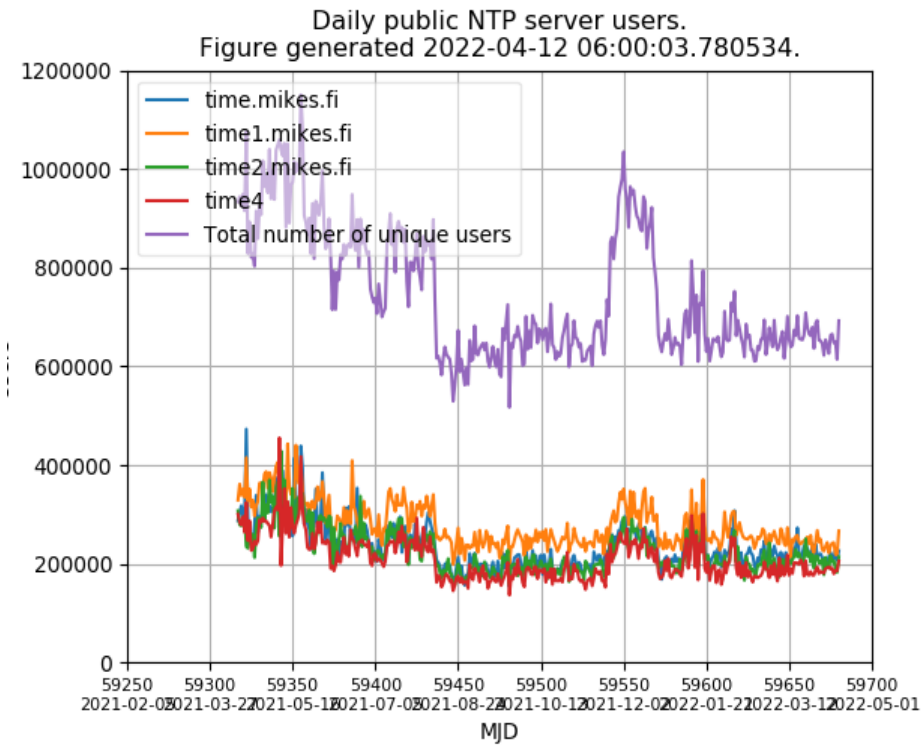
Clock Weights per Laboratory

Relative TAI Weight per laboratory



NTP Usage Statistics

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



End of Bulletin.