

UTC(MIKE) Atomic Bulletin 2020-06

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2020-06-10 (59010)

Circular-T issues used for analysis: [387](#), [388](#), [389](#),

First day of analysis interval: 2020-03-01 (58909)

Last day of analysis interval: 2020-05-30 (58999)

ClockData for analysis: [CDMI 20.03](#), [CDMI 20.04](#), [CDMI 20.05](#),

Notes

58739 OTA-KAJA link asymmetry change (CS2)

58760 (2019-10-04) AHM4 frequency adjustment. Approximate model is $y = -4.0497e-14 - 1.18953e-15*(mjd-58766)$

58891 (2020-02-12) Apply steering correction to UTC(MIKE). +5ns over 2 months, $y_steer = -5ns/60d = -9.6e-16$

58919 (2020-03-11) AB2020-03 comments: New 1PPS measurement system installed

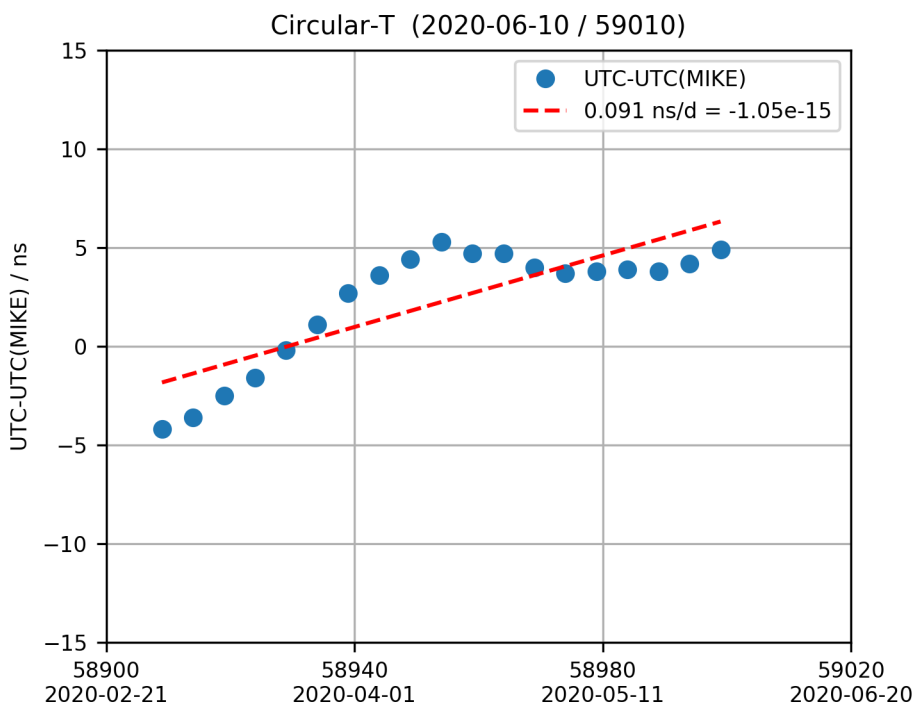
2020-03-09. KAJA(CS2) WR-node had power-cut ca 2020-02-27.

58919 (2020-03-11) AB2020-03 comments: Following MI04/MI05 calibration with PTBM in Dec19-Jan20 Circular-T uncertainty now record low 2.7 ns. MI04 is used as main receiver for now.

58953 (2020-03-14) AB2020-04, set steering correction to zero.

58966 (2020-04-27) AHM1=MC 1PPS moved backwards ~20us.

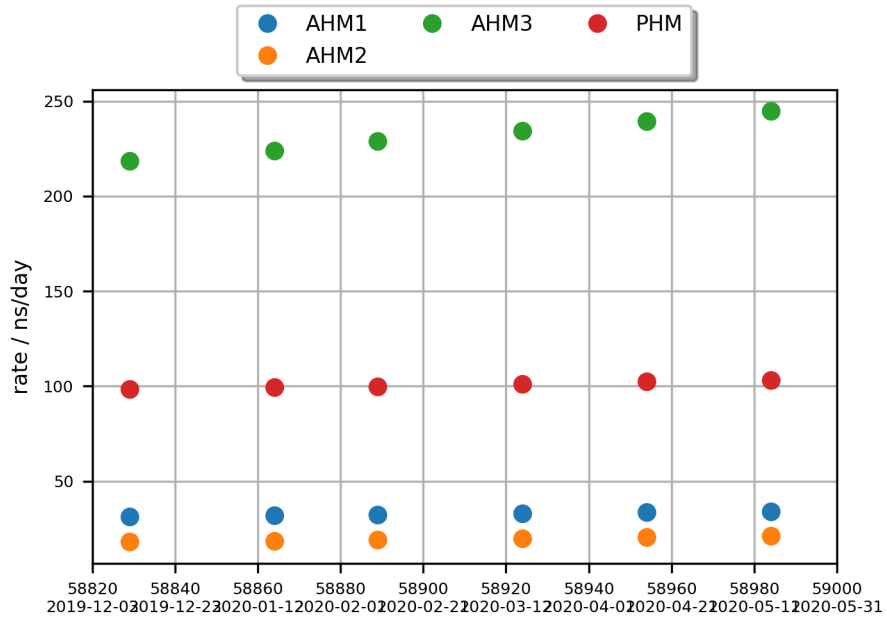
UTC-UTC(MIKE) as reported in Circular-T



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.

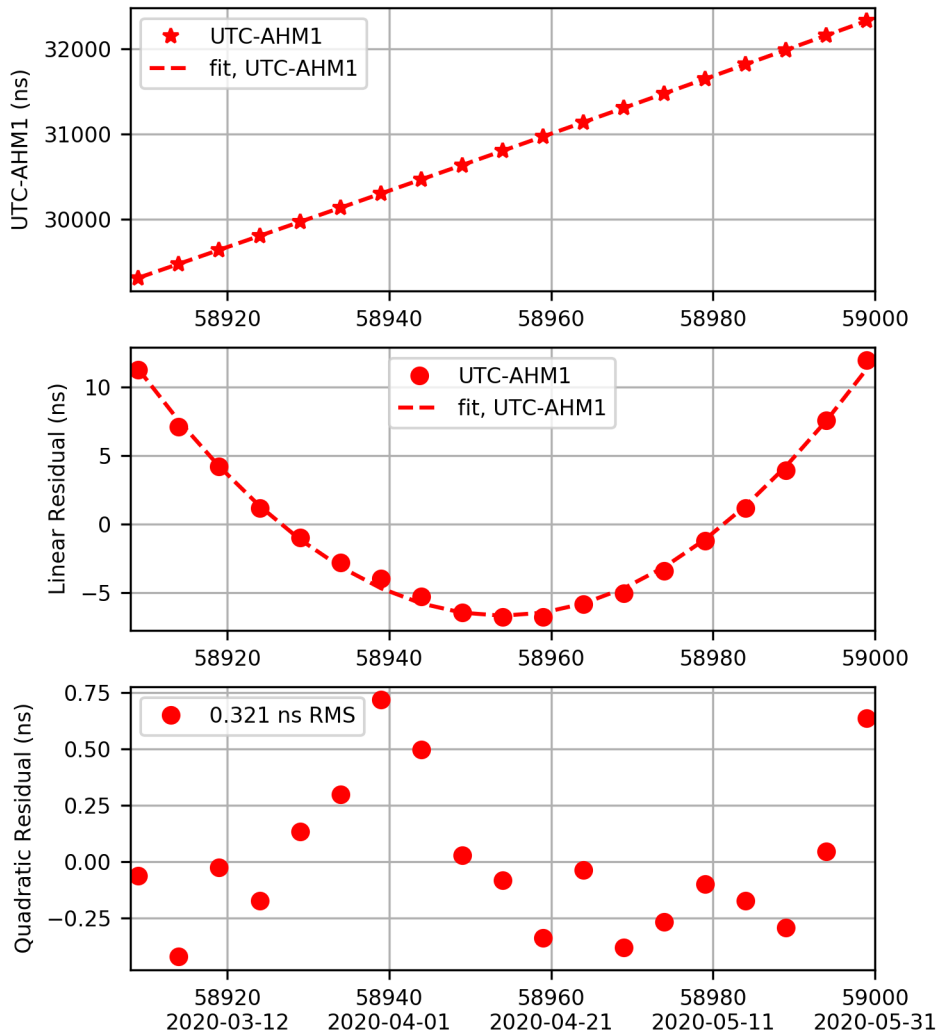
Clock Rates - Summary

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

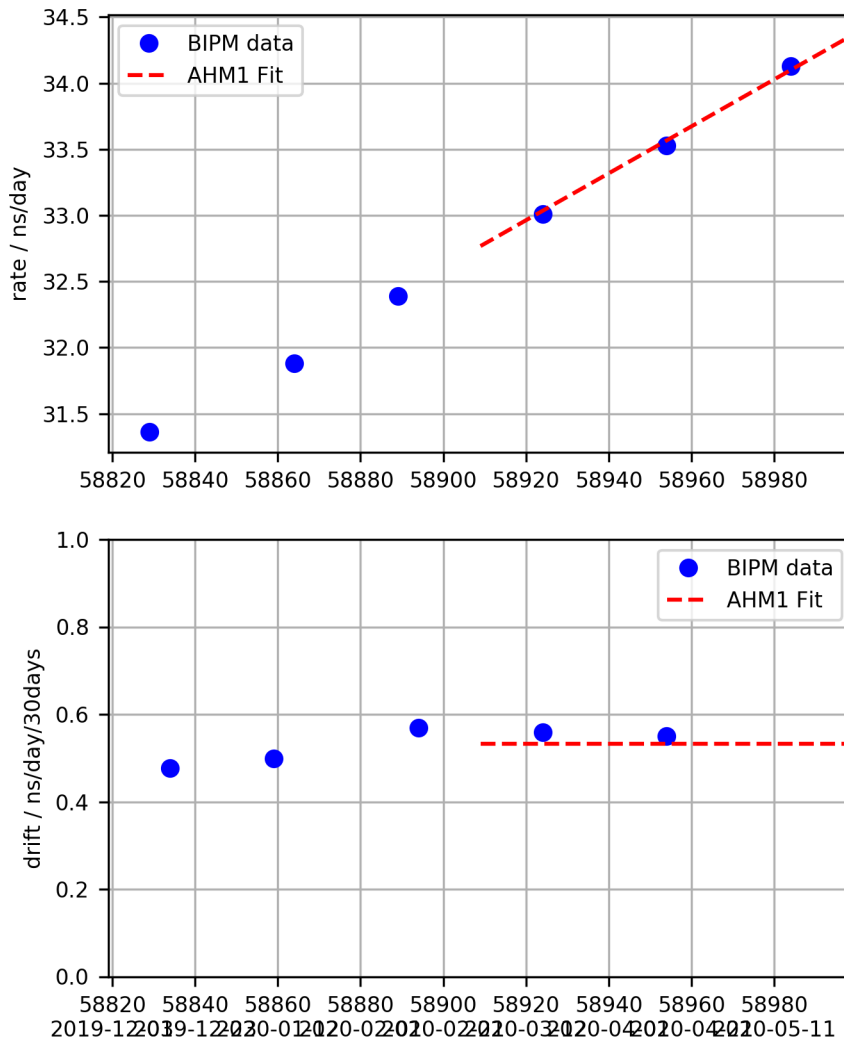


UTC - AHM1 Fit

UTC-AHM1 (2020-06-10 / 59010)
 $x \text{ (ns)} = 32331.963 + 34.366 *d + 0.0089 *d*d$
 $y = -3.97752e-13 + -2.05538e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58999$

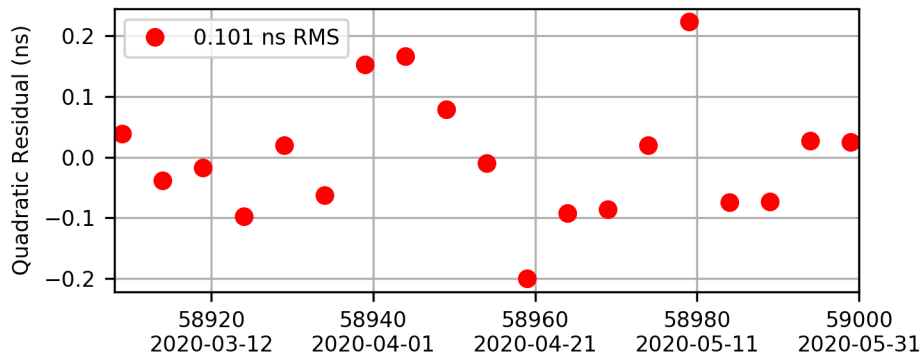
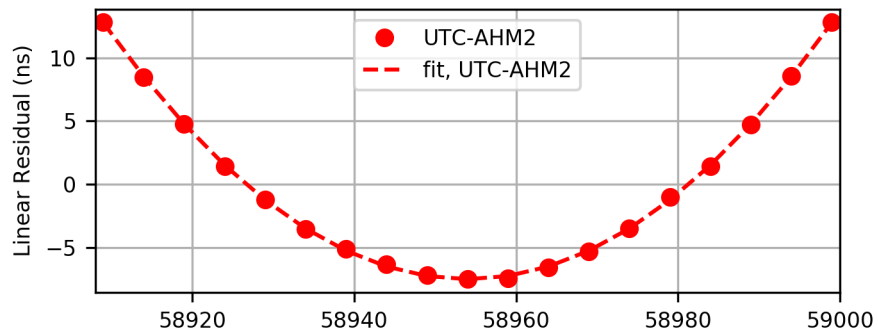
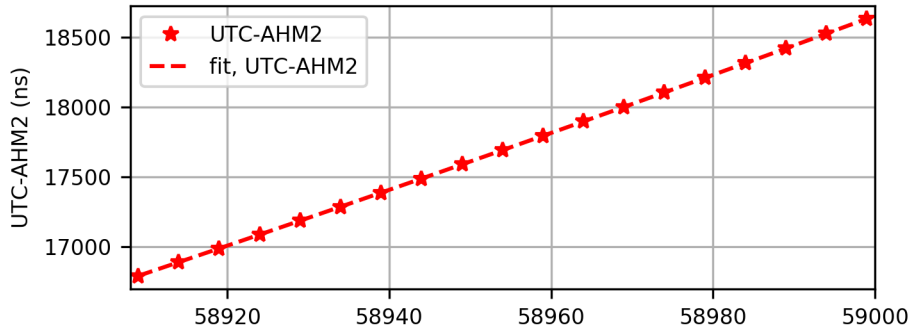


AHM1 Rate and Drift

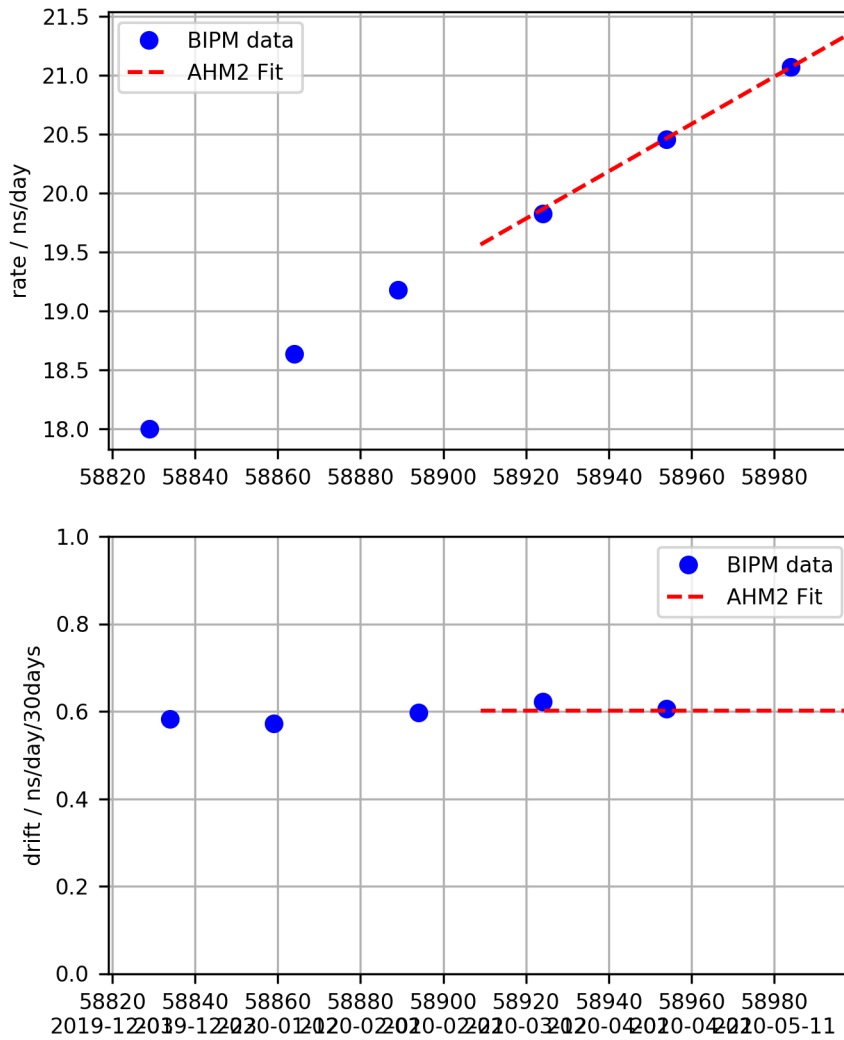


UTC - AHM2 Fit

UTC-AHM2 (2020-06-10 / 59010)
 $x \text{ (ns)} = 18633.175 + 21.371 *d + 0.0100 *d*d$
 $y = -2.47344e-13 + -2.32144e-16 *d$
 $d = (\text{mjd}-\text{mjd0})$ with $\text{mjd0} = 58999$

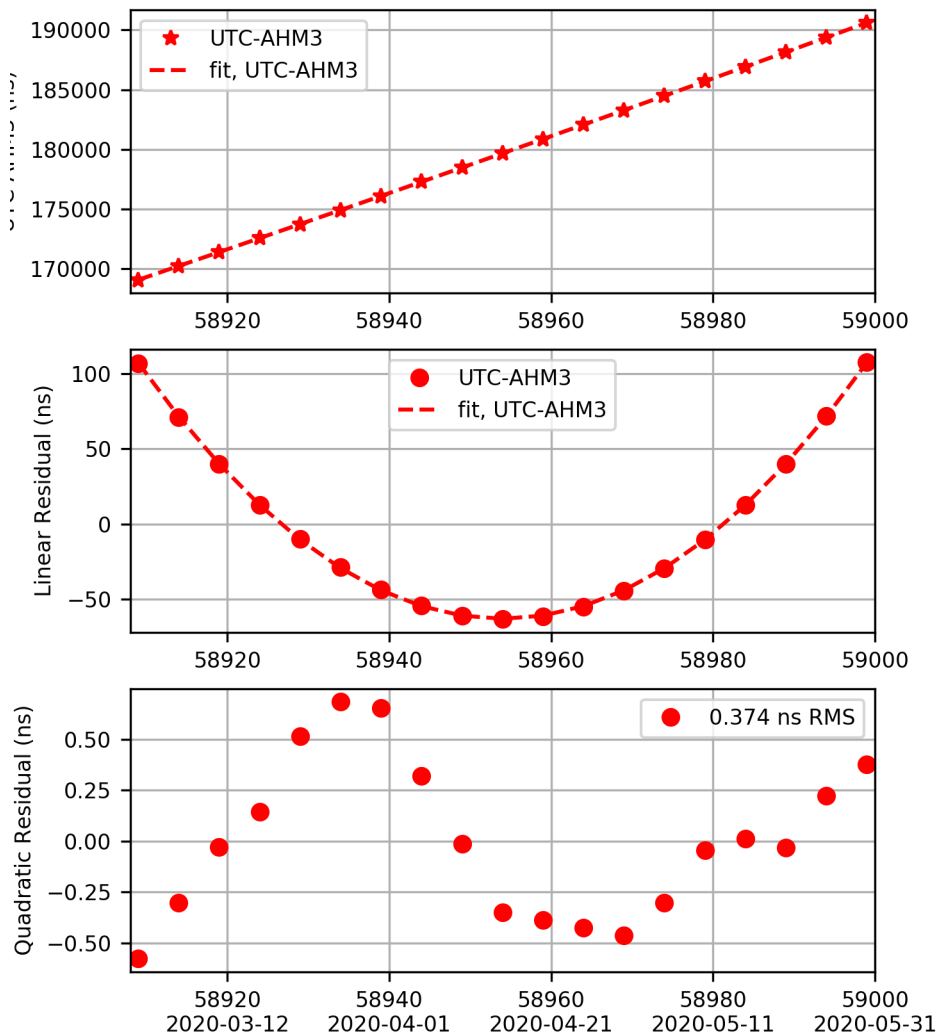


AHM2 Rate and Drift

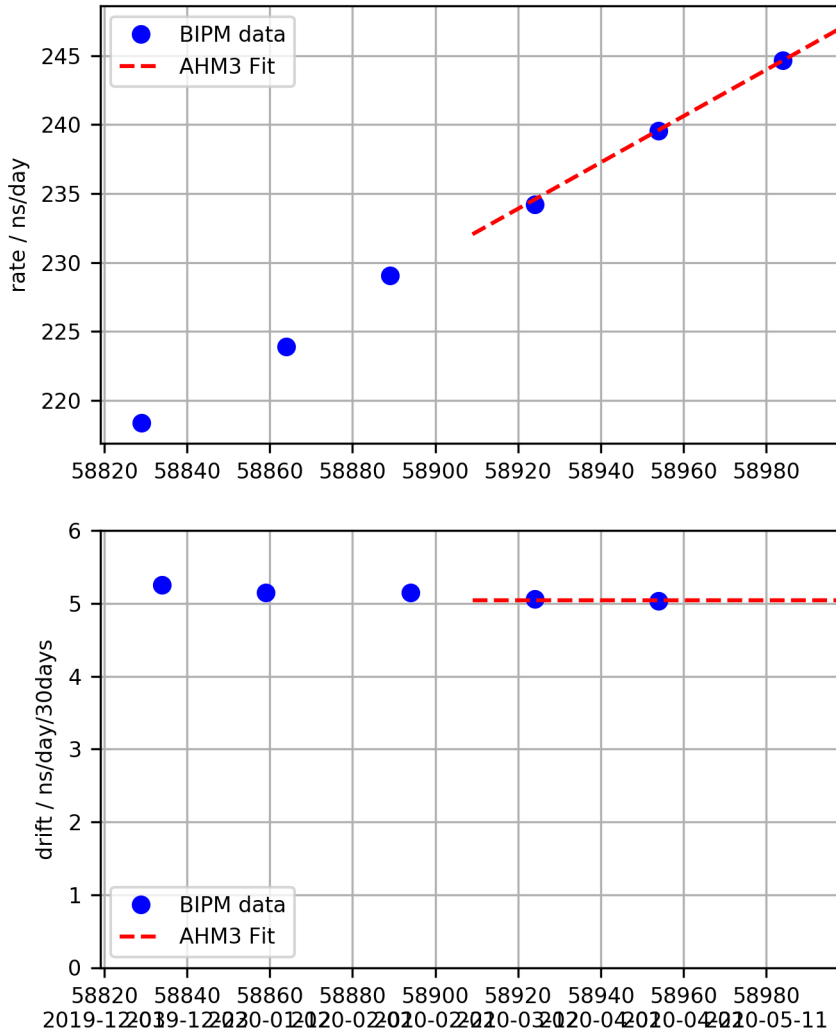


UTC - AHM3 Fit

UTC-AHM3 (2020-06-10 / 59010)
 $x \text{ (ns)} = 190613.224 + 247.169 *d + 0.0840 *d*d$
 $y = -2.86076e-12 + -1.94502e-15 *d$
 $d = (\text{mjd}-\text{mjd0})$ with $\text{mjd0} = 58999$

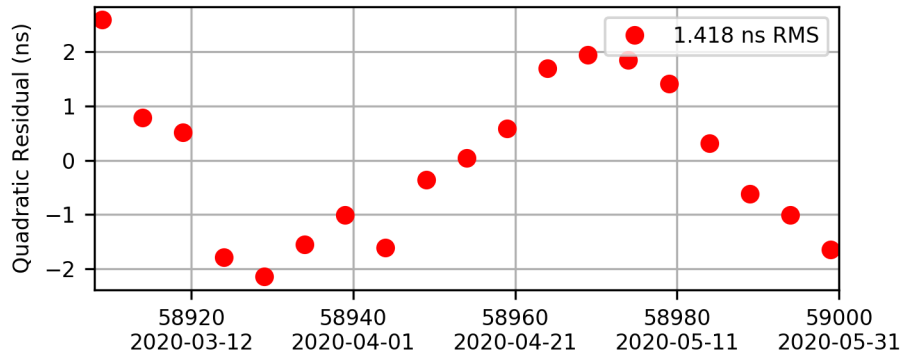
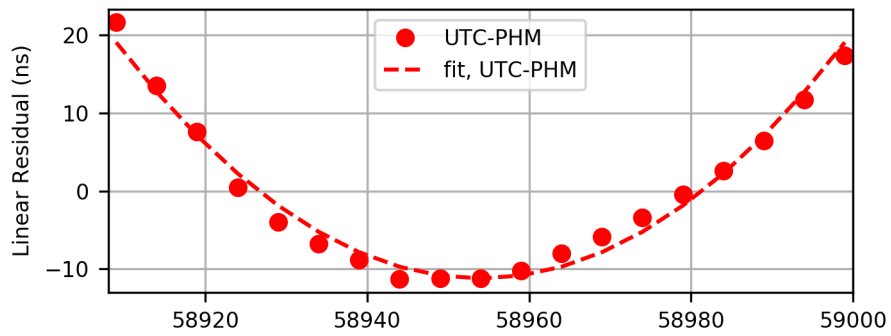
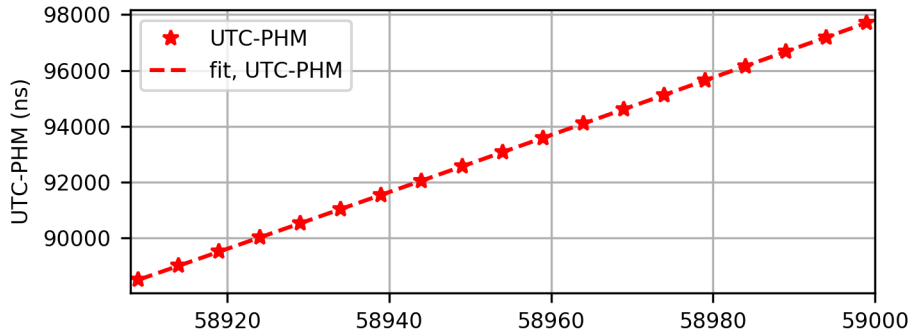


AHM3 Rate and Drift

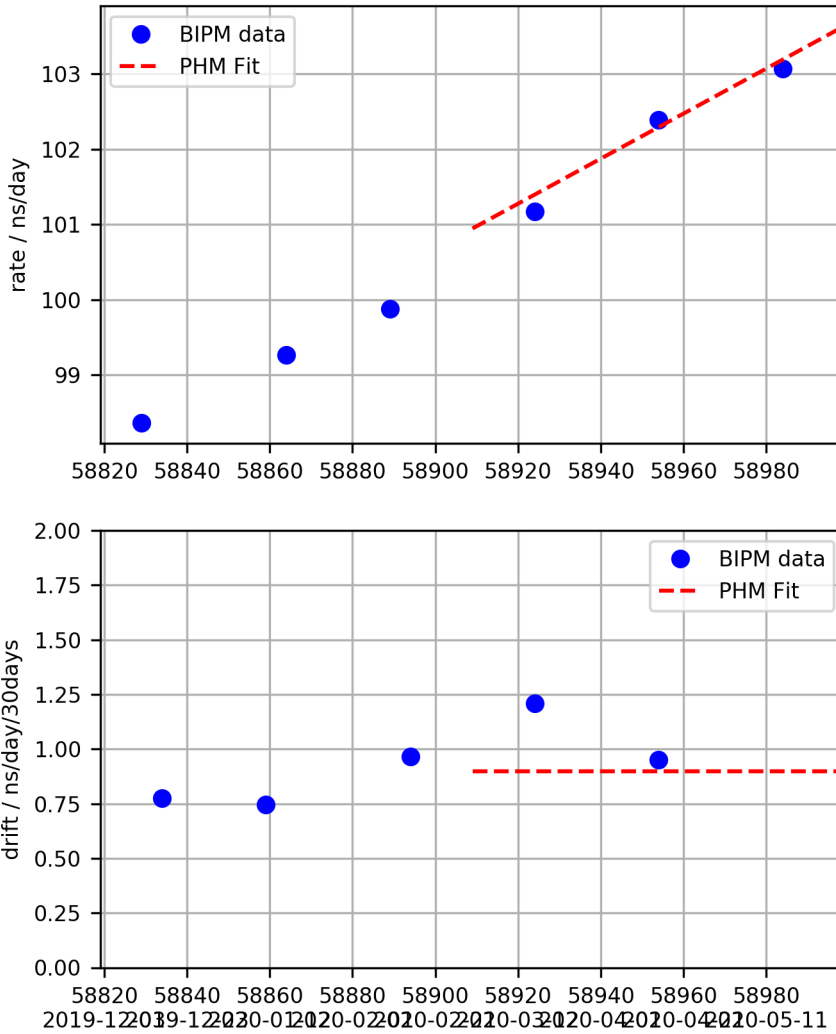


UTC - PHM Fit

UTC-PHM (2020-06-10 / 59010)
 $x \text{ (ns)} = 97708.545 + 103.642 *d + 0.0150 *d*d$
 $y = -1.19956e-12 + -3.46509e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58999$

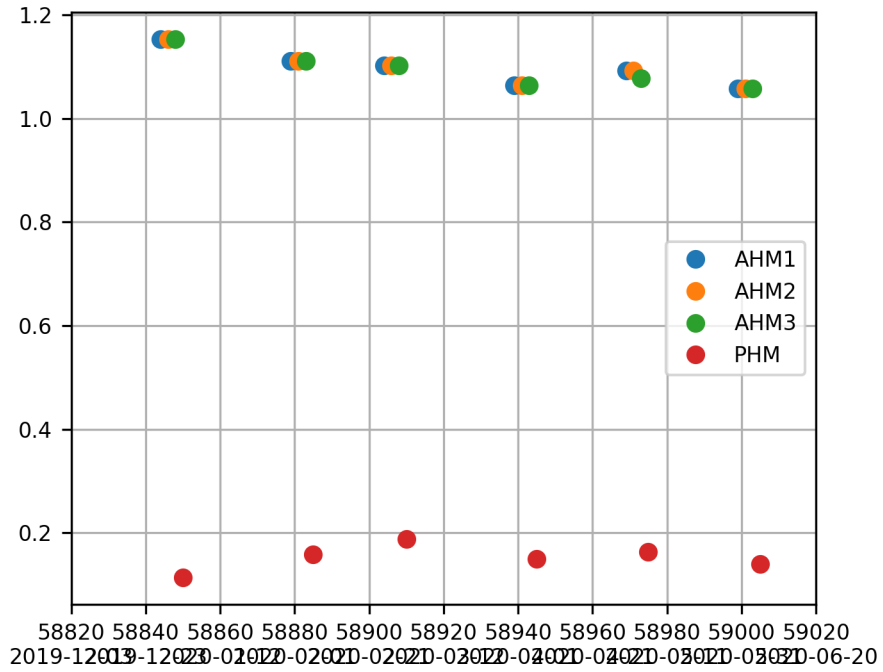


PHM Rate and Drift



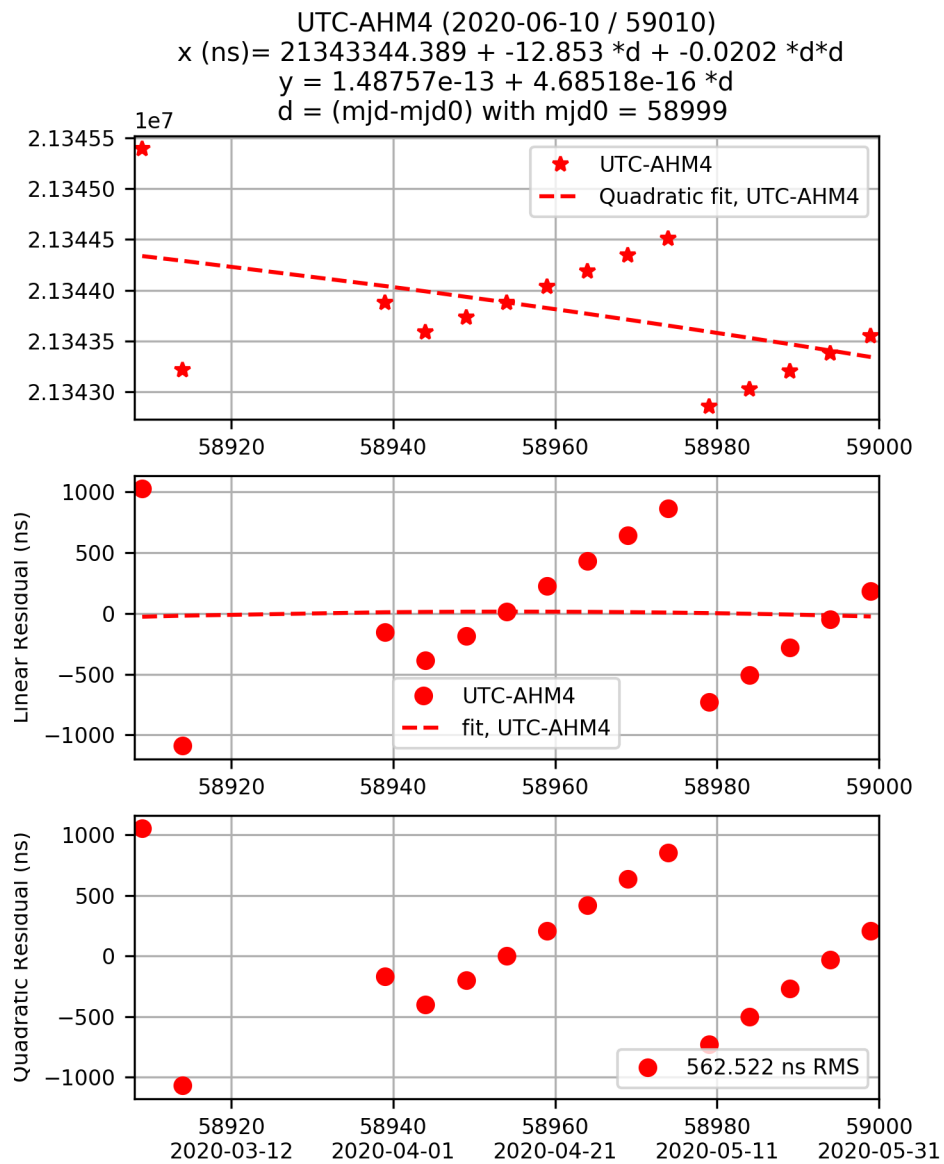
Clock Weights

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



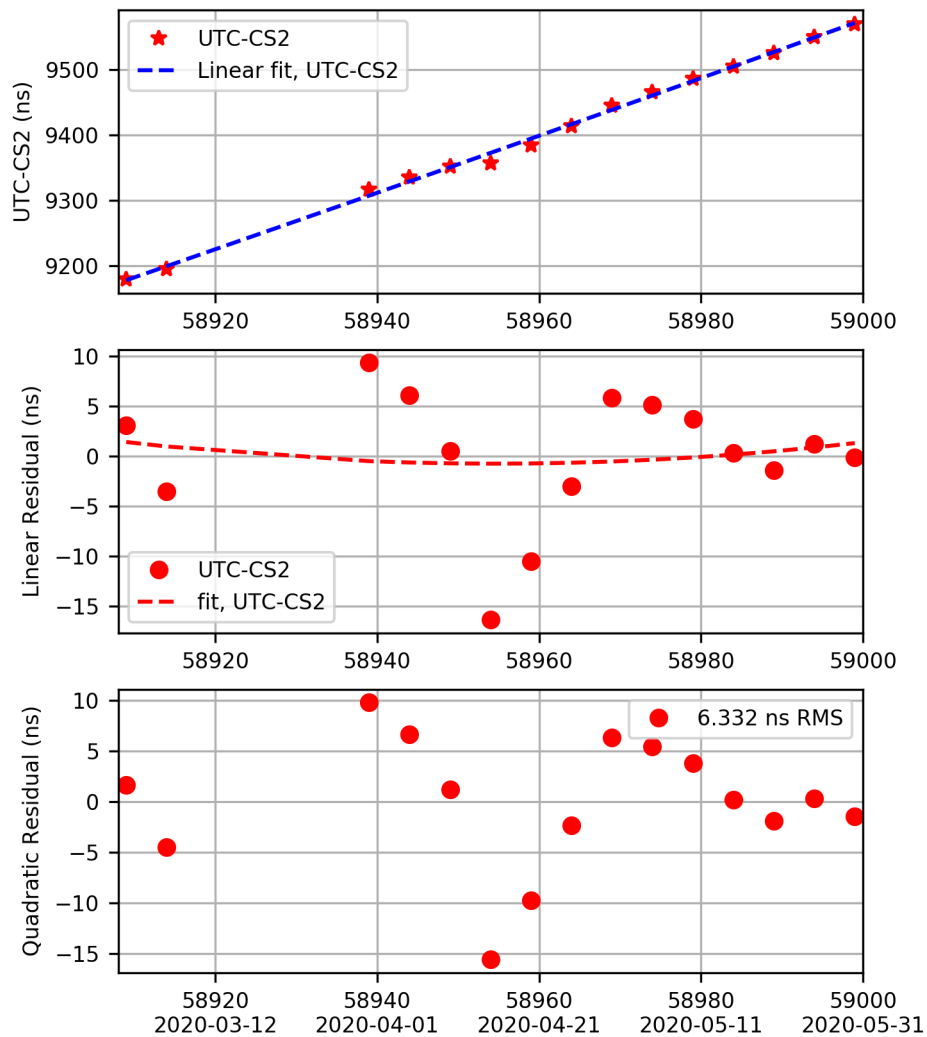
Remote Clocks

Remote Clock: AHM4

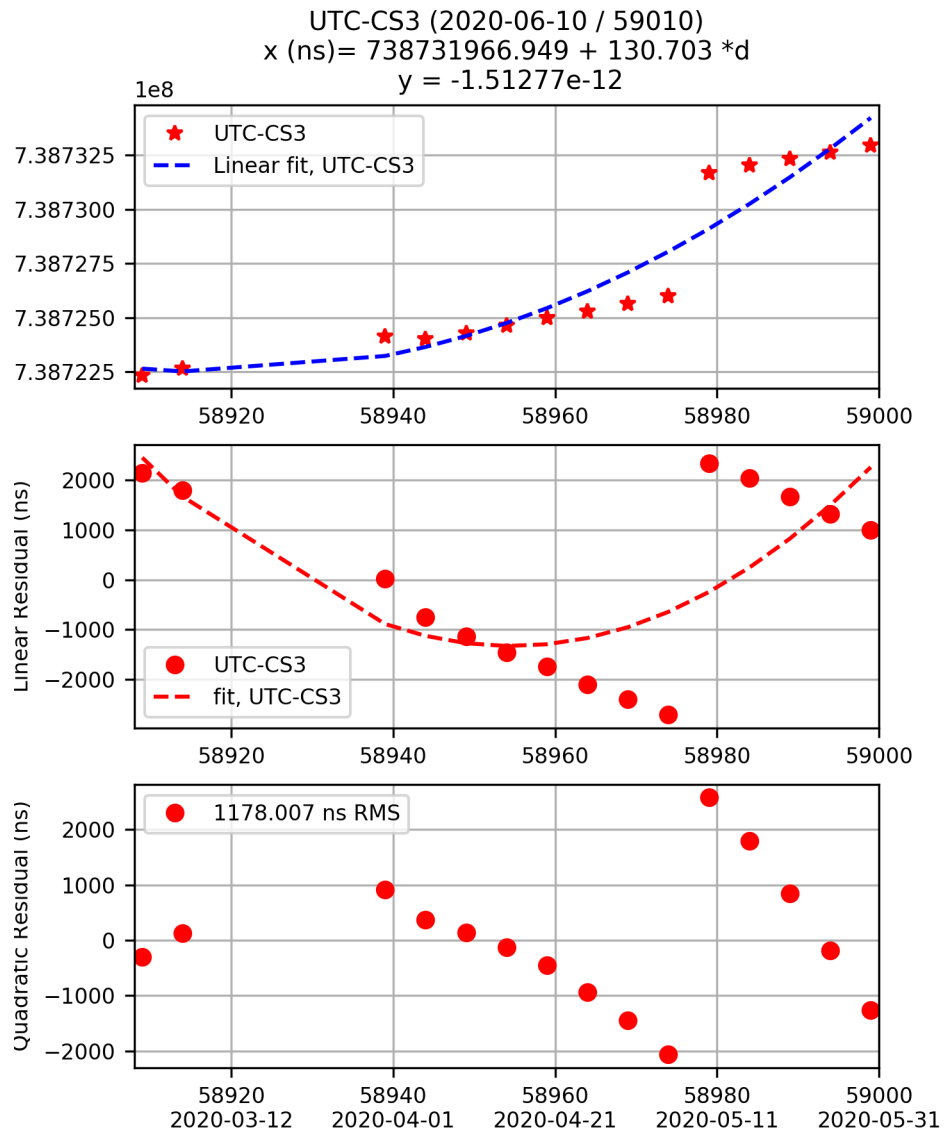


Remote Clock: CS2

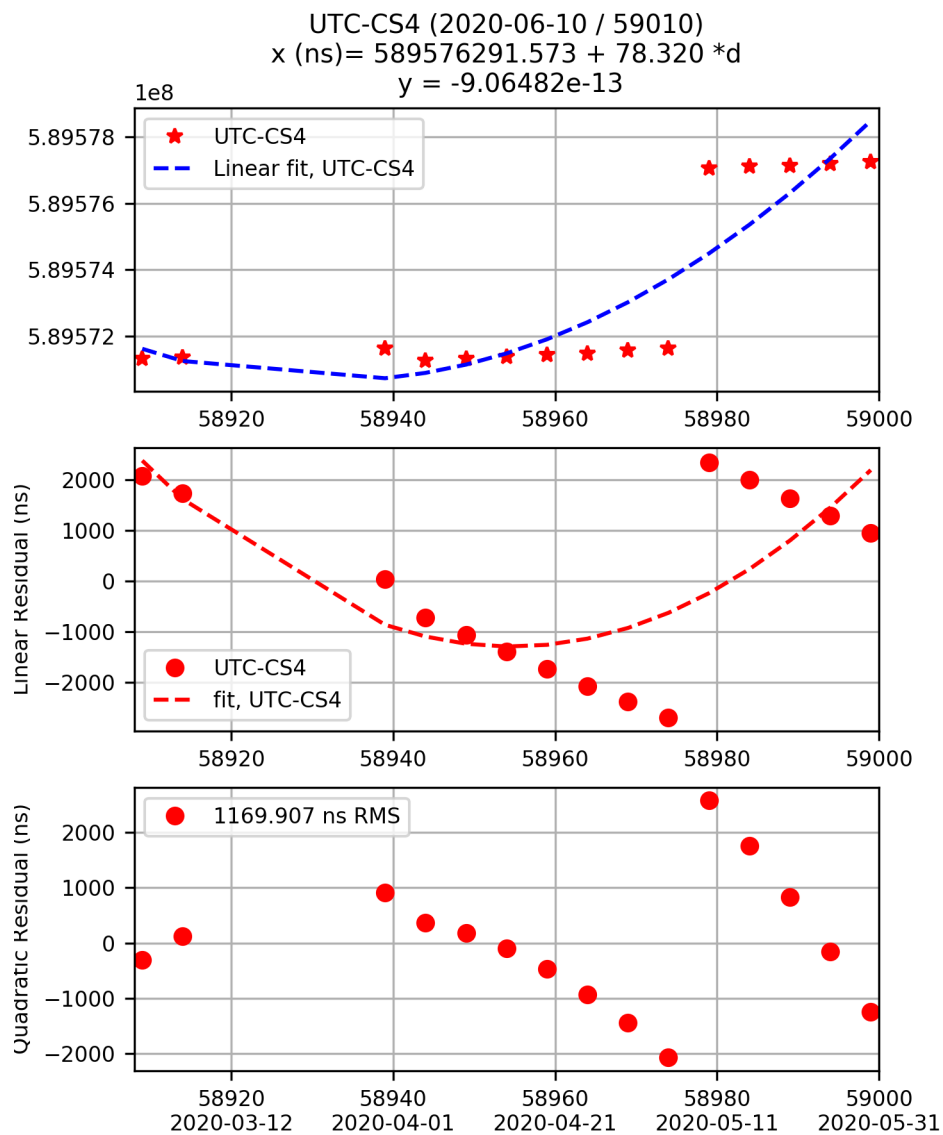
UTC-CS2 (2020-06-10 / 59010)
 $x \text{ (ns)} = 9570.148 + 4.379 * d$
 $y = -5.06786e-14$



Remote Clock: CS3



Remote Clock: CS4



End of Bulletin.