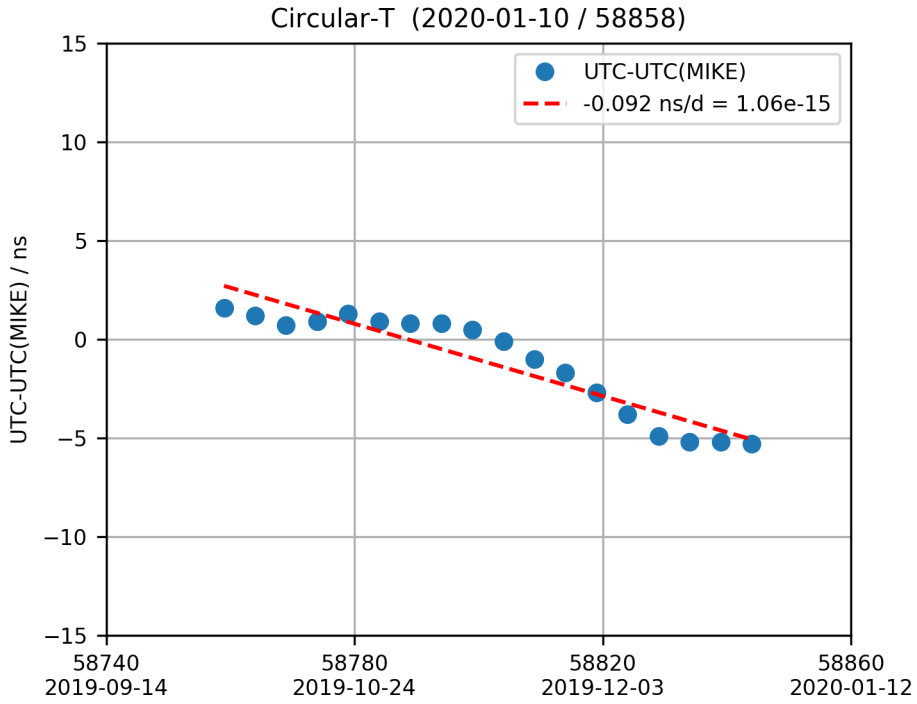
UTC(MIKE) Atomic Bulletin 2020-01

VTT MIKES Metrology monthly Time & Frequency bulletin.
Comments and questions to: time "at" vtt.fi
Date of publication: 2020-01-10 (58858)
Circular-T issues used for analysis: 382, 383, 384,
First day of analysis interval: 2019-10-03 (58759)
Last day of analysis interval: 2019-12-27 (58844)
ClockData for analysis: CDMI__19.10_, CDMI__19.11_, CDMI__19.12_,

Notes

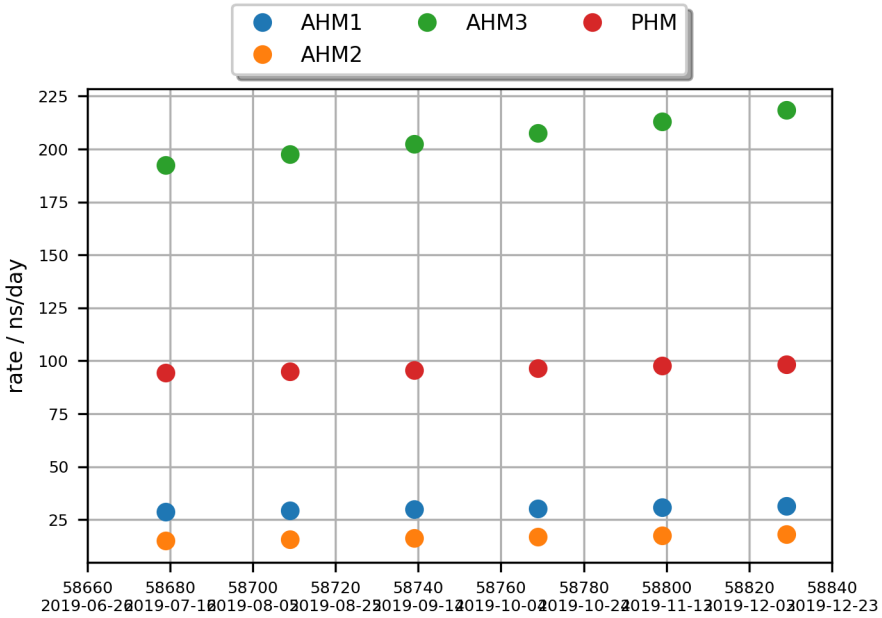
58305 AHM3 rebooted. Phase step +20.2ns.
58450 CS1 Hotwire supply regulation failure
58494 Change master-clock to AHM2
58617 (2019-05-14) Power-outage and temperature fluctuations in MIKES building.
58623, 58624 M3 clock data missing
58707 (2019-08-12) AHM2 autotuner failure, change MC to AHM1
58739 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)

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

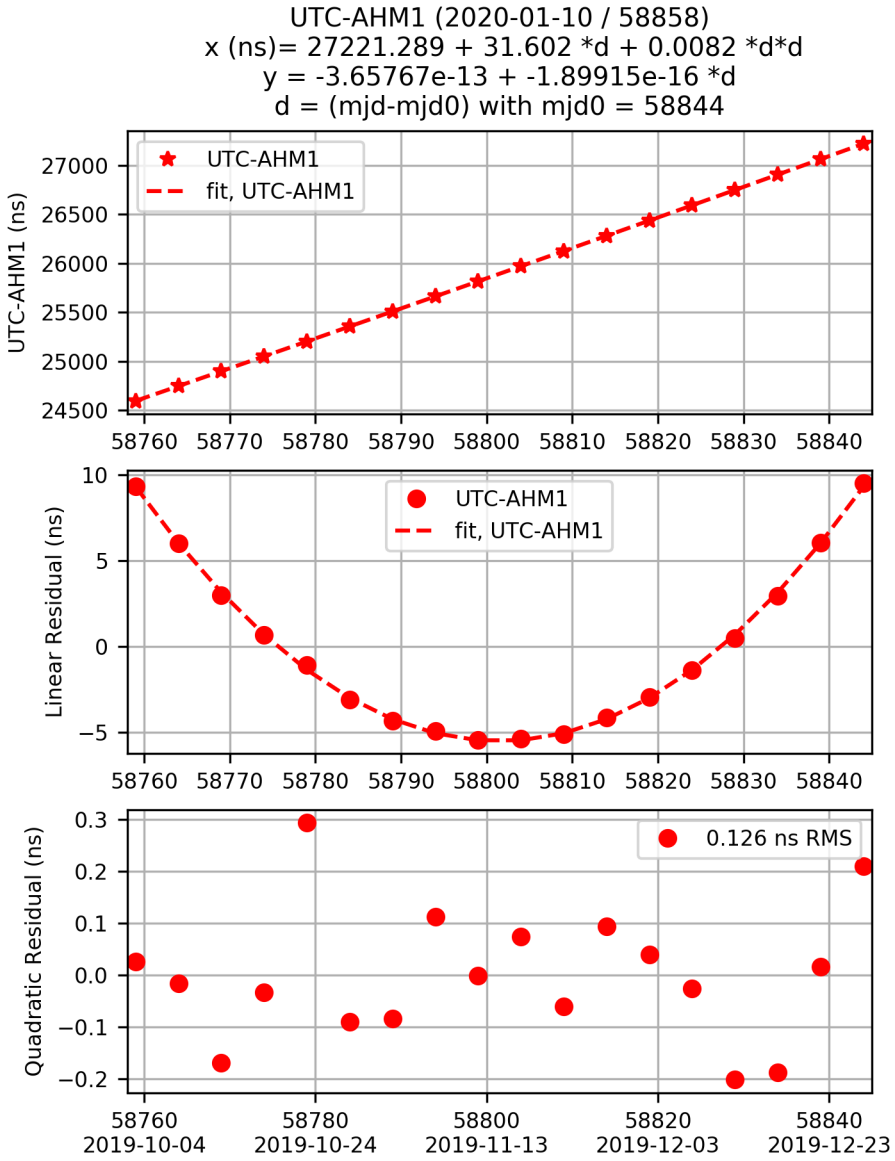


UTC-UTC(MIKE) is available on 5 day intervals on MJD dates ending with 4 or 9. Values are published monthly by the BIPM in Circular-T.

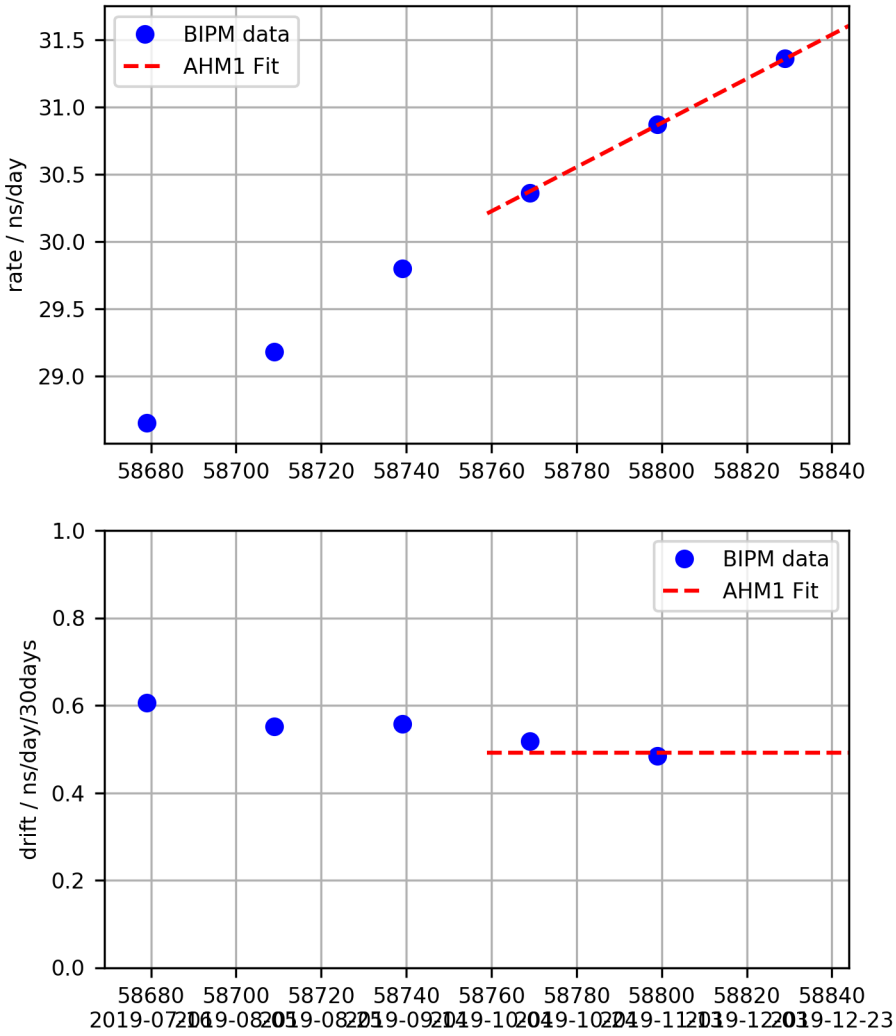
Clock Rates - Summary



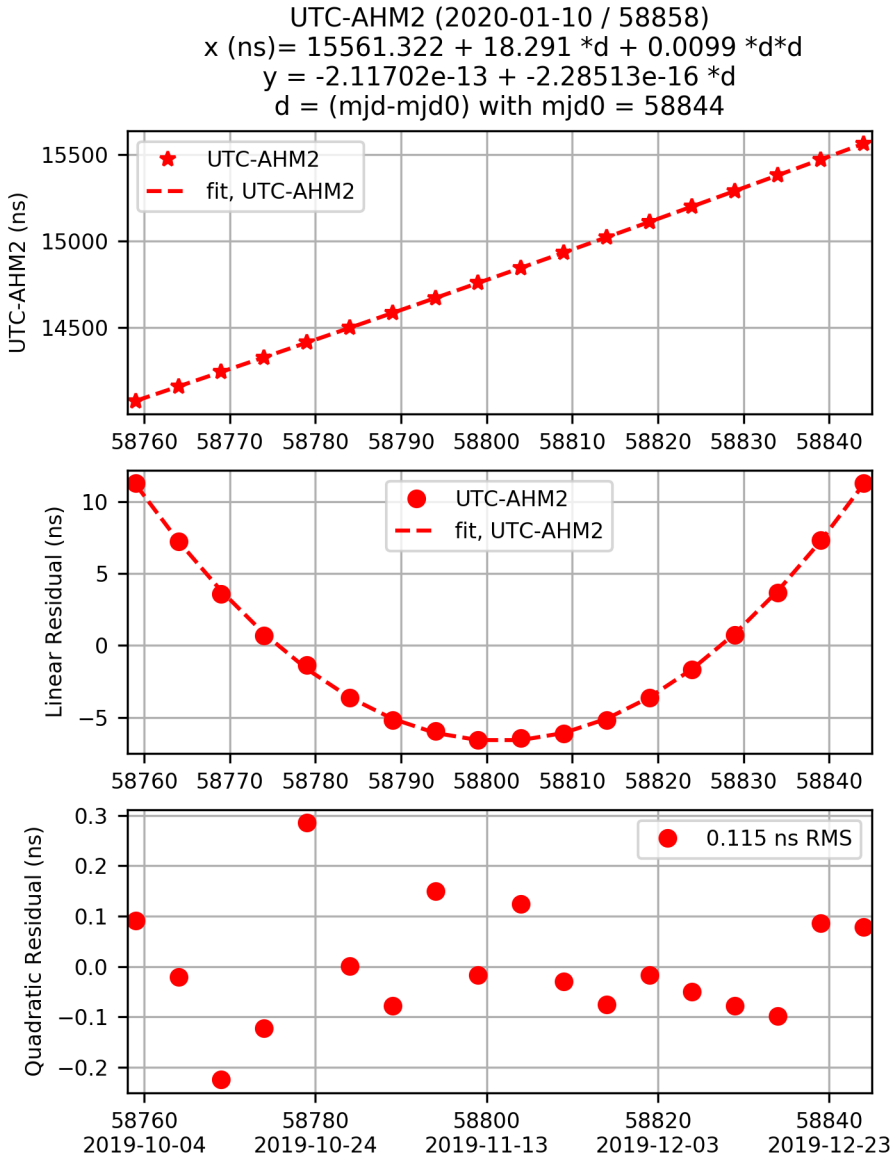
UTC - AHM1 Fit


UTC-AHM1 (2020-01-10 / 58858)
x (ns)= 27221.289 + 31.602 *d + 0.0082 *d*d
y = -3.65767e-13 + -1.89915e-16 *d
d = (mjd-mjd0) with mjd0 = 58844
UTC-AHM1
fit, UTC-AHM1
UTC-AHM1 (ns)
Linear Residual (ns)
Quadratic Residual (ns)
0.126 ns RMS
58760
58770
58780
58790
58800
58810
58820
58830
58840
2019-10-04
2019-10-24
2019-11-13
2019-12-03
2019-12-23

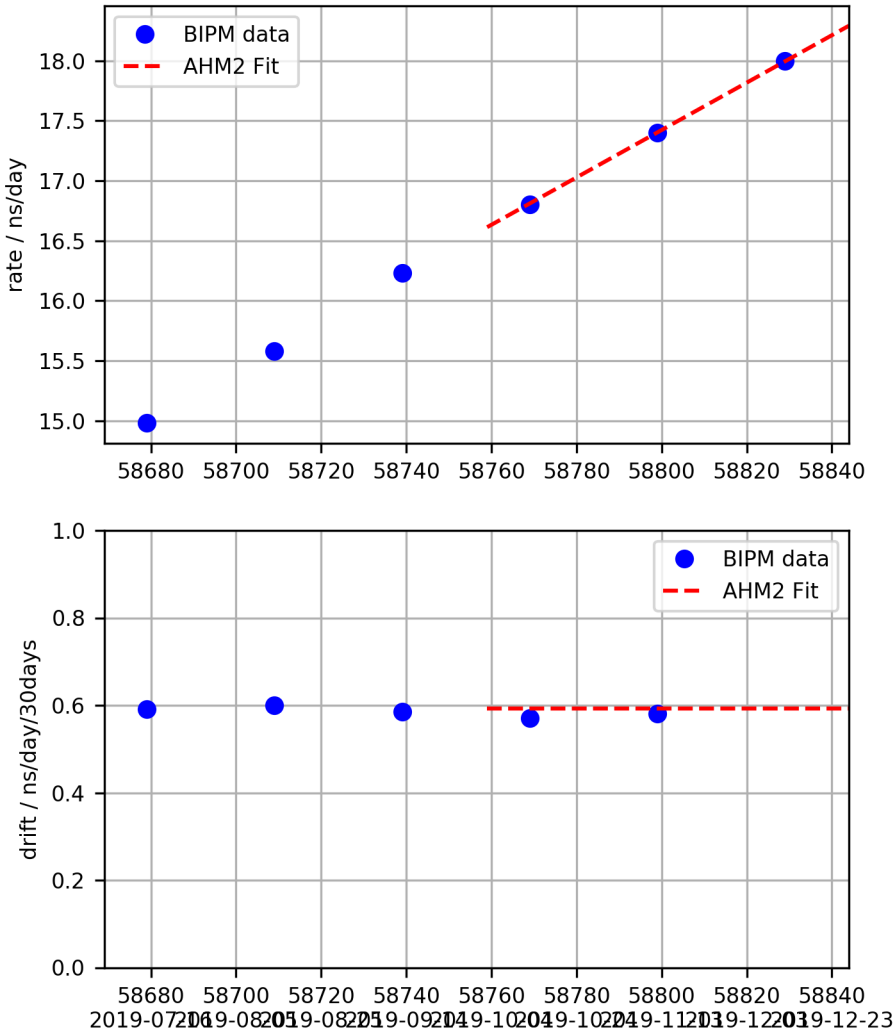
AHM1 Rate and Drift



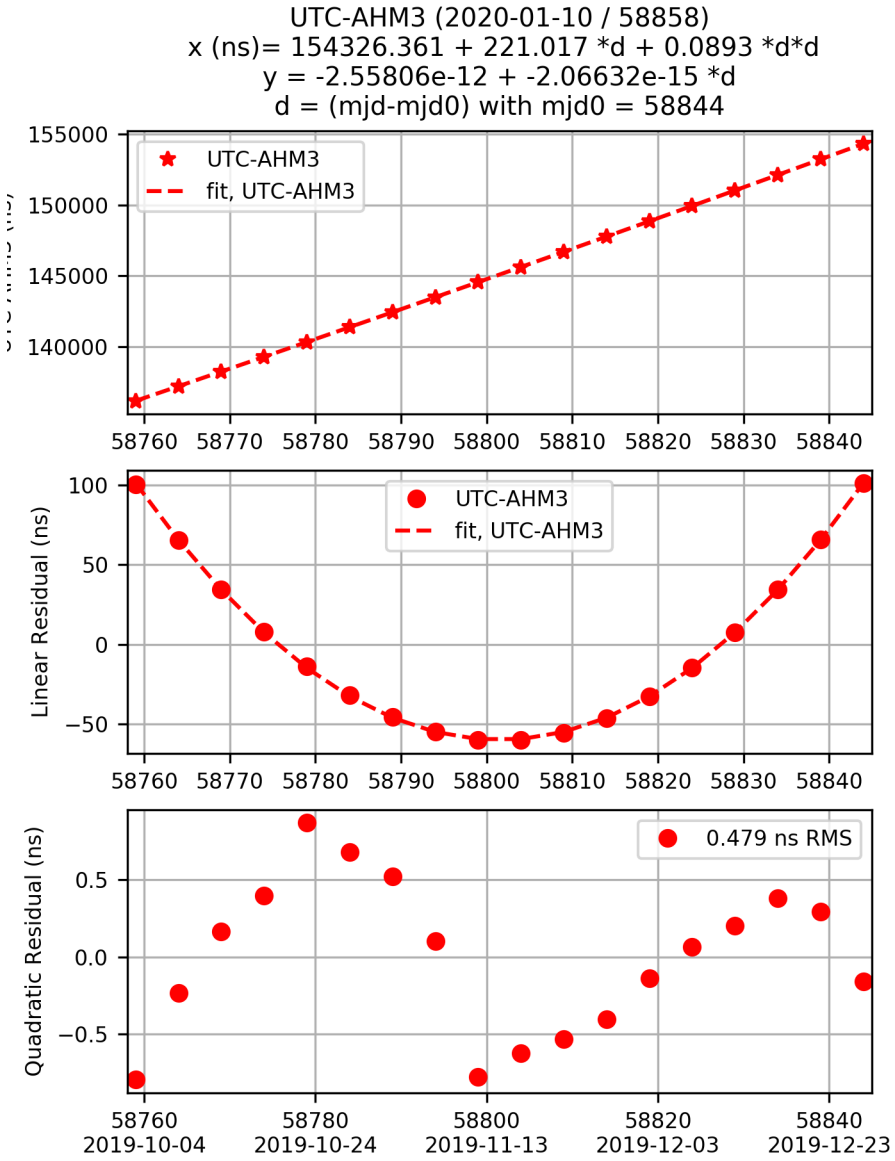
UTC - AHM2 Fit


UTC-AHM2 (2020-01-10 / 58858)
x (ns)= 15561.322 + 18.291 *d + 0.0099 *d*d
y = -2.11702e-13 + -2.28513e-16 *d
d = (mjd-mjd0) with mjd0 = 58844
UTC-AHM2 (ns)
UTC-AHM2
fit, UTC-AHM2
Linear Residual (ns)
Quadratic Residual (ns)
0.115 ns RMS
2019-10-04
2019-10-24
2019-11-13
2019-12-03
2019-12-23

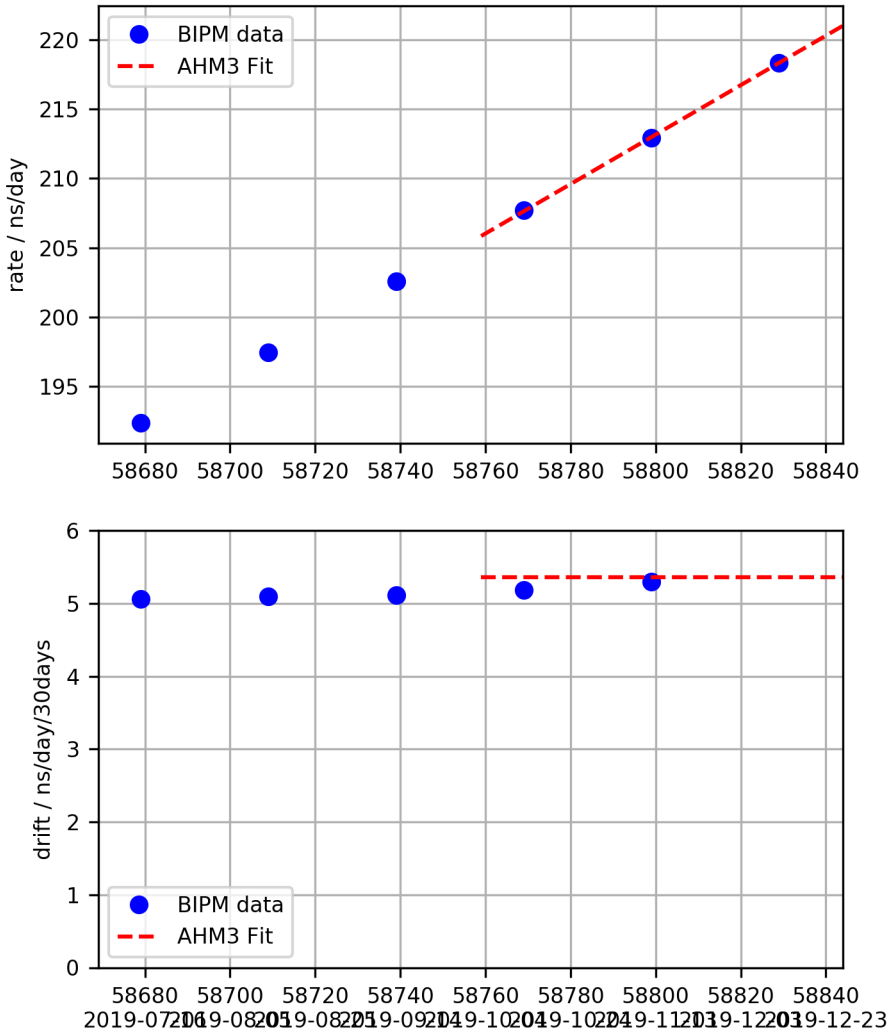
AHM2 Rate and Drift



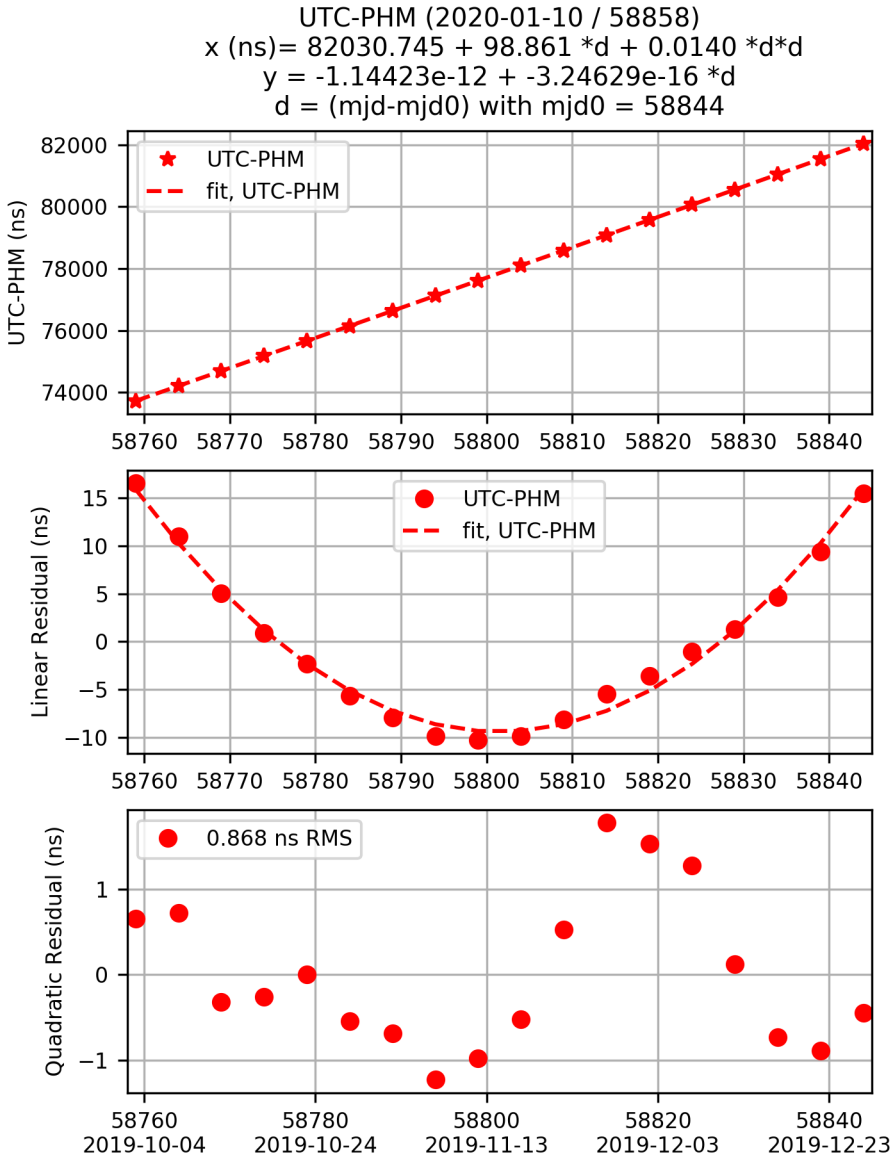
UTC - AHM3 Fit


UTC-AHM3 (2020-01-10 / 58858)
x (ns)= 154326.361 + 221.017 *d + 0.0893 *d*d
y = -2.55806e-12 + -2.06632e-15 *d
d = (mjd-mjd0) with mjd0 = 58844
UTC-AHM3
fit, UTC-AHM3
Linear Residual (ns)
Quadratic Residual (ns)
0.479 ns RMS
2019-10-04
2019-10-24
2019-11-13
2019-12-03
2019-12-23

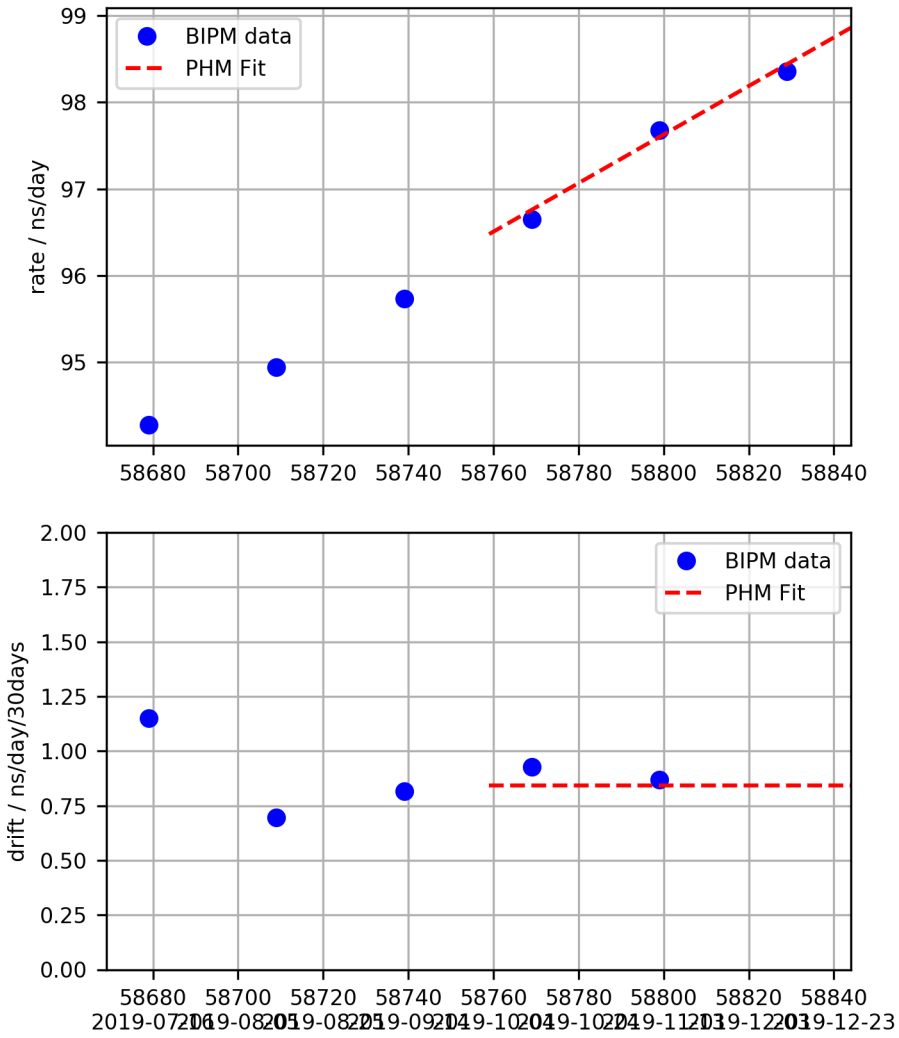
AHM3 Rate and Drift



UTC - PHM Fit

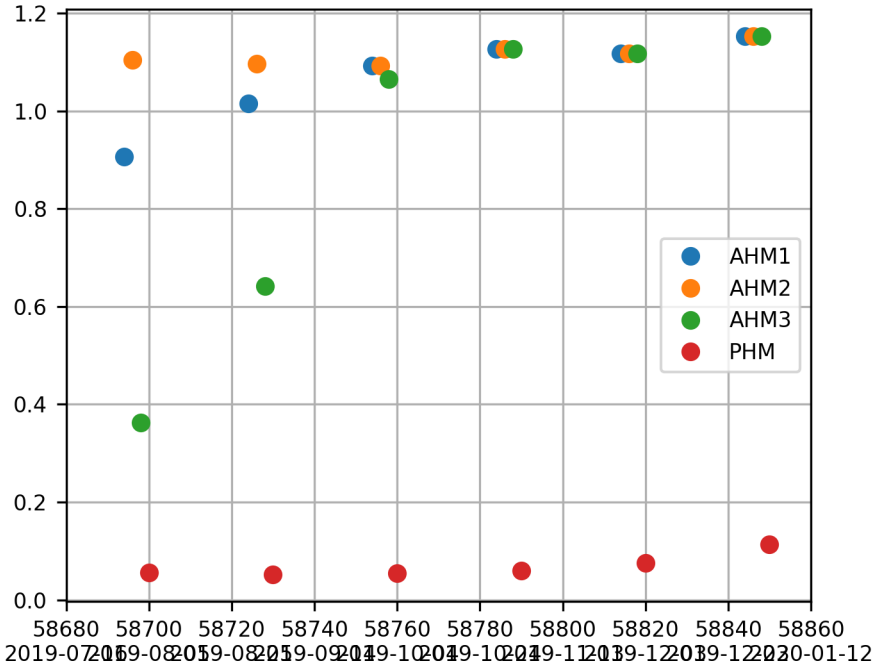

UTC-PHM (2020-01-10 / 58858)
x (ns)= 82030.745 + 98.861 *d + 0.0140 *d*d
y = -1.14423e-12 + -3.24629e-16 *d
d = (mjd-mjd0) with mjd0 = 58844
UTC-PHM (ns)
UTC-PHM
fit, UTC-PHM
Linear Residual (ns)
Quadratic Residual (ns)
0.868 ns RMS
58760
58770
58780
58790
58800
58810
58820
58830
58840
2019-10-04
2019-10-24
2019-11-13
2019-12-03
2019-12-23

PHM Rate and Drift



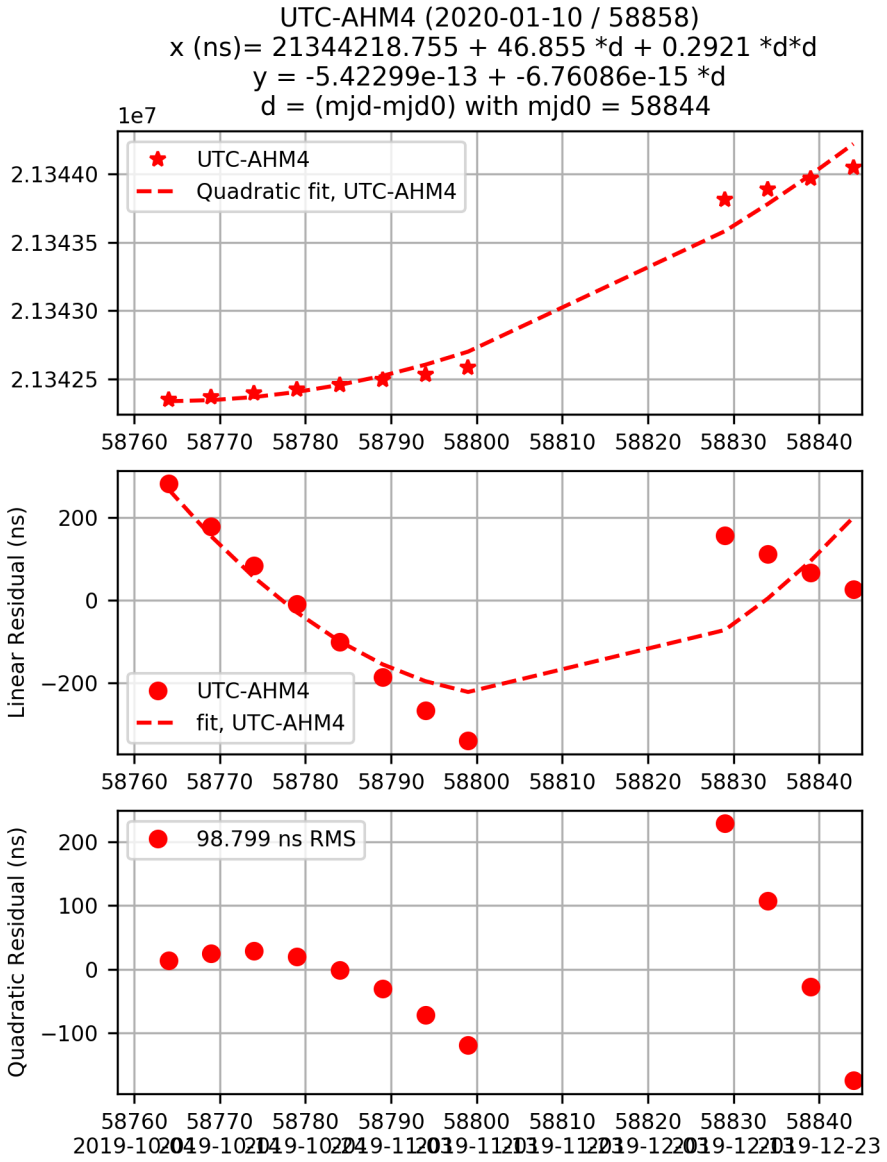
Clock Weights

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

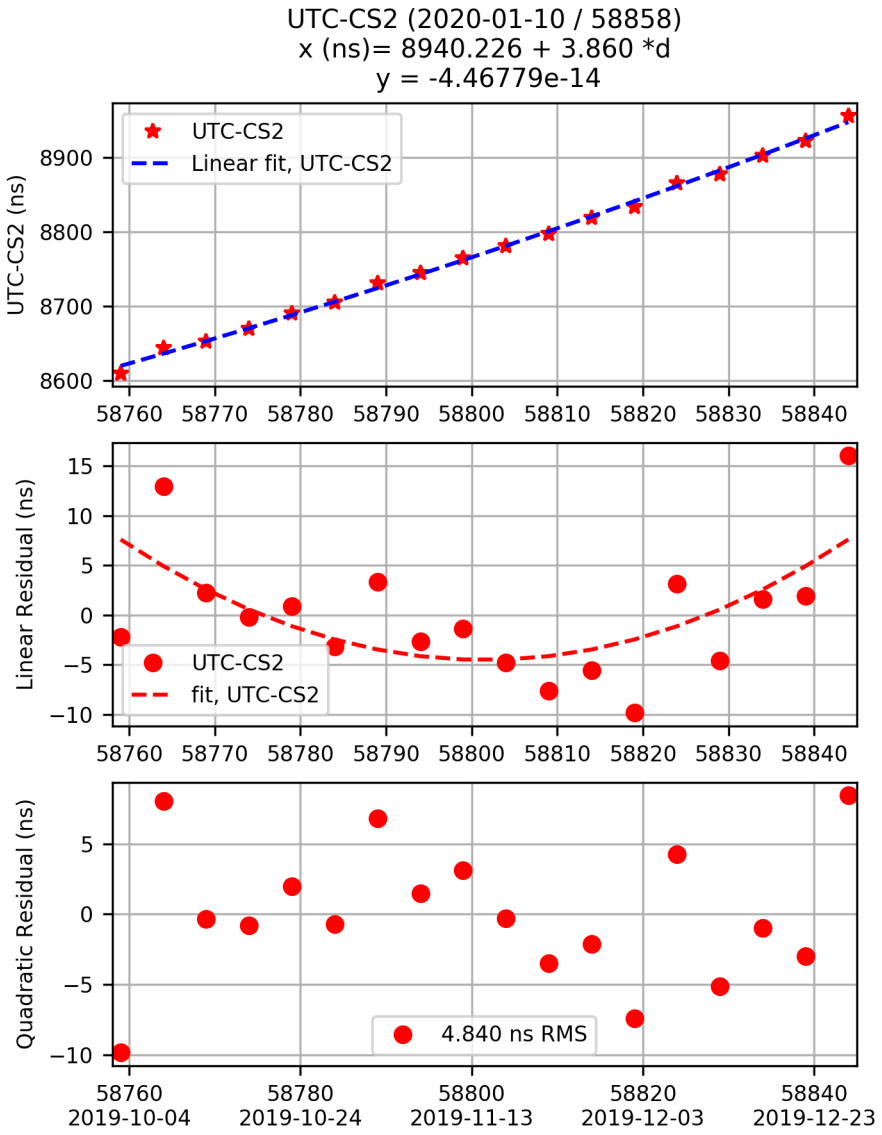


Remote Clocks

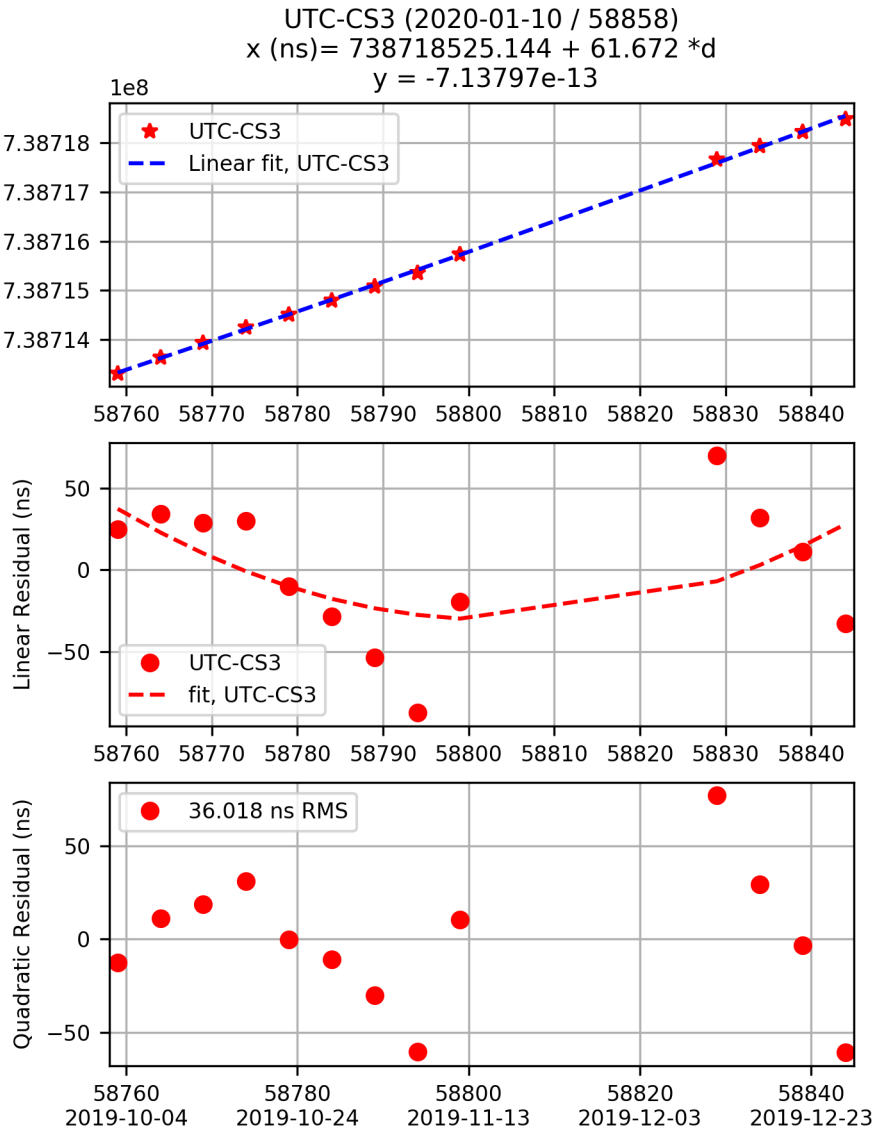
Remote Clock: AHM4



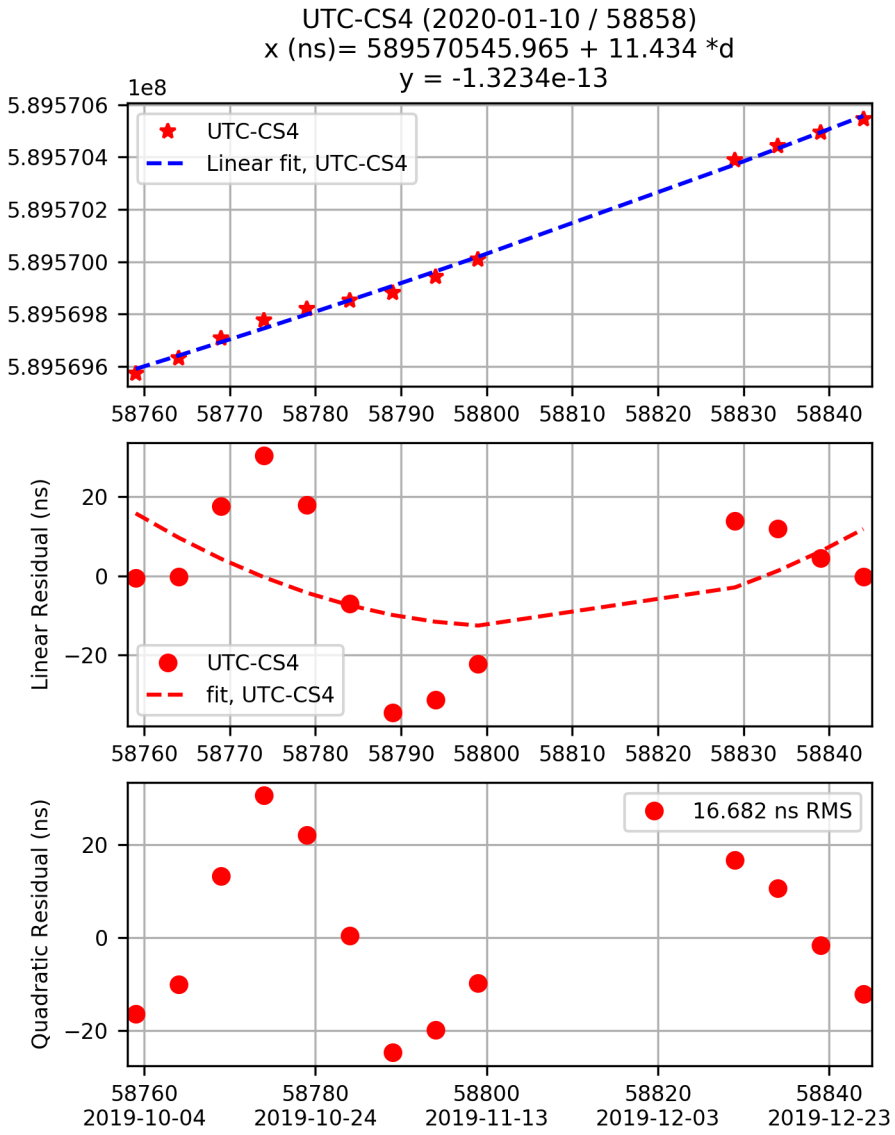
Remote Clock: CS2



Remote Clock: CS3



Remote Clock: CS4



End of Bulletin.