

UTC(MIKE) Atomic Bulletin 2019-09

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2019-09-12 (58738)

Circular-T issues used for analysis: [378](#), [379](#), [380](#),

First day of analysis interval: 2019-06-05 (58639)

Last day of analysis interval: 2019-08-29 (58724)

ClockData for analysis: [CDMI 19.06](#), [CDMI 19.07](#), [CDMI 19.08](#),

Notes

58305 AHM3 rebooted. Phase step +20.2ns.

58450 CS1 Hotwire supply regulation failure

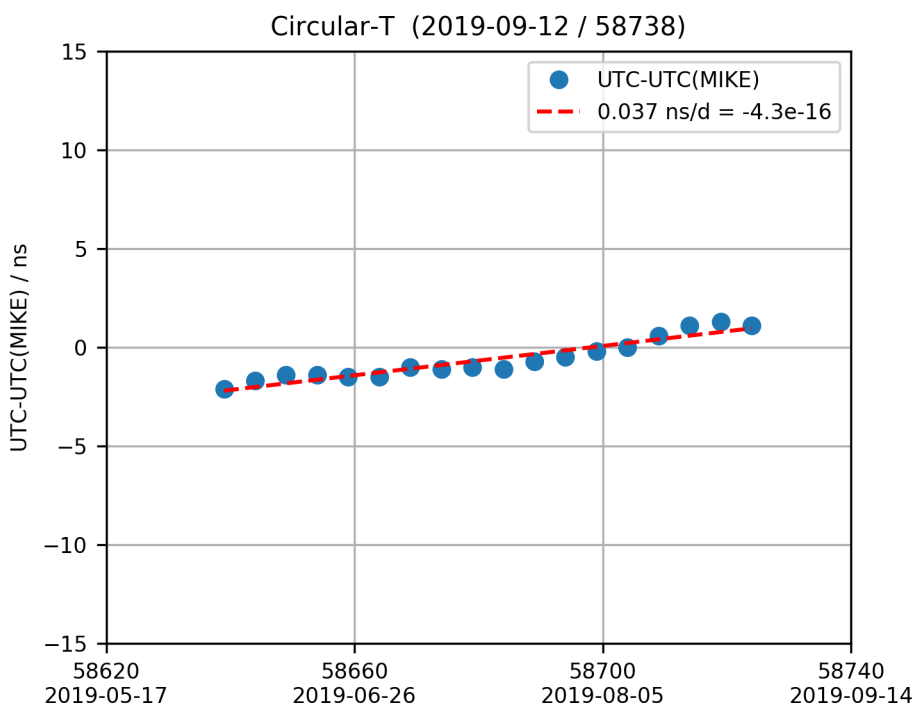
58494 Change master-clock to AHM2

58617 (2019-05-14) Power-outage and temperature fluctuations in MIKES building.

58623, 58624 M3 clock data missing for

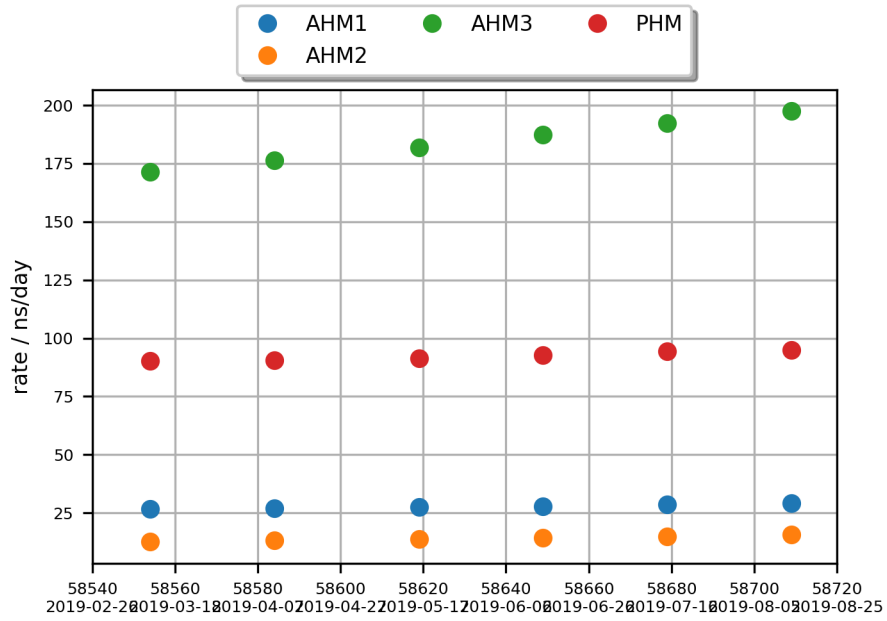
58707 (2019-08-12) AHM2 autotuner failure, change MC to AHM1

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



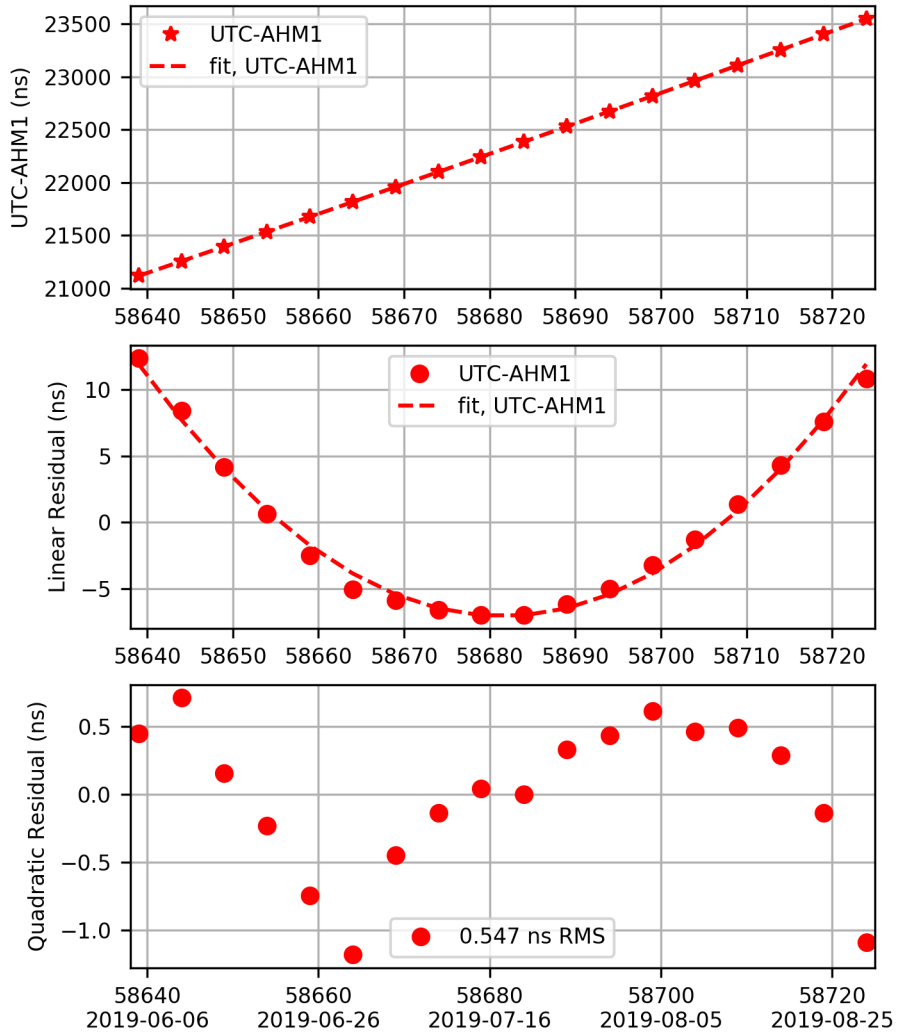
UTC-UTC(MIKE) is available on 5 day intervals on MJD dates ending with 4 or 9. Values are published monthly by the BIPM in Circular-T.

Clock Rates - Summary

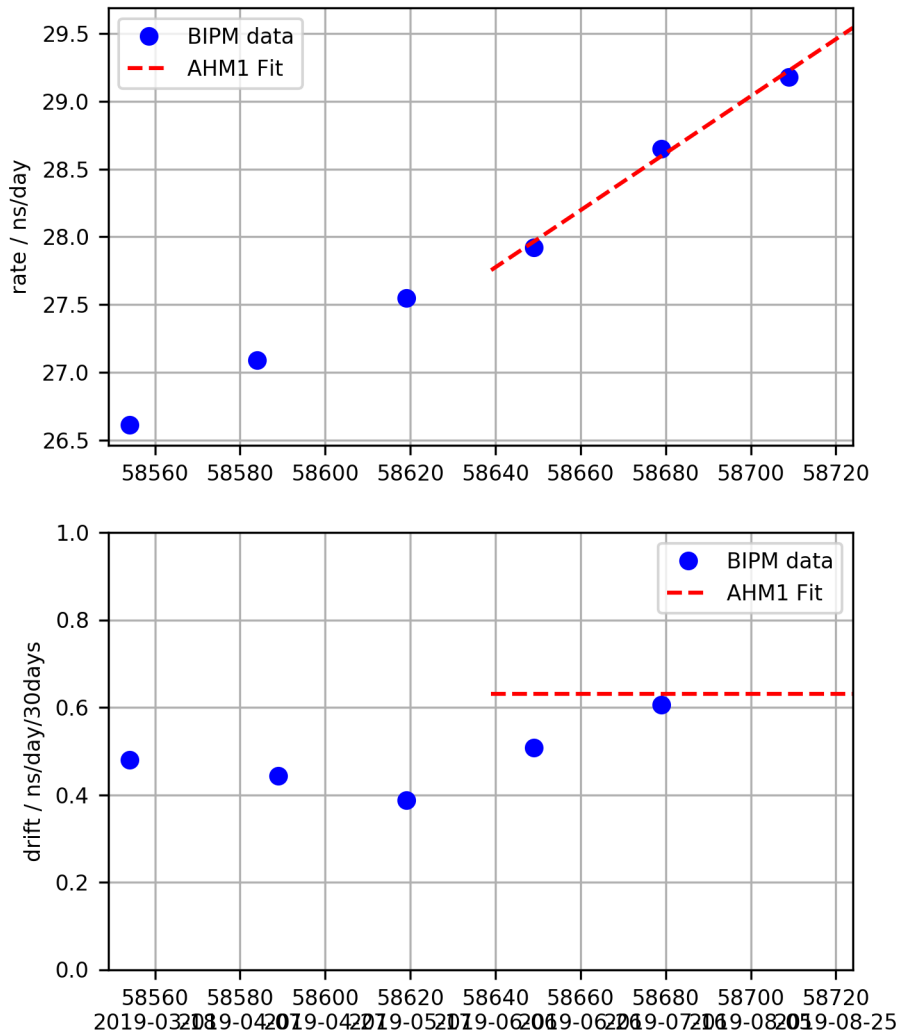


UTC - AHM1 Fit

UTC-AHM1 (2019-09-12 / 58738)
 $x \text{ (ns)} = 23550.891 + 29.543 *d + 0.0105 *d*d$
 $y = -3.41936e-13 + -2.43617e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58724$

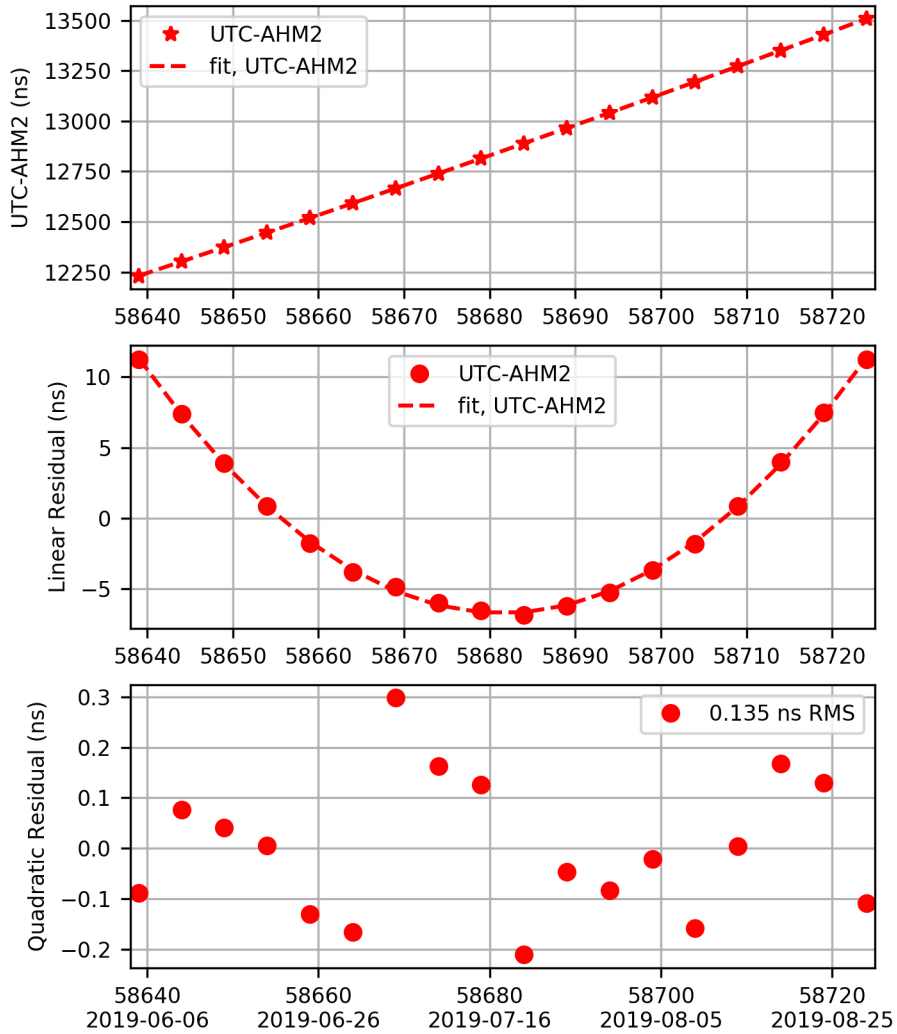


AHM1 Rate and Drift

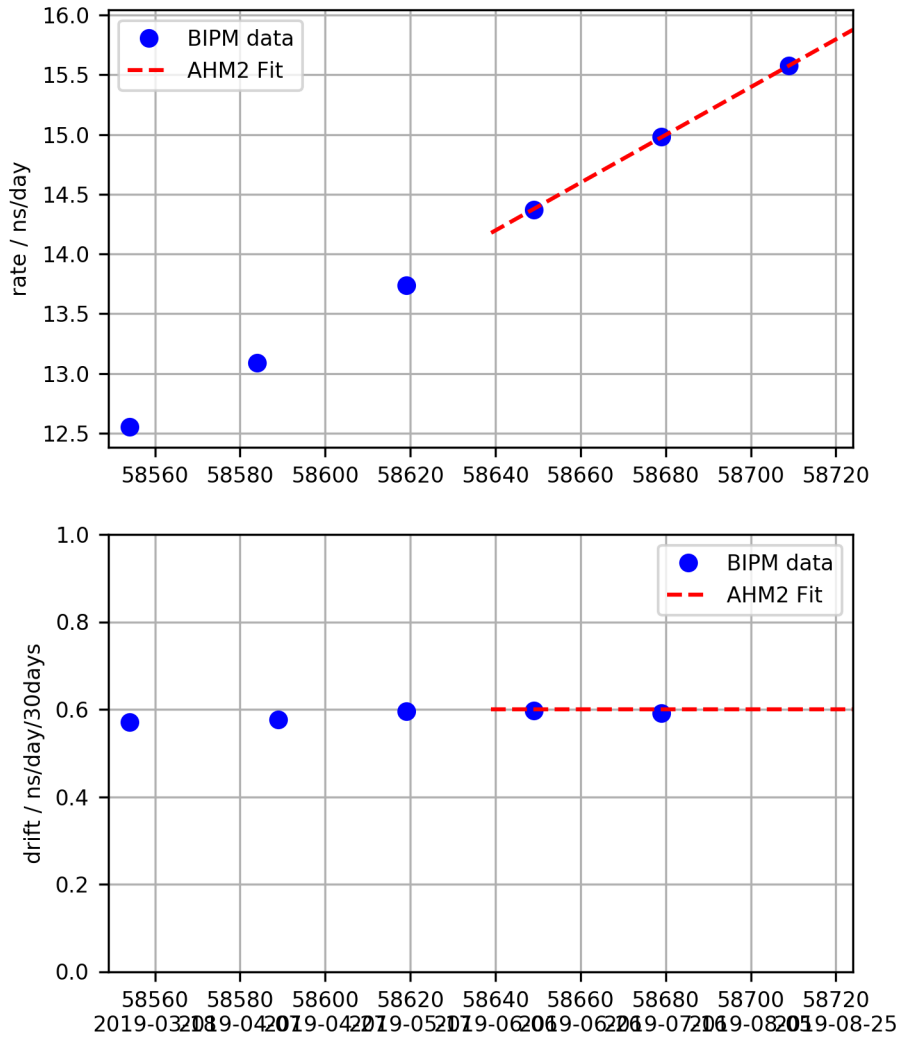


UTC - AHM2 Fit

UTC-AHM2 (2019-09-12 / 58738)
 $x \text{ (ns)} = 13508.608 + 15.878 *d + 0.0100 *d*d$
 $y = -1.83768e-13 + -2.31559e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58724$

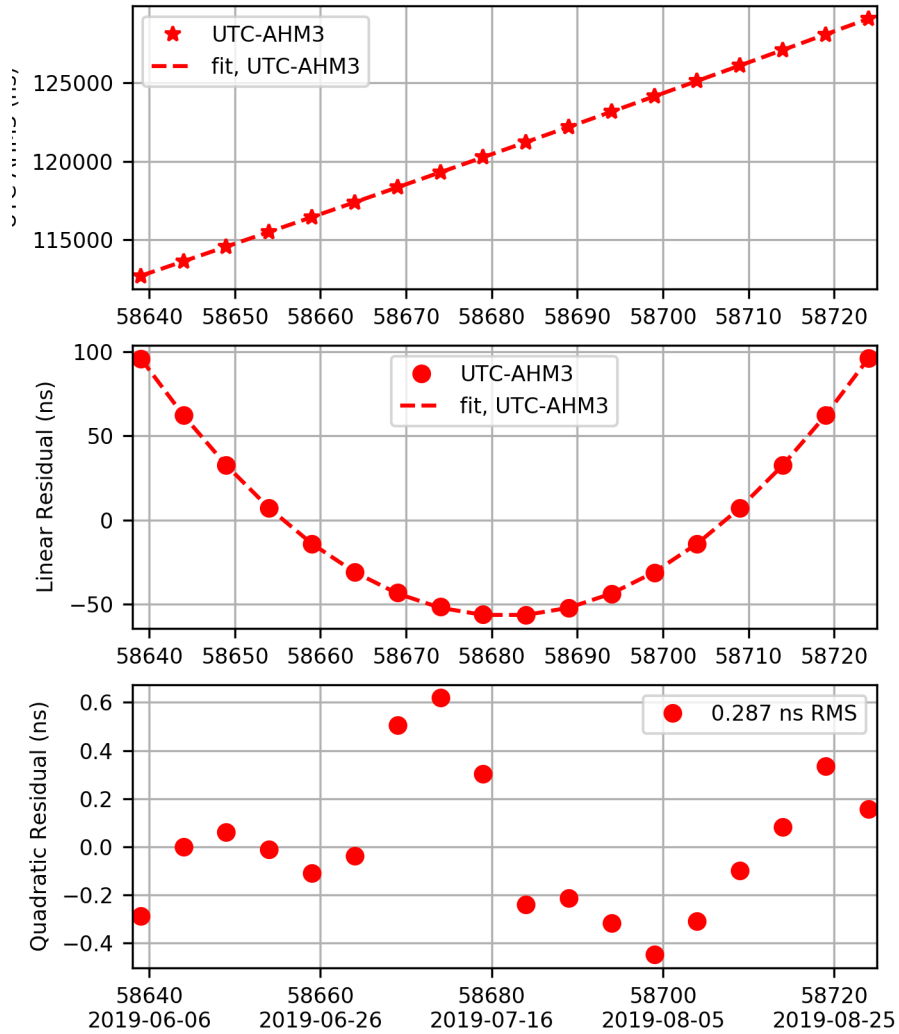


AHM2 Rate and Drift

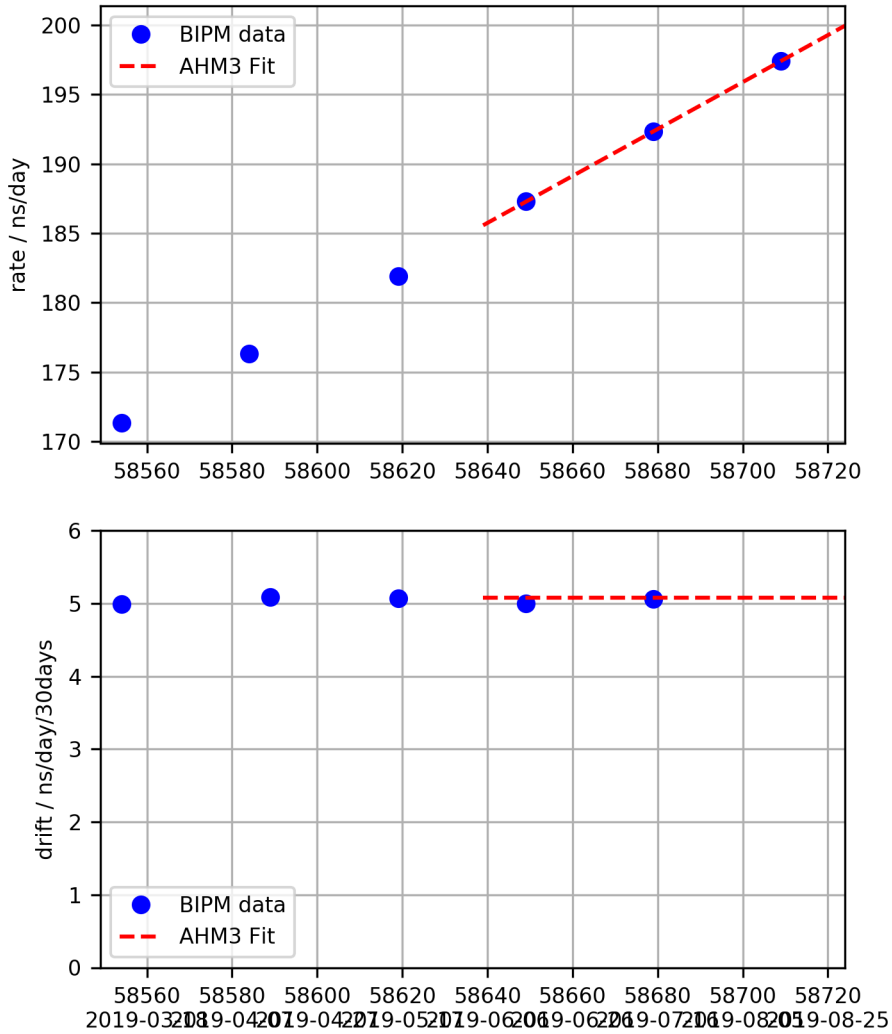


UTC - AHM3 Fit

UTC-AHM3 (2019-09-12 / 58738)
 $x \text{ (ns)} = 129079.243 + 199.958 * d + 0.0846 * d * d$
 $y = -2.31433e-12 + -1.95791e-15 * d$
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 58724$

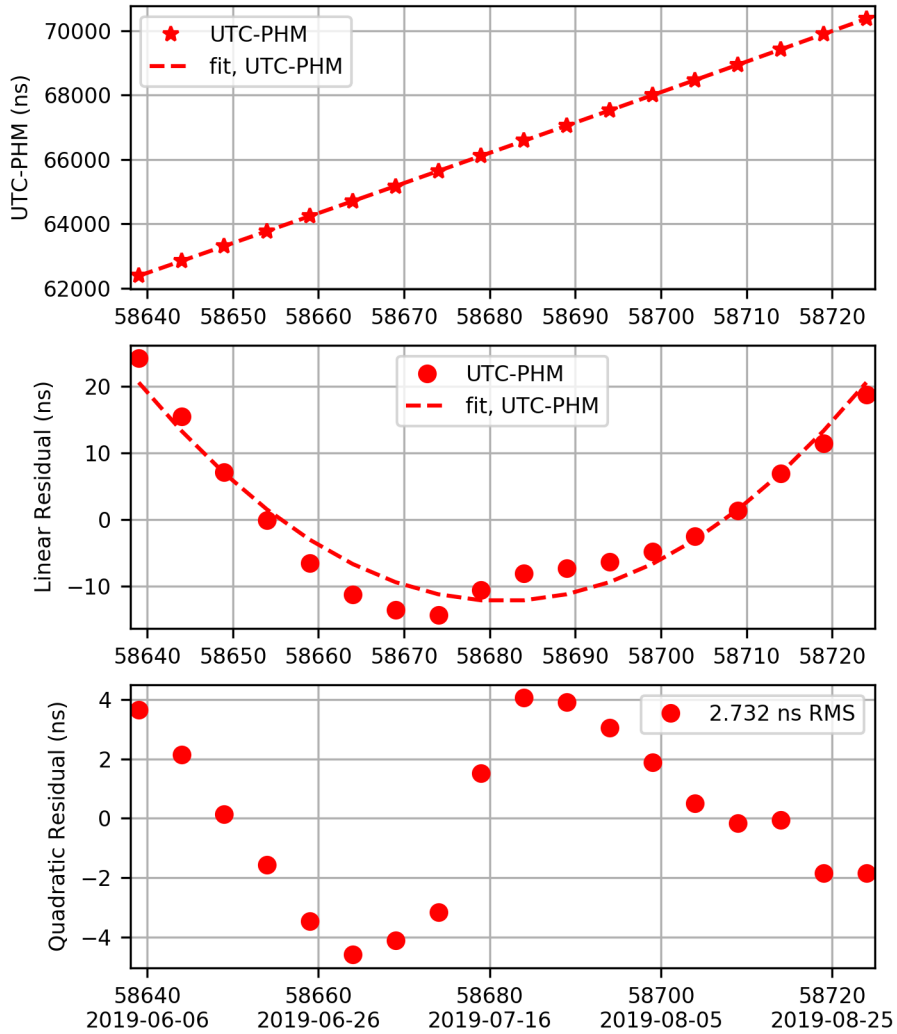


AHM3 Rate and Drift

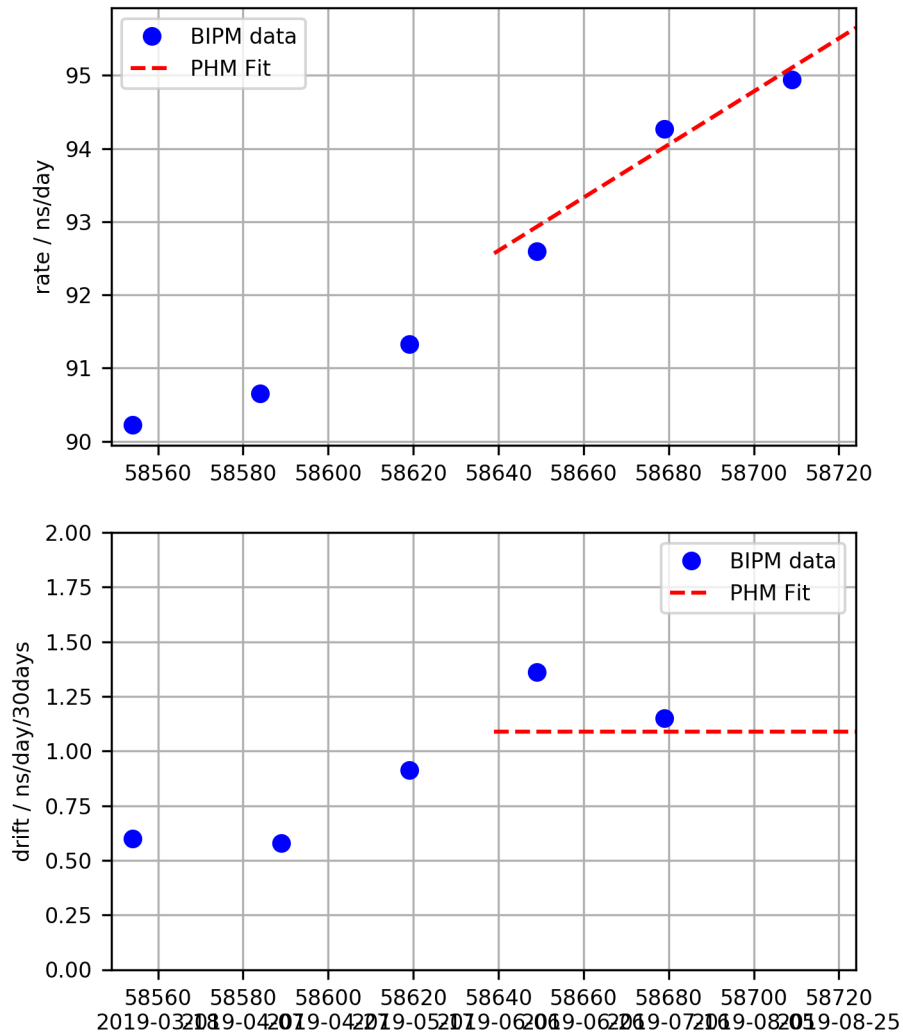


UTC - PHM Fit

UTC-PHM (2019-09-12 / 58738)
 $x \text{ (ns)} = 70379.352 + 95.651 *d + 0.0181 *d*d$
 $y = -1.10707e-12 + -4.19742e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58724$

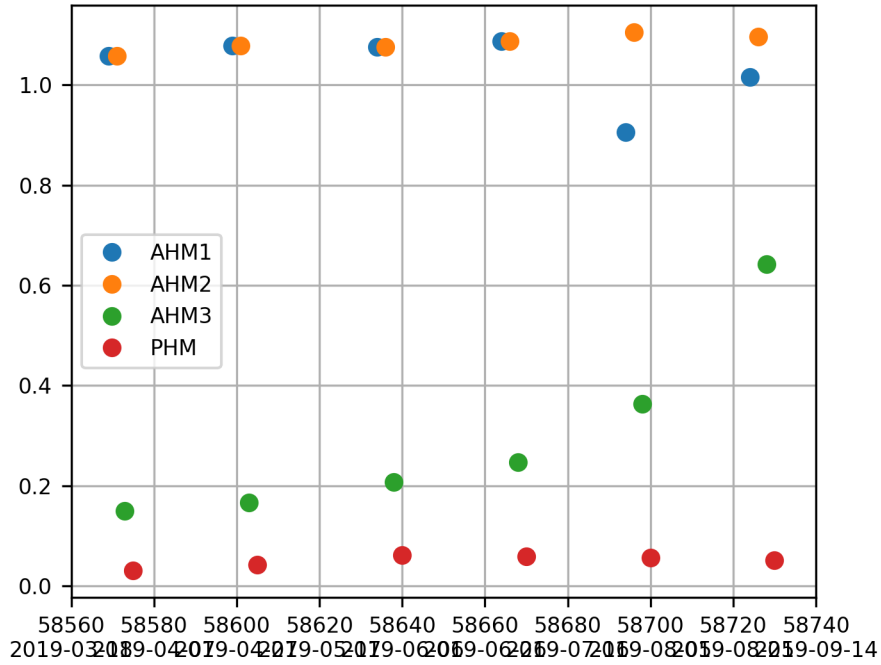


PHM Rate and Drift



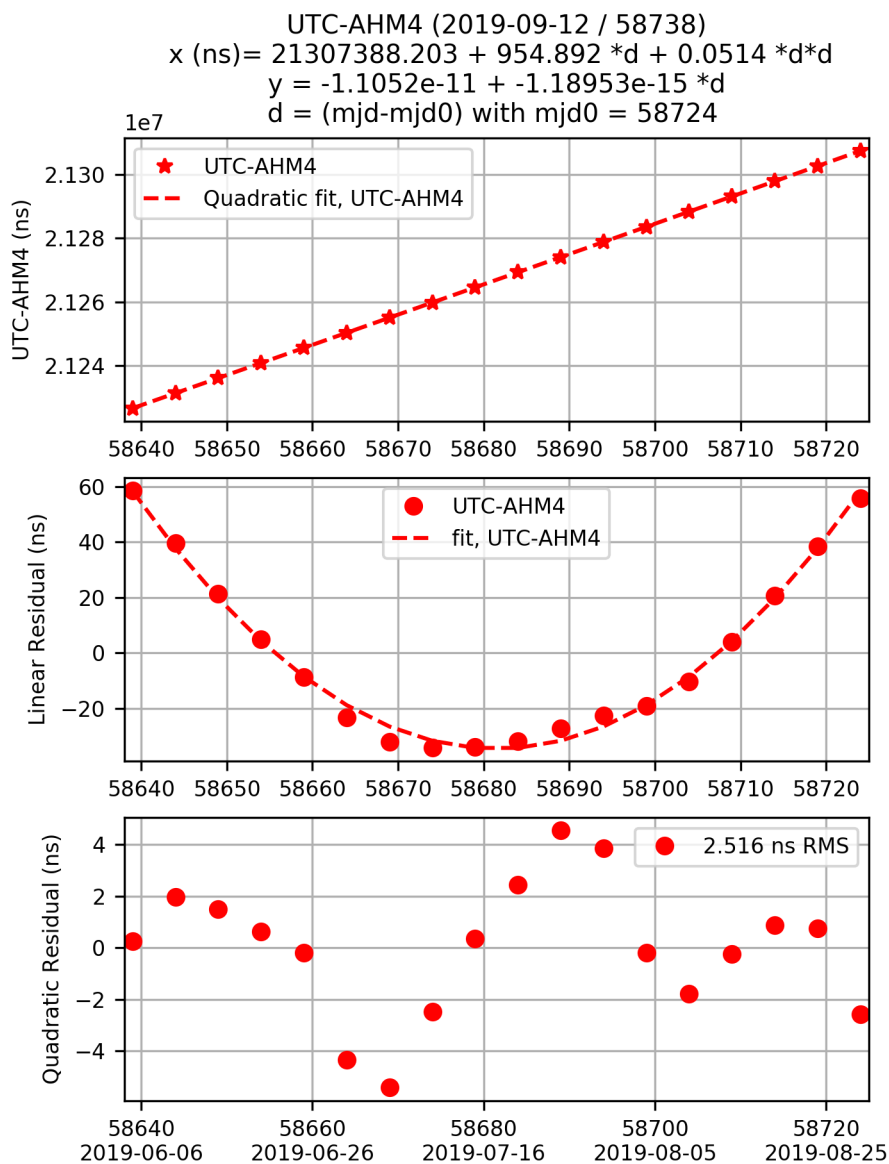
Clock Weights

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



Remote Clocks

Remote Clock: AHM4

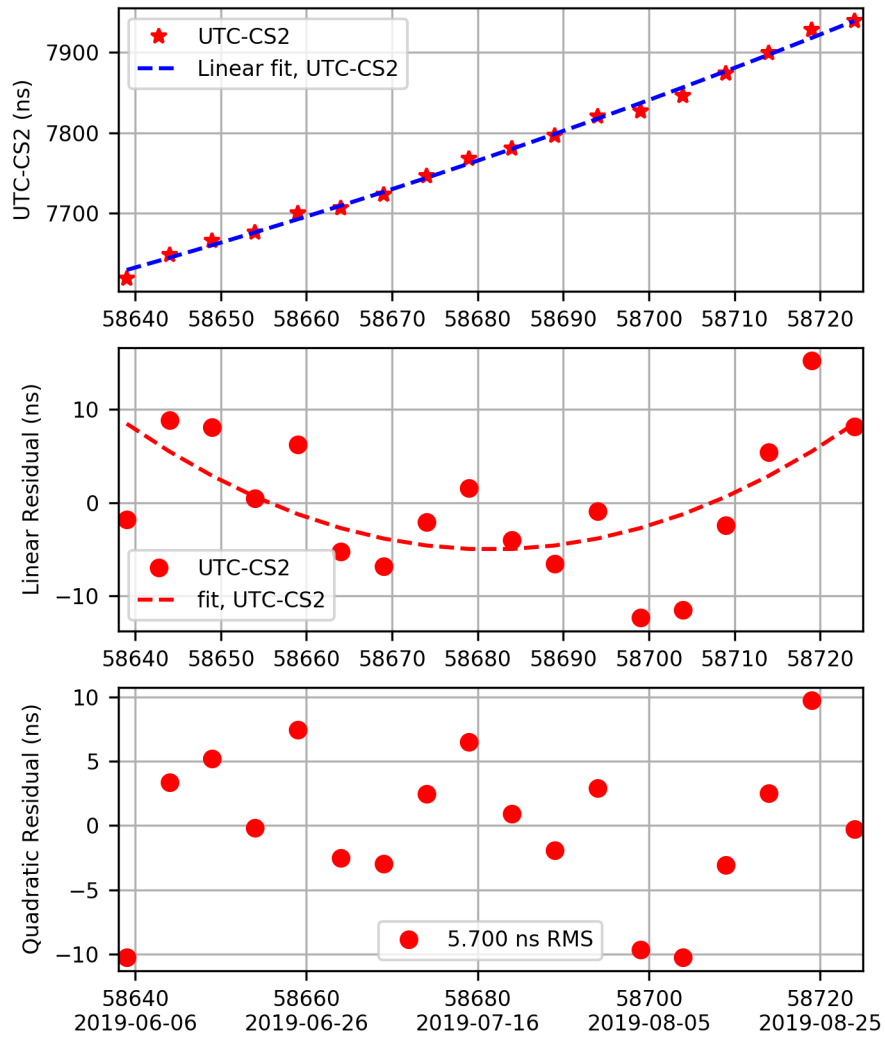


Remote Clock: CS2

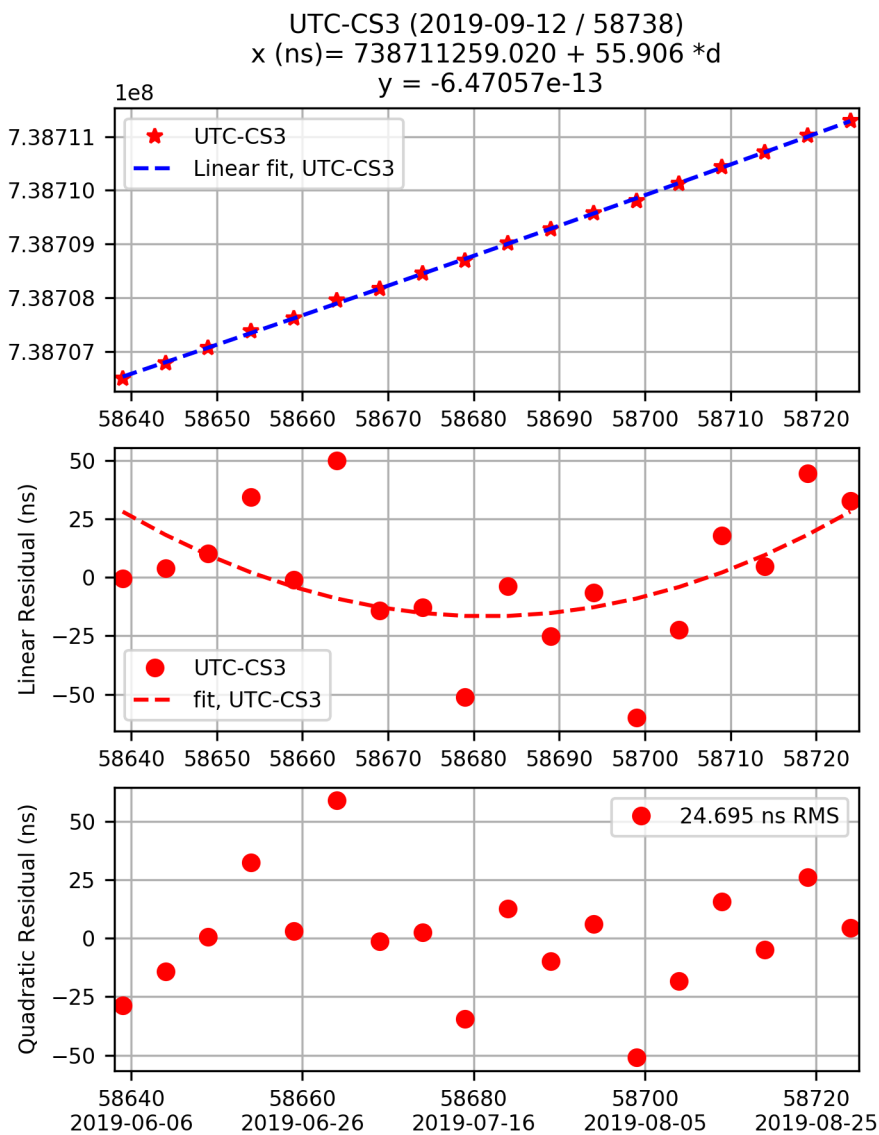
UTC-CS2 (2019-09-12 / 58738)

$$x \text{ (ns)} = 7930.555 + 3.640 * d$$

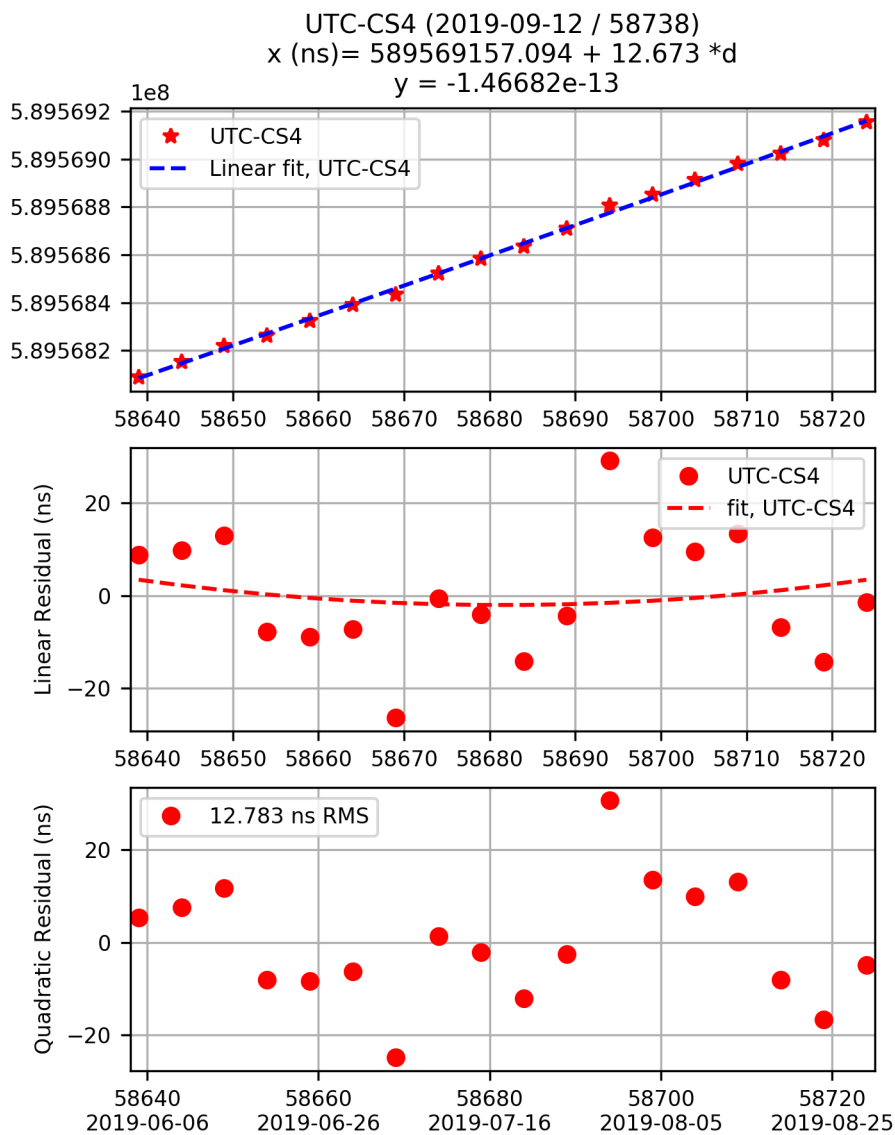
$$y = -4.21297e-14$$



Remote Clock: CS3



Remote Clock: CS4



End of Bulletin.