

UTC(MIKE) Atomic Bulletin 2018-07

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2018-07-13

Circular-T issues used for analysis: [364](#), [365](#), [366](#),

First day of analysis interval: 2018-04-01 (58209)

Last day of analysis interval: 2018-06-30 (58299)

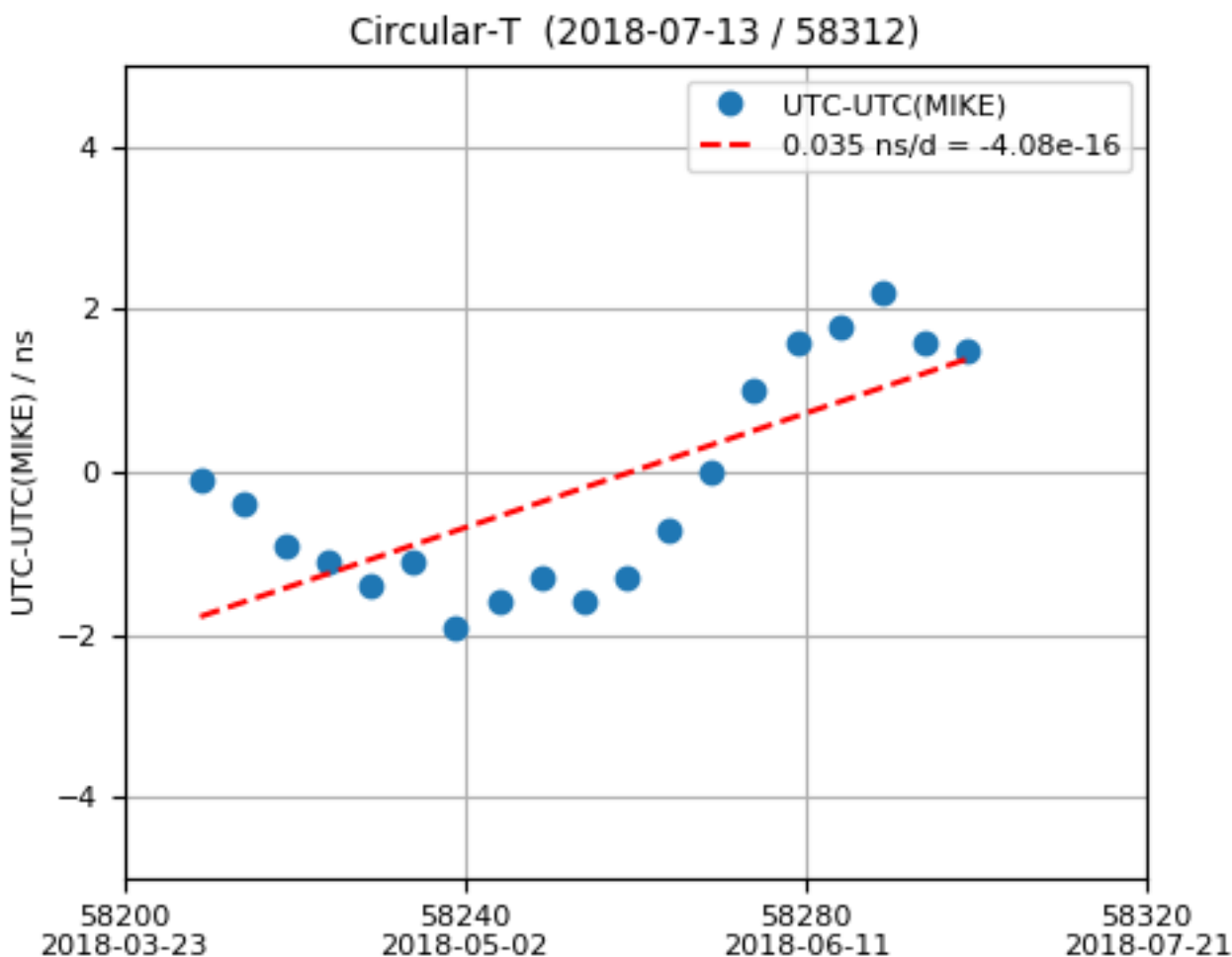
ClockData for analysis: [CDMI 18.04](#), [CDMI 18.05](#), [CDMI 18.06](#),

Notes

58189 AHM2 H-source heater turned ON

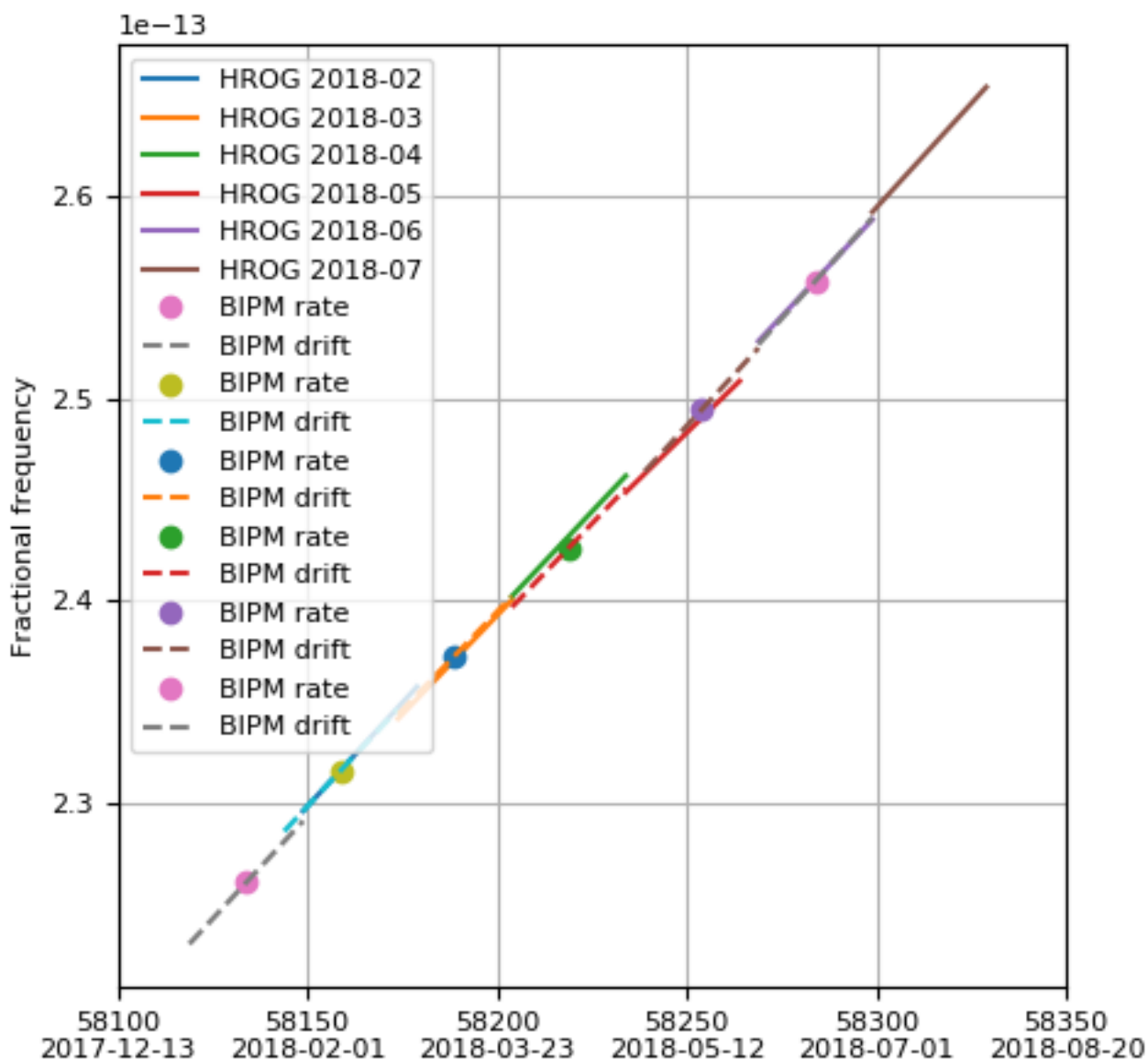
58204 AHM2 TAI-weight non-zero

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.

UTC(MIKE) frequency steering parameters



UTC(MIKE) Master Clock is AHM1 since 2017-07-15.

Solid lines indicate UTC(MIKE) steering parameters derived from UTC-ClockData fits.

Symbols and dashed lines indicate MasterClock rates and drifts as published by BIPM.

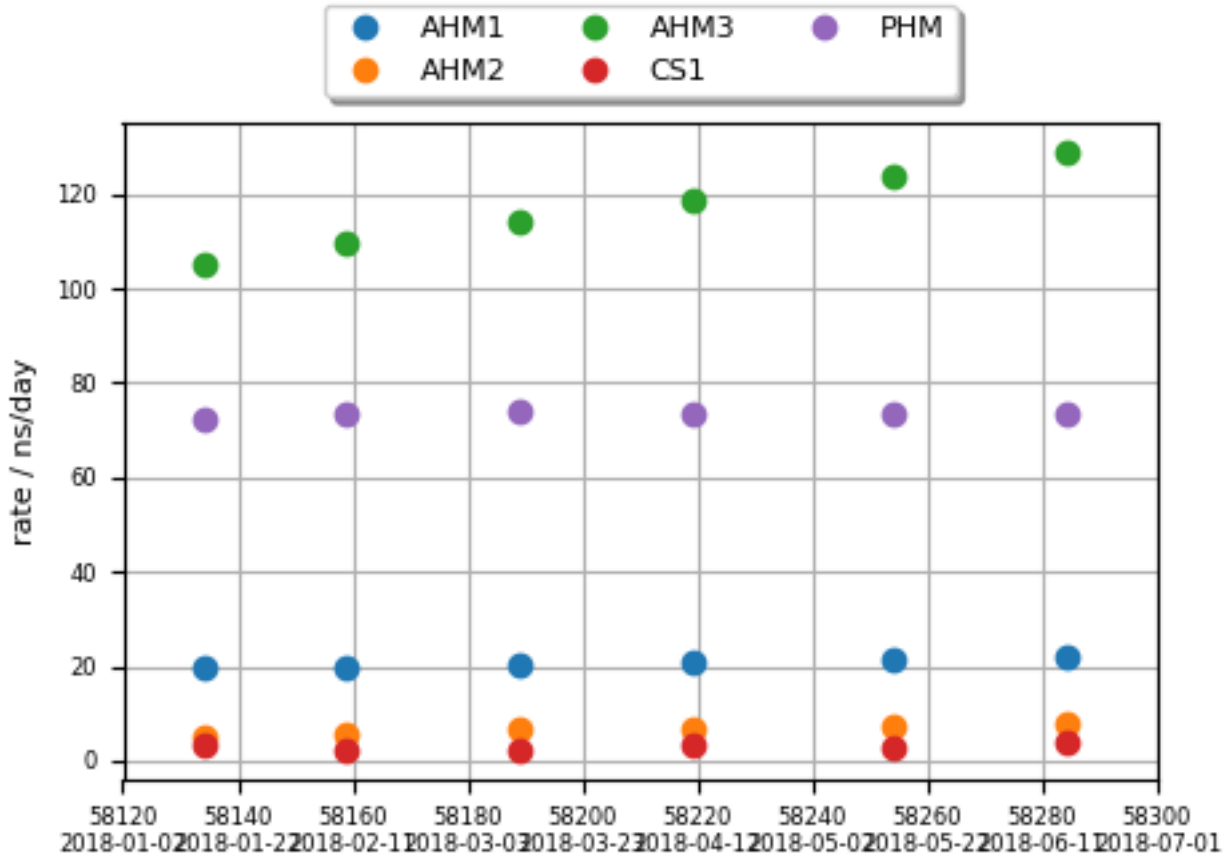
The latest steering parameters are:

$$y = 2.59197e-13 + 2.05989e-16 * d + y_steer$$

with $d = (mjd - mjd0)$ and $mjd0 = 58299$

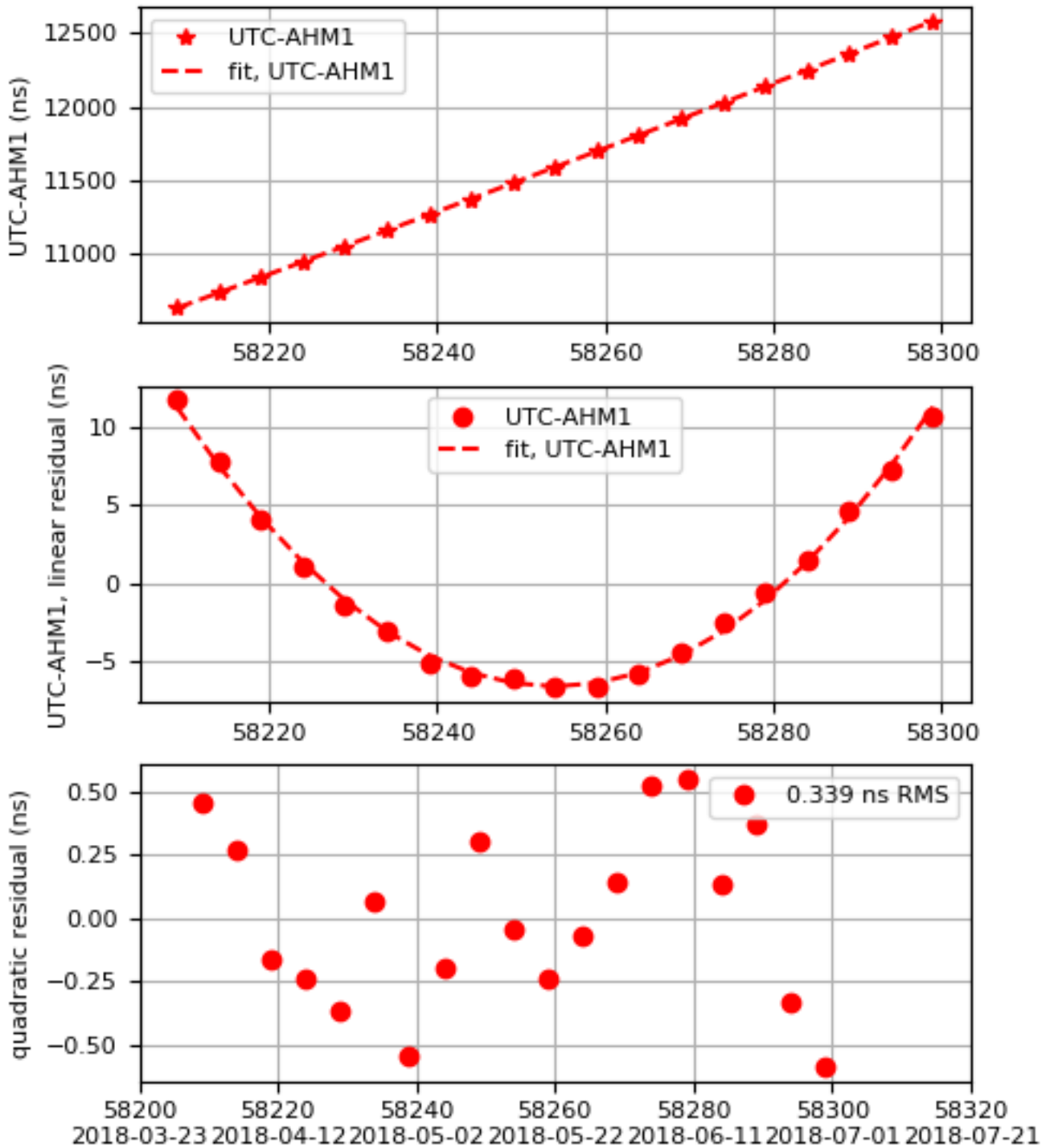
$y_steer = 0$ since 58150

Clock Rates - Summary

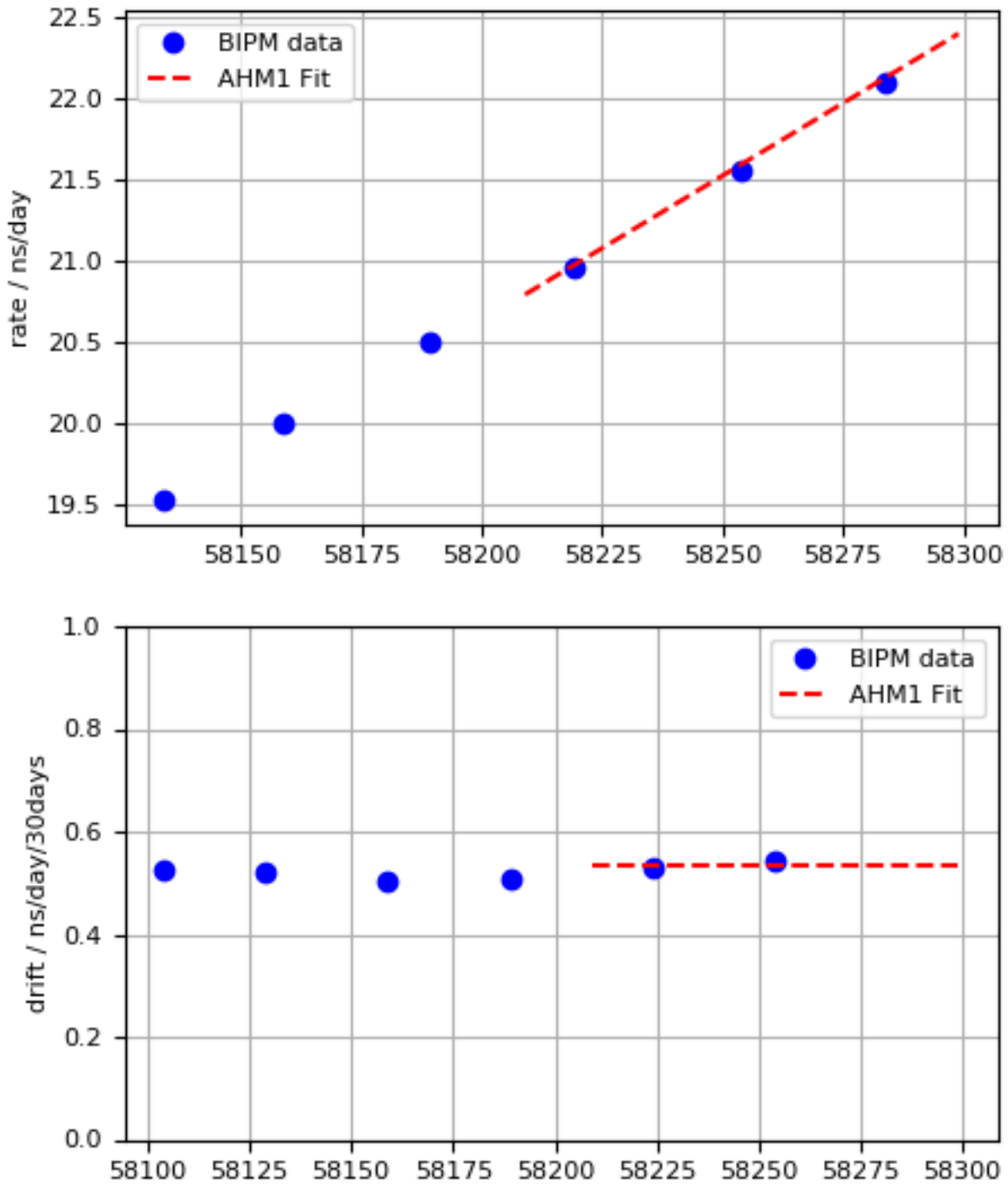


UTC - AHM1 Fit

UTC-AHM1 (2018-07-13 / 58312)
 $x \text{ (ns)} = 12579.086 + 22.395 * d + 0.0089 * d*d$
 $y = -2.59197e-13 + -2.05989e-16 * d$
 $d = (\text{mjd} - \text{mjd0}) \text{ with } \text{mjd0} = 58299$

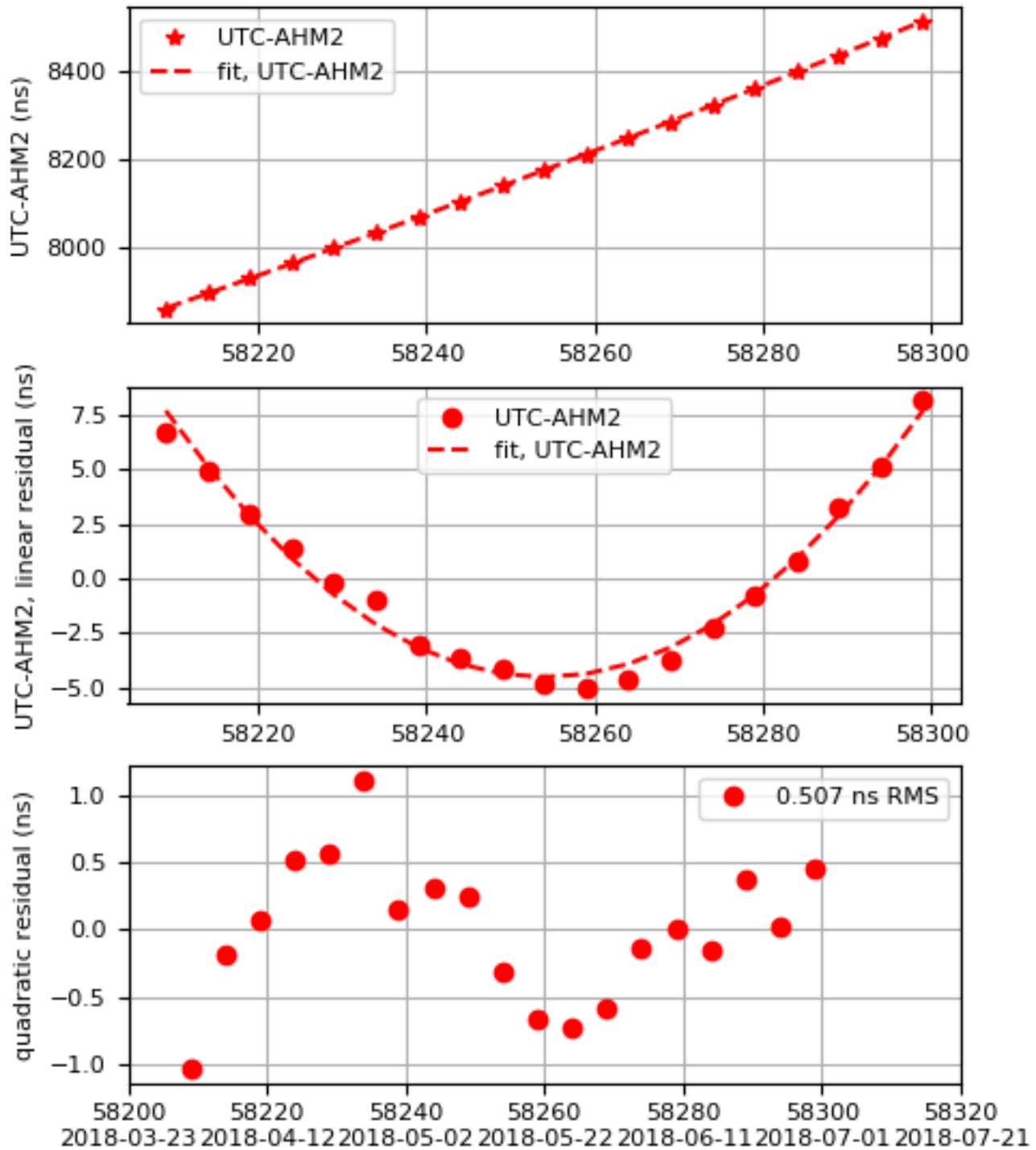


AHM1 Rate and Drift

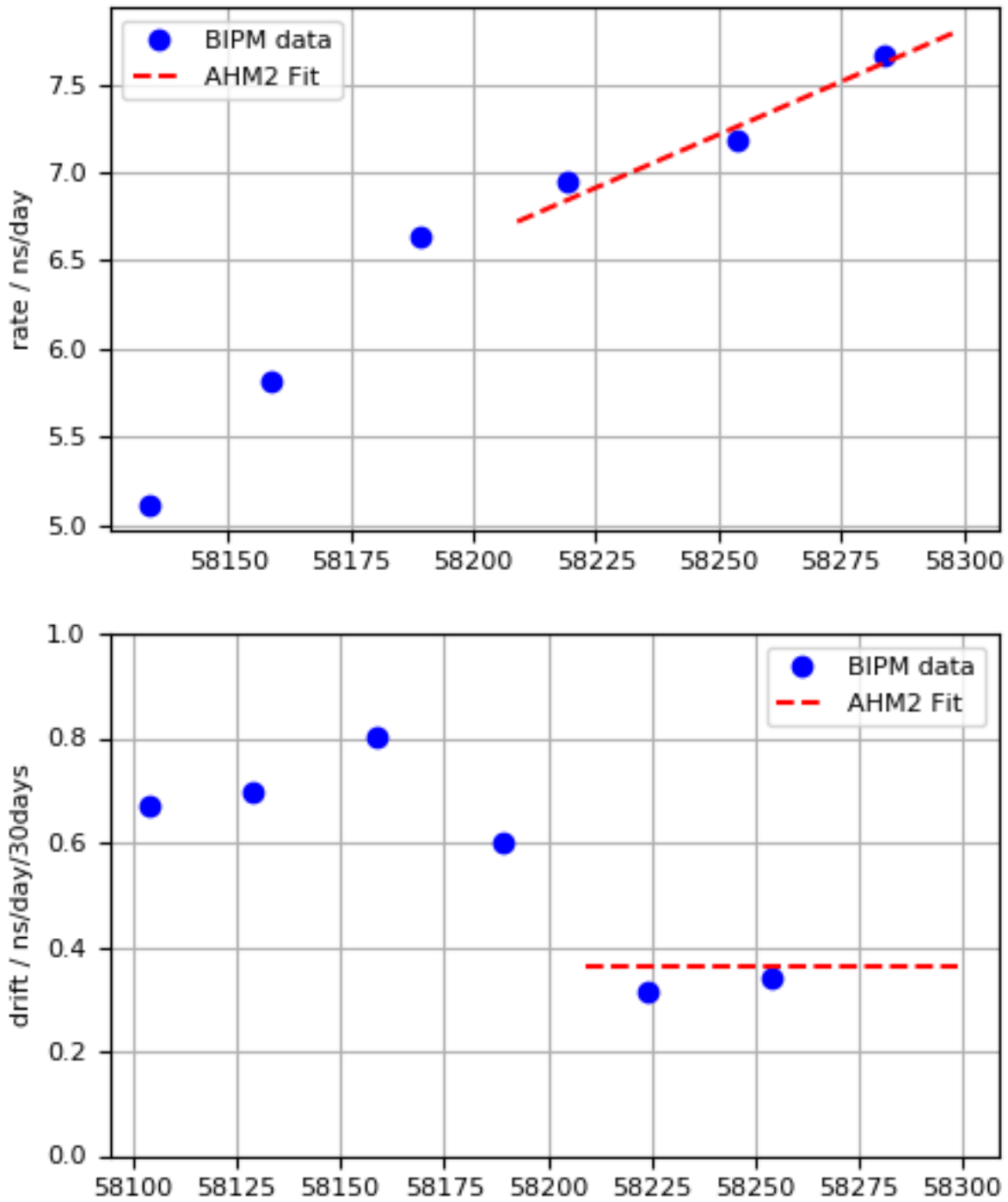


UTC - AHM2 Fit

UTC-AHM2 (2018-07-13 / 58312)
 $x \text{ (ns)} = 8513.350 + 7.803 *d + 0.0060 *d*d$
 $y = -9.03094e-14 + -1.39257e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58299$

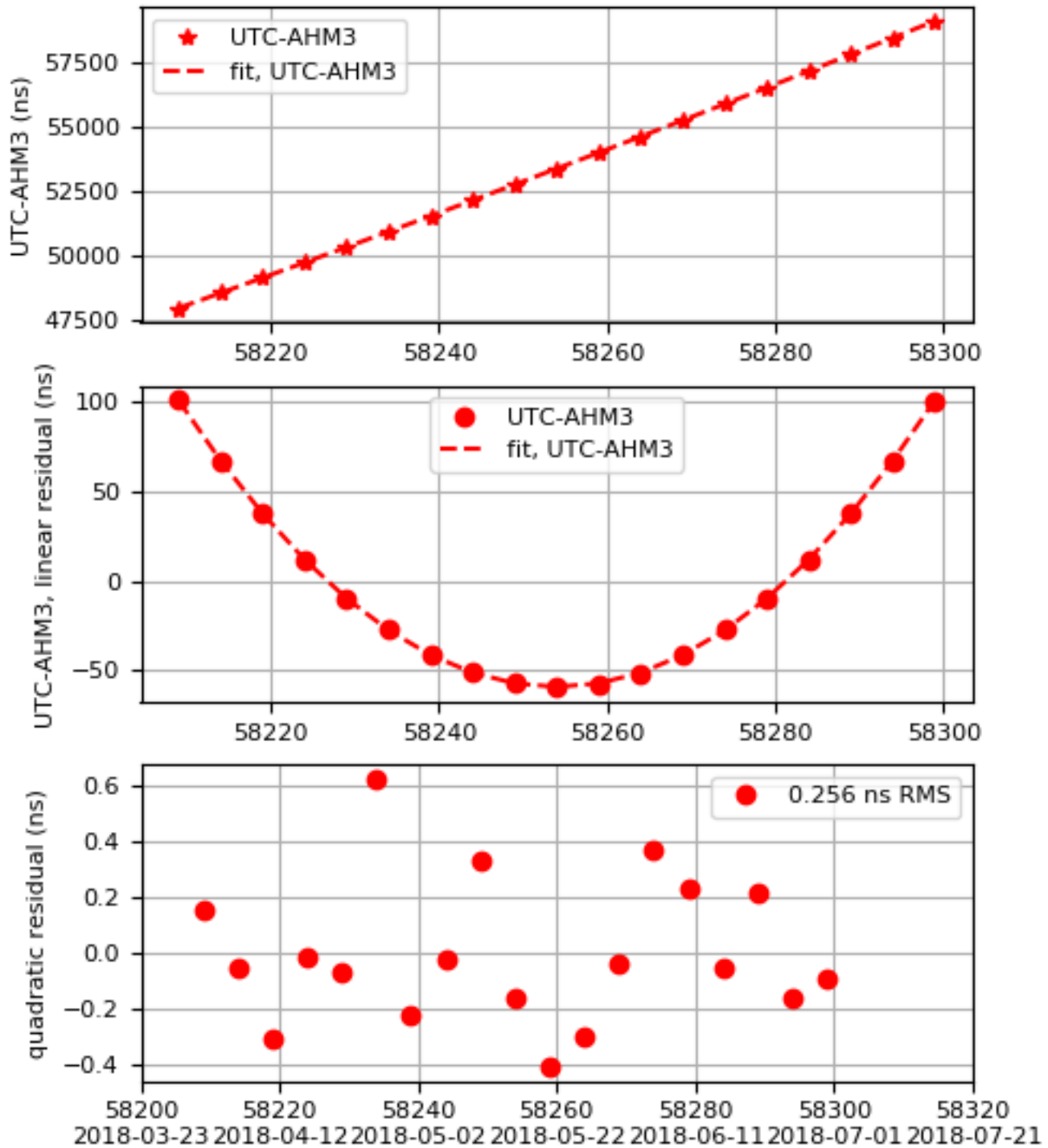


AHM2 Rate and Drift

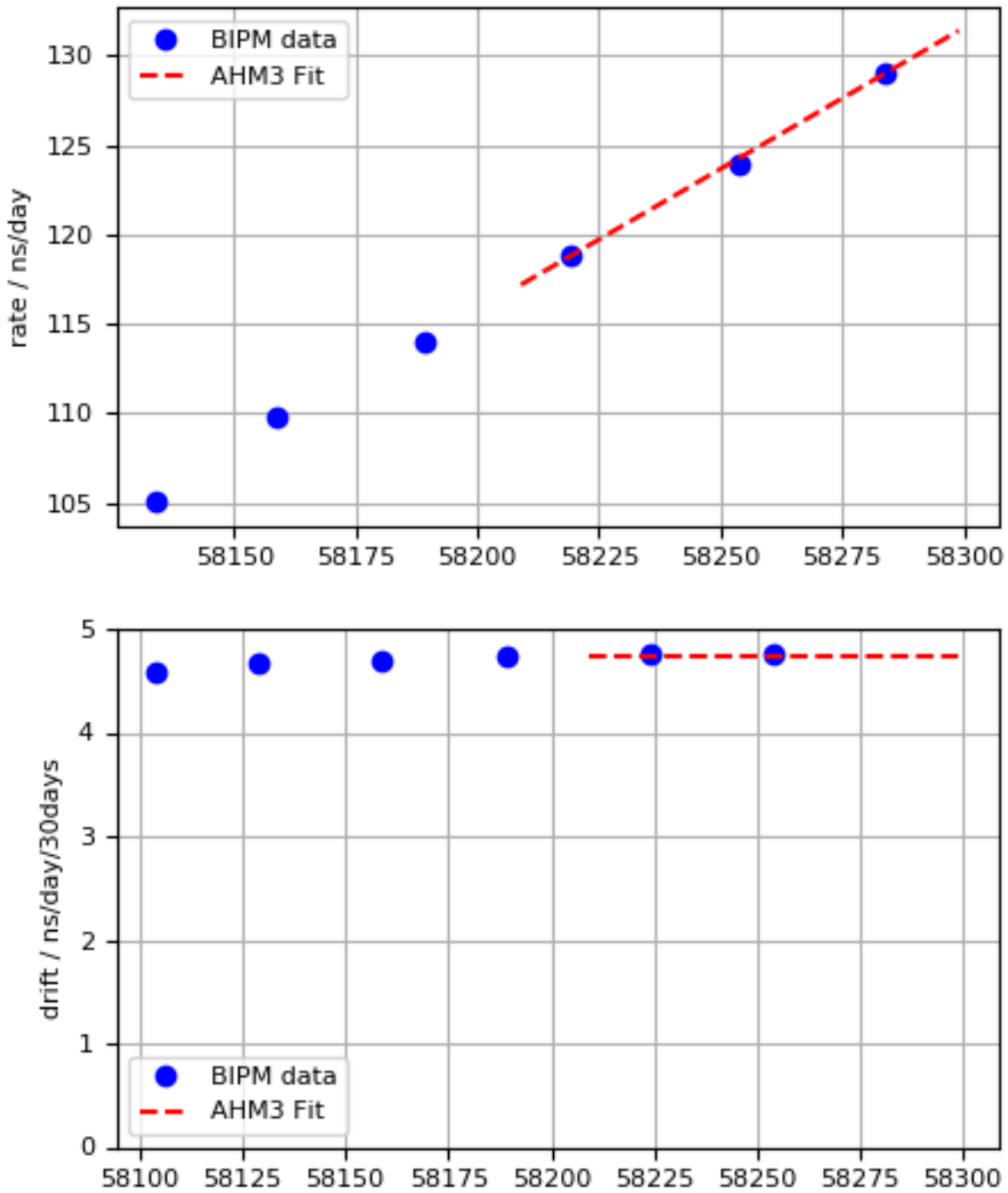


UTC - AHM3 Fit

UTC-AHM3 (2018-07-13 / 58312)
 $x \text{ (ns)} = 59123.096 + 131.401 * d + 0.0790 * d * d$
 $y = -1.52084e-12 + -1.82789e-15 * d$
 $d = (\text{mjd} - \text{mjd0}) \text{ with } \text{mjd0} = 58299$



AHM3 Rate and Drift



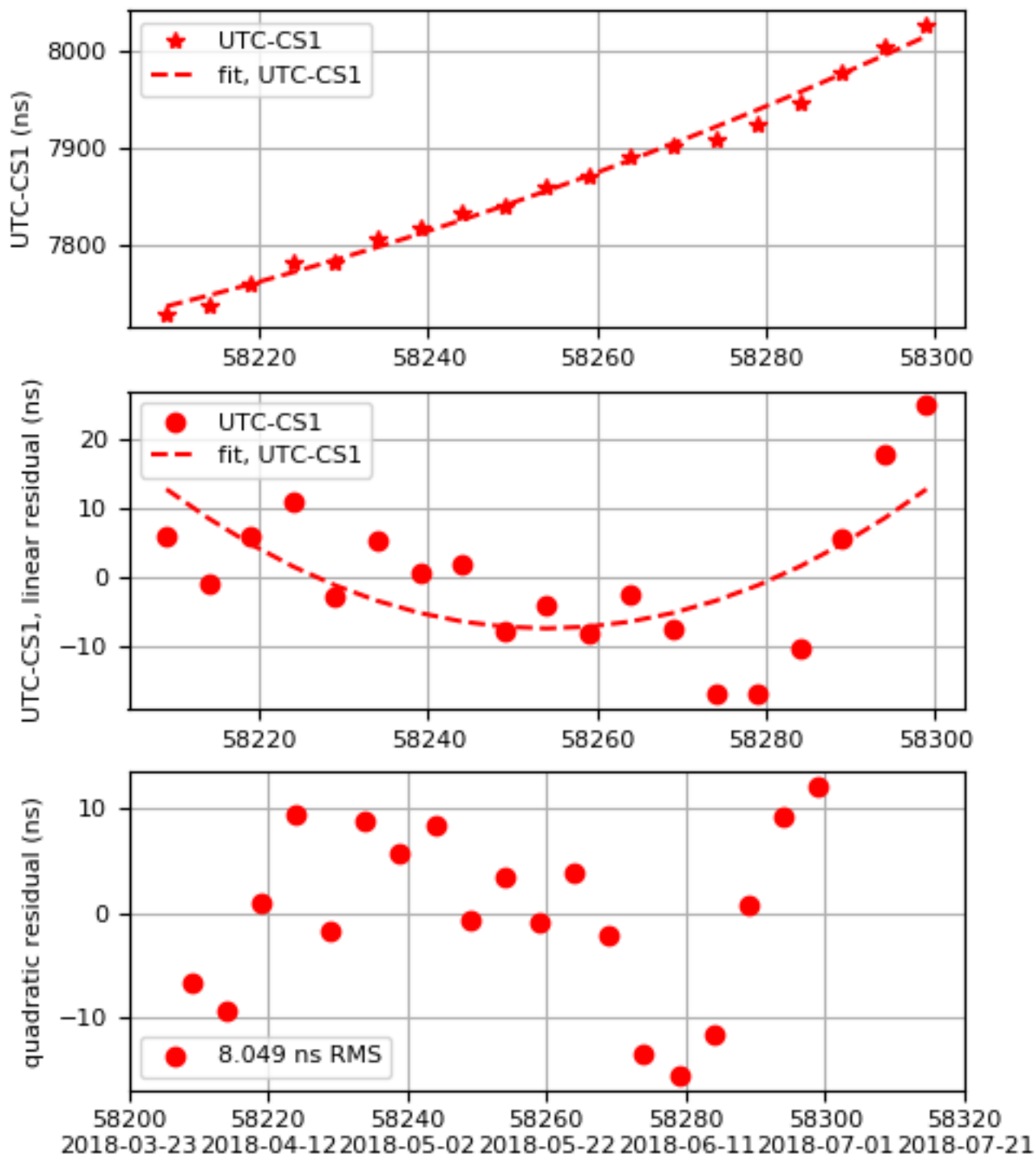
UTC - CS1 Fit

UTC-CS1 (2018-07-13 / 58312)

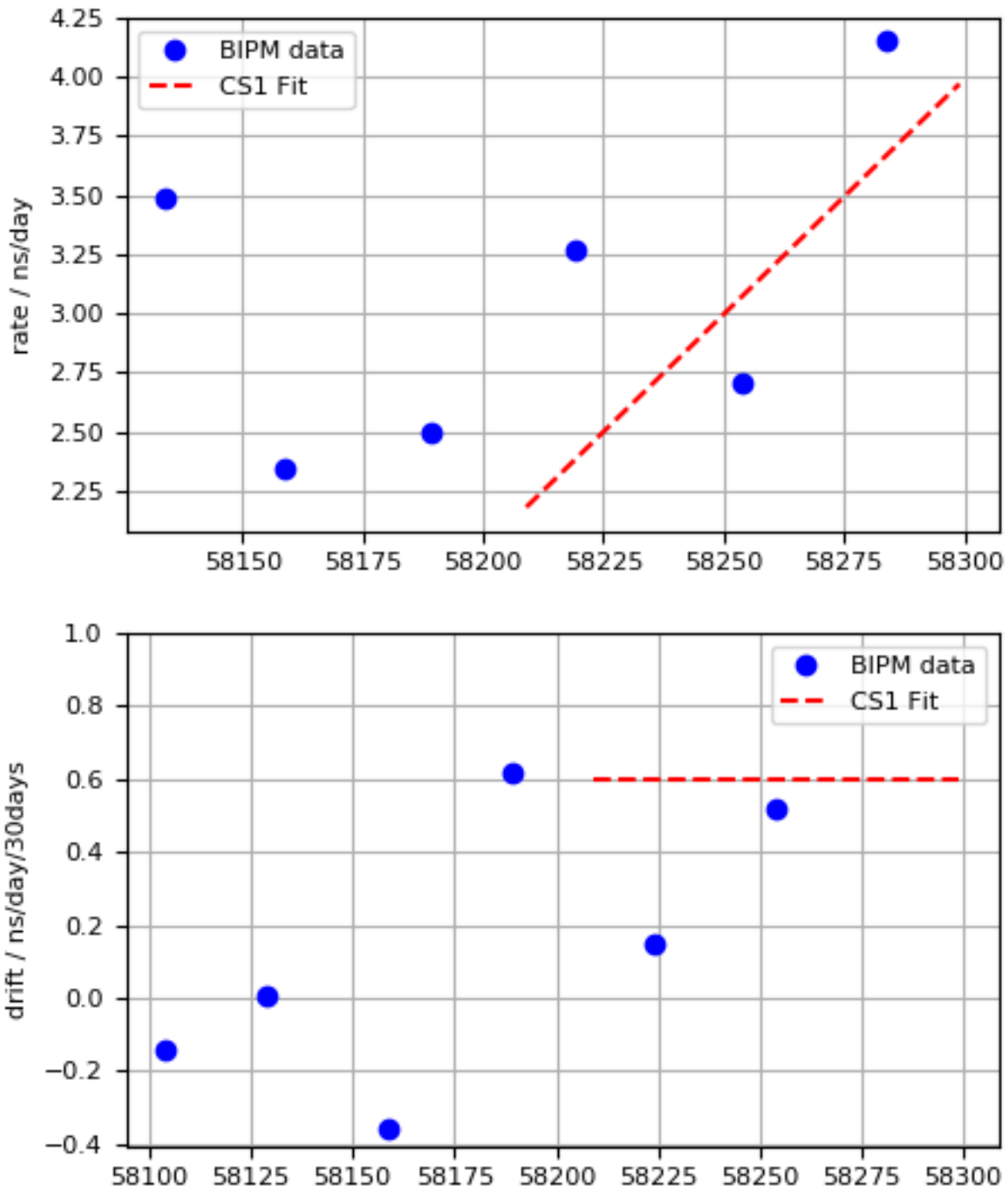
$$x \text{ (ns)} = 8014.381 + 3.969 *d + 0.0099 *d*d$$

$$y = -4.59419e-14 + -2.3013e-16 *d$$

d = (mjd-mjd0) with mjd0 = 58299



CS1 Rate and Drift



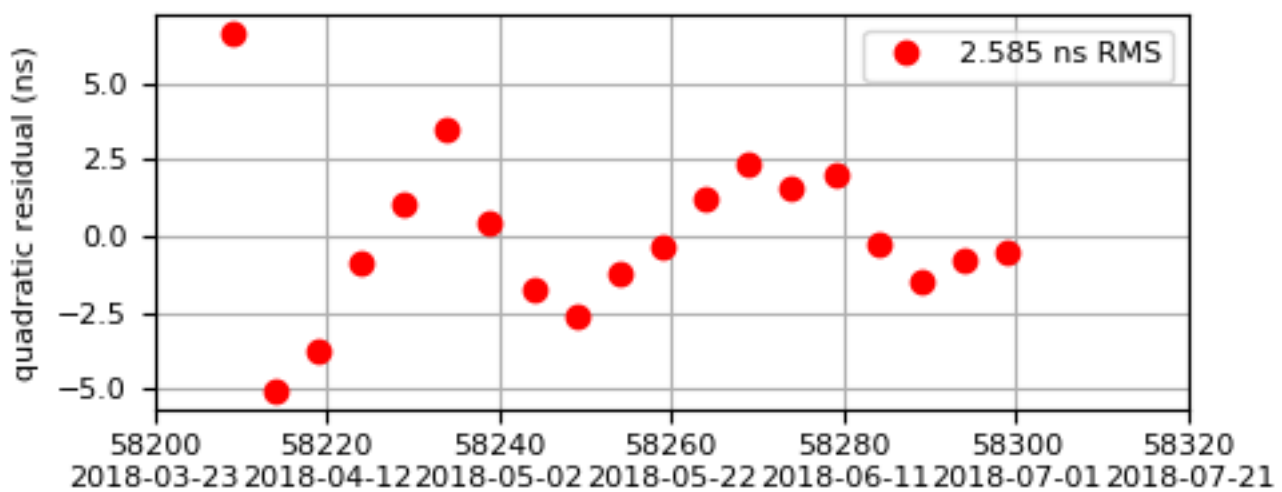
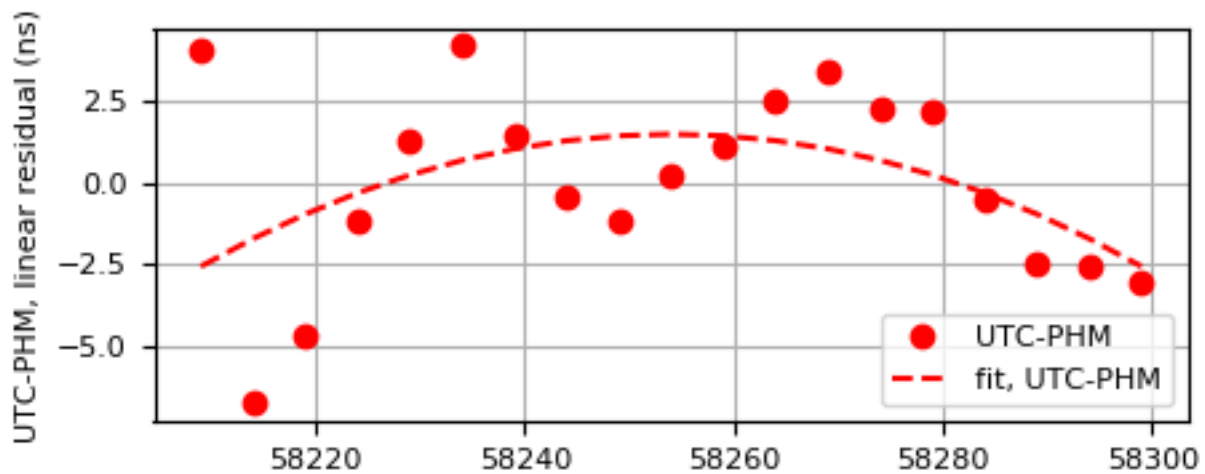
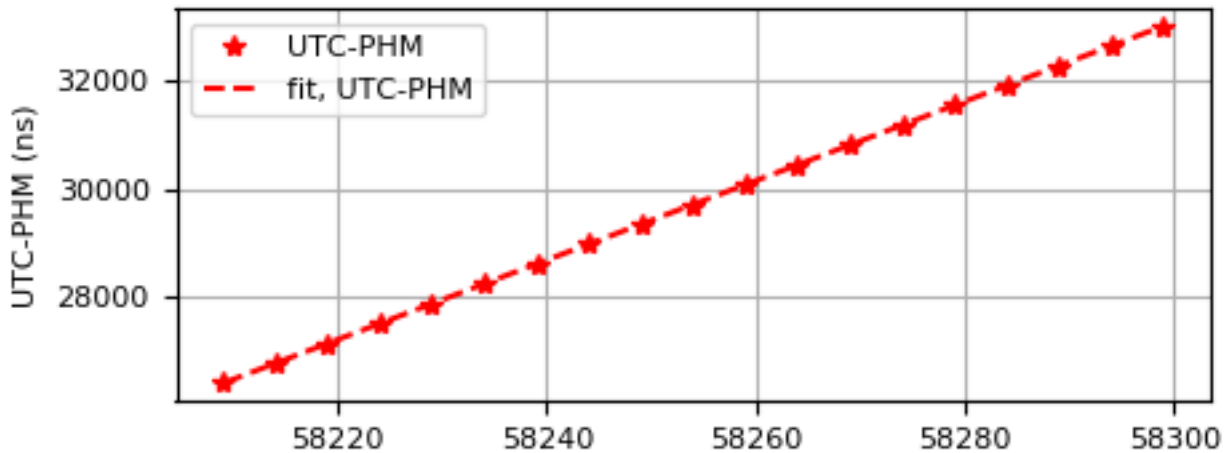
UTC - PHM Fit

UTC-PHM (2018-07-13 / 58312)

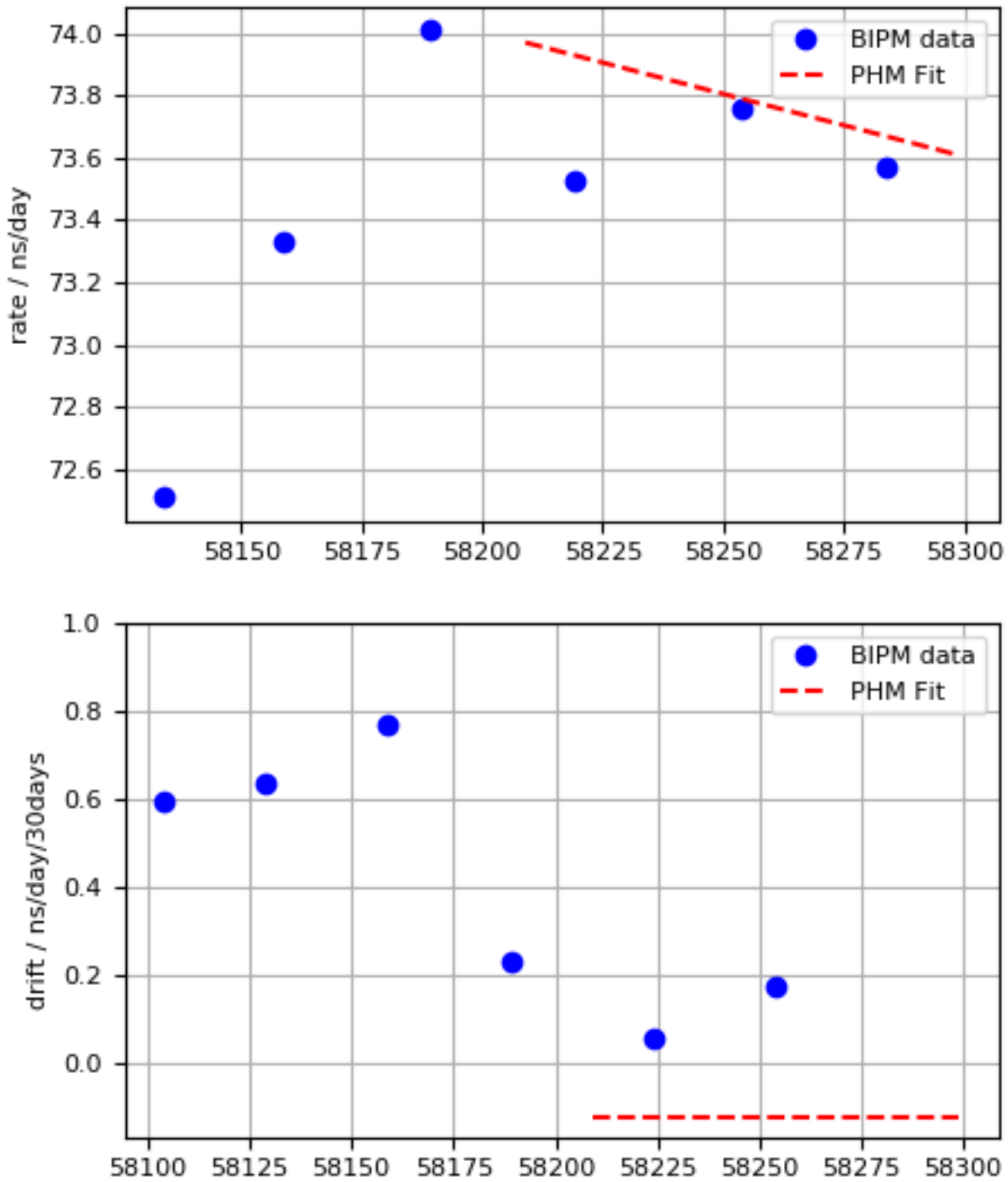
$$x \text{ (ns)} = 33025.304 + 73.608 *d + -0.0020 *d*d$$

$$y = -8.51947e-13 + 4.66034e-17 *d$$

d = (mjd-mjd0) with mjd0 = 58299

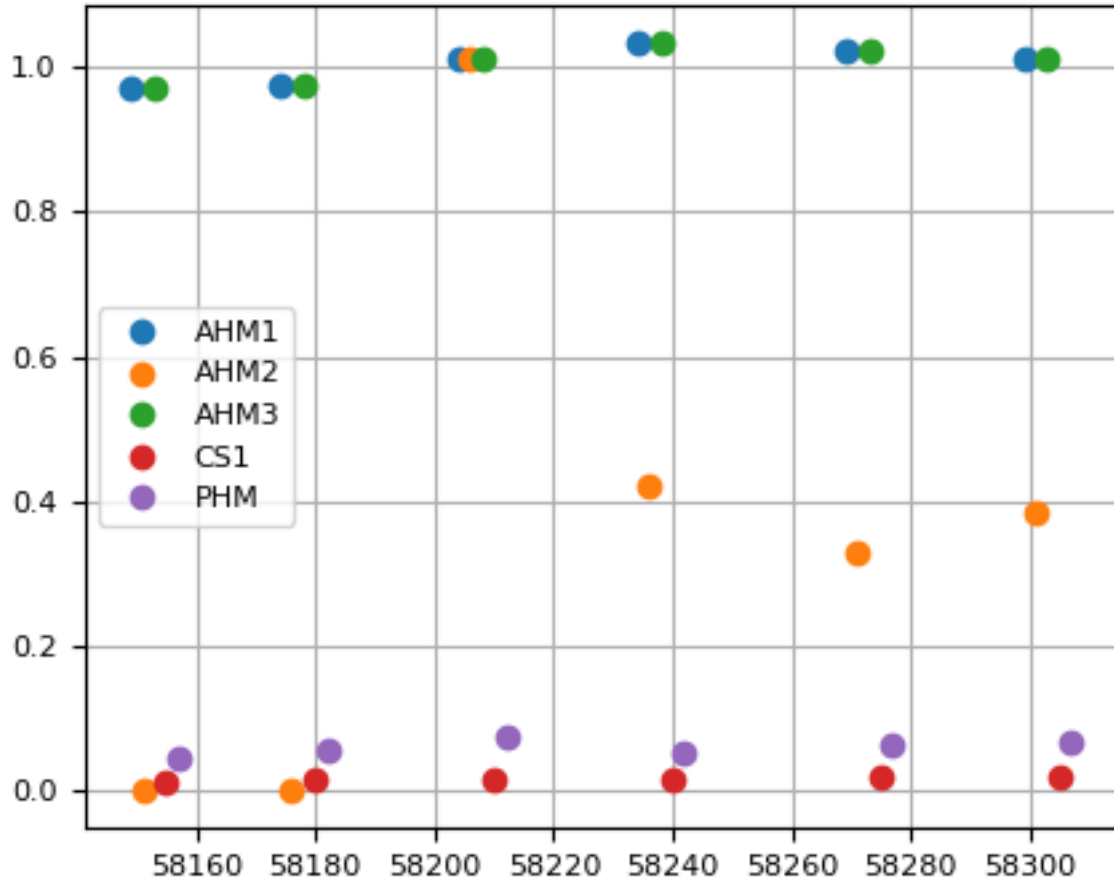


PHM Rate and Drift



Clock Weights

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



End of Bulletin.