

UTC(MIKE) Atomic Bulletin 2018-01

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2018-01-11

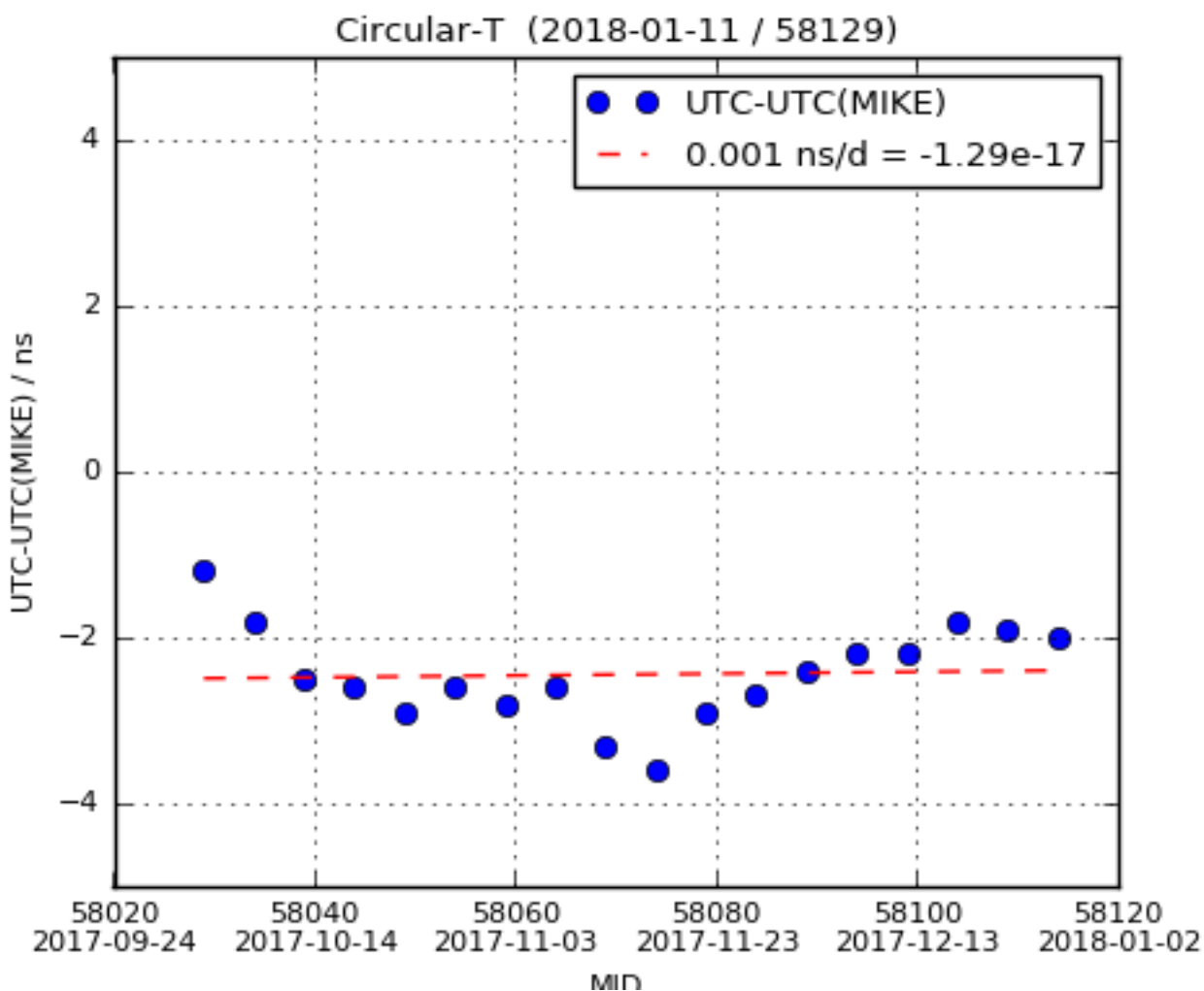
Circular-T issues used for analysis: [358](#), [359](#), [360](#),

First day of analysis interval: 2017-10-03 (58029)

Last day of analysis interval: 2017-12-27 (58114)

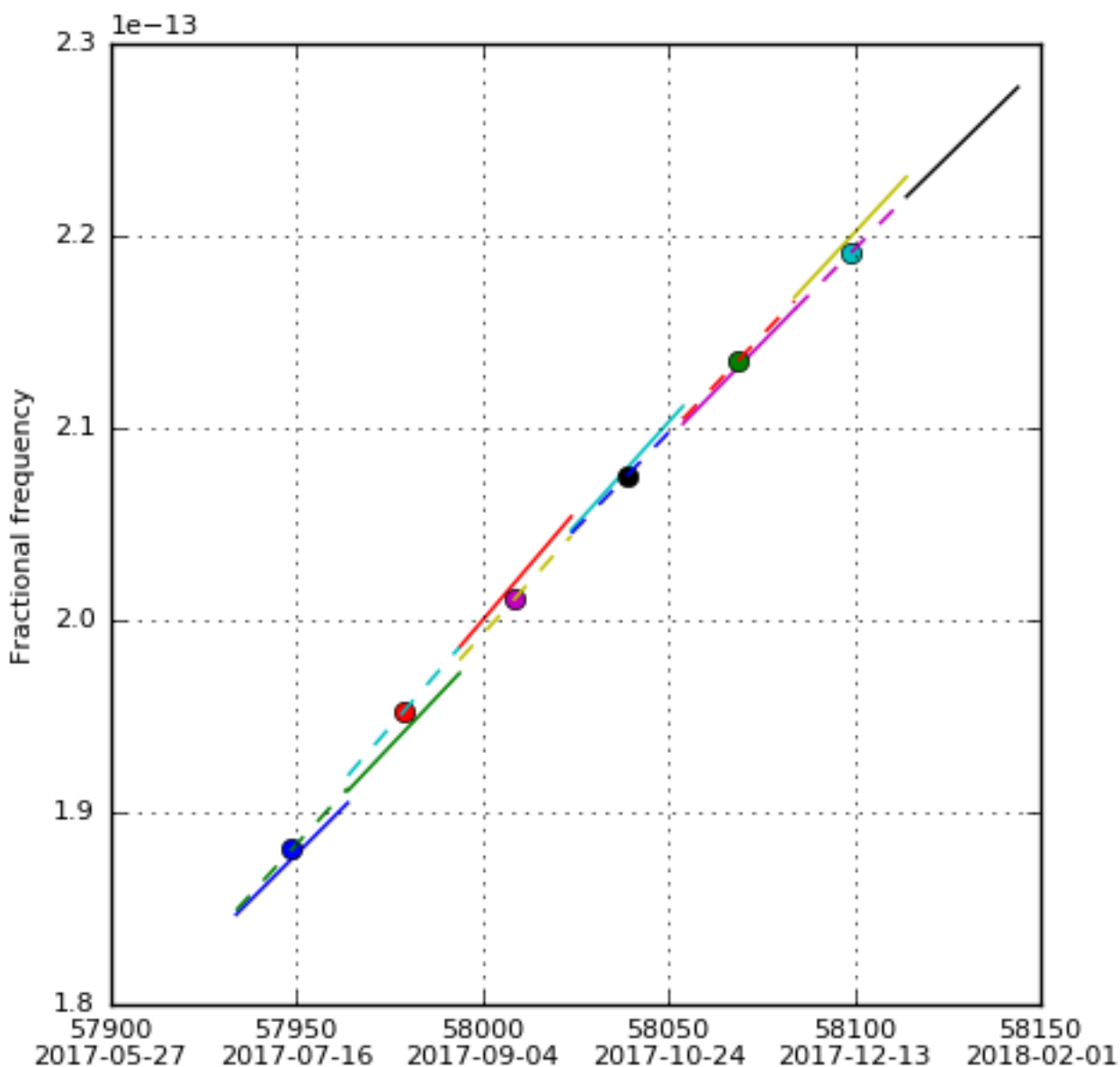
ClockData for analysis: [CDMI 17.10](#), [CDMI 17.11](#), [CDMI 17.12](#),

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.

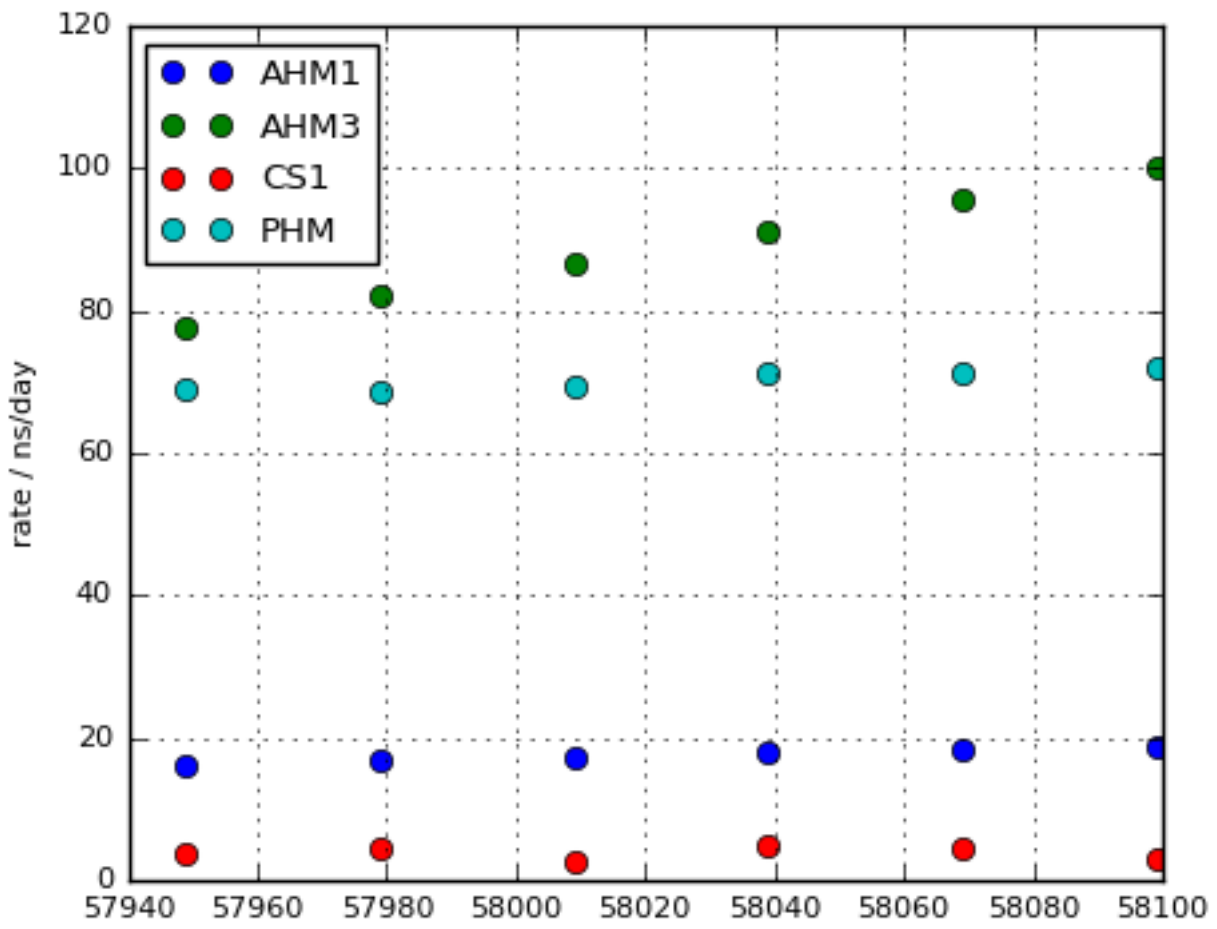
The latest steering parameters are:

$$y = 2.22032e-13 + 1.9013e-16 * d + y_steer$$

with $d = (mjd - mjd_0)$ and $mjd_0 = 58114$

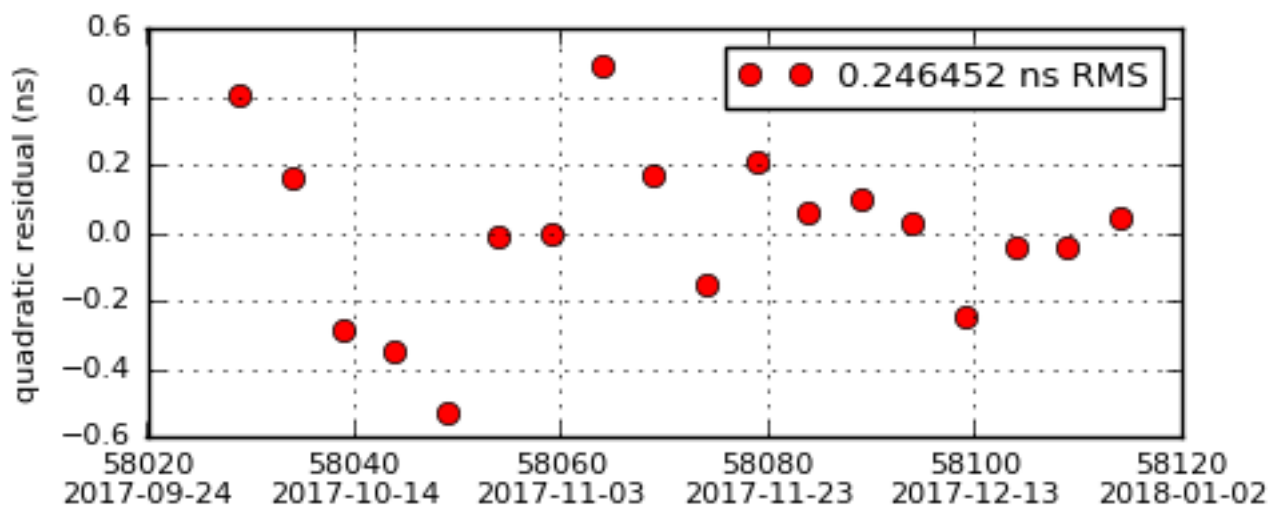
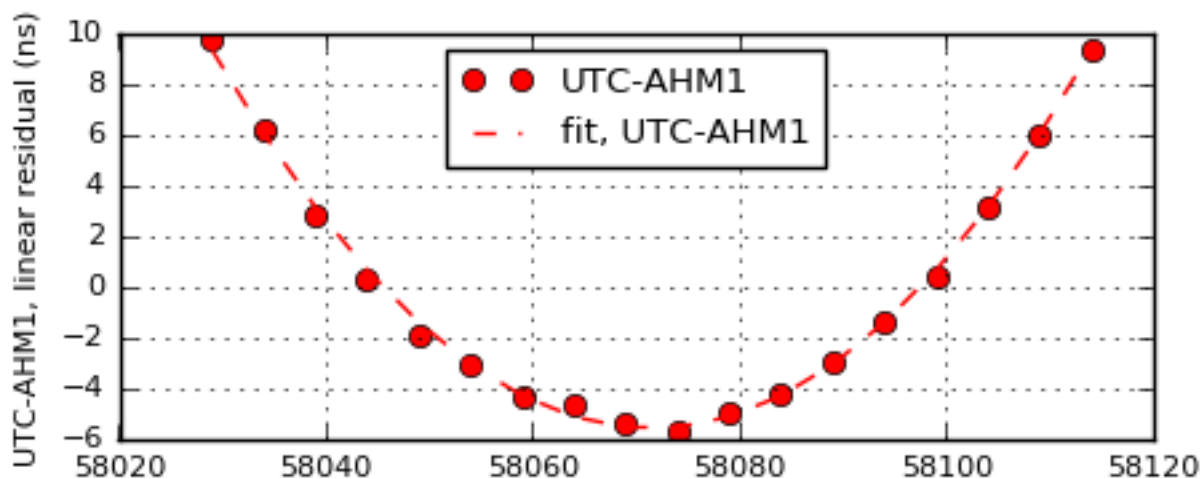
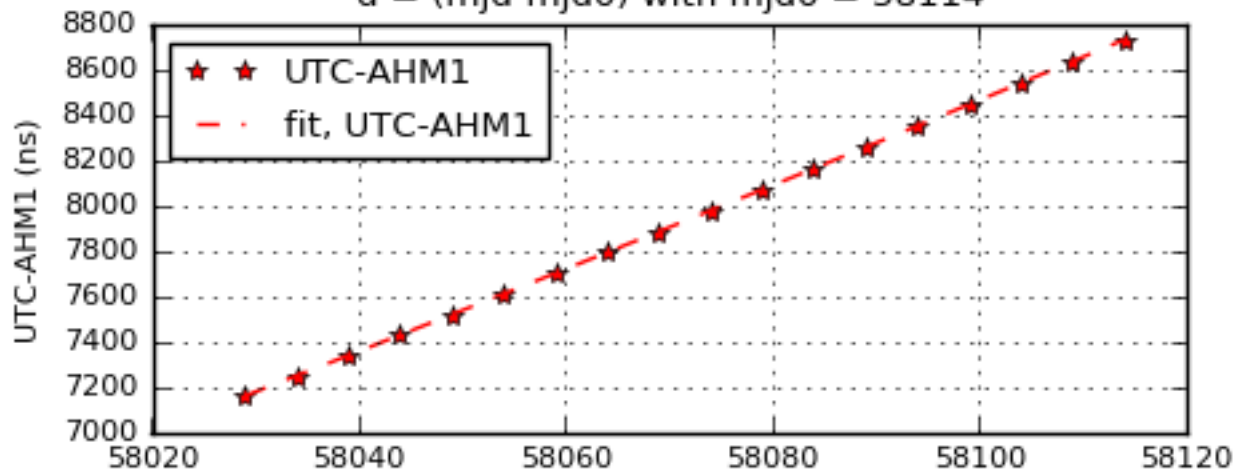
$y_steer = -1.5ns/30 \text{ days} = -5.79e-16$ since 58071

Clock Rates - Summary

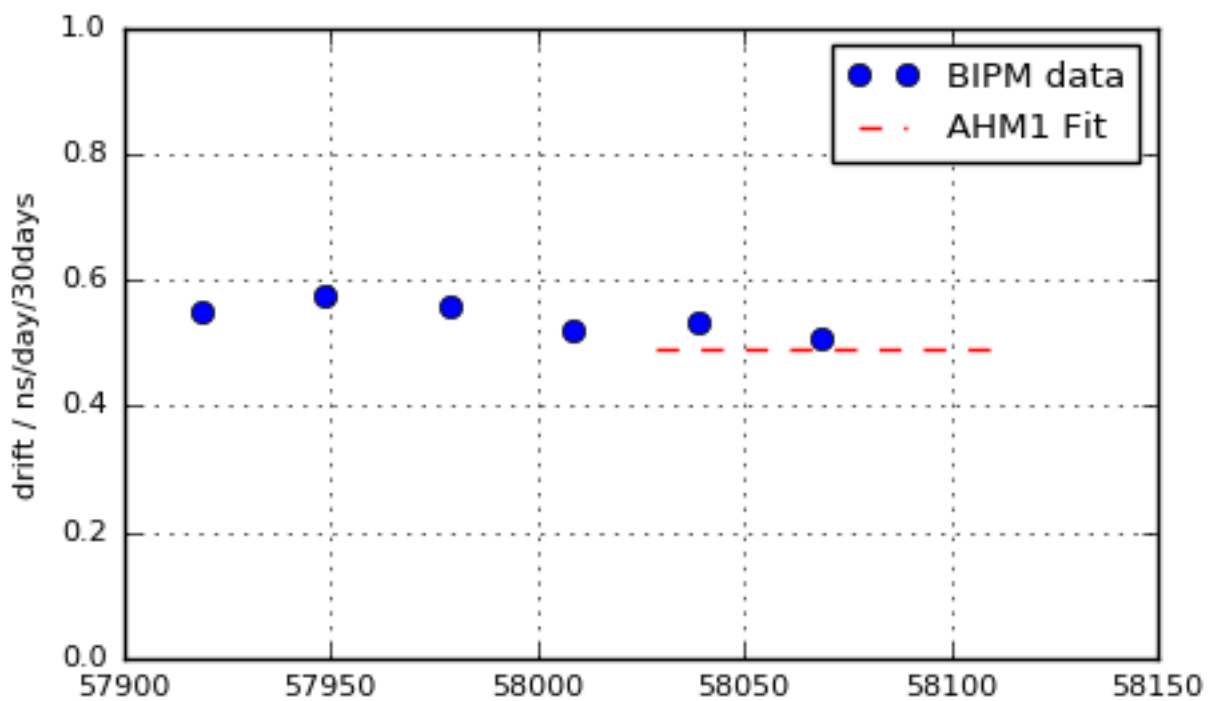
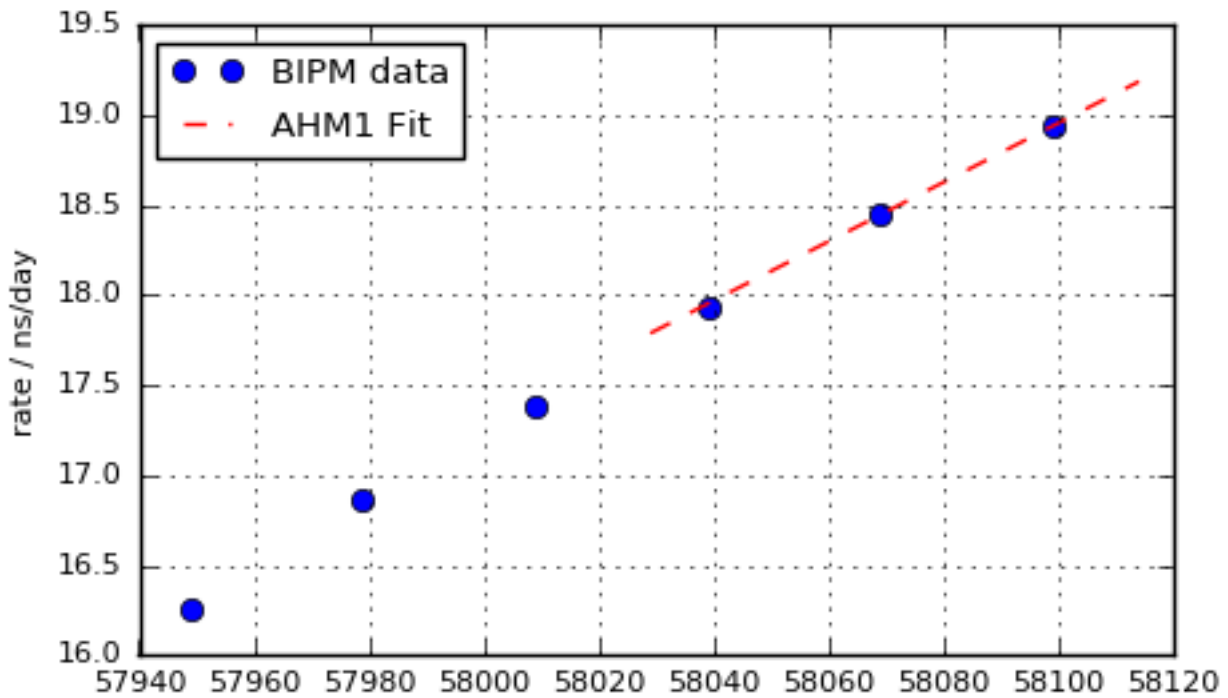


UTC - AHM1 Fit

UTC-AHM1 (2018-01-11 / 58129)
 $x \text{ (ns)} = 8733.556 + 19.184 * d + 0.0082 * d * d$
 $y = -2.22032e-13 + -1.9013e-16 * d$
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 58114$

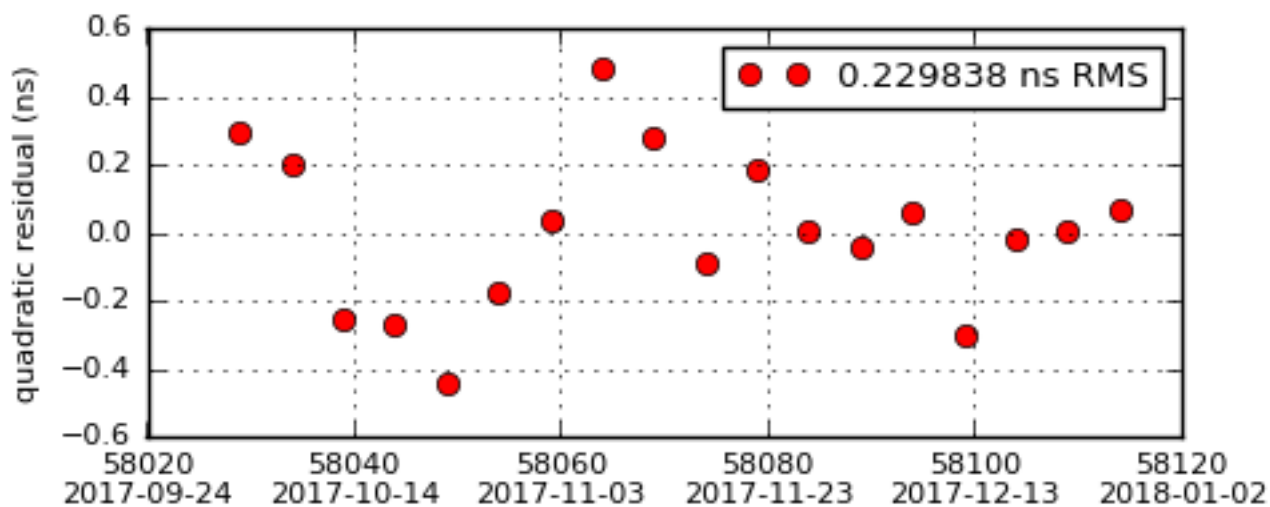
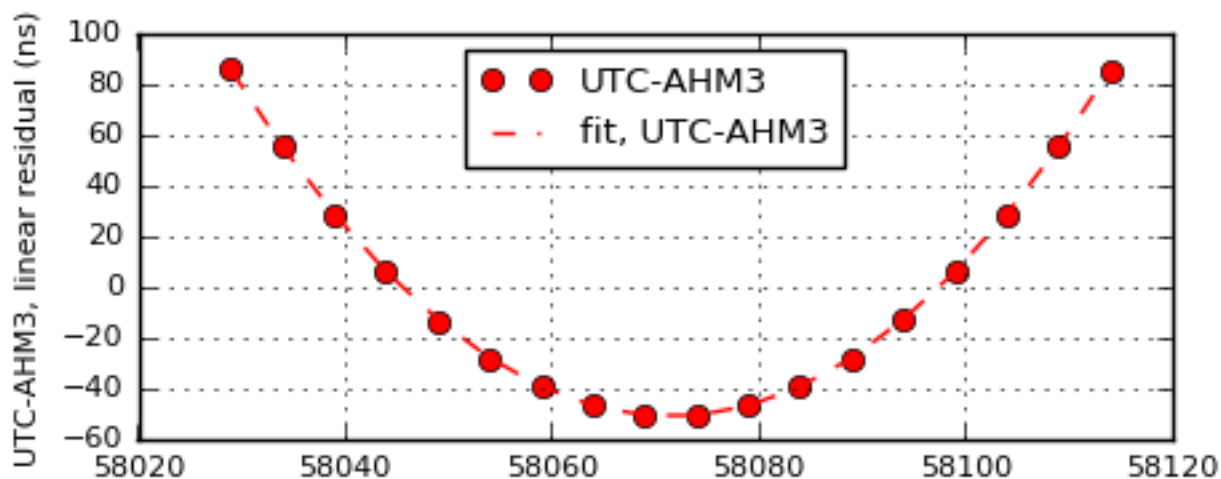
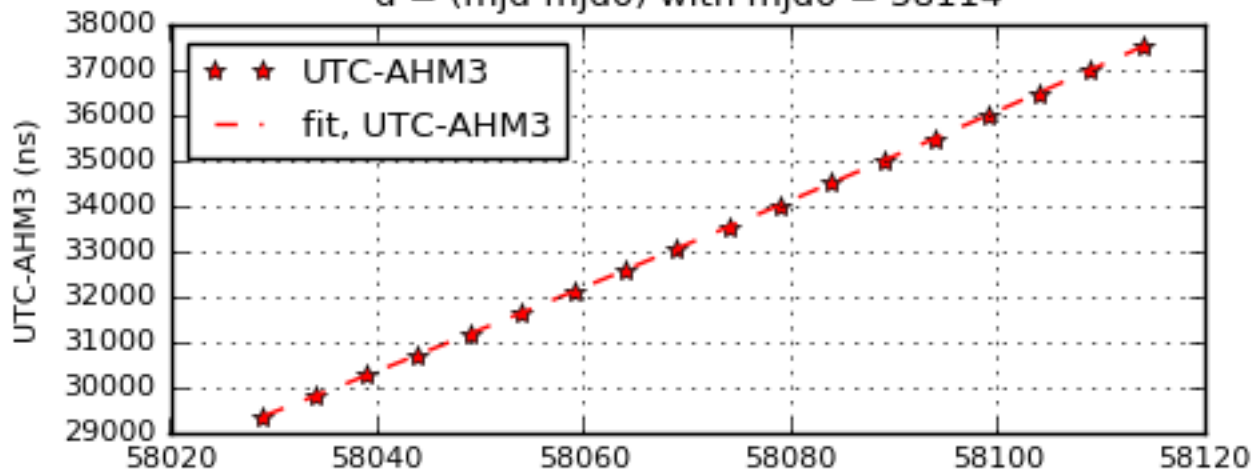


AHM1 Rate and Drift

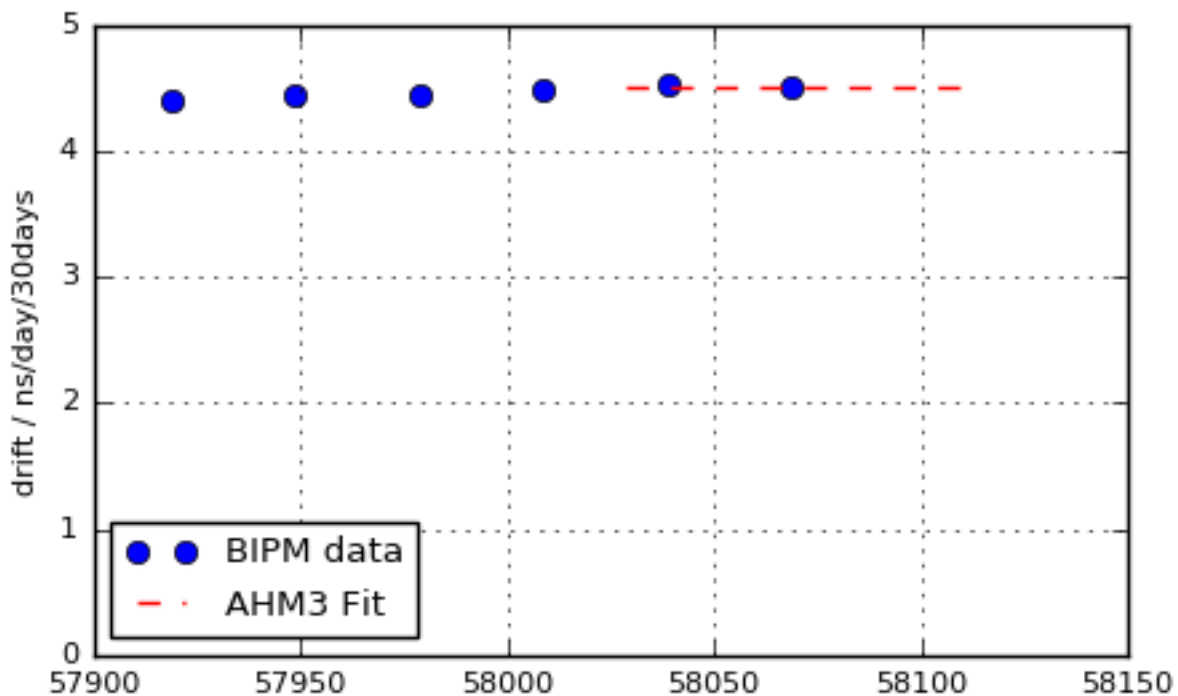
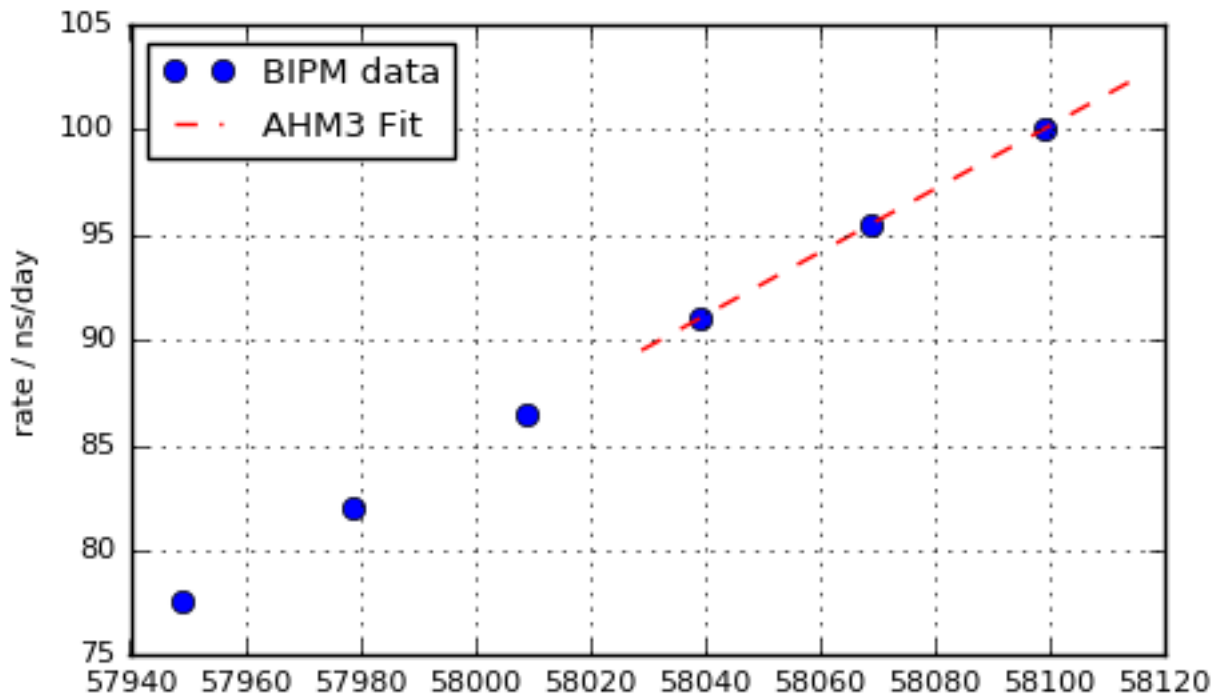


UTC - AHM3 Fit

UTC-AHM3 (2018-01-11 / 58129)
 $x \text{ (ns)} = 37511.632 + 102.283 * d + 0.0752 * d * d$
 $y = -1.18383e-12 + -1.7401e-15 * d$
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 58114$

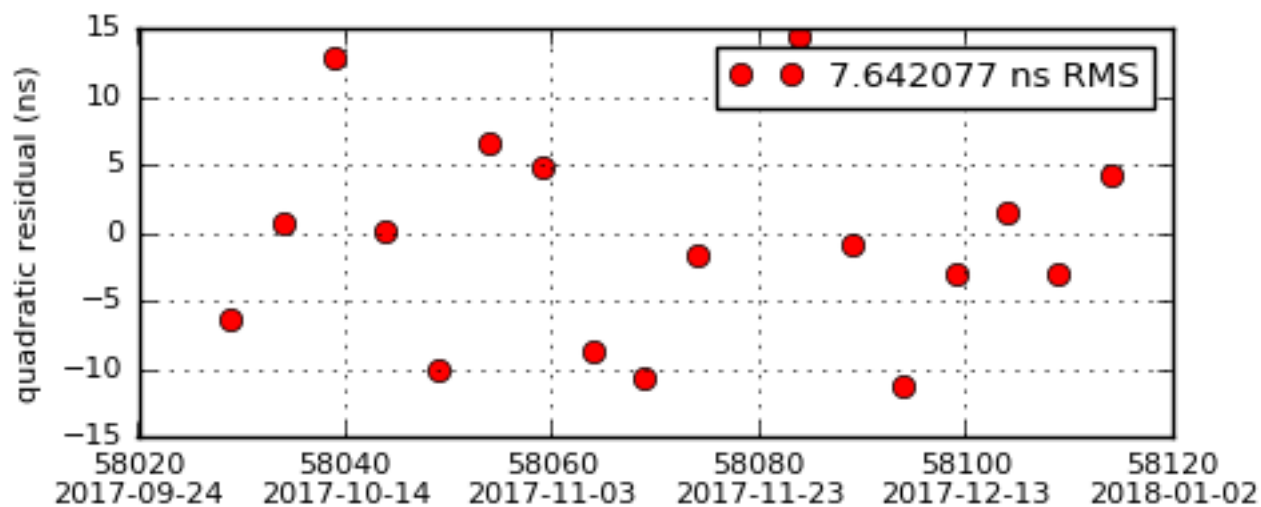
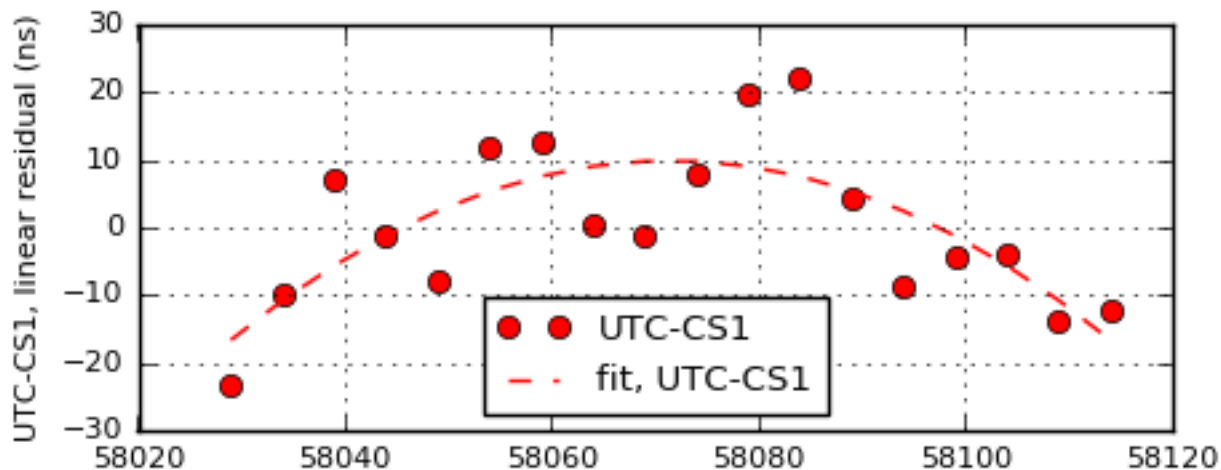
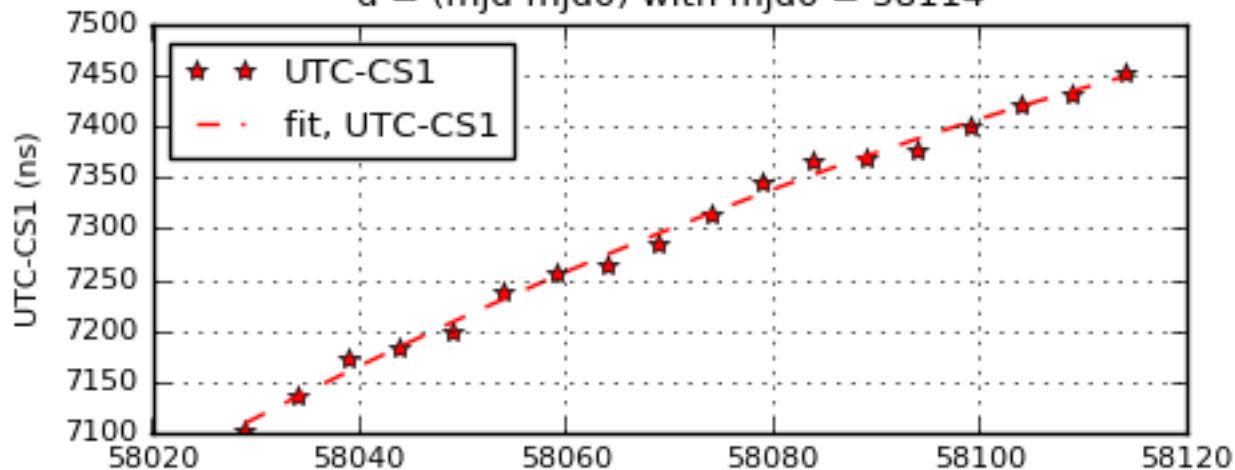


AHM3 Rate and Drift

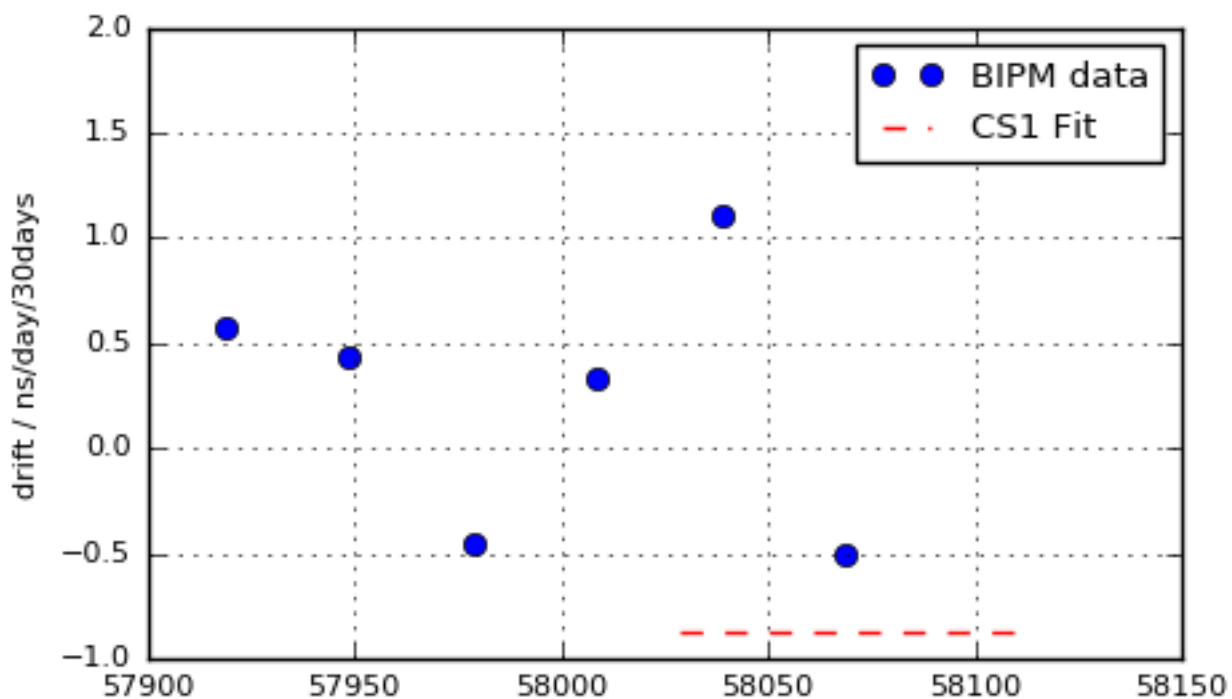
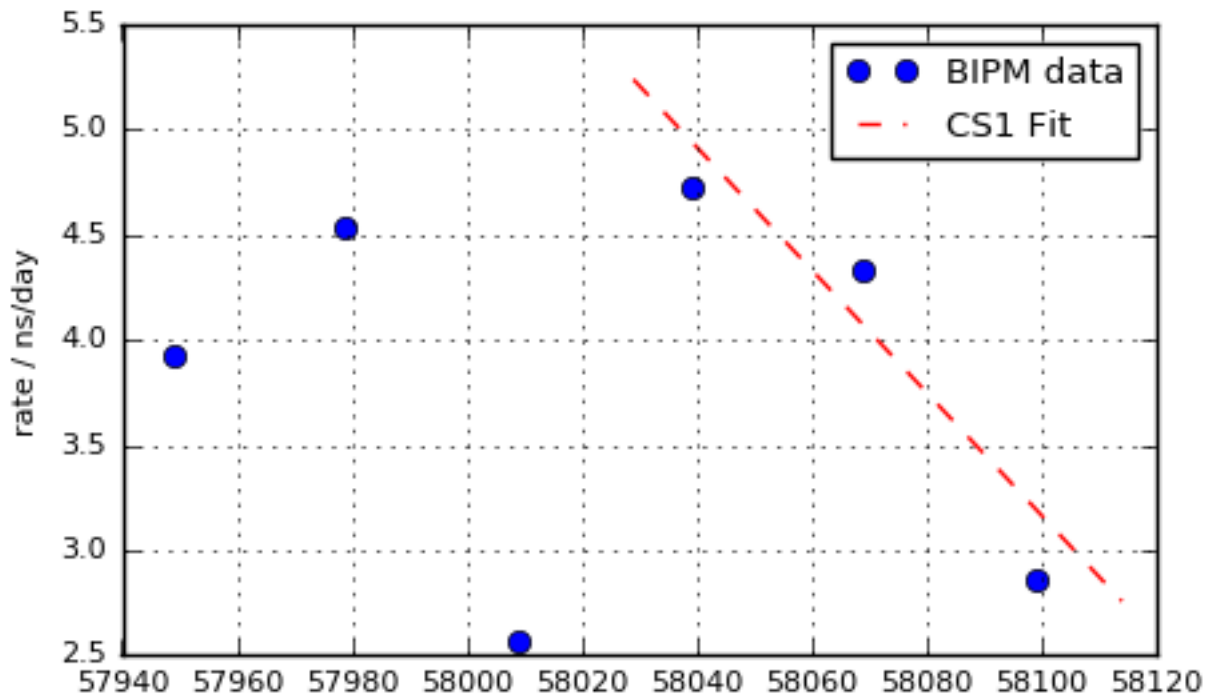


UTC - CS1 Fit

UTC-CS1 (2018-01-11 / 58129)
 $x \text{ (ns)} = 7448.989 + 2.757 *d + -0.0146 *d*d$
 $y = -3.19148e-14 + 3.37882e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58114$



CS1 Rate and Drift



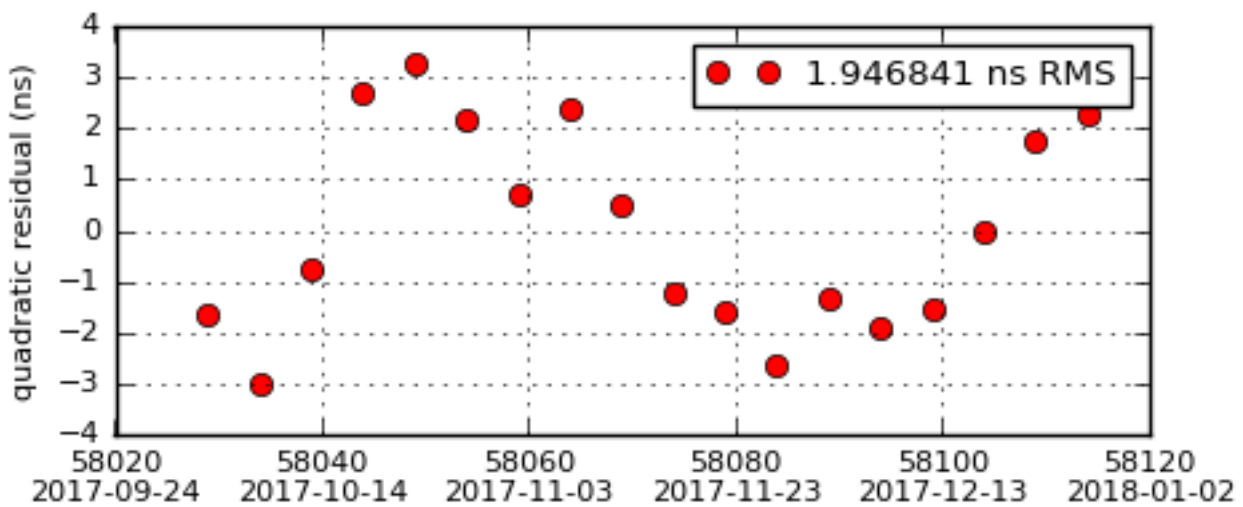
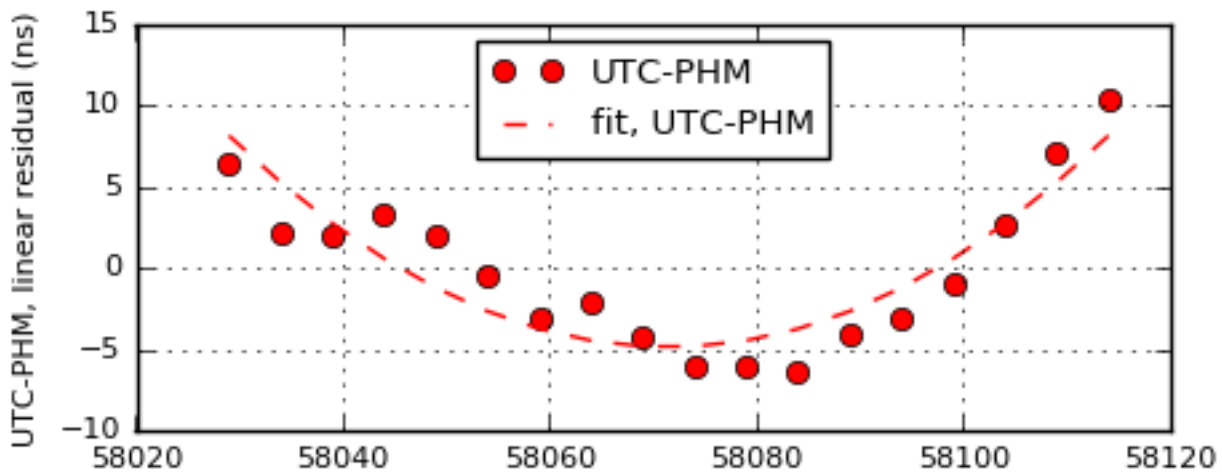
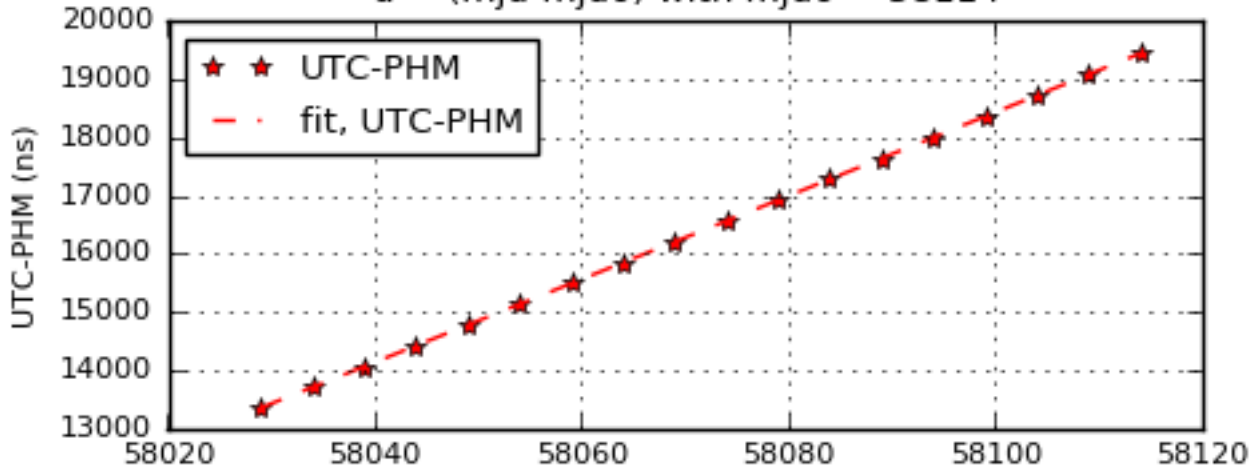
UTC - PHM Fit

UTC-PHM (2018-01-11 / 58129)

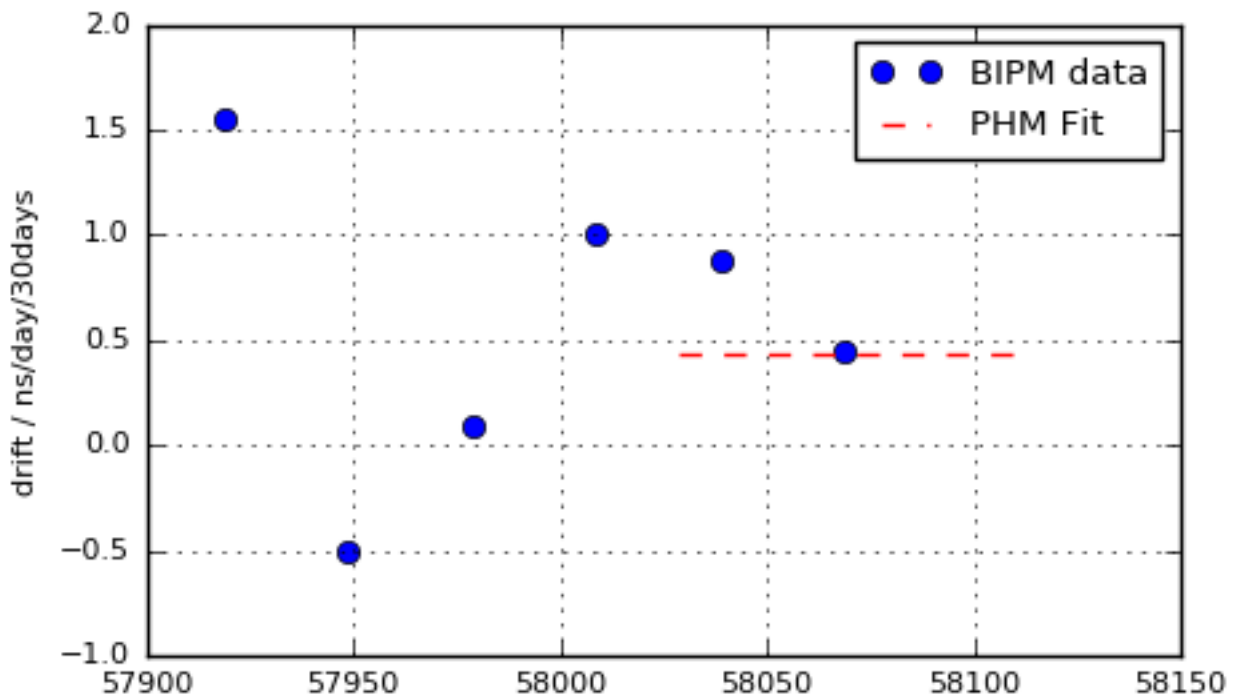
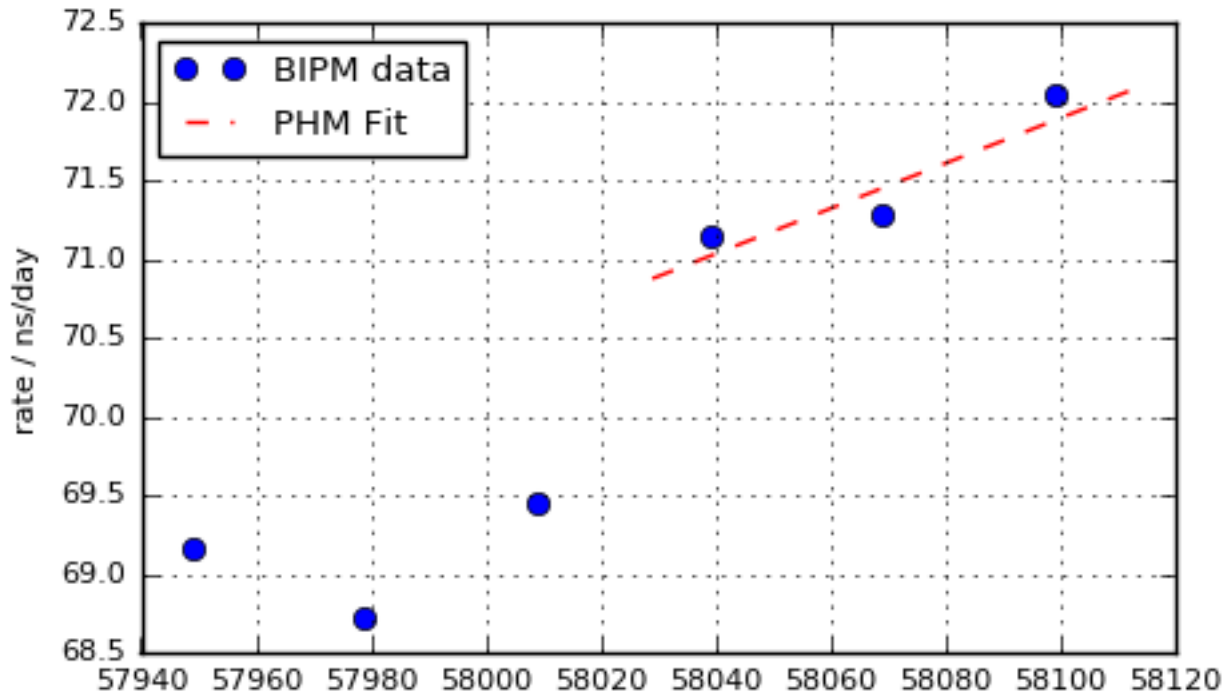
$$x \text{ (ns)} = 19436.148 + 72.095 * d + 0.0072 * d * d$$

$$y = -8.34437e-13 + -1.6602e-16 * d$$

d = (mjd-mjd0) with mjd0 = 58114

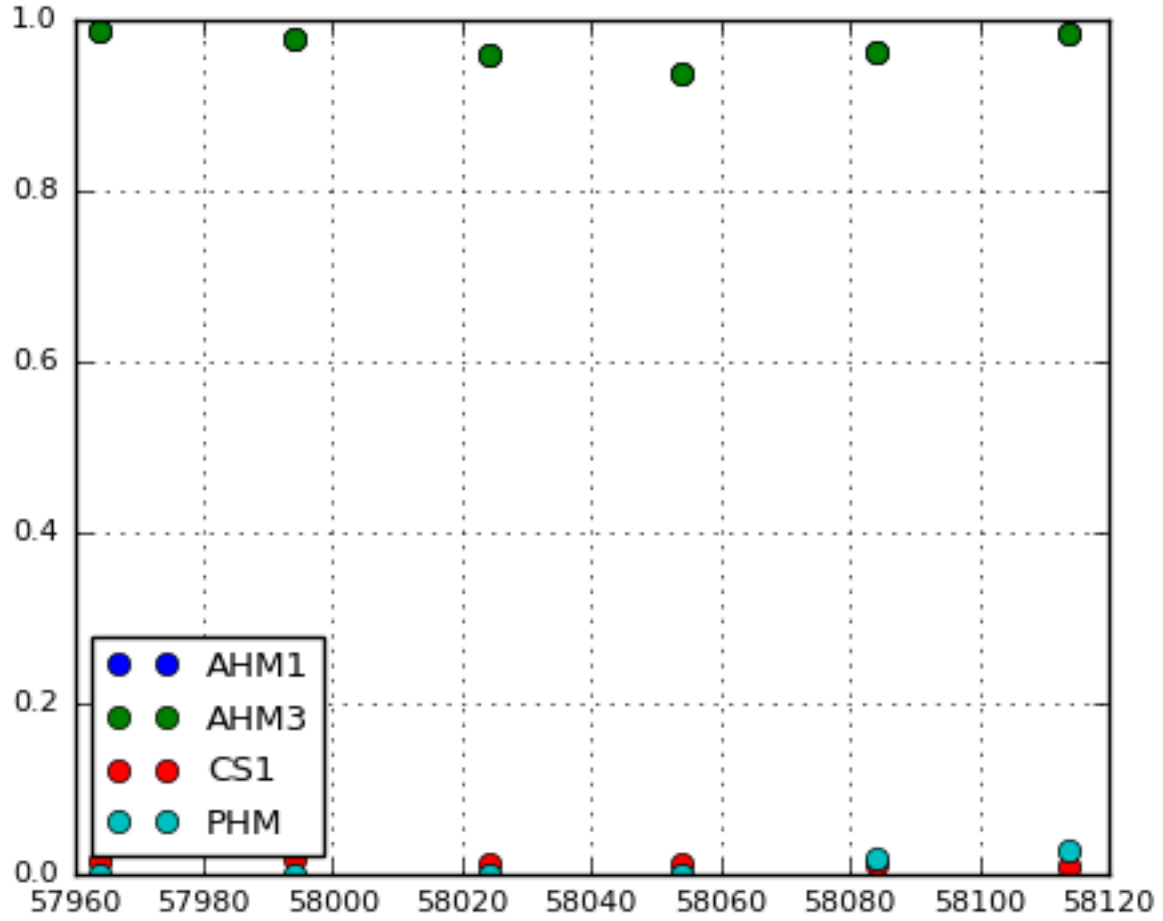


PHM Rate and Drift



Clock Weights

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



End of Bulletin.