

# UTC(MIKE) Atomic Bulletin 2018-02

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2018-02-14

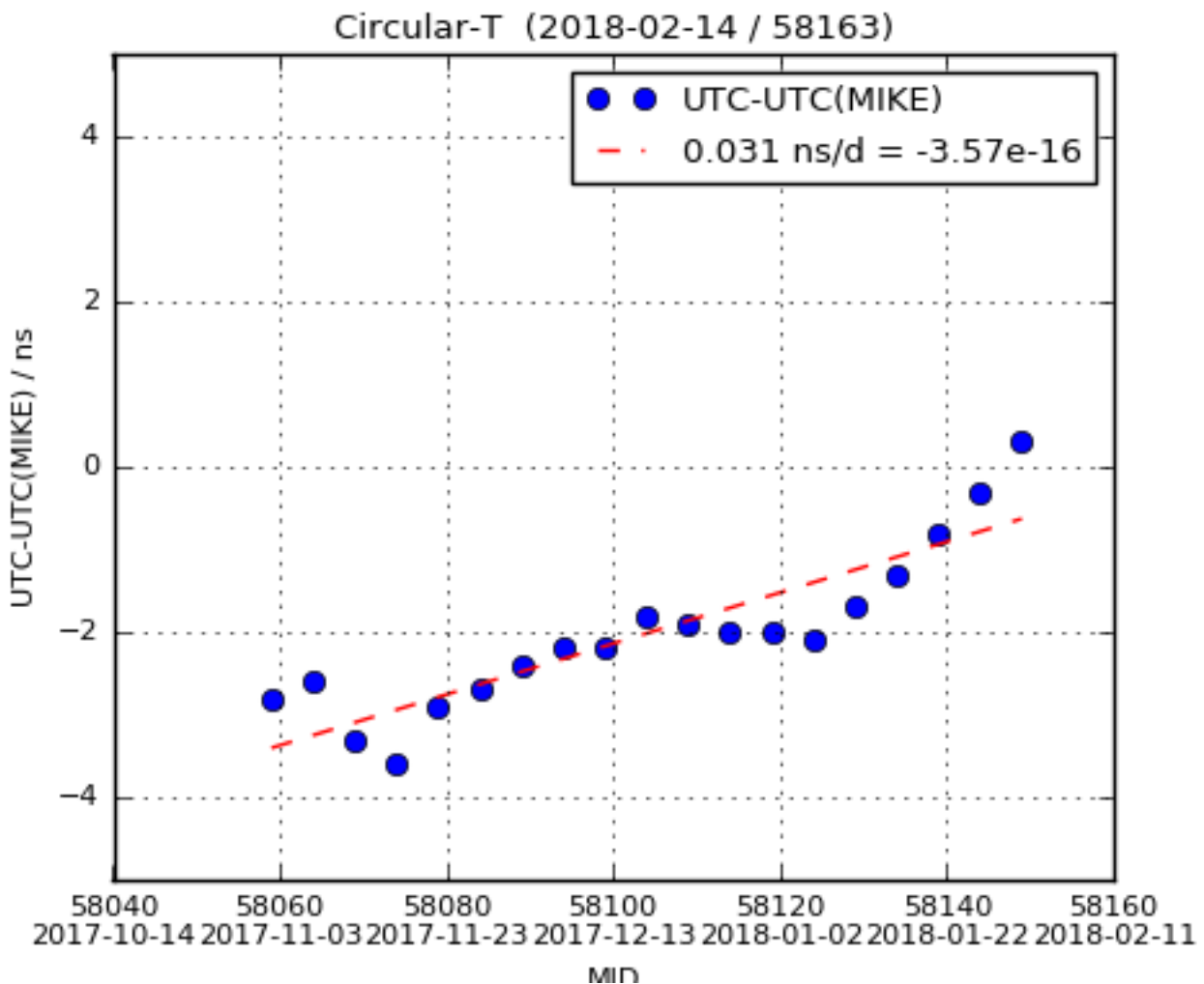
Circular-T issues used for analysis: [359](#), [360](#), [361](#),

First day of analysis interval: 2017-11-02 (58059)

Last day of analysis interval: 2018-01-31 (58149)

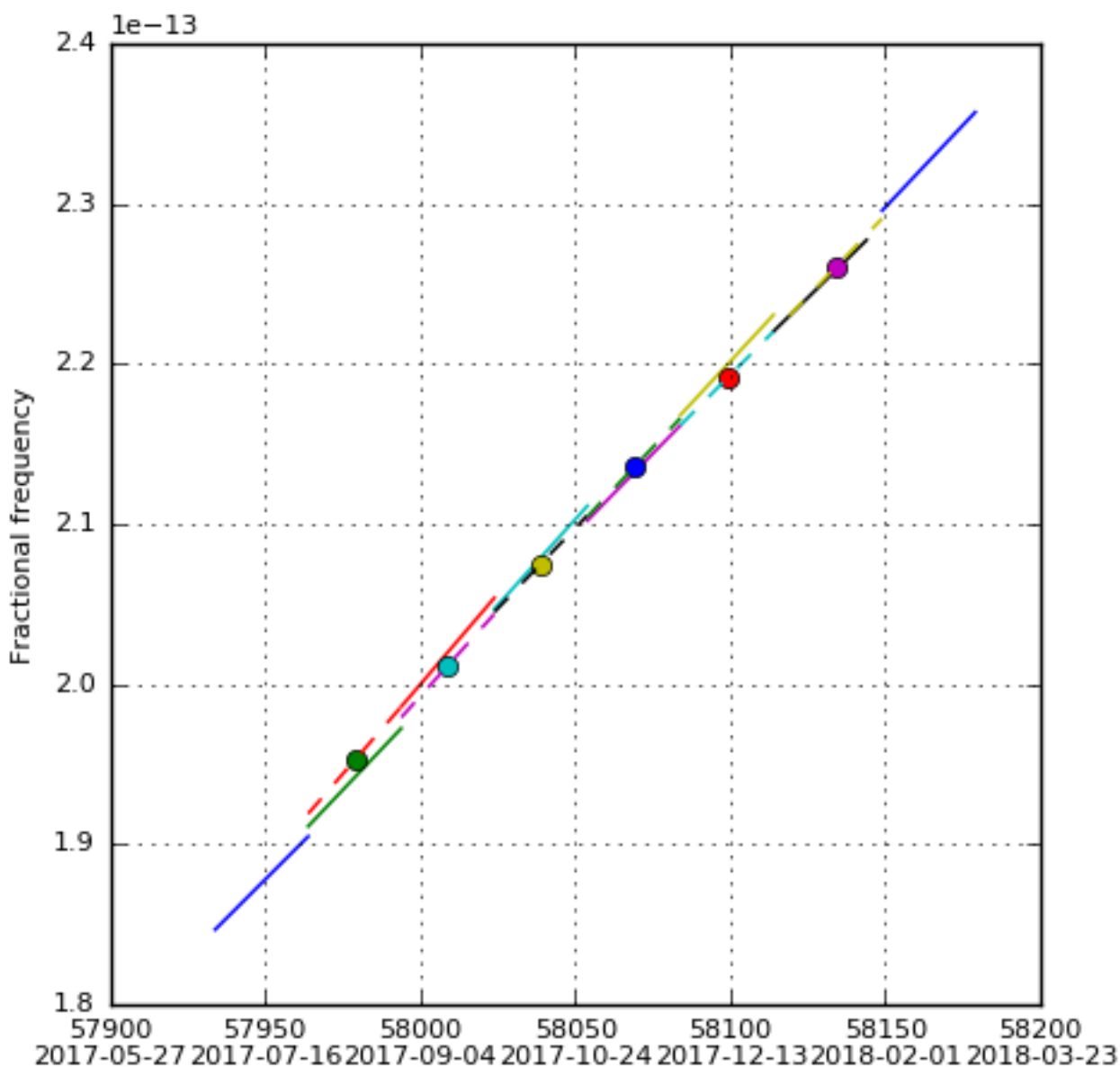
ClockData for analysis: [CDMI 17.11](#), [CDMI 17.12](#), [CDMI 18.01](#),

## 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.

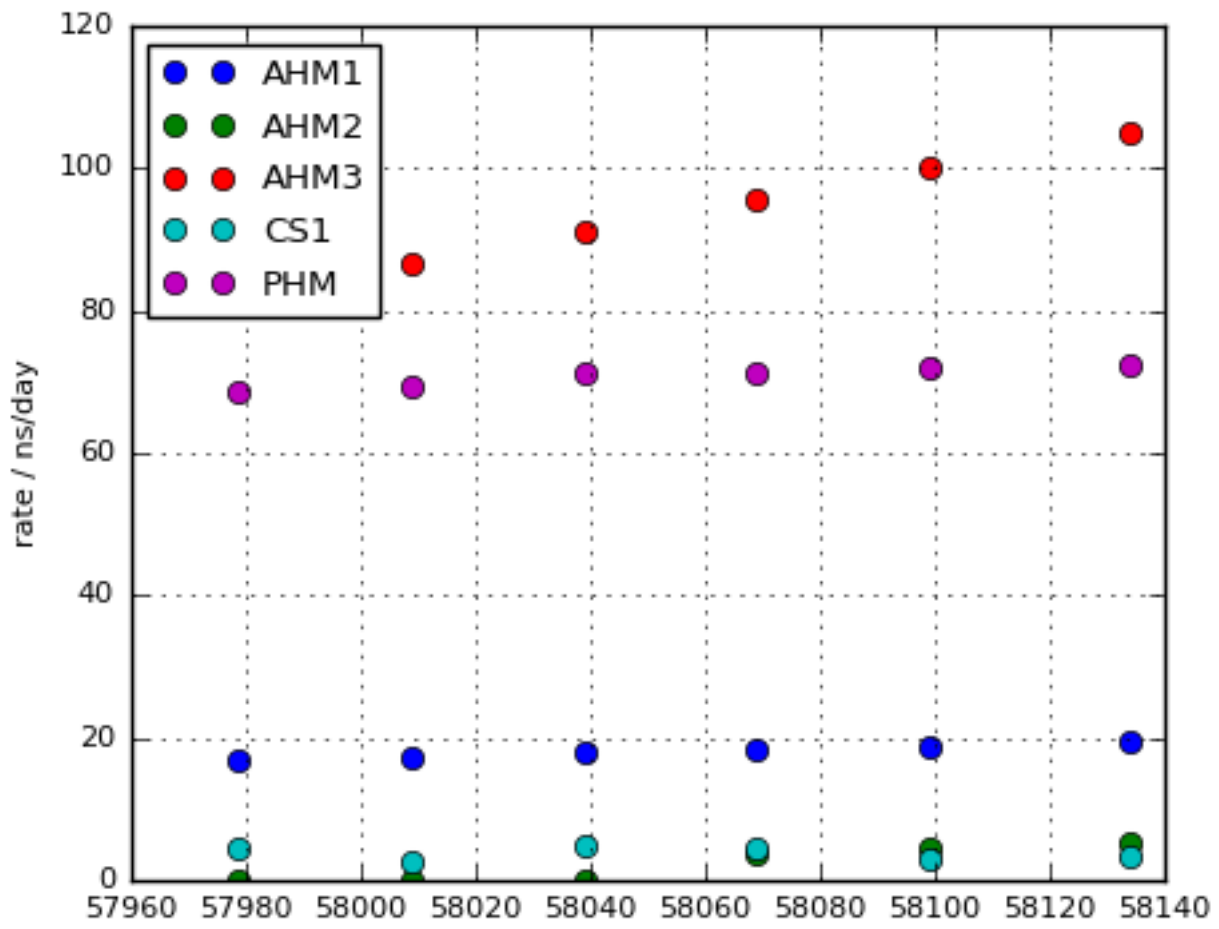
The latest steering parameters are:

$$y = 2.29575e-13 + 2.04774e-16 * d + y\_steer$$

with  $d = (mjd - mjd0)$  and  $mjd0 = 58149$

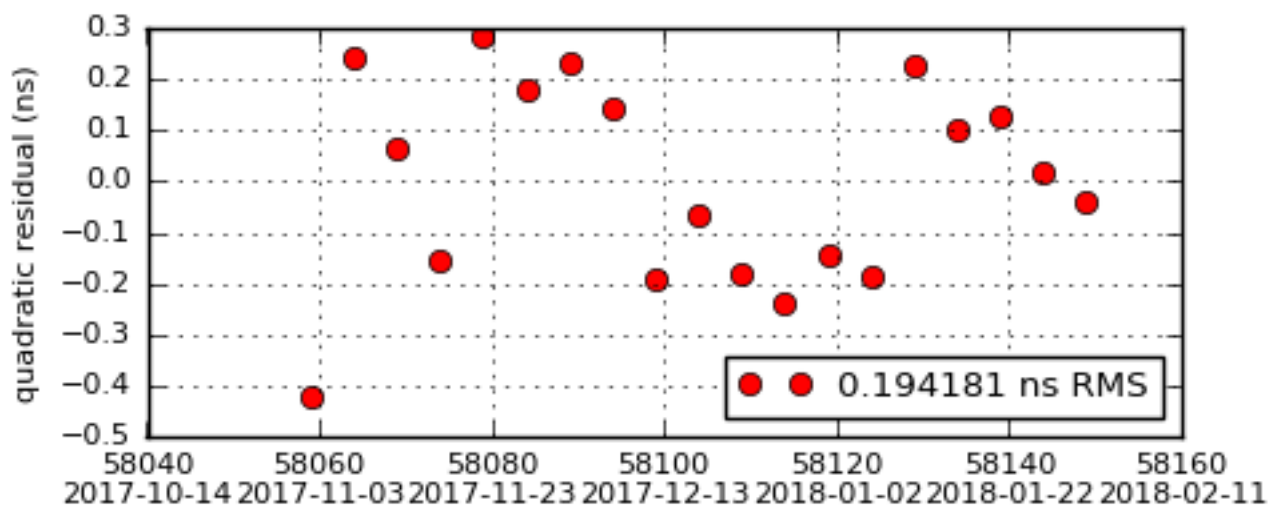
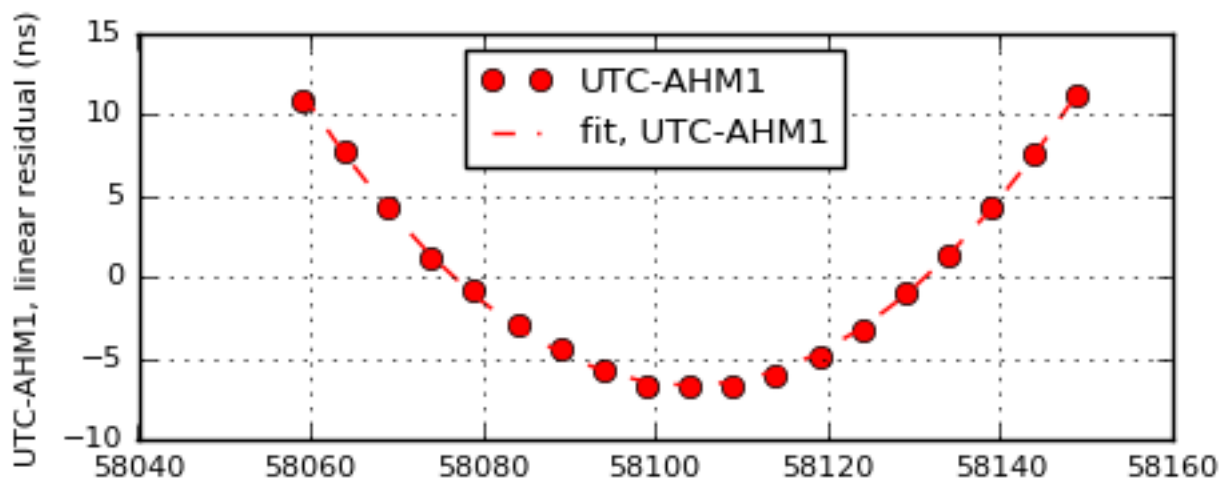
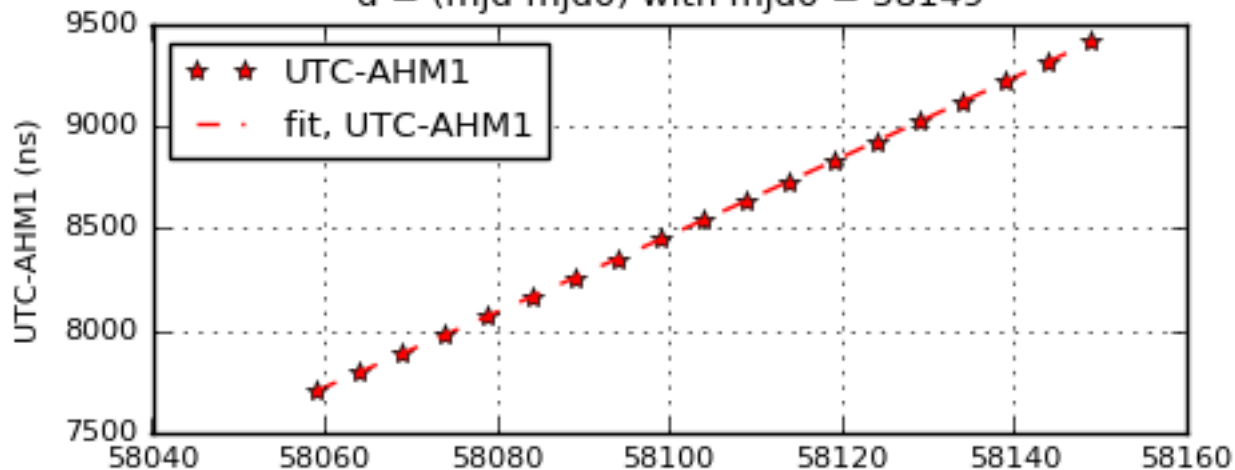
$y\_steer = 0$  since 58150

### Clock Rates - Summary

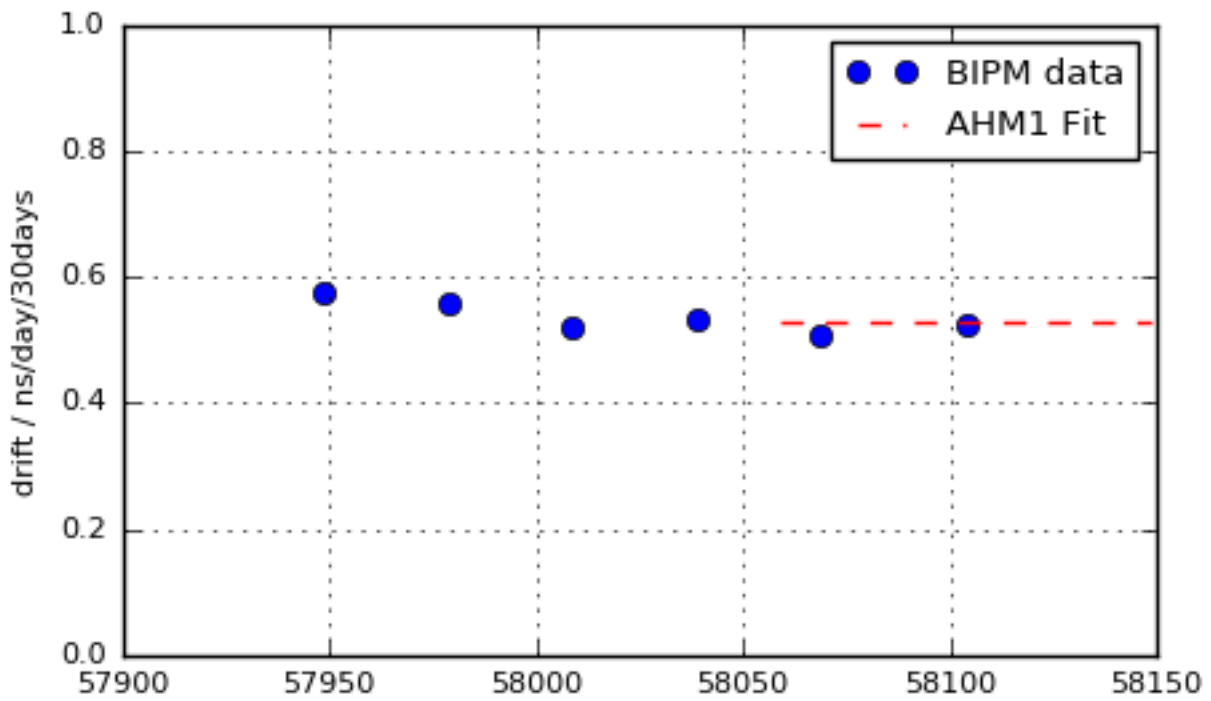
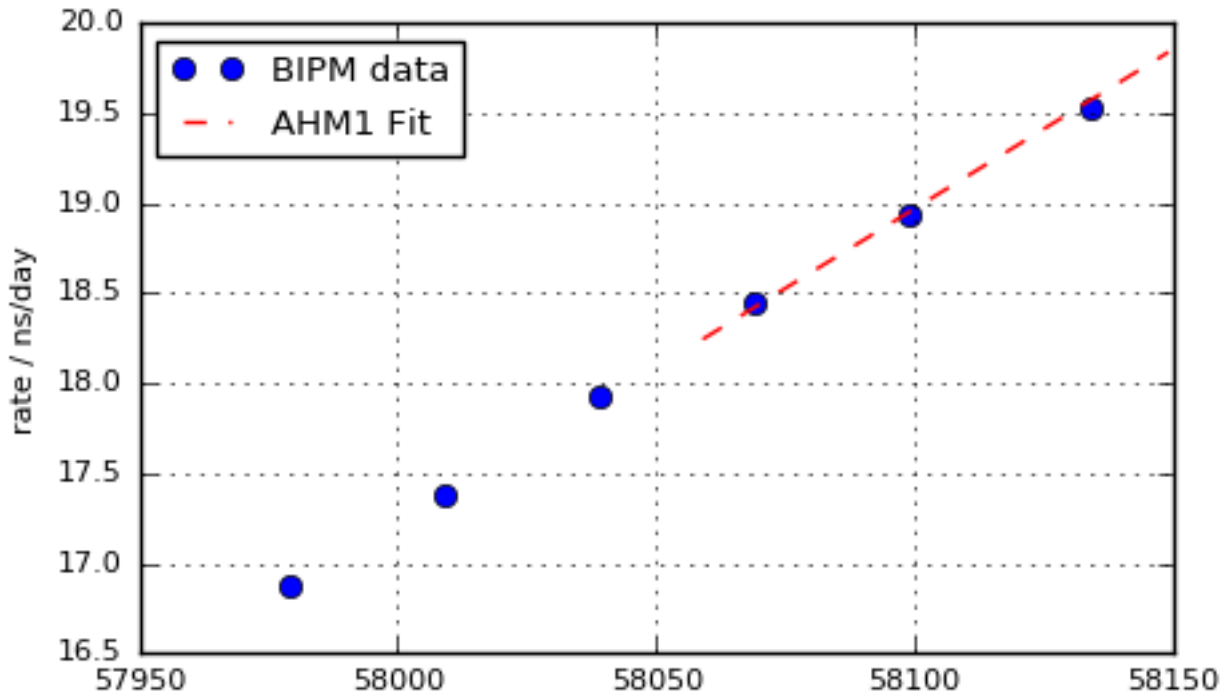


### UTC - AHM1 Fit

UTC-AHM1 (2018-02-14 / 58163)  
 $x \text{ (ns)} = 9417.238 + 19.835 * d + 0.0088 * d * d$   
 $y = -2.29575e-13 + -2.04774e-16 * d$   
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 58149$

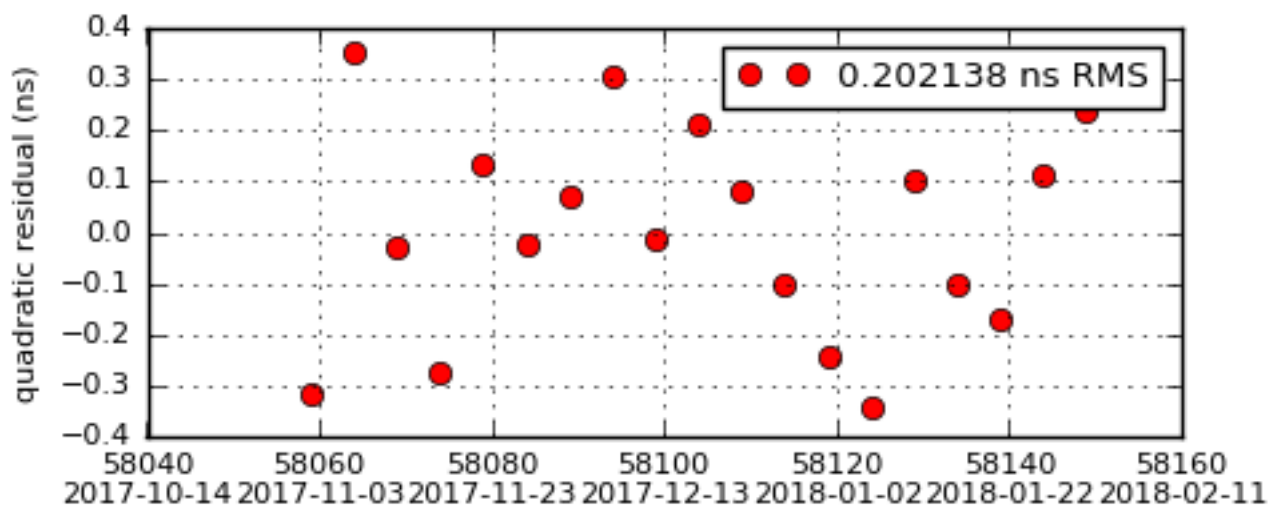
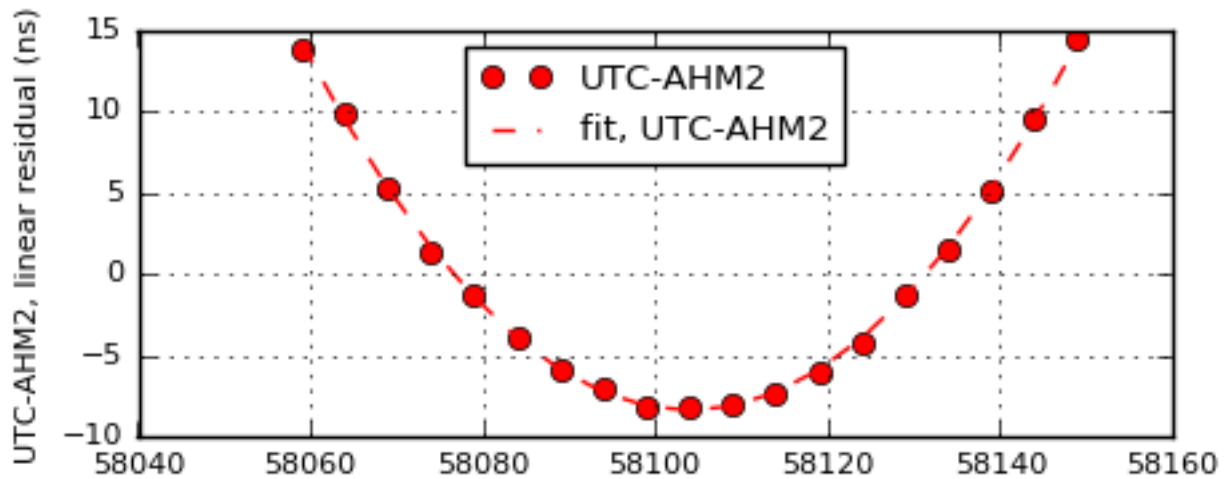
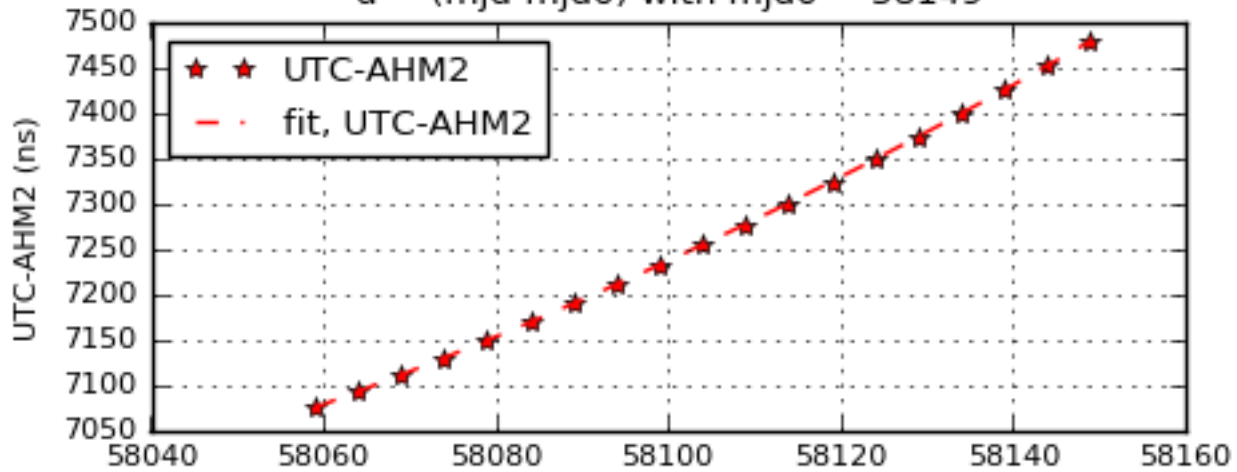


### AHM1 Rate and Drift

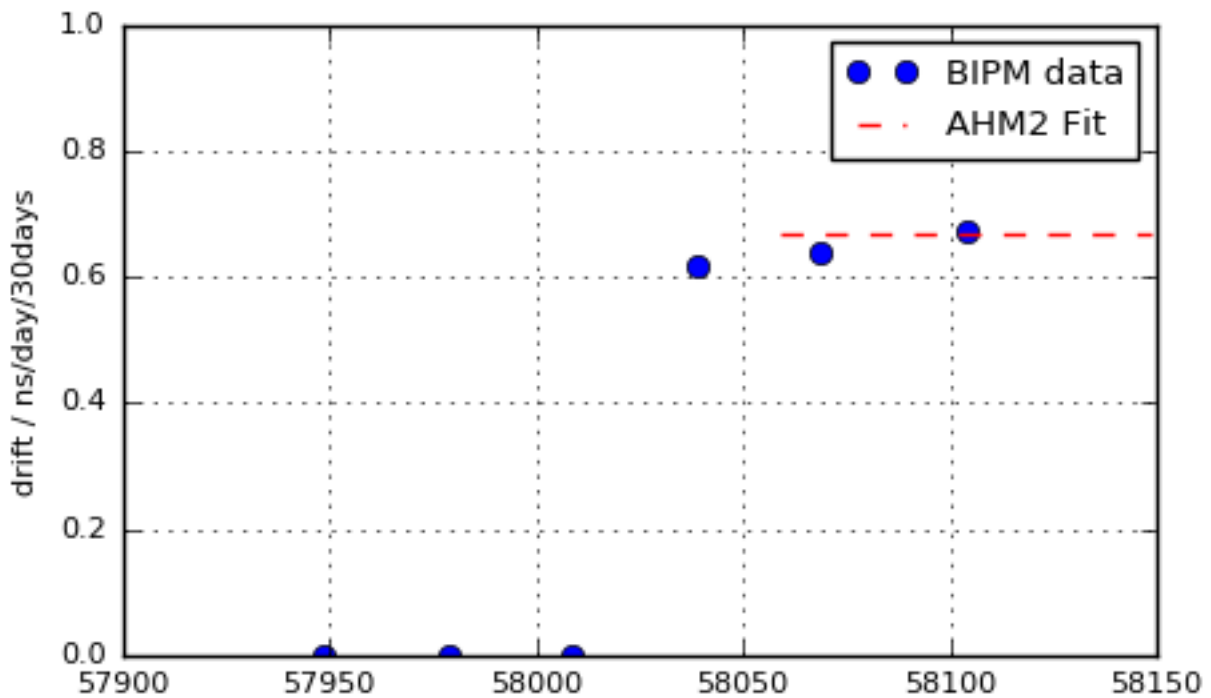
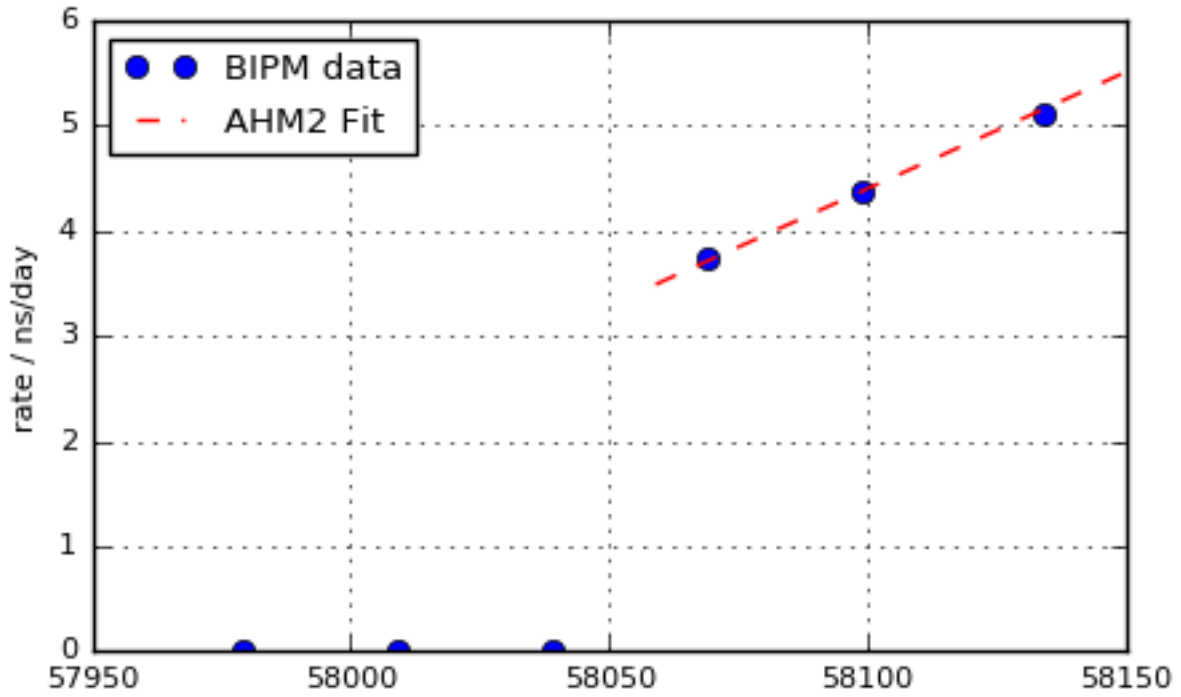


### UTC - AHM2 Fit

UTC-AHM2 (2018-02-14 / 58163)  
 $x \text{ (ns)} = 7479.562 + 5.491 * d + 0.0111 * d * d$   
 $y = -6.3548e-14 + -2.57206e-16 * d$   
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 58149$

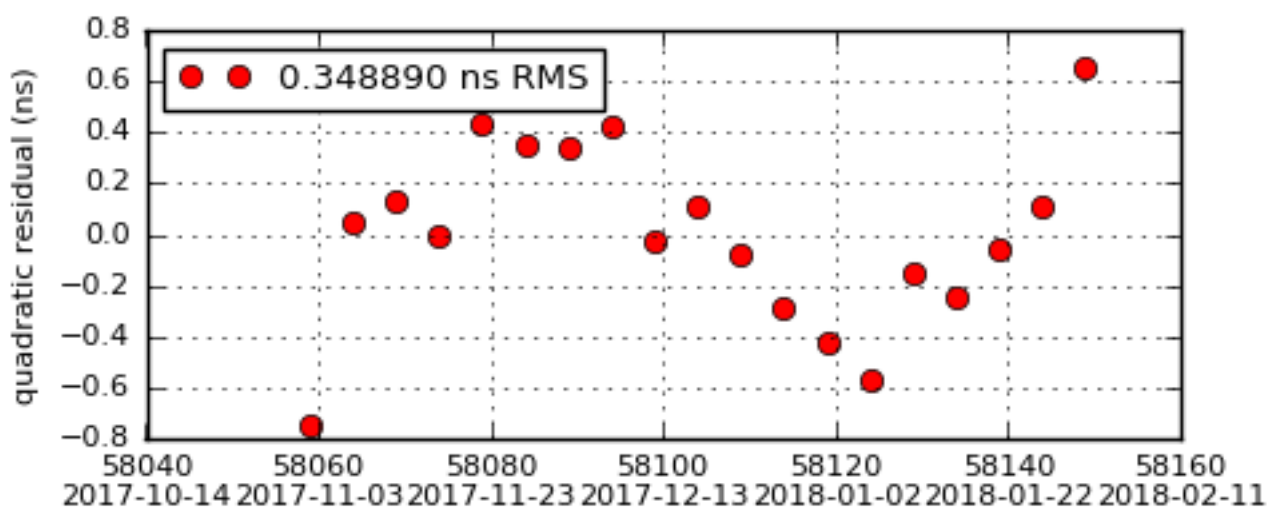
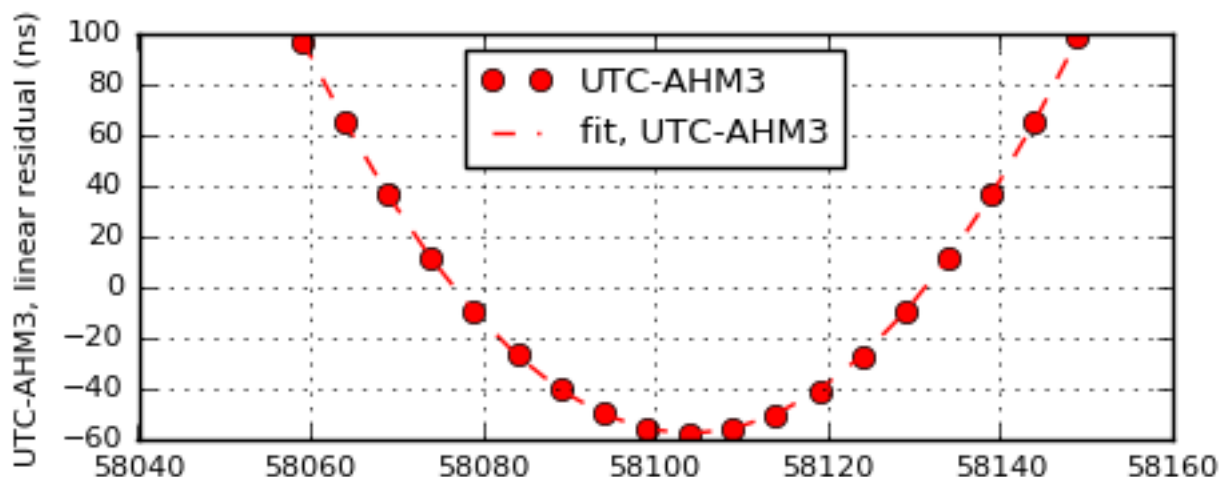
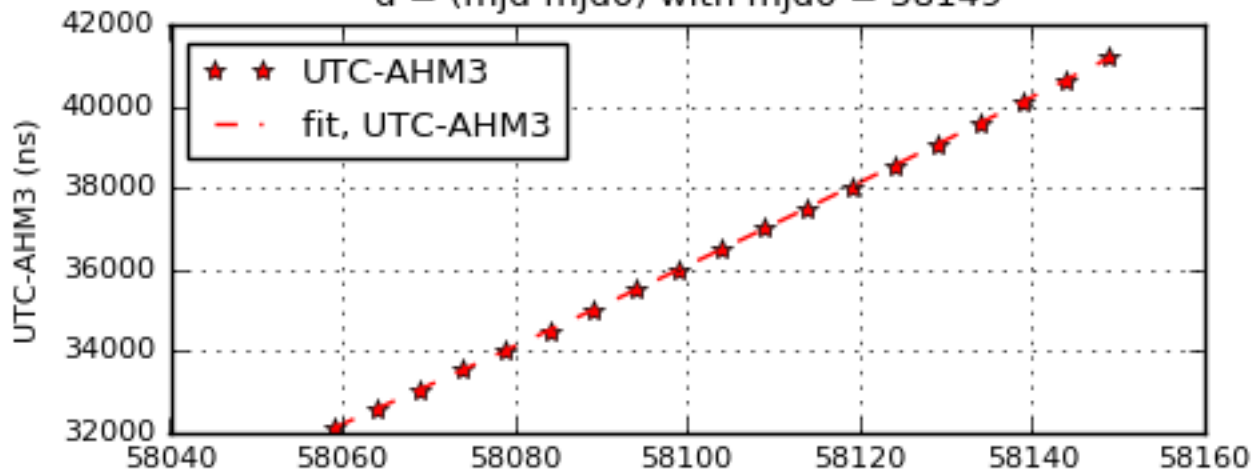


### AHM2 Rate and Drift



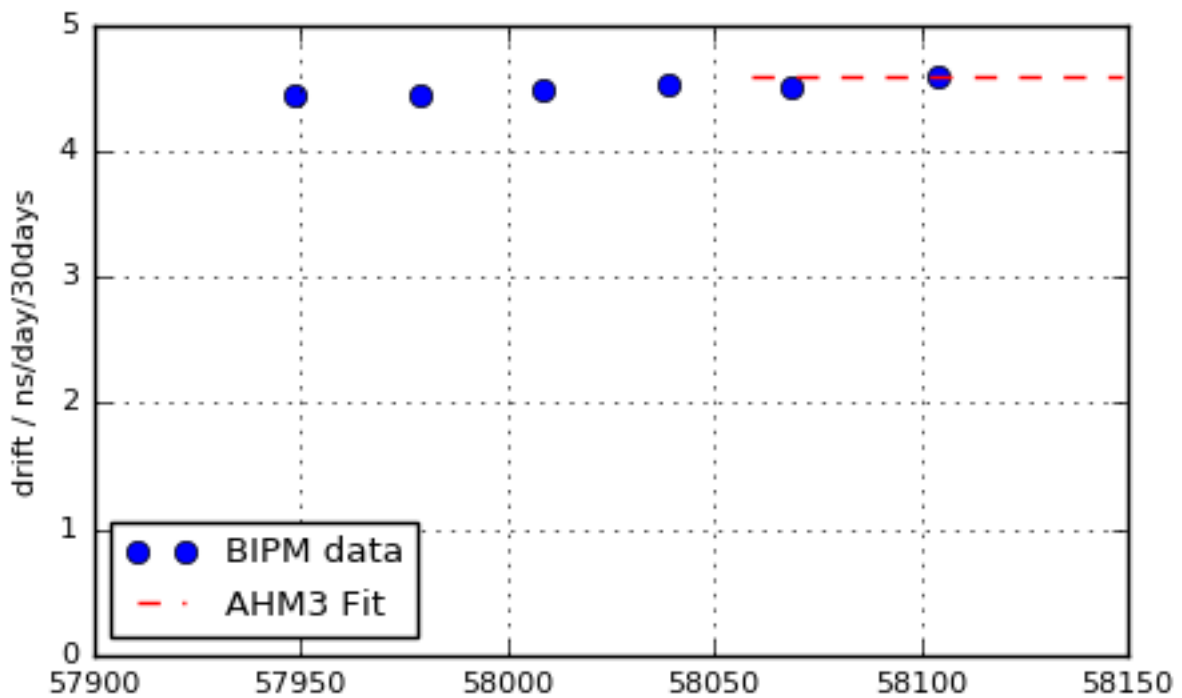
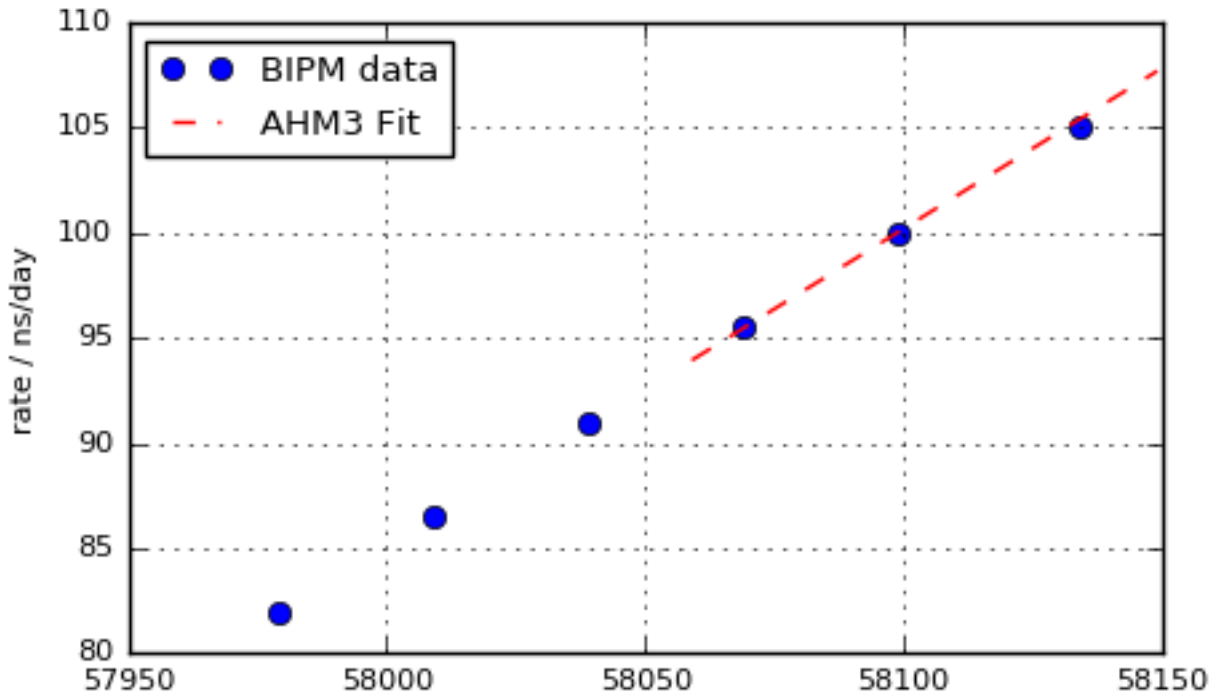
### UTC - AHM3 Fit

UTC-AHM3 (2018-02-14 / 58163)  
 $x \text{ (ns)} = 41187.650 + 107.694 * d + 0.0764 * d * d$   
 $y = -1.24645e-12 + -1.76907e-15 * d$   
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 58149$



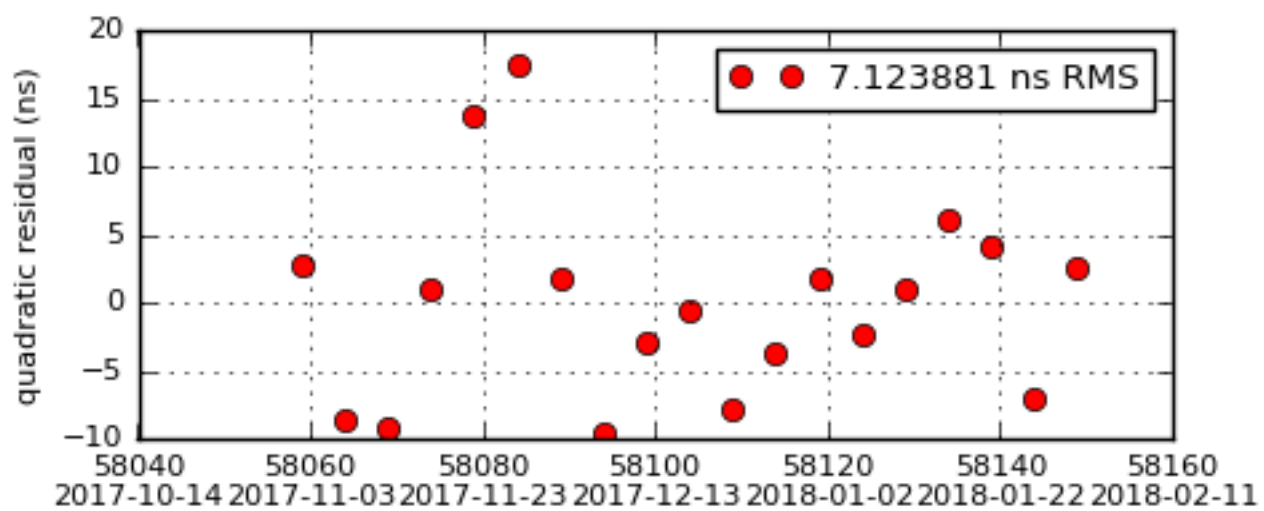
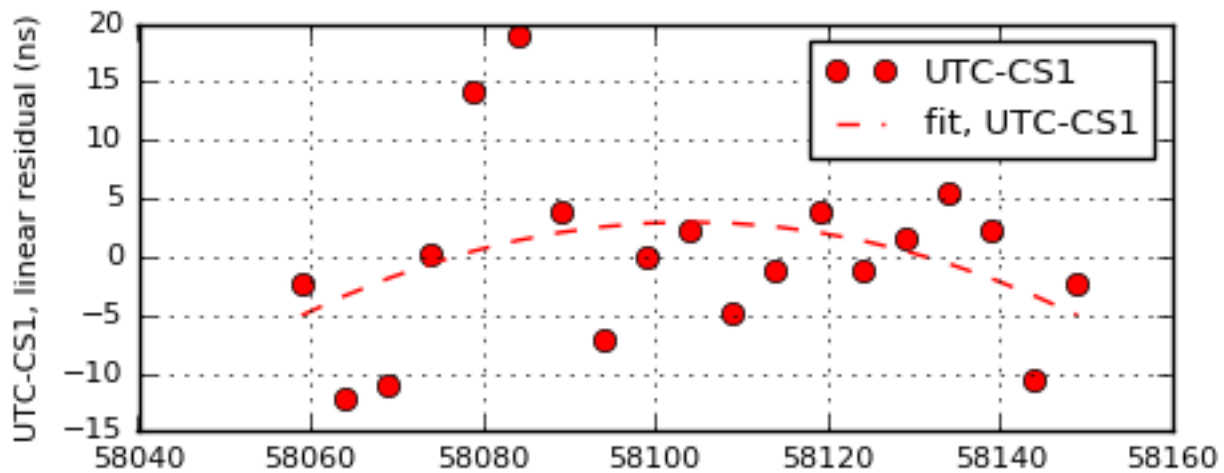
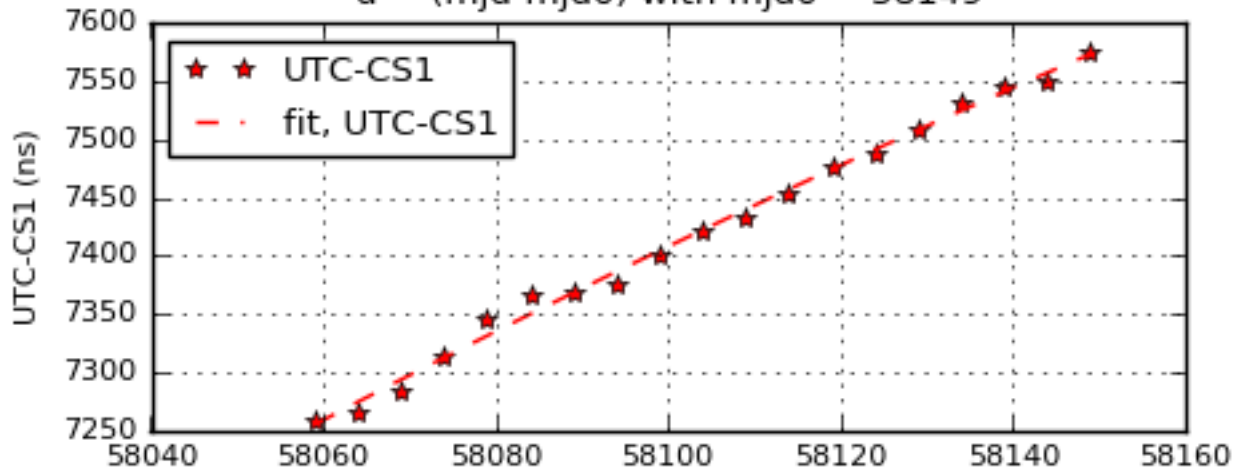


### AHM3 Rate and Drift

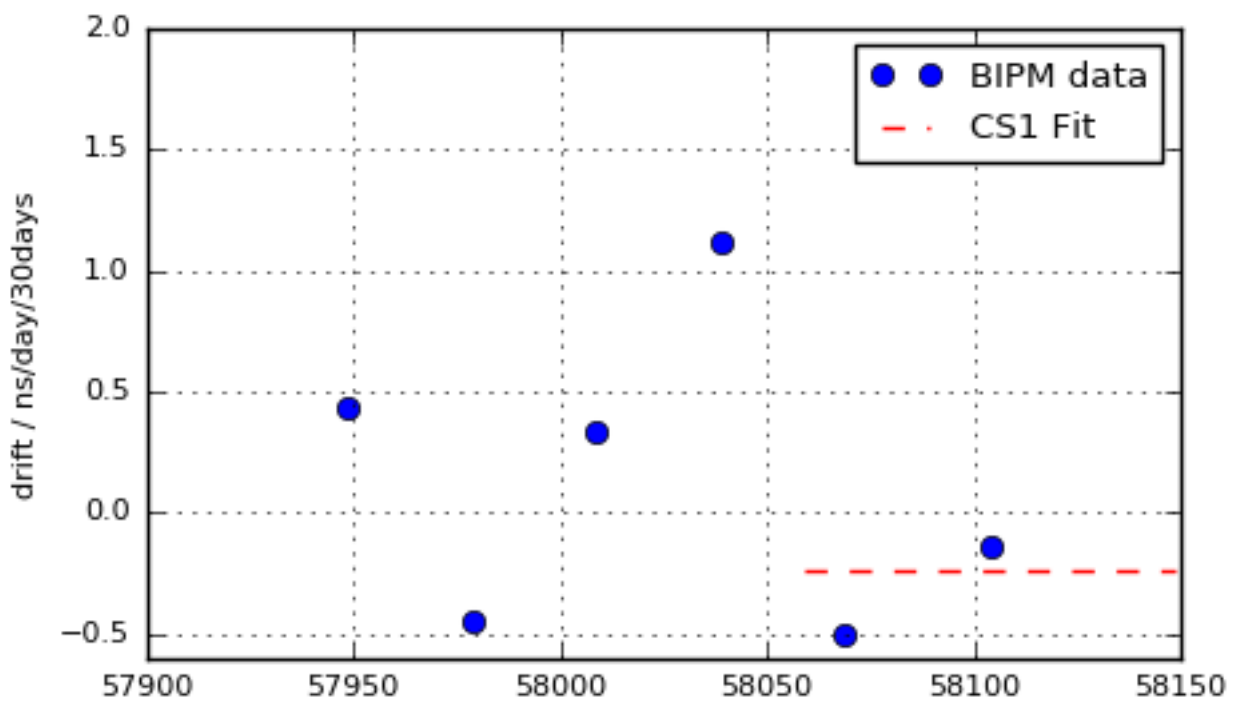
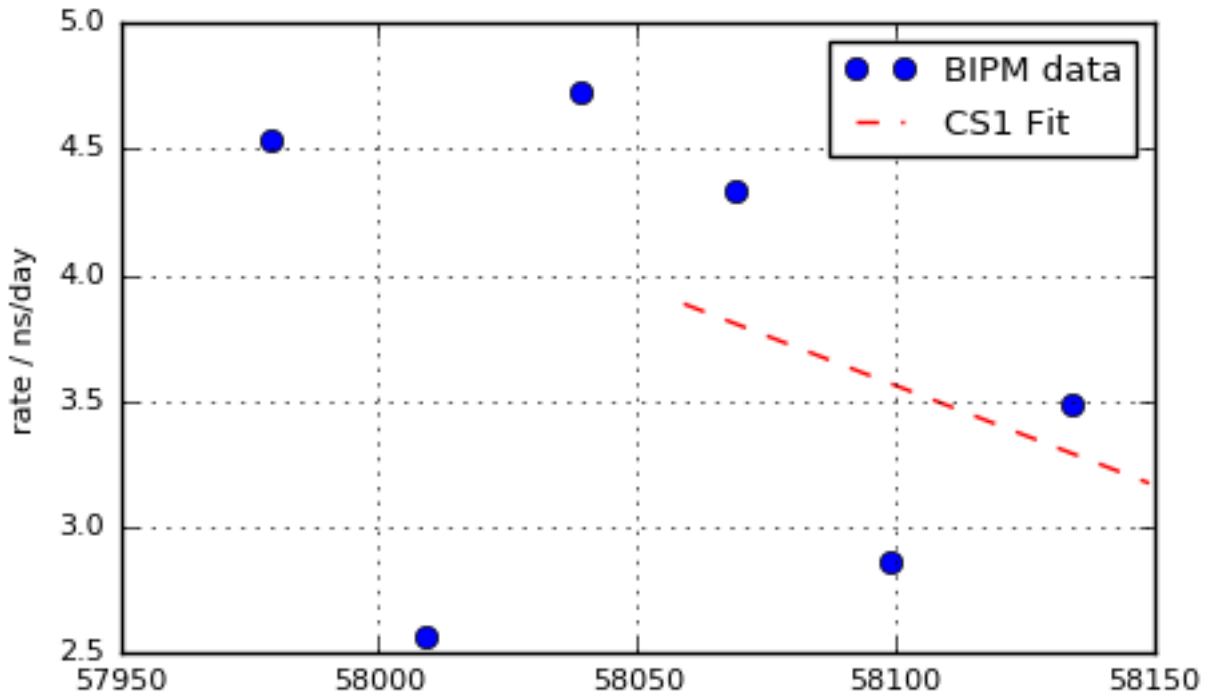


### UTC - CS1 Fit

UTC-CS1 (2018-02-14 / 58163)  
 $x \text{ (ns)} = 7572.971 + 3.174 * d + -0.0039 * d*d$   
 $y = -3.67392e-14 + 9.14323e-17 * d$   
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 58149$



### CS1 Rate and Drift



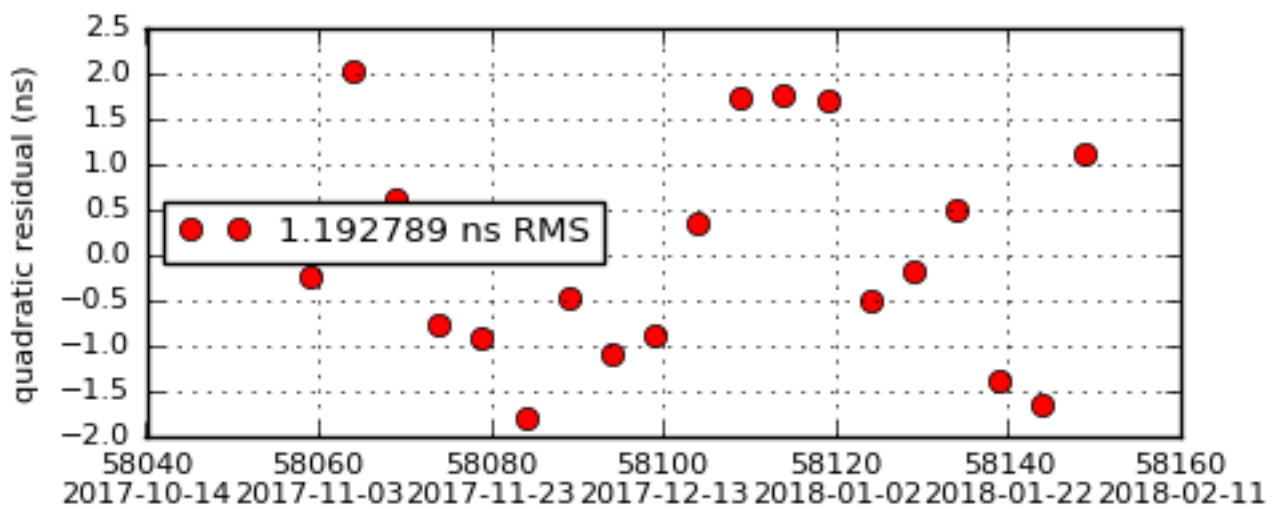
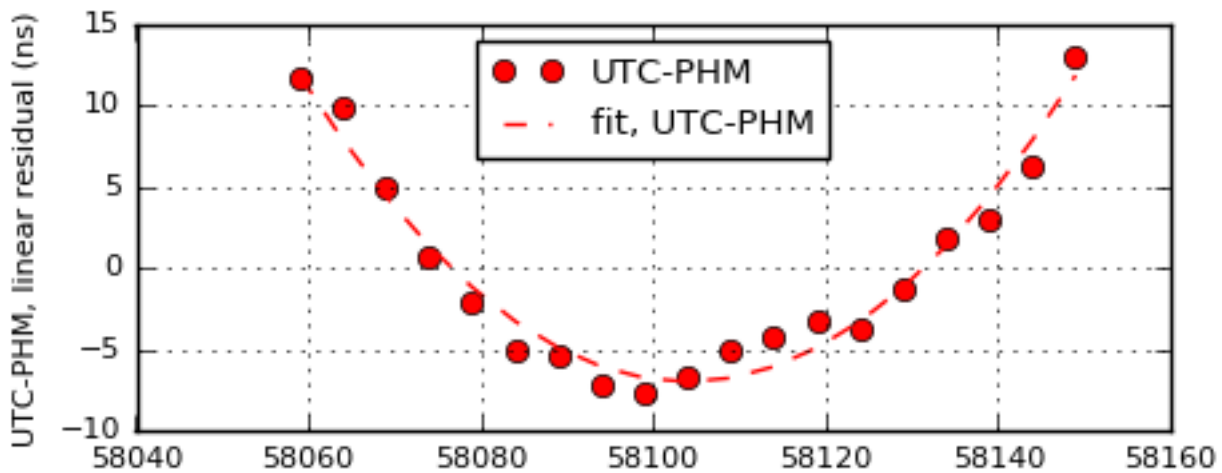
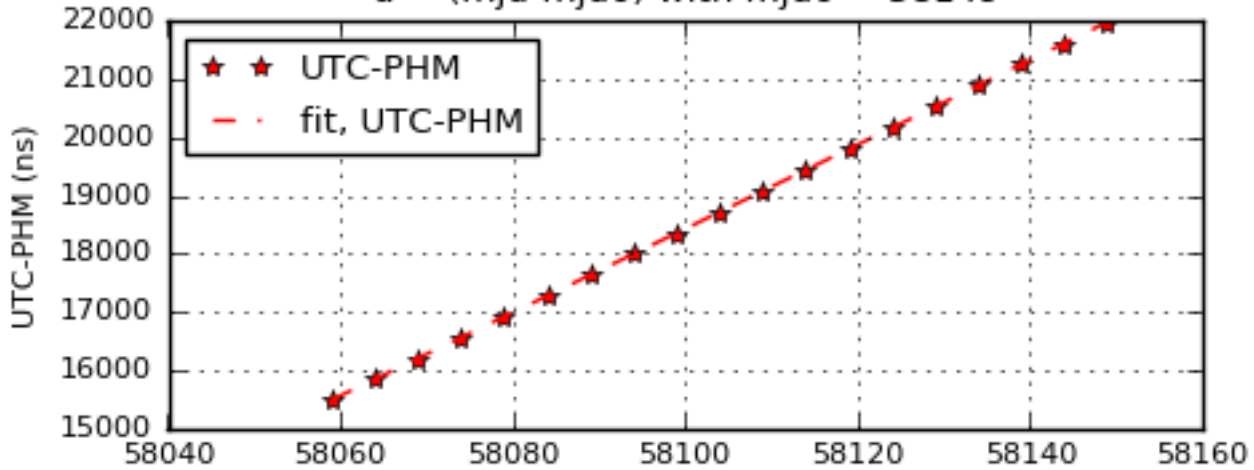
### UTC - PHM Fit

UTC-PHM (2018-02-14 / 58163)

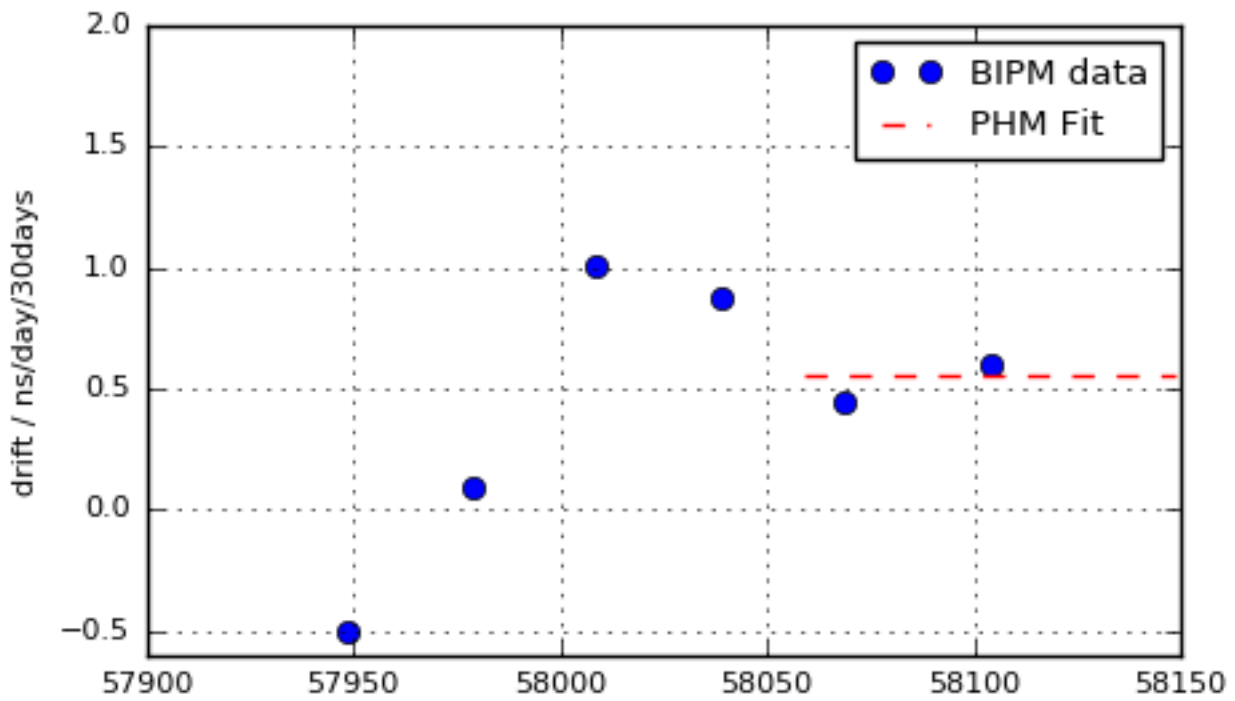
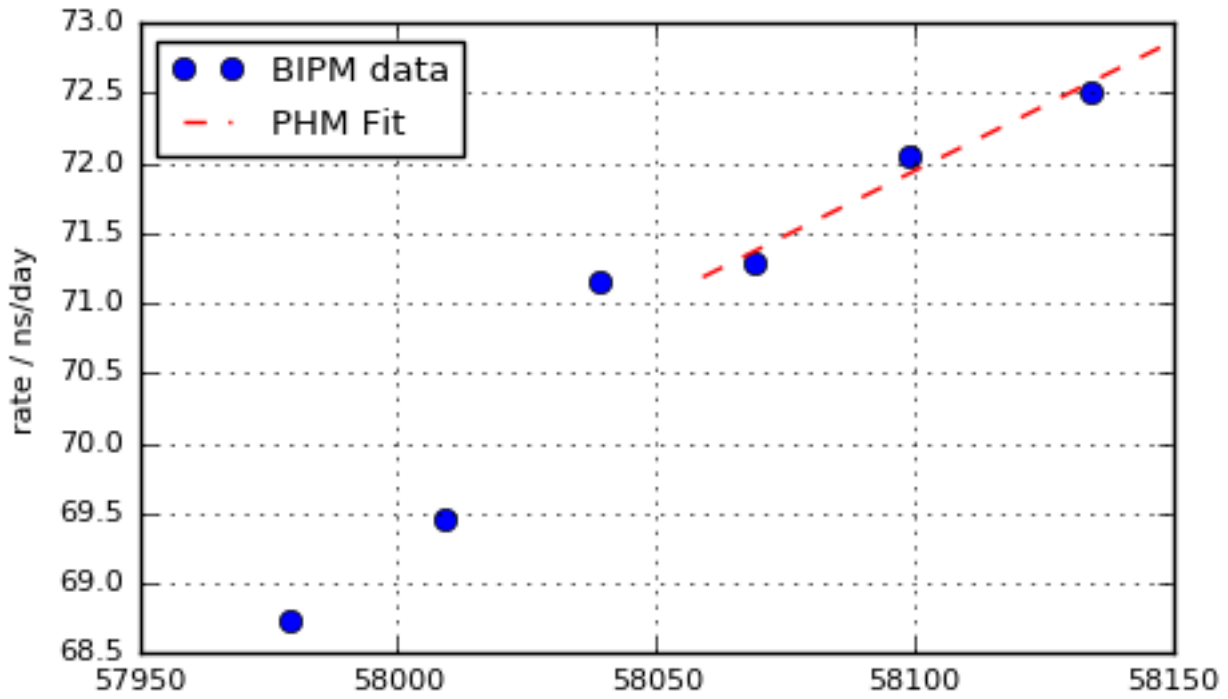
$$x \text{ (ns)} = 21975.080 + 72.851 * d + 0.0093 * d * d$$

$$y = -8.43185e-13 + -2.1448e-16 * d$$

d = (mjd-mjd0) with mjd0 = 58149

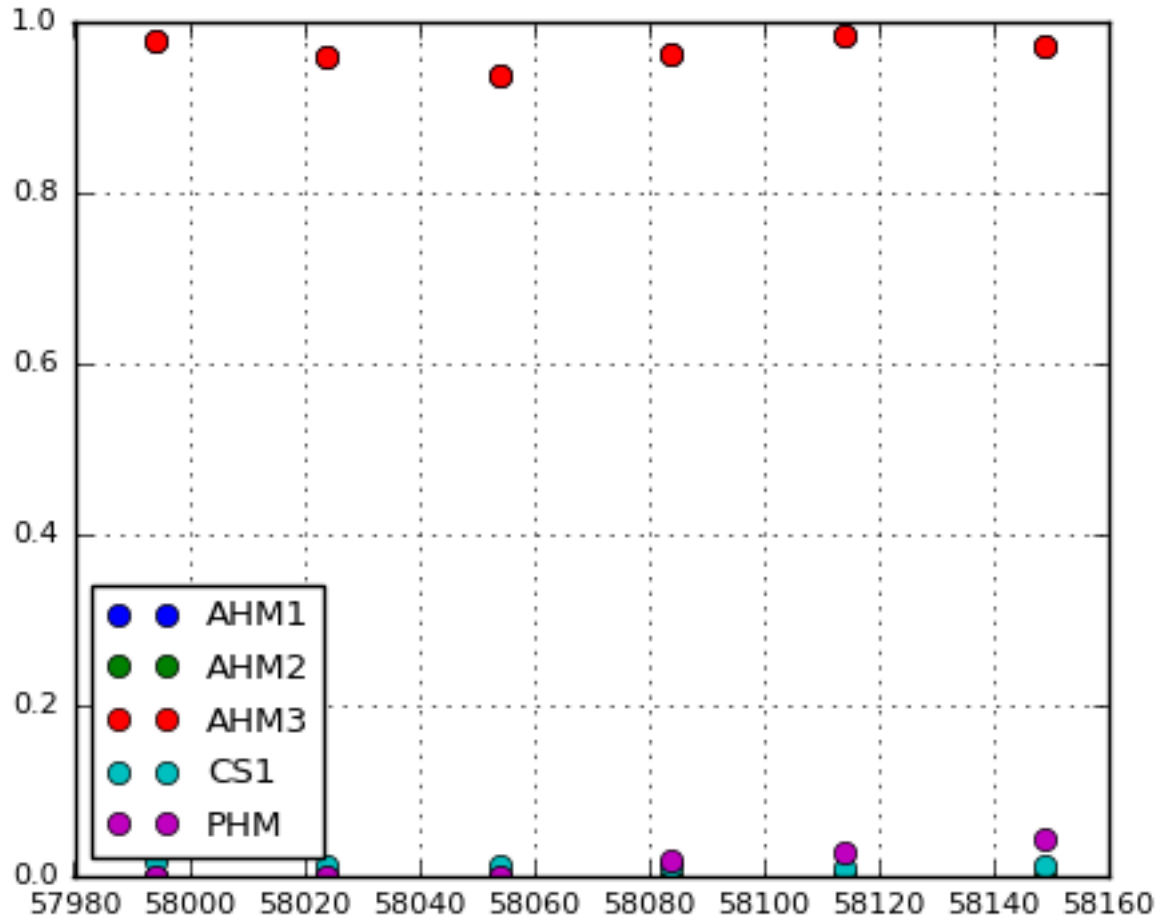


### PHM Rate and Drift



### Clock Weights

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



**End of Bulletin.**