

# UTC(MIKE) Atomic Bulletin 2019-04

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2019-04-11 (58584)

Circular-T issues used for analysis: [373](#), [374](#), [375](#),

First day of analysis interval: 2019-01-01 (58484)

Last day of analysis interval: 2019-03-27 (58569)

ClockData for analysis: [CDMI 19.01](#), [CDMI 19.02](#), [CDMI 19.03](#),

## Notes

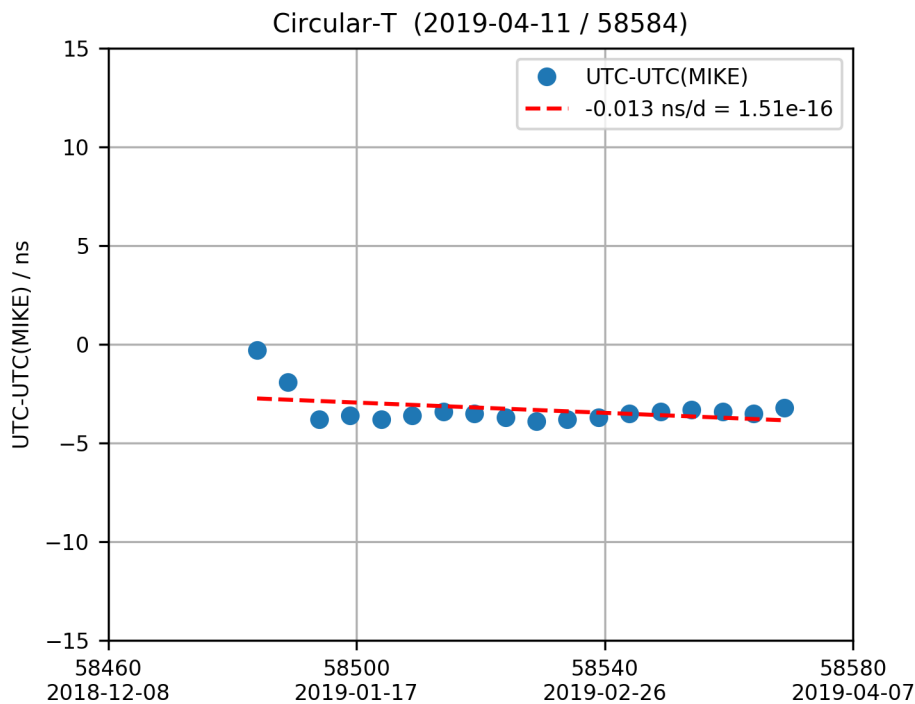
58299 Apparent time step of UTC(MIKE) of +8.2 ns between MJD 58299 and MJD 58304 due to antenna coordinates correction. ClockData before 58299.5 is corrected by -8.2 ns for analysis.

58305 AHM3 rebooted. Phase step +20.2ns.

58450 CS1 Hotwire supply regulation failure

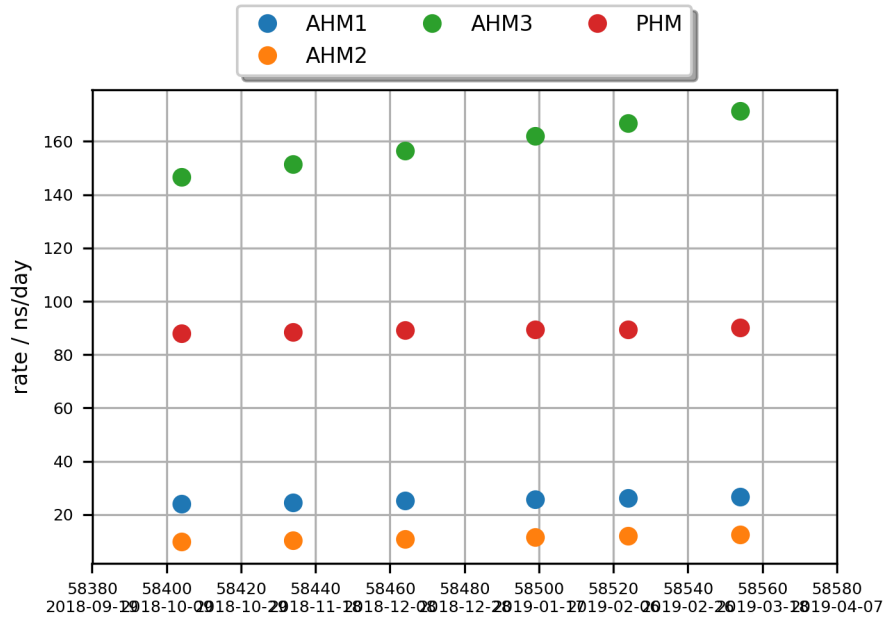
58494 Change master-clock to AHM2

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



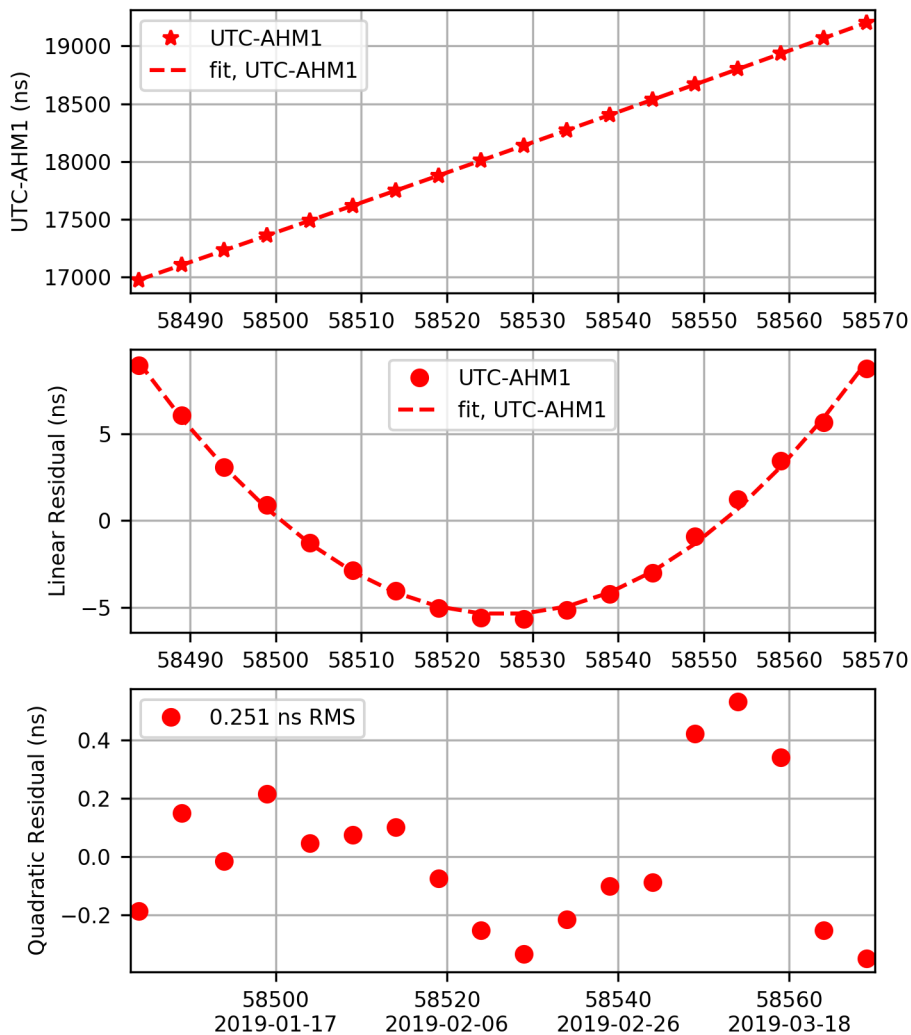
UTC-UTC(MIKE) is available on 5 day intervals on MJD dates ending with 4 or 9. Values are published monthly by the BIPM in Circular-T.

## Clock Rates - Summary

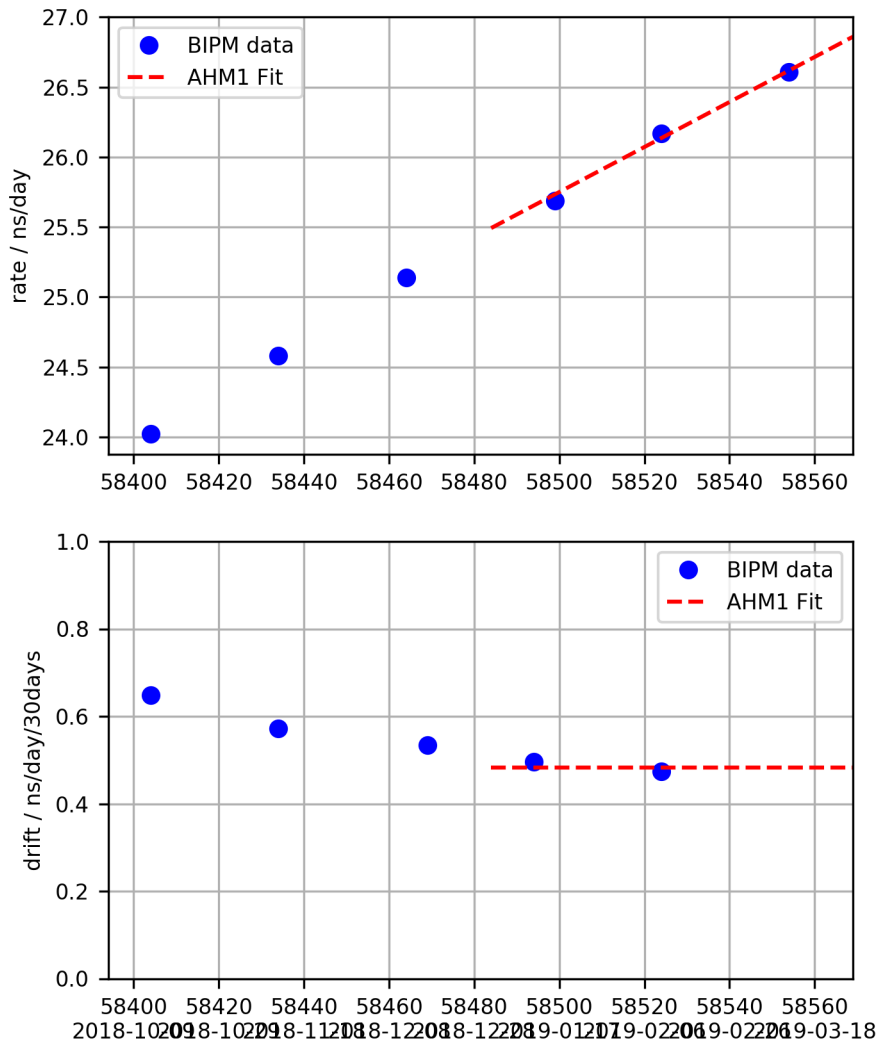


### UTC - AHM1 Fit

UTC-AHM1 (2019-04-11 / 58584)  
 $x \text{ (ns)} = 19200.852 + 26.860 *d + 0.0080 *d*d$   
 $y = -3.10875e-13 + -1.86147e-16 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58569$

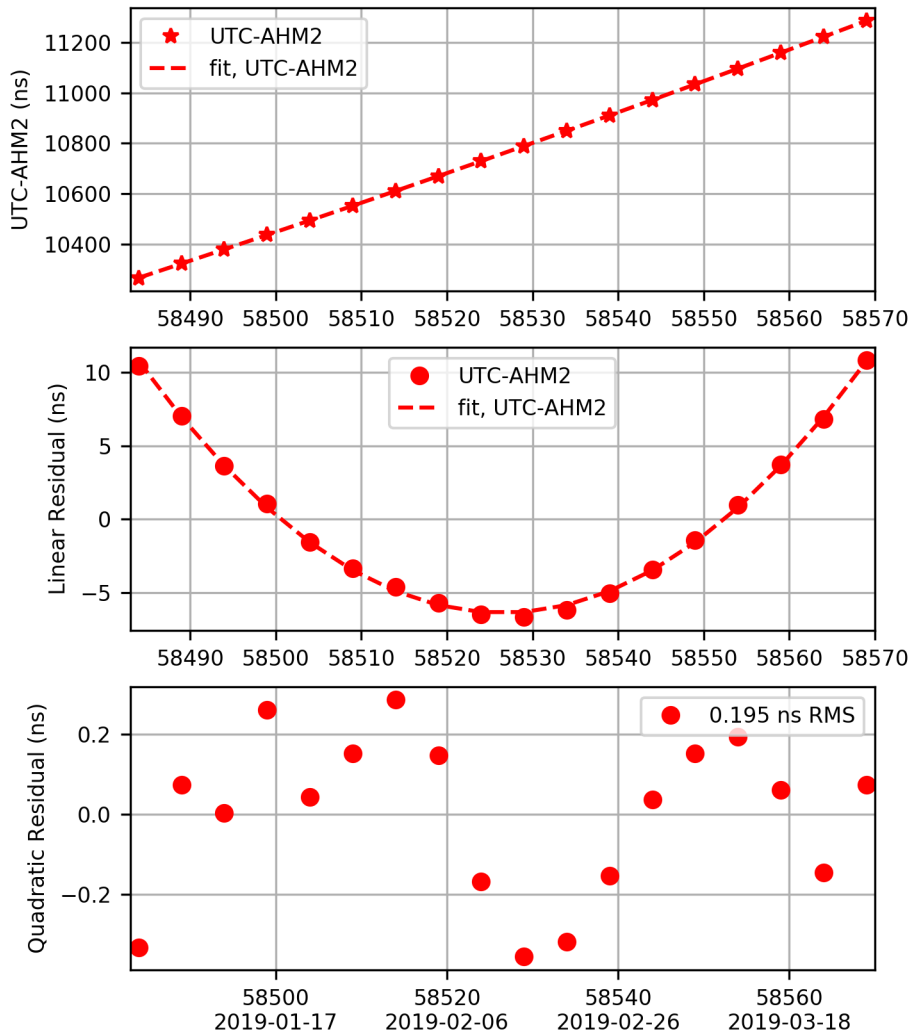


### AHM1 Rate and Drift

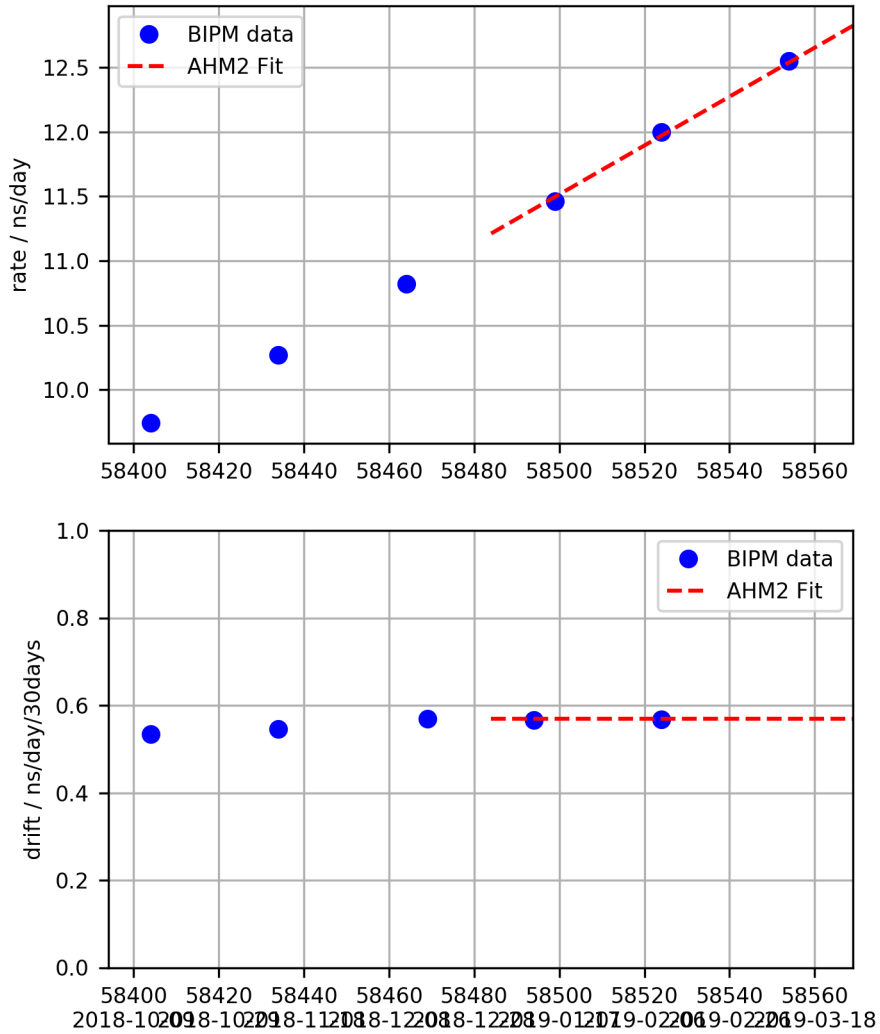


## UTC - AHM2 Fit

UTC-AHM2 (2019-04-11 / 58584)  
 $x \text{ (ns)} = 11286.927 + 12.824 *d + 0.0095 *d*d$   
 $y = -1.48421e-13 + -2.19495e-16 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58569$

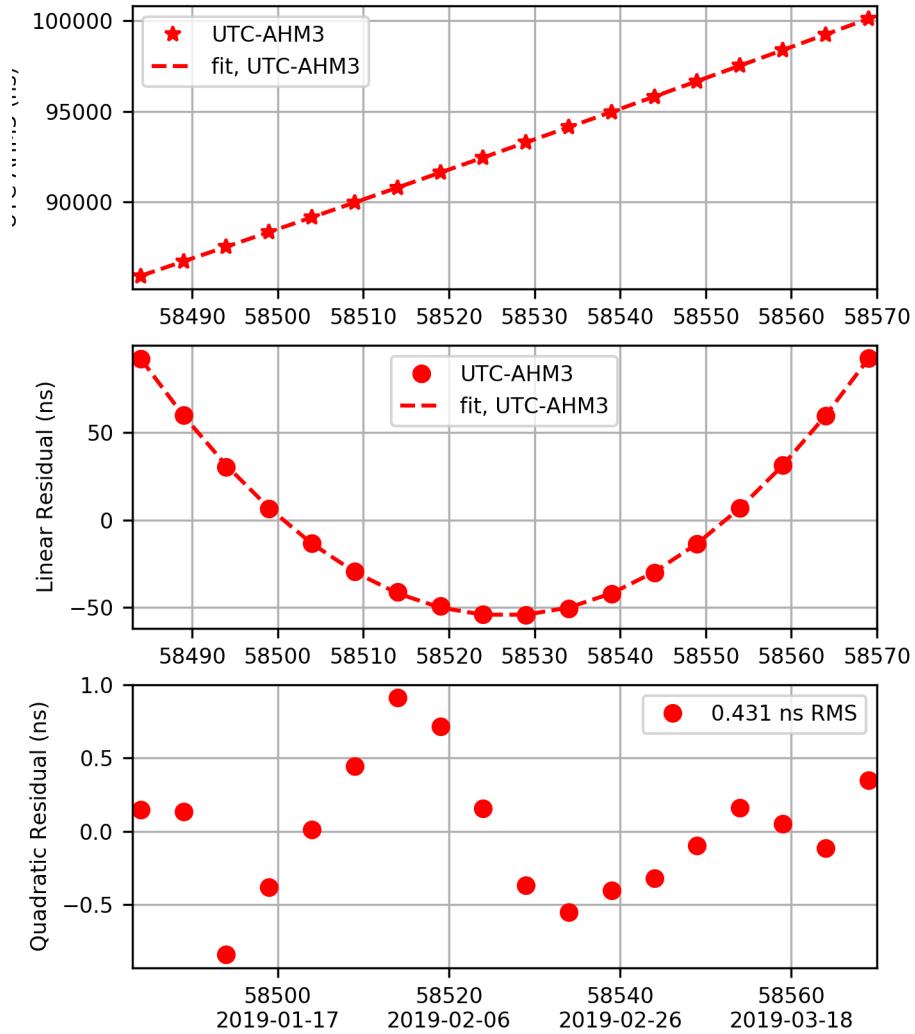


### AHM2 Rate and Drift

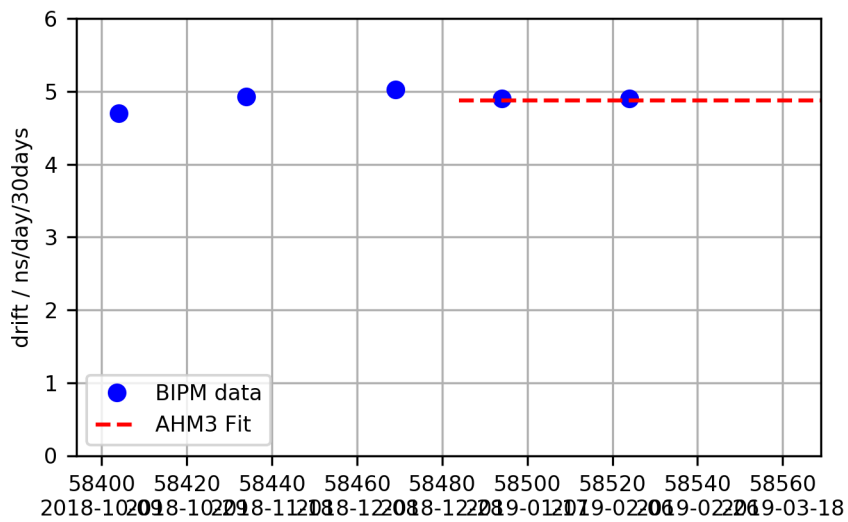
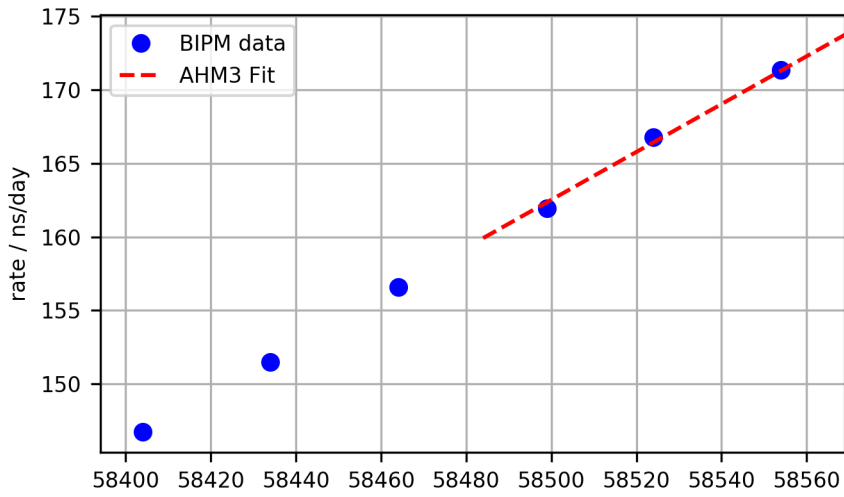


## UTC - AHM3 Fit

UTC-AHM3 (2019-04-11 / 58584)  
 $x \text{ (ns)} = 100110.151 + 173.733 *d + 0.0813 *d*d$   
 $y = -2.0108e-12 + -1.88139e-15 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58569$



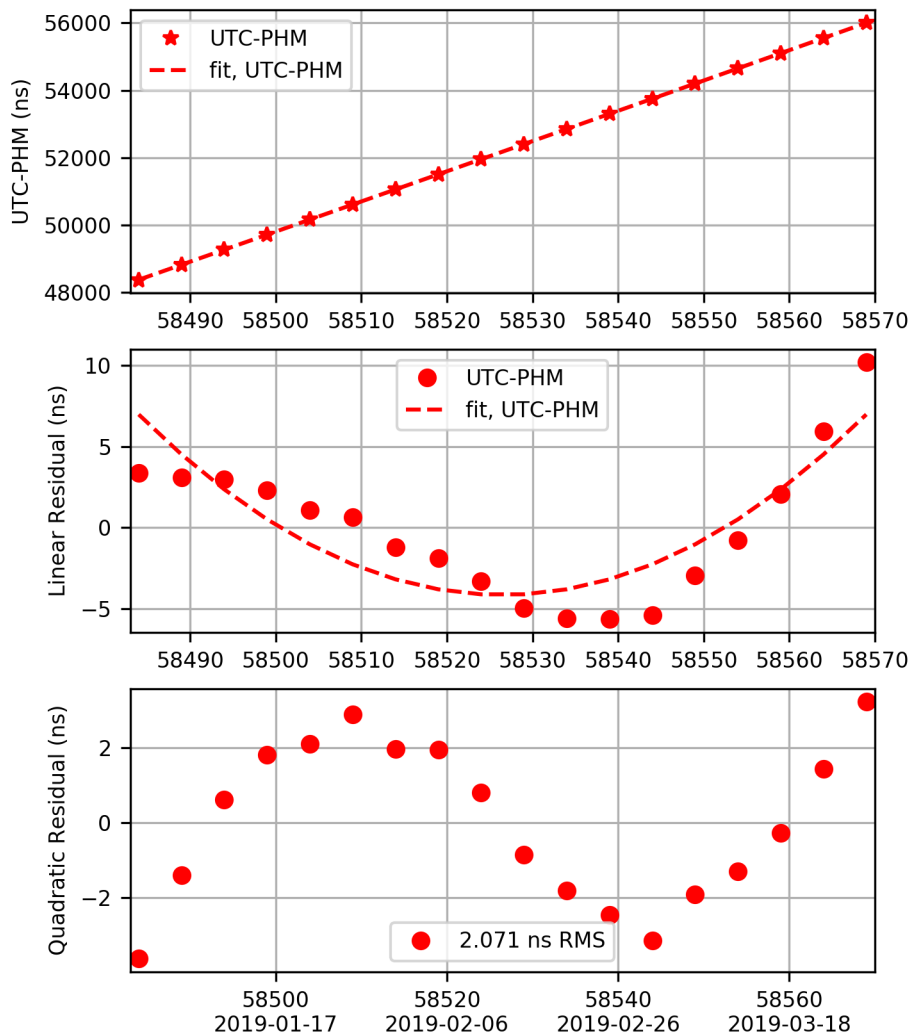
### AHM3 Rate and Drift



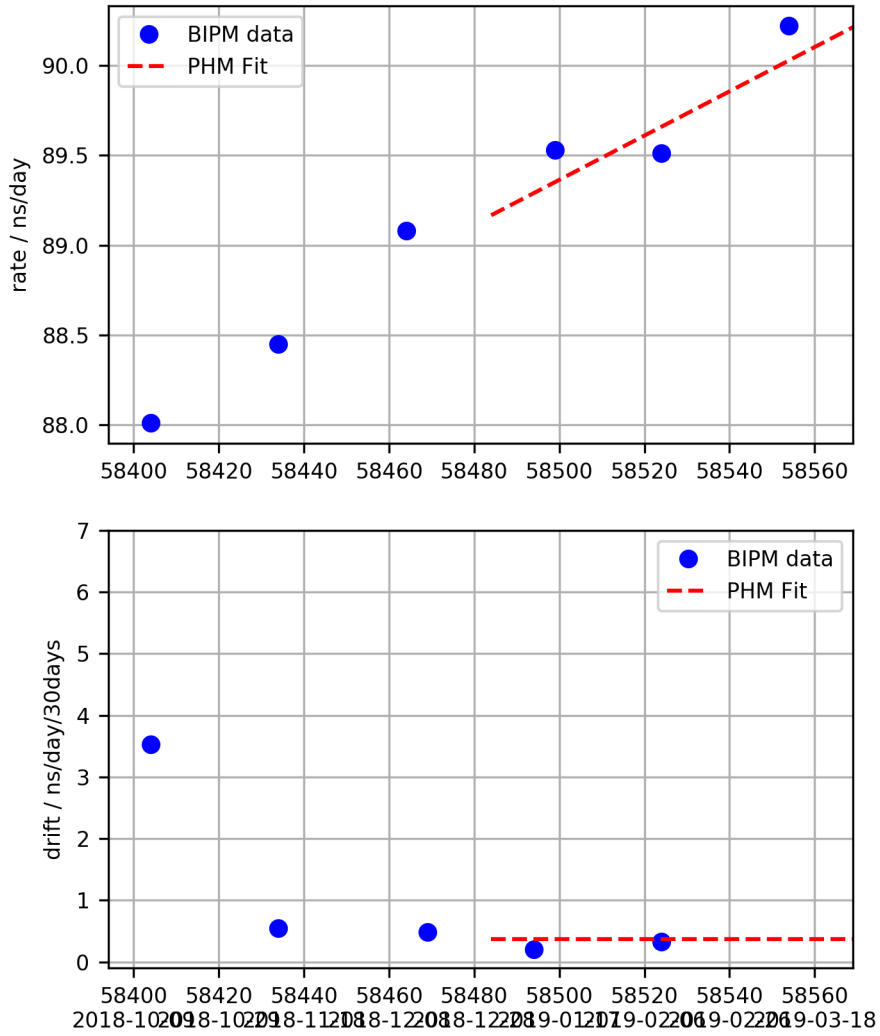


## UTC - PHM Fit

UTC-PHM (2019-04-11 / 58584)  
 $x \text{ (ns)} = 56003.682 + 90.212 *d + 0.0062 *d*d$   
 $y = -1.04412e-12 + -1.42406e-16 *d$   
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 58569$

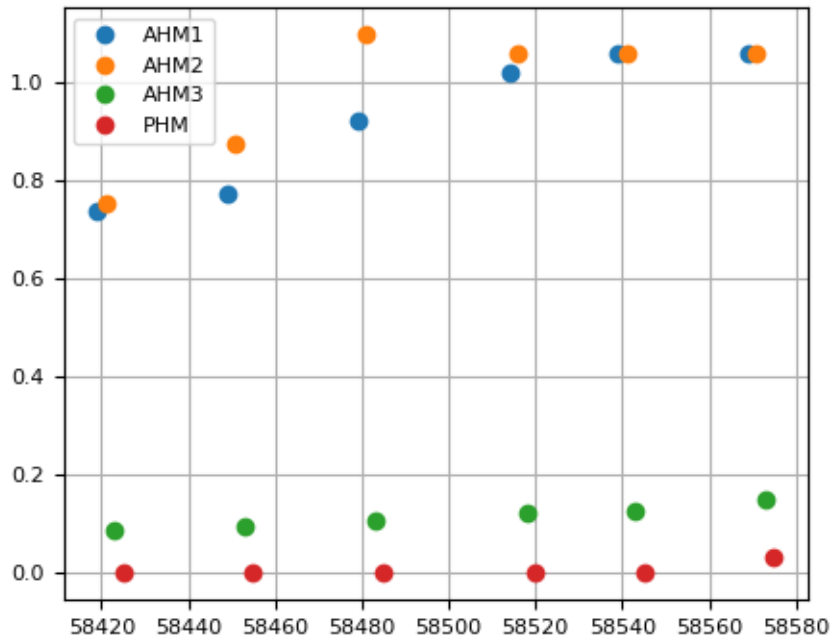


## PHM Rate and Drift



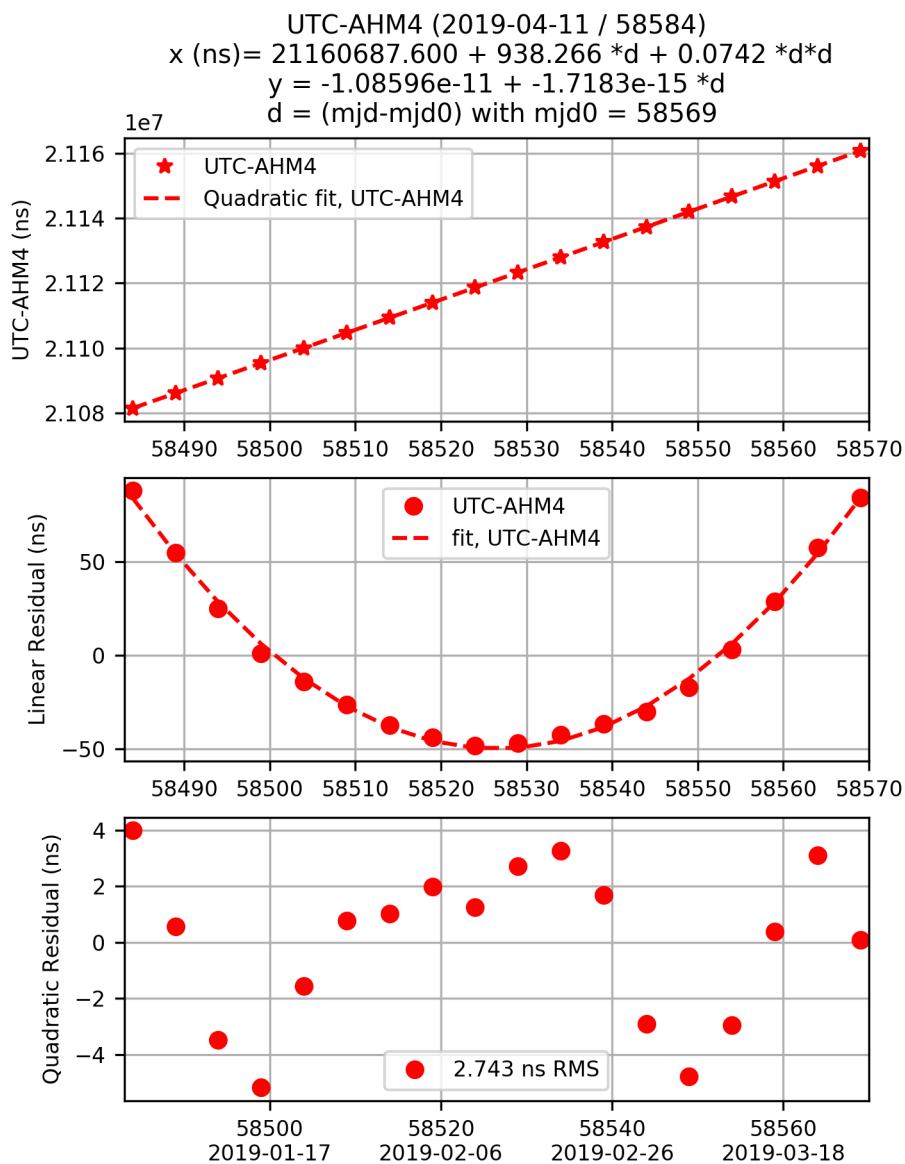
## Clock Weights

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



## Remote Clocks

### Remote Clock: AHM4

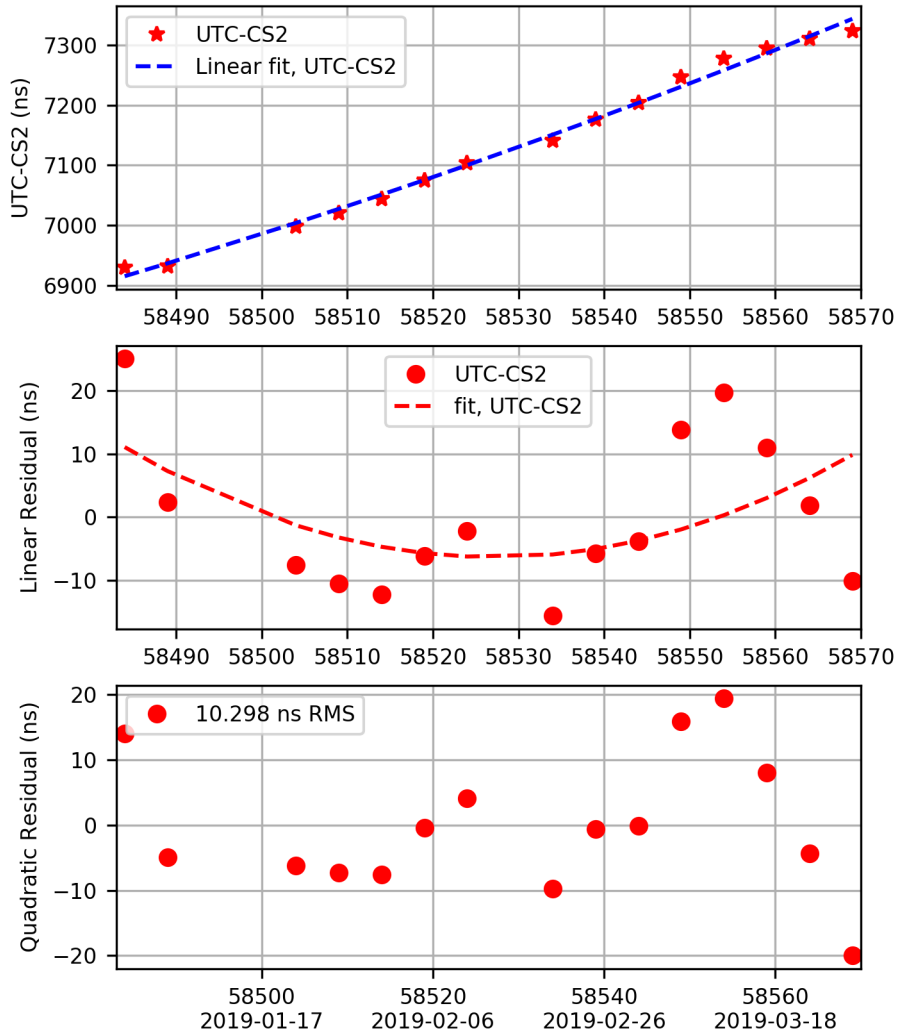


**Remote Clock: CS2**

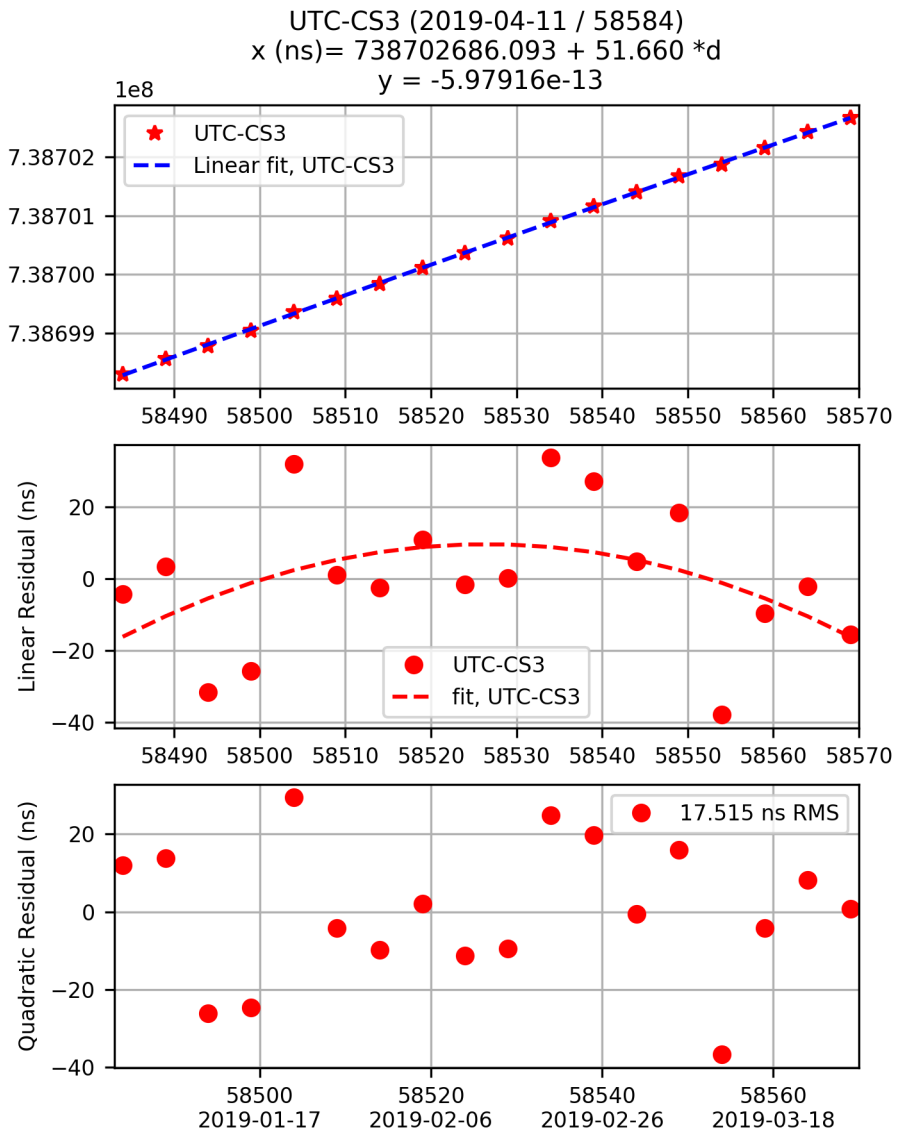
UTC-CS2 (2019-04-11 / 58584)

$$x \text{ (ns)} = 7333.432 + 5.046 * d$$

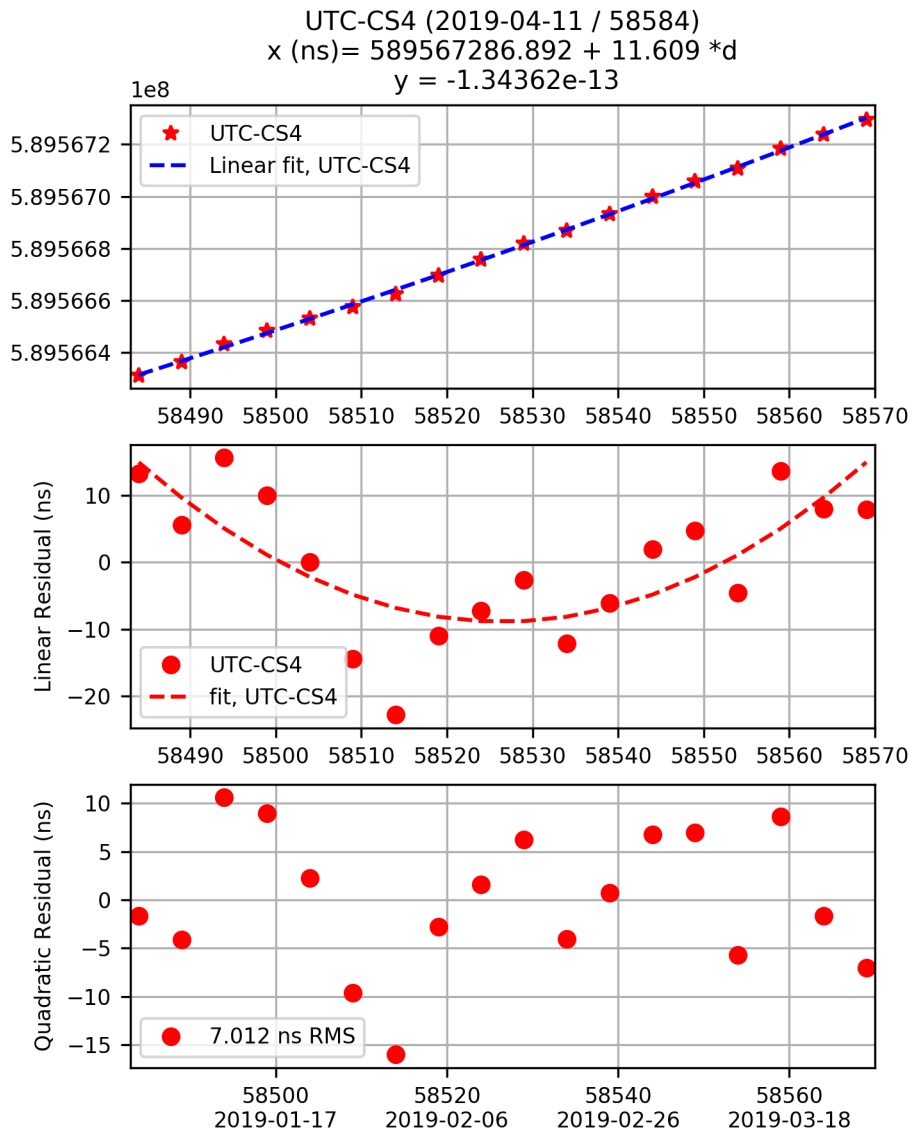
$$y = -5.84071e-14$$



**Remote Clock: CS3**



**Remote Clock: CS4**



**End of Bulletin.**