

UTC(MIKE) Atomic Bulletin 2021-03

VTT MIKES Metrology monthly Time & Frequency bulletin.

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

Date of publication: 2021-03-12 (59285)

Circular-T issues used for analysis: [396](#), [397](#), [398](#),

First day of analysis interval: 2020-12-01 (59184)

Last day of analysis interval: 2021-02-24 (59269)

ClockData for analysis: [CDMI 20.12](#), [CDMI 21.01](#), [CDMI 21.02](#),

Notes

58953 (2020-03-14) AB2020-04, set steering correction to zero.

58966 (2020-04-27) AHM1=MC 1PPS moved backwards ~20us.

59071 (2020-08-10) AB2020-08, add steering correction $y_steer = 0.5*(+14ns/30d) = +2.7e-15$

59082 (2020-08-21) AB2020-09, WR GM upgraded to FW 6.0, -100ns jump in WR timescale

59105 (2020-09-13) AB2020-10, Large temperature-swing down to +19.5C (from +22.25C) in clock room.

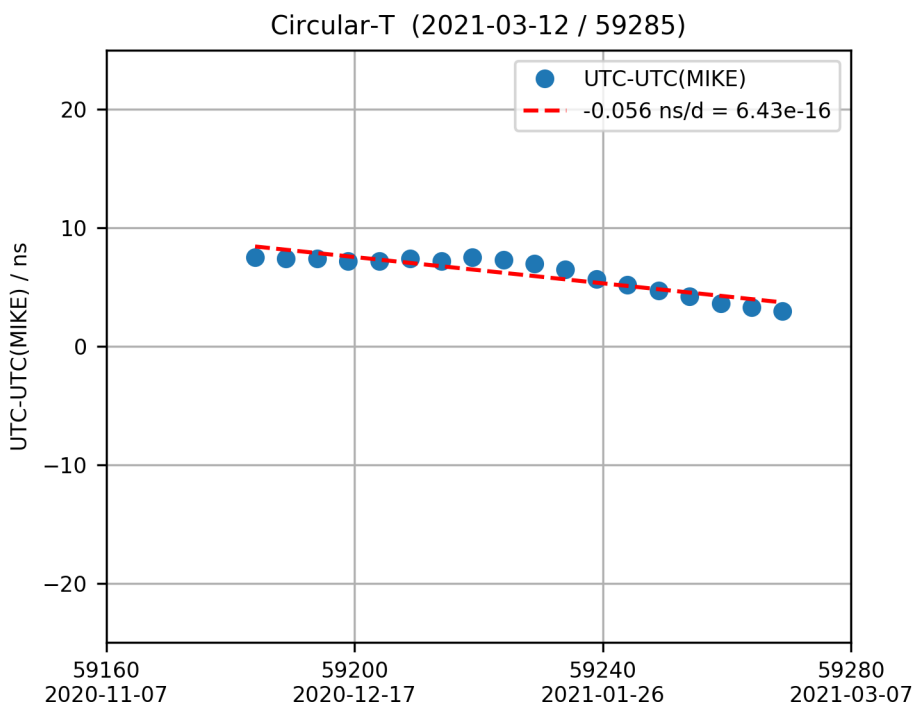
59165 (2020-11-12) Change of master clock to AHM2. y_steer set to zero.

59225 (2021-01-11) AB2021-01, Add remote clock AHM5. Add steering correction $+7.2ns/60d = +1.4e-15$

59257 (2021-02-12) AB2021-02, Keep steering correction $+7.2ns/60d = +1.4e-15$

59285 (2021-03-12) AB2021-03, Set steering correction to zero.

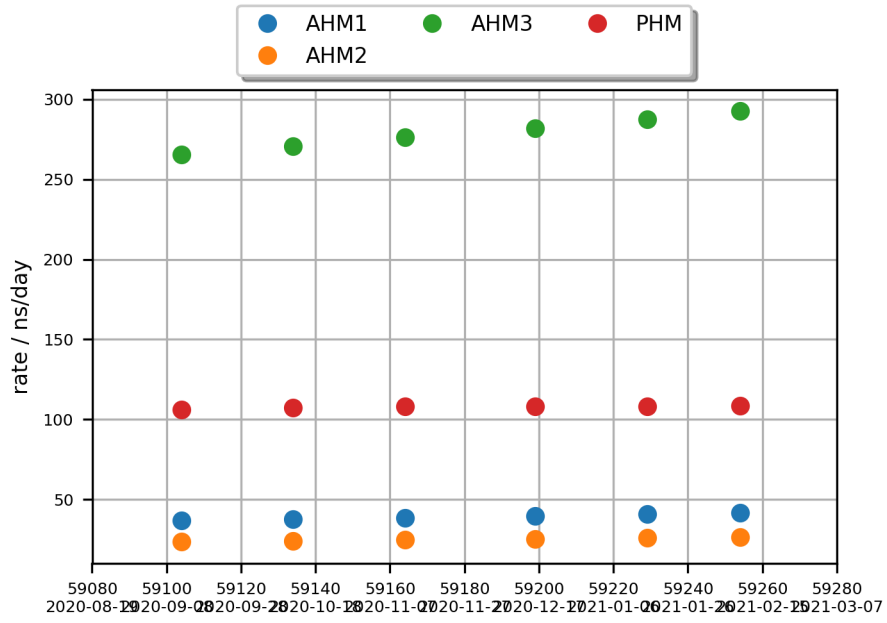
UTC-UTC(MIKE) as reported in Circular-T



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.

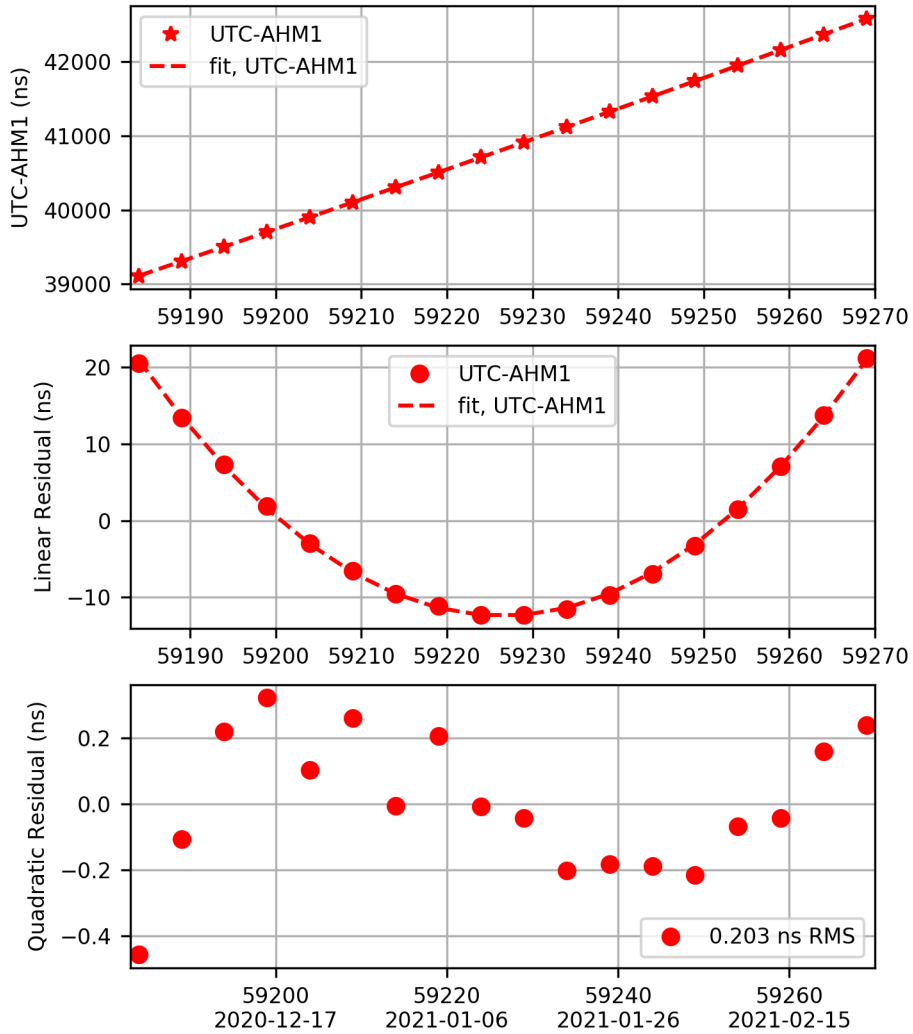
Clock Rates - Summary

Clock rates as reported by the BIPM in the monthly r-report.

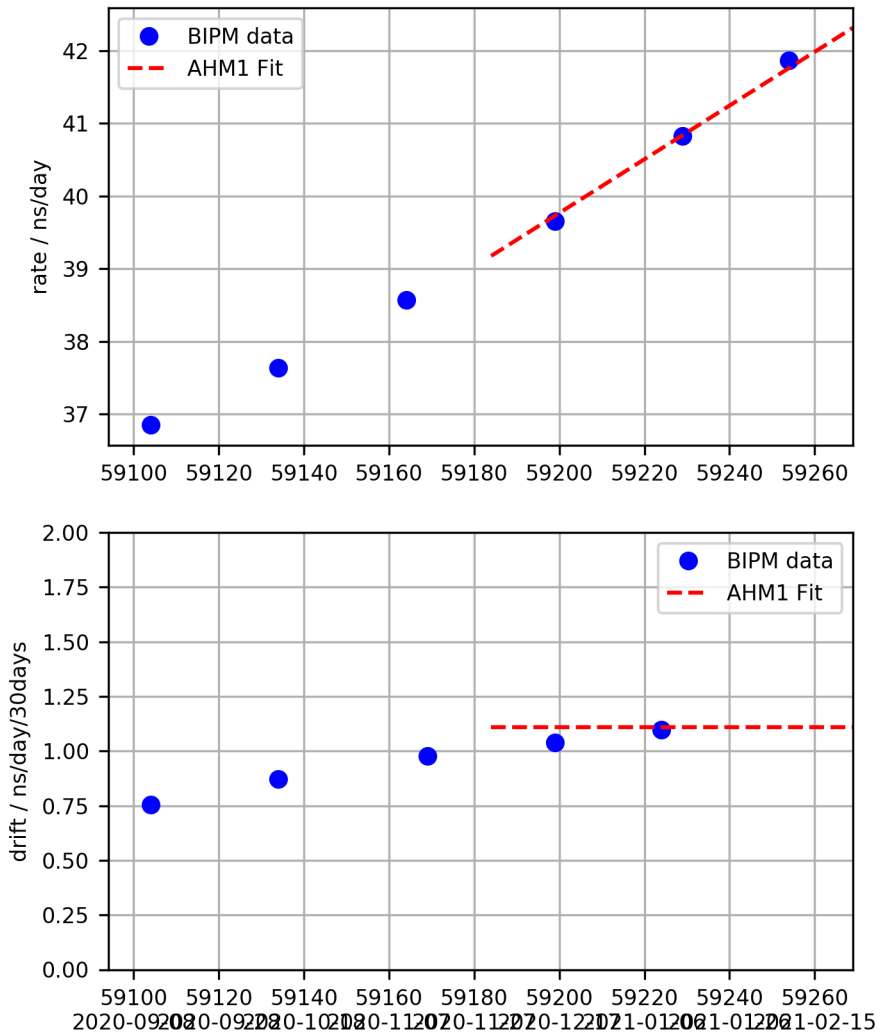


UTC - AHM1 Fit

UTC-AHM1 (2021-03-12 / 59285)
 $x \text{ (ns)} = 42575.061 + 42.317 *d + 0.0185 *d*d$
 $y = -4.89774e-13 + -4.27399e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 59269$

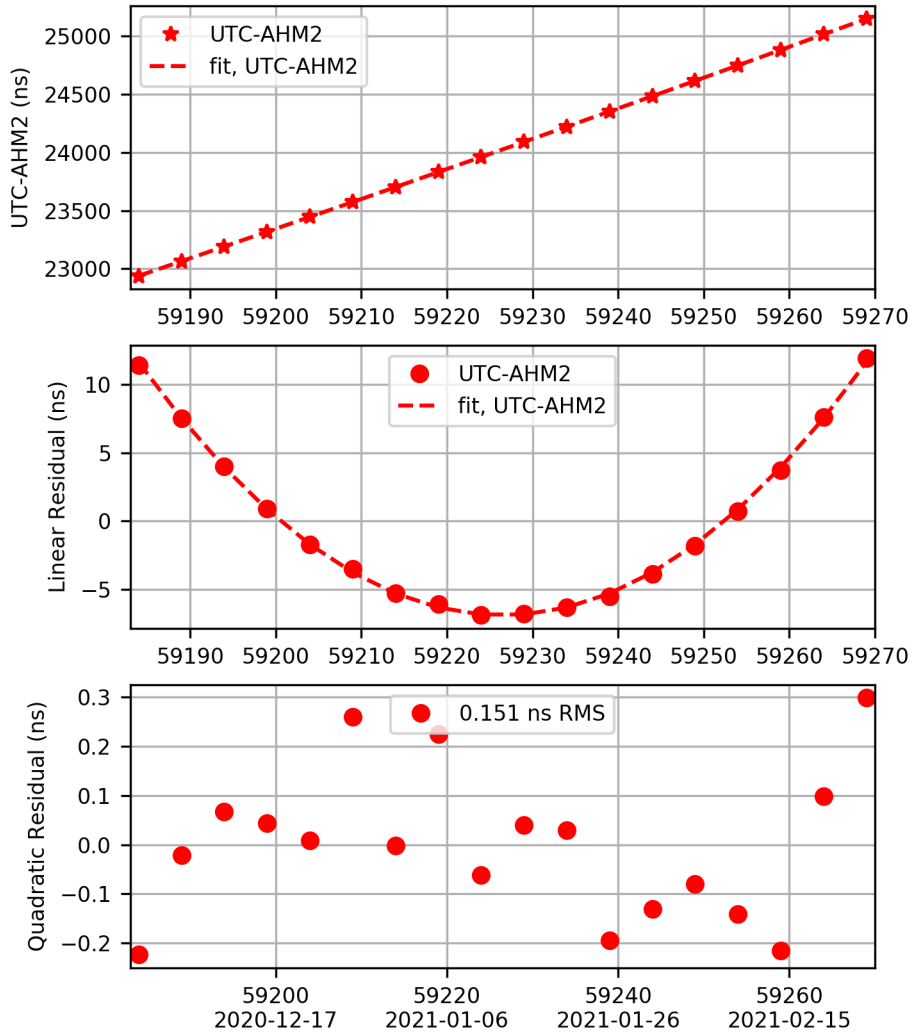


AHM1 Rate and Drift

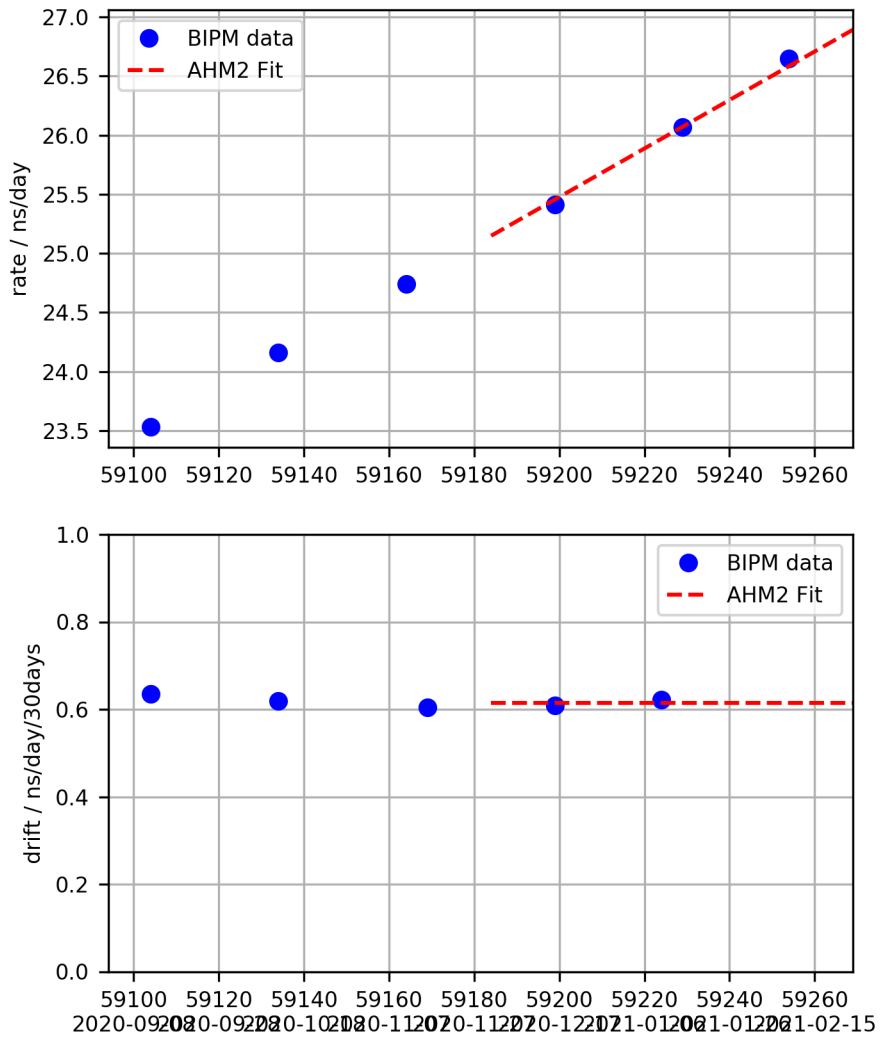


UTC - AHM2 Fit

UTC-AHM2 (2021-03-12 / 59285)
 $x \text{ (ns)} = 25150.701 + 26.891 *d + 0.0103 *d*d$
 $y = -3.11239e-13 + -2.37292e-16 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 59269$

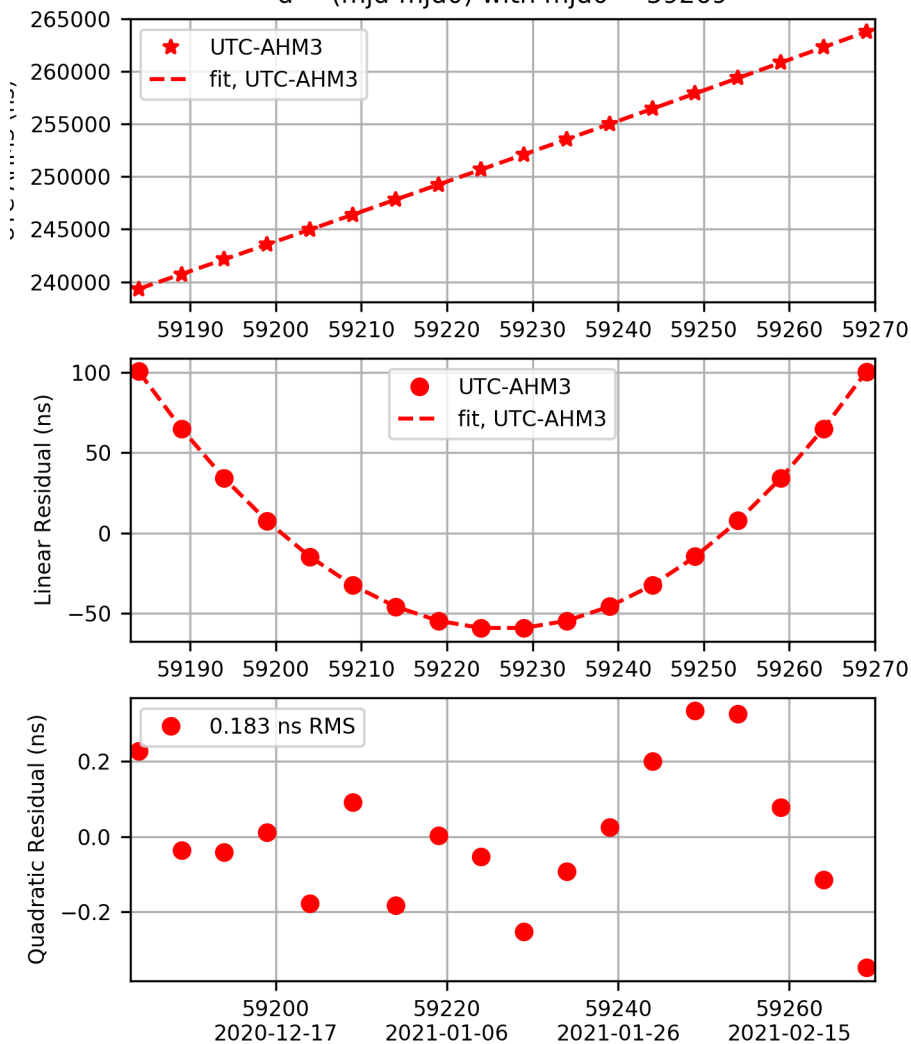


AHM2 Rate and Drift

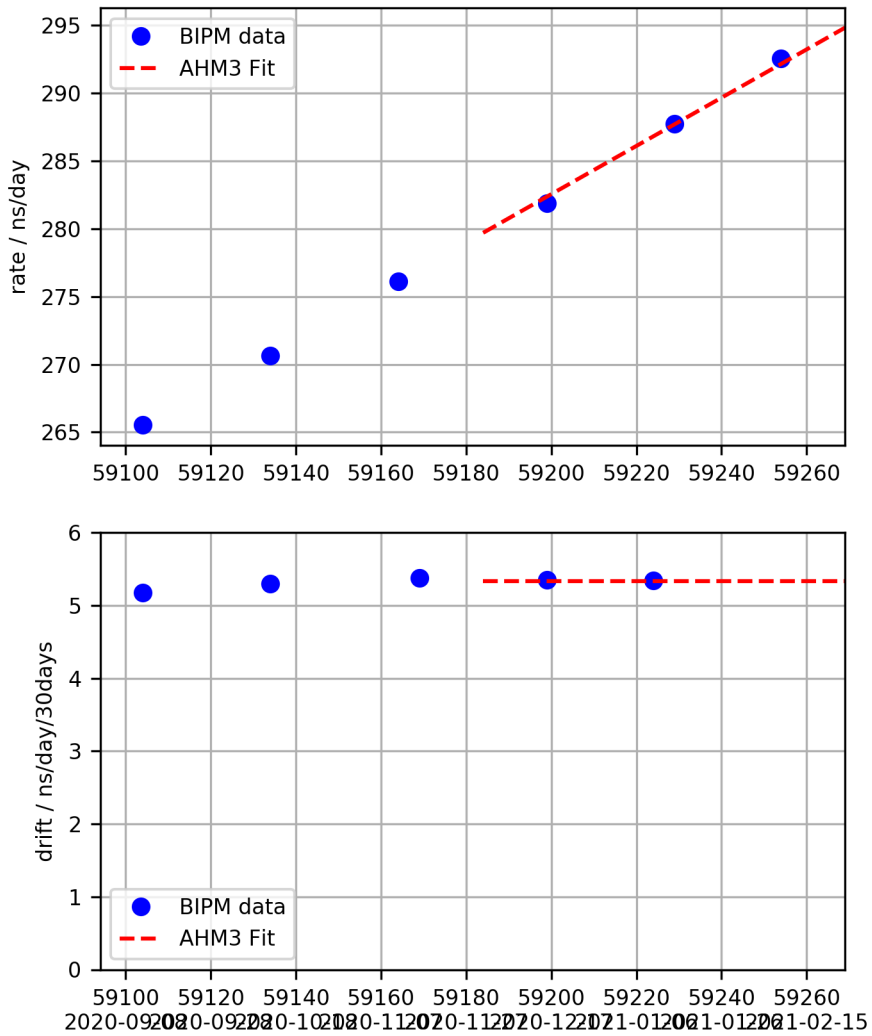


UTC - AHM3 Fit

UTC-AHM3 (2021-03-12 / 59285)
 $x \text{ (ns)} = 263751.548 + 294.791 * d + 0.0888 * d*d$
 $y = -3.41193e-12 + -2.05643e-15 * d$
 $d = (\text{mjd} - \text{mjd0}) \text{ with mjd0} = 59269$

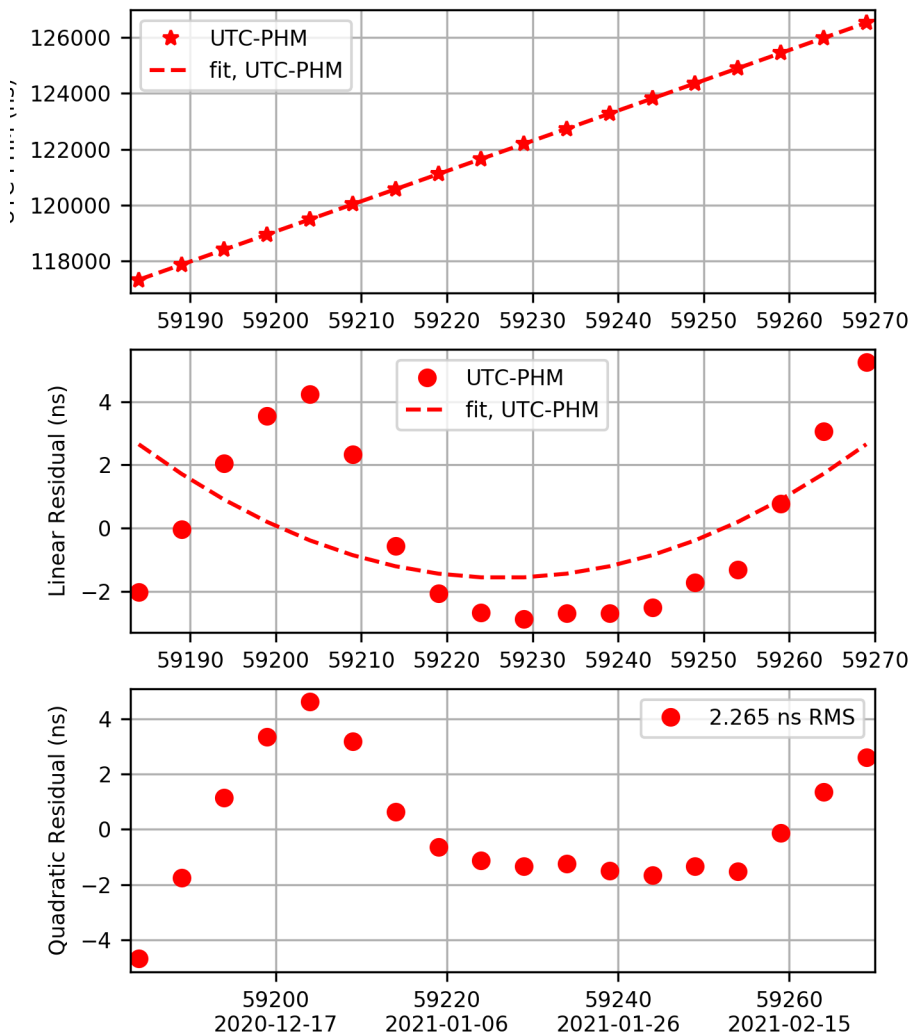


AHM3 Rate and Drift

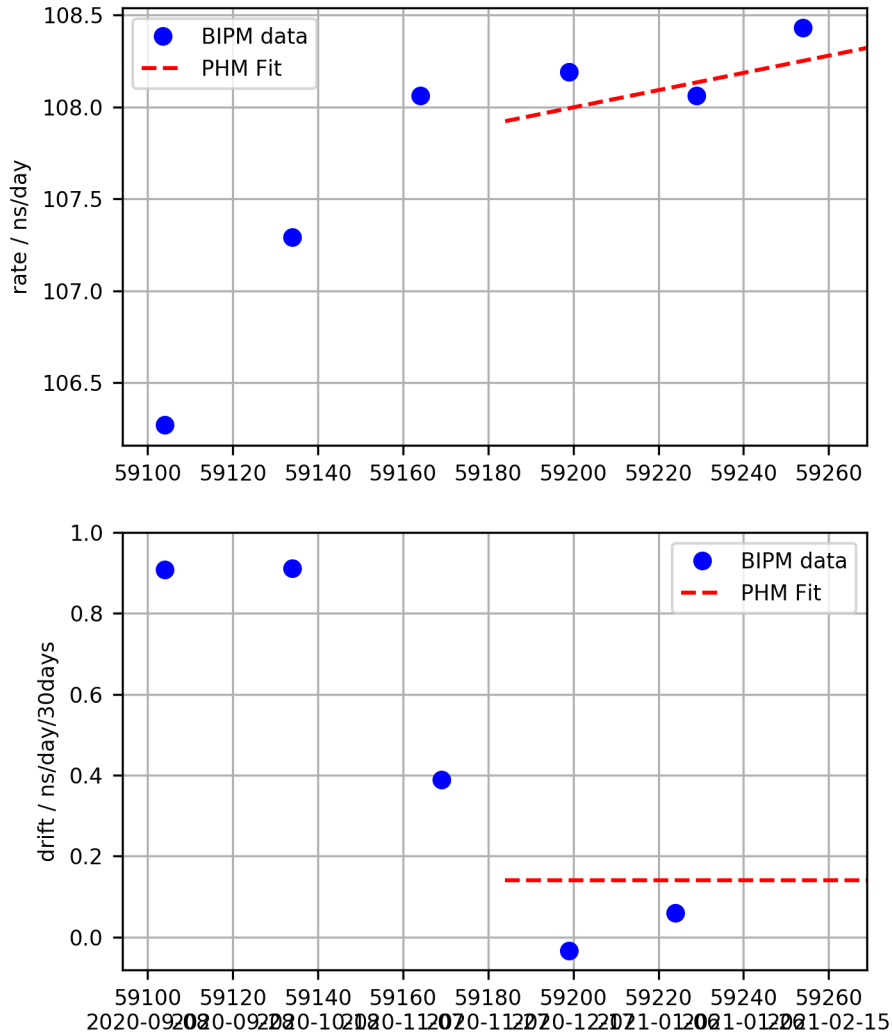


UTC - PHM Fit

UTC-PHM (2021-03-12 / 59285)
 $x \text{ (ns)} = 126520.999 + 108.320 *d + 0.0023 *d*d$
 $y = -1.25371e-12 + -5.42453e-17 *d$
 $d = (\text{mjd}-\text{mjd0}) \text{ with mjd0} = 59269$

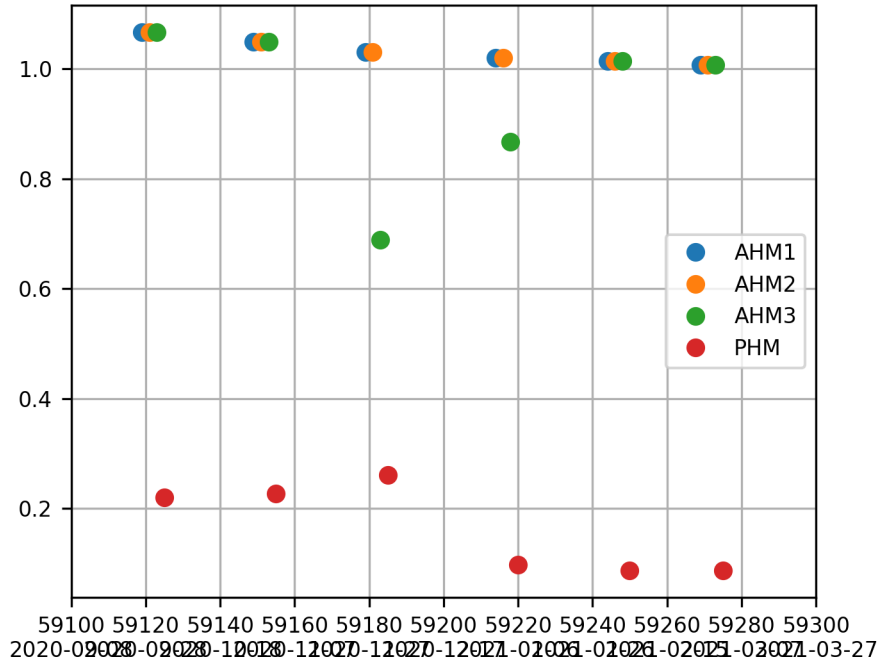


PHM Rate and Drift

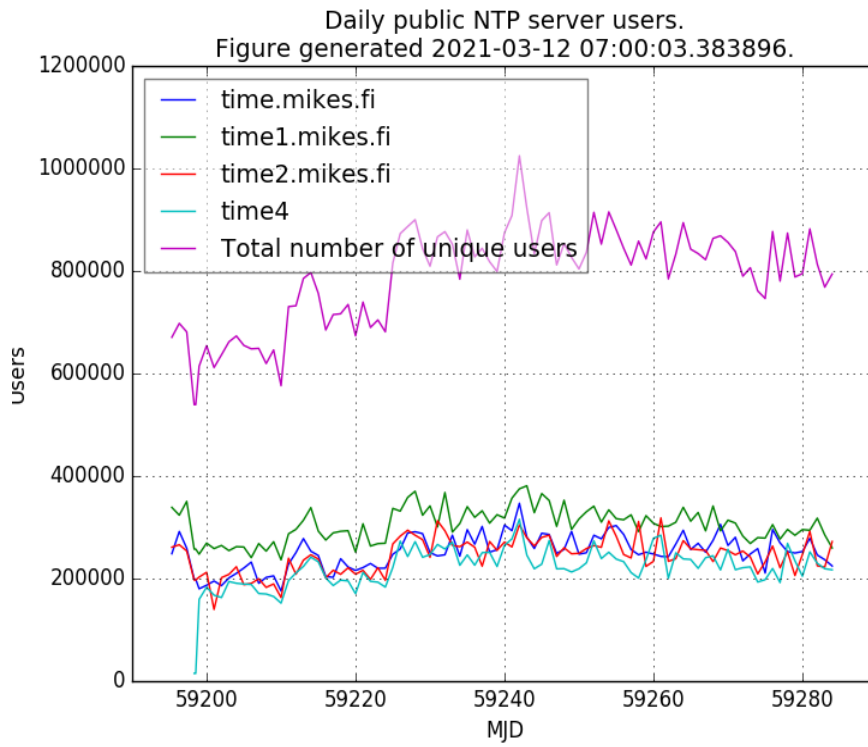


Clock Weights

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

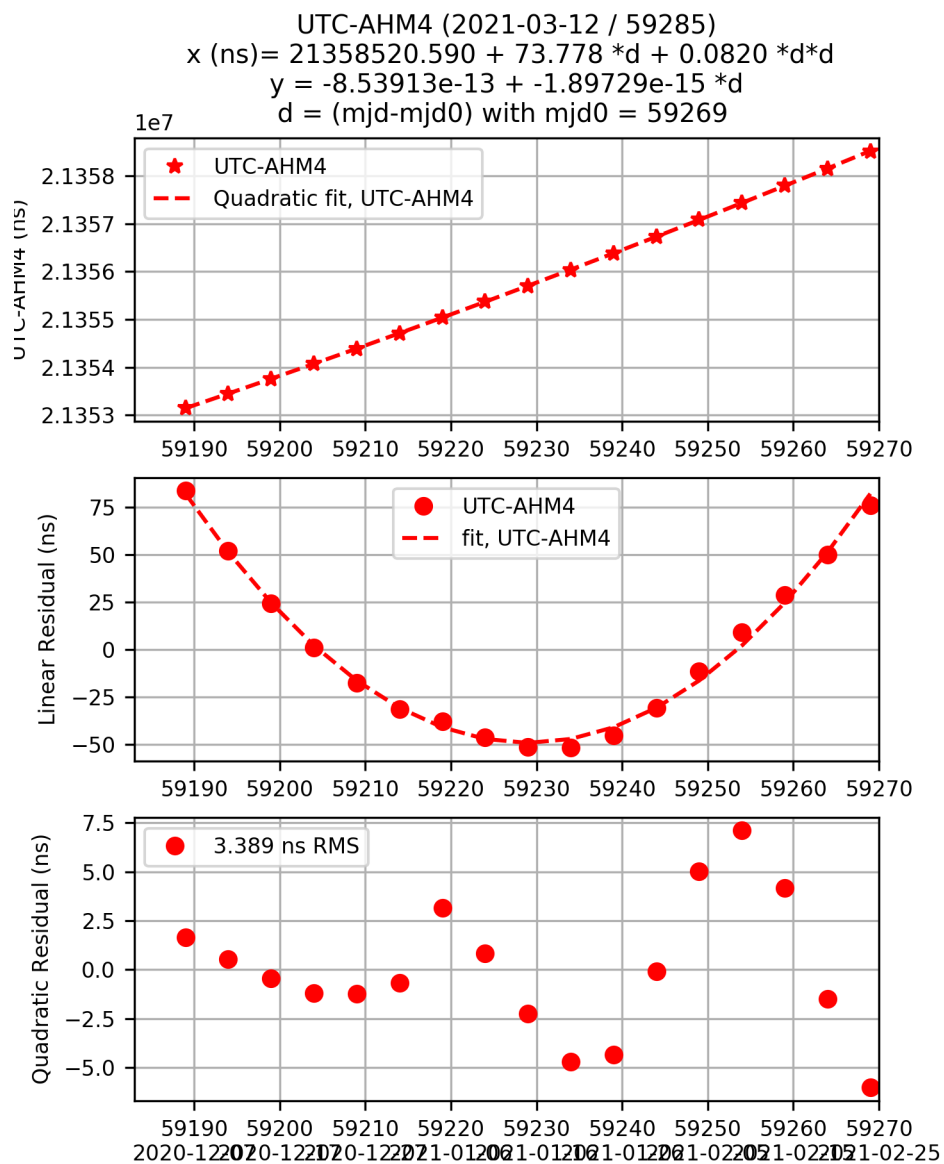


NTP Usage Statistics

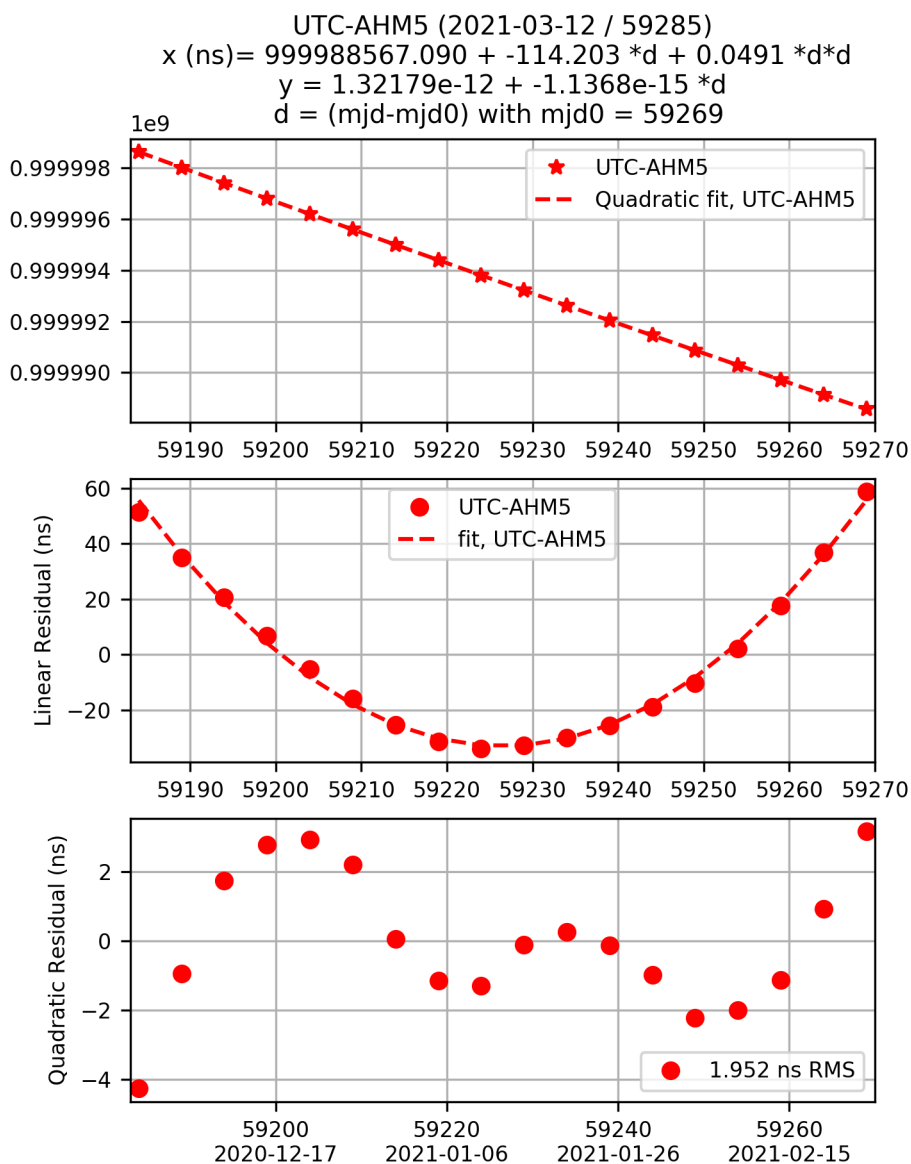


Remote Clocks

Remote Clock: AHM4



Remote Clock: AHM5

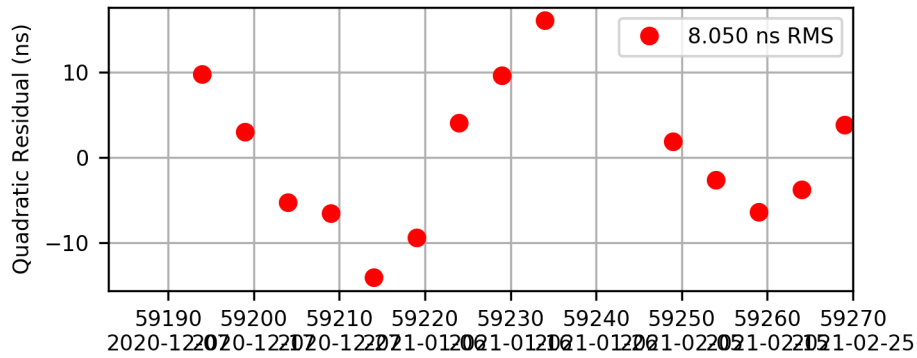
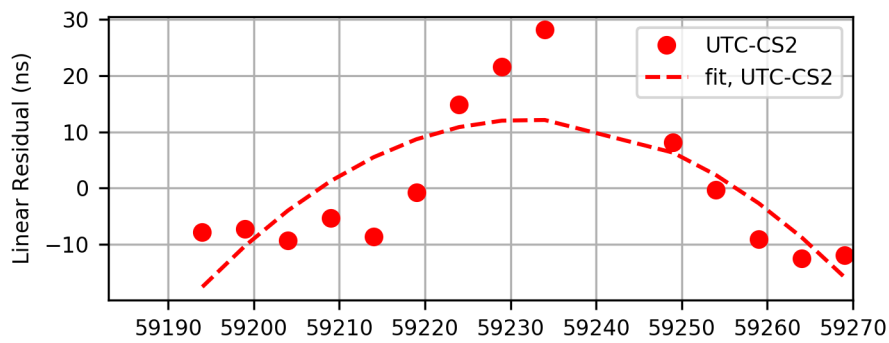
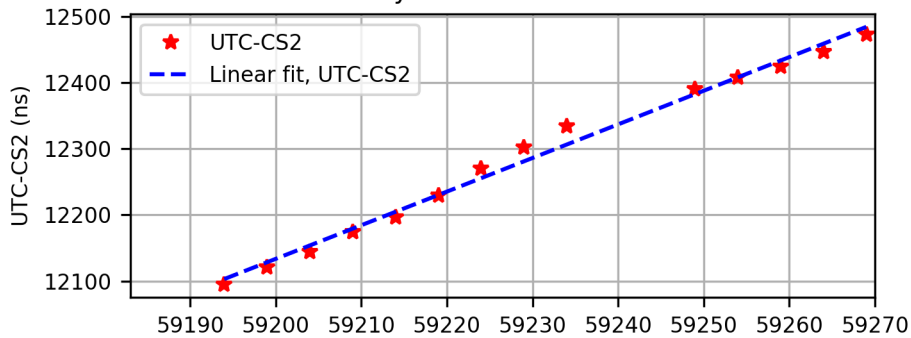


Remote Clock: CS2

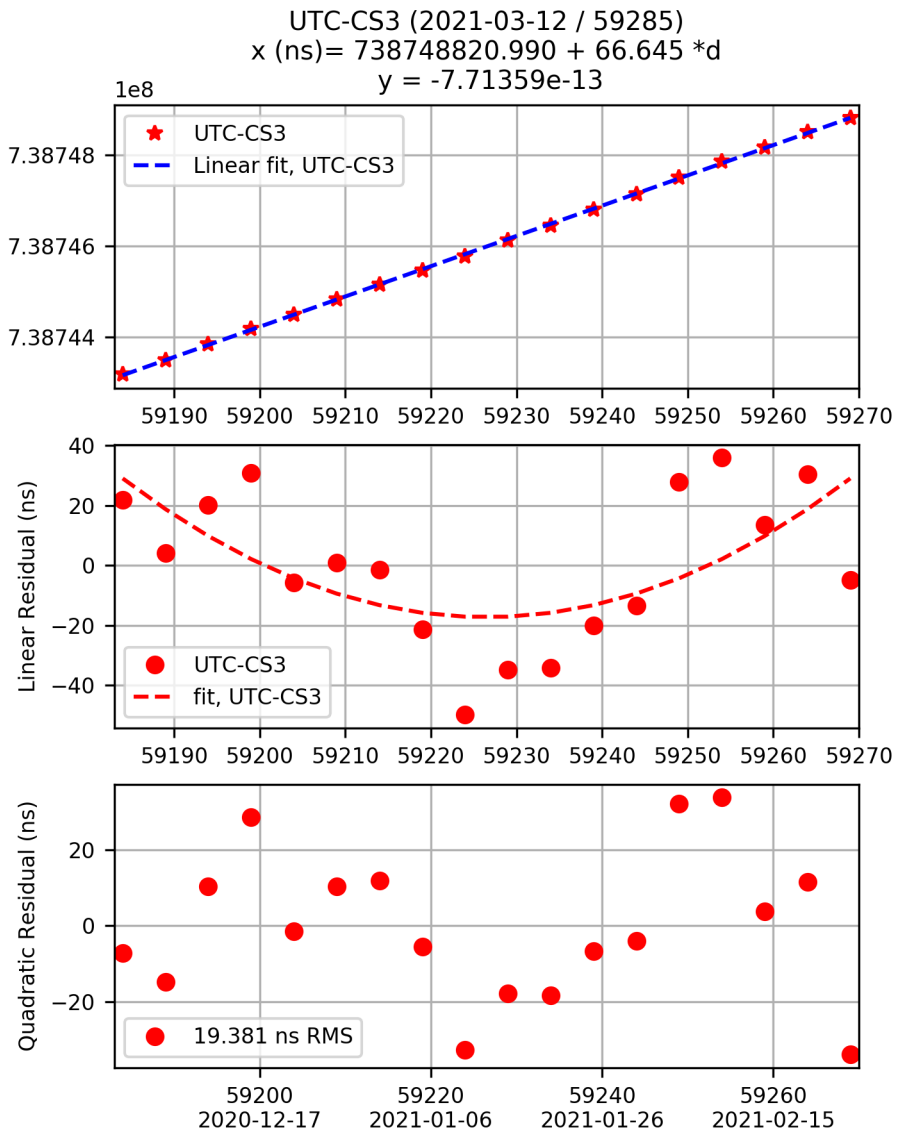
UTC-CS2 (2021-03-12 / 59285)

$$x \text{ (ns)} = 12484.321 + 5.083 * d$$

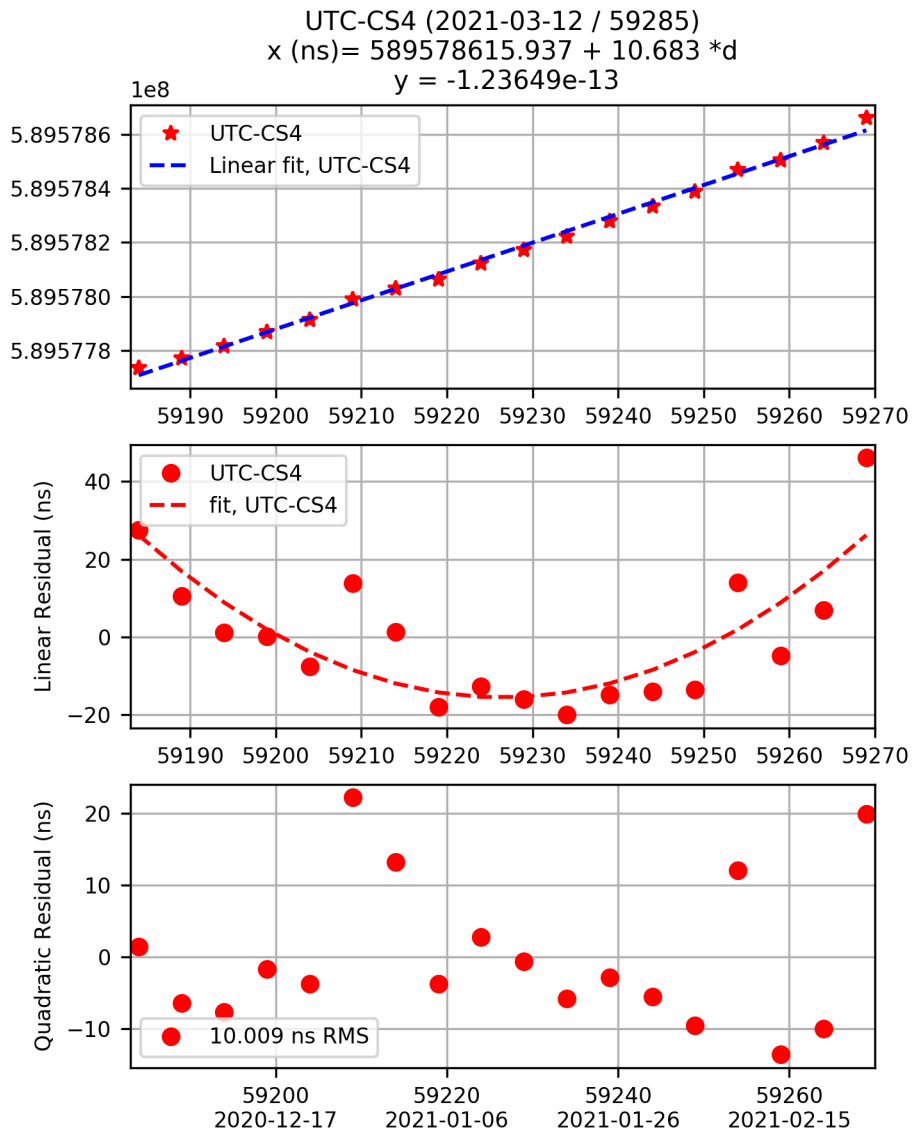
$$y = -5.88338e-14$$



Remote Clock: CS3



Remote Clock: CS4



End of Bulletin.