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Commerce for Standards and Technology & Director, National Institute of Standards and Technology*

5. UTC(NIST) – AT1 PARAMETERS

The table below lists parameters that are used to define UTC(NIST) with respect to our real-time scale AT1. To find the value of UTC(NIST) - AT1 at any time T (expressed as a Modified Julian Date, including a fraction if needed), the appropriate equation to use is the one for which the desired T is greater than or equal to the entry in the T_0 column and less than the entry in the last column. The values of x_{ls} , x , and y for that month are then used in the equation below to find the desired value. The parameters x and y represent the offsets in time and frequency, respectively, between UTC(NIST) and AT1; the parameter x_{ls} is the number of leap seconds applied to both UTC(NIST) and UTC, as specified by the IERS. Leap seconds are not applied to AT1.

UTC(NIST) - AT1 = $x_{ls} + x + y(T - T_0)$					
Month	x_{ls} (s)	x (ns)	y (ns/d)	T_0 (MJD)	Valid until 0000 on: (MJD)
May-21	-37	-499458.66	-37.26†	59361	59366
May-21	-37	-498939.82	-37.06†	59347	59361
May-21	-37	-498493.9	-37.16	59335	59347
Apr-21	-37	-497897.74	-37.26†	59319	59335
Apr-21	-37	-497377.5	-37.16	59305	59319
Mar-21	-37	-496855.16	-37.31†	59291	59035
Mar-21	-37	-496334.22	-37.21†	59277	59291
Mar-21	-37	-496222.74	-37.16	59274	59277
Feb-21	-37	-495293.74	-37.16†	59249	59274
Feb-21	-37	-495181.81	-37.31	59246	59249
Jan 21	-37	-494771.4	-37.31	59235	59246
Jan 21	-37	-494026.4	-37.25	59215	59235
Dec 20	-37	-492946.15	-37.25†	59186	59215*
Dec 20	-37	-492872.05	-37.05	59184	59186
Nov 20	-37	-492427.45	-37.05†	59172	59184
Nov 20	-37	-491758.75	-37.15	59154	59172
Oct 20	-37	-491647.3	-37.15†	59151	59154
Oct 20	-37	-491125.8	-37.25†	59137	59151
Oct 20	-37	-490607.1	-37.05	59123	59137
Sep 20	-37	-490346.35	-37.25†	59116	59123
Sep 20	-37	-489898.15	-37.35†	59104	59116
Sep 20	-37	-489487.85	-37.3	59063	59104
Aug 20	-37	-488331.55	-37.30	59062	59093
Jul 20	-37	-487834.75	-37.30†	59046	59062
Jul 20	-37	-487213.95	-37.20†	59032	59046
Jul 20	-37	-487176.60	-37.35	59031	59032
Jun 20	-37	-486691.05	-37.35†	59018	59031
Jun 20	-37	486166.05	-37.50†	59004	59018
Jun 20	-37	-486054.45	-37.20	59001	59004

† Rate change in mid-month

*Provisional value