

## BUREAU INTERNATIONAL DES POIDS ET MESURES

Key comparison CCTF-K001.UTC - Results  
 Degrees of equivalence  $D_k = [UTC - UTC(k)]$  for March 2023  
 Computed 2023 APRIL 12, 10h UTC

Coordinated Universal Time **UTC** and its local realizations **UTC(*k*)** in National Metrology Institutes and Designated Institutes.

Computed values of **[UTC - UTC(*k*)]** and uncertainties valid for the period of this publication

| Date 2023 0h UTC<br>MJD | MAR 1<br>60004 | MAR 6<br>60009 | MAR 11<br>60014            | MAR 16<br>60019 | MAR 21<br>60024 | MAR 26<br>60029 | MAR 31<br>60034 | Uncertainty/ns<br><i>U<sub>k</sub></i> |
|-------------------------|----------------|----------------|----------------------------|-----------------|-----------------|-----------------|-----------------|--|
| Laboratory <i>k</i>     |                |                |                            |                 |                 |                 |                 |  |
|                         |                |                | [UTC - UTC( <i>k</i> )]/ns |                 |                 |                 |                 |  |
| BelGIM                  | -0.6           | 0.9            | -0.2                       | -0.5            | -0.5            | -1.1            | -0.6            | 6.8                                    |
| BEV                     | 17.0           | 20.9           | 22.5                       | 32.2            | 36.2            | 52.1            | 51.0            | 5.8                                    |
| BFKH                    | 6843.8         | 6889.5         | 6922.8                     | 6966.4          | 7004.4          | 7041.2          | 7083.4          | 40.2                                   |
| BIM                     | 17593.1        | 17604.8        | 17642.2                    | 17645.4         | 17668.4         | 17685.1         | 17708.7         | 14.6                                   |
| BMM                     | -              | -              | -                          | -               | -               | -               | -               | -                                      |
| CENAM                   | -3.7           | -4.7           | 4.3                        | 4.3             | 6.1             | 1.9             | 14.8            | 9.0                                    |
| CENAMAP AIP             | -3.4           | -2.8           | 3.0                        | -0.6            | -1.2            | -2.0            | -0.1            | 10.8                                   |
| DEF-NAT                 | 8332.6         | 8435.5         | 8542.1                     | 8636.0          | 8728.5          | 8832.3          | 8931.1          | 40.0                                   |
| DFM                     | -7.6           | -9.1           | -11.1                      | -13.5           | -8.8            | -10.1           | -12.2           | 5.8                                    |
| DMDM                    | 4.5            | -0.9           | -2.2                       | -2.2            | -7.1            | -9.1            | -9.3            | 7.6                                    |
| EIM                     | -              | -              | -                          | -               | -               | -               | -               | -                                      |
| EMI                     | 38.7           | 28.3           | 35.6                       | 41.1            | 25.4            | 7.1             | 18.4            | 17.6                                   |
| ESA                     | -1.0           | -0.9           | -1.2                       | -1.4            | -1.0            | -0.9            | -0.8            | 5.6                                    |
| FTMC                    | 555.1          | 590.1          | 589.8                      | 587.6           | 578.9           | 561.9           | 529.0           | 6.8                                    |
| GUM                     | -2.1           | -2.2           | -1.4                       | -1.2            | -0.2            | 0.3             | 0.7             | 5.8                                    |
| ILNAS                   | 2.0            | -2.3           | -3.5                       | -6.9            | -10.7           | -10.0           | -10.8           | 5.8                                    |
| IMBIH                   | -0.2           | 0.2            | 2.6                        | 0.2             | -0.6            | -0.7            | -3.0            | 5.8                                    |
| INACAL                  | 541.8          | 640.9          | 751.7                      | 856.9           | 956.1           | 1071.6          | 1198.5          | 41.2                                   |
| INM                     | 264.7          | 265.9          | 258.2                      | 246.0           | 236.4           | 225.4           | 217.3           | 15.6                                   |
| INM(CO)                 | 52.7           | 59.0           | 68.5                       | 65.0            | 64.5            | 70.9            | 74.0            | 40.2                                   |
| INMETRO                 | -5.9           | -2.1           | -9.7                       | -10.6           | -12.5           | -20.9           | -27.4           | 6.2                                    |
| INPL                    | 0.8            | -1.9           | -15.4                      | -13.9           | -13.7           | -14.0           | -13.9           | 15.0                                   |
| INRIM                   | -0.9           | -0.9           | -0.8                       | -1.4            | -1.5            | -1.1            | -0.1            | 4.2                                    |
| INTI                    | 192.2          | 207.6          | 196.3                      | 201.6           | 207.8           | 208.0           | 202.8           | 6.6                                    |
| IPE/ASCR                | 17.0           | 10.5           | 11.5                       | 10.7            | 7.5             | 0.9             | 3.5             | 5.8                                    |
| IPQ                     | 758.5          | 768.6          | 773.4                      | 771.5           | 771.4           | 782.2           | 782.0           | 5.8                                    |

|                    |        |        |         |         |         |         |         |      |
|--------------------|--------|--------|---------|---------|---------|---------|---------|------|
| JV                 | 0.9    | 0.6    | 0.2     | 0.4     | 0.5     | 1.5     | 1.6     | 9.4  |
| KazStandart        | -2.9   | -1.7   | -1.5    | -0.9    | 0.1     | 0.4     | 1.2     | 8.6  |
| KRISS              | -0.5   | -0.2   | 0.3     | 0.8     | 1.2     | 1.7     | 2.9     | 5.8  |
| LAMETRO-ICE        | 13.7   | 12.3   | -8.6    | -17.5   | -46.9   | -26.7   | -65.2   | 16.4 |
| LNE-SYRTE          | 1.2    | 0.9    | 0.9     | 0.6     | 0.6     | 1.0     | 0.9     | 3.4  |
| MASM               | -937.6 | -972.9 | -1002.0 | -1035.3 | -1070.6 | -1108.2 | -1150.0 | 6.8  |
| METAS              | -2.1   | -1.7   | -0.9    | 0.1     | 0.7     | 0.6     | 0.3     | 3.6  |
| MIKES              | 1.7    | 1.7    | 2.0     | 2.4     | 2.7     | 3.6     | 3.6     | 6.0  |
| MIRS/SIQ/Metrology | -8.9   | -4.3   | -0.8    | -6.6    | -0.4    | -11.7   | -6.8    | 7.8  |
| MSL                | 45.9   | 40.8   | 45.0    | 37.1    | 28.2    | 21.3    | 23.6    | 6.0  |
| MUSSD              | -      | -      | -       | -       | -       | -       | -       | -    |
| NICT               | 0.5    | -0.1   | -0.9    | -1.8    | -1.9    | -2.3    | -3.8    | 4.2  |
| NIM                | 0.6    | 0.1    | -0.5    | -0.9    | -0.8    | -1.1    | -1.4    | 4.2  |
| NIMT               | 13.8   | 13.2   | 8.7     | 22.8    | 9.8     | -7.4    | -12.8   | 5.8  |
| NIS                | 34.5   | 54.0   | 59.1    | 66.0    | 73.9    | 75.6    | 77.2    | 14.4 |
| NIST               | -1.8   | -1.1   | -0.8    | -0.3    | -0.4    | 0.1     | 1.1     | 5.4  |
| NMC, A*STAR        | -4.9   | -14.6  | -8.1    | 3.4     | 18.6    | 15.0    | -2.9    | 6.6  |
| NMIA               | -501.2 | -494.7 | -486.4  | -482.0  | -492.4  | -491.9  | -494.2  | 5.8  |
| NMIJ AIST          | 38.6   | 37.3   | 36.7    | 35.7    | 35.5    | 33.0    | 32.4    | 5.8  |
| NMIM               | -216.3 | -241.3 | -270.2  | -306.6  | -331.2  | -360.3  | -388.1  | 7.6  |
| NMISA              | -4.9   | -6.2   | -8.1    | -6.7    | -1.7    | -3.5    | -8.2    | 7.0  |
| NPL                | 0.7    | 0.3    | 0.6     | 0.7     | 0.7     | 0.8     | 0.9     | 3.6  |
| NPLI               | -0.1   | -0.3   | -0.6    | -0.4    | -0.6    | -0.4    | -0.6    | 6.6  |
| NRC                | -8.7   | -8.9   | -8.8    | -9.1    | -9.6    | -8.9    | -8.6    | 7.2  |
| NSAI NML           | 6.4    | 10.7   | 15.8    | 13.8    | 14.3    | -       | -       | 14.6 |
| NSC IM             | -13.1  | 9.8    | 8.5     | -2.4    | -7.1    | -11.8   | -14.6   | 15.0 |
| ON/DSHO            | 1.3    | -5.0   | -2.2    | 1.5     | 1.0     | 0.2     | 2.1     | 6.2  |
| PTB                | 0.4    | 0.5    | 0.3     | 0.1     | 0.1     | -0.1    | -0.1    | 2.0  |
| RISE               | -0.3   | -1.1   | -2.0    | -2.8    | -3.5    | -3.6    | -3.2    | 3.8  |
| ROA                | -2.9   | -2.3   | -2.5    | -2.9    | -2.9    | -3.1    | -2.6    | 3.6  |
| SASO-NMCC          | -431.8 | -445.6 | -480.2  | -513.8  | -542.0  | -566.9  | -585.5  | 7.0  |
| SCL                | 49.9   | 52.1   | 48.4    | 51.6    | 52.7    | 49.5    | 50.9    | 7.0  |
| SMD                | 1.4    | 1.1    | 1.1     | 0.6     | 0.5     | 0.5     | 0.5     | 7.2  |
| SMU                | 264.4  | 255.0  | -       | -       | -       | -       | -       | 24.6 |
| SNSU-BSN           | 1040.9 | 1049.7 | 1087.2  | 1114.1  | 1090.4  | 1121.0  | 1131.3  | 6.6  |
| TL                 | -0.7   | -1.2   | -2.0    | -2.4    | -2.7    | -1.6    | -0.7    | 4.4  |
| UME                | 0.3    | 1.2    | 1.2     | 0.4     | -2.2    | -0.2    | -1.2    | 7.4  |
| UTE                | -12.6  | -16.2  | 3.4     | -13.9   | -22.0   | -28.2   | -10.2   | 16.4 |
| VMI-STAMEQ         | 7.2    | 13.6   | 12.6    | 17.9    | 21.1    | 12.6    | 3.1     | 6.0  |
| VNIIFTRI           | -0.7   | -0.9   | -1.1    | -1.0    | -1.3    | -1.1    | -1.1    | 3.6  |
| VSL                | -6.6   | -17.2  | -8.0    | 1.2     | -2.8    | 2.5     | -5.8    | 5.8  |