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| COOMET | COOMET Program | COOMET P2/2023 |
| **COOMET PROGRAM OF COMPARISONS** |
| Approved at the 34th COOMET Presidential Council meeting | | |

Total 88 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

**AUV - Acoustics, Ultrasound and Vibrations**

5 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 27.10.2023 | [**895/TR/23**](http://www.coomet.org/tc_prj/2023/show_prj.htm?EN,VR3NRLX6) | Proposed | Supplementary comparison on calibration of microphones | Supplementary |
| 13.12.2021 | [**790/TR-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,XF6LMEN5) | Agreed | Supplementary comparison on calibration of sound calibrators | supplementary COOMET.AUV.A-S4 |
| 02.07.2019 | [**757/RU-a/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,C7VXE1AC5) | Agreed | Supplementary comparison of national standards of the sound pressure unit in air through determines the pressure sensitivity level of WS2 type working standard microphones in the low frequency range | supplementary COOMET.AUV.A-S3 |
| 05.04.2023 | [**786/RU-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,84IDSOM5) | Completed | Comparisons of the results of amplitude-phase calibrations of hydrophones in the frequency range from 10 kHz to 500 kHz | pilot |
| 13.05.2021 | [**846/RU/21**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,GLMA71O56) | Excluded | Regional key comparisons in the field of ultrasound power measurement in water | key |

**EM - Electricity And Magnetism**

12 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 16.03.2023 | [**874/RU/23**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,WV78JVK6) | Proposed | Supplementary comparisons of standards of electrostatic field strength unit | supplementary |
| 21.04.2022 | [**859/TR/22**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,ULB5IIF6) | Proposed | Supplementary comparison of high current transformer measuring systems | supplementary |
| 13.01.2020 | [**799/UA/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,W2U151WR5) | Proposed | Supplementary comparisons of electric field strength measurements | supplementary |
| 07.11.2023 | **855/RU-a/22** | Agreed | Pilot comparisons in the field of high DC current measurements | pilot |
| 21.05.2021 | [**821/RU-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,SJR2LOZ5) | Agreed | Pilot comparisons of DC high voltage reference measuring systems in the voltage range of ± (1…100) kV | pilot |
| 07.02.2022 | [**813/RU-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,CX1Q51DX5) | Agreed | Supplementary comparison of measuring current transformers (CTs) | supplementary COOMET.EM-S25 |
| 03.12.2020 | [**802/UZ-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,FZ2N51IS5) | Agreed | Pilot comparisons in the field of measuring DC and AC voltage and current, electrical resistance | pilot |
| 07.06.2016 | [**681/RU-a/16**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,FV463RN4) | Agreed | Supplementary comparison of the measurement of current transformers (CTs) | supplementary COOMET.EM-S22 |
| 12.05.2015 | [**624/GE-a/13**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,VHB8B1QZ3) | Agreed | Comparison of electrical resistance standards at 100 Ω and 100 kΩ | supplementary COOMET.EM-S19 |
| 07.11.2023 | [**862/RU-a/22**](http://www.coomet.org/tc_prj/2023/show_prj.htm?EN,WV78JVK6) | Completed | Pilot comparisons of reference instruments measuring AC high voltage of power frequency | Pilot |
| 21.06.2023 | [**770/RU-a/18**](http://www.coomet.org/tc_prj/2023/show_prj.htm?EN,SVSFFOF5) | Completed | Supplementary comparisons of NMI measurement standards in the field of measurements of magnetic flux density of a permanent magnetic field and magnetic flux using sensing coils | supplementary COOMET.EM-S26 |
| 04.04.2023 | [**798/BY-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,WANH3PR5) | Completed | Pilot comparisons of the volumes of digital information transmitted via the Internet and telephony channels | pilot |

**L - Length**

13 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 23.09.2020 | [**820/KZ/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,ICTD412Z5) | Proposed | Comparison of interference devices for measuring tapes up to 20 m | supplementary |
| 18.08.2020 | [**810/RU-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,FMQUB14V5) | Agreed | Supplementary comparisons of measurement standards of involute gears using a complex standard | supplementary COOMET.L-S30 |
| 01.03.2023 | [**800/BY-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,BEEJCYR5) | Agreed | Calibration of lengths of reference linear geodetic base lines | supplementary COOMET.L-S32 |
| 16.07.2020 | [**776/RU-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,HN3ST2I5) | Agreed | Supplementary comparisons of measurement standards in the field of measurement of 3D parameters of surface texture | supplementary COOMET.L-S28 |
| 25.08.2020 | [**746/BY-a/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,AQ0BK4B5) | Agreed | Calibration of gauge blocks by interference method | supplementary COOMET.L-S29 |
| 11.08.2020 | [**742/UA-a/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,XGYUK285) | Agreed | The comparison of length standards for measuring end measures in the range up from 0,5 mm to 100 mm | supplementary COOMET.L-S27 |
| 11.08.2020 | [**705/UA-a/16**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,PSITD14T4) | Agreed | Measurement of one-dimensional standard for coordinate measuring machines. | supplementary COOMET.L-S26 |
| 01.12.2020 | [**690/RU-a/16**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,MDCT81UO4) | Agreed | Comparisons of internal and external diameter gauges | key COOMET.L-K4.2021 |
| 12.03.2019 | [**674/UA-a/15**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,28YE31CJ4) | Agreed | Comparison of standards nanometer range | supplementary COOMET.L-S25 |
| 22.10.2020 | [**612/BY-a/13**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,0B7D919X3) | Agreed | Calibration of a 200 mm linear glass scale | supplementary COOMET.L-S31 |
| 11.08.2020 | [**591/UA-a/12**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,IYV25R3) | Agreed | Comparisons of precise navigation systems GPS/GLONASS | supplementary COOMET.L-S24 |
| 27.08.2020 | [**590/UA-a/12**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,LMQ5C5R3) | Agreed | Comparison of precision rangefinders | supplementary COOMET.L-S23 |
| 19.11.2021 | [**524/UA-a/11**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,KX7HLY1FJ3) | Agreed | Key comparison of the national standards unit of the plane angle | key COOMET.L-K3 |

**M - Mass And Related Quantities**

15 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 12.10.2023 | [**892/RU/23**](http://www.coomet.org/tc_prj/2023/show_prj.htm?EN,9E6PPG06) | Proposed | Supplementary comparisons in the field of mass measurements in the range from 1 mg to 5 kg | supplementary |
| 16.06.2023 | [**822/GE/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,9E6PPG06) | Agreed | Pilot comparisons in the small volumes | pilot |
| 14.04.2022 | [**789/KZ-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,0UR1QAN5) | Agreed | Pilot comparisons of fluid density in the range of from 600 to 1000 kg/m3 | pilot |
| 14.04.2022 | [**788/KZ-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,6KXGPAN5) | Agreed | Pilot comparisons of the unit kinematic viscosity of a liquid at temperatures: 20 °С (250-400 mm2/s), 25 °С (50-100 mm2/s), 40 °С (20-70 mm2/s) | pilot |
| 10.11.2020 | [**766/GE-a/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,293WTAE5) | Agreed | Supplementary comparisons in the small volumes | supplementary  COOMET.M.FF-S7 |
| 07.06.2022 | [**764/UA/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,TSWJSAE5) | Agreed | Supplementary comparisons in the field of mass measurements | supplementary  COOMET.M.M-S6 |
| 04.11.2020 | [**717/DE-a/17**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,Q60EA1NY4) | Agreed | Supplementary comparisons of national standards of the pressure unit in the range from 250 MPa to 1500 MPa | supplementary  COOMET.M.P-S3 |
| 16.05.2019 | [**711/TR-a/16**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,KNEIHMX4) | Agreed | Comparison of absolute pressure in the range 0,3 mPa to 0,9 Pa | key COOMET.M.P-K15 |
| 03.06.2019 | [**694/MD-a/16**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,0UWQFQP4) | Agreed | Supplementary comparison of mass standards with nominal values of 100 mg, 20 g, 1 kg and 10 kg | supplementary COOMET.M.M-S3 |
| 14.06.2019 | [**665/UA-a/15**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,5FGSC1VF4) | Agreed | Supplementary bilateral comparison in the field of mass measurements | supplementary COOMET.M.M-S2 |
| 21.06.2019 | [**651/RU-a/14**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,BZO5M4A4) | Agreed | Supplementary bilateral comparison of national reference instruments for nanoindentation | supplementary COOMET.M.H-S2 |
| 28.01.2014 | [**589/UA-a/12**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,K2X824R3) | Agreed | Supplementary comparison of national measurement standards of gauge pressure in the range from 1 МPа to 10 МPа | supplementary COOMET.M.P-S1 |
| 14.06.2019 | [**546/UA-a/11**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,LN7HLY1FJ3) | Agreed | Supplementary comparisons in the field of mass measurements | supplementary COOMET.M.M-S5 |
| 17.10.2013 | [**259/RU/02**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,L9BHLY1FJ3) | Agreed | COOMET comparisons in the field of force measurements | supplementary  COOMET.M.F-S1 |
| 16.06.2023 | [**638/UA-a/14**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,NIRDTO34) | Completed | The comparison of the national hardness standards of Super-Rockwell scales | supplementary  COOMET.M.H-S3 |

**F - Fluid Flow**

3 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 13.05.2023 | [**852/RU/21**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,YIUBZ7B6) | Agreed | Supplementary comparisons of national standards in the field of gas flow and volume at gas flow rate from 0.4 to 100 m3/h | supplementary |
| 05.11.2020 | [**760/RU-a/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,E2MCHID5) | Agreed | Supplementary comparisons of national standards in the field of liquid flow and mass in the flow range from 0.1 to 45 t/h | supplementary COOMET.M.FF-S10 |
| 16.11.2018 | [**545/UA-а/11**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,1O7HLY1FJ3) | Agreed | Comparisons of complex of static volume measuring devices | supplementary COOMET.M.FF-S6 |

**PR - Photometry And Radiometry**

11 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 07.06.2023 | **878/RU/23** | proposal | Wavelength of spectrally-selective transmitting material, from 250 nm to 2500 nm | supplementary |
| 07.06.2023 | **877/RU/23** | proposal | Spectral transmittance in the wavelength range from 380 nm to 1000 nm | key |
| 05.03.2020 | [**804/UZ/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,TTLTJFT5) | Proposed | Pilot comparisons of measurement standards of attenuation and average power of a signal in optical fiber | pilot |
| 16.01.2020 | [**801/BY/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,3PO7YZR5) | Proposed | Supplementary comparisons of measurement standards for polarization mode dispersion in optical fiber | supplementary |
| 09.03.2022 | [**785/RU-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,Y5PFROM5) | Agreed | Supplementary comparisons of laser power responsivity at wavelengths of 0,532; 1,064 and 10,6 μm | supplementary COOMET.PR-S12 |
| 11.07.2019 | [**781/UZ-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,4D2EGCK5) | Agreed | Pilot comparison of spectral regular transmittance from 400 to 1000 nm | pilot |
| 04.02.2020 | [**741/RU-a/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,17OUKO75) | Agreed | Spectral Irradiance, from 250 nm to 2500 nm | key COOMET.  PR-K1.a.2018 |
| 18.11.2021 | [**735/RU-a/17**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,AOPR3G55) | Agreed | Relative reflection density of samples | pilot |
| 14.09.2015 | [**640/BY-a/14**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,4S62A1S34) | Agreed | Comparison of colour, transmitted | supplementary COOMET.PR-S10 |
| 10.08.2011 | [**429/CU-a/08**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,8W9HLY1FJ3) | Agreed | Comparisons of measurement standards of the units of spectral regular transmittance in the (250 to 900) nm wavelength range | supplementary COOMET.PR-S5 |
| 06.04.2023 | [**805/UA/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,MOR491KT5) | Excluded | Supplementary comparison on spectrally-selective transmitting material | supplementary |

**QM - Amount Of Substance**

13 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 06.11.2023 | [**894/RU/23**](http://www.coomet.org/tc_prj/2023/show_prj.htm?EN,UN89QSV6) | Proposed | Pilot comparisons in the field of measuring low gas permeability of rocks | pilot |
| 22.12.2021 | [**865/RU/22**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,KM1Q01SM6) | Proposed | Pilot comparisons in the field of sulfur and carbon mass fractions measurements in steel | pilot |
| 22.12.2021 | [**864/RU/22**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,2UDNZSM6) | Proposed | Key comparisons "Automotive exhaust gases" | key |
| 23.09.2021 | [**849/RU/21**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,HNYLPF96) | Proposed | Content of metals in blood serum | pilot |
| 24.10.2023 | [**880/RU-a/23**](http://www.coomet.org/tc_prj/2023/show_prj.htm?EN,DET4S8R6) | Agreed | Pilot comparisons in the field of measuring the nutritional value of milk powder | pilot |
| 24.10.2023 | [**879/RU-a/23**](http://www.coomet.org/tc_prj/2023/show_prj.htm?EN,61PXR8R6) | Agreed | Pilot comparisons in the field of measuring the nutritional value of chocolate | pilot |
| 25.10.2021 | [**809/RU-a/20**](http://www.coomet.org/tc_prj/2023/show_prj.htm?EN,VBBNE12U5) | Agreed | Pilot comparison in the field of measuring the mass fraction of titanium in pure titanium | pilot |
| 25.10.2021 | [**809/RU-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,VBBNE12U5) | Agreed | Pilot comparison in the field of measuring the mass fraction of titanium in pure titanium | pilot |
| 25.10.2021 | [**808/RU-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,J0DJE12U5) | Agreed | Pilot comparison in the field of measuring the mass fraction of nickel in pure nickel | pilot |
| 25.10.2021 | [**807/RU-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,2IU2E12U5) | Agreed | Pilot comparison in the field of measuring the mass fraction of magnesium in pure magnesium | pilot |
| 25.10.2021 | [**806/RU-a/20**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,W46PD12U5) | Agreed | Pilot comparison in the field of measuring the mass fraction of aluminum in pure aluminium | pilot |
| 05.11.2021 | [**775/RU-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,HZ3EJVH5) | Agreed | Pilot comparison on determination of KCl solution electrolytic conductivity at the level of 10 μSm/sm and 25 Sm/m | pilot |
| 15.02.2021 | [**824/RU/21**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,D8C0J636) | Completed | Pilot comparisons "Determination of sulfur in isooctane" | pilot |

**RI - Ionizing Radiation**

3 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 30.03.2007 | [**389/RU/07**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,OM9HLY1FJ3) | Proposed | Comparison of the well-type ionization chamber (IC) calibrations factors for the medical radionuclides ("Dosecalibrators") | supplementary |
| 30.04.2021 | [**833/RU-a/21**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,IF4LY756) | Agreed | Supplementary comparisons of the national standards of radioactivity | supplementary COOMET.RI(II)-S3 |
| 14.09.2015 | [**641/BY-a/14**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,5ESE01Q44) | Agreed | Comparison of the national standards of air kerma for x-radiation qualities used in radiation protection and diagnostic radiology | supplementary COOMET.RI(I)-S3 |

**T - Termometry**

11 [projects](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | type of comparison |
| 19.07.2023 | [**890/KZ/23**](http://www.coomet.org/tc_prj/2023/show_prj.htm?RU,JE1BMNS6) | Proposed | Pilot comparisons of digital thermometers | pilot |
| 27.06.2023 | [**885/BY/23**](http://www.coomet.org/tc_prj/2023/show_prj.htm?RU,HV0V01MS6) | Proposed | Pilot comparisons in the field of calibration of glass thermometers | pilot |
| 21.06.2023 | [**882/RU/23**](http://www.coomet.org/tc_prj/2023/show_prj.htm?RU,0AHAKMS6) | Proposed | Comparisons of triple point of water cells | pilot |
| 14.02.2023 | [**873/RU/23**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,W9X0J6O6) | Proposed | Comparisons in the field of measuring the combustion energy of pure organic substances | pilot |
| 25.11.2021 | [**851/RU/21**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,DP6ZY7B6) | Proposed | Supplementary comparisons of measurement standards of dew point temperature | supplementary |
| 15.11.2021 | [**826/MD-a/21**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,ECCU31P46) | Agreed | Supplementary comparisons of standards for relative humidity unit | supplementary COOMET.T-S5 |
| 07.10.2021 | [**787/UZ-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,6YA2OAN5) | Agreed | Pilot comparisons in the area of platinum resistance thermometers calibration | pilot |
| 15.11.2021 | [**771/MD-a/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,9NTAF1UG5) | Agreed | Pilot comparisons in the area of platinum resistance thermometers calibration in fixed points from triple point of mercury (-38.8344 °С) to melting point of gallium (29.7646 °С) | pilot |
| 20.12.2019 | [**704/RU-a/16**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,EV74MZS4) | Agreed | Comparisons of temperature national standards at the triple point of mercury | key COOMET.T-K9.1 |
| 19.07.2023 | [**744/RU-a/18**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,KN76M095) | Completed | Comparisons in the field of measurements of combustion energy of coals with different sulphur content | supplementary COOMET.T-S4 |
| 08.05.2023 | [**780/RU-a/19**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,JZWQB1BK5) | Completed | Pilot comparisons of national reference gas calorimeters using samples of gas mixtures | pilot |

**TF - Time and Frequency**

2 [project](http://www.coomet.org/tc_prj/2022/D9_EN.htm)

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| actualisation | project number | state | subject | | type of comparison | |
| 21.06.2023 | **883/UZ/23** | Proposed | | Bilateral comparisons of the UTC (UME) Türkiye and UTC (UzNIM) Uzbekistan time scales will be carried out using the GNSS Common View Method | | pilot |
| 16.11.2021 | [**398/RU-a/07**](http://coomet.org/tc_prj/2022/show_prj.htm?RU,RI9HLY1FJ3) | Agreed | Key comparisons of national standards of time and frequency with the Russian UTC (SU) scale | | key CCTF-K001.UTC | |