

**Table 3. Acronyms and locations of the timing centres which maintain a local approximation of UTC, UTC(k), and/or an independent local time scale, TA(k)**

#AOS	Astrogeodynamical Observatory, Space Research Centre P.A.S., Borowiec, Poland
#APL	Applied Physics Laboratory, Laurel, Maryland, USA
AUS	Consortium of laboratories in Australia
BEV	Bundesamt für Eich- und Vermessungswesen, Vienna, Austria
BIM	Bulgarian Institute of Metrology, Sofia, Bulgaria
#BIRM	Beijing Institute of Radio Metrology and Measurement, Beijing, P. R. China
BY	Belarussian State Institute of Metrology, Minsk, Belarus
#CAO	Stazione Astronomica di Cagliari (Cagliari Astronomical Observatory), Cagliari, Italy
CH	Federal Institute of Metrology (METAS), Bern-Wabern, Switzerland
CNM	Centro Nacional de Metrología, Querétaro (CENAM), Mexico
CNMP	Centro Nacional de Metrología de Panamá (CENAMEP), Panama
DFNT(1)	Laboratoire de Métrologie de la Direction Générale des Transmissions et de l'Informatique (DEF-NAT), Tunis, Tunisia
DMDM	Directorate of Measures and Precious Metals, Belgrade, Serbia
#DTAG	Deutsche Telekom AG, Frankfurt/Main, Germany
EIM	Hellenic Institute of Metrology, Thessaloniki, Greece
ESTC	European Space Research and Technology Centre (ESA-ESTEC), Noordwijk, the Netherlands
#HKO	Hong Kong Observatory, Hong Kong, China
#IFAG	Bundesamt für Kartographie und Geodäsie (Federal Agency for Cartography and Geodesy), Fundamental station, Wettzell, Kötzing, Germany
#IGNA	Instituto Geográfico Nacional, Buenos Aires, Argentina
IMBH(2)	Institute of Metrology of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina
INPL	National Physical Laboratory, Jerusalem, Israel
INTI	Instituto Nacional de Tecnología Industrial, Buenos Aires, Argentina
INXE	National Institute for Metrology and Technology (INMETRO) - Time and Frequency Laboratory, Rio de Janeiro, Brazil
IT	Istituto Nazionale di Ricerca Metrologica (INRIM), Torino, Italy
#JATC	Joint Atomic Time Commission, Lintong, P.R. China
JV	Justervesenet, Norwegian Metrology and Accreditation Service, Kjeller, Norway
KEBS	Kenya Bureau of Standards, Nairobi, Kenya
KIM	Research Centre for Calibration, Instrumentation and Metrology, The Indonesian Institute of Sciences, Serpong-Tangerang, Indonesia
KRIS	Korea Research Institute of Standards and Science (KRISS), Daejeon, Rep. of Korea
KZ	Kazakhstan Institute of Metrology (KazInMetr), Astana, Kazakhstan
LT	Center for Physical Sciences and Technology (VMT/FTMC), Vilnius, Lithuania
MASM	Mongolian Agency for Standardization and Metrology, Bayanzurkh District, Mongolia
MBM(3)	Bureau of Metrology - Laboratory for time and frequency, Podgorica, Montenegro
MIKE	MIKES Metrology, VTT Technical Centre of Finland Ltd, Espoo, Finland
MKEH	Hungarian Trade Licensing Office, Budapest, Hungary
MSL	Measurement Standards Laboratory, Lower Hutt, New Zealand
#MTC	MAKKAH Time Centre - King Abdulah Centre for Crescent Observations and Astronomy, Makkah, Saudi Arabia
#NAO	National Astronomical Observatory, Misuzawa, Japan
NICT	National Institute of Information and Communications Technology, Tokyo, Japan

(1) First participation since February 2015

(2) First participation since May 2015

(3) First participation since August 2015

**Table 3. Acronyms and locations of the timing centres which maintain a local approximation of UTC, UTC(k), and/or an independent local time scale, TA(k) (Cont.)**

NIM	National Institute of Metrology, Beijing, P.R. China
NIMB	National Institute of Metrology, Bucharest, Romania
NIMT	National Institute of Metrology, Bangkok, Thailand
NIS	National Institute for Standards, Cairo, Egypt
NIST	National Institute of Standards and Technology, Boulder, Colo., USA
NMIJ	National Metrology Institute of Japan, Tsukuba, Japan
NMLS	National Metrology Laboratory of SIRIM Berhad, Shah Alam, Malaysia
NPL	National Physical Laboratory, Teddington, United Kingdom
NPLI	National Physical Laboratory, New Delhi, India
NRC	National Research Council of Canada, Ottawa, Canada
#NRL	U.S. Naval Research Laboratory, Washington D.C., USA
#NTSC	National Time Service Center of China, Lintong, P.R. China
#ONBA	Observatorio Naval, Buenos Aires, Argentina
ONRJ	Observatório Nacional, Rio de Janeiro, Brazil
OP	Laboratoire national de métrologie et d'essais – Systèmes de références Temps-Espace, Observatoire de Paris (LNE-SYRTE), Paris, France
#ORB	Observatoire Royal de Belgique, Brussels, Belgium
PL	Consortium of laboratories in Poland
PTB	Physikalisch-Technische Bundesanstalt, Braunschweig, Germany
ROA	Real Instituto y Observatorio de la Armada, San Fernando, Spain
SASO	Saudi Standards, Metrology and Quality Organization, Riyadh, Saudi Arabia
SCL	Standards and Calibration Laboratory, Hong Kong, China
SG	National Metrology Centre - Agency for Science, Technology and Research (A*STAR), Singapore
SIQ	Slovenian Institute of Quality and Metrology, Ljubljana, Slovenia
SMD	Metrology Division of the Quality and Safety Department - Scientific Metrology, Brussels, Belgium
SMU	Slovenský Metrologický Ústav (Slovak Institute of Metrology), Bratislava, Slovakia
SP	Sveriges Provnings- och Forskningsinstitut (Swedish National Testing and Research Institute), Borås, Sweden
SU	Institute of Metrology for Time and Space (IMVP), NPO "VNIIFTRI" Mendeleev, Moscow Region, Russian Federation
TL	Telecommunication Laboratories, Chung-Li, Chinese Taipei
TP	Institute of Photonics and Electronics, Czech Academy of Sciences (IPE/ASCR), Prague, Czech Republic
UA	National Science Center "Institute of Metrology" (NSC), Kharkhov, Ukraine
UME	Ulusai Metroloji Enstitüsü, Marmara Research Centre, (National Metrology Institute), Gebze Kocaeli, Turkey
#USNO	U.S. Naval Observatory, Washington D.C., USA
VMI	Vietnam Metrology Institute, Ha Noi, Viet Nam
VSL	VSL, Dutch Metrology Institute, Delft, the Netherlands
ZA	National Metrology Institute of South Africa (NMISA), Pretoria, South Africa

# Laboratories not participating in the key comparison CCTF-K001.UTC. See details at "[Participants list](#)"

Note: Most of the timing centres in the table can be accessed through the BIPM website, at "[Useful links](#)".