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BUREAU INTERNATIONAL DES POIDS ET MESURES
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1 - Coordinated Universal Time UTC and its local realizations UTC(k). Computed values of [*UTC-UTC*(*k*)] and uncertainties valid for the period of this Circular. From 2015 July 1, 0h UTC, *TAI-UTC* = 36 s.

Date 2015 0h UTC	OCT 29	NOV 3	NOV 8	NOV 13	NOV 18	NOV 23	NOV 28	Uncertainty/ns			Notes
MJD	57324	57329	57334	57339	57344	57349	57354	u_A	u_B	u	
Laboratory *k*	[*UTC-UTC*(*k*)]/ns										
AOS (Borowiec)	-2.4	-2.9	-2.1	-0.6	-0.7	-1.1	-2.3	0.3	5.1	5.1	
APL (Laurel)	1.8	3.0	2.9	2.9	1.6	2.5	2.6	0.3	4.9	4.9	
AUS (Sydney)	-444.1	-425.7	-408.3	-385.0	-363.8	-352.8	-328.6	0.3	5.1	5.1	
BEV (Wien)	24.0	31.3	40.3	34.5	33.9	37.0	32.5	0.3	3.1	3.1	
BIM (Sofiya)	2946.0	2951.5	2971.7	2988.2	3012.9	3021.0	3050.9	1.5	7.0	7.2	
BIRM (Beijing)	-204.0	-219.8	-218.8	-226.0	-234.8	-252.6	-263.4	1.5	20.0	20.1	
BY (Minsk)	4.7	1.2	-3.0	-7.2	-5.9	-7.4	-4.5	1.5	7.0	7.2	
CAO (Cagliari)	-8820.8	-8915.6	-9016.5	-9131.2	-9232.1	-9336.1	-9444.9	8.0	7.0	10.7	
CH (Bern-Wabern)	5.2	4.1	3.8	4.3	4.5	3.1	1.5	0.3	1.2	1.3	
CNM (Queretaro)	4.2	4.6	-2.7	-7.7	-4.2	-4.5	-2.4	3.0	5.0	5.8	
CNMP (Panama)	-12.7	-0.3	-3.9	8.6	14.2	14.9	24.2	3.5	5.1	6.1	
DFNT (Tunis)	15123.3	15287.8	15495.8	15680.3	15860.1	16038.2	16231.3	0.3	20.0	20.0	
DMDM (Belgrade)	-24.1	-24.8	-28.0	-22.2	-26.4	-39.5	-25.3	1.5	7.0	7.2	
DTAG (Frankfurt/M)	93.6	102.3	102.8	107.3	159.4	168.8	178.1	0.3	10.0	10.0	(1)
EIM (Thessaloniki)	17.4	1.8	8.2	13.3	14.0	9.4	8.0	7.5	5.1	9.0	
ESTC (Noordwijk)	6.7	6.3	4.6	4.4	2.2	2.2	1.0	0.4	5.0	5.1	
HKO (Hong Kong)	15.1	15.4	17.4	18.1	22.9	29.1	33.8	0.3	5.0	5.1	
IFAG (Wettzell)	-850.5	-840.4	-841.6	-844.4	-851.6	-856.3	-861.3	0.3	5.0	5.0	
IGNA (Buenos Aires)	-	-	-	-	-	-	-				
IMBH (Sarajevo)	476.6	464.8	449.1	427.6	413.9	397.0	379.8	0.3	7.0	7.0	
INPL (Jerusalem)	102.4	104.2	110.5	111.3	118.6	129.5	136.8	0.5	7.0	7.0	
INTI (Buenos Aires)	-51.0	-59.9	-58.9	-50.8	-56.6	-54.4	-57.4	2.5	20.0	20.2	
INXE (Rio de Janeiro)	-7.0	-11.9	-14.2	-13.4	-14.2	-21.5	-24.4	0.3	20.0	20.0	
IT (Torino)	0.8	1.2	1.1	2.4	2.5	2.0	1.6	0.3	1.2	1.2	
JATC (Lintong)	5.6	7.1	5.9	10.0	8.9	7.9	2.4	0.4	4.9	4.9	
JV (Kjeller)	-30.0	-34.7	-39.9	-42.3	-42.1	-38.0	-40.3	0.3	20.0	20.0	
KEBS (Nairobi)	-	-37.1	-325.1	-	-	58.9	258.6	1.5	20.0	20.1	
KIM (Serpong-Tangerang)	923.6	915.3	913.1	923.0	925.7	934.6	958.7	2.0	20.0	20.1	
KRIS (Daejeon)	-3.8	-4.1	-4.2	-3.7	-3.5	-3.1	-2.6	0.3	5.0	5.0	
KZ (Astana)	-591.9	-578.4	-559.4	-553.1	-548.2	-542.9	-527.9	1.5	7.0	7.2	

Date 2015 0h UTC	OCT 29	NOV 3	NOV 8	NOV 13	NOV 18	NOV 23	NOV 28	Uncertainty/ns			Notes
MJD	57324	57329	57334	57339	57344	57349	57354	u_A	u_B	u	
Laboratory *k*				[*UTC*-*UTC*(*k*)]/ns							
LT (Vilnius)	1035.2	1054.7	1065.7	1075.3	1074.3	1088.7	1126.3	2.0	5.0	5.4	
MASM (Bayanzurkh)	-279.3	-305.1	-331.6	-	-388.8	-408.7	-	0.4	20.0	20.0	
MBM (Podgorica)	1241.2	-274.8	14.6	322.5	638.1	963.6	1252.2	5.0	20.0	20.6	(2)
MIKE (Espoo)	-1.2	-1.0	-1.0	-0.8	-0.7	-0.3	0.0	0.3	6.9	6.9	
MKEH (Budapest)	-37564.0	-37768.8	-37972.3	-38170.1	-38386.6	-38594.0	-38798.3	1.5	20.0	20.1	
MSL (Lower Hutt)	-	-	-	-	-	-	-				
MTC (Makkah)	279.7	284.8	287.1	290.2	300.5	308.4	316.2	0.3	7.0	7.0	
NAO (Mizusawa)	-4.3	-12.4	-8.9	-10.1	-3.4	1.2	8.5	2.0	20.0	20.1	
NICT (Tokyo)	17.5	19.1	19.4	19.0	19.2	20.7	19.6	0.3	1.8	1.8	
NIM (Beijing)	-3.4	-4.0	-2.5	-1.7	-1.3	0.3	1.8	0.3	1.8	1.8	
NIMB (Bucharest)	1057.4	1081.5	1096.2	1108.0	1114.8	1130.6	1148.0	4.5	20.0	20.5	
NIMT (Pathumthani)	-24.3	-19.7	-9.2	-14.1	-35.5	-38.6	-23.0	1.0	20.0	20.0	
NIS (Cairo)	-	-	-7482.7	-	-	-7474.2	-7471.2	1.6	7.0	7.2	
NIST (Boulder)	7.8	5.3	4.2	4.8	5.4	5.8	5.6	0.3	4.8	4.8	
NMIJ (Tsukuba)	1.6	3.3	5.6	7.9	9.0	11.2	11.8	0.3	1.8	1.8	
NMLS (Sepang)	-226.4	-228.1	-220.9	-217.8	-213.0	-213.5	-223.4	1.0	20.0	20.0	
NPL (Teddington)	28.3	22.9	17.5	12.9	9.7	7.3	5.1	0.3	6.9	6.9	
NPLI (New-Delhi)	2.8	6.1	9.6	13.7	16.2	14.3	11.4	0.3	7.0	7.0	
NRC (Ottawa)	24.5	29.7	31.6	35.1	36.5	45.4	49.2	0.4	5.0	5.0	
NRL (Washington DC)	20.7	8.1	6.0	1.6	-2.8	-2.4	0.9	0.3	5.1	5.1	
NTSC (Lintong)	4.8	6.3	6.8	8.2	8.5	8.9	5.7	0.3	4.8	4.8	
ONBA (Buenos Aires)	-2797.3	-	-	-2824.0	-2833.4	-2839.8	-2846.6	2.5	5.1	5.6	
ONRJ (Rio de Janeiro)	0.5	4.0	2.8	-0.2	0.0	2.1	-0.2	1.3	6.9	7.0	
OP (Paris)	1.2	1.1	1.0	1.0	1.1	0.9	0.9	0.3	1.2	1.2	
ORB (Bruxelles)	-1.1	-1.5	-2.5	-2.1	-2.6	-2.7	-2.9	0.3	5.0	5.0	
PL (Warszawa)	8.2	16.8	17.3	13.1	3.5	-4.2	-0.5	0.3	5.0	5.0	
PTB (Braunschweig)	0.5	0.5	0.8	0.7	0.9	0.9	1.5	0.1	0.7	0.7	
ROA (San Fernando)	1.7	0.4	-2.2	-4.6	-4.9	-2.7	1.4	0.3	1.2	1.3	
SASO (Riyadh)	-217.1	-226.2	-225.2	-228.6	-241.3	-241.2	-246.8	0.3	7.0	7.0	
SCL (Hong Kong)	-104.3	-97.9	-96.9	-91.6	-98.0	-95.5	-90.9	6.0	10.0	11.7	
SG (Singapore)	19.1	21.2	22.1	20.5	19.3	15.4	10.9	0.7	5.0	5.1	
SIQ (Ljubljana)	-1607.3	-1601.7	-1589.2	-1587.2	-1587.4	-1591.8	-1551.3	0.3	7.0	7.0	
SMD (Bruxelles)	25.3	31.6	25.0	10.2	11.0	16.6	15.7	0.3	7.0	7.0	
SMU (Bratislava)	-485.2	-487.8	-491.1	-494.3	-503.9	-512.2	-523.1	1.0	20.0	20.0	
SP (Boras)	-3.0	-2.9	-2.0	-2.4	-2.2	-1.1	-0.3	0.3	1.2	1.2	
SU (Moskva)	2.4	1.4	2.0	1.8	1.4	0.2	0.2	0.9	4.6	4.7	
TL (Chung-Li)	10.9	11.9	12.2	12.5	12.7	12.0	11.1	0.3	1.8	1.8	
TP (Praha)	-3.3	-8.3	-12.9	-22.8	-25.7	-33.5	-36.8	0.3	5.1	5.1	
UA (Kharkov)	-57.2	-55.7	-44.6	-33.3	-24.1	-31.6	-32.4	1.5	7.0	7.2	
UME (Gebze-Kocaeli)	-1035.8	-1056.0	-1063.3	-1074.9	-20.2	15.3	25.5	1.0	7.0	7.1	(3)
USNO (Washington DC)	-0.2	0.1	0.5	0.3	0.3	0.1	0.2	0.2	1.0	1.0	
VMI (Ha Noi)	48.7	44.1	56.6	39.9	40.7	48.3	37.3	0.4	20.0	20.0	
VSL (Delft)	16.9	12.6	18.9	16.1	9.2	9.7	3.8	0.3	1.2	1.3	
ZA (Pretoria)	2394.0	2356.9	2329.5	2300.8	2265.6	2239.9	2180.3	0.4	20.0	20.0	

- Notes on section 1:

(1) DTAG : Time step of UTC(DTAG) of about -54 ns on MJD 57343.50 due to change of master clock.
(2) MBM : Apparent time step of UTC(MBM) of about 1600 ns near MJD 57325 due to receiver.
(3) UME : Apparent time step of UTC(UME) of about -1100 ns on MJD 57342.5.

2 - International Atomic Time TAI and Local atomic time scales TA(k). Computed values of [*TAI-TA*(*k*)].

Date 2015 0h UTC	OCT 29	NOV 3	NOV 8	NOV 13	NOV 18	NOV 23	NOV 28	
MJD	57324	57329	57334	57339	57344	57349	57354	
Laboratory *k*				[*TAI-TA*(*k*)]/ns				
CH (Bern-Wabern)	18633.5	18582.3	18531.8	18482.0	18433.3	18385.0	18336.9	
CNM (Queretaro)	-1325.7	-1343.4	-1361.9	-1388.8	-1410.7	-1435.5	-1451.1	
F (Paris)	167615.0	167613.2	167612.6	167611.7	167612.6	167614.1	167616.7	
JATC (Lintong)	-58446.7	-58467.3	-58487.5	-58506.5	-58528.9	-58547.4	-58568.5	
KRIS (Daejeon)	46694.7	46713.2	46731.8	46750.9	46769.6	46788.5	46807.5	
NICT (Tokyo)	1485.3	1490.9	1496.8	1500.5	1508.8	1514.2	1519.9	
NIST (Boulder)	-45423953.4	-45424137.9	-45424322.0	-45424506.0	-45424689.8	-45424874.0	-45425058.6	
NRC (Ottawa)	20752.0	20736.2	20723.7	20701.6	20685.7	20666.7	20636.0	
NTSC (Lintong)	22217.3	22254.1	22290.7	22329.6	22366.5	22403.0	22439.7	
ONRJ (Rio de Janeiro)	-23535.1	-23565.2	-23599.1	-23634.1	-23669.9	-23699.8	-23736.1	
PL (Warszawa)	-7292.8	-7296.6	-7303.5	-7316.8	-7324.2	-7333.8	-7332.9	
PTB (Braunschweig)	2004.4	2004.3	2004.5	2004.6	2004.7	2004.6	2004.7	
SG (Singapore)	21759.1	21831.2	21892.1	21960.5	22029.3	22095.4	22150.9	
SU (Moskva)	27291048.6	27291048.1	27291049.1	27291049.3	27291049.3	27291048.6	27291049.0	(1)
TL (Chung-Li)	22.7	25.9	28.9	29.8	32.1	33.7	36.0	
USNO (Washington DC)	-35180350.2	-35180637.5	-35180924.9	-35181212.5	-35181499.8	-35181787.2	-35182074.9	

- Note on section 2:

(1) SU : Listed values are *TAI-TA*(*SU*) - 2.80 seconds.

3 - Difference between the normalized frequencies of EAL (free atomic time scale) and TAI.

	Interval of validity	*f*(*EAL*)-*f*(*TAI*)	
Steering correction	57324 - 57354	6.483×10^{-13}	(2015 OCT 29 - 2015 NOV 28)
New correction	57354 - 57384	6.483×10^{-13}	(2015 NOV 28 - 2015 DEC 28)
New correction foreseen	57384 - 57414	6.483×10^{-13}	(2015 DEC 28 - 2016 JAN 27)

4 - Duration of the TAI scale interval.

TAI is a realization of coordinate time TT. The following tables give the fractional deviation *d* of the scale interval of TAI from that of TT (the SI second on the geoid), i.e. the fractional frequency deviation of TAI with the opposite sign: $d = -y_{TAI}$. In this section, a frequency over a time interval is defined as the ratio of the end-point phase difference to the duration of the interval. Whenever needed, the instability of EAL should be expressed as the quadratic sum of three components with τ in days: (1) a white frequency noise of $1.7 \times 10^{-15} / \sqrt{\tau}$, (2) a flicker frequency noise of 0.35×10^{-15} and (3) a random walk frequency noise of $0.2 \times 10^{-16} \times \sqrt{\tau}$. The relation between EAL and TAI is given in *Circular T* and the *BIPM Annual Report on Time Activities*.

In the first table, *d* is obtained, on the given periods of estimation by comparison of the TAI frequency with that of the given individual Primary and Secondary Frequency Standards (PFS/SFS). In this table: u_A is the uncertainty originating in the instability of the standard, u_B is the combined uncertainty from systematic effects, $u_{l/lab}$ is the uncertainty in the link between the standard and the clock participating to TAI, including the uncertainty due to the dead-time, $u_{l/TAI}$ is the uncertainty in the link to TAI, *u* is the quadratic sum of all four uncertainty values. Ref(u_B) is a reference giving information on the values of u_B or is the *Circular T* where the reference was first given. u_B(Ref) is the u_B value stated in this reference. Note that all uncertainties may vary over time and that the current u_B values are generally not the same as the peer reviewed values given in Ref(u_B). See "http://www.bipm.org/jsp/en/TimeFtp.jsp" for previous issues of *Circular T* and individual Reports of Evaluation of Primary and Secondary Frequency Standards that explain changes in uncertainties. For the SFS, $u_S$rep represents the recommended uncertainty of the secondary representation of the second and Ref(u_S) provides the reference for the frequency of the transition and its uncertainty $u_S$rep, these two fields are not applicable to PFS. All values are expressed in 10^{-15} and are valid only for the stated period of estimation.

Standard	Period of Estimation		d	u_A	u_B	$u_{l/Lab}$	$u_{l/Tai}$	u	$u_S$rep	Ref(u_S)	Ref(u_B)	u_B(Ref)	Note
PTB-CS2	57324	57354	0.91	3.00	12.00	0.00	0.07	12.37	PFS/NA		T148	12.	(1)
NPLI-CsF1	57319	57329	-3.88	0.90	2.82	0.19	0.53	3.01	PFS/NA		[1]	2.50	(2)
SYRTE-FO2	57324	57339	-0.11	0.30	0.30	0.11	0.37	0.57	PFS/NA		T301	0.23	(3)
SYRTE-FORb	57324	57354	0.29	0.20	0.30	0.11	0.20	0.42	1.3	[2]	T301	0.32	(3)
PTB-CSF1	57324	57344	-0.21	0.09	0.70	0.01	0.09	0.71	PFS/NA		T162	1.40	(4)
SU-CsFO2	57324	57354	0.17	0.24	0.25	0.11	0.59	0.69	PFS/NA		T315	0.50	(5)

Notes:
(1) Continuously operating as a clock participating to TAI
(2) Report 04 DEC. 2015 by NPLI
(3) Report 03 DEC. 2015 by LNE-SYRTE
(4) Report 25 NOV. 2015 by PTB
(5) Report 01 DEC. 2015 by SU

[1] A. Acharya et al.,"Complete uncertainty evaluation of the cesium fountain primary frequency standard: NPLI-CsF1", ATF Workshop 2015, Beijing, China, October 2015(2015).
[2] CIPM Recommendation 1 (CI-2013) : Updates to the list of standard frequencies in *Procès-Verbaux des Séances du Comité International des Poids et Mesures*, 102nd meeting (2013), 2014, 188 p.

The second table gives the BIPM estimate of *d*, based on all available PFS and SFS measurements over the period MJD 56964-57354, taking into account their individual uncertainties and characterizing the instability of EAL as noted above. *u* is the computed standard uncertainty of *d*

Period of estimation	d	u	
57324-57354	0.08×10^{-15}	0.35×10^{-15}	(2015 OCT 29 - 2015 NOV 28)

5 - Relations of UTC and TAI with predictions of UTC(k) disseminated by GNSS and their System Times.

[*UTC-GPS time*] = -17 s + C_0 , [*TAI-GPS time*] = 19 s + C_0 , global uncertainty is of the order of 10 ns.
[*UTC-UTC(USNO)_GPS*] = C_0', [*TAI-UTC(USNO)_GPS*] = 36 s + C_0', global uncertainty is of the order of 10 ns.
[*UTC-GLONASS time*] = C_1 , [*TAI-GLONASS time*] = 36 s + C_1 , global uncertainty is of the order of hundreds ns.
[*UTC-UTC(SU)_GLONASS*]= C_1', [*TAI-UTC(SU)_GLONASS*]= 36 s + C_1', global uncertainty is of the order of hundreds ns.

[*UTC(USNO)_GPS*] and [*UTC(SU)_GLONASS*] are, respectively, UTC(USNO) and UTC(SU) as predicted by USNO and SU and disseminated by GPS and GLONASS. The C_0 and C_0' values provide realizations of GPS time and of the prediction of UTC(USNO) broadcast by GPS, as obtained using the values [*UTC-UTC(OP)*] and the GPS data taken at the Paris Observatory, corrected for IGS precise orbits, clocks and ionosphere maps. The C_1 and C_1' values provide realizations of GLONASS time and of the prediction of UTC(SU) broadcast by GLONASS, as obtained using the values [*UTC-UTC(AOS)*] and the GLONASS data taken at the Astrogeodynamical Observatory Borowiec (AOS). N_0, N_0', N_1 and N_1' are the numbers of measurements; when N_0, N_0', N_1 or N_1' is 0, the corresponding values in the table are interpolated.
The standard deviations σ_0, σ_0', σ_1 and σ_1' characterize the dispersion of individual measurements.
The actual uncertainty of users' access to GPS and GLONASS times may differ from these values.
For this edition of circular, σ_0= 0.9 ns, σ_0'= 1.0 ns, σ_1= 6.4 ns, σ_1'= 6.4 ns

2015 0h UTC	MJD	C_0/ns	N_0	C_0'/ns	N_0'	C_1/ns	N_1	C_1'/ns	N_1'
OCT 29	57324	3.7	89	2.9	89	203.9	86	205.5	86
OCT 30	57325	4.0	89	1.9	89	205.1	83	207.8	83
OCT 31	57326	2.4	89	2.5	89	205.5	89	208.0	89
NOV 1	57327	1.4	90	3.0	89	205.6	89	207.7	90
NOV 2	57328	1.2	89	2.6	89	204.0	83	205.7	83
NOV 3	57329	2.2	86	4.4	86	204.9	80	205.7	80
NOV 4	57330	2.5	81	3.4	81	205.2	82	204.9	81
NOV 5	57331	2.8	90	2.7	90	202.2	84	201.2	84
NOV 6	57332	3.4	64	1.5	64	201.8	89	200.7	89
NOV 7	57333	4.2	89	1.8	89	202.2	82	200.3	81
NOV 8	57334	3.4	89	2.2	89	199.6	87	196.1	87
NOV 9	57335	2.0	90	2.0	90	197.8	90	193.8	90
NOV 10	57336	1.4	89	2.6	89	197.3	89	194.6	89
NOV 11	57337	2.2	89	2.6	89	197.6	81	195.4	82
NOV 12	57338	2.6	89	0.7	89	197.0	88	191.4	89
NOV 13	57339	3.2	90	2.9	90	195.2	88	184.9	88
NOV 14	57340	3.5	89	3.0	89	194.3	89	181.8	89
NOV 15	57341	2.9	89	1.3	89	192.9	86	180.8	86
NOV 16	57342	2.7	89	2.7	88	190.5	86	179.9	84
NOV 17	57343	3.0	89	2.1	89	188.5	84	180.1	84
NOV 18	57344	2.0	89	2.7	89	187.3	89	181.8	89
NOV 19	57345	2.2	89	1.4	89	185.6	75	184.5	79
NOV 20	57346	2.7	89	0.6	89	184.0	87	189.2	87
NOV 21	57347	1.6	90	0.2	90	184.2	89	195.0	89
NOV 22	57348	1.5	89	2.7	89	183.9	88	199.1	88
NOV 23	57349	1.4	89	2.6	89	183.6	79	202.2	79
NOV 24	57350	1.2	88	1.7	88	183.0	83	203.2	83
NOV 25	57351	2.0	90	2.8	90	183.0	88	203.8	88
NOV 26	57352	2.4	89	1.5	89	183.0	82	204.4	82
NOV 27	57353	2.1	89	0.6	89	182.7	88	204.2	89
NOV 28	57354	1.0	89	1.1	89	181.7	86	203.2	86

6 - Time links used for the computation of TAI and their uncertainties.

The time links used in the elaboration of this *Circular T* are listed in this section. The technique for the link is indicated as follows:
GPS SC for GPS all-in-view single-channel C/A data; GPS MC for GPS all-in-view multi-channel C/A data;
GPS P3 for GPS all-in-view multi-channel dual-frequency P code data; GPS PPP for GPS Precise Point Positioning technique;
GPS GT for 'GPS time' observations; GLN MC for GLONASS common-view multi-channel C/A data; GPSGLN for the combination of GPS MC and GLN MC links; TWGPPP/TWGPP3 for the combined smoothing of TWSTFT and GPS PPP/GPS P3; INT LK for internal cable link and TWSTFT for two-way satellite time and frequency transfer data.

For each link, the following uncertainties are provided: u_A is the standard uncertainty accounting for measurement noise and random effects with typical duration between 1 day and 30 days. u_B is the estimated uncertainty of the calibration.

The calibration type of the link is indicated as: GPS EC for GPS equipment calibration; TW EC for two-way equipment calibration; LC (technique) for a link calibrated using 'technique'; BC (technique) for a link calibrated using 'technique' to transfer a past equipment calibration through a discontinuity of link operation. DIC is used for direct internal calibration.

The calibration dates indicate: the most recent calibration results for the two laboratories in the case of EC and the most recent calibration of the link in the case of LC and BC.
NA stands for not available, in this case estimated values are provided.

Link	Type	u_A/ns	u_B/ns	Calibration Type	Calibration Dates
AOS /PTB	GPSPPP	0.3	5.0	LC(GPS P3)	2011 Jun
APL /PTB	GPSPPP	0.3	5.0	LC(GPS MC)	2012 Sep
AUS /PTB	GPSPPP	0.3	5.0	GPS EC/GPS EC	2010 Oct/2015 Jun
BEV /PTB	GPSPPP	0.3	3.0	BC(GPS MC)	2012 Mar
BIM /PTB	GPS MC	1.5	7.0	GPS EC/GPS EC	2007 Nov/2006 Sep
BIRM/PTB	GPS MC	1.5	20.0	NA /GPS EC	NA /2006 Sep
BY /PTB	GPS MC	1.5	7.0	GPS EC/GPS EC	2008 Jun/2006 Sep
CAO /PTB	GPS MC	8.0	7.0	GPS EC/GPS EC	2004 Nov/2006 Sep
CH /PTB	TWGPPP	0.3	1.0	LC(TWSTFT)/BC(GPS PPP)	2008 Sep/2009 Aug
CNM /PTB	GPS MC	3.0	5.0	BC(GPS SC)	2008 May
CNMP/PTB	GPS MC	3.5	5.0	GPS EC/GPS EC	2004 May/2006 Sep
DFNT/PTB	GPSPPP	0.3	20.0	NA /GPS EC	NA /2015 Jun
DMDM/PTB	GPS MC	1.5	7.0	GPS EC/GPS EC	2007 Jan/2006 Sep
DTAG/PTB	GPSPPP	0.3	10.0	LC(GPS MC)	2009 Jul
EIM /PTB	GPS MC	7.5	5.0	GPS EC/GPS EC	2007 May/2003 Aug
ESTC/PTB	GPSPPP	0.4	5.0	GPS EC/GPS EC	2012 Nov/2015 Jun
HKO /PTB	GPSPPP	0.3	5.0	LC(GPS MC)	2013 Apr
IFAG/PTB	GPSPPP	0.3	5.0	GPS EC/GPS EC	2003 Jun/2015 Jun
IGNA/PTB	NA				
IMBH/PTB	GPSPPP	0.3	7.0	GPS EC/GPS EC	2014 Nov/2015 Jun
INPL/PTB	GPSPPP	0.5	7.0	GPS EC/GPS EC	2009 Jun/2015 Jun
INTI/PTB	GPS MC	2.5	20.0	NA /GPS EC	NA /2006 Sep
INXE/PTB	GPSPPP	0.3	20.0	NA /GPS EC	NA /2015 Jun
IT /PTB	TWGPPP	0.3	1.0	TW EC	2014 Jun
JATC/NTSC	INT LK	0.2	1.0	DIC	/2006 Sep
JV /PTB	GPSPPP	0.3	20.0	NA /GPS EC	NA /2015 Jun
KEBS/PTB	GPS MC	1.5	20.0	NA /GPS EC	NA /2006 Sep
KIM /PTB	GPS MC	2.0	20.0	NA /GPS EC	NA /2006 Sep
KRIS/PTB	GPSPPP	0.3	5.0	GPS EC/GPS EC	2005 Aug/2015 Jun
KZ /PTB	GPSGLN	1.5	7.0	GPS EC/GPS EC	2012 Dec/2006 Sep

Link	Type	u_A/ns	u_B/ns	Calibration Type	Calibration Dates
LT /PTB	GPS MC	2.0	5.0	GPS EC/GPS EC	2006 Oct/2006 Sep
MASM/PTB	GPSPPP	0.4	20.0	NA /GPS EC	NA /2015 Jun
MBM /PTB	GPS MC	5.0	20.0	NA /GPS EC	NA /2006 Sep
MIKE/PTB	GPSPPP	0.3	7.0	NA /GPS EC	NA /2015 Jun
MKEH/PTB	GPS MC	1.5	20.0	NA /GPS EC	NA /2006 Sep
MSL /PTB	NA				
MTC /PTB	GPSPPP	0.3	7.0	GPS EC/GPS EC	2013 Aug/2015 Jun
NAO /PTB	GPS MC	2.0	20.0	NA /GPS EC	NA /2006 Sep
NICT/PTB	GPSPPP	0.3	1.7	GPS EC/GPS EC	2014 Mar/2015 Jun
NIM /PTB	GPSPPP	0.3	1.7	GPS EC/GPS EC	2014 Jun/2015 Jun
NIMB/PTB	GPS MC	4.5	20.0	NA /GPS EC	NA /2006 Sep
NIMT/PTB	GPS P3	1.0	20.0	NA /GPS EC	NA /2015 Jun
NIS /PTB	GPS P3	1.6	7.0	LC(GPS MC)	2010 Jun
NIST/PTB	TWGPPP	0.3	5.0	LC(TWSTFT)/BC(GPS PPP)	2005 May/2009 Aug
NMIJ/PTB	GPSPPP	0.3	1.7	GPS EC/GPS EC	2014 Feb/2015 Jun
NMLS/PTB	GPS P3	1.0	20.0	NA /GPS EC	NA /2015 Jun
NPL /PTB	GPSPPP	0.3	7.0	LC(GPS P3)	2008 Sep/2009 Nov
NPLI/PTB	GPSPPP	0.3	7.0	LC(GPS P3)	2012 Jun
NRC /PTB	GPSPPP	0.4	5.0	GPS EC/GPS EC	2003 Nov/2015 Jun
NRL /PTB	GPSPPP	0.3	5.0	GPS EC/GPS EC	2002 May/2015 Jun
NTSC/PTB	GPSPPP	0.3	5.0	LC(TWSTFT)	2014 Nov
ONBA/PTB	GPS MC	2.5	5.0	GPS EC/GPS EC	2004 Jul/2006 Sep
ONRJ/PTB	GPS P3	1.3	7.0	GPS EC/GPS EC	2011 Dec/2015 Jun
OP /PTB	TWGPPP	0.3	1.0	TW EC	2014 Jul
ORB /PTB	GPSPPP	0.3	5.0	GPS EC/GPS EC	2012 Oct/2015 Jun
PL /PTB	GPSPPP	0.3	5.0	LC(GPS MC)	2012 Mar
ROA /PTB	TWGPPP	0.3	1.0	TW EC	2014 Jul
SASO/PTB	GPSPPP	0.3	7.0	GPS EC/GPS EC	2012 Nov/2015 Jun
SCL /PTB	GPS MC	6.0	10.0	LC(GPS SC)	1993 May
SG /PTB	GPS P3	0.7	5.0	GPS EC/GPS EC	2010 Mar/2015 Jun
SIQ /PTB	GPSPPP	0.3	7.0	GPS EC/GPS EC	2014 Aug/2015 Jun
SMD /PTB	GPSPPP	0.3	7.0	GPS EC/GPS EC	2011 Sep/2015 Jun
SMU /PTB	GPSGLN	1.0	20.0	NA /GPS EC	NA /2006 Sep
SP /PTB	TWGPPP	0.3	1.0	TW EC	2014 Jul
SU /PTB	GPSGLN	1.0	5.0	LC(TWSTFT)	2014 Nov
TL /PTB	GPSPPP	0.3	1.7	GPS EC/GPS EC	2013 Nov/2015 Jun
TP /PTB	GPSPPP	0.3	5.0	GPS EC/GPS EC	2009 Feb/2015 Jun
UA /PTB	GPS MC	1.5	7.0	GPS EC/GPS EC	2011 Mar/2006 Sep
UME /PTB	GPSGLN	1.0	7.0	GPS EC/GPS EC	2005 Dec/2006 Sep
USNO/PTB	TWGPPP	0.3	1.0	TW EC	2014 Jun
VMI /PTB	GPSPPP	0.4	20.0	NA /GPS EC	NA /2015 Jun
VSL /PTB	TWGPPP	0.3	1.0	LC(TWSTFT)/BC(GPS PPP)	2006 Mar/2009 Aug
ZA /PTB	GPSPPP	0.4	20.0	NA /GPS EC	NA /2015 Jun