

BUREAU INTERNATIONAL DES POIDS ET MESURES
(BIPM)

Circular T 4 (1988 June 1)

1 - COORDINATED UNIVERSAL TIME UTC

(Since 1988 January 1, Oh UTC, TAI-UTC = 24s)

A - Computed values of UTC-UTC(k)

Date 1988 (Oh UTC)	APR 8	APR 18	APR 28
MJD	47259	47269	47279
Laboratory k	UTC-UTC(k)	(Unit = 1 microsecond)	
AOS (Borowiec)	0.52	0.52	0.47
APL (Laurel)	0.02	0.01	0.01
ASMW (Berlin)	-0.01	-0.08	-0.22
AUS (Canberra)	-13.22	-13.37	-13.48
BEV (Wien)	-6.82	-7.45	-8.13
CAO (Cagliari)	1.86	2.21	2.54
CH (Berne)	1.40	1.36	1.33
CRL (Tokyo)	-1.81	-1.81	-1.85
CSAO (Shaanxi)	0.60	0.60	0.69
FTZ (Darmstadt)	16.58	16.73	16.86
IEN (Torino)	-0.81	-0.54	-0.30
IFAG (Wetzell) (1)(2)	0.77	-3.20	-2.89
ILOM (Mizusawa)	-35.71	-35.56	-35.59
INPL (Jerusalem)	60.20	61.38	62.50
JATC (Xian)	0.76	0.58	0.53
KSRI (Daejeon)	-6.15	-6.53	-6.80
NBS (Boulder)	-0.81	-0.86	-0.91
NIM (Beijing)	9.60	9.42	9.06
NPL (Teddington)	4.22	4.26	4.29
NPLI (New-Delhi)	-11.49	-	-
NRC (Ottawa)	-9.38	-9.32	-9.25
NRLM (Tsukuba)	-23.59	-23.81	-23.97
OMH (Budapest)	-	-	-
OMSF (San Fernando)	3.73	3.74	3.84
OP (Paris)	-0.55	-0.53	-0.58
ORB (Bruxelles)	-9.30	-9.41	-9.51
PKNM (Warsaw) (3)	-0.26	0.16	0.83
PTB (Braunschweig)	4.30	4.34	4.33
SO (Shanghai)	2.03	2.02	2.03
STA (Stockholm)	0.39	0.36	0.34
SU (Moscow)	20.16	20.08	19.62
TAO (Tokyo)	-1.98	-1.98	-2.00
TL (Taiwan)	273.28	274.87	276.25
TP (Praha)	0.94	1.17	1.13
TUG (Graz)	-1.26	-1.01	-0.73
USNO (Washington) (USNO MC)	-4.05	-3.97	-3.91
VSL (Delft)	3.84	3.85	3.81
YUZM (Beograd)	-1.00	-1.19	-1.46
ZIPE (Potsdam)	0.47	0.48	0.47

- (1) IFAG . Time step of UTC(IFAG) of +5 μ s on MJD = 47263.50
- (2) IFAG . LORAN C instead of GPS from MJD = 47229 to MJD = 47259.
The values of Circular T 3 are revised as follows:

MJD	UTC - UTC(IFAG)
47229	-1.22
47239	-0.52
47249	-0.06

(3) PKNM . MJD = 47249 UTC - UTC(PKNM) = -0.62 μ s

B - Direct measurement of UTC(j)-UTC(k) by clock transportation

Date	MJD	Time comparisons	uncert.	source
1988		(Unit : 1 microsecond)		

APR 28 47279.05 UTC(CRL) - UTC(TAO) = -0.139 0.005 CRL message

2 - INTERNATIONAL ATOMIC TIME TAI AND LOCAL ATOMIC TIME SCALES TA(k)

A - Computed values of TAI-TA(k)

Date 1988 (0h UTC)	APR 8	APR 18	APR 28
MJD	47259	47269	47279
Laboratory k	TAI-TA(k) (Unit = 1 microsecond)		
AOS (Borowiec)	-94.45	-96.55	-98.70
APL (Laurel)	0.02	0.01	0.01
CH (Berne)	-48.58	-48.80	-49.02
CRL (Tokyo)	-3.54	-3.54	-3.58
CSAO (Shaanxi)	39.58	39.58	39.67
DDR (Berlin)	-26.82	-27.09	-27.42
F (Paris)	53.32	53.73	54.15
JATC (Xian)	-0.19	-0.14	-0.07
NBS (Boulder)	-45109.19	-45109.57	-45109.97
NIM (Beijing)	-7.87	-8.06	-8.20
NRC (Ottawa)	21.69	21.75	21.82
PTB (Braunschweig)	-359.10	-359.06	-359.07
SO (Shanghai)	-45.72	-45.70	-45.66
SU (Moscow)	2827270.16	2827270.08	2827269.62
USNO (Washington) (1)	-34556.83	-34557.39	-34557.95

(1) TA(USNO) is designated by A1(MEAN) by USNO.

B - Duration of the TAI scale interval (BIPM evaluation)

For MAR.1988-APR.1988 $1+0.1*10^{**}-13$ +OR- $1.0*10^{**}-13$

in SI second at sea level, based on CRL, NBS, NRC, PTB and SU data.

3 - INFORMATION ON TIME-SIGNALS

BPM . The schedule is now : 2500 kHz, 7h30 to 1h ;
5000 and 10000 kHz, continuous ;
15000 kHz, 1h to 9h.