

No leap second will be introduced in UTC on 31 December 2003.

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 Following IAU Conventions 2000, IERS provides new products dX, dY, celestial pole offsets with respect to the new IAU2000A Precession-Nutation theory.
 The present Bulletin B version includes the celestial pole offsets dX, dY:
 $dX = X_{obs} - X_{IAU2000A}$ and $dY = Y_{obs} - Y_{IAU2000A}$
 where
 X_{obs} , Y_{obs} are the observed coordinates of the Celestial Intermediate Pole (CIP) in the Geocentric Celestial Reference System, and
 $X_{IAU2000A}$, $Y_{IAU2000A}$ are the celestial pole coordinates provided by using the IAU2000A Precession-Nutation theory.
 The current Bulletin B including (dpsi,deps)_1980 will be maintained until December 2004.
 For more details refer to IERS Messages 38, on IAU 2000 Resolution Compliancy Information.
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Contents are described in the Explanatory Supplement available at
<http://hpiers.obspm.fr/eop-pc/>

1 - EARTH ORIENTATION PARAMETERS (IERS evaluation).
 The values in this section are samplings of section 2 given at five-day intervals.

Date	MJD	x	y	UT1R-UTC	UT1R-TAI	dX	dY
2003/2004 (0h UTC)		"	"	s	s	0.001"	0.001"

Final Bulletin B values.

OCT	2	52914	.25738	.30139	-.356612	-32.356612	-.03	-.42
OCT	7	52919	.25096	.28737	-.358839	-32.358839	.18	.05
OCT	12	52924	.24210	.27364	-.361023	-32.361023	.20	-.30
OCT	17	52929	.23184	.25796	-.363189	-32.363189	.16	-.31
OCT	22	52934	.22197	.24469	-.365882	-32.365882	.17	-.14
OCT	27	52939	.21713	.23371	-.368732	-32.368732	.00	.00
NOV	1	52944	.20926	.22331	-.370366	-32.370366	.21	-.39

Preliminary extension, to be updated weekly in Bulletin A and monthly in Bulletin B.

NOV	6	52949	.19825	.21108	-.371617	-32.371617	.07	-.13
NOV	11	52954	.18723	.19851	-.373172	-32.373172	-.07	-.09
NOV	16	52959	.17517	.18706	-.375694	-32.375694	.00	.00
NOV	21	52964	.16182	.17923	-.378012	-32.378012	.00	.00
NOV	26	52969	.14533	.17421	-.380008	-32.380008	.00	.00
DEC	1	52974	.12675	.16791	-.381385	-32.381385	.00	.00
DEC	6	52979	.10980	.16316	-.383369	-32.383369	.00	.00
DEC	11	52984	.09318	.15969	-.385735	-32.385735	.00	.00
DEC	16	52989	.07704	.15745	-.388306	-32.388306	.00	.00
DEC	21	52994	.06114	.15633	-.390961	-32.390961	.00	.00
DEC	26	52999	.04546	.15627	-.393639	-32.393639	.00	.00
DEC	31	53004	.03004	.15724	-.396316	-32.396316	.00	.00
JAN	5	53009	.01494	.15923	-.399002	-32.399002	.00	.00
JAN	10	53014	.00022	.16218	-.401672	-32.401672	.00	.00
JAN	15	53019	-.01403	.16608	-.404373	-32.404373	.00	.00

JAN	20	53024	-.02773	.17089	-.407105	-32.407105	.00	.00
JAN	25	53029	-.04081	.17655	-.409897	-32.409897	.00	.00
JAN	30	53034	-.05320	.18304	-.412750	-32.412750	.00	.00

Note. In UT1R, the effects of zonal tides with periods shorter than 35 days are removed ; UT1-UT1R (smaller than 0.0025s in absolute value) should be added after quadratic interpolation of UT1R. Section 2 of this Bulletin gives the daily interpolation of x, y, UT1, duration of day, dX, and dY.

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2 - SMOOTHED VALUES OF x, y, UT1, D, dX, dY (IERS EVALUATION) at one-day intervals. For smoothing characteristics, see Table2 in the explanatory supplement. The reference system is described in the 2002 IERS Annual Report.

2003		MJD	x	y	UT1-UTC	UT1-UT1R	D	dX	dY
(0 h UTC)		"	"	"	s	ms	ms	0.001"	0.001"
OCT	2	52914	.25738	.30139	-.357558	-.946	-.009	-.03	-.42
OCT	3	52915	.25625	.29869	-.357530	-.533	-.007	.07	-.38
OCT	4	52916	.25499	.29615	-.357580	-.130	.082	.18	-.26
OCT	5	52917	.25363	.29345	-.357721	.163	.224	.24	-.12
OCT	6	52918	.25228	.29042	-.358040	.291	.441	.23	-.01
OCT	7	52919	.25096	.28737	-.358600	.239	.654	.18	.05
OCT	8	52920	.24960	.28463	-.359333	.039	.750	.09	-.02
OCT	9	52921	.24811	.28202	-.360077	-.252	.725	.06	-.20
OCT	10	52922	.24643	.27922	-.360758	-.563	.683	.14	-.37
OCT	11	52923	.24442	.27642	-.361421	-.819	.622	.20	-.41
OCT	12	52924	.24210	.27364	-.361984	-.961	.482	.20	-.30
OCT	13	52925	.23982	.27069	-.362375	-.946	.307	.16	-.15
OCT	14	52926	.23779	.26749	-.362598	-.761	.154	.07	-.13
OCT	15	52927	.23585	.26418	-.362693	-.416	.040	.02	-.25
OCT	16	52928	.23388	.26105	-.362694	.051	-.054	.05	-.35
OCT	17	52929	.23184	.25796	-.362607	.583	-.093	.16	-.31
OCT	18	52930	.22983	.25497	-.362533	1.111	-.015	.24	-.19
OCT	19	52931	.22796	.25245	-.362602	1.559	.158	.23	-.14
OCT	20	52932	.22602	.25004	-.362876	1.848	.385	.16	-.18
OCT	21	52933	.22407	.24735	-.363393	1.905	.657	.15	-.20
OCT	22	52934	.22197	.24469	-.364196	1.686	.953	.17	-.14
OCT	23	52935	.22027	.24222	-.365286	1.198	1.216	.17	-.12
OCT	24	52936	.21929	.23992	-.366591	.519	1.350	.11	-.19
OCT	25	52937	.21864	.23772	-.367932	-.213	1.280	.08	-.23
OCT	26	52938	.21813	.23568	-.369097	-.835	1.024	.05	-.12
OCT	27	52939	.21713	.23371	-.369945	-1.213	.665	.00	.00
OCT	28	52940	.21549	.23152	-.370424	-1.286	.311	-.04	-.13
OCT	29	52941	.21380	.22915	-.370592	-1.089	.045	-.02	-.44
OCT	30	52942	.21246	.22690	-.370557	-.727	-.101	.08	-.64
OCT	31	52943	.21106	.22501	-.370434	-.331	-.102	.18	-.57
NOV	1	52944	.20926	.22331	-.370386	-.019	-.009	.21	-.39
NOV	2	52945	.20724	.22155	-.370431	.138	.138	.19	-.30
NOV	3	52946	.20508	.21949	-.370661	.121	.338	.14	-.28
NOV	4	52947	.20273	.21696	-.371095	-.047	.513	.09	-.23
NOV	5	52948	.20035	.21407	-.371666	-.315	.581	.07	-.14
NOV	6	52949	.19825	.21108	-.372233	-.617	.550	.07	-.13
NOV	7	52950	.19632	.20821	-.372743	-.883	.484	.07	-.23
NOV	8	52951	.19458	.20563	-.373183	-1.053	.400	.04	-.31
NOV	9	52952	.19273	.20339	-.373531	-1.079	.283	-.02	-.26
NOV	10	52953	.19024	.20114	-.373745	-.938	.133	-.06	-.14
NOV	11	52954	.18723	.19851	-.373803	-.631	-.013	-.07	-.09
NOV	12	52955	.18451	.19598	-.373733	-.187	-.072	-.05	-.18
NOV	13	52956	.18217	.19371	-.373680	.343	-.034	.03	-.26
NOV	14	52957	.17987	.19137	-.373689	.893	.029	.13	-.19
NOV	15	52958	.17745	.18903	-.373763	1.390	.110	.00	.00
NOV	16	52959	.17517	.18706	-.373934	1.760	.249	.00	.00
NOV	17	52960	.17286	.18551	-.374282	1.937	.459	.00	.00
NOV	18	52961	.17017	.18377	-.374865	1.869	.709	.00	.00
NOV	19	52962	.16730	.18188	-.375698	1.539	.915	.00	.00
NOV	20	52963	.16445	.18041	-.376672	.985	1.027	.00	.00
NOV	21	52964	.16182	.17923	-.377710	.302	1.080	.00	.00
NOV	22	52965	.15935	.17834	-.378795	-.363	1.021	.00	.00
NOV	23	52966	.15667	.17769	-.379719	-.860	.793	.00	.00

NOV 24	52967	.15355	.17688	-.380356	-1.088	.475	.00	.00
NOV 25	52968	.14966	.17568	-.380684	-1.027	.174	.00	.00
NOV 26	52969	.14533	.17421	-.380759	-.751	.028	.00	.00

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3 - NORMAL VALUES OF THE EARTH ORIENTATION PARAMETERS AT FIVE-DAY INTERVALS (IERS evaluation).

Raw normal values						Uncertainties					
2003	MJD	x	y	UT1-UTC	dX	dY	x	y	UT1	dX	dY
(0 h UTC)		"	"	s	0.001"		0.001"	0.0001s	0.001"		
OCT 2	52914	.25737	.30138	-.357554	-.014	-.489	.02	.02	.02	.02	.02
OCT 7	52919	.25096	.28737	-.358599	.195	.032	.01	.01	.03	.02	.02
OCT 12	52924	.24211	.27363	-.361982	.178	-.315	.02	.02	.02	.02	.02
OCT 17	52929	.23183	.25796	-.362607	.146	-.310	.01	.01	.03	.03	.03
OCT 22	52934	.22197	.24469	-.364195	.172	-.174	.01	.01	.02	.02	.02
OCT 27	52939	.21713	.23371	-.369944	.055	-.030	.01	.01	.02	.02	.02
NOV 1	52944	.20925	.22332	-.370379	.175	-.312	.02	.02	.04	.04	.05
NOV 6	52949	.19824	.21109	-.372232	.078	-.134	.01	.02	.02	.02	.02
NOV 11	52954	.18723	.19852	-.373802	-.075	-.077	.02	.04	.03	.06	.07
NOV 16	52959	.17517	.18705	-.373934	-	-	.01	.02	.03	-	-
NOV 21	52964	.16182	.17923	-.377703	-	-	.01	.02	.07	-	-
NOV 26	52969	.14533	.17421	-	-	-	.02	.02	-	-	-

4 - DURATION OF THE DAY AND ANGULAR VELOCITY OF THE EARTH (IERS evaluation).

The data of this section are smoothed, with the same characteristics as UT1R in section 1. They are corrected for the effects of zonal tides with periods up to 35 days. Section 2 gives the daily interpolation of D.

Date (0h UTC)	DR	OmegaR		
2003 MJD	s	(microrad/s)		
OCT 2	52914	.00037	72.921	15115
OCT 7	52919	.00053		15102
OCT 12	52924	.00042		15111
OCT 17	52929	.00045		15108
OCT 22	52934	.00060		15096
OCT 27	52939	.00044		15109
NOV 1	52944	.00024		15127

5 - INFORMATION ON TIME SCALES

No leap second will be introduced in UTC on 31 December 2003.
 All information concerning time scales : announcements of the leap seconds (Bulletin C) and of the value of DUT1 (Bulletin D) can be found in our web/ftp site :

World Wide Web : <http://hpiers.obspm.fr>
 Anonymous ftp : [hpiers.obspm.fr](ftp://hpiers.obspm.fr) or 145.238.100.28

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6 - SUMMARY OF CONTRIBUTED EARTH ORIENTATION PARAMETERS SERIES

This section gives the average precision of the individual series contributing to the combination and their average agreement with it. The periods covered start at the beginning of the first month in Section 1 and end with the last available value in the individual series considered.

Units : 0.001" for x,y , 0.0001s for UT1, 0.001" for dX, dY.

EOP series Mean formal uncertainty

Periods covered		Weighted RMS agreement with Bulletin B						Data Number
		x	y	UT	D	dX	dY	
VLBI								
EOP(AUS)	1 R 01	.22	.25	.15	-	-	-	11
52915.27	to 52950.27	.31	.14	.08	-	-	-	
EOP(BKG)	3 R 04	.11	.09	.04	-	-	-	12
52915.27	to 52950.27	.13	.12	.05	-	-	-	
EOP(BKG)	3 R 02	-	-	.12	-	-	-	19
52915.81	to 52962.79	-	-	.18	-	-	-	
EOP(GSFC)	3 R 06	.07	.06	.03	-	-	-	14
52915.27	to 52957.27	.08	.07	.03	-	-	-	
EOP(GSFC)	3 R 05	-	-	.18	-	-	-	20
52915.81	to 52964.81	-	-	.21	-	-	-	
EOP(IAA)	3 R 04	.08	.06	.03	-	-	-	13
52915.27	to 52957.27	.09	.09	.04	-	-	-	
EOP(IAA)	3 R 03	-	-	.14	-	-	-	26
52915.81	to 52962.79	-	-	.13	-	-	-	
EOP(SPBU)	3 R 03	.28	.30	.16	-	-	-	11
52915.27	to 52957.27	.19	.21	.06	-	-	-	
EOP(SPBU)	2 R 01	-	-	.19	-	-	-	20
52915.81	to 52964.81	-	-	.32	-	-	-	
EOP(IVS)	0 R 01	.05	.05	.02	-	-	-	9
52915.00	to 52943.00	.13	.07	.06	-	-	-	
GPS								
EOP(CODE)	98 P 01	.01	.01	-	.28	-	-	55
52914.50	to 52968.50	.04	.05	-	.23	-	-	
EOP(EMR)	96 P 03	.03	.04	-	.05	-	-	55
52914.50	to 52968.50	.06	.13	-	.48	-	-	
EOP(ESOC)	96 P 01	.02	.02	-	.02	-	-	55
52914.50	to 52968.50	.12	.12	-	.24	-	-	
EOP(GFZ)	96 P 02	.01	.01	-	.01	-	-	55
52914.50	to 52968.50	.06	.07	-	.21	-	-	
EOP(IAA)	1 P 01	.03	.03	-	.06	-	-	55
52914.50	to 52968.50	.21	.22	-	.35	-	-	
EOP(JPL)	96 P 03	.03	.03	-	.12	-	-	55
52914.50	to 52968.50	.06	.11	-	.28	-	-	
EOP(NOAA)	96 P 01	.02	.02	-	.02	-	-	45
52914.50	to 52958.50	.25	.18	-	.49	-	-	
EOP(SIO)	96 P 01	.05	.06	-	.13	-	-	55
52914.50	to 52968.50	.08	.08	-	.27	-	-	
EOP(IGS F)	95 P 02	.02	.02	.10	.06	-	-	45
52914.50	to 52958.50	.04	.04	.31	.20	-	-	
EOP(IGS R)	96 P 02	.04	.04	.22	.06	-	-	55
52914.50	to 52968.50	.05	.09	.83	.19	-	-	
EOP(IERS)	97 P 01	.03	.05	.19	.11	-	-	55
52914.50	to 52968.50	.02	.02	.42	.18	-	-	
SLR								
EOP(ASI)	3 L 02	.08	.07	-	.33	-	-	55
52914.50	to 52968.50	.27	.19	-	.95	-	-	
EOP(IAA)	2 L 01	.04	.03	.02	.02	-	-	56
52914.00	to 52969.00	.13	.12	.23	.12	-	-	
EOP(MCC)	97 L 01	.06	.05	-	.08	-	-	50
52914.00	to 52963.00	.17	.15	-	.56	-	-	
Bulletin A								
EOP(NEOS)	97 C 01	.06	.06	.07	-	-	-	56
52914.00	to 52969.00	.06	.06	.20	-	-	-	

