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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:

$$dX = X_{\text{obs}} - X_{\text{IAU2000A}} \text{ and } dY = Y_{\text{obs}} - Y_{\text{IAU2000A}}$$

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/ 4		"	"	s	s	0.001"	0.001"
(0h UTC)							

Final Bulletin B values.

DEC 1	52974	.12644	.16771	-.381351	-32.381351	.16	.16
DEC 6	52979	.11140	.16345	-.382417	-32.382417	.01	-.27
DEC 11	52984	.09687	.16096	-.383445	-32.383445	.16	-.21
DEC 16	52989	.08061	.15836	-.383867	-32.383867	.15	-.19
DEC 21	52994	.06635	.15640	-.384934	-32.384934	.23	-.27
DEC 26	52999	.04895	.15444	-.386587	-32.386587	-.05	-.36
DEC 31	53004	.03412	.15410	-.388130	-32.388130	.02	-.02
JAN 5	53009	.02159	.15480	-.389940	-32.389940	.01	-.23

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

JAN 10	53014	.00769	.15763	-.392584	-32.392584	.13	-.29
JAN 15	53019	-.00315	.16136	-.396261	-32.396261	.00	.19
JAN 20	53024	-.01617	.16725	-.399416	-32.399416	.00	.00
JAN 25	53029	-.02797	.17444	-.401651	-32.401651	.00	.00
JAN 30	53034	-.03598	.18291	-.403678	-32.403678	.00	.00
FEB 4	53039	-.04933	.19011	-.405361	-32.405361	.00	.00
FEB 9	53044	-.05968	.19920	-.407871	-32.407871	.00	.00
FEB 14	53049	-.06946	.20902	-.410870	-32.410870	.00	.00
FEB 19	53054	-.07887	.21956	-.414196	-32.414196	.00	.00
FEB 24	53059	-.08756	.23077	-.417759	-32.417759	.00	.00
FEB 29	53064	-.09541	.24259	-.421490	-32.421490	.00	.00
MAR 5	53069	-.10233	.25498	-.425358	-32.425358	.00	.00
MAR 10	53074	-.10826	.26785	-.429310	-32.429310	.00	.00
MAR 15	53079	-.11318	.28113	-.433330	-32.433330	.00	.00
MAR 20	53084	-.11704	.29472	-.437367	-32.437367	.00	.00

MAR	25	53089	-.11983	.30855	-.441364	-32.441364	.00	.00
MAR	30	53094	-.12155	.32255	-.445301	-32.445301	.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/ 4	MJD	x	y	UT1-UTC	UT1-UT1R	D	dX	dY
(0 h UTC)	"	"	"	s	ms	ms	0.001"	0.001"
DEC	1	52974	.12644	.16771	-.381439	-.087	.446	.16
DEC	2	52975	.12316	.16661	-.381927	-.364	.528	.05
DEC	3	52976	.12017	.16539	-.382472	-.679	.533	.01
DEC	4	52977	.11705	.16437	-.382973	-.965	.447	.00
DEC	5	52978	.11413	.16383	-.383348	-1.163	.342	.02
DEC	6	52979	.11140	.16345	-.383644	-1.226	.242	.01
DEC	7	52980	.10852	.16296	-.383825	-1.128	.074	-.04
DEC	8	52981	.10546	.16245	-.383794	-.863	-.143	-.06
DEC	9	52982	.10252	.16201	-.383551	-.453	-.306	-.03
DEC	10	52983	.09984	.16152	-.383200	.060	-.370	.06
DEC	11	52984	.09687	.16096	-.382834	.611	-.390	.16
DEC	12	52985	.09336	.16030	-.382445	1.129	-.344	.25
DEC	13	52986	.08974	.15945	-.382168	1.542	-.233	.29
DEC	14	52987	.08645	.15871	-.381998	1.786	-.088	.28
DEC	15	52988	.08350	.15851	-.382005	1.815	.129	.22
DEC	16	52989	.08061	.15836	-.382256	1.611	.380	.15
DEC	17	52990	.07762	.15805	-.382751	1.193	.606	.05
DEC	18	52991	.07448	.15765	-.383439	.625	.760	.00
DEC	19	52992	.07148	.15721	-.384227	.017	.815	.03
DEC	20	52993	.06889	.15686	-.385024	-.497	.770	.11
DEC	21	52994	.06635	.15640	-.385735	-.801	.585	.23
DEC	22	52995	.06352	.15585	-.386190	-.840	.275	.29
DEC	23	52996	.06039	.15541	-.386310	-.643	.001	.21
DEC	24	52997	.05669	.15507	-.386236	-.312	-.070	.09
DEC	25	52998	.05262	.15471	-.386216	.012	.054	.00
DEC	26	52999	.04895	.15444	-.386376	.211	.251	-.05
DEC	27	53000	.04587	.15443	-.386728	.220	.440	-.10
DEC	28	53001	.04294	.15466	-.387245	.044	.582	-.14
DEC	29	53002	.03991	.15471	-.387869	-.263	.648	-.11
DEC	30	53003	.03703	.15443	-.388514	-.624	.623	-.03
DEC	31	53004	.03412	.15410	-.389092	-.962	.548	.02
JAN	1	53005	.03125	.15377	-.389592	-1.210	.497	.04
JAN	2	53006	.02887	.15355	-.390074	-1.323	.434	.05
JAN	3	53007	.02670	.15374	-.390455	-1.273	.277	.04
JAN	4	53008	.02426	.15423	-.390630	-1.053	.078	.02
JAN	5	53009	.02159	.15480	-.390620	-.680	-.061	.01
JAN	6	53010	.01879	.15544	-.390524	-.193	-.095	.07
JAN	7	53011	.01595	.15614	-.390451	.350	-.042	.17
JAN	8	53012	.01298	.15685	-.390466	.876	.073	.23
JAN	9	53013	.01015	.15736	-.390622	1.310	.256	.22
JAN	10	53014	.00769	.15763	-.390998	1.586	.486	.13
JAN	11	53015	.00533	.15784	-.391606	1.657	.738	.06
JAN	12	53016	.00308	.15832	-.392472	1.506	.992	.02
JAN	13	53017	.00094	.15901	-.393576	1.156	1.205	.02
JAN	14	53018	-.00126	.15998	-.394856	.664	1.298	.03
JAN	15	53019	-.00315	.16136	-.396137	.124	1.226	.00
JAN	16	53020	-.00542	.16261	-.397269	-.352	1.076	-.03
JAN	17	53021	-.00756	.16368	-.398258	-.660	.856	.00
JAN	18	53022	-.01018	.16503	-.398969	-.733	.570	.00
JAN	19	53023	-.01322	.16633	-.399410	-.573	.332	.00
JAN	20	53024	-.01617	.16725	-.399667	-.252	.203	.00
JAN	21	53025	-.01869	.16835	-.399862	.107	.193	.00
JAN	22	53026	-.02116	.17003	-.400094	.372	.287	.00
JAN	23	53027	-.02381	.17177	-.400456	.450	.444	.00

JAN	24	53028	-.02622	.17317	-.400978	.314	.606	.00	.00
JAN	25	53029	-.02797	.17444	-.401646	.005	.729	.00	.00
JAN	26	53030	-.02914	.17586	-.402406	-.398	.805	.00	.00
JAN	27	53031	-.03026	.17740	-.403227	-.803	.783	.00	.00
JAN	28	53032	-.03165	.17919	-.404048	-1.128	.693	.00	.00
JAN	29	53033	-.03342	.18102	-.404652	-1.314	.465	.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/ 4	MJD	x	y	UT1-UTC	dX	dY	x	y	UT1	dX	dY
(0 h UTC)		"	"	s	0.001"		0.001"	0.0001s	0.001"		
DEC 1	52974	.12645	.16772	-.381442	.130	.158	.02	.02	.03	.03	.03
DEC 6	52979	.11139	.16345	-.383642	.058	-.252	.01	.01	.02	.02	.03
DEC 11	52984	.09687	.16096	-.382836	.153	-.224	.02	.02	.02	.02	.02
DEC 16	52989	.08061	.15836	-.382256	.069	-.134	.02	.02	.03	.03	.03
DEC 21	52994	.06636	.15641	-.385734	.242	-.266	.01	.02	.02	.02	.02
DEC 26	52999	.04894	.15443	-.386366	-	-	.03	.03	.48	-	-
DEC 31	53004	.03412	.15410	-.389092	-.010	-.056	.01	.02	.03	.02	.02
JAN 5	53009	.02159	.15480	-.390619	.037	-.232	.01	.01	.02	.02	.03
JAN 10	53014	.00769	.15763	-.390994	.144	-.228	.01	.01	.02	.04	.04
JAN 15	53019	-.00309	.16137	-.396136	-.010	.158	.02	.02	.02	.02	.02
JAN 20	53024	-.01617	.16725	-.399667	-	-	.02	.02	.04	-	-
JAN 25	53029	-.02796	.17444	-.401646	-	-	.02	.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/ 4 MJD	s	(microrad/s)		
DEC 1	52974	.00022	72.921	15128
DEC 6	52979	.00026		15125
DEC 11	52984	.00016		15133
DEC 16	52989	.00007		15141
DEC 21	52994	.00042		15112
DEC 26	52999	.00037		15116
DEC 31	53004	.00025		15126
JAN 5	53009	.00038		15114

5 - INFORMATION ON TIME SCALES

No leap second was introduced in UTC on 31 December 2003.
 No leap second will be introduced in UTC on 30 June 2004.
 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						Data	Number
Periods covered		Weighted RMS agreement with Bulletin B							
		x	y	UT	D	dX	dY		
VLBI									
EOP(AUS)	1 R 01	.23	.28	.14	-	-	-		12
	52975.20 to 53020.27	.15	.19	.14	-	-	-		
EOP(BKG)	3 R 04	.11	.09	.04	-	-	-		13
	52975.20 to 53020.27	.24	.14	.06	-	-	-		
EOP(BKG)	3 R 02	-	-	.20	-	-	-		29
	52974.79 to 53032.79	-	-	.20	-	-	-		
EOP(GSFC)	3 R 06	.07	.07	.03	-	-	-		14
	52975.20 to 53020.27	.18	.10	.05	-	-	-		
EOP(GSFC)	3 R 05	-	-	.21	-	-	-		33
	52974.79 to 53032.79	-	-	.17	-	-	-		
EOP(IAA)	3 R 04	.06	.06	.02	-	.10	.04	12	
	52975.20 to 53020.27	.15	.11	.05	-	.13	.05		
EOP(IAA)	3 R 03	-	-	.19	-	-	-		36
	52974.79 to 53032.79	-	-	.18	-	-	-		
EOP(SPBU)	3 R 03	.33	.36	.19	-	-	-		9
	52975.20 to 53013.27	.29	.20	.05	-	-	-		
EOP(SPBU)	2 R 01	-	-	.29	-	-	-		26
	52974.79 to 53025.80	-	-	.18	-	-	-		
EOP(MAO)	3 R 01	.11	.11	.05	-	.16	.07	14	
	52975.24 to 53020.26	.35	.14	.05	-	.22	.08		
EOP(USNO)	3 R 04	.08	.07	.04	-	-	-		12
	52975.20 to 53020.27	.10	.08	.06	-	-	-		
EOP(IVS)	0 R 01	.06	.06	.02	-	-	-		2
	52975.00 to 52978.00	.21	.12	.01	-	-	-		
GPS									
EOP(CODE)	98 P 01	.01	.01	-	.21	-	-		59
	52974.50 to 53032.50	.04	.06	-	.30	-	-		
EOP(EMR)	96 P 03	.03	.04	-	.04	-	-		59
	52974.50 to 53032.50	.06	.08	-	.39	-	-		
EOP(ESOC)	96 P 01	.02	.02	-	.03	-	-		58
	52974.50 to 53031.50	.13	.07	-	.30	-	-		
EOP(GFZ)	96 P 02	.01	.01	-	.01	-	-		59
	52974.50 to 53032.50	.06	.06	-	.35	-	-		
EOP(IAA)	1 P 01	.03	.03	-	.06	-	-		59
	52974.50 to 53032.50	.16	.19	-	.41	-	-		
EOP(JPL)	96 P 03	.02	.03	-	.11	-	-		59
	52974.50 to 53032.50	.05	.06	-	.26	-	-		
EOP(NOAA)	96 P 01	.01	.01	-	.02	-	-		54
	52974.50 to 53027.50	.19	.16	-	.54	-	-		
EOP(SIO)	96 P 01	.06	.06	-	.13	-	-		59
	52974.50 to 53032.50	.08	.16	-	.37	-	-		
EOP(IGS F)	95 P 02	.02	.02	.10	.06	-	-		48
	52974.50 to 53021.50	.03	.05	.32	.29	-	-		
EOP(IGS R)	96 P 02	.04	.04	.19	.06	-	-		59
	52974.50 to 53032.50	.06	.06	.93	.35	-	-		
EOP(IERS)	97 P 01	.04	.04	.18	.12	-	-		59
	52974.50 to 53032.50	.02	.02	.54	.26	-	-		

SLR

EOP(ASI) 3 L 02	.10	.08	-	.35	-	-	59
52974.50 to 53032.50	.26	.26	-	1.28	-	-	
EOP(CSR) 95 L 01	.31	.30	.24	-	-	-	20
52974.18 to 53030.71	.57	.49	1.34	-	-	-	
EOP(DUT) 98 L 01	.12	.10	-	-	-	-	46
52974.00 to 53033.00	.39	.27	-	-	-	-	
EOP(IAA) 2 L 01	.04	.04	.03	.03	-	-	60
52974.00 to 53033.00	.18	.09	.32	.15	-	-	
EOP(MCC) 97 L 01	.06	.05	-	.07	-	-	40
52974.00 to 53020.00	.15	.14	-	.48	-	-	
Bulletin A							
EOP(NEOS) 97 C 01	.07	.07	.07	-	-	-	60
52974.00 to 53033.00	.08	.08	.48	-	-	-	