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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:

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

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 2003 (0h UTC)	MJD	x "	y "	UT1R-UTC s	UT1R-TAI s	dX 0.001"	dY 0.001"
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Final Bulletin B values.

APR 5	52734	-.12458	.44754	-.345994	-32.345994	.21	.01
APR 10	52739	-.11468	.46235	-.350336	-32.350336	.12	.19
APR 15	52744	-.10526	.47528	-.354106	-32.354106	.13	.14
APR 20	52749	-.09549	.48566	-.357231	-32.357231	.26	.19
APR 25	52754	-.08277	.49577	-.359358	-32.359358	.15	.11
APR 30	52759	-.07027	.50618	-.361755	-32.361755	.04	.04
MAY 5	52764	-.05314	.51542	-.364158	-32.364158	.05	.08

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

MAY 10	52769	-.03968	.52505	-.366134	-32.366134	.05	.06
MAY 15	52774	-.03042	.53187	-.368138	-32.368138	.00	.00
MAY 20	52779	-.01847	.53752	-.370712	-32.370712	.00	.00
MAY 25	52784	-.00398	.54132	-.373158	-32.373158	.00	.00
MAY 30	52789	.01266	.54462	-.374950	-32.374950	.00	.00
JUN 4	52794	.02721	.54778	-.376282	-32.376282	.00	.00
JUN 9	52799	.04265	.54941	-.377640	-32.377640	.00	.00
JUN 14	52804	.05795	.54986	-.378746	-32.378746	.00	.00
JUN 19	52809	.07315	.54921	-.379578	-32.379578	.00	.00
JUN 24	52814	.08812	.54746	-.380135	-32.380135	.00	.00
JUN 29	52819	.10279	.54463	-.380424	-32.380424	.00	.00
JUL 4	52824	.11706	.54074	-.380501	-32.380501	.00	.00
JUL 9	52829	.13086	.53582	-.380364	-32.380364	.00	.00
JUL 14	52834	.14410	.52990	-.380074	-32.380074	.00	.00
JUL 19	52839	.15672	.52303	-.379662	-32.379662	.00	.00
JUL 24	52844	.16865	.51524	-.379166	-32.379166	.00	.00

JUL 29 52849 .17981 .50660 -.378647 -32.378647 .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 2001 IERS Annual Report.

2003		MJD	x	y	UT1-UTC	UT1-UT1R	D	dX	dY
(0 h UTC)			"	"	s	ms	ms	0.001"	0.001"
APR	5	52734	-.12458	.44754	-.346617	-.623	.777	.21	.01
APR	6	52735	-.12208	.45076	-.347331	-.440	.653	.16	-.01
APR	7	52736	-.11978	.45405	-.347926	-.115	.512	.13	.03
APR	8	52737	-.11759	.45699	-.348370	.322	.378	.15	.16
APR	9	52738	-.11596	.45971	-.348701	.820	.315	.16	.26
APR	10	52739	-.11468	.46235	-.349026	1.310	.343	.12	.19
APR	11	52740	-.11323	.46485	-.349418	1.705	.450	.13	.03
APR	12	52741	-.11141	.46749	-.349957	1.914	.654	.25	-.02
APR	13	52742	-.10929	.47029	-.350747	1.856	.949	.37	.14
APR	14	52743	-.10717	.47288	-.351856	1.499	1.253	.32	.27
APR	15	52744	-.10526	.47528	-.353226	.880	1.454	.13	.14
APR	16	52745	-.10379	.47741	-.354714	.114	1.485	.00	-.08
APR	17	52746	-.10220	.47923	-.356137	-.634	1.304	.07	-.09
APR	18	52747	-.10029	.48116	-.357275	-1.200	1.013	.22	.11
APR	19	52748	-.09802	.48339	-.358142	-1.481	.702	.30	.26
APR	20	52749	-.09549	.48566	-.358689	-1.458	.364	.26	.19
APR	21	52750	-.09304	.48774	-.358902	-1.198	.083	.20	.04
APR	22	52751	-.09070	.48962	-.358896	-.812	-.026	.18	-.02
APR	23	52752	-.08849	.49170	-.358886	-.419	.062	.17	.04
APR	24	52753	-.08590	.49374	-.359044	-.111	.200	.18	.08
APR	25	52754	-.08277	.49577	-.359296	.062	.323	.15	.11
APR	26	52755	-.07999	.49796	-.359689	.086	.475	.12	.16
APR	27	52756	-.07759	.50016	-.360236	-.019	.618	.08	.23
APR	28	52757	-.07519	.50244	-.360908	-.214	.717	.08	.22
APR	29	52758	-.07284	.50442	-.361651	-.445	.760	.09	.10
APR	30	52759	-.07027	.50618	-.362408	-.653	.737	.04	.04
MAY	1	52760	-.06685	.50802	-.363108	-.782	.625	-.03	.11
MAY	2	52761	-.06302	.50987	-.363645	-.787	.434	-.09	.26
MAY	3	52762	-.05938	.51161	-.363971	-.643	.223	-.11	.32
MAY	4	52763	-.05611	.51343	-.364095	-.349	.051	-.07	.22
MAY	5	52764	-.05314	.51542	-.364086	.072	-.048	.05	.08
MAY	6	52765	-.05007	.51753	-.364018	.572	-.098	.18	.02
MAY	7	52766	-.04713	.51971	-.363914	1.086	-.107	.21	.08
MAY	8	52767	-.04460	.52160	-.363832	1.538	-.015	.14	.11
MAY	9	52768	-.04210	.52330	-.363911	1.847	.173	.04	.06
MAY	10	52769	-.03968	.52505	-.364201	1.933	.402	.05	.06
MAY	11	52770	-.03768	.52659	-.364726	1.747	.663	.15	.19
MAY	12	52771	-.03600	.52794	-.365516	1.287	.936	.20	.28
MAY	13	52772	-.03440	.52929	-.366563	.621	1.143	.16	.09
MAY	14	52773	-.03256	.53058	-.367749	-.119	1.200	.00	.00
MAY	15	52774	-.03042	.53187	-.368908	-.770	1.081	.00	.00
MAY	16	52775	-.02816	.53314	-.369874	-1.193	.818	.00	.00
MAY	17	52776	-.02585	.53430	-.370536	-1.320	.487	.00	.00
MAY	18	52777	-.02357	.53552	-.370869	-1.174	.215	.00	.00
MAY	19	52778	-.02124	.53659	-.371007	-.851	.139	.00	.00
MAY	20	52779	-.01847	.53752	-.371189	-.477	.206	.00	.00
MAY	21	52780	-.01541	.53859	-.371450	-.164	.263	.00	.00
MAY	22	52781	-.01249	.53963	-.371729	.019	.371	.00	.00
MAY	23	52782	-.00977	.54042	-.372191	.050	.526	.00	.00
MAY	24	52783	-.00699	.54092	-.372770	-.054	.618	.00	.00
MAY	25	52784	-.00398	.54132	-.373412	-.253	.657	.00	.00
MAY	26	52785	-.00074	.54154	-.374066	-.495	.631	.00	.00
MAY	27	52786	.00261	.54198	-.374655	-.724	.554	.00	.00
MAY	28	52787	.00598	.54278	-.375165	-.883	.457	.00	.00
MAY	29	52788	.00951	.54372	-.375559	-.928	.350	.00	.00

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"		
APR 5	52734	-.12458	.44755	-.346613	.280	.081	.02	.02	.02	.03	.04
APR 10	52739	-.11468	.46235	-.349026	.106	.197	.01	.01	.01	.02	.02
APR 15	52744	-.10525	.47528	-.353227	.109	.132	.02	.02	.02	.02	.02
APR 20	52749	-.09548	.48565	-.358691	.267	.186	.02	.02	.03	.04	.04
APR 25	52754	-.08277	.49578	-.359298	.143	.121	.02	.02	.02	.02	.03
APR 30	52759	-.07027	.50618	-.362409	.041	.041	.01	.01	.01	.02	.02
MAY 5	52764	-.05314	.51542	-.364090	.051	.068	.02	.02	.02	.02	.03
MAY 10	52769	-.03968	.52506	-.364200	.046	.061	.02	.01	.02	.03	.03
MAY 15	52774	-.03042	.53188	-.368908	-	-	.02	.02	.02	-	-
MAY 20	52779	-.01847	.53751	-.371186	-	-	.03	.02	.04	-	-
MAY 25	52784	-.00400	.54131	-.373413	-	-	.03	.02	.05	-	-

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)		
APR 5	52734	.00089	72.921	15072
APR 10	52739	.00081		15079
APR 15	52744	.00074		15084
APR 20	52749	.00053		15102
APR 25	52754	.00043		15111
APR 30	52759	.00057		15099
MAY 5	52764	.00043		15111

5 - INFORMATION ON TIME SCALES

No leap second was introduced in UTC on 31 December 2002.  
 No leap second will be introduced in UTC on 30 June 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

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.

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EOP series Periods covered	Mean formal uncertainty Weighted RMS agreement with Bulletin B						
	x	y	UT	D	dX	dY	Data Number

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## VLBI

EOP(AUS) 1 R 01	.22	.27	.13	-	-	-	11
52737.20 to 52772.21	.18	.36	.06	-	-	-	
EOP(BKG) 3 R 01	.10	.10	.04	-	-	-	11
52737.00 to 52772.00	.22	.13	.08	-	-	-	
EOP(BKG) 1 R 02	-	-	.08	-	-	-	24
52736.79 to 52779.79	-	-	.15	-	-	-	
EOP(GSFC) 3 R 04	.05	.05	.02	-	-	-	11
52737.20 to 52772.20	.11	.10	.03	-	-	-	
EOP(GSFC) 3 R 03	-	-	.12	-	-	-	27
52736.79 to 52786.79	-	-	.22	-	-	-	
EOP(IAA) 3 R 02	.05	.05	.02	-	-	-	11
52737.20 to 52772.20	.18	.15	.06	-	-	-	
EOP(IAA) 3 R 01	-	-	.10	-	-	-	32
52736.79 to 52786.79	-	-	.12	-	-	-	
EOP(SPBU) 2 R 01	-	-	.12	-	-	-	22
52736.79 to 52775.81	-	-	.17	-	-	-	
EOP(IVS) 2 R 01	.05	.05	.02	-	-	-	10
52737.00 to 52772.00	.11	.12	.03	-	-	-	

## GPS

EOP(CODE) 98 P 01	.01	.01	-	.25	-	-	54
52734.50 to 52787.50	.06	.04	-	.17	-	-	
EOP(EMR) 96 P 03	.03	.03	-	.04	-	-	54
52734.50 to 52787.50	.08	.08	-	.35	-	-	
EOP(ESOC) 96 P 01	.21	.21	-	.31	-	-	54
52734.50 to 52787.50	.14	.13	-	.25	-	-	
EOP(GFZ) 96 P 02	.01	.01	-	.01	-	-	54
52734.50 to 52787.50	.08	.09	-	.21	-	-	
EOP(IAA) 1 P 01	.03	.03	-	.06	-	-	53
52734.50 to 52787.50	.14	.17	-	.38	-	-	
EOP(JPL) 96 P 03	.03	.03	-	.12	-	-	49
52734.50 to 52782.50	.13	.08	-	.51	-	-	
EOP(NOAA) 96 P 01	.02	.02	-	.07	-	-	37
52734.50 to 52770.50	.23	.15	-	.46	-	-	
EOP(SIO) 96 P 01	.06	.06	-	.12	-	-	54
52734.50 to 52787.50	.32	.12	-	.32	-	-	
EOP(IGS F)95 P 02	.02	.03	.08	.06	-	-	43
52734.50 to 52776.50	.07	.04	.26	.23	-	-	
EOP(IGS R)96 P 02	.04	.04	.18	.07	-	-	54
52734.50 to 52787.50	.10	.06	.60	.30	-	-	
EOP(IERS) 97 P 01	.05	.04	.22	.15	-	-	54
52734.50 to 52787.50	.03	.02	.33	.21	-	-	

## SLR

EOP(CGS) 97 L 02	.31	.33	.27	-	-	-	20
52734.00 to 52753.00	1.37	1.40	.87	-	-	-	
EOP(CSR) 95 L 01	.30	.36	.24	-	-	-	14
52734.20 to 52772.21	.29	.56	1.14	-	-	-	
EOP(DUT) 98 L 01	.06	.07	-	-	-	-	9
52749.00 to 52773.00	.58	.54	-	-	-	-	
EOP(IAA) 2 L 01	.04	.04	.02	.02	-	-	55
52734.00 to 52788.00	.13	.25	.28	.14	-	-	
EOP(MCC) 97 L 01	.06	.06	-	.07	-	-	21
52747.00 to 52767.00	.21	.16	-	.35	-	-	

## Bulletin A

EOP(NEOS) 97 C 01	.06	.06	.06	-	-	-	55
52734.00 to 52788.00	.15	.10	.12	-	-	-	

