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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 2004 (0h UTC)	MJD	x "	y "	UT1R-UTC s	UT1R-TAI s	dX 0.001"	dY 0.001"
Final Bulletin B values.							
SEP 1	53249	.15226	.49571	-.452625	-32.452625	.19	.11
SEP 6	53254	.16392	.48475	-.452579	-32.452579	.07	-.43
SEP 11	53259	.17387	.47536	-.451572	-32.451572	.27	.12
SEP 16	53264	.18221	.46382	-.451984	-32.451984	.13	-.09
SEP 21	53269	.18984	.45209	-.452619	-32.452619	.24	-.10
SEP 26	53274	.19600	.44272	-.453338	-32.453338	.27	-.48
OCT 1	53279	.19851	.43151	-.454473	-32.454473	.03	-.29

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

OCT 6	53284	.20194	.41912	-.456819	-32.456819	.15	-.29
OCT 11	53289	.20330	.40741	-.459649	-32.459649	.24	-.25
OCT 16	53294	.20540	.39459	-.462524	-32.462524	.20	.24
OCT 21	53299	.20612	.38462	-.464796	-32.464796	.32	-.27
OCT 26	53304	.20547	.37455	-.466717	-32.466717	.00	.00
OCT 31	53309	.20697	.36357	-.469257	-32.469257	.00	.00
NOV 5	53314	.20829	.35247	-.471916	-32.471916	.00	.00
NOV 10	53319	.20676	.34141	-.474449	-32.474449	.00	.00
NOV 15	53324	.20396	.33054	-.476906	-32.476906	.00	.00
NOV 20	53329	.20021	.31995	-.479256	-32.479256	.00	.00
NOV 25	53334	.19561	.30971	-.481514	-32.481514	.00	.00
NOV 30	53339	.19023	.29988	-.483635	-32.483635	.00	.00
DEC 5	53344	.18409	.29050	-.485619	-32.485619	.00	.00
DEC 10	53349	.17727	.28165	-.487488	-32.487488	.00	.00
DEC 15	53354	.16979	.27336	-.489220	-32.489220	.00	.00
DEC 20	53359	.16172	.26567	-.490837	-32.490837	.00	.00

DEC 25	53364	.15309	.25862	-.492355	-32.492355	.00	.00
DEC 30	53369	.14398	.25225	-.493790	-32.493790	.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 2003 IERS Annual Report.

2004		MJD	x	y	UT1-UTC	UT1-UT1R	D	dX	dY
(0 h UTC)		"	"	"	s	ms	ms	0.001"	0.001"
SEP	1	53249	.15226	.49571	-.453170	-.544	.602	.19	.11
SEP	2	53250	.15495	.49379	-.453738	-1.065	.466	.12	-.03
SEP	3	53251	.15710	.49216	-.454069	-1.437	.290	.13	-.19
SEP	4	53252	.15929	.48953	-.454305	-1.599	.066	.14	-.32
SEP	5	53253	.16167	.48755	-.454202	-1.533	-.240	.12	-.39
SEP	6	53254	.16392	.48475	-.453837	-1.257	-.525	.07	-.43
SEP	7	53255	.16529	.48267	-.453171	-.817	-.715	.05	-.44
SEP	8	53256	.16767	.48077	-.452430	-.274	-.780	.08	-.27
SEP	9	53257	.16934	.47890	-.451636	.298	-.779	.14	-.12
SEP	10	53258	.17194	.47699	-.450898	.823	-.657	.20	-.01
SEP	11	53259	.17387	.47536	-.450345	1.227	-.393	.27	.12
SEP	12	53260	.17636	.47300	-.450128	1.452	-.150	.32	.14
SEP	13	53261	.17794	.47078	-.450052	1.460	.147	.32	.02
SEP	14	53262	.17983	.46844	-.450417	1.246	.479	.27	-.10
SEP	15	53263	.18108	.46608	-.450992	.845	.632	.19	-.13
SEP	16	53264	.18221	.46382	-.451647	.336	.671	.13	-.09
SEP	17	53265	.18381	.46138	-.452295	-.170	.642	.14	-.08
SEP	18	53266	.18493	.45904	-.452894	-.561	.451	.15	-.10
SEP	19	53267	.18669	.45686	-.453175	-.745	.153	.17	-.12
SEP	20	53268	.18794	.45447	-.453198	-.685	-.084	.20	-.12
SEP	21	53269	.18984	.45209	-.453027	-.408	-.233	.24	-.10
SEP	22	53270	.19168	.44987	-.452769	.004	-.291	.28	-.13
SEP	23	53271	.19357	.44800	-.452488	.427	-.271	.29	-.22
SEP	24	53272	.19498	.44650	-.452267	.735	-.082	.28	-.37
SEP	25	53273	.19561	.44478	-.452349	.829	.200	.28	-.47
SEP	26	53274	.19600	.44272	-.452670	.668	.432	.27	-.48
SEP	27	53275	.19628	.44077	-.453193	.281	.649	.22	-.39
SEP	28	53276	.19720	.43853	-.453931	-.243	.803	.12	-.26
SEP	29	53277	.19795	.43636	-.454758	-.786	.770	.02	-.23
SEP	30	53278	.19813	.43398	-.455436	-1.229	.612	-.02	-.27
OCT	1	53279	.19851	.43151	-.455960	-1.487	.474	.03	-.29
OCT	2	53280	.19908	.42910	-.456379	-1.517	.284	.14	-.20
OCT	3	53281	.19996	.42656	-.456535	-1.321	.111	.22	-.10
OCT	4	53282	.20071	.42406	-.456618	-.934	.046	.22	-.08
OCT	5	53283	.20136	.42184	-.456650	-.417	.009	.16	-.16
OCT	6	53284	.20194	.41912	-.456662	.157	.056	.15	-.29
OCT	7	53285	.20275	.41677	-.456789	.710	.120	.20	-.32
OCT	8	53286	.20314	.41428	-.456925	1.167	.164	.28	-.28
OCT	9	53287	.20360	.41197	-.457136	1.464	.320	.29	-.19
OCT	10	53288	.20355	.41008	-.457578	1.555	.547	.26	-.18
OCT	11	53289	.20330	.40741	-.458231	1.418	.770	.24	-.25
OCT	12	53290	.20344	.40519	-.459107	1.067	.983	.21	-.29
OCT	13	53291	.20365	.40262	-.460170	.561	1.105	.28	-.28
OCT	14	53292	.20391	.39971	-.461277	.000	1.113	.31	-.14
OCT	15	53293	.20457	.39710	-.462352	-.489	1.035	.29	.07
OCT	16	53294	.20540	.39459	-.463315	-.791	.796	.20	.24
OCT	17	53295	.20590	.39263	-.463932	-.838	.420	.14	.26
OCT	18	53296	.20602	.39022	-.464169	-.634	.136	.15	.11
OCT	19	53297	.20611	.38869	-.464240	-.256	-.006	.23	-.13
OCT	20	53298	.20590	.38623	-.464202	.175	-.006	.27	-.27
OCT	21	53299	.20612	.38462	-.464271	.526	.147	.32	-.27
OCT	22	53300	.20602	.38230	-.464523	.692	.352	.36	-.17
OCT	23	53301	.20601	.38077	-.464981	.623	.564	.00	.00
OCT	24	53302	.20560	.37875	-.465638	.329	.747	.00	.00

OCT	25	53303	.20507	.37682	-.466445	-.123	.867	.00	.00
OCT	26	53304	.20547	.37455	-.467350	-.633	.922	.00	.00
OCT	27	53305	.20584	.37249	-.468276	-1.089	.882	.00	.00
OCT	28	53306	.20675	.36997	-.469108	-1.398	.655	.00	.00

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

		Raw normal values					Uncertainties					
2004	MJD	x	y	UT1-UTC	dX	dY	x	y	UT1	dX	dY	
(0 h UTC)		"	"	s	0.001"		0.001"	0.0001s	0.001"			
SEP	1	53249	.15234	.49571	-.453167	.126	.062	.02	.02	.02	.05	.05
SEP	6	53254	.16393	.48475	-.453836	.003	-.364	.02	.03	.02	.06	.06
SEP	11	53259	.17386	.47535	-.450343	.301	.047	.02	.02	.03	.05	.05
SEP	16	53264	.18219	.46383	-.451647	.132	-.062	.02	.02	.02	.03	.03
SEP	21	53269	.18983	.45208	-.453027	.166	-.037	.02	.02	.03	.04	.04
SEP	26	53274	.19600	.44271	-.452670	.272	-.438	.02	.02	.03	.03	.04
OCT	1	53279	.19850	.43151	-.455964	.051	-.346	.02	.02	.04	.05	.06
OCT	6	53284	.20193	.41912	-.456662	.168	-.259	.01	.01	.02	.02	.02
OCT	11	53289	.20329	.40740	-.458225	.215	-.147	.02	.02	.03	.04	.04
OCT	16	53294	.20539	.39460	-.463315	.215	.246	.02	.02	.03	.07	.09
OCT	21	53299	.20611	.38460	-.464271	.322	-.275	.01	.01	.02	.02	.02
OCT	26	53304	.20547	.37454	-.467341	-	-	.02	.02	.04	-	-

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		
2004	MJD	s	(microrad/s)		
SEP	1	53249	.00005	72.921	15143
SEP	6	53254	-.00016		15160
SEP	11	53259	-.00008		15153
SEP	16	53264	.00015		15134
SEP	21	53269	.00013		15135
SEP	26	53274	.00015		15134
OCT	1	53279	.00033		15119

5 - INFORMATION ON TIME SCALES

No leap second was introduced in UTC on 30 June 2004.
 No leap second will be introduced in UTC on 31 December 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 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	.12	.10	.05	-	-	-	15
	53251.27 to 53300.27	.38	.37	.05	-	-	-	
EOP(BKG)	3 R 04	.12	.09	.05	-	-	-	16
	53251.27 to 53300.27	.26	.17	.09	-	-	-	
EOP(BKG)	3 R 02	-	-	.13	-	-	-	46
	53249.79 to 53303.79	-	-	.20	-	-	-	
EOP(GSFC)	4 R 02	.11	.13	.06	-	-	-	17
	53251.27 to 53300.27	.20	.12	.07	-	-	-	
EOP(GSFC)	4 R 01	-	-	.17	-	-	-	33
	53249.79 to 53303.79	-	-	.17	-	-	-	
EOP(IAA)	3 R 04	.11	.09	.04	-	.17	.07	13
	53251.27 to 53300.27	.18	.10	.08	-	.14	.06	
EOP(IAA)	3 R 03	-	-	.14	-	-	-	49
	53249.79 to 53303.79	-	-	.16	-	-	-	
EOP(SPBU)	3 R 03	.36	.39	.21	-	-	-	12
	53251.27 to 53293.27	.16	.12	.05	-	-	-	
EOP(SPBU)	2 R 01	-	-	.19	-	-	-	31
	53249.79 to 53299.79	-	-	.19	-	-	-	
EOP(MAO)	3 R 01	.12	.10	.04	-	.18	.07	12
	53251.28 to 53286.30	.31	.13	.09	-	.27	.17	
EOP(USNO)	4 R 01	.09	.08	.03	-	-	-	15
	53251.27 to 53300.27	.17	.11	.08	-	-	-	
EOP(IVS)	0 R 01	.08	.07	.03	-	-	-	11
	53251.00 to 53286.00	.18	.13	.10	-	-	-	
GPS								
EOP(CODE)	98 P 01	.01	.01	-	.28	-	-	57
	53249.50 to 53305.50	.04	.05	-	.25	-	-	
EOP(EMR)	96 P 03	.03	.03	-	.04	-	-	57
	53249.50 to 53305.50	.06	.12	-	.60	-	-	
EOP(ESOC)	96 P 01	.02	.02	-	.07	-	-	57
	53249.50 to 53305.50	.06	.06	-	.69	-	-	
EOP(GFZ)	96 P 02	.01	.01	-	.01	-	-	57
	53249.50 to 53305.50	.04	.05	-	.32	-	-	
EOP(IAA)	1 P 01	.03	.03	-	.06	-	-	57
	53249.50 to 53305.50	.18	.18	-	.58	-	-	
EOP(JPL)	96 P 03	.02	.02	-	.14	-	-	57
	53249.50 to 53305.50	.04	.05	-	.33	-	-	
EOP(NOAA)	96 P 01	.01	.01	-	.02	-	-	57
	53249.50 to 53305.50	.23	.19	-	.37	-	-	
EOP(SIO)	96 P 01	.05	.05	-	.12	-	-	57
	53249.50 to 53305.50	.05	.06	-	.61	-	-	
EOP(IGS F)	95 P 02	.02	.03	.08	.04	-	-	46
	53249.50 to 53294.50	.07	.08	.26	.18	-	-	
EOP(IGS R)	96 P 02	.03	.03	.18	.05	-	-	57
	53249.50 to 53305.50	.10	.07	.45	.21	-	-	
EOP(IERS)	97 P 01	.03	.04	.19	.12	-	-	57
	53249.50 to 53305.50	.03	.04	.29	.22	-	-	
SLR								
EOP(ASI)	3 L 02	.08	.08	-	.20	-	-	56
	53249.50 to 53304.50	.31	.34	-	.68	-	-	
EOP(CSR)	95 L 01	.38	.39	.29	-	-	-	19

53249.95 to 53303.60	.50	.27	.92	-	-	-	
EOP(IAA) 2 L 01	.05	.05	.03	.03	-	-	58
53249.00 to 53306.00	.29	.25	.29	.19	-	-	
EOP(MCC) 97 L 01	.07	.06	-	.10	-	-	51
53249.00 to 53299.00	.21	.13	-	.60	-	-	
Bulletin A							
EOP(NEOS) 97 C 01	.06	.05	.08	-	-	-	58
53249.00 to 53306.00	.11	.13	.28	-	-	-	