BULLETIN B 185
(IAU 2000)
2 July 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 2003 (0h UTC)	MJD	x "	y "	UT1R-UTC s	UT1R-TAI s	dX 0.001"	dY 0.001"
Final Bulletin B values.							
MAY 5	52764	-.05314	.51542	-.364158	-32.364158	.05	.08
MAY 10	52769	-.03968	.52505	-.366133	-32.366133	.06	-.06
MAY 15	52774	-.03043	.53185	-.368201	-32.368201	.16	-.18
MAY 20	52779	-.01850	.53753	-.370736	-32.370736	.21	.12
MAY 25	52784	-.00403	.54134	-.373142	-32.373142	.02	.05
MAY 30	52789	.01255	.54458	-.374948	-32.374948	.16	-.02
JUN 4	52794	.02781	.54785	-.375842	-32.375842	.32	.04
Preliminary extension, to be updated weekly in Bulletin A and monthly in Bulletin B.							
JUN 9	52799	.04486	.54792	-.375140	-32.375140	-.03	-.21
JUN 14	52804	.06220	.54667	-.374268	-32.374268	.00	.00
JUN 19	52809	.08316	.54471	-.372547	-32.372547	.00	.00
JUN 24	52814	.10364	.54316	-.370916	-32.370916	.00	.00
JUN 29	52819	.12275	.54045	-.369132	-32.369132	.00	.00
JUL 4	52824	.14007	.53640	-.367367	-32.367367	.00	.00
JUL 9	52829	.15490	.53105	-.366085	-32.366085	.00	.00
JUL 14	52834	.16843	.52463	-.365063	-32.365063	.00	.00
JUL 19	52839	.18091	.51724	-.364193	-32.364193	.00	.00
JUL 24	52844	.19245	.50891	-.363430	-32.363430	.00	.00
JUL 29	52849	.20308	.49971	-.362728	-32.362728	.00	.00
AUG 3	52854	.21279	.48968	-.362118	-32.362118	.00	.00
AUG 8	52859	.22159	.47890	-.361591	-32.361591	.00	.00
AUG 13	52864	.22944	.46742	-.361187	-32.361187	.00	.00
AUG 18	52869	.23631	.45532	-.360943	-32.360943	.00	.00
AUG 23	52874	.24219	.44268	-.360882	-32.360882	.00	.00

AUG	28	52879	.24704	.42956	-.361019	-32.361019	.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.

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 (0 h UTC)		MJD	x "	y "	UT1-UTC s	UT1-UT1R ms	D ms	dX 0.001"	dY 0.001"
MAY	5	52764	-.05314	.51542	-.364086	.072	-.048	.05	.08
MAY	6	52765	-.05010	.51752	-.364024	.572	-.105	.17	.09
MAY	7	52766	-.04715	.51971	-.363914	1.086	-.108	.24	.12
MAY	8	52767	-.04467	.52161	-.363835	1.538	-.015	.19	.08
MAY	9	52768	-.04214	.52333	-.363911	1.847	.171	.08	-.02
MAY	10	52769	-.03968	.52505	-.364200	1.933	.402	.06	-.06
MAY	11	52770	-.03769	.52660	-.364726	1.747	.660	.13	.05
MAY	12	52771	-.03601	.52797	-.365510	1.287	.932	.18	.17
MAY	13	52772	-.03440	.52929	-.366554	.621	1.159	.16	.07
MAY	14	52773	-.03256	.53053	-.367777	-.119	1.235	.12	-.12
MAY	15	52774	-.03043	.53185	-.368970	-.770	1.089	.16	-.18
MAY	16	52775	-.02825	.53318	-.369918	-1.193	.785	.24	.00
MAY	17	52776	-.02589	.53430	-.370533	-1.320	.473	.28	.16
MAY	18	52777	-.02356	.53547	-.370886	-1.174	.239	.25	.15
MAY	19	52778	-.02125	.53655	-.371052	-.851	.142	.22	.09
MAY	20	52779	-.01850	.53753	-.371213	-.477	.182	.21	.12
MAY	21	52780	-.01543	.53861	-.371448	-.164	.252	.21	.19
MAY	22	52781	-.01249	.53964	-.371731	.019	.376	.23	.15
MAY	23	52782	-.00980	.54044	-.372200	.050	.524	.22	.01
MAY	24	52783	-.00696	.54096	-.372769	-.054	.606	.15	-.04
MAY	25	52784	-.00403	.54134	-.373395	-.253	.643	.02	.05
MAY	26	52785	-.00094	.54161	-.374037	-.495	.633	-.06	.15
MAY	27	52786	.00237	.54199	-.374641	-.724	.571	-.02	.12
MAY	28	52787	.00588	.54264	-.375162	-.883	.462	.08	-.01
MAY	29	52788	.00939	.54369	-.375552	-.928	.310	.15	-.10
MAY	30	52789	.01255	.54458	-.375776	-.828	.151	.16	-.02
MAY	31	52790	.01564	.54550	-.375855	-.575	-.041	.16	.16
JUN	1	52791	.01852	.54641	-.375703	-.185	-.252	.19	.27
JUN	2	52792	.02134	.54699	-.375369	.299	-.378	.24	.24
JUN	3	52793	.02438	.54754	-.374971	.815	-.421	.30	.14
JUN	4	52794	.02781	.54785	-.374552	1.290	-.462	.32	.04
JUN	5	52795	.03153	.54792	-.374073	1.645	-.413	.29	-.06
JUN	6	52796	.03503	.54791	-.373747	1.811	-.196	.18	-.16
JUN	7	52797	.03820	.54787	-.373692	1.739	.060	.06	-.22
JUN	8	52798	.04142	.54786	-.373863	1.417	.293	-.02	-.22
JUN	9	52799	.04486	.54792	-.374255	.884	.474	-.03	-.21
JUN	10	52800	.04835	.54807	-.374771	.234	.533	.05	-.26
JUN	11	52801	.05179	.54820	-.375273	-.400	.443	.22	-.33
JUN	12	52802	.05527	.54793	-.375614	-.879	.194	.43	-.31
JUN	13	52803	.05875	.54730	-.375640	-1.106	-.147	.59	-.21
JUN	14	52804	.06220	.54667	-.375328	-1.060	-.447	.00	.00
JUN	15	52805	.06585	.54616	-.374778	-.802	-.644	.00	.00
JUN	16	52806	.06981	.54562	-.374083	-.446	-.713	.00	.00
JUN	17	52807	.07403	.54512	-.373390	-.118	-.646	.00	.00
JUN	18	52808	.07854	.54488	-.372813	.090	-.493	.00	.00
JUN	19	52809	.08316	.54471	-.372409	.139	-.314	.00	.00
JUN	20	52810	.08774	.54453	-.372176	.035	-.162	.00	.00
JUN	21	52811	.09210	.54444	-.372067	-.179	-.066	.00	.00
JUN	22	52812	.09596	.54413	-.372024	-.446	-.044	.00	.00
JUN	23	52813	.09991	.54365	-.371960	-.706	-.093	.00	.00
JUN	24	52814	.10364	.54316	-.371820	-.904	-.196	.00	.00
JUN	25	52815	.10734	.54256	-.371555	-.992	-.347	.00	.00
JUN	26	52816	.11100	.54202	-.371141	-.939	-.477	.00	.00

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

2003 (0 h UTC)	MJD	Raw normal values x "	y "	UT1-UTC s	dX 0.001"	dY 0.001"	Uncertainties x 0.001"	y 0.001"	UT1 0.0001s	dX 0.001"	dY 0.001"
MAY 5	52764	-.05319	.51542	-.364100	.039	.088	.02	.02	.02	.02	.02
MAY 10	52769	-.03969	.52503	-.364200	.050	-.039	.01	.02	.02	.02	.02
MAY 15	52774	-.03044	.53187	-.368971	.164	-.161	.02	.02	.02	.02	.02
MAY 20	52779	-.01850	.53753	-.371211	.218	.102	.02	.02	.02	.03	.03
MAY 25	52784	-.00403	.54133	-.373396	.020	.051	.02	.02	.02	.02	.03
MAY 30	52789	.01256	.54457	-.375777	.158	-.023	.03	.02	.02	.02	.02
JUN 4	52794	.02780	.54784	-.374552	.324	.043	.02	.02	.02	.02	.02
JUN 9	52799	.04486	.54792	-.374257	-	-	.02	.02	.03	-	-
JUN 14	52804	.06219	.54666	-.375329	.642	-.200	.02	.02	.05	-	-
JUN 19	52809	.08316	.54470	-	-	-	.02	.01	-	-	-
JUN 24	52814	.10364	.54316	-.371816	-	-	.01	.02	.08	-	-

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) 2003	MJD	DR s	OmegaR (microrad/s)	
MAY 5	52764	.00043	72.921	15111
MAY 10	52769	.00036		15116
MAY 15	52774	.00054		15101
MAY 20	52779	.00055		15101
MAY 25	52784	.00042		15111
MAY 30	52789	.00033		15119
JUN 4	52794	-.00004		15150

5 - INFORMATION ON TIME SCALES
No leap second was introduced in UTC on 30 June 2003.
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 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.

EOP series / Periods covered	Mean formal uncertainty / Weighted RMS agreement with Bulletin B x	y	UT	D	dX	dY	Data	Number
VLBI								
EOP(AUS) 1 R 01	.22	.28	.13	-	-	-		11

52765.20 to 52803.27	.16	.26	.06	-	-	-	
EOP(BKG) 3 R 01	.12	.10	.04	-	-	-	11
52765.00 to 52803.00	.17	.11	.09	-	-	-	
EOP(BKG) 1 R 02	-	-	.10	-	-	-	20
52764.79 to 52803.81	-	-	.08	-	-	-	
EOP(GSFC) 3 R 04	.07	.06	.03	-	-	-	12
52765.20 to 52803.27	.10	.15	.02	-	-	-	
EOP(GSFC) 3 R 03	-	-	.13	-	-	-	23
52764.79 to 52815.79	-	-	.22	-	-	-	
EOP(IAA) 3 R 02	.07	.06	.03	-	-	-	12
52765.20 to 52803.27	.17	.16	.06	-	-	-	
EOP(IAA) 3 R 01	-	-	.12	-	-	-	24
52764.79 to 52804.34	-	-	.08	-	-	-	
EOP(SPBU) 1 R 02	.10	.08	.03	-	-	-	11
52765.20 to 52803.27	.26	.25	.11	-	-	-	
EOP(SPBU) 2 R 01	-	-	.13	-	-	-	22
52764.79 to 52815.79	-	-	.11	-	-	-	
EOP(IVS) 2 R 01	.05	.04	.02	-	-	-	10
52765.00 to 52796.00	.11	.15	.04	-	-	-	
GPS							
EOP(CODE) 98 P 01	.02	.02	-	.10	-	-	52
52764.50 to 52815.50	.05	.05	-	.20	-	-	
EOP(EMR) 96 P 03	.03	.03	-	.04	-	-	52
52764.50 to 52815.50	.06	.07	-	.32	-	-	
EOP(ESOC) 96 P 01	.02	.02	-	.02	-	-	52
52764.50 to 52815.50	.12	.14	-	.27	-	-	
EOP(GFZ) 96 P 02	.01	.01	-	.01	-	-	52
52764.50 to 52815.50	.12	.09	-	.24	-	-	
EOP(IAA) 1 P 01	.03	.03	-	.06	-	-	52
52764.50 to 52815.50	.13	.17	-	.38	-	-	
EOP(JPL) 96 P 03	.03	.03	-	.09	-	-	47
52764.50 to 52810.50	.14	.09	-	.49	-	-	
EOP(NOAA) 96 P 01	.03	.02	-	.03	-	-	41
52764.50 to 52804.50	.31	.26	-	.88	-	-	
EOP(SIO) 96 P 01	.06	.06	-	.12	-	-	48
52764.50 to 52811.50	.12	.06	-	.24	-	-	
EOP(IGS F)95 P 02	.02	.02	.08	.06	-	-	41
52764.50 to 52804.50	.07	.07	.34	.26	-	-	
EOP(IGS R)96 P 02	.04	.03	.19	.07	-	-	49
52764.50 to 52812.50	.08	.06	.56	.23	-	-	
EOP(IERS) 97 P 01	.05	.05	.17	.11	-	-	52
52764.50 to 52815.50	.03	.03	.35	.19	-	-	
SLR							
EOP(CSR) 95 L 01	.30	.43	.27	-	-	-	4
52764.07 to 52772.21	.33	.93	.71	-	-	-	
EOP(DUT) 98 L 01	.05	.07	-	-	-	-	4
52764.00 to 52773.00	.42	.47	-	-	-	-	
EOP(IAA) 2 L 01	.03	.04	.02	.02	-	-	53
52764.00 to 52816.00	.09	.22	.30	.12	-	-	
EOP(MCC) 97 L 01	.06	.06	-	.08	-	-	46
52764.00 to 52809.00	.12	.15	-	.56	-	-	
Bulletin A							
EOP(NEOS) 97 C 01	.05	.06	.10	-	-	-	53
52764.00 to 52816.00	.06	.07	.15	-	-	-	