

BULLETIN B 222  
 (IAU 2000)  
 1 august 2006

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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:

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

where

$X_{\text{obs}}$ ,  $Y_{\text{obs}}$  are the observed coordinates of the Celestial Intermediate Pole (CIP) in the Geocentric Celestial Reference System, and

$X_{\text{IAU2000A}}$ ,  $Y_{\text{IAU2000A}}$  are the celestial pole coordinates provided by using the IAU2000A Precession-Nutation theory.

The current Bulletin B including (dpsi,deps)\_1980 will be maintained as long as necessary.

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 2006 (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.

JUN 3	53889	0.12168	0.33371	0.202762	-32.797238	0.08	-0.14
JUN 8	53894	0.12317	0.32706	0.200417	-32.799583	0.15	-0.30
JUN 13	53899	0.12447	0.31956	0.199544	-32.800456	0.11	-0.28
JUN 18	53904	0.12634	0.31433	0.199040	-32.800960	-0.16	-0.41
JUN 23	53909	0.12498	0.30928	0.197779	-32.802221	0.03	-0.25
JUN 28	53914	0.12630	0.30356	0.195577	-32.804423	-0.01	-0.30
JUL 3	53919	0.12895	0.29745	0.192536	-32.807464	-0.12	0.14

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

JUL 8	53924	0.12816	0.29218	0.189033	-32.810967	0.06	-0.35
JUL 13	53929	0.12559	0.28547	0.186993	-32.813007	0.05	-0.32
JUL 18	53934	0.12170	0.28081	0.185281	-32.814719	-0.08	-0.36
JUL 23	53939	0.11881	0.27664	0.183273	-32.816727	0.00	0.00
JUL 28	53944	0.11629	0.27222	0.182184	-32.817816	0.00	0.00
AUG 2	53949	0.11180	0.27002	0.181385	-32.818615	0.00	0.00
AUG 7	53954	0.10760	0.26778	0.180721	-32.819279	0.00	0.00
AUG 12	53959	0.10304	0.26579	0.180294	-32.819706	0.00	0.00
AUG 17	53964	0.09823	0.26430	0.180019	-32.819981	0.00	0.00
AUG 22	53969	0.09317	0.26316	0.179775	-32.820225	0.00	0.00
AUG 27	53974	0.08795	0.26237	0.179470	-32.820530	0.00	0.00
SEP 1	53979	0.08259	0.26193	0.179020	-32.820980	0.00	0.00
SEP 6	53984	0.07713	0.26185	0.178364	-32.821636	0.00	0.00
SEP 11	53989	0.07162	0.26212	0.177464	-32.822536	0.00	0.00
SEP 16	53994	0.06609	0.26279	0.176296	-32.823704	0.00	0.00
SEP 21	53999	0.06059	0.26383	0.174824	-32.825176	0.00	0.00

SEP 26 54004 0.05514 0.26528 0.173054 -32.826946 0.00 0.00

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 2005 IERS Annual Report.

	2006	MJD	x	y	UT1-UTC	UT1-UT1R	D	dx	dy
	(0 h UTC)	"	"	"	s	ms	ms	0.001"	0.001"
JUN	3	53889	0.12168	0.33371	0.203497	0.735	0.685	0.08	-0.14
JUN	4	53890	0.12226	0.33247	0.202764	0.562	0.766	0.09	0.16
JUN	5	53891	0.12259	0.33117	0.201982	0.291	0.792	0.06	0.22
JUN	6	53892	0.12258	0.32983	0.201201	-0.022	0.761	0.07	0.08
JUN	7	53893	0.12274	0.32845	0.200482	-0.310	0.656	0.11	-0.14
JUN	8	53894	0.12317	0.32706	0.199911	-0.506	0.467	0.15	-0.30
JUN	9	53895	0.12343	0.32579	0.199564	-0.556	0.219	0.15	-0.34
JUN	10	53896	0.12346	0.32454	0.199478	-0.422	-0.046	0.14	-0.30
JUN	11	53897	0.12362	0.32302	0.199647	-0.108	-0.262	0.14	-0.25
JUN	12	53898	0.12396	0.32130	0.199977	0.339	-0.378	0.14	-0.24
JUN	13	53899	0.12447	0.31956	0.200365	0.821	-0.367	0.11	-0.28
JUN	14	53900	0.12517	0.31809	0.200668	1.217	-0.223	0.00	-0.35
JUN	15	53901	0.12573	0.31706	0.200777	1.407	0.006	-0.12	-0.45
JUN	16	53902	0.12602	0.31621	0.200643	1.320	0.313	-0.19	-0.52
JUN	17	53903	0.12620	0.31537	0.200163	0.950	0.637	-0.19	-0.51
JUN	18	53904	0.12634	0.31433	0.199403	0.362	0.838	-0.16	-0.41
JUN	19	53905	0.12639	0.31312	0.198533	-0.322	0.876	-0.12	-0.26
JUN	20	53906	0.12628	0.31198	0.197698	-0.962	0.780	-0.10	-0.16
JUN	21	53907	0.12603	0.31094	0.197011	-1.429	0.616	-0.09	-0.14
JUN	22	53908	0.12553	0.31011	0.196485	-1.639	0.399	-0.04	-0.19
JUN	23	53909	0.12498	0.30928	0.196211	-1.567	0.166	0.03	-0.25
JUN	24	53910	0.12489	0.30819	0.196131	-1.251	-0.017	0.06	-0.24
JUN	25	53911	0.12524	0.30700	0.196212	-0.776	-0.113	0.05	-0.16
JUN	26	53912	0.12569	0.30580	0.196322	-0.247	-0.067	0.01	-0.09
JUN	27	53913	0.12604	0.30464	0.196315	0.233	0.067	-0.02	-0.14
JUN	28	53914	0.12630	0.30356	0.196168	0.591	0.245	-0.01	-0.30
JUN	29	53915	0.12676	0.30238	0.195816	0.782	0.455	0.03	-0.42
JUN	30	53916	0.12761	0.30099	0.195261	0.800	0.650	0.07	-0.36
JUL	1	53917	0.12844	0.29967	0.194527	0.665	0.821	0.06	-0.13
JUL	2	53918	0.12886	0.29858	0.193635	0.420	0.946	-0.01	0.09
JUL	3	53919	0.12895	0.29745	0.192657	0.121	0.993	-0.12	0.14
JUL	4	53920	0.12889	0.29622	0.191670	-0.166	0.976	-0.19	0.02
JUL	5	53921	0.12888	0.29509	0.190725	-0.381	0.888	-0.16	-0.13
JUL	6	53922	0.12877	0.29423	0.189910	-0.467	0.719	-0.04	-0.22
JUL	7	53923	0.12850	0.29335	0.189297	-0.386	0.501	0.06	-0.28
JUL	8	53924	0.12816	0.29218	0.188906	-0.126	0.250	0.06	-0.35
JUL	9	53925	0.12761	0.29083	0.188778	0.283	0.050	0.01	-0.42
JUL	10	53926	0.12690	0.28946	0.188772	0.763	-0.016	-0.02	-0.42
JUL	11	53927	0.12631	0.28805	0.188765	1.195	0.021	-0.01	-0.35
JUL	12	53928	0.12603	0.28666	0.188688	1.444	0.169	0.03	-0.30
JUL	13	53929	0.12559	0.28547	0.188403	1.410	0.445	0.05	-0.32
JUL	14	53930	0.12463	0.28461	0.187803	1.063	0.761	0.09	-0.33
JUL	15	53931	0.12352	0.28389	0.186914	0.461	1.020	0.10	-0.32
JUL	16	53932	0.12275	0.28296	0.185813	-0.269	1.125	0.09	-0.28
JUL	17	53933	0.12220	0.28184	0.184718	-0.967	1.032	0.02	-0.29
JUL	18	53934	0.12170	0.28081	0.183790	-1.491	0.818	-0.08	-0.36
JUL	19	53935	0.12125	0.27997	0.183101	-1.750	0.555	-0.11	-0.36
JUL	20	53936	0.12077	0.27921	0.182678	-1.719	0.282	-0.05	-0.35
JUL	21	53937	0.12013	0.27841	0.182516	-1.433	0.025	0.05	-0.35
JUL	22	53938	0.11946	0.27753	0.182596	-0.971	-0.178	0.00	0.00
JUL	23	53939	0.11881	0.27664	0.182838	-0.435	-0.266	0.00	0.00
JUL	24	53940	0.11804	0.27561	0.183098	0.077	-0.223	0.00	0.00
JUL	25	53941	0.11738	0.27438	0.183262	0.482	-0.095	0.00	0.00
JUL	26	53942	0.11691	0.27332	0.183276	0.729	0.063	0.00	0.00
JUL	27	53943	0.11655	0.27260	0.183136	0.799	0.197	0.00	0.00

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

				Raw normal values				Uncertainties							
2006	MJD	x	y	UT1-UTC	dx	dy	x	y	UT1	dx	dy	0.001"	0.0001s	0.001"	
		"	"	s	0.001"										
JUN 3	53889	0.12170	0.33371	0.203498	0.066	- .169	0.01	0.01	0.02	0.03	0.03				
JUN 8	53894	0.12317	0.32707	0.199911	0.070	- .302	0.01	0.01	0.01	0.02	0.02				
JUN 13	53899	0.12447	0.31956	0.200366	0.120	- .332	0.02	0.02	0.02	0.03	0.03				
JUN 18	53904	0.12635	0.31433	0.199400	- .151	- .438	0.02	0.02	0.02	0.04	0.04				
JUN 23	53909	0.12498	0.30928	0.196210	0.050	- .161	0.02	0.02	0.02	0.04	0.05				
JUN 28	53914	0.12630	0.30356	0.196166	- .001	- .302	0.01	0.01	0.02	0.02	0.02				
JUL 3	53919	0.12894	0.29745	0.192648	-	-	0.02	0.02	0.03	-	-				
JUL 8	53924	0.12816	0.29218	0.188901	0.059	- .358	0.01	0.01	0.02	0.02	0.03				
JUL 13	53929	0.12558	0.28547	0.188402	0.053	- .323	0.02	0.02	0.02	0.04	0.04				
JUL 18	53934	0.12170	0.28082	0.183789	- .087	- .389	0.02	0.02	0.02	0.02	0.03				
JUL 23	53939	0.11881	0.27664	0.182838	-	-	0.01	0.01	0.02	-	-				

## 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	
2006	MJD	s	(microrad/s)
JUN 3	53889	0.00058	72.921
JUN 8	53894	0.00034	15118
JUN 13	53899	0.00010	15138
JUN 18	53904	0.00018	15131
JUN 23	53909	0.00038	15115
JUN 28	53914	0.00053	15102
JUL 3	53919	0.00069	15088

## 5 - INFORMATION ON TIME SCALES

No leap second was introduced in UTC on 30 June 2006.

No leap second will be introduced in UTC on 31 December 2006.

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.

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EOP series	Mean formal uncertainty
Periods covered	Weighted RMS agreement with Bulletin B

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x	y	UT	D	dx	dy	Data Number
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VLBI							
EOP(AUS)	1	R	1	0.08	0.08	0.04	-
53893.21	to	53937.27	0.11	0.13	0.05	-	-
EOP(BKG)	3	R	4	0.10	0.08	0.06	-
53892.21	to	53937.27	0.09	0.12	0.09	-	-
EOP(BKG)	3	R	2	-	-	0.11	-
53892.79	to	53942.79	-	-	0.25	-	-
EOP(USNO)	5	R	1	-	-	0.10	-
53892.79	to	53942.79	-	-	0.15	-	-
EOP(GSFC)	4	R	1	-	-	0.12	-
53892.79	to	53942.79	-	-	0.19	-	-
EOP(IAA)	5	R	2	0.07	0.07	0.03	-
53893.21	to	53934.21	0.08	0.12	0.05	-	0.05
EOP(IAA)	5	R	1	-	-	0.10	-
53892.79	to	53942.79	-	-	0.14	-	-
EOP(SPBU)	3	R	3	0.35	0.41	0.18	-
53893.21	to	53906.21	0.08	0.10	0.08	-	-
EOP(SPBU)	2	R	1	-	-	0.12	-
53892.79	to	53924.33	-	-	0.26	-	-
EOP(MAO)	3	R	1	0.08	0.09	0.04	-
53893.23	to	53923.29	0.11	0.20	0.05	-	0.06
EOP(USNO)	6	R	2	0.06	0.07	0.03	-
53893.21	to	53937.27	0.13	0.10	0.06	-	-
EOP(IVS)	0	R	1	0.04	0.04	0.02	-
53893.00	to	53930.00	0.09	0.19	0.08	-	-
GPS							
EOP(CODE)	98	P	1	0.01	0.01	-	0.06
53889.50	to	53942.50	0.07	0.04	-	0.18	-
EOP(EMR)	96	P	3	0.03	0.03	-	0.04
53889.50	to	53942.50	0.05	0.08	-	0.48	-
EOP(ESOC)	96	P	1	0.01	0.01	-	0.04
53889.50	to	53942.50	0.05	0.09	-	0.47	-
EOP(GFZ)	96	P	2	0.01	0.01	-	0.02
53889.50	to	53942.50	0.05	0.07	-	0.23	-
EOP(IAA)	1	P	1	0.03	0.03	-	0.06
53889.50	to	53924.50	0.21	0.16	-	0.54	-
EOP(JPL)	96	P	3	0.02	0.02	-	0.10
53889.50	to	53931.50	0.04	0.02	-	0.52	-
EOP(NOAA)	96	P	1	0.01	0.01	-	0.01
53889.50	to	53934.50	0.09	0.14	-	0.24	-
EOP(SIO)	96	P	1	0.02	0.02	-	0.01
53889.50	to	53942.50	0.06	0.29	-	0.36	-
EOP(IGS F)	95	P	2	0.01	0.02	0.08	0.05
53889.50	to	53931.50	0.02	0.07	0.14	0.15	-
EOP(IGS R)	96	P	2	0.04	0.05	0.17	0.06
53889.50	to	53942.50	0.08	0.05	0.47	0.21	-
EOP(IERS)	97	P	1	0.03	0.03	0.17	0.12
53889.50	to	53942.50	0.02	0.02	0.24	0.17	-
SLR							
EOP(ASI)	3	L	2	0.05	0.05	-	0.11
53889.50	to	53941.50	0.21	0.17	-	0.49	-
EOP(IAA)	2	L	1	0.02	0.03	0.02	0.02
53889.00	to	53943.00	0.13	0.21	0.20	0.10	-
EOP(MCC)	97	L	1	0.12	0.13	-	0.10
53889.00	to	53936.00	0.14	0.29	-	0.20	-
EOP(ILRS)	5	L	1	0.05	0.05	-	0.12

53889.50 to 53938.50	0.18	0.10	-	0.31	-	-	
Bulletin A							
EOP(NEOS) 97 C 1	0.04	0.04	0.07	-	-	-	55
53889.00 to 53943.00	0.02	0.10	0.12	-	-	-	