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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 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	MJD	x	y	UT1R-UTC	UT1R-TAI	dX	dY
2008/09		"	"	s	s	0.001"	0.001"
(0h UTC)							

Final Bulletin B values.

NOV 4	54774	0.17327	0.14779	-0.528813	-33.528813	-0.02	-0.31
NOV 9	54779	0.15770	0.14305	-0.533797	-33.533797	-0.01	-0.25
NOV 14	54784	0.13829	0.13802	-0.539713	-33.539713	-0.19	-0.32
NOV 19	54789	0.12056	0.13516	-0.545540	-33.545540	-0.06	-0.24
NOV 24	54794	0.11090	0.13669	-0.552668	-33.552668	-0.25	-0.30
NOV 29	54799	0.09512	0.13597	-0.560292	-33.560292	0.11	0.06
DEC 4	54804	0.07597	0.13513	-0.566927	-33.566927	-0.19	-0.36

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

DEC 9	54809	0.05907	0.13435	-0.572928	-33.572928	-0.18	-0.33
DEC 14	54814	0.04474	0.13438	-0.578247	-33.578247	-0.18	-0.09
DEC 19	54819	0.03051	0.13610	-0.583221	-33.583221	-0.07	-0.21
DEC 24	54824	0.01450	0.13908	-0.587898	-33.587898	0.02	-0.04
DEC 29	54829	-0.00527	0.14313	-0.591829	-33.591829	0.02	-0.04
JAN 3	54834	-0.02326	0.14908	0.403911	-33.596089	0.02	-0.04
JAN 8	54839	-0.04165	0.15797	0.399319	-33.600681	0.02	-0.04
JAN 13	54844	-0.05980	0.16756	0.394792	-33.605208	0.00	0.00
JAN 18	54849	-0.07623	0.17779	0.390478	-33.609522	0.00	0.00
JAN 23	54854	-0.09000	0.18873	0.386181	-33.613819	0.00	0.00
JAN 28	54859	-0.10373	0.20177	0.381860	-33.618140	0.00	0.00
FEB 2	54864	-0.11675	0.21462	0.377444	-33.622556	0.00	0.00
FEB 7	54869	-0.12886	0.22785	0.372931	-33.627069	0.00	0.00
FEB 12	54874	-0.13831	0.24235	0.368302	-33.631698	0.00	0.00
FEB 17	54879	-0.14526	0.25743	0.363528	-33.636472	0.00	0.00
FEB 22	54884	-0.15221	0.27310	0.358635	-33.641365	0.00	0.00

FEB 27 54889 -0.15714 0.29026 0.353590 -33.646410 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 2007 IERS Annual Report.

2008/09	MJD	x	y	UT1-UTC	UT1-UT1R	D	dX	dY
(0 h UTC)	"	"	"	s	ms	ms	0.001"	0.001"
NOV 4	54774	0.17327	0.14779	-0.527594	1.219	0.667	-0.02	-0.31
NOV 5	54775	0.16976	0.14677	-0.528309	1.548	0.777	-0.04	-0.41
NOV 6	54776	0.16650	0.14566	-0.529157	1.692	0.940	-0.06	-0.48
NOV 7	54777	0.16378	0.14479	-0.530193	1.627	1.134	-0.07	-0.46
NOV 8	54778	0.16089	0.14392	-0.531430	1.353	1.348	-0.03	-0.34
NOV 9	54779	0.15770	0.14305	-0.532888	0.909	1.560	-0.01	-0.25
NOV 10	54780	0.15405	0.14229	-0.534515	0.371	1.658	-0.02	-0.21
NOV 11	54781	0.15027	0.14119	-0.536181	-0.150	1.635	-0.09	-0.26
NOV 12	54782	0.14671	0.14033	-0.537793	-0.535	1.510	-0.14	-0.28
NOV 13	54783	0.14257	0.13941	-0.539203	-0.692	1.268	-0.18	-0.29
NOV 14	54784	0.13829	0.13802	-0.540313	-0.600	0.990	-0.19	-0.32
NOV 15	54785	0.13449	0.13690	-0.541174	-0.319	0.799	-0.19	-0.38
NOV 16	54786	0.13089	0.13620	-0.541930	0.027	0.822	-0.18	-0.41
NOV 17	54787	0.12695	0.13581	-0.542777	0.299	0.964	-0.15	-0.40
NOV 18	54788	0.12326	0.13548	-0.543872	0.389	1.226	-0.11	-0.33
NOV 19	54789	0.12056	0.13516	-0.545278	0.262	1.565	-0.06	-0.24
NOV 20	54790	0.11851	0.13522	-0.546943	-0.054	1.761	-0.02	-0.17
NOV 21	54791	0.11696	0.13555	-0.548767	-0.479	1.853	-0.02	-0.16
NOV 22	54792	0.11539	0.13606	-0.550641	-0.918	1.866	-0.09	-0.21
NOV 23	54793	0.11333	0.13632	-0.552471	-1.282	1.759	-0.18	-0.27
NOV 24	54794	0.11090	0.13669	-0.554173	-1.505	1.609	-0.25	-0.30
NOV 25	54795	0.10787	0.13738	-0.555703	-1.546	1.460	-0.26	-0.25
NOV 26	54796	0.10440	0.13723	-0.557076	-1.392	1.308	-0.19	-0.14
NOV 27	54797	0.10122	0.13661	-0.558317	-1.058	1.155	-0.07	-0.02
NOV 28	54798	0.09831	0.13628	-0.559388	-0.586	1.022	0.05	0.07
NOV 29	54799	0.09512	0.13597	-0.560327	-0.034	0.924	0.11	0.06
NOV 30	54800	0.09165	0.13566	-0.561193	0.525	0.874	0.09	-0.04
DEC 1	54801	0.08821	0.13540	-0.562085	1.023	0.928	0.01	-0.19
DEC 2	54802	0.08464	0.13527	-0.563062	1.399	1.037	-0.12	-0.33
DEC 3	54803	0.08051	0.13519	-0.564125	1.609	1.104	-0.18	-0.38
DEC 4	54804	0.07597	0.13513	-0.565297	1.630	1.246	-0.19	-0.36
DEC 5	54805	0.07178	0.13529	-0.566652	1.459	1.463	-0.17	-0.29
DEC 6	54806	0.06810	0.13540	-0.568190	1.123	1.609	-0.13	-0.25
DEC 7	54807	0.06462	0.13522	-0.569830	0.676	1.689	-0.12	-0.24
DEC 8	54808	0.06148	0.13466	-0.571519	0.203	1.647	-0.13	-0.28
DEC 9	54809	0.05907	0.13435	-0.573120	-0.192	1.482	-0.18	-0.33
DEC 10	54810	0.05667	0.13492	-0.574492	-0.415	1.261	-0.19	-0.34
DEC 11	54811	0.05364	0.13507	-0.575616	-0.414	0.989	-0.18	-0.28
DEC 12	54812	0.05045	0.13462	-0.576487	-0.207	0.756	-0.16	-0.19
DEC 13	54813	0.04724	0.13450	-0.577154	0.108	0.677	-0.16	-0.11
DEC 14	54814	0.04474	0.13438	-0.577854	0.393	0.805	-0.18	-0.09
DEC 15	54815	0.04279	0.13456	-0.578771	0.517	1.059	-0.22	-0.13
DEC 16	54816	0.04011	0.13496	-0.579921	0.407	1.270	-0.24	-0.21
DEC 17	54817	0.03685	0.13513	-0.581253	0.074	1.380	-0.22	-0.29
DEC 18	54818	0.03367	0.13553	-0.582686	-0.402	1.444	-0.16	-0.30
DEC 19	54819	0.03051	0.13610	-0.584131	-0.910	1.447	-0.07	-0.21
DEC 20	54820	0.02749	0.13663	-0.585508	-1.343	1.333	0.02	-0.04
DEC 21	54821	0.02444	0.13742	-0.586727	-1.625	1.113	0.02	-0.04
DEC 22	54822	0.02119	0.13821	-0.587740	-1.715	0.913	0.02	-0.04
DEC 23	54823	0.01789	0.13875	-0.588574	-1.602	0.734	0.02	-0.04
DEC 24	54824	0.01450	0.13908	-0.589201	-1.303	0.531	0.02	-0.04
DEC 25	54825	0.01081	0.13953	-0.589583	-0.855	0.339	0.02	-0.04
DEC 26	54826	0.00669	0.13996	-0.589804	-0.314	0.224	0.02	-0.04
DEC 27	54827	0.00280	0.14054	-0.590023	0.252	0.239	0.02	-0.04
DEC 28	54828	-0.00105	0.14177	-0.590302	0.772	0.296	0.02	-0.04

DEC	29	54829	-0.00527	0.14313	-0.590648	1.181	0.392	0.02	-0.04
DEC	30	54830	-0.00964	0.14420	-0.591120	1.434	0.558	0.02	-0.04
DEC	31	54831	-0.01346	0.14511	-0.591828	1.504	0.803	0.02	-0.04
JAN	1	54832	-0.01701	0.14624	0.407173	1.392	1.058	0.02	-0.04
JAN	2	54833	-0.02044	0.14754	0.405979	1.124	1.233	0.02	-0.04
JAN	3	54834	-0.02326	0.14908	0.404662	0.750	1.318	0.02	-0.04
JAN	4	54835	-0.02577	0.15072	0.403326	0.342	1.335	0.02	-0.04
JAN	5	54836	-0.02901	0.15268	0.402097	-0.016	1.266	0.02	-0.04
JAN	6	54837	-0.03329	0.15458	0.400949	-0.238	1.093	0.02	-0.04
JAN	7	54838	-0.03753	0.15623	0.399971	-0.266	0.859	0.02	-0.04
JAN	8	54839	-0.04165	0.15797	0.399225	-0.094	0.656	0.02	-0.04
JAN	9	54840	-0.04566	0.15973	0.398580	0.214	0.541	0.00	0.00
JAN	10	54841	-0.04926	0.16158	0.397986	0.539	0.580	0.00	0.00
JAN	11	54842	-0.05263	0.16359	0.397292	0.741	0.757	0.00	0.00
JAN	12	54843	-0.05612	0.16567	0.396381	0.714	1.012	0.00	0.00
JAN	13	54844	-0.05980	0.16756	0.395219	0.427	1.258	0.00	0.00
JAN	14	54845	-0.06348	0.16949	0.393863	-0.066	1.416	0.00	0.00
JAN	15	54846	-0.06705	0.17166	0.392413	-0.650	1.444	0.00	0.00
JAN	16	54847	-0.07038	0.17372	0.391007	-1.194	1.348	0.00	0.00
JAN	17	54848	-0.07340	0.17569	0.389746	-1.592	1.167	0.00	0.00
JAN	18	54849	-0.07623	0.17779	0.388695	-1.783	0.948	0.00	0.00
JAN	19	54850	-0.07897	0.17987	0.387868	-1.751	0.730	0.00	0.00
JAN	20	54851	-0.08171	0.18191	0.387247	-1.511	0.542	0.00	0.00
JAN	21	54852	-0.08449	0.18413	0.386797	-1.104	0.402	0.00	0.00
JAN	22	54853	-0.08720	0.18643	0.386455	-0.584	0.324	0.00	0.00
JAN	23	54854	-0.09000	0.18873	0.386161	-0.020	0.318	0.00	0.00

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

		Raw normal values					Uncertainties					
2008/09	MJD	x	y	UT1-UTC	dX	dY	x	y	UT1	dX	dY	
(0 h UTC)		"	"	s	0.001"	0.001"	0.001"	0.0001s	0.001"			
NOV	4	54774	0.17327	0.14777	-0.527591	-0.063	-0.320	0.01	0.01	0.01	0.02	0.03
NOV	9	54779	0.15769	0.14302	-0.532882	-0.100	-0.181	0.01	0.01	0.01	0.02	0.05
NOV	14	54784	0.13829	0.13798	-0.540311	-0.184	-0.311	0.01	0.01	0.02	0.03	0.06
NOV	19	54789	0.12056	0.13514	-0.545269	-0.071	-0.199	0.01	0.01	0.02	0.06	0.12
NOV	24	54794	0.11089	0.13666	-0.554169	-0.319	-0.278	0.01	0.01	0.01	0.03	0.06
NOV	29	54799	0.09512	0.13595	-0.560330	-0.296	-0.293	0.01	0.01	0.05	0.03	0.06
DEC	4	54804	0.07597	0.13510	-0.565295	-0.174	-0.308	0.01	0.01	0.01	0.03	0.05
DEC	9	54809	0.05906	0.13433	-0.573115	-0.253	-0.255	0.01	0.01	0.01	0.03	0.06
DEC	14	54814	0.04473	0.13436	-0.577852	-0.194	-0.071	0.02	0.01	0.01	0.03	0.05
DEC	19	54819	0.03051	0.13607	-0.584127	-0.083	-0.196	0.01	0.01	0.02	0.05	0.12
DEC	24	54824	0.01450	0.13905	-0.589220	-	-	0.01	0.01	0.02	-	-
DEC	29	54829	-0.00530	0.14309	-0.590670	-	-	0.02	0.02	0.05	-	-
JAN	3	54834	-0.02327	0.14905	0.404667	-	-	0.02	0.01	0.06	-	-
JAN	8	54839	-0.04172	0.15797	0.399186	-	-	0.02	0.02	0.07	-	-

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		
2008	MJD	s	(microrad/s)		
NOV	4	54774	0.00108	72.921	15056
NOV	9	54779	0.00106		15057
NOV	14	54784	0.00120		15046
NOV	19	54789	0.00134		15034

NOV 24	54794	0.00148	15022
NOV 29	54799	0.00150	15020
DEC 4	54804	0.00117	15048

5 - INFORMATION ON TIME SCALES

A leap second was introduced in UTC on 31 December 2008

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