

Since July 2007, Bulletin adopts the new 05C04 EOP system. This change results in a jump of less than 0.5 mas in polar motion and 5 microseconds in UT1-UTC.

BULLETIN B 233
(IAU 2000)
28 June 2007

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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 2007 (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.

MAY	4	54224	0.08506	0.48999	-0.110915	-33.110915	0.28	-0.49
MAY	9	54229	0.09545	0.48590	-0.117022	-33.117022	0.29	-0.35
MAY	14	54234	0.10649	0.48251	-0.123675	-33.123675	0.10	-0.38
MAY	19	54239	0.11914	0.47808	-0.130551	-33.130551	0.15	-0.73
MAY	24	54244	0.12901	0.47274	-0.136150	-33.136150	0.17	-0.27
MAY	29	54249	0.13882	0.46748	-0.141018	-33.141018	0.03	-0.34
JUN	3	54254	0.15155	0.45900	-0.145284	-33.145284	0.25	-0.40

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

JUN	8	54259	0.16239	0.45154	-0.148428	-33.148428	0.18	-0.37
JUN	13	54264	0.17334	0.44332	-0.150845	-33.150845	0.09	-0.51
JUN	18	54269	0.18247	0.43365	-0.152867	-33.152867	0.00	0.00
JUN	23	54274	0.19363	0.42499	-0.154943	-33.154943	0.00	0.00
JUN	28	54279	0.20523	0.41652	-0.156999	-33.156999	0.00	0.00
JUL	3	54284	0.20984	0.40572	-0.158916	-33.158916	0.00	0.00
JUL	8	54289	0.21436	0.39399	-0.160494	-33.160494	0.00	0.00
JUL	13	54294	0.22251	0.38200	-0.161921	-33.161921	0.00	0.00
JUL	18	54299	0.22953	0.36711	-0.163243	-33.163243	0.00	0.00
JUL	23	54304	0.23106	0.35313	-0.164545	-33.164545	0.00	0.00
JUL	28	54309	0.23115	0.33835	-0.165838	-33.165838	0.00	0.00
AUG	2	54314	0.23022	0.32343	-0.167180	-33.167180	0.00	0.00
AUG	7	54319	0.22967	0.30664	-0.168671	-33.168671	0.00	0.00

AUG	12	54324	0.22612	0.29217	-0.170292	-33.170292	0.00	0.00
AUG	17	54329	0.22273	0.27813	-0.172123	-33.172123	0.00	0.00
AUG	22	54334	0.21739	0.26308	-0.174206	-33.174206	0.00	0.00
AUG	27	54339	0.21271	0.25003	-0.176549	-33.176549	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.

IERS, B 233 (2)

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.

2007	MJD	x	y	UT1-UTC	UT1-UT1R	D	dX	dY	
(0 h UTC)		"	"	s	ms	ms	0.001"	0.001"	
MAY	4	54224	0.08506	0.48999	-0.111336	-0.421	0.903	0.28	-0.49
MAY	5	54225	0.08741	0.48929	-0.112167	0.040	0.764	0.31	-0.68
MAY	6	54226	0.08958	0.48835	-0.112894	0.585	0.650	0.32	-0.66
MAY	7	54227	0.09163	0.48736	-0.113536	1.134	0.641	0.32	-0.50
MAY	8	54228	0.09361	0.48661	-0.114223	1.598	0.786	0.31	-0.37
MAY	9	54229	0.09545	0.48590	-0.115137	1.885	1.046	0.29	-0.35
MAY	10	54230	0.09743	0.48507	-0.116324	1.917	1.347	0.27	-0.45
MAY	11	54231	0.09957	0.48448	-0.117825	1.654	1.658	0.24	-0.55
MAY	12	54232	0.10157	0.48394	-0.119660	1.115	2.010	0.19	-0.55
MAY	13	54233	0.10385	0.48326	-0.121820	0.391	2.227	0.13	-0.47
MAY	14	54234	0.10649	0.48251	-0.124043	-0.368	2.181	0.10	-0.38
MAY	15	54235	0.10942	0.48175	-0.126106	-0.990	1.940	0.10	-0.36
MAY	16	54236	0.11227	0.48094	-0.127853	-1.340	1.560	0.12	-0.45
MAY	17	54237	0.11484	0.48004	-0.129230	-1.363	1.216	0.14	-0.61
MAY	18	54238	0.11714	0.47913	-0.130319	-1.105	0.967	0.16	-0.72
MAY	19	54239	0.11914	0.47808	-0.131234	-0.683	0.856	0.15	-0.73
MAY	20	54240	0.12089	0.47694	-0.132108	-0.242	0.870	0.13	-0.64
MAY	21	54241	0.12246	0.47555	-0.133051	0.099	0.914	0.11	-0.50
MAY	22	54242	0.12434	0.47409	-0.133968	0.271	0.958	0.12	-0.38
MAY	23	54243	0.12666	0.47321	-0.134930	0.263	1.062	0.14	-0.30
MAY	24	54244	0.12901	0.47274	-0.136047	0.103	1.217	0.17	-0.27
MAY	25	54245	0.13139	0.47199	-0.137335	-0.159	1.302	0.17	-0.25
MAY	26	54246	0.13368	0.47112	-0.138644	-0.460	1.277	0.13	-0.25
MAY	27	54247	0.13550	0.47025	-0.139885	-0.737	1.190	0.07	-0.26
MAY	28	54248	0.13715	0.46899	-0.141026	-0.930	1.089	0.02	-0.29
MAY	29	54249	0.13882	0.46748	-0.142007	-0.989	0.931	0.03	-0.34
MAY	30	54250	0.14079	0.46576	-0.142828	-0.882	0.763	0.10	-0.40
MAY	31	54251	0.14340	0.46391	-0.143484	-0.604	0.577	0.22	-0.44
JUN	1	54252	0.14631	0.46218	-0.143943	-0.177	0.349	0.31	-0.45
JUN	2	54253	0.14914	0.46054	-0.144231	0.347	0.208	0.32	-0.43
JUN	3	54254	0.15155	0.45900	-0.144391	0.893	0.163	0.25	-0.40
JUN	4	54255	0.15384	0.45739	-0.144558	1.371	0.252	0.15	-0.40
JUN	5	54256	0.15638	0.45598	-0.144930	1.692	0.463	0.09	-0.42
JUN	6	54257	0.15873	0.45476	-0.145527	1.784	0.677	0.10	-0.45
JUN	7	54258	0.16059	0.45322	-0.146284	1.608	0.869	0.14	-0.43
JUN	8	54259	0.16239	0.45154	-0.147250	1.178	1.030	0.18	-0.37
JUN	9	54260	0.16443	0.45007	-0.148331	0.562	1.130	0.19	-0.31
JUN	10	54261	0.16672	0.44870	-0.149458	-0.122	1.141	0.16	-0.29
JUN	11	54262	0.16913	0.44726	-0.150532	-0.729	1.029	0.13	-0.35
JUN	12	54263	0.17133	0.44548	-0.151452	-1.127	0.764	0.10	-0.44
JUN	13	54264	0.17334	0.44332	-0.152081	-1.236	0.422	0.09	-0.51
JUN	14	54265	0.17504	0.44123	-0.152335	-1.062	0.147	0.09	-0.48
JUN	15	54266	0.17661	0.43918	-0.152400	-0.686	-0.025	0.06	-0.31
JUN	16	54267	0.17836	0.43719	-0.152315	-0.242	-0.023	0.00	0.00
JUN	17	54268	0.18030	0.43536	-0.152315	0.138	0.113	0.00	0.00
JUN	18	54269	0.18247	0.43365	-0.152508	0.358	0.269	0.00	0.00
JUN	19	54270	0.18476	0.43201	-0.152888	0.385	0.462	0.00	0.00
JUN	20	54271	0.18712	0.43068	-0.153440	0.238	0.643	0.00	0.00
JUN	21	54272	0.18938	0.42931	-0.154139	-0.032	0.739	0.00	0.00

IERS, B 233 (3)

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

Raw normal values						Uncertainties					
2007	MJD	x	y	UT1-UTC	dX	dY	x	y	UT1	dX	dY
(0 h UTC)		"	"	s	0.001"		0.001"	0.0001s	0.001"		
MAY 4	54224	0.08504	0.48997	-0.111347	0.291	-.527	0.01	0.01	0.01	0.04	0.04
MAY 9	54229	0.09544	0.48588	-0.115134	0.297	-.329	0.01	0.01	0.01	0.04	0.03
MAY 14	54234	0.10649	0.48250	-0.124041	0.108	-.359	0.01	0.01	0.01	0.02	0.02
MAY 19	54239	0.11914	0.47805	-0.131242	-.041	-.542	0.01	0.01	0.02	0.10	0.07
MAY 24	54244	0.12898	0.47272	-0.136023	0.203	-.269	0.01	0.02	0.01	0.04	0.03
MAY 29	54249	0.13882	0.46745	-0.142001	0.028	-.332	0.01	0.01	0.02	0.05	0.04
JUN 3	54254	0.15154	0.45898	-0.144388	0.286	-.380	0.01	0.01	0.01	0.04	0.03
JUN 8	54259	0.16237	0.45154	-0.147245	0.177	-.360	0.01	0.01	0.02	0.09	0.09
JUN 13	54264	0.17332	0.44331	-0.152068	0.069	-.495	0.02	0.02	0.02	0.08	0.06
JUN 18	54269	0.18243	0.43361	-0.152508	-	-	0.02	0.02	0.08	-	-

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)	DR	OmegaR		
2007 MJD	s	(microrad/s)		
MAY 4	54224	0.00131	72.921	15036
MAY 9	54229	0.00122		15044
MAY 14	54234	0.00147		15023
MAY 19	54239	0.00132		15036
MAY 24	54244	0.00100		15062
MAY 29	54249	0.00096		15066
JUN 3	54254	0.00070		15088

5 - INFORMATION ON TIME SCALES

No leap second will be introduced in UTC on 31 December 2007.
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

IERS, B 233 (4)

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
	Weighted RMS agreement with Bulletin B							
Periods covered	x	y	UT	D	dX	dY		

VLBI								
EOP(AUS) 1 R 1	0.07	0.06	0.03	-	-	-	13	
54224.27 to 54266.27	0.10	0.11	0.09	-	-	-		
EOP(BKG) 3 R 4	0.07	0.06	0.03	-	-	-	13	
54224.27 to 54266.27	0.08	0.17	0.11	-	-	-		

EOP(BKG) 3 R 2	-	-	0.09	-	-	-	44
54224.80 to 54271.80	-	-	0.13	-	-	-	
EOP(USNO) 5 R 1	-	-	0.11	-	-	-	47
54224.80 to 54271.80	-	-	0.14	-	-	-	
EOP(GSFC) 6 R 1	-	-	0.10	-	-	-	45
54224.80 to 54271.80	-	-	0.11	-	-	-	
EOP(IAA) 5 R 2	0.08	0.08	0.04	-	0.06	0.06	11
54224.27 to 54266.27	0.08	0.12	0.11	-	0.03	0.10	
EOP(IAA) 5 R 1	-	-	0.09	-	-	-	45
54224.80 to 54271.80	-	-	0.12	-	-	-	
EOP(SPBU) 3 R 3	0.29	0.36	0.17	-	-	-	1
54224.27 to 54224.27	0.03	0.55	0.06	-	-	-	
EOP(SPBU) 2 R 1	-	-	0.10	-	-	-	35
54224.80 to 54261.33	-	-	0.13	-	-	-	
EOP(MAO) 3 R 1	0.08	0.07	0.03	-	0.05	0.05	12
54224.28 to 54266.28	0.04	0.11	0.13	-	0.04	0.11	
EOP(GSFC) 6 R 1	0.06	0.05	0.02	-	-	-	13
54224.27 to 54266.27	0.06	0.10	0.09	-	-	-	
EOP(USNO) 6 R 2	0.06	0.05	0.02	-	-	-	13
54224.27 to 54266.27	0.09	0.10	0.09	-	-	-	
EOP(IVS) 7 R 1	0.04	0.04	0.02	-	-	-	12
54224.27 to 54266.27	0.09	0.09	0.13	-	-	-	
GPS							
EOP(CODE) 98 P 1	0.01	0.01	-	0.06	-	-	48
54224.50 to 54271.50	0.03	0.03	-	0.17	-	-	
EOP(EMR) 96 P 3	0.03	0.03	-	0.04	-	-	48
54224.50 to 54271.50	0.05	0.08	-	0.15	-	-	
EOP(ESOC) 96 P 1	0.01	0.01	-	0.04	-	-	48
54224.50 to 54271.50	0.05	0.06	-	0.35	-	-	
EOP(GFZ) 96 P 2	0.00	0.00	-	0.01	-	-	45
54224.50 to 54268.50	0.03	0.04	-	0.11	-	-	
EOP(IAA) 1 P 1	0.03	0.03	-	0.06	-	-	48
54224.50 to 54271.50	0.11	0.81	-	0.28	-	-	
EOP(JPL) 96 P 3	0.02	0.02	-	0.11	-	-	44
54224.50 to 54267.50	0.05	0.04	-	0.28	-	-	
EOP(NOAA) 96 P 1	0.01	0.01	-	0.01	-	-	47
54224.50 to 54270.50	0.08	0.07	-	0.20	-	-	
EOP(SIO) 96 P 1	0.03	0.04	-	0.10	-	-	48
54224.50 to 54271.50	0.06	0.05	-	0.15	-	-	
EOP(IGS R)96 P 2	0.02	0.03	0.18	0.05	-	-	48
54224.50 to 54271.50	0.04	0.04	0.55	0.08	-	-	
EOP(IGS) 0 P 3	0.02	0.02	0.11	0.08	-	-	44
54224.50 to 54267.50	0.01	0.02	0.24	0.13	-	-	
EOP(IERS) 97 P 1	0.03	0.03	0.14	0.09	-	-	48
54224.50 to 54271.50	0.03	0.04	0.24	0.11	-	-	
SLR							
EOP(ASI) 3 L 2	0.07	0.07	-	0.16	-	-	48
54224.50 to 54271.50	0.19	0.40	-	0.46	-	-	
EOP(IAA) 2 L 1	0.03	0.04	0.02	0.02	-	-	49
54224.00 to 54272.00	0.27	0.15	1.36	0.73	-	-	
EOP(MCC) 97 L 1	0.14	0.15	-	0.10	-	-	42
54224.00 to 54272.00	0.16	0.12	-	2.27	-	-	
EOP(ILRS) 5 L 1	0.06	0.06	-	0.14	-	-	48
54224.50 to 54271.50	0.17	0.15	-	0.49	-	-	
Bulletin A							
EOP(NEOS) 97 C 1	0.06	0.05	0.07	-	-	-	49

54224.00 to 54272.00

0.05 0.04 0.10 - - -