

INTERNATIONAL EARTH ROTATION SERVICE  
 EARTH ROTATION PARAMETERS  
 EOP (IERS) C 04

FORMAT(2X,A4,I3,2X,I5,2F9.5,F10.6,2X,F10.6,2X,2F9.5)

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Date	MJD	x	y	UT1-UTC	LOD	dPsi	dEpsilon	
		"	"	s	s	"	"	
(0h UTC)								
YEAR ==> 1988								
JAN	1	47161	-.02408	.41329	.364365	.001230	-.00451	.00284
JAN	2	47162	-.02201	.41438	.363213	.001098	-.00436	.00264
JAN	3	47163	-.02008	.41546	.362142	.001064	-.00401	.00248
JAN	4	47164	-.01831	.41660	.361057	.001105	-.00355	.00240
JAN	5	47165	-.01663	.41783	.359909	.001188	-.00273	.00237
JAN	6	47166	-.01496	.41909	.358666	.001306	-.00203	.00230
JAN	7	47167	-.01333	.42018	.357290	.001458	-.00160	.00234
JAN	8	47168	-.01170	.42084	.355750	.001621	-.00143	.00248
JAN	9	47169	-.01005	.42091	.354056	.001764	-.00179	.00298
JAN	10	47170	-.00842	.42070	.352241	.001862	-.00235	.00332
JAN	11	47171	-.00678	.42070	.350355	.001899	-.00301	.00350
JAN	12	47172	-.00498	.42112	.348466	.001863	-.00361	.00341
JAN	13	47173	-.00293	.42202	.346653	.001743	-.00418	.00328
JAN	14	47174	-.00111	.42309	.345001	.001553	-.00449	.00303
JAN	15	47175	.00021	.42394	.343557	.001345	-.00434	.00250
JAN	16	47176	.00108	.42434	.342305	.001169	-.00385	.00201
JAN	17	47177	.00186	.42441	.341189	.001071	-.00329	.00178
JAN	18	47178	.00292	.42449	.340115	.001090	-.00293	.00202
JAN	19	47179	.00426	.42481	.338958	.001241	-.00315	.00231
JAN	20	47180	.00568	.42533	.337599	.001480	-.00320	.00244
JAN	21	47181	.00709	.42583	.335997	.001717	-.00292	.00229
JAN	22	47182	.00854	.42614	.334197	.001868	-.00270	.00212
JAN	23	47183	.01016	.42648	.332315	.001876	-.00291	.00210
JAN	24	47184	.01212	.42710	.330501	.001751	-.00377	.00232
JAN	25	47185	.01450	.42792	.328855	.001535	-.00422	.00247
JAN	26	47186	.01714	.42870	.327451	.001270	-.00429	.00257
JAN	27	47187	.01979	.42921	.326312	.001017	-.00411	.00253
JAN	28	47188	.02218	.42939	.325402	.000824	-.00396	.00249
JAN	29	47189	.02437	.42939	.324639	.000713	-.00405	.00257
JAN	30	47190	.02651	.42943	.323948	.000681	-.00413	.00259
JAN	31	47191	.02888	.42963	.323250	.000727	-.00396	.00248
FEB	1	47192	.03157	.42994	.322470	.000843	-.00372	.00244
FEB	2	47193	.03456	.43026	.321544	.001023	-.00318	.00225
FEB	3	47194	.03770	.43049	.320414	.001250	-.00249	.00209
FEB	4	47195	.04073	.43080	.319043	.001495	-.00157	.00204
FEB	5	47196	.04348	.43122	.317435	.001712	-.00080	.00205
FEB	6	47197	.04591	.43168	.315635	.001873	-.00043	.00221
FEB	7	47198	.04794	.43216	.313711	.001961	-.00030	.00221
FEB	8	47199	.04951	.43274	.311737	.001972	-.00053	.00214

FEB	9	47200	.05063	.43340	.309789	.001915	-.00020	.00180
FEB	10	47201	.05150	.43405	.307928	.001795	-.00141	.00158
FEB	11	47202	.05237	.43457	.306211	.001630	-.00190	.00134
FEB	12	47203	.05336	.43483	.304667	.001457	-.00235	.00143
FEB	13	47204	.05429	.43477	.303277	.001328	-.00281	.00178
FEB	14	47205	.05501	.43431	.301970	.001315	-.00294	.00200
FEB	15	47206	.05559	.43351	.300595	.001475	-.00283	.00207
FEB	16	47207	.05628	.43262	.298974	.001796	-.00253	.00200
FEB	17	47208	.05732	.43187	.296981	.002196	-.00230	.00194
FEB	18	47209	.05880	.43135	.294597	.002555	-.00213	.00178
FEB	19	47210	.06048	.43104	.291919	.002765	-.00210	.00168
FEB	20	47211	.06223	.43076	.289130	.002776	-.00235	.00152
FEB	21	47212	.06392	.43044	.286425	.002605	-.00262	.00149
FEB	22	47213	.06529	.43017	.283954	.002321	-.00302	.00131
FEB	23	47214	.06619	.43008	.281791	.001997	-.00329	.00128
FEB	24	47215	.06663	.43022	.279946	.001695	-.00329	.00113
FEB	25	47216	.06690	.43046	.278375	.001464	-.00303	.00080
FEB	26	47217	.06742	.43059	.276986	.001340	-.00254	.00051
FEB	27	47218	.06848	.43048	.275666	.001330	-.00208	.00038
FEB	28	47219	.07004	.43029	.274300	.001427	-.00162	.00032
FEB	29	47220	.07195	.43028	.272792	.001604	-.00154	.00041
MAR	1	47221	.07412	.43055	.271079	.001822	-.00160	.00055
MAR	2	47222	.07647	.43109	.269144	.002039	-.00172	.00079
MAR	3	47223	.07887	.43179	.267008	.002215	-.00201	.00102
MAR	4	47224	.08106	.43253	.264729	.002323	-.00241	.00120
MAR	5	47225	.08276	.43314	.262383	.002353	-.00278	.00122
MAR	6	47226	.08436	.43347	.260049	.002307	-.00283	.00107
MAR	7	47227	.08630	.43341	.257795	.002195	-.00279	.00087
MAR	8	47228	.08860	.43304	.255680	.002020	-.00251	.00073
MAR	9	47229	.09111	.43241	.253766	.001781	-.00206	.00048
MAR	10	47230	.09368	.43152	.252117	.001501	-.00125	.00036
MAR	11	47231	.09629	.43048	.250749	.001243	-.00083	.00019
MAR	12	47232	.09904	.42940	.249599	.001080	-.00096	.00009
MAR	13	47233	.10199	.42841	.248543	.001064	-.00142	-.00006
MAR	14	47234	.10501	.42759	.247424	.001211	-.00198	-.00015
MAR	15	47235	.10788	.42698	.246087	.001494	-.00229	-.00030
MAR	16	47236	.11051	.42660	.244432	.001829	-.00247	-.00016
MAR	17	47237	.11284	.42631	.242458	.002113	-.00230	.00005
MAR	18	47238	.11485	.42590	.240263	.002251	-.00204	.00031
MAR	19	47239	.11653	.42517	.238020	.002204	-.00171	.00041
MAR	20	47240	.11783	.42386	.235906	.001999	-.00153	.00004
MAR	21	47241	.11898	.42210	.234046	.001712	-.00145	-.00018
MAR	22	47242	.12031	.42021	.232479	.001426	-.00131	-.00042
MAR	23	47243	.12185	.41834	.231170	.001205	-.00110	-.00066
MAR	24	47244	.12348	.41651	.230035	.001080	-.00085	-.00077
MAR	25	47245	.12513	.41471	.228976	.001057	-.00060	-.00082
MAR	26	47246	.12686	.41309	.227892	.001133	-.00033	-.00080
MAR	27	47247	.12870	.41181	.226689	.001290	-.00022	-.00062
MAR	28	47248	.13041	.41079	.225299	.001494	-.00013	-.00050
MAR	29	47249	.13166	.40985	.223693	.001714	-.00020	-.00025
MAR	30	47250	.13232	.40884	.221875	.001922	-.00023	-.00012
MAR	31	47251	.13290	.40789	.219861	.002101	-.00031	-.00012
APR	1	47252	.13340	.40695	.217693	.002229	-.00046	-.00028

APR	2	47253	.13372	.40601	.215430	.002282	-.00020	-.00060
APR	3	47254	.13364	.40480	.213156	.002243	-.00020	-.00040
APR	4	47255	.13316	.40320	.210968	.002117	-.00109	-.00012
APR	5	47256	.13268	.40134	.208937	.001937	-.00129	-.00017
APR	6	47257	.13258	.39940	.207097	.001748	-.00123	-.00010
APR	7	47258	.13308	.39764	.205428	.001596	-.00104	-.00019
APR	8	47259	.13416	.39617	.203878	.001511	-.00098	-.00062
APR	9	47260	.13557	.39497	.202367	.001528	-.00072	-.00138
APR	10	47261	.13692	.39380	.200779	.001671	-.00034	-.00209
APR	11	47262	.13787	.39243	.198991	.001931	.00020	-.00225
APR	12	47263	.13843	.39073	.196902	.002255	-.00020	-.00220
APR	13	47264	.13912	.38875	.194492	.002551	.00109	-.00168
APR	14	47265	.14039	.38670	.191839	.002729	.00068	-.00130
APR	15	47266	.14228	.38474	.189093	.002732	.00001	-.00088
APR	16	47267	.14444	.38296	.186432	.002558	-.00024	-.00073
APR	17	47268	.14644	.38131	.184015	.002246	-.00039	-.00073
APR	18	47269	.14803	.37985	.181952	.001862	-.00031	-.00087
APR	19	47270	.14952	.37872	.180276	.001508	-.00015	-.00112
APR	20	47271	.15105	.37789	.178906	.001262	.00006	-.00144
APR	21	47272	.15252	.37722	.177716	.001139	.00028	-.00161
APR	22	47273	.15388	.37645	.176595	.001117	.00055	-.00171
APR	23	47274	.15518	.37542	.175456	.001170	.00059	-.00176
APR	24	47275	.15653	.37408	.174240	.001275	.00062	-.00174
APR	25	47276	.15784	.37247	.172899	.001419	-.00020	-.00150
APR	26	47277	.15903	.37074	.171402	.001586	-.00020	-.00140
APR	27	47278	.16015	.36911	.169737	.001756	-.00020	-.00130
APR	28	47279	.16147	.36771	.167907	.001906	.00006	-.00089
APR	29	47280	.16313	.36651	.165948	.001992	-.00031	-.00079
APR	30	47281	.16501	.36535	.163948	.001982	-.00020	-.00110
MAY	1	47282	.16680	.36409	.162009	.001871	-.00115	-.00098
MAY	2	47283	.16833	.36279	.160226	.001683	-.00131	-.00122
MAY	3	47284	.16943	.36148	.158651	.001464	-.00130	-.00146
MAY	4	47285	.17021	.36042	.157289	.001273	-.00104	-.00167
MAY	5	47286	.17068	.35931	.156079	.001171	-.00049	-.00172
MAY	6	47287	.17082	.35770	.154911	.001187	-.00020	-.00150
MAY	7	47288	.17082	.35567	.153664	.001323	.00058	-.00172
MAY	8	47289	.17088	.35355	.152230	.001548	.00097	-.00160
MAY	9	47290	.17112	.35163	.150550	.001816	.00090	-.00155
MAY	10	47291	.17149	.34989	.148606	.002075	.00066	-.00152
MAY	11	47292	.17202	.34825	.146431	.002268	.00029	-.00142
MAY	12	47293	.17279	.34671	.144115	.002345	-.00020	-.00170
MAY	13	47294	.17387	.34531	.141792	.002271	-.00020	-.00170
MAY	14	47295	.17509	.34403	.139615	.002061	-.00042	-.00140
MAY	15	47296	.17626	.34282	.137692	.001780	-.00009	-.00143
MAY	16	47297	.17719	.34154	.136054	.001503	.00031	-.00147
MAY	17	47298	.17766	.34006	.134662	.001286	.00057	-.00160
MAY	18	47299	.17739	.33819	.133448	.001136	.00047	-.00179
MAY	19	47300	.17676	.33604	.132354	.001055	.00043	-.00182
MAY	20	47301	.17624	.33383	.131309	.001047	.00049	-.00178
MAY	21	47302	.17614	.33176	.130239	.001108	-.00020	-.00150
MAY	22	47303	.17628	.32982	.129083	.001227	.00030	-.00155
MAY	23	47304	.17646	.32795	.127785	.001383	.00027	-.00140
MAY	24	47305	.17670	.32616	.126324	.001546	-.00002	-.00118

MAY	25	47306	.17688	.32435	.124707	.001689	-.00033	-.00110
MAY	26	47307	.17675	.32245	.122968	.001776	-.00059	-.00098
MAY	27	47308	.17611	.32039	.121179	.001782	-.00074	-.00103
MAY	28	47309	.17497	.31833	.119429	.001701	-.00070	-.00114
MAY	29	47310	.17355	.31648	.117798	.001549	-.00111	-.00138
MAY	30	47311	.17206	.31487	.116344	.001354	-.00125	-.00162
MAY	31	47312	.17071	.31329	.115089	.001156	-.00114	-.00194
JUN	1	47313	.16968	.31151	.114012	.000997	-.00091	-.00211
JUN	2	47314	.16899	.30943	.113057	.000912	-.00074	-.00221
JUN	3	47315	.16840	.30724	.112143	.000934	-.00081	-.00195
JUN	4	47316	.16779	.30516	.111151	.001074	-.00087	-.00164
JUN	5	47317	.16714	.30323	.109975	.001289	-.00099	-.00140
JUN	6	47318	.16650	.30131	.108578	.001502	-.00098	-.00156
JUN	7	47319	.16593	.29943	.107000	.001646	-.00091	-.00184
JUN	8	47320	.16549	.29775	.105328	.001687	-.00105	-.00189
JUN	9	47321	.16525	.29622	.103671	.001613	-.00132	-.00179
JUN	10	47322	.16525	.29467	.102142	.001430	-.00154	-.00166
JUN	11	47323	.16536	.29293	.100834	.001167	-.00175	-.00138
JUN	12	47324	.16536	.29103	.099811	.000875	-.00181	-.00123
JUN	13	47325	.16519	.28903	.099068	.000620	-.00179	-.00126
JUN	14	47326	.16510	.28700	.098541	.000456	-.00154	-.00137
JUN	15	47327	.16533	.28504	.098123	.000400	-.00129	-.00142
JUN	16	47328	.16570	.28329	.097711	.000431	-.00102	-.00140
JUN	17	47329	.16589	.28168	.097238	.000513	-.00071	-.00132
JUN	18	47330	.16564	.27987	.096672	.000614	-.00053	-.00119
JUN	19	47331	.16499	.27764	.096005	.000718	-.00090	-.00115
JUN	20	47332	.16426	.27493	.095241	.000812	-.00154	-.00111
JUN	21	47333	.16396	.27201	.094394	.000877	-.00202	-.00112
JUN	22	47334	.16421	.26924	.093505	.000897	-.00267	-.00118
JUN	23	47335	.16511	.26707	.092623	.000863	-.00354	-.00121
JUN	24	47336	.16620	.26521	.091803	.000775	-.00433	-.00130
JUN	25	47337	.16719	.26343	.091092	.000643	-.00489	-.00143
JUN	26	47338	.16795	.26159	.090532	.000467	-.00489	-.00158
JUN	27	47339	.16850	.25964	.090162	.000258	-.00412	-.00161
JUN	28	47340	.16892	.25779	.090006	.000056	-.00323	-.00169
JUN	29	47341	.16927	.25612	.090019	-.000060	-.00256	-.00152
JUN	30	47342	.16950	.25461	.090083	-.000036	-.00221	-.00138
JUL	1	47343	.16956	.25308	.090046	.000143	-.00223	-.00128
JUL	2	47344	.16943	.25139	.089767	.000429	-.00260	-.00105
JUL	3	47345	.16914	.24957	.089186	.000729	-.00333	-.00090
JUL	4	47346	.16883	.24760	.088339	.000946	-.00422	-.00068
JUL	5	47347	.16855	.24545	.087340	.001031	-.00523	-.00050
JUL	6	47348	.16832	.24319	.086329	.000973	-.00610	-.00048
JUL	7	47349	.16815	.24098	.085435	.000801	-.00685	-.00053
JUL	8	47350	.16801	.23900	.084753	.000558	-.00740	-.00084
JUL	9	47351	.16782	.23718	.084322	.000305	-.00781	-.00118
JUL	10	47352	.16751	.23537	.084128	.000092	-.00805	-.00142
JUL	11	47353	.16711	.23345	.084113	-.000049	-.00763	-.00164
JUL	12	47354	.16667	.23141	.084193	-.000099	-.00641	-.00181
JUL	13	47355	.16632	.22927	.084279	-.000052	-.00554	-.00181
JUL	14	47356	.16621	.22716	.084274	.000079	-.00520	-.00165
JUL	15	47357	.16617	.22517	.084104	.000270	-.00537	-.00144
JUL	16	47358	.16585	.22337	.083729	.000482	-.00589	-.00110

JUL	17	47359	.16479	.22178	.083145	.000663	-.00658	-.00065
JUL	18	47360	.16365	.22016	.082416	.000778	-.00742	-.00034
JUL	19	47361	.16288	.21827	.081607	.000834	-.00806	.00011
JUL	20	47362	.16243	.21603	.080770	.000838	-.00872	.00031
JUL	21	47363	.16198	.21363	.079952	.000794	-.00925	.00034
JUL	22	47364	.16120	.21133	.079200	.000712	-.00946	.00002
JUL	23	47365	.15996	.20932	.078545	.000588	-.00921	-.00093
JUL	24	47366	.15845	.20746	.078033	.000429	-.00899	-.00147
JUL	25	47367	.15698	.20550	.077683	.000267	-.00893	-.00157
JUL	26	47368	.15568	.20339	.077476	.000158	-.00918	-.00122
JUL	27	47369	.15454	.20132	.077326	.000170	-.00952	-.00090
JUL	28	47370	.15340	.19945	.077088	.000331	-.00961	-.00062
JUL	29	47371	.15233	.19783	.076623	.000610	-.00942	-.00059
JUL	30	47372	.15134	.19629	.075852	.000925	-.00910	-.00075
JUL	31	47373	.15034	.19455	.074791	.001176	-.00894	-.00091
AUG	1	47374	.14936	.19247	.073546	.001292	-.00892	-.00112
AUG	2	47375	.14845	.19038	.072267	.001246	-.00908	-.00128
AUG	3	47376	.14738	.18840	.071107	.001061	-.00904	-.00131
AUG	4	47377	.14591	.18645	.070179	.000790	-.00913	-.00140
AUG	5	47378	.14412	.18452	.069533	.000504	-.00949	-.00113
AUG	6	47379	.14227	.18258	.069156	.000262	-.00989	-.00088
AUG	7	47380	.14054	.18065	.068980	.000097	-.01032	-.00121
AUG	8	47381	.13885	.17887	.068928	.000018	-.01062	-.00159
AUG	9	47382	.13709	.17722	.068913	.000030	-.01046	-.00172
AUG	10	47383	.13542	.17540	.068842	.000128	-.01010	-.00178
AUG	11	47384	.13403	.17353	.068640	.000285	-.00973	-.00168
AUG	12	47385	.13296	.17184	.068263	.000473	-.00960	-.00144
AUG	13	47386	.13204	.17021	.067696	.000659	-.00963	-.00120
AUG	14	47387	.13097	.16873	.066956	.000815	-.00993	-.00097
AUG	15	47388	.12953	.16750	.066085	.000917	-.01024	-.00070
AUG	16	47389	.12754	.16659	.065143	.000961	-.01071	-.00058
AUG	17	47390	.12534	.16574	.064185	.000939	-.01095	-.00063
AUG	18	47391	.12320	.16478	.063285	.000841	-.01110	-.00084
AUG	19	47392	.12118	.16360	.062517	.000680	-.01121	-.00108
AUG	20	47393	.11929	.16227	.061932	.000490	-.01105	-.00133
AUG	21	47394	.11745	.16088	.061536	.000316	-.01083	-.00154
AUG	22	47395	.11547	.15949	.061284	.000197	-.01060	-.00161
AUG	23	47396	.11333	.15807	.061111	.000161	-.01043	-.00151
AUG	24	47397	.11100	.15663	.060918	.000248	-.01030	-.00135
AUG	25	47398	.10842	.15519	.060570	.000475	-.01027	-.00114
AUG	26	47399	.10568	.15391	.059938	.000806	-.01039	-.00089
AUG	27	47400	.10298	.15283	.058956	.001152	-.01078	-.00075
AUG	28	47401	.10071	.15184	.057668	.001399	-.01132	-.00064
AUG	29	47402	.09870	.15085	.056220	.001462	-.01176	-.00058
AUG	30	47403	.09676	.14979	.054811	.001333	-.01203	-.00059
AUG	31	47404	.09458	.14862	.053604	.001077	-.01205	-.00077
SEP	1	47405	.09207	.14741	.052677	.000782	-.01156	-.00099
SEP	2	47406	.08946	.14624	.052031	.000526	-.01151	-.00123
SEP	3	47407	.08712	.14518	.051596	.000359	-.01189	-.00147
SEP	4	47408	.08508	.14426	.051275	.000297	-.01243	-.00167
SEP	5	47409	.08317	.14343	.050967	.000319	-.01288	-.00162
SEP	6	47410	.08113	.14259	.050609	.000401	-.01241	-.00170
SEP	7	47411	.07894	.14172	.050145	.000531	-.01150	-.00172

SEP	8	47412	.07664	.14078	.049537	.000685	-.01062	-.00149
SEP	9	47413	.07435	.13982	.048775	.000836	-.00990	-.00104
SEP	10	47414	.07216	.13893	.047873	.000967	-.00945	-.00031
SEP	11	47415	.07012	.13824	.046857	.001062	-.00933	.00008
SEP	12	47416	.06825	.13758	.045770	.001113	-.00949	.00002
SEP	13	47417	.06633	.13690	.044655	.001116	-.00975	-.00021
SEP	14	47418	.06408	.13624	.043562	.001064	-.01014	-.00070
SEP	15	47419	.06135	.13550	.042543	.000963	-.01059	-.00113
SEP	16	47420	.05840	.13492	.041645	.000831	-.01098	-.00138
SEP	17	47421	.05538	.13449	.040881	.000698	-.01121	-.00151
SEP	18	47422	.05235	.13401	.040235	.000601	-.01131	-.00170
SEP	19	47423	.04938	.13339	.039654	.000580	-.01095	-.00162
SEP	20	47424	.04646	.13272	.039036	.000676	-.01060	-.00158
SEP	21	47425	.04347	.13219	.038259	.000895	-.01063	-.00148
SEP	22	47426	.04025	.13186	.037208	.001210	-.01080	-.00134
SEP	23	47427	.03675	.13156	.035822	.001560	-.01083	-.00110
SEP	24	47428	.03309	.13101	.034102	.001873	-.01093	-.00077
SEP	25	47429	.02958	.13027	.032122	.002066	-.01115	-.00050
SEP	26	47430	.02641	.12950	.030035	.002073	-.01151	-.00028
SEP	27	47431	.02354	.12890	.028041	.001883	-.01196	-.00024
SEP	28	47432	.02064	.12862	.026309	.001568	-.01221	-.00014
SEP	29	47433	.01736	.12875	.024914	.001236	-.01241	-.00028
SEP	30	47434	.01350	.12919	.023814	.000979	-.01224	-.00033
OCT	1	47435	.00932	.12943	.022917	.000829	-.01182	-.00044
OCT	2	47436	.00529	.12937	.022116	.000787	-.01109	-.00051
OCT	3	47437	.00175	.12909	.021310	.000845	-.01032	-.00061
OCT	4	47438	-.00129	.12877	.020403	.000987	-.00949	-.00065
OCT	5	47439	-.00392	.12862	.019322	.001192	-.00896	-.00053
OCT	6	47440	-.00614	.12880	.018017	.001421	-.00869	-.00029
OCT	7	47441	-.00831	.12938	.016486	.001629	-.00868	-.00015
OCT	8	47442	-.01081	.13033	.014772	.001786	-.00893	.00006
OCT	9	47443	-.01376	.13148	.012934	.001875	-.00937	.00022
OCT	10	47444	-.01713	.13269	.011046	.001887	-.00994	.00021
OCT	11	47445	-.02088	.13382	.009182	.001829	-.01086	.00013
OCT	12	47446	-.02476	.13477	.007407	.001708	-.01176	.00001
OCT	13	47447	-.02862	.13556	.005778	.001539	-.01241	-.00023
OCT	14	47448	-.03244	.13610	.004329	.001348	-.01278	-.00047
OCT	15	47449	-.03617	.13642	.003072	.001169	-.01272	-.00057
OCT	16	47450	-.03973	.13668	.001969	.001053	-.01187	-.00072
OCT	17	47451	-.04311	.13697	.000932	.001043	-.01060	-.00080
OCT	18	47452	-.04629	.13737	-.000156	.001157	-.00920	-.00081
OCT	19	47453	-.04927	.13798	-.001417	.001388	-.00782	-.00069
OCT	20	47454	-.05199	.13888	-.002953	.001693	-.00700	-.00064
OCT	21	47455	-.05431	.13997	-.004802	.002005	-.00665	-.00051
OCT	22	47456	-.05631	.14114	-.006936	.002248	-.00664	-.00041
OCT	23	47457	-.05834	.14237	-.009248	.002349	-.00699	-.00028
OCT	24	47458	-.06080	.14371	-.011571	.002259	-.00745	-.00021
OCT	25	47459	-.06394	.14525	-.013714	.002000	-.00784	-.00020
OCT	26	47460	-.06765	.14694	-.015548	.001658	-.00799	-.00024
OCT	27	47461	-.07137	.14846	-.017038	.001339	-.00788	-.00028
OCT	28	47462	-.07487	.14970	-.018257	.001124	-.00771	-.00021
OCT	29	47463	-.07812	.15073	-.019329	.001044	-.00741	-.00010
OCT	30	47464	-.08105	.15180	-.020384	.001085	-.00704	-.00012

OCT	31	47465	-.08340	.15318	-.021526	.001210	-.00709	.00002
NOV	1	47466	-.08553	.15493	-.022821	.001386	-.00712	.00012
NOV	2	47467	-.08798	.15689	-.024302	.001580	-.00700	.00036
NOV	3	47468	-.09090	.15888	-.025976	.001767	-.00644	.00051
NOV	4	47469	-.09399	.16078	-.027825	.001920	-.00574	.00073
NOV	5	47470	-.09680	.16262	-.029800	.002020	-.00525	.00110
NOV	6	47471	-.09934	.16450	-.031844	.002044	-.00522	.00132
NOV	7	47472	-.10185	.16646	-.033867	.001981	-.00546	.00116
NOV	8	47473	-.10451	.16852	-.035785	.001850	-.00581	.00095
NOV	9	47474	-.10731	.17063	-.037551	.001690	-.00621	.00071
NOV	10	47475	-.11013	.17269	-.039161	.001528	-.00634	.00067
NOV	11	47476	-.11284	.17450	-.040614	.001367	-.00622	.00065
NOV	12	47477	-.11524	.17619	-.041915	.001237	-.00569	.00059
NOV	13	47478	-.11724	.17789	-.043121	.001203	-.00532	.00069
NOV	14	47479	-.11907	.17976	-.044358	.001299	-.00499	.00085
NOV	15	47480	-.12072	.18181	-.045753	.001509	-.00446	.00097
NOV	16	47481	-.12224	.18403	-.047400	.001795	-.00409	.00101
NOV	17	47482	-.12379	.18648	-.049346	.002097	-.00379	.00105
NOV	18	47483	-.12512	.18918	-.051573	.002340	-.00363	.00106
NOV	19	47484	-.12607	.19217	-.053986	.002459	-.00367	.00102
NOV	20	47485	-.12706	.19531	-.056440	.002420	-.00394	.00101
NOV	21	47486	-.12858	.19837	-.058777	.002233	-.00426	.00103
NOV	22	47487	-.13084	.20115	-.060873	.001953	-.00466	.00101
NOV	23	47488	-.13365	.20356	-.062677	.001652	-.00490	.00096
NOV	24	47489	-.13644	.20591	-.064196	.001396	-.00498	.00093
NOV	25	47490	-.13875	.20854	-.065506	.001240	-.00491	.00093
NOV	26	47491	-.14078	.21144	-.066717	.001203	-.00486	.00098
NOV	27	47492	-.14266	.21450	-.067945	.001272	-.00470	.00110
NOV	28	47493	-.14451	.21755	-.069281	.001407	-.00450	.00129
NOV	29	47494	-.14652	.22036	-.070767	.001568	-.00412	.00142
NOV	30	47495	-.14882	.22278	-.072414	.001724	-.00380	.00176
DEC	1	47496	-.15150	.22541	-.074204	.001856	-.00336	.00199
DEC	2	47497	-.15398	.22831	-.076110	.001949	-.00304	.00199
DEC	3	47498	-.15572	.23126	-.078082	.001974	-.00270	.00192
DEC	4	47499	-.15641	.23402	-.080036	.001902	-.00256	.00179
DEC	5	47500	-.15665	.23666	-.081866	.001748	-.00274	.00149
DEC	6	47501	-.15702	.23948	-.083516	.001553	-.00310	.00126
DEC	7	47502	-.15777	.24259	-.084962	.001349	-.00348	.00111
DEC	8	47503	-.15899	.24600	-.086216	.001175	-.00380	.00089
DEC	9	47504	-.16034	.24942	-.087327	.001060	-.00400	.00090
DEC	10	47505	-.16159	.25255	-.088365	.001019	-.00424	.00118
DEC	11	47506	-.16265	.25531	-.089403	.001049	-.00428	.00143
DEC	12	47507	-.16359	.25794	-.090501	.001160	-.00372	.00153
DEC	13	47508	-.16452	.26065	-.091746	.001344	-.00300	.00136
DEC	14	47509	-.16550	.26353	-.093194	.001568	-.00254	.00131
DEC	15	47510	-.16633	.26643	-.094865	.001773	-.00264	.00143
DEC	16	47511	-.16680	.26923	-.096702	.001883	-.00296	.00161
DEC	17	47512	-.16684	.27192	-.098583	.001855	-.00323	.00172
DEC	18	47513	-.16659	.27466	-.100367	.001693	-.00347	.00176
DEC	19	47514	-.16624	.27766	-.101937	.001435	-.00361	.00185
DEC	20	47515	-.16596	.28101	-.103224	.001141	-.00371	.00201
DEC	21	47516	-.16585	.28452	-.104230	.000882	-.00364	.00207
DEC	22	47517	-.16592	.28783	-.105017	.000710	-.00341	.00205

DEC	23	47518	-.16605	.29066	-.105688	.000649	-.00308	.00179
DEC	24	47519	-.16592	.29331	-.106351	.000692	-.00261	.00159
DEC	25	47520	-.16544	.29605	-.107097	.000809	-.00218	.00155
DEC	26	47521	-.16484	.29907	-.107981	.000964	-.00176	.00157
DEC	27	47522	-.16413	.30229	-.109024	.001126	-.00159	.00161
DEC	28	47523	-.16338	.30559	-.110223	.001278	-.00159	.00165
DEC	29	47524	-.16267	.30867	-.111563	.001399	-.00164	.00176
DEC	30	47525	-.16188	.31147	-.113001	.001468	-.00188	.00182
DEC	31	47526	-.16110	.31392	-.114479	.001479	-.00225	.00190