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 EPHEMERIS OF SOLAR SYSTEM BODIES  
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Planet 7 Uranus  
 Planetary theory INPOP08  
 Apparent coordinates (true equator; equinoxe of the date)  
 Frame center: topocenter: merchtem  
 3 h 23 m 55.920 s E ; 4 d 11 ' 1.199 " N ; 16.00 m  
 Relativistic perturbations, coordinate system 0  
 Equatorial coordinates (R.A, Dec.)

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	Date UTC	R.A	Dec.	Distance	V.Mag	Phase	Elong.	muRAcosDE	muDE	Dist dot
	h m s	h m s	o ' "	au.		o	o	"/s	"/s	km/s
1 1	2011 21 59 60.00	23 50 4.86224	-01 52 34.7646	20.307377991	5.87	2.72	75.99	0.874E-03	0.401E-03	29.3935
1 2	2011 21 59 60.00	23 50 9.88265	-01 51 59.6293	20.324097655	5.87	2.71	75.00	0.906E-03	0.414E-03	29.2597
1 3	2011 21 59 60.00	23 50 15.07919	-01 51 23.3655	20.340740034	5.87	2.70	74.00	0.936E-03	0.427E-03	29.1168
1 4	2011 21 59 60.00	23 50 20.44932	-01 50 45.9904	20.357299881	5.88	2.68	73.01	0.967E-03	0.440E-03	28.9647
1 5	2011 21 59 60.00	23 50 25.99082	-01 50 7.5191	20.373772022	5.88	2.67	72.01	0.998E-03	0.453E-03	28.8036
1 6	2011 21 59 60.00	23 50 31.70186	-01 49 27.9638	20.390151365	5.88	2.65	71.02	0.103E-02	0.466E-03	28.6337
1 7	2011 21 59 60.00	23 50 37.58107	-01 48 47.3339	20.406432917	5.88	2.64	70.03	0.106E-02	0.478E-03	28.4551
1 8	2011 21 59 60.00	23 50 43.62736	-01 48 5.6368	20.422611781	5.88	2.62	69.04	0.109E-02	0.491E-03	28.2681
1 9	2011 21 59 60.00	23 50 49.83987	-01 47 22.8787	20.438683160	5.88	2.60	68.05	0.112E-02	0.503E-03	28.0727
1 10	2011 21 59 60.00	23 50 56.21779	-01 46 39.0652	20.454642358	5.89	2.58	67.06	0.115E-02	0.515E-03	27.8692
1 11	2011 21 59 60.00	23 51 2.76030	-01 45 54.2022	20.470484777	5.89	2.56	66.07	0.117E-02	0.527E-03	27.6577
1 12	2011 21 59 60.00	23 51 9.46650	-01 45 8.2963	20.486205920	5.89	2.54	65.08	0.120E-02	0.539E-03	27.4385
1 13	2011 21 59 60.00	23 51 16.33531	-01 44 21.3550	20.501801391	5.89	2.52	64.09	0.123E-02	0.551E-03	27.2116
1 14	2011 21 59 60.00	23 51 23.36538	-01 43 33.3878	20.517266902	5.89	2.50	63.11	0.126E-02	0.562E-03	26.9773
1 15	2011 21 59 60.00	23 51 30.55494	-01 42 44.4067	20.532598276	5.89	2.48	62.12	0.129E-02	0.574E-03	26.7358
1 16	2011 21 59 60.00	23 51 37.90170	-01 41 54.4272	20.547791450	5.90	2.46	61.14	0.131E-02	0.585E-03	26.4873
1 17	2011 21 59 60.00	23 51 45.40275	-01 41 3.4685	20.562842473	5.90	2.43	60.15	0.134E-02	0.596E-03	26.2320
1 18	2011 21 59 60.00	23 51 53.05462	-01 40 11.5532	20.577747499	5.90	2.41	59.17	0.137E-02	0.607E-03	25.9700
1 19	2011 21 59 60.00	23 52 0.85367	-01 39 18.7046	20.592502762	5.90	2.38	58.19	0.139E-02	0.618E-03	25.7014
1 20	2011 21 59 60.00	23 52 8.79664	-01 38 24.9433	20.607104544	5.90	2.36	57.21	0.142E-02	0.629E-03	25.4264
1 21	2011 21 59 60.00	23 52 16.88125	-01 37 30.2834	20.621549134	5.90	2.33	56.23	0.144E-02	0.639E-03	25.1448
1 22	2011 21 59 60.00	23 52 25.10644	-01 36 34.7312	20.635832791	5.90	2.30	55.25	0.147E-02	0.650E-03	24.8567
1 23	2011 21 59 60.00	23 52 33.47211	-01 35 38.2872	20.649951714	5.91	2.28	54.27	0.149E-02	0.660E-03	24.5618
1 24	2011 21 59 60.00	23 52 41.97852	-01 34 40.9501	20.663902032	5.91	2.25	53.29	0.152E-02	0.670E-03	24.2601
1 25	2011 21 59 60.00	23 52 50.62558	-01 33 42.7210	20.677679812	5.91	2.22	52.31	0.154E-02	0.680E-03	23.9515
1 26	2011 21 59 60.00	23 52 59.41242	-01 32 43.6069	20.691281077	5.91	2.19	51.34	0.156E-02	0.690E-03	23.6359
1 27	2011 21 59 60.00	23 53 8.33722	-01 31 43.6207	20.704701831	5.91	2.16	50.36	0.159E-02	0.700E-03	23.3134
1 28	2011 21 59 60.00	23 53 17.39735	-01 30 42.7805	20.717938088	5.91	2.13	49.39	0.161E-02	0.710E-03	22.9839
1 29	2011 21 59 60.00	23 53 26.58961	-01 29 41.1080	20.730985896	5.91	2.10	48.41	0.163E-02	0.719E-03	22.6475
1 30	2011 21 59 60.00	23 53 35.91055	-01 28 38.6266	20.743841357	5.91	2.07	47.44	0.166E-02	0.728E-03	22.3044
1 31	2011 21 59 60.00	23 53 45.35675	-01 27 35.3589	20.756500650	5.92	2.03	46.47	0.168E-02	0.737E-03	21.9547
2 1	2011 21 59 60.00	23 53 54.92501	-01 26 31.3261	20.768960044	5.92	2.00	45.50	0.170E-02	0.746E-03	21.5985
2 2	2011 21 59 60.00	23 54 4.61252	-01 25 26.5471	20.781215911	5.92	1.97	44.52	0.172E-02	0.755E-03	21.2362
2 3	2011 21 59 60.00	23 54 14.41684	-01 24 21.0378	20.793264740	5.92	1.93	43.55	0.174E-02	0.763E-03	20.8678
2 4	2011 21 59 60.00	23 54 24.33592	-01 23 14.8120	20.805103138	5.92	1.90	42.59	0.176E-02	0.772E-03	20.4936
2 5	2011 21 59 60.00	23 54 34.36800	-01 22 7.8814	20.816727838	5.92	1.86	41.62	0.178E-02	0.780E-03	20.1138

2	6	2011	21	59	60.00	23	54	44.51144	-01	21	0.2572	20.828135698	5.92	1.83	40.65	0.180E-02	0.788E-03	19.7286
2	7	2011	21	59	60.00	23	54	54.76464	-01	19	51.9499	20.839323703	5.92	1.79	39.68	0.182E-02	0.796E-03	19.3382
2	8	2011	21	59	60.00	23	55	5.12594	-01	18	42.9708	20.850288959	5.92	1.76	38.72	0.184E-02	0.803E-03	18.9430
2	9	2011	21	59	60.00	23	55	15.59351	-01	17	33.3322	20.861028699	5.93	1.72	37.75	0.186E-02	0.811E-03	18.5430
2	10	2011	21	59	60.00	23	55	26.16533	-01	16	23.0475	20.871540279	5.93	1.68	36.79	0.187E-02	0.818E-03	18.1385
2	11	2011	21	59	60.00	23	55	36.83904	-01	15	12.1323	20.881821177	5.93	1.64	35.83	0.189E-02	0.825E-03	17.7297
2	12	2011	21	59	60.00	23	55	47.61189	-01	14	0.6048	20.891869003	5.93	1.60	34.86	0.191E-02	0.831E-03	17.3168
2	13	2011	21	59	60.00	23	55	58.48063	-01	12	48.4861	20.901681492	5.93	1.57	33.90	0.192E-02	0.838E-03	16.9001
2	14	2011	21	59	60.00	23	56	9.44155	-01	11	35.8002	20.911256505	5.93	1.53	32.94	0.194E-02	0.844E-03	16.4798
2	15	2011	21	59	60.00	23	56	20.49055	-01	10	22.5736	20.920592020	5.93	1.49	31.98	0.195E-02	0.851E-03	16.0560
2	16	2011	21	59	60.00	23	56	31.62352	-01	9	8.8325	20.929686107	5.93	1.45	31.03	0.197E-02	0.857E-03	15.6290
2	17	2011	21	59	60.00	23	56	42.83698	-01	7	54.5991	20.938536896	5.93	1.41	30.07	0.198E-02	0.863E-03	15.1987
2	18	2011	21	59	60.00	23	56	54.12858	-01	6	39.8881	20.947142533	5.93	1.37	29.11	0.200E-02	0.868E-03	14.7651
2	19	2011	21	59	60.00	23	57	5.49731	-01	5	24.7057	20.955501135	5.93	1.33	28.16	0.201E-02	0.874E-03	14.3283
2	20	2011	21	59	60.00	23	57	16.94303	-01	4	9.0529	20.963610759	5.94	1.28	27.20	0.203E-02	0.879E-03	13.8880
2	21	2011	21	59	60.00	23	57	28.46561	-01	2	52.9311	20.971469393	5.94	1.24	26.25	0.204E-02	0.884E-03	13.4441
2	22	2011	21	59	60.00	23	57	40.06415	-01	1	36.3466	20.979074963	5.94	1.20	25.29	0.205E-02	0.889E-03	12.9966
2	23	2011	21	59	60.00	23	57	51.73662	-01	0	19.3135	20.986425373	5.94	1.16	24.34	0.206E-02	0.894E-03	12.5454
2	24	2011	21	59	60.00	23	58	3.48000	-00	59	1.8521	20.993518529	5.94	1.11	23.39	0.207E-02	0.899E-03	12.0907
2	25	2011	21	59	60.00	23	58	15.29066	-00	57	43.9868	21.000352382	5.94	1.07	22.43	0.209E-02	0.903E-03	11.6324
2	26	2011	21	59	60.00	23	58	27.16473	-00	56	25.7432	21.006924950	5.94	1.03	21.48	0.210E-02	0.907E-03	11.1708
2	27	2011	21	59	60.00	23	58	39.09840	-00	55	7.1467	21.013234339	5.94	0.99	20.53	0.211E-02	0.911E-03	10.7060
2	28	2011	21	59	60.00	23	58	51.08811	-00	53	48.2207	21.019278754	5.94	0.94	19.58	0.212E-02	0.915E-03	10.2382
3	1	2011	21	59	60.00	23	59	3.13069	-00	52	28.9865	21.025056514	5.94	0.90	18.64	0.213E-02	0.919E-03	9.7675
3	2	2011	21	59	60.00	23	59	15.22332	-00	51	9.4627	21.030566052	5.94	0.85	17.69	0.213E-02	0.922E-03	9.2943
3	3	2011	21	59	60.00	23	59	27.36355	-00	49	49.6655	21.035805927	5.94	0.81	16.74	0.214E-02	0.925E-03	8.8186
3	4	2011	21	59	60.00	23	59	39.54926	-00	48	29.6091	21.040774824	5.94	0.76	15.79	0.215E-02	0.928E-03	8.3409
3	5	2011	21	59	60.00	23	59	51.77849	-00	47	9.3066	21.045471555	5.94	0.72	14.85	0.216E-02	0.931E-03	7.8611
3	6	2011	21	59	60.00	0	0	4.04939	-00	45	48.7702	21.049895067	5.94	0.67	13.90	0.216E-02	0.934E-03	7.3797
3	7	2011	21	59	60.00	0	0	16.36005	-00	44	28.0126	21.054044432	5.94	0.63	12.96	0.217E-02	0.936E-03	6.8968
3	8	2011	21	59	60.00	0	0	28.70847	-00	43	7.0470	21.057918855	5.94	0.58	12.02	0.218E-02	0.938E-03	6.4126
3	9	2011	21	59	60.00	0	0	41.09242	-00	41	45.8879	21.061517669	5.94	0.54	11.07	0.218E-02	0.940E-03	5.9275
3	10	2011	21	59	60.00	0	0	53.50938	-00	40	24.5518	21.064840331	5.94	0.49	10.13	0.219E-02	0.942E-03	5.4415
3	11	2011	21	59	60.00	0	1	5.95651	-00	39	3.0570	21.067886424	5.94	0.45	9.19	0.219E-02	0.943E-03	4.9549
3	12	2011	21	59	60.00	0	1	18.43057	-00	37	41.4245	21.070655654	5.94	0.40	8.26	0.220E-02	0.945E-03	4.4679
3	13	2011	21	59	60.00	0	1	30.92799	-00	36	19.6774	21.073147848	5.94	0.35	7.32	0.220E-02	0.946E-03	3.9807
3	14	2011	21	59	60.00	0	1	43.44486	-00	34	57.8411	21.075362947	5.94	0.31	6.38	0.220E-02	0.947E-03	3.4936
3	15	2011	21	59	60.00	0	1	55.97723	-00	33	35.9414	21.077300997	5.94	0.26	5.45	0.220E-02	0.948E-03	3.0067
3	16	2011	21	59	60.00	0	2	8.52141	-00	32	14.0030	21.078962125	5.94	0.22	4.52	0.221E-02	0.948E-03	2.5200
3	17	2011	21	59	60.00	0	2	21.07464	-00	30	52.0465	21.080346508	5.94	0.17	3.60	0.221E-02	0.948E-03	2.0337
3	18	2011	21	59	60.00	0	2	33.63573	-00	29	30.0877	21.081454334	5.94	0.13	2.68	0.221E-02	0.949E-03	1.5478
3	19	2011	21	59	60.00	0	2	46.20579	-00	28	8.1523	21.082285753	5.94	0.08	1.80	0.221E-02	0.949E-03	1.0621
3	20	2011	21	59	60.00	0	2	58.78663	-00	26	46.4021	21.082840849	5.94	0.05	1.01	0.221E-02	0.949E-03	0.5765
3	21	2011	21	59	60.00	0	3	11.33056	-00	25	24.7697	21.083119627	5.94	0.04	0.74	0.221E-02	0.948E-03	0.0909
3	22	2011	21	59	60.00	0	3	23.89986	-00	24	2.4876	21.083122028	5.94	0.07	1.35	0.221E-02	0.948E-03	-0.3948
3	23	2011	21	59	60.00	0	3	36.48344	-00	22	40.4422	21.082847961	5.94	0.12	2.20	0.221E-02	0.947E-03	-0.8806
3	24	2011	21	59	60.00	0	3	49.06414	-00	21	18.5169	21.082297350	5.94	0.16	3.10	0.221E-02	0.946E-03	-1.3665
3	25	2011	21	59	60.00	0	4	1.63782	-00	19	56.6914	21.081470171	5.94	0.21	4.02	0.221E-02	0.945E-03	-1.8523
3	26	2011	21	59	60.00	0	4	14.20082	-00	18	34.9788	21.080366481	5.94	0.25	4.94	0.221E-02	0.944E-03	-2.3379
3	27	2011	21	59	60.00	0	4	26.74970	-00	17	13.3985	21.078986437	5.94	0.30	5.87	0.220E-02	0.942E-03	-2.8230
3	28	2011	21	59	60.00	0	4	39.28135	-00	15	51.9698	21.077330308	5.94	0.34	6.79	0.220E-02	0.941E-03	-3.3076
3	29	2011	21	59	60.00	0	4	51.79303	-00	14	30.7103	21.075398476	5.94	0.39	7.72	0.220E-02	0.939E-03	-3.7913
3	30	2011	21	59	60.00	0	5	4.28238	-00	13	9.6355	21.073191440	5.94	0.43	8.65	0.219E-02	0.937E-03	-4.2740

3	31	2011	21	59	60.00	0	5	16.74732	-00	11	48.7589	21.070709819	5.94	0.48	9.58	0.219E-02	0.934E-03	-4.7555
4	1	2011	21	59	60.00	0	5	29.18596	-00	10	28.0930	21.067954352	5.94	0.53	10.51	0.218E-02	0.932E-03	-5.2355
4	2	2011	21	59	60.00	0	5	41.59654	-00	9	7.6493	21.064925897	5.94	0.57	11.43	0.218E-02	0.929E-03	-5.7139
4	3	2011	21	59	60.00	0	5	53.97728	-00	7	47.4392	21.061625436	5.94	0.62	12.36	0.217E-02	0.926E-03	-6.1904
4	4	2011	21	59	60.00	0	6	6.32631	-00	6	27.4748	21.058054072	5.94	0.66	13.29	0.217E-02	0.923E-03	-6.6649
4	5	2011	21	59	60.00	0	6	18.64157	-00	5	7.7692	21.054213032	5.94	0.71	14.22	0.216E-02	0.920E-03	-7.1370
4	6	2011	21	59	60.00	0	6	30.92070	-00	3	48.3374	21.050103660	5.94	0.75	15.15	0.215E-02	0.917E-03	-7.6066
4	7	2011	21	59	60.00	0	6	43.16102	-00	2	29.1961	21.045727421	5.94	0.80	16.07	0.214E-02	0.913E-03	-8.0736
4	8	2011	21	59	60.00	0	6	55.35949	-00	1	10.3646	21.041085890	5.94	0.84	17.00	0.214E-02	0.909E-03	-8.5376
4	9	2011	21	59	60.00	0	7	7.51274	+00	0	8.1358	21.036180752	5.94	0.89	17.93	0.213E-02	0.905E-03	-8.9986
4	10	2011	21	59	60.00	0	7	19.61715	+00	1	26.2821	21.031013791	5.94	0.93	18.86	0.212E-02	0.901E-03	-9.4563
4	11	2011	21	59	60.00	0	7	31.66900	+00	2	44.0507	21.025586881	5.94	0.97	19.78	0.211E-02	0.896E-03	-9.9107
4	12	2011	21	59	60.00	0	7	43.66480	+00	4	1.4192	21.019901975	5.94	1.02	20.71	0.210E-02	0.892E-03	-10.3615
4	13	2011	21	59	60.00	0	7	55.60150	+00	5	18.3681	21.013961075	5.94	1.06	21.63	0.209E-02	0.887E-03	-10.8088
4	14	2011	21	59	60.00	0	8	7.47696	+00	6	34.8835	21.007766212	5.94	1.10	22.56	0.208E-02	0.882E-03	-11.2524
4	15	2011	21	59	60.00	0	8	19.29009	+00	7	50.9581	21.001319406	5.94	1.15	23.48	0.207E-02	0.877E-03	-11.6925
4	16	2011	21	59	60.00	0	8	31.04070	+00	9	6.5908	20.994622626	5.94	1.19	24.41	0.205E-02	0.872E-03	-12.1292
4	17	2011	21	59	60.00	0	8	42.72888	+00	10	21.7824	20.987677770	5.94	1.23	25.33	0.204E-02	0.867E-03	-12.5626
4	18	2011	21	59	60.00	0	8	54.35413	+00	11	36.5299	20.980486647	5.94	1.27	26.26	0.203E-02	0.861E-03	-12.9928
4	19	2011	21	59	60.00	0	9	5.91472	+00	12	50.8227	20.973050998	5.94	1.31	27.18	0.202E-02	0.856E-03	-13.4200
4	20	2011	21	59	60.00	0	9	17.40763	+00	14	4.6415	20.965372526	5.94	1.36	28.10	0.201E-02	0.850E-03	-13.8441
4	21	2011	21	59	60.00	0	9	28.82904	+00	15	17.9615	20.957452941	5.93	1.40	29.03	0.199E-02	0.844E-03	-14.2652
4	22	2011	21	59	60.00	0	9	40.17500	+00	16	30.7570	20.949294005	5.93	1.44	29.95	0.198E-02	0.838E-03	-14.6831
4	23	2011	21	59	60.00	0	9	51.44189	+00	17	43.0040	20.940897560	5.93	1.48	30.87	0.196E-02	0.831E-03	-15.0976
4	24	2011	21	59	60.00	0	10	2.62664	+00	18	54.6821	20.932265547	5.93	1.52	31.80	0.195E-02	0.825E-03	-15.5085
4	25	2011	21	59	60.00	0	10	13.72668	+00	20	5.7742	20.923400017	5.93	1.56	32.72	0.194E-02	0.818E-03	-15.9157
4	26	2011	21	59	60.00	0	10	24.73985	+00	21	16.2660	20.914303130	5.93	1.60	33.64	0.192E-02	0.811E-03	-16.3190
4	27	2011	21	59	60.00	0	10	35.66435	+00	22	26.1457	20.904977159	5.93	1.63	34.57	0.190E-02	0.804E-03	-16.7181
4	28	2011	21	59	60.00	0	10	46.49864	+00	23	35.4029	20.895424482	5.93	1.67	35.49	0.189E-02	0.797E-03	-17.1130
4	29	2011	21	59	60.00	0	10	57.24126	+00	24	44.0285	20.885647585	5.93	1.71	36.41	0.187E-02	0.790E-03	-17.5033
4	30	2011	21	59	60.00	0	11	7.89079	+00	25	52.0134	20.875649063	5.93	1.75	37.34	0.185E-02	0.782E-03	-17.8890
5	1	2011	21	59	60.00	0	11	18.44573	+00	26	59.3485	20.865431617	5.93	1.79	38.26	0.184E-02	0.774E-03	-18.2697
5	2	2011	21	59	60.00	0	11	28.90444	+00	28	6.0236	20.854998056	5.93	1.82	39.18	0.182E-02	0.766E-03	-18.6454
5	3	2011	21	59	60.00	0	11	39.26500	+00	29	12.0273	20.844351301	5.92	1.86	40.11	0.180E-02	0.758E-03	-19.0159
5	4	2011	21	59	60.00	0	11	49.52517	+00	30	17.3457	20.833494376	5.92	1.89	41.03	0.178E-02	0.750E-03	-19.3809
5	5	2011	21	59	60.00	0	11	59.68233	+00	31	21.9631	20.822430414	5.92	1.93	41.95	0.176E-02	0.742E-03	-19.7403
5	6	2011	21	59	60.00	0	12	9.73351	+00	32	25.8611	20.811162640	5.92	1.96	42.88	0.174E-02	0.733E-03	-20.0940
5	7	2011	21	59	60.00	0	12	19.67549	+00	33	29.0198	20.799694369	5.92	2.00	43.80	0.172E-02	0.725E-03	-20.4417
5	8	2011	21	59	60.00	0	12	29.50502	+00	34	31.4187	20.788028991	5.92	2.03	44.72	0.170E-02	0.716E-03	-20.7834
5	9	2011	21	59	60.00	0	12	39.21900	+00	35	33.0383	20.776169953	5.92	2.06	45.65	0.168E-02	0.707E-03	-21.1189
5	10	2011	21	59	60.00	0	12	48.81483	+00	36	33.8620	20.764120742	5.92	2.10	46.57	0.166E-02	0.698E-03	-21.4483
5	11	2011	21	59	60.00	0	12	58.29062	+00	37	33.8777	20.751884863	5.92	2.13	47.49	0.164E-02	0.689E-03	-21.7715
5	12	2011	21	59	60.00	0	13	7.64540	+00	38	33.0790	20.739465810	5.91	2.16	48.42	0.162E-02	0.679E-03	-22.0886
5	13	2011	21	59	60.00	0	13	16.87898	+00	39	31.4648	20.726867039	5.91	2.19	49.34	0.160E-02	0.670E-03	-22.3996
5	14	2011	21	59	60.00	0	13	25.99168	+00	40	29.0376	20.714091941	5.91	2.22	50.26	0.158E-02	0.660E-03	-22.7047
5	15	2011	21	59	60.00	0	13	34.98365	+00	41	25.7991	20.701143823	5.91	2.25	51.19	0.156E-02	0.651E-03	-23.0041
5	16	2011	21	59	60.00	0	13	43.85425	+00	42	21.7463	20.688025908	5.91	2.28	52.11	0.153E-02	0.641E-03	-23.2978
5	17	2011	21	59	60.00	0	13	52.60163	+00	43	16.8682	20.674741346	5.91	2.31	53.03	0.151E-02	0.631E-03	-23.5859
5	18	2011	21	59	60.00	0	14	1.22288	+00	44	11.1466	20.661293249	5.91	2.34	53.96	0.149E-02	0.621E-03	-23.8686
5	19	2011	21	59	60.00	0	14	9.71449	+00	45	4.5590	20.647684729	5.90	2.36	54.88	0.146E-02	0.611E-03	-24.1458
5	20	2011	21	59	60.00	0	14	18.07307	+00	45	57.0835	20.633918938	5.90	2.39	55.81	0.144E-02	0.601E-03	-24.4173
5	21	2011	21	59	60.00	0	14	26.29572	+00	46	48.7007	20.619999103	5.90	2.42	56.73	0.142E-02	0.590E-03	-24.6830
5	22	2011	21	59	60.00	0	14	34.38017	+00	47	39.3957	20.605928539	5.90	2.44	57.66	0.139E-02	0.580E-03	-24.9428

5 23	2011	21	59	60.00	0 14	42.32475	+00	48	29.1571	20.591710661	5.90	2.47	58.58	0.137E-02	0.569E-03	-25.1964
5 24	2011	21	59	60.00	0 14	50.12814	+00	49	17.9763	20.577348985	5.90	2.49	59.51	0.134E-02	0.558E-03	-25.4438
5 25	2011	21	59	60.00	0 14	57.78935	+00	50	5.8468	20.562847124	5.90	2.52	60.43	0.132E-02	0.547E-03	-25.6846
5 26	2011	21	59	60.00	0 15	5.30754	+00	50	52.7636	20.548208788	5.89	2.54	61.36	0.129E-02	0.536E-03	-25.9189
5 27	2011	21	59	60.00	0 15	12.68190	+00	51	38.7218	20.533437775	5.89	2.56	62.29	0.127E-02	0.525E-03	-26.1464
5 28	2011	21	59	60.00	0 15	19.91158	+00	52	23.7168	20.518537974	5.89	2.58	63.21	0.124E-02	0.514E-03	-26.3669
5 29	2011	21	59	60.00	0 15	26.99559	+00	53	7.7432	20.503513366	5.89	2.61	64.14	0.122E-02	0.502E-03	-26.5804
5 30	2011	21	59	60.00	0 15	33.93276	+00	53	50.7943	20.488368022	5.89	2.63	65.07	0.119E-02	0.491E-03	-26.7866
5 31	2011	21	59	60.00	0 15	40.72158	+00	54	32.8619	20.473106106	5.89	2.65	66.00	0.116E-02	0.479E-03	-26.9853
6 1	2011	21	59	60.00	0 15	47.36019	+00	55	13.9353	20.457731872	5.89	2.66	66.93	0.113E-02	0.467E-03	-27.1765
6 2	2011	21	59	60.00	0 15	53.84634	+00	55	54.0012	20.442249661	5.88	2.68	67.85	0.111E-02	0.456E-03	-27.3600
6 3	2011	21	59	60.00	0 16	0.17747	+00	56	33.0444	20.426663891	5.88	2.70	68.78	0.108E-02	0.444E-03	-27.5357
6 4	2011	21	59	60.00	0 16	6.35090	+00	57	11.0486	20.410979045	5.88	2.72	69.71	0.105E-02	0.432E-03	-27.7034
6 5	2011	21	59	60.00	0 16	12.36416	+00	57	47.9983	20.395199647	5.88	2.73	70.65	0.102E-02	0.420E-03	-27.8631
6 6	2011	21	59	60.00	0 16	18.21523	+00	58	23.8810	20.379330245	5.88	2.75	71.58	0.995E-03	0.407E-03	-28.0148
6 7	2011	21	59	60.00	0 16	23.90285	+00	58	58.6885	20.363375384	5.88	2.76	72.51	0.967E-03	0.395E-03	-28.1585
6 8	2011	21	59	60.00	0 16	29.42662	+00	59	32.4184	20.347339580	5.87	2.78	73.44	0.938E-03	0.383E-03	-28.2943
6 9	2011	21	59	60.00	0 16	34.78693	+01	0	5.0735	20.331227298	5.87	2.79	74.37	0.909E-03	0.370E-03	-28.4223
6 10	2011	21	59	60.00	0 16	39.98463	+01	0	36.6598	20.315042930	5.87	2.80	75.30	0.880E-03	0.358E-03	-28.5427
6 11	2011	21	59	60.00	0 16	45.02058	+01	1	7.1839	20.298790784	5.87	2.82	76.24	0.851E-03	0.346E-03	-28.6555
6 12	2011	21	59	60.00	0 16	49.89513	+01	1	36.6493	20.282475073	5.87	2.83	77.17	0.822E-03	0.333E-03	-28.7610
6 13	2011	21	59	60.00	0 16	54.60770	+01	2	5.0537	20.266099924	5.87	2.84	78.10	0.793E-03	0.320E-03	-28.8593
6 14	2011	21	59	60.00	0 16	59.15670	+01	2	32.3879	20.249669396	5.86	2.85	79.04	0.763E-03	0.308E-03	-28.9505
6 15	2011	21	59	60.00	0 17	3.53978	+01	2	58.6376	20.233187509	5.86	2.85	79.97	0.734E-03	0.295E-03	-29.0345
6 16	2011	21	59	60.00	0 17	7.75435	+01	3	23.7863	20.216658278	5.86	2.86	80.91	0.704E-03	0.282E-03	-29.1115
6 17	2011	21	59	60.00	0 17	11.79809	+01	3	47.8186	20.200085745	5.86	2.87	81.85	0.674E-03	0.270E-03	-29.1814
6 18	2011	21	59	60.00	0 17	15.66927	+01	4	10.7230	20.183474008	5.86	2.88	82.78	0.644E-03	0.257E-03	-29.2439
6 19	2011	21	59	60.00	0 17	19.36683	+01	4	32.4923	20.166827238	5.86	2.88	83.72	0.614E-03	0.244E-03	-29.2990
6 20	2011	21	59	60.00	0 17	22.89025	+01	4	53.1229	20.150149688	5.85	2.89	84.66	0.583E-03	0.231E-03	-29.3465
6 21	2011	21	59	60.00	0 17	26.23939	+01	5	12.6138	20.133445690	5.85	2.89	85.60	0.553E-03	0.218E-03	-29.3864
6 22	2011	21	59	60.00	0 17	29.41432	+01	5	30.9658	20.116719658	5.85	2.89	86.54	0.522E-03	0.204E-03	-29.4184
6 23	2011	21	59	60.00	0 17	32.41519	+01	5	48.1806	20.099976078	5.85	2.90	87.48	0.491E-03	0.191E-03	-29.4425
6 24	2011	21	59	60.00	0 17	35.24214	+01	6	4.2599	20.083219506	5.85	2.90	88.42	0.460E-03	0.178E-03	-29.4584
6 25	2011	21	59	60.00	0 17	37.89520	+01	6	19.2051	20.066454566	5.84	2.90	89.36	0.429E-03	0.165E-03	-29.4662
6 26	2011	21	59	60.00	0 17	40.37426	+01	6	33.0166	20.049685947	5.84	2.90	90.30	0.398E-03	0.152E-03	-29.4657
6 27	2011	21	59	60.00	0 17	42.67894	+01	6	45.6937	20.032918406	5.84	2.90	91.25	0.367E-03	0.138E-03	-29.4568
6 28	2011	21	59	60.00	0 17	44.80856	+01	6	57.2333	20.016156770	5.84	2.90	92.19	0.335E-03	0.125E-03	-29.4393
6 29	2011	21	59	60.00	0 17	46.76204	+01	7	7.6303	19.999405929	5.84	2.90	93.14	0.304E-03	0.111E-03	-29.4131
6 30	2011	21	59	60.00	0 17	48.53794	+01	7	16.8767	19.982670836	5.84	2.89	94.08	0.273E-03	0.980E-04	-29.3783
7 1	2011	21	59	60.00	0 17	50.13461	+01	7	24.9631	19.965956495	5.83	2.89	95.03	0.241E-03	0.846E-04	-29.3345
7 2	2011	21	59	60.00	0 17	51.55043	+01	7	31.8799	19.949267941	5.83	2.88	95.98	0.209E-03	0.712E-04	-29.2820
7 3	2011	21	59	60.00	0 17	52.78425	+01	7	37.6201	19.932610216	5.83	2.88	96.93	0.178E-03	0.578E-04	-29.2206
7 4	2011	21	59	60.00	0 17	53.83569	+01	7	42.1813	19.915988336	5.83	2.87	97.87	0.146E-03	0.444E-04	-29.1504
7 5	2011	21	59	60.00	0 17	54.70532	+01	7	45.5674	19.899407265	5.83	2.87	98.82	0.115E-03	0.311E-04	-29.0716
7 6	2011	21	59	60.00	0 17	55.39460	+01	7	47.7880	19.882871884	5.82	2.86	99.77	0.832E-04	0.177E-04	-28.9843
7 7	2011	21	59	60.00	0 17	55.90550	+01	7	48.8565	19.866386971	5.82	2.85	100.73	0.518E-04	0.442E-05	-28.8887
7 8	2011	21	59	60.00	0 17	56.24003	+01	7	48.7870	19.849957192	5.82	2.84	101.68	0.205E-04	-0.884E-05	-28.7850
7 9	2011	21	59	60.00	0 17	56.39980	+01	7	47.5910	19.833587100	5.82	2.83	102.63	-0.108E-04	-0.221E-04	-28.6734
7 10	2011	21	59	60.00	0 17	56.38562	+01	7	45.2755	19.817281138	5.82	2.82	103.58	-0.420E-04	-0.353E-04	-28.5540
7 11	2011	21	59	60.00	0 17	56.19742	+01	7	41.8413	19.801043659	5.82	2.81	104.54	-0.731E-04	-0.484E-04	-28.4271
7 12	2011	21	59	60.00	0 17	55.83442	+01	7	37.2841	19.784878945	5.81	2.79	105.49	-0.104E-03	-0.615E-04	-28.2927
7 13	2011	21	59	60.00	0 17	55.29545	+01	7	31.5971	19.768791235	5.81	2.78	106.45	-0.135E-03	-0.746E-04	-28.1509
7 14	2011	21	59	60.00	0 17	54.57943	+01	7	24.7730	19.752784752	5.81	2.76	107.41	-0.166E-03	-0.877E-04	-28.0016

7 15	2011 21 59 60.00	0 17 53.68569 +01	7 16.8074	19.736863728	5.81	2.75	108.36	-0.197E-03	-0.101E-03	-27.8449
7 16	2011 21 59 60.00	0 17 52.61417 +01	7 7.6993	19.721032427	5.81	2.73	109.32	-0.228E-03	-0.114E-03	-27.6806
7 17	2011 21 59 60.00	0 17 51.36544 +01	6 57.4521	19.705295155	5.80	2.72	110.28	-0.258E-03	-0.127E-03	-27.5088
7 18	2011 21 59 60.00	0 17 49.94053 +01	6 46.0725	19.689656268	5.80	2.70	111.24	-0.289E-03	-0.140E-03	-27.3292
7 19	2011 21 59 60.00	0 17 48.34080 +01	6 33.5694	19.674120175	5.80	2.68	112.20	-0.319E-03	-0.152E-03	-27.1419
7 20	2011 21 59 60.00	0 17 46.56773 +01	6 19.9530	19.658691332	5.80	2.66	113.17	-0.350E-03	-0.165E-03	-26.9467
7 21	2011 21 59 60.00	0 17 44.62284 +01	6 5.2340	19.643374236	5.80	2.64	114.13	-0.380E-03	-0.178E-03	-26.7436
7 22	2011 21 59 60.00	0 17 42.50757 +01	5 49.4226	19.628173425	5.80	2.62	115.09	-0.410E-03	-0.191E-03	-26.5325
7 23	2011 21 59 60.00	0 17 40.22322 +01	5 32.5287	19.613093467	5.79	2.60	116.06	-0.440E-03	-0.203E-03	-26.3134
7 24	2011 21 59 60.00	0 17 37.77092 +01	5 14.5609	19.598138965	5.79	2.58	117.02	-0.470E-03	-0.216E-03	-26.0861
7 25	2011 21 59 60.00	0 17 35.15151 +01	4 55.5262	19.583314551	5.79	2.55	117.99	-0.500E-03	-0.228E-03	-25.8508
7 26	2011 21 59 60.00	0 17 32.36553 +01	4 35.4297	19.568624890	5.79	2.53	118.96	-0.529E-03	-0.241E-03	-25.6072
7 27	2011 21 59 60.00	0 17 29.41319 +01	4 14.2741	19.554074675	5.79	2.51	119.93	-0.558E-03	-0.253E-03	-25.3554
7 28	2011 21 59 60.00	0 17 26.29438 +01	3 52.0602	19.539668623	5.79	2.48	120.90	-0.588E-03	-0.265E-03	-25.0953
7 29	2011 21 59 60.00	0 17 23.00886 +01	3 28.7874	19.525411463	5.78	2.46	121.87	-0.616E-03	-0.277E-03	-24.8269
7 30	2011 21 59 60.00	0 17 19.55666 +01	3 4.4564	19.511307912	5.78	2.43	122.84	-0.645E-03	-0.289E-03	-24.5503
7 31	2011 21 59 60.00	0 17 15.93844 +01	2 39.0716	19.497362643	5.78	2.40	123.82	-0.674E-03	-0.301E-03	-24.2656
8 1	2011 21 59 60.00	0 17 12.15593 +01	2 12.6443	19.483580253	5.78	2.37	124.79	-0.702E-03	-0.313E-03	-23.9729
8 2	2011 21 59 60.00	0 17 8.21193 +01	1 45.1927	19.469965220	5.78	2.34	125.77	-0.729E-03	-0.325E-03	-23.6726
8 3	2011 21 59 60.00	0 17 4.10998 +01	1 16.7402	19.456521877	5.78	2.31	126.74	-0.757E-03	-0.336E-03	-23.3647
8 4	2011 21 59 60.00	0 16 59.85377 +01	0 47.3115	19.443254398	5.77	2.28	127.72	-0.784E-03	-0.347E-03	-23.0498
8 5	2011 21 59 60.00	0 16 55.44658 +01	0 16.9291	19.430166793	5.77	2.25	128.70	-0.811E-03	-0.359E-03	-22.7279
8 6	2011 21 59 60.00	0 16 50.89086 +00	59 45.6103	19.417262924	5.77	2.22	129.67	-0.837E-03	-0.370E-03	-22.3994
8 7	2011 21 59 60.00	0 16 46.18821 +00	59 13.3666	19.404546525	5.77	2.19	130.65	-0.863E-03	-0.380E-03	-22.0644
8 8	2011 21 59 60.00	0 16 41.33955 +00	58 40.2048	19.392021224	5.77	2.16	131.63	-0.889E-03	-0.391E-03	-21.7232
8 9	2011 21 59 60.00	0 16 36.34540 +00	58 6.1286	19.379690572	5.77	2.12	132.61	-0.914E-03	-0.402E-03	-21.3758
8 10	2011 21 59 60.00	0 16 31.20630 +00	57 31.1415	19.367558062	5.76	2.09	133.60	-0.939E-03	-0.412E-03	-21.0223
8 11	2011 21 59 60.00	0 16 25.92308 +00	56 55.2487	19.355627153	5.76	2.05	134.58	-0.964E-03	-0.422E-03	-20.6628
8 12	2011 21 59 60.00	0 16 20.49708 +00	56 18.4584	19.343901288	5.76	2.02	135.56	-0.989E-03	-0.432E-03	-20.2973
8 13	2011 21 59 60.00	0 16 14.93022 +00	55 40.7826	19.332383908	5.76	1.98	136.55	-0.101E-02	-0.442E-03	-19.9258
8 14	2011 21 59 60.00	0 16 9.22492 +00	55 2.2368	19.321078455	5.76	1.94	137.53	-0.104E-02	-0.452E-03	-19.5482
8 15	2011 21 59 60.00	0 16 3.38396 +00	54 22.8393	19.309988385	5.76	1.91	138.52	-0.106E-02	-0.462E-03	-19.1646
8 16	2011 21 59 60.00	0 15 57.41038 +00	53 42.6098	19.299117163	5.76	1.87	139.51	-0.108E-02	-0.471E-03	-18.7749
8 17	2011 21 59 60.00	0 15 51.30724 +00	53 1.5690	19.288468257	5.76	1.83	140.50	-0.110E-02	-0.481E-03	-18.3792
8 18	2011 21 59 60.00	0 15 45.07755 +00	52 19.7371	19.278045142	5.75	1.79	141.49	-0.113E-02	-0.490E-03	-17.9774
8 19	2011 21 59 60.00	0 15 38.72420 +00	51 37.1341	19.267851285	5.75	1.75	142.48	-0.115E-02	-0.499E-03	-17.5696
8 20	2011 21 59 60.00	0 15 32.24990 +00	50 53.7785	19.257890148	5.75	1.71	143.47	-0.117E-02	-0.507E-03	-17.1558
8 21	2011 21 59 60.00	0 15 25.65715 +00	50 9.6878	19.248165179	5.75	1.67	144.46	-0.119E-02	-0.516E-03	-16.7359
8 22	2011 21 59 60.00	0 15 18.94816 +00	49 24.8778	19.238679815	5.75	1.63	145.45	-0.121E-02	-0.524E-03	-16.3101
8 23	2011 21 59 60.00	0 15 12.12486 +00	48 39.3620	19.229437475	5.75	1.59	146.45	-0.123E-02	-0.533E-03	-15.8783
8 24	2011 21 59 60.00	0 15 5.18888 +00	47 53.1523	19.220441561	5.75	1.54	147.44	-0.125E-02	-0.540E-03	-15.4407
8 25	2011 21 59 60.00	0 14 58.14167 +00	47 6.2590	19.211695452	5.75	1.50	148.44	-0.127E-02	-0.548E-03	-14.9972
8 26	2011 21 59 60.00	0 14 50.98468 +00	46 18.6922	19.203202487	5.74	1.46	149.44	-0.129E-02	-0.556E-03	-14.5479
8 27	2011 21 59 60.00	0 14 43.71974 +00	45 30.4640	19.194965942	5.74	1.41	150.44	-0.131E-02	-0.563E-03	-14.0930
8 28	2011 21 59 60.00	0 14 36.34952 +00	44 41.5916	19.186989001	5.74	1.37	151.44	-0.132E-02	-0.570E-03	-13.6327
8 29	2011 21 59 60.00	0 14 28.87782 +00	43 52.0997	19.179274708	5.74	1.32	152.44	-0.134E-02	-0.577E-03	-13.1672
8 30	2011 21 59 60.00	0 14 21.30952 +00	43 2.0199	19.171825931	5.74	1.28	153.44	-0.136E-02	-0.583E-03	-12.6969
8 31	2011 21 59 60.00	0 14 13.65002 +00	42 11.3879	19.164645327	5.74	1.23	154.44	-0.137E-02	-0.590E-03	-12.2222
9 1	2011 21 59 60.00	0 14 5.90443 +00	41 20.2377	19.157735340	5.74	1.19	155.44	-0.139E-02	-0.596E-03	-11.7434
9 2	2011 21 59 60.00	0 13 58.07698 +00	40 28.5977	19.151098200	5.74	1.14	156.44	-0.140E-02	-0.602E-03	-11.2610
9 3	2011 21 59 60.00	0 13 50.17079 +00	39 36.4889	19.144735960	5.74	1.09	157.45	-0.142E-02	-0.607E-03	-10.7751
9 4	2011 21 59 60.00	0 13 42.18818 +00	38 43.9270	19.138650520	5.74	1.05	158.45	-0.143E-02	-0.612E-03	-10.2860
9 5	2011 21 59 60.00	0 13 34.13102 +00	37 50.9243	19.132843667	5.74	1.00	159.46	-0.144E-02	-0.617E-03	-9.7939

9	6	2011	21	59	60.00	0	13	26.00122	+00	36	57.4928	19.127317098	5.73	0.95	160.46	-0.145E-02	-0.622E-03	-9.2990
9	7	2011	21	59	60.00	0	13	17.80093	+00	36	3.6462	19.122072443	5.73	0.90	161.47	-0.147E-02	-0.627E-03	-8.8013
9	8	2011	21	59	60.00	0	13	9.53275	+00	35	9.4007	19.117111278	5.73	0.86	162.48	-0.148E-02	-0.631E-03	-8.3009
9	9	2011	21	59	60.00	0	13	1.19978	+00	34	14.7760	19.112435141	5.73	0.81	163.49	-0.149E-02	-0.635E-03	-7.7978
9	10	2011	21	59	60.00	0	12	52.80558	+00	33	19.7948	19.108045533	5.73	0.76	164.49	-0.150E-02	-0.639E-03	-7.2923
9	11	2011	21	59	60.00	0	12	44.35407	+00	32	24.4824	19.103943925	5.73	0.71	165.50	-0.151E-02	-0.642E-03	-6.7842
9	12	2011	21	59	60.00	0	12	35.84943	+00	31	28.8660	19.100131763	5.73	0.66	166.51	-0.151E-02	-0.646E-03	-6.2736
9	13	2011	21	59	60.00	0	12	27.29590	+00	30	32.9733	19.096610462	5.73	0.61	167.52	-0.152E-02	-0.649E-03	-5.7607
9	14	2011	21	59	60.00	0	12	18.69768	+00	29	36.8321	19.093381406	5.73	0.56	168.53	-0.153E-02	-0.651E-03	-5.2454
9	15	2011	21	59	60.00	0	12	10.05883	+00	28	40.4695	19.090445947	5.73	0.51	169.54	-0.154E-02	-0.654E-03	-4.7278
9	16	2011	21	59	60.00	0	12	1.38320	+00	27	43.9110	19.087805396	5.73	0.46	170.55	-0.154E-02	-0.656E-03	-4.2081
9	17	2011	21	59	60.00	0	11	52.67439	+00	26	47.1810	19.085461020	5.73	0.41	171.56	-0.155E-02	-0.658E-03	-3.6862
9	18	2011	21	59	60.00	0	11	43.93574	+00	25	50.3019	19.083414040	5.73	0.36	172.58	-0.155E-02	-0.660E-03	-3.1623
9	19	2011	21	59	60.00	0	11	35.17032	+00	24	53.2944	19.081665624	5.73	0.31	173.58	-0.156E-02	-0.661E-03	-2.6364
9	20	2011	21	59	60.00	0	11	26.38091	+00	23	56.1772	19.080216886	5.73	0.26	174.59	-0.156E-02	-0.663E-03	-2.1087
9	21	2011	21	59	60.00	0	11	17.57008	+00	22	58.9677	19.079068879	5.73	0.21	175.60	-0.157E-02	-0.664E-03	-1.5793
9	22	2011	21	59	60.00	0	11	8.74034	+00	22	1.6827	19.078222590	5.73	0.16	176.60	-0.157E-02	-0.664E-03	-1.0482
9	23	2011	21	59	60.00	0	10	59.89434	+00	21	4.3394	19.077678927	5.73	0.11	177.58	-0.157E-02	-0.664E-03	-0.5158
9	24	2011	21	59	60.00	0	10	51.03523	+00	20	6.9584	19.077438691	5.73	0.07	178.51	-0.157E-02	-0.665E-03	0.0179
9	25	2011	21	59	60.00	0	10	42.16700	+00	19	9.5653	19.077502551	5.73	0.04	179.19	-0.157E-02	-0.664E-03	0.5526
9	26	2011	21	59	60.00	0	10	33.29476	+00	18	12.1931	19.077870996	5.73	0.06	178.92	-0.157E-02	-0.664E-03	1.0878
9	27	2011	21	59	60.00	0	10	24.42449	+00	17	14.8806	19.078544302	5.73	0.11	178.06	-0.157E-02	-0.663E-03	1.6233
9	28	2011	21	59	60.00	0	10	15.56239	+00	16	17.6682	19.079522496	5.73	0.15	177.09	-0.157E-02	-0.662E-03	2.1586
9	29	2011	21	59	60.00	0	10	6.71398	+00	15	20.5922	19.080805358	5.73	0.20	176.09	-0.157E-02	-0.660E-03	2.6932
9	30	2011	21	59	60.00	0	9	57.88350	+00	14	23.6802	19.082392433	5.73	0.25	175.09	-0.156E-02	-0.658E-03	3.2267
10	1	2011	21	59	60.00	0	9	49.07394	+00	13	26.9519	19.084283073	5.73	0.30	174.08	-0.156E-02	-0.656E-03	3.7589
10	2	2011	21	59	60.00	0	9	40.28755	+00	12	30.4214	19.086476481	5.73	0.35	173.06	-0.155E-02	-0.654E-03	4.2896
10	3	2011	21	59	60.00	0	9	31.52646	+00	11	34.1020	19.088971749	5.73	0.41	172.04	-0.155E-02	-0.651E-03	4.8186
10	4	2011	21	59	60.00	0	9	22.79313	+00	10	38.0089	19.091767892	5.73	0.46	171.02	-0.154E-02	-0.648E-03	5.3457
10	5	2011	21	59	60.00	0	9	14.09049	+00	9	42.1602	19.094863862	5.73	0.51	170.00	-0.154E-02	-0.645E-03	5.8708
10	6	2011	21	59	60.00	0	9	5.42194	+00	8	46.5772	19.098258563	5.73	0.56	168.98	-0.153E-02	-0.642E-03	6.3940
10	7	2011	21	59	60.00	0	8	56.79129	+00	7	51.2840	19.101950855	5.73	0.60	167.95	-0.152E-02	-0.638E-03	6.9150
10	8	2011	21	59	60.00	0	8	48.20266	+00	6	56.3069	19.105939555	5.73	0.65	166.93	-0.151E-02	-0.634E-03	7.4339
10	9	2011	21	59	60.00	0	8	39.66036	+00	6	1.6734	19.110223438	5.73	0.70	165.91	-0.150E-02	-0.630E-03	7.9506
10	10	2011	21	59	60.00	0	8	31.16880	+00	5	7.4121	19.114801243	5.73	0.75	164.88	-0.149E-02	-0.625E-03	8.4649
10	11	2011	21	59	60.00	0	8	22.73232	+00	4	13.5509	19.119671663	5.73	0.80	163.86	-0.148E-02	-0.621E-03	8.9768
10	12	2011	21	59	60.00	0	8	14.35509	+00	3	20.1172	19.124833351	5.73	0.85	162.83	-0.147E-02	-0.616E-03	9.4863
10	13	2011	21	59	60.00	0	8	6.04105	+00	2	27.1365	19.130284916	5.73	0.90	161.80	-0.146E-02	-0.610E-03	9.9933
10	14	2011	21	59	60.00	0	7	57.79382	+00	1	34.6328	19.136024920	5.74	0.95	160.78	-0.145E-02	-0.605E-03	10.4976
10	15	2011	21	59	60.00	0	7	49.61673	+00	0	42.6278	19.142051874	5.74	0.99	159.75	-0.144E-02	-0.599E-03	10.9991
10	16	2011	21	59	60.00	0	7	41.51275	-00	0	8.8590	19.148364232	5.74	1.04	158.72	-0.142E-02	-0.593E-03	11.4979
10	17	2011	21	59	60.00	0	7	33.48460	-00	0	59.8097	19.154960388	5.74	1.09	157.70	-0.141E-02	-0.587E-03	11.9937
10	18	2011	21	59	60.00	0	7	25.53477	-00	1	50.2083	19.161838671	5.74	1.14	156.67	-0.140E-02	-0.580E-03	12.4864
10	19	2011	21	59	60.00	0	7	17.66560	-00	2	40.0393	19.168997336	5.74	1.18	155.64	-0.138E-02	-0.573E-03	12.9760
10	20	2011	21	59	60.00	0	7	9.87955	-00	3	29.2870	19.176434557	5.74	1.23	154.61	-0.137E-02	-0.566E-03	13.4622
10	21	2011	21	59	60.00	0	7	2.17935	-00	4	17.9340	19.184148412	5.74	1.27	153.58	-0.135E-02	-0.559E-03	13.9449
10	22	2011	21	59	60.00	0	6	54.56827	-00	5	5.9593	19.192136861	5.74	1.32	152.55	-0.133E-02	-0.552E-03	14.4238
10	23	2011	21	59	60.00	0	6	47.05044	-00	5	53.3367	19.200397721	5.74	1.36	151.53	-0.132E-02	-0.544E-03	14.8987
10	24	2011	21	59	60.00	0	6	39.63081	-00	6	40.0344	19.208928629	5.74	1.41	150.50	-0.130E-02	-0.536E-03	15.3692
10	25	2011	21	59	60.00	0	6	32.31494	-00	7	26.0169	19.217727011	5.75	1.45	149.47	-0.128E-02	-0.527E-03	15.8349
10	26	2011	21	59	60.00	0	6	25.10820	-00	8	11.2497	19.226790057	5.75	1.49	148.44	-0.126E-02	-0.519E-03	16.2954
10	27	2011	21	59	60.00	0	6	18.01504	-00	8	55.7043	19.236114721	5.75	1.54	147.41	-0.124E-02	-0.510E-03	16.7503
10	28	2011	21	59	60.00	0	6	11.03840	-00	9	39.3621	19.245697743	5.75	1.58	146.38	-0.122E-02	-0.501E-03	17.1993

10	29	2011	21	59	60.00	0	6	4.17999	-00	10	22.2131	19.255535693	5.75	1.62	145.35	-0.120E-02	-0.491E-03	17.6422
10	30	2011	21	59	60.00	0	5	57.44090	-00	11	4.2510	19.265625024	5.75	1.66	144.32	-0.118E-02	-0.482E-03	18.0787
10	31	2011	21	59	60.00	0	5	50.82236	-00	11	45.4692	19.275962117	5.75	1.70	143.29	-0.116E-02	-0.472E-03	18.5087
11	1	2011	21	59	60.00	0	5	44.32618	-00	12	25.8572	19.286543313	5.75	1.74	142.26	-0.113E-02	-0.462E-03	18.9323
11	2	2011	21	59	60.00	0	5	37.95474	-00	13	5.4006	19.297364931	5.76	1.78	141.23	-0.111E-02	-0.452E-03	19.3493
11	3	2011	21	59	60.00	0	5	31.71091	-00	13	44.0819	19.308423278	5.76	1.82	140.20	-0.109E-02	-0.442E-03	19.7599
11	4	2011	21	59	60.00	0	5	25.59783	-00	14	21.8815	19.319714647	5.76	1.86	139.17	-0.106E-02	-0.431E-03	20.1638
11	5	2011	21	59	60.00	0	5	19.61880	-00	14	58.7788	19.331235316	5.76	1.90	138.14	-0.104E-02	-0.421E-03	20.5612
11	6	2011	21	59	60.00	0	5	13.77720	-00	15	34.7526	19.342981549	5.76	1.93	137.11	-0.101E-02	-0.410E-03	20.9520
11	7	2011	21	59	60.00	0	5	8.07628	-00	16	9.7821	19.354949592	5.76	1.97	136.09	-0.988E-03	-0.399E-03	21.3361
11	8	2011	21	59	60.00	0	5	2.51915	-00	16	43.8476	19.367135675	5.76	2.00	135.06	-0.963E-03	-0.388E-03	21.7135
11	9	2011	21	59	60.00	0	4	57.10866	-00	17	16.9310	19.379536010	5.77	2.04	134.03	-0.937E-03	-0.376E-03	22.0843
11	10	2011	21	59	60.00	0	4	51.84734	-00	17	49.0163	19.392146790	5.77	2.07	133.00	-0.911E-03	-0.365E-03	22.4482
11	11	2011	21	59	60.00	0	4	46.73734	-00	18	20.0896	19.404964191	5.77	2.11	131.97	-0.884E-03	-0.353E-03	22.8055
11	12	2011	21	59	60.00	0	4	41.78043	-00	18	50.1399	19.417984366	5.77	2.14	130.95	-0.857E-03	-0.341E-03	23.1558
11	13	2011	21	59	60.00	0	4	36.97802	-00	19	19.1581	19.431203440	5.77	2.17	129.92	-0.830E-03	-0.329E-03	23.4994
11	14	2011	21	59	60.00	0	4	32.33130	-00	19	47.1570	19.444617507	5.77	2.20	128.89	-0.802E-03	-0.317E-03	23.8360
11	15	2011	21	59	60.00	0	4	27.84128	-00	20	14.0702	19.458222615	5.78	2.24	127.87	-0.774E-03	-0.305E-03	24.1655
11	16	2011	21	59	60.00	0	4	23.50905	-00	20	39.9512	19.472014764	5.78	2.27	126.84	-0.745E-03	-0.293E-03	24.4880
11	17	2011	21	59	60.00	0	4	19.33590	-00	21	4.7721	19.485989888	5.78	2.29	125.81	-0.717E-03	-0.280E-03	24.8032
11	18	2011	21	59	60.00	0	4	15.32360	-00	21	28.5221	19.500143839	5.78	2.32	124.79	-0.687E-03	-0.267E-03	25.1110
11	19	2011	21	59	60.00	0	4	11.47450	-00	21	51.1864	19.514472374	5.78	2.35	123.76	-0.658E-03	-0.255E-03	25.4112
11	20	2011	21	59	60.00	0	4	7.79165	-00	22	12.7459	19.528971127	5.78	2.38	122.73	-0.628E-03	-0.242E-03	25.7036
11	21	2011	21	59	60.00	0	4	4.27867	-00	22	33.1781	19.543635589	5.78	2.40	121.71	-0.598E-03	-0.229E-03	25.9879
11	22	2011	21	59	60.00	0	4	0.93930	-00	22	52.4594	19.558461079	5.79	2.43	120.68	-0.567E-03	-0.215E-03	26.2638
11	23	2011	21	59	60.00	0	3	57.77682	-00	23	10.5694	19.573442739	5.79	2.46	119.66	-0.536E-03	-0.202E-03	26.5310
11	24	2011	21	59	60.00	0	3	54.79339	-00	23	27.4951	19.588575529	5.79	2.48	118.63	-0.505E-03	-0.188E-03	26.7892
11	25	2011	21	59	60.00	0	3	51.98975	-00	23	43.2328	19.603854258	5.79	2.50	117.61	-0.474E-03	-0.175E-03	27.0382
11	26	2011	21	59	60.00	0	3	49.36559	-00	23	57.7858	19.619273626	5.79	2.52	116.59	-0.442E-03	-0.161E-03	27.2778
11	27	2011	21	59	60.00	0	3	46.92017	-00	24	11.1603	19.634828272	5.80	2.55	115.56	-0.410E-03	-0.147E-03	27.5079
11	28	2011	21	59	60.00	0	3	44.65309	-00	24	23.3604	19.650512823	5.80	2.57	114.54	-0.378E-03	-0.134E-03	27.7286
11	29	2011	21	59	60.00	0	3	42.56464	-00	24	34.3854	19.666321927	5.80	2.59	113.52	-0.346E-03	-0.120E-03	27.9399
11	30	2011	21	59	60.00	0	3	40.65579	-00	24	44.2305	19.682250271	5.80	2.61	112.50	-0.314E-03	-0.106E-03	28.1420
12	1	2011	21	59	60.00	0	3	38.92794	-00	24	52.8874	19.698292587	5.80	2.62	111.48	-0.281E-03	-0.919E-04	28.3348
12	2	2011	21	59	60.00	0	3	37.38271	-00	25	0.3467	19.714443650	5.80	2.64	110.46	-0.249E-03	-0.779E-04	28.5184
12	3	2011	21	59	60.00	0	3	36.02173	-00	25	6.5987	19.730698274	5.81	2.66	109.44	-0.216E-03	-0.638E-04	28.6930
12	4	2011	21	59	60.00	0	3	34.84658	-00	25	11.6338	19.747051309	5.81	2.67	108.42	-0.183E-03	-0.498E-04	28.8585
12	5	2011	21	59	60.00	0	3	33.85863	-00	25	15.4437	19.763497636	5.81	2.69	107.40	-0.150E-03	-0.356E-04	29.0151
12	6	2011	21	59	60.00	0	3	33.05904	-00	25	18.0215	19.780032167	5.81	2.70	106.38	-0.117E-03	-0.215E-04	29.1627
12	7	2011	21	59	60.00	0	3	32.44862	-00	25	19.3624	19.796649843	5.81	2.72	105.36	-0.841E-04	-0.732E-05	29.3015
12	8	2011	21	59	60.00	0	3	32.02788	-00	25	19.4637	19.813345639	5.82	2.73	104.35	-0.509E-04	0.687E-05	29.4315
12	9	2011	21	59	60.00	0	3	31.79688	-00	25	18.3251	19.830114557	5.82	2.74	103.33	-0.178E-04	0.211E-04	29.5527
12	10	2011	21	59	60.00	0	3	31.75533	-00	25	15.9492	19.846951631	5.82	2.75	102.31	0.154E-04	0.353E-04	29.6652
12	11	2011	21	59	60.00	0	3	31.90257	-00	25	12.3406	19.863851916	5.82	2.76	101.30	0.487E-04	0.495E-04	29.7690
12	12	2011	21	59	60.00	0	3	32.23776	-00	25	7.5050	19.880810480	5.82	2.77	100.29	0.820E-04	0.638E-04	29.8641
12	13	2011	21	59	60.00	0	3	32.76010	-00	25	1.4482	19.897822394	5.82	2.78	99.27	0.115E-03	0.781E-04	29.9506
12	14	2011	21	59	60.00	0	3	33.46899	-00	24	54.1744	19.914882715	5.83	2.78	98.26	0.149E-03	0.923E-04	30.0284
12	15	2011	21	59	60.00	0	3	34.36432	-00	24	45.6853	19.931986468	5.83	2.79	97.25	0.182E-03	0.107E-03	30.0973
12	16	2011	21	59	60.00	0	3	35.44653	-00	24	35.9783	19.949128631	5.83	2.80	96.23	0.216E-03	0.121E-03	30.1574
12	17	2011	21	59	60.00	0	3	36.71670	-00	24	25.0474	19.966304115	5.83	2.80	95.22	0.249E-03	0.135E-03	30.2085
12	18	2011	21	59	60.00	0	3	38.17639	-00	24	12.8831	19.983507748	5.83	2.80	94.21	0.282E-03	0.149E-03	30.2505
12	19	2011	21	59	60.00	0	3	39.82736	-00	23	59.4749	20.000734259	5.84	2.81	93.20	0.316E-03	0.164E-03	30.2830
12	20	2011	21	59	60.00	0	3	41.67107	-00	23	44.8142	20.017978267	5.84	2.81	92.19	0.349E-03	0.178E-03	30.3061

12 21	2011 21 59 60.00	0 3	43.70824	-00 23	28.8972	20.035234284	5.84	2.81	91.18	0.383E-03	0.192E-03	30.3194
12 22	2011 21 59 60.00	0 3	45.93850	-00 23	11.7274	20.052496720	5.84	2.81	90.17	0.416E-03	0.206E-03	30.3228
12 23	2011 21 59 60.00	0 3	48.36032	-00 22	53.3159	20.069759914	5.84	2.81	89.17	0.450E-03	0.221E-03	30.3163
12 24	2011 21 59 60.00	0 3	50.97145	-00 22	33.6785	20.087018167	5.85	2.81	88.16	0.483E-03	0.235E-03	30.2998
12 25	2011 21 59 60.00	0 3	53.76952	-00 22	12.8319	20.104265787	5.85	2.81	87.15	0.516E-03	0.249E-03	30.2733
12 26	2011 21 59 60.00	0 3	56.75261	-00 21	50.7900	20.121497133	5.85	2.80	86.15	0.549E-03	0.263E-03	30.2371
12 27	2011 21 59 60.00	0 3	59.91951	-00 21	27.5616	20.138706639	5.85	2.80	85.14	0.582E-03	0.277E-03	30.1911
12 28	2011 21 59 60.00	0 4	3.26969	-00 21	3.1514	20.155888837	5.85	2.79	84.14	0.615E-03	0.291E-03	30.1356
12 29	2011 21 59 60.00	0 4	6.80304	-00 20	37.5612	20.173038363	5.85	2.79	83.14	0.647E-03	0.304E-03	30.0709
12 30	2011 21 59 60.00	0 4	10.51956	-00 20	10.7916	20.190149948	5.86	2.78	82.14	0.680E-03	0.318E-03	29.9969
12 31	2011 21 59 60.00	0 4	14.41923	-00 19	42.8435	20.207218422	5.86	2.77	81.13	0.712E-03	0.332E-03	29.9140