

ALPO Solar Section 2014 Solar Ephemeris
 Ephemeris Computed by Brad Timerson, A.L.P.O. Solar Section

CALENDAR DATE	JULIAN DATE	ROTATION NUMBER	HELIOGRAPHIC			DIAMETER (arcmin)	RA (HH:MM)	DEC (deg)
			Lo	Bo	Po			
12/30/2013	2456656.5	2145	215.78	-2.77	3.05	32.530	18:37.3	-23.17
12/31/2013	2456657.5	2145	202.60	-2.89	2.57	32.530	18:41.7	-23.10
1/ 1/2014	2456658.5	2145	189.43	-3.00	2.08	32.531	18:46.1	-23.03
1/ 2/2014	2456659.5	2145	176.25	-3.12	1.60	32.531	18:50.5	-22.94
1/ 3/2014	2456660.5	2145	163.08	-3.24	1.11	32.531	18:54.9	-22.85
1/ 4/2014	2456661.5	2145	149.90	-3.35	0.63	32.531	18:59.3	-22.75
1/ 5/2014	2456662.5	2145	136.73	-3.46	0.15	32.531	19: 3.7	-22.64
1/ 6/2014	2456663.5	2145	123.62	-3.58	-0.34	32.531	19: 8.1	-22.53
1/ 7/2014	2456664.5	2145	110.45	-3.69	-0.82	32.530	19:12.5	-22.41
1/ 8/2014	2456665.5	2145	97.28	-3.80	-1.30	32.529	19:16.9	-22.28
1/ 9/2014	2456666.5	2145	84.10	-3.91	-1.78	32.529	19:21.2	-22.14
1/10/2014	2456667.5	2145	70.93	-4.02	-2.26	32.528	19:25.6	-22.00
1/11/2014	2456668.5	2145	57.76	-4.12	-2.74	32.526	19:29.9	-21.85
1/12/2014	2456669.5	2145	44.59	-4.23	-3.21	32.525	19:34.3	-21.69
1/13/2014	2456670.5	2145	31.41	-4.33	-3.69	32.523	19:38.6	-21.53
1/14/2014	2456671.5	2145	18.24	-4.43	-4.16	32.522	19:42.9	-21.36
1/15/2014	2456672.5	2145	5.07	-4.54	-4.63	32.520	19:47.2	-21.18
1/16/2014	2456673.5	2146	351.90	-4.63	-5.10	32.518	19:51.5	-20.99
1/17/2014	2456674.5	2146	338.73	-4.73	-5.56	32.515	19:55.8	-20.80
1/18/2014	2456675.5	2146	325.56	-4.83	-6.02	32.513	19:60.0	-20.60
1/19/2014	2456676.5	2146	312.39	-4.92	-6.48	32.511	20: 4.3	-20.40
1/20/2014	2456677.5	2146	299.22	-5.02	-6.94	32.508	20: 8.5	-20.19
1/21/2014	2456678.5	2146	286.05	-5.11	-7.39	32.505	20:12.8	-19.97
1/22/2014	2456679.5	2146	272.87	-5.20	-7.84	32.502	20:17.0	-19.74
1/23/2014	2456680.5	2146	259.70	-5.29	-8.29	32.499	20:21.2	-19.51
1/24/2014	2456681.5	2146	246.53	-5.38	-8.73	32.495	20:25.4	-19.28
1/25/2014	2456682.5	2146	233.36	-5.46	-9.17	32.492	20:29.6	-19.04
1/26/2014	2456683.5	2146	220.26	-5.55	-9.60	32.488	20:33.7	-18.79
1/27/2014	2456684.5	2146	207.09	-5.63	-10.04	32.484	20:37.9	-18.53
1/28/2014	2456685.5	2146	193.92	-5.71	-10.46	32.480	20:42.0	-18.28
1/29/2014	2456686.5	2146	180.75	-5.79	-10.89	32.476	20:46.2	-18.01
1/30/2014	2456687.5	2146	167.58	-5.86	-11.30	32.472	20:50.3	-17.74

1/31/2014	2456688.5	2146	154.41	-5.94	-11.72	32.468	20:54.4	-17.47
2/ 1/2014	2456689.5	2146	141.24	-6.01	-12.13	32.463	20:58.5	-17.18
2/ 2/2014	2456690.5	2146	128.07	-6.08	-12.54	32.458	21: 2.5	-16.90
2/ 3/2014	2456691.5	2146	114.90	-6.15	-12.94	32.454	21: 6.6	-16.61
2/ 4/2014	2456692.5	2146	101.73	-6.22	-13.33	32.449	21:10.6	-16.31
2/ 5/2014	2456693.5	2146	88.56	-6.28	-13.72	32.443	21:14.7	-16.01
2/ 6/2014	2456694.5	2146	75.39	-6.35	-14.11	32.438	21:18.7	-15.71
2/ 7/2014	2456695.5	2146	62.22	-6.41	-14.49	32.433	21:22.7	-15.40
2/ 8/2014	2456696.5	2146	49.05	-6.47	-14.87	32.427	21:26.7	-15.09
2/ 9/2014	2456697.5	2146	35.88	-6.52	-15.24	32.422	21:30.7	-14.77
2/10/2014	2456698.5	2146	22.71	-6.58	-15.61	32.416	21:34.6	-14.45
2/11/2014	2456699.5	2146	9.54	-6.63	-15.97	32.410	21:38.6	-14.12
2/12/2014	2456700.5	2147	356.36	-6.68	-16.32	32.404	21:42.5	-13.79
2/13/2014	2456701.5	2147	343.19	-6.73	-16.67	32.398	21:46.4	-13.46
2/14/2014	2456702.5	2147	330.02	-6.78	-17.02	32.391	21:50.4	-13.12
2/15/2014	2456703.5	2147	316.85	-6.82	-17.36	32.385	21:54.3	-12.78
2/16/2014	2456704.5	2147	303.74	-6.86	-17.69	32.378	21:58.2	-12.44
2/17/2014	2456705.5	2147	290.57	-6.90	-18.02	32.372	22: 2.0	-12.09
2/18/2014	2456706.5	2147	277.40	-6.94	-18.34	32.365	22: 5.9	-11.74
2/19/2014	2456707.5	2147	264.23	-6.98	-18.66	32.358	22: 9.8	-11.39
2/20/2014	2456708.5	2147	251.06	-7.01	-18.97	32.351	22:13.6	-11.03
2/21/2014	2456709.5	2147	237.88	-7.04	-19.27	32.344	22:17.4	-10.67
2/22/2014	2456710.5	2147	224.71	-7.07	-19.57	32.337	22:21.3	-10.31
2/23/2014	2456711.5	2147	211.54	-7.10	-19.86	32.329	22:25.1	-9.94
2/24/2014	2456712.5	2147	198.36	-7.12	-20.15	32.322	22:28.9	-9.57
2/25/2014	2456713.5	2147	185.19	-7.15	-20.43	32.315	22:32.7	-9.20
2/26/2014	2456714.5	2147	172.02	-7.17	-20.70	32.307	22:36.5	-8.83
2/27/2014	2456715.5	2147	158.84	-7.18	-20.97	32.299	22:40.2	-8.46
2/28/2014	2456716.5	2147	145.67	-7.20	-21.23	32.291	22:44.0	-8.08
3/ 1/2014	2456717.5	2147	132.49	-7.21	-21.49	32.284	22:47.8	-7.70
3/ 2/2014	2456718.5	2147	119.32	-7.23	-21.74	32.276	22:51.5	-7.32
3/ 3/2014	2456719.5	2147	106.14	-7.24	-21.98	32.268	22:55.2	-6.94
3/ 4/2014	2456720.5	2147	92.96	-7.24	-22.22	32.259	22:59.0	-6.56
3/ 5/2014	2456721.5	2147	79.79	-7.25	-22.45	32.251	23: 2.7	-6.17
3/ 6/2014	2456722.5	2147	66.61	-7.25	-22.68	32.243	23: 6.4	-5.78
3/ 7/2014	2456723.5	2147	53.43	-7.25	-22.89	32.235	23:10.1	-5.39
3/ 8/2014	2456724.5	2147	40.31	-7.25	-23.10	32.226	23:13.8	-5.01
3/ 9/2014	2456725.5	2147	27.14	-7.24	-23.31	32.218	23:17.5	-4.61

3/10/2014	2456726.5	2147	13.96	-7.24	-23.51	32.209	23:21.2	-4.22
3/11/2014	2456727.5	2148	0.77	-7.23	-23.70	32.201	23:24.9	-3.83
3/12/2014	2456728.5	2148	347.59	-7.22	-23.88	32.192	23:28.6	-3.44
3/13/2014	2456729.5	2148	334.41	-7.21	-24.06	32.183	23:32.3	-3.04
3/14/2014	2456730.5	2148	321.23	-7.19	-24.23	32.175	23:35.9	-2.65
3/15/2014	2456731.5	2148	308.05	-7.17	-24.40	32.166	23:39.6	-2.26
3/16/2014	2456732.5	2148	294.87	-7.15	-24.56	32.157	23:43.3	-1.86
3/17/2014	2456733.5	2148	281.68	-7.13	-24.71	32.148	23:46.9	-1.46
3/18/2014	2456734.5	2148	268.50	-7.11	-24.85	32.139	23:50.6	-1.07
3/19/2014	2456735.5	2148	255.31	-7.08	-24.99	32.130	23:54.2	-0.67
3/20/2014	2456736.5	2148	242.13	-7.05	-25.12	32.121	23:57.9	-0.28
3/21/2014	2456737.5	2148	228.94	-7.02	-25.25	32.112	00: 1.5	0.12
3/22/2014	2456738.5	2148	215.75	-6.99	-25.36	32.103	00: 5.2	0.51
3/23/2014	2456739.5	2148	202.57	-6.96	-25.47	32.094	00: 8.8	0.91
3/24/2014	2456740.5	2148	189.38	-6.92	-25.58	32.085	00:12.5	1.30
3/25/2014	2456741.5	2148	176.19	-6.88	-25.67	32.076	00:16.1	1.70
3/26/2014	2456742.5	2148	163.00	-6.84	-25.76	32.067	00:19.8	2.09
3/27/2014	2456743.5	2148	149.81	-6.80	-25.84	32.057	00:23.4	2.48
3/28/2014	2456744.5	2148	136.68	-6.75	-25.92	32.048	00:27.0	2.87
3/29/2014	2456745.5	2148	123.49	-6.71	-25.99	32.039	00:30.7	3.26
3/30/2014	2456746.5	2148	110.29	-6.66	-26.05	32.030	00:34.3	3.65
3/31/2014	2456747.5	2148	97.10	-6.61	-26.10	32.021	00:38.0	4.04
4/ 1/2014	2456748.5	2148	83.91	-6.56	-26.15	32.011	00:41.6	4.43
4/ 2/2014	2456749.5	2148	70.71	-6.50	-26.19	32.002	00:45.3	4.82
4/ 3/2014	2456750.5	2148	57.51	-6.44	-26.22	31.993	00:48.9	5.20
4/ 4/2014	2456751.5	2148	44.32	-6.39	-26.24	31.984	00:52.6	5.58
4/ 5/2014	2456752.5	2148	31.12	-6.33	-26.26	31.974	00:56.2	5.96
4/ 6/2014	2456753.5	2148	17.92	-6.26	-26.27	31.965	00:59.9	6.34
4/ 7/2014	2456754.5	2148	4.72	-6.20	-26.27	31.956	01: 3.5	6.72
4/ 8/2014	2456755.5	2149	351.52	-6.14	-26.27	31.947	01: 7.2	7.10
4/ 9/2014	2456756.5	2149	338.32	-6.07	-26.26	31.938	01:10.9	7.47
4/10/2014	2456757.5	2149	325.12	-6.00	-26.24	31.929	01:14.5	7.84
4/11/2014	2456758.5	2149	311.92	-5.93	-26.21	31.920	01:18.2	8.21
4/12/2014	2456759.5	2149	298.71	-5.86	-26.18	31.911	01:21.9	8.58
4/13/2014	2456760.5	2149	285.51	-5.78	-26.14	31.902	01:25.6	8.94
4/14/2014	2456761.5	2149	272.30	-5.71	-26.09	31.893	01:29.3	9.31
4/15/2014	2456762.5	2149	259.10	-5.63	-26.04	31.884	01:33.0	9.67
4/16/2014	2456763.5	2149	245.89	-5.55	-25.97	31.875	01:36.7	10.02

4/17/2014	2456764.5	2149	232.75	-5.47	-25.90	31.866	01:40.4	10.38
4/18/2014	2456765.5	2149	219.54	-5.39	-25.83	31.857	01:44.1	10.73
4/19/2014	2456766.5	2149	206.33	-5.30	-25.74	31.848	01:47.8	11.08
4/20/2014	2456767.5	2149	193.12	-5.22	-25.65	31.839	01:51.5	11.42
4/21/2014	2456768.5	2149	179.91	-5.13	-25.55	31.831	01:55.3	11.77
4/22/2014	2456769.5	2149	166.70	-5.04	-25.44	31.822	01:59.0	12.10
4/23/2014	2456770.5	2149	153.49	-4.95	-25.33	31.814	02: 2.8	12.44
4/24/2014	2456771.5	2149	140.27	-4.86	-25.21	31.805	02: 6.5	12.77
4/25/2014	2456772.5	2149	127.06	-4.77	-25.08	31.797	02:10.3	13.10
4/26/2014	2456773.5	2149	113.84	-4.68	-24.94	31.788	02:14.1	13.43
4/27/2014	2456774.5	2149	100.63	-4.58	-24.80	31.780	02:17.9	13.75
4/28/2014	2456775.5	2149	87.41	-4.49	-24.65	31.772	02:21.6	14.07
4/29/2014	2456776.5	2149	74.19	-4.39	-24.49	31.763	02:25.4	14.38
4/30/2014	2456777.5	2149	60.98	-4.29	-24.32	31.755	02:29.2	14.69
5/ 1/2014	2456778.5	2149	47.76	-4.19	-24.15	31.747	02:33.1	15.00
5/ 2/2014	2456779.5	2149	34.54	-4.09	-23.97	31.739	02:36.9	15.30
5/ 3/2014	2456780.5	2149	21.32	-3.99	-23.78	31.731	02:40.7	15.59
5/ 4/2014	2456781.5	2149	8.10	-3.89	-23.59	31.723	02:44.6	15.89
5/ 5/2014	2456782.5	2150	354.88	-3.78	-23.39	31.716	02:48.4	16.18
5/ 6/2014	2456783.5	2150	341.65	-3.68	-23.18	31.708	02:52.3	16.46
5/ 7/2014	2456784.5	2150	328.49	-3.57	-22.96	31.701	02:56.1	16.74
5/ 8/2014	2456785.5	2150	315.27	-3.46	-22.74	31.693	02:60.0	17.02
5/ 9/2014	2456786.5	2150	302.05	-3.36	-22.51	31.686	03: 3.9	17.29
5/10/2014	2456787.5	2150	288.82	-3.25	-22.28	31.678	03: 7.8	17.55
5/11/2014	2456788.5	2150	275.60	-3.14	-22.03	31.671	03:11.7	17.81
5/12/2014	2456789.5	2150	262.37	-3.03	-21.78	31.664	03:15.6	18.07
5/13/2014	2456790.5	2150	249.14	-2.92	-21.53	31.657	03:19.6	18.32
5/14/2014	2456791.5	2150	235.91	-2.80	-21.26	31.650	03:23.5	18.56
5/15/2014	2456792.5	2150	222.69	-2.69	-20.99	31.643	03:27.4	18.80
5/16/2014	2456793.5	2150	209.46	-2.58	-20.72	31.637	03:31.4	19.04
5/17/2014	2456794.5	2150	196.23	-2.46	-20.43	31.630	03:35.4	19.27
5/18/2014	2456795.5	2150	183.00	-2.35	-20.14	31.624	03:39.3	19.49
5/19/2014	2456796.5	2150	169.77	-2.23	-19.85	31.617	03:43.3	19.71
5/20/2014	2456797.5	2150	156.54	-2.12	-19.55	31.611	03:47.3	19.92
5/21/2014	2456798.5	2150	143.30	-2.00	-19.24	31.605	03:51.3	20.13
5/22/2014	2456799.5	2150	130.07	-1.88	-18.92	31.599	03:55.3	20.33
5/23/2014	2456800.5	2150	116.84	-1.77	-18.60	31.593	03:59.3	20.53
5/24/2014	2456801.5	2150	103.61	-1.65	-18.28	31.587	04: 3.4	20.72

5/25/2014	2456802.5	2150	90.37	-1.53	-17.95	31.581	04: 7.4	20.90
5/26/2014	2456803.5	2150	77.14	-1.41	-17.61	31.576	04:11.4	21.08
5/27/2014	2456804.5	2150	63.97	-1.29	-17.26	31.570	04:15.5	21.25
5/28/2014	2456805.5	2150	50.73	-1.17	-16.92	31.565	04:19.5	21.42
5/29/2014	2456806.5	2150	37.49	-1.05	-16.56	31.560	04:23.6	21.58
5/30/2014	2456807.5	2150	24.26	-0.93	-16.20	31.554	04:27.7	21.73
5/31/2014	2456808.5	2150	11.02	-0.81	-15.84	31.549	04:31.8	21.88
6/ 1/2014	2456809.5	2151	357.78	-0.69	-15.47	31.545	04:35.9	22.02
6/ 2/2014	2456810.5	2151	344.55	-0.57	-15.09	31.540	04:40.0	22.15
6/ 3/2014	2456811.5	2151	331.31	-0.45	-14.72	31.535	04:44.1	22.28
6/ 4/2014	2456812.5	2151	318.07	-0.33	-14.33	31.531	04:48.2	22.40
6/ 5/2014	2456813.5	2151	304.83	-0.21	-13.94	31.527	04:52.3	22.52
6/ 6/2014	2456814.5	2151	291.60	-0.09	-13.55	31.522	04:56.4	22.63
6/ 7/2014	2456815.5	2151	278.36	0.03	-13.15	31.518	05:0 .5	22.73
6/ 8/2014	2456816.5	2151	265.12	0.15	-12.75	31.514	05: 4.6	22.82
6/ 9/2014	2456817.5	2151	251.88	0.27	-12.35	31.511	05: 8.8	22.91
6/10/2014	2456818.5	2151	238.64	0.39	-11.94	31.507	05:12.9	22.99
6/11/2014	2456819.5	2151	225.40	0.51	-11.53	31.503	05:17.0	23.07
6/12/2014	2456820.5	2151	212.16	0.63	-11.11	31.500	05:21.2	23.14
6/13/2014	2456821.5	2151	198.92	0.75	-10.69	31.497	05:25.3	23.20
6/14/2014	2456822.5	2151	185.68	0.87	-10.27	31.494	05:29.5	23.25
6/15/2014	2456823.5	2151	172.44	0.99	-9.84	31.491	05:33.6	23.30
6/16/2014	2456824.5	2151	159.26	1.11	-9.41	31.488	05:37.8	23.34
6/17/2014	2456825.5	2151	146.02	1.23	-8.98	31.485	05:42.0	23.37
6/18/2014	2456826.5	2151	132.78	1.35	-8.55	31.483	05:46.1	23.40
6/19/2014	2456827.5	2151	119.54	1.47	-8.11	31.480	05:50.3	23.42
6/20/2014	2456828.5	2151	106.30	1.58	-7.68	31.478	05:54.4	23.43
6/21/2014	2456829.5	2151	93.06	1.70	-7.23	31.476	05:58.6	23.44
6/22/2014	2456830.5	2151	79.82	1.82	-6.79	31.474	06: 2.7	23.44
6/23/2014	2456831.5	2151	66.58	1.93	-6.35	31.472	06: 6.9	23.43
6/24/2014	2456832.5	2151	53.34	2.05	-5.90	31.471	06:11.0	23.42
6/25/2014	2456833.5	2151	40.10	2.16	-5.45	31.469	06:15.2	23.40
6/26/2014	2456834.5	2151	26.86	2.28	-5.01	31.468	06:19.4	23.37
6/27/2014	2456835.5	2151	13.62	2.39	-4.56	31.466	06:23.5	23.34
6/28/2014	2456836.5	2151	0.38	2.51	-4.11	31.465	06:27.7	23.29
6/29/2014	2456837.5	2152	347.14	2.62	-3.65	31.464	06:31.8	23.25
6/30/2014	2456838.5	2152	333.89	2.73	-3.20	31.464	06:35.9	23.19
7/ 1/2014	2456839.5	2152	320.65	2.84	-2.75	31.463	06:40.1	23.13

7/ 2/2014	2456840.5	2152	307.42	2.95	-2.30	31.462	06:44.2	23.06
7/ 3/2014	2456841.5	2152	294.18	3.06	-1.84	31.462	06:48.3	22.99
7/ 4/2014	2456842.5	2152	280.94	3.17	-1.39	31.462	06:52.5	22.90
7/ 5/2014	2456843.5	2152	267.70	3.28	-0.94	31.462	06:56.6	22.82
7/ 6/2014	2456844.5	2152	254.46	3.39	-0.48	31.462	07:0 .7	22.72
7/ 7/2014	2456845.5	2152	241.28	3.49	-0.03	31.462	07: 4.8	22.62
7/ 8/2014	2456846.5	2152	228.04	3.60	0.42	31.463	07: 8.9	22.51
7/ 9/2014	2456847.5	2152	214.80	3.70	0.87	31.463	07:13.0	22.40
7/10/2014	2456848.5	2152	201.56	3.80	1.32	31.464	07:17.1	22.27
7/11/2014	2456849.5	2152	188.33	3.91	1.77	31.465	07:21.2	22.15
7/12/2014	2456850.5	2152	175.09	4.01	2.22	31.466	07:25.2	22.01
7/13/2014	2456851.5	2152	161.85	4.11	2.67	31.467	07:29.3	21.87
7/14/2014	2456852.5	2152	148.61	4.20	3.11	31.468	07:33.3	21.73
7/15/2014	2456853.5	2152	135.38	4.30	3.56	31.469	07:37.4	21.57
7/16/2014	2456854.5	2152	122.14	4.40	4.00	31.471	07:41.4	21.41
7/17/2014	2456855.5	2152	108.90	4.49	4.44	31.473	07:45.5	21.25
7/18/2014	2456856.5	2152	95.67	4.59	4.88	31.475	07:49.5	21.08
7/19/2014	2456857.5	2152	82.43	4.68	5.32	31.477	07:53.5	20.90
7/20/2014	2456858.5	2152	69.20	4.77	5.75	31.479	07:57.5	20.72
7/21/2014	2456859.5	2152	55.96	4.86	6.18	31.481	08: 1.5	20.53
7/22/2014	2456860.5	2152	42.73	4.95	6.61	31.483	08: 5.5	20.34
7/23/2014	2456861.5	2152	29.50	5.04	7.04	31.486	08: 9.5	20.14
7/24/2014	2456862.5	2152	16.26	5.12	7.46	31.489	08:13.4	19.93
7/25/2014	2456863.5	2152	3.03	5.21	7.88	31.492	08:17.4	19.72
7/26/2014	2456864.5	2153	349.80	5.29	8.30	31.495	08:21.4	19.50
7/27/2014	2456865.5	2153	336.63	5.37	8.72	31.498	08:25.3	19.28
7/28/2014	2456866.5	2153	323.40	5.45	9.13	31.501	08:29.2	19.06
7/29/2014	2456867.5	2153	310.17	5.53	9.54	31.504	08:33.1	18.82
7/30/2014	2456868.5	2153	296.94	5.61	9.95	31.508	08:37.0	18.59
7/31/2014	2456869.5	2153	283.70	5.69	10.35	31.512	08:40.9	18.34
8/ 1/2014	2456870.5	2153	270.48	5.76	10.75	31.516	08:44.8	18.10
8/ 2/2014	2456871.5	2153	257.25	5.83	11.15	31.520	08:48.7	17.84
8/ 3/2014	2456872.5	2153	244.02	5.91	11.54	31.524	08:52.6	17.59
8/ 4/2014	2456873.5	2153	230.79	5.97	11.93	31.528	08:56.4	17.32
8/ 5/2014	2456874.5	2153	217.56	6.04	12.31	31.532	08:60.3	17.06
8/ 6/2014	2456875.5	2153	204.34	6.11	12.69	31.537	09: 4.1	16.79
8/ 7/2014	2456876.5	2153	191.11	6.17	13.07	31.541	09: 8.0	16.51
8/ 8/2014	2456877.5	2153	177.88	6.24	13.44	31.546	09:11.8	16.23

8/ 9/2014	2456878.5	2153	164.66	6.30	13.81	31.551	09:15.6	15.94
8/10/2014	2456879.5	2153	151.43	6.36	14.18	31.556	09:19.4	15.66
8/11/2014	2456880.5	2153	138.21	6.41	14.54	31.561	09:23.2	15.36
8/12/2014	2456881.5	2153	124.99	6.47	14.89	31.566	09:27.0	15.07
8/13/2014	2456882.5	2153	111.76	6.52	15.25	31.572	09:30.7	14.76
8/14/2014	2456883.5	2153	98.54	6.58	15.59	31.577	09:34.5	14.46
8/15/2014	2456884.5	2153	85.32	6.63	15.94	31.583	09:38.2	14.15
8/16/2014	2456885.5	2153	72.16	6.67	16.27	31.589	09:42.0	13.84
8/17/2014	2456886.5	2153	58.94	6.72	16.61	31.594	09:45.7	13.52
8/18/2014	2456887.5	2153	45.72	6.77	16.94	31.600	09:49.5	13.20
8/19/2014	2456888.5	2153	32.50	6.81	17.26	31.607	09:53.2	12.88
8/20/2014	2456889.5	2153	19.28	6.85	17.58	31.613	09:56.9	12.55
8/21/2014	2456890.5	2153	6.06	6.89	17.89	31.619	10:0 .6	12.22
8/22/2014	2456891.5	2154	352.84	6.93	18.20	31.625	10: 4.3	11.89
8/23/2014	2456892.5	2154	339.62	6.96	18.51	31.632	10: 8.0	11.55
8/24/2014	2456893.5	2154	326.41	6.99	18.81	31.639	10:11.7	11.21
8/25/2014	2456894.5	2154	313.19	7.03	19.10	31.645	10:15.3	10.87
8/26/2014	2456895.5	2154	299.97	7.05	19.39	31.652	10:19.0	10.52
8/27/2014	2456896.5	2154	286.76	7.08	19.68	31.659	10:22.7	10.17
8/28/2014	2456897.5	2154	273.55	7.11	19.95	31.666	10:26.3	9.82
8/29/2014	2456898.5	2154	260.33	7.13	20.23	31.673	10:30.0	9.47
8/30/2014	2456899.5	2154	247.12	7.15	20.50	31.681	10:33.6	9.11
8/31/2014	2456900.5	2154	233.91	7.17	20.76	31.688	10:37.2	8.75
9/ 1/2014	2456901.5	2154	220.69	7.19	21.02	31.695	10:40.9	8.39
9/ 2/2014	2456902.5	2154	207.48	7.20	21.27	31.703	10:44.5	8.03
9/ 3/2014	2456903.5	2154	194.27	7.22	21.51	31.710	10:48.1	7.66
9/ 4/2014	2456904.5	2154	181.06	7.23	21.75	31.718	10:51.7	7.30
9/ 5/2014	2456905.5	2154	167.91	7.24	21.99	31.726	10:55.4	6.93
9/ 6/2014	2456906.5	2154	154.70	7.24	22.22	31.734	10:59.0	6.56
9/ 7/2014	2456907.5	2154	141.49	7.25	22.44	31.742	11: 2.6	6.18
9/ 8/2014	2456908.5	2154	128.28	7.25	22.66	31.750	11: 6.2	5.81
9/ 9/2014	2456909.5	2154	115.07	7.25	22.87	31.758	11: 9.8	5.43
9/10/2014	2456910.5	2154	101.87	7.25	23.08	31.766	11:13.4	5.05
9/11/2014	2456911.5	2154	88.66	7.24	23.28	31.774	11:17.0	4.68
9/12/2014	2456912.5	2154	75.45	7.24	23.47	31.782	11:20.6	4.29
9/13/2014	2456913.5	2154	62.25	7.23	23.66	31.791	11:24.2	3.91
9/14/2014	2456914.5	2154	49.04	7.22	23.84	31.799	11:27.7	3.53
9/15/2014	2456915.5	2154	35.84	7.21	24.02	31.808	11:31.3	3.15

9/16/2014	2456916.5	2154	22.63	7.19	24.19	31.816	11:34.9	2.76
9/17/2014	2456917.5	2154	9.43	7.18	24.35	31.825	11:38.5	2.37
9/18/2014	2456918.5	2155	356.22	7.16	24.51	31.833	11:42.1	1.99
9/19/2014	2456919.5	2155	343.02	7.14	24.66	31.842	11:45.7	1.60
9/20/2014	2456920.5	2155	329.82	7.12	24.80	31.851	11:49.3	1.21
9/21/2014	2456921.5	2155	316.62	7.09	24.94	31.860	11:52.9	0.82
9/22/2014	2456922.5	2155	303.41	7.06	25.07	31.869	11:56.5	0.43
9/23/2014	2456923.5	2155	290.21	7.04	25.19	31.877	11:60.0	0.04
9/24/2014	2456924.5	2155	277.01	7.01	25.31	31.886	12: 3.6	-0.35
9/25/2014	2456925.5	2155	263.87	6.97	25.42	31.895	12: 7.2	-0.74
9/26/2014	2456926.5	2155	250.67	6.94	25.53	31.904	12:10.8	-1.13
9/27/2014	2456927.5	2155	237.47	6.90	25.63	31.913	12:14.4	-1.52
9/28/2014	2456928.5	2155	224.27	6.86	25.72	31.922	12:18.0	-1.91
9/29/2014	2456929.5	2155	211.08	6.82	25.80	31.932	12:21.7	-2.29
9/30/2014	2456930.5	2155	197.88	6.78	25.88	31.941	12:25.3	-2.68
10/ 1/2014	2456931.5	2155	184.68	6.73	25.95	31.950	12:28.9	-3.07
10/ 2/2014	2456932.5	2155	171.48	6.68	26.02	31.959	12:32.5	-3.46
10/ 3/2014	2456933.5	2155	158.28	6.63	26.07	31.968	12:36.1	-3.85
10/ 4/2014	2456934.5	2155	145.09	6.58	26.12	31.977	12:39.8	-4.23
10/ 5/2014	2456935.5	2155	131.89	6.53	26.17	31.986	12:43.4	-4.62
10/ 6/2014	2456936.5	2155	118.69	6.47	26.20	31.996	12:47.1	-5.01
10/ 7/2014	2456937.5	2155	105.50	6.42	26.23	32.005	12:50.7	-5.39
10/ 8/2014	2456938.5	2155	92.30	6.36	26.25	32.014	12:54.4	-5.77
10/ 9/2014	2456939.5	2155	79.11	6.30	26.27	32.023	12:58.0	-6.15
10/10/2014	2456940.5	2155	65.91	6.23	26.27	32.033	13: 1.7	-6.53
10/11/2014	2456941.5	2155	52.72	6.17	26.27	32.042	13: 5.4	-6.91
10/12/2014	2456942.5	2155	39.52	6.10	26.26	32.051	13: 9.1	-7.29
10/13/2014	2456943.5	2155	26.33	6.03	26.25	32.060	13:12.8	-7.67
10/14/2014	2456944.5	2155	13.14	5.96	26.23	32.069	13:16.5	-8.04
10/15/2014	2456945.5	2155	0.00	5.89	26.20	32.078	13:20.2	-8.41
10/16/2014	2456946.5	2156	346.81	5.82	26.16	32.088	13:23.9	-8.78
10/17/2014	2456947.5	2156	333.62	5.74	26.11	32.097	13:27.7	-9.15
10/18/2014	2456948.5	2156	320.43	5.66	26.06	32.106	13:31.4	-9.51
10/19/2014	2456949.5	2156	307.23	5.58	26.00	32.115	13:35.2	-9.88
10/20/2014	2456950.5	2156	294.04	5.50	25.93	32.124	13:38.9	-10.24
10/21/2014	2456951.5	2156	280.85	5.42	25.86	32.133	13:42.7	-10.60
10/22/2014	2456952.5	2156	267.66	5.33	25.77	32.142	13:46.5	-10.95
10/23/2014	2456953.5	2156	254.47	5.25	25.68	32.151	13:50.3	-11.31

10/24/2014	2456954.5	2156	241.28	5.16	25.58	32.160	13:54.1	-11.66
10/25/2014	2456955.5	2156	228.09	5.07	25.48	32.168	13:57.9	-12.00
10/26/2014	2456956.5	2156	214.90	4.98	25.36	32.177	14: 1.7	-12.35
10/27/2014	2456957.5	2156	201.71	4.89	25.24	32.186	14: 5.6	-12.69
10/28/2014	2456958.5	2156	188.52	4.79	25.11	32.195	14: 9.4	-13.03
10/29/2014	2456959.5	2156	175.33	4.70	24.97	32.203	14:13.3	-13.36
10/30/2014	2456960.5	2156	162.14	4.60	24.82	32.212	14:17.2	-13.69
10/31/2014	2456961.5	2156	148.95	4.50	24.67	32.220	14:21.1	-14.02
11/ 1/2014	2456962.5	2156	135.76	4.40	24.51	32.229	14:25.0	-14.34
11/ 2/2014	2456963.5	2156	122.57	4.30	24.34	32.237	14:28.9	-14.66
11/ 3/2014	2456964.5	2156	109.38	4.20	24.16	32.246	14:32.8	-14.98
11/ 4/2014	2456965.5	2156	96.25	4.09	23.98	32.254	14:36.8	-15.29
11/ 5/2014	2456966.5	2156	83.07	3.99	23.78	32.262	14:40.7	-15.60
11/ 6/2014	2456967.5	2156	69.88	3.88	23.58	32.270	14:44.7	-15.90
11/ 7/2014	2456968.5	2156	56.69	3.78	23.37	32.278	14:48.7	-16.20
11/ 8/2014	2456969.5	2156	43.50	3.67	23.16	32.286	14:52.7	-16.49
11/ 9/2014	2456970.5	2156	30.32	3.56	22.93	32.294	14:56.7	-16.78
11/10/2014	2456971.5	2156	17.13	3.45	22.70	32.302	15:0 .7	-17.07
11/11/2014	2456972.5	2156	3.94	3.33	22.46	32.309	15: 4.8	-17.35
11/12/2014	2456973.5	2157	350.76	3.22	22.21	32.317	15: 8.8	-17.62
11/13/2014	2456974.5	2157	337.57	3.11	21.96	32.324	15:12.9	-17.89
11/14/2014	2456975.5	2157	324.38	2.99	21.69	32.332	15:17.0	-18.16
11/15/2014	2456976.5	2157	311.20	2.87	21.42	32.339	15:21.1	-18.42
11/16/2014	2456977.5	2157	298.01	2.76	21.15	32.346	15:25.2	-18.67
11/17/2014	2456978.5	2157	284.83	2.64	20.86	32.353	15:29.3	-18.92
11/18/2014	2456979.5	2157	271.64	2.52	20.57	32.360	15:33.5	-19.16
11/19/2014	2456980.5	2157	258.46	2.40	20.27	32.367	15:37.6	-19.40
11/20/2014	2456981.5	2157	245.27	2.28	19.96	32.374	15:41.8	-19.63
11/21/2014	2456982.5	2157	232.09	2.16	19.65	32.380	15:46.0	-19.85
11/22/2014	2456983.5	2157	218.90	2.04	19.32	32.387	15:50.2	-20.07
11/23/2014	2456984.5	2157	205.72	1.91	19.00	32.393	15:54.4	-20.29
11/24/2014	2456985.5	2157	192.54	1.79	18.66	32.399	15:58.6	-20.49
11/25/2014	2456986.5	2157	179.42	1.67	18.32	32.406	16: 2.9	-20.69
11/26/2014	2456987.5	2157	166.23	1.54	17.97	32.412	16: 7.1	-20.89
11/27/2014	2456988.5	2157	153.05	1.42	17.61	32.418	16:11.4	-21.08
11/28/2014	2456989.5	2157	139.87	1.29	17.25	32.423	16:15.6	-21.26
11/29/2014	2456990.5	2157	126.68	1.16	16.88	32.429	16:19.9	-21.43
11/30/2014	2456991.5	2157	113.50	1.04	16.51	32.434	16:24.2	-21.60

12/ 1/2014	2456992.5	2157	100.32	0.91	16.13	32.440	16:28.5	-21.76
12/ 2/2014	2456993.5	2157	87.14	0.78	15.74	32.445	16:32.8	-21.92
12/ 3/2014	2456994.5	2157	73.95	0.66	15.35	32.450	16:37.2	-22.06
12/ 4/2014	2456995.5	2157	60.77	0.53	14.95	32.455	16:41.5	-22.20
12/ 5/2014	2456996.5	2157	47.59	0.40	14.55	32.460	16:45.8	-22.33
12/ 6/2014	2456997.5	2157	34.41	0.27	14.14	32.465	16:50.2	-22.46
12/ 7/2014	2456998.5	2157	21.23	0.15	13.73	32.469	16:54.6	-22.58
12/ 8/2014	2456999.5	2157	8.05	0.02	13.31	32.473	16:58.9	-22.69
12/ 9/2014	2457000.5	2158	354.87	-0.11	12.88	32.478	17: 3.3	-22.79
12/10/2014	2457001.5	2158	341.69	-0.24	12.45	32.482	17: 7.7	-22.89
12/11/2014	2457002.5	2158	328.51	-0.37	12.02	32.486	17:12.1	-22.98
12/12/2014	2457003.5	2158	315.33	-0.49	11.58	32.489	17:16.5	-23.06
12/13/2014	2457004.5	2158	302.15	-0.62	11.14	32.493	17:20.9	-23.13
12/14/2014	2457005.5	2158	288.97	-0.75	10.69	32.496	17:25.3	-23.20
12/15/2014	2457006.5	2158	275.86	-0.88	10.24	32.500	17:29.7	-23.25
12/16/2014	2457007.5	2158	262.68	-1.01	9.79	32.503	17:34.2	-23.30
12/17/2014	2457008.5	2158	249.50	-1.13	9.33	32.506	17:38.6	-23.35
12/18/2014	2457009.5	2158	236.32	-1.26	8.87	32.509	17:43.0	-23.38
12/19/2014	2457010.5	2158	223.14	-1.38	8.41	32.511	17:47.5	-23.41
12/20/2014	2457011.5	2158	209.97	-1.51	7.94	32.514	17:51.9	-23.43
12/21/2014	2457012.5	2158	196.79	-1.64	7.47	32.516	17:56.3	-23.44
12/22/2014	2457013.5	2158	183.61	-1.76	7.00	32.518	18:0 .8	-23.44
12/23/2014	2457014.5	2158	170.43	-1.89	6.53	32.520	18: 5.2	-23.44
12/24/2014	2457015.5	2158	157.26	-2.01	6.05	32.522	18: 9.6	-23.43
12/25/2014	2457016.5	2158	144.08	-2.13	5.58	32.524	18:14.1	-23.40
12/26/2014	2457017.5	2158	130.91	-2.25	5.10	32.525	18:18.5	-23.38
12/27/2014	2457018.5	2158	117.73	-2.38	4.62	32.527	18:22.9	-23.34
12/28/2014	2457019.5	2158	104.55	-2.50	4.14	32.528	18:27.4	-23.30
12/29/2014	2457020.5	2158	91.38	-2.62	3.65	32.529	18:31.8	-23.25
12/30/2014	2457021.5	2158	78.20	-2.74	3.17	32.530	18:36.2	-23.19
12/31/2014	2457022.5	2158	65.03	-2.86	2.69	32.530	18:40.6	-23.12
1/ 1/2015	2457023.5	2158	51.86	-2.97	2.20	32.531	18:45.1	-23.05
1/ 2/2015	2457024.5	2158	38.68	-3.09	1.72	32.531	18:49.5	-22.96
1/ 3/2015	2457025.5	2158	25.51	-3.21	1.23	32.531	18:53.9	-22.87