

UTC	Local	HmAz	HmEl	Dec	GHA	HM-HM		SunAz	SunEl			Lib		dB	TK
Friday 12/7/2013															
0740	0840	84.06	1.20	5.32	250.40	2988		103.82	43.02			6		-1.56	20
0750	0850	85.83	2.69	5.29	252.83	2993		106.06	44.69			7		-1.56	20
0800	0900	87.60	4.26	5.26	255.26	2994		108.39	46.33			7		-1.56	20
0810	0910	89.37	5.87	5.23	257.68	2990		110.82	47.95			7		-1.56	20
0820	0920	91.15	7.50	5.21	260.11	2982		113.37	49.55			8		-1.56	20
0830	0930	92.94	9.13	5.18	262.53	2968		116.05	51.11			9		-1.56	20
0840	0940	94.74	10.77	5.15	264.96	2950		118.88	52.64			9		-1.55	20
0850	0950	96.55	12.41	5.12	267.38	2927		121.86	54.13			10		-1.55	20
0900	1000	98.38	14.05	5.09	269.81	2899		125.02	55.57			11		-1.55	20
0910	1010	100.23	15.68	5.06	272.24	2866		128.37	56.95			11		-1.55	20
0920	1020	102.11	17.30	5.03	274.66	2829		131.94	58.26			12		-1.55	20
0930	1030	104.02	18.91	5.01	277.09	2788		135.73	59.51			13		-1.55	20
0940	1040	105.96	20.51	4.98	279.51	2742		139.76	60.67			13		-1.55	20
0950	1050	107.93	22.10	4.95	281.94	2691		144.03	61.73			14		-1.55	20
1000	1100	109.95	23.67	4.92	284.36	2636		148.57	62.68			15		-1.55	20
1010	1110	112.01	25.21	4.89	286.79	2577		153.35	63.52			15		-1.54	20
1020	1120	114.11	26.74	4.86	289.22	2514		158.37	64.22			16		-1.54	20
1030	1130	116.27	28.24	4.83	291.64	2447		163.59	64.79			17		-1.54	20
1040	1140	118.49	29.71	4.81	294.07	2376		168.99	65.19			17		-1.54	20
1050	1150	120.77	31.15	4.78	296.49	2301		174.52	65.44			18		-1.54	20
1100	1200	123.11	32.56	4.75	298.92	2223		180.10	65.52			19		-1.54	20
1110	1210	125.53	33.93	4.72	301.34	2141		185.69	65.43			19		-1.54	20
1120	1220	128.01	35.26	4.69	303.77	2055		191.21	65.18			20		-1.54	20
1130	1230	130.57	36.54	4.66	306.20	1967		196.60	64.76			20		-1.54	20
1140	1240	133.22	37.77	4.63	308.62	1875		201.82	64.19			21		-1.53	20
1150	1250	135.95	38.95	4.60	311.05	1781		206.83	63.48			21		-1.53	20
1200	1300	138.76	40.07	4.58	313.47	1684		211.60	62.64			22		-1.53	20
1210	1310	141.66	41.12	4.55	315.90	1584		216.12	61.68			22		-1.53	20
1220	1320	144.65	42.11	4.52	318.33	1482		220.38	60.61			23		-1.53	20
1230	1330	147.73	43.02	4.49	320.75	1378		224.40	59.45			23		-1.53	20
1240	1340	150.90	43.86	4.46	323.18	1272		228.18	58.20			23		-1.53	20
1250	1350	154.15	44.61	4.43	325.60	1164		231.73	56.88			24		-1.53	20
1300	1400	157.47	45.28	4.40	328.03	1055		235.07	55.50			24		-1.53	20
1310	1410	160.87	45.85	4.37	330.45	944		238.22	54.06			24		-1.53	20
1320	1420	164.33	46.33	4.34	332.88	832		241.20	52.57			24		-1.52	20
1330	1430	167.84	46.71	4.32	335.31	720		244.02	51.04			24		-1.52	20
1340	1440	171.40	46.98	4.29	337.73	606		246.69	49.47			24		-1.52	20
1350	1450	174.98	47.15	4.26	340.16	492		249.23	47.87			24		-1.52	20
1400	1500	178.58	47.22	4.23	342.58	378		251.66	46.25			24		-1.52	20
1410	1510	182.19	47.18	4.20	345.01	263		253.99	44.60			24		-1.52	20
1420	1520	185.78	47.03	4.17	347.43	149		256.22	42.93			24		-1.52	20
1430	1530	189.34	46.78	4.14	349.86	35		258.37	41.25			24		-1.52	20
1440	1540	192.86	46.42	4.11	352.29	-78		260.45	39.56			24		-1.52	20
1450	1550	196.34	45.97	4.08	354.71	-191		262.47	37.85			24		-1.51	20
1500	1600	199.75	45.42	4.05	357.14	-303		264.42	36.14			24		-1.51	20
1510	1610	203.10	44.77	4.03	359.56	-413		266.33	34.42			23		-1.51	20
1520	1620	206.36	44.03	4.00	1.99	-522		268.20	32.70			23		-1.51	20
1530	1630	209.55	43.21	3.97	4.41	-630		270.02	30.98			23		-1.51	20
1540	1640	212.65	42.31	3.94	6.84	-736		271.82	29.26			22		-1.51	20
1550	1650	215.66	41.34	3.91	9.26	-840		273.58	27.53			22		-1.51	20
1600	1700	218.58	40.29	3.88	11.69	-941		275.32	25.82			22		-1.51	20
1610	1710	221.41	39.18	3.85	14.12	-1041		277.05	24.11			21		-1.50	20
1620	1720	224.15	38.01	3.82	16.54	-1138		278.75	22.40			21		-1.50	20
1630	1730	226.81	36.78	3.79	18.97	-1232		280.45	20.70			20		-1.50	20
1640	1740	229.39	35.49	3.76	21.39	-1323		282.14	19.02			19		-1.50	20
1650	1750	231.88	34.17	3.74	23.82	-1411		283.82	17.34			19		-1.50	20
1700	1800	234.30	32.79	3.71	26.24	-1496		285.50	15.68			18		-1.50	20
1710	1810	236.65	31.38	3.68	28.67	-1577		287.18	14.03			18		-1.50	20
1720	1820	238.93	29.93	3.65	31.10	-1655		288.87	12.40			17		-1.50	20
1730	1830	241.15	28.45	3.62	33.52	-1730		290.56	10.78			16		-1.50	20
1740	1840	243.31	26.93	3.59	35.95	-1800		292.26	9.19			16		-1.49	20
1750	1850	245.41	25.39	3.56	38.37	-1867		293.97	7.62			15		-1.49	20
1800	1900	247.47	23.83	3.53	40.80	-1930		295.69	6.08			14		-1.49	20
1810	1910	249.48	22.24	3.50	43.22	-1988		297.43	4.58			13		-1.49	20
1820	1920	251.44	20.64	3.47	45.65	-2043		299.19	3.12			12		-1.49	20
1830	1930	253.37	19.02	3.44	48.08	-2092		300.97	1.74			12		-1.49	20
1840	1940	255.26	17.38	3.41	50.50	-2138		302.77	0.49			11		-1.49	20
1850	1950	257.12	15.73	3.38	52.93	-2179						10		-1.49	20
1900	2000	258.95	14.07	3.36	55.35	-2215						9		-1.49	20
1910	2010	260.76	12.41	3.33	57.78	-2247						8		-1.48	20
1920	2020	262.55	10.74	3.30	60.20	-2274						8		-1.48	20
1930	2030	264.32	9.06	3.27	62.63	-2297						7		-1.48	20
1940	2040	266.08	7.39	3.24	65.05	-2314						6		-1.48	20
1950	2050	267.83	5.73	3.21	67.48	-2327						6		-1.48	20
2000	2100	269.57	4.08	3.18	69.91	-2335						5		-1.48	20
2010	2110	271.31	2.47	3.15	72.33	-2338						4		-1.48	20
2020	2120	273.04	0.96	3.12	74.76	-2337						4		-1.48	20

Saturday 13/7/2013													
0840	0940	89.86	0.73	0.93	254.23	3067		119.00	52.52		6	-1.39	20
0850	0950	91.64	2.17	0.90	256.65	3065		121.98	54.00		6	-1.39	20
0900	1000	93.42	3.73	0.87	259.08	3058		125.14	55.44		7	-1.38	20
0910	1010	95.21	5.32	0.84	261.50	3046		128.49	56.81		7	-1.38	20
0920	1020	97.00	6.94	0.81	263.93	3029		132.04	58.13		8	-1.38	20
0930	1030	98.82	8.55	0.78	266.35	3008		135.83	59.37		8	-1.38	20
0940	1040	100.64	10.17	0.75	268.78	2982		139.85	60.53		9	-1.38	20
0950	1050	102.49	11.78	0.72	271.20	2951		144.11	61.59		9	-1.38	20
1000	1100	104.36	13.38	0.69	273.63	2916		148.63	62.54		10	-1.38	20
1010	1110	106.25	14.97	0.66	276.05	2876		153.40	63.38		11	-1.37	20
1020	1120	108.18	16.55	0.63	278.48	2832		158.39	64.08		12	-1.37	20
1030	1130	110.13	18.11	0.60	280.90	2783		163.60	64.64		12	-1.37	20
1040	1140	112.13	19.65	0.57	283.33	2729		168.98	65.05		13	-1.37	20
1050	1150	114.16	21.17	0.54	285.75	2672		174.48	65.29		14	-1.37	20
1100	1200	116.23	22.66	0.51	288.18	2610		180.04	65.38		14	-1.37	20
1110	1210	118.35	24.13	0.48	290.60	2544		185.59	65.29		15	-1.37	20
1120	1220	120.53	25.57	0.45	293.03	2475		191.09	65.04		16	-1.37	20
1130	1230	122.75	26.98	0.42	295.45	2401		196.46	64.63		16	-1.36	20
1140	1240	125.03	28.35	0.39	297.88	2324		201.67	64.06		17	-1.36	20
1150	1250	127.37	29.68	0.36	300.30	2243		206.66	63.36		18	-1.36	20
1200	1300	129.78	30.98	0.33	302.73	2159		211.42	62.52		18	-1.36	20
1210	1310	132.25	32.22	0.30	305.15	2071		215.93	61.56		19	-1.36	20
1220	1320	134.78	33.42	0.27	307.58	1981		220.19	60.50		19	-1.36	20
1230	1330	137.39	34.56	0.24	310.00	1887		224.20	59.34		20	-1.36	20
1240	1340	140.07	35.65	0.21	312.42	1791		227.98	58.10		20	-1.36	20
1250	1350	142.83	36.67	0.18	314.85	1692		231.53	56.78		21	-1.35	20
1300	1400	145.65	37.63	0.15	317.27	1591		234.88	55.40		21	-1.35	20
1310	1410	148.55	38.52	0.12	319.70	1488		238.03	53.96		21	-1.35	20
1320	1420	151.52	39.33	0.09	322.12	1382		241.01	52.47		22	-1.35	20
1330	1430	154.56	40.07	0.06	324.55	1275		243.83	50.95		22	-1.35	20
1340	1440	157.66	40.72	0.03	326.97	1166		246.51	49.38		22	-1.35	20
1350	1450	160.82	41.29	0.00	329.40	1055		249.05	47.79		23	-1.35	20
1400	1500	164.03	41.77	-0.03	331.82	944		251.49	46.16		23	-1.35	20
1410	1510	167.28	42.16	-0.06	334.25	831		253.82	44.52		23	-1.34	20
1420	1520	170.57	42.46	-0.09	336.67	718		256.05	42.85		23	-1.34	20
1430	1530	173.89	42.65	-0.12	339.10	604		258.21	41.17		23	-1.34	20
1440	1540	177.22	42.76	-0.15	341.52	490		260.29	39.48		23	-1.34	20
1450	1550	180.56	42.76	-0.18	343.95	375		262.31	37.77		23	-1.34	20
1500	1600	183.90	42.66	-0.21	346.37	260		264.27	36.06		23	-1.34	20
1510	1610	187.22	42.47	-0.24	348.79	146		266.18	34.35		23	-1.34	20
1520	1620	190.51	42.18	-0.27	351.22	32		268.05	32.62		23	-1.33	20
1530	1630	193.76	41.79	-0.30	353.64	-81		269.87	30.90		23	-1.33	20
1540	1640	196.98	41.31	-0.33	356.07	-193		271.67	29.18		23	-1.33	20
1550	1650	200.14	40.75	-0.36	358.49	-304		273.44	27.46		22	-1.33	20
1600	1700	203.24	40.09	-0.39	0.92	-414		275.18	25.74		22	-1.33	20
1610	1710	206.28	39.36	-0.42	3.34	-522		276.91	24.03		22	-1.33	20
1620	1720	209.25	38.54	-0.45	5.77	-629		278.62	22.32		21	-1.33	20
1630	1730	212.14	37.65	-0.49	8.19	-734		280.32	20.62		21	-1.33	20
1640	1740	214.97	36.69	-0.52	10.62	-836		282.01	18.94		21	-1.32	20
1650	1750	217.72	35.66	-0.55	13.04	-937		283.69	17.26		20	-1.32	20
1700	1800	220.40	34.57	-0.58	15.46	-1035		285.37	15.59		20	-1.32	20
1710	1810	223.00	33.42	-0.61	17.89	-1130		287.06	13.94		19	-1.32	20
1720	1820	225.54	32.22	-0.64	20.31	-1222		288.74	12.31		19	-1.32	20
1730	1830	228.00	30.97	-0.67	22.74	-1312		290.43	10.70		18	-1.32	20
1740	1840	230.40	29.66	-0.70	25.16	-1398		292.14	9.10		18	-1.32	20
1750	1850	232.73	28.32	-0.73	27.59	-1481		293.85	7.53		17	-1.31	20
1800	1900	235.00	26.94	-0.76	30.01	-1560		295.57	5.99		16	-1.31	20
1810	1910	237.21	25.52	-0.79	32.43	-1636		297.31	4.49		16	-1.31	20
1820	1920	239.37	24.06	-0.82	34.86	-1708		299.07	3.03		15	-1.31	20
1830	1930	241.47	22.58	-0.85	37.28	-1777		300.85	1.65		14	-1.31	20
1840	1940	243.53	21.06	-0.88	39.71	-1841		302.65	0.42		14	-1.31	20
1850	1950	245.54	19.52	-0.91	42.13	-1901					13	-1.31	20
1900	2000	247.52	17.96	-0.94	44.56	-1957					12	-1.31	20
1910	2010	249.45	16.38	-0.97	46.98	-2009					12	-1.30	20
1920	2020	251.35	14.78	-1.00	49.40	-2056					11	-1.30	20
1930	2030	253.22	13.17	-1.03	51.83	-2099					10	-1.30	20
1940	2040	255.06	11.54	-1.06	54.25	-2137					10	-1.30	20
1950	2050	256.88	9.90	-1.09	56.68	-2171					9	-1.30	20
2000	2100	258.68	8.26	-1.12	59.10	-2200					8	-1.30	20
2010	2110	260.46	6.61	-1.15	61.53	-2224					8	-1.30	20
2020	2120	262.22	4.97	-1.18	63.95	-2244					8	-1.29	20
2030	2130	263.97	3.35	-1.21	66.37	-2259					7	-1.29	20
2040	2140	265.72	1.78	-1.24	68.80	-2269					7	-1.29	20
2050	2150	267.45	0.35	-1.27	71.22	-2274					7	-1.29	20
Sunday 14/7/2013													
0940	1040	95.59	0.11	-3.59	257.83	3112		139.95	60.38		5	-1.18	0
0950	1050	97.37	1.44	-3.63	260.26	3102		144.20	61.44		5	-1.18	0
1000	1100	99.15	2.93	-3.66	262.68	3088		148.70	62.39		6	-1.18	0

