

Moon (26 th Jul)						Lunar Distance (objects with largest hourly LD delta)							
Fri	GHA	ν	Dec	d	HP	-Pollux	-Capella	-Jupiter	-Aldebaran	+Saturn	+Fomalhaut	+Altair	+Antares
0	299°01.9	11.7'	N01°54.4	17.2'	59.7'	107°58.5	77°53.5	67°49.0	64°44.4	16°42.2	36°57.6	67°08.0	115°15.7
1	313°32.6	11.7'	02°11.6	17.1'	59.7'	107°22.5	77°19.3	67°13.6	64°08.9	17°18.4	37°28.5	67°36.7	115°51.7
2	328°03.3	11.7'	02°28.7	17.1'	59.7'	106°46.4	76°45.1	66°38.2	63°33.5	17°54.5	37°59.5	68°05.5	116°27.8
3	342°34.0	11.7'	02°45.9	17.1'	59.7'	106°10.4	76°10.9	66°02.8	62°58.2	18°30.7	38°30.7	68°34.3	117°03.9
4	357°04.7	11.7'	03°03.0	17.1'	59.7'	105°34.4	75°36.7	65°27.4	62°22.8	19°06.8	39°01.9	69°03.2	117°39.9
5	11°35.5	11.7'	03°20.1	17.1'	59.7'	104°58.4	75°02.6	64°52.0	61°47.5	19°42.9	39°33.2	69°32.1	118°15.9
6	26°06.2	11.7'	N03°37.1	17.0'	59.7'	104°22.4	74°28.5	64°16.7	61°12.2	20°19.0	40°04.6	70°01.0	118°51.9
7	40°36.9	11.7'	03°54.1	17.0'	59.6'	103°46.4	73°54.4	63°41.4	60°36.9	20°55.1	40°36.2	70°30.0	119°27.9
8	55°07.5	11.7'	04°11.1	17.0'	59.6'	103°10.5	73°20.4	63°06.1	60°01.7	21°31.2	41°07.8	70°59.0	
9	69°38.2	11.7'	04°28.1	16.9'	59.6'	102°34.5	72°46.4	62°30.8	59°26.4	22°07.2	41°39.4	71°28.0	
10	84°08.9	11.7'	04°45.0	16.9'	59.6'	101°58.6	72°12.4	61°55.5	58°51.3	22°43.2	42°11.2	71°57.0	
11	98°39.6	11.7'	05°01.9	16.9'	59.6'	101°22.8	71°38.4	61°20.3	58°16.1	23°19.2	42°43.0	72°26.1	
12	113°10.3	11.7'	N05°18.8	16.8'	59.6'	100°46.9	71°04.5	60°45.1	57°41.0	23°55.2	43°14.9	72°55.2	
13	127°40.9	11.6'	05°35.6	16.8'	59.6'	100°11.0	70°30.6	60°09.9	57°05.9	24°31.2	43°46.9	73°24.4	
14	142°11.5	11.6'	05°52.4	16.8'	59.5'	99°35.2	69°56.7	59°34.7	56°30.8	25°07.1	44°18.9	73°53.5	
15	156°42.2	11.6'	06°09.2	16.7'	59.5'	98°59.4	69°22.9	58°59.5	55°55.7	25°43.1	44°51.0	74°22.7	
16	171°12.8	11.6'	06°25.9	16.7'	59.5'	98°23.6	68°49.1	58°24.4	55°20.7	26°19.0	45°23.1	74°51.9	
17	185°43.4	11.6'	06°42.6	16.6'	59.5'	97°47.9	68°15.4	57°49.3	54°45.7	26°54.8	45°55.3	75°21.1	
18	200°13.9	11.6'	N06°59.2	16.6'	59.5'	97°12.1	67°41.6	57°14.2	54°10.8	27°30.7	46°27.6	75°50.3	
19	214°44.5	11.5'	07°15.8	16.5'	59.5'	96°36.4	67°07.9	56°39.2	53°35.9	28°06.6	46°59.9	76°19.5	
20	229°15.0	11.5'	07°32.3	16.5'	59.4'	96°00.7	66°34.3	56°04.1	53°01.0	28°42.4	47°32.2	76°48.8	
21	243°45.5	11.5'	07°48.8	16.4'	59.4'	95°25.0	66°00.7	55°29.1	52°26.1	29°18.2	48°04.6	77°18.0	
22	258°16.0	11.5'	08°05.2	16.4'	59.4'	94°49.3	65°27.1	54°54.1	51°51.3	29°54.0	48°37.0	77°47.3	
23	272°46.5	11.4'	08°21.6	16.3'	59.4'	94°13.7	64°53.6	54°19.2	51°16.5	30°29.7	49°09.4	78°16.6	
26 th	SD = 16.3'					Mer. pass. 04:12							

Moon (27 th Jul)						Lunar Distance (objects with largest hourly LD delta)							
Sat	GHA	ν	Dec	d	HP	-Pollux	-Capella	-Jupiter	-Aldebaran	-Mars	+Saturn	+Fomalhaut	+Altair
0	287°16.9	11.4'	N08°38.0	16.3'	59.4'	93°38.1	64°20.1	53°44.2	50°41.8	44°28.7	31°05.5	49°41.9	78°45.8
1	301°47.4	11.4'	08°54.2	16.2'	59.4'	93°02.5	63°46.7	53°09.3	50°07.1	43°55.0	31°41.2	50°14.4	79°15.1
2	316°17.7	11.4'	09°10.5	16.2'	59.3'	92°26.9	63°13.2	52°34.4	49°32.4	43°21.4	32°16.9	50°47.0	79°44.4
3	330°48.1	11.3'	09°26.6	16.1'	59.3'	91°51.4	62°39.9	51°59.6	48°57.8	42°47.8	32°52.6	51°19.6	80°13.7
4	345°18.4	11.3'	09°42.7	16.0'	59.3'	91°15.8	62°06.6	51°24.7	48°23.2	42°14.2	33°28.2	51°52.2	80°43.0
5	359°48.7	11.3'	09°58.8	16.0'	59.3'	90°40.3	61°33.3	50°49.9	47°48.6	41°40.7	34°03.8	52°24.8	81°12.3
6	14°19.0	11.2'	N10°14.8	15.9'	59.3'	90°04.8	61°00.1	50°15.1	47°14.1	41°07.2	34°39.4	52°57.4	81°41.6
7	28°49.2	11.2'	10°30.7	15.9'	59.3'	89°29.4	60°26.9	49°40.4	46°39.6	40°33.7	35°15.0	53°30.1	82°10.9
8	43°19.4	11.2'	10°46.5	15.8'	59.2'	88°53.9	59°53.7	49°05.7	46°05.2	40°00.3	35°50.6	54°02.8	82°40.2
9	57°49.6	11.1'	11°02.3	15.7'	59.2'	88°18.5	59°20.7	48°31.0	45°30.8	39°26.9	36°26.1	54°35.5	83°09.5
10	72°19.7	11.1'	11°18.1	15.7'	59.2'	87°43.1	58°47.6	47°56.3	44°56.4	38°53.5	37°01.6	55°08.2	83°38.8
11	86°49.8	11.0'	11°33.7	15.6'	59.2'	87°07.8	58°14.6	47°21.6	44°22.1	38°20.1	37°37.1	55°41.0	84°08.0
12	101°19.8	11.0'	N11°49.3	15.5'	59.2'	86°32.4	57°41.7	46°47.0	43°47.9	37°46.8	38°12.6	56°13.7	84°37.3
13	115°49.9	11.0'	12°04.8	15.4'	59.1'	85°57.1	57°08.8	46°12.4	43°13.6	37°13.5	38°48.1	56°46.5	85°06.6
14	130°19.8	10.9'	12°20.3	15.4'	59.1'	85°21.8	56°36.0	45°37.9	42°39.5	36°40.2	39°23.5	57°19.3	85°35.8
15	144°49.7	10.9'	12°35.6	15.3'	59.1'	84°46.5	56°03.2	45°03.3	42°05.3	36°07.0	39°58.9	57°52.1	86°05.1
16	159°19.6	10.8'	12°50.9	15.2'	59.1'	84°11.3	55°30.5	44°28.8	41°31.3	35°33.8	40°34.3	58°24.9	86°34.3
17	173°49.5	10.8'	13°06.1	15.1'	59.1'	83°36.0	54°57.8	43°54.3	40°57.3	35°00.6	41°09.6	58°57.7	87°03.5
18	188°19.2	10.7'	N13°21.3	15.1'	59.0'	83°00.8	54°25.2	43°19.9	40°23.3	34°27.5	41°45.0	59°30.5	87°32.7
19	202°49.0	10.7'	13°36.3	15.0'	59.0'	82°25.6	53°52.7	42°45.5	39°49.4	33°54.4	42°20.3	60°03.3	88°01.9
20	217°18.7	10.6'	13°51.3	14.9'	59.0'	81°50.5	53°20.2	42°11.1	39°15.5	33°21.3	42°55.6	60°36.2	88°31.1
21	231°48.3	10.6'	14°06.2	14.8'	59.0'	81°15.3	52°47.7	41°36.7	38°41.7	32°48.3	43°30.8	61°09.0	89°00.2
22	246°17.9	10.6'	14°21.0	14.7'	59.0'	80°40.2	52°15.4	41°02.4	38°07.9	32°15.3	44°06.1	61°41.8	89°29.4
23	260°47.5	10.5'	14°35.7	14.6'	58.9'	80°05.1	51°43.1	40°28.1	37°34.2	31°42.4	44°41.3	62°14.7	89°58.5
27 th	SD = 16.2'					Mer. pass. 05:01							

Moon (28 th Jul)						Lunar Distance (objects with largest hourly LD delta)							
Sun	GHA	ν	Dec	d	HP	-Pollux	-Jupiter	-Aldebaran	-Mars	+Saturn	+Fomalhaut	+Achernar	+Altair
0	275°17.0	10.4'	N14°50.4	14.5'	58.9'	79°30.1	39°53.9	37°00.6	31°09.4	45°16.5	62°47.5	72°07.9	90°27.6
1	289°46.4	10.4'	15°04.9	14.5'	58.9'	78°55.0	39°19.6	36°27.1	30°36.6	45°51.6	63°20.3	72°24.5	90°56.7
2	304°15.8	10.3'	15°19.4	14.4'	58.9'	78°20.0	38°45.5	35°53.5	30°03.7	46°26.8	63°53.2	72°41.1	91°25.7
3	318°45.2	10.3'	15°33.7	14.3'	58.9'	77°45.0	38°11.3	35°20.1	29°30.9	47°01.9	64°26.0	72°57.8	91°54.8
4	333°14.5	10.2'	15°48.0	14.2'	58.8'	77°10.1	37°37.2	34°46.7	28°58.1	47°37.0	64°58.8	73°14.6	92°23.8
5	347°43.7	10.2'	16°02.2	14.1'	58.8'	76°35.1	37°03.1	34°13.4	28°25.4	48°12.1	65°31.7	73°31.5	92°52.7
6	2°12.9	10.1'	N16°16.3	14.0'	58.8'	76°00.2	36°29.0	33°40.2	27°52.8	48°47.1	66°04.5	73°48.4	93°21.7
7	16°42.0	10.1'	16°30.3	13.9'	58.8'	75°25.3	35°55.0	33°07.0	27°20.1	49°22.1	66°37.3	74°05.4	93°50.6
8	31°11.1	10.0'	16°44.2	13.8'	58.8'	74°50.4	35°21.0	32°34.0	26°47.5	49°57.1	67°10.1	74°22.5	94°19.5
9	45°40.1	9.9'	16°57.9	13.7'	58.7'	74°15.6	34°47.0	32°01.0	26°15.0	50°32.1	67°43.0	74°39.6	94°48.4
10	60°09.0	9.9'	17°11.6	13.6'	58.7'	73°40.8	34°13.1	31°28.0	25°42.5	51°07.1	68°15.8	74°56.8	95°17.3
11	74°37.9	9.8'	17°25.2	13.5'	58.7'	73°06.0	33°39.3	30°55.2	25°10.1	51°42.0	68°48.6	75°14.1	95°46.1
12	89°06.7	9.8'	N17°38.7	13.4'	58.7'	72°31.2	33°05.4	30°22.5	24°37.7	52°16.9	69°21.3	75°31.4	96°14.9
13	103°35.5	9.7'	17°52.1	13.3'	58.7'	71°56.4	32°31.6	29°49.8	24°05.3	52°51.8	69°54.1	75°48.7	96°43.6
14	118°04.2	9.6'	18°05.4	13.2'	58.6'	71°21.7	31°57.9	29°17.3	23°33.0	53°26.6	70°26.9	76°06.1	97°12.3
15	132°32.9	9.6'	18°18.5	13.1'	58.6'	70°47.0	31°24.1	28°44.8	23°00.8	54°01.4	70°59.7	76°23.6	97°41.0
16	147°01.5	9.5'	18°31.6	12.9'	58.6'	70°12.3	30°50.5	28°12.5	22°28.6	54°36.3	71°32.4	76°41.1	98°09.7
17	161°30.0	9.5'	18°44.5	12.8'	58.6'	69°37.7	30°16.8	27°40.2	21°56.5	55°11.0	72°05.2	76°58.7	98°38.3
18	175°58.4	9.4'	N18°57.4	12.7'	58.6'	69°03.1	29°43.2	27°08.1	21°24.5	55°45.8	72°37.9	77°16.3	99°06.9
19	190°26.8	9.3'	19°10.1	12.6'	58.5'	68°28.5	29°09.7	26°36.1	20°52.5	56°20.5	73°10.6	77°34.0	99°35.4
20	204°55.2	9.3'	19°22.7	12.5'	58.5'	67°53.9	28°36.2	26°04.2	20°20.6	56°55.2	73°43.3	77°51.7	100°03.9
21	219°23.4	9.2'	19°35.2	12.4'	58.5'	67°19.3	28°02.7	25°32.5	19°48.8	57°29.9	74°16.0	78°09.5	100°32.4
22	233°51.7	9.1'	19°47.6	12.3'	58.5'	66°44.8	27°29.3	25°00.9	19°17.1	58°04.6	74°48.7	78°27.2	101°00.8
23	248°19.8	9.1'	19°59.9	12.1'	58.4'	66°10.3	26°56.0	24°29.4	18°45.4	58°39.2	75°21.4	78°45.1	101°29.2
28 th	SD = 16.1'					Mer. pass. 05:51							

Moon (29 th Jul)						Lunar Distance (objects with largest hourly LD delta)							
Mon	GHA	ν	Dec	d	HP	-Sun	-Procyon	-Pollux	-Jupiter	+Saturn	+Fomalhaut	+Achernar	+Altair
0	262°47.9	9.0'	N20°12.0	12.0'	58.4'	78°38.3	70°13.0	65°35.8	26°22.7	59°13.8	75°54.0	79°02.9	101°57.5
1	277°15.9	9.0'	20°24.0	11.9'	58.4'	78°06.3	69°41.1	65°01.4	25°49.4	59°48.4	76°26.7	79°20.8	102°25.8
2	291°43.8	8.9'	20°35.9	11.8'	58.4'	77°34.3	69°09.3	64°27.0	25°16.2	60°23.0	76°59.3	79°38.8	102°54.1
3	306°11.7	8.8'	20°47.7	11.7'	58.4'	77°02.4	68°37.5	63°52.5	24°43.1	60°57.5	77°31.9	79°56.8	103°22.3
4	320°39.5	8.8'	20°59.3	11.5'	58.3'	76°30.5	68°05.7	63°18.2	24°10.0	61°32.0	78°04.5	80°14.8	103°50.4
5	335°07.3	8.7'	21°10.9	11.4'	58.3'	75°58.6	67°34.0	62°43.8	23°37.0	62°06.5	78°37.1	80°32.8	104°18.5
6	349°35.0	8.6'	N21°22.3	11.3'	58.3'	75°26.8	67°02.3	62°09.5	23°04.0	62°41.0	79°09.7	80°50.9	104°46.6
7	4°02.6	8.6'	21°33.6	11.1'	58.3'	74°55.0	66°30.6	61°35.2	22°31.1	63°15.4	79°42.2	81°09.0	105°14.6
8	18°30.2	8.5'	21°44.7	11.0'	58.3'	74°23.2	65°59.0	61°00.9	21°58.3	63°49.8	80°14.7	81°27.1	105°42.5
9	32°57.7	8.4'	21°55.7	10.9'	58.2'	73°51.4	65°27.5	60°26.6	21°25.6	64°24.2	80°47.3	81°45.2	106°10.4
10	47°25.1	8.4'	22°06.6	10.8'	58.2'	73°19.6	64°56.0	59°52.4	20°52.9	64°58.6	81°19.8	82°03.4	106°38.3
11	61°52.5	8.3'	22°17.3	10.6'	58.2'	72°47.9	64°24.5	59°18.2	20°20.3	65°33.0	81°52.2	82°21.6	107°06.1
12	76°19.8	8.2'	N22°28.0	10.5'	58.2'	72°16.2	63°53.1	58°44.0	19°47.8	66°07.3	82°24.7	82°39.8	107°33.8
13	90°47.0	8.2'	22°38.4	10.3'	58.1'	71°44.5	63°21.8	58°09.9	19°15.4	66°41.6	82°57.1	82°58.0	108°01.5
14	105°14.2	8.1'	22°48.8	10.2'	58.1'	71°12.8	62°50.5	57°35.7	18°43.1	67°15.8	83°29.6	83°16.2	108°29.1
15	119°41.3	8.0'	22°59.0	10.1'	58.1'	70°41.2	62°19.2	57°01.6	18°10.9	67°50.1	84°02.0	83°34.5	108°56.7
16	134°08.3	8.0'	23°09.1	9.9'	58.1'	70°09.6	61°48.0	56°27.5	17°38.8	68°24.3	84°34.4	83°52.7	109°24.2
17	148°35.3	7.9'	23°19.0	9.8'	58.1'	69°38.0	61°16.8	55°53.5	17°06.9	68°58.5	85°06.7	84°11.0	109°51.7
18	163°02.2	7.9'	N23°28.8	9.6'	58.0'	69°06.5	60°45.7	55°19.4	16°35.0	69°32.7	85°39.1	84°29.3	110°19.0
19	177°29.1	7.8'	23°38.4	9.5'	58.0'	68°34.9	60°14.7	54°45.4	16°03.3	70°06.8	86°11.4	84°47.6	110°46.4
20	191°55.9	7.7'	23°48.0	9.4'	58.0'	68°03.4	59°43.7	54°11.4	15°31.8	70°41.0	86°43.7	85°05.9	111°13.6
21	206°22.6	7.7'	23°57.3	9.2'	58.0'	67°31.9	59°12.7	53°37.5	15°00.4	71°15.1	87°16.0	85°24.2	111°40.8
22	220°49.3	7.6'	24°06.5	9.1'	57.9'	67°00.5	58°41.8	53°03.5	14°29.2	71°49.2	87°48.2	85°42.6	112°07.9
23	235°15.9	7.6'	24°15.6	8.9'	57.9'	66°29.1	58°11.0	52°29.6	13°58.2	72°23.2	88°20.5	86°00.9	112°35.0
29 th	SD = 15.9' Mer. pass. 06:43					Sun SD = 15.7'							

Moon (30 th Jul)						Lunar Distance (objects with largest hourly LD delta)							
Tue	GHA	ν	Dec	d	HP	-Sun	-Procyon	-Pollux	-Jupiter	+Mars	+Saturn	+Fomalhaut	+Altair
0	249°42.4	7.5'	N24°24.5	8.8'	57.9'	65°57.6	57°40.2	51°55.7	13°27.4		72°57.3	88°52.7	113°02.0
1	264°08.9	7.4'	24°33.3	8.6'	57.9'	65°26.3	57°09.5	51°21.8	12°56.8		73°31.3	89°24.9	113°28.9
2	278°35.4	7.4'	24°41.9	8.5'	57.9'	64°54.9	56°38.8	50°48.0	12°26.5		74°05.2	89°57.1	113°55.7
3	293°01.7	7.3'	24°50.4	8.3'	57.8'	64°23.6	56°08.3	50°14.2	11°56.5		74°39.2	90°29.2	114°22.5
4	307°28.1	7.3'	24°58.8	8.2'	57.8'	63°52.2	55°37.7	49°40.4	11°26.8		75°13.1	91°01.4	114°49.2
5	321°54.3	7.2'	25°06.9	8.0'	57.8'	63°21.0	55°07.3	49°06.6	10°57.5		75°47.1	91°33.5	115°15.8
6	336°20.5	7.2'	N25°15.0	7.9'	57.8'	62°49.7	54°36.9	48°32.9	10°28.6		76°21.0	92°05.5	115°42.3
7	350°46.7	7.1'	25°22.8	7.7'	57.7'	62°18.5	54°06.5	47°59.2	10°00.2		76°54.8	92°37.6	116°08.8
8	5°12.8	7.1'	25°30.5	7.6'	57.7'	61°47.2	53°36.3	47°25.5	9°32.3		77°28.7	93°09.6	116°35.2
9	19°38.9	7.0'	25°38.1	7.4'	57.7'	61°16.1	53°06.1	46°51.8	9°05.1		78°02.5	93°41.6	117°01.4
10	34°04.9	7.0'	25°45.5	7.2'	57.7'	60°44.9	52°35.9	46°18.1	8°38.5		78°36.3	94°13.6	117°27.7
11	48°30.8	6.9'	25°52.8	7.1'	57.7'	60°13.7	52°05.9	45°44.5	8°12.8		79°10.1	94°45.6	117°53.8
12	62°56.7	6.9'	N25°59.9	6.9'	57.6'	59°42.6	51°35.9	45°10.9	7°48.0		79°43.8	95°17.5	118°19.8
13	77°22.6	6.8'	26°06.8	6.8'	57.6'	59°11.5	51°06.0	44°37.3			80°17.5	95°49.4	118°45.7
14	91°48.4	6.8'	26°13.6	6.6'	57.6'	58°40.5	50°36.1	44°03.8			80°51.2	96°21.3	119°11.6
15	106°14.2	6.7'	26°20.2	6.5'	57.6'	58°09.4	50°06.4	43°30.3			81°24.9	96°53.2	119°37.4
16	120°39.9	6.7'	26°26.6	6.3'	57.6'	57°38.4	49°36.7	42°56.7			81°58.6	97°25.0	
17	135°05.6	6.6'	26°32.9	6.1'	57.5'	57°07.4	49°07.1	42°23.3			82°32.2	97°56.8	
18	149°31.2	6.6'	N26°39.0	6.0'	57.5'	56°36.5	48°37.6	41°49.8			83°05.8	98°28.6	
19	163°56.8	6.6'	26°45.0	5.8'	57.5'	56°05.5	48°08.2	41°16.4			83°39.4	99°00.4	
20	178°22.4	6.5'	26°50.8	5.6'	57.5'	55°34.6	47°38.9	40°43.0			84°13.0	99°32.1	
21	192°47.9	6.5'	26°56.5	5.5'	57.4'	55°03.7	47°09.6	40°09.6		8°13.1	84°46.5	100°03.8	
22	207°13.4	6.5'	27°01.9	5.3'	57.4'	54°32.8	46°40.4	39°36.2		8°38.9	85°20.0	100°35.5	
23	221°38.8	6.4'	27°07.2	5.1'	57.4'	54°02.0	46°11.4	39°02.9		9°05.2	85°53.5	101°07.1	
30 th	SD = 15.8' Mer. pass. 07:38					Sun SD = 15.7'							

Moon (31 st Jul)						Lunar Distance (objects with largest hourly LD delta)							
Wed	GHA	ν	Dec	d	HP	-Sun	-Procyon	-Pollux	-Betelgeuse	+Jupiter	+Mars	+Saturn	+Fomalhaut
0	236°04.3	6.4'	N27°12.4	5.0'	57.4'	53°31.2	45°42.4	38°29.6	24°59.2		9°32.1	86°27.0	101°38.7
1	250°29.7	6.4'	27°17.4	4.8'	57.4'	53°00.4	45°13.5	37°56.3	24°41.9		9°59.4	87°00.5	102°10.3
2	264°55.0	6.3'	27°22.2	4.6'	57.3'	52°29.6	44°44.8	37°23.0	24°25.1		10°27.1	87°33.9	102°41.8
3	279°20.4	6.3'	27°26.8	4.5'	57.3'	51°58.8	44°16.1	36°49.8	24°08.8		10°55.1	88°07.3	103°13.4
4	293°45.7	6.3'	27°31.3	4.3'	57.3'	51°28.1	43°47.5	36°16.6	23°53.2		11°23.4	88°40.7	103°44.9
5	308°11.0	6.3'	27°35.6	4.1'	57.3'	50°57.4	43°19.1	35°43.4	23°38.0		11°51.9	89°14.0	104°16.3
6	322°36.2	6.2'	N27°39.7	4.0'	57.2'	50°26.7	42°50.7	35°10.2			12°20.7	89°47.4	104°47.8
7	337°01.5	6.2'	27°43.7	3.8'	57.2'	49°56.1	42°22.5	34°37.1			12°49.7	90°20.7	105°19.2
8	351°26.7	6.2'	27°47.5	3.6'	57.2'	49°25.5	41°54.4	34°03.9			13°18.8	90°54.0	105°50.6
9	5°51.9	6.2'	27°51.2	3.5'	57.2'	48°54.9	41°26.4	33°30.9			13°48.1	91°27.2	106°21.9
10	20°17.1	6.2'	27°54.6	3.3'	57.2'	48°24.3	40°58.5	32°57.8			14°17.5	92°00.5	106°53.2
11	34°42.3	6.2'	27°57.9	3.1'	57.1'	47°53.8	40°30.8	32°24.7			14°47.0	92°33.7	107°24.5
12	49°07.5	6.2'	N28°01.0	3.0'	57.1'	47°23.2	40°03.2	31°51.7			9°07.9	93°06.9	107°55.7
13	63°32.6	6.2'	28°04.0	2.8'	57.1'	46°52.7	39°35.7	31°18.7			9°34.7	93°40.1	108°27.0
14	77°57.8	6.1'	28°06.8	2.6'	57.1'	46°22.3	39°08.4	30°45.7			10°02.0	94°13.3	108°58.1
15	92°22.9	6.1'	28°09.4	2.4'	57.0'	45°51.8	38°41.2	30°12.8			10°29.9	94°46.4	109°29.3
16	106°48.1	6.1'	28°11.8	2.3'	57.0'	45°21.4	38°14.1	29°39.9			10°58.1	95°19.5	110°00.4
17	121°13.2	6.1'	28°14.1	2.1'	57.0'	44°51.0	37°47.3	29°07.0			11°26.7	95°52.6	110°31.5
18	135°38.3	6.1'	N28°16.2	1.9'	57.0'	44°20.6	37°20.5	28°34.1			11°55.6	96°25.7	111°02.5
19	150°03.5	6.1'	28°18.1	1.8'	57.0'	43°50.3	36°53.9	28°01.2			12°24.7	96°58.7	111°33.6
20	164°28.6	6.2'	28°19.9	1.6'	56.9'	43°19.9	36°27.5	27°28.4			12°54.1	97°31.7	112°04.5
21	178°53.8	6.2'	28°21.5	1.4'	56.9'	42°49.6	36°01.3	26°55.6			13°23.7	98°04.7	112°35.5
22	193°19.0	6.2'	28°22.9	1.2'	56.9'	42°19.4	35°35.2	26°22.8			13°53.5	98°37.7	113°06.4
23	207°44.1	6.2'	28°24.2	1.1'	56.9'	41°49.1	35°09.3	25°50.1			14°23.5	99°10.6	113°37.2
31 st	SD = 15.6' Mer. pass. 08:36					Sun SD = 15.7' at 0h; 15.8' at 23h							

h		Moon (1 st Aug)				Lunar Distance (objects with largest hourly LD delta)							
Thu	GHA	ν	Dec	d	HP	-Sun	-Procyon	-Pollux	+Jupiter	+Aldebaran	+Mars	+Saturn	+Fomalhaut
0	222°09.3	6.2'	N28°25.2	0.9'	56.9'	41°18.9	34°43.6	25°17.4	14°53.6	20°50.5	21°16.8	99°43.6	114°08.1
1	236°34.5	6.2'	28°26.1	0.7'	56.8'	40°48.7	34°18.1	24°44.7	15°23.9	21°19.3	21°47.0	100°16.5	114°38.9
2	250°59.7	6.2'	28°26.9	0.6'	56.8'	40°18.5	33°52.8	24°12.0	15°54.2	21°48.2	22°17.3	100°49.4	115°09.6
3	265°24.9	6.2'	28°27.5	0.4'	56.8'		33°27.7	23°39.4	16°24.7	22°17.3	22°47.5	101°22.2	115°40.3
4	279°50.2	6.3'	28°27.9	0.2'	56.8'		33°02.8	23°06.7	16°55.2	22°46.5	23°17.8	101°55.1	116°11.0
5	294°15.5	6.3'	28°28.1	0.1'	56.7'		32°38.2	22°34.1	17°25.8	23°15.9	23°48.1	102°27.9	116°41.7
6	308°40.8	6.3'	N28°28.1	-0.1'	56.7'		32°13.7	22°01.6	17°56.5	23°45.3	24°18.4	103°00.7	117°12.3
7	323°06.1	6.3'	28°28.0	-0.3'	56.7'		31°49.5	21°29.0	18°27.3	24°14.9	24°48.7	103°33.5	117°42.8
8	337°31.4	6.4'	28°27.8	-0.4'	56.7'		31°25.6	20°56.5	18°58.1	24°44.6	25°19.0	104°06.2	118°13.3
9	351°56.8	6.4'	28°27.3	-0.6'	56.7'		31°01.9	20°24.0	19°28.9	25°14.4	25°49.3	104°39.0	118°43.8
10	6°22.2	6.4'	28°26.7	-0.8'	56.6'		30°38.4	19°51.6	19°59.9	25°44.2	26°19.6	105°11.7	119°14.3
11	20°47.6	6.5'	28°25.9	-0.9'	56.6'		30°15.3	19°19.2	20°30.8	26°14.2	26°49.9	105°44.4	119°44.6
12	35°13.1	6.5'	N28°25.0	-1.1'	56.6'		29°52.4	18°46.8	21°01.8	26°44.2	27°20.2	106°17.1	
13	49°38.6	6.6'	28°23.9	-1.3'	56.6'		29°29.8	18°14.4	21°32.8	27°14.3	27°50.5	106°49.7	
14	64°04.2	6.6'	28°22.6	-1.4'	56.6'		29°07.5	17°42.1	22°03.8	27°44.4	28°20.8	107°22.3	
15	78°29.8	6.6'	28°21.2	-1.6'	56.5'		28°45.5	17°09.8	22°34.9	28°14.6	28°51.1	107°54.9	
16	92°55.4	6.7'	28°19.6	-1.8'	56.5'		28°23.8	16°37.5	23°06.0	28°44.9	29°21.3	108°27.5	
17	107°21.1	6.7'	28°17.8	-1.9'	56.5'		28°02.4	16°05.3	23°37.1	29°15.2	29°51.6	109°00.1	
18	121°46.8	6.8'	N28°15.9	-2.1'	56.5'		27°41.4	15°33.1	24°08.2	29°45.6	30°21.9	109°32.6	
19	136°12.6	6.8'	28°13.8	-2.3'	56.4'		27°20.8	15°00.9	24°39.3	30°16.0	30°52.1	110°05.1	
20	150°38.4	6.9'	28°11.5	-2.4'	56.4'		27°00.5	14°28.8	25°10.5	30°46.4	31°22.4	110°37.6	
21	165°04.3	6.9'	28°09.1	-2.6'	56.4'		26°40.6	13°56.7	25°41.6	31°16.9	31°52.6	111°10.1	
22	179°30.2	7.0'	28°06.5	-2.7'	56.4'		26°21.1	13°24.6	26°12.8	31°47.4	32°22.9	111°42.5	
23	193°56.2	7.0'	28°03.8	-2.9'	56.4'		26°02.0	12°52.6	26°43.9	32°18.0	32°53.1	112°15.0	
1 st	SD = 15.5' Mer. pass. 09:34					Sun SD = 15.8'							

h		Moon (2 nd Aug)				Lunar Distance (objects with largest hourly LD delta)							
Fri	GHA	ν	Dec	d	HP	-Procyon	-Pollux	+Betelgeuse	+Capella	+Jupiter	+Aldebaran	+Mars	+Saturn
0	208°22.2	7.1'	N28°00.9	-3.1'	56.3'	25°43.3	12°20.7	24°16.8	25°35.3	27°15.1	32°48.5	33°23.3	112°47.4
1	222°48.3	7.2'	27°57.8	-3.2'	56.3'	25°25.1	11°48.8	24°32.8	25°58.1	27°46.3	33°19.1	33°53.5	113°19.8
2	237°14.5	7.2'	27°54.6	-3.4'	56.3'	25°07.3	11°16.9	24°49.3	26°21.1	28°17.4	33°49.8	34°23.7	113°52.1
3	251°40.7	7.3'	27°51.2	-3.5'	56.3'	24°50.0	10°45.2	25°06.3	26°44.4	28°48.6	34°20.4	34°53.8	114°24.5
4	266°07.0	7.3'	27°47.7	-3.7'	56.3'	24°33.1	10°13.4	25°23.7	27°07.9	29°19.8	34°51.1	35°24.0	114°56.8
5	280°33.3	7.4'	27°44.0	-3.8'	56.2'	24°16.8	9°41.8	25°41.5	27°31.7	29°50.9	35°21.8	35°54.2	115°29.1
6	294°59.7	7.5'	N27°40.2	-4.0'	56.2'	24°01.0	9°10.2	25°59.8	27°55.8	30°22.1	35°52.5	36°24.3	116°01.4
7	309°26.2	7.5'	27°36.2	-4.1'	56.2'	23°45.6	8°38.7	26°18.4	28°20.1	30°53.3	36°23.2	36°54.4	116°33.6
8	323°52.7	7.6'	27°32.1	-4.3'	56.2'		8°07.4	26°37.4	28°44.6	31°24.4	36°54.0	37°24.5	117°05.9
9	338°19.3	7.7'	27°27.8	-4.4'	56.2'		7°36.1	26°56.9	29°09.3	31°55.6	37°24.7	37°54.6	117°38.1
10	352°46.0	7.8'	27°23.4	-4.6'	56.1'		7°05.0	27°16.6	29°34.2	32°26.7	37°55.5	38°24.7	118°10.3
11	7°12.8	7.8'	27°18.8	-4.7'	56.1'		6°34.1	27°36.7	29°59.3	32°57.8	38°26.2	38°54.8	118°42.5
12	21°39.6	7.9'	N27°14.0	-4.9'	56.1'		6°03.4	27°57.1	30°24.6	33°29.0	38°57.0	39°24.8	119°14.6
13	36°06.5	8.0'	27°09.1	-5.0'	56.1'		5°33.0	28°17.9	30°50.1	34°00.1	39°27.8	39°54.9	119°46.7
14	50°33.5	8.1'	27°04.1	-5.2'	56.1'		5°02.9	28°38.9	31°15.7	34°31.2	39°58.6	40°24.9	
15	65°00.6	8.1'	26°58.9	-5.3'	56.0'		4°33.2	29°00.3	31°41.5	35°02.3	40°29.4	40°54.9	
16	79°27.7	8.2'	26°53.6	-5.5'	56.0'		4°04.2	29°21.9	32°07.4	35°33.4	41°00.2	41°24.9	
17	93°54.9	8.3'	26°48.2	-5.6'	56.0'		3°35.9	29°43.8	32°33.5	36°04.4	41°31.0	41°54.8	
18	108°22.2	8.4'	N26°42.6	-5.7'	56.0'			30°05.9	32°59.7	36°35.5	42°01.8	42°24.8	
19	122°49.6	8.5'	26°36.8	-5.9'	56.0'			30°28.3	33°26.0	37°06.5	42°32.6	42°54.7	
20	137°17.1	8.5'	26°30.9	-6.0'	55.9'			30°50.9	33°52.4	37°37.6	43°03.4	43°24.7	
21	151°44.6	8.6'	26°24.9	-6.2'	55.9'			31°13.8	34°19.0	38°08.6	43°34.2	43°54.6	
22	166°12.3	8.7'	26°18.8	-6.3'	55.9'			31°36.9	34°45.7	38°39.6	44°05.0	44°24.5	
23	180°40.0	8.8'	26°12.5	-6.4'	55.9'			32°00.1	35°12.5	39°10.6	44°35.8	44°54.3	
2 nd	SD = 15.4' Mer. pass. 10:30												

h		Moon (3 rd Aug)				Lunar Distance (objects with largest hourly LD delta)							
Sat	GHA	ν	Dec	d	HP	+Pollux	+Betelgeuse	+Capella	+Jupiter	+Aldebaran	+Mars	+Rigel	
0	195°07.8	8.9'	N26°06.0	-6.6'	55.9'		32°23.6	35°39.4	39°41.6	45°06.6	45°24.2	50°22.1	
1	209°35.7	9.0'	25°59.5	-6.7'	55.8'		32°47.3	36°06.4	40°12.6	45°37.4	45°54.0	50°42.8	
2	224°03.7	9.1'	25°52.8	-6.8'	55.8'		33°11.1	36°33.4	40°43.6	46°08.2	46°23.8	51°03.6	
3	238°31.7	9.2'	25°45.9	-7.0'	55.8'		33°35.2	37°00.6	41°14.5	46°39.0	46°53.6	51°24.6	
4	252°59.9	9.3'	25°39.0	-7.1'	55.8'		33°59.4	37°27.9	41°45.4	47°09.8	47°23.4	51°45.6	
5	267°28.2	9.3'	25°31.9	-7.2'	55.8'		34°23.7	37°55.2	42°16.4	47°40.6	47°53.2	52°06.8	
6	281°56.5	9.4'	N25°24.7	-7.3'	55.7'		34°48.2	38°22.6	42°47.3	48°11.3	48°22.9	52°28.1	
7	296°24.9	9.5'	25°17.3	-7.5'	55.7'	4°38.4	35°12.9	38°50.1	43°18.2	48°42.1	48°52.7	52°49.4	
8	310°53.5	9.6'	25°09.9	-7.6'	55.7'	5°07.8	35°37.7	39°17.6	43°49.0	49°12.9	49°22.4	53°10.9	
9	325°22.1	9.7'	25°02.3	-7.7'	55.7'	5°37.6	36°02.6	39°45.3	44°19.9	49°43.6	49°52.1	53°32.5	
10	339°50.8	9.8'	24°54.6	-7.8'	55.7'	6°07.7	36°27.7	40°12.9	44°50.7	50°14.4	50°21.8	53°54.2	
11	354°19.6	9.9'	24°46.7	-8.0'	55.6'	6°37.9	36°52.9	40°40.7	45°21.6	50°45.1	50°51.4	54°16.0	
12	8°48.5	10.0'	N24°38.8	-8.1'	55.6'	7°08.4	37°18.2	41°08.5	45°52.4	51°15.8	51°21.1	54°37.9	
13	23°17.5	10.1'	24°30.7	-8.2'	55.6'	7°38.9	37°43.7	41°36.3	46°23.2	51°46.5	51°50.7	54°59.8	
14	37°46.5	10.2'	24°22.5	-8.3'	55.6'	8°09.6	38°09.2	42°04.2	46°53.9	52°17.2	52°20.3	55°21.9	
15	52°15.7	10.3'	24°14.2	-8.4'	55.6'	8°40.3	38°34.9	42°32.2	47°24.7	52°47.9	52°49.9	55°44.0	
16	66°45.0	10.4'	24°05.8	-8.5'	55.5'	9°11.1	39°00.6	43°00.2	47°55.4	53°18.6	53°19.5	56°06.3	
17	81°14.4	10.5'	23°57.3	-8.6'	55.5'				New Moon				
18	95°43.8	10.6'	N23°48.6	-8.8'	55.5'				New Moon				
19	110°13.4	10.7'	23°39.9	-8.9'	55.5'				New Moon				
20	124°43.1	10.8'	23°31.0	-9.0'	55.5'				New Moon				
21	139°12.8	10.8'	23°22.0	-9.1'	55.4'				New Moon				
22	153°42.6	10.9'	23°12.9	-9.2'	55.4'				New Moon				
23	168°12.6	11.0'	23°03.7	-9.3'	55.4'				New Moon				
3 rd	SD = 15.2' Mer. pass. 11:24												

h Moon (4 th Aug)						
Sun	GHA	ν	Dec	d	HP	
0	182°42.6	11.1'	N22°54.4	-9.4'	55.4'	New Moon
1	197°12.8	11.2'	22°45.0	-9.5'	55.4'	New Moon
2	211°43.0	11.3'	22°35.5	-9.6'	55.4'	New Moon
3	226°13.3	11.4'	22°25.9	-9.7'	55.3'	New Moon
4	240°43.7	11.5'	22°16.2	-9.8'	55.3'	New Moon
5	255°14.3	11.6'	22°06.4	-9.9'	55.3'	New Moon
6	269°44.9	11.7'	N21°56.5	-10.0'	55.3'	New Moon
7	284°15.6	11.8'	21°46.5	-10.1'	55.3'	New Moon
8	298°46.4	11.9'	21°36.4	-10.2'	55.2'	New Moon
9	313°17.3	12.0'	21°26.3	-10.3'	55.2'	New Moon
10	327°48.3	12.1'	21°16.0	-10.4'	55.2'	New Moon
11	342°19.3	12.2'	21°05.6	-10.5'	55.2'	New Moon
12	356°50.5	12.3'	N20°55.2	-10.5'	55.2'	New Moon
13	11°21.8	12.4'	20°44.6	-10.6'	55.2'	New Moon
14	25°53.2	12.5'	20°34.0	-10.7'	55.1'	New Moon
15	40°24.6	12.5'	20°23.3	-10.8'	55.1'	New Moon
16	54°56.2	12.6'	20°12.5	-10.9'	55.1'	New Moon
17	69°27.8	12.7'	20°01.6	-11.0'	55.1'	New Moon
18	83°59.5	12.8'	N19°50.6	-11.0'	55.1'	New Moon
19	98°31.3	12.9'	19°39.6	-11.1'	55.1'	New Moon
20	113°03.2	13.0'	19°28.4	-11.2'	55.0'	New Moon
21	127°35.2	13.1'	19°17.2	-11.3'	55.0'	New Moon
22	142°07.3	13.2'	19°06.0	-11.4'	55.0'	New Moon
23	156°39.5	13.3'	18°54.6	-11.4'	55.0'	New Moon
4 th	SD = 15.1'		Mer. pass. 12:13			

h Moon (5 th Aug)						Lunar Distance (objects with largest hourly LD delta)								
Mon	GHA	ν	Dec	d	HP	-Antares	-Rigel Kent.	-Hadar	-Acruz	-Arcturus	-Spica	-Regulus	-Venus	
0	171°11.8	13.4'	N18°43.2	-11.5'	55.0'	New Moon								
1	185°44.1	13.4'	18°31.7	-11.6'	54.9'	New Moon								
2	200°16.6	13.5'	18°20.1	-11.7'	54.9'	New Moon								
3	214°49.1	13.6'	18°08.4	-11.7'	54.9'	New Moon								
4	229°21.7	13.7'	17°56.7	-11.8'	54.9'	New Moon								
5	243°54.4	13.8'	17°44.9	-11.9'	54.9'	New Moon								
6	258°27.2	13.9'	N17°33.1	-11.9'	54.9'	New Moon								
7	273°00.0	13.9'	17°21.1	-12.0'	54.9'	107°34.6	97°38.1	93°31.2	86°34.5	64°04.4	61°40.3	8°03.7	7°47.1	
8	287°33.0	14.0'	17°09.1	-12.1'	54.8'	107°03.9	97°14.3	93°07.8	86°14.8	63°39.7	61°09.6	7°34.8	7°20.1	
9	302°06.0	14.1'	16°57.1	-12.1'	54.8'	106°33.3	96°50.5	92°44.5	85°55.1	63°15.0	60°39.0	7°06.3	6°53.2	
10	316°39.1	14.2'	16°45.0	-12.2'	54.8'	106°02.7	96°26.6	92°21.2	85°35.5	62°50.4	60°08.4	6°38.1	6°26.5	
11	331°12.3	14.3'	16°32.8	-12.2'	54.8'	105°32.1	96°02.8	91°57.9	85°15.8	62°25.9	59°37.8	6°10.3	5°59.8	
12	345°45.5	14.3'	N16°20.6	-12.3'	54.8'	105°01.6	95°39.0	91°34.7	84°56.2	62°01.5	59°07.3	5°42.9	5°33.4	
13	0°18.9	14.4'	16°08.3	-12.4'	54.8'	104°31.0	95°15.1	91°11.4	84°36.6	61°37.1	58°36.7	5°16.2	5°07.1	
14	14°52.3	14.5'	15°55.9	-12.4'	54.7'	104°00.5	94°51.3	90°48.1	84°17.1	61°12.8	58°06.2	4°50.2	4°41.1	
15	29°25.8	14.6'	15°43.5	-12.5'	54.7'	103°30.0	94°27.5	90°24.9	83°57.5	60°48.5	57°35.7		4°15.4	
16	43°59.4	14.6'	15°31.0	-12.5'	54.7'	102°59.5	94°03.7	90°01.7	83°38.0	60°24.3	57°05.2		3°50.1	
17	58°33.0	14.7'	15°18.5	-12.6'	54.7'	102°29.0	93°39.9	89°38.4	83°18.5	60°00.2	56°34.7		3°25.4	
18	73°06.7	14.8'	N15°05.9	-12.6'	54.7'	101°58.6	93°16.1	89°15.2	82°59.1	59°36.2	56°04.3		3°01.5	
19	87°40.5	14.9'	14°53.3	-12.7'	54.7'	101°28.1	92°52.3	88°52.0	82°39.6	59°12.2	55°33.8			
20	102°14.4	14.9'	14°40.6	-12.7'	54.7'	100°57.7	92°28.5	88°28.9	82°20.3	58°48.3	55°03.4			
21	116°48.3	15.0'	14°27.8	-12.8'	54.6'	100°27.3	92°04.7	88°05.7	82°00.9	58°24.5	54°33.0			
22	131°22.4	15.1'	14°15.1	-12.8'	54.6'	99°56.9	91°40.9	87°42.5	81°41.6	58°00.8	54°02.6			
23	145°56.4	15.2'	14°02.2	-12.9'	54.6'	99°26.6	91°17.2	87°19.4	81°22.3	57°37.2	53°32.3			
5 th	SD = 15.0'		Mer. pass. 12:59											

h Moon (6 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Tue	GHA	ν	Dec	d	HP	-Antares	-Rigel Kent.	-Hadar	-Acruz	-Arcturus	-Spica	+Venus	+Regulus
0	160°30.6	15.2'	N13°49.3	-12.9'	54.6'	98°56.2	90°53.4	86°56.3	81°03.0	57°13.6	53°01.9		
1	175°04.8	15.3'	13°36.4	-13.0'	54.6'	98°25.9	90°29.7	86°33.2	80°43.8	56°50.1	52°31.6		
2	189°39.1	15.4'	13°23.4	-13.0'	54.6'	97°55.5	90°06.0	86°10.1	80°24.6	56°26.7	52°01.3		
3	204°13.4	15.4'	13°10.4	-13.1'	54.6'	97°25.2	89°42.2	85°47.1	80°05.5	56°03.4	51°31.0		
4	218°47.9	15.5'	12°57.3	-13.1'	54.5'	96°55.0	89°18.5	85°24.1	79°46.4	55°40.1	51°00.7		
5	233°22.3	15.5'	12°44.2	-13.2'	54.5'	96°24.7	88°54.9	85°01.1	79°27.3	55°17.0	50°30.4		
6	247°56.9	15.6'	N12°31.1	-13.2'	54.5'	95°54.4	88°31.2	84°38.1	79°08.3	54°53.9	50°00.2		
7	262°31.5	15.7'	12°17.9	-13.2'	54.5'	95°24.2	88°07.5	84°15.1	78°49.3	54°31.0	49°29.9	3°40.3	5°16.3
8	277°06.2	15.7'	12°04.6	-13.3'	54.5'	94°54.0	87°43.9	83°52.2	78°30.3	54°08.1	48°59.7	4°05.2	5°42.7
9	291°40.9	15.8'	11°51.3	-13.3'	54.5'	94°23.8	87°20.3	83°29.2	78°11.4	53°45.3	48°29.5	4°30.4	6°09.7
10	306°15.7	15.8'	11°38.0	-13.4'	54.5'	93°53.6	86°56.7	83°06.3	77°52.6	53°22.6	47°59.3	4°56.0	6°37.2
11	320°50.5	15.9'	11°24.7	-13.4'	54.5'	93°23.4	86°33.1	82°43.5	77°33.8	53°00.1	47°29.2	5°21.8	7°05.0
12	335°25.4	16.0'	N11°11.3	-13.4'	54.4'	92°53.3	86°09.5	82°20.6	77°15.0	52°37.6	46°59.0	5°47.8	7°33.1
13	350°00.4	16.0'	10°57.9	-13.5'	54.4'	92°23.1	85°46.0	81°57.8	76°56.3	52°15.2	46°28.9	6°14.0	8°01.4
14	4°35.4	16.1'	10°44.4	-13.5'	54.4'	91°53.0	85°22.4	81°35.0	76°37.6	51°52.9	45°58.7	6°40.2	8°29.9
15	19°10.5	16.1'	10°30.9	-13.5'	54.4'	91°22.9	84°58.9	81°12.3	76°18.9	51°30.7	45°28.6	7°06.6	8°58.6
16	33°45.6	16.2'	10°17.4	-13.6'	54.4'	90°52.8	84°35.4	80°49.5	76°00.4	51°08.7	44°58.5	7°33.0	9°27.4
17	48°20.8	16.2'	10°03.8	-13.6'	54.4'	90°22.7	84°12.0	80°26.8	75°41.8	50°46.7	44°28.5	7°59.4	9°56.4
18	62°56.0	16.3'	N09°50.3	-13.6'	54.4'	89°52.6	83°48.5	80°04.2	75°23.4	50°24.9	43°58.4	8°25.9	10°25.4
19	77°31.3	16.3'	09°36.6	-13.6'	54.4'	89°22.6	83°25.1	79°41.5	75°04.9	50°03.2	43°28.3	8°52.5	10°54.5
20	92°06.6	16.4'	09°23.0	-13.7'	54.3'	88°52.5	83°01.7	79°18.9	74°46.5	49°41.5	42°58.3	9°19.1	11°23.6
21	106°42.0	16.4'	09°09.3	-13.7'	54.3'	88°22.5	82°38.3	78°56.3	74°28.2	49°20.1	42°28.3	9°45.6	11°52.9
22	121°17.4	16.5'	08°55.6	-13.7'	54.3'	87°52.5	82°14.9	78°33.8	74°09.9	48°58.7	41°58.3	10°12.3	12°22.1
23	135°52.9	16.5'	08°41.9	-13.8'	54.3'	87°22.5	81°51.6	78°11.3	73°51.7	48°37.4	41°28.3	10°38.9	12°51.5
6 th	SD = 14.9'		Mer. pass. 13:41										

Moon (7 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
h	GHA	ν	Dec	d	HP	-Antares	-Rigel Kent.	-Hadar	-Acrux	-Arcturus	-Spica	+Venus	+Regulus
0	150°28.4	16.6'	N08°28.1	-13.8'	54.3'	86°52.5	81°28.3	77°48.8	73°33.6	48°16.3	40°58.3	11°05.5	13°20.8
1	165°04.0	16.6'	08°14.4	-13.8'	54.3'	86°22.5	81°05.0	77°26.3	73°15.5	47°55.3	40°28.3	11°32.2	13°50.2
2	179°39.6	16.6'	08°00.6	-13.8'	54.3'	85°52.6	80°41.8	77°03.9	72°57.4	47°34.4	39°58.4	11°58.8	14°19.6
3	194°15.3	16.7'	07°46.7	-13.8'	54.3'	85°22.6	80°18.5	76°41.6	72°39.4	47°13.7	39°28.4	12°25.5	14°49.0
4	208°50.9	16.7'	07°32.9	-13.9'	54.3'	84°52.7	79°55.3	76°19.2	72°21.5	46°53.1	38°58.5	12°52.1	15°18.5
5	223°26.7	16.8'	07°19.0	-13.9'	54.3'	84°22.8	79°32.2	75°56.9	72°03.6	46°32.6	38°28.6	13°18.8	15°47.9
6	238°02.4	16.8'	N07°05.1	-13.9'	54.2'	83°52.9	79°09.0	75°34.7	71°45.8	46°12.3	37°58.7	13°45.4	16°17.4
7	252°38.3	16.8'	06°51.2	-13.9'	54.2'	83°23.0	78°45.9	75°12.5	71°28.1	45°52.2	37°28.8	14°12.1	16°46.9
8	267°14.1	16.9'	06°37.3	-13.9'	54.2'	82°53.1	78°22.8	74°50.3	71°10.4	45°32.1	36°58.9	14°38.8	17°16.4
9	281°50.0	16.9'	06°23.4	-14.0'	54.2'	82°23.2	77°59.8	74°28.1	70°52.8	45°12.2	36°29.1	15°05.4	17°45.9
10	296°25.9	16.9'	06°09.4	-14.0'	54.2'	81°53.4	77°36.8	74°06.0	70°35.2	44°52.5	35°59.2	15°32.1	18°15.5
11	311°01.8	17.0'	05°55.4	-14.0'	54.2'	81°23.5	77°13.8	73°44.0	70°17.8	44°32.9	35°29.4	15°58.7	18°45.0
12	325°37.8	17.0'	N05°41.4	-14.0'	54.2'	80°53.7	76°50.8	73°22.0	70°00.3	44°13.5	34°59.6	16°25.4	19°14.5
13	340°13.8	17.0'	05°27.4	-14.0'	54.2'	80°23.9	76°27.9	73°00.0	69°43.0	43°54.3	34°29.7	16°52.0	19°44.0
14	354°49.9	17.1'	05°13.4	-14.0'	54.2'	79°54.1	76°05.0	72°38.1	69°25.7	43°35.2	33°59.9	17°18.6	20°13.6
15	9°26.0	17.1'	04°59.3	-14.1'	54.2'	79°24.3	75°42.1	72°16.2	69°08.5	43°16.3	33°30.1	17°45.3	20°43.1
16	24°02.1	17.1'	04°45.3	-14.1'	54.2'	78°54.5	75°19.3	71°54.3	68°51.4	42°57.5	33°00.4	18°11.9	21°12.7
17	38°38.2	17.2'	04°31.2	-14.1'	54.2'	78°24.7	74°56.5	71°32.5	68°34.3	42°39.0	32°30.6	18°38.5	21°42.2
18	53°14.3	17.2'	N04°17.2	-14.1'	54.1'	77°54.9	74°33.8	71°10.8	68°17.3	42°20.6	32°00.8	19°05.1	22°11.7
19	67°50.5	17.2'	04°03.1	-14.1'	54.1'	77°25.2	74°11.1	70°49.1	68°00.4	42°02.4	31°31.1	19°31.7	22°41.3
20	82°26.7	17.2'	03°49.0	-14.1'	54.1'	76°55.4	73°48.4	70°27.5	67°43.6	41°44.3	31°01.3	19°58.3	23°10.8
21	97°03.0	17.3'	03°34.9	-14.1'	54.1'	76°25.7	73°25.8	70°05.9	67°26.8	41°26.5	30°31.6	20°24.9	23°40.3
22	111°39.2	17.3'	03°20.8	-14.1'	54.1'	75°56.0	73°03.2	69°44.3	67°10.1	41°08.9	30°01.9	20°51.5	24°09.9
23	126°15.5	17.3'	03°06.6	-14.1'	54.1'	75°26.2	72°40.6	69°22.8	66°53.5	40°51.4	29°32.2	21°18.1	24°39.4
7 th	SD = 14.8' Mer. pass. 14:21												

Moon (8 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Thu	GHA	ν	Dec	d	HP	-Altair	-Antares	-Rigel Kent.	-Hadar	-Spica	+Venus	+Regulus	+Sun
0	140°51.8	17.3'	N02°52.5	-14.1'	54.1'		74°56.5	72°18.1	69°01.4	29°02.5	21°44.6	25°08.9	
1	155°28.1	17.3'	02°38.4	-14.1'	54.1'		74°26.8	71°55.6	68°40.0	28°32.8	22°11.2	25°38.5	
2	170°04.4	17.3'	02°24.3	-14.1'	54.1'		73°57.1	71°33.2	68°18.7	28°03.1	22°37.8	26°08.0	
3	184°40.7	17.4'	02°10.1	-14.1'	54.1'	119°44.4	73°27.5	71°10.8	67°57.4	27°33.4	23°04.3	26°37.5	
4	199°17.1	17.4'	01°56.0	-14.1'	54.1'	119°21.6	72°57.8	70°48.5	67°36.2	27°03.7	23°30.9	27°07.0	41°10.6
5	213°53.5	17.4'	01°41.8	-14.2'	54.1'	118°58.8	72°28.1	70°26.2	67°15.0	26°34.1	23°57.4	27°36.6	41°37.7
6	228°29.9	17.4'	N01°27.7	-14.2'	54.1'	118°36.0	71°58.4	70°03.9	66°53.9	26°04.4	24°24.0	28°06.1	42°04.8
7	243°06.3	17.4'	01°13.5	-14.2'	54.1'	118°13.1	71°28.8	69°41.7	66°32.8	25°34.8	24°50.5	28°35.6	42°31.9
8	257°42.7	17.4'	00°59.4	-14.2'	54.1'	117°50.1	70°59.1	69°19.6	66°11.9	25°05.1	25°17.0	29°05.1	42°59.0
9	272°19.1	17.4'	00°45.2	-14.2'	54.1'	117°27.1	70°29.5	68°57.4	65°50.9	24°35.5	25°43.6	29°34.6	43°26.1
10	286°55.5	17.4'	00°31.0	-14.2'	54.1'	117°04.0	69°59.9	68°35.4	65°30.1	24°05.9	26°10.1	30°04.1	43°53.2
11	301°32.0	17.4'	00°16.9	-14.2'	54.1'	116°40.9	69°30.3	68°13.4	65°09.3	23°36.3	26°36.6	30°33.6	44°20.3
12	316°08.4	17.4'	N00°02.7	-14.1'	54.1'	116°17.8	69°00.6	67°51.4	64°48.5	23°06.6	27°03.1	31°03.1	44°47.4
13	330°44.9	17.5'	S00°11.4	-14.1'	54.0'	115°54.6	68°31.0	67°29.5	64°27.9	22°37.0	27°29.6	31°32.6	45°14.4
14	345°21.3	17.5'	00°25.5	-14.1'	54.0'	115°31.4	68°01.4	67°07.6	64°07.3	22°07.4	27°56.1	32°02.1	45°41.5
15	359°57.8	17.5'	00°39.7	-14.1'	54.0'	115°08.1	67°31.8	66°45.8	63°46.7	21°37.9	28°22.6	32°31.6	46°08.6
16	14°34.2	17.5'	00°53.8	-14.1'	54.0'	114°44.8	67°02.2	66°24.1	63°26.3	21°08.3	28°49.1	33°01.1	46°35.6
17	29°10.7	17.5'	01°08.0	-14.1'	54.0'	114°21.4	66°32.6	66°02.4	63°05.9	20°38.7	29°15.6	33°30.5	47°02.7
18	43°47.1	17.5'	S01°22.1	-14.1'	54.0'	113°58.0	66°03.0	65°40.7	62°45.5	20°09.1	29°42.1	34°00.0	47°29.7
19	58°23.6	17.5'	01°36.2	-14.1'	54.0'	113°34.6	65°33.4	65°19.1	62°25.3	19°39.5	30°08.6	34°29.5	47°56.8
20	73°00.1	17.5'	01°50.3	-14.1'	54.0'	113°11.1	65°03.9	64°57.6	62°05.1	19°10.0	30°35.1	34°59.0	48°23.8
21	87°36.5	17.4'	02°04.4	-14.1'	54.0'	112°47.6	64°34.3	64°36.1	61°45.0	18°40.4	31°01.5	35°28.5	48°50.9
22	102°13.0	17.4'	02°18.5	-14.1'	54.0'	112°24.1	64°04.7	64°14.7	61°25.0	18°10.9	31°28.0	35°57.9	49°17.9
23	116°49.4	17.4'	02°32.6	-14.1'	54.0'	112°00.5	63°35.2	63°53.4	61°05.0	17°41.3	31°54.5	36°27.4	49°45.0
8 th	SD = 14.8' Mer. pass. 15:00					Sun SD = 15.8'							

Moon (9 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Fri	GHA	ν	Dec	d	HP	-Altair	-Rigel Kent.	-Antares	-Hadar	-Spica	+Venus	+Regulus	+Sun
0	131°25.8	17.4'	S02°46.7	-14.1'	54.0'	111°36.9	63°32.1	63°05.6	60°45.1	17°11.8	32°20.9	36°56.9	50°12.0
1	146°02.3	17.4'	03°00.7	-14.1'	54.0'	111°13.3	63°10.9	62°36.0	60°25.3	16°42.2	32°47.4	37°26.4	50°39.1
2	160°38.7	17.4'	03°14.8	-14.0'	54.0'	110°49.6	62°49.7	62°06.5	60°05.6	16°12.7	33°13.9	37°55.8	51°06.1
3	175°15.1	17.4'	03°28.8	-14.0'	54.0'	110°25.9	62°28.6	61°36.9	59°46.0	15°43.1	33°40.3	38°25.3	51°33.2
4	189°51.5	17.4'	03°42.9	-14.0'	54.0'	110°02.1	62°07.6	61°07.4	59°26.4	15°13.6	34°06.8	38°54.8	52°00.2
5	204°27.9	17.4'	03°56.9	-14.0'	54.0'	109°38.3	61°46.6	60°37.8	59°07.0	14°44.1	34°33.3	39°24.3	52°27.2
6	219°04.3	17.4'	S04°10.9	-14.0'	54.0'	109°14.5	61°25.7	60°08.3	58°47.6	14°14.6	34°59.7	39°53.7	52°54.3
7	233°40.6	17.3'	04°24.9	-14.0'	54.0'	108°50.7	61°04.9	59°38.7	58°28.3	13°45.0	35°26.2	40°23.2	53°21.3
8	248°17.0	17.3'	04°38.8	-14.0'	54.0'	108°26.8	60°44.2	59°09.2	58°09.1	13°15.5	35°52.6	40°52.7	53°48.4
9	262°53.3	17.3'	04°52.8	-13.9'	54.0'	108°02.9	60°23.5	58°39.6	57°50.0	12°46.0	36°19.1	41°22.2	54°15.4
10	277°29.6	17.3'	05°06.7	-13.9'	54.0'	107°39.0	60°02.9	58°10.1	57°31.0	12°16.5	36°45.6	41°51.6	54°42.5
11	292°05.9	17.3'	05°20.6	-13.9'	54.0'	107°15.1	59°42.3	57°40.5	57°12.1	11°47.0	37°12.0	42°21.1	55°09.5
12	306°42.2	17.3'	S05°34.5	-13.9'	54.0'	106°51.1	59°21.9	57°11.0	56°53.3	11°17.5	37°38.5	42°50.6	55°36.5
13	321°18.4	17.2'	05°48.4	-13.9'	54.0'	106°27.1	59°01.5	56°41.4	56°34.6	10°48.0	38°05.0	43°20.1	56°03.6
14	335°54.7	17.2'	06°02.3	-13.8'	54.0'	106°03.0	58°41.2	56°11.9	56°16.0	10°18.5	38°31.4	43°49.5	56°30.6
15	350°30.9	17.2'	06°16.1	-13.8'	54.1'	105°39.0	58°21.0	55°42.3	55°57.4	9°49.0	38°57.9	44°19.0	56°57.7
16	5°07.0	17.2'	06°30.0	-13.8'	54.1'	105°14.9	58°00.9	55°12.8	55°39.0	9°19.5	39°24.4	44°48.5	57°24.7
17	19°43.2	17.1'	06°43.8	-13.8'	54.1'	104°50.8	57°40.8	54°43.2	55°20.7	8°50.0	39°50.8	45°18.0	57°51.8
18	34°19.3	17.1'	S06°57.5	-13.8'	54.1'	104°26.7	57°20.9	54°13.7	55°02.5	8°20.5	40°17.3	45°47.5	58°18.9
19	48°55.4	17.1'	07°11.3	-13.7'	54.1'	104°02.5	57°01.0	53°44.1	54°44.4	7°51.0	40°43.8	46°17.0	58°45.9
20	63°31.5	17.0'	07°25.0	-13.7'	54.1'	103°38.4	56°41.2	53°14.5	54°26.5	7°21.5	41°10.3	46°46.5	59°13.0
21	78°07.5	17.0'	07°38.7	-13.7'	54.1'	103°14.2	56°21.5	52°45.0	54°08.6	6°52.1	41°36.7	47°16.0	59°40.1
22	92°43.6	17.0'	07°52.4	-13.7'	54.1'	102°49.9	56°01.9	52°15.4	53°50.8	6°22.6	42°03.2	47°45.5	60°07.1
23	107°19.5	16.9'	08°06.1	-13.6'	54.1'	102°25.7	55°42.4	51°45.8	53°33.2	5°53.2	42°29.7	48°15.0	60°34.2
9 th	SD = 14.7' Mer. pass. 15:39												

DUT1 = UT1-UTC = +0.0376 sec ΔT = TT-UT1 = +69.1464 sec

2024 August 10 to Aug. 12 UT

Moon (10 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Sat	GHA	ν	Dec	d	HP	-Altair	-Rigil Kent.	-Hadar	-Antares	\pm Spica	+Venus	+Regulus	+Sun
0	121°55.5	16.9'	S08°19.7	-13.6'	54.1'	102°01.4	55°23.0	53°15.7	51°16.3	5°23.8	42°56.2	48°44.5	61°01.3
1	136°31.4	16.9'	08°33.3	-13.6'	54.1'	101°37.1	55°03.7	52°58.3	50°46.7	4°54.4	43°22.7	49°14.1	61°28.4
2	151°07.3	16.8'	08°46.9	-13.5'	54.1'	101°12.8	54°44.5	52°41.0	50°17.1	4°25.0	43°49.2	49°43.6	61°55.5
3	165°43.1	16.8'	09°00.4	-13.5'	54.1'	100°48.5	54°25.3	52°23.9	49°47.5	3°55.7	44°15.7	50°13.1	62°22.6
4	180°18.9	16.8'	09°13.9	-13.5'	54.1'	100°24.2	54°06.3	52°06.9	49°17.9	3°26.5	44°42.2	50°42.7	62°49.7
5	194°54.7	16.7'	09°27.4	-13.5'	54.1'	99°59.8	53°47.4	51°50.0	48°48.3	2°57.4	45°08.7	51°12.2	63°16.8
6	209°30.4	16.7'	S09°40.9	-13.4'	54.1'	99°35.4	53°28.6	51°33.2	48°18.7	2°28.5	45°35.3	51°41.8	63°43.9
7	224°06.1	16.6'	09°54.3	-13.4'	54.1'	99°11.0	53°09.9	51°16.6	47°49.1	2°00.0	46°01.8	52°11.3	64°11.1
8	238°41.7	16.6'	10°07.7	-13.4'	54.1'	98°46.6	52°51.4	51°00.1	47°19.5	1°32.0	46°28.3	52°40.9	64°38.2
9	253°17.3	16.6'	10°21.0	-13.3'	54.2'	98°22.1	52°32.9	50°43.8	46°49.9		46°54.9	53°10.4	65°05.3
10	267°52.9	16.5'	10°34.4	-13.3'	54.2'	97°57.7	52°14.5	50°27.6	46°20.2		47°21.4	53°40.0	65°32.5
11	282°28.4	16.5'	10°47.7	-13.3'	54.2'	97°33.2	51°56.3	50°11.5	45°50.6		47°48.0	54°09.6	65°59.6
12	297°03.8	16.4'	S11°00.9	-13.2'	54.2'	97°08.7	51°38.2	49°55.6	45°21.0		48°14.6	54°39.2	66°26.8
13	311°39.2	16.4'	11°14.1	-13.2'	54.2'	96°44.2	51°20.2	49°39.8	44°51.3		48°41.2	55°08.8	66°54.0
14	326°14.6	16.3'	11°27.3	-13.1'	54.2'	96°19.7	51°02.3	49°24.2	44°21.6		49°07.7	55°38.4	67°21.2
15	340°49.9	16.3'	11°40.5	-13.1'	54.2'	95°55.1	50°44.6	49°08.8	43°52.0		49°34.3	56°08.1	67°48.4
16	355°25.2	16.2'	11°53.6	-13.1'	54.2'	95°30.6	50°27.0	48°53.5	43°22.3	2°36.1	50°00.9	56°37.7	68°15.6
17	10°00.4	16.2'	12°06.6	-13.0'	54.2'	95°06.0	50°09.5	48°38.3	42°52.6	3°05.2	50°27.6	57°07.3	68°42.8
18	24°35.5	16.1'	S12°19.7	-13.0'	54.2'	94°41.4	49°52.2		42°22.9	3°34.4	50°54.2	57°37.0	69°10.0
19	39°10.6	16.0'	12°32.6	-12.9'	54.3'	94°16.8	49°35.0		41°53.2	4°03.7	51°20.8	58°06.6	69°37.2
20	53°45.7	16.0'	12°45.6	-12.9'	54.3'	93°52.2	49°17.9		41°23.5	4°33.2	51°47.5	58°36.3	70°04.5
21	68°20.7	15.9'	12°58.5	-12.9'	54.3'	93°27.6	49°01.0		40°53.7	5°02.7	52°14.1	59°06.0	70°31.7
22	82°55.6	15.9'	13°11.3	-12.8'	54.3'	93°02.9	48°44.2		40°24.0	5°32.3	52°40.8	59°35.7	70°59.0
23	97°30.5	15.8'	13°24.2	-12.8'	54.3'	92°38.3	48°27.6		39°54.2	6°01.9	53°07.5	60°05.4	71°26.3
10 th	SD = 14.8' Mer. pass. 16:19					Sun SD = 15.8'							

Moon (11 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Sun	GHA	ν	Dec	d	HP	-Fomalhaut	-Altair	-Rigil Kent.	-Antares	+Spica	+Venus	+Regulus	+Sun
0	112°05.3	15.8'	S13°36.9	-12.7'	54.3'		92°13.6	48°11.1	39°24.5	6°31.5	53°34.2	60°35.1	71°53.6
1	126°40.0	15.7'	13°49.6	-12.7'	54.3'	119°39.2	91°48.9	47°54.8	38°54.7	7°01.2	54°00.9	61°04.9	72°20.9
2	141°14.7	15.6'	14°02.3	-12.6'	54.3'	119°11.4	91°24.2	47°38.6	38°24.9	7°30.8	54°27.6	61°34.6	72°48.2
3	155°49.3	15.6'	14°15.0	-12.6'	54.4'	118°43.6	90°59.5	47°22.6	37°55.1	8°00.6	54°54.3	62°04.4	73°15.5
4	170°23.9	15.5'	14°27.5	-12.5'	54.4'	118°15.8	90°34.8	47°06.8	37°25.3	8°30.3	55°21.1	62°34.2	73°42.9
5	184°58.4	15.4'	14°40.1	-12.5'	54.4'	117°47.9	90°10.0	46°51.1	36°55.5	9°00.1	55°47.8	63°03.9	74°10.2
6	199°32.8	15.4'	S14°52.5	-12.4'	54.4'	117°19.9	89°45.3	46°35.6	36°25.6	9°29.8	56°14.6	63°33.7	74°37.6
7	214°07.2	15.3'	15°05.0	-12.4'	54.4'	116°52.0	89°20.5	46°20.2	35°55.8	9°59.7	56°41.4	64°03.6	75°05.0
8	228°41.5	15.2'	15°17.4	-12.3'	54.4'	116°24.0	88°55.8	46°05.1	35°25.9	10°29.5	57°08.2	64°33.4	75°32.4
9	243°15.7	15.2'	15°29.7	-12.3'	54.4'	115°56.0	88°31.0		34°56.0	10°59.3	57°35.0	65°03.2	75°59.8
10	257°49.9	15.1'	15°42.0	-12.2'	54.5'	115°27.9	88°06.2		34°26.1	11°29.2	58°01.8	65°33.1	76°27.2
11	272°24.0	15.0'	15°54.2	-12.2'	54.5'	114°59.9	87°41.4		33°56.2	11°59.1	58°28.7	66°03.0	76°54.7
12	286°58.0	14.9'	S16°06.3	-12.1'	54.5'	114°31.8	87°16.6		33°26.3	12°29.0	58°55.5	66°32.9	77°22.2
13	301°31.9	14.9'	16°18.4	-12.1'	54.5'	114°03.6	86°51.8		32°56.3	12°58.9	59°22.4	67°02.8	77°49.6
14	316°05.8	14.8'	16°30.5	-12.0'	54.5'	113°35.5	86°26.9		32°26.3	13°28.8	59°49.3	67°32.7	78°17.1
15	330°39.5	14.7'	16°42.5	-11.9'	54.5'	113°07.3	86°02.1		31°56.3	13°58.8	60°16.2	68°02.7	78°44.7
16	345°13.3	14.6'	16°54.4	-11.9'	54.5'	112°39.1	85°37.2		31°26.3	14°28.7	60°43.1	68°32.6	79°12.2
17	359°46.9	14.6'	17°06.3	-11.8'	54.6'	112°10.8	85°12.4		30°56.3	14°58.7	61°10.1	69°02.6	79°39.7
18	14°20.4	14.5'	S17°18.1	-11.8'	54.6'	111°42.6	84°47.5		30°26.3	15°28.8	61°37.1	69°32.6	80°07.3
19	28°53.9	14.4'	17°29.9	-11.7'	54.6'	111°14.2	84°22.6		29°56.2	15°58.8	62°04.2	70°02.6	80°34.9
20	43°27.3	14.3'	17°41.5	-11.6'	54.6'	110°45.9	83°57.8		29°26.2	16°28.8	62°31.1	70°32.7	81°02.5
21	58°00.6	14.2'	17°53.2	-11.6'	54.6'	110°17.5	83°32.9		28°56.1	16°58.9	62°58.1	71°02.7	81°30.1
22	72°33.8	14.1'	18°04.7	-11.5'	54.7'	109°49.1	83°08.0		28°26.0	17°29.0	63°25.1	71°32.8	81°57.8
23	87°07.0	14.1'	18°16.2	-11.4'	54.7'	109°20.7	82°43.1		27°55.8	17°59.1	63°52.2	72°02.9	82°25.5
11 th	SD = 14.8' Mer. pass. 17:01					Sun SD = 15.8'							

Moon (12 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Mon	GHA	ν	Dec	d	HP	-Saturn	-Fomalhaut	-Altair	-Antares	+Spica	+Venus	+Regulus	+Sun
0	101°40.1	14.0'	S18°27.6	-11.4'	54.7'		108°52.3	82°18.2	27°25.7	18°29.3	64°19.3	72°33.0	82°53.2
1	116°13.0	13.9'	18°39.0	-11.3'	54.7'		108°23.8	81°53.3	26°55.5	18°59.4	64°46.4	73°03.2	83°20.9
2	130°45.9	13.8'	18°50.3	-11.2'	54.7'		107°55.3	81°28.3	26°25.3	19°29.6	65°13.5	73°33.3	83°48.6
3	145°18.7	13.7'	19°01.5	-11.1'	54.8'		107°26.7	81°03.4	25°55.1	19°59.8	65°40.7	74°03.5	84°16.3
4	159°51.4	13.6'	19°12.7	-11.1'	54.8'		106°58.2	80°38.5	25°24.8	20°30.0	66°07.8	74°33.7	84°44.1
5	174°24.1	13.5'	19°23.7	-11.0'	54.8'		106°29.6	80°13.6	24°54.6	21°00.3	66°35.0	75°03.9	85°11.9
6	188°56.6	13.4'	S19°34.7	-10.9'	54.8'		106°00.9	79°48.6	24°24.3	21°30.6	67°02.2	75°34.2	85°39.7
7	203°29.0	13.4'	19°45.7	-10.9'	54.8'		105°32.3	79°23.7	23°54.0	22°00.9	67°29.5	76°04.5	86°07.6
8	218°01.4	13.3'	19°56.5	-10.8'	54.9'		105°03.6	78°58.7	23°23.6	22°31.2	67°56.8	76°34.7	86°35.5
9	232°33.6	13.2'	20°07.3	-10.7'	54.9'		104°34.9	78°33.8	22°53.3	23°01.5	68°24.0	77°05.1	87°03.3
10	247°05.8	13.1'	20°18.0	-10.6'	54.9'		104°06.1	78°08.9	22°22.9	23°31.9	68°51.3		87°31.3
11	261°37.9	13.0'	20°28.6	-10.5'	54.9'	119°30.9	103°37.3	77°43.9	21°52.5	24°02.3	69°18.7		87°59.2
12	276°09.9	12.9'	S20°39.2	-10.5'	54.9'	119°00.3	103°08.5	77°19.0	21°22.1	24°32.7	69°46.0		88°27.2
13	290°41.8	12.8'	20°49.6	-10.4'	55.0'	118°29.7	102°39.7	76°54.0	20°51.6	25°03.1	70°13.4		88°55.2
14	305°13.5	12.7'	21°00.0	-10.3'	55.0'	117°59.0	102°10.8	76°29.1	20°21.2	25°33.6	70°40.8		89°23.2
15	319°45.2	12.6'	21°10.3	-10.2'	55.0'	117°28.4	101°41.9	76°04.1	19°50.7	26°04.1	71°08.3		89°51.2
16	334°16.8	12.5'	21°20.5	-10.1'	55.0'	116°57.7	101°13.0	75°39.2	19°20.1	26°34.6	71°35.7		90°19.3
17	348°48.3	12.4'	21°30.6	-10.0'	55.1'	116°27.0	100°44.0	75°14.2	18°49.6	27°05.2	72°03.2		90°47.4
18	3°19.7	12.3'	S21°40.7	-10.0'	55.1'	115°56.2	100°15.0	74°49.3	18°19.0	27°35.8	72°30.7		91°15.5
19	17°51.0	12.2'	21°50.6	-9.9'	55.1'	115°25.5	99°46.0	74°24.3	17°48.4	28°06.4	72°58.3		91°43.6
20	32°22.2	12.1'	22°00.5	-9.8'	55.1'	114°54.7	99°16.9	73°59.4	17°17.7	28°37.0	73°25.9		92°11.8
21	46°53.3	12.0'	22°10.3	-9.7'	55.2'	114°23.9	98°47.8	73°34.5	16°47.1	29°07.6	73°53.5		92°40.0
22	61°24.3	11.9'	22°19.9	-9.6'	55.2'	113°53.0	98°18.7	73°09.5	16°16.4	29°38.3	74°21.1		93°08.2
23	75°55.2	11.8'	22°29.5	-9.5'	55.2'	113°22.1	97°49.6	72°44.6	15°45.7	30°09.0	74°48.7		93°36.5
12 th	SD = 14.9' Mer. pass. 17:46					Sun SD = 15.8'							

h		Moon (13 th Aug)				Lunar Distance (objects with largest hourly LD delta)							
Tue	GHA	ν	Dec	d	HP	-Saturn	-Fomalhaut	-Altair	-Antares	+Spica	+Arcturus	+Venus	+Sun
0	90°26.0	11.7'	S22°39.0	-9.4'	55.2'	112°51.2	97°20.4	72°19.7	15°14.9	30°39.8	45°00.0	75°16.4	94°04.8
1	104°56.7	11.6'	22°48.4	-9.3'	55.3'	112°20.3	96°51.2	71°54.8	14°44.1	31°10.6	45°20.4	75°44.1	94°33.1
2	119°27.2	11.5'	22°57.7	-9.2'	55.3'	111°49.3	96°21.9	71°29.9	14°13.3	31°41.4	45°40.9	76°11.9	95°01.5
3	133°57.7	11.4'	23°06.9	-9.1'	55.3'	111°18.3	95°52.7	71°05.0	13°42.5	32°12.2	46°01.7	76°39.7	95°29.8
4	148°28.1	11.3'	23°16.0	-9.0'	55.3'	110°47.3	95°23.4	70°40.1	13°11.6	32°43.1	46°22.6	77°07.5	95°58.3
5	162°58.4	11.2'	23°25.0	-8.9'	55.4'	110°16.2	94°54.0	70°15.2	12°40.7	33°14.0	46°43.6	77°35.3	96°26.7
6	177°28.5	11.1'	S23°33.9	-8.8'	55.4'	109°45.1	94°24.7	69°50.3	12°09.8	33°44.9	47°04.8	78°03.2	96°55.2
7	191°58.6	11.0'	23°42.7	-8.7'	55.4'	109°14.0	93°55.3	69°25.5	11°38.8	34°15.9	47°26.2	78°31.1	97°23.7
8	206°28.5	10.8'	23°51.4	-8.6'	55.5'	108°42.9	93°25.8	69°00.6	11°07.8	34°46.8	47°47.8	78°59.0	97°52.2
9	220°58.4	10.7'	24°00.0	-8.5'	55.5'	108°11.7	92°56.4	68°35.8	10°36.8	35°17.9	48°09.4	79°27.0	98°20.8
10	235°28.1	10.6'	24°08.5	-8.4'	55.5'	107°40.5	92°26.9	68°11.0	10°05.7	35°48.9	48°31.3	79°55.0	98°49.4
11	249°57.8	10.5'	24°16.9	-8.3'	55.5'	107°09.2	91°57.3	67°46.2	9°34.6	36°20.0	48°53.3	80°23.0	99°18.0
12	264°27.3	10.4'	S24°25.2	-8.2'	55.6'	106°37.9	91°27.8	67°21.4	9°03.5	36°51.1	49°15.4	80°51.0	99°46.7
13	278°56.7	10.3'	24°33.3	-8.0'	55.6'	106°06.6	90°58.2	66°56.6	8°32.3	37°22.3	49°37.7	81°19.1	100°15.4
14	293°26.0	10.2'	24°41.4	-7.9'	55.6'	105°35.3	90°28.6	66°31.8	8°01.2	37°53.5	50°00.1	81°47.3	100°44.1
15	307°55.2	10.1'	24°49.3	-7.8'	55.7'	105°03.9	89°58.9	66°07.1	7°29.9	38°24.7	50°22.6	82°15.4	101°12.8
16	322°24.3	10.0'	24°57.1	-7.7'	55.7'	104°32.5	89°29.2	65°42.4	6°58.7	38°56.0	50°45.3	82°43.6	101°41.6
17	336°53.3	9.9'	25°04.8	-7.6'	55.7'	104°01.0	88°59.5	65°17.7	6°27.4	39°27.2	51°08.2	83°11.9	102°10.5
18	351°22.2	9.8'	S25°12.4	-7.5'	55.7'	103°29.5	88°29.7	64°53.0	5°56.0	39°58.6	51°31.1	83°40.1	102°39.3
19	5°51.0	9.7'	25°19.9	-7.3'	55.8'	102°58.0	87°59.9	64°28.4	5°24.7	40°29.9	51°54.2	84°08.4	103°08.2
20	20°19.6	9.6'	25°27.2	-7.2'	55.8'	102°26.4	87°30.1	64°03.7	4°53.3	41°01.3	52°17.4	84°36.8	103°37.2
21	34°48.2	9.5'	25°34.5	-7.1'	55.8'	101°54.8	87°00.3	63°39.1	4°21.8	41°32.8	52°40.8	85°05.1	104°06.2
22	49°16.7	9.3'	25°41.6	-7.0'	55.9'	101°23.2	86°30.4	63°14.6	3°50.4	42°04.2	53°04.2	85°33.5	104°35.2
23	63°45.0	9.2'	25°48.6	-6.9'	55.9'	100°51.5	86°00.5	62°50.0	3°18.9	42°35.7	53°27.8	86°02.0	105°04.2
13 th	SD = 15.1' Mer. pass. 18:36					Sun SD = 15.8'							

h		Moon (14 th Aug)				Lunar Distance (objects with largest hourly LD delta)							
Wed	GHA	ν	Dec	d	HP	-Saturn	-Fomalhaut	-Altair	±Antares	+Spica	+Arcturus	+Venus	+Sun
0	78°13.3	9.1'	S25°55.4	-6.7'	55.9'	100°19.8	85°30.5	62°25.5	2°47.3	43°07.3	53°51.5	86°30.5	105°33.3
1	92°41.4	9.0'	26°02.1	-6.6'	56.0'	99°48.1	85°00.5	62°01.0	2°15.7	43°38.9	54°15.4	86°59.0	106°02.4
2	107°09.4	8.9'	26°08.7	-6.5'	56.0'	99°16.3	84°30.5	61°36.5	1°44.1	44°10.5	54°39.3	87°27.6	106°31.6
3	121°37.3	8.8'	26°15.2	-6.3'	56.0'	98°44.5	84°00.4	61°12.1	1°12.4	44°42.1	55°03.4	87°56.2	107°00.8
4	136°05.2	8.7'	26°21.6	-6.2'	56.1'	98°12.6	83°30.3	60°47.7	0°40.7	45°13.8	55°27.6	88°24.8	107°30.0
5	150°32.9	8.6'	26°27.8	-6.1'	56.1'	97°40.7	83°00.2	60°23.4	0°09.0	45°45.6	55°51.9	88°53.5	107°59.3
6	165°00.5	8.5'	S26°33.8	-5.9'	56.1'	97°08.8	82°30.1	59°59.1		46°17.3	56°16.3	89°22.2	108°28.6
7	179°28.0	8.4'	26°39.8	-5.8'	56.2'	96°36.8	81°59.9	59°34.8		46°49.2	56°40.8	89°50.9	108°57.9
8	193°55.4	8.3'	26°45.6	-5.7'	56.2'	96°04.8	81°29.7	59°10.6	1°26.4	47°21.0	57°05.4	90°19.7	109°27.3
9	208°22.7	8.2'	26°51.3	-5.5'	56.2'	95°32.7	80°59.4	58°46.4	1°58.3	47°52.9	57°30.2	90°48.5	109°56.8
10	222°49.9	8.1'	26°56.8	-5.4'	56.3'	95°00.6	80°29.1	58°22.3	2°30.3	48°24.8	57°55.0	91°17.4	110°26.2
11	237°17.0	8.0'	27°02.2	-5.3'	56.3'	94°28.5	79°58.8	57°58.2	3°02.2	48°56.8	58°19.9	91°46.3	110°55.7
12	251°44.0	7.9'	S27°07.4	-5.1'	56.3'	93°56.3	79°28.5	57°34.2	3°34.3	49°28.8	58°45.0	92°15.3	111°25.3
13	266°10.9	7.8'	27°12.6	-5.0'	56.4'	93°24.1	78°58.1	57°10.2	4°06.3	50°00.9	59°10.1	92°44.3	111°54.9
14	280°37.7	7.7'	27°17.5	-4.8'	56.4'	92°51.9	78°27.7	56°46.3	4°38.4	50°32.9	59°35.4	93°13.3	112°24.5
15	295°04.4	7.6'	27°22.3	-4.7'	56.4'	92°19.6	77°57.2	56°22.4	5°10.5	51°05.1	60°00.7	93°42.4	112°54.1
16	309°31.0	7.5'	27°27.0	-4.5'	56.5'	91°47.2	77°26.7	55°58.6	5°42.7	51°37.3	60°26.2	94°11.5	113°23.9
17	323°57.5	7.4'	27°31.5	-4.4'	56.5'	91°14.9	76°56.2	55°34.9	6°14.9	52°09.5	60°51.7	94°40.6	113°53.6
18	338°23.9	7.3'	S27°35.9	-4.2'	56.5'	90°42.4	76°25.7	55°11.2	6°47.2	52°41.7	61°17.3	95°09.8	114°23.4
19	352°50.2	7.2'	27°40.1	-4.1'	56.6'	90°10.0	75°55.1	54°47.6	7°19.5	53°14.0	61°43.1	95°39.1	114°53.2
20	7°16.4	7.1'	27°44.2	-3.9'	56.6'	89°37.5	75°24.5	54°24.0	7°51.8	53°46.4	62°08.9	96°08.4	115°23.1
21	21°42.6	7.0'	27°48.1	-3.8'	56.6'	89°04.9	74°53.8	54°00.5	8°24.2	54°18.8	62°34.8	96°37.7	115°53.0
22	36°08.6	6.9'	27°51.9	-3.6'	56.7'	88°32.3	74°23.2	53°37.1	8°56.7	54°51.2	63°00.8	97°07.1	116°23.0
23	50°34.6	6.9'	27°55.5	-3.5'	56.7'	87°59.7	73°52.5	53°13.8	9°29.1	55°23.7	63°26.9	97°36.5	116°53.0
14 th	SD = 15.3' Mer. pass. 19:30					Sun SD = 15.8'							

h		Moon (15 th Aug)				Lunar Distance (objects with largest hourly LD delta)							
Thu	GHA	ν	Dec	d	HP	-Saturn	-Achernar	-Fomalhaut	-Altair	+Antares	+Spica	+Venus	+Sun
0	65°00.4	6.8'	S27°59.0	-3.3'	56.8'	87°27.0	83°28.6	73°21.7	52°50.6	10°01.7	55°56.2	98°05.9	117°23.0
1	79°26.2	6.7'	28°02.3	-3.1'	56.8'	86°54.3	83°11.2	72°50.9	52°27.4	10°34.2	56°28.7	98°35.4	117°53.1
2	93°51.9	6.6'	28°05.4	-3.0'	56.8'	86°21.5	82°53.9	72°20.1	52°04.3	11°06.8	57°01.3	99°05.0	118°23.2
3	108°17.5	6.5'	28°08.4	-2.8'	56.9'	85°48.7	82°36.5	71°49.3	51°41.4	11°39.5	57°34.0	99°34.6	118°53.4
4	122°43.0	6.4'	28°11.2	-2.7'	56.9'	85°15.8	82°19.1	71°18.5	51°18.5	12°12.2	58°06.7	100°04.2	119°23.6
5	137°08.4	6.4'	28°13.9	-2.5'	56.9'	84°42.9	82°01.8	70°47.6	50°55.7	12°44.9	58°39.4	100°33.9	119°53.9
6	151°33.8	6.3'	S28°16.4	-2.3'	57.0'	84°10.0	81°44.4	70°16.6	50°33.0	13°17.7	59°12.2	101°03.6	
7	165°59.1	6.2'	28°18.7	-2.2'	57.0'	83°37.0	81°27.1	69°45.7	50°10.4	13°50.5	59°45.0	101°33.3	
8	180°24.3	6.1'	28°20.9	-2.0'	57.0'	83°04.0	81°09.7	69°14.7	49°47.9	14°23.4	60°17.9	102°03.1	
9	194°49.4	6.1'	28°22.9	-1.8'	57.1'	82°30.9	80°52.4	68°43.7	49°25.6	14°56.3	60°50.8	102°33.0	
10	209°14.5	6.0'	28°24.7	-1.7'	57.1'	81°57.8	80°35.1	68°12.7	49°03.3	15°29.3	61°23.7	103°02.9	
11	223°39.4	5.9'	28°26.4	-1.5'	57.2'	81°24.6	80°17.8	67°41.6	48°41.2	16°02.3	61°56.8	103°32.8	
12	238°04.3	5.8'	S28°27.9	-1.3'	57.2'	80°51.4	80°00.5	67°10.5	48°19.2	16°35.3	62°29.8	104°02.8	
13	252°29.2	5.8'	28°29.2	-1.2'	57.2'	80°18.1	79°43.3	66°39.4	47°57.3	17°08.4	63°02.9	104°32.9	
14	266°54.0	5.7'	28°30.3	-1.0'	57.3'	79°44.8	79°26.0	66°08.2	47°35.5	17°41.6	63°36.0	105°03.0	
15	281°18.7	5.6'	28°31.3	-0.8'	57.3'	79°11.5	79°08.8	65°37.0	47°13.9	18°14.7	64°09.2	105°33.1	
16	295°43.3	5.6'	28°32.1	-0.6'	57.3'	78°38.1	78°51.6	65°05.8	46°52.5	18°48.0	64°42.5	106°03.3	
17	310°07.9	5.5'	28°32.7	-0.5'	57.4'	78°04.6	78°34.5	64°34.6	46°31.1	19°21.3	65°15.7	106°33.5	
18	324°32.4	5.5'	S28°33.2	-0.3'	57.4'	77°31.1	78°17.3	64°03.4	46°10.0	19°54.6	65°49.1	107°03.7	
19	338°56.9	5.4'	28°33.5	-0.1'	57.5'	76°57.6	78°00.2	63°32.1	45°49.0	20°28.0	66°22.4	107°34.1	
20	353°21.3	5.4'	28°33.6	0.1'	57.5'	76°24.0	77°43.1	63°00.8	45°28.1	21°01.4	66°55.9	108°04.4	
21	7°45.7	5.3'	28°33.5	0.3'	57.5'	75°50.4	77°26.0	62°29.5	45°07.4	21°34.8	67°29.3	108°34.8	
22	22°10.0	5.3'	28°33.3	0.4'	57.6'	75°16.7	77°09.0	61°58.1	44°46.9	22°08.4	68°02.8	109°05.3	
23	36°34.2	5.2'	28°32.8	0.6'	57.6'	74°43.0	76°52.0	61°26.8	44°26.6	22°41.9	68°36.4	109°35.8	
15 th	SD = 15.5' Mer. pass. 20:28					Sun SD = 15.8'							

Moon (16 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Fri	GHA	ν	Dec	d	HP	-Achernar	-Saturn	-Fomalhaut	-Altair	+Antares	+Spica	+Arcturus	+Venus
0	50°58.5	5.2'	S28°32.2	0.8'	57.7'	76°35.0	74°09.2	60°55.4	44°06.4	23°15.5	69°10.0	74°45.7	110°06.3
1	65°22.6	5.1'	28°31.4	1.0'	57.7'	76°18.0	73°35.4	60°24.0	43°46.5	23°49.2	69°43.7	75°13.9	110°36.9
2	79°46.7	5.1'	28°30.5	1.2'	57.7'	76°01.1	73°01.5	59°52.5	43°26.7	24°22.9	70°17.4	75°42.0	111°07.6
3	94°10.8	5.0'	28°29.3	1.3'	57.8'	75°44.3	72°27.6	59°21.1	43°07.2	24°56.6	70°51.1	76°10.3	111°38.3
4	108°34.9	5.0'	28°28.0	1.5'	57.8'	75°27.4	71°53.7	58°49.6	42°47.8	25°30.4	71°24.9	76°38.6	112°09.0
5	122°58.9	5.0'	28°26.5	1.7'	57.8'	75°10.7	71°19.6	58°18.1	42°28.7	26°04.3	71°58.7	77°06.9	112°39.8
6	137°22.9	4.9'	S28°24.8	1.9'	57.9'	74°53.9	70°45.6	57°46.6	42°09.8	26°38.2	72°32.6	77°35.3	113°10.6
7	151°46.8	4.9'	28°22.9	2.1'	57.9'	74°37.2	70°11.5	57°15.1	41°51.1	27°12.1	73°06.6	78°03.8	113°41.5
8	166°10.7	4.9'	28°20.8	2.2'	58.0'	74°20.6	69°37.3	56°43.6	41°32.7	27°46.1	73°40.5	78°32.4	114°12.4
9	180°34.6	4.9'	28°18.6	2.4'	58.0'	74°04.0	69°03.1	56°12.0	41°14.5	28°20.1	74°14.6	79°01.0	114°43.4
10	194°58.5	4.8'	28°16.2	2.6'	58.0'	73°47.4	68°28.9	55°40.5	40°56.5	28°54.2	74°48.7	79°29.6	115°14.4
11	209°22.3	4.8'	28°13.5	2.8'	58.1'	73°30.9	67°54.6	55°08.9	40°38.8	29°28.3	75°22.8	79°58.4	115°45.5
12	223°46.1	4.8'	S28°10.7	3.0'	58.1'	73°14.5	67°20.3	54°37.4	40°21.4	30°02.5	75°57.0	80°27.1	116°16.6
13	238°09.9	4.8'	28°07.7	3.2'	58.1'	72°58.1	66°45.9	54°05.8	40°04.3	30°36.7	76°31.2	80°56.0	116°47.7
14	252°33.7	4.8'	28°04.6	3.4'	58.2'	72°41.8	66°11.4	53°34.2	39°47.4	31°11.0	77°05.4	81°24.9	117°19.0
15	266°57.5	4.8'	28°01.2	3.5'	58.2'	72°25.5	65°36.9	53°02.6	39°30.8	31°45.3	77°39.8	81°53.8	117°50.2
16	281°21.2	4.7'	27°57.7	3.7'	58.3'	72°09.3	65°02.4	52°31.0	39°14.5	32°19.7	78°14.1	82°22.8	118°21.5
17	295°45.0	4.7'	27°53.9	3.9'	58.3'	71°53.2	64°27.8	51°59.4	38°58.6	32°54.1	78°48.5	82°51.9	118°52.9
18	310°08.7	4.7'	S27°50.0	4.1'	58.3'	71°37.1	63°53.2	51°27.8	38°42.9	33°28.6	79°23.0	83°21.0	119°24.3
19	324°32.4	4.7'	27°45.9	4.3'	58.4'	71°21.1	63°18.5	50°56.2	38°27.6	34°03.1	79°57.5	83°50.1	119°55.7
20	338°56.1	4.7'	27°41.6	4.5'	58.4'	71°05.1	62°43.8	50°24.6	38°12.6	34°37.6	80°32.1	84°19.3	
21	353°19.9	4.7'	27°37.2	4.7'	58.4'	70°49.3	62°09.1	49°53.0		35°12.2	81°06.7	84°48.6	
22	7°43.6	4.7'	27°32.5	4.8'	58.5'	70°33.5	61°34.2	49°21.4		35°46.9	81°41.3	85°17.9	
23	22°07.3	4.7'	27°27.7	5.0'	58.5'	70°17.8	60°59.4	48°49.9		36°21.6	82°16.0	85°47.2	
16 th	SD = 15.7' Mer. pass. 21:28												

Moon (17 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Sat	GHA	ν	Dec	d	HP	-Achernar	-Saturn	-Fomalhaut	+Antares	+Rigel Kent.	+Hadar	+Spica	+Arcturus
0	36°31.1	4.7'	S27°22.6	5.2'	58.6'	70°02.1	60°24.5	48°18.3	36°56.3	56°11.9	60°33.9	82°50.7	86°16.6
1	50°54.8	4.8'	27°17.4	5.4'	58.6'	69°46.6	59°49.5	47°46.7	37°31.1	56°35.0	60°57.2	83°25.5	86°46.1
2	65°18.6	4.8'	27°12.0	5.6'	58.6'	69°31.1	59°14.5	47°15.2	38°05.9	56°58.3	61°20.7	84°00.4	87°15.6
3	79°42.3	4.8'	27°06.4	5.8'	58.7'	69°15.7	58°39.5	46°43.7	38°40.8	57°21.8	61°44.4	84°35.2	87°45.1
4	94°06.1	4.8'	27°00.7	6.0'	58.7'	69°00.5	58°04.4	46°12.2	39°15.7	57°45.4	62°08.1	85°10.2	88°14.7
5	108°29.9	4.8'	26°54.7	6.1'	58.7'	68°45.2	57°29.2	45°40.7	39°50.7	58°09.2	62°32.0	85°45.1	88°44.3
6	122°53.7	4.8'	S26°48.6	6.3'	58.8'	68°30.1	56°54.1	45°09.3	40°25.7	58°33.1	62°56.1	86°20.1	89°14.0
7	137°17.6	4.9'	26°42.3	6.5'	58.8'	68°15.1	56°18.8	44°37.8	41°00.8	58°57.2	63°20.2	86°55.2	89°43.7
8	151°41.4	4.9'	26°35.7	6.7'	58.9'		55°43.5	44°06.5	41°35.9	59°21.4	63°44.5	87°30.3	90°13.4
9	166°05.3	4.9'	26°29.1	6.9'	58.9'		55°08.2	43°35.1	42°11.1	59°45.7	64°08.9	88°05.5	90°43.2
10	180°29.2	4.9'	26°22.2	7.0'	58.9'		54°32.9	43°03.8	42°46.3	60°10.2	64°33.4	88°40.7	91°13.0
11	194°53.2	5.0'	26°15.1	7.2'	59.0'		53°57.4	42°32.5	43°21.5	60°34.9	64°58.1	89°15.9	91°42.8
12	209°17.1	5.0'	S26°07.9	7.4'	59.0'		53°22.0	42°01.3	43°56.8	60°59.6	65°22.8	89°51.2	92°12.7
13	223°41.1	5.0'	26°00.5	7.6'	59.0'		52°46.5	41°30.1	44°32.1	61°24.5	65°47.7	90°26.5	92°42.6
14	238°05.2	5.1'	25°52.9	7.8'	59.1'		52°10.9	40°59.0	45°07.5	61°49.5	66°12.7	91°01.9	93°12.6
15	252°29.2	5.1'	25°45.2	7.9'	59.1'		51°35.3	40°27.9	45°42.9	62°14.7	66°37.8	91°37.3	93°42.6
16	266°53.3	5.1'	25°37.2	8.1'	59.1'		50°59.7	39°56.9	46°18.4	62°40.0	67°03.0	92°12.8	94°12.6
17	281°17.5	5.2'	25°29.1	8.3'	59.2'		50°24.0	39°25.9	46°53.9	63°05.4	67°28.3	92°48.3	94°42.6
18	295°41.7	5.2'	S25°20.8	8.5'	59.2'		49°48.3	38°55.0	47°29.5	63°30.9	67°53.8	93°23.9	95°12.7
19	310°05.9	5.3'	25°12.3	8.6'	59.2'		49°12.5	38°24.2	48°05.1	63°56.6	68°19.3	93°59.5	95°42.8
20	324°30.2	5.3'	25°03.7	8.8'	59.3'		48°36.7	37°53.5	48°40.7	64°22.4	68°44.9	94°35.1	96°12.9
21	338°54.5	5.4'	24°54.9	9.0'	59.3'		48°00.9	37°22.9	49°16.4	64°48.2	69°10.7	95°10.8	96°43.1
22	353°18.9	5.4'	24°45.9	9.2'	59.3'		47°25.0	36°52.4	49°52.1	65°14.2	69°36.5	95°46.5	97°13.2
23	7°43.3	5.5'	24°36.7	9.3'	59.4'		46°49.0	36°21.9	50°27.9	65°40.3	70°02.4	96°22.3	97°43.4
17 th	SD = 16.0' Mer. pass. 22:28												

Moon (18 th Aug)						Lunar Distance (objects with largest hourly LD delta)							
Sun	GHA	ν	Dec	d	HP	-Rigel	-Aldebaran	-Saturn	-Fomalhaut	+Antares	+Rigel Kent.	+Spica	+Arcturus
0	22°07.7	5.5'	S24°27.4	9.5'	59.4'			46°13.1	35°51.6	51°03.7	66°06.6	96°58.1	98°13.6
1	36°32.2	5.6'	24°17.9	9.7'	59.4'			45°37.0	35°21.4	51°39.6	66°32.9	97°34.0	98°43.9
2	50°56.8	5.6'	24°08.2	9.8'	59.5'			45°01.0	34°51.3	52°15.5	66°59.3	98°09.8	99°14.1
3	65°21.4	5.7'	23°58.4	10.0'	59.5'			44°24.9	34°21.3	52°51.4	67°25.9	98°45.8	99°44.4
4	79°46.1	5.7'	23°48.4	10.2'	59.5'			43°48.7	33°51.5	53°27.4	67°52.5	99°21.8	100°14.7
5	94°10.8	5.8'	23°38.2	10.3'	59.6'			43°12.6	33°21.8	54°03.4	68°19.2	99°57.8	100°45.0
6	108°35.6	5.8'	S23°27.9	10.5'	59.6'			42°36.3	32°52.2	54°39.5	68°46.1	100°33.8	101°15.3
7	123°00.4	5.9'	23°17.4	10.7'	59.6'			42°00.1	32°22.9	55°15.5	69°13.0	101°09.9	101°45.6
8	137°25.3	6.0'	23°06.7	10.8'	59.7'			41°23.8	31°53.7	55°51.7	69°40.0	101°46.0	102°15.9
9	151°50.3	6.0'	22°55.9	11.0'	59.7'			40°47.4	31°24.7	56°27.9	70°07.1	102°22.2	102°46.2
10	166°15.3	6.1'	22°44.9	11.1'	59.7'			40°11.0	30°55.8	57°04.1	70°34.3	102°58.4	103°16.6
11	180°40.4	6.1'	22°33.8	11.3'	59.8'	119°57.5		39°34.6	30°27.2	57°40.3	71°01.6	103°34.7	103°46.9
12	195°05.5	6.2'	S22°22.5	11.4'	59.8'	119°30.8		38°58.2	29°58.8	58°16.6	71°29.0	104°11.0	104°17.3
13	209°30.7	6.3'	22°11.1	11.6'	59.8'	119°03.9		38°21.7	29°30.7	58°52.9	71°56.4	104°47.3	104°47.6
14	223°56.0	6.3'	21°59.5	11.7'	59.8'	118°36.9	119°36.6	37°45.2	29°02.7	59°29.3	72°24.0	105°23.6	105°18.0
15	238°21.3	6.4'	21°47.7	11.9'	59.9'	118°09.8	119°01.0	37°08.6	28°35.1	60°05.7	72°51.6	106°00.0	105°48.3
16	252°46.8	6.5'	21°35.8	12.0'	59.9'	117°42.6	118°25.3	36°32.0	28°07.7	60°42.1	73°19.3	106°36.5	106°18.7
17	267°12.2	6.5'	21°23.8	12.2'	59.9'	117°15.3	117°49.5	35°55.4	27°40.6	61°18.6	73°47.0	107°12.9	106°49.0
18	281°37.8	6.6'	S21°11.6	12.3'	60.0'	116°47.8	117°13.7	35°18.7	27°13.9	61°55.1	74°14.9	107°49.4	107°19.3
19	296°03.4	6.7'	20°59.3	12.5'	60.0'	116°20.2	116°37.9	34°42.0	26°47.4	62°31.6	74°42.8	108°26.0	107°49.7
20	310°29.0	6.7'	20°46.8	12.6'	60.0'	115°52.6	116°02.1	34°05.3	26°21.3	63°08.2	75°10.8	109°02.5	108°20.0
21	324°54.8	6.8'	20°34.2	12.8'	60.0'	115°24.8	115°26.1	33°28.5	25°55.6	63°44.8	75°38.8	109°39.1	108°50.3
22	339°20.6	6.9'	20°21.4	12.9'	60.1'	114°56.9	114°50.2	32°51.7	25°30.3	64°21.4	76°06.9	110°15.8	109°20.6
23	353°46.5	6.9'	20°08.5	13.0'	60.1'	114°28.9	114°14.2	32°14.8	25°05.3	64°58.1	76°35.1	110°52.4	109°50.8
18 th	SD = 16.2' Mer. pass. 23:26												