

## Sat Jul 1, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.7'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	279°14.3'	179°02.8'	N 23°06.2'	89°36.6'	13.9'	S 0°16.4'	10.4'	55.8'
1	294°16.7'	194°02.7'	N 23°06.1'	104°09.5'	13.9'	S 0°26.8'	10.4'	55.8'
2	309°19.2'	209°02.6'	N 23°05.9'	118°42.4'	13.9'	S 0°37.2'	10.4'	55.8'
3	324°21.7'	224°02.4'	N 23°05.7'	133°15.3'	14.0'	S 0°47.6'	10.4'	55.7'
4	339°24.1'	239°02.3'	N 23°05.6'	147°48.3'	14.0'	S 0°58.0'	10.4'	55.7'
5	354°26.6'	254°02.2'	N 23°05.4'	162°21.3'	14.0'	S 1°08.4'	10.3'	55.7'
6	9°29.1'	269°02.1'	N 23°05.2'	176°54.3'	14.1'	S 1°18.7'	10.3'	55.7'
7	24°31.5'	284°02.0'	N 23°05.1'	191°27.3'	14.1'	S 1°29.1'	10.3'	55.6'
8	39°34.0'	299°01.8'	N 23°04.9'	206°00.4'	14.1'	S 1°39.4'	10.3'	55.6'
9	54°36.4'	314°01.7'	N 23°04.7'	220°33.5'	14.1'	S 1°49.7'	10.3'	55.6'
10	69°38.9'	329°01.6'	N 23°04.5'	235°06.6'	14.1'	S 1°60.0'	10.3'	55.5'
11	84°41.4'	344°01.5'	N 23°04.4'	249°39.8'	14.2'	S 2°10.2'	10.2'	55.5'
12	99°43.8'	359°01.4'	N 23°04.2'	264°13.0'	14.2'	S 2°20.5'	10.2'	55.5'
13	114°46.3'	14°01.2'	N 23°04.0'	278°46.2'	14.2'	S 2°30.7'	10.2'	55.5'
14	129°48.8'	29°01.1'	N 23°03.8'	293°19.4'	14.2'	S 2°40.9'	10.2'	55.4'
15	144°51.2'	44°01.0'	N 23°03.7'	307°52.6'	14.3'	S 2°51.0'	10.2'	55.4'
16	159°53.7'	59°00.9'	N 23°03.5'	322°25.9'	14.3'	S 3°01.2'	10.1'	55.4'
17	174°56.2'	74°00.8'	N 23°03.3'	336°59.1'	14.3'	S 3°11.3'	10.1'	55.3'
18	189°58.6'	89°00.6'	N 23°03.1'	351°32.4'	14.3'	S 3°21.4'	10.1'	55.3'
19	205°01.1'	104°00.5'	N 23°02.9'	6°05.7'	14.3'	S 3°31.5'	10.1'	55.3'
20	220°03.5'	119°00.4'	N 23°02.8'	20°39.1'	14.3'	S 3°41.6'	10.0'	55.3'
21	235°06.0'	134°00.3'	N 23°02.6'	35°12.4'	14.4'	S 3°51.6'	10.0'	55.2'
22	250°08.5'	149°00.2'	N 23°02.4'	49°45.8'	14.4'	S 4°01.6'	10.0'	55.2'
23	265°10.9'	164°00.1'	N 23°02.2'	64°19.1'	14.4'	S 4°11.6'	10.0'	55.2'

## Sun Jul 2, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.7'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	280°13.4'	178°59.9'	N 23°02.0'	78°52.5'	14.4'	S 4°21.6'	9.9'	55.2'
1	295°15.9'	193°59.8'	N 23°01.8'	93°25.9'	14.4'	S 4°31.5'	9.9'	55.1'
2	310°18.3'	208°59.7'	N 23°01.6'	107°59.3'	14.4'	S 4°41.4'	9.9'	55.1'
3	325°20.8'	223°59.6'	N 23°01.5'	122°32.7'	14.4'	S 4°51.3'	9.8'	55.1'
4	340°23.3'	238°59.5'	N 23°01.3'	137°06.1'	14.4'	S 5°01.1'	9.8'	55.1'
5	355°25.7'	253°59.3'	N 23°01.1'	151°39.6'	14.4'	S 5°11.0'	9.8'	55.1'
6	10°28.2'	268°59.2'	N 23°00.9'	166°13.0'	14.5'	S 5°20.7'	9.8'	55.0'
7	25°30.7'	283°59.1'	N 23°00.7'	180°46.5'	14.5'	S 5°30.5'	9.7'	55.0'
8	40°33.1'	298°59.0'	N 23°00.5'	195°19.9'	14.5'	S 5°40.2'	9.7'	55.0'
9	55°35.6'	313°58.9'	N 23°00.3'	209°53.4'	14.5'	S 5°49.9'	9.7'	55.0'
10	70°38.0'	328°58.8'	N 23°00.1'	224°26.9'	14.5'	S 5°59.6'	9.6'	54.9'
11	85°40.5'	343°58.6'	N 22°59.9'	239°00.3'	14.5'	S 6°09.2'	9.6'	54.9'
12	100°43.0'	358°58.5'	N 22°59.8'	253°33.8'	14.5'	S 6°18.8'	9.6'	54.9'
13	115°45.4'	13°58.4'	N 22°59.6'	268°07.3'	14.5'	S 6°28.4'	9.5'	54.9'
14	130°47.9'	28°58.3'	N 22°59.4'	282°40.8'	14.5'	S 6°37.9'	9.5'	54.9'
15	145°50.4'	43°58.2'	N 22°59.2'	297°14.3'	14.5'	S 6°47.4'	9.5'	54.8'
16	160°52.8'	58°58.1'	N 22°59.0'	311°47.8'	14.5'	S 6°56.9'	9.4'	54.8'
17	175°55.3'	73°57.9'	N 22°58.8'	326°21.3'	14.5'	S 7°06.3'	9.4'	54.8'
18	190°57.8'	88°57.8'	N 22°58.6'	340°54.7'	14.5'	S 7°15.7'	9.3'	54.8'
19	206°00.2'	103°57.7'	N 22°58.4'	355°28.2'	14.5'	S 7°25.0'	9.3'	54.8'
20	221°02.7'	118°57.6'	N 22°58.2'	10°01.7'	14.5'	S 7°34.3'	9.3'	54.7'
21	236°05.2'	133°57.5'	N 22°58.0'	24°35.2'	14.5'	S 7°43.6'	9.2'	54.7'
22	251°07.6'	148°57.4'	N 22°57.8'	39°08.7'	14.5'	S 7°52.8'	9.2'	54.7'
23	266°10.1'	163°57.3'	N 22°57.6'	53°42.2'	14.5'	S 8°02.0'	9.2'	54.7'

Mon Jul 3, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.7'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	281°12.5'	178°57.1'	N 22°57.4'	68°15.6'	14.5'	S 8°11.2'	9.1'	54.7'
1	296°15.0'	193°57.0'	N 22°57.2'	82°49.1'	14.5'	S 8°20.3'	9.1'	54.6'
2	311°17.5'	208°56.9'	N 22°57.0'	97°22.6'	14.5'	S 8°29.4'	9.0'	54.6'
3	326°19.9'	223°56.8'	N 22°56.8'	111°56.1'	14.5'	S 8°38.4'	9.0'	54.6'
4	341°22.4'	238°56.7'	N 22°56.6'	126°29.5'	14.4'	S 8°47.4'	9.0'	54.6'
5	356°24.9'	253°56.6'	N 22°56.4'	141°03.0'	14.4'	S 8°56.4'	8.9'	54.6'
6	11°27.3'	268°56.5'	N 22°56.2'	155°36.4'	14.4'	S 9°05.3'	8.9'	54.6'
7	26°29.8'	283°56.3'	N 22°56.0'	170°09.8'	14.4'	S 9°14.1'	8.8'	54.5'
8	41°32.3'	298°56.2'	N 22°55.8'	184°43.3'	14.4'	S 9°23.0'	8.8'	54.5'
9	56°34.7'	313°56.1'	N 22°55.6'	199°16.7'	14.4'	S 9°31.7'	8.7'	54.5'
10	71°37.2'	328°56.0'	N 22°55.3'	213°50.1'	14.4'	S 9°40.5'	8.7'	54.5'
11	86°39.6'	343°55.9'	N 22°55.1'	228°23.5'	14.4'	S 9°49.2'	8.6'	54.5'
12	101°42.1'	358°55.8'	N 22°54.9'	242°56.9'	14.4'	S 9°57.8'	8.6'	54.5'
13	116°44.6'	13°55.7'	N 22°54.7'	257°30.2'	14.4'	S 10°06.4'	8.6'	54.5'
14	131°47.0'	28°55.5'	N 22°54.5'	272°03.6'	14.3'	S 10°15.0'	8.5'	54.4'
15	146°49.5'	43°55.4'	N 22°54.3'	286°36.9'	14.3'	S 10°23.5'	8.5'	54.4'
16	161°52.0'	58°55.3'	N 22°54.1'	301°10.3'	14.3'	S 10°31.9'	8.4'	54.4'
17	176°54.4'	73°55.2'	N 22°53.9'	315°43.6'	14.3'	S 10°40.3'	8.4'	54.4'
18	191°56.9'	88°55.1'	N 22°53.7'	330°16.9'	14.3'	S 10°48.7'	8.3'	54.4'
19	206°59.4'	103°55.0'	N 22°53.4'	344°50.2'	14.3'	S 10°57.0'	8.3'	54.4'
20	222°01.8'	118°54.9'	N 22°53.2'	359°23.5'	14.3'	S 11°05.3'	8.2'	54.4'
21	237°04.3'	133°54.8'	N 22°53.0'	13°56.7'	14.2'	S 11°13.5'	8.2'	54.3'
22	252°06.8'	148°54.6'	N 22°52.8'	28°30.0'	14.2'	S 11°21.7'	8.1'	54.3'
23	267°09.2'	163°54.5'	N 22°52.6'	43°03.2'	14.2'	S 11°29.8'	8.1'	54.3'

Tue Jul 4, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.7'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	282°11.7'	178°54.4'	N 22°52.4'	57°36.4'	14.2'	S 11°37.8'	8.0'	54.3'
1	297°14.1'	193°54.3'	N 22°52.1'	72°09.6'	14.2'	S 11°45.8'	8.0'	54.3'
2	312°16.6'	208°54.2'	N 22°51.9'	86°42.8'	14.2'	S 11°53.8'	7.9'	54.3'
3	327°19.1'	223°54.1'	N 22°51.7'	101°16.0'	14.1'	S 12°01.7'	7.8'	54.3'
4	342°21.5'	238°54.0'	N 22°51.5'	115°49.1'	14.1'	S 12°09.5'	7.8'	54.3'
5	357°24.0'	253°53.9'	N 22°51.3'	130°22.2'	14.1'	S 12°17.3'	7.7'	54.3'
6	12°26.5'	268°53.8'	N 22°51.0'	144°55.3'	14.1'	S 12°25.1'	7.7'	54.2'
7	27°28.9'	283°53.6'	N 22°50.8'	159°28.4'	14.1'	S 12°32.8'	7.6'	54.2'
8	42°31.4'	298°53.5'	N 22°50.6'	174°01.5'	14.0'	S 12°40.4'	7.6'	54.2'
9	57°33.9'	313°53.4'	N 22°50.4'	188°34.5'	14.0'	S 12°48.0'	7.5'	54.2'
10	72°36.3'	328°53.3'	N 22°50.2'	203°07.5'	14.0'	S 12°55.5'	7.5'	54.2'
11	87°38.8'	343°53.2'	N 22°49.9'	217°40.5'	14.0'	S 13°02.9'	7.4'	54.2'
12	102°41.3'	358°53.1'	N 22°49.7'	232°13.5'	14.0'	S 13°10.4'	7.3'	54.2'
13	117°43.7'	13°53.0'	N 22°49.5'	246°46.5'	13.9'	S 13°17.7'	7.3'	54.2'
14	132°46.2'	28°52.9'	N 22°49.2'	261°19.4'	13.9'	S 13°25.0'	7.2'	54.2'
15	147°48.6'	43°52.8'	N 22°49.0'	275°52.3'	13.9'	S 13°32.2'	7.2'	54.2'
16	162°51.1'	58°52.7'	N 22°48.8'	290°25.2'	13.9'	S 13°39.4'	7.1'	54.1'
17	177°53.6'	73°52.5'	N 22°48.6'	304°58.0'	13.8'	S 13°46.5'	7.1'	54.1'
18	192°56.0'	88°52.4'	N 22°48.3'	319°30.9'	13.8'	S 13°53.5'	7.0'	54.1'
19	207°58.5'	103°52.3'	N 22°48.1'	334°03.7'	13.8'	S 14°00.5'	6.9'	54.1'
20	223°01.0'	118°52.2'	N 22°47.9'	348°36.5'	13.8'	S 14°07.5'	6.9'	54.1'
21	238°03.4'	133°52.1'	N 22°47.6'	3°09.3'	13.7'	S 14°14.3'	6.8'	54.1'
22	253°05.9'	148°52.0'	N 22°47.4'	17°42.0'	13.7'	S 14°21.1'	6.7'	54.1'
23	268°08.4'	163°51.9'	N 22°47.2'	32°14.7'	13.7'	S 14°27.9'	6.7'	54.1'

Wed Jul 5, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.7'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	283°10.8'	178°51.8'	N 22°46.9'	46°47.4'	13.7'	S 14°34.6'	6.6'	54.1'
1	298°13.3'	193°51.7'	N 22°46.7'	61°20.1'	13.6'	S 14°41.2'	6.6'	54.1'
2	313°15.7'	208°51.6'	N 22°46.5'	75°52.7'	13.6'	S 14°47.7'	6.5'	54.1'
3	328°18.2'	223°51.5'	N 22°46.2'	90°25.3'	13.6'	S 14°54.2'	6.4'	54.1'
4	343°20.7'	238°51.4'	N 22°46.0'	104°57.9'	13.6'	S 15°00.6'	6.4'	54.1'
5	358°23.1'	253°51.3'	N 22°45.8'	119°30.5'	13.5'	S 15°07.0'	6.3'	54.1'
6	13°25.6'	268°51.1'	N 22°45.5'	134°03.0'	13.5'	S 15°13.3'	6.2'	54.1'
7	28°28.1'	283°51.0'	N 22°45.3'	148°35.5'	13.5'	S 15°19.5'	6.2'	54.1'
8	43°30.5'	298°50.9'	N 22°45.0'	163°08.0'	13.5'	S 15°25.7'	6.1'	54.1'
9	58°33.0'	313°50.8'	N 22°44.8'	177°40.4'	13.4'	S 15°31.7'	6.0'	54.1'
10	73°35.5'	328°50.7'	N 22°44.6'	192°12.9'	13.4'	S 15°37.8'	6.0'	54.0'
11	88°37.9'	343°50.6'	N 22°44.3'	206°45.3'	13.4'	S 15°43.7'	5.9'	54.0'
12	103°40.4'	358°50.5'	N 22°44.1'	221°17.6'	13.3'	S 15°49.6'	5.8'	54.0'
13	118°42.9'	13°50.4'	N 22°43.8'	235°50.0'	13.3'	S 15°55.4'	5.7'	54.0'
14	133°45.3'	28°50.3'	N 22°43.6'	250°22.3'	13.3'	S 16°01.2'	5.7'	54.0'
15	148°47.8'	43°50.2'	N 22°43.3'	264°54.6'	13.3'	S 16°06.8'	5.6'	54.0'
16	163°50.2'	58°50.1'	N 22°43.1'	279°26.8'	13.2'	S 16°12.4'	5.5'	54.0'
17	178°52.7'	73°50.0'	N 22°42.9'	293°59.1'	13.2'	S 16°18.0'	5.5'	54.0'
18	193°55.2'	88°49.9'	N 22°42.6'	308°31.3'	13.2'	S 16°23.4'	5.4'	54.0'
19	208°57.6'	103°49.8'	N 22°42.4'	323°03.4'	13.1'	S 16°28.8'	5.3'	54.0'
20	224°00.1'	118°49.7'	N 22°42.1'	337°35.6'	13.1'	S 16°34.1'	5.2'	54.0'
21	239°02.6'	133°49.6'	N 22°41.9'	352°07.7'	13.1'	S 16°39.4'	5.2'	54.0'
22	254°05.0'	148°49.5'	N 22°41.6'	6°39.8'	13.1'	S 16°44.6'	5.1'	54.0'
23	269°07.5'	163°49.3'	N 22°41.4'	21°11.8'	13.0'	S 16°49.7'	5.0'	54.0'

Thu Jul 6, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.7'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	284°10.0'	178°49.2'	N 22°41.1'	35°43.9'	13.0'	S 16°54.7'	4.9'	54.0'
1	299°12.4'	193°49.1'	N 22°40.9'	50°15.9'	13.0'	S 16°59.6'	4.9'	54.0'
2	314°14.9'	208°49.0'	N 22°40.6'	64°47.9'	12.9'	S 17°04.5'	4.8'	54.0'
3	329°17.4'	223°48.9'	N 22°40.4'	79°19.8'	12.9'	S 17°09.3'	4.7'	54.0'
4	344°19.8'	238°48.8'	N 22°40.1'	93°51.7'	12.9'	S 17°14.0'	4.6'	54.0'
5	359°22.3'	253°48.7'	N 22°39.9'	108°23.6'	12.9'	S 17°18.7'	4.6'	54.0'
6	14°24.7'	268°48.6'	N 22°39.6'	122°55.5'	12.8'	S 17°23.2'	4.5'	54.0'
7	29°27.2'	283°48.5'	N 22°39.3'	137°27.3'	12.8'	S 17°27.7'	4.4'	54.0'
8	44°29.7'	298°48.4'	N 22°39.1'	151°59.1'	12.8'	S 17°32.2'	4.3'	54.0'
9	59°32.1'	313°48.3'	N 22°38.8'	166°30.9'	12.8'	S 17°36.5'	4.3'	54.0'
10	74°34.6'	328°48.2'	N 22°38.6'	181°02.7'	12.7'	S 17°40.7'	4.2'	54.0'
11	89°37.1'	343°48.1'	N 22°38.3'	195°34.4'	12.7'	S 17°44.9'	4.1'	54.0'
12	104°39.5'	358°48.0'	N 22°38.1'	210°06.1'	12.7'	S 17°49.0'	4.0'	54.0'
13	119°42.0'	13°47.9'	N 22°37.8'	224°37.8'	12.6'	S 17°53.1'	3.9'	54.0'
14	134°44.5'	28°47.8'	N 22°37.5'	239°09.4'	12.6'	S 17°57.0'	3.9'	54.0'
15	149°46.9'	43°47.7'	N 22°37.3'	253°41.0'	12.6'	S 18°00.9'	3.8'	54.0'
16	164°49.4'	58°47.6'	N 22°37.0'	268°12.6'	12.6'	S 18°04.6'	3.7'	54.0'
17	179°51.9'	73°47.5'	N 22°36.8'	282°44.2'	12.5'	S 18°08.3'	3.6'	54.0'
18	194°54.3'	88°47.4'	N 22°36.5'	297°15.7'	12.5'	S 18°12.0'	3.5'	54.0'
19	209°56.8'	103°47.3'	N 22°36.2'	311°47.2'	12.5'	S 18°15.5'	3.5'	54.0'
20	224°59.2'	118°47.2'	N 22°36.0'	326°18.7'	12.5'	S 18°18.9'	3.4'	54.0'
21	240°01.7'	133°47.1'	N 22°35.7'	340°50.2'	12.4'	S 18°22.3'	3.3'	54.0'
22	255°04.2'	148°47.0'	N 22°35.4'	355°21.6'	12.4'	S 18°25.6'	3.2'	54.0'
23	270°06.6'	163°46.9'	N 22°35.2'	9°53.0'	12.4'	S 18°28.8'	3.1'	54.1'

Fri Jul 7, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.7'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	285°09.1'	178°46.8'	N 22°34.9'	24°24.4'	12.4'	S 18°31.9'	3.0'	54.1'
1	300°11.6'	193°46.7'	N 22°34.6'	38°55.8'	12.3'	S 18°35.0'	3.0'	54.1'
2	315°14.0'	208°46.6'	N 22°34.4'	53°27.1'	12.3'	S 18°37.9'	2.9'	54.1'
3	330°16.5'	223°46.5'	N 22°34.1'	67°58.4'	12.3'	S 18°40.8'	2.8'	54.1'
4	345°19.0'	238°46.4'	N 22°33.8'	82°29.7'	12.3'	S 18°43.6'	2.7'	54.1'
5	0°21.4'	253°46.3'	N 22°33.6'	97°00.9'	12.2'	S 18°46.3'	2.6'	54.1'
6	15°23.9'	268°46.2'	N 22°33.3'	111°32.2'	12.2'	S 18°48.9'	2.5'	54.1'
7	30°26.3'	283°46.1'	N 22°33.0'	126°03.4'	12.2'	S 18°51.4'	2.4'	54.1'
8	45°28.8'	298°46.0'	N 22°32.7'	140°34.6'	12.2'	S 18°53.9'	2.4'	54.1'
9	60°31.3'	313°45.9'	N 22°32.5'	155°05.8'	12.1'	S 18°56.2'	2.3'	54.1'
10	75°33.7'	328°45.8'	N 22°32.2'	169°36.9'	12.1'	S 18°58.5'	2.2'	54.1'
11	90°36.2'	343°45.7'	N 22°31.9'	184°08.0'	12.1'	S 19°00.7'	2.1'	54.1'
12	105°38.7'	358°45.6'	N 22°31.6'	198°39.1'	12.1'	S 19°02.8'	2.0'	54.1'
13	120°41.1'	13°45.5'	N 22°31.4'	213°10.2'	12.1'	S 19°04.8'	1.9'	54.1'
14	135°43.6'	28°45.4'	N 22°31.1'	227°41.3'	12.0'	S 19°06.7'	1.8'	54.1'
15	150°46.1'	43°45.3'	N 22°30.8'	242°12.3'	12.0'	S 19°08.5'	1.7'	54.1'
16	165°48.5'	58°45.2'	N 22°30.5'	256°43.3'	12.0'	S 19°10.3'	1.7'	54.1'
17	180°51.0'	73°45.1'	N 22°30.3'	271°14.4'	12.0'	S 19°11.9'	1.6'	54.1'
18	195°53.5'	88°45.0'	N 22°30.0'	285°45.3'	12.0'	S 19°13.5'	1.5'	54.2'
19	210°55.9'	103°44.9'	N 22°29.7'	300°16.3'	11.9'	S 19°15.0'	1.4'	54.2'
20	225°58.4'	118°44.8'	N 22°29.4'	314°47.2'	11.9'	S 19°16.4'	1.3'	54.2'
21	241°00.8'	133°44.7'	N 22°29.1'	329°18.2'	11.9'	S 19°17.7'	1.2'	54.2'
22	256°03.3'	148°44.6'	N 22°28.9'	343°49.1'	11.9'	S 19°18.9'	1.1'	54.2'
23	271°05.8'	163°44.5'	N 22°28.6'	358°20.0'	11.9'	S 19°20.0'	1.0'	54.2'

Sat Jul 8, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.7'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	286°08.2'	178°44.4'	N 22°28.3'	12°50.9'	11.9'	S 19°21.0'	0.9'	54.2'
1	301°10.7'	193°44.3'	N 22°28.0'	27°21.7'	11.8'	S 19°22.0'	0.8'	54.2'
2	316°13.2'	208°44.2'	N 22°27.7'	41°52.6'	11.8'	S 19°22.8'	0.8'	54.2'
3	331°15.6'	223°44.1'	N 22°27.4'	56°23.4'	11.8'	S 19°23.6'	0.7'	54.2'
4	346°18.1'	238°44.1'	N 22°27.2'	70°54.2'	11.8'	S 19°24.2'	0.6'	54.2'
5	1°20.6'	253°44.0'	N 22°26.9'	85°25.0'	11.8'	S 19°24.8'	0.5'	54.2'
6	16°23.0'	268°43.9'	N 22°26.6'	99°55.8'	11.8'	S 19°25.3'	0.4'	54.2'
7	31°25.5'	283°43.8'	N 22°26.3'	114°26.5'	11.8'	S 19°25.7'	0.3'	54.3'
8	46°28.0'	298°43.7'	N 22°26.0'	128°57.3'	11.7'	S 19°26.0'	0.2'	54.3'
9	61°30.4'	313°43.6'	N 22°25.7'	143°28.0'	11.7'	S 19°26.2'	0.1'	54.3'
10	76°32.9'	328°43.5'	N 22°25.4'	157°58.8'	11.7'	S 19°26.3'	0.0'	54.3'
11	91°35.3'	343°43.4'	N 22°25.1'	172°29.5'	11.7'	S 19°26.3'	0.1'	54.3'
12	106°37.8'	358°43.3'	N 22°24.8'	187°00.2'	11.7'	S 19°26.3'	0.2'	54.3'
13	121°40.3'	13°43.2'	N 22°24.6'	201°30.9'	11.7'	S 19°26.1'	0.2'	54.3'
14	136°42.7'	28°43.1'	N 22°24.3'	216°01.6'	11.7'	S 19°25.9'	0.3'	54.3'
15	151°45.2'	43°43.0'	N 22°24.0'	230°32.3'	11.7'	S 19°25.5'	0.4'	54.3'
16	166°47.7'	58°42.9'	N 22°23.7'	245°02.9'	11.7'	S 19°25.1'	0.5'	54.3'
17	181°50.1'	73°42.8'	N 22°23.4'	259°33.6'	11.7'	S 19°24.6'	0.6'	54.3'
18	196°52.6'	88°42.7'	N 22°23.1'	274°04.2'	11.6'	S 19°24.0'	0.7'	54.4'
19	211°55.1'	103°42.6'	N 22°22.8'	288°34.9'	11.6'	S 19°23.3'	0.8'	54.4'
20	226°57.5'	118°42.5'	N 22°22.5'	303°05.5'	11.6'	S 19°22.5'	0.9'	54.4'
21	241°60.0'	133°42.5'	N 22°22.2'	317°36.2'	11.6'	S 19°21.6'	1.0'	54.4'
22	257°02.5'	148°42.4'	N 22°21.9'	332°06.8'	11.6'	S 19°20.6'	1.1'	54.4'
23	272°04.9'	163°42.3'	N 22°21.6'	346°37.4'	11.6'	S 19°19.5'	1.2'	54.4'

Sun Jul 9, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.7'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	287°07.4'	178°42.2'	N 22°21.3'	1°08.0'	11.6'	S 19°18.3'	1.3'	54.4'
1	302°09.8'	193°42.1'	N 22°21.0'	15°38.6'	11.6'	S 19°17.1'	1.4'	54.4'
2	317°12.3'	208°42.0'	N 22°20.7'	30°09.2'	11.6'	S 19°15.7'	1.4'	54.4'
3	332°14.8'	223°41.9'	N 22°20.4'	44°39.8'	11.6'	S 19°14.3'	1.5'	54.5'
4	347°17.2'	238°41.8'	N 22°20.1'	59°10.4'	11.6'	S 19°12.7'	1.6'	54.5'
5	2°19.7'	253°41.7'	N 22°19.8'	73°41.0'	11.6'	S 19°11.1'	1.7'	54.5'
6	17°22.2'	268°41.6'	N 22°19.5'	88°11.6'	11.6'	S 19°09.4'	1.8'	54.5'
7	32°24.6'	283°41.5'	N 22°19.2'	102°42.1'	11.6'	S 19°07.6'	1.9'	54.5'
8	47°27.1'	298°41.4'	N 22°18.9'	117°12.7'	11.6'	S 19°05.7'	2.0'	54.5'
9	62°29.6'	313°41.4'	N 22°18.6'	131°43.3'	11.6'	S 19°03.7'	2.1'	54.5'
10	77°32.0'	328°41.3'	N 22°18.3'	146°13.9'	11.6'	S 19°01.6'	2.2'	54.5'
11	92°34.5'	343°41.2'	N 22°18.0'	160°44.5'	11.6'	S 18°59.4'	2.3'	54.6'
12	107°37.0'	358°41.1'	N 22°17.7'	175°15.0'	11.6'	S 18°57.1'	2.4'	54.6'
13	122°39.4'	13°41.0'	N 22°17.3'	189°45.6'	11.6'	S 18°54.8'	2.5'	54.6'
14	137°41.9'	28°40.9'	N 22°17.0'	204°16.2'	11.6'	S 18°52.3'	2.5'	54.6'
15	152°44.3'	43°40.8'	N 22°16.7'	218°46.8'	11.6'	S 18°49.7'	2.6'	54.6'
16	167°46.8'	58°40.7'	N 22°16.4'	233°17.4'	11.6'	S 18°47.1'	2.7'	54.6'
17	182°49.3'	73°40.6'	N 22°16.1'	247°47.9'	11.6'	S 18°44.4'	2.8'	54.6'
18	197°51.7'	88°40.6'	N 22°15.8'	262°18.5'	11.6'	S 18°41.6'	2.9'	54.6'
19	212°54.2'	103°40.5'	N 22°15.5'	276°49.1'	11.6'	S 18°38.6'	3.0'	54.7'
20	227°56.7'	118°40.4'	N 22°15.2'	291°19.7'	11.6'	S 18°35.6'	3.1'	54.7'
21	242°59.1'	133°40.3'	N 22°14.9'	305°50.3'	11.6'	S 18°32.5'	3.2'	54.7'
22	258°01.6'	148°40.2'	N 22°14.5'	320°20.9'	11.6'	S 18°29.4'	3.3'	54.7'
23	273°04.1'	163°40.1'	N 22°14.2'	334°51.5'	11.6'	S 18°26.1'	3.4'	54.7'

Mon Jul 10, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.7'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	288°06.5'	178°40.0'	N 22°13.9'	349°22.1'	11.6'	S 18°22.7'	3.5'	54.7'
1	303°09.0'	193°39.9'	N 22°13.6'	3°52.7'	11.6'	S 18°19.3'	3.5'	54.7'
2	318°11.4'	208°39.8'	N 22°13.3'	18°23.4'	11.6'	S 18°15.7'	3.6'	54.8'
3	333°13.9'	223°39.8'	N 22°13.0'	32°54.0'	11.6'	S 18°12.1'	3.7'	54.8'
4	348°16.4'	238°39.7'	N 22°12.6'	47°24.6'	11.6'	S 18°08.4'	3.8'	54.8'
5	3°18.8'	253°39.6'	N 22°12.3'	61°55.3'	11.7'	S 18°04.6'	3.9'	54.8'
6	18°21.3'	268°39.5'	N 22°12.0'	76°25.9'	11.7'	S 18°00.7'	4.0'	54.8'
7	33°23.8'	283°39.4'	N 22°11.7'	90°56.6'	11.7'	S 17°56.7'	4.1'	54.8'
8	48°26.2'	298°39.3'	N 22°11.4'	105°27.2'	11.7'	S 17°52.6'	4.2'	54.8'
9	63°28.7'	313°39.2'	N 22°11.1'	119°57.9'	11.7'	S 17°48.4'	4.3'	54.9'
10	78°31.2'	328°39.2'	N 22°10.7'	134°28.6'	11.7'	S 17°44.2'	4.3'	54.9'
11	93°33.6'	343°39.1'	N 22°10.4'	148°59.3'	11.7'	S 17°39.8'	4.4'	54.9'
12	108°36.1'	358°39.0'	N 22°10.1'	163°30.0'	11.7'	S 17°35.4'	4.5'	54.9'
13	123°38.6'	13°38.9'	N 22°09.8'	178°00.7'	11.7'	S 17°30.9'	4.6'	54.9'
14	138°41.0'	28°38.8'	N 22°09.4'	192°31.4'	11.7'	S 17°26.3'	4.7'	54.9'
15	153°43.5'	43°38.7'	N 22°09.1'	207°02.2'	11.7'	S 17°21.6'	4.8'	55.0'
16	168°45.9'	58°38.6'	N 22°08.8'	221°32.9'	11.8'	S 17°16.9'	4.9'	55.0'
17	183°48.4'	73°38.6'	N 22°08.5'	236°03.7'	11.8'	S 17°12.0'	4.9'	55.0'
18	198°50.9'	88°38.5'	N 22°08.1'	250°34.4'	11.8'	S 17°07.1'	5.0'	55.0'
19	213°53.3'	103°38.4'	N 22°07.8'	265°05.2'	11.8'	S 17°02.0'	5.1'	55.0'
20	228°55.8'	118°38.3'	N 22°07.5'	279°36.0'	11.8'	S 16°56.9'	5.2'	55.0'
21	243°58.3'	133°38.2'	N 22°07.1'	294°06.8'	11.8'	S 16°51.7'	5.3'	55.0'
22	259°00.7'	148°38.1'	N 22°06.8'	308°37.6'	11.8'	S 16°46.5'	5.4'	55.1'
23	274°03.2'	163°38.1'	N 22°06.5'	323°08.4'	11.8'	S 16°41.1'	5.4'	55.1'

Tue Jul 11, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.7'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	289°05.7'	178°38.0'	N 22°06.2'	337°39.2'	11.8'	S 16°35.7'	5.5'	55.1'
1	304°08.1'	193°37.9'	N 22°05.8'	352°10.1'	11.9'	S 16°30.1'	5.6'	55.1'
2	319°10.6'	208°37.8'	N 22°05.5'	6°40.9'	11.9'	S 16°24.5'	5.7'	55.1'
3	334°13.1'	223°37.7'	N 22°05.2'	21°11.8'	11.9'	S 16°18.8'	5.8'	55.1'
4	349°15.5'	238°37.6'	N 22°04.8'	35°42.7'	11.9'	S 16°13.1'	5.9'	55.2'
5	4°18.0'	253°37.6'	N 22°04.5'	50°13.6'	11.9'	S 16°07.2'	5.9'	55.2'
6	19°20.4'	268°37.5'	N 22°04.2'	64°44.5'	11.9'	S 16°01.3'	6.0'	55.2'
7	34°22.9'	283°37.4'	N 22°03.8'	79°15.4'	11.9'	S 15°55.3'	6.1'	55.2'
8	49°25.4'	298°37.3'	N 22°03.5'	93°46.4'	12.0'	S 15°49.2'	6.2'	55.2'
9	64°27.8'	313°37.2'	N 22°03.1'	108°17.3'	12.0'	S 15°43.0'	6.2'	55.3'
10	79°30.3'	328°37.2'	N 22°02.8'	122°48.3'	12.0'	S 15°36.8'	6.3'	55.3'
11	94°32.8'	343°37.1'	N 22°02.5'	137°19.3'	12.0'	S 15°30.4'	6.4'	55.3'
12	109°35.2'	358°37.0'	N 22°02.1'	151°50.3'	12.0'	S 15°24.0'	6.5'	55.3'
13	124°37.7'	13°36.9'	N 22°01.8'	166°21.3'	12.0'	S 15°17.6'	6.6'	55.3'
14	139°40.2'	28°36.8'	N 22°01.5'	180°52.3'	12.0'	S 15°11.0'	6.6'	55.3'
15	154°42.6'	43°36.8'	N 22°01.1'	195°23.3'	12.0'	S 15°04.4'	6.7'	55.4'
16	169°45.1'	58°36.7'	N 22°00.8'	209°54.4'	12.1'	S 14°57.7'	6.8'	55.4'
17	184°47.6'	73°36.6'	N 22°00.4'	224°25.4'	12.1'	S 14°50.9'	6.9'	55.4'
18	199°50.0'	88°36.5'	N 22°00.1'	238°56.5'	12.1'	S 14°44.0'	6.9'	55.4'
19	214°52.5'	103°36.4'	N 21°59.7'	253°27.6'	12.1'	S 14°37.1'	7.0'	55.4'
20	229°54.9'	118°36.4'	N 21°59.4'	267°58.7'	12.1'	S 14°30.1'	7.1'	55.5'
21	244°57.4'	133°36.3'	N 21°59.1'	282°29.8'	12.1'	S 14°23.0'	7.2'	55.5'
22	259°59.9'	148°36.2'	N 21°58.7'	297°01.0'	12.1'	S 14°15.8'	7.2'	55.5'
23	275°02.3'	163°36.1'	N 21°58.4'	311°32.1'	12.2'	S 14°08.6'	7.3'	55.5'

Wed Jul 12, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 15.7'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	290°04.8'	178°36.0'	N 21°58.0'	326°03.3'	12.2'	S 14°01.3'	7.4'	55.5'
1	305°07.3'	193°36.0'	N 21°57.7'	340°34.4'	12.2'	S 13°53.9'	7.4'	55.6'
2	320°09.7'	208°35.9'	N 21°57.3'	355°05.6'	12.2'	S 13°46.5'	7.5'	55.6'
3	335°12.2'	223°35.8'	N 21°57.0'	9°36.8'	12.2'	S 13°39.0'	7.6'	55.6'
4	350°14.7'	238°35.7'	N 21°56.6'	24°08.0'	12.2'	S 13°31.4'	7.7'	55.6'
5	5°17.1'	253°35.7'	N 21°56.3'	38°39.3'	12.2'	S 13°23.7'	7.7'	55.6'
6	20°19.6'	268°35.6'	N 21°55.9'	53°10.5'	12.3'	S 13°16.0'	7.8'	55.7'
7	35°22.0'	283°35.5'	N 21°55.6'	67°41.8'	12.3'	S 13°08.2'	7.9'	55.7'
8	50°24.5'	298°35.4'	N 21°55.2'	82°13.0'	12.3'	S 13°00.4'	7.9'	55.7'
9	65°27.0'	313°35.3'	N 21°54.9'	96°44.3'	12.3'	S 12°52.5'	8.0'	55.7'
10	80°29.4'	328°35.3'	N 21°54.5'	111°15.6'	12.3'	S 12°44.5'	8.1'	55.7'
11	95°31.9'	343°35.2'	N 21°54.2'	125°46.9'	12.3'	S 12°36.4'	8.1'	55.8'
12	110°34.4'	358°35.1'	N 21°53.8'	140°18.2'	12.3'	S 12°28.3'	8.2'	55.8'
13	125°36.8'	13°35.0'	N 21°53.4'	154°49.6'	12.3'	S 12°20.1'	8.2'	55.8'
14	140°39.3'	28°35.0'	N 21°53.1'	169°20.9'	12.4'	S 12°11.9'	8.3'	55.8'
15	155°41.8'	43°34.9'	N 21°52.7'	183°52.2'	12.4'	S 12°03.6'	8.4'	55.8'
16	170°44.2'	58°34.8'	N 21°52.4'	198°23.6'	12.4'	S 11°55.2'	8.4'	55.9'
17	185°46.7'	73°34.7'	N 21°52.0'	212°55.0'	12.4'	S 11°46.7'	8.5'	55.9'
18	200°49.2'	88°34.7'	N 21°51.7'	227°26.4'	12.4'	S 11°38.2'	8.6'	55.9'
19	215°51.6'	103°34.6'	N 21°51.3'	241°57.8'	12.4'	S 11°29.7'	8.6'	55.9'
20	230°54.1'	118°34.5'	N 21°50.9'	256°29.2'	12.4'	S 11°21.1'	8.7'	55.9'
21	245°56.5'	133°34.4'	N 21°50.6'	271°00.6'	12.4'	S 11°12.4'	8.7'	56.0'
22	260°59.0'	148°34.4'	N 21°50.2'	285°32.0'	12.4'	S 11°03.6'	8.8'	56.0'
23	276°01.5'	163°34.3'	N 21°49.9'	300°03.4'	12.4'	S 10°54.8'	8.9'	56.0'

Thu Jul 13, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 15.7'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	291°03.9'	178°34.2'	N 21°49.5'	314°34.9'	12.5'	S 10°46.0'	8.9'	56.0'
1	306°06.4'	193°34.1'	N 21°49.1'	329°06.3'	12.5'	S 10°37.1'	9.0'	56.1'
2	321°08.9'	208°34.1'	N 21°48.8'	343°37.8'	12.5'	S 10°28.1'	9.0'	56.1'
3	336°11.3'	223°34.0'	N 21°48.4'	358°09.2'	12.5'	S 10°19.1'	9.1'	56.1'
4	351°13.8'	238°33.9'	N 21°48.0'	12°40.7'	12.5'	S 10°10.0'	9.1'	56.1'
5	6°16.3'	253°33.9'	N 21°47.7'	27°12.2'	12.5'	S 10°00.8'	9.2'	56.1'
6	21°18.7'	268°33.8'	N 21°47.3'	41°43.7'	12.5'	S 9°51.7'	9.2'	56.2'
7	36°21.2'	283°33.7'	N 21°46.9'	56°15.2'	12.5'	S 9°42.4'	9.3'	56.2'
8	51°23.7'	298°33.6'	N 21°46.6'	70°46.7'	12.5'	S 9°33.1'	9.4'	56.2'
9	66°26.1'	313°33.6'	N 21°46.2'	85°18.2'	12.5'	S 9°23.8'	9.4'	56.2'
10	81°28.6'	328°33.5'	N 21°45.8'	99°49.7'	12.5'	S 9°14.4'	9.5'	56.3'
11	96°31.0'	343°33.4'	N 21°45.5'	114°21.2'	12.5'	S 9°04.9'	9.5'	56.3'
12	111°33.5'	358°33.3'	N 21°45.1'	128°52.7'	12.5'	S 8°55.4'	9.6'	56.3'
13	126°36.0'	13°33.3'	N 21°44.7'	143°24.3'	12.5'	S 8°45.8'	9.6'	56.3'
14	141°38.4'	28°33.2'	N 21°44.4'	157°55.8'	12.5'	S 8°36.2'	9.7'	56.4'
15	156°40.9'	43°33.1'	N 21°44.0'	172°27.3'	12.5'	S 8°26.6'	9.7'	56.4'
16	171°43.4'	58°33.1'	N 21°43.6'	186°58.8'	12.5'	S 8°16.9'	9.7'	56.4'
17	186°45.8'	73°33.0'	N 21°43.2'	201°30.4'	12.5'	S 8°07.1'	9.8'	56.4'
18	201°48.3'	88°32.9'	N 21°42.9'	216°01.9'	12.5'	S 7°57.4'	9.8'	56.4'
19	216°50.8'	103°32.9'	N 21°42.5'	230°33.4'	12.5'	S 7°47.5'	9.9'	56.5'
20	231°53.2'	118°32.8'	N 21°42.1'	245°05.0'	12.5'	S 7°37.6'	9.9'	56.5'
21	246°55.7'	133°32.7'	N 21°41.7'	259°36.5'	12.5'	S 7°27.7'	10.0'	56.5'
22	261°58.1'	148°32.6'	N 21°41.4'	274°08.0'	12.5'	S 7°17.7'	10.0'	56.5'
23	277°00.6'	163°32.6'	N 21°41.0'	288°39.6'	12.5'	S 7°07.7'	10.1'	56.6'

Fri Jul 14, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 15.7'		SD = 15.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	292°03.1'	178°32.5'	N 21°40.6'	303°11.1'	12.5'	S 6°57.7'	10.1'	56.6'
1	307°05.5'	193°32.4'	N 21°40.2'	317°42.6'	12.5'	S 6°47.6'	10.1'	56.6'
2	322°08.0'	208°32.4'	N 21°39.8'	332°14.2'	12.5'	S 6°37.4'	10.2'	56.6'
3	337°10.5'	223°32.3'	N 21°39.5'	346°45.7'	12.5'	S 6°27.3'	10.2'	56.7'
4	352°12.9'	238°32.2'	N 21°39.1'	1°17.2'	12.5'	S 6°17.0'	10.3'	56.7'
5	7°15.4'	253°32.2'	N 21°38.7'	15°48.7'	12.5'	S 6°06.8'	10.3'	56.7'
6	22°17.9'	268°32.1'	N 21°38.3'	30°20.2'	12.5'	S 5°56.5'	10.3'	56.7'
7	37°20.3'	283°32.0'	N 21°37.9'	44°51.7'	12.5'	S 5°46.2'	10.4'	56.8'
8	52°22.8'	298°32.0'	N 21°37.6'	59°23.2'	12.5'	S 5°35.8'	10.4'	56.8'
9	67°25.3'	313°31.9'	N 21°37.2'	73°54.7'	12.5'	S 5°25.4'	10.4'	56.8'
10	82°27.7'	328°31.8'	N 21°36.8'	88°26.2'	12.5'	S 5°15.0'	10.5'	56.8'
11	97°30.2'	343°31.8'	N 21°36.4'	102°57.6'	12.5'	S 5°04.5'	10.5'	56.9'
12	112°32.6'	358°31.7'	N 21°36.0'	117°29.1'	12.5'	S 4°54.0'	10.5'	56.9'
13	127°35.1'	13°31.6'	N 21°35.6'	132°00.5'	12.4'	S 4°43.4'	10.6'	56.9'
14	142°37.6'	28°31.6'	N 21°35.2'	146°32.0'	12.4'	S 4°32.9'	10.6'	57.0'
15	157°40.0'	43°31.5'	N 21°34.9'	161°03.4'	12.4'	S 4°22.3'	10.6'	57.0'
16	172°42.5'	58°31.4'	N 21°34.5'	175°34.8'	12.4'	S 4°11.6'	10.7'	57.0'
17	187°45.0'	73°31.4'	N 21°34.1'	190°06.2'	12.4'	S 4°01.0'	10.7'	57.0'
18	202°47.4'	88°31.3'	N 21°33.7'	204°37.6'	12.4'	S 3°50.3'	10.7'	57.1'
19	217°49.9'	103°31.2'	N 21°33.3'	219°09.0'	12.4'	S 3°39.6'	10.7'	57.1'
20	232°52.4'	118°31.2'	N 21°32.9'	233°40.4'	12.3'	S 3°28.8'	10.8'	57.1'
21	247°54.8'	133°31.1'	N 21°32.5'	248°11.7'	12.3'	S 3°18.1'	10.8'	57.1'
22	262°57.3'	148°31.0'	N 21°32.1'	262°43.0'	12.3'	S 3°07.3'	10.8'	57.2'
23	277°59.8'	163°31.0'	N 21°31.7'	277°14.4'	12.3'	S 2°56.5'	10.8'	57.2'

Sat Jul 15, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 15.7'		SD = 15.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	293°02.2'	178°30.9'	N 21°31.3'	291°45.7'	12.3'	S 2°45.6'	10.9'	57.2'
1	308°04.7'	193°30.9'	N 21°30.9'	306°16.9'	12.3'	S 2°34.8'	10.9'	57.2'
2	323°07.1'	208°30.8'	N 21°30.5'	320°48.2'	12.2'	S 2°23.9'	10.9'	57.3'
3	338°09.6'	223°30.7'	N 21°30.2'	335°19.4'	12.2'	S 2°13.0'	10.9'	57.3'
4	353°12.1'	238°30.7'	N 21°29.8'	349°50.7'	12.2'	S 2°02.0'	11.0'	57.3'
5	8°14.5'	253°30.6'	N 21°29.4'	4°21.9'	12.2'	S 1°51.1'	11.0'	57.4'
6	23°17.0'	268°30.5'	N 21°29.0'	18°53.0'	12.2'	S 1°40.1'	11.0'	57.4'
7	38°19.5'	283°30.5'	N 21°28.6'	33°24.2'	12.1'	S 1°29.1'	11.0'	57.4'
8	53°21.9'	298°30.4'	N 21°28.2'	47°55.3'	12.1'	S 1°18.1'	11.0'	57.4'
9	68°24.4'	313°30.4'	N 21°27.8'	62°26.4'	12.1'	S 1°07.1'	11.0'	57.5'
10	83°26.9'	328°30.3'	N 21°27.4'	76°57.5'	12.1'	S 0°56.1'	11.1'	57.5'
11	98°29.3'	343°30.2'	N 21°27.0'	91°28.6'	12.0'	S 0°45.0'	11.1'	57.5'
12	113°31.8'	358°30.2'	N 21°26.6'	105°59.6'	12.0'	S 0°33.9'	11.1'	57.5'
13	128°34.2'	13°30.1'	N 21°26.2'	120°30.6'	12.0'	S 0°22.9'	11.1'	57.6'
14	143°36.7'	28°30.0'	N 21°25.8'	135°01.6'	11.9'	S 0°11.8'	11.1'	57.6'
15	158°39.2'	43°30.0'	N 21°25.4'	149°32.5'	11.9'	S 0°00.7'	11.1'	57.6'
16	173°41.6'	58°29.9'	N 21°25.0'	164°03.4'	11.9'	N 0°10.4'	11.1'	57.7'
17	188°44.1'	73°29.9'	N 21°24.6'	178°34.3'	11.9'	N 0°21.6'	11.1'	57.7'
18	203°46.6'	88°29.8'	N 21°24.2'	193°05.2'	11.8'	N 0°32.7'	11.1'	57.7'
19	218°49.0'	103°29.7'	N 21°23.7'	207°36.0'	11.8'	N 0°43.8'	11.1'	57.7'
20	233°51.5'	118°29.7'	N 21°23.3'	222°06.8'	11.8'	N 0°55.0'	11.2'	57.8'
21	248°54.0'	133°29.6'	N 21°22.9'	236°37.6'	11.7'	N 1°06.1'	11.2'	57.8'
22	263°56.4'	148°29.6'	N 21°22.5'	251°08.3'	11.7'	N 1°17.3'	11.2'	57.8'
23	278°58.9'	163°29.5'	N 21°22.1'	265°39.0'	11.7'	N 1°28.4'	11.2'	57.9'

Sun Jul 16, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 15.7'		SD = 15.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	294°01.4'	178°29.4'	N 21°21.7'	280°09.6'	11.6'	N 1°39.6'	11.2'	57.9'
1	309°03.8'	193°29.4'	N 21°21.3'	294°40.3'	11.6'	N 1°50.8'	11.2'	57.9'
2	324°06.3'	208°29.3'	N 21°20.9'	309°10.8'	11.5'	N 2°01.9'	11.2'	57.9'
3	339°08.7'	223°29.3'	N 21°20.5'	323°41.4'	11.5'	N 2°13.1'	11.2'	58.0'
4	354°11.2'	238°29.2'	N 21°20.1'	338°11.9'	11.5'	N 2°24.3'	11.2'	58.0'
5	9°13.7'	253°29.2'	N 21°19.7'	352°42.4'	11.4'	N 2°35.4'	11.2'	58.0'
6	24°16.1'	268°29.1'	N 21°19.2'	7°12.8'	11.4'	N 2°46.6'	11.2'	58.1'
7	39°18.6'	283°29.0'	N 21°18.8'	21°43.2'	11.3'	N 2°57.8'	11.2'	58.1'
8	54°21.1'	298°29.0'	N 21°18.4'	36°13.5'	11.3'	N 3°08.9'	11.1'	58.1'
9	69°23.5'	313°28.9'	N 21°18.0'	50°43.8'	11.3'	N 3°20.1'	11.1'	58.1'
10	84°26.0'	328°28.9'	N 21°17.6'	65°14.0'	11.2'	N 3°31.2'	11.1'	58.2'
11	99°28.5'	343°28.8'	N 21°17.2'	79°44.3'	11.2'	N 3°42.3'	11.1'	58.2'
12	114°30.9'	358°28.8'	N 21°16.8'	94°14.4'	11.1'	N 3°53.4'	11.1'	58.2'
13	129°33.4'	13°28.7'	N 21°16.3'	108°44.5'	11.1'	N 4°04.6'	11.1'	58.3'
14	144°35.8'	28°28.6'	N 21°15.9'	123°14.6'	11.0'	N 4°15.7'	11.1'	58.3'
15	159°38.3'	43°28.6'	N 21°15.5'	137°44.6'	11.0'	N 4°26.8'	11.1'	58.3'
16	174°40.8'	58°28.5'	N 21°15.1'	152°14.6'	10.9'	N 4°37.8'	11.1'	58.3'
17	189°43.2'	73°28.5'	N 21°14.7'	166°44.5'	10.9'	N 4°48.9'	11.1'	58.4'
18	204°45.7'	88°28.4'	N 21°14.2'	181°14.4'	10.8'	N 4°60.0'	11.0'	58.4'
19	219°48.2'	103°28.4'	N 21°13.8'	195°44.2'	10.8'	N 5°11.0'	11.0'	58.4'
20	234°50.6'	118°28.3'	N 21°13.4'	210°14.0'	10.7'	N 5°22.0'	11.0'	58.5'
21	249°53.1'	133°28.3'	N 21°13.0'	224°43.7'	10.7'	N 5°33.0'	11.0'	58.5'
22	264°55.6'	148°28.2'	N 21°12.6'	239°13.4'	10.6'	N 5°44.0'	11.0'	58.5'
23	279°58.0'	163°28.2'	N 21°12.1'	253°43.0'	10.6'	N 5°54.9'	10.9'	58.5'



Mon Jul 17, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 15.7'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	295°00.5'	178°28.1'	N 21°11.7'	268°12.6'	10.5'	N 6°05.9'	10.9'	58.6'
1	310°03.0'	193°28.0'	N 21°11.3'	282°42.1'	10.5'	N 6°16.8'	10.9'	58.6'
2	325°05.4'	208°28.0'	N 21°10.9'	297°11.6'	10.4'	N 6°27.7'	10.9'	58.6'
3	340°07.9'	223°27.9'	N 21°10.4'	311°40.9'	10.3'	N 6°38.6'	10.8'	58.7'
4	355°10.3'	238°27.9'	N 21°10.0'	326°10.3'	10.3'	N 6°49.4'	10.8'	58.7'
5	10°12.8'	253°27.8'	N 21°09.6'	340°39.6'	10.2'	N 7°00.2'	10.8'	58.7'
6	25°15.3'	268°27.8'	N 21°09.2'	355°08.8'	10.2'	N 7°11.0'	10.8'	58.7'
7	40°17.7'	283°27.7'	N 21°08.7'	9°38.0'	10.1'	N 7°21.8'	10.7'	58.8'
8	55°20.2'	298°27.7'	N 21°08.3'	24°07.1'	10.0'	N 7°32.5'	10.7'	58.8'
9	70°22.7'	313°27.6'	N 21°07.9'	38°36.1'	10.0'	N 7°43.2'	10.7'	58.8'
10	85°25.1'	328°27.6'	N 21°07.4'	53°05.1'	9.9'	N 7°53.8'	10.6'	58.9'
11	100°27.6'	343°27.5'	N 21°07.0'	67°34.0'	9.9'	N 8°04.5'	10.6'	58.9'
12	115°30.1'	358°27.5'	N 21°06.6'	82°02.9'	9.8'	N 8°15.1'	10.6'	58.9'
13	130°32.5'	13°27.4'	N 21°06.2'	96°31.6'	9.7'	N 8°25.6'	10.5'	58.9'
14	145°35.0'	28°27.4'	N 21°05.7'	111°00.4'	9.7'	N 8°36.2'	10.5'	59.0'
15	160°37.5'	43°27.3'	N 21°05.3'	125°29.0'	9.6'	N 8°46.6'	10.4'	59.0'
16	175°39.9'	58°27.3'	N 21°04.9'	139°57.6'	9.5'	N 8°57.1'	10.4'	59.0'
17	190°42.4'	73°27.2'	N 21°04.4'	154°26.2'	9.5'	N 9°07.5'	10.4'	59.1'
18	205°44.8'	88°27.2'	N 21°04.0'	168°54.6'	9.4'	N 9°17.8'	10.3'	59.1'
19	220°47.3'	103°27.1'	N 21°03.5'	183°23.0'	9.3'	N 9°28.1'	10.3'	59.1'
20	235°49.8'	118°27.1'	N 21°03.1'	197°51.4'	9.3'	N 9°38.4'	10.2'	59.1'
21	250°52.2'	133°27.0'	N 21°02.7'	212°19.6'	9.2'	N 9°48.6'	10.2'	59.2'
22	265°54.7'	148°27.0'	N 21°02.2'	226°47.8'	9.1'	N 9°58.8'	10.1'	59.2'
23	280°57.2'	163°26.9'	N 21°01.8'	241°16.0'	9.1'	N 10°08.9'	10.1'	59.2'

Tue Jul 18, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 15.7'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	295°59.6'	178°26.9'	N 21°01.4'	255°44.0'	9.0'	N 10°19.0'	10.0'	59.3'
1	311°02.1'	193°26.8'	N 21°00.9'	270°12.0'	8.9'	N 10°29.1'	10.0'	59.3'
2	326°04.6'	208°26.8'	N 21°00.5'	284°39.9'	8.8'	N 10°39.0'	9.9'	59.3'
3	341°07.0'	223°26.7'	N 21°00.0'	299°07.8'	8.8'	N 10°48.9'	9.9'	59.3'
4	356°09.5'	238°26.7'	N 20°59.6'	313°35.6'	8.7'	N 10°58.8'	9.8'	59.4'
5	11°11.9'	253°26.6'	N 20°59.2'	328°03.3'	8.6'	N 11°08.6'	9.8'	59.4'
6	26°14.4'	268°26.6'	N 20°58.7'	342°30.9'	8.6'	N 11°18.4'	9.7'	59.4'
7	41°16.9'	283°26.6'	N 20°58.3'	356°58.5'	8.5'	N 11°28.1'	9.6'	59.4'
8	56°19.3'	298°26.5'	N 20°57.8'	11°26.0'	8.4'	N 11°37.7'	9.6'	59.5'
9	71°21.8'	313°26.5'	N 20°57.4'	25°53.4'	8.3'	N 11°47.3'	9.5'	59.5'
10	86°24.3'	328°26.4'	N 20°56.9'	40°20.7'	8.3'	N 11°56.8'	9.4'	59.5'
11	101°26.7'	343°26.4'	N 20°56.5'	54°48.0'	8.2'	N 12°06.2'	9.4'	59.5'
12	116°29.2'	358°26.3'	N 20°56.1'	69°15.2'	8.1'	N 12°15.6'	9.3'	59.6'
13	131°31.7'	13°26.3'	N 20°55.6'	83°42.3'	8.0'	N 12°24.9'	9.2'	59.6'
14	146°34.1'	28°26.2'	N 20°55.2'	98°09.4'	8.0'	N 12°34.2'	9.2'	59.6'
15	161°36.6'	43°26.2'	N 20°54.7'	112°36.3'	7.9'	N 12°43.4'	9.1'	59.6'
16	176°39.1'	58°26.1'	N 20°54.3'	127°03.2'	7.8'	N 12°52.5'	9.0'	59.7'
17	191°41.5'	73°26.1'	N 20°53.8'	141°30.0'	7.7'	N 13°01.5'	9.0'	59.7'
18	206°44.0'	88°26.1'	N 20°53.4'	155°56.8'	7.7'	N 13°10.5'	8.9'	59.7'
19	221°46.4'	103°26.0'	N 20°52.9'	170°23.5'	7.6'	N 13°19.3'	8.8'	59.7'
20	236°48.9'	118°26.0'	N 20°52.5'	184°50.1'	7.5'	N 13°28.1'	8.7'	59.8'
21	251°51.4'	133°25.9'	N 20°52.0'	199°16.6'	7.4'	N 13°36.9'	8.7'	59.8'
22	266°53.8'	148°25.9'	N 20°51.6'	213°43.0'	7.4'	N 13°45.5'	8.6'	59.8'
23	281°56.3'	163°25.8'	N 20°51.1'	228°09.4'	7.3'	N 13°54.1'	8.5'	59.8'

Wed Jul 19, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 15.7'		SD = 16.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	296°58.8'	178°25.8'	N 20°50.7'	242°35.7'	7.2'	N 14°02.6'	8.4'	59.9'
1	312°01.2'	193°25.8'	N 20°50.2'	257°01.9'	7.1'	N 14°11.0'	8.3'	59.9'
2	327°03.7'	208°25.7'	N 20°49.7'	271°28.1'	7.1'	N 14°19.3'	8.2'	59.9'
3	342°06.2'	223°25.7'	N 20°49.3'	285°54.2'	7.0'	N 14°27.6'	8.2'	59.9'
4	357°08.6'	238°25.6'	N 20°48.8'	300°20.2'	6.9'	N 14°35.7'	8.1'	60.0'
5	12°11.1'	253°25.6'	N 20°48.4'	314°46.1'	6.8'	N 14°43.8'	8.0'	60.0'
6	27°13.6'	268°25.5'	N 20°47.9'	329°11.9'	6.8'	N 14°51.8'	7.9'	60.0'
7	42°16.0'	283°25.5'	N 20°47.5'	343°37.7'	6.7'	N 14°59.7'	7.8'	60.0'
8	57°18.5'	298°25.5'	N 20°47.0'	358°03.4'	6.6'	N 15°07.5'	7.7'	60.0'
9	72°20.9'	313°25.4'	N 20°46.5'	12°29.0'	6.6'	N 15°15.2'	7.6'	60.1'
10	87°23.4'	328°25.4'	N 20°46.1'	26°54.6'	6.5'	N 15°22.8'	7.5'	60.1'
11	102°25.9'	343°25.3'	N 20°45.6'	41°20.1'	6.4'	N 15°30.3'	7.4'	60.1'
12	117°28.3'	358°25.3'	N 20°45.2'	55°45.5'	6.3'	N 15°37.7'	7.3'	60.1'
13	132°30.8'	13°25.3'	N 20°44.7'	70°10.8'	6.3'	N 15°45.0'	7.2'	60.1'
14	147°33.3'	28°25.2'	N 20°44.2'	84°36.1'	6.2'	N 15°52.3'	7.1'	60.2'
15	162°35.7'	43°25.2'	N 20°43.8'	99°01.3'	6.1'	N 15°59.4'	7.0'	60.2'
16	177°38.2'	58°25.1'	N 20°43.3'	113°26.4'	6.1'	N 16°06.4'	6.9'	60.2'
17	192°40.7'	73°25.1'	N 20°42.9'	127°51.5'	6.0'	N 16°13.3'	6.8'	60.2'
18	207°43.1'	88°25.1'	N 20°42.4'	142°16.4'	5.9'	N 16°20.1'	6.7'	60.2'
19	222°45.6'	103°25.0'	N 20°41.9'	156°41.4'	5.8'	N 16°26.8'	6.6'	60.3'
20	237°48.1'	118°25.0'	N 20°41.5'	171°06.2'	5.8'	N 16°33.4'	6.5'	60.3'
21	252°50.5'	133°24.9'	N 20°41.0'	185°31.0'	5.7'	N 16°39.9'	6.4'	60.3'
22	267°53.0'	148°24.9'	N 20°40.5'	199°55.7'	5.6'	N 16°46.3'	6.3'	60.3'
23	282°55.4'	163°24.9'	N 20°40.1'	214°20.3'	5.6'	N 16°52.6'	6.2'	60.3'

Thu Jul 20, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 15.7'		SD = 16.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	297°57.9'	178°24.8'	N 20°39.6'	228°44.9'	5.5'	N 16°58.7'	6.0'	60.3'
1	313°00.4'	193°24.8'	N 20°39.1'	243°09.4'	5.4'	N 17°04.8'	5.9'	60.4'
2	328°02.8'	208°24.8'	N 20°38.7'	257°33.9'	5.4'	N 17°10.7'	5.8'	60.4'
3	343°05.3'	223°24.7'	N 20°38.2'	271°58.3'	5.3'	N 17°16.5'	5.7'	60.4'
4	358°07.8'	238°24.7'	N 20°37.7'	286°22.6'	5.3'	N 17°22.2'	5.6'	60.4'
5	13°10.2'	253°24.7'	N 20°37.2'	300°46.8'	5.2'	N 17°27.8'	5.5'	60.4'
6	28°12.7'	268°24.6'	N 20°36.8'	315°11.0'	5.1'	N 17°33.2'	5.3'	60.4'
7	43°15.2'	283°24.6'	N 20°36.3'	329°35.2'	5.1'	N 17°38.6'	5.2'	60.5'
8	58°17.6'	298°24.5'	N 20°35.8'	343°59.3'	5.0'	N 17°43.8'	5.1'	60.5'
9	73°20.1'	313°24.5'	N 20°35.4'	358°23.3'	5.0'	N 17°48.9'	5.0'	60.5'
10	88°22.5'	328°24.5'	N 20°34.9'	12°47.3'	4.9'	N 17°53.9'	4.9'	60.5'
11	103°25.0'	343°24.4'	N 20°34.4'	27°11.2'	4.9'	N 17°58.7'	4.7'	60.5'
12	118°27.5'	358°24.4'	N 20°33.9'	41°35.0'	4.8'	N 18°03.5'	4.6'	60.5'
13	133°29.9'	13°24.4'	N 20°33.5'	55°58.8'	4.8'	N 18°08.1'	4.5'	60.5'
14	148°32.4'	28°24.3'	N 20°33.0'	70°22.6'	4.7'	N 18°12.6'	4.4'	60.5'
15	163°34.9'	43°24.3'	N 20°32.5'	84°46.3'	4.7'	N 18°16.9'	4.2'	60.6'
16	178°37.3'	58°24.3'	N 20°32.0'	99°10.0'	4.6'	N 18°21.1'	4.1'	60.6'
17	193°39.8'	73°24.2'	N 20°31.5'	113°33.6'	4.6'	N 18°25.2'	4.0'	60.6'
18	208°42.3'	88°24.2'	N 20°31.1'	127°57.1'	4.5'	N 18°29.2'	3.8'	60.6'
19	223°44.7'	103°24.2'	N 20°30.6'	142°20.7'	4.5'	N 18°33.0'	3.7'	60.6'
20	238°47.2'	118°24.1'	N 20°30.1'	156°44.1'	4.4'	N 18°36.7'	3.6'	60.6'
21	253°49.7'	133°24.1'	N 20°29.6'	171°07.6'	4.4'	N 18°40.3'	3.4'	60.6'
22	268°52.1'	148°24.1'	N 20°29.1'	185°31.0'	4.4'	N 18°43.7'	3.3'	60.6'
23	283°54.6'	163°24.0'	N 20°28.7'	199°54.3'	4.3'	N 18°47.0'	3.2'	60.6'

Fri Jul 21, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 15.7'		SD = 16.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	298°57.0'	178°24.0'	N 20°28.2'	214°17.6'	4.3'	N 18°50.2'	3.0'	60.6'
1	313°59.5'	193°24.0'	N 20°27.7'	228°40.9'	4.2'	N 18°53.2'	2.9'	60.6'
2	329°02.0'	208°24.0'	N 20°27.2'	243°04.1'	4.2'	N 18°56.1'	2.8'	60.7'
3	344°04.4'	223°23.9'	N 20°26.7'	257°27.3'	4.2'	N 18°58.9'	2.6'	60.7'
4	359°06.9'	238°23.9'	N 20°26.2'	271°50.5'	4.1'	N 19°01.5'	2.5'	60.7'
5	14°09.4'	253°23.9'	N 20°25.8'	286°13.7'	4.1'	N 19°04.0'	2.3'	60.7'
6	29°11.8'	268°23.8'	N 20°25.3'	300°36.8'	4.1'	N 19°06.3'	2.2'	60.7'
7	44°14.3'	283°23.8'	N 20°24.8'	314°59.9'	4.1'	N 19°08.6'	2.1'	60.7'
8	59°16.8'	298°23.8'	N 20°24.3'	329°22.9'	4.0'	N 19°10.6'	1.9'	60.7'
9	74°19.2'	313°23.7'	N 20°23.8'	343°46.0'	4.0'	N 19°12.6'	1.8'	60.7'
10	89°21.7'	328°23.7'	N 20°23.3'	358°09.0'	4.0'	N 19°14.3'	1.6'	60.7'
11	104°24.2'	343°23.7'	N 20°22.8'	12°32.0'	4.0'	N 19°16.0'	1.5'	60.7'
12	119°26.6'	358°23.7'	N 20°22.4'	26°55.0'	4.0'	N 19°17.5'	1.4'	60.7'
13	134°29.1'	13°23.6'	N 20°21.9'	41°17.9'	3.9'	N 19°18.9'	1.2'	60.7'
14	149°31.5'	28°23.6'	N 20°21.4'	55°40.9'	3.9'	N 19°20.1'	1.1'	60.7'
15	164°34.0'	43°23.6'	N 20°20.9'	70°03.8'	3.9'	N 19°21.2'	0.9'	60.7'
16	179°36.5'	58°23.5'	N 20°20.4'	84°26.7'	3.9'	N 19°22.1'	0.8'	60.7'
17	194°38.9'	73°23.5'	N 20°19.9'	98°49.7'	3.9'	N 19°22.9'	0.7'	60.7'
18	209°41.4'	88°23.5'	N 20°19.4'	113°12.6'	3.9'	N 19°23.6'	0.5'	60.7'
19	224°43.9'	103°23.5'	N 20°18.9'	127°35.5'	3.9'	N 19°24.1'	0.4'	60.7'
20	239°46.3'	118°23.4'	N 20°18.4'	141°58.4'	3.9'	N 19°24.5'	0.2'	60.7'
21	254°48.8'	133°23.4'	N 20°17.9'	156°21.3'	3.9'	N 19°24.7'	0.1'	60.7'
22	269°51.3'	148°23.4'	N 20°17.4'	170°44.1'	3.9'	N 19°24.8'	0.1'	60.7'
23	284°53.7'	163°23.4'	N 20°16.9'	185°07.0'	3.9'	N 19°24.7'	0.2'	60.7'

Sat Jul 22, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 15.7'		SD = 16.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	299°56.2'	178°23.3'	N 20°16.4'	199°29.9'	3.9'	N 19°24.5'	0.3'	60.7'
1	314°58.7'	193°23.3'	N 20°15.9'	213°52.8'	3.9'	N 19°24.2'	0.5'	60.7'
2	330°01.1'	208°23.3'	N 20°15.4'	228°15.7'	3.9'	N 19°23.7'	0.6'	60.7'
3	345°03.6'	223°23.3'	N 20°14.9'	242°38.7'	3.9'	N 19°23.1'	0.8'	60.7'
4	0°06.0'	238°23.2'	N 20°14.4'	257°01.6'	3.9'	N 19°22.3'	0.9'	60.7'
5	15°08.5'	253°23.2'	N 20°13.9'	271°24.5'	4.0'	N 19°21.4'	1.1'	60.7'
6	30°11.0'	268°23.2'	N 20°13.4'	285°47.5'	4.0'	N 19°20.4'	1.2'	60.7'
7	45°13.4'	283°23.2'	N 20°12.9'	300°10.4'	4.0'	N 19°19.2'	1.3'	60.6'
8	60°15.9'	298°23.1'	N 20°12.4'	314°33.4'	4.0'	N 19°17.8'	1.5'	60.6'
9	75°18.4'	313°23.1'	N 20°11.9'	328°56.4'	4.0'	N 19°16.4'	1.6'	60.6'
10	90°20.8'	328°23.1'	N 20°11.4'	343°19.4'	4.0'	N 19°14.7'	1.8'	60.6'
11	105°23.3'	343°23.1'	N 20°10.9'	357°42.5'	4.1'	N 19°13.0'	1.9'	60.6'
12	120°25.8'	358°23.0'	N 20°10.4'	12°05.6'	4.1'	N 19°11.1'	2.0'	60.6'
13	135°28.2'	13°23.0'	N 20°09.9'	26°28.7'	4.1'	N 19°09.1'	2.2'	60.6'
14	150°30.7'	28°23.0'	N 20°09.4'	40°51.8'	4.2'	N 19°06.9'	2.3'	60.6'
15	165°33.2'	43°23.0'	N 20°08.9'	55°14.9'	4.2'	N 19°04.6'	2.4'	60.6'
16	180°35.6'	58°23.0'	N 20°08.4'	69°38.1'	4.2'	N 19°02.1'	2.6'	60.6'
17	195°38.1'	73°22.9'	N 20°07.9'	84°01.3'	4.3'	N 18°59.5'	2.7'	60.6'
18	210°40.5'	88°22.9'	N 20°07.4'	98°24.6'	4.3'	N 18°56.8'	2.9'	60.5'
19	225°43.0'	103°22.9'	N 20°06.9'	112°47.9'	4.3'	N 18°54.0'	3.0'	60.5'
20	240°45.5'	118°22.9'	N 20°06.4'	127°11.2'	4.4'	N 18°51.0'	3.1'	60.5'
21	255°47.9'	133°22.8'	N 20°05.9'	141°34.6'	4.4'	N 18°47.8'	3.3'	60.5'
22	270°50.4'	148°22.8'	N 20°05.4'	155°58.0'	4.4'	N 18°44.6'	3.4'	60.5'
23	285°52.9'	163°22.8'	N 20°04.9'	170°21.4'	4.5'	N 18°41.2'	3.5'	60.5'

Sun Jul 23, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 15.7'		SD = 16.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	300°55.3'	178°22.8'	N 20°04.3'	184°44.9'	4.5'	N 18°37.6'	3.7'	60.5'
1	315°57.8'	193°22.8'	N 20°03.8'	199°08.4'	4.6'	N 18°34.0'	3.8'	60.4'
2	331°00.3'	208°22.7'	N 20°03.3'	213°32.0'	4.6'	N 18°30.2'	3.9'	60.4'
3	346°02.7'	223°22.7'	N 20°02.8'	227°55.7'	4.7'	N 18°26.3'	4.1'	60.4'
4	1°05.2'	238°22.7'	N 20°02.3'	242°19.3'	4.7'	N 18°22.2'	4.2'	60.4'
5	16°07.7'	253°22.7'	N 20°01.8'	256°43.1'	4.8'	N 18°18.0'	4.3'	60.4'
6	31°10.1'	268°22.7'	N 20°01.3'	271°06.9'	4.8'	N 18°13.7'	4.4'	60.4'
7	46°12.6'	283°22.7'	N 20°00.8'	285°30.7'	4.9'	N 18°09.3'	4.6'	60.3'
8	61°15.0'	298°22.6'	N 20°00.2'	299°54.6'	5.0'	N 18°04.7'	4.7'	60.3'
9	76°17.5'	313°22.6'	N 19°59.7'	314°18.5'	5.0'	N 18°00.1'	4.8'	60.3'
10	91°20.0'	328°22.6'	N 19°59.2'	328°42.6'	5.1'	N 17°55.3'	4.9'	60.3'
11	106°22.4'	343°22.6'	N 19°58.7'	343°06.6'	5.1'	N 17°50.3'	5.1'	60.3'
12	121°24.9'	358°22.6'	N 19°58.2'	357°30.8'	5.2'	N 17°45.3'	5.2'	60.3'
13	136°27.4'	13°22.6'	N 19°57.7'	11°54.9'	5.3'	N 17°40.1'	5.3'	60.2'
14	151°29.8'	28°22.5'	N 19°57.1'	26°19.2'	5.3'	N 17°34.8'	5.4'	60.2'
15	166°32.3'	43°22.5'	N 19°56.6'	40°43.5'	5.4'	N 17°29.4'	5.5'	60.2'
16	181°34.8'	58°22.5'	N 19°56.1'	55°07.9'	5.4'	N 17°23.9'	5.6'	60.2'
17	196°37.2'	73°22.5'	N 19°55.6'	69°32.4'	5.5'	N 17°18.2'	5.8'	60.1'
18	211°39.7'	88°22.5'	N 19°55.1'	83°56.9'	5.6'	N 17°12.5'	5.9'	60.1'
19	226°42.1'	103°22.5'	N 19°54.5'	98°21.5'	5.7'	N 17°06.6'	6.0'	60.1'
20	241°44.6'	118°22.4'	N 19°54.0'	112°46.1'	5.7'	N 17°00.6'	6.1'	60.1'
21	256°47.1'	133°22.4'	N 19°53.5'	127°10.8'	5.8'	N 16°54.5'	6.2'	60.1'
22	271°49.5'	148°22.4'	N 19°53.0'	141°35.6'	5.9'	N 16°48.3'	6.3'	60.0'
23	286°52.0'	163°22.4'	N 19°52.4'	156°00.5'	5.9'	N 16°42.0'	6.4'	60.0'

Mon Jul 24, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 15.7'		SD = 16.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	301°54.5'	178°22.4'	N 19°51.9'	170°25.4'	6.0'	N 16°35.6'	6.5'	60.0'
1	316°56.9'	193°22.4'	N 19°51.4'	184°50.4'	6.1'	N 16°29.1'	6.6'	60.0'
2	331°59.4'	208°22.4'	N 19°50.9'	199°15.5'	6.2'	N 16°22.4'	6.7'	59.9'
3	347°01.9'	223°22.3'	N 19°50.3'	213°40.7'	6.2'	N 16°15.7'	6.8'	59.9'
4	2°04.3'	238°22.3'	N 19°49.8'	228°05.9'	6.3'	N 16°08.9'	6.9'	59.9'
5	17°06.8'	253°22.3'	N 19°49.3'	242°31.2'	6.4'	N 16°01.9'	7.0'	59.9'
6	32°09.3'	268°22.3'	N 19°48.8'	256°56.6'	6.5'	N 15°54.9'	7.1'	59.8'
7	47°11.7'	283°22.3'	N 19°48.2'	271°22.1'	6.5'	N 15°47.8'	7.2'	59.8'
8	62°14.2'	298°22.3'	N 19°47.7'	285°47.6'	6.6'	N 15°40.5'	7.3'	59.8'
9	77°16.6'	313°22.3'	N 19°47.2'	300°13.2'	6.7'	N 15°33.2'	7.4'	59.7'
10	92°19.1'	328°22.3'	N 19°46.6'	314°38.9'	6.8'	N 15°25.8'	7.5'	59.7'
11	107°21.6'	343°22.3'	N 19°46.1'	329°04.7'	6.9'	N 15°18.3'	7.6'	59.7'
12	122°24.0'	358°22.2'	N 19°45.6'	343°30.6'	6.9'	N 15°10.6'	7.7'	59.7'
13	137°26.5'	13°22.2'	N 19°45.0'	357°56.5'	7.0'	N 15°02.9'	7.8'	59.6'
14	152°29.0'	28°22.2'	N 19°44.5'	12°22.6'	7.1'	N 14°55.2'	7.9'	59.6'
15	167°31.4'	43°22.2'	N 19°44.0'	26°48.7'	7.2'	N 14°47.3'	8.0'	59.6'
16	182°33.9'	58°22.2'	N 19°43.4'	41°14.8'	7.3'	N 14°39.3'	8.0'	59.5'
17	197°36.4'	73°22.2'	N 19°42.9'	55°41.1'	7.3'	N 14°31.3'	8.1'	59.5'
18	212°38.8'	88°22.2'	N 19°42.4'	70°07.5'	7.4'	N 14°23.1'	8.2'	59.5'
19	227°41.3'	103°22.2'	N 19°41.8'	84°33.9'	7.5'	N 14°14.9'	8.3'	59.4'
20	242°43.8'	118°22.2'	N 19°41.3'	99°00.4'	7.6'	N 14°06.6'	8.4'	59.4'
21	257°46.2'	133°22.2'	N 19°40.8'	113°27.0'	7.7'	N 13°58.2'	8.5'	59.4'
22	272°48.7'	148°22.2'	N 19°40.2'	127°53.7'	7.8'	N 13°49.8'	8.5'	59.4'
23	287°51.1'	163°22.1'	N 19°39.7'	142°20.4'	7.8'	N 13°41.3'	8.6'	59.3'

Tue Jul 25, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 15.7'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	302°53.6'	178°22.1'	N 19°39.2'	156°47.3'	7.9'	N 13°32.7'	8.7'	59.3'
1	317°56.1'	193°22.1'	N 19°38.6'	171°14.2'	8.0'	N 13°24.0'	8.8'	59.3'
2	332°58.5'	208°22.1'	N 19°38.1'	185°41.2'	8.1'	N 13°15.2'	8.8'	59.2'
3	348°01.0'	223°22.1'	N 19°37.5'	200°08.3'	8.2'	N 13°06.4'	8.9'	59.2'
4	3°03.5'	238°22.1'	N 19°37.0'	214°35.5'	8.3'	N 12°57.5'	9.0'	59.2'
5	18°05.9'	253°22.1'	N 19°36.5'	229°02.8'	8.3'	N 12°48.6'	9.0'	59.1'
6	33°08.4'	268°22.1'	N 19°35.9'	243°30.1'	8.4'	N 12°39.5'	9.1'	59.1'
7	48°10.9'	283°22.1'	N 19°35.4'	257°57.5'	8.5'	N 12°30.4'	9.2'	59.1'
8	63°13.3'	298°22.1'	N 19°34.8'	272°25.0'	8.6'	N 12°21.3'	9.2'	59.0'
9	78°15.8'	313°22.1'	N 19°34.3'	286°52.6'	8.7'	N 12°12.1'	9.3'	59.0'
10	93°18.2'	328°22.1'	N 19°33.7'	301°20.3'	8.8'	N 12°02.8'	9.3'	59.0'
11	108°20.7'	343°22.1'	N 19°33.2'	315°48.1'	8.8'	N 11°53.4'	9.4'	58.9'
12	123°23.2'	358°22.1'	N 19°32.7'	330°15.9'	8.9'	N 11°44.0'	9.5'	58.9'
13	138°25.6'	13°22.1'	N 19°32.1'	344°43.8'	9.0'	N 11°34.6'	9.5'	58.9'
14	153°28.1'	28°22.1'	N 19°31.6'	359°11.8'	9.1'	N 11°25.0'	9.6'	58.8'
15	168°30.6'	43°22.1'	N 19°31.0'	13°39.9'	9.2'	N 11°15.5'	9.6'	58.8'
16	183°33.0'	58°22.1'	N 19°30.5'	28°08.1'	9.2'	N 11°05.9'	9.7'	58.7'
17	198°35.5'	73°22.1'	N 19°29.9'	42°36.3'	9.3'	N 10°56.2'	9.7'	58.7'
18	213°38.0'	88°22.0'	N 19°29.4'	57°04.7'	9.4'	N 10°46.5'	9.8'	58.7'
19	228°40.4'	103°22.0'	N 19°28.8'	71°33.1'	9.5'	N 10°36.7'	9.8'	58.6'
20	243°42.9'	118°22.0'	N 19°28.3'	86°01.6'	9.6'	N 10°26.9'	9.9'	58.6'
21	258°45.4'	133°22.0'	N 19°27.7'	100°30.1'	9.6'	N 10°17.0'	9.9'	58.6'
22	273°47.8'	148°22.0'	N 19°27.2'	114°58.8'	9.7'	N 10°07.1'	10.0'	58.5'
23	288°50.3'	163°22.0'	N 19°26.6'	129°27.5'	9.8'	N 9°57.1'	10.0'	58.5'

Wed Jul 26, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 15.7'		SD = 15.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	303°52.7'	178°22.0'	N 19°26.1'	143°56.3'	9.9'	N 9°47.1'	10.0'	58.5'
1	318°55.2'	193°22.0'	N 19°25.5'	158°25.2'	10.0'	N 9°37.1'	10.1'	58.4'
2	333°57.7'	208°22.0'	N 19°25.0'	172°54.1'	10.0'	N 9°27.0'	10.1'	58.4'
3	349°00.1'	223°22.0'	N 19°24.4'	187°23.2'	10.1'	N 9°16.8'	10.2'	58.4'
4	4°02.6'	238°22.0'	N 19°23.9'	201°52.3'	10.2'	N 9°06.7'	10.2'	58.3'
5	19°05.1'	253°22.0'	N 19°23.3'	216°21.5'	10.3'	N 8°56.5'	10.2'	58.3'
6	34°07.5'	268°22.0'	N 19°22.8'	230°50.7'	10.3'	N 8°46.2'	10.3'	58.2'
7	49°10.0'	283°22.0'	N 19°22.2'	245°20.1'	10.4'	N 8°36.0'	10.3'	58.2'
8	64°12.5'	298°22.0'	N 19°21.6'	259°49.5'	10.5'	N 8°25.7'	10.3'	58.2'
9	79°14.9'	313°22.0'	N 19°21.1'	274°19.0'	10.6'	N 8°15.3'	10.4'	58.1'
10	94°17.4'	328°22.0'	N 19°20.5'	288°48.5'	10.6'	N 8°05.0'	10.4'	58.1'
11	109°19.9'	343°22.0'	N 19°20.0'	303°18.1'	10.7'	N 7°54.6'	10.4'	58.1'
12	124°22.3'	358°22.0'	N 19°19.4'	317°47.9'	10.8'	N 7°44.1'	10.5'	58.0'
13	139°24.8'	13°22.0'	N 19°18.9'	332°17.6'	10.8'	N 7°33.7'	10.5'	58.0'
14	154°27.2'	28°22.1'	N 19°18.3'	346°47.5'	10.9'	N 7°23.2'	10.5'	57.9'
15	169°29.7'	43°22.1'	N 19°17.7'	1°17.4'	11.0'	N 7°12.7'	10.5'	57.9'
16	184°32.2'	58°22.1'	N 19°17.2'	15°47.4'	11.1'	N 7°02.2'	10.6'	57.9'
17	199°34.6'	73°22.1'	N 19°16.6'	30°17.4'	11.1'	N 6°51.6'	10.6'	57.8'
18	214°37.1'	88°22.1'	N 19°16.1'	44°47.5'	11.2'	N 6°41.1'	10.6'	57.8'
19	229°39.6'	103°22.1'	N 19°15.5'	59°17.7'	11.3'	N 6°30.5'	10.6'	57.8'
20	244°42.0'	118°22.1'	N 19°14.9'	73°48.0'	11.3'	N 6°19.8'	10.6'	57.7'
21	259°44.5'	133°22.1'	N 19°14.4'	88°18.3'	11.4'	N 6°09.2'	10.6'	57.7'
22	274°47.0'	148°22.1'	N 19°13.8'	102°48.7'	11.4'	N 5°58.6'	10.7'	57.6'
23	289°49.4'	163°22.1'	N 19°13.2'	117°19.1'	11.5'	N 5°47.9'	10.7'	57.6'

Thu Jul 27, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 15.7'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	304°51.9'	178°22.1'	N 19°12.7'	131°49.6'	11.6'	N 5°37.2'	10.7'	57.6'
1	319°54.3'	193°22.1'	N 19°12.1'	146°20.2'	11.6'	N 5°26.5'	10.7'	57.5'
2	334°56.8'	208°22.1'	N 19°11.5'	160°50.9'	11.7'	N 5°15.8'	10.7'	57.5'
3	349°59.3'	223°22.1'	N 19°11.0'	175°21.6'	11.8'	N 5°05.1'	10.7'	57.5'
4	5°01.7'	238°22.1'	N 19°10.4'	189°52.3'	11.8'	N 4°54.4'	10.7'	57.4'
5	20°04.2'	253°22.1'	N 19°09.8'	204°23.1'	11.9'	N 4°43.6'	10.7'	57.4'
6	35°06.7'	268°22.1'	N 19°09.3'	218°54.0'	11.9'	N 4°32.9'	10.8'	57.3'
7	50°09.1'	283°22.1'	N 19°08.7'	233°25.0'	12.0'	N 4°22.1'	10.8'	57.3'
8	65°11.6'	298°22.1'	N 19°08.1'	247°56.0'	12.1'	N 4°11.4'	10.8'	57.3'
9	80°14.1'	313°22.2'	N 19°07.6'	262°27.0'	12.1'	N 4°00.6'	10.8'	57.2'
10	95°16.5'	328°22.2'	N 19°07.0'	276°58.1'	12.2'	N 3°49.8'	10.8'	57.2'
11	110°19.0'	343°22.2'	N 19°06.4'	291°29.3'	12.2'	N 3°39.0'	10.8'	57.2'
12	125°21.5'	358°22.2'	N 19°05.9'	306°00.5'	12.3'	N 3°28.3'	10.8'	57.1'
13	140°23.9'	13°22.2'	N 19°05.3'	320°31.8'	12.3'	N 3°17.5'	10.8'	57.1'
14	155°26.4'	28°22.2'	N 19°04.7'	335°03.1'	12.4'	N 3°06.7'	10.8'	57.1'
15	170°28.8'	43°22.2'	N 19°04.1'	349°34.5'	12.4'	N 2°55.9'	10.8'	57.0'
16	185°31.3'	58°22.2'	N 19°03.6'	4°05.9'	12.5'	N 2°45.1'	10.8'	57.0'
17	200°33.8'	73°22.2'	N 19°03.0'	18°37.4'	12.5'	N 2°34.3'	10.8'	56.9'
18	215°36.2'	88°22.2'	N 19°02.4'	33°09.0'	12.6'	N 2°23.5'	10.8'	56.9'
19	230°38.7'	103°22.2'	N 19°01.8'	47°40.5'	12.6'	N 2°12.8'	10.8'	56.9'
20	245°41.2'	118°22.3'	N 19°01.3'	62°12.2'	12.7'	N 2°02.0'	10.8'	56.8'
21	260°43.6'	133°22.3'	N 19°00.7'	76°43.9'	12.7'	N 1°51.2'	10.8'	56.8'
22	275°46.1'	148°22.3'	N 19°00.1'	91°15.6'	12.8'	N 1°40.4'	10.8'	56.8'
23	290°48.6'	163°22.3'	N 18°59.5'	105°47.4'	12.8'	N 1°29.7'	10.8'	56.7'

Fri Jul 28, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 15.8'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	305°51.0'	178°22.3'	N 18°59.0'	120°19.2'	12.9'	N 1°18.9'	10.7'	56.7'
1	320°53.5'	193°22.3'	N 18°58.4'	134°51.0'	12.9'	N 1°08.2'	10.7'	56.7'
2	335°56.0'	208°22.3'	N 18°57.8'	149°22.9'	12.9'	N 0°57.4'	10.7'	56.6'
3	350°58.4'	223°22.3'	N 18°57.2'	163°54.9'	13.0'	N 0°46.7'	10.7'	56.6'
4	6°00.9'	238°22.3'	N 18°56.6'	178°26.9'	13.0'	N 0°36.0'	10.7'	56.6'
5	21°03.3'	253°22.4'	N 18°56.1'	192°58.9'	13.1'	N 0°25.3'	10.7'	56.5'
6	36°05.8'	268°22.4'	N 18°55.5'	207°31.0'	13.1'	N 0°14.6'	10.7'	56.5'
7	51°08.3'	283°22.4'	N 18°54.9'	222°03.1'	13.2'	N 0°03.9'	10.7'	56.5'
8	66°10.7'	298°22.4'	N 18°54.3'	236°35.2'	13.2'	S 0°06.8'	10.7'	56.4'
9	81°13.2'	313°22.4'	N 18°53.7'	251°07.4'	13.2'	S 0°17.4'	10.6'	56.4'
10	96°15.7'	328°22.4'	N 18°53.1'	265°39.7'	13.3'	S 0°28.1'	10.6'	56.4'
11	111°18.1'	343°22.4'	N 18°52.6'	280°11.9'	13.3'	S 0°38.7'	10.6'	56.3'
12	126°20.6'	358°22.5'	N 18°52.0'	294°44.2'	13.3'	S 0°49.3'	10.6'	56.3'
13	141°23.1'	13°22.5'	N 18°51.4'	309°16.6'	13.4'	S 0°59.9'	10.6'	56.3'
14	156°25.5'	28°22.5'	N 18°50.8'	323°48.9'	13.4'	S 1°10.5'	10.6'	56.2'
15	171°28.0'	43°22.5'	N 18°50.2'	338°21.3'	13.4'	S 1°21.0'	10.5'	56.2'
16	186°30.4'	58°22.5'	N 18°49.6'	352°53.8'	13.5'	S 1°31.6'	10.5'	56.2'
17	201°32.9'	73°22.5'	N 18°49.0'	7°26.2'	13.5'	S 1°42.1'	10.5'	56.1'
18	216°35.4'	88°22.6'	N 18°48.5'	21°58.7'	13.5'	S 1°52.6'	10.5'	56.1'
19	231°37.8'	103°22.6'	N 18°47.9'	36°31.2'	13.6'	S 2°03.1'	10.5'	56.1'
20	246°40.3'	118°22.6'	N 18°47.3'	51°03.8'	13.6'	S 2°13.5'	10.4'	56.0'
21	261°42.8'	133°22.6'	N 18°46.7'	65°36.4'	13.6'	S 2°23.9'	10.4'	56.0'
22	276°45.2'	148°22.6'	N 18°46.1'	80°09.0'	13.6'	S 2°34.3'	10.4'	56.0'
23	291°47.7'	163°22.6'	N 18°45.5'	94°41.6'	13.7'	S 2°44.7'	10.4'	55.9'

Sat Jul 29, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 15.8'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	306°50.2'	178°22.7'	N 18°44.9'	109°14.3'	13.7'	S 2°55.1'	10.3'	55.9'
1	321°52.6'	193°22.7'	N 18°44.3'	123°47.0'	13.7'	S 3°05.4'	10.3'	55.9'
2	336°55.1'	208°22.7'	N 18°43.7'	138°19.7'	13.7'	S 3°15.7'	10.3'	55.8'
3	351°57.6'	223°22.7'	N 18°43.1'	152°52.4'	13.8'	S 3°26.0'	10.3'	55.8'
4	7°00.0'	238°22.7'	N 18°42.6'	167°25.2'	13.8'	S 3°36.3'	10.2'	55.8'
5	22°02.5'	253°22.8'	N 18°42.0'	181°58.0'	13.8'	S 3°46.5'	10.2'	55.8'
6	37°04.9'	268°22.8'	N 18°41.4'	196°30.8'	13.8'	S 3°56.7'	10.2'	55.7'
7	52°07.4'	283°22.8'	N 18°40.8'	211°03.6'	13.8'	S 4°06.9'	10.1'	55.7'
8	67°09.9'	298°22.8'	N 18°40.2'	225°36.4'	13.9'	S 4°17.0'	10.1'	55.7'
9	82°12.3'	313°22.8'	N 18°39.6'	240°09.3'	13.9'	S 4°27.1'	10.1'	55.6'
10	97°14.8'	328°22.9'	N 18°39.0'	254°42.2'	13.9'	S 4°37.2'	10.0'	55.6'
11	112°17.3'	343°22.9'	N 18°38.4'	269°15.1'	13.9'	S 4°47.2'	10.0'	55.6'
12	127°19.7'	358°22.9'	N 18°37.8'	283°48.0'	13.9'	S 4°57.3'	10.0'	55.6'
13	142°22.2'	13°22.9'	N 18°37.2'	298°20.9'	13.9'	S 5°07.2'	10.0'	55.5'
14	157°24.7'	28°22.9'	N 18°36.6'	312°53.9'	14.0'	S 5°17.2'	9.9'	55.5'
15	172°27.1'	43°23.0'	N 18°36.0'	327°26.8'	14.0'	S 5°27.1'	9.9'	55.5'
16	187°29.6'	58°23.0'	N 18°35.4'	341°59.8'	14.0'	S 5°37.0'	9.8'	55.4'
17	202°32.0'	73°23.0'	N 18°34.8'	356°32.8'	14.0'	S 5°46.8'	9.8'	55.4'
18	217°34.5'	88°23.0'	N 18°34.2'	11°05.8'	14.0'	S 5°56.7'	9.8'	55.4'
19	232°37.0'	103°23.1'	N 18°33.6'	25°38.8'	14.0'	S 6°06.4'	9.7'	55.4'
20	247°39.4'	118°23.1'	N 18°33.0'	40°11.8'	14.0'	S 6°16.2'	9.7'	55.3'
21	262°41.9'	133°23.1'	N 18°32.4'	54°44.9'	14.0'	S 6°25.9'	9.7'	55.3'
22	277°44.4'	148°23.1'	N 18°31.8'	69°17.9'	14.1'	S 6°35.6'	9.6'	55.3'
23	292°46.8'	163°23.2'	N 18°31.2'	83°51.0'	14.1'	S 6°45.2'	9.6'	55.3'

Sun Jul 30, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 15.8'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	307°49.3'	178°23.2'	N 18°30.6'	98°24.0'	14.1'	S 6°54.8'	9.6'	55.2'
1	322°51.8'	193°23.2'	N 18°30.0'	112°57.1'	14.1'	S 7°04.3'	9.5'	55.2'
2	337°54.2'	208°23.2'	N 18°29.4'	127°30.2'	14.1'	S 7°13.8'	9.5'	55.2'
3	352°56.7'	223°23.3'	N 18°28.8'	142°03.3'	14.1'	S 7°23.3'	9.4'	55.2'
4	7°59.2'	238°23.3'	N 18°28.2'	156°36.4'	14.1'	S 7°32.7'	9.4'	55.1'
5	23°01.6'	253°23.3'	N 18°27.6'	171°09.4'	14.1'	S 7°42.1'	9.4'	55.1'
6	38°04.1'	268°23.3'	N 18°26.9'	185°42.5'	14.1'	S 7°51.5'	9.3'	55.1'
7	53°06.5'	283°23.4'	N 18°26.3'	200°15.6'	14.1'	S 8°00.8'	9.3'	55.1'
8	68°09.0'	298°23.4'	N 18°25.7'	214°48.7'	14.1'	S 8°10.1'	9.2'	55.0'
9	83°11.5'	313°23.4'	N 18°25.1'	229°21.9'	14.1'	S 8°19.3'	9.2'	55.0'
10	98°13.9'	328°23.4'	N 18°24.5'	243°55.0'	14.1'	S 8°28.5'	9.1'	55.0'
11	113°16.4'	343°23.5'	N 18°23.9'	258°28.1'	14.1'	S 8°37.6'	9.1'	55.0'
12	128°18.9'	358°23.5'	N 18°23.3'	273°01.2'	14.1'	S 8°46.7'	9.0'	55.0'
13	143°21.3'	13°23.5'	N 18°22.7'	287°34.3'	14.1'	S 8°55.7'	9.0'	54.9'
14	158°23.8'	28°23.6'	N 18°22.1'	302°07.4'	14.1'	S 9°04.7'	9.0'	54.9'
15	173°26.3'	43°23.6'	N 18°21.5'	316°40.5'	14.1'	S 9°13.7'	8.9'	54.9'
16	188°28.7'	58°23.6'	N 18°20.8'	331°13.6'	14.1'	S 9°22.6'	8.9'	54.9'
17	203°31.2'	73°23.6'	N 18°20.2'	345°46.7'	14.1'	S 9°31.5'	8.8'	54.9'
18	218°33.7'	88°23.7'	N 18°19.6'	0°19.8'	14.1'	S 9°40.3'	8.8'	54.8'
19	233°36.1'	103°23.7'	N 18°19.0'	14°52.9'	14.1'	S 9°49.0'	8.7'	54.8'
20	248°38.6'	118°23.7'	N 18°18.4'	29°26.0'	14.1'	S 9°57.7'	8.7'	54.8'
21	263°41.0'	133°23.8'	N 18°17.8'	43°59.0'	14.1'	S 10°06.4'	8.6'	54.8'
22	278°43.5'	148°23.8'	N 18°17.2'	58°32.1'	14.1'	S 10°15.0'	8.6'	54.8'
23	293°46.0'	163°23.8'	N 18°16.6'	73°05.2'	14.1'	S 10°23.6'	8.5'	54.7'

Mon Jul 31, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 15.8'		GHA	v	SD = 14.9'	d	HP
		GHA	dec			dec		
0	308°48.4'	178°23.9'	N 18°15.9'	87°38.3'	14.1'	S 10°32.1'	8.5'	54.7'
1	323°50.9'	193°23.9'	N 18°15.3'	102°11.3'	14.0'	S 10°40.6'	8.4'	54.7'
2	338°53.4'	208°23.9'	N 18°14.7'	116°44.4'	14.0'	S 10°49.0'	8.4'	54.7'
3	353°55.8'	223°23.9'	N 18°14.1'	131°17.4'	14.0'	S 10°57.4'	8.3'	54.7'
4	8°58.3'	238°24.0'	N 18°13.5'	145°50.4'	14.0'	S 11°05.7'	8.3'	54.6'
5	24°00.8'	253°24.0'	N 18°12.8'	160°23.4'	14.0'	S 11°13.9'	8.2'	54.6'
6	39°03.2'	268°24.0'	N 18°12.2'	174°56.5'	14.0'	S 11°22.1'	8.2'	54.6'
7	54°05.7'	283°24.1'	N 18°11.6'	189°29.5'	14.0'	S 11°30.3'	8.1'	54.6'
8	69°08.1'	298°24.1'	N 18°11.0'	204°02.4'	14.0'	S 11°38.4'	8.0'	54.6'
9	84°10.6'	313°24.1'	N 18°10.4'	218°35.4'	14.0'	S 11°46.4'	8.0'	54.6'
10	99°13.1'	328°24.2'	N 18°09.7'	233°08.4'	14.0'	S 11°54.4'	7.9'	54.5'
11	114°15.5'	343°24.2'	N 18°09.1'	247°41.3'	13.9'	S 12°02.3'	7.9'	54.5'
12	129°18.0'	358°24.2'	N 18°08.5'	262°14.3'	13.9'	S 12°10.2'	7.8'	54.5'
13	144°20.5'	13°24.3'	N 18°07.9'	276°47.2'	13.9'	S 12°18.0'	7.8'	54.5'
14	159°22.9'	28°24.3'	N 18°07.3'	291°20.1'	13.9'	S 12°25.8'	7.7'	54.5'
15	174°25.4'	43°24.4'	N 18°06.6'	305°53.0'	13.9'	S 12°33.5'	7.6'	54.5'
16	189°27.9'	58°24.4'	N 18°06.0'	320°25.9'	13.9'	S 12°41.2'	7.6'	54.5'
17	204°30.3'	73°24.4'	N 18°05.4'	334°58.8'	13.9'	S 12°48.7'	7.5'	54.4'
18	219°32.8'	88°24.5'	N 18°04.8'	349°31.6'	13.8'	S 12°56.3'	7.5'	54.4'
19	234°35.3'	103°24.5'	N 18°04.1'	4°04.4'	13.8'	S 13°03.7'	7.4'	54.4'
20	249°37.7'	118°24.5'	N 18°03.5'	18°37.3'	13.8'	S 13°11.2'	7.4'	54.4'
21	264°40.2'	133°24.6'	N 18°02.9'	33°10.1'	13.8'	S 13°18.5'	7.3'	54.4'
22	279°42.6'	148°24.6'	N 18°02.2'	47°42.8'	13.8'	S 13°25.8'	7.2'	54.4'
23	294°45.1'	163°24.6'	N 18°01.6'	62°15.6'	13.7'	S 13°33.0'	7.2'	54.4'