

Fri Feb 1, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.2'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	130°54.7'	176°38.1'	S 17°14.5'	221°20.1'	11.1'	S 21°00.9'	2.5'	54.8'
1	145°57.2'	191°38.0'	S 17°13.8'	235°50.2'	11.1'	S 21°03.4'	2.4'	54.7'
2	160°59.6'	206°37.9'	S 17°13.1'	250°20.3'	11.1'	S 21°05.8'	2.3'	54.7'
3	176°02.1'	221°37.8'	S 17°12.4'	264°50.3'	11.1'	S 21°08.1'	2.2'	54.7'
4	191°04.6'	236°37.7'	S 17°11.7'	279°20.4'	11.1'	S 21°10.4'	2.1'	54.7'
5	206°07.0'	251°37.6'	S 17°11.0'	293°50.5'	11.1'	S 21°12.5'	2.0'	54.7'
6	221°09.5'	266°37.5'	S 17°10.3'	308°20.5'	11.1'	S 21°14.5'	1.9'	54.7'
7	236°12.0'	281°37.4'	S 17°09.6'	322°50.6'	11.1'	S 21°16.4'	1.8'	54.6'
8	251°14.4'	296°37.4'	S 17°08.9'	337°20.7'	11.1'	S 21°18.2'	1.7'	54.6'
9	266°16.9'	311°37.3'	S 17°08.1'	351°50.7'	11.1'	S 21°19.9'	1.6'	54.6'
10	281°19.4'	326°37.2'	S 17°07.4'	6°20.8'	11.1'	S 21°21.5'	1.5'	54.6'
11	296°21.8'	341°37.1'	S 17°06.7'	20°50.9'	11.1'	S 21°22.9'	1.4'	54.6'
12	311°24.3'	356°37.0'	S 17°06.0'	35°21.0'	11.1'	S 21°24.3'	1.3'	54.6'
13	326°26.8'	11°36.9'	S 17°05.3'	49°51.1'	11.1'	S 21°25.6'	1.2'	54.6'
14	341°29.2'	26°36.8'	S 17°04.6'	64°21.2'	11.1'	S 21°26.8'	1.1'	54.5'
15	356°31.7'	41°36.8'	S 17°03.9'	78°51.3'	11.1'	S 21°27.8'	1.0'	54.5'
16	11°34.1'	56°36.7'	S 17°03.2'	93°21.4'	11.1'	S 21°28.8'	0.9'	54.5'
17	26°36.6'	71°36.6'	S 17°02.4'	107°51.5'	11.1'	S 21°29.7'	0.8'	54.5'
18	41°39.1'	86°36.5'	S 17°01.7'	122°21.6'	11.1'	S 21°30.4'	0.7'	54.5'
19	56°41.5'	101°36.4'	S 17°01.0'	136°51.7'	11.1'	S 21°31.1'	0.5'	54.5'
20	71°44.0'	116°36.3'	S 17°00.3'	151°21.9'	11.1'	S 21°31.6'	0.4'	54.5'
21	86°46.5'	131°36.3'	S 16°59.6'	165°52.0'	11.2'	S 21°32.0'	0.3'	54.5'
22	101°48.9'	146°36.2'	S 16°58.9'	180°22.1'	11.2'	S 21°32.4'	0.2'	54.4'
23	116°51.4'	161°36.1'	S 16°58.2'	194°52.3'	11.2'	S 21°32.6'	0.1'	54.4'

Sat Feb 2, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.2'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	131°53.9'	176°36.0'	S 16°57.4'	209°22.5'	11.2'	S 21°32.8'	0.0'	54.4'
1	146°56.3'	191°35.9'	S 16°56.7'	223°52.7'	11.2'	S 21°32.8'	0.1'	54.4'
2	161°58.8'	206°35.8'	S 16°56.0'	238°22.9'	11.2'	S 21°32.7'	0.2'	54.4'
3	177°01.3'	221°35.8'	S 16°55.3'	252°53.1'	11.2'	S 21°32.5'	0.3'	54.4'
4	192°03.7'	236°35.7'	S 16°54.6'	267°23.3'	11.2'	S 21°32.2'	0.4'	54.4'
5	207°06.2'	251°35.6'	S 16°53.8'	281°53.5'	11.3'	S 21°31.9'	0.5'	54.4'
6	222°08.6'	266°35.5'	S 16°53.1'	296°23.8'	11.3'	S 21°31.4'	0.6'	54.3'
7	237°11.1'	281°35.5'	S 16°52.4'	310°54.1'	11.3'	S 21°30.8'	0.7'	54.3'
8	252°13.6'	296°35.4'	S 16°51.7'	325°24.3'	11.3'	S 21°30.1'	0.8'	54.3'
9	267°16.0'	311°35.3'	S 16°51.0'	339°54.6'	11.3'	S 21°29.3'	0.9'	54.3'
10	282°18.5'	326°35.2'	S 16°50.2'	354°25.0'	11.3'	S 21°28.4'	1.0'	54.3'
11	297°21.0'	341°35.1'	S 16°49.5'	8°55.3'	11.4'	S 21°27.4'	1.1'	54.3'
12	312°23.4'	356°35.1'	S 16°48.8'	23°25.6'	11.4'	S 21°26.3'	1.2'	54.3'
13	327°25.9'	11°35.0'	S 16°48.1'	37°56.0'	11.4'	S 21°25.1'	1.3'	54.3'
14	342°28.4'	26°34.9'	S 16°47.3'	52°26.4'	11.4'	S 21°23.8'	1.4'	54.3'
15	357°30.8'	41°34.8'	S 16°46.6'	66°56.8'	11.4'	S 21°22.3'	1.5'	54.2'
16	12°33.3'	56°34.8'	S 16°45.9'	81°27.2'	11.4'	S 21°20.8'	1.6'	54.2'
17	27°35.7'	71°34.7'	S 16°45.2'	95°57.7'	11.5'	S 21°19.2'	1.7'	54.2'
18	42°38.2'	86°34.6'	S 16°44.4'	110°28.2'	11.5'	S 21°17.5'	1.8'	54.2'
19	57°40.7'	101°34.5'	S 16°43.7'	124°58.7'	11.5'	S 21°15.7'	1.9'	54.2'
20	72°43.1'	116°34.5'	S 16°43.0'	139°29.2'	11.5'	S 21°13.8'	2.0'	54.2'
21	87°45.6'	131°34.4'	S 16°42.3'	153°59.7'	11.6'	S 21°11.8'	2.1'	54.2'
22	102°48.1'	146°34.3'	S 16°41.5'	168°30.3'	11.6'	S 21°09.7'	2.2'	54.2'
23	117°50.5'	161°34.2'	S 16°40.8'	183°00.9'	11.6'	S 21°07.5'	2.3'	54.2'

Sun Feb 3, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.2'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	132°53.0'	176°34.2'	S 16°40.1'	197°31.5'	11.6'	S 21°05.1'	2.4'	54.2'
1	147°55.5'	191°34.1'	S 16°39.3'	212°02.1'	11.7'	S 21°02.7'	2.5'	54.2'
2	162°57.9'	206°34.0'	S 16°38.6'	226°32.8'	11.7'	S 21°00.2'	2.6'	54.1'
3	178°00.4'	221°33.9'	S 16°37.9'	241°03.4'	11.7'	S 20°57.6'	2.7'	54.1'
4	193°02.9'	236°33.9'	S 16°37.2'	255°34.2'	11.7'	S 20°54.9'	2.8'	54.1'
5	208°05.3'	251°33.8'	S 16°36.4'	270°04.9'	11.8'	S 20°52.1'	2.9'	54.1'
6	223°07.8'	266°33.7'	S 16°35.7'	284°35.7'	11.8'	S 20°49.2'	3.0'	54.1'
7	238°10.2'	281°33.7'	S 16°35.0'	299°06.5'	11.8'	S 20°46.2'	3.1'	54.1'
8	253°12.7'	296°33.6'	S 16°34.2'	313°37.3'	11.9'	S 20°43.1'	3.2'	54.1'
9	268°15.2'	311°33.5'	S 16°33.5'	328°08.1'	11.9'	S 20°40.0'	3.3'	54.1'
10	283°17.6'	326°33.5'	S 16°32.8'	342°39.0'	11.9'	S 20°36.7'	3.4'	54.1'
11	298°20.1'	341°33.4'	S 16°32.0'	357°09.9'	11.9'	S 20°33.3'	3.5'	54.1'
12	313°22.6'	356°33.3'	S 16°31.3'	11°40.9'	12.0'	S 20°29.8'	3.6'	54.1'
13	328°25.0'	11°33.2'	S 16°30.5'	26°11.8'	12.0'	S 20°26.3'	3.7'	54.1'
14	343°27.5'	26°33.2'	S 16°29.8'	40°42.8'	12.0'	S 20°22.6'	3.8'	54.1'
15	358°30.0'	41°33.1'	S 16°29.1'	55°13.9'	12.1'	S 20°18.9'	3.8'	54.1'
16	13°32.4'	56°33.0'	S 16°28.3'	69°44.9'	12.1'	S 20°15.0'	3.9'	54.1'
17	28°34.9'	71°33.0'	S 16°27.6'	84°16.0'	12.1'	S 20°11.1'	4.0'	54.0'
18	43°37.4'	86°32.9'	S 16°26.9'	98°47.1'	12.2'	S 20°07.1'	4.1'	54.0'
19	58°39.8'	101°32.8'	S 16°26.1'	113°18.3'	12.2'	S 20°02.9'	4.2'	54.0'
20	73°42.3'	116°32.8'	S 16°25.4'	127°49.5'	12.2'	S 19°58.7'	4.3'	54.0'
21	88°44.7'	131°32.7'	S 16°24.6'	142°20.7'	12.3'	S 19°54.4'	4.4'	54.0'
22	103°47.2'	146°32.6'	S 16°23.9'	156°52.0'	12.3'	S 19°50.0'	4.5'	54.0'
23	118°49.7'	161°32.6'	S 16°23.2'	171°23.3'	12.3'	S 19°45.6'	4.6'	54.0'

Mon Feb 4, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.2'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	133°52.1'	176°32.5'	S 16°22.4'	185°54.6'	12.4'	S 19°41.0'	4.7'	54.0'
1	148°54.6'	191°32.5'	S 16°21.7'	200°26.0'	12.4'	S 19°36.3'	4.7'	54.0'
2	163°57.1'	206°32.4'	S 16°20.9'	214°57.4'	12.4'	S 19°31.6'	4.8'	54.0'
3	178°59.5'	221°32.3'	S 16°20.2'	229°28.8'	12.5'	S 19°26.8'	4.9'	54.0'
4	194°02.0'	236°32.3'	S 16°19.4'	244°00.3'	12.5'	S 19°21.8'	5.0'	54.0'
5	209°04.5'	251°32.2'	S 16°18.7'	258°31.8'	12.5'	S 19°16.8'	5.1'	54.0'
6	224°06.9'	266°32.1'	S 16°18.0'	273°03.3'	12.6'	S 19°11.7'	5.2'	54.0'
7	239°09.4'	281°32.1'	S 16°17.2'	287°34.9'	12.6'	S 19°06.5'	5.3'	54.0'
8	254°11.9'	296°32.0'	S 16°16.5'	302°06.5'	12.6'	S 19°01.3'	5.4'	54.0'
9	269°14.3'	311°32.0'	S 16°15.7'	316°38.2'	12.7'	S 18°55.9'	5.4'	54.0'
10	284°16.8'	326°31.9'	S 16°15.0'	331°09.8'	12.7'	S 18°50.5'	5.5'	54.0'
11	299°19.2'	341°31.8'	S 16°14.2'	345°41.6'	12.8'	S 18°45.0'	5.6'	54.0'
12	314°21.7'	356°31.8'	S 16°13.5'	0°13.3'	12.8'	S 18°39.4'	5.7'	54.0'
13	329°24.2'	11°31.7'	S 16°12.7'	14°45.1'	12.8'	S 18°33.7'	5.8'	54.0'
14	344°26.6'	26°31.7'	S 16°12.0'	29°17.0'	12.9'	S 18°27.9'	5.8'	54.0'
15	359°29.1'	41°31.6'	S 16°11.2'	43°48.8'	12.9'	S 18°22.1'	5.9'	54.0'
16	14°31.6'	56°31.5'	S 16°10.5'	58°20.7'	12.9'	S 18°16.1'	6.0'	54.0'
17	29°34.0'	71°31.5'	S 16°09.7'	72°52.7'	13.0'	S 18°10.1'	6.1'	54.0'
18	44°36.5'	86°31.4'	S 16°09.0'	87°24.7'	13.0'	S 18°04.0'	6.2'	53.9'
19	59°39.0'	101°31.4'	S 16°08.2'	101°56.7'	13.1'	S 17°57.9'	6.2'	53.9'
20	74°41.4'	116°31.3'	S 16°07.5'	116°28.8'	13.1'	S 17°51.6'	6.3'	53.9'
21	89°43.9'	131°31.2'	S 16°06.7'	131°00.9'	13.1'	S 17°45.3'	6.4'	53.9'
22	104°46.3'	146°31.2'	S 16°06.0'	145°33.0'	13.2'	S 17°38.9'	6.5'	53.9'
23	119°48.8'	161°31.1'	S 16°05.2'	160°05.2'	13.2'	S 17°32.4'	6.6'	53.9'

Tue Feb 5, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	134°51.3'	176°31.1'	S 16°04.5'	174°37.4'	13.3'	S 17°25.9'	6.6'	53.9'
1	149°53.7'	191°31.0'	S 16°03.7'	189°09.6'	13.3'	S 17°19.2'	6.7'	53.9'
2	164°56.2'	206°31.0'	S 16°03.0'	203°41.9'	13.3'	S 17°12.5'	6.8'	53.9'
3	179°58.7'	221°30.9'	S 16°02.2'	218°14.3'	13.4'	S 17°05.7'	6.9'	53.9'
4	195°01.1'	236°30.9'	S 16°01.5'	232°46.6'	13.4'	S 16°58.9'	6.9'	53.9'
5	210°03.6'	251°30.8'	S 16°00.7'	247°19.0'	13.4'	S 16°52.0'	7.0'	53.9'
6	225°06.1'	266°30.7'	S 15°59.9'	261°51.5'	13.5'	S 16°45.0'	7.1'	53.9'
7	240°08.5'	281°30.7'	S 15°59.2'	276°24.0'	13.5'	S 16°37.9'	7.1'	53.9'
8	255°11.0'	296°30.6'	S 15°58.4'	290°56.5'	13.6'	S 16°30.7'	7.2'	53.9'
9	270°13.5'	311°30.6'	S 15°57.7'	305°29.0'	13.6'	S 16°23.5'	7.3'	53.9'
10	285°15.9'	326°30.5'	S 15°56.9'	320°01.6'	13.6'	S 16°16.2'	7.4'	53.9'
11	300°18.4'	341°30.5'	S 15°56.2'	334°34.3'	13.7'	S 16°08.9'	7.4'	53.9'
12	315°20.8'	356°30.4'	S 15°55.4'	349°06.9'	13.7'	S 16°01.4'	7.5'	53.9'
13	330°23.3'	11°30.4'	S 15°54.6'	3°39.6'	13.7'	S 15°54.0'	7.6'	53.9'
14	345°25.8'	26°30.3'	S 15°53.9'	18°12.4'	13.8'	S 15°46.4'	7.6'	53.9'
15	0°28.2'	41°30.3'	S 15°53.1'	32°45.2'	13.8'	S 15°38.8'	7.7'	53.9'
16	15°30.7'	56°30.2'	S 15°52.4'	47°18.0'	13.9'	S 15°31.1'	7.8'	53.9'
17	30°33.2'	71°30.2'	S 15°51.6'	61°50.8'	13.9'	S 15°23.3'	7.8'	53.9'
18	45°35.6'	86°30.1'	S 15°50.8'	76°23.7'	13.9'	S 15°15.5'	7.9'	53.9'
19	60°38.1'	101°30.1'	S 15°50.1'	90°56.7'	14.0'	S 15°07.6'	8.0'	53.9'
20	75°40.6'	116°30.0'	S 15°49.3'	105°29.6'	14.0'	S 14°59.6'	8.0'	53.9'
21	90°43.0'	131°30.0'	S 15°48.5'	120°02.6'	14.0'	S 14°51.6'	8.1'	53.9'
22	105°45.5'	146°29.9'	S 15°47.8'	134°35.7'	14.1'	S 14°43.5'	8.1'	53.9'
23	120°48.0'	161°29.9'	S 15°47.0'	149°08.7'	14.1'	S 14°35.4'	8.2'	53.9'

Wed Feb 6, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	135°50.4'	176°29.8'	S 15°46.3'	163°41.8'	14.1'	S 14°27.2'	8.3'	54.0'
1	150°52.9'	191°29.8'	S 15°45.5'	178°15.0'	14.2'	S 14°18.9'	8.3'	54.0'
2	165°55.3'	206°29.7'	S 15°44.7'	192°48.2'	14.2'	S 14°10.6'	8.4'	54.0'
3	180°57.8'	221°29.7'	S 15°44.0'	207°21.4'	14.2'	S 14°02.2'	8.4'	54.0'
4	196°00.3'	236°29.6'	S 15°43.2'	221°54.6'	14.3'	S 13°53.7'	8.5'	54.0'
5	211°02.7'	251°29.6'	S 15°42.4'	236°27.9'	14.3'	S 13°45.2'	8.6'	54.0'
6	226°05.2'	266°29.6'	S 15°41.7'	251°01.2'	14.3'	S 13°36.7'	8.6'	54.0'
7	241°07.7'	281°29.5'	S 15°40.9'	265°34.5'	14.4'	S 13°28.0'	8.7'	54.0'
8	256°10.1'	296°29.5'	S 15°40.1'	280°07.9'	14.4'	S 13°19.4'	8.7'	54.0'
9	271°12.6'	311°29.4'	S 15°39.4'	294°41.3'	14.4'	S 13°10.6'	8.8'	54.0'
10	286°15.1'	326°29.4'	S 15°38.6'	309°14.8'	14.5'	S 13°01.8'	8.8'	54.0'
11	301°17.5'	341°29.3'	S 15°37.8'	323°48.3'	14.5'	S 12°53.0'	8.9'	54.0'
12	316°20.0'	356°29.3'	S 15°37.0'	338°21.8'	14.5'	S 12°44.1'	9.0'	54.0'
13	331°22.4'	11°29.2'	S 15°36.3'	352°55.3'	14.6'	S 12°35.1'	9.0'	54.0'
14	346°24.9'	26°29.2'	S 15°35.5'	7°28.9'	14.6'	S 12°26.1'	9.1'	54.0'
15	1°27.4'	41°29.2'	S 15°34.7'	22°02.5'	14.6'	S 12°17.1'	9.1'	54.0'
16	16°29.8'	56°29.1'	S 15°34.0'	36°36.1'	14.7'	S 12°08.0'	9.2'	54.0'
17	31°32.3'	71°29.1'	S 15°33.2'	51°09.8'	14.7'	S 11°58.8'	9.2'	54.0'
18	46°34.8'	86°29.0'	S 15°32.4'	65°43.5'	14.7'	S 11°49.6'	9.3'	54.0'
19	61°37.2'	101°29.0'	S 15°31.6'	80°17.2'	14.7'	S 11°40.4'	9.3'	54.0'
20	76°39.7'	116°29.0'	S 15°30.9'	94°50.9'	14.8'	S 11°31.0'	9.4'	54.0'
21	91°42.2'	131°28.9'	S 15°30.1'	109°24.7'	14.8'	S 11°21.7'	9.4'	54.0'
22	106°44.6'	146°28.9'	S 15°29.3'	123°58.5'	14.8'	S 11°12.3'	9.5'	54.0'
23	121°47.1'	161°28.8'	S 15°28.5'	138°32.3'	14.9'	S 11°02.8'	9.5'	54.0'

Thu Feb 7, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	136°49.6'	176°28.8'	S 15°27.8'	153°06.2'	14.9'	S 10°53.3'	9.5'	54.1'
1	151°52.0'	191°28.8'	S 15°27.0'	167°40.1'	14.9'	S 10°43.8'	9.6'	54.1'
2	166°54.5'	206°28.7'	S 15°26.2'	182°14.0'	14.9'	S 10°34.2'	9.6'	54.1'
3	181°56.9'	221°28.7'	S 15°25.4'	196°47.9'	15.0'	S 10°24.6'	9.7'	54.1'
4	196°59.4'	236°28.6'	S 15°24.7'	211°21.9'	15.0'	S 10°14.9'	9.7'	54.1'
5	212°01.9'	251°28.6'	S 15°23.9'	225°55.8'	15.0'	S 10°05.2'	9.8'	54.1'
6	227°04.3'	266°28.6'	S 15°23.1'	240°29.8'	15.0'	S 9°55.4'	9.8'	54.1'
7	242°06.8'	281°28.5'	S 15°22.3'	255°03.9'	15.0'	S 9°45.6'	9.8'	54.1'
8	257°09.3'	296°28.5'	S 15°21.5'	269°37.9'	15.1'	S 9°35.8'	9.9'	54.1'
9	272°11.7'	311°28.5'	S 15°20.8'	284°12.0'	15.1'	S 9°25.9'	9.9'	54.1'
10	287°14.2'	326°28.4'	S 15°20.0'	298°46.1'	15.1'	S 9°16.0'	10.0'	54.1'
11	302°16.7'	341°28.4'	S 15°19.2'	313°20.2'	15.1'	S 9°06.0'	10.0'	54.1'
12	317°19.1'	356°28.4'	S 15°18.4'	327°54.3'	15.2'	S 8°56.0'	10.0'	54.1'
13	332°21.6'	11°28.3'	S 15°17.6'	342°28.5'	15.2'	S 8°45.9'	10.1'	54.1'
14	347°24.0'	26°28.3'	S 15°16.9'	357°02.7'	15.2'	S 8°35.9'	10.1'	54.2'
15	2°26.5'	41°28.2'	S 15°16.1'	11°36.9'	15.2'	S 8°25.8'	10.2'	54.2'
16	17°29.0'	56°28.2'	S 15°15.3'	26°11.1'	15.2'	S 8°15.6'	10.2'	54.2'
17	32°31.4'	71°28.2'	S 15°14.5'	40°45.3'	15.2'	S 8°05.4'	10.2'	54.2'
18	47°33.9'	86°28.1'	S 15°13.7'	55°19.5'	15.3'	S 7°55.2'	10.3'	54.2'
19	62°36.4'	101°28.1'	S 15°12.9'	69°53.8'	15.3'	S 7°44.9'	10.3'	54.2'
20	77°38.8'	116°28.1'	S 15°12.2'	84°28.1'	15.3'	S 7°34.6'	10.3'	54.2'
21	92°41.3'	131°28.1'	S 15°11.4'	99°02.4'	15.3'	S 7°24.3'	10.4'	54.2'
22	107°43.8'	146°28.0'	S 15°10.6'	113°36.7'	15.3'	S 7°14.0'	10.4'	54.2'
23	122°46.2'	161°28.0'	S 15°09.8'	128°11.0'	15.3'	S 7°03.6'	10.4'	54.2'

Fri Feb 8, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	137°48.7'	176°28.0'	S 15°09.0'	142°45.3'	15.3'	S 6°53.1'	10.5'	54.3'
1	152°51.2'	191°27.9'	S 15°08.2'	157°19.7'	15.4'	S 6°42.7'	10.5'	54.3'
2	167°53.6'	206°27.9'	S 15°07.4'	171°54.0'	15.4'	S 6°32.2'	10.5'	54.3'
3	182°56.1'	221°27.9'	S 15°06.7'	186°28.4'	15.4'	S 6°21.7'	10.5'	54.3'
4	197°58.5'	236°27.8'	S 15°05.9'	201°02.8'	15.4'	S 6°11.2'	10.6'	54.3'
5	213°01.0'	251°27.8'	S 15°05.1'	215°37.1'	15.4'	S 6°00.6'	10.6'	54.3'
6	228°03.5'	266°27.8'	S 15°04.3'	230°11.5'	15.4'	S 5°50.0'	10.6'	54.3'
7	243°05.9'	281°27.8'	S 15°03.5'	244°45.9'	15.4'	S 5°39.4'	10.6'	54.3'
8	258°08.4'	296°27.7'	S 15°02.7'	259°20.4'	15.4'	S 5°28.7'	10.7'	54.3'
9	273°10.9'	311°27.7'	S 15°01.9'	273°54.8'	15.4'	S 5°18.1'	10.7'	54.4'
10	288°13.3'	326°27.7'	S 15°01.1'	288°29.2'	15.4'	S 5°07.4'	10.7'	54.4'
11	303°15.8'	341°27.6'	S 15°00.3'	303°03.6'	15.4'	S 4°56.6'	10.7'	54.4'
12	318°18.3'	356°27.6'	S 14°59.5'	317°38.1'	15.4'	S 4°45.9'	10.8'	54.4'
13	333°20.7'	11°27.6'	S 14°58.7'	332°12.5'	15.4'	S 4°35.1'	10.8'	54.4'
14	348°23.2'	26°27.6'	S 14°58.0'	346°47.0'	15.4'	S 4°24.3'	10.8'	54.4'
15	3°25.7'	41°27.5'	S 14°57.2'	1°21.4'	15.4'	S 4°13.5'	10.8'	54.4'
16	18°28.1'	56°27.5'	S 14°56.4'	15°55.8'	15.4'	S 4°02.7'	10.9'	54.4'
17	33°30.6'	71°27.5'	S 14°55.6'	30°30.3'	15.5'	S 3°51.8'	10.9'	54.5'
18	48°33.0'	86°27.5'	S 14°54.8'	45°04.7'	15.4'	S 3°40.9'	10.9'	54.5'
19	63°35.5'	101°27.4'	S 14°54.0'	59°39.2'	15.4'	S 3°30.1'	10.9'	54.5'
20	78°38.0'	116°27.4'	S 14°53.2'	74°13.6'	15.4'	S 3°19.1'	10.9'	54.5'
21	93°40.4'	131°27.4'	S 14°52.4'	88°48.1'	15.4'	S 3°08.2'	10.9'	54.5'
22	108°42.9'	146°27.4'	S 14°51.6'	103°22.5'	15.4'	S 2°57.3'	11.0'	54.5'
23	123°45.4'	161°27.3'	S 14°50.8'	117°57.0'	15.4'	S 2°46.3'	11.0'	54.5'

Sat Feb 9, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	138°47.8'	176°27.3'	S 14°50.0'	132°31.4'	15.4'	S 2°35.3'	11.0'	54.6'
1	153°50.3'	191°27.3'	S 14°49.2'	147°05.8'	15.4'	S 2°24.3'	11.0'	54.6'
2	168°52.8'	206°27.3'	S 14°48.4'	161°40.3'	15.4'	S 2°13.3'	11.0'	54.6'
3	183°55.2'	221°27.3'	S 14°47.6'	176°14.7'	15.4'	S 2°02.3'	11.0'	54.6'
4	198°57.7'	236°27.2'	S 14°46.8'	190°49.1'	15.4'	S 1°51.2'	11.1'	54.6'
5	214°00.1'	251°27.2'	S 14°46.0'	205°23.5'	15.4'	S 1°40.2'	11.1'	54.6'
6	229°02.6'	266°27.2'	S 14°45.2'	219°57.9'	15.4'	S 1°29.1'	11.1'	54.7'
7	244°05.1'	281°27.2'	S 14°44.4'	234°32.3'	15.4'	S 1°18.0'	11.1'	54.7'
8	259°07.5'	296°27.2'	S 14°43.6'	249°06.7'	15.4'	S 1°06.9'	11.1'	54.7'
9	274°10.0'	311°27.1'	S 14°42.8'	263°41.0'	15.4'	S 0°55.8'	11.1'	54.7'
10	289°12.5'	326°27.1'	S 14°42.0'	278°15.4'	15.3'	S 0°44.7'	11.1'	54.7'
11	304°14.9'	341°27.1'	S 14°41.2'	292°49.7'	15.3'	S 0°33.6'	11.1'	54.7'
12	319°17.4'	356°27.1'	S 14°40.4'	307°24.1'	15.3'	S 0°22.5'	11.1'	54.8'
13	334°19.9'	11°27.1'	S 14°39.6'	321°58.4'	15.3'	S 0°11.4'	11.1'	54.8'
14	349°22.3'	26°27.0'	S 14°38.8'	336°32.7'	15.3'	S 0°00.2'	11.1'	54.8'
15	4°24.8'	41°27.0'	S 14°38.0'	351°07.0'	15.3'	N 0°10.9'	11.2'	54.8'
16	19°27.3'	56°27.0'	S 14°37.2'	5°41.2'	15.2'	N 0°22.1'	11.2'	54.8'
17	34°29.7'	71°27.0'	S 14°36.4'	20°15.5'	15.2'	N 0°33.2'	11.2'	54.9'
18	49°32.2'	86°27.0'	S 14°35.6'	34°49.7'	15.2'	N 0°44.4'	11.2'	54.9'
19	64°34.6'	101°27.0'	S 14°34.8'	49°23.9'	15.2'	N 0°55.6'	11.2'	54.9'
20	79°37.1'	116°26.9'	S 14°34.0'	63°58.1'	15.2'	N 1°06.7'	11.2'	54.9'
21	94°39.6'	131°26.9'	S 14°33.2'	78°32.3'	15.1'	N 1°17.9'	11.2'	54.9'
22	109°42.0'	146°26.9'	S 14°32.4'	93°06.4'	15.1'	N 1°29.1'	11.2'	55.0'
23	124°44.5'	161°26.9'	S 14°31.6'	107°40.5'	15.1'	N 1°40.3'	11.2'	55.0'

Sun Feb 10, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	139°47.0'	176°26.9'	S 14°30.7'	122°14.6'	15.1'	N 1°51.4'	11.2'	55.0'
1	154°49.4'	191°26.9'	S 14°29.9'	136°48.7'	15.0'	N 2°02.6'	11.2'	55.0'
2	169°51.9'	206°26.9'	S 14°29.1'	151°22.8'	15.0'	N 2°13.8'	11.2'	55.0'
3	184°54.4'	221°26.8'	S 14°28.3'	165°56.8'	15.0'	N 2°25.0'	11.2'	55.1'
4	199°56.8'	236°26.8'	S 14°27.5'	180°30.8'	15.0'	N 2°36.1'	11.2'	55.1'
5	214°59.3'	251°26.8'	S 14°26.7'	195°04.7'	14.9'	N 2°47.3'	11.2'	55.1'
6	230°01.7'	266°26.8'	S 14°25.9'	209°38.7'	14.9'	N 2°58.5'	11.2'	55.1'
7	245°04.2'	281°26.8'	S 14°25.1'	224°12.6'	14.9'	N 3°09.6'	11.2'	55.1'
8	260°06.7'	296°26.8'	S 14°24.3'	238°46.5'	14.8'	N 3°20.8'	11.2'	55.2'
9	275°09.1'	311°26.8'	S 14°23.5'	253°20.3'	14.8'	N 3°31.9'	11.1'	55.2'
10	290°11.6'	326°26.8'	S 14°22.7'	267°54.1'	14.8'	N 3°43.1'	11.1'	55.2'
11	305°14.1'	341°26.8'	S 14°21.8'	282°27.9'	14.7'	N 3°54.2'	11.1'	55.2'
12	320°16.5'	356°26.7'	S 14°21.0'	297°01.7'	14.7'	N 4°05.3'	11.1'	55.3'
13	335°19.0'	11°26.7'	S 14°20.2'	311°35.4'	14.7'	N 4°16.5'	11.1'	55.3'
14	350°21.5'	26°26.7'	S 14°19.4'	326°09.0'	14.6'	N 4°27.6'	11.1'	55.3'
15	5°23.9'	41°26.7'	S 14°18.6'	340°42.7'	14.6'	N 4°38.7'	11.1'	55.3'
16	20°26.4'	56°26.7'	S 14°17.8'	355°16.3'	14.6'	N 4°49.8'	11.1'	55.3'
17	35°28.9'	71°26.7'	S 14°17.0'	9°49.8'	14.5'	N 5°00.8'	11.1'	55.4'
18	50°31.3'	86°26.7'	S 14°16.1'	24°23.4'	14.5'	N 5°11.9'	11.1'	55.4'
19	65°33.8'	101°26.7'	S 14°15.3'	38°56.9'	14.4'	N 5°23.0'	11.0'	55.4'
20	80°36.2'	116°26.7'	S 14°14.5'	53°30.3'	14.4'	N 5°34.0'	11.0'	55.4'
21	95°38.7'	131°26.7'	S 14°13.7'	68°03.7'	14.4'	N 5°45.0'	11.0'	55.5'
22	110°41.2'	146°26.7'	S 14°12.9'	82°37.1'	14.3'	N 5°56.0'	11.0'	55.5'
23	125°43.6'	161°26.7'	S 14°12.1'	97°10.4'	14.3'	N 6°07.0'	11.0'	55.5'

Mon Feb 11, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	140°46.1'	176°26.7'	S 14°11.2'	111°43.6'	14.2'	N 6°18.0'	11.0'	55.5'
1	155°48.6'	191°26.6'	S 14°10.4'	126°16.9'	14.2'	N 6°29.0'	10.9'	55.6'
2	170°51.0'	206°26.6'	S 14°09.6'	140°50.0'	14.1'	N 6°39.9'	10.9'	55.6'
3	185°53.5'	221°26.6'	S 14°08.8'	155°23.2'	14.1'	N 6°50.8'	10.9'	55.6'
4	200°56.0'	236°26.6'	S 14°08.0'	169°56.2'	14.0'	N 7°01.7'	10.9'	55.7'
5	215°58.4'	251°26.6'	S 14°07.2'	184°29.3'	14.0'	N 7°12.6'	10.9'	55.7'
6	231°00.9'	266°26.6'	S 14°06.3'	199°02.2'	13.9'	N 7°23.5'	10.8'	55.7'
7	246°03.4'	281°26.6'	S 14°05.5'	213°35.2'	13.9'	N 7°34.3'	10.8'	55.7'
8	261°05.8'	296°26.6'	S 14°04.7'	228°08.0'	13.8'	N 7°45.1'	10.8'	55.8'
9	276°08.3'	311°26.6'	S 14°03.9'	242°40.9'	13.8'	N 7°55.9'	10.8'	55.8'
10	291°10.7'	326°26.6'	S 14°03.1'	257°13.6'	13.7'	N 8°06.7'	10.7'	55.8'
11	306°13.2'	341°26.6'	S 14°02.2'	271°46.3'	13.7'	N 8°17.4'	10.7'	55.8'
12	321°15.7'	356°26.6'	S 14°01.4'	286°19.0'	13.6'	N 8°28.2'	10.7'	55.9'
13	336°18.1'	11°26.6'	S 14°00.6'	300°51.6'	13.5'	N 8°38.8'	10.7'	55.9'
14	351°20.6'	26°26.6'	S 13°59.8'	315°24.1'	13.5'	N 8°49.5'	10.6'	55.9'
15	6°23.1'	41°26.6'	S 13°58.9'	329°56.6'	13.4'	N 9°00.1'	10.6'	56.0'
16	21°25.5'	56°26.6'	S 13°58.1'	344°29.1'	13.4'	N 9°10.7'	10.6'	56.0'
17	36°28.0'	71°26.6'	S 13°57.3'	359°01.4'	13.3'	N 9°21.3'	10.5'	56.0'
18	51°30.5'	86°26.6'	S 13°56.5'	13°33.7'	13.2'	N 9°31.8'	10.5'	56.1'
19	66°32.9'	101°26.6'	S 13°55.6'	28°06.0'	13.2'	N 9°42.3'	10.5'	56.1'
20	81°35.4'	116°26.6'	S 13°54.8'	42°38.2'	13.1'	N 9°52.8'	10.4'	56.1'
21	96°37.8'	131°26.6'	S 13°54.0'	57°10.3'	13.1'	N 10°03.3'	10.4'	56.1'
22	111°40.3'	146°26.6'	S 13°53.2'	71°42.3'	13.0'	N 10°13.7'	10.4'	56.2'
23	126°42.8'	161°26.6'	S 13°52.3'	86°14.3'	12.9'	N 10°24.0'	10.3'	56.2'

Tue Feb 12, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	141°45.2'	176°26.6'	S 13°51.5'	100°46.2'	12.9'	N 10°34.4'	10.3'	56.2'
1	156°47.7'	191°26.6'	S 13°50.7'	115°18.1'	12.8'	N 10°44.6'	10.3'	56.3'
2	171°50.2'	206°26.6'	S 13°49.9'	129°49.9'	12.7'	N 10°54.9'	10.2'	56.3'
3	186°52.6'	221°26.6'	S 13°49.0'	144°21.6'	12.6'	N 11°05.1'	10.2'	56.3'
4	201°55.1'	236°26.6'	S 13°48.2'	158°53.2'	12.6'	N 11°15.3'	10.1'	56.4'
5	216°57.6'	251°26.6'	S 13°47.4'	173°24.8'	12.5'	N 11°25.4'	10.1'	56.4'
6	232°00.0'	266°26.6'	S 13°46.5'	187°56.3'	12.4'	N 11°35.5'	10.0'	56.4'
7	247°02.5'	281°26.6'	S 13°45.7'	202°27.8'	12.4'	N 11°45.6'	10.0'	56.5'
8	262°05.0'	296°26.6'	S 13°44.9'	216°59.1'	12.3'	N 11°55.5'	10.0'	56.5'
9	277°07.4'	311°26.6'	S 13°44.1'	231°30.4'	12.2'	N 12°05.5'	9.9'	56.5'
10	292°09.9'	326°26.7'	S 13°43.2'	246°01.6'	12.1'	N 12°15.4'	9.9'	56.6'
11	307°12.3'	341°26.7'	S 13°42.4'	260°32.8'	12.1'	N 12°25.3'	9.8'	56.6'
12	322°14.8'	356°26.7'	S 13°41.6'	275°03.8'	12.0'	N 12°35.1'	9.8'	56.6'
13	337°17.3'	11°26.7'	S 13°40.7'	289°34.8'	11.9'	N 12°44.8'	9.7'	56.7'
14	352°19.7'	26°26.7'	S 13°39.9'	304°05.7'	11.8'	N 12°54.6'	9.7'	56.7'
15	7°22.2'	41°26.7'	S 13°39.1'	318°36.5'	11.8'	N 13°04.2'	9.6'	56.7'
16	22°24.7'	56°26.7'	S 13°38.2'	333°07.3'	11.7'	N 13°13.8'	9.6'	56.8'
17	37°27.1'	71°26.7'	S 13°37.4'	347°38.0'	11.6'	N 13°23.4'	9.5'	56.8'
18	52°29.6'	86°26.7'	S 13°36.6'	2°08.6'	11.5'	N 13°32.9'	9.4'	56.8'
19	67°32.1'	101°26.7'	S 13°35.7'	16°39.1'	11.4'	N 13°42.3'	9.4'	56.9'
20	82°34.5'	116°26.7'	S 13°34.9'	31°09.5'	11.3'	N 13°51.7'	9.3'	56.9'
21	97°37.0'	131°26.7'	S 13°34.1'	45°39.8'	11.3'	N 14°01.0'	9.3'	56.9'
22	112°39.5'	146°26.7'	S 13°33.2'	60°10.1'	11.2'	N 14°10.3'	9.2'	57.0'
23	127°41.9'	161°26.8'	S 13°32.4'	74°40.3'	11.1'	N 14°19.5'	9.1'	57.0'

Wed Feb 13, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.2'		SD = 15.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	142°44.4'	176°26.8'	S 13°31.5'	89°10.4'	11.0'	N 14°28.6'	9.1'	57.0'
1	157°46.8'	191°26.8'	S 13°30.7'	103°40.4'	10.9'	N 14°37.7'	9.0'	57.1'
2	172°49.3'	206°26.8'	S 13°29.9'	118°10.3'	10.8'	N 14°46.7'	9.0'	57.1'
3	187°51.8'	221°26.8'	S 13°29.0'	132°40.2'	10.8'	N 14°55.7'	8.9'	57.2'
4	202°54.2'	236°26.8'	S 13°28.2'	147°09.9'	10.7'	N 15°04.6'	8.8'	57.2'
5	217°56.7'	251°26.8'	S 13°27.4'	161°39.6'	10.6'	N 15°13.4'	8.8'	57.2'
6	232°59.2'	266°26.8'	S 13°26.5'	176°09.1'	10.5'	N 15°22.1'	8.7'	57.3'
7	248°01.6'	281°26.8'	S 13°25.7'	190°38.6'	10.4'	N 15°30.8'	8.6'	57.3'
8	263°04.1'	296°26.9'	S 13°24.8'	205°08.0'	10.3'	N 15°39.4'	8.5'	57.3'
9	278°06.6'	311°26.9'	S 13°24.0'	219°37.3'	10.2'	N 15°48.0'	8.5'	57.4'
10	293°09.0'	326°26.9'	S 13°23.2'	234°06.6'	10.1'	N 15°56.5'	8.4'	57.4'
11	308°11.5'	341°26.9'	S 13°22.3'	248°35.7'	10.0'	N 16°04.8'	8.3'	57.4'
12	323°13.9'	356°26.9'	S 13°21.5'	263°04.7'	9.9'	N 16°13.2'	8.2'	57.5'
13	338°16.4'	11°26.9'	S 13°20.6'	277°33.7'	9.9'	N 16°21.4'	8.2'	57.5'
14	353°18.9'	26°26.9'	S 13°19.8'	292°02.5'	9.8'	N 16°29.6'	8.1'	57.6'
15	8°21.3'	41°27.0'	S 13°19.0'	306°31.3'	9.7'	N 16°37.7'	8.0'	57.6'
16	23°23.8'	56°27.0'	S 13°18.1'	320°60.0'	9.6'	N 16°45.7'	7.9'	57.6'
17	38°26.3'	71°27.0'	S 13°17.3'	335°28.6'	9.5'	N 16°53.6'	7.8'	57.7'
18	53°28.7'	86°27.0'	S 13°16.4'	349°57.1'	9.4'	N 17°01.4'	7.8'	57.7'
19	68°31.2'	101°27.0'	S 13°15.6'	4°25.4'	9.3'	N 17°09.2'	7.7'	57.7'
20	83°33.7'	116°27.0'	S 13°14.7'	18°53.8'	9.2'	N 17°16.9'	7.6'	57.8'
21	98°36.1'	131°27.1'	S 13°13.9'	33°22.0'	9.1'	N 17°24.4'	7.5'	57.8'
22	113°38.6'	146°27.1'	S 13°13.1'	47°50.1'	9.0'	N 17°31.9'	7.4'	57.9'
23	128°41.1'	161°27.1'	S 13°12.2'	62°18.1'	8.9'	N 17°39.3'	7.3'	57.9'

Thu Feb 14, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 15.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	143°43.5'	176°27.1'	S 13°11.4'	76°46.0'	8.8'	N 17°46.7'	7.2'	57.9'
1	158°46.0'	191°27.1'	S 13°10.5'	91°13.9'	8.7'	N 17°53.9'	7.1'	58.0'
2	173°48.4'	206°27.2'	S 13°09.7'	105°41.6'	8.6'	N 18°01.0'	7.0'	58.0'
3	188°50.9'	221°27.2'	S 13°08.8'	120°09.2'	8.5'	N 18°08.1'	6.9'	58.1'
4	203°53.4'	236°27.2'	S 13°08.0'	134°36.8'	8.5'	N 18°15.0'	6.9'	58.1'
5	218°55.8'	251°27.2'	S 13°07.1'	149°04.2'	8.4'	N 18°21.9'	6.8'	58.1'
6	233°58.3'	266°27.2'	S 13°06.3'	163°31.6'	8.3'	N 18°28.6'	6.7'	58.2'
7	249°00.8'	281°27.3'	S 13°05.4'	177°58.9'	8.2'	N 18°35.3'	6.6'	58.2'
8	264°03.2'	296°27.3'	S 13°04.6'	192°26.0'	8.1'	N 18°41.8'	6.5'	58.3'
9	279°05.7'	311°27.3'	S 13°03.7'	206°53.1'	8.0'	N 18°48.3'	6.4'	58.3'
10	294°08.2'	326°27.3'	S 13°02.9'	221°20.1'	7.9'	N 18°54.6'	6.2'	58.3'
11	309°10.6'	341°27.3'	S 13°02.0'	235°47.0'	7.8'	N 19°00.9'	6.1'	58.4'
12	324°13.1'	356°27.4'	S 13°01.2'	250°13.8'	7.7'	N 19°07.0'	6.0'	58.4'
13	339°15.6'	11°27.4'	S 13°00.3'	264°40.5'	7.6'	N 19°13.1'	5.9'	58.4'
14	354°18.0'	26°27.4'	S 12°59.5'	279°07.1'	7.5'	N 19°19.0'	5.8'	58.5'
15	9°20.5'	41°27.4'	S 12°58.6'	293°33.6'	7.4'	N 19°24.8'	5.7'	58.5'
16	24°22.9'	56°27.5'	S 12°57.8'	308°00.0'	7.3'	N 19°30.5'	5.6'	58.6'
17	39°25.4'	71°27.5'	S 12°56.9'	322°26.3'	7.2'	N 19°36.1'	5.5'	58.6'
18	54°27.9'	86°27.5'	S 12°56.1'	336°52.6'	7.1'	N 19°41.6'	5.4'	58.6'
19	69°30.3'	101°27.5'	S 12°55.2'	351°18.7'	7.1'	N 19°47.0'	5.3'	58.7'
20	84°32.8'	116°27.5'	S 12°54.4'	5°44.8'	7.0'	N 19°52.2'	5.1'	58.7'
21	99°35.3'	131°27.6'	S 12°53.5'	20°10.7'	6.9'	N 19°57.4'	5.0'	58.8'
22	114°37.7'	146°27.6'	S 12°52.7'	34°36.6'	6.8'	N 20°02.4'	4.9'	58.8'
23	129°40.2'	161°27.6'	S 12°51.8'	49°02.4'	6.7'	N 20°07.3'	4.8'	58.8'

Fri Feb 15, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	144°42.7'	176°27.7'	S 12°51.0'	63°28.1'	6.6'	N 20°12.1'	4.7'	58.9'
1	159°45.1'	191°27.7'	S 12°50.1'	77°53.7'	6.5'	N 20°16.7'	4.5'	58.9'
2	174°47.6'	206°27.7'	S 12°49.3'	92°19.2'	6.4'	N 20°21.3'	4.4'	59.0'
3	189°50.0'	221°27.7'	S 12°48.4'	106°44.6'	6.3'	N 20°25.7'	4.3'	59.0'
4	204°52.5'	236°27.8'	S 12°47.5'	121°10.0'	6.3'	N 20°30.0'	4.2'	59.0'
5	219°55.0'	251°27.8'	S 12°46.7'	135°35.2'	6.2'	N 20°34.1'	4.0'	59.1'
6	234°57.4'	266°27.8'	S 12°45.8'	150°00.4'	6.1'	N 20°38.2'	3.9'	59.1'
7	249°59.9'	281°27.8'	S 12°45.0'	164°25.5'	6.0'	N 20°42.1'	3.8'	59.2'
8	265°02.4'	296°27.9'	S 12°44.1'	178°50.5'	5.9'	N 20°45.9'	3.6'	59.2'
9	280°04.8'	311°27.9'	S 12°43.3'	193°15.4'	5.8'	N 20°49.5'	3.5'	59.2'
10	295°07.3'	326°27.9'	S 12°42.4'	207°40.3'	5.8'	N 20°53.0'	3.4'	59.3'
11	310°09.8'	341°28.0'	S 12°41.5'	222°05.0'	5.7'	N 20°56.4'	3.2'	59.3'
12	325°12.2'	356°28.0'	S 12°40.7'	236°29.7'	5.6'	N 20°59.6'	3.1'	59.3'
13	340°14.7'	11°28.0'	S 12°39.8'	250°54.3'	5.5'	N 21°02.8'	3.0'	59.4'
14	355°17.2'	26°28.1'	S 12°39.0'	265°18.8'	5.5'	N 21°05.7'	2.8'	59.4'
15	10°19.6'	41°28.1'	S 12°38.1'	279°43.3'	5.4'	N 21°08.6'	2.7'	59.5'
16	25°22.1'	56°28.1'	S 12°37.3'	294°07.7'	5.3'	N 21°11.3'	2.6'	59.5'
17	40°24.5'	71°28.1'	S 12°36.4'	308°32.0'	5.2'	N 21°13.9'	2.4'	59.5'
18	55°27.0'	86°28.2'	S 12°35.5'	322°56.2'	5.2'	N 21°16.3'	2.3'	59.6'
19	70°29.5'	101°28.2'	S 12°34.7'	337°20.4'	5.1'	N 21°18.6'	2.1'	59.6'
20	85°31.9'	116°28.2'	S 12°33.8'	351°44.5'	5.0'	N 21°20.7'	2.0'	59.6'
21	100°34.4'	131°28.3'	S 12°32.9'	6°08.5'	5.0'	N 21°22.7'	1.9'	59.7'
22	115°36.9'	146°28.3'	S 12°32.1'	20°32.4'	4.9'	N 21°24.5'	1.7'	59.7'
23	130°39.3'	161°28.3'	S 12°31.2'	34°56.3'	4.8'	N 21°26.3'	1.6'	59.8'

Sat Feb 16, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	145°41.8'	176°28.4'	S 12°30.4'	49°20.2'	4.8'	N 21°27.8'	1.4'	59.8'
1	160°44.3'	191°28.4'	S 12°29.5'	63°43.9'	4.7'	N 21°29.2'	1.3'	59.8'
2	175°46.7'	206°28.4'	S 12°28.6'	78°07.6'	4.6'	N 21°30.5'	1.1'	59.9'
3	190°49.2'	221°28.5'	S 12°27.8'	92°31.2'	4.6'	N 21°31.6'	1.0'	59.9'
4	205°51.7'	236°28.5'	S 12°26.9'	106°54.8'	4.5'	N 21°32.6'	0.8'	59.9'
5	220°54.1'	251°28.6'	S 12°26.0'	121°18.4'	4.5'	N 21°33.4'	0.7'	60.0'
6	235°56.6'	266°28.6'	S 12°25.2'	135°41.8'	4.4'	N 21°34.1'	0.5'	60.0'
7	250°59.0'	281°28.6'	S 12°24.3'	150°05.2'	4.4'	N 21°34.6'	0.4'	60.0'
8	266°01.5'	296°28.7'	S 12°23.5'	164°28.6'	4.3'	N 21°35.0'	0.2'	60.1'
9	281°04.0'	311°28.7'	S 12°22.6'	178°51.9'	4.3'	N 21°35.2'	0.1'	60.1'
10	296°06.4'	326°28.7'	S 12°21.7'	193°15.2'	4.2'	N 21°35.3'	0.1'	60.1'
11	311°08.9'	341°28.8'	S 12°20.9'	207°38.4'	4.2'	N 21°35.2'	0.2'	60.2'
12	326°11.4'	356°28.8'	S 12°20.0'	222°01.6'	4.1'	N 21°35.0'	0.4'	60.2'
13	341°13.8'	11°28.8'	S 12°19.1'	236°24.7'	4.1'	N 21°34.6'	0.5'	60.2'
14	356°16.3'	26°28.9'	S 12°18.3'	250°47.8'	4.0'	N 21°34.0'	0.7'	60.3'
15	11°18.8'	41°28.9'	S 12°17.4'	265°10.8'	4.0'	N 21°33.3'	0.9'	60.3'
16	26°21.2'	56°29.0'	S 12°16.5'	279°33.8'	4.0'	N 21°32.4'	1.0'	60.3'
17	41°23.7'	71°29.0'	S 12°15.6'	293°56.8'	3.9'	N 21°31.4'	1.2'	60.4'
18	56°26.2'	86°29.0'	S 12°14.8'	308°19.7'	3.9'	N 21°30.3'	1.3'	60.4'
19	71°28.6'	101°29.1'	S 12°13.9'	322°42.6'	3.9'	N 21°28.9'	1.5'	60.4'
20	86°31.1'	116°29.1'	S 12°13.0'	337°05.5'	3.8'	N 21°27.4'	1.6'	60.5'
21	101°33.5'	131°29.2'	S 12°12.2'	351°28.3'	3.8'	N 21°25.8'	1.8'	60.5'
22	116°36.0'	146°29.2'	S 12°11.3'	5°51.1'	3.8'	N 21°24.0'	2.0'	60.5'
23	131°38.5'	161°29.2'	S 12°10.4'	20°13.9'	3.8'	N 21°22.0'	2.1'	60.6'

Sun Feb 17, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	146°40.9'	176°29.3'	S 12°09.6'	34°36.7'	3.7'	N 21°19.9'	2.3'	60.6'
1	161°43.4'	191°29.3'	S 12°08.7'	48°59.4'	3.7'	N 21°17.6'	2.4'	60.6'
2	176°45.9'	206°29.4'	S 12°07.8'	63°22.2'	3.7'	N 21°15.2'	2.6'	60.6'
3	191°48.3'	221°29.4'	S 12°06.9'	77°44.9'	3.7'	N 21°12.6'	2.7'	60.7'
4	206°50.8'	236°29.5'	S 12°06.1'	92°07.6'	3.7'	N 21°09.9'	2.9'	60.7'
5	221°53.3'	251°29.5'	S 12°05.2'	106°30.2'	3.7'	N 21°07.0'	3.1'	60.7'
6	236°55.7'	266°29.5'	S 12°04.3'	120°52.9'	3.7'	N 21°03.9'	3.2'	60.7'
7	251°58.2'	281°29.6'	S 12°03.5'	135°15.5'	3.6'	N 21°00.7'	3.4'	60.8'
8	267°00.7'	296°29.6'	S 12°02.6'	149°38.2'	3.6'	N 20°57.3'	3.5'	60.8'
9	282°03.1'	311°29.7'	S 12°01.7'	164°00.8'	3.6'	N 20°53.8'	3.7'	60.8'
10	297°05.6'	326°29.7'	S 12°00.8'	178°23.5'	3.6'	N 20°50.1'	3.9'	60.9'
11	312°08.0'	341°29.8'	S 11°60.0'	192°46.1'	3.6'	N 20°46.2'	4.0'	60.9'
12	327°10.5'	356°29.8'	S 11°59.1'	207°08.7'	3.6'	N 20°42.2'	4.2'	60.9'
13	342°13.0'	11°29.9'	S 11°58.2'	221°31.4'	3.6'	N 20°38.0'	4.3'	60.9'
14	357°15.4'	26°29.9'	S 11°57.3'	235°54.0'	3.6'	N 20°33.7'	4.5'	60.9'
15	12°17.9'	41°29.9'	S 11°56.5'	250°16.6'	3.6'	N 20°29.2'	4.6'	61.0'
16	27°20.4'	56°30.0'	S 11°55.6'	264°39.3'	3.7'	N 20°24.6'	4.8'	61.0'
17	42°22.8'	71°30.0'	S 11°54.7'	279°01.9'	3.7'	N 20°19.8'	4.9'	61.0'
18	57°25.3'	86°30.1'	S 11°53.8'	293°24.6'	3.7'	N 20°14.9'	5.1'	61.0'
19	72°27.8'	101°30.1'	S 11°53.0'	307°47.3'	3.7'	N 20°09.8'	5.2'	61.1'
20	87°30.2'	116°30.2'	S 11°52.1'	322°09.9'	3.7'	N 20°04.5'	5.4'	61.1'
21	102°32.7'	131°30.2'	S 11°51.2'	336°32.7'	3.7'	N 19°59.1'	5.6'	61.1'
22	117°35.1'	146°30.3'	S 11°50.3'	350°55.4'	3.7'	N 19°53.6'	5.7'	61.1'
23	132°37.6'	161°30.3'	S 11°49.4'	5°18.1'	3.8'	N 19°47.9'	5.9'	61.1'

Mon Feb 18, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	147°40.1'	176°30.4'	S 11°48.6'	19°40.9'	3.8'	N 19°42.0'	6.0'	61.2'
1	162°42.5'	191°30.4'	S 11°47.7'	34°03.7'	3.8'	N 19°36.0'	6.2'	61.2'
2	177°45.0'	206°30.5'	S 11°46.8'	48°26.5'	3.8'	N 19°29.9'	6.3'	61.2'
3	192°47.5'	221°30.5'	S 11°45.9'	62°49.3'	3.9'	N 19°23.6'	6.4'	61.2'
4	207°49.9'	236°30.6'	S 11°45.0'	77°12.2'	3.9'	N 19°17.1'	6.6'	61.2'
5	222°52.4'	251°30.6'	S 11°44.2'	91°35.1'	3.9'	N 19°10.5'	6.7'	61.2'
6	237°54.9'	266°30.7'	S 11°43.3'	105°58.0'	4.0'	N 19°03.8'	6.9'	61.3'
7	252°57.3'	281°30.7'	S 11°42.4'	120°20.9'	4.0'	N 18°56.9'	7.0'	61.3'
8	267°59.8'	296°30.8'	S 11°41.5'	134°43.9'	4.0'	N 18°49.9'	7.2'	61.3'
9	283°02.3'	311°30.8'	S 11°40.6'	149°06.9'	4.1'	N 18°42.7'	7.3'	61.3'
10	298°04.7'	326°30.9'	S 11°39.8'	163°30.0'	4.1'	N 18°35.4'	7.5'	61.3'
11	313°07.2'	341°30.9'	S 11°38.9'	177°53.1'	4.1'	N 18°27.9'	7.6'	61.3'
12	328°09.6'	356°31.0'	S 11°38.0'	192°16.2'	4.2'	N 18°20.3'	7.7'	61.3'
13	343°12.1'	11°31.0'	S 11°37.1'	206°39.4'	4.2'	N 18°12.6'	7.9'	61.4'
14	358°14.6'	26°31.1'	S 11°36.2'	221°02.6'	4.3'	N 18°04.7'	8.0'	61.4'
15	13°17.0'	41°31.1'	S 11°35.3'	235°25.9'	4.3'	N 17°56.7'	8.1'	61.4'
16	28°19.5'	56°31.2'	S 11°34.5'	249°49.2'	4.4'	N 17°48.6'	8.3'	61.4'
17	43°22.0'	71°31.3'	S 11°33.6'	264°12.5'	4.4'	N 17°40.3'	8.4'	61.4'
18	58°24.4'	86°31.3'	S 11°32.7'	278°35.9'	4.4'	N 17°31.9'	8.5'	61.4'
19	73°26.9'	101°31.4'	S 11°31.8'	292°59.4'	4.5'	N 17°23.4'	8.7'	61.4'
20	88°29.4'	116°31.4'	S 11°30.9'	307°22.9'	4.5'	N 17°14.8'	8.8'	61.4'
21	103°31.8'	131°31.5'	S 11°30.0'	321°46.4'	4.6'	N 17°06.0'	8.9'	61.4'
22	118°34.3'	146°31.5'	S 11°29.2'	336°10.0'	4.7'	N 16°57.1'	9.0'	61.4'
23	133°36.8'	161°31.6'	S 11°28.3'	350°33.7'	4.7'	N 16°48.0'	9.2'	61.4'

Tue Feb 19, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	148°39.2'	176°31.6'	S 11°27.4'	4°57.4'	4.8'	N 16°38.9'	9.3'	61.4'
1	163°41.7'	191°31.7'	S 11°26.5'	19°21.1'	4.8'	N 16°29.6'	9.4'	61.4'
2	178°44.1'	206°31.8'	S 11°25.6'	33°45.0'	4.9'	N 16°20.2'	9.5'	61.4'
3	193°46.6'	221°31.8'	S 11°24.7'	48°08.8'	4.9'	N 16°10.6'	9.6'	61.5'
4	208°49.1'	236°31.9'	S 11°23.8'	62°32.8'	5.0'	N 16°01.0'	9.8'	61.5'
5	223°51.5'	251°31.9'	S 11°22.9'	76°56.7'	5.0'	N 15°51.3'	9.9'	61.5'
6	238°54.0'	266°32.0'	S 11°22.1'	91°20.8'	5.1'	N 15°41.4'	10.0'	61.5'
7	253°56.5'	281°32.0'	S 11°21.2'	105°44.9'	5.2'	N 15°31.4'	10.1'	61.5'
8	268°58.9'	296°32.1'	S 11°20.3'	120°09.0'	5.2'	N 15°21.3'	10.2'	61.5'
9	284°01.4'	311°32.2'	S 11°19.4'	134°33.3'	5.3'	N 15°11.1'	10.3'	61.5'
10	299°03.9'	326°32.2'	S 11°18.5'	148°57.6'	5.3'	N 15°00.8'	10.4'	61.5'
11	314°06.3'	341°32.3'	S 11°17.6'	163°21.9'	5.4'	N 14°50.4'	10.5'	61.5'
12	329°08.8'	356°32.3'	S 11°16.7'	177°46.3'	5.5'	N 14°39.9'	10.6'	61.5'
13	344°11.3'	11°32.4'	S 11°15.8'	192°10.8'	5.5'	N 14°29.2'	10.7'	61.5'
14	359°13.7'	26°32.5'	S 11°14.9'	206°35.3'	5.6'	N 14°18.5'	10.8'	61.4'
15	14°16.2'	41°32.5'	S 11°14.1'	220°59.9'	5.7'	N 14°07.7'	10.9'	61.4'
16	29°18.6'	56°32.6'	S 11°13.2'	235°24.6'	5.7'	N 13°56.8'	11.0'	61.4'
17	44°21.1'	71°32.6'	S 11°12.3'	249°49.3'	5.8'	N 13°45.8'	11.1'	61.4'
18	59°23.6'	86°32.7'	S 11°11.4'	264°14.1'	5.9'	N 13°34.6'	11.2'	61.4'
19	74°26.0'	101°32.8'	S 11°10.5'	278°39.0'	5.9'	N 13°23.4'	11.3'	61.4'
20	89°28.5'	116°32.8'	S 11°09.6'	293°03.9'	6.0'	N 13°12.1'	11.4'	61.4'
21	104°31.0'	131°32.9'	S 11°08.7'	307°28.9'	6.1'	N 13°00.8'	11.5'	61.4'
22	119°33.4'	146°32.9'	S 11°07.8'	321°54.0'	6.1'	N 12°49.3'	11.6'	61.4'
23	134°35.9'	161°33.0'	S 11°06.9'	336°19.1'	6.2'	N 12°37.7'	11.6'	61.4'

Wed Feb 20, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	149°38.4'	176°33.1'	S 11°06.0'	350°44.3'	6.3'	N 12°26.1'	11.7'	61.4'
1	164°40.8'	191°33.1'	S 11°05.1'	5°09.6'	6.3'	N 12°14.4'	11.8'	61.4'
2	179°43.3'	206°33.2'	S 11°04.2'	19°34.9'	6.4'	N 12°02.6'	11.9'	61.4'
3	194°45.7'	221°33.3'	S 11°03.3'	34°00.3'	6.5'	N 11°50.7'	12.0'	61.4'
4	209°48.2'	236°33.3'	S 11°02.4'	48°25.8'	6.5'	N 11°38.8'	12.0'	61.3'
5	224°50.7'	251°33.4'	S 11°01.5'	62°51.3'	6.6'	N 11°26.7'	12.1'	61.3'
6	239°53.1'	266°33.5'	S 11°00.7'	77°16.9'	6.7'	N 11°14.6'	12.2'	61.3'
7	254°55.6'	281°33.5'	S 10°59.8'	91°42.6'	6.7'	N 11°02.5'	12.2'	61.3'
8	269°58.1'	296°33.6'	S 10°58.9'	106°08.3'	6.8'	N 10°50.2'	12.3'	61.3'
9	285°00.5'	311°33.7'	S 10°58.0'	120°34.1'	6.9'	N 10°37.9'	12.4'	61.3'
10	300°03.0'	326°33.7'	S 10°57.1'	134°60.0'	6.9'	N 10°25.5'	12.4'	61.3'
11	315°05.5'	341°33.8'	S 10°56.2'	149°25.9'	7.0'	N 10°13.1'	12.5'	61.2'
12	330°07.9'	356°33.8'	S 10°55.3'	163°51.9'	7.1'	N 10°00.6'	12.6'	61.2'
13	345°10.4'	11°33.9'	S 10°54.4'	178°18.0'	7.1'	N 9°48.1'	12.6'	61.2'
14	0°12.9'	26°34.0'	S 10°53.5'	192°44.1'	7.2'	N 9°35.4'	12.7'	61.2'
15	15°15.3'	41°34.1'	S 10°52.6'	207°10.4'	7.3'	N 9°22.8'	12.7'	61.2'
16	30°17.8'	56°34.1'	S 10°51.7'	221°36.6'	7.3'	N 9°10.1'	12.8'	61.2'
17	45°20.2'	71°34.2'	S 10°50.8'	236°03.0'	7.4'	N 8°57.3'	12.8'	61.1'
18	60°22.7'	86°34.3'	S 10°49.9'	250°29.4'	7.5'	N 8°44.5'	12.9'	61.1'
19	75°25.2'	101°34.3'	S 10°49.0'	264°55.8'	7.5'	N 8°31.6'	12.9'	61.1'
20	90°27.6'	116°34.4'	S 10°48.1'	279°22.4'	7.6'	N 8°18.7'	13.0'	61.1'
21	105°30.1'	131°34.5'	S 10°47.2'	293°49.0'	7.7'	N 8°05.7'	13.0'	61.1'
22	120°32.6'	146°34.5'	S 10°46.3'	308°15.6'	7.7'	N 7°52.7'	13.0'	61.0'
23	135°35.0'	161°34.6'	S 10°45.4'	322°42.4'	7.8'	N 7°39.6'	13.1'	61.0'

Thu Feb 21, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	150°37.5'	176°34.7'	S 10°44.5'	337°09.1'	7.9'	N 7°26.6'	13.1'	61.0'
1	165°40.0'	191°34.7'	S 10°43.6'	351°36.0'	7.9'	N 7°13.4'	13.2'	61.0'
2	180°42.4'	206°34.8'	S 10°42.7'	6°02.9'	8.0'	N 7°00.3'	13.2'	60.9'
3	195°44.9'	221°34.9'	S 10°41.8'	20°29.9'	8.0'	N 6°47.1'	13.2'	60.9'
4	210°47.3'	236°35.0'	S 10°40.9'	34°56.9'	8.1'	N 6°33.9'	13.3'	60.9'
5	225°49.8'	251°35.0'	S 10°40.0'	49°24.0'	8.2'	N 6°20.6'	13.3'	60.9'
6	240°52.3'	266°35.1'	S 10°39.1'	63°51.2'	8.2'	N 6°07.3'	13.3'	60.8'
7	255°54.7'	281°35.2'	S 10°38.2'	78°18.4'	8.3'	N 5°54.0'	13.3'	60.8'
8	270°57.2'	296°35.2'	S 10°37.3'	92°45.7'	8.3'	N 5°40.7'	13.4'	60.8'
9	285°59.7'	311°35.3'	S 10°36.4'	107°13.0'	8.4'	N 5°27.3'	13.4'	60.8'
10	301°02.1'	326°35.4'	S 10°35.5'	121°40.4'	8.5'	N 5°13.9'	13.4'	60.7'
11	316°04.6'	341°35.5'	S 10°34.6'	136°07.9'	8.5'	N 5°00.5'	13.4'	60.7'
12	331°07.1'	356°35.5'	S 10°33.7'	150°35.4'	8.6'	N 4°47.1'	13.4'	60.7'
13	346°09.5'	11°35.6'	S 10°32.8'	165°03.0'	8.6'	N 4°33.6'	13.5'	60.7'
14	1°12.0'	26°35.7'	S 10°31.8'	179°30.6'	8.7'	N 4°20.2'	13.5'	60.6'
15	16°14.5'	41°35.7'	S 10°30.9'	193°58.3'	8.7'	N 4°06.7'	13.5'	60.6'
16	31°16.9'	56°35.8'	S 10°30.0'	208°26.0'	8.8'	N 3°53.2'	13.5'	60.6'
17	46°19.4'	71°35.9'	S 10°29.1'	222°53.8'	8.8'	N 3°39.8'	13.5'	60.5'
18	61°21.8'	86°36.0'	S 10°28.2'	237°21.7'	8.9'	N 3°26.3'	13.5'	60.5'
19	76°24.3'	101°36.0'	S 10°27.3'	251°49.6'	9.0'	N 3°12.8'	13.5'	60.5'
20	91°26.8'	116°36.1'	S 10°26.4'	266°17.5'	9.0'	N 2°59.2'	13.5'	60.4'
21	106°29.2'	131°36.2'	S 10°25.5'	280°45.6'	9.1'	N 2°45.7'	13.5'	60.4'
22	121°31.7'	146°36.3'	S 10°24.6'	295°13.6'	9.1'	N 2°32.2'	13.5'	60.4'
23	136°34.2'	161°36.4'	S 10°23.7'	309°41.7'	9.2'	N 2°18.7'	13.5'	60.4'

Fri Feb 22, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	151°36.6'	176°36.4'	S 10°22.8'	324°09.9'	9.2'	N 2°05.2'	13.5'	60.3'
1	166°39.1'	191°36.5'	S 10°21.9'	338°38.1'	9.3'	N 1°51.7'	13.5'	60.3'
2	181°41.6'	206°36.6'	S 10°21.0'	353°06.3'	9.3'	N 1°38.2'	13.5'	60.3'
3	196°44.0'	221°36.7'	S 10°20.1'	7°34.6'	9.3'	N 1°24.7'	13.5'	60.2'
4	211°46.5'	236°36.7'	S 10°19.2'	22°03.0'	9.4'	N 1°11.2'	13.5'	60.2'
5	226°48.9'	251°36.8'	S 10°18.2'	36°31.4'	9.4'	N 0°57.7'	13.5'	60.2'
6	241°51.4'	266°36.9'	S 10°17.3'	50°59.8'	9.5'	N 0°44.2'	13.5'	60.1'
7	256°53.9'	281°37.0'	S 10°16.4'	65°28.3'	9.5'	N 0°30.8'	13.4'	60.1'
8	271°56.3'	296°37.0'	S 10°15.5'	79°56.8'	9.6'	N 0°17.3'	13.4'	60.0'
9	286°58.8'	311°37.1'	S 10°14.6'	94°25.4'	9.6'	N 0°03.9'	13.4'	60.0'
10	302°01.3'	326°37.2'	S 10°13.7'	108°54.0'	9.7'	S 0°09.5'	13.4'	60.0'
11	317°03.7'	341°37.3'	S 10°12.8'	123°22.7'	9.7'	S 0°22.9'	13.4'	59.9'
12	332°06.2'	356°37.4'	S 10°11.9'	137°51.4'	9.7'	S 0°36.3'	13.4'	59.9'
13	347°08.7'	11°37.4'	S 10°11.0'	152°20.1'	9.8'	S 0°49.7'	13.3'	59.9'
14	2°11.1'	26°37.5'	S 10°10.1'	166°48.9'	9.8'	S 1°03.0'	13.3'	59.8'
15	17°13.6'	41°37.6'	S 10°09.1'	181°17.7'	9.9'	S 1°16.3'	13.3'	59.8'
16	32°16.1'	56°37.7'	S 10°08.2'	195°46.6'	9.9'	S 1°29.6'	13.3'	59.8'
17	47°18.5'	71°37.8'	S 10°07.3'	210°15.5'	9.9'	S 1°42.9'	13.2'	59.7'
18	62°21.0'	86°37.8'	S 10°06.4'	224°44.4'	10.0'	S 1°56.1'	13.2'	59.7'
19	77°23.4'	101°37.9'	S 10°05.5'	239°13.4'	10.0'	S 2°09.4'	13.2'	59.6'
20	92°25.9'	116°38.0'	S 10°04.6'	253°42.4'	10.0'	S 2°22.5'	13.2'	59.6'
21	107°28.4'	131°38.1'	S 10°03.7'	268°11.4'	10.1'	S 2°35.7'	13.1'	59.6'
22	122°30.8'	146°38.2'	S 10°02.8'	282°40.5'	10.1'	S 2°48.8'	13.1'	59.5'
23	137°33.3'	161°38.3'	S 10°01.8'	297°09.6'	10.1'	S 3°01.9'	13.0'	59.5'

Sat Feb 23, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	152°35.8'	176°38.3'	S 10°00.9'	311°38.7'	10.2'	S 3°14.9'	13.0'	59.5'
1	167°38.2'	191°38.4'	S 10°00.0'	326°07.9'	10.2'	S 3°28.0'	13.0'	59.4'
2	182°40.7'	206°38.5'	S 9°59.1'	340°37.1'	10.2'	S 3°40.9'	12.9'	59.4'
3	197°43.2'	221°38.6'	S 9°58.2'	355°06.3'	10.3'	S 3°53.9'	12.9'	59.3'
4	212°45.6'	236°38.7'	S 9°57.3'	9°35.5'	10.3'	S 4°06.8'	12.9'	59.3'
5	227°48.1'	251°38.8'	S 9°56.4'	24°04.8'	10.3'	S 4°19.6'	12.8'	59.3'
6	242°50.6'	266°38.8'	S 9°55.4'	38°34.1'	10.3'	S 4°32.4'	12.8'	59.2'
7	257°53.0'	281°38.9'	S 9°54.5'	53°03.5'	10.4'	S 4°45.2'	12.7'	59.2'
8	272°55.5'	296°39.0'	S 9°53.6'	67°32.8'	10.4'	S 4°57.9'	12.7'	59.1'
9	287°57.9'	311°39.1'	S 9°52.7'	82°02.2'	10.4'	S 5°10.6'	12.6'	59.1'
10	303°00.4'	326°39.2'	S 9°51.8'	96°31.6'	10.4'	S 5°23.3'	12.6'	59.1'
11	318°02.9'	341°39.3'	S 9°50.9'	111°01.1'	10.5'	S 5°35.8'	12.5'	59.0'
12	333°05.3'	356°39.4'	S 9°49.9'	125°30.6'	10.5'	S 5°48.4'	12.5'	59.0'
13	348°07.8'	11°39.4'	S 9°49.0'	140°00.0'	10.5'	S 6°00.9'	12.4'	58.9'
14	3°10.3'	26°39.5'	S 9°48.1'	154°29.6'	10.5'	S 6°13.3'	12.4'	58.9'
15	18°12.7'	41°39.6'	S 9°47.2'	168°59.1'	10.6'	S 6°25.7'	12.3'	58.9'
16	33°15.2'	56°39.7'	S 9°46.3'	183°28.6'	10.6'	S 6°38.0'	12.3'	58.8'
17	48°17.7'	71°39.8'	S 9°45.3'	197°58.2'	10.6'	S 6°50.3'	12.2'	58.8'
18	63°20.1'	86°39.9'	S 9°44.4'	212°27.8'	10.6'	S 7°02.6'	12.2'	58.7'
19	78°22.6'	101°40.0'	S 9°43.5'	226°57.4'	10.6'	S 7°14.7'	12.1'	58.7'
20	93°25.0'	116°40.1'	S 9°42.6'	241°27.0'	10.6'	S 7°26.8'	12.1'	58.7'
21	108°27.5'	131°40.1'	S 9°41.7'	255°56.7'	10.7'	S 7°38.9'	12.0'	58.6'
22	123°30.0'	146°40.2'	S 9°40.8'	270°26.4'	10.7'	S 7°50.9'	11.9'	58.6'
23	138°32.4'	161°40.3'	S 9°39.8'	284°56.0'	10.7'	S 8°02.8'	11.9'	58.5'

Sun Feb 24, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 15.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	153°34.9'	176°40.4'	S 9°38.9'	299°25.7'	10.7'	S 8°14.7'	11.8'	58.5'
1	168°37.4'	191°40.5'	S 9°38.0'	313°55.5'	10.7'	S 8°26.5'	11.8'	58.4'
2	183°39.8'	206°40.6'	S 9°37.1'	328°25.2'	10.7'	S 8°38.3'	11.7'	58.4'
3	198°42.3'	221°40.7'	S 9°36.1'	342°54.9'	10.8'	S 8°50.0'	11.6'	58.4'
4	213°44.8'	236°40.8'	S 9°35.2'	357°24.7'	10.8'	S 9°01.6'	11.6'	58.3'
5	228°47.2'	251°40.9'	S 9°34.3'	11°54.5'	10.8'	S 9°13.2'	11.5'	58.3'
6	243°49.7'	266°40.9'	S 9°33.4'	26°24.2'	10.8'	S 9°24.7'	11.4'	58.2'
7	258°52.2'	281°41.0'	S 9°32.5'	40°54.0'	10.8'	S 9°36.1'	11.4'	58.2'
8	273°54.6'	296°41.1'	S 9°31.5'	55°23.8'	10.8'	S 9°47.4'	11.3'	58.2'
9	288°57.1'	311°41.2'	S 9°30.6'	69°53.6'	10.8'	S 9°58.7'	11.2'	58.1'
10	303°59.5'	326°41.3'	S 9°29.7'	84°23.5'	10.8'	S 10°10.0'	11.2'	58.1'
11	319°02.0'	341°41.4'	S 9°28.8'	98°53.3'	10.8'	S 10°21.1'	11.1'	58.0'
12	334°04.5'	356°41.5'	S 9°27.8'	113°23.2'	10.9'	S 10°32.2'	11.0'	58.0'
13	349°06.9'	11°41.6'	S 9°26.9'	127°53.0'	10.9'	S 10°43.2'	10.9'	58.0'
14	4°09.4'	26°41.7'	S 9°26.0'	142°22.9'	10.9'	S 10°54.1'	10.9'	57.9'
15	19°11.9'	41°41.8'	S 9°25.1'	156°52.7'	10.9'	S 11°05.0'	10.8'	57.9'
16	34°14.3'	56°41.9'	S 9°24.2'	171°22.6'	10.9'	S 11°15.8'	10.7'	57.8'
17	49°16.8'	71°42.0'	S 9°23.2'	185°52.5'	10.9'	S 11°26.5'	10.6'	57.8'
18	64°19.3'	86°42.1'	S 9°22.3'	200°22.4'	10.9'	S 11°37.2'	10.6'	57.8'
19	79°21.7'	101°42.1'	S 9°21.4'	214°52.3'	10.9'	S 11°47.7'	10.5'	57.7'
20	94°24.2'	116°42.2'	S 9°20.5'	229°22.2'	10.9'	S 11°58.2'	10.4'	57.7'
21	109°26.6'	131°42.3'	S 9°19.5'	243°52.1'	10.9'	S 12°08.6'	10.3'	57.6'
22	124°29.1'	146°42.4'	S 9°18.6'	258°22.0'	10.9'	S 12°19.0'	10.3'	57.6'
23	139°31.6'	161°42.5'	S 9°17.7'	272°51.9'	10.9'	S 12°29.2'	10.2'	57.6'

Mon Feb 25, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	154°34.0'	176°42.6'	S 9°16.7'	287°21.8'	10.9'	S 12°39.4'	10.1'	57.5'
1	169°36.5'	191°42.7'	S 9°15.8'	301°51.7'	10.9'	S 12°49.5'	10.0'	57.5'
2	184°39.0'	206°42.8'	S 9°14.9'	316°21.7'	10.9'	S 12°59.5'	9.9'	57.4'
3	199°41.4'	221°42.9'	S 9°14.0'	330°51.6'	10.9'	S 13°09.4'	9.8'	57.4'
4	214°43.9'	236°43.0'	S 9°13.0'	345°21.5'	10.9'	S 13°19.3'	9.8'	57.4'
5	229°46.4'	251°43.1'	S 9°12.1'	359°51.4'	10.9'	S 13°29.0'	9.7'	57.3'
6	244°48.8'	266°43.2'	S 9°11.2'	14°21.4'	10.9'	S 13°38.7'	9.6'	57.3'
7	259°51.3'	281°43.3'	S 9°10.3'	28°51.3'	10.9'	S 13°48.3'	9.5'	57.2'
8	274°53.8'	296°43.4'	S 9°09.3'	43°21.2'	10.9'	S 13°57.8'	9.4'	57.2'
9	289°56.2'	311°43.5'	S 9°08.4'	57°51.2'	10.9'	S 14°07.3'	9.3'	57.2'
10	304°58.7'	326°43.6'	S 9°07.5'	72°21.1'	10.9'	S 14°16.6'	9.3'	57.1'
11	320°01.1'	341°43.7'	S 9°06.5'	86°51.0'	10.9'	S 14°25.9'	9.2'	57.1'
12	335°03.6'	356°43.8'	S 9°05.6'	101°21.0'	10.9'	S 14°35.0'	9.1'	57.1'
13	350°06.1'	11°43.9'	S 9°04.7'	115°50.9'	10.9'	S 14°44.1'	9.0'	57.0'
14	5°08.5'	26°44.0'	S 9°03.8'	130°20.8'	10.9'	S 14°53.1'	8.9'	57.0'
15	20°11.0'	41°44.1'	S 9°02.8'	144°50.8'	10.9'	S 15°02.0'	8.8'	56.9'
16	35°13.5'	56°44.2'	S 9°01.9'	159°20.7'	10.9'	S 15°10.8'	8.7'	56.9'
17	50°15.9'	71°44.3'	S 9°01.0'	173°50.6'	10.9'	S 15°19.6'	8.6'	56.9'
18	65°18.4'	86°44.4'	S 9°00.0'	188°20.6'	10.9'	S 15°28.2'	8.5'	56.8'
19	80°20.9'	101°44.5'	S 8°59.1'	202°50.5'	10.9'	S 15°36.8'	8.5'	56.8'
20	95°23.3'	116°44.6'	S 8°58.2'	217°20.4'	10.9'	S 15°45.2'	8.4'	56.8'
21	110°25.8'	131°44.7'	S 8°57.2'	231°50.3'	10.9'	S 15°53.6'	8.3'	56.7'
22	125°28.3'	146°44.8'	S 8°56.3'	246°20.2'	10.9'	S 16°01.9'	8.2'	56.7'
23	140°30.7'	161°44.9'	S 8°55.4'	260°50.2'	10.9'	S 16°10.0'	8.1'	56.6'

Tue Feb 26, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 15.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	155°33.2'	176°45.0'	S 8°54.4'	275°20.1'	10.9'	S 16°18.1'	8.0'	56.6'
1	170°35.6'	191°45.1'	S 8°53.5'	289°50.0'	10.9'	S 16°26.1'	7.9'	56.6'
2	185°38.1'	206°45.2'	S 8°52.6'	304°19.9'	10.9'	S 16°34.0'	7.8'	56.5'
3	200°40.6'	221°45.3'	S 8°51.6'	318°49.8'	10.9'	S 16°41.8'	7.7'	56.5'
4	215°43.0'	236°45.4'	S 8°50.7'	333°19.7'	10.9'	S 16°49.5'	7.6'	56.5'
5	230°45.5'	251°45.5'	S 8°49.8'	347°49.6'	10.9'	S 16°57.2'	7.5'	56.4'
6	245°48.0'	266°45.6'	S 8°48.8'	2°19.5'	10.9'	S 17°04.7'	7.4'	56.4'
7	260°50.4'	281°45.7'	S 8°47.9'	16°49.4'	10.9'	S 17°12.1'	7.3'	56.4'
8	275°52.9'	296°45.8'	S 8°47.0'	31°19.3'	10.9'	S 17°19.4'	7.2'	56.3'
9	290°55.4'	311°45.9'	S 8°46.0'	45°49.2'	10.9'	S 17°26.7'	7.1'	56.3'
10	305°57.8'	326°46.0'	S 8°45.1'	60°19.0'	10.9'	S 17°33.8'	7.0'	56.3'
11	321°00.3'	341°46.1'	S 8°44.2'	74°48.9'	10.9'	S 17°40.8'	6.9'	56.2'
12	336°02.7'	356°46.2'	S 8°43.2'	89°18.8'	10.9'	S 17°47.8'	6.8'	56.2'
13	351°05.2'	11°46.3'	S 8°42.3'	103°48.7'	10.9'	S 17°54.6'	6.7'	56.2'
14	6°07.7'	26°46.4'	S 8°41.4'	118°18.5'	10.9'	S 18°01.4'	6.6'	56.1'
15	21°10.1'	41°46.5'	S 8°40.4'	132°48.4'	10.9'	S 18°08.0'	6.5'	56.1'
16	36°12.6'	56°46.6'	S 8°39.5'	147°18.3'	10.9'	S 18°14.6'	6.4'	56.1'
17	51°15.1'	71°46.7'	S 8°38.6'	161°48.1'	10.9'	S 18°21.0'	6.3'	56.0'
18	66°17.5'	86°46.8'	S 8°37.6'	176°18.0'	10.9'	S 18°27.4'	6.2'	56.0'
19	81°20.0'	101°46.9'	S 8°36.7'	190°47.8'	10.9'	S 18°33.6'	6.1'	56.0'
20	96°22.5'	116°47.0'	S 8°35.8'	205°17.7'	10.8'	S 18°39.8'	6.0'	55.9'
21	111°24.9'	131°47.1'	S 8°34.8'	219°47.5'	10.8'	S 18°45.8'	5.9'	55.9'
22	126°27.4'	146°47.3'	S 8°33.9'	234°17.4'	10.8'	S 18°51.7'	5.8'	55.9'
23	141°29.9'	161°47.4'	S 8°32.9'	248°47.2'	10.8'	S 18°57.6'	5.7'	55.8'

Wed Feb 27, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.2'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	156°32.3'	176°47.5'	S 8°32.0'	263°17.1'	10.8'	S 19°03.3'	5.6'	55.8'
1	171°34.8'	191°47.6'	S 8°31.1'	277°46.9'	10.8'	S 19°09.0'	5.5'	55.8'
2	186°37.2'	206°47.7'	S 8°30.1'	292°16.8'	10.8'	S 19°14.5'	5.4'	55.8'
3	201°39.7'	221°47.8'	S 8°29.2'	306°46.6'	10.8'	S 19°20.0'	5.3'	55.7'
4	216°42.2'	236°47.9'	S 8°28.3'	321°16.4'	10.8'	S 19°25.3'	5.2'	55.7'
5	231°44.6'	251°48.0'	S 8°27.3'	335°46.3'	10.8'	S 19°30.5'	5.1'	55.7'
6	246°47.1'	266°48.1'	S 8°26.4'	350°16.1'	10.8'	S 19°35.6'	5.0'	55.6'
7	261°49.6'	281°48.2'	S 8°25.4'	4°45.9'	10.8'	S 19°40.7'	4.9'	55.6'
8	276°52.0'	296°48.3'	S 8°24.5'	19°15.7'	10.8'	S 19°45.6'	4.8'	55.6'
9	291°54.5'	311°48.4'	S 8°23.6'	33°45.6'	10.8'	S 19°50.4'	4.7'	55.6'
10	306°57.0'	326°48.5'	S 8°22.6'	48°15.4'	10.8'	S 19°55.1'	4.6'	55.5'
11	321°59.4'	341°48.7'	S 8°21.7'	62°45.2'	10.8'	S 19°59.7'	4.5'	55.5'
12	337°01.9'	356°48.8'	S 8°20.7'	77°15.1'	10.8'	S 20°04.2'	4.4'	55.5'
13	352°04.4'	11°48.9'	S 8°19.8'	91°44.9'	10.8'	S 20°08.7'	4.3'	55.4'
14	7°06.8'	26°49.0'	S 8°18.9'	106°14.7'	10.8'	S 20°12.9'	4.2'	55.4'
15	22°09.3'	41°49.1'	S 8°17.9'	120°44.6'	10.8'	S 20°17.1'	4.1'	55.4'
16	37°11.7'	56°49.2'	S 8°17.0'	135°14.4'	10.8'	S 20°21.2'	4.0'	55.4'
17	52°14.2'	71°49.3'	S 8°16.0'	149°44.2'	10.8'	S 20°25.2'	3.9'	55.3'
18	67°16.7'	86°49.4'	S 8°15.1'	164°14.1'	10.8'	S 20°29.1'	3.8'	55.3'
19	82°19.1'	101°49.5'	S 8°14.2'	178°43.9'	10.8'	S 20°32.9'	3.7'	55.3'
20	97°21.6'	116°49.6'	S 8°13.2'	193°13.7'	10.8'	S 20°36.5'	3.6'	55.3'
21	112°24.1'	131°49.8'	S 8°12.3'	207°43.6'	10.8'	S 20°40.1'	3.5'	55.2'
22	127°26.5'	146°49.9'	S 8°11.3'	222°13.4'	10.8'	S 20°43.6'	3.4'	55.2'
23	142°29.0'	161°50.0'	S 8°10.4'	236°43.3'	10.9'	S 20°46.9'	3.2'	55.2'

Thu Feb 28, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	157°31.5'	176°50.1'	S 8°09.4'	251°13.1'	10.9'	S 20°50.2'	3.1'	55.2'
1	172°33.9'	191°50.2'	S 8°08.5'	265°43.0'	10.9'	S 20°53.3'	3.0'	55.1'
2	187°36.4'	206°50.3'	S 8°07.6'	280°12.8'	10.9'	S 20°56.3'	2.9'	55.1'
3	202°38.9'	221°50.4'	S 8°06.6'	294°42.7'	10.9'	S 20°59.3'	2.8'	55.1'
4	217°41.3'	236°50.5'	S 8°05.7'	309°12.6'	10.9'	S 21°02.1'	2.7'	55.1'
5	232°43.8'	251°50.7'	S 8°04.7'	323°42.5'	10.9'	S 21°04.8'	2.6'	55.0'
6	247°46.2'	266°50.8'	S 8°03.8'	338°12.3'	10.9'	S 21°07.4'	2.5'	55.0'
7	262°48.7'	281°50.9'	S 8°02.8'	352°42.2'	10.9'	S 21°09.9'	2.4'	55.0'
8	277°51.2'	296°51.0'	S 8°01.9'	7°12.1'	10.9'	S 21°12.3'	2.3'	55.0'
9	292°53.6'	311°51.1'	S 8°01.0'	21°42.0'	10.9'	S 21°14.6'	2.2'	55.0'
10	307°56.1'	326°51.2'	S 8°00.0'	36°12.0'	10.9'	S 21°16.8'	2.1'	54.9'
11	322°58.6'	341°51.3'	S 7°59.1'	50°41.9'	10.9'	S 21°18.9'	2.0'	54.9'
12	338°01.0'	356°51.4'	S 7°58.1'	65°11.8'	10.9'	S 21°20.9'	1.9'	54.9'
13	353°03.5'	11°51.6'	S 7°57.2'	79°41.8'	10.9'	S 21°22.8'	1.8'	54.9'
14	8°06.0'	26°51.7'	S 7°56.2'	94°11.7'	11.0'	S 21°24.5'	1.7'	54.8'
15	23°08.4'	41°51.8'	S 7°55.3'	108°41.7'	11.0'	S 21°26.2'	1.6'	54.8'
16	38°10.9'	56°51.9'	S 7°54.3'	123°11.6'	11.0'	S 21°27.8'	1.4'	54.8'
17	53°13.3'	71°52.0'	S 7°53.4'	137°41.6'	11.0'	S 21°29.2'	1.3'	54.8'
18	68°15.8'	86°52.1'	S 7°52.4'	152°11.6'	11.0'	S 21°30.5'	1.2'	54.8'
19	83°18.3'	101°52.3'	S 7°51.5'	166°41.6'	11.0'	S 21°31.8'	1.1'	54.7'
20	98°20.7'	116°52.4'	S 7°50.5'	181°11.6'	11.0'	S 21°32.9'	1.0'	54.7'
21	113°23.2'	131°52.5'	S 7°49.6'	195°41.6'	11.0'	S 21°33.9'	0.9'	54.7'
22	128°25.7'	146°52.6'	S 7°48.7'	210°11.7'	11.1'	S 21°34.9'	0.8'	54.7'
23	143°28.1'	161°52.7'	S 7°47.7'	224°41.7'	11.1'	S 21°35.7'	0.7'	54.7'