

Wed Nov 1, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 15.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	40°28.3'	184°05.9'	S 14°25.0'	42°47.6'	11.5'	S 4°10.5'	11.2'	57.9'
1	55°30.8'	199°05.9'	S 14°25.8'	57°18.1'	11.5'	S 3°59.3'	11.2'	57.9'
2	70°33.2'	214°06.0'	S 14°26.6'	71°48.6'	11.4'	S 3°48.0'	11.3'	57.9'
3	85°35.7'	229°06.0'	S 14°27.4'	86°19.0'	11.4'	S 3°36.8'	11.3'	58.0'
4	100°38.1'	244°06.0'	S 14°28.2'	100°49.4'	11.4'	S 3°25.5'	11.3'	58.0'
5	115°40.6'	259°06.0'	S 14°29.0'	115°19.8'	11.3'	S 3°14.1'	11.4'	58.0'
6	130°43.1'	274°06.0'	S 14°29.8'	129°50.1'	11.3'	S 3°02.7'	11.4'	58.1'
7	145°45.5'	289°06.0'	S 14°30.6'	144°20.4'	11.3'	S 2°51.3'	11.4'	58.1'
8	160°48.0'	304°06.1'	S 14°31.4'	158°50.7'	11.2'	S 2°39.9'	11.5'	58.1'
9	175°50.5'	319°06.1'	S 14°32.2'	173°20.9'	11.2'	S 2°28.4'	11.5'	58.2'
10	190°52.9'	334°06.1'	S 14°33.0'	187°51.2'	11.2'	S 2°16.9'	11.5'	58.2'
11	205°55.4'	349°06.1'	S 14°33.8'	202°21.3'	11.1'	S 2°05.4'	11.6'	58.3'
12	220°57.9'	4°06.1'	S 14°34.6'	216°51.5'	11.1'	S 1°53.9'	11.6'	58.3'
13	236°00.3'	19°06.1'	S 14°35.4'	231°21.6'	11.1'	S 1°42.3'	11.6'	58.3'
14	251°02.8'	34°06.2'	S 14°36.2'	245°51.6'	11.0'	S 1°30.7'	11.6'	58.4'
15	266°05.3'	49°06.2'	S 14°36.9'	260°21.7'	11.0'	S 1°19.1'	11.6'	58.4'
16	281°07.7'	64°06.2'	S 14°37.7'	274°51.6'	11.0'	S 1°07.4'	11.7'	58.4'
17	296°10.2'	79°06.2'	S 14°38.5'	289°21.6'	10.9'	S 0°55.7'	11.7'	58.5'
18	311°12.6'	94°06.2'	S 14°39.3'	303°51.5'	10.9'	S 0°44.0'	11.7'	58.5'
19	326°15.1'	109°06.2'	S 14°40.1'	318°21.4'	10.8'	S 0°32.3'	11.7'	58.6'
20	341°17.6'	124°06.2'	S 14°40.9'	332°51.2'	10.8'	S 0°20.6'	11.7'	58.6'
21	356°20.0'	139°06.2'	S 14°41.7'	347°21.0'	10.7'	S 0°08.9'	11.8'	58.6'
22	11°22.5'	154°06.3'	S 14°42.5'	1°50.7'	10.7'	N 0°02.9'	11.8'	58.7'
23	26°25.0'	169°06.3'	S 14°43.3'	16°20.5'	10.7'	N 0°14.7'	11.8'	58.7'

Thu Nov 2, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	41°27.4'	184°06.3'	S 14°44.1'	30°50.1'	10.6'	N 0°26.5'	11.8'	58.7'
1	56°29.9'	199°06.3'	S 14°44.9'	45°19.7'	10.6'	N 0°38.3'	11.8'	58.8'
2	71°32.4'	214°06.3'	S 14°45.7'	59°49.3'	10.5'	N 0°50.1'	11.8'	58.8'
3	86°34.8'	229°06.3'	S 14°46.5'	74°18.8'	10.5'	N 1°01.9'	11.8'	58.8'
4	101°37.3'	244°06.3'	S 14°47.2'	88°48.3'	10.4'	N 1°13.8'	11.8'	58.9'
5	116°39.7'	259°06.3'	S 14°48.0'	103°17.8'	10.4'	N 1°25.6'	11.9'	58.9'
6	131°42.2'	274°06.3'	S 14°48.8'	117°47.2'	10.3'	N 1°37.5'	11.9'	58.9'
7	146°44.7'	289°06.3'	S 14°49.6'	132°16.5'	10.3'	N 1°49.3'	11.9'	59.0'
8	161°47.1'	304°06.3'	S 14°50.4'	146°45.8'	10.2'	N 2°01.2'	11.9'	59.0'
9	176°49.6'	319°06.4'	S 14°51.2'	161°15.0'	10.2'	N 2°13.1'	11.9'	59.0'
10	191°52.1'	334°06.4'	S 14°52.0'	175°44.2'	10.2'	N 2°24.9'	11.9'	59.1'
11	206°54.5'	349°06.4'	S 14°52.8'	190°13.4'	10.1'	N 2°36.8'	11.9'	59.1'
12	221°57.0'	4°06.4'	S 14°53.5'	204°42.5'	10.0'	N 2°48.7'	11.9'	59.1'
13	236°59.5'	19°06.4'	S 14°54.3'	219°11.5'	10.0'	N 3°00.6'	11.9'	59.2'
14	252°01.9'	34°06.4'	S 14°55.1'	233°40.5'	9.9'	N 3°12.4'	11.9'	59.2'
15	267°04.4'	49°06.4'	S 14°55.9'	248°09.5'	9.9'	N 3°24.3'	11.9'	59.2'
16	282°06.9'	64°06.4'	S 14°56.7'	262°38.4'	9.8'	N 3°36.1'	11.9'	59.3'
17	297°09.3'	79°06.4'	S 14°57.5'	277°07.2'	9.8'	N 3°48.0'	11.8'	59.3'
18	312°11.8'	94°06.4'	S 14°58.2'	291°36.0'	9.7'	N 3°59.8'	11.8'	59.3'
19	327°14.2'	109°06.4'	S 14°59.0'	306°04.7'	9.7'	N 4°11.7'	11.8'	59.4'
20	342°16.7'	124°06.4'	S 14°59.8'	320°33.4'	9.6'	N 4°23.5'	11.8'	59.4'
21	357°19.2'	139°06.4'	S 15°00.6'	335°02.1'	9.6'	N 4°35.3'	11.8'	59.4'
22	12°21.6'	154°06.4'	S 15°01.4'	349°30.6'	9.5'	N 4°47.1'	11.8'	59.5'
23	27°24.1'	169°06.4'	S 15°02.2'	3°59.1'	9.5'	N 4°58.9'	11.8'	59.5'

Fri Nov 3, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 16.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	42°26.6'	184°06.4'	S 15°02.9'	18°27.6'	9.4'	N 5°10.7'	11.8'	59.5'
1	57°29.0'	199°06.4'	S 15°03.7'	32°56.0'	9.3'	N 5°22.4'	11.7'	59.6'
2	72°31.5'	214°06.4'	S 15°04.5'	47°24.3'	9.3'	N 5°34.1'	11.7'	59.6'
3	87°34.0'	229°06.4'	S 15°05.3'	61°52.6'	9.2'	N 5°45.9'	11.7'	59.6'
4	102°36.4'	244°06.4'	S 15°06.1'	76°20.8'	9.2'	N 5°57.5'	11.7'	59.6'
5	117°38.9'	259°06.4'	S 15°06.8'	90°49.0'	9.1'	N 6°09.2'	11.6'	59.7'
6	132°41.3'	274°06.4'	S 15°07.6'	105°17.1'	9.0'	N 6°20.9'	11.6'	59.7'
7	147°43.8'	289°06.4'	S 15°08.4'	119°45.2'	9.0'	N 6°32.5'	11.6'	59.7'
8	162°46.3'	304°06.4'	S 15°09.2'	134°13.1'	8.9'	N 6°44.1'	11.6'	59.8'
9	177°48.7'	319°06.4'	S 15°09.9'	148°41.1'	8.9'	N 6°55.6'	11.5'	59.8'
10	192°51.2'	334°06.4'	S 15°10.7'	163°08.9'	8.8'	N 7°07.1'	11.5'	59.8'
11	207°53.7'	349°06.4'	S 15°11.5'	177°36.7'	8.7'	N 7°18.6'	11.5'	59.8'
12	222°56.1'	4°06.4'	S 15°12.3'	192°04.5'	8.7'	N 7°30.1'	11.4'	59.9'
13	237°58.6'	19°06.4'	S 15°13.1'	206°32.2'	8.6'	N 7°41.5'	11.4'	59.9'
14	253°01.1'	34°06.4'	S 15°13.8'	220°59.8'	8.6'	N 7°52.9'	11.4'	59.9'
15	268°03.5'	49°06.4'	S 15°14.6'	235°27.3'	8.5'	N 8°04.3'	11.3'	59.9'
16	283°06.0'	64°06.4'	S 15°15.4'	249°54.8'	8.4'	N 8°15.6'	11.3'	60.0'
17	298°08.5'	79°06.4'	S 15°16.1'	264°22.3'	8.4'	N 8°26.9'	11.2'	60.0'
18	313°10.9'	94°06.4'	S 15°16.9'	278°49.6'	8.3'	N 8°38.1'	11.2'	60.0'
19	328°13.4'	109°06.4'	S 15°17.7'	293°16.9'	8.2'	N 8°49.3'	11.1'	60.0'
20	343°15.8'	124°06.4'	S 15°18.5'	307°44.2'	8.2'	N 9°00.5'	11.1'	60.1'
21	358°18.3'	139°06.4'	S 15°19.2'	322°11.4'	8.1'	N 9°11.6'	11.1'	60.1'
22	13°20.8'	154°06.4'	S 15°20.0'	336°38.5'	8.0'	N 9°22.6'	11.0'	60.1'
23	28°23.2'	169°06.4'	S 15°20.8'	351°05.5'	8.0'	N 9°33.6'	11.0'	60.1'

Sat Nov 4, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 16.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	43°25.7'	184°06.4'	S 15°21.5'	5°32.5'	7.9'	N 9°44.6'	10.9'	60.1'
1	58°28.2'	199°06.4'	S 15°22.3'	19°59.4'	7.9'	N 9°55.5'	10.8'	60.2'
2	73°30.6'	214°06.4'	S 15°23.1'	34°26.3'	7.8'	N 10°06.3'	10.8'	60.2'
3	88°33.1'	229°06.4'	S 15°23.9'	48°53.1'	7.7'	N 10°17.1'	10.7'	60.2'
4	103°35.6'	244°06.3'	S 15°24.6'	63°19.8'	7.7'	N 10°27.8'	10.7'	60.2'
5	118°38.0'	259°06.3'	S 15°25.4'	77°46.4'	7.6'	N 10°38.5'	10.6'	60.2'
6	133°40.5'	274°06.3'	S 15°26.2'	92°13.0'	7.5'	N 10°49.1'	10.5'	60.3'
7	148°43.0'	289°06.3'	S 15°26.9'	106°39.6'	7.5'	N 10°59.7'	10.5'	60.3'
8	163°45.4'	304°06.3'	S 15°27.7'	121°06.0'	7.4'	N 11°10.1'	10.4'	60.3'
9	178°47.9'	319°06.3'	S 15°28.5'	135°32.4'	7.3'	N 11°20.6'	10.4'	60.3'
10	193°50.3'	334°06.3'	S 15°29.2'	149°58.7'	7.3'	N 11°30.9'	10.3'	60.3'
11	208°52.8'	349°06.3'	S 15°30.0'	164°25.0'	7.2'	N 11°41.2'	10.2'	60.4'
12	223°55.3'	4°06.3'	S 15°30.8'	178°51.2'	7.1'	N 11°51.4'	10.1'	60.4'
13	238°57.7'	19°06.3'	S 15°31.5'	193°17.3'	7.1'	N 12°01.6'	10.1'	60.4'
14	254°00.2'	34°06.2'	S 15°32.3'	207°43.4'	7.0'	N 12°11.7'	10.0'	60.4'
15	269°02.7'	49°06.2'	S 15°33.1'	222°09.4'	6.9'	N 12°21.7'	9.9'	60.4'
16	284°05.1'	64°06.2'	S 15°33.8'	236°35.4'	6.9'	N 12°31.6'	9.8'	60.4'
17	299°07.6'	79°06.2'	S 15°34.6'	251°01.2'	6.8'	N 12°41.4'	9.8'	60.5'
18	314°10.1'	94°06.2'	S 15°35.3'	265°27.1'	6.8'	N 12°51.2'	9.7'	60.5'
19	329°12.5'	109°06.2'	S 15°36.1'	279°52.8'	6.7'	N 13°00.9'	9.6'	60.5'
20	344°15.0'	124°06.2'	S 15°36.9'	294°18.5'	6.6'	N 13°10.5'	9.5'	60.5'
21	359°17.4'	139°06.2'	S 15°37.6'	308°44.1'	6.6'	N 13°20.0'	9.4'	60.5'
22	14°19.9'	154°06.1'	S 15°38.4'	323°09.7'	6.5'	N 13°29.4'	9.4'	60.5'
23	29°22.4'	169°06.1'	S 15°39.1'	337°35.2'	6.4'	N 13°38.8'	9.3'	60.5'

Sun Nov 5, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 16.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	44°24.8'	184°06.1'	S 15°39.9'	352°00.6'	6.4'	N 13°48.1'	9.2'	60.5'
1	59°27.3'	199°06.1'	S 15°40.7'	6°26.0'	6.3'	N 13°57.2'	9.1'	60.5'
2	74°29.8'	214°06.1'	S 15°41.4'	20°51.3'	6.3'	N 14°06.3'	9.0'	60.6'
3	89°32.2'	229°06.1'	S 15°42.2'	35°16.6'	6.2'	N 14°15.3'	8.9'	60.6'
4	104°34.7'	244°06.1'	S 15°42.9'	49°41.8'	6.1'	N 14°24.2'	8.8'	60.6'
5	119°37.2'	259°06.0'	S 15°43.7'	64°06.9'	6.1'	N 14°33.0'	8.7'	60.6'
6	134°39.6'	274°06.0'	S 15°44.5'	78°32.0'	6.0'	N 14°41.7'	8.6'	60.6'
7	149°42.1'	289°06.0'	S 15°45.2'	92°57.0'	6.0'	N 14°50.4'	8.5'	60.6'
8	164°44.6'	304°06.0'	S 15°46.0'	107°21.9'	5.9'	N 14°58.9'	8.4'	60.6'
9	179°47.0'	319°06.0'	S 15°46.7'	121°46.8'	5.8'	N 15°07.3'	8.3'	60.6'
10	194°49.5'	334°05.9'	S 15°47.5'	136°11.7'	5.8'	N 15°15.6'	8.2'	60.6'
11	209°51.9'	349°05.9'	S 15°48.2'	150°36.5'	5.7'	N 15°23.8'	8.1'	60.6'
12	224°54.4'	4°05.9'	S 15°49.0'	165°01.2'	5.7'	N 15°31.9'	8.0'	60.6'
13	239°56.9'	19°05.9'	S 15°49.7'	179°25.9'	5.6'	N 15°39.9'	7.9'	60.6'
14	254°59.3'	34°05.9'	S 15°50.5'	193°50.5'	5.6'	N 15°47.8'	7.8'	60.6'
15	270°01.8'	49°05.8'	S 15°51.3'	208°15.1'	5.5'	N 15°55.6'	7.7'	60.6'
16	285°04.3'	64°05.8'	S 15°52.0'	222°39.6'	5.5'	N 16°03.3'	7.6'	60.7'
17	300°06.7'	79°05.8'	S 15°52.8'	237°04.1'	5.4'	N 16°10.9'	7.5'	60.7'
18	315°09.2'	94°05.8'	S 15°53.5'	251°28.5'	5.4'	N 16°18.3'	7.3'	60.7'
19	330°11.7'	109°05.8'	S 15°54.3'	265°52.8'	5.3'	N 16°25.7'	7.2'	60.7'
20	345°14.1'	124°05.7'	S 15°55.0'	280°17.2'	5.3'	N 16°32.9'	7.1'	60.7'
21	0°16.6'	139°05.7'	S 15°55.8'	294°41.4'	5.2'	N 16°40.0'	7.0'	60.7'
22	15°19.1'	154°05.7'	S 15°56.5'	309°05.7'	5.2'	N 16°47.0'	6.9'	60.7'
23	30°21.5'	169°05.7'	S 15°57.3'	323°29.8'	5.1'	N 16°53.9'	6.8'	60.7'

Mon Nov 6, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.1'		SD = 16.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	45°24.0'	184°05.7'	S 15°58.0'	337°54.0'	5.1'	N 17°00.6'	6.6'	60.7'
1	60°26.4'	199°05.6'	S 15°58.8'	352°18.1'	5.0'	N 17°07.3'	6.5'	60.7'
2	75°28.9'	214°05.6'	S 15°59.5'	6°42.1'	5.0'	N 17°13.8'	6.4'	60.7'
3	90°31.4'	229°05.6'	S 16°00.3'	21°06.1'	5.0'	N 17°20.2'	6.3'	60.7'
4	105°33.8'	244°05.6'	S 16°01.0'	35°30.1'	4.9'	N 17°26.5'	6.2'	60.7'
5	120°36.3'	259°05.5'	S 16°01.7'	49°54.0'	4.9'	N 17°32.6'	6.0'	60.7'
6	135°38.8'	274°05.5'	S 16°02.5'	64°17.9'	4.9'	N 17°38.7'	5.9'	60.7'
7	150°41.2'	289°05.5'	S 16°03.2'	78°41.7'	4.8'	N 17°44.6'	5.8'	60.7'
8	165°43.7'	304°05.4'	S 16°04.0'	93°05.5'	4.8'	N 17°50.3'	5.6'	60.6'
9	180°46.2'	319°05.4'	S 16°04.7'	107°29.3'	4.7'	N 17°56.0'	5.5'	60.6'
10	195°48.6'	334°05.4'	S 16°05.5'	121°53.1'	4.7'	N 18°01.5'	5.4'	60.6'
11	210°51.1'	349°05.4'	S 16°06.2'	136°16.8'	4.7'	N 18°06.9'	5.3'	60.6'
12	225°53.6'	4°05.3'	S 16°07.0'	150°40.5'	4.7'	N 18°12.1'	5.1'	60.6'
13	240°56.0'	19°05.3'	S 16°07.7'	165°04.1'	4.6'	N 18°17.3'	5.0'	60.6'
14	255°58.5'	34°05.3'	S 16°08.4'	179°27.8'	4.6'	N 18°22.3'	4.9'	60.6'
15	271°00.9'	49°05.3'	S 16°09.2'	193°51.4'	4.6'	N 18°27.1'	4.7'	60.6'
16	286°03.4'	64°05.2'	S 16°09.9'	208°14.9'	4.6'	N 18°31.9'	4.6'	60.6'
17	301°05.9'	79°05.2'	S 16°10.7'	222°38.5'	4.5'	N 18°36.5'	4.5'	60.6'
18	316°08.3'	94°05.2'	S 16°11.4'	237°02.0'	4.5'	N 18°40.9'	4.3'	60.6'
19	331°10.8'	109°05.1'	S 16°12.2'	251°25.5'	4.5'	N 18°45.3'	4.2'	60.6'
20	346°13.3'	124°05.1'	S 16°12.9'	265°49.0'	4.5'	N 18°49.5'	4.1'	60.6'
21	1°15.7'	139°05.1'	S 16°13.6'	280°12.5'	4.5'	N 18°53.5'	3.9'	60.6'
22	16°18.2'	154°05.0'	S 16°14.4'	294°36.0'	4.4'	N 18°57.5'	3.8'	60.5'
23	31°20.7'	169°05.0'	S 16°15.1'	308°59.4'	4.4'	N 19°01.2'	3.6'	60.5'

Tue Nov 7, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.1'		SD = 16.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	46°23.1'	184°05.0'	S 16°15.8'	323°22.8'	4.4'	N 19°04.9'	3.5'	60.5'
1	61°25.6'	199°04.9'	S 16°16.6'	337°46.2'	4.4'	N 19°08.4'	3.4'	60.5'
2	76°28.1'	214°04.9'	S 16°17.3'	352°09.7'	4.4'	N 19°11.8'	3.2'	60.5'
3	91°30.5'	229°04.9'	S 16°18.1'	6°33.1'	4.4'	N 19°15.0'	3.1'	60.5'
4	106°33.0'	244°04.8'	S 16°18.8'	20°56.4'	4.4'	N 19°18.1'	3.0'	60.5'
5	121°35.4'	259°04.8'	S 16°19.5'	35°19.8'	4.4'	N 19°21.0'	2.8'	60.5'
6	136°37.9'	274°04.8'	S 16°20.3'	49°43.2'	4.4'	N 19°23.9'	2.7'	60.5'
7	151°40.4'	289°04.7'	S 16°21.0'	64°06.6'	4.4'	N 19°26.5'	2.5'	60.4'
8	166°42.8'	304°04.7'	S 16°21.7'	78°30.0'	4.4'	N 19°29.1'	2.4'	60.4'
9	181°45.3'	319°04.7'	S 16°22.5'	92°53.3'	4.4'	N 19°31.5'	2.3'	60.4'
10	196°47.8'	334°04.6'	S 16°23.2'	107°16.7'	4.4'	N 19°33.7'	2.1'	60.4'
11	211°50.2'	349°04.6'	S 16°23.9'	121°40.1'	4.4'	N 19°35.8'	2.0'	60.4'
12	226°52.7'	4°04.6'	S 16°24.7'	136°03.5'	4.4'	N 19°37.8'	1.8'	60.4'
13	241°55.2'	19°04.5'	S 16°25.4'	150°26.9'	4.4'	N 19°39.6'	1.7'	60.4'
14	256°57.6'	34°04.5'	S 16°26.1'	164°50.3'	4.4'	N 19°41.3'	1.5'	60.3'
15	272°00.1'	49°04.4'	S 16°26.9'	179°13.7'	4.4'	N 19°42.8'	1.4'	60.3'
16	287°02.5'	64°04.4'	S 16°27.6'	193°37.1'	4.4'	N 19°44.2'	1.3'	60.3'
17	302°05.0'	79°04.4'	S 16°28.3'	208°00.5'	4.5'	N 19°45.5'	1.1'	60.3'
18	317°07.5'	94°04.3'	S 16°29.0'	222°24.0'	4.5'	N 19°46.6'	1.0'	60.3'
19	332°09.9'	109°04.3'	S 16°29.8'	236°47.5'	4.5'	N 19°47.6'	0.8'	60.3'
20	347°12.4'	124°04.3'	S 16°30.5'	251°11.0'	4.5'	N 19°48.4'	0.7'	60.2'
21	2°14.9'	139°04.2'	S 16°31.2'	265°34.5'	4.5'	N 19°49.1'	0.6'	60.2'
22	17°17.3'	154°04.2'	S 16°32.0'	279°58.0'	4.5'	N 19°49.7'	0.4'	60.2'
23	32°19.8'	169°04.1'	S 16°32.7'	294°21.5'	4.6'	N 19°50.1'	0.3'	60.2'

Wed Nov 8, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.1'		SD = 16.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	47°22.3'	184°04.1'	S 16°33.4'	308°45.1'	4.6'	N 19°50.4'	0.1'	60.2'
1	62°24.7'	199°04.0'	S 16°34.1'	323°08.7'	4.6'	N 19°50.5'	0.0'	60.1'
2	77°27.2'	214°04.0'	S 16°34.9'	337°32.3'	4.7'	N 19°50.5'	0.1'	60.1'
3	92°29.7'	229°04.0'	S 16°35.6'	351°56.0'	4.7'	N 19°50.4'	0.3'	60.1'
4	107°32.1'	244°03.9'	S 16°36.3'	6°19.7'	4.7'	N 19°50.1'	0.4'	60.1'
5	122°34.6'	259°03.9'	S 16°37.0'	20°43.4'	4.7'	N 19°49.7'	0.6'	60.1'
6	137°37.0'	274°03.8'	S 16°37.8'	35°07.1'	4.8'	N 19°49.1'	0.7'	60.0'
7	152°39.5'	289°03.8'	S 16°38.5'	49°30.9'	4.8'	N 19°48.4'	0.8'	60.0'
8	167°42.0'	304°03.7'	S 16°39.2'	63°54.7'	4.9'	N 19°47.6'	1.0'	60.0'
9	182°44.4'	319°03.7'	S 16°39.9'	78°18.6'	4.9'	N 19°46.6'	1.1'	60.0'
10	197°46.9'	334°03.7'	S 16°40.7'	92°42.4'	4.9'	N 19°45.5'	1.2'	60.0'
11	212°49.4'	349°03.6'	S 16°41.4'	107°06.4'	5.0'	N 19°44.2'	1.4'	59.9'
12	227°51.8'	4°03.6'	S 16°42.1'	121°30.4'	5.0'	N 19°42.8'	1.5'	59.9'
13	242°54.3'	19°03.5'	S 16°42.8'	135°54.4'	5.1'	N 19°41.3'	1.7'	59.9'
14	257°56.8'	34°03.5'	S 16°43.5'	150°18.4'	5.1'	N 19°39.7'	1.8'	59.9'
15	272°59.2'	49°03.4'	S 16°44.3'	164°42.5'	5.1'	N 19°37.9'	1.9'	59.8'
16	288°01.7'	64°03.4'	S 16°45.0'	179°06.7'	5.2'	N 19°36.0'	2.1'	59.8'
17	303°04.2'	79°03.3'	S 16°45.7'	193°30.9'	5.2'	N 19°33.9'	2.2'	59.8'
18	318°06.6'	94°03.3'	S 16°46.4'	207°55.1'	5.3'	N 19°31.7'	2.3'	59.8'
19	333°09.1'	109°03.2'	S 16°47.1'	222°19.4'	5.3'	N 19°29.4'	2.4'	59.8'
20	348°11.5'	124°03.2'	S 16°47.8'	236°43.8'	5.4'	N 19°27.0'	2.6'	59.7'
21	3°14.0'	139°03.1'	S 16°48.6'	251°08.1'	5.5'	N 19°24.4'	2.7'	59.7'
22	18°16.5'	154°03.1'	S 16°49.3'	265°32.6'	5.5'	N 19°21.7'	2.8'	59.7'
23	33°18.9'	169°03.0'	S 16°50.0'	279°57.1'	5.6'	N 19°18.8'	3.0'	59.7'

Thu Nov 9, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.1'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	48°21.4'	184°03.0'	S 16°50.7'	294°21.7'	5.6'	N 19°15.9'	3.1'	59.6'
1	63°23.9'	199°02.9'	S 16°51.4'	308°46.3'	5.7'	N 19°12.8'	3.2'	59.6'
2	78°26.3'	214°02.9'	S 16°52.1'	323°11.0'	5.7'	N 19°09.5'	3.3'	59.6'
3	93°28.8'	229°02.8'	S 16°52.8'	337°35.7'	5.8'	N 19°06.2'	3.5'	59.6'
4	108°31.3'	244°02.8'	S 16°53.6'	352°00.5'	5.9'	N 19°02.7'	3.6'	59.5'
5	123°33.7'	259°02.7'	S 16°54.3'	6°25.3'	5.9'	N 18°59.1'	3.7'	59.5'
6	138°36.2'	274°02.7'	S 16°55.0'	20°50.3'	6.0'	N 18°55.4'	3.8'	59.5'
7	153°38.7'	289°02.6'	S 16°55.7'	35°15.2'	6.0'	N 18°51.6'	4.0'	59.5'
8	168°41.1'	304°02.6'	S 16°56.4'	49°40.3'	6.1'	N 18°47.6'	4.1'	59.4'
9	183°43.6'	319°02.5'	S 16°57.1'	64°05.4'	6.2'	N 18°43.5'	4.2'	59.4'
10	198°46.0'	334°02.5'	S 16°57.8'	78°30.5'	6.2'	N 18°39.3'	4.3'	59.4'
11	213°48.5'	349°02.4'	S 16°58.5'	92°55.8'	6.3'	N 18°35.0'	4.4'	59.4'
12	228°51.0'	4°02.4'	S 16°59.2'	107°21.1'	6.4'	N 18°30.6'	4.6'	59.3'
13	243°53.4'	19°02.3'	S 16°59.9'	121°46.4'	6.4'	N 18°26.0'	4.7'	59.3'
14	258°55.9'	34°02.2'	S 17°00.7'	136°11.9'	6.5'	N 18°21.4'	4.8'	59.3'
15	273°58.4'	49°02.2'	S 17°01.4'	150°37.4'	6.6'	N 18°16.6'	4.9'	59.2'
16	289°00.8'	64°02.1'	S 17°02.1'	165°03.0'	6.6'	N 18°11.7'	5.0'	59.2'
17	304°03.3'	79°02.1'	S 17°02.8'	179°28.6'	6.7'	N 18°06.7'	5.1'	59.2'
18	319°05.8'	94°02.0'	S 17°03.5'	193°54.3'	6.8'	N 18°01.6'	5.2'	59.2'
19	334°08.2'	109°02.0'	S 17°04.2'	208°20.1'	6.9'	N 17°56.4'	5.3'	59.1'
20	349°10.7'	124°01.9'	S 17°04.9'	222°45.9'	6.9'	N 17°51.0'	5.4'	59.1'
21	4°13.2'	139°01.8'	S 17°05.6'	237°11.9'	7.0'	N 17°45.6'	5.6'	59.1'
22	19°15.6'	154°01.8'	S 17°06.3'	251°37.9'	7.1'	N 17°40.0'	5.7'	59.1'
23	34°18.1'	169°01.7'	S 17°07.0'	266°03.9'	7.1'	N 17°34.4'	5.8'	59.0'

Fri Nov 10, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.2'		SD = 16.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	49°20.5'	184°01.7'	S 17°07.7'	280°30.1'	7.2'	N 17°28.6'	5.9'	59.0'
1	64°23.0'	199°01.6'	S 17°08.4'	294°56.3'	7.3'	N 17°22.7'	6.0'	59.0'
2	79°25.5'	214°01.5'	S 17°09.1'	309°22.6'	7.4'	N 17°16.8'	6.1'	58.9'
3	94°27.9'	229°01.5'	S 17°09.8'	323°49.0'	7.4'	N 17°10.7'	6.2'	58.9'
4	109°30.4'	244°01.4'	S 17°10.5'	338°15.4'	7.5'	N 17°04.5'	6.3'	58.9'
5	124°32.9'	259°01.4'	S 17°11.2'	352°41.9'	7.6'	N 16°58.2'	6.4'	58.9'
6	139°35.3'	274°01.3'	S 17°11.9'	7°08.5'	7.7'	N 16°51.9'	6.5'	58.8'
7	154°37.8'	289°01.2'	S 17°12.6'	21°35.2'	7.7'	N 16°45.4'	6.6'	58.8'
8	169°40.3'	304°01.2'	S 17°13.3'	36°01.9'	7.8'	N 16°38.8'	6.7'	58.8'
9	184°42.7'	319°01.1'	S 17°14.0'	50°28.7'	7.9'	N 16°32.2'	6.8'	58.8'
10	199°45.2'	334°01.1'	S 17°14.7'	64°55.6'	8.0'	N 16°25.4'	6.8'	58.7'
11	214°47.6'	349°01.0'	S 17°15.4'	79°22.6'	8.0'	N 16°18.6'	6.9'	58.7'
12	229°50.1'	4°00.9'	S 17°16.1'	93°49.6'	8.1'	N 16°11.6'	7.0'	58.7'
13	244°52.6'	19°00.9'	S 17°16.8'	108°16.8'	8.2'	N 16°04.6'	7.1'	58.6'
14	259°55.0'	34°00.8'	S 17°17.5'	122°43.9'	8.3'	N 15°57.5'	7.2'	58.6'
15	274°57.5'	49°00.7'	S 17°18.2'	137°11.2'	8.3'	N 15°50.3'	7.3'	58.6'
16	289°60.0'	64°00.7'	S 17°18.9'	151°38.6'	8.4'	N 15°43.0'	7.4'	58.6'
17	305°02.4'	79°00.6'	S 17°19.6'	166°06.0'	8.5'	N 15°35.6'	7.5'	58.5'
18	320°04.9'	94°00.5'	S 17°20.3'	180°33.5'	8.6'	N 15°28.1'	7.6'	58.5'
19	335°07.4'	109°00.5'	S 17°21.0'	195°01.1'	8.7'	N 15°20.6'	7.6'	58.5'
20	350°09.8'	124°00.4'	S 17°21.7'	209°28.7'	8.7'	N 15°12.9'	7.7'	58.4'
21	5°12.3'	139°00.3'	S 17°22.3'	223°56.5'	8.8'	N 15°05.2'	7.8'	58.4'
22	20°14.8'	154°00.3'	S 17°23.0'	238°24.3'	8.9'	N 14°57.4'	7.9'	58.4'
23	35°17.2'	169°00.2'	S 17°23.7'	252°52.1'	9.0'	N 14°49.5'	8.0'	58.4'

## Sat Nov 11, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.2'		SD = 15.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	50°19.7'	184°00.1'	S 17°24.4'	267°20.1'	9.0'	N 14°41.6'	8.0'	58.3'
1	65°22.1'	199°00.1'	S 17°25.1'	281°48.1'	9.1'	N 14°33.6'	8.1'	58.3'
2	80°24.6'	213°60.0'	S 17°25.8'	296°16.2'	9.2'	N 14°25.4'	8.2'	58.3'
3	95°27.1'	228°59.9'	S 17°26.5'	310°44.4'	9.3'	N 14°17.3'	8.3'	58.2'
4	110°29.5'	243°59.9'	S 17°27.2'	325°12.7'	9.3'	N 14°09.0'	8.3'	58.2'
5	125°32.0'	258°59.8'	S 17°27.9'	339°41.0'	9.4'	N 14°00.7'	8.4'	58.2'
6	140°34.5'	273°59.7'	S 17°28.5'	354°09.4'	9.5'	N 13°52.3'	8.5'	58.2'
7	155°36.9'	288°59.6'	S 17°29.2'	8°37.9'	9.6'	N 13°43.8'	8.5'	58.1'
8	170°39.4'	303°59.6'	S 17°29.9'	23°06.4'	9.6'	N 13°35.3'	8.6'	58.1'
9	185°41.9'	318°59.5'	S 17°30.6'	37°35.0'	9.7'	N 13°26.7'	8.7'	58.1'
10	200°44.3'	333°59.4'	S 17°31.3'	52°03.7'	9.8'	N 13°18.0'	8.7'	58.0'
11	215°46.8'	348°59.4'	S 17°32.0'	66°32.5'	9.8'	N 13°09.3'	8.8'	58.0'
12	230°49.3'	3°59.3'	S 17°32.7'	81°01.4'	9.9'	N 13°00.4'	8.9'	58.0'
13	245°51.7'	18°59.2'	S 17°33.3'	95°30.3'	10.0'	N 12°51.6'	8.9'	58.0'
14	260°54.2'	33°59.1'	S 17°34.0'	109°59.3'	10.1'	N 12°42.6'	9.0'	57.9'
15	275°56.6'	48°59.1'	S 17°34.7'	124°28.3'	10.1'	N 12°33.7'	9.1'	57.9'
16	290°59.1'	63°59.0'	S 17°35.4'	138°57.4'	10.2'	N 12°24.6'	9.1'	57.9'
17	306°01.6'	78°58.9'	S 17°36.1'	153°26.6'	10.3'	N 12°15.5'	9.2'	57.9'
18	321°04.0'	93°58.8'	S 17°36.8'	167°55.9'	10.3'	N 12°06.3'	9.2'	57.8'
19	336°06.5'	108°58.8'	S 17°37.4'	182°25.2'	10.4'	N 11°57.1'	9.3'	57.8'
20	351°09.0'	123°58.7'	S 17°38.1'	196°54.6'	10.5'	N 11°47.8'	9.3'	57.8'
21	6°11.4'	138°58.6'	S 17°38.8'	211°24.1'	10.5'	N 11°38.5'	9.4'	57.7'
22	21°13.9'	153°58.5'	S 17°39.5'	225°53.6'	10.6'	N 11°29.1'	9.4'	57.7'
23	36°16.4'	168°58.5'	S 17°40.2'	240°23.2'	10.7'	N 11°19.6'	9.5'	57.7'

## Sun Nov 12, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.2'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	51°18.8'	183°58.4'	S 17°40.8'	254°52.9'	10.7'	N 11°10.1'	9.5'	57.7'
1	66°21.3'	198°58.3'	S 17°41.5'	269°22.6'	10.8'	N 11°00.6'	9.6'	57.6'
2	81°23.7'	213°58.2'	S 17°42.2'	283°52.4'	10.9'	N 10°51.0'	9.6'	57.6'
3	96°26.2'	228°58.1'	S 17°42.9'	298°22.3'	10.9'	N 10°41.3'	9.7'	57.6'
4	111°28.7'	243°58.1'	S 17°43.5'	312°52.2'	11.0'	N 10°31.6'	9.7'	57.6'
5	126°31.1'	258°58.0'	S 17°44.2'	327°22.2'	11.1'	N 10°21.9'	9.8'	57.5'
6	141°33.6'	273°57.9'	S 17°44.9'	341°52.3'	11.1'	N 10°12.1'	9.8'	57.5'
7	156°36.1'	288°57.8'	S 17°45.6'	356°22.4'	11.2'	N 10°02.3'	9.9'	57.5'
8	171°38.5'	303°57.7'	S 17°46.2'	10°52.6'	11.2'	N 9°52.4'	9.9'	57.4'
9	186°41.0'	318°57.7'	S 17°46.9'	25°22.8'	11.3'	N 9°42.5'	10.0'	57.4'
10	201°43.5'	333°57.6'	S 17°47.6'	39°53.1'	11.4'	N 9°32.5'	10.0'	57.4'
11	216°45.9'	348°57.5'	S 17°48.3'	54°23.5'	11.4'	N 9°22.5'	10.0'	57.4'
12	231°48.4'	3°57.4'	S 17°48.9'	68°53.9'	11.5'	N 9°12.5'	10.1'	57.3'
13	246°50.9'	18°57.3'	S 17°49.6'	83°24.4'	11.5'	N 9°02.4'	10.1'	57.3'
14	261°53.3'	33°57.3'	S 17°50.3'	97°54.9'	11.6'	N 8°52.3'	10.2'	57.3'
15	276°55.8'	48°57.2'	S 17°50.9'	112°25.5'	11.6'	N 8°42.2'	10.2'	57.3'
16	291°58.2'	63°57.1'	S 17°51.6'	126°56.1'	11.7'	N 8°32.0'	10.2'	57.2'
17	307°00.7'	78°57.0'	S 17°52.3'	141°26.8'	11.8'	N 8°21.7'	10.3'	57.2'
18	322°03.2'	93°56.9'	S 17°52.9'	155°57.6'	11.8'	N 8°11.5'	10.3'	57.2'
19	337°05.6'	108°56.8'	S 17°53.6'	170°28.4'	11.9'	N 8°01.2'	10.3'	57.2'
20	352°08.1'	123°56.7'	S 17°54.3'	184°59.3'	11.9'	N 7°50.9'	10.3'	57.1'
21	7°10.6'	138°56.7'	S 17°54.9'	199°30.2'	12.0'	N 7°40.5'	10.4'	57.1'
22	22°13.0'	153°56.6'	S 17°55.6'	214°01.2'	12.0'	N 7°30.2'	10.4'	57.1'
23	37°15.5'	168°56.5'	S 17°56.3'	228°32.2'	12.1'	N 7°19.7'	10.4'	57.1'

Mon Nov 13, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.7' SD = 16.2'		SD = 15.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	52°18.0'	183°56.4'	S 17°56.9'	243°03.3'	12.1'	N 7°09.3'	10.5'	57.0'
1	67°20.4'	198°56.3'	S 17°57.6'	257°34.4'	12.2'	N 6°58.8'	10.5'	57.0'
2	82°22.9'	213°56.2'	S 17°58.3'	272°05.6'	12.2'	N 6°48.4'	10.5'	57.0'
3	97°25.4'	228°56.1'	S 17°58.9'	286°36.8'	12.3'	N 6°37.8'	10.5'	56.9'
4	112°27.8'	243°56.1'	S 17°59.6'	301°08.1'	12.3'	N 6°27.3'	10.6'	56.9'
5	127°30.3'	258°56.0'	S 18°00.3'	315°39.4'	12.4'	N 6°16.7'	10.6'	56.9'
6	142°32.7'	273°55.9'	S 18°00.9'	330°10.7'	12.4'	N 6°06.2'	10.6'	56.9'
7	157°35.2'	288°55.8'	S 18°01.6'	344°42.2'	12.5'	N 5°55.6'	10.6'	56.8'
8	172°37.7'	303°55.7'	S 18°02.2'	359°13.6'	12.5'	N 5°44.9'	10.6'	56.8'
9	187°40.1'	318°55.6'	S 18°02.9'	13°45.1'	12.5'	N 5°34.3'	10.7'	56.8'
10	202°42.6'	333°55.5'	S 18°03.6'	28°16.7'	12.6'	N 5°23.6'	10.7'	56.8'
11	217°45.1'	348°55.4'	S 18°04.2'	42°48.2'	12.6'	N 5°12.9'	10.7'	56.7'
12	232°47.5'	3°55.3'	S 18°04.9'	57°19.9'	12.7'	N 5°02.2'	10.7'	56.7'
13	247°50.0'	18°55.2'	S 18°05.5'	71°51.5'	12.7'	N 4°51.5'	10.7'	56.7'
14	262°52.5'	33°55.2'	S 18°06.2'	86°23.2'	12.7'	N 4°40.8'	10.7'	56.7'
15	277°54.9'	48°55.1'	S 18°06.9'	100°55.0'	12.8'	N 4°30.1'	10.8'	56.7'
16	292°57.4'	63°55.0'	S 18°07.5'	115°26.8'	12.8'	N 4°19.3'	10.8'	56.6'
17	307°59.8'	78°54.9'	S 18°08.2'	129°58.6'	12.9'	N 4°08.5'	10.8'	56.6'
18	323°02.3'	93°54.8'	S 18°08.8'	144°30.5'	12.9'	N 3°57.8'	10.8'	56.6'
19	338°04.8'	108°54.7'	S 18°09.5'	159°02.4'	12.9'	N 3°47.0'	10.8'	56.6'
20	353°07.2'	123°54.6'	S 18°10.1'	173°34.3'	13.0'	N 3°36.2'	10.8'	56.5'
21	8°09.7'	138°54.5'	S 18°10.8'	188°06.3'	13.0'	N 3°25.4'	10.8'	56.5'
22	23°12.2'	153°54.4'	S 18°11.4'	202°38.3'	13.0'	N 3°14.5'	10.8'	56.5'
23	38°14.6'	168°54.3'	S 18°12.1'	217°10.3'	13.1'	N 3°03.7'	10.8'	56.5'

Tue Nov 14, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 16.2'		SD = 15.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	53°17.1'	183°54.2'	S 18°12.7'	231°42.4'	13.1'	N 2°52.9'	10.8'	56.4'
1	68°19.6'	198°54.1'	S 18°13.4'	246°14.5'	13.1'	N 2°42.0'	10.8'	56.4'
2	83°22.0'	213°54.0'	S 18°14.0'	260°46.6'	13.2'	N 2°31.2'	10.8'	56.4'
3	98°24.5'	228°53.9'	S 18°14.7'	275°18.8'	13.2'	N 2°20.3'	10.9'	56.4'
4	113°27.0'	243°53.8'	S 18°15.3'	289°51.0'	13.2'	N 2°09.5'	10.9'	56.3'
5	128°29.4'	258°53.7'	S 18°16.0'	304°23.2'	13.3'	N 1°58.6'	10.9'	56.3'
6	143°31.9'	273°53.6'	S 18°16.6'	318°55.5'	13.3'	N 1°47.8'	10.9'	56.3'
7	158°34.3'	288°53.5'	S 18°17.3'	333°27.8'	13.3'	N 1°36.9'	10.9'	56.3'
8	173°36.8'	303°53.4'	S 18°17.9'	348°00.1'	13.3'	N 1°26.1'	10.9'	56.3'
9	188°39.3'	318°53.3'	S 18°18.6'	2°32.4'	13.4'	N 1°15.2'	10.9'	56.2'
10	203°41.7'	333°53.2'	S 18°19.2'	17°04.8'	13.4'	N 1°04.4'	10.8'	56.2'
11	218°44.2'	348°53.1'	S 18°19.9'	31°37.2'	13.4'	N 0°53.5'	10.8'	56.2'
12	233°46.7'	3°53.0'	S 18°20.5'	46°09.6'	13.4'	N 0°42.7'	10.8'	56.2'
13	248°49.1'	18°52.9'	S 18°21.2'	60°42.0'	13.5'	N 0°31.8'	10.8'	56.1'
14	263°51.6'	33°52.8'	S 18°21.8'	75°14.5'	13.5'	N 0°21.0'	10.8'	56.1'
15	278°54.1'	48°52.7'	S 18°22.5'	89°47.0'	13.5'	N 0°10.2'	10.8'	56.1'
16	293°56.5'	63°52.6'	S 18°23.1'	104°19.5'	13.5'	S 0°00.7'	10.8'	56.1'
17	308°59.0'	78°52.5'	S 18°23.7'	118°52.0'	13.5'	S 0°11.5'	10.8'	56.1'
18	324°01.4'	93°52.4'	S 18°24.4'	133°24.5'	13.6'	S 0°22.3'	10.8'	56.0'
19	339°03.9'	108°52.3'	S 18°25.0'	147°57.1'	13.6'	S 0°33.1'	10.8'	56.0'
20	354°06.4'	123°52.2'	S 18°25.7'	162°29.7'	13.6'	S 0°43.9'	10.8'	56.0'
21	9°08.8'	138°52.1'	S 18°26.3'	177°02.3'	13.6'	S 0°54.7'	10.8'	56.0'
22	24°11.3'	153°52.0'	S 18°26.9'	191°34.9'	13.6'	S 1°05.4'	10.8'	56.0'
23	39°13.8'	168°51.9'	S 18°27.6'	206°07.5'	13.6'	S 1°16.2'	10.7'	55.9'

Wed Nov 15, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 16.2'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	54°16.2'	183°51.8'	S 18°28.2'	220°40.2'	13.7'	S 1°26.9'	10.7'	55.9'
1	69°18.7'	198°51.7'	S 18°28.9'	235°12.8'	13.7'	S 1°37.7'	10.7'	55.9'
2	84°21.2'	213°51.6'	S 18°29.5'	249°45.5'	13.7'	S 1°48.4'	10.7'	55.9'
3	99°23.6'	228°51.5'	S 18°30.1'	264°18.2'	13.7'	S 1°59.1'	10.7'	55.8'
4	114°26.1'	243°51.4'	S 18°30.8'	278°50.9'	13.7'	S 2°09.8'	10.7'	55.8'
5	129°28.6'	258°51.3'	S 18°31.4'	293°23.6'	13.7'	S 2°20.5'	10.7'	55.8'
6	144°31.0'	273°51.2'	S 18°32.0'	307°56.4'	13.7'	S 2°31.1'	10.6'	55.8'
7	159°33.5'	288°51.1'	S 18°32.7'	322°29.1'	13.8'	S 2°41.8'	10.6'	55.8'
8	174°35.9'	303°51.0'	S 18°33.3'	337°01.9'	13.8'	S 2°52.4'	10.6'	55.7'
9	189°38.4'	318°50.9'	S 18°33.9'	351°34.6'	13.8'	S 3°03.0'	10.6'	55.7'
10	204°40.9'	333°50.7'	S 18°34.6'	6°07.4'	13.8'	S 3°13.6'	10.6'	55.7'
11	219°43.3'	348°50.6'	S 18°35.2'	20°40.2'	13.8'	S 3°24.1'	10.5'	55.7'
12	234°45.8'	3°50.5'	S 18°35.8'	35°13.0'	13.8'	S 3°34.7'	10.5'	55.7'
13	249°48.3'	18°50.4'	S 18°36.5'	49°45.7'	13.8'	S 3°45.2'	10.5'	55.6'
14	264°50.7'	33°50.3'	S 18°37.1'	64°18.6'	13.8'	S 3°55.7'	10.5'	55.6'
15	279°53.2'	48°50.2'	S 18°37.7'	78°51.4'	13.8'	S 4°06.1'	10.4'	55.6'
16	294°55.7'	63°50.1'	S 18°38.4'	93°24.2'	13.8'	S 4°16.6'	10.4'	55.6'
17	309°58.1'	78°50.0'	S 18°39.0'	107°57.0'	13.8'	S 4°27.0'	10.4'	55.6'
18	325°00.6'	93°49.9'	S 18°39.6'	122°29.8'	13.8'	S 4°37.4'	10.4'	55.6'
19	340°03.1'	108°49.8'	S 18°40.2'	137°02.6'	13.8'	S 4°47.8'	10.3'	55.5'
20	355°05.5'	123°49.6'	S 18°40.9'	151°35.5'	13.8'	S 4°58.1'	10.3'	55.5'
21	10°08.0'	138°49.5'	S 18°41.5'	166°08.3'	13.8'	S 5°08.4'	10.3'	55.5'
22	25°10.4'	153°49.4'	S 18°42.1'	180°41.1'	13.8'	S 5°18.7'	10.3'	55.5'
23	40°12.9'	168°49.3'	S 18°42.8'	195°14.0'	13.8'	S 5°28.9'	10.2'	55.5'

Thu Nov 16, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 16.2'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	55°15.4'	183°49.2'	S 18°43.4'	209°46.8'	13.8'	S 5°39.2'	10.2'	55.4'
1	70°17.8'	198°49.1'	S 18°44.0'	224°19.7'	13.8'	S 5°49.4'	10.2'	55.4'
2	85°20.3'	213°49.0'	S 18°44.6'	238°52.5'	13.8'	S 5°59.5'	10.1'	55.4'
3	100°22.8'	228°48.9'	S 18°45.2'	253°25.3'	13.8'	S 6°09.7'	10.1'	55.4'
4	115°25.2'	243°48.7'	S 18°45.9'	267°58.2'	13.8'	S 6°19.8'	10.1'	55.4'
5	130°27.7'	258°48.6'	S 18°46.5'	282°31.0'	13.8'	S 6°29.8'	10.0'	55.3'
6	145°30.2'	273°48.5'	S 18°47.1'	297°03.8'	13.8'	S 6°39.8'	10.0'	55.3'
7	160°32.6'	288°48.4'	S 18°47.7'	311°36.7'	13.8'	S 6°49.8'	10.0'	55.3'
8	175°35.1'	303°48.3'	S 18°48.4'	326°09.5'	13.8'	S 6°59.8'	9.9'	55.3'
9	190°37.5'	318°48.2'	S 18°49.0'	340°42.3'	13.8'	S 7°09.7'	9.9'	55.3'
10	205°40.0'	333°48.0'	S 18°49.6'	355°15.1'	13.8'	S 7°19.6'	9.8'	55.3'
11	220°42.5'	348°47.9'	S 18°50.2'	9°47.9'	13.8'	S 7°29.5'	9.8'	55.2'
12	235°44.9'	3°47.8'	S 18°50.8'	24°20.7'	13.8'	S 7°39.3'	9.8'	55.2'
13	250°47.4'	18°47.7'	S 18°51.4'	38°53.6'	13.8'	S 7°49.0'	9.7'	55.2'
14	265°49.9'	33°47.6'	S 18°52.1'	53°26.3'	13.8'	S 7°58.8'	9.7'	55.2'
15	280°52.3'	48°47.4'	S 18°52.7'	67°59.1'	13.8'	S 8°08.5'	9.7'	55.2'
16	295°54.8'	63°47.3'	S 18°53.3'	82°31.9'	13.8'	S 8°18.1'	9.6'	55.2'
17	310°57.3'	78°47.2'	S 18°53.9'	97°04.7'	13.8'	S 8°27.7'	9.6'	55.1'
18	325°59.7'	93°47.1'	S 18°54.5'	111°37.5'	13.8'	S 8°37.3'	9.5'	55.1'
19	341°02.2'	108°47.0'	S 18°55.1'	126°10.2'	13.7'	S 8°46.8'	9.5'	55.1'
20	356°04.7'	123°46.8'	S 18°55.8'	140°43.0'	13.7'	S 8°56.3'	9.4'	55.1'
21	11°07.1'	138°46.7'	S 18°56.4'	155°15.7'	13.7'	S 9°05.7'	9.4'	55.1'
22	26°09.6'	153°46.6'	S 18°57.0'	169°48.4'	13.7'	S 9°15.1'	9.3'	55.1'
23	41°12.0'	168°46.5'	S 18°57.6'	184°21.2'	13.7'	S 9°24.5'	9.3'	55.0'



Fri Nov 17, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 16.2'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	56°14.5'	183°46.4'	S 18°58.2'	198°53.9'	13.7'	S 9°33.8'	9.3'	55.0'
1	71°17.0'	198°46.2'	S 18°58.8'	213°26.6'	13.7'	S 9°43.0'	9.2'	55.0'
2	86°19.4'	213°46.1'	S 18°59.4'	227°59.3'	13.7'	S 9°52.2'	9.2'	55.0'
3	101°21.9'	228°46.0'	S 19°00.0'	242°31.9'	13.7'	S 10°01.4'	9.1'	55.0'
4	116°24.4'	243°45.9'	S 19°00.6'	257°04.6'	13.7'	S 10°10.5'	9.1'	55.0'
5	131°26.8'	258°45.7'	S 19°01.2'	271°37.2'	13.6'	S 10°19.5'	9.0'	54.9'
6	146°29.3'	273°45.6'	S 19°01.9'	286°09.9'	13.6'	S 10°28.6'	9.0'	54.9'
7	161°31.8'	288°45.5'	S 19°02.5'	300°42.5'	13.6'	S 10°37.5'	8.9'	54.9'
8	176°34.2'	303°45.4'	S 19°03.1'	315°15.1'	13.6'	S 10°46.4'	8.9'	54.9'
9	191°36.7'	318°45.2'	S 19°03.7'	329°47.7'	13.6'	S 10°55.3'	8.8'	54.9'
10	206°39.1'	333°45.1'	S 19°04.3'	344°20.3'	13.6'	S 11°04.1'	8.8'	54.9'
11	221°41.6'	348°45.0'	S 19°04.9'	358°52.9'	13.6'	S 11°12.8'	8.7'	54.9'
12	236°44.1'	3°44.9'	S 19°05.5'	13°25.4'	13.5'	S 11°21.5'	8.6'	54.8'
13	251°46.5'	18°44.7'	S 19°06.1'	27°58.0'	13.5'	S 11°30.2'	8.6'	54.8'
14	266°49.0'	33°44.6'	S 19°06.7'	42°30.5'	13.5'	S 11°38.8'	8.5'	54.8'
15	281°51.5'	48°44.5'	S 19°07.3'	57°03.0'	13.5'	S 11°47.3'	8.5'	54.8'
16	296°53.9'	63°44.4'	S 19°07.9'	71°35.5'	13.5'	S 11°55.8'	8.4'	54.8'
17	311°56.4'	78°44.2'	S 19°08.5'	86°08.0'	13.5'	S 12°04.2'	8.4'	54.8'
18	326°58.9'	93°44.1'	S 19°09.1'	100°40.5'	13.4'	S 12°12.5'	8.3'	54.8'
19	342°01.3'	108°44.0'	S 19°09.7'	115°12.9'	13.4'	S 12°20.8'	8.2'	54.7'
20	357°03.8'	123°43.8'	S 19°10.3'	129°45.3'	13.4'	S 12°29.1'	8.2'	54.7'
21	12°06.3'	138°43.7'	S 19°10.9'	144°17.7'	13.4'	S 12°37.3'	8.1'	54.7'
22	27°08.7'	153°43.6'	S 19°11.5'	158°50.1'	13.4'	S 12°45.4'	8.1'	54.7'
23	42°11.2'	168°43.5'	S 19°12.1'	173°22.5'	13.4'	S 12°53.5'	8.0'	54.7'

Sat Nov 18, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 16.2'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	57°13.6'	183°43.3'	S 19°12.7'	187°54.9'	13.3'	S 13°01.5'	7.9'	54.7'
1	72°16.1'	198°43.2'	S 19°13.3'	202°27.2'	13.3'	S 13°09.4'	7.9'	54.7'
2	87°18.6'	213°43.1'	S 19°13.9'	216°59.6'	13.3'	S 13°17.3'	7.8'	54.6'
3	102°21.0'	228°42.9'	S 19°14.5'	231°31.9'	13.3'	S 13°25.1'	7.8'	54.6'
4	117°23.5'	243°42.8'	S 19°15.1'	246°04.2'	13.3'	S 13°32.9'	7.7'	54.6'
5	132°26.0'	258°42.7'	S 19°15.7'	260°36.4'	13.3'	S 13°40.6'	7.6'	54.6'
6	147°28.4'	273°42.5'	S 19°16.3'	275°08.7'	13.2'	S 13°48.2'	7.6'	54.6'
7	162°30.9'	288°42.4'	S 19°16.9'	289°40.9'	13.2'	S 13°55.8'	7.5'	54.6'
8	177°33.4'	303°42.3'	S 19°17.4'	304°13.1'	13.2'	S 14°03.3'	7.4'	54.6'
9	192°35.8'	318°42.1'	S 19°18.0'	318°45.3'	13.2'	S 14°10.7'	7.4'	54.5'
10	207°38.3'	333°42.0'	S 19°18.6'	333°17.5'	13.2'	S 14°18.1'	7.3'	54.5'
11	222°40.8'	348°41.9'	S 19°19.2'	347°49.7'	13.1'	S 14°25.4'	7.2'	54.5'
12	237°43.2'	3°41.7'	S 19°19.8'	2°21.8'	13.1'	S 14°32.6'	7.2'	54.5'
13	252°45.7'	18°41.6'	S 19°20.4'	16°53.9'	13.1'	S 14°39.8'	7.1'	54.5'
14	267°48.1'	33°41.5'	S 19°21.0'	31°26.0'	13.1'	S 14°46.9'	7.0'	54.5'
15	282°50.6'	48°41.3'	S 19°21.6'	45°58.1'	13.1'	S 14°53.9'	7.0'	54.5'
16	297°53.1'	63°41.2'	S 19°22.2'	60°30.2'	13.0'	S 15°00.9'	6.9'	54.5'
17	312°55.5'	78°41.0'	S 19°22.7'	75°02.2'	13.0'	S 15°07.8'	6.8'	54.5'
18	327°58.0'	93°40.9'	S 19°23.3'	89°34.3'	13.0'	S 15°14.6'	6.7'	54.4'
19	343°00.5'	108°40.8'	S 19°23.9'	104°06.3'	13.0'	S 15°21.3'	6.7'	54.4'
20	358°02.9'	123°40.6'	S 19°24.5'	118°38.3'	13.0'	S 15°28.0'	6.6'	54.4'
21	13°05.4'	138°40.5'	S 19°25.1'	133°10.2'	12.9'	S 15°34.6'	6.5'	54.4'
22	28°07.9'	153°40.4'	S 19°25.7'	147°42.2'	12.9'	S 15°41.1'	6.5'	54.4'
23	43°10.3'	168°40.2'	S 19°26.3'	162°14.1'	12.9'	S 15°47.6'	6.4'	54.4'

## Sun Nov 19, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 16.2'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	58°12.8'	183°40.1'	S 19°26.8'	176°46.0'	12.9'	S 15°54.0'	6.3'	54.4'
1	73°15.3'	198°39.9'	S 19°27.4'	191°17.9'	12.9'	S 16°00.3'	6.2'	54.4'
2	88°17.7'	213°39.8'	S 19°28.0'	205°49.8'	12.9'	S 16°06.5'	6.2'	54.4'
3	103°20.2'	228°39.7'	S 19°28.6'	220°21.6'	12.8'	S 16°12.7'	6.1'	54.3'
4	118°22.6'	243°39.5'	S 19°29.2'	234°53.5'	12.8'	S 16°18.8'	6.0'	54.3'
5	133°25.1'	258°39.4'	S 19°29.7'	249°25.3'	12.8'	S 16°24.8'	5.9'	54.3'
6	148°27.6'	273°39.2'	S 19°30.3'	263°57.1'	12.8'	S 16°30.7'	5.9'	54.3'
7	163°30.0'	288°39.1'	S 19°30.9'	278°28.8'	12.8'	S 16°36.6'	5.8'	54.3'
8	178°32.5'	303°38.9'	S 19°31.5'	293°00.6'	12.7'	S 16°42.4'	5.7'	54.3'
9	193°35.0'	318°38.8'	S 19°32.0'	307°32.3'	12.7'	S 16°48.1'	5.6'	54.3'
10	208°37.4'	333°38.7'	S 19°32.6'	322°04.1'	12.7'	S 16°53.7'	5.5'	54.3'
11	223°39.9'	348°38.5'	S 19°33.2'	336°35.8'	12.7'	S 16°59.3'	5.5'	54.3'
12	238°42.4'	3°38.4'	S 19°33.8'	351°07.5'	12.7'	S 17°04.7'	5.4'	54.3'
13	253°44.8'	18°38.2'	S 19°34.3'	5°39.1'	12.6'	S 17°10.1'	5.3'	54.2'
14	268°47.3'	33°38.1'	S 19°34.9'	20°10.8'	12.6'	S 17°15.4'	5.2'	54.2'
15	283°49.7'	48°37.9'	S 19°35.5'	34°42.4'	12.6'	S 17°20.7'	5.2'	54.2'
16	298°52.2'	63°37.8'	S 19°36.1'	49°14.0'	12.6'	S 17°25.8'	5.1'	54.2'
17	313°54.7'	78°37.7'	S 19°36.6'	63°45.6'	12.6'	S 17°30.9'	5.0'	54.2'
18	328°57.1'	93°37.5'	S 19°37.2'	78°17.2'	12.6'	S 17°35.9'	4.9'	54.2'
19	343°59.6'	108°37.4'	S 19°37.8'	92°48.7'	12.5'	S 17°40.8'	4.8'	54.2'
20	359°02.1'	123°37.2'	S 19°38.4'	107°20.3'	12.5'	S 17°45.6'	4.7'	54.2'
21	14°04.5'	138°37.1'	S 19°38.9'	121°51.8'	12.5'	S 17°50.4'	4.7'	54.2'
22	29°07.0'	153°36.9'	S 19°39.5'	136°23.3'	12.5'	S 17°55.0'	4.6'	54.2'
23	44°09.5'	168°36.8'	S 19°40.1'	150°54.8'	12.5'	S 17°59.6'	4.5'	54.2'

## Mon Nov 20, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.6' SD = 16.2'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	59°11.9'	183°36.6'	S 19°40.6'	165°26.3'	12.5'	S 18°04.1'	4.4'	54.2'
1	74°14.4'	198°36.5'	S 19°41.2'	179°57.8'	12.4'	S 18°08.5'	4.3'	54.1'
2	89°16.9'	213°36.3'	S 19°41.8'	194°29.2'	12.4'	S 18°12.9'	4.2'	54.1'
3	104°19.3'	228°36.2'	S 19°42.3'	209°00.6'	12.4'	S 18°17.1'	4.2'	54.1'
4	119°21.8'	243°36.0'	S 19°42.9'	223°32.1'	12.4'	S 18°21.3'	4.1'	54.1'
5	134°24.2'	258°35.9'	S 19°43.5'	238°03.5'	12.4'	S 18°25.3'	4.0'	54.1'
6	149°26.7'	273°35.7'	S 19°44.0'	252°34.8'	12.4'	S 18°29.3'	3.9'	54.1'
7	164°29.2'	288°35.6'	S 19°44.6'	267°06.2'	12.4'	S 18°33.2'	3.8'	54.1'
8	179°31.6'	303°35.4'	S 19°45.1'	281°37.6'	12.3'	S 18°37.1'	3.7'	54.1'
9	194°34.1'	318°35.3'	S 19°45.7'	296°08.9'	12.3'	S 18°40.8'	3.6'	54.1'
10	209°36.6'	333°35.1'	S 19°46.3'	310°40.2'	12.3'	S 18°44.4'	3.6'	54.1'
11	224°39.0'	348°35.0'	S 19°46.8'	325°11.6'	12.3'	S 18°48.0'	3.5'	54.1'
12	239°41.5'	3°34.8'	S 19°47.4'	339°42.9'	12.3'	S 18°51.5'	3.4'	54.1'
13	254°44.0'	18°34.7'	S 19°48.0'	354°14.2'	12.3'	S 18°54.9'	3.3'	54.1'
14	269°46.4'	33°34.5'	S 19°48.5'	8°45.4'	12.3'	S 18°58.2'	3.2'	54.1'
15	284°48.9'	48°34.4'	S 19°49.1'	23°16.7'	12.3'	S 19°01.4'	3.1'	54.1'
16	299°51.4'	63°34.2'	S 19°49.6'	37°48.0'	12.2'	S 19°04.5'	3.0'	54.1'
17	314°53.8'	78°34.1'	S 19°50.2'	52°19.2'	12.2'	S 19°07.6'	3.0'	54.0'
18	329°56.3'	93°33.9'	S 19°50.7'	66°50.4'	12.2'	S 19°10.5'	2.9'	54.0'
19	344°58.7'	108°33.7'	S 19°51.3'	81°21.7'	12.2'	S 19°13.4'	2.8'	54.0'
20	0°01.2'	123°33.6'	S 19°51.9'	95°52.9'	12.2'	S 19°16.2'	2.7'	54.0'
21	15°03.7'	138°33.4'	S 19°52.4'	110°24.1'	12.2'	S 19°18.8'	2.6'	54.0'
22	30°06.1'	153°33.3'	S 19°53.0'	124°55.3'	12.2'	S 19°21.4'	2.5'	54.0'
23	45°08.6'	168°33.1'	S 19°53.5'	139°26.5'	12.2'	S 19°23.9'	2.4'	54.0'

Tue Nov 21, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 16.2'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	60°11.1'	183°33.0'	S 19°54.1'	153°57.6'	12.2'	S 19°26.4'	2.3'	54.0'
1	75°13.5'	198°32.8'	S 19°54.6'	168°28.8'	12.2'	S 19°28.7'	2.2'	54.0'
2	90°16.0'	213°32.7'	S 19°55.2'	182°60.0'	12.2'	S 19°30.9'	2.1'	54.0'
3	105°18.5'	228°32.5'	S 19°55.7'	197°31.1'	12.1'	S 19°33.1'	2.1'	54.0'
4	120°20.9'	243°32.3'	S 19°56.3'	212°02.2'	12.1'	S 19°35.1'	2.0'	54.0'
5	135°23.4'	258°32.2'	S 19°56.8'	226°33.4'	12.1'	S 19°37.1'	1.9'	54.0'
6	150°25.9'	273°32.0'	S 19°57.4'	241°04.5'	12.1'	S 19°39.0'	1.8'	54.0'
7	165°28.3'	288°31.9'	S 19°57.9'	255°35.6'	12.1'	S 19°40.8'	1.7'	54.0'
8	180°30.8'	303°31.7'	S 19°58.5'	270°06.8'	12.1'	S 19°42.5'	1.6'	54.0'
9	195°33.2'	318°31.5'	S 19°59.0'	284°37.9'	12.1'	S 19°44.1'	1.5'	54.0'
10	210°35.7'	333°31.4'	S 19°59.6'	299°09.0'	12.1'	S 19°45.6'	1.4'	54.0'
11	225°38.2'	348°31.2'	S 20°00.1'	313°40.1'	12.1'	S 19°47.0'	1.3'	54.0'
12	240°40.6'	3°31.1'	S 20°00.6'	328°11.2'	12.1'	S 19°48.4'	1.2'	54.0'
13	255°43.1'	18°30.9'	S 20°01.2'	342°42.3'	12.1'	S 19°49.6'	1.2'	54.0'
14	270°45.6'	33°30.7'	S 20°01.7'	357°13.3'	12.1'	S 19°50.8'	1.1'	54.0'
15	285°48.0'	48°30.6'	S 20°02.3'	11°44.4'	12.1'	S 19°51.8'	1.0'	54.0'
16	300°50.5'	63°30.4'	S 20°02.8'	26°15.5'	12.1'	S 19°52.8'	0.9'	54.0'
17	315°53.0'	78°30.3'	S 20°03.4'	40°46.6'	12.1'	S 19°53.7'	0.8'	54.0'
18	330°55.4'	93°30.1'	S 20°03.9'	55°17.7'	12.1'	S 19°54.5'	0.7'	54.0'
19	345°57.9'	108°29.9'	S 20°04.4'	69°48.7'	12.1'	S 19°55.1'	0.6'	54.0'
20	1°00.3'	123°29.8'	S 20°05.0'	84°19.8'	12.1'	S 19°55.8'	0.5'	54.0'
21	16°02.8'	138°29.6'	S 20°05.5'	98°50.9'	12.1'	S 19°56.3'	0.4'	54.0'
22	31°05.3'	153°29.4'	S 20°06.1'	113°21.9'	12.1'	S 19°56.7'	0.3'	54.0'
23	46°07.7'	168°29.3'	S 20°06.6'	127°53.0'	12.1'	S 19°57.0'	0.2'	54.0'

Wed Nov 22, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 16.2'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	61°10.2'	183°29.1'	S 20°07.1'	142°24.1'	12.1'	S 19°57.3'	0.1'	54.0'
1	76°12.7'	198°28.9'	S 20°07.7'	156°55.2'	12.1'	S 19°57.4'	0.1'	54.0'
2	91°15.1'	213°28.8'	S 20°08.2'	171°26.2'	12.1'	S 19°57.5'	0.0'	54.0'
3	106°17.6'	228°28.6'	S 20°08.7'	185°57.3'	12.1'	S 19°57.4'	0.1'	54.0'
4	121°20.1'	243°28.5'	S 20°09.3'	200°28.4'	12.1'	S 19°57.3'	0.2'	54.0'
5	136°22.5'	258°28.3'	S 20°09.8'	214°59.5'	12.1'	S 19°57.1'	0.3'	54.0'
6	151°25.0'	273°28.1'	S 20°10.4'	229°30.5'	12.1'	S 19°56.8'	0.4'	54.0'
7	166°27.5'	288°28.0'	S 20°10.9'	244°01.6'	12.1'	S 19°56.4'	0.5'	54.0'
8	181°29.9'	303°27.8'	S 20°11.4'	258°32.7'	12.1'	S 19°55.9'	0.6'	54.0'
9	196°32.4'	318°27.6'	S 20°11.9'	273°03.8'	12.1'	S 19°55.3'	0.7'	54.0'
10	211°34.8'	333°27.5'	S 20°12.5'	287°34.9'	12.1'	S 19°54.6'	0.8'	54.0'
11	226°37.3'	348°27.3'	S 20°13.0'	302°06.0'	12.1'	S 19°53.8'	0.9'	54.0'
12	241°39.8'	3°27.1'	S 20°13.5'	316°37.1'	12.1'	S 19°53.0'	1.0'	54.0'
13	256°42.2'	18°26.9'	S 20°14.1'	331°08.2'	12.1'	S 19°52.0'	1.0'	54.0'
14	271°44.7'	33°26.8'	S 20°14.6'	345°39.3'	12.1'	S 19°51.0'	1.1'	54.0'
15	286°47.2'	48°26.6'	S 20°15.1'	0°10.4'	12.1'	S 19°49.9'	1.2'	54.0'
16	301°49.6'	63°26.4'	S 20°15.7'	14°41.5'	12.1'	S 19°48.6'	1.3'	54.0'
17	316°52.1'	78°26.3'	S 20°16.2'	29°12.6'	12.1'	S 19°47.3'	1.4'	54.0'
18	331°54.6'	93°26.1'	S 20°16.7'	43°43.7'	12.1'	S 19°45.9'	1.5'	54.1'
19	346°57.0'	108°25.9'	S 20°17.2'	58°14.9'	12.1'	S 19°44.4'	1.6'	54.1'
20	1°59.5'	123°25.8'	S 20°17.8'	72°46.0'	12.1'	S 19°42.8'	1.7'	54.1'
21	17°02.0'	138°25.6'	S 20°18.3'	87°17.2'	12.2'	S 19°41.1'	1.8'	54.1'
22	32°04.4'	153°25.4'	S 20°18.8'	101°48.3'	12.2'	S 19°39.4'	1.9'	54.1'
23	47°06.9'	168°25.2'	S 20°19.3'	116°19.5'	12.2'	S 19°37.5'	1.9'	54.1'

Thu Nov 23, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 16.2'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	62°09.3'	183°25.1'	S 20°19.8'	130°50.7'	12.2'	S 19°35.6'	2.0'	54.1'
1	77°11.8'	198°24.9'	S 20°20.4'	145°21.9'	12.2'	S 19°33.5'	2.1'	54.1'
2	92°14.3'	213°24.7'	S 20°20.9'	159°53.0'	12.2'	S 19°31.4'	2.2'	54.1'
3	107°16.7'	228°24.5'	S 20°21.4'	174°24.2'	12.2'	S 19°29.2'	2.3'	54.1'
4	122°19.2'	243°24.4'	S 20°21.9'	188°55.4'	12.2'	S 19°26.9'	2.4'	54.1'
5	137°21.7'	258°24.2'	S 20°22.4'	203°26.7'	12.2'	S 19°24.5'	2.5'	54.1'
6	152°24.1'	273°24.0'	S 20°23.0'	217°57.9'	12.2'	S 19°22.0'	2.6'	54.1'
7	167°26.6'	288°23.8'	S 20°23.5'	232°29.1'	12.2'	S 19°19.4'	2.7'	54.1'
8	182°29.1'	303°23.7'	S 20°24.0'	247°00.4'	12.3'	S 19°16.8'	2.8'	54.2'
9	197°31.5'	318°23.5'	S 20°24.5'	261°31.6'	12.3'	S 19°14.0'	2.8'	54.2'
10	212°34.0'	333°23.3'	S 20°25.0'	276°02.9'	12.3'	S 19°11.2'	2.9'	54.2'
11	227°36.5'	348°23.1'	S 20°25.5'	290°34.2'	12.3'	S 19°08.2'	3.0'	54.2'
12	242°38.9'	3°23.0'	S 20°26.1'	305°05.5'	12.3'	S 19°05.2'	3.1'	54.2'
13	257°41.4'	18°22.8'	S 20°26.6'	319°36.8'	12.3'	S 19°02.1'	3.2'	54.2'
14	272°43.8'	33°22.6'	S 20°27.1'	334°08.1'	12.3'	S 18°58.9'	3.3'	54.2'
15	287°46.3'	48°22.4'	S 20°27.6'	348°39.4'	12.3'	S 18°55.6'	3.4'	54.2'
16	302°48.8'	63°22.3'	S 20°28.1'	3°10.7'	12.3'	S 18°52.3'	3.5'	54.2'
17	317°51.2'	78°22.1'	S 20°28.6'	17°42.1'	12.4'	S 18°48.8'	3.5'	54.2'
18	332°53.7'	93°21.9'	S 20°29.1'	32°13.4'	12.4'	S 18°45.3'	3.6'	54.3'
19	347°56.2'	108°21.7'	S 20°29.6'	46°44.8'	12.4'	S 18°41.7'	3.7'	54.3'
20	2°58.6'	123°21.5'	S 20°30.1'	61°16.2'	12.4'	S 18°37.9'	3.8'	54.3'
21	18°01.1'	138°21.4'	S 20°30.7'	75°47.5'	12.4'	S 18°34.1'	3.9'	54.3'
22	33°03.6'	153°21.2'	S 20°31.2'	90°19.0'	12.4'	S 18°30.3'	4.0'	54.3'
23	48°06.0'	168°21.0'	S 20°31.7'	104°50.4'	12.4'	S 18°26.3'	4.1'	54.3'

Fri Nov 24, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 16.2'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	63°08.5'	183°20.8'	S 20°32.2'	119°21.8'	12.4'	S 18°22.2'	4.1'	54.3'
1	78°10.9'	198°20.6'	S 20°32.7'	133°53.2'	12.5'	S 18°18.1'	4.2'	54.3'
2	93°13.4'	213°20.5'	S 20°33.2'	148°24.7'	12.5'	S 18°13.9'	4.3'	54.4'
3	108°15.9'	228°20.3'	S 20°33.7'	162°56.2'	12.5'	S 18°09.5'	4.4'	54.4'
4	123°18.3'	243°20.1'	S 20°34.2'	177°27.6'	12.5'	S 18°05.2'	4.5'	54.4'
5	138°20.8'	258°19.9'	S 20°34.7'	191°59.1'	12.5'	S 18°00.7'	4.6'	54.4'
6	153°23.3'	273°19.7'	S 20°35.2'	206°30.6'	12.5'	S 17°56.1'	4.6'	54.4'
7	168°25.7'	288°19.6'	S 20°35.7'	221°02.1'	12.5'	S 17°51.5'	4.7'	54.4'
8	183°28.2'	303°19.4'	S 20°36.2'	235°33.7'	12.5'	S 17°46.7'	4.8'	54.4'
9	198°30.7'	318°19.2'	S 20°36.7'	250°05.2'	12.6'	S 17°41.9'	4.9'	54.5'
10	213°33.1'	333°19.0'	S 20°37.2'	264°36.8'	12.6'	S 17°37.0'	5.0'	54.5'
11	228°35.6'	348°18.8'	S 20°37.7'	279°08.3'	12.6'	S 17°32.0'	5.1'	54.5'
12	243°38.1'	3°18.6'	S 20°38.2'	293°39.9'	12.6'	S 17°27.0'	5.1'	54.5'
13	258°40.5'	18°18.4'	S 20°38.7'	308°11.5'	12.6'	S 17°21.8'	5.2'	54.5'
14	273°43.0'	33°18.3'	S 20°39.2'	322°43.1'	12.6'	S 17°16.6'	5.3'	54.5'
15	288°45.4'	48°18.1'	S 20°39.7'	337°14.7'	12.6'	S 17°11.3'	5.4'	54.5'
16	303°47.9'	63°17.9'	S 20°40.2'	351°46.4'	12.6'	S 17°05.9'	5.5'	54.6'
17	318°50.4'	78°17.7'	S 20°40.7'	6°18.0'	12.7'	S 17°00.5'	5.5'	54.6'
18	333°52.8'	93°17.5'	S 20°41.2'	20°49.7'	12.7'	S 16°54.9'	5.6'	54.6'
19	348°55.3'	108°17.3'	S 20°41.7'	35°21.3'	12.7'	S 16°49.3'	5.7'	54.6'
20	3°57.8'	123°17.1'	S 20°42.2'	49°53.0'	12.7'	S 16°43.6'	5.8'	54.6'
21	19°00.2'	138°17.0'	S 20°42.7'	64°24.7'	12.7'	S 16°37.8'	5.9'	54.7'
22	34°02.7'	153°16.8'	S 20°43.1'	78°56.4'	12.7'	S 16°31.9'	5.9'	54.7'
23	49°05.2'	168°16.6'	S 20°43.6'	93°28.2'	12.7'	S 16°26.0'	6.0'	54.7'

Sat Nov 25, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 16.2'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	64°07.6'	183°16.4'	S 20°44.1'	107°59.9'	12.7'	S 16°20.0'	6.1'	54.7'
1	79°10.1'	198°16.2'	S 20°44.6'	122°31.6'	12.8'	S 16°13.9'	6.2'	54.7'
2	94°12.6'	213°16.0'	S 20°45.1'	137°03.4'	12.8'	S 16°07.7'	6.3'	54.8'
3	109°15.0'	228°15.8'	S 20°45.6'	151°35.1'	12.8'	S 16°01.4'	6.3'	54.8'
4	124°17.5'	243°15.6'	S 20°46.1'	166°06.9'	12.8'	S 15°55.1'	6.4'	54.8'
5	139°19.9'	258°15.4'	S 20°46.6'	180°38.7'	12.8'	S 15°48.7'	6.5'	54.8'
6	154°22.4'	273°15.3'	S 20°47.1'	195°10.5'	12.8'	S 15°42.2'	6.6'	54.8'
7	169°24.9'	288°15.1'	S 20°47.5'	209°42.3'	12.8'	S 15°35.7'	6.6'	54.9'
8	184°27.3'	303°14.9'	S 20°48.0'	224°14.1'	12.8'	S 15°29.0'	6.7'	54.9'
9	199°29.8'	318°14.7'	S 20°48.5'	238°46.0'	12.8'	S 15°22.3'	6.8'	54.9'
10	214°32.3'	333°14.5'	S 20°49.0'	253°17.8'	12.9'	S 15°15.5'	6.9'	54.9'
11	229°34.7'	348°14.3'	S 20°49.5'	267°49.7'	12.9'	S 15°08.7'	6.9'	54.9'
12	244°37.2'	3°14.1'	S 20°50.0'	282°21.5'	12.9'	S 15°01.7'	7.0'	55.0'
13	259°39.7'	18°13.9'	S 20°50.4'	296°53.4'	12.9'	S 14°54.7'	7.1'	55.0'
14	274°42.1'	33°13.7'	S 20°50.9'	311°25.3'	12.9'	S 14°47.7'	7.2'	55.0'
15	289°44.6'	48°13.5'	S 20°51.4'	325°57.2'	12.9'	S 14°40.5'	7.2'	55.0'
16	304°47.1'	63°13.3'	S 20°51.9'	340°29.1'	12.9'	S 14°33.3'	7.3'	55.1'
17	319°49.5'	78°13.1'	S 20°52.4'	355°01.0'	12.9'	S 14°26.0'	7.4'	55.1'
18	334°52.0'	93°13.0'	S 20°52.8'	9°32.9'	12.9'	S 14°18.6'	7.4'	55.1'
19	349°54.4'	108°12.8'	S 20°53.3'	24°04.8'	12.9'	S 14°11.2'	7.5'	55.1'
20	4°56.9'	123°12.6'	S 20°53.8'	38°36.7'	12.9'	S 14°03.7'	7.6'	55.2'
21	19°59.4'	138°12.4'	S 20°54.3'	53°08.7'	12.9'	S 13°56.1'	7.7'	55.2'
22	35°01.8'	153°12.2'	S 20°54.7'	67°40.6'	12.9'	S 13°48.4'	7.7'	55.2'
23	50°04.3'	168°12.0'	S 20°55.2'	82°12.5'	13.0'	S 13°40.7'	7.8'	55.2'

Sun Nov 26, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.5' SD = 16.2'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	65°06.8'	183°11.8'	S 20°55.7'	96°44.5'	13.0'	S 13°32.9'	7.9'	55.3'
1	80°09.2'	198°11.6'	S 20°56.2'	111°16.5'	13.0'	S 13°25.1'	7.9'	55.3'
2	95°11.7'	213°11.4'	S 20°56.6'	125°48.4'	13.0'	S 13°17.1'	8.0'	55.3'
3	110°14.2'	228°11.2'	S 20°57.1'	140°20.4'	13.0'	S 13°09.2'	8.1'	55.3'
4	125°16.6'	243°11.0'	S 20°57.6'	154°52.4'	13.0'	S 13°01.1'	8.1'	55.4'
5	140°19.1'	258°10.8'	S 20°58.0'	169°24.3'	13.0'	S 12°53.0'	8.2'	55.4'
6	155°21.5'	273°10.6'	S 20°58.5'	183°56.3'	13.0'	S 12°44.8'	8.3'	55.4'
7	170°24.0'	288°10.4'	S 20°59.0'	198°28.3'	13.0'	S 12°36.5'	8.3'	55.5'
8	185°26.5'	303°10.2'	S 20°59.5'	213°00.3'	13.0'	S 12°28.2'	8.4'	55.5'
9	200°28.9'	318°10.0'	S 20°59.9'	227°32.3'	13.0'	S 12°19.8'	8.5'	55.5'
10	215°31.4'	333°09.8'	S 21°00.4'	242°04.3'	13.0'	S 12°11.3'	8.5'	55.5'
11	230°33.9'	348°09.6'	S 21°00.9'	256°36.3'	13.0'	S 12°02.8'	8.6'	55.6'
12	245°36.3'	3°09.4'	S 21°01.3'	271°08.3'	13.0'	S 11°54.2'	8.6'	55.6'
13	260°38.8'	18°09.2'	S 21°01.8'	285°40.2'	13.0'	S 11°45.6'	8.7'	55.6'
14	275°41.3'	33°09.0'	S 21°02.3'	300°12.2'	13.0'	S 11°36.9'	8.8'	55.7'
15	290°43.7'	48°08.8'	S 21°02.7'	314°44.2'	13.0'	S 11°28.1'	8.8'	55.7'
16	305°46.2'	63°08.6'	S 21°03.2'	329°16.2'	13.0'	S 11°19.3'	8.9'	55.7'
17	320°48.7'	78°08.4'	S 21°03.6'	343°48.2'	13.0'	S 11°10.4'	9.0'	55.7'
18	335°51.1'	93°08.2'	S 21°04.1'	358°20.2'	13.0'	S 11°01.4'	9.0'	55.8'
19	350°53.6'	108°08.0'	S 21°04.6'	12°52.2'	13.0'	S 10°52.4'	9.1'	55.8'
20	5°56.0'	123°07.8'	S 21°05.0'	27°24.2'	13.0'	S 10°43.3'	9.1'	55.8'
21	20°58.5'	138°07.6'	S 21°05.5'	41°56.2'	13.0'	S 10°34.2'	9.2'	55.9'
22	36°01.0'	153°07.4'	S 21°05.9'	56°28.1'	13.0'	S 10°25.0'	9.3'	55.9'
23	51°03.4'	168°07.2'	S 21°06.4'	71°00.1'	13.0'	S 10°15.7'	9.3'	55.9'

Mon Nov 27, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 16.2'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	66°05.9'	183°07.0'	S 21°06.9'	85°32.1'	13.0'	S 10°06.4'	9.4'	56.0'
1	81°08.4'	198°06.8'	S 21°07.3'	100°04.0'	13.0'	S 9°57.0'	9.4'	56.0'
2	96°10.8'	213°06.6'	S 21°07.8'	114°36.0'	12.9'	S 9°47.6'	9.5'	56.0'
3	111°13.3'	228°06.4'	S 21°08.2'	129°07.9'	12.9'	S 9°38.1'	9.5'	56.1'
4	126°15.8'	243°06.2'	S 21°08.7'	143°39.9'	12.9'	S 9°28.6'	9.6'	56.1'
5	141°18.2'	258°06.0'	S 21°09.1'	158°11.8'	12.9'	S 9°19.0'	9.7'	56.1'
6	156°20.7'	273°05.8'	S 21°09.6'	172°43.7'	12.9'	S 9°09.3'	9.7'	56.2'
7	171°23.2'	288°05.6'	S 21°10.0'	187°15.6'	12.9'	S 8°59.6'	9.8'	56.2'
8	186°25.6'	303°05.4'	S 21°10.5'	201°47.5'	12.9'	S 8°49.8'	9.8'	56.2'
9	201°28.1'	318°05.1'	S 21°10.9'	216°19.4'	12.9'	S 8°40.0'	9.9'	56.3'
10	216°30.5'	333°04.9'	S 21°11.4'	230°51.3'	12.9'	S 8°30.1'	9.9'	56.3'
11	231°33.0'	348°04.7'	S 21°11.8'	245°23.2'	12.9'	S 8°20.2'	10.0'	56.3'
12	246°35.5'	3°04.5'	S 21°12.3'	259°55.0'	12.8'	S 8°10.3'	10.0'	56.4'
13	261°37.9'	18°04.3'	S 21°12.7'	274°26.9'	12.8'	S 8°00.2'	10.1'	56.4'
14	276°40.4'	33°04.1'	S 21°13.2'	288°58.7'	12.8'	S 7°50.2'	10.1'	56.4'
15	291°42.9'	48°03.9'	S 21°13.6'	303°30.5'	12.8'	S 7°40.0'	10.2'	56.5'
16	306°45.3'	63°03.7'	S 21°14.1'	318°02.3'	12.8'	S 7°29.9'	10.2'	56.5'
17	321°47.8'	78°03.5'	S 21°14.5'	332°34.1'	12.8'	S 7°19.6'	10.3'	56.6'
18	336°50.3'	93°03.3'	S 21°15.0'	347°05.9'	12.7'	S 7°09.4'	10.3'	56.6'
19	351°52.7'	108°03.1'	S 21°15.4'	1°37.6'	12.7'	S 6°59.1'	10.4'	56.6'
20	6°55.2'	123°02.9'	S 21°15.9'	16°09.3'	12.7'	S 6°48.7'	10.4'	56.7'
21	21°57.6'	138°02.6'	S 21°16.3'	30°41.1'	12.7'	S 6°38.3'	10.5'	56.7'
22	37°00.1'	153°02.4'	S 21°16.8'	45°12.7'	12.7'	S 6°27.8'	10.5'	56.7'
23	52°02.6'	168°02.2'	S 21°17.2'	59°44.4'	12.7'	S 6°17.3'	10.5'	56.8'

Tue Nov 28, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 16.2'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	67°05.0'	183°02.0'	S 21°17.6'	74°16.1'	12.6'	S 6°06.8'	10.6'	56.8'
1	82°07.5'	198°01.8'	S 21°18.1'	88°47.7'	12.6'	S 5°56.2'	10.6'	56.8'
2	97°10.0'	213°01.6'	S 21°18.5'	103°19.3'	12.6'	S 5°45.6'	10.7'	56.9'
3	112°12.4'	228°01.4'	S 21°19.0'	117°50.9'	12.6'	S 5°34.9'	10.7'	56.9'
4	127°14.9'	243°01.2'	S 21°19.4'	132°22.5'	12.5'	S 5°24.2'	10.8'	57.0'
5	142°17.4'	258°01.0'	S 21°19.8'	146°54.0'	12.5'	S 5°13.4'	10.8'	57.0'
6	157°19.8'	273°00.7'	S 21°20.3'	161°25.5'	12.5'	S 5°02.6'	10.8'	57.0'
7	172°22.3'	288°00.5'	S 21°20.7'	175°57.0'	12.5'	S 4°51.8'	10.9'	57.1'
8	187°24.8'	303°00.3'	S 21°21.1'	190°28.5'	12.4'	S 4°40.9'	10.9'	57.1'
9	202°27.2'	318°00.1'	S 21°21.6'	204°59.9'	12.4'	S 4°30.0'	11.0'	57.2'
10	217°29.7'	332°59.9'	S 21°22.0'	219°31.3'	12.4'	S 4°19.0'	11.0'	57.2'
11	232°32.1'	347°59.7'	S 21°22.4'	234°02.7'	12.3'	S 4°08.1'	11.0'	57.2'
12	247°34.6'	2°59.5'	S 21°22.9'	248°34.0'	12.3'	S 3°57.0'	11.1'	57.3'
13	262°37.1'	17°59.3'	S 21°23.3'	263°05.3'	12.3'	S 3°46.0'	11.1'	57.3'
14	277°39.5'	32°59.0'	S 21°23.7'	277°36.6'	12.3'	S 3°34.9'	11.1'	57.3'
15	292°42.0'	47°58.8'	S 21°24.2'	292°07.9'	12.2'	S 3°23.7'	11.2'	57.4'
16	307°44.5'	62°58.6'	S 21°24.6'	306°39.1'	12.2'	S 3°12.6'	11.2'	57.4'
17	322°46.9'	77°58.4'	S 21°25.0'	321°10.3'	12.2'	S 3°01.4'	11.2'	57.5'
18	337°49.4'	92°58.2'	S 21°25.4'	335°41.4'	12.1'	S 2°50.2'	11.3'	57.5'
19	352°51.9'	107°58.0'	S 21°25.9'	350°12.6'	12.1'	S 2°38.9'	11.3'	57.5'
20	7°54.3'	122°57.7'	S 21°26.3'	4°43.6'	12.0'	S 2°27.6'	11.3'	57.6'
21	22°56.8'	137°57.5'	S 21°26.7'	19°14.7'	12.0'	S 2°16.3'	11.3'	57.6'
22	37°59.3'	152°57.3'	S 21°27.2'	33°45.7'	12.0'	S 2°05.0'	11.4'	57.7'
23	53°01.7'	167°57.1'	S 21°27.6'	48°16.7'	11.9'	S 1°53.6'	11.4'	57.7'

Wed Nov 29, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 16.2'		SD = 15.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	68°04.2'	182°56.9'	S 21°28.0'	62°47.6'	11.9'	S 1°42.2'	11.4'	57.7'
1	83°06.6'	197°56.7'	S 21°28.4'	77°18.5'	11.8'	S 1°30.8'	11.4'	57.8'
2	98°09.1'	212°56.4'	S 21°28.8'	91°49.3'	11.8'	S 1°19.3'	11.5'	57.8'
3	113°11.6'	227°56.2'	S 21°29.3'	106°20.1'	11.8'	S 1°07.9'	11.5'	57.9'
4	128°14.0'	242°56.0'	S 21°29.7'	120°50.9'	11.7'	S 0°56.4'	11.5'	57.9'
5	143°16.5'	257°55.8'	S 21°30.1'	135°21.6'	11.7'	S 0°44.9'	11.5'	58.0'
6	158°19.0'	272°55.6'	S 21°30.5'	149°52.3'	11.6'	S 0°33.3'	11.6'	58.0'
7	173°21.4'	287°55.3'	S 21°31.0'	164°22.9'	11.6'	S 0°21.8'	11.6'	58.0'
8	188°23.9'	302°55.1'	S 21°31.4'	178°53.5'	11.5'	S 0°10.2'	11.6'	58.1'
9	203°26.4'	317°54.9'	S 21°31.8'	193°24.1'	11.5'	N 0°01.4'	11.6'	58.1'
10	218°28.8'	332°54.7'	S 21°32.2'	207°54.6'	11.4'	N 0°13.0'	11.6'	58.2'
11	233°31.3'	347°54.5'	S 21°32.6'	222°25.0'	11.4'	N 0°24.6'	11.6'	58.2'
12	248°33.7'	2°54.2'	S 21°33.0'	236°55.4'	11.3'	N 0°36.3'	11.7'	58.2'
13	263°36.2'	17°54.0'	S 21°33.4'	251°25.7'	11.3'	N 0°47.9'	11.7'	58.3'
14	278°38.7'	32°53.8'	S 21°33.9'	265°56.0'	11.2'	N 0°59.6'	11.7'	58.3'
15	293°41.1'	47°53.6'	S 21°34.3'	280°26.3'	11.2'	N 1°11.3'	11.7'	58.4'
16	308°43.6'	62°53.4'	S 21°34.7'	294°56.5'	11.1'	N 1°23.0'	11.7'	58.4'
17	323°46.1'	77°53.1'	S 21°35.1'	309°26.6'	11.1'	N 1°34.7'	11.7'	58.4'
18	338°48.5'	92°52.9'	S 21°35.5'	323°56.7'	11.0'	N 1°46.4'	11.7'	58.5'
19	353°51.0'	107°52.7'	S 21°35.9'	338°26.7'	11.0'	N 1°58.1'	11.7'	58.5'
20	8°53.5'	122°52.5'	S 21°36.3'	352°56.7'	10.9'	N 2°09.8'	11.7'	58.6'
21	23°55.9'	137°52.2'	S 21°36.7'	7°26.6'	10.9'	N 2°21.6'	11.7'	58.6'
22	38°58.4'	152°52.0'	S 21°37.1'	21°56.5'	10.8'	N 2°33.3'	11.7'	58.6'
23	54°00.9'	167°51.8'	S 21°37.6'	36°26.3'	10.7'	N 2°45.0'	11.7'	58.7'

Thu Nov 30, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.4' SD = 16.2'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	69°03.3'	182°51.6'	S 21°38.0'	50°56.0'	10.7'	N 2°56.8'	11.7'	58.7'
1	84°05.8'	197°51.3'	S 21°38.4'	65°25.7'	10.6'	N 3°08.5'	11.7'	58.8'
2	99°08.2'	212°51.1'	S 21°38.8'	79°55.4'	10.6'	N 3°20.3'	11.7'	58.8'
3	114°10.7'	227°50.9'	S 21°39.2'	94°24.9'	10.5'	N 3°32.0'	11.7'	58.8'
4	129°13.2'	242°50.7'	S 21°39.6'	108°54.4'	10.4'	N 3°43.8'	11.7'	58.9'
5	144°15.6'	257°50.4'	S 21°40.0'	123°23.9'	10.4'	N 3°55.5'	11.7'	58.9'
6	159°18.1'	272°50.2'	S 21°40.4'	137°53.2'	10.3'	N 4°07.2'	11.7'	59.0'
7	174°20.6'	287°50.0'	S 21°40.8'	152°22.6'	10.3'	N 4°19.0'	11.7'	59.0'
8	189°23.0'	302°49.8'	S 21°41.2'	166°51.8'	10.2'	N 4°30.7'	11.7'	59.0'
9	204°25.5'	317°49.5'	S 21°41.6'	181°21.0'	10.1'	N 4°42.4'	11.7'	59.1'
10	219°28.0'	332°49.3'	S 21°42.0'	195°50.1'	10.1'	N 4°54.1'	11.7'	59.1'
11	234°30.4'	347°49.1'	S 21°42.4'	210°19.2'	10.0'	N 5°05.8'	11.7'	59.2'
12	249°32.9'	2°48.9'	S 21°42.8'	224°48.2'	9.9'	N 5°17.5'	11.7'	59.2'
13	264°35.3'	17°48.6'	S 21°43.2'	239°17.1'	9.8'	N 5°29.1'	11.7'	59.2'
14	279°37.8'	32°48.4'	S 21°43.6'	253°45.9'	9.8'	N 5°40.8'	11.6'	59.3'
15	294°40.3'	47°48.2'	S 21°44.0'	268°14.7'	9.7'	N 5°52.4'	11.6'	59.3'
16	309°42.7'	62°47.9'	S 21°44.4'	282°43.4'	9.6'	N 6°04.1'	11.6'	59.4'
17	324°45.2'	77°47.7'	S 21°44.8'	297°12.0'	9.6'	N 6°15.7'	11.6'	59.4'
18	339°47.7'	92°47.5'	S 21°45.2'	311°40.6'	9.5'	N 6°27.2'	11.6'	59.4'
19	354°50.1'	107°47.3'	S 21°45.6'	326°09.1'	9.4'	N 6°38.8'	11.5'	59.5'
20	9°52.6'	122°47.0'	S 21°45.9'	340°37.5'	9.3'	N 6°50.3'	11.5'	59.5'
21	24°55.1'	137°46.8'	S 21°46.3'	355°05.9'	9.3'	N 7°01.9'	11.5'	59.6'
22	39°57.5'	152°46.6'	S 21°46.7'	9°34.1'	9.2'	N 7°13.4'	11.5'	59.6'
23	54°60.0'	167°46.3'	S 21°47.1'	24°02.3'	9.1'	N 7°24.8'	11.4'	59.6'