

## Sun Oct 1, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	9°55.0'	182°33.6'	S 3°10.6'	57°57.8'	11.7'	S 16°36.5'	5.6'	55.4'
1	24°57.5'	197°33.8'	S 3°11.6'	72°28.5'	11.7'	S 16°30.8'	5.7'	55.4'
2	39°59.9'	212°34.0'	S 3°12.5'	86°59.2'	11.7'	S 16°25.1'	5.8'	55.5'
3	55°02.4'	227°34.2'	S 3°13.5'	101°29.9'	11.7'	S 16°19.3'	5.9'	55.5'
4	70°04.9'	242°34.4'	S 3°14.5'	116°00.6'	11.7'	S 16°13.4'	6.0'	55.5'
5	85°07.3'	257°34.6'	S 3°15.4'	130°31.3'	11.7'	S 16°07.5'	6.1'	55.5'
6	100°09.8'	272°34.8'	S 3°16.4'	145°02.0'	11.7'	S 16°01.4'	6.1'	55.6'
7	115°12.3'	287°35.0'	S 3°17.4'	159°32.7'	11.7'	S 15°55.3'	6.2'	55.6'
8	130°14.7'	302°35.2'	S 3°18.4'	174°03.4'	11.7'	S 15°49.0'	6.3'	55.6'
9	145°17.2'	317°35.4'	S 3°19.3'	188°34.1'	11.7'	S 15°42.7'	6.4'	55.6'
10	160°19.6'	332°35.6'	S 3°20.3'	203°04.9'	11.7'	S 15°36.3'	6.5'	55.7'
11	175°22.1'	347°35.8'	S 3°21.3'	217°35.6'	11.7'	S 15°29.9'	6.6'	55.7'
12	190°24.6'	2°36.0'	S 3°22.2'	232°06.3'	11.7'	S 15°23.3'	6.6'	55.7'
13	205°27.0'	17°36.2'	S 3°23.2'	246°37.0'	11.7'	S 15°16.7'	6.7'	55.8'
14	220°29.5'	32°36.4'	S 3°24.2'	261°07.7'	11.7'	S 15°10.0'	6.8'	55.8'
15	235°32.0'	47°36.6'	S 3°25.1'	275°38.4'	11.7'	S 15°03.2'	6.9'	55.8'
16	250°34.4'	62°36.8'	S 3°26.1'	290°09.1'	11.7'	S 14°56.3'	7.0'	55.8'
17	265°36.9'	77°37.0'	S 3°27.1'	304°39.8'	11.7'	S 14°49.3'	7.0'	55.9'
18	280°39.4'	92°37.2'	S 3°28.0'	319°10.5'	11.7'	S 14°42.3'	7.1'	55.9'
19	295°41.8'	107°37.5'	S 3°29.0'	333°41.2'	11.7'	S 14°35.1'	7.2'	55.9'
20	310°44.3'	122°37.7'	S 3°30.0'	348°11.9'	11.7'	S 14°27.9'	7.3'	56.0'
21	325°46.8'	137°37.9'	S 3°30.9'	2°42.6'	11.7'	S 14°20.7'	7.4'	56.0'
22	340°49.2'	152°38.1'	S 3°31.9'	17°13.3'	11.7'	S 14°13.3'	7.4'	56.0'
23	355°51.7'	167°38.3'	S 3°32.9'	31°44.0'	11.7'	S 14°05.9'	7.5'	56.0'

## Mon Oct 2, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	10°54.1'	182°38.5'	S 3°33.8'	46°14.7'	11.7'	S 13°58.3'	7.6'	56.1'
1	25°56.6'	197°38.6'	S 3°34.8'	60°45.4'	11.7'	S 13°50.7'	7.7'	56.1'
2	40°59.1'	212°38.8'	S 3°35.8'	75°16.1'	11.7'	S 13°43.1'	7.7'	56.1'
3	56°01.5'	227°39.0'	S 3°36.7'	89°46.8'	11.7'	S 13°35.3'	7.8'	56.2'
4	71°04.0'	242°39.2'	S 3°37.7'	104°17.5'	11.7'	S 13°27.5'	7.9'	56.2'
5	86°06.5'	257°39.4'	S 3°38.7'	118°48.2'	11.7'	S 13°19.6'	8.0'	56.2'
6	101°08.9'	272°39.6'	S 3°39.6'	133°18.9'	11.7'	S 13°11.6'	8.0'	56.2'
7	116°11.4'	287°39.8'	S 3°40.6'	147°49.6'	11.7'	S 13°03.6'	8.1'	56.3'
8	131°13.9'	302°40.0'	S 3°41.6'	162°20.3'	11.7'	S 12°55.4'	8.2'	56.3'
9	146°16.3'	317°40.2'	S 3°42.6'	176°51.0'	11.7'	S 12°47.2'	8.3'	56.3'
10	161°18.8'	332°40.4'	S 3°43.5'	191°21.7'	11.7'	S 12°39.0'	8.3'	56.4'
11	176°21.3'	347°40.6'	S 3°44.5'	205°52.4'	11.7'	S 12°30.6'	8.4'	56.4'
12	191°23.7'	2°40.8'	S 3°45.5'	220°23.1'	11.7'	S 12°22.2'	8.5'	56.4'
13	206°26.2'	17°41.0'	S 3°46.4'	234°53.8'	11.7'	S 12°13.7'	8.6'	56.5'
14	221°28.6'	32°41.2'	S 3°47.4'	249°24.5'	11.7'	S 12°05.2'	8.6'	56.5'
15	236°31.1'	47°41.4'	S 3°48.4'	263°55.1'	11.7'	S 11°56.5'	8.7'	56.5'
16	251°33.6'	62°41.6'	S 3°49.3'	278°25.8'	11.7'	S 11°47.9'	8.8'	56.5'
17	266°36.0'	77°41.8'	S 3°50.3'	292°56.5'	11.7'	S 11°39.1'	8.8'	56.6'
18	281°38.5'	92°42.0'	S 3°51.3'	307°27.2'	11.7'	S 11°30.2'	8.9'	56.6'
19	296°41.0'	107°42.2'	S 3°52.2'	321°57.8'	11.7'	S 11°21.3'	9.0'	56.6'
20	311°43.4'	122°42.4'	S 3°53.2'	336°28.5'	11.7'	S 11°12.4'	9.0'	56.7'
21	326°45.9'	137°42.6'	S 3°54.1'	350°59.2'	11.7'	S 11°03.3'	9.1'	56.7'
22	341°48.4'	152°42.8'	S 3°55.1'	5°29.8'	11.7'	S 10°54.2'	9.2'	56.7'
23	356°50.8'	167°43.0'	S 3°56.1'	20°00.5'	11.6'	S 10°45.1'	9.2'	56.8'

Tue Oct 3, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	11°53.3'	182°43.2'	S 3°57.0'	34°31.1'	11.6'	S 10°35.8'	9.3'	56.8'
1	26°55.7'	197°43.4'	S 3°58.0'	49°01.8'	11.6'	S 10°26.5'	9.4'	56.8'
2	41°58.2'	212°43.6'	S 3°59.0'	63°32.4'	11.6'	S 10°17.2'	9.4'	56.9'
3	57°00.7'	227°43.8'	S 3°59.9'	78°03.0'	11.6'	S 10°07.7'	9.5'	56.9'
4	72°03.1'	242°44.0'	S 4°00.9'	92°33.6'	11.6'	S 9°58.3'	9.5'	56.9'
5	87°05.6'	257°44.2'	S 4°01.9'	107°04.3'	11.6'	S 9°48.7'	9.6'	56.9'
6	102°08.1'	272°44.4'	S 4°02.8'	121°34.9'	11.6'	S 9°39.1'	9.7'	57.0'
7	117°10.5'	287°44.6'	S 4°03.8'	136°05.5'	11.6'	S 9°29.4'	9.7'	57.0'
8	132°13.0'	302°44.8'	S 4°04.8'	150°36.1'	11.6'	S 9°19.7'	9.8'	57.0'
9	147°15.5'	317°45.0'	S 4°05.7'	165°06.7'	11.6'	S 9°09.9'	9.8'	57.1'
10	162°17.9'	332°45.2'	S 4°06.7'	179°37.3'	11.6'	S 9°00.1'	9.9'	57.1'
11	177°20.4'	347°45.4'	S 4°07.7'	194°07.8'	11.6'	S 8°50.1'	10.0'	57.1'
12	192°22.9'	2°45.6'	S 4°08.6'	208°38.4'	11.6'	S 8°40.2'	10.0'	57.2'
13	207°25.3'	17°45.7'	S 4°09.6'	223°09.0'	11.5'	S 8°30.2'	10.1'	57.2'
14	222°27.8'	32°45.9'	S 4°10.6'	237°39.5'	11.5'	S 8°20.1'	10.1'	57.2'
15	237°30.2'	47°46.1'	S 4°11.5'	252°10.0'	11.5'	S 8°10.0'	10.2'	57.3'
16	252°32.7'	62°46.3'	S 4°12.5'	266°40.6'	11.5'	S 7°59.8'	10.2'	57.3'
17	267°35.2'	77°46.5'	S 4°13.5'	281°11.1'	11.5'	S 7°49.6'	10.3'	57.3'
18	282°37.6'	92°46.7'	S 4°14.4'	295°41.6'	11.5'	S 7°39.3'	10.3'	57.4'
19	297°40.1'	107°46.9'	S 4°15.4'	310°12.1'	11.5'	S 7°28.9'	10.4'	57.4'
20	312°42.6'	122°47.1'	S 4°16.3'	324°42.6'	11.5'	S 7°18.5'	10.4'	57.4'
21	327°45.0'	137°47.3'	S 4°17.3'	339°13.1'	11.5'	S 7°08.1'	10.5'	57.4'
22	342°47.5'	152°47.5'	S 4°18.3'	353°43.5'	11.5'	S 6°57.6'	10.5'	57.5'
23	357°50.0'	167°47.7'	S 4°19.2'	8°14.0'	11.4'	S 6°47.1'	10.6'	57.5'

Wed Oct 4, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 15.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	12°52.4'	182°47.9'	S 4°20.2'	22°44.4'	11.4'	S 6°36.5'	10.6'	57.5'
1	27°54.9'	197°48.1'	S 4°21.2'	37°14.8'	11.4'	S 6°25.9'	10.7'	57.6'
2	42°57.3'	212°48.3'	S 4°22.1'	51°45.2'	11.4'	S 6°15.2'	10.7'	57.6'
3	57°59.8'	227°48.5'	S 4°23.1'	66°15.6'	11.4'	S 6°04.5'	10.8'	57.6'
4	73°02.3'	242°48.7'	S 4°24.1'	80°46.0'	11.4'	S 5°53.7'	10.8'	57.7'
5	88°04.7'	257°48.8'	S 4°25.0'	95°16.4'	11.4'	S 5°42.9'	10.8'	57.7'
6	103°07.2'	272°49.0'	S 4°26.0'	109°46.7'	11.3'	S 5°32.1'	10.9'	57.7'
7	118°09.7'	287°49.2'	S 4°26.9'	124°17.1'	11.3'	S 5°21.2'	10.9'	57.8'
8	133°12.1'	302°49.4'	S 4°27.9'	138°47.4'	11.3'	S 5°10.2'	11.0'	57.8'
9	148°14.6'	317°49.6'	S 4°28.9'	153°17.7'	11.3'	S 4°59.3'	11.0'	57.8'
10	163°17.1'	332°49.8'	S 4°29.8'	167°48.0'	11.3'	S 4°48.3'	11.0'	57.8'
11	178°19.5'	347°50.0'	S 4°30.8'	182°18.3'	11.3'	S 4°37.2'	11.1'	57.9'
12	193°22.0'	2°50.2'	S 4°31.8'	196°48.5'	11.2'	S 4°26.1'	11.1'	57.9'
13	208°24.5'	17°50.4'	S 4°32.7'	211°18.8'	11.2'	S 4°15.0'	11.2'	57.9'
14	223°26.9'	32°50.6'	S 4°33.7'	225°49.0'	11.2'	S 4°03.9'	11.2'	58.0'
15	238°29.4'	47°50.8'	S 4°34.6'	240°19.2'	11.2'	S 3°52.7'	11.2'	58.0'
16	253°31.8'	62°50.9'	S 4°35.6'	254°49.3'	11.2'	S 3°41.5'	11.2'	58.0'
17	268°34.3'	77°51.1'	S 4°36.6'	269°19.5'	11.1'	S 3°30.2'	11.3'	58.1'
18	283°36.8'	92°51.3'	S 4°37.5'	283°49.6'	11.1'	S 3°18.9'	11.3'	58.1'
19	298°39.2'	107°51.5'	S 4°38.5'	298°19.7'	11.1'	S 3°07.6'	11.3'	58.1'
20	313°41.7'	122°51.7'	S 4°39.5'	312°49.8'	11.1'	S 2°56.3'	11.4'	58.1'
21	328°44.2'	137°51.9'	S 4°40.4'	327°19.9'	11.0'	S 2°44.9'	11.4'	58.2'
22	343°46.6'	152°52.1'	S 4°41.4'	341°50.0'	11.0'	S 2°33.5'	11.4'	58.2'
23	358°49.1'	167°52.3'	S 4°42.3'	356°20.0'	11.0'	S 2°22.1'	11.4'	58.2'

Thu Oct 5, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 16.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	13°51.6'	182°52.5'	S 4°43.3'	10°50.0'	11.0'	S 2°10.7'	11.5'	58.3'
1	28°54.0'	197°52.7'	S 4°44.3'	25°20.0'	11.0'	S 1°59.2'	11.5'	58.3'
2	43°56.5'	212°52.8'	S 4°45.2'	39°49.9'	10.9'	S 1°47.7'	11.5'	58.3'
3	58°59.0'	227°53.0'	S 4°46.2'	54°19.8'	10.9'	S 1°36.2'	11.5'	58.3'
4	74°01.4'	242°53.2'	S 4°47.2'	68°49.7'	10.9'	S 1°24.7'	11.5'	58.4'
5	89°03.9'	257°53.4'	S 4°48.1'	83°19.6'	10.9'	S 1°13.1'	11.6'	58.4'
6	104°06.3'	272°53.6'	S 4°49.1'	97°49.5'	10.8'	S 1°01.6'	11.6'	58.4'
7	119°08.8'	287°53.8'	S 4°50.0'	112°19.3'	10.8'	S 0°50.0'	11.6'	58.4'
8	134°11.3'	302°54.0'	S 4°51.0'	126°49.1'	10.8'	S 0°38.4'	11.6'	58.5'
9	149°13.7'	317°54.2'	S 4°52.0'	141°18.9'	10.7'	S 0°26.8'	11.6'	58.5'
10	164°16.2'	332°54.4'	S 4°52.9'	155°48.6'	10.7'	S 0°15.2'	11.6'	58.5'
11	179°18.7'	347°54.5'	S 4°53.9'	170°18.3'	10.7'	S 0°03.5'	11.6'	58.6'
12	194°21.1'	2°54.7'	S 4°54.8'	184°48.0'	10.7'	N 0°08.1'	11.7'	58.6'
13	209°23.6'	17°54.9'	S 4°55.8'	199°17.7'	10.6'	N 0°19.8'	11.7'	58.6'
14	224°26.1'	32°55.1'	S 4°56.8'	213°47.3'	10.6'	N 0°31.5'	11.7'	58.6'
15	239°28.5'	47°55.3'	S 4°57.7'	228°16.9'	10.6'	N 0°43.1'	11.7'	58.7'
16	254°31.0'	62°55.5'	S 4°58.7'	242°46.4'	10.5'	N 0°54.8'	11.7'	58.7'
17	269°33.4'	77°55.7'	S 4°59.6'	257°16.0'	10.5'	N 1°06.5'	11.7'	58.7'
18	284°35.9'	92°55.9'	S 5°00.6'	271°45.5'	10.5'	N 1°18.2'	11.7'	58.7'
19	299°38.4'	107°56.0'	S 5°01.6'	286°14.9'	10.4'	N 1°29.9'	11.7'	58.8'
20	314°40.8'	122°56.2'	S 5°02.5'	300°44.3'	10.4'	N 1°41.6'	11.7'	58.8'
21	329°43.3'	137°56.4'	S 5°03.5'	315°13.7'	10.4'	N 1°53.3'	11.7'	58.8'
22	344°45.8'	152°56.6'	S 5°04.4'	329°43.1'	10.3'	N 2°05.0'	11.7'	58.8'
23	359°48.2'	167°56.8'	S 5°05.4'	344°12.4'	10.3'	N 2°16.7'	11.7'	58.8'

Fri Oct 6, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	14°50.7'	182°57.0'	S 5°06.3'	358°41.7'	10.3'	N 2°28.4'	11.7'	58.9'
1	29°53.2'	197°57.2'	S 5°07.3'	13°11.0'	10.2'	N 2°40.1'	11.7'	58.9'
2	44°55.6'	212°57.3'	S 5°08.3'	27°40.2'	10.2'	N 2°51.7'	11.7'	58.9'
3	59°58.1'	227°57.5'	S 5°09.2'	42°09.4'	10.1'	N 3°03.4'	11.7'	58.9'
4	75°00.6'	242°57.7'	S 5°10.2'	56°38.5'	10.1'	N 3°15.1'	11.7'	59.0'
5	90°03.0'	257°57.9'	S 5°11.1'	71°07.6'	10.1'	N 3°26.7'	11.6'	59.0'
6	105°05.5'	272°58.1'	S 5°12.1'	85°36.7'	10.0'	N 3°38.4'	11.6'	59.0'
7	120°07.9'	287°58.3'	S 5°13.1'	100°05.8'	10.0'	N 3°50.0'	11.6'	59.0'
8	135°10.4'	302°58.4'	S 5°14.0'	114°34.7'	10.0'	N 4°01.7'	11.6'	59.0'
9	150°12.9'	317°58.6'	S 5°15.0'	129°03.7'	9.9'	N 4°13.3'	11.6'	59.1'
10	165°15.3'	332°58.8'	S 5°15.9'	143°32.6'	9.9'	N 4°24.9'	11.6'	59.1'
11	180°17.8'	347°59.0'	S 5°16.9'	158°01.5'	9.8'	N 4°36.4'	11.6'	59.1'
12	195°20.3'	2°59.2'	S 5°17.8'	172°30.3'	9.8'	N 4°48.0'	11.5'	59.1'
13	210°22.7'	17°59.4'	S 5°18.8'	186°59.1'	9.8'	N 4°59.5'	11.5'	59.1'
14	225°25.2'	32°59.5'	S 5°19.8'	201°27.9'	9.7'	N 5°11.0'	11.5'	59.2'
15	240°27.7'	47°59.7'	S 5°20.7'	215°56.6'	9.7'	N 5°22.5'	11.5'	59.2'
16	255°30.1'	62°59.9'	S 5°21.7'	230°25.3'	9.6'	N 5°34.0'	11.4'	59.2'
17	270°32.6'	78°00.1'	S 5°22.6'	244°53.9'	9.6'	N 5°45.5'	11.4'	59.2'
18	285°35.0'	93°00.3'	S 5°23.6'	259°22.5'	9.5'	N 5°56.9'	11.4'	59.2'
19	300°37.5'	108°00.5'	S 5°24.5'	273°51.0'	9.5'	N 6°08.3'	11.4'	59.3'
20	315°40.0'	123°00.6'	S 5°25.5'	288°19.5'	9.5'	N 6°19.6'	11.3'	59.3'
21	330°42.4'	138°00.8'	S 5°26.5'	302°48.0'	9.4'	N 6°31.0'	11.3'	59.3'
22	345°44.9'	153°01.0'	S 5°27.4'	317°16.4'	9.4'	N 6°42.3'	11.3'	59.3'
23	0°47.4'	168°01.2'	S 5°28.4'	331°44.7'	9.3'	N 6°53.5'	11.2'	59.3'

Sat Oct 7, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	15°49.8'	183°01.4'	S 5°29.3'	346°13.1'	9.3'	N 7°04.8'	11.2'	59.3'
1	30°52.3'	198°01.6'	S 5°30.3'	0°41.3'	9.2'	N 7°16.0'	11.2'	59.4'
2	45°54.8'	213°01.7'	S 5°31.2'	15°09.6'	9.2'	N 7°27.1'	11.1'	59.4'
3	60°57.2'	228°01.9'	S 5°32.2'	29°37.7'	9.1'	N 7°38.3'	11.1'	59.4'
4	75°59.7'	243°02.1'	S 5°33.2'	44°05.9'	9.1'	N 7°49.3'	11.0'	59.4'
5	91°02.2'	258°02.3'	S 5°34.1'	58°34.0'	9.0'	N 8°00.4'	11.0'	59.4'
6	106°04.6'	273°02.5'	S 5°35.1'	73°02.0'	9.0'	N 8°11.4'	11.0'	59.4'
7	121°07.1'	288°02.6'	S 5°36.0'	87°30.0'	8.9'	N 8°22.4'	10.9'	59.4'
8	136°09.5'	303°02.8'	S 5°37.0'	101°58.0'	8.9'	N 8°33.3'	10.9'	59.5'
9	151°12.0'	318°03.0'	S 5°37.9'	116°25.9'	8.9'	N 8°44.1'	10.8'	59.5'
10	166°14.5'	333°03.2'	S 5°38.9'	130°53.7'	8.8'	N 8°55.0'	10.8'	59.5'
11	181°16.9'	348°03.4'	S 5°39.8'	145°21.5'	8.8'	N 9°05.7'	10.7'	59.5'
12	196°19.4'	3°03.5'	S 5°40.8'	159°49.3'	8.7'	N 9°16.5'	10.7'	59.5'
13	211°21.9'	18°03.7'	S 5°41.7'	174°17.0'	8.7'	N 9°27.1'	10.6'	59.5'
14	226°24.3'	33°03.9'	S 5°42.7'	188°44.7'	8.6'	N 9°37.7'	10.6'	59.5'
15	241°26.8'	48°04.1'	S 5°43.7'	203°12.3'	8.6'	N 9°48.3'	10.5'	59.6'
16	256°29.3'	63°04.2'	S 5°44.6'	217°39.8'	8.5'	N 9°58.8'	10.5'	59.6'
17	271°31.7'	78°04.4'	S 5°45.6'	232°07.3'	8.5'	N 10°09.3'	10.4'	59.6'
18	286°34.2'	93°04.6'	S 5°46.5'	246°34.8'	8.4'	N 10°19.7'	10.3'	59.6'
19	301°36.6'	108°04.8'	S 5°47.5'	261°02.2'	8.4'	N 10°30.0'	10.3'	59.6'
20	316°39.1'	123°05.0'	S 5°48.4'	275°29.6'	8.3'	N 10°40.3'	10.2'	59.6'
21	331°41.6'	138°05.1'	S 5°49.4'	289°56.9'	8.3'	N 10°50.5'	10.1'	59.6'
22	346°44.0'	153°05.3'	S 5°50.3'	304°24.2'	8.2'	N 11°00.6'	10.1'	59.6'
23	1°46.5'	168°05.5'	S 5°51.3'	318°51.4'	8.2'	N 11°10.7'	10.0'	59.6'

Sun Oct 8, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 16.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	16°49.0'	183°05.7'	S 5°52.2'	333°18.6'	8.1'	N 11°20.7'	10.0'	59.6'
1	31°51.4'	198°05.8'	S 5°53.2'	347°45.7'	8.1'	N 11°30.7'	9.9'	59.7'
2	46°53.9'	213°06.0'	S 5°54.1'	2°12.7'	8.0'	N 11°40.6'	9.8'	59.7'
3	61°56.4'	228°06.2'	S 5°55.1'	16°39.8'	8.0'	N 11°50.4'	9.7'	59.7'
4	76°58.8'	243°06.4'	S 5°56.1'	31°06.7'	7.9'	N 12°00.1'	9.7'	59.7'
5	92°01.3'	258°06.5'	S 5°57.0'	45°33.7'	7.9'	N 12°09.8'	9.6'	59.7'
6	107°03.8'	273°06.7'	S 5°58.0'	60°00.5'	7.8'	N 12°19.4'	9.5'	59.7'
7	122°06.2'	288°06.9'	S 5°58.9'	74°27.3'	7.8'	N 12°28.9'	9.4'	59.7'
8	137°08.7'	303°07.1'	S 5°59.9'	88°54.1'	7.7'	N 12°38.4'	9.4'	59.7'
9	152°11.1'	318°07.3'	S 6°00.8'	103°20.8'	7.7'	N 12°47.7'	9.3'	59.7'
10	167°13.6'	333°07.4'	S 6°01.8'	117°47.5'	7.6'	N 12°57.0'	9.2'	59.7'
11	182°16.1'	348°07.6'	S 6°02.7'	132°14.1'	7.6'	N 13°06.2'	9.1'	59.7'
12	197°18.5'	3°07.8'	S 6°03.7'	146°40.7'	7.5'	N 13°15.3'	9.0'	59.7'
13	212°21.0'	18°07.9'	S 6°04.6'	161°07.2'	7.5'	N 13°24.4'	9.0'	59.7'
14	227°23.5'	33°08.1'	S 6°05.6'	175°33.7'	7.4'	N 13°33.3'	8.9'	59.7'
15	242°25.9'	48°08.3'	S 6°06.5'	190°00.2'	7.4'	N 13°42.2'	8.8'	59.7'
16	257°28.4'	63°08.5'	S 6°07.5'	204°26.5'	7.3'	N 13°51.0'	8.7'	59.7'
17	272°30.9'	78°08.6'	S 6°08.4'	218°52.9'	7.3'	N 13°59.7'	8.6'	59.7'
18	287°33.3'	93°08.8'	S 6°09.4'	233°19.2'	7.2'	N 14°08.3'	8.5'	59.8'
19	302°35.8'	108°09.0'	S 6°10.3'	247°45.4'	7.2'	N 14°16.8'	8.4'	59.8'
20	317°38.3'	123°09.2'	S 6°11.3'	262°11.6'	7.1'	N 14°25.3'	8.3'	59.8'
21	332°40.7'	138°09.3'	S 6°12.2'	276°37.7'	7.1'	N 14°33.6'	8.2'	59.8'
22	347°43.2'	153°09.5'	S 6°13.2'	291°03.9'	7.1'	N 14°41.9'	8.2'	59.8'
23	2°45.6'	168°09.7'	S 6°14.1'	305°29.9'	7.0'	N 14°50.0'	8.1'	59.8'

Mon Oct 9, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 16.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	17°48.1'	183°09.9'	S 6°15.1'	319°55.9'	7.0'	N 14°58.1'	8.0'	59.8'
1	32°50.6'	198°10.0'	S 6°16.0'	334°21.9'	6.9'	N 15°06.0'	7.9'	59.8'
2	47°53.0'	213°10.2'	S 6°17.0'	348°47.8'	6.9'	N 15°13.9'	7.8'	59.8'
3	62°55.5'	228°10.4'	S 6°17.9'	3°13.7'	6.8'	N 15°21.7'	7.7'	59.8'
4	77°58.0'	243°10.5'	S 6°18.9'	17°39.5'	6.8'	N 15°29.3'	7.6'	59.8'
5	93°00.4'	258°10.7'	S 6°19.8'	32°05.3'	6.7'	N 15°36.9'	7.5'	59.8'
6	108°02.9'	273°10.9'	S 6°20.8'	46°31.1'	6.7'	N 15°44.4'	7.4'	59.8'
7	123°05.4'	288°11.1'	S 6°21.7'	60°56.8'	6.7'	N 15°51.7'	7.3'	59.8'
8	138°07.8'	303°11.2'	S 6°22.7'	75°22.4'	6.6'	N 15°59.0'	7.2'	59.8'
9	153°10.3'	318°11.4'	S 6°23.6'	89°48.1'	6.6'	N 16°06.1'	7.0'	59.8'
10	168°12.7'	333°11.6'	S 6°24.6'	104°13.7'	6.5'	N 16°13.2'	6.9'	59.8'
11	183°15.2'	348°11.7'	S 6°25.5'	118°39.2'	6.5'	N 16°20.1'	6.8'	59.8'
12	198°17.7'	3°11.9'	S 6°26.5'	133°04.7'	6.5'	N 16°27.0'	6.7'	59.8'
13	213°20.1'	18°12.1'	S 6°27.4'	147°30.2'	6.4'	N 16°33.7'	6.6'	59.8'
14	228°22.6'	33°12.2'	S 6°28.4'	161°55.6'	6.4'	N 16°40.3'	6.5'	59.8'
15	243°25.1'	48°12.4'	S 6°29.3'	176°21.0'	6.4'	N 16°46.8'	6.4'	59.8'
16	258°27.5'	63°12.6'	S 6°30.3'	190°46.4'	6.3'	N 16°53.2'	6.3'	59.8'
17	273°30.0'	78°12.8'	S 6°31.2'	205°11.7'	6.3'	N 16°59.5'	6.2'	59.7'
18	288°32.5'	93°12.9'	S 6°32.1'	219°37.0'	6.3'	N 17°05.6'	6.1'	59.7'
19	303°34.9'	108°13.1'	S 6°33.1'	234°02.2'	6.2'	N 17°11.7'	5.9'	59.7'
20	318°37.4'	123°13.3'	S 6°34.0'	248°27.4'	6.2'	N 17°17.6'	5.8'	59.7'
21	333°39.9'	138°13.4'	S 6°35.0'	262°52.6'	6.2'	N 17°23.5'	5.7'	59.7'
22	348°42.3'	153°13.6'	S 6°35.9'	277°17.8'	6.1'	N 17°29.2'	5.6'	59.7'
23	3°44.8'	168°13.8'	S 6°36.9'	291°42.9'	6.1'	N 17°34.8'	5.5'	59.7'

Tue Oct 10, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 16.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	18°47.2'	183°13.9'	S 6°37.8'	306°08.0'	6.1'	N 17°40.2'	5.4'	59.7'
1	33°49.7'	198°14.1'	S 6°38.8'	320°33.1'	6.0'	N 17°45.6'	5.2'	59.7'
2	48°52.2'	213°14.3'	S 6°39.7'	334°58.1'	6.0'	N 17°50.8'	5.1'	59.7'
3	63°54.6'	228°14.4'	S 6°40.7'	349°23.1'	6.0'	N 17°55.9'	5.0'	59.7'
4	78°57.1'	243°14.6'	S 6°41.6'	3°48.1'	6.0'	N 18°00.9'	4.9'	59.7'
5	93°59.6'	258°14.8'	S 6°42.6'	18°13.1'	5.9'	N 18°05.8'	4.7'	59.7'
6	109°02.0'	273°14.9'	S 6°43.5'	32°38.0'	5.9'	N 18°10.5'	4.6'	59.7'
7	124°04.5'	288°15.1'	S 6°44.4'	47°02.9'	5.9'	N 18°15.2'	4.5'	59.7'
8	139°07.0'	303°15.3'	S 6°45.4'	61°27.8'	5.9'	N 18°19.7'	4.4'	59.7'
9	154°09.4'	318°15.4'	S 6°46.3'	75°52.7'	5.8'	N 18°24.1'	4.3'	59.7'
10	169°11.9'	333°15.6'	S 6°47.3'	90°17.5'	5.8'	N 18°28.3'	4.1'	59.7'
11	184°14.4'	348°15.8'	S 6°48.2'	104°42.4'	5.8'	N 18°32.4'	4.0'	59.7'
12	199°16.8'	3°15.9'	S 6°49.2'	119°07.2'	5.8'	N 18°36.4'	3.9'	59.6'
13	214°19.3'	18°16.1'	S 6°50.1'	133°32.0'	5.8'	N 18°40.3'	3.8'	59.6'
14	229°21.7'	33°16.3'	S 6°51.1'	147°56.7'	5.8'	N 18°44.1'	3.6'	59.6'
15	244°24.2'	48°16.4'	S 6°52.0'	162°21.5'	5.7'	N 18°47.7'	3.5'	59.6'
16	259°26.7'	63°16.6'	S 6°53.0'	176°46.3'	5.7'	N 18°51.2'	3.4'	59.6'
17	274°29.1'	78°16.7'	S 6°53.9'	191°11.0'	5.7'	N 18°54.6'	3.2'	59.6'
18	289°31.6'	93°16.9'	S 6°54.8'	205°35.7'	5.7'	N 18°57.8'	3.1'	59.6'
19	304°34.1'	108°17.1'	S 6°55.8'	220°00.4'	5.7'	N 19°00.9'	3.0'	59.6'
20	319°36.5'	123°17.2'	S 6°56.7'	234°25.1'	5.7'	N 19°03.9'	2.9'	59.6'
21	334°39.0'	138°17.4'	S 6°57.7'	248°49.8'	5.7'	N 19°06.8'	2.7'	59.6'
22	349°41.5'	153°17.6'	S 6°58.6'	263°14.5'	5.7'	N 19°09.5'	2.6'	59.6'
23	4°43.9'	168°17.7'	S 6°59.6'	277°39.2'	5.7'	N 19°12.1'	2.5'	59.5'

Wed Oct 11, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	19°46.4'	183°17.9'	S 7°00.5'	292°03.9'	5.7'	N 19°14.6'	2.3'	59.5'
1	34°48.9'	198°18.0'	S 7°01.4'	306°28.5'	5.7'	N 19°16.9'	2.2'	59.5'
2	49°51.3'	213°18.2'	S 7°02.4'	320°53.2'	5.7'	N 19°19.1'	2.1'	59.5'
3	64°53.8'	228°18.4'	S 7°03.3'	335°17.9'	5.7'	N 19°21.2'	1.9'	59.5'
4	79°56.2'	243°18.5'	S 7°04.3'	349°42.5'	5.7'	N 19°23.2'	1.8'	59.5'
5	94°58.7'	258°18.7'	S 7°05.2'	4°07.2'	5.7'	N 19°25.0'	1.7'	59.5'
6	110°01.2'	273°18.9'	S 7°06.1'	18°31.9'	5.7'	N 19°26.7'	1.6'	59.5'
7	125°03.6'	288°19.0'	S 7°07.1'	32°56.5'	5.7'	N 19°28.2'	1.4'	59.5'
8	140°06.1'	303°19.2'	S 7°08.0'	47°21.2'	5.7'	N 19°29.6'	1.3'	59.4'
9	155°08.6'	318°19.3'	S 7°09.0'	61°45.9'	5.7'	N 19°30.9'	1.2'	59.4'
10	170°11.0'	333°19.5'	S 7°09.9'	76°10.6'	5.7'	N 19°32.1'	1.0'	59.4'
11	185°13.5'	348°19.7'	S 7°10.9'	90°35.3'	5.7'	N 19°33.1'	0.9'	59.4'
12	200°16.0'	3°19.8'	S 7°11.8'	104°60.0'	5.7'	N 19°34.0'	0.8'	59.4'
13	215°18.4'	18°20.0'	S 7°12.7'	119°24.7'	5.7'	N 19°34.8'	0.6'	59.4'
14	230°20.9'	33°20.1'	S 7°13.7'	133°49.4'	5.7'	N 19°35.4'	0.5'	59.4'
15	245°23.3'	48°20.3'	S 7°14.6'	148°14.2'	5.7'	N 19°35.9'	0.4'	59.4'
16	260°25.8'	63°20.4'	S 7°15.6'	162°38.9'	5.8'	N 19°36.3'	0.2'	59.4'
17	275°28.3'	78°20.6'	S 7°16.5'	177°03.7'	5.8'	N 19°36.6'	0.1'	59.3'
18	290°30.7'	93°20.8'	S 7°17.4'	191°28.5'	5.8'	N 19°36.7'	0.0'	59.3'
19	305°33.2'	108°20.9'	S 7°18.4'	205°53.3'	5.8'	N 19°36.7'	0.1'	59.3'
20	320°35.7'	123°21.1'	S 7°19.3'	220°18.1'	5.8'	N 19°36.5'	0.3'	59.3'
21	335°38.1'	138°21.2'	S 7°20.3'	234°42.9'	5.9'	N 19°36.2'	0.4'	59.3'
22	350°40.6'	153°21.4'	S 7°21.2'	249°07.8'	5.9'	N 19°35.8'	0.5'	59.3'
23	5°43.1'	168°21.6'	S 7°22.1'	263°32.6'	5.9'	N 19°35.3'	0.7'	59.3'

Thu Oct 12, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	20°45.5'	183°21.7'	S 7°23.1'	277°57.5'	5.9'	N 19°34.6'	0.8'	59.2'
1	35°48.0'	198°21.9'	S 7°24.0'	292°22.5'	5.9'	N 19°33.8'	0.9'	59.2'
2	50°50.5'	213°22.0'	S 7°24.9'	306°47.4'	6.0'	N 19°32.9'	1.1'	59.2'
3	65°52.9'	228°22.2'	S 7°25.9'	321°12.4'	6.0'	N 19°31.9'	1.2'	59.2'
4	80°55.4'	243°22.3'	S 7°26.8'	335°37.4'	6.0'	N 19°30.7'	1.3'	59.2'
5	95°57.8'	258°22.5'	S 7°27.8'	350°02.4'	6.1'	N 19°29.4'	1.4'	59.2'
6	111°00.3'	273°22.6'	S 7°28.7'	4°27.5'	6.1'	N 19°27.9'	1.6'	59.2'
7	126°02.8'	288°22.8'	S 7°29.6'	18°52.5'	6.1'	N 19°26.4'	1.7'	59.1'
8	141°05.2'	303°23.0'	S 7°30.6'	33°17.7'	6.1'	N 19°24.7'	1.8'	59.1'
9	156°07.7'	318°23.1'	S 7°31.5'	47°42.8'	6.2'	N 19°22.9'	1.9'	59.1'
10	171°10.2'	333°23.3'	S 7°32.4'	62°08.0'	6.2'	N 19°20.9'	2.1'	59.1'
11	186°12.6'	348°23.4'	S 7°33.4'	76°33.2'	6.3'	N 19°18.9'	2.2'	59.1'
12	201°15.1'	3°23.6'	S 7°34.3'	90°58.5'	6.3'	N 19°16.7'	2.3'	59.1'
13	216°17.6'	18°23.7'	S 7°35.3'	105°23.7'	6.3'	N 19°14.4'	2.4'	59.1'
14	231°20.0'	33°23.9'	S 7°36.2'	119°49.1'	6.4'	N 19°11.9'	2.6'	59.0'
15	246°22.5'	48°24.0'	S 7°37.1'	134°14.4'	6.4'	N 19°09.4'	2.7'	59.0'
16	261°25.0'	63°24.2'	S 7°38.1'	148°39.8'	6.4'	N 19°06.7'	2.8'	59.0'
17	276°27.4'	78°24.3'	S 7°39.0'	163°05.3'	6.5'	N 19°03.9'	2.9'	59.0'
18	291°29.9'	93°24.5'	S 7°39.9'	177°30.8'	6.5'	N 19°00.9'	3.0'	59.0'
19	306°32.3'	108°24.6'	S 7°40.9'	191°56.3'	6.6'	N 18°57.9'	3.2'	59.0'
20	321°34.8'	123°24.8'	S 7°41.8'	206°21.8'	6.6'	N 18°54.7'	3.3'	58.9'
21	336°37.3'	138°25.0'	S 7°42.7'	220°47.5'	6.7'	N 18°51.4'	3.4'	58.9'
22	351°39.7'	153°25.1'	S 7°43.7'	235°13.1'	6.7'	N 18°48.0'	3.5'	58.9'
23	6°42.2'	168°25.3'	S 7°44.6'	249°38.8'	6.7'	N 18°44.5'	3.6'	58.9'

Fri Oct 13, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 16.0'				
		GHA	dec	GHA	v	dec	d	HP
0	21°44.7'	183°25.4'	S 7°45.5'	264°04.5'	6.8'	N 18°40.9'	3.8'	58.9'
1	36°47.1'	198°25.6'	S 7°46.5'	278°30.3'	6.8'	N 18°37.1'	3.9'	58.9'
2	51°49.6'	213°25.7'	S 7°47.4'	292°56.2'	6.9'	N 18°33.2'	4.0'	58.9'
3	66°52.1'	228°25.9'	S 7°48.3'	307°22.1'	6.9'	N 18°29.2'	4.1'	58.8'
4	81°54.5'	243°26.0'	S 7°49.3'	321°48.0'	7.0'	N 18°25.1'	4.2'	58.8'
5	96°57.0'	258°26.2'	S 7°50.2'	336°14.0'	7.0'	N 18°20.9'	4.3'	58.8'
6	111°59.5'	273°26.3'	S 7°51.1'	350°40.0'	7.1'	N 18°16.6'	4.4'	58.8'
7	127°01.9'	288°26.5'	S 7°52.1'	5°06.1'	7.1'	N 18°12.1'	4.6'	58.8'
8	142°04.4'	303°26.6'	S 7°53.0'	19°32.2'	7.2'	N 18°07.5'	4.7'	58.8'
9	157°06.8'	318°26.8'	S 7°53.9'	33°58.4'	7.2'	N 18°02.9'	4.8'	58.7'
10	172°09.3'	333°26.9'	S 7°54.9'	48°24.6'	7.3'	N 17°58.1'	4.9'	58.7'
11	187°11.8'	348°27.1'	S 7°55.8'	62°50.9'	7.3'	N 17°53.2'	5.0'	58.7'
12	202°14.2'	3°27.2'	S 7°56.7'	77°17.3'	7.4'	N 17°48.2'	5.1'	58.7'
13	217°16.7'	18°27.4'	S 7°57.7'	91°43.7'	7.4'	N 17°43.1'	5.2'	58.7'
14	232°19.2'	33°27.5'	S 7°58.6'	106°10.1'	7.5'	N 17°37.9'	5.3'	58.7'
15	247°21.6'	48°27.6'	S 7°59.5'	120°36.6'	7.6'	N 17°32.6'	5.4'	58.6'
16	262°24.1'	63°27.8'	S 8°00.5'	135°03.2'	7.6'	N 17°27.2'	5.5'	58.6'
17	277°26.6'	78°27.9'	S 8°01.4'	149°29.8'	7.7'	N 17°21.6'	5.6'	58.6'
18	292°29.0'	93°28.1'	S 8°02.3'	163°56.5'	7.7'	N 17°16.0'	5.7'	58.6'
19	307°31.5'	108°28.2'	S 8°03.3'	178°23.2'	7.8'	N 17°10.3'	5.8'	58.6'
20	322°33.9'	123°28.4'	S 8°04.2'	192°50.0'	7.8'	N 17°04.4'	5.9'	58.5'
21	337°36.4'	138°28.5'	S 8°05.1'	207°16.8'	7.9'	N 16°58.5'	6.0'	58.5'
22	352°38.9'	153°28.7'	S 8°06.1'	221°43.7'	8.0'	N 16°52.5'	6.1'	58.5'
23	7°41.3'	168°28.8'	S 8°07.0'	236°10.7'	8.0'	N 16°46.3'	6.2'	58.5'

Sat Oct 14, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 15.9'				
		GHA	dec	GHA	v	dec	d	HP
0	22°43.8'	183°29.0'	S 8°07.9'	250°37.7'	8.1'	N 16°40.1'	6.3'	58.5'
1	37°46.3'	198°29.1'	S 8°08.8'	265°04.8'	8.1'	N 16°33.8'	6.4'	58.5'
2	52°48.7'	213°29.3'	S 8°09.8'	279°31.9'	8.2'	N 16°27.3'	6.5'	58.4'
3	67°51.2'	228°29.4'	S 8°10.7'	293°59.1'	8.3'	N 16°20.8'	6.6'	58.4'
4	82°53.7'	243°29.5'	S 8°11.6'	308°26.3'	8.3'	N 16°14.2'	6.7'	58.4'
5	97°56.1'	258°29.7'	S 8°12.6'	322°53.7'	8.4'	N 16°07.5'	6.8'	58.4'
6	112°58.6'	273°29.8'	S 8°13.5'	337°21.0'	8.4'	N 16°00.7'	6.9'	58.4'
7	128°01.1'	288°30.0'	S 8°14.4'	351°48.5'	8.5'	N 15°53.8'	7.0'	58.3'
8	143°03.5'	303°30.1'	S 8°15.3'	6°15.9'	8.6'	N 15°46.8'	7.1'	58.3'
9	158°06.0'	318°30.3'	S 8°16.3'	20°43.5'	8.6'	N 15°39.8'	7.2'	58.3'
10	173°08.4'	333°30.4'	S 8°17.2'	35°11.1'	8.7'	N 15°32.6'	7.2'	58.3'
11	188°10.9'	348°30.6'	S 8°18.1'	49°38.8'	8.7'	N 15°25.4'	7.3'	58.3'
12	203°13.4'	3°30.7'	S 8°19.1'	64°06.5'	8.8'	N 15°18.0'	7.4'	58.3'
13	218°15.8'	18°30.8'	S 8°20.0'	78°34.3'	8.9'	N 15°10.6'	7.5'	58.2'
14	233°18.3'	33°31.0'	S 8°20.9'	93°02.2'	8.9'	N 15°03.1'	7.6'	58.2'
15	248°20.8'	48°31.1'	S 8°21.8'	107°30.1'	9.0'	N 14°55.5'	7.7'	58.2'
16	263°23.2'	63°31.3'	S 8°22.8'	121°58.1'	9.0'	N 14°47.9'	7.7'	58.2'
17	278°25.7'	78°31.4'	S 8°23.7'	136°26.1'	9.1'	N 14°40.1'	7.8'	58.2'
18	293°28.2'	93°31.5'	S 8°24.6'	150°54.2'	9.2'	N 14°32.3'	7.9'	58.1'
19	308°30.6'	108°31.7'	S 8°25.5'	165°22.3'	9.2'	N 14°24.4'	8.0'	58.1'
20	323°33.1'	123°31.8'	S 8°26.5'	179°50.6'	9.3'	N 14°16.4'	8.1'	58.1'
21	338°35.6'	138°32.0'	S 8°27.4'	194°18.8'	9.3'	N 14°08.3'	8.1'	58.1'
22	353°38.0'	153°32.1'	S 8°28.3'	208°47.2'	9.4'	N 14°00.2'	8.2'	58.1'
23	8°40.5'	168°32.2'	S 8°29.2'	223°15.6'	9.5'	N 13°52.0'	8.3'	58.1'

## Sun Oct 15, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 15.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	23°42.9'	183°32.4'	S 8°30.2'	237°44.0'	9.5'	N 13°43.7'	8.4'	58.0'
1	38°45.4'	198°32.5'	S 8°31.1'	252°12.6'	9.6'	N 13°35.4'	8.4'	58.0'
2	53°47.9'	213°32.7'	S 8°32.0'	266°41.1'	9.6'	N 13°26.9'	8.5'	58.0'
3	68°50.3'	228°32.8'	S 8°32.9'	281°09.8'	9.7'	N 13°18.4'	8.6'	58.0'
4	83°52.8'	243°32.9'	S 8°33.9'	295°38.5'	9.8'	N 13°09.9'	8.6'	58.0'
5	98°55.3'	258°33.1'	S 8°34.8'	310°07.2'	9.8'	N 13°01.2'	8.7'	57.9'
6	113°57.7'	273°33.2'	S 8°35.7'	324°36.0'	9.9'	N 12°52.5'	8.8'	57.9'
7	129°00.2'	288°33.4'	S 8°36.6'	339°04.9'	9.9'	N 12°43.7'	8.8'	57.9'
8	144°02.7'	303°33.5'	S 8°37.6'	353°33.8'	10.0'	N 12°34.9'	8.9'	57.9'
9	159°05.1'	318°33.6'	S 8°38.5'	8°02.8'	10.0'	N 12°26.0'	9.0'	57.9'
10	174°07.6'	333°33.8'	S 8°39.4'	22°31.9'	10.1'	N 12°17.0'	9.0'	57.8'
11	189°10.0'	348°33.9'	S 8°40.3'	37°01.0'	10.2'	N 12°08.0'	9.1'	57.8'
12	204°12.5'	3°34.0'	S 8°41.3'	51°30.2'	10.2'	N 11°58.9'	9.1'	57.8'
13	219°15.0'	18°34.2'	S 8°42.2'	65°59.4'	10.3'	N 11°49.8'	9.2'	57.8'
14	234°17.4'	33°34.3'	S 8°43.1'	80°28.7'	10.3'	N 11°40.6'	9.3'	57.8'
15	249°19.9'	48°34.5'	S 8°44.0'	94°58.0'	10.4'	N 11°31.3'	9.3'	57.7'
16	264°22.4'	63°34.6'	S 8°44.9'	109°27.4'	10.4'	N 11°22.0'	9.4'	57.7'
17	279°24.8'	78°34.7'	S 8°45.9'	123°56.8'	10.5'	N 11°12.6'	9.4'	57.7'
18	294°27.3'	93°34.9'	S 8°46.8'	138°26.3'	10.6'	N 11°03.2'	9.5'	57.7'
19	309°29.8'	108°35.0'	S 8°47.7'	152°55.9'	10.6'	N 10°53.7'	9.5'	57.7'
20	324°32.2'	123°35.1'	S 8°48.6'	167°25.5'	10.7'	N 10°44.1'	9.6'	57.6'
21	339°34.7'	138°35.3'	S 8°49.6'	181°55.2'	10.7'	N 10°34.5'	9.6'	57.6'
22	354°37.2'	153°35.4'	S 8°50.5'	196°24.9'	10.8'	N 10°24.9'	9.7'	57.6'
23	9°39.6'	168°35.5'	S 8°51.4'	210°54.7'	10.8'	N 10°15.2'	9.7'	57.6'

## Mon Oct 16, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	24°42.1'	183°35.7'	S 8°52.3'	225°24.5'	10.9'	N 10°05.4'	9.8'	57.6'
1	39°44.5'	198°35.8'	S 8°53.2'	239°54.4'	10.9'	N 9°55.7'	9.8'	57.5'
2	54°47.0'	213°35.9'	S 8°54.2'	254°24.3'	11.0'	N 9°45.8'	9.9'	57.5'
3	69°49.5'	228°36.1'	S 8°55.1'	268°54.3'	11.0'	N 9°35.9'	9.9'	57.5'
4	84°51.9'	243°36.2'	S 8°56.0'	283°24.3'	11.1'	N 9°26.0'	10.0'	57.5'
5	99°54.4'	258°36.3'	S 8°56.9'	297°54.4'	11.1'	N 9°16.0'	10.0'	57.5'
6	114°56.9'	273°36.5'	S 8°57.8'	312°24.6'	11.2'	N 9°06.0'	10.1'	57.5'
7	129°59.3'	288°36.6'	S 8°58.7'	326°54.7'	11.2'	N 8°56.0'	10.1'	57.4'
8	145°01.8'	303°36.7'	S 8°59.7'	341°25.0'	11.3'	N 8°45.9'	10.1'	57.4'
9	160°04.3'	318°36.9'	S 9°00.6'	355°55.3'	11.3'	N 8°35.7'	10.2'	57.4'
10	175°06.7'	333°37.0'	S 9°01.5'	10°25.6'	11.4'	N 8°25.6'	10.2'	57.4'
11	190°09.2'	348°37.1'	S 9°02.4'	24°56.0'	11.4'	N 8°15.3'	10.2'	57.4'
12	205°11.6'	3°37.3'	S 9°03.3'	39°26.4'	11.5'	N 8°05.1'	10.3'	57.3'
13	220°14.1'	18°37.4'	S 9°04.3'	53°56.9'	11.5'	N 7°54.8'	10.3'	57.3'
14	235°16.6'	33°37.5'	S 9°05.2'	68°27.4'	11.6'	N 7°44.5'	10.4'	57.3'
15	250°19.0'	48°37.6'	S 9°06.1'	82°58.0'	11.6'	N 7°34.1'	10.4'	57.3'
16	265°21.5'	63°37.8'	S 9°07.0'	97°28.6'	11.7'	N 7°23.8'	10.4'	57.3'
17	280°24.0'	78°37.9'	S 9°07.9'	111°59.3'	11.7'	N 7°13.4'	10.4'	57.2'
18	295°26.4'	93°38.0'	S 9°08.8'	126°30.0'	11.8'	N 7°02.9'	10.5'	57.2'
19	310°28.9'	108°38.2'	S 9°09.8'	141°00.7'	11.8'	N 6°52.4'	10.5'	57.2'
20	325°31.4'	123°38.3'	S 9°10.7'	155°31.5'	11.8'	N 6°41.9'	10.5'	57.2'
21	340°33.8'	138°38.4'	S 9°11.6'	170°02.4'	11.9'	N 6°31.4'	10.6'	57.1'
22	355°36.3'	153°38.5'	S 9°12.5'	184°33.2'	11.9'	N 6°20.8'	10.6'	57.1'
23	10°38.8'	168°38.7'	S 9°13.4'	199°04.2'	12.0'	N 6°10.3'	10.6'	57.1'



Tue Oct 17, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 15.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	25°41.2'	183°38.8'	S 9°14.3'	213°35.1'	12.0'	N 5°59.7'	10.6'	57.1'
1	40°43.7'	198°38.9'	S 9°15.2'	228°06.1'	12.0'	N 5°49.0'	10.7'	57.1'
2	55°46.1'	213°39.1'	S 9°16.2'	242°37.2'	12.1'	N 5°38.4'	10.7'	57.0'
3	70°48.6'	228°39.2'	S 9°17.1'	257°08.2'	12.1'	N 5°27.7'	10.7'	57.0'
4	85°51.1'	243°39.3'	S 9°18.0'	271°39.4'	12.2'	N 5°17.0'	10.7'	57.0'
5	100°53.5'	258°39.4'	S 9°18.9'	286°10.5'	12.2'	N 5°06.3'	10.7'	57.0'
6	115°56.0'	273°39.6'	S 9°19.8'	300°41.7'	12.2'	N 4°55.6'	10.8'	57.0'
7	130°58.5'	288°39.7'	S 9°20.7'	315°13.0'	12.3'	N 4°44.8'	10.8'	56.9'
8	146°00.9'	303°39.8'	S 9°21.6'	329°44.2'	12.3'	N 4°34.0'	10.8'	56.9'
9	161°03.4'	318°39.9'	S 9°22.5'	344°15.5'	12.3'	N 4°23.2'	10.8'	56.9'
10	176°05.9'	333°40.1'	S 9°23.5'	358°46.9'	12.4'	N 4°12.5'	10.8'	56.9'
11	191°08.3'	348°40.2'	S 9°24.4'	13°18.3'	12.4'	N 4°01.6'	10.8'	56.9'
12	206°10.8'	3°40.3'	S 9°25.3'	27°49.7'	12.4'	N 3°50.8'	10.8'	56.8'
13	221°13.3'	18°40.4'	S 9°26.2'	42°21.1'	12.5'	N 3°40.0'	10.8'	56.8'
14	236°15.7'	33°40.6'	S 9°27.1'	56°52.6'	12.5'	N 3°29.1'	10.9'	56.8'
15	251°18.2'	48°40.7'	S 9°28.0'	71°24.1'	12.5'	N 3°18.3'	10.9'	56.8'
16	266°20.6'	63°40.8'	S 9°28.9'	85°55.7'	12.6'	N 3°07.4'	10.9'	56.8'
17	281°23.1'	78°40.9'	S 9°29.8'	100°27.2'	12.6'	N 2°56.5'	10.9'	56.7'
18	296°25.6'	93°41.0'	S 9°30.8'	114°58.8'	12.6'	N 2°45.6'	10.9'	56.7'
19	311°28.0'	108°41.2'	S 9°31.7'	129°30.5'	12.7'	N 2°34.8'	10.9'	56.7'
20	326°30.5'	123°41.3'	S 9°32.6'	144°02.1'	12.7'	N 2°23.9'	10.9'	56.7'
21	341°33.0'	138°41.4'	S 9°33.5'	158°33.8'	12.7'	N 2°13.0'	10.9'	56.7'
22	356°35.4'	153°41.5'	S 9°34.4'	173°05.5'	12.8'	N 2°02.1'	10.9'	56.6'
23	11°37.9'	168°41.7'	S 9°35.3'	187°37.3'	12.8'	N 1°51.2'	10.9'	56.6'

Wed Oct 18, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	26°40.4'	183°41.8'	S 9°36.2'	202°09.1'	12.8'	N 1°40.2'	10.9'	56.6'
1	41°42.8'	198°41.9'	S 9°37.1'	216°40.9'	12.8'	N 1°29.3'	10.9'	56.6'
2	56°45.3'	213°42.0'	S 9°38.0'	231°12.7'	12.9'	N 1°18.4'	10.9'	56.6'
3	71°47.7'	228°42.1'	S 9°38.9'	245°44.6'	12.9'	N 1°07.5'	10.9'	56.5'
4	86°50.2'	243°42.3'	S 9°39.8'	260°16.4'	12.9'	N 0°56.6'	10.9'	56.5'
5	101°52.7'	258°42.4'	S 9°40.8'	274°48.4'	12.9'	N 0°45.7'	10.9'	56.5'
6	116°55.1'	273°42.5'	S 9°41.7'	289°20.3'	13.0'	N 0°34.8'	10.9'	56.5'
7	131°57.6'	288°42.6'	S 9°42.6'	303°52.2'	13.0'	N 0°23.9'	10.9'	56.4'
8	147°00.1'	303°42.7'	S 9°43.5'	318°24.2'	13.0'	N 0°13.0'	10.9'	56.4'
9	162°02.5'	318°42.9'	S 9°44.4'	332°56.2'	13.0'	N 0°02.1'	10.9'	56.4'
10	177°05.0'	333°43.0'	S 9°45.3'	347°28.2'	13.0'	S 0°08.7'	10.9'	56.4'
11	192°07.5'	348°43.1'	S 9°46.2'	2°00.3'	13.1'	S 0°19.6'	10.9'	56.4'
12	207°09.9'	3°43.2'	S 9°47.1'	16°32.3'	13.1'	S 0°30.5'	10.9'	56.3'
13	222°12.4'	18°43.3'	S 9°48.0'	31°04.4'	13.1'	S 0°41.3'	10.8'	56.3'
14	237°14.9'	33°43.4'	S 9°48.9'	45°36.5'	13.1'	S 0°52.2'	10.8'	56.3'
15	252°17.3'	48°43.6'	S 9°49.8'	60°08.6'	13.1'	S 1°03.0'	10.8'	56.3'
16	267°19.8'	63°43.7'	S 9°50.7'	74°40.7'	13.2'	S 1°13.8'	10.8'	56.3'
17	282°22.2'	78°43.8'	S 9°51.6'	89°12.9'	13.2'	S 1°24.6'	10.8'	56.2'
18	297°24.7'	93°43.9'	S 9°52.5'	103°45.1'	13.2'	S 1°35.4'	10.8'	56.2'
19	312°27.2'	108°44.0'	S 9°53.4'	118°17.2'	13.2'	S 1°46.2'	10.8'	56.2'
20	327°29.6'	123°44.1'	S 9°54.3'	132°49.4'	13.2'	S 1°56.9'	10.7'	56.2'
21	342°32.1'	138°44.3'	S 9°55.2'	147°21.7'	13.2'	S 2°07.7'	10.7'	56.2'
22	357°34.6'	153°44.4'	S 9°56.1'	161°53.9'	13.2'	S 2°18.4'	10.7'	56.1'
23	12°37.0'	168°44.5'	S 9°57.1'	176°26.1'	13.3'	S 2°29.1'	10.7'	56.1'

Thu Oct 19, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	27°39.5'	183°44.6'	S 9°58.0'	190°58.4'	13.3'	S 2°39.8'	10.7'	56.1'
1	42°42.0'	198°44.7'	S 9°58.9'	205°30.7'	13.3'	S 2°50.5'	10.7'	56.1'
2	57°44.4'	213°44.8'	S 9°59.8'	220°02.9'	13.3'	S 3°01.1'	10.6'	56.1'
3	72°46.9'	228°44.9'	S 10°00.7'	234°35.2'	13.3'	S 3°11.8'	10.6'	56.0'
4	87°49.3'	243°45.1'	S 10°01.6'	249°07.5'	13.3'	S 3°22.4'	10.6'	56.0'
5	102°51.8'	258°45.2'	S 10°02.5'	263°39.9'	13.3'	S 3°32.9'	10.6'	56.0'
6	117°54.3'	273°45.3'	S 10°03.4'	278°12.2'	13.3'	S 3°43.5'	10.5'	56.0'
7	132°56.7'	288°45.4'	S 10°04.3'	292°44.5'	13.3'	S 3°54.0'	10.5'	55.9'
8	147°59.2'	303°45.5'	S 10°05.2'	307°16.9'	13.4'	S 4°04.6'	10.5'	55.9'
9	163°01.7'	318°45.6'	S 10°06.1'	321°49.2'	13.4'	S 4°15.0'	10.5'	55.9'
10	178°04.1'	333°45.7'	S 10°07.0'	336°21.6'	13.4'	S 4°25.5'	10.4'	55.9'
11	193°06.6'	348°45.8'	S 10°07.9'	350°53.9'	13.4'	S 4°35.9'	10.4'	55.9'
12	208°09.1'	3°46.0'	S 10°08.8'	5°26.3'	13.4'	S 4°46.3'	10.4'	55.8'
13	223°11.5'	18°46.1'	S 10°09.7'	19°58.7'	13.4'	S 4°56.7'	10.3'	55.8'
14	238°14.0'	33°46.2'	S 10°10.6'	34°31.1'	13.4'	S 5°07.1'	10.3'	55.8'
15	253°16.5'	48°46.3'	S 10°11.5'	49°03.5'	13.4'	S 5°17.4'	10.3'	55.8'
16	268°18.9'	63°46.4'	S 10°12.4'	63°35.9'	13.4'	S 5°27.7'	10.3'	55.8'
17	283°21.4'	78°46.5'	S 10°13.3'	78°08.3'	13.4'	S 5°37.9'	10.2'	55.7'
18	298°23.8'	93°46.6'	S 10°14.2'	92°40.7'	13.4'	S 5°48.1'	10.2'	55.7'
19	313°26.3'	108°46.7'	S 10°15.1'	107°13.1'	13.4'	S 5°58.3'	10.2'	55.7'
20	328°28.8'	123°46.8'	S 10°16.0'	121°45.5'	13.4'	S 6°08.5'	10.1'	55.7'
21	343°31.2'	138°46.9'	S 10°16.9'	136°18.0'	13.4'	S 6°18.6'	10.1'	55.7'
22	358°33.7'	153°47.1'	S 10°17.8'	150°50.4'	13.4'	S 6°28.7'	10.0'	55.6'
23	13°36.2'	168°47.2'	S 10°18.7'	165°22.8'	13.4'	S 6°38.7'	10.0'	55.6'

Fri Oct 20, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	28°38.6'	183°47.3'	S 10°19.6'	179°55.2'	13.4'	S 6°48.7'	10.0'	55.6'
1	43°41.1'	198°47.4'	S 10°20.5'	194°27.6'	13.4'	S 6°58.7'	9.9'	55.6'
2	58°43.6'	213°47.5'	S 10°21.3'	209°00.1'	13.4'	S 7°08.6'	9.9'	55.6'
3	73°46.0'	228°47.6'	S 10°22.2'	223°32.5'	13.4'	S 7°18.5'	9.9'	55.5'
4	88°48.5'	243°47.7'	S 10°23.1'	238°04.9'	13.4'	S 7°28.4'	9.8'	55.5'
5	103°50.9'	258°47.8'	S 10°24.0'	252°37.4'	13.4'	S 7°38.2'	9.8'	55.5'
6	118°53.4'	273°47.9'	S 10°24.9'	267°09.8'	13.4'	S 7°47.9'	9.7'	55.5'
7	133°55.9'	288°48.0'	S 10°25.8'	281°42.2'	13.4'	S 7°57.7'	9.7'	55.5'
8	148°58.3'	303°48.1'	S 10°26.7'	296°14.6'	13.4'	S 8°07.4'	9.6'	55.4'
9	164°00.8'	318°48.2'	S 10°27.6'	310°47.0'	13.4'	S 8°17.0'	9.6'	55.4'
10	179°03.3'	333°48.3'	S 10°28.5'	325°19.5'	13.4'	S 8°26.6'	9.6'	55.4'
11	194°05.7'	348°48.4'	S 10°29.4'	339°51.9'	13.4'	S 8°36.1'	9.5'	55.4'
12	209°08.2'	3°48.5'	S 10°30.3'	354°24.3'	13.4'	S 8°45.7'	9.5'	55.4'
13	224°10.7'	18°48.7'	S 10°31.2'	8°56.7'	13.4'	S 8°55.1'	9.4'	55.4'
14	239°13.1'	33°48.8'	S 10°32.1'	23°29.1'	13.4'	S 9°04.5'	9.4'	55.3'
15	254°15.6'	48°48.9'	S 10°33.0'	38°01.5'	13.4'	S 9°13.9'	9.3'	55.3'
16	269°18.1'	63°49.0'	S 10°33.9'	52°33.9'	13.4'	S 9°23.2'	9.3'	55.3'
17	284°20.5'	78°49.1'	S 10°34.8'	67°06.3'	13.4'	S 9°32.5'	9.2'	55.3'
18	299°23.0'	93°49.2'	S 10°35.7'	81°38.7'	13.4'	S 9°41.7'	9.2'	55.3'
19	314°25.4'	108°49.3'	S 10°36.5'	96°11.0'	13.4'	S 9°50.9'	9.1'	55.2'
20	329°27.9'	123°49.4'	S 10°37.4'	110°43.4'	13.4'	S 10°00.0'	9.1'	55.2'
21	344°30.4'	138°49.5'	S 10°38.3'	125°15.8'	13.4'	S 10°09.1'	9.0'	55.2'
22	359°32.8'	153°49.6'	S 10°39.2'	139°48.1'	13.3'	S 10°18.1'	9.0'	55.2'
23	14°35.3'	168°49.7'	S 10°40.1'	154°20.5'	13.3'	S 10°27.1'	8.9'	55.2'

## Sat Oct 21, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	29°37.8'	183°49.8'	S 10°41.0'	168°52.8'	13.3'	S 10°36.0'	8.9'	55.1'
1	44°40.2'	198°49.9'	S 10°41.9'	183°25.1'	13.3'	S 10°44.8'	8.8'	55.1'
2	59°42.7'	213°50.0'	S 10°42.8'	197°57.5'	13.3'	S 10°53.7'	8.8'	55.1'
3	74°45.2'	228°50.1'	S 10°43.7'	212°29.8'	13.3'	S 11°02.4'	8.7'	55.1'
4	89°47.6'	243°50.2'	S 10°44.6'	227°02.1'	13.3'	S 11°11.1'	8.6'	55.1'
5	104°50.1'	258°50.3'	S 10°45.5'	241°34.4'	13.3'	S 11°19.7'	8.6'	55.1'
6	119°52.6'	273°50.4'	S 10°46.3'	256°06.7'	13.3'	S 11°28.3'	8.5'	55.0'
7	134°55.0'	288°50.5'	S 10°47.2'	270°39.0'	13.3'	S 11°36.9'	8.5'	55.0'
8	149°57.5'	303°50.6'	S 10°48.1'	285°11.2'	13.3'	S 11°45.3'	8.4'	55.0'
9	164°59.9'	318°50.7'	S 10°49.0'	299°43.5'	13.3'	S 11°53.7'	8.4'	55.0'
10	180°02.4'	333°50.8'	S 10°49.9'	314°15.8'	13.2'	S 12°02.1'	8.3'	55.0'
11	195°04.9'	348°50.9'	S 10°50.8'	328°48.0'	13.2'	S 12°10.4'	8.2'	55.0'
12	210°07.3'	3°51.0'	S 10°51.7'	343°20.2'	13.2'	S 12°18.6'	8.2'	54.9'
13	225°09.8'	18°51.1'	S 10°52.6'	357°52.4'	13.2'	S 12°26.8'	8.1'	54.9'
14	240°12.3'	33°51.2'	S 10°53.4'	12°24.6'	13.2'	S 12°34.9'	8.0'	54.9'
15	255°14.7'	48°51.3'	S 10°54.3'	26°56.8'	13.2'	S 12°42.9'	8.0'	54.9'
16	270°17.2'	63°51.4'	S 10°55.2'	41°29.0'	13.2'	S 12°50.9'	7.9'	54.9'
17	285°19.7'	78°51.5'	S 10°56.1'	56°01.2'	13.2'	S 12°58.9'	7.9'	54.9'
18	300°22.1'	93°51.6'	S 10°57.0'	70°33.4'	13.1'	S 13°06.7'	7.8'	54.8'
19	315°24.6'	108°51.6'	S 10°57.9'	85°05.5'	13.1'	S 13°14.5'	7.7'	54.8'
20	330°27.0'	123°51.7'	S 10°58.8'	99°37.6'	13.1'	S 13°22.2'	7.7'	54.8'
21	345°29.5'	138°51.8'	S 10°59.6'	114°09.8'	13.1'	S 13°29.9'	7.6'	54.8'
22	0°32.0'	153°51.9'	S 11°00.5'	128°41.9'	13.1'	S 13°37.5'	7.5'	54.8'
23	15°34.4'	168°52.0'	S 11°01.4'	143°14.0'	13.1'	S 13°45.1'	7.5'	54.8'

## Sun Oct 22, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	30°36.9'	183°52.1'	S 11°02.3'	157°46.1'	13.1'	S 13°52.5'	7.4'	54.7'
1	45°39.4'	198°52.2'	S 11°03.2'	172°18.1'	13.1'	S 13°59.9'	7.3'	54.7'
2	60°41.8'	213°52.3'	S 11°04.1'	186°50.2'	13.0'	S 14°07.3'	7.3'	54.7'
3	75°44.3'	228°52.4'	S 11°04.9'	201°22.2'	13.0'	S 14°14.5'	7.2'	54.7'
4	90°46.8'	243°52.5'	S 11°05.8'	215°54.3'	13.0'	S 14°21.7'	7.1'	54.7'
5	105°49.2'	258°52.6'	S 11°06.7'	230°26.3'	13.0'	S 14°28.9'	7.1'	54.7'
6	120°51.7'	273°52.7'	S 11°07.6'	244°58.3'	13.0'	S 14°35.9'	7.0'	54.7'
7	135°54.2'	288°52.8'	S 11°08.5'	259°30.3'	13.0'	S 14°42.9'	6.9'	54.6'
8	150°56.6'	303°52.9'	S 11°09.4'	274°02.3'	13.0'	S 14°49.8'	6.9'	54.6'
9	165°59.1'	318°53.0'	S 11°10.2'	288°34.2'	12.9'	S 14°56.7'	6.8'	54.6'
10	181°01.5'	333°53.1'	S 11°11.1'	303°06.2'	12.9'	S 15°03.5'	6.7'	54.6'
11	196°04.0'	348°53.1'	S 11°12.0'	317°38.1'	12.9'	S 15°10.2'	6.6'	54.6'
12	211°06.5'	3°53.2'	S 11°12.9'	332°10.0'	12.9'	S 15°16.8'	6.6'	54.6'
13	226°08.9'	18°53.3'	S 11°13.8'	346°41.9'	12.9'	S 15°23.4'	6.5'	54.6'
14	241°11.4'	33°53.4'	S 11°14.6'	1°13.8'	12.9'	S 15°29.9'	6.4'	54.5'
15	256°13.9'	48°53.5'	S 11°15.5'	15°45.7'	12.9'	S 15°36.3'	6.3'	54.5'
16	271°16.3'	63°53.6'	S 11°16.4'	30°17.6'	12.8'	S 15°42.6'	6.3'	54.5'
17	286°18.8'	78°53.7'	S 11°17.3'	44°49.4'	12.8'	S 15°48.9'	6.2'	54.5'
18	301°21.3'	93°53.8'	S 11°18.2'	59°21.3'	12.8'	S 15°55.1'	6.1'	54.5'
19	316°23.7'	108°53.9'	S 11°19.0'	73°53.1'	12.8'	S 16°01.2'	6.0'	54.5'
20	331°26.2'	123°54.0'	S 11°19.9'	88°24.9'	12.8'	S 16°07.3'	6.0'	54.5'
21	346°28.7'	138°54.0'	S 11°20.8'	102°56.7'	12.8'	S 16°13.2'	5.9'	54.5'
22	1°31.1'	153°54.1'	S 11°21.7'	117°28.5'	12.8'	S 16°19.1'	5.8'	54.4'
23	16°33.6'	168°54.2'	S 11°22.5'	132°00.2'	12.7'	S 16°24.9'	5.7'	54.4'

Mon Oct 23, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	31°36.0'	183°54.3'	S 11°23.4'	146°32.0'	12.7'	S 16°30.7'	5.7'	54.4'
1	46°38.5'	198°54.4'	S 11°24.3'	161°03.7'	12.7'	S 16°36.3'	5.6'	54.4'
2	61°41.0'	213°54.5'	S 11°25.2'	175°35.4'	12.7'	S 16°41.9'	5.5'	54.4'
3	76°43.4'	228°54.6'	S 11°26.0'	190°07.1'	12.7'	S 16°47.4'	5.4'	54.4'
4	91°45.9'	243°54.6'	S 11°26.9'	204°38.8'	12.7'	S 16°52.9'	5.3'	54.4'
5	106°48.4'	258°54.7'	S 11°27.8'	219°10.5'	12.7'	S 16°58.2'	5.3'	54.4'
6	121°50.8'	273°54.8'	S 11°28.7'	233°42.1'	12.6'	S 17°03.5'	5.2'	54.4'
7	136°53.3'	288°54.9'	S 11°29.5'	248°13.8'	12.6'	S 17°08.7'	5.1'	54.3'
8	151°55.8'	303°55.0'	S 11°30.4'	262°45.4'	12.6'	S 17°13.8'	5.0'	54.3'
9	166°58.2'	318°55.1'	S 11°31.3'	277°17.0'	12.6'	S 17°18.8'	4.9'	54.3'
10	182°00.7'	333°55.2'	S 11°32.2'	291°48.7'	12.6'	S 17°23.8'	4.9'	54.3'
11	197°03.1'	348°55.2'	S 11°33.0'	306°20.2'	12.6'	S 17°28.6'	4.8'	54.3'
12	212°05.6'	3°55.3'	S 11°33.9'	320°51.8'	12.6'	S 17°33.4'	4.7'	54.3'
13	227°08.1'	18°55.4'	S 11°34.8'	335°23.4'	12.6'	S 17°38.1'	4.6'	54.3'
14	242°10.5'	33°55.5'	S 11°35.7'	349°54.9'	12.5'	S 17°42.7'	4.5'	54.3'
15	257°13.0'	48°55.6'	S 11°36.5'	4°26.5'	12.5'	S 17°47.3'	4.5'	54.3'
16	272°15.5'	63°55.7'	S 11°37.4'	18°58.0'	12.5'	S 17°51.7'	4.4'	54.3'
17	287°17.9'	78°55.7'	S 11°38.3'	33°29.5'	12.5'	S 17°56.1'	4.3'	54.3'
18	302°20.4'	93°55.8'	S 11°39.1'	48°01.0'	12.5'	S 18°00.4'	4.2'	54.2'
19	317°22.9'	108°55.9'	S 11°40.0'	62°32.5'	12.5'	S 18°04.6'	4.1'	54.2'
20	332°25.3'	123°56.0'	S 11°40.9'	77°04.0'	12.5'	S 18°08.7'	4.0'	54.2'
21	347°27.8'	138°56.1'	S 11°41.8'	91°35.4'	12.4'	S 18°12.8'	4.0'	54.2'
22	2°30.3'	153°56.2'	S 11°42.6'	106°06.9'	12.4'	S 18°16.7'	3.9'	54.2'
23	17°32.7'	168°56.2'	S 11°43.5'	120°38.3'	12.4'	S 18°20.6'	3.8'	54.2'

Tue Oct 24, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	32°35.2'	183°56.3'	S 11°44.4'	135°09.7'	12.4'	S 18°24.4'	3.7'	54.2'
1	47°37.6'	198°56.4'	S 11°45.2'	149°41.1'	12.4'	S 18°28.1'	3.6'	54.2'
2	62°40.1'	213°56.5'	S 11°46.1'	164°12.5'	12.4'	S 18°31.7'	3.5'	54.2'
3	77°42.6'	228°56.6'	S 11°47.0'	178°43.9'	12.4'	S 18°35.3'	3.4'	54.2'
4	92°45.0'	243°56.6'	S 11°47.8'	193°15.3'	12.4'	S 18°38.7'	3.4'	54.2'
5	107°47.5'	258°56.7'	S 11°48.7'	207°46.7'	12.4'	S 18°42.1'	3.3'	54.2'
6	122°50.0'	273°56.8'	S 11°49.6'	222°18.0'	12.3'	S 18°45.3'	3.2'	54.2'
7	137°52.4'	288°56.9'	S 11°50.4'	236°49.4'	12.3'	S 18°48.5'	3.1'	54.2'
8	152°54.9'	303°56.9'	S 11°51.3'	251°20.7'	12.3'	S 18°51.6'	3.0'	54.2'
9	167°57.4'	318°57.0'	S 11°52.2'	265°52.0'	12.3'	S 18°54.6'	2.9'	54.2'
10	182°59.8'	333°57.1'	S 11°53.0'	280°23.3'	12.3'	S 18°57.6'	2.8'	54.1'
11	198°02.3'	348°57.2'	S 11°53.9'	294°54.6'	12.3'	S 19°00.4'	2.8'	54.1'
12	213°04.8'	3°57.3'	S 11°54.8'	309°25.9'	12.3'	S 19°03.2'	2.7'	54.1'
13	228°07.2'	18°57.3'	S 11°55.6'	323°57.2'	12.3'	S 19°05.8'	2.6'	54.1'
14	243°09.7'	33°57.4'	S 11°56.5'	338°28.4'	12.3'	S 19°08.4'	2.5'	54.1'
15	258°12.1'	48°57.5'	S 11°57.4'	352°59.7'	12.2'	S 19°10.9'	2.4'	54.1'
16	273°14.6'	63°57.6'	S 11°58.2'	7°30.9'	12.2'	S 19°13.3'	2.3'	54.1'
17	288°17.1'	78°57.6'	S 11°59.1'	22°02.2'	12.2'	S 19°15.6'	2.2'	54.1'
18	303°19.5'	93°57.7'	S 11°60.0'	36°33.4'	12.2'	S 19°17.8'	2.1'	54.1'
19	318°22.0'	108°57.8'	S 12°00.8'	51°04.6'	12.2'	S 19°20.0'	2.0'	54.1'
20	333°24.5'	123°57.9'	S 12°01.7'	65°35.9'	12.2'	S 19°22.0'	2.0'	54.1'
21	348°26.9'	138°57.9'	S 12°02.6'	80°07.1'	12.2'	S 19°24.0'	1.9'	54.1'
22	3°29.4'	153°58.0'	S 12°03.4'	94°38.3'	12.2'	S 19°25.9'	1.8'	54.1'
23	18°31.9'	168°58.1'	S 12°04.3'	109°09.5'	12.2'	S 19°27.6'	1.7'	54.1'

Wed Oct 25, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	33°34.3'	183°58.1'	S 12°05.1'	123°40.6'	12.2'	S 19°29.3'	1.6'	54.1'
1	48°36.8'	198°58.2'	S 12°06.0'	138°11.8'	12.2'	S 19°30.9'	1.5'	54.1'
2	63°39.2'	213°58.3'	S 12°06.9'	152°43.0'	12.2'	S 19°32.4'	1.4'	54.1'
3	78°41.7'	228°58.4'	S 12°07.7'	167°14.1'	12.2'	S 19°33.9'	1.3'	54.1'
4	93°44.2'	243°58.4'	S 12°08.6'	181°45.3'	12.1'	S 19°35.2'	1.2'	54.1'
5	108°46.6'	258°58.5'	S 12°09.5'	196°16.4'	12.1'	S 19°36.4'	1.2'	54.1'
6	123°49.1'	273°58.6'	S 12°10.3'	210°47.6'	12.1'	S 19°37.6'	1.1'	54.1'
7	138°51.6'	288°58.7'	S 12°11.2'	225°18.7'	12.1'	S 19°38.7'	1.0'	54.1'
8	153°54.0'	303°58.7'	S 12°12.0'	239°49.9'	12.1'	S 19°39.6'	0.9'	54.1'
9	168°56.5'	318°58.8'	S 12°12.9'	254°21.0'	12.1'	S 19°40.5'	0.8'	54.1'
10	183°59.0'	333°58.9'	S 12°13.7'	268°52.1'	12.1'	S 19°41.3'	0.7'	54.1'
11	199°01.4'	348°58.9'	S 12°14.6'	283°23.2'	12.1'	S 19°42.0'	0.6'	54.1'
12	214°03.9'	3°59.0'	S 12°15.5'	297°54.3'	12.1'	S 19°42.6'	0.5'	54.1'
13	229°06.4'	18°59.1'	S 12°16.3'	312°25.4'	12.1'	S 19°43.1'	0.4'	54.1'
14	244°08.8'	33°59.1'	S 12°17.2'	326°56.5'	12.1'	S 19°43.6'	0.3'	54.1'
15	259°11.3'	48°59.2'	S 12°18.0'	341°27.6'	12.1'	S 19°43.9'	0.2'	54.1'
16	274°13.7'	63°59.3'	S 12°18.9'	355°58.7'	12.1'	S 19°44.2'	0.2'	54.1'
17	289°16.2'	78°59.3'	S 12°19.7'	10°29.8'	12.1'	S 19°44.3'	0.1'	54.2'
18	304°18.7'	93°59.4'	S 12°20.6'	25°00.9'	12.1'	S 19°44.4'	0.0'	54.2'
19	319°21.1'	108°59.5'	S 12°21.5'	39°32.0'	12.1'	S 19°44.4'	0.1'	54.2'
20	334°23.6'	123°59.5'	S 12°22.3'	54°03.1'	12.1'	S 19°44.2'	0.2'	54.2'
21	349°26.1'	138°59.6'	S 12°23.2'	68°34.2'	12.1'	S 19°44.0'	0.3'	54.2'
22	4°28.5'	153°59.7'	S 12°24.0'	83°05.2'	12.1'	S 19°43.7'	0.4'	54.2'
23	19°31.0'	168°59.7'	S 12°24.9'	97°36.3'	12.1'	S 19°43.3'	0.5'	54.2'

Thu Oct 26, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	34°33.5'	183°59.8'	S 12°25.7'	112°07.4'	12.1'	S 19°42.9'	0.6'	54.2'
1	49°35.9'	198°59.9'	S 12°26.6'	126°38.5'	12.1'	S 19°42.3'	0.7'	54.2'
2	64°38.4'	213°59.9'	S 12°27.4'	141°09.5'	12.1'	S 19°41.6'	0.8'	54.2'
3	79°40.9'	229°00.0'	S 12°28.3'	155°40.6'	12.1'	S 19°40.9'	0.8'	54.2'
4	94°43.3'	244°00.1'	S 12°29.1'	170°11.7'	12.1'	S 19°40.0'	0.9'	54.2'
5	109°45.8'	259°00.1'	S 12°30.0'	184°42.7'	12.1'	S 19°39.1'	1.0'	54.2'
6	124°48.2'	274°00.2'	S 12°30.9'	199°13.8'	12.1'	S 19°38.1'	1.1'	54.2'
7	139°50.7'	289°00.3'	S 12°31.7'	213°44.9'	12.1'	S 19°37.0'	1.2'	54.2'
8	154°53.2'	304°00.3'	S 12°32.6'	228°15.9'	12.1'	S 19°35.8'	1.3'	54.2'
9	169°55.6'	319°00.4'	S 12°33.4'	242°47.0'	12.1'	S 19°34.5'	1.4'	54.3'
10	184°58.1'	334°00.4'	S 12°34.3'	257°18.1'	12.1'	S 19°33.1'	1.5'	54.3'
11	200°00.6'	349°00.5'	S 12°35.1'	271°49.1'	12.1'	S 19°31.6'	1.6'	54.3'
12	215°03.0'	4°00.6'	S 12°36.0'	286°20.2'	12.1'	S 19°30.0'	1.7'	54.3'
13	230°05.5'	19°00.6'	S 12°36.8'	300°51.3'	12.1'	S 19°28.4'	1.8'	54.3'
14	245°08.0'	34°00.7'	S 12°37.7'	315°22.3'	12.1'	S 19°26.6'	1.8'	54.3'
15	260°10.4'	49°00.8'	S 12°38.5'	329°53.4'	12.1'	S 19°24.8'	1.9'	54.3'
16	275°12.9'	64°00.8'	S 12°39.4'	344°24.5'	12.1'	S 19°22.8'	2.0'	54.3'
17	290°15.4'	79°00.9'	S 12°40.2'	358°55.5'	12.1'	S 19°20.8'	2.1'	54.3'
18	305°17.8'	94°00.9'	S 12°41.0'	13°26.6'	12.1'	S 19°18.7'	2.2'	54.4'
19	320°20.3'	109°01.0'	S 12°41.9'	27°57.7'	12.1'	S 19°16.5'	2.3'	54.4'
20	335°22.7'	124°01.1'	S 12°42.7'	42°28.8'	12.1'	S 19°14.2'	2.4'	54.4'
21	350°25.2'	139°01.1'	S 12°43.6'	56°59.9'	12.1'	S 19°11.8'	2.5'	54.4'
22	5°27.7'	154°01.2'	S 12°44.4'	71°30.9'	12.1'	S 19°09.4'	2.6'	54.4'
23	20°30.1'	169°01.2'	S 12°45.3'	86°02.0'	12.1'	S 19°06.8'	2.7'	54.4'

Fri Oct 27, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	35°32.6'	184°01.3'	S 12°46.1'	100°33.1'	12.1'	S 19°04.2'	2.7'	54.4'
1	50°35.1'	199°01.3'	S 12°47.0'	115°04.2'	12.1'	S 19°01.4'	2.8'	54.4'
2	65°37.5'	214°01.4'	S 12°47.8'	129°35.3'	12.1'	S 18°58.6'	2.9'	54.5'
3	80°40.0'	229°01.5'	S 12°48.7'	144°06.4'	12.1'	S 18°55.7'	3.0'	54.5'
4	95°42.5'	244°01.5'	S 12°49.5'	158°37.5'	12.1'	S 18°52.7'	3.1'	54.5'
5	110°44.9'	259°01.6'	S 12°50.4'	173°08.6'	12.1'	S 18°49.6'	3.2'	54.5'
6	125°47.4'	274°01.6'	S 12°51.2'	187°39.7'	12.1'	S 18°46.4'	3.3'	54.5'
7	140°49.8'	289°01.7'	S 12°52.0'	202°10.8'	12.1'	S 18°43.1'	3.4'	54.5'
8	155°52.3'	304°01.7'	S 12°52.9'	216°41.9'	12.1'	S 18°39.7'	3.5'	54.5'
9	170°54.8'	319°01.8'	S 12°53.7'	231°13.1'	12.1'	S 18°36.3'	3.5'	54.6'
10	185°57.2'	334°01.9'	S 12°54.6'	245°44.2'	12.1'	S 18°32.7'	3.6'	54.6'
11	200°59.7'	349°01.9'	S 12°55.4'	260°15.3'	12.1'	S 18°29.1'	3.7'	54.6'
12	216°02.2'	4°02.0'	S 12°56.3'	274°46.4'	12.1'	S 18°25.4'	3.8'	54.6'
13	231°04.6'	19°02.0'	S 12°57.1'	289°17.6'	12.1'	S 18°21.6'	3.9'	54.6'
14	246°07.1'	34°02.1'	S 12°57.9'	303°48.7'	12.1'	S 18°17.7'	4.0'	54.6'
15	261°09.6'	49°02.1'	S 12°58.8'	318°19.9'	12.1'	S 18°13.7'	4.1'	54.7'
16	276°12.0'	64°02.2'	S 12°59.6'	332°51.0'	12.2'	S 18°09.6'	4.2'	54.7'
17	291°14.5'	79°02.2'	S 13°00.5'	347°22.2'	12.2'	S 18°05.5'	4.2'	54.7'
18	306°17.0'	94°02.3'	S 13°01.3'	1°53.3'	12.2'	S 18°01.2'	4.3'	54.7'
19	321°19.4'	109°02.3'	S 13°02.1'	16°24.5'	12.2'	S 17°56.9'	4.4'	54.7'
20	336°21.9'	124°02.4'	S 13°03.0'	30°55.7'	12.2'	S 17°52.5'	4.5'	54.8'
21	351°24.3'	139°02.4'	S 13°03.8'	45°26.8'	12.2'	S 17°48.0'	4.6'	54.8'
22	6°26.8'	154°02.5'	S 13°04.7'	59°58.0'	12.2'	S 17°43.4'	4.7'	54.8'
23	21°29.3'	169°02.5'	S 13°05.5'	74°29.2'	12.2'	S 17°38.7'	4.8'	54.8'

Sat Oct 28, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	36°31.7'	184°02.6'	S 13°06.3'	89°00.4'	12.2'	S 17°34.0'	4.8'	54.8'
1	51°34.2'	199°02.6'	S 13°07.2'	103°31.5'	12.2'	S 17°29.1'	4.9'	54.9'
2	66°36.7'	214°02.7'	S 13°08.0'	118°02.7'	12.2'	S 17°24.2'	5.0'	54.9'
3	81°39.1'	229°02.7'	S 13°08.8'	132°33.9'	12.2'	S 17°19.2'	5.1'	54.9'
4	96°41.6'	244°02.8'	S 13°09.7'	147°05.1'	12.2'	S 17°14.1'	5.2'	54.9'
5	111°44.1'	259°02.8'	S 13°10.5'	161°36.3'	12.2'	S 17°08.9'	5.3'	54.9'
6	126°46.5'	274°02.9'	S 13°11.3'	176°07.6'	12.2'	S 17°03.6'	5.4'	55.0'
7	141°49.0'	289°02.9'	S 13°12.2'	190°38.8'	12.2'	S 16°58.3'	5.4'	55.0'
8	156°51.5'	304°03.0'	S 13°13.0'	205°10.0'	12.2'	S 16°52.9'	5.5'	55.0'
9	171°53.9'	319°03.0'	S 13°13.8'	219°41.2'	12.2'	S 16°47.3'	5.6'	55.0'
10	186°56.4'	334°03.1'	S 13°14.7'	234°12.4'	12.2'	S 16°41.7'	5.7'	55.1'
11	201°58.8'	349°03.1'	S 13°15.5'	248°43.7'	12.2'	S 16°36.1'	5.8'	55.1'
12	217°01.3'	4°03.2'	S 13°16.3'	263°14.9'	12.2'	S 16°30.3'	5.9'	55.1'
13	232°03.8'	19°03.2'	S 13°17.2'	277°46.1'	12.2'	S 16°24.4'	5.9'	55.1'
14	247°06.2'	34°03.3'	S 13°18.0'	292°17.4'	12.2'	S 16°18.5'	6.0'	55.1'
15	262°08.7'	49°03.3'	S 13°18.8'	306°48.6'	12.2'	S 16°12.5'	6.1'	55.2'
16	277°11.2'	64°03.4'	S 13°19.7'	321°19.9'	12.3'	S 16°06.4'	6.2'	55.2'
17	292°13.6'	79°03.4'	S 13°20.5'	335°51.1'	12.3'	S 16°00.2'	6.3'	55.2'
18	307°16.1'	94°03.4'	S 13°21.3'	350°22.4'	12.3'	S 15°54.0'	6.3'	55.2'
19	322°18.6'	109°03.5'	S 13°22.2'	4°53.7'	12.3'	S 15°47.6'	6.4'	55.3'
20	337°21.0'	124°03.5'	S 13°23.0'	19°24.9'	12.3'	S 15°41.2'	6.5'	55.3'
21	352°23.5'	139°03.6'	S 13°23.8'	33°56.2'	12.3'	S 15°34.7'	6.6'	55.3'
22	7°25.9'	154°03.6'	S 13°24.7'	48°27.4'	12.3'	S 15°28.1'	6.7'	55.4'
23	22°28.4'	169°03.7'	S 13°25.5'	62°58.7'	12.3'	S 15°21.5'	6.7'	55.4'

## Sun Oct 29, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	37°30.9'	184°03.7'	S 13°26.3'	77°30.0'	12.3'	S 15°14.7'	6.8'	55.4'
1	52°33.3'	199°03.8'	S 13°27.1'	92°01.3'	12.3'	S 15°07.9'	6.9'	55.4'
2	67°35.8'	214°03.8'	S 13°28.0'	106°32.5'	12.3'	S 15°01.0'	7.0'	55.5'
3	82°38.3'	229°03.8'	S 13°28.8'	121°03.8'	12.3'	S 14°54.0'	7.0'	55.5'
4	97°40.7'	244°03.9'	S 13°29.6'	135°35.1'	12.3'	S 14°47.0'	7.1'	55.5'
5	112°43.2'	259°03.9'	S 13°30.5'	150°06.4'	12.3'	S 14°39.9'	7.2'	55.5'
6	127°45.7'	274°04.0'	S 13°31.3'	164°37.7'	12.3'	S 14°32.7'	7.3'	55.6'
7	142°48.1'	289°04.0'	S 13°32.1'	179°08.9'	12.3'	S 14°25.4'	7.4'	55.6'
8	157°50.6'	304°04.0'	S 13°32.9'	193°40.2'	12.3'	S 14°18.0'	7.4'	55.6'
9	172°53.1'	319°04.1'	S 13°33.8'	208°11.5'	12.3'	S 14°10.6'	7.5'	55.7'
10	187°55.5'	334°04.1'	S 13°34.6'	222°42.8'	12.3'	S 14°03.1'	7.6'	55.7'
11	202°58.0'	349°04.2'	S 13°35.4'	237°14.1'	12.3'	S 13°55.5'	7.7'	55.7'
12	218°00.4'	4°04.2'	S 13°36.2'	251°45.4'	12.3'	S 13°47.8'	7.7'	55.8'
13	233°02.9'	19°04.2'	S 13°37.1'	266°16.7'	12.3'	S 13°40.1'	7.8'	55.8'
14	248°05.4'	34°04.3'	S 13°37.9'	280°47.9'	12.3'	S 13°32.3'	7.9'	55.8'
15	263°07.8'	49°04.3'	S 13°38.7'	295°19.2'	12.3'	S 13°24.4'	8.0'	55.8'
16	278°10.3'	64°04.3'	S 13°39.5'	309°50.5'	12.3'	S 13°16.5'	8.0'	55.9'
17	293°12.8'	79°04.4'	S 13°40.3'	324°21.8'	12.3'	S 13°08.4'	8.1'	55.9'
18	308°15.2'	94°04.4'	S 13°41.2'	338°53.1'	12.3'	S 13°00.4'	8.2'	55.9'
19	323°17.7'	109°04.5'	S 13°42.0'	353°24.3'	12.3'	S 12°52.2'	8.2'	56.0'
20	338°20.2'	124°04.5'	S 13°42.8'	7°55.6'	12.3'	S 12°43.9'	8.3'	56.0'
21	353°22.6'	139°04.5'	S 13°43.6'	22°26.9'	12.3'	S 12°35.6'	8.4'	56.0'
22	8°25.1'	154°04.6'	S 13°44.5'	36°58.1'	12.3'	S 12°27.2'	8.5'	56.1'
23	23°27.6'	169°04.6'	S 13°45.3'	51°29.4'	12.3'	S 12°18.8'	8.5'	56.1'

## Mon Oct 30, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	38°30.0'	184°04.6'	S 13°46.1'	66°00.7'	12.3'	S 12°10.3'	8.6'	56.1'
1	53°32.5'	199°04.7'	S 13°46.9'	80°31.9'	12.2'	S 12°01.7'	8.7'	56.2'
2	68°34.9'	214°04.7'	S 13°47.7'	95°03.2'	12.2'	S 11°53.0'	8.7'	56.2'
3	83°37.4'	229°04.7'	S 13°48.6'	109°34.4'	12.2'	S 11°44.3'	8.8'	56.2'
4	98°39.9'	244°04.8'	S 13°49.4'	124°05.6'	12.2'	S 11°35.5'	8.9'	56.3'
5	113°42.3'	259°04.8'	S 13°50.2'	138°36.9'	12.2'	S 11°26.6'	8.9'	56.3'
6	128°44.8'	274°04.8'	S 13°51.0'	153°08.1'	12.2'	S 11°17.7'	9.0'	56.3'
7	143°47.3'	289°04.9'	S 13°51.8'	167°39.3'	12.2'	S 11°08.7'	9.1'	56.4'
8	158°49.7'	304°04.9'	S 13°52.6'	182°10.5'	12.2'	S 10°59.7'	9.1'	56.4'
9	173°52.2'	319°04.9'	S 13°53.5'	196°41.7'	12.2'	S 10°50.5'	9.2'	56.4'
10	188°54.7'	334°05.0'	S 13°54.3'	211°12.9'	12.2'	S 10°41.4'	9.3'	56.5'
11	203°57.1'	349°05.0'	S 13°55.1'	225°44.1'	12.2'	S 10°32.1'	9.3'	56.5'
12	218°59.6'	4°05.0'	S 13°55.9'	240°15.3'	12.2'	S 10°22.8'	9.4'	56.5'
13	234°02.0'	19°05.1'	S 13°56.7'	254°46.4'	12.2'	S 10°13.4'	9.4'	56.6'
14	249°04.5'	34°05.1'	S 13°57.5'	269°17.6'	12.1'	S 10°04.0'	9.5'	56.6'
15	264°07.0'	49°05.1'	S 13°58.3'	283°48.7'	12.1'	S 9°54.5'	9.6'	56.6'
16	279°09.4'	64°05.2'	S 13°59.2'	298°19.9'	12.1'	S 9°44.9'	9.6'	56.7'
17	294°11.9'	79°05.2'	S 13°60.0'	312°51.0'	12.1'	S 9°35.3'	9.7'	56.7'
18	309°14.4'	94°05.2'	S 14°00.8'	327°22.1'	12.1'	S 9°25.6'	9.7'	56.7'
19	324°16.8'	109°05.2'	S 14°01.6'	341°53.2'	12.1'	S 9°15.8'	9.8'	56.8'
20	339°19.3'	124°05.3'	S 14°02.4'	356°24.3'	12.1'	S 9°06.0'	9.9'	56.8'
21	354°21.8'	139°05.3'	S 14°03.2'	10°55.4'	12.1'	S 8°56.2'	9.9'	56.9'
22	9°24.2'	154°05.3'	S 14°04.0'	25°26.5'	12.0'	S 8°46.3'	10.0'	56.9'
23	24°26.7'	169°05.3'	S 14°04.8'	39°57.5'	12.0'	S 8°36.3'	10.0'	56.9'

Tue Oct 31, 2017 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 15.6'				
		GHA	dec	GHA	v	dec	d	HP
0	39°29.2'	184°05.4'	S 14°05.7'	54°28.5'	12.0'	S 8°26.3'	10.1'	57.0'
1	54°31.6'	199°05.4'	S 14°06.5'	68°59.6'	12.0'	S 8°16.2'	10.1'	57.0'
2	69°34.1'	214°05.4'	S 14°07.3'	83°30.6'	12.0'	S 8°06.0'	10.2'	57.0'
3	84°36.5'	229°05.5'	S 14°08.1'	98°01.6'	12.0'	S 7°55.8'	10.2'	57.1'
4	99°39.0'	244°05.5'	S 14°08.9'	112°32.5'	12.0'	S 7°45.6'	10.3'	57.1'
5	114°41.5'	259°05.5'	S 14°09.7'	127°03.5'	11.9'	S 7°35.3'	10.4'	57.1'
6	129°43.9'	274°05.5'	S 14°10.5'	141°34.4'	11.9'	S 7°24.9'	10.4'	57.2'
7	144°46.4'	289°05.6'	S 14°11.3'	156°05.3'	11.9'	S 7°14.5'	10.5'	57.2'
8	159°48.9'	304°05.6'	S 14°12.1'	170°36.2'	11.9'	S 7°04.1'	10.5'	57.3'
9	174°51.3'	319°05.6'	S 14°12.9'	185°07.1'	11.9'	S 6°53.6'	10.6'	57.3'
10	189°53.8'	334°05.6'	S 14°13.7'	199°38.0'	11.8'	S 6°43.0'	10.6'	57.3'
11	204°56.3'	349°05.7'	S 14°14.5'	214°08.8'	11.8'	S 6°32.4'	10.7'	57.4'
12	219°58.7'	4°05.7'	S 14°15.3'	228°39.6'	11.8'	S 6°21.8'	10.7'	57.4'
13	235°01.2'	19°05.7'	S 14°16.2'	243°10.4'	11.8'	S 6°11.1'	10.7'	57.4'
14	250°03.7'	34°05.7'	S 14°17.0'	257°41.2'	11.8'	S 6°00.3'	10.8'	57.5'
15	265°06.1'	49°05.7'	S 14°17.8'	272°12.0'	11.7'	S 5°49.5'	10.8'	57.5'
16	280°08.6'	64°05.8'	S 14°18.6'	286°42.7'	11.7'	S 5°38.7'	10.9'	57.6'
17	295°11.0'	79°05.8'	S 14°19.4'	301°13.4'	11.7'	S 5°27.8'	10.9'	57.6'
18	310°13.5'	94°05.8'	S 14°20.2'	315°44.1'	11.7'	S 5°16.9'	11.0'	57.6'
19	325°16.0'	109°05.8'	S 14°21.0'	330°14.7'	11.6'	S 5°05.9'	11.0'	57.7'
20	340°18.4'	124°05.8'	S 14°21.8'	344°45.4'	11.6'	S 4°54.9'	11.0'	57.7'
21	355°20.9'	139°05.9'	S 14°22.6'	359°16.0'	11.6'	S 4°43.9'	11.1'	57.7'
22	10°23.4'	154°05.9'	S 14°23.4'	13°46.5'	11.5'	S 4°32.8'	11.1'	57.8'
23	25°25.8'	169°05.9'	S 14°24.2'	28°17.1'	11.5'	S 4°21.6'	11.2'	57.8'