

Sun Oct 1, 2017 UTC

UTC	Venus -3.8 v = -0.4' d = 1.1'		Jupiter -1.5 v = 2.0' d = 0.2'		Saturn +0.5 v = 2.3' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°42.5'	N 7°41.4'	163°34.0'	S 9°46.6'	108°17.7'	S 22°08.5'	202°07.6'	N 6°30.7'
1	219°42.1'	N 7°40.3'	178°36.0'	S 9°46.8'	123°20.0'	S 22°08.5'	217°08.6'	N 6°30.0'
2	234°41.7'	N 7°39.2'	193°38.0'	S 9°47.0'	138°22.3'	S 22°08.5'	232°09.6'	N 6°29.4'
3	249°41.2'	N 7°38.1'	208°39.9'	S 9°47.2'	153°24.6'	S 22°08.5'	247°10.6'	N 6°28.8'
4	264°40.8'	N 7°36.9'	223°41.9'	S 9°47.4'	168°26.9'	S 22°08.6'	262°11.6'	N 6°28.2'
5	279°40.4'	N 7°35.8'	238°43.9'	S 9°47.6'	183°29.2'	S 22°08.6'	277°12.6'	N 6°27.6'
6	294°40.0'	N 7°34.7'	253°45.8'	S 9°47.8'	198°31.5'	S 22°08.6'	292°13.6'	N 6°27.0'
7	309°39.5'	N 7°33.5'	268°47.8'	S 9°48.0'	213°33.8'	S 22°08.6'	307°14.6'	N 6°26.3'
8	324°39.1'	N 7°32.4'	283°49.8'	S 9°48.2'	228°36.1'	S 22°08.6'	322°15.6'	N 6°25.7'
9	339°38.7'	N 7°31.3'	298°51.7'	S 9°48.4'	243°38.5'	S 22°08.6'	337°16.6'	N 6°25.1'
10	354°38.3'	N 7°30.2'	313°53.7'	S 9°48.6'	258°40.8'	S 22°08.6'	352°17.6'	N 6°24.5'
11	9°37.9'	N 7°29.0'	328°55.7'	S 9°48.7'	273°43.1'	S 22°08.7'	7°18.6'	N 6°23.9'
12	24°37.4'	N 7°27.9'	343°57.6'	S 9°48.9'	288°45.4'	S 22°08.7'	22°19.6'	N 6°23.3'
13	39°37.0'	N 7°26.8'	358°59.6'	S 9°49.1'	303°47.7'	S 22°08.7'	37°20.6'	N 6°22.6'
14	54°36.6'	N 7°25.7'	14°01.6'	S 9°49.3'	318°50.0'	S 22°08.7'	52°21.6'	N 6°22.0'
15	69°36.2'	N 7°24.5'	29°03.5'	S 9°49.5'	333°52.3'	S 22°08.7'	67°22.6'	N 6°21.4'
16	84°35.8'	N 7°23.4'	44°05.5'	S 9°49.7'	348°54.6'	S 22°08.7'	82°23.6'	N 6°20.8'
17	99°35.3'	N 7°22.3'	59°07.5'	S 9°49.9'	3°56.9'	S 22°08.8'	97°24.6'	N 6°20.2'
18	114°34.9'	N 7°21.1'	74°09.4'	S 9°50.1'	18°59.2'	S 22°08.8'	112°25.6'	N 6°19.6'
19	129°34.5'	N 7°20.0'	89°11.4'	S 9°50.3'	34°01.5'	S 22°08.8'	127°26.6'	N 6°18.9'
20	144°34.1'	N 7°18.9'	104°13.3'	S 9°50.5'	49°03.9'	S 22°08.8'	142°27.6'	N 6°18.3'
21	159°33.6'	N 7°17.7'	119°15.3'	S 9°50.7'	64°06.2'	S 22°08.8'	157°28.6'	N 6°17.7'
22	174°33.2'	N 7°16.6'	134°17.3'	S 9°50.8'	79°08.5'	S 22°08.8'	172°29.6'	N 6°17.1'
23	189°32.8'	N 7°15.5'	149°19.2'	S 9°51.0'	94°10.8'	S 22°08.8'	187°30.6'	N 6°16.5'

Mon Oct 2, 2017 UTC

UTC	Venus -3.8 v = -0.4' d = 1.1'		Jupiter -1.5 v = 2.0' d = 0.2'		Saturn +0.5 v = 2.3' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°32.4'	N 7°14.3'	164°21.2'	S 9°51.2'	109°13.1'	S 22°08.9'	202°31.6'	N 6°15.9'
1	219°32.0'	N 7°13.2'	179°23.2'	S 9°51.4'	124°15.4'	S 22°08.9'	217°32.6'	N 6°15.2'
2	234°31.6'	N 7°12.1'	194°25.1'	S 9°51.6'	139°17.7'	S 22°08.9'	232°33.6'	N 6°14.6'
3	249°31.1'	N 7°10.9'	209°27.1'	S 9°51.8'	154°20.0'	S 22°08.9'	247°34.6'	N 6°14.0'
4	264°30.7'	N 7°09.8'	224°29.1'	S 9°52.0'	169°22.3'	S 22°08.9'	262°35.6'	N 6°13.4'
5	279°30.3'	N 7°08.7'	239°31.0'	S 9°52.2'	184°24.6'	S 22°08.9'	277°36.6'	N 6°12.8'
6	294°29.9'	N 7°07.5'	254°33.0'	S 9°52.4'	199°26.9'	S 22°09.0'	292°37.6'	N 6°12.2'
7	309°29.5'	N 7°06.4'	269°35.0'	S 9°52.6'	214°29.2'	S 22°09.0'	307°38.6'	N 6°11.5'
8	324°29.0'	N 7°05.3'	284°36.9'	S 9°52.8'	229°31.5'	S 22°09.0'	322°39.6'	N 6°10.9'
9	339°28.6'	N 7°04.1'	299°38.9'	S 9°52.9'	244°33.9'	S 22°09.0'	337°40.6'	N 6°10.3'
10	354°28.2'	N 7°03.0'	314°40.8'	S 9°53.1'	259°36.2'	S 22°09.0'	352°41.6'	N 6°09.7'
11	9°27.8'	N 7°01.8'	329°42.8'	S 9°53.3'	274°38.5'	S 22°09.0'	7°42.6'	N 6°09.1'
12	24°27.4'	N 7°00.7'	344°44.8'	S 9°53.5'	289°40.8'	S 22°09.0'	22°43.6'	N 6°08.4'
13	39°27.0'	N 6°59.6'	359°46.7'	S 9°53.7'	304°43.1'	S 22°09.1'	37°44.6'	N 6°07.8'
14	54°26.5'	N 6°58.4'	14°48.7'	S 9°53.9'	319°45.4'	S 22°09.1'	52°45.6'	N 6°07.2'
15	69°26.1'	N 6°57.3'	29°50.7'	S 9°54.1'	334°47.7'	S 22°09.1'	67°46.6'	N 6°06.6'
16	84°25.7'	N 6°56.1'	44°52.6'	S 9°54.3'	349°50.0'	S 22°09.1'	82°47.6'	N 6°06.0'
17	99°25.3'	N 6°55.0'	59°54.6'	S 9°54.5'	4°52.3'	S 22°09.1'	97°48.6'	N 6°05.4'
18	114°24.9'	N 6°53.9'	74°56.6'	S 9°54.7'	19°54.6'	S 22°09.1'	112°49.6'	N 6°04.7'
19	129°24.5'	N 6°52.7'	89°58.5'	S 9°54.9'	34°56.9'	S 22°09.2'	127°50.6'	N 6°04.1'
20	144°24.0'	N 6°51.6'	105°00.5'	S 9°55.0'	49°59.2'	S 22°09.2'	142°51.6'	N 6°03.5'
21	159°23.6'	N 6°50.4'	120°02.5'	S 9°55.2'	65°01.5'	S 22°09.2'	157°52.6'	N 6°02.9'
22	174°23.2'	N 6°49.3'	135°04.4'	S 9°55.4'	80°03.8'	S 22°09.2'	172°53.6'	N 6°02.3'
23	189°22.8'	N 6°48.2'	150°06.4'	S 9°55.6'	95°06.1'	S 22°09.2'	187°54.6'	N 6°01.6'

Tue Oct 3, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.1'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°22.4'	N 6°47.0'	165°08.3'	S 9°55.8'	110°08.4'	S 22°09.2'	202°55.6'	N 6°01.0'
1	219°22.0'	N 6°45.9'	180°10.3'	S 9°56.0'	125°10.7'	S 22°09.2'	217°56.6'	N 6°00.4'
2	234°21.5'	N 6°44.7'	195°12.3'	S 9°56.2'	140°13.0'	S 22°09.3'	232°57.6'	N 5°59.8'
3	249°21.1'	N 6°43.6'	210°14.2'	S 9°56.4'	155°15.3'	S 22°09.3'	247°58.6'	N 5°59.2'
4	264°20.7'	N 6°42.4'	225°16.2'	S 9°56.6'	170°17.6'	S 22°09.3'	262°59.6'	N 5°58.5'
5	279°20.3'	N 6°41.3'	240°18.2'	S 9°56.8'	185°19.9'	S 22°09.3'	278°00.6'	N 5°57.9'
6	294°19.9'	N 6°40.2'	255°20.1'	S 9°57.0'	200°22.3'	S 22°09.3'	293°01.6'	N 5°57.3'
7	309°19.5'	N 6°39.0'	270°22.1'	S 9°57.1'	215°24.6'	S 22°09.3'	308°02.6'	N 5°56.7'
8	324°19.1'	N 6°37.9'	285°24.0'	S 9°57.3'	230°26.9'	S 22°09.4'	323°03.6'	N 5°56.1'
9	339°18.6'	N 6°36.7'	300°26.0'	S 9°57.5'	245°29.2'	S 22°09.4'	338°04.6'	N 5°55.5'
10	354°18.2'	N 6°35.6'	315°28.0'	S 9°57.7'	260°31.5'	S 22°09.4'	353°05.6'	N 5°54.8'
11	9°17.8'	N 6°34.4'	330°29.9'	S 9°57.9'	275°33.8'	S 22°09.4'	8°06.6'	N 5°54.2'
12	24°17.4'	N 6°33.3'	345°31.9'	S 9°58.1'	290°36.1'	S 22°09.4'	23°07.6'	N 5°53.6'
13	39°17.0'	N 6°32.1'	0°33.9'	S 9°58.3'	305°38.4'	S 22°09.4'	38°08.6'	N 5°53.0'
14	54°16.6'	N 6°31.0'	15°35.8'	S 9°58.5'	320°40.7'	S 22°09.4'	53°09.6'	N 5°52.4'
15	69°16.2'	N 6°29.8'	30°37.8'	S 9°58.7'	335°43.0'	S 22°09.5'	68°10.6'	N 5°51.7'
16	84°15.8'	N 6°28.7'	45°39.7'	S 9°58.9'	350°45.3'	S 22°09.5'	83°11.6'	N 5°51.1'
17	99°15.3'	N 6°27.5'	60°41.7'	S 9°59.1'	5°47.6'	S 22°09.5'	98°12.6'	N 5°50.5'
18	114°14.9'	N 6°26.4'	75°43.7'	S 9°59.2'	20°49.9'	S 22°09.5'	113°13.6'	N 5°49.9'
19	129°14.5'	N 6°25.2'	90°45.6'	S 9°59.4'	35°52.2'	S 22°09.5'	128°14.6'	N 5°49.3'
20	144°14.1'	N 6°24.1'	105°47.6'	S 9°59.6'	50°54.5'	S 22°09.5'	143°15.6'	N 5°48.6'
21	159°13.7'	N 6°22.9'	120°49.6'	S 9°59.8'	65°56.8'	S 22°09.6'	158°16.6'	N 5°48.0'
22	174°13.3'	N 6°21.8'	135°51.5'	S 10°00.0'	80°59.1'	S 22°09.6'	173°17.6'	N 5°47.4'
23	189°12.9'	N 6°20.6'	150°53.5'	S 10°00.2'	96°01.4'	S 22°09.6'	188°18.6'	N 5°46.8'

Wed Oct 4, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°12.5'	N 6°19.5'	165°55.4'	S 10°00.4'	111°03.7'	S 22°09.6'	203°19.6'	N 5°46.2'
1	219°12.1'	N 6°18.3'	180°57.4'	S 10°00.6'	126°06.0'	S 22°09.6'	218°20.6'	N 5°45.5'
2	234°11.6'	N 6°17.2'	195°59.4'	S 10°00.8'	141°08.3'	S 22°09.6'	233°21.6'	N 5°44.9'
3	249°11.2'	N 6°16.0'	211°01.3'	S 10°01.0'	156°10.6'	S 22°09.7'	248°22.6'	N 5°44.3'
4	264°10.8'	N 6°14.9'	226°03.3'	S 10°01.2'	171°12.9'	S 22°09.7'	263°23.6'	N 5°43.7'
5	279°10.4'	N 6°13.7'	241°05.2'	S 10°01.4'	186°15.2'	S 22°09.7'	278°24.6'	N 5°43.1'
6	294°10.0'	N 6°12.6'	256°07.2'	S 10°01.5'	201°17.5'	S 22°09.7'	293°25.6'	N 5°42.4'
7	309°09.6'	N 6°11.4'	271°09.2'	S 10°01.7'	216°19.8'	S 22°09.7'	308°26.7'	N 5°41.8'
8	324°09.2'	N 6°10.3'	286°11.1'	S 10°01.9'	231°22.1'	S 22°09.7'	323°27.7'	N 5°41.2'
9	339°08.8'	N 6°09.1'	301°13.1'	S 10°02.1'	246°24.4'	S 22°09.7'	338°28.7'	N 5°40.6'
10	354°08.4'	N 6°08.0'	316°15.1'	S 10°02.3'	261°26.7'	S 22°09.8'	353°29.7'	N 5°40.0'
11	9°07.9'	N 6°06.8'	331°17.0'	S 10°02.5'	276°29.0'	S 22°09.8'	8°30.7'	N 5°39.3'
12	24°07.5'	N 6°05.6'	346°19.0'	S 10°02.7'	291°31.3'	S 22°09.8'	23°31.7'	N 5°38.7'
13	39°07.1'	N 6°04.5'	1°20.9'	S 10°02.9'	306°33.6'	S 22°09.8'	38°32.7'	N 5°38.1'
14	54°06.7'	N 6°03.3'	16°22.9'	S 10°03.1'	321°35.9'	S 22°09.8'	53°33.7'	N 5°37.5'
15	69°06.3'	N 6°02.2'	31°24.9'	S 10°03.3'	336°38.2'	S 22°09.8'	68°34.7'	N 5°36.9'
16	84°05.9'	N 6°01.0'	46°26.8'	S 10°03.5'	351°40.5'	S 22°09.9'	83°35.7'	N 5°36.2'
17	99°05.5'	N 5°59.9'	61°28.8'	S 10°03.6'	6°42.8'	S 22°09.9'	98°36.7'	N 5°35.6'
18	114°05.1'	N 5°58.7'	76°30.7'	S 10°03.8'	21°45.1'	S 22°09.9'	113°37.7'	N 5°35.0'
19	129°04.7'	N 5°57.5'	91°32.7'	S 10°04.0'	36°47.4'	S 22°09.9'	128°38.7'	N 5°34.4'
20	144°04.3'	N 5°56.4'	106°34.7'	S 10°04.2'	51°49.7'	S 22°09.9'	143°39.7'	N 5°33.8'
21	159°03.9'	N 5°55.2'	121°36.6'	S 10°04.4'	66°52.0'	S 22°09.9'	158°40.7'	N 5°33.1'
22	174°03.5'	N 5°54.1'	136°38.6'	S 10°04.6'	81°54.3'	S 22°09.9'	173°41.7'	N 5°32.5'
23	189°03.0'	N 5°52.9'	151°40.5'	S 10°04.8'	96°56.6'	S 22°10.0'	188°42.7'	N 5°31.9'

Thu Oct 5, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°02.6'	N 5°51.8'	166°42.5'	S 10°05.0'	111°58.8'	S 22°10.0'	203°43.7'	N 5°31.3'
1	219°02.2'	N 5°50.6'	181°44.5'	S 10°05.2'	127°01.1'	S 22°10.0'	218°44.7'	N 5°30.7'
2	234°01.8'	N 5°49.4'	196°46.4'	S 10°05.4'	142°03.4'	S 22°10.0'	233°45.7'	N 5°30.0'
3	249°01.4'	N 5°48.3'	211°48.4'	S 10°05.6'	157°05.7'	S 22°10.0'	248°46.7'	N 5°29.4'
4	264°01.0'	N 5°47.1'	226°50.3'	S 10°05.7'	172°08.0'	S 22°10.0'	263°47.7'	N 5°28.8'
5	279°00.6'	N 5°46.0'	241°52.3'	S 10°05.9'	187°10.3'	S 22°10.1'	278°48.7'	N 5°28.2'
6	294°00.2'	N 5°44.8'	256°54.3'	S 10°06.1'	202°12.6'	S 22°10.1'	293°49.7'	N 5°27.5'
7	308°59.8'	N 5°43.6'	271°56.2'	S 10°06.3'	217°14.9'	S 22°10.1'	308°50.7'	N 5°26.9'
8	323°59.4'	N 5°42.5'	286°58.2'	S 10°06.5'	232°17.2'	S 22°10.1'	323°51.7'	N 5°26.3'
9	338°59.0'	N 5°41.3'	302°00.1'	S 10°06.7'	247°19.5'	S 22°10.1'	338°52.7'	N 5°25.7'
10	353°58.6'	N 5°40.1'	317°02.1'	S 10°06.9'	262°21.8'	S 22°10.1'	353°53.7'	N 5°25.1'
11	8°58.2'	N 5°39.0'	332°04.1'	S 10°07.1'	277°24.1'	S 22°10.1'	8°54.7'	N 5°24.4'
12	23°57.8'	N 5°37.8'	347°06.0'	S 10°07.3'	292°26.4'	S 22°10.2'	23°55.7'	N 5°23.8'
13	38°57.4'	N 5°36.7'	2°08.0'	S 10°07.5'	307°28.7'	S 22°10.2'	38°56.7'	N 5°23.2'
14	53°57.0'	N 5°35.5'	17°09.9'	S 10°07.7'	322°31.0'	S 22°10.2'	53°57.8'	N 5°22.6'
15	68°56.5'	N 5°34.3'	32°11.9'	S 10°07.8'	337°33.3'	S 22°10.2'	68°58.8'	N 5°22.0'
16	83°56.1'	N 5°33.2'	47°13.9'	S 10°08.0'	352°35.6'	S 22°10.2'	83°59.8'	N 5°21.3'
17	98°55.7'	N 5°32.0'	62°15.8'	S 10°08.2'	7°37.9'	S 22°10.2'	99°00.8'	N 5°20.7'
18	113°55.3'	N 5°30.8'	77°17.8'	S 10°08.4'	22°40.2'	S 22°10.3'	114°01.8'	N 5°20.1'
19	128°54.9'	N 5°29.7'	92°19.7'	S 10°08.6'	37°42.5'	S 22°10.3'	129°02.8'	N 5°19.5'
20	143°54.5'	N 5°28.5'	107°21.7'	S 10°08.8'	52°44.8'	S 22°10.3'	144°03.8'	N 5°18.8'
21	158°54.1'	N 5°27.3'	122°23.7'	S 10°09.0'	67°47.0'	S 22°10.3'	159°04.8'	N 5°18.2'
22	173°53.7'	N 5°26.2'	137°25.6'	S 10°09.2'	82°49.3'	S 22°10.3'	174°05.8'	N 5°17.6'
23	188°53.3'	N 5°25.0'	152°27.6'	S 10°09.4'	97°51.6'	S 22°10.3'	189°06.8'	N 5°17.0'

Fri Oct 6, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°52.9'	N 5°23.8'	167°29.5'	S 10°09.6'	112°53.9'	S 22°10.4'	204°07.8'	N 5°16.4'
1	218°52.5'	N 5°22.7'	182°31.5'	S 10°09.8'	127°56.2'	S 22°10.4'	219°08.8'	N 5°15.7'
2	233°52.1'	N 5°21.5'	197°33.5'	S 10°09.9'	142°58.5'	S 22°10.4'	234°09.8'	N 5°15.1'
3	248°51.7'	N 5°20.3'	212°35.4'	S 10°10.1'	158°00.8'	S 22°10.4'	249°10.8'	N 5°14.5'
4	263°51.3'	N 5°19.2'	227°37.4'	S 10°10.3'	173°03.1'	S 22°10.4'	264°11.8'	N 5°13.9'
5	278°50.9'	N 5°18.0'	242°39.3'	S 10°10.5'	188°05.4'	S 22°10.4'	279°12.8'	N 5°13.2'
6	293°50.5'	N 5°16.8'	257°41.3'	S 10°10.7'	203°07.7'	S 22°10.4'	294°13.8'	N 5°12.6'
7	308°50.1'	N 5°15.7'	272°43.2'	S 10°10.9'	218°10.0'	S 22°10.5'	309°14.8'	N 5°12.0'
8	323°49.7'	N 5°14.5'	287°45.2'	S 10°11.1'	233°12.3'	S 22°10.5'	324°15.8'	N 5°11.4'
9	338°49.3'	N 5°13.3'	302°47.2'	S 10°11.3'	248°14.6'	S 22°10.5'	339°16.8'	N 5°10.8'
10	353°48.9'	N 5°12.2'	317°49.1'	S 10°11.5'	263°16.8'	S 22°10.5'	354°17.8'	N 5°10.1'
11	8°48.5'	N 5°11.0'	332°51.1'	S 10°11.7'	278°19.1'	S 22°10.5'	9°18.8'	N 5°09.5'
12	23°48.1'	N 5°09.8'	347°53.0'	S 10°11.9'	293°21.4'	S 22°10.5'	24°19.9'	N 5°08.9'
13	38°47.7'	N 5°08.6'	2°55.0'	S 10°12.0'	308°23.7'	S 22°10.6'	39°20.9'	N 5°08.3'
14	53°47.3'	N 5°07.5'	17°57.0'	S 10°12.2'	323°26.0'	S 22°10.6'	54°21.9'	N 5°07.6'
15	68°46.9'	N 5°06.3'	32°58.9'	S 10°12.4'	338°28.3'	S 22°10.6'	69°22.9'	N 5°07.0'
16	83°46.5'	N 5°05.1'	48°00.9'	S 10°12.6'	353°30.6'	S 22°10.6'	84°23.9'	N 5°06.4'
17	98°46.1'	N 5°04.0'	63°02.8'	S 10°12.8'	8°32.9'	S 22°10.6'	99°24.9'	N 5°05.8'
18	113°45.6'	N 5°02.8'	78°04.8'	S 10°13.0'	23°35.2'	S 22°10.6'	114°25.9'	N 5°05.2'
19	128°45.2'	N 5°01.6'	93°06.7'	S 10°13.2'	38°37.5'	S 22°10.6'	129°26.9'	N 5°04.5'
20	143°44.8'	N 5°00.4'	108°08.7'	S 10°13.4'	53°39.8'	S 22°10.7'	144°27.9'	N 5°03.9'
21	158°44.4'	N 4°59.3'	123°10.7'	S 10°13.6'	68°42.0'	S 22°10.7'	159°28.9'	N 5°03.3'
22	173°44.0'	N 4°58.1'	138°12.6'	S 10°13.8'	83°44.3'	S 22°10.7'	174°29.9'	N 5°02.7'
23	188°43.6'	N 4°56.9'	153°14.6'	S 10°14.0'	98°46.6'	S 22°10.7'	189°30.9'	N 5°02.0'

Sat Oct 7, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°43.2'	N 4°55.7'	168°16.5'	S 10°14.1'	113°48.9'	S 22°10.7'	204°31.9'	N 5°01.4'
1	218°42.8'	N 4°54.6'	183°18.5'	S 10°14.3'	128°51.2'	S 22°10.7'	219°32.9'	N 5°00.8'
2	233°42.4'	N 4°53.4'	198°20.4'	S 10°14.5'	143°53.5'	S 22°10.8'	234°33.9'	N 5°00.2'
3	248°42.0'	N 4°52.2'	213°22.4'	S 10°14.7'	158°55.8'	S 22°10.8'	249°34.9'	N 4°59.5'
4	263°41.6'	N 4°51.0'	228°24.4'	S 10°14.9'	173°58.1'	S 22°10.8'	264°35.9'	N 4°58.9'
5	278°41.2'	N 4°49.9'	243°26.3'	S 10°15.1'	189°00.4'	S 22°10.8'	279°36.9'	N 4°58.3'
6	293°40.8'	N 4°48.7'	258°28.3'	S 10°15.3'	204°02.6'	S 22°10.8'	294°37.9'	N 4°57.7'
7	308°40.4'	N 4°47.5'	273°30.2'	S 10°15.5'	219°04.9'	S 22°10.8'	309°39.0'	N 4°57.0'
8	323°40.0'	N 4°46.3'	288°32.2'	S 10°15.7'	234°07.2'	S 22°10.9'	324°40.0'	N 4°56.4'
9	338°39.6'	N 4°45.2'	303°34.1'	S 10°15.9'	249°09.5'	S 22°10.9'	339°41.0'	N 4°55.8'
10	353°39.2'	N 4°44.0'	318°36.1'	S 10°16.1'	264°11.8'	S 22°10.9'	354°42.0'	N 4°55.2'
11	8°38.8'	N 4°42.8'	333°38.1'	S 10°16.2'	279°14.1'	S 22°10.9'	9°43.0'	N 4°54.6'
12	23°38.4'	N 4°41.6'	348°40.0'	S 10°16.4'	294°16.4'	S 22°10.9'	24°44.0'	N 4°53.9'
13	38°38.0'	N 4°40.5'	3°42.0'	S 10°16.6'	309°18.7'	S 22°10.9'	39°45.0'	N 4°53.3'
14	53°37.6'	N 4°39.3'	18°43.9'	S 10°16.8'	324°21.0'	S 22°10.9'	54°46.0'	N 4°52.7'
15	68°37.2'	N 4°38.1'	33°45.9'	S 10°17.0'	339°23.2'	S 22°11.0'	69°47.0'	N 4°52.1'
16	83°36.8'	N 4°36.9'	48°47.8'	S 10°17.2'	354°25.5'	S 22°11.0'	84°48.0'	N 4°51.4'
17	98°36.4'	N 4°35.7'	63°49.8'	S 10°17.4'	9°27.8'	S 22°11.0'	99°49.0'	N 4°50.8'
18	113°36.0'	N 4°34.6'	78°51.8'	S 10°17.6'	24°30.1'	S 22°11.0'	114°50.0'	N 4°50.2'
19	128°35.6'	N 4°33.4'	93°53.7'	S 10°17.8'	39°32.4'	S 22°11.0'	129°51.0'	N 4°49.6'
20	143°35.2'	N 4°32.2'	108°55.7'	S 10°18.0'	54°34.7'	S 22°11.0'	144°52.0'	N 4°48.9'
21	158°34.8'	N 4°31.0'	123°57.6'	S 10°18.2'	69°37.0'	S 22°11.1'	159°53.0'	N 4°48.3'
22	173°34.4'	N 4°29.9'	138°59.6'	S 10°18.3'	84°39.2'	S 22°11.1'	174°54.0'	N 4°47.7'
23	188°34.0'	N 4°28.7'	154°01.5'	S 10°18.5'	99°41.5'	S 22°11.1'	189°55.1'	N 4°47.1'

Sun Oct 8, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°33.6'	N 4°27.5'	169°03.5'	S 10°18.7'	114°43.8'	S 22°11.1'	204°56.1'	N 4°46.4'
1	218°33.2'	N 4°26.3'	184°05.5'	S 10°18.9'	129°46.1'	S 22°11.1'	219°57.1'	N 4°45.8'
2	233°32.8'	N 4°25.1'	199°07.4'	S 10°19.1'	144°48.4'	S 22°11.1'	234°58.1'	N 4°45.2'
3	248°32.4'	N 4°23.9'	214°09.4'	S 10°19.3'	159°50.7'	S 22°11.2'	249°59.1'	N 4°44.6'
4	263°32.0'	N 4°22.8'	229°11.3'	S 10°19.5'	174°53.0'	S 22°11.2'	265°00.1'	N 4°43.9'
5	278°31.7'	N 4°21.6'	244°13.3'	S 10°19.7'	189°55.2'	S 22°11.2'	280°01.1'	N 4°43.3'
6	293°31.3'	N 4°20.4'	259°15.2'	S 10°19.9'	204°57.5'	S 22°11.2'	295°02.1'	N 4°42.7'
7	308°30.9'	N 4°19.2'	274°17.2'	S 10°20.1'	219°59.8'	S 22°11.2'	310°03.1'	N 4°42.1'
8	323°30.5'	N 4°18.0'	289°19.1'	S 10°20.3'	235°02.1'	S 22°11.2'	325°04.1'	N 4°41.4'
9	338°30.1'	N 4°16.9'	304°21.1'	S 10°20.4'	250°04.4'	S 22°11.2'	340°05.1'	N 4°40.8'
10	353°29.7'	N 4°15.7'	319°23.1'	S 10°20.6'	265°06.7'	S 22°11.3'	355°06.1'	N 4°40.2'
11	8°29.3'	N 4°14.5'	334°25.0'	S 10°20.8'	280°09.0'	S 22°11.3'	10°07.1'	N 4°39.6'
12	23°28.9'	N 4°13.3'	349°27.0'	S 10°21.0'	295°11.2'	S 22°11.3'	25°08.1'	N 4°38.9'
13	38°28.5'	N 4°12.1'	4°28.9'	S 10°21.2'	310°13.5'	S 22°11.3'	40°09.2'	N 4°38.3'
14	53°28.1'	N 4°10.9'	19°30.9'	S 10°21.4'	325°15.8'	S 22°11.3'	55°10.2'	N 4°37.7'
15	68°27.7'	N 4°09.7'	34°32.8'	S 10°21.6'	340°18.1'	S 22°11.3'	70°11.2'	N 4°37.1'
16	83°27.3'	N 4°08.6'	49°34.8'	S 10°21.8'	355°20.4'	S 22°11.4'	85°12.2'	N 4°36.5'
17	98°26.9'	N 4°07.4'	64°36.7'	S 10°22.0'	10°22.7'	S 22°11.4'	100°13.2'	N 4°35.8'
18	113°26.5'	N 4°06.2'	79°38.7'	S 10°22.2'	25°24.9'	S 22°11.4'	115°14.2'	N 4°35.2'
19	128°26.1'	N 4°05.0'	94°40.7'	S 10°22.4'	40°27.2'	S 22°11.4'	130°15.2'	N 4°34.6'
20	143°25.7'	N 4°03.8'	109°42.6'	S 10°22.5'	55°29.5'	S 22°11.4'	145°16.2'	N 4°34.0'
21	158°25.3'	N 4°02.6'	124°44.6'	S 10°22.7'	70°31.8'	S 22°11.4'	160°17.2'	N 4°33.3'
22	173°24.9'	N 4°01.5'	139°46.5'	S 10°22.9'	85°34.1'	S 22°11.5'	175°18.2'	N 4°32.7'
23	188°24.5'	N 4°00.3'	154°48.5'	S 10°23.1'	100°36.4'	S 22°11.5'	190°19.2'	N 4°32.1'

Mon Oct 9, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°24.1'	N 3°59.1'	169°50.4'	S 10°23.3'	115°38.6'	S 22°11.5'	205°20.2'	N 4°31.5'
1	218°23.7'	N 3°57.9'	184°52.4'	S 10°23.5'	130°40.9'	S 22°11.5'	220°21.2'	N 4°30.8'
2	233°23.3'	N 3°56.7'	199°54.3'	S 10°23.7'	145°43.2'	S 22°11.5'	235°22.3'	N 4°30.2'
3	248°22.9'	N 3°55.5'	214°56.3'	S 10°23.9'	160°45.5'	S 22°11.5'	250°23.3'	N 4°29.6'
4	263°22.5'	N 3°54.3'	229°58.2'	S 10°24.1'	175°47.8'	S 22°11.5'	265°24.3'	N 4°28.9'
5	278°22.1'	N 3°53.1'	245°00.2'	S 10°24.3'	190°50.0'	S 22°11.6'	280°25.3'	N 4°28.3'
6	293°21.7'	N 3°52.0'	260°02.2'	S 10°24.5'	205°52.3'	S 22°11.6'	295°26.3'	N 4°27.7'
7	308°21.3'	N 3°50.8'	275°04.1'	S 10°24.6'	220°54.6'	S 22°11.6'	310°27.3'	N 4°27.1'
8	323°20.9'	N 3°49.6'	290°06.1'	S 10°24.8'	235°56.9'	S 22°11.6'	325°28.3'	N 4°26.4'
9	338°20.5'	N 3°48.4'	305°08.0'	S 10°25.0'	250°59.2'	S 22°11.6'	340°29.3'	N 4°25.8'
10	353°20.1'	N 3°47.2'	320°10.0'	S 10°25.2'	266°01.5'	S 22°11.6'	355°30.3'	N 4°25.2'
11	8°19.8'	N 3°46.0'	335°11.9'	S 10°25.4'	281°03.7'	S 22°11.7'	10°31.3'	N 4°24.6'
12	23°19.4'	N 3°44.8'	350°13.9'	S 10°25.6'	296°06.0'	S 22°11.7'	25°32.3'	N 4°23.9'
13	38°19.0'	N 3°43.6'	5°15.8'	S 10°25.8'	311°08.3'	S 22°11.7'	40°33.3'	N 4°23.3'
14	53°18.6'	N 3°42.4'	20°17.8'	S 10°26.0'	326°10.6'	S 22°11.7'	55°34.3'	N 4°22.7'
15	68°18.2'	N 3°41.2'	35°19.7'	S 10°26.2'	341°12.9'	S 22°11.7'	70°35.4'	N 4°22.1'
16	83°17.8'	N 3°40.1'	50°21.7'	S 10°26.4'	356°15.1'	S 22°11.7'	85°36.4'	N 4°21.4'
17	98°17.4'	N 3°38.9'	65°23.7'	S 10°26.6'	11°17.4'	S 22°11.8'	100°37.4'	N 4°20.8'
18	113°17.0'	N 3°37.7'	80°25.6'	S 10°26.7'	26°19.7'	S 22°11.8'	115°38.4'	N 4°20.2'
19	128°16.6'	N 3°36.5'	95°27.6'	S 10°26.9'	41°22.0'	S 22°11.8'	130°39.4'	N 4°19.6'
20	143°16.2'	N 3°35.3'	110°29.5'	S 10°27.1'	56°24.3'	S 22°11.8'	145°40.4'	N 4°18.9'
21	158°15.8'	N 3°34.1'	125°31.5'	S 10°27.3'	71°26.5'	S 22°11.8'	160°41.4'	N 4°18.3'
22	173°15.4'	N 3°32.9'	140°33.4'	S 10°27.5'	86°28.8'	S 22°11.8'	175°42.4'	N 4°17.7'
23	188°15.0'	N 3°31.7'	155°35.4'	S 10°27.7'	101°31.1'	S 22°11.8'	190°43.4'	N 4°17.1'

Tue Oct 10, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°14.6'	N 3°30.5'	170°37.3'	S 10°27.9'	116°33.4'	S 22°11.9'	205°44.4'	N 4°16.4'
1	218°14.2'	N 3°29.3'	185°39.3'	S 10°28.1'	131°35.7'	S 22°11.9'	220°45.4'	N 4°15.8'
2	233°13.8'	N 3°28.1'	200°41.2'	S 10°28.3'	146°37.9'	S 22°11.9'	235°46.5'	N 4°15.2'
3	248°13.4'	N 3°26.9'	215°43.2'	S 10°28.5'	161°40.2'	S 22°11.9'	250°47.5'	N 4°14.6'
4	263°13.0'	N 3°25.8'	230°45.1'	S 10°28.7'	176°42.5'	S 22°11.9'	265°48.5'	N 4°13.9'
5	278°12.6'	N 3°24.6'	245°47.1'	S 10°28.8'	191°44.8'	S 22°11.9'	280°49.5'	N 4°13.3'
6	293°12.3'	N 3°23.4'	260°49.1'	S 10°29.0'	206°47.0'	S 22°12.0'	295°50.5'	N 4°12.7'
7	308°11.9'	N 3°22.2'	275°51.0'	S 10°29.2'	221°49.3'	S 22°12.0'	310°51.5'	N 4°12.1'
8	323°11.5'	N 3°21.0'	290°53.0'	S 10°29.4'	236°51.6'	S 22°12.0'	325°52.5'	N 4°11.4'
9	338°11.1'	N 3°19.8'	305°54.9'	S 10°29.6'	251°53.9'	S 22°12.0'	340°53.5'	N 4°10.8'
10	353°10.7'	N 3°18.6'	320°56.9'	S 10°29.8'	266°56.2'	S 22°12.0'	355°54.5'	N 4°10.2'
11	8°10.3'	N 3°17.4'	335°58.8'	S 10°30.0'	281°58.4'	S 22°12.0'	10°55.5'	N 4°09.5'
12	23°09.9'	N 3°16.2'	351°00.8'	S 10°30.2'	297°00.7'	S 22°12.1'	25°56.5'	N 4°08.9'
13	38°09.5'	N 3°15.0'	6°02.7'	S 10°30.4'	312°03.0'	S 22°12.1'	40°57.5'	N 4°08.3'
14	53°09.1'	N 3°13.8'	21°04.7'	S 10°30.6'	327°05.3'	S 22°12.1'	55°58.6'	N 4°07.7'
15	68°08.7'	N 3°12.6'	36°06.6'	S 10°30.8'	342°07.5'	S 22°12.1'	70°59.6'	N 4°07.0'
16	83°08.3'	N 3°11.4'	51°08.6'	S 10°30.9'	357°09.8'	S 22°12.1'	86°00.6'	N 4°06.4'
17	98°07.9'	N 3°10.2'	66°10.5'	S 10°31.1'	12°12.1'	S 22°12.1'	101°01.6'	N 4°05.8'
18	113°07.5'	N 3°09.0'	81°12.5'	S 10°31.3'	27°14.4'	S 22°12.1'	116°02.6'	N 4°05.2'
19	128°07.1'	N 3°07.8'	96°14.4'	S 10°31.5'	42°16.6'	S 22°12.2'	131°03.6'	N 4°04.5'
20	143°06.7'	N 3°06.6'	111°16.4'	S 10°31.7'	57°18.9'	S 22°12.2'	146°04.6'	N 4°03.9'
21	158°06.3'	N 3°05.4'	126°18.3'	S 10°31.9'	72°21.2'	S 22°12.2'	161°05.6'	N 4°03.3'
22	173°06.0'	N 3°04.2'	141°20.3'	S 10°32.1'	87°23.5'	S 22°12.2'	176°06.6'	N 4°02.7'
23	188°05.6'	N 3°03.0'	156°22.3'	S 10°32.3'	102°25.7'	S 22°12.2'	191°07.6'	N 4°02.0'

Wed Oct 11, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°05.2'	N 3°01.8'	171°24.2'	S 10°32.5'	117°28.0'	S 22°12.2'	206°08.7'	N 4°01.4'
1	218°04.8'	N 3°00.6'	186°26.2'	S 10°32.7'	132°30.3'	S 22°12.3'	221°09.7'	N 4°00.8'
2	233°04.4'	N 2°59.4'	201°28.1'	S 10°32.9'	147°32.6'	S 22°12.3'	236°10.7'	N 4°00.1'
3	248°04.0'	N 2°58.2'	216°30.1'	S 10°33.0'	162°34.9'	S 22°12.3'	251°11.7'	N 3°59.5'
4	263°03.6'	N 2°57.1'	231°32.0'	S 10°33.2'	177°37.1'	S 22°12.3'	266°12.7'	N 3°58.9'
5	278°03.2'	N 2°55.9'	246°34.0'	S 10°33.4'	192°39.4'	S 22°12.3'	281°13.7'	N 3°58.3'
6	293°02.8'	N 2°54.7'	261°35.9'	S 10°33.6'	207°41.7'	S 22°12.3'	296°14.7'	N 3°57.6'
7	308°02.4'	N 2°53.5'	276°37.9'	S 10°33.8'	222°43.9'	S 22°12.4'	311°15.7'	N 3°57.0'
8	323°02.0'	N 2°52.3'	291°39.8'	S 10°34.0'	237°46.2'	S 22°12.4'	326°16.7'	N 3°56.4'
9	338°01.6'	N 2°51.1'	306°41.8'	S 10°34.2'	252°48.5'	S 22°12.4'	341°17.7'	N 3°55.8'
10	353°01.2'	N 2°49.9'	321°43.7'	S 10°34.4'	267°50.8'	S 22°12.4'	356°18.7'	N 3°55.1'
11	8°00.8'	N 2°48.7'	336°45.7'	S 10°34.6'	282°53.0'	S 22°12.4'	11°19.8'	N 3°54.5'
12	23°00.5'	N 2°47.5'	351°47.6'	S 10°34.8'	297°55.3'	S 22°12.4'	26°20.8'	N 3°53.9'
13	38°00.1'	N 2°46.3'	6°49.6'	S 10°34.9'	312°57.6'	S 22°12.4'	41°21.8'	N 3°53.2'
14	52°59.7'	N 2°45.1'	21°51.5'	S 10°35.1'	327°59.9'	S 22°12.5'	56°22.8'	N 3°52.6'
15	67°59.3'	N 2°43.9'	36°53.5'	S 10°35.3'	343°02.1'	S 22°12.5'	71°23.8'	N 3°52.0'
16	82°58.9'	N 2°42.7'	51°55.4'	S 10°35.5'	358°04.4'	S 22°12.5'	86°24.8'	N 3°51.4'
17	97°58.5'	N 2°41.5'	66°57.4'	S 10°35.7'	13°06.7'	S 22°12.5'	101°25.8'	N 3°50.7'
18	112°58.1'	N 2°40.3'	81°59.3'	S 10°35.9'	28°09.0'	S 22°12.5'	116°26.8'	N 3°50.1'
19	127°57.7'	N 2°39.1'	97°01.3'	S 10°36.1'	43°11.2'	S 22°12.5'	131°27.8'	N 3°49.5'
20	142°57.3'	N 2°37.9'	112°03.2'	S 10°36.3'	58°13.5'	S 22°12.6'	146°28.8'	N 3°48.9'
21	157°56.9'	N 2°36.6'	127°05.2'	S 10°36.5'	73°15.8'	S 22°12.6'	161°29.9'	N 3°48.2'
22	172°56.5'	N 2°35.4'	142°07.1'	S 10°36.7'	88°18.0'	S 22°12.6'	176°30.9'	N 3°47.6'
23	187°56.1'	N 2°34.2'	157°09.1'	S 10°36.9'	103°20.3'	S 22°12.6'	191°31.9'	N 3°47.0'

Thu Oct 12, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.0' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°55.8'	N 2°33.0'	172°11.1'	S 10°37.0'	118°22.6'	S 22°12.6'	206°32.9'	N 3°46.3'
1	217°55.4'	N 2°31.8'	187°13.0'	S 10°37.2'	133°24.9'	S 22°12.6'	221°33.9'	N 3°45.7'
2	232°55.0'	N 2°30.6'	202°15.0'	S 10°37.4'	148°27.1'	S 22°12.7'	236°34.9'	N 3°45.1'
3	247°54.6'	N 2°29.4'	217°16.9'	S 10°37.6'	163°29.4'	S 22°12.7'	251°35.9'	N 3°44.5'
4	262°54.2'	N 2°28.2'	232°18.9'	S 10°37.8'	178°31.7'	S 22°12.7'	266°36.9'	N 3°43.8'
5	277°53.8'	N 2°27.0'	247°20.8'	S 10°38.0'	193°34.0'	S 22°12.7'	281°37.9'	N 3°43.2'
6	292°53.4'	N 2°25.8'	262°22.8'	S 10°38.2'	208°36.2'	S 22°12.7'	296°39.0'	N 3°42.6'
7	307°53.0'	N 2°24.6'	277°24.7'	S 10°38.4'	223°38.5'	S 22°12.7'	311°40.0'	N 3°42.0'
8	322°52.6'	N 2°23.4'	292°26.7'	S 10°38.6'	238°40.8'	S 22°12.8'	326°41.0'	N 3°41.3'
9	337°52.2'	N 2°22.2'	307°28.6'	S 10°38.8'	253°43.0'	S 22°12.8'	341°42.0'	N 3°40.7'
10	352°51.8'	N 2°21.0'	322°30.6'	S 10°39.0'	268°45.3'	S 22°12.8'	356°43.0'	N 3°40.1'
11	7°51.4'	N 2°19.8'	337°32.5'	S 10°39.1'	283°47.6'	S 22°12.8'	11°44.0'	N 3°39.4'
12	22°51.1'	N 2°18.6'	352°34.5'	S 10°39.3'	298°49.8'	S 22°12.8'	26°45.0'	N 3°38.8'
13	37°50.7'	N 2°17.4'	7°36.4'	S 10°39.5'	313°52.1'	S 22°12.8'	41°46.0'	N 3°38.2'
14	52°50.3'	N 2°16.2'	22°38.4'	S 10°39.7'	328°54.4'	S 22°12.8'	56°47.0'	N 3°37.6'
15	67°49.9'	N 2°15.0'	37°40.3'	S 10°39.9'	343°56.7'	S 22°12.9'	71°48.0'	N 3°36.9'
16	82°49.5'	N 2°13.8'	52°42.3'	S 10°40.1'	358°58.9'	S 22°12.9'	86°49.1'	N 3°36.3'
17	97°49.1'	N 2°12.6'	67°44.2'	S 10°40.3'	14°01.2'	S 22°12.9'	101°50.1'	N 3°35.7'
18	112°48.7'	N 2°11.4'	82°46.2'	S 10°40.5'	29°03.5'	S 22°12.9'	116°51.1'	N 3°35.0'
19	127°48.3'	N 2°10.2'	97°48.1'	S 10°40.7'	44°05.7'	S 22°12.9'	131°52.1'	N 3°34.4'
20	142°47.9'	N 2°09.0'	112°50.1'	S 10°40.9'	59°08.0'	S 22°12.9'	146°53.1'	N 3°33.8'
21	157°47.5'	N 2°07.8'	127°52.0'	S 10°41.0'	74°10.3'	S 22°13.0'	161°54.1'	N 3°33.2'
22	172°47.1'	N 2°06.5'	142°54.0'	S 10°41.2'	89°12.5'	S 22°13.0'	176°55.1'	N 3°32.5'
23	187°46.7'	N 2°05.3'	157°55.9'	S 10°41.4'	104°14.8'	S 22°13.0'	191°56.1'	N 3°31.9'

Fri Oct 13, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°46.4'	N 2°04.1'	172°57.9'	S 10°41.6'	119°17.1'	S 22°13.0'	206°57.1'	N 3°31.3'
1	217°46.0'	N 2°02.9'	187°59.8'	S 10°41.8'	134°19.3'	S 22°13.0'	221°58.2'	N 3°30.6'
2	232°45.6'	N 2°01.7'	203°01.8'	S 10°42.0'	149°21.6'	S 22°13.0'	236°59.2'	N 3°30.0'
3	247°45.2'	N 2°00.5'	218°03.7'	S 10°42.2'	164°23.9'	S 22°13.1'	252°00.2'	N 3°29.4'
4	262°44.8'	N 1°59.3'	233°05.7'	S 10°42.4'	179°26.2'	S 22°13.1'	267°01.2'	N 3°28.8'
5	277°44.4'	N 1°58.1'	248°07.6'	S 10°42.6'	194°28.4'	S 22°13.1'	282°02.2'	N 3°28.1'
6	292°44.0'	N 1°56.9'	263°09.6'	S 10°42.8'	209°30.7'	S 22°13.1'	297°03.2'	N 3°27.5'
7	307°43.6'	N 1°55.7'	278°11.5'	S 10°43.0'	224°33.0'	S 22°13.1'	312°04.2'	N 3°26.9'
8	322°43.2'	N 1°54.5'	293°13.5'	S 10°43.1'	239°35.2'	S 22°13.1'	327°05.2'	N 3°26.2'
9	337°42.8'	N 1°53.3'	308°15.4'	S 10°43.3'	254°37.5'	S 22°13.2'	342°06.2'	N 3°25.6'
10	352°42.4'	N 1°52.1'	323°17.4'	S 10°43.5'	269°39.8'	S 22°13.2'	357°07.3'	N 3°25.0'
11	7°42.1'	N 1°50.9'	338°19.3'	S 10°43.7'	284°42.0'	S 22°13.2'	12°08.3'	N 3°24.4'
12	22°41.7'	N 1°49.6'	353°21.3'	S 10°43.9'	299°44.3'	S 22°13.2'	27°09.3'	N 3°23.7'
13	37°41.3'	N 1°48.4'	8°23.2'	S 10°44.1'	314°46.6'	S 22°13.2'	42°10.3'	N 3°23.1'
14	52°40.9'	N 1°47.2'	23°25.2'	S 10°44.3'	329°48.8'	S 22°13.2'	57°11.3'	N 3°22.5'
15	67°40.5'	N 1°46.0'	38°27.1'	S 10°44.5'	344°51.1'	S 22°13.2'	72°12.3'	N 3°21.8'
16	82°40.1'	N 1°44.8'	53°29.1'	S 10°44.7'	359°53.4'	S 22°13.3'	87°13.3'	N 3°21.2'
17	97°39.7'	N 1°43.6'	68°31.0'	S 10°44.9'	14°55.6'	S 22°13.3'	102°14.3'	N 3°20.6'
18	112°39.3'	N 1°42.4'	83°33.0'	S 10°45.0'	29°57.9'	S 22°13.3'	117°15.4'	N 3°20.0'
19	127°38.9'	N 1°41.2'	98°34.9'	S 10°45.2'	45°00.2'	S 22°13.3'	132°16.4'	N 3°19.3'
20	142°38.5'	N 1°40.0'	113°36.9'	S 10°45.4'	60°02.4'	S 22°13.3'	147°17.4'	N 3°18.7'
21	157°38.2'	N 1°38.8'	128°38.8'	S 10°45.6'	75°04.7'	S 22°13.3'	162°18.4'	N 3°18.1'
22	172°37.8'	N 1°37.6'	143°40.8'	S 10°45.8'	90°07.0'	S 22°13.4'	177°19.4'	N 3°17.4'
23	187°37.4'	N 1°36.3'	158°42.7'	S 10°46.0'	105°09.2'	S 22°13.4'	192°20.4'	N 3°16.8'

Sat Oct 14, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°37.0'	N 1°35.1'	173°44.7'	S 10°46.2'	120°11.5'	S 22°13.4'	207°21.4'	N 3°16.2'
1	217°36.6'	N 1°33.9'	188°46.6'	S 10°46.4'	135°13.7'	S 22°13.4'	222°22.4'	N 3°15.6'
2	232°36.2'	N 1°32.7'	203°48.6'	S 10°46.6'	150°16.0'	S 22°13.4'	237°23.4'	N 3°14.9'
3	247°35.8'	N 1°31.5'	218°50.5'	S 10°46.8'	165°18.3'	S 22°13.4'	252°24.5'	N 3°14.3'
4	262°35.4'	N 1°30.3'	233°52.5'	S 10°46.9'	180°20.5'	S 22°13.5'	267°25.5'	N 3°13.7'
5	277°35.0'	N 1°29.1'	248°54.4'	S 10°47.1'	195°22.8'	S 22°13.5'	282°26.5'	N 3°13.0'
6	292°34.6'	N 1°27.9'	263°56.4'	S 10°47.3'	210°25.1'	S 22°13.5'	297°27.5'	N 3°12.4'
7	307°34.2'	N 1°26.7'	278°58.3'	S 10°47.5'	225°27.3'	S 22°13.5'	312°28.5'	N 3°11.8'
8	322°33.9'	N 1°25.5'	294°00.3'	S 10°47.7'	240°29.6'	S 22°13.5'	327°29.5'	N 3°11.2'
9	337°33.5'	N 1°24.2'	309°02.2'	S 10°47.9'	255°31.9'	S 22°13.5'	342°30.5'	N 3°10.5'
10	352°33.1'	N 1°23.0'	324°04.2'	S 10°48.1'	270°34.1'	S 22°13.6'	357°31.5'	N 3°09.9'
11	7°32.7'	N 1°21.8'	339°06.1'	S 10°48.3'	285°36.4'	S 22°13.6'	12°32.6'	N 3°09.3'
12	22°32.3'	N 1°20.6'	354°08.0'	S 10°48.5'	300°38.7'	S 22°13.6'	27°33.6'	N 3°08.6'
13	37°31.9'	N 1°19.4'	9°10.0'	S 10°48.7'	315°40.9'	S 22°13.6'	42°34.6'	N 3°08.0'
14	52°31.5'	N 1°18.2'	24°11.9'	S 10°48.9'	330°43.2'	S 22°13.6'	57°35.6'	N 3°07.4'
15	67°31.1'	N 1°17.0'	39°13.9'	S 10°49.0'	345°45.4'	S 22°13.6'	72°36.6'	N 3°06.8'
16	82°30.7'	N 1°15.8'	54°15.8'	S 10°49.2'	0°47.7'	S 22°13.6'	87°37.6'	N 3°06.1'
17	97°30.3'	N 1°14.5'	69°17.8'	S 10°49.4'	15°50.0'	S 22°13.7'	102°38.6'	N 3°05.5'
18	112°30.0'	N 1°13.3'	84°19.7'	S 10°49.6'	30°52.2'	S 22°13.7'	117°39.6'	N 3°04.9'
19	127°29.6'	N 1°12.1'	99°21.7'	S 10°49.8'	45°54.5'	S 22°13.7'	132°40.7'	N 3°04.2'
20	142°29.2'	N 1°10.9'	114°23.6'	S 10°50.0'	60°56.8'	S 22°13.7'	147°41.7'	N 3°03.6'
21	157°28.8'	N 1°09.7'	129°25.6'	S 10°50.2'	75°59.0'	S 22°13.7'	162°42.7'	N 3°03.0'
22	172°28.4'	N 1°08.5'	144°27.5'	S 10°50.4'	91°01.3'	S 22°13.7'	177°43.7'	N 3°02.3'
23	187°28.0'	N 1°07.3'	159°29.5'	S 10°50.6'	106°03.5'	S 22°13.8'	192°44.7'	N 3°01.7'

Sun Oct 15, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°27.6'	N 1°06.1'	174°31.4'	S 10°50.8'	121°05.8'	S 22°13.8'	207°45.7'	N 3°01.1'
1	217°27.2'	N 1°04.8'	189°33.4'	S 10°50.9'	136°08.1'	S 22°13.8'	222°46.7'	N 3°00.5'
2	232°26.8'	N 1°03.6'	204°35.3'	S 10°51.1'	151°10.3'	S 22°13.8'	237°47.7'	N 2°59.8'
3	247°26.4'	N 1°02.4'	219°37.3'	S 10°51.3'	166°12.6'	S 22°13.8'	252°48.8'	N 2°59.2'
4	262°26.0'	N 1°01.2'	234°39.2'	S 10°51.5'	181°14.9'	S 22°13.8'	267°49.8'	N 2°58.6'
5	277°25.7'	N 0°60.0'	249°41.2'	S 10°51.7'	196°17.1'	S 22°13.9'	282°50.8'	N 2°57.9'
6	292°25.3'	N 0°58.8'	264°43.1'	S 10°51.9'	211°19.4'	S 22°13.9'	297°51.8'	N 2°57.3'
7	307°24.9'	N 0°57.6'	279°45.1'	S 10°52.1'	226°21.6'	S 22°13.9'	312°52.8'	N 2°56.7'
8	322°24.5'	N 0°56.3'	294°47.0'	S 10°52.3'	241°23.9'	S 22°13.9'	327°53.8'	N 2°56.1'
9	337°24.1'	N 0°55.1'	309°49.0'	S 10°52.5'	256°26.2'	S 22°13.9'	342°54.8'	N 2°55.4'
10	352°23.7'	N 0°53.9'	324°50.9'	S 10°52.7'	271°28.4'	S 22°13.9'	357°55.8'	N 2°54.8'
11	7°23.3'	N 0°52.7'	339°52.9'	S 10°52.8'	286°30.7'	S 22°14.0'	12°56.9'	N 2°54.2'
12	22°22.9'	N 0°51.5'	354°54.8'	S 10°53.0'	301°32.9'	S 22°14.0'	27°57.9'	N 2°53.5'
13	37°22.5'	N 0°50.3'	9°56.8'	S 10°53.2'	316°35.2'	S 22°14.0'	42°58.9'	N 2°52.9'
14	52°22.1'	N 0°49.1'	24°58.7'	S 10°53.4'	331°37.5'	S 22°14.0'	57°59.9'	N 2°52.3'
15	67°21.7'	N 0°47.8'	40°00.6'	S 10°53.6'	346°39.7'	S 22°14.0'	73°00.9'	N 2°51.6'
16	82°21.4'	N 0°46.6'	55°02.6'	S 10°53.8'	1°42.0'	S 22°14.0'	88°01.9'	N 2°51.0'
17	97°21.0'	N 0°45.4'	70°04.5'	S 10°54.0'	16°44.2'	S 22°14.0'	103°02.9'	N 2°50.4'
18	112°20.6'	N 0°44.2'	85°06.5'	S 10°54.2'	31°46.5'	S 22°14.1'	118°03.9'	N 2°49.8'
19	127°20.2'	N 0°43.0'	100°08.4'	S 10°54.4'	46°48.8'	S 22°14.1'	133°05.0'	N 2°49.1'
20	142°19.8'	N 0°41.8'	115°10.4'	S 10°54.6'	61°51.0'	S 22°14.1'	148°06.0'	N 2°48.5'
21	157°19.4'	N 0°40.6'	130°12.3'	S 10°54.7'	76°53.3'	S 22°14.1'	163°07.0'	N 2°47.9'
22	172°19.0'	N 0°39.3'	145°14.3'	S 10°54.9'	91°55.5'	S 22°14.1'	178°08.0'	N 2°47.2'
23	187°18.6'	N 0°38.1'	160°16.2'	S 10°55.1'	106°57.8'	S 22°14.1'	193°09.0'	N 2°46.6'

Mon Oct 16, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°18.2'	N 0°36.9'	175°18.2'	S 10°55.3'	122°00.1'	S 22°14.2'	208°10.0'	N 2°46.0'
1	217°17.8'	N 0°35.7'	190°20.1'	S 10°55.5'	137°02.3'	S 22°14.2'	223°11.0'	N 2°45.3'
2	232°17.5'	N 0°34.5'	205°22.1'	S 10°55.7'	152°04.6'	S 22°14.2'	238°12.1'	N 2°44.7'
3	247°17.1'	N 0°33.3'	220°24.0'	S 10°55.9'	167°06.8'	S 22°14.2'	253°13.1'	N 2°44.1'
4	262°16.7'	N 0°32.0'	235°26.0'	S 10°56.1'	182°09.1'	S 22°14.2'	268°14.1'	N 2°43.5'
5	277°16.3'	N 0°30.8'	250°27.9'	S 10°56.3'	197°11.3'	S 22°14.2'	283°15.1'	N 2°42.8'
6	292°15.9'	N 0°29.6'	265°29.9'	S 10°56.4'	212°13.6'	S 22°14.3'	298°16.1'	N 2°42.2'
7	307°15.5'	N 0°28.4'	280°31.8'	S 10°56.6'	227°15.9'	S 22°14.3'	313°17.1'	N 2°41.6'
8	322°15.1'	N 0°27.2'	295°33.7'	S 10°56.8'	242°18.1'	S 22°14.3'	328°18.1'	N 2°40.9'
9	337°14.7'	N 0°26.0'	310°35.7'	S 10°57.0'	257°20.4'	S 22°14.3'	343°19.1'	N 2°40.3'
10	352°14.3'	N 0°24.7'	325°37.6'	S 10°57.2'	272°22.6'	S 22°14.3'	358°20.2'	N 2°39.7'
11	7°13.9'	N 0°23.5'	340°39.6'	S 10°57.4'	287°24.9'	S 22°14.3'	13°21.2'	N 2°39.0'
12	22°13.5'	N 0°22.3'	355°41.5'	S 10°57.6'	302°27.1'	S 22°14.4'	28°22.2'	N 2°38.4'
13	37°13.1'	N 0°21.1'	10°43.5'	S 10°57.8'	317°29.4'	S 22°14.4'	43°23.2'	N 2°37.8'
14	52°12.8'	N 0°19.9'	25°45.4'	S 10°58.0'	332°31.7'	S 22°14.4'	58°24.2'	N 2°37.2'
15	67°12.4'	N 0°18.7'	40°47.4'	S 10°58.2'	347°33.9'	S 22°14.4'	73°25.2'	N 2°36.5'
16	82°12.0'	N 0°17.4'	55°49.3'	S 10°58.3'	2°36.2'	S 22°14.4'	88°26.2'	N 2°35.9'
17	97°11.6'	N 0°16.2'	70°51.3'	S 10°58.5'	17°38.4'	S 22°14.4'	103°27.3'	N 2°35.3'
18	112°11.2'	N 0°15.0'	85°53.2'	S 10°58.7'	32°40.7'	S 22°14.4'	118°28.3'	N 2°34.6'
19	127°10.8'	N 0°13.8'	100°55.2'	S 10°58.9'	47°42.9'	S 22°14.5'	133°29.3'	N 2°34.0'
20	142°10.4'	N 0°12.6'	115°57.1'	S 10°59.1'	62°45.2'	S 22°14.5'	148°30.3'	N 2°33.4'
21	157°10.0'	N 0°11.4'	130°59.1'	S 10°59.3'	77°47.5'	S 22°14.5'	163°31.3'	N 2°32.7'
22	172°09.6'	N 0°10.1'	146°01.0'	S 10°59.5'	92°49.7'	S 22°14.5'	178°32.3'	N 2°32.1'
23	187°09.2'	N 0°08.9'	161°02.9'	S 10°59.7'	107°52.0'	S 22°14.5'	193°33.3'	N 2°31.5'

Tue Oct 17, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°08.8'	N 0°07.7'	176°04.9'	S 10°59.9'	122°54.2'	S 22°14.5'	208°34.3'	N 2°30.8'
1	217°08.5'	N 0°06.5'	191°06.8'	S 11°00.1'	137°56.5'	S 22°14.6'	223°35.4'	N 2°30.2'
2	232°08.1'	N 0°05.3'	206°08.8'	S 11°00.2'	152°58.7'	S 22°14.6'	238°36.4'	N 2°29.6'
3	247°07.7'	N 0°04.0'	221°10.7'	S 11°00.4'	168°01.0'	S 22°14.6'	253°37.4'	N 2°29.0'
4	262°07.3'	N 0°02.8'	236°12.7'	S 11°00.6'	183°03.2'	S 22°14.6'	268°38.4'	N 2°28.3'
5	277°06.9'	N 0°01.6'	251°14.6'	S 11°00.8'	198°05.5'	S 22°14.6'	283°39.4'	N 2°27.7'
6	292°06.5'	N 0°00.4'	266°16.6'	S 11°01.0'	213°07.7'	S 22°14.6'	298°40.4'	N 2°27.1'
7	307°06.1'	S 0°00.8'	281°18.5'	S 11°01.2'	228°10.0'	S 22°14.7'	313°41.4'	N 2°26.4'
8	322°05.7'	S 0°02.0'	296°20.5'	S 11°01.4'	243°12.3'	S 22°14.7'	328°42.5'	N 2°25.8'
9	337°05.3'	S 0°03.3'	311°22.4'	S 11°01.6'	258°14.5'	S 22°14.7'	343°43.5'	N 2°25.2'
10	352°04.9'	S 0°04.5'	326°24.4'	S 11°01.8'	273°16.8'	S 22°14.7'	358°44.5'	N 2°24.5'
11	7°04.5'	S 0°05.7'	341°26.3'	S 11°01.9'	288°19.0'	S 22°14.7'	13°45.5'	N 2°23.9'
12	22°04.1'	S 0°06.9'	356°28.2'	S 11°02.1'	303°21.3'	S 22°14.7'	28°46.5'	N 2°23.3'
13	37°03.8'	S 0°08.1'	11°30.2'	S 11°02.3'	318°23.5'	S 22°14.7'	43°47.5'	N 2°22.7'
14	52°03.4'	S 0°09.4'	26°32.1'	S 11°02.5'	333°25.8'	S 22°14.8'	58°48.5'	N 2°22.0'
15	67°03.0'	S 0°10.6'	41°34.1'	S 11°02.7'	348°28.0'	S 22°14.8'	73°49.6'	N 2°21.4'
16	82°02.6'	S 0°11.8'	56°36.0'	S 11°02.9'	3°30.3'	S 22°14.8'	88°50.6'	N 2°20.8'
17	97°02.2'	S 0°13.0'	71°38.0'	S 11°03.1'	18°32.5'	S 22°14.8'	103°51.6'	N 2°20.1'
18	112°01.8'	S 0°14.2'	86°39.9'	S 11°03.3'	33°34.8'	S 22°14.8'	118°52.6'	N 2°19.5'
19	127°01.4'	S 0°15.5'	101°41.9'	S 11°03.5'	48°37.0'	S 22°14.8'	133°53.6'	N 2°18.9'
20	142°01.0'	S 0°16.7'	116°43.8'	S 11°03.7'	63°39.3'	S 22°14.9'	148°54.6'	N 2°18.2'
21	157°00.6'	S 0°17.9'	131°45.8'	S 11°03.8'	78°41.5'	S 22°14.9'	163°55.6'	N 2°17.6'
22	172°00.2'	S 0°19.1'	146°47.7'	S 11°04.0'	93°43.8'	S 22°14.9'	178°56.7'	N 2°17.0'
23	186°59.8'	S 0°20.3'	161°49.6'	S 11°04.2'	108°46.1'	S 22°14.9'	193°57.7'	N 2°16.3'

Wed Oct 18, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°59.4'	S 0°21.5'	176°51.6'	S 11°04.4'	123°48.3'	S 22°14.9'	208°58.7'	N 2°15.7'
1	216°59.0'	S 0°22.8'	191°53.5'	S 11°04.6'	138°50.6'	S 22°14.9'	223°59.7'	N 2°15.1'
2	231°58.7'	S 0°24.0'	206°55.5'	S 11°04.8'	153°52.8'	S 22°15.0'	239°00.7'	N 2°14.5'
3	246°58.3'	S 0°25.2'	221°57.4'	S 11°05.0'	168°55.1'	S 22°15.0'	254°01.7'	N 2°13.8'
4	261°57.9'	S 0°26.4'	236°59.4'	S 11°05.2'	183°57.3'	S 22°15.0'	269°02.7'	N 2°13.2'
5	276°57.5'	S 0°27.6'	252°01.3'	S 11°05.4'	198°59.6'	S 22°15.0'	284°03.8'	N 2°12.6'
6	291°57.1'	S 0°28.9'	267°03.3'	S 11°05.5'	214°01.8'	S 22°15.0'	299°04.8'	N 2°11.9'
7	306°56.7'	S 0°30.1'	282°05.2'	S 11°05.7'	229°04.1'	S 22°15.0'	314°05.8'	N 2°11.3'
8	321°56.3'	S 0°31.3'	297°07.2'	S 11°05.9'	244°06.3'	S 22°15.1'	329°06.8'	N 2°10.7'
9	336°55.9'	S 0°32.5'	312°09.1'	S 11°06.1'	259°08.6'	S 22°15.1'	344°07.8'	N 2°10.0'
10	351°55.5'	S 0°33.7'	327°11.0'	S 11°06.3'	274°10.8'	S 22°15.1'	359°08.8'	N 2°09.4'
11	6°55.1'	S 0°35.0'	342°13.0'	S 11°06.5'	289°13.1'	S 22°15.1'	14°09.8'	N 2°08.8'
12	21°54.7'	S 0°36.2'	357°14.9'	S 11°06.7'	304°15.3'	S 22°15.1'	29°10.9'	N 2°08.1'
13	36°54.3'	S 0°37.4'	12°16.9'	S 11°06.9'	319°17.6'	S 22°15.1'	44°11.9'	N 2°07.5'
14	51°53.9'	S 0°38.6'	27°18.8'	S 11°07.1'	334°19.8'	S 22°15.1'	59°12.9'	N 2°06.9'
15	66°53.5'	S 0°39.8'	42°20.8'	S 11°07.3'	349°22.1'	S 22°15.2'	74°13.9'	N 2°06.3'
16	81°53.2'	S 0°41.1'	57°22.7'	S 11°07.4'	4°24.3'	S 22°15.2'	89°14.9'	N 2°05.6'
17	96°52.8'	S 0°42.3'	72°24.7'	S 11°07.6'	19°26.6'	S 22°15.2'	104°15.9'	N 2°05.0'
18	111°52.4'	S 0°43.5'	87°26.6'	S 11°07.8'	34°28.8'	S 22°15.2'	119°16.9'	N 2°04.4'
19	126°52.0'	S 0°44.7'	102°28.5'	S 11°08.0'	49°31.1'	S 22°15.2'	134°18.0'	N 2°03.7'
20	141°51.6'	S 0°45.9'	117°30.5'	S 11°08.2'	64°33.3'	S 22°15.2'	149°19.0'	N 2°03.1'
21	156°51.2'	S 0°47.2'	132°32.4'	S 11°08.4'	79°35.6'	S 22°15.3'	164°20.0'	N 2°02.5'
22	171°50.8'	S 0°48.4'	147°34.4'	S 11°08.6'	94°37.8'	S 22°15.3'	179°21.0'	N 2°01.8'
23	186°50.4'	S 0°49.6'	162°36.3'	S 11°08.8'	109°40.1'	S 22°15.3'	194°22.0'	N 2°01.2'

Thu Oct 19, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°50.0'	S 0°50.8'	177°38.3'	S 11°09.0'	124°42.3'	S 22°15.3'	209°23.0'	N 2°00.6'
1	216°49.6'	S 0°52.1'	192°40.2'	S 11°09.1'	139°44.6'	S 22°15.3'	224°24.0'	N 1°59.9'
2	231°49.2'	S 0°53.3'	207°42.2'	S 11°09.3'	154°46.8'	S 22°15.3'	239°25.1'	N 1°59.3'
3	246°48.8'	S 0°54.5'	222°44.1'	S 11°09.5'	169°49.1'	S 22°15.4'	254°26.1'	N 1°58.7'
4	261°48.4'	S 0°55.7'	237°46.0'	S 11°09.7'	184°51.3'	S 22°15.4'	269°27.1'	N 1°58.1'
5	276°48.0'	S 0°56.9'	252°48.0'	S 11°09.9'	199°53.6'	S 22°15.4'	284°28.1'	N 1°57.4'
6	291°47.6'	S 0°58.2'	267°49.9'	S 11°10.1'	214°55.8'	S 22°15.4'	299°29.1'	N 1°56.8'
7	306°47.2'	S 0°59.4'	282°51.9'	S 11°10.3'	229°58.1'	S 22°15.4'	314°30.1'	N 1°56.2'
8	321°46.9'	S 1°00.6'	297°53.8'	S 11°10.5'	245°00.3'	S 22°15.4'	329°31.2'	N 1°55.5'
9	336°46.5'	S 1°01.8'	312°55.8'	S 11°10.7'	260°02.6'	S 22°15.4'	344°32.2'	N 1°54.9'
10	351°46.1'	S 1°03.0'	327°57.7'	S 11°10.8'	275°04.8'	S 22°15.5'	359°33.2'	N 1°54.3'
11	6°45.7'	S 1°04.3'	342°59.7'	S 11°11.0'	290°07.0'	S 22°15.5'	14°34.2'	N 1°53.6'
12	21°45.3'	S 1°05.5'	358°01.6'	S 11°11.2'	305°09.3'	S 22°15.5'	29°35.2'	N 1°53.0'
13	36°44.9'	S 1°06.7'	13°03.5'	S 11°11.4'	320°11.5'	S 22°15.5'	44°36.2'	N 1°52.4'
14	51°44.5'	S 1°07.9'	28°05.5'	S 11°11.6'	335°13.8'	S 22°15.5'	59°37.2'	N 1°51.7'
15	66°44.1'	S 1°09.1'	43°07.4'	S 11°11.8'	350°16.0'	S 22°15.5'	74°38.3'	N 1°51.1'
16	81°43.7'	S 1°10.4'	58°09.4'	S 11°12.0'	5°18.3'	S 22°15.6'	89°39.3'	N 1°50.5'
17	96°43.3'	S 1°11.6'	73°11.3'	S 11°12.2'	20°20.5'	S 22°15.6'	104°40.3'	N 1°49.8'
18	111°42.9'	S 1°12.8'	88°13.3'	S 11°12.4'	35°22.8'	S 22°15.6'	119°41.3'	N 1°49.2'
19	126°42.5'	S 1°14.0'	103°15.2'	S 11°12.5'	50°25.0'	S 22°15.6'	134°42.3'	N 1°48.6'
20	141°42.1'	S 1°15.2'	118°17.2'	S 11°12.7'	65°27.3'	S 22°15.6'	149°43.3'	N 1°48.0'
21	156°41.7'	S 1°16.5'	133°19.1'	S 11°12.9'	80°29.5'	S 22°15.6'	164°44.3'	N 1°47.3'
22	171°41.3'	S 1°17.7'	148°21.0'	S 11°13.1'	95°31.8'	S 22°15.7'	179°45.4'	N 1°46.7'
23	186°40.9'	S 1°18.9'	163°23.0'	S 11°13.3'	110°34.0'	S 22°15.7'	194°46.4'	N 1°46.1'

Fri Oct 20, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°40.5'	S 1°20.1'	178°24.9'	S 11°13.5'	125°36.3'	S 22°15.7'	209°47.4'	N 1°45.4'
1	216°40.1'	S 1°21.4'	193°26.9'	S 11°13.7'	140°38.5'	S 22°15.7'	224°48.4'	N 1°44.8'
2	231°39.7'	S 1°22.6'	208°28.8'	S 11°13.9'	155°40.7'	S 22°15.7'	239°49.4'	N 1°44.2'
3	246°39.3'	S 1°23.8'	223°30.8'	S 11°14.1'	170°43.0'	S 22°15.7'	254°50.4'	N 1°43.5'
4	261°38.9'	S 1°25.0'	238°32.7'	S 11°14.2'	185°45.2'	S 22°15.8'	269°51.5'	N 1°42.9'
5	276°38.6'	S 1°26.2'	253°34.6'	S 11°14.4'	200°47.5'	S 22°15.8'	284°52.5'	N 1°42.3'
6	291°38.2'	S 1°27.5'	268°36.6'	S 11°14.6'	215°49.7'	S 22°15.8'	299°53.5'	N 1°41.6'
7	306°37.8'	S 1°28.7'	283°38.5'	S 11°14.8'	230°52.0'	S 22°15.8'	314°54.5'	N 1°41.0'
8	321°37.4'	S 1°29.9'	298°40.5'	S 11°15.0'	245°54.2'	S 22°15.8'	329°55.5'	N 1°40.4'
9	336°37.0'	S 1°31.1'	313°42.4'	S 11°15.2'	260°56.5'	S 22°15.8'	344°56.5'	N 1°39.7'
10	351°36.6'	S 1°32.3'	328°44.4'	S 11°15.4'	275°58.7'	S 22°15.8'	359°57.5'	N 1°39.1'
11	6°36.2'	S 1°33.6'	343°46.3'	S 11°15.6'	291°00.9'	S 22°15.9'	14°58.6'	N 1°38.5'
12	21°35.8'	S 1°34.8'	358°48.3'	S 11°15.7'	306°03.2'	S 22°15.9'	29°59.6'	N 1°37.9'
13	36°35.4'	S 1°36.0'	13°50.2'	S 11°15.9'	321°05.4'	S 22°15.9'	45°00.6'	N 1°37.2'
14	51°35.0'	S 1°37.2'	28°52.1'	S 11°16.1'	336°07.7'	S 22°15.9'	60°01.6'	N 1°36.6'
15	66°34.6'	S 1°38.5'	43°54.1'	S 11°16.3'	351°09.9'	S 22°15.9'	75°02.6'	N 1°36.0'
16	81°34.2'	S 1°39.7'	58°56.0'	S 11°16.5'	6°12.2'	S 22°15.9'	90°03.6'	N 1°35.3'
17	96°33.8'	S 1°40.9'	73°58.0'	S 11°16.7'	21°14.4'	S 22°16.0'	105°04.7'	N 1°34.7'
18	111°33.4'	S 1°42.1'	88°59.9'	S 11°16.9'	36°16.7'	S 22°16.0'	120°05.7'	N 1°34.1'
19	126°33.0'	S 1°43.3'	104°01.9'	S 11°17.1'	51°18.9'	S 22°16.0'	135°06.7'	N 1°33.4'
20	141°32.6'	S 1°44.6'	119°03.8'	S 11°17.3'	66°21.1'	S 22°16.0'	150°07.7'	N 1°32.8'
21	156°32.2'	S 1°45.8'	134°05.7'	S 11°17.4'	81°23.4'	S 22°16.0'	165°08.7'	N 1°32.2'
22	171°31.8'	S 1°47.0'	149°07.7'	S 11°17.6'	96°25.6'	S 22°16.0'	180°09.7'	N 1°31.5'
23	186°31.4'	S 1°48.2'	164°09.6'	S 11°17.8'	111°27.9'	S 22°16.1'	195°10.8'	N 1°30.9'

Sat Oct 21, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°31.0'	S 1°49.4'	179°11.6'	S 11°18.0'	126°30.1'	S 22°16.1'	210°11.8'	N 1°30.3'
1	216°30.6'	S 1°50.7'	194°13.5'	S 11°18.2'	141°32.4'	S 22°16.1'	225°12.8'	N 1°29.6'
2	231°30.2'	S 1°51.9'	209°15.5'	S 11°18.4'	156°34.6'	S 22°16.1'	240°13.8'	N 1°29.0'
3	246°29.8'	S 1°53.1'	224°17.4'	S 11°18.6'	171°36.8'	S 22°16.1'	255°14.8'	N 1°28.4'
4	261°29.4'	S 1°54.3'	239°19.3'	S 11°18.8'	186°39.1'	S 22°16.1'	270°15.8'	N 1°27.8'
5	276°29.0'	S 1°55.5'	254°21.3'	S 11°19.0'	201°41.3'	S 22°16.1'	285°16.8'	N 1°27.1'
6	291°28.6'	S 1°56.8'	269°23.2'	S 11°19.1'	216°43.6'	S 22°16.2'	300°17.9'	N 1°26.5'
7	306°28.2'	S 1°58.0'	284°25.2'	S 11°19.3'	231°45.8'	S 22°16.2'	315°18.9'	N 1°25.9'
8	321°27.8'	S 1°59.2'	299°27.1'	S 11°19.5'	246°48.1'	S 22°16.2'	330°19.9'	N 1°25.2'
9	336°27.4'	S 2°00.4'	314°29.1'	S 11°19.7'	261°50.3'	S 22°16.2'	345°20.9'	N 1°24.6'
10	351°27.0'	S 2°01.7'	329°31.0'	S 11°19.9'	276°52.5'	S 22°16.2'	0°21.9'	N 1°24.0'
11	6°26.6'	S 2°02.9'	344°32.9'	S 11°20.1'	291°54.8'	S 22°16.2'	15°22.9'	N 1°23.3'
12	21°26.2'	S 2°04.1'	359°34.9'	S 11°20.3'	306°57.0'	S 22°16.3'	30°24.0'	N 1°22.7'
13	36°25.8'	S 2°05.3'	14°36.8'	S 11°20.5'	321°59.3'	S 22°16.3'	45°25.0'	N 1°22.1'
14	51°25.4'	S 2°06.5'	29°38.8'	S 11°20.6'	337°01.5'	S 22°16.3'	60°26.0'	N 1°21.4'
15	66°25.0'	S 2°07.8'	44°40.7'	S 11°20.8'	352°03.7'	S 22°16.3'	75°27.0'	N 1°20.8'
16	81°24.6'	S 2°09.0'	59°42.7'	S 11°21.0'	7°06.0'	S 22°16.3'	90°28.0'	N 1°20.2'
17	96°24.2'	S 2°10.2'	74°44.6'	S 11°21.2'	22°08.2'	S 22°16.3'	105°29.0'	N 1°19.5'
18	111°23.8'	S 2°11.4'	89°46.5'	S 11°21.4'	37°10.5'	S 22°16.4'	120°30.1'	N 1°18.9'
19	126°23.4'	S 2°12.6'	104°48.5'	S 11°21.6'	52°12.7'	S 22°16.4'	135°31.1'	N 1°18.3'
20	141°23.0'	S 2°13.9'	119°50.4'	S 11°21.8'	67°14.9'	S 22°16.4'	150°32.1'	N 1°17.7'
21	156°22.6'	S 2°15.1'	134°52.4'	S 11°22.0'	82°17.2'	S 22°16.4'	165°33.1'	N 1°17.0'
22	171°22.2'	S 2°16.3'	149°54.3'	S 11°22.2'	97°19.4'	S 22°16.4'	180°34.1'	N 1°16.4'
23	186°21.8'	S 2°17.5'	164°56.3'	S 11°22.3'	112°21.7'	S 22°16.4'	195°35.1'	N 1°15.8'

Sun Oct 22, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°21.4'	S 2°18.7'	179°58.2'	S 11°22.5'	127°23.9'	S 22°16.4'	210°36.2'	N 1°15.1'
1	216°21.0'	S 2°20.0'	195°00.1'	S 11°22.7'	142°26.1'	S 22°16.5'	225°37.2'	N 1°14.5'
2	231°20.6'	S 2°21.2'	210°02.1'	S 11°22.9'	157°28.4'	S 22°16.5'	240°38.2'	N 1°13.9'
3	246°20.2'	S 2°22.4'	225°04.0'	S 11°23.1'	172°30.6'	S 22°16.5'	255°39.2'	N 1°13.2'
4	261°19.8'	S 2°23.6'	240°06.0'	S 11°23.3'	187°32.9'	S 22°16.5'	270°40.2'	N 1°12.6'
5	276°19.4'	S 2°24.9'	255°07.9'	S 11°23.5'	202°35.1'	S 22°16.5'	285°41.2'	N 1°12.0'
6	291°19.0'	S 2°26.1'	270°09.9'	S 11°23.7'	217°37.3'	S 22°16.5'	300°42.2'	N 1°11.3'
7	306°18.6'	S 2°27.3'	285°11.8'	S 11°23.8'	232°39.6'	S 22°16.6'	315°43.3'	N 1°10.7'
8	321°18.2'	S 2°28.5'	300°13.7'	S 11°24.0'	247°41.8'	S 22°16.6'	330°44.3'	N 1°10.1'
9	336°17.8'	S 2°29.7'	315°15.7'	S 11°24.2'	262°44.1'	S 22°16.6'	345°45.3'	N 1°09.4'
10	351°17.4'	S 2°31.0'	330°17.6'	S 11°24.4'	277°46.3'	S 22°16.6'	0°46.3'	N 1°08.8'
11	6°17.0'	S 2°32.2'	345°19.6'	S 11°24.6'	292°48.5'	S 22°16.6'	15°47.3'	N 1°08.2'
12	21°16.6'	S 2°33.4'	0°21.5'	S 11°24.8'	307°50.8'	S 22°16.6'	30°48.3'	N 1°07.5'
13	36°16.2'	S 2°34.6'	15°23.4'	S 11°25.0'	322°53.0'	S 22°16.7'	45°49.4'	N 1°06.9'
14	51°15.8'	S 2°35.8'	30°25.4'	S 11°25.2'	337°55.2'	S 22°16.7'	60°50.4'	N 1°06.3'
15	66°15.4'	S 2°37.1'	45°27.3'	S 11°25.3'	352°57.5'	S 22°16.7'	75°51.4'	N 1°05.7'
16	81°15.0'	S 2°38.3'	60°29.3'	S 11°25.5'	7°59.7'	S 22°16.7'	90°52.4'	N 1°05.0'
17	96°14.6'	S 2°39.5'	75°31.2'	S 11°25.7'	23°02.0'	S 22°16.7'	105°53.4'	N 1°04.4'
18	111°14.2'	S 2°40.7'	90°33.2'	S 11°25.9'	38°04.2'	S 22°16.7'	120°54.4'	N 1°03.8'
19	126°13.8'	S 2°41.9'	105°35.1'	S 11°26.1'	53°06.4'	S 22°16.7'	135°55.5'	N 1°03.1'
20	141°13.4'	S 2°43.2'	120°37.0'	S 11°26.3'	68°08.7'	S 22°16.8'	150°56.5'	N 1°02.5'
21	156°13.0'	S 2°44.4'	135°39.0'	S 11°26.5'	83°10.9'	S 22°16.8'	165°57.5'	N 1°01.9'
22	171°12.6'	S 2°45.6'	150°40.9'	S 11°26.7'	98°13.1'	S 22°16.8'	180°58.5'	N 1°01.2'
23	186°12.2'	S 2°46.8'	165°42.9'	S 11°26.8'	113°15.4'	S 22°16.8'	195°59.5'	N 1°00.6'

Mon Oct 23, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.6		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°11.8'	S 2°48.0'	180°44.8'	S 11°27.0'	128°17.6'	S 22°16.8'	211°00.5'	N 0°60.0'
1	216°11.4'	S 2°49.3'	195°46.8'	S 11°27.2'	143°19.9'	S 22°16.8'	226°01.6'	N 0°59.3'
2	231°11.0'	S 2°50.5'	210°48.7'	S 11°27.4'	158°22.1'	S 22°16.9'	241°02.6'	N 0°58.7'
3	246°10.6'	S 2°51.7'	225°50.6'	S 11°27.6'	173°24.3'	S 22°16.9'	256°03.6'	N 0°58.1'
4	261°10.2'	S 2°52.9'	240°52.6'	S 11°27.8'	188°26.6'	S 22°16.9'	271°04.6'	N 0°57.4'
5	276°09.8'	S 2°54.1'	255°54.5'	S 11°28.0'	203°28.8'	S 22°16.9'	286°05.6'	N 0°56.8'
6	291°09.4'	S 2°55.4'	270°56.5'	S 11°28.2'	218°31.0'	S 22°16.9'	301°06.6'	N 0°56.2'
7	306°09.0'	S 2°56.6'	285°58.4'	S 11°28.4'	233°33.3'	S 22°16.9'	316°07.7'	N 0°55.5'
8	321°08.6'	S 2°57.8'	301°00.3'	S 11°28.5'	248°35.5'	S 22°17.0'	331°08.7'	N 0°54.9'
9	336°08.2'	S 2°59.0'	316°02.3'	S 11°28.7'	263°37.7'	S 22°17.0'	346°09.7'	N 0°54.3'
10	351°07.8'	S 3°00.2'	331°04.2'	S 11°28.9'	278°40.0'	S 22°17.0'	1°10.7'	N 0°53.7'
11	6°07.4'	S 3°01.4'	346°06.2'	S 11°29.1'	293°42.2'	S 22°17.0'	16°11.7'	N 0°53.0'
12	21°07.0'	S 3°02.7'	1°08.1'	S 11°29.3'	308°44.4'	S 22°17.0'	31°12.7'	N 0°52.4'
13	36°06.5'	S 3°03.9'	16°10.1'	S 11°29.5'	323°46.7'	S 22°17.0'	46°13.8'	N 0°51.8'
14	51°06.1'	S 3°05.1'	31°12.0'	S 11°29.7'	338°48.9'	S 22°17.0'	61°14.8'	N 0°51.1'
15	66°05.7'	S 3°06.3'	46°13.9'	S 11°29.9'	353°51.1'	S 22°17.1'	76°15.8'	N 0°50.5'
16	81°05.3'	S 3°07.5'	61°15.9'	S 11°30.0'	8°53.4'	S 22°17.1'	91°16.8'	N 0°49.9'
17	96°04.9'	S 3°08.8'	76°17.8'	S 11°30.2'	23°55.6'	S 22°17.1'	106°17.8'	N 0°49.2'
18	111°04.5'	S 3°10.0'	91°19.8'	S 11°30.4'	38°57.9'	S 22°17.1'	121°18.8'	N 0°48.6'
19	126°04.1'	S 3°11.2'	106°21.7'	S 11°30.6'	54°00.1'	S 22°17.1'	136°19.9'	N 0°48.0'
20	141°03.7'	S 3°12.4'	121°23.6'	S 11°30.8'	69°02.3'	S 22°17.1'	151°20.9'	N 0°47.3'
21	156°03.3'	S 3°13.6'	136°25.6'	S 11°31.0'	84°04.6'	S 22°17.2'	166°21.9'	N 0°46.7'
22	171°02.9'	S 3°14.9'	151°27.5'	S 11°31.2'	99°06.8'	S 22°17.2'	181°22.9'	N 0°46.1'
23	186°02.5'	S 3°16.1'	166°29.5'	S 11°31.3'	114°09.0'	S 22°17.2'	196°23.9'	N 0°45.4'

Tue Oct 24, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.6		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°02.1'	S 3°17.3'	181°31.4'	S 11°31.5'	129°11.3'	S 22°17.2'	211°24.9'	N 0°44.8'
1	216°01.7'	S 3°18.5'	196°33.4'	S 11°31.7'	144°13.5'	S 22°17.2'	226°26.0'	N 0°44.2'
2	231°01.3'	S 3°19.7'	211°35.3'	S 11°31.9'	159°15.7'	S 22°17.2'	241°27.0'	N 0°43.6'
3	246°00.9'	S 3°20.9'	226°37.2'	S 11°32.1'	174°18.0'	S 22°17.3'	256°28.0'	N 0°42.9'
4	261°00.5'	S 3°22.2'	241°39.2'	S 11°32.3'	189°20.2'	S 22°17.3'	271°29.0'	N 0°42.3'
5	276°00.1'	S 3°23.4'	256°41.1'	S 11°32.5'	204°22.4'	S 22°17.3'	286°30.0'	N 0°41.7'
6	290°59.6'	S 3°24.6'	271°43.1'	S 11°32.7'	219°24.7'	S 22°17.3'	301°31.0'	N 0°41.0'
7	305°59.2'	S 3°25.8'	286°45.0'	S 11°32.8'	234°26.9'	S 22°17.3'	316°32.1'	N 0°40.4'
8	320°58.8'	S 3°27.0'	301°46.9'	S 11°33.0'	249°29.1'	S 22°17.3'	331°33.1'	N 0°39.8'
9	335°58.4'	S 3°28.3'	316°48.9'	S 11°33.2'	264°31.4'	S 22°17.3'	346°34.1'	N 0°39.1'
10	350°58.0'	S 3°29.5'	331°50.8'	S 11°33.4'	279°33.6'	S 22°17.4'	1°35.1'	N 0°38.5'
11	5°57.6'	S 3°30.7'	346°52.8'	S 11°33.6'	294°35.8'	S 22°17.4'	16°36.1'	N 0°37.9'
12	20°57.2'	S 3°31.9'	1°54.7'	S 11°33.8'	309°38.1'	S 22°17.4'	31°37.1'	N 0°37.2'
13	35°56.8'	S 3°33.1'	16°56.6'	S 11°34.0'	324°40.3'	S 22°17.4'	46°38.2'	N 0°36.6'
14	50°56.4'	S 3°34.3'	31°58.6'	S 11°34.2'	339°42.5'	S 22°17.4'	61°39.2'	N 0°36.0'
15	65°56.0'	S 3°35.6'	47°00.5'	S 11°34.3'	354°44.7'	S 22°17.4'	76°40.2'	N 0°35.3'
16	80°55.6'	S 3°36.8'	62°02.5'	S 11°34.5'	9°47.0'	S 22°17.5'	91°41.2'	N 0°34.7'
17	95°55.2'	S 3°38.0'	77°04.4'	S 11°34.7'	24°49.2'	S 22°17.5'	106°42.2'	N 0°34.1'
18	110°54.7'	S 3°39.2'	92°06.4'	S 11°34.9'	39°51.4'	S 22°17.5'	121°43.2'	N 0°33.4'
19	125°54.3'	S 3°40.4'	107°08.3'	S 11°35.1'	54°53.7'	S 22°17.5'	136°44.3'	N 0°32.8'
20	140°53.9'	S 3°41.6'	122°10.2'	S 11°35.3'	69°55.9'	S 22°17.5'	151°45.3'	N 0°32.2'
21	155°53.5'	S 3°42.9'	137°12.2'	S 11°35.5'	84°58.1'	S 22°17.5'	166°46.3'	N 0°31.6'
22	170°53.1'	S 3°44.1'	152°14.1'	S 11°35.7'	100°00.4'	S 22°17.5'	181°47.3'	N 0°30.9'
23	185°52.7'	S 3°45.3'	167°16.1'	S 11°35.8'	115°02.6'	S 22°17.6'	196°48.3'	N 0°30.3'

Wed Oct 25, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.6		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	200°52.3'	S 3°46.5'	182°18.0'	S 11°36.0'	130°04.8'	S 22°17.6'	211°49.3'	N 0°29.7'
1	215°51.9'	S 3°47.7'	197°19.9'	S 11°36.2'	145°07.1'	S 22°17.6'	226°50.4'	N 0°29.0'
2	230°51.5'	S 3°48.9'	212°21.9'	S 11°36.4'	160°09.3'	S 22°17.6'	241°51.4'	N 0°28.4'
3	245°51.1'	S 3°50.2'	227°23.8'	S 11°36.6'	175°11.5'	S 22°17.6'	256°52.4'	N 0°27.8'
4	260°50.6'	S 3°51.4'	242°25.8'	S 11°36.8'	190°13.8'	S 22°17.6'	271°53.4'	N 0°27.1'
5	275°50.2'	S 3°52.6'	257°27.7'	S 11°37.0'	205°16.0'	S 22°17.7'	286°54.4'	N 0°26.5'
6	290°49.8'	S 3°53.8'	272°29.6'	S 11°37.1'	220°18.2'	S 22°17.7'	301°55.4'	N 0°25.9'
7	305°49.4'	S 3°55.0'	287°31.6'	S 11°37.3'	235°20.4'	S 22°17.7'	316°56.5'	N 0°25.2'
8	320°49.0'	S 3°56.2'	302°33.5'	S 11°37.5'	250°22.7'	S 22°17.7'	331°57.5'	N 0°24.6'
9	335°48.6'	S 3°57.4'	317°35.5'	S 11°37.7'	265°24.9'	S 22°17.7'	346°58.5'	N 0°24.0'
10	350°48.2'	S 3°58.7'	332°37.4'	S 11°37.9'	280°27.1'	S 22°17.7'	1°59.5'	N 0°23.3'
11	5°47.8'	S 3°59.9'	347°39.3'	S 11°38.1'	295°29.4'	S 22°17.8'	17°00.5'	N 0°22.7'
12	20°47.4'	S 4°01.1'	2°41.3'	S 11°38.3'	310°31.6'	S 22°17.8'	32°01.6'	N 0°22.1'
13	35°46.9'	S 4°02.3'	17°43.2'	S 11°38.5'	325°33.8'	S 22°17.8'	47°02.6'	N 0°21.5'
14	50°46.5'	S 4°03.5'	32°45.2'	S 11°38.6'	340°36.0'	S 22°17.8'	62°03.6'	N 0°20.8'
15	65°46.1'	S 4°04.7'	47°47.1'	S 11°38.8'	355°38.3'	S 22°17.8'	77°04.6'	N 0°20.2'
16	80°45.7'	S 4°06.0'	62°49.0'	S 11°39.0'	10°40.5'	S 22°17.8'	92°05.6'	N 0°19.6'
17	95°45.3'	S 4°07.2'	77°51.0'	S 11°39.2'	25°42.7'	S 22°17.8'	107°06.6'	N 0°18.9'
18	110°44.9'	S 4°08.4'	92°52.9'	S 11°39.4'	40°45.0'	S 22°17.9'	122°07.7'	N 0°18.3'
19	125°44.5'	S 4°09.6'	107°54.9'	S 11°39.6'	55°47.2'	S 22°17.9'	137°08.7'	N 0°17.7'
20	140°44.1'	S 4°10.8'	122°56.8'	S 11°39.8'	70°49.4'	S 22°17.9'	152°09.7'	N 0°17.0'
21	155°43.6'	S 4°12.0'	137°58.8'	S 11°39.9'	85°51.6'	S 22°17.9'	167°10.7'	N 0°16.4'
22	170°43.2'	S 4°13.2'	153°00.7'	S 11°40.1'	100°53.9'	S 22°17.9'	182°11.7'	N 0°15.8'
23	185°42.8'	S 4°14.4'	168°02.6'	S 11°40.3'	115°56.1'	S 22°17.9'	197°12.7'	N 0°15.1'

Thu Oct 26, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.6		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	200°42.4'	S 4°15.7'	183°04.6'	S 11°40.5'	130°58.3'	S 22°18.0'	212°13.8'	N 0°14.5'
1	215°42.0'	S 4°16.9'	198°06.5'	S 11°40.7'	146°00.6'	S 22°18.0'	227°14.8'	N 0°13.9'
2	230°41.6'	S 4°18.1'	213°08.5'	S 11°40.9'	161°02.8'	S 22°18.0'	242°15.8'	N 0°13.2'
3	245°41.2'	S 4°19.3'	228°10.4'	S 11°41.1'	176°05.0'	S 22°18.0'	257°16.8'	N 0°12.6'
4	260°40.7'	S 4°20.5'	243°12.3'	S 11°41.3'	191°07.2'	S 22°18.0'	272°17.8'	N 0°12.0'
5	275°40.3'	S 4°21.7'	258°14.3'	S 11°41.4'	206°09.5'	S 22°18.0'	287°18.8'	N 0°11.4'
6	290°39.9'	S 4°22.9'	273°16.2'	S 11°41.6'	221°11.7'	S 22°18.0'	302°19.9'	N 0°10.7'
7	305°39.5'	S 4°24.2'	288°18.2'	S 11°41.8'	236°13.9'	S 22°18.1'	317°20.9'	N 0°10.1'
8	320°39.1'	S 4°25.4'	303°20.1'	S 11°42.0'	251°16.2'	S 22°18.1'	332°21.9'	N 0°09.5'
9	335°38.7'	S 4°26.6'	318°22.0'	S 11°42.2'	266°18.4'	S 22°18.1'	347°22.9'	N 0°08.8'
10	350°38.2'	S 4°27.8'	333°24.0'	S 11°42.4'	281°20.6'	S 22°18.1'	2°23.9'	N 0°08.2'
11	5°37.8'	S 4°29.0'	348°25.9'	S 11°42.6'	296°22.8'	S 22°18.1'	17°24.9'	N 0°07.6'
12	20°37.4'	S 4°30.2'	3°27.9'	S 11°42.7'	311°25.1'	S 22°18.1'	32°26.0'	N 0°06.9'
13	35°37.0'	S 4°31.4'	18°29.8'	S 11°42.9'	326°27.3'	S 22°18.2'	47°27.0'	N 0°06.3'
14	50°36.6'	S 4°32.6'	33°31.7'	S 11°43.1'	341°29.5'	S 22°18.2'	62°28.0'	N 0°05.7'
15	65°36.2'	S 4°33.9'	48°33.7'	S 11°43.3'	356°31.7'	S 22°18.2'	77°29.0'	N 0°05.0'
16	80°35.7'	S 4°35.1'	63°35.6'	S 11°43.5'	11°34.0'	S 22°18.2'	92°30.0'	N 0°04.4'
17	95°35.3'	S 4°36.3'	78°37.6'	S 11°43.7'	26°36.2'	S 22°18.2'	107°31.1'	N 0°03.8'
18	110°34.9'	S 4°37.5'	93°39.5'	S 11°43.9'	41°38.4'	S 22°18.2'	122°32.1'	N 0°03.2'
19	125°34.5'	S 4°38.7'	108°41.4'	S 11°44.0'	56°40.6'	S 22°18.2'	137°33.1'	N 0°02.5'
20	140°34.1'	S 4°39.9'	123°43.4'	S 11°44.2'	71°42.9'	S 22°18.3'	152°34.1'	N 0°01.9'
21	155°33.7'	S 4°41.1'	138°45.3'	S 11°44.4'	86°45.1'	S 22°18.3'	167°35.1'	N 0°01.3'
22	170°33.2'	S 4°42.3'	153°47.3'	S 11°44.6'	101°47.3'	S 22°18.3'	182°36.1'	N 0°00.6'
23	185°32.8'	S 4°43.5'	168°49.2'	S 11°44.8'	116°49.5'	S 22°18.3'	197°37.2'	S 0°00.0'

Fri Oct 27, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.6		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	200°32.4'	S 4°44.8'	183°51.1'	S 11°45.0'	131°51.8'	S 22°18.3'	212°38.2'	S 0°00.6'
1	215°32.0'	S 4°46.0'	198°53.1'	S 11°45.2'	146°54.0'	S 22°18.3'	227°39.2'	S 0°01.3'
2	230°31.6'	S 4°47.2'	213°55.0'	S 11°45.3'	161°56.2'	S 22°18.4'	242°40.2'	S 0°01.9'
3	245°31.1'	S 4°48.4'	228°57.0'	S 11°45.5'	176°58.4'	S 22°18.4'	257°41.2'	S 0°02.5'
4	260°30.7'	S 4°49.6'	243°58.9'	S 11°45.7'	192°00.7'	S 22°18.4'	272°42.2'	S 0°03.2'
5	275°30.3'	S 4°50.8'	259°00.8'	S 11°45.9'	207°02.9'	S 22°18.4'	287°43.3'	S 0°03.8'
6	290°29.9'	S 4°52.0'	274°02.8'	S 11°46.1'	222°05.1'	S 22°18.4'	302°44.3'	S 0°04.4'
7	305°29.5'	S 4°53.2'	289°04.7'	S 11°46.3'	237°07.3'	S 22°18.4'	317°45.3'	S 0°05.0'
8	320°29.0'	S 4°54.4'	304°06.7'	S 11°46.5'	252°09.6'	S 22°18.4'	332°46.3'	S 0°05.7'
9	335°28.6'	S 4°55.6'	319°08.6'	S 11°46.6'	267°11.8'	S 22°18.5'	347°47.3'	S 0°06.3'
10	350°28.2'	S 4°56.9'	334°10.5'	S 11°46.8'	282°14.0'	S 22°18.5'	2°48.3'	S 0°06.9'
11	5°27.8'	S 4°58.1'	349°12.5'	S 11°47.0'	297°16.2'	S 22°18.5'	17°49.4'	S 0°07.6'
12	20°27.4'	S 4°59.3'	4°14.4'	S 11°47.2'	312°18.5'	S 22°18.5'	32°50.4'	S 0°08.2'
13	35°26.9'	S 5°00.5'	19°16.4'	S 11°47.4'	327°20.7'	S 22°18.5'	47°51.4'	S 0°08.8'
14	50°26.5'	S 5°01.7'	34°18.3'	S 11°47.6'	342°22.9'	S 22°18.5'	62°52.4'	S 0°09.5'
15	65°26.1'	S 5°02.9'	49°20.2'	S 11°47.8'	357°25.1'	S 22°18.6'	77°53.4'	S 0°10.1'
16	80°25.7'	S 5°04.1'	64°22.2'	S 11°47.9'	12°27.4'	S 22°18.6'	92°54.5'	S 0°10.7'
17	95°25.3'	S 5°05.3'	79°24.1'	S 11°48.1'	27°29.6'	S 22°18.6'	107°55.5'	S 0°11.4'
18	110°24.8'	S 5°06.5'	94°26.1'	S 11°48.3'	42°31.8'	S 22°18.6'	122°56.5'	S 0°12.0'
19	125°24.4'	S 5°07.7'	109°28.0'	S 11°48.5'	57°34.0'	S 22°18.6'	137°57.5'	S 0°12.6'
20	140°24.0'	S 5°08.9'	124°29.9'	S 11°48.7'	72°36.2'	S 22°18.6'	152°58.5'	S 0°13.2'
21	155°23.6'	S 5°10.1'	139°31.9'	S 11°48.9'	87°38.5'	S 22°18.7'	167°59.5'	S 0°13.9'
22	170°23.1'	S 5°11.3'	154°33.8'	S 11°49.1'	102°40.7'	S 22°18.7'	183°00.6'	S 0°14.5'
23	185°22.7'	S 5°12.6'	169°35.8'	S 11°49.2'	117°42.9'	S 22°18.7'	198°01.6'	S 0°15.1'

Sat Oct 28, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.6		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	200°22.3'	S 5°13.8'	184°37.7'	S 11°49.4'	132°45.1'	S 22°18.7'	213°02.6'	S 0°15.8'
1	215°21.9'	S 5°15.0'	199°39.6'	S 11°49.6'	147°47.4'	S 22°18.7'	228°03.6'	S 0°16.4'
2	230°21.5'	S 5°16.2'	214°41.6'	S 11°49.8'	162°49.6'	S 22°18.7'	243°04.6'	S 0°17.0'
3	245°21.0'	S 5°17.4'	229°43.5'	S 11°50.0'	177°51.8'	S 22°18.7'	258°05.6'	S 0°17.7'
4	260°20.6'	S 5°18.6'	244°45.5'	S 11°50.2'	192°54.0'	S 22°18.8'	273°06.7'	S 0°18.3'
5	275°20.2'	S 5°19.8'	259°47.4'	S 11°50.4'	207°56.2'	S 22°18.8'	288°07.7'	S 0°18.9'
6	290°19.8'	S 5°21.0'	274°49.3'	S 11°50.5'	222°58.5'	S 22°18.8'	303°08.7'	S 0°19.6'
7	305°19.3'	S 5°22.2'	289°51.3'	S 11°50.7'	238°00.7'	S 22°18.8'	318°09.7'	S 0°20.2'
8	320°18.9'	S 5°23.4'	304°53.2'	S 11°50.9'	253°02.9'	S 22°18.8'	333°10.7'	S 0°20.8'
9	335°18.5'	S 5°24.6'	319°55.2'	S 11°51.1'	268°05.1'	S 22°18.8'	348°11.7'	S 0°21.4'
10	350°18.1'	S 5°25.8'	334°57.1'	S 11°51.3'	283°07.4'	S 22°18.9'	3°12.8'	S 0°22.1'
11	5°17.6'	S 5°27.0'	349°59.0'	S 11°51.5'	298°09.6'	S 22°18.9'	18°13.8'	S 0°22.7'
12	20°17.2'	S 5°28.2'	5°01.0'	S 11°51.7'	313°11.8'	S 22°18.9'	33°14.8'	S 0°23.3'
13	35°16.8'	S 5°29.4'	20°02.9'	S 11°51.8'	328°14.0'	S 22°18.9'	48°15.8'	S 0°24.0'
14	50°16.4'	S 5°30.6'	35°04.9'	S 11°52.0'	343°16.2'	S 22°18.9'	63°16.8'	S 0°24.6'
15	65°15.9'	S 5°31.8'	50°06.8'	S 11°52.2'	358°18.5'	S 22°18.9'	78°17.9'	S 0°25.2'
16	80°15.5'	S 5°33.0'	65°08.7'	S 11°52.4'	13°20.7'	S 22°18.9'	93°18.9'	S 0°25.9'
17	95°15.1'	S 5°34.3'	80°10.7'	S 11°52.6'	28°22.9'	S 22°19.0'	108°19.9'	S 0°26.5'
18	110°14.6'	S 5°35.5'	95°12.6'	S 11°52.8'	43°25.1'	S 22°19.0'	123°20.9'	S 0°27.1'
19	125°14.2'	S 5°36.7'	110°14.5'	S 11°53.0'	58°27.3'	S 22°19.0'	138°21.9'	S 0°27.7'
20	140°13.8'	S 5°37.9'	125°16.5'	S 11°53.1'	73°29.6'	S 22°19.0'	153°22.9'	S 0°28.4'
21	155°13.4'	S 5°39.1'	140°18.4'	S 11°53.3'	88°31.8'	S 22°19.0'	168°24.0'	S 0°29.0'
22	170°12.9'	S 5°40.3'	155°20.4'	S 11°53.5'	103°34.0'	S 22°19.0'	183°25.0'	S 0°29.6'
23	185°12.5'	S 5°41.5'	170°22.3'	S 11°53.7'	118°36.2'	S 22°19.0'	198°26.0'	S 0°30.3'

Sun Oct 29, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.6		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	200°12.1'	S 5°42.7'	185°24.2'	S 11°53.9'	133°38.4'	S 22°19.1'	213°27.0'	S 0°30.9'
1	215°11.6'	S 5°43.9'	200°26.2'	S 11°54.1'	148°40.7'	S 22°19.1'	228°28.0'	S 0°31.5'
2	230°11.2'	S 5°45.1'	215°28.1'	S 11°54.2'	163°42.9'	S 22°19.1'	243°29.0'	S 0°32.2'
3	245°10.8'	S 5°46.3'	230°30.1'	S 11°54.4'	178°45.1'	S 22°19.1'	258°30.1'	S 0°32.8'
4	260°10.4'	S 5°47.5'	245°32.0'	S 11°54.6'	193°47.3'	S 22°19.1'	273°31.1'	S 0°33.4'
5	275°09.9'	S 5°48.7'	260°33.9'	S 11°54.8'	208°49.5'	S 22°19.1'	288°32.1'	S 0°34.0'
6	290°09.5'	S 5°49.9'	275°35.9'	S 11°55.0'	223°51.8'	S 22°19.2'	303°33.1'	S 0°34.7'
7	305°09.1'	S 5°51.1'	290°37.8'	S 11°55.2'	238°54.0'	S 22°19.2'	318°34.1'	S 0°35.3'
8	320°08.6'	S 5°52.3'	305°39.8'	S 11°55.4'	253°56.2'	S 22°19.2'	333°35.1'	S 0°35.9'
9	335°08.2'	S 5°53.5'	320°41.7'	S 11°55.5'	268°58.4'	S 22°19.2'	348°36.2'	S 0°36.6'
10	350°07.8'	S 5°54.7'	335°43.6'	S 11°55.7'	284°00.6'	S 22°19.2'	3°37.2'	S 0°37.2'
11	5°07.3'	S 5°55.9'	350°45.6'	S 11°55.9'	299°02.8'	S 22°19.2'	18°38.2'	S 0°37.8'
12	20°06.9'	S 5°57.1'	5°47.5'	S 11°56.1'	314°05.1'	S 22°19.2'	33°39.2'	S 0°38.5'
13	35°06.5'	S 5°58.3'	20°49.5'	S 11°56.3'	329°07.3'	S 22°19.3'	48°40.2'	S 0°39.1'
14	50°06.1'	S 5°59.5'	35°51.4'	S 11°56.5'	344°09.5'	S 22°19.3'	63°41.3'	S 0°39.7'
15	65°05.6'	S 6°00.7'	50°53.3'	S 11°56.6'	359°11.7'	S 22°19.3'	78°42.3'	S 0°40.3'
16	80°05.2'	S 6°01.9'	65°55.3'	S 11°56.8'	14°13.9'	S 22°19.3'	93°43.3'	S 0°41.0'
17	95°04.8'	S 6°03.1'	80°57.2'	S 11°57.0'	29°16.2'	S 22°19.3'	108°44.3'	S 0°41.6'
18	110°04.3'	S 6°04.3'	95°59.2'	S 11°57.2'	44°18.4'	S 22°19.3'	123°45.3'	S 0°42.2'
19	125°03.9'	S 6°05.5'	111°01.1'	S 11°57.4'	59°20.6'	S 22°19.4'	138°46.3'	S 0°42.9'
20	140°03.5'	S 6°06.7'	126°03.0'	S 11°57.6'	74°22.8'	S 22°19.4'	153°47.4'	S 0°43.5'
21	155°03.0'	S 6°07.9'	141°05.0'	S 11°57.8'	89°25.0'	S 22°19.4'	168°48.4'	S 0°44.1'
22	170°02.6'	S 6°09.1'	156°06.9'	S 11°57.9'	104°27.2'	S 22°19.4'	183°49.4'	S 0°44.8'
23	185°02.2'	S 6°10.3'	171°08.9'	S 11°58.1'	119°29.5'	S 22°19.4'	198°50.4'	S 0°45.4'

Mon Oct 30, 2017 UTC

UTC	Venus -3.8		Jupiter -1.5		Saturn +0.6		Mars +1.8	
	v = -0.4' d = 1.2'		v = 1.9' d = 0.2'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	200°01.7'	S 6°11.5'	186°10.8'	S 11°58.3'	134°31.7'	S 22°19.4'	213°51.4'	S 0°46.0'
1	215°01.3'	S 6°12.7'	201°12.7'	S 11°58.5'	149°33.9'	S 22°19.4'	228°52.4'	S 0°46.6'
2	230°00.9'	S 6°13.9'	216°14.7'	S 11°58.7'	164°36.1'	S 22°19.5'	243°53.5'	S 0°47.3'
3	245°00.4'	S 6°15.1'	231°16.6'	S 11°58.9'	179°38.3'	S 22°19.5'	258°54.5'	S 0°47.9'
4	259°60.0'	S 6°16.3'	246°18.5'	S 11°59.0'	194°40.5'	S 22°19.5'	273°55.5'	S 0°48.5'
5	274°59.5'	S 6°17.5'	261°20.5'	S 11°59.2'	209°42.8'	S 22°19.5'	288°56.5'	S 0°49.2'
6	289°59.1'	S 6°18.7'	276°22.4'	S 11°59.4'	224°45.0'	S 22°19.5'	303°57.5'	S 0°49.8'
7	304°58.7'	S 6°19.9'	291°24.4'	S 11°59.6'	239°47.2'	S 22°19.5'	318°58.5'	S 0°50.4'
8	319°58.2'	S 6°21.1'	306°26.3'	S 11°59.8'	254°49.4'	S 22°19.6'	333°59.6'	S 0°51.1'
9	334°57.8'	S 6°22.3'	321°28.2'	S 11°60.0'	269°51.6'	S 22°19.6'	349°00.6'	S 0°51.7'
10	349°57.4'	S 6°23.5'	336°30.2'	S 12°00.2'	284°53.8'	S 22°19.6'	4°01.6'	S 0°52.3'
11	4°56.9'	S 6°24.6'	351°32.1'	S 12°00.3'	299°56.1'	S 22°19.6'	19°02.6'	S 0°52.9'
12	19°56.5'	S 6°25.8'	6°34.1'	S 12°00.5'	314°58.3'	S 22°19.6'	34°03.6'	S 0°53.6'
13	34°56.1'	S 6°27.0'	21°36.0'	S 12°00.7'	330°00.5'	S 22°19.6'	49°04.6'	S 0°54.2'
14	49°55.6'	S 6°28.2'	36°37.9'	S 12°00.9'	345°02.7'	S 22°19.6'	64°05.7'	S 0°54.8'
15	64°55.2'	S 6°29.4'	51°39.9'	S 12°01.1'	0°04.9'	S 22°19.7'	79°06.7'	S 0°55.5'
16	79°54.7'	S 6°30.6'	66°41.8'	S 12°01.3'	15°07.1'	S 22°19.7'	94°07.7'	S 0°56.1'
17	94°54.3'	S 6°31.8'	81°43.8'	S 12°01.4'	30°09.3'	S 22°19.7'	109°08.7'	S 0°56.7'
18	109°53.9'	S 6°33.0'	96°45.7'	S 12°01.6'	45°11.6'	S 22°19.7'	124°09.7'	S 0°57.3'
19	124°53.4'	S 6°34.2'	111°47.6'	S 12°01.8'	60°13.8'	S 22°19.7'	139°10.8'	S 0°58.0'
20	139°53.0'	S 6°35.4'	126°49.6'	S 12°02.0'	75°16.0'	S 22°19.7'	154°11.8'	S 0°58.6'
21	154°52.5'	S 6°36.6'	141°51.5'	S 12°02.2'	90°18.2'	S 22°19.7'	169°12.8'	S 0°59.2'
22	169°52.1'	S 6°37.8'	156°53.5'	S 12°02.4'	105°20.4'	S 22°19.8'	184°13.8'	S 0°59.9'
23	184°51.7'	S 6°39.0'	171°55.4'	S 12°02.5'	120°22.6'	S 22°19.8'	199°14.8'	S 1°00.5'

Tue Oct 31, 2017 UTC

UTC	Venus -3.8 v = -0.4' d = 1.2'		Jupiter -1.5 v = 1.9' d = 0.2'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	199°51.2'	S 6°40.2'	186°57.3'	S 12°02.7'	135°24.9'	S 22°19.8'	214°15.8'	S 1°01.1'
1	214°50.8'	S 6°41.4'	201°59.3'	S 12°02.9'	150°27.1'	S 22°19.8'	229°16.9'	S 1°01.8'
2	229°50.3'	S 6°42.6'	217°01.2'	S 12°03.1'	165°29.3'	S 22°19.8'	244°17.9'	S 1°02.4'
3	244°49.9'	S 6°43.8'	232°03.1'	S 12°03.3'	180°31.5'	S 22°19.8'	259°18.9'	S 1°03.0'
4	259°49.5'	S 6°44.9'	247°05.1'	S 12°03.5'	195°33.7'	S 22°19.9'	274°19.9'	S 1°03.6'
5	274°49.0'	S 6°46.1'	262°07.0'	S 12°03.6'	210°35.9'	S 22°19.9'	289°20.9'	S 1°04.3'
6	289°48.6'	S 6°47.3'	277°09.0'	S 12°03.8'	225°38.1'	S 22°19.9'	304°21.9'	S 1°04.9'
7	304°48.1'	S 6°48.5'	292°10.9'	S 12°04.0'	240°40.3'	S 22°19.9'	319°23.0'	S 1°05.5'
8	319°47.7'	S 6°49.7'	307°12.8'	S 12°04.2'	255°42.6'	S 22°19.9'	334°24.0'	S 1°06.2'
9	334°47.2'	S 6°50.9'	322°14.8'	S 12°04.4'	270°44.8'	S 22°19.9'	349°25.0'	S 1°06.8'
10	349°46.8'	S 6°52.1'	337°16.7'	S 12°04.6'	285°47.0'	S 22°19.9'	4°26.0'	S 1°07.4'
11	4°46.4'	S 6°53.3'	352°18.7'	S 12°04.7'	300°49.2'	S 22°20.0'	19°27.0'	S 1°08.0'
12	19°45.9'	S 6°54.5'	7°20.6'	S 12°04.9'	315°51.4'	S 22°20.0'	34°28.0'	S 1°08.7'
13	34°45.5'	S 6°55.7'	22°22.5'	S 12°05.1'	330°53.6'	S 22°20.0'	49°29.1'	S 1°09.3'
14	49°45.0'	S 6°56.8'	37°24.5'	S 12°05.3'	345°55.8'	S 22°20.0'	64°30.1'	S 1°09.9'
15	64°44.6'	S 6°58.0'	52°26.4'	S 12°05.5'	0°58.1'	S 22°20.0'	79°31.1'	S 1°10.6'
16	79°44.1'	S 6°59.2'	67°28.4'	S 12°05.7'	16°00.3'	S 22°20.0'	94°32.1'	S 1°11.2'
17	94°43.7'	S 7°00.4'	82°30.3'	S 12°05.8'	31°02.5'	S 22°20.1'	109°33.1'	S 1°11.8'
18	109°43.3'	S 7°01.6'	97°32.2'	S 12°06.0'	46°04.7'	S 22°20.1'	124°34.1'	S 1°12.4'
19	124°42.8'	S 7°02.8'	112°34.2'	S 12°06.2'	61°06.9'	S 22°20.1'	139°35.2'	S 1°13.1'
20	139°42.4'	S 7°04.0'	127°36.1'	S 12°06.4'	76°09.1'	S 22°20.1'	154°36.2'	S 1°13.7'
21	154°41.9'	S 7°05.2'	142°38.1'	S 12°06.6'	91°11.3'	S 22°20.1'	169°37.2'	S 1°14.3'
22	169°41.5'	S 7°06.4'	157°40.0'	S 12°06.8'	106°13.5'	S 22°20.1'	184°38.2'	S 1°15.0'
23	184°41.0'	S 7°07.5'	172°41.9'	S 12°06.9'	121°15.8'	S 22°20.1'	199°39.2'	S 1°15.6'