

Thu Nov 1, 2018 UTC

UTC	Venus -3.7 v = 3.6' d = 1.0'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.6 v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	194°17.8'	S 16°14.4'	163°57.0'	S 19°06.9'	124°52.6'	S 22°45.9'	75°54.7'	S 16°37.2'
1	209°21.4'	S 16°13.3'	178°58.9'	S 19°07.0'	139°54.9'	S 22°45.9'	90°55.8'	S 16°36.7'
2	224°25.0'	S 16°12.3'	194°00.8'	S 19°07.1'	154°57.1'	S 22°45.9'	105°57.0'	S 16°36.1'
3	239°28.6'	S 16°11.2'	209°02.7'	S 19°07.2'	169°59.4'	S 22°45.9'	120°58.1'	S 16°35.5'
4	254°32.2'	S 16°10.2'	224°04.6'	S 19°07.3'	185°01.6'	S 22°45.9'	135°59.2'	S 16°35.0'
5	269°35.7'	S 16°09.2'	239°06.5'	S 19°07.5'	200°03.8'	S 22°45.9'	151°00.3'	S 16°34.4'
6	284°39.3'	S 16°08.1'	254°08.5'	S 19°07.6'	215°06.1'	S 22°45.9'	166°01.4'	S 16°33.8'
7	299°42.9'	S 16°07.1'	269°10.4'	S 19°07.7'	230°08.3'	S 22°45.9'	181°02.5'	S 16°33.3'
8	314°46.5'	S 16°06.1'	284°12.3'	S 19°07.8'	245°10.6'	S 22°45.9'	196°03.6'	S 16°32.7'
9	329°50.0'	S 16°05.0'	299°14.2'	S 19°08.0'	260°12.8'	S 22°45.9'	211°04.7'	S 16°32.1'
10	344°53.6'	S 16°04.0'	314°16.1'	S 19°08.1'	275°15.0'	S 22°45.9'	226°05.8'	S 16°31.6'
11	359°57.2'	S 16°03.0'	329°18.0'	S 19°08.2'	290°17.3'	S 22°45.9'	241°06.9'	S 16°31.0'
12	15°00.7'	S 16°01.9'	344°19.9'	S 19°08.3'	305°19.5'	S 22°45.9'	256°08.0'	S 16°30.5'
13	30°04.3'	S 16°00.9'	359°21.8'	S 19°08.5'	320°21.8'	S 22°45.9'	271°09.1'	S 16°29.9'
14	45°07.8'	S 15°59.9'	14°23.7'	S 19°08.6'	335°24.0'	S 22°45.9'	286°10.2'	S 16°29.3'
15	60°11.4'	S 15°58.8'	29°25.6'	S 19°08.7'	350°26.3'	S 22°45.9'	301°11.3'	S 16°28.8'
16	75°15.0'	S 15°57.8'	44°27.5'	S 19°08.8'	5°28.5'	S 22°45.9'	316°12.4'	S 16°28.2'
17	90°18.5'	S 15°56.8'	59°29.4'	S 19°08.9'	20°30.7'	S 22°45.9'	331°13.5'	S 16°27.6'
18	105°22.0'	S 15°55.7'	74°31.4'	S 19°09.1'	35°33.0'	S 22°45.9'	346°14.6'	S 16°27.1'
19	120°25.6'	S 15°54.7'	89°33.3'	S 19°09.2'	50°35.2'	S 22°45.9'	1°15.7'	S 16°26.5'
20	135°29.1'	S 15°53.7'	104°35.2'	S 19°09.3'	65°37.5'	S 22°45.9'	16°16.8'	S 16°25.9'
21	150°32.7'	S 15°52.6'	119°37.1'	S 19°09.4'	80°39.7'	S 22°45.9'	31°17.9'	S 16°25.4'
22	165°36.2'	S 15°51.6'	134°39.0'	S 19°09.6'	95°41.9'	S 22°45.9'	46°18.9'	S 16°24.8'
23	180°39.7'	S 15°50.6'	149°40.9'	S 19°09.7'	110°44.2'	S 22°45.9'	61°20.0'	S 16°24.2'

Fri Nov 2, 2018 UTC

UTC	Venus -3.8 v = 3.5' d = 1.0'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.6 v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	195°43.3'	S 15°49.6'	164°42.8'	S 19°09.8'	125°46.4'	S 22°45.9'	76°21.1'	S 16°23.7'
1	210°46.8'	S 15°48.5'	179°44.7'	S 19°09.9'	140°48.7'	S 22°45.9'	91°22.2'	S 16°23.1'
2	225°50.3'	S 15°47.5'	194°46.6'	S 19°10.1'	155°50.9'	S 22°45.9'	106°23.3'	S 16°22.5'
3	240°53.8'	S 15°46.5'	209°48.5'	S 19°10.2'	170°53.1'	S 22°45.9'	121°24.4'	S 16°21.9'
4	255°57.4'	S 15°45.4'	224°50.4'	S 19°10.3'	185°55.4'	S 22°45.9'	136°25.5'	S 16°21.4'
5	271°00.9'	S 15°44.4'	239°52.3'	S 19°10.4'	200°57.6'	S 22°45.9'	151°26.6'	S 16°20.8'
6	286°04.4'	S 15°43.4'	254°54.2'	S 19°10.5'	215°59.9'	S 22°45.8'	166°27.7'	S 16°20.2'
7	301°07.9'	S 15°42.3'	269°56.1'	S 19°10.7'	231°02.1'	S 22°45.8'	181°28.8'	S 16°19.7'
8	316°11.4'	S 15°41.3'	284°58.0'	S 19°10.8'	246°04.3'	S 22°45.8'	196°29.9'	S 16°19.1'
9	331°14.9'	S 15°40.3'	299°60.0'	S 19°10.9'	261°06.6'	S 22°45.8'	211°31.0'	S 16°18.5'
10	346°18.4'	S 15°39.3'	315°01.9'	S 19°11.0'	276°08.8'	S 22°45.8'	226°32.1'	S 16°18.0'
11	1°21.9'	S 15°38.2'	330°03.8'	S 19°11.2'	291°11.1'	S 22°45.8'	241°33.2'	S 16°17.4'
12	16°25.4'	S 15°37.2'	345°05.7'	S 19°11.3'	306°13.3'	S 22°45.8'	256°34.3'	S 16°16.8'
13	31°28.9'	S 15°36.2'	0°07.6'	S 19°11.4'	321°15.5'	S 22°45.8'	271°35.4'	S 16°16.2'
14	46°32.4'	S 15°35.2'	15°09.5'	S 19°11.5'	336°17.8'	S 22°45.8'	286°36.5'	S 16°15.7'
15	61°35.9'	S 15°34.1'	30°11.4'	S 19°11.6'	351°20.0'	S 22°45.8'	301°37.6'	S 16°15.1'
16	76°39.4'	S 15°33.1'	45°13.3'	S 19°11.8'	6°22.2'	S 22°45.8'	316°38.7'	S 16°14.5'
17	91°42.8'	S 15°32.1'	60°15.2'	S 19°11.9'	21°24.5'	S 22°45.8'	331°39.7'	S 16°14.0'
18	106°46.3'	S 15°31.1'	75°17.1'	S 19°12.0'	36°26.7'	S 22°45.8'	346°40.8'	S 16°13.4'
19	121°49.8'	S 15°30.0'	90°19.0'	S 19°12.1'	51°29.0'	S 22°45.8'	1°41.9'	S 16°12.8'
20	136°53.3'	S 15°29.0'	105°20.9'	S 19°12.3'	66°31.2'	S 22°45.8'	16°43.0'	S 16°12.2'
21	151°56.7'	S 15°28.0'	120°22.8'	S 19°12.4'	81°33.4'	S 22°45.8'	31°44.1'	S 16°11.7'
22	167°00.2'	S 15°27.0'	135°24.7'	S 19°12.5'	96°35.7'	S 22°45.8'	46°45.2'	S 16°11.1'
23	182°03.7'	S 15°25.9'	150°26.6'	S 19°12.6'	111°37.9'	S 22°45.8'	61°46.3'	S 16°10.5'

Sat Nov 3, 2018 UTC

UTC	Venus -3.9		Jupiter -1.6		Saturn +0.6		Mars -0.6	
	v = 3.4' d = 1.0'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	197°07.1'	S 15°24.9'	165°28.5'	S 19°12.7'	126°40.1'	S 22°45.8'	76°47.4'	S 16°10.0'
1	212°10.6'	S 15°23.9'	180°30.5'	S 19°12.9'	141°42.4'	S 22°45.8'	91°48.5'	S 16°09.4'
2	227°14.0'	S 15°22.9'	195°32.4'	S 19°13.0'	156°44.6'	S 22°45.8'	106°49.6'	S 16°08.8'
3	242°17.5'	S 15°21.9'	210°34.3'	S 19°13.1'	171°46.9'	S 22°45.8'	121°50.7'	S 16°08.2'
4	257°20.9'	S 15°20.8'	225°36.2'	S 19°13.2'	186°49.1'	S 22°45.8'	136°51.7'	S 16°07.7'
5	272°24.4'	S 15°19.8'	240°38.1'	S 19°13.4'	201°51.3'	S 22°45.8'	151°52.8'	S 16°07.1'
6	287°27.8'	S 15°18.8'	255°40.0'	S 19°13.5'	216°53.6'	S 22°45.8'	166°53.9'	S 16°06.5'
7	302°31.2'	S 15°17.8'	270°41.9'	S 19°13.6'	231°55.8'	S 22°45.8'	181°55.0'	S 16°05.9'
8	317°34.7'	S 15°16.8'	285°43.8'	S 19°13.7'	246°58.0'	S 22°45.8'	196°56.1'	S 16°05.4'
9	332°38.1'	S 15°15.7'	300°45.7'	S 19°13.8'	262°00.3'	S 22°45.8'	211°57.2'	S 16°04.8'
10	347°41.5'	S 15°14.7'	315°47.6'	S 19°14.0'	277°02.5'	S 22°45.8'	226°58.3'	S 16°04.2'
11	2°45.0'	S 15°13.7'	330°49.5'	S 19°14.1'	292°04.7'	S 22°45.8'	241°59.4'	S 16°03.6'
12	17°48.4'	S 15°12.7'	345°51.4'	S 19°14.2'	307°07.0'	S 22°45.8'	257°00.5'	S 16°03.1'
13	32°51.8'	S 15°11.7'	0°53.3'	S 19°14.3'	322°09.2'	S 22°45.8'	272°01.5'	S 16°02.5'
14	47°55.2'	S 15°10.7'	15°55.2'	S 19°14.5'	337°11.5'	S 22°45.7'	287°02.6'	S 16°01.9'
15	62°58.6'	S 15°09.7'	30°57.1'	S 19°14.6'	352°13.7'	S 22°45.7'	302°03.7'	S 16°01.3'
16	78°02.0'	S 15°08.6'	45°59.0'	S 19°14.7'	7°15.9'	S 22°45.7'	317°04.8'	S 16°00.8'
17	93°05.5'	S 15°07.6'	61°00.9'	S 19°14.8'	22°18.2'	S 22°45.7'	332°05.9'	S 16°00.2'
18	108°08.9'	S 15°06.6'	76°02.8'	S 19°14.9'	37°20.4'	S 22°45.7'	347°07.0'	S 15°59.6'
19	123°12.3'	S 15°05.6'	91°04.7'	S 19°15.1'	52°22.6'	S 22°45.7'	2°08.1'	S 15°59.0'
20	138°15.7'	S 15°04.6'	106°06.6'	S 19°15.2'	67°24.9'	S 22°45.7'	17°09.1'	S 15°58.5'
21	153°19.0'	S 15°03.6'	121°08.5'	S 19°15.3'	82°27.1'	S 22°45.7'	32°10.2'	S 15°57.9'
22	168°22.4'	S 15°02.6'	136°10.4'	S 19°15.4'	97°29.3'	S 22°45.7'	47°11.3'	S 15°57.3'
23	183°25.8'	S 15°01.6'	151°12.3'	S 19°15.6'	112°31.6'	S 22°45.7'	62°12.4'	S 15°56.7'

Sun Nov 4, 2018 UTC

UTC	Venus -3.9		Jupiter -1.6		Saturn +0.6		Mars -0.5	
	v = 3.3' d = 1.0'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	198°29.2'	S 15°00.6'	166°14.3'	S 19°15.7'	127°33.8'	S 22°45.7'	77°13.5'	S 15°56.1'
1	213°32.6'	S 14°59.6'	181°16.2'	S 19°15.8'	142°36.0'	S 22°45.7'	92°14.6'	S 15°55.6'
2	228°36.0'	S 14°58.5'	196°18.1'	S 19°15.9'	157°38.3'	S 22°45.7'	107°15.7'	S 15°55.0'
3	243°39.3'	S 14°57.5'	211°20.0'	S 19°16.0'	172°40.5'	S 22°45.7'	122°16.7'	S 15°54.4'
4	258°42.7'	S 14°56.5'	226°21.9'	S 19°16.2'	187°42.7'	S 22°45.7'	137°17.8'	S 15°53.8'
5	273°46.1'	S 14°55.5'	241°23.8'	S 19°16.3'	202°45.0'	S 22°45.7'	152°18.9'	S 15°53.3'
6	288°49.4'	S 14°54.5'	256°25.7'	S 19°16.4'	217°47.2'	S 22°45.7'	167°20.0'	S 15°52.7'
7	303°52.8'	S 14°53.5'	271°27.6'	S 19°16.5'	232°49.4'	S 22°45.7'	182°21.1'	S 15°52.1'
8	318°56.2'	S 14°52.5'	286°29.5'	S 19°16.7'	247°51.7'	S 22°45.7'	197°22.1'	S 15°51.5'
9	333°59.5'	S 14°51.5'	301°31.4'	S 19°16.8'	262°53.9'	S 22°45.7'	212°23.2'	S 15°50.9'
10	349°02.9'	S 14°50.5'	316°33.3'	S 19°16.9'	277°56.1'	S 22°45.7'	227°24.3'	S 15°50.4'
11	4°06.2'	S 14°49.5'	331°35.2'	S 19°17.0'	292°58.4'	S 22°45.7'	242°25.4'	S 15°49.8'
12	19°09.6'	S 14°48.5'	346°37.1'	S 19°17.1'	308°00.6'	S 22°45.7'	257°26.5'	S 15°49.2'
13	34°12.9'	S 14°47.5'	1°39.0'	S 19°17.3'	323°02.8'	S 22°45.7'	272°27.6'	S 15°48.6'
14	49°16.2'	S 14°46.5'	16°40.9'	S 19°17.4'	338°05.1'	S 22°45.7'	287°28.6'	S 15°48.0'
15	64°19.6'	S 14°45.5'	31°42.8'	S 19°17.5'	353°07.3'	S 22°45.7'	302°29.7'	S 15°47.5'
16	79°22.9'	S 14°44.5'	46°44.7'	S 19°17.6'	8°09.5'	S 22°45.7'	317°30.8'	S 15°46.9'
17	94°26.2'	S 14°43.6'	61°46.6'	S 19°17.7'	23°11.8'	S 22°45.7'	332°31.9'	S 15°46.3'
18	109°29.6'	S 14°42.6'	76°48.5'	S 19°17.9'	38°14.0'	S 22°45.6'	347°33.0'	S 15°45.7'
19	124°32.9'	S 14°41.6'	91°50.4'	S 19°18.0'	53°16.2'	S 22°45.6'	2°34.0'	S 15°45.1'
20	139°36.2'	S 14°40.6'	106°52.3'	S 19°18.1'	68°18.5'	S 22°45.6'	17°35.1'	S 15°44.6'
21	154°39.5'	S 14°39.6'	121°54.2'	S 19°18.2'	83°20.7'	S 22°45.6'	32°36.2'	S 15°44.0'
22	169°42.8'	S 14°38.6'	136°56.1'	S 19°18.4'	98°22.9'	S 22°45.6'	47°37.3'	S 15°43.4'
23	184°46.1'	S 14°37.6'	151°58.0'	S 19°18.5'	113°25.1'	S 22°45.6'	62°38.4'	S 15°42.8'

Mon Nov 5, 2018 UTC

UTC	Venus -4.0		Jupiter -1.6		Saturn +0.6		Mars -0.5	
	v = 3.3' d = 1.0'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	199°49.4'	S 14°36.6'	166°59.9'	S 19°18.6'	128°27.4'	S 22°45.6'	77°39.4'	S 15°42.2'
1	214°52.7'	S 14°35.6'	182°01.8'	S 19°18.7'	143°29.6'	S 22°45.6'	92°40.5'	S 15°41.6'
2	229°56.0'	S 14°34.7'	197°03.7'	S 19°18.8'	158°31.8'	S 22°45.6'	107°41.6'	S 15°41.1'
3	244°59.3'	S 14°33.7'	212°05.6'	S 19°19.0'	173°34.1'	S 22°45.6'	122°42.7'	S 15°40.5'
4	260°02.6'	S 14°32.7'	227°07.5'	S 19°19.1'	188°36.3'	S 22°45.6'	137°43.7'	S 15°39.9'
5	275°05.9'	S 14°31.7'	242°09.4'	S 19°19.2'	203°38.5'	S 22°45.6'	152°44.8'	S 15°39.3'
6	290°09.2'	S 14°30.7'	257°11.3'	S 19°19.3'	218°40.8'	S 22°45.6'	167°45.9'	S 15°38.7'
7	305°12.5'	S 14°29.7'	272°13.2'	S 19°19.4'	233°43.0'	S 22°45.6'	182°47.0'	S 15°38.1'
8	320°15.7'	S 14°28.8'	287°15.1'	S 19°19.6'	248°45.2'	S 22°45.6'	197°48.1'	S 15°37.6'
9	335°19.0'	S 14°27.8'	302°17.0'	S 19°19.7'	263°47.5'	S 22°45.6'	212°49.1'	S 15°37.0'
10	350°22.3'	S 14°26.8'	317°18.9'	S 19°19.8'	278°49.7'	S 22°45.6'	227°50.2'	S 15°36.4'
11	5°25.5'	S 14°25.8'	332°20.8'	S 19°19.9'	293°51.9'	S 22°45.6'	242°51.3'	S 15°35.8'
12	20°28.8'	S 14°24.8'	347°22.7'	S 19°20.1'	308°54.1'	S 22°45.6'	257°52.4'	S 15°35.2'
13	35°32.1'	S 14°23.9'	2°24.6'	S 19°20.2'	323°56.4'	S 22°45.6'	272°53.4'	S 15°34.6'
14	50°35.3'	S 14°22.9'	17°26.5'	S 19°20.3'	338°58.6'	S 22°45.6'	287°54.5'	S 15°34.0'
15	65°38.6'	S 14°21.9'	32°28.4'	S 19°20.4'	354°00.8'	S 22°45.6'	302°55.6'	S 15°33.5'
16	80°41.8'	S 14°21.0'	47°30.3'	S 19°20.5'	9°03.1'	S 22°45.6'	317°56.7'	S 15°32.9'
17	95°45.1'	S 14°20.0'	62°32.2'	S 19°20.7'	24°05.3'	S 22°45.6'	332°57.7'	S 15°32.3'
18	110°48.3'	S 14°19.0'	77°34.1'	S 19°20.8'	39°07.5'	S 22°45.6'	347°58.8'	S 15°31.7'
19	125°51.5'	S 14°18.0'	92°36.0'	S 19°20.9'	54°09.7'	S 22°45.6'	2°59.9'	S 15°31.1'
20	140°54.8'	S 14°17.1'	107°37.9'	S 19°21.0'	69°12.0'	S 22°45.5'	18°01.0'	S 15°30.5'
21	155°58.0'	S 14°16.1'	122°39.8'	S 19°21.1'	84°14.2'	S 22°45.5'	33°02.0'	S 15°29.9'
22	171°01.2'	S 14°15.1'	137°41.7'	S 19°21.3'	99°16.4'	S 22°45.5'	48°03.1'	S 15°29.4'
23	186°04.4'	S 14°14.2'	152°43.6'	S 19°21.4'	114°18.7'	S 22°45.5'	63°04.2'	S 15°28.8'

Tue Nov 6, 2018 UTC

UTC	Venus -4.0		Jupiter -1.6		Saturn +0.6		Mars -0.5	
	v = 3.2' d = 0.9'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°07.7'	S 14°13.2'	167°45.5'	S 19°21.5'	129°20.9'	S 22°45.5'	78°05.2'	S 15°28.2'
1	216°10.9'	S 14°12.3'	182°47.4'	S 19°21.6'	144°23.1'	S 22°45.5'	93°06.3'	S 15°27.6'
2	231°14.1'	S 14°11.3'	197°49.3'	S 19°21.7'	159°25.3'	S 22°45.5'	108°07.4'	S 15°27.0'
3	246°17.3'	S 14°10.3'	212°51.2'	S 19°21.9'	174°27.6'	S 22°45.5'	123°08.5'	S 15°26.4'
4	261°20.5'	S 14°09.4'	227°53.1'	S 19°22.0'	189°29.8'	S 22°45.5'	138°09.5'	S 15°25.8'
5	276°23.7'	S 14°08.4'	242°55.0'	S 19°22.1'	204°32.0'	S 22°45.5'	153°10.6'	S 15°25.2'
6	291°26.9'	S 14°07.5'	257°56.9'	S 19°22.2'	219°34.3'	S 22°45.5'	168°11.7'	S 15°24.6'
7	306°30.1'	S 14°06.5'	272°58.8'	S 19°22.4'	234°36.5'	S 22°45.5'	183°12.8'	S 15°24.1'
8	321°33.3'	S 14°05.5'	288°00.7'	S 19°22.5'	249°38.7'	S 22°45.5'	198°13.8'	S 15°23.5'
9	336°36.5'	S 14°04.6'	303°02.6'	S 19°22.6'	264°40.9'	S 22°45.5'	213°14.9'	S 15°22.9'
10	351°39.7'	S 14°03.6'	318°04.5'	S 19°22.7'	279°43.2'	S 22°45.5'	228°16.0'	S 15°22.3'
11	6°42.8'	S 14°02.7'	333°06.4'	S 19°22.8'	294°45.4'	S 22°45.5'	243°17.0'	S 15°21.7'
12	21°46.0'	S 14°01.7'	348°08.3'	S 19°23.0'	309°47.6'	S 22°45.5'	258°18.1'	S 15°21.1'
13	36°49.2'	S 14°00.8'	3°10.2'	S 19°23.1'	324°49.8'	S 22°45.5'	273°19.2'	S 15°20.5'
14	51°52.3'	S 13°59.8'	18°12.1'	S 19°23.2'	339°52.1'	S 22°45.5'	288°20.2'	S 15°19.9'
15	66°55.5'	S 13°58.9'	33°14.0'	S 19°23.3'	354°54.3'	S 22°45.5'	303°21.3'	S 15°19.3'
16	81°58.7'	S 13°58.0'	48°15.9'	S 19°23.4'	9°56.5'	S 22°45.5'	318°22.4'	S 15°18.8'
17	97°01.8'	S 13°57.0'	63°17.8'	S 19°23.6'	24°58.7'	S 22°45.5'	333°23.5'	S 15°18.2'
18	112°05.0'	S 13°56.1'	78°19.7'	S 19°23.7'	40°01.0'	S 22°45.5'	348°24.5'	S 15°17.6'
19	127°08.1'	S 13°55.1'	93°21.6'	S 19°23.8'	55°03.2'	S 22°45.5'	3°25.6'	S 15°17.0'
20	142°11.3'	S 13°54.2'	108°23.5'	S 19°23.9'	70°05.4'	S 22°45.5'	18°26.7'	S 15°16.4'
21	157°14.4'	S 13°53.3'	123°25.4'	S 19°24.0'	85°07.6'	S 22°45.4'	33°27.7'	S 15°15.8'
22	172°17.6'	S 13°52.3'	138°27.3'	S 19°24.2'	100°09.9'	S 22°45.4'	48°28.8'	S 15°15.2'
23	187°20.7'	S 13°51.4'	153°29.2'	S 19°24.3'	115°12.1'	S 22°45.4'	63°29.9'	S 15°14.6'

Wed Nov 7, 2018 UTC

UTC	Venus -4.1 v = 3.1' d = 0.9'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.5 v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°23.8'	S 13°50.4'	168°31.1'	S 19°24.4'	130°14.3'	S 22°45.4'	78°30.9'	S 15°14.0'
1	217°27.0'	S 13°49.5'	183°33.0'	S 19°24.5'	145°16.6'	S 22°45.4'	93°32.0'	S 15°13.4'
2	232°30.1'	S 13°48.6'	198°34.9'	S 19°24.6'	160°18.8'	S 22°45.4'	108°33.1'	S 15°12.8'
3	247°33.2'	S 13°47.6'	213°36.8'	S 19°24.8'	175°21.0'	S 22°45.4'	123°34.1'	S 15°12.2'
4	262°36.3'	S 13°46.7'	228°38.7'	S 19°24.9'	190°23.2'	S 22°45.4'	138°35.2'	S 15°11.6'
5	277°39.4'	S 13°45.8'	243°40.6'	S 19°25.0'	205°25.5'	S 22°45.4'	153°36.3'	S 15°11.1'
6	292°42.5'	S 13°44.9'	258°42.5'	S 19°25.1'	220°27.7'	S 22°45.4'	168°37.3'	S 15°10.5'
7	307°45.6'	S 13°43.9'	273°44.4'	S 19°25.2'	235°29.9'	S 22°45.4'	183°38.4'	S 15°09.9'
8	322°48.7'	S 13°43.0'	288°46.3'	S 19°25.4'	250°32.1'	S 22°45.4'	198°39.5'	S 15°09.3'
9	337°51.8'	S 13°42.1'	303°48.2'	S 19°25.5'	265°34.3'	S 22°45.4'	213°40.5'	S 15°08.7'
10	352°54.9'	S 13°41.2'	318°50.1'	S 19°25.6'	280°36.6'	S 22°45.4'	228°41.6'	S 15°08.1'
11	7°58.0'	S 13°40.2'	333°52.0'	S 19°25.7'	295°38.8'	S 22°45.4'	243°42.7'	S 15°07.5'
12	23°01.1'	S 13°39.3'	348°53.9'	S 19°25.8'	310°41.0'	S 22°45.4'	258°43.7'	S 15°06.9'
13	38°04.2'	S 13°38.4'	3°55.8'	S 19°26.0'	325°43.2'	S 22°45.4'	273°44.8'	S 15°06.3'
14	53°07.3'	S 13°37.5'	18°57.7'	S 19°26.1'	340°45.5'	S 22°45.4'	288°45.8'	S 15°05.7'
15	68°10.4'	S 13°36.6'	33°59.6'	S 19°26.2'	355°47.7'	S 22°45.4'	303°46.9'	S 15°05.1'
16	83°13.4'	S 13°35.7'	49°01.5'	S 19°26.3'	10°49.9'	S 22°45.4'	318°48.0'	S 15°04.5'
17	98°16.5'	S 13°34.8'	64°03.4'	S 19°26.4'	25°52.1'	S 22°45.4'	333°49.0'	S 15°03.9'
18	113°19.6'	S 13°33.8'	79°05.3'	S 19°26.6'	40°54.4'	S 22°45.4'	348°50.1'	S 15°03.3'
19	128°22.6'	S 13°32.9'	94°07.2'	S 19°26.7'	55°56.6'	S 22°45.3'	3°51.2'	S 15°02.7'
20	143°25.7'	S 13°32.0'	109°09.1'	S 19°26.8'	70°58.8'	S 22°45.3'	18°52.2'	S 15°02.1'
21	158°28.7'	S 13°31.1'	124°11.0'	S 19°26.9'	86°01.0'	S 22°45.3'	33°53.3'	S 15°01.5'
22	173°31.8'	S 13°30.2'	139°12.9'	S 19°27.0'	101°03.3'	S 22°45.3'	48°54.4'	S 15°00.9'
23	188°34.8'	S 13°29.3'	154°14.8'	S 19°27.2'	116°05.5'	S 22°45.3'	63°55.4'	S 15°00.3'

Thu Nov 8, 2018 UTC

UTC	Venus -4.1 v = 3.0' d = 0.9'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.5 v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°37.9'	S 13°28.4'	169°16.7'	S 19°27.3'	131°07.7'	S 22°45.3'	78°56.5'	S 14°59.8'
1	218°40.9'	S 13°27.5'	184°18.6'	S 19°27.4'	146°09.9'	S 22°45.3'	93°57.5'	S 14°59.2'
2	233°43.9'	S 13°26.6'	199°20.5'	S 19°27.5'	161°12.1'	S 22°45.3'	108°58.6'	S 14°58.6'
3	248°47.0'	S 13°25.7'	214°22.4'	S 19°27.6'	176°14.4'	S 22°45.3'	123°59.7'	S 14°58.0'
4	263°50.0'	S 13°24.8'	229°24.3'	S 19°27.8'	191°16.6'	S 22°45.3'	139°00.7'	S 14°57.4'
5	278°53.0'	S 13°23.9'	244°26.2'	S 19°27.9'	206°18.8'	S 22°45.3'	154°01.8'	S 14°56.8'
6	293°56.0'	S 13°23.0'	259°28.1'	S 19°28.0'	221°21.0'	S 22°45.3'	169°02.8'	S 14°56.2'
7	308°59.0'	S 13°22.1'	274°30.0'	S 19°28.1'	236°23.3'	S 22°45.3'	184°03.9'	S 14°55.6'
8	324°02.1'	S 13°21.2'	289°31.9'	S 19°28.2'	251°25.5'	S 22°45.3'	199°05.0'	S 14°55.0'
9	339°05.1'	S 13°20.4'	304°33.7'	S 19°28.4'	266°27.7'	S 22°45.3'	214°06.0'	S 14°54.4'
10	354°08.1'	S 13°19.5'	319°35.6'	S 19°28.5'	281°29.9'	S 22°45.3'	229°07.1'	S 14°53.8'
11	9°11.1'	S 13°18.6'	334°37.5'	S 19°28.6'	296°32.1'	S 22°45.3'	244°08.1'	S 14°53.2'
12	24°14.1'	S 13°17.7'	349°39.4'	S 19°28.7'	311°34.4'	S 22°45.3'	259°09.2'	S 14°52.6'
13	39°17.0'	S 13°16.8'	4°41.3'	S 19°28.8'	326°36.6'	S 22°45.3'	274°10.3'	S 14°52.0'
14	54°20.0'	S 13°15.9'	19°43.2'	S 19°29.0'	341°38.8'	S 22°45.3'	289°11.3'	S 14°51.4'
15	69°23.0'	S 13°15.1'	34°45.1'	S 19°29.1'	356°41.0'	S 22°45.3'	304°12.4'	S 14°50.8'
16	84°26.0'	S 13°14.2'	49°47.0'	S 19°29.2'	11°43.2'	S 22°45.2'	319°13.4'	S 14°50.2'
17	99°29.0'	S 13°13.3'	64°48.9'	S 19°29.3'	26°45.5'	S 22°45.2'	334°14.5'	S 14°49.6'
18	114°31.9'	S 13°12.4'	79°50.8'	S 19°29.4'	41°47.7'	S 22°45.2'	349°15.6'	S 14°49.0'
19	129°34.9'	S 13°11.5'	94°52.7'	S 19°29.6'	56°49.9'	S 22°45.2'	4°16.6'	S 14°48.4'
20	144°37.9'	S 13°10.7'	109°54.6'	S 19°29.7'	71°52.1'	S 22°45.2'	19°17.7'	S 14°47.8'
21	159°40.8'	S 13°09.8'	124°56.5'	S 19°29.8'	86°54.3'	S 22°45.2'	34°18.7'	S 14°47.2'
22	174°43.8'	S 13°08.9'	139°58.4'	S 19°29.9'	101°56.6'	S 22°45.2'	49°19.8'	S 14°46.6'
23	189°46.8'	S 13°08.1'	155°00.3'	S 19°30.0'	116°58.8'	S 22°45.2'	64°20.8'	S 14°46.0'

Fri Nov 9, 2018 UTC

UTC	Venus -4.2 v = 2.9' d = 0.8'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.4 v = 1.1' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°49.7'	S 13°07.2'	170°02.2'	S 19°30.2'	132°01.0'	S 22°45.2'	79°21.9'	S 14°45.4'
1	219°52.6'	S 13°06.3'	185°04.1'	S 19°30.3'	147°03.2'	S 22°45.2'	94°23.0'	S 14°44.8'
2	234°55.6'	S 13°05.5'	200°06.0'	S 19°30.4'	162°05.4'	S 22°45.2'	109°24.0'	S 14°44.2'
3	249°58.5'	S 13°04.6'	215°07.9'	S 19°30.5'	177°07.7'	S 22°45.2'	124°25.1'	S 14°43.6'
4	265°01.5'	S 13°03.8'	230°09.8'	S 19°30.6'	192°09.9'	S 22°45.2'	139°26.1'	S 14°43.0'
5	280°04.4'	S 13°02.9'	245°11.7'	S 19°30.7'	207°12.1'	S 22°45.2'	154°27.2'	S 14°42.4'
6	295°07.3'	S 13°02.0'	260°13.6'	S 19°30.9'	222°14.3'	S 22°45.2'	169°28.2'	S 14°41.8'
7	310°10.2'	S 13°01.2'	275°15.5'	S 19°31.0'	237°16.5'	S 22°45.2'	184°29.3'	S 14°41.2'
8	325°13.2'	S 13°00.3'	290°17.4'	S 19°31.1'	252°18.8'	S 22°45.2'	199°30.4'	S 14°40.6'
9	340°16.1'	S 12°59.5'	305°19.2'	S 19°31.2'	267°21.0'	S 22°45.2'	214°31.4'	S 14°39.9'
10	355°19.0'	S 12°58.6'	320°21.1'	S 19°31.3'	282°23.2'	S 22°45.2'	229°32.5'	S 14°39.3'
11	10°21.9'	S 12°57.8'	335°23.0'	S 19°31.5'	297°25.4'	S 22°45.2'	244°33.5'	S 14°38.7'
12	25°24.8'	S 12°56.9'	350°24.9'	S 19°31.6'	312°27.6'	S 22°45.2'	259°34.6'	S 14°38.1'
13	40°27.7'	S 12°56.1'	5°26.8'	S 19°31.7'	327°29.8'	S 22°45.1'	274°35.6'	S 14°37.5'
14	55°30.6'	S 12°55.2'	20°28.7'	S 19°31.8'	342°32.1'	S 22°45.1'	289°36.7'	S 14°36.9'
15	70°33.5'	S 12°54.4'	35°30.6'	S 19°31.9'	357°34.3'	S 22°45.1'	304°37.7'	S 14°36.3'
16	85°36.4'	S 12°53.6'	50°32.5'	S 19°32.1'	12°36.5'	S 22°45.1'	319°38.8'	S 14°35.7'
17	100°39.2'	S 12°52.7'	65°34.4'	S 19°32.2'	27°38.7'	S 22°45.1'	334°39.8'	S 14°35.1'
18	115°42.1'	S 12°51.9'	80°36.3'	S 19°32.3'	42°40.9'	S 22°45.1'	349°40.9'	S 14°34.5'
19	130°45.0'	S 12°51.0'	95°38.2'	S 19°32.4'	57°43.2'	S 22°45.1'	4°42.0'	S 14°33.9'
20	145°47.9'	S 12°50.2'	110°40.1'	S 19°32.5'	72°45.4'	S 22°45.1'	19°43.0'	S 14°33.3'
21	160°50.7'	S 12°49.4'	125°42.0'	S 19°32.7'	87°47.6'	S 22°45.1'	34°44.1'	S 14°32.7'
22	175°53.6'	S 12°48.5'	140°43.9'	S 19°32.8'	102°49.8'	S 22°45.1'	49°45.1'	S 14°32.1'
23	190°56.5'	S 12°47.7'	155°45.8'	S 19°32.9'	117°52.0'	S 22°45.1'	64°46.2'	S 14°31.5'

Sat Nov 10, 2018 UTC

UTC	Venus -4.2 v = 2.8' d = 0.8'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.4 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	205°59.3'	S 12°46.9'	170°47.7'	S 19°33.0'	132°54.2'	S 22°45.1'	79°47.2'	S 14°30.9'
1	221°02.2'	S 12°46.1'	185°49.6'	S 19°33.1'	147°56.5'	S 22°45.1'	94°48.3'	S 14°30.3'
2	236°05.0'	S 12°45.2'	200°51.5'	S 19°33.2'	162°58.7'	S 22°45.1'	109°49.3'	S 14°29.7'
3	251°07.9'	S 12°44.4'	215°53.4'	S 19°33.4'	178°00.9'	S 22°45.1'	124°50.4'	S 14°29.1'
4	266°10.7'	S 12°43.6'	230°55.2'	S 19°33.5'	193°03.1'	S 22°45.1'	139°51.4'	S 14°28.5'
5	281°13.5'	S 12°42.8'	245°57.1'	S 19°33.6'	208°05.3'	S 22°45.1'	154°52.5'	S 14°27.8'
6	296°16.4'	S 12°42.0'	260°59.0'	S 19°33.7'	223°07.5'	S 22°45.1'	169°53.5'	S 14°27.2'
7	311°19.2'	S 12°41.1'	276°00.9'	S 19°33.8'	238°09.8'	S 22°45.1'	184°54.6'	S 14°26.6'
8	326°22.0'	S 12°40.3'	291°02.8'	S 19°34.0'	253°12.0'	S 22°45.0'	199°55.6'	S 14°26.0'
9	341°24.8'	S 12°39.5'	306°04.7'	S 19°34.1'	268°14.2'	S 22°45.0'	214°56.7'	S 14°25.4'
10	356°27.7'	S 12°38.7'	321°06.6'	S 19°34.2'	283°16.4'	S 22°45.0'	229°57.7'	S 14°24.8'
11	11°30.5'	S 12°37.9'	336°08.5'	S 19°34.3'	298°18.6'	S 22°45.0'	244°58.8'	S 14°24.2'
12	26°33.3'	S 12°37.1'	351°10.4'	S 19°34.4'	313°20.8'	S 22°45.0'	259°59.8'	S 14°23.6'
13	41°36.1'	S 12°36.3'	6°12.3'	S 19°34.5'	328°23.1'	S 22°45.0'	275°00.9'	S 14°23.0'
14	56°38.9'	S 12°35.5'	21°14.2'	S 19°34.7'	343°25.3'	S 22°45.0'	290°01.9'	S 14°22.4'
15	71°41.7'	S 12°34.7'	36°16.1'	S 19°34.8'	358°27.5'	S 22°45.0'	305°03.0'	S 14°21.8'
16	86°44.5'	S 12°33.9'	51°18.0'	S 19°34.9'	13°29.7'	S 22°45.0'	320°04.0'	S 14°21.2'
17	101°47.3'	S 12°33.1'	66°19.9'	S 19°35.0'	28°31.9'	S 22°45.0'	335°05.1'	S 14°20.5'
18	116°50.0'	S 12°32.3'	81°21.8'	S 19°35.1'	43°34.1'	S 22°45.0'	350°06.1'	S 14°19.9'
19	131°52.8'	S 12°31.5'	96°23.6'	S 19°35.3'	58°36.3'	S 22°45.0'	5°07.2'	S 14°19.3'
20	146°55.6'	S 12°30.7'	111°25.5'	S 19°35.4'	73°38.6'	S 22°45.0'	20°08.2'	S 14°18.7'
21	161°58.4'	S 12°29.9'	126°27.4'	S 19°35.5'	88°40.8'	S 22°45.0'	35°09.3'	S 14°18.1'
22	177°01.1'	S 12°29.1'	141°29.3'	S 19°35.6'	103°43.0'	S 22°45.0'	50°10.3'	S 14°17.5'
23	192°03.9'	S 12°28.3'	156°31.2'	S 19°35.7'	118°45.2'	S 22°45.0'	65°11.4'	S 14°16.9'

Sun Nov 11, 2018 UTC

UTC	Venus -4.2		Jupiter -1.6		Saturn +0.6		Mars -0.4	
	v = 2.7' d = 0.8'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	207°06.7'	S 12°27.5'	171°33.1'	S 19°35.9'	133°47.4'	S 22°45.0'	80°12.4'	S 14°16.3'
1	222°09.4'	S 12°26.8'	186°35.0'	S 19°36.0'	148°49.6'	S 22°45.0'	95°13.5'	S 14°15.7'
2	237°12.2'	S 12°26.0'	201°36.9'	S 19°36.1'	163°51.8'	S 22°44.9'	110°14.5'	S 14°15.1'
3	252°14.9'	S 12°25.2'	216°38.8'	S 19°36.2'	178°54.1'	S 22°44.9'	125°15.5'	S 14°14.4'
4	267°17.7'	S 12°24.4'	231°40.7'	S 19°36.3'	193°56.3'	S 22°44.9'	140°16.6'	S 14°13.8'
5	282°20.4'	S 12°23.6'	246°42.6'	S 19°36.4'	208°58.5'	S 22°44.9'	155°17.6'	S 14°13.2'
6	297°23.2'	S 12°22.9'	261°44.5'	S 19°36.6'	224°00.7'	S 22°44.9'	170°18.7'	S 14°12.6'
7	312°25.9'	S 12°22.1'	276°46.4'	S 19°36.7'	239°02.9'	S 22°44.9'	185°19.7'	S 14°12.0'
8	327°28.6'	S 12°21.3'	291°48.3'	S 19°36.8'	254°05.1'	S 22°44.9'	200°20.8'	S 14°11.4'
9	342°31.3'	S 12°20.6'	306°50.1'	S 19°36.9'	269°07.3'	S 22°44.9'	215°21.8'	S 14°10.8'
10	357°34.1'	S 12°19.8'	321°52.0'	S 19°37.0'	284°09.6'	S 22°44.9'	230°22.9'	S 14°10.2'
11	12°36.8'	S 12°19.0'	336°53.9'	S 19°37.1'	299°11.8'	S 22°44.9'	245°23.9'	S 14°09.6'
12	27°39.5'	S 12°18.3'	351°55.8'	S 19°37.3'	314°14.0'	S 22°44.9'	260°25.0'	S 14°08.9'
13	42°42.2'	S 12°17.5'	6°57.7'	S 19°37.4'	329°16.2'	S 22°44.9'	275°26.0'	S 14°08.3'
14	57°44.9'	S 12°16.7'	21°59.6'	S 19°37.5'	344°18.4'	S 22°44.9'	290°27.1'	S 14°07.7'
15	72°47.6'	S 12°16.0'	37°01.5'	S 19°37.6'	359°20.6'	S 22°44.9'	305°28.1'	S 14°07.1'
16	87°50.3'	S 12°15.2'	52°03.4'	S 19°37.7'	14°22.8'	S 22°44.9'	320°29.1'	S 14°06.5'
17	102°53.0'	S 12°14.5'	67°05.3'	S 19°37.9'	29°25.0'	S 22°44.9'	335°30.2'	S 14°05.9'
18	117°55.7'	S 12°13.7'	82°07.2'	S 19°38.0'	44°27.3'	S 22°44.9'	350°31.2'	S 14°05.3'
19	132°58.4'	S 12°13.0'	97°09.1'	S 19°38.1'	59°29.5'	S 22°44.9'	5°32.3'	S 14°04.6'
20	148°01.1'	S 12°12.2'	112°11.0'	S 19°38.2'	74°31.7'	S 22°44.8'	20°33.3'	S 14°04.0'
21	163°03.8'	S 12°11.5'	127°12.9'	S 19°38.3'	89°33.9'	S 22°44.8'	35°34.4'	S 14°03.4'
22	178°06.4'	S 12°10.7'	142°14.7'	S 19°38.4'	104°36.1'	S 22°44.8'	50°35.4'	S 14°02.8'
23	193°09.1'	S 12°10.0'	157°16.6'	S 19°38.6'	119°38.3'	S 22°44.8'	65°36.4'	S 14°02.2'

Mon Nov 12, 2018 UTC

UTC	Venus -4.2		Jupiter -1.6		Saturn +0.6		Mars -0.4	
	v = 2.6' d = 0.7'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	208°11.8'	S 12°09.2'	172°18.5'	S 19°38.7'	134°40.5'	S 22°44.8'	80°37.5'	S 14°01.6'
1	223°14.4'	S 12°08.5'	187°20.4'	S 19°38.8'	149°42.7'	S 22°44.8'	95°38.5'	S 14°01.0'
2	238°17.1'	S 12°07.7'	202°22.3'	S 19°38.9'	164°44.9'	S 22°44.8'	110°39.6'	S 14°00.3'
3	253°19.7'	S 12°07.0'	217°24.2'	S 19°39.0'	179°47.2'	S 22°44.8'	125°40.6'	S 13°59.7'
4	268°22.4'	S 12°06.3'	232°26.1'	S 19°39.1'	194°49.4'	S 22°44.8'	140°41.7'	S 13°59.1'
5	283°25.0'	S 12°05.5'	247°28.0'	S 19°39.3'	209°51.6'	S 22°44.8'	155°42.7'	S 13°58.5'
6	298°27.7'	S 12°04.8'	262°29.9'	S 19°39.4'	224°53.8'	S 22°44.8'	170°43.7'	S 13°57.9'
7	313°30.3'	S 12°04.1'	277°31.8'	S 19°39.5'	239°56.0'	S 22°44.8'	185°44.8'	S 13°57.3'
8	328°33.0'	S 12°03.3'	292°33.7'	S 19°39.6'	254°58.2'	S 22°44.8'	200°45.8'	S 13°56.7'
9	343°35.6'	S 12°02.6'	307°35.6'	S 19°39.7'	270°00.4'	S 22°44.8'	215°46.9'	S 13°56.0'
10	358°38.2'	S 12°01.9'	322°37.4'	S 19°39.9'	285°02.6'	S 22°44.8'	230°47.9'	S 13°55.4'
11	13°40.8'	S 12°01.2'	337°39.3'	S 19°40.0'	300°04.8'	S 22°44.8'	245°49.0'	S 13°54.8'
12	28°43.5'	S 12°00.5'	352°41.2'	S 19°40.1'	315°07.1'	S 22°44.8'	260°50.0'	S 13°54.2'
13	43°46.1'	S 11°59.7'	7°43.1'	S 19°40.2'	330°09.3'	S 22°44.7'	275°51.0'	S 13°53.6'
14	58°48.7'	S 11°59.0'	22°45.0'	S 19°40.3'	345°11.5'	S 22°44.7'	290°52.1'	S 13°53.0'
15	73°51.3'	S 11°58.3'	37°46.9'	S 19°40.4'	0°13.7'	S 22°44.7'	305°53.1'	S 13°52.3'
16	88°53.9'	S 11°57.6'	52°48.8'	S 19°40.6'	15°15.9'	S 22°44.7'	320°54.2'	S 13°51.7'
17	103°56.5'	S 11°56.9'	67°50.7'	S 19°40.7'	30°18.1'	S 22°44.7'	335°55.2'	S 13°51.1'
18	118°59.1'	S 11°56.2'	82°52.6'	S 19°40.8'	45°20.3'	S 22°44.7'	350°56.2'	S 13°50.5'
19	134°01.7'	S 11°55.5'	97°54.5'	S 19°40.9'	60°22.5'	S 22°44.7'	5°57.3'	S 13°49.9'
20	149°04.3'	S 11°54.8'	112°56.4'	S 19°41.0'	75°24.7'	S 22°44.7'	20°58.3'	S 13°49.2'
21	164°06.9'	S 11°54.1'	127°58.2'	S 19°41.1'	90°26.9'	S 22°44.7'	35°59.4'	S 13°48.6'
22	179°09.4'	S 11°53.4'	143°00.1'	S 19°41.3'	105°29.2'	S 22°44.7'	51°00.4'	S 13°48.0'
23	194°12.0'	S 11°52.7'	158°02.0'	S 19°41.4'	120°31.4'	S 22°44.7'	66°01.4'	S 13°47.4'

Tue Nov 13, 2018 UTC

UTC	Venus -4.3 v = 2.5' d = 0.7'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.3 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	209°14.6'	S 11°52.0'	173°03.9'	S 19°41.5'	135°33.6'	S 22°44.7'	81°02.5'	S 13°46.8'
1	224°17.2'	S 11°51.3'	188°05.8'	S 19°41.6'	150°35.8'	S 22°44.7'	96°03.5'	S 13°46.2'
2	239°19.7'	S 11°50.6'	203°07.7'	S 19°41.7'	165°38.0'	S 22°44.7'	111°04.5'	S 13°45.5'
3	254°22.3'	S 11°49.9'	218°09.6'	S 19°41.8'	180°40.2'	S 22°44.7'	126°05.6'	S 13°44.9'
4	269°24.8'	S 11°49.2'	233°11.5'	S 19°42.0'	195°42.4'	S 22°44.7'	141°06.6'	S 13°44.3'
5	284°27.4'	S 11°48.5'	248°13.4'	S 19°42.1'	210°44.6'	S 22°44.7'	156°07.7'	S 13°43.7'
6	299°29.9'	S 11°47.8'	263°15.3'	S 19°42.2'	225°46.8'	S 22°44.6'	171°08.7'	S 13°43.1'
7	314°32.5'	S 11°47.1'	278°17.1'	S 19°42.3'	240°49.0'	S 22°44.6'	186°09.7'	S 13°42.4'
8	329°35.0'	S 11°46.5'	293°19.0'	S 19°42.4'	255°51.2'	S 22°44.6'	201°10.8'	S 13°41.8'
9	344°37.6'	S 11°45.8'	308°20.9'	S 19°42.5'	270°53.5'	S 22°44.6'	216°11.8'	S 13°41.2'
10	359°40.1'	S 11°45.1'	323°22.8'	S 19°42.7'	285°55.7'	S 22°44.6'	231°12.9'	S 13°40.6'
11	14°42.6'	S 11°44.4'	338°24.7'	S 19°42.8'	300°57.9'	S 22°44.6'	246°13.9'	S 13°39.9'
12	29°45.2'	S 11°43.8'	353°26.6'	S 19°42.9'	316°00.1'	S 22°44.6'	261°14.9'	S 13°39.3'
13	44°47.7'	S 11°43.1'	8°28.5'	S 19°43.0'	331°02.3'	S 22°44.6'	276°16.0'	S 13°38.7'
14	59°50.2'	S 11°42.4'	23°30.4'	S 19°43.1'	346°04.5'	S 22°44.6'	291°17.0'	S 13°38.1'
15	74°52.7'	S 11°41.7'	38°32.3'	S 19°43.2'	1°06.7'	S 22°44.6'	306°18.0'	S 13°37.5'
16	89°55.2'	S 11°41.1'	53°34.2'	S 19°43.4'	16°08.9'	S 22°44.6'	321°19.1'	S 13°36.8'
17	104°57.7'	S 11°40.4'	68°36.0'	S 19°43.5'	31°11.1'	S 22°44.6'	336°20.1'	S 13°36.2'
18	120°00.2'	S 11°39.7'	83°37.9'	S 19°43.6'	46°13.3'	S 22°44.6'	351°21.1'	S 13°35.6'
19	135°02.7'	S 11°39.1'	98°39.8'	S 19°43.7'	61°15.5'	S 22°44.6'	6°22.2'	S 13°35.0'
20	150°05.2'	S 11°38.4'	113°41.7'	S 19°43.8'	76°17.7'	S 22°44.6'	21°23.2'	S 13°34.4'
21	165°07.7'	S 11°37.8'	128°43.6'	S 19°43.9'	91°19.9'	S 22°44.6'	36°24.2'	S 13°33.7'
22	180°10.2'	S 11°37.1'	143°45.5'	S 19°44.1'	106°22.2'	S 22°44.5'	51°25.3'	S 13°33.1'
23	195°12.7'	S 11°36.5'	158°47.4'	S 19°44.2'	121°24.4'	S 22°44.5'	66°26.3'	S 13°32.5'

Wed Nov 14, 2018 UTC

UTC	Venus -4.3 v = 2.4' d = 0.6'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.3 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	210°15.2'	S 11°35.8'	173°49.3'	S 19°44.3'	136°26.6'	S 22°44.5'	81°27.4'	S 13°31.9'
1	225°17.6'	S 11°35.2'	188°51.2'	S 19°44.4'	151°28.8'	S 22°44.5'	96°28.4'	S 13°31.2'
2	240°20.1'	S 11°34.5'	203°53.1'	S 19°44.5'	166°31.0'	S 22°44.5'	111°29.4'	S 13°30.6'
3	255°22.6'	S 11°33.9'	218°54.9'	S 19°44.6'	181°33.2'	S 22°44.5'	126°30.5'	S 13°30.0'
4	270°25.0'	S 11°33.2'	233°56.8'	S 19°44.8'	196°35.4'	S 22°44.5'	141°31.5'	S 13°29.4'
5	285°27.5'	S 11°32.6'	248°58.7'	S 19°44.9'	211°37.6'	S 22°44.5'	156°32.5'	S 13°28.7'
6	300°29.9'	S 11°32.0'	264°00.6'	S 19°45.0'	226°39.8'	S 22°44.5'	171°33.6'	S 13°28.1'
7	315°32.4'	S 11°31.3'	279°02.5'	S 19°45.1'	241°42.0'	S 22°44.5'	186°34.6'	S 13°27.5'
8	330°34.8'	S 11°30.7'	294°04.4'	S 19°45.2'	256°44.2'	S 22°44.5'	201°35.6'	S 13°26.9'
9	345°37.3'	S 11°30.0'	309°06.3'	S 19°45.3'	271°46.4'	S 22°44.5'	216°36.7'	S 13°26.2'
10	0°39.7'	S 11°29.4'	324°08.2'	S 19°45.4'	286°48.6'	S 22°44.5'	231°37.7'	S 13°25.6'
11	15°42.2'	S 11°28.8'	339°10.1'	S 19°45.6'	301°50.8'	S 22°44.5'	246°38.7'	S 13°25.0'
12	30°44.6'	S 11°28.2'	354°11.9'	S 19°45.7'	316°53.0'	S 22°44.5'	261°39.8'	S 13°24.4'
13	45°47.0'	S 11°27.5'	9°13.8'	S 19°45.8'	331°55.2'	S 22°44.4'	276°40.8'	S 13°23.7'
14	60°49.4'	S 11°26.9'	24°15.7'	S 19°45.9'	346°57.4'	S 22°44.4'	291°41.8'	S 13°23.1'
15	75°51.9'	S 11°26.3'	39°17.6'	S 19°46.0'	1°59.7'	S 22°44.4'	306°42.9'	S 13°22.5'
16	90°54.3'	S 11°25.7'	54°19.5'	S 19°46.1'	17°01.9'	S 22°44.4'	321°43.9'	S 13°21.9'
17	105°56.7'	S 11°25.1'	69°21.4'	S 19°46.3'	32°04.1'	S 22°44.4'	336°44.9'	S 13°21.2'
18	120°59.1'	S 11°24.4'	84°23.3'	S 19°46.4'	47°06.3'	S 22°44.4'	351°46.0'	S 13°20.6'
19	136°01.5'	S 11°23.8'	99°25.2'	S 19°46.5'	62°08.5'	S 22°44.4'	6°47.0'	S 13°20.0'
20	151°03.9'	S 11°23.2'	114°27.0'	S 19°46.6'	77°10.7'	S 22°44.4'	21°48.0'	S 13°19.4'
21	166°06.3'	S 11°22.6'	129°28.9'	S 19°46.7'	92°12.9'	S 22°44.4'	36°49.0'	S 13°18.7'
22	181°08.7'	S 11°22.0'	144°30.8'	S 19°46.8'	107°15.1'	S 22°44.4'	51°50.1'	S 13°18.1'
23	196°11.1'	S 11°21.4'	159°32.7'	S 19°47.0'	122°17.3'	S 22°44.4'	66°51.1'	S 13°17.5'

Thu Nov 15, 2018 UTC

UTC	Venus -4.3		Jupiter -1.6		Saturn +0.6		Mars -0.3	
	v = 2.3' d = 0.6'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	211°13.5'	S 11°20.8'	174°34.6'	S 19°47.1'	137°19.5'	S 22°44.4'	81°52.1'	S 13°16.9'
1	226°15.9'	S 11°20.2'	189°36.5'	S 19°47.2'	152°21.7'	S 22°44.4'	96°53.2'	S 13°16.2'
2	241°18.2'	S 11°19.6'	204°38.4'	S 19°47.3'	167°23.9'	S 22°44.4'	111°54.2'	S 13°15.6'
3	256°20.6'	S 11°19.0'	219°40.3'	S 19°47.4'	182°26.1'	S 22°44.4'	126°55.2'	S 13°15.0'
4	271°23.0'	S 11°18.4'	234°42.2'	S 19°47.5'	197°28.3'	S 22°44.3'	141°56.3'	S 13°14.3'
5	286°25.3'	S 11°17.8'	249°44.0'	S 19°47.6'	212°30.5'	S 22°44.3'	156°57.3'	S 13°13.7'
6	301°27.7'	S 11°17.2'	264°45.9'	S 19°47.8'	227°32.7'	S 22°44.3'	171°58.3'	S 13°13.1'
7	316°30.1'	S 11°16.6'	279°47.8'	S 19°47.9'	242°34.9'	S 22°44.3'	186°59.4'	S 13°12.5'
8	331°32.4'	S 11°16.0'	294°49.7'	S 19°48.0'	257°37.1'	S 22°44.3'	202°00.4'	S 13°11.8'
9	346°34.8'	S 11°15.5'	309°51.6'	S 19°48.1'	272°39.3'	S 22°44.3'	217°01.4'	S 13°11.2'
10	1°37.1'	S 11°14.9'	324°53.5'	S 19°48.2'	287°41.5'	S 22°44.3'	232°02.4'	S 13°10.6'
11	16°39.5'	S 11°14.3'	339°55.4'	S 19°48.3'	302°43.7'	S 22°44.3'	247°03.5'	S 13°09.9'
12	31°41.8'	S 11°13.7'	354°57.3'	S 19°48.5'	317°45.9'	S 22°44.3'	262°04.5'	S 13°09.3'
13	46°44.1'	S 11°13.1'	9°59.1'	S 19°48.6'	332°48.1'	S 22°44.3'	277°05.5'	S 13°08.7'
14	61°46.5'	S 11°12.6'	25°01.0'	S 19°48.7'	347°50.3'	S 22°44.3'	292°06.6'	S 13°08.1'
15	76°48.8'	S 11°12.0'	40°02.9'	S 19°48.8'	2°52.5'	S 22°44.3'	307°07.6'	S 13°07.4'
16	91°51.1'	S 11°11.4'	55°04.8'	S 19°48.9'	17°54.7'	S 22°44.3'	322°08.6'	S 13°06.8'
17	106°53.4'	S 11°10.9'	70°06.7'	S 19°49.0'	32°56.9'	S 22°44.3'	337°09.6'	S 13°06.2'
18	121°55.8'	S 11°10.3'	85°08.6'	S 19°49.1'	47°59.2'	S 22°44.3'	352°10.7'	S 13°05.5'
19	136°58.1'	S 11°09.7'	100°10.5'	S 19°49.3'	63°01.4'	S 22°44.2'	7°11.7'	S 13°04.9'
20	152°00.4'	S 11°09.2'	115°12.4'	S 19°49.4'	78°03.6'	S 22°44.2'	22°12.7'	S 13°04.3'
21	167°02.7'	S 11°08.6'	130°14.2'	S 19°49.5'	93°05.8'	S 22°44.2'	37°13.8'	S 13°03.6'
22	182°05.0'	S 11°08.0'	145°16.1'	S 19°49.6'	108°08.0'	S 22°44.2'	52°14.8'	S 13°03.0'
23	197°07.3'	S 11°07.5'	160°18.0'	S 19°49.7'	123°10.2'	S 22°44.2'	67°15.8'	S 13°02.4'

Fri Nov 16, 2018 UTC

UTC	Venus -4.3		Jupiter -1.6		Saturn +0.6		Mars -0.3	
	v = 2.2' d = 0.5'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	212°09.6'	S 11°06.9'	175°19.9'	S 19°49.8'	138°12.4'	S 22°44.2'	82°16.8'	S 13°01.8'
1	227°11.9'	S 11°06.4'	190°21.8'	S 19°49.9'	153°14.6'	S 22°44.2'	97°17.9'	S 13°01.1'
2	242°14.1'	S 11°05.8'	205°23.7'	S 19°50.1'	168°16.8'	S 22°44.2'	112°18.9'	S 13°00.5'
3	257°16.4'	S 11°05.3'	220°25.6'	S 19°50.2'	183°19.0'	S 22°44.2'	127°19.9'	S 12°59.9'
4	272°18.7'	S 11°04.7'	235°27.5'	S 19°50.3'	198°21.2'	S 22°44.2'	142°21.0'	S 12°59.2'
5	287°21.0'	S 11°04.2'	250°29.3'	S 19°50.4'	213°23.4'	S 22°44.2'	157°22.0'	S 12°58.6'
6	302°23.3'	S 11°03.6'	265°31.2'	S 19°50.5'	228°25.6'	S 22°44.2'	172°23.0'	S 12°58.0'
7	317°25.5'	S 11°03.1'	280°33.1'	S 19°50.6'	243°27.8'	S 22°44.2'	187°24.0'	S 12°57.3'
8	332°27.8'	S 11°02.6'	295°35.0'	S 19°50.8'	258°30.0'	S 22°44.2'	202°25.1'	S 12°56.7'
9	347°30.0'	S 11°02.0'	310°36.9'	S 19°50.9'	273°32.2'	S 22°44.1'	217°26.1'	S 12°56.1'
10	2°32.3'	S 11°01.5'	325°38.8'	S 19°51.0'	288°34.4'	S 22°44.1'	232°27.1'	S 12°55.4'
11	17°34.6'	S 11°01.0'	340°40.7'	S 19°51.1'	303°36.6'	S 22°44.1'	247°28.1'	S 12°54.8'
12	32°36.8'	S 11°00.4'	355°42.6'	S 19°51.2'	318°38.8'	S 22°44.1'	262°29.2'	S 12°54.2'
13	47°39.0'	S 10°59.9'	10°44.4'	S 19°51.3'	333°41.0'	S 22°44.1'	277°30.2'	S 12°53.5'
14	62°41.3'	S 10°59.4'	25°46.3'	S 19°51.4'	348°43.2'	S 22°44.1'	292°31.2'	S 12°52.9'
15	77°43.5'	S 10°58.9'	40°48.2'	S 19°51.6'	3°45.4'	S 22°44.1'	307°32.2'	S 12°52.3'
16	92°45.8'	S 10°58.3'	55°50.1'	S 19°51.7'	18°47.6'	S 22°44.1'	322°33.3'	S 12°51.6'
17	107°48.0'	S 10°57.8'	70°52.0'	S 19°51.8'	33°49.8'	S 22°44.1'	337°34.3'	S 12°51.0'
18	122°50.2'	S 10°57.3'	85°53.9'	S 19°51.9'	48°52.0'	S 22°44.1'	352°35.3'	S 12°50.4'
19	137°52.4'	S 10°56.8'	100°55.8'	S 19°52.0'	63°54.2'	S 22°44.1'	7°36.3'	S 12°49.7'
20	152°54.7'	S 10°56.3'	115°57.6'	S 19°52.1'	78°56.4'	S 22°44.1'	22°37.4'	S 12°49.1'
21	167°56.9'	S 10°55.8'	130°59.5'	S 19°52.2'	93°58.6'	S 22°44.1'	37°38.4'	S 12°48.5'
22	182°59.1'	S 10°55.2'	146°01.4'	S 19°52.4'	109°00.8'	S 22°44.1'	52°39.4'	S 12°47.8'
23	198°01.3'	S 10°54.7'	161°03.3'	S 19°52.5'	124°03.0'	S 22°44.0'	67°40.4'	S 12°47.2'

Sat Nov 17, 2018 UTC

UTC	Venus -4.3 v = 2.2' d = 0.5'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.3 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	213°03.5'	S 10°54.2'	176°05.2'	S 19°52.6'	139°05.2'	S 22°44.0'	82°41.5'	S 12°46.6'
1	228°05.7'	S 10°53.7'	191°07.1'	S 19°52.7'	154°07.4'	S 22°44.0'	97°42.5'	S 12°45.9'
2	243°07.9'	S 10°53.2'	206°09.0'	S 19°52.8'	169°09.6'	S 22°44.0'	112°43.5'	S 12°45.3'
3	258°10.1'	S 10°52.7'	221°10.8'	S 19°52.9'	184°11.8'	S 22°44.0'	127°44.5'	S 12°44.6'
4	273°12.3'	S 10°52.2'	236°12.7'	S 19°53.0'	199°14.0'	S 22°44.0'	142°45.6'	S 12°44.0'
5	288°14.4'	S 10°51.7'	251°14.6'	S 19°53.2'	214°16.2'	S 22°44.0'	157°46.6'	S 12°43.4'
6	303°16.6'	S 10°51.2'	266°16.5'	S 19°53.3'	229°18.4'	S 22°44.0'	172°47.6'	S 12°42.7'
7	318°18.8'	S 10°50.7'	281°18.4'	S 19°53.4'	244°20.6'	S 22°44.0'	187°48.6'	S 12°42.1'
8	333°21.0'	S 10°50.3'	296°20.3'	S 19°53.5'	259°22.8'	S 22°44.0'	202°49.6'	S 12°41.5'
9	348°23.2'	S 10°49.8'	311°22.2'	S 19°53.6'	274°25.0'	S 22°44.0'	217°50.7'	S 12°40.8'
10	3°25.3'	S 10°49.3'	326°24.1'	S 19°53.7'	289°27.2'	S 22°44.0'	232°51.7'	S 12°40.2'
11	18°27.5'	S 10°48.8'	341°25.9'	S 19°53.8'	304°29.4'	S 22°44.0'	247°52.7'	S 12°39.6'
12	33°29.6'	S 10°48.3'	356°27.8'	S 19°53.9'	319°31.6'	S 22°44.0'	262°53.7'	S 12°38.9'
13	48°31.8'	S 10°47.8'	11°29.7'	S 19°54.1'	334°33.8'	S 22°43.9'	277°54.8'	S 12°38.3'
14	63°33.9'	S 10°47.4'	26°31.6'	S 19°54.2'	349°36.0'	S 22°43.9'	292°55.8'	S 12°37.6'
15	78°36.1'	S 10°46.9'	41°33.5'	S 19°54.3'	4°38.2'	S 22°43.9'	307°56.8'	S 12°37.0'
16	93°38.2'	S 10°46.4'	56°35.4'	S 19°54.4'	19°40.4'	S 22°43.9'	322°57.8'	S 12°36.4'
17	108°40.4'	S 10°45.9'	71°37.3'	S 19°54.5'	34°42.6'	S 22°43.9'	337°58.8'	S 12°35.7'
18	123°42.5'	S 10°45.5'	86°39.1'	S 19°54.6'	49°44.7'	S 22°43.9'	352°59.9'	S 12°35.1'
19	138°44.6'	S 10°45.0'	101°41.0'	S 19°54.7'	64°46.9'	S 22°43.9'	8°00.9'	S 12°34.5'
20	153°46.8'	S 10°44.5'	116°42.9'	S 19°54.9'	79°49.1'	S 22°43.9'	23°01.9'	S 12°33.8'
21	168°48.9'	S 10°44.1'	131°44.8'	S 19°55.0'	94°51.3'	S 22°43.9'	38°02.9'	S 12°33.2'
22	183°51.0'	S 10°43.6'	146°46.7'	S 19°55.1'	109°53.5'	S 22°43.9'	53°04.0'	S 12°32.5'
23	198°53.1'	S 10°43.2'	161°48.6'	S 19°55.2'	124°55.7'	S 22°43.9'	68°05.0'	S 12°31.9'

Sun Nov 18, 2018 UTC

UTC	Venus -4.4 v = 2.1' d = 0.4'		Jupiter -1.6 v = 1.9' d = 0.1'		Saturn +0.6 v = 2.2' d = 0.0'		Mars -0.2 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	213°55.3'	S 10°42.7'	176°50.5'	S 19°55.3'	139°57.9'	S 22°43.9'	83°06.0'	S 12°31.3'
1	228°57.4'	S 10°42.2'	191°52.3'	S 19°55.4'	155°00.1'	S 22°43.9'	98°07.0'	S 12°30.6'
2	243°59.5'	S 10°41.8'	206°54.2'	S 19°55.5'	170°02.3'	S 22°43.8'	113°08.0'	S 12°30.0'
3	259°01.6'	S 10°41.3'	221°56.1'	S 19°55.7'	185°04.5'	S 22°43.8'	128°09.1'	S 12°29.3'
4	274°03.7'	S 10°40.9'	236°58.0'	S 19°55.8'	200°06.7'	S 22°43.8'	143°10.1'	S 12°28.7'
5	289°05.8'	S 10°40.4'	251°59.9'	S 19°55.9'	215°08.9'	S 22°43.8'	158°11.1'	S 12°28.1'
6	304°07.9'	S 10°40.0'	267°01.8'	S 19°56.0'	230°11.1'	S 22°43.8'	173°12.1'	S 12°27.4'
7	319°10.0'	S 10°39.6'	282°03.6'	S 19°56.1'	245°13.3'	S 22°43.8'	188°13.1'	S 12°26.8'
8	334°12.0'	S 10°39.1'	297°05.5'	S 19°56.2'	260°15.5'	S 22°43.8'	203°14.2'	S 12°26.1'
9	349°14.1'	S 10°38.7'	312°07.4'	S 19°56.3'	275°17.7'	S 22°43.8'	218°15.2'	S 12°25.5'
10	4°16.2'	S 10°38.2'	327°09.3'	S 19°56.4'	290°19.9'	S 22°43.8'	233°16.2'	S 12°24.9'
11	19°18.3'	S 10°37.8'	342°11.2'	S 19°56.6'	305°22.1'	S 22°43.8'	248°17.2'	S 12°24.2'
12	34°20.3'	S 10°37.4'	357°13.1'	S 19°56.7'	320°24.3'	S 22°43.8'	263°18.2'	S 12°23.6'
13	49°22.4'	S 10°36.9'	12°15.0'	S 19°56.8'	335°26.5'	S 22°43.8'	278°19.3'	S 12°22.9'
14	64°24.5'	S 10°36.5'	27°16.8'	S 19°56.9'	350°28.7'	S 22°43.8'	293°20.3'	S 12°22.3'
15	79°26.5'	S 10°36.1'	42°18.7'	S 19°57.0'	5°30.9'	S 22°43.7'	308°21.3'	S 12°21.7'
16	94°28.6'	S 10°35.7'	57°20.6'	S 19°57.1'	20°33.1'	S 22°43.7'	323°22.3'	S 12°21.0'
17	109°30.6'	S 10°35.2'	72°22.5'	S 19°57.2'	35°35.3'	S 22°43.7'	338°23.3'	S 12°20.4'
18	124°32.7'	S 10°34.8'	87°24.4'	S 19°57.3'	50°37.5'	S 22°43.7'	353°24.3'	S 12°19.7'
19	139°34.7'	S 10°34.4'	102°26.3'	S 19°57.5'	65°39.7'	S 22°43.7'	8°25.4'	S 12°19.1'
20	154°36.8'	S 10°34.0'	117°28.2'	S 19°57.6'	80°41.9'	S 22°43.7'	23°26.4'	S 12°18.4'
21	169°38.8'	S 10°33.6'	132°30.0'	S 19°57.7'	95°44.1'	S 22°43.7'	38°27.4'	S 12°17.8'
22	184°40.9'	S 10°33.1'	147°31.9'	S 19°57.8'	110°46.2'	S 22°43.7'	53°28.4'	S 12°17.2'
23	199°42.9'	S 10°32.7'	162°33.8'	S 19°57.9'	125°48.4'	S 22°43.7'	68°29.4'	S 12°16.5'

Mon Nov 19, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.2	
	v = 2.0' d = 0.4'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	214°44.9'	S 10°32.3'	177°35.7'	S 19°58.0'	140°50.6'	S 22°43.7'	83°30.5'	S 12°15.9'
1	229°46.9'	S 10°31.9'	192°37.6'	S 19°58.1'	155°52.8'	S 22°43.7'	98°31.5'	S 12°15.2'
2	244°49.0'	S 10°31.5'	207°39.5'	S 19°58.2'	170°55.0'	S 22°43.7'	113°32.5'	S 12°14.6'
3	259°51.0'	S 10°31.1'	222°41.3'	S 19°58.4'	185°57.2'	S 22°43.7'	128°33.5'	S 12°13.9'
4	274°53.0'	S 10°30.7'	237°43.2'	S 19°58.5'	200°59.4'	S 22°43.6'	143°34.5'	S 12°13.3'
5	289°55.0'	S 10°30.3'	252°45.1'	S 19°58.6'	216°01.6'	S 22°43.6'	158°35.5'	S 12°12.7'
6	304°57.0'	S 10°29.9'	267°47.0'	S 19°58.7'	231°03.8'	S 22°43.6'	173°36.6'	S 12°12.0'
7	319°59.0'	S 10°29.5'	282°48.9'	S 19°58.8'	246°06.0'	S 22°43.6'	188°37.6'	S 12°11.4'
8	335°01.0'	S 10°29.1'	297°50.8'	S 19°58.9'	261°08.2'	S 22°43.6'	203°38.6'	S 12°10.7'
9	350°03.0'	S 10°28.7'	312°52.6'	S 19°59.0'	276°10.4'	S 22°43.6'	218°39.6'	S 12°10.1'
10	5°05.0'	S 10°28.4'	327°54.5'	S 19°59.1'	291°12.6'	S 22°43.6'	233°40.6'	S 12°09.4'
11	20°07.0'	S 10°28.0'	342°56.4'	S 19°59.3'	306°14.8'	S 22°43.6'	248°41.6'	S 12°08.8'
12	35°09.0'	S 10°27.6'	357°58.3'	S 19°59.4'	321°17.0'	S 22°43.6'	263°42.7'	S 12°08.1'
13	50°11.0'	S 10°27.2'	13°00.2'	S 19°59.5'	336°19.2'	S 22°43.6'	278°43.7'	S 12°07.5'
14	65°12.9'	S 10°26.8'	28°02.1'	S 19°59.6'	351°21.4'	S 22°43.6'	293°44.7'	S 12°06.9'
15	80°14.9'	S 10°26.4'	43°04.0'	S 19°59.7'	6°23.5'	S 22°43.6'	308°45.7'	S 12°06.2'
16	95°16.9'	S 10°26.1'	58°05.8'	S 19°59.8'	21°25.7'	S 22°43.5'	323°46.7'	S 12°05.6'
17	110°18.8'	S 10°25.7'	73°07.7'	S 19°59.9'	36°27.9'	S 22°43.5'	338°47.7'	S 12°04.9'
18	125°20.8'	S 10°25.3'	88°09.6'	S 20°00.0'	51°30.1'	S 22°43.5'	353°48.8'	S 12°04.3'
19	140°22.8'	S 10°24.9'	103°11.5'	S 20°00.2'	66°32.3'	S 22°43.5'	8°49.8'	S 12°03.6'
20	155°24.7'	S 10°24.6'	118°13.4'	S 20°00.3'	81°34.5'	S 22°43.5'	23°50.8'	S 12°03.0'
21	170°26.7'	S 10°24.2'	133°15.3'	S 20°00.4'	96°36.7'	S 22°43.5'	38°51.8'	S 12°02.3'
22	185°28.6'	S 10°23.8'	148°17.1'	S 20°00.5'	111°38.9'	S 22°43.5'	53°52.8'	S 12°01.7'
23	200°30.6'	S 10°23.5'	163°19.0'	S 20°00.6'	126°41.1'	S 22°43.5'	68°53.8'	S 12°01.0'

Tue Nov 20, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.2	
	v = 1.9' d = 0.3'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	215°32.5'	S 10°23.1'	178°20.9'	S 20°00.7'	141°43.3'	S 22°43.5'	83°54.8'	S 12°00.4'
1	230°34.5'	S 10°22.8'	193°22.8'	S 20°00.8'	156°45.5'	S 22°43.5'	98°55.9'	S 11°59.8'
2	245°36.4'	S 10°22.4'	208°24.7'	S 20°00.9'	171°47.7'	S 22°43.5'	113°56.9'	S 11°59.1'
3	260°38.3'	S 10°22.1'	223°26.6'	S 20°01.1'	186°49.9'	S 22°43.5'	128°57.9'	S 11°58.5'
4	275°40.3'	S 10°21.7'	238°28.4'	S 20°01.2'	201°52.1'	S 22°43.4'	143°58.9'	S 11°57.8'
5	290°42.2'	S 10°21.4'	253°30.3'	S 20°01.3'	216°54.2'	S 22°43.4'	158°59.9'	S 11°57.2'
6	305°44.1'	S 10°21.0'	268°32.2'	S 20°01.4'	231°56.4'	S 22°43.4'	174°00.9'	S 11°56.5'
7	320°46.0'	S 10°20.7'	283°34.1'	S 20°01.5'	246°58.6'	S 22°43.4'	189°01.9'	S 11°55.9'
8	335°47.9'	S 10°20.3'	298°36.0'	S 20°01.6'	262°00.8'	S 22°43.4'	204°03.0'	S 11°55.2'
9	350°49.8'	S 10°20.0'	313°37.9'	S 20°01.7'	277°03.0'	S 22°43.4'	219°04.0'	S 11°54.6'
10	5°51.8'	S 10°19.6'	328°39.7'	S 20°01.8'	292°05.2'	S 22°43.4'	234°05.0'	S 11°53.9'
11	20°53.7'	S 10°19.3'	343°41.6'	S 20°01.9'	307°07.4'	S 22°43.4'	249°06.0'	S 11°53.3'
12	35°55.6'	S 10°19.0'	358°43.5'	S 20°02.1'	322°09.6'	S 22°43.4'	264°07.0'	S 11°52.6'
13	50°57.5'	S 10°18.6'	13°45.4'	S 20°02.2'	337°11.8'	S 22°43.4'	279°08.0'	S 11°52.0'
14	65°59.3'	S 10°18.3'	28°47.3'	S 20°02.3'	352°14.0'	S 22°43.4'	294°09.0'	S 11°51.3'
15	81°01.2'	S 10°18.0'	43°49.2'	S 20°02.4'	7°16.2'	S 22°43.4'	309°10.1'	S 11°50.7'
16	96°03.1'	S 10°17.6'	58°51.0'	S 20°02.5'	22°18.4'	S 22°43.3'	324°11.1'	S 11°50.0'
17	111°05.0'	S 10°17.3'	73°52.9'	S 20°02.6'	37°20.5'	S 22°43.3'	339°12.1'	S 11°49.4'
18	126°06.9'	S 10°17.0'	88°54.8'	S 20°02.7'	52°22.7'	S 22°43.3'	354°13.1'	S 11°48.7'
19	141°08.8'	S 10°16.7'	103°56.7'	S 20°02.8'	67°24.9'	S 22°43.3'	9°14.1'	S 11°48.1'
20	156°10.6'	S 10°16.3'	118°58.6'	S 20°02.9'	82°27.1'	S 22°43.3'	24°15.1'	S 11°47.4'
21	171°12.5'	S 10°16.0'	134°00.5'	S 20°03.1'	97°29.3'	S 22°43.3'	39°16.1'	S 11°46.8'
22	186°14.4'	S 10°15.7'	149°02.3'	S 20°03.2'	112°31.5'	S 22°43.3'	54°17.1'	S 11°46.1'
23	201°16.2'	S 10°15.4'	164°04.2'	S 20°03.3'	127°33.7'	S 22°43.3'	69°18.2'	S 11°45.5'

Wed Nov 21, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.2	
	v = 1.8' d = 0.3'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	216°18.1'	S 10°15.1'	179°06.1'	S 20°03.4'	142°35.9'	S 22°43.3'	84°19.2'	S 11°44.8'
1	231°20.0'	S 10°14.8'	194°08.0'	S 20°03.5'	157°38.1'	S 22°43.3'	99°20.2'	S 11°44.2'
2	246°21.8'	S 10°14.5'	209°09.9'	S 20°03.6'	172°40.3'	S 22°43.3'	114°21.2'	S 11°43.5'
3	261°23.7'	S 10°14.1'	224°11.8'	S 20°03.7'	187°42.5'	S 22°43.2'	129°22.2'	S 11°42.9'
4	276°25.5'	S 10°13.8'	239°13.6'	S 20°03.8'	202°44.6'	S 22°43.2'	144°23.2'	S 11°42.2'
5	291°27.3'	S 10°13.5'	254°15.5'	S 20°03.9'	217°46.8'	S 22°43.2'	159°24.2'	S 11°41.6'
6	306°29.2'	S 10°13.2'	269°17.4'	S 20°04.1'	232°49.0'	S 22°43.2'	174°25.2'	S 11°40.9'
7	321°31.0'	S 10°12.9'	284°19.3'	S 20°04.2'	247°51.2'	S 22°43.2'	189°26.2'	S 11°40.3'
8	336°32.9'	S 10°12.6'	299°21.2'	S 20°04.3'	262°53.4'	S 22°43.2'	204°27.3'	S 11°39.6'
9	351°34.7'	S 10°12.3'	314°23.1'	S 20°04.4'	277°55.6'	S 22°43.2'	219°28.3'	S 11°39.0'
10	6°36.5'	S 10°12.1'	329°24.9'	S 20°04.5'	292°57.8'	S 22°43.2'	234°29.3'	S 11°38.3'
11	21°38.3'	S 10°11.8'	344°26.8'	S 20°04.6'	307°60.0'	S 22°43.2'	249°30.3'	S 11°37.7'
12	36°40.2'	S 10°11.5'	359°28.7'	S 20°04.7'	323°02.2'	S 22°43.2'	264°31.3'	S 11°37.0'
13	51°42.0'	S 10°11.2'	14°30.6'	S 20°04.8'	338°04.4'	S 22°43.2'	279°32.3'	S 11°36.4'
14	66°43.8'	S 10°10.9'	29°32.5'	S 20°04.9'	353°06.5'	S 22°43.2'	294°33.3'	S 11°35.7'
15	81°45.6'	S 10°10.6'	44°34.3'	S 20°05.1'	8°08.7'	S 22°43.1'	309°34.3'	S 11°35.1'
16	96°47.4'	S 10°10.3'	59°36.2'	S 20°05.2'	23°10.9'	S 22°43.1'	324°35.3'	S 11°34.4'
17	111°49.2'	S 10°10.1'	74°38.1'	S 20°05.3'	38°13.1'	S 22°43.1'	339°36.4'	S 11°33.8'
18	126°51.0'	S 10°09.8'	89°40.0'	S 20°05.4'	53°15.3'	S 22°43.1'	354°37.4'	S 11°33.1'
19	141°52.8'	S 10°09.5'	104°41.9'	S 20°05.5'	68°17.5'	S 22°43.1'	9°38.4'	S 11°32.5'
20	156°54.6'	S 10°09.2'	119°43.8'	S 20°05.6'	83°19.7'	S 22°43.1'	24°39.4'	S 11°31.8'
21	171°56.4'	S 10°09.0'	134°45.6'	S 20°05.7'	98°21.9'	S 22°43.1'	39°40.4'	S 11°31.2'
22	186°58.2'	S 10°08.7'	149°47.5'	S 20°05.8'	113°24.1'	S 22°43.1'	54°41.4'	S 11°30.5'
23	201°59.9'	S 10°08.4'	164°49.4'	S 20°05.9'	128°26.2'	S 22°43.1'	69°42.4'	S 11°29.9'

Thu Nov 22, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.2	
	v = 1.7' d = 0.2'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	217°01.7'	S 10°08.2'	179°51.3'	S 20°06.1'	143°28.4'	S 22°43.1'	84°43.4'	S 11°29.2'
1	232°03.5'	S 10°07.9'	194°53.2'	S 20°06.2'	158°30.6'	S 22°43.1'	99°44.4'	S 11°28.5'
2	247°05.3'	S 10°07.6'	209°55.1'	S 20°06.3'	173°32.8'	S 22°43.0'	114°45.4'	S 11°27.9'
3	262°07.0'	S 10°07.4'	224°56.9'	S 20°06.4'	188°35.0'	S 22°43.0'	129°46.5'	S 11°27.2'
4	277°08.8'	S 10°07.1'	239°58.8'	S 20°06.5'	203°37.2'	S 22°43.0'	144°47.5'	S 11°26.6'
5	292°10.6'	S 10°06.9'	255°00.7'	S 20°06.6'	218°39.4'	S 22°43.0'	159°48.5'	S 11°25.9'
6	307°12.3'	S 10°06.6'	270°02.6'	S 20°06.7'	233°41.6'	S 22°43.0'	174°49.5'	S 11°25.3'
7	322°14.1'	S 10°06.4'	285°04.5'	S 20°06.8'	248°43.7'	S 22°43.0'	189°50.5'	S 11°24.6'
8	337°15.8'	S 10°06.1'	300°06.3'	S 20°06.9'	263°45.9'	S 22°43.0'	204°51.5'	S 11°24.0'
9	352°17.6'	S 10°05.9'	315°08.2'	S 20°07.0'	278°48.1'	S 22°43.0'	219°52.5'	S 11°23.3'
10	7°19.3'	S 10°05.6'	330°10.1'	S 20°07.2'	293°50.3'	S 22°43.0'	234°53.5'	S 11°22.7'
11	22°21.1'	S 10°05.4'	345°12.0'	S 20°07.3'	308°52.5'	S 22°43.0'	249°54.5'	S 11°22.0'
12	37°22.8'	S 10°05.1'	0°13.9'	S 20°07.4'	323°54.7'	S 22°43.0'	264°55.5'	S 11°21.3'
13	52°24.6'	S 10°04.9'	15°15.8'	S 20°07.5'	338°56.9'	S 22°42.9'	279°56.5'	S 11°20.7'
14	67°26.3'	S 10°04.6'	30°17.6'	S 20°07.6'	353°59.1'	S 22°42.9'	294°57.5'	S 11°20.0'
15	82°28.0'	S 10°04.4'	45°19.5'	S 20°07.7'	9°01.2'	S 22°42.9'	309°58.6'	S 11°19.4'
16	97°29.7'	S 10°04.2'	60°21.4'	S 20°07.8'	24°03.4'	S 22°42.9'	324°59.6'	S 11°18.7'
17	112°31.5'	S 10°03.9'	75°23.3'	S 20°07.9'	39°05.6'	S 22°42.9'	340°00.6'	S 11°18.1'
18	127°33.2'	S 10°03.7'	90°25.2'	S 20°08.0'	54°07.8'	S 22°42.9'	355°01.6'	S 11°17.4'
19	142°34.9'	S 10°03.5'	105°27.0'	S 20°08.1'	69°10.0'	S 22°42.9'	10°02.6'	S 11°16.8'
20	157°36.6'	S 10°03.2'	120°28.9'	S 20°08.3'	84°12.2'	S 22°42.9'	25°03.6'	S 11°16.1'
21	172°38.3'	S 10°03.0'	135°30.8'	S 20°08.4'	99°14.4'	S 22°42.9'	40°04.6'	S 11°15.4'
22	187°40.0'	S 10°02.8'	150°32.7'	S 20°08.5'	114°16.6'	S 22°42.9'	55°05.6'	S 11°14.8'
23	202°41.7'	S 10°02.6'	165°34.6'	S 20°08.6'	129°18.7'	S 22°42.9'	70°06.6'	S 11°14.1'

Fri Nov 23, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.2	
	v = 1.7' d = 0.2'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	217°43.4'	S 10°02.4'	180°36.5'	S 20°08.7'	144°20.9'	S 22°42.8'	85°07.6'	S 11°13.5'
1	232°45.1'	S 10°02.1'	195°38.3'	S 20°08.8'	159°23.1'	S 22°42.8'	100°08.6'	S 11°12.8'
2	247°46.8'	S 10°01.9'	210°40.2'	S 20°08.9'	174°25.3'	S 22°42.8'	115°09.6'	S 11°12.2'
3	262°48.5'	S 10°01.7'	225°42.1'	S 20°09.0'	189°27.5'	S 22°42.8'	130°10.6'	S 11°11.5'
4	277°50.2'	S 10°01.5'	240°44.0'	S 20°09.1'	204°29.7'	S 22°42.8'	145°11.7'	S 11°10.8'
5	292°51.9'	S 10°01.3'	255°45.9'	S 20°09.2'	219°31.9'	S 22°42.8'	160°12.7'	S 11°10.2'
6	307°53.6'	S 10°01.1'	270°47.7'	S 20°09.3'	234°34.0'	S 22°42.8'	175°13.7'	S 11°09.5'
7	322°55.3'	S 10°00.9'	285°49.6'	S 20°09.5'	249°36.2'	S 22°42.8'	190°14.7'	S 11°08.9'
8	337°56.9'	S 10°00.7'	300°51.5'	S 20°09.6'	264°38.4'	S 22°42.8'	205°15.7'	S 11°08.2'
9	352°58.6'	S 10°00.5'	315°53.4'	S 20°09.7'	279°40.6'	S 22°42.8'	220°16.7'	S 11°07.6'
10	8°00.3'	S 10°00.3'	330°55.3'	S 20°09.8'	294°42.8'	S 22°42.8'	235°17.7'	S 11°06.9'
11	23°01.9'	S 10°00.1'	345°57.2'	S 20°09.9'	309°45.0'	S 22°42.7'	250°18.7'	S 11°06.2'
12	38°03.6'	S 9°59.9'	0°59.0'	S 20°10.0'	324°47.2'	S 22°42.7'	265°19.7'	S 11°05.6'
13	53°05.3'	S 9°59.7'	16°00.9'	S 20°10.1'	339°49.3'	S 22°42.7'	280°20.7'	S 11°04.9'
14	68°06.9'	S 9°59.5'	31°02.8'	S 20°10.2'	354°51.5'	S 22°42.7'	295°21.7'	S 11°04.3'
15	83°08.6'	S 9°59.3'	46°04.7'	S 20°10.3'	9°53.7'	S 22°42.7'	310°22.7'	S 11°03.6'
16	98°10.2'	S 9°59.1'	61°06.6'	S 20°10.4'	24°55.9'	S 22°42.7'	325°23.7'	S 11°02.9'
17	113°11.9'	S 9°58.9'	76°08.4'	S 20°10.5'	39°58.1'	S 22°42.7'	340°24.7'	S 11°02.3'
18	128°13.5'	S 9°58.7'	91°10.3'	S 20°10.7'	55°00.3'	S 22°42.7'	355°25.7'	S 11°01.6'
19	143°15.1'	S 9°58.5'	106°12.2'	S 20°10.8'	70°02.4'	S 22°42.7'	10°26.7'	S 11°01.0'
20	158°16.8'	S 9°58.4'	121°14.1'	S 20°10.9'	85°04.6'	S 22°42.7'	25°27.7'	S 11°00.3'
21	173°18.4'	S 9°58.2'	136°16.0'	S 20°11.0'	100°06.8'	S 22°42.6'	40°28.8'	S 10°59.6'
22	188°20.0'	S 9°58.0'	151°17.8'	S 20°11.1'	115°09.0'	S 22°42.6'	55°29.8'	S 10°59.0'
23	203°21.7'	S 9°57.8'	166°19.7'	S 20°11.2'	130°11.2'	S 22°42.6'	70°30.8'	S 10°58.3'

Sat Nov 24, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.1	
	v = 1.6' d = 0.2'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	218°23.3'	S 9°57.7'	181°21.6'	S 20°11.3'	145°13.4'	S 22°42.6'	85°31.8'	S 10°57.7'
1	233°24.9'	S 9°57.5'	196°23.5'	S 20°11.4'	160°15.6'	S 22°42.6'	100°32.8'	S 10°57.0'
2	248°26.5'	S 9°57.3'	211°25.4'	S 20°11.5'	175°17.7'	S 22°42.6'	115°33.8'	S 10°56.3'
3	263°28.2'	S 9°57.1'	226°27.3'	S 20°11.6'	190°19.9'	S 22°42.6'	130°34.8'	S 10°55.7'
4	278°29.8'	S 9°57.0'	241°29.1'	S 20°11.7'	205°22.1'	S 22°42.6'	145°35.8'	S 10°55.0'
5	293°31.4'	S 9°56.8'	256°31.0'	S 20°11.9'	220°24.3'	S 22°42.6'	160°36.8'	S 10°54.4'
6	308°33.0'	S 9°56.6'	271°32.9'	S 20°12.0'	235°26.5'	S 22°42.6'	175°37.8'	S 10°53.7'
7	323°34.6'	S 9°56.5'	286°34.8'	S 20°12.1'	250°28.7'	S 22°42.5'	190°38.8'	S 10°53.0'
8	338°36.2'	S 9°56.3'	301°36.7'	S 20°12.2'	265°30.8'	S 22°42.5'	205°39.8'	S 10°52.4'
9	353°37.8'	S 9°56.2'	316°38.5'	S 20°12.3'	280°33.0'	S 22°42.5'	220°40.8'	S 10°51.7'
10	8°39.4'	S 9°56.0'	331°40.4'	S 20°12.4'	295°35.2'	S 22°42.5'	235°41.8'	S 10°51.1'
11	23°41.0'	S 9°55.9'	346°42.3'	S 20°12.5'	310°37.4'	S 22°42.5'	250°42.8'	S 10°50.4'
12	38°42.5'	S 9°55.7'	1°44.2'	S 20°12.6'	325°39.6'	S 22°42.5'	265°43.8'	S 10°49.7'
13	53°44.1'	S 9°55.6'	16°46.1'	S 20°12.7'	340°41.8'	S 22°42.5'	280°44.8'	S 10°49.1'
14	68°45.7'	S 9°55.4'	31°47.9'	S 20°12.8'	355°43.9'	S 22°42.5'	295°45.8'	S 10°48.4'
15	83°47.3'	S 9°55.3'	46°49.8'	S 20°12.9'	10°46.1'	S 22°42.5'	310°46.8'	S 10°47.7'
16	98°48.9'	S 9°55.1'	61°51.7'	S 20°13.0'	25°48.3'	S 22°42.5'	325°47.8'	S 10°47.1'
17	113°50.4'	S 9°55.0'	76°53.6'	S 20°13.2'	40°50.5'	S 22°42.5'	340°48.8'	S 10°46.4'
18	128°52.0'	S 9°54.8'	91°55.5'	S 20°13.3'	55°52.7'	S 22°42.4'	355°49.8'	S 10°45.8'
19	143°53.6'	S 9°54.7'	106°57.3'	S 20°13.4'	70°54.9'	S 22°42.4'	10°50.8'	S 10°45.1'
20	158°55.1'	S 9°54.6'	121°59.2'	S 20°13.5'	85°57.0'	S 22°42.4'	25°51.8'	S 10°44.4'
21	173°56.7'	S 9°54.4'	137°01.1'	S 20°13.6'	100°59.2'	S 22°42.4'	40°52.8'	S 10°43.8'
22	188°58.3'	S 9°54.3'	152°03.0'	S 20°13.7'	116°01.4'	S 22°42.4'	55°53.8'	S 10°43.1'
23	203°59.8'	S 9°54.2'	167°04.9'	S 20°13.8'	131°03.6'	S 22°42.4'	70°54.8'	S 10°42.4'

Sun Nov 25, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.1	
	v = 1.5' d = 0.1'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	219°01.4'	S 9°54.0'	182°06.7'	S 20°13.9'	146°05.8'	S 22°42.4'	85°55.9'	S 10°41.8'
1	234°02.9'	S 9°53.9'	197°08.6'	S 20°14.0'	161°08.0'	S 22°42.4'	100°56.9'	S 10°41.1'
2	249°04.4'	S 9°53.8'	212°10.5'	S 20°14.1'	176°10.1'	S 22°42.4'	115°57.9'	S 10°40.5'
3	264°06.0'	S 9°53.6'	227°12.4'	S 20°14.2'	191°12.3'	S 22°42.4'	130°58.9'	S 10°39.8'
4	279°07.5'	S 9°53.5'	242°14.3'	S 20°14.3'	206°14.5'	S 22°42.3'	145°59.9'	S 10°39.1'
5	294°09.1'	S 9°53.4'	257°16.1'	S 20°14.5'	221°16.7'	S 22°42.3'	161°00.9'	S 10°38.5'
6	309°10.6'	S 9°53.3'	272°18.0'	S 20°14.6'	236°18.9'	S 22°42.3'	176°01.9'	S 10°37.8'
7	324°12.1'	S 9°53.2'	287°19.9'	S 20°14.7'	251°21.0'	S 22°42.3'	191°02.9'	S 10°37.1'
8	339°13.6'	S 9°53.0'	302°21.8'	S 20°14.8'	266°23.2'	S 22°42.3'	206°03.9'	S 10°36.5'
9	354°15.2'	S 9°52.9'	317°23.7'	S 20°14.9'	281°25.4'	S 22°42.3'	221°04.9'	S 10°35.8'
10	9°16.7'	S 9°52.8'	332°25.6'	S 20°15.0'	296°27.6'	S 22°42.3'	236°05.9'	S 10°35.1'
11	24°18.2'	S 9°52.7'	347°27.4'	S 20°15.1'	311°29.8'	S 22°42.3'	251°06.9'	S 10°34.5'
12	39°19.7'	S 9°52.6'	2°29.3'	S 20°15.2'	326°32.0'	S 22°42.3'	266°07.9'	S 10°33.8'
13	54°21.2'	S 9°52.5'	17°31.2'	S 20°15.3'	341°34.1'	S 22°42.3'	281°08.9'	S 10°33.1'
14	69°22.7'	S 9°52.4'	32°33.1'	S 20°15.4'	356°36.3'	S 22°42.2'	296°09.9'	S 10°32.5'
15	84°24.3'	S 9°52.3'	47°35.0'	S 20°15.5'	11°38.5'	S 22°42.2'	311°10.9'	S 10°31.8'
16	99°25.8'	S 9°52.2'	62°36.8'	S 20°15.6'	26°40.7'	S 22°42.2'	326°11.9'	S 10°31.2'
17	114°27.3'	S 9°52.1'	77°38.7'	S 20°15.7'	41°42.9'	S 22°42.2'	341°12.9'	S 10°30.5'
18	129°28.7'	S 9°52.0'	92°40.6'	S 20°15.8'	56°45.0'	S 22°42.2'	356°13.9'	S 10°29.8'
19	144°30.2'	S 9°51.9'	107°42.5'	S 20°16.0'	71°47.2'	S 22°42.2'	11°14.9'	S 10°29.2'
20	159°31.7'	S 9°51.8'	122°44.4'	S 20°16.1'	86°49.4'	S 22°42.2'	26°15.9'	S 10°28.5'
21	174°33.2'	S 9°51.7'	137°46.2'	S 20°16.2'	101°51.6'	S 22°42.2'	41°16.9'	S 10°27.8'
22	189°34.7'	S 9°51.6'	152°48.1'	S 20°16.3'	116°53.8'	S 22°42.2'	56°17.9'	S 10°27.2'
23	204°36.2'	S 9°51.5'	167°50.0'	S 20°16.4'	131°55.9'	S 22°42.1'	71°18.9'	S 10°26.5'

Mon Nov 26, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.1	
	v = 1.4' d = 0.1'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	219°37.7'	S 9°51.4'	182°51.9'	S 20°16.5'	146°58.1'	S 22°42.1'	86°19.9'	S 10°25.8'
1	234°39.1'	S 9°51.3'	197°53.8'	S 20°16.6'	162°00.3'	S 22°42.1'	101°20.9'	S 10°25.2'
2	249°40.6'	S 9°51.3'	212°55.6'	S 20°16.7'	177°02.5'	S 22°42.1'	116°21.9'	S 10°24.5'
3	264°42.1'	S 9°51.2'	227°57.5'	S 20°16.8'	192°04.7'	S 22°42.1'	131°22.9'	S 10°23.8'
4	279°43.6'	S 9°51.1'	242°59.4'	S 20°16.9'	207°06.8'	S 22°42.1'	146°23.9'	S 10°23.2'
5	294°45.0'	S 9°51.0'	258°01.3'	S 20°17.0'	222°09.0'	S 22°42.1'	161°24.9'	S 10°22.5'
6	309°46.5'	S 9°50.9'	273°03.2'	S 20°17.1'	237°11.2'	S 22°42.1'	176°25.9'	S 10°21.8'
7	324°47.9'	S 9°50.9'	288°05.0'	S 20°17.2'	252°13.4'	S 22°42.1'	191°26.9'	S 10°21.2'
8	339°49.4'	S 9°50.8'	303°06.9'	S 20°17.3'	267°15.6'	S 22°42.1'	206°27.9'	S 10°20.5'
9	354°50.8'	S 9°50.7'	318°08.8'	S 20°17.5'	282°17.7'	S 22°42.0'	221°28.9'	S 10°19.8'
10	9°52.3'	S 9°50.6'	333°10.7'	S 20°17.6'	297°19.9'	S 22°42.0'	236°29.9'	S 10°19.2'
11	24°53.7'	S 9°50.6'	348°12.6'	S 20°17.7'	312°22.1'	S 22°42.0'	251°30.9'	S 10°18.5'
12	39°55.2'	S 9°50.5'	3°14.4'	S 20°17.8'	327°24.3'	S 22°42.0'	266°31.9'	S 10°17.8'
13	54°56.6'	S 9°50.4'	18°16.3'	S 20°17.9'	342°26.5'	S 22°42.0'	281°32.9'	S 10°17.1'
14	69°58.1'	S 9°50.4'	33°18.2'	S 20°18.0'	357°28.6'	S 22°42.0'	296°33.9'	S 10°16.5'
15	84°59.5'	S 9°50.3'	48°20.1'	S 20°18.1'	12°30.8'	S 22°42.0'	311°34.9'	S 10°15.8'
16	100°00.9'	S 9°50.3'	63°21.9'	S 20°18.2'	27°33.0'	S 22°42.0'	326°35.9'	S 10°15.1'
17	115°02.4'	S 9°50.2'	78°23.8'	S 20°18.3'	42°35.2'	S 22°42.0'	341°36.9'	S 10°14.5'
18	130°03.8'	S 9°50.1'	93°25.7'	S 20°18.4'	57°37.4'	S 22°42.0'	356°37.9'	S 10°13.8'
19	145°05.2'	S 9°50.1'	108°27.6'	S 20°18.5'	72°39.5'	S 22°41.9'	11°38.9'	S 10°13.1'
20	160°06.6'	S 9°50.0'	123°29.5'	S 20°18.6'	87°41.7'	S 22°41.9'	26°39.9'	S 10°12.5'
21	175°08.1'	S 9°50.0'	138°31.3'	S 20°18.7'	102°43.9'	S 22°41.9'	41°40.9'	S 10°11.8'
22	190°09.5'	S 9°49.9'	153°33.2'	S 20°18.8'	117°46.1'	S 22°41.9'	56°41.9'	S 10°11.1'
23	205°10.9'	S 9°49.9'	168°35.1'	S 20°18.9'	132°48.2'	S 22°41.9'	71°42.9'	S 10°10.5'

Tue Nov 27, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.1	
	v = 1.4' d = 0.0'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	220°12.3'	S 9°49.8'	183°37.0'	S 20°19.1'	147°50.4'	S 22°41.9'	86°43.9'	S 10°09.8'
1	235°13.7'	S 9°49.8'	198°38.9'	S 20°19.2'	162°52.6'	S 22°41.9'	101°44.9'	S 10°09.1'
2	250°15.1'	S 9°49.8'	213°40.7'	S 20°19.3'	177°54.8'	S 22°41.9'	116°45.9'	S 10°08.5'
3	265°16.5'	S 9°49.7'	228°42.6'	S 20°19.4'	192°57.0'	S 22°41.9'	131°46.9'	S 10°07.8'
4	280°17.9'	S 9°49.7'	243°44.5'	S 20°19.5'	207°59.1'	S 22°41.8'	146°47.9'	S 10°07.1'
5	295°19.3'	S 9°49.6'	258°46.4'	S 20°19.6'	223°01.3'	S 22°41.8'	161°48.9'	S 10°06.4'
6	310°20.7'	S 9°49.6'	273°48.3'	S 20°19.7'	238°03.5'	S 22°41.8'	176°49.9'	S 10°05.8'
7	325°22.1'	S 9°49.6'	288°50.1'	S 20°19.8'	253°05.7'	S 22°41.8'	191°50.9'	S 10°05.1'
8	340°23.5'	S 9°49.5'	303°52.0'	S 20°19.9'	268°07.9'	S 22°41.8'	206°51.8'	S 10°04.4'
9	355°24.8'	S 9°49.5'	318°53.9'	S 20°20.0'	283°10.0'	S 22°41.8'	221°52.8'	S 10°03.8'
10	10°26.2'	S 9°49.5'	333°55.8'	S 20°20.1'	298°12.2'	S 22°41.8'	236°53.8'	S 10°03.1'
11	25°27.6'	S 9°49.5'	348°57.7'	S 20°20.2'	313°14.4'	S 22°41.8'	251°54.8'	S 10°02.4'
12	40°29.0'	S 9°49.4'	3°59.5'	S 20°20.3'	328°16.6'	S 22°41.8'	266°55.8'	S 10°01.7'
13	55°30.4'	S 9°49.4'	19°01.4'	S 20°20.4'	343°18.7'	S 22°41.7'	281°56.8'	S 10°01.1'
14	70°31.7'	S 9°49.4'	34°03.3'	S 20°20.5'	358°20.9'	S 22°41.7'	296°57.8'	S 10°00.4'
15	85°33.1'	S 9°49.4'	49°05.2'	S 20°20.6'	13°23.1'	S 22°41.7'	311°58.8'	S 9°59.7'
16	100°34.5'	S 9°49.3'	64°07.1'	S 20°20.8'	28°25.3'	S 22°41.7'	326°59.8'	S 9°59.1'
17	115°35.8'	S 9°49.3'	79°08.9'	S 20°20.9'	43°27.5'	S 22°41.7'	342°00.8'	S 9°58.4'
18	130°37.2'	S 9°49.3'	94°10.8'	S 20°21.0'	58°29.6'	S 22°41.7'	357°01.8'	S 9°57.7'
19	145°38.5'	S 9°49.3'	109°12.7'	S 20°21.1'	73°31.8'	S 22°41.7'	12°02.8'	S 9°57.0'
20	160°39.9'	S 9°49.3'	124°14.6'	S 20°21.2'	88°34.0'	S 22°41.7'	27°03.8'	S 9°56.4'
21	175°41.2'	S 9°49.3'	139°16.5'	S 20°21.3'	103°36.2'	S 22°41.7'	42°04.8'	S 9°55.7'
22	190°42.6'	S 9°49.3'	154°18.3'	S 20°21.4'	118°38.3'	S 22°41.7'	57°05.8'	S 9°55.0'
23	205°43.9'	S 9°49.3'	169°20.2'	S 20°21.5'	133°40.5'	S 22°41.6'	72°06.8'	S 9°54.4'

Wed Nov 28, 2018 UTC

UTC	Venus -4.4		Jupiter -1.6		Saturn +0.6		Mars -0.1	
	v = 1.3' d = 0.0'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	220°45.3'	S 9°49.2'	184°22.1'	S 20°21.6'	148°42.7'	S 22°41.6'	87°07.8'	S 9°53.7'
1	235°46.6'	S 9°49.2'	199°24.0'	S 20°21.7'	163°44.9'	S 22°41.6'	102°08.8'	S 9°53.0'
2	250°48.0'	S 9°49.2'	214°25.8'	S 20°21.8'	178°47.0'	S 22°41.6'	117°09.8'	S 9°52.3'
3	265°49.3'	S 9°49.2'	229°27.7'	S 20°21.9'	193°49.2'	S 22°41.6'	132°10.8'	S 9°51.7'
4	280°50.6'	S 9°49.2'	244°29.6'	S 20°22.0'	208°51.4'	S 22°41.6'	147°11.8'	S 9°51.0'
5	295°52.0'	S 9°49.2'	259°31.5'	S 20°22.1'	223°53.6'	S 22°41.6'	162°12.8'	S 9°50.3'
6	310°53.3'	S 9°49.2'	274°33.4'	S 20°22.2'	238°55.7'	S 22°41.6'	177°13.8'	S 9°49.7'
7	325°54.6'	S 9°49.3'	289°35.2'	S 20°22.3'	253°57.9'	S 22°41.6'	192°14.8'	S 9°49.0'
8	340°55.9'	S 9°49.3'	304°37.1'	S 20°22.4'	269°00.1'	S 22°41.5'	207°15.8'	S 9°48.3'
9	355°57.2'	S 9°49.3'	319°39.0'	S 20°22.5'	284°02.3'	S 22°41.5'	222°16.8'	S 9°47.6'
10	10°58.6'	S 9°49.3'	334°40.9'	S 20°22.6'	299°04.5'	S 22°41.5'	237°17.8'	S 9°47.0'
11	25°59.9'	S 9°49.3'	349°42.8'	S 20°22.8'	314°06.6'	S 22°41.5'	252°18.7'	S 9°46.3'
12	41°01.2'	S 9°49.3'	4°44.6'	S 20°22.9'	329°08.8'	S 22°41.5'	267°19.7'	S 9°45.6'
13	56°02.5'	S 9°49.3'	19°46.5'	S 20°23.0'	344°11.0'	S 22°41.5'	282°20.7'	S 9°44.9'
14	71°03.8'	S 9°49.3'	34°48.4'	S 20°23.1'	359°13.2'	S 22°41.5'	297°21.7'	S 9°44.3'
15	86°05.1'	S 9°49.4'	49°50.3'	S 20°23.2'	14°15.3'	S 22°41.5'	312°22.7'	S 9°43.6'
16	101°06.4'	S 9°49.4'	64°52.2'	S 20°23.3'	29°17.5'	S 22°41.5'	327°23.7'	S 9°42.9'
17	116°07.7'	S 9°49.4'	79°54.0'	S 20°23.4'	44°19.7'	S 22°41.4'	342°24.7'	S 9°42.2'
18	131°09.0'	S 9°49.4'	94°55.9'	S 20°23.5'	59°21.9'	S 22°41.4'	357°25.7'	S 9°41.6'
19	146°10.3'	S 9°49.4'	109°57.8'	S 20°23.6'	74°24.0'	S 22°41.4'	12°26.7'	S 9°40.9'
20	161°11.6'	S 9°49.5'	124°59.7'	S 20°23.7'	89°26.2'	S 22°41.4'	27°27.7'	S 9°40.2'
21	176°12.8'	S 9°49.5'	140°01.6'	S 20°23.8'	104°28.4'	S 22°41.4'	42°28.7'	S 9°39.5'
22	191°14.1'	S 9°49.5'	155°03.4'	S 20°23.9'	119°30.6'	S 22°41.4'	57°29.7'	S 9°38.9'
23	206°15.4'	S 9°49.6'	170°05.3'	S 20°24.0'	134°32.7'	S 22°41.4'	72°30.7'	S 9°38.2'

Thu Nov 29, 2018 UTC

UTC	Venus -4.5		Jupiter -1.6		Saturn +0.6		Mars -0.1	
	v = 1.2' d = 0.1'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	221°16.7'	S 9°49.6'	185°07.2'	S 20°24.1'	149°34.9'	S 22°41.4'	87°31.7'	S 9°37.5'
1	236°18.0'	S 9°49.6'	200°09.1'	S 20°24.2'	164°37.1'	S 22°41.4'	102°32.7'	S 9°36.8'
2	251°19.2'	S 9°49.7'	215°10.9'	S 20°24.3'	179°39.3'	S 22°41.3'	117°33.7'	S 9°36.2'
3	266°20.5'	S 9°49.7'	230°12.8'	S 20°24.4'	194°41.4'	S 22°41.3'	132°34.7'	S 9°35.5'
4	281°21.8'	S 9°49.7'	245°14.7'	S 20°24.5'	209°43.6'	S 22°41.3'	147°35.7'	S 9°34.8'
5	296°23.0'	S 9°49.8'	260°16.6'	S 20°24.6'	224°45.8'	S 22°41.3'	162°36.6'	S 9°34.1'
6	311°24.3'	S 9°49.8'	275°18.5'	S 20°24.7'	239°48.0'	S 22°41.3'	177°37.6'	S 9°33.5'
7	326°25.6'	S 9°49.9'	290°20.3'	S 20°24.8'	254°50.1'	S 22°41.3'	192°38.6'	S 9°32.8'
8	341°26.8'	S 9°49.9'	305°22.2'	S 20°25.0'	269°52.3'	S 22°41.3'	207°39.6'	S 9°32.1'
9	356°28.1'	S 9°50.0'	320°24.1'	S 20°25.1'	284°54.5'	S 22°41.3'	222°40.6'	S 9°31.4'
10	11°29.3'	S 9°50.0'	335°26.0'	S 20°25.2'	299°56.7'	S 22°41.3'	237°41.6'	S 9°30.8'
11	26°30.6'	S 9°50.1'	350°27.9'	S 20°25.3'	314°58.8'	S 22°41.2'	252°42.6'	S 9°30.1'
12	41°31.8'	S 9°50.1'	5°29.7'	S 20°25.4'	330°01.0'	S 22°41.2'	267°43.6'	S 9°29.4'
13	56°33.1'	S 9°50.2'	20°31.6'	S 20°25.5'	345°03.2'	S 22°41.2'	282°44.6'	S 9°28.7'
14	71°34.3'	S 9°50.2'	35°33.5'	S 20°25.6'	0°05.3'	S 22°41.2'	297°45.6'	S 9°28.0'
15	86°35.5'	S 9°50.3'	50°35.4'	S 20°25.7'	15°07.5'	S 22°41.2'	312°46.6'	S 9°27.4'
16	101°36.8'	S 9°50.3'	65°37.2'	S 20°25.8'	30°09.7'	S 22°41.2'	327°47.6'	S 9°26.7'
17	116°38.0'	S 9°50.4'	80°39.1'	S 20°25.9'	45°11.9'	S 22°41.2'	342°48.6'	S 9°26.0'
18	131°39.2'	S 9°50.5'	95°41.0'	S 20°26.0'	60°14.0'	S 22°41.2'	357°49.6'	S 9°25.3'
19	146°40.5'	S 9°50.5'	110°42.9'	S 20°26.1'	75°16.2'	S 22°41.1'	12°50.5'	S 9°24.7'
20	161°41.7'	S 9°50.6'	125°44.8'	S 20°26.2'	90°18.4'	S 22°41.1'	27°51.5'	S 9°24.0'
21	176°42.9'	S 9°50.7'	140°46.6'	S 20°26.3'	105°20.6'	S 22°41.1'	42°52.5'	S 9°23.3'
22	191°44.1'	S 9°50.7'	155°48.5'	S 20°26.4'	120°22.7'	S 22°41.1'	57°53.5'	S 9°22.6'
23	206°45.4'	S 9°50.8'	170°50.4'	S 20°26.5'	135°24.9'	S 22°41.1'	72°54.5'	S 9°22.0'

Fri Nov 30, 2018 UTC

UTC	Venus -4.5		Jupiter -1.6		Saturn +0.6		Mars -0.0	
	v = 1.2' d = 0.1'		v = 1.9' d = 0.1'		v = 2.2' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	221°46.6'	S 9°50.9'	185°52.3'	S 20°26.6'	150°27.1'	S 22°41.1'	87°55.5'	S 9°21.3'
1	236°47.8'	S 9°50.9'	200°54.2'	S 20°26.7'	165°29.3'	S 22°41.1'	102°56.5'	S 9°20.6'
2	251°49.0'	S 9°51.0'	215°56.0'	S 20°26.8'	180°31.4'	S 22°41.1'	117°57.5'	S 9°19.9'
3	266°50.2'	S 9°51.1'	230°57.9'	S 20°26.9'	195°33.6'	S 22°41.1'	132°58.5'	S 9°19.2'
4	281°51.4'	S 9°51.2'	245°59.8'	S 20°27.0'	210°35.8'	S 22°41.0'	147°59.5'	S 9°18.6'
5	296°52.6'	S 9°51.2'	261°01.7'	S 20°27.1'	225°37.9'	S 22°41.0'	163°00.5'	S 9°17.9'
6	311°53.8'	S 9°51.3'	276°03.5'	S 20°27.2'	240°40.1'	S 22°41.0'	178°01.5'	S 9°17.2'
7	326°55.0'	S 9°51.4'	291°05.4'	S 20°27.3'	255°42.3'	S 22°41.0'	193°02.5'	S 9°16.5'
8	341°56.2'	S 9°51.5'	306°07.3'	S 20°27.4'	270°44.5'	S 22°41.0'	208°03.4'	S 9°15.8'
9	356°57.4'	S 9°51.6'	321°09.2'	S 20°27.6'	285°46.6'	S 22°41.0'	223°04.4'	S 9°15.2'
10	11°58.6'	S 9°51.6'	336°11.1'	S 20°27.7'	300°48.8'	S 22°41.0'	238°05.4'	S 9°14.5'
11	26°59.8'	S 9°51.7'	351°12.9'	S 20°27.8'	315°51.0'	S 22°41.0'	253°06.4'	S 9°13.8'
12	42°01.0'	S 9°51.8'	6°14.8'	S 20°27.9'	330°53.2'	S 22°41.0'	268°07.4'	S 9°13.1'
13	57°02.2'	S 9°51.9'	21°16.7'	S 20°28.0'	345°55.3'	S 22°40.9'	283°08.4'	S 9°12.4'
14	72°03.3'	S 9°52.0'	36°18.6'	S 20°28.1'	0°57.5'	S 22°40.9'	298°09.4'	S 9°11.8'
15	87°04.5'	S 9°52.1'	51°20.5'	S 20°28.2'	15°59.7'	S 22°40.9'	313°10.4'	S 9°11.1'
16	102°05.7'	S 9°52.2'	66°22.3'	S 20°28.3'	31°01.8'	S 22°40.9'	328°11.4'	S 9°10.4'
17	117°06.9'	S 9°52.3'	81°24.2'	S 20°28.4'	46°04.0'	S 22°40.9'	343°12.4'	S 9°09.7'
18	132°08.0'	S 9°52.4'	96°26.1'	S 20°28.5'	61°06.2'	S 22°40.9'	358°13.4'	S 9°09.0'
19	147°09.2'	S 9°52.5'	111°28.0'	S 20°28.6'	76°08.4'	S 22°40.9'	13°14.3'	S 9°08.4'
20	162°10.4'	S 9°52.6'	126°29.8'	S 20°28.7'	91°10.5'	S 22°40.9'	28°15.3'	S 9°07.7'
21	177°11.5'	S 9°52.7'	141°31.7'	S 20°28.8'	106°12.7'	S 22°40.8'	43°16.3'	S 9°07.0'
22	192°12.7'	S 9°52.8'	156°33.6'	S 20°28.9'	121°14.9'	S 22°40.8'	58°17.3'	S 9°06.3'
23	207°13.8'	S 9°52.9'	171°35.5'	S 20°29.0'	136°17.0'	S 22°40.8'	73°18.3'	S 9°05.6'