

Tue Oct 1, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.2'		Jupiter -1.9 v = 2.1' d = 0.0'		Saturn +0.5 v = 2.4' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	170°14.3'	S 7°07.4'	112°15.6'	S 22°39.0'	84°12.7'	S 22°31.0'	190°55.5'	N 1°42.9'
1	185°13.9'	S 7°08.6'	127°17.7'	S 22°39.0'	99°15.1'	S 22°31.0'	205°56.5'	N 1°42.2'
2	200°13.4'	S 7°09.9'	142°19.8'	S 22°39.1'	114°17.5'	S 22°31.0'	220°57.5'	N 1°41.6'
3	215°13.0'	S 7°11.1'	157°21.9'	S 22°39.1'	129°19.9'	S 22°31.0'	235°58.5'	N 1°40.9'
4	230°12.6'	S 7°12.4'	172°23.9'	S 22°39.1'	144°22.3'	S 22°31.0'	250°59.5'	N 1°40.3'
5	245°12.2'	S 7°13.6'	187°26.0'	S 22°39.2'	159°24.7'	S 22°31.0'	266°00.5'	N 1°39.6'
6	260°11.8'	S 7°14.8'	202°28.1'	S 22°39.2'	174°27.1'	S 22°31.0'	281°01.5'	N 1°39.0'
7	275°11.4'	S 7°16.1'	217°30.2'	S 22°39.3'	189°29.5'	S 22°31.0'	296°02.5'	N 1°38.3'
8	290°11.0'	S 7°17.3'	232°32.3'	S 22°39.3'	204°31.9'	S 22°31.0'	311°03.5'	N 1°37.7'
9	305°10.6'	S 7°18.5'	247°34.4'	S 22°39.3'	219°34.3'	S 22°31.0'	326°04.5'	N 1°37.0'
10	320°10.2'	S 7°19.8'	262°36.5'	S 22°39.4'	234°36.7'	S 22°31.0'	341°05.5'	N 1°36.4'
11	335°09.7'	S 7°21.0'	277°38.6'	S 22°39.4'	249°39.1'	S 22°31.0'	356°06.5'	N 1°35.7'
12	350°09.3'	S 7°22.2'	292°40.7'	S 22°39.4'	264°41.6'	S 22°31.0'	11°07.5'	N 1°35.1'
13	5°08.9'	S 7°23.5'	307°42.8'	S 22°39.5'	279°44.0'	S 22°31.0'	26°08.4'	N 1°34.4'
14	20°08.5'	S 7°24.7'	322°44.9'	S 22°39.5'	294°46.4'	S 22°31.0'	41°09.4'	N 1°33.8'
15	35°08.1'	S 7°25.9'	337°46.9'	S 22°39.5'	309°48.8'	S 22°31.0'	56°10.4'	N 1°33.1'
16	50°07.7'	S 7°27.2'	352°49.0'	S 22°39.6'	324°51.2'	S 22°31.0'	71°11.4'	N 1°32.5'
17	65°07.3'	S 7°28.4'	7°51.1'	S 22°39.6'	339°53.6'	S 22°31.0'	86°12.4'	N 1°31.8'
18	80°06.9'	S 7°29.7'	22°53.2'	S 22°39.7'	354°56.0'	S 22°31.0'	101°13.4'	N 1°31.2'
19	95°06.4'	S 7°30.9'	37°55.3'	S 22°39.7'	9°58.4'	S 22°31.0'	116°14.4'	N 1°30.5'
20	110°06.0'	S 7°32.1'	52°57.4'	S 22°39.7'	25°00.8'	S 22°31.0'	131°15.4'	N 1°29.9'
21	125°05.6'	S 7°33.4'	67°59.5'	S 22°39.8'	40°03.2'	S 22°31.0'	146°16.4'	N 1°29.2'
22	140°05.2'	S 7°34.6'	83°01.6'	S 22°39.8'	55°05.6'	S 22°31.0'	161°17.4'	N 1°28.6'
23	155°04.8'	S 7°35.8'	98°03.7'	S 22°39.8'	70°08.0'	S 22°31.0'	176°18.4'	N 1°27.9'

Wed Oct 2, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.2'		Jupiter -1.9 v = 2.1' d = 0.0'		Saturn +0.5 v = 2.4' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	170°04.4'	S 7°37.0'	113°05.7'	S 22°39.9'	85°10.4'	S 22°31.0'	191°19.4'	N 1°27.3'
1	185°04.0'	S 7°38.3'	128°07.8'	S 22°39.9'	100°12.8'	S 22°31.0'	206°20.4'	N 1°26.6'
2	200°03.5'	S 7°39.5'	143°09.9'	S 22°39.9'	115°15.2'	S 22°31.0'	221°21.4'	N 1°26.0'
3	215°03.1'	S 7°40.7'	158°12.0'	S 22°40.0'	130°17.6'	S 22°31.0'	236°22.3'	N 1°25.3'
4	230°02.7'	S 7°42.0'	173°14.1'	S 22°40.0'	145°20.0'	S 22°31.0'	251°23.3'	N 1°24.7'
5	245°02.3'	S 7°43.2'	188°16.2'	S 22°40.1'	160°22.4'	S 22°31.0'	266°24.3'	N 1°24.0'
6	260°01.9'	S 7°44.4'	203°18.3'	S 22°40.1'	175°24.8'	S 22°31.0'	281°25.3'	N 1°23.4'
7	275°01.5'	S 7°45.7'	218°20.3'	S 22°40.1'	190°27.2'	S 22°31.0'	296°26.3'	N 1°22.7'
8	290°01.0'	S 7°46.9'	233°22.4'	S 22°40.2'	205°29.6'	S 22°31.0'	311°27.3'	N 1°22.1'
9	305°00.6'	S 7°48.1'	248°24.5'	S 22°40.2'	220°32.0'	S 22°31.0'	326°28.3'	N 1°21.4'
10	320°00.2'	S 7°49.4'	263°26.6'	S 22°40.2'	235°34.4'	S 22°31.0'	341°29.3'	N 1°20.8'
11	334°59.8'	S 7°50.6'	278°28.7'	S 22°40.3'	250°36.8'	S 22°31.0'	356°30.3'	N 1°20.1'
12	349°59.4'	S 7°51.8'	293°30.8'	S 22°40.3'	265°39.2'	S 22°31.0'	11°31.3'	N 1°19.5'
13	4°58.9'	S 7°53.0'	308°32.9'	S 22°40.3'	280°41.6'	S 22°31.0'	26°32.3'	N 1°18.8'
14	19°58.5'	S 7°54.3'	323°34.9'	S 22°40.4'	295°44.0'	S 22°31.0'	41°33.3'	N 1°18.2'
15	34°58.1'	S 7°55.5'	338°37.0'	S 22°40.4'	310°46.4'	S 22°31.0'	56°34.3'	N 1°17.5'
16	49°57.7'	S 7°56.7'	353°39.1'	S 22°40.5'	325°48.8'	S 22°31.0'	71°35.3'	N 1°16.9'
17	64°57.3'	S 7°58.0'	8°41.2'	S 22°40.5'	340°51.2'	S 22°31.0'	86°36.2'	N 1°16.3'
18	79°56.9'	S 7°59.2'	23°43.3'	S 22°40.5'	355°53.6'	S 22°31.0'	101°37.2'	N 1°15.6'
19	94°56.4'	S 8°00.4'	38°45.4'	S 22°40.6'	10°56.0'	S 22°30.9'	116°38.2'	N 1°15.0'
20	109°56.0'	S 8°01.6'	53°47.4'	S 22°40.6'	25°58.4'	S 22°30.9'	131°39.2'	N 1°14.3'
21	124°55.6'	S 8°02.9'	68°49.5'	S 22°40.6'	41°00.8'	S 22°30.9'	146°40.2'	N 1°13.7'
22	139°55.2'	S 8°04.1'	83°51.6'	S 22°40.7'	56°03.2'	S 22°30.9'	161°41.2'	N 1°13.0'
23	154°54.7'	S 8°05.3'	98°53.7'	S 22°40.7'	71°05.6'	S 22°30.9'	176°42.2'	N 1°12.4'

Thu Oct 3, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.2'		Jupiter -1.9 v = 2.1' d = 0.0'		Saturn +0.5 v = 2.4' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	169°54.3'	S 8°06.5'	113°55.8'	S 22°40.7'	86°08.0'	S 22°30.9'	191°43.2'	N 1°11.7'
1	184°53.9'	S 8°07.8'	128°57.9'	S 22°40.8'	101°10.4'	S 22°30.9'	206°44.2'	N 1°11.1'
2	199°53.5'	S 8°09.0'	143°59.9'	S 22°40.8'	116°12.8'	S 22°30.9'	221°45.2'	N 1°10.4'
3	214°53.1'	S 8°10.2'	159°02.0'	S 22°40.9'	131°15.2'	S 22°30.9'	236°46.2'	N 1°09.8'
4	229°52.6'	S 8°11.4'	174°04.1'	S 22°40.9'	146°17.6'	S 22°30.9'	251°47.2'	N 1°09.1'
5	244°52.2'	S 8°12.7'	189°06.2'	S 22°40.9'	161°20.0'	S 22°30.9'	266°48.2'	N 1°08.5'
6	259°51.8'	S 8°13.9'	204°08.3'	S 22°41.0'	176°22.4'	S 22°30.9'	281°49.2'	N 1°07.8'
7	274°51.4'	S 8°15.1'	219°10.3'	S 22°41.0'	191°24.8'	S 22°30.9'	296°50.1'	N 1°07.2'
8	289°50.9'	S 8°16.3'	234°12.4'	S 22°41.0'	206°27.2'	S 22°30.9'	311°51.1'	N 1°06.5'
9	304°50.5'	S 8°17.5'	249°14.5'	S 22°41.1'	221°29.6'	S 22°30.9'	326°52.1'	N 1°05.9'
10	319°50.1'	S 8°18.8'	264°16.6'	S 22°41.1'	236°32.0'	S 22°30.9'	341°53.1'	N 1°05.2'
11	334°49.7'	S 8°20.0'	279°18.7'	S 22°41.1'	251°34.4'	S 22°30.9'	356°54.1'	N 1°04.6'
12	349°49.2'	S 8°21.2'	294°20.7'	S 22°41.2'	266°36.8'	S 22°30.9'	11°55.1'	N 1°03.9'
13	4°48.8'	S 8°22.4'	309°22.8'	S 22°41.2'	281°39.2'	S 22°30.9'	26°56.1'	N 1°03.3'
14	19°48.4'	S 8°23.7'	324°24.9'	S 22°41.3'	296°41.6'	S 22°30.9'	41°57.1'	N 1°02.6'
15	34°48.0'	S 8°24.9'	339°27.0'	S 22°41.3'	311°44.0'	S 22°30.9'	56°58.1'	N 1°02.0'
16	49°47.5'	S 8°26.1'	354°29.0'	S 22°41.3'	326°46.4'	S 22°30.9'	71°59.1'	N 1°01.3'
17	64°47.1'	S 8°27.3'	9°31.1'	S 22°41.4'	341°48.8'	S 22°30.9'	87°00.1'	N 1°00.7'
18	79°46.7'	S 8°28.5'	24°33.2'	S 22°41.4'	356°51.2'	S 22°30.9'	102°01.1'	N 1°00.0'
19	94°46.3'	S 8°29.8'	39°35.3'	S 22°41.4'	11°53.6'	S 22°30.9'	117°02.1'	N 0°59.4'
20	109°45.8'	S 8°31.0'	54°37.4'	S 22°41.5'	26°56.0'	S 22°30.9'	132°03.0'	N 0°58.7'
21	124°45.4'	S 8°32.2'	69°39.4'	S 22°41.5'	41°58.4'	S 22°30.9'	147°04.0'	N 0°58.1'
22	139°45.0'	S 8°33.4'	84°41.5'	S 22°41.6'	57°00.8'	S 22°30.9'	162°05.0'	N 0°57.4'
23	154°44.5'	S 8°34.6'	99°43.6'	S 22°41.6'	72°03.2'	S 22°30.9'	177°06.0'	N 0°56.8'

Fri Oct 4, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.2'		Jupiter -1.9 v = 2.1' d = 0.0'		Saturn +0.5 v = 2.4' d = 0.0'		Mars +1.8 v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	169°44.1'	S 8°35.8'	114°45.7'	S 22°41.6'	87°05.6'	S 22°30.9'	192°07.0'	N 0°56.1'
1	184°43.7'	S 8°37.1'	129°47.7'	S 22°41.7'	102°07.9'	S 22°30.9'	207°08.0'	N 0°55.5'
2	199°43.3'	S 8°38.3'	144°49.8'	S 22°41.7'	117°10.3'	S 22°30.9'	222°09.0'	N 0°54.8'
3	214°42.8'	S 8°39.5'	159°51.9'	S 22°41.7'	132°12.7'	S 22°30.9'	237°10.0'	N 0°54.2'
4	229°42.4'	S 8°40.7'	174°54.0'	S 22°41.8'	147°15.1'	S 22°30.9'	252°11.0'	N 0°53.5'
5	244°42.0'	S 8°41.9'	189°56.0'	S 22°41.8'	162°17.5'	S 22°30.9'	267°12.0'	N 0°52.9'
6	259°41.5'	S 8°43.1'	204°58.1'	S 22°41.8'	177°19.9'	S 22°30.9'	282°13.0'	N 0°52.2'
7	274°41.1'	S 8°44.4'	220°00.2'	S 22°41.9'	192°22.3'	S 22°30.9'	297°14.0'	N 0°51.6'
8	289°40.7'	S 8°45.6'	235°02.3'	S 22°41.9'	207°24.7'	S 22°30.9'	312°15.0'	N 0°50.9'
9	304°40.2'	S 8°46.8'	250°04.3'	S 22°42.0'	222°27.1'	S 22°30.9'	327°15.9'	N 0°50.3'
10	319°39.8'	S 8°48.0'	265°06.4'	S 22°42.0'	237°29.5'	S 22°30.8'	342°16.9'	N 0°49.6'
11	334°39.4'	S 8°49.2'	280°08.5'	S 22°42.0'	252°31.9'	S 22°30.8'	357°17.9'	N 0°49.0'
12	349°39.0'	S 8°50.4'	295°10.6'	S 22°42.1'	267°34.3'	S 22°30.8'	12°18.9'	N 0°48.3'
13	4°38.5'	S 8°51.6'	310°12.6'	S 22°42.1'	282°36.7'	S 22°30.8'	27°19.9'	N 0°47.7'
14	19°38.1'	S 8°52.9'	325°14.7'	S 22°42.1'	297°39.1'	S 22°30.8'	42°20.9'	N 0°47.0'
15	34°37.7'	S 8°54.1'	340°16.8'	S 22°42.2'	312°41.5'	S 22°30.8'	57°21.9'	N 0°46.4'
16	49°37.2'	S 8°55.3'	355°18.8'	S 22°42.2'	327°43.8'	S 22°30.8'	72°22.9'	N 0°45.7'
17	64°36.8'	S 8°56.5'	10°20.9'	S 22°42.2'	342°46.2'	S 22°30.8'	87°23.9'	N 0°45.1'
18	79°36.4'	S 8°57.7'	25°23.0'	S 22°42.3'	357°48.6'	S 22°30.8'	102°24.9'	N 0°44.4'
19	94°35.9'	S 8°58.9'	40°25.1'	S 22°42.3'	12°51.0'	S 22°30.8'	117°25.9'	N 0°43.8'
20	109°35.5'	S 9°00.1'	55°27.1'	S 22°42.4'	27°53.4'	S 22°30.8'	132°26.9'	N 0°43.1'
21	124°35.0'	S 9°01.3'	70°29.2'	S 22°42.4'	42°55.8'	S 22°30.8'	147°27.8'	N 0°42.5'
22	139°34.6'	S 9°02.6'	85°31.3'	S 22°42.4'	57°58.2'	S 22°30.8'	162°28.8'	N 0°41.8'
23	154°34.2'	S 9°03.8'	100°33.3'	S 22°42.5'	73°00.6'	S 22°30.8'	177°29.8'	N 0°41.2'

Sat Oct 5, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	169°33.7'	S 9°05.0'	115°35.4'	S 22°42.5'	88°03.0'	S 22°30.8'	192°30.8'	N 0°40.5'
1	184°33.3'	S 9°06.2'	130°37.5'	S 22°42.5'	103°05.4'	S 22°30.8'	207°31.8'	N 0°39.9'
2	199°32.9'	S 9°07.4'	145°39.6'	S 22°42.6'	118°07.8'	S 22°30.8'	222°32.8'	N 0°39.2'
3	214°32.4'	S 9°08.6'	160°41.6'	S 22°42.6'	133°10.1'	S 22°30.8'	237°33.8'	N 0°38.6'
4	229°32.0'	S 9°09.8'	175°43.7'	S 22°42.6'	148°12.5'	S 22°30.8'	252°34.8'	N 0°37.9'
5	244°31.6'	S 9°11.0'	190°45.8'	S 22°42.7'	163°14.9'	S 22°30.8'	267°35.8'	N 0°37.3'
6	259°31.1'	S 9°12.2'	205°47.8'	S 22°42.7'	178°17.3'	S 22°30.8'	282°36.8'	N 0°36.6'
7	274°30.7'	S 9°13.4'	220°49.9'	S 22°42.8'	193°19.7'	S 22°30.8'	297°37.8'	N 0°36.0'
8	289°30.2'	S 9°14.6'	235°52.0'	S 22°42.8'	208°22.1'	S 22°30.8'	312°38.8'	N 0°35.3'
9	304°29.8'	S 9°15.8'	250°54.0'	S 22°42.8'	223°24.5'	S 22°30.8'	327°39.7'	N 0°34.7'
10	319°29.4'	S 9°17.0'	265°56.1'	S 22°42.9'	238°26.9'	S 22°30.8'	342°40.7'	N 0°34.0'
11	334°28.9'	S 9°18.3'	280°58.2'	S 22°42.9'	253°29.3'	S 22°30.8'	357°41.7'	N 0°33.4'
12	349°28.5'	S 9°19.5'	296°00.2'	S 22°42.9'	268°31.6'	S 22°30.8'	12°42.7'	N 0°32.7'
13	4°28.0'	S 9°20.7'	311°02.3'	S 22°43.0'	283°34.0'	S 22°30.8'	27°43.7'	N 0°32.1'
14	19°27.6'	S 9°21.9'	326°04.4'	S 22°43.0'	298°36.4'	S 22°30.8'	42°44.7'	N 0°31.4'
15	34°27.2'	S 9°23.1'	341°06.4'	S 22°43.1'	313°38.8'	S 22°30.8'	57°45.7'	N 0°30.8'
16	49°26.7'	S 9°24.3'	356°08.5'	S 22°43.1'	328°41.2'	S 22°30.8'	72°46.7'	N 0°30.1'
17	64°26.3'	S 9°25.5'	11°10.6'	S 22°43.1'	343°43.6'	S 22°30.7'	87°47.7'	N 0°29.5'
18	79°25.8'	S 9°26.7'	26°12.6'	S 22°43.2'	358°46.0'	S 22°30.7'	102°48.7'	N 0°28.8'
19	94°25.4'	S 9°27.9'	41°14.7'	S 22°43.2'	13°48.4'	S 22°30.7'	117°49.7'	N 0°28.2'
20	109°25.0'	S 9°29.1'	56°16.8'	S 22°43.2'	28°50.7'	S 22°30.7'	132°50.7'	N 0°27.5'
21	124°24.5'	S 9°30.3'	71°18.8'	S 22°43.3'	43°53.1'	S 22°30.7'	147°51.6'	N 0°26.9'
22	139°24.1'	S 9°31.5'	86°20.9'	S 22°43.3'	58°55.5'	S 22°30.7'	162°52.6'	N 0°26.2'
23	154°23.6'	S 9°32.7'	101°23.0'	S 22°43.3'	73°57.9'	S 22°30.7'	177°53.6'	N 0°25.6'

Sun Oct 6, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.2'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	169°23.2'	S 9°33.9'	116°25.0'	S 22°43.4'	89°00.3'	S 22°30.7'	192°54.6'	N 0°24.9'
1	184°22.7'	S 9°35.1'	131°27.1'	S 22°43.4'	104°02.7'	S 22°30.7'	207°55.6'	N 0°24.3'
2	199°22.3'	S 9°36.3'	146°29.2'	S 22°43.5'	119°05.1'	S 22°30.7'	222°56.6'	N 0°23.6'
3	214°21.9'	S 9°37.5'	161°31.2'	S 22°43.5'	134°07.4'	S 22°30.7'	237°57.6'	N 0°23.0'
4	229°21.4'	S 9°38.7'	176°33.3'	S 22°43.5'	149°09.8'	S 22°30.7'	252°58.6'	N 0°22.3'
5	244°21.0'	S 9°39.9'	191°35.3'	S 22°43.6'	164°12.2'	S 22°30.7'	267°59.6'	N 0°21.7'
6	259°20.5'	S 9°41.1'	206°37.4'	S 22°43.6'	179°14.6'	S 22°30.7'	283°00.6'	N 0°21.0'
7	274°20.1'	S 9°42.3'	221°39.5'	S 22°43.6'	194°17.0'	S 22°30.7'	298°01.6'	N 0°20.4'
8	289°19.6'	S 9°43.5'	236°41.5'	S 22°43.7'	209°19.4'	S 22°30.7'	313°02.6'	N 0°19.7'
9	304°19.2'	S 9°44.7'	251°43.6'	S 22°43.7'	224°21.7'	S 22°30.7'	328°03.5'	N 0°19.1'
10	319°18.7'	S 9°45.9'	266°45.7'	S 22°43.7'	239°24.1'	S 22°30.7'	343°04.5'	N 0°18.4'
11	334°18.3'	S 9°47.1'	281°47.7'	S 22°43.8'	254°26.5'	S 22°30.7'	358°05.5'	N 0°17.8'
12	349°17.8'	S 9°48.3'	296°49.8'	S 22°43.8'	269°28.9'	S 22°30.7'	13°06.5'	N 0°17.1'
13	4°17.4'	S 9°49.5'	311°51.9'	S 22°43.9'	284°31.3'	S 22°30.7'	28°07.5'	N 0°16.5'
14	19°16.9'	S 9°50.7'	326°53.9'	S 22°43.9'	299°33.7'	S 22°30.7'	43°08.5'	N 0°15.8'
15	34°16.5'	S 9°51.9'	341°56.0'	S 22°43.9'	314°36.1'	S 22°30.7'	58°09.5'	N 0°15.2'
16	49°16.0'	S 9°53.1'	356°58.0'	S 22°44.0'	329°38.4'	S 22°30.7'	73°10.5'	N 0°14.5'
17	64°15.6'	S 9°54.3'	12°00.1'	S 22°44.0'	344°40.8'	S 22°30.7'	88°11.5'	N 0°13.8'
18	79°15.1'	S 9°55.4'	27°02.2'	S 22°44.0'	359°43.2'	S 22°30.7'	103°12.5'	N 0°13.2'
19	94°14.7'	S 9°56.6'	42°04.2'	S 22°44.1'	14°45.6'	S 22°30.7'	118°13.5'	N 0°12.5'
20	109°14.2'	S 9°57.8'	57°06.3'	S 22°44.1'	29°48.0'	S 22°30.6'	133°14.4'	N 0°11.9'
21	124°13.8'	S 9°59.0'	72°08.3'	S 22°44.2'	44°50.3'	S 22°30.6'	148°15.4'	N 0°11.2'
22	139°13.3'	S 10°00.2'	87°10.4'	S 22°44.2'	59°52.7'	S 22°30.6'	163°16.4'	N 0°10.6'
23	154°12.9'	S 10°01.4'	102°12.5'	S 22°44.2'	74°55.1'	S 22°30.6'	178°17.4'	N 0°09.9'

Mon Oct 7, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.2'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	169°12.4'	S 10°02.6'	117°14.5'	S 22°44.3'	89°57.5'	S 22°30.6'	193°18.4'	N 0°09.3'
1	184°12.0'	S 10°03.8'	132°16.6'	S 22°44.3'	104°59.9'	S 22°30.6'	208°19.4'	N 0°08.6'
2	199°11.5'	S 10°05.0'	147°18.6'	S 22°44.3'	120°02.3'	S 22°30.6'	223°20.4'	N 0°08.0'
3	214°11.1'	S 10°06.2'	162°20.7'	S 22°44.4'	135°04.6'	S 22°30.6'	238°21.4'	N 0°07.3'
4	229°10.6'	S 10°07.4'	177°22.7'	S 22°44.4'	150°07.0'	S 22°30.6'	253°22.4'	N 0°06.7'
5	244°10.2'	S 10°08.6'	192°24.8'	S 22°44.4'	165°09.4'	S 22°30.6'	268°23.4'	N 0°06.0'
6	259°09.7'	S 10°09.7'	207°26.9'	S 22°44.5'	180°11.8'	S 22°30.6'	283°24.4'	N 0°05.4'
7	274°09.3'	S 10°10.9'	222°28.9'	S 22°44.5'	195°14.2'	S 22°30.6'	298°25.3'	N 0°04.7'
8	289°08.8'	S 10°12.1'	237°31.0'	S 22°44.6'	210°16.5'	S 22°30.6'	313°26.3'	N 0°04.1'
9	304°08.4'	S 10°13.3'	252°33.0'	S 22°44.6'	225°18.9'	S 22°30.6'	328°27.3'	N 0°03.4'
10	319°07.9'	S 10°14.5'	267°35.1'	S 22°44.6'	240°21.3'	S 22°30.6'	343°28.3'	N 0°02.8'
11	334°07.4'	S 10°15.7'	282°37.2'	S 22°44.7'	255°23.7'	S 22°30.6'	358°29.3'	N 0°02.1'
12	349°07.0'	S 10°16.9'	297°39.2'	S 22°44.7'	270°26.1'	S 22°30.6'	13°30.3'	N 0°01.5'
13	4°06.5'	S 10°18.1'	312°41.3'	S 22°44.7'	285°28.4'	S 22°30.6'	28°31.3'	N 0°00.8'
14	19°06.1'	S 10°19.2'	327°43.3'	S 22°44.8'	300°30.8'	S 22°30.6'	43°32.3'	N 0°00.2'
15	34°05.6'	S 10°20.4'	342°45.4'	S 22°44.8'	315°33.2'	S 22°30.6'	58°33.3'	S 0°00.5'
16	49°05.2'	S 10°21.6'	357°47.4'	S 22°44.8'	330°35.6'	S 22°30.6'	73°34.3'	S 0°01.1'
17	64°04.7'	S 10°22.8'	12°49.5'	S 22°44.9'	345°38.0'	S 22°30.6'	88°35.2'	S 0°01.8'
18	79°04.2'	S 10°24.0'	27°51.5'	S 22°44.9'	0°40.3'	S 22°30.6'	103°36.2'	S 0°02.4'
19	94°03.8'	S 10°25.2'	42°53.6'	S 22°45.0'	15°42.7'	S 22°30.6'	118°37.2'	S 0°03.1'
20	109°03.3'	S 10°26.4'	57°55.7'	S 22°45.0'	30°45.1'	S 22°30.5'	133°38.2'	S 0°03.7'
21	124°02.9'	S 10°27.5'	72°57.7'	S 22°45.0'	45°47.5'	S 22°30.5'	148°39.2'	S 0°04.4'
22	139°02.4'	S 10°28.7'	87°59.8'	S 22°45.1'	60°49.8'	S 22°30.5'	163°40.2'	S 0°05.0'
23	154°02.0'	S 10°29.9'	103°01.8'	S 22°45.1'	75°52.2'	S 22°30.5'	178°41.2'	S 0°05.7'

Tue Oct 8, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.2'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	169°01.5'	S 10°31.1'	118°03.9'	S 22°45.1'	90°54.6'	S 22°30.5'	193°42.2'	S 0°06.3'
1	184°01.0'	S 10°32.3'	133°05.9'	S 22°45.2'	105°57.0'	S 22°30.5'	208°43.2'	S 0°07.0'
2	199°00.6'	S 10°33.5'	148°08.0'	S 22°45.2'	120°59.4'	S 22°30.5'	223°44.2'	S 0°07.6'
3	214°00.1'	S 10°34.6'	163°10.0'	S 22°45.2'	136°01.7'	S 22°30.5'	238°45.2'	S 0°08.3'
4	228°59.6'	S 10°35.8'	178°12.1'	S 22°45.3'	151°04.1'	S 22°30.5'	253°46.1'	S 0°08.9'
5	243°59.2'	S 10°37.0'	193°14.1'	S 22°45.3'	166°06.5'	S 22°30.5'	268°47.1'	S 0°09.6'
6	258°58.7'	S 10°38.2'	208°16.2'	S 22°45.4'	181°08.9'	S 22°30.5'	283°48.1'	S 0°10.2'
7	273°58.3'	S 10°39.4'	223°18.2'	S 22°45.4'	196°11.2'	S 22°30.5'	298°49.1'	S 0°10.9'
8	288°57.8'	S 10°40.5'	238°20.3'	S 22°45.4'	211°13.6'	S 22°30.5'	313°50.1'	S 0°11.5'
9	303°57.3'	S 10°41.7'	253°22.3'	S 22°45.5'	226°16.0'	S 22°30.5'	328°51.1'	S 0°12.2'
10	318°56.9'	S 10°42.9'	268°24.4'	S 22°45.5'	241°18.4'	S 22°30.5'	343°52.1'	S 0°12.8'
11	333°56.4'	S 10°44.1'	283°26.4'	S 22°45.5'	256°20.7'	S 22°30.5'	358°53.1'	S 0°13.5'
12	348°55.9'	S 10°45.2'	298°28.5'	S 22°45.6'	271°23.1'	S 22°30.5'	13°54.1'	S 0°14.1'
13	3°55.5'	S 10°46.4'	313°30.5'	S 22°45.6'	286°25.5'	S 22°30.5'	28°55.1'	S 0°14.8'
14	18°55.0'	S 10°47.6'	328°32.6'	S 22°45.6'	301°27.9'	S 22°30.5'	43°56.0'	S 0°15.4'
15	33°54.5'	S 10°48.8'	343°34.6'	S 22°45.7'	316°30.2'	S 22°30.5'	58°57.0'	S 0°16.1'
16	48°54.1'	S 10°49.9'	358°36.7'	S 22°45.7'	331°32.6'	S 22°30.5'	73°58.0'	S 0°16.7'
17	63°53.6'	S 10°51.1'	13°38.7'	S 22°45.8'	346°35.0'	S 22°30.5'	88°59.0'	S 0°17.4'
18	78°53.1'	S 10°52.3'	28°40.8'	S 22°45.8'	1°37.4'	S 22°30.4'	104°00.0'	S 0°18.0'
19	93°52.7'	S 10°53.5'	43°42.8'	S 22°45.8'	16°39.7'	S 22°30.4'	119°01.0'	S 0°18.7'
20	108°52.2'	S 10°54.6'	58°44.9'	S 22°45.9'	31°42.1'	S 22°30.4'	134°02.0'	S 0°19.3'
21	123°51.7'	S 10°55.8'	73°46.9'	S 22°45.9'	46°44.5'	S 22°30.4'	149°03.0'	S 0°20.0'
22	138°51.3'	S 10°57.0'	88°49.0'	S 22°45.9'	61°46.9'	S 22°30.4'	164°04.0'	S 0°20.6'
23	153°50.8'	S 10°58.2'	103°51.0'	S 22°46.0'	76°49.2'	S 22°30.4'	179°05.0'	S 0°21.3'

Wed Oct 9, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.2'		v = 2.0' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	168°50.3'	S 10°59.3'	118°53.1'	S 22°46.0'	91°51.6'	S 22°30.4'	194°05.9'	S 0°21.9'
1	183°49.9'	S 11°00.5'	133°55.1'	S 22°46.1'	106°54.0'	S 22°30.4'	209°06.9'	S 0°22.6'
2	198°49.4'	S 11°01.7'	148°57.2'	S 22°46.1'	121°56.3'	S 22°30.4'	224°07.9'	S 0°23.2'
3	213°48.9'	S 11°02.8'	163°59.2'	S 22°46.1'	136°58.7'	S 22°30.4'	239°08.9'	S 0°23.9'
4	228°48.5'	S 11°04.0'	179°01.3'	S 22°46.2'	152°01.1'	S 22°30.4'	254°09.9'	S 0°24.5'
5	243°48.0'	S 11°05.2'	194°03.3'	S 22°46.2'	167°03.5'	S 22°30.4'	269°10.9'	S 0°25.2'
6	258°47.5'	S 11°06.4'	209°05.4'	S 22°46.2'	182°05.8'	S 22°30.4'	284°11.9'	S 0°25.8'
7	273°47.0'	S 11°07.5'	224°07.4'	S 22°46.3'	197°08.2'	S 22°30.4'	299°12.9'	S 0°26.5'
8	288°46.6'	S 11°08.7'	239°09.5'	S 22°46.3'	212°10.6'	S 22°30.4'	314°13.9'	S 0°27.1'
9	303°46.1'	S 11°09.9'	254°11.5'	S 22°46.3'	227°13.0'	S 22°30.4'	329°14.8'	S 0°27.8'
10	318°45.6'	S 11°11.0'	269°13.6'	S 22°46.4'	242°15.3'	S 22°30.4'	344°15.8'	S 0°28.4'
11	333°45.2'	S 11°12.2'	284°15.6'	S 22°46.4'	257°17.7'	S 22°30.4'	359°16.8'	S 0°29.1'
12	348°44.7'	S 11°13.4'	299°17.7'	S 22°46.5'	272°20.1'	S 22°30.4'	14°17.8'	S 0°29.7'
13	3°44.2'	S 11°14.5'	314°19.7'	S 22°46.5'	287°22.4'	S 22°30.4'	29°18.8'	S 0°30.4'
14	18°43.7'	S 11°15.7'	329°21.7'	S 22°46.5'	302°24.8'	S 22°30.3'	44°19.8'	S 0°31.0'
15	33°43.3'	S 11°16.9'	344°23.8'	S 22°46.6'	317°27.2'	S 22°30.3'	59°20.8'	S 0°31.7'
16	48°42.8'	S 11°18.0'	359°25.8'	S 22°46.6'	332°29.5'	S 22°30.3'	74°21.8'	S 0°32.3'
17	63°42.3'	S 11°19.2'	14°27.9'	S 22°46.6'	347°31.9'	S 22°30.3'	89°22.8'	S 0°33.0'
18	78°41.8'	S 11°20.3'	29°29.9'	S 22°46.7'	2°34.3'	S 22°30.3'	104°23.7'	S 0°33.6'
19	93°41.4'	S 11°21.5'	44°32.0'	S 22°46.7'	17°36.7'	S 22°30.3'	119°24.7'	S 0°34.3'
20	108°40.9'	S 11°22.7'	59°34.0'	S 22°46.7'	32°39.0'	S 22°30.3'	134°25.7'	S 0°34.9'
21	123°40.4'	S 11°23.8'	74°36.1'	S 22°46.8'	47°41.4'	S 22°30.3'	149°26.7'	S 0°35.6'
22	138°39.9'	S 11°25.0'	89°38.1'	S 22°46.8'	62°43.8'	S 22°30.3'	164°27.7'	S 0°36.2'
23	153°39.4'	S 11°26.2'	104°40.1'	S 22°46.9'	77°46.1'	S 22°30.3'	179°28.7'	S 0°36.9'

Thu Oct 10, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.2'		v = 2.0' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	168°39.0'	S 11°27.3'	119°42.2'	S 22°46.9'	92°48.5'	S 22°30.3'	194°29.7'	S 0°37.5'
1	183°38.5'	S 11°28.5'	134°44.2'	S 22°46.9'	107°50.9'	S 22°30.3'	209°30.7'	S 0°38.2'
2	198°38.0'	S 11°29.6'	149°46.3'	S 22°47.0'	122°53.2'	S 22°30.3'	224°31.7'	S 0°38.8'
3	213°37.5'	S 11°30.8'	164°48.3'	S 22°47.0'	137°55.6'	S 22°30.3'	239°32.6'	S 0°39.5'
4	228°37.1'	S 11°32.0'	179°50.4'	S 22°47.0'	152°58.0'	S 22°30.3'	254°33.6'	S 0°40.1'
5	243°36.6'	S 11°33.1'	194°52.4'	S 22°47.1'	168°00.3'	S 22°30.3'	269°34.6'	S 0°40.8'
6	258°36.1'	S 11°34.3'	209°54.4'	S 22°47.1'	183°02.7'	S 22°30.3'	284°35.6'	S 0°41.4'
7	273°35.6'	S 11°35.4'	224°56.5'	S 22°47.1'	198°05.1'	S 22°30.3'	299°36.6'	S 0°42.1'
8	288°35.1'	S 11°36.6'	239°58.5'	S 22°47.2'	213°07.5'	S 22°30.2'	314°37.6'	S 0°42.7'
9	303°34.6'	S 11°37.7'	255°00.6'	S 22°47.2'	228°09.8'	S 22°30.2'	329°38.6'	S 0°43.4'
10	318°34.2'	S 11°38.9'	270°02.6'	S 22°47.3'	243°12.2'	S 22°30.2'	344°39.6'	S 0°44.0'
11	333°33.7'	S 11°40.1'	285°04.7'	S 22°47.3'	258°14.6'	S 22°30.2'	359°40.6'	S 0°44.7'
12	348°33.2'	S 11°41.2'	300°06.7'	S 22°47.3'	273°16.9'	S 22°30.2'	14°41.5'	S 0°45.3'
13	3°32.7'	S 11°42.4'	315°08.7'	S 22°47.4'	288°19.3'	S 22°30.2'	29°42.5'	S 0°46.0'
14	18°32.2'	S 11°43.5'	330°10.8'	S 22°47.4'	303°21.7'	S 22°30.2'	44°43.5'	S 0°46.6'
15	33°31.8'	S 11°44.7'	345°12.8'	S 22°47.4'	318°24.0'	S 22°30.2'	59°44.5'	S 0°47.3'
16	48°31.3'	S 11°45.8'	0°14.9'	S 22°47.5'	333°26.4'	S 22°30.2'	74°45.5'	S 0°47.9'
17	63°30.8'	S 11°47.0'	15°16.9'	S 22°47.5'	348°28.8'	S 22°30.2'	89°46.5'	S 0°48.6'
18	78°30.3'	S 11°48.1'	30°18.9'	S 22°47.5'	3°31.1'	S 22°30.2'	104°47.5'	S 0°49.2'
19	93°29.8'	S 11°49.3'	45°21.0'	S 22°47.6'	18°33.5'	S 22°30.2'	119°48.5'	S 0°49.9'
20	108°29.3'	S 11°50.4'	60°23.0'	S 22°47.6'	33°35.8'	S 22°30.2'	134°49.4'	S 0°50.5'
21	123°28.8'	S 11°51.6'	75°25.0'	S 22°47.7'	48°38.2'	S 22°30.2'	149°50.4'	S 0°51.2'
22	138°28.4'	S 11°52.7'	90°27.1'	S 22°47.7'	63°40.6'	S 22°30.2'	164°51.4'	S 0°51.8'
23	153°27.9'	S 11°53.9'	105°29.1'	S 22°47.7'	78°42.9'	S 22°30.2'	179°52.4'	S 0°52.5'

Fri Oct 11, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.1'		v = 2.0' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	168°27.4'	S 11°55.0'	120°31.2'	S 22°47.8'	93°45.3'	S 22°30.2'	194°53.4'	S 0°53.1'
1	183°26.9'	S 11°56.2'	135°33.2'	S 22°47.8'	108°47.7'	S 22°30.2'	209°54.4'	S 0°53.8'
2	198°26.4'	S 11°57.3'	150°35.2'	S 22°47.8'	123°50.0'	S 22°30.1'	224°55.4'	S 0°54.5'
3	213°25.9'	S 11°58.5'	165°37.3'	S 22°47.9'	138°52.4'	S 22°30.1'	239°56.4'	S 0°55.1'
4	228°25.4'	S 11°59.6'	180°39.3'	S 22°47.9'	153°54.8'	S 22°30.1'	254°57.4'	S 0°55.8'
5	243°24.9'	S 12°00.8'	195°41.3'	S 22°47.9'	168°57.1'	S 22°30.1'	269°58.3'	S 0°56.4'
6	258°24.4'	S 12°01.9'	210°43.4'	S 22°48.0'	183°59.5'	S 22°30.1'	284°59.3'	S 0°57.1'
7	273°24.0'	S 12°03.1'	225°45.4'	S 22°48.0'	199°01.9'	S 22°30.1'	300°00.3'	S 0°57.7'
8	288°23.5'	S 12°04.2'	240°47.5'	S 22°48.0'	214°04.2'	S 22°30.1'	315°01.3'	S 0°58.4'
9	303°23.0'	S 12°05.4'	255°49.5'	S 22°48.1'	229°06.6'	S 22°30.1'	330°02.3'	S 0°59.0'
10	318°22.5'	S 12°06.5'	270°51.5'	S 22°48.1'	244°08.9'	S 22°30.1'	345°03.3'	S 0°59.7'
11	333°22.0'	S 12°07.7'	285°53.6'	S 22°48.2'	259°11.3'	S 22°30.1'	0°04.3'	S 1°00.3'
12	348°21.5'	S 12°08.8'	300°55.6'	S 22°48.2'	274°13.7'	S 22°30.1'	15°05.3'	S 1°01.0'
13	3°21.0'	S 12°09.9'	315°57.6'	S 22°48.2'	289°16.0'	S 22°30.1'	30°06.2'	S 1°01.6'
14	18°20.5'	S 12°11.1'	330°59.7'	S 22°48.3'	304°18.4'	S 22°30.1'	45°07.2'	S 1°02.3'
15	33°20.0'	S 12°12.2'	346°01.7'	S 22°48.3'	319°20.8'	S 22°30.1'	60°08.2'	S 1°02.9'
16	48°19.5'	S 12°13.4'	1°03.7'	S 22°48.3'	334°23.1'	S 22°30.1'	75°09.2'	S 1°03.6'
17	63°19.0'	S 12°14.5'	16°05.8'	S 22°48.4'	349°25.5'	S 22°30.1'	90°10.2'	S 1°04.2'
18	78°18.5'	S 12°15.7'	31°07.8'	S 22°48.4'	4°27.8'	S 22°30.0'	105°11.2'	S 1°04.9'
19	93°18.0'	S 12°16.8'	46°09.8'	S 22°48.4'	19°30.2'	S 22°30.0'	120°12.2'	S 1°05.5'
20	108°17.5'	S 12°17.9'	61°11.9'	S 22°48.5'	34°32.6'	S 22°30.0'	135°13.2'	S 1°06.2'
21	123°17.0'	S 12°19.1'	76°13.9'	S 22°48.5'	49°34.9'	S 22°30.0'	150°14.1'	S 1°06.8'
22	138°16.5'	S 12°20.2'	91°15.9'	S 22°48.6'	64°37.3'	S 22°30.0'	165°15.1'	S 1°07.5'
23	153°16.0'	S 12°21.4'	106°18.0'	S 22°48.6'	79°39.6'	S 22°30.0'	180°16.1'	S 1°08.1'

Sat Oct 12, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.1'		v = 2.0' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.7'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	168°15.6'	S 12°22.5'	121°20.0'	S 22°48.6'	94°42.0'	S 22°30.0'	195°17.1'	S 1°08.8'
1	183°15.1'	S 12°23.6'	136°22.0'	S 22°48.7'	109°44.4'	S 22°30.0'	210°18.1'	S 1°09.4'
2	198°14.6'	S 12°24.8'	151°24.1'	S 22°48.7'	124°46.7'	S 22°30.0'	225°19.1'	S 1°10.1'
3	213°14.1'	S 12°25.9'	166°26.1'	S 22°48.7'	139°49.1'	S 22°30.0'	240°20.1'	S 1°10.7'
4	228°13.6'	S 12°27.0'	181°28.1'	S 22°48.8'	154°51.4'	S 22°30.0'	255°21.0'	S 1°11.4'
5	243°13.1'	S 12°28.2'	196°30.2'	S 22°48.8'	169°53.8'	S 22°30.0'	270°22.0'	S 1°12.0'
6	258°12.6'	S 12°29.3'	211°32.2'	S 22°48.8'	184°56.2'	S 22°30.0'	285°23.0'	S 1°12.7'
7	273°12.1'	S 12°30.4'	226°34.2'	S 22°48.9'	199°58.5'	S 22°30.0'	300°24.0'	S 1°13.3'
8	288°11.6'	S 12°31.6'	241°36.3'	S 22°48.9'	215°00.9'	S 22°30.0'	315°25.0'	S 1°14.0'
9	303°11.1'	S 12°32.7'	256°38.3'	S 22°49.0'	230°03.2'	S 22°30.0'	330°26.0'	S 1°14.6'
10	318°10.6'	S 12°33.8'	271°40.3'	S 22°49.0'	245°05.6'	S 22°29.9'	345°27.0'	S 1°15.3'
11	333°10.0'	S 12°35.0'	286°42.4'	S 22°49.0'	260°08.0'	S 22°29.9'	0°28.0'	S 1°15.9'
12	348°09.5'	S 12°36.1'	301°44.4'	S 22°49.1'	275°10.3'	S 22°29.9'	15°28.9'	S 1°16.6'
13	3°09.0'	S 12°37.2'	316°46.4'	S 22°49.1'	290°12.7'	S 22°29.9'	30°29.9'	S 1°17.2'
14	18°08.5'	S 12°38.4'	331°48.4'	S 22°49.1'	305°15.0'	S 22°29.9'	45°30.9'	S 1°17.9'
15	33°08.0'	S 12°39.5'	346°50.5'	S 22°49.2'	320°17.4'	S 22°29.9'	60°31.9'	S 1°18.5'
16	48°07.5'	S 12°40.6'	1°52.5'	S 22°49.2'	335°19.8'	S 22°29.9'	75°32.9'	S 1°19.2'
17	63°07.0'	S 12°41.8'	16°54.5'	S 22°49.2'	350°22.1'	S 22°29.9'	90°33.9'	S 1°19.8'
18	78°06.5'	S 12°42.9'	31°56.6'	S 22°49.3'	5°24.5'	S 22°29.9'	105°34.9'	S 1°20.5'
19	93°06.0'	S 12°44.0'	46°58.6'	S 22°49.3'	20°26.8'	S 22°29.9'	120°35.8'	S 1°21.1'
20	108°05.5'	S 12°45.1'	62°00.6'	S 22°49.3'	35°29.2'	S 22°29.9'	135°36.8'	S 1°21.8'
21	123°05.0'	S 12°46.3'	77°02.7'	S 22°49.4'	50°31.5'	S 22°29.9'	150°37.8'	S 1°22.4'
22	138°04.5'	S 12°47.4'	92°04.7'	S 22°49.4'	65°33.9'	S 22°29.9'	165°38.8'	S 1°23.1'
23	153°04.0'	S 12°48.5'	107°06.7'	S 22°49.5'	80°36.3'	S 22°29.9'	180°39.8'	S 1°23.7'

Sun Oct 13, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.1'		v = 2.0' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	168°03.5'	S 12°49.6'	122°08.7'	S 22°49.5'	95°38.6'	S 22°29.9'	195°40.8'	S 1°24.4'
1	183°03.0'	S 12°50.8'	137°10.8'	S 22°49.5'	110°41.0'	S 22°29.8'	210°41.8'	S 1°25.0'
2	198°02.5'	S 12°51.9'	152°12.8'	S 22°49.6'	125°43.3'	S 22°29.8'	225°42.7'	S 1°25.7'
3	213°02.0'	S 12°53.0'	167°14.8'	S 22°49.6'	140°45.7'	S 22°29.8'	240°43.7'	S 1°26.3'
4	228°01.4'	S 12°54.1'	182°16.8'	S 22°49.6'	155°48.0'	S 22°29.8'	255°44.7'	S 1°27.0'
5	243°00.9'	S 12°55.3'	197°18.9'	S 22°49.7'	170°50.4'	S 22°29.8'	270°45.7'	S 1°27.6'
6	258°00.4'	S 12°56.4'	212°20.9'	S 22°49.7'	185°52.7'	S 22°29.8'	285°46.7'	S 1°28.3'
7	272°59.9'	S 12°57.5'	227°22.9'	S 22°49.7'	200°55.1'	S 22°29.8'	300°47.7'	S 1°28.9'
8	287°59.4'	S 12°58.6'	242°25.0'	S 22°49.8'	215°57.5'	S 22°29.8'	315°48.7'	S 1°29.6'
9	302°58.9'	S 12°59.7'	257°27.0'	S 22°49.8'	230°59.8'	S 22°29.8'	330°49.6'	S 1°30.2'
10	317°58.4'	S 13°00.9'	272°29.0'	S 22°49.8'	246°02.2'	S 22°29.8'	345°50.6'	S 1°30.9'
11	332°57.9'	S 13°02.0'	287°31.0'	S 22°49.9'	261°04.5'	S 22°29.8'	0°51.6'	S 1°31.5'
12	347°57.4'	S 13°03.1'	302°33.1'	S 22°49.9'	276°06.9'	S 22°29.8'	15°52.6'	S 1°32.2'
13	2°56.8'	S 13°04.2'	317°35.1'	S 22°50.0'	291°09.2'	S 22°29.8'	30°53.6'	S 1°32.8'
14	17°56.3'	S 13°05.3'	332°37.1'	S 22°50.0'	306°11.6'	S 22°29.8'	45°54.6'	S 1°33.5'
15	32°55.8'	S 13°06.5'	347°39.1'	S 22°50.0'	321°13.9'	S 22°29.8'	60°55.6'	S 1°34.1'
16	47°55.3'	S 13°07.6'	2°41.2'	S 22°50.1'	336°16.3'	S 22°29.7'	75°56.5'	S 1°34.8'
17	62°54.8'	S 13°08.7'	17°43.2'	S 22°50.1'	351°18.6'	S 22°29.7'	90°57.5'	S 1°35.4'
18	77°54.3'	S 13°09.8'	32°45.2'	S 22°50.1'	6°21.0'	S 22°29.7'	105°58.5'	S 1°36.1'
19	92°53.8'	S 13°10.9'	47°47.2'	S 22°50.2'	21°23.3'	S 22°29.7'	120°59.5'	S 1°36.7'
20	107°53.2'	S 13°12.0'	62°49.2'	S 22°50.2'	36°25.7'	S 22°29.7'	136°00.5'	S 1°37.4'
21	122°52.7'	S 13°13.1'	77°51.3'	S 22°50.2'	51°28.1'	S 22°29.7'	151°01.5'	S 1°38.0'
22	137°52.2'	S 13°14.3'	92°53.3'	S 22°50.3'	66°30.4'	S 22°29.7'	166°02.5'	S 1°38.7'
23	152°51.7'	S 13°15.4'	107°55.3'	S 22°50.3'	81°32.8'	S 22°29.7'	181°03.4'	S 1°39.3'

Mon Oct 14, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.1'		v = 2.0' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	167°51.2'	S 13°16.5'	122°57.3'	S 22°50.4'	96°35.1'	S 22°29.7'	196°04.4'	S 1°40.0'
1	182°50.6'	S 13°17.6'	137°59.4'	S 22°50.4'	111°37.5'	S 22°29.7'	211°05.4'	S 1°40.6'
2	197°50.1'	S 13°18.7'	153°01.4'	S 22°50.4'	126°39.8'	S 22°29.7'	226°06.4'	S 1°41.3'
3	212°49.6'	S 13°19.8'	168°03.4'	S 22°50.5'	141°42.2'	S 22°29.7'	241°07.4'	S 1°41.9'
4	227°49.1'	S 13°20.9'	183°05.4'	S 22°50.5'	156°44.5'	S 22°29.7'	256°08.4'	S 1°42.6'
5	242°48.6'	S 13°22.0'	198°07.5'	S 22°50.5'	171°46.9'	S 22°29.6'	271°09.4'	S 1°43.2'
6	257°48.0'	S 13°23.2'	213°09.5'	S 22°50.6'	186°49.2'	S 22°29.6'	286°10.3'	S 1°43.9'
7	272°47.5'	S 13°24.3'	228°11.5'	S 22°50.6'	201°51.6'	S 22°29.6'	301°11.3'	S 1°44.5'
8	287°47.0'	S 13°25.4'	243°13.5'	S 22°50.6'	216°53.9'	S 22°29.6'	316°12.3'	S 1°45.1'
9	302°46.5'	S 13°26.5'	258°15.5'	S 22°50.7'	231°56.3'	S 22°29.6'	331°13.3'	S 1°45.8'
10	317°46.0'	S 13°27.6'	273°17.6'	S 22°50.7'	246°58.6'	S 22°29.6'	346°14.3'	S 1°46.4'
11	332°45.4'	S 13°28.7'	288°19.6'	S 22°50.7'	262°01.0'	S 22°29.6'	1°15.3'	S 1°47.1'
12	347°44.9'	S 13°29.8'	303°21.6'	S 22°50.8'	277°03.3'	S 22°29.6'	16°16.2'	S 1°47.7'
13	2°44.4'	S 13°30.9'	318°23.6'	S 22°50.8'	292°05.7'	S 22°29.6'	31°17.2'	S 1°48.4'
14	17°43.9'	S 13°32.0'	333°25.6'	S 22°50.8'	307°08.0'	S 22°29.6'	46°18.2'	S 1°49.0'
15	32°43.3'	S 13°33.1'	348°27.7'	S 22°50.9'	322°10.4'	S 22°29.6'	61°19.2'	S 1°49.7'
16	47°42.8'	S 13°34.2'	3°29.7'	S 22°50.9'	337°12.7'	S 22°29.6'	76°20.2'	S 1°50.3'
17	62°42.3'	S 13°35.3'	18°31.7'	S 22°51.0'	352°15.1'	S 22°29.6'	91°21.2'	S 1°51.0'
18	77°41.8'	S 13°36.4'	33°33.7'	S 22°51.0'	7°17.4'	S 22°29.6'	106°22.1'	S 1°51.6'
19	92°41.2'	S 13°37.5'	48°35.7'	S 22°51.0'	22°19.8'	S 22°29.5'	121°23.1'	S 1°52.3'
20	107°40.7'	S 13°38.6'	63°37.8'	S 22°51.1'	37°22.1'	S 22°29.5'	136°24.1'	S 1°52.9'
21	122°40.2'	S 13°39.7'	78°39.8'	S 22°51.1'	52°24.5'	S 22°29.5'	151°25.1'	S 1°53.6'
22	137°39.7'	S 13°40.8'	93°41.8'	S 22°51.1'	67°26.8'	S 22°29.5'	166°26.1'	S 1°54.2'
23	152°39.1'	S 13°41.9'	108°43.8'	S 22°51.2'	82°29.2'	S 22°29.5'	181°27.1'	S 1°54.9'

Tue Oct 15, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.1'		v = 2.0' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	167°38.6'	S 13°43.0'	123°45.8'	S 22°51.2'	97°31.5'	S 22°29.5'	196°28.1'	S 1°55.5'
1	182°38.1'	S 13°44.1'	138°47.8'	S 22°51.2'	112°33.9'	S 22°29.5'	211°29.0'	S 1°56.2'
2	197°37.5'	S 13°45.2'	153°49.9'	S 22°51.3'	127°36.2'	S 22°29.5'	226°30.0'	S 1°56.8'
3	212°37.0'	S 13°46.3'	168°51.9'	S 22°51.3'	142°38.6'	S 22°29.5'	241°31.0'	S 1°57.5'
4	227°36.5'	S 13°47.4'	183°53.9'	S 22°51.3'	157°40.9'	S 22°29.5'	256°32.0'	S 1°58.1'
5	242°35.9'	S 13°48.5'	198°55.9'	S 22°51.4'	172°43.2'	S 22°29.5'	271°33.0'	S 1°58.8'
6	257°35.4'	S 13°49.6'	213°57.9'	S 22°51.4'	187°45.6'	S 22°29.5'	286°34.0'	S 1°59.4'
7	272°34.9'	S 13°50.7'	228°59.9'	S 22°51.5'	202°47.9'	S 22°29.5'	301°34.9'	S 2°00.1'
8	287°34.3'	S 13°51.8'	244°02.0'	S 22°51.5'	217°50.3'	S 22°29.4'	316°35.9'	S 2°00.7'
9	302°33.8'	S 13°52.9'	259°04.0'	S 22°51.5'	232°52.6'	S 22°29.4'	331°36.9'	S 2°01.4'
10	317°33.3'	S 13°54.0'	274°06.0'	S 22°51.6'	247°55.0'	S 22°29.4'	346°37.9'	S 2°02.0'
11	332°32.7'	S 13°55.1'	289°08.0'	S 22°51.6'	262°57.3'	S 22°29.4'	1°38.9'	S 2°02.7'
12	347°32.2'	S 13°56.2'	304°10.0'	S 22°51.6'	277°59.7'	S 22°29.4'	16°39.9'	S 2°03.3'
13	2°31.7'	S 13°57.3'	319°12.0'	S 22°51.7'	293°02.0'	S 22°29.4'	31°40.8'	S 2°04.0'
14	17°31.1'	S 13°58.3'	334°14.1'	S 22°51.7'	308°04.4'	S 22°29.4'	46°41.8'	S 2°04.6'
15	32°30.6'	S 13°59.4'	349°16.1'	S 22°51.7'	323°06.7'	S 22°29.4'	61°42.8'	S 2°05.3'
16	47°30.1'	S 14°00.5'	4°18.1'	S 22°51.8'	338°09.1'	S 22°29.4'	76°43.8'	S 2°05.9'
17	62°29.5'	S 14°01.6'	19°20.1'	S 22°51.8'	353°11.4'	S 22°29.4'	91°44.8'	S 2°06.6'
18	77°29.0'	S 14°02.7'	34°22.1'	S 22°51.8'	8°13.7'	S 22°29.4'	106°45.8'	S 2°07.2'
19	92°28.5'	S 14°03.8'	49°24.1'	S 22°51.9'	23°16.1'	S 22°29.4'	121°46.7'	S 2°07.9'
20	107°27.9'	S 14°04.9'	64°26.1'	S 22°51.9'	38°18.4'	S 22°29.3'	136°47.7'	S 2°08.5'
21	122°27.4'	S 14°06.0'	79°28.2'	S 22°51.9'	53°20.8'	S 22°29.3'	151°48.7'	S 2°09.2'
22	137°26.8'	S 14°07.0'	94°30.2'	S 22°52.0'	68°23.1'	S 22°29.3'	166°49.7'	S 2°09.8'
23	152°26.3'	S 14°08.1'	109°32.2'	S 22°52.0'	83°25.5'	S 22°29.3'	181°50.7'	S 2°10.5'

Wed Oct 16, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.5		Mars +1.8	
	v = -0.5' d = 1.1'		v = 2.0' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	167°25.8'	S 14°09.2'	124°34.2'	S 22°52.1'	98°27.8'	S 22°29.3'	196°51.6'	S 2°11.1'
1	182°25.2'	S 14°10.3'	139°36.2'	S 22°52.1'	113°30.2'	S 22°29.3'	211°52.6'	S 2°11.8'
2	197°24.7'	S 14°11.4'	154°38.2'	S 22°52.1'	128°32.5'	S 22°29.3'	226°53.6'	S 2°12.4'
3	212°24.1'	S 14°12.5'	169°40.2'	S 22°52.2'	143°34.8'	S 22°29.3'	241°54.6'	S 2°13.1'
4	227°23.6'	S 14°13.6'	184°42.2'	S 22°52.2'	158°37.2'	S 22°29.3'	256°55.6'	S 2°13.7'
5	242°23.1'	S 14°14.6'	199°44.3'	S 22°52.2'	173°39.5'	S 22°29.3'	271°56.6'	S 2°14.4'
6	257°22.5'	S 14°15.7'	214°46.3'	S 22°52.3'	188°41.9'	S 22°29.3'	286°57.5'	S 2°15.0'
7	272°22.0'	S 14°16.8'	229°48.3'	S 22°52.3'	203°44.2'	S 22°29.3'	301°58.5'	S 2°15.7'
8	287°21.4'	S 14°17.9'	244°50.3'	S 22°52.3'	218°46.6'	S 22°29.2'	316°59.5'	S 2°16.3'
9	302°20.9'	S 14°19.0'	259°52.3'	S 22°52.4'	233°48.9'	S 22°29.2'	332°00.5'	S 2°17.0'
10	317°20.3'	S 14°20.0'	274°54.3'	S 22°52.4'	248°51.2'	S 22°29.2'	347°01.5'	S 2°17.6'
11	332°19.8'	S 14°21.1'	289°56.3'	S 22°52.4'	263°53.6'	S 22°29.2'	2°02.5'	S 2°18.3'
12	347°19.2'	S 14°22.2'	304°58.3'	S 22°52.5'	278°55.9'	S 22°29.2'	17°03.4'	S 2°18.9'
13	2°18.7'	S 14°23.3'	320°00.3'	S 22°52.5'	293°58.3'	S 22°29.2'	32°04.4'	S 2°19.6'
14	17°18.1'	S 14°24.3'	335°02.4'	S 22°52.5'	309°00.6'	S 22°29.2'	47°05.4'	S 2°20.2'
15	32°17.6'	S 14°25.4'	350°04.4'	S 22°52.6'	324°03.0'	S 22°29.2'	62°06.4'	S 2°20.9'
16	47°17.1'	S 14°26.5'	5°06.4'	S 22°52.6'	339°05.3'	S 22°29.2'	77°07.4'	S 2°21.5'
17	62°16.5'	S 14°27.6'	20°08.4'	S 22°52.7'	354°07.6'	S 22°29.2'	92°08.3'	S 2°22.1'
18	77°16.0'	S 14°28.6'	35°10.4'	S 22°52.7'	9°10.0'	S 22°29.2'	107°09.3'	S 2°22.8'
19	92°15.4'	S 14°29.7'	50°12.4'	S 22°52.7'	24°12.3'	S 22°29.2'	122°10.3'	S 2°23.4'
20	107°14.9'	S 14°30.8'	65°14.4'	S 22°52.8'	39°14.7'	S 22°29.1'	137°11.3'	S 2°24.1'
21	122°14.3'	S 14°31.9'	80°16.4'	S 22°52.8'	54°17.0'	S 22°29.1'	152°12.3'	S 2°24.7'
22	137°13.8'	S 14°32.9'	95°18.4'	S 22°52.8'	69°19.3'	S 22°29.1'	167°13.2'	S 2°25.4'
23	152°13.2'	S 14°34.0'	110°20.4'	S 22°52.9'	84°21.7'	S 22°29.1'	182°14.2'	S 2°26.0'



Thu Oct 17, 2019 UTC

UTC	Venus -3.8 v = -0.6' d = 1.1'		Jupiter -1.8 v = 2.0' d = 0.0'		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	167°12.7'	S 14°35.1'	125°22.4'	S 22°52.9'	99°24.0'	S 22°29.1'	197°15.2'	S 2°26.7'
1	182°12.1'	S 14°36.1'	140°24.5'	S 22°52.9'	114°26.4'	S 22°29.1'	212°16.2'	S 2°27.3'
2	197°11.6'	S 14°37.2'	155°26.5'	S 22°53.0'	129°28.7'	S 22°29.1'	227°17.2'	S 2°28.0'
3	212°11.0'	S 14°38.3'	170°28.5'	S 22°53.0'	144°31.0'	S 22°29.1'	242°18.2'	S 2°28.6'
4	227°10.4'	S 14°39.3'	185°30.5'	S 22°53.0'	159°33.4'	S 22°29.1'	257°19.1'	S 2°29.3'
5	242°09.9'	S 14°40.4'	200°32.5'	S 22°53.1'	174°35.7'	S 22°29.1'	272°20.1'	S 2°29.9'
6	257°09.3'	S 14°41.5'	215°34.5'	S 22°53.1'	189°38.1'	S 22°29.1'	287°21.1'	S 2°30.6'
7	272°08.8'	S 14°42.5'	230°36.5'	S 22°53.1'	204°40.4'	S 22°29.1'	302°22.1'	S 2°31.2'
8	287°08.2'	S 14°43.6'	245°38.5'	S 22°53.2'	219°42.7'	S 22°29.0'	317°23.1'	S 2°31.9'
9	302°07.7'	S 14°44.7'	260°40.5'	S 22°53.2'	234°45.1'	S 22°29.0'	332°24.0'	S 2°32.5'
10	317°07.1'	S 14°45.7'	275°42.5'	S 22°53.2'	249°47.4'	S 22°29.0'	347°25.0'	S 2°33.2'
11	332°06.6'	S 14°46.8'	290°44.5'	S 22°53.3'	264°49.8'	S 22°29.0'	2°26.0'	S 2°33.8'
12	347°06.0'	S 14°47.9'	305°46.5'	S 22°53.3'	279°52.1'	S 22°29.0'	17°27.0'	S 2°34.5'
13	2°05.4'	S 14°48.9'	320°48.5'	S 22°53.4'	294°54.4'	S 22°29.0'	32°28.0'	S 2°35.1'
14	17°04.9'	S 14°50.0'	335°50.5'	S 22°53.4'	309°56.8'	S 22°29.0'	47°28.9'	S 2°35.8'
15	32°04.3'	S 14°51.1'	350°52.5'	S 22°53.4'	324°59.1'	S 22°29.0'	62°29.9'	S 2°36.4'
16	47°03.8'	S 14°52.1'	5°54.5'	S 22°53.5'	340°01.4'	S 22°29.0'	77°30.9'	S 2°37.1'
17	62°03.2'	S 14°53.2'	20°56.6'	S 22°53.5'	355°03.8'	S 22°29.0'	92°31.9'	S 2°37.7'
18	77°02.6'	S 14°54.2'	35°58.6'	S 22°53.5'	10°06.1'	S 22°29.0'	107°32.9'	S 2°38.4'
19	92°02.1'	S 14°55.3'	51°00.6'	S 22°53.6'	25°08.5'	S 22°28.9'	122°33.8'	S 2°39.0'
20	107°01.5'	S 14°56.3'	66°02.6'	S 22°53.6'	40°10.8'	S 22°28.9'	137°34.8'	S 2°39.7'
21	122°01.0'	S 14°57.4'	81°04.6'	S 22°53.6'	55°13.1'	S 22°28.9'	152°35.8'	S 2°40.3'
22	137°00.4'	S 14°58.5'	96°06.6'	S 22°53.7'	70°15.5'	S 22°28.9'	167°36.8'	S 2°40.9'
23	151°59.8'	S 14°59.5'	111°08.6'	S 22°53.7'	85°17.8'	S 22°28.9'	182°37.8'	S 2°41.6'

Fri Oct 18, 2019 UTC

UTC	Venus -3.8 v = -0.6' d = 1.0'		Jupiter -1.8 v = 2.0' d = 0.0'		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	166°59.3'	S 15°00.6'	126°10.6'	S 22°53.7'	100°20.1'	S 22°28.9'	197°38.7'	S 2°42.2'
1	181°58.7'	S 15°01.6'	141°12.6'	S 22°53.8'	115°22.5'	S 22°28.9'	212°39.7'	S 2°42.9'
2	196°58.1'	S 15°02.7'	156°14.6'	S 22°53.8'	130°24.8'	S 22°28.9'	227°40.7'	S 2°43.5'
3	211°57.6'	S 15°03.7'	171°16.6'	S 22°53.8'	145°27.1'	S 22°28.9'	242°41.7'	S 2°44.2'
4	226°57.0'	S 15°04.8'	186°18.6'	S 22°53.9'	160°29.5'	S 22°28.9'	257°42.7'	S 2°44.8'
5	241°56.5'	S 15°05.8'	201°20.6'	S 22°53.9'	175°31.8'	S 22°28.9'	272°43.6'	S 2°45.5'
6	256°55.9'	S 15°06.9'	216°22.6'	S 22°53.9'	190°34.1'	S 22°28.8'	287°44.6'	S 2°46.1'
7	271°55.3'	S 15°07.9'	231°24.6'	S 22°54.0'	205°36.5'	S 22°28.8'	302°45.6'	S 2°46.8'
8	286°54.8'	S 15°09.0'	246°26.6'	S 22°54.0'	220°38.8'	S 22°28.8'	317°46.6'	S 2°47.4'
9	301°54.2'	S 15°10.0'	261°28.6'	S 22°54.0'	235°41.1'	S 22°28.8'	332°47.6'	S 2°48.1'
10	316°53.6'	S 15°11.1'	276°30.6'	S 22°54.1'	250°43.5'	S 22°28.8'	347°48.5'	S 2°48.7'
11	331°53.0'	S 15°12.1'	291°32.6'	S 22°54.1'	265°45.8'	S 22°28.8'	2°49.5'	S 2°49.4'
12	346°52.5'	S 15°13.2'	306°34.6'	S 22°54.2'	280°48.1'	S 22°28.8'	17°50.5'	S 2°50.0'
13	1°51.9'	S 15°14.2'	321°36.6'	S 22°54.2'	295°50.5'	S 22°28.8'	32°51.5'	S 2°50.7'
14	16°51.3'	S 15°15.3'	336°38.6'	S 22°54.2'	310°52.8'	S 22°28.8'	47°52.5'	S 2°51.3'
15	31°50.8'	S 15°16.3'	351°40.6'	S 22°54.3'	325°55.2'	S 22°28.8'	62°53.4'	S 2°52.0'
16	46°50.2'	S 15°17.4'	6°42.6'	S 22°54.3'	340°57.5'	S 22°28.8'	77°54.4'	S 2°52.6'
17	61°49.6'	S 15°18.4'	21°44.6'	S 22°54.3'	355°59.8'	S 22°28.7'	92°55.4'	S 2°53.3'
18	76°49.1'	S 15°19.5'	36°46.6'	S 22°54.4'	11°02.2'	S 22°28.7'	107°56.4'	S 2°53.9'
19	91°48.5'	S 15°20.5'	51°48.6'	S 22°54.4'	26°04.5'	S 22°28.7'	122°57.3'	S 2°54.5'
20	106°47.9'	S 15°21.5'	66°50.6'	S 22°54.4'	41°06.8'	S 22°28.7'	137°58.3'	S 2°55.2'
21	121°47.3'	S 15°22.6'	81°52.6'	S 22°54.5'	56°09.1'	S 22°28.7'	152°59.3'	S 2°55.8'
22	136°46.8'	S 15°23.6'	96°54.6'	S 22°54.5'	71°11.5'	S 22°28.7'	168°00.3'	S 2°56.5'
23	151°46.2'	S 15°24.7'	111°56.6'	S 22°54.5'	86°13.8'	S 22°28.7'	183°01.3'	S 2°57.1'

Sat Oct 19, 2019 UTC

UTC	Venus -3.8 v = -0.6' d = 1.0'		Jupiter -1.8 v = 2.0' d = 0.0'		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	166°45.6'	S 15°25.7'	126°58.6'	S 22°54.6'	101°16.1'	S 22°28.7'	198°02.2'	S 2°57.8'
1	181°45.0'	S 15°26.7'	142°00.6'	S 22°54.6'	116°18.5'	S 22°28.7'	213°03.2'	S 2°58.4'
2	196°44.5'	S 15°27.8'	157°02.6'	S 22°54.6'	131°20.8'	S 22°28.7'	228°04.2'	S 2°59.1'
3	211°43.9'	S 15°28.8'	172°04.6'	S 22°54.7'	146°23.1'	S 22°28.6'	243°05.2'	S 2°59.7'
4	226°43.3'	S 15°29.9'	187°06.6'	S 22°54.7'	161°25.5'	S 22°28.6'	258°06.2'	S 3°00.4'
5	241°42.7'	S 15°30.9'	202°08.6'	S 22°54.7'	176°27.8'	S 22°28.6'	273°07.1'	S 3°01.0'
6	256°42.1'	S 15°31.9'	217°10.6'	S 22°54.8'	191°30.1'	S 22°28.6'	288°08.1'	S 3°01.7'
7	271°41.6'	S 15°33.0'	232°12.6'	S 22°54.8'	206°32.5'	S 22°28.6'	303°09.1'	S 3°02.3'
8	286°41.0'	S 15°34.0'	247°14.6'	S 22°54.8'	221°34.8'	S 22°28.6'	318°10.1'	S 3°03.0'
9	301°40.4'	S 15°35.0'	262°16.6'	S 22°54.9'	236°37.1'	S 22°28.6'	333°11.0'	S 3°03.6'
10	316°39.8'	S 15°36.1'	277°18.6'	S 22°54.9'	251°39.5'	S 22°28.6'	348°12.0'	S 3°04.3'
11	331°39.2'	S 15°37.1'	292°20.6'	S 22°54.9'	266°41.8'	S 22°28.6'	3°13.0'	S 3°04.9'
12	346°38.7'	S 15°38.1'	307°22.6'	S 22°55.0'	281°44.1'	S 22°28.6'	18°14.0'	S 3°05.6'
13	1°38.1'	S 15°39.2'	322°24.6'	S 22°55.0'	296°46.4'	S 22°28.5'	33°15.0'	S 3°06.2'
14	16°37.5'	S 15°40.2'	337°26.6'	S 22°55.0'	311°48.8'	S 22°28.5'	48°15.9'	S 3°06.8'
15	31°36.9'	S 15°41.2'	352°28.6'	S 22°55.1'	326°51.1'	S 22°28.5'	63°16.9'	S 3°07.5'
16	46°36.3'	S 15°42.2'	7°30.6'	S 22°55.1'	341°53.4'	S 22°28.5'	78°17.9'	S 3°08.1'
17	61°35.8'	S 15°43.3'	22°32.5'	S 22°55.1'	356°55.8'	S 22°28.5'	93°18.9'	S 3°08.8'
18	76°35.2'	S 15°44.3'	37°34.5'	S 22°55.2'	11°58.1'	S 22°28.5'	108°19.8'	S 3°09.4'
19	91°34.6'	S 15°45.3'	52°36.5'	S 22°55.2'	27°00.4'	S 22°28.5'	123°20.8'	S 3°10.1'
20	106°34.0'	S 15°46.4'	67°38.5'	S 22°55.3'	42°02.7'	S 22°28.5'	138°21.8'	S 3°10.7'
21	121°33.4'	S 15°47.4'	82°40.5'	S 22°55.3'	57°05.1'	S 22°28.5'	153°22.8'	S 3°11.4'
22	136°32.8'	S 15°48.4'	97°42.5'	S 22°55.3'	72°07.4'	S 22°28.5'	168°23.8'	S 3°12.0'
23	151°32.2'	S 15°49.4'	112°44.5'	S 22°55.4'	87°09.7'	S 22°28.5'	183°24.7'	S 3°12.7'

Sun Oct 20, 2019 UTC

UTC	Venus -3.8 v = -0.6' d = 1.0'		Jupiter -1.8 v = 2.0' d = 0.0'		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	166°31.7'	S 15°50.4'	127°46.5'	S 22°55.4'	102°12.1'	S 22°28.4'	198°25.7'	S 3°13.3'
1	181°31.1'	S 15°51.5'	142°48.5'	S 22°55.4'	117°14.4'	S 22°28.4'	213°26.7'	S 3°14.0'
2	196°30.5'	S 15°52.5'	157°50.5'	S 22°55.5'	132°16.7'	S 22°28.4'	228°27.7'	S 3°14.6'
3	211°29.9'	S 15°53.5'	172°52.5'	S 22°55.5'	147°19.0'	S 22°28.4'	243°28.6'	S 3°15.3'
4	226°29.3'	S 15°54.5'	187°54.5'	S 22°55.5'	162°21.4'	S 22°28.4'	258°29.6'	S 3°15.9'
5	241°28.7'	S 15°55.6'	202°56.5'	S 22°55.6'	177°23.7'	S 22°28.4'	273°30.6'	S 3°16.5'
6	256°28.1'	S 15°56.6'	217°58.5'	S 22°55.6'	192°26.0'	S 22°28.4'	288°31.6'	S 3°17.2'
7	271°27.5'	S 15°57.6'	233°00.5'	S 22°55.6'	207°28.4'	S 22°28.4'	303°32.5'	S 3°17.8'
8	286°26.9'	S 15°58.6'	248°02.5'	S 22°55.7'	222°30.7'	S 22°28.4'	318°33.5'	S 3°18.5'
9	301°26.3'	S 15°59.6'	263°04.4'	S 22°55.7'	237°33.0'	S 22°28.3'	333°34.5'	S 3°19.1'
10	316°25.8'	S 16°00.6'	278°06.4'	S 22°55.7'	252°35.3'	S 22°28.3'	348°35.5'	S 3°19.8'
11	331°25.2'	S 16°01.7'	293°08.4'	S 22°55.8'	267°37.7'	S 22°28.3'	3°36.4'	S 3°20.4'
12	346°24.6'	S 16°02.7'	308°10.4'	S 22°55.8'	282°40.0'	S 22°28.3'	18°37.4'	S 3°21.1'
13	1°24.0'	S 16°03.7'	323°12.4'	S 22°55.8'	297°42.3'	S 22°28.3'	33°38.4'	S 3°21.7'
14	16°23.4'	S 16°04.7'	338°14.4'	S 22°55.9'	312°44.6'	S 22°28.3'	48°39.4'	S 3°22.4'
15	31°22.8'	S 16°05.7'	353°16.4'	S 22°55.9'	327°47.0'	S 22°28.3'	63°40.3'	S 3°23.0'
16	46°22.2'	S 16°06.7'	8°18.4'	S 22°55.9'	342°49.3'	S 22°28.3'	78°41.3'	S 3°23.7'
17	61°21.6'	S 16°07.7'	23°20.4'	S 22°56.0'	357°51.6'	S 22°28.3'	93°42.3'	S 3°24.3'
18	76°21.0'	S 16°08.8'	38°22.4'	S 22°56.0'	12°53.9'	S 22°28.3'	108°43.3'	S 3°24.9'
19	91°20.4'	S 16°09.8'	53°24.4'	S 22°56.0'	27°56.3'	S 22°28.2'	123°44.3'	S 3°25.6'
20	106°19.8'	S 16°10.8'	68°26.4'	S 22°56.1'	42°58.6'	S 22°28.2'	138°45.2'	S 3°26.2'
21	121°19.2'	S 16°11.8'	83°28.3'	S 22°56.1'	58°00.9'	S 22°28.2'	153°46.2'	S 3°26.9'
22	136°18.6'	S 16°12.8'	98°30.3'	S 22°56.1'	73°03.2'	S 22°28.2'	168°47.2'	S 3°27.5'
23	151°18.0'	S 16°13.8'	113°32.3'	S 22°56.2'	88°05.6'	S 22°28.2'	183°48.2'	S 3°28.2'

Mon Oct 21, 2019 UTC

UTC	Venus -3.8 v = -0.6' d = 1.0'		Jupiter -1.8 v = 2.0' d = 0.0'		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	166°17.4'	S 16°14.8'	128°34.3'	S 22°56.2'	103°07.9'	S 22°28.2'	198°49.1'	S 3°28.8'
1	181°16.8'	S 16°15.8'	143°36.3'	S 22°56.2'	118°10.2'	S 22°28.2'	213°50.1'	S 3°29.5'
2	196°16.2'	S 16°16.8'	158°38.3'	S 22°56.3'	133°12.5'	S 22°28.2'	228°51.1'	S 3°30.1'
3	211°15.6'	S 16°17.8'	173°40.3'	S 22°56.3'	148°14.9'	S 22°28.2'	243°52.1'	S 3°30.8'
4	226°15.0'	S 16°18.8'	188°42.3'	S 22°56.3'	163°17.2'	S 22°28.2'	258°53.0'	S 3°31.4'
5	241°14.4'	S 16°19.8'	203°44.3'	S 22°56.4'	178°19.5'	S 22°28.1'	273°54.0'	S 3°32.1'
6	256°13.8'	S 16°20.8'	218°46.2'	S 22°56.4'	193°21.8'	S 22°28.1'	288°55.0'	S 3°32.7'
7	271°13.2'	S 16°21.8'	233°48.2'	S 22°56.4'	208°24.1'	S 22°28.1'	303°56.0'	S 3°33.3'
8	286°12.6'	S 16°22.8'	248°50.2'	S 22°56.5'	223°26.5'	S 22°28.1'	318°56.9'	S 3°34.0'
9	301°12.0'	S 16°23.8'	263°52.2'	S 22°56.5'	238°28.8'	S 22°28.1'	333°57.9'	S 3°34.6'
10	316°11.4'	S 16°24.8'	278°54.2'	S 22°56.5'	253°31.1'	S 22°28.1'	348°58.9'	S 3°35.3'
11	331°10.8'	S 16°25.8'	293°56.2'	S 22°56.6'	268°33.4'	S 22°28.1'	3°59.9'	S 3°35.9'
12	346°10.2'	S 16°26.8'	308°58.2'	S 22°56.6'	283°35.8'	S 22°28.1'	19°00.8'	S 3°36.6'
13	1°09.6'	S 16°27.8'	324°00.2'	S 22°56.6'	298°38.1'	S 22°28.1'	34°01.8'	S 3°37.2'
14	16°09.0'	S 16°28.8'	339°02.1'	S 22°56.7'	313°40.4'	S 22°28.0'	49°02.8'	S 3°37.9'
15	31°08.4'	S 16°29.8'	354°04.1'	S 22°56.7'	328°42.7'	S 22°28.0'	64°03.7'	S 3°38.5'
16	46°07.7'	S 16°30.8'	9°06.1'	S 22°56.7'	343°45.0'	S 22°28.0'	79°04.7'	S 3°39.2'
17	61°07.1'	S 16°31.8'	24°08.1'	S 22°56.8'	358°47.4'	S 22°28.0'	94°05.7'	S 3°39.8'
18	76°06.5'	S 16°32.8'	39°10.1'	S 22°56.8'	13°49.7'	S 22°28.0'	109°06.7'	S 3°40.4'
19	91°05.9'	S 16°33.8'	54°12.1'	S 22°56.8'	28°52.0'	S 22°28.0'	124°07.6'	S 3°41.1'
20	106°05.3'	S 16°34.8'	69°14.1'	S 22°56.9'	43°54.3'	S 22°28.0'	139°08.6'	S 3°41.7'
21	121°04.7'	S 16°35.8'	84°16.0'	S 22°56.9'	58°56.6'	S 22°28.0'	154°09.6'	S 3°42.4'
22	136°04.1'	S 16°36.8'	99°18.0'	S 22°56.9'	73°59.0'	S 22°28.0'	169°10.6'	S 3°43.0'
23	151°03.5'	S 16°37.8'	114°20.0'	S 22°57.0'	89°01.3'	S 22°27.9'	184°11.5'	S 3°43.7'

Tue Oct 22, 2019 UTC

UTC	Venus -3.8 v = -0.6' d = 1.0'		Jupiter -1.8 v = 2.0' d = 0.0'		Saturn +0.6 v = 2.3' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	166°02.9'	S 16°38.7'	129°22.0'	S 22°57.0'	104°03.6'	S 22°27.9'	199°12.5'	S 3°44.3'
1	181°02.3'	S 16°39.7'	144°24.0'	S 22°57.0'	119°05.9'	S 22°27.9'	214°13.5'	S 3°45.0'
2	196°01.6'	S 16°40.7'	159°26.0'	S 22°57.1'	134°08.2'	S 22°27.9'	229°14.5'	S 3°45.6'
3	211°01.0'	S 16°41.7'	174°28.0'	S 22°57.1'	149°10.6'	S 22°27.9'	244°15.4'	S 3°46.3'
4	226°00.4'	S 16°42.7'	189°29.9'	S 22°57.1'	164°12.9'	S 22°27.9'	259°16.4'	S 3°46.9'
5	240°59.8'	S 16°43.7'	204°31.9'	S 22°57.2'	179°15.2'	S 22°27.9'	274°17.4'	S 3°47.5'
6	255°59.2'	S 16°44.7'	219°33.9'	S 22°57.2'	194°17.5'	S 22°27.9'	289°18.4'	S 3°48.2'
7	270°58.6'	S 16°45.6'	234°35.9'	S 22°57.2'	209°19.8'	S 22°27.9'	304°19.3'	S 3°48.8'
8	285°57.9'	S 16°46.6'	249°37.9'	S 22°57.3'	224°22.2'	S 22°27.8'	319°20.3'	S 3°49.5'
9	300°57.3'	S 16°47.6'	264°39.9'	S 22°57.3'	239°24.5'	S 22°27.8'	334°21.3'	S 3°50.1'
10	315°56.7'	S 16°48.6'	279°41.8'	S 22°57.3'	254°26.8'	S 22°27.8'	349°22.2'	S 3°50.8'
11	330°56.1'	S 16°49.6'	294°43.8'	S 22°57.4'	269°29.1'	S 22°27.8'	4°23.2'	S 3°51.4'
12	345°55.5'	S 16°50.6'	309°45.8'	S 22°57.4'	284°31.4'	S 22°27.8'	19°24.2'	S 3°52.1'
13	0°54.9'	S 16°51.5'	324°47.8'	S 22°57.4'	299°33.8'	S 22°27.8'	34°25.2'	S 3°52.7'
14	15°54.2'	S 16°52.5'	339°49.8'	S 22°57.5'	314°36.1'	S 22°27.8'	49°26.1'	S 3°53.3'
15	30°53.6'	S 16°53.5'	354°51.8'	S 22°57.5'	329°38.4'	S 22°27.8'	64°27.1'	S 3°54.0'
16	45°53.0'	S 16°54.5'	9°53.7'	S 22°57.5'	344°40.7'	S 22°27.8'	79°28.1'	S 3°54.6'
17	60°52.4'	S 16°55.4'	24°55.7'	S 22°57.6'	359°43.0'	S 22°27.7'	94°29.1'	S 3°55.3'
18	75°51.8'	S 16°56.4'	39°57.7'	S 22°57.6'	14°45.3'	S 22°27.7'	109°30.0'	S 3°55.9'
19	90°51.1'	S 16°57.4'	54°59.7'	S 22°57.6'	29°47.7'	S 22°27.7'	124°31.0'	S 3°56.6'
20	105°50.5'	S 16°58.4'	70°01.7'	S 22°57.7'	44°50.0'	S 22°27.7'	139°32.0'	S 3°57.2'
21	120°49.9'	S 16°59.3'	85°03.6'	S 22°57.7'	59°52.3'	S 22°27.7'	154°32.9'	S 3°57.9'
22	135°49.3'	S 17°00.3'	100°05.6'	S 22°57.7'	74°54.6'	S 22°27.7'	169°33.9'	S 3°58.5'
23	150°48.6'	S 17°01.3'	115°07.6'	S 22°57.8'	89°56.9'	S 22°27.7'	184°34.9'	S 3°59.1'

Wed Oct 23, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.6		Mars +1.8	
	v = -0.6' d = 1.0'		v = 2.0' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	165°48.0'	S 17°02.3'	130°09.6'	S 22°57.8'	104°59.2'	S 22°27.7'	199°35.9'	S 3°59.8'
1	180°47.4'	S 17°03.2'	145°11.6'	S 22°57.8'	120°01.6'	S 22°27.7'	214°36.8'	S 4°00.4'
2	195°46.8'	S 17°04.2'	160°13.5'	S 22°57.9'	135°03.9'	S 22°27.6'	229°37.8'	S 4°01.1'
3	210°46.1'	S 17°05.2'	175°15.5'	S 22°57.9'	150°06.2'	S 22°27.6'	244°38.8'	S 4°01.7'
4	225°45.5'	S 17°06.1'	190°17.5'	S 22°57.9'	165°08.5'	S 22°27.6'	259°39.7'	S 4°02.4'
5	240°44.9'	S 17°07.1'	205°19.5'	S 22°58.0'	180°10.8'	S 22°27.6'	274°40.7'	S 4°03.0'
6	255°44.3'	S 17°08.1'	220°21.5'	S 22°58.0'	195°13.1'	S 22°27.6'	289°41.7'	S 4°03.7'
7	270°43.6'	S 17°09.0'	235°23.4'	S 22°58.0'	210°15.5'	S 22°27.6'	304°42.7'	S 4°04.3'
8	285°43.0'	S 17°10.0'	250°25.4'	S 22°58.1'	225°17.8'	S 22°27.6'	319°43.6'	S 4°04.9'
9	300°42.4'	S 17°11.0'	265°27.4'	S 22°58.1'	240°20.1'	S 22°27.6'	334°44.6'	S 4°05.6'
10	315°41.7'	S 17°11.9'	280°29.4'	S 22°58.1'	255°22.4'	S 22°27.6'	349°45.6'	S 4°06.2'
11	330°41.1'	S 17°12.9'	295°31.4'	S 22°58.2'	270°24.7'	S 22°27.5'	4°46.5'	S 4°06.9'
12	345°40.5'	S 17°13.9'	310°33.3'	S 22°58.2'	285°27.0'	S 22°27.5'	19°47.5'	S 4°07.5'
13	0°39.8'	S 17°14.8'	325°35.3'	S 22°58.2'	300°29.3'	S 22°27.5'	34°48.5'	S 4°08.2'
14	15°39.2'	S 17°15.8'	340°37.3'	S 22°58.3'	315°31.7'	S 22°27.5'	49°49.5'	S 4°08.8'
15	30°38.6'	S 17°16.7'	355°39.3'	S 22°58.3'	330°34.0'	S 22°27.5'	64°50.4'	S 4°09.5'
16	45°37.9'	S 17°17.7'	10°41.2'	S 22°58.3'	345°36.3'	S 22°27.5'	79°51.4'	S 4°10.1'
17	60°37.3'	S 17°18.7'	25°43.2'	S 22°58.4'	0°38.6'	S 22°27.5'	94°52.4'	S 4°10.7'
18	75°36.7'	S 17°19.6'	40°45.2'	S 22°58.4'	15°40.9'	S 22°27.5'	109°53.3'	S 4°11.4'
19	90°36.0'	S 17°20.6'	55°47.2'	S 22°58.4'	30°43.2'	S 22°27.4'	124°54.3'	S 4°12.0'
20	105°35.4'	S 17°21.5'	70°49.2'	S 22°58.5'	45°45.5'	S 22°27.4'	139°55.3'	S 4°12.7'
21	120°34.8'	S 17°22.5'	85°51.1'	S 22°58.5'	60°47.8'	S 22°27.4'	154°56.2'	S 4°13.3'
22	135°34.1'	S 17°23.4'	100°53.1'	S 22°58.5'	75°50.2'	S 22°27.4'	169°57.2'	S 4°14.0'
23	150°33.5'	S 17°24.4'	115°55.1'	S 22°58.6'	90°52.5'	S 22°27.4'	184°58.2'	S 4°14.6'

Thu Oct 24, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.6		Mars +1.8	
	v = -0.6' d = 0.9'		v = 2.0' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	165°32.9'	S 17°25.3'	130°57.1'	S 22°58.6'	105°54.8'	S 22°27.4'	199°59.2'	S 4°15.2'
1	180°32.2'	S 17°26.3'	145°59.0'	S 22°58.6'	120°57.1'	S 22°27.4'	215°00.1'	S 4°15.9'
2	195°31.6'	S 17°27.2'	161°01.0'	S 22°58.7'	135°59.4'	S 22°27.4'	230°01.1'	S 4°16.5'
3	210°30.9'	S 17°28.2'	176°03.0'	S 22°58.7'	151°01.7'	S 22°27.4'	245°02.1'	S 4°17.2'
4	225°30.3'	S 17°29.1'	191°05.0'	S 22°58.7'	166°04.0'	S 22°27.3'	260°03.0'	S 4°17.8'
5	240°29.7'	S 17°30.1'	206°06.9'	S 22°58.8'	181°06.3'	S 22°27.3'	275°04.0'	S 4°18.5'
6	255°29.0'	S 17°31.0'	221°08.9'	S 22°58.8'	196°08.7'	S 22°27.3'	290°05.0'	S 4°19.1'
7	270°28.4'	S 17°32.0'	236°10.9'	S 22°58.8'	211°11.0'	S 22°27.3'	305°05.9'	S 4°19.7'
8	285°27.7'	S 17°32.9'	251°12.9'	S 22°58.9'	226°13.3'	S 22°27.3'	320°06.9'	S 4°20.4'
9	300°27.1'	S 17°33.9'	266°14.8'	S 22°58.9'	241°15.6'	S 22°27.3'	335°07.9'	S 4°21.0'
10	315°26.5'	S 17°34.8'	281°16.8'	S 22°58.9'	256°17.9'	S 22°27.3'	350°08.9'	S 4°21.7'
11	330°25.8'	S 17°35.8'	296°18.8'	S 22°59.0'	271°20.2'	S 22°27.3'	5°09.8'	S 4°22.3'
12	345°25.2'	S 17°36.7'	311°20.8'	S 22°59.0'	286°22.5'	S 22°27.2'	20°10.8'	S 4°23.0'
13	0°24.5'	S 17°37.7'	326°22.7'	S 22°59.0'	301°24.8'	S 22°27.2'	35°11.8'	S 4°23.6'
14	15°23.9'	S 17°38.6'	341°24.7'	S 22°59.1'	316°27.1'	S 22°27.2'	50°12.7'	S 4°24.2'
15	30°23.2'	S 17°39.5'	356°26.7'	S 22°59.1'	331°29.4'	S 22°27.2'	65°13.7'	S 4°24.9'
16	45°22.6'	S 17°40.5'	11°28.7'	S 22°59.1'	346°31.8'	S 22°27.2'	80°14.7'	S 4°25.5'
17	60°21.9'	S 17°41.4'	26°30.6'	S 22°59.2'	1°34.1'	S 22°27.2'	95°15.6'	S 4°26.2'
18	75°21.3'	S 17°42.4'	41°32.6'	S 22°59.2'	16°36.4'	S 22°27.2'	110°16.6'	S 4°26.8'
19	90°20.7'	S 17°43.3'	56°34.6'	S 22°59.2'	31°38.7'	S 22°27.2'	125°17.6'	S 4°27.5'
20	105°20.0'	S 17°44.2'	71°36.5'	S 22°59.3'	46°41.0'	S 22°27.1'	140°18.5'	S 4°28.1'
21	120°19.4'	S 17°45.2'	86°38.5'	S 22°59.3'	61°43.3'	S 22°27.1'	155°19.5'	S 4°28.7'
22	135°18.7'	S 17°46.1'	101°40.5'	S 22°59.3'	76°45.6'	S 22°27.1'	170°20.5'	S 4°29.4'
23	150°18.1'	S 17°47.0'	116°42.5'	S 22°59.4'	91°47.9'	S 22°27.1'	185°21.4'	S 4°30.0'

Fri Oct 25, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.6		Mars +1.8	
	v = -0.7' d = 0.9'		v = 2.0' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	165°17.4'	S 17°48.0'	131°44.4'	S 22°59.4'	106°50.2'	S 22°27.1'	200°22.4'	S 4°30.7'
1	180°16.8'	S 17°48.9'	146°46.4'	S 22°59.4'	121°52.5'	S 22°27.1'	215°23.4'	S 4°31.3'
2	195°16.1'	S 17°49.8'	161°48.4'	S 22°59.5'	136°54.8'	S 22°27.1'	230°24.4'	S 4°32.0'
3	210°15.5'	S 17°50.8'	176°50.4'	S 22°59.5'	151°57.2'	S 22°27.1'	245°25.3'	S 4°32.6'
4	225°14.8'	S 17°51.7'	191°52.3'	S 22°59.5'	166°59.5'	S 22°27.1'	260°26.3'	S 4°33.2'
5	240°14.1'	S 17°52.6'	206°54.3'	S 22°59.5'	182°01.8'	S 22°27.0'	275°27.3'	S 4°33.9'
6	255°13.5'	S 17°53.6'	221°56.3'	S 22°59.6'	197°04.1'	S 22°27.0'	290°28.2'	S 4°34.5'
7	270°12.8'	S 17°54.5'	236°58.2'	S 22°59.6'	212°06.4'	S 22°27.0'	305°29.2'	S 4°35.2'
8	285°12.2'	S 17°55.4'	252°00.2'	S 22°59.6'	227°08.7'	S 22°27.0'	320°30.2'	S 4°35.8'
9	300°11.5'	S 17°56.4'	267°02.2'	S 22°59.7'	242°11.0'	S 22°27.0'	335°31.1'	S 4°36.5'
10	315°10.9'	S 17°57.3'	282°04.1'	S 22°59.7'	257°13.3'	S 22°27.0'	350°32.1'	S 4°37.1'
11	330°10.2'	S 17°58.2'	297°06.1'	S 22°59.7'	272°15.6'	S 22°27.0'	5°33.1'	S 4°37.7'
12	345°09.6'	S 17°59.1'	312°08.1'	S 22°59.8'	287°17.9'	S 22°27.0'	20°34.0'	S 4°38.4'
13	0°08.9'	S 18°00.0'	327°10.1'	S 22°59.8'	302°20.2'	S 22°26.9'	35°35.0'	S 4°39.0'
14	15°08.2'	S 18°01.0'	342°12.0'	S 22°59.8'	317°22.5'	S 22°26.9'	50°36.0'	S 4°39.7'
15	30°07.6'	S 18°01.9'	357°14.0'	S 22°59.9'	332°24.8'	S 22°26.9'	65°36.9'	S 4°40.3'
16	45°06.9'	S 18°02.8'	12°16.0'	S 22°59.9'	347°27.1'	S 22°26.9'	80°37.9'	S 4°40.9'
17	60°06.3'	S 18°03.7'	27°17.9'	S 22°59.9'	2°29.4'	S 22°26.9'	95°38.9'	S 4°41.6'
18	75°05.6'	S 18°04.7'	42°19.9'	S 22°60.0'	17°31.8'	S 22°26.9'	110°39.8'	S 4°42.2'
19	90°04.9'	S 18°05.6'	57°21.9'	S 22°60.0'	32°34.1'	S 22°26.9'	125°40.8'	S 4°42.9'
20	105°04.3'	S 18°06.5'	72°23.8'	S 23°00.0'	47°36.4'	S 22°26.8'	140°41.8'	S 4°43.5'
21	120°03.6'	S 18°07.4'	87°25.8'	S 23°00.1'	62°38.7'	S 22°26.8'	155°42.7'	S 4°44.2'
22	135°03.0'	S 18°08.3'	102°27.8'	S 23°00.1'	77°41.0'	S 22°26.8'	170°43.7'	S 4°44.8'
23	150°02.3'	S 18°09.2'	117°29.7'	S 23°00.1'	92°43.3'	S 22°26.8'	185°44.7'	S 4°45.4'

Sat Oct 26, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.6		Mars +1.8	
	v = -0.7' d = 0.9'		v = 2.0' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	165°01.6'	S 18°10.2'	132°31.7'	S 23°00.2'	107°45.6'	S 22°26.8'	200°45.6'	S 4°46.1'
1	180°01.0'	S 18°11.1'	147°33.7'	S 23°00.2'	122°47.9'	S 22°26.8'	215°46.6'	S 4°46.7'
2	195°00.3'	S 18°12.0'	162°35.6'	S 23°00.2'	137°50.2'	S 22°26.8'	230°47.6'	S 4°47.4'
3	209°59.6'	S 18°12.9'	177°37.6'	S 23°00.3'	152°52.5'	S 22°26.8'	245°48.5'	S 4°48.0'
4	224°59.0'	S 18°13.8'	192°39.6'	S 23°00.3'	167°54.8'	S 22°26.7'	260°49.5'	S 4°48.6'
5	239°58.3'	S 18°14.7'	207°41.5'	S 23°00.3'	182°57.1'	S 22°26.7'	275°50.5'	S 4°49.3'
6	254°57.6'	S 18°15.6'	222°43.5'	S 23°00.4'	197°59.4'	S 22°26.7'	290°51.4'	S 4°49.9'
7	269°57.0'	S 18°16.5'	237°45.5'	S 23°00.4'	213°01.7'	S 22°26.7'	305°52.4'	S 4°50.6'
8	284°56.3'	S 18°17.4'	252°47.4'	S 23°00.4'	228°04.0'	S 22°26.7'	320°53.4'	S 4°51.2'
9	299°55.6'	S 18°18.3'	267°49.4'	S 23°00.4'	243°06.3'	S 22°26.7'	335°54.3'	S 4°51.8'
10	314°55.0'	S 18°19.3'	282°51.4'	S 23°00.5'	258°08.6'	S 22°26.7'	350°55.3'	S 4°52.5'
11	329°54.3'	S 18°20.2'	297°53.3'	S 23°00.5'	273°10.9'	S 22°26.7'	5°56.3'	S 4°53.1'
12	344°53.6'	S 18°21.1'	312°55.3'	S 23°00.5'	288°13.2'	S 22°26.6'	20°57.2'	S 4°53.8'
13	359°53.0'	S 18°22.0'	327°57.3'	S 23°00.6'	303°15.5'	S 22°26.6'	35°58.2'	S 4°54.4'
14	14°52.3'	S 18°22.9'	342°59.2'	S 23°00.6'	318°17.8'	S 22°26.6'	50°59.2'	S 4°55.0'
15	29°51.6'	S 18°23.8'	358°01.2'	S 23°00.6'	333°20.1'	S 22°26.6'	66°00.1'	S 4°55.7'
16	44°50.9'	S 18°24.7'	13°03.2'	S 23°00.7'	348°22.4'	S 22°26.6'	81°01.1'	S 4°56.3'
17	59°50.3'	S 18°25.6'	28°05.1'	S 23°00.7'	3°24.7'	S 22°26.6'	96°02.0'	S 4°57.0'
18	74°49.6'	S 18°26.5'	43°07.1'	S 23°00.7'	18°27.0'	S 22°26.6'	111°03.0'	S 4°57.6'
19	89°48.9'	S 18°27.4'	58°09.1'	S 23°00.8'	33°29.3'	S 22°26.6'	126°04.0'	S 4°58.2'
20	104°48.3'	S 18°28.3'	73°11.0'	S 23°00.8'	48°31.6'	S 22°26.5'	141°04.9'	S 4°58.9'
21	119°47.6'	S 18°29.2'	88°13.0'	S 23°00.8'	63°33.9'	S 22°26.5'	156°05.9'	S 4°59.5'
22	134°46.9'	S 18°30.1'	103°14.9'	S 23°00.9'	78°36.2'	S 22°26.5'	171°06.9'	S 5°00.2'
23	149°46.2'	S 18°31.0'	118°16.9'	S 23°00.9'	93°38.5'	S 22°26.5'	186°07.8'	S 5°00.8'

Sun Oct 27, 2019 UTC

UTC	Venus -3.8 v = -0.7' d = 0.9'		Jupiter -1.8 v = 2.0' d = 0.0'		Saturn +0.6 v = 2.3' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	164°45.6'	S 18°31.9'	133°18.9'	S 23°00.9'	108°40.8'	S 22°26.5'	201°08.8'	S 5°01.5'
1	179°44.9'	S 18°32.7'	148°20.8'	S 23°01.0'	123°43.1'	S 22°26.5'	216°09.8'	S 5°02.1'
2	194°44.2'	S 18°33.6'	163°22.8'	S 23°01.0'	138°45.5'	S 22°26.5'	231°10.7'	S 5°02.7'
3	209°43.5'	S 18°34.5'	178°24.8'	S 23°01.0'	153°47.8'	S 22°26.4'	246°11.7'	S 5°03.4'
4	224°42.8'	S 18°35.4'	193°26.7'	S 23°01.0'	168°50.1'	S 22°26.4'	261°12.7'	S 5°04.0'
5	239°42.2'	S 18°36.3'	208°28.7'	S 23°01.1'	183°52.4'	S 22°26.4'	276°13.6'	S 5°04.6'
6	254°41.5'	S 18°37.2'	223°30.7'	S 23°01.1'	198°54.7'	S 22°26.4'	291°14.6'	S 5°05.3'
7	269°40.8'	S 18°38.1'	238°32.6'	S 23°01.1'	213°57.0'	S 22°26.4'	306°15.5'	S 5°05.9'
8	284°40.1'	S 18°39.0'	253°34.6'	S 23°01.2'	228°59.3'	S 22°26.4'	321°16.5'	S 5°06.6'
9	299°39.4'	S 18°39.9'	268°36.5'	S 23°01.2'	244°01.5'	S 22°26.4'	336°17.5'	S 5°07.2'
10	314°38.8'	S 18°40.7'	283°38.5'	S 23°01.2'	259°03.8'	S 22°26.4'	351°18.4'	S 5°07.8'
11	329°38.1'	S 18°41.6'	298°40.5'	S 23°01.3'	274°06.1'	S 22°26.3'	6°19.4'	S 5°08.5'
12	344°37.4'	S 18°42.5'	313°42.4'	S 23°01.3'	289°08.4'	S 22°26.3'	21°20.4'	S 5°09.1'
13	359°36.7'	S 18°43.4'	328°44.4'	S 23°01.3'	304°10.7'	S 22°26.3'	36°21.3'	S 5°09.8'
14	14°36.0'	S 18°44.3'	343°46.3'	S 23°01.4'	319°13.0'	S 22°26.3'	51°22.3'	S 5°10.4'
15	29°35.3'	S 18°45.2'	358°48.3'	S 23°01.4'	334°15.3'	S 22°26.3'	66°23.3'	S 5°11.0'
16	44°34.7'	S 18°46.0'	13°50.3'	S 23°01.4'	349°17.6'	S 22°26.3'	81°24.2'	S 5°11.7'
17	59°34.0'	S 18°46.9'	28°52.2'	S 23°01.5'	4°19.9'	S 22°26.3'	96°25.2'	S 5°12.3'
18	74°33.3'	S 18°47.8'	43°54.2'	S 23°01.5'	19°22.2'	S 22°26.2'	111°26.1'	S 5°13.0'
19	89°32.6'	S 18°48.7'	58°56.1'	S 23°01.5'	34°24.5'	S 22°26.2'	126°27.1'	S 5°13.6'
20	104°31.9'	S 18°49.6'	73°58.1'	S 23°01.5'	49°26.8'	S 22°26.2'	141°28.1'	S 5°14.2'
21	119°31.2'	S 18°50.4'	89°00.1'	S 23°01.6'	64°29.1'	S 22°26.2'	156°29.0'	S 5°14.9'
22	134°30.5'	S 18°51.3'	104°02.0'	S 23°01.6'	79°31.4'	S 22°26.2'	171°30.0'	S 5°15.5'
23	149°29.8'	S 18°52.2'	119°04.0'	S 23°01.6'	94°33.7'	S 22°26.2'	186°31.0'	S 5°16.2'

Mon Oct 28, 2019 UTC

UTC	Venus -3.8 v = -0.7' d = 0.9'		Jupiter -1.8 v = 2.0' d = 0.0'		Saturn +0.6 v = 2.3' d = 0.0'		Mars +1.8 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	164°29.2'	S 18°53.1'	134°05.9'	S 23°01.7'	109°36.0'	S 22°26.2'	201°31.9'	S 5°16.8'
1	179°28.5'	S 18°53.9'	149°07.9'	S 23°01.7'	124°38.3'	S 22°26.1'	216°32.9'	S 5°17.4'
2	194°27.8'	S 18°54.8'	164°09.9'	S 23°01.7'	139°40.6'	S 22°26.1'	231°33.8'	S 5°18.1'
3	209°27.1'	S 18°55.7'	179°11.8'	S 23°01.8'	154°42.9'	S 22°26.1'	246°34.8'	S 5°18.7'
4	224°26.4'	S 18°56.5'	194°13.8'	S 23°01.8'	169°45.2'	S 22°26.1'	261°35.8'	S 5°19.4'
5	239°25.7'	S 18°57.4'	209°15.7'	S 23°01.8'	184°47.5'	S 22°26.1'	276°36.7'	S 5°20.0'
6	254°25.0'	S 18°58.3'	224°17.7'	S 23°01.9'	199°49.8'	S 22°26.1'	291°37.7'	S 5°20.6'
7	269°24.3'	S 18°59.2'	239°19.7'	S 23°01.9'	214°52.1'	S 22°26.1'	306°38.7'	S 5°21.3'
8	284°23.6'	S 19°00.0'	254°21.6'	S 23°01.9'	229°54.4'	S 22°26.0'	321°39.6'	S 5°21.9'
9	299°22.9'	S 19°00.9'	269°23.6'	S 23°01.9'	244°56.7'	S 22°26.0'	336°40.6'	S 5°22.5'
10	314°22.2'	S 19°01.8'	284°25.5'	S 23°02.0'	259°59.0'	S 22°26.0'	351°41.5'	S 5°23.2'
11	329°21.5'	S 19°02.6'	299°27.5'	S 23°02.0'	275°01.3'	S 22°26.0'	6°42.5'	S 5°23.8'
12	344°20.8'	S 19°03.5'	314°29.4'	S 23°02.0'	290°03.6'	S 22°26.0'	21°43.5'	S 5°24.5'
13	359°20.1'	S 19°04.3'	329°31.4'	S 23°02.1'	305°05.9'	S 22°26.0'	36°44.4'	S 5°25.1'
14	14°19.5'	S 19°05.2'	344°33.4'	S 23°02.1'	320°08.2'	S 22°26.0'	51°45.4'	S 5°25.7'
15	29°18.8'	S 19°06.1'	359°35.3'	S 23°02.1'	335°10.5'	S 22°26.0'	66°46.3'	S 5°26.4'
16	44°18.1'	S 19°06.9'	14°37.3'	S 23°02.2'	350°12.8'	S 22°25.9'	81°47.3'	S 5°27.0'
17	59°17.4'	S 19°07.8'	29°39.2'	S 23°02.2'	5°15.1'	S 22°25.9'	96°48.3'	S 5°27.6'
18	74°16.7'	S 19°08.6'	44°41.2'	S 23°02.2'	20°17.3'	S 22°25.9'	111°49.2'	S 5°28.3'
19	89°16.0'	S 19°09.5'	59°43.1'	S 23°02.3'	35°19.6'	S 22°25.9'	126°50.2'	S 5°28.9'
20	104°15.3'	S 19°10.4'	74°45.1'	S 23°02.3'	50°21.9'	S 22°25.9'	141°51.2'	S 5°29.6'
21	119°14.6'	S 19°11.2'	89°47.0'	S 23°02.3'	65°24.2'	S 22°25.9'	156°52.1'	S 5°30.2'
22	134°13.9'	S 19°12.1'	104°49.0'	S 23°02.3'	80°26.5'	S 22°25.9'	171°53.1'	S 5°30.8'
23	149°13.2'	S 19°12.9'	119°51.0'	S 23°02.4'	95°28.8'	S 22°25.8'	186°54.0'	S 5°31.5'

Tue Oct 29, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.6		Mars +1.8	
	v = -0.7' d = 0.8'		v = 2.0' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	164°12.5'	S 19°13.8'	134°52.9'	S 23°02.4'	110°31.1'	S 22°25.8'	201°55.0'	S 5°32.1'
1	179°11.8'	S 19°14.6'	149°54.9'	S 23°02.4'	125°33.4'	S 22°25.8'	216°56.0'	S 5°32.8'
2	194°11.0'	S 19°15.5'	164°56.8'	S 23°02.5'	140°35.7'	S 22°25.8'	231°56.9'	S 5°33.4'
3	209°10.3'	S 19°16.3'	179°58.8'	S 23°02.5'	155°38.0'	S 22°25.8'	246°57.9'	S 5°34.0'
4	224°09.6'	S 19°17.2'	195°00.7'	S 23°02.5'	170°40.3'	S 22°25.8'	261°58.8'	S 5°34.7'
5	239°08.9'	S 19°18.0'	210°02.7'	S 23°02.6'	185°42.6'	S 22°25.8'	276°59.8'	S 5°35.3'
6	254°08.2'	S 19°18.9'	225°04.6'	S 23°02.6'	200°44.9'	S 22°25.7'	292°00.8'	S 5°35.9'
7	269°07.5'	S 19°19.7'	240°06.6'	S 23°02.6'	215°47.2'	S 22°25.7'	307°01.7'	S 5°36.6'
8	284°06.8'	S 19°20.6'	255°08.6'	S 23°02.7'	230°49.4'	S 22°25.7'	322°02.7'	S 5°37.2'
9	299°06.1'	S 19°21.4'	270°10.5'	S 23°02.7'	245°51.7'	S 22°25.7'	337°03.6'	S 5°37.8'
10	314°05.4'	S 19°22.2'	285°12.5'	S 23°02.7'	260°54.0'	S 22°25.7'	352°04.6'	S 5°38.5'
11	329°04.7'	S 19°23.1'	300°14.4'	S 23°02.7'	275°56.3'	S 22°25.7'	7°05.6'	S 5°39.1'
12	344°04.0'	S 19°23.9'	315°16.4'	S 23°02.8'	290°58.6'	S 22°25.7'	22°06.5'	S 5°39.8'
13	359°03.3'	S 19°24.8'	330°18.3'	S 23°02.8'	306°00.9'	S 22°25.6'	37°07.5'	S 5°40.4'
14	14°02.6'	S 19°25.6'	345°20.3'	S 23°02.8'	321°03.2'	S 22°25.6'	52°08.4'	S 5°41.0'
15	29°01.9'	S 19°26.5'	0°22.2'	S 23°02.9'	336°05.5'	S 22°25.6'	67°09.4'	S 5°41.7'
16	44°01.1'	S 19°27.3'	15°24.2'	S 23°02.9'	351°07.8'	S 22°25.6'	82°10.3'	S 5°42.3'
17	59°00.4'	S 19°28.1'	30°26.1'	S 23°02.9'	6°10.1'	S 22°25.6'	97°11.3'	S 5°42.9'
18	73°59.7'	S 19°29.0'	45°28.1'	S 23°03.0'	21°12.4'	S 22°25.6'	112°12.3'	S 5°43.6'
19	88°59.0'	S 19°29.8'	60°30.0'	S 23°03.0'	36°14.7'	S 22°25.5'	127°13.2'	S 5°44.2'
20	103°58.3'	S 19°30.6'	75°32.0'	S 23°03.0'	51°16.9'	S 22°25.5'	142°14.2'	S 5°44.9'
21	118°57.6'	S 19°31.5'	90°33.9'	S 23°03.0'	66°19.2'	S 22°25.5'	157°15.1'	S 5°45.5'
22	133°56.9'	S 19°32.3'	105°35.9'	S 23°03.1'	81°21.5'	S 22°25.5'	172°16.1'	S 5°46.1'
23	148°56.2'	S 19°33.1'	120°37.8'	S 23°03.1'	96°23.8'	S 22°25.5'	187°17.1'	S 5°46.8'

Wed Oct 30, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.6		Mars +1.8	
	v = -0.7' d = 0.8'		v = 1.9' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	163°55.4'	S 19°34.0'	135°39.8'	S 23°03.1'	111°26.1'	S 22°25.5'	202°18.0'	S 5°47.4'
1	178°54.7'	S 19°34.8'	150°41.7'	S 23°03.2'	126°28.4'	S 22°25.5'	217°19.0'	S 5°48.0'
2	193°54.0'	S 19°35.6'	165°43.7'	S 23°03.2'	141°30.7'	S 22°25.4'	232°19.9'	S 5°48.7'
3	208°53.3'	S 19°36.5'	180°45.6'	S 23°03.2'	156°33.0'	S 22°25.4'	247°20.9'	S 5°49.3'
4	223°52.6'	S 19°37.3'	195°47.6'	S 23°03.3'	171°35.3'	S 22°25.4'	262°21.9'	S 5°49.9'
5	238°51.9'	S 19°38.1'	210°49.5'	S 23°03.3'	186°37.5'	S 22°25.4'	277°22.8'	S 5°50.6'
6	253°51.1'	S 19°38.9'	225°51.5'	S 23°03.3'	201°39.8'	S 22°25.4'	292°23.8'	S 5°51.2'
7	268°50.4'	S 19°39.8'	240°53.4'	S 23°03.3'	216°42.1'	S 22°25.4'	307°24.7'	S 5°51.8'
8	283°49.7'	S 19°40.6'	255°55.4'	S 23°03.4'	231°44.4'	S 22°25.4'	322°25.7'	S 5°52.5'
9	298°49.0'	S 19°41.4'	270°57.3'	S 23°03.4'	246°46.7'	S 22°25.3'	337°26.6'	S 5°53.1'
10	313°48.3'	S 19°42.2'	285°59.3'	S 23°03.4'	261°49.0'	S 22°25.3'	352°27.6'	S 5°53.8'
11	328°47.5'	S 19°43.0'	301°01.2'	S 23°03.5'	276°51.3'	S 22°25.3'	7°28.6'	S 5°54.4'
12	343°46.8'	S 19°43.9'	316°03.2'	S 23°03.5'	291°53.6'	S 22°25.3'	22°29.5'	S 5°55.0'
13	358°46.1'	S 19°44.7'	331°05.1'	S 23°03.5'	306°55.9'	S 22°25.3'	37°30.5'	S 5°55.7'
14	13°45.4'	S 19°45.5'	346°07.1'	S 23°03.6'	321°58.1'	S 22°25.3'	52°31.4'	S 5°56.3'
15	28°44.6'	S 19°46.3'	1°09.0'	S 23°03.6'	337°00.4'	S 22°25.3'	67°32.4'	S 5°56.9'
16	43°43.9'	S 19°47.1'	16°11.0'	S 23°03.6'	352°02.7'	S 22°25.2'	82°33.3'	S 5°57.6'
17	58°43.2'	S 19°48.0'	31°12.9'	S 23°03.6'	7°05.0'	S 22°25.2'	97°34.3'	S 5°58.2'
18	73°42.5'	S 19°48.8'	46°14.9'	S 23°03.7'	22°07.3'	S 22°25.2'	112°35.3'	S 5°58.8'
19	88°41.7'	S 19°49.6'	61°16.8'	S 23°03.7'	37°09.6'	S 22°25.2'	127°36.2'	S 5°59.5'
20	103°41.0'	S 19°50.4'	76°18.8'	S 23°03.7'	52°11.9'	S 22°25.2'	142°37.2'	S 6°00.1'
21	118°40.3'	S 19°51.2'	91°20.7'	S 23°03.8'	67°14.2'	S 22°25.2'	157°38.1'	S 6°00.7'
22	133°39.6'	S 19°52.0'	106°22.7'	S 23°03.8'	82°16.4'	S 22°25.1'	172°39.1'	S 6°01.4'
23	148°38.8'	S 19°52.8'	121°24.6'	S 23°03.8'	97°18.7'	S 22°25.1'	187°40.0'	S 6°02.0'

Thu Oct 31, 2019 UTC

UTC	Venus -3.8		Jupiter -1.8		Saturn +0.6		Mars +1.8	
	v = -0.7' d = 0.8'		v = 1.9' d = 0.0'		v = 2.3' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	163°38.1'	S 19°53.6'	136°26.6'	S 23°03.8'	112°21.0'	S 22°25.1'	202°41.0'	S 6°02.6'
1	178°37.4'	S 19°54.4'	151°28.5'	S 23°03.9'	127°23.3'	S 22°25.1'	217°41.9'	S 6°03.3'
2	193°36.7'	S 19°55.2'	166°30.5'	S 23°03.9'	142°25.6'	S 22°25.1'	232°42.9'	S 6°03.9'
3	208°35.9'	S 19°56.1'	181°32.4'	S 23°03.9'	157°27.9'	S 22°25.1'	247°43.9'	S 6°04.6'
4	223°35.2'	S 19°56.9'	196°34.4'	S 23°04.0'	172°30.2'	S 22°25.1'	262°44.8'	S 6°05.2'
5	238°34.5'	S 19°57.7'	211°36.3'	S 23°04.0'	187°32.4'	S 22°25.0'	277°45.8'	S 6°05.8'
6	253°33.7'	S 19°58.5'	226°38.3'	S 23°04.0'	202°34.7'	S 22°25.0'	292°46.7'	S 6°06.5'
7	268°33.0'	S 19°59.3'	241°40.2'	S 23°04.1'	217°37.0'	S 22°25.0'	307°47.7'	S 6°07.1'
8	283°32.3'	S 20°00.1'	256°42.1'	S 23°04.1'	232°39.3'	S 22°25.0'	322°48.6'	S 6°07.7'
9	298°31.5'	S 20°00.9'	271°44.1'	S 23°04.1'	247°41.6'	S 22°25.0'	337°49.6'	S 6°08.4'
10	313°30.8'	S 20°01.7'	286°46.0'	S 23°04.1'	262°43.9'	S 22°25.0'	352°50.6'	S 6°09.0'
11	328°30.1'	S 20°02.5'	301°48.0'	S 23°04.2'	277°46.1'	S 22°24.9'	7°51.5'	S 6°09.6'
12	343°29.3'	S 20°03.3'	316°49.9'	S 23°04.2'	292°48.4'	S 22°24.9'	22°52.5'	S 6°10.3'
13	358°28.6'	S 20°04.1'	331°51.9'	S 23°04.2'	307°50.7'	S 22°24.9'	37°53.4'	S 6°10.9'
14	13°27.9'	S 20°04.9'	346°53.8'	S 23°04.3'	322°53.0'	S 22°24.9'	52°54.4'	S 6°11.5'
15	28°27.1'	S 20°05.7'	1°55.8'	S 23°04.3'	337°55.3'	S 22°24.9'	67°55.3'	S 6°12.2'
16	43°26.4'	S 20°06.4'	16°57.7'	S 23°04.3'	352°57.6'	S 22°24.9'	82°56.3'	S 6°12.8'
17	58°25.7'	S 20°07.2'	31°59.7'	S 23°04.3'	7°59.9'	S 22°24.9'	97°57.2'	S 6°13.4'
18	73°24.9'	S 20°08.0'	47°01.6'	S 23°04.4'	23°02.1'	S 22°24.8'	112°58.2'	S 6°14.1'
19	88°24.2'	S 20°08.8'	62°03.5'	S 23°04.4'	38°04.4'	S 22°24.8'	127°59.1'	S 6°14.7'
20	103°23.4'	S 20°09.6'	77°05.5'	S 23°04.4'	53°06.7'	S 22°24.8'	143°00.1'	S 6°15.3'
21	118°22.7'	S 20°10.4'	92°07.4'	S 23°04.5'	68°09.0'	S 22°24.8'	158°01.1'	S 6°16.0'
22	133°22.0'	S 20°11.2'	107°09.4'	S 23°04.5'	83°11.3'	S 22°24.8'	173°02.0'	S 6°16.6'
23	148°21.2'	S 20°12.0'	122°11.3'	S 23°04.5'	98°13.6'	S 22°24.8'	188°03.0'	S 6°17.2'