

Sun Sep 1, 2019 UTC

UTC	Venus -3.8		Jupiter -2.1		Saturn +0.3		Mars +1.7	
	v = -0.4' d = 1.2'		v = 2.3' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	174°50.5'	N 7°55.6'	85°57.4'	S 22°16.1'	54°31.7'	S 22°27.3'	179°04.7'	N 9°17.4'
1	189°50.1'	N 7°54.4'	100°59.7'	S 22°16.1'	69°34.2'	S 22°27.3'	194°05.7'	N 9°16.8'
2	204°49.7'	N 7°53.2'	116°02.0'	S 22°16.1'	84°36.8'	S 22°27.3'	209°06.7'	N 9°16.2'
3	219°49.3'	N 7°52.0'	131°04.3'	S 22°16.2'	99°39.3'	S 22°27.3'	224°07.6'	N 9°15.6'
4	234°48.8'	N 7°50.8'	146°06.6'	S 22°16.2'	114°41.9'	S 22°27.3'	239°08.6'	N 9°15.0'
5	249°48.4'	N 7°49.6'	161°08.9'	S 22°16.2'	129°44.4'	S 22°27.4'	254°09.6'	N 9°14.4'
6	264°48.0'	N 7°48.4'	176°11.2'	S 22°16.2'	144°46.9'	S 22°27.4'	269°10.5'	N 9°13.8'
7	279°47.6'	N 7°47.2'	191°13.5'	S 22°16.3'	159°49.5'	S 22°27.4'	284°11.5'	N 9°13.2'
8	294°47.1'	N 7°46.0'	206°15.8'	S 22°16.3'	174°52.0'	S 22°27.4'	299°12.5'	N 9°12.6'
9	309°46.7'	N 7°44.8'	221°18.1'	S 22°16.3'	189°54.5'	S 22°27.4'	314°13.5'	N 9°11.9'
10	324°46.3'	N 7°43.6'	236°20.4'	S 22°16.3'	204°57.1'	S 22°27.4'	329°14.4'	N 9°11.3'
11	339°45.9'	N 7°42.4'	251°22.7'	S 22°16.4'	219°59.6'	S 22°27.4'	344°15.4'	N 9°10.7'
12	354°45.5'	N 7°41.2'	266°25.0'	S 22°16.4'	235°02.2'	S 22°27.4'	359°16.4'	N 9°10.1'
13	9°45.0'	N 7°40.0'	281°27.3'	S 22°16.4'	250°04.7'	S 22°27.5'	14°17.3'	N 9°09.5'
14	24°44.6'	N 7°38.8'	296°29.6'	S 22°16.4'	265°07.2'	S 22°27.5'	29°18.3'	N 9°08.9'
15	39°44.2'	N 7°37.6'	311°31.9'	S 22°16.5'	280°09.8'	S 22°27.5'	44°19.3'	N 9°08.3'
16	54°43.8'	N 7°36.4'	326°34.2'	S 22°16.5'	295°12.3'	S 22°27.5'	59°20.3'	N 9°07.7'
17	69°43.4'	N 7°35.2'	341°36.5'	S 22°16.5'	310°14.8'	S 22°27.5'	74°21.2'	N 9°07.1'
18	84°42.9'	N 7°34.0'	356°38.7'	S 22°16.5'	325°17.4'	S 22°27.5'	89°22.2'	N 9°06.5'
19	99°42.5'	N 7°32.8'	11°41.0'	S 22°16.6'	340°19.9'	S 22°27.5'	104°23.2'	N 9°05.9'
20	114°42.1'	N 7°31.6'	26°43.3'	S 22°16.6'	355°22.4'	S 22°27.5'	119°24.2'	N 9°05.3'
21	129°41.7'	N 7°30.4'	41°45.6'	S 22°16.6'	10°25.0'	S 22°27.5'	134°25.1'	N 9°04.7'
22	144°41.3'	N 7°29.2'	56°47.9'	S 22°16.6'	25°27.5'	S 22°27.6'	149°26.1'	N 9°04.1'
23	159°40.9'	N 7°28.0'	71°50.2'	S 22°16.7'	40°30.0'	S 22°27.6'	164°27.1'	N 9°03.5'

Mon Sep 2, 2019 UTC

UTC	Venus -3.8		Jupiter -2.1		Saturn +0.3		Mars +1.7	
	v = -0.4' d = 1.2'		v = 2.3' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	174°40.4'	N 7°26.8'	86°52.5'	S 22°16.7'	55°32.6'	S 22°27.6'	179°28.0'	N 9°02.8'
1	189°40.0'	N 7°25.6'	101°54.8'	S 22°16.7'	70°35.1'	S 22°27.6'	194°29.0'	N 9°02.2'
2	204°39.6'	N 7°24.4'	116°57.1'	S 22°16.7'	85°37.6'	S 22°27.6'	209°30.0'	N 9°01.6'
3	219°39.2'	N 7°23.2'	131°59.4'	S 22°16.8'	100°40.2'	S 22°27.6'	224°31.0'	N 9°01.0'
4	234°38.8'	N 7°22.0'	147°01.7'	S 22°16.8'	115°42.7'	S 22°27.6'	239°31.9'	N 9°00.4'
5	249°38.4'	N 7°20.8'	162°04.0'	S 22°16.8'	130°45.2'	S 22°27.6'	254°32.9'	N 8°59.8'
6	264°37.9'	N 7°19.6'	177°06.2'	S 22°16.8'	145°47.8'	S 22°27.6'	269°33.9'	N 8°59.2'
7	279°37.5'	N 7°18.4'	192°08.5'	S 22°16.9'	160°50.3'	S 22°27.7'	284°34.9'	N 8°58.6'
8	294°37.1'	N 7°17.2'	207°10.8'	S 22°16.9'	175°52.8'	S 22°27.7'	299°35.8'	N 8°58.0'
9	309°36.7'	N 7°16.0'	222°13.1'	S 22°16.9'	190°55.4'	S 22°27.7'	314°36.8'	N 8°57.4'
10	324°36.3'	N 7°14.8'	237°15.4'	S 22°16.9'	205°57.9'	S 22°27.7'	329°37.8'	N 8°56.8'
11	339°35.9'	N 7°13.6'	252°17.7'	S 22°17.0'	221°00.4'	S 22°27.7'	344°38.8'	N 8°56.2'
12	354°35.4'	N 7°12.4'	267°20.0'	S 22°17.0'	236°03.0'	S 22°27.7'	359°39.7'	N 8°55.6'
13	9°35.0'	N 7°11.2'	282°22.3'	S 22°17.0'	251°05.5'	S 22°27.7'	14°40.7'	N 8°54.9'
14	24°34.6'	N 7°09.9'	297°24.6'	S 22°17.0'	266°08.0'	S 22°27.7'	29°41.7'	N 8°54.3'
15	39°34.2'	N 7°08.7'	312°26.8'	S 22°17.1'	281°10.6'	S 22°27.7'	44°42.7'	N 8°53.7'
16	54°33.8'	N 7°07.5'	327°29.1'	S 22°17.1'	296°13.1'	S 22°27.8'	59°43.6'	N 8°53.1'
17	69°33.4'	N 7°06.3'	342°31.4'	S 22°17.1'	311°15.6'	S 22°27.8'	74°44.6'	N 8°52.5'
18	84°33.0'	N 7°05.1'	357°33.7'	S 22°17.1'	326°18.1'	S 22°27.8'	89°45.6'	N 8°51.9'
19	99°32.6'	N 7°03.9'	12°36.0'	S 22°17.2'	341°20.7'	S 22°27.8'	104°46.5'	N 8°51.3'
20	114°32.1'	N 7°02.7'	27°38.3'	S 22°17.2'	356°23.2'	S 22°27.8'	119°47.5'	N 8°50.7'
21	129°31.7'	N 7°01.5'	42°40.6'	S 22°17.2'	11°25.7'	S 22°27.8'	134°48.5'	N 8°50.1'
22	144°31.3'	N 7°00.3'	57°42.8'	S 22°17.2'	26°28.3'	S 22°27.8'	149°49.5'	N 8°49.5'
23	159°30.9'	N 6°59.1'	72°45.1'	S 22°17.3'	41°30.8'	S 22°27.8'	164°50.4'	N 8°48.9'

Tue Sep 3, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.3		Mars +1.7	
	v = -0.4' d = 1.2'		v = 2.3' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	174°30.5'	N 6°57.9'	87°47.4'	S 22°17.3'	56°33.3'	S 22°27.8'	179°51.4'	N 8°48.3'
1	189°30.1'	N 6°56.6'	102°49.7'	S 22°17.3'	71°35.9'	S 22°27.8'	194°52.4'	N 8°47.6'
2	204°29.7'	N 6°55.4'	117°52.0'	S 22°17.3'	86°38.4'	S 22°27.9'	209°53.4'	N 8°47.0'
3	219°29.3'	N 6°54.2'	132°54.3'	S 22°17.4'	101°40.9'	S 22°27.9'	224°54.3'	N 8°46.4'
4	234°28.9'	N 6°53.0'	147°56.5'	S 22°17.4'	116°43.4'	S 22°27.9'	239°55.3'	N 8°45.8'
5	249°28.4'	N 6°51.8'	162°58.8'	S 22°17.4'	131°46.0'	S 22°27.9'	254°56.3'	N 8°45.2'
6	264°28.0'	N 6°50.6'	178°01.1'	S 22°17.4'	146°48.5'	S 22°27.9'	269°57.3'	N 8°44.6'
7	279°27.6'	N 6°49.4'	193°03.4'	S 22°17.5'	161°51.0'	S 22°27.9'	284°58.2'	N 8°44.0'
8	294°27.2'	N 6°48.2'	208°05.7'	S 22°17.5'	176°53.6'	S 22°27.9'	299°59.2'	N 8°43.4'
9	309°26.8'	N 6°46.9'	223°08.0'	S 22°17.5'	191°56.1'	S 22°27.9'	315°00.2'	N 8°42.8'
10	324°26.4'	N 6°45.7'	238°10.2'	S 22°17.5'	206°58.6'	S 22°27.9'	330°01.2'	N 8°42.2'
11	339°26.0'	N 6°44.5'	253°12.5'	S 22°17.6'	222°01.1'	S 22°28.0'	345°02.1'	N 8°41.5'
12	354°25.6'	N 6°43.3'	268°14.8'	S 22°17.6'	237°03.7'	S 22°28.0'	0°03.1'	N 8°40.9'
13	9°25.2'	N 6°42.1'	283°17.1'	S 22°17.6'	252°06.2'	S 22°28.0'	15°04.1'	N 8°40.3'
14	24°24.8'	N 6°40.9'	298°19.4'	S 22°17.6'	267°08.7'	S 22°28.0'	30°05.1'	N 8°39.7'
15	39°24.4'	N 6°39.7'	313°21.6'	S 22°17.7'	282°11.3'	S 22°28.0'	45°06.0'	N 8°39.1'
16	54°24.0'	N 6°38.4'	328°23.9'	S 22°17.7'	297°13.8'	S 22°28.0'	60°07.0'	N 8°38.5'
17	69°23.5'	N 6°37.2'	343°26.2'	S 22°17.7'	312°16.3'	S 22°28.0'	75°08.0'	N 8°37.9'
18	84°23.1'	N 6°36.0'	358°28.5'	S 22°17.8'	327°18.8'	S 22°28.0'	90°09.0'	N 8°37.3'
19	99°22.7'	N 6°34.8'	13°30.8'	S 22°17.8'	342°21.4'	S 22°28.0'	105°10.0'	N 8°36.7'
20	114°22.3'	N 6°33.6'	28°33.0'	S 22°17.8'	357°23.9'	S 22°28.0'	120°10.9'	N 8°36.0'
21	129°21.9'	N 6°32.3'	43°35.3'	S 22°17.8'	12°26.4'	S 22°28.1'	135°11.9'	N 8°35.4'
22	144°21.5'	N 6°31.1'	58°37.6'	S 22°17.9'	27°28.9'	S 22°28.1'	150°12.9'	N 8°34.8'
23	159°21.1'	N 6°29.9'	73°39.9'	S 22°17.9'	42°31.5'	S 22°28.1'	165°13.9'	N 8°34.2'

Wed Sep 4, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.3		Mars +1.7	
	v = -0.4' d = 1.2'		v = 2.3' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	174°20.7'	N 6°28.7'	88°42.1'	S 22°17.9'	57°34.0'	S 22°28.1'	180°14.8'	N 8°33.6'
1	189°20.3'	N 6°27.5'	103°44.4'	S 22°17.9'	72°36.5'	S 22°28.1'	195°15.8'	N 8°33.0'
2	204°19.9'	N 6°26.3'	118°46.7'	S 22°18.0'	87°39.0'	S 22°28.1'	210°16.8'	N 8°32.4'
3	219°19.5'	N 6°25.0'	133°49.0'	S 22°18.0'	102°41.6'	S 22°28.1'	225°17.8'	N 8°31.8'
4	234°19.1'	N 6°23.8'	148°51.2'	S 22°18.0'	117°44.1'	S 22°28.1'	240°18.7'	N 8°31.2'
5	249°18.7'	N 6°22.6'	163°53.5'	S 22°18.0'	132°46.6'	S 22°28.1'	255°19.7'	N 8°30.5'
6	264°18.3'	N 6°21.4'	178°55.8'	S 22°18.1'	147°49.1'	S 22°28.2'	270°20.7'	N 8°29.9'
7	279°17.9'	N 6°20.2'	193°58.1'	S 22°18.1'	162°51.7'	S 22°28.2'	285°21.7'	N 8°29.3'
8	294°17.5'	N 6°18.9'	209°00.3'	S 22°18.1'	177°54.2'	S 22°28.2'	300°22.6'	N 8°28.7'
9	309°17.1'	N 6°17.7'	224°02.6'	S 22°18.1'	192°56.7'	S 22°28.2'	315°23.6'	N 8°28.1'
10	324°16.7'	N 6°16.5'	239°04.9'	S 22°18.2'	207°59.2'	S 22°28.2'	330°24.6'	N 8°27.5'
11	339°16.3'	N 6°15.3'	254°07.2'	S 22°18.2'	223°01.8'	S 22°28.2'	345°25.6'	N 8°26.9'
12	354°15.9'	N 6°14.0'	269°09.4'	S 22°18.2'	238°04.3'	S 22°28.2'	0°26.6'	N 8°26.3'
13	9°15.5'	N 6°12.8'	284°11.7'	S 22°18.2'	253°06.8'	S 22°28.2'	15°27.5'	N 8°25.6'
14	24°15.1'	N 6°11.6'	299°14.0'	S 22°18.3'	268°09.3'	S 22°28.2'	30°28.5'	N 8°25.0'
15	39°14.7'	N 6°10.4'	314°16.3'	S 22°18.3'	283°11.9'	S 22°28.2'	45°29.5'	N 8°24.4'
16	54°14.3'	N 6°09.2'	329°18.5'	S 22°18.3'	298°14.4'	S 22°28.3'	60°30.5'	N 8°23.8'
17	69°13.9'	N 6°07.9'	344°20.8'	S 22°18.4'	313°16.9'	S 22°28.3'	75°31.4'	N 8°23.2'
18	84°13.4'	N 6°06.7'	359°23.1'	S 22°18.4'	328°19.4'	S 22°28.3'	90°32.4'	N 8°22.6'
19	99°13.0'	N 6°05.5'	14°25.3'	S 22°18.4'	343°21.9'	S 22°28.3'	105°33.4'	N 8°22.0'
20	114°12.6'	N 6°04.3'	29°27.6'	S 22°18.4'	358°24.5'	S 22°28.3'	120°34.4'	N 8°21.3'
21	129°12.2'	N 6°03.0'	44°29.9'	S 22°18.5'	13°27.0'	S 22°28.3'	135°35.3'	N 8°20.7'
22	144°11.8'	N 6°01.8'	59°32.1'	S 22°18.5'	28°29.5'	S 22°28.3'	150°36.3'	N 8°20.1'
23	159°11.4'	N 6°00.6'	74°34.4'	S 22°18.5'	43°32.0'	S 22°28.3'	165°37.3'	N 8°19.5'

Thu Sep 5, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.3		Mars +1.7	
	v = -0.4' d = 1.2'		v = 2.3' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	174°11.0'	N 5°59.4'	89°36.7'	S 22°18.5'	58°34.5'	S 22°28.3'	180°38.3'	N 8°18.9'
1	189°10.6'	N 5°58.1'	104°39.0'	S 22°18.6'	73°37.1'	S 22°28.3'	195°39.3'	N 8°18.3'
2	204°10.2'	N 5°56.9'	119°41.2'	S 22°18.6'	88°39.6'	S 22°28.4'	210°40.2'	N 8°17.7'
3	219°09.9'	N 5°55.7'	134°43.5'	S 22°18.6'	103°42.1'	S 22°28.4'	225°41.2'	N 8°17.0'
4	234°09.5'	N 5°54.5'	149°45.8'	S 22°18.7'	118°44.6'	S 22°28.4'	240°42.2'	N 8°16.4'
5	249°09.1'	N 5°53.2'	164°48.0'	S 22°18.7'	133°47.2'	S 22°28.4'	255°43.2'	N 8°15.8'
6	264°08.7'	N 5°52.0'	179°50.3'	S 22°18.7'	148°49.7'	S 22°28.4'	270°44.1'	N 8°15.2'
7	279°08.3'	N 5°50.8'	194°52.6'	S 22°18.7'	163°52.2'	S 22°28.4'	285°45.1'	N 8°14.6'
8	294°07.9'	N 5°49.5'	209°54.8'	S 22°18.8'	178°54.7'	S 22°28.4'	300°46.1'	N 8°14.0'
9	309°07.5'	N 5°48.3'	224°57.1'	S 22°18.8'	193°57.2'	S 22°28.4'	315°47.1'	N 8°13.4'
10	324°07.1'	N 5°47.1'	239°59.4'	S 22°18.8'	208°59.8'	S 22°28.4'	330°48.1'	N 8°12.7'
11	339°06.7'	N 5°45.9'	255°01.6'	S 22°18.8'	224°02.3'	S 22°28.4'	345°49.0'	N 8°12.1'
12	354°06.3'	N 5°44.6'	270°03.9'	S 22°18.9'	239°04.8'	S 22°28.4'	0°50.0'	N 8°11.5'
13	9°05.9'	N 5°43.4'	285°06.2'	S 22°18.9'	254°07.3'	S 22°28.5'	15°51.0'	N 8°10.9'
14	24°05.5'	N 5°42.2'	300°08.4'	S 22°18.9'	269°09.8'	S 22°28.5'	30°52.0'	N 8°10.3'
15	39°05.1'	N 5°40.9'	315°10.7'	S 22°18.9'	284°12.3'	S 22°28.5'	45°53.0'	N 8°09.7'
16	54°04.7'	N 5°39.7'	330°12.9'	S 22°19.0'	299°14.9'	S 22°28.5'	60°53.9'	N 8°09.1'
17	69°04.3'	N 5°38.5'	345°15.2'	S 22°19.0'	314°17.4'	S 22°28.5'	75°54.9'	N 8°08.4'
18	84°03.9'	N 5°37.2'	0°17.5'	S 22°19.0'	329°19.9'	S 22°28.5'	90°55.9'	N 8°07.8'
19	99°03.5'	N 5°36.0'	15°19.7'	S 22°19.1'	344°22.4'	S 22°28.5'	105°56.9'	N 8°07.2'
20	114°03.1'	N 5°34.8'	30°22.0'	S 22°19.1'	359°24.9'	S 22°28.5'	120°57.8'	N 8°06.6'
21	129°02.7'	N 5°33.5'	45°24.3'	S 22°19.1'	14°27.5'	S 22°28.5'	135°58.8'	N 8°06.0'
22	144°02.3'	N 5°32.3'	60°26.5'	S 22°19.1'	29°30.0'	S 22°28.5'	150°59.8'	N 8°05.4'
23	159°01.9'	N 5°31.1'	75°28.8'	S 22°19.2'	44°32.5'	S 22°28.6'	166°00.8'	N 8°04.7'

Fri Sep 6, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.3		Mars +1.7	
	v = -0.4' d = 1.2'		v = 2.3' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	174°01.5'	N 5°29.8'	90°31.0'	S 22°19.2'	59°35.0'	S 22°28.6'	181°01.8'	N 8°04.1'
1	189°01.1'	N 5°28.6'	105°33.3'	S 22°19.2'	74°37.5'	S 22°28.6'	196°02.7'	N 8°03.5'
2	204°00.7'	N 5°27.4'	120°35.6'	S 22°19.2'	89°40.0'	S 22°28.6'	211°03.7'	N 8°02.9'
3	219°00.3'	N 5°26.1'	135°37.8'	S 22°19.3'	104°42.6'	S 22°28.6'	226°04.7'	N 8°02.3'
4	233°59.9'	N 5°24.9'	150°40.1'	S 22°19.3'	119°45.1'	S 22°28.6'	241°05.7'	N 8°01.7'
5	248°59.5'	N 5°23.7'	165°42.4'	S 22°19.3'	134°47.6'	S 22°28.6'	256°06.7'	N 8°01.1'
6	263°59.2'	N 5°22.4'	180°44.6'	S 22°19.4'	149°50.1'	S 22°28.6'	271°07.6'	N 8°00.4'
7	278°58.8'	N 5°21.2'	195°46.9'	S 22°19.4'	164°52.6'	S 22°28.6'	286°08.6'	N 7°59.8'
8	293°58.4'	N 5°20.0'	210°49.1'	S 22°19.4'	179°55.1'	S 22°28.6'	301°09.6'	N 7°59.2'
9	308°58.0'	N 5°18.7'	225°51.4'	S 22°19.4'	194°57.7'	S 22°28.6'	316°10.6'	N 7°58.6'
10	323°57.6'	N 5°17.5'	240°53.6'	S 22°19.5'	210°00.2'	S 22°28.7'	331°11.6'	N 7°58.0'
11	338°57.2'	N 5°16.3'	255°55.9'	S 22°19.5'	225°02.7'	S 22°28.7'	346°12.5'	N 7°57.4'
12	353°56.8'	N 5°15.0'	270°58.2'	S 22°19.5'	240°05.2'	S 22°28.7'	1°13.5'	N 7°56.7'
13	8°56.4'	N 5°13.8'	286°00.4'	S 22°19.6'	255°07.7'	S 22°28.7'	16°14.5'	N 7°56.1'
14	23°56.0'	N 5°12.6'	301°02.7'	S 22°19.6'	270°10.2'	S 22°28.7'	31°15.5'	N 7°55.5'
15	38°55.6'	N 5°11.3'	316°04.9'	S 22°19.6'	285°12.7'	S 22°28.7'	46°16.5'	N 7°54.9'
16	53°55.2'	N 5°10.1'	331°07.2'	S 22°19.6'	300°15.3'	S 22°28.7'	61°17.4'	N 7°54.3'
17	68°54.8'	N 5°08.9'	346°09.4'	S 22°19.7'	315°17.8'	S 22°28.7'	76°18.4'	N 7°53.7'
18	83°54.5'	N 5°07.6'	1°11.7'	S 22°19.7'	330°20.3'	S 22°28.7'	91°19.4'	N 7°53.0'
19	98°54.1'	N 5°06.4'	16°14.0'	S 22°19.7'	345°22.8'	S 22°28.7'	106°20.4'	N 7°52.4'
20	113°53.7'	N 5°05.1'	31°16.2'	S 22°19.7'	0°25.3'	S 22°28.7'	121°21.4'	N 7°51.8'
21	128°53.3'	N 5°03.9'	46°18.5'	S 22°19.8'	15°27.8'	S 22°28.8'	136°22.3'	N 7°51.2'
22	143°52.9'	N 5°02.7'	61°20.7'	S 22°19.8'	30°30.3'	S 22°28.8'	151°23.3'	N 7°50.6'
23	158°52.5'	N 5°01.4'	76°23.0'	S 22°19.8'	45°32.9'	S 22°28.8'	166°24.3'	N 7°49.9'

Sat Sep 7, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.2'		v = 2.3' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	173°52.1'	N 5°00.2'	91°25.2'	S 22°19.9'	60°35.4'	S 22°28.8'	181°25.3'	N 7°49.3'
1	188°51.7'	N 4°58.9'	106°27.5'	S 22°19.9'	75°37.9'	S 22°28.8'	196°26.3'	N 7°48.7'
2	203°51.3'	N 4°57.7'	121°29.7'	S 22°19.9'	90°40.4'	S 22°28.8'	211°27.2'	N 7°48.1'
3	218°50.9'	N 4°56.5'	136°32.0'	S 22°19.9'	105°42.9'	S 22°28.8'	226°28.2'	N 7°47.5'
4	233°50.6'	N 4°55.2'	151°34.2'	S 22°20.0'	120°45.4'	S 22°28.8'	241°29.2'	N 7°46.9'
5	248°50.2'	N 4°54.0'	166°36.5'	S 22°20.0'	135°47.9'	S 22°28.8'	256°30.2'	N 7°46.2'
6	263°49.8'	N 4°52.7'	181°38.7'	S 22°20.0'	150°50.4'	S 22°28.8'	271°31.2'	N 7°45.6'
7	278°49.4'	N 4°51.5'	196°41.0'	S 22°20.1'	165°53.0'	S 22°28.8'	286°32.1'	N 7°45.0'
8	293°49.0'	N 4°50.3'	211°43.3'	S 22°20.1'	180°55.5'	S 22°28.9'	301°33.1'	N 7°44.4'
9	308°48.6'	N 4°49.0'	226°45.5'	S 22°20.1'	195°58.0'	S 22°28.9'	316°34.1'	N 7°43.8'
10	323°48.2'	N 4°47.8'	241°47.8'	S 22°20.1'	211°00.5'	S 22°28.9'	331°35.1'	N 7°43.1'
11	338°47.8'	N 4°46.5'	256°50.0'	S 22°20.2'	226°03.0'	S 22°28.9'	346°36.1'	N 7°42.5'
12	353°47.4'	N 4°45.3'	271°52.3'	S 22°20.2'	241°05.5'	S 22°28.9'	1°37.1'	N 7°41.9'
13	8°47.1'	N 4°44.1'	286°54.5'	S 22°20.2'	256°08.0'	S 22°28.9'	16°38.0'	N 7°41.3'
14	23°46.7'	N 4°42.8'	301°56.8'	S 22°20.3'	271°10.5'	S 22°28.9'	31°39.0'	N 7°40.7'
15	38°46.3'	N 4°41.6'	316°59.0'	S 22°20.3'	286°13.0'	S 22°28.9'	46°40.0'	N 7°40.0'
16	53°45.9'	N 4°40.3'	332°01.3'	S 22°20.3'	301°15.5'	S 22°28.9'	61°41.0'	N 7°39.4'
17	68°45.5'	N 4°39.1'	347°03.5'	S 22°20.3'	316°18.1'	S 22°28.9'	76°42.0'	N 7°38.8'
18	83°45.1'	N 4°37.8'	2°05.8'	S 22°20.4'	331°20.6'	S 22°28.9'	91°42.9'	N 7°38.2'
19	98°44.7'	N 4°36.6'	17°08.0'	S 22°20.4'	346°23.1'	S 22°29.0'	106°43.9'	N 7°37.6'
20	113°44.3'	N 4°35.4'	32°10.2'	S 22°20.4'	1°25.6'	S 22°29.0'	121°44.9'	N 7°37.0'
21	128°44.0'	N 4°34.1'	47°12.5'	S 22°20.5'	16°28.1'	S 22°29.0'	136°45.9'	N 7°36.3'
22	143°43.6'	N 4°32.9'	62°14.7'	S 22°20.5'	31°30.6'	S 22°29.0'	151°46.9'	N 7°35.7'
23	158°43.2'	N 4°31.6'	77°17.0'	S 22°20.5'	46°33.1'	S 22°29.0'	166°47.8'	N 7°35.1'

Sun Sep 8, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.2'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	173°42.8'	N 4°30.4'	92°19.2'	S 22°20.5'	61°35.6'	S 22°29.0'	181°48.8'	N 7°34.5'
1	188°42.4'	N 4°29.1'	107°21.5'	S 22°20.6'	76°38.1'	S 22°29.0'	196°49.8'	N 7°33.9'
2	203°42.0'	N 4°27.9'	122°23.7'	S 22°20.6'	91°40.6'	S 22°29.0'	211°50.8'	N 7°33.2'
3	218°41.6'	N 4°26.6'	137°26.0'	S 22°20.6'	106°43.1'	S 22°29.0'	226°51.8'	N 7°32.6'
4	233°41.3'	N 4°25.4'	152°28.2'	S 22°20.7'	121°45.7'	S 22°29.0'	241°52.8'	N 7°32.0'
5	248°40.9'	N 4°24.1'	167°30.5'	S 22°20.7'	136°48.2'	S 22°29.0'	256°53.7'	N 7°31.4'
6	263°40.5'	N 4°22.9'	182°32.7'	S 22°20.7'	151°50.7'	S 22°29.0'	271°54.7'	N 7°30.8'
7	278°40.1'	N 4°21.7'	197°35.0'	S 22°20.7'	166°53.2'	S 22°29.1'	286°55.7'	N 7°30.1'
8	293°39.7'	N 4°20.4'	212°37.2'	S 22°20.8'	181°55.7'	S 22°29.1'	301°56.7'	N 7°29.5'
9	308°39.3'	N 4°19.2'	227°39.4'	S 22°20.8'	196°58.2'	S 22°29.1'	316°57.7'	N 7°28.9'
10	323°39.0'	N 4°17.9'	242°41.7'	S 22°20.8'	212°00.7'	S 22°29.1'	331°58.7'	N 7°28.3'
11	338°38.6'	N 4°16.7'	257°43.9'	S 22°20.9'	227°03.2'	S 22°29.1'	346°59.6'	N 7°27.6'
12	353°38.2'	N 4°15.4'	272°46.2'	S 22°20.9'	242°05.7'	S 22°29.1'	2°00.6'	N 7°27.0'
13	8°37.8'	N 4°14.2'	287°48.4'	S 22°20.9'	257°08.2'	S 22°29.1'	17°01.6'	N 7°26.4'
14	23°37.4'	N 4°12.9'	302°50.7'	S 22°20.9'	272°10.7'	S 22°29.1'	32°02.6'	N 7°25.8'
15	38°37.0'	N 4°11.7'	317°52.9'	S 22°21.0'	287°13.2'	S 22°29.1'	47°03.6'	N 7°25.2'
16	53°36.7'	N 4°10.4'	332°55.1'	S 22°21.0'	302°15.7'	S 22°29.1'	62°04.5'	N 7°24.5'
17	68°36.3'	N 4°09.2'	347°57.4'	S 22°21.0'	317°18.2'	S 22°29.1'	77°05.5'	N 7°23.9'
18	83°35.9'	N 4°07.9'	2°59.6'	S 22°21.1'	332°20.7'	S 22°29.1'	92°06.5'	N 7°23.3'
19	98°35.5'	N 4°06.7'	18°01.9'	S 22°21.1'	347°23.3'	S 22°29.2'	107°07.5'	N 7°22.7'
20	113°35.1'	N 4°05.4'	33°04.1'	S 22°21.1'	2°25.8'	S 22°29.2'	122°08.5'	N 7°22.1'
21	128°34.7'	N 4°04.2'	48°06.3'	S 22°21.1'	17°28.3'	S 22°29.2'	137°09.5'	N 7°21.4'
22	143°34.4'	N 4°02.9'	63°08.6'	S 22°21.2'	32°30.8'	S 22°29.2'	152°10.4'	N 7°20.8'
23	158°34.0'	N 4°01.7'	78°10.8'	S 22°21.2'	47°33.3'	S 22°29.2'	167°11.4'	N 7°20.2'

Mon Sep 9, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	173°33.6'	N 4°00.4'	93°13.1'	S 22°21.2'	62°35.8'	S 22°29.2'	182°12.4'	N 7°19.6'
1	188°33.2'	N 3°59.2'	108°15.3'	S 22°21.3'	77°38.3'	S 22°29.2'	197°13.4'	N 7°18.9'
2	203°32.8'	N 3°57.9'	123°17.5'	S 22°21.3'	92°40.8'	S 22°29.2'	212°14.4'	N 7°18.3'
3	218°32.5'	N 3°56.7'	138°19.8'	S 22°21.3'	107°43.3'	S 22°29.2'	227°15.4'	N 7°17.7'
4	233°32.1'	N 3°55.4'	153°22.0'	S 22°21.4'	122°45.8'	S 22°29.2'	242°16.3'	N 7°17.1'
5	248°31.7'	N 3°54.2'	168°24.3'	S 22°21.4'	137°48.3'	S 22°29.2'	257°17.3'	N 7°16.5'
6	263°31.3'	N 3°52.9'	183°26.5'	S 22°21.4'	152°50.8'	S 22°29.2'	272°18.3'	N 7°15.8'
7	278°30.9'	N 3°51.7'	198°28.7'	S 22°21.4'	167°53.3'	S 22°29.3'	287°19.3'	N 7°15.2'
8	293°30.5'	N 3°50.4'	213°31.0'	S 22°21.5'	182°55.8'	S 22°29.3'	302°20.3'	N 7°14.6'
9	308°30.2'	N 3°49.2'	228°33.2'	S 22°21.5'	197°58.3'	S 22°29.3'	317°21.3'	N 7°14.0'
10	323°29.8'	N 3°47.9'	243°35.4'	S 22°21.5'	213°00.8'	S 22°29.3'	332°22.2'	N 7°13.3'
11	338°29.4'	N 3°46.7'	258°37.7'	S 22°21.6'	228°03.3'	S 22°29.3'	347°23.2'	N 7°12.7'
12	353°29.0'	N 3°45.4'	273°39.9'	S 22°21.6'	243°05.8'	S 22°29.3'	2°24.2'	N 7°12.1'
13	8°28.6'	N 3°44.2'	288°42.1'	S 22°21.6'	258°08.3'	S 22°29.3'	17°25.2'	N 7°11.5'
14	23°28.3'	N 3°42.9'	303°44.4'	S 22°21.6'	273°10.8'	S 22°29.3'	32°26.2'	N 7°10.9'
15	38°27.9'	N 3°41.7'	318°46.6'	S 22°21.7'	288°13.3'	S 22°29.3'	47°27.2'	N 7°10.2'
16	53°27.5'	N 3°40.4'	333°48.9'	S 22°21.7'	303°15.8'	S 22°29.3'	62°28.2'	N 7°09.6'
17	68°27.1'	N 3°39.2'	348°51.1'	S 22°21.7'	318°18.3'	S 22°29.3'	77°29.1'	N 7°09.0'
18	83°26.8'	N 3°37.9'	3°53.3'	S 22°21.8'	333°20.8'	S 22°29.3'	92°30.1'	N 7°08.4'
19	98°26.4'	N 3°36.6'	18°55.6'	S 22°21.8'	348°23.3'	S 22°29.4'	107°31.1'	N 7°07.7'
20	113°26.0'	N 3°35.4'	33°57.8'	S 22°21.8'	3°25.8'	S 22°29.4'	122°32.1'	N 7°07.1'
21	128°25.6'	N 3°34.1'	49°00.0'	S 22°21.9'	18°28.3'	S 22°29.4'	137°33.1'	N 7°06.5'
22	143°25.2'	N 3°32.9'	64°02.3'	S 22°21.9'	33°30.8'	S 22°29.4'	152°34.1'	N 7°05.9'
23	158°24.9'	N 3°31.6'	79°04.5'	S 22°21.9'	48°33.3'	S 22°29.4'	167°35.0'	N 7°05.2'

Tue Sep 10, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	173°24.5'	N 3°30.4'	94°06.7'	S 22°21.9'	63°35.8'	S 22°29.4'	182°36.0'	N 7°04.6'
1	188°24.1'	N 3°29.1'	109°08.9'	S 22°22.0'	78°38.3'	S 22°29.4'	197°37.0'	N 7°04.0'
2	203°23.7'	N 3°27.9'	124°11.2'	S 22°22.0'	93°40.8'	S 22°29.4'	212°38.0'	N 7°03.4'
3	218°23.3'	N 3°26.6'	139°13.4'	S 22°22.0'	108°43.3'	S 22°29.4'	227°39.0'	N 7°02.8'
4	233°23.0'	N 3°25.4'	154°15.6'	S 22°22.1'	123°45.8'	S 22°29.4'	242°40.0'	N 7°02.1'
5	248°22.6'	N 3°24.1'	169°17.9'	S 22°22.1'	138°48.3'	S 22°29.4'	257°40.9'	N 7°01.5'
6	263°22.2'	N 3°22.8'	184°20.1'	S 22°22.1'	153°50.8'	S 22°29.4'	272°41.9'	N 7°00.9'
7	278°21.8'	N 3°21.6'	199°22.3'	S 22°22.2'	168°53.3'	S 22°29.4'	287°42.9'	N 7°00.3'
8	293°21.5'	N 3°20.3'	214°24.6'	S 22°22.2'	183°55.8'	S 22°29.5'	302°43.9'	N 6°59.6'
9	308°21.1'	N 3°19.1'	229°26.8'	S 22°22.2'	198°58.3'	S 22°29.5'	317°44.9'	N 6°59.0'
10	323°20.7'	N 3°17.8'	244°29.0'	S 22°22.2'	214°00.8'	S 22°29.5'	332°45.9'	N 6°58.4'
11	338°20.3'	N 3°16.6'	259°31.2'	S 22°22.3'	229°03.3'	S 22°29.5'	347°46.9'	N 6°57.8'
12	353°20.0'	N 3°15.3'	274°33.5'	S 22°22.3'	244°05.8'	S 22°29.5'	2°47.8'	N 6°57.1'
13	8°19.6'	N 3°14.0'	289°35.7'	S 22°22.3'	259°08.3'	S 22°29.5'	17°48.8'	N 6°56.5'
14	23°19.2'	N 3°12.8'	304°37.9'	S 22°22.4'	274°10.8'	S 22°29.5'	32°49.8'	N 6°55.9'
15	38°18.8'	N 3°11.5'	319°40.2'	S 22°22.4'	289°13.3'	S 22°29.5'	47°50.8'	N 6°55.3'
16	53°18.4'	N 3°10.3'	334°42.4'	S 22°22.4'	304°15.8'	S 22°29.5'	62°51.8'	N 6°54.6'
17	68°18.1'	N 3°09.0'	349°44.6'	S 22°22.5'	319°18.3'	S 22°29.5'	77°52.8'	N 6°54.0'
18	83°17.7'	N 3°07.8'	4°46.8'	S 22°22.5'	334°20.8'	S 22°29.5'	92°53.7'	N 6°53.4'
19	98°17.3'	N 3°06.5'	19°49.1'	S 22°22.5'	349°23.3'	S 22°29.5'	107°54.7'	N 6°52.8'
20	113°16.9'	N 3°05.2'	34°51.3'	S 22°22.5'	4°25.8'	S 22°29.5'	122°55.7'	N 6°52.1'
21	128°16.6'	N 3°04.0'	49°53.5'	S 22°22.6'	19°28.3'	S 22°29.6'	137°56.7'	N 6°51.5'
22	143°16.2'	N 3°02.7'	64°55.7'	S 22°22.6'	34°30.8'	S 22°29.6'	152°57.7'	N 6°50.9'
23	158°15.8'	N 3°01.5'	79°58.0'	S 22°22.6'	49°33.3'	S 22°29.6'	167°58.7'	N 6°50.3'

Wed Sep 11, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	173°15.4'	N 3°00.2'	95°00.2'	S 22°22.7'	64°35.8'	S 22°29.6'	182°59.7'	N 6°49.6'
1	188°15.1'	N 2°58.9'	110°02.4'	S 22°22.7'	79°38.3'	S 22°29.6'	198°00.6'	N 6°49.0'
2	203°14.7'	N 2°57.7'	125°04.6'	S 22°22.7'	94°40.8'	S 22°29.6'	213°01.6'	N 6°48.4'
3	218°14.3'	N 2°56.4'	140°06.9'	S 22°22.8'	109°43.3'	S 22°29.6'	228°02.6'	N 6°47.8'
4	233°13.9'	N 2°55.2'	155°09.1'	S 22°22.8'	124°45.8'	S 22°29.6'	243°03.6'	N 6°47.1'
5	248°13.6'	N 2°53.9'	170°11.3'	S 22°22.8'	139°48.2'	S 22°29.6'	258°04.6'	N 6°46.5'
6	263°13.2'	N 2°52.6'	185°13.5'	S 22°22.8'	154°50.7'	S 22°29.6'	273°05.6'	N 6°45.9'
7	278°12.8'	N 2°51.4'	200°15.8'	S 22°22.9'	169°53.2'	S 22°29.6'	288°06.6'	N 6°45.3'
8	293°12.4'	N 2°50.1'	215°18.0'	S 22°22.9'	184°55.7'	S 22°29.6'	303°07.5'	N 6°44.6'
9	308°12.1'	N 2°48.9'	230°20.2'	S 22°22.9'	199°58.2'	S 22°29.6'	318°08.5'	N 6°44.0'
10	323°11.7'	N 2°47.6'	245°22.4'	S 22°23.0'	215°00.7'	S 22°29.6'	333°09.5'	N 6°43.4'
11	338°11.3'	N 2°46.3'	260°24.7'	S 22°23.0'	230°03.2'	S 22°29.7'	348°10.5'	N 6°42.8'
12	353°10.9'	N 2°45.1'	275°26.9'	S 22°23.0'	245°05.7'	S 22°29.7'	3°11.5'	N 6°42.1'
13	8°10.6'	N 2°43.8'	290°29.1'	S 22°23.1'	260°08.2'	S 22°29.7'	18°12.5'	N 6°41.5'
14	23°10.2'	N 2°42.6'	305°31.3'	S 22°23.1'	275°10.7'	S 22°29.7'	33°13.5'	N 6°40.9'
15	38°09.8'	N 2°41.3'	320°33.5'	S 22°23.1'	290°13.2'	S 22°29.7'	48°14.4'	N 6°40.2'
16	53°09.4'	N 2°40.0'	335°35.8'	S 22°23.2'	305°15.7'	S 22°29.7'	63°15.4'	N 6°39.6'
17	68°09.1'	N 2°38.8'	350°38.0'	S 22°23.2'	320°18.2'	S 22°29.7'	78°16.4'	N 6°39.0'
18	83°08.7'	N 2°37.5'	5°40.2'	S 22°23.2'	335°20.7'	S 22°29.7'	93°17.4'	N 6°38.4'
19	98°08.3'	N 2°36.3'	20°42.4'	S 22°23.2'	350°23.2'	S 22°29.7'	108°18.4'	N 6°37.7'
20	113°08.0'	N 2°35.0'	35°44.6'	S 22°23.3'	5°25.7'	S 22°29.7'	123°19.4'	N 6°37.1'
21	128°07.6'	N 2°33.7'	50°46.8'	S 22°23.3'	20°28.1'	S 22°29.7'	138°20.4'	N 6°36.5'
22	143°07.2'	N 2°32.5'	65°49.1'	S 22°23.3'	35°30.6'	S 22°29.7'	153°21.4'	N 6°35.9'
23	158°06.8'	N 2°31.2'	80°51.3'	S 22°23.4'	50°33.1'	S 22°29.7'	168°22.3'	N 6°35.2'

Thu Sep 12, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	173°06.5'	N 2°29.9'	95°53.5'	S 22°23.4'	65°35.6'	S 22°29.7'	183°23.3'	N 6°34.6'
1	188°06.1'	N 2°28.7'	110°55.7'	S 22°23.4'	80°38.1'	S 22°29.8'	198°24.3'	N 6°34.0'
2	203°05.7'	N 2°27.4'	125°57.9'	S 22°23.5'	95°40.6'	S 22°29.8'	213°25.3'	N 6°33.3'
3	218°05.3'	N 2°26.2'	141°00.2'	S 22°23.5'	110°43.1'	S 22°29.8'	228°26.3'	N 6°32.7'
4	233°05.0'	N 2°24.9'	156°02.4'	S 22°23.5'	125°45.6'	S 22°29.8'	243°27.3'	N 6°32.1'
5	248°04.6'	N 2°23.6'	171°04.6'	S 22°23.6'	140°48.1'	S 22°29.8'	258°28.3'	N 6°31.5'
6	263°04.2'	N 2°22.4'	186°06.8'	S 22°23.6'	155°50.6'	S 22°29.8'	273°29.2'	N 6°30.8'
7	278°03.9'	N 2°21.1'	201°09.0'	S 22°23.6'	170°53.1'	S 22°29.8'	288°30.2'	N 6°30.2'
8	293°03.5'	N 2°19.8'	216°11.2'	S 22°23.6'	185°55.5'	S 22°29.8'	303°31.2'	N 6°29.6'
9	308°03.1'	N 2°18.6'	231°13.5'	S 22°23.7'	200°58.0'	S 22°29.8'	318°32.2'	N 6°29.0'
10	323°02.7'	N 2°17.3'	246°15.7'	S 22°23.7'	216°00.5'	S 22°29.8'	333°33.2'	N 6°28.3'
11	338°02.4'	N 2°16.0'	261°17.9'	S 22°23.7'	231°03.0'	S 22°29.8'	348°34.2'	N 6°27.7'
12	353°02.0'	N 2°14.8'	276°20.1'	S 22°23.8'	246°05.5'	S 22°29.8'	3°35.2'	N 6°27.1'
13	8°01.6'	N 2°13.5'	291°22.3'	S 22°23.8'	261°08.0'	S 22°29.8'	18°36.2'	N 6°26.4'
14	23°01.3'	N 2°12.2'	306°24.5'	S 22°23.8'	276°10.5'	S 22°29.8'	33°37.1'	N 6°25.8'
15	38°00.9'	N 2°11.0'	321°26.7'	S 22°23.9'	291°13.0'	S 22°29.8'	48°38.1'	N 6°25.2'
16	53°00.5'	N 2°09.7'	336°28.9'	S 22°23.9'	306°15.5'	S 22°29.9'	63°39.1'	N 6°24.6'
17	68°00.1'	N 2°08.4'	351°31.2'	S 22°23.9'	321°17.9'	S 22°29.9'	78°40.1'	N 6°23.9'
18	82°59.8'	N 2°07.2'	6°33.4'	S 22°24.0'	336°20.4'	S 22°29.9'	93°41.1'	N 6°23.3'
19	97°59.4'	N 2°05.9'	21°35.6'	S 22°24.0'	351°22.9'	S 22°29.9'	108°42.1'	N 6°22.7'
20	112°59.0'	N 2°04.7'	36°37.8'	S 22°24.0'	6°25.4'	S 22°29.9'	123°43.1'	N 6°22.0'
21	127°58.7'	N 2°03.4'	51°40.0'	S 22°24.0'	21°27.9'	S 22°29.9'	138°44.1'	N 6°21.4'
22	142°58.3'	N 2°02.1'	66°42.2'	S 22°24.1'	36°30.4'	S 22°29.9'	153°45.0'	N 6°20.8'
23	157°57.9'	N 2°00.9'	81°44.4'	S 22°24.1'	51°32.9'	S 22°29.9'	168°46.0'	N 6°20.2'

Fri Sep 13, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	172°57.5'	N 1°59.6'	96°46.6'	S 22°24.1'	66°35.4'	S 22°29.9'	183°47.0'	N 6°19.5'
1	187°57.2'	N 1°58.3'	111°48.9'	S 22°24.2'	81°37.8'	S 22°29.9'	198°48.0'	N 6°18.9'
2	202°56.8'	N 1°57.1'	126°51.1'	S 22°24.2'	96°40.3'	S 22°29.9'	213°49.0'	N 6°18.3'
3	217°56.4'	N 1°55.8'	141°53.3'	S 22°24.2'	111°42.8'	S 22°29.9'	228°50.0'	N 6°17.6'
4	232°56.1'	N 1°54.5'	156°55.5'	S 22°24.3'	126°45.3'	S 22°29.9'	243°51.0'	N 6°17.0'
5	247°55.7'	N 1°53.3'	171°57.7'	S 22°24.3'	141°47.8'	S 22°29.9'	258°52.0'	N 6°16.4'
6	262°55.3'	N 1°52.0'	186°59.9'	S 22°24.3'	156°50.3'	S 22°29.9'	273°52.9'	N 6°15.8'
7	277°55.0'	N 1°50.7'	202°02.1'	S 22°24.4'	171°52.8'	S 22°30.0'	288°53.9'	N 6°15.1'
8	292°54.6'	N 1°49.5'	217°04.3'	S 22°24.4'	186°55.2'	S 22°30.0'	303°54.9'	N 6°14.5'
9	307°54.2'	N 1°48.2'	232°06.5'	S 22°24.4'	201°57.7'	S 22°30.0'	318°55.9'	N 6°13.9'
10	322°53.8'	N 1°46.9'	247°08.7'	S 22°24.5'	217°00.2'	S 22°30.0'	333°56.9'	N 6°13.2'
11	337°53.5'	N 1°45.7'	262°10.9'	S 22°24.5'	232°02.7'	S 22°30.0'	348°57.9'	N 6°12.6'
12	352°53.1'	N 1°44.4'	277°13.1'	S 22°24.5'	247°05.2'	S 22°30.0'	3°58.9'	N 6°12.0'
13	7°52.7'	N 1°43.1'	292°15.4'	S 22°24.6'	262°07.7'	S 22°30.0'	18°59.9'	N 6°11.4'
14	22°52.4'	N 1°41.9'	307°17.6'	S 22°24.6'	277°10.2'	S 22°30.0'	34°00.8'	N 6°10.7'
15	37°52.0'	N 1°40.6'	322°19.8'	S 22°24.6'	292°12.6'	S 22°30.0'	49°01.8'	N 6°10.1'
16	52°51.6'	N 1°39.3'	337°22.0'	S 22°24.6'	307°15.1'	S 22°30.0'	64°02.8'	N 6°09.5'
17	67°51.3'	N 1°38.0'	352°24.2'	S 22°24.7'	322°17.6'	S 22°30.0'	79°03.8'	N 6°08.8'
18	82°50.9'	N 1°36.8'	7°26.4'	S 22°24.7'	337°20.1'	S 22°30.0'	94°04.8'	N 6°08.2'
19	97°50.5'	N 1°35.5'	22°28.6'	S 22°24.7'	352°22.6'	S 22°30.0'	109°05.8'	N 6°07.6'
20	112°50.1'	N 1°34.2'	37°30.8'	S 22°24.8'	7°25.1'	S 22°30.0'	124°06.8'	N 6°06.9'
21	127°49.8'	N 1°33.0'	52°33.0'	S 22°24.8'	22°27.5'	S 22°30.0'	139°07.8'	N 6°06.3'
22	142°49.4'	N 1°31.7'	67°35.2'	S 22°24.8'	37°30.0'	S 22°30.0'	154°08.7'	N 6°05.7'
23	157°49.0'	N 1°30.4'	82°37.4'	S 22°24.9'	52°32.5'	S 22°30.1'	169°09.7'	N 6°05.1'

Sat Sep 14, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	172°48.7'	N 1°29.2'	97°39.6'	S 22°24.9'	67°35.0'	S 22°30.1'	184°10.7'	N 6°04.4'
1	187°48.3'	N 1°27.9'	112°41.8'	S 22°24.9'	82°37.5'	S 22°30.1'	199°11.7'	N 6°03.8'
2	202°47.9'	N 1°26.6'	127°44.0'	S 22°25.0'	97°40.0'	S 22°30.1'	214°12.7'	N 6°03.2'
3	217°47.6'	N 1°25.4'	142°46.2'	S 22°25.0'	112°42.4'	S 22°30.1'	229°13.7'	N 6°02.5'
4	232°47.2'	N 1°24.1'	157°48.4'	S 22°25.0'	127°44.9'	S 22°30.1'	244°14.7'	N 6°01.9'
5	247°46.8'	N 1°22.8'	172°50.6'	S 22°25.1'	142°47.4'	S 22°30.1'	259°15.7'	N 6°01.3'
6	262°46.5'	N 1°21.6'	187°52.8'	S 22°25.1'	157°49.9'	S 22°30.1'	274°16.7'	N 6°00.6'
7	277°46.1'	N 1°20.3'	202°55.0'	S 22°25.1'	172°52.4'	S 22°30.1'	289°17.6'	N 6°00.0'
8	292°45.7'	N 1°19.0'	217°57.2'	S 22°25.2'	187°54.9'	S 22°30.1'	304°18.6'	N 5°59.4'
9	307°45.4'	N 1°17.7'	232°59.4'	S 22°25.2'	202°57.3'	S 22°30.1'	319°19.6'	N 5°58.7'
10	322°45.0'	N 1°16.5'	248°01.6'	S 22°25.2'	217°59.8'	S 22°30.1'	334°20.6'	N 5°58.1'
11	337°44.6'	N 1°15.2'	263°03.8'	S 22°25.2'	233°02.3'	S 22°30.1'	349°21.6'	N 5°57.5'
12	352°44.3'	N 1°13.9'	278°06.0'	S 22°25.3'	248°04.8'	S 22°30.1'	4°22.6'	N 5°56.9'
13	7°43.9'	N 1°12.7'	293°08.2'	S 22°25.3'	263°07.3'	S 22°30.1'	19°23.6'	N 5°56.2'
14	22°43.5'	N 1°11.4'	308°10.4'	S 22°25.3'	278°09.7'	S 22°30.1'	34°24.6'	N 5°55.6'
15	37°43.1'	N 1°10.1'	323°12.6'	S 22°25.4'	293°12.2'	S 22°30.1'	49°25.6'	N 5°55.0'
16	52°42.8'	N 1°08.9'	338°14.8'	S 22°25.4'	308°14.7'	S 22°30.2'	64°26.5'	N 5°54.3'
17	67°42.4'	N 1°07.6'	353°17.0'	S 22°25.4'	323°17.2'	S 22°30.2'	79°27.5'	N 5°53.7'
18	82°42.0'	N 1°06.3'	8°19.2'	S 22°25.5'	338°19.7'	S 22°30.2'	94°28.5'	N 5°53.1'
19	97°41.7'	N 1°05.0'	23°21.4'	S 22°25.5'	353°22.1'	S 22°30.2'	109°29.5'	N 5°52.4'
20	112°41.3'	N 1°03.8'	38°23.6'	S 22°25.5'	8°24.6'	S 22°30.2'	124°30.5'	N 5°51.8'
21	127°40.9'	N 1°02.5'	53°25.8'	S 22°25.6'	23°27.1'	S 22°30.2'	139°31.5'	N 5°51.2'
22	142°40.6'	N 1°01.2'	68°28.0'	S 22°25.6'	38°29.6'	S 22°30.2'	154°32.5'	N 5°50.5'
23	157°40.2'	N 0°60.0'	83°30.2'	S 22°25.6'	53°32.0'	S 22°30.2'	169°33.5'	N 5°49.9'

Sun Sep 15, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	172°39.8'	N 0°58.7'	98°32.4'	S 22°25.7'	68°34.5'	S 22°30.2'	184°34.5'	N 5°49.3'
1	187°39.5'	N 0°57.4'	113°34.6'	S 22°25.7'	83°37.0'	S 22°30.2'	199°35.4'	N 5°48.6'
2	202°39.1'	N 0°56.1'	128°36.8'	S 22°25.7'	98°39.5'	S 22°30.2'	214°36.4'	N 5°48.0'
3	217°38.7'	N 0°54.9'	143°39.0'	S 22°25.8'	113°42.0'	S 22°30.2'	229°37.4'	N 5°47.4'
4	232°38.4'	N 0°53.6'	158°41.2'	S 22°25.8'	128°44.4'	S 22°30.2'	244°38.4'	N 5°46.7'
5	247°38.0'	N 0°52.3'	173°43.4'	S 22°25.8'	143°46.9'	S 22°30.2'	259°39.4'	N 5°46.1'
6	262°37.6'	N 0°51.1'	188°45.6'	S 22°25.9'	158°49.4'	S 22°30.2'	274°40.4'	N 5°45.5'
7	277°37.3'	N 0°49.8'	203°47.8'	S 22°25.9'	173°51.9'	S 22°30.2'	289°41.4'	N 5°44.8'
8	292°36.9'	N 0°48.5'	218°50.0'	S 22°25.9'	188°54.3'	S 22°30.2'	304°42.4'	N 5°44.2'
9	307°36.5'	N 0°47.2'	233°52.2'	S 22°26.0'	203°56.8'	S 22°30.2'	319°43.4'	N 5°43.6'
10	322°36.2'	N 0°46.0'	248°54.4'	S 22°26.0'	218°59.3'	S 22°30.3'	334°44.3'	N 5°42.9'
11	337°35.8'	N 0°44.7'	263°56.6'	S 22°26.0'	234°01.8'	S 22°30.3'	349°45.3'	N 5°42.3'
12	352°35.4'	N 0°43.4'	278°58.7'	S 22°26.1'	249°04.3'	S 22°30.3'	4°46.3'	N 5°41.7'
13	7°35.1'	N 0°42.2'	294°00.9'	S 22°26.1'	264°06.7'	S 22°30.3'	19°47.3'	N 5°41.0'
14	22°34.7'	N 0°40.9'	309°03.1'	S 22°26.1'	279°09.2'	S 22°30.3'	34°48.3'	N 5°40.4'
15	37°34.3'	N 0°39.6'	324°05.3'	S 22°26.1'	294°11.7'	S 22°30.3'	49°49.3'	N 5°39.8'
16	52°34.0'	N 0°38.3'	339°07.5'	S 22°26.2'	309°14.2'	S 22°30.3'	64°50.3'	N 5°39.2'
17	67°33.6'	N 0°37.1'	354°09.7'	S 22°26.2'	324°16.6'	S 22°30.3'	79°51.3'	N 5°38.5'
18	82°33.2'	N 0°35.8'	9°11.9'	S 22°26.2'	339°19.1'	S 22°30.3'	94°52.3'	N 5°37.9'
19	97°32.9'	N 0°34.5'	24°14.1'	S 22°26.3'	354°21.6'	S 22°30.3'	109°53.3'	N 5°37.3'
20	112°32.5'	N 0°33.2'	39°16.3'	S 22°26.3'	9°24.1'	S 22°30.3'	124°54.2'	N 5°36.6'
21	127°32.1'	N 0°32.0'	54°18.5'	S 22°26.3'	24°26.5'	S 22°30.3'	139°55.2'	N 5°36.0'
22	142°31.8'	N 0°30.7'	69°20.7'	S 22°26.4'	39°29.0'	S 22°30.3'	154°56.2'	N 5°35.4'
23	157°31.4'	N 0°29.4'	84°22.9'	S 22°26.4'	54°31.5'	S 22°30.3'	169°57.2'	N 5°34.7'

Mon Sep 16, 2019 UTC

UTC	Venus -3.8		Jupiter -2.0		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	172°31.0'	N 0°28.2'	99°25.0'	S 22°26.4'	69°34.0'	S 22°30.3'	184°58.2'	N 5°34.1'
1	187°30.7'	N 0°26.9'	114°27.2'	S 22°26.5'	84°36.4'	S 22°30.3'	199°59.2'	N 5°33.5'
2	202°30.3'	N 0°25.6'	129°29.4'	S 22°26.5'	99°38.9'	S 22°30.3'	215°00.2'	N 5°32.8'
3	217°29.9'	N 0°24.3'	144°31.6'	S 22°26.5'	114°41.4'	S 22°30.3'	230°01.2'	N 5°32.2'
4	232°29.6'	N 0°23.1'	159°33.8'	S 22°26.6'	129°43.8'	S 22°30.3'	245°02.2'	N 5°31.6'
5	247°29.2'	N 0°21.8'	174°36.0'	S 22°26.6'	144°46.3'	S 22°30.4'	260°03.2'	N 5°30.9'
6	262°28.8'	N 0°20.5'	189°38.2'	S 22°26.6'	159°48.8'	S 22°30.4'	275°04.1'	N 5°30.3'
7	277°28.5'	N 0°19.2'	204°40.4'	S 22°26.7'	174°51.3'	S 22°30.4'	290°05.1'	N 5°29.6'
8	292°28.1'	N 0°18.0'	219°42.6'	S 22°26.7'	189°53.7'	S 22°30.4'	305°06.1'	N 5°29.0'
9	307°27.7'	N 0°16.7'	234°44.7'	S 22°26.7'	204°56.2'	S 22°30.4'	320°07.1'	N 5°28.4'
10	322°27.4'	N 0°15.4'	249°46.9'	S 22°26.8'	219°58.7'	S 22°30.4'	335°08.1'	N 5°27.7'
11	337°27.0'	N 0°14.1'	264°49.1'	S 22°26.8'	235°01.2'	S 22°30.4'	350°09.1'	N 5°27.1'
12	352°26.6'	N 0°12.9'	279°51.3'	S 22°26.8'	250°03.6'	S 22°30.4'	5°10.1'	N 5°26.5'
13	7°26.3'	N 0°11.6'	294°53.5'	S 22°26.9'	265°06.1'	S 22°30.4'	20°11.1'	N 5°25.8'
14	22°25.9'	N 0°10.3'	309°55.7'	S 22°26.9'	280°08.6'	S 22°30.4'	35°12.1'	N 5°25.2'
15	37°25.5'	N 0°09.1'	324°57.9'	S 22°26.9'	295°11.0'	S 22°30.4'	50°13.1'	N 5°24.6'
16	52°25.2'	N 0°07.8'	340°00.0'	S 22°27.0'	310°13.5'	S 22°30.4'	65°14.0'	N 5°23.9'
17	67°24.8'	N 0°06.5'	355°02.2'	S 22°27.0'	325°16.0'	S 22°30.4'	80°15.0'	N 5°23.3'
18	82°24.4'	N 0°05.2'	10°04.4'	S 22°27.0'	340°18.5'	S 22°30.4'	95°16.0'	N 5°22.7'
19	97°24.1'	N 0°04.0'	25°06.6'	S 22°27.1'	355°20.9'	S 22°30.4'	110°17.0'	N 5°22.0'
20	112°23.7'	N 0°02.7'	40°08.8'	S 22°27.1'	10°23.4'	S 22°30.4'	125°18.0'	N 5°21.4'
21	127°23.3'	N 0°01.4'	55°11.0'	S 22°27.1'	25°25.9'	S 22°30.4'	140°19.0'	N 5°20.8'
22	142°23.0'	N 0°00.1'	70°13.1'	S 22°27.2'	40°28.3'	S 22°30.4'	155°20.0'	N 5°20.1'
23	157°22.6'	S 0°01.1'	85°15.3'	S 22°27.2'	55°30.8'	S 22°30.4'	170°21.0'	N 5°19.5'



Tue Sep 17, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.3'		Jupiter -2.0 v = 2.2' d = 0.0'		Saturn +0.4 v = 2.5' d = 0.0'		Mars +1.7 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	172°22.2'	S 0°02.4'	100°17.5'	S 22°27.2'	70°33.3'	S 22°30.4'	185°22.0'	N 5°18.9'
1	187°21.9'	S 0°03.7'	115°19.7'	S 22°27.3'	85°35.7'	S 22°30.5'	200°23.0'	N 5°18.2'
2	202°21.5'	S 0°05.0'	130°21.9'	S 22°27.3'	100°38.2'	S 22°30.5'	215°24.0'	N 5°17.6'
3	217°21.1'	S 0°06.2'	145°24.1'	S 22°27.3'	115°40.7'	S 22°30.5'	230°24.9'	N 5°17.0'
4	232°20.8'	S 0°07.5'	160°26.2'	S 22°27.4'	130°43.2'	S 22°30.5'	245°25.9'	N 5°16.3'
5	247°20.4'	S 0°08.8'	175°28.4'	S 22°27.4'	145°45.6'	S 22°30.5'	260°26.9'	N 5°15.7'
6	262°20.0'	S 0°10.1'	190°30.6'	S 22°27.4'	160°48.1'	S 22°30.5'	275°27.9'	N 5°15.1'
7	277°19.7'	S 0°11.3'	205°32.8'	S 22°27.5'	175°50.6'	S 22°30.5'	290°28.9'	N 5°14.4'
8	292°19.3'	S 0°12.6'	220°35.0'	S 22°27.5'	190°53.0'	S 22°30.5'	305°29.9'	N 5°13.8'
9	307°18.9'	S 0°13.9'	235°37.1'	S 22°27.5'	205°55.5'	S 22°30.5'	320°30.9'	N 5°13.1'
10	322°18.6'	S 0°15.2'	250°39.3'	S 22°27.6'	220°58.0'	S 22°30.5'	335°31.9'	N 5°12.5'
11	337°18.2'	S 0°16.4'	265°41.5'	S 22°27.6'	236°00.4'	S 22°30.5'	350°32.9'	N 5°11.9'
12	352°17.8'	S 0°17.7'	280°43.7'	S 22°27.6'	251°02.9'	S 22°30.5'	5°33.9'	N 5°11.2'
13	7°17.5'	S 0°19.0'	295°45.9'	S 22°27.7'	266°05.4'	S 22°30.5'	20°34.9'	N 5°10.6'
14	22°17.1'	S 0°20.3'	310°48.0'	S 22°27.7'	281°07.8'	S 22°30.5'	35°35.8'	N 5°10.0'
15	37°16.7'	S 0°21.5'	325°50.2'	S 22°27.7'	296°10.3'	S 22°30.5'	50°36.8'	N 5°09.3'
16	52°16.4'	S 0°22.8'	340°52.4'	S 22°27.8'	311°12.8'	S 22°30.5'	65°37.8'	N 5°08.7'
17	67°16.0'	S 0°24.1'	355°54.6'	S 22°27.8'	326°15.2'	S 22°30.5'	80°38.8'	N 5°08.1'
18	82°15.6'	S 0°25.4'	10°56.8'	S 22°27.8'	341°17.7'	S 22°30.5'	95°39.8'	N 5°07.4'
19	97°15.3'	S 0°26.6'	25°58.9'	S 22°27.9'	356°20.2'	S 22°30.5'	110°40.8'	N 5°06.8'
20	112°14.9'	S 0°27.9'	41°01.1'	S 22°27.9'	11°22.6'	S 22°30.5'	125°41.8'	N 5°06.2'
21	127°14.5'	S 0°29.2'	56°03.3'	S 22°27.9'	26°25.1'	S 22°30.5'	140°42.8'	N 5°05.5'
22	142°14.2'	S 0°30.5'	71°05.5'	S 22°28.0'	41°27.6'	S 22°30.5'	155°43.8'	N 5°04.9'
23	157°13.8'	S 0°31.7'	86°07.6'	S 22°28.0'	56°30.0'	S 22°30.6'	170°44.8'	N 5°04.2'

Wed Sep 18, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.3'		Jupiter -2.0 v = 2.2' d = 0.0'		Saturn +0.4 v = 2.5' d = 0.0'		Mars +1.7 v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	172°13.4'	S 0°33.0'	101°09.8'	S 22°28.0'	71°32.5'	S 22°30.6'	185°45.8'	N 5°03.6'
1	187°13.1'	S 0°34.3'	116°12.0'	S 22°28.1'	86°35.0'	S 22°30.6'	200°46.7'	N 5°03.0'
2	202°12.7'	S 0°35.6'	131°14.2'	S 22°28.1'	101°37.4'	S 22°30.6'	215°47.7'	N 5°02.3'
3	217°12.3'	S 0°36.8'	146°16.3'	S 22°28.1'	116°39.9'	S 22°30.6'	230°48.7'	N 5°01.7'
4	232°12.0'	S 0°38.1'	161°18.5'	S 22°28.2'	131°42.4'	S 22°30.6'	245°49.7'	N 5°01.1'
5	247°11.6'	S 0°39.4'	176°20.7'	S 22°28.2'	146°44.8'	S 22°30.6'	260°50.7'	N 5°00.4'
6	262°11.2'	S 0°40.7'	191°22.9'	S 22°28.2'	161°47.3'	S 22°30.6'	275°51.7'	N 4°59.8'
7	277°10.9'	S 0°41.9'	206°25.0'	S 22°28.3'	176°49.7'	S 22°30.6'	290°52.7'	N 4°59.2'
8	292°10.5'	S 0°43.2'	221°27.2'	S 22°28.3'	191°52.2'	S 22°30.6'	305°53.7'	N 4°58.5'
9	307°10.1'	S 0°44.5'	236°29.4'	S 22°28.3'	206°54.7'	S 22°30.6'	320°54.7'	N 4°57.9'
10	322°09.8'	S 0°45.8'	251°31.6'	S 22°28.4'	221°57.1'	S 22°30.6'	335°55.7'	N 4°57.2'
11	337°09.4'	S 0°47.0'	266°33.7'	S 22°28.4'	236°59.6'	S 22°30.6'	350°56.7'	N 4°56.6'
12	352°09.0'	S 0°48.3'	281°35.9'	S 22°28.4'	252°02.1'	S 22°30.6'	5°57.6'	N 4°56.0'
13	7°08.7'	S 0°49.6'	296°38.1'	S 22°28.5'	267°04.5'	S 22°30.6'	20°58.6'	N 4°55.3'
14	22°08.3'	S 0°50.9'	311°40.3'	S 22°28.5'	282°07.0'	S 22°30.6'	35°59.6'	N 4°54.7'
15	37°07.9'	S 0°52.1'	326°42.4'	S 22°28.5'	297°09.5'	S 22°30.6'	51°00.6'	N 4°54.1'
16	52°07.5'	S 0°53.4'	341°44.6'	S 22°28.6'	312°11.9'	S 22°30.6'	66°01.6'	N 4°53.4'
17	67°07.2'	S 0°54.7'	356°46.8'	S 22°28.6'	327°14.4'	S 22°30.6'	81°02.6'	N 4°52.8'
18	82°06.8'	S 0°56.0'	11°48.9'	S 22°28.6'	342°16.8'	S 22°30.6'	96°03.6'	N 4°52.1'
19	97°06.4'	S 0°57.2'	26°51.1'	S 22°28.7'	357°19.3'	S 22°30.6'	111°04.6'	N 4°51.5'
20	112°06.1'	S 0°58.5'	41°53.3'	S 22°28.7'	12°21.8'	S 22°30.6'	126°05.6'	N 4°50.9'
21	127°05.7'	S 0°59.8'	56°55.5'	S 22°28.7'	27°24.2'	S 22°30.6'	141°06.6'	N 4°50.2'
22	142°05.3'	S 1°01.1'	71°57.6'	S 22°28.8'	42°26.7'	S 22°30.6'	156°07.6'	N 4°49.6'
23	157°05.0'	S 1°02.3'	86°59.8'	S 22°28.8'	57°29.1'	S 22°30.7'	171°08.6'	N 4°49.0'

Thu Sep 19, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.4		Mars +1.8	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	172°04.6'	S 1°03.6'	102°02.0'	S 22°28.8'	72°31.6'	S 22°30.7'	186°09.5'	N 4°48.3'
1	187°04.2'	S 1°04.9'	117°04.1'	S 22°28.9'	87°34.1'	S 22°30.7'	201°10.5'	N 4°47.7'
2	202°03.9'	S 1°06.2'	132°06.3'	S 22°28.9'	102°36.5'	S 22°30.7'	216°11.5'	N 4°47.0'
3	217°03.5'	S 1°07.4'	147°08.5'	S 22°28.9'	117°39.0'	S 22°30.7'	231°12.5'	N 4°46.4'
4	232°03.1'	S 1°08.7'	162°10.6'	S 22°29.0'	132°41.5'	S 22°30.7'	246°13.5'	N 4°45.8'
5	247°02.8'	S 1°10.0'	177°12.8'	S 22°29.0'	147°43.9'	S 22°30.7'	261°14.5'	N 4°45.1'
6	262°02.4'	S 1°11.3'	192°15.0'	S 22°29.0'	162°46.4'	S 22°30.7'	276°15.5'	N 4°44.5'
7	277°02.0'	S 1°12.5'	207°17.1'	S 22°29.1'	177°48.8'	S 22°30.7'	291°16.5'	N 4°43.9'
8	292°01.7'	S 1°13.8'	222°19.3'	S 22°29.1'	192°51.3'	S 22°30.7'	306°17.5'	N 4°43.2'
9	307°01.3'	S 1°15.1'	237°21.5'	S 22°29.1'	207°53.7'	S 22°30.7'	321°18.5'	N 4°42.6'
10	322°00.9'	S 1°16.4'	252°23.6'	S 22°29.2'	222°56.2'	S 22°30.7'	336°19.5'	N 4°41.9'
11	337°00.6'	S 1°17.6'	267°25.8'	S 22°29.2'	237°58.7'	S 22°30.7'	351°20.5'	N 4°41.3'
12	352°00.2'	S 1°18.9'	282°28.0'	S 22°29.2'	253°01.1'	S 22°30.7'	6°21.4'	N 4°40.7'
13	6°59.8'	S 1°20.2'	297°30.1'	S 22°29.3'	268°03.6'	S 22°30.7'	21°22.4'	N 4°40.0'
14	21°59.5'	S 1°21.5'	312°32.3'	S 22°29.3'	283°06.0'	S 22°30.7'	36°23.4'	N 4°39.4'
15	36°59.1'	S 1°22.7'	327°34.5'	S 22°29.3'	298°08.5'	S 22°30.7'	51°24.4'	N 4°38.8'
16	51°58.7'	S 1°24.0'	342°36.6'	S 22°29.4'	313°11.0'	S 22°30.7'	66°25.4'	N 4°38.1'
17	66°58.4'	S 1°25.3'	357°38.8'	S 22°29.4'	328°13.4'	S 22°30.7'	81°26.4'	N 4°37.5'
18	81°58.0'	S 1°26.6'	12°41.0'	S 22°29.4'	343°15.9'	S 22°30.7'	96°27.4'	N 4°36.8'
19	96°57.6'	S 1°27.8'	27°43.1'	S 22°29.5'	358°18.3'	S 22°30.7'	111°28.4'	N 4°36.2'
20	111°57.3'	S 1°29.1'	42°45.3'	S 22°29.5'	13°20.8'	S 22°30.7'	126°29.4'	N 4°35.6'
21	126°56.9'	S 1°30.4'	57°47.5'	S 22°29.5'	28°23.2'	S 22°30.7'	141°30.4'	N 4°34.9'
22	141°56.5'	S 1°31.7'	72°49.6'	S 22°29.6'	43°25.7'	S 22°30.7'	156°31.4'	N 4°34.3'
23	156°56.2'	S 1°32.9'	87°51.8'	S 22°29.6'	58°28.2'	S 22°30.7'	171°32.4'	N 4°33.6'

Fri Sep 20, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.4		Mars +1.8	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.5' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	171°55.8'	S 1°34.2'	102°53.9'	S 22°29.6'	73°30.6'	S 22°30.7'	186°33.4'	N 4°33.0'
1	186°55.4'	S 1°35.5'	117°56.1'	S 22°29.7'	88°33.1'	S 22°30.7'	201°34.3'	N 4°32.4'
2	201°55.0'	S 1°36.8'	132°58.3'	S 22°29.7'	103°35.5'	S 22°30.8'	216°35.3'	N 4°31.7'
3	216°54.7'	S 1°38.0'	148°00.4'	S 22°29.7'	118°38.0'	S 22°30.8'	231°36.3'	N 4°31.1'
4	231°54.3'	S 1°39.3'	163°02.6'	S 22°29.8'	133°40.4'	S 22°30.8'	246°37.3'	N 4°30.4'
5	246°53.9'	S 1°40.6'	178°04.8'	S 22°29.8'	148°42.9'	S 22°30.8'	261°38.3'	N 4°29.8'
6	261°53.6'	S 1°41.9'	193°06.9'	S 22°29.8'	163°45.3'	S 22°30.8'	276°39.3'	N 4°29.2'
7	276°53.2'	S 1°43.1'	208°09.1'	S 22°29.9'	178°47.8'	S 22°30.8'	291°40.3'	N 4°28.5'
8	291°52.8'	S 1°44.4'	223°11.2'	S 22°29.9'	193°50.3'	S 22°30.8'	306°41.3'	N 4°27.9'
9	306°52.5'	S 1°45.7'	238°13.4'	S 22°29.9'	208°52.7'	S 22°30.8'	321°42.3'	N 4°27.2'
10	321°52.1'	S 1°47.0'	253°15.6'	S 22°30.0'	223°55.2'	S 22°30.8'	336°43.3'	N 4°26.6'
11	336°51.7'	S 1°48.2'	268°17.7'	S 22°30.0'	238°57.6'	S 22°30.8'	351°44.3'	N 4°26.0'
12	351°51.4'	S 1°49.5'	283°19.9'	S 22°30.0'	254°00.1'	S 22°30.8'	6°45.3'	N 4°25.3'
13	6°51.0'	S 1°50.8'	298°22.0'	S 22°30.1'	269°02.5'	S 22°30.8'	21°46.3'	N 4°24.7'
14	21°50.6'	S 1°52.1'	313°24.2'	S 22°30.1'	284°05.0'	S 22°30.8'	36°47.2'	N 4°24.1'
15	36°50.2'	S 1°53.3'	328°26.4'	S 22°30.1'	299°07.4'	S 22°30.8'	51°48.2'	N 4°23.4'
16	51°49.9'	S 1°54.6'	343°28.5'	S 22°30.2'	314°09.9'	S 22°30.8'	66°49.2'	N 4°22.8'
17	66°49.5'	S 1°55.9'	358°30.7'	S 22°30.2'	329°12.3'	S 22°30.8'	81°50.2'	N 4°22.1'
18	81°49.1'	S 1°57.2'	13°32.8'	S 22°30.3'	344°14.8'	S 22°30.8'	96°51.2'	N 4°21.5'
19	96°48.8'	S 1°58.4'	28°35.0'	S 22°30.3'	359°17.3'	S 22°30.8'	111°52.2'	N 4°20.9'
20	111°48.4'	S 1°59.7'	43°37.1'	S 22°30.3'	14°19.7'	S 22°30.8'	126°53.2'	N 4°20.2'
21	126°48.0'	S 2°01.0'	58°39.3'	S 22°30.4'	29°22.2'	S 22°30.8'	141°54.2'	N 4°19.6'
22	141°47.7'	S 2°02.3'	73°41.5'	S 22°30.4'	44°24.6'	S 22°30.8'	156°55.2'	N 4°18.9'
23	156°47.3'	S 2°03.5'	88°43.6'	S 22°30.4'	59°27.1'	S 22°30.8'	171°56.2'	N 4°18.3'

Sat Sep 21, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.4		Mars +1.8	
	v = -0.4' d = 1.3'		v = 2.2' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	171°46.9'	S 2°04.8'	103°45.8'	S 22°30.5'	74°29.5'	S 22°30.8'	186°57.2'	N 4°17.7'
1	186°46.6'	S 2°06.1'	118°47.9'	S 22°30.5'	89°32.0'	S 22°30.8'	201°58.2'	N 4°17.0'
2	201°46.2'	S 2°07.4'	133°50.1'	S 22°30.5'	104°34.4'	S 22°30.8'	216°59.2'	N 4°16.4'
3	216°45.8'	S 2°08.6'	148°52.2'	S 22°30.6'	119°36.9'	S 22°30.8'	232°00.1'	N 4°15.7'
4	231°45.4'	S 2°09.9'	163°54.4'	S 22°30.6'	134°39.3'	S 22°30.8'	247°01.1'	N 4°15.1'
5	246°45.1'	S 2°11.2'	178°56.6'	S 22°30.6'	149°41.8'	S 22°30.8'	262°02.1'	N 4°14.5'
6	261°44.7'	S 2°12.5'	193°58.7'	S 22°30.7'	164°44.2'	S 22°30.8'	277°03.1'	N 4°13.8'
7	276°44.3'	S 2°13.7'	209°00.9'	S 22°30.7'	179°46.7'	S 22°30.8'	292°04.1'	N 4°13.2'
8	291°44.0'	S 2°15.0'	224°03.0'	S 22°30.7'	194°49.1'	S 22°30.8'	307°05.1'	N 4°12.5'
9	306°43.6'	S 2°16.3'	239°05.2'	S 22°30.8'	209°51.6'	S 22°30.8'	322°06.1'	N 4°11.9'
10	321°43.2'	S 2°17.5'	254°07.3'	S 22°30.8'	224°54.0'	S 22°30.9'	337°07.1'	N 4°11.2'
11	336°42.8'	S 2°18.8'	269°09.5'	S 22°30.8'	239°56.5'	S 22°30.9'	352°08.1'	N 4°10.6'
12	351°42.5'	S 2°20.1'	284°11.6'	S 22°30.9'	254°58.9'	S 22°30.9'	7°09.1'	N 4°10.0'
13	6°42.1'	S 2°21.4'	299°13.8'	S 22°30.9'	270°01.4'	S 22°30.9'	22°10.1'	N 4°09.3'
14	21°41.7'	S 2°22.6'	314°15.9'	S 22°30.9'	285°03.8'	S 22°30.9'	37°11.1'	N 4°08.7'
15	36°41.4'	S 2°23.9'	329°18.1'	S 22°31.0'	300°06.3'	S 22°30.9'	52°12.1'	N 4°08.0'
16	51°41.0'	S 2°25.2'	344°20.2'	S 22°31.0'	315°08.7'	S 22°30.9'	67°13.1'	N 4°07.4'
17	66°40.6'	S 2°26.5'	359°22.4'	S 22°31.0'	330°11.2'	S 22°30.9'	82°14.0'	N 4°06.8'
18	81°40.3'	S 2°27.7'	14°24.5'	S 22°31.1'	345°13.6'	S 22°30.9'	97°15.0'	N 4°06.1'
19	96°39.9'	S 2°29.0'	29°26.7'	S 22°31.1'	0°16.1'	S 22°30.9'	112°16.0'	N 4°05.5'
20	111°39.5'	S 2°30.3'	44°28.8'	S 22°31.1'	15°18.5'	S 22°30.9'	127°17.0'	N 4°04.8'
21	126°39.1'	S 2°31.6'	59°31.0'	S 22°31.2'	30°21.0'	S 22°30.9'	142°18.0'	N 4°04.2'
22	141°38.8'	S 2°32.8'	74°33.1'	S 22°31.2'	45°23.4'	S 22°30.9'	157°19.0'	N 4°03.6'
23	156°38.4'	S 2°34.1'	89°35.3'	S 22°31.3'	60°25.9'	S 22°30.9'	172°20.0'	N 4°02.9'

Sun Sep 22, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.4		Mars +1.8	
	v = -0.4' d = 1.3'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	171°38.0'	S 2°35.4'	104°37.4'	S 22°31.3'	75°28.3'	S 22°30.9'	187°21.0'	N 4°02.3'
1	186°37.6'	S 2°36.6'	119°39.6'	S 22°31.3'	90°30.8'	S 22°30.9'	202°22.0'	N 4°01.6'
2	201°37.3'	S 2°37.9'	134°41.7'	S 22°31.4'	105°33.2'	S 22°30.9'	217°23.0'	N 4°01.0'
3	216°36.9'	S 2°39.2'	149°43.9'	S 22°31.4'	120°35.7'	S 22°30.9'	232°24.0'	N 4°00.4'
4	231°36.5'	S 2°40.5'	164°46.0'	S 22°31.4'	135°38.1'	S 22°30.9'	247°25.0'	N 3°59.7'
5	246°36.2'	S 2°41.7'	179°48.2'	S 22°31.5'	150°40.5'	S 22°30.9'	262°26.0'	N 3°59.1'
6	261°35.8'	S 2°43.0'	194°50.3'	S 22°31.5'	165°43.0'	S 22°30.9'	277°27.0'	N 3°58.4'
7	276°35.4'	S 2°44.3'	209°52.5'	S 22°31.5'	180°45.4'	S 22°30.9'	292°27.9'	N 3°57.8'
8	291°35.0'	S 2°45.6'	224°54.6'	S 22°31.6'	195°47.9'	S 22°30.9'	307°28.9'	N 3°57.1'
9	306°34.7'	S 2°46.8'	239°56.8'	S 22°31.6'	210°50.3'	S 22°30.9'	322°29.9'	N 3°56.5'
10	321°34.3'	S 2°48.1'	254°58.9'	S 22°31.6'	225°52.8'	S 22°30.9'	337°30.9'	N 3°55.9'
11	336°33.9'	S 2°49.4'	270°01.1'	S 22°31.7'	240°55.2'	S 22°30.9'	352°31.9'	N 3°55.2'
12	351°33.5'	S 2°50.6'	285°03.2'	S 22°31.7'	255°57.7'	S 22°30.9'	7°32.9'	N 3°54.6'
13	6°33.2'	S 2°51.9'	300°05.4'	S 22°31.7'	271°00.1'	S 22°30.9'	22°33.9'	N 3°53.9'
14	21°32.8'	S 2°53.2'	315°07.5'	S 22°31.8'	286°02.6'	S 22°30.9'	37°34.9'	N 3°53.3'
15	36°32.4'	S 2°54.5'	330°09.7'	S 22°31.8'	301°05.0'	S 22°30.9'	52°35.9'	N 3°52.6'
16	51°32.1'	S 2°55.7'	345°11.8'	S 22°31.8'	316°07.4'	S 22°30.9'	67°36.9'	N 3°52.0'
17	66°31.7'	S 2°57.0'	0°13.9'	S 22°31.9'	331°09.9'	S 22°30.9'	82°37.9'	N 3°51.4'
18	81°31.3'	S 2°58.3'	15°16.1'	S 22°31.9'	346°12.3'	S 22°30.9'	97°38.9'	N 3°50.7'
19	96°30.9'	S 2°59.6'	30°18.2'	S 22°31.9'	1°14.8'	S 22°30.9'	112°39.9'	N 3°50.1'
20	111°30.6'	S 3°00.8'	45°20.4'	S 22°32.0'	16°17.2'	S 22°30.9'	127°40.9'	N 3°49.4'
21	126°30.2'	S 3°02.1'	60°22.5'	S 22°32.0'	31°19.7'	S 22°30.9'	142°41.8'	N 3°48.8'
22	141°29.8'	S 3°03.4'	75°24.7'	S 22°32.1'	46°22.1'	S 22°30.9'	157°42.8'	N 3°48.2'
23	156°29.4'	S 3°04.6'	90°26.8'	S 22°32.1'	61°24.6'	S 22°30.9'	172°43.8'	N 3°47.5'

Mon Sep 23, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.4		Mars +1.8	
	v = -0.4' d = 1.3'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	171°29.1'	S 3°05.9'	105°29.0'	S 22°32.1'	76°27.0'	S 22°30.9'	187°44.8'	N 3°46.9'
1	186°28.7'	S 3°07.2'	120°31.1'	S 22°32.2'	91°29.4'	S 22°30.9'	202°45.8'	N 3°46.2'
2	201°28.3'	S 3°08.5'	135°33.2'	S 22°32.2'	106°31.9'	S 22°30.9'	217°46.8'	N 3°45.6'
3	216°27.9'	S 3°09.7'	150°35.4'	S 22°32.2'	121°34.3'	S 22°31.0'	232°47.8'	N 3°44.9'
4	231°27.6'	S 3°11.0'	165°37.5'	S 22°32.3'	136°36.8'	S 22°31.0'	247°48.8'	N 3°44.3'
5	246°27.2'	S 3°12.3'	180°39.7'	S 22°32.3'	151°39.2'	S 22°31.0'	262°49.8'	N 3°43.7'
6	261°26.8'	S 3°13.5'	195°41.8'	S 22°32.3'	166°41.7'	S 22°31.0'	277°50.8'	N 3°43.0'
7	276°26.4'	S 3°14.8'	210°43.9'	S 22°32.4'	181°44.1'	S 22°31.0'	292°51.8'	N 3°42.4'
8	291°26.1'	S 3°16.1'	225°46.1'	S 22°32.4'	196°46.5'	S 22°31.0'	307°52.8'	N 3°41.7'
9	306°25.7'	S 3°17.3'	240°48.2'	S 22°32.4'	211°49.0'	S 22°31.0'	322°53.8'	N 3°41.1'
10	321°25.3'	S 3°18.6'	255°50.4'	S 22°32.5'	226°51.4'	S 22°31.0'	337°54.8'	N 3°40.4'
11	336°24.9'	S 3°19.9'	270°52.5'	S 22°32.5'	241°53.9'	S 22°31.0'	352°55.7'	N 3°39.8'
12	351°24.6'	S 3°21.2'	285°54.6'	S 22°32.5'	256°56.3'	S 22°31.0'	7°56.7'	N 3°39.2'
13	6°24.2'	S 3°22.4'	300°56.8'	S 22°32.6'	271°58.7'	S 22°31.0'	22°57.7'	N 3°38.5'
14	21°23.8'	S 3°23.7'	315°58.9'	S 22°32.6'	287°01.2'	S 22°31.0'	37°58.7'	N 3°37.9'
15	36°23.4'	S 3°25.0'	331°01.1'	S 22°32.6'	302°03.6'	S 22°31.0'	52°59.7'	N 3°37.2'
16	51°23.1'	S 3°26.2'	346°03.2'	S 22°32.7'	317°06.1'	S 22°31.0'	68°00.7'	N 3°36.6'
17	66°22.7'	S 3°27.5'	1°05.3'	S 22°32.7'	332°08.5'	S 22°31.0'	83°01.7'	N 3°35.9'
18	81°22.3'	S 3°28.8'	16°07.5'	S 22°32.8'	347°10.9'	S 22°31.0'	98°02.7'	N 3°35.3'
19	96°21.9'	S 3°30.0'	31°09.6'	S 22°32.8'	2°13.4'	S 22°31.0'	113°03.7'	N 3°34.7'
20	111°21.6'	S 3°31.3'	46°11.8'	S 22°32.8'	17°15.8'	S 22°31.0'	128°04.7'	N 3°34.0'
21	126°21.2'	S 3°32.6'	61°13.9'	S 22°32.9'	32°18.3'	S 22°31.0'	143°05.7'	N 3°33.4'
22	141°20.8'	S 3°33.9'	76°16.0'	S 22°32.9'	47°20.7'	S 22°31.0'	158°06.7'	N 3°32.7'
23	156°20.4'	S 3°35.1'	91°18.2'	S 22°32.9'	62°23.1'	S 22°31.0'	173°07.7'	N 3°32.1'

Tue Sep 24, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.4		Mars +1.8	
	v = -0.4' d = 1.3'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	171°20.0'	S 3°36.4'	106°20.3'	S 22°33.0'	77°25.6'	S 22°31.0'	188°08.7'	N 3°31.4'
1	186°19.7'	S 3°37.7'	121°22.4'	S 22°33.0'	92°28.0'	S 22°31.0'	203°09.7'	N 3°30.8'
2	201°19.3'	S 3°38.9'	136°24.6'	S 22°33.0'	107°30.5'	S 22°31.0'	218°10.6'	N 3°30.2'
3	216°18.9'	S 3°40.2'	151°26.7'	S 22°33.1'	122°32.9'	S 22°31.0'	233°11.6'	N 3°29.5'
4	231°18.5'	S 3°41.5'	166°28.9'	S 22°33.1'	137°35.3'	S 22°31.0'	248°12.6'	N 3°28.9'
5	246°18.2'	S 3°42.7'	181°31.0'	S 22°33.1'	152°37.8'	S 22°31.0'	263°13.6'	N 3°28.2'
6	261°17.8'	S 3°44.0'	196°33.1'	S 22°33.2'	167°40.2'	S 22°31.0'	278°14.6'	N 3°27.6'
7	276°17.4'	S 3°45.3'	211°35.3'	S 22°33.2'	182°42.6'	S 22°31.0'	293°15.6'	N 3°26.9'
8	291°17.0'	S 3°46.5'	226°37.4'	S 22°33.2'	197°45.1'	S 22°31.0'	308°16.6'	N 3°26.3'
9	306°16.6'	S 3°47.8'	241°39.5'	S 22°33.3'	212°47.5'	S 22°31.0'	323°17.6'	N 3°25.6'
10	321°16.3'	S 3°49.1'	256°41.7'	S 22°33.3'	227°50.0'	S 22°31.0'	338°18.6'	N 3°25.0'
11	336°15.9'	S 3°50.3'	271°43.8'	S 22°33.4'	242°52.4'	S 22°31.0'	353°19.6'	N 3°24.4'
12	351°15.5'	S 3°51.6'	286°45.9'	S 22°33.4'	257°54.8'	S 22°31.0'	8°20.6'	N 3°23.7'
13	6°15.1'	S 3°52.9'	301°48.1'	S 22°33.4'	272°57.3'	S 22°31.0'	23°21.6'	N 3°23.1'
14	21°14.8'	S 3°54.2'	316°50.2'	S 22°33.5'	287°59.7'	S 22°31.0'	38°22.6'	N 3°22.4'
15	36°14.4'	S 3°55.4'	331°52.3'	S 22°33.5'	303°02.1'	S 22°31.0'	53°23.6'	N 3°21.8'
16	51°14.0'	S 3°56.7'	346°54.5'	S 22°33.5'	318°04.6'	S 22°31.0'	68°24.6'	N 3°21.1'
17	66°13.6'	S 3°58.0'	1°56.6'	S 22°33.6'	333°07.0'	S 22°31.0'	83°25.5'	N 3°20.5'
18	81°13.2'	S 3°59.2'	16°58.7'	S 22°33.6'	348°09.4'	S 22°31.0'	98°26.5'	N 3°19.9'
19	96°12.9'	S 4°00.5'	32°00.9'	S 22°33.6'	3°11.9'	S 22°31.0'	113°27.5'	N 3°19.2'
20	111°12.5'	S 4°01.8'	47°03.0'	S 22°33.7'	18°14.3'	S 22°31.0'	128°28.5'	N 3°18.6'
21	126°12.1'	S 4°03.0'	62°05.1'	S 22°33.7'	33°16.8'	S 22°31.0'	143°29.5'	N 3°17.9'
22	141°11.7'	S 4°04.3'	77°07.2'	S 22°33.7'	48°19.2'	S 22°31.0'	158°30.5'	N 3°17.3'
23	156°11.3'	S 4°05.6'	92°09.4'	S 22°33.8'	63°21.6'	S 22°31.0'	173°31.5'	N 3°16.6'

Wed Sep 25, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.3'		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	171°11.0'	S 4°06.8'	107°11.5'	S 22°33.8'	78°24.1'	S 22°31.0'	188°32.5'	N 3°16.0'
1	186°10.6'	S 4°08.1'	122°13.6'	S 22°33.8'	93°26.5'	S 22°31.0'	203°33.5'	N 3°15.3'
2	201°10.2'	S 4°09.4'	137°15.8'	S 22°33.9'	108°28.9'	S 22°31.0'	218°34.5'	N 3°14.7'
3	216°09.8'	S 4°10.6'	152°17.9'	S 22°33.9'	123°31.4'	S 22°31.0'	233°35.5'	N 3°14.1'
4	231°09.4'	S 4°11.9'	167°20.0'	S 22°34.0'	138°33.8'	S 22°31.0'	248°36.5'	N 3°13.4'
5	246°09.0'	S 4°13.2'	182°22.2'	S 22°34.0'	153°36.2'	S 22°31.0'	263°37.5'	N 3°12.8'
6	261°08.7'	S 4°14.4'	197°24.3'	S 22°34.0'	168°38.7'	S 22°31.0'	278°38.5'	N 3°12.1'
7	276°08.3'	S 4°15.7'	212°26.4'	S 22°34.1'	183°41.1'	S 22°31.0'	293°39.5'	N 3°11.5'
8	291°07.9'	S 4°16.9'	227°28.5'	S 22°34.1'	198°43.5'	S 22°31.0'	308°40.4'	N 3°10.8'
9	306°07.5'	S 4°18.2'	242°30.7'	S 22°34.1'	213°46.0'	S 22°31.0'	323°41.4'	N 3°10.2'
10	321°07.1'	S 4°19.5'	257°32.8'	S 22°34.2'	228°48.4'	S 22°31.0'	338°42.4'	N 3°09.5'
11	336°06.8'	S 4°20.7'	272°34.9'	S 22°34.2'	243°50.8'	S 22°31.0'	353°43.4'	N 3°08.9'
12	351°06.4'	S 4°22.0'	287°37.1'	S 22°34.2'	258°53.3'	S 22°31.0'	8°44.4'	N 3°08.3'
13	6°06.0'	S 4°23.3'	302°39.2'	S 22°34.3'	273°55.7'	S 22°31.0'	23°45.4'	N 3°07.6'
14	21°05.6'	S 4°24.5'	317°41.3'	S 22°34.3'	288°58.1'	S 22°31.0'	38°46.4'	N 3°07.0'
15	36°05.2'	S 4°25.8'	332°43.4'	S 22°34.3'	304°00.5'	S 22°31.0'	53°47.4'	N 3°06.3'
16	51°04.8'	S 4°27.1'	347°45.6'	S 22°34.4'	319°03.0'	S 22°31.0'	68°48.4'	N 3°05.7'
17	66°04.5'	S 4°28.3'	2°47.7'	S 22°34.4'	334°05.4'	S 22°31.0'	83°49.4'	N 3°05.0'
18	81°04.1'	S 4°29.6'	17°49.8'	S 22°34.5'	349°07.8'	S 22°31.1'	98°50.4'	N 3°04.4'
19	96°03.7'	S 4°30.9'	32°51.9'	S 22°34.5'	4°10.3'	S 22°31.1'	113°51.4'	N 3°03.7'
20	111°03.3'	S 4°32.1'	47°54.1'	S 22°34.5'	19°12.7'	S 22°31.1'	128°52.4'	N 3°03.1'
21	126°02.9'	S 4°33.4'	62°56.2'	S 22°34.6'	34°15.1'	S 22°31.1'	143°53.4'	N 3°02.4'
22	141°02.5'	S 4°34.6'	77°58.3'	S 22°34.6'	49°17.6'	S 22°31.1'	158°54.4'	N 3°01.8'
23	156°02.2'	S 4°35.9'	93°00.4'	S 22°34.6'	64°20.0'	S 22°31.1'	173°55.3'	N 3°01.2'

Thu Sep 26, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.3'		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	171°01.8'	S 4°37.2'	108°02.6'	S 22°34.7'	79°22.4'	S 22°31.1'	188°56.3'	N 3°00.5'
1	186°01.4'	S 4°38.4'	123°04.7'	S 22°34.7'	94°24.9'	S 22°31.1'	203°57.3'	N 2°59.9'
2	201°01.0'	S 4°39.7'	138°06.8'	S 22°34.7'	109°27.3'	S 22°31.1'	218°58.3'	N 2°59.2'
3	216°00.6'	S 4°41.0'	153°08.9'	S 22°34.8'	124°29.7'	S 22°31.1'	233°59.3'	N 2°58.6'
4	231°00.2'	S 4°42.2'	168°11.1'	S 22°34.8'	139°32.1'	S 22°31.1'	249°00.3'	N 2°57.9'
5	245°59.9'	S 4°43.5'	183°13.2'	S 22°34.8'	154°34.6'	S 22°31.1'	264°01.3'	N 2°57.3'
6	260°59.5'	S 4°44.7'	198°15.3'	S 22°34.9'	169°37.0'	S 22°31.1'	279°02.3'	N 2°56.6'
7	275°59.1'	S 4°46.0'	213°17.4'	S 22°34.9'	184°39.4'	S 22°31.1'	294°03.3'	N 2°56.0'
8	290°58.7'	S 4°47.3'	228°19.5'	S 22°35.0'	199°41.9'	S 22°31.1'	309°04.3'	N 2°55.3'
9	305°58.3'	S 4°48.5'	243°21.7'	S 22°35.0'	214°44.3'	S 22°31.1'	324°05.3'	N 2°54.7'
10	320°57.9'	S 4°49.8'	258°23.8'	S 22°35.0'	229°46.7'	S 22°31.1'	339°06.3'	N 2°54.1'
11	335°57.5'	S 4°51.1'	273°25.9'	S 22°35.1'	244°49.1'	S 22°31.1'	354°07.3'	N 2°53.4'
12	350°57.2'	S 4°52.3'	288°28.0'	S 22°35.1'	259°51.6'	S 22°31.1'	9°08.3'	N 2°52.8'
13	5°56.8'	S 4°53.6'	303°30.1'	S 22°35.1'	274°54.0'	S 22°31.1'	24°09.3'	N 2°52.1'
14	20°56.4'	S 4°54.8'	318°32.3'	S 22°35.2'	289°56.4'	S 22°31.1'	39°10.2'	N 2°51.5'
15	35°56.0'	S 4°56.1'	333°34.4'	S 22°35.2'	304°58.9'	S 22°31.1'	54°11.2'	N 2°50.8'
16	50°55.6'	S 4°57.4'	348°36.5'	S 22°35.2'	320°01.3'	S 22°31.1'	69°12.2'	N 2°50.2'
17	65°55.2'	S 4°58.6'	3°38.6'	S 22°35.3'	335°03.7'	S 22°31.1'	84°13.2'	N 2°49.5'
18	80°54.8'	S 4°59.9'	18°40.7'	S 22°35.3'	350°06.1'	S 22°31.1'	99°14.2'	N 2°48.9'
19	95°54.4'	S 5°01.1'	33°42.9'	S 22°35.3'	5°08.6'	S 22°31.1'	114°15.2'	N 2°48.2'
20	110°54.1'	S 5°02.4'	48°45.0'	S 22°35.4'	20°11.0'	S 22°31.1'	129°16.2'	N 2°47.6'
21	125°53.7'	S 5°03.7'	63°47.1'	S 22°35.4'	35°13.4'	S 22°31.1'	144°17.2'	N 2°47.0'
22	140°53.3'	S 5°04.9'	78°49.2'	S 22°35.5'	50°15.8'	S 22°31.1'	159°18.2'	N 2°46.3'
23	155°52.9'	S 5°06.2'	93°51.3'	S 22°35.5'	65°18.3'	S 22°31.1'	174°19.2'	N 2°45.7'

Fri Sep 27, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.3'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	170°52.5'	S 5°07.4'	108°53.5'	S 22°35.5'	80°20.7'	S 22°31.1'	189°20.2'	N 2°45.0'
1	185°52.1'	S 5°08.7'	123°55.6'	S 22°35.6'	95°23.1'	S 22°31.1'	204°21.2'	N 2°44.4'
2	200°51.7'	S 5°10.0'	138°57.7'	S 22°35.6'	110°25.5'	S 22°31.1'	219°22.2'	N 2°43.7'
3	215°51.3'	S 5°11.2'	153°59.8'	S 22°35.6'	125°28.0'	S 22°31.1'	234°23.2'	N 2°43.1'
4	230°50.9'	S 5°12.5'	169°01.9'	S 22°35.7'	140°30.4'	S 22°31.1'	249°24.2'	N 2°42.4'
5	245°50.6'	S 5°13.7'	184°04.0'	S 22°35.7'	155°32.8'	S 22°31.1'	264°25.1'	N 2°41.8'
6	260°50.2'	S 5°15.0'	199°06.2'	S 22°35.7'	170°35.2'	S 22°31.1'	279°26.1'	N 2°41.1'
7	275°49.8'	S 5°16.3'	214°08.3'	S 22°35.8'	185°37.7'	S 22°31.1'	294°27.1'	N 2°40.5'
8	290°49.4'	S 5°17.5'	229°10.4'	S 22°35.8'	200°40.1'	S 22°31.1'	309°28.1'	N 2°39.8'
9	305°49.0'	S 5°18.8'	244°12.5'	S 22°35.8'	215°42.5'	S 22°31.1'	324°29.1'	N 2°39.2'
10	320°48.6'	S 5°20.0'	259°14.6'	S 22°35.9'	230°44.9'	S 22°31.1'	339°30.1'	N 2°38.6'
11	335°48.2'	S 5°21.3'	274°16.7'	S 22°35.9'	245°47.4'	S 22°31.1'	354°31.1'	N 2°37.9'
12	350°47.8'	S 5°22.5'	289°18.8'	S 22°36.0'	260°49.8'	S 22°31.1'	9°32.1'	N 2°37.3'
13	5°47.4'	S 5°23.8'	304°21.0'	S 22°36.0'	275°52.2'	S 22°31.1'	24°33.1'	N 2°36.6'
14	20°47.0'	S 5°25.1'	319°23.1'	S 22°36.0'	290°54.6'	S 22°31.1'	39°34.1'	N 2°36.0'
15	35°46.7'	S 5°26.3'	334°25.2'	S 22°36.1'	305°57.0'	S 22°31.1'	54°35.1'	N 2°35.3'
16	50°46.3'	S 5°27.6'	349°27.3'	S 22°36.1'	320°59.5'	S 22°31.1'	69°36.1'	N 2°34.7'
17	65°45.9'	S 5°28.8'	4°29.4'	S 22°36.1'	336°01.9'	S 22°31.1'	84°37.1'	N 2°34.0'
18	80°45.5'	S 5°30.1'	19°31.5'	S 22°36.2'	351°04.3'	S 22°31.1'	99°38.1'	N 2°33.4'
19	95°45.1'	S 5°31.3'	34°33.6'	S 22°36.2'	6°06.7'	S 22°31.1'	114°39.1'	N 2°32.7'
20	110°44.7'	S 5°32.6'	49°35.8'	S 22°36.2'	21°09.2'	S 22°31.1'	129°40.1'	N 2°32.1'
21	125°44.3'	S 5°33.8'	64°37.9'	S 22°36.3'	36°11.6'	S 22°31.1'	144°41.0'	N 2°31.4'
22	140°43.9'	S 5°35.1'	79°40.0'	S 22°36.3'	51°14.0'	S 22°31.1'	159°42.0'	N 2°30.8'
23	155°43.5'	S 5°36.4'	94°42.1'	S 22°36.4'	66°16.4'	S 22°31.1'	174°43.0'	N 2°30.1'

Sat Sep 28, 2019 UTC

UTC	Venus -3.8		Jupiter -1.9		Saturn +0.5		Mars +1.8	
	v = -0.4' d = 1.3'		v = 2.1' d = 0.0'		v = 2.4' d = 0.0'		v = 1.0' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	170°43.1'	S 5°37.6'	109°44.2'	S 22°36.4'	81°18.8'	S 22°31.1'	189°44.0'	N 2°29.5'
1	185°42.7'	S 5°38.9'	124°46.3'	S 22°36.4'	96°21.3'	S 22°31.1'	204°45.0'	N 2°28.9'
2	200°42.3'	S 5°40.1'	139°48.4'	S 22°36.5'	111°23.7'	S 22°31.1'	219°46.0'	N 2°28.2'
3	215°41.9'	S 5°41.4'	154°50.5'	S 22°36.5'	126°26.1'	S 22°31.1'	234°47.0'	N 2°27.6'
4	230°41.5'	S 5°42.6'	169°52.6'	S 22°36.5'	141°28.5'	S 22°31.1'	249°48.0'	N 2°26.9'
5	245°41.2'	S 5°43.9'	184°54.8'	S 22°36.6'	156°30.9'	S 22°31.1'	264°49.0'	N 2°26.3'
6	260°40.8'	S 5°45.1'	199°56.9'	S 22°36.6'	171°33.4'	S 22°31.1'	279°50.0'	N 2°25.6'
7	275°40.4'	S 5°46.4'	214°59.0'	S 22°36.6'	186°35.8'	S 22°31.1'	294°51.0'	N 2°25.0'
8	290°40.0'	S 5°47.6'	230°01.1'	S 22°36.7'	201°38.2'	S 22°31.1'	309°52.0'	N 2°24.3'
9	305°39.6'	S 5°48.9'	245°03.2'	S 22°36.7'	216°40.6'	S 22°31.1'	324°53.0'	N 2°23.7'
10	320°39.2'	S 5°50.1'	260°05.3'	S 22°36.7'	231°43.0'	S 22°31.1'	339°54.0'	N 2°23.0'
11	335°38.8'	S 5°51.4'	275°07.4'	S 22°36.8'	246°45.5'	S 22°31.1'	354°55.0'	N 2°22.4'
12	350°38.4'	S 5°52.7'	290°09.5'	S 22°36.8'	261°47.9'	S 22°31.1'	9°55.9'	N 2°21.7'
13	5°38.0'	S 5°53.9'	305°11.6'	S 22°36.9'	276°50.3'	S 22°31.1'	24°56.9'	N 2°21.1'
14	20°37.6'	S 5°55.2'	320°13.7'	S 22°36.9'	291°52.7'	S 22°31.1'	39°57.9'	N 2°20.4'
15	35°37.2'	S 5°56.4'	335°15.8'	S 22°36.9'	306°55.1'	S 22°31.1'	54°58.9'	N 2°19.8'
16	50°36.8'	S 5°57.7'	350°18.0'	S 22°37.0'	321°57.6'	S 22°31.1'	69°59.9'	N 2°19.1'
17	65°36.4'	S 5°58.9'	5°20.1'	S 22°37.0'	336°60.0'	S 22°31.1'	85°00.9'	N 2°18.5'
18	80°36.0'	S 6°00.2'	20°22.2'	S 22°37.0'	352°02.4'	S 22°31.1'	100°01.9'	N 2°17.9'
19	95°35.6'	S 6°01.4'	35°24.3'	S 22°37.1'	7°04.8'	S 22°31.1'	115°02.9'	N 2°17.2'
20	110°35.2'	S 6°02.7'	50°26.4'	S 22°37.1'	22°07.2'	S 22°31.1'	130°03.9'	N 2°16.6'
21	125°34.8'	S 6°03.9'	65°28.5'	S 22°37.1'	37°09.6'	S 22°31.1'	145°04.9'	N 2°15.9'
22	140°34.4'	S 6°05.2'	80°30.6'	S 22°37.2'	52°12.1'	S 22°31.1'	160°05.9'	N 2°15.3'
23	155°34.0'	S 6°06.4'	95°32.7'	S 22°37.2'	67°14.5'	S 22°31.1'	175°06.9'	N 2°14.6'

Sun Sep 29, 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 = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	170°33.6'	S 6°07.7'	110°34.8'	S 22°37.3'	82°16.9'	S 22°31.1'	190°07.9'	N 2°14.0'
1	185°33.2'	S 6°08.9'	125°36.9'	S 22°37.3'	97°19.3'	S 22°31.1'	205°08.9'	N 2°13.3'
2	200°32.8'	S 6°10.2'	140°39.0'	S 22°37.3'	112°21.7'	S 22°31.1'	220°09.9'	N 2°12.7'
3	215°32.4'	S 6°11.4'	155°41.1'	S 22°37.4'	127°24.1'	S 22°31.1'	235°10.8'	N 2°12.0'
4	230°32.0'	S 6°12.7'	170°43.2'	S 22°37.4'	142°26.6'	S 22°31.1'	250°11.8'	N 2°11.4'
5	245°31.6'	S 6°13.9'	185°45.3'	S 22°37.4'	157°29.0'	S 22°31.1'	265°12.8'	N 2°10.7'
6	260°31.2'	S 6°15.2'	200°47.4'	S 22°37.5'	172°31.4'	S 22°31.1'	280°13.8'	N 2°10.1'
7	275°30.8'	S 6°16.4'	215°49.5'	S 22°37.5'	187°33.8'	S 22°31.1'	295°14.8'	N 2°09.4'
8	290°30.4'	S 6°17.7'	230°51.6'	S 22°37.5'	202°36.2'	S 22°31.1'	310°15.8'	N 2°08.8'
9	305°30.0'	S 6°18.9'	245°53.7'	S 22°37.6'	217°38.6'	S 22°31.1'	325°16.8'	N 2°08.1'
10	320°29.6'	S 6°20.2'	260°55.8'	S 22°37.6'	232°41.1'	S 22°31.1'	340°17.8'	N 2°07.5'
11	335°29.2'	S 6°21.4'	275°58.0'	S 22°37.7'	247°43.5'	S 22°31.1'	355°18.8'	N 2°06.8'
12	350°28.8'	S 6°22.7'	291°00.1'	S 22°37.7'	262°45.9'	S 22°31.1'	10°19.8'	N 2°06.2'
13	5°28.4'	S 6°23.9'	306°02.2'	S 22°37.7'	277°48.3'	S 22°31.1'	25°20.8'	N 2°05.6'
14	20°28.0'	S 6°25.1'	321°04.3'	S 22°37.8'	292°50.7'	S 22°31.1'	40°21.8'	N 2°04.9'
15	35°27.6'	S 6°26.4'	336°06.4'	S 22°37.8'	307°53.1'	S 22°31.1'	55°22.8'	N 2°04.3'
16	50°27.2'	S 6°27.6'	351°08.5'	S 22°37.8'	322°55.5'	S 22°31.1'	70°23.8'	N 2°03.6'
17	65°26.8'	S 6°28.9'	6°10.6'	S 22°37.9'	337°57.9'	S 22°31.1'	85°24.8'	N 2°03.0'
18	80°26.4'	S 6°30.1'	21°12.7'	S 22°37.9'	353°00.4'	S 22°31.1'	100°25.7'	N 2°02.3'
19	95°26.0'	S 6°31.4'	36°14.8'	S 22°37.9'	8°02.8'	S 22°31.1'	115°26.7'	N 2°01.7'
20	110°25.6'	S 6°32.6'	51°16.9'	S 22°38.0'	23°05.2'	S 22°31.1'	130°27.7'	N 2°01.0'
21	125°25.2'	S 6°33.9'	66°19.0'	S 22°38.0'	38°07.6'	S 22°31.1'	145°28.7'	N 2°00.4'
22	140°24.8'	S 6°35.1'	81°21.1'	S 22°38.1'	53°10.0'	S 22°31.1'	160°29.7'	N 1°59.7'
23	155°24.4'	S 6°36.4'	96°23.2'	S 22°38.1'	68°12.4'	S 22°31.1'	175°30.7'	N 1°59.1'

Mon Sep 30, 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 = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	170°24.0'	S 6°37.6'	111°25.3'	S 22°38.1'	83°14.8'	S 22°31.1'	190°31.7'	N 1°58.4'
1	185°23.6'	S 6°38.8'	126°27.4'	S 22°38.2'	98°17.3'	S 22°31.1'	205°32.7'	N 1°57.8'
2	200°23.2'	S 6°40.1'	141°29.5'	S 22°38.2'	113°19.7'	S 22°31.1'	220°33.7'	N 1°57.1'
3	215°22.8'	S 6°41.3'	156°31.6'	S 22°38.2'	128°22.1'	S 22°31.1'	235°34.7'	N 1°56.5'
4	230°22.4'	S 6°42.6'	171°33.7'	S 22°38.3'	143°24.5'	S 22°31.1'	250°35.7'	N 1°55.8'
5	245°22.0'	S 6°43.8'	186°35.8'	S 22°38.3'	158°26.9'	S 22°31.0'	265°36.7'	N 1°55.2'
6	260°21.6'	S 6°45.1'	201°37.9'	S 22°38.3'	173°29.3'	S 22°31.0'	280°37.7'	N 1°54.5'
7	275°21.2'	S 6°46.3'	216°40.0'	S 22°38.4'	188°31.7'	S 22°31.0'	295°38.7'	N 1°53.9'
8	290°20.8'	S 6°47.6'	231°42.0'	S 22°38.4'	203°34.1'	S 22°31.0'	310°39.6'	N 1°53.2'
9	305°20.4'	S 6°48.8'	246°44.1'	S 22°38.5'	218°36.5'	S 22°31.0'	325°40.6'	N 1°52.6'
10	320°20.0'	S 6°50.0'	261°46.2'	S 22°38.5'	233°39.0'	S 22°31.0'	340°41.6'	N 1°51.9'
11	335°19.6'	S 6°51.3'	276°48.3'	S 22°38.5'	248°41.4'	S 22°31.0'	355°42.6'	N 1°51.3'
12	350°19.2'	S 6°52.5'	291°50.4'	S 22°38.6'	263°43.8'	S 22°31.0'	10°43.6'	N 1°50.6'
13	5°18.8'	S 6°53.8'	306°52.5'	S 22°38.6'	278°46.2'	S 22°31.0'	25°44.6'	N 1°50.0'
14	20°18.3'	S 6°55.0'	321°54.6'	S 22°38.6'	293°48.6'	S 22°31.0'	40°45.6'	N 1°49.3'
15	35°17.9'	S 6°56.2'	336°56.7'	S 22°38.7'	308°51.0'	S 22°31.0'	55°46.6'	N 1°48.7'
16	50°17.5'	S 6°57.5'	351°58.8'	S 22°38.7'	323°53.4'	S 22°31.0'	70°47.6'	N 1°48.1'
17	65°17.1'	S 6°58.7'	7°00.9'	S 22°38.7'	338°55.8'	S 22°31.0'	85°48.6'	N 1°47.4'
18	80°16.7'	S 6°60.0'	22°03.0'	S 22°38.8'	353°58.2'	S 22°31.0'	100°49.6'	N 1°46.8'
19	95°16.3'	S 7°01.2'	37°05.1'	S 22°38.8'	9°00.6'	S 22°31.0'	115°50.6'	N 1°46.1'
20	110°15.9'	S 7°02.4'	52°07.2'	S 22°38.9'	24°03.0'	S 22°31.0'	130°51.6'	N 1°45.5'
21	125°15.5'	S 7°03.7'	67°09.3'	S 22°38.9'	39°05.5'	S 22°31.0'	145°52.6'	N 1°44.8'
22	140°15.1'	S 7°04.9'	82°11.4'	S 22°38.9'	54°07.9'	S 22°31.0'	160°53.6'	N 1°44.2'
23	155°14.7'	S 7°06.2'	97°13.5'	S 22°39.0'	69°10.3'	S 22°31.0'	175°54.5'	N 1°43.5'