

Wed May 1, 2019 UTC

UTC	Venus -3.8		Jupiter -2.3		Saturn +0.5		Mars +1.6	
	v = -0.3' d = 1.2'		v = 2.6' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	206°28.7'	N 3°25.2'	315°26.7'	S 22°39.4'	286°30.4'	S 21°29.0'	139°24.0'	N 24°08.6'
1	221°28.4'	N 3°26.4'	330°29.3'	S 22°39.3'	301°32.9'	S 21°29.0'	154°24.7'	N 24°08.7'
2	236°28.1'	N 3°27.6'	345°32.0'	S 22°39.3'	316°35.3'	S 21°29.0'	169°25.4'	N 24°08.9'
3	251°27.7'	N 3°28.7'	0°34.6'	S 22°39.3'	331°37.8'	S 21°29.0'	184°26.1'	N 24°09.0'
4	266°27.4'	N 3°29.9'	15°37.2'	S 22°39.3'	346°40.3'	S 21°29.0'	199°26.7'	N 24°09.1'
5	281°27.0'	N 3°31.0'	30°39.9'	S 22°39.3'	1°42.7'	S 21°29.0'	214°27.4'	N 24°09.3'
6	296°26.7'	N 3°32.2'	45°42.5'	S 22°39.3'	16°45.2'	S 21°29.0'	229°28.1'	N 24°09.4'
7	311°26.4'	N 3°33.4'	60°45.1'	S 22°39.3'	31°47.7'	S 21°29.0'	244°28.8'	N 24°09.5'
8	326°26.0'	N 3°34.5'	75°47.8'	S 22°39.3'	46°50.2'	S 21°29.0'	259°29.5'	N 24°09.6'
9	341°25.7'	N 3°35.7'	90°50.4'	S 22°39.3'	61°52.6'	S 21°29.0'	274°30.2'	N 24°09.8'
10	356°25.3'	N 3°36.9'	105°53.0'	S 22°39.3'	76°55.1'	S 21°29.0'	289°30.9'	N 24°09.9'
11	11°25.0'	N 3°38.0'	120°55.7'	S 22°39.3'	91°57.6'	S 21°29.0'	304°31.5'	N 24°10.0'
12	26°24.7'	N 3°39.2'	135°58.3'	S 22°39.3'	107°00.0'	S 21°29.0'	319°32.2'	N 24°10.2'
13	41°24.3'	N 3°40.4'	151°00.9'	S 22°39.3'	122°02.5'	S 21°29.0'	334°32.9'	N 24°10.3'
14	56°24.0'	N 3°41.5'	166°03.6'	S 22°39.3'	137°05.0'	S 21°29.0'	349°33.6'	N 24°10.4'
15	71°23.6'	N 3°42.7'	181°06.2'	S 22°39.3'	152°07.4'	S 21°29.0'	4°34.3'	N 24°10.5'
16	86°23.3'	N 3°43.9'	196°08.8'	S 22°39.3'	167°09.9'	S 21°29.0'	19°35.0'	N 24°10.7'
17	101°23.0'	N 3°45.0'	211°11.5'	S 22°39.2'	182°12.4'	S 21°29.0'	34°35.7'	N 24°10.8'
18	116°22.6'	N 3°46.2'	226°14.1'	S 22°39.2'	197°14.9'	S 21°29.0'	49°36.3'	N 24°10.9'
19	131°22.3'	N 3°47.3'	241°16.7'	S 22°39.2'	212°17.3'	S 21°29.0'	64°37.0'	N 24°11.0'
20	146°21.9'	N 3°48.5'	256°19.4'	S 22°39.2'	227°19.8'	S 21°29.0'	79°37.7'	N 24°11.2'
21	161°21.6'	N 3°49.7'	271°22.0'	S 22°39.2'	242°22.3'	S 21°29.0'	94°38.4'	N 24°11.3'
22	176°21.2'	N 3°50.8'	286°24.7'	S 22°39.2'	257°24.7'	S 21°29.0'	109°39.1'	N 24°11.4'
23	191°20.9'	N 3°52.0'	301°27.3'	S 22°39.2'	272°27.2'	S 21°29.0'	124°39.8'	N 24°11.5'

Thu May 2, 2019 UTC

UTC	Venus -3.8		Jupiter -2.3		Saturn +0.5		Mars +1.6	
	v = -0.3' d = 1.2'		v = 2.6' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	206°20.6'	N 3°53.2'	316°29.9'	S 22°39.2'	287°29.7'	S 21°29.0'	139°40.5'	N 24°11.6'
1	221°20.2'	N 3°54.3'	331°32.6'	S 22°39.2'	302°32.2'	S 21°29.0'	154°41.1'	N 24°11.8'
2	236°19.9'	N 3°55.5'	346°35.2'	S 22°39.2'	317°34.6'	S 21°29.0'	169°41.8'	N 24°11.9'
3	251°19.5'	N 3°56.7'	1°37.9'	S 22°39.2'	332°37.1'	S 21°29.0'	184°42.5'	N 24°12.0'
4	266°19.2'	N 3°57.8'	16°40.5'	S 22°39.2'	347°39.6'	S 21°29.0'	199°43.2'	N 24°12.1'
5	281°18.9'	N 3°59.0'	31°43.1'	S 22°39.2'	2°42.1'	S 21°29.0'	214°43.9'	N 24°12.3'
6	296°18.5'	N 4°00.1'	46°45.8'	S 22°39.2'	17°44.5'	S 21°29.0'	229°44.6'	N 24°12.4'
7	311°18.2'	N 4°01.3'	61°48.4'	S 22°39.2'	32°47.0'	S 21°29.0'	244°45.3'	N 24°12.5'
8	326°17.8'	N 4°02.5'	76°51.1'	S 22°39.1'	47°49.5'	S 21°29.0'	259°45.9'	N 24°12.6'
9	341°17.5'	N 4°03.6'	91°53.7'	S 22°39.1'	62°51.9'	S 21°29.1'	274°46.6'	N 24°12.7'
10	356°17.1'	N 4°04.8'	106°56.3'	S 22°39.1'	77°54.4'	S 21°29.1'	289°47.3'	N 24°12.9'
11	11°16.8'	N 4°06.0'	121°59.0'	S 22°39.1'	92°56.9'	S 21°29.1'	304°48.0'	N 24°13.0'
12	26°16.5'	N 4°07.1'	137°01.6'	S 22°39.1'	107°59.4'	S 21°29.1'	319°48.7'	N 24°13.1'
13	41°16.1'	N 4°08.3'	152°04.3'	S 22°39.1'	123°01.8'	S 21°29.1'	334°49.4'	N 24°13.2'
14	56°15.8'	N 4°09.4'	167°06.9'	S 22°39.1'	138°04.3'	S 21°29.1'	349°50.1'	N 24°13.3'
15	71°15.4'	N 4°10.6'	182°09.5'	S 22°39.1'	153°06.8'	S 21°29.1'	4°50.7'	N 24°13.4'
16	86°15.1'	N 4°11.8'	197°12.2'	S 22°39.1'	168°09.3'	S 21°29.1'	19°51.4'	N 24°13.6'
17	101°14.7'	N 4°12.9'	212°14.8'	S 22°39.1'	183°11.7'	S 21°29.1'	34°52.1'	N 24°13.7'
18	116°14.4'	N 4°14.1'	227°17.5'	S 22°39.1'	198°14.2'	S 21°29.1'	49°52.8'	N 24°13.8'
19	131°14.1'	N 4°15.3'	242°20.1'	S 22°39.1'	213°16.7'	S 21°29.1'	64°53.5'	N 24°13.9'
20	146°13.7'	N 4°16.4'	257°22.8'	S 22°39.1'	228°19.2'	S 21°29.1'	79°54.2'	N 24°14.0'
21	161°13.4'	N 4°17.6'	272°25.4'	S 22°39.1'	243°21.6'	S 21°29.1'	94°54.9'	N 24°14.1'
22	176°13.0'	N 4°18.7'	287°28.1'	S 22°39.0'	258°24.1'	S 21°29.1'	109°55.5'	N 24°14.3'
23	191°12.7'	N 4°19.9'	302°30.7'	S 22°39.0'	273°26.6'	S 21°29.1'	124°56.2'	N 24°14.4'

Fri May 3, 2019 UTC

UTC	Venus -3.8		Jupiter -2.3		Saturn +0.4		Mars +1.6	
	v = -0.3' d = 1.2'		v = 2.6' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	206°12.3'	N 4°21.1'	317°33.3'	S 22°39.0'	288°29.1'	S 21°29.1'	139°56.9'	N 24°14.5'
1	221°12.0'	N 4°22.2'	332°36.0'	S 22°39.0'	303°31.6'	S 21°29.1'	154°57.6'	N 24°14.6'
2	236°11.6'	N 4°23.4'	347°38.6'	S 22°39.0'	318°34.0'	S 21°29.1'	169°58.3'	N 24°14.7'
3	251°11.3'	N 4°24.5'	2°41.3'	S 22°39.0'	333°36.5'	S 21°29.1'	184°59.0'	N 24°14.8'
4	266°10.9'	N 4°25.7'	17°43.9'	S 22°39.0'	348°39.0'	S 21°29.1'	199°59.7'	N 24°14.9'
5	281°10.6'	N 4°26.9'	32°46.6'	S 22°39.0'	3°41.5'	S 21°29.1'	215°00.3'	N 24°15.0'
6	296°10.3'	N 4°28.0'	47°49.2'	S 22°39.0'	18°43.9'	S 21°29.1'	230°01.0'	N 24°15.2'
7	311°09.9'	N 4°29.2'	62°51.9'	S 22°39.0'	33°46.4'	S 21°29.1'	245°01.7'	N 24°15.3'
8	326°09.6'	N 4°30.3'	77°54.5'	S 22°39.0'	48°48.9'	S 21°29.1'	260°02.4'	N 24°15.4'
9	341°09.2'	N 4°31.5'	92°57.2'	S 22°39.0'	63°51.4'	S 21°29.1'	275°03.1'	N 24°15.5'
10	356°08.9'	N 4°32.7'	107°59.8'	S 22°39.0'	78°53.9'	S 21°29.1'	290°03.8'	N 24°15.6'
11	11°08.5'	N 4°33.8'	123°02.5'	S 22°39.0'	93°56.3'	S 21°29.1'	305°04.4'	N 24°15.7'
12	26°08.2'	N 4°35.0'	138°05.1'	S 22°39.0'	108°58.8'	S 21°29.1'	320°05.1'	N 24°15.8'
13	41°07.8'	N 4°36.1'	153°07.8'	S 22°38.9'	124°01.3'	S 21°29.2'	335°05.8'	N 24°15.9'
14	56°07.5'	N 4°37.3'	168°10.4'	S 22°38.9'	139°03.8'	S 21°29.2'	350°06.5'	N 24°16.0'
15	71°07.1'	N 4°38.5'	183°13.1'	S 22°38.9'	154°06.2'	S 21°29.2'	5°07.2'	N 24°16.2'
16	86°06.8'	N 4°39.6'	198°15.7'	S 22°38.9'	169°08.7'	S 21°29.2'	20°07.9'	N 24°16.3'
17	101°06.4'	N 4°40.8'	213°18.4'	S 22°38.9'	184°11.2'	S 21°29.2'	35°08.6'	N 24°16.4'
18	116°06.1'	N 4°41.9'	228°21.0'	S 22°38.9'	199°13.7'	S 21°29.2'	50°09.2'	N 24°16.5'
19	131°05.8'	N 4°43.1'	243°23.7'	S 22°38.9'	214°16.2'	S 21°29.2'	65°09.9'	N 24°16.6'
20	146°05.4'	N 4°44.2'	258°26.3'	S 22°38.9'	229°18.6'	S 21°29.2'	80°10.6'	N 24°16.7'
21	161°05.1'	N 4°45.4'	273°29.0'	S 22°38.9'	244°21.1'	S 21°29.2'	95°11.3'	N 24°16.8'
22	176°04.7'	N 4°46.6'	288°31.6'	S 22°38.9'	259°23.6'	S 21°29.2'	110°12.0'	N 24°16.9'
23	191°04.4'	N 4°47.7'	303°34.3'	S 22°38.9'	274°26.1'	S 21°29.2'	125°12.7'	N 24°17.0'

Sat May 4, 2019 UTC

UTC	Venus -3.8		Jupiter -2.3		Saturn +0.4		Mars +1.6	
	v = -0.4' d = 1.2'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	206°04.0'	N 4°48.9'	318°36.9'	S 22°38.9'	289°28.6'	S 21°29.2'	140°13.4'	N 24°17.1'
1	221°03.7'	N 4°50.0'	333°39.6'	S 22°38.9'	304°31.0'	S 21°29.2'	155°14.0'	N 24°17.2'
2	236°03.3'	N 4°51.2'	348°42.2'	S 22°38.8'	319°33.5'	S 21°29.2'	170°14.7'	N 24°17.3'
3	251°03.0'	N 4°52.4'	3°44.9'	S 22°38.8'	334°36.0'	S 21°29.2'	185°15.4'	N 24°17.4'
4	266°02.6'	N 4°53.5'	18°47.6'	S 22°38.8'	349°38.5'	S 21°29.2'	200°16.1'	N 24°17.5'
5	281°02.3'	N 4°54.7'	33°50.2'	S 22°38.8'	4°41.0'	S 21°29.2'	215°16.8'	N 24°17.6'
6	296°01.9'	N 4°55.8'	48°52.9'	S 22°38.8'	19°43.5'	S 21°29.2'	230°17.5'	N 24°17.8'
7	311°01.6'	N 4°57.0'	63°55.5'	S 22°38.8'	34°45.9'	S 21°29.2'	245°18.1'	N 24°17.9'
8	326°01.2'	N 4°58.1'	78°58.2'	S 22°38.8'	49°48.4'	S 21°29.2'	260°18.8'	N 24°18.0'
9	341°00.9'	N 4°59.3'	94°00.8'	S 22°38.8'	64°50.9'	S 21°29.2'	275°19.5'	N 24°18.1'
10	356°00.5'	N 5°00.4'	109°03.5'	S 22°38.8'	79°53.4'	S 21°29.2'	290°20.2'	N 24°18.2'
11	11°00.2'	N 5°01.6'	124°06.1'	S 22°38.8'	94°55.9'	S 21°29.2'	305°20.9'	N 24°18.3'
12	25°59.8'	N 5°02.8'	139°08.8'	S 22°38.8'	109°58.4'	S 21°29.2'	320°21.6'	N 24°18.4'
13	40°59.5'	N 5°03.9'	154°11.5'	S 22°38.8'	125°00.8'	S 21°29.3'	335°22.3'	N 24°18.5'
14	55°59.1'	N 5°05.1'	169°14.1'	S 22°38.8'	140°03.3'	S 21°29.3'	350°22.9'	N 24°18.6'
15	70°58.8'	N 5°06.2'	184°16.8'	S 22°38.8'	155°05.8'	S 21°29.3'	5°23.6'	N 24°18.7'
16	85°58.4'	N 5°07.4'	199°19.4'	S 22°38.7'	170°08.3'	S 21°29.3'	20°24.3'	N 24°18.8'
17	100°58.1'	N 5°08.5'	214°22.1'	S 22°38.7'	185°10.8'	S 21°29.3'	35°25.0'	N 24°18.9'
18	115°57.7'	N 5°09.7'	229°24.7'	S 22°38.7'	200°13.3'	S 21°29.3'	50°25.7'	N 24°19.0'
19	130°57.4'	N 5°10.8'	244°27.4'	S 22°38.7'	215°15.7'	S 21°29.3'	65°26.4'	N 24°19.1'
20	145°57.0'	N 5°12.0'	259°30.1'	S 22°38.7'	230°18.2'	S 21°29.3'	80°27.0'	N 24°19.2'
21	160°56.7'	N 5°13.2'	274°32.7'	S 22°38.7'	245°20.7'	S 21°29.3'	95°27.7'	N 24°19.3'
22	175°56.3'	N 5°14.3'	289°35.4'	S 22°38.7'	260°23.2'	S 21°29.3'	110°28.4'	N 24°19.4'
23	190°56.0'	N 5°15.5'	304°38.0'	S 22°38.7'	275°25.7'	S 21°29.3'	125°29.1'	N 24°19.5'

Sun May 5, 2019 UTC

UTC	Venus -3.8		Jupiter -2.3		Saturn +0.4		Mars +1.6	
	v = -0.4' d = 1.2'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	205°55.6'	N 5°16.6'	319°40.7'	S 22°38.7'	290°28.2'	S 21°29.3'	140°29.8'	N 24°19.6'
1	220°55.3'	N 5°17.8'	334°43.4'	S 22°38.7'	305°30.6'	S 21°29.3'	155°30.5'	N 24°19.7'
2	235°54.9'	N 5°18.9'	349°46.0'	S 22°38.7'	320°33.1'	S 21°29.3'	170°31.2'	N 24°19.8'
3	250°54.6'	N 5°20.1'	4°48.7'	S 22°38.7'	335°35.6'	S 21°29.3'	185°31.8'	N 24°19.9'
4	265°54.2'	N 5°21.2'	19°51.3'	S 22°38.7'	350°38.1'	S 21°29.3'	200°32.5'	N 24°20.0'
5	280°53.8'	N 5°22.4'	34°54.0'	S 22°38.6'	5°40.6'	S 21°29.3'	215°33.2'	N 24°20.1'
6	295°53.5'	N 5°23.5'	49°56.7'	S 22°38.6'	20°43.1'	S 21°29.3'	230°33.9'	N 24°20.1'
7	310°53.1'	N 5°24.7'	64°59.3'	S 22°38.6'	35°45.6'	S 21°29.3'	245°34.6'	N 24°20.2'
8	325°52.8'	N 5°25.8'	80°02.0'	S 22°38.6'	50°48.1'	S 21°29.3'	260°35.3'	N 24°20.3'
9	340°52.4'	N 5°27.0'	95°04.7'	S 22°38.6'	65°50.5'	S 21°29.3'	275°35.9'	N 24°20.4'
10	355°52.1'	N 5°28.2'	110°07.3'	S 22°38.6'	80°53.0'	S 21°29.4'	290°36.6'	N 24°20.5'
11	10°51.7'	N 5°29.3'	125°10.0'	S 22°38.6'	95°55.5'	S 21°29.4'	305°37.3'	N 24°20.6'
12	25°51.4'	N 5°30.5'	140°12.7'	S 22°38.6'	110°58.0'	S 21°29.4'	320°38.0'	N 24°20.7'
13	40°51.0'	N 5°31.6'	155°15.3'	S 22°38.6'	126°00.5'	S 21°29.4'	335°38.7'	N 24°20.8'
14	55°50.7'	N 5°32.8'	170°18.0'	S 22°38.6'	141°03.0'	S 21°29.4'	350°39.4'	N 24°20.9'
15	70°50.3'	N 5°33.9'	185°20.6'	S 22°38.6'	156°05.5'	S 21°29.4'	5°40.1'	N 24°21.0'
16	85°50.0'	N 5°35.1'	200°23.3'	S 22°38.6'	171°07.9'	S 21°29.4'	20°40.7'	N 24°21.1'
17	100°49.6'	N 5°36.2'	215°26.0'	S 22°38.6'	186°10.4'	S 21°29.4'	35°41.4'	N 24°21.2'
18	115°49.2'	N 5°37.4'	230°28.6'	S 22°38.5'	201°12.9'	S 21°29.4'	50°42.1'	N 24°21.3'
19	130°48.9'	N 5°38.5'	245°31.3'	S 22°38.5'	216°15.4'	S 21°29.4'	65°42.8'	N 24°21.4'
20	145°48.5'	N 5°39.7'	260°34.0'	S 22°38.5'	231°17.9'	S 21°29.4'	80°43.5'	N 24°21.5'
21	160°48.2'	N 5°40.8'	275°36.6'	S 22°38.5'	246°20.4'	S 21°29.4'	95°44.2'	N 24°21.5'
22	175°47.8'	N 5°42.0'	290°39.3'	S 22°38.5'	261°22.9'	S 21°29.4'	110°44.8'	N 24°21.6'
23	190°47.5'	N 5°43.1'	305°42.0'	S 22°38.5'	276°25.4'	S 21°29.4'	125°45.5'	N 24°21.7'

Mon May 6, 2019 UTC

UTC	Venus -3.8		Jupiter -2.3		Saturn +0.4		Mars +1.6	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	205°47.1'	N 5°44.3'	320°44.6'	S 22°38.5'	291°27.9'	S 21°29.4'	140°46.2'	N 24°21.8'
1	220°46.8'	N 5°45.4'	335°47.3'	S 22°38.5'	306°30.4'	S 21°29.4'	155°46.9'	N 24°21.9'
2	235°46.4'	N 5°46.6'	350°50.0'	S 22°38.5'	321°32.8'	S 21°29.4'	170°47.6'	N 24°22.0'
3	250°46.0'	N 5°47.7'	5°52.6'	S 22°38.5'	336°35.3'	S 21°29.4'	185°48.3'	N 24°22.1'
4	265°45.7'	N 5°48.9'	20°55.3'	S 22°38.5'	351°37.8'	S 21°29.4'	200°48.9'	N 24°22.2'
5	280°45.3'	N 5°50.0'	35°58.0'	S 22°38.5'	6°40.3'	S 21°29.5'	215°49.6'	N 24°22.3'
6	295°45.0'	N 5°51.2'	51°00.7'	S 22°38.4'	21°42.8'	S 21°29.5'	230°50.3'	N 24°22.3'
7	310°44.6'	N 5°52.3'	66°03.3'	S 22°38.4'	36°45.3'	S 21°29.5'	245°51.0'	N 24°22.4'
8	325°44.3'	N 5°53.5'	81°06.0'	S 22°38.4'	51°47.8'	S 21°29.5'	260°51.7'	N 24°22.5'
9	340°43.9'	N 5°54.6'	96°08.7'	S 22°38.4'	66°50.3'	S 21°29.5'	275°52.4'	N 24°22.6'
10	355°43.5'	N 5°55.8'	111°11.3'	S 22°38.4'	81°52.8'	S 21°29.5'	290°53.1'	N 24°22.7'
11	10°43.2'	N 5°56.9'	126°14.0'	S 22°38.4'	96°55.3'	S 21°29.5'	305°53.7'	N 24°22.8'
12	25°42.8'	N 5°58.1'	141°16.7'	S 22°38.4'	111°57.7'	S 21°29.5'	320°54.4'	N 24°22.9'
13	40°42.5'	N 5°59.2'	156°19.4'	S 22°38.4'	127°00.2'	S 21°29.5'	335°55.1'	N 24°23.0'
14	55°42.1'	N 6°00.4'	171°22.0'	S 22°38.4'	142°02.7'	S 21°29.5'	350°55.8'	N 24°23.0'
15	70°41.7'	N 6°01.5'	186°24.7'	S 22°38.4'	157°05.2'	S 21°29.5'	5°56.5'	N 24°23.1'
16	85°41.4'	N 6°02.6'	201°27.4'	S 22°38.4'	172°07.7'	S 21°29.5'	20°57.2'	N 24°23.2'
17	100°41.0'	N 6°03.8'	216°30.0'	S 22°38.4'	187°10.2'	S 21°29.5'	35°57.8'	N 24°23.3'
18	115°40.7'	N 6°04.9'	231°32.7'	S 22°38.4'	202°12.7'	S 21°29.5'	50°58.5'	N 24°23.4'
19	130°40.3'	N 6°06.1'	246°35.4'	S 22°38.3'	217°15.2'	S 21°29.5'	65°59.2'	N 24°23.5'
20	145°39.9'	N 6°07.2'	261°38.1'	S 22°38.3'	232°17.7'	S 21°29.5'	80°59.9'	N 24°23.5'
21	160°39.6'	N 6°08.4'	276°40.7'	S 22°38.3'	247°20.2'	S 21°29.5'	96°00.6'	N 24°23.6'
22	175°39.2'	N 6°09.5'	291°43.4'	S 22°38.3'	262°22.7'	S 21°29.6'	111°01.3'	N 24°23.7'
23	190°38.9'	N 6°10.7'	306°46.1'	S 22°38.3'	277°25.2'	S 21°29.6'	126°02.0'	N 24°23.8'

Tue May 7, 2019 UTC

UTC	Venus -3.8		Jupiter -2.3		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	205°38.5'	N 6°11.8'	321°48.8'	S 22°38.3'	292°27.7'	S 21°29.6'	141°02.6'	N 24°23.9'
1	220°38.1'	N 6°13.0'	336°51.4'	S 22°38.3'	307°30.2'	S 21°29.6'	156°03.3'	N 24°23.9'
2	235°37.8'	N 6°14.1'	351°54.1'	S 22°38.3'	322°32.6'	S 21°29.6'	171°04.0'	N 24°24.0'
3	250°37.4'	N 6°15.3'	6°56.8'	S 22°38.3'	337°35.1'	S 21°29.6'	186°04.7'	N 24°24.1'
4	265°37.1'	N 6°16.4'	21°59.5'	S 22°38.3'	352°37.6'	S 21°29.6'	201°05.4'	N 24°24.2'
5	280°36.7'	N 6°17.5'	37°02.1'	S 22°38.3'	7°40.1'	S 21°29.6'	216°06.1'	N 24°24.3'
6	295°36.3'	N 6°18.7'	52°04.8'	S 22°38.3'	22°42.6'	S 21°29.6'	231°06.7'	N 24°24.4'
7	310°36.0'	N 6°19.8'	67°07.5'	S 22°38.2'	37°45.1'	S 21°29.6'	246°07.4'	N 24°24.4'
8	325°35.6'	N 6°21.0'	82°10.2'	S 22°38.2'	52°47.6'	S 21°29.6'	261°08.1'	N 24°24.5'
9	340°35.2'	N 6°22.1'	97°12.8'	S 22°38.2'	67°50.1'	S 21°29.6'	276°08.8'	N 24°24.6'
10	355°34.9'	N 6°23.3'	112°15.5'	S 22°38.2'	82°52.6'	S 21°29.6'	291°09.5'	N 24°24.7'
11	10°34.5'	N 6°24.4'	127°18.2'	S 22°38.2'	97°55.1'	S 21°29.6'	306°10.2'	N 24°24.7'
12	25°34.2'	N 6°25.6'	142°20.9'	S 22°38.2'	112°57.6'	S 21°29.6'	321°10.8'	N 24°24.8'
13	40°33.8'	N 6°26.7'	157°23.6'	S 22°38.2'	128°00.1'	S 21°29.6'	336°11.5'	N 24°24.9'
14	55°33.4'	N 6°27.8'	172°26.2'	S 22°38.2'	143°02.6'	S 21°29.7'	351°12.2'	N 24°25.0'
15	70°33.1'	N 6°29.0'	187°28.9'	S 22°38.2'	158°05.1'	S 21°29.7'	6°12.9'	N 24°25.1'
16	85°32.7'	N 6°30.1'	202°31.6'	S 22°38.2'	173°07.6'	S 21°29.7'	21°13.6'	N 24°25.1'
17	100°32.3'	N 6°31.3'	217°34.3'	S 22°38.2'	188°10.1'	S 21°29.7'	36°14.3'	N 24°25.2'
18	115°32.0'	N 6°32.4'	232°37.0'	S 22°38.1'	203°12.6'	S 21°29.7'	51°15.0'	N 24°25.3'
19	130°31.6'	N 6°33.5'	247°39.6'	S 22°38.1'	218°15.1'	S 21°29.7'	66°15.6'	N 24°25.4'
20	145°31.2'	N 6°34.7'	262°42.3'	S 22°38.1'	233°17.6'	S 21°29.7'	81°16.3'	N 24°25.4'
21	160°30.9'	N 6°35.8'	277°45.0'	S 22°38.1'	248°20.1'	S 21°29.7'	96°17.0'	N 24°25.5'
22	175°30.5'	N 6°37.0'	292°47.7'	S 22°38.1'	263°22.6'	S 21°29.7'	111°17.7'	N 24°25.6'
23	190°30.2'	N 6°38.1'	307°50.4'	S 22°38.1'	278°25.1'	S 21°29.7'	126°18.4'	N 24°25.6'

Wed May 8, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	205°29.8'	N 6°39.3'	322°53.0'	S 22°38.1'	293°27.6'	S 21°29.7'	141°19.1'	N 24°25.7'
1	220°29.4'	N 6°40.4'	337°55.7'	S 22°38.1'	308°30.1'	S 21°29.7'	156°19.7'	N 24°25.8'
2	235°29.1'	N 6°41.5'	352°58.4'	S 22°38.1'	323°32.6'	S 21°29.7'	171°20.4'	N 24°25.9'
3	250°28.7'	N 6°42.7'	8°01.1'	S 22°38.1'	338°35.1'	S 21°29.7'	186°21.1'	N 24°25.9'
4	265°28.3'	N 6°43.8'	23°03.8'	S 22°38.1'	353°37.6'	S 21°29.7'	201°21.8'	N 24°26.0'
5	280°28.0'	N 6°45.0'	38°06.4'	S 22°38.1'	8°40.1'	S 21°29.7'	216°22.5'	N 24°26.1'
6	295°27.6'	N 6°46.1'	53°09.1'	S 22°38.0'	23°42.6'	S 21°29.8'	231°23.2'	N 24°26.2'
7	310°27.2'	N 6°47.2'	68°11.8'	S 22°38.0'	38°45.1'	S 21°29.8'	246°23.8'	N 24°26.2'
8	325°26.9'	N 6°48.4'	83°14.5'	S 22°38.0'	53°47.6'	S 21°29.8'	261°24.5'	N 24°26.3'
9	340°26.5'	N 6°49.5'	98°17.2'	S 22°38.0'	68°50.1'	S 21°29.8'	276°25.2'	N 24°26.4'
10	355°26.1'	N 6°50.6'	113°19.9'	S 22°38.0'	83°52.6'	S 21°29.8'	291°25.9'	N 24°26.4'
11	10°25.8'	N 6°51.8'	128°22.6'	S 22°38.0'	98°55.1'	S 21°29.8'	306°26.6'	N 24°26.5'
12	25°25.4'	N 6°52.9'	143°25.2'	S 22°38.0'	113°57.6'	S 21°29.8'	321°27.3'	N 24°26.6'
13	40°25.0'	N 6°54.1'	158°27.9'	S 22°38.0'	129°00.1'	S 21°29.8'	336°28.0'	N 24°26.6'
14	55°24.6'	N 6°55.2'	173°30.6'	S 22°38.0'	144°02.6'	S 21°29.8'	351°28.6'	N 24°26.7'
15	70°24.3'	N 6°56.3'	188°33.3'	S 22°38.0'	159°05.1'	S 21°29.8'	6°29.3'	N 24°26.8'
16	85°23.9'	N 6°57.5'	203°36.0'	S 22°38.0'	174°07.6'	S 21°29.8'	21°30.0'	N 24°26.9'
17	100°23.5'	N 6°58.6'	218°38.7'	S 22°37.9'	189°10.1'	S 21°29.8'	36°30.7'	N 24°26.9'
18	115°23.2'	N 6°59.7'	233°41.4'	S 22°37.9'	204°12.6'	S 21°29.8'	51°31.4'	N 24°27.0'
19	130°22.8'	N 7°00.9'	248°44.0'	S 22°37.9'	219°15.1'	S 21°29.8'	66°32.1'	N 24°27.1'
20	145°22.4'	N 7°02.0'	263°46.7'	S 22°37.9'	234°17.6'	S 21°29.9'	81°32.7'	N 24°27.1'
21	160°22.1'	N 7°03.2'	278°49.4'	S 22°37.9'	249°20.1'	S 21°29.9'	96°33.4'	N 24°27.2'
22	175°21.7'	N 7°04.3'	293°52.1'	S 22°37.9'	264°22.6'	S 21°29.9'	111°34.1'	N 24°27.3'
23	190°21.3'	N 7°05.4'	308°54.8'	S 22°37.9'	279°25.1'	S 21°29.9'	126°34.8'	N 24°27.3'

Thu May 9, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	205°21.0'	N 7°06.6'	323°57.5'	S 22°37.9'	294°27.6'	S 21°29.9'	141°35.5'	N 24°27.4'
1	220°20.6'	N 7°07.7'	339°00.2'	S 22°37.9'	309°30.1'	S 21°29.9'	156°36.2'	N 24°27.4'
2	235°20.2'	N 7°08.8'	354°02.9'	S 22°37.9'	324°32.6'	S 21°29.9'	171°36.9'	N 24°27.5'
3	250°19.8'	N 7°10.0'	9°05.5'	S 22°37.9'	339°35.1'	S 21°29.9'	186°37.5'	N 24°27.6'
4	265°19.5'	N 7°11.1'	24°08.2'	S 22°37.8'	354°37.6'	S 21°29.9'	201°38.2'	N 24°27.6'
5	280°19.1'	N 7°12.2'	39°10.9'	S 22°37.8'	9°40.1'	S 21°29.9'	216°38.9'	N 24°27.7'
6	295°18.7'	N 7°13.4'	54°13.6'	S 22°37.8'	24°42.6'	S 21°29.9'	231°39.6'	N 24°27.8'
7	310°18.3'	N 7°14.5'	69°16.3'	S 22°37.8'	39°45.1'	S 21°29.9'	246°40.3'	N 24°27.8'
8	325°18.0'	N 7°15.6'	84°19.0'	S 22°37.8'	54°47.6'	S 21°29.9'	261°41.0'	N 24°27.9'
9	340°17.6'	N 7°16.8'	99°21.7'	S 22°37.8'	69°50.1'	S 21°29.9'	276°41.6'	N 24°28.0'
10	355°17.2'	N 7°17.9'	114°24.4'	S 22°37.8'	84°52.6'	S 21°30.0'	291°42.3'	N 24°28.0'
11	10°16.9'	N 7°19.0'	129°27.1'	S 22°37.8'	99°55.1'	S 21°30.0'	306°43.0'	N 24°28.1'
12	25°16.5'	N 7°20.2'	144°29.8'	S 22°37.8'	114°57.6'	S 21°30.0'	321°43.7'	N 24°28.1'
13	40°16.1'	N 7°21.3'	159°32.5'	S 22°37.8'	130°00.1'	S 21°30.0'	336°44.4'	N 24°28.2'
14	55°15.7'	N 7°22.4'	174°35.1'	S 22°37.8'	145°02.6'	S 21°30.0'	351°45.1'	N 24°28.3'
15	70°15.4'	N 7°23.6'	189°37.8'	S 22°37.7'	160°05.1'	S 21°30.0'	6°45.7'	N 24°28.3'
16	85°15.0'	N 7°24.7'	204°40.5'	S 22°37.7'	175°07.6'	S 21°30.0'	21°46.4'	N 24°28.4'
17	100°14.6'	N 7°25.8'	219°43.2'	S 22°37.7'	190°10.1'	S 21°30.0'	36°47.1'	N 24°28.4'
18	115°14.2'	N 7°27.0'	234°45.9'	S 22°37.7'	205°12.6'	S 21°30.0'	51°47.8'	N 24°28.5'
19	130°13.9'	N 7°28.1'	249°48.6'	S 22°37.7'	220°15.1'	S 21°30.0'	66°48.5'	N 24°28.6'
20	145°13.5'	N 7°29.2'	264°51.3'	S 22°37.7'	235°17.7'	S 21°30.0'	81°49.2'	N 24°28.6'
21	160°13.1'	N 7°30.3'	279°54.0'	S 22°37.7'	250°20.2'	S 21°30.0'	96°49.9'	N 24°28.7'
22	175°12.7'	N 7°31.5'	294°56.7'	S 22°37.7'	265°22.7'	S 21°30.0'	111°50.5'	N 24°28.7'
23	190°12.4'	N 7°32.6'	309°59.4'	S 22°37.7'	280°25.2'	S 21°30.1'	126°51.2'	N 24°28.8'

Fri May 10, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	205°12.0'	N 7°33.7'	325°02.1'	S 22°37.7'	295°27.7'	S 21°30.1'	141°51.9'	N 24°28.8'
1	220°11.6'	N 7°34.9'	340°04.8'	S 22°37.7'	310°30.2'	S 21°30.1'	156°52.6'	N 24°28.9'
2	235°11.2'	N 7°36.0'	355°07.5'	S 22°37.6'	325°32.7'	S 21°30.1'	171°53.3'	N 24°29.0'
3	250°10.9'	N 7°37.1'	10°10.2'	S 22°37.6'	340°35.2'	S 21°30.1'	186°54.0'	N 24°29.0'
4	265°10.5'	N 7°38.2'	25°12.9'	S 22°37.6'	355°37.7'	S 21°30.1'	201°54.6'	N 24°29.1'
5	280°10.1'	N 7°39.4'	40°15.6'	S 22°37.6'	10°40.2'	S 21°30.1'	216°55.3'	N 24°29.1'
6	295°09.7'	N 7°40.5'	55°18.3'	S 22°37.6'	25°42.7'	S 21°30.1'	231°56.0'	N 24°29.2'
7	310°09.3'	N 7°41.6'	70°21.0'	S 22°37.6'	40°45.2'	S 21°30.1'	246°56.7'	N 24°29.2'
8	325°09.0'	N 7°42.8'	85°23.7'	S 22°37.6'	55°47.7'	S 21°30.1'	261°57.4'	N 24°29.3'
9	340°08.6'	N 7°43.9'	100°26.4'	S 22°37.6'	70°50.2'	S 21°30.1'	276°58.1'	N 24°29.3'
10	355°08.2'	N 7°45.0'	115°29.0'	S 22°37.6'	85°52.8'	S 21°30.1'	291°58.8'	N 24°29.4'
11	10°07.8'	N 7°46.1'	130°31.7'	S 22°37.6'	100°55.3'	S 21°30.2'	306°59.4'	N 24°29.5'
12	25°07.4'	N 7°47.3'	145°34.4'	S 22°37.6'	115°57.8'	S 21°30.2'	322°00.1'	N 24°29.5'
13	40°07.1'	N 7°48.4'	160°37.1'	S 22°37.5'	131°00.3'	S 21°30.2'	337°00.8'	N 24°29.6'
14	55°06.7'	N 7°49.5'	175°39.8'	S 22°37.5'	146°02.8'	S 21°30.2'	352°01.5'	N 24°29.6'
15	70°06.3'	N 7°50.6'	190°42.5'	S 22°37.5'	161°05.3'	S 21°30.2'	7°02.2'	N 24°29.7'
16	85°05.9'	N 7°51.8'	205°45.2'	S 22°37.5'	176°07.8'	S 21°30.2'	22°02.9'	N 24°29.7'
17	100°05.5'	N 7°52.9'	220°47.9'	S 22°37.5'	191°10.3'	S 21°30.2'	37°03.6'	N 24°29.8'
18	115°05.2'	N 7°54.0'	235°50.6'	S 22°37.5'	206°12.8'	S 21°30.2'	52°04.2'	N 24°29.8'
19	130°04.8'	N 7°55.1'	250°53.3'	S 22°37.5'	221°15.3'	S 21°30.2'	67°04.9'	N 24°29.9'
20	145°04.4'	N 7°56.3'	265°56.0'	S 22°37.5'	236°17.8'	S 21°30.2'	82°05.6'	N 24°29.9'
21	160°04.0'	N 7°57.4'	280°58.7'	S 22°37.5'	251°20.4'	S 21°30.2'	97°06.3'	N 24°30.0'
22	175°03.6'	N 7°58.5'	296°01.4'	S 22°37.5'	266°22.9'	S 21°30.2'	112°07.0'	N 24°30.0'
23	190°03.3'	N 7°59.6'	311°04.1'	S 22°37.4'	281°25.4'	S 21°30.3'	127°07.7'	N 24°30.1'

Sat May 11, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	205°02.9'	N 8°00.8'	326°06.8'	S 22°37.4'	296°27.9'	S 21°30.3'	142°08.3'	N 24°30.1'
1	220°02.5'	N 8°01.9'	341°09.5'	S 22°37.4'	311°30.4'	S 21°30.3'	157°09.0'	N 24°30.2'
2	235°02.1'	N 8°03.0'	356°12.3'	S 22°37.4'	326°32.9'	S 21°30.3'	172°09.7'	N 24°30.2'
3	250°01.7'	N 8°04.1'	11°15.0'	S 22°37.4'	341°35.4'	S 21°30.3'	187°10.4'	N 24°30.3'
4	265°01.3'	N 8°05.2'	26°17.7'	S 22°37.4'	356°37.9'	S 21°30.3'	202°11.1'	N 24°30.3'
5	280°01.0'	N 8°06.4'	41°20.4'	S 22°37.4'	11°40.4'	S 21°30.3'	217°11.8'	N 24°30.4'
6	295°00.6'	N 8°07.5'	56°23.1'	S 22°37.4'	26°43.0'	S 21°30.3'	232°12.5'	N 24°30.4'
7	310°00.2'	N 8°08.6'	71°25.8'	S 22°37.4'	41°45.5'	S 21°30.3'	247°13.1'	N 24°30.4'
8	324°59.8'	N 8°09.7'	86°28.5'	S 22°37.4'	56°48.0'	S 21°30.3'	262°13.8'	N 24°30.5'
9	339°59.4'	N 8°10.8'	101°31.2'	S 22°37.3'	71°50.5'	S 21°30.3'	277°14.5'	N 24°30.5'
10	354°59.0'	N 8°12.0'	116°33.9'	S 22°37.3'	86°53.0'	S 21°30.3'	292°15.2'	N 24°30.6'
11	9°58.7'	N 8°13.1'	131°36.6'	S 22°37.3'	101°55.5'	S 21°30.4'	307°15.9'	N 24°30.6'
12	24°58.3'	N 8°14.2'	146°39.3'	S 22°37.3'	116°58.0'	S 21°30.4'	322°16.6'	N 24°30.7'
13	39°57.9'	N 8°15.3'	161°42.0'	S 22°37.3'	132°00.5'	S 21°30.4'	337°17.3'	N 24°30.7'
14	54°57.5'	N 8°16.4'	176°44.7'	S 22°37.3'	147°03.1'	S 21°30.4'	352°17.9'	N 24°30.8'
15	69°57.1'	N 8°17.6'	191°47.4'	S 22°37.3'	162°05.6'	S 21°30.4'	7°18.6'	N 24°30.8'
16	84°56.7'	N 8°18.7'	206°50.1'	S 22°37.3'	177°08.1'	S 21°30.4'	22°19.3'	N 24°30.8'
17	99°56.3'	N 8°19.8'	221°52.8'	S 22°37.3'	192°10.6'	S 21°30.4'	37°20.0'	N 24°30.9'
18	114°56.0'	N 8°20.9'	236°55.5'	S 22°37.3'	207°13.1'	S 21°30.4'	52°20.7'	N 24°30.9'
19	129°55.6'	N 8°22.0'	251°58.2'	S 22°37.3'	222°15.6'	S 21°30.4'	67°21.4'	N 24°31.0'
20	144°55.2'	N 8°23.2'	267°00.9'	S 22°37.2'	237°18.1'	S 21°30.4'	82°22.0'	N 24°31.0'
21	159°54.8'	N 8°24.3'	282°03.6'	S 22°37.2'	252°20.6'	S 21°30.4'	97°22.7'	N 24°31.1'
22	174°54.4'	N 8°25.4'	297°06.3'	S 22°37.2'	267°23.2'	S 21°30.5'	112°23.4'	N 24°31.1'
23	189°54.0'	N 8°26.5'	312°09.1'	S 22°37.2'	282°25.7'	S 21°30.5'	127°24.1'	N 24°31.1'

Sun May 12, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°53.6'	N 8°27.6'	327°11.8'	S 22°37.2'	297°28.2'	S 21°30.5'	142°24.8'	N 24°31.2'
1	219°53.2'	N 8°28.7'	342°14.5'	S 22°37.2'	312°30.7'	S 21°30.5'	157°25.5'	N 24°31.2'
2	234°52.9'	N 8°29.8'	357°17.2'	S 22°37.2'	327°33.2'	S 21°30.5'	172°26.2'	N 24°31.3'
3	249°52.5'	N 8°31.0'	12°19.9'	S 22°37.2'	342°35.7'	S 21°30.5'	187°26.8'	N 24°31.3'
4	264°52.1'	N 8°32.1'	27°22.6'	S 22°37.2'	357°38.3'	S 21°30.5'	202°27.5'	N 24°31.3'
5	279°51.7'	N 8°33.2'	42°25.3'	S 22°37.1'	12°40.8'	S 21°30.5'	217°28.2'	N 24°31.4'
6	294°51.3'	N 8°34.3'	57°28.0'	S 22°37.1'	27°43.3'	S 21°30.5'	232°28.9'	N 24°31.4'
7	309°50.9'	N 8°35.4'	72°30.7'	S 22°37.1'	42°45.8'	S 21°30.5'	247°29.6'	N 24°31.5'
8	324°50.5'	N 8°36.5'	87°33.4'	S 22°37.1'	57°48.3'	S 21°30.5'	262°30.3'	N 24°31.5'
9	339°50.1'	N 8°37.6'	102°36.1'	S 22°37.1'	72°50.8'	S 21°30.6'	277°31.0'	N 24°31.5'
10	354°49.7'	N 8°38.8'	117°38.9'	S 22°37.1'	87°53.4'	S 21°30.6'	292°31.6'	N 24°31.6'
11	9°49.3'	N 8°39.9'	132°41.6'	S 22°37.1'	102°55.9'	S 21°30.6'	307°32.3'	N 24°31.6'
12	24°48.9'	N 8°41.0'	147°44.3'	S 22°37.1'	117°58.4'	S 21°30.6'	322°33.0'	N 24°31.6'
13	39°48.6'	N 8°42.1'	162°47.0'	S 22°37.1'	133°00.9'	S 21°30.6'	337°33.7'	N 24°31.7'
14	54°48.2'	N 8°43.2'	177°49.7'	S 22°37.1'	148°03.4'	S 21°30.6'	352°34.4'	N 24°31.7'
15	69°47.8'	N 8°44.3'	192°52.4'	S 22°37.0'	163°05.9'	S 21°30.6'	7°35.1'	N 24°31.8'
16	84°47.4'	N 8°45.4'	207°55.1'	S 22°37.0'	178°08.5'	S 21°30.6'	22°35.8'	N 24°31.8'
17	99°47.0'	N 8°46.5'	222°57.8'	S 22°37.0'	193°11.0'	S 21°30.6'	37°36.4'	N 24°31.8'
18	114°46.6'	N 8°47.6'	238°00.5'	S 22°37.0'	208°13.5'	S 21°30.6'	52°37.1'	N 24°31.9'
19	129°46.2'	N 8°48.8'	253°03.3'	S 22°37.0'	223°16.0'	S 21°30.7'	67°37.8'	N 24°31.9'
20	144°45.8'	N 8°49.9'	268°06.0'	S 22°37.0'	238°18.5'	S 21°30.7'	82°38.5'	N 24°31.9'
21	159°45.4'	N 8°51.0'	283°08.7'	S 22°37.0'	253°21.0'	S 21°30.7'	97°39.2'	N 24°32.0'
22	174°45.0'	N 8°52.1'	298°11.4'	S 22°37.0'	268°23.6'	S 21°30.7'	112°39.9'	N 24°32.0'
23	189°44.6'	N 8°53.2'	313°14.1'	S 22°37.0'	283°26.1'	S 21°30.7'	127°40.6'	N 24°32.0'

Mon May 13, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°44.2'	N 8°54.3'	328°16.8'	S 22°37.0'	298°28.6'	S 21°30.7'	142°41.2'	N 24°32.1'
1	219°43.8'	N 8°55.4'	343°19.5'	S 22°36.9'	313°31.1'	S 21°30.7'	157°41.9'	N 24°32.1'
2	234°43.4'	N 8°56.5'	358°22.3'	S 22°36.9'	328°33.6'	S 21°30.7'	172°42.6'	N 24°32.1'
3	249°43.0'	N 8°57.6'	13°25.0'	S 22°36.9'	343°36.2'	S 21°30.7'	187°43.3'	N 24°32.2'
4	264°42.6'	N 8°58.7'	28°27.7'	S 22°36.9'	358°38.7'	S 21°30.7'	202°44.0'	N 24°32.2'
5	279°42.2'	N 8°59.8'	43°30.4'	S 22°36.9'	13°41.2'	S 21°30.8'	217°44.7'	N 24°32.2'
6	294°41.8'	N 9°00.9'	58°33.1'	S 22°36.9'	28°43.7'	S 21°30.8'	232°45.4'	N 24°32.2'
7	309°41.5'	N 9°02.1'	73°35.8'	S 22°36.9'	43°46.2'	S 21°30.8'	247°46.0'	N 24°32.3'
8	324°41.1'	N 9°03.2'	88°38.5'	S 22°36.9'	58°48.8'	S 21°30.8'	262°46.7'	N 24°32.3'
9	339°40.7'	N 9°04.3'	103°41.3'	S 22°36.9'	73°51.3'	S 21°30.8'	277°47.4'	N 24°32.3'
10	354°40.3'	N 9°05.4'	118°44.0'	S 22°36.8'	88°53.8'	S 21°30.8'	292°48.1'	N 24°32.4'
11	9°39.9'	N 9°06.5'	133°46.7'	S 22°36.8'	103°56.3'	S 21°30.8'	307°48.8'	N 24°32.4'
12	24°39.5'	N 9°07.6'	148°49.4'	S 22°36.8'	118°58.8'	S 21°30.8'	322°49.5'	N 24°32.4'
13	39°39.1'	N 9°08.7'	163°52.1'	S 22°36.8'	134°01.4'	S 21°30.8'	337°50.2'	N 24°32.4'
14	54°38.7'	N 9°09.8'	178°54.8'	S 22°36.8'	149°03.9'	S 21°30.8'	352°50.9'	N 24°32.5'
15	69°38.3'	N 9°10.9'	193°57.6'	S 22°36.8'	164°06.4'	S 21°30.9'	7°51.5'	N 24°32.5'
16	84°37.9'	N 9°12.0'	209°00.3'	S 22°36.8'	179°08.9'	S 21°30.9'	22°52.2'	N 24°32.5'
17	99°37.5'	N 9°13.1'	224°03.0'	S 22°36.8'	194°11.4'	S 21°30.9'	37°52.9'	N 24°32.6'
18	114°37.1'	N 9°14.2'	239°05.7'	S 22°36.8'	209°14.0'	S 21°30.9'	52°53.6'	N 24°32.6'
19	129°36.7'	N 9°15.3'	254°08.4'	S 22°36.8'	224°16.5'	S 21°30.9'	67°54.3'	N 24°32.6'
20	144°36.3'	N 9°16.4'	269°11.2'	S 22°36.7'	239°19.0'	S 21°30.9'	82°55.0'	N 24°32.6'
21	159°35.9'	N 9°17.5'	284°13.9'	S 22°36.7'	254°21.5'	S 21°30.9'	97°55.7'	N 24°32.7'
22	174°35.5'	N 9°18.6'	299°16.6'	S 22°36.7'	269°24.1'	S 21°30.9'	112°56.3'	N 24°32.7'
23	189°35.1'	N 9°19.7'	314°19.3'	S 22°36.7'	284°26.6'	S 21°30.9'	127°57.0'	N 24°32.7'

Tue May 14, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.4		Mars +1.7	
	v = -0.4' d = 1.1'		v = 2.7' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°34.7'	N 9°20.8'	329°22.0'	S 22°36.7'	299°29.1'	S 21°30.9'	142°57.7'	N 24°32.7'
1	219°34.3'	N 9°21.9'	344°24.8'	S 22°36.7'	314°31.6'	S 21°31.0'	157°58.4'	N 24°32.8'
2	234°33.9'	N 9°23.0'	359°27.5'	S 22°36.7'	329°34.2'	S 21°31.0'	172°59.1'	N 24°32.8'
3	249°33.4'	N 9°24.1'	14°30.2'	S 22°36.7'	344°36.7'	S 21°31.0'	187°59.8'	N 24°32.8'
4	264°33.0'	N 9°25.2'	29°32.9'	S 22°36.7'	359°39.2'	S 21°31.0'	203°00.5'	N 24°32.8'
5	279°32.6'	N 9°26.3'	44°35.6'	S 22°36.6'	14°41.7'	S 21°31.0'	218°01.2'	N 24°32.8'
6	294°32.2'	N 9°27.4'	59°38.4'	S 22°36.6'	29°44.2'	S 21°31.0'	233°01.8'	N 24°32.9'
7	309°31.8'	N 9°28.5'	74°41.1'	S 22°36.6'	44°46.8'	S 21°31.0'	248°02.5'	N 24°32.9'
8	324°31.4'	N 9°29.6'	89°43.8'	S 22°36.6'	59°49.3'	S 21°31.0'	263°03.2'	N 24°32.9'
9	339°31.0'	N 9°30.7'	104°46.5'	S 22°36.6'	74°51.8'	S 21°31.0'	278°03.9'	N 24°32.9'
10	354°30.6'	N 9°31.8'	119°49.3'	S 22°36.6'	89°54.3'	S 21°31.0'	293°04.6'	N 24°33.0'
11	9°30.2'	N 9°32.9'	134°52.0'	S 22°36.6'	104°56.9'	S 21°31.1'	308°05.3'	N 24°33.0'
12	24°29.8'	N 9°34.0'	149°54.7'	S 22°36.6'	119°59.4'	S 21°31.1'	323°06.0'	N 24°33.0'
13	39°29.4'	N 9°35.1'	164°57.4'	S 22°36.6'	135°01.9'	S 21°31.1'	338°06.6'	N 24°33.0'
14	54°29.0'	N 9°36.2'	180°00.1'	S 22°36.5'	150°04.4'	S 21°31.1'	353°07.3'	N 24°33.0'
15	69°28.6'	N 9°37.3'	195°02.9'	S 22°36.5'	165°07.0'	S 21°31.1'	8°08.0'	N 24°33.1'
16	84°28.2'	N 9°38.4'	210°05.6'	S 22°36.5'	180°09.5'	S 21°31.1'	23°08.7'	N 24°33.1'
17	99°27.8'	N 9°39.5'	225°08.3'	S 22°36.5'	195°12.0'	S 21°31.1'	38°09.4'	N 24°33.1'
18	114°27.4'	N 9°40.6'	240°11.0'	S 22°36.5'	210°14.6'	S 21°31.1'	53°10.1'	N 24°33.1'
19	129°27.0'	N 9°41.7'	255°13.8'	S 22°36.5'	225°17.1'	S 21°31.1'	68°10.8'	N 24°33.1'
20	144°26.6'	N 9°42.7'	270°16.5'	S 22°36.5'	240°19.6'	S 21°31.2'	83°11.5'	N 24°33.1'
21	159°26.1'	N 9°43.8'	285°19.2'	S 22°36.5'	255°22.1'	S 21°31.2'	98°12.1'	N 24°33.2'
22	174°25.7'	N 9°44.9'	300°21.9'	S 22°36.5'	270°24.7'	S 21°31.2'	113°12.8'	N 24°33.2'
23	189°25.3'	N 9°46.0'	315°24.7'	S 22°36.4'	285°27.2'	S 21°31.2'	128°13.5'	N 24°33.2'

Wed May 15, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.1'		Jupiter -2.4 v = 2.7' d = 0.0'		Saturn +0.4 v = 2.5' d = 0.0'		Mars +1.7 v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°24.9'	N 9°47.1'	330°27.4'	S 22°36.4'	300°29.7'	S 21°31.2'	143°14.2'	N 24°33.2'
1	219°24.5'	N 9°48.2'	345°30.1'	S 22°36.4'	315°32.2'	S 21°31.2'	158°14.9'	N 24°33.2'
2	234°24.1'	N 9°49.3'	0°32.8'	S 22°36.4'	330°34.8'	S 21°31.2'	173°15.6'	N 24°33.2'
3	249°23.7'	N 9°50.4'	15°35.6'	S 22°36.4'	345°37.3'	S 21°31.2'	188°16.3'	N 24°33.3'
4	264°23.3'	N 9°51.5'	30°38.3'	S 22°36.4'	0°39.8'	S 21°31.2'	203°17.0'	N 24°33.3'
5	279°22.9'	N 9°52.6'	45°41.0'	S 22°36.4'	15°42.3'	S 21°31.3'	218°17.6'	N 24°33.3'
6	294°22.5'	N 9°53.7'	60°43.8'	S 22°36.4'	30°44.9'	S 21°31.3'	233°18.3'	N 24°33.3'
7	309°22.0'	N 9°54.8'	75°46.5'	S 22°36.4'	45°47.4'	S 21°31.3'	248°19.0'	N 24°33.3'
8	324°21.6'	N 9°55.8'	90°49.2'	S 22°36.3'	60°49.9'	S 21°31.3'	263°19.7'	N 24°33.3'
9	339°21.2'	N 9°56.9'	105°51.9'	S 22°36.3'	75°52.5'	S 21°31.3'	278°20.4'	N 24°33.3'
10	354°20.8'	N 9°58.0'	120°54.7'	S 22°36.3'	90°55.0'	S 21°31.3'	293°21.1'	N 24°33.4'
11	9°20.4'	N 9°59.1'	135°57.4'	S 22°36.3'	105°57.5'	S 21°31.3'	308°21.8'	N 24°33.4'
12	24°20.0'	N 10°00.2'	151°00.1'	S 22°36.3'	121°00.0'	S 21°31.3'	323°22.5'	N 24°33.4'
13	39°19.6'	N 10°01.3'	166°02.8'	S 22°36.3'	136°02.6'	S 21°31.3'	338°23.1'	N 24°33.4'
14	54°19.2'	N 10°02.4'	181°05.6'	S 22°36.3'	151°05.1'	S 21°31.4'	353°23.8'	N 24°33.4'
15	69°18.7'	N 10°03.5'	196°08.3'	S 22°36.3'	166°07.6'	S 21°31.4'	8°24.5'	N 24°33.4'
16	84°18.3'	N 10°04.5'	211°11.0'	S 22°36.3'	181°10.2'	S 21°31.4'	23°25.2'	N 24°33.4'
17	99°17.9'	N 10°05.6'	226°13.8'	S 22°36.2'	196°12.7'	S 21°31.4'	38°25.9'	N 24°33.4'
18	114°17.5'	N 10°06.7'	241°16.5'	S 22°36.2'	211°15.2'	S 21°31.4'	53°26.6'	N 24°33.4'
19	129°17.1'	N 10°07.8'	256°19.2'	S 22°36.2'	226°17.8'	S 21°31.4'	68°27.3'	N 24°33.5'
20	144°16.7'	N 10°08.9'	271°22.0'	S 22°36.2'	241°20.3'	S 21°31.4'	83°28.0'	N 24°33.5'
21	159°16.2'	N 10°10.0'	286°24.7'	S 22°36.2'	256°22.8'	S 21°31.4'	98°28.6'	N 24°33.5'
22	174°15.8'	N 10°11.1'	301°27.4'	S 22°36.2'	271°25.3'	S 21°31.4'	113°29.3'	N 24°33.5'
23	189°15.4'	N 10°12.1'	316°30.2'	S 22°36.2'	286°27.9'	S 21°31.5'	128°30.0'	N 24°33.5'

Thu May 16, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.1'		Jupiter -2.4 v = 2.7' d = 0.0'		Saturn +0.4 v = 2.5' d = 0.0'		Mars +1.7 v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°15.0'	N 10°13.2'	331°32.9'	S 22°36.2'	301°30.4'	S 21°31.5'	143°30.7'	N 24°33.5'
1	219°14.6'	N 10°14.3'	346°35.6'	S 22°36.2'	316°32.9'	S 21°31.5'	158°31.4'	N 24°33.5'
2	234°14.2'	N 10°15.4'	1°38.3'	S 22°36.1'	331°35.5'	S 21°31.5'	173°32.1'	N 24°33.5'
3	249°13.7'	N 10°16.5'	16°41.1'	S 22°36.1'	346°38.0'	S 21°31.5'	188°32.8'	N 24°33.5'
4	264°13.3'	N 10°17.6'	31°43.8'	S 22°36.1'	1°40.5'	S 21°31.5'	203°33.5'	N 24°33.5'
5	279°12.9'	N 10°18.6'	46°46.5'	S 22°36.1'	16°43.1'	S 21°31.5'	218°34.2'	N 24°33.5'
6	294°12.5'	N 10°19.7'	61°49.3'	S 22°36.1'	31°45.6'	S 21°31.5'	233°34.8'	N 24°33.5'
7	309°12.1'	N 10°20.8'	76°52.0'	S 22°36.1'	46°48.1'	S 21°31.5'	248°35.5'	N 24°33.5'
8	324°11.6'	N 10°21.9'	91°54.7'	S 22°36.1'	61°50.7'	S 21°31.6'	263°36.2'	N 24°33.5'
9	339°11.2'	N 10°23.0'	106°57.5'	S 22°36.1'	76°53.2'	S 21°31.6'	278°36.9'	N 24°33.6'
10	354°10.8'	N 10°24.0'	122°00.2'	S 22°36.0'	91°55.7'	S 21°31.6'	293°37.6'	N 24°33.6'
11	9°10.4'	N 10°25.1'	137°02.9'	S 22°36.0'	106°58.3'	S 21°31.6'	308°38.3'	N 24°33.6'
12	24°10.0'	N 10°26.2'	152°05.7'	S 22°36.0'	122°00.8'	S 21°31.6'	323°39.0'	N 24°33.6'
13	39°09.5'	N 10°27.3'	167°08.4'	S 22°36.0'	137°03.3'	S 21°31.6'	338°39.7'	N 24°33.6'
14	54°09.1'	N 10°28.3'	182°11.1'	S 22°36.0'	152°05.9'	S 21°31.6'	353°40.4'	N 24°33.6'
15	69°08.7'	N 10°29.4'	197°13.9'	S 22°36.0'	167°08.4'	S 21°31.6'	8°41.0'	N 24°33.6'
16	84°08.3'	N 10°30.5'	212°16.6'	S 22°36.0'	182°10.9'	S 21°31.7'	23°41.7'	N 24°33.6'
17	99°07.9'	N 10°31.6'	227°19.4'	S 22°36.0'	197°13.5'	S 21°31.7'	38°42.4'	N 24°33.6'
18	114°07.4'	N 10°32.7'	242°22.1'	S 22°36.0'	212°16.0'	S 21°31.7'	53°43.1'	N 24°33.6'
19	129°07.0'	N 10°33.7'	257°24.8'	S 22°35.9'	227°18.5'	S 21°31.7'	68°43.8'	N 24°33.6'
20	144°06.6'	N 10°34.8'	272°27.6'	S 22°35.9'	242°21.1'	S 21°31.7'	83°44.5'	N 24°33.6'
21	159°06.2'	N 10°35.9'	287°30.3'	S 22°35.9'	257°23.6'	S 21°31.7'	98°45.2'	N 24°33.6'
22	174°05.7'	N 10°37.0'	302°33.0'	S 22°35.9'	272°26.1'	S 21°31.7'	113°45.9'	N 24°33.6'
23	189°05.3'	N 10°38.0'	317°35.8'	S 22°35.9'	287°28.7'	S 21°31.7'	128°46.6'	N 24°33.6'



Fri May 17, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.1'		Jupiter -2.4 v = 2.7' d = 0.0'		Saturn +0.4 v = 2.5' d = 0.0'		Mars +1.7 v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	204°04.9'	N 10°39.1'	332°38.5'	S 22°35.9'	302°31.2'	S 21°31.7'	143°47.2'	N 24°33.6'
1	219°04.5'	N 10°40.2'	347°41.2'	S 22°35.9'	317°33.7'	S 21°31.8'	158°47.9'	N 24°33.6'
2	234°04.0'	N 10°41.3'	2°44.0'	S 22°35.9'	332°36.3'	S 21°31.8'	173°48.6'	N 24°33.6'
3	249°03.6'	N 10°42.3'	17°46.7'	S 22°35.8'	347°38.8'	S 21°31.8'	188°49.3'	N 24°33.6'
4	264°03.2'	N 10°43.4'	32°49.5'	S 22°35.8'	2°41.4'	S 21°31.8'	203°50.0'	N 24°33.6'
5	279°02.8'	N 10°44.5'	47°52.2'	S 22°35.8'	17°43.9'	S 21°31.8'	218°50.7'	N 24°33.6'
6	294°02.3'	N 10°45.5'	62°54.9'	S 22°35.8'	32°46.4'	S 21°31.8'	233°51.4'	N 24°33.6'
7	309°01.9'	N 10°46.6'	77°57.7'	S 22°35.8'	47°49.0'	S 21°31.8'	248°52.1'	N 24°33.6'
8	324°01.5'	N 10°47.7'	93°00.4'	S 22°35.8'	62°51.5'	S 21°31.8'	263°52.8'	N 24°33.6'
9	339°01.0'	N 10°48.8'	108°03.2'	S 22°35.8'	77°54.0'	S 21°31.9'	278°53.4'	N 24°33.6'
10	354°00.6'	N 10°49.8'	123°05.9'	S 22°35.8'	92°56.6'	S 21°31.9'	293°54.1'	N 24°33.6'
11	9°00.2'	N 10°50.9'	138°08.6'	S 22°35.8'	107°59.1'	S 21°31.9'	308°54.8'	N 24°33.6'
12	23°59.8'	N 10°52.0'	153°11.4'	S 22°35.7'	123°01.6'	S 21°31.9'	323°55.5'	N 24°33.6'
13	38°59.3'	N 10°53.0'	168°14.1'	S 22°35.7'	138°04.2'	S 21°31.9'	338°56.2'	N 24°33.6'
14	53°58.9'	N 10°54.1'	183°16.8'	S 22°35.7'	153°06.7'	S 21°31.9'	353°56.9'	N 24°33.5'
15	68°58.5'	N 10°55.2'	198°19.6'	S 22°35.7'	168°09.3'	S 21°31.9'	8°57.6'	N 24°33.5'
16	83°58.0'	N 10°56.2'	213°22.3'	S 22°35.7'	183°11.8'	S 21°31.9'	23°58.3'	N 24°33.5'
17	98°57.6'	N 10°57.3'	228°25.1'	S 22°35.7'	198°14.3'	S 21°32.0'	38°59.0'	N 24°33.5'
18	113°57.2'	N 10°58.4'	243°27.8'	S 22°35.7'	213°16.9'	S 21°32.0'	53°59.6'	N 24°33.5'
19	128°56.7'	N 10°59.4'	258°30.6'	S 22°35.7'	228°19.4'	S 21°32.0'	69°00.3'	N 24°33.5'
20	143°56.3'	N 11°00.5'	273°33.3'	S 22°35.6'	243°21.9'	S 21°32.0'	84°01.0'	N 24°33.5'
21	158°55.9'	N 11°01.6'	288°36.0'	S 22°35.6'	258°24.5'	S 21°32.0'	99°01.7'	N 24°33.5'
22	173°55.5'	N 11°02.6'	303°38.8'	S 22°35.6'	273°27.0'	S 21°32.0'	114°02.4'	N 24°33.5'
23	188°55.0'	N 11°03.7'	318°41.5'	S 22°35.6'	288°29.6'	S 21°32.0'	129°03.1'	N 24°33.5'

Sat May 18, 2019 UTC

UTC	Venus -3.8 v = -0.4' d = 1.1'		Jupiter -2.4 v = 2.7' d = 0.0'		Saturn +0.4 v = 2.5' d = 0.0'		Mars +1.7 v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°54.6'	N 11°04.8'	333°44.3'	S 22°35.6'	303°32.1'	S 21°32.0'	144°03.8'	N 24°33.5'
1	218°54.2'	N 11°05.8'	348°47.0'	S 22°35.6'	318°34.6'	S 21°32.1'	159°04.5'	N 24°33.5'
2	233°53.7'	N 11°06.9'	3°49.7'	S 22°35.6'	333°37.2'	S 21°32.1'	174°05.2'	N 24°33.5'
3	248°53.3'	N 11°08.0'	18°52.5'	S 22°35.6'	348°39.7'	S 21°32.1'	189°05.9'	N 24°33.4'
4	263°52.8'	N 11°09.0'	33°55.2'	S 22°35.5'	3°42.3'	S 21°32.1'	204°06.5'	N 24°33.4'
5	278°52.4'	N 11°10.1'	48°58.0'	S 22°35.5'	18°44.8'	S 21°32.1'	219°07.2'	N 24°33.4'
6	293°52.0'	N 11°11.1'	64°00.7'	S 22°35.5'	33°47.3'	S 21°32.1'	234°07.9'	N 24°33.4'
7	308°51.5'	N 11°12.2'	79°03.5'	S 22°35.5'	48°49.9'	S 21°32.1'	249°08.6'	N 24°33.4'
8	323°51.1'	N 11°13.3'	94°06.2'	S 22°35.5'	63°52.4'	S 21°32.1'	264°09.3'	N 24°33.4'
9	338°50.7'	N 11°14.3'	109°09.0'	S 22°35.5'	78°55.0'	S 21°32.2'	279°10.0'	N 24°33.4'
10	353°50.2'	N 11°15.4'	124°11.7'	S 22°35.5'	93°57.5'	S 21°32.2'	294°10.7'	N 24°33.4'
11	8°49.8'	N 11°16.4'	139°14.4'	S 22°35.5'	109°00.0'	S 21°32.2'	309°11.4'	N 24°33.4'
12	23°49.4'	N 11°17.5'	154°17.2'	S 22°35.4'	124°02.6'	S 21°32.2'	324°12.1'	N 24°33.3'
13	38°48.9'	N 11°18.6'	169°19.9'	S 22°35.4'	139°05.1'	S 21°32.2'	339°12.8'	N 24°33.3'
14	53°48.5'	N 11°19.6'	184°22.7'	S 22°35.4'	154°07.7'	S 21°32.2'	354°13.5'	N 24°33.3'
15	68°48.0'	N 11°20.7'	199°25.4'	S 22°35.4'	169°10.2'	S 21°32.2'	9°14.1'	N 24°33.3'
16	83°47.6'	N 11°21.7'	214°28.2'	S 22°35.4'	184°12.7'	S 21°32.2'	24°14.8'	N 24°33.3'
17	98°47.2'	N 11°22.8'	229°30.9'	S 22°35.4'	199°15.3'	S 21°32.3'	39°15.5'	N 24°33.3'
18	113°46.7'	N 11°23.8'	244°33.7'	S 22°35.4'	214°17.8'	S 21°32.3'	54°16.2'	N 24°33.3'
19	128°46.3'	N 11°24.9'	259°36.4'	S 22°35.4'	229°20.4'	S 21°32.3'	69°16.9'	N 24°33.3'
20	143°45.8'	N 11°26.0'	274°39.2'	S 22°35.3'	244°22.9'	S 21°32.3'	84°17.6'	N 24°33.2'
21	158°45.4'	N 11°27.0'	289°41.9'	S 22°35.3'	259°25.5'	S 21°32.3'	99°18.3'	N 24°33.2'
22	173°45.0'	N 11°28.1'	304°44.6'	S 22°35.3'	274°28.0'	S 21°32.3'	114°19.0'	N 24°33.2'
23	188°44.5'	N 11°29.1'	319°47.4'	S 22°35.3'	289°30.5'	S 21°32.3'	129°19.7'	N 24°33.2'

Sun May 19, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.3		Mars +1.7	
	v = -0.4' d = 1.0'		v = 2.8' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°44.1'	N 11°30.2'	334°50.1'	S 22°35.3'	304°33.1'	S 21°32.3'	144°20.4'	N 24°33.2'
1	218°43.6'	N 11°31.2'	349°52.9'	S 22°35.3'	319°35.6'	S 21°32.4'	159°21.1'	N 24°33.2'
2	233°43.2'	N 11°32.3'	4°55.6'	S 22°35.3'	334°38.2'	S 21°32.4'	174°21.7'	N 24°33.1'
3	248°42.8'	N 11°33.3'	19°58.4'	S 22°35.3'	349°40.7'	S 21°32.4'	189°22.4'	N 24°33.1'
4	263°42.3'	N 11°34.4'	35°01.1'	S 22°35.2'	4°43.3'	S 21°32.4'	204°23.1'	N 24°33.1'
5	278°41.9'	N 11°35.4'	50°03.9'	S 22°35.2'	19°45.8'	S 21°32.4'	219°23.8'	N 24°33.1'
6	293°41.4'	N 11°36.5'	65°06.6'	S 22°35.2'	34°48.3'	S 21°32.4'	234°24.5'	N 24°33.1'
7	308°41.0'	N 11°37.5'	80°09.4'	S 22°35.2'	49°50.9'	S 21°32.4'	249°25.2'	N 24°33.0'
8	323°40.5'	N 11°38.6'	95°12.1'	S 22°35.2'	64°53.4'	S 21°32.5'	264°25.9'	N 24°33.0'
9	338°40.1'	N 11°39.6'	110°14.9'	S 22°35.2'	79°56.0'	S 21°32.5'	279°26.6'	N 24°33.0'
10	353°39.6'	N 11°40.7'	125°17.6'	S 22°35.2'	94°58.5'	S 21°32.5'	294°27.3'	N 24°33.0'
11	8°39.2'	N 11°41.7'	140°20.4'	S 22°35.2'	110°01.1'	S 21°32.5'	309°28.0'	N 24°33.0'
12	23°38.7'	N 11°42.8'	155°23.1'	S 22°35.1'	125°03.6'	S 21°32.5'	324°28.7'	N 24°32.9'
13	38°38.3'	N 11°43.8'	170°25.9'	S 22°35.1'	140°06.2'	S 21°32.5'	339°29.3'	N 24°32.9'
14	53°37.9'	N 11°44.9'	185°28.6'	S 22°35.1'	155°08.7'	S 21°32.5'	354°30.0'	N 24°32.9'
15	68°37.4'	N 11°45.9'	200°31.4'	S 22°35.1'	170°11.3'	S 21°32.5'	9°30.7'	N 24°32.9'
16	83°37.0'	N 11°47.0'	215°34.1'	S 22°35.1'	185°13.8'	S 21°32.6'	24°31.4'	N 24°32.9'
17	98°36.5'	N 11°48.0'	230°36.9'	S 22°35.1'	200°16.3'	S 21°32.6'	39°32.1'	N 24°32.8'
18	113°36.1'	N 11°49.1'	245°39.6'	S 22°35.1'	215°18.9'	S 21°32.6'	54°32.8'	N 24°32.8'
19	128°35.6'	N 11°50.1'	260°42.4'	S 22°35.0'	230°21.4'	S 21°32.6'	69°33.5'	N 24°32.8'
20	143°35.2'	N 11°51.2'	275°45.1'	S 22°35.0'	245°24.0'	S 21°32.6'	84°34.2'	N 24°32.8'
21	158°34.7'	N 11°52.2'	290°47.9'	S 22°35.0'	260°26.5'	S 21°32.6'	99°34.9'	N 24°32.7'
22	173°34.3'	N 11°53.2'	305°50.6'	S 22°35.0'	275°29.1'	S 21°32.6'	114°35.6'	N 24°32.7'
23	188°33.8'	N 11°54.3'	320°53.4'	S 22°35.0'	290°31.6'	S 21°32.7'	129°36.3'	N 24°32.7'

Mon May 20, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.3		Mars +1.7	
	v = -0.5' d = 1.0'		v = 2.8' d = 0.0'		v = 2.5' d = 0.0'		v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°33.4'	N 11°55.3'	335°56.1'	S 22°35.0'	305°34.2'	S 21°32.7'	144°37.0'	N 24°32.7'
1	218°32.9'	N 11°56.4'	350°58.9'	S 22°35.0'	320°36.7'	S 21°32.7'	159°37.6'	N 24°32.7'
2	233°32.5'	N 11°57.4'	6°01.7'	S 22°35.0'	335°39.3'	S 21°32.7'	174°38.3'	N 24°32.6'
3	248°32.0'	N 11°58.5'	21°04.4'	S 22°34.9'	350°41.8'	S 21°32.7'	189°39.0'	N 24°32.6'
4	263°31.6'	N 11°59.5'	36°07.2'	S 22°34.9'	5°44.4'	S 21°32.7'	204°39.7'	N 24°32.6'
5	278°31.1'	N 12°00.5'	51°09.9'	S 22°34.9'	20°46.9'	S 21°32.7'	219°40.4'	N 24°32.5'
6	293°30.6'	N 12°01.6'	66°12.7'	S 22°34.9'	35°49.5'	S 21°32.8'	234°41.1'	N 24°32.5'
7	308°30.2'	N 12°02.6'	81°15.4'	S 22°34.9'	50°52.0'	S 21°32.8'	249°41.8'	N 24°32.5'
8	323°29.7'	N 12°03.7'	96°18.2'	S 22°34.9'	65°54.6'	S 21°32.8'	264°42.5'	N 24°32.5'
9	338°29.3'	N 12°04.7'	111°20.9'	S 22°34.9'	80°57.1'	S 21°32.8'	279°43.2'	N 24°32.4'
10	353°28.8'	N 12°05.7'	126°23.7'	S 22°34.9'	95°59.6'	S 21°32.8'	294°43.9'	N 24°32.4'
11	8°28.4'	N 12°06.8'	141°26.4'	S 22°34.8'	111°02.2'	S 21°32.8'	309°44.6'	N 24°32.4'
12	23°27.9'	N 12°07.8'	156°29.2'	S 22°34.8'	126°04.7'	S 21°32.8'	324°45.3'	N 24°32.4'
13	38°27.5'	N 12°08.9'	171°31.9'	S 22°34.8'	141°07.3'	S 21°32.8'	339°46.0'	N 24°32.3'
14	53°27.0'	N 12°09.9'	186°34.7'	S 22°34.8'	156°09.8'	S 21°32.9'	354°46.6'	N 24°32.3'
15	68°26.5'	N 12°10.9'	201°37.5'	S 22°34.8'	171°12.4'	S 21°32.9'	9°47.3'	N 24°32.3'
16	83°26.1'	N 12°12.0'	216°40.2'	S 22°34.8'	186°14.9'	S 21°32.9'	24°48.0'	N 24°32.2'
17	98°25.6'	N 12°13.0'	231°43.0'	S 22°34.8'	201°17.5'	S 21°32.9'	39°48.7'	N 24°32.2'
18	113°25.2'	N 12°14.0'	246°45.7'	S 22°34.7'	216°20.0'	S 21°32.9'	54°49.4'	N 24°32.2'
19	128°24.7'	N 12°15.1'	261°48.5'	S 22°34.7'	231°22.6'	S 21°32.9'	69°50.1'	N 24°32.1'
20	143°24.3'	N 12°16.1'	276°51.2'	S 22°34.7'	246°25.1'	S 21°32.9'	84°50.8'	N 24°32.1'
21	158°23.8'	N 12°17.1'	291°54.0'	S 22°34.7'	261°27.7'	S 21°33.0'	99°51.5'	N 24°32.1'
22	173°23.3'	N 12°18.2'	306°56.8'	S 22°34.7'	276°30.2'	S 21°33.0'	114°52.2'	N 24°32.1'
23	188°22.9'	N 12°19.2'	321°59.5'	S 22°34.7'	291°32.8'	S 21°33.0'	129°52.9'	N 24°32.0'

Tue May 21, 2019 UTC

UTC	Venus -3.8 v = -0.5' d = 1.0'		Jupiter -2.4 v = 2.8' d = 0.0'		Saturn +0.3 v = 2.6' d = 0.0'		Mars +1.7 v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°22.4'	N 12°20.2'	337°02.3'	S 22°34.7'	306°35.3'	S 21°33.0'	144°53.6'	N 24°32.0'
1	218°22.0'	N 12°21.3'	352°05.0'	S 22°34.7'	321°37.9'	S 21°33.0'	159°54.3'	N 24°32.0'
2	233°21.5'	N 12°22.3'	7°07.8'	S 22°34.6'	336°40.4'	S 21°33.0'	174°55.0'	N 24°31.9'
3	248°21.0'	N 12°23.3'	22°10.5'	S 22°34.6'	351°43.0'	S 21°33.0'	189°55.7'	N 24°31.9'
4	263°20.6'	N 12°24.4'	37°13.3'	S 22°34.6'	6°45.5'	S 21°33.1'	204°56.4'	N 24°31.9'
5	278°20.1'	N 12°25.4'	52°16.1'	S 22°34.6'	21°48.1'	S 21°33.1'	219°57.0'	N 24°31.8'
6	293°19.7'	N 12°26.4'	67°18.8'	S 22°34.6'	36°50.7'	S 21°33.1'	234°57.7'	N 24°31.8'
7	308°19.2'	N 12°27.4'	82°21.6'	S 22°34.6'	51°53.2'	S 21°33.1'	249°58.4'	N 24°31.7'
8	323°18.7'	N 12°28.5'	97°24.3'	S 22°34.6'	66°55.8'	S 21°33.1'	264°59.1'	N 24°31.7'
9	338°18.3'	N 12°29.5'	112°27.1'	S 22°34.5'	81°58.3'	S 21°33.1'	279°59.8'	N 24°31.7'
10	353°17.8'	N 12°30.5'	127°29.8'	S 22°34.5'	97°00.9'	S 21°33.1'	295°00.5'	N 24°31.6'
11	8°17.3'	N 12°31.6'	142°32.6'	S 22°34.5'	112°03.4'	S 21°33.2'	310°01.2'	N 24°31.6'
12	23°16.9'	N 12°32.6'	157°35.4'	S 22°34.5'	127°06.0'	S 21°33.2'	325°01.9'	N 24°31.6'
13	38°16.4'	N 12°33.6'	172°38.1'	S 22°34.5'	142°08.5'	S 21°33.2'	340°02.6'	N 24°31.5'
14	53°15.9'	N 12°34.6'	187°40.9'	S 22°34.5'	157°11.1'	S 21°33.2'	355°03.3'	N 24°31.5'
15	68°15.5'	N 12°35.7'	202°43.6'	S 22°34.5'	172°13.6'	S 21°33.2'	10°04.0'	N 24°31.5'
16	83°15.0'	N 12°36.7'	217°46.4'	S 22°34.5'	187°16.2'	S 21°33.2'	25°04.7'	N 24°31.4'
17	98°14.5'	N 12°37.7'	232°49.2'	S 22°34.4'	202°18.7'	S 21°33.2'	40°05.4'	N 24°31.4'
18	113°14.1'	N 12°38.7'	247°51.9'	S 22°34.4'	217°21.3'	S 21°33.3'	55°06.1'	N 24°31.3'
19	128°13.6'	N 12°39.8'	262°54.7'	S 22°34.4'	232°23.8'	S 21°33.3'	70°06.8'	N 24°31.3'
20	143°13.1'	N 12°40.8'	277°57.5'	S 22°34.4'	247°26.4'	S 21°33.3'	85°07.5'	N 24°31.3'
21	158°12.7'	N 12°41.8'	293°00.2'	S 22°34.4'	262°28.9'	S 21°33.3'	100°08.1'	N 24°31.2'
22	173°12.2'	N 12°42.8'	308°03.0'	S 22°34.4'	277°31.5'	S 21°33.3'	115°08.8'	N 24°31.2'
23	188°11.7'	N 12°43.8'	323°05.7'	S 22°34.4'	292°34.1'	S 21°33.3'	130°09.5'	N 24°31.1'

Wed May 22, 2019 UTC

UTC	Venus -3.8 v = -0.5' d = 1.0'		Jupiter -2.4 v = 2.8' d = 0.0'		Saturn +0.3 v = 2.6' d = 0.0'		Mars +1.7 v = 0.7' d = 0.0'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	203°11.3'	N 12°44.9'	338°08.5'	S 22°34.3'	307°36.6'	S 21°33.4'	145°10.2'	N 24°31.1'
1	218°10.8'	N 12°45.9'	353°11.3'	S 22°34.3'	322°39.2'	S 21°33.4'	160°10.9'	N 24°31.1'
2	233°10.3'	N 12°46.9'	8°14.0'	S 22°34.3'	337°41.7'	S 21°33.4'	175°11.6'	N 24°31.0'
3	248°09.8'	N 12°47.9'	23°16.8'	S 22°34.3'	352°44.3'	S 21°33.4'	190°12.3'	N 24°31.0'
4	263°09.4'	N 12°48.9'	38°19.5'	S 22°34.3'	7°46.8'	S 21°33.4'	205°13.0'	N 24°30.9'
5	278°08.9'	N 12°50.0'	53°22.3'	S 22°34.3'	22°49.4'	S 21°33.4'	220°13.7'	N 24°30.9'
6	293°08.4'	N 12°51.0'	68°25.1'	S 22°34.3'	37°51.9'	S 21°33.4'	235°14.4'	N 24°30.9'
7	308°08.0'	N 12°52.0'	83°27.8'	S 22°34.2'	52°54.5'	S 21°33.5'	250°15.1'	N 24°30.8'
8	323°07.5'	N 12°53.0'	98°30.6'	S 22°34.2'	67°57.1'	S 21°33.5'	265°15.8'	N 24°30.8'
9	338°07.0'	N 12°54.0'	113°33.4'	S 22°34.2'	82°59.6'	S 21°33.5'	280°16.5'	N 24°30.7'
10	353°06.5'	N 12°55.0'	128°36.1'	S 22°34.2'	98°02.2'	S 21°33.5'	295°17.2'	N 24°30.7'
11	8°06.1'	N 12°56.0'	143°38.9'	S 22°34.2'	113°04.7'	S 21°33.5'	310°17.9'	N 24°30.6'
12	23°05.6'	N 12°57.1'	158°41.7'	S 22°34.2'	128°07.3'	S 21°33.5'	325°18.6'	N 24°30.6'
13	38°05.1'	N 12°58.1'	173°44.4'	S 22°34.2'	143°09.8'	S 21°33.5'	340°19.3'	N 24°30.5'
14	53°04.6'	N 12°59.1'	188°47.2'	S 22°34.1'	158°12.4'	S 21°33.6'	355°20.0'	N 24°30.5'
15	68°04.2'	N 13°00.1'	203°50.0'	S 22°34.1'	173°14.9'	S 21°33.6'	10°20.7'	N 24°30.5'
16	83°03.7'	N 13°01.1'	218°52.7'	S 22°34.1'	188°17.5'	S 21°33.6'	25°21.3'	N 24°30.4'
17	98°03.2'	N 13°02.1'	233°55.5'	S 22°34.1'	203°20.1'	S 21°33.6'	40°22.0'	N 24°30.4'
18	113°02.7'	N 13°03.1'	248°58.2'	S 22°34.1'	218°22.6'	S 21°33.6'	55°22.7'	N 24°30.3'
19	128°02.3'	N 13°04.1'	264°01.0'	S 22°34.1'	233°25.2'	S 21°33.6'	70°23.4'	N 24°30.3'
20	143°01.8'	N 13°05.2'	279°03.8'	S 22°34.1'	248°27.7'	S 21°33.7'	85°24.1'	N 24°30.2'
21	158°01.3'	N 13°06.2'	294°06.5'	S 22°34.1'	263°30.3'	S 21°33.7'	100°24.8'	N 24°30.2'
22	173°00.8'	N 13°07.2'	309°09.3'	S 22°34.0'	278°32.9'	S 21°33.7'	115°25.5'	N 24°30.1'
23	188°00.3'	N 13°08.2'	324°12.1'	S 22°34.0'	293°35.4'	S 21°33.7'	130°26.2'	N 24°30.1'

Thu May 23, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.3		Mars +1.7	
	v = -0.5' d = 1.0'		v = 2.8' d = 0.0'		v = 2.6' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°59.9'	N 13°09.2'	339°14.8'	S 22°34.0'	308°38.0'	S 21°33.7'	145°26.9'	N 24°30.0'
1	217°59.4'	N 13°10.2'	354°17.6'	S 22°34.0'	323°40.5'	S 21°33.7'	160°27.6'	N 24°30.0'
2	232°58.9'	N 13°11.2'	9°20.4'	S 22°34.0'	338°43.1'	S 21°33.7'	175°28.3'	N 24°29.9'
3	247°58.4'	N 13°12.2'	24°23.1'	S 22°34.0'	353°45.6'	S 21°33.8'	190°29.0'	N 24°29.9'
4	262°57.9'	N 13°13.2'	39°25.9'	S 22°34.0'	8°48.2'	S 21°33.8'	205°29.7'	N 24°29.8'
5	277°57.5'	N 13°14.2'	54°28.7'	S 22°33.9'	23°50.8'	S 21°33.8'	220°30.4'	N 24°29.8'
6	292°57.0'	N 13°15.2'	69°31.4'	S 22°33.9'	38°53.3'	S 21°33.8'	235°31.1'	N 24°29.7'
7	307°56.5'	N 13°16.2'	84°34.2'	S 22°33.9'	53°55.9'	S 21°33.8'	250°31.8'	N 24°29.7'
8	322°56.0'	N 13°17.2'	99°37.0'	S 22°33.9'	68°58.4'	S 21°33.8'	265°32.5'	N 24°29.6'
9	337°55.5'	N 13°18.2'	114°39.7'	S 22°33.9'	84°01.0'	S 21°33.9'	280°33.2'	N 24°29.6'
10	352°55.0'	N 13°19.2'	129°42.5'	S 22°33.9'	99°03.6'	S 21°33.9'	295°33.9'	N 24°29.5'
11	7°54.6'	N 13°20.2'	144°45.3'	S 22°33.9'	114°06.1'	S 21°33.9'	310°34.6'	N 24°29.5'
12	22°54.1'	N 13°21.3'	159°48.1'	S 22°33.8'	129°08.7'	S 21°33.9'	325°35.3'	N 24°29.4'
13	37°53.6'	N 13°22.3'	174°50.8'	S 22°33.8'	144°11.2'	S 21°33.9'	340°36.0'	N 24°29.4'
14	52°53.1'	N 13°23.3'	189°53.6'	S 22°33.8'	159°13.8'	S 21°33.9'	355°36.7'	N 24°29.3'
15	67°52.6'	N 13°24.3'	204°56.4'	S 22°33.8'	174°16.4'	S 21°33.9'	10°37.4'	N 24°29.3'
16	82°52.1'	N 13°25.3'	219°59.1'	S 22°33.8'	189°18.9'	S 21°34.0'	25°38.0'	N 24°29.2'
17	97°51.6'	N 13°26.3'	235°01.9'	S 22°33.8'	204°21.5'	S 21°34.0'	40°38.7'	N 24°29.1'
18	112°51.2'	N 13°27.3'	250°04.7'	S 22°33.8'	219°24.0'	S 21°34.0'	55°39.4'	N 24°29.1'
19	127°50.7'	N 13°28.2'	265°07.4'	S 22°33.7'	234°26.6'	S 21°34.0'	70°40.1'	N 24°29.0'
20	142°50.2'	N 13°29.2'	280°10.2'	S 22°33.7'	249°29.2'	S 21°34.0'	85°40.8'	N 24°29.0'
21	157°49.7'	N 13°30.2'	295°13.0'	S 22°33.7'	264°31.7'	S 21°34.0'	100°41.5'	N 24°28.9'
22	172°49.2'	N 13°31.2'	310°15.7'	S 22°33.7'	279°34.3'	S 21°34.1'	115°42.2'	N 24°28.9'
23	187°48.7'	N 13°32.2'	325°18.5'	S 22°33.7'	294°36.9'	S 21°34.1'	130°42.9'	N 24°28.8'

Fri May 24, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.3		Mars +1.7	
	v = -0.5' d = 1.0'		v = 2.8' d = 0.0'		v = 2.6' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°48.2'	N 13°33.2'	340°21.3'	S 22°33.7'	309°39.4'	S 21°34.1'	145°43.6'	N 24°28.8'
1	217°47.7'	N 13°34.2'	355°24.1'	S 22°33.7'	324°42.0'	S 21°34.1'	160°44.3'	N 24°28.7'
2	232°47.3'	N 13°35.2'	10°26.8'	S 22°33.6'	339°44.5'	S 21°34.1'	175°45.0'	N 24°28.6'
3	247°46.8'	N 13°36.2'	25°29.6'	S 22°33.6'	354°47.1'	S 21°34.1'	190°45.7'	N 24°28.6'
4	262°46.3'	N 13°37.2'	40°32.4'	S 22°33.6'	9°49.7'	S 21°34.2'	205°46.4'	N 24°28.5'
5	277°45.8'	N 13°38.2'	55°35.1'	S 22°33.6'	24°52.2'	S 21°34.2'	220°47.1'	N 24°28.5'
6	292°45.3'	N 13°39.2'	70°37.9'	S 22°33.6'	39°54.8'	S 21°34.2'	235°47.8'	N 24°28.4'
7	307°44.8'	N 13°40.2'	85°40.7'	S 22°33.6'	54°57.4'	S 21°34.2'	250°48.5'	N 24°28.3'
8	322°44.3'	N 13°41.2'	100°43.5'	S 22°33.5'	69°59.9'	S 21°34.2'	265°49.2'	N 24°28.3'
9	337°43.8'	N 13°42.2'	115°46.2'	S 22°33.5'	85°02.5'	S 21°34.2'	280°49.9'	N 24°28.2'
10	352°43.3'	N 13°43.2'	130°49.0'	S 22°33.5'	100°05.0'	S 21°34.2'	295°50.6'	N 24°28.2'
11	7°42.8'	N 13°44.1'	145°51.8'	S 22°33.5'	115°07.6'	S 21°34.3'	310°51.3'	N 24°28.1'
12	22°42.3'	N 13°45.1'	160°54.6'	S 22°33.5'	130°10.2'	S 21°34.3'	325°52.0'	N 24°28.0'
13	37°41.8'	N 13°46.1'	175°57.3'	S 22°33.5'	145°12.7'	S 21°34.3'	340°52.7'	N 24°28.0'
14	52°41.3'	N 13°47.1'	191°00.1'	S 22°33.5'	160°15.3'	S 21°34.3'	355°53.4'	N 24°27.9'
15	67°40.8'	N 13°48.1'	206°02.9'	S 22°33.4'	175°17.9'	S 21°34.3'	10°54.1'	N 24°27.9'
16	82°40.3'	N 13°49.1'	221°05.6'	S 22°33.4'	190°20.4'	S 21°34.3'	25°54.8'	N 24°27.8'
17	97°39.8'	N 13°50.1'	236°08.4'	S 22°33.4'	205°23.0'	S 21°34.4'	40°55.5'	N 24°27.7'
18	112°39.3'	N 13°51.1'	251°11.2'	S 22°33.4'	220°25.6'	S 21°34.4'	55°56.2'	N 24°27.7'
19	127°38.9'	N 13°52.0'	266°14.0'	S 22°33.4'	235°28.1'	S 21°34.4'	70°56.9'	N 24°27.6'
20	142°38.4'	N 13°53.0'	281°16.7'	S 22°33.4'	250°30.7'	S 21°34.4'	85°57.6'	N 24°27.5'
21	157°37.9'	N 13°54.0'	296°19.5'	S 22°33.4'	265°33.3'	S 21°34.4'	100°58.3'	N 24°27.5'
22	172°37.4'	N 13°55.0'	311°22.3'	S 22°33.3'	280°35.8'	S 21°34.4'	115°59.0'	N 24°27.4'
23	187°36.9'	N 13°56.0'	326°25.1'	S 22°33.3'	295°38.4'	S 21°34.5'	130°59.7'	N 24°27.4'

Sat May 25, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.3		Mars +1.7	
	v = -0.5' d = 1.0'		v = 2.8' d = 0.0'		v = 2.6' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°36.4'	N 13°57.0'	341°27.8'	S 22°33.3'	310°41.0'	S 21°34.5'	146°00.4'	N 24°27.3'
1	217°35.9'	N 13°57.9'	356°30.6'	S 22°33.3'	325°43.5'	S 21°34.5'	161°01.1'	N 24°27.2'
2	232°35.4'	N 13°58.9'	11°33.4'	S 22°33.3'	340°46.1'	S 21°34.5'	176°01.8'	N 24°27.2'
3	247°34.9'	N 13°59.9'	26°36.2'	S 22°33.3'	355°48.7'	S 21°34.5'	191°02.5'	N 24°27.1'
4	262°34.4'	N 14°00.9'	41°38.9'	S 22°33.3'	10°51.2'	S 21°34.5'	206°03.2'	N 24°27.0'
5	277°33.9'	N 14°01.9'	56°41.7'	S 22°33.2'	25°53.8'	S 21°34.6'	221°03.9'	N 24°27.0'
6	292°33.3'	N 14°02.8'	71°44.5'	S 22°33.2'	40°56.4'	S 21°34.6'	236°04.6'	N 24°26.9'
7	307°32.8'	N 14°03.8'	86°47.3'	S 22°33.2'	55°58.9'	S 21°34.6'	251°05.3'	N 24°26.8'
8	322°32.3'	N 14°04.8'	101°50.0'	S 22°33.2'	71°01.5'	S 21°34.6'	266°06.0'	N 24°26.8'
9	337°31.8'	N 14°05.8'	116°52.8'	S 22°33.2'	86°04.1'	S 21°34.6'	281°06.7'	N 24°26.7'
10	352°31.3'	N 14°06.7'	131°55.6'	S 22°33.2'	101°06.6'	S 21°34.6'	296°07.4'	N 24°26.6'
11	7°30.8'	N 14°07.7'	146°58.4'	S 22°33.1'	116°09.2'	S 21°34.7'	311°08.1'	N 24°26.6'
12	22°30.3'	N 14°08.7'	162°01.1'	S 22°33.1'	131°11.8'	S 21°34.7'	326°08.7'	N 24°26.5'
13	37°29.8'	N 14°09.7'	177°03.9'	S 22°33.1'	146°14.3'	S 21°34.7'	341°09.4'	N 24°26.4'
14	52°29.3'	N 14°10.6'	192°06.7'	S 22°33.1'	161°16.9'	S 21°34.7'	356°10.1'	N 24°26.4'
15	67°28.8'	N 14°11.6'	207°09.5'	S 22°33.1'	176°19.5'	S 21°34.7'	11°10.8'	N 24°26.3'
16	82°28.3'	N 14°12.6'	222°12.3'	S 22°33.1'	191°22.0'	S 21°34.7'	26°11.5'	N 24°26.2'
17	97°27.8'	N 14°13.6'	237°15.0'	S 22°33.1'	206°24.6'	S 21°34.8'	41°12.2'	N 24°26.1'
18	112°27.3'	N 14°14.5'	252°17.8'	S 22°33.0'	221°27.2'	S 21°34.8'	56°12.9'	N 24°26.1'
19	127°26.8'	N 14°15.5'	267°20.6'	S 22°33.0'	236°29.7'	S 21°34.8'	71°13.6'	N 24°26.0'
20	142°26.3'	N 14°16.5'	282°23.4'	S 22°33.0'	251°32.3'	S 21°34.8'	86°14.3'	N 24°25.9'
21	157°25.8'	N 14°17.5'	297°26.1'	S 22°33.0'	266°34.9'	S 21°34.8'	101°15.0'	N 24°25.9'
22	172°25.3'	N 14°18.4'	312°28.9'	S 22°33.0'	281°37.4'	S 21°34.8'	116°15.7'	N 24°25.8'
23	187°24.7'	N 14°19.4'	327°31.7'	S 22°33.0'	296°40.0'	S 21°34.9'	131°16.4'	N 24°25.7'

Sun May 26, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.3		Mars +1.7	
	v = -0.5' d = 1.0'		v = 2.8' d = 0.0'		v = 2.6' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°24.2'	N 14°20.4'	342°34.5'	S 22°33.0'	311°42.6'	S 21°34.9'	146°17.1'	N 24°25.6'
1	217°23.7'	N 14°21.3'	357°37.3'	S 22°32.9'	326°45.2'	S 21°34.9'	161°17.8'	N 24°25.6'
2	232°23.2'	N 14°22.3'	12°40.0'	S 22°32.9'	341°47.7'	S 21°34.9'	176°18.5'	N 24°25.5'
3	247°22.7'	N 14°23.3'	27°42.8'	S 22°32.9'	356°50.3'	S 21°34.9'	191°19.2'	N 24°25.4'
4	262°22.2'	N 14°24.2'	42°45.6'	S 22°32.9'	11°52.9'	S 21°34.9'	206°19.9'	N 24°25.3'
5	277°21.7'	N 14°25.2'	57°48.4'	S 22°32.9'	26°55.4'	S 21°35.0'	221°20.6'	N 24°25.3'
6	292°21.2'	N 14°26.2'	72°51.2'	S 22°32.9'	41°58.0'	S 21°35.0'	236°21.3'	N 24°25.2'
7	307°20.6'	N 14°27.1'	87°53.9'	S 22°32.8'	57°00.6'	S 21°35.0'	251°22.0'	N 24°25.1'
8	322°20.1'	N 14°28.1'	102°56.7'	S 22°32.8'	72°03.1'	S 21°35.0'	266°22.7'	N 24°25.0'
9	337°19.6'	N 14°29.1'	117°59.5'	S 22°32.8'	87°05.7'	S 21°35.0'	281°23.4'	N 24°25.0'
10	352°19.1'	N 14°30.0'	133°02.3'	S 22°32.8'	102°08.3'	S 21°35.0'	296°24.1'	N 24°24.9'
11	7°18.6'	N 14°31.0'	148°05.1'	S 22°32.8'	117°10.9'	S 21°35.1'	311°24.8'	N 24°24.8'
12	22°18.1'	N 14°31.9'	163°07.8'	S 22°32.8'	132°13.4'	S 21°35.1'	326°25.5'	N 24°24.7'
13	37°17.6'	N 14°32.9'	178°10.6'	S 22°32.8'	147°16.0'	S 21°35.1'	341°26.2'	N 24°24.7'
14	52°17.0'	N 14°33.9'	193°13.4'	S 22°32.7'	162°18.6'	S 21°35.1'	356°26.9'	N 24°24.6'
15	67°16.5'	N 14°34.8'	208°16.2'	S 22°32.7'	177°21.1'	S 21°35.1'	11°27.6'	N 24°24.5'
16	82°16.0'	N 14°35.8'	223°19.0'	S 22°32.7'	192°23.7'	S 21°35.1'	26°28.3'	N 24°24.4'
17	97°15.5'	N 14°36.7'	238°21.7'	S 22°32.7'	207°26.3'	S 21°35.2'	41°29.0'	N 24°24.4'
18	112°15.0'	N 14°37.7'	253°24.5'	S 22°32.7'	222°28.9'	S 21°35.2'	56°29.7'	N 24°24.3'
19	127°14.5'	N 14°38.7'	268°27.3'	S 22°32.7'	237°31.4'	S 21°35.2'	71°30.4'	N 24°24.2'
20	142°13.9'	N 14°39.6'	283°30.1'	S 22°32.6'	252°34.0'	S 21°35.2'	86°31.2'	N 24°24.1'
21	157°13.4'	N 14°40.6'	298°32.9'	S 22°32.6'	267°36.6'	S 21°35.2'	101°31.9'	N 24°24.0'
22	172°12.9'	N 14°41.5'	313°35.6'	S 22°32.6'	282°39.2'	S 21°35.2'	116°32.6'	N 24°24.0'
23	187°12.4'	N 14°42.5'	328°38.4'	S 22°32.6'	297°41.7'	S 21°35.3'	131°33.3'	N 24°23.9'

Mon May 27, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.3		Mars +1.7	
	v = -0.5' d = 0.9'		v = 2.8' d = 0.0'		v = 2.6' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	202°11.9'	N 14°43.4'	343°41.2'	S 22°32.6'	312°44.3'	S 21°35.3'	146°34.0'	N 24°23.8'
1	217°11.3'	N 14°44.4'	358°44.0'	S 22°32.6'	327°46.9'	S 21°35.3'	161°34.7'	N 24°23.7'
2	232°10.8'	N 14°45.3'	13°46.8'	S 22°32.6'	342°49.4'	S 21°35.3'	176°35.4'	N 24°23.6'
3	247°10.3'	N 14°46.3'	28°49.6'	S 22°32.5'	357°52.0'	S 21°35.3'	191°36.1'	N 24°23.6'
4	262°09.8'	N 14°47.2'	43°52.3'	S 22°32.5'	12°54.6'	S 21°35.4'	206°36.8'	N 24°23.5'
5	277°09.2'	N 14°48.2'	58°55.1'	S 22°32.5'	27°57.2'	S 21°35.4'	221°37.5'	N 24°23.4'
6	292°08.7'	N 14°49.1'	73°57.9'	S 22°32.5'	42°59.7'	S 21°35.4'	236°38.2'	N 24°23.3'
7	307°08.2'	N 14°50.1'	89°00.7'	S 22°32.5'	58°02.3'	S 21°35.4'	251°38.9'	N 24°23.2'
8	322°07.7'	N 14°51.0'	104°03.5'	S 22°32.5'	73°04.9'	S 21°35.4'	266°39.6'	N 24°23.1'
9	337°07.1'	N 14°52.0'	119°06.3'	S 22°32.4'	88°07.5'	S 21°35.4'	281°40.3'	N 24°23.1'
10	352°06.6'	N 14°52.9'	134°09.0'	S 22°32.4'	103°10.0'	S 21°35.5'	296°41.0'	N 24°23.0'
11	7°06.1'	N 14°53.9'	149°11.8'	S 22°32.4'	118°12.6'	S 21°35.5'	311°41.7'	N 24°22.9'
12	22°05.6'	N 14°54.8'	164°14.6'	S 22°32.4'	133°15.2'	S 21°35.5'	326°42.4'	N 24°22.8'
13	37°05.0'	N 14°55.8'	179°17.4'	S 22°32.4'	148°17.8'	S 21°35.5'	341°43.1'	N 24°22.7'
14	52°04.5'	N 14°56.7'	194°20.2'	S 22°32.4'	163°20.3'	S 21°35.5'	356°43.8'	N 24°22.6'
15	67°04.0'	N 14°57.7'	209°23.0'	S 22°32.3'	178°22.9'	S 21°35.5'	11°44.5'	N 24°22.5'
16	82°03.5'	N 14°58.6'	224°25.7'	S 22°32.3'	193°25.5'	S 21°35.6'	26°45.2'	N 24°22.5'
17	97°02.9'	N 14°59.6'	239°28.5'	S 22°32.3'	208°28.1'	S 21°35.6'	41°45.9'	N 24°22.4'
18	112°02.4'	N 15°00.5'	254°31.3'	S 22°32.3'	223°30.6'	S 21°35.6'	56°46.6'	N 24°22.3'
19	127°01.9'	N 15°01.4'	269°34.1'	S 22°32.3'	238°33.2'	S 21°35.6'	71°47.3'	N 24°22.2'
20	142°01.3'	N 15°02.4'	284°36.9'	S 22°32.3'	253°35.8'	S 21°35.6'	86°48.0'	N 24°22.1'
21	157°00.8'	N 15°03.3'	299°39.7'	S 22°32.3'	268°38.4'	S 21°35.7'	101°48.7'	N 24°22.0'
22	172°00.3'	N 15°04.3'	314°42.5'	S 22°32.2'	283°40.9'	S 21°35.7'	116°49.4'	N 24°21.9'
23	186°59.7'	N 15°05.2'	329°45.2'	S 22°32.2'	298°43.5'	S 21°35.7'	131°50.1'	N 24°21.9'

Tue May 28, 2019 UTC

UTC	Venus -3.8		Jupiter -2.4		Saturn +0.3		Mars +1.7	
	v = -0.5' d = 0.9'		v = 2.8' d = 0.0'		v = 2.6' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°59.2'	N 15°06.1'	344°48.0'	S 22°32.2'	313°46.1'	S 21°35.7'	146°50.8'	N 24°21.8'
1	216°58.7'	N 15°07.1'	359°50.8'	S 22°32.2'	328°48.7'	S 21°35.7'	161°51.5'	N 24°21.7'
2	231°58.2'	N 15°08.0'	14°53.6'	S 22°32.2'	343°51.3'	S 21°35.7'	176°52.2'	N 24°21.6'
3	246°57.6'	N 15°09.0'	29°56.4'	S 22°32.2'	358°53.8'	S 21°35.8'	191°52.9'	N 24°21.5'
4	261°57.1'	N 15°09.9'	44°59.2'	S 22°32.1'	13°56.4'	S 21°35.8'	206°53.6'	N 24°21.4'
5	276°56.6'	N 15°10.8'	60°02.0'	S 22°32.1'	28°59.0'	S 21°35.8'	221°54.3'	N 24°21.3'
6	291°56.0'	N 15°11.8'	75°04.7'	S 22°32.1'	44°01.6'	S 21°35.8'	236°55.0'	N 24°21.2'
7	306°55.5'	N 15°12.7'	90°07.5'	S 22°32.1'	59°04.1'	S 21°35.8'	251°55.7'	N 24°21.1'
8	321°54.9'	N 15°13.6'	105°10.3'	S 22°32.1'	74°06.7'	S 21°35.8'	266°56.4'	N 24°21.0'
9	336°54.4'	N 15°14.6'	120°13.1'	S 22°32.1'	89°09.3'	S 21°35.9'	281°57.1'	N 24°21.0'
10	351°53.9'	N 15°15.5'	135°15.9'	S 22°32.0'	104°11.9'	S 21°35.9'	296°57.8'	N 24°20.9'
11	6°53.3'	N 15°16.4'	150°18.7'	S 22°32.0'	119°14.5'	S 21°35.9'	311°58.5'	N 24°20.8'
12	21°52.8'	N 15°17.4'	165°21.5'	S 22°32.0'	134°17.0'	S 21°35.9'	326°59.2'	N 24°20.7'
13	36°52.3'	N 15°18.3'	180°24.3'	S 22°32.0'	149°19.6'	S 21°35.9'	341°59.9'	N 24°20.6'
14	51°51.7'	N 15°19.2'	195°27.0'	S 22°32.0'	164°22.2'	S 21°36.0'	357°00.7'	N 24°20.5'
15	66°51.2'	N 15°20.2'	210°29.8'	S 22°32.0'	179°24.8'	S 21°36.0'	12°01.4'	N 24°20.4'
16	81°50.6'	N 15°21.1'	225°32.6'	S 22°31.9'	194°27.4'	S 21°36.0'	27°02.1'	N 24°20.3'
17	96°50.1'	N 15°22.0'	240°35.4'	S 22°31.9'	209°29.9'	S 21°36.0'	42°02.8'	N 24°20.2'
18	111°49.6'	N 15°23.0'	255°38.2'	S 22°31.9'	224°32.5'	S 21°36.0'	57°03.5'	N 24°20.1'
19	126°49.0'	N 15°23.9'	270°41.0'	S 22°31.9'	239°35.1'	S 21°36.0'	72°04.2'	N 24°20.0'
20	141°48.5'	N 15°24.8'	285°43.8'	S 22°31.9'	254°37.7'	S 21°36.1'	87°04.9'	N 24°19.9'
21	156°47.9'	N 15°25.7'	300°46.6'	S 22°31.9'	269°40.2'	S 21°36.1'	102°05.6'	N 24°19.8'
22	171°47.4'	N 15°26.7'	315°49.3'	S 22°31.9'	284°42.8'	S 21°36.1'	117°06.3'	N 24°19.7'
23	186°46.9'	N 15°27.6'	330°52.1'	S 22°31.8'	299°45.4'	S 21°36.1'	132°07.0'	N 24°19.6'

Wed May 29, 2019 UTC

UTC	Venus -3.8		Jupiter -2.5		Saturn +0.3		Mars +1.7	
	v = -0.5' d = 0.9'		v = 2.8' d = 0.0'		v = 2.6' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°46.3'	N 15°28.5'	345°54.9'	S 22°31.8'	314°48.0'	S 21°36.1'	147°07.7'	N 24°19.5'
1	216°45.8'	N 15°29.4'	0°57.7'	S 22°31.8'	329°50.6'	S 21°36.2'	162°08.4'	N 24°19.4'
2	231°45.2'	N 15°30.4'	16°00.5'	S 22°31.8'	344°53.2'	S 21°36.2'	177°09.1'	N 24°19.3'
3	246°44.7'	N 15°31.3'	31°03.3'	S 22°31.8'	359°55.7'	S 21°36.2'	192°09.8'	N 24°19.2'
4	261°44.1'	N 15°32.2'	46°06.1'	S 22°31.8'	14°58.3'	S 21°36.2'	207°10.5'	N 24°19.1'
5	276°43.6'	N 15°33.1'	61°08.9'	S 22°31.7'	30°00.9'	S 21°36.2'	222°11.2'	N 24°19.1'
6	291°43.1'	N 15°34.0'	76°11.7'	S 22°31.7'	45°03.5'	S 21°36.2'	237°11.9'	N 24°19.0'
7	306°42.5'	N 15°35.0'	91°14.4'	S 22°31.7'	60°06.1'	S 21°36.3'	252°12.6'	N 24°18.9'
8	321°42.0'	N 15°35.9'	106°17.2'	S 22°31.7'	75°08.6'	S 21°36.3'	267°13.3'	N 24°18.8'
9	336°41.4'	N 15°36.8'	121°20.0'	S 22°31.7'	90°11.2'	S 21°36.3'	282°14.0'	N 24°18.7'
10	351°40.9'	N 15°37.7'	136°22.8'	S 22°31.7'	105°13.8'	S 21°36.3'	297°14.7'	N 24°18.6'
11	6°40.3'	N 15°38.6'	151°25.6'	S 22°31.6'	120°16.4'	S 21°36.3'	312°15.4'	N 24°18.5'
12	21°39.8'	N 15°39.6'	166°28.4'	S 22°31.6'	135°19.0'	S 21°36.4'	327°16.2'	N 24°18.4'
13	36°39.2'	N 15°40.5'	181°31.2'	S 22°31.6'	150°21.5'	S 21°36.4'	342°16.9'	N 24°18.3'
14	51°38.7'	N 15°41.4'	196°34.0'	S 22°31.6'	165°24.1'	S 21°36.4'	357°17.6'	N 24°18.2'
15	66°38.1'	N 15°42.3'	211°36.8'	S 22°31.6'	180°26.7'	S 21°36.4'	12°18.3'	N 24°18.1'
16	81°37.6'	N 15°43.2'	226°39.6'	S 22°31.6'	195°29.3'	S 21°36.4'	27°19.0'	N 24°18.0'
17	96°37.0'	N 15°44.1'	241°42.4'	S 22°31.5'	210°31.9'	S 21°36.5'	42°19.7'	N 24°17.8'
18	111°36.5'	N 15°45.0'	256°45.1'	S 22°31.5'	225°34.5'	S 21°36.5'	57°20.4'	N 24°17.7'
19	126°35.9'	N 15°46.0'	271°47.9'	S 22°31.5'	240°37.0'	S 21°36.5'	72°21.1'	N 24°17.6'
20	141°35.4'	N 15°46.9'	286°50.7'	S 22°31.5'	255°39.6'	S 21°36.5'	87°21.8'	N 24°17.5'
21	156°34.8'	N 15°47.8'	301°53.5'	S 22°31.5'	270°42.2'	S 21°36.5'	102°22.5'	N 24°17.4'
22	171°34.3'	N 15°48.7'	316°56.3'	S 22°31.5'	285°44.8'	S 21°36.5'	117°23.2'	N 24°17.3'
23	186°33.7'	N 15°49.6'	331°59.1'	S 22°31.4'	300°47.4'	S 21°36.6'	132°23.9'	N 24°17.2'

Thu May 30, 2019 UTC

UTC	Venus -3.8		Jupiter -2.5		Saturn +0.3		Mars +1.7	
	v = -0.6' d = 0.9'		v = 2.8' d = 0.0'		v = 2.6' d = 0.0'		v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°33.2'	N 15°50.5'	347°01.9'	S 22°31.4'	315°50.0'	S 21°36.6'	147°24.6'	N 24°17.1'
1	216°32.6'	N 15°51.4'	2°04.7'	S 22°31.4'	330°52.5'	S 21°36.6'	162°25.3'	N 24°17.0'
2	231°32.0'	N 15°52.3'	17°07.5'	S 22°31.4'	345°55.1'	S 21°36.6'	177°26.0'	N 24°16.9'
3	246°31.5'	N 15°53.2'	32°10.3'	S 22°31.4'	0°57.7'	S 21°36.6'	192°26.7'	N 24°16.8'
4	261°30.9'	N 15°54.1'	47°13.1'	S 22°31.4'	16°00.3'	S 21°36.7'	207°27.4'	N 24°16.7'
5	276°30.4'	N 15°55.0'	62°15.9'	S 22°31.3'	31°02.9'	S 21°36.7'	222°28.2'	N 24°16.6'
6	291°29.8'	N 15°55.9'	77°18.6'	S 22°31.3'	46°05.5'	S 21°36.7'	237°28.9'	N 24°16.5'
7	306°29.3'	N 15°56.8'	92°21.4'	S 22°31.3'	61°08.1'	S 21°36.7'	252°29.6'	N 24°16.4'
8	321°28.7'	N 15°57.8'	107°24.2'	S 22°31.3'	76°10.6'	S 21°36.7'	267°30.3'	N 24°16.3'
9	336°28.2'	N 15°58.7'	122°27.0'	S 22°31.3'	91°13.2'	S 21°36.8'	282°31.0'	N 24°16.2'
10	351°27.6'	N 15°59.6'	137°29.8'	S 22°31.3'	106°15.8'	S 21°36.8'	297°31.7'	N 24°16.1'
11	6°27.0'	N 16°00.5'	152°32.6'	S 22°31.2'	121°18.4'	S 21°36.8'	312°32.4'	N 24°16.0'
12	21°26.5'	N 16°01.4'	167°35.4'	S 22°31.2'	136°21.0'	S 21°36.8'	327°33.1'	N 24°15.8'
13	36°25.9'	N 16°02.3'	182°38.2'	S 22°31.2'	151°23.6'	S 21°36.8'	342°33.8'	N 24°15.7'
14	51°25.4'	N 16°03.2'	197°41.0'	S 22°31.2'	166°26.2'	S 21°36.8'	357°34.5'	N 24°15.6'
15	66°24.8'	N 16°04.1'	212°43.8'	S 22°31.2'	181°28.7'	S 21°36.9'	12°35.2'	N 24°15.5'
16	81°24.2'	N 16°05.0'	227°46.6'	S 22°31.2'	196°31.3'	S 21°36.9'	27°35.9'	N 24°15.4'
17	96°23.7'	N 16°05.9'	242°49.4'	S 22°31.1'	211°33.9'	S 21°36.9'	42°36.6'	N 24°15.3'
18	111°23.1'	N 16°06.7'	257°52.2'	S 22°31.1'	226°36.5'	S 21°36.9'	57°37.3'	N 24°15.2'
19	126°22.5'	N 16°07.6'	272°55.0'	S 22°31.1'	241°39.1'	S 21°36.9'	72°38.1'	N 24°15.1'
20	141°22.0'	N 16°08.5'	287°57.8'	S 22°31.1'	256°41.7'	S 21°37.0'	87°38.8'	N 24°15.0'
21	156°21.4'	N 16°09.4'	303°00.6'	S 22°31.1'	271°44.3'	S 21°37.0'	102°39.5'	N 24°14.9'
22	171°20.9'	N 16°10.3'	318°03.3'	S 22°31.1'	286°46.8'	S 21°37.0'	117°40.2'	N 24°14.7'
23	186°20.3'	N 16°11.2'	333°06.1'	S 22°31.0'	301°49.4'	S 21°37.0'	132°40.9'	N 24°14.6'

Fri May 31, 2019 UTC

UTC	Venus -3.8 v = -0.6' d = 0.9'		Jupiter -2.5 v = 2.8' d = 0.0'		Saturn +0.3 v = 2.6' d = 0.0'		Mars +1.8 v = 0.7' d = 0.1'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	201°19.7'	N 16°12.1'	348°08.9'	S 22°31.0'	316°52.0'	S 21°37.0'	147°41.6'	N 24°14.5'
1	216°19.2'	N 16°13.0'	3°11.7'	S 22°31.0'	331°54.6'	S 21°37.1'	162°42.3'	N 24°14.4'
2	231°18.6'	N 16°13.9'	18°14.5'	S 22°31.0'	346°57.2'	S 21°37.1'	177°43.0'	N 24°14.3'
3	246°18.0'	N 16°14.8'	33°17.3'	S 22°31.0'	1°59.8'	S 21°37.1'	192°43.7'	N 24°14.2'
4	261°17.5'	N 16°15.7'	48°20.1'	S 22°30.9'	17°02.4'	S 21°37.1'	207°44.4'	N 24°14.1'
5	276°16.9'	N 16°16.6'	63°22.9'	S 22°30.9'	32°05.0'	S 21°37.1'	222°45.1'	N 24°14.0'
6	291°16.3'	N 16°17.5'	78°25.7'	S 22°30.9'	47°07.5'	S 21°37.2'	237°45.8'	N 24°13.8'
7	306°15.8'	N 16°18.3'	93°28.5'	S 22°30.9'	62°10.1'	S 21°37.2'	252°46.6'	N 24°13.7'
8	321°15.2'	N 16°19.2'	108°31.3'	S 22°30.9'	77°12.7'	S 21°37.2'	267°47.3'	N 24°13.6'
9	336°14.6'	N 16°20.1'	123°34.1'	S 22°30.9'	92°15.3'	S 21°37.2'	282°48.0'	N 24°13.5'
10	351°14.1'	N 16°21.0'	138°36.9'	S 22°30.8'	107°17.9'	S 21°37.2'	297°48.7'	N 24°13.4'
11	6°13.5'	N 16°21.9'	153°39.7'	S 22°30.8'	122°20.5'	S 21°37.3'	312°49.4'	N 24°13.3'
12	21°12.9'	N 16°22.8'	168°42.5'	S 22°30.8'	137°23.1'	S 21°37.3'	327°50.1'	N 24°13.2'
13	36°12.3'	N 16°23.7'	183°45.3'	S 22°30.8'	152°25.7'	S 21°37.3'	342°50.8'	N 24°13.0'
14	51°11.8'	N 16°24.5'	198°48.1'	S 22°30.8'	167°28.3'	S 21°37.3'	357°51.5'	N 24°12.9'
15	66°11.2'	N 16°25.4'	213°50.9'	S 22°30.8'	182°30.8'	S 21°37.3'	12°52.2'	N 24°12.8'
16	81°10.6'	N 16°26.3'	228°53.7'	S 22°30.7'	197°33.4'	S 21°37.3'	27°52.9'	N 24°12.7'
17	96°10.1'	N 16°27.2'	243°56.5'	S 22°30.7'	212°36.0'	S 21°37.4'	42°53.6'	N 24°12.6'
18	111°09.5'	N 16°28.1'	258°59.3'	S 22°30.7'	227°38.6'	S 21°37.4'	57°54.4'	N 24°12.5'
19	126°08.9'	N 16°28.9'	274°02.1'	S 22°30.7'	242°41.2'	S 21°37.4'	72°55.1'	N 24°12.3'
20	141°08.3'	N 16°29.8'	289°04.8'	S 22°30.7'	257°43.8'	S 21°37.4'	87°55.8'	N 24°12.2'
21	156°07.8'	N 16°30.7'	304°07.6'	S 22°30.7'	272°46.4'	S 21°37.4'	102°56.5'	N 24°12.1'
22	171°07.2'	N 16°31.6'	319°10.4'	S 22°30.6'	287°49.0'	S 21°37.5'	117°57.2'	N 24°12.0'
23	186°06.6'	N 16°32.5'	334°13.2'	S 22°30.6'	302°51.6'	S 21°37.5'	132°57.9'	N 24°11.9'