

Sun Dec 1, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.1'		Jupiter -1.7 v = 1.9' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.9' d = 0.6'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	152°45.8'	S 24°45.3'	159°59.3'	S 23°17.8'	140°05.6'	S 22°08.3'	214°00.3'	S 13°28.9'
1	167°44.9'	S 24°45.2'	175°01.2'	S 23°17.8'	155°07.8'	S 22°08.3'	229°01.1'	S 13°29.5'
2	182°43.9'	S 24°45.1'	190°03.1'	S 23°17.8'	170°10.0'	S 22°08.2'	244°02.0'	S 13°30.0'
3	197°43.0'	S 24°45.0'	205°04.9'	S 23°17.8'	185°12.2'	S 22°08.2'	259°02.9'	S 13°30.6'
4	212°42.0'	S 24°45.0'	220°06.8'	S 23°17.8'	200°14.3'	S 22°08.2'	274°03.7'	S 13°31.1'
5	227°41.1'	S 24°44.9'	235°08.6'	S 23°17.8'	215°16.5'	S 22°08.2'	289°04.6'	S 13°31.7'
6	242°40.1'	S 24°44.8'	250°10.5'	S 23°17.8'	230°18.7'	S 22°08.1'	304°05.4'	S 13°32.2'
7	257°39.2'	S 24°44.7'	265°12.4'	S 23°17.9'	245°20.9'	S 22°08.1'	319°06.3'	S 13°32.8'
8	272°38.3'	S 24°44.7'	280°14.2'	S 23°17.9'	260°23.1'	S 22°08.1'	334°07.2'	S 13°33.3'
9	287°37.3'	S 24°44.6'	295°16.1'	S 23°17.9'	275°25.3'	S 22°08.0'	349°08.0'	S 13°33.9'
10	302°36.4'	S 24°44.5'	310°17.9'	S 23°17.9'	290°27.5'	S 22°08.0'	4°08.9'	S 13°34.5'
11	317°35.4'	S 24°44.4'	325°19.8'	S 23°17.9'	305°29.7'	S 22°08.0'	19°09.7'	S 13°35.0'
12	332°34.5'	S 24°44.3'	340°21.7'	S 23°17.9'	320°31.9'	S 22°07.9'	34°10.6'	S 13°35.6'
13	347°33.5'	S 24°44.2'	355°23.5'	S 23°17.9'	335°34.1'	S 22°07.9'	49°11.5'	S 13°36.1'
14	2°32.6'	S 24°44.1'	10°25.4'	S 23°17.9'	350°36.3'	S 22°07.9'	64°12.3'	S 13°36.7'
15	17°31.6'	S 24°44.0'	25°27.2'	S 23°17.9'	5°38.5'	S 22°07.8'	79°13.2'	S 13°37.2'
16	32°30.7'	S 24°44.0'	40°29.1'	S 23°17.9'	20°40.7'	S 22°07.8'	94°14.0'	S 13°37.8'
17	47°29.8'	S 24°43.9'	55°31.0'	S 23°17.9'	35°42.9'	S 22°07.8'	109°14.9'	S 13°38.3'
18	62°28.8'	S 24°43.8'	70°32.8'	S 23°17.9'	50°45.1'	S 22°07.8'	124°15.7'	S 13°38.9'
19	77°27.9'	S 24°43.7'	85°34.7'	S 23°17.9'	65°47.3'	S 22°07.7'	139°16.6'	S 13°39.4'
20	92°26.9'	S 24°43.6'	100°36.5'	S 23°17.9'	80°49.5'	S 22°07.7'	154°17.5'	S 13°40.0'
21	107°26.0'	S 24°43.5'	115°38.4'	S 23°17.9'	95°51.7'	S 22°07.7'	169°18.3'	S 13°40.5'
22	122°25.0'	S 24°43.4'	130°40.3'	S 23°17.9'	110°53.8'	S 22°07.6'	184°19.2'	S 13°41.1'
23	137°24.1'	S 24°43.3'	145°42.1'	S 23°17.9'	125°56.0'	S 22°07.6'	199°20.0'	S 13°41.6'

Mon Dec 2, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.1'		Jupiter -1.7 v = 1.9' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.9' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	152°23.1'	S 24°43.2'	160°44.0'	S 23°17.9'	140°58.2'	S 22°07.6'	214°20.9'	S 13°42.2'
1	167°22.2'	S 24°43.1'	175°45.8'	S 23°17.9'	156°00.4'	S 22°07.5'	229°21.8'	S 13°42.7'
2	182°21.3'	S 24°43.0'	190°47.7'	S 23°18.0'	171°02.6'	S 22°07.5'	244°22.6'	S 13°43.3'
3	197°20.3'	S 24°42.9'	205°49.5'	S 23°18.0'	186°04.8'	S 22°07.5'	259°23.5'	S 13°43.8'
4	212°19.4'	S 24°42.7'	220°51.4'	S 23°18.0'	201°07.0'	S 22°07.5'	274°24.3'	S 13°44.4'
5	227°18.4'	S 24°42.6'	235°53.3'	S 23°18.0'	216°09.2'	S 22°07.4'	289°25.2'	S 13°44.9'
6	242°17.5'	S 24°42.5'	250°55.1'	S 23°18.0'	231°11.4'	S 22°07.4'	304°26.0'	S 13°45.4'
7	257°16.5'	S 24°42.4'	265°57.0'	S 23°18.0'	246°13.6'	S 22°07.4'	319°26.9'	S 13°46.0'
8	272°15.6'	S 24°42.3'	280°58.8'	S 23°18.0'	261°15.8'	S 22°07.3'	334°27.7'	S 13°46.5'
9	287°14.7'	S 24°42.2'	296°00.7'	S 23°18.0'	276°18.0'	S 22°07.3'	349°28.6'	S 13°47.1'
10	302°13.7'	S 24°42.1'	311°02.6'	S 23°18.0'	291°20.2'	S 22°07.3'	4°29.5'	S 13°47.6'
11	317°12.8'	S 24°42.0'	326°04.4'	S 23°18.0'	306°22.4'	S 22°07.2'	19°30.3'	S 13°48.2'
12	332°11.8'	S 24°41.8'	341°06.3'	S 23°18.0'	321°24.6'	S 22°07.2'	34°31.2'	S 13°48.7'
13	347°10.9'	S 24°41.7'	356°08.1'	S 23°18.0'	336°26.7'	S 22°07.2'	49°32.0'	S 13°49.3'
14	2°10.0'	S 24°41.6'	11°10.0'	S 23°18.0'	351°28.9'	S 22°07.1'	64°32.9'	S 13°49.8'
15	17°09.0'	S 24°41.5'	26°11.8'	S 23°18.0'	6°31.1'	S 22°07.1'	79°33.7'	S 13°50.4'
16	32°08.1'	S 24°41.4'	41°13.7'	S 23°18.0'	21°33.3'	S 22°07.1'	94°34.6'	S 13°50.9'
17	47°07.1'	S 24°41.2'	56°15.6'	S 23°18.0'	36°35.5'	S 22°07.1'	109°35.4'	S 13°51.5'
18	62°06.2'	S 24°41.1'	71°17.4'	S 23°18.0'	51°37.7'	S 22°07.0'	124°36.3'	S 13°52.0'
19	77°05.3'	S 24°41.0'	86°19.3'	S 23°18.0'	66°39.9'	S 22°07.0'	139°37.2'	S 13°52.6'
20	92°04.3'	S 24°40.8'	101°21.1'	S 23°18.0'	81°42.1'	S 22°07.0'	154°38.0'	S 13°53.1'
21	107°03.4'	S 24°40.7'	116°23.0'	S 23°18.0'	96°44.3'	S 22°06.9'	169°38.9'	S 13°53.7'
22	122°02.4'	S 24°40.6'	131°24.9'	S 23°18.0'	111°46.5'	S 22°06.9'	184°39.7'	S 13°54.2'
23	137°01.5'	S 24°40.4'	146°26.7'	S 23°18.0'	126°48.7'	S 22°06.9'	199°40.6'	S 13°54.7'

Tue Dec 3, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.2'		Jupiter -1.7 v = 1.9' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.9' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	152°00.6'	S 24°40.3'	161°28.6'	S 23°18.1'	141°50.9'	S 22°06.8'	214°41.4'	S 13°55.3'
1	166°59.6'	S 24°40.2'	176°30.4'	S 23°18.1'	156°53.0'	S 22°06.8'	229°42.3'	S 13°55.8'
2	181°58.7'	S 24°40.0'	191°32.3'	S 23°18.1'	171°55.2'	S 22°06.8'	244°43.1'	S 13°56.4'
3	196°57.7'	S 24°39.9'	206°34.1'	S 23°18.1'	186°57.4'	S 22°06.7'	259°44.0'	S 13°56.9'
4	211°56.8'	S 24°39.8'	221°36.0'	S 23°18.1'	201°59.6'	S 22°06.7'	274°44.8'	S 13°57.5'
5	226°55.9'	S 24°39.6'	236°37.9'	S 23°18.1'	217°01.8'	S 22°06.7'	289°45.7'	S 13°58.0'
6	241°54.9'	S 24°39.5'	251°39.7'	S 23°18.1'	232°04.0'	S 22°06.7'	304°46.5'	S 13°58.6'
7	256°54.0'	S 24°39.3'	266°41.6'	S 23°18.1'	247°06.2'	S 22°06.6'	319°47.4'	S 13°59.1'
8	271°53.0'	S 24°39.2'	281°43.4'	S 23°18.1'	262°08.4'	S 22°06.6'	334°48.2'	S 13°59.6'
9	286°52.1'	S 24°39.1'	296°45.3'	S 23°18.1'	277°10.6'	S 22°06.6'	349°49.1'	S 14°00.2'
10	301°51.2'	S 24°38.9'	311°47.1'	S 23°18.1'	292°12.8'	S 22°06.5'	4°49.9'	S 14°00.7'
11	316°50.2'	S 24°38.8'	326°49.0'	S 23°18.1'	307°15.0'	S 22°06.5'	19°50.8'	S 14°01.3'
12	331°49.3'	S 24°38.6'	341°50.9'	S 23°18.1'	322°17.1'	S 22°06.5'	34°51.7'	S 14°01.8'
13	346°48.4'	S 24°38.5'	356°52.7'	S 23°18.1'	337°19.3'	S 22°06.4'	49°52.5'	S 14°02.4'
14	1°47.4'	S 24°38.3'	11°54.6'	S 23°18.1'	352°21.5'	S 22°06.4'	64°53.4'	S 14°02.9'
15	16°46.5'	S 24°38.2'	26°56.4'	S 23°18.1'	7°23.7'	S 22°06.4'	79°54.2'	S 14°03.4'
16	31°45.5'	S 24°38.0'	41°58.3'	S 23°18.1'	22°25.9'	S 22°06.3'	94°55.1'	S 14°04.0'
17	46°44.6'	S 24°37.8'	57°00.1'	S 23°18.1'	37°28.1'	S 22°06.3'	109°55.9'	S 14°04.5'
18	61°43.7'	S 24°37.7'	72°02.0'	S 23°18.1'	52°30.3'	S 22°06.3'	124°56.8'	S 14°05.1'
19	76°42.7'	S 24°37.5'	87°03.9'	S 23°18.1'	67°32.5'	S 22°06.3'	139°57.6'	S 14°05.6'
20	91°41.8'	S 24°37.4'	102°05.7'	S 23°18.1'	82°34.7'	S 22°06.2'	154°58.5'	S 14°06.2'
21	106°40.9'	S 24°37.2'	117°07.6'	S 23°18.1'	97°36.9'	S 22°06.2'	169°59.3'	S 14°06.7'
22	121°39.9'	S 24°37.0'	132°09.4'	S 23°18.1'	112°39.0'	S 22°06.2'	185°00.2'	S 14°07.2'
23	136°39.0'	S 24°36.9'	147°11.3'	S 23°18.1'	127°41.2'	S 22°06.1'	200°01.0'	S 14°07.8'

Wed Dec 4, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.2'		Jupiter -1.7 v = 1.9' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	151°38.1'	S 24°36.7'	162°13.1'	S 23°18.1'	142°43.4'	S 22°06.1'	215°01.9'	S 14°08.3'
1	166°37.1'	S 24°36.5'	177°15.0'	S 23°18.1'	157°45.6'	S 22°06.1'	230°02.7'	S 14°08.9'
2	181°36.2'	S 24°36.4'	192°16.8'	S 23°18.1'	172°47.8'	S 22°06.0'	245°03.6'	S 14°09.4'
3	196°35.2'	S 24°36.2'	207°18.7'	S 23°18.1'	187°50.0'	S 22°06.0'	260°04.4'	S 14°09.9'
4	211°34.3'	S 24°36.0'	222°20.6'	S 23°18.1'	202°52.2'	S 22°06.0'	275°05.3'	S 14°10.5'
5	226°33.4'	S 24°35.9'	237°22.4'	S 23°18.2'	217°54.4'	S 22°05.9'	290°06.1'	S 14°11.0'
6	241°32.4'	S 24°35.7'	252°24.3'	S 23°18.2'	232°56.6'	S 22°05.9'	305°07.0'	S 14°11.6'
7	256°31.5'	S 24°35.5'	267°26.1'	S 23°18.2'	247°58.8'	S 22°05.9'	320°07.8'	S 14°12.1'
8	271°30.6'	S 24°35.3'	282°28.0'	S 23°18.2'	263°00.9'	S 22°05.8'	335°08.7'	S 14°12.6'
9	286°29.6'	S 24°35.2'	297°29.8'	S 23°18.2'	278°03.1'	S 22°05.8'	350°09.5'	S 14°13.2'
10	301°28.7'	S 24°35.0'	312°31.7'	S 23°18.2'	293°05.3'	S 22°05.8'	5°10.3'	S 14°13.7'
11	316°27.8'	S 24°34.8'	327°33.5'	S 23°18.2'	308°07.5'	S 22°05.8'	20°11.2'	S 14°14.3'
12	331°26.8'	S 24°34.6'	342°35.4'	S 23°18.2'	323°09.7'	S 22°05.7'	35°12.0'	S 14°14.8'
13	346°25.9'	S 24°34.5'	357°37.3'	S 23°18.2'	338°11.9'	S 22°05.7'	50°12.9'	S 14°15.3'
14	1°25.0'	S 24°34.3'	12°39.1'	S 23°18.2'	353°14.1'	S 22°05.7'	65°13.7'	S 14°15.9'
15	16°24.0'	S 24°34.1'	27°41.0'	S 23°18.2'	8°16.3'	S 22°05.6'	80°14.6'	S 14°16.4'
16	31°23.1'	S 24°33.9'	42°42.8'	S 23°18.2'	23°18.4'	S 22°05.6'	95°15.4'	S 14°17.0'
17	46°22.2'	S 24°33.7'	57°44.7'	S 23°18.2'	38°20.6'	S 22°05.6'	110°16.3'	S 14°17.5'
18	61°21.2'	S 24°33.5'	72°46.5'	S 23°18.2'	53°22.8'	S 22°05.5'	125°17.1'	S 14°18.0'
19	76°20.3'	S 24°33.3'	87°48.4'	S 23°18.2'	68°25.0'	S 22°05.5'	140°18.0'	S 14°18.6'
20	91°19.4'	S 24°33.1'	102°50.2'	S 23°18.2'	83°27.2'	S 22°05.5'	155°18.8'	S 14°19.1'
21	106°18.5'	S 24°33.0'	117°52.1'	S 23°18.2'	98°29.4'	S 22°05.4'	170°19.7'	S 14°19.7'
22	121°17.5'	S 24°32.8'	132°53.9'	S 23°18.2'	113°31.6'	S 22°05.4'	185°20.5'	S 14°20.2'
23	136°16.6'	S 24°32.6'	147°55.8'	S 23°18.2'	128°33.8'	S 22°05.4'	200°21.4'	S 14°20.7'

Thu Dec 5, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.2'		Jupiter -1.7 v = 1.9' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	151°15.7'	S 24°32.4'	162°57.7'	S 23°18.2'	143°35.9'	S 22°05.3'	215°22.2'	S 14°21.3'
1	166°14.7'	S 24°32.2'	177°59.5'	S 23°18.2'	158°38.1'	S 22°05.3'	230°23.0'	S 14°21.8'
2	181°13.8'	S 24°32.0'	193°01.4'	S 23°18.2'	173°40.3'	S 22°05.3'	245°23.9'	S 14°22.3'
3	196°12.9'	S 24°31.8'	208°03.2'	S 23°18.2'	188°42.5'	S 22°05.2'	260°24.7'	S 14°22.9'
4	211°11.9'	S 24°31.6'	223°05.1'	S 23°18.2'	203°44.7'	S 22°05.2'	275°25.6'	S 14°23.4'
5	226°11.0'	S 24°31.4'	238°06.9'	S 23°18.2'	218°46.9'	S 22°05.2'	290°26.4'	S 14°23.9'
6	241°10.1'	S 24°31.2'	253°08.8'	S 23°18.2'	233°49.1'	S 22°05.1'	305°27.3'	S 14°24.5'
7	256°09.1'	S 24°31.0'	268°10.6'	S 23°18.2'	248°51.3'	S 22°05.1'	320°28.1'	S 14°25.0'
8	271°08.2'	S 24°30.8'	283°12.5'	S 23°18.2'	263°53.4'	S 22°05.1'	335°29.0'	S 14°25.6'
9	286°07.3'	S 24°30.5'	298°14.3'	S 23°18.2'	278°55.6'	S 22°05.1'	350°29.8'	S 14°26.1'
10	301°06.4'	S 24°30.3'	313°16.2'	S 23°18.2'	293°57.8'	S 22°05.0'	5°30.7'	S 14°26.6'
11	316°05.4'	S 24°30.1'	328°18.1'	S 23°18.2'	309°00.0'	S 22°05.0'	20°31.5'	S 14°27.2'
12	331°04.5'	S 24°29.9'	343°19.9'	S 23°18.2'	324°02.2'	S 22°05.0'	35°32.3'	S 14°27.7'
13	346°03.6'	S 24°29.7'	358°21.8'	S 23°18.2'	339°04.4'	S 22°04.9'	50°33.2'	S 14°28.2'
14	1°02.7'	S 24°29.5'	13°23.6'	S 23°18.2'	354°06.6'	S 22°04.9'	65°34.0'	S 14°28.8'
15	16°01.7'	S 24°29.3'	28°25.5'	S 23°18.2'	9°08.8'	S 22°04.9'	80°34.9'	S 14°29.3'
16	31°00.8'	S 24°29.1'	43°27.3'	S 23°18.2'	24°10.9'	S 22°04.8'	95°35.7'	S 14°29.8'
17	45°59.9'	S 24°28.8'	58°29.2'	S 23°18.2'	39°13.1'	S 22°04.8'	110°36.6'	S 14°30.4'
18	60°58.9'	S 24°28.6'	73°31.0'	S 23°18.2'	54°15.3'	S 22°04.8'	125°37.4'	S 14°30.9'
19	75°58.0'	S 24°28.4'	88°32.9'	S 23°18.2'	69°17.5'	S 22°04.7'	140°38.2'	S 14°31.4'
20	90°57.1'	S 24°28.2'	103°34.7'	S 23°18.2'	84°19.7'	S 22°04.7'	155°39.1'	S 14°32.0'
21	105°56.2'	S 24°28.0'	118°36.6'	S 23°18.2'	99°21.9'	S 22°04.7'	170°39.9'	S 14°32.5'
22	120°55.2'	S 24°27.7'	133°38.4'	S 23°18.2'	114°24.1'	S 22°04.6'	185°40.8'	S 14°33.0'
23	135°54.3'	S 24°27.5'	148°40.3'	S 23°18.2'	129°26.2'	S 22°04.6'	200°41.6'	S 14°33.6'

Fri Dec 6, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.2'		Jupiter -1.7 v = 1.9' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	150°53.4'	S 24°27.3'	163°42.2'	S 23°18.2'	144°28.4'	S 22°04.6'	215°42.5'	S 14°34.1'
1	165°52.5'	S 24°27.0'	178°44.0'	S 23°18.2'	159°30.6'	S 22°04.5'	230°43.3'	S 14°34.6'
2	180°51.5'	S 24°26.8'	193°45.9'	S 23°18.2'	174°32.8'	S 22°04.5'	245°44.1'	S 14°35.2'
3	195°50.6'	S 24°26.6'	208°47.7'	S 23°18.2'	189°35.0'	S 22°04.5'	260°45.0'	S 14°35.7'
4	210°49.7'	S 24°26.4'	223°49.6'	S 23°18.2'	204°37.2'	S 22°04.4'	275°45.8'	S 14°36.2'
5	225°48.8'	S 24°26.1'	238°51.4'	S 23°18.2'	219°39.4'	S 22°04.4'	290°46.7'	S 14°36.8'
6	240°47.8'	S 24°25.9'	253°53.3'	S 23°18.2'	234°41.5'	S 22°04.4'	305°47.5'	S 14°37.3'
7	255°46.9'	S 24°25.6'	268°55.1'	S 23°18.2'	249°43.7'	S 22°04.3'	320°48.3'	S 14°37.8'
8	270°46.0'	S 24°25.4'	283°57.0'	S 23°18.2'	264°45.9'	S 22°04.3'	335°49.2'	S 14°38.4'
9	285°45.1'	S 24°25.2'	298°58.8'	S 23°18.2'	279°48.1'	S 22°04.3'	350°50.0'	S 14°38.9'
10	300°44.2'	S 24°24.9'	314°00.7'	S 23°18.2'	294°50.3'	S 22°04.2'	5°50.9'	S 14°39.4'
11	315°43.2'	S 24°24.7'	329°02.5'	S 23°18.2'	309°52.5'	S 22°04.2'	20°51.7'	S 14°40.0'
12	330°42.3'	S 24°24.4'	344°04.4'	S 23°18.2'	324°54.6'	S 22°04.2'	35°52.5'	S 14°40.5'
13	345°41.4'	S 24°24.2'	359°06.2'	S 23°18.2'	339°56.8'	S 22°04.2'	50°53.4'	S 14°41.0'
14	0°40.5'	S 24°24.0'	14°08.1'	S 23°18.2'	354°59.0'	S 22°04.1'	65°54.2'	S 14°41.5'
15	15°39.5'	S 24°23.7'	29°09.9'	S 23°18.2'	10°01.2'	S 22°04.1'	80°55.1'	S 14°42.1'
16	30°38.6'	S 24°23.5'	44°11.8'	S 23°18.2'	25°03.4'	S 22°04.1'	95°55.9'	S 14°42.6'
17	45°37.7'	S 24°23.2'	59°13.6'	S 23°18.2'	40°05.6'	S 22°04.0'	110°56.7'	S 14°43.1'
18	60°36.8'	S 24°23.0'	74°15.5'	S 23°18.2'	55°07.8'	S 22°04.0'	125°57.6'	S 14°43.7'
19	75°35.9'	S 24°22.7'	89°17.3'	S 23°18.2'	70°09.9'	S 22°04.0'	140°58.4'	S 14°44.2'
20	90°34.9'	S 24°22.5'	104°19.2'	S 23°18.2'	85°12.1'	S 22°03.9'	155°59.3'	S 14°44.7'
21	105°34.0'	S 24°22.2'	119°21.1'	S 23°18.2'	100°14.3'	S 22°03.9'	171°00.1'	S 14°45.3'
22	120°33.1'	S 24°22.0'	134°22.9'	S 23°18.2'	115°16.5'	S 22°03.9'	186°00.9'	S 14°45.8'
23	135°32.2'	S 24°21.7'	149°24.8'	S 23°18.3'	130°18.7'	S 22°03.8'	201°01.8'	S 14°46.3'

Sat Dec 7, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.3'		Jupiter -1.7 v = 1.9' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	150°31.3'	S 24°21.4'	164°26.6'	S 23°18.3'	145°20.9'	S 22°03.8'	216°02.6'	S 14°46.8'
1	165°30.3'	S 24°21.2'	179°28.5'	S 23°18.3'	160°23.0'	S 22°03.8'	231°03.4'	S 14°47.4'
2	180°29.4'	S 24°20.9'	194°30.3'	S 23°18.3'	175°25.2'	S 22°03.7'	246°04.3'	S 14°47.9'
3	195°28.5'	S 24°20.7'	209°32.2'	S 23°18.3'	190°27.4'	S 22°03.7'	261°05.1'	S 14°48.4'
4	210°27.6'	S 24°20.4'	224°34.0'	S 23°18.3'	205°29.6'	S 22°03.7'	276°06.0'	S 14°48.9'
5	225°26.7'	S 24°20.1'	239°35.9'	S 23°18.3'	220°31.8'	S 22°03.6'	291°06.8'	S 14°49.5'
6	240°25.8'	S 24°19.9'	254°37.7'	S 23°18.3'	235°34.0'	S 22°03.6'	306°07.6'	S 14°50.0'
7	255°24.8'	S 24°19.6'	269°39.6'	S 23°18.2'	250°36.1'	S 22°03.6'	321°08.5'	S 14°50.5'
8	270°23.9'	S 24°19.3'	284°41.4'	S 23°18.2'	265°38.3'	S 22°03.5'	336°09.3'	S 14°51.1'
9	285°23.0'	S 24°19.1'	299°43.3'	S 23°18.2'	280°40.5'	S 22°03.5'	351°10.1'	S 14°51.6'
10	300°22.1'	S 24°18.8'	314°45.1'	S 23°18.2'	295°42.7'	S 22°03.5'	6°11.0'	S 14°52.1'
11	315°21.2'	S 24°18.5'	329°47.0'	S 23°18.2'	310°44.9'	S 22°03.4'	21°11.8'	S 14°52.6'
12	330°20.3'	S 24°18.2'	344°48.8'	S 23°18.2'	325°47.1'	S 22°03.4'	36°12.6'	S 14°53.2'
13	345°19.3'	S 24°18.0'	359°50.7'	S 23°18.2'	340°49.2'	S 22°03.4'	51°13.5'	S 14°53.7'
14	0°18.4'	S 24°17.7'	14°52.5'	S 23°18.2'	355°51.4'	S 22°03.3'	66°14.3'	S 14°54.2'
15	15°17.5'	S 24°17.4'	29°54.4'	S 23°18.2'	10°53.6'	S 22°03.3'	81°15.2'	S 14°54.7'
16	30°16.6'	S 24°17.1'	44°56.2'	S 23°18.2'	25°55.8'	S 22°03.3'	96°16.0'	S 14°55.3'
17	45°15.7'	S 24°16.9'	59°58.1'	S 23°18.2'	40°58.0'	S 22°03.2'	111°16.8'	S 14°55.8'
18	60°14.8'	S 24°16.6'	74°59.9'	S 23°18.2'	56°00.1'	S 22°03.2'	126°17.7'	S 14°56.3'
19	75°13.9'	S 24°16.3'	90°01.8'	S 23°18.2'	71°02.3'	S 22°03.2'	141°18.5'	S 14°56.8'
20	90°12.9'	S 24°16.0'	105°03.6'	S 23°18.2'	86°04.5'	S 22°03.1'	156°19.3'	S 14°57.4'
21	105°12.0'	S 24°15.7'	120°05.5'	S 23°18.2'	101°06.7'	S 22°03.1'	171°20.2'	S 14°57.9'
22	120°11.1'	S 24°15.4'	135°07.3'	S 23°18.2'	116°08.9'	S 22°03.1'	186°21.0'	S 14°58.4'
23	135°10.2'	S 24°15.2'	150°09.2'	S 23°18.2'	131°11.1'	S 22°03.0'	201°21.8'	S 14°58.9'

Sun Dec 8, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.3'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	150°09.3'	S 24°14.9'	165°11.0'	S 23°18.2'	146°13.2'	S 22°03.0'	216°22.7'	S 14°59.5'
1	165°08.4'	S 24°14.6'	180°12.9'	S 23°18.2'	161°15.4'	S 22°03.0'	231°23.5'	S 14°60.0'
2	180°07.5'	S 24°14.3'	195°14.7'	S 23°18.2'	176°17.6'	S 22°02.9'	246°24.3'	S 15°00.5'
3	195°06.6'	S 24°14.0'	210°16.6'	S 23°18.2'	191°19.8'	S 22°02.9'	261°25.2'	S 15°01.0'
4	210°05.7'	S 24°13.7'	225°18.4'	S 23°18.2'	206°22.0'	S 22°02.9'	276°26.0'	S 15°01.6'
5	225°04.7'	S 24°13.4'	240°20.3'	S 23°18.2'	221°24.1'	S 22°02.8'	291°26.8'	S 15°02.1'
6	240°03.8'	S 24°13.1'	255°22.1'	S 23°18.2'	236°26.3'	S 22°02.8'	306°27.7'	S 15°02.6'
7	255°02.9'	S 24°12.8'	270°24.0'	S 23°18.2'	251°28.5'	S 22°02.8'	321°28.5'	S 15°03.1'
8	270°02.0'	S 24°12.5'	285°25.8'	S 23°18.2'	266°30.7'	S 22°02.7'	336°29.3'	S 15°03.7'
9	285°01.1'	S 24°12.2'	300°27.7'	S 23°18.2'	281°32.9'	S 22°02.7'	351°30.2'	S 15°04.2'
10	300°00.2'	S 24°11.9'	315°29.5'	S 23°18.2'	296°35.1'	S 22°02.7'	6°31.0'	S 15°04.7'
11	314°59.3'	S 24°11.6'	330°31.4'	S 23°18.2'	311°37.2'	S 22°02.6'	21°31.8'	S 15°05.2'
12	329°58.4'	S 24°11.3'	345°33.2'	S 23°18.2'	326°39.4'	S 22°02.6'	36°32.7'	S 15°05.7'
13	344°57.5'	S 24°11.0'	0°35.1'	S 23°18.2'	341°41.6'	S 22°02.6'	51°33.5'	S 15°06.3'
14	359°56.6'	S 24°10.7'	15°36.9'	S 23°18.2'	356°43.8'	S 22°02.5'	66°34.3'	S 15°06.8'
15	14°55.7'	S 24°10.4'	30°38.8'	S 23°18.2'	11°46.0'	S 22°02.5'	81°35.2'	S 15°07.3'
16	29°54.7'	S 24°10.1'	45°40.6'	S 23°18.2'	26°48.1'	S 22°02.5'	96°36.0'	S 15°07.8'
17	44°53.8'	S 24°09.8'	60°42.5'	S 23°18.2'	41°50.3'	S 22°02.4'	111°36.8'	S 15°08.4'
18	59°52.9'	S 24°09.5'	75°44.3'	S 23°18.2'	56°52.5'	S 22°02.4'	126°37.6'	S 15°08.9'
19	74°52.0'	S 24°09.2'	90°46.2'	S 23°18.2'	71°54.7'	S 22°02.4'	141°38.5'	S 15°09.4'
20	89°51.1'	S 24°08.8'	105°48.0'	S 23°18.2'	86°56.9'	S 22°02.3'	156°39.3'	S 15°09.9'
21	104°50.2'	S 24°08.5'	120°49.9'	S 23°18.2'	101°59.0'	S 22°02.3'	171°40.1'	S 15°10.4'
22	119°49.3'	S 24°08.2'	135°51.7'	S 23°18.2'	117°01.2'	S 22°02.3'	186°41.0'	S 15°11.0'
23	134°48.4'	S 24°07.9'	150°53.6'	S 23°18.2'	132°03.4'	S 22°02.2'	201°41.8'	S 15°11.5'

Mon Dec 9, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.3'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	149°47.5'	S 24°07.6'	165°55.4'	S 23°18.2'	147°05.6'	S 22°02.2'	216°42.6'	S 15°12.0'
1	164°46.6'	S 24°07.3'	180°57.3'	S 23°18.2'	162°07.8'	S 22°02.2'	231°43.5'	S 15°12.5'
2	179°45.7'	S 24°06.9'	195°59.1'	S 23°18.2'	177°09.9'	S 22°02.1'	246°44.3'	S 15°13.0'
3	194°44.8'	S 24°06.6'	211°01.0'	S 23°18.2'	192°12.1'	S 22°02.1'	261°45.1'	S 15°13.6'
4	209°43.9'	S 24°06.3'	226°02.8'	S 23°18.2'	207°14.3'	S 22°02.1'	276°45.9'	S 15°14.1'
5	224°43.0'	S 24°06.0'	241°04.7'	S 23°18.2'	222°16.5'	S 22°02.0'	291°46.8'	S 15°14.6'
6	239°42.1'	S 24°05.6'	256°06.5'	S 23°18.2'	237°18.7'	S 22°02.0'	306°47.6'	S 15°15.1'
7	254°41.2'	S 24°05.3'	271°08.4'	S 23°18.2'	252°20.8'	S 22°02.0'	321°48.4'	S 15°15.6'
8	269°40.3'	S 24°05.0'	286°10.2'	S 23°18.2'	267°23.0'	S 22°01.9'	336°49.3'	S 15°16.1'
9	284°39.4'	S 24°04.6'	301°12.1'	S 23°18.2'	282°25.2'	S 22°01.9'	351°50.1'	S 15°16.7'
10	299°38.5'	S 24°04.3'	316°13.9'	S 23°18.2'	297°27.4'	S 22°01.9'	6°50.9'	S 15°17.2'
11	314°37.6'	S 24°04.0'	331°15.8'	S 23°18.2'	312°29.6'	S 22°01.8'	21°51.7'	S 15°17.7'
12	329°36.7'	S 24°03.7'	346°17.6'	S 23°18.2'	327°31.7'	S 22°01.8'	36°52.6'	S 15°18.2'
13	344°35.8'	S 24°03.3'	1°19.5'	S 23°18.2'	342°33.9'	S 22°01.8'	51°53.4'	S 15°18.7'
14	359°34.9'	S 24°03.0'	16°21.3'	S 23°18.2'	357°36.1'	S 22°01.7'	66°54.2'	S 15°19.3'
15	14°34.0'	S 24°02.6'	31°23.2'	S 23°18.2'	12°38.3'	S 22°01.7'	81°55.1'	S 15°19.8'
16	29°33.1'	S 24°02.3'	46°25.0'	S 23°18.2'	27°40.5'	S 22°01.7'	96°55.9'	S 15°20.3'
17	44°32.2'	S 24°02.0'	61°26.9'	S 23°18.2'	42°42.6'	S 22°01.6'	111°56.7'	S 15°20.8'
18	59°31.3'	S 24°01.6'	76°28.7'	S 23°18.2'	57°44.8'	S 22°01.6'	126°57.5'	S 15°21.3'
19	74°30.4'	S 24°01.3'	91°30.6'	S 23°18.2'	72°47.0'	S 22°01.6'	141°58.4'	S 15°21.8'
20	89°29.5'	S 24°00.9'	106°32.4'	S 23°18.2'	87°49.2'	S 22°01.5'	156°59.2'	S 15°22.4'
21	104°28.6'	S 24°00.6'	121°34.3'	S 23°18.2'	102°51.3'	S 22°01.5'	172°00.0'	S 15°22.9'
22	119°27.7'	S 24°00.2'	136°36.1'	S 23°18.2'	117°53.5'	S 22°01.5'	187°00.8'	S 15°23.4'
23	134°26.8'	S 23°59.9'	151°37.9'	S 23°18.2'	132°55.7'	S 22°01.4'	202°01.7'	S 15°23.9'

Tue Dec 10, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.4'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	149°25.9'	S 23°59.5'	166°39.8'	S 23°18.2'	147°57.9'	S 22°01.4'	217°02.5'	S 15°24.4'
1	164°25.0'	S 23°59.2'	181°41.6'	S 23°18.1'	163°00.1'	S 22°01.4'	232°03.3'	S 15°24.9'
2	179°24.1'	S 23°58.8'	196°43.5'	S 23°18.1'	178°02.2'	S 22°01.3'	247°04.1'	S 15°25.4'
3	194°23.2'	S 23°58.5'	211°45.3'	S 23°18.1'	193°04.4'	S 22°01.3'	262°05.0'	S 15°26.0'
4	209°22.3'	S 23°58.1'	226°47.2'	S 23°18.1'	208°06.6'	S 22°01.3'	277°05.8'	S 15°26.5'
5	224°21.4'	S 23°57.8'	241°49.0'	S 23°18.1'	223°08.8'	S 22°01.2'	292°06.6'	S 15°27.0'
6	239°20.5'	S 23°57.4'	256°50.9'	S 23°18.1'	238°10.9'	S 22°01.2'	307°07.4'	S 15°27.5'
7	254°19.6'	S 23°57.1'	271°52.7'	S 23°18.1'	253°13.1'	S 22°01.2'	322°08.3'	S 15°28.0'
8	269°18.7'	S 23°56.7'	286°54.6'	S 23°18.1'	268°15.3'	S 22°01.1'	337°09.1'	S 15°28.5'
9	284°17.9'	S 23°56.4'	301°56.4'	S 23°18.1'	283°17.5'	S 22°01.1'	352°09.9'	S 15°29.0'
10	299°17.0'	S 23°56.0'	316°58.3'	S 23°18.1'	298°19.7'	S 22°01.1'	7°10.7'	S 15°29.6'
11	314°16.1'	S 23°55.6'	332°00.1'	S 23°18.1'	313°21.8'	S 22°01.0'	22°11.6'	S 15°30.1'
12	329°15.2'	S 23°55.3'	347°02.0'	S 23°18.1'	328°24.0'	S 22°01.0'	37°12.4'	S 15°30.6'
13	344°14.3'	S 23°54.9'	2°03.8'	S 23°18.1'	343°26.2'	S 22°00.9'	52°13.2'	S 15°31.1'
14	359°13.4'	S 23°54.5'	17°05.7'	S 23°18.1'	358°28.4'	S 22°00.9'	67°14.0'	S 15°31.6'
15	14°12.5'	S 23°54.2'	32°07.5'	S 23°18.1'	13°30.5'	S 22°00.9'	82°14.9'	S 15°32.1'
16	29°11.6'	S 23°53.8'	47°09.4'	S 23°18.1'	28°32.7'	S 22°00.8'	97°15.7'	S 15°32.6'
17	44°10.7'	S 23°53.4'	62°11.2'	S 23°18.1'	43°34.9'	S 22°00.8'	112°16.5'	S 15°33.1'
18	59°09.8'	S 23°53.1'	77°13.1'	S 23°18.1'	58°37.1'	S 22°00.8'	127°17.3'	S 15°33.7'
19	74°08.9'	S 23°52.7'	92°14.9'	S 23°18.1'	73°39.3'	S 22°00.7'	142°18.1'	S 15°34.2'
20	89°08.1'	S 23°52.3'	107°16.7'	S 23°18.1'	88°41.4'	S 22°00.7'	157°19.0'	S 15°34.7'
21	104°07.2'	S 23°51.9'	122°18.6'	S 23°18.1'	103°43.6'	S 22°00.7'	172°19.8'	S 15°35.2'
22	119°06.3'	S 23°51.6'	137°20.4'	S 23°18.1'	118°45.8'	S 22°00.6'	187°20.6'	S 15°35.7'
23	134°05.4'	S 23°51.2'	152°22.3'	S 23°18.1'	133°48.0'	S 22°00.6'	202°21.4'	S 15°36.2'

Wed Dec 11, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.4'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	149°04.5'	S 23°50.8'	167°24.1'	S 23°18.1'	148°50.1'	S 22°00.6'	217°22.3'	S 15°36.7'
1	164°03.6'	S 23°50.4'	182°26.0'	S 23°18.1'	163°52.3'	S 22°00.5'	232°23.1'	S 15°37.2'
2	179°02.7'	S 23°50.0'	197°27.8'	S 23°18.1'	178°54.5'	S 22°00.5'	247°23.9'	S 15°37.7'
3	194°01.8'	S 23°49.7'	212°29.7'	S 23°18.1'	193°56.7'	S 22°00.5'	262°24.7'	S 15°38.3'
4	209°01.0'	S 23°49.3'	227°31.5'	S 23°18.1'	208°58.8'	S 22°00.4'	277°25.5'	S 15°38.8'
5	224°00.1'	S 23°48.9'	242°33.4'	S 23°18.0'	224°01.0'	S 22°00.4'	292°26.4'	S 15°39.3'
6	238°59.2'	S 23°48.5'	257°35.2'	S 23°18.0'	239°03.2'	S 22°00.4'	307°27.2'	S 15°39.8'
7	253°58.3'	S 23°48.1'	272°37.1'	S 23°18.0'	254°05.4'	S 22°00.3'	322°28.0'	S 15°40.3'
8	268°57.4'	S 23°47.7'	287°38.9'	S 23°18.0'	269°07.5'	S 22°00.3'	337°28.8'	S 15°40.8'
9	283°56.5'	S 23°47.3'	302°40.8'	S 23°18.0'	284°09.7'	S 22°00.3'	352°29.6'	S 15°41.3'
10	298°55.6'	S 23°46.9'	317°42.6'	S 23°18.0'	299°11.9'	S 22°00.2'	7°30.5'	S 15°41.8'
11	313°54.8'	S 23°46.6'	332°44.4'	S 23°18.0'	314°14.1'	S 22°00.2'	22°31.3'	S 15°42.3'
12	328°53.9'	S 23°46.2'	347°46.3'	S 23°18.0'	329°16.3'	S 22°00.2'	37°32.1'	S 15°42.8'
13	343°53.0'	S 23°45.8'	2°48.1'	S 23°18.0'	344°18.4'	S 22°00.1'	52°32.9'	S 15°43.3'
14	358°52.1'	S 23°45.4'	17°50.0'	S 23°18.0'	359°20.6'	S 22°00.1'	67°33.7'	S 15°43.9'
15	13°51.2'	S 23°45.0'	32°51.8'	S 23°18.0'	14°22.8'	S 22°00.1'	82°34.6'	S 15°44.4'
16	28°50.4'	S 23°44.6'	47°53.7'	S 23°18.0'	29°25.0'	S 22°00.0'	97°35.4'	S 15°44.9'
17	43°49.5'	S 23°44.2'	62°55.5'	S 23°18.0'	44°27.1'	S 21°59.9'	112°36.2'	S 15°45.4'
18	58°48.6'	S 23°43.8'	77°57.4'	S 23°18.0'	59°29.3'	S 21°59.9'	127°37.0'	S 15°45.9'
19	73°47.7'	S 23°43.4'	92°59.2'	S 23°18.0'	74°31.5'	S 21°59.9'	142°37.8'	S 15°46.4'
20	88°46.8'	S 23°43.0'	108°01.1'	S 23°18.0'	89°33.7'	S 21°59.9'	157°38.6'	S 15°46.9'
21	103°45.9'	S 23°42.6'	123°02.9'	S 23°18.0'	104°35.8'	S 21°59.8'	172°39.5'	S 15°47.4'
22	118°45.1'	S 23°42.2'	138°04.8'	S 23°18.0'	119°38.0'	S 21°59.8'	187°40.3'	S 15°47.9'
23	133°44.2'	S 23°41.8'	153°06.6'	S 23°18.0'	134°40.2'	S 21°59.8'	202°41.1'	S 15°48.4'

Thu Dec 12, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.4'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	148°43.3'	S 23°41.3'	168°08.4'	S 23°18.0'	149°42.4'	S 21°59.7'	217°41.9'	S 15°48.9'
1	163°42.4'	S 23°40.9'	183°10.3'	S 23°18.0'	164°44.5'	S 21°59.7'	232°42.7'	S 15°49.4'
2	178°41.6'	S 23°40.5'	198°12.1'	S 23°18.0'	179°46.7'	S 21°59.7'	247°43.6'	S 15°49.9'
3	193°40.7'	S 23°40.1'	213°14.0'	S 23°17.9'	194°48.9'	S 21°59.6'	262°44.4'	S 15°50.4'
4	208°39.8'	S 23°39.7'	228°15.8'	S 23°17.9'	209°51.1'	S 21°59.6'	277°45.2'	S 15°50.9'
5	223°38.9'	S 23°39.3'	243°17.7'	S 23°17.9'	224°53.2'	S 21°59.6'	292°46.0'	S 15°51.5'
6	238°38.1'	S 23°38.9'	258°19.5'	S 23°17.9'	239°55.4'	S 21°59.5'	307°46.8'	S 15°52.0'
7	253°37.2'	S 23°38.5'	273°21.4'	S 23°17.9'	254°57.6'	S 21°59.5'	322°47.6'	S 15°52.5'
8	268°36.3'	S 23°38.0'	288°23.2'	S 23°17.9'	269°59.8'	S 21°59.5'	337°48.5'	S 15°53.0'
9	283°35.4'	S 23°37.6'	303°25.1'	S 23°17.9'	285°01.9'	S 21°59.4'	352°49.3'	S 15°53.5'
10	298°34.6'	S 23°37.2'	318°26.9'	S 23°17.9'	300°04.1'	S 21°59.4'	7°50.1'	S 15°54.0'
11	313°33.7'	S 23°36.8'	333°28.8'	S 23°17.9'	315°06.3'	S 21°59.4'	22°50.9'	S 15°54.5'
12	328°32.8'	S 23°36.4'	348°30.6'	S 23°17.9'	330°08.5'	S 21°59.3'	37°51.7'	S 15°55.0'
13	343°31.9'	S 23°35.9'	3°32.4'	S 23°17.9'	345°10.6'	S 21°59.3'	52°52.5'	S 15°55.5'
14	358°31.1'	S 23°35.5'	18°34.3'	S 23°17.9'	0°12.8'	S 21°59.2'	67°53.3'	S 15°56.0'
15	13°30.2'	S 23°35.1'	33°36.1'	S 23°17.9'	15°15.0'	S 21°59.2'	82°54.2'	S 15°56.5'
16	28°29.3'	S 23°34.6'	48°38.0'	S 23°17.9'	30°17.1'	S 21°59.2'	97°55.0'	S 15°57.0'
17	43°28.4'	S 23°34.2'	63°39.8'	S 23°17.9'	45°19.3'	S 21°59.1'	112°55.8'	S 15°57.5'
18	58°27.6'	S 23°33.8'	78°41.7'	S 23°17.9'	60°21.5'	S 21°59.1'	127°56.6'	S 15°58.0'
19	73°26.7'	S 23°33.4'	93°43.5'	S 23°17.9'	75°23.7'	S 21°59.1'	142°57.4'	S 15°58.5'
20	88°25.8'	S 23°32.9'	108°45.4'	S 23°17.9'	90°25.8'	S 21°59.0'	157°58.2'	S 15°59.0'
21	103°25.0'	S 23°32.5'	123°47.2'	S 23°17.9'	105°28.0'	S 21°59.0'	172°59.0'	S 15°59.5'
22	118°24.1'	S 23°32.1'	138°49.0'	S 23°17.8'	120°30.2'	S 21°59.0'	187°59.9'	S 16°00.0'
23	133°23.2'	S 23°31.6'	153°50.9'	S 23°17.8'	135°32.4'	S 21°58.9'	203°00.7'	S 16°00.5'

Fri Dec 13, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.5'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	148°22.4'	S 23°31.2'	168°52.7'	S 23°17.8'	150°34.5'	S 21°58.9'	218°01.5'	S 16°01.0'
1	163°21.5'	S 23°30.7'	183°54.6'	S 23°17.8'	165°36.7'	S 21°58.9'	233°02.3'	S 16°01.5'
2	178°20.6'	S 23°30.3'	198°56.4'	S 23°17.8'	180°38.9'	S 21°58.8'	248°03.1'	S 16°02.0'
3	193°19.8'	S 23°29.9'	213°58.3'	S 23°17.8'	195°41.1'	S 21°58.8'	263°03.9'	S 16°02.5'
4	208°18.9'	S 23°29.4'	229°00.1'	S 23°17.8'	210°43.2'	S 21°58.8'	278°04.7'	S 16°03.0'
5	223°18.0'	S 23°29.0'	244°02.0'	S 23°17.8'	225°45.4'	S 21°58.7'	293°05.5'	S 16°03.5'
6	238°17.2'	S 23°28.5'	259°03.8'	S 23°17.8'	240°47.6'	S 21°58.7'	308°06.4'	S 16°04.0'
7	253°16.3'	S 23°28.1'	274°05.7'	S 23°17.8'	255°49.7'	S 21°58.6'	323°07.2'	S 16°04.5'
8	268°15.4'	S 23°27.6'	289°07.5'	S 23°17.8'	270°51.9'	S 21°58.6'	338°08.0'	S 16°05.0'
9	283°14.6'	S 23°27.2'	304°09.3'	S 23°17.8'	285°54.1'	S 21°58.6'	353°08.8'	S 16°05.5'
10	298°13.7'	S 23°26.7'	319°11.2'	S 23°17.8'	300°56.3'	S 21°58.5'	8°09.6'	S 16°06.0'
11	313°12.8'	S 23°26.3'	334°13.0'	S 23°17.8'	315°58.4'	S 21°58.5'	23°10.4'	S 16°06.5'
12	328°12.0'	S 23°25.8'	349°14.9'	S 23°17.8'	331°00.6'	S 21°58.5'	38°11.2'	S 16°07.0'
13	343°11.1'	S 23°25.4'	4°16.7'	S 23°17.8'	346°02.8'	S 21°58.4'	53°12.0'	S 16°07.5'
14	358°10.2'	S 23°24.9'	19°18.6'	S 23°17.7'	1°05.0'	S 21°58.4'	68°12.8'	S 16°08.0'
15	13°09.4'	S 23°24.5'	34°20.4'	S 23°17.7'	16°07.1'	S 21°58.4'	83°13.7'	S 16°08.5'
16	28°08.5'	S 23°24.0'	49°22.2'	S 23°17.7'	31°09.3'	S 21°58.3'	98°14.5'	S 16°09.0'
17	43°07.7'	S 23°23.6'	64°24.1'	S 23°17.7'	46°11.5'	S 21°58.3'	113°15.3'	S 16°09.5'
18	58°06.8'	S 23°23.1'	79°25.9'	S 23°17.7'	61°13.6'	S 21°58.3'	128°16.1'	S 16°10.0'
19	73°05.9'	S 23°22.6'	94°27.8'	S 23°17.7'	76°15.8'	S 21°58.2'	143°16.9'	S 16°10.5'
20	88°05.1'	S 23°22.2'	109°29.6'	S 23°17.7'	91°18.0'	S 21°58.2'	158°17.7'	S 16°11.0'
21	103°04.2'	S 23°21.7'	124°31.5'	S 23°17.7'	106°20.2'	S 21°58.1'	173°18.5'	S 16°11.5'
22	118°03.4'	S 23°21.2'	139°33.3'	S 23°17.7'	121°22.3'	S 21°58.1'	188°19.3'	S 16°12.0'
23	133°02.5'	S 23°20.8'	154°35.2'	S 23°17.7'	136°24.5'	S 21°58.1'	203°20.1'	S 16°12.5'

Sat Dec 14, 2019 UTC

UTC	Venus -3.8 v = -0.9' d = 0.5'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	148°01.6'	S 23°20.3'	169°37.0'	S 23°17.7'	151°26.7'	S 21°58.0'	218°20.9'	S 16°13.0'
1	163°00.8'	S 23°19.9'	184°38.8'	S 23°17.7'	166°28.8'	S 21°58.0'	233°21.8'	S 16°13.5'
2	177°59.9'	S 23°19.4'	199°40.7'	S 23°17.7'	181°31.0'	S 21°58.0'	248°22.6'	S 16°14.0'
3	192°59.1'	S 23°18.9'	214°42.5'	S 23°17.7'	196°33.2'	S 21°57.9'	263°23.4'	S 16°14.5'
4	207°58.2'	S 23°18.4'	229°44.4'	S 23°17.7'	211°35.4'	S 21°57.9'	278°24.2'	S 16°15.0'
5	222°57.4'	S 23°18.0'	244°46.2'	S 23°17.6'	226°37.5'	S 21°57.9'	293°25.0'	S 16°15.5'
6	237°56.5'	S 23°17.5'	259°48.1'	S 23°17.6'	241°39.7'	S 21°57.8'	308°25.8'	S 16°16.0'
7	252°55.7'	S 23°17.0'	274°49.9'	S 23°17.6'	256°41.9'	S 21°57.8'	323°26.6'	S 16°16.5'
8	267°54.8'	S 23°16.5'	289°51.8'	S 23°17.6'	271°44.0'	S 21°57.8'	338°27.4'	S 16°16.9'
9	282°53.9'	S 23°16.1'	304°53.6'	S 23°17.6'	286°46.2'	S 21°57.7'	353°28.2'	S 16°17.4'
10	297°53.1'	S 23°15.6'	319°55.4'	S 23°17.6'	301°48.4'	S 21°57.7'	8°29.0'	S 16°17.9'
11	312°52.2'	S 23°15.1'	334°57.3'	S 23°17.6'	316°50.6'	S 21°57.6'	23°29.8'	S 16°18.4'
12	327°51.4'	S 23°14.6'	349°59.1'	S 23°17.6'	331°52.7'	S 21°57.6'	38°30.6'	S 16°18.9'
13	342°50.5'	S 23°14.1'	5°01.0'	S 23°17.6'	346°54.9'	S 21°57.6'	53°31.4'	S 16°19.4'
14	357°49.7'	S 23°13.7'	20°02.8'	S 23°17.6'	1°57.1'	S 21°57.5'	68°32.2'	S 16°19.9'
15	12°48.8'	S 23°13.2'	35°04.7'	S 23°17.6'	16°59.2'	S 21°57.5'	83°33.1'	S 16°20.4'
16	27°48.0'	S 23°12.7'	50°06.5'	S 23°17.6'	32°01.4'	S 21°57.5'	98°33.9'	S 16°20.9'
17	42°47.1'	S 23°12.2'	65°08.3'	S 23°17.6'	47°03.6'	S 21°57.4'	113°34.7'	S 16°21.4'
18	57°46.3'	S 23°11.7'	80°10.2'	S 23°17.6'	62°05.8'	S 21°57.4'	128°35.5'	S 16°21.9'
19	72°45.4'	S 23°11.2'	95°12.0'	S 23°17.5'	77°07.9'	S 21°57.4'	143°36.3'	S 16°22.4'
20	87°44.6'	S 23°10.7'	110°13.9'	S 23°17.5'	92°10.1'	S 21°57.3'	158°37.1'	S 16°22.9'
21	102°43.7'	S 23°10.2'	125°15.7'	S 23°17.5'	107°12.3'	S 21°57.3'	173°37.9'	S 16°23.4'
22	117°42.9'	S 23°09.8'	140°17.6'	S 23°17.5'	122°14.4'	S 21°57.3'	188°38.7'	S 16°23.9'
23	132°42.0'	S 23°09.3'	155°19.4'	S 23°17.5'	137°16.6'	S 21°57.2'	203°39.5'	S 16°24.3'

Sun Dec 15, 2019 UTC

UTC	Venus -3.8 v = -0.8' d = 0.5'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	147°41.2'	S 23°08.8'	170°21.2'	S 23°17.5'	152°18.8'	S 21°57.2'	218°40.3'	S 16°24.8'
1	162°40.3'	S 23°08.3'	185°23.1'	S 23°17.5'	167°21.0'	S 21°57.1'	233°41.1'	S 16°25.3'
2	177°39.5'	S 23°07.8'	200°24.9'	S 23°17.5'	182°23.1'	S 21°57.1'	248°41.9'	S 16°25.8'
3	192°38.6'	S 23°07.3'	215°26.8'	S 23°17.5'	197°25.3'	S 21°57.1'	263°42.7'	S 16°26.3'
4	207°37.8'	S 23°06.8'	230°28.6'	S 23°17.5'	212°27.5'	S 21°57.0'	278°43.5'	S 16°26.8'
5	222°37.0'	S 23°06.3'	245°30.5'	S 23°17.5'	227°29.6'	S 21°57.0'	293°44.3'	S 16°27.3'
6	237°36.1'	S 23°05.8'	260°32.3'	S 23°17.5'	242°31.8'	S 21°57.0'	308°45.1'	S 16°27.8'
7	252°35.3'	S 23°05.3'	275°34.1'	S 23°17.5'	257°34.0'	S 21°56.9'	323°45.9'	S 16°28.3'
8	267°34.4'	S 23°04.8'	290°36.0'	S 23°17.4'	272°36.1'	S 21°56.9'	338°46.7'	S 16°28.8'
9	282°33.6'	S 23°04.3'	305°37.8'	S 23°17.4'	287°38.3'	S 21°56.9'	353°47.5'	S 16°29.3'
10	297°32.7'	S 23°03.7'	320°39.7'	S 23°17.4'	302°40.5'	S 21°56.8'	8°48.3'	S 16°29.7'
11	312°31.9'	S 23°03.2'	335°41.5'	S 23°17.4'	317°42.7'	S 21°56.8'	23°49.1'	S 16°30.2'
12	327°31.1'	S 23°02.7'	350°43.4'	S 23°17.4'	332°44.8'	S 21°56.7'	38°49.9'	S 16°30.7'
13	342°30.2'	S 23°02.2'	5°45.2'	S 23°17.4'	347°47.0'	S 21°56.7'	53°50.7'	S 16°31.2'
14	357°29.4'	S 23°01.7'	20°47.0'	S 23°17.4'	2°49.2'	S 21°56.7'	68°51.5'	S 16°31.7'
15	12°28.5'	S 23°01.2'	35°48.9'	S 23°17.4'	17°51.3'	S 21°56.6'	83°52.3'	S 16°32.2'
16	27°27.7'	S 23°00.7'	50°50.7'	S 23°17.4'	32°53.5'	S 21°56.6'	98°53.1'	S 16°32.7'
17	42°26.9'	S 23°00.2'	65°52.6'	S 23°17.4'	47°55.7'	S 21°56.6'	113°53.9'	S 16°33.2'
18	57°26.0'	S 22°59.7'	80°54.4'	S 23°17.4'	62°57.8'	S 21°56.5'	128°54.7'	S 16°33.7'
19	72°25.2'	S 22°59.1'	95°56.3'	S 23°17.3'	78°00.0'	S 21°56.5'	143°55.6'	S 16°34.1'
20	87°24.3'	S 22°58.6'	110°58.1'	S 23°17.3'	93°02.2'	S 21°56.5'	158°56.4'	S 16°34.6'
21	102°23.5'	S 22°58.1'	125°59.9'	S 23°17.3'	108°04.3'	S 21°56.4'	173°57.2'	S 16°35.1'
22	117°22.7'	S 22°57.6'	141°01.8'	S 23°17.3'	123°06.5'	S 21°56.4'	188°58.0'	S 16°35.6'
23	132°21.8'	S 22°57.1'	156°03.6'	S 23°17.3'	138°08.7'	S 21°56.3'	203°58.8'	S 16°36.1'

Mon Dec 16, 2019 UTC

UTC	Venus -3.8 v = -0.8' d = 0.5'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.7 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	147°21.0'	S 22°56.5'	171°05.5'	S 23°17.3'	153°10.9'	S 21°56.3'	218°59.6'	S 16°36.6'
1	162°20.2'	S 22°56.0'	186°07.3'	S 23°17.3'	168°13.0'	S 21°56.3'	234°00.4'	S 16°37.1'
2	177°19.3'	S 22°55.5'	201°09.2'	S 23°17.3'	183°15.2'	S 21°56.2'	249°01.2'	S 16°37.6'
3	192°18.5'	S 22°55.0'	216°11.0'	S 23°17.3'	198°17.4'	S 21°56.2'	264°02.0'	S 16°38.0'
4	207°17.7'	S 22°54.4'	231°12.8'	S 23°17.3'	213°19.5'	S 21°56.2'	279°02.8'	S 16°38.5'
5	222°16.8'	S 22°53.9'	246°14.7'	S 23°17.3'	228°21.7'	S 21°56.1'	294°03.6'	S 16°39.0'
6	237°16.0'	S 22°53.4'	261°16.5'	S 23°17.3'	243°23.9'	S 21°56.1'	309°04.4'	S 16°39.5'
7	252°15.2'	S 22°52.8'	276°18.4'	S 23°17.2'	258°26.0'	S 21°56.0'	324°05.1'	S 16°40.0'
8	267°14.3'	S 22°52.3'	291°20.2'	S 23°17.2'	273°28.2'	S 21°56.0'	339°05.9'	S 16°40.5'
9	282°13.5'	S 22°51.8'	306°22.0'	S 23°17.2'	288°30.4'	S 21°56.0'	354°06.7'	S 16°41.0'
10	297°12.7'	S 22°51.2'	321°23.9'	S 23°17.2'	303°32.5'	S 21°55.9'	9°07.5'	S 16°41.4'
11	312°11.8'	S 22°50.7'	336°25.7'	S 23°17.2'	318°34.7'	S 21°55.9'	24°08.3'	S 16°41.9'
12	327°11.0'	S 22°50.2'	351°27.6'	S 23°17.2'	333°36.9'	S 21°55.9'	39°09.1'	S 16°42.4'
13	342°10.2'	S 22°49.6'	6°29.4'	S 23°17.2'	348°39.0'	S 21°55.8'	54°09.9'	S 16°42.9'
14	357°09.3'	S 22°49.1'	21°31.3'	S 23°17.2'	3°41.2'	S 21°55.8'	69°10.7'	S 16°43.4'
15	12°08.5'	S 22°48.5'	36°33.1'	S 23°17.2'	18°43.4'	S 21°55.8'	84°11.5'	S 16°43.9'
16	27°07.7'	S 22°48.0'	51°34.9'	S 23°17.2'	33°45.5'	S 21°55.7'	99°12.3'	S 16°44.3'
17	42°06.9'	S 22°47.5'	66°36.8'	S 23°17.1'	48°47.7'	S 21°55.7'	114°13.1'	S 16°44.8'
18	57°06.0'	S 22°46.9'	81°38.6'	S 23°17.1'	63°49.9'	S 21°55.6'	129°13.9'	S 16°45.3'
19	72°05.2'	S 22°46.4'	96°40.5'	S 23°17.1'	78°52.1'	S 21°55.6'	144°14.7'	S 16°45.8'
20	87°04.4'	S 22°45.8'	111°42.3'	S 23°17.1'	93°54.2'	S 21°55.6'	159°15.5'	S 16°46.3'
21	102°03.6'	S 22°45.3'	126°44.1'	S 23°17.1'	108°56.4'	S 21°55.5'	174°16.3'	S 16°46.8'
22	117°02.7'	S 22°44.7'	141°46.0'	S 23°17.1'	123°58.6'	S 21°55.5'	189°17.1'	S 16°47.2'
23	132°01.9'	S 22°44.2'	156°47.8'	S 23°17.1'	139°00.7'	S 21°55.5'	204°17.9'	S 16°47.7'

Tue Dec 17, 2019 UTC

UTC	Venus -3.8 v = -0.8' d = 0.6'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	147°01.1'	S 22°43.6'	171°49.7'	S 23°17.1'	154°02.9'	S 21°55.4'	219°18.7'	S 16°48.2'
1	162°00.3'	S 22°43.1'	186°51.5'	S 23°17.1'	169°05.1'	S 21°55.4'	234°19.5'	S 16°48.7'
2	176°59.4'	S 22°42.5'	201°53.4'	S 23°17.1'	184°07.2'	S 21°55.3'	249°20.3'	S 16°49.2'
3	191°58.6'	S 22°42.0'	216°55.2'	S 23°17.1'	199°09.4'	S 21°55.3'	264°21.1'	S 16°49.6'
4	206°57.8'	S 22°41.4'	231°57.0'	S 23°17.0'	214°11.6'	S 21°55.3'	279°21.9'	S 16°50.1'
5	221°57.0'	S 22°40.8'	246°58.9'	S 23°17.0'	229°13.7'	S 21°55.2'	294°22.7'	S 16°50.6'
6	236°56.1'	S 22°40.3'	262°00.7'	S 23°17.0'	244°15.9'	S 21°55.2'	309°23.5'	S 16°51.1'
7	251°55.3'	S 22°39.7'	277°02.6'	S 23°17.0'	259°18.1'	S 21°55.2'	324°24.3'	S 16°51.6'
8	266°54.5'	S 22°39.2'	292°04.4'	S 23°17.0'	274°20.2'	S 21°55.1'	339°25.1'	S 16°52.0'
9	281°53.7'	S 22°38.6'	307°06.2'	S 23°17.0'	289°22.4'	S 21°55.1'	354°25.9'	S 16°52.5'
10	296°52.9'	S 22°38.0'	322°08.1'	S 23°17.0'	304°24.6'	S 21°55.1'	9°26.7'	S 16°53.0'
11	311°52.0'	S 22°37.5'	337°09.9'	S 23°17.0'	319°26.7'	S 21°55.0'	24°27.4'	S 16°53.5'
12	326°51.2'	S 22°36.9'	352°11.8'	S 23°17.0'	334°28.9'	S 21°55.0'	39°28.2'	S 16°54.0'
13	341°50.4'	S 22°36.3'	7°13.6'	S 23°16.9'	349°31.1'	S 21°54.9'	54°29.0'	S 16°54.4'
14	356°49.6'	S 22°35.8'	22°15.5'	S 23°16.9'	4°33.2'	S 21°54.9'	69°29.8'	S 16°54.9'
15	11°48.8'	S 22°35.2'	37°17.3'	S 23°16.9'	19°35.4'	S 21°54.9'	84°30.6'	S 16°55.4'
16	26°48.0'	S 22°34.6'	52°19.1'	S 23°16.9'	34°37.6'	S 21°54.8'	99°31.4'	S 16°55.9'
17	41°47.1'	S 22°34.1'	67°21.0'	S 23°16.9'	49°39.7'	S 21°54.8'	114°32.2'	S 16°56.4'
18	56°46.3'	S 22°33.5'	82°22.8'	S 23°16.9'	64°41.9'	S 21°54.8'	129°33.0'	S 16°56.8'
19	71°45.5'	S 22°32.9'	97°24.7'	S 23°16.9'	79°44.1'	S 21°54.7'	144°33.8'	S 16°57.3'
20	86°44.7'	S 22°32.4'	112°26.5'	S 23°16.9'	94°46.2'	S 21°54.7'	159°34.6'	S 16°57.8'
21	101°43.9'	S 22°31.8'	127°28.3'	S 23°16.9'	109°48.4'	S 21°54.6'	174°35.4'	S 16°58.3'
22	116°43.1'	S 22°31.2'	142°30.2'	S 23°16.9'	124°50.6'	S 21°54.6'	189°36.2'	S 16°58.7'
23	131°42.3'	S 22°30.6'	157°32.0'	S 23°16.8'	139°52.7'	S 21°54.6'	204°37.0'	S 16°59.2'

Wed Dec 18, 2019 UTC

UTC	Venus -3.8 v = -0.8' d = 0.6'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	146°41.4'	S 22°30.0'	172°33.9'	S 23°16.8'	154°54.9'	S 21°54.5'	219°37.7'	S 16°59.7'
1	161°40.6'	S 22°29.5'	187°35.7'	S 23°16.8'	169°57.1'	S 21°54.5'	234°38.5'	S 17°00.2'
2	176°39.8'	S 22°28.9'	202°37.5'	S 23°16.8'	184°59.2'	S 21°54.5'	249°39.3'	S 17°00.6'
3	191°39.0'	S 22°28.3'	217°39.4'	S 23°16.8'	200°01.4'	S 21°54.4'	264°40.1'	S 17°01.1'
4	206°38.2'	S 22°27.7'	232°41.2'	S 23°16.8'	215°03.6'	S 21°54.4'	279°40.9'	S 17°01.6'
5	221°37.4'	S 22°27.1'	247°43.1'	S 23°16.8'	230°05.7'	S 21°54.3'	294°41.7'	S 17°02.1'
6	236°36.6'	S 22°26.5'	262°44.9'	S 23°16.8'	245°07.9'	S 21°54.3'	309°42.5'	S 17°02.5'
7	251°35.8'	S 22°26.0'	277°46.7'	S 23°16.8'	260°10.1'	S 21°54.3'	324°43.3'	S 17°03.0'
8	266°35.0'	S 22°25.4'	292°48.6'	S 23°16.7'	275°12.2'	S 21°54.2'	339°44.1'	S 17°03.5'
9	281°34.2'	S 22°24.8'	307°50.4'	S 23°16.7'	290°14.4'	S 21°54.2'	354°44.9'	S 17°04.0'
10	296°33.4'	S 22°24.2'	322°52.3'	S 23°16.7'	305°16.5'	S 21°54.2'	9°45.7'	S 17°04.4'
11	311°32.5'	S 22°23.6'	337°54.1'	S 23°16.7'	320°18.7'	S 21°54.1'	24°46.4'	S 17°04.9'
12	326°31.7'	S 22°23.0'	352°55.9'	S 23°16.7'	335°20.9'	S 21°54.1'	39°47.2'	S 17°05.4'
13	341°30.9'	S 22°22.4'	7°57.8'	S 23°16.7'	350°23.0'	S 21°54.0'	54°48.0'	S 17°05.9'
14	356°30.1'	S 22°21.8'	22°59.6'	S 23°16.7'	5°25.2'	S 21°54.0'	69°48.8'	S 17°06.3'
15	11°29.3'	S 22°21.2'	38°01.5'	S 23°16.7'	20°27.4'	S 21°54.0'	84°49.6'	S 17°06.8'
16	26°28.5'	S 22°20.6'	53°03.3'	S 23°16.7'	35°29.5'	S 21°53.9'	99°50.4'	S 17°07.3'
17	41°27.7'	S 22°20.0'	68°05.1'	S 23°16.6'	50°31.7'	S 21°53.9'	114°51.2'	S 17°07.8'
18	56°26.9'	S 22°19.4'	83°07.0'	S 23°16.6'	65°33.9'	S 21°53.9'	129°52.0'	S 17°08.2'
19	71°26.1'	S 22°18.8'	98°08.8'	S 23°16.6'	80°36.0'	S 21°53.8'	144°52.8'	S 17°08.7'
20	86°25.3'	S 22°18.2'	113°10.7'	S 23°16.6'	95°38.2'	S 21°53.8'	159°53.5'	S 17°09.2'
21	101°24.5'	S 22°17.6'	128°12.5'	S 23°16.6'	110°40.4'	S 21°53.7'	174°54.3'	S 17°09.7'
22	116°23.7'	S 22°17.0'	143°14.3'	S 23°16.6'	125°42.5'	S 21°53.7'	189°55.1'	S 17°10.1'
23	131°22.9'	S 22°16.4'	158°16.2'	S 23°16.6'	140°44.7'	S 21°53.7'	204°55.9'	S 17°10.6'

Thu Dec 19, 2019 UTC

UTC	Venus -3.8 v = -0.8' d = 0.6'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	146°22.1'	S 22°15.8'	173°18.0'	S 23°16.6'	155°46.9'	S 21°53.6'	219°56.7'	S 17°11.1'
1	161°21.3'	S 22°15.2'	188°19.9'	S 23°16.5'	170°49.0'	S 21°53.6'	234°57.5'	S 17°11.5'
2	176°20.5'	S 22°14.6'	203°21.7'	S 23°16.5'	185°51.2'	S 21°53.6'	249°58.3'	S 17°12.0'
3	191°19.7'	S 22°14.0'	218°23.5'	S 23°16.5'	200°53.4'	S 21°53.5'	264°59.0'	S 17°12.5'
4	206°18.9'	S 22°13.4'	233°25.4'	S 23°16.5'	215°55.5'	S 21°53.5'	279°59.8'	S 17°13.0'
5	221°18.1'	S 22°12.8'	248°27.2'	S 23°16.5'	230°57.7'	S 21°53.4'	295°00.6'	S 17°13.4'
6	236°17.3'	S 22°12.2'	263°29.1'	S 23°16.5'	245°59.9'	S 21°53.4'	310°01.4'	S 17°13.9'
7	251°16.5'	S 22°11.5'	278°30.9'	S 23°16.5'	261°02.0'	S 21°53.4'	325°02.2'	S 17°14.4'
8	266°15.7'	S 22°10.9'	293°32.7'	S 23°16.5'	276°04.2'	S 21°53.3'	340°03.0'	S 17°14.8'
9	281°14.9'	S 22°10.3'	308°34.6'	S 23°16.5'	291°06.3'	S 21°53.3'	355°03.8'	S 17°15.3'
10	296°14.1'	S 22°09.7'	323°36.4'	S 23°16.4'	306°08.5'	S 21°53.3'	10°04.5'	S 17°15.8'
11	311°13.4'	S 22°09.1'	338°38.3'	S 23°16.4'	321°10.7'	S 21°53.2'	25°05.3'	S 17°16.2'
12	326°12.6'	S 22°08.5'	353°40.1'	S 23°16.4'	336°12.8'	S 21°53.2'	40°06.1'	S 17°16.7'
13	341°11.8'	S 22°07.8'	8°41.9'	S 23°16.4'	351°15.0'	S 21°53.1'	55°06.9'	S 17°17.2'
14	356°11.0'	S 22°07.2'	23°43.8'	S 23°16.4'	6°17.2'	S 21°53.1'	70°07.7'	S 17°17.6'
15	11°10.2'	S 22°06.6'	38°45.6'	S 23°16.4'	21°19.3'	S 21°53.1'	85°08.5'	S 17°18.1'
16	26°09.4'	S 22°06.0'	53°47.5'	S 23°16.4'	36°21.5'	S 21°53.0'	100°09.3'	S 17°18.6'
17	41°08.6'	S 22°05.3'	68°49.3'	S 23°16.4'	51°23.7'	S 21°53.0'	115°10.0'	S 17°19.0'
18	56°07.8'	S 22°04.7'	83°51.1'	S 23°16.3'	66°25.8'	S 21°52.9'	130°10.8'	S 17°19.5'
19	71°07.0'	S 22°04.1'	98°53.0'	S 23°16.3'	81°28.0'	S 21°52.9'	145°11.6'	S 17°20.0'
20	86°06.2'	S 22°03.5'	113°54.8'	S 23°16.3'	96°30.1'	S 21°52.9'	160°12.4'	S 17°20.4'
21	101°05.4'	S 22°02.8'	128°56.7'	S 23°16.3'	111°32.3'	S 21°52.8'	175°13.2'	S 17°20.9'
22	116°04.7'	S 22°02.2'	143°58.5'	S 23°16.3'	126°34.5'	S 21°52.8'	190°14.0'	S 17°21.4'
23	131°03.9'	S 22°01.6'	159°00.3'	S 23°16.3'	141°36.6'	S 21°52.8'	205°14.7'	S 17°21.8'

Fri Dec 20, 2019 UTC

UTC	Venus -3.8 v = -0.8' d = 0.6'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	146°03.1'	S 22°00.9'	174°02.2'	S 23°16.3'	156°38.8'	S 21°52.7'	220°15.5'	S 17°22.3'
1	161°02.3'	S 22°00.3'	189°04.0'	S 23°16.2'	171°41.0'	S 21°52.7'	235°16.3'	S 17°22.8'
2	176°01.5'	S 21°59.7'	204°05.9'	S 23°16.2'	186°43.1'	S 21°52.6'	250°17.1'	S 17°23.2'
3	191°00.7'	S 21°59.0'	219°07.7'	S 23°16.2'	201°45.3'	S 21°52.6'	265°17.9'	S 17°23.7'
4	205°59.9'	S 21°58.4'	234°09.5'	S 23°16.2'	216°47.5'	S 21°52.6'	280°18.7'	S 17°24.2'
5	220°59.2'	S 21°57.8'	249°11.4'	S 23°16.2'	231°49.6'	S 21°52.5'	295°19.4'	S 17°24.6'
6	235°58.4'	S 21°57.1'	264°13.2'	S 23°16.2'	246°51.8'	S 21°52.5'	310°20.2'	S 17°25.1'
7	250°57.6'	S 21°56.5'	279°15.1'	S 23°16.2'	261°53.9'	S 21°52.4'	325°21.0'	S 17°25.6'
8	265°56.8'	S 21°55.8'	294°16.9'	S 23°16.2'	276°56.1'	S 21°52.4'	340°21.8'	S 17°26.0'
9	280°56.0'	S 21°55.2'	309°18.7'	S 23°16.1'	291°58.3'	S 21°52.4'	355°22.6'	S 17°26.5'
10	295°55.2'	S 21°54.5'	324°20.6'	S 23°16.1'	307°00.4'	S 21°52.3'	10°23.3'	S 17°27.0'
11	310°54.5'	S 21°53.9'	339°22.4'	S 23°16.1'	322°02.6'	S 21°52.3'	25°24.1'	S 17°27.4'
12	325°53.7'	S 21°53.3'	354°24.3'	S 23°16.1'	337°04.8'	S 21°52.3'	40°24.9'	S 17°27.9'
13	340°52.9'	S 21°52.6'	9°26.1'	S 23°16.1'	352°06.9'	S 21°52.2'	55°25.7'	S 17°28.4'
14	355°52.1'	S 21°52.0'	24°27.9'	S 23°16.1'	7°09.1'	S 21°52.2'	70°26.5'	S 17°28.8'
15	10°51.3'	S 21°51.3'	39°29.8'	S 23°16.1'	22°11.3'	S 21°52.1'	85°27.2'	S 17°29.3'
16	25°50.6'	S 21°50.7'	54°31.6'	S 23°16.0'	37°13.4'	S 21°52.1'	100°28.0'	S 17°29.7'
17	40°49.8'	S 21°50.0'	69°33.5'	S 23°16.0'	52°15.6'	S 21°52.1'	115°28.8'	S 17°30.2'
18	55°49.0'	S 21°49.4'	84°35.3'	S 23°16.0'	67°17.7'	S 21°52.0'	130°29.6'	S 17°30.7'
19	70°48.2'	S 21°48.7'	99°37.1'	S 23°16.0'	82°19.9'	S 21°52.0'	145°30.4'	S 17°31.1'
20	85°47.5'	S 21°48.0'	114°39.0'	S 23°16.0'	97°22.1'	S 21°51.9'	160°31.1'	S 17°31.6'
21	100°46.7'	S 21°47.4'	129°40.8'	S 23°16.0'	112°24.2'	S 21°51.9'	175°31.9'	S 17°32.0'
22	115°45.9'	S 21°46.7'	144°42.6'	S 23°16.0'	127°26.4'	S 21°51.9'	190°32.7'	S 17°32.5'
23	130°45.1'	S 21°46.1'	159°44.5'	S 23°16.0'	142°28.6'	S 21°51.8'	205°33.5'	S 17°33.0'

Sat Dec 21, 2019 UTC

UTC	Venus -3.8 v = -0.8' d = 0.7'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	145°44.4'	S 21°45.4'	174°46.3'	S 23°15.9'	157°30.7'	S 21°51.8'	220°34.3'	S 17°33.4'
1	160°43.6'	S 21°44.8'	189°48.2'	S 23°15.9'	172°32.9'	S 21°51.8'	235°35.0'	S 17°33.9'
2	175°42.8'	S 21°44.1'	204°50.0'	S 23°15.9'	187°35.0'	S 21°51.7'	250°35.8'	S 17°34.4'
3	190°42.0'	S 21°43.4'	219°51.8'	S 23°15.9'	202°37.2'	S 21°51.7'	265°36.6'	S 17°34.8'
4	205°41.3'	S 21°42.8'	234°53.7'	S 23°15.9'	217°39.4'	S 21°51.6'	280°37.4'	S 17°35.3'
5	220°40.5'	S 21°42.1'	249°55.5'	S 23°15.9'	232°41.5'	S 21°51.6'	295°38.1'	S 17°35.7'
6	235°39.7'	S 21°41.4'	264°57.4'	S 23°15.9'	247°43.7'	S 21°51.6'	310°38.9'	S 17°36.2'
7	250°39.0'	S 21°40.8'	279°59.2'	S 23°15.8'	262°45.8'	S 21°51.5'	325°39.7'	S 17°36.6'
8	265°38.2'	S 21°40.1'	295°01.0'	S 23°15.8'	277°48.0'	S 21°51.5'	340°40.5'	S 17°37.1'
9	280°37.4'	S 21°39.4'	310°02.9'	S 23°15.8'	292°50.2'	S 21°51.4'	355°41.2'	S 17°37.6'
10	295°36.7'	S 21°38.8'	325°04.7'	S 23°15.8'	307°52.3'	S 21°51.4'	10°42.0'	S 17°38.0'
11	310°35.9'	S 21°38.1'	340°06.6'	S 23°15.8'	322°54.5'	S 21°51.4'	25°42.8'	S 17°38.5'
12	325°35.1'	S 21°37.4'	355°08.4'	S 23°15.8'	337°56.7'	S 21°51.3'	40°43.6'	S 17°38.9'
13	340°34.4'	S 21°36.8'	10°10.2'	S 23°15.8'	352°58.8'	S 21°51.3'	55°44.4'	S 17°39.4'
14	355°33.6'	S 21°36.1'	25°12.1'	S 23°15.7'	8°01.0'	S 21°51.3'	70°45.1'	S 17°39.9'
15	10°32.8'	S 21°35.4'	40°13.9'	S 23°15.7'	23°03.1'	S 21°51.2'	85°45.9'	S 17°40.3'
16	25°32.1'	S 21°34.7'	55°15.7'	S 23°15.7'	38°05.3'	S 21°51.2'	100°46.7'	S 17°40.8'
17	40°31.3'	S 21°34.0'	70°17.6'	S 23°15.7'	53°07.5'	S 21°51.1'	115°47.5'	S 17°41.2'
18	55°30.5'	S 21°33.4'	85°19.4'	S 23°15.7'	68°09.6'	S 21°51.1'	130°48.2'	S 17°41.7'
19	70°29.8'	S 21°32.7'	100°21.3'	S 23°15.7'	83°11.8'	S 21°51.1'	145°49.0'	S 17°42.1'
20	85°29.0'	S 21°32.0'	115°23.1'	S 23°15.6'	98°14.0'	S 21°51.0'	160°49.8'	S 17°42.6'
21	100°28.2'	S 21°31.3'	130°24.9'	S 23°15.6'	113°16.1'	S 21°51.0'	175°50.6'	S 17°43.1'
22	115°27.5'	S 21°30.6'	145°26.8'	S 23°15.6'	128°18.3'	S 21°50.9'	190°51.3'	S 17°43.5'
23	130°26.7'	S 21°30.0'	160°28.6'	S 23°15.6'	143°20.4'	S 21°50.9'	205°52.1'	S 17°44.0'

Sun Dec 22, 2019 UTC

UTC	Venus -3.8 v = -0.8' d = 0.7'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.5'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	145°26.0'	S 21°29.3'	175°30.5'	S 23°15.6'	158°22.6'	S 21°50.9'	220°52.9'	S 17°44.4'
1	160°25.2'	S 21°28.6'	190°32.3'	S 23°15.6'	173°24.8'	S 21°50.8'	235°53.7'	S 17°44.9'
2	175°24.4'	S 21°27.9'	205°34.1'	S 23°15.6'	188°26.9'	S 21°50.8'	250°54.4'	S 17°45.3'
3	190°23.7'	S 21°27.2'	220°36.0'	S 23°15.5'	203°29.1'	S 21°50.7'	265°55.2'	S 17°45.8'
4	205°22.9'	S 21°26.5'	235°37.8'	S 23°15.5'	218°31.2'	S 21°50.7'	280°56.0'	S 17°46.2'
5	220°22.2'	S 21°25.8'	250°39.6'	S 23°15.5'	233°33.4'	S 21°50.7'	295°56.7'	S 17°46.7'
6	235°21.4'	S 21°25.1'	265°41.5'	S 23°15.5'	248°35.6'	S 21°50.6'	310°57.5'	S 17°47.1'
7	250°20.7'	S 21°24.5'	280°43.3'	S 23°15.5'	263°37.7'	S 21°50.6'	325°58.3'	S 17°47.6'
8	265°19.9'	S 21°23.8'	295°45.2'	S 23°15.5'	278°39.9'	S 21°50.6'	340°59.1'	S 17°48.1'
9	280°19.1'	S 21°23.1'	310°47.0'	S 23°15.5'	293°42.0'	S 21°50.5'	355°59.8'	S 17°48.5'
10	295°18.4'	S 21°22.4'	325°48.8'	S 23°15.4'	308°44.2'	S 21°50.5'	11°00.6'	S 17°49.0'
11	310°17.6'	S 21°21.7'	340°50.7'	S 23°15.4'	323°46.4'	S 21°50.4'	26°01.4'	S 17°49.4'
12	325°16.9'	S 21°21.0'	355°52.5'	S 23°15.4'	338°48.5'	S 21°50.4'	41°02.2'	S 17°49.9'
13	340°16.1'	S 21°20.3'	10°54.4'	S 23°15.4'	353°50.7'	S 21°50.4'	56°02.9'	S 17°50.3'
14	355°15.4'	S 21°19.6'	25°56.2'	S 23°15.4'	8°52.8'	S 21°50.3'	71°03.7'	S 17°50.8'
15	10°14.6'	S 21°18.9'	40°58.0'	S 23°15.4'	23°55.0'	S 21°50.3'	86°04.5'	S 17°51.2'
16	25°13.9'	S 21°18.2'	55°59.9'	S 23°15.3'	38°57.2'	S 21°50.2'	101°05.2'	S 17°51.7'
17	40°13.1'	S 21°17.5'	71°01.7'	S 23°15.3'	53°59.3'	S 21°50.2'	116°06.0'	S 17°52.1'
18	55°12.4'	S 21°16.8'	86°03.5'	S 23°15.3'	69°01.5'	S 21°50.2'	131°06.8'	S 17°52.6'
19	70°11.6'	S 21°16.1'	101°05.4'	S 23°15.3'	84°03.7'	S 21°50.1'	146°07.5'	S 17°53.0'
20	85°10.9'	S 21°15.4'	116°07.2'	S 23°15.3'	99°05.8'	S 21°50.1'	161°08.3'	S 17°53.5'
21	100°10.1'	S 21°14.6'	131°09.1'	S 23°15.3'	114°08.0'	S 21°50.0'	176°09.1'	S 17°53.9'
22	115°09.4'	S 21°13.9'	146°10.9'	S 23°15.2'	129°10.1'	S 21°50.0'	191°09.9'	S 17°54.4'
23	130°08.6'	S 21°13.2'	161°12.7'	S 23°15.2'	144°12.3'	S 21°50.0'	206°10.6'	S 17°54.8'

Mon Dec 23, 2019 UTC

UTC	Venus -3.9 v = -0.7' d = 0.7'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	145°07.9'	S 21°12.5'	176°14.6'	S 23°15.2'	159°14.5'	S 21°49.9'	221°11.4'	S 17°55.3'
1	160°07.1'	S 21°11.8'	191°16.4'	S 23°15.2'	174°16.6'	S 21°49.9'	236°12.2'	S 17°55.7'
2	175°06.4'	S 21°11.1'	206°18.3'	S 23°15.2'	189°18.8'	S 21°49.8'	251°12.9'	S 17°56.2'
3	190°05.6'	S 21°10.4'	221°20.1'	S 23°15.2'	204°20.9'	S 21°49.8'	266°13.7'	S 17°56.6'
4	205°04.9'	S 21°09.7'	236°21.9'	S 23°15.2'	219°23.1'	S 21°49.8'	281°14.5'	S 17°57.1'
5	220°04.2'	S 21°09.0'	251°23.8'	S 23°15.1'	234°25.3'	S 21°49.7'	296°15.2'	S 17°57.5'
6	235°03.4'	S 21°08.2'	266°25.6'	S 23°15.1'	249°27.4'	S 21°49.7'	311°16.0'	S 17°58.0'
7	250°02.7'	S 21°07.5'	281°27.4'	S 23°15.1'	264°29.6'	S 21°49.6'	326°16.8'	S 17°58.4'
8	265°01.9'	S 21°06.8'	296°29.3'	S 23°15.1'	279°31.7'	S 21°49.6'	341°17.5'	S 17°58.9'
9	280°01.2'	S 21°06.1'	311°31.1'	S 23°15.1'	294°33.9'	S 21°49.6'	356°18.3'	S 17°59.3'
10	295°00.5'	S 21°05.4'	326°33.0'	S 23°15.1'	309°36.1'	S 21°49.5'	11°19.1'	S 17°59.8'
11	309°59.7'	S 21°04.6'	341°34.8'	S 23°15.0'	324°38.2'	S 21°49.5'	26°19.9'	S 18°00.2'
12	324°59.0'	S 21°03.9'	356°36.6'	S 23°15.0'	339°40.4'	S 21°49.4'	41°20.6'	S 18°00.7'
13	339°58.2'	S 21°03.2'	11°38.5'	S 23°15.0'	354°42.5'	S 21°49.4'	56°21.4'	S 18°01.1'
14	354°57.5'	S 21°02.5'	26°40.3'	S 23°15.0'	9°44.7'	S 21°49.4'	71°22.2'	S 18°01.5'
15	9°56.8'	S 21°01.7'	41°42.1'	S 23°15.0'	24°46.8'	S 21°49.3'	86°22.9'	S 18°02.0'
16	24°56.0'	S 21°01.0'	56°44.0'	S 23°15.0'	39°49.0'	S 21°49.3'	101°23.7'	S 18°02.4'
17	39°55.3'	S 21°00.3'	71°45.8'	S 23°14.9'	54°51.2'	S 21°49.2'	116°24.5'	S 18°02.9'
18	54°54.5'	S 20°59.6'	86°47.7'	S 23°14.9'	69°53.3'	S 21°49.2'	131°25.2'	S 18°03.3'
19	69°53.8'	S 20°58.8'	101°49.5'	S 23°14.9'	84°55.5'	S 21°49.2'	146°26.0'	S 18°03.8'
20	84°53.1'	S 20°58.1'	116°51.3'	S 23°14.9'	99°57.6'	S 21°49.1'	161°26.8'	S 18°04.2'
21	99°52.3'	S 20°57.4'	131°53.2'	S 23°14.9'	114°59.8'	S 21°49.1'	176°27.5'	S 18°04.7'
22	114°51.6'	S 20°56.6'	146°55.0'	S 23°14.9'	130°02.0'	S 21°49.0'	191°28.3'	S 18°05.1'
23	129°50.9'	S 20°55.9'	161°56.9'	S 23°14.8'	145°04.1'	S 21°49.0'	206°29.0'	S 18°05.6'

Tue Dec 24, 2019 UTC

UTC	Venus -3.9 v = -0.7' d = 0.7'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	144°50.1'	S 20°55.2'	176°58.7'	S 23°14.8'	160°06.3'	S 21°49.0'	221°29.8'	S 18°06.0'
1	159°49.4'	S 20°54.4'	192°00.5'	S 23°14.8'	175°08.4'	S 21°48.9'	236°30.6'	S 18°06.4'
2	174°48.7'	S 20°53.7'	207°02.4'	S 23°14.8'	190°10.6'	S 21°48.9'	251°31.3'	S 18°06.9'
3	189°47.9'	S 20°52.9'	222°04.2'	S 23°14.8'	205°12.8'	S 21°48.9'	266°32.1'	S 18°07.3'
4	204°47.2'	S 20°52.2'	237°06.0'	S 23°14.8'	220°14.9'	S 21°48.8'	281°32.9'	S 18°07.8'
5	219°46.5'	S 20°51.5'	252°07.9'	S 23°14.7'	235°17.1'	S 21°48.8'	296°33.6'	S 18°08.2'
6	234°45.8'	S 20°50.7'	267°09.7'	S 23°14.7'	250°19.2'	S 21°48.7'	311°34.4'	S 18°08.7'
7	249°45.0'	S 20°50.0'	282°11.6'	S 23°14.7'	265°21.4'	S 21°48.7'	326°35.2'	S 18°09.1'
8	264°44.3'	S 20°49.2'	297°13.4'	S 23°14.7'	280°23.6'	S 21°48.7'	341°35.9'	S 18°09.5'
9	279°43.6'	S 20°48.5'	312°15.2'	S 23°14.7'	295°25.7'	S 21°48.6'	356°36.7'	S 18°10.0'
10	294°42.9'	S 20°47.7'	327°17.1'	S 23°14.6'	310°27.9'	S 21°48.6'	11°37.5'	S 18°10.4'
11	309°42.1'	S 20°47.0'	342°18.9'	S 23°14.6'	325°30.0'	S 21°48.5'	26°38.2'	S 18°10.9'
12	324°41.4'	S 20°46.3'	357°20.7'	S 23°14.6'	340°32.2'	S 21°48.5'	41°39.0'	S 18°11.3'
13	339°40.7'	S 20°45.5'	12°22.6'	S 23°14.6'	355°34.3'	S 21°48.5'	56°39.7'	S 18°11.7'
14	354°40.0'	S 20°44.8'	27°24.4'	S 23°14.6'	10°36.5'	S 21°48.4'	71°40.5'	S 18°12.2'
15	9°39.2'	S 20°44.0'	42°26.3'	S 23°14.6'	25°38.7'	S 21°48.4'	86°41.3'	S 18°12.6'
16	24°38.5'	S 20°43.3'	57°28.1'	S 23°14.5'	40°40.8'	S 21°48.3'	101°42.0'	S 18°13.1'
17	39°37.8'	S 20°42.5'	72°29.9'	S 23°14.5'	55°43.0'	S 21°48.3'	116°42.8'	S 18°13.5'
18	54°37.1'	S 20°41.7'	87°31.8'	S 23°14.5'	70°45.1'	S 21°48.3'	131°43.6'	S 18°13.9'
19	69°36.3'	S 20°41.0'	102°33.6'	S 23°14.5'	85°47.3'	S 21°48.2'	146°44.3'	S 18°14.4'
20	84°35.6'	S 20°40.2'	117°35.4'	S 23°14.5'	100°49.5'	S 21°48.2'	161°45.1'	S 18°14.8'
21	99°34.9'	S 20°39.5'	132°37.3'	S 23°14.5'	115°51.6'	S 21°48.1'	176°45.8'	S 18°15.3'
22	114°34.2'	S 20°38.7'	147°39.1'	S 23°14.4'	130°53.8'	S 21°48.1'	191°46.6'	S 18°15.7'
23	129°33.5'	S 20°38.0'	162°41.0'	S 23°14.4'	145°55.9'	S 21°48.0'	206°47.4'	S 18°16.1'

Wed Dec 25, 2019 UTC

UTC	Venus -3.9 v = -0.7' d = 0.8'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	144°32.7'	S 20°37.2'	177°42.8'	S 23°14.4'	160°58.1'	S 21°48.0'	221°48.1'	S 18°16.6'
1	159°32.0'	S 20°36.4'	192°44.6'	S 23°14.4'	176°00.2'	S 21°48.0'	236°48.9'	S 18°17.0'
2	174°31.3'	S 20°35.7'	207°46.5'	S 23°14.4'	191°02.4'	S 21°47.9'	251°49.6'	S 18°17.5'
3	189°30.6'	S 20°34.9'	222°48.3'	S 23°14.3'	206°04.6'	S 21°47.9'	266°50.4'	S 18°17.9'
4	204°29.9'	S 20°34.2'	237°50.1'	S 23°14.3'	221°06.7'	S 21°47.8'	281°51.2'	S 18°18.3'
5	219°29.2'	S 20°33.4'	252°52.0'	S 23°14.3'	236°08.9'	S 21°47.8'	296°51.9'	S 18°18.8'
6	234°28.4'	S 20°32.6'	267°53.8'	S 23°14.3'	251°11.0'	S 21°47.8'	311°52.7'	S 18°19.2'
7	249°27.7'	S 20°31.9'	282°55.7'	S 23°14.3'	266°13.2'	S 21°47.7'	326°53.4'	S 18°19.6'
8	264°27.0'	S 20°31.1'	297°57.5'	S 23°14.3'	281°15.4'	S 21°47.7'	341°54.2'	S 18°20.1'
9	279°26.3'	S 20°30.3'	312°59.3'	S 23°14.2'	296°17.5'	S 21°47.6'	356°55.0'	S 18°20.5'
10	294°25.6'	S 20°29.5'	328°01.2'	S 23°14.2'	311°19.7'	S 21°47.6'	11°55.7'	S 18°21.0'
11	309°24.9'	S 20°28.8'	343°03.0'	S 23°14.2'	326°21.8'	S 21°47.6'	26°56.5'	S 18°21.4'
12	324°24.2'	S 20°28.0'	358°04.8'	S 23°14.2'	341°24.0'	S 21°47.5'	41°57.2'	S 18°21.8'
13	339°23.5'	S 20°27.2'	13°06.7'	S 23°14.2'	356°26.1'	S 21°47.5'	56°58.0'	S 18°22.3'
14	354°22.8'	S 20°26.5'	28°08.5'	S 23°14.1'	11°28.3'	S 21°47.4'	71°58.8'	S 18°22.7'
15	9°22.0'	S 20°25.7'	43°10.4'	S 23°14.1'	26°30.5'	S 21°47.4'	86°59.5'	S 18°23.1'
16	24°21.3'	S 20°24.9'	58°12.2'	S 23°14.1'	41°32.6'	S 21°47.4'	102°00.3'	S 18°23.6'
17	39°20.6'	S 20°24.1'	73°14.0'	S 23°14.1'	56°34.8'	S 21°47.3'	117°01.0'	S 18°24.0'
18	54°19.9'	S 20°23.4'	88°15.9'	S 23°14.1'	71°36.9'	S 21°47.3'	132°01.8'	S 18°24.4'
19	69°19.2'	S 20°22.6'	103°17.7'	S 23°14.1'	86°39.1'	S 21°47.2'	147°02.6'	S 18°24.9'
20	84°18.5'	S 20°21.8'	118°19.5'	S 23°14.0'	101°41.2'	S 21°47.2'	162°03.3'	S 18°25.3'
21	99°17.8'	S 20°21.0'	133°21.4'	S 23°14.0'	116°43.4'	S 21°47.2'	177°04.1'	S 18°25.7'
22	114°17.1'	S 20°20.2'	148°23.2'	S 23°14.0'	131°45.6'	S 21°47.1'	192°04.8'	S 18°26.2'
23	129°16.4'	S 20°19.4'	163°25.1'	S 23°14.0'	146°47.7'	S 21°47.1'	207°05.6'	S 18°26.6'

Thu Dec 26, 2019 UTC

UTC	Venus -3.9 v = -0.7' d = 0.8'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	144°15.7'	S 20°18.7'	178°26.9'	S 23°14.0'	161°49.9'	S 21°47.0'	222°06.3'	S 18°27.0'
1	159°15.0'	S 20°17.9'	193°28.7'	S 23°13.9'	176°52.0'	S 21°47.0'	237°07.1'	S 18°27.5'
2	174°14.3'	S 20°17.1'	208°30.6'	S 23°13.9'	191°54.2'	S 21°47.0'	252°07.9'	S 18°27.9'
3	189°13.6'	S 20°16.3'	223°32.4'	S 23°13.9'	206°56.3'	S 21°46.9'	267°08.6'	S 18°28.3'
4	204°12.9'	S 20°15.5'	238°34.2'	S 23°13.9'	221°58.5'	S 21°46.9'	282°09.4'	S 18°28.8'
5	219°12.2'	S 20°14.7'	253°36.1'	S 23°13.9'	237°00.7'	S 21°46.8'	297°10.1'	S 18°29.2'
6	234°11.5'	S 20°13.9'	268°37.9'	S 23°13.8'	252°02.8'	S 21°46.8'	312°10.9'	S 18°29.6'
7	249°10.8'	S 20°13.2'	283°39.8'	S 23°13.8'	267°05.0'	S 21°46.8'	327°11.6'	S 18°30.1'
8	264°10.1'	S 20°12.4'	298°41.6'	S 23°13.8'	282°07.1'	S 21°46.7'	342°12.4'	S 18°30.5'
9	279°09.4'	S 20°11.6'	313°43.4'	S 23°13.8'	297°09.3'	S 21°46.7'	357°13.1'	S 18°30.9'
10	294°08.7'	S 20°10.8'	328°45.3'	S 23°13.8'	312°11.4'	S 21°46.6'	12°13.9'	S 18°31.3'
11	309°08.0'	S 20°10.0'	343°47.1'	S 23°13.7'	327°13.6'	S 21°46.6'	27°14.6'	S 18°31.8'
12	324°07.3'	S 20°09.2'	358°48.9'	S 23°13.7'	342°15.8'	S 21°46.6'	42°15.4'	S 18°32.2'
13	339°06.6'	S 20°08.4'	13°50.8'	S 23°13.7'	357°17.9'	S 21°46.5'	57°16.2'	S 18°32.6'
14	354°05.9'	S 20°07.6'	28°52.6'	S 23°13.7'	12°20.1'	S 21°46.5'	72°16.9'	S 18°33.1'
15	9°05.2'	S 20°06.8'	43°54.5'	S 23°13.7'	27°22.2'	S 21°46.4'	87°17.7'	S 18°33.5'
16	24°04.5'	S 20°06.0'	58°56.3'	S 23°13.6'	42°24.4'	S 21°46.4'	102°18.4'	S 18°33.9'
17	39°03.8'	S 20°05.2'	73°58.1'	S 23°13.6'	57°26.5'	S 21°46.3'	117°19.2'	S 18°34.3'
18	54°03.1'	S 20°04.4'	88°60.0'	S 23°13.6'	72°28.7'	S 21°46.3'	132°19.9'	S 18°34.8'
19	69°02.4'	S 20°03.6'	104°01.8'	S 23°13.6'	87°30.8'	S 21°46.3'	147°20.7'	S 18°35.2'
20	84°01.7'	S 20°02.8'	119°03.6'	S 23°13.6'	102°33.0'	S 21°46.2'	162°21.4'	S 18°35.6'
21	99°01.0'	S 20°02.0'	134°05.5'	S 23°13.5'	117°35.2'	S 21°46.2'	177°22.2'	S 18°36.1'
22	114°00.4'	S 20°01.2'	149°07.3'	S 23°13.5'	132°37.3'	S 21°46.1'	192°22.9'	S 18°36.5'
23	128°59.7'	S 20°00.4'	164°09.2'	S 23°13.5'	147°39.5'	S 21°46.1'	207°23.7'	S 18°36.9'

Fri Dec 27, 2019 UTC

UTC	Venus -3.9 v = -0.7' d = 0.8'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	143°59.0'	S 19°59.6'	179°11.0'	S 23°13.5'	162°41.6'	S 21°46.1'	222°24.4'	S 18°37.3'
1	158°58.3'	S 19°58.8'	194°12.8'	S 23°13.5'	177°43.8'	S 21°46.0'	237°25.2'	S 18°37.8'
2	173°57.6'	S 19°57.9'	209°14.7'	S 23°13.4'	192°45.9'	S 21°46.0'	252°25.9'	S 18°38.2'
3	188°56.9'	S 19°57.1'	224°16.5'	S 23°13.4'	207°48.1'	S 21°45.9'	267°26.7'	S 18°38.6'
4	203°56.2'	S 19°56.3'	239°18.3'	S 23°13.4'	222°50.3'	S 21°45.9'	282°27.5'	S 18°39.0'
5	218°55.5'	S 19°55.5'	254°20.2'	S 23°13.4'	237°52.4'	S 21°45.9'	297°28.2'	S 18°39.5'
6	233°54.9'	S 19°54.7'	269°22.0'	S 23°13.4'	252°54.6'	S 21°45.8'	312°29.0'	S 18°39.9'
7	248°54.2'	S 19°53.9'	284°23.9'	S 23°13.3'	267°56.7'	S 21°45.8'	327°29.7'	S 18°40.3'
8	263°53.5'	S 19°53.1'	299°25.7'	S 23°13.3'	282°58.9'	S 21°45.7'	342°30.5'	S 18°40.7'
9	278°52.8'	S 19°52.3'	314°27.5'	S 23°13.3'	298°01.0'	S 21°45.7'	357°31.2'	S 18°41.2'
10	293°52.1'	S 19°51.4'	329°29.4'	S 23°13.3'	313°03.2'	S 21°45.7'	12°32.0'	S 18°41.6'
11	308°51.4'	S 19°50.6'	344°31.2'	S 23°13.3'	328°05.3'	S 21°45.6'	27°32.7'	S 18°42.0'
12	323°50.8'	S 19°49.8'	359°33.0'	S 23°13.2'	343°07.5'	S 21°45.6'	42°33.5'	S 18°42.4'
13	338°50.1'	S 19°49.0'	14°34.9'	S 23°13.2'	358°09.7'	S 21°45.5'	57°34.2'	S 18°42.9'
14	353°49.4'	S 19°48.2'	29°36.7'	S 23°13.2'	13°11.8'	S 21°45.5'	72°35.0'	S 18°43.3'
15	8°48.7'	S 19°47.3'	44°38.6'	S 23°13.2'	28°14.0'	S 21°45.4'	87°35.7'	S 18°43.7'
16	23°48.0'	S 19°46.5'	59°40.4'	S 23°13.2'	43°16.1'	S 21°45.4'	102°36.5'	S 18°44.1'
17	38°47.4'	S 19°45.7'	74°42.2'	S 23°13.1'	58°18.3'	S 21°45.4'	117°37.2'	S 18°44.6'
18	53°46.7'	S 19°44.9'	89°44.1'	S 23°13.1'	73°20.4'	S 21°45.3'	132°38.0'	S 18°45.0'
19	68°46.0'	S 19°44.0'	104°45.9'	S 23°13.1'	88°22.6'	S 21°45.3'	147°38.7'	S 18°45.4'
20	83°45.3'	S 19°43.2'	119°47.7'	S 23°13.1'	103°24.7'	S 21°45.2'	162°39.5'	S 18°45.8'
21	98°44.7'	S 19°42.4'	134°49.6'	S 23°13.1'	118°26.9'	S 21°45.2'	177°40.2'	S 18°46.2'
22	113°44.0'	S 19°41.6'	149°51.4'	S 23°13.0'	133°29.1'	S 21°45.2'	192°41.0'	S 18°46.7'
23	128°43.3'	S 19°40.7'	164°53.3'	S 23°13.0'	148°31.2'	S 21°45.1'	207°41.7'	S 18°47.1'

Sat Dec 28, 2019 UTC

UTC	Venus -3.9 v = -0.7' d = 0.8'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.7' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	143°42.6'	S 19°39.9'	179°55.1'	S 23°13.0'	163°33.4'	S 21°45.1'	222°42.5'	S 18°47.5'
1	158°42.0'	S 19°39.1'	194°56.9'	S 23°13.0'	178°35.5'	S 21°45.0'	237°43.2'	S 18°47.9'
2	173°41.3'	S 19°38.2'	209°58.8'	S 23°13.0'	193°37.7'	S 21°45.0'	252°43.9'	S 18°48.3'
3	188°40.6'	S 19°37.4'	225°00.6'	S 23°12.9'	208°39.8'	S 21°45.0'	267°44.7'	S 18°48.8'
4	203°39.9'	S 19°36.6'	240°02.4'	S 23°12.9'	223°42.0'	S 21°44.9'	282°45.4'	S 18°49.2'
5	218°39.3'	S 19°35.7'	255°04.3'	S 23°12.9'	238°44.1'	S 21°44.9'	297°46.2'	S 18°49.6'
6	233°38.6'	S 19°34.9'	270°06.1'	S 23°12.9'	253°46.3'	S 21°44.8'	312°46.9'	S 18°50.0'
7	248°37.9'	S 19°34.1'	285°07.9'	S 23°12.8'	268°48.5'	S 21°44.8'	327°47.7'	S 18°50.4'
8	263°37.3'	S 19°33.2'	300°09.8'	S 23°12.8'	283°50.6'	S 21°44.7'	342°48.4'	S 18°50.9'
9	278°36.6'	S 19°32.4'	315°11.6'	S 23°12.8'	298°52.8'	S 21°44.7'	357°49.2'	S 18°51.3'
10	293°35.9'	S 19°31.5'	330°13.5'	S 23°12.8'	313°54.9'	S 21°44.7'	12°49.9'	S 18°51.7'
11	308°35.3'	S 19°30.7'	345°15.3'	S 23°12.8'	328°57.1'	S 21°44.6'	27°50.7'	S 18°52.1'
12	323°34.6'	S 19°29.9'	0°17.1'	S 23°12.7'	343°59.2'	S 21°44.6'	42°51.4'	S 18°52.5'
13	338°33.9'	S 19°29.0'	15°19.0'	S 23°12.7'	359°01.4'	S 21°44.5'	57°52.2'	S 18°53.0'
14	353°33.3'	S 19°28.2'	30°20.8'	S 23°12.7'	14°03.5'	S 21°44.5'	72°52.9'	S 18°53.4'
15	8°32.6'	S 19°27.3'	45°22.6'	S 23°12.7'	29°05.7'	S 21°44.5'	87°53.7'	S 18°53.8'
16	23°31.9'	S 19°26.5'	60°24.5'	S 23°12.7'	44°07.9'	S 21°44.4'	102°54.4'	S 18°54.2'
17	38°31.3'	S 19°25.6'	75°26.3'	S 23°12.6'	59°10.0'	S 21°44.4'	117°55.1'	S 18°54.6'
18	53°30.6'	S 19°24.8'	90°28.2'	S 23°12.6'	74°12.2'	S 21°44.3'	132°55.9'	S 18°55.0'
19	68°29.9'	S 19°23.9'	105°30.0'	S 23°12.6'	89°14.3'	S 21°44.3'	147°56.6'	S 18°55.4'
20	83°29.3'	S 19°23.1'	120°31.8'	S 23°12.6'	104°16.5'	S 21°44.2'	162°57.4'	S 18°55.9'
21	98°28.6'	S 19°22.2'	135°33.7'	S 23°12.5'	119°18.6'	S 21°44.2'	177°58.1'	S 18°56.3'
22	113°28.0'	S 19°21.4'	150°35.5'	S 23°12.5'	134°20.8'	S 21°44.2'	192°58.9'	S 18°56.7'
23	128°27.3'	S 19°20.5'	165°37.3'	S 23°12.5'	149°22.9'	S 21°44.1'	207°59.6'	S 18°57.1'

Sun Dec 29, 2019 UTC

UTC	Venus -3.9		Jupiter -1.7		Saturn +0.6		Mars +1.6	
	v = -0.7' d = 0.9'		v = 1.8' d = 0.0'		v = 2.2' d = 0.0'		v = 0.7' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	143°26.6'	S 19°19.7'	180°39.2'	S 23°12.5'	164°25.1'	S 21°44.1'	223°00.4'	S 18°57.5'
1	158°26.0'	S 19°18.8'	195°41.0'	S 23°12.5'	179°27.2'	S 21°44.0'	238°01.1'	S 18°57.9'
2	173°25.3'	S 19°18.0'	210°42.9'	S 23°12.4'	194°29.4'	S 21°44.0'	253°01.8'	S 18°58.4'
3	188°24.7'	S 19°17.1'	225°44.7'	S 23°12.4'	209°31.6'	S 21°44.0'	268°02.6'	S 18°58.8'
4	203°24.0'	S 19°16.3'	240°46.5'	S 23°12.4'	224°33.7'	S 21°43.9'	283°03.3'	S 18°59.2'
5	218°23.4'	S 19°15.4'	255°48.4'	S 23°12.4'	239°35.9'	S 21°43.9'	298°04.1'	S 18°59.6'
6	233°22.7'	S 19°14.6'	270°50.2'	S 23°12.3'	254°38.0'	S 21°43.8'	313°04.8'	S 19°00.0'
7	248°22.0'	S 19°13.7'	285°52.0'	S 23°12.3'	269°40.2'	S 21°43.8'	328°05.6'	S 19°00.4'
8	263°21.4'	S 19°12.8'	300°53.9'	S 23°12.3'	284°42.3'	S 21°43.7'	343°06.3'	S 19°00.8'
9	278°20.7'	S 19°12.0'	315°55.7'	S 23°12.3'	299°44.5'	S 21°43.7'	358°07.0'	S 19°01.2'
10	293°20.1'	S 19°11.1'	330°57.6'	S 23°12.3'	314°46.6'	S 21°43.7'	13°07.8'	S 19°01.7'
11	308°19.4'	S 19°10.2'	345°59.4'	S 23°12.2'	329°48.8'	S 21°43.6'	28°08.5'	S 19°02.1'
12	323°18.8'	S 19°09.4'	1°01.2'	S 23°12.2'	344°50.9'	S 21°43.6'	43°09.3'	S 19°02.5'
13	338°18.1'	S 19°08.5'	16°03.1'	S 23°12.2'	359°53.1'	S 21°43.5'	58°10.0'	S 19°02.9'
14	353°17.5'	S 19°07.7'	31°04.9'	S 23°12.2'	14°55.3'	S 21°43.5'	73°10.8'	S 19°03.3'
15	8°16.8'	S 19°06.8'	46°06.7'	S 23°12.1'	29°57.4'	S 21°43.5'	88°11.5'	S 19°03.7'
16	23°16.2'	S 19°05.9'	61°08.6'	S 23°12.1'	44°59.6'	S 21°43.4'	103°12.2'	S 19°04.1'
17	38°15.5'	S 19°05.1'	76°10.4'	S 23°12.1'	60°01.7'	S 21°43.4'	118°13.0'	S 19°04.5'
18	53°14.9'	S 19°04.2'	91°12.3'	S 23°12.1'	75°03.9'	S 21°43.3'	133°13.7'	S 19°04.9'
19	68°14.2'	S 19°03.3'	106°14.1'	S 23°12.1'	90°06.0'	S 21°43.3'	148°14.5'	S 19°05.4'
20	83°13.6'	S 19°02.4'	121°15.9'	S 23°12.0'	105°08.2'	S 21°43.2'	163°15.2'	S 19°05.8'
21	98°12.9'	S 19°01.6'	136°17.8'	S 23°12.0'	120°10.3'	S 21°43.2'	178°15.9'	S 19°06.2'
22	113°12.3'	S 19°00.7'	151°19.6'	S 23°12.0'	135°12.5'	S 21°43.2'	193°16.7'	S 19°06.6'
23	128°11.7'	S 18°59.8'	166°21.4'	S 23°12.0'	150°14.6'	S 21°43.1'	208°17.4'	S 19°07.0'

Mon Dec 30, 2019 UTC

UTC	Venus -3.9		Jupiter -1.7		Saturn +0.6		Mars +1.6	
	v = -0.6' d = 0.9'		v = 1.8' d = 0.0'		v = 2.2' d = 0.0'		v = 0.7' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	143°11.0'	S 18°58.9'	181°23.3'	S 23°11.9'	165°16.8'	S 21°43.1'	223°18.2'	S 19°07.4'
1	158°10.4'	S 18°58.1'	196°25.1'	S 23°11.9'	180°18.9'	S 21°43.0'	238°18.9'	S 19°07.8'
2	173°09.7'	S 18°57.2'	211°27.0'	S 23°11.9'	195°21.1'	S 21°43.0'	253°19.6'	S 19°08.2'
3	188°09.1'	S 18°56.3'	226°28.8'	S 23°11.9'	210°23.3'	S 21°43.0'	268°20.4'	S 19°08.6'
4	203°08.4'	S 18°55.4'	241°30.6'	S 23°11.8'	225°25.4'	S 21°42.9'	283°21.1'	S 19°09.0'
5	218°07.8'	S 18°54.6'	256°32.5'	S 23°11.8'	240°27.6'	S 21°42.9'	298°21.9'	S 19°09.4'
6	233°07.2'	S 18°53.7'	271°34.3'	S 23°11.8'	255°29.7'	S 21°42.8'	313°22.6'	S 19°09.8'
7	248°06.5'	S 18°52.8'	286°36.1'	S 23°11.8'	270°31.9'	S 21°42.8'	328°23.3'	S 19°10.3'
8	263°05.9'	S 18°51.9'	301°38.0'	S 23°11.8'	285°34.0'	S 21°42.7'	343°24.1'	S 19°10.7'
9	278°05.2'	S 18°51.0'	316°39.8'	S 23°11.7'	300°36.2'	S 21°42.7'	358°24.8'	S 19°11.1'
10	293°04.6'	S 18°50.1'	331°41.7'	S 23°11.7'	315°38.3'	S 21°42.7'	13°25.5'	S 19°11.5'
11	308°04.0'	S 18°49.3'	346°43.5'	S 23°11.7'	330°40.5'	S 21°42.6'	28°26.3'	S 19°11.9'
12	323°03.3'	S 18°48.4'	1°45.3'	S 23°11.7'	345°42.6'	S 21°42.6'	43°27.0'	S 19°12.3'
13	338°02.7'	S 18°47.5'	16°47.2'	S 23°11.6'	0°44.8'	S 21°42.5'	58°27.8'	S 19°12.7'
14	353°02.1'	S 18°46.6'	31°49.0'	S 23°11.6'	15°46.9'	S 21°42.5'	73°28.5'	S 19°13.1'
15	8°01.4'	S 18°45.7'	46°50.8'	S 23°11.6'	30°49.1'	S 21°42.4'	88°29.2'	S 19°13.5'
16	23°00.8'	S 18°44.8'	61°52.7'	S 23°11.6'	45°51.3'	S 21°42.4'	103°30.0'	S 19°13.9'
17	38°00.2'	S 18°43.9'	76°54.5'	S 23°11.5'	60°53.4'	S 21°42.4'	118°30.7'	S 19°14.3'
18	52°59.5'	S 18°43.0'	91°56.4'	S 23°11.5'	75°55.6'	S 21°42.3'	133°31.4'	S 19°14.7'
19	67°58.9'	S 18°42.2'	106°58.2'	S 23°11.5'	90°57.7'	S 21°42.3'	148°32.2'	S 19°15.1'
20	82°58.3'	S 18°41.3'	122°00.0'	S 23°11.5'	105°59.9'	S 21°42.2'	163°32.9'	S 19°15.5'
21	97°57.6'	S 18°40.4'	137°01.9'	S 23°11.4'	121°02.0'	S 21°42.2'	178°33.7'	S 19°15.9'
22	112°57.0'	S 18°39.5'	152°03.7'	S 23°11.4'	136°04.2'	S 21°42.2'	193°34.4'	S 19°16.3'
23	127°56.4'	S 18°38.6'	167°05.5'	S 23°11.4'	151°06.3'	S 21°42.1'	208°35.1'	S 19°16.7'

Tue Dec 31, 2019 UTC

UTC	Venus -3.9 v = -0.6' d = 0.9'		Jupiter -1.7 v = 1.8' d = 0.0'		Saturn +0.6 v = 2.2' d = 0.0'		Mars +1.6 v = 0.7' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	142°55.7'	S 18°37.7'	182°07.4'	S 23°11.4'	166°08.5'	S 21°42.1'	223°35.9'	S 19°17.1'
1	157°55.1'	S 18°36.8'	197°09.2'	S 23°11.3'	181°10.6'	S 21°42.0'	238°36.6'	S 19°17.5'
2	172°54.5'	S 18°35.9'	212°11.1'	S 23°11.3'	196°12.8'	S 21°42.0'	253°37.3'	S 19°17.9'
3	187°53.9'	S 18°35.0'	227°12.9'	S 23°11.3'	211°14.9'	S 21°41.9'	268°38.1'	S 19°18.3'
4	202°53.2'	S 18°34.1'	242°14.7'	S 23°11.3'	226°17.1'	S 21°41.9'	283°38.8'	S 19°18.7'
5	217°52.6'	S 18°33.2'	257°16.6'	S 23°11.3'	241°19.2'	S 21°41.9'	298°39.5'	S 19°19.1'
6	232°52.0'	S 18°32.3'	272°18.4'	S 23°11.2'	256°21.4'	S 21°41.8'	313°40.3'	S 19°19.5'
7	247°51.4'	S 18°31.4'	287°20.3'	S 23°11.2'	271°23.6'	S 21°41.8'	328°41.0'	S 19°19.9'
8	262°50.7'	S 18°30.5'	302°22.1'	S 23°11.2'	286°25.7'	S 21°41.7'	343°41.7'	S 19°20.3'
9	277°50.1'	S 18°29.6'	317°23.9'	S 23°11.2'	301°27.9'	S 21°41.7'	358°42.5'	S 19°20.7'
10	292°49.5'	S 18°28.7'	332°25.8'	S 23°11.1'	316°30.0'	S 21°41.6'	13°43.2'	S 19°21.1'
11	307°48.9'	S 18°27.8'	347°27.6'	S 23°11.1'	331°32.2'	S 21°41.6'	28°43.9'	S 19°21.5'
12	322°48.2'	S 18°26.9'	2°29.4'	S 23°11.1'	346°34.3'	S 21°41.6'	43°44.7'	S 19°21.9'
13	337°47.6'	S 18°26.0'	17°31.3'	S 23°11.1'	1°36.5'	S 21°41.5'	58°45.4'	S 19°22.3'
14	352°47.0'	S 18°25.0'	32°33.1'	S 23°11.0'	16°38.6'	S 21°41.5'	73°46.1'	S 19°22.7'
15	7°46.4'	S 18°24.1'	47°35.0'	S 23°11.0'	31°40.8'	S 21°41.4'	88°46.9'	S 19°23.1'
16	22°45.8'	S 18°23.2'	62°36.8'	S 23°11.0'	46°42.9'	S 21°41.4'	103°47.6'	S 19°23.5'
17	37°45.2'	S 18°22.3'	77°38.6'	S 23°11.0'	61°45.1'	S 21°41.3'	118°48.3'	S 19°23.9'
18	52°44.5'	S 18°21.4'	92°40.5'	S 23°10.9'	76°47.2'	S 21°41.3'	133°49.1'	S 19°24.3'
19	67°43.9'	S 18°20.5'	107°42.3'	S 23°10.9'	91°49.4'	S 21°41.3'	148°49.8'	S 19°24.7'
20	82°43.3'	S 18°19.6'	122°44.1'	S 23°10.9'	106°51.5'	S 21°41.2'	163°50.5'	S 19°25.1'
21	97°42.7'	S 18°18.7'	137°46.0'	S 23°10.9'	121°53.7'	S 21°41.2'	178°51.3'	S 19°25.5'
22	112°42.1'	S 18°17.7'	152°47.8'	S 23°10.8'	136°55.8'	S 21°41.1'	193°52.0'	S 19°25.9'
23	127°41.5'	S 18°16.8'	167°49.7'	S 23°10.8'	151°58.0'	S 21°41.1'	208°52.7'	S 19°26.3'