

Sat Jul 1, 2017 UTC

UTC	Venus -4.1		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.3' d = 0.7'		v = 2.3' d = 0.1'		v = 2.7' d = 0.0'		v = 0.7' d = 0.2'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	225°16.7'	N 16°34.1'	85°56.8'	S 4°16.4'	16°22.5'	S 21°56.6'	170°18.4'	N 23°19.1'
1	240°16.5'	N 16°34.8'	100°59.1'	S 4°16.5'	31°25.2'	S 21°56.6'	185°19.1'	N 23°18.9'
2	255°16.2'	N 16°35.5'	116°01.5'	S 4°16.5'	46°27.8'	S 21°56.5'	200°19.8'	N 23°18.7'
3	270°15.9'	N 16°36.1'	131°03.8'	S 4°16.6'	61°30.5'	S 21°56.5'	215°20.5'	N 23°18.5'
4	285°15.6'	N 16°36.8'	146°06.1'	S 4°16.7'	76°33.1'	S 21°56.5'	230°21.2'	N 23°18.3'
5	300°15.3'	N 16°37.5'	161°08.4'	S 4°16.8'	91°35.8'	S 21°56.5'	245°21.9'	N 23°18.1'
6	315°15.1'	N 16°38.1'	176°10.8'	S 4°16.8'	106°38.4'	S 21°56.5'	260°22.6'	N 23°17.9'
7	330°14.8'	N 16°38.8'	191°13.1'	S 4°16.9'	121°41.1'	S 21°56.5'	275°23.3'	N 23°17.7'
8	345°14.5'	N 16°39.5'	206°15.4'	S 4°17.0'	136°43.7'	S 21°56.5'	290°24.0'	N 23°17.5'
9	0°14.2'	N 16°40.1'	221°17.7'	S 4°17.0'	151°46.4'	S 21°56.5'	305°24.7'	N 23°17.3'
10	15°13.9'	N 16°40.8'	236°20.0'	S 4°17.1'	166°49.0'	S 21°56.5'	320°25.4'	N 23°17.1'
11	30°13.7'	N 16°41.5'	251°22.4'	S 4°17.2'	181°51.7'	S 21°56.5'	335°26.1'	N 23°16.9'
12	45°13.4'	N 16°42.1'	266°24.7'	S 4°17.3'	196°54.3'	S 21°56.5'	350°26.8'	N 23°16.7'
13	60°13.1'	N 16°42.8'	281°27.0'	S 4°17.3'	211°57.0'	S 21°56.5'	5°27.5'	N 23°16.5'
14	75°12.8'	N 16°43.5'	296°29.3'	S 4°17.4'	226°59.6'	S 21°56.5'	20°28.2'	N 23°16.3'
15	90°12.5'	N 16°44.1'	311°31.7'	S 4°17.5'	242°02.3'	S 21°56.5'	35°28.9'	N 23°16.1'
16	105°12.3'	N 16°44.8'	326°34.0'	S 4°17.5'	257°04.9'	S 21°56.5'	50°29.6'	N 23°15.8'
17	120°12.0'	N 16°45.4'	341°36.3'	S 4°17.6'	272°07.6'	S 21°56.5'	65°30.3'	N 23°15.6'
18	135°11.7'	N 16°46.1'	356°38.6'	S 4°17.7'	287°10.2'	S 21°56.5'	80°31.1'	N 23°15.4'
19	150°11.4'	N 16°46.8'	11°40.9'	S 4°17.8'	302°12.9'	S 21°56.5'	95°31.8'	N 23°15.2'
20	165°11.1'	N 16°47.4'	26°43.3'	S 4°17.8'	317°15.5'	S 21°56.5'	110°32.5'	N 23°15.0'
21	180°10.8'	N 16°48.1'	41°45.6'	S 4°17.9'	332°18.2'	S 21°56.5'	125°33.2'	N 23°14.8'
22	195°10.5'	N 16°48.7'	56°47.9'	S 4°18.0'	347°20.8'	S 21°56.5'	140°33.9'	N 23°14.6'
23	210°10.2'	N 16°49.4'	71°50.2'	S 4°18.0'	2°23.5'	S 21°56.5'	155°34.6'	N 23°14.4'

Sun Jul 2, 2017 UTC

UTC	Venus -4.0		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.3' d = 0.7'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.2'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	225°10.0'	N 16°50.1'	86°52.5'	S 4°18.1'	17°26.1'	S 21°56.5'	170°35.3'	N 23°14.2'
1	240°09.7'	N 16°50.7'	101°54.9'	S 4°18.2'	32°28.8'	S 21°56.5'	185°36.0'	N 23°14.0'
2	255°09.4'	N 16°51.4'	116°57.2'	S 4°18.3'	47°31.4'	S 21°56.5'	200°36.7'	N 23°13.8'
3	270°09.1'	N 16°52.0'	131°59.5'	S 4°18.3'	62°34.1'	S 21°56.5'	215°37.4'	N 23°13.6'
4	285°08.8'	N 16°52.7'	147°01.8'	S 4°18.4'	77°36.7'	S 21°56.5'	230°38.1'	N 23°13.4'
5	300°08.5'	N 16°53.3'	162°04.1'	S 4°18.5'	92°39.4'	S 21°56.4'	245°38.8'	N 23°13.1'
6	315°08.2'	N 16°54.0'	177°06.4'	S 4°18.6'	107°42.0'	S 21°56.4'	260°39.5'	N 23°12.9'
7	330°07.9'	N 16°54.7'	192°08.8'	S 4°18.6'	122°44.7'	S 21°56.4'	275°40.2'	N 23°12.7'
8	345°07.6'	N 16°55.3'	207°11.1'	S 4°18.7'	137°47.3'	S 21°56.4'	290°40.9'	N 23°12.5'
9	0°07.3'	N 16°56.0'	222°13.4'	S 4°18.8'	152°50.0'	S 21°56.4'	305°41.6'	N 23°12.3'
10	15°07.0'	N 16°56.6'	237°15.7'	S 4°18.8'	167°52.6'	S 21°56.4'	320°42.3'	N 23°12.1'
11	30°06.7'	N 16°57.3'	252°18.0'	S 4°18.9'	182°55.3'	S 21°56.4'	335°43.0'	N 23°11.9'
12	45°06.4'	N 16°57.9'	267°20.3'	S 4°19.0'	197°57.9'	S 21°56.4'	350°43.7'	N 23°11.7'
13	60°06.1'	N 16°58.6'	282°22.7'	S 4°19.1'	213°00.6'	S 21°56.4'	5°44.4'	N 23°11.5'
14	75°05.8'	N 16°59.2'	297°25.0'	S 4°19.1'	228°03.2'	S 21°56.4'	20°45.1'	N 23°11.2'
15	90°05.5'	N 16°59.9'	312°27.3'	S 4°19.2'	243°05.9'	S 21°56.4'	35°45.9'	N 23°11.0'
16	105°05.2'	N 17°00.5'	327°29.6'	S 4°19.3'	258°08.5'	S 21°56.4'	50°46.6'	N 23°10.8'
17	120°04.9'	N 17°01.2'	342°31.9'	S 4°19.4'	273°11.2'	S 21°56.4'	65°47.3'	N 23°10.6'
18	135°04.6'	N 17°01.8'	357°34.2'	S 4°19.4'	288°13.8'	S 21°56.4'	80°48.0'	N 23°10.4'
19	150°04.3'	N 17°02.5'	12°36.5'	S 4°19.5'	303°16.5'	S 21°56.4'	95°48.7'	N 23°10.2'
20	165°04.0'	N 17°03.1'	27°38.9'	S 4°19.6'	318°19.1'	S 21°56.4'	110°49.4'	N 23°10.0'
21	180°03.7'	N 17°03.8'	42°41.2'	S 4°19.7'	333°21.8'	S 21°56.4'	125°50.1'	N 23°09.8'
22	195°03.4'	N 17°04.4'	57°43.5'	S 4°19.7'	348°24.4'	S 21°56.4'	140°50.8'	N 23°09.5'
23	210°03.1'	N 17°05.1'	72°45.8'	S 4°19.8'	3°27.1'	S 21°56.4'	155°51.5'	N 23°09.3'

Mon Jul 3, 2017 UTC

UTC	Venus -4.0		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.3' d = 0.6'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.2'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	225°02.8'	N 17°05.7'	87°48.1'	S 4°19.9'	18°29.7'	S 21°56.4'	170°52.2'	N 23°09.1'
1	240°02.5'	N 17°06.4'	102°50.4'	S 4°20.0'	33°32.4'	S 21°56.4'	185°52.9'	N 23°08.9'
2	255°02.2'	N 17°07.0'	117°52.7'	S 4°20.0'	48°35.0'	S 21°56.4'	200°53.6'	N 23°08.7'
3	270°01.9'	N 17°07.7'	132°55.1'	S 4°20.1'	63°37.7'	S 21°56.4'	215°54.3'	N 23°08.5'
4	285°01.6'	N 17°08.3'	147°57.4'	S 4°20.2'	78°40.3'	S 21°56.4'	230°55.0'	N 23°08.2'
5	300°01.3'	N 17°09.0'	162°59.7'	S 4°20.3'	93°43.0'	S 21°56.4'	245°55.8'	N 23°08.0'
6	315°01.0'	N 17°09.6'	178°02.0'	S 4°20.3'	108°45.6'	S 21°56.4'	260°56.5'	N 23°07.8'
7	330°00.7'	N 17°10.2'	193°04.3'	S 4°20.4'	123°48.2'	S 21°56.4'	275°57.2'	N 23°07.6'
8	345°00.4'	N 17°10.9'	208°06.6'	S 4°20.5'	138°50.9'	S 21°56.3'	290°57.9'	N 23°07.4'
9	0°00.1'	N 17°11.5'	223°08.9'	S 4°20.6'	153°53.5'	S 21°56.3'	305°58.6'	N 23°07.2'
10	14°59.8'	N 17°12.2'	238°11.2'	S 4°20.6'	168°56.2'	S 21°56.3'	320°59.3'	N 23°06.9'
11	29°59.5'	N 17°12.8'	253°13.5'	S 4°20.7'	183°58.8'	S 21°56.3'	336°00.0'	N 23°06.7'
12	44°59.1'	N 17°13.5'	268°15.8'	S 4°20.8'	199°01.5'	S 21°56.3'	351°00.7'	N 23°06.5'
13	59°58.8'	N 17°14.1'	283°18.2'	S 4°20.9'	214°04.1'	S 21°56.3'	6°01.4'	N 23°06.3'
14	74°58.5'	N 17°14.7'	298°20.5'	S 4°20.9'	229°06.8'	S 21°56.3'	21°02.1'	N 23°06.1'
15	89°58.2'	N 17°15.4'	313°22.8'	S 4°21.0'	244°09.4'	S 21°56.3'	36°02.8'	N 23°05.8'
16	104°57.9'	N 17°16.0'	328°25.1'	S 4°21.1'	259°12.1'	S 21°56.3'	51°03.6'	N 23°05.6'
17	119°57.6'	N 17°16.7'	343°27.4'	S 4°21.2'	274°14.7'	S 21°56.3'	66°04.3'	N 23°05.4'
18	134°57.3'	N 17°17.3'	358°29.7'	S 4°21.2'	289°17.4'	S 21°56.3'	81°05.0'	N 23°05.2'
19	149°56.9'	N 17°17.9'	13°32.0'	S 4°21.3'	304°20.0'	S 21°56.3'	96°05.7'	N 23°05.0'
20	164°56.6'	N 17°18.6'	28°34.3'	S 4°21.4'	319°22.7'	S 21°56.3'	111°06.4'	N 23°04.7'
21	179°56.3'	N 17°19.2'	43°36.6'	S 4°21.5'	334°25.3'	S 21°56.3'	126°07.1'	N 23°04.5'
22	194°56.0'	N 17°19.8'	58°38.9'	S 4°21.6'	349°27.9'	S 21°56.3'	141°07.8'	N 23°04.3'
23	209°55.7'	N 17°20.5'	73°41.2'	S 4°21.6'	4°30.6'	S 21°56.3'	156°08.5'	N 23°04.1'

Tue Jul 4, 2017 UTC

UTC	Venus -4.0		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.3' d = 0.6'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.2'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	224°55.4'	N 17°21.1'	88°43.5'	S 4°21.7'	19°33.2'	S 21°56.3'	171°09.2'	N 23°03.8'
1	239°55.0'	N 17°21.7'	103°45.8'	S 4°21.8'	34°35.9'	S 21°56.3'	186°09.9'	N 23°03.6'
2	254°54.7'	N 17°22.4'	118°48.2'	S 4°21.9'	49°38.5'	S 21°56.3'	201°10.7'	N 23°03.4'
3	269°54.4'	N 17°23.0'	133°50.5'	S 4°21.9'	64°41.2'	S 21°56.3'	216°11.4'	N 23°03.2'
4	284°54.1'	N 17°23.6'	148°52.8'	S 4°22.0'	79°43.8'	S 21°56.3'	231°12.1'	N 23°02.9'
5	299°53.8'	N 17°24.3'	163°55.1'	S 4°22.1'	94°46.5'	S 21°56.3'	246°12.8'	N 23°02.7'
6	314°53.4'	N 17°24.9'	178°57.4'	S 4°22.2'	109°49.1'	S 21°56.3'	261°13.5'	N 23°02.5'
7	329°53.1'	N 17°25.5'	193°59.7'	S 4°22.3'	124°51.8'	S 21°56.3'	276°14.2'	N 23°02.3'
8	344°52.8'	N 17°26.2'	209°02.0'	S 4°22.3'	139°54.4'	S 21°56.3'	291°14.9'	N 23°02.0'
9	359°52.5'	N 17°26.8'	224°04.3'	S 4°22.4'	154°57.0'	S 21°56.3'	306°15.6'	N 23°01.8'
10	14°52.1'	N 17°27.4'	239°06.6'	S 4°22.5'	169°59.7'	S 21°56.3'	321°16.4'	N 23°01.6'
11	29°51.8'	N 17°28.1'	254°08.9'	S 4°22.6'	185°02.3'	S 21°56.3'	336°17.1'	N 23°01.4'
12	44°51.5'	N 17°28.7'	269°11.2'	S 4°22.6'	200°05.0'	S 21°56.3'	351°17.8'	N 23°01.1'
13	59°51.2'	N 17°29.3'	284°13.5'	S 4°22.7'	215°07.6'	S 21°56.2'	6°18.5'	N 23°00.9'
14	74°50.8'	N 17°30.0'	299°15.8'	S 4°22.8'	230°10.3'	S 21°56.2'	21°19.2'	N 23°00.7'
15	89°50.5'	N 17°30.6'	314°18.1'	S 4°22.9'	245°12.9'	S 21°56.2'	36°19.9'	N 23°00.5'
16	104°50.2'	N 17°31.2'	329°20.4'	S 4°23.0'	260°15.6'	S 21°56.2'	51°20.6'	N 23°00.2'
17	119°49.9'	N 17°31.8'	344°22.7'	S 4°23.0'	275°18.2'	S 21°56.2'	66°21.3'	N 23°00.0'
18	134°49.5'	N 17°32.5'	359°25.0'	S 4°23.1'	290°20.9'	S 21°56.2'	81°22.1'	N 22°59.8'
19	149°49.2'	N 17°33.1'	14°27.3'	S 4°23.2'	305°23.5'	S 21°56.2'	96°22.8'	N 22°59.5'
20	164°48.9'	N 17°33.7'	29°29.6'	S 4°23.3'	320°26.1'	S 21°56.2'	111°23.5'	N 22°59.3'
21	179°48.5'	N 17°34.3'	44°31.9'	S 4°23.4'	335°28.8'	S 21°56.2'	126°24.2'	N 22°59.1'
22	194°48.2'	N 17°35.0'	59°34.2'	S 4°23.4'	350°31.4'	S 21°56.2'	141°24.9'	N 22°58.9'
23	209°47.9'	N 17°35.6'	74°36.5'	S 4°23.5'	5°34.1'	S 21°56.2'	156°25.6'	N 22°58.6'

Wed Jul 5, 2017 UTC

UTC	Venus -4.0		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.3' d = 0.6'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.2'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	224°47.5'	N 17°36.2'	89°38.8'	S 4°23.6'	20°36.7'	S 21°56.2'	171°26.3'	N 22°58.4'
1	239°47.2'	N 17°36.8'	104°41.1'	S 4°23.7'	35°39.4'	S 21°56.2'	186°27.1'	N 22°58.2'
2	254°46.9'	N 17°37.4'	119°43.4'	S 4°23.8'	50°42.0'	S 21°56.2'	201°27.8'	N 22°57.9'
3	269°46.5'	N 17°38.1'	134°45.7'	S 4°23.8'	65°44.7'	S 21°56.2'	216°28.5'	N 22°57.7'
4	284°46.2'	N 17°38.7'	149°48.0'	S 4°23.9'	80°47.3'	S 21°56.2'	231°29.2'	N 22°57.5'
5	299°45.9'	N 17°39.3'	164°50.3'	S 4°24.0'	95°49.9'	S 21°56.2'	246°29.9'	N 22°57.2'
6	314°45.5'	N 17°39.9'	179°52.6'	S 4°24.1'	110°52.6'	S 21°56.2'	261°30.6'	N 22°57.0'
7	329°45.2'	N 17°40.5'	194°54.9'	S 4°24.2'	125°55.2'	S 21°56.2'	276°31.3'	N 22°56.8'
8	344°44.9'	N 17°41.2'	209°57.2'	S 4°24.2'	140°57.9'	S 21°56.2'	291°32.1'	N 22°56.5'
9	359°44.5'	N 17°41.8'	224°59.5'	S 4°24.3'	156°00.5'	S 21°56.2'	306°32.8'	N 22°56.3'
10	14°44.2'	N 17°42.4'	240°01.8'	S 4°24.4'	171°03.2'	S 21°56.2'	321°33.5'	N 22°56.1'
11	29°43.8'	N 17°43.0'	255°04.1'	S 4°24.5'	186°05.8'	S 21°56.2'	336°34.2'	N 22°55.8'
12	44°43.5'	N 17°43.6'	270°06.4'	S 4°24.6'	201°08.4'	S 21°56.2'	351°34.9'	N 22°55.6'
13	59°43.2'	N 17°44.3'	285°08.7'	S 4°24.6'	216°11.1'	S 21°56.2'	6°35.6'	N 22°55.4'
14	74°42.8'	N 17°44.9'	300°11.0'	S 4°24.7'	231°13.7'	S 21°56.2'	21°36.4'	N 22°55.1'
15	89°42.5'	N 17°45.5'	315°13.3'	S 4°24.8'	246°16.4'	S 21°56.2'	36°37.1'	N 22°54.9'
16	104°42.1'	N 17°46.1'	330°15.6'	S 4°24.9'	261°19.0'	S 21°56.2'	51°37.8'	N 22°54.7'
17	119°41.8'	N 17°46.7'	345°17.9'	S 4°25.0'	276°21.7'	S 21°56.2'	66°38.5'	N 22°54.4'
18	134°41.4'	N 17°47.3'	0°20.2'	S 4°25.0'	291°24.3'	S 21°56.1'	81°39.2'	N 22°54.2'
19	149°41.1'	N 17°47.9'	15°22.5'	S 4°25.1'	306°26.9'	S 21°56.1'	96°39.9'	N 22°54.0'
20	164°40.8'	N 17°48.5'	30°24.8'	S 4°25.2'	321°29.6'	S 21°56.1'	111°40.7'	N 22°53.7'
21	179°40.4'	N 17°49.2'	45°27.1'	S 4°25.3'	336°32.2'	S 21°56.1'	126°41.4'	N 22°53.5'
22	194°40.1'	N 17°49.8'	60°29.4'	S 4°25.4'	351°34.9'	S 21°56.1'	141°42.1'	N 22°53.3'
23	209°39.7'	N 17°50.4'	75°31.7'	S 4°25.5'	6°37.5'	S 21°56.1'	156°42.8'	N 22°53.0'

Thu Jul 6, 2017 UTC

UTC	Venus -4.0		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.4' d = 0.6'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.2'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	224°39.4'	N 17°51.0'	90°34.0'	S 4°25.5'	21°40.2'	S 21°56.1'	171°43.5'	N 22°52.8'
1	239°39.0'	N 17°51.6'	105°36.3'	S 4°25.6'	36°42.8'	S 21°56.1'	186°44.2'	N 22°52.5'
2	254°38.7'	N 17°52.2'	120°38.5'	S 4°25.7'	51°45.4'	S 21°56.1'	201°45.0'	N 22°52.3'
3	269°38.3'	N 17°52.8'	135°40.8'	S 4°25.8'	66°48.1'	S 21°56.1'	216°45.7'	N 22°52.1'
4	284°38.0'	N 17°53.4'	150°43.1'	S 4°25.9'	81°50.7'	S 21°56.1'	231°46.4'	N 22°51.8'
5	299°37.6'	N 17°54.0'	165°45.4'	S 4°26.0'	96°53.4'	S 21°56.1'	246°47.1'	N 22°51.6'
6	314°37.3'	N 17°54.6'	180°47.7'	S 4°26.0'	111°56.0'	S 21°56.1'	261°47.8'	N 22°51.3'
7	329°36.9'	N 17°55.2'	195°50.0'	S 4°26.1'	126°58.6'	S 21°56.1'	276°48.6'	N 22°51.1'
8	344°36.6'	N 17°55.8'	210°52.3'	S 4°26.2'	142°01.3'	S 21°56.1'	291°49.3'	N 22°50.9'
9	359°36.2'	N 17°56.5'	225°54.6'	S 4°26.3'	157°03.9'	S 21°56.1'	306°50.0'	N 22°50.6'
10	14°35.9'	N 17°57.1'	240°56.9'	S 4°26.4'	172°06.6'	S 21°56.1'	321°50.7'	N 22°50.4'
11	29°35.5'	N 17°57.7'	255°59.2'	S 4°26.5'	187°09.2'	S 21°56.1'	336°51.4'	N 22°50.1'
12	44°35.2'	N 17°58.3'	271°01.5'	S 4°26.5'	202°11.9'	S 21°56.1'	351°52.2'	N 22°49.9'
13	59°34.8'	N 17°58.9'	286°03.8'	S 4°26.6'	217°14.5'	S 21°56.1'	6°52.9'	N 22°49.7'
14	74°34.4'	N 17°59.5'	301°06.1'	S 4°26.7'	232°17.1'	S 21°56.1'	21°53.6'	N 22°49.4'
15	89°34.1'	N 18°00.1'	316°08.3'	S 4°26.8'	247°19.8'	S 21°56.1'	36°54.3'	N 22°49.2'
16	104°33.7'	N 18°00.7'	331°10.6'	S 4°26.9'	262°22.4'	S 21°56.1'	51°55.0'	N 22°48.9'
17	119°33.4'	N 18°01.3'	346°12.9'	S 4°27.0'	277°25.1'	S 21°56.1'	66°55.8'	N 22°48.7'
18	134°33.0'	N 18°01.9'	1°15.2'	S 4°27.0'	292°27.7'	S 21°56.1'	81°56.5'	N 22°48.4'
19	149°32.7'	N 18°02.5'	16°17.5'	S 4°27.1'	307°30.3'	S 21°56.1'	96°57.2'	N 22°48.2'
20	164°32.3'	N 18°03.1'	31°19.8'	S 4°27.2'	322°33.0'	S 21°56.1'	111°57.9'	N 22°48.0'
21	179°31.9'	N 18°03.7'	46°22.1'	S 4°27.3'	337°35.6'	S 21°56.1'	126°58.6'	N 22°47.7'
22	194°31.6'	N 18°04.3'	61°24.4'	S 4°27.4'	352°38.3'	S 21°56.1'	141°59.4'	N 22°47.5'
23	209°31.2'	N 18°04.9'	76°26.7'	S 4°27.5'	7°40.9'	S 21°56.1'	157°00.1'	N 22°47.2'

Fri Jul 7, 2017 UTC

UTC	Venus -4.0		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.4' d = 0.6'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.2'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	224°30.9'	N 18°05.5'	91°28.9'	S 4°27.5'	22°43.5'	S 21°56.1'	172°00.8'	N 22°47.0'
1	239°30.5'	N 18°06.1'	106°31.2'	S 4°27.6'	37°46.2'	S 21°56.0'	187°01.5'	N 22°46.7'
2	254°30.1'	N 18°06.6'	121°33.5'	S 4°27.7'	52°48.8'	S 21°56.0'	202°02.2'	N 22°46.5'
3	269°29.8'	N 18°07.2'	136°35.8'	S 4°27.8'	67°51.5'	S 21°56.0'	217°03.0'	N 22°46.2'
4	284°29.4'	N 18°07.8'	151°38.1'	S 4°27.9'	82°54.1'	S 21°56.0'	232°03.7'	N 22°46.0'
5	299°29.0'	N 18°08.4'	166°40.4'	S 4°28.0'	97°56.7'	S 21°56.0'	247°04.4'	N 22°45.8'
6	314°28.7'	N 18°09.0'	181°42.7'	S 4°28.1'	112°59.4'	S 21°56.0'	262°05.1'	N 22°45.5'
7	329°28.3'	N 18°09.6'	196°45.0'	S 4°28.1'	128°02.0'	S 21°56.0'	277°05.9'	N 22°45.3'
8	344°27.9'	N 18°10.2'	211°47.2'	S 4°28.2'	143°04.7'	S 21°56.0'	292°06.6'	N 22°45.0'
9	359°27.6'	N 18°10.8'	226°49.5'	S 4°28.3'	158°07.3'	S 21°56.0'	307°07.3'	N 22°44.8'
10	14°27.2'	N 18°11.4'	241°51.8'	S 4°28.4'	173°09.9'	S 21°56.0'	322°08.0'	N 22°44.5'
11	29°26.8'	N 18°12.0'	256°54.1'	S 4°28.5'	188°12.6'	S 21°56.0'	337°08.7'	N 22°44.3'
12	44°26.5'	N 18°12.6'	271°56.4'	S 4°28.6'	203°15.2'	S 21°56.0'	352°09.5'	N 22°44.0'
13	59°26.1'	N 18°13.2'	286°58.7'	S 4°28.7'	218°17.9'	S 21°56.0'	7°10.2'	N 22°43.8'
14	74°25.7'	N 18°13.7'	302°01.0'	S 4°28.7'	233°20.5'	S 21°56.0'	22°10.9'	N 22°43.5'
15	89°25.4'	N 18°14.3'	317°03.2'	S 4°28.8'	248°23.1'	S 21°56.0'	37°11.6'	N 22°43.3'
16	104°25.0'	N 18°14.9'	332°05.5'	S 4°28.9'	263°25.8'	S 21°56.0'	52°12.4'	N 22°43.0'
17	119°24.6'	N 18°15.5'	347°07.8'	S 4°29.0'	278°28.4'	S 21°56.0'	67°13.1'	N 22°42.8'
18	134°24.2'	N 18°16.1'	2°10.1'	S 4°29.1'	293°31.1'	S 21°56.0'	82°13.8'	N 22°42.5'
19	149°23.9'	N 18°16.7'	17°12.4'	S 4°29.2'	308°33.7'	S 21°56.0'	97°14.5'	N 22°42.3'
20	164°23.5'	N 18°17.3'	32°14.7'	S 4°29.3'	323°36.3'	S 21°56.0'	112°15.3'	N 22°42.0'
21	179°23.1'	N 18°17.8'	47°16.9'	S 4°29.3'	338°39.0'	S 21°56.0'	127°16.0'	N 22°41.8'
22	194°22.7'	N 18°18.4'	62°19.2'	S 4°29.4'	353°41.6'	S 21°56.0'	142°16.7'	N 22°41.5'
23	209°22.4'	N 18°19.0'	77°21.5'	S 4°29.5'	8°44.2'	S 21°56.0'	157°17.4'	N 22°41.3'

Sat Jul 8, 2017 UTC

UTC	Venus -4.0		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.4' d = 0.6'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	224°22.0'	N 18°19.6'	92°23.8'	S 4°29.6'	23°46.9'	S 21°56.0'	172°18.2'	N 22°41.0'
1	239°21.6'	N 18°20.2'	107°26.1'	S 4°29.7'	38°49.5'	S 21°56.0'	187°18.9'	N 22°40.8'
2	254°21.2'	N 18°20.8'	122°28.4'	S 4°29.8'	53°52.2'	S 21°56.0'	202°19.6'	N 22°40.5'
3	269°20.9'	N 18°21.3'	137°30.6'	S 4°29.9'	68°54.8'	S 21°56.0'	217°20.3'	N 22°40.3'
4	284°20.5'	N 18°21.9'	152°32.9'	S 4°30.0'	83°57.4'	S 21°56.0'	232°21.1'	N 22°40.0'
5	299°20.1'	N 18°22.5'	167°35.2'	S 4°30.0'	99°00.1'	S 21°56.0'	247°21.8'	N 22°39.7'
6	314°19.7'	N 18°23.1'	182°37.5'	S 4°30.1'	114°02.7'	S 21°56.0'	262°22.5'	N 22°39.5'
7	329°19.3'	N 18°23.7'	197°39.8'	S 4°30.2'	129°05.3'	S 21°56.0'	277°23.2'	N 22°39.2'
8	344°19.0'	N 18°24.2'	212°42.0'	S 4°30.3'	144°08.0'	S 21°56.0'	292°24.0'	N 22°39.0'
9	359°18.6'	N 18°24.8'	227°44.3'	S 4°30.4'	159°10.6'	S 21°56.0'	307°24.7'	N 22°38.7'
10	14°18.2'	N 18°25.4'	242°46.6'	S 4°30.5'	174°13.3'	S 21°55.9'	322°25.4'	N 22°38.5'
11	29°17.8'	N 18°26.0'	257°48.9'	S 4°30.6'	189°15.9'	S 21°55.9'	337°26.1'	N 22°38.2'
12	44°17.4'	N 18°26.5'	272°51.2'	S 4°30.7'	204°18.5'	S 21°55.9'	352°26.9'	N 22°38.0'
13	59°17.1'	N 18°27.1'	287°53.4'	S 4°30.8'	219°21.2'	S 21°55.9'	7°27.6'	N 22°37.7'
14	74°16.7'	N 18°27.7'	302°55.7'	S 4°30.8'	234°23.8'	S 21°55.9'	22°28.3'	N 22°37.5'
15	89°16.3'	N 18°28.3'	317°58.0'	S 4°30.9'	249°26.4'	S 21°55.9'	37°29.0'	N 22°37.2'
16	104°15.9'	N 18°28.8'	333°00.3'	S 4°31.0'	264°29.1'	S 21°55.9'	52°29.8'	N 22°36.9'
17	119°15.5'	N 18°29.4'	348°02.6'	S 4°31.1'	279°31.7'	S 21°55.9'	67°30.5'	N 22°36.7'
18	134°15.1'	N 18°30.0'	3°04.8'	S 4°31.2'	294°34.4'	S 21°55.9'	82°31.2'	N 22°36.4'
19	149°14.7'	N 18°30.6'	18°07.1'	S 4°31.3'	309°37.0'	S 21°55.9'	97°32.0'	N 22°36.2'
20	164°14.3'	N 18°31.1'	33°09.4'	S 4°31.4'	324°39.6'	S 21°55.9'	112°32.7'	N 22°35.9'
21	179°14.0'	N 18°31.7'	48°11.7'	S 4°31.5'	339°42.3'	S 21°55.9'	127°33.4'	N 22°35.7'
22	194°13.6'	N 18°32.3'	63°13.9'	S 4°31.6'	354°44.9'	S 21°55.9'	142°34.1'	N 22°35.4'
23	209°13.2'	N 18°32.8'	78°16.2'	S 4°31.6'	9°47.5'	S 21°55.9'	157°34.9'	N 22°35.1'

Sun Jul 9, 2017 UTC

UTC	Venus -4.0		Jupiter -1.9		Saturn +0.1		Mars +1.6	
	v = -0.4' d = 0.6'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	224°12.8'	N 18°33.4'	93°18.5'	S 4°31.7'	24°50.2'	S 21°55.9'	172°35.6'	N 22°34.9'
1	239°12.4'	N 18°34.0'	108°20.8'	S 4°31.8'	39°52.8'	S 21°55.9'	187°36.3'	N 22°34.6'
2	254°12.0'	N 18°34.5'	123°23.1'	S 4°31.9'	54°55.4'	S 21°55.9'	202°37.1'	N 22°34.4'
3	269°11.6'	N 18°35.1'	138°25.3'	S 4°32.0'	69°58.1'	S 21°55.9'	217°37.8'	N 22°34.1'
4	284°11.2'	N 18°35.7'	153°27.6'	S 4°32.1'	85°00.7'	S 21°55.9'	232°38.5'	N 22°33.8'
5	299°10.8'	N 18°36.2'	168°29.9'	S 4°32.2'	100°03.3'	S 21°55.9'	247°39.2'	N 22°33.6'
6	314°10.4'	N 18°36.8'	183°32.2'	S 4°32.3'	115°06.0'	S 21°55.9'	262°40.0'	N 22°33.3'
7	329°10.0'	N 18°37.4'	198°34.4'	S 4°32.4'	130°08.6'	S 21°55.9'	277°40.7'	N 22°33.1'
8	344°09.6'	N 18°37.9'	213°36.7'	S 4°32.4'	145°11.3'	S 21°55.9'	292°41.4'	N 22°32.8'
9	359°09.3'	N 18°38.5'	228°39.0'	S 4°32.5'	160°13.9'	S 21°55.9'	307°42.2'	N 22°32.5'
10	14°08.9'	N 18°39.0'	243°41.3'	S 4°32.6'	175°16.5'	S 21°55.9'	322°42.9'	N 22°32.3'
11	29°08.5'	N 18°39.6'	258°43.5'	S 4°32.7'	190°19.2'	S 21°55.9'	337°43.6'	N 22°32.0'
12	44°08.1'	N 18°40.2'	273°45.8'	S 4°32.8'	205°21.8'	S 21°55.9'	352°44.4'	N 22°31.7'
13	59°07.7'	N 18°40.7'	288°48.1'	S 4°32.9'	220°24.4'	S 21°55.9'	7°45.1'	N 22°31.5'
14	74°07.3'	N 18°41.3'	303°50.3'	S 4°33.0'	235°27.1'	S 21°55.9'	22°45.8'	N 22°31.2'
15	89°06.9'	N 18°41.8'	318°52.6'	S 4°33.1'	250°29.7'	S 21°55.9'	37°46.5'	N 22°31.0'
16	104°06.5'	N 18°42.4'	333°54.9'	S 4°33.2'	265°32.3'	S 21°55.9'	52°47.3'	N 22°30.7'
17	119°06.1'	N 18°43.0'	348°57.2'	S 4°33.3'	280°35.0'	S 21°55.9'	67°48.0'	N 22°30.4'
18	134°05.7'	N 18°43.5'	3°59.4'	S 4°33.4'	295°37.6'	S 21°55.9'	82°48.7'	N 22°30.2'
19	149°05.3'	N 18°44.1'	19°01.7'	S 4°33.4'	310°40.2'	S 21°55.9'	97°49.5'	N 22°29.9'
20	164°04.9'	N 18°44.6'	34°04.0'	S 4°33.5'	325°42.9'	S 21°55.8'	112°50.2'	N 22°29.6'
21	179°04.5'	N 18°45.2'	49°06.2'	S 4°33.6'	340°45.5'	S 21°55.8'	127°50.9'	N 22°29.4'
22	194°04.1'	N 18°45.7'	64°08.5'	S 4°33.7'	355°48.1'	S 21°55.8'	142°51.7'	N 22°29.1'
23	209°03.7'	N 18°46.3'	79°10.8'	S 4°33.8'	10°50.8'	S 21°55.8'	157°52.4'	N 22°28.8'

Mon Jul 10, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.1		Mars +1.6	
	v = -0.4' d = 0.5'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	224°03.3'	N 18°46.8'	94°13.1'	S 4°33.9'	25°53.4'	S 21°55.8'	172°53.1'	N 22°28.6'
1	239°02.8'	N 18°47.4'	109°15.3'	S 4°34.0'	40°56.0'	S 21°55.8'	187°53.9'	N 22°28.3'
2	254°02.4'	N 18°47.9'	124°17.6'	S 4°34.1'	55°58.7'	S 21°55.8'	202°54.6'	N 22°28.0'
3	269°02.0'	N 18°48.5'	139°19.9'	S 4°34.2'	71°01.3'	S 21°55.8'	217°55.3'	N 22°27.8'
4	284°01.6'	N 18°49.0'	154°22.1'	S 4°34.3'	86°03.9'	S 21°55.8'	232°56.1'	N 22°27.5'
5	299°01.2'	N 18°49.6'	169°24.4'	S 4°34.4'	101°06.6'	S 21°55.8'	247°56.8'	N 22°27.2'
6	314°00.8'	N 18°50.1'	184°26.7'	S 4°34.5'	116°09.2'	S 21°55.8'	262°57.5'	N 22°27.0'
7	329°00.4'	N 18°50.7'	199°28.9'	S 4°34.6'	131°11.8'	S 21°55.8'	277°58.3'	N 22°26.7'
8	343°60.0'	N 18°51.2'	214°31.2'	S 4°34.6'	146°14.5'	S 21°55.8'	292°59.0'	N 22°26.4'
9	358°59.6'	N 18°51.8'	229°33.5'	S 4°34.7'	161°17.1'	S 21°55.8'	307°59.7'	N 22°26.2'
10	13°59.2'	N 18°52.3'	244°35.8'	S 4°34.8'	176°19.7'	S 21°55.8'	323°00.5'	N 22°25.9'
11	28°58.8'	N 18°52.9'	259°38.0'	S 4°34.9'	191°22.4'	S 21°55.8'	338°01.2'	N 22°25.6'
12	43°58.4'	N 18°53.4'	274°40.3'	S 4°35.0'	206°25.0'	S 21°55.8'	353°01.9'	N 22°25.3'
13	58°57.9'	N 18°54.0'	289°42.6'	S 4°35.1'	221°27.6'	S 21°55.8'	8°02.7'	N 22°25.1'
14	73°57.5'	N 18°54.5'	304°44.8'	S 4°35.2'	236°30.3'	S 21°55.8'	23°03.4'	N 22°24.8'
15	88°57.1'	N 18°55.1'	319°47.1'	S 4°35.3'	251°32.9'	S 21°55.8'	38°04.1'	N 22°24.5'
16	103°56.7'	N 18°55.6'	334°49.4'	S 4°35.4'	266°35.5'	S 21°55.8'	53°04.9'	N 22°24.3'
17	118°56.3'	N 18°56.1'	349°51.6'	S 4°35.5'	281°38.2'	S 21°55.8'	68°05.6'	N 22°24.0'
18	133°55.9'	N 18°56.7'	4°53.9'	S 4°35.6'	296°40.8'	S 21°55.8'	83°06.3'	N 22°23.7'
19	148°55.5'	N 18°57.2'	19°56.2'	S 4°35.7'	311°43.4'	S 21°55.8'	98°07.1'	N 22°23.4'
20	163°55.0'	N 18°57.8'	34°58.4'	S 4°35.8'	326°46.1'	S 21°55.8'	113°07.8'	N 22°23.2'
21	178°54.6'	N 18°58.3'	50°00.7'	S 4°35.9'	341°48.7'	S 21°55.8'	128°08.5'	N 22°22.9'
22	193°54.2'	N 18°58.8'	65°03.0'	S 4°36.0'	356°51.3'	S 21°55.8'	143°09.3'	N 22°22.6'
23	208°53.8'	N 18°59.4'	80°05.2'	S 4°36.0'	11°54.0'	S 21°55.8'	158°10.0'	N 22°22.4'

Tue Jul 11, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.1		Mars +1.6	
	v = -0.4' d = 0.5'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	223°53.4'	N 18°59.9'	95°07.5'	S 4°36.1'	26°56.6'	S 21°55.8'	173°10.7'	N 22°22.1'
1	238°53.0'	N 19°00.5'	110°09.7'	S 4°36.2'	41°59.2'	S 21°55.8'	188°11.5'	N 22°21.8'
2	253°52.5'	N 19°01.0'	125°12.0'	S 4°36.3'	57°01.8'	S 21°55.8'	203°12.2'	N 22°21.5'
3	268°52.1'	N 19°01.5'	140°14.3'	S 4°36.4'	72°04.5'	S 21°55.8'	218°12.9'	N 22°21.3'
4	283°51.7'	N 19°02.1'	155°16.5'	S 4°36.5'	87°07.1'	S 21°55.8'	233°13.7'	N 22°21.0'
5	298°51.3'	N 19°02.6'	170°18.8'	S 4°36.6'	102°09.7'	S 21°55.8'	248°14.4'	N 22°20.7'
6	313°50.9'	N 19°03.1'	185°21.1'	S 4°36.7'	117°12.4'	S 21°55.8'	263°15.2'	N 22°20.4'
7	328°50.4'	N 19°03.7'	200°23.3'	S 4°36.8'	132°15.0'	S 21°55.8'	278°15.9'	N 22°20.2'
8	343°50.0'	N 19°04.2'	215°25.6'	S 4°36.9'	147°17.6'	S 21°55.8'	293°16.6'	N 22°19.9'
9	358°49.6'	N 19°04.7'	230°27.9'	S 4°37.0'	162°20.3'	S 21°55.7'	308°17.4'	N 22°19.6'
10	13°49.2'	N 19°05.3'	245°30.1'	S 4°37.1'	177°22.9'	S 21°55.7'	323°18.1'	N 22°19.3'
11	28°48.7'	N 19°05.8'	260°32.4'	S 4°37.2'	192°25.5'	S 21°55.7'	338°18.8'	N 22°19.1'
12	43°48.3'	N 19°06.3'	275°34.6'	S 4°37.3'	207°28.2'	S 21°55.7'	353°19.6'	N 22°18.8'
13	58°47.9'	N 19°06.9'	290°36.9'	S 4°37.4'	222°30.8'	S 21°55.7'	8°20.3'	N 22°18.5'
14	73°47.5'	N 19°07.4'	305°39.2'	S 4°37.5'	237°33.4'	S 21°55.7'	23°21.1'	N 22°18.2'
15	88°47.0'	N 19°07.9'	320°41.4'	S 4°37.6'	252°36.0'	S 21°55.7'	38°21.8'	N 22°18.0'
16	103°46.6'	N 19°08.4'	335°43.7'	S 4°37.7'	267°38.7'	S 21°55.7'	53°22.5'	N 22°17.7'
17	118°46.2'	N 19°09.0'	350°46.0'	S 4°37.8'	282°41.3'	S 21°55.7'	68°23.3'	N 22°17.4'
18	133°45.8'	N 19°09.5'	5°48.2'	S 4°37.9'	297°43.9'	S 21°55.7'	83°24.0'	N 22°17.1'
19	148°45.3'	N 19°10.0'	20°50.5'	S 4°37.9'	312°46.6'	S 21°55.7'	98°24.7'	N 22°16.8'
20	163°44.9'	N 19°10.5'	35°52.7'	S 4°38.0'	327°49.2'	S 21°55.7'	113°25.5'	N 22°16.6'
21	178°44.5'	N 19°11.1'	50°55.0'	S 4°38.1'	342°51.8'	S 21°55.7'	128°26.2'	N 22°16.3'
22	193°44.0'	N 19°11.6'	65°57.3'	S 4°38.2'	357°54.4'	S 21°55.7'	143°27.0'	N 22°16.0'
23	208°43.6'	N 19°12.1'	80°59.5'	S 4°38.3'	12°57.1'	S 21°55.7'	158°27.7'	N 22°15.7'

Wed Jul 12, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.1		Mars +1.6	
	v = -0.4' d = 0.5'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	223°43.2'	N 19°12.6'	96°01.8'	S 4°38.4'	27°59.7'	S 21°55.7'	173°28.4'	N 22°15.4'
1	238°42.7'	N 19°13.1'	111°04.0'	S 4°38.5'	43°02.3'	S 21°55.7'	188°29.2'	N 22°15.2'
2	253°42.3'	N 19°13.7'	126°06.3'	S 4°38.6'	58°05.0'	S 21°55.7'	203°29.9'	N 22°14.9'
3	268°41.9'	N 19°14.2'	141°08.5'	S 4°38.7'	73°07.6'	S 21°55.7'	218°30.7'	N 22°14.6'
4	283°41.4'	N 19°14.7'	156°10.8'	S 4°38.8'	88°10.2'	S 21°55.7'	233°31.4'	N 22°14.3'
5	298°41.0'	N 19°15.2'	171°13.1'	S 4°38.9'	103°12.9'	S 21°55.7'	248°32.1'	N 22°14.0'
6	313°40.6'	N 19°15.7'	186°15.3'	S 4°39.0'	118°15.5'	S 21°55.7'	263°32.9'	N 22°13.8'
7	328°40.1'	N 19°16.3'	201°17.6'	S 4°39.1'	133°18.1'	S 21°55.7'	278°33.6'	N 22°13.5'
8	343°39.7'	N 19°16.8'	216°19.8'	S 4°39.2'	148°20.7'	S 21°55.7'	293°34.4'	N 22°13.2'
9	358°39.3'	N 19°17.3'	231°22.1'	S 4°39.3'	163°23.4'	S 21°55.7'	308°35.1'	N 22°12.9'
10	13°38.8'	N 19°17.8'	246°24.3'	S 4°39.4'	178°26.0'	S 21°55.7'	323°35.8'	N 22°12.6'
11	28°38.4'	N 19°18.3'	261°26.6'	S 4°39.5'	193°28.6'	S 21°55.7'	338°36.6'	N 22°12.3'
12	43°37.9'	N 19°18.8'	276°28.9'	S 4°39.6'	208°31.2'	S 21°55.7'	353°37.3'	N 22°12.1'
13	58°37.5'	N 19°19.3'	291°31.1'	S 4°39.7'	223°33.9'	S 21°55.7'	8°38.1'	N 22°11.8'
14	73°37.1'	N 19°19.9'	306°33.4'	S 4°39.8'	238°36.5'	S 21°55.7'	23°38.8'	N 22°11.5'
15	88°36.6'	N 19°20.4'	321°35.6'	S 4°39.9'	253°39.1'	S 21°55.7'	38°39.5'	N 22°11.2'
16	103°36.2'	N 19°20.9'	336°37.9'	S 4°40.0'	268°41.8'	S 21°55.7'	53°40.3'	N 22°10.9'
17	118°35.7'	N 19°21.4'	351°40.1'	S 4°40.1'	283°44.4'	S 21°55.7'	68°41.0'	N 22°10.6'
18	133°35.3'	N 19°21.9'	6°42.4'	S 4°40.2'	298°47.0'	S 21°55.7'	83°41.8'	N 22°10.3'
19	148°34.9'	N 19°22.4'	21°44.6'	S 4°40.3'	313°49.6'	S 21°55.7'	98°42.5'	N 22°10.1'
20	163°34.4'	N 19°22.9'	36°46.9'	S 4°40.4'	328°52.3'	S 21°55.7'	113°43.3'	N 22°09.8'
21	178°34.0'	N 19°23.4'	51°49.2'	S 4°40.5'	343°54.9'	S 21°55.7'	128°44.0'	N 22°09.5'
22	193°33.5'	N 19°23.9'	66°51.4'	S 4°40.6'	358°57.5'	S 21°55.7'	143°44.7'	N 22°09.2'
23	208°33.1'	N 19°24.4'	81°53.7'	S 4°40.7'	14°00.1'	S 21°55.7'	158°45.5'	N 22°08.9'

Thu Jul 13, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.1		Mars +1.6	
	v = -0.5' d = 0.5'		v = 2.3' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	223°32.6'	N 19°24.9'	96°55.9'	S 4°40.8'	29°02.8'	S 21°55.7'	173°46.2'	N 22°08.6'
1	238°32.2'	N 19°25.4'	111°58.2'	S 4°40.9'	44°05.4'	S 21°55.7'	188°47.0'	N 22°08.3'
2	253°31.7'	N 19°26.0'	127°00.4'	S 4°41.0'	59°08.0'	S 21°55.6'	203°47.7'	N 22°08.1'
3	268°31.3'	N 19°26.5'	142°02.7'	S 4°41.1'	74°10.7'	S 21°55.6'	218°48.5'	N 22°07.8'
4	283°30.9'	N 19°27.0'	157°04.9'	S 4°41.2'	89°13.3'	S 21°55.6'	233°49.2'	N 22°07.5'
5	298°30.4'	N 19°27.5'	172°07.2'	S 4°41.3'	104°15.9'	S 21°55.6'	248°49.9'	N 22°07.2'
6	313°30.0'	N 19°28.0'	187°09.4'	S 4°41.4'	119°18.5'	S 21°55.6'	263°50.7'	N 22°06.9'
7	328°29.5'	N 19°28.5'	202°11.7'	S 4°41.5'	134°21.2'	S 21°55.6'	278°51.4'	N 22°06.6'
8	343°29.1'	N 19°29.0'	217°13.9'	S 4°41.6'	149°23.8'	S 21°55.6'	293°52.2'	N 22°06.3'
9	358°28.6'	N 19°29.5'	232°16.2'	S 4°41.7'	164°26.4'	S 21°55.6'	308°52.9'	N 22°06.0'
10	13°28.2'	N 19°30.0'	247°18.4'	S 4°41.8'	179°29.0'	S 21°55.6'	323°53.7'	N 22°05.7'
11	28°27.7'	N 19°30.5'	262°20.7'	S 4°41.9'	194°31.7'	S 21°55.6'	338°54.4'	N 22°05.5'
12	43°27.3'	N 19°31.0'	277°22.9'	S 4°42.0'	209°34.3'	S 21°55.6'	353°55.2'	N 22°05.2'
13	58°26.8'	N 19°31.4'	292°25.2'	S 4°42.1'	224°36.9'	S 21°55.6'	8°55.9'	N 22°04.9'
14	73°26.3'	N 19°31.9'	307°27.4'	S 4°42.2'	239°39.5'	S 21°55.6'	23°56.6'	N 22°04.6'
15	88°25.9'	N 19°32.4'	322°29.7'	S 4°42.3'	254°42.2'	S 21°55.6'	38°57.4'	N 22°04.3'
16	103°25.4'	N 19°32.9'	337°31.9'	S 4°42.4'	269°44.8'	S 21°55.6'	53°58.1'	N 22°04.0'
17	118°25.0'	N 19°33.4'	352°34.2'	S 4°42.5'	284°47.4'	S 21°55.6'	68°58.9'	N 22°03.7'
18	133°24.5'	N 19°33.9'	7°36.4'	S 4°42.6'	299°50.0'	S 21°55.6'	83°59.6'	N 22°03.4'
19	148°24.1'	N 19°34.4'	22°38.7'	S 4°42.7'	314°52.7'	S 21°55.6'	99°00.4'	N 22°03.1'
20	163°23.6'	N 19°34.9'	37°40.9'	S 4°42.8'	329°55.3'	S 21°55.6'	114°01.1'	N 22°02.8'
21	178°23.2'	N 19°35.4'	52°43.2'	S 4°42.9'	344°57.9'	S 21°55.6'	129°01.9'	N 22°02.5'
22	193°22.7'	N 19°35.9'	67°45.4'	S 4°43.0'	0°00.5'	S 21°55.6'	144°02.6'	N 22°02.2'
23	208°22.2'	N 19°36.4'	82°47.7'	S 4°43.1'	15°03.2'	S 21°55.6'	159°03.4'	N 22°01.9'

Fri Jul 14, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.1		Mars +1.6	
	v = -0.5' d = 0.5'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.7' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	223°21.8'	N 19°36.9'	97°49.9'	S 4°43.2'	30°05.8'	S 21°55.6'	174°04.1'	N 22°01.7'
1	238°21.3'	N 19°37.3'	112°52.2'	S 4°43.3'	45°08.4'	S 21°55.6'	189°04.8'	N 22°01.4'
2	253°20.9'	N 19°37.8'	127°54.4'	S 4°43.4'	60°11.0'	S 21°55.6'	204°05.6'	N 22°01.1'
3	268°20.4'	N 19°38.3'	142°56.7'	S 4°43.5'	75°13.6'	S 21°55.6'	219°06.3'	N 22°00.8'
4	283°19.9'	N 19°38.8'	157°58.9'	S 4°43.6'	90°16.3'	S 21°55.6'	234°07.1'	N 22°00.5'
5	298°19.5'	N 19°39.3'	173°01.2'	S 4°43.7'	105°18.9'	S 21°55.6'	249°07.8'	N 22°00.2'
6	313°19.0'	N 19°39.8'	188°03.4'	S 4°43.8'	120°21.5'	S 21°55.6'	264°08.6'	N 21°59.9'
7	328°18.6'	N 19°40.3'	203°05.7'	S 4°43.9'	135°24.1'	S 21°55.6'	279°09.3'	N 21°59.6'
8	343°18.1'	N 19°40.7'	218°07.9'	S 4°44.0'	150°26.8'	S 21°55.6'	294°10.1'	N 21°59.3'
9	358°17.6'	N 19°41.2'	233°10.1'	S 4°44.1'	165°29.4'	S 21°55.6'	309°10.8'	N 21°59.0'
10	13°17.2'	N 19°41.7'	248°12.4'	S 4°44.2'	180°32.0'	S 21°55.6'	324°11.6'	N 21°58.7'
11	28°16.7'	N 19°42.2'	263°14.6'	S 4°44.3'	195°34.6'	S 21°55.6'	339°12.3'	N 21°58.4'
12	43°16.2'	N 19°42.7'	278°16.9'	S 4°44.4'	210°37.3'	S 21°55.6'	354°13.1'	N 21°58.1'
13	58°15.8'	N 19°43.1'	293°19.1'	S 4°44.5'	225°39.9'	S 21°55.6'	9°13.8'	N 21°57.8'
14	73°15.3'	N 19°43.6'	308°21.4'	S 4°44.6'	240°42.5'	S 21°55.6'	24°14.6'	N 21°57.5'
15	88°14.8'	N 19°44.1'	323°23.6'	S 4°44.7'	255°45.1'	S 21°55.6'	39°15.3'	N 21°57.2'
16	103°14.4'	N 19°44.6'	338°25.9'	S 4°44.8'	270°47.7'	S 21°55.6'	54°16.1'	N 21°56.9'
17	118°13.9'	N 19°45.1'	353°28.1'	S 4°44.9'	285°50.4'	S 21°55.6'	69°16.8'	N 21°56.6'
18	133°13.4'	N 19°45.5'	8°30.3'	S 4°45.0'	300°53.0'	S 21°55.6'	84°17.6'	N 21°56.3'
19	148°13.0'	N 19°46.0'	23°32.6'	S 4°45.1'	315°55.6'	S 21°55.6'	99°18.3'	N 21°56.0'
20	163°12.5'	N 19°46.5'	38°34.8'	S 4°45.2'	330°58.2'	S 21°55.6'	114°19.1'	N 21°55.7'
21	178°12.0'	N 19°46.9'	53°37.1'	S 4°45.3'	346°00.9'	S 21°55.6'	129°19.8'	N 21°55.4'
22	193°11.6'	N 19°47.4'	68°39.3'	S 4°45.4'	1°03.5'	S 21°55.6'	144°20.6'	N 21°55.1'
23	208°11.1'	N 19°47.9'	83°41.6'	S 4°45.5'	16°06.1'	S 21°55.5'	159°21.3'	N 21°54.8'

Sat Jul 15, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.1		Mars +1.6	
	v = -0.5' d = 0.5'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	223°10.6'	N 19°48.4'	98°43.8'	S 4°45.6'	31°08.7'	S 21°55.5'	174°22.1'	N 21°54.5'
1	238°10.1'	N 19°48.8'	113°46.0'	S 4°45.7'	46°11.3'	S 21°55.5'	189°22.8'	N 21°54.2'
2	253°09.7'	N 19°49.3'	128°48.3'	S 4°45.8'	61°14.0'	S 21°55.5'	204°23.6'	N 21°53.9'
3	268°09.2'	N 19°49.8'	143°50.5'	S 4°45.9'	76°16.6'	S 21°55.5'	219°24.3'	N 21°53.6'
4	283°08.7'	N 19°50.2'	158°52.8'	S 4°46.0'	91°19.2'	S 21°55.5'	234°25.1'	N 21°53.3'
5	298°08.2'	N 19°50.7'	173°55.0'	S 4°46.1'	106°21.8'	S 21°55.5'	249°25.8'	N 21°53.0'
6	313°07.8'	N 19°51.2'	188°57.2'	S 4°46.2'	121°24.4'	S 21°55.5'	264°26.6'	N 21°52.7'
7	328°07.3'	N 19°51.6'	203°59.5'	S 4°46.3'	136°27.1'	S 21°55.5'	279°27.3'	N 21°52.4'
8	343°06.8'	N 19°52.1'	219°01.7'	S 4°46.4'	151°29.7'	S 21°55.5'	294°28.1'	N 21°52.1'
9	358°06.3'	N 19°52.6'	234°04.0'	S 4°46.5'	166°32.3'	S 21°55.5'	309°28.8'	N 21°51.8'
10	13°05.9'	N 19°53.0'	249°06.2'	S 4°46.7'	181°34.9'	S 21°55.5'	324°29.6'	N 21°51.5'
11	28°05.4'	N 19°53.5'	264°08.4'	S 4°46.8'	196°37.5'	S 21°55.5'	339°30.3'	N 21°51.2'
12	43°04.9'	N 19°54.0'	279°10.7'	S 4°46.9'	211°40.2'	S 21°55.5'	354°31.1'	N 21°50.9'
13	58°04.4'	N 19°54.4'	294°12.9'	S 4°47.0'	226°42.8'	S 21°55.5'	9°31.8'	N 21°50.6'
14	73°03.9'	N 19°54.9'	309°15.2'	S 4°47.1'	241°45.4'	S 21°55.5'	24°32.6'	N 21°50.3'
15	88°03.5'	N 19°55.3'	324°17.4'	S 4°47.2'	256°48.0'	S 21°55.5'	39°33.3'	N 21°50.0'
16	103°03.0'	N 19°55.8'	339°19.6'	S 4°47.3'	271°50.6'	S 21°55.5'	54°34.1'	N 21°49.7'
17	118°02.5'	N 19°56.3'	354°21.9'	S 4°47.4'	286°53.3'	S 21°55.5'	69°34.8'	N 21°49.4'
18	133°02.0'	N 19°56.7'	9°24.1'	S 4°47.5'	301°55.9'	S 21°55.5'	84°35.6'	N 21°49.0'
19	148°01.5'	N 19°57.2'	24°26.4'	S 4°47.6'	316°58.5'	S 21°55.5'	99°36.3'	N 21°48.7'
20	163°01.1'	N 19°57.6'	39°28.6'	S 4°47.7'	332°01.1'	S 21°55.5'	114°37.1'	N 21°48.4'
21	178°00.6'	N 19°58.1'	54°30.8'	S 4°47.8'	347°03.7'	S 21°55.5'	129°37.9'	N 21°48.1'
22	193°00.1'	N 19°58.5'	69°33.1'	S 4°47.9'	2°06.4'	S 21°55.5'	144°38.6'	N 21°47.8'
23	207°59.6'	N 19°59.0'	84°35.3'	S 4°48.0'	17°09.0'	S 21°55.5'	159°39.4'	N 21°47.5'

Sun Jul 16, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.5' d = 0.4'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	222°59.1'	N 19°59.4'	99°37.5'	S 4°48.1'	32°11.6'	S 21°55.5'	174°40.1'	N 21°47.2'
1	237°58.6'	N 19°59.9'	114°39.8'	S 4°48.2'	47°14.2'	S 21°55.5'	189°40.9'	N 21°46.9'
2	252°58.1'	N 20°00.4'	129°42.0'	S 4°48.3'	62°16.8'	S 21°55.5'	204°41.6'	N 21°46.6'
3	267°57.7'	N 20°00.8'	144°44.3'	S 4°48.4'	77°19.4'	S 21°55.5'	219°42.4'	N 21°46.3'
4	282°57.2'	N 20°01.3'	159°46.5'	S 4°48.5'	92°22.1'	S 21°55.5'	234°43.1'	N 21°46.0'
5	297°56.7'	N 20°01.7'	174°48.7'	S 4°48.6'	107°24.7'	S 21°55.5'	249°43.9'	N 21°45.7'
6	312°56.2'	N 20°02.2'	189°51.0'	S 4°48.8'	122°27.3'	S 21°55.5'	264°44.6'	N 21°45.4'
7	327°55.7'	N 20°02.6'	204°53.2'	S 4°48.9'	137°29.9'	S 21°55.5'	279°45.4'	N 21°45.0'
8	342°55.2'	N 20°03.0'	219°55.4'	S 4°49.0'	152°32.5'	S 21°55.5'	294°46.2'	N 21°44.7'
9	357°54.7'	N 20°03.5'	234°57.7'	S 4°49.1'	167°35.2'	S 21°55.5'	309°46.9'	N 21°44.4'
10	12°54.2'	N 20°03.9'	249°59.9'	S 4°49.2'	182°37.8'	S 21°55.5'	324°47.7'	N 21°44.1'
11	27°53.8'	N 20°04.4'	265°02.1'	S 4°49.3'	197°40.4'	S 21°55.5'	339°48.4'	N 21°43.8'
12	42°53.3'	N 20°04.8'	280°04.4'	S 4°49.4'	212°43.0'	S 21°55.5'	354°49.2'	N 21°43.5'
13	57°52.8'	N 20°05.3'	295°06.6'	S 4°49.5'	227°45.6'	S 21°55.5'	9°49.9'	N 21°43.2'
14	72°52.3'	N 20°05.7'	310°08.8'	S 4°49.6'	242°48.2'	S 21°55.5'	24°50.7'	N 21°42.9'
15	87°51.8'	N 20°06.2'	325°11.1'	S 4°49.7'	257°50.9'	S 21°55.5'	39°51.4'	N 21°42.6'
16	102°51.3'	N 20°06.6'	340°13.3'	S 4°49.8'	272°53.5'	S 21°55.5'	54°52.2'	N 21°42.2'
17	117°50.8'	N 20°07.0'	355°15.5'	S 4°49.9'	287°56.1'	S 21°55.5'	69°53.0'	N 21°41.9'
18	132°50.3'	N 20°07.5'	10°17.8'	S 4°50.0'	302°58.7'	S 21°55.5'	84°53.7'	N 21°41.6'
19	147°49.8'	N 20°07.9'	25°20.0'	S 4°50.1'	318°01.3'	S 21°55.5'	99°54.5'	N 21°41.3'
20	162°49.3'	N 20°08.4'	40°22.2'	S 4°50.2'	333°03.9'	S 21°55.5'	114°55.2'	N 21°41.0'
21	177°48.8'	N 20°08.8'	55°24.5'	S 4°50.4'	348°06.6'	S 21°55.5'	129°56.0'	N 21°40.7'
22	192°48.3'	N 20°09.2'	70°26.7'	S 4°50.5'	3°09.2'	S 21°55.5'	144°56.7'	N 21°40.4'
23	207°47.8'	N 20°09.7'	85°28.9'	S 4°50.6'	18°11.8'	S 21°55.5'	159°57.5'	N 21°40.1'

Mon Jul 17, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.5' d = 0.4'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	222°47.3'	N 20°10.1'	100°31.1'	S 4°50.7'	33°14.4'	S 21°55.5'	174°58.3'	N 21°39.7'
1	237°46.8'	N 20°10.5'	115°33.4'	S 4°50.8'	48°17.0'	S 21°55.5'	189°59.0'	N 21°39.4'
2	252°46.3'	N 20°11.0'	130°35.6'	S 4°50.9'	63°19.6'	S 21°55.4'	204°59.8'	N 21°39.1'
3	267°45.8'	N 20°11.4'	145°37.8'	S 4°51.0'	78°22.3'	S 21°55.4'	220°00.5'	N 21°38.8'
4	282°45.3'	N 20°11.8'	160°40.1'	S 4°51.1'	93°24.9'	S 21°55.4'	235°01.3'	N 21°38.5'
5	297°44.8'	N 20°12.3'	175°42.3'	S 4°51.2'	108°27.5'	S 21°55.4'	250°02.0'	N 21°38.2'
6	312°44.3'	N 20°12.7'	190°44.5'	S 4°51.3'	123°30.1'	S 21°55.4'	265°02.8'	N 21°37.9'
7	327°43.8'	N 20°13.1'	205°46.8'	S 4°51.4'	138°32.7'	S 21°55.4'	280°03.6'	N 21°37.5'
8	342°43.3'	N 20°13.6'	220°49.0'	S 4°51.5'	153°35.3'	S 21°55.4'	295°04.3'	N 21°37.2'
9	357°42.8'	N 20°14.0'	235°51.2'	S 4°51.6'	168°37.9'	S 21°55.4'	310°05.1'	N 21°36.9'
10	12°42.3'	N 20°14.4'	250°53.4'	S 4°51.8'	183°40.6'	S 21°55.4'	325°05.8'	N 21°36.6'
11	27°41.8'	N 20°14.8'	265°55.7'	S 4°51.9'	198°43.2'	S 21°55.4'	340°06.6'	N 21°36.3'
12	42°41.3'	N 20°15.3'	280°57.9'	S 4°52.0'	213°45.8'	S 21°55.4'	355°07.4'	N 21°36.0'
13	57°40.8'	N 20°15.7'	296°00.1'	S 4°52.1'	228°48.4'	S 21°55.4'	10°08.1'	N 21°35.6'
14	72°40.3'	N 20°16.1'	311°02.4'	S 4°52.2'	243°51.0'	S 21°55.4'	25°08.9'	N 21°35.3'
15	87°39.8'	N 20°16.5'	326°04.6'	S 4°52.3'	258°53.6'	S 21°55.4'	40°09.6'	N 21°35.0'
16	102°39.3'	N 20°17.0'	341°06.8'	S 4°52.4'	273°56.2'	S 21°55.4'	55°10.4'	N 21°34.7'
17	117°38.8'	N 20°17.4'	356°09.0'	S 4°52.5'	288°58.9'	S 21°55.4'	70°11.2'	N 21°34.4'
18	132°38.3'	N 20°17.8'	11°11.3'	S 4°52.6'	304°01.5'	S 21°55.4'	85°11.9'	N 21°34.0'
19	147°37.8'	N 20°18.2'	26°13.5'	S 4°52.7'	319°04.1'	S 21°55.4'	100°12.7'	N 21°33.7'
20	162°37.3'	N 20°18.6'	41°15.7'	S 4°52.8'	334°06.7'	S 21°55.4'	115°13.4'	N 21°33.4'
21	177°36.8'	N 20°19.1'	56°17.9'	S 4°53.0'	349°09.3'	S 21°55.4'	130°14.2'	N 21°33.1'
22	192°36.3'	N 20°19.5'	71°20.2'	S 4°53.1'	4°11.9'	S 21°55.4'	145°15.0'	N 21°32.8'
23	207°35.7'	N 20°19.9'	86°22.4'	S 4°53.2'	19°14.5'	S 21°55.4'	160°15.7'	N 21°32.4'

Tue Jul 18, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.5' d = 0.4'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	222°35.2'	N 20°20.3'	101°24.6'	S 4°53.3'	34°17.1'	S 21°55.4'	175°16.5'	N 21°32.1'
1	237°34.7'	N 20°20.7'	116°26.9'	S 4°53.4'	49°19.8'	S 21°55.4'	190°17.2'	N 21°31.8'
2	252°34.2'	N 20°21.1'	131°29.1'	S 4°53.5'	64°22.4'	S 21°55.4'	205°18.0'	N 21°31.5'
3	267°33.7'	N 20°21.6'	146°31.3'	S 4°53.6'	79°25.0'	S 21°55.4'	220°18.8'	N 21°31.2'
4	282°33.2'	N 20°22.0'	161°33.5'	S 4°53.7'	94°27.6'	S 21°55.4'	235°19.5'	N 21°30.8'
5	297°32.7'	N 20°22.4'	176°35.7'	S 4°53.8'	109°30.2'	S 21°55.4'	250°20.3'	N 21°30.5'
6	312°32.2'	N 20°22.8'	191°38.0'	S 4°53.9'	124°32.8'	S 21°55.4'	265°21.1'	N 21°30.2'
7	327°31.7'	N 20°23.2'	206°40.2'	S 4°54.1'	139°35.4'	S 21°55.4'	280°21.8'	N 21°29.9'
8	342°31.1'	N 20°23.6'	221°42.4'	S 4°54.2'	154°38.0'	S 21°55.4'	295°22.6'	N 21°29.5'
9	357°30.6'	N 20°24.0'	236°44.6'	S 4°54.3'	169°40.7'	S 21°55.4'	310°23.3'	N 21°29.2'
10	12°30.1'	N 20°24.4'	251°46.9'	S 4°54.4'	184°43.3'	S 21°55.4'	325°24.1'	N 21°28.9'
11	27°29.6'	N 20°24.8'	266°49.1'	S 4°54.5'	199°45.9'	S 21°55.4'	340°24.9'	N 21°28.6'
12	42°29.1'	N 20°25.2'	281°51.3'	S 4°54.6'	214°48.5'	S 21°55.4'	355°25.6'	N 21°28.3'
13	57°28.6'	N 20°25.7'	296°53.5'	S 4°54.7'	229°51.1'	S 21°55.4'	10°26.4'	N 21°27.9'
14	72°28.0'	N 20°26.1'	311°55.8'	S 4°54.8'	244°53.7'	S 21°55.4'	25°27.2'	N 21°27.6'
15	87°27.5'	N 20°26.5'	326°58.0'	S 4°54.9'	259°56.3'	S 21°55.4'	40°27.9'	N 21°27.3'
16	102°27.0'	N 20°26.9'	342°00.2'	S 4°55.0'	274°58.9'	S 21°55.4'	55°28.7'	N 21°27.0'
17	117°26.5'	N 20°27.3'	357°02.4'	S 4°55.2'	290°01.6'	S 21°55.4'	70°29.5'	N 21°26.6'
18	132°26.0'	N 20°27.7'	12°04.6'	S 4°55.3'	305°04.2'	S 21°55.4'	85°30.2'	N 21°26.3'
19	147°25.5'	N 20°28.1'	27°06.9'	S 4°55.4'	320°06.8'	S 21°55.4'	100°31.0'	N 21°26.0'
20	162°24.9'	N 20°28.5'	42°09.1'	S 4°55.5'	335°09.4'	S 21°55.4'	115°31.7'	N 21°25.7'
21	177°24.4'	N 20°28.9'	57°11.3'	S 4°55.6'	350°12.0'	S 21°55.4'	130°32.5'	N 21°25.3'
22	192°23.9'	N 20°29.3'	72°13.5'	S 4°55.7'	5°14.6'	S 21°55.4'	145°33.3'	N 21°25.0'
23	207°23.4'	N 20°29.7'	87°15.8'	S 4°55.8'	20°17.2'	S 21°55.4'	160°34.0'	N 21°24.7'

Wed Jul 19, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.5' d = 0.4'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	222°22.8'	N 20°30.1'	102°18.0'	S 4°55.9'	35°19.8'	S 21°55.4'	175°34.8'	N 21°24.3'
1	237°22.3'	N 20°30.5'	117°20.2'	S 4°56.1'	50°22.4'	S 21°55.4'	190°35.6'	N 21°24.0'
2	252°21.8'	N 20°30.9'	132°22.4'	S 4°56.2'	65°25.0'	S 21°55.4'	205°36.3'	N 21°23.7'
3	267°21.3'	N 20°31.3'	147°24.6'	S 4°56.3'	80°27.7'	S 21°55.4'	220°37.1'	N 21°23.4'
4	282°20.8'	N 20°31.7'	162°26.8'	S 4°56.4'	95°30.3'	S 21°55.4'	235°37.9'	N 21°23.0'
5	297°20.2'	N 20°32.0'	177°29.1'	S 4°56.5'	110°32.9'	S 21°55.4'	250°38.6'	N 21°22.7'
6	312°19.7'	N 20°32.4'	192°31.3'	S 4°56.6'	125°35.5'	S 21°55.4'	265°39.4'	N 21°22.4'
7	327°19.2'	N 20°32.8'	207°33.5'	S 4°56.7'	140°38.1'	S 21°55.4'	280°40.2'	N 21°22.0'
8	342°18.7'	N 20°33.2'	222°35.7'	S 4°56.8'	155°40.7'	S 21°55.4'	295°40.9'	N 21°21.7'
9	357°18.1'	N 20°33.6'	237°37.9'	S 4°56.9'	170°43.3'	S 21°55.4'	310°41.7'	N 21°21.4'
10	12°17.6'	N 20°34.0'	252°40.2'	S 4°57.1'	185°45.9'	S 21°55.4'	325°42.5'	N 21°21.1'
11	27°17.1'	N 20°34.4'	267°42.4'	S 4°57.2'	200°48.5'	S 21°55.4'	340°43.2'	N 21°20.7'
12	42°16.5'	N 20°34.8'	282°44.6'	S 4°57.3'	215°51.1'	S 21°55.4'	355°44.0'	N 21°20.4'
13	57°16.0'	N 20°35.2'	297°46.8'	S 4°57.4'	230°53.7'	S 21°55.4'	10°44.8'	N 21°20.1'
14	72°15.5'	N 20°35.5'	312°49.0'	S 4°57.5'	245°56.3'	S 21°55.4'	25°45.5'	N 21°19.7'
15	87°15.0'	N 20°35.9'	327°51.2'	S 4°57.6'	260°59.0'	S 21°55.4'	40°46.3'	N 21°19.4'
16	102°14.4'	N 20°36.3'	342°53.5'	S 4°57.7'	276°01.6'	S 21°55.4'	55°47.1'	N 21°19.1'
17	117°13.9'	N 20°36.7'	357°55.7'	S 4°57.9'	291°04.2'	S 21°55.4'	70°47.8'	N 21°18.7'
18	132°13.4'	N 20°37.1'	12°57.9'	S 4°58.0'	306°06.8'	S 21°55.4'	85°48.6'	N 21°18.4'
19	147°12.8'	N 20°37.5'	28°00.1'	S 4°58.1'	321°09.4'	S 21°55.3'	100°49.4'	N 21°18.1'
20	162°12.3'	N 20°37.8'	43°02.3'	S 4°58.2'	336°12.0'	S 21°55.3'	115°50.1'	N 21°17.7'
21	177°11.8'	N 20°38.2'	58°04.5'	S 4°58.3'	351°14.6'	S 21°55.3'	130°50.9'	N 21°17.4'
22	192°11.2'	N 20°38.6'	73°06.8'	S 4°58.4'	6°17.2'	S 21°55.3'	145°51.7'	N 21°17.1'
23	207°10.7'	N 20°39.0'	88°09.0'	S 4°58.5'	21°19.8'	S 21°55.3'	160°52.4'	N 21°16.7'

Thu Jul 20, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.5' d = 0.4'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	222°10.2'	N 20°39.4'	103°11.2'	S 4°58.6'	36°22.4'	S 21°55.3'	175°53.2'	N 21°16.4'
1	237°09.6'	N 20°39.7'	118°13.4'	S 4°58.8'	51°25.0'	S 21°55.3'	190°54.0'	N 21°16.1'
2	252°09.1'	N 20°40.1'	133°15.6'	S 4°58.9'	66°27.6'	S 21°55.3'	205°54.8'	N 21°15.7'
3	267°08.6'	N 20°40.5'	148°17.8'	S 4°59.0'	81°30.2'	S 21°55.3'	220°55.5'	N 21°15.4'
4	282°08.0'	N 20°40.9'	163°20.0'	S 4°59.1'	96°32.9'	S 21°55.3'	235°56.3'	N 21°15.1'
5	297°07.5'	N 20°41.2'	178°22.3'	S 4°59.2'	111°35.5'	S 21°55.3'	250°57.1'	N 21°14.7'
6	312°07.0'	N 20°41.6'	193°24.5'	S 4°59.3'	126°38.1'	S 21°55.3'	265°57.8'	N 21°14.4'
7	327°06.4'	N 20°42.0'	208°26.7'	S 4°59.4'	141°40.7'	S 21°55.3'	280°58.6'	N 21°14.1'
8	342°05.9'	N 20°42.4'	223°28.9'	S 4°59.6'	156°43.3'	S 21°55.3'	295°59.4'	N 21°13.7'
9	357°05.4'	N 20°42.7'	238°31.1'	S 4°59.7'	171°45.9'	S 21°55.3'	311°00.1'	N 21°13.4'
10	12°04.8'	N 20°43.1'	253°33.3'	S 4°59.8'	186°48.5'	S 21°55.3'	326°00.9'	N 21°13.1'
11	27°04.3'	N 20°43.5'	268°35.5'	S 4°59.9'	201°51.1'	S 21°55.3'	341°01.7'	N 21°12.7'
12	42°03.7'	N 20°43.8'	283°37.7'	S 5°00.0'	216°53.7'	S 21°55.3'	356°02.5'	N 21°12.4'
13	57°03.2'	N 20°44.2'	298°40.0'	S 5°00.1'	231°56.3'	S 21°55.3'	11°03.2'	N 21°12.0'
14	72°02.7'	N 20°44.6'	313°42.2'	S 5°00.3'	246°58.9'	S 21°55.3'	26°04.0'	N 21°11.7'
15	87°02.1'	N 20°44.9'	328°44.4'	S 5°00.4'	262°01.5'	S 21°55.3'	41°04.8'	N 21°11.4'
16	102°01.6'	N 20°45.3'	343°46.6'	S 5°00.5'	277°04.1'	S 21°55.3'	56°05.5'	N 21°11.0'
17	117°01.0'	N 20°45.7'	358°48.8'	S 5°00.6'	292°06.7'	S 21°55.3'	71°06.3'	N 21°10.7'
18	132°00.5'	N 20°46.0'	13°51.0'	S 5°00.7'	307°09.3'	S 21°55.3'	86°07.1'	N 21°10.4'
19	146°60.0'	N 20°46.4'	28°53.2'	S 5°00.8'	322°11.9'	S 21°55.3'	101°07.9'	N 21°10.0'
20	161°59.4'	N 20°46.7'	43°55.4'	S 5°00.9'	337°14.5'	S 21°55.3'	116°08.6'	N 21°09.7'
21	176°58.9'	N 20°47.1'	58°57.6'	S 5°01.1'	352°17.1'	S 21°55.3'	131°09.4'	N 21°09.3'
22	191°58.3'	N 20°47.5'	73°59.9'	S 5°01.2'	7°19.7'	S 21°55.3'	146°10.2'	N 21°09.0'
23	206°57.8'	N 20°47.8'	89°02.1'	S 5°01.3'	22°22.4'	S 21°55.3'	161°10.9'	N 21°08.7'

Fri Jul 21, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.3'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	221°57.2'	N 20°48.2'	104°04.3'	S 5°01.4'	37°25.0'	S 21°55.3'	176°11.7'	N 21°08.3'
1	236°56.7'	N 20°48.5'	119°06.5'	S 5°01.5'	52°27.6'	S 21°55.3'	191°12.5'	N 21°08.0'
2	251°56.1'	N 20°48.9'	134°08.7'	S 5°01.6'	67°30.2'	S 21°55.3'	206°13.3'	N 21°07.6'
3	266°55.6'	N 20°49.3'	149°10.9'	S 5°01.8'	82°32.8'	S 21°55.3'	221°14.0'	N 21°07.3'
4	281°55.0'	N 20°49.6'	164°13.1'	S 5°01.9'	97°35.4'	S 21°55.3'	236°14.8'	N 21°07.0'
5	296°54.5'	N 20°50.0'	179°15.3'	S 5°02.0'	112°38.0'	S 21°55.3'	251°15.6'	N 21°06.6'
6	311°54.0'	N 20°50.3'	194°17.5'	S 5°02.1'	127°40.6'	S 21°55.3'	266°16.4'	N 21°06.3'
7	326°53.4'	N 20°50.7'	209°19.7'	S 5°02.2'	142°43.2'	S 21°55.3'	281°17.1'	N 21°05.9'
8	341°52.9'	N 20°51.0'	224°21.9'	S 5°02.3'	157°45.8'	S 21°55.3'	296°17.9'	N 21°05.6'
9	356°52.3'	N 20°51.4'	239°24.1'	S 5°02.5'	172°48.4'	S 21°55.3'	311°18.7'	N 21°05.2'
10	11°51.8'	N 20°51.7'	254°26.4'	S 5°02.6'	187°51.0'	S 21°55.3'	326°19.5'	N 21°04.9'
11	26°51.2'	N 20°52.1'	269°28.6'	S 5°02.7'	202°53.6'	S 21°55.3'	341°20.2'	N 21°04.6'
12	41°50.7'	N 20°52.4'	284°30.8'	S 5°02.8'	217°56.2'	S 21°55.3'	356°21.0'	N 21°04.2'
13	56°50.1'	N 20°52.8'	299°33.0'	S 5°02.9'	232°58.8'	S 21°55.3'	11°21.8'	N 21°03.9'
14	71°49.6'	N 20°53.1'	314°35.2'	S 5°03.0'	248°01.4'	S 21°55.3'	26°22.5'	N 21°03.5'
15	86°49.0'	N 20°53.5'	329°37.4'	S 5°03.2'	263°04.0'	S 21°55.3'	41°23.3'	N 21°03.2'
16	101°48.5'	N 20°53.8'	344°39.6'	S 5°03.3'	278°06.6'	S 21°55.3'	56°24.1'	N 21°02.8'
17	116°47.9'	N 20°54.1'	359°41.8'	S 5°03.4'	293°09.2'	S 21°55.3'	71°24.9'	N 21°02.5'
18	131°47.3'	N 20°54.5'	14°44.0'	S 5°03.5'	308°11.8'	S 21°55.3'	86°25.6'	N 21°02.2'
19	146°46.8'	N 20°54.8'	29°46.2'	S 5°03.6'	323°14.4'	S 21°55.3'	101°26.4'	N 21°01.8'
20	161°46.2'	N 20°55.2'	44°48.4'	S 5°03.7'	338°17.0'	S 21°55.3'	116°27.2'	N 21°01.5'
21	176°45.7'	N 20°55.5'	59°50.6'	S 5°03.9'	353°19.6'	S 21°55.3'	131°28.0'	N 21°01.1'
22	191°45.1'	N 20°55.9'	74°52.8'	S 5°04.0'	8°22.2'	S 21°55.3'	146°28.8'	N 21°00.8'
23	206°44.6'	N 20°56.2'	89°55.0'	S 5°04.1'	23°24.8'	S 21°55.3'	161°29.5'	N 21°00.4'

Sat Jul 22, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.3'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.3'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	221°44.0'	N 20°56.5'	104°57.2'	S 5°04.2'	38°27.4'	S 21°55.3'	176°30.3'	N 21°00.1'
1	236°43.5'	N 20°56.9'	119°59.4'	S 5°04.3'	53°30.0'	S 21°55.3'	191°31.1'	N 20°59.7'
2	251°42.9'	N 20°57.2'	135°01.6'	S 5°04.5'	68°32.6'	S 21°55.3'	206°31.9'	N 20°59.4'
3	266°42.4'	N 20°57.5'	150°03.8'	S 5°04.6'	83°35.2'	S 21°55.3'	221°32.6'	N 20°59.0'
4	281°41.8'	N 20°57.9'	165°06.0'	S 5°04.7'	98°37.8'	S 21°55.3'	236°33.4'	N 20°58.7'
5	296°41.2'	N 20°58.2'	180°08.2'	S 5°04.8'	113°40.4'	S 21°55.3'	251°34.2'	N 20°58.3'
6	311°40.7'	N 20°58.5'	195°10.4'	S 5°04.9'	128°43.0'	S 21°55.3'	266°35.0'	N 20°58.0'
7	326°40.1'	N 20°58.9'	210°12.7'	S 5°05.0'	143°45.6'	S 21°55.3'	281°35.7'	N 20°57.6'
8	341°39.6'	N 20°59.2'	225°14.9'	S 5°05.2'	158°48.2'	S 21°55.3'	296°36.5'	N 20°57.3'
9	356°39.0'	N 20°59.5'	240°17.1'	S 5°05.3'	173°50.8'	S 21°55.3'	311°37.3'	N 20°57.0'
10	11°38.4'	N 20°59.9'	255°19.3'	S 5°05.4'	188°53.4'	S 21°55.3'	326°38.1'	N 20°56.6'
11	26°37.9'	N 21°00.2'	270°21.5'	S 5°05.5'	203°56.0'	S 21°55.3'	341°38.9'	N 20°56.3'
12	41°37.3'	N 21°00.5'	285°23.7'	S 5°05.6'	218°58.6'	S 21°55.3'	356°39.6'	N 20°55.9'
13	56°36.8'	N 21°00.8'	300°25.9'	S 5°05.8'	234°01.2'	S 21°55.3'	11°40.4'	N 20°55.6'
14	71°36.2'	N 21°01.2'	315°28.1'	S 5°05.9'	249°03.8'	S 21°55.3'	26°41.2'	N 20°55.2'
15	86°35.6'	N 21°01.5'	330°30.3'	S 5°06.0'	264°06.4'	S 21°55.3'	41°42.0'	N 20°54.9'
16	101°35.1'	N 21°01.8'	345°32.5'	S 5°06.1'	279°09.0'	S 21°55.3'	56°42.8'	N 20°54.5'
17	116°34.5'	N 21°02.1'	0°34.7'	S 5°06.2'	294°11.6'	S 21°55.3'	71°43.5'	N 20°54.2'
18	131°33.9'	N 21°02.5'	15°36.9'	S 5°06.4'	309°14.2'	S 21°55.3'	86°44.3'	N 20°53.8'
19	146°33.4'	N 21°02.8'	30°39.1'	S 5°06.5'	324°16.8'	S 21°55.3'	101°45.1'	N 20°53.4'
20	161°32.8'	N 21°03.1'	45°41.3'	S 5°06.6'	339°19.4'	S 21°55.3'	116°45.9'	N 20°53.1'
21	176°32.2'	N 21°03.4'	60°43.5'	S 5°06.7'	354°22.0'	S 21°55.3'	131°46.6'	N 20°52.7'
22	191°31.7'	N 21°03.7'	75°45.7'	S 5°06.8'	9°24.6'	S 21°55.3'	146°47.4'	N 20°52.4'
23	206°31.1'	N 21°04.1'	90°47.9'	S 5°07.0'	24°27.2'	S 21°55.3'	161°48.2'	N 20°52.0'

Sun Jul 23, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.3'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	221°30.6'	N 21°04.4'	105°50.1'	S 5°07.1'	39°29.8'	S 21°55.3'	176°49.0'	N 20°51.7'
1	236°30.0'	N 21°04.7'	120°52.3'	S 5°07.2'	54°32.4'	S 21°55.3'	191°49.8'	N 20°51.3'
2	251°29.4'	N 21°05.0'	135°54.5'	S 5°07.3'	69°35.0'	S 21°55.3'	206°50.6'	N 20°51.0'
3	266°28.8'	N 21°05.3'	150°56.7'	S 5°07.4'	84°37.6'	S 21°55.3'	221°51.3'	N 20°50.6'
4	281°28.3'	N 21°05.6'	165°58.9'	S 5°07.6'	99°40.2'	S 21°55.3'	236°52.1'	N 20°50.3'
5	296°27.7'	N 21°06.0'	181°01.1'	S 5°07.7'	114°42.8'	S 21°55.3'	251°52.9'	N 20°49.9'
6	311°27.1'	N 21°06.3'	196°03.3'	S 5°07.8'	129°45.4'	S 21°55.3'	266°53.7'	N 20°49.6'
7	326°26.6'	N 21°06.6'	211°05.4'	S 5°07.9'	144°48.0'	S 21°55.3'	281°54.5'	N 20°49.2'
8	341°26.0'	N 21°06.9'	226°07.6'	S 5°08.0'	159°50.6'	S 21°55.3'	296°55.2'	N 20°48.9'
9	356°25.4'	N 21°07.2'	241°09.8'	S 5°08.2'	174°53.2'	S 21°55.3'	311°56.0'	N 20°48.5'
10	11°24.9'	N 21°07.5'	256°12.0'	S 5°08.3'	189°55.8'	S 21°55.3'	326°56.8'	N 20°48.1'
11	26°24.3'	N 21°07.8'	271°14.2'	S 5°08.4'	204°58.3'	S 21°55.3'	341°57.6'	N 20°47.8'
12	41°23.7'	N 21°08.1'	286°16.4'	S 5°08.5'	220°00.9'	S 21°55.3'	356°58.4'	N 20°47.4'
13	56°23.2'	N 21°08.4'	301°18.6'	S 5°08.6'	235°03.5'	S 21°55.3'	11°59.1'	N 20°47.1'
14	71°22.6'	N 21°08.7'	316°20.8'	S 5°08.8'	250°06.1'	S 21°55.3'	26°59.9'	N 20°46.7'
15	86°22.0'	N 21°09.0'	331°23.0'	S 5°08.9'	265°08.7'	S 21°55.3'	42°00.7'	N 20°46.4'
16	101°21.4'	N 21°09.3'	346°25.2'	S 5°09.0'	280°11.3'	S 21°55.3'	57°01.5'	N 20°46.0'
17	116°20.9'	N 21°09.6'	1°27.4'	S 5°09.1'	295°13.9'	S 21°55.3'	72°02.3'	N 20°45.7'
18	131°20.3'	N 21°09.9'	16°29.6'	S 5°09.2'	310°16.5'	S 21°55.3'	87°03.1'	N 20°45.3'
19	146°19.7'	N 21°10.2'	31°31.8'	S 5°09.4'	325°19.1'	S 21°55.3'	102°03.8'	N 20°44.9'
20	161°19.1'	N 21°10.5'	46°34.0'	S 5°09.5'	340°21.7'	S 21°55.3'	117°04.6'	N 20°44.6'
21	176°18.6'	N 21°10.8'	61°36.2'	S 5°09.6'	355°24.3'	S 21°55.3'	132°05.4'	N 20°44.2'
22	191°18.0'	N 21°11.1'	76°38.4'	S 5°09.7'	10°26.9'	S 21°55.3'	147°06.2'	N 20°43.9'
23	206°17.4'	N 21°11.4'	91°40.6'	S 5°09.9'	25°29.5'	S 21°55.3'	162°07.0'	N 20°43.5'

Mon Jul 24, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.3'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	221°16.8'	N 21°11.7'	106°42.8'	S 5°10.0'	40°32.1'	S 21°55.3'	177°07.8'	N 20°43.2'
1	236°16.3'	N 21°12.0'	121°45.0'	S 5°10.1'	55°34.7'	S 21°55.3'	192°08.6'	N 20°42.8'
2	251°15.7'	N 21°12.3'	136°47.2'	S 5°10.2'	70°37.3'	S 21°55.3'	207°09.3'	N 20°42.4'
3	266°15.1'	N 21°12.6'	151°49.3'	S 5°10.3'	85°39.9'	S 21°55.3'	222°10.1'	N 20°42.1'
4	281°14.5'	N 21°12.9'	166°51.5'	S 5°10.5'	100°42.5'	S 21°55.3'	237°10.9'	N 20°41.7'
5	296°13.9'	N 21°13.2'	181°53.7'	S 5°10.6'	115°45.1'	S 21°55.3'	252°11.7'	N 20°41.4'
6	311°13.4'	N 21°13.5'	196°55.9'	S 5°10.7'	130°47.6'	S 21°55.3'	267°12.5'	N 20°41.0'
7	326°12.8'	N 21°13.8'	211°58.1'	S 5°10.8'	145°50.2'	S 21°55.3'	282°13.3'	N 20°40.6'
8	341°12.2'	N 21°14.1'	227°00.3'	S 5°11.0'	160°52.8'	S 21°55.3'	297°14.0'	N 20°40.3'
9	356°11.6'	N 21°14.4'	242°02.5'	S 5°11.1'	175°55.4'	S 21°55.3'	312°14.8'	N 20°39.9'
10	11°11.0'	N 21°14.6'	257°04.7'	S 5°11.2'	190°58.0'	S 21°55.3'	327°15.6'	N 20°39.5'
11	26°10.5'	N 21°14.9'	272°06.9'	S 5°11.3'	206°00.6'	S 21°55.3'	342°16.4'	N 20°39.2'
12	41°09.9'	N 21°15.2'	287°09.1'	S 5°11.4'	221°03.2'	S 21°55.3'	357°17.2'	N 20°38.8'
13	56°09.3'	N 21°15.5'	302°11.3'	S 5°11.6'	236°05.8'	S 21°55.3'	12°18.0'	N 20°38.5'
14	71°08.7'	N 21°15.8'	317°13.5'	S 5°11.7'	251°08.4'	S 21°55.3'	27°18.8'	N 20°38.1'
15	86°08.1'	N 21°16.1'	332°15.6'	S 5°11.8'	266°11.0'	S 21°55.3'	42°19.6'	N 20°37.7'
16	101°07.6'	N 21°16.3'	347°17.8'	S 5°11.9'	281°13.6'	S 21°55.3'	57°20.3'	N 20°37.4'
17	116°07.0'	N 21°16.6'	2°20.0'	S 5°12.1'	296°16.2'	S 21°55.3'	72°21.1'	N 20°37.0'
18	131°06.4'	N 21°16.9'	17°22.2'	S 5°12.2'	311°18.8'	S 21°55.3'	87°21.9'	N 20°36.7'
19	146°05.8'	N 21°17.2'	32°24.4'	S 5°12.3'	326°21.3'	S 21°55.3'	102°22.7'	N 20°36.3'
20	161°05.2'	N 21°17.5'	47°26.6'	S 5°12.4'	341°23.9'	S 21°55.3'	117°23.5'	N 20°35.9'
21	176°04.6'	N 21°17.7'	62°28.8'	S 5°12.6'	356°26.5'	S 21°55.3'	132°24.3'	N 20°35.6'
22	191°04.0'	N 21°18.0'	77°31.0'	S 5°12.7'	11°29.1'	S 21°55.3'	147°25.1'	N 20°35.2'
23	206°03.5'	N 21°18.3'	92°33.2'	S 5°12.8'	26°31.7'	S 21°55.3'	162°25.9'	N 20°34.8'

Tue Jul 25, 2017 UTC

UTC	Venus -4.0		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.3'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	221°02.9'	N 21°18.6'	107°35.4'	S 5°12.9'	41°34.3'	S 21°55.3'	177°26.6'	N 20°34.5'
1	236°02.3'	N 21°18.8'	122°37.5'	S 5°13.1'	56°36.9'	S 21°55.3'	192°27.4'	N 20°34.1'
2	251°01.7'	N 21°19.1'	137°39.7'	S 5°13.2'	71°39.5'	S 21°55.3'	207°28.2'	N 20°33.7'
3	266°01.1'	N 21°19.4'	152°41.9'	S 5°13.3'	86°42.1'	S 21°55.3'	222°29.0'	N 20°33.4'
4	281°00.5'	N 21°19.7'	167°44.1'	S 5°13.4'	101°44.7'	S 21°55.3'	237°29.8'	N 20°33.0'
5	295°59.9'	N 21°19.9'	182°46.3'	S 5°13.6'	116°47.3'	S 21°55.3'	252°30.6'	N 20°32.6'
6	310°59.4'	N 21°20.2'	197°48.5'	S 5°13.7'	131°49.8'	S 21°55.3'	267°31.4'	N 20°32.3'
7	325°58.8'	N 21°20.5'	212°50.7'	S 5°13.8'	146°52.4'	S 21°55.3'	282°32.2'	N 20°31.9'
8	340°58.2'	N 21°20.7'	227°52.9'	S 5°13.9'	161°55.0'	S 21°55.3'	297°33.0'	N 20°31.5'
9	355°57.6'	N 21°21.0'	242°55.0'	S 5°14.0'	176°57.6'	S 21°55.3'	312°33.7'	N 20°31.2'
10	10°57.0'	N 21°21.3'	257°57.2'	S 5°14.2'	192°00.2'	S 21°55.3'	327°34.5'	N 20°30.8'
11	25°56.4'	N 21°21.5'	272°59.4'	S 5°14.3'	207°02.8'	S 21°55.3'	342°35.3'	N 20°30.4'
12	40°55.8'	N 21°21.8'	288°01.6'	S 5°14.4'	222°05.4'	S 21°55.3'	357°36.1'	N 20°30.1'
13	55°55.2'	N 21°22.1'	303°03.8'	S 5°14.5'	237°08.0'	S 21°55.3'	12°36.9'	N 20°29.7'
14	70°54.6'	N 21°22.3'	318°06.0'	S 5°14.7'	252°10.6'	S 21°55.3'	27°37.7'	N 20°29.3'
15	85°54.0'	N 21°22.6'	333°08.2'	S 5°14.8'	267°13.1'	S 21°55.3'	42°38.5'	N 20°29.0'
16	100°53.4'	N 21°22.8'	348°10.3'	S 5°14.9'	282°15.7'	S 21°55.3'	57°39.3'	N 20°28.6'
17	115°52.9'	N 21°23.1'	3°12.5'	S 5°15.0'	297°18.3'	S 21°55.3'	72°40.1'	N 20°28.2'
18	130°52.3'	N 21°23.4'	18°14.7'	S 5°15.2'	312°20.9'	S 21°55.3'	87°40.9'	N 20°27.9'
19	145°51.7'	N 21°23.6'	33°16.9'	S 5°15.3'	327°23.5'	S 21°55.3'	102°41.6'	N 20°27.5'
20	160°51.1'	N 21°23.9'	48°19.1'	S 5°15.4'	342°26.1'	S 21°55.3'	117°42.4'	N 20°27.1'
21	175°50.5'	N 21°24.1'	63°21.3'	S 5°15.6'	357°28.7'	S 21°55.3'	132°43.2'	N 20°26.7'
22	190°49.9'	N 21°24.4'	78°23.4'	S 5°15.7'	12°31.3'	S 21°55.3'	147°44.0'	N 20°26.4'
23	205°49.3'	N 21°24.6'	93°25.6'	S 5°15.8'	27°33.9'	S 21°55.3'	162°44.8'	N 20°26.0'

Wed Jul 26, 2017 UTC

UTC	Venus -3.9		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.2'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	220°48.7'	N 21°24.9'	108°27.8'	S 5°15.9'	42°36.4'	S 21°55.3'	177°45.6'	N 20°25.6'
1	235°48.1'	N 21°25.1'	123°30.0'	S 5°16.1'	57°39.0'	S 21°55.3'	192°46.4'	N 20°25.3'
2	250°47.5'	N 21°25.4'	138°32.2'	S 5°16.2'	72°41.6'	S 21°55.3'	207°47.2'	N 20°24.9'
3	265°46.9'	N 21°25.6'	153°34.4'	S 5°16.3'	87°44.2'	S 21°55.3'	222°48.0'	N 20°24.5'
4	280°46.3'	N 21°25.9'	168°36.5'	S 5°16.4'	102°46.8'	S 21°55.3'	237°48.8'	N 20°24.1'
5	295°45.7'	N 21°26.1'	183°38.7'	S 5°16.6'	117°49.4'	S 21°55.3'	252°49.6'	N 20°23.8'
6	310°45.1'	N 21°26.4'	198°40.9'	S 5°16.7'	132°52.0'	S 21°55.3'	267°50.4'	N 20°23.4'
7	325°44.5'	N 21°26.6'	213°43.1'	S 5°16.8'	147°54.5'	S 21°55.3'	282°51.2'	N 20°23.0'
8	340°43.9'	N 21°26.9'	228°45.3'	S 5°16.9'	162°57.1'	S 21°55.3'	297°51.9'	N 20°22.7'
9	355°43.3'	N 21°27.1'	243°47.5'	S 5°17.1'	177°59.7'	S 21°55.3'	312°52.7'	N 20°22.3'
10	10°42.7'	N 21°27.4'	258°49.6'	S 5°17.2'	193°02.3'	S 21°55.3'	327°53.5'	N 20°21.9'
11	25°42.1'	N 21°27.6'	273°51.8'	S 5°17.3'	208°04.9'	S 21°55.3'	342°54.3'	N 20°21.5'
12	40°41.5'	N 21°27.9'	288°54.0'	S 5°17.4'	223°07.5'	S 21°55.3'	357°55.1'	N 20°21.2'
13	55°40.9'	N 21°28.1'	303°56.2'	S 5°17.6'	238°10.1'	S 21°55.3'	12°55.9'	N 20°20.8'
14	70°40.3'	N 21°28.3'	318°58.4'	S 5°17.7'	253°12.7'	S 21°55.3'	27°56.7'	N 20°20.4'
15	85°39.7'	N 21°28.6'	334°00.5'	S 5°17.8'	268°15.2'	S 21°55.3'	42°57.5'	N 20°20.0'
16	100°39.1'	N 21°28.8'	349°02.7'	S 5°18.0'	283°17.8'	S 21°55.3'	57°58.3'	N 20°19.7'
17	115°38.5'	N 21°29.1'	4°04.9'	S 5°18.1'	298°20.4'	S 21°55.3'	72°59.1'	N 20°19.3'
18	130°37.9'	N 21°29.3'	19°07.1'	S 5°18.2'	313°23.0'	S 21°55.3'	87°59.9'	N 20°18.9'
19	145°37.3'	N 21°29.5'	34°09.3'	S 5°18.3'	328°25.6'	S 21°55.3'	103°00.7'	N 20°18.5'
20	160°36.7'	N 21°29.8'	49°11.4'	S 5°18.5'	343°28.2'	S 21°55.3'	118°01.5'	N 20°18.2'
21	175°36.1'	N 21°30.0'	64°13.6'	S 5°18.6'	358°30.7'	S 21°55.3'	133°02.3'	N 20°17.8'
22	190°35.5'	N 21°30.2'	79°15.8'	S 5°18.7'	13°33.3'	S 21°55.3'	148°03.1'	N 20°17.4'
23	205°34.9'	N 21°30.5'	94°18.0'	S 5°18.8'	28°35.9'	S 21°55.3'	163°03.9'	N 20°17.0'

Thu Jul 27, 2017 UTC

UTC	Venus -3.9		Jupiter -1.8		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.2'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	220°34.3'	N 21°30.7'	109°20.2'	S 5°19.0'	43°38.5'	S 21°55.3'	178°04.7'	N 20°16.7'
1	235°33.7'	N 21°30.9'	124°22.3'	S 5°19.1'	58°41.1'	S 21°55.3'	193°05.5'	N 20°16.3'
2	250°33.1'	N 21°31.2'	139°24.5'	S 5°19.2'	73°43.7'	S 21°55.3'	208°06.3'	N 20°15.9'
3	265°32.5'	N 21°31.4'	154°26.7'	S 5°19.4'	88°46.2'	S 21°55.3'	223°07.1'	N 20°15.5'
4	280°31.9'	N 21°31.6'	169°28.9'	S 5°19.5'	103°48.8'	S 21°55.3'	238°07.9'	N 20°15.2'
5	295°31.3'	N 21°31.8'	184°31.0'	S 5°19.6'	118°51.4'	S 21°55.3'	253°08.7'	N 20°14.8'
6	310°30.6'	N 21°32.1'	199°33.2'	S 5°19.7'	133°54.0'	S 21°55.3'	268°09.4'	N 20°14.4'
7	325°30.0'	N 21°32.3'	214°35.4'	S 5°19.9'	148°56.6'	S 21°55.3'	283°10.2'	N 20°14.0'
8	340°29.4'	N 21°32.5'	229°37.6'	S 5°20.0'	163°59.2'	S 21°55.3'	298°11.0'	N 20°13.6'
9	355°28.8'	N 21°32.7'	244°39.8'	S 5°20.1'	179°01.7'	S 21°55.3'	313°11.8'	N 20°13.3'
10	10°28.2'	N 21°33.0'	259°41.9'	S 5°20.3'	194°04.3'	S 21°55.3'	328°12.6'	N 20°12.9'
11	25°27.6'	N 21°33.2'	274°44.1'	S 5°20.4'	209°06.9'	S 21°55.3'	343°13.4'	N 20°12.5'
12	40°27.0'	N 21°33.4'	289°46.3'	S 5°20.5'	224°09.5'	S 21°55.3'	358°14.2'	N 20°12.1'
13	55°26.4'	N 21°33.6'	304°48.5'	S 5°20.6'	239°12.1'	S 21°55.3'	13°15.0'	N 20°11.7'
14	70°25.8'	N 21°33.8'	319°50.6'	S 5°20.8'	254°14.7'	S 21°55.3'	28°15.8'	N 20°11.4'
15	85°25.2'	N 21°34.0'	334°52.8'	S 5°20.9'	269°17.2'	S 21°55.3'	43°16.6'	N 20°11.0'
16	100°24.6'	N 21°34.3'	349°55.0'	S 5°21.0'	284°19.8'	S 21°55.3'	58°17.4'	N 20°10.6'
17	115°24.0'	N 21°34.5'	4°57.2'	S 5°21.2'	299°22.4'	S 21°55.3'	73°18.2'	N 20°10.2'
18	130°23.3'	N 21°34.7'	19°59.3'	S 5°21.3'	314°25.0'	S 21°55.3'	88°19.0'	N 20°09.8'
19	145°22.7'	N 21°34.9'	35°01.5'	S 5°21.4'	329°27.6'	S 21°55.3'	103°19.8'	N 20°09.5'
20	160°22.1'	N 21°35.1'	50°03.7'	S 5°21.5'	344°30.1'	S 21°55.3'	118°20.6'	N 20°09.1'
21	175°21.5'	N 21°35.3'	65°05.9'	S 5°21.7'	359°32.7'	S 21°55.3'	133°21.4'	N 20°08.7'
22	190°20.9'	N 21°35.5'	80°08.0'	S 5°21.8'	14°35.3'	S 21°55.3'	148°22.2'	N 20°08.3'
23	205°20.3'	N 21°35.8'	95°10.2'	S 5°21.9'	29°37.9'	S 21°55.3'	163°23.0'	N 20°07.9'

Fri Jul 28, 2017 UTC

UTC	Venus -3.9		Jupiter -1.7		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.2'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	220°19.7'	N 21°36.0'	110°12.4'	S 5°22.1'	44°40.5'	S 21°55.3'	178°23.8'	N 20°07.5'
1	235°19.1'	N 21°36.2'	125°14.6'	S 5°22.2'	59°43.0'	S 21°55.3'	193°24.6'	N 20°07.2'
2	250°18.4'	N 21°36.4'	140°16.7'	S 5°22.3'	74°45.6'	S 21°55.3'	208°25.4'	N 20°06.8'
3	265°17.8'	N 21°36.6'	155°18.9'	S 5°22.4'	89°48.2'	S 21°55.3'	223°26.2'	N 20°06.4'
4	280°17.2'	N 21°36.8'	170°21.1'	S 5°22.6'	104°50.8'	S 21°55.3'	238°27.0'	N 20°06.0'
5	295°16.6'	N 21°37.0'	185°23.2'	S 5°22.7'	119°53.4'	S 21°55.3'	253°27.8'	N 20°05.6'
6	310°16.0'	N 21°37.2'	200°25.4'	S 5°22.8'	134°55.9'	S 21°55.3'	268°28.6'	N 20°05.2'
7	325°15.4'	N 21°37.4'	215°27.6'	S 5°23.0'	149°58.5'	S 21°55.3'	283°29.4'	N 20°04.9'
8	340°14.8'	N 21°37.6'	230°29.8'	S 5°23.1'	165°01.1'	S 21°55.3'	298°30.2'	N 20°04.5'
9	355°14.1'	N 21°37.8'	245°31.9'	S 5°23.2'	180°03.7'	S 21°55.3'	313°31.0'	N 20°04.1'
10	10°13.5'	N 21°38.0'	260°34.1'	S 5°23.4'	195°06.3'	S 21°55.3'	328°31.8'	N 20°03.7'
11	25°12.9'	N 21°38.2'	275°36.3'	S 5°23.5'	210°08.8'	S 21°55.3'	343°32.6'	N 20°03.3'
12	40°12.3'	N 21°38.4'	290°38.4'	S 5°23.6'	225°11.4'	S 21°55.3'	358°33.4'	N 20°02.9'
13	55°11.7'	N 21°38.6'	305°40.6'	S 5°23.8'	240°14.0'	S 21°55.3'	13°34.2'	N 20°02.5'
14	70°11.0'	N 21°38.8'	320°42.8'	S 5°23.9'	255°16.6'	S 21°55.3'	28°35.0'	N 20°02.2'
15	85°10.4'	N 21°39.0'	335°45.0'	S 5°24.0'	270°19.2'	S 21°55.3'	43°35.8'	N 20°01.8'
16	100°09.8'	N 21°39.2'	350°47.1'	S 5°24.1'	285°21.7'	S 21°55.3'	58°36.7'	N 20°01.4'
17	115°09.2'	N 21°39.4'	5°49.3'	S 5°24.3'	300°24.3'	S 21°55.3'	73°37.5'	N 20°01.0'
18	130°08.6'	N 21°39.6'	20°51.5'	S 5°24.4'	315°26.9'	S 21°55.3'	88°38.3'	N 20°00.6'
19	145°08.0'	N 21°39.7'	35°53.6'	S 5°24.5'	330°29.5'	S 21°55.3'	103°39.1'	N 20°00.2'
20	160°07.3'	N 21°39.9'	50°55.8'	S 5°24.7'	345°32.0'	S 21°55.3'	118°39.9'	N 19°59.8'
21	175°06.7'	N 21°40.1'	65°58.0'	S 5°24.8'	0°34.6'	S 21°55.3'	133°40.7'	N 19°59.5'
22	190°06.1'	N 21°40.3'	81°00.1'	S 5°24.9'	15°37.2'	S 21°55.3'	148°41.5'	N 19°59.1'
23	205°05.5'	N 21°40.5'	96°02.3'	S 5°25.1'	30°39.8'	S 21°55.3'	163°42.3'	N 19°58.7'

Sat Jul 29, 2017 UTC

UTC	Venus -3.9		Jupiter -1.7		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.2'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	220°04.9'	N 21°40.7'	111°04.5'	S 5°25.2'	45°42.4'	S 21°55.3'	178°43.1'	N 19°58.3'
1	235°04.2'	N 21°40.9'	126°06.7'	S 5°25.3'	60°44.9'	S 21°55.3'	193°43.9'	N 19°57.9'
2	250°03.6'	N 21°41.1'	141°08.8'	S 5°25.5'	75°47.5'	S 21°55.3'	208°44.7'	N 19°57.5'
3	265°03.0'	N 21°41.2'	156°11.0'	S 5°25.6'	90°50.1'	S 21°55.3'	223°45.5'	N 19°57.1'
4	280°02.4'	N 21°41.4'	171°13.2'	S 5°25.7'	105°52.7'	S 21°55.3'	238°46.3'	N 19°56.7'
5	295°01.7'	N 21°41.6'	186°15.3'	S 5°25.8'	120°55.2'	S 21°55.3'	253°47.1'	N 19°56.3'
6	310°01.1'	N 21°41.8'	201°17.5'	S 5°26.0'	135°57.8'	S 21°55.3'	268°47.9'	N 19°56.0'
7	325°00.5'	N 21°42.0'	216°19.7'	S 5°26.1'	151°00.4'	S 21°55.3'	283°48.7'	N 19°55.6'
8	339°59.9'	N 21°42.1'	231°21.8'	S 5°26.2'	166°03.0'	S 21°55.3'	298°49.5'	N 19°55.2'
9	354°59.2'	N 21°42.3'	246°24.0'	S 5°26.4'	181°05.5'	S 21°55.3'	313°50.3'	N 19°54.8'
10	9°58.6'	N 21°42.5'	261°26.2'	S 5°26.5'	196°08.1'	S 21°55.3'	328°51.1'	N 19°54.4'
11	24°58.0'	N 21°42.7'	276°28.3'	S 5°26.6'	211°10.7'	S 21°55.3'	343°51.9'	N 19°54.0'
12	39°57.4'	N 21°42.8'	291°30.5'	S 5°26.8'	226°13.3'	S 21°55.3'	358°52.7'	N 19°53.6'
13	54°56.7'	N 21°43.0'	306°32.7'	S 5°26.9'	241°15.8'	S 21°55.3'	13°53.5'	N 19°53.2'
14	69°56.1'	N 21°43.2'	321°34.8'	S 5°27.0'	256°18.4'	S 21°55.3'	28°54.4'	N 19°52.8'
15	84°55.5'	N 21°43.4'	336°37.0'	S 5°27.2'	271°21.0'	S 21°55.3'	43°55.2'	N 19°52.4'
16	99°54.9'	N 21°43.5'	351°39.2'	S 5°27.3'	286°23.6'	S 21°55.3'	58°56.0'	N 19°52.0'
17	114°54.2'	N 21°43.7'	6°41.3'	S 5°27.4'	301°26.1'	S 21°55.3'	73°56.8'	N 19°51.6'
18	129°53.6'	N 21°43.9'	21°43.5'	S 5°27.6'	316°28.7'	S 21°55.3'	88°57.6'	N 19°51.3'
19	144°53.0'	N 21°44.0'	36°45.7'	S 5°27.7'	331°31.3'	S 21°55.3'	103°58.4'	N 19°50.9'
20	159°52.4'	N 21°44.2'	51°47.8'	S 5°27.8'	346°33.9'	S 21°55.3'	118°59.2'	N 19°50.5'
21	174°51.7'	N 21°44.4'	66°50.0'	S 5°28.0'	1°36.4'	S 21°55.3'	134°00.0'	N 19°50.1'
22	189°51.1'	N 21°44.5'	81°52.1'	S 5°28.1'	16°39.0'	S 21°55.3'	149°00.8'	N 19°49.7'
23	204°50.5'	N 21°44.7'	96°54.3'	S 5°28.2'	31°41.6'	S 21°55.3'	164°01.6'	N 19°49.3'

Sun Jul 30, 2017 UTC

UTC	Venus -3.9		Jupiter -1.7		Saturn +0.2		Mars +1.7	
	v = -0.6' d = 0.2'		v = 2.2' d = 0.1'		v = 2.6' d = 0.0'		v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	219°49.8'	N 21°44.9'	111°56.5'	S 5°28.4'	46°44.2'	S 21°55.3'	179°02.4'	N 19°48.9'
1	234°49.2'	N 21°45.0'	126°58.6'	S 5°28.5'	61°46.7'	S 21°55.3'	194°03.2'	N 19°48.5'
2	249°48.6'	N 21°45.2'	142°00.8'	S 5°28.6'	76°49.3'	S 21°55.3'	209°04.0'	N 19°48.1'
3	264°48.0'	N 21°45.4'	157°03.0'	S 5°28.8'	91°51.9'	S 21°55.3'	224°04.9'	N 19°47.7'
4	279°47.3'	N 21°45.5'	172°05.1'	S 5°28.9'	106°54.4'	S 21°55.3'	239°05.7'	N 19°47.3'
5	294°46.7'	N 21°45.7'	187°07.3'	S 5°29.0'	121°57.0'	S 21°55.3'	254°06.5'	N 19°46.9'
6	309°46.1'	N 21°45.8'	202°09.5'	S 5°29.2'	136°59.6'	S 21°55.3'	269°07.3'	N 19°46.5'
7	324°45.4'	N 21°46.0'	217°11.6'	S 5°29.3'	152°02.2'	S 21°55.3'	284°08.1'	N 19°46.1'
8	339°44.8'	N 21°46.1'	232°13.8'	S 5°29.4'	167°04.7'	S 21°55.3'	299°08.9'	N 19°45.7'
9	354°44.2'	N 21°46.3'	247°15.9'	S 5°29.6'	182°07.3'	S 21°55.3'	314°09.7'	N 19°45.3'
10	9°43.5'	N 21°46.5'	262°18.1'	S 5°29.7'	197°09.9'	S 21°55.3'	329°10.5'	N 19°44.9'
11	24°42.9'	N 21°46.6'	277°20.3'	S 5°29.8'	212°12.4'	S 21°55.3'	344°11.3'	N 19°44.5'
12	39°42.3'	N 21°46.8'	292°22.4'	S 5°30.0'	227°15.0'	S 21°55.3'	359°12.1'	N 19°44.1'
13	54°41.6'	N 21°46.9'	307°24.6'	S 5°30.1'	242°17.6'	S 21°55.3'	14°13.0'	N 19°43.7'
14	69°41.0'	N 21°47.1'	322°26.8'	S 5°30.2'	257°20.2'	S 21°55.3'	29°13.8'	N 19°43.3'
15	84°40.4'	N 21°47.2'	337°28.9'	S 5°30.4'	272°22.7'	S 21°55.3'	44°14.6'	N 19°42.9'
16	99°39.7'	N 21°47.4'	352°31.1'	S 5°30.5'	287°25.3'	S 21°55.3'	59°15.4'	N 19°42.6'
17	114°39.1'	N 21°47.5'	7°33.2'	S 5°30.6'	302°27.9'	S 21°55.3'	74°16.2'	N 19°42.2'
18	129°38.5'	N 21°47.6'	22°35.4'	S 5°30.8'	317°30.4'	S 21°55.3'	89°17.0'	N 19°41.8'
19	144°37.8'	N 21°47.8'	37°37.6'	S 5°30.9'	332°33.0'	S 21°55.3'	104°17.8'	N 19°41.4'
20	159°37.2'	N 21°47.9'	52°39.7'	S 5°31.0'	347°35.6'	S 21°55.3'	119°18.6'	N 19°41.0'
21	174°36.6'	N 21°48.1'	67°41.9'	S 5°31.2'	2°38.2'	S 21°55.3'	134°19.4'	N 19°40.6'
22	189°35.9'	N 21°48.2'	82°44.0'	S 5°31.3'	17°40.7'	S 21°55.3'	149°20.3'	N 19°40.2'
23	204°35.3'	N 21°48.4'	97°46.2'	S 5°31.5'	32°43.3'	S 21°55.3'	164°21.1'	N 19°39.8'

Mon Jul 31, 2017 UTC

UTC	Venus -3.9 v = -0.6' d = 0.1'		Jupiter -1.7 v = 2.2' d = 0.1'		Saturn +0.2 v = 2.6' d = 0.0'		Mars +1.7 v = 0.8' d = 0.4'	
	GHA	dec	GHA	dec	GHA	dec	GHA	dec
0	219°34.7'	N 21°48.5'	112°48.4'	S 5°31.6'	47°45.9'	S 21°55.3'	179°21.9'	N 19°39.4'
1	234°34.0'	N 21°48.6'	127°50.5'	S 5°31.7'	62°48.4'	S 21°55.3'	194°22.7'	N 19°39.0'
2	249°33.4'	N 21°48.8'	142°52.7'	S 5°31.9'	77°51.0'	S 21°55.3'	209°23.5'	N 19°38.6'
3	264°32.7'	N 21°48.9'	157°54.8'	S 5°32.0'	92°53.6'	S 21°55.3'	224°24.3'	N 19°38.2'
4	279°32.1'	N 21°49.1'	172°57.0'	S 5°32.1'	107°56.1'	S 21°55.3'	239°25.1'	N 19°37.8'
5	294°31.5'	N 21°49.2'	187°59.1'	S 5°32.3'	122°58.7'	S 21°55.3'	254°25.9'	N 19°37.4'
6	309°30.8'	N 21°49.3'	203°01.3'	S 5°32.4'	138°01.3'	S 21°55.3'	269°26.8'	N 19°37.0'
7	324°30.2'	N 21°49.5'	218°03.5'	S 5°32.5'	153°03.8'	S 21°55.3'	284°27.6'	N 19°36.6'
8	339°29.6'	N 21°49.6'	233°05.6'	S 5°32.7'	168°06.4'	S 21°55.3'	299°28.4'	N 19°36.2'
9	354°28.9'	N 21°49.7'	248°07.8'	S 5°32.8'	183°09.0'	S 21°55.3'	314°29.2'	N 19°35.7'
10	9°28.3'	N 21°49.9'	263°09.9'	S 5°32.9'	198°11.5'	S 21°55.3'	329°30.0'	N 19°35.3'
11	24°27.6'	N 21°50.0'	278°12.1'	S 5°33.1'	213°14.1'	S 21°55.3'	344°30.8'	N 19°34.9'
12	39°27.0'	N 21°50.1'	293°14.2'	S 5°33.2'	228°16.7'	S 21°55.3'	359°31.6'	N 19°34.5'
13	54°26.4'	N 21°50.2'	308°16.4'	S 5°33.3'	243°19.3'	S 21°55.3'	14°32.5'	N 19°34.1'
14	69°25.7'	N 21°50.4'	323°18.6'	S 5°33.5'	258°21.8'	S 21°55.3'	29°33.3'	N 19°33.7'
15	84°25.1'	N 21°50.5'	338°20.7'	S 5°33.6'	273°24.4'	S 21°55.3'	44°34.1'	N 19°33.3'
16	99°24.4'	N 21°50.6'	353°22.9'	S 5°33.8'	288°27.0'	S 21°55.3'	59°34.9'	N 19°32.9'
17	114°23.8'	N 21°50.7'	8°25.0'	S 5°33.9'	303°29.5'	S 21°55.3'	74°35.7'	N 19°32.5'
18	129°23.2'	N 21°50.9'	23°27.2'	S 5°34.0'	318°32.1'	S 21°55.3'	89°36.5'	N 19°32.1'
19	144°22.5'	N 21°51.0'	38°29.3'	S 5°34.2'	333°34.7'	S 21°55.3'	104°37.3'	N 19°31.7'
20	159°21.9'	N 21°51.1'	53°31.5'	S 5°34.3'	348°37.2'	S 21°55.3'	119°38.2'	N 19°31.3'
21	174°21.2'	N 21°51.2'	68°33.6'	S 5°34.4'	3°39.8'	S 21°55.3'	134°39.0'	N 19°30.9'
22	189°20.6'	N 21°51.3'	83°35.8'	S 5°34.6'	18°42.4'	S 21°55.3'	149°39.8'	N 19°30.5'
23	204°19.9'	N 21°51.5'	98°38.0'	S 5°34.7'	33°44.9'	S 21°55.3'	164°40.6'	N 19°30.1'