

Magnitudes of the Planets

		January	February	March	April	May	June	July	August	September	October	November	December
2022	Venus	-4.3	-4.9	-4.6	-4.3	-4.0	-3.9	-3.8	-3.8	-3.9	-4.0	-3.9	-3.9
	Mars	+1.5	+1.3	+1.2	+1.0	+0.8	+0.6	+0.4	+0.1	-0.3	-0.9	-1.6	-1.7
	Jupiter	-2.1	-2.0	-2.0	-2.1	-2.2	-2.3	-2.6	-2.8	-2.9	-2.9	-2.7	-2.5
	Saturn	+1.4	+1.3	+1.4	+1.4	+1.3	+1.2	+1.0	+0.8	+1.0	+1.2	+1.3	+1.4
2023	Venus	-3.9	-3.9	-4.0	-4.1	-4.3	-4.5	-4.7	-4.1	-4.8	-4.6	-4.3	-4.1
	Mars	-0.8	+0.1	+0.7	+1.2	+1.5	+1.7	+1.8	+1.8	+1.7	+1.6	+1.5	+1.4
	Jupiter	-2.3	-2.1	-2.1	-2.1	-2.1	-2.1	-2.3	-2.5	-2.7	-2.7	-2.9	-2.7
	Saturn	+1.4	+1.3	+1.3	+1.4	+1.3	+1.2	+1.0	+0.9	+0.9	+1.1	+1.2	+1.3
2024	Venus	-4.0	-3.9	-3.8	-3.8	-3.9	-4.0	-3.9	-3.8	-3.9	-3.9	-4.1	-4.3
	Mars	+1.4	+1.3	+1.2	+1.2	+1.1	+1.0	+1.0	+0.8	+0.6	+0.3	-0.2	-0.8
	Jupiter	-2.5	-2.3	-2.1	-2.0	-2.0	-2.0	-2.1	-2.2	-2.4	-2.6	-2.8	-2.8
	Saturn	+1.3	+1.3	+1.3	+1.3	+1.3	+1.2	+1.1	+0.9	+0.8	+0.9	+1.1	+1.2
2025	Venus	-4.6	-4.9	-4.3	-4.7	-4.7	-4.3	-4.1	-3.9	-3.9	-3.9	-3.9	-3.9
	Mars	-1.4	-0.7	+0.1	+0.7	+1.1	+1.4	+1.5	+1.6	+1.6	+1.5	+1.4	+1.2
	Jupiter	-2.7	-2.4	-2.2	-2.1	-1.9	-1.9	-1.9	-1.9	-2.1	-2.2	-2.4	-2.6
	Saturn	+1.3	+1.3	+1.2	+1.3	+1.3	+1.2	+1.1	+0.9	+0.7	+0.8	+1.0	+1.2
2026	Venus	-4.0	-3.9	-3.9	-3.9	-3.9	-4.0	-4.2	-4.5	-4.7	-4.4	-4.7	-4.7
	Mars	+1.2	+1.2	+1.2	+1.2	+1.3	+1.3	+1.3	+1.3	+1.2	+1.0	+0.7	+0.2
	Jupiter	-2.7	-2.5	-2.4	-2.1	-2.0	-1.8	-1.8	-1.8	-1.8	-1.9	-2.1	-2.3
	Saturn	+1.2	+1.2	+1.2	+1.2	+1.2	+1.2	+1.1	+0.9	+0.7	+0.7	+0.9	+1.1
2027	Venus	-4.4	-4.2	-4.0	-3.9	-3.8	-3.8	-3.9	-4.0	-3.9	-3.9	-3.9	-3.9
	Mars	-0.5	-1.2	-0.8	0.0	+0.5	+0.9	+1.2	+1.3	+1.4	+1.3	+1.3	+1.2
	Jupiter	-2.5	-2.6	-2.4	-2.3	-2.0	-1.9	-1.8	-1.7	-1.7	-1.7	-1.9	-2.0
	Saturn	+1.2	+1.2	+1.1	+1.1	+1.2	+1.2	+1.1	+1.0	+0.8	+0.6	+0.7	+0.9
2028	Venus	-4.0	-4.2	-4.4	-4.7	-4.6	-4.4	-4.7	-4.4	-4.2	-4.0	-3.9	-3.9
	Mars	+1.2	+1.1	+1.1	+1.2	+1.3	+1.4	+1.5	+1.6	+1.6	+1.5	+1.2	+0.9
	Jupiter	-2.2	-2.4	-2.5	-2.4	-2.2	-2.0	-1.8	-1.7	-1.7	-1.7	-1.7	-1.8
	Saturn	+1.1	+1.1	+1.1	+1.0	+1.1	+1.1	+1.1	+1.0	+0.8	+0.6	+0.6	+0.8
2029	Venus	-3.9	-3.9	-3.9	-3.9	-3.9	-3.8	-3.9	-4.0	-4.1	-4.4	-4.7	-4.8
	Mars	+0.4	-0.4	-1.1	-1.1	-0.4	+0.2	+0.6	+0.8	+0.9	+1.0	+1.1	+1.1
	Jupiter	-2.0	-2.2	-2.4	-2.5	-2.4	-2.2	-2.0	-1.8	-1.7	-1.7	-1.7	-1.7
	Saturn	+1.0	+1.1	+1.1	+1.0	+1.0	+1.1	+1.1	+1.0	+0.9	+0.7	+0.5	+0.7
2030	Venus	-4.4	-4.9	-4.6	-4.2	-4.0	-3.9	-3.8	-3.9	-3.9	-4.0	-3.9	-3.9
	Mars	+1.2	+1.2	+1.3	+1.3	+1.4	+1.5	+1.6	+1.7	+1.7	+1.7	+1.6	+1.3
	Jupiter	-1.9	-2.1	-2.3	-2.4	-2.5	-2.4	-2.3	-2.1	-1.9	-1.8	-1.8	-1.8
	Saturn	+0.9	+1.0	+1.1	+1.0	+1.0	+1.0	+1.1	+1.0	+0.9	+0.7	+0.5	+0.6
2031	Venus	-3.9	-4.0	-4.0	-4.1	-4.3	-4.5	-4.7	-4.1	-4.8	-4.6	-4.3	-4.1
	Mars	+0.9	+0.3	-0.4	-1.3	-1.7	-1.1	-0.5	0.0	+0.3	+0.5	+0.7	+0.9
	Jupiter	-1.8	-1.9	-2.1	-2.3	-2.5	-2.6	-2.6	-2.4	-2.2	-2.0	-1.9	-1.9
	Saturn	+0.7	+0.9	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+0.8	+0.6	+0.4

Ephemerides January, 2022

2022

Date	Aries			Venus			Mars			Jupiter			Saturn			Sun		
	GHA	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	
01.01.2022	100°37'.6	166°00'.0	18°35'.0S	208°58'.0	22°30'.0S	127°39'.4	12°12'.7S	146°01'.3	18°00'.6S	179°10'.3	23°01'.2S							
		+1°33'.1	-10'.4	+0°13'.4	+05'.9	+0°47'.9	-04'.3	+0°52'.6	-01'.8	-0°07'.1	-05'.1							
02.01.2022	101°36'.7	167°33'.1	18°24'.6S	209°11'.4	22°35'.9S	128°27'.3	12°08'.4S	146°53'.9	17°58'.8S	179°03'.2	22°56'.1S							
		+1°34'.5	-10'.2	+0°13'.3	+05'.7	+0°47'.8	-04'.3	+0°52'.5	-01'.8	-0°07'.0	-05'.5							
03.01.2022	102°35'.9	169°07'.6	18°14'.4S	209°24'.7	22°41'.6S	129°15'.1	12°04'.1S	147°46'.4	17°57'.0S	178°56'.2	22°50'.6S							
		+1°36'.0	-10'.0	+0°13'.1	+05'.4	+0°47'.7	-04'.3	+0°52'.5	-01'.8	-0°06'.9	-05'.9							
04.01.2022	103°35'.0	170°43'.6	18°04'.4S	209°37'.8	22°47'.0S	130°02'.8	11°59'.8S	148°38'.9	17°55'.2S	178°49'.3	22°44'.7S							
		+1°37'.0	-09'.6	+0°13'.1	+05'.3	+0°47'.7	-04'.3	+0°52'.4	-01'.8	-0°06'.8	-06'.5							
05.01.2022	104°34'.2	172°20'.6	17°54'.8S	209°50'.9	22°52'.3S	130°50'.5	11°55'.5S	149°31'.3	17°53'.4S	178°42'.5	22°38'.2S							
		+1°38'.0	-09'.3	+0°13'.0	+05'.0	+0°47'.6	-04'.4	+0°52'.4	-01'.9	-0°06'.7	-06'.8							
06.01.2022	105°33'.3	173°58'.6	17°45'.5S	210°03'.9	22°57'.3S	131°38'.1	11°51'.1S	150°23'.7	17°51'.5S	178°35'.8	22°31'.4S							
		+1°38'.5	-09'.0	+0°12'.8	+04'.9	+0°47'.5	-04'.5	+0°52'.4	-01'.8	-0°06'.5	-07'.3							
07.01.2022	106°32'.4	175°37'.1	17°36'.5S	210°16'.7	23°02'.2S	132°25'.6	11°46'.6S	151°16'.1	17°49'.7S	178°29'.3	22°24'.1S							
		+1°39'.0	-08'.6	+0°12'.8	+04'.6	+0°47'.4	-04'.4	+0°52'.4	-01'.9	-0°06'.5	-07'.8							
08.01.2022	107°31'.6	177°16'.1	17°27'.9S	210°29'.5	23°06'.8S	133°13'.0	11°42'.2S	152°08'.5	17°47'.8S	178°22'.8	22°16'.3S							
		+1°39'.0	-08'.3	+0°12'.7	+04'.4	+0°47'.4	-04'.5	+0°52'.3	-01'.9	-0°06'.3	-08'.2							
09.01.2022	108°30'.7	178°55'.1	17°19'.6S	210°42'.2	23°11'.2S	134°00'.4	11°37'.7S	153°00'.8	17°45'.9S	178°16'.5	22°08'.1S							
		+1°38'.9	-07'.8	+0°12'.6	+04'.2	+0°47'.3	-04'.5	+0°52'.3	-01'.9	-0°06'.2	-08'.6							
10.01.2022	109°29'.8	180°34'.0	17°11'.8S	210°54'.8	23°15'.4S	134°47'.7	11°33'.2S	153°53'.1	17°44'.0S	178°10'.3	21°59'.5S							
		+1°38'.5	-07'.4	+0°12'.6	+03'.9	+0°47'.2	-04'.6	+0°52'.2	-01'.9	-0°06'.0	-09'.1							
11.01.2022	110°29'.0	182°12'.5	17°04'.4S	211°07'.4	23°19'.3S	135°34'.9	11°28'.6S	154°45'.3	17°42'.1S	178°04'.3	21°50'.4S							
		+1°37'.8	-07'.0	+0°12'.4	+03'.7	+0°47'.2	-04'.6	+0°52'.3	-01'.9	-0°05'.9	-09'.5							
12.01.2022	111°28'.1	183°50'.3	16°57'.4S	211°19'.8	23°23'.0S	136°22'.1	11°24'.0S	155°37'.6	17°40'.2S	177°58'.4	21°40'.9S							
		+1°36'.8	-06'.6	+0°12'.3	+03'.5	+0°47'.1	-04'.6	+0°52'.2	-01'.9	-0°05'.7	-09'.9							
13.01.2022	112°27'.3	185°27'.1	16°50'.8S	211°32'.1	23°26'.5S	137°09'.2	11°19'.4S	156°29'.8	17°38'.3S	177°52'.7	21°31'.0S							
		+1°35'.7	-06'.0	+0°12'.3	+03'.3	+0°47'.0	-04'.7	+0°52'.2	-01'.9	-0°05'.6	-10'.3							
14.01.2022	113°26'.4	187°02'.8	16°44'.8S	211°44'.4	23°29'.8S	137°56'.2	11°14'.7S	157°22'.0	17°36'.4S	177°47'.1	21°20'.7S							
		+1°34'.2	-05'.6	+0°12'.2	+03'.1	+0°47'.0	-04'.7	+0°52'.1	-02'.0	-0°05'.4	-10'.7							
15.01.2022	114°25'.5	188°37'.0	16°39'.2S	211°56'.6	23°32'.9S	138°43'.2	11°10'.0S	158°14'.1	17°34'.4S	177°41'.7	21°10'.0S							
		+1°32'.7	-05'.1	+0°12'.1	+02'.8	+0°46'.9	-04'.7	+0°52'.2	-01'.9	-0°05'.2	-11'.2							
16.01.2022	115°24'.7	190°09'.7	16°34'.1S	212°08'.7	23°35'.7S	139°30'.1	11°05'.3S	159°06'.3	17°32'.5S	177°36'.5	20°58'.8S							
		+1°30'.8	-04'.6	+0°12'.1	+02'.6	+0°46'.9	-04'.8	+0°52'.1	-02'.0	-0°05'.1	-11'.5							
17.01.2022	116°23'.8	191°40'.5	16°29'.5S	212°20'.8	23°38'.3S	140°17'.0	11°00'.5S	159°58'.4	17°30'.5S	177°31'.4	20°47'.3S							
		+1°28'.8	-04'.1	+0°12'.0	+02'.3	+0°46'.8	-04'.7	+0°52'.1	-02'.0	-0°04'.9	-11'.9							
18.01.2022	117°23'.0	193°09'.3	16°25'.4S	212°32'.8	23°40'.6S	141°03'.8	10°55'.8S	160°50'.5	17°28'.5S	177°26'.5	20°35'.4S							
		+1°26'.6	-03'.6	+0°11'.9	+02'.2	+0°46'.7	-04'.9	+0°52'.1	-02'.0	-0°04'.7	-12'.3							
19.01.2022	118°22'.1	194°35'.9	16°21'.8S	212°44'.7	23°42'.8S	141°50'.5	10°50'.9S	161°42'.6	17°26'.5S	177°21'.8	20°23'.1S							
		+1°24'.4	-03'.1	+0°11'.8	+01'.9	+0°46'.7	-04'.8	+0°52'.0	-02'.0	-0°04'.5	-12'.7							
20.01.2022	119°21'.2	196°00'.3	16°18'.7S	212°56'.5	23°44'.7S	142°37'.2	10°46'.1S	162°34'.6	17°24'.5S	177°17'.3	20°10'.4S							
		+1°22'.0	-02'.7	+0°11'.8	+01'.6	+0°46'.6	-04'.9	+0°52'.1	-02'.0	-0°04'.3	-13'.1							
21.01.2022	120°20'.4	197°22'.3	16°16'.0S	213°08'.3	23°46'.3S	143°23'.8	10°41'.2S	163°26'.7	17°22'.5S	177°13'.0	19°57'.3S							
		+1°19'.6	-02'.1	+0°11'.7	+01'.5	+0°46'.6	-04'.9	+0°52'.0	-02'.0	-0°04'.2	-13'.5							
22.01.2022	121°19'.5	198°41'.9	16°13'.9S	213°20'.0	23°47'.8S	144°10'.4	10°36'.3S	164°18'.7	17°20'.5S	177°08'.8	19°43'.8S							
		+1°17'.0	-01'.7	+0°11'.7	+01'.2	+0°46'.5	-04'.9	+0°52'.0	-02'.0	-0°03'.9	-13'.8							
23.01.2022	122°18'.7	199°58'.9	16°12'.2S	213°31'.7	23°49'.0S	144°56'.9	10°31'.4S	165°10'.7	17°18'.5S	177°04'.9	19°30'.0S							
		+1°14'.4	-01'.2	+0°11'.6	+00'.9	+0°46'.5	-04'.9	+0°52'.0	-02'.0	-0°03'.8	-14'.2							
24.01.2022	123°17'.8	201°13'.3	16°11'.0S	213°43'.3	23°49'.9S	145°43'.4	10°26'.5S	166°02'.7	17°16'.5S	177°01'.1	19°15'.8S							
		+1°11'.8	-00'.8	+0°11'.6	+00'.7	+0°46'.5	-05'.0	+0°52'.0	-02'.0	-0°03'.6	-14'.5							
25.01.2022	124°16'.9	202°25'.1	16°10'.2S	213°54'.9	23°50'.6S	146°29'.9	10°21'.5S	166°54'.7	17°14'.5S	176°57'.5	19°01'.3S							
		+1°09'.1	-00'.3	+0°11'.5	+00'.5	+0°46'.4	-05'.0	+0°52'.0	-02'.1	-0°03'.4	-14'.9							
26.01.2022	125°16'.1	203°34'.2	16°09'.9S	214°06'.4	23°51'.1S	147°16'.3	10°16'.5S	167°46'.7	17°12'.4S	176°54'.1	18°46'.4S							
		+1°06'.5	+00'.0	+0°11'.5	+00'.3	+0°46'.3	-05'.1	+0°52'.0	-02'.0	-0°03'.2	-15'.2							
27.01.2022	126°15'.2	204°40'.7	16°09'.9S	214°17'.9	23°51'.4S	148°02'.6	10°11'.4S	168°38'.7	17°10'.4S	176°50'.9	18°31'.2S							
		+1°03'.9	+00'.4	+0°11'.4	+00'.0	+0°46'.3	-05'.0	+0°52'.0	-02'.1	-0°03'.0	-15'.6							
28.01.2022	127°14'.3	205°44'.6	16°10'.3S	214°29'.3	23°51'.4S	148°48'.9	10°06'.4S	169°30'.7	17°08'.3S	176°47'.9	18°15'.6S							
		+1°01'.3	+00'.7	+0°11'.4	-00'.3	+0°46'.3	-05'.1	+0°51'.9	-02'.0	-0°02'.8	-15'.9							
29.01.2022	128°13'.5	206°45'.9	16°11'.0S	214°40'.7	23°51'.1S	149°35'.2	10°01'.3S	170°22'.6	17°06'.3S	176°45'.1	17°59'.7S							
		+0°58'.7	+01'.1	+0°11'.3	-00'.5	+0°46'.2	-05'.1	+0°52'.0	-02'.1	-0°02'.6	-16'.2							
30.01.2022	129°12'.6	207°44'.6	16°12'.1S	214°52'.0	23°50'.6S	150°21'.4	9°56'.2S	171°14'.6	17°04'.2S	176°42'.5	17°43'.5S							
		+0°56'.2	+01'.3	+0°11'.3	-00'.7	+0°46'.2	-05'.1	+0°51'.9	-02'.1	-0°02'.4	-16'.5							
31.01.2022	130°11'.8	208°40'.8	16°13'.4S	215°03'.3	23°49'.9S	151°07'.6	9°51'.1S	172°06'.5	17°02'.1S	176°40'.1	17°27'.0S							
		+0°53'.7	+01'.6	+0°11'.3	-00'.9	+0°46'.1	-05'.2	+0°51'.9	-02'.0	-0°02'.2	-16'.9							

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d
01.02.2022	131°10'.9	209°34'.5	16°15'.0S	215°14'.6	23°49'.0S	151°53'.7	9°45'.9S	172°58'.4	17°00'.1S	176°37'.9	17°10'.1S
		+0°51'.3	+01'.8	+0°11'.3	-01'.2	+0°46'.1	-05'.2	+0°52'.0	-02'.1	-0°02'.0	-17'.1
02.02.2022	132°10'.1	210°25'.8	16°16'.8S	215°25'.9	23°47'.8S	152°39'.8	9°40'.7S	173°50'.4	16°58'.0S	176°35'.9	16°53'.0S
		+0°49'.0	+02'.0	+0°11'.2	-01'.5	+0°46'.1	-05'.2	+0°51'.9	-02'.1	-0°01'.8	-17'.5
03.02.2022	133°09'.2	211°14'.8	16°18'.8S	215°37'.1	23°46'.3S	153°25'.9	9°35'.5S	174°42'.3	16°55'.9S	176°34'.1	16°35'.5S
		+0°46'.6	+02'.2	+0°11'.3	-01'.6	+0°46'.0	-05'.2	+0°52'.0	-02'.1	-0°01'.6	-17'.7
04.02.2022	134°08'.3	212°01'.4	16°21'.0S	215°48'.4	23°44'.7S	154°11'.9	9°30'.3S	175°34'.3	16°53'.8S	176°32'.5	16°17'.8S
		+0°44'.4	+02'.3	+0°11'.2	-02'.0	+0°46'.0	-05'.2	+0°51'.9	-02'.0	-0°01'.4	-18'.1
05.02.2022	135°07'.5	212°45'.8	16°23'.3S	215°59'.6	23°42'.7S	154°57'.9	9°25'.1S	176°26'.2	16°51'.8S	176°31'.1	15°59'.7S
		+0°42'.3	+02'.4	+0°11'.2	-02'.1	+0°46'.0	-05'.3	+0°51'.9	-02'.1	-0°01'.2	-18'.2
06.02.2022	136°06'.6	213°28'.1	16°25'.7S	216°10'.8	23°40'.6S	155°43'.9	9°19'.8S	177°18'.1	16°49'.7S	176°29'.9	15°41'.5S
		+0°40'.1	+02'.5	+0°11'.2	-02'.4	+0°46'.0	-05'.2	+0°52'.0	-02'.1	-0°00'.9	-18'.6
07.02.2022	137°05'.7	214°08'.2	16°28'.2S	216°22'.0	23°38'.2S	156°29'.9	9°14'.6S	178°10'.1	16°47'.6S	176°29'.0	15°22'.9S
		+0°38'.1	+02'.5	+0°11'.2	-02'.7	+0°45'.9	-05'.3	+0°51'.9	-02'.1	-0°00'.8	-18'.8
08.02.2022	138°04'.9	214°46'.3	16°30'.7S	216°33'.2	23°35'.5S	157°15'.8	9°09'.3S	179°02'.0	16°45'.5S	176°28'.2	15°04'.1S
		+0°36'.1	+02'.6	+0°11'.2	-02'.9	+0°45'.9	-05'.3	+0°52'.0	-02'.1	-0°00'.6	-19'.1
09.02.2022	139°04'.0	215°22'.4	16°33'.3S	216°44'.4	23°32'.6S	158°01'.7	9°04'.0S	179°54'.0	16°43'.4S	176°27'.6	14°45'.0S
		+0°34'.2	+02'.6	+0°11'.2	-03'.1	+0°45'.8	-05'.4	+0°51'.9	-02'.1	-0°00'.3	-19'.3
10.02.2022	140°03'.2	215°56'.6	16°35'.9S	216°55'.6	23°29'.5S	158°47'.5	8°58'.6S	180°45'.9	16°41'.3S	176°27'.3	14°25'.7S
		+0°32'.4	+02'.5	+0°11'.2	-03'.4	+0°45'.9	-05'.3	+0°52'.0	-02'.1	-0°00'.2	-19'.6
11.02.2022	141°02'.3	216°29'.0	16°38'.4S	217°06'.8	23°26'.1S	159°33'.4	8°53'.3S	181°37'.9	16°39'.2S	176°27'.1	14°06'.1S
		+0°30'.5	+02'.5	+0°11'.2	-03'.6	+0°45'.8	-05'.4	+0°52'.0	-02'.1	+0°00'.0	-19'.8
12.02.2022	142°01'.4	216°59'.5	16°40'.9S	217°18'.0	23°22'.5S	160°19'.2	8°47'.9S	182°29'.9	16°37'.1S	176°27'.1	13°46'.3S
		+0°28'.9	+02'.4	+0°11'.3	-03'.8	+0°45'.8	-05'.3	+0°52'.0	-02'.1	+0°00'.3	-20'.0
13.02.2022	143°00'.6	217°28'.4	16°43'.3S	217°29'.3	23°18'.7S	161°05'.0	8°42'.6S	183°21'.9	16°35'.0S	176°27'.4	13°26'.3S
		+0°27'.1	+02'.3	+0°11'.2	-04'.1	+0°45'.8	-05'.4	+0°52'.0	-02'.1	+0°00'.4	-20'.3
14.02.2022	143°59'.7	217°55'.5	16°45'.6S	217°40'.5	23°14'.6S	161°50'.8	8°37'.2S	184°13'.9	16°32'.9S	176°27'.8	13°06'.0S
		+0°25'.6	+02'.2	+0°11'.3	-04'.3	+0°45'.8	-05'.4	+0°52'.0	-02'.1	+0°00'.6	-20'.4
15.02.2022	144°58'.9	218°21'.1	16°47'.8S	217°51'.8	23°10'.3S	162°36'.6	8°31'.8S	185°05'.9	16°30'.8S	176°28'.4	12°45'.6S
		+0°24'.0	+02'.0	+0°11'.2	-04'.6	+0°45'.7	-05'.5	+0°52'.0	-02'.1	+0°00'.8	-20'.7
16.02.2022	145°58'.0	218°45'.1	16°49'.8S	218°03'.0	23°05'.7S	163°22'.3	8°26'.3S	185°57'.9	16°28'.7S	176°29'.2	12°24'.9S
		+0°22'.6	+01'.9	+0°11'.3	-04'.8	+0°45'.8	-05'.4	+0°52'.1	-02'.1	+0°00'.9	-20'.8
17.02.2022	146°57'.1	219°07'.7	16°51'.7S	218°14'.3	23°00'.9S	164°08'.1	8°20'.9S	186°50'.0	16°26'.6S	176°30'.1	12°04'.1S
		+0°21'.1	+01'.6	+0°11'.3	-05'.0	+0°45'.7	-05'.4	+0°52'.0	-02'.1	+0°01'.1	-21'.1
18.02.2022	147°56'.3	219°28'.8	16°53'.3S	218°25'.6	22°55'.9S	164°53'.8	8°15'.5S	187°42'.0	16°24'.5S	176°31'.2	11°43'.0S
		+0°19'.7	+01'.4	+0°11'.4	-05'.3	+0°45'.7	-05'.5	+0°52'.1	-02'.0	+0°01'.4	-21'.2
19.02.2022	148°55'.4	219°48'.5	16°54'.7S	218°37'.0	22°50'.6S	165°39'.5	8°10'.0S	188°34'.1	16°22'.5S	176°32'.6	11°21'.8S
		+0°18'.4	+01'.2	+0°11'.3	-05'.5	+0°45'.7	-05'.5	+0°52'.1	-02'.1	+0°01'.4	-21'.4
20.02.2022	149°54'.5	220°06'.9	16°55'.9S	218°48'.3	22°45'.1S	166°25'.2	8°04'.5S	189°26'.2	16°20'.4S	176°34'.0	11°00'.4S
		+0°17'.2	+00'.9	+0°11'.4	-05'.7	+0°45'.7	-05'.4	+0°52'.1	-02'.1	+0°01'.7	-21'.6
21.02.2022	150°53'.7	220°24'.1	16°56'.8S	218°59'.7	22°39'.4S	167°10'.9	7°59'.1S	190°18'.3	16°18'.3S	176°35'.7	10°38'.8S
		+0°15'.9	+00'.7	+0°11'.5	-06'.0	+0°45'.7	-05'.5	+0°52'.2	-02'.1	+0°01'.7	-21'.7
22.02.2022	151°52'.8	220°40'.0	16°57'.5S	219°11'.2	22°33'.4S	167°56'.6	7°53'.6S	191°10'.5	16°16'.2S	176°37'.4	10°17'.1S
		+0°14'.8	+00'.3	+0°11'.4	-06'.2	+0°45'.6	-05'.5	+0°52'.1	-02'.1	+0°02'.0	-21'.9
23.02.2022	152°52'.0	220°54'.8	16°57'.8S	219°22'.6	22°27'.2S	168°42'.2	7°48'.1S	192°02'.6	16°14'.1S	176°39'.4	9°55'.2S
		+0°13'.7	+00'.0	+0°11'.5	-06'.4	+0°45'.7	-05'.6	+0°52'.2	-02'.0	+0°02'.1	-22'.1
24.02.2022	153°51'.1	221°08'.5	16°57'.8S	219°34'.1	22°20'.8S	169°27'.9	7°42'.5S	192°54'.8	16°12'.1S	176°41'.5	9°33'.1S
		+0°12'.6	-00'.3	+0°11'.6	-06'.7	+0°45'.6	-05'.5	+0°52'.2	-02'.1	+0°02'.2	-22'.2
25.02.2022	154°50'.2	221°21'.1	16°57'.5S	219°45'.7	22°14'.1S	170°13'.5	7°37'.0S	193°47'.0	16°10'.0S	176°43'.7	9°10'.9S
		+0°11'.5	-00'.6	+0°11'.6	-06'.9	+0°45'.7	-05'.5	+0°52'.2	-02'.1	+0°02'.4	-22'.4
26.02.2022	155°49'.4	221°32'.6	16°56'.9S	219°57'.3	22°07'.2S	170°59'.2	7°31'.5S	194°39'.2	16°07'.9S	176°46'.1	8°48'.5S
		+0°10'.7	-01'.0	+0°11'.6	-07'.1	+0°45'.6	-05'.6	+0°52'.3	-02'.0	+0°02'.5	-22'.4
27.02.2022	156°48'.5	221°43'.3	16°55'.9S	220°08'.9	22°00'.1S	171°44'.8	7°25'.9S	195°31'.5	16°05'.9S	176°48'.6	8°26'.1S
		+0°09'.7	-01'.4	+0°11'.7	-07'.3	+0°45'.6	-05'.5	+0°52'.2	-02'.1	+0°02'.7	-22'.6
28.02.2022	157°47'.7	221°53'.0	16°54'.5S	220°20'.6	21°52'.8S	172°30'.4	7°20'.4S	196°23'.7	16°03'.8S	176°51'.3	8°03'.5S
		+0°08'.8	-01'.7	+0°11'.7	-07'.6	+0°45'.7	-05'.6	+0°52'.3	-02'.0	+0°02'.7	-22'.8

Ephemerides March, 2022

2022

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d
01.03.2022	158°46'.8	222°01'.8	16°52'.8S	220°32'.3	21°45'.2S	173°16'.1	7°14'.8S	197°16'.0	16°01'.8S	176°54'.0	7°40'.7S
		+0°08'.0	-02'.1	+0°11'.8	-07'.8	+0°45'.6	-05'.5	+0°52'.4	-02'.1	+0°02'.9	-22'.8
02.03.2022	159°45'.9	222°09'.8	16°50'.7S	220°44'.1	21°37'.4S	174°01'.7	7°09'.3S	198°08'.4	15°59'.7S	176°56'.9	7°17'.9S
		+0°07'.2	-02'.5	+0°11'.8	-08'.0	+0°45'.6	-05'.6	+0°52'.3	-02'.0	+0°03'.1	-22'.9
03.03.2022	160°45'.1	222°17'.0	16°48'.2S	220°55'.9	21°29'.4S	174°47'.3	7°03'.7S	199°00'.7	15°57'.7S	177°00'.0	6°55'.0S
		+0°06'.5	-03'.0	+0°12'.0	-08'.2	+0°45'.7	-05'.5	+0°52'.4	-02'.1	+0°03'.1	-23'.1
04.03.2022	161°44'.2	222°23'.5	16°45'.2S	221°07'.9	21°21'.2S	175°33'.0	6°58'.2S	199°53'.1	15°55'.6S	177°03'.1	6°31'.9S
		+0°05'.7	-03'.3	+0°11'.9	-08'.4	+0°45'.6	-05'.6	+0°52'.4	-02'.0	+0°03'.3	-23'.1
05.03.2022	162°43'.3	222°29'.2	16°41'.9S	221°19'.8	21°12'.8S	176°18'.6	6°52'.6S	200°45'.5	15°53'.6S	177°06'.4	6°08'.8S
		+0°05'.1	-03'.8	+0°12'.1	-08'.7	+0°45'.6	-05'.6	+0°52'.5	-02'.0	+0°03'.3	-23'.2
06.03.2022	163°42'.5	222°34'.3	16°38'.1S	221°31'.9	21°04'.1S	177°04'.2	6°47'.0S	201°38'.0	15°51'.6S	177°09'.7	5°45'.6S
		+0°04'.4	-04'.2	+0°12'.1	-08'.9	+0°45'.7	-05'.6	+0°52'.5	-02'.0	+0°03'.5	-23'.3
07.03.2022	164°41'.6	222°38'.7	16°33'.9S	221°44'.0	20°55'.2S	177°49'.9	6°41'.4S	202°30'.5	15°49'.6S	177°13'.2	5°22'.3S
		+0°03'.8	-04'.6	+0°12'.1	-09'.0	+0°45'.6	-05'.6	+0°52'.5	-02'.0	+0°03'.6	-23'.4
08.03.2022	165°40'.8	222°42'.5	16°29'.3S	221°56'.1	20°46'.2S	178°35'.5	6°35'.8S	203°23'.0	15°47'.6S	177°16'.8	4°58'.9S
		+0°03'.2	-05'.1	+0°12'.3	-09'.3	+0°45'.7	-05'.6	+0°52'.6	-02'.0	+0°03'.7	-23'.4
09.03.2022	166°39'.9	222°45'.7	16°24'.2S	222°08'.4	20°36'.9S	179°21'.2	6°30'.2S	204°15'.6	15°45'.6S	177°20'.5	4°35'.5S
		+0°02'.7	-05'.6	+0°12'.3	-09'.5	+0°45'.6	-05'.5	+0°52'.6	-02'.0	+0°03'.7	-23'.5
10.03.2022	167°39'.0	222°48'.4	16°18'.6S	222°20'.7	20°27'.4S	180°06'.8	6°24'.7S	205°08'.2	15°43'.6S	177°24'.2	4°12'.0S
		+0°02'.1	-05'.9	+0°12'.4	-09'.7	+0°45'.7	-05'.6	+0°52'.6	-01'.9	+0°03'.9	-23'.5
11.03.2022	168°38'.2	222°50'.5	16°12'.7S	222°33'.1	20°17'.7S	180°52'.5	6°19'.1S	206°00'.8	15°41'.7S	177°28'.1	3°48'.5S
		+0°01'.7	-06'.5	+0°12'.5	-09'.9	+0°45'.7	-05'.6	+0°52'.7	-02'.0	+0°03'.9	-23'.6
12.03.2022	169°37'.3	222°52'.2	16°06'.2S	222°45'.6	20°07'.8S	181°38'.2	6°13'.5S	206°53'.5	15°39'.7S	177°32'.0	3°24'.9S
		+0°01'.2	-06'.9	+0°12'.5	-10'.1	+0°45'.7	-05'.6	+0°52'.7	-01'.9	+0°04'.1	-23'.6
13.03.2022	170°36'.5	222°53'.4	15°59'.3S	222°58'.1	19°57'.7S	182°23'.9	6°07'.9S	207°46'.2	15°37'.8S	177°36'.1	3°01'.3S
		+0°00'.7	-07'.3	+0°12'.6	-10'.3	+0°45'.7	-05'.6	+0°52'.8	-02'.0	+0°04'.1	-23'.7
14.03.2022	171°35'.6	222°54'.1	15°52'.0S	223°10'.7	19°47'.4S	183°09'.6	6°02'.3S	208°39'.0	15°35'.8S	177°40'.2	2°37'.6S
		+0°00'.4	-07'.8	+0°12'.7	-10'.5	+0°45'.7	-05'.6	+0°52'.8	-01'.9	+0°04'.1	-23'.7
15.03.2022	172°34'.7	222°54'.5	15°44'.2S	223°23'.4	19°36'.9S	183°55'.3	5°56'.7S	209°31'.8	15°33'.9S	177°44'.3	2°13'.9S
		-0°00'.1	-08'.3	+0°12'.8	-10'.7	+0°45'.8	-05'.6	+0°52'.8	-01'.9	+0°04'.3	-23'.7
16.03.2022	173°33'.9	222°54'.4	15°35'.9S	223°36'.2	19°26'.2S	184°41'.1	5°51'.1S	210°24'.6	15°32'.0S	177°48'.6	1°50'.2S
		-0°00'.4	-08'.8	+0°12'.8	-10'.9	+0°45'.7	-05'.5	+0°52'.9	-01'.9	+0°04'.2	-23'.7
17.03.2022	174°33'.0	222°54'.0	15°27'.1S	223°49'.0	19°15'.3S	185°26'.8	5°45'.6S	211°17'.5	15°30'.1S	177°52'.8	1°26'.5S
		-0°00'.8	-09'.2	+0°13'.0	-11'.0	+0°45'.8	-05'.6	+0°53'.0	-01'.9	+0°04'.4	-23'.7
18.03.2022	175°32'.1	222°53'.2	15°17'.9S	224°02'.0	19°04'.3S	186°12'.6	5°40'.0S	212°10'.5	15°28'.2S	177°57'.2	1°02'.8S
		-0°01'.1	-09'.7	+0°13'.0	-11'.3	+0°45'.8	-05'.6	+0°53'.0	-01'.9	+0°04'.3	-23'.7
19.03.2022	176°31'.3	222°52'.1	15°08'.2S	224°15'.0	18°53'.0S	186°58'.4	5°34'.4S	213°03'.5	15°26'.3S	178°01'.5	0°39'.1S
		-0°01'.4	-10'.1	+0°13'.0	-11'.4	+0°45'.8	-05'.5	+0°53'.0	-01'.8	+0°04'.5	-23'.7
20.03.2022	177°30'.4	222°50'.7	14°58'.1S	224°28'.0	18°41'.6S	187°44'.2	5°28'.9S	213°56'.5	15°24'.5S	178°06'.0	0°15'.4S
		-0°01'.7	-10'.7	+0°13'.2	-11'.7	+0°45'.8	-05'.6	+0°53'.1	-01'.9	+0°04'.4	-23'.7
21.03.2022	178°29'.6	222°49'.0	14°47'.4S	224°41'.2	18°29'.9S	188°30'.0	5°23'.3S	214°49'.6	15°22'.6S	178°10'.4	0°08'.3N
		-0°01'.9	-11'.0	+0°13'.3	-11'.8	+0°45'.9	-05'.6	+0°53'.1	-01'.8	+0°04'.5	+23'.7
22.03.2022	179°28'.7	222°47'.1	14°36'.4S	224°54'.5	18°18'.1S	189°15'.9	5°17'.7S	215°42'.7	15°20'.8S	178°14'.9	0°32'.0N
		-0°02'.3	-11'.6	+0°13'.3	-12'.0	+0°45'.9	-05'.5	+0°53'.2	-01'.8	+0°04'.5	+23'.7
23.03.2022	180°27'.8	222°44'.8	14°24'.8S	225°07'.8	18°06'.1S	190°01'.8	5°12'.2S	216°35'.9	15°19'.0S	178°19'.4	0°55'.7N
		-0°02'.4	-12'.0	+0°13'.4	-12'.1	+0°45'.9	-05'.6	+0°53'.2	-01'.8	+0°04'.5	+23'.7
24.03.2022	181°27'.0	222°42'.4	14°12'.8S	225°21'.2	17°54'.0S	190°47'.7	5°06'.6S	217°29'.1	15°17'.2S	178°23'.9	1°19'.4N
		-0°02'.6	-12'.5	+0°13'.5	-12'.4	+0°45'.9	-05'.5	+0°53'.3	-01'.8	+0°04'.5	+23'.6
25.03.2022	182°26'.1	222°39'.8	14°00'.3S	225°34'.7	17°41'.6S	191°33'.6	5°01'.1S	218°22'.4	15°15'.4S	178°28'.4	1°43'.0N
		-0°02'.9	-12'.9	+0°13'.6	-12'.5	+0°45'.9	-05'.5	+0°53'.3	-01'.8	+0°04'.5	+23'.6
26.03.2022	183°25'.3	222°36'.9	13°47'.4S	225°48'.3	17°29'.1S	192°19'.5	4°55'.6S	219°15'.7	15°13'.6S	178°32'.9	2°06'.6N
		-0°03'.0	-13'.4	+0°13'.7	-12'.7	+0°46'.0	-05'.5	+0°53'.4	-01'.7	+0°04'.5	+23'.5
27.03.2022	184°24'.4	222°33'.9	13°34'.0S	226°02'.0	17°16'.4S	193°05'.5	4°50'.1S	220°09'.1	15°11'.9S	178°37'.4	2°30'.1N
		-0°03'.2	-13'.8	+0°13'.7	-12'.8	+0°46'.0	-05'.6	+0°53'.4	-01'.8	+0°04'.6	+23'.5
28.03.2022	185°23'.5	222°30'.7	13°20'.2S	226°15'.7	17°03'.6S	193°51'.5	4°44'.5S	221°02'.5	15°10'.1S	178°42'.0	2°53'.6N
		-0°03'.3	-14'.2	+0°13'.9	-13'.0	+0°46'.0	-05'.5	+0°53'.5	-01'.7	+0°04'.5	+23'.4
29.03.2022	186°22'.7	222°27'.4	13°06'.0S	226°29'.6	16°50'.6S	194°37'.5	4°39'.0S	221°56'.0	15°08'.4S	178°46'.5	3°17'.0N
		-0°03'.5	-14'.7	+0°13'.9	-13'.2	+0°46'.1	-05'.5	+0°53'.6	-01'.7	+0°04'.4	+23'.4
30.03.2022	187°21'.8	222°23'.9	12°51'.3S	226°43'.5	16°37'.4S	195°23'.6	4°33'.5S	222°49'.6	15°06'.7S	178°50'.9	3°40'.4N
		-0°03'.6	-15'.1	+0°14'.0	-13'.3	+0°46'.0	-05'.4	+0°53'.6	-01'.7	+0°04'.5	+23'.3
31.03.2022	188°20'.9	222°20'.3	12°36'.2S	226°57'.5	16°24'.1S	196°09'.6	4°28'.1S	223°43'.2	15°05'.0S	178°55'.4	4°03'.7N
		-0°03'.6	-15'.6	+0°14'.1	-13'.5	+0°46'.2	-05'.5	+0°53'.7	-01'.6	+0°04'.5	+23'.2

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d
01.04.2022	189°20'.1	222°16'.7	12°20'.6S	227°11'.6	16°10'.6S	196°55'.8	4°22'.6S	224°36'.9	15°03'.4S	178°59'.9	4°26'.9N
		-0°03'.8	-15'.9	+0°14'.2	-13'.6	+0°46'.1	-05'.5	+0°53'.7	-01'.7	+0°04'.4	+23'.2
02.04.2022	190°19'.2	222°12'.9	12°04'.7S	227°25'.8	15°57'.0S	197°41'.9	4°17'.1S	225°30'.6	15°01'.7S	179°04'.3	4°50'.1N
		-0°03'.9	-16'.4	+0°14'.3	-13'.8	+0°46'.2	-05'.4	+0°53'.8	-01'.6	+0°04'.4	+23'.0
03.04.2022	191°18'.4	222°09'.0	11°48'.3S	227°40'.1	15°43'.2S	198°28'.1	4°11'.7S	226°24'.4	15°00'.1S	179°08'.7	5°13'.1N
		-0°03'.9	-16'.7	+0°14'.4	-13'.9	+0°46'.2	-05'.4	+0°53'.8	-01'.6	+0°04'.3	+23'.0
04.04.2022	192°17'.5	222°05'.1	11°31'.6S	227°54'.5	15°29'.3S	199°14'.3	4°06'.3S	227°18'.2	14°58'.5S	179°13'.0	5°36'.1N
		-0°04'.0	-17'.2	+0°14'.5	-14'.1	+0°46'.3	-05'.5	+0°53'.9	-01'.6	+0°04'.4	+22'.9
05.04.2022	193°16'.6	222°01'.1	11°14'.4S	228°09'.0	15°15'.2S	200°00'.6	4°00'.8S	228°12'.1	14°56'.9S	179°17'.4	5°59'.0N
		-0°04'.0	-17'.5	+0°14'.6	-14'.2	+0°46'.3	-05'.4	+0°54'.0	-01'.6	+0°04'.2	+22'.7
06.04.2022	194°15'.8	221°57'.1	10°56'.9S	228°23'.6	15°01'.0S	200°46'.9	3°55'.4S	229°06'.1	14°55'.3S	179°21'.6	6°21'.7N
		-0°04'.1	-17'.9	+0°14'.6	-14'.4	+0°46'.3	-05'.4	+0°54'.1	-01'.6	+0°04'.3	+22'.7
07.04.2022	195°14'.9	221°53'.0	10°39'.0S	228°38'.2	14°46'.6S	201°33'.2	3°50'.0S	230°00'.2	14°53'.7S	179°25'.9	6°44'.4N
		-0°04'.2	-18'.3	+0°14'.8	-14'.4	+0°46'.4	-05'.3	+0°54'.1	-01'.5	+0°04'.2	+22'.5
08.04.2022	196°14'.1	221°48'.8	10°20'.7S	228°53'.0	14°32'.2S	202°19'.6	3°44'.7S	230°54'.3	14°52'.2S	179°30'.1	7°06'.9N
		-0°04'.2	-18'.7	+0°14'.8	-14'.7	+0°46'.4	-05'.4	+0°54'.2	-01'.5	+0°04'.1	+22'.4
09.04.2022	197°13'.2	221°44'.6	10°02'.0S	229°07'.8	14°17'.5S	203°06'.0	3°39'.3S	231°48'.5	14°50'.7S	179°34'.2	7°29'.3N
		-0°04'.2	-19'.0	+0°14'.9	-14'.7	+0°46'.4	-05'.3	+0°54'.2	-01'.5	+0°04'.1	+22'.3
10.04.2022	198°12'.3	221°40'.4	9°43'.0S	229°22'.7	14°02'.8S	203°52'.4	3°34'.0S	232°42'.7	14°49'.2S	179°38'.3	7°51'.6N
		-0°04'.2	-19'.3	+0°15'.0	-14'.9	+0°46'.5	-05'.3	+0°54'.3	-01'.4	+0°04'.0	+22'.2
11.04.2022	199°11'.5	221°36'.2	9°23'.7S	229°37'.7	13°47'.9S	204°38'.9	3°28'.7S	233°37'.0	14°47'.8S	179°42'.3	8°13'.8N
		-0°04'.3	-19'.7	+0°15'.1	-14'.9	+0°46'.6	-05'.3	+0°54'.4	-01'.5	+0°03'.9	+22'.0
12.04.2022	200°10'.6	221°31'.9	9°04'.0S	229°52'.8	13°33'.0S	205°25'.5	3°23'.4S	234°31'.4	14°46'.3S	179°46'.2	8°35'.8N
		-0°04'.2	-20'.0	+0°15'.2	-15'.2	+0°46'.5	-05'.3	+0°54'.4	-01'.4	+0°03'.9	+21'.9
13.04.2022	201°09'.7	221°27'.7	8°44'.0S	230°08'.0	13°17'.8S	206°12'.0	3°18'.1S	235°25'.8	14°44'.9S	179°50'.1	8°57'.7N
		-0°04'.3	-20'.4	+0°15'.3	-15'.2	+0°46'.7	-05'.3	+0°54'.6	-01'.4	+0°03'.8	+21'.7
14.04.2022	202°08'.9	221°23'.4	8°23'.6S	230°23'.3	13°02'.6S	206°58'.7	3°12'.8S	236°20'.4	14°43'.5S	179°53'.9	9°19'.4N
		-0°04'.4	-20'.6	+0°15'.4	-15'.3	+0°46'.7	-05'.2	+0°54'.5	-01'.4	+0°03'.7	+21'.5
15.04.2022	203°08'.0	221°19'.0	8°03'.0S	230°38'.7	12°47'.3S	207°45'.4	3°07'.6S	237°14'.9	14°42'.1S	179°57'.6	9°40'.9N
		-0°04'.3	-21'.0	+0°15'.4	-15'.5	+0°46'.7	-05'.2	+0°54'.7	-01'.3	+0°03'.6	+21'.4
16.04.2022	204°07'.2	221°14'.7	7°42'.0S	230°54'.1	12°31'.8S	208°32'.1	3°02'.4S	238°09'.6	14°40'.8S	180°01'.2	10°02'.3N
		-0°04'.3	-21'.3	+0°15'.5	-15'.5	+0°46'.8	-05'.2	+0°54'.7	-01'.3	+0°03'.5	+21'.3
17.04.2022	205°06'.3	221°10'.4	7°20'.7S	231°09'.6	12°16'.3S	209°18'.9	2°57'.2S	239°04'.3	14°39'.5S	180°04'.7	10°23'.6N
		-0°04'.4	-21'.5	+0°15'.6	-15'.7	+0°46'.8	-05'.2	+0°54'.9	-01'.3	+0°03'.5	+21'.0
18.04.2022	206°05'.4	221°06'.0	6°59'.2S	231°25'.2	12°00'.6S	210°05'.7	2°52'.0S	239°59'.2	14°38'.2S	180°08'.2	10°44'.6N
		-0°04'.4	-21'.8	+0°15'.7	-15'.8	+0°46'.9	-05'.2	+0°54'.8	-01'.3	+0°03'.3	+20'.9
19.04.2022	207°04'.6	221°01'.6	6°37'.4S	231°40'.9	11°44'.8S	210°52'.6	2°46'.8S	240°54'.0	14°36'.9S	180°11'.5	11°05'.5N
		-0°04'.4	-22'.1	+0°15'.7	-15'.9	+0°46'.9	-05'.1	+0°55'.0	-01'.3	+0°03'.2	+20'.7
20.04.2022	208°03'.7	220°57'.2	6°15'.3S	231°56'.6	11°28'.9S	211°39'.5	2°41'.7S	241°49'.0	14°35'.6S	180°14'.7	11°26'.2N
		-0°04'.4	-22'.4	+0°15'.9	-15'.9	+0°47'.0	-05'.1	+0°55'.0	-01'.2	+0°03'.2	+20'.5
21.04.2022	209°02'.9	220°52'.8	5°52'.9S	232°12'.5	11°13'.0S	212°26'.5	2°36'.6S	242°44'.0	14°34'.4S	180°17'.9	11°46'.7N
		-0°04'.4	-22'.6	+0°15'.9	-16'.1	+0°47'.0	-05'.1	+0°55'.1	-01'.2	+0°03'.0	+20'.4
22.04.2022	210°02'.0	220°48'.4	5°30'.3S	232°28'.4	10°56'.9S	213°13'.5	2°31'.5S	243°39'.1	14°33'.2S	180°20'.9	12°07'.1N
		-0°04'.4	-22'.8	+0°16'.0	-16'.2	+0°47'.1	-05'.1	+0°55'.2	-01'.2	+0°02'.9	+20'.1
23.04.2022	211°01'.1	220°44'.0	5°07'.5S	232°44'.4	10°40'.7S	214°00'.6	2°26'.4S	244°34'.3	14°32'.0S	180°23'.8	12°27'.2N
		-0°04'.4	-23'.1	+0°16'.0	-16'.2	+0°47'.1	-05'.0	+0°55'.3	-01'.1	+0°02'.7	+19'.9
24.04.2022	212°00'.3	220°39'.6	4°44'.4S	233°00'.4	10°24'.5S	214°47'.7	2°21'.4S	245°29'.6	14°30'.9S	180°26'.5	12°47'.1N
		-0°04'.5	-23'.3	+0°16'.2	-16'.3	+0°47'.2	-05'.0	+0°55'.3	-01'.1	+0°02'.7	+19'.7
25.04.2022	212°59'.4	220°35'.1	4°21'.1S	233°16'.6	10°08'.2S	215°34'.9	2°16'.4S	246°24'.9	14°29'.8S	180°29'.2	13°06'.8N
		-0°04'.5	-23'.5	+0°16'.2	-16'.5	+0°47'.3	-05'.0	+0°55'.4	-01'.1	+0°02'.5	+19'.5
26.04.2022	213°58'.5	220°30'.6	3°57'.6S	233°32'.8	9°51'.7S	216°22'.2	2°11'.4S	247°20'.3	14°28'.7S	180°31'.7	13°26'.3N
		-0°04'.5	-23'.7	+0°16'.3	-16'.5	+0°47'.3	-04'.9	+0°55'.5	-01'.1	+0°02'.4	+19'.3
27.04.2022	214°57'.7	220°26'.1	3°33'.9S	233°49'.1	9°35'.2S	217°09'.5	2°06'.5S	248°15'.8	14°27'.6S	180°34'.1	13°45'.6N
		-0°04'.5	-23'.9	+0°16'.3	-16'.5	+0°47'.4	-05'.0	+0°55'.6	-01'.0	+0°02'.3	+19'.1
28.04.2022	215°56'.8	220°21'.6	3°10'.0S	234°05'.4	9°18'.7S	217°56'.9	2°01'.5S	249°11'.4	14°26'.6S	180°36'.4	14°04'.7N
		-0°04'.5	-24'.0	+0°16'.5	-16'.7	+0°47'.5	-04'.9	+0°55'.7	-01'.1	+0°02'.2	+18'.8
29.04.2022	216°56'.0	220°17'.1	2°46'.0S	234°21'.9	9°02'.0S	218°44'.4	1°56'.6S	250°07'.1	14°25'.5S	180°38'.6	14°23'.5N
		-0°04'.6	-24'.3	+0°16'.5	-16'.7	+0°47'.5	-04'.8	+0°55'.7	-00'.9	+0°02'.0	+18'.6
30.04.2022	217°55'.1	220°12'.5	2°21'.7S	234°38'.4	8°45'.3S	219°31'.9	1°51'.8S	251°02'.8	14°24'.6S	180°40'.6	14°42'.1N
		-0°04'.6	-24'.4	+0°16'.6	-16'.8	+0°47'.6	-04'.9	+0°55'.8	-01'.0	+0°01'.9	+18'.3

Ephemerides May, 2022

2022

Date	Aries			Venus			Mars			Jupiter			Saturn			Sun		
	GHA	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	
01.05.2022	218°54'.2	220°07'.9	1°57'.3S	234°55'.0	8°28'.5S	220°19'.5	1°46'.9S	251°58'.6	14°23'.6S	180°42'.5	15°00'.4N							
		-0°04'.6	-24'.5	+0°16'.6	-16'.8	+0°47'.6	-04'.8	+0°56'.0	-00'.9	+0°01'.7	+18'.1							
02.05.2022	219°53'.4	220°03'.3	1°32'.8S	235°11'.6	8°11'.7S	221°07'.1	1°42'.1S	252°54'.6	14°22'.7S	180°44'.2	15°18'.5N							
		-0°04'.6	-24'.7	+0°16'.7	-16'.9	+0°47'.7	-04'.8	+0°56'.0	-00'.9	+0°01'.6	+17'.8							
03.05.2022	220°52'.5	219°58'.7	1°08'.1S	235°28'.3	7°54'.8S	221°54'.8	1°37'.3S	253°50'.6	14°21'.8S	180°45'.8	15°36'.3N							
		-0°04'.7	-24'.7	+0°16'.8	-17'.0	+0°47'.8	-04'.7	+0°56'.0	-00'.9	+0°01'.5	+17'.6							
04.05.2022	221°51'.7	219°54'.0	0°43'.4S	235°45'.1	7°37'.8S	222°42'.6	1°32'.6S	254°46'.6	14°20'.9S	180°47'.3	15°53'.9N							
		-0°04'.8	-24'.9	+0°16'.9	-17'.0	+0°47'.9	-04'.7	+0°56'.2	-00'.8	+0°01'.3	+17'.3							
05.05.2022	222°50'.8	219°49'.2	0°18'.5S	236°02'.0	7°20'.8S	223°30'.5	1°27'.9S	255°42'.8	14°20'.1S	180°48'.6	16°11'.2N							
		-0°04'.7	-25'.0	+0°16'.9	-17'.0	+0°47'.9	-04'.7	+0°56'.3	-00'.8	+0°01'.3	+17'.1							
06.05.2022	223°49'.9	219°44'.5	0°06'.5N	236°18'.9	7°03'.8S	224°18'.4	1°23'.2S	256°39'.1	14°19'.3S	180°49'.9	16°28'.3N							
		-0°04'.9	+25'.1	+0°17'.0	-17'.1	+0°48'.0	-04'.7	+0°56'.3	-00'.8	+0°01'.0	+16'.8							
07.05.2022	224°49'.1	219°39'.6	0°31'.6N	236°35'.9	6°46'.7S	225°06'.4	1°18'.5S	257°35'.4	14°18'.5S	180°50'.9	16°45'.1N							
		-0°04'.9	+25'.2	+0°17'.1	-17'.2	+0°48'.1	-04'.6	+0°56'.4	-00'.7	+0°01'.0	+16'.5							
08.05.2022	225°48'.2	219°34'.7	0°56'.8N	236°53'.0	6°29'.5S	225°54'.5	1°13'.9S	258°31'.8	14°17'.8S	180°51'.9	17°01'.6N							
		-0°04'.9	+25'.3	+0°17'.1	-17'.2	+0°48'.1	-04'.6	+0°56'.6	-00'.8	+0°00'.7	+16'.2							
09.05.2022	226°47'.4	219°29'.8	1°22'.1N	237°10'.1	6°12'.3S	226°42'.6	1°09'.3S	259°28'.4	14°17'.0S	180°52'.6	17°17'.8N							
		-0°05'.0	+25'.3	+0°17'.2	-17'.2	+0°48'.2	-04'.5	+0°56'.6	-00'.6	+0°00'.7	+15'.9							
10.05.2022	227°46'.5	219°24'.8	1°47'.4N	237°27'.3	5°55'.1S	227°30'.8	1°04'.8S	260°25'.0	14°16'.4S	180°53'.3	17°33'.7N							
		-0°05'.1	+25'.3	+0°17'.3	-17'.3	+0°48'.3	-04'.5	+0°56'.7	-00'.7	+0°00'.5	+15'.6							
11.05.2022	228°45'.6	219°19'.7	2°12'.7N	237°44'.6	5°37'.8S	228°19'.1	1°00'.3S	261°21'.7	14°15'.7S	180°53'.8	17°49'.3N							
		-0°05'.2	+25'.4	+0°17'.3	-17'.3	+0°48'.4	-04'.5	+0°56'.8	-00'.6	+0°00'.4	+15'.3							
12.05.2022	229°44'.8	219°14'.5	2°38'.1N	238°01'.9	5°20'.5S	229°07'.5	0°55'.8S	262°18'.5	14°15'.1S	180°54'.2	18°04'.6N							
		-0°05'.3	+25'.4	+0°17'.3	-17'.3	+0°48'.5	-04'.4	+0°56'.8	-00'.6	+0°00'.2	+15'.0							
13.05.2022	230°43'.9	219°09'.2	3°03'.5N	238°19'.2	5°03'.2S	229°56'.0	0°51'.4S	263°15'.3	14°14'.5S	180°54'.4	18°19'.6N							
		-0°05'.4	+25'.5	+0°17'.4	-17'.4	+0°48'.6	-04'.4	+0°57'.0	-00'.6	+0°00'.1	+14'.7							
14.05.2022	231°43'.0	219°03'.8	3°29'.0N	238°36'.6	4°45'.8S	230°44'.6	0°47'.0S	264°12'.3	14°13'.9S	180°54'.5	18°34'.3N							
		-0°05'.5	+25'.4	+0°17'.5	-17'.3	+0°48'.6	-04'.3	+0°57'.1	-00'.5	+0°00'.0	+14'.4							
15.05.2022	232°42'.2	218°58'.3	3°54'.4N	238°54'.1	4°28'.5S	231°33'.2	0°42'.7S	265°09'.4	14°13'.4S	180°54'.5	18°48'.7N							
		-0°05'.5	+25'.4	+0°17'.5	-17'.4	+0°48'.7	-04'.4	+0°57'.1	-00'.5	-0°00'.2	+14'.1							
16.05.2022	233°41'.3	218°52'.8	4°19'.8N	239°11'.6	4°11'.1S	232°21'.9	0°38'.3S	266°06'.5	14°12'.9S	180°54'.3	19°02'.8N							
		-0°05'.7	+25'.5	+0°17'.6	-17'.5	+0°48'.8	-04'.2	+0°57'.2	-00'.5	-0°00'.3	+13'.7							
17.05.2022	234°40'.5	218°47'.1	4°45'.3N	239°29'.2	3°53'.6S	233°10'.7	0°34'.1S	267°03'.7	14°12'.4S	180°54'.0	19°16'.5N							
		-0°05'.9	+25'.4	+0°17'.6	-17'.4	+0°48'.9	-04'.3	+0°57'.4	-00'.4	-0°00'.5	+13'.5							
18.05.2022	235°39'.6	218°41'.2	5°10'.7N	239°46'.8	3°36'.2S	233°59'.6	0°29'.8S	268°01'.1	14°12'.0S	180°53'.5	19°30'.0N							
		-0°05'.9	+25'.3	+0°17'.7	-17'.5	+0°49'.0	-04'.2	+0°57'.4	-00'.4	-0°00'.6	+13'.1							
19.05.2022	236°38'.7	218°35'.3	5°36'.0N	240°04'.5	3°18'.7S	234°48'.6	0°25'.6S	268°58'.5	14°11'.6S	180°52'.9	19°43'.1N							
		-0°06'.1	+25'.4	+0°17'.7	-17'.4	+0°49'.0	-04'.1	+0°57'.5	-00'.4	-0°00'.7	+12'.7							
20.05.2022	237°37'.9	218°29'.2	6°01'.4N	240°22'.2	3°01'.3S	235°37'.6	0°21'.5S	269°56'.0	14°11'.2S	180°52'.2	19°55'.8N							
		-0°06'.3	+25'.2	+0°17'.8	-17'.5	+0°49'.2	-04'.1	+0°57'.6	-00'.3	-0°00'.9	+12'.4							
21.05.2022	238°37'.0	218°22'.9	6°26'.6N	240°40'.0	2°43'.8S	236°26'.8	0°17'.4S	270°53'.6	14°10'.9S	180°51'.3	20°08'.2N							
		-0°06'.4	+25'.2	+0°17'.8	-17'.5	+0°49'.2	-04'.1	+0°57'.7	-00'.3	-0°01'.0	+12'.1							
22.05.2022	239°36'.2	218°16'.5	6°51'.8N	240°57'.8	2°26'.3S	237°16'.0	0°13'.3S	271°51'.3	14°10'.6S	180°50'.3	20°20'.3N							
		-0°06'.5	+25'.1	+0°17'.8	-17'.4	+0°49'.4	-04'.0	+0°57'.8	-00'.3	-0°01'.2	+11'.7							
23.05.2022	240°35'.3	218°10'.0	7°16'.9N	241°15'.6	2°08'.9S	238°05'.4	0°09'.3S	272°49'.1	14°10'.3S	180°49'.1	20°32'.0N							
		-0°06'.7	+25'.1	+0°17'.9	-17'.5	+0°49'.4	-04'.0	+0°57'.9	-00'.2	-0°01'.3	+11'.4							
24.05.2022	241°34'.4	218°03'.3	7°42'.0N	241°33'.5	1°51'.4S	238°54'.8	0°05'.3S	273°47'.0	14°10'.1S	180°47'.8	20°43'.4N							
		-0°06'.9	+24'.9	+0°17'.9	-17'.5	+0°49'.5	-03'.9	+0°58'.0	-00'.2	-0°01'.4	+11'.0							
25.05.2022	242°33'.6	217°56'.4	8°06'.9N	241°51'.4	1°33'.9S	239°44'.3	0°01'.4S	274°45'.0	14°09'.9S	180°46'.4	20°54'.4N							
		-0°07'.1	+24'.8	+0°18'.0	-17'.5	+0°49'.7	-03'.9	+0°58'.1	-00'.2	-0°01'.5	+10'.7							
26.05.2022	243°32'.7	217°49'.3	8°31'.7N	242°09'.4	1°16'.4S	240°34'.0	0°02'.5N	275°43'.1	14°09'.7S	180°44'.9	21°05'.1N							
		-0°07'.2	+24'.7	+0°18'.0	-17'.4	+0°49'.7	+03'.9	+0°58'.1	-00'.1	-0°01'.7	+10'.3							
27.05.2022	244°31'.9	217°42'.1	8°56'.4N	242°27'.4	0°59'.0S	241°23'.7	0°06'.4N	276°41'.2	14°09'.6S	180°43'.2	21°15'.4N							
		-0°07'.4	+24'.5	+0°18'.1	-17'.4	+0°49'.8	+03'.8	+0°58'.3	-00'.1	-0°01'.8	+09'.9							
28.05.2022	245°31'.0	217°34'.7	9°20'.9N	242°45'.5	0°41'.6S	242°13'.5	0°10'.2N	277°39'.5	14°09'.5S	180°41'.4	21°25'.3N							
		-0°07'.7	+24'.4	+0°18'.1	-17'.5	+0°50'.0	+03'.7	+0°58'.4	-00'.1	-0°01'.9	+09'.6							
29.05.2022	246°30'.1	217°27'.0	9°45'.3N	243°03'.6	0°24'.1S	243°03'.5	0°13'.9N	278°37'.9	14°09'.4S	180°39'.5	21°34'.9N							
		-0°07'.8	+24'.2	+0°18'.1	-17'.4	+0°50'.0	+03'.7	+0°58'.4	+00'.0	-0°02'.0	+09'.2							
30.05.2022	247°29'.3	217°19'.2	10°09'.5N	243°21'.7	0°06'.7S	243°53'.5	0°17'.6N	279°36'.3	14°09'.4S	180°37'.5	21°44'.1N							
		-0°08'.0	+24'.1	+0°18'.2	-17'.3	+0°50'.1	+03'.7	+0°58'.6	+00'.0	-0°02'.2	+08'.8							
31.05.2022	248°28'.4	217°11'.2	10°33'.6N	243°39'.9	0°10'.6N	244°43'.6	0°21'.3N	280°34'.9	14°09'.4S	180°35'.3	21°52'.9N							
		-0°08'.2	+23'.9	+0°18'.2	+17'.4	+0°50'.3	+03'.6	+0°58'.6	+00'.0	-0°02'.2	+08'.4							

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d
01.06.2022	249°27'.6	217°03'.0	10°57'.5N	243°58'.1	0°28'.0N	245°33'.9	0°24'.9N	281°33'.5	14°09'.4S	180°33'.1	22°01'.3N
		-0°08'.5	+23'.7	+0°18'.2	+17'.3	+0°50'.4	+03'.5	+0°58'.8	+00'.0	-0°02'.4	+08'.1
02.06.2022	250°26'.7	216°54'.5	11°21'.2N	244°16'.3	0°45'.3N	246°24'.3	0°28'.4N	282°32'.3	14°09'.4S	180°30'.7	22°09'.4N
		-0°08'.6	+23'.4	+0°18'.3	+17'.3	+0°50'.4	+03'.5	+0°58'.8	+00'.1	-0°02'.4	+07'.6
03.06.2022	251°25'.8	216°45'.9	11°44'.6N	244°34'.6	1°02'.6N	247°14'.7	0°31'.9N	283°31'.1	14°09'.5S	180°28'.3	22°17'.0N
		-0°08'.9	+23'.3	+0°18'.3	+17'.2	+0°50'.6	+03'.5	+0°59'.0	+00'.2	-0°02'.5	+07'.3
04.06.2022	252°25'.0	216°37'.0	12°07'.9N	244°52'.9	1°19'.8N	248°05'.3	0°35'.4N	284°30'.1	14°09'.7S	180°25'.8	22°24'.3N
		-0°09'.2	+23'.0	+0°18'.4	+17'.2	+0°50'.7	+03'.4	+0°59'.0	+00'.1	-0°02'.6	+06'.9
05.06.2022	253°24'.1	216°27'.8	12°30'.9N	245°11'.3	1°37'.0N	248°56'.0	0°38'.8N	285°29'.1	14°09'.8S	180°23'.2	22°31'.2N
		-0°09'.3	+22'.8	+0°18'.4	+17'.2	+0°50'.8	+03'.3	+0°59'.1	+00'.2	-0°02'.7	+06'.5
06.06.2022	254°23'.3	216°18'.5	12°53'.7N	245°29'.7	1°54'.2N	249°46'.8	0°42'.1N	286°28'.2	14°10'.0S	180°20'.5	22°37'.7N
		-0°09'.6	+22'.5	+0°18'.4	+17'.1	+0°51'.0	+03'.3	+0°59'.3	+00'.3	-0°02'.8	+06'.0
07.06.2022	255°22'.4	216°08'.9	13°16'.2N	245°48'.1	2°11'.3N	250°37'.8	0°45'.4N	287°27'.5	14°10'.3S	180°17'.7	22°43'.7N
		-0°09'.8	+22'.3	+0°18'.5	+17'.1	+0°51'.0	+03'.3	+0°59'.3	+00'.2	-0°02'.8	+05'.7
08.06.2022	256°21'.5	215°59'.1	13°38'.5N	246°06'.6	2°28'.4N	251°28'.8	0°48'.7N	288°26'.8	14°10'.5S	180°14'.9	22°49'.4N
		-0°10'.1	+22'.0	+0°18'.5	+17'.0	+0°51'.2	+03'.1	+0°59'.4	+00'.3	-0°02'.9	+05'.3
09.06.2022	257°20'.7	215°49'.0	14°00'.5N	246°25'.1	2°45'.4N	252°20'.0	0°51'.8N	289°26'.2	14°10'.8S	180°12'.0	22°54'.7N
		-0°10'.4	+21'.7	+0°18'.5	+17'.0	+0°51'.3	+03'.2	+0°59'.5	+00'.3	-0°02'.9	+04'.9
10.06.2022	258°19'.8	215°38'.6	14°22'.2N	246°43'.6	3°02'.4N	253°11'.3	0°55'.0N	290°25'.7	14°11'.1S	180°09'.1	22°59'.6N
		-0°10'.6	+21'.4	+0°18'.6	+16'.9	+0°51'.4	+03'.0	+0°59'.6	+00'.4	-0°03'.0	+04'.4
11.06.2022	259°18'.9	215°28'.0	14°43'.6N	247°02'.2	3°19'.3N	254°02'.7	0°58'.0N	291°25'.3	14°11'.5S	180°06'.1	23°04'.0N
		-0°10'.8	+21'.0	+0°18'.6	+16'.9	+0°51'.5	+03'.0	+0°59'.7	+00'.4	-0°03'.0	+04'.1
12.06.2022	260°18'.1	215°17'.2	15°04'.6N	247°20'.8	3°36'.2N	254°54'.2	1°01'.0N	292°25'.0	14°11'.9S	180°03'.1	23°08'.1N
		-0°11'.2	+20'.8	+0°18'.6	+16'.8	+0°51'.7	+03'.0	+0°59'.8	+00'.4	-0°03'.1	+03'.7
13.06.2022	261°17'.2	215°06'.0	15°25'.4N	247°39'.4	3°53'.0N	255°45'.9	1°04'.0N	293°24'.8	14°12'.3S	180°00'.0	23°11'.8N
		-0°11'.4	+20'.4	+0°18'.6	+16'.7	+0°51'.8	+02'.9	+0°59'.9	+00'.5	-0°03'.1	+03'.2
14.06.2022	262°16'.4	214°54'.6	15°45'.8N	247°58'.0	4°09'.7N	256°37'.7	1°06'.9N	294°24'.7	14°12'.8S	179°56'.9	23°15'.0N
		-0°11'.7	+20'.1	+0°18'.6	+16'.7	+0°51'.9	+02'.8	+1°00'.0	+00'.5	-0°03'.2	+02'.8
15.06.2022	263°15'.5	214°42'.9	16°05'.9N	248°16'.6	4°26'.4N	257°29'.6	1°09'.7N	295°24'.7	14°13'.3S	179°53'.7	23°17'.8N
		-0°11'.9	+19'.8	+0°18'.7	+16'.6	+0°52'.0	+02'.8	+1°00'.1	+00'.5	-0°03'.2	+02'.5
16.06.2022	264°14'.6	214°31'.0	16°25'.7N	248°35'.3	4°43'.0N	258°21'.6	1°12'.5N	296°24'.8	14°13'.8S	179°50'.5	23°20'.3N
		-0°12'.3	+19'.3	+0°18'.7	+16'.6	+0°52'.2	+02'.8	+1°00'.1	+00'.5	-0°03'.2	+02'.0
17.06.2022	265°13'.8	214°18'.7	16°45'.0N	248°54'.0	4°59'.6N	259°13'.8	1°15'.3N	297°24'.9	14°14'.3S	179°47'.3	23°22'.3N
		-0°12'.5	+19'.0	+0°18'.7	+16'.5	+0°52'.3	+02'.6	+1°00'.3	+00'.6	-0°03'.2	+01'.6
18.06.2022	266°12'.9	214°06'.2	17°04'.0N	249°12'.7	5°16'.1N	260°06'.1	1°17'.9N	298°25'.2	14°14'.9S	179°44'.1	23°23'.9N
		-0°12'.8	+18'.6	+0°18'.8	+16'.4	+0°52'.5	+02'.6	+1°00'.3	+00'.6	-0°03'.3	+01'.2
19.06.2022	267°12'.1	213°53'.4	17°22'.6N	249°31'.5	5°32'.5N	260°58'.6	1°20'.5N	299°25'.5	14°15'.5S	179°40'.8	23°25'.1N
		-0°13'.1	+18'.2	+0°18'.8	+16'.3	+0°52'.5	+02'.6	+1°00'.4	+00'.7	-0°03'.3	+00'.8
20.06.2022	268°11'.2	213°40'.3	17°40'.8N	249°50'.3	5°48'.8N	261°51'.1	1°23'.1N	300°25'.9	14°16'.2S	179°37'.5	23°25'.9N
		-0°13'.3	+17'.8	+0°18'.8	+16'.2	+0°52'.8	+02'.4	+1°00'.6	+00'.6	-0°03'.2	+00'.3
21.06.2022	269°10'.3	213°27'.0	17°58'.6N	250°09'.1	6°05'.0N	262°43'.9	1°25'.5N	301°26'.5	14°16'.8S	179°34'.3	23°26'.2N
		-0°13'.7	+17'.4	+0°18'.8	+16'.2	+0°52'.8	+02'.5	+1°00'.6	+00'.7	-0°03'.3	+00'.0
22.06.2022	270°09'.5	213°13'.3	18°16'.0N	250°27'.9	6°21'.2N	263°36'.7	1°28'.0N	302°27'.1	14°17'.5S	179°31'.0	23°26'.2N
		-0°13'.9	+16'.9	+0°18'.8	+16'.1	+0°53'.0	+02'.3	+1°00'.7	+00'.8	-0°03'.2	-00'.5
23.06.2022	271°08'.6	212°59'.4	18°32'.9N	250°46'.7	6°37'.3N	264°29'.7	1°30'.3N	303°27'.8	14°18'.3S	179°27'.8	23°25'.7N
		-0°14'.3	+16'.5	+0°18'.9	+16'.0	+0°53'.1	+02'.3	+1°00'.8	+00'.7	-0°03'.3	-00'.8
24.06.2022	272°07'.8	212°45'.1	18°49'.4N	251°05'.6	6°53'.3N	265°22'.8	1°32'.6N	304°28'.6	14°19'.0S	179°24'.5	23°24'.9N
		-0°14'.5	+16'.0	+0°18'.9	+15'.9	+0°53'.3	+02'.2	+1°00'.9	+00'.8	-0°03'.2	-01'.3
25.06.2022	273°06'.9	212°30'.6	19°05'.4N	251°24'.5	7°09'.2N	266°16'.1	1°34'.8N	305°29'.5	14°19'.8S	179°21'.3	23°23'.6N
		-0°14'.7	+15'.5	+0°18'.9	+15'.8	+0°53'.5	+02'.2	+1°00'.9	+00'.8	-0°03'.2	-01'.7
26.06.2022	274°06'.0	212°15'.9	19°20'.9N	251°43'.4	7°25'.0N	267°09'.6	1°37'.0N	306°30'.4	14°20'.6S	179°18'.1	23°21'.9N
		-0°15'.1	+15'.1	+0°18'.9	+15'.7	+0°53'.5	+02'.1	+1°01'.1	+00'.9	-0°03'.2	-02'.1
27.06.2022	275°05'.2	212°00'.8	19°36'.0N	252°02'.3	7°40'.7N	268°03'.1	1°39'.1N	307°31'.5	14°21'.5S	179°14'.9	23°19'.8N
		-0°15'.3	+14'.6	+0°19'.0	+15'.7	+0°53'.8	+02'.0	+1°01'.2	+00'.9	-0°03'.1	-02'.6
28.06.2022	276°04'.3	211°45'.5	19°50'.6N	252°21'.3	7°56'.4N	268°56'.9	1°41'.1N	308°32'.7	14°22'.4S	179°11'.8	23°17'.2N
		-0°15'.6	+14'.1	+0°19'.0	+15'.5	+0°53'.8	+02'.0	+1°01'.2	+00'.9	-0°03'.1	-02'.9
29.06.2022	277°03'.5	211°29'.9	20°04'.7N	252°40'.3	8°11'.9N	269°50'.7	1°43'.1N	309°33'.9	14°23'.3S	179°08'.7	23°14'.3N
		-0°15'.8	+13'.6	+0°19'.1	+15'.4	+0°54'.1	+01'.9	+1°01'.3	+00'.9	-0°03'.0	-03'.3
30.06.2022	278°02'.6	211°14'.1	20°18'.3N	252°59'.4	8°27'.3N	270°44'.8	1°45'.0N	310°35'.2	14°24'.2S	179°05'.7	23°11'.0N
		-0°16'.1	+13'.0	+0°19'.0	+15'.3	+0°54'.1	+01'.8	+1°01'.4	+01'.0	-0°03'.0	-03'.8

Ephemerides July, 2022

2022

Date	Aries			Venus			Mars			Jupiter			Saturn			Sun		
	GHA	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	
01.07.2022	279°01'.7	210°58'.0	20°31'.3N	253°18'.4	8°42'.6N	271°38'.9	1°46'.8N	311°36'.6	14°25'.2S	179°02'.7	23°07'.2N							
		-0°16'.4	+12'.6	+0°19'.1	+15'.2	+0°54'.4	+01'.8	+1°01'.5	+00'.9	-0°02'.9	-04'.1							
02.07.2022	280°00'.9	210°41'.6	20°43'.9N	253°37'.5	8°57'.8N	272°33'.3	1°48'.6N	312°38'.1	14°26'.1S	178°59'.8	23°03'.1N							
		-0°16'.6	+12'.0	+0°19'.1	+15'.1	+0°54'.5	+01'.6	+1°01'.5	+01'.1	-0°02'.8	-04'.6							
03.07.2022	281°00'.0	210°25'.0	20°55'.9N	253°56'.6	9°12'.9N	273°27'.8	1°50'.2N	313°39'.6	14°27'.2S	178°57'.0	22°58'.5N							
		-0°16'.8	+11'.4	+0°19'.2	+15'.0	+0°54'.6	+01'.7	+1°01'.7	+01'.0	-0°02'.8	-04'.9							
04.07.2022	281°59'.2	210°08'.2	21°07'.3N	254°15'.8	9°27'.9N	274°22'.4	1°51'.9N	314°41'.3	14°28'.2S	178°54'.2	22°53'.6N							
		-0°17'.0	+10'.9	+0°19'.2	+14'.9	+0°54'.8	+01'.5	+1°01'.7	+01'.1	-0°02'.7	-05'.4							
05.07.2022	282°58'.3	209°51'.2	21°18'.2N	254°35'.0	9°42'.8N	275°17'.2	1°53'.4N	315°43'.0	14°29'.3S	178°51'.5	22°48'.2N							
		-0°17'.3	+10'.3	+0°19'.2	+14'.8	+0°55'.0	+01'.5	+1°01'.8	+01'.1	-0°02'.5	-05'.7							
06.07.2022	283°57'.4	209°33'.9	21°28'.5N	254°54'.2	9°57'.6N	276°12'.2	1°54'.9N	316°44'.8	14°30'.4S	178°49'.0	22°42'.5N							
		-0°17'.5	+09'.8	+0°19'.3	+14'.6	+0°55'.1	+01'.4	+1°01'.8	+01'.1	-0°02'.5	-06'.1							
07.07.2022	284°56'.6	209°16'.4	21°38'.3N	255°13'.5	10°12'.2N	277°07'.3	1°56'.3N	317°46'.6	14°31'.5S	178°46'.5	22°36'.4N							
		-0°17'.7	+09'.2	+0°19'.3	+14'.5	+0°55'.3	+01'.3	+1°02'.0	+01'.1	-0°02'.4	-06'.6							
08.07.2022	285°55'.7	208°58'.7	21°47'.5N	255°32'.8	10°26'.7N	278°02'.6	1°57'.6N	318°48'.6	14°32'.6S	178°44'.1	22°29'.8N							
		-0°17'.9	+08'.6	+0°19'.3	+14'.4	+0°55'.5	+01'.3	+1°02'.0	+01'.2	-0°02'.3	-06'.9							
09.07.2022	286°54'.9	208°40'.8	21°56'.1N	255°52'.1	10°41'.1N	278°58'.1	1°58'.9N	319°50'.6	14°33'.8S	178°41'.8	22°22'.9N							
		-0°18'.1	+08'.0	+0°19'.4	+14'.3	+0°55'.6	+01'.2	+1°02'.1	+01'.1	-0°02'.2	-07'.3							
10.07.2022	287°54'.0	208°22'.7	22°04'.1N	256°11'.5	10°55'.4N	279°53'.7	2°00'.1N	320°52'.7	14°34'.9S	178°39'.6	22°15'.6N							
		-0°18'.3	+07'.4	+0°19'.4	+14'.2	+0°55'.8	+01'.1	+1°02'.1	+01'.2	-0°02'.1	-07'.7							
11.07.2022	288°53'.1	208°04'.4	22°11'.5N	256°30'.9	11°09'.6N	280°49'.5	2°01'.2N	321°54'.8	14°36'.1S	178°37'.5	22°07'.9N							
		-0°18'.5	+06'.7	+0°19'.4	+14'.0	+0°56'.0	+01'.0	+1°02'.3	+01'.3	-0°01'.9	-08'.1							
12.07.2022	289°52'.3	207°45'.9	22°18'.2N	256°50'.3	11°23'.6N	281°45'.5	2°02'.2N	322°57'.1	14°37'.4S	178°35'.6	21°59'.8N							
		-0°18'.6	+06'.2	+0°19'.5	+13'.9	+0°56'.1	+01'.0	+1°02'.3	+01'.2	-0°01'.9	-08'.4							
13.07.2022	290°51'.4	207°27'.3	22°24'.4N	257°09'.8	11°37'.5N	282°41'.6	2°03'.2N	323°59'.4	14°38'.6S	178°33'.7	21°51'.4N							
		-0°18'.7	+05'.6	+0°19'.5	+13'.8	+0°56'.3	+00'.9	+1°02'.3	+01'.3	-0°01'.7	-08'.8							
14.07.2022	291°50'.6	207°08'.6	22°30'.0N	257°29'.3	11°51'.3N	283°37'.9	2°04'.1N	325°01'.7	14°39'.9S	178°32'.0	21°42'.6N							
		-0°19'.0	+04'.9	+0°19'.6	+13'.7	+0°56'.5	+00'.8	+1°02'.5	+01'.2	-0°01'.6	-09'.2							
15.07.2022	292°49'.7	206°49'.6	22°34'.9N	257°48'.9	12°05'.0N	284°34'.4	2°04'.9N	326°04'.2	14°41'.1S	178°30'.4	21°33'.4N							
		-0°19'.0	+04'.3	+0°19'.6	+13'.5	+0°56'.6	+00'.8	+1°02'.4	+01'.3	-0°01'.4	-09'.6							
16.07.2022	293°48'.8	206°30'.6	22°39'.2N	258°08'.5	12°18'.5N	285°31'.0	2°05'.7N	327°06'.6	14°42'.4S	178°29'.0	21°23'.8N							
		-0°19'.2	+03'.6	+0°19'.6	+13'.4	+0°56'.8	+00'.7	+1°02'.6	+01'.4	-0°01'.4	-09'.9							
17.07.2022	294°48'.0	206°11'.4	22°42'.8N	258°28'.1	12°31'.9N	286°27'.8	2°06'.4N	328°09'.2	14°43'.8S	178°27'.6	21°13'.9N							
		-0°19'.3	+03'.1	+0°19'.7	+13'.2	+0°57'.0	+00'.6	+1°02'.6	+01'.3	-0°01'.2	-10'.3							
18.07.2022	295°47'.1	205°52'.1	22°45'.9N	258°47'.8	12°45'.1N	287°24'.8	2°07'.0N	329°11'.8	14°45'.1S	178°26'.4	21°03'.6N							
		-0°19'.3	+02'.3	+0°19'.7	+13'.2	+0°57'.1	+00'.5	+1°02'.7	+01'.4	-0°01'.1	-10'.6							
19.07.2022	296°46'.3	205°32'.8	22°48'.2N	259°07'.5	12°58'.3N	288°21'.9	2°07'.5N	330°14'.5	14°46'.5S	178°25'.3	20°53'.0N							
		-0°19'.5	+01'.8	+0°19'.8	+12'.9	+0°57'.4	+00'.4	+1°02'.7	+01'.3	-0°01'.0	-11'.0							
20.07.2022	297°45'.4	205°13'.3	22°50'.0N	259°27'.3	13°11'.2N	289°19'.3	2°07'.9N	331°17'.2	14°47'.8S	178°24'.3	20°42'.0N							
		-0°19'.5	+01'.1	+0°19'.8	+12'.9	+0°57'.5	+00'.4	+1°02'.8	+01'.4	-0°00'.8	-11'.3							
21.07.2022	298°44'.5	204°53'.8	22°51'.1N	259°47'.1	13°24'.1N	290°16'.8	2°08'.3N	332°20'.0	14°49'.2S	178°23'.5	20°30'.7N							
		-0°19'.6	+00'.4	+0°19'.9	+12'.7	+0°57'.7	+00'.3	+1°02'.8	+01'.4	-0°00'.7	-11'.7							
22.07.2022	299°43'.7	204°34'.2	22°51'.5N	260°07'.0	13°36'.8N	291°14'.5	2°08'.6N	333°22'.8	14°50'.6S	178°22'.8	20°19'.0N							
		-0°19'.7	-00'.2	+0°19'.9	+12'.6	+0°57'.8	+00'.2	+1°02'.9	+01'.4	-0°00'.5	-12'.0							
23.07.2022	300°42'.8	204°14'.5	22°51'.3N	260°26'.9	13°49'.4N	292°12'.3	2°08'.8N	334°25'.7	14°52'.0S	178°22'.3	20°07'.0N							
		-0°19'.7	-00'.9	+0°20'.0	+12'.4	+0°58'.1	+00'.2	+1°03'.0	+01'.5	-0°00'.4	-12'.4							
24.07.2022	301°41'.9	203°54'.8	22°50'.4N	260°46'.9	14°01'.8N	293°10'.4	2°09'.0N	335°28'.7	14°53'.5S	178°21'.9	19°54'.6N							
		-0°19'.7	-01'.6	+0°20'.0	+12'.2	+0°58'.2	+00'.0	+1°02'.9	+01'.4	-0°00'.3	-12'.7							
25.07.2022	302°41'.1	203°35'.1	22°48'.8N	261°06'.9	14°14'.0N	294°08'.6	2°09'.0N	336°31'.6	14°54'.9S	178°21'.6	19°41'.9N							
		-0°19'.7	-02'.2	+0°20'.2	+12'.2	+0°58'.4	+00'.0	+1°03'.1	+01'.5	-0°00'.1	-13'.0							
26.07.2022	303°40'.2	203°15'.4	22°46'.6N	261°27'.1	14°26'.2N	295°07'.0	2°09'.0N	337°34'.7	14°56'.4S	178°21'.5	19°28'.9N							
		-0°19'.7	-02'.8	+0°20'.2	+11'.9	+0°58'.6	-00'.1	+1°03'.1	+01'.4	+0°00'.0	-13'.3							
27.07.2022	304°39'.4	202°55'.7	22°43'.8N	261°47'.3	14°38'.1N	296°05'.6	2°08'.9N	338°37'.8	14°57'.8S	178°21'.5	19°15'.6N							
		-0°19'.7	-03'.5	+0°20'.2	+11'.9	+0°58'.8	-00'.1	+1°03'.1	+01'.5	+0°00'.2	-13'.7							
28.07.2022	305°38'.5	202°36'.0	22°40'.3N	262°07'.5	14°50'.0N	297°04'.4	2°08'.8N	339°40'.9	14°59'.3S	178°21'.7	19°01'.9N							
		-0°19'.6	-04'.2	+0°20'.4	+11'.6	+0°59'.0	-00'.3	+1°03'.1	+01'.5	+0°00'.3	-14'.0							
29.07.2022	306°37'.6	202°16'.4	22°36'.1N	262°27'.9	15°01'.6N	298°03'.4	2°08'.5N	340°44'.0	15°00'.8S	178°22'.0	18°47'.9N							
		-0°19'.6	-04'.8	+0°20'.4	+11'.6	+0°59'.1	-00'.3	+1°03'.2	+01'.5	+0°00'.5	-14'.2							
30.07.2022	307°36'.8	201°56'.8	22°31'.3N	262°48'.3	15°13'.2N	299°02'.5	2°08'.2N	341°47'.2	15°02'.3S	178°22'.5	18°33'.7N							
		-0°19'.6	-05'.5	+0°20'.5	+11'.3	+0°59'.3	-00'.4	+1°03'.3	+01'.5	+0°00'.6	-14'.6							
31.07.2022	308°35'.9	201°37'.2	22°25'.8N	263°08'.8	15°24'.5N	300°01'.8	2°07'.8N	342°50'.5	15°03'.8S	178°23'.1	18°19'.1N							
		-0°19'.5	-06'.2	+0°20'.6	+11'.2	+0°59'.5	-00'.5	+1°03'.3	+01'.5	+0°00'.8	-14'.9							

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d
01.08.2022	309°35'.1	201°17'.7	22°19'.6N	263°29'.4	15°35'.7N	301°01'.3	2°07'.3N	343°53'.8	15°05'.3S	178°23'.9	18°04'.2N
		-0°19'.3	-06'.7	+0°20'.7	+11'.1	+0°59'.7	-00'.5	+1°03'.3	+01'.5	+0°01'.0	-15'.2
02.08.2022	310°34'.2	200°58'.4	22°12'.9N	263°50'.1	15°46'.8N	302°01'.0	2°06'.8N	344°57'.1	15°06'.8S	178°24'.9	17°49'.0N
		-0°19'.3	-07'.5	+0°20'.8	+10'.9	+0°59'.9	-00'.6	+1°03'.3	+01'.5	+0°01'.1	-15'.5
03.08.2022	311°33'.3	200°39'.1	22°05'.4N	264°10'.9	15°57'.7N	303°00'.9	2°06'.2N	346°00'.4	15°08'.3S	178°26'.0	17°33'.5N
		-0°19'.2	-08'.0	+0°20'.9	+10'.8	+1°00'.0	-00'.7	+1°03'.4	+01'.6	+0°01'.2	-15'.7
04.08.2022	312°32'.5	200°19'.9	21°57'.4N	264°31'.8	16°08'.5N	304°00'.9	2°05'.5N	347°03'.8	15°09'.9S	178°27'.2	17°17'.8N
		-0°19'.1	-08'.8	+0°21'.0	+10'.6	+1°00'.3	-00'.8	+1°03'.4	+01'.5	+0°01'.4	-16'.1
05.08.2022	313°31'.6	200°00'.8	21°48'.6N	264°52'.8	16°19'.1N	305°01'.2	2°04'.7N	348°07'.2	15°11'.4S	178°28'.6	17°01'.7N
		-0°18'.9	-09'.3	+0°21'.1	+10'.4	+1°00'.4	-00'.9	+1°03'.4	+01'.5	+0°01'.6	-16'.3
06.08.2022	314°30'.8	199°41'.9	21°39'.3N	265°13'.9	16°29'.5N	306°01'.6	2°03'.8N	349°10'.6	15°12'.9S	178°30'.2	16°45'.4N
		-0°18'.8	-10'.0	+0°21'.1	+10'.3	+1°00'.6	-00'.9	+1°03'.4	+01'.6	+0°01'.7	-16'.6
07.08.2022	315°29'.9	199°23'.1	21°29'.3N	265°35'.0	16°39'.8N	307°02'.2	2°02'.9N	350°14'.0	15°14'.5S	178°31'.9	16°28'.8N
		-0°18'.7	-10'.6	+0°21'.3	+10'.1	+1°00'.8	-01'.0	+1°03'.4	+01'.5	+0°01'.9	-16'.8
08.08.2022	316°29'.0	199°04'.4	21°18'.7N	265°56'.3	16°49'.9N	308°03'.0	2°01'.9N	351°17'.4	15°16'.0S	178°33'.8	16°12'.0N
		-0°18'.5	-11'.2	+0°21'.4	+10'.0	+1°00'.9	-01'.1	+1°03'.5	+01'.6	+0°02'.0	-17'.1
09.08.2022	317°28'.2	198°45'.9	21°07'.5N	266°17'.7	16°59'.9N	309°03'.9	2°00'.8N	352°20'.9	15°17'.6S	178°35'.8	15°54'.9N
		-0°18'.3	-11'.8	+0°21'.6	+09'.8	+1°01'.1	-01'.2	+1°03'.5	+01'.5	+0°02'.2	-17'.4
10.08.2022	318°27'.3	198°27'.6	20°55'.7N	266°39'.3	17°09'.7N	310°05'.0	1°59'.6N	353°24'.4	15°19'.1S	178°38'.0	15°37'.5N
		-0°18'.2	-12'.4	+0°21'.6	+09'.7	+1°01'.4	-01'.2	+1°03'.5	+01'.6	+0°02'.3	-17'.6
11.08.2022	319°26'.5	198°09'.4	20°43'.3N	267°00'.9	17°19'.4N	311°06'.4	1°58'.4N	354°27'.9	15°20'.7S	178°40'.3	15°19'.9N
		-0°17'.9	-13'.1	+0°21'.8	+09'.5	+1°01'.4	-01'.3	+1°03'.5	+01'.5	+0°02'.5	-17'.8
12.08.2022	320°25'.6	197°51'.5	20°30'.2N	267°22'.7	17°28'.9N	312°07'.8	1°57'.1N	355°31'.4	15°22'.2S	178°42'.8	15°02'.1N
		-0°17'.8	-13'.6	+0°21'.8	+09'.4	+1°01'.7	-01'.4	+1°03'.5	+01'.5	+0°02'.6	-18'.1
13.08.2022	321°24'.7	197°33'.7	20°16'.6N	267°44'.5	17°38'.3N	313°09'.5	1°55'.7N	356°34'.9	15°23'.7S	178°45'.4	14°44'.0N
		-0°17'.6	-14'.2	+0°22'.0	+09'.2	+1°01'.8	-01'.4	+1°03'.5	+01'.6	+0°02'.7	-18'.3
14.08.2022	322°23'.9	197°16'.1	20°02'.4N	268°06'.5	17°47'.5N	314°11'.3	1°54'.3N	357°38'.4	15°25'.3S	178°48'.1	14°25'.7N
		-0°17'.4	-14'.8	+0°22'.2	+09'.0	+1°02'.0	-01'.5	+1°03'.6	+01'.5	+0°02'.9	-18'.6
15.08.2022	323°23'.0	196°58'.7	19°47'.6N	268°28'.7	17°56'.5N	315°13'.3	1°52'.8N	358°42'.0	15°26'.8S	178°51'.0	14°07'.1N
		-0°17'.2	-15'.3	+0°22'.3	+08'.9	+1°02'.2	-01'.6	+1°03'.5	+01'.6	+0°03'.0	-18'.7
16.08.2022	324°22'.1	196°41'.5	19°32'.3N	268°51'.0	18°05'.4N	316°15'.5	1°51'.2N	359°45'.5	15°28'.4S	178°54'.0	13°48'.4N
		-0°17'.0	-15'.9	+0°22'.4	+08'.7	+1°02'.4	-01'.7	+1°03'.5	+01'.5	+0°03'.1	-19'.0
17.08.2022	325°21'.3	196°24'.5	19°16'.4N	269°13'.4	18°14'.1N	317°17'.9	1°49'.5N	0°49'.0	15°29'.9S	178°57'.1	13°29'.4N
		-0°16'.7	-16'.5	+0°22'.6	+08'.6	+1°02'.5	-01'.7	+1°03'.5	+01'.5	+0°03'.2	-19'.2
18.08.2022	326°20'.4	196°07'.8	18°59'.9N	269°36'.0	18°22'.7N	318°20'.4	1°47'.8N	1°52'.5	15°31'.4S	179°00'.3	13°10'.2N
		-0°16'.6	-17'.0	+0°22'.7	+08'.5	+1°02'.7	-01'.8	+1°03'.5	+01'.5	+0°03'.4	-19'.5
19.08.2022	327°19'.6	195°51'.2	18°42'.9N	269°58'.7	18°31'.2N	319°23'.1	1°46'.0N	2°56'.0	15°32'.9S	179°03'.7	12°50'.7N
		-0°16'.3	-17'.6	+0°22'.9	+08'.2	+1°02'.8	-01'.8	+1°03'.6	+01'.5	+0°03'.5	-19'.6
20.08.2022	328°18'.7	195°34'.9	18°25'.3N	270°21'.6	18°39'.4N	320°25'.9	1°44'.2N	3°59'.6	15°34'.4S	179°07'.2	12°31'.1N
		-0°16'.1	-18'.0	+0°23'.1	+08'.1	+1°03'.0	-02'.0	+1°03'.5	+01'.5	+0°03'.6	-19'.8
21.08.2022	329°17'.8	195°18'.8	18°07'.3N	270°44'.7	18°47'.5N	321°28'.9	1°42'.2N	5°03'.1	15°35'.9S	179°10'.8	12°11'.3N
		-0°15'.8	-18'.6	+0°23'.3	+08'.0	+1°03'.2	-02'.0	+1°03'.4	+01'.5	+0°03'.7	-20'.0
22.08.2022	330°17'.0	195°03'.0	17°48'.7N	271°08'.0	18°55'.5N	322°32'.1	1°40'.2N	6°06'.5	15°37'.4S	179°14'.5	11°51'.3N
		-0°15'.7	-19'.1	+0°23'.4	+07'.8	+1°03'.3	-02'.0	+1°03'.5	+01'.5	+0°03'.9	-20'.2
23.08.2022	331°16'.1	194°47'.3	17°29'.6N	271°31'.4	19°03'.3N	323°35'.4	1°38'.2N	7°10'.0	15°38'.9S	179°18'.4	11°31'.1N
		-0°15'.3	-19'.6	+0°23'.6	+07'.7	+1°03'.5	-02'.1	+1°03'.5	+01'.5	+0°03'.9	-20'.4
24.08.2022	332°15'.3	194°32'.0	17°10'.0N	271°55'.0	19°11'.0N	324°38'.9	1°36'.1N	8°13'.5	15°40'.4S	179°22'.3	11°10'.7N
		-0°15'.2	-20'.1	+0°23'.9	+07'.5	+1°03'.7	-02'.2	+1°03'.4	+01'.4	+0°04'.0	-20'.6
25.08.2022	333°14'.4	194°16'.8	16°49'.9N	272°18'.9	19°18'.5N	325°42'.6	1°33'.9N	9°16'.9	15°41'.8S	179°26'.3	10°50'.1N
		-0°14'.9	-20'.5	+0°24'.0	+07'.3	+1°03'.8	-02'.3	+1°03'.4	+01'.5	+0°04'.2	-20'.7
26.08.2022	334°13'.5	194°01'.9	16°29'.4N	272°42'.9	19°25'.8N	326°46'.4	1°31'.6N	10°20'.3	15°43'.3S	179°30'.5	10°29'.4N
		-0°14'.7	-21'.1	+0°24'.2	+07'.2	+1°03'.9	-02'.3	+1°03'.4	+01'.4	+0°04'.2	-20'.9
27.08.2022	335°12'.7	193°47'.2	16°08'.3N	273°07'.1	19°33'.0N	327°50'.3	1°29'.3N	11°23'.7	15°44'.7S	179°34'.7	10°08'.5N
		-0°14'.4	-21'.4	+0°24'.5	+07'.1	+1°04'.1	-02'.3	+1°03'.4	+01'.5	+0°04'.4	-21'.1
28.08.2022	336°11'.8	193°32'.8	15°46'.9N	273°31'.6	19°40'.1N	328°54'.4	1°27'.0N	12°27'.1	15°46'.2S	179°39'.1	9°47'.4N
		-0°14'.2	-22'.0	+0°24'.7	+06'.9	+1°04'.3	-02'.5	+1°03'.3	+01'.4	+0°04'.4	-21'.2
29.08.2022	337°10'.9	193°18'.6	15°24'.9N	273°56'.3	19°47'.0N	329°58'.7	1°24'.5N	13°30'.4	15°47'.6S	179°43'.5	9°26'.2N
		-0°14'.0	-22'.3	+0°24'.9	+06'.8	+1°04'.4	-02'.4	+1°03'.3	+01'.4	+0°04'.5	-21'.4
30.08.2022	338°10'.1	193°04'.6	15°02'.6N	274°21'.2	19°53'.8N	331°03'.1	1°22'.1N	14°33'.7	15°49'.0S	179°48'.0	9°04'.8N
		-0°13'.7	-22'.8	+0°25'.2	+06'.6	+1°04'.5	-02'.6	+1°03'.3	+01'.4	+0°04'.6	-21'.5
31.08.2022	339°09'.2	192°50'.9	14°39'.8N	274°46'.4	20°00'.4N	332°07'.6	1°19'.5N	15°37'.0	15°50'.4S	179°52'.6	8°43'.3N
		-0°13'.5	-23'.2	+0°25'.4	+06'.5	+1°04'.6	-02'.6	+1°03'.3	+01'.3	+0°04'.7	-21'.7

Ephemerides September, 2022

2022

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d
01.09.2022	340°08'.4	192°37'.4	14°16'.6N	275°11'.8	20°06'.9N	333°12'.2	1°16'.9N	16°40'.3	15°51'.7S	179°57'.3	8°21'.6N
		-0°13'.2	-23'.5	+0°25'.6	+06'.3	+1°04'.8	-02'.6	+1°03'.2	+01'.4	+0°04'.8	-21'.8
02.09.2022	341°07'.5	192°24'.2	13°53'.1N	275°37'.4	20°13'.2N	334°17'.0	1°14'.3N	17°43'.5	15°53'.1S	180°02'.1	7°59'.8N
		-0°13'.0	-24'.0	+0°25'.9	+06'.2	+1°04'.9	-02'.7	+1°03'.1	+01'.3	+0°04'.8	-21'.9
03.09.2022	342°06'.6	192°11'.2	13°29'.1N	276°03'.3	20°19'.4N	335°21'.9	1°11'.6N	18°46'.6	15°54'.4S	180°06'.9	7°37'.9N
		-0°12'.8	-24'.4	+0°26'.2	+06'.0	+1°05'.0	-02'.7	+1°03'.2	+01'.3	+0°04'.9	-22'.0
04.09.2022	343°05'.8	191°58'.4	13°04'.7N	276°29'.5	20°25'.4N	336°26'.9	1°08'.9N	19°49'.8	15°55'.7S	180°11'.8	7°15'.9N
		-0°12'.6	-24'.7	+0°26'.5	+06'.0	+1°05'.1	-02'.7	+1°03'.0	+01'.3	+0°05'.0	-22'.2
05.09.2022	344°04'.9	191°45'.8	12°40'.0N	276°56'.0	20°31'.4N	337°32'.0	1°06'.2N	20°52'.8	15°57'.0S	180°16'.8	6°53'.7N
		-0°12'.4	-25'.0	+0°26'.7	+05'.8	+1°05'.3	-02'.9	+1°03'.1	+01'.3	+0°05'.1	-22'.3
06.09.2022	345°04'.1	191°33'.4	12°15'.0N	277°22'.7	20°37'.2N	338°37'.3	1°03'.3N	21°55'.9	15°58'.3S	180°21'.9	6°31'.4N
		-0°12'.2	-25'.4	+0°27'.0	+05'.6	+1°05'.3	-02'.8	+1°03'.0	+01'.3	+0°05'.1	-22'.3
07.09.2022	346°03'.2	191°21'.2	11°49'.6N	277°49'.7	20°42'.8N	339°42'.6	1°00'.5N	22°58'.9	15°59'.6S	180°27'.0	6°09'.1N
		-0°11'.9	-25'.8	+0°27'.3	+05'.5	+1°05'.5	-02'.9	+1°02'.9	+01'.2	+0°05'.1	-22'.5
08.09.2022	347°02'.3	191°09'.3	11°23'.8N	278°17'.0	20°48'.3N	340°48'.1	0°57'.6N	24°01'.8	16°00'.8S	180°32'.1	5°46'.6N
		-0°11'.8	-26'.0	+0°27'.6	+05'.4	+1°05'.6	-02'.9	+1°02'.9	+01'.2	+0°05'.2	-22'.6
09.09.2022	348°01'.5	190°57'.5	10°57'.8N	278°44'.6	20°53'.7N	341°53'.7	0°54'.7N	25°04'.7	16°02'.0S	180°37'.3	5°24'.0N
		-0°11'.5	-26'.3	+0°27'.9	+05'.3	+1°05'.6	-03'.0	+1°02'.8	+01'.2	+0°05'.3	-22'.6
10.09.2022	349°00'.6	190°46'.0	10°31'.5N	279°12'.5	20°59'.0N	342°59'.3	0°51'.7N	26°07'.5	16°03'.2S	180°42'.6	5°01'.4N
		-0°11'.4	-26'.7	+0°28'.2	+05'.2	+1°05'.8	-03'.0	+1°02'.8	+01'.2	+0°05'.2	-22'.8
11.09.2022	349°59'.8	190°34'.6	10°04'.8N	279°40'.7	21°04'.2N	344°05'.1	0°48'.7N	27°10'.3	16°04'.4S	180°47'.8	4°38'.6N
		-0°11'.2	-26'.9	+0°28'.5	+05'.0	+1°05'.8	-03'.0	+1°02'.7	+01'.2	+0°05'.4	-22'.8
12.09.2022	350°58'.9	190°23'.4	9°37'.9N	280°09'.2	21°09'.2N	345°10'.9	0°45'.7N	28°13'.0	16°05'.6S	180°53'.2	4°15'.8N
		-0°11'.0	-27'.2	+0°28'.9	+04'.9	+1°05'.9	-03'.0	+1°02'.7	+01'.1	+0°05'.3	-22'.9
13.09.2022	351°58'.0	190°12'.4	9°10'.7N	280°38'.1	21°14'.1N	346°16'.8	0°42'.7N	29°15'.7	16°06'.7S	180°58'.5	3°52'.9N
		-0°10'.9	-27'.5	+0°29'.2	+04'.8	+1°06'.0	-03'.1	+1°02'.6	+01'.1	+0°05'.3	-22'.9
14.09.2022	352°57'.2	190°01'.5	8°43'.2N	281°07'.3	21°18'.9N	347°22'.8	0°39'.6N	30°18'.3	16°07'.8S	181°03'.8	3°30'.0N
		-0°10'.7	-27'.7	+0°29'.5	+04'.7	+1°06'.0	-03'.1	+1°02'.5	+01'.1	+0°05'.4	-23'.1
15.09.2022	353°56'.3	189°50'.8	8°15'.5N	281°36'.8	21°23'.6N	348°28'.8	0°36'.5N	31°20'.8	16°08'.9S	181°09'.2	3°06'.9N
		-0°10'.5	-27'.9	+0°30'.0	+04'.6	+1°06'.2	-03'.1	+1°02'.5	+01'.1	+0°05'.4	-23'.0
16.09.2022	354°55'.4	189°40'.3	7°47'.6N	282°06'.8	21°28'.2N	349°35'.0	0°33'.4N	32°23'.3	16°10'.0S	181°14'.6	2°43'.9N
		-0°10'.5	-28'.2	+0°30'.2	+04'.5	+1°06'.2	-03'.2	+1°02'.4	+01'.0	+0°05'.3	-23'.2
17.09.2022	355°54'.6	189°29'.8	7°19'.4N	282°37'.0	21°32'.7N	350°41'.2	0°30'.2N	33°25'.7	16°11'.0S	181°19'.9	2°20'.7N
		-0°10'.3	-28'.4	+0°30'.7	+04'.4	+1°06'.2	-03'.1	+1°02'.3	+01'.0	+0°05'.4	-23'.2
18.09.2022	356°53'.7	189°19'.5	6°51'.0N	283°07'.7	21°37'.1N	351°47'.4	0°27'.1N	34°28'.0	16°12'.0S	181°25'.3	1°57'.5N
		-0°10'.1	-28'.6	+0°31'.1	+04'.2	+1°06'.3	-03'.2	+1°02'.3	+01'.0	+0°05'.4	-23'.2
19.09.2022	357°52'.9	189°09'.4	6°22'.4N	283°38'.8	21°41'.3N	352°53'.7	0°23'.9N	35°30'.3	16°13'.0S	181°30'.7	1°34'.3N
		-0°10'.1	-28'.7	+0°31'.5	+04'.2	+1°06'.3	-03'.2	+1°02'.2	+01'.0	+0°05'.3	-23'.3
20.09.2022	358°52'.0	188°59'.3	5°53'.7N	284°10'.3	21°45'.5N	354°00'.0	0°20'.7N	36°32'.5	16°14'.0S	181°36'.0	1°11'.0N
		-0°09'.9	-29'.0	+0°31'.9	+04'.0	+1°06'.4	-03'.2	+1°02'.2	+00'.9	+0°05'.3	-23'.3
21.09.2022	359°51'.1	188°49'.4	5°24'.7N	284°42'.2	21°49'.5N	355°06'.4	0°17'.5N	37°34'.7	16°14'.9S	181°41'.3	0°47'.7N
		-0°09'.9	-29'.1	+0°32'.3	+04'.0	+1°06'.5	-03'.2	+1°02'.0	+00'.9	+0°05'.3	-23'.3
22.09.2022	0°50'.3	188°39'.5	4°55'.6N	285°14'.5	21°53'.5N	356°12'.9	0°14'.3N	38°36'.7	16°15'.8S	181°46'.6	0°24'.4N
		-0°09'.7	-29'.3	+0°32'.8	+03'.9	+1°06'.4	-03'.2	+1°02'.0	+00'.9	+0°05'.3	-23'.4
23.09.2022	1°49'.4	188°29'.8	4°26'.3N	285°47'.3	21°57'.4N	357°19'.3	0°11'.1N	39°38'.7	16°16'.7S	181°51'.9	0°01'.0N
		-0°09'.7	-29'.4	+0°33'.2	+03'.8	+1°06'.5	-03'.2	+1°01'.9	+00'.9	+0°05'.2	-23'.3
24.09.2022	2°48'.5	188°20'.1	3°56'.9N	286°20'.5	22°01'.2N	358°25'.8	0°07'.9N	40°40'.6	16°17'.6S	181°57'.1	0°22'.3S
		-0°09'.6	-29'.5	+0°33'.7	+03'.7	+1°06'.5	-03'.2	+1°01'.8	+00'.8	+0°05'.2	+23'.4
25.09.2022	3°47'.7	188°10'.5	3°27'.4N	286°54'.2	22°04'.9N	359°32'.3	0°04'.7N	41°42'.4	16°18'.4S	182°02'.3	0°45'.7S
		-0°09'.6	-29'.6	+0°34'.2	+03'.6	+1°06'.5	-03'.2	+1°01'.8	+00'.8	+0°05'.2	+23'.4
26.09.2022	4°46'.8	188°00'.9	2°57'.8N	287°28'.4	22°08'.5N	0°38'.8	0°01'.5N	42°44'.2	16°19'.2S	182°07'.5	1°09'.1S
		-0°09'.5	-29'.8	+0°34'.7	+03'.6	+1°06'.5	-03'.2	+1°01'.6	+00'.8	+0°05'.1	+23'.3
27.09.2022	5°46'.0	187°51'.4	2°28'.0N	288°03'.1	22°12'.1N	1°45'.3	0°01'.7S	43°45'.8	16°20'.0S	182°12'.6	1°32'.4S
		-0°09'.5	-29'.8	+0°35'.1	+03'.4	+1°06'.5	+03'.2	+1°01'.6	+00'.7	+0°05'.1	+23'.4
28.09.2022	6°45'.1	187°41'.9	1°58'.2N	288°38'.2	22°15'.5N	2°51'.8	0°04'.9S	44°47'.4	16°20'.7S	182°17'.7	1°55'.8S
		-0°09'.4	-29'.9	+0°35'.7	+03'.4	+1°06'.5	+03'.2	+1°01'.5	+00'.7	+0°05'.0	+23'.3
29.09.2022	7°44'.2	187°32'.5	1°28'.3N	289°13'.9	22°18'.9N	3°58'.3	0°08'.1S	45°48'.9	16°21'.4S	182°22'.7	2°19'.1S
		-0°09'.4	-30'.0	+0°36'.2	+03'.4	+1°06'.5	+03'.2	+1°01'.4	+00'.7	+0°05'.0	+23'.4
30.09.2022	8°43'.4	187°23'.1	0°58'.3N	289°50'.1	22°22'.3N	5°04'.8	0°11'.3S	46°50'.3	16°22'.1S	182°27'.7	2°42'.5S
		-0°09'.4	-30'.0	+0°36'.8	+03'.2	+1°06'.5	+03'.2	+1°01'.4	+00'.7	+0°04'.9	+23'.3

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d
01.10.2022	9°42'.5	187°13'.7	0°28'.3N	290°26'.9	22°25'.5N	6°11'.3	0°14'.5S	47°51'.7	16°22'.8S	182°32'.6	3°05'.8S
		-0°09'.3	-30'.1	+0°37'.3	+03'.2	+1°06'.5	+03'.1	+1°01'.2	+00'.6	+0°04'.8	+23'.2
02.10.2022	10°41'.7	187°04'.4	0°01'.8S	291°04'.2	22°28'.7N	7°17'.8	0°17'.6S	48°52'.9	16°23'.4S	182°37'.4	3°29'.0S
		-0°09'.4	+30'.1	+0°37'.8	+03'.2	+1°06'.4	+03'.1	+1°01'.1	+00'.6	+0°04'.8	+23'.2
03.10.2022	11°40'.8	186°55'.0	0°31'.9S	291°42'.0	22°31'.9N	8°24'.2	0°20'.7S	49°54'.0	16°24'.0S	182°42'.2	3°52'.2S
		-0°09'.4	+30'.1	+0°38'.4	+03'.1	+1°06'.4	+03'.1	+1°01'.1	+00'.6	+0°04'.7	+23'.2
04.10.2022	12°39'.9	186°45'.6	1°02'.0S	292°20'.4	22°35'.0N	9°30'.6	0°23'.8S	50°55'.1	16°24'.6S	182°46'.9	4°15'.4S
		-0°09'.5	+30'.2	+0°39'.0	+03'.0	+1°06'.3	+03'.1	+1°01'.0	+00'.5	+0°04'.6	+23'.1
05.10.2022	13°39'.1	186°36'.1	1°32'.2S	292°59'.4	22°38'.0N	10°36'.9	0°26'.9S	51°56'.1	16°25'.1S	182°51'.5	4°38'.5S
		-0°09'.4	+30'.1	+0°39'.6	+03'.0	+1°06'.4	+03'.1	+1°00'.8	+00'.5	+0°04'.5	+23'.1
06.10.2022	14°38'.2	186°26'.7	2°02'.3S	293°39'.0	22°41'.0N	11°43'.3	0°30'.0S	52°56'.9	16°25'.6S	182°56'.0	5°01'.6S
		-0°09'.5	+30'.0	+0°40'.2	+03'.0	+1°06'.2	+03'.0	+1°00'.8	+00'.5	+0°04'.4	+23'.0
07.10.2022	15°37'.4	186°17'.2	2°32'.3S	294°19'.2	22°44'.0N	12°49'.5	0°33'.0S	53°57'.7	16°26'.1S	183°00'.4	5°24'.6S
		-0°09'.6	+30'.1	+0°40'.8	+02'.9	+1°06'.2	+03'.0	+1°00'.7	+00'.4	+0°04'.3	+22'.9
08.10.2022	16°36'.5	186°07'.6	3°02'.4S	295°00'.0	22°46'.9N	13°55'.7	0°36'.0S	54°58'.4	16°26'.5S	183°04'.7	5°47'.5S
		-0°09'.7	+30'.0	+0°41'.5	+02'.9	+1°06'.2	+02'.9	+1°00'.6	+00'.5	+0°04'.3	+22'.9
09.10.2022	17°35'.6	185°57'.9	3°32'.4S	295°41'.5	22°49'.8N	15°01'.9	0°38'.9S	55°59'.0	16°27'.0S	183°09'.0	6°10'.4S
		-0°09'.7	+30'.0	+0°42'.1	+02'.8	+1°06'.1	+02'.9	+1°00'.5	+00'.3	+0°04'.1	+22'.7
10.10.2022	18°34'.8	185°48'.2	4°02'.4S	296°23'.6	22°52'.6N	16°08'.0	0°41'.8S	56°59'.5	16°27'.3S	183°13'.1	6°33'.1S
		-0°09'.8	+29'.8	+0°42'.8	+02'.9	+1°06'.0	+02'.9	+1°00'.4	+00'.4	+0°04'.0	+22'.7
11.10.2022	19°33'.9	185°38'.4	4°32'.2S	297°06'.4	22°55'.5N	17°14'.0	0°44'.7S	57°59'.9	16°27'.7S	183°17'.1	6°55'.8S
		-0°09'.9	+29'.8	+0°43'.4	+02'.8	+1°05'.9	+02'.8	+1°00'.3	+00'.3	+0°03'.8	+22'.6
12.10.2022	20°33'.0	185°28'.5	5°02'.0S	297°49'.8	22°58'.3N	18°19'.9	0°47'.5S	59°00'.2	16°28'.0S	183°20'.9	7°18'.4S
		-0°10'.0	+29'.7	+0°44'.1	+02'.7	+1°05'.9	+02'.8	+1°00'.3	+00'.3	+0°03'.8	+22'.5
13.10.2022	21°32'.2	185°18'.5	5°31'.7S	298°33'.9	23°01'.0N	19°25'.8	0°50'.3S	60°00'.5	16°28'.3S	183°24'.7	7°40'.9S
		-0°10'.2	+29'.6	+0°44'.8	+02'.8	+1°05'.7	+02'.8	+1°00'.1	+00'.2	+0°03'.6	+22'.4
14.10.2022	22°31'.3	185°08'.3	6°01'.3S	299°18'.7	23°03'.8N	20°31'.5	0°53'.1S	61°00'.6	16°28'.5S	183°28'.3	8°03'.3S
		-0°10'.3	+29'.5	+0°45'.6	+02'.7	+1°05'.7	+02'.7	+1°00'.0	+00'.3	+0°03'.5	+22'.2
15.10.2022	23°30'.5	184°58'.0	6°30'.8S	300°04'.3	23°06'.5N	21°37'.2	0°55'.8S	62°00'.6	16°28'.8S	183°31'.8	8°25'.5S
		-0°10'.4	+29'.3	+0°46'.3	+02'.7	+1°05'.6	+02'.7	+0°59'.9	+00'.2	+0°03'.3	+22'.2
16.10.2022	24°29'.6	184°47'.6	7°00'.1S	300°50'.6	23°09'.2N	22°42'.8	0°58'.5S	63°00'.5	16°29'.0S	183°35'.1	8°47'.7S
		-0°10'.6	+29'.2	+0°47'.1	+02'.8	+1°05'.5	+02'.6	+0°59'.8	+00'.1	+0°03'.2	+22'.0
17.10.2022	25°28'.7	184°37'.0	7°29'.3S	301°37'.7	23°12'.0N	23°48'.3	1°01'.1S	64°00'.3	16°29'.1S	183°38'.3	9°09'.7S
		-0°10'.7	+29'.1	+0°47'.8	+02'.7	+1°05'.4	+02'.5	+0°59'.8	+00'.2	+0°03'.1	+21'.9
18.10.2022	26°27'.9	184°26'.3	7°58'.4S	302°25'.5	23°14'.7N	24°53'.7	1°03'.6S	65°00'.1	16°29'.3S	183°41'.4	9°31'.6S
		-0°10'.9	+28'.8	+0°48'.6	+02'.6	+1°05'.2	+02'.5	+0°59'.6	+00'.0	+0°02'.8	+21'.8
19.10.2022	27°27'.0	184°15'.4	8°27'.2S	303°14'.1	23°17'.3N	25°58'.9	1°06'.1S	65°59'.7	16°29'.3S	183°44'.2	9°53'.4S
		-0°11'.1	+28'.7	+0°49'.4	+02'.7	+1°05'.2	+02'.5	+0°59'.5	+00'.1	+0°02'.8	+21'.6
20.10.2022	28°26'.1	184°04'.3	8°55'.9S	304°03'.5	23°20'.0N	27°04'.1	1°08'.6S	66°59'.2	16°29'.4S	183°47'.0	10°15'.0S
		-0°11'.3	+28'.5	+0°50'.3	+02'.7	+1°05'.0	+02'.3	+0°59'.5	+00'.0	+0°02'.5	+21'.5
21.10.2022	29°25'.3	183°53'.0	9°24'.4S	304°53'.8	23°22'.7N	28°09'.1	1°10'.9S	67°58'.7	16°29'.4S	183°49'.5	10°36'.5S
		-0°11'.4	+28'.3	+0°51'.1	+02'.7	+1°05'.0	+02'.4	+0°59'.3	+00'.0	+0°02'.4	+21'.3
22.10.2022	30°24'.4	183°41'.6	9°52'.7S	305°44'.9	23°25'.4N	29°14'.1	1°13'.3S	68°58'.0	16°29'.4S	183°51'.9	10°57'.8S
		-0°11'.7	+28'.0	+0°51'.9	+02'.7	+1°04'.7	+02'.2	+0°59'.2	+00'.0	+0°02'.2	+21'.2
23.10.2022	31°23'.6	183°29'.9	10°20'.7S	306°36'.8	23°28'.1N	30°18'.8	1°15'.5S	69°57'.2	16°29'.4S	183°54'.1	11°19'.0S
		-0°11'.9	+27'.8	+0°52'.8	+02'.7	+1°04'.7	+02'.3	+0°59'.1	-00'.1	+0°02'.1	+21'.0
24.10.2022	32°22'.7	183°18'.0	10°48'.5S	307°29'.6	23°30'.8N	31°23'.5	1°17'.8S	70°56'.3	16°29'.3S	183°56'.2	11°40'.0S
		-0°12'.2	+27'.6	+0°53'.7	+02'.7	+1°04'.5	+02'.1	+0°59'.0	-00'.1	+0°01'.9	+20'.8
25.10.2022	33°21'.8	183°05'.8	11°16'.1S	308°23'.3	23°33'.5N	32°28'.0	1°19'.9S	71°55'.3	16°29'.2S	183°58'.1	12°00'.8S
		-0°12'.3	+27'.3	+0°54'.6	+02'.6	+1°04'.4	+02'.1	+0°59'.0	-00'.1	+0°01'.7	+20'.6
26.10.2022	34°21'.0	182°53'.5	11°43'.4S	309°17'.9	23°36'.1N	33°32'.4	1°22'.0S	72°54'.3	16°29'.1S	183°59'.8	12°21'.4S
		-0°12'.6	+27'.0	+0°55'.5	+02'.7	+1°04'.3	+02'.0	+0°58'.8	-00'.1	+0°01'.5	+20'.5
27.10.2022	35°20'.1	182°40'.9	12°10'.4S	310°13'.4	23°38'.8N	34°36'.7	1°24'.0S	73°53'.1	16°29'.0S	184°01'.3	12°41'.9S
		-0°12'.8	+26'.7	+0°56'.4	+02'.7	+1°04'.1	+01'.9	+0°58'.7	-00'.2	+0°01'.3	+20'.2
28.10.2022	36°19'.3	182°28'.1	12°37'.1S	311°09'.8	23°41'.5N	35°40'.8	1°25'.9S	74°51'.8	16°28'.8S	184°02'.6	13°02'.1S
		-0°13'.1	+26'.4	+0°57'.3	+02'.8	+1°03'.9	+01'.9	+0°58'.6	-00'.3	+0°01'.1	+20'.1
29.10.2022	37°18'.4	182°15'.0	13°03'.5S	312°07'.1	23°44'.3N	36°44'.7	1°27'.8S	75°50'.4	16°28'.5S	184°03'.7	13°22'.2S
		-0°13'.4	+26'.1	+0°58'.2	+02'.7	+1°03'.8	+01'.8	+0°58'.5	-00'.2	+0°01'.0	+19'.8
30.10.2022	38°17'.5	182°01'.6	13°29'.6S	313°05'.3	23°47'.0N	37°48'.5	1°29'.6S	76°48'.9	16°28'.3S	184°04'.7	13°42'.0S
		-0°13'.6	+25'.8	+0°59'.2	+02'.7	+1°03'.7	+01'.7	+0°58'.4	-00'.3	+0°00'.8	+19'.6
31.10.2022	39°16'.7	181°48'.0	13°55'.4S	314°04'.5	23°49'.7N	38°52'.2	1°31'.3S	77°47'.3	16°28'.0S	184°05'.5	14°01'.6S
		-0°13'.9	+25'.4	+1°00'.1	+02'.7	+1°03'.4	+01'.6	+0°58'.3	-00'.4	+0°00'.5	+19'.4

Ephemerides November, 2022

2022

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d	GHA / v	Dec / d
01.11.2022	40°15'.8	181°34'.1	14°20'.8S	315°04'.6	23°52'.4N	39°55'.6	1°32'.9S	78°45'.6	16°27'.6S	184°06'.0	14°21'.0S
		-0°14'.1	+25'.1	+1°01'.1	+02'.8	+1°03'.4	+01'.6	+0°58'.2	-00'.3	+0°00'.4	+19'.1
02.11.2022	41°15'.0	181°20'.0	14°45'.9S	316°05'.7	23°55'.2N	40°59'.0	1°34'.5S	79°43'.8	16°27'.3S	184°06'.4	14°40'.1S
		-0°14'.5	+24'.7	+1°02'.0	+02'.7	+1°03'.1	+01'.5	+0°58'.1	-00'.4	+0°00'.2	+19'.0
03.11.2022	42°14'.1	181°05'.5	15°10'.6S	317°07'.7	23°57'.9N	42°02'.1	1°36'.0S	80°41'.9	16°26'.9S	184°06'.6	14°59'.1S
		-0°14'.7	+24'.3	+1°03'.0	+02'.7	+1°03'.0	+01'.4	+0°58'.0	-00'.4	+0°00'.0	+18'.6
04.11.2022	43°13'.2	180°50'.8	15°34'.9S	318°10'.7	24°00'.6N	43°05'.1	1°37'.4S	81°39'.9	16°26'.5S	184°06'.6	15°17'.7S
		-0°15'.0	+23'.9	+1°04'.0	+02'.8	+1°02'.8	+01'.4	+0°57'.9	-00'.5	-0°00'.2	+18'.4
05.11.2022	44°12'.4	180°35'.8	15°58'.8S	319°14'.7	24°03'.4N	44°07'.9	1°38'.8S	82°37'.8	16°26'.0S	184°06'.4	15°36'.1S
		-0°15'.3	+23'.5	+1°04'.9	+02'.7	+1°02'.7	+01'.2	+0°57'.8	-00'.5	-0°00'.5	+18'.2
06.11.2022	45°11'.5	180°20'.5	16°22'.3S	320°19'.6	24°06'.1N	45°10'.6	1°40'.0S	83°35'.6	16°25'.5S	184°05'.9	15°54'.3S
		-0°15'.6	+23'.1	+1°05'.9	+02'.7	+1°02'.4	+01'.2	+0°57'.7	-00'.5	-0°00'.6	+17'.9
07.11.2022	46°10'.6	180°04'.9	16°45'.4S	321°25'.5	24°08'.8N	46°13'.0	1°41'.2S	84°33'.3	16°25'.0S	184°05'.3	16°12'.2S
		-0°15'.9	+22'.6	+1°06'.9	+02'.7	+1°02'.3	+01'.1	+0°57'.6	-00'.5	-0°00'.8	+17'.6
08.11.2022	47°09'.8	179°49'.0	17°08'.0S	322°32'.4	24°11'.5N	47°15'.3	1°42'.3S	85°30'.9	16°24'.5S	184°04'.5	16°29'.8S
		-0°16'.2	+22'.2	+1°07'.8	+02'.7	+1°02'.2	+01'.1	+0°57'.6	-00'.6	-0°01'.1	+17'.4
09.11.2022	48°08'.9	179°32'.8	17°30'.2S	323°40'.2	24°14'.2N	48°17'.5	1°43'.4S	86°28'.5	16°23'.9S	184°03'.4	16°47'.2S
		-0°16'.5	+21'.7	+1°08'.8	+02'.7	+1°01'.9	+00'.9	+0°57'.4	-00'.6	-0°01'.2	+17'.0
10.11.2022	49°08'.1	179°16'.3	17°51'.9S	324°49'.0	24°16'.9N	49°19'.4	1°44'.3S	87°25'.9	16°23'.3S	184°02'.2	17°04'.2S
		-0°16'.8	+21'.2	+1°09'.7	+02'.6	+1°01'.8	+00'.9	+0°57'.3	-00'.7	-0°01'.5	+16'.8
11.11.2022	50°07'.2	178°59'.5	18°13'.1S	325°58'.7	24°19'.5N	50°21'.2	1°45'.2S	88°23'.2	16°22'.6S	184°00'.7	17°21'.0S
		-0°17'.1	+20'.8	+1°10'.7	+02'.6	+1°01'.6	+00'.8	+0°57'.2	-00'.6	-0°01'.7	+16'.5
12.11.2022	51°06'.3	178°42'.4	18°33'.9S	327°09'.4	24°22'.1N	51°22'.8	1°46'.0S	89°20'.4	16°22'.0S	183°59'.0	17°37'.5S
		-0°17'.5	+20'.2	+1°11'.7	+02'.6	+1°01'.4	+00'.7	+0°57'.1	-00'.7	-0°01'.9	+16'.1
13.11.2022	52°05'.5	178°24'.9	18°54'.1S	328°21'.1	24°24'.7N	52°24'.2	1°46'.7S	90°17'.5	16°21'.3S	183°57'.1	17°53'.6S
		-0°17'.7	+19'.8	+1°12'.6	+02'.5	+1°01'.2	+00'.6	+0°57'.0	-00'.8	-0°02'.1	+15'.9
14.11.2022	53°04'.6	178°07'.2	19°13'.9S	329°33'.7	24°27'.2N	53°25'.4	1°47'.3S	91°14'.5	16°20'.5S	183°55'.0	18°09'.5S
		-0°18'.1	+19'.2	+1°13'.5	+02'.5	+1°01'.1	+00'.5	+0°56'.9	-00'.7	-0°02'.3	+15'.5
15.11.2022	54°03'.8	177°49'.1	19°33'.1S	330°47'.2	24°29'.7N	54°26'.5	1°47'.8S	92°11'.4	16°19'.8S	183°52'.7	18°25'.0S
		-0°18'.3	+18'.6	+1°14'.4	+02'.4	+1°00'.8	+00'.5	+0°56'.8	-00'.8	-0°02'.5	+15'.3
16.11.2022	55°02'.9	177°30'.8	19°51'.7S	332°01'.6	24°32'.1N	55°27'.3	1°48'.3S	93°08'.2	16°19'.0S	183°50'.2	18°40'.3S
		-0°18'.7	+18'.1	+1°15'.3	+02'.4	+1°00'.7	+00'.4	+0°56'.8	-00'.9	-0°02'.8	+14'.9
17.11.2022	56°02'.0	177°12'.1	20°09'.8S	333°16'.9	24°34'.5N	56°28'.0	1°48'.7S	94°05'.0	16°18'.1S	183°47'.4	18°55'.2S
		-0°19'.0	+17'.6	+1°16'.2	+02'.3	+1°00'.5	+00'.3	+0°56'.6	-00'.8	-0°03'.0	+14'.5
18.11.2022	57°01'.2	176°53'.1	20°27'.4S	334°33'.1	24°36'.8N	57°28'.5	1°49'.0S	95°01'.6	16°17'.3S	183°44'.4	19°09'.7S
		-0°19'.2	+17'.0	+1°17'.0	+02'.2	+1°00'.2	+00'.2	+0°56'.5	-00'.9	-0°03'.2	+14'.2
19.11.2022	58°00'.3	176°33'.9	20°44'.4S	335°50'.1	24°39'.0N	58°28'.7	1°49'.2S	95°58'.1	16°16'.4S	183°41'.2	19°23'.9S
		-0°19'.6	+16'.3	+1°17'.8	+02'.2	+1°00'.1	+00'.1	+0°56'.5	-00'.9	-0°03'.4	+13'.9
20.11.2022	58°59'.5	176°14'.3	21°00'.7S	337°07'.9	24°41'.2N	59°28'.8	1°49'.3S	96°54'.6	16°15'.5S	183°37'.8	19°37'.8S
		-0°19'.8	+15'.8	+1°18'.6	+02'.0	+1°00'.0	+00'.0	+0°56'.3	-01'.0	-0°03'.6	+13'.5
21.11.2022	59°58'.6	175°54'.5	21°16'.5S	338°26'.5	24°43'.2N	60°28'.8	1°49'.3S	97°50'.9	16°14'.5S	183°34'.2	19°51'.3S
		-0°20'.2	+15'.2	+1°19'.4	+01'.9	+0°59'.7	+00'.0	+0°56'.3	-01'.0	-0°03'.8	+13'.2
22.11.2022	60°57'.7	175°34'.3	21°31'.7S	339°45'.9	24°45'.1N	61°28'.5	1°49'.3S	98°47'.2	16°13'.5S	183°30'.4	20°04'.5S
		-0°20'.4	+14'.5	+1°20'.1	+01'.9	+0°59'.5	-00'.2	+0°56'.2	-01'.0	-0°04'.0	+12'.8
23.11.2022	61°56'.9	175°13'.9	21°46'.2S	341°06'.0	24°47'.0N	62°28'.0	1°49'.1S	99°43'.4	16°12'.5S	183°26'.4	20°17'.3S
		-0°20'.6	+14'.0	+1°20'.7	+01'.7	+0°59'.3	-00'.2	+0°56'.0	-01'.0	-0°04'.2	+12'.4
24.11.2022	62°56'.0	174°53'.3	22°00'.2S	342°26'.7	24°48'.7N	63°27'.3	1°48'.9S	100°39'.4	16°11'.5S	183°22'.2	20°29'.7S
		-0°20'.9	+13'.2	+1°21'.4	+01'.7	+0°59'.2	-00'.3	+0°56'.0	-01'.1	-0°04'.4	+12'.0
25.11.2022	63°55'.1	174°32'.4	22°13'.4S	343°48'.1	24°50'.4N	64°26'.5	1°48'.6S	101°35'.4	16°10'.4S	183°17'.8	20°41'.7S
		-0°21'.2	+12'.7	+1°22'.0	+01'.5	+0°59'.0	-00'.3	+0°55'.9	-01'.1	-0°04'.6	+11'.7
26.11.2022	64°54'.3	174°11'.2	22°26'.1S	345°10'.1	24°51'.9N	65°25'.5	1°48'.3S	102°31'.3	16°09'.3S	183°13'.2	20°53'.4S
		-0°21'.4	+11'.9	+1°22'.5	+01'.4	+0°58'.7	-00'.5	+0°55'.8	-01'.1	-0°04'.7	+11'.2
27.11.2022	65°53'.4	173°49'.8	22°38'.0S	346°32'.6	24°53'.3N	66°24'.2	1°47'.8S	103°27'.1	16°08'.2S	183°08'.5	21°04'.6S
		-0°21'.6	+11'.3	+1°22'.9	+01'.2	+0°58'.6	-00'.6	+0°55'.7	-01'.1	-0°05'.0	+10'.9
28.11.2022	66°52'.6	173°28'.2	22°49'.3S	347°55'.5	24°54'.5N	67°22'.8	1°47'.2S	104°22'.8	16°07'.1S	183°03'.5	21°15'.5S
		-0°21'.9	+10'.6	+1°23'.4	+01'.2	+0°58'.4	-00'.6	+0°55'.7	-01'.2	-0°05'.1	+10'.5
29.11.2022	67°51'.7	173°06'.3	22°59'.9S	349°18'.9	24°55'.7N	68°21'.2	1°46'.6S	105°18'.5	16°05'.9S	182°58'.4	21°26'.0S
		-0°22'.0	+09'.9	+1°23'.8	+01'.0	+0°58'.2	-00'.7	+0°55'.5	-01'.2	-0°05'.3	+10'.0
30.11.2022	68°50'.9	172°44'.3	23°09'.8S	350°42'.7	24°56'.7N	69°19'.4	1°45'.9S	106°14'.0	16°04'.7S	182°53'.1	21°36'.0S
		-0°22'.2	+09'.3	+1°24'.1	+00'.8	+0°58'.0	-00'.8	+0°55'.5	-01'.2	-0°05'.5	+09'.6

Date	Aries	Venus		Mars		Jupiter		Saturn		Sun	
	GHA	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d	GHA/ν	Dec/d
01.12.2022	69°50'.0	172°22'.1	23°19'.1S	352°06'.8	24°57'.5N	70°17'.4	1°45'.1S	107°09'.5	16°03'.5S	182°47'.6	21°45'.6S
		-0°22'.5	+08'.5	+1°24'.3	+00'.7	+0°57'.8	-00'.9	+0°55'.3	-01'.3	-0°05'.6	+09'.3
02.12.2022	70°49'.1	171°59'.6	23°27'.6S	353°31'.1	24°58'.2N	71°15'.2	1°44'.2S	108°04'.8	16°02'.2S	182°42'.0	21°54'.9S
		-0°22'.5	+07'.8	+1°24'.6	+00'.6	+0°57'.6	-01'.0	+0°55'.3	-01'.3	-0°05'.7	+08'.8
03.12.2022	71°48'.3	171°37'.1	23°35'.4S	354°55'.7	24°58'.8N	72°12'.8	1°43'.2S	109°00'.1	16°00'.9S	182°36'.3	22°03'.7S
		-0°22'.7	+07'.1	+1°24'.7	+00'.5	+0°57'.4	-01'.0	+0°55'.2	-01'.3	-0°05'.9	+08'.4
04.12.2022	72°47'.4	171°14'.4	23°42'.5S	356°20'.4	24°59'.3N	73°10'.2	1°42'.2S	109°55'.3	15°59'.6S	182°30'.4	22°12'.1S
		-0°22'.9	+06'.4	+1°24'.8	+00'.3	+0°57'.3	-01'.1	+0°55'.2	-01'.4	-0°06'.1	+07'.9
05.12.2022	73°46'.5	170°51'.5	23°48'.9S	357°45'.2	24°59'.6N	74°07'.5	1°41'.1S	110°50'.5	15°58'.2S	182°24'.3	22°20'.0S
		-0°23'.0	+05'.6	+1°24'.8	+00'.2	+0°57'.0	-01'.2	+0°55'.0	-01'.3	-0°06'.2	+07'.5
06.12.2022	74°45'.7	170°28'.5	23°54'.5S	359°10'.0	24°59'.8N	75°04'.5	1°39'.9S	111°45'.5	15°56'.9S	182°18'.1	22°27'.5S
		-0°23'.1	+04'.9	+1°24'.9	+00'.0	+0°56'.9	-01'.3	+0°55'.0	-01'.4	-0°06'.3	+07'.1
07.12.2022	75°44'.8	170°05'.4	23°59'.4S	0°34'.9	24°59'.8N	76°01'.4	1°38'.6S	112°40'.5	15°55'.5S	182°11'.8	22°34'.6S
		-0°23'.2	+04'.2	+1°24'.7	-00'.1	+0°56'.7	-01'.4	+0°54'.9	-01'.4	-0°06'.4	+06'.6
08.12.2022	76°44'.0	169°42'.2	24°03'.6S	1°59'.6	24°59'.7N	76°58'.1	1°37'.2S	113°35'.4	15°54'.1S	182°05'.4	22°41'.2S
		-0°23'.2	+03'.4	+1°24'.6	-00'.2	+0°56'.5	-01'.4	+0°54'.8	-01'.5	-0°06'.6	+06'.2
09.12.2022	77°43'.1	169°19'.0	24°07'.0S	3°24'.2	24°59'.5N	77°54'.6	1°35'.8S	114°30'.2	15°52'.6S	181°58'.8	22°47'.4S
		-0°23'.3	+02'.7	+1°24'.4	-00'.3	+0°56'.4	-01'.5	+0°54'.7	-01'.5	-0°06'.7	+05'.8
10.12.2022	78°42'.2	168°55'.7	24°09'.7S	4°48'.6	24°59'.2N	78°51'.0	1°34'.3S	115°24'.9	15°51'.1S	181°52'.1	22°53'.2S
		-0°23'.4	+02'.0	+1°24'.2	-00'.5	+0°56'.1	-01'.6	+0°54'.7	-01'.5	-0°06'.8	+05'.3
11.12.2022	79°41'.4	168°32'.3	24°11'.7S	6°12'.8	24°58'.7N	79°47'.1	1°32'.7S	116°19'.6	15°49'.6S	181°45'.3	22°58'.5S
		-0°23'.4	+01'.2	+1°24'.0	-00'.6	+0°56'.0	-01'.7	+0°54'.6	-01'.5	-0°06'.9	+04'.8
12.12.2022	80°40'.5	168°08'.9	24°12'.9S	7°36'.8	24°58'.1N	80°43'.1	1°31'.0S	117°14'.2	15°48'.1S	181°38'.4	23°03'.3S
		-0°23'.4	+00'.4	+1°23'.5	-00'.7	+0°55'.8	-01'.8	+0°54'.5	-01'.5	-0°06'.9	+04'.4
13.12.2022	81°39'.7	167°45'.5	24°13'.3S	9°00'.3	24°57'.4N	81°38'.9	1°29'.2S	118°08'.7	15°46'.6S	181°31'.5	23°07'.7S
		-0°23'.4	-00'.3	+1°23'.2	-00'.7	+0°55'.6	-01'.8	+0°54'.4	-01'.6	-0°07'.1	+03'.9
14.12.2022	82°38'.8	167°22'.1	24°13'.0S	10°23'.5	24°56'.7N	82°34'.5	1°27'.4S	119°03'.1	15°45'.0S	181°24'.4	23°11'.6S
		-0°23'.4	-01'.0	+1°22'.8	-00'.9	+0°55'.5	-01'.9	+0°54'.4	-01'.6	-0°07'.2	+03'.5
15.12.2022	83°37'.9	166°58'.7	24°12'.0S	11°46'.3	24°55'.8N	83°30'.0	1°25'.5S	119°57'.5	15°43'.4S	181°17'.2	23°15'.1S
		-0°23'.4	-01'.8	+1°22'.2	-01'.0	+0°55'.2	-02'.0	+0°54'.3	-01'.6	-0°07'.2	+03'.0
16.12.2022	84°37'.1	166°35'.3	24°10'.2S	13°08'.5	24°54'.8N	84°25'.2	1°23'.5S	120°51'.8	15°41'.8S	181°10'.0	23°18'.1S
		-0°23'.3	-02'.5	+1°21'.8	-01'.0	+0°55'.1	-02'.0	+0°54'.2	-01'.6	-0°07'.3	+02'.5
17.12.2022	85°36'.2	166°12'.0	24°07'.7S	14°30'.3	24°53'.8N	85°20'.3	1°21'.5S	121°46'.0	15°40'.2S	181°02'.7	23°20'.6S
		-0°23'.2	-03'.3	+1°21'.2	-01'.1	+0°55'.0	-02'.1	+0°54'.1	-01'.7	-0°07'.3	+02'.1
18.12.2022	86°35'.4	165°48'.8	24°04'.4S	15°51'.5	24°52'.7N	86°15'.3	1°19'.4S	122°40'.1	15°38'.5S	180°55'.4	23°22'.7S
		-0°23'.2	-04'.0	+1°20'.5	-01'.2	+0°54'.7	-02'.2	+0°54'.1	-01'.7	-0°07'.4	+01'.6
19.12.2022	87°34'.5	165°25'.6	24°00'.4S	17°12'.0	24°51'.5N	87°10'.0	1°17'.2S	123°34'.2	15°36'.8S	180°48'.0	23°24'.3S
		-0°23'.1	-04'.8	+1°19'.9	-01'.2	+0°54'.6	-02'.3	+0°54'.1	-01'.7	-0°07'.4	+01'.1
20.12.2022	88°33'.6	165°02'.5	23°55'.6S	18°31'.9	24°50'.3N	88°04'.6	1°14'.9S	124°28'.3	15°35'.1S	180°40'.6	23°25'.4S
		-0°22'.9	-05'.5	+1°19'.3	-01'.3	+0°54'.4	-02'.3	+0°53'.9	-01'.7	-0°07'.5	+00'.7
21.12.2022	89°32'.8	164°39'.6	23°50'.1S	19°51'.2	24°49'.0N	88°59'.0	1°12'.6S	125°22'.2	15°33'.4S	180°33'.1	23°26'.1S
		-0°22'.8	-06'.3	+1°18'.5	-01'.2	+0°54'.3	-02'.4	+0°53'.9	-01'.8	-0°07'.4	+00'.2
22.12.2022	90°31'.9	164°16'.8	23°43'.8S	21°09'.7	24°47'.8N	89°53'.3	1°10'.2S	126°16'.1	15°31'.6S	180°25'.7	23°26'.3S
		-0°22'.7	-06'.9	+1°17'.8	-01'.3	+0°54'.1	-02'.5	+0°53'.8	-01'.8	-0°07'.5	-00'.3
23.12.2022	91°31'.1	163°54'.1	23°36'.9S	22°27'.5	24°46'.5N	90°47'.4	1°07'.7S	127°09'.9	15°29'.8S	180°18'.2	23°26'.0S
		-0°22'.5	-07'.7	+1°16'.9	-01'.4	+0°53'.9	-02'.5	+0°53'.8	-01'.8	-0°07'.5	-00'.7
24.12.2022	92°30'.2	163°31'.6	23°29'.2S	23°44'.4	24°45'.1N	91°41'.3	1°05'.2S	128°03'.7	15°28'.0S	180°10'.7	23°25'.3S
		-0°22'.3	-08'.5	+1°16'.2	-01'.3	+0°53'.7	-02'.7	+0°53'.7	-01'.8	-0°07'.5	-01'.3
25.12.2022	93°29'.3	163°09'.3	23°20'.7S	25°00'.6	24°43'.8N	92°35'.0	1°02'.5S	128°57'.4	15°26'.2S	180°03'.2	23°24'.0S
		-0°22'.2	-09'.1	+1°15'.4	-01'.3	+0°53'.6	-02'.6	+0°53'.6	-01'.8	-0°07'.4	-01'.6
26.12.2022	94°28'.5	162°47'.1	23°11'.6S	26°16'.0	24°42'.5N	93°28'.6	0°59'.9S	129°51'.0	15°24'.4S	179°55'.8	23°22'.4S
		-0°21'.9	-09'.8	+1°14'.5	-01'.3	+0°53'.5	-02'.8	+0°53'.6	-01'.9	-0°07'.5	-02'.2
27.12.2022	95°27'.6	162°25'.2	23°01'.8S	27°30'.5	24°41'.2N	94°22'.1	0°57'.1S	130°44'.6	15°22'.5S	179°48'.3	23°20'.2S
		-0°21'.7	-10'.6	+1°13'.6	-01'.2	+0°53'.2	-02'.8	+0°53'.6	-01'.9	-0°07'.3	-02'.6
28.12.2022	96°26'.8	162°03'.5	22°51'.2S	28°44'.1	24°40'.0N	95°15'.3	0°54'.3S	131°38'.2	15°20'.6S	179°41'.0	23°17'.6S
		-0°21'.5	-11'.2	+1°12'.8	-01'.3	+0°53'.2	-02'.9	+0°53'.4	-01'.9	-0°07'.4	-03'.1
29.12.2022	97°25'.9	161°42'.0	22°40'.0S	29°56'.9	24°38'.7N	96°08'.5	0°51'.4S	132°31'.6	15°18'.7S	179°33'.6	23°14'.5S
		-0°21'.3	-11'.9	+1°11'.8	-01'.2	+0°52'.9	-02'.9	+0°53'.4	-01'.9	-0°07'.3	-03'.6
30.12.2022	98°25'.0	161°20'.7	22°28'.1S	31°08'.7	24°37'.5N	97°01'.4	0°48'.5S	133°25'.0	15°16'.8S	179°26'.3	23°10'.9S
		-0°20'.9	-12'.6	+1°11'.0	-01'.1	+0°52'.9	-03'.1	+0°53'.4	-02'.0	-0°07'.2	-04'.0
31.12.2022	99°24'.2	160°59'.8	22°15'.5S	32°19'.7	24°36'.4N	97°54'.3	0°45'.4S	134°18'.4	15°14'.8S	179°19'.1	23°06'.9S
		-0°20'.8	-13'.3	+1°10'.0	-01'.1	+0°52'.6	-03'.0	+0°53'.3	-01'.9	-0°07'.1	-04'.5

STARS 2022

Star	Magn	Constellation	January		February		March		April		May		June	
			SHA	Dec	SHA	Dec	SHA	Dec	SHA	Dec	SHA	Dec	SHA	Dec
Achernar	0,5	Eridani	335° 22'.1	57° 07'.9 S	335° 22'.3	57° 07'.8 S	335° 22'.4	57° 07'.7 S	335° 22'.5	57° 07'.5 S	335° 22'.4	57° 07'.4 S	335° 22'.1	57° 07'.2 S
Acrux	1,4	Crucis	173° 02'.5	63° 12'.9 S	173° 02'.2	63° 13'.1 S	173° 02'.0	63° 13'.2 S	173° 02'.0	63° 13'.4 S	173° 02'.1	63° 13'.5 S	173° 02'.3	63° 13'.6 S
Adhara	1,51	Canis Majoris	255° 07'.4	29° 00'.2 S	255° 07'.4	29° 00'.3 S	255° 07'.6	29° 00'.4 S	255° 07'.7	29° 00'.4 S	255° 07'.9	29° 00'.3 S	255° 07'.9	29° 00'.2 S
Aldebaran	1,74	Gruis	290° 42'.2	16° 33'.2 N	290° 42'.2	16° 33'.2 N	290° 42'.4	16° 33'.1 N	290° 42'.5	16° 33'.1 N	290° 42'.5	16° 33'.1 N	290° 42'.4	16° 33'.2 N
Alioth	1,8	Tauri	166° 15'.1	55° 50'.2 N	166° 14'.7	55° 50'.2 N	166° 14'.5	55° 50'.3 N	166° 14'.4	55° 50'.4 N	166° 14'.5	55° 50'.5 N	166° 14'.7	55° 50'.6 N
Alkaid	1,76	Ursae Majoris	152° 54'.0	49° 12'.0 N	152° 53'.7	49° 11'.9 N	152° 53'.5	49° 12'.0 N	152° 53'.3	49° 12'.1 N	152° 53'.3	49° 12'.3 N	152° 53'.4	49° 12'.4 N
Alnair	1,85	Ursae Majoris	27° 36'.4	46° 51'.5 S	27° 36'.4	46° 51'.4 S	27° 36'.3	46° 51'.3 S	27° 36'.0	46° 51'.1 S	27° 35'.7	46° 51'.0 S	27° 35'.4	46° 51'.0 S
Alnilam	1,7	Orionis	275° 39'.9	1° 11'.4 S	275° 40'.0	1° 11'.4 S	275° 40'.1	1° 11'.4 S	275° 40'.2	1° 11'.4 S	275° 40'.3	1° 11'.4 S	275° 40'.2	1° 11'.3 S
Alphard	2	Hydrae	217° 49'.8	8° 45'.2 S	217° 49'.7	8° 45'.3 S	217° 49'.8	8° 45'.4 S	217° 49'.9	8° 45'.4 S	217° 50'.0	8° 45'.4 S	217° 50'.0	8° 45'.4 S
Altair	0,77	Aquillae	62° 02'.7	8° 55'.5 N	62° 02'.5	8° 55'.4 N	62° 02'.4	8° 55'.4 N	62° 02'.2	8° 55'.4 N	62° 01'.9	8° 55'.5 N	62° 01'.7	8° 55'.6 N
Antares	1,09	Scorpii	112° 19'.1	26° 28'.7 S	112° 18'.8	26° 28'.8 S	112° 18'.6	26° 28'.8 S	112° 18'.3	26° 28'.8 S	112° 18'.2	26° 28'.9 S	112° 18'.1	26° 28'.9 S
Arcturus	-0,04	Bootis	145° 50'.2	19° 04'.0 N	145° 50'.0	19° 03'.9 N	145° 49'.8	19° 03'.9 N	145° 49'.7	19° 03'.9 N	145° 49'.6	19° 04'.0 N	145° 49'.6	19° 04'.1 N
Atria	1,92	Trianguli Australis	107° 15'.9	69° 03'.7 S	107° 15'.3	69° 03'.7 S	107° 14'.8	69° 03'.7 S	107° 14'.2	69° 03'.8 S	107° 13'.8	69° 03'.9 S	107° 13'.6	69° 04'.1 S
Bellatrix	1,64	Orionis	278° 25'.2	6° 22'.1 N	278° 25'.3	6° 22'.1 N	278° 25'.4	6° 22'.1 N	278° 25'.5	6° 22'.1 N	278° 25'.6	6° 22'.1 N	278° 25'.5	6° 22'.2 N
Betelgeuse	0,58	Orionis	270° 54'.4	7° 24'.6 N	270° 54'.5	7° 24'.6 N	270° 54'.6	7° 24'.6 N	270° 54'.7	7° 24'.6 N	270° 54'.8	7° 24'.6 N	270° 54'.7	7° 24'.6 N
Canopus	-0,72	Carinae	263° 52'.9	52° 42'.6 S	263° 53'.1	52° 42'.7 S	263° 53'.3	52° 42'.7 S	263° 53'.6	52° 42'.7 S	263° 53'.8	52° 42'.6 S	263° 53'.9	52° 42'.5 S
Capella	0,1	Aurigae	280° 25'.1	46° 01'.2 N	280° 25'.2	46° 01'.3 N	280° 25'.3	46° 01'.3 N	280° 25'.5	46° 01'.3 N	280° 25'.6	46° 01'.2 N	280° 25'.5	46° 01'.1 N
Deneb	1,25	Cygni	49° 27'.9	45° 21'.5 N	49° 27'.8	45° 21'.4 N	49° 27'.7	45° 21'.3 N	49° 27'.4	45° 21'.2 N	49° 27'.1	45° 21'.3 N	49° 26'.9	45° 21'.4 N
Dubhe	1,87	Ursae Majoris	193° 43'.6	61° 37'.7 N	193° 43'.3	61° 37'.8 N	193° 43'.2	61° 37'.9 N	193° 43'.3	61° 38'.1 N	193° 43'.5	61° 38'.1 N	193° 43'.8	61° 38'.2 N
El Nath	1,68	Tauri	278° 04'.6	28° 37'.5 N	278° 04'.7	28° 37'.6 N	278° 04'.8	28° 37'.6 N	278° 05'.0	28° 37'.5 N	278° 05'.0	28° 37'.5 N	278° 04'.9	28° 37'.5 N
Fomalhaut	1,16	Piscis Austrini	15° 17'.5	29° 30'.6 S	15° 17'.5	29° 30'.5 S	15° 17'.4	29° 30'.5 S	15° 17'.3	29° 30'.3 S	15° 17'.1	29° 30'.2 S	15° 16'.8	29° 30'.1 S
Gacrux	1,63	Crucis	171° 54'.1	57° 13'.9 S	171° 53'.8	57° 14'.0 S	171° 53'.6	57° 14'.2 S	171° 53'.6	57° 14'.3 S	171° 53'.7	57° 14'.5 S	171° 53'.8	57° 14'.5 S
Hadar	0,6	Centauri	148° 39'.5	60° 28'.4 S	148° 39'.1	60° 28'.5 S	148° 38'.8	60° 28'.6 S	148° 38'.6	60° 28'.8 S	148° 38'.5	60° 28'.9 S	148° 38'.6	60° 29'.0 S
Hamal	2	Arietis	327° 53'.9	23° 34'.0 N	327° 54'.0	23° 33'.9 N	327° 54'.1	23° 33'.9 N	327° 54'.1	23° 33'.9 N	327° 54'.0	23° 33'.9 N	327° 53'.8	23° 33'.9 N
Kaus Aust.	1,8	Sagittarii	83° 36'.1	34° 22'.4 S	83° 35'.9	34° 22'.4 S	83° 35'.7	34° 22'.4 S	83° 35'.4	34° 22'.4 S	83° 35'.1	34° 22'.4 S	83° 34'.9	34° 22'.4 S
Miaplacidus	1,7	Carinae	221° 37'.8	69° 48'.3 S	221° 37'.8	69° 48'.5 S	221° 38'.0	69° 48'.6 S	221° 38'.4	69° 48'.7 S	221° 38'.8	69° 48'.8 S	221° 39'.2	69° 48'.7 S
Mirfak	1,82	Persei	308° 31'.5	49° 56'.5 N	308° 31'.7	49° 56'.5 N	308° 31'.8	49° 56'.4 N	308° 32'.0	49° 56'.3 N	308° 31'.9	49° 56'.3 N	308° 31'.7	49° 56'.2 N
Nunki	2,06	Sagittarii	75° 51'.1	26° 16'.2 S	75° 51'.0	26° 16'.2 S	75° 50'.8	26° 16'.1 S	75° 50'.5	26° 16'.1 S	75° 50'.2	26° 16'.1 S	75° 50'.0	26° 16'.1 S
Peacock	1,91	Pavonis	53° 10'.2	56° 39'.9 S	53° 10'.0	56° 39'.8 S	53° 09'.8	56° 39'.7 S	53° 09'.4	56° 39'.6 S	53° 09'.0	56° 39'.6 S	53° 08'.6	56° 39'.6 S
Polaris	2,01	Ursae Minoris	314° 59'.2	89° 21'.7 N	315° 13'.5	89° 21'.7 N	315° 25'.2	89° 21'.7 N	315° 33'.5	89° 21'.5 N	315° 32'.4	89° 21'.4 N	315° 23'.9	89° 21'.2 N
Pollux	1,15	Geminorum	243° 19'.9	27° 58'.3 N	243° 19'.9	27° 58'.3 N	243° 20'.0	27° 58'.4 N	243° 20'.1	27° 58'.4 N	243° 20'.2	27° 58'.4 N	243° 20'.2	27° 58'.4 N
Procyon	0,34	Canis Minoris	244° 53'.0	5° 10'.1 N	244° 53'.0	5° 10'.0 N	244° 53'.1	5° 10'.0 N	244° 53'.2	5° 10'.0 N	244° 53'.3	5° 10'.0 N	244° 53'.4	5° 10'.1 N
Regulus	1,35	Leonis	207° 36'.8	11° 51'.5 N	207° 36'.6	11° 51'.5 N	207° 36'.6	11° 51'.5 N	207° 36'.7	11° 51'.5 N	207° 36'.8	11° 51'.5 N	207° 36'.8	11° 51'.6 N
Rigel	0,12	Orionis	281° 05'.9	8° 10'.7 S	281° 06'.0	8° 10'.7 S	281° 06'.1	8° 10'.8 S	281° 06'.3	8° 10'.7 S	281° 06'.3	8° 10'.7 S	281° 06'.2	8° 10'.6 S
Rigel Kent	-0,01	Centauri	139° 43'.8	60° 55'.2 S	139° 43'.4	60° 55'.3 S	139° 43.0	60° 55'.4 S	139° 42'.8	60° 55'.5 S	139° 42'.7	60° 55'.7 S	139° 42'.7	60° 55'.8 S
Shaula	1,62	Scorpii	96° 14'.0	37° 07'.1 S	96° 13'.8	37° 07'.1 S	96° 13'.5	37° 07'.1 S	96° 13'.2	37° 07'.1 S	96° 13'.0	37° 07'.1 S	96° 12'.8	37° 07'.2 S
Sirius	-1,47	Canis Majoris	258° 28'.0	16° 44'.9 S	258° 28'.1	16° 45'.0 S	258° 28'.2	16° 45'.0 S	258° 28'.3	16° 45'.0 S	258° 28'.4	16° 44'.9 S	258° 28'.4	16° 44'.8 S
Spica	1,04	Virginis	158° 24'.8	11° 16'.5 S	158° 24'.6	11° 16'.6 S	158° 24'.5	11° 16'.7 S	158° 24'.4	11° 16'.7 S	158° 24'.4	11° 16'.7 S	158° 24'.4	11° 16'.7 S
Vega	0,03	Lyrae	80° 35'.3	38° 48'.1 N	80° 35'.1	38° 48'.0 N	80° 34'.9	38° 47'.9 N	80° 34'.6	38° 47'.9 N	80° 34'.4	38° 48'.0 N	80° 34'.2	38° 48'.2 N

Star	Magn	Constellation	July		August		September		October		November		December	
			SHA	Dec	SHA	Dec	SHA	Dec	SHA	Dec	SHA	Dec	SHA	Dec
Achernar	0,5	Eridani	335° 21'.8	57° 07'.1 S	335° 21'.4	57° 07'.1 S	335° 21'.1	57° 07'.1 S	335° 21'.0	57° 07'.3 S	335° 21'.0	57° 07'.4 S	335° 21'.2	57° 07'.5 S
Acrux	1,4	Crucis	173° 02'.5	63° 13'.6 S	173° 02'.8	63° 13'.5 S	173° 02'.9	63° 13'.4 S	173° 02'.9	63° 13'.3 S	173° 02'.6	63° 13'.2 S	173° 02'.2	63° 13'.2 S
Adhara	1,51	Canis Majoris	255° 07'.8	29° 00'.1 S	255° 07'.7	28° 59'.9 S	255° 07'.5	28° 59'.9 S	255° 07'.3	28° 59'.9 S	255° 07.0	29° 00'.0 S	255° 06'.8	29° 00'.1 S
Aldebaran	1,74	Gruis	290° 42'.2	16° 33'.2 N	290° 42'.0	16° 33'.3 N	290° 41'.7	16° 33'.3 N	290° 41'.5	16° 33'.3 N	290° 41'.3	16° 33'.3 N	290° 41'.2	16° 33'.3 N
Alioth	1,8	Tauri	166° 14'.9	55° 50'.6 N	166° 15'.1	55° 50'.6 N	166° 15'.2	55° 50'.4 N	166° 15'.2	55° 50'.3 N	166° 15'.0	55° 50'.1 N	166° 14'.7	55° 49'.9 N
Alkaid	1,76	Ursae Majoris	152° 53'.6	49° 12'.4 N	152° 53'.8	49° 12'.4 N	152° 53'.9	49° 12'.3 N	152° 54'.0	49° 12'.1 N	152° 53'.9	49° 11'.9 N	152° 53'.7	49° 11'.8 N
Alnair	1,85	Ursae Majoris	27° 35'.1	46° 51'.0 S	27° 34'.9	46° 51'.0 S	27° 34'.9	46° 51'.1 S	27° 35'.0	46° 51'.2 S	27° 35'.1	46° 51'.3 S	27° 35'.3	46° 51'.3 S
Alnilam	1,7	Orionis	275° 40'.1	1° 11'.2 S	275° 39'.9	1° 11'.1 S	275° 39'.7	1° 11'.1 S	275° 39'.5	1° 11'.1 S	275° 39'.3	1° 11'.2 S	275° 39.1	1° 11'.2 S
Alphard	2	Hydrae	217° 50'.0	8° 45'.3 S	217° 50'.0	8° 45'.2 S	217° 49'.9	8° 45'.2 S	217° 49'.7	8° 45'.2 S	217° 49.5	8° 45'.3 S	217° 49.3	8° 45'.4 S
Altair	0,77	Aquiliae	62° 01'.6	8° 55'.7 N	62° 01'.6	8° 55'.8 N	62° 01'.6	8° 55'.8 N	62° 01'.8	8° 55'.8 N	62° 01'.9	8° 55'.8 N	62° 01'.9	8° 55'.7 N
Antares	1,09	Scorpii	112° 18'.1	26° 28'.9 S	112° 18'.1	26° 28'.9 S	112° 18'.3	26° 28'.9 S	112° 18'.4	26° 28'.9 S	112° 18'.4	26° 28'.9 S	112° 18.3	26° 28'.9 S
Arcturus	-0,04	Bootis	145° 49'.7	19° 04'.1 N	145° 49.8	19° 04'.1 N	145° 49.9	19° 04'.1 N	145° 50'.0	19° 04'.0 N	145° 49.9	19° 03'.9 N	145° 49.7	19° 03'.8 N
Atria	1,92	Trianguli Australis	107° 13'.7	69° 04'.2 S	107° 13'.9	69° 04'.3 S	107° 14'.3	69° 04'.3 S	107° 14'.6	69° 04'.2 S	107° 14.8	69° 04'.1 S	107° 14.7	69° 04'.0 S
Bellatrix	1,64	Orionis	278° 25'.4	6° 22'.2 N	278° 25.2	6° 22'.3 N	278° 24'.9	6° 22'.3 N	278° 24'.7	6° 22'.3 N	278° 24'.5	6° 22'.3 N	278° 24.4	6° 22'.2 N
Betelgeuse	0,58	Orionis	270° 54'.6	7° 24'.7 N	270° 54'.4	7° 24'.7 N	270° 54'.2	7° 24'.8 N	270° 54'.0	7° 24'.8 N	270° 53.8	7° 24'.7 N	270° 53.6	7° 24'.7 N
Canopus	-0,72	Carinae	263° 53'.8	52° 42'.3 S	263° 53'.6	52° 42'.2 S	263° 53'.3	52° 42'.1 S	263° 53'.0	52° 42'.1 S	263° 52.8	52° 42'.2 S	263° 52.6	52° 42'.4 S
Capella	0,1	Aurigae	280° 25'.3	46° 01'.1 N	280° 25.0	46° 01'.1 N	280° 24'.7	46° 01'.1 N	280° 24'.4	46° 01'.1 N	280° 24'.1	46° 01'.2 N	280° 23.9	46° 01'.3 N
Deneb	1,25	Cygni	49° 26'.7	45° 21'.5 N	49° 26'.7	45° 21'.7 N	49° 26.8	45° 21'.9 N	49° 27'.0	45° 21'.9 N	49° 27'.2	45° 21'.9 N	49° 27.3	45° 21'.8 N
Dubhe	1,87	Ursae Majoris	193° 44'.0	61° 38'.1 N	193° 44.1	61° 38'.0 N	193° 44'.1	61° 37'.8 N	193° 43'.8	61° 37'.6 N	193° 43.5	61° 37'.5 N	193° 43.0	61° 37'.4 N
Elnath	1,68	Tauri	278° 04'.8	28° 37'.5 N	278° 04.6	28° 37'.5 N	278° 04'.3	28° 37'.5 N	278° 04'.0	28° 37'.6 N	278° 03.8	28° 37'.6 N	278° 03.7	28° 37'.6 N
Fomalhaut	1,16	Piscis Austrini	15° 16'.5	29° 30'.1 S	15° 16'.4	29° 30'.1 S	15° 16'.3	29° 30'.1 S	15° 16'.3	29° 30'.2 S	15° 16'.4	29° 30'.2 S	15° 16.5	29° 30'.3 S
Gacrux	1,63	Crucis	171° 54'.0	57° 14'.5 S	171° 54.2	57° 14'.5 S	171° 54'.3	57° 14'.3 S	171° 54'.3	57° 14'.2 S	171° 54'.1	57° 14'.1 S	171° 53.7	57° 14'.1 S
Hadar	0,6	Centauri	148° 38'.8	60° 29'.1 S	148° 39.0	60° 29'.1 S	148° 39'.2	60° 29'.0 S	148° 39'.3	60° 28'.9 S	148° 39.2	60° 28'.8 S	148° 38.9	60° 28'.7 S
Hamal	2	Arietis	327° 53'.6	23° 34'.0 N	327° 53.3	23° 34'.1 N	327° 53'.1	23° 34'.2 N	327° 53'.0	23° 34'.2 N	327° 52.9	23° 34'.3 N	327° 52.9	23° 34'.3 N
Kaus Aust.	1,8	Sagittarii	83° 34'.8	34° 22'.4 S	83° 34.8	34° 22'.5 S	83° 35'.0	34° 22'.5 S	83° 35'.1	34° 22'.5 S	83° 35.2	34° 22'.5 S	83° 35.2	34° 22'.4 S
Miaplacidus	1,7	Carinae	221° 39'.5	69° 48'.6 S	221° 39'.6	69° 48'.5 S	221° 39'.4	69° 48'.3 S	221° 39.0	69° 48'.2 S	221° 38.5	69° 48'.2 S	221° 38.0	69° 48'.3 S
Mirfak	1,82	Persei	308° 31'.4	49° 56'.2 N	308° 31'.1	49° 56'.2 N	308° 30'.7	49° 56'.3 N	308° 30.5	49° 56'.4 N	308° 30.3	49° 56'.5 N	308° 30.3	49° 56'.6 N
Munki	2,06	Sagittarii	75° 49.9	26° 16'.1 S	75° 49.9	26° 16'.1 S	75° 50'.0	26° 16'.1 S	75° 50'.1	26° 16'.1 S	75° 50.2	26° 16'.1 S	75° 50.3	26° 16'.1 S
Peacock	1,91	Pavonis	53° 08'.4	56° 39'.7 S	53° 08.3	56° 39'.8 S	53° 08'.4	56° 39'.9 S	53° 08.6	56° 39'.9 S	53° 08.8	56° 39'.9 S	53° 08.9	56° 39'.9 S
Polaris	2,01	Ursae Minoris	315° 10'.7	89° 21'.2 N	314° 55'.3	89° 21'.2 N	314° 39'.2	89° 21'.3 N	314° 28.4	89° 21'.5 N	314° 23.8	89° 21'.7 N	314° 27.0	89° 21'.8 N
Pollux	1,15	Geminorum	243° 20'.2	27° 58'.4 N	243° 20.1	27° 58'.3 N	243° 19.8	27° 58'.3 N	243° 19.6	27° 58'.3 N	243° 19.3	27° 58'.2 N	243° 19.1	27° 58'.2 N
Procyon	0,34	Canis Minoris	244° 53'.3	5° 10'.1 N	244° 53.2	5° 10'.1 N	244° 53.0	5° 10'.2 N	244° 52.8	5° 10'.1 N	244° 52.5	5° 10'.1 N	244° 52.3	5° 10'.0 N
Regulus	1,35	Leonis	207° 36'.9	11° 51'.6 N	207° 36.9	11° 51'.6 N	207° 36'.8	11° 51'.6 N	207° 36.6	11° 51'.5 N	207° 36.4	11° 51'.4 N	207° 36.1	11° 51'.3 N
Rigel	0,12	Orionis	281° 06'.1	8° 10'.5 S	281° 05.9	8° 10'.4 S	281° 05'.7	8° 10'.3 S	281° 05'.5	8° 10'.4 S	281° 05.3	8° 10'.4 S	281° 05.2	8° 10'.5 S
Rigel Kent	-0,01	Centauri	139° 42'.9	60° 55'.9 S	139° 43.1	60° 55'.9 S	139° 43.4	60° 55'.8 S	139° 43'.5	60° 55'.7 S	139° 43.4	60° 55'.6 S	139° 43.2	60° 55'.5 S
Shaula	1,62	Scorpii	96° 12'.8	37° 07'.2 S	96° 12'.8	37° 07'.3 S	96° 13'.0	37° 07'.3 S	96° 13.1	37° 07'.3 S	96° 13.2	37° 07'.2 S	96° 13.1	37° 07'.2 S
Sirius	-1,47	Canis Majoris	258° 28'.4	16° 44'.7 S	258° 28.2	16° 44'.6 S	258° 28.0	16° 44'.6 S	258° 27.8	16° 44'.6 S	258° 27.6	16° 44'.7 S	258° 27.4	16° 44'.8 S
Spica	1,04	Virginis	158° 24'.5	11° 16'.7 S	158° 24.5	11° 16'.6 S	158° 24.6	11° 16'.6 S	158° 24.6	11° 16'.6 S	158° 24.5	11° 16'.6 S	158° 24.3	11° 16'.7 S
Vega	0,03	Lyrae	80° 34'.2	38° 48'.3 N	80° 34.2	38° 48'.5 N	80° 34'.4	38° 48'.5 N	80° 34.6	38° 48'.5 N	80° 34.8	38° 48'.5 N	80° 34.8	38° 48'.3 N