

Fixed Stars Speculum

Julia Roberts Oct 28, 1967 12:16 AM

Atlanta, Georgia 33 N 44 56 84 W 23 17 Tropical Placidus

Daylight Saving Time observed GMT: 04:16:00 Time Zone: 5 hours West

		Rise	MC	Set	IC
Sun	130°35'	211°48'	293°01'	31°48'	
Moon	46°25'	148°44'	251°03'	328°44'	
Mercury	143°15'	220°48'	298°22'	40°48'	
Venus	75°57'	168°52'	261°46'	348°52'	
Mars	202°16'	274°08'	345°59'	94°08'	
Jupiter	55°42'	153°41'	251°41'	333°41'	
Saturn	277°22'	7°37'	97°52'	187°37'	
Uranus	86°32'	177°43'	268°55'	357°43'	
Neptune	153°10'	231°24'	309°37'	51°24'	
Pluto	77°03'	178°37'	280°11'	358°37'	
Asc	15°26'	119°59'	224°31'	299°59'	
MC	281°01'	15°26'	109°52'	195°26'	
Cere	87°32'	182°44'	277°56'	2°44'	
Pallas	68°54'	151°36'	234°18'	331°36'	
Juno	105°51'	194°01'	282°10'	14°01'	
Vesta	193°10'	266°03'	338°56'	86°03'	
Chiron	263°36'	354°50'	86°05'	174°50'	
True North Node	288°18'	25°27'	122°37'	205°27'	
True South Node	122°37'	205°27'	288°18'	25°27'	
Mean North Node	288°39'	25°55'	123°12'	205°55'	
Mean South Node	123°12'	205°55'	288°39'	25°55'	
Cupido	112°04'	197°43'	283°23'	17°43'	
Hades	303°14'	44°08'	145°03'	224°08'	
Zeus	65°32'	160°58'	256°23'	340°58'	
Kronos	318°54'	64°00'	169°06'	244°00'	
Apollon	91°01'	180°47'	270°33'	0°47'	
Admetos	290°44'	28°45'	126°46'	208°45'	
Vulcanus	346°56'	93°45'	200°33'	273°45'	
Poseidon	111°59'	197°06'	282°13'	17°06'	
Eris	299°37'	18°58'	98°20'	198°58'	
Ixion	124°01'	213°45'	303°29'	33°45'	
Quaoar	122°07'	206°34'	291°01'	26°34'	
Rhadamanthus	24°20'	135°39'	246°59'	315°39'	
Chaos	287°56'	18°23'	108°51'	198°23'	
Sedna	301°19'	32°08'	122°57'	212°08'	
Orcus	7°52'	108°31'	209°09'	288°31'	
Varuna	322°08'	57°48'	153°28'	237°48'	
Haumea	58°40'	166°17'	273°54'	346°17'	
Makemake	19°14'	142°42'	266°09'	322°42'	
Hygiea	211°00'	285°48'	0°36'	105°48'	
Euphrosyne	13°23'	142°01'	270°39'	322°01'	
Interamnia	161°33'	231°05'	300°37'	51°05'	

Davida	283°21'	356°21'	69°20'	176°21'
Herculina	13°53'	115°04'	216°16'	295°04'
Eunomia	206°14'	280°51'	355°29'	100°51'
Achernar		24°08'		204°08'
Acrux		186°12'		6°12'
Adharaz	36°01'	104°20'	172°40'	284°20'
Agena		210°23'		30°23'
Al Dhanab	268°52'	328°00'	27°08'	148°00'
Al Hecka	338°58'	83°56'	188°54'	263°56'
Al Nair	287°34'	331°33'	15°33'	151°33'
Albaldah	211°53'	286°58'	2°03'	106°58'
Albireo	181°39'	292°21'	43°04'	112°21'
Alcyone	309°05'	56°24'	163°42'	236°24'
Aldebaran	327°09'	68°31'	169°54'	248°31'
Alderamin		319°27'		139°27'
Algeiba	50°28'	154°33'	258°38'	334°33'
Algenib	262°35'	2°54'	103°13'	182°54'
Algol	281°15'	46°31'	171°47'	226°31'
Algorab	108°21'	187°03'	265°45'	7°03'
Alhena	357°36'	98°58'	200°20'	278°58'
Alioth	18°33'	193°09'	7°45'	13°09'
Almach	263°14'	30°29'	157°44'	210°29'
Alnilam	354°28'	83°39'	172°50'	263°39'
Alnitak	356°06'	84°47'	173°29'	264°47'
Alniyat	173°24'	244°49'	316°13'	64°49'
Alphard	57°15'	141°30'	225°46'	321°30'
Alphecca	123°35'	233°20'	343°05'	53°20'
Alpheratz	250°01'	1°41'	113°20'	181°41'
Alsuhail	85°44'	136°42'	187°41'	316°42'
Altair	201°23'	297°18'	33°14'	117°18'
Aludra	42°40'	110°42'	178°45'	290°42'
Ankaa	313°54'	6°11'	58°27'	186°11'
Antares	176°12'	246°52'	317°31'	66°52'
Ara	224°43'	262°20'	299°57'	82°20'
Arcturus	109°59'	213°33'	317°07'	33°33'
Arneb	5°15'	82°50'	160°24'	262°50'
Ascella	217°46'	285°09'	352°31'	105°09'
Atria		251°19'		71°19'
Avior		125°28'		305°28'
Bellatrix	346°36'	80°51'	175°06'	260°51'
Benetnash	65°10'	206°34'	347°58'	26°34'
Betelgeuse	353°23'	88°22'	183°20'	268°22'
Canopus	67°01'	95°49'	124°36'	275°49'
Capella	304°52'	78°35'	212°18'	258°35'
Caph		1°52'		181°52'
Castor	358°30'	113°08'	227°47'	293°08'
Cebalrai	172°24'	265°28'	358°32'	85°28'
Cor Caroli	71°32'	193°38'	315°44'	13°38'
Cursa	350°00'	76°34'	163°08'	256°34'

Dabih	225°02'	304°48'	24°34'	124°48'
Deneb Adige	177°52'	310°05'	82°18'	130°05'
Deneb Algedi	247°34'	326°19'	45°04'	146°19'
Deneb Kaitos	293°09'	10°30'	87°50'	190°30'
Denebola	76°43'	176°51'	276°59'	356°51'
Dheneb	186°32'	285°59'	25°26'	105°59'
Dschubba	165°42'	239°36'	313°31'	59°36'
Dubhe		165°26'		345°26'
El Nath	329°43'	81°04'	192°25'	261°04'
Eltamin	121°51'	268°58'	56°05'	88°58'
Enif	229°05'	325°39'	62°14'	145°39'
Fomalhaut	276°28'	343°58'	51°29'	163°58'
Furud	27°30'	94°46'	162°02'	274°46'
Gacrux		187°21'		7°21'
Galactic Center	197°38'	265°54'	334°11'	85°54'
Gienah Cygni	194°36'	311°14'	67°51'	131°14'
Gienah Ghurab	105°36'	183°32'	261°29'	3°32'
Gomeisa	15°43'	111°21'	206°59'	291°21'
Graffias	164°45'	240°54'	317°02'	60°54'
Hamal	284°36'	31°20'	138°04'	211°20'
Han	165°58'	248°51'	331°44'	68°51'
Hassaleh	317°53'	73°44'	189°34'	253°44'
Head of Hydrus		29°27'		209°27'
Kaus Australis	212°44'	275°31'	338°17'	95°31'
Kaus Borealis	205°02'	276°30'	347°58'	96°30'
Kaus Media	207°17'	274°44'	342°12'	94°44'
Kochab		222°42'		42°42'
Kornephoros	141°54'	247°13'	352°31'	67°13'
Kraz	114°50'	188°10'	261°31'	8°10'
Lesath	202°42'	262°09'	321°35'	82°09'
Maaz	305°06'	74°55'	204°44'	254°55'
Markab	245°27'	345°47'	86°08'	165°47'
Markeb	122°02'	140°17'	158°31'	320°17'
Matar	227°38'	340°22'	93°07'	160°22'
Mebstuta	352°12'	100°29'	208°47'	280°29'
Men	176°14'	219°57'	263°39'	39°57'
Menkalinan	317°28'	89°18'	221°07'	269°18'
Menkar	312°30'	45°09'	137°48'	225°09'
Menkent	150°29'	211°12'	271°54'	31°12'
Menkib	303°34'	58°02'	172°29'	238°02'
Merak		164°59'		344°59'
Miaplacidus		138°13'		318°13'
Mimosa		191°27'		11°27'
Minkar	108°08'	182°07'	256°06'	2°07'
Mintaka	352°48'	82°35'	172°23'	262°35'
Mira	306°31'	34°26'	122°21'	214°26'
Mirach	258°35'	16°59'	135°23'	196°59'
Mirak	110°48'	220°54'	330°59'	40°54'
Mirfak	268°24'	50°30'	192°37'	230°30'

Mizar	37°26'	200°40'	3°54'	20°40'
Mufrid	105°20'	208°17'	311°15'	28°17'
Muhlifain	149°39'	189°56'	230°13'	9°56'
Murzim	17°49'	95°19'	172°50'	275°19'
N Vel		142°34'		322°34'
Nair al Saif	357°27'	83°28'	169°29'	263°28'
Naos	64°36'	120°37'	176°38'	300°37'
Nash	204°02'	270°56'	337°50'	90°56'
Nihal	6°24'	81°43'	157°02'	261°43'
Nodus Secundus		288°08'		108°08'
Nunki	212°38'	283°19'	354°00'	103°19'
Peacock		305°47'		125°47'
Phacd	21°47'	178°02'	334°18'	358°02'
Phact	21°30'	84°37'	147°44'	264°37'
Pherkad Major		230°11'		50°11'
Polaris		30°27'		210°27'
Pollux	4°56'	115°50'	226°45'	295°50'
Procyon	20°51'	114°24'	207°58'	294°24'
Proxima Centauri		216°54'		36°54'
Ras Elased Australis	38°46'	146°01'	253°15'	326°01'
Rasalhague	164°47'	263°22'	1°56'	83°22'
Rastaban	112°31'	262°26'	52°20'	82°26'
Regulus	53°25'	151°40'	249°55'	331°40'
Rigel	353°48'	78°15'	162°42'	258°15'
Ruchbah Cas.		20°56'		200°56'
Sabik	177°57'	257°08'	336°19'	77°08'
Sadalmelik	241°21'	331°02'	60°43'	151°02'
Sadalsuud	236°18'	322°28'	48°38'	142°28'
Sadir	180°57'	305°16'	69°35'	125°16'
Saiph	3°06'	86°34'	170°01'	266°34'
Sargas	212°16'	263°45'	315°15'	83°45'
Scheat	234°50'	345°33'	96°17'	165°33'
Schedar		9°40'		189°40'
Seginus	95°40'	217°42'	339°44'	37°42'
Sharatan	283°38'	28°13'	132°48'	208°13'
Shaula	203°11'	262°51'	322°32'	82°51'
Sirius	22°29'	100°56'	179°24'	280°56'
Spica	118°20'	200°53'	283°25'	20°53'
Suhail al Muhli	78°24'	122°08'	165°52'	302°08'
Tania Australis	28°38'	155°06'	281°35'	335°06'
Tarazed	199°03'	296°11'	33°19'	116°11'
Tejat Posterior	349°10'	95°15'	201°21'	275°15'
Toliman		219°19'		39°19'
Tsih		13°41'		193°41'
Turais		139°03'		319°03'
Unukalhai	141°17'	235°40'	330°03'	55°40'
Vega	156°32'	278°58'	41°24'	98°58'
Vindemiatrix	97°35'	195°09'	292°42'	15°09'
Wazn	26°14'	87°27'	148°40'	267°27'

Wezen	36°05'	106°46'	177°27'	286°46'
Yed Prior	155°35'	243°10'	330°45'	63°10'
Zaurak	338°26'	59°08'	139°50'	239°08'
Zosma	63°29'	168°06'	272°43'	348°06'
Zuben Elgenubi	143°15'	222°17'	301°18'	42°17'
Zuben Eschemali	145°05'	228°49'	312°34'	48°49'

Sorted by Position:

0°36'	00:02:22	Hygiea	Set
0°47'	00:03:09	Apollon	Anti-Culminate
1°41'	00:06:43	Alpheratz	Culminate
1°52'	00:07:28	Caph	Culminate
1°56'	00:07:45	Rasalhague	Set
2°03'	00:08:10	Albaldah	Set
2°07'	00:08:28	Minkar	Anti-Culminate
2°44'	00:10:57	Cere	Anti-Culminate
2°54'	00:11:35	Algenib	Culminate
3°06'	00:12:24	Saiph	Rise
3°32'	00:14:09	Gienah Ghurab	Anti-Culminate
3°54'	00:15:34	Mizar	Set
4°56'	00:19:44	Pollux	Rise
5°15'	00:21:00	Arneb	Rise
6°11'	00:24:42	Ankaa	Culminate
6°12'	00:24:48	Acrux	Anti-Culminate
6°24'	00:25:38	Nihal	Rise
7°03'	00:28:12	Algorab	Anti-Culminate
7°21'	00:29:23	Gacrux	Anti-Culminate
7°37'	00:30:28	Saturn	Culminate
7°45'	00:31:01	Alioth	Set
7°52'	00:31:30	Orcus	Rise
8°10'	00:32:42	Kraz	Anti-Culminate
9°40'	00:38:41	Schedar	Culminate
9°56'	00:39:44	Muhlifain	Anti-Culminate
10°30'	00:41:59	Deneb Kaitos	Culminate
11°27'	00:45:50	Mimosa	Anti-Culminate
13°09'	00:52:37	Alioth	Anti-Culminate
13°23'	00:53:31	Euphrosyne	Rise
13°38'	00:54:32	Cor Caroli	Anti-Culminate
13°41'	00:54:45	Tsih	Culminate
13°53'	00:55:31	Herculina	Rise
14°01'	00:56:02	Juno	Anti-Culminate
15°09'	01:00:35	Vindemiatrix	Anti-Culminate
15°26'	01:01:45	Asc	Rise
15°26'	01:01:45	MC	Culminate
15°33'	01:02:11	Al Nair	Set
15°43'	01:02:53	Gomeisa	Rise
16°59'	01:07:56	Mirach	Culminate
17°06'	01:08:24	Poseidon	Anti-Culminate
17°43'	01:10:52	Cupido	Anti-Culminate

17°49'	01:11:15	Murzim	Rise
18°23'	01:13:33	Chaos	Culminate
18°33'	01:14:14	Alioth	Rise
18°58'	01:15:54	Eris	Culminate
19°14'	01:16:57	Makemake	Rise
20°40'	01:22:38	Mizar	Anti-Culminate
20°51'	01:23:23	Procyon	Rise
20°52'	01:23:30	Spica	Anti-Culminate
20°56'	01:23:43	Ruchbah Cas.	Culminate
21°30'	01:26:01	Phact	Rise
21°47'	01:27:08	Phacd	Rise
22°29'	01:29:54	Sirius	Rise
24°08'	01:36:31	Achernar	Culminate
24°20'	01:37:18	Rhadamanthus	Rise
24°34'	01:38:18	Dabih	Set
25°26'	01:41:46	Dheneb	Set
25°27'	01:41:50	True North Node	Culminate
25°27'	01:41:50	True South Node	Anti-Culminate
25°55'	01:43:41	Mean North Node	Culminate
25°55'	01:43:41	Mean South Node	Anti-Culminate
26°14'	01:44:58	Wazn	Rise
26°34'	01:46:16	Quaoar	Anti-Culminate
26°34'	01:46:17	Benetnash	Anti-Culminate
27°08'	01:48:32	Al Dhanab	Set
27°30'	01:50:02	Furud	Rise
28°13'	01:52:52	Sharatan	Culminate
28°17'	01:53:09	Mufrid	Anti-Culminate
28°38'	01:54:31	Tania Australis	Rise
28°45'	01:55:01	Admetos	Culminate
29°27'	01:57:46	Head of Hydrus	Culminate
30°23'	02:01:33	Agena	Anti-Culminate
30°27'	02:01:47	Polaris	Culminate
30°29'	02:01:55	Almach	Culminate
31°12'	02:04:47	Menkent	Anti-Culminate
31°20'	02:05:22	Hamal	Culminate
31°48'	02:07:12	Sun	Anti-Culminate
32°08'	02:08:32	Sedna	Culminate
33°14'	02:12:55	Altair	Set
33°19'	02:13:17	Tarazed	Set
33°33'	02:14:12	Arcturus	Anti-Culminate
33°45'	02:15:00	Ixion	Anti-Culminate
34°26'	02:17:43	Mira	Culminate
36°01'	02:24:03	Adharaz	Rise
36°05'	02:24:22	Wezen	Rise
36°54'	02:27:36	Proxima Centauri	Anti-Culminate
37°26'	02:29:42	Mizar	Rise
37°42'	02:30:47	Seginus	Anti-Culminate
38°46'	02:35:04	Ras Elased Australis	Rise
39°19'	02:37:17	Toliman	Anti-Culminate

39°57'	02:39:47	Men	Anti-Culminate
40°48'	02:43:14	Mercury	Anti-Culminate
40°54'	02:43:35	Mirak	Anti-Culminate
41°24'	02:45:35	Vega	Set
42°16'	02:49:06	Zuben Elgenubi	Anti-Culminate
42°40'	02:50:41	Aludra	Rise
42°42'	02:50:46	Kochab	Anti-Culminate
43°04'	02:52:16	Albireo	Set
44°08'	02:56:34	Hades	Culminate
45°04'	03:00:17	Deneb Algedi	Set
45°09'	03:00:36	Menkar	Culminate
46°25'	03:05:39	Moon	Rise
46°31'	03:06:04	Algol	Culminate
48°38'	03:14:32	Sadalsuud	Set
48°49'	03:15:17	Zuben Eschemali	Anti-Culminate
50°11'	03:20:46	Pherkad Major	Anti-Culminate
50°28'	03:21:54	Algeiba	Rise
50°30'	03:22:01	Mirfak	Culminate
51°05'	03:24:20	Interamnia	Anti-Culminate
51°24'	03:25:34	Neptune	Anti-Culminate
51°29'	03:25:55	Fomalhaut	Set
52°20'	03:29:21	Rastaban	Set
53°20'	03:33:20	Alphecca	Anti-Culminate
53°25'	03:33:39	Regulus	Rise
55°40'	03:42:41	Unukalhai	Anti-Culminate
55°42'	03:42:49	Jupiter	Rise
56°05'	03:44:18	Eltamin	Set
56°24'	03:45:34	Alcyone	Culminate
57°15'	03:48:59	Alphard	Rise
57°48'	03:51:13	Varuna	Culminate
58°02'	03:52:07	Menkib	Culminate
58°27'	03:53:49	Ankaa	Set
58°40'	03:54:39	Haumea	Rise
59°08'	03:56:32	Zaurak	Culminate
59°36'	03:58:26	Dschubba	Anti-Culminate
60°43'	04:02:52	Sadalmelik	Set
60°54'	04:03:34	Graffias	Anti-Culminate
62°14'	04:08:55	Enif	Set
63°10'	04:12:40	Yed Prior	Anti-Culminate
63°29'	04:13:55	Zosma	Rise
64°00'	04:15:59	Kronos	Culminate
64°36'	04:18:23	Naos	Rise
64°49'	04:19:14	Alniyat	Anti-Culminate
65°10'	04:20:40	Benetnash	Rise
65°32'	04:22:09	Zeus	Rise
66°52'	04:27:26	Antares	Anti-Culminate
67°01'	04:28:04	Canopus	Rise
67°13'	04:28:50	Kornephoros	Anti-Culminate
67°51'	04:31:24	Gienah Cygni	Set

68°31'	04:34:05	Aldebaran	Culminate
68°51'	04:35:23	Han	Anti-Culminate
68°54'	04:35:35	Pallas	Rise
69°20'	04:37:19	Davida	Set
69°35'	04:38:19	Sadir	Set
71°19'	04:45:15	Atria	Anti-Culminate
71°32'	04:46:09	Cor Caroli	Rise
73°43'	04:54:54	Hassaleh	Culminate
74°55'	04:59:40	Maaz	Culminate
75°57'	05:03:50	Venus	Rise
76°34'	05:06:16	Cursa	Culminate
76°43'	05:06:54	Denebola	Rise
77°03'	05:08:13	Pluto	Rise
77°08'	05:08:32	Sabik	Anti-Culminate
78°15'	05:13:00	Rigel	Culminate
78°24'	05:13:37	Suhail al Muhli	Rise
78°35'	05:14:19	Capella	Culminate
80°51'	05:23:24	Bellatrix	Culminate
81°04'	05:24:16	El Nath	Culminate
81°43'	05:26:52	Nihal	Culminate
82°09'	05:28:35	Lesath	Anti-Culminate
82°18'	05:29:14	Deneb Adige	Set
82°20'	05:29:22	Ara	Anti-Culminate
82°26'	05:29:42	Rastaban	Anti-Culminate
82°36'	05:30:22	Mintaka	Culminate
82°50'	05:31:19	Arneb	Culminate
82°51'	05:31:26	Shaula	Anti-Culminate
83°22'	05:33:27	Rasalhague	Anti-Culminate
83°28'	05:33:52	Nair al Saif	Culminate
83°39'	05:34:35	Alnilam	Culminate
83°45'	05:35:01	Sargas	Anti-Culminate
83°56'	05:35:44	Al Hecka	Culminate
84°37'	05:38:29	Phact	Culminate
84°47'	05:39:08	Alnitak	Culminate
85°28'	05:41:53	Cebalrai	Anti-Culminate
85°44'	05:42:55	Alsu hail	Rise
85°54'	05:43:38	Galactic Center	Anti-Culminate
86°03'	05:44:12	Vesta	Anti-Culminate
86°05'	05:44:18	Chiron	Set
86°08'	05:44:30	Markab	Set
86°32'	05:46:08	Uranus	Rise
86°33'	05:46:14	Saiph	Culminate
87°27'	05:49:50	Wazn	Culminate
87°32'	05:50:08	Cere	Rise
87°50'	05:51:20	Deneb Kaitos	Set
88°21'	05:53:26	Betelgeuse	Culminate
88°58'	05:55:52	Eltamin	Anti-Culminate
89°18'	05:57:11	Menkalinan	Culminate
90°56'	06:03:45	Nash	Anti-Culminate

91°01'	06:04:04	Apollon	Rise
93°07'	06:12:28	Matar	Set
93°45'	06:14:58	Vulcanus	Culminate
94°08'	06:16:31	Mars	Anti-Culminate
94°44'	06:18:56	Kaus Media	Anti-Culminate
94°46'	06:19:05	Furud	Culminate
95°15'	06:21:01	Tejat Posterior	Culminate
95°19'	06:21:17	Murzim	Culminate
95°31'	06:22:03	Kaus Australis	Anti-Culminate
95°40'	06:22:38	Seginus	Rise
95°49'	06:23:14	Canopus	Culminate
96°17'	06:25:07	Scheat	Set
96°30'	06:26:00	Kaus Borealis	Anti-Culminate
97°35'	06:30:22	Vindemiatrix	Rise
97°52'	06:31:29	Saturn	Set
98°20'	06:33:20	Eris	Set
98°58'	06:35:51	Vega	Anti-Culminate
98°58'	06:35:52	Alhena	Culminate
100°29'	06:41:58	Mebstuta	Culminate
100°51'	06:43:26	Eunomia	Anti-Culminate
100°56'	06:43:44	Sirius	Culminate
103°13'	06:52:51	Algenib	Set
103°19'	06:53:17	Nunki	Anti-Culminate
104°20'	06:57:22	Adharaz	Culminate
105°09'	07:00:34	Ascella	Anti-Culminate
105°20'	07:01:18	Mufrid	Rise
105°36'	07:02:24	Gienah Ghurab	Rise
105°48'	07:03:10	Hygiea	Anti-Culminate
105°51'	07:03:26	Juno	Rise
105°59'	07:03:56	Dheneb	Anti-Culminate
106°46'	07:07:05	Wezen	Culminate
106°58'	07:07:51	Albaldah	Anti-Culminate
108°08'	07:12:33	Minkar	Rise
108°08'	07:12:33	Nodus Secundus	Anti-Culminate
108°21'	07:13:23	Algorab	Rise
108°31'	07:14:03	Orcus	Culminate
108°51'	07:15:22	Chaos	Set
109°52'	07:19:27	MC	Set
109°59'	07:19:55	Arcturus	Rise
110°42'	07:22:49	Aludra	Culminate
110°48'	07:23:13	Mirak	Rise
111°21'	07:25:25	Gomeisa	Culminate
111°59'	07:27:57	Poseidon	Rise
112°04'	07:28:14	Cupido	Rise
112°21'	07:29:26	Albireo	Anti-Culminate
112°31'	07:30:04	Rastaban	Rise
113°08'	07:32:33	Castor	Culminate
113°20'	07:33:21	Alpheratz	Set
114°24'	07:37:38	Procyon	Culminate

114°50'	07:39:20	Kraz	Rise
115°04'	07:40:18	Herculina	Culminate
115°50'	07:43:21	Pollux	Culminate
116°11'	07:44:44	Tarazed	Anti-Culminate
117°18'	07:49:13	Altair	Anti-Culminate
118°20'	07:53:20	Spica	Rise
119°59'	07:59:54	Asc	Culminate
120°37'	08:02:27	Naos	Culminate
121°51'	08:07:24	Eltamin	Rise
122°02'	08:08:09	Markeb	Rise
122°07'	08:08:27	Quaoar	Rise
122°08'	08:08:33	Suhail al Muhli	Culminate
122°21'	08:09:22	Mira	Set
122°37'	08:10:27	True North Node	Set
122°37'	08:10:27	True South Node	Rise
122°57'	08:11:48	Sedna	Set
123°12'	08:12:47	Mean North Node	Set
123°12'	08:12:47	Mean South Node	Rise
123°35'	08:14:21	Alphecca	Rise
124°01'	08:16:04	Ixion	Rise
124°36'	08:18:24	Canopus	Set
124°48'	08:19:13	Dabih	Anti-Culminate
125°16'	08:21:05	Sadir	Anti-Culminate
125°28'	08:21:51	Avior	Culminate
125°47'	08:23:07	Peacock	Anti-Culminate
126°46'	08:27:06	Admetos	Set
130°05'	08:40:20	Deneb Adige	Anti-Culminate
130°35'	08:42:20	Sun	Rise
131°14'	08:44:55	Gienah Cygni	Anti-Culminate
132°48'	08:51:12	Sharatan	Set
135°23'	09:01:33	Mirach	Set
135°39'	09:02:37	Rhadamanthus	Culminate
136°42'	09:06:49	Alsu hail	Culminate
137°48'	09:11:13	Menkar	Set
138°04'	09:12:18	Hamal	Set
138°13'	09:12:51	Miaplacidus	Culminate
139°03'	09:16:14	Turais	Culminate
139°27'	09:17:49	Alderamin	Anti-Culminate
139°50'	09:19:20	Zaurak	Set
140°17'	09:21:07	Markeb	Culminate
141°17'	09:25:09	Unukalhai	Rise
141°30'	09:26:00	Alphard	Culminate
141°54'	09:27:37	Kornephoros	Rise
142°01'	09:28:04	Euphrosyne	Culminate
142°28'	09:29:52	Sadalsuud	Anti-Culminate
142°34'	09:30:15	N Vel	Culminate
142°42'	09:30:46	Makemake	Culminate
143°15'	09:32:59	Mercury	Rise
143°15'	09:33:01	Zuben Elgenubi	Rise

145°03'	09:40:11	Hades	Set
145°05'	09:40:19	Zuben Eschemali	Rise
145°39'	09:42:37	Enif	Anti-Culminate
146°00'	09:44:02	Ras Elased Australis	Culminate
146°19'	09:45:16	Deneb Algedi	Anti-Culminate
147°44'	09:50:57	Phact	Set
148°00'	09:52:00	Al Dhanab	Anti-Culminate
148°40'	09:54:41	Wazn	Set
148°44'	09:54:56	Moon	Culminate
149°39'	09:58:35	Muhlifain	Rise
150°29'	10:01:57	Menkent	Rise
151°02'	10:04:08	Sadalmelik	Anti-Culminate
151°33'	10:06:13	Al Nair	Anti-Culminate
151°36'	10:06:24	Pallas	Culminate
151°40'	10:06:40	Regulus	Culminate
153°10'	10:12:41	Neptune	Rise
153°28'	10:13:52	Varuna	Set
153°41'	10:14:46	Jupiter	Culminate
154°33'	10:18:12	Algeiba	Culminate
155°06'	10:20:25	Tania Australis	Culminate
155°35'	10:22:20	Yed Prior	Rise
156°32'	10:26:07	Vega	Rise
157°02'	10:28:06	Nihal	Set
157°44'	10:30:56	Almach	Set
158°31'	10:34:05	Markeb	Set
160°22'	10:41:30	Matar	Anti-Culminate
160°24'	10:41:38	Arneb	Set
160°58'	10:43:51	Zeus	Culminate
161°33'	10:46:12	Interamnia	Rise
162°02'	10:48:08	Furud	Set
162°42'	10:50:48	Rigel	Set
163°08'	10:52:31	Cursa	Set
163°42'	10:54:49	Alcyone	Set
163°58'	10:55:53	Fomalhaut	Anti-Culminate
164°45'	10:59:00	Graffias	Rise
164°47'	10:59:08	Rasalhague	Rise
164°59'	10:59:55	Merak	Culminate
165°26'	11:01:46	Dubhe	Culminate
165°33'	11:02:13	Scheat	Anti-Culminate
165°42'	11:02:48	Dschubba	Rise
165°47'	11:03:10	Markab	Anti-Culminate
165°52'	11:03:28	Suhail al Muhli	Set
165°58'	11:03:51	Han	Rise
166°17'	11:05:08	Haumea	Culminate
168°06'	11:12:24	Zosma	Culminate
168°52'	11:15:26	Venus	Culminate
169°06'	11:16:24	Kronos	Set
169°29'	11:17:57	Nair al Saif	Set
169°54'	11:19:35	Aldebaran	Set

170°01'	11:20:03	Saiph	Set
171°47'	11:27:09	Algol	Set
172°23'	11:29:30	Mintaka	Set
172°24'	11:29:37	Cebalrai	Rise
172°29'	11:29:58	Menkib	Set
172°40'	11:30:41	Adharaz	Set
172°50'	11:31:19	Murzim	Set
172°50'	11:31:19	Alnilam	Set
173°24'	11:33:38	Alniyat	Rise
173°28'	11:33:54	Alnitak	Set
174°50'	11:39:21	Chiron	Anti-Culminate
175°06'	11:40:24	Bellatrix	Set
176°12'	11:44:47	Antares	Rise
176°14'	11:44:57	Men	Rise
176°21'	11:45:23	Davida	Anti-Culminate
176°38'	11:46:32	Naos	Set
176°51'	11:47:26	Denebola	Culminate
177°27'	11:49:49	Wezen	Set
177°43'	11:50:54	Uranus	Culminate
177°52'	11:51:27	Deneb Adige	Rise
177°57'	11:51:48	Sabik	Rise
178°02'	11:52:09	Phacd	Culminate
178°37'	11:54:29	Pluto	Culminate
178°45'	11:54:58	Aludra	Set
179°24'	11:57:34	Sirius	Set
180°47'	12:03:09	Apollon	Culminate
180°57'	12:03:50	Sadir	Rise
181°39'	12:06:35	Albireo	Rise
181°41'	12:06:43	Alpheratz	Anti-Culminate
181°52'	12:07:28	Caph	Anti-Culminate
182°07'	12:08:28	Minkar	Culminate
182°44'	12:10:57	Cere	Culminate
182°54'	12:11:35	Algenib	Anti-Culminate
183°20'	12:13:21	Betelgeuse	Set
183°32'	12:14:09	Gienah Ghurab	Culminate
186°11'	12:24:42	Ankaa	Anti-Culminate
186°12'	12:24:48	Acrux	Culminate
186°32'	12:26:06	Dheneb	Rise
187°03'	12:28:12	Algorab	Culminate
187°21'	12:29:23	Gacrux	Culminate
187°37'	12:30:28	Saturn	Anti-Culminate
187°41'	12:30:42	Alsu hail	Set
188°10'	12:32:42	Kraz	Culminate
188°54'	12:35:34	Al Hecka	Set
189°34'	12:38:15	Hassaleh	Set
189°40'	12:38:41	Schedar	Anti-Culminate
189°56'	12:39:44	Muhlifain	Culminate
190°30'	12:41:59	Deneb Kaitos	Anti-Culminate
191°27'	12:45:50	Mimosa	Culminate

192°25'	12:49:39	El Nath	Set
192°37'	12:50:28	Mirfak	Set
193°09'	12:52:37	Alioth	Culminate
193°10'	12:52:40	Vesta	Rise
193°38'	12:54:32	Cor Caroli	Culminate
193°41'	12:54:45	Tsih	Anti-Culminate
194°01'	12:56:02	Juno	Culminate
194°36'	12:58:25	Gienah Cygni	Rise
195°09'	13:00:35	Vindemiatrix	Culminate
195°26'	13:01:45	MC	Anti-Culminate
196°59'	13:07:56	Mirach	Anti-Culminate
197°06'	13:08:24	Poseidon	Culminate
197°38'	13:10:32	Galactic Center	Rise
197°43'	13:10:52	Cupido	Culminate
198°23'	13:13:33	Chaos	Anti-Culminate
198°58'	13:15:54	Eris	Anti-Culminate
199°03'	13:16:11	Tarazed	Rise
200°20'	13:21:18	Alhena	Set
200°33'	13:22:14	Vulcanus	Set
200°40'	13:22:38	Mizar	Culminate
200°52'	13:23:30	Spica	Culminate
200°56'	13:23:43	Ruchbah Cas.	Anti-Culminate
201°21'	13:25:23	Tejat Posterior	Set
201°23'	13:25:31	Altair	Rise
202°17'	13:29:06	Mars	Rise
202°42'	13:30:50	Lesath	Rise
203°11'	13:32:45	Shaula	Rise
204°03'	13:36:10	Nash	Rise
204°08'	13:36:31	Achernar	Anti-Culminate
204°43'	13:38:54	Maaz	Set
205°02'	13:40:07	Kaus Borealis	Rise
205°27'	13:41:50	True North Node	Anti-Culminate
205°27'	13:41:50	True South Node	Culminate
205°55'	13:43:41	Mean North Node	Anti-Culminate
205°55'	13:43:41	Mean South Node	Culminate
206°14'	13:44:56	Eunomia	Rise
206°34'	13:46:16	Quaoar	Culminate
206°34'	13:46:17	Benetnash	Culminate
206°59'	13:47:56	Gomeisa	Set
207°17'	13:49:06	Kaus Media	Rise
207°58'	13:51:52	Procyon	Set
208°13'	13:52:52	Sharatan	Anti-Culminate
208°17'	13:53:09	Mufrid	Culminate
208°45'	13:55:01	Admetos	Anti-Culminate
208°47'	13:55:08	Mebstuta	Set
209°09'	13:56:37	Orcus	Set
209°27'	13:57:46	Head of Hydrus	Anti-Culminate
210°23'	14:01:33	Agena	Culminate
210°27'	14:01:47	Polaris	Anti-Culminate

210°29'	14:01:55	Almach	Anti-Culminate
211°00'	14:03:58	Hygiea	Rise
211°12'	14:04:47	Menkent	Culminate
211°20'	14:05:22	Hamal	Anti-Culminate
211°48'	14:07:12	Sun	Culminate
211°53'	14:07:33	Albaldah	Rise
212°08'	14:08:32	Sedna	Anti-Culminate
212°16'	14:09:02	Sargas	Rise
212°18'	14:09:11	Capella	Set
212°38'	14:10:32	Nunki	Rise
212°44'	14:10:57	Kaus Australis	Rise
213°33'	14:14:12	Arcturus	Culminate
213°45'	14:15:00	Ixion	Culminate
214°26'	14:17:43	Mira	Anti-Culminate
216°16'	14:25:04	Herculina	Set
216°54'	14:27:36	Proxima Centauri	Culminate
217°42'	14:30:47	Seginus	Culminate
217°46'	14:31:03	Ascella	Rise
219°19'	14:37:17	Toliman	Culminate
219°57'	14:39:47	Men	Culminate
220°48'	14:43:14	Mercury	Culminate
220°54'	14:43:35	Mirak	Culminate
221°07'	14:44:29	Menkalinan	Set
222°17'	14:49:06	Zuben Elgenubi	Culminate
222°42'	14:50:46	Kochab	Culminate
224°08'	14:56:34	Hades	Anti-Culminate
224°31'	14:58:03	Asc	Set
224°43'	14:58:54	Ara	Rise
225°02'	15:00:07	Dabih	Rise
225°09'	15:00:36	Menkar	Anti-Culminate
225°46'	15:03:02	Alphard	Set
226°31'	15:06:04	Algol	Anti-Culminate
226°45'	15:06:59	Pollux	Set
227°38'	15:10:31	Matar	Rise
227°47'	15:11:06	Castor	Set
228°49'	15:15:17	Zuben Eschemali	Culminate
229°05'	15:16:18	Enif	Rise
230°11'	15:20:46	Pherkad Major	Culminate
230°13'	15:20:54	Muhlifain	Set
230°30'	15:22:01	Mirfak	Anti-Culminate
231°05'	15:24:20	Interamnia	Culminate
231°24'	15:25:34	Neptune	Culminate
233°20'	15:33:20	Alphecca	Culminate
234°18'	15:37:13	Pallas	Set
234°50'	15:39:19	Scheat	Rise
235°40'	15:42:41	Unukalhai	Culminate
236°18'	15:45:12	Sadalsuud	Rise
236°24'	15:45:34	Alcyone	Anti-Culminate
237°48'	15:51:13	Varuna	Anti-Culminate

238°02'	15:52:07	Menkib	Anti-Culminate
239°08'	15:56:32	Zaurak	Anti-Culminate
239°36'	15:58:26	Dschubba	Culminate
240°54'	16:03:34	Graffias	Culminate
241°21'	16:05:24	Sadalmelik	Rise
243°10'	16:12:40	Yed Prior	Culminate
244°00'	16:15:59	Kronos	Anti-Culminate
244°49'	16:19:14	Alniyat	Culminate
245°27'	16:21:49	Markab	Rise
246°52'	16:27:26	Antares	Culminate
246°59'	16:27:56	Rhadamanthus	Set
247°13'	16:28:50	Kornephoros	Culminate
247°34'	16:30:16	Deneb Algedi	Rise
248°31'	16:34:05	Aldebaran	Anti-Culminate
248°51'	16:35:23	Han	Culminate
249°55'	16:39:41	Regulus	Set
250°01'	16:40:06	Alpheratz	Rise
251°03'	16:44:13	Moon	Set
251°19'	16:45:15	Atria	Culminate
251°41'	16:46:43	Jupiter	Set
253°15'	16:53:00	Ras Elased Australis	Set
253°43'	16:54:54	Hassaleh	Anti-Culminate
254°55'	16:59:40	Maaz	Anti-Culminate
256°06'	17:04:24	Minkar	Set
256°23'	17:05:33	Zeus	Set
256°34'	17:06:16	Cursa	Anti-Culminate
257°08'	17:08:32	Sabik	Culminate
258°15'	17:13:00	Rigel	Anti-Culminate
258°34'	17:14:18	Mirach	Rise
258°35'	17:14:19	Capella	Anti-Culminate
258°38'	17:14:31	Algeiba	Set
260°51'	17:23:24	Bellatrix	Anti-Culminate
261°04'	17:24:16	El Nath	Anti-Culminate
261°29'	17:25:55	Gienah Ghurab	Set
261°31'	17:26:04	Kraz	Set
261°43'	17:26:52	Nihal	Anti-Culminate
261°46'	17:27:03	Venus	Set
262°09'	17:28:35	Lesath	Culminate
262°20'	17:29:22	Ara	Culminate
262°26'	17:29:42	Rastaban	Culminate
262°35'	17:30:19	Algenib	Rise
262°36'	17:30:22	Mintaka	Anti-Culminate
262°50'	17:31:19	Arneb	Anti-Culminate
262°51'	17:31:26	Shaula	Culminate
263°14'	17:32:54	Almach	Rise
263°22'	17:33:27	Rasalhague	Culminate
263°28'	17:33:52	Nair al Saif	Anti-Culminate
263°36'	17:34:24	Chiron	Rise
263°39'	17:34:35	Alnilam	Anti-Culminate

263°39'	17:34:37	Men	Set
263°45'	17:35:01	Sargas	Culminate
263°56'	17:35:44	Al Hecka	Anti-Culminate
264°37'	17:38:29	Phact	Anti-Culminate
264°47'	17:39:08	Alnitak	Anti-Culminate
265°28'	17:41:53	Cebalrai	Culminate
265°45'	17:43:01	Algorab	Set
265°54'	17:43:38	Galactic Center	Culminate
266°03'	17:44:12	Vesta	Culminate
266°09'	17:44:36	Makemake	Set
266°33'	17:46:14	Saiph	Anti-Culminate
267°27'	17:49:50	Wazn	Anti-Culminate
268°21'	17:53:26	Betelgeuse	Anti-Culminate
268°24'	17:53:35	Mirfak	Rise
268°52'	17:55:27	Al Dhanab	Rise
268°55'	17:55:39	Uranus	Set
268°58'	17:55:52	Eltamin	Culminate
269°18'	17:57:11	Menkalinan	Anti-Culminate
270°33'	18:02:14	Apollon	Set
270°39'	18:02:36	Euphrosyne	Set
270°56'	18:03:45	Nash	Culminate
271°54'	18:07:37	Menkent	Set
272°43'	18:10:54	Zosma	Set
273°45'	18:14:58	Vulcanus	Anti-Culminate
273°54'	18:15:38	Haumea	Set
274°08'	18:16:31	Mars	Culminate
274°44'	18:18:56	Kaus Media	Culminate
274°46'	18:19:05	Furud	Anti-Culminate
275°15'	18:21:01	Tejat Posterior	Anti-Culminate
275°19'	18:21:17	Murzim	Anti-Culminate
275°31'	18:22:03	Kaus Australis	Culminate
275°49'	18:23:14	Canopus	Anti-Culminate
276°28'	18:25:51	Fomalhaut	Rise
276°30'	18:26:00	Kaus Borealis	Culminate
276°59'	18:27:57	Denebola	Set
277°22'	18:29:27	Saturn	Rise
277°56'	18:31:45	Cere	Set
278°58'	18:35:51	Vega	Culminate
278°58'	18:35:52	Alhena	Anti-Culminate
280°11'	18:40:44	Pluto	Set
280°29'	18:41:58	Mebsuta	Anti-Culminate
280°51'	18:43:26	Eunomia	Culminate
280°56'	18:43:44	Sirius	Anti-Culminate
281°01'	18:44:04	MC	Rise
281°15'	18:45:00	Algol	Rise
281°35'	18:46:20	Tania Australis	Set
282°10'	18:48:39	Juno	Set
282°13'	18:48:50	Poseidon	Set
283°19'	18:53:17	Nunki	Culminate

283°21'	18:53:26	Davida	Rise
283°23'	18:53:30	Cupido	Set
283°25'	18:53:40	Spica	Set
283°38'	18:54:31	Sharatan	Rise
284°20'	18:57:22	Adharaz	Anti-Culminate
284°36'	18:58:26	Hamal	Rise
285°09'	19:00:34	Ascella	Culminate
285°48'	19:03:10	Hygiea	Culminate
285°59'	19:03:56	Dheneb	Culminate
286°46'	19:07:05	Wezen	Anti-Culminate
286°58'	19:07:51	Albaldah	Culminate
287°34'	19:10:15	Al Nair	Rise
287°56'	19:11:43	Chaos	Rise
288°08'	19:12:33	Nodus Secundus	Culminate
288°18'	19:13:12	True North Node	Rise
288°18'	19:13:12	True South Node	Set
288°31'	19:14:03	Orcus	Anti-Culminate
288°39'	19:14:34	Mean North Node	Rise
288°39'	19:14:34	Mean South Node	Set
290°42'	19:22:49	Aludra	Anti-Culminate
290°44'	19:22:57	Admetos	Rise
291°01'	19:24:05	Quaoar	Set
291°21'	19:25:25	Gomeisa	Anti-Culminate
292°21'	19:29:26	Albireo	Culminate
292°42'	19:30:48	Vindemiatrix	Set
293°01'	19:32:04	Sun	Set
293°08'	19:32:33	Castor	Anti-Culminate
293°09'	19:32:37	Deneb Kaitos	Rise
294°24'	19:37:38	Procyon	Anti-Culminate
295°04'	19:40:18	Herculina	Anti-Culminate
295°50'	19:43:21	Pollux	Anti-Culminate
296°11'	19:44:44	Tarazed	Culminate
297°18'	19:49:13	Altair	Culminate
298°22'	19:53:29	Mercury	Set
299°37'	19:58:28	Eris	Rise
299°57'	19:59:49	Ara	Set
299°59'	19:59:54	Asc	Anti-Culminate
300°37'	20:02:27	Naos	Anti-Culminate
300°37'	20:02:29	Interamnia	Set
301°18'	20:05:11	Zuben Elgenubi	Set
301°19'	20:05:16	Sedna	Rise
302°08'	20:08:33	Suhail al Muhli	Anti-Culminate
303°14'	20:12:56	Hades	Rise
303°29'	20:13:55	Ixion	Set
303°34'	20:14:15	Menkib	Rise
304°48'	20:19:13	Dabih	Culminate
304°52'	20:19:27	Capella	Rise
305°06'	20:20:25	Maaz	Rise
305°16'	20:21:05	Sadir	Culminate

305°28'	20:21:51	Avior	Anti-Culminate
305°47'	20:23:07	Peacock	Culminate
306°31'	20:26:05	Mira	Rise
309°05'	20:36:19	Alcyone	Rise
309°37'	20:38:27	Neptune	Set
310°05'	20:40:20	Deneb Adige	Culminate
311°14'	20:44:55	Gienah Cygni	Culminate
311°15'	20:45:00	Mufrid	Set
312°30'	20:49:59	Menkar	Rise
312°34'	20:50:15	Zuben Eschemali	Set
313°31'	20:54:04	Dschubba	Set
313°54'	20:55:35	Ankaa	Rise
315°15'	21:00:59	Sargas	Set
315°39'	21:02:37	Rhadamanthus	Anti-Culminate
315°44'	21:02:54	Cor Caroli	Set
316°13'	21:04:50	Alniyat	Set
316°42'	21:06:49	Alsu hail	Anti-Culminate
317°02'	21:08:09	Graffias	Set
317°07'	21:08:29	Arcturus	Set
317°28'	21:09:52	Menkalinan	Rise
317°31'	21:10:05	Antares	Set
317°53'	21:11:33	Hassaleh	Rise
318°13'	21:12:51	Miaplacidus	Anti-Culminate
318°54'	21:15:34	Kronos	Rise
319°03'	21:16:14	Turais	Anti-Culminate
319°27'	21:17:49	Alderamin	Culminate
320°17'	21:21:07	Markeb	Anti-Culminate
321°30'	21:26:00	Alphard	Anti-Culminate
321°35'	21:26:20	Lesath	Set
322°01'	21:28:04	Euphrosyne	Anti-Culminate
322°08'	21:28:34	Varuna	Rise
322°28'	21:29:52	Sadalsuud	Culminate
322°32'	21:30:06	Shaula	Set
322°34'	21:30:15	N Vel	Anti-Culminate
322°42'	21:30:46	Makemake	Anti-Culminate
325°39'	21:42:37	Enif	Culminate
326°00'	21:44:02	Ras Elased Australis	Anti-Culminate
326°19'	21:45:16	Deneb Algedi	Culminate
327°09'	21:48:35	Aldebaran	Rise
328°00'	21:52:00	Al Dhanab	Culminate
328°44'	21:54:56	Moon	Anti-Culminate
329°43'	21:58:52	El Nath	Rise
330°03'	22:00:13	Unukalhai	Set
330°45'	22:02:59	Yed Prior	Set
330°59'	22:03:57	Mirak	Set
331°02'	22:04:08	Sadalmelik	Culminate
331°33'	22:06:13	Al Nair	Culminate
331°36'	22:06:24	Pallas	Anti-Culminate
331°40'	22:06:40	Regulus	Anti-Culminate

331°44'	22:06:55	Han	Set
333°41'	22:14:46	Jupiter	Anti-Culminate
334°11'	22:16:43	Galactic Center	Set
334°18'	22:17:11	Phacd	Set
334°33'	22:18:12	Algeiba	Anti-Culminate
335°06'	22:20:25	Tania Australis	Anti-Culminate
336°19'	22:25:17	Sabik	Set
337°50'	22:31:20	Nash	Set
338°17'	22:33:08	Kaus Australis	Set
338°26'	22:33:44	Zaurak	Rise
338°56'	22:35:44	Vesta	Set
338°58'	22:35:53	Al Hecka	Rise
339°44'	22:38:56	Seginus	Set
340°22'	22:41:30	Matar	Culminate
340°58'	22:43:51	Zeus	Anti-Culminate
342°12'	22:48:47	Kaus Media	Set
343°05'	22:52:18	Alphecca	Set
343°58'	22:55:53	Fomalhaut	Culminate
344°59'	22:59:55	Merak	Anti-Culminate
345°26'	23:01:46	Dubhe	Anti-Culminate
345°33'	23:02:13	Scheat	Culminate
345°47'	23:03:10	Markab	Culminate
345°59'	23:03:56	Mars	Set
346°17'	23:05:08	Haumea	Anti-Culminate
346°36'	23:06:26	Bellatrix	Rise
346°56'	23:07:43	Vulcanus	Rise
347°58'	23:11:52	Kaus Borealis	Set
347°58'	23:11:53	Benetnash	Set
348°06'	23:12:24	Zosma	Anti-Culminate
348°52'	23:15:26	Venus	Anti-Culminate
349°10'	23:16:39	Tejat Posterior	Rise
350°00'	23:20:01	Cursa	Rise
352°12'	23:28:47	Mebsuta	Rise
352°31'	23:30:04	Kornephoros	Set
352°31'	23:30:05	Ascella	Set
352°48'	23:31:13	Mintaka	Rise
353°23'	23:33:31	Betelgeuse	Rise
353°48'	23:35:12	Rigel	Rise
354°00'	23:36:01	Nunki	Set
354°28'	23:37:51	Alnilam	Rise
354°50'	23:39:21	Chiron	Culminate
355°29'	23:41:56	Eunomia	Set
356°06'	23:44:23	Alnitak	Rise
356°21'	23:45:23	David	Culminate
356°51'	23:47:26	Denebola	Anti-Culminate
357°27'	23:49:47	Nair al Saif	Rise
357°36'	23:50:25	Alhena	Rise
357°43'	23:50:54	Uranus	Anti-Culminate
358°02'	23:52:09	Phacd	Anti-Culminate

358°30'	23:54:00	Castor	Rise
358°32'	23:54:09	Cebalrai	Set
358°37'	23:54:29	Pluto	Anti-Culminate

Detailed Speculum for Planets:

	Right Asc	Asc.Diff.	Obl.Asc.	Obl.Desc.	DSA	NSA
Sun	211.801	351.217	220.584	203.018	81.217	98.783
Moon	148.735	12.321	136.414	161.056	102.321	77.679
Mercury	220.808	347.562	233.246	208.370	77.562	102.438
Venus	168.859	2.901	165.958	171.761	92.901	87.099
Mars	274.129	341.855	292.275	255.984	71.855	108.145
Jupiter	153.691	7.988	145.703	161.679	97.988	82.012
Saturn	7.616	0.254	7.362	7.871	90.254	89.746
Uranus	177.723	1.189	176.534	178.911	91.189	88.811
Neptune	231.392	348.222	243.170	219.614	78.222	101.778
Pluto	178.619	11.565	167.054	190.184	101.565	78.435
Asc	119.976	14.537	105.439	134.513	104.537	75.463
MC	15.439	4.424	11.015	19.864	94.424	85.576
Eris	18.974	349.359	29.615	8.333	79.359	100.641
Ixion	213.748	359.732	214.016	213.481	89.732	90.268
Quaoar	206.566	354.453	212.113	201.019	84.453	95.547
Rhadamanthus	135.656	21.328	114.327	156.984	111.328	68.672
Chaos	18.386	0.457	17.930	18.843	90.457	89.543
Sedna	32.132	0.817	31.315	32.949	90.817	89.183
Orcus	108.514	10.640	97.874	119.154	100.640	79.360
Varuna	57.805	5.664	52.141	63.468	95.664	84.336
Haumea	166.285	17.622	148.663	183.907	107.622	72.378
Makemake	142.693	33.455	109.239	176.148	123.455	56.545
Hygiea	285.792	344.800	300.992	270.592	74.800	105.200
Euphrosyne	142.016	38.637	103.379	180.652	128.637	51.363
Interamnia	231.085	339.535	251.550	210.619	69.535	110.465
Davidia	356.344	342.987	13.357	339.331	72.987	107.013
Herculina	115.073	11.192	103.881	126.265	101.192	78.808
Eunomia	280.858	344.625	296.233	265.483	74.625	105.375

	MC Dist	IC Dist	Quad	Hou	H.Csp Dist	E.Hor.Dist	W.Hor.Dist	House
Sun	-163.638	16.362	2	4	16.362	115.145	-82.422	4.497
Moon	133.296	-46.704	1	2	5.082	30.975	-124.383	2.196
Mercury	-154.631	25.369	2	4	25.369	127.806	-77.069	4.743
Venus	153.420	-26.580	1	3	2.453	60.519	-113.679	3.084
Mars	-101.310	78.690	2	6	6.593	186.835	-29.455	6.183
Jupiter	138.252	-41.748	1	2	12.927	40.264	-123.760	2.473
Saturn	-7.823	172.177	3	9	22.262	-98.077	82.432	9.740
Uranus	162.283	-17.717	1	3	11.887	71.094	-106.528	3.402
Neptune	-144.047	35.953	2	5	2.027	137.731	-65.826	5.060
Pluto	163.179	-16.821	1	3	9.324	61.614	-95.256	3.357
Asc	104.537	-75.463	1	1	0.000	0.000	-150.926	1.000
MC	0.000	-180.000	4	10	0.000	-94.424	94.424	10.000
Algenib	3.535	-176.465	4	10	3.535	-75.824	82.894	10.134

Algol	-161.691	18.309	2	4	18.309	108.577	-71.959	4.608
Algorab	-168.873	11.127	2	4	11.127	106.674	-84.421	4.349
Alhena	120.216	-59.784	1	1	8.888	8.888	-128.455	1.388
Alioth	2.947	-177.053	4	10	2.947	-87.510	93.404	10.098
Almach	16.692	-163.308	4	10	16.692	-74.125	107.509	10.551
Alnilam	93.075	-86.925	4	12	25.981	-7.566	193.715	12.774
Alnitak	42.365	-137.635	4	11	10.477	-53.299	138.029	11.329
Alniyat	150.846	-29.154	1	2	19.098	43.224	-101.532	2.792
Alphard	127.254	-52.746	1	1	3.800	3.800	-109.291	1.202
Alphecca	-89.647	90.353	2	6	20.220	195.553	-14.847	6.577
Alpheratz	126.577	-53.423	4	12	40.819	-2.060	255.213	12.952
Alsu hail	-144.355	35.645	2	4	35.645	146.110	-74.820	4.968
Altair	-19.095	160.905	3	9	5.234	-92.082	53.891	9.215
Aludra	99.634	-80.366	4	12	32.173	-1.558	200.826	12.954
Ankaa	-94.581	85.419	2	6	15.169	190.794	-19.956	6.432

Angle = 0

	MC	4th	Asc	7th
Sun	-163.64	16.36	115.14	-82.42
Moon	133.30	-46.70	30.97	-124.38
Mercury	-154.63	25.37	127.81	-77.07
Venus	153.42	-26.58	60.52	-113.68
Mars	-101.31	78.69	-173.16	-29.46
Jupiter	138.25	-41.75	40.26	-123.76
Saturn	-7.82	172.18	-98.08	82.43
Uranus	162.28	-17.72	71.09	-106.53
Neptune	-144.05	35.95	137.73	-65.83
Pluto	163.18	-16.82	61.61	-95.26
Asc	104.54	-75.46	0.00	-150.93
MC	0.00	180.00	-94.42	94.42
Algenib	-12.54	167.46	-75.82	82.89
Algol	31.08	-148.92	108.58	-71.96
Algorab	171.61	-8.39	106.67	-84.42
Alhena	83.53	-96.47	8.89	-128.46
Alioth	177.72	-2.28	-87.51	93.40
Almach	15.04	-164.96	-74.12	107.51
Alnilam	68.21	-111.79	-7.57	-166.29
Alnitak	69.35	-110.65	-53.30	138.03
Alniyat	-130.63	49.37	43.22	-101.53
Alphard	126.06	-53.94	3.80	-109.29
Alphecca	-142.11	37.89	-164.45	-14.85
Alpherat	-13.76	166.24	-2.06	-104.79
Alsu hail	121.26	-58.74	146.11	-74.82
Altair	-78.14	101.86	-92.08	53.89
Aludra	95.27	-84.73	-1.56	-159.17
Ankaa	-9.26	170.74	-169.21	-19.96

Planet Positions:

Sun	4	Sco	03
Moon	24	Leo	47
Mercury	13	Sco	53
Venus	18	Vir	04
Mars	3	Cap	45
Jupiter	1	Vir	22
Saturn	7	Ari	09
Uranus	27	Vir	12
Neptune	23	Sco	21

Pluto	21	Vir	57
TNode	27	Ari	55
Asc	27	Can	53
MC	16	Ari	45
2nd	19	Leo	50
3rd	15	Vir	34
5th	22	Sco	07
6th	26	Sag	56