Section Sign Feb 10 123 27 176 273 274 2	conjunction minimum elong behind sun begin	15101 Feb 15 20:13 15101 Feb 15 19:47 15101 Feb 15 03:10	8°¥59'58 8°¥59'15 8°¥31'31		retrograde	15106 Feb 01 17:36 15106 Mar 20 21:09 15106 May 15 23:08	0°⊀ 0°ප 18°ප23'10	
1510 Mar 1913 0 0 0 0 0 0 0 0 0			9° ¥ 26'58 23° ¥ 17'47	2 61353 AU	min. Earth dist.		13°る23'22	
1500 1500	mux. Eurin dist.			2.01333710	2			
1510 1510	morning rise	-						
1501 1601 1712 1714		•			desc. node	•		
1501 1502 1748 1748 1749								
opposition 1510Lan 2 17-04 bit 57/22443 - 17-881 serious particles with lines with 1510 Jan 2 siles 19 18-02 at 22 25 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20		=	$0^{\circ}\Omega$			15107 Jan 20 22:43	0° Y	
generate brillaney 1510 Jan 13 10934 152 9034 10 340 240 240 240 240 240 240 240 240 240 2	•							
min Earth diskl 1510 Z May 10 Oyah 12 PAZ 500 Art 30 AU max Earth disk 1510 Z May 16 Oyah 2 PAZ 17 Oyah 2 C 3242 AU direct 1510 Z Feb 28 2 1:56 7 PAZ 0329 conjunction 1510 J m 0 0 0.853 2 PL 18 J M 16 - 1905 SR 1510 Z May 10 0 0:24 0 PB conjunction 1510 J m 1 0 0 0.853 2 PL 18 J M 16 - 1905 SR 1510 Z May 10 0 0:74 0 PB conjunction 1510 J J m 1 2 1344 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					evening set			
Marcel 1510 Peb 9 1408 76/2015 77/2015 1500 Peb 1510 Peb 1					max. Earth dist.	•		2.63242 AU
1500 May 05 0204 0°Ph				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
15102 19 1134 0" 1134 0" 1134 0" 1130 1130 0" 1130 0" 1130 0" 0" 1130 0" 0" 1130 0" 0" 1130 0" 0" 1130 0" 0" 0" 1130 0" 0" 0" 0" 0" 0" 0"	direct	15102 Feb 28 21:56	7° Ω 03′29		conjunction	15107 Jun 04 08:53	24° Ⅱ 34′06	-1°05'58
15102 Jul 30 0714 0°Th 15102 Jul 30 0714 0°Th 15102 Jul 30 1053 0°Fh 15107 Jul 30 1228 26°B3032 15107 Jul 30 1245 0°Th 15107 Jul 30 1455 0°Th 15107 Jul 30 1		•			minimum elong			1°06'55
15102 Sep 08 10.53 0°A 15102 Sep 08 10.53 0°A 15107 Sep 06 14.50 0°A 15108 Sep 06 14.50 0°A 0°A 15108 Sep 06 14.50 0°A					morning rise			
15102 Oct 19 11.28 9°E sec. node 15107 Sep 06 19.55 9°B Sep 06 19.55 0°B Sep 07 Sep					morning rise			
dec. node 15102 Dec 17 094 11% 9094 15107 Nov 25 18.46 0°L 15107 Nov 25 18.46 0°L 0°R		•						
evening set		15102 Dec 01 02:11	0° ≈		asc. node		26° m 20'20	
evening set 15103 Mer 0 16 2 10 3 Mer 0 16 3 4 2 9 3 4 9 3 1 2 1 3 3 4 0 7 8 3 1 2 1 3 3 4 0 7 8 3 1 2 1 3 3 4 0 7 8 3 1 2 1 3 3 4 0 7 8 3 1 2 1 3 3 4 0 7 8 3 1 2 1 3 3 4 1 2 1 3 1 3 4 1 2 1 3 1 3 4 1 2 1 3 1 3 4 1 2 1 3 1 3 4 1 2 1 3 1 3 4 1 2 1 3 1 3 4 1 2 1 3 1 3 4 1 2 1 3 1 3 4 1 2 1 3 1 3 4 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	desc. node							
15103 Mar 0 10.3 0°P 10.3 0°P 10.3 0°P 1510 15108 Mar 20 10.4 0°P 15108 Mar 20 10.5 0°P 15108 Mar 20 0°P 0								
conjunction 15103 Mar 26 17.17 16°°P11'SS 0°51'43 15108 Mar 26 16.01 16°°P0'9'S 0°51'52 retrograde 15108 Mar 30 15.43 0°74'46'S 30°51'43 retrograde 15108 Mar 30 15.43 0°74'46'S 30°54'66 AU 30°54'66 AU 15108 Mar 30 15.43 10°74'16'S 0°51'52 retrograde 15108 Mar 30 15.43 10°74'16'S 0°57'65 AU 90°50 15108 Mar 30 15.43 10°74'16'S 0°74'16'S	evening set							
minimum elong 15103 Mar 26 16.01 16°V09'56 0'51'52 retrograde 15108 Aug 02 12:53 3°H'46'53 3°H'34'0 0.57366 AU max. Earth dist. 15103 Apr 02 0813 20°Y25'0 2.67486 AU min. Earth dist. 15108 Aug 02 12:53 3°H'34'0 0.57366 AU morning rise 15103 May 09 0.802 13°B'51'31 cesc. node 15108 Aug 09 0.549 0°H'85'85' 15108 Aug 11 12:18 0°P'85'85' 15108 Aug 11 12:18 0°P'85'85' 15108 Aug 11 12:13 0°P'8 15108 Aug 11 12:13 0°P'8 15108 Aug 11 12:13 0°P'8 15108 Aug 12:13 0°P'8 15108 Aug 12:13 0°P'8 15109 Aug 12:1		13103 1411 01 10.31	0 1					
max. Earth dist. 15103 Apr 10 2 08:33 10:00 0°P2 500 13°B513 1 15108 Aug 09 12:53 15108 Aug 09 08:20 13°B513 1 15108 Aug 09 08:40 15108 Aug 0	conjunction	15103 Mar 26 17:17	16° Ƴ 11'58	-0°51'43		15108 May 18 07:40	0° ∀	
morning rise 15103 Apr 17 10.20 0°8 13°8513 13°105 May 0°9 08.02 13°8513 13°107 May 0°9 08.02 13°107 May 0°9 08.02 15108 Aug 0°9 05.49 0°548 0°548 0°548 15103 Aug 0°9 05.49 0°548 0°548 0°9 05.49	Č				C			
moming rise 15103 May 09 08:02 13°85131 greatest brilliancy 15103 Lun 03 21:57 0°I desc. node 15108 Aug 00 05:49 0°E8246 1.60 15103 Jun 03 21:218 0°S desc. node 15108 Aug 01 11:51 0°S%e	max. Earth dist.	*		2.67486 AU		•		
15103 Jun 03 21:57 0°H Gesc. node 15108 Aug 10 05:49 0°H 58'56 15103 Jul 21 12:18 0°G 15108 Aug 11 19:11 30°R≈ 15108 Aug 11 19:11 30°R≈ 15103 Aug 12 11:18 15103 Aug 12 12:18 0°G 15103 Aug 11 19:11 30°R≈ 15103 Aug 12 22°≈42'59 151010 22°≈42'59 15103 Aug 12 24°≈42'53 15103 Aug 12 24°≈42'53 Aug 12 24°≈42'53 15103 Aug 12 24°≈42'53 Aug 12 24°≈42'53 15103 Aug 12 24°≈42'53 Aug 12 24°×42'53 15103 Au	morning rise					•		
15103 Jul 21 12:18 0°\$ 15108 Aug 11 19:11 30°\$ 22°\$ 22°\$ 22°\$ 22°\$ 15108 Aug 11 19:11 30°\$ 15108 Aug 12 19:11 30°\$ 15108 Aug 12 19:11 30°\$ 15108 Aug 12 19:11 30°\$	morning rise	•						1.0111
15103 Oct 25 08.28 0°% 15104 Oct 25 08.28 0°% 15108 Oct 27 07.13 0°% 1500 Oct 27 07.13 0°%		15103 Jul 21 12:18	0°€			-	30° R ≈	
15103 Dec 14 23:13 0°Δ 12°Δ 34'50 15108 Dec 27 07:13 0°Λ 1506 Dec 15104 Jan 07 15:25 12°Δ 34'50 15109 Jan		•			direct	•		
Sac. node								
Petrograde 15104 Mar 04 23:53 29°£21'05 24°£26'35 30°\$1 25°£26'35'35 30°\$1 25°£26'35'35 25°£26'35'35 25°£26'35'35'35 25°£26'35'35'35	asc node							
greatest brillianov min. Earth dist. 15104 Apr 03 16:45 24°£26'35 -3.0m evening set 15109 May 27 11:04 2°£312'52 16:04 May 03 05:52 19°£28'56 15104 May 03 05:52 10°£28'56 15104 May 03 05:52 16:04 15104 May 03 07°₹								
min. Earth dist. 15104 Apr 04 22:57 24° Δ06′26 0.36547 AU max. Earth dist. 15109 Jul 12 10:16 13° Φ04′08 2.53183 AU	opposition	15104 Apr 03 11:55	24° ≏ 29'49	5°53'52		15109 May 24 03:55	0ංම	
direct		•			-	•		
15104 Mug 07 00:37 00		-		0.36547 AU	max. Earth dist.			2.53183 AU
15104 Aug 07 00:37 0°\$\frac{\pi}{\sigma} conjunction 15109 Jul 15 23:42 6°\$\alpha\$3556 0°28'46 15104 Sep 22 16:48 0°\$\sigma minimum elong 15109 Jul 16 01:10 6°\$\alpha\$38'34 0°29'35 15104 Nov 03 12:14 27°\$\sigma\$13'45	direct	•				13109 Jul 00 17.12	0 86	
desc. node 15104 Nov 03 12:14 27° ♂13'45 30° m 15109 Aug 17 01:43 0° m 15104 Nov 07 18:49 0° ≈ 3sc. node 15109 Aug 29 00:07 8° m 55'03 3sc. node 15104 Dec 24 11:30 0°					conjunction	15109 Jul 15 23:42	6° Ω 35'56	-0°28'46
asc. node 15109 Aug 29 00:07 8°M55'03 15104 Doc 24 11:30 0°H morning rise 15109 Sep 10 16:56 18°M31'41 15105 Feb 09 20:00 0°M 15105 Feb 09 20:00 0°M 15109 Sep 25 16:26 0°A 15109 Sep 25 16:26 0°A 15105 Mar 16 19:39 22°M02'46 15109 Nov 03 04:16 0°M 15105 Mar 29 10:11 0°B 15105 Mar 29 13:38 19°B43'50 -1°11'30 15110 Feb 28 17:11 0°≈ 15110 Mar 13 16:56 0°H 15105 Mar 15 15:59 0°M 15105 Mar 15 15:05 Mar 15 15:0		15104 Sep 22 16:48	5°0		minimum elong	15109 Jul 16 01:10	6° Ω 38'34	0°29'35
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max. Earth dist. 15105 Apr 23 07:47 15°845'41 2.68108 AU 15110 Jan 19 03:39 0°δ 0°δ conjunction 15105 Apr 29 13:38 19°843'50 -1°11'30 15110 Apr 13 16:56 0° H 0°H 0°Y minimum elong 15105 Apr 29 13:10 19°843'05 1°12'10 15110 Jun 04 13:24 0° Y 0°Y 0°Y morning rise 15105 Jun 11 19:14 17° I28'08 retrograde 15110 Aug 06 04:49 18° Y32'26 18° Y32'26 min. Earth dist. 15105 Aug 15 05:36 0° Ω 0° Ω opposition 15110 Sep 13 01:50 9° Y42'43 0.66252 AU 0pposition 15110 Sep 15 23:26 8° Y33'48 -2°58'01 15105 Nov 09 16:53 0° Ω greatest brilliancy 15110 Oct 14 13:21 30° R H asc. node 15105 Nov 24 19:40 10° Ω49'02 direct direct 15110 Oct 25 21:52 29° H11'15	evening set		22° Y ′02'46			•		
conjunction 15105 Apr 29 13:38 19°843'05 -1°11'30 minimum elong 15105 Apr 29 13:10 19°843'05 1°12'10 morning rise 15105 May 15 15:59 0° Π desc. node 15110 Apr 13 16:56 0° ϒ 15110 Jun 04 13:24 0° Υ 15105 Jun 11 19:14 17° Π28'08 retrograde 15110 Aug 06 04:49 18° Υ32'26 min. Earth dist. 15110 Sep 13 01:50 9° Υ42'43 0.66252 AU 15105 Aug 15 05:36 0° Ω opposition 15110 Sep 15 23:26 8° Υ33'48 -2°58'01 15105 Nov 09 16:53 0° Ω asc. node 15105 Nov 24 19:40 10° Ω49'02 direct 15110 Oct 14 13:21 30° R ★								
conjunction minimum elong 15105 Apr 29 13:38 19° 843′50 -1°11′30 15110 Apr 13 16:56 0° € minimum elong minimum elong 15105 Apr 29 13:10 19° 843′05 1°12′10 15110 Jun 04 13:24 0° ♥ 15105 May 15 15:59 0° II desc. node 15110 Jun 27 11:16 10° № 707′07 morning rise 15105 Jun 11 19:14 17° II 28′08 retrograde 15110 Aug 06 04:49 18° № 32′26 15105 Jul 01 01:00 0° © min. Earth dist. 15110 Sep 13 01:50 9° № 42′43 0.66252 AU 15105 Aug 15 05:36 0° Ω opposition 15110 Sep 15 23:26 8° № 33′48 -2°58′01 15105 Nov 09 16:53 0° Ω greatest brilliancy 15110 Oct 14 13:21 30° № € asc. node 15105 Nov 24 19:40 10° Ω 49′02 direct 15110 Oct 25 21:52 29° € 11′15	max. Earth dist.	15105 Apr 23 07:47	15° 8 45'41	2.68108 AU				
minimum elong 15105 Apr 29 13:10 19°843'05 1°12'10 15110 Jun 04 13:24 0°Υ	conjunction	15105 Apr 29 13:38	19° ∺ 43'50	-1°11'30				
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min. Earth dist. 15110 Sep 13 01:50 9°° 42'43 0.66252 AU 15105 Aug 15 05:36 0° Ω opposition 15110 Sep 15 23:26 8°° 43'48 -2°58'01 15105 Sep 28 02:25 0° 顺 greatest brilliancy 15110 Sep 15 14:41 8°° 42'28 -1.4m 15105 Nov 09 16:53 0° Ω 15105 Nov 24 19:40 10° 49'02 direct 15110 Oct 25 21:52 29° ★11'15	2	-			desc. node			
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15105 Nov 09 16:53 0° <u>□</u> 15110 Oct 14 13:21 30° R) (asc. node 15105 Nov 24 19:40 10° <u>□</u> 49'02 direct 15110 Oct 25 21:52 29°) (11'15		•				-		
asc. node 15105 Nov 24 19:40 10° ♀ 49'02 direct 15110 Oct 25 21:52 29° 光 11'15					greatest offillaticy	•		·1.Till
15105 Dec 21 11:24 0° π 15110 Nov 06 19:51 0° Υ	asc. node				direct			
		15105 Dec 21 11:24	0°M₊			15110 Nov 06 19:51	0° Ƴ	

	15111 Jan 25 07:52 15111 Mar 19 01:31 15111 May 05 04:02 15111 Jun 17 17:46	0°9 0°9 0°8 0°8		desc. node max. Earth dist. morning rise	15116 Feb 10 11:20 15116 Feb 16 09:59 15116 Feb 27 19:18 15116 Mar 20 13:06	0° 	2.57449 AU
evening set asc. node	15111 Jul 13 17:17 15111 Jul 16 15:29	18°Ω50'39 21°Ω00'30			15116 Mar 26 14:11	0° ႘	
asc. node	15111 Jul 18 15.29 15111 Jul 28 16:31	0° m)			15116 May 12 17:58 15116 Jul 01 03:00	0°II	
max. Earth dist.	15111 Aug 01 13:11	2° Mp 54'34	2.39549 AU		15116 Aug 23 06:55	0°ಅ	
	15111 Sep 05 18:48	0∘ ⊽			15116 Nov 01 09:36	$0^{\circ}\Omega$	
				retrograde	15116 Nov 27 13:59	3° Ω 40′30	
conjunction	15111 Sep 14 09:42	6° £ 44'59	0°39'50		15116 Dec 21 19:07	30°R∽	
minimum elong	15111 Sep 14 06:17	6° £ 38'17	0°39'48	opposition	15117 Jan 02 09:49	26°506'42	
	15111 Oct 13 20:05 15111 Nov 20 17:25	0°M 0° <i>⊼</i> 7		greatest brilliancy min. Earth dist.	15117 Jan 03 11:35 15117 Jan 10 14:40	25°543'15 23°507'56	-2.0m 0.53006 AU
morning rise	15111 Nov 20 17:25 15111 Nov 27 12:25	5° ∡ ⁷ 20'12		direct	15117 Jah 10 14:40 15117 Feb 10 12:59	16°954'50	0.55000 AC
	15111 Dec 29 08:15	0°る		asc. node	15117 Mar 08 01:12	21° © 02'18	
	15112 Feb 07 13:26	0° ≈			15117 Mar 30 14:46	$0^{\circ}\Omega$	
	15112 Mar 21 06:04	0°) €			15117 May 20 03:49	0° m	
	15112 May 06 14:41	0° Υ			15117 Jun 30 21:33	0∘ 亚	
desc. node	15112 May 14 08:15	4° Y 41'34 0° と			15117 Aug 09 07:35	0° M 0° ∡ 7	
retrograde	15112 Jun 29 03:46 15112 Sep 08 04:42	21° 8 26'28			15117 Sep 17 13:29 15117 Oct 27 20:01	0° ਨ	
opposition	15112 Oct 18 19:02	11° 8 49'45	-4°31'27		15117 Dec 08 18:57	0°≈	
greatest brilliancy	15112 Oct 18 21:26	11° 8 47'23		desc. node	15118 Jan 03 02:34	17° ≈ 28'17	
min. Earth dist.	15112 Oct 19 18:21	11° 8 26'48	0.68591 AU		15118 Jan 21 15:44	0°)	
direct	15112 Nov 29 05:40	1° 8 54'32		evening set	15118 Jan 23 04:33	1° 米 01′36	
	15113 Feb 21 12:26	0°II			15118 Mar 08 06:03	0 ° Υ	
	15113 Apr 13 08:33	0°Ω 0°©			15110 Mar. 12 00:10	2000/40120	0020102
asc. node	15113 May 27 20:45 15113 Jun 02 13:42	0°31 4°Ω03'03		conjunction minimum elong	15118 Mar 12 09:18 15118 Mar 12 08:05	2° Υ 40'28 2° Υ 38'30	
asc. node	15113 Jul 07 21:32	0° m)		max. Earth dist.	15118 Mar 24 13:23	10° Υ 30'25	2.65725 AU
	15113 Aug 15 19:57	0∘ ⊽		man. Barur dige.	15118 Apr 24 03:47	0°8	2.00720110
evening set	15113 Sep 19 21:13	27° ≏ 43'25		morning rise	15118 Apr 26 01:32	1° 8 12'24	
	15113 Sep 22 17:57	0° M ₊			15118 Jun 10 22:08	Π °0	
	15113 Oct 30 15:25	0° ∡ ¹			15118 Jul 29 08:49	0°9	
	15112 D 01 12:22	249.746126	1902100		15118 Sep 16 21:39	0° N	
conjunction minimum elong	15113 Dec 01 13:33 15113 Dec 01 16:05	24° ₹ 46'36 24° ₹ 51'26	1°02'00 1°02'56	asc. node	15118 Nov 08 13:02 15119 Jan 24 09:50	0° Mp 29° Mp 03'44	
minimum ciong	15113 Dec 08 09:57	24×3120	1 02 30	retrograde	15119 Feb 01 01:53	29° m) 25'28	
	15114 Jan 17 19:32	0° ≈		opposition	15119 Mar 03 17:26	24° m, 03'20	2°41'38
max. Earth dist.	15114 Jan 21 02:16	2° ≈ 22'16	2.44336 AU	greatest brilliancy	15119 Mar 04 07:25	23° m 53'07	-2.8m
morning rise	15114 Feb 03 12:52	11° ≈ 58'47		min. Earth dist.	15119 Mar 10 03:28	22° Mp 11'20	0.39307 AU
	15114 Mar 01 09:45	0° \		direct	15119 Apr 05 06:42	17° m 50'32	
desc. node	15114 Mar 31 21:35 15114 Apr 15 14:37	20°¥26'35 0° Y			15119 May 19 20:47 15119 Jul 09 08:59	0° № 0° ೦	
	15114 Apr 13 14.37 15114 Jun 03 02:36	0°8			15119 Jul 09 08:39 15119 Aug 22 03:32	0° ⊼ 1	
	15114 Jul 27 14:13	0°II			15119 Oct 04 09:42	0° ਤ	
retrograde	15114 Oct 14 14:05	24° Ⅱ 40'48			15119 Nov 17 14:57	0° ≈	
opposition	15114 Nov 22 15:57	15° Ⅱ 48'28	-4°50'17	desc. node	15119 Nov 21 00:47	2° ≈ 16'36	
greatest brilliancy	15114 Nov 23 11:39	15° Ⅲ 29'27			15120 Jan 02 04:08	0° ∀	
min. Earth dist.	15114 Nov 27 12:55	13° I 55'34	0.64063 AU		15120 Feb 17 20:16	0° Υ	
direct	15115 Jan 03 01:41 15115 Mar 17 12:19	5° Ⅱ 47'55 0° ©		evening set	15120 Mar 02 20:05 15120 Apr 05 02:57	8° 丫 53'59 0° と	
asc. node	15115 Apr 20 17:28	20°S22'42		max. Earth dist.	15120 Apr 03 02:37	6° 8 04'29	2.68519 AU
use. Houe	15115 May 05 08:25	0°Ω		max. Burtir dist.	13120 11pr 11 17.03	0 00129	2.00517710
	15115 Jun 16 13:44	0° m y		conjunction	15120 Apr 16 03:17	6° 8 58'39	-1°06'36
	15115 Jul 25 21:49	0∘ 亚		minimum elong	15120 Apr 16 02:23	6° 8 57'13	1°07'05
	15115 Sep 02 01:50	0° M 0°. ⊼			15120 May 22 09:13	0°II	
	15115 Oct 10 07:14	0° ズ 0°る		morning rise	15120 May 29 03:27	4°∏18'42 0° ©	
evening set	15115 Nov 18 12:59 15115 Dec 03 06:04	0°る 10°る56'49			15120 Jul 08 02:59 15120 Aug 23 01:16	0°€ 0°€	
training set	15115 Dec 29 11:21	0°≈			15120 Aug 23 01:10 15120 Oct 07 01:32	0° m)	
					15120 Nov 20 07:41	0∘ ⊽	
conjunction	15116 Jan 30 01:23	22° ≈ 10′54	0°10'36	asc. node	15120 Dec 11 12:17	14° ≏ 25'15	
minimum elong	15116 Jan 30 01:59	22°≈11'55	0°11'15		15121 Jan 03 15:15	0° M ₊	
behind sun begin	15116 Jan 29 09:55	21°≈44'14			15121 Feb 20 12:58	0° ∡ 7	
behind sun end	15116 Jan 30 18:03	22° ≈ 39'35		retrograde	15121 Apr 21 22:21	20° ∡ 128′10	

page 3

morning rise desc. node	15131 Mar 05 07:05 15131 Mar 05 05:38 15131 Apr 03 13:56 15131 May 21 01:13 15131 Jul 10 15:45	10°¥40'38 10°¥38'11 0°Y 0°B 0°I		opposition greatest brilliancy direct	15136 Apr 22 10:09 15136 Apr 21 22:29 15136 May 21 09:18 15136 Jul 25 17:50 15136 Sep 14 18:41	13°M16'20 13°M24'05 8°M27'47 0°ズ 0°る	6°59'02 -3.0m
retrograde opposition greatest brilliancy	15131 Sep 06 12:13 15131 Nov 09 10:16 15131 Dec 16 18:46 15131 Dec 17 21:36	0°5 17°530'12 9°519'52 8°554'37		desc. node	15136 Oct 24 18:16 15136 Nov 01 13:04 15136 Dec 19 02:28 15137 Feb 04 22:26	25°る05'02 0°≈ 0°升 0°Υ	
min. Earth dist.	15131 Dec 23 20:41 15132 Jan 18 21:19	6°540′15 30°R∏	0.58039 AU	evening set	15137 Mar 24 14:46 15137 Mar 24 18:13	29° Y 54'35 0° と	
direct	15132 Jan 26 04:01 15132 Feb 02 13:18	29°∏38′20 0°©		max. Earth dist.	15137 Apr 28 08:21		2.67524 AU
asc. node	15132 Mar 24 13:53 15132 Apr 16 09:41	17° © 10′28 0° Ω		conjunction minimum elong	15137 May 07 05:59 15137 May 07 05:50	27° 8 34'28 27° 8 34'12	
	15132 May 31 09:11 15132 Jul 10 16:26	0 ்⊽ 0 ்™		morning rise	15137 May 11 00:59 15137 Jun 19 19:59	0°Ⅱ 25°Ⅱ45'30	
	15132 Aug 18 09:24 15132 Sep 26 02:03	0° M 0° <i>≯</i> 7			15137 Jun 26 07:04 15137 Aug 10 04:54	$0 _{\circ} \Omega$	
	15132 Nov 04 19:52 15132 Dec 16 06:46	0° ರ 0°≈			15137 Sep 22 15:14 15137 Nov 03 15:42	0 ்⊽ 0° ™	
evening set desc. node	15133 Jan 05 01:26 15133 Jan 19 19:03	13°≈49'47 23°≈56'40		asc. node	15137 Nov 15 02:24 15137 Dec 14 15:20	8°₽19'21 0°N	
desc. node	15133 Jan 28 17:21	0° ∺			15138 Jan 24 14:15 15138 Mar 09 01:24	0°전 0°전	
conjunction minimum elong	15133 Feb 25 02:22 15133 Feb 25 01:32	18°) 15′07 18°) 13′44		retrograde	15138 May 09 06:52 15138 May 27 18:47	0° ≈ 2° ≈ 24'09	
max. Earth dist.	15133 Mar 15 03:37	0° Υ 03'29 0° Υ	2.63139 AU		15138 Jun 14 21:12	30°R₹	0.46020.411
morning rise	15133 Mar 15 01:28 15133 Apr 12 10:08	18° Ƴ 14'34		min. Earth dist. greatest brilliancy	15138 Jun 24 21:43 15138 Jul 02 06:40	26°පි55'45 24°පි19'37	0.46838 AU -2.3m
	15133 Apr 30 23:18 15133 Jun 18 04:02	0°Ⅱ 8°0		opposition direct	15138 Jul 03 08:03 15138 Aug 05 14:29	23°る57'06 17°る05'39	3°40'36
	15133 Aug 06 19:57 15133 Sep 28 11:57	0ం V 0ంత		desc. node	15138 Sep 12 02:46 15138 Sep 25 22:45	24° る 35'50 0°≈	
retrograde	15133 Dec 04 13:11 15134 Jan 02 23:34	0° Mp 4° Mp 43'50			15138 Nov 24 10:49 15139 Jan 15 11:36	0° Υ 0° Υ	
opposition	15134 Jan 30 22:14 15134 Feb 04 20:18	30°R Ω 28° Ω 25'27	-0°19'20		15139 Mar 06 02:52 15139 Apr 22 22:50	0° B	
greatest brilliancy asc. node	15134 Feb 04 23:32 15134 Feb 09 21:48	28°Ω22'48 26°Ω45'17		evening set max. Earth dist.	15139 Apr 28 18:46 15139 May 22 00:39	3° Ⅱ 44'14	2.61489 AU
min. Earth dist.	15134 Feb 13 06:59	25° Ω 39'55	0.44293 AU	max. Earth dist.	15139 Jun 07 21:28	0.20	2.01469 AU
direct	15134 Mar 12 13:19 15134 Apr 19 22:41	20° Ω 44'34 0° m		conjunction	15139 Jun 12 22:39	3°522'43	
	15134 Jun 10 20:07 15134 Jul 23 06:16	0° ™ 0° 亞		minimum elong	15139 Jun 12 23:56 15139 Jul 21 20:19	3° © 24'52 0° Ω	1°01'37
	15134 Sep 02 05:44 15134 Oct 13 20:00	0°₹ 0°₹		morning rise	15139 Jul 30 22:32 15139 Sep 01 20:41	6° Ω 22'48 0° m	
desc. node	15134 Nov 25 21:16 15134 Dec 07 15:17	0° ≈ 7° ≈ 59'30		asc. node	15139 Oct 02 16:41 15139 Oct 12 04:49	22° M 50′02 0° <u>Ω</u>	
evening set	15135 Jan 09 14:28 15135 Feb 17 05:37	0°) 25°) 09'46			15139 Nov 20 08:28 15139 Dec 29 01:54	0° M 0° <i>≯</i> 7	
e venning see	15135 Feb 24 18:01	0° Υ			15140 Feb 06 11:55 15140 Mar 19 08:12	0°≅ 0°≈	
conjunction	15135 Apr 03 13:50	24°Υ08'32			15140 May 06 21:05	0°) €	
minimum elong max. Earth dist.	15135 Apr 03 12:39 15135 Apr 07 07:46		2.68089 AU	retrograde desc. node	15140 Jul 09 07:03 15140 Jul 30 12:19	20°) 18'54 17°) 09'30	
morning rise	15135 Apr 12 19:25 15135 May 16 20:03 15135 May 30 04:23	0°8 21°832'54 0°Ⅱ		min. Earth dist. opposition greatest brilliancy	15140 Aug 12 08:51 15140 Aug 18 04:06 15140 Aug 17 23:18	12° 米 42'14 10° 米 25'59 10° 米 30'41	0.59786 AU -0°49'05 -1.7m
	15135 Jul 16 10:23	0° ©		direct	15140 Sep 24 20:58	1° X 3041 1° X 49'39 0° Υ	-1./111
	15135 Sep 01 08:51 15135 Oct 18 02:32	0° Ω 0° m			15140 Dec 20 00:27 15141 Feb 12 17:14	9° 8	
asc. node	15135 Dec 04 09:28 15135 Dec 29 04:24	0° ჲ 15° ჲ 04'58			15141 Apr 03 04:53 15141 May 19 10:54	0ಂ ಲ 0∘∏	
retrograde	15136 Jan 24 21:09 15136 Mar 23 15:22	0° ጤ 18° ጤ 18'15		evening set max. Earth dist.	15141 Jun 05 17:03 15141 Jun 20 04:37	11°5940'38 21°5941'16	2.50417 AU
min. Earth dist.	15136 Apr 20 12:21		0.36466 AU		15141 Jul 02 00:24	$0^{\circ}\Omega$	

conjunction	15141 Jul 27 04:52	18° Ω 07'51	-0°15'34		15146 Nov 14 05:42	30° Ŗ Ⅱ	
minimum elong	15141 Jul 27 05:51	18° Ω 09'38	0°16'17	opposition	15146 Dec 01 00:50	24° Ⅱ 17'48	-4°41'38
Č	15141 Aug 12 06:54	0° m)		greatest brilliancy	15146 Dec 01 23:50	23° Ⅲ 55'45	-1.5m
asc. node	15141 Aug 19 05:23	5° mp 11'10		min. Earth dist.	15146 Dec 06 17:34	22° I 106'45	
ase. Houe	•	0° ⊽		direct	15147 Jan 11 04:03	14° Ⅱ 21'08	0.02100710
	15141 Sep 20 18:46			airect			
morning rise	15141 Sep 25 14:28	3° ≏ 43'54			15147 Mar 08 03:31	0 \circ	
	15141 Oct 29 03:57	0° M		asc. node	15147 Apr 11 02:08	18° © 39'31	
	15141 Dec 06 05:45	0° ∡ 7			15147 Apr 29 00:02	0 $^{\circ}\Omega$	
	15142 Jan 13 22:31	0°ರ			15147 Jun 10 22:26	0° m)	
	15142 Feb 23 07:33	0° ≈			15147 Jul 20 12:48	0∘ ত	
	15142 Apr 07 17:50	0°) {			15147 Aug 27 20:22	0° M	
	15142 May 27 06:18	0°Υ			15147 Oct 05 04:46	0° ⊼ 7	
1 1	•						
desc. node	15142 Jun 17 16:08	10° Y 50′19			15147 Nov 13 13:42	0° る	
retrograde	15142 Aug 13 19:35	26° Y 27'18		evening set	15147 Dec 16 10:09	24° る 06'27	
min. Earth dist.	15142 Sep 21 14:03	17° Y ′20′28	0.67326 AU		15147 Dec 24 15:32	0° ≈	
opposition	15142 Sep 23 15:34	16° Ƴ 31'24	-3°25'52		15148 Feb 05 18:06	0° ∀	
greatest brilliancy	15142 Sep 23 08:06	16° Ƴ 38'48	-1.3m	desc. node	15148 Feb 06 13:04	0°) 32′12	
direct	15142 Nov 03 00:24	6° Ƴ 59'42					
	15143 Jan 17 19:32	0°8		conjunction	15148 Feb 09 09:46	2° ¥ 28'38	-0°01'46
	15143 Mar 13 12:51	0°II		minimum elong	15148 Feb 09 09:41	2°\(\frac{1}{2}\)3'29	
				•			0 01 14
	15143 Apr 30 04:30	0°€		behind sun begin	15148 Feb 08 12:23	1° ¥ 52′26	
	15143 Jun 12 22:17	0 $^{\circ}$ Ω		behind sun end	15148 Feb 10 06:59	3° ∺ 04'30	
asc. node	15143 Jul 06 21:51	17° Ω 21'17		max. Earth dist.	15148 Mar 05 00:44	18° ¥ 56′23	2.59714 AU
	15143 Jul 23 21:34	0° m ∕			15148 Mar 21 21:42	0 ° Υ	
evening set	15143 Jul 26 14:28	2° mp 02'18		morning rise	15148 Mar 29 02:56	4° Ƴ 40'57	
max. Earth dist.	15143 Aug 27 09:08	26° m) 25'38	2.36995 AU	Ç	15148 May 07 21:48	0° ႘	
man, Darvir dige.	15143 Aug 31 23:04	0∘ ⊽	2.50//0110		15148 Jun 25 17:56	0°II	
	13143 Aug 31 23.04	0 ==				0.ಂ ೧ H	
					15148 Aug 16 06:42		
conjunction	15143 Oct 01 05:26	23° ≏ 51'04			15148 Oct 14 14:32	0 \circ Ω	
minimum elong	15143 Oct 01 01:29	23° ≏ 43'14	0°54'01	retrograde	15148 Dec 09 14:38	14° Ω 16'46	
	15143 Oct 08 23:27	0° M		opposition	15149 Jan 13 10:53	7° Ω 06'46	-2°24'42
	15143 Nov 15 20:03	0° ∡ ¹		greatest brilliancy	15149 Jan 14 08:01	6° Ω 48'02	-2.1m
morning rise	15143 Dec 15 02:40	22° ∡ 50'30		min. Earth dist.	15149 Jan 22 00:27	4° Ω 05′03	0.49973 AU
3	15143 Dec 24 10:25	o°ප			15149 Feb 05 05:50	30°Rூ	
	15144 Feb 02 14:49	0° ≈		direct	15149 Feb 20 14:07	28°9519'35	
	15144 Mar 16 04:03	0°) €		asc. node	15149 Feb 26 11:12	28° © 34'11	
	15144 May 01 01:04	0° Y			15149 Mar 08 07:43	0 $^{\circ}$ Ω	
desc. node	15144 May 04 10:33	2° Y 06'44			15149 May 11 17:30	0° m y	
	15144 Jun 21 14:17	9° 8			15149 Jun 24 02:52	0∘ ত	
retrograde	15144 Sep 15 22:14	29° 8 02'01			15149 Aug 03 04:57	0° M	
opposition	15144 Oct 26 07:07	19° 8 33'00	-4°42'48		15149 Sep 11 20:59	0° ∡ ¹	
greatest brilliancy	15144 Oct 26 13:11	19° 8 27'02	-1.2m		15149 Oct 22 11:32	0°ਰ	
min. Earth dist.	15144 Oct 28 02:58						
		18° 8 49'55	0.68181 AU		15149 Dec 03 17:36	0° ≈	
direct	15144 Dec 06 20:25	9° 8 33'58		desc. node	15149 Dec 24 05:06	14° ≈ 05'12	
	15145 Feb 13 14:37	Π °0			15150 Jan 16 19:57	0° ℋ	
	15145 Apr 07 14:38	0 \circ \odot		evening set	15150 Feb 01 16:44	10°) 30′46	
	15145 May 22 16:00	$\mathfrak{O}^{\circ}\mathfrak{O}$			15150 Mar 03 13:56	0 ° Υ	
asc. node	15145 May 23 20:03	0° Ω 49'12					
	15145 Jul 02 21:01	0° m/y		conjunction	15150 Mar 20 16:08	10° Y ′59'48	-0°46'27
	15145 Aug 10 20:51	0∘ ⊽		minimum elong	15150 Mar 20 14:51	10° Y ′57'45	
	Č			•			
	15145 Sep 17 19:42	0°M√ 150 m 43144		max. Earth dist.	15150 Mar 29 17:58	16° Y 48′02	2.66815 AU
evening set	15145 Oct 07 15:05	15°M42'44			15150 Apr 19 12:03	0° 8	
	15145 Oct 25 18:06	0° ∡ ¹		morning rise	15150 May 03 16:12	8° 8 58'00	
	15145 Dec 03 13:53	5°0			15150 Jun 06 02:01	Π $^{\circ}0$	
					15150 Jul 24 00:32	0 \circ \odot	
conjunction	15145 Dec 16 20:32	10° る 00'04	0°53'12		15150 Sep 10 09:41	0°N	
minimum elong	15145 Dec 16 23:29	10° ろ 05'36	0°54'08		15150 Oct 30 02:28	0° mp	
mminum ciong		0°≈	3 3 1 00			0∘ ت س	
75 d 11 :	15146 Jan 13 00:49		0.47470.4**	1	15150 Dec 24 09:22		
max. Earth dist.	15146 Jan 31 16:53	13°≈21'05	2.47473 AU	asc. node	15151 Jan 14 17:54	8° Ω 59'37	
morning rise	15146 Feb 15 00:49	23° ≈ 23'00		retrograde	15151 Feb 19 06:36	16° ≏ 05'08	
	15146 Feb 24 15:08	0° ∀		opposition	15151 Mar 21 00:23	11° ≙ 06′10	4°36'22
desc. node	15146 Mar 22 00:30	17°) €06'50		greatest brilliancy	15151 Mar 21 13:45	10° ≏ 56'58	-3.0m
	15146 Apr 10 16:57	$0^{\circ}\mathbf{Y}$		min. Earth dist.	15151 Mar 25 00:00	10° ഫ 00'23	0.37407 AU
	15146 May 28 16:39	0°8		direct	15151 Apr 20 21:32	5° £ 38'50	
	15146 Jul 20 06:46	0°II			15151 Jun 27 15:35	0°M	
	15146 Sep 30 02:08	0.22 0.22			15151 Aug 14 01:16	0° ∡ 7	
retrograde	15146 Oct 23 12:02	2° © 56'51			15151 Sep 27 20:09	0°ප	

desc. node	15151 Nov 11 05:49 15151 Nov 11 22:36 15151 Dec 28 00:54	29° ප 32'21 0°≈ 0°¥		morning rise asc. node	15156 Aug 19 14:12 15156 Aug 31 02:40 15156 Sep 05 01:04	0° m/ 8° m/34'11 12° m/16'12	
evening set	15152 Feb 13 01:07 15152 Mar 10 21:11 15152 Mar 31 11:34	0°Y 16°Y58'50 0°8			15156 Sep 28 09:00 15156 Nov 06 00:10 15156 Dec 14 06:20	0°ሺ 0°ሺ 0° 亞	
max. Earth dist.	15152 Apr 19 16:14		2.68402 AU		15157 Jan 22 02:40 15157 Mar 03 18:29	0°₹ 0°≈	
conjunction minimum elong	15152 Apr 23 19:29 15152 Apr 23 18:50	14° 8 46'30 14° 8 45'27			15157 Apr 17 03:09 15157 Jun 10 05:35	0° ℋ 0° Ƴ	
morning rise	15152 May 17 17:36 15152 Jun 05 20:59 15152 Jul 03 06:52	0°Ⅱ 12°Ⅱ15'53 0°ᢒ		desc. node retrograde min. Earth dist.	15157 Jul 04 05:38 15157 Jul 31 10:43 15157 Sep 06 12:43	9° Υ 03'37 13° Υ 20'14 4° Υ 45'04	0.65149 AU
	15152 Aug 17 19:23 15152 Oct 01 04:00	0° Ω 0° m		opposition greatest brilliancy	15157 Sep 10 02:13 15157 Sep 09 16:53	3°Υ20'22 3°Υ29'38	-2°36'08
asc. node	15152 Nov 13 10:14 15152 Dec 01 18:49	0° ჲ 12° ჲ 53'47		direct	15157 Sep 18 19:37 15157 Oct 19 14:20	30° ₹ ₩ 24° ₩ 06'18	
	15152 Dec 26 02:26 15153 Feb 07 22:43 15153 Apr 02 19:51	0°M 0°ダ 0°る			15157 Nov 22 19:15 15158 Jan 28 18:07 15158 Mar 21 15:01	0°Β 0°Υ 0°Υ	
retrograde min. Earth dist.	15153 May 06 00:35 15153 Jun 01 07:08	7°る18'12 2°る39'28	0.41510 AU		15158 May 07 13:24 15158 Jun 20 03:58	$0 _{\circ} \mathcal{U}$ $0 _{\circ}$ ತಾ	
greatest brilliancy opposition	15153 Jun 07 14:33 15153 Jun 09 02:02 15153 Jun 09 14:20	0°る38'22 0°る09'50 30°₹፟፟፟፟፟፟	-2.6m 5°47'39	evening set max. Earth dist. asc. node	15158 Jul 04 12:22 15158 Jul 19 12:17 15158 Jul 23 15:29	10°Ω18'03 21°Ω16'57 24°Ω20'44	2.41954 AU
direct	15153 Jul 10 02:42 15153 Aug 10 19:13	24°♂16'48 0°♂		asc. node	15158 Jul 31 05:16	0° m)	
desc. node	15153 Sep 28 14:22 15153 Oct 13 15:10 15153 Dec 04 14:32	21° ් 52'08 0° *≈ 0° \cdot\ 0° \cdot\		conjunction minimum elong	15158 Sep 02 03:26 15158 Sep 02 01:05 15158 Sep 08 10:06	25° m 07'23 25° m 02'49 0° 1 0° m	0°27'45 0°27'32
evening set	15154 Jan 23 10:23 15154 Mar 13 04:07 15154 Apr 14 22:43 15154 Apr 29 17:01	0°8 20°835'17 0°耳		morning rise	15158 Oct 16 13:14 15158 Nov 13 02:37 15158 Nov 23 11:05 15159 Jan 01 01:07	21°M49'53 0°ズ 0°る	
max. Earth dist.	15154 May 12 13:03		2.64489 AU		15159 Feb 10 05:11 15159 Mar 24 22:00	0° ≈ 0° ∀	
conjunction minimum elong	15154 May 29 02:06 15154 May 29 02:51	19° Ⅱ 01'35 19° Ⅱ 02'49	-1°08'52 1°09'46	desc. node	15159 May 10 13:33 15159 May 22 04:24	0°Υ 6°Υ54'57	
C	15154 Jun 14 17:25	0ಂಣ	1 0) 40		15159 Jul 04 19:48	0° 8	
morning rise	15154 Jul 13 17:12 15154 Jul 28 23:45 15154 Sep 09 11:13	19°€30'33 0° N 0° M		retrograde opposition greatest brilliancy	15159 Sep 03 12:28 15159 Oct 14 05:22 15159 Oct 14 05:04	16° と 39'11 6° と 56'58 6° と 57'16	
asc. node	15154 Oct 19 12:44 15154 Oct 20 07:41	29° ™ 24'39 0° ⊆		min. Earth dist.	15159 Oct 14 12:13 15159 Nov 03 00:46	6° ႘ 50′13 30°ℝ ϒ	0.68676 AU
	15154 Nov 28 23:31 15155 Jan 07 05:20 15155 Feb 16 08:50	0°肌 0°ダ 0°る		direct	15159 Nov 24 11:37 15159 Dec 17 15:38 15160 Feb 26 04:49	27°Y05'42 0°B 0°用	
	15155 Apr 01 00:29 15155 May 31 00:19	0° ∺			15160 Apr 16 04:23 15160 May 30 12:44	0.ෙහ 0.ෙවෙ 0 H	
retrograde	15155 Jun 24 20:00 15155 Jul 18 10:08	3°) € 57'34 30°R≈		asc. node	15160 Jun 09 12:34 15160 Jul 10 13:50	7° Ω 07'22 0° m	
min. Earth dist. opposition greatest brilliancy	15155 Jul 26 16:32 15155 Aug 02 19:13 15155 Aug 02 15:03	27°≈06'05 24°≈22'40 24°≈26'40	0.55209 AU 0°40'19 -1.9m	evening set	15160 Aug 18 13:12 15160 Sep 06 06:17 15160 Sep 25 11:39	0° 쇼 14° 쇼 44'31 0° ጤ	
desc. node direct	15155 Aug 16 23:26 15155 Sep 08 00:15	19°≈29'48 16°≈19'29			15160 Nov 02 08:20	0° ⊀	
	15155 Nov 01 11:10 15155 Dec 31 15:47 15156 Feb 21 15:41	0°₩ 0°₩		conjunction minimum elong	15160 Nov 18 15:22 15160 Nov 18 16:45 15160 Dec 11 00:46	12°×45'06 12°×47'49 0°る	1°06'11 1°07'05
evening set	15156 Apr 10 07:32 15156 May 20 17:07 15156 May 26 09:12	0°Ⅱ 26°Ⅱ13'09 0°ᢒ		max. Earth dist.	15161 Jan 10 20:39 15161 Jan 20 07:42 15161 Jan 24 20:28	23°る05'15 0°≈ 3°≈16'55	2.41760 AU
max. Earth dist.	15156 Jun 07 01:56	7° © 52'53	2.55298 AU	desc. node	15161 Mar 03 19:33 15161 Apr 07 18:47	0° 兴 23° 兴 22'40	
conjunction minimum elong	15156 Jul 07 22:23 15156 Jul 07 23:59 15156 Jul 09 01:27	29°©12'20 29°©15'10 0°Ω			15161 Apr 18 00:44 15161 Jun 05 20:28 15161 Jul 31 23:29	0°Ω 9°0 0°Υ	

retrograde opposition	15161 Oct 08 02:49 15161 Nov 16 13:13	19° П 29'03 10° П 27'08	-4°53'00	evening set	15167 Feb 25 15:35 15167 Apr 08 04:34	3° Ƴ 35'17 0° ႘	
greatest brilliancy	15161 Nov 17 06:01	10° Ⅱ 10'49	-1.4m		-		
min. Earth dist.	15161 Nov 20 17:51	8° Ⅱ 49'24	0.65354 AU	conjunction	15167 Apr 11 08:26	2° 8 00'11	-1°03'34
direct	15161 Dec 28 01:37	0° Ⅱ 24'50		minimum elong	15167 Apr 11 07:23	1° 8 58'32	1°03'59
	15162 Mar 21 23:50	0 \circ 50		max. Earth dist.	15167 Apr 12 05:56	_	2.68427 AU
asc. node	15162 Apr 27 15:18	22° © 35'55		morning rise	15167 May 24 09:50	29° 8 18'41	
	15162 May 08 16:18	$0^{\circ}\Omega$			15167 May 25 11:50	Π °0	
	15162 Jun 19 15:29	0° m			15167 Jul 11 10:55	0ಂಣ	
	15162 Jul 28 21:24	0∘ ⊽			15167 Aug 26 19:23	0 ° Ω	
	15162 Sep 04 23:47	0° M -			15167 Oct 11 12:25	0° m)	
	15162 Oct 13 02:42	0° ∡ ¹			15167 Nov 25 20:53	0∘ ⊽	
	15162 Nov 21 04:46	0°る		asc. node	15167 Dec 19 11:19	15° ≏ 28'19	
evening set	15162 Nov 22 05:29	0° る 46'31			15168 Jan 11 05:57	0° M 0°. ⊼	
	15162 Dec 31 22:58	0° ≈		ratra arada	15168 Mar 07 05:09	0° द्र ⁷ 7° द्र ⁷ 08'43	
conjunction	15163 Jan 21 14:28	14° ≈ 39'07	0°19'55	retrograde min. Earth dist.	15168 Apr 09 18:17 15168 May 06 00:38	2° x ⁷ 51'18	0.37506 AU
minimum elong	15163 Jan 21 14.28	14 ≈3907 14°≈41'11	0°1933 0°20'39	opposition	15168 May 10 17:53	1° x ⁷ 32'03	7°10'03
minimum clong	15163 Feb 12 18:56	0°)	0 20 39	greatest brilliancy	15168 May 09 15:34	1° x '52'03	-2.9m
max. Earth dist.	15163 Feb 22 21:39	6° ¥ 52'01	2.55453 AU	greatest oriniancy	15168 May 16 08:02	30°RM	-2.9111
desc. node	15163 Feb 23 06:57	7° ¥ 07'43	2.33433 AO	direct	15168 Jun 09 02:18	26°M31'54	
morning rise	15163 Mar 14 17:47	20° ∺ 07'03		uncer	15168 Jul 02 16:35	0° ∡ 7	
morning 1150	15163 Mar 29 19:34	0° Υ			15168 Sep 05 11:20	0°ਰ	
	15163 May 16 00:48	0°8		desc. node	15168 Oct 15 00:38	23° る 23'54	
	15163 Jul 04 19:43	0°II			15168 Oct 25 20:41	0° ≈	
	15163 Aug 28 11:28	0ಂತಾ			15168 Dec 13 13:25	0° ∀	
retrograde	15163 Nov 19 23:00	26° © 55'43			15169 Jan 30 23:18	0° Y	
opposition	15163 Dec 26 11:49	19° 5 04'27	-3°41'58		15169 Mar 20 01:44	9° 8	
greatest brilliancy	15163 Dec 27 14:44	18° © 39'30	-1.8m	evening set	15169 Apr 01 08:26	7° 8 43'10	
min. Earth dist.	15164 Jan 03 05:11	16° © 13'00	0.55353 AU	max. Earth dist.	15169 May 03 10:09	28° 8 04'21	2.66664 AU
direct	15164 Feb 04 05:31	9° 5 37'01			15169 May 06 10:23	Π °0	
asc. node	15164 Mar 14 22:27	18° © 44'25					
	15164 Apr 07 04:03	0 $^{\circ}$ Ω		conjunction	15169 May 15 00:54	5° Ⅱ 31'36	
	15164 May 24 16:01	0° m)		minimum elong	15169 May 15 01:04	5° Ⅱ 31'53	1°13'20
	15164 Jul 04 16:50	0° ™			15169 Jun 21 14:14	0°9	
	15164 Aug 12 18:23	0°M		morning rise	15169 Jun 28 04:05	4° © 21'09	
	15164 Sep 20 17:23	0° ∡ ¹			15169 Aug 05 06:05	0° N	
	15164 Oct 30 16:45	್ %°⊗			15169 Sep 17 07:32 15169 Oct 28 20:34	0° െ 0°ആ	
desc. node	15164 Dec 11 08:49 15165 Jan 09 22:45	0 ≈ 20°≈29'28		asc. node	15169 Oct 28 20.34 15169 Nov 05 06:45	0 <u>≈</u> 5° ≏ 27'44	
evening set	15165 Jan 15 14:04	20 ≈ 29 28 24° ≈ 19'35		asc. node	15169 Dec 08 06:27	0°M	
evening set	15165 Jan 23 23:32	0° ∺			15170 Jan 17 09:49	0° ∡ 7	
	15105 Jun 25 25.52	٠ ٨			15170 Feb 28 02:05	0°ਤ	
conjunction	15165 Mar 05 22:36	27°) €05'44	-0°31'26		15170 Apr 17 20:17	0° ≈	
minimum elong	15165 Mar 05 21:30	27°) €03'56		retrograde	15170 Jun 07 14:32	15° ≈ 02'56	
	15165 Mar 10 09:52	0° Υ		min. Earth dist.	15170 Jul 07 01:15	9° ≈ 03'27	0.49930 AU
max. Earth dist.	15165 Mar 20 15:07	6° Ƴ 36'41	2.64667 AU	greatest brilliancy	15170 Jul 14 11:04	6° ≈ 20'29	-2.2m
morning rise	15165 Apr 20 06:27	26° Y 11'52		opposition	15170 Jul 15 04:08	6° ≈ 04'46	2°30'01
	15165 Apr 26 06:31	9° 8			15170 Aug 04 19:25	30°Ŗる	
	15165 Jun 13 04:31	Π °0		direct	15170 Aug 18 14:26	28° る 44'34	
	15165 Aug 01 02:18	0ಂಣ		desc. node	15170 Sep 02 10:46	0° ≈ 04'31	
	15165 Sep 20 17:50	0 ° Ω			15170 Sep 02 00:08	0° ≈	
	15165 Nov 15 22:15	0° m			15170 Nov 16 19:52	0° ∺	
retrograde	15166 Jan 18 15:55	18° Mp 28'21			15171 Jan 09 19:41	0° Ƴ	
asc. node	15166 Jan 31 07:19	17° m 27'50	1017102		15171 Mar 01 03:48	0° B	
opposition	15166 Feb 19 07:14	12° Tp 41'41	1°17'23		15171 Apr 18 06:21	0°Ⅱ 11°Ⅱ56'59	
greatest brilliancy min. Earth dist.	15166 Feb 19 15:51 15166 Feb 26 23:32	12° Mp 35'02 10° Mp 20'14	-2.7m 0.41368 AU	evening set max. Earth dist.	15171 May 06 20:13 15171 May 27 21:37		2.59501 AU
direct	15166 Mar 25 08:10	5° Mg 48'08	0.41308 AU	max. Earm dist.	15171 May 27 21.37 15171 Jun 03 06:17	23 H 46 02	2.39301 AU
uncet	15166 May 30 20:55	ე∘ <u>ი</u>			151/1 Jun 05 00.1/	.	
	15166 Jul 15 08:04	0° m .		conjunction	15171 Jun 21 20:39	12° © 32'44	-0°53'45
	15166 Aug 26 13:35	0° ∡ 7		minimum elong	15171 Jun 21 22:10	12°535'19	
	15166 Oct 07 22:23	0°ਰ			15171 Jul 17 03:01	0°Ω	
	15166 Nov 20 12:47	0° ≈		morning rise	15171 Aug 10 15:46	17° Ω 25'12	
desc. node	15166 Nov 27 19:43	4° ≈ 54'54		Č	15171 Aug 27 23:24	0° m/	
	15167 Jan 04 15:22	0°) €		asc. node	15171 Sep 22 22:05	19° m 16'09	
	15167 Feb 20 00:55	0° Υ			15171 Oct 07 02:31	0∘ ত	

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	15171 Nov 15 01:03	0° M .		greatest brilliancy	15176 Nov 03 06:59	27° 8 11'36	-1 3m
	15171 Dec 23 13:25	0° ∡ ⊓		min. Earth dist.	15176 Nov 05 13:03	26° 8 18'39	0.67467 AU
						. •	0.6/46/ AU
	15172 Jan 31 16:26	0°ප		direct	15176 Dec 14 11:36	17° 8 19'37	
	15172 Mar 12 21:46	0° ≈			15177 Feb 03 22:23	$\Pi^{\circ}0$	
	15172 Apr 28 03:53	0° ℋ			15177 Apr 01 12:36	0 \circ \odot	
retrograde	15172 Jul 17 13:56	29° ∺ 21'53		asc. node	15177 May 14 04:25	27° © 49'16	
desc. node	15172 Jul 20 18:11	29° ₩ 17'45			15177 May 17 07:57	$0^{\circ}\Omega$	
min. Earth dist.	15172 Aug 21 19:06	21°¥22'42	0.61981 AU		15177 Jun 27 18:45	0° m	
opposition	15172 Aug 26 19:33	19°) 24'01			15177 Aug 05 20:25	0∘ ⊽	
11	-	19° X 31'45			•		1.1
greatest brilliancy	15172 Aug 26 11:42		-1.6m	greatest brilliancy	15177 Aug 18 20:06	10° ⊆ 12'19	1.1m
direct	15172 Oct 04 05:17	10°) 32'34			15177 Sep 12 20:04	0°M₊	
	15172 Dec 11 14:27	0° Υ			15177 Oct 20 19:31	0° ∡ ¹	
	15173 Feb 06 23:45	9° 8		evening set	15177 Oct 24 23:57	3° ҂ 16′25	
	15173 Mar 29 05:02	Π°			15177 Nov 28 16:46	8°0	
	15173 May 14 16:53	0ංම					
evening set	15173 Jun 15 10:56	21°5540'09		conjunction	15177 Dec 30 19:32	23° る 53'43	0°41'55
e vennig see	15173 Jun 27 07:13	0°Ω		minimum elong	15177 Dec 30 22:06		0°42'48
Fauth diet	15173 Jun 29 00:38		2 47500 AII	minimum clong		0° ≈	0 42 40
max. Earth dist.			2.47508 AU	and the	15178 Jan 08 05:15		2 50 40 5 4 7 7
	15173 Aug 07 12:28	0° m)		max. Earth dist.	15178 Feb 09 17:49	23°≈01'46	2.50495 AU
					15178 Feb 19 20:29	0° ∀	
conjunction	15173 Aug 08 08:36	0° m ,37′33	-0°00'47	morning rise	15178 Feb 25 16:21	3° ¥ 58'47	
minimum elong	15173 Aug 08 08:39	0° m ,37′39	0°01'21	desc. node	15178 Mar 12 02:47	13°) 42′49	
behind sun begin	15173 Aug 07 08:09	29° Ω 51'57			15178 Apr 05 20:13	0° Y	
behind sun end	15173 Aug 09 09:09	1° m) 23'25			15178 May 23 10:35	0°8	
	15173 Aug 09 05:07				15178 Jul 13 16:32	0°II	
asc. node	· ·	1° Mp 27'05					
	15173 Sep 15 22:10	0∘ ⊽			15178 Sep 12 20:09	0_{\circ} වෙ	
morning rise	15173 Oct 11 22:19	20° ≙ 19'04		retrograde	15178 Nov 01 21:54	11° © 34'57	
	15173 Oct 24 05:06	0°M₊		opposition	15178 Dec 09 19:28	3° © 10'53	-4°26'26
greatest brilliancy	15173 Nov 03 08:52	8°ML01'27	1.2m	greatest brilliancy	15178 Dec 10 20:54	2°5546'42	-1.6m
	15173 Dec 01 05:01	0° ⊼ ¹		min. Earth dist.	15178 Dec 16 06:22	0°543'43	0.60013 AU
	15174 Jan 08 19:44	0°ප			15178 Dec 18 05:27	30° Ŗ Ⅱ	
	15174 Feb 18 01:02	0° ≈		direct	15179 Jan 19 13:28	23° II 21'04	
				unect			
	15174 Apr 02 01:33	0°) €			15179 Feb 22 16:54	0°9	
	15174 May 20 02:00	0° Υ		asc. node	15179 Apr 01 11:11	17°5544'19	
desc. node	15174 Jun 07 19:05	10° Y 17'31			15179 Apr 22 00:20	$0 {\circ} \Omega$	
	15174 Jul 24 15:49	8° 0			15179 Jun 05 00:47	0° т р	
retrograde	15174 Aug 21 09:03	4° 8 14'16			15179 Jul 15 00:34	0∘ ⊽	
•	15174 Sep 15 23:53	30° Ŗ ♈			15179 Aug 22 12:55	0° M .	
min. Earth dist.	15174 Sep 29 23:19		0.68100 AU		15179 Sep 30 01:07	0° ∡ 7	
	15174 Oct 01 04:59	24° Υ '22'08			=	0°ਤ ਹ ×	
opposition					15179 Nov 08 13:41		
greatest brilliancy	15174 Sep 30 23:32	24° Y 27'31	-1.3m		15179 Dec 19 19:00	0° ≈	
direct	15174 Nov 10 22:42	14° Ƴ 42'25		evening set	15179 Dec 28 10:48	6° ≈ 07'22	
	15175 Jan 08 22:09	9° 8		desc. node	15180 Jan 27 15:15	27° ≈ 00'59	
	15175 Mar 07 17:20	Π $\circ 0$			15180 Feb 01 00:37	0° ∀	
	15175 Apr 25 02:07	0 \circ \odot					
	15175 Jun 08 00:57	$0^{\circ}\Omega$		conjunction	15180 Feb 19 02:18	12°) €08'35	-0°13'25
asc. node	15175 Jun 27 03:47	13° Ω 45'43		minimum elong	15180 Feb 19 01:43	12°) €07'38	
ase. House	15175 Jul 19 01:17	0° m		behind sun begin	15180 Feb 18 13:42	11°) (47'37	3 13 02
				•			
evening set	15175 Aug 09 18:06	16° Mp 31'58		behind sun end	15180 Feb 19 13:44	12°) €27'38	
	15175 Aug 27 02:19	0∘ ⊽		max. Earth dist.	15180 Mar 10 22:48	25°) 54′26	2.61707 AU
	15175 Oct 04 02:04	0° M ₊			15180 Mar 17 05:22	0 ° $\mathbf{\Upsilon}$	
				morning rise	15180 Apr 06 09:06	13° Y 00′54	
conjunction	15175 Oct 18 23:40	11°ML50'08	1°03'29		15180 May 03 03:00	8° 0	
minimum elong	15175 Oct 18 20:53	11°ML44'35	1°04'02		15180 Jun 20 13:03	Π°	
	15175 Nov 10 22:31	0° ∡ 7	1 0.02		15180 Aug 09 20:57	0ංම ී	
Frath dist			2.26624.411		-		
max. Earth dist.	15175 Nov 24 20:51	10° ∡ 755'48	2.36624 AU		15180 Oct 03 14:14	0° Ω	
	15175 Dec 19 12:59	0°₹		retrograde	15180 Dec 22 19:08	25° Ω 53'13	
morning rise	15175 Dec 31 10:04	9° ට 01'13		opposition	15181 Jan 25 14:25	19° Ω 10′28	
	15176 Jan 28 17:05	0° ≈		greatest brilliancy	15181 Jan 26 02:54	18° Ω 59'48	-2.3m
	15176 Mar 11 04:06	0° ∀		min. Earth dist.	15181 Feb 03 06:35	16° Ω 13'38	0.46821 AU
desc. node	15176 Apr 24 13:33	29° ¥ 17'51		asc. node	15181 Feb 16 18:54	12° Ω 29'57	
	15176 Apr 25 16:10	0°Υ		direct	15181 Mar 03 11:41	10° Ω 56'41	
				direct			
	15176 Jun 14 20:34	0°B			15181 Apr 30 19:15	0° M)	
	15176 Aug 18 08:09	0°II			15181 Jun 16 11:32	0∘ ত	
retrograde	15176 Sep 23 18:59	6° Ⅱ 41'44			15181 Jul 27 15:37	0°M₊	
	15176 Oct 26 23:23	30° ₹ 8			15181 Sep 05 22:31	0°⊀	
opposition	15176 Nov 02 21:07	27° 8 21'17	-4°50'13		15181 Oct 17 00:11	5°0	

	15181 Nov 28 14:56	0° ≈ ≈		asc. node	15186 Oct 09 17:08	25° m 59'11	
desc. node	15181 Dec 14 10:07	10° ≈ 48'54			15186 Oct 15 01:28	0∘ ⊽	
	15182 Jan 12 00:02	0° ∀			15186 Nov 23 10:34	0° M	
evening set	15182 Feb 10 16:14	19°) 28′59			15187 Jan 01 08:53	0° ∡ ¹	
	15182 Feb 26 22:09	0° Y			15187 Feb 10 00:25	8°0	
					15187 Mar 24 09:02	0° ≈	
conjunction	15182 Mar 28 16:03	19° Ƴ 03'11			15187 May 14 08:55	0° ∀	
minimum elong	15182 Mar 28 14:47	19° Ƴ 01'11		retrograde	15187 Jul 03 19:18	13° ¥ 59'46	
max. Earth dist.	15182 Apr 03 19:35	22° Y 57'56	2.67623 AU	min. Earth dist.	15187 Aug 05 21:53	6°) 42′24	0.57828 AU
	15182 Apr 14 21:22	0° 8		desc. node	15187 Aug 07 05:42	6°) €11'48	
morning rise	15182 May 11 04:34	16° 8 38'44		opposition	15187 Aug 12 07:33	4°) €13'06	
	15182 Jun 01 08:12	0°II		greatest brilliancy	15187 Aug 12 06:07	4°) €14'30	-1.8m
	15182 Jul 18 20:54	0 ಂ Ω		direct	15187 Aug 24 00:14	30°R≈ 25°≈50'45	
	15182 Sep 04 09:09 15182 Oct 22 04:58	0° m)		direct	15187 Sep 18 08:33 15187 Oct 16 05:10	25 ≈ 3045 0° ∺	
	15182 Dec 10 19:56	0∘ ت المار			15187 Dec 24 20:29	0°Υ	
asc. node	15183 Jan 05 02:08	0 — 13° ≏ 55'34			15188 Feb 16 07:31	%8 0°8	
asc. node	15183 Feb 11 15:26	0°M			15188 Apr 05 11:27	0°II	
retrograde	15183 Mar 10 02:58	4° M ₊17'55			15188 May 21 16:47	0° ©	
1011081440	15183 Apr 06 11:50	30°R ≏		evening set	15188 May 29 14:49	5° © 19'00	
opposition	15183 Apr 08 13:58	29° Ω 26'54	6°14'03	max. Earth dist.	15188 Jun 14 06:18	15° © 59'01	2.52678 AU
greatest brilliancy	15183 Apr 08 15:53	29° ≏ 25'38	-3.0m		15188 Jul 04 08:43	$0^{\circ}\Omega$	
min. Earth dist.	15183 Apr 09 08:49	29° ₽ 14'26	0.36429 AU				
direct	15183 May 08 00:47	24° ≏ 30'43		conjunction	15188 Jul 18 11:50	10° Ω 03'54	-0°25'34
	15183 Jun 06 12:45	0° M.		minimum elong	15188 Jul 18 13:11	10° Ω 06′21	0°26'20
	15183 Aug 04 04:39	0° ∡ ¹			15188 Aug 14 19:01	0° ™	
	15183 Sep 20 14:46	0°ප		asc. node	15188 Aug 26 06:00	8° m 32'59	
desc. node	15183 Nov 01 12:04	27° る 06'39		morning rise	15188 Sep 13 20:55	22°M 39'25	
	15183 Nov 05 23:28	0° ≈			15188 Sep 23 10:40	0∘ ⊽	
	15183 Dec 22 19:12	0° ∀			15188 Oct 31 22:41	0° M	
	15184 Feb 08 05:17	0° Υ			15188 Dec 09 02:10	0° ∡	
evening set	15184 Mar 18 17:59	24° Y 53'18			15189 Jan 16 19:37	್ತಿ	
P. d. F.	15184 Mar 26 20:31	0°8	2 (0027 411		15189 Feb 26 05:35	0° ≈	
max. Earth dist.	15184 Apr 24 15:31	18°013'12	2.68027 AU		15189 Apr 10 21:36	0° ∀ 0° Υ	
amiumatian	15184 May 01 10:50	22° 8 32'51	1012/02	desc. node	15189 May 31 15:42 15189 Jun 24 10:57	11° Y 05'34	
conjunction minimum elong	15184 May 01 10:30	22° 8 32'16		retrograde	15189 Juli 24 10.37 15189 Aug 08 03:20	21° Υ 25'18	
minimum clong	15184 May 13 03:11	0°Ⅱ	1 12 44	min. Earth dist.	15189 Sep 15 03:50	12° Y $32'15$	0.66476 AU
morning rise	15184 Jun 13 17:32	20° Ⅱ 21'05		opposition	15189 Sep 17 21:36	11° Υ 27'00	
morning rise	15184 Jun 28 12:49	0°95		greatest brilliancy	15189 Sep 17 22:52	11° Y 35'40	
	15184 Aug 12 17:36	0°N		direct	15189 Oct 27 21:39	2° Y '02'49	
	15184 Sep 25 13:55	0° m)			15190 Jan 21 18:36	0° ႘	
	15184 Nov 07 02:48	0∘ <u>⊽</u>			15190 Mar 16 05:35	Π°	
asc. node	15184 Nov 22 01:55	10° ≏ 44'10			15190 May 02 15:10	0 \circ \mathfrak{s}	
	15184 Dec 18 17:42	0° M			15190 Jun 15 09:02	$0^{\circ}\Omega$	
	15185 Jan 29 14:53	0° ∡ ¹		asc. node	15190 Jul 13 21:51	20° Ω 40′23	
	15185 Mar 16 09:15	0°ಕ		evening set	15190 Jul 16 12:05	22° Ω 35'33	
retrograde	15185 May 18 19:51	22° ろ 32'44			15190 Jul 26 10:27	0° m)	
min. Earth dist.	15185 Jun 14 22:40	17°る28'27		max. Earth dist.	15190 Aug 05 19:45	~	2.39035 AU
greatest brilliancy	15185 Jun 22 01:03	15°る04'01	-2.5m		15190 Sep 03 14:13	0∘ ⊽	
opposition	15185 Jun 23 08:00	14° る 37'37	4°36'25	. ,.	15100 C 17 22 12	110 0 12/51	0042126
direct desc. node	15185 Jul 25 15:03	8° ට 11'35 22°ට59'01		conjunction	15190 Sep 17 22:12	11° £ 13'51 11° £ 06'41	0°43'26 0°43'28
desc. node	15185 Sep 18 20:11 15185 Oct 03 18:16	0°≈		minimum elong	15190 Sep 17 18:34 15190 Oct 11 15:58	0°M	0 43 28
	15185 Nov 28 03:25	0 ≈ 0° ∺			15190 Oct 11 13:38 15190 Nov 18 12:47	0° ∕ 7	
	15186 Jan 18 02:42	0°Υ		morning rise	15190 Nov 18 12.47 15190 Dec 01 08:56	10° ∡ ¹05'02	
	15186 Mar 08 08:19	0°8		morning rise	15190 Dec 27 02:09	0°る。	
evening set	15186 Apr 22 18:55	28° 8 32'20			15191 Feb 05 04:51	0° ≈	
5	15186 Apr 25 01:47	0°Ⅱ			15191 Mar 19 17:35	0°) €	
max. Earth dist.	15186 May 17 23:56		2.62935 AU		15191 May 04 18:50	0° Υ	
	-			desc. node	15191 May 12 07:00	4° Υ 36'11	
conjunction	15186 Jun 06 09:53	27° Ⅲ 33'40	-1°04'44		15191 Jun 26 09:28	9° 8	
minimum elong	15186 Jun 06 10:58	27° Ⅱ 35′27	1°05'40	retrograde	15191 Sep 11 03:59	24° 8 14'54	
	15186 Jun 10 02:01	0∘ ©		opposition	15191 Oct 21 16:31	14° 8 39'33	
morning rise	15186 Jul 23 05:17	29° © 18'39		greatest brilliancy	15191 Oct 21 19:39	14° 8 36'28	
	15186 Jul 24 05:06	$0^{\circ}\Omega$		min. Earth dist.	15191 Oct 22 19:37	14° 8 12'51	0.68531 AU
	15186 Sep 04 11:15	0° m)		direct	15191 Dec 02 02:46	4° 8 43'37	

	15102 Eab 19 22:42	0°Щ			15107 Mar 05 17:26	0°Ƴ	
	15192 Feb 18 22:42 15192 Apr 10 14:12	0ംऌ			15197 Mar 05 17:36	0-1	
	15192 May 25 09:37	0° Ω		conjunction	15197 Mar 14 10:53	5° Ƴ 38'07	-0°40'36
asc. node	15192 May 30 18:40	3° Ω 47'52		minimum elong	15197 Mar 14 09:38	5° Y 36′06	
	15192 Jul 05 14:13	0° m		max. Earth dist.	15197 Mar 25 22:25	13° Y ′00'52	2.65969 AU
	15192 Aug 13 14:43	0∘ ⊽			15197 Apr 21 14:20	9° 8	
	15192 Sep 20 13:34	0° M		morning rise	15197 Apr 27 23:00	4° 8 01'37	
evening set	15192 Sep 23 17:08	2°M30'05			15197 Jun 08 07:07	Π °0	
	15192 Oct 28 10:53	0° ∡ ¹			15197 Jul 26 14:37	0°99	
	15102 D 05 00 22	200 70646	1000114		15197 Sep 13 20:11	0° N	
conjunction minimum elong	15192 Dec 05 00:23 15192 Dec 05 03:09	29° 🗷 06'46 29° 🗷 12'02	1°00'14 1°01'11		15197 Nov 04 14:24 15198 Jan 10 06:53	0° െ 0°ആ	
minimum ciong	15192 Dec 06 04:21	29 メ ・12 02	1 01 11	asc. node	15198 Jan 21 15:50	0 = 2° £ 33'02	
	15193 Jan 15 12:03	0° ≈		retrograde	15198 Feb 04 21:54	ა° - 47'01	
max. Earth dist.	15193 Jan 23 19:26	5° ≈ 59'54	2.44929 AU		15198 Mar 01 23:27	30°R, M)	
morning rise	15193 Feb 06 05:16	15° ≈ 32'42		opposition	15198 Mar 07 07:55	28° m 29'47	3°08'50
	15193 Feb 26 23:40	0° ∀		greatest brilliancy	15198 Mar 07 23:04	28° Mp 18'50	-2.9m
desc. node	15193 Mar 28 21:28	20°) €07'23		min. Earth dist.	15198 Mar 13 07:58	26° Mp 45'50	0.38899 AU
	15193 Apr 13 00:49	0° Ƴ		direct	15198 Apr 08 14:54	22° m 25'43	
	15193 May 31 06:09	0° 8			15198 May 12 20:36	0° ™	
. 1	15193 Jul 23 22:25	0°Ⅱ 270Ⅲ24102			15198 Jul 05 20:19	0°M⊾	
retrograde opposition	15193 Oct 16 17:37 15193 Nov 24 16:17	27° Ⅲ 34'02 18° Ⅲ 44'08	1010110		15198 Aug 19 05:21 15198 Oct 01 16:44	0°る	
greatest brilliancy	15193 Nov 24 10.17 15193 Nov 25 12:40	18° Ⅱ 24'26	-1.4m		15198 Nov 15 00:02	0°≈	
min. Earth dist.	15193 Nov 29 16:42	16° II 47'50	0.63720 AU	desc. node	15198 Nov 18 00:10	2° ≈ 00'18	
direct	15194 Jan 04 23:58	8° Ⅱ 43'56			15198 Dec 30 14:00	0°) €	
	15194 Mar 13 19:13	0 \circ \odot			15199 Feb 15 06:31	0 ° Υ	
asc. node	15194 Apr 17 23:18	20°\$28'50		evening set	15199 Mar 05 20:19	11° Y '48'20	
	15194 May 02 14:41	0 ° Ω			15199 Apr 03 13:34	0° 8	
	15194 Jun 14 03:15	0° m/y		max. Earth dist.	15199 Apr 17 04:23	8° 8 37'26	2.68522 AU
	15194 Jul 23 14:24	0∘ 亚			15100 4 10 01 20	00 4010 7	1007147
	15194 Aug 30 19:33 15194 Oct 08 00:59	0° M 0° <i>≯</i> 7		conjunction minimum elong	15199 Apr 19 01:20 15199 Apr 19 00:30	9° 8 48'37 9° 8 47'18	
	15194 Nov 16 05:58	0°る		minimum clong	15199 Apr 19 00:30 15199 May 20 20:10	9° П	1 06 20
evening set	15194 Dec 06 08:49	14° る 56'30		morning rise	15199 Jun 01 01:08	7° Ⅱ 09'10	
	15194 Dec 27 03:02	0° ≈			15199 Jul 06 13:51	0°ತಾ	
					15199 Aug 21 11:14	0 $^{\circ}\Omega$	
conjunction	15195 Feb 01 13:18	25° ≈ 33'06	0°07'16		15199 Oct 05 09:16	0° ™	
minimum elong	15195 Feb 01 13:43	25° ≈ 33'49	0°07'54		15199 Nov 18 10:53	0∘ ত	
behind sun begin	15195 Jan 31 18:11	25°≈00'16		asc. node	15199 Dec 09 17:47	14° △ 35'28	
behind sun end	15195 Feb 02 09:15	26° ≈ 07'19			15200 Jan 01 08:34	0°M	
desc. node	15195 Feb 08 01:20 15195 Feb 13 10:08	0° \ 3° \ 38'58		retrograde	15200 Feb 16 21:28 15200 Apr 25 03:19	0° द्र ⁷ 25° द्र ⁷ 07'49	
max. Earth dist.	15195 Mar 01 11:48	14° ∺ 27'11	2.57905 AU	min. Earth dist.	15200 Apr 25 03:19 15200 May 21 01:24	20° x ⁷ 44'36	0.39455 AU
morning rise	15195 Mar 23 15:15	29° \ 03'15	2.57705 110	greatest brilliancy	15200 May 26 09:41	19° ∡ 07'50	-2.8m
3	15195 Mar 25 02:04	0° Ƴ		opposition	15200 May 27 20:17	18° ∡ ¹41'34	
	15195 May 11 02:58	9° 8		direct	15200 Jun 26 23:40	13° ∡ 14'44	
	15195 Jun 29 06:44	Π °0			15200 Aug 24 02:29	ರ∘ರ	
	15195 Aug 20 20:42	0°9		desc. node	15200 Oct 05 07:55	22° る 25'53	
	15195 Oct 25 02:49	0°N			15200 Oct 18 11:16	0° ≈	
retrograde	15195 Dec 01 05:06	6° £ 56'31			15200 Dec 07 18:14	0° ℋ 0° Ƴ	
opposition	15196 Jan 04 07:25 15196 Jan 05 20:32	30°Rഇ 29° ഇ 26'34	3002112		15201 Jan 25 21:30 15201 Mar 15 08:16	0° ∀	
greatest brilliancy	15196 Jan 06 21:10	29° 5 04'12		evening set	15201 Mai 15 08:10 15201 Apr 09 02:29	15° 8 33'04	
min. Earth dist.	15196 Jan 14 02:42	26°\$27'13		evening set	15201 May 01 19:44	0°Ⅱ	
direct	15196 Feb 13 18:32	20°518'30		max. Earth dist.	15201 May 08 15:35		2.65571 AU
asc. node	15196 Mar 05 08:30	23° © 03'15			-		
	15196 Mar 25 07:31	$0^{\circ}\Omega$		conjunction	15201 May 22 23:28	13° Ⅱ 38′29	
	15196 May 17 03:31	0° m)		minimum elong	15201 May 22 23:59	13° Ⅱ 39′20	1°11'51
	15196 Jun 28 07:40	0∘ 亚			15201 Jun 16 22:19	0°©	
	15196 Aug 06 21:08	0°M 0°. ₹		morning rise	15201 Jul 06 20:10	13°©17'15	
	15196 Sep 15 03:59 15196 Oct 25 10:15	0°る			15201 Jul 31 09:45 15201 Sep 12 03:58	0° N 0° N	
	15196 Dec 06 08:22	0°≈			15201 Sep 12 05.38 15201 Oct 23 08:08	0∘ ত المار	
desc. node	15196 Dec 31 01:14	17° ≈ 04'03		asc. node	15201 Oct 26 12:45	2° ⊆ 22'09	
	15197 Jan 19 04:13	0° ∺			15201 Dec 02 07:29	0°M	
evening set	15197 Jan 25 12:38	4°){ 14'47			15202 Jan 10 21:16	0° ∡ 7	

	15202 Feb 20 12:23	ე∘ჳ			15207 Mar 01 13:38	0°Щ	
	15202 Apr 06 12:13	0° ≈			15207 Apr 19 21:07	0°©	
retrograde	15202 Jun 17 15:34	26° ≈ 36'56			15207 Jun 03 02:51	0°N	
min. Earth dist.	15202 Jul 18 10:54	20° ≈ 07'28	0.52911 AU	asc. node	15207 Jun 17 11:15	10° Ω 16′02	
opposition	15202 Jul 26 01:10	17° ≈ 15'30	1°24'26		15207 Jul 14 04:40	0° m)	
greatest brilliancy	15202 Jul 25 15:55	17° ≈ 24'15	-2.0m		15207 Aug 22 05:30	0∘ <u>⊽</u>	
desc. node	15202 Aug 23 17:19	9° ≈ 48'10		evening set	15207 Aug 25 06:29	2° ≏ 22'55	
direct	15202 Aug 30 11:28	9° ≈ 30'12			15207 Sep 29 04:35	0° M	
	15202 Nov 07 19:57	0° ∀					
	15203 Jan 03 19:58	0 ° Υ		conjunction	15207 Nov 06 00:34	29° M 59'47	1°07'23
	15203 Feb 24 01:56	9° 8		minimum elong	15207 Nov 06 00:11	29°M59'03	1°08'09
	15203 Apr 13 12:38	0°Щ			15207 Nov 06 00:40	0° ∡ ¹	
evening set	15203 May 15 04:39	20° ∏ 27'15			15207 Dec 14 15:23	0°ಕ	
T	15203 May 29 14:29	0°©	2 552 62 4 7 7	max. Earth dist.	15207 Dec 29 04:05		2.39251 AU
max. Earth dist.	15203 Jun 03 05:28	3°905'43	2.57269 AU	morning rise	15208 Jan 15 08:38	23° る 48'12	
conjunction	15203 Jul 01 07:40	22° © 15'31	0045101		15208 Jan 23 19:42 15208 Mar 06 05:25	0° ≈ 0° ∀	
minimum elong	15203 Jul 01 07:40	22° © 18'21		desc. node	15208 Mai 00 05.25 15208 Apr 14 15:47	26° ∺ 15'59	
minimum ciong	15203 Jul 12 09:58	0°Ω	0 43 34	desc. Hode	15208 Apr 14 15.47 15208 Apr 20 11:15	20 γ (13 39	
morning rise	15203 Aug 22 08:00	29° Ω 24'57			15208 Jun 08 16:33	0°8	
morning rise	15203 Aug 23 03:04	0° m)			15208 Aug 06 01:01	0°II	
asc. node	15203 Sep 13 02:06	15° m/35'23		retrograde	15208 Oct 01 21:00	14° Ⅱ 27'03	
	15203 Oct 02 02:25	0∘ <u>⊽</u>		opposition	15208 Nov 10 14:33	5° Ⅱ 16′20	-4°53'21
	15203 Nov 09 21:08	0° M		greatest brilliancy	15208 Nov 11 04:17	5° Ⅱ 02'56	-1.3m
	15203 Dec 18 05:42	0° ∡ ¹		min. Earth dist.	15208 Nov 14 02:31	3° Ⅱ 54'23	0.66436 AU
	15204 Jan 26 03:56	5°0			15208 Nov 24 18:15	30° ₹ 8	
	15204 Mar 06 22:57	0° ≈		direct	15208 Dec 22 04:09	25° 8 13'42	
	15204 Apr 20 20:13	0° ∀			15209 Jan 20 18:30	Π °0	
	15204 Jun 17 16:24	0° Υ			15209 Mar 25 22:19	0ංම	
desc. node	15204 Jul 10 23:42	6° Ƴ 38'04		asc. node	15209 May 04 13:01	25° © 03'41	
retrograde	15204 Jul 25 14:01	7° ℃ 57'41			15209 May 11 19:23	0° Q	
· E d ti d	15204 Aug 29 21:56	30° ₹ ₩	0.62040 ATT		15209 Jun 22 14:03	0° m)	
min. Earth dist.	15204 Aug 30 20:10	29° X 38'12 27° X 57'42	0.63848 AU		15209 Jul 31 18:48	ი∘ ო 0∘ ⊽	
opposition greatest brilliancy	15204 Sep 04 01:42 15204 Sep 03 16:22	28° X 06'57			15209 Sep 07 19:56 15209 Oct 15 20:38	0° ™ 0° <i>⊀</i> 7	
direct	15204 Oct 13 02:38	18°) 53'14	-1.5111	evening set	15209 Nov 10 08:40	19° ∡ 45'33	
ancer	15204 Dec 01 02:27	0°Υ		evening sec	15209 Nov 23 19:30	0°る	
	15205 Jan 31 22:39	0°8			15210 Jan 03 09:41	0° ≈	
	15205 Mar 24 02:44	0°II					
	15205 May 09 21:43	0 \circ \odot		conjunction	15210 Jan 12 13:29	6° ≈ 34'16	0°29'24
	15205 Jun 22 13:32	$0^{\circ}\Omega$		minimum elong	15210 Jan 12 15:17	6° ≈ 37'28	0°30'11
evening set	15205 Jun 25 22:12	2° Ω 23′23			15210 Feb 15 01:55	0° ∀	
max. Earth dist.	15205 Jul 09 15:24	12° Ω 15′06	2.44436 AU	max. Earth dist.	15210 Feb 17 17:19	1° ¥ 48′23	2.53316 AU
asc. node	15205 Jul 30 15:31	27° Ω 41'51		desc. node	15210 Mar 02 03:44	10° ∺ 14'09	
	15205 Aug 02 17:34	0° m		morning rise	15210 Mar 07 14:55	13° ¥ 54'13	
					15210 Apr 01 00:29	0° Υ	
conjunction	15205 Aug 21 19:11	14° mp 24'11			15210 May 18 07:48	0°B	
minimum elong behind sun begin	15205 Aug 21 17:59 15205 Aug 21 07:57	14° Mp 21'53	0°15'00		15210 Jul 07 14:06 15210 Sep 02 04:11	0° Ⅱ 0° ©	
behind sun begin	15205 Aug 21 07.57 15205 Aug 22 04:01	14° Mp 02'45		ratragrada	15210 Sep 02 04.11 15210 Nov 11 21:22	0 9 20°937'17	
bening sun end	15205 Aug 22 04.01 15205 Sep 11 01:21	14° ™ 41'01 0° ⊆		retrograde opposition	15210 Nov 11 21:22 15210 Dec 19 01:22	20 93717 12°930'16	1003146
	15205 Oct 19 06:28	0° m		greatest brilliancy	15210 Dec 20 04:06	12°905'09	
morning rise	15205 Oct 19 00:28 15205 Oct 29 16:55	8°M15'38		min. Earth dist.	15210 Dec 26 05:20	9°9548'56	0.57547 AU
morning not	15205 Nov 26 05:00	0° ∡ 7		direct	15211 Jan 28 06:37	2°951'04	0.575.77.110
	15206 Jan 03 18:40	0°ెవ		asc. node	15211 Mar 22 19:41	17° © 59'45	
	15206 Feb 12 21:51	0° ≈			15211 Apr 13 23:08	$0^{\circ}\Omega$	
	15206 Mar 27 15:32	0°) €			15211 May 29 16:45	0° m	
	15206 May 13 15:54	$0^{\circ}\Upsilon$			15211 Jul 09 05:58	0० ⊽	
desc. node	15206 May 28 23:58	8° Y 53'55			15211 Aug 17 01:11	0° M ₊	
	15206 Jul 10 09:16	0°8			15211 Sep 24 18:21	0° ∡ ′	
retrograde	15206 Aug 28 21:19	11° 8 51'46			15211 Nov 03 11:40	0°ප	
opposition	15206 Oct 08 15:45	2° 8 04'40			15211 Dec 14 21:24	0° ≈	
min. Earth dist.	15206 Oct 08 05:56		0.68549 AU	evening set	15212 Jan 08 14:00	17°≈14'38	
greatest brilliancy	15206 Oct 08 12:56	2° 8 07'27	-1.2m	desc. node	15212 Jan 17 18:33	23°≈32'53	
direct	15206 Oct 13 22:53 15206 Nov 18 16:49	30°₹ Υ 22° Υ 18'15			15212 Jan 27 06:29	0° ∀	
direct	15206 Nov 18 16:49 15206 Dec 28 06:02	0° 8		conjunction	15212 Feb 28 06:46	21° ¥ 19'51	-0°24'16
	13200 DCC 20 00.02	v O		conjunction	132121100 20 00.40	21 八 1731	J 27 10

minimum elong	15212 Feb 28 05:49	21° ¥ 18′18	0°24'01	retrograde	15217 May 30 09:51	6° ≈ 14'16	
P 4 F 4	15212 Mar 12 12:58	0° Υ	2 (2420 444	min. Earth dist.	15217 Jun 27 18:25	0°≈39'07	0.47441 AU
max. Earth dist.	15212 Mar 16 14:30	2° Y 38'25 21° Y 07'57	2.63439 AU	araataat brillianay	15217 Jun 29 15:11	30°Rる 28°る01'24	-2.3m
morning rise	15212 Apr 14 09:19 15212 Apr 28 08:59	0° 8		greatest brilliancy opposition	15217 Jul 05 03:37 15217 Jul 06 02:54	28 301 24 27° 3 40'32	3°23'02
	15212 Jun 15 11:02	0°II		direct	15217 Jul 00 02:34 15217 Aug 08 15:21	20° ප් 43'06	3 23 02
	15212 Aug 03 21:27	0 . ಕ		desc. node	15217 Sep 09 04:06	26° ට 13'00	
	15212 Sep 24 22:22	$0^{\circ}\Omega$			15217 Sep 20 00:47	0° ≈	
	15212 Nov 26 09:25	0° m)			15217 Nov 21 02:18	0° ∀	
retrograde	15213 Jan 06 05:56	8° m/33'32			15218 Jan 12 14:46	$0^{\circ}\Upsilon$	
opposition	15213 Feb 07 21:46	2° m 21'11	0°02'48		15218 Mar 03 11:02	0°B	
asc. node	15213 Feb 07 04:24	2°m/35'14			15218 Apr 20 10:09	0°II	
greatest brilliancy	15214 Apr 30 08:12	12° 8 43'51	1.6m	evening set	15218 Apr 30 17:04	6° Ⅱ 35'34	2 (1127 AII
min. Earth dist.	15213 Feb 15 04:15 15213 Feb 16 07:37	30°R Л 29° Л 38'29	0.43718 AU	max. Earth dist.	15218 May 23 15:33 15218 Jun 05 11:07	21° ∏ 31'01 0° ©	2.61137 AU
direct	15213 Mar 15 08:04	24° Ω 48'56	0.43710 AO		13216 Juli 03 11.07	0 3	
	15213 Apr 12 07:58	0° m)		conjunction	15218 Jun 15 00:35	6°\$23'57	-0°59'01
	15213 Jun 07 09:52	0∘ ⊽		minimum elong	15218 Jun 15 01:57	6° © 26'15	0°59'58
	15213 Jul 20 10:10	0°M		_	15218 Jul 19 11:43	$0^{\circ}\Omega$	
	15213 Aug 30 14:29	0° ∡ ¹		morning rise	15218 Aug 02 08:16	9° Ω 44'10	
	15213 Oct 11 06:37	0°ಕ			15218 Aug 30 13:10	0° ™	
	15213 Nov 23 08:26	0° ≈		asc. node	15218 Sep 29 22:23	22° Tp 29'04	
desc. node	15213 Dec 04 14:42	7°≈39'33 0°¥			15218 Oct 09 21:44	0°. 0°.	
evening set	15214 Jan 07 01:39 15214 Feb 19 07:53	28° ∺ 08'54			15218 Nov 18 01:03 15218 Dec 26 17:09	0°11に 0° ス 7	
evening set	15214 Feb 22 04:59	28 γ (08 54 0° γ			15219 Feb 04 00:05	0° ਠ	
	13211100 22 01.37	0 1			15219 Mar 17 13:09	0° ≈	
conjunction	15214 Apr 05 12:54	27° Ƴ 00′27	-0°59'57		15219 May 04 01:38	0° ∀	
minimum elong	15214 Apr 05 11:45	26° Ƴ 58'37	1°00'17	retrograde	15219 Jul 12 08:26	23° ¥ 26′01	
max. Earth dist.	15214 Apr 08 19:08	29° Ƴ 04'33	2.68169 AU	desc. node	15219 Jul 28 12:09	21°) ₹35′25	
	15214 Apr 10 06:06	0° 8		min. Earth dist.	15219 Aug 15 15:38		0.60244 AU
morning rise	15214 May 18 17:39	24° 8 22'47		opposition	15219 Aug 21 07:27	13°) €31'35	
	15214 May 27 14:32	0° ©		greatest brilliancy	15219 Aug 21 01:31	13°) € 37'25 4°) € 52'22	-1.7m
	15214 Jul 13 19:23 15214 Aug 29 15:27	0°Ω		direct	15219 Sep 28 03:14 15219 Dec 17 06:19	4°π32′22 0° Υ	
	15214 Aug 25 15:27 15214 Oct 15 04:08	0° m)			15220 Feb 10 18:53	0°8	
	15214 Nov 30 23:42	0∘ ⊽			15220 Mar 31 13:48	0°II	
asc. node	15214 Dec 26 09:45	15° ≏ 46'51			15220 May 17 00:02	0ಂಣ	
	15215 Jan 19 19:27	0°M₊		evening set	15220 Jun 07 22:08	14° 9 50'06	
retrograde	15215 Mar 28 10:58	23°M12'58		max. Earth dist.	15220 Jun 22 05:50	24° © 45'54	2.49896 AU
min. Earth dist.	15215 Apr 24 23:10	18°M44'54	0.36586 AU		15220 Jun 29 16:30	0 \circ Ω	
opposition	15215 Apr 27 09:05	18°M06'11	7°07'12		15220 Il 20 20.12	210 (742)20	0912101
greatest brilliancy direct	15215 Apr 26 18:45 15215 May 26 09:39	18°M 15'47 13°M 16'59	-3.0m	conjunction minimum elong	15220 Jul 29 20:13 15220 Jul 29 21:00	21° Ω 43'29 21° Ω 44'55	
direct	15215 Jul 21 14:16	0° ∡ 7		behind sun begin	15220 Jul 29 06:07	21° Ω 17'38	0 12 40
	15215 Sep 12 09:56	0°ರ		behind sun end	15220 Jul 30 11:53	22° Ω 12'13	
desc. node	15215 Oct 22 18:08	25° ට 03'08			15220 Aug 10 01:03	0° m)	
	15215 Oct 30 15:16	0° ≈		asc. node	15220 Aug 16 11:50	4° M 48'45	
	15215 Dec 17 09:02	0° ∀			15220 Sep 18 14:07	0∘ ত	
	15216 Feb 03 07:11	0° Υ		morning rise	15220 Sep 29 00:19	8° Ω 04'52	
ovening get	15216 Mar 22 04:26	0° と 2° と 44'04			15220 Oct 26 23:34	0° ጤ 0° ዶ	
evening set max. Earth dist.	15216 Mar 26 12:43 15216 Apr 29 15:31		2.67373 AU		15220 Dec 04 00:38 15221 Jan 11 15:32	0°る	
max. Butti dist.	15216 May 08 12:22	0°II	2.07373110		15221 Feb 20 21:07	0° ≈	
					15221 Apr 05 00:52	0° ∀	
conjunction	15216 May 09 04:05	0° Ⅲ 25′09	-1°12'51		15221 May 23 19:39	0° Y	
minimum elong	15216 May 09 04:01	0° Ⅱ 25′03	1°13'38	desc. node	15221 Jun 14 14:13	11° Y 23'08	
morning rise	15216 Jun 21 20:25	28° ∏ 43'06		retrograde	15221 Aug 15 17:52	29° Υ 18'49	
	15216 Jun 23 19:14	0∘©		min. Earth dist.	15221 Sep 23 15:11	20° Y ′09'08	0.67510 AU
	15216 Aug 07 17:20 15216 Sep 20 03:20	0° Ω 0° ™		opposition greatest brilliancy	15221 Sep 25 13:26 15221 Sep 25 06:10	19° Y 23'14 19° Y 30'27	
	15216 Sep 20 03.20 15216 Nov 01 02:47	0∘ ⊽		direct	15221 Sep 23 06.10 15221 Nov 04 23:55	9° Υ 50'04	11.5.11
asc. node	15216 Nov 12 06:21	ა <u>—</u> 8° ჲ 07'10			15222 Jan 13 20:46	0° 8	
	15216 Dec 12 00:13	0° M			15222 Mar 10 15:11	0°П	
	15217 Jan 21 18:06	0° ∡ ¹			15222 Apr 27 15:06	0°€	
	15217 Mar 05 14:26	8°0			15222 Jun 10 13:18	$0^{\circ}\Omega$	
	15217 Apr 29 14:52	0° ≈		asc. node	15222 Jul 04 03:30	17° Ω 00'59	

15227 Feb 11 18:01

15227 Feb 11 17:49

conjunction

minimum elong

5°\(\)\(43'02\)\(-0°05'03\)

5°\ 42'42 0°04'33

retrograde

min. Earth dist.

15232 Mar 26 21:27

15232 May 09 02:12

15232 Jun 04 09:15

0°궁

11°る41'58

6°る59'46 0.42013 AU

		_					
greatest brilliancy	15232 Jun 10 22:43	4° ප 52'45		evening set	15237 Jul 07 03:23	13° Ω 52'41	
opposition	15232 Jun 12 09:25	4° る 24'33	5°32'12	asc. node	15237 Jul 20 21:45	23° Ω 59'18	
	15232 Jun 28 07:10	30°₹ ⋌ 7		max. Earth dist.	15237 Jul 22 22:00	25° Ω 28'47	2.41398 AU
direct	15232 Jul 13 16:12	28° ∡ ¹25'22			15237 Jul 28 23:28	0° m y	
	15232 Jul 29 15:54	0°ප					
desc. node	15232 Sep 25 13:52	22° る 29'29		conjunction	15237 Sep 05 11:03	29° m 23'45	0°31'40
	15232 Oct 09 20:33	0° ≈		minimum elong	15237 Sep 05 08:21	29° m 18'30	0°31'31
	15232 Dec 01 13:39	0° ₩			15237 Sep 06 05:42	0∘ ত	
	15233 Jan 20 15:58	0 ° Υ			15237 Oct 14 09:13	0° M ₊	
	15233 Mar 10 13:09	0° ႘		morning rise	15237 Nov 17 01:38	26°ML41'02	
evening set	15233 Apr 16 21:06	23° 8 26'01		. 8	15237 Nov 21 06:30	0° ∡ ¹	
8	15233 Apr 27 04:23	0°II			15237 Dec 29 19:04	0°ප	
max. Earth dist.	15233 May 13 23:38		2.64221 AU		15238 Feb 07 20:38	0° ≈	
max. Lartii dist.	13233 Way 13 23.30	10 11-10 33	2.04221710		15238 Mar 22 09:15	0° ₩	
conjunction	15233 May 31 02:17	21° Ⅱ 57'55	1007!56		15238 May 07 16:26	0° Υ	
minimum elong	15233 May 31 02:17 15233 May 31 03:07	21° I I59'18		desc. node	15238 May 19 03:05	6° Y ′53'47	
minimum clong		21 π 3918	1 08 31	desc. node	•	0 1 33 47 0° と	
	15233 Jun 12 06:32				15238 Jun 30 17:03		
morning rise	15233 Jul 15 22:02	22°539'43		retrograde	15238 Sep 05 11:23	19° 8 27'32	
	15233 Jul 26 14:10	0 $^{\circ}\Omega$		opposition	15238 Oct 16 02:39	9° 8 46'26	
	15233 Sep 07 02:31	0° m)		greatest brilliancy	15238 Oct 16 02:57	9° 8 46'08	
asc. node	15233 Oct 16 17:44	29° m 04'41		min. Earth dist.	15238 Oct 16 12:47	9° 8 36'25	0.68668 AU
	15233 Oct 17 23:22	0∘ ⊽			15238 Nov 22 12:12	30° ŖƳ	
	15233 Nov 26 14:53	0° M ₊		direct	15238 Nov 26 09:12	29° Ƴ 54'27	
	15234 Jan 04 19:03	0° ∡ ¹			15238 Nov 30 07:50	9° 8	
	15234 Feb 13 18:04	0°ප			15239 Feb 22 19:54	Π °0	
	15234 Mar 28 20:40	0°≈			15239 Apr 14 11:15	0 \circ \odot	
	15234 May 23 12:12	0° ∀			15239 May 29 02:11	$0^{\circ}\Omega$	
retrograde	15234 Jun 27 00:36	7° ₩ 16'10		asc. node	15239 Jun 07 17:21	6° Ω 50′01	
min. Earth dist.	15234 Jul 29 03:11	0° ₩ 19'29	0.55704 AU		15239 Jul 09 06:55	0° m y	
	15234 Jul 29 23:44	30°R≈			15239 Aug 17 08:20	0∘ ⊽	
opposition	15234 Aug 05 02:32	27° ≈ 38'31	0°25'06	evening set	15239 Sep 10 23:52	19° £ 25'27	
greatest brilliancy	15234 Aug 04 23:57	27° ≈ 41'00	-1.9m	8.11	15239 Sep 24 07:38	0° M	
desc. node	15234 Aug 13 23:16	24° ≈ 24'13			15239 Nov 01 04:04	0° ∡ ¹	
direct	15234 Sep 10 10:31	19° ≈ 31'48			102371101 01 01.01	· .	
direct	15234 Oct 27 01:31	0° \		conjunction	15239 Nov 23 07:26	17° ∡ 18'25	1°05'16
	15234 Dec 28 09:30	0° Υ		minimum elong	15239 Nov 23 09:18	17° 🗷 10°23	1°06'09
	15235 Feb 18 20:23	0°8		minimum clong	15239 Nov 23 09:18 15239 Dec 09 19:19	17 × 22 01 0°る	1 00 09
		0°II		max. Earth dist.			2.42343 AU
. ,	15235 Apr 08 17:29			max. Earth dist.	15240 Jan 15 03:18		2.42343 AU
evening set	15235 May 23 19:20	29° Ⅱ 14'41			15240 Jan 19 00:13	0°≈	
n d r	15235 May 24 22:31	0°©	2.54010.411	morning rise	15240 Jan 28 17:27	7°≈01'53	
max. Earth dist.	15235 Jun 09 22:28	10°5946'43	2.54818 AU		15240 Mar 01 09:12	0° ∺	
	15235 Jul 07 17:10	0 $^{\circ}$ Ω		desc. node	15240 Apr 04 18:16	23°) €04'29	
					15240 Apr 15 10:15	0° Υ	
conjunction	15235 Jul 11 07:40	2° Ω 32'26			15240 Jun 02 22:15	0° 8	
minimum elong	15235 Jul 11 09:14	2° Ω 35'12	0°35'21		15240 Jul 27 23:47	Π °0	
	15235 Aug 18 07:32	0° m)		retrograde	15240 Oct 10 05:35	22° II 21'23	
asc. node	15235 Sep 03 06:43	11° Mp 53'25		opposition	15240 Nov 18 12:50	13° Ⅱ 21'33	
morning rise	15235 Sep 04 01:38	12°Mp28'56		greatest brilliancy	15240 Nov 19 06:18	13° Ⅱ 04'34	-1.4m
	15235 Sep 27 03:14	0∘ 亚		min. Earth dist.	15240 Nov 22 20:36	11° Ⅱ 40'44	0.65056 AU
	15235 Nov 04 18:36	0° M ₊		direct	15240 Dec 29 23:35	3° Ⅱ 19'31	
	15235 Dec 13 00:06	0° ∡ ¹			15241 Mar 18 13:27	0 \circ \odot	
	15236 Jan 20 18:38	0°₹		asc. node	15241 Apr 24 20:29	22° © 36'20	
	15236 Mar 01 06:34	0° ≈			15241 May 05 23:54	$0^{\circ}\Omega$	
	15236 Apr 14 06:12	0° ₩			15241 Jun 17 05:25	0° m	
	15236 Jun 05 19:27	$0^{\circ}\Upsilon$			15241 Jul 26 14:11	0∘ ⊽	
desc. node	15236 Jul 01 05:22	10° Y 26'33			15241 Sep 02 17:40	0° M .	
retrograde	15236 Aug 02 09:18	16° Υ 14'50			15241 Oct 10 20:33	0° ∡ 7	
min. Earth dist.	15236 Sep 08 15:02		0.65423 AU		15241 Nov 18 21:49	0°ਰ	
opposition	15236 Sep 12 01:19	6° Y 14'58		evening set	15241 Nov 25 12:38	⁰ ਰ 4°ਰ58'21	
greatest brilliancy	15236 Sep 12 01:17	6° Υ 24'25		- , cg set	15241 Dec 29 14:37	0°≈	
51 carest offiliality	15236 Sep 29 21:06	30° R ₩	1.1111		10211 200 27 17.37	U / U	
direct	15236 Sep 29 21.06 15236 Oct 21 15:50	30 KX 26° X 59'11		conjunction	15242 Jan 24 05:15	18° ≈ 09'08	0°16'35
uncci		26° π 39'11 0° Υ		•			
	15236 Nov 14 09:55			minimum elong	15242 Jan 24 06:14	18°≈10'50	0 1/10
	15237 Jan 25 09:29	0° Β		dana 1	15242 Feb 10 08:42	0°) {	
	15237 Mar 18 20:32	0°II		desc. node	15242 Feb 20 07:01	6°¥45′26	
	15237 May 05 01:15	0°©		max. Earth dist.	15242 Feb 24 18:19		2.55946 AU
	15237 Jun 17 19:41	$0^{\circ}\Omega$		morning rise	15242 Mar 16 21:37	23° ∺ 11′22	

	15242 Mar 27 06:59	0°Υ			15247 Sep 02 10:39	ი∘ჳ	
	15242 May 13 08:52	0°8		desc. node	15247 Oct 13 01:17	23° る 33'28	
	15242 Jul 01 21:29	0°II		desc. Hode	15247 Oct 13 01:17 15247 Oct 23 17:41	0° ≈	
	15242 Aug 24 18:42	0°©			15247 Dec 11 17:29	0° ∀	
	15242 Nov 17 23:00	0° Ω			15248 Jan 29 06:34	0° Υ	
retrograde	15242 Nov 22 11:28	0° Ω 07'21			15248 Mar 17 11:00	0°8	
	15242 Nov 26 21:52	30°Rூ		evening set	15248 Apr 03 06:47	10° 8 34'17	
opposition	15242 Dec 28 20:20	22° © 19'30	-3°32'09	C	15248 May 03 21:15	0°II	
greatest brilliancy	15242 Dec 29 22:35	21° © 55'13	-1.9m	max. Earth dist.	15248 May 04 18:37	0° Ⅱ 34'11	2.66486 AU
min. Earth dist.	15243 Jan 05 15:56	19° © 26'34	0.54826 AU		•		
direct	15243 Feb 06 09:42	12° © 55'14		conjunction	15248 May 16 23:46	8° Ⅲ 24'57	-1°12'18
asc. node	15243 Mar 13 05:37	20° © 07'52		minimum elong	15248 May 17 00:01	8° Ⅲ 25′22	1°13'09
	15243 Apr 04 00:30	$0^{\circ}\Omega$			15248 Jun 19 02:29	0 \circ \odot	
	15243 May 22 19:32	0° m		morning rise	15248 Jun 30 05:36	7° 5 22'16	
	15243 Jul 03 04:12	0∘ ⊽			15248 Aug 02 19:19	0 $^{\circ}$ Ω	
	15243 Aug 11 08:29	0° M			15248 Sep 14 21:10	0° m)	
	15243 Sep 19 08:06	0° ∡ ¹			15248 Oct 26 09:53	0∘ ত	
	15243 Oct 29 07:02	0°ප		asc. node	15248 Nov 02 12:37	5° ≏ 14'13	
	15243 Dec 09 22:11	0° ≈			15248 Dec 05 18:24	0° M	
desc. node	15244 Jan 07 21:15	20° ≈ 05′23			15249 Jan 14 18:18	0° ∡ ¹	
evening set	15244 Jan 19 00:36	27° ≈ 39'39			15249 Feb 25 01:36	0°ಕ	
	15244 Jan 22 11:46	0° ∀			15249 Apr 13 06:46	0° ≈	
	15244 Mar 07 20:58	0° Y		retrograde	15249 Jun 10 01:07	18° ≈ 42'14	
				min. Earth dist.	15249 Jul 09 18:46	12° ≈ 36′09	0.50506 AU
conjunction	15244 Mar 08 01:31	0° Y ′07'24		opposition	15249 Jul 17 18:47	9° ≈ 38'36	2°12'42
minimum elong	15244 Mar 08 00:21	0° Y 05'30		greatest brilliancy	15249 Jul 17 03:42	9° ≈ 52'36	-2.1m
max. Earth dist.	15244 Mar 22 00:36	9° Y ′09'15	2.64952 AU	direct	15249 Aug 21 08:48	2°≈13'16	
morning rise	15244 Apr 22 04:34	29° Y ′03′20		desc. node	15249 Aug 30 10:55	2°≈44'00	
	15244 Apr 23 16:21	0°B			15249 Nov 13 01:15	0°) €	
	15244 Jun 10 12:23	0°II			15250 Jan 06 19:33	0° Υ	
	15244 Jul 29 06:11	0°©			15250 Feb 26 10:17	0° B	
	15244 Sep 17 12:00	0° N			15250 Apr 15 16:31	0° П 14° П 54'22	
	15244 Nov 11 04:59	0°M)		evening set	15250 May 08 20:51		2.59100 AU
retrograde asc. node	15245 Jan 22 07:09 15245 Jan 28 13:22	22° m/34'58 22° m/19'59		max. Earth dist.	15250 May 29 16:11 15250 May 31 19:08	28 п 33 14 0° ©	2.39100 AU
opposition	15245 Feb 22 15:29	16° Mp 54'03	1°42'58		13230 May 31 19.06	0 39	
greatest brilliancy	15245 Feb 23 02:28	16° m/ 45'40	-2.7m	conjunction	15250 Jun 24 02:03	15° © 42'53	-0°51'35
min. Earth dist.	15245 Mar 02 01:48	14° m ₂ 38'27	0.40870 AU	minimum elong	15250 Jun 24 03:36	15°9545'33	0°52'31
direct	15245 Mar 28 10:17	10° m) 09'22	0.40070710	minimum ciong	15250 Jul 14 17:58	0°Ω	0 3231
	15245 May 26 09:55	0° ⊽		morning rise	15250 Aug 13 06:24	20° Ω 59'04	
	15245 Jul 12 04:40	0° M ,			15250 Aug 25 15:56	0° m)	
	15245 Aug 23 18:47	0° ∡ ¹		asc. node	15250 Sep 20 02:57	18° m) 52'51	
	15245 Oct 05 06:47	ರ°0			15250 Oct 04 20:05	0∘ <u>⊽</u>	
	15245 Nov 17 22:22	0° ≈			15250 Nov 12 18:57	0°M	
desc. node	15245 Nov 24 18:45	4° ≈ 36'59			15250 Dec 21 06:35	0° ∡ ⊓	
	15246 Jan 02 01:18	0°)			15251 Jan 29 07:14	ರ°ರ	
	15246 Feb 17 10:57	0° Y			15251 Mar 11 07:02	0° ≈	
evening set	15246 Feb 27 17:11	6° Ƴ 33'19			15251 Apr 25 21:38	0° ∀	
	15246 Apr 05 14:45	0° 8			15251 Jun 30 23:35	0° Y	
				desc. node	15251 Jul 18 17:38	2° Y 21'06	
conjunction	15246 Apr 13 07:10	4° 8 52'06		retrograde	15251 Jul 20 13:28	2° Y 22'27	
minimum elong	15246 Apr 13 06:10	4° 8 50'31			15251 Aug 08 01:47	30° ₹	
max. Earth dist.	15246 Apr 13 18:20		2.68474 AU	min. Earth dist.	15251 Aug 24 23:04	24°) 19'44	
	15246 May 22 22:03	0°Щ		opposition	15251 Aug 29 20:37	22°) 23′45	
morning rise	15246 May 26 07:21	2° Ⅱ 09'17		greatest brilliancy	15251 Aug 29 12:01	22°) 32′15	-1.6m
	15246 Jul 08 20:41	0°99		direct	15251 Oct 07 09:35	13° ¥ 29'57	
	15246 Aug 24 03:39	0° N			15251 Dec 08 05:59	0° Υ	
	15246 Oct 08 17:27	0° Mp			15252 Feb 04 22:36	0° B	
1	15246 Nov 22 19:16	0° ⊽			15252 Mar 26 12:51	0°T	
asc. node	15246 Dec 16 16:19	15° ≏ 49'40		avanis =t	15252 May 12 05:24	0°©	
	15247 Jan 07 11:51	0° ™ 0° <i>⊀</i> 7		evening set	15252 Jun 17 20:39	25° © 00'44 0° Ω	
ratrograda	15247 Feb 28 14:42	0° × ′ 12° × ′00'56		max. Earth dist.	15252 Jun 24 22:44 15252 Jul 01 12:52		2.46911 AU
retrograde min. Earth dist.	15247 Apr 14 04:27 15247 May 10 09:10	7° × ⁷ 43'44	0.37815 AU	max. Earm dist.	15252 Jul 01 12:52 15252 Aug 05 05:59	4°3740'46 0°m)	2.40911 AU
greatest brilliancy	15247 May 10 09:10 15247 May 14 08:45			asc. node	15252 Aug 05 05:59 15252 Aug 06 15:43	1° Mg 02'52	
opposition	15247 May 14 08.43 15247 May 15 13:18	6° ₹ 15'21	-2.9m 7°06'29	asc. nouc	13232 Aug 00 13.43	1 HJV 04 34	
direct	15247 Jun 14 00:08	1°×1321	7 00 27	conjunction	15252 Aug 11 07:50	4° m/32'35	0°03'16
311000	1521, 3411 17 00.00	1 7 10 20		conjunction	10202 /1ug 11 0/.30	. ng 22 33	0 03 10

minimum elong	15252 Aug 11 07:35	4° Mp 32'08	0°02'47		15257 May 20 16:58	0°B	
behind sun begin	15252 Aug 10 06:57	3° Mp 45'57			15257 Jul 10 13:01	Π °0	
behind sun end	15252 Aug 12 08:14	5° Mp 18'22			15257 Sep 07 19:14	0 \circ	
	15252 Sep 13 16:51	0∘ ಹ		retrograde	15257 Nov 04 06:03	14° © 36'53	
greatest brilliancy	15252 Oct 11 05:23	21° ≏ 29'49	1.2m	opposition	15257 Dec 11 23:40	6°915'43	
morning rise	15252 Oct 15 18:01	25° £ 03'44		greatest brilliancy	15257 Dec 13 01:12	5° © 51'28	
	15252 Oct 22 00:16	0° M		min. Earth dist.	15257 Dec 18 13:10	3° 5 46'19	0.59568 AU
	15252 Nov 28 23:51	0° ∡ ¹			15257 Dec 29 14:49	30°RⅡ	
	15253 Jan 06 13:16	0°ಕ		direct	15258 Jan 21 14:25	26° Ⅱ 27'48	
	15253 Feb 15 16:00	0° ≈			15258 Feb 14 21:37	0 \circ \odot	
	15253 Mar 30 11:26	0° ∀		asc. node	15258 Mar 29 17:02	18° © 16'33	
	15253 May 16 23:30	$0^{\circ}\mathbf{\Upsilon}$			15258 Apr 18 20:38	0 $^{\circ}\Omega$	
desc. node	15253 Jun 04 19:26	10° Ƴ 34'35			15258 Jun 02 10:45	0° m)	
	15253 Jul 17 15:59	0° 8			15258 Jul 12 15:31	0∘ ⊽	
retrograde	15253 Aug 23 06:08	7° 8 01'21			15258 Aug 20 05:51	0° M	
	15253 Sep 25 19:28	30° ŖƳ			15258 Sep 27 18:25	0° ∡ ¹	
min. Earth dist.	15253 Oct 01 23:01	27° Ƴ 36′13	0.68212 AU		15258 Nov 06 06:19	0°ಕ	
opposition	15253 Oct 03 01:36	27° Y 09′52			15258 Dec 17 10:18	0° ≈	
greatest brilliancy	15253 Oct 02 20:31	27° Y 14'55	-1.3m	evening set	15258 Dec 31 02:13	9° ≈ 39'02	
direct	15253 Nov 12 21:00	17° Y 29'04		desc. node	15259 Jan 24 14:52	26°≈36'53	
	15254 Jan 04 06:10	0°8			15259 Jan 29 14:11	0° ∀	
	15254 Mar 04 17:35	0°II					
	15254 Apr 22 12:30	0° ©		conjunction	15259 Feb 21 08:16	15°) 16'55	
i	15254 Jun 05 16:15	0° Ω		minimum elong	15259 Feb 21 07:34	15° ¥ 15'45	
asc. node	15254 Jun 24 10:16	13° Ω 27'01		max. Earth dist.	15259 Mar 13 13:26	28° π 35'50 0° Υ	2.62037 AU
	15254 Jul 16 19:21	0° M)			15259 Mar 15 17:03	15° Υ 55'38	
evening set	15254 Aug 13 01:22	20° Mp 47'07 0° <u>₽</u>		morning rise	15259 Apr 09 08:54	0.8	
	15254 Aug 24 21:46 15254 Oct 01 21:50	0° ™			15259 May 01 12:30 15259 Jun 18 19:18	0°II	
	13234 Oct 01 21.30	O IIG			15259 Aug 07 20:16	0ಂಣ ೧ H	
conjunction	15254 Oct 22 22:57	16°ML43'13	1°05'02		15259 Aug 07 20:10 15259 Sep 30 16:00	0°Ω	
minimum elong	15254 Oct 22 20:38	16°ML38'37		retrograde	15259 Dec 26 20:02	29° Ω 31'50	
g	15254 Nov 08 17:45	0° ∡ 7	1 00 37	opposition	15260 Jan 29 10:59	22° Ω 54'42	-1°00'26
max. Earth dist.	15254 Dec 06 14:56		2.37029 AU	greatest brilliancy	15260 Jan 29 20:38	22°Ω46'32	
	15254 Dec 17 06:54	0°ਰ		min. Earth dist.	15260 Feb 07 04:15	19°Ω58'53	0.46224 AU
morning rise	15255 Jan 03 22:07	13° ට 22'18		asc. node	15260 Feb 15 01:37	17° Ω 37'06	
C	15255 Jan 26 08:58	0° ≈		direct	15260 Mar 06 02:33	14° Ω 48'20	
	15255 Mar 09 17:00	0° ∀			15260 Apr 26 02:51	0° m)	
desc. node	15255 Apr 22 12:54	29°) €03'54			15260 Jun 13 09:43	0∘ 亚	
	15255 Apr 24 00:06	0° Y			15260 Jul 24 22:59	0° M	
	15255 Jun 12 17:09	9° 8			15260 Sep 03 09:12	0° ∡ ¹	
	15255 Aug 13 08:12	$\Pi^{\circ}0$			15260 Oct 14 11:57	ರ∘ರ	
retrograde	15255 Sep 26 19:20	9° Ⅱ 30′00			15260 Nov 26 02:47	0° ≈	
opposition	15255 Nov 05 19:03	0° Ⅱ 11'07	-4°51'31	desc. node	15260 Dec 11 10:26	10° ≈ 29'26	
greatest brilliancy	15255 Nov 06 05:37	0° Ⅱ 00'45	-1.3m		15261 Jan 09 11:30	0°)	
	15255 Nov 06 06:23	30° ₹ 8		evening set	15261 Feb 12 19:05	22° ∺ 30′28	
min. Earth dist.	15255 Nov 08 14:00	29° 8 05'30	0.67310 AU		15261 Feb 24 09:06	0° Y	
direct	15255 Dec 17 08:48	20° 8 09'22					
	15256 Jan 30 20:34	Π \circ 0		conjunction	15261 Mar 30 15:03	21° Y 55'52	
	15256 Mar 29 13:26	0ංම		minimum elong	15261 Mar 30 13:49	21° Y ′53'53	
asc. node	15256 May 11 10:59	27°5541'06		max. Earth dist.	15261 Apr 05 04:07	25° Y 27′28	2.67743 AU
	15256 May 14 19:48	0°N			15261 Apr 12 07:42	0°8	
	15256 Jun 25 11:29	0° m)		morning rise	15261 May 13 01:41	19° 8 28'11	
	15256 Aug 03 15:29	0∘ ⊽			15261 May 29 17:43	0°II	
	15256 Sep 10 15:53	0°M 0°. 7			15261 Jul 16 04:51	0° ©	
ovening set	15256 Oct 18 14:54	0° ᡘ 7° ᡘ 50'10			15261 Sep 01 13:50	0° Ω 0° 0	
evening set	15256 Oct 28 15:29 15256 Nov 26 10:49	0°る			15261 Oct 19 02:33 15261 Dec 06 22:46	0ം ⊽	
	13230 INOV 20 10.49	v		asc. node	15261 Dec 06 22:46 15262 Jan 02 07:51	0° <u>≥</u> 2 15° <u>₽</u> 03'47	
conjunction	15257 Jan 02 19:36	27° る 46'14	0°38'49	ase. Houc	15262 Jan 02 07:31 15262 Feb 02 03:21	0°M	
minimum elong	15257 Jan 02 19:30 15257 Jan 02 22:02	27° ろ 50'39		retrograde	15262 Mar 14 04:17	9° ™ 10'37	
	15257 Jan 05 21:22	27 3 30 39 0° ≈	J J/ T1	opposition	15262 Apr 12 13:49	4°M18'38	6°31'11
max. Earth dist.	15257 Feb 12 00:14	26°≈16'03	2.51044 AU	greatest brilliancy	15262 Apr 12 13:08	4°M19'05	-3.0m
	15257 Feb 17 10:13	0° \		min. Earth dist.	15262 Apr 12 19:12	4°M15'06	
morning rise	15257 Feb 28 02:40	7° ¥ 17'35			15262 May 02 15:08	30° Ŗ Ω	
desc. node	15257 Mar 09 00:55	13°) 18'44		direct	15262 May 11 20:01	29° ≏ 25'43	
	15257 Apr 03 07:03	0° Y			15262 May 21 02:12	0° M.	

	15262 Jul 31 04:38	0° ∡ ¹			15267 Aug 13 12:50	0° m y	
	15262 Sep 17 11:46	8°0		asc. node	15267 Aug 24 12:33	8° m) 11'06	
desc. node	15262 Oct 29 12:19	27° る 01'09		morning rise	15267 Sep 18 01:19	26° Mp 47'22	
	15262 Nov 03 03:36	0° ≈			15267 Sep 22 05:37	0∘ 亚	
	15262 Dec 20 02:23	0° ∀			15267 Oct 30 17:50	0° M .	
	15263 Feb 05 14:05	0° Y			15267 Dec 07 20:33	0° ∡ ¹	
evening set	15263 Mar 21 16:07	27° Ƴ 44'03			15268 Jan 15 12:02	5°0	
<i>3</i>	15263 Mar 25 06:25	0°8			15268 Feb 24 18:20	0° ≈	
max. Earth dist.	15263 Apr 27 00:48		2.67911 AU		15268 Apr 08 02:57	0°) €	
		_, _,			15268 May 27 22:26	0°Υ	
conjunction	15263 May 04 08:39	25° 8 23'33	-1°12'30	desc. node	15268 Jun 21 09:11	11° Υ 55'18	
minimum elong	15263 May 04 08:21	25° 8 23'05		retrograde	15268 Aug 10 01:26	24° Υ 18'50	
minimum ciong	15263 May 11 13:56	0°II	1 13 13	min. Earth dist.	15268 Sep 17 05:23	15° Υ 23'00	0.66716 AU
	•	23° I I17'05			•	13 γ 23 00 14° γ 20'34	
morning rise	15263 Jun 16 17:01			opposition	15268 Sep 19 20:20		
	15263 Jun 27 00:05	ია ი		greatest brilliancy	15268 Sep 19 11:37	14° Y 29'12	-1.3m
	15263 Aug 11 04:51	0° N		direct	15268 Oct 29 22:59	4° Υ 54'41	
	15263 Sep 24 00:32	0° m)			15269 Jan 18 02:44	0°₽	
	15263 Nov 05 11:54	0∘ ত			15269 Mar 13 09:21	Π °0	
asc. node	15263 Nov 20 05:58	10° ≏ 36'35			15269 Apr 30 02:19	0ංම	
	15263 Dec 16 23:43	0° M ₊			15269 Jun 13 00:19	$0^{\circ}\Omega$	
	15264 Jan 27 13:36	0° ∡		asc. node	15269 Jul 11 03:13	20° £ 18'31	
	15264 Mar 12 07:00	8°0		evening set	15269 Jul 19 07:50	26° Ω 22'30	
retrograde	15264 May 21 14:01	26° ප 35'13			15269 Jul 24 04:23	0° m y	
min. Earth dist.	15264 Jun 17 21:51	21° る 24'32	0.44952 AU	max. Earth dist.	15269 Aug 09 23:49	12° m 42'44	2.38532 AU
greatest brilliancy	15264 Jun 25 01:50	18° ප 57'14	-2.4m		15269 Sep 01 09:43	0∘ ত	
opposition	15264 Jun 26 06:56	18° ට 32'06	4°19'12		1		
direct	15264 Jul 28 20:25	11° ට 59'41		conjunction	15269 Sep 21 12:08	15° ≏ 45'36	0°46'54
desc. node	15264 Sep 15 21:28	24° පි 05'24		minimum elong	15269 Sep 21 08:19	15° £ 38'04	0°47'01
dese. Hode	15264 Sep 29 04:35	0°≈		minimum ciong	15269 Oct 09 12:06	0° ™	0 17 01
	15264 Nov 24 22:36	0° \			15269 Nov 16 08:39	0° ∡ ⊓	
	15265 Jan 15 06:46	0°Υ		morning rise	15269 Dec 05 05:05	14° × ⁷ 47'43	
		0°8		morning rise		14 メ ・4/43	
	15265 Mar 05 16:34				15269 Dec 24 20:44		
	15265 Apr 22 12:48	0°Ⅱ			15270 Feb 02 21:04	0° ≈	
evening set	15265 Apr 24 16:55	1° Ⅱ 23'14	0.00015.477		15270 Mar 17 05:56	0°) €	
max. Earth dist.	15265 May 19 11:04	17° Ⅱ 22'37	2.62615 AU		15270 May 02 00:08	0° Υ	
	15265 Jun 07 15:08	0_{\circ} වෙ		desc. node	15270 May 09 05:54	4° Y ′28'55	
					15270 Jun 22 19:10	0° 8	
conjunction	15265 Jun 08 10:56	0°ഇ32'54	-1°03'24	retrograde	15270 Sep 13 02:34	27° 8 03'05	
minimum elong	15265 Jun 08 12:05	0° © 34'49	1°04'20	opposition	15270 Oct 23 13:44	17° 8 28'49	-4°39'01
	15265 Jul 21 19:43	0 $^{\circ}\Omega$		greatest brilliancy	15270 Oct 23 17:29	17° 8 25'08	-1.2m
morning rise	15265 Jul 25 12:50	2° Ω 34'56		min. Earth dist.	15270 Oct 24 19:44	16° 8 59'15	0.68478 AU
	15265 Sep 02 02:45	0° m		direct	15270 Dec 04 00:41	7° 8 32'15	
asc. node	15265 Oct 06 22:43	25° Mp 40'08			15271 Feb 15 06:10	$\Pi^{\circ}0$	
	15265 Oct 12 17:14	0∘ ऌ			15271 Apr 08 19:52	0 \circ \odot	
	15265 Nov 21 01:53	0° M ,			15271 May 23 22:56	$0^{\circ}\Omega$	
	15265 Dec 29 22:44	0° ⊼		asc. node	15271 May 29 00:30	3° Ω 33'32	
	15266 Feb 07 10:45	ರ°0			15271 Jul 04 07:22	0° m)	
	15266 Mar 21 10:36	0° ≈			15271 Aug 12 09:46	0∘ <u>⊽</u>	
	15266 May 09 21:44	0°)			15271 Sep 19 09:16	0° M .	
retrograde	15266 Jul 05 21:25	17° ₩ 11'56		evening set	15271 Sep 28 13:46	7° M ₁7'52	
desc. node	15266 Aug 04 06:10	11° X 11'50		evening set	15271 Oct 27 06:16	0°×7	
min. Earth dist.	15266 Aug 08 05:49		0.58324 AU		15271 Dec 04 22:37	°ੇ ਨ	
	-				132/1 Dec 04 22.3/	0.0	
opposition	15266 Aug 14 12:35	7° ¥ 23'15			15051 D 00 11 05	20-726120	0050112
greatest brilliancy	15266 Aug 14 09:38	7° ∺ 26′06	-1.8m	conjunction	15271 Dec 09 11:07	3°る26'20	
	15266 Sep 08 01:33	30°R≈		minimum elong	15271 Dec 09 14:02	3°₹31'53	0°59'08
direct	15266 Sep 20 17:24	28°≈57'40			15272 Jan 14 04:31	0° ≈	
	15266 Oct 04 03:16	0° \		max. Earth dist.	15272 Jan 27 13:29	9° ≈ 38'43	2.45535 AU
	15266 Dec 21 08:03	0° Y		morning rise	15272 Feb 09 21:56	19° ≈ 06'47	
	15267 Feb 13 10:25	0°8			15272 Feb 25 13:38	0° ∀	
	15267 Apr 03 20:38	Π °0		desc. node	15272 Mar 25 21:05	19° ∺ 47'19	
	15267 May 20 05:52	0 \circ \odot			15272 Apr 10 11:11	0° Y	
evening set	15267 Jun 01 17:50	8°523'38			15272 May 28 10:12	0° 8	
max. Earth dist.	15267 Jun 17 06:01	18° © 59'50	2.52182 AU		15272 Jul 20 09:16	$\Pi^{\circ}0$	
	15267 Jul 03 00:34	$0^{\circ}\Omega$			15272 Oct 09 15:15	0 \circ \odot	
				retrograde	15272 Oct 18 21:47	0°529'38	
conjunction	15267 Jul 21 23:32	13° Ω 30'47	-0°22'17		15272 Oct 27 19:42	30° Ŗ Ⅱ	
minimum elong	15267 Jul 22 00:47	13° £ 33'02		opposition	15272 Nov 26 17:20	21° II 41'55	-4°45'39
	/		•	11			

greatest brilliancy	15272 Nov 27 14:11	21° Ⅱ 21'46	1.4m		15277 Nov 12 08:25	0°æ	
min. Earth dist.	15272 Dec 01 20:26	19° II 43'05	0.63388 AU	desc. node	15277 Nov 12 08.23 15277 Nov 15 01:13	0 ∞ 1°≈47'53	
direct	15273 Jan 06 23:14	11° Ⅱ 42'30	0.03366 AC	desc. flode	15277 Dec 27 23:43	0° \	
uncet	15273 Mar 09 20:30	0°95			15277 Bee 27 25:45 15278 Feb 12 16:50	0° Υ	
asc. node	15273 Apr 15 05:48	20°937'52		evening set	15278 Mar 07 19:46	14° Υ 41'09	
use. Houe	15273 Apr 29 20:18	0°Ω		evening sec	15278 Apr 01 00:14	0°8	
	15273 Jun 11 17:08	0°m		max. Earth dist.	15278 Apr 18 16:23	_	2.68514 AU
	15273 Jul 21 07:42	0∘ ⊽		man. Darm dige.	1027011p1 10 10.23	11 01120	2.00011110
	15273 Aug 28 14:03	0°M		conjunction	15278 Apr 20 22:36	12° 8 37'18	-1°08'52
	15273 Oct 05 19:20	0° ∡ ¹		minimum elong	15278 Apr 20 21:50	12° 8 36'05	1°09'25
	15273 Nov 13 23:16	ರ°0		Č	15278 May 18 07:08	0°II	
evening set	15273 Dec 09 08:56	18° ප 50'15		morning rise	15278 Jun 02 22:09	9° Ⅱ 58'43	
C	15273 Dec 24 18:45	0° ≈		· ·	15278 Jul 04 00:49	0°9	
					15278 Aug 18 21:33	$0^{\circ}\Omega$	
conjunction	15274 Feb 04 00:19	28° ≈ 53'35	0°03'56		15278 Oct 02 17:46	0° m)	
minimum elong	15274 Feb 04 00:33	28° ≈ 53'58	0°04'30		15278 Nov 15 15:27	0∘ ত	
behind sun begin	15274 Feb 03 03:15	28° ≈ 17'33		asc. node	15278 Dec 07 00:02	14° ≏ 44'03	
behind sun end	15274 Feb 04 21:50	29° ≈ 30′21			15278 Dec 29 04:31	0°M₊	
	15274 Feb 05 15:11	0°) €			15279 Feb 12 15:25	0° ∡ ¹	
desc. node	15274 Feb 10 08:51	3°) 13′40		retrograde	15279 Apr 29 10:43	29° х 48′26	
max. Earth dist.	15274 Mar 03 06:57	17°) (17′32	2.58340 AU	min. Earth dist.	15279 May 25 06:54	25° ∡ ¹23'29	0.39885 AU
	15274 Mar 22 13:48	$0^{\circ}\mathbf{\Upsilon}$		greatest brilliancy	15279 May 30 23:13	23° х¹ 39'37	-2.8m
morning rise	15274 Mar 25 17:46	2° Ƴ 03'48		opposition	15279 Jun 01 10:20	23° х 12′42	6°22'47
	15274 May 08 11:53	9° 8		direct	15279 Jul 01 17:40	17° ∡ ¹40′19	
	15274 Jun 26 10:37	$\Pi^{\circ}0$			15279 Aug 19 08:13	5°0	
	15274 Aug 17 11:47	0ං ව		desc. node	15279 Oct 03 07:25	22° る 49'24	
	15274 Oct 18 12:30	$0^{\circ}\Omega$			15279 Oct 16 00:01	0° ≈	
retrograde	15274 Dec 03 22:11	10° Ω 19'43			15279 Dec 05 19:13	0°)	
opposition	15275 Jan 08 10:18	2° Ω 54'01	-2°49'03		15280 Jan 24 03:31	0° Υ	
greatest brilliancy	15275 Jan 09 09:32	2° Ω 33'01	-2.0m		15280 Mar 12 17:07	9° 8	
	15275 Jan 16 11:43	30° ₹ 5		evening set	15280 Apr 11 00:30	18° 8 23'45	
min. Earth dist.	15275 Jan 16 18:37	29°553'58	0.51884 AU		15280 Apr 29 06:35	$\Pi^{\circ}0$	
direct	15275 Feb 16 03:34	23°950'56		max. Earth dist.	15280 May 10 00:02	6° Ⅱ 52'59	2.65345 AU
asc. node	15275 Mar 03 13:42	25° © 25'21					
	15275 Mar 19 16:37	$0^{\circ}\Omega$		conjunction	15280 May 24 22:33	16° Ⅲ 33′02	-1°10'20
	15275 May 14 23:07	0° mp		minimum elong	15280 May 24 23:09	16° Ⅱ 34'01	1°11'13
	15275 Jun 26 16:15	0∘ ⊽			15280 Jun 14 10:43	0 \circ \odot	
	15275 Aug 05 10:17	0° M.		morning rise	15280 Jul 08 22:55	16° 5 22'09	
	15275 Sep 13 18:43	0° ∡ ¹			15280 Jul 28 23:21	$0^{\circ}\Omega$	
	15275 Oct 24 01:02	0°ප			15280 Sep 09 18:20	0° m	
	15275 Dec 04 22:23	0° ≈			15280 Oct 20 22:44	0∘ ⊽	
desc. node	15275 Dec 29 01:15	16° ≈ 41′12		asc. node	15280 Oct 23 18:10	2° ₽ 05'06	
	15276 Jan 17 17:06	0° ℋ			15280 Nov 29 21:29	0° M	
evening set	15276 Jan 28 18:37	7°) €23'27			15281 Jan 08 09:04	0°⊀	
	15276 Mar 03 05:22	0 ° $\mathbf{\gamma}$			15281 Feb 17 18:18	0° ට	
					15281 Apr 02 23:29	0° ≈	
conjunction	15276 Mar 16 11:08	8° Ƴ 33'13	-0°43'04		15281 Jun 16 13:13	0° ∀	
minimum elong	15276 Mar 16 09:51	8° Ƴ 31'10	0°43'06	retrograde	15281 Jun 19 21:57	0°) 04'54	
max. Earth dist.	15276 Mar 27 06:49	15° Ƴ 30′04	2.66178 AU		15281 Jun 23 05:58	30° R ≈	
	15276 Apr 19 01:01	$_{0\circ}$ 8		min. Earth dist.	15281 Jul 20 23:41	23° ≈ 30′17	0.53439 AU
morning rise	15276 Apr 29 20:07	6° 8 50'10		opposition	15281 Jul 28 11:33	20° ≈ 39'43	1°08'06
	15276 Jun 05 16:20	$\Pi^{\circ}0$		greatest brilliancy	15281 Jul 28 04:06	20° ≈ 46'46	-2.0m
	15276 Jul 23 20:55	0 \circ \odot		desc. node	15281 Aug 20 16:32	13° ≈ 51′06	
	15276 Sep 10 19:45	$0^{\circ}\Omega$		direct	15281 Sep 02 01:09	12° ≈ 50′24	
	15276 Oct 31 19:32	0° mp			15281 Nov 03 07:37	0° ∀	
	15276 Dec 31 14:25	0∘ ⊽			15281 Dec 31 15:50	0°Υ	
asc. node	15277 Jan 18 20:50	5° £ 41'52			15282 Feb 21 06:52	0°8	
retrograde	15277 Feb 08 19:13	8° ≏ 19'06			15282 Apr 10 22:16	Π °0	
opposition	15277 Mar 11 02:15	3° ≏ 06'54	3°36'40	evening set	15282 May 17 05:47	23° Ⅱ 26'44	
greatest brilliancy	15277 Mar 11 17:50	2° £ 55'44	-2.9m		15282 May 27 03:15	0 \circ \odot	
min. Earth dist.	15277 Mar 16 14:13	1° ≏ 32'40	0.38484 AU	max. Earth dist.	15282 Jun 05 00:18	5° © 56'31	2.56828 AU
	15277 Mar 22 09:23	30°R Mp					
direct	15277 Apr 12 00:20	27° m 12'18		conjunction	15282 Jul 03 14:38	25° © 30'32	
	15277 May 02 03:58	0∘ ত		minimum elong	15282 Jul 03 16:15	25°533'21	0°43'19
	15277 Jul 01 23:53	0°M₊			15282 Jul 10 00:58	0 $^{\circ}$ Ω	
	15277 Aug 16 03:48	0° ∡			15282 Aug 20 19:38	0° m)	
	15277 Sep 28 22:05	0° ප		morning rise	15282 Aug 25 02:35	3° m 09'34	

asc. node	15282 Sep 10 07:15	15° Mp 12'54		greatest brilliancy	15287 Nov 14 03:50	7° ∏ 54'34	
	15282 Sep 29 19:55	0∘ ⊽		min. Earth dist.	15287 Nov 17 04:22	6° Ⅱ 43'47	0.66190 AU
	15282 Nov 07 14:53	0° M ₊			15287 Dec 08 00:03	30°₽ ႘	
	15282 Dec 15 22:50	0° ∡ 7		direct	15287 Dec 25 02:13	28° 8 06'09	
	15283 Jan 23 19:06	8°0			15288 Jan 12 05:32	$\Pi^{\circ}0$	
	15283 Mar 05 09:43	0° ≈			15288 Mar 22 17:01	0 \circ \odot	
	15283 Apr 18 20:01	0°) €		asc. node	15288 May 01 18:02	24° © 59'14	
	15283 Jun 13 04:13	$0^{\circ}\mathbf{\Upsilon}$			15288 May 09 04:32	$0^{\circ}\Omega$	
desc. node	15283 Jul 08 23:34	8° Y 36'01			15288 Jun 20 04:52	0° m y	
retrograde	15283 Jul 28 12:19	10° Y 55′25			15288 Jul 29 12:19	0∘ ত	
min. Earth dist.	15283 Sep 02 22:48		0.64166 AU		15288 Sep 05 14:35	o° m ₊	
opposition	15283 Sep 07 01:32	0° Υ 55'14			15288 Oct 13 15:20	0° ⊼	
greatest brilliancy	15283 Sep 06 15:47	1° Y ′04'53		evening set	15288 Nov 13 19:49	24° ₹ 07'24	
greatest orimane)	15283 Sep 09 09:43	30°R ∀	1.0111	evening see	15288 Nov 21 13:25	0°る	
direct	15283 Oct 16 05:41	21°) (48'46			15289 Jan 01 02:09	0° ≈	
direct	15283 Nov 26 07:57	0°Υ			13207 3411 01 02.07	0 ~~	
	15284 Jan 29 16:46	0°8		conjunction	15289 Jan 15 07:12	10°≈10'50	0°26'08
	15284 Mar 21 08:47	0°II		minimum elong	15289 Jan 15 08:48	10°≈13'42	
		0ಂತಿ ೧ π		minimum clong	15289 Feb 12 16:26	10 ≈13 42 0°) (0 20 34
	15284 May 07 09:35	0°€ 0 €		Danila diat	15289 Feb 12 16.26 15289 Feb 19 14:42	0 X 4°){ 44'08	2 52940 ATT
	15284 Jun 20 05:03			max. Earth dist.			2.53840 AU
evening set	15284 Jun 28 10:08	5° Ω 50′22		desc. node	15289 Feb 27 04:11	9°) €51'45	
max. Earth dist.	15284 Jul 12 10:45	15° Ω 57'48	2.43870 AU	morning rise	15289 Mar 09 20:27	17°) €01'36	
asc. node	15284 Jul 27 21:37	27° Ω 20′09			15289 Mar 29 12:28	0° Υ	
	15284 Jul 31 11:29	0° ™			15289 May 15 16:04	0°8	
					15289 Jul 04 14:56	$\Pi^{\circ}0$	
conjunction	15284 Aug 24 21:49	18° m 28'33	0°19'21		15289 Aug 29 03:59	0 \circ \odot	
minimum elong	15284 Aug 24 20:15	18° m 25'35	0°19'03	retrograde	15289 Nov 14 06:16	23° © 42'12	
	15284 Sep 08 20:35	0∘ ত		opposition	15289 Dec 21 07:06	15° © 38'17	-3°55'52
	15284 Oct 17 02:02	0° M		greatest brilliancy	15289 Dec 22 09:31	15° © 13'29	-1.8m
morning rise	15284 Nov 02 14:34	13° M 04'58		min. Earth dist.	15289 Dec 28 14:07	12° © 54'37	0.57051 AU
	15284 Nov 24 00:01	0° ∡		direct	15290 Jan 30 09:20	6° © 01'35	
	15285 Jan 01 12:12	8°0		asc. node	15290 Mar 20 02:42	18° © 55'31	
	15285 Feb 10 12:45	0° ≈			15290 Apr 10 09:41	$\mathfrak{O}^{\circ}\mathfrak{O}$	
	15285 Mar 25 01:56	0°) €			15290 May 26 23:49	0° m	
	15285 May 10 16:36	$0^{\circ}\mathbf{\Upsilon}$			15290 Jul 06 19:15	0∘ ⊽	
desc. node	15285 May 25 23:14	8° Y 59'53			15290 Aug 14 16:42	0°M₊	
	15285 Jul 05 16:28	0°8			15290 Sep 22 10:21	0° ∡ ¹	
retrograde	15285 Aug 30 19:13	14° 8 40'33			15290 Nov 01 03:13	8°0	
opposition	15285 Oct 10 12:55	4° 8 54'20	-4°15'26		15290 Dec 12 11:57	0° ≈	
greatest brilliancy	15285 Oct 10 10:36	4° 8 56'37		evening set	15291 Jan 11 02:54	20° ≈ 39'27	
min. Earth dist.	15285 Oct 10 06:12	5° 8 00'58	0.68593 AU	desc. node	15291 Jan 14 17:52	23°≈08'24	
	15285 Oct 23 15:35	30°RƳ			15291 Jan 24 19:52	0°) €	
direct	15285 Nov 20 15:21	25° Υ 07'03			13271 3411 21 17.32	٠,٨	
direct	15285 Dec 21 08:44	0°8		conjunction	15291 Mar 02 10:40	24°) 22'51	-0°27'10
	15286 Feb 26 08:18	0°П		minimum elong	15291 Mar 02 09:39	24°) (21'10	
	15286 Apr 17 05:02	0°®		minimum clong	15291 Mar 11 01:01	0° Υ	0 20 30
	15286 May 31 16:45	0°N		max. Earth dist.	15291 Mar 19 02:48	5° Υ 14'41	2.63757 AU
asc. node	15286 Jun 14 16:30	9° Ω 57'54		morning rise	15291 Apr 17 07:35	23°Y58'42	2.03737 AC
use. Houe	15286 Jul 11 22:03	9 8 6 3 7 3 4 0° m)		morning 1150	15291 Apr 17 07.33 15291 Apr 26 19:28	0° 8	
		-				0°II	
ovening set	15286 Aug 20 00:52	0° ჲ 6° ჲ 51'45			15291 Jun 13 19:05	0₀ © 0∘п	
evening set	15286 Aug 28 18:58				15291 Aug 02 00:31		
	15286 Sep 27 00:45	0°M.			15291 Sep 22 12:23	0° N	
	15286 Nov 03 20:36	0° ∡ 7			15291 Nov 21 00:32	0° m/y	
		=		retrograde	15292 Jan 10 15:22	12° m 24'22	
conjunction	15286 Nov 09 19:15	4° √ 40'41		asc. node	15292 Feb 05 11:00	8° Mp 18'58	
minimum elong	15286 Nov 09 19:27	4° ∡ ′41′05	1°08'16	opposition	15292 Feb 11 23:56	6° Mp 17′56	
	15286 Dec 12 10:05	0° る		greatest brilliancy	15292 Feb 12 03:11	6° Mp 15′20	-2.6m
max. Earth dist.	15287 Jan 02 05:49	15° る 45'27	2.39801 AU	min. Earth dist.	15292 Feb 20 06:58	3°m/38'53	0.43164 AU
morning rise	15287 Jan 18 10:11	27° る 44'23			15292 Mar 05 17:13	30°R Ω	
	15287 Jan 21 12:19	0° ≈		direct	15292 Mar 18 04:32	28° Ω 53'44	
	15287 Mar 04 19:05	0° ∀			15292 Mar 30 16:53	0° ™	
desc. node	15287 Apr 12 15:14	25°) 59′04			15292 Jun 03 20:16	0。 亚	
	15287 Apr 18 20:26	0 ° Υ			15292 Jul 17 13:23	0° M	
	15287 Jun 06 16:48	0° 8			15292 Aug 27 23:04	0°⊀	
	15287 Aug 02 14:27	Π °0			15292 Oct 08 17:09	8°0	
retrograde	15287 Oct 04 22:18	17° Ⅱ 17'37			15292 Nov 20 19:29	0° ≈	
opposition	15287 Nov 13 13:26	8° Ⅱ 08'37	-4°53'28	desc. node	15292 Dec 01 14:07	7° ≈ 19'49	

	15293 Jan 04 12:40	0°)			15297 Nov 15 18:09	0° M	
	15293 Feb 19 15:51	0° Y			15297 Dec 24 09:18	0° ∡ ¹	
evening set	15293 Feb 21 10:01	1° Y 07'43			15298 Feb 01 13:29	0°ಕ	
					15298 Mar 14 19:55	0° ≈	
conjunction	15293 Apr 07 11:27	29° Y 51′26			15298 Apr 30 11:40	0° ∀	
minimum elong	15293 Apr 07 10:21	29° Y '49'40	1°01'59	retrograde	15298 Jul 14 08:34	26°) €31'37	
	15293 Apr 07 16:51	$0^{\circ}S$		desc. node	15298 Jul 25 11:44	25°) 39′21	
max. Earth dist.	15293 Apr 10 04:43	1° 8 34'55	2.68262 AU	min. Earth dist.	15298 Aug 17 20:53	18°) 46′54	
morning rise	15293 May 20 14:35	27° 8 11'16		opposition	15298 Aug 23 10:12	16°) 36′04	-1°14'56
	15293 May 25 01:04	Π $^{\circ}0$		greatest brilliancy	15298 Aug 23 03:12	16°) 42′56	-1.6m
	15293 Jul 11 05:03	0 \circ \mathfrak{s}		direct	15298 Sep 30 10:05	7° ∺ 54'09	
	15293 Aug 26 22:56	$0^{\circ}\Omega$			15298 Dec 13 07:29	0 ° Υ	
	15293 Oct 12 07:02	0° ™			15299 Feb 07 18:56	9° 8	
	15293 Nov 27 16:30	0∘ ⊽			15299 Mar 29 21:32	Π °0	
asc. node	15293 Dec 23 14:46	16° ≏ 22'57			15299 May 15 12:02	0 \circ \odot	
	15294 Jan 15 05:14	0° M		evening set	15299 Jun 11 05:27	18° © 05'36	
retrograde	15294 Apr 01 03:12	28°M10'23		max. Earth dist.	15299 Jun 25 13:53	28° © 04'51	2.49327 AU
min. Earth dist.	15294 Apr 28 09:11	23°M45'40	0.36749 AU		15299 Jun 28 07:20	0 $^{\circ}$ Ω	
opposition	15294 May 01 08:25	22°M57'21	7°12'33				
greatest brilliancy	15294 Apr 30 15:04	23°M09'09	-3.0m	conjunction	15299 Aug 02 14:52	25° Ω 28'10	-0°08'15
direct	15294 May 30 11:15	18°M06'22		minimum elong	15299 Aug 02 15:26	25° Ω 29'13	0°08'51
	15294 Jul 15 13:49	0° ∡ ¹		behind sun begin	15299 Aug 01 19:15	24° Ω 52′03	
	15294 Sep 08 21:52	5°0		behind sun end	15299 Aug 03 11:37	26° Ω 06′25	
desc. node	15294 Oct 19 19:02	25° る 05'06			15299 Aug 08 17:52	o° m y	
	15294 Oct 27 16:13	0° ≈		asc. node	15299 Aug 14 16:06	4° m) 24'48	
	15294 Dec 14 14:56	0° ∀			15299 Sep 17 08:13	0∘ ত	
	15295 Jan 31 15:26	0° Y		morning rise	15299 Oct 03 14:16	12° ≏ 36'46	
	15295 Mar 20 14:14	0°8			15299 Oct 25 18:13	0° M	
evening set	15295 Mar 29 11:00	5° 8 34'34			15299 Dec 02 19:01	0° ∡	
max. Earth dist.	15295 May 02 01:40	26° 8 51'58	2.67232 AU	greatest brilliancy	15299 Dec 22 02:49	15° ₮ 07'50	1.2m
	15295 May 06 23:29	Π °0			15300 Jan 10 08:35	0°₹	
					15300 Feb 19 11:19	0° ≈	
conjunction	15295 May 12 02:17	3° Ⅱ 16′27			15300 Apr 03 09:17	0° ∀	
minimum elong	15295 May 12 02:19	3° Ⅱ 16′30	1°13'43		15300 May 21 12:45	0° Υ	
	15295 Jun 22 07:27	0ಂಣ		desc. node	15300 Jun 12 14:38	11° Υ 52'05	
morning rise	15295 Jun 24 20:35	1° 5 40'29			15300 Jul 30 10:30	0°8	
	15295 Aug 06 06:14	0 $^{\circ}\Omega$		retrograde	15300 Aug 18 14:24	2° 8 08'18	
	15295 Sep 18 16:17	0° m			15300 Sep 05 15:04	30° Ŗ ♈	
	15295 Oct 30 14:57	0∘ ⊽		min. Earth dist.	15300 Sep 26 15:21		0.67671 AU
asc. node	15295 Nov 10 12:22	7° ≙ 56'40		opposition	15300 Sep 28 10:37	22° Y 13'11	
	15295 Dec 10 10:20	0°M₊		greatest brilliancy	15300 Sep 28 03:35	22° Y 20'10	-1.3m
	15296 Jan 19 23:30	0° ∡		direct	15300 Nov 07 23:42	12° Y ′38′40	
	15296 Mar 02 06:51	0°ප			15301 Jan 10 16:53	0°B	
	15296 Apr 22 19:59	0° ≈			15301 Mar 08 16:31	0°П	
retrograde	15296 Jun 01 22:27	10° ≈ 03'55			15301 Apr 26 01:18	0ංම	
min. Earth dist.	15296 Jun 30 14:28	4° ≈ 22'09	0.48024 AU		15301 Jun 09 04:04	0 ° Ω	
opposition	15296 Jul 08 21:03	1° ≈ 23′26	3°05'18	asc. node	15301 Jul 02 09:18	16° Ω 41'31	
greatest brilliancy	15296 Jul 07 23:42	1°≈42'44	-2.3m		15301 Jul 20 08:38	0° m)	
	15296 Jul 12 19:18	30°Ŗる		evening set	15301 Aug 02 17:32	10° m 05'50	
direct	15296 Aug 11 13:37	24° ろ 20'22			15301 Aug 28 13:05	0∘ ত	
desc. node	15296 Sep 06 04:27	28° る 04'28		max. Earth dist.	15301 Sep 18 20:44		2.36306 AU
	15296 Sep 12 17:35	0° ≈			15301 Oct 05 14:27	0° M ₊	
	15296 Nov 17 14:22	0° ∀					
	15297 Jan 09 16:20	0° Υ		conjunction	15301 Oct 09 21:39	3° M ₂24'54	
	15297 Feb 28 18:03	0°B		minimum elong	15301 Oct 09 18:02	3° M .17'43	0°59'33
	15297 Apr 17 20:25	0°II			15301 Nov 12 10:19	0° ∡ ¹	
evening set	15297 May 02 17:01	9° Ⅱ 31'09			15301 Dec 20 22:15	0°る	
max. Earth dist.	15297 May 25 05:59		2.60777 AU	morning rise	15301 Dec 23 12:26	1°る59'04	
	15297 Jun 02 23:49	0ං ව			15302 Jan 29 22:22	0° ≈	
	15007 X 1= 0:55	00-22	0057113		15302 Mar 13 04:49	0°) €	
conjunction	15297 Jun 17 04:20	9°529'57			15302 Apr 27 14:00	0°Υ 1°Ω46142	
minimum elong	15297 Jun 17 05:45	9° © 32'20	0°58'08	desc. node	15302 Apr 30 09:34	1°Υ46'43	
	15297 Jul 17 02:21	0°N			15302 Jun 16 21:37	0°B	
morning rise	15297 Aug 04 19:29	13° Ω 09'47		, 1	15302 Aug 23 01:24	0°П 4°П 20150	
1	15297 Aug 28 05:15	0° Mp		retrograde	15302 Sep 21 20:32	4° Ⅱ 38'58	
asc. node	15297 Sep 27 03:52	22° m 07'51			15302 Oct 19 02:43	30°R8	40.47146
	15297 Oct 07 14:42	0∘ ⊽		opposition	15302 Nov 01 01:55	25° 8 12'40	-4-4/40

	15312 Nov 25 05:29	0° M			15318 Feb 20 08:34	Π °0	
	15313 Jan 03 07:56	0° ∡ ¹			15318 Apr 12 17:41	0 \circ \odot	
	15313 Feb 12 02:50	0°ಕ			15318 May 27 15:25	$0^{\circ}\Omega$	
	15313 Mar 26 18:13	0° ≈		asc. node	15318 Jun 05 23:08	6° Ω 34'56	
	15313 May 18 14:26	0°)			15318 Jul 07 23:41	0° m y	
retrograde	15313 Jun 30 03:57	10°) 33'47			15318 Aug 16 02:59	0∘ ত	
min. Earth dist.	15313 Aug 01 12:43	3°) 32′33	0.56239 AU	evening set	15318 Sep 15 17:54	24° ≙ 08'35	
opposition	15313 Aug 08 09:40	0°) 53′32	0°10'07		15318 Sep 23 02:58	0° M ₊	
greatest brilliancy	15325 Mar 28 00:55	25° Ƴ 32'19	2.0m		15318 Oct 30 23:10	0° ∡ ¹	
	15313 Aug 10 17:45	30° R ≈					
desc. node	15313 Aug 11 23:46	29° ≈ 31′50		conjunction	15318 Nov 27 22:37	21° х 50′32	1°04'01
direct	15313 Sep 13 22:19	22° ≈ 43'08		minimum elong	15318 Nov 28 00:52	21° ∡ 54′53	1°04'56
	15313 Oct 21 19:52	0°)			15318 Dec 08 13:22	0°₹	
	15313 Dec 26 01:33	0° Y			15319 Jan 17 16:26	0° ≈	
	15314 Feb 17 00:34	0° 8		max. Earth dist.	15319 Jan 19 08:56	1° ≈ 13'48	2.42954 AU
	15314 Apr 07 03:08	Π °0		morning rise	15319 Feb 01 13:55	10° ≈ 45'59	
	15314 May 23 11:42	0 \circ			15319 Feb 28 22:46	0° ∀	
evening set	15314 May 26 21:00	2° © 15'33		desc. node	15319 Apr 03 18:07	22°) 46′38	
max. Earth dist.	15314 Jun 12 19:07	13° 5 40'54	2.54352 AU		15319 Apr 14 19:51	0° Y	
	15314 Jul 06 08:58	0 \circ Ω			15319 Jun 02 00:34	9° 8	
					15319 Jul 26 04:04	Π °0	
conjunction	15314 Jul 14 16:38	5° Ω 52'14		retrograde	15319 Oct 14 07:27	25° Ⅱ 15′10	
minimum elong	15314 Jul 14 18:08	5° Ω 54'53	0°32'21	opposition	15319 Nov 22 12:38	16° Ⅱ 17'09	-4°50'38
	15314 Aug 17 01:07	0° m)		greatest brilliancy	15319 Nov 23 06:40	15° Ⅱ 59'38	
asc. node	15314 Sep 01 12:54	11° m y31'04		min. Earth dist.	15319 Nov 26 23:30		0.64778 AU
morning rise	15314 Sep 08 01:19	16° Mp 25'05		direct	15320 Jan 02 22:39	6° Ⅱ 15'37	
	15314 Sep 25 21:51	0∘ ⊽			15320 Mar 15 23:34	0ంత	
	15314 Nov 03 13:21	0° M		asc. node	15320 Apr 23 03:16	22°540'29	
	15314 Dec 11 18:00	0° ∡ ¹			15320 May 04 07:07	0 ° Ω	
	15315 Jan 19 10:28	0°ಕ			15320 Jun 15 19:42	0° m)	
	15315 Feb 28 18:25	0° ≈			15320 Jul 25 07:31	0∘ ⊽	
	15315 Apr 13 09:30	0° ∺			15320 Sep 01 12:04	0° M ₊	
	15315 Jun 03 16:03	0° Υ			15320 Oct 09 14:44	0° ∡ ¹	
desc. node	15315 Jun 30 04:05	11° Υ 39'25			15320 Nov 17 14:57	0°る	
retrograde	15315 Aug 06 06:55	19° Y 10′22	0.65714.444	evening set	15320 Nov 29 17:12	9° る 04'22	
min. Earth dist.	15315 Sep 12 17:11	10° Υ 29'10 9° Υ 10'30	0.65714 AU		15320 Dec 28 06:11	0° ≈	
opposition	15315 Sep 16 00:39			:	15221 I 27 10:00	2100 027115	0912112
greatest brilliancy	15315 Sep 15 14:58	9° Y 20′04	-1.4m	conjunction	15321 Jan 27 19:08	21°≈37'15	0°13'12
direct	15315 Oct 21 07:33 15315 Oct 25 18:36	30° ₹ 29° 升 52'43		minimum elong behind sun begin	15321 Jan 27 19:54 15321 Jan 27 08:33	21°≈38'36 21°≈18'53	0°13'51
direct	15315 Oct 25 18:30 15315 Oct 30 07:38	29 γ (3243		behind sun end	15321 Jan 28 07:15	21 ≈18 33 21°≈58'19	
	15316 Jan 23 22:20	0°8		bennia sun ena	15321 Jan 28 07:13 15321 Feb 08 22:22	0° ∺	
	15316 Mar 17 01:14	0°II		desc. node	15321 Feb 18 06:07	6° ∺ 21'30	
	15316 May 03 12:33	0°©		max. Earth dist.	15321 Feb 27 13:14		2.56427 AU
	15316 Jun 16 10:56	0° U		morning rise	15321 Mar 20 01:46	26° ∺ 16′08	2.30427 110
evening set	15316 Jul 10 19:16	17° Ω 29'59		morning rise	15321 Mar 25 18:25	0° Υ	
asc. node	15316 Jul 19 03:02	23° Ω 36'55			15321 May 11 17:09	0°8	
max. Earth dist.	15316 Jul 27 04:00		2.40854 AU		15321 Jun 29 23:49	0°II	
	15316 Jul 27 17:16	0° m)			15321 Aug 22 04:31	0° ©	
	15316 Sep 05 01:03	0∘ <u>⊽</u>			15321 Oct 31 23:26	$0^{\circ}\Omega$	
	1			retrograde	15321 Nov 26 00:12	3° Ω 22'59	
conjunction	15316 Sep 09 19:50	ვ° ჲ 43'18	0°35'30	C	15321 Dec 19 06:14	30° ₹ 5	
minimum elong	15316 Sep 09 16:49	3° ₽ 37'26	0°35'25	opposition	15322 Jan 01 06:20	25°538'55	-3°21'19
	15316 Oct 13 05:11	0° M		greatest brilliancy	15322 Jan 02 07:46	25°515'30	-1.9m
	15316 Nov 20 02:05	0° ∡ ¹		min. Earth dist.	15322 Jan 09 04:57	22° 5 344'14	0.54288 AU
morning rise	15316 Nov 21 23:37	1° ∡ ¹29'47		direct	15322 Feb 09 16:29	16° © 18'30	
	15316 Dec 28 13:16	ರ°0		asc. node	15322 Mar 11 11:09	21° 5 43'59	
	15317 Feb 06 12:16	0° ≈ ≈			15322 Mar 31 09:32	$0^{\circ}\Omega$	
	15317 Mar 20 20:40	0° ∀			15322 May 20 20:56	0° ™	
	15317 May 05 19:51	0° Y			15322 Jul 01 15:13	0∘ 亚	
desc. node	15317 May 17 01:58	6° Y 51'39			15322 Aug 09 23:05	0° M ₊	
	15317 Jun 27 19:14	0° S			15322 Sep 17 23:47	0° ∡ ″	
retrograde	15317 Sep 08 08:42	22° 8 16'20			15322 Oct 27 22:28	0°ಕ	
opposition	15317 Oct 18 23:45	12° 8 36'11			15322 Dec 08 12:38	0° ≈	
greatest brilliancy	15317 Oct 19 00:39	12° 8 35'19		desc. node	15323 Jan 05 21:19	19° ≈ 42'14	
min. Earth dist.	15317 Oct 19 13:03		0.68665 AU		15323 Jan 21 00:54	0°) {	
direct	15317 Nov 29 08:09	2° 8 43'25		evening set	15323 Jan 22 08:43	0° ¥ 53'37	

	15323 Mar 07 08:48	0° Ƴ		retrograde min. Earth dist.	15328 Jun 13 09:30 15328 Jul 13 09:45	22°≈18'00 16°≈06'42	0.51050 AU
conjunction	15323 Mar 12 02:41	3° Y 04'56	-0°36'50	opposition	15328 Jul 21 08:09	13° ≈ 09'35	1°55'34
minimum elong	15323 Mar 12 01:28	3° Y ′02'57	0°36'46	greatest brilliancy	15328 Jul 20 18:58	13° ≈ 21'52	-2.1m
max. Earth dist.	15323 Mar 25 11:39	11° Y 43'11	2.65194 AU	direct	15328 Aug 25 02:06	5° ≈ 39'47	
	15323 Apr 23 02:52	0° 8		desc. node	15328 Aug 28 09:58	5° ≈ 43'58	
morning rise	15323 Apr 26 01:54	1° 8 52'30			15328 Nov 10 02:17	0°) €	
	15323 Jun 09 21:00	Π $^{\circ}0$			15329 Jan 04 18:34	$0^{\circ}\Upsilon$	
	15323 Jul 28 11:05	0ಂತಾ			15329 Feb 24 16:45	0° 8	
	15323 Sep 16 08:01	0 \circ Ω			15329 Apr 14 03:03	Π °0	
	15323 Nov 08 19:46	0° m)		evening set	15329 May 11 21:15	17° Ⅱ 50'37	
asc. node	15324 Jan 27 18:16	26° m 50'43			15329 May 30 08:27	0°©	
retrograde	15324 Jan 28 00:28	26° m 50'44		max. Earth dist.	15329 Jun 01 06:59	1°5517'27	2.58691 AU
opposition	15324 Feb 28 03:34	21° m 15'41	2°09'48				
greatest brilliancy	15324 Feb 28 16:33	21° Mp 05'52		conjunction	15329 Jun 27 07:05	18°951'56	
min. Earth dist.	15324 Mar 06 05:10	19° Mp 07'53	0.40356 AU	minimum elong	15329 Jun 27 08:40	18°954'39	0°50'15
direct	15324 Apr 01 13:56	14° Mp 40'37 0° <u>₽</u>			15329 Jul 13 09:16	0°Ω	
	15324 May 22 06:24 15324 Jul 09 21:09	0° ™		morning rise	15329 Aug 16 21:00 15329 Aug 24 08:38	24° Ω 32'57 0° m	
	15324 Jul	0° ⊼		asc. node	15329 Aug 24 08:38 15329 Sep 18 08:01	18° m) 29'54	
	15324 Aug 21 22:20 15324 Oct 03 14:55	0°る		asc. Hode	15329 Sep 18 08.01 15329 Oct 03 13:39	0° ⊽	
	15324 Nov 16 08:26	0°≈			15329 Nov 11 12:44	0° ™	
desc. node	15324 Nov 22 20:23	0 ∞ 4°≈22'34			15329 Nov 11 12:44 15329 Dec 19 23:42	0° ∡ 7	
desc. node	15324 Nov 22 20:23 15324 Dec 31 12:03	0° ∀			15330 Jan 27 22:14	°ਤ ਹ°ਤ	
	15325 Feb 15 21:55	0° Υ			15330 Mar 09 17:04	0°≈	
evening set	15325 Mar 02 16:48	9° Υ 26'26			15330 Apr 23 18:06	0°) €	
evening sec	15325 Apr 04 01:50	0°8			15330 Jun 23 05:27	0° Υ	
		. •		desc. node	15330 Jul 16 17:53	5° Υ 04'15	
conjunction	15325 Apr 16 04:02	7° 8 39'39	-1°06'19	retrograde	15330 Jul 23 12:08	5° Ƴ 22'24	
minimum elong	15325 Apr 16 03:07	7° 8 38'11	1°06'49	Č	15330 Aug 20 21:01	30° ₹ ₩	
max. Earth dist.	15325 Apr 16 03:37	7° 8 38'59	2.68509 AU	min. Earth dist.	15330 Aug 28 02:40	27° ∺ 16'39	0.62707 AU
	15325 May 21 09:12	\mathfrak{I}°		opposition	15330 Sep 01 21:37	25°) 23′24	-1°56'24
morning rise	15325 May 29 03:42	4° Ⅱ 56'40		greatest brilliancy	15330 Sep 01 12:21	25°) 32'31	-1.5m
	15325 Jul 07 07:34	0ංම		direct	15330 Oct 10 14:23	16° ∺ 27'15	
	15325 Aug 22 13:22	$0^{\circ}\Omega$			15330 Dec 04 12:42	$0^{\circ}\mathbf{\Upsilon}$	
	15325 Oct 07 00:21	0° m)			15331 Feb 02 19:48	9° 8	
	15325 Nov 20 20:16	0∘ ⊽			15331 Mar 25 20:03	Π °0	
asc. node	15325 Dec 14 22:41	16° ≙ 08'05			15331 May 11 17:47	0 \circ \odot	
	15326 Jan 04 22:50	0°M₊		evening set	15331 Jun 22 05:35	28° © 19'53	
	15326 Feb 23 13:32	0° ∡ ¹			15331 Jun 24 14:28	$0 \circ \Omega$	
retrograde	15326 Apr 18 17:55	16° ∡ 753'58		max. Earth dist.	15331 Jul 05 22:37		2.46351 AU
min. Earth dist.	15326 May 14 16:46	12° ₹ 37'41	0.38140 AU	_	15331 Aug 04 23:55	0° m)	
greatest brilliancy	15326 May 19 02:36	11° 🗷 21'39	-2.9m	asc. node	15331 Aug 05 21:39	0° Mp 40'25	
opposition	15326 May 20 09:13	10° 🗷 59'33	7°00'31		15221 4 16 05 20	00 m-24/2 (0007111
direct	15326 Jun 18 21:31	5° х 50′39		conjunction	15331 Aug 16 05:29	8° M) 24'26	0°07'11
daga mada	15326 Aug 30 01:56 15326 Oct 11 01:21	0°る 23°る45'48		minimum elong	15331 Aug 16 04:58 15331 Aug 15 05:42	8° M) 23'28	0°06'44
desc. node	15326 Oct 11 01.21 15326 Oct 21 12:42	23 3 43 48 0° ≈		behind sun begin behind sun end	15331 Aug 17 04:13	7° Mp 39'43 9° Mp 07'15	
	15326 Oct 21 12.42 15326 Dec 09 21:09	0 ≈ 0° ∀		ochina sun tha	15331 Aug 17 04.13 15331 Sep 13 12:01	0∘ ʊ Ə ılho\12	
	15327 Jan 27 14:08	0° Υ		morning rise	15331 Sep 13 12:01 15331 Oct 21 11:59	0 = 29° £ 44'39	
	15327 Mar 16 20:51	0°8		morning rise	15331 Oct 21 19:46	0° M	
evening set	15327 Apr 07 04:27	13° 8 23'11			15331 Nov 28 18:50	0° ∡ 7	
	15327 May 03 08:45	0°II			15332 Jan 06 06:47	0°₹	
max. Earth dist.	15327 May 08 04:15	3° Ⅱ 04'46	2.66299 AU		15332 Feb 15 06:49	0° ≈	
					15332 Mar 28 21:17	0°)	
conjunction	15327 May 20 21:52	11° II 16'08	-1°11'58		15332 May 14 22:00	0° Υ	
minimum elong	15327 May 20 22:15	11° II 16'44	1°12'49	desc. node	15332 Jun 02 19:09	10° Ƴ 48'25	
	15327 Jun 18 15:20	0ංම			15332 Jul 12 20:58	9° 8	
morning rise	15327 Jul 04 06:43	10° © 21'56		retrograde	15332 Aug 26 03:08	9° 8 50'35	
	15327 Aug 02 09:10	$0^{\circ}\Omega$		opposition	15332 Oct 05 22:58	29° Ƴ 59'57	-4°02'47
	15327 Sep 14 11:36	0° m		min. Earth dist.	15332 Oct 04 23:36	0° 8 23'04	0.68312 AU
	15327 Oct 26 00:16	0∘ ⊽			15332 Oct 05 22:55	30° Ŗ ♈	
asc. node	15327 Nov 01 18:34	4° £ 58'50		greatest brilliancy	15332 Oct 05 18:17	0° 8 04'34	-1.3m
	15327 Dec 05 07:46	0° M ₊		direct	15332 Nov 15 20:37	20° Y 17′59	
	15328 Jan 14 04:40	0°⊀¹			15332 Dec 31 00:12	0°B	
	15328 Feb 24 04:06	5°0			15333 Mar 02 15:01	0°II	
	15328 Apr 10 04:07	0° ≈			15333 Apr 20 21:14	0ං ව	

	15333 Jun 04 06:30	$0^{\circ}\Omega$		minimum elong	15338 Feb 24 12:57	18° ¥ 23′27	0°19'18
asc. node	15333 Jun 22 15:44	13° Ω 08′04			15338 Mar 14 04:36	0° Y	
	15333 Jul 15 12:53	0° m		max. Earth dist.	15338 Mar 16 04:29	1° Y 18′04	2.62398 AU
evening set	15333 Aug 17 08:59	25° m 03'51		morning rise	15338 Apr 12 08:07	18° Ƴ 49'21	
	15333 Aug 23 17:11	0∘ ⊽			15338 Apr 29 22:11	0°B	
	15333 Sep 30 18:00	0° M ₊			15338 Jun 17 02:01	0°II	
. ,.	15222 0 + 27 10 15	210M 20100	1007112		15338 Aug 05 20:46	0 ಂ ${\cal O}$	
conjunction minimum elong	15333 Oct 27 19:15 15333 Oct 27 17:30	21°M29'09 21°M25'41	1°06'13 1°06'53		15338 Sep 27 22:12 15338 Dec 07 00:53	0° m y	
minimum ciong	15333 Oct 27 17:30 15333 Nov 07 13:36	0° x ¹	1 00 33	retrograde	15338 Dec 07 00:55	3° Mg 12'09	
max. Earth dist.	15333 Nev 07 15:50 15333 Dec 14 16:05		2.37488 AU	renograde	15339 Jan 22 14:47	30°RΩ	
	15333 Dec 16 01:30	0°ප		opposition	15339 Feb 02 08:24	26° Ω 40'38	-0°40'37
morning rise	15334 Jan 08 05:46	17° る 33'22		greatest brilliancy	15339 Feb 02 15:03	26° Ω 35'05	-2.4m
	15334 Jan 25 01:26	0° ≈		min. Earth dist.	15339 Feb 11 00:54	23° Ω 46'44	0.45643 AU
	15334 Mar 08 06:18	0° ∀		asc. node	15339 Feb 13 08:14	23° Ω 02'49	
desc. node	15334 Apr 20 11:54	28°) 48′33		direct	15339 Mar 10 19:19	18° Ω 41′06	
	15334 Apr 22 08:28	0° Ƴ			15339 Apr 22 19:21	0° m)	
	15334 Jun 10 14:55	0°₽			15339 Jun 12 05:51	0∘ ত	
	15334 Aug 09 02:06	0°П			15339 Jul 24 05:33	0° M ₊	
retrograde	15334 Sep 29 18:54	12° Ⅱ 20'07	4050120		15339 Sep 02 19:20	0° ∡ ¹	
opposition	15334 Nov 08 17:19	3° Ⅱ 02'49			15339 Oct 13 23:10	5°0	
greatest brilliancy	15334 Nov 09 04:35	2° Ⅲ 51'47 1° Ⅲ 54'01	-1.3m 0.67113 AU	desc. node	15339 Nov 25 14:03 15339 Dec 10 09:20	0° ≈ 10° ≈ 08'35	
min. Earth dist.	15334 Nov 11 15:37 15334 Nov 16 14:34	1°用34'01 30°R と	0.6/113 AU	desc. node	15340 Jan 08 22:25	10°≈08'33	
direct	15334 Nov 10 14:34 15334 Dec 20 07:32	23° 8 01'06		evening set	15340 Feb 16 22:49	25°) 33'46	
direct	15335 Jan 25 22:37	0°Ⅱ		evening set	15340 Feb 23 19:40	0° Υ	
	15335 Mar 28 11:07	0°©			133 10 1 00 23 17.10	0 1	
asc. node	15335 May 10 15:52	27° © 33'46		conjunction	15340 Apr 02 14:26	24° Y '49'21	-0°57'37
	15335 May 14 05:35	$0^{\circ}\Omega$		minimum elong	15340 Apr 02 13:13	24° Ƴ 47'25	0°57'55
	15335 Jun 25 02:28	0° m)		max. Earth dist.	15340 Apr 07 12:08	27° Y ′56'24	2.67878 AU
	15335 Aug 03 09:06	0∘ 亚			15340 Apr 10 17:58	9° 8	
	15335 Sep 10 10:39	0° M		morning rise	15340 May 15 23:04	22° 8 17'55	
	15335 Oct 18 09:42	0° ∡ ¹			15340 May 28 03:29	Π °0	
evening set	15335 Nov 03 07:12	12° ∡ ¹24'32			15340 Jul 14 13:21	0ංම	
	15335 Nov 26 04:44	0°ප			15340 Aug 30 19:23	0°O	
	15336 Jan 05 13:41	0° ≈			15340 Oct 17 01:44	0° m)	
agnismation	15336 Jan 07 17:20	190022121	0025142	asa mada	15340 Dec 04 06:06	0° ჲ 16° ჲ 02'24	
conjunction minimum elong	15336 Jan 07 17:20 15336 Jan 07 19:35	1°≈33'31 1°≈37'36	0°35'43	asc. node	15340 Dec 31 12:47 15341 Jan 27 04:02	0°M	
max. Earth dist.	15336 Feb 15 21:46		2.51589 AU	retrograde	15341 Mar 19 02:11	14°M.06'22	
max. Darm dist.	15336 Feb 17 00:19	0° ∀	2.51507 110	opposition	15341 Apr 17 14:18	9°M12'05	6°46'09
morning rise	15336 Mar 03 10:23	10°) 31′07		greatest brilliancy	15341 Apr 17 10:47	9° ™ 14'25	-3.0m
desc. node	15336 Mar 07 01:16	12° ¥ 57'32		min. Earth dist.	15341 Apr 17 05:47	9° ™ 17'44	0.36370 AU
	15336 Apr 01 18:18	0° Y		direct	15341 May 16 20:18	4°M21'06	
	15336 May 18 23:57	0°8			15341 Jul 27 21:19	0° ∡ 7	
	15336 Jul 08 11:00	Π °0			15341 Sep 15 06:55	0°ප	
	15336 Sep 04 05:03	0ಂತಾ		desc. node	15341 Oct 27 12:42	26° る 57'06	
retrograde	15336 Nov 07 12:18	17° © 38'59			15341 Nov 01 07:02	0° ≈	
opposition	15336 Dec 15 03:42	9°520'40			15341 Dec 18 09:16	0° \	
greatest brilliancy	15336 Dec 16 05:18	8°956'23	-1.7m		15342 Feb 03 22:44	0° Υ	
min. Earth dist.	15336 Dec 21 20:54	6°∽48'17 30°R∏	0.59105 AU	avanina aat	15342 Mar 23 16:15 15342 Mar 24 15:17	0° と 0° と 36'15	
direct	15337 Jan 16 19:01 15337 Jan 24 16:44	30 KII 29°II34'43		evening set max. Earth dist.	15342 Mai 24 15.17 15342 Apr 29 13:41		2.67807 AU
direct	15337 Feb 01 19:07	0°95		max. Lattii dist.	13342 Apr 29 13.41	23 01930	2.07807 AC
asc. node	15337 Mar 27 23:32	18° 9 54'39		conjunction	15342 May 07 06:52	28° 8 14'45	-1°12'51
	15337 Apr 16 14:06	0°Ω		minimum elong	15342 May 07 06:40	28° 8 14'27	
	15337 May 31 19:23	0° m/y		, and the second	15342 May 10 00:50	0°Щ	
	15337 Jul 11 05:16	0∘ ⊽		morning rise	15342 Jun 19 16:25	26° Ⅱ 12'32	
	15337 Aug 18 21:30	0° M			15342 Jun 25 11:49	0°€	
	15337 Sep 26 10:24	0° ∡ ¹			15342 Aug 09 16:56	0 $^{\circ}$ Ω	
	15337 Nov 04 21:46	0°ප			15342 Sep 22 12:16	0° m	
	15337 Dec 16 00:42	0° ≈		_	15342 Nov 03 22:19	0∘ ⊽	
evening set	15338 Jan 03 17:58	13°≈12'08		asc. node	15342 Nov 18 11:37	10° 2 29'21	
desc. node	15338 Jan 22 14:32 15338 Jan 28 03:14	26°≈13'43 0°) €			15342 Dec 15 07:16	0° ™ 0° <i>≯</i> 7	
	. 5.4.4 x 10 p // 112.1/1	(1° 11'				11" 1/1	
	13336 Jan 26 03.14	0 X			15343 Jan 25 14:31		
conjunction	15338 Feb 24 13:45	18°) (24'47	0°10'25		15343 Mar 10 11:19 15343 May 17 00:14	್ ರ°≷ %	

	15353 May 06 20:45	0°B		direct	15358 Jul 06 10:27	21° х 54'34	
	15353 Jun 24 14:59	0°II		uncet	15358 Aug 13 14:49	0°중	
	15353 Aug 15 05:09	0°©		desc. node	15358 Oct 01 08:00	23° る 16'28	
	15353 Oct 13 23:11	0°Ω		dese. Hode	15358 Oct 13 11:27	0°≈	
retrograde	15353 Dec 07 14:38	13°Ω41'10			15358 Dec 03 20:08	0° ∀	
opposition	15354 Jan 11 23:18	6°Ω20'09	-2°35'25		15359 Jan 22 09:36	0° Υ	
greatest brilliancy	15354 Jan 12 21:10	6°Ω00'32			15359 Mar 12 02:02	0°8	
min. Earth dist.	15354 Jan 20 10:44		0.51300 AU	evening set	15359 Apr 14 22:01	21° 8 13'18	
	15354 Jan 31 02:14	30°Rூ	***************************************		15359 Apr 28 17:33	0°II	
direct	15354 Feb 19 13:21	27° © 21'57		max. Earth dist.	15359 May 13 08:43	9°Ⅱ23'08	2.65090 AU
asc. node	15354 Mar 01 19:38	28°904'48					
	15354 Mar 11 14:16	$0^{\circ}\Omega$		conjunction	15359 May 28 21:48	19° ∏ 27'39	-1°09'36
	15354 May 12 15:43	0° m)		minimum elong	15359 May 28 22:30	19° ∏ 28'48	1°10'30
	15354 Jun 24 23:20	0∘ <u>⊽</u>		Č	15359 Jun 13 23:17	0ಂತಾ	
	15354 Aug 03 22:12	0° M .		morning rise	15359 Jul 13 02:53	19° © 29'12	
	15354 Sep 12 08:21	0° ∡ ¹		S	15359 Jul 28 12:59	$0^{\circ}\Omega$	
	15354 Oct 22 14:54	ರ°0			15359 Sep 09 08:31	0° m/	
	15354 Dec 03 11:43	0° ≈			15359 Oct 20 12:54	0∘ <u>⊽</u>	
desc. node	15354 Dec 27 01:46	16° ≈ 20'08		asc. node	15359 Oct 22 22:51	1° ≏ 47'32	
	15355 Jan 16 05:29	0°) €			15359 Nov 29 10:55	o° m ₊	
evening set	15355 Feb 01 00:54	10° ¥ 33'01			15360 Jan 07 20:30	0°⊀	
C	15355 Mar 02 16:40	$0^{\circ}\Upsilon$			15360 Feb 17 00:41	0°る	
					15360 Mar 31 14:36	0° ≈	
conjunction	15355 Mar 20 11:37	11° Y ′29'26	-0°45'28		15360 May 31 03:49	0°) €	
minimum elong	15355 Mar 20 10:19	11° Y 27'20	0°45'32	retrograde	15360 Jun 23 02:36	3°) €28'22	
max. Earth dist.	15355 Mar 30 17:31	18° Ƴ 03'41	2.66371 AU	Č	15360 Jul 15 03:56	30° R ≈	
	15355 Apr 18 11:11	0°8		min. Earth dist.	15360 Jul 24 10:41	26° ≈ 49'07	0.53996 AU
morning rise	15355 May 03 17:38	9° 8 40'12		opposition	15360 Jul 31 20:38	23°≈59'58	0°52'14
Ü	15355 Jun 05 01:06	0°II		greatest brilliancy	15360 Jul 31 14:58	24°≈05'21	-2.0m
	15355 Jul 23 03:04	0° ©		desc. node	15360 Aug 18 17:34	18° ≈ 13'22	
	15355 Sep 09 20:14	$0^{\circ}\Omega$		direct	15360 Sep 05 15:34	16° ≈ 06'33	
	15355 Oct 30 05:09	0° m)			15360 Oct 30 11:48	0°) €	
	15355 Dec 26 15:40	0∘ <u>⊽</u>			15360 Dec 29 11:25	$0^{\circ}\mathbf{\Upsilon}$	
asc. node	15356 Jan 18 03:10	8° ≏ 22'59			15361 Feb 19 12:12	0°8	
retrograde	15356 Feb 14 15:08	12° ≏ 46'54			15361 Apr 09 08:24	0°II	
opposition	15356 Mar 15 18:31	7° ء 39'30	4°03'15	evening set	15361 May 20 06:23	26° ∏ 24'22	
greatest brilliancy	15356 Mar 16 10:12	7° ഫ 28'25	-2.9m	•	15361 May 25 16:37	0 \circ \odot	
min. Earth dist.	15356 Mar 20 20:31	6° ₽ 13'50	0.38116 AU	max. Earth dist.	15361 Jun 07 15:43	8° 5 40'36	2.56386 AU
direct	15356 Apr 16 06:13	1° ≏ 54'03					
	15356 Jun 28 22:35	0° M .		conjunction	15361 Jul 06 21:12	28°5944'03	-0°39'48
	15356 Aug 14 00:51	0° ∡ ¹		minimum elong	15361 Jul 06 22:49	28°546'51	0°40'38
	15356 Sep 27 02:31	ರ°0			15361 Jul 08 16:40	$0^{\circ}\Omega$	
	15356 Nov 10 15:57	0° ≈			15361 Aug 19 12:58	0° m y	
desc. node	15356 Nov 13 01:31	1° ≈ 35'41		morning rise	15361 Aug 28 21:38	6° m 54'17	
	15356 Dec 26 08:39	0° ∀		asc. node	15361 Sep 08 13:27	14° m 51'05	
	15357 Feb 11 02:28	0° Y			15361 Sep 28 14:06	0∘ ⊽	
evening set	15357 Mar 10 19:15	17° Ƴ 34'42			15361 Nov 06 09:07	0° M	
	15357 Mar 30 10:21	0°B			15361 Dec 14 16:12	0° ∡ ¹	
max. Earth dist.	15357 Apr 21 02:07		2.68486 AU		15362 Jan 22 10:22	ರ°0	
					15362 Mar 03 20:41	0° ≈	
conjunction	15357 Apr 23 20:20	15° 8 27'36	-1°09'50		15362 Apr 16 21:05	0°) €	
minimum elong	15357 Apr 23 19:39	15° 8 26'30	1°10'26		15362 Jun 09 07:56	$0^{\circ}\mathbf{\Upsilon}$	
	15357 May 16 17:32	$\Pi^{\circ}0$		desc. node	15362 Jul 06 23:14	10° Ƴ 19'32	
morning rise	15357 Jun 05 20:19	12° Ⅲ 51'11		retrograde	15362 Jul 31 10:15	13° Ƴ 52'32	
	15357 Jul 02 11:11	0 \circ \mathfrak{S}		min. Earth dist.	15362 Sep 06 02:08	5° Y 26'42	0.64503 AU
	15357 Aug 17 07:14	$0^{\circ}\Omega$		opposition	15362 Sep 10 01:43	3° Ƴ 52'17	-2°32'47
	15357 Oct 01 01:50	0° m		greatest brilliancy	15362 Sep 09 15:40	4° Y 02'13	-1.4m
	15357 Nov 13 20:17	0∘ ⊽		-	15362 Sep 20 08:25	30° ₹	
asc. node	15357 Dec 05 04:41	14° ≏ 48'17		direct	15362 Oct 19 09:50	24°) 43′26	
	15357 Dec 27 02:33	0° M			15362 Nov 20 12:10	$0^{\circ}\Upsilon$	
	15358 Feb 09 17:54	0° ∡ ¹			15363 Jan 27 09:53	9° 8	
	15358 Apr 08 11:28	ರ°0			15363 Mar 20 14:52	$\Pi^{\circ}0$	
retrograde	15358 May 03 14:53	4° る 18'27			15363 May 06 21:34	0ಂತಾ	
	15358 May 28 21:28	30°R. ✓			15363 Jun 19 20:42	$0^{\circ}\Omega$	
min. Earth dist.	15358 May 29 11:39	29° ∡ ¹49'24	0.40353 AU	evening set	15363 Jul 02 22:03	9° Ω 17'19	
greatest brilliancy	15358 Jun 04 09:21	28° ₹ 00'12	-2.7m	max. Earth dist.	15363 Jul 17 03:29	19° Ω 35'56	2.43318 AU
opposition	15358 Jun 05 20:08	27° ∡ "33′07	6°09'38	asc. node	15363 Jul 27 03:13	26° Ω 57'16	

	15363 Jul 31 05:38	0° m		retrograde	15368 Aug 26 07:06 15368 Nov 17 16:04	0°ତ 26°ତ51'44	
conjunction	15363 Aug 30 00:50	22° m 33'32	0°23'10	opposition	15368 Dec 24 14:34	18°951'16	-3°47'04
minimum elong	15363 Aug 29 22:55	22° m/ 29'52		greatest brilliancy	15368 Dec 25 16:40	18°\$26'53	-3 47 04 -1.8m
minimum clong	15363 Sep 08 16:15	0° ⊽	0 23 04	min. Earth dist.	15369 Jan 01 01:26	16° © 04'54	0.56551 AU
	15363 Oct 16 22:17	0°ML		direct	15369 Feb 02 14:57	9° © 17'29	0.50551710
morning rise	15363 Nov 08 12:02	17°ML52'42		asc. node	15369 Mar 18 08:21	20°900'13	
morning rise	15363 Nov 23 19:52	0° √		ase. Houe	15369 Apr 07 13:46	0°Ω	
	15364 Jan 01 06:35	0°ਤ			15369 May 25 05:25	0° m)	
	15364 Feb 10 04:27	0° ≈			15369 Jul 05 08:18	0∘ ⊽	
	15364 Mar 23 13:08	0° ₩			15369 Aug 13 08:31	0°M₊	
	15364 May 08 18:45	0° Υ			15369 Sep 21 02:50	0° ∡ ¹	
desc. node	15364 May 23 22:00	9° Ƴ 02'19			15369 Oct 30 19:10	ರ°0	
	15364 Jul 02 08:52	0°B			15369 Dec 11 02:42	0° ≈	
retrograde	15364 Sep 02 15:36	17° 8 28'50		desc. node	15370 Jan 12 17:35	22° ≈ 44'35	
opposition	15364 Oct 13 10:07	7° 8 43'30	-4°20'39	evening set	15370 Jan 14 13:35	23° ≈ 59'53	
greatest brilliancy	15364 Oct 13 08:21	7° 8 45'14	-1.2m	•	15370 Jan 23 09:10	0° ∀	
min. Earth dist.	15364 Oct 13 06:59	7° 8 46'35	0.68646 AU				
	15364 Nov 05 09:36	30° Ŗ ♈		conjunction	15370 Mar 05 13:26	27°) 24′12	-0°30'01
direct	15364 Nov 23 15:09	27° Y ′55'01		minimum elong	15370 Mar 05 12:20	27° ¥ 22'25	0°29'51
	15364 Dec 13 01:11	$_{0\circ}$ 8			15370 Mar 09 12:49	0° Y	
	15365 Feb 24 01:44	$\Pi^{\circ}0$		max. Earth dist.	15370 Mar 21 17:07	7° Y ′54'31	2.64043 AU
	15365 Apr 15 12:59	0ංම		morning rise	15370 Apr 20 05:57	26° Y ′50'05	
	15365 May 30 06:47	$0^{\circ}\Omega$			15370 Apr 25 05:41	0° 8	
asc. node	15365 Jun 12 22:03	9° Ω 40'17			15370 Jun 12 02:56	Π $^{\circ}0$	
	15365 Jul 10 15:25	0° m)			15370 Jul 31 03:37	0 \circ \mathfrak{S}	
	15365 Aug 18 20:03	0∘ ⊽			15370 Sep 20 03:29	$0^{\circ}\Omega$	
evening set	15365 Sep 02 09:00	11° ≙ 24'19			15370 Nov 16 10:36	0° ™	
	15365 Sep 25 20:41	0° M		retrograde	15371 Jan 15 03:59	16°Mp26'17	
	15365 Nov 02 16:22	0° ∡ ¹		asc. node	15371 Feb 03 15:25	14° Mp $02'05$	
				opposition	15371 Feb 16 06:21	10° m 25'49	0°49'58
conjunction	15365 Nov 14 14:35	9° ∡ ¹22'36	1°07'13	greatest brilliancy	15371 Feb 16 12:26	10° m 20'59	-2.6m
minimum elong	15365 Nov 14 15:24	9° ∡ ¹24'12	1°08'02	min. Earth dist.	15371 Feb 24 07:34	7° m 52'36	0.42597 AU
	15365 Dec 11 04:52	0°ಕ		direct	15371 Mar 23 03:44	3° Mp 10′26	
max. Earth dist.	15366 Jan 07 12:39	20° පි 38'14	2.40390 AU		15371 Jun 01 22:12	0∘ ⊽	
	15366 Jan 20 05:14	0° ≈			15371 Jul 16 13:19	0° M	
morning rise	15366 Jan 22 11:44	1° ≈ 39'34			15371 Aug 27 06:07	0° ∡ 7	
	15366 Mar 03 09:12	0° ∀			15371 Oct 08 03:06	0°る	
desc. node	15366 Apr 10 14:49	25°) 41′19			15371 Nov 20 06:25	0° ≈	
	15366 Apr 17 06:10	0° Υ		desc. node	15371 Nov 30 15:20	7°≈03'13	
	15366 Jun 04 18:08	0.8			15372 Jan 03 23:44	0°) €	
	15366 Jul 30 10:42	0°П			15372 Feb 19 02:43	0°Υ 	
retrograde	15366 Oct 07 22:14	20° Ⅱ 08'36	40.5010.4	evening set	15372 Feb 25 10:48	4° Υ '04'02	
opposition	15366 Nov 16 12:15	11° I I01'18			15372 Apr 06 03:34	0°8	
greatest brilliancy	15366 Nov 17 03:18	10° Ⅱ 46'38		. ,.	15272 4 10 00 50	20 40140	1002110
min. Earth dist.	15366 Nov 20 06:56	9°Щ33'02 0°Щ58'59	0.65959 AU	conjunction	15372 Apr 10 08:58	2° 8 40'49	
direct	15366 Dec 28 01:38	0.ஒ நாலைக்		minimum elong max. Earth dist.	15372 Apr 10 07:53	2° 8 39'06 4° 8 01'26	2.68333 AU
asc. node	15367 Mar 21 09:46 15367 May 01 00:51	୦ ୬ 24°957'58		morning rise	15372 Apr 12 11:48 15372 May 23 11:18	29° 8 59'33	2.08333 AU
asc. node	15367 May 01 00:31 15367 May 08 13:44	24 3 5/38		morning risc	15372 May 23 11:18 15372 May 23 11:35	0° Ⅱ	
	15367 Jun 19 20:12	0° m)			15372 Jul 09 14:53	0. о п	
	15367 Jul 29 06:23	0∘ ত المار			15372 Jul 09 14:55 15372 Aug 25 06:55	0°Ω	
	15367 Sep 05 09:35	0° ™			15372 Aug 25 00:55 15372 Oct 10 10:53	0° m)	
	15367 Oct 13 10:06	0° ⊼ ⊓			15372 Nov 25 11:24	0∘ ত ∘ .w	
evening set	15367 Nov 19 05:39	28° × 726'09		asc. node	15372 Dec 21 20:43	ა – 16° ჲ 56'01	
	15367 Nov 21 07:07	0° 궁			15373 Jan 11 23:03	0°M	
	15367 Dec 31 18:14	0° ≈			15373 Mar 14 22:22	0° ⊼ 7	
				retrograde	15373 Apr 05 21:47	3° х 12'44	
conjunction	15368 Jan 20 00:35	13° ≈ 47'04	0°22'47	5	15373 Apr 28 12:32	30°RM₁	
minimum elong	15368 Jan 20 01:58	13° ≈ 49'32		min. Earth dist.	15373 May 02 18:28	28°M52'34	0.36928 AU
- 0	15368 Feb 12 06:31	0° ∀		opposition	15373 May 06 09:07	27°M53'18	7°15'21
max. Earth dist.	15368 Feb 23 08:33	7°) 34'32	2.54354 AU	greatest brilliancy	15373 May 05 12:25	28°M07'29	-3.0m
desc. node	15368 Feb 26 03:32	9°) 28′05		direct	15373 Jun 04 10:53	23°M00'27	
morning rise	15368 Mar 13 02:26	20°) 10′16			15373 Jul 08 19:44	0° ∡ ¹	
	15368 Mar 28 00:04	0° Y			15373 Sep 06 04:04	ರ∘ರ	
	15368 May 14 00:05	0° 8		desc. node	15373 Oct 17 19:18	25° ප 10'06	
	15368 Jul 02 15:54	$\Pi^{\circ}0$			15373 Oct 25 14:53	0° ≈	

	15373 Dec 12 19:47	0° ∀			15378 Sep 16 02:53	0∘ ত	
	15374 Jan 29 23:14	0° Υ		morning rise	15378 Oct 08 03:50	17° ≏ 07'38	
	15374 Mar 18 23:47	0°8			15378 Oct 24 13:15	0° M	
evening set	15374 Apr 01 09:08	8° 8 25'00			15378 Dec 01 13:34	0° ∡ ¹	
max. Earth dist.	15374 May 04 13:58	29° 8 27'27	2.67079 AU	greatest brilliancy	15378 Dec 08 07:15	5° ∡ 17'50	1.2m
	15374 May 05 10:22	Π $^{\circ}0$			15379 Jan 09 01:43	8°0	
					15379 Feb 18 01:36	0° ≈	
conjunction	15374 May 15 00:01	6° Ⅱ 07'28	-1°12'52		15379 Apr 01 18:08	0° ∀	
minimum elong	15374 May 15 00:08	6° Ⅱ 07'40	1°13'41		15379 May 19 07:56	0° Y	
	15374 Jun 20 19:24	0 \circ \mathfrak{s}		desc. node	15379 Jun 10 14:42	12° Y 16'22	
morning rise	15374 Jun 27 20:33	4° © 38'09			15379 Jul 22 09:08	9° 8	
	15374 Aug 04 18:58	0 \circ Ω		retrograde	15379 Aug 21 10:56	4° 8 58'17	
	15374 Sep 17 05:18	0° m			15379 Sep 18 07:05	30° ŖƳ	
	15374 Oct 29 03:34	0∘ ⊽		min. Earth dist.	15379 Sep 29 16:31		0.67820 AU
asc. node	15374 Nov 08 18:20	7° Ω 44'58		opposition	15379 Oct 01 08:11	25° Y ′04′02	
	15374 Dec 08 21:21	0°M		greatest brilliancy	15379 Oct 01 01:29	25° Y 10'40	-1.3m
	15375 Jan 18 06:26	0° ∡ 7		direct	15379 Nov 10 23:52	15° Y ′28′00	
	15375 Mar 01 02:34	0°ರ			15380 Jan 07 05:15	0° B	
	15375 Apr 19 07:09	0° ≈			15380 Mar 05 16:16	0° Ⅱ	
retrograde	15375 Jun 06 10:14	13°≈52'18	0.40501.411		15380 Apr 23 10:54	0° ©	
min. Earth dist.	15375 Jul 05 08:46	8°≈05'21	0.48581 AU	1	15380 Jun 06 18:47	0°N	
opposition	15375 Jul 13 14:48	5°≈05'49	2°47'16	asc. node	15380 Jun 29 14:58	16° Ω 21'33	
greatest brilliancy	15375 Jul 12 19:20 15375 Jul 30 01:19	5°≈23'29 30°Rる	-2.2m	avanina aat	15380 Jul 18 02:27 15380 Aug 05 20:26	0° Т р 14° Тр 10'16	
direct	15375 Aug 16 11:33	30°なる 27° る 57'48		evening set	15380 Aug 05 20:26 15380 Aug 26 08:41	14° III/ 10°16 0° <u>Ω</u>	
direct	15375 Aug 10 11:33 15375 Sep 04 02:24	27 O 3748 0° ≈			15380 Aug 20 08.41 15380 Oct 03 10:40	0 == 0°M₊	
desc. node	15375 Sep 04 02.24 15375 Sep 05 03:18	0 ∞ 0°≈13'14		max. Earth dist.	15380 Oct 03 10:40 15380 Oct 09 10:28		2.36144 AU
desc. node	15375 Nov 15 22:36	0°) €		max. Earth dist.	13380 Oct 09 10.28	4 11643 33	2.30144 AU
	15376 Jan 08 16:31	0°Υ		conjunction	15380 Oct 13 16:59	8°M09'12	1°01'23
	15376 Feb 28 00:27	%8 0°8		minimum elong	15380 Oct 13 13:40	8°ML02'37	
	15376 Apr 16 06:25	0°II		minimum ciong	15380 Nov 10 06:08	0° ₹	1 01 50
evening set	15376 May 05 16:37	12° ∏ 26′26			15380 Dec 18 16:47	°ੁੱਠ	
max. Earth dist.	15376 May 27 17:15	26° ∏ 49'32	2.60404 AU	morning rise	15380 Dec 27 01:43	6° පි 24'18	
	15376 Jun 01 12:21	0ಂತಾ		3	15381 Jan 27 14:43	0° ≈	
					15381 Mar 10 17:57	0° ∀	
conjunction	15376 Jun 20 07:38	12° © 35'42	-0°55'17		15381 Apr 24 21:46	0° Υ	
minimum elong	15376 Jun 20 09:06	12° © 38'11	0°56'12	desc. node	15381 Apr 27 08:30	1° Y ′33'27	
	15376 Jul 15 16:47	$0^{\circ}\Omega$			15381 Jun 13 16:56	0° 8	
morning rise	15376 Aug 08 07:00	16° Ω 36'47			15381 Aug 16 02:57	Π $^{\circ}0$	
	15376 Aug 26 21:02	0° ™		retrograde	15381 Sep 23 18:41	7° Ⅲ 27'41	
asc. node	15376 Sep 25 08:25	21°M/45'32			15381 Oct 28 23:08	30° ₹ 8	
	15376 Oct 06 07:22	0∘ ⊽		opposition	15381 Nov 02 23:51	28° 8 02'55	-4°49'43
	15376 Nov 14 11:01	0° M		greatest brilliancy	15381 Nov 03 08:03	27° 8 54'53	-1.3m
	15376 Dec 23 01:26	0° ∡		min. Earth dist.	15381 Nov 05 05:48	27° 8 10'02	0.67824 AU
	15377 Jan 31 03:16	5°0		direct	15381 Dec 14 14:40	18° 8 02'48	
	15377 Mar 13 03:50	0° ≈			15382 Feb 02 11:47	Π °0	
	15377 Apr 28 01:50	0°)			15382 Mar 31 21:54	0°95	
retrograde	15377 Jul 17 08:29	29°) (36′06		asc. node	15382 May 17 14:09	0° Ω 17'42	
desc. node	15377 Jul 23 11:46	29°) € 20′29	0.61061.477		15382 May 17 03:53	0° Q	
min. Earth dist.	15377 Aug 21 02:03	21°) 47'56 19°) 39'59			15382 Jun 27 22:13	0° my	
opposition	15377 Aug 26 12:34	19° € 39′39′ 19° € 47′45			15382 Aug 06 04:45	0° Մ	
greatest brilliancy direct	15377 Aug 26 04:38 15377 Oct 03 16:38	19 X 4743 10° X 55'12	-1.0111	greatest brilliancy	15382 Sep 13 05:58 15382 Sep 24 14:40	9°M01'08	1.1m
direct	15377 Dec 10 03:05	10 χ(33 12 0° Υ		evening set	15382 Sep 24 14:40 15382 Oct 21 00:42	29°M54'26	1.1111
	15378 Feb 05 17:48	0°8		evening set	15382 Oct 21 00.42 15382 Oct 21 03:32	29 11 6 34 20	
	15378 Mar 28 05:01	0°II			15382 Nov 28 19:57	0 ਨ	
	15378 May 14 00:15	0°©			13302 1101 20 17.37	v O	
evening set	15378 Jun 14 12:18	21° © 19'43		conjunction	15382 Dec 28 09:19	22° る 10'42	0°45'00
	15378 Jun 26 22:42	0°Ω		minimum elong	15382 Dec 28 12:09	22°る15'54	0°45'52
max. Earth dist.	15378 Jun 28 16:11		2.48781 AU		15383 Jan 08 01:27	0° ≈	
		55-5 05		max. Earth dist.	15383 Feb 09 12:25	23° ≈ 09'41	2.49211 AU
conjunction	15378 Aug 06 08:47	29° Ω 10'54	-0°04'31		15383 Feb 19 08:39	0° ∀	
minimum elong	15378 Aug 06 09:06	29° Ω 11'28		morning rise	15383 Feb 24 13:50	3°) 35′18	
behind sun begin	15378 Aug 05 10:02	28° Ω 28'51		desc. node	15383 Mar 14 22:13	16° ∺ 01'49	
behind sun end	15378 Aug 07 08:09	29° Ω 54'08			15383 Apr 05 01:01	0° Y	
	15378 Aug 07 11:19	0° m			15383 May 22 09:27	9° 8	
asc. node	15378 Aug 12 21:27	4° m 01'50			15383 Jul 12 10:56	$\Pi^{\circ}0$	

	15383 Sep 11 08:40	0°©			15388 Aug 04 16:35	0° ∡ ¹	
retrograde	15383 Nov 01 03:42	11° © 52'19			15388 Sep 20 00:32	0° ਨ	
opposition	15383 Dec 09 08:15	3°520'59	-4°28'33	desc. node	15388 Nov 03 06:51	0 0 29° る 03'18	
greatest brilliancy	15383 Dec 10 08:15	2°958'04	-1.6m	dese. Hode	15388 Nov 04 17:35	0°≈	
min. Earth dist.	15383 Dec 15 10:52	1°901'13	0.60984 AU		15388 Dec 21 02:25	0° ∀	
min. Zarur Gibt.	15383 Dec 18 04:51	30°RⅡ	0.0030.110		15389 Feb 06 06:00	0° Υ	
direct	15384 Jan 19 06:20	23° II 28'11		evening set	15389 Mar 18 18:04	25° Y ′33'51	
	15384 Feb 22 06:11	0.00 20 210 11		evening sec	15389 Mar 25 18:51	0°8	
asc. node	15384 Apr 03 20:23	19° 5 641'21		max. Earth dist.	15389 Apr 26 01:33		2.68223 AU
	15384 Apr 21 02:05	0°N			r		
	15384 Jun 04 09:06	0° m)		conjunction	15389 May 01 12:12	23° 8 14'42	-1°12'07
	15384 Jul 14 12:11	0∘ <u>⊽</u>		minimum elong	15389 May 01 11:47	23° 8 14'03	1°12'47
	15384 Aug 22 00:34	0°M		-	15389 May 12 02:48	$\Pi^{\circ}0$	
	15384 Sep 29 09:23	0° ∡ ¹		morning rise	15389 Jun 13 15:48	20° I I53'03	
	15384 Nov 07 16:01	ರ°0			15389 Jun 27 17:09	0ಂತಾ	
	15384 Dec 18 13:43	0° ≈			15389 Aug 12 05:08	0 $^{\circ}\Omega$	
evening set	15384 Dec 25 19:51	5° ≈ 10'41			15389 Sep 25 10:41	0° ™	
desc. node	15385 Jan 29 11:30	29° ≈ 19′26			15389 Nov 07 10:10	0∘ ⊽	
	15385 Jan 30 11:15	0°) €		asc. node	15389 Nov 25 10:51	12° ≏ 48'17	
					15389 Dec 19 12:08	0° M	
conjunction	15385 Feb 17 09:31	12° ∺ 07'50	-0°11'27		15390 Jan 30 20:49	0° ∡ ¹	
minimum elong	15385 Feb 17 09:00	12° ₩ 06'58	0°11'04		15390 Mar 18 11:32	8°0	
behind sun begin	15385 Feb 16 17:43	11° ¥ 41′22		retrograde	15390 May 16 20:50	20° る 13'15	
behind sun end	15385 Feb 18 00:16	12°) 32′34		min. Earth dist.	15390 Jun 12 14:22	15° る 19'13	0.43096 AU
max. Earth dist.	15385 Mar 12 00:49		2.60881 AU	greatest brilliancy	15390 Jun 19 09:12	13° る 04'13	-2.6m
	15385 Mar 16 09:10	0° Y		opposition	15390 Jun 20 17:24	12° る 37'16	4°59'11
morning rise	15385 Apr 06 05:09	13° Y '30'44		direct	15390 Jul 22 12:22	6° පි 25'06	
	15385 May 02 02:17	0° 8		desc. node	15390 Sep 21 15:12	24° る 03'41	
	15385 Jun 19 10:50	Π °0			15390 Oct 03 18:48	0° ≈	
	15385 Aug 08 21:09	0 \circ \odot			15390 Nov 27 09:01	0°)	
	15385 Oct 03 00:23	0 $^{\circ}$ Ω			15391 Jan 17 01:38	0° Υ	
retrograde	15385 Dec 20 06:19	24° Ω 46′07			15391 Mar 07 05:57	0°8	
opposition	15386 Jan 23 13:19	17° Ω 51'12		evening set	15391 Apr 22 17:29	29° 8 08'08	
greatest brilliancy	15386 Jan 24 04:08	17° Ω 38′22			15391 Apr 24 02:04	0∘Щ	
min. Earth dist.	15386 Feb 01 07:15	14° Ω 49'51	0.48190 AU	max. Earth dist.	15391 May 18 18:44	15° Ⅲ 52'45	2.63653 AU
asc. node	15386 Feb 20 05:22	10° Ω 03'15					
direct	15386 Mar 02 02:15	9° Ω 21'45		conjunction	15391 Jun 06 03:08	27° I I52'58	
	15386 May 02 09:53	0° my		minimum elong	15391 Jun 06 04:09	27° Ⅱ 54'39	1°06'39
	15386 Jun 17 14:10	0∘ 亚			15391 Jun 09 08:04	0°©	
	15386 Jul 28 11:54	0° ™ 0° <i>≯</i> 7		morning rise	15391 Jul 22 09:44 15391 Jul 23 18:39	29° © 03'18	
	15386 Sep 06 10:54	0° る			15391 Jul 23 18:39 15391 Sep 04 08:49	0° N	
	15386 Oct 17 03:08	0° ≈		asa mada	15391 Sep 04 08:49 15391 Oct 13 04:31	0°M)	
desc. node	15386 Nov 28 08:14 15386 Dec 17 05:02	0°≈ 13°≈00'39		asc. node	15391 Oct 15 04:31 15391 Oct 15 06:22	28°Mp27′00 0° <u>₽</u>	
desc. node	15387 Jan 11 08:31	13 ≈ 00 39			15391 Oct 13 06.22 15391 Nov 23 21:02	0°M	
evening set	15387 Feb 10 06:20	19° ¥ 45'33			15392 Jan 01 21:58	0° ⊼ ¹	
evening set	15387 Feb 26 00:13	0° Υ			15392 Feb 10 13:01	% ਨ	
	13307 1 00 20 00.13	0 1			15392 Mar 23 18:14	0° ≈	
conjunction	15387 Mar 28 14:43	19° Ƴ 40'06	-0°53'01		15392 May 13 13:20	0° ∀	
minimum elong	15387 Mar 28 13:25	19° Y ′38′03		retrograde	15392 Jul 02 06:50	13°¥50'00	
max. Earth dist.	15387 Apr 04 19:53		2.67317 AU	min. Earth dist.	15392 Aug 03 21:19	6°) 44'45	0.56738 AU
	15387 Apr 13 20:08	0°8		desc. node	15392 Aug 08 23:45	4°) (46'46	
morning rise	15387 May 11 07:10	17° 8 23'14		opposition	15392 Aug 10 16:10	4°) €07'42	-0°04'42
C	15387 May 31 07:03	$\Pi^{\circ}0$		greatest brilliancy	15387 Jul 17 03:51	29° Ⅲ 29′05	
	15387 Jul 17 23:31	0° ©		· ·	15392 Aug 22 04:38	30°R ≈	
	15387 Sep 03 19:30	$0^{\circ}\Omega$		direct	15392 Sep 16 09:52	25°≈53'32	
	15387 Oct 22 04:59	0° m)			15392 Oct 13 23:47	0° ∀	
	15387 Dec 12 00:25	0∘ ⊽			15392 Dec 22 14:45	0° Y	
asc. node	15388 Jan 08 10:59	14° ≏ 20'44			15393 Feb 14 03:22	0°8	
	15388 Feb 26 13:00	0° M			15393 Apr 04 11:43	Π °0	
retrograde	15388 Mar 04 09:33	0° M 18′08			15393 May 20 23:49	0 \circ \odot	
	15388 Mar 11 04:27	30° ₽ Ω		evening set	15393 May 29 01:00	5° © 22'05	
opposition	15388 Apr 02 19:04	25° ≏ 26'26	5°48'13	max. Earth dist.	15393 Jun 14 15:59	16° © 37'26	2.53852 AU
greatest brilliancy	15388 Apr 03 03:49	25° ჲ 20'36	-3.0m		15393 Jul 03 23:38	0 $^{\circ}\Omega$	
min. Earth dist.	15388 Apr 05 02:48	24° ≏ 49'17	0.36729 AU				
direct	15388 May 02 17:41	20° ≏ 19'31		conjunction	15393 Jul 17 04:12	9° Ω 18'59	
	15388 Jun 11 16:03	0° M		minimum elong	15393 Jul 17 05:36	9° Ω 21'30	0°29'09

	15202 A 14 17.41	00 m		Ji	15200 I 04 22.05	0°π11107	
	15393 Aug 14 17:41	0° m)		direct	15399 Jan 04 23:05	9° Ⅱ 11'07	
asc. node	15393 Aug 29 17:06	11° Mp 06'52			15399 Mar 13 05:43	0.22	
morning rise	15393 Sep 11 03:32	20° m 28'25		asc. node	15399 Apr 21 09:37	22°5645'29	
	15393 Sep 23 15:43	0∘ ⊽			15399 May 02 13:38	0 \circ Ω	
	15393 Nov 01 07:49	0° M			15399 Jun 14 09:56	0° m)	
	15393 Dec 09 12:10	0° ∡ ⊓			15399 Jul 24 01:10	0∘ ⊽	
	15394 Jan 17 03:07	0°ಕ			15399 Aug 31 07:00	0°M₊	
	15394 Feb 26 07:36	0°≈			15399 Oct 08 09:34	0° ∡ 7	
	15394 Apr 10 15:03	0° ∀			15399 Nov 16 08:43	8°0	
	15394 May 30 20:10	$0^{\circ}\mathbf{\Upsilon}$		evening set	15399 Dec 03 20:47	13° る 06'51	
desc. node	15394 Jun 27 04:45	12° Ƴ 42'45			15399 Dec 26 22:13	0° ≈	
retrograde	15394 Aug 08 03:43	22° Y '03'02					
min. Earth dist.	15394 Sep 14 19:19	13° Ƴ 18'33	0.65962 AU	conjunction	15400 Jan 31 08:43	25° ≈ 04'01	0°09'48
opposition	15394 Sep 17 23:05	12° Y 03'37	-3°04'30	minimum elong	15400 Jan 31 09:17	25° ≈ 04'59	0°10'23
greatest brilliancy	15394 Sep 17 13:25	12° Y °13'11	-1.4m	behind sun begin	15400 Jan 30 15:54	24° ≈ 34'54	
direct	15394 Oct 27 20:09	2° Y 43'49		behind sun end	15400 Feb 01 02:39	25° ≈ 35'03	
direct	15395 Jan 20 08:42	0°8		ocinina sun cina	15400 Feb 07 12:19	0° ∀	
	15395 Mar 15 05:11	0°II		desc. node	15400 Feb 16 04:58	5° ¥ 56'37	
		0ಂಣ ೧ π		max. Earth dist.			2.56883 AU
	15395 May 01 23:22				15400 Mar 02 06:23	29° ¥ 20′39	2.30883 AU
	15395 Jun 15 01:38	0°N		morning rise	15400 Mar 23 06:01		
evening set	15395 Jul 14 13:33	21°Ω13'11			15400 Mar 24 06:02	0°Υ	
asc. node	15395 Jul 17 07:56	23° Ω 15′14			15400 May 10 01:48	0°8	
	15395 Jul 26 10:21	0° m)			15400 Jun 28 03:09	$\Pi^{\circ}0$	
max. Earth dist.	15395 Jul 31 12:58	•	2.40258 AU		15400 Aug 19 17:49	0	
	15395 Sep 03 19:31	0∘ 亚			15400 Oct 24 10:17	0 $^{\circ}\Omega$	
				retrograde	15400 Nov 29 13:51	6° Ω 37'48	
conjunction	15395 Sep 14 09:06	8° ₤ 13′58	0°39'22		15401 Jan 01 20:06	30° ℝ ∽	
minimum elong	15395 Sep 14 05:47	8° ഫ 07'30	0°39'21	opposition	15401 Jan 04 16:43	28° © 58'01	-3°09'58
	15395 Oct 12 00:10	0° M .		greatest brilliancy	15401 Jan 05 17:22	28° © 35'29	-1.9m
	15395 Nov 18 20:49	0° ∡ ¹		min. Earth dist.	15401 Jan 12 19:07	26°900'55	0.53728 AU
morning rise	15395 Nov 27 00:39	6° ≮ ¹25'58		direct	15401 Feb 13 00:39	19° © 41'24	
3	15395 Dec 27 06:56	0°ප		asc. node	15401 Mar 09 16:34	23° © 32'11	
	15396 Feb 05 03:52	0° ≈		use. noue	15401 Mar 27 04:55	0°Ω	
	15396 Mar 18 08:42	0° ∀			15401 May 18 20:31	0° mp	
	15396 May 03 00:55	0° Υ			15401 Jun 30 01:18	ەر 20° <u>0</u>	
desc. node	15396 May 14 02:33	6° Υ 48'56			15401 Aug 08 12:59	0° m	
desc. node	15396 Jun 24 03:08	0° 8				0° ⊼ ¹	
. 1					15401 Sep 16 14:56		
retrograde	15396 Sep 10 04:54	25° 8 02'43	102.412.0		15401 Oct 26 13:36	0°₹	
opposition	15396 Oct 20 20:17	15° 8 23'49			15401 Dec 07 02:58	0° ≈	
greatest brilliancy	15396 Oct 20 21:51	15° 8 22'17	-1.2m	desc. node	15402 Jan 03 21:48	19° ≈ 19'46	
min. Earth dist.	15396 Oct 21 13:32	15° 8 06'50	0.68655 AU		15402 Jan 19 14:05	0° ∀	
direct	15396 Dec 01 06:33	5° 8 30'06		evening set	15402 Jan 25 16:58	4°) €07'19	
	15397 Feb 16 18:49	Π $^{\circ}$ 0			15402 Mar 05 20:41	0° Y	
	15397 Apr 09 23:54	0 \circ					
	15397 May 25 04:57	$0^{\circ}\Omega$		conjunction	15402 Mar 15 04:22	6° Ƴ 03'09	-0°39'26
asc. node	15397 Jun 03 06:08	6° £ 21′35		minimum elong	15402 Mar 15 03:07	6° Y 01′06	0°39'25
	15397 Jul 05 16:54	0° m)		max. Earth dist.	15402 Mar 28 01:53	14° Y 22'08	2.65427 AU
	15397 Aug 13 22:02	0∘ ত			15402 Apr 21 13:23	0°8	
evening set	15397 Sep 19 13:35	28° ♀ 54'30		morning rise	15402 Apr 29 00:03	4° 8 43'04	
•	15397 Sep 20 22:34	0° M .			15402 Jun 08 05:44	$\Pi^{\circ}0$	
	15397 Oct 28 18:18	0° ∡ ¹			15402 Jul 26 16:32	0°ಅ	
		•			15402 Sep 14 05:57	$0^{\circ}\Omega$	
conjunction	15397 Dec 01 15:10	26° х 24′52	1°02'28		15402 Nov 05 18:38	0° mp	
minimum elong	15397 Dec 01 17:45	26° × 24 52 26° × 29'51	1°03'21		15403 Jan 19 11:33	ەر <u>0</u> ∘	
minimum elong		0°る	1 03 21				
	15397 Dec 06 07:17			asc. node	15403 Jan 26 00:27	0° Ω 47'13	
m at m	15398 Jan 15 08:29	0° ≈	2 12550 111	retrograde	15403 Feb 01 14:47	1° Ω 03'42	
max. Earth dist.	15398 Jan 22 08:50	5°≈06'27	2.43578 AU	*.*	15403 Feb 14 13:22	30°R, M)	2026112
morning rise	15398 Feb 04 11:35	14°≈32'01		opposition	15403 Mar 04 14:29	25° m/34'14	
	15398 Feb 26 12:17	0° ∀		greatest brilliancy	15403 Mar 05 05:04	25° m 23'21	-2.8m
desc. node	15398 Mar 31 16:32	22° ¥ 25'57		min. Earth dist.	15403 Mar 11 08:47	23° m 33'43	0.39885 AU
	15398 Apr 12 05:47	0° Y		direct	15403 Apr 06 14:50	19° M 08'47	
	15398 May 30 04:00	0° 8			15403 May 18 08:21	0∘ ⊽	
	15398 Jul 22 12:49	$\Pi^{\circ}0$			15403 Jul 08 11:21	0° M	
retrograde	15398 Oct 16 08:23	28° Ⅲ 07'59			15403 Aug 21 01:07	0° ∡ ¹	
opposition	15398 Nov 24 12:34	19° Ⅱ 12'05	-4°48'38		15403 Oct 02 22:17	ರ°0	
greatest brilliancy	15398 Nov 25 07:11	18° Ⅱ 54'02			15403 Nov 15 17:47	0° ≈	
min. Earth dist.	15398 Nov 29 03:32		0.64487 AU	desc. node	15403 Nov 21 20:25	4° ≈ 06'41	
					1 1.0. 21 20.20		

	15403 Dec 30 22:11 15404 Feb 15 08:22	0° ∀ 0° Y			15409 Jan 26 12:22	ರ°0 š0	
evening set	15404 Feb 15 08.22 15404 Mar 05 17:17	0 γ 12° Υ 21'23			15409 Mar 08 02:28 15409 Apr 21 15:25	0 ≈ 0° H	
evening set	15404 Mar 03 17:17 15404 Apr 02 12:28	0° 8			15409 Apr 21 15:25 15409 Jun 17 17:20	0° Υ	
max. Earth dist.	15404 Apr 18 11:08		2.68522 AU	desc. node	15409 Jul 14 17:50	7° Υ 29'45	
max. Earth dist.	13 10 11pr 10 11.00	10 00003	2.00322710	retrograde	15409 Jul 26 11:20	8° Υ 22'45	
conjunction	15404 Apr 19 02:15	10° 8 30'01	-1°07'33	min. Earth dist.	15409 Aug 31 07:36	0° Υ 13'01	0.63097 AU
minimum elong	15404 Apr 19 01:23	10° 8 28'39	1°08'04		15409 Aug 31 20:53	30° ₹ ₩	
	15404 May 19 19:51	Π °0		opposition	15409 Sep 04 22:44	28°) €23'34	-2°07'38
morning rise	15404 Jun 01 01:59	7° Ⅱ 48′04		greatest brilliancy	15409 Sep 04 12:58	28°) 33′11	-1.5m
	15404 Jul 05 17:52	0 \circ		direct	15409 Oct 13 19:24	19° ∺ 24'38	
	15404 Aug 20 22:32	0 $^{\circ}\Omega$			15409 Nov 30 07:37	0° Υ	
	15404 Oct 05 07:05	0° m			15410 Jan 31 15:25	0°8	
_	15404 Nov 18 22:12	0∘ ⊽			15410 Mar 24 02:30	0°II	
asc. node	15404 Dec 13 03:35	16° Ω 20'51			15410 May 10 05:36	0°©	
	15405 Jan 02 13:46	0°M₊		. ,	15410 Jun 23 05:47	0° Ω	
	15405 Feb 19 11:41	0°⊀ 7		evening set	15410 Jun 25 14:38	1° Ω 40'06	2 45002 ATT
retrograde min. Earth dist.	15405 Apr 23 04:28	21° ₹ 36'48 17° ₹ 19'12	0.38503 AU	max. Earth dist.	15410 Jul 09 05:57	11° Ω 22'50	2.45803 AU
greatest brilliancy	15405 May 18 23:34 15405 May 23 17:25	17 x ·1912 15° x 56'40	-2.8m	asc. node	15410 Aug 03 17:37 15410 Aug 04 03:16	0° Mp 0° Mp 17'55	
opposition	15405 May 25 17:25 15405 May 25 01:03	15° 🗷 33'34		asc. node	13410 Aug 04 03.10	U III 1733	
direct	15405 Jun 23 18:01	10° х 19'49	0 32 33	conjunction	15410 Aug 20 03:53	12° m) 18'32	0°11'06
direct	15405 Aug 26 10:09	0°ਰ		minimum elong	15410 Aug 20 03:04	12° m) 16'59	0°10'43
desc. node	15405 Oct 09 01:36	24° ට 00'10		behind sun begin	15410 Aug 19 07:35	11° Mp 40'12	
	15405 Oct 19 06:38	0° ≈		behind sun end	15410 Aug 20 22:33	12° m 53'47	
	15405 Dec 08 00:20	0° ∀			15410 Sep 12 07:11	0∘ ⊽	
	15406 Jan 25 21:16	$0^{\circ}\mathbf{\Upsilon}$			15410 Oct 20 15:27	0° M	
	15406 Mar 15 06:15	0°8		morning rise	15410 Oct 26 07:13	4°M28'07	
evening set	15406 Apr 10 02:29	16° 8 13'06			15410 Nov 27 14:01	0° ∡ ¹	
	15406 May 01 19:47	$\Pi^{\circ}0$			15411 Jan 05 00:22	0° ට	
max. Earth dist.	15406 May 10 15:43	5° Ⅱ 38'58	2.66073 AU		15411 Feb 13 21:33	0° ≈	
					15411 Mar 28 07:04	0° ∀	
conjunction	15406 May 23 20:45	14° ∏ 09′26			15411 May 13 21:13	0° Υ	
minimum elong	15406 May 23 21:12	14° Ⅱ 10′11	1°12'23	desc. node	15411 Jun 01 17:38	10° Y 58'33	
	15406 Jun 17 03:37	0°9			15411 Jul 09 18:34	0°8	
morning rise	15406 Jul 07 09:27	13° © 25'39		retrograde	15411 Aug 29 23:27	12° 8 40'22	4000140
	15406 Jul 31 22:14	0° N		opposition	15411 Oct 09 20:25 15411 Oct 09 01:14	2° 8 50'40	
	15406 Sep 13 00:56 15406 Oct 24 13:22	0 ்⊽ 0 ் மி		min. Earth dist. greatest brilliancy	15411 Oct 09 01:14 15411 Oct 09 16:17	3° 8 09'37 2° 8 54'45	0.68418 AU
asc. node	15406 Oct 24 13.22 15406 Oct 30 22:28	0 == 4° £ 41'59		greatest billiancy	15411 Oct 09 10:17 15411 Oct 17 04:26	2 0 3443	-1.2111
asc. node	15406 Dec 03 19:55	0°M		direct	15411 Nov 19 20:30	23° Y 07'11	
	15407 Jan 12 14:19	0° ∡ 7		direct	15411 Dec 26 23:33	0°8	
	15407 Feb 22 07:16	0°ප			15412 Feb 29 10:56	0°II	
	15407 Apr 08 08:21	0° ≈			15412 Apr 19 05:30	0°ಲಾ	
retrograde	15407 Jun 17 16:49	25°≈49'50			15412 Jun 02 20:24	$0^{\circ}\Omega$	
min. Earth dist.	15407 Jul 17 23:12	19° ≈ 33'55	0.51628 AU	asc. node	15412 Jun 20 21:06	12° Ω 49'47	
opposition	15407 Jul 25 20:27	16° ≈ 37′24	1°38'40		15412 Jul 14 05:57	0° m	
greatest brilliancy	15407 Jul 25 09:15	16° ≈ 47′50	-2.1m	evening set	15412 Aug 21 18:09	29° m 25'12	
desc. node	15407 Aug 27 11:08	9° ≈ 05'10			15412 Aug 22 12:02	0∘ ত	
direct	15407 Aug 29 20:04	9° ≈ 03'01			15412 Sep 29 13:36	0°M	
	15407 Nov 07 22:43	0° ∀					
	15408 Jan 03 16:37	0° Υ		conjunction	15412 Nov 01 16:19	26°M17'18	1°07'06
	15408 Feb 23 22:41	8°0		minimum elong	15412 Nov 01 15:09	26°M14'59	1°07'47
	15408 Apr 12 13:10	0°Ⅱ 20°Ⅲ46'04			15412 Nov 06 09:00	್ತಾ 0° ಶ	
evening set	15408 May 14 20:51 15408 May 28 21:28	20° Ⅱ 46′04 0° ©		max. Earth dist.	15412 Dec 14 19:49 15412 Dec 21 13:32	5° る 09'31	2.37990 AU
max. Earth dist.	15408 Jun 03 18:12		2.58276 AU	morning rise	15413 Jan 12 12:20	3 30931 21° 3 42'14	2.37990 AU
max. Darui dist.	15-100 Juli 05 10.12	J -> 12	2.302/0 AU	morning 1150	15413 Jan 23 17:47	21 042 14 0°≈	
conjunction	15408 Jun 30 11:47	22° © 01'03	-0°47'02		15413 Mar 06 19:37	0° ∺	
minimum elong	15408 Jun 30 13:22	22°503'47		desc. node	15413 Apr 18 11:16	28°) 33'19	
	15408 Jul 12 00:27	0°Ω			15413 Apr 20 17:01	0° Υ	
morning rise	15408 Aug 20 12:37	28° Ω 09'26			15413 Jun 08 13:42	0°8	
, and the second	15408 Aug 23 01:15	0° m/			15413 Aug 05 08:01	0°II	
asc. node	15408 Sep 16 13:35	18° m 08'14		retrograde	15413 Oct 02 17:31	15° Ⅱ 10'25	
	15408 Oct 02 06:58	0∘ ⊽		opposition	15413 Nov 11 15:37	5° Ⅱ 54'48	-4°53'10
	15408 Nov 10 06:02	0° M.		greatest brilliancy	15413 Nov 12 03:39	5° Ⅱ 43'03	-1.3m
	15408 Dec 18 16:03	0° ∡		min. Earth dist.	15413 Nov 14 18:14	4° Ⅱ 41'59	0.66930 AU

	15413 Nov 27 19:27	30° ₹ 8			15419 Feb 22 07:15	0° Υ	
direct	15413 Dec 23 06:58	25° 8 52'49			15410 4 06 12 02	2700020120	0050124
	15414 Jan 19 16:11 15414 Mar 26 07:38	0° ©		conjunction minimum elong	15419 Apr 06 12:02 15419 Apr 06 10:51	27° Y 38'28 27° Y 36'36	
asc. node	15414 May 08 22:36	27° © 29'27		minimum clong	15419 Apr 10 05:07	0° と	0 39 44
use. Hode	15414 May 12 15:33	0°Ω		max. Earth dist.	15419 Apr 10 20:08		2.67981 AU
	15414 Jun 23 17:52	0° m)		morning rise	15419 May 19 19:19	25° 8 04'34	
	15414 Aug 02 03:01	0∘ ⊽		Č	15419 May 27 14:10	$\Pi^{\circ}0$	
	15414 Sep 09 05:27	0° M.			15419 Jul 13 22:57	0 \circ \odot	
	15414 Oct 17 04:16	0° ∡ ¹			15419 Aug 30 02:21	0 $^{\circ}\Omega$	
evening set	15414 Nov 07 21:40	16° ₹ ′56′12			15419 Oct 16 02:54	0° ™	
	15414 Nov 24 22:17	0°ಕ			15419 Dec 02 17:27	0∘ ত	
	15415 Jan 04 05:38	0° ≈		asc. node	15419 Dec 30 18:46	16° £ 54'59	
	15415 I 11 14.47	5920124	0022120		15420 Jan 23 08:52	0°ጤ 19°ጤ08'24	
conjunction minimum elong	15415 Jan 11 14:47 15415 Jan 11 16:51	5°≈20'24 5°≈24'07	0°33'15	retrograde opposition	15420 Mar 24 00:34 15420 Apr 22 17:07	19 11608 24 14°M 11'13	6°58'45
illillilliulli Clong	15415 Feb 15 14:11	0° \	0 33 13	greatest brilliancy	15420 Apr 22 17:07 15420 Apr 22 10:03	14°M 15'55	-3.0m
max. Earth dist.	15415 Feb 18 16:10	2° ∺ 07'25	2.52135 AU	min. Earth dist.	15420 Apr 21 15:49	14°M28'02	0.36378 AU
desc. node	15415 Mar 06 00:46	12°) ₹35'06		direct	15420 May 21 20:50	9°M21'52	
morning rise	15415 Mar 07 18:38	13° ¥ 45'38			15420 Jul 24 01:55	0° ∡ ¹	
	15415 Apr 01 05:30	0° Y			15420 Sep 12 23:05	ರ∘ರ	
	15415 May 18 07:06	0° 8		desc. node	15420 Oct 25 13:35	26°る55'26	
	15415 Jul 07 09:50	Π °0			15420 Oct 30 09:38	0° ≈	
	15415 Sep 01 21:50	0ಂತಾ			15420 Dec 16 16:15	0° ∀	
retrograde	15415 Nov 11 19:26	20° © 43'25			15421 Feb 02 07:54	0° Υ	
opposition	15415 Dec 19 08:43	12°528'11			15421 Mar 22 02:46	0°8	
greatest brilliancy	15415 Dec 20 10:20	12°904'00	-1.7m	evening set	15421 Mar 27 13:06	3° 8 25'04	2 (7701 AII
min. Earth dist. direct	15415 Dec 26 06:15 15416 Jan 28 20:48	9° © 52'22 2° © 44'10	0.58655 AU	max. Earth dist.	15421 May 02 01:01 15421 May 08 12:23	25° 8 52'29 0° Ⅱ	2.67701 AU
asc. node	15416 Mar 26 05:28	19°938'07			13421 Way 06 12.23	υщ	
asc. node	15416 Apr 14 04:24	0°Ω		conjunction	15421 May 10 03:46	1° Ⅱ 02'50	-1°13'05
	15416 May 30 03:48	0° m/		minimum elong	15421 May 10 03:40	1° Ⅱ 02'40	
	15416 Jul 09 19:41	0∘ <u>⊽</u>		morning rise	15421 Jun 22 15:05	29° Ⅱ 05'50	
	15416 Aug 17 14:10	0° M		-	15421 Jun 24 00:15	0 \circ \odot	
	15416 Sep 25 03:27	0° ∡ ¹			15421 Aug 08 05:50	$0^{\circ}\Omega$	
	15416 Nov 03 14:06	0°ප			15421 Sep 21 01:05	0° m)	
	15416 Dec 14 15:46	0° ≈			15421 Nov 02 10:10	0∘ ⊽	
evening set	15417 Jan 07 07:43	16° ≈ 40'09		asc. node	15421 Nov 16 17:55	10° ≙ 20'25	
desc. node	15417 Jan 20 14:10	25° ≈ 49'33			15421 Dec 13 16:41	0°M√	
	15417 Jan 26 16:47	0° ∺			15422 Jan 23 18:03 15422 Mar 07 21:43	0°る	
conjunction	15417 Feb 27 18:25	21° ∺ 30′23	-0°22'36		15422 May 03 20:47	0°≈	
minimum elong	15417 Feb 27 17:31	21°\(\frac{7}{3023}\)		retrograde	15422 May 29 21:04	0 ~ 4° ≈ 36'57	
	15417 Mar 12 16:35	0° Υ	·		15422 Jun 24 12:13	30°Ŗる	
max. Earth dist.	15417 Mar 18 18:26	3° Ƴ 57'49	2.62733 AU	min. Earth dist.	15422 Jun 26 18:34	29° る 14'39	0.46083 AU
morning rise	15417 Apr 15 07:29	21° Y '42'42		greatest brilliancy	15422 Jul 04 02:03	26° る 40'52	-2.4m
	15417 Apr 28 08:20	0° 8		opposition	15422 Jul 05 03:47	26° ප 18'13	3°43'06
	15417 Jun 15 09:21	Π °0		direct	15422 Aug 07 01:53	19° る 34'09	
	15417 Aug 03 22:13	0°99		desc. node	15422 Sep 12 21:04	26° る 49'42	
	15417 Sep 25 07:24	0° N			15422 Sep 21 08:34	0° ≈	
ratragrada	15417 Nov 28 14:13 15418 Jan 04 06:59	0° Mp 6° Mp 59'52			15422 Nov 21 06:30	0° ℋ 0° Ƴ	
retrograde opposition	15418 Feb 06 08:53	0° Mp 34'03	_0°19'21		15423 Jan 12 12:32 15423 Mar 03 07:55	0°8	
greatest brilliancy	15418 Feb 06 12:10	0° m ₀ 31'20			15423 Apr 20 10:08	0°II	
greatest orimancy	15418 Feb 08 01:45	30°RΩ	2.3111	evening set	15423 May 01 14:58	7° Ⅱ 09'01	
asc. node	15418 Feb 11 12:41	28° Ω 50'40		max. Earth dist.	15423 May 25 08:47		2.61962 AU
min. Earth dist.	15418 Feb 14 22:13	27° Ω 43'51	0.45050 AU		15423 Jun 05 17:00	0 \circ \mathfrak{s}	
direct	15418 Mar 14 13:18	22° Ω 42′03					
	15418 Apr 17 05:21	0° m		conjunction	15423 Jun 15 14:43	6° © 35'15	
	15418 Jun 09 21:57	0∘ 亚		minimum elong	15423 Jun 15 16:01	6° © 37'25	1°01'13
	15418 Jul 22 10:58	0°M 0°. ⊼			15423 Jul 20 01:06	0° N	
	15418 Sep 01 05:34	ス °0 る。0		morning rise	15423 Aug 02 05:55	9° Ω 11'49	
	15418 Oct 12 11:11 15418 Nov 24 02:27	ი ⊗e		asc. node	15423 Aug 31 10:45 15423 Oct 04 08:57	0°	
desc. node	15418 Dec 08 10:33	0 ≈ 9°≈49'40		use. Houe	15423 Oct 11 02:43	24 m/3633 0° Ω	
acce. node	15419 Jan 07 10:29	0° ∺			15423 Nov 19 11:28	0° m .	
evening set	15419 Feb 20 00:33	28°) 31'43			15423 Dec 28 06:13	0° ∡ 7	
Ü							

	15424 Feb 05 12:11	0°₹			15429 May 20 23:36	$0 {\circ} \Omega$	
	15424 Mar 17 20:58	0° ≈		asc. node	15429 May 25 12:40	3° Ω 09′22	
	15424 May 04 01:49	0°) €			15429 Jul 01 16:33	0° m)	
retrograde	15424 Jul 12 00:27	23° ¥ 30′13			15429 Aug 09 23:19	0∘ ত	
desc. node	15424 Jul 31 05:51	20° ¥ 55'01			15429 Sep 17 00:30	0° M	
min. Earth dist.	15424 Aug 14 19:35	16° ¥ 00′39	0.59227 AU	evening set	15429 Oct 08 06:03	16°ML51'21	
opposition	15424 Aug 20 21:03	13° ¥ 38'58		evening set	15429 Oct 24 21:02	0° ∡ 7	
	-	13°) ₹44′26	-0 33 12 -1.7m			0° ਠ	
greatest brilliancy	15424 Aug 20 15:26		-1./111		15429 Dec 02 11:04	0.0	
direct	15424 Sep 27 10:54	5°) €06'50				🚤	
	15424 Dec 15 21:32	0° Υ		conjunction	15429 Dec 18 05:06	11°₹56'59	
	15425 Feb 09 13:28	0°8		minimum elong	15429 Dec 18 08:12	12° る 02'48	0°54'25
	15425 Mar 31 13:41	Π °0			15430 Jan 11 13:16	0° ≈	
	15425 May 17 07:01	0°€		max. Earth dist.	15430 Feb 03 06:35	16° ≈ 22′00	2.46722 AU
evening set	15425 Jun 08 04:20	14° 5 42'19		morning rise	15430 Feb 17 04:57	26° ≈ 10′04	
max. Earth dist.	15425 Jun 23 05:02	25°902'52	2.51120 AU		15430 Feb 22 17:23	0°) €	
	15425 Jun 30 07:14	$0^{\circ}\Omega$		desc. node	15430 Mar 22 19:10	19° ₩ 04'47	
					15430 Apr 08 08:12	0° Υ	
conjunction	15425 Jul 29 04:31	20° Ω 38'03	-0°15'19		15430 May 25 20:03	0°8	
minimum elong	15425 Jul 29 05:27	20° Ω 39'44			15430 Jul 16 14:59	0°II	
behind sun begin	15425 Jul 29 01:46	$20^{\circ}\Omega 33'03$	0 13 30		15430 Sep 20 13:52	0°©	
_							
behind sun end	15425 Jul 29 09:08	20° Ω 46'25		retrograde	15430 Oct 26 03:25	6°521'08	
	15425 Aug 10 23:22	0° m)			15430 Nov 27 12:37	30°RⅡ	
asc. node	15425 Aug 20 21:50	7° m 22'33		opposition	15430 Dec 03 19:44	27° Ⅱ 38'11	
	15425 Sep 19 18:31	0∘ ⊽		greatest brilliancy	15430 Dec 04 17:37	27° Ⅱ 17'10	-1.5m
morning rise	15425 Sep 26 17:05	5° ≏ 20'46		min. Earth dist.	15430 Dec 09 07:11	25° Ⅱ 32'04	0.62669 AU
	15425 Oct 28 07:44	0° M		direct	15431 Jan 14 00:50	17° Ⅱ 40'39	
	15425 Dec 05 09:46	0° ∡ ¹			15431 Mar 03 22:29	0 \circ \odot	
	15426 Jan 12 22:23	0°రె		asc. node	15431 Apr 12 17:23	21° © 04'07	
	15426 Feb 21 22:36	0° ≈			15431 Apr 27 01:58	$0^{\circ}\Omega$	
	15426 Apr 05 18:33	0° ∀			15431 Jun 09 17:35	0° m/y	
	15426 May 24 01:55	0°Υ			15431 Jul 19 15:51	0∘ ರ ೧.11	
desc. node	15426 Jun 18 10:10	13° Υ 15'31				0° ™	
		29° Υ 59'51			15431 Aug 27 01:14	0° ⊼	
retrograde	15426 Aug 16 18:48		0.65115.477		15431 Oct 04 06:49		
min. Earth dist.	15426 Sep 24 08:22		0.67115 AU		15431 Nov 12 09:10	0° ろ	
opposition	15426 Sep 26 15:59	20° Y ′02'57		evening set	15431 Dec 18 06:15	26° පි 31'18	
greatest brilliancy	15426 Sep 26 07:39	20° Y 11′12	-1.3m		15431 Dec 23 01:51	0° ≈	
direct	15426 Nov 05 23:54	10° Ƴ 33'37			15432 Feb 03 18:42	0° ∀	
	15427 Jan 13 07:14	9° 8		desc. node	15432 Feb 07 08:45	2° ∺ 27'16	
	15427 Mar 10 14:08	$\Pi^{\circ}0$					
	15427 Apr 27 23:29	0 \circ \odot		conjunction	15432 Feb 11 20:03	5°) 30′04	-0°02'47
	15427 Jun 11 06:21	$0^{\circ}\Omega$		minimum elong	15432 Feb 11 19:58	5° ∺ 29'55	0°02'19
asc. node	15427 Jul 08 14:35	19° Ω 37'09		behind sun begin	15432 Feb 10 22:33	4° ¥ 53'32	
	15427 Jul 22 15:49	0° m)		behind sun end	15432 Feb 12 17:22	6° ¥ 06'16	
evening set	15427 Jul 28 04:07	4° Mp 07'27		max. Earth dist.	15432 Mar 08 13:13		2.59192 AU
max. Earth dist.	15427 Aug 24 14:39	25° m 02'35	2.37527 AU		15432 Mar 19 13:13	0° Υ	
max. Earth dist.	15427 Aug 31 00:07	0∘ ⊽	2.57527110	morning rise	15432 Mar 31 21:25	8° Υ '02'36	
	1344 Aug 31 00.0/	v 		morning rise	15432 May 05 06:06	8° 1 02/36 0° 8	
	15407 0-+ 01 22-22	259 0 04127	0952110		•		
conjunction	15427 Oct 01 22:23	25° £ 04'37			15432 Jun 22 20:11	0°Ⅱ	
minimum elong	15427 Oct 01 18:28	24° ≙ 56'53	0°53'35		15432 Aug 13 00:36	0°®	
	15427 Oct 08 03:29	0° M ₊			15432 Oct 10 00:53	0 ° Ω	
	15427 Nov 14 23:15	0° ∡ 7		retrograde	15432 Dec 11 09:12	17° Ω 02'53	
morning rise	15427 Dec 15 21:51	24° ∡ 14'25		opposition	15433 Jan 15 12:39	9° Ω 46'41	-2°21'12
	15427 Dec 23 08:51	0° ප		greatest brilliancy	15433 Jan 16 09:03	9° £ 28′31	-2.1m
	15428 Feb 01 04:57	0°≈		min. Earth dist.	15433 Jan 24 01:58	6° Ω 44'16	0.50714 AU
	15428 Mar 14 07:04	0°) €		direct	15433 Feb 22 23:17	0° Ω 52'55	
	15428 Apr 28 13:09	0 ° Υ		asc. node	15433 Feb 28 02:15	1° Ω 03'53	
desc. node	15428 May 05 05:09	4° Υ 11'44			15433 May 10 05:18	0° m)	
	15428 Jun 18 00:20	0°8			15433 Jun 23 05:33	0∘ ⊽	
	15428 Aug 28 01:06	0°II			15433 Aug 02 09:32	0° ™	
retrograde	15428 Sep 18 21:13	2° П 38'03			15433 Sep 10 21:23	0° ∡ 7	
renograde	-				-		
.	15428 Oct 09 07:40	30°₹ 8	40.4.415.5		15433 Oct 21 04:08	5°0	
opposition	15428 Oct 29 08:05	23° 8 06'41			15433 Dec 02 00:26	0°≈	
greatest brilliancy	15428 Oct 29 13:18	23° 8 01'34		desc. node	15433 Dec 25 01:07	15°≈57'54	
min. Earth dist.	15428 Oct 30 22:01	22° 8 29'27	0.68326 AU		15434 Jan 14 17:28	0° ∀	
direct	15428 Dec 09 21:50	13° 8 08'56		evening set	15434 Feb 04 07:38	13° ¥ 43′25	
	15429 Feb 09 05:47	Π °0			15434 Mar 01 03:53	0° Y	
	15429 Apr 05 03:19	0 \circ \odot					

conjunction	15434 Mar 23 12:06	14° Ƴ 25'31	0017118		15439 May 25 03:27	0°) €	
minimum elong	15434 Mar 23 10:47	14° Y 23'25		retrograde	15439 Jun 27 08:34	6° ∺ 51'43	
C		14 γ 23 23 20° Υ 39'31	2.66582 AU	min. Earth dist.	15439 Jul 28 22:06	0° ∺ 08'00	0.54537 AU
max. Earth dist.	15434 Apr 02 05:43	0° 8	2.00382 AU	min. Earth dist.			0.54537 AU
	15434 Apr 16 21:34	_			15439 Jul 29 06:39	30°R≈	0026117
morning rise	15434 May 06 14:53	12° 8 29'31		opposition	15439 Aug 05 06:09	27°≈20'26	
	15434 Jun 03 10:17	0°Ⅱ		greatest brilliancy	15439 Aug 05 02:17	27°≈24'07	-1.9m
	15434 Jul 21 09:55	0°95		desc. node	15439 Aug 17 17:44	22°≈58'55	
	15434 Sep 07 21:56	0° N		direct	15439 Sep 10 06:33	19° ≈ 22'40	
	15434 Oct 27 17:59	0° m			15439 Oct 27 02:11	0°) €	
	15434 Dec 21 20:58	0∘ ⊽			15439 Dec 28 04:54	0° Υ	
asc. node	15435 Jan 16 08:50	10° ≏ 43'28			15440 Feb 18 16:29	0°B	
retrograde	15435 Feb 19 14:44	17° Ω 17'56			15440 Apr 07 17:42	0∘Щ	
opposition	15435 Mar 21 12:01	12° ≏ 14'39	4°29'10	evening set	15440 May 23 08:55	29° Ⅱ 26′28	
greatest brilliancy	15435 Mar 22 03:38	12° ≏ 03'48			15440 May 24 05:10	0 \circ \odot	
min. Earth dist.	15435 Mar 26 04:28	10° £ 56'45	0.37796 AU	max. Earth dist.	15440 Jun 10 08:00		2.55925 AU
direct	15435 Apr 21 15:54	6° £ 37'28			15440 Jul 07 07:39	0 $^{\circ}\Omega$	
	15435 Jun 26 13:56	0° M ₊					
	15435 Aug 12 20:23	0° ∡ ¹		conjunction	15440 Jul 10 06:02	2° Ω 03′05	-0°36'58
	15435 Sep 26 06:31	ರ°0		minimum elong	15440 Jul 10 07:36	2° Ω 05'49	0°37'46
	15435 Nov 09 23:18	0° ≈			15440 Aug 18 05:48	0° m)	
desc. node	15435 Nov 12 01:06	1° ≈ 22'37		morning rise	15440 Sep 01 19:04	10° m 44'54	
	15435 Dec 25 17:28	0° ∀		asc. node	15440 Sep 06 17:43	14° m 26'17	
	15436 Feb 10 12:05	$0^{\circ}\mathbf{Y}$			15440 Sep 27 08:09	0∘ ⊽	
evening set	15436 Mar 13 19:18	20° Y 28'46			15440 Nov 05 03:41	0° M	
C	15436 Mar 28 20:36	0°8			15440 Dec 13 10:24	0° ∡ ¹	
max. Earth dist.	15436 Apr 23 10:37	16° 8 11'30	2.68470 AU		15441 Jan 21 02:51	ರ°0	
					15441 Mar 02 09:19	0° ≈	
conjunction	15436 Apr 26 18:22	18° 8 17'56	-1°10'44		15441 Apr 15 00:45	0° ∀	
minimum elong	15436 Apr 26 17:46	18° 8 16'58			15441 Jun 05 23:43	0°Υ	
minimum crong	15436 May 15 04:23	0°II	1 11 20	desc. node	15441 Jul 04 23:12	11° Υ 48'53	
morning rise	15436 Jun 08 18:42	15° ∏ 43'18		retrograde	15441 Aug 03 08:40	16° Υ 47'19	
morning risc	15436 Jun 30 22:15	0°99		min. Earth dist.	15441 Sep 09 05:41		0.64802 AU
	15436 Aug 15 17:49	0°Ω		opposition	15441 Sep 13 01:07	6° Υ 47'22	
	•	0° m p		**	-	6°Υ57'28	
	15436 Sep 29 10:54 15436 Nov 12 02:17	0∘ ত بالا		greatest brilliancy	15441 Sep 12 14:53 15441 Oct 03 00:16	30°R)(-1.4111
aga mada		0 <u>≈</u> 14° Ω 50'56		direct	15441 Oct 03 00.16	30 KA 27° ∺ 36′08	
asc. node	15436 Dec 03 09:43			direct		2/°π3608 0°Υ	
	15436 Dec 25 02:19	0°M			15441 Nov 12 10:03		
	15437 Feb 07 01:18	0° ∡ 7			15442 Jan 25 00:56	0° B	
	15437 Mar 31 18:16	0°궁			15442 Mar 18 20:08	Π°0	
retrograde	15437 May 07 15:48	8° る 48'25	0.40045.477		15442 May 05 08:55	0° ©	
min. Earth dist.	15437 Jun 02 17:41	4° ට 14'13			15442 Jun 18 11:39	0° Ω	
greatest brilliancy	15437 Jun 08 19:17	2° る 19'58		evening set	15442 Jul 06 13:02	12° Ω 51'24	
opposition	15437 Jun 10 05:40	1° る 52'43	5°55'01	max. Earth dist.	15442 Jul 20 21:11		2.42710 AU
	15437 Jun 16 09:23	30°₽.∡7		asc. node	15442 Jul 25 07:32	26° Ω 33'44	
direct	15437 Jul 11 02:01	26° ₹ 07'34			15442 Jul 29 22:53	0° ™	
	15437 Aug 05 13:18	0°ಕ					
desc. node	15437 Sep 29 08:51	23° る 49'03		conjunction	15442 Sep 03 09:08	26° Mp 51'08	
	15437 Oct 10 19:28	0° ≈		minimum elong	15442 Sep 03 06:52	26° Mp 46'46	0°27'13
	15437 Dec 01 20:05	0° ∀			15442 Sep 07 10:54	0∘ ⊽	
	15438 Jan 20 15:19	0° Υ			15442 Oct 15 17:30	0° M	
	15438 Mar 10 10:44	9° 8		morning rise	15442 Nov 13 13:51	22°M50'58	
evening set	15438 Apr 17 20:41	24° 8 04'42			15442 Nov 22 14:54	0° ∡ ¹	
	15438 Apr 27 04:24	Π $^{\circ}0$			15442 Dec 31 00:33	0°₹	
max. Earth dist.	15438 May 15 22:02	12° Ⅱ 00'49	2.64841 AU		15443 Feb 08 20:13	0° ≈	
					15443 Mar 23 01:00	0° ∀	
conjunction	15438 May 31 21:37	22° Ⅲ 23'22	-1°08'46		15443 May 07 22:35	0° Y	
minimum elong	15438 May 31 22:24	22° Ⅲ 24'40	1°09'38	desc. node	15443 May 22 22:25	9° Ƴ 03'51	
-	15438 Jun 12 11:55	0∘ ©			15443 Jun 30 08:57	0°8	
morning rise	15438 Jul 16 07:06	22°536'34		retrograde	15443 Sep 06 11:56	20° 8 15'04	
-	15438 Jul 27 03:01	$0^{\circ}\Omega$		opposition	15443 Oct 17 06:42	10° 8 31'01	-4°25'26
	15438 Sep 07 23:28	0° mp		greatest brilliancy	15443 Oct 17 05:37	10° 8 32'05	
	15438 Oct 19 04:08	0∘ ⊽		min. Earth dist.	15443 Oct 17 07:57	10° 8 29'47	0.68682 AU
asc. node	15438 Oct 21 04:18	1° Ω 29'22		direct	15443 Nov 27 13:03	0° 8 41'18	
	15438 Nov 28 01:37	0°M			15444 Feb 22 17:05	0°II	
	15439 Jan 06 09:19	0° ∡ 7			15444 Apr 13 20:29	0°®	
	15439 Feb 15 08:44	0°ਰ			15444 May 28 20:45	0° U	
	15439 Mar 30 09:09	0° ≈		asc. node	15444 Jun 11 04:39	9° Ω 24'43	
		÷ : ÷ :			I	2 002 1 19	

	15444 Jul 09 08:46	0° m/			15449 Apr 23 15:39	0° ႘	
	15444 Aug 17 15:04	0∘ ত بابا			15449 Apr 23 13:39 15449 Jun 10 10:44	0°U	
evening set	15444 Sep 07 01:41	0 <u>−</u> 16° <u>₽</u> 03'00			15449 Jul 29 07:16	0° ©	
evening set	15444 Sep 24 16:09	0°M			15449 Sep 17 21:05	$0 {\circ} {\mathfrak O}$	
	15444 Nov 01 11:23	0° ∡ 7			15449 Nov 12 13:04	0° m)	
				retrograde	15450 Jan 19 13:15	20° m) 25'40	
conjunction	15444 Nov 19 11:42	14° ₹ 09'10	1°06'36	asc. node	15450 Feb 01 21:41	19° m 17'16	
minimum elong	15444 Nov 19 13:02	14° ∡ 11'48	1°07'27	opposition	15450 Feb 20 11:25	14° m 30'58	1°14'20
	15444 Dec 09 22:40	0°ප		greatest brilliancy	15450 Feb 20 20:03	14° m 24'10	-2.7m
max. Earth dist.	15445 Jan 12 09:44	25° る 13'47	2.41008 AU	min. Earth dist.	15450 Feb 28 08:03	12°Mp03'11	0.42053 AU
	15445 Jan 18 21:09	0° ≈		direct	15450 Mar 26 23:12	7° m 24'41	
morning rise	15445 Jan 26 14:09	5°≈37'32			15450 May 29 17:51	0∘ ⊽	
	15445 Mar 01 22:32	0°) {			15450 Jul 14 11:33	0° ™	
desc. node	15445 Apr 08 13:37	25°) €22'43			15450 Aug 25 12:06	0° ∡ 7	
	15445 Apr 15 15:38	0°Υ 0°°			15450 Oct 06 12:09	0°3	
	15445 Jun 02 20:11 15445 Jul 27 12:28	0°B 0°B		desc. node	15450 Nov 18 16:36 15450 Nov 28 15:41	0° ≈ 6° ≈ 46'21	
retrograde	15445 Oct 10 22:03	0 П 22°П59'38		desc. node	15451 Jan 02 10:12	0 ≈4021 0°)	
opposition	15445 Nov 19 11:27	13° ∏ 54'27	-4°52'08		15451 Feb 17 13:07	0°Υ	
greatest brilliancy	15445 Nov 20 03:16	13° Д 3427		evening set	15451 Feb 28 11:55	7° Υ 01'18	
min. Earth dist.	15445 Nov 23 10:37	12° ∏ 22'03	0.65717 AU	evening sec	15451 Apr 05 13:50	0°8	
direct	15445 Dec 31 01:24	3° Ⅱ 52'15			r	. •	
	15446 Mar 18 23:11	0∘ ©		conjunction	15451 Apr 14 07:01	5° 8 31'44	-1°04'38
asc. node	15446 Apr 29 07:24	24° © 58'19		minimum elong	15451 Apr 14 05:59	5° 8 30'07	1°05'05
	15446 May 06 21:52	$0^{\circ}\Omega$		max. Earth dist.	15451 Apr 15 19:42	6° 8 29'54	2.68382 AU
	15446 Jun 18 11:03	0° m			15451 May 22 21:38	Π °0	
	15446 Jul 28 00:17	0∘ ⊽		morning rise	15451 May 27 08:47	2° Ⅱ 49'58	
	15446 Sep 04 04:34	0° M			15451 Jul 09 00:15	0ಂಣ	
	15446 Oct 12 04:53	0° ∡			15451 Aug 24 14:42	$0^{\circ}\Omega$	
	15446 Nov 20 00:44	0°る			15451 Oct 09 15:18	0° m)	
evening set	15446 Nov 23 14:19	2°る42'12		1	15451 Nov 24 08:39	0° 亞	
	15446 Dec 30 10:01	0° ≈		asc. node	15451 Dec 21 02:24 15452 Jan 10 01:16	17° £ 22'26 0° I L	
conjunction	15447 Jan 23 17:51	17° ≈ 23'24	0°19'21		15452 Mar 05 13:01	0° 1 7	
minimum elong	15447 Jan 23 19:02	17°≈25'29	0°20'02	retrograde	15452 Apr 10 14:52	8° ∡ ¹05'04	
g	15447 Feb 10 20:08	0° ∀	0 20 02	min. Earth dist.	15452 May 07 02:22	3° х 47′20	0.37151 AU
desc. node	15447 Feb 24 02:01	9°) €03'42		greatest brilliancy	15452 May 10 06:41	2° ∡ ′54'55	-2.9m
max. Earth dist.	15447 Feb 26 02:55	10° ¥ 26'37	2.54849 AU	opposition	15452 May 11 05:53	2° х 38′56	7°15'13
morning rise	15447 Mar 17 08:44	23°) €20'14			15452 May 21 13:15	30°RM	
	15447 Mar 27 11:10	$0^{\circ}\Upsilon$		direct	15452 Jun 09 08:04	27°M43'36	
	15447 May 13 07:51	9° 8			15452 Jun 28 07:42	0° ∡ ¹	
	15447 Jul 01 17:27	Π °0			15452 Sep 03 07:22	0° ろ	
	15447 Aug 24 14:12	0°99		desc. node	15452 Oct 15 19:37	25° පි 16'08	
. 1	15447 Nov 20 04:48	0° N			15452 Oct 23 13:00	0° ≈	
retrograde	15447 Nov 22 02:49	0°Ω01'20			15452 Dec 11 00:25	0° ℋ 0° Ƴ	
opposition	15447 Nov 24 00:35 15447 Dec 28 22:15	30°₹© 22°©04'46	2027127		15453 Jan 28 06:53 15453 Mar 17 09:18	0°Y	
greatest brilliancy	15447 Dec 28 22:15 15447 Dec 30 00:01	22 \$04 46 21°\$40'50		evening set	15453 Apr 04 07:01	11° 8 14'50	
min. Earth dist.	15448 Jan 05 12:56	19°5015'30	0.56034 AU	evening set	15453 May 03 21:16	0°П	
direct	15448 Feb 06 20:45	12°933'43	0.0000 1110	max. Earth dist.	15453 May 07 01:24		2.66900 AU
asc. node	15448 Mar 16 13:36	21° © 13'49					
	15448 Apr 04 10:46	$0^{\circ}\Omega$		conjunction	15453 May 17 22:11	8° Ⅱ 59'15	-1°12'44
	15448 May 23 09:02	0° ™		minimum elong	15453 May 17 22:25	8° Ⅱ 59'37	1°13'32
	15448 Jul 03 20:05	0∘ ⊽			15453 Jun 19 07:19	0 \circ \odot	
	15448 Aug 11 23:22	0° M		morning rise	15453 Jun 30 21:53	7° © 38'25	
	15448 Sep 19 18:36	0° ∡			15453 Aug 03 07:28	$0^{\circ}\Omega$	
	15448 Oct 29 10:39	0°ප			15453 Sep 15 17:52	0° m)	
	15448 Dec 09 17:10	0° ≈			15453 Oct 27 15:41	0° ⊽	
desc. node	15449 Jan 10 18:03	22°≈22'20		asc. node	15453 Nov 06 22:07	7° ≏ 30'11	
evening set	15449 Jan 18 00:21 15449 Jan 21 22:15	27° ≈ 20'22 0° ¥			15453 Dec 07 08:08 15454 Jan 16 13:58	0° ጤ 0° ዶ	
	19 44 7 Jan 21 22.13	υ Λ			15454 Feb 27 01:08	0° X ' ਨ°0	
conjunction	15449 Mar 08 16:40	0° Y ′26'34	-0°32'49		15454 Apr 15 13:50	0°≈	
minimum elong	15449 Mar 08 15:30	0° Υ 24'39	0°32'43	retrograde	15454 Jun 09 20:03	17° ≈ 32'24	
	15449 Mar 08 00:24	0° Υ		min. Earth dist.	15454 Jul 09 00:10	11° ≈ 40'49	0.49165 AU
max. Earth dist.	15449 Mar 24 07:27	10° Ƴ 34'49	2.64320 AU	greatest brilliancy	15454 Jul 16 12:33	8° ≈ 56'42	-2.2m
morning rise	15449 Apr 23 04:47	29° Y '42'45		opposition	15454 Jul 17 05:56	8° ≈ 40'51	2°29'46

t' i	15454 4 20 00 40	1027141			15450 A 10 22 20	100 m -1700	
direct	15454 Aug 20 08:40	1°≈27'41		evening set	15459 Aug 10 23:38	18° Mp 16'00	
desc. node	15454 Sep 03 04:57	2°≈36'52			15459 Aug 26 04:11	0∘ 亚	
	15454 Nov 13 05:21	0° ∀			15459 Oct 03 06:56	0° M .	
	15455 Jan 06 17:02	0° Υ			151500 . 10 10 20	1007 50110	1000110
	15455 Feb 26 07:24	0°B		conjunction	15459 Oct 19 12:33	12°M53'42	1°03'19
	15455 Apr 15 17:03	0°II		minimum elong	15459 Oct 19 09:37	12°M47'52	1°03'51
evening set	15455 May 09 15:23	15° Ⅱ 19'07		max. Earth dist.	15459 Nov 08 15:04	28°M50'29	2.36224 AU
max. Earth dist.	15455 May 31 03:22	29° Ⅱ 23'10	2.60020 AU		15459 Nov 10 02:14	0° ∡ ¹	
	15455 Jun 01 01:38	0 \circ			15459 Dec 18 11:46	0°ಕ	
				morning rise	15460 Jan 01 13:18	10° る 44'54	
conjunction	15455 Jun 24 10:38	15° © 39'53			15460 Jan 27 07:37	0° ≈	
minimum elong	15455 Jun 24 12:08	15°9542'26	0°54'10		15460 Mar 09 07:38	0° ∀	
	15455 Jul 15 08:01	0 \circ Ω			15460 Apr 23 06:13	0° Y	
morning rise	15455 Aug 12 19:23	20° Ω 04'30		desc. node	15460 Apr 25 07:49	1° Y 19'25	
	15455 Aug 26 13:32	0° m)			15460 Jun 11 14:01	0°B	
asc. node	15455 Sep 24 13:46	21° Mp 23'44			15460 Aug 11 08:52	Π °0	
	15455 Oct 06 00:28	0∘ ऌ		retrograde	15460 Sep 26 16:42	10° Ⅱ 15'53	
	15455 Nov 14 03:59	0° M		opposition	15460 Nov 05 21:29	0° Ⅱ 52'50	-4°51'15
	15455 Dec 22 17:25	0° ∡ ¹		greatest brilliancy	15460 Nov 06 06:31	0° Ⅱ 43'59	-1.3m
	15456 Jan 30 16:51	8°0		min. Earth dist.	15460 Nov 08 08:10	29° 8 55'26	0.67690 AU
	15456 Mar 11 12:04	0° ≈			15460 Nov 08 03:29	30° ₹ ႘	
	15456 Apr 25 18:56	0°) €		direct	15460 Dec 17 13:00	20° 8 52'02	
	15456 Jun 29 19:09	$0^{\circ}\mathbf{\Upsilon}$			15461 Jan 29 05:48	Π° 0	
retrograde	15456 Jul 20 09:10	2° Y 38'34			15461 Mar 29 21:55	0°©	
desc. node	15456 Jul 21 12:33	2° Y 38'02		asc. node	15461 May 15 20:24	0° Ω 09'03	
	15456 Aug 08 22:50	30° ₹ ₩			15461 May 15 15:07	$0^{\circ}\Omega$	
min. Earth dist.	15456 Aug 24 08:18	24°) 45'45	0.61492 AU		15461 Jun 26 14:19	0° m)	
opposition	15456 Aug 29 14:34	22°) (41'51	-1°39'34		15461 Aug 04 23:13	0 ° $\overline{\mathbf{v}}$	
greatest brilliancy	15456 Aug 29 05:52	22°) 50'24		greatest brilliancy	15461 Sep 12 00:42	29° ≏ 58'47	1.2m
direct	15456 Oct 06 22:11	13° ¥ 53'56		8	15461 Sep 12 01:19	0°M	
	15456 Dec 06 17:33	0°Υ			15461 Oct 19 22:43	0° ∡ 7	
	15457 Feb 03 16:35	0°8		evening set	15461 Oct 25 18:46	4° х ⁷ 35'04	
	15457 Mar 26 12:56	0°II		evening sec	15461 Nov 27 14:11	0°る	
	15457 May 12 12:57	0°9			10 101 1101 27 1 1.111	. .	
evening set	15457 Jun 17 18:40	24°932'08		conjunction	15462 Jan 01 11:22	26° පි 08'09	0°42'00
evening set	15457 Jun 25 14:37	0°Ω		minimum elong	15462 Jan 01 14:03	26° る 13'04	0°42'49
max. Earth dist.	15457 Jul 01 15:44		2.48245 AU	minimum ciong	15462 Jan 06 18:04	0° ≈	0 12 17
max. Earth dist.	15457 Aug 06 05:27	0° m)	2.40243710	max. Earth dist.	15462 Feb 12 10:26	26°≈09'44	2.49778 AU
	13437 Aug 00 03.27	V III		max. Earm dist.	15462 Feb 17 23:03	20 ≈ 09 44	2.49776 AU
conjunction	15457 Aug 10 02:17	2° m 52'00	0°00'45	morning rise	15462 Feb 28 00:45	6° ¥ 55'28	
minimum elong	15457 Aug 10 02:17	2° m ₂ 52'05		desc. node	15462 Mar 12 22:08	15° X 39'58	
•	_	2° m) 07'13	0 01 10	desc. Hode		13 γ (3938	
behind sun begin behind sun end	15457 Aug 09 02:08	•			15462 Apr 03 12:26	0°8	
asc. node	15457 Aug 11 02:30 15457 Aug 11 03:47	3° Mp 37'00			15462 May 20 16:14	0°I	
asc. node	15457 Sep 14 22:22	3° My 39'23			15462 Jul 10 07:41 15462 Sep 07 08:59	0°©	
	1	0° ™		. 1			
morning rise	15457 Oct 12 17:23	21° £ 37'15		retrograde	15462 Nov 04 09:00	14°952'34	4922100
	15457 Oct 23 09:08	0°M 26°M43'00	1.2	opposition	15462 Dec 12 11:31	6°524'09	
greatest brilliancy	15457 Nov 26 05:00		1.2m	greatest brilliancy	15462 Dec 13 11:49	6°901'00	
	15457 Nov 30 08:54	0° ∡		min. Earth dist.	15462 Dec 18 18:35	4°900'35	0.60575 AU
	15458 Jan 07 19:26	0° ප		P	15462 Dec 30 12:01	30°RⅡ	
	15458 Feb 16 16:21	0° ≈		direct	15463 Jan 22 08:49	26° Ⅱ 32'34	
	15458 Mar 31 03:35	0° \			15463 Feb 15 09:42	0.20	
	15458 May 17 05:00	0° Υ		asc. node	15463 Apr 03 02:35	20° © 10'01	
desc. node	15458 Jun 08 13:23	12° Ƴ 34'48			15463 Apr 19 22:46	$0^{\circ}\Omega$	
	15458 Jul 16 17:33	0° 8			15463 Jun 03 19:35	0° m)	
retrograde	15458 Aug 24 08:12	7° 8 47'57			15463 Jul 14 03:43	0∘ ⊽	
	15458 Sep 28 22:21	30° ₹ Υ			15463 Aug 21 17:57	0° M	
min. Earth dist.	15458 Oct 02 18:55	28° Y 29′18	0.67974 AU		15463 Sep 29 02:57	0° ∡ 7	
opposition	15458 Oct 04 06:02	27° Y 54'36			15463 Nov 07 08:44	0°ප	
greatest brilliancy	15458 Oct 03 23:48		-1.3m		15463 Dec 18 05:00	0° ≈	
direct	15458 Nov 13 23:20	18° Ƴ 16'49		evening set	15463 Dec 30 12:46	8° ≈ 46'56	
	15459 Jan 03 08:56	9° 8		desc. node	15464 Jan 28 11:18	28° ≈ 55'43	
	15459 Mar 04 15:18	Π °0			15464 Jan 30 00:52	0° ∀	
	15450 4 22 20 25	0 \circ \odot					
	15459 Apr 22 20:25						
	15459 Jun 06 09:26	$0^{\circ}\Omega$		conjunction	15464 Feb 21 15:51	15° ∺ 17'54	
asc. node	15459 Jun 06 09:26 15459 Jun 28 20:34	0° Ω 16° Ω 01'43		minimum elong	15464 Feb 21 15:51 15464 Feb 21 15:13	15° ∺ 16'49	
asc. node	15459 Jun 06 09:26	$0^{\circ}\Omega$		-			

behind sun end	15464 Feb 22 00:27	15°) 32'15		min. Earth dist.	15469 Jun 16 15:26	19° る 30'16	0.43638 AU
oeimia san ena	15464 Mar 14 21:00	0° Υ		opposition	15469 Jun 24 21:08	16° る 44'05	4°41'19
max. Earth dist.	15464 Mar 14 12:35	29°) 46'11	2.61251 AU	greatest brilliancy	15469 Jun 23 14:03	17° る 10'19	
morning rise	15464 Apr 09 05:15	16° Y ′26′16		direct	15469 Jul 26 20:07	10° る 25'50	
S	15464 Apr 30 12:00	0° ႘		desc. node	15469 Sep 19 15:00	25° る 04'12	
	15464 Jun 17 17:07	$\Pi^{\circ}0$			15469 Sep 30 05:44	0° ≈	
	15464 Aug 06 20:05	0ಂಣ			15469 Nov 25 03:33	0° ∀	
	15464 Sep 30 00:17	$0^{\circ}\Omega$			15470 Jan 15 05:09	0° Y	
retrograde	15464 Dec 24 08:57	28° Ω 23′59			15470 Mar 05 13:41	0° 8	
opposition	15465 Jan 27 09:29	21° Q 34'23	-1°17'35		15470 Apr 22 12:29	Π $^{\circ}0$	
greatest brilliancy	15465 Jan 27 21:41	21° Q 23'53		evening set	15470 Apr 25 15:57	2° Ⅱ 00'05	
min. Earth dist.	15465 Feb 05 01:47		0.47590 AU	max. Earth dist.	15470 May 21 07:45		2.63354 AU
asc. node	15465 Feb 18 09:54	14° Ω 50′27			15470 Jun 07 20:28	0 \circ	
direct	15465 Mar 05 16:27	13° Ω 11'15					
	15465 Apr 28 22:20	0° mp		conjunction	15470 Jun 09 03:27	0°951'09	
	15465 Jun 15 13:45	0∘ 亚		minimum elong	15470 Jun 09 04:33	0°952'59	1°05'21
	15465 Jul 26 20:31	0°M			15470 Jul 22 08:40	0°N	
	15465 Sep 04 22:50	0°る		morning rise	15470 Jul 25 15:51	2° Ω 16'31	
	15465 Oct 15 16:07 15465 Nov 26 21:03	0° ≈		asc. node	15470 Sep 02 24:00 15470 Oct 11 09:10	0° Т р 28° Т р 06'10	
desc. node	15465 Dec 15 06:04	0 ≈ 12°≈40'56		asc. node	15470 Oct 11 09:10 15470 Oct 13 22:14	28 III/06 IU 0° Ω	
desc. node	15466 Jan 09 20:39	0°)			15470 Nov 22 12:53	0° ™	
evening set	15466 Feb 13 09:21	22°) 47'23			15470 Dec 31 12:38	0° ⊼	
evening set	15466 Feb 24 11:34	0°Υ			15471 Feb 09 00:16	∞ੇਂਤ	
	10.00100 2. 11.5.	• 1			15471 Mar 22 20:25	0° ≈	
conjunction	15466 Mar 31 13:05	22° Y '31'41	-0°55'01		15471 May 11 01:29	0° ∀	
minimum elong	15466 Mar 31 11:49	22° Y ′29'39	0°55'17	retrograde	15471 Jul 06 11:39	17° ¥ 05'31	
max. Earth dist.	15466 Apr 07 07:06	26° Y '49'43	2.67454 AU	desc. node	15471 Aug 07 23:34	10°) 02'38	
	15466 Apr 12 06:47	9° 8		min. Earth dist.	15471 Aug 08 07:01	9°) 55'34	0.57222 AU
morning rise	15466 May 14 03:41	20° 8 11'07		opposition	15471 Aug 14 22:34	7° ∺ 21'26	-0°19'22
	15466 May 29 16:52	Π °0		greatest brilliancy	15471 Aug 14 20:27	7°) €23'29	-1.8m
	15466 Jul 16 07:42	0ಂತಾ			15471 Sep 08 18:28	30° ₹ ≈	
	15466 Sep 02 00:03	$0^{\circ}\Omega$		direct	15471 Sep 20 20:41	29° ≈ 03'30	
	15466 Oct 20 01:16	0° m)			15471 Oct 03 11:32	0° ∀	
,	15466 Dec 08 21:46	0° ™			15471 Dec 21 01:10	0°Υ •••	
asc. node	15467 Jan 06 16:18	15° ჲ 43'39 0° ൩			15472 Feb 13 05:30	0°¤ 8°0	
ratra ara da	15467 Feb 08 19:09 15467 Mar 10 10:51	บ"แเ 5°Mเ14'53			15472 Apr 02 20:18	0. 0. П	
retrograde opposition	15467 Apr 08 21:08	0°M23'55	6°09'23	evening set	15472 May 19 12:16 15472 Jun 01 04:22	8° 9 27'00	
greatest brilliancy	15467 Apr 09 03:22	0°M19'46		max. Earth dist.	15472 Jun 17 07:42		2.53350 AU
greatest offinaley	15467 Apr 10 09:00	30°R Ω	5.0111	max. Earth dist.	15472 Jul 02 14:46	0°Ω	2.33330110
min. Earth dist.	15467 Apr 10 12:54	29° ♀ 57'24	0.36570 AU			* 00	
direct	15467 May 08 16:15	25° ≏ 22'13		conjunction	15472 Jul 20 15:14	12° Ω 44'24	-0°25'11
	15467 Jun 04 09:42	0° M		minimum elong	15472 Jul 20 16:32	12° Ω 46'44	0°25'54
	15467 Aug 02 19:44	0° ∡ ¹			15472 Aug 13 10:37	0° ™	
	15467 Sep 18 22:19	0°ප		asc. node	15472 Aug 27 22:06	10° m 43'38	
desc. node	15467 Nov 02 07:55	28° る 57'41		morning rise	15472 Sep 15 05:52	24°M 32'16	
	15467 Nov 03 22:14	0° ≈			15472 Sep 22 09:45	0∘ ⊽	
	15467 Dec 20 10:06	0°) {			15472 Oct 31 02:15	0° ™	
	15468 Feb 05 15:11	0°Υ 			15472 Dec 08 06:11	0° ∡ 7	
evening set	15468 Mar 21 16:21	28° Y 24'24			15473 Jan 15 19:41	0°30	
may Earth dist	15468 Mar 24 05:00	0°8	2.68154 AU		15473 Feb 24 21:00	0° ₩	
max. Earth dist.	15468 Apr 28 09:48	22 013 39	2.06134 AU		15473 Apr 08 21:30 15473 May 28 04:54	0°Υ	
conjunction	15468 May 04 09:11	26° 8 03'29	-1°12'37	desc. node	15473 Jun 25 04:46	13° Υ 37'23	
minimum elong	15468 May 04 08:52	26° 8 02'59		retrograde	15473 Aug 11 02:19	24° Υ 55'58	
g	15468 May 10 13:46	0°II	1 10 17	min. Earth dist.	15473 Sep 17 22:20		0.66205 AU
morning rise	15468 Jun 16 14:05	23° ∏ 45'47		opposition	15473 Sep 20 21:39	14° Υ 57'14	
<i>3</i>	15468 Jun 26 04:42	0°95		greatest brilliancy	15473 Sep 20 12:04	15° Y ′06'43	
	15468 Aug 10 16:51	$0^{\circ}\Omega$		direct	15473 Oct 30 20:14	5° Y 35'24	
	15468 Sep 23 21:47	0° m			15474 Jan 17 15:25	9° 8	
	15468 Nov 05 19:32	0∘ ⊽			15474 Mar 13 08:15	$\Pi^{\circ}0$	
asc. node	15468 Nov 23 17:00	12° ≏ 44'48			15474 Apr 30 10:06	0 \circ	
	15468 Dec 17 17:43	0°M			15474 Jun 13 16:47	$0^{\circ}\Omega$	
	15469 Jan 28 17:35	0° ∡		asc. node	15474 Jul 15 14:01	22° Ω 54'26	
_	15469 Mar 15 01:48	0°る		evening set	15474 Jul 18 07:12	24° Ω 54'20	
retrograde	15469 May 20 16:12	24° る 29'02			15474 Jul 25 04:16	0° m)	

	15474 A 05 00-22	00 m 2115 (2 20700 ATT		15470 M 00 11-21	ر _ە ، ن	
max. Earth dist.	15474 Aug 05 08:23		2.39709 AU		15479 May 08 11:21	0° B	
	15474 Sep 02 15:01	0∘ ⊽			15479 Jun 26 07:50	0°II	
					15479 Aug 17 10:11	0°9	
conjunction	15474 Sep 18 20:47	12° ≏ 40'07			15479 Oct 18 21:38	$0^{\circ}\Omega$	
minimum elong	15474 Sep 18 17:16	12° ≏ 33'12	0°43'02	retrograde	15479 Dec 03 04:40	9° Ω 51'47	
	15474 Oct 10 20:12	0°M₊		opposition	15480 Jan 08 02:49	2° Ω 16′23	
	15474 Nov 17 16:24	0° ∡ ¹		greatest brilliancy	15480 Jan 09 02:36	1° Ω 54'44	-2.0m
morning rise	15474 Dec 01 23:05	11° ∡ 15′01			15480 Jan 14 08:16	30° ₹ 5	
	15474 Dec 26 01:12	0°ಕ		min. Earth dist.	15480 Jan 16 07:27	29° © 17'41	0.53165 AU
	15475 Feb 03 19:52	0° ≈		direct	15480 Feb 16 07:27	23° © 03'05	
	15475 Mar 17 21:03	0° ∀		asc. node	15480 Mar 06 23:05	25° © 34'15	
	15475 May 02 06:37	0° Y			15480 Mar 21 02:35	$0^{\circ}\Omega$	
desc. node	15475 May 13 01:27	6° Ƴ 42'17			15480 May 15 18:10	0° m	
	15475 Jun 22 14:12	$0^{\circ}S$			15480 Jun 27 10:30	0∘ ত	
retrograde	15475 Sep 14 02:36	27° 8 50'36			15480 Aug 06 02:05	0° M	
opposition	15475 Oct 24 17:43	18° 8 13'17			15480 Sep 14 05:12	0° ∡ ¹	
greatest brilliancy	15475 Oct 24 20:05	18° 8 10'58	-1.2m		15480 Oct 24 03:50	5°0	
min. Earth dist.	15475 Oct 25 15:39	17° 8 51'43	0.68617 AU		15480 Dec 04 16:36	0° ≈	
direct	15475 Dec 05 04:40	8° 8 18'33		desc. node	15480 Dec 31 21:30	18° ≈ 56'48	
	15476 Feb 15 00:20	Π °0			15481 Jan 17 02:50	0° ∀	
	15476 Apr 08 04:33	0 \circ		evening set	15481 Jan 28 01:51	7° ¥ 22'15	
	15476 May 23 17:37	$0^{\circ}\Omega$			15481 Mar 03 08:29	0° Y	
asc. node	15476 Jun 01 11:10	6° Ω 06′11					
	15476 Jul 04 09:44	0° m)		conjunction	15481 Mar 17 06:04	9° Ƴ 01'17	
	15476 Aug 12 17:11	0∘ ⊽		minimum elong	15481 Mar 17 04:46	8° Y 59'11	
	15476 Sep 19 18:43	0° M		max. Earth dist.	15481 Mar 29 14:07		2.65683 AU
evening set	15476 Sep 24 08:17	3° ™ 37'36			15481 Apr 19 00:06	0° 8	
	15476 Oct 27 14:20	0° ∡ ¹		morning rise	15481 Apr 30 21:37	7° 8 32'31	
	15476 Dec 05 02:15	0°ಕ			15481 Jun 05 14:51	$\Pi^{\circ}0$	
		_			15481 Jul 23 22:38	0°€	
conjunction	15476 Dec 06 03:08	0° る 47'40	1°00'42		15481 Sep 11 05:18	0 $^{\circ}$ Ω	
minimum elong	15476 Dec 06 05:59	0° る 53'08	1°01'35		15481 Nov 01 22:44	0° m)	
	15477 Jan 14 01:35	0° ≈			15482 Jan 05 13:44	0∘ ⊽	
max. Earth dist.	15477 Jan 25 20:07	8°≈34'01	2.44162 AU	asc. node	15482 Jan 23 06:37	4° 2 15'58	
morning rise	15477 Feb 08 05:28	18° ≈ 09'03		retrograde	15482 Feb 05 07:56	5° ₾ 18'23	
	15477 Feb 25 02:45	0°){		*.*	15482 Mar 07 18:21	30°R, Mp	2002125
desc. node	15477 Mar 29 16:03	22°) €05'23		opposition	15482 Mar 08 01:57		3°02'35
	15477 Apr 10 16:41	0° Υ		greatest brilliancy	15482 Mar 08 17:53	29° m/42'43	-2.8m
	15477 May 28 08:45	0° B		min. Earth dist.	15482 Mar 14 14:05	~	0.39448 AU
	15477 Jul 20 01:05	0° ©		direct	15482 Apr 09 17:04	23° m/38'25	
. 1	15477 Oct 06 00:42				15482 May 10 21:38	0∘ ফ	
retrograde	15477 Oct 19 10:31	1°501'26			15482 Jul 04 22:04	0° M 0° ∡ 1	
opposition	15477 Nov 01 06:53 15477 Nov 27 13:14	30°RⅡ 22°Ⅱ08'00	4946121		15482 Aug 18 02:35 15482 Sep 30 04:55	0°る	
greatest brilliancy	15477 Nov 28 08:37	21° II 49'17			15482 Nov 13 02:30	0°≈	
min. Earth dist.	15477 Dec 02 09:03	20° I 16'14	0.64151 AU	desc. node	15482 Nov 18 19:49	0 ≈ 3°≈50'48	
direct	15478 Jan 07 23:17	12° Ⅱ 07'24	0.04131 AU	desc. Hode	15482 Nov 18 19:49 15482 Dec 28 07:41	0° ∺	
direct	15478 Mar 10 05:52	0°95			15483 Feb 12 18:15	0°Υ	
asc. node	15478 Apr 19 14:30	22° 9 51'28		evening set	15483 Mar 08 17:50	15° Υ 16'58	
ase. Houe	15478 Apr 30 18:17	0°Ω		evening set	15483 Mar 31 22:43	0°8	
	15478 Jun 12 22:47	0° mp		max. Earth dist.	15483 Apr 20 18:46		2.68544 AU
	15478 Jul 22 17:35	0∘ ত الأ		max. Earth dist.	15405 Apr 20 10.40	12 033 32	2.00344710
	15478 Aug 30 00:56	0°M		conjunction	15483 Apr 22 00:04	13° 8 20'15	-1°08'41
	15478 Oct 07 03:45	0° ∡ 7		minimum elong	15483 Apr 21 23:16	13° 8 18'59	
	15478 Nov 15 02:16	0° ਰ		g	15483 May 18 06:22	0°II	1 0, 15
evening set	15478 Dec 07 23:27	17° る 06'55		morning rise	15483 Jun 03 23:28	10° Ⅲ 38'33	
C	15478 Dec 25 14:30	0° ≈		C	15483 Jul 04 04:16	0° ©	
					15483 Aug 19 08:01	0°N	
conjunction	15479 Feb 03 20:23	28° ≈ 26′10	0°06'27		15483 Oct 03 14:20	0° m)	
minimum elong	15479 Feb 03 20:46	28° ≈ 26'50	0°07'00		15483 Nov 17 01:01	0∘ <u>⊽</u>	
behind sun begin	15479 Feb 03 00:24	27° ≈ 51'42		asc. node	15483 Dec 11 08:38	16° ≙ 31'47	
behind sun end	15479 Feb 04 17:08	29° ≈ 01'56			15483 Dec 31 06:54	0° M	
	15479 Feb 06 02:50	0° ∀			15484 Feb 15 21:33	0° ∡ ¹	
desc. node	15479 Feb 14 05:52	5°) 34′05		retrograde	15484 Apr 26 11:50	26° ∡ ¹20'37	
max. Earth dist.	15479 Mar 04 18:49		2.57342 AU	min. Earth dist.	15484 May 22 08:18	21° х 59'49	0.38902 AU
	15479 Mar 22 18:24	0° Y		greatest brilliancy	15484 May 27 08:06	20° х 31′26	-2.8m
morning rise	15479 Mar 26 08:19	2° Y 20'48		opposition	15484 May 28 16:32	20° ∡ °07′16	6°42'37

1	15404 1 27 15 44	1.40 7.47140		. ,.	15400 4 22 07 11	1.60 m. 22102	0015110
direct	15484 Jun 27 15:44	14° ₹ '47'48		conjunction	15489 Aug 23 06:11	16° Mp 22'03	0°15'10
daga mada	15484 Aug 21 04:43	0°る 24°る20'12		minimum elong	15489 Aug 23 05:02 15489 Aug 22 18:32	16° Mp 19'51	0°14'50
desc. node	15484 Oct 06 02:42 15484 Oct 15 21:48	24 3 20 12 0° ≈		behind sun begin behind sun end	15489 Aug 22 16.32 15489 Aug 23 15:32	15° Mp 59'56 16° Mp 39'46	
	15484 Dec 05 02:13	0° ∺		bennia sun ena	15489 Aug 23 13.32 15489 Sep 10 01:31	0∘ ⊽	
	15485 Jan 23 03:31	0° Υ			15489 Oct 18 10:30	o − o∘n	
	15485 Mar 12 14:58	0°8		morning rise	15489 Oct 30 05:18	9°ML18'49	
evening set	15485 Apr 12 00:44	19° 8 04'07		morning rise	15489 Nov 25 08:56	0° ⊼ ¹	
evening sec	15485 Apr 29 06:22	0°II			15490 Jan 02 18:14	0°ਤ	
max. Earth dist.	15485 May 12 05:26		2.65872 AU		15490 Feb 11 13:08	0° ≈	
					15490 Mar 25 18:22	0°) €	
conjunction	15485 May 25 19:33	17° Ⅱ 03'14	-1°10'59		15490 May 10 23:11	0°Υ	
minimum elong	15485 May 25 20:06	17° Ⅱ 04'09		desc. node	15490 May 29 18:21	11° Y ′06'43	
8	15485 Jun 14 15:47	0ಂತ			15490 Jul 05 05:53	$B_{\circ 0}$	
morning rise	15485 Jul 09 11:47	16°ණ28'55		retrograde	15490 Aug 31 20:36	15° 8 27'13	
C	15485 Jul 29 11:35	$0^{\circ}\Omega$		opposition	15490 Oct 11 17:09	5° 8 38'40	-4°14'27
	15485 Sep 10 14:56	0° m)		min. Earth dist.	15490 Oct 11 02:23	5° 8 53'16	0.68494 AU
	15485 Oct 22 03:24	0∘ ⊽		greatest brilliancy	15490 Oct 11 13:36	5° 8 42'11	-1.2m
asc. node	15485 Oct 28 03:58	4° £ 26'21			15490 Oct 27 02:32	30° ŖƳ	
	15485 Dec 01 09:04	0°M₊		direct	15490 Nov 21 17:49	25° Y 53'45	
	15486 Jan 10 01:02	0° ∡ ¹			15490 Dec 19 16:32	9° 8	
	15486 Feb 19 11:53	ರ°0			15491 Feb 26 05:48	$\Pi^{\circ}0$	
	15486 Apr 04 17:29	0° ≈			15491 Apr 17 13:46	0ංම	
retrograde	15486 Jun 20 01:28	29° ≈ 21′25			15491 Jun 01 10:30	$0^{\circ}\Omega$	
min. Earth dist.	15486 Jul 20 12:58	23° ≈ 00′28	0.52195 AU	asc. node	15491 Jun 19 03:22	12° Ω 32'50	
opposition	15486 Jul 28 08:24	20° ≈ 05'07	1°21'50		15491 Jul 12 23:13	0° m)	
greatest brilliancy	15486 Jul 27 23:13	20° ≈ 13'43	-2.1m		15491 Aug 21 06:57	0∘ ⊽	
desc. node	15486 Aug 24 11:56	12° ≈ 51'14		evening set	15491 Aug 26 05:48	3° ≙ 51'40	
direct	15486 Sep 01 13:55	12° ≈ 25'49			15491 Sep 28 09:05	0°M₊	
	15486 Nov 03 11:23	0° ∀			15491 Nov 05 04:08	0° ∡ ¹	
	15486 Dec 31 12:40	$0^{\circ}\mathbf{\Upsilon}$					
	15487 Feb 21 03:27	0° 8		conjunction	15491 Nov 06 15:46	1° ∡ 10′24	1°07'36
	15487 Apr 10 22:21	Π $^{\circ}0$		minimum elong	15491 Nov 06 15:16	1° ∡ ¹09′25	1°08'21
evening set	15487 May 17 22:06	23° Ⅱ 45'27			15491 Dec 13 13:50	0°ਰ	
	15487 May 27 09:42	0ංම		max. Earth dist.	15491 Dec 29 01:17		2.38545 AU
max. Earth dist.	15487 Jun 06 08:52	6°937'54	2.57857 AU	morning rise	15492 Jan 16 19:38	25° る 52'07	
					15492 Jan 22 10:01	0° ≈	
conjunction	15487 Jul 03 18:10	25°5014'24			15492 Mar 04 09:12	0°)	
minimum elong	15487 Jul 03 19:46	25° © 17'09	0°45'22	desc. node	15492 Apr 15 11:00	28°) 17′07	
	15487 Jul 10 15:04	0° Ω			15492 Apr 18 02:27	0° Ƴ	
	15487 Aug 21 17:39	0°M)			15492 Jun 05 14:36	0°B	
morning rise	15487 Aug 24 05:32	1° Mp 49'22			15492 Aug 01 00:13	0°Ⅱ 17°Ⅱ58'50	
asc. node	15487 Sep 14 18:25 15487 Oct 01 00:33	17° Mp 45′06 0° <u>₽</u>		retrograde opposition	15492 Oct 04 16:33 15492 Nov 13 13:44	17 П 38 30 8° П 45'16	1052110
	15487 Nov 09 00:03	0° ™		greatest brilliancy	15492 Nov 14 02:36	8° П 32'43	
	15487 Dec 17 09:30	0° ∡ 7		min. Earth dist.	15492 Nov 16 20:53		0.66735 AU
	15488 Jan 25 03:51	0° ਠ		iiiii. Eartii dist.	15492 Dec 11 01:06	30°R 8	0.00733 AU
	15488 Mar 05 13:33	0° ≈		direct	15492 Dec 25 05:08	28° 8 42'56	
	15488 Apr 18 15:36	0° ∺			15493 Jan 08 23:23	0°Ⅱ	
	15488 Jun 12 08:03	0° Υ			15493 Mar 23 02:35	0°©	
desc. node	15488 Jul 11 17:49	9° Ƴ 36'56		asc. node	15493 May 06 05:08	27°925'03	
retrograde	15488 Jul 28 11:16	11° Υ 21'13			15493 May 10 01:27	0° Ω	
min. Earth dist.	15488 Sep 02 12:16		0.63439 AU		15493 Jun 21 09:40	0° m/y	
opposition	15488 Sep 06 23:02	1° Y 21'51			15493 Jul 30 21:35	0∘ <u>⊽</u>	
greatest brilliancy	15488 Sep 06 12:51	1° Y 31'54			15493 Sep 07 01:03	0° M .	
,	15488 Sep 10 10:43	30° ₹ ₩			15493 Oct 14 23:37	0° ∡ ¹	
direct	15488 Oct 15 21:43	22° ∺ 20'16		evening set	15493 Nov 11 11:30	21° ×7 24'37	
	15488 Nov 24 09:45	0° Y		-	15493 Nov 22 16:28	ರ°0	
	15489 Jan 28 09:24	8°			15494 Jan 01 22:03	0° ≈	
	15489 Mar 21 08:17	$\Pi^{\circ}0$					
	15489 May 07 16:51	0ಂತ		conjunction	15494 Jan 14 12:15	9° ≈ 06'06	0°29'07
	15489 Jun 20 20:25	$0^{\circ}\Omega$		minimum elong	15494 Jan 14 14:06	9° ≈ 09'25	0°29'51
evening set	15489 Jun 28 02:20	5° Ω 06′28			15494 Feb 13 04:21	0°) €	
max. Earth dist.	15489 Jul 11 14:23	14° Ω 45'47	2.45203 AU	max. Earth dist.	15494 Feb 20 14:20	5°) €06'24	2.52661 AU
asc. node	15489 Aug 01 07:45	29° Ω 54'53		desc. node	15494 Mar 02 23:28	12° ¥ 10′38	
	15489 Aug 01 10:30	0° m ∕		morning rise	15494 Mar 10 03:10	17° ∺ 00'03	
					15494 Mar 29 17:03	0° Ƴ	

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15504 Aug 02 10:32

24°**Ω**40′24

behind sun end

15499 Sep 10 13:03

0°る

	15504 Aug 09 16:48	0° m)			15509 Sep 15 04:36	0ಂಣ	
asc. node	15504 Aug 19 04:04	7° ™ 00'56		retrograde	15509 Oct 29 07:35	9° © 18'36	
	15504 Sep 18 13:12	0∘ ত		opposition	15509 Dec 06 21:50	0° © 38'21	
morning rise	15504 Oct 01 01:39	9° ჲ 39'22		greatest brilliancy	15509 Dec 07 20:13	0° © 16'53	-1.5m
	15504 Oct 27 02:45	0°M 0°. ⊼		i E d Ed	15509 Dec 08 13:48	30°ŖⅡ 200₩20122	0.62202.411
	15504 Dec 04 04:10 15505 Jan 11 15:06	0°⋜ 0°3		min. Earth dist. direct	15509 Dec 12 13:28 15510 Jan 17 01:55	28° Ⅲ 28'23 20° Ⅲ 41'25	0.62303 AU
	15505 Feb 20 12:12	0°≈		direct	15510 Feb 27 16:45	0°95	
	15505 Apr 04 02:13	0° ∀		asc. node	15510 Apr 10 23:39	21°S22'03	
	15505 May 21 18:28	0° Υ			15510 Apr 25 02:50	$0^{\circ}\Omega$	
desc. node	15505 Jun 16 08:26	13° Y '46'23			15510 Jun 08 05:31	0° m	
	15505 Jul 28 10:08	0°8			15510 Jul 18 08:04	0∘ ⊽	
retrograde	15505 Aug 19 17:14	2° 8 52'08			15510 Aug 25 19:03	0° M	
	15505 Sep 09 15:14	30° Ŗ ♈			15510 Oct 03 00:44	0° ∡	
min. Earth dist.	15505 Sep 27 11:19	23° Y 46'19			15510 Nov 11 02:12	0° ට	
opposition	15505 Sep 29 14:16	22° Y 55'54 23° Y 03'51			15510 Dec 21 17:28	0° ≈ 0° ≈ 17'41	
greatest brilliancy direct	15505 Sep 29 06:15 15505 Nov 08 23:21	13° Y 24'40	-1.3m	evening set	15510 Dec 22 03:17 15511 Feb 02 08:36	0° ∺	
direct	15506 Jan 10 00:30	0° 8		desc. node	15511 Feb 05 08:20	0 X 2° X 03'01	
	15506 Mar 08 14:25	0°II		desc. Hode	15511 100 05 08.20	2 /(0301	
	15506 Apr 26 08:58	0° ©		conjunction	15511 Feb 15 04:57	8°) 45′57	-0°06'05
	15506 Jun 09 20:40	$0^{\circ}\Omega$		minimum elong	15511 Feb 15 04:39	8°) 45′27	0°05'40
asc. node	15506 Jul 06 19:57	19° Ω 16′58		behind sun begin	15511 Feb 14 08:22	8°) 11′05	
	15506 Jul 21 09:09	0° m		behind sun end	15511 Feb 16 00:57	9° ∺ 19'47	
evening set	15506 Aug 01 02:39	8° Mp 02'07		max. Earth dist.	15511 Mar 12 01:15		2.59603 AU
	15506 Aug 29 19:16	0∘ ত			15511 Mar 19 01:13	0° Υ	
max. Earth dist.	15506 Aug 31 14:47	1° ≏ 24'32	2.37110 AU	morning rise	15511 Apr 04 22:49	11° Y 00'51	
	15500 0-4 00 15.10	200 0 42152	0056110		15511 May 04 15:44	0°B 0°B	
conjunction minimum elong	15506 Oct 06 15:19 15506 Oct 06 11:29	29° £ 43'53 29° £ 36'18	0°56'10 0°56'30		15511 Jun 22 01:51 15511 Aug 11 21:15	0.8€	
minimum clong	15506 Oct 06 11.29	29 = 30 18 0° ™	0 30 30		15511 Oct 07 11:24	0°Ω	
	15506 Nov 13 19:00	0° ⊼		retrograde	15511 Dec 16 06:39	20° Ω 30'10	
morning rise	15506 Dec 20 15:12	28° ∡ ′50′13		opposition	15512 Jan 20 04:14	13° Ω 18'43	-2°05'43
-	15506 Dec 22 03:22	ರ°0		greatest brilliancy	15512 Jan 20 22:46	13° Ω 02'16	-2.1m
	15507 Jan 30 21:13	0° ≈		min. Earth dist.	15512 Jan 28 17:18	10° Ω 17'07	0.50134 AU
	15507 Mar 13 19:49	0°) €		direct	15512 Feb 27 09:38	4° Ω 29'52	
	15507 Apr 27 20:05	0° Υ		asc. node	15512 Feb 27 07:12	4° Ω 29'52	
desc. node	15507 May 04 04:01	4° Υ ′00'55			15512 May 07 13:37	0° m/y	
	15507 Jun 16 17:34	0° B			15512 Jun 21 10:42	0∘ ѿ	
ratrograda	15507 Aug 21 10:33 15507 Sep 22 19:34	0°П 5°П26'49			15512 Jul 31 21:06 15512 Sep 09 11:17	0° ル 0° ヹ	
retrograde	15507 Oct 22 11:25	30°R 8			15512 Sep 09 11.17 15512 Oct 19 18:29	0° ਨ	
opposition	15507 Nov 02 05:35	25° 8 57'02	-4°47'22		15512 Nov 30 14:20	0° ≈	
greatest brilliancy	15507 Nov 02 11:39	25° 8 51'06		desc. node	15512 Dec 23 01:43	15° ≈ 35'52	
min. Earth dist.	15507 Nov 04 00:09	25° 8 15'16	0.68240 AU		15513 Jan 13 06:28	0° ∀	
direct	15507 Dec 13 19:26	15° 8 58'17		evening set	15513 Feb 07 12:37	16°) 48′59	
	15508 Feb 06 19:06	Π °0			15513 Feb 27 15:56	0° Y	
	15508 Apr 03 05:14	0°©				.==00.	
000 mg J-	15508 May 19 11:12	0°Ω 2°Ω57!45		conjunction minimum elong	15513 Mar 26 11:45	17° Υ 18'49 17° Υ 16'42	
asc. node	15508 May 23 18:11 15508 Jun 30 08:38	2° Ω 57'45 0° m		minimum elong max. Earth dist.	15513 Mar 26 10:26	23° Y 14'14	
	15508 Jun 30 08:38 15508 Aug 08 17:38	0ം ⊽		max. Earm dist.	15513 Apr 04 18:02 15513 Apr 15 08:43	0° 8	2.00/03 AU
	15508 Sep 15 19:41	0° ™		morning rise	15513 May 09 11:48	15° 8 17'15	
evening set	15508 Oct 13 01:59	21°M38'06			15513 Jun 01 20:17	0°II	
Č	15508 Oct 23 16:05	0° ∡ ¹			15513 Jul 19 17:42	0∘ ©	
	15508 Dec 01 05:11	ರ∘ರ			15513 Sep 06 00:52	$0^{\circ}\Omega$	
					15513 Oct 25 09:14	0° m	
conjunction	15508 Dec 22 11:59	16° ठ 07'17	0°50'55		15513 Dec 17 17:36	0∘ ত	
minimum elong	15508 Dec 22 15:05	16° る 13'04	0°51'47	asc. node	15514 Jan 14 13:43	12° Ω 49'03	
more Fredh J. (15509 Jan 10 05:45	0°≈ 10°a°26'41	2 47211 411	retrograde	15514 Feb 24 16:52	22° Ω 00'19	1055110
max. Earth dist. morning rise	15509 Feb 06 11:38 15509 Feb 20 19:03	19°≈36'41 29°≈38'18	2.47311 AU	opposition greatest brilliancy	15514 Mar 26 10:07 15514 Mar 27 01:03	17° £ 00'46 16° £ 50'29	4°55'18 -2.9m
morning 11sc	15509 Feb 20 19:03 15509 Feb 21 07:33	29°≈3818 0° ∺		min. Earth dist.	15514 Mar 27 01:03 15514 Mar 30 13:41	16° 2 30′29 15° 2 52'17	-2.9m 0.37482 AU
desc. node	15509 Mar 20 19:17	18° ¥ 44′27		direct	15514 Apr 26 07:57	13 — 32 17 11° — 31'46	5.5, 102 /10
	15509 Apr 06 19:10	0° Υ			15514 Jun 22 14:45	0°M	
	15509 May 24 01:48	9° 8			15514 Aug 10 12:17	0° ∡ ¹	
	15509 Jul 14 08:40	$\Pi^{\circ}0$			15514 Sep 24 09:25	0°ප	

	15514 Nov 08 06:43	0° ≈		morning rise	15519 Sep 06 16:31	14° m/36'22	
desc. node	15514 Nov 10 02:31	0 ∞ 1°≈12'29		morning risc	15519 Sep 27 02:02	14 IIV 30 22 0° ჲ	
desc. node	15514 Dec 24 02:51	0° ∺			15519 Nov 04 21:57	0° ™	
	15515 Feb 08 22:24	0° Υ			15519 Dec 13 04:15	0° × 7⊓	
evening set	15515 Mar 17 17:42	23° Y ′18′54			15520 Jan 20 19:07	0°ਰ	
e venning see	15515 Mar 28 07:30	0°8			15520 Feb 29 22:03	0° ≈	
max. Earth dist.	15515 Apr 26 17:15	_	2.68436 AU		15520 Apr 13 05:21	0° ∀	
					15520 Jun 02 22:44	0° Υ	
conjunction	15515 Apr 30 14:56	21° 8 04'55	-1°11'29	desc. node	15520 Jul 02 23:30	13° Y °07'44	
minimum elong	15515 Apr 30 14:24	21° 8 04'04		retrograde	15520 Aug 06 08:07	19° Ƴ 42'27	
· ·	15515 May 14 15:50	0°II		min. Earth dist.	15520 Sep 12 09:14	11° Y ′08'45	0.65084 AU
morning rise	15515 Jun 12 15:55	18° Ⅲ 32'43		opposition	15520 Sep 16 00:11	9° Y 42'46	-2°52'34
	15515 Jun 30 10:03	0ಂತ		greatest brilliancy	15520 Sep 15 13:49	9° Y 53'01	-1.4m
	15515 Aug 15 05:22	$0^{\circ}\Omega$		direct	15520 Oct 25 12:08	0° Y 29'26	
	15515 Sep 28 21:17	0° m)			15521 Jan 22 12:49	0°8	
	15515 Nov 11 09:56	0∘ ⊽			15521 Mar 17 00:18	Π $^{\circ}$ 0	
asc. node	15515 Dec 02 15:55	14° ≏ 52'22			15521 May 03 19:53	0 \circ \odot	
	15515 Dec 24 04:17	0°M₊			15521 Jun 17 02:37	$0^{\circ}\Omega$	
	15516 Feb 05 13:09	0° ∡ 7		evening set	15521 Jul 10 02:48	16° £ 23′25	
	15516 Mar 26 05:32	5°0		asc. node	15521 Jul 23 13:52	26° Ω 13′28	
retrograde	15516 May 11 16:30	13° る 19'10		max. Earth dist.	15521 Jul 24 17:27	27° Ω 04'19	2.42134 AU
min. Earth dist.	15516 Jun 06 22:32	8° පි 41'04	0.41340 AU		15521 Jul 28 16:27	0° ™	
greatest brilliancy	15516 Jun 13 05:22	6° ප 40'47			15521 Sep 06 05:55	0∘ ⊽	
opposition	15516 Jun 14 15:35	6° ප 13'18	5°39'03				
direct	15516 Jul 15 15:27	0° る 21'57		conjunction	15521 Sep 07 15:10	1° ≏ 04'19	
desc. node	15516 Sep 27 09:07	24° る 28'23		minimum elong	15521 Sep 07 12:34	0° ჲ 59'18	0°31'10
	15516 Oct 07 22:12	0° ≈			15521 Oct 14 13:03	0° M	
	15516 Nov 29 18:32	0° ∺		morning rise	15521 Nov 18 12:23	27°M42'18	
	15517 Jan 18 20:37	0° Y			15521 Nov 21 10:04	0° ∡	
	15517 Mar 08 19:29	0°8			15521 Dec 29 18:25	5°0	
evening set	15517 Apr 20 18:35	26° 8 54'28			15522 Feb 07 11:47	0° ≈	
E d Ed	15517 Apr 25 15:27	0°II	2 (4500 ATT		15522 Mar 21 12:42	0° ℋ 0° Ƴ	
max. Earth dist.	15517 May 18 11:48	14°Щ38′51	2.64590 AU		15522 May 06 02:42	9° Υ 03'13	
conjunction	15517 Jun 03 20:43	25° Ⅱ 17'44	1007147	desc. node	15522 May 20 22:03 15522 Jun 27 13:09	0° 8	
minimum elong	15517 Jun 03 20:45	25° I 19'10		retrograde	15522 Sep 09 10:09	23° 8 03'33	
minimum ciong	15517 Jun 11 00:44	0°9	1 00 40	opposition	15522 Oct 20 04:01	13° 8 20'56	-4°20'55
morning rise	15517 Jul 19 10:55					_	-
morning risc		75000/1311/		greatest brilliancy	15522 Oct 20 03:30	130×21118	-1.2m
		25° © 43'17		greatest brilliancy	15522 Oct 20 03:39	13° 8 21'18	
	15517 Jul 25 17:14	$0^{\circ}\Omega$		min. Earth dist.	15522 Oct 20 09:47	13° 8 15'15	-1.2m 0.68691 AU
	15517 Jul 25 17:14 15517 Sep 06 14:43	0° N 0° m		-	15522 Oct 20 09:47 15522 Nov 30 10:26	13° 8 15'15 3° 8 30'07	
asc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52	0° ₽ 0° ₽		min. Earth dist.	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05	13°815'15 3°830'07 0°II	
asc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23	0° Ω 0° ™ 0° ⊆ 1° ⊆ 09'34		min. Earth dist.	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59	13°႘35'15 3°႘30'07 0°Ⅱ 0°ණ	
asc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52	0° റെ 0° സു 0° െ 1° ഫ 09'34 0° സ .		min. Earth dist.	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05	13°815'15 3°830'07 0°Ⅲ 0°© 0°Ω	
asc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07	0° Ω 0° ™ 0° ⊆ 1° ⊆ 09'34		min. Earth dist. direct	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28	13°\delta15'15 3°\delta30'07 0°\delta 0°\delta 0°\delta 9°\delta08'56	
asc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15	0° Ω 0° M 0° Ω 1° Ω09'34 0° M 0° X		min. Earth dist. direct	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58	13°815'15 3°830'07 0°Ⅲ 0°© 0°Ω	
asc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22	0° ନ 0° m 0° ଦ 1° ଦ09'34 0° ୮ 0° ୫		min. Earth dist. direct	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29	13°815'15 3°830'07 0°11 0°\$ 0°10 9°108'56	
asc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54	0° N 0° M 0° Ω 1° Ω09'34 0° M 0° X 0° S 0° S		min. Earth dist. direct asc. node	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01	13°815'15 3°830'07 0°∏ 0°© 0°Ω 9°Ω08'56 0°™ 0°Ω	
	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15	0° N 0° M 0° Ω 1° Ω09'34 0° M 0° X' 0° S 0° ≈ 0° X	0.55050 AU	min. Earth dist. direct asc. node	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01	13°\315'15 3°\330'07 0°\1 0°\9 0°\0 9°\08'56 0°\0 0°\0 0°\0 20°\038'57	
retrograde	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32	0° € 0° № 0° • 1° • 0° • 0° № 0° € 0° € 0° € 10° € 10° € 10° €		min. Earth dist. direct asc. node	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03	13°\dagger 15'15 3°\dagger 30'07 0°\mathbb{\Pi} 0°\Dagger 0°\Omega 9°\Omega 08'56 0°\mathbb{\Pi} 0°\Dagger 20°\Dagger 38'57 0°\mathbb{\Pi}	
retrograde min. Earth dist.	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59	0° € 0° № 0° № 1° №09'34 0° № 0° № 0° № 10° ₩ 13'20 3° ₩ 24'18	0°20'35	min. Earth dist. direct asc. node	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03	13°\dagger 15'15 3°\dagger 30'07 0°\mathbb{\Pi} 0°\Dagger 0°\Omega 9°\Omega 08'56 0°\mathbb{\Pi} 0°\Dagger 20°\Dagger 38'57 0°\mathbb{\Pi}	
retrograde min. Earth dist. opposition	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38	0° € 0° € 0° € 0° € 0° € 0° € 0° € 0° €	0°20'35	min. Earth dist. direct asc. node evening set	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09	13° 8 15'15 3° 8 30'07 0° II 0° 9 0° Ω 9° Ω08'56 0° II 0° Ω 20° Ω 38'57 0° II 0° ₹ 18° ₹ 43'29 18° ₹ 47'05	0.68691 AU
retrograde min. Earth dist. opposition	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29	0° \$\mathcal{O}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 1° \$\mathcal{D}\$09'34 0° \$\mathcal{D}\$ 0° \$\mathcal{Z}\$ 0° \$\mathcal{D}\$ 10° \$\mathcal	0°20'35	min. Earth dist. direct asc. node evening set conjunction	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09	13° 815'15 3° 830'07 0° II 0° 90 0° Ω 9° Ω08'56 0° II 0° 92 20° 938'57 0° II 0° \$7 18° \$743'29 18° \$747'05 0° \$5	0.68691 AU 1°05'43
retrograde min. Earth dist. opposition greatest brilliancy	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Sep 13 19:23	0° \$\mathcal{O}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 1° \$\mathcal{D}\$09'34 0° \$\mathcal{D}\$ 0° \$\mathcal{Z}\$ 0° \$\mathcal{D}\$ 10° \$\mathcal{D}\$ 10° \$\mathcal{D}\$ 10° \$\mathcal{D}\$ 13'20 3° \$\mathcal{D}\$ 24'18 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 13'23 0° \$\mathcal{D}\$ 24'127 30° \$\mathcal{D}\$ 28° \$\mathcal{D}\$ 28° \$\mathcal{D}\$ 21'40 22° \$\mathcal{D}\$ 22° \$\mathcal{D}\$ 37'28	0°20'35	min. Earth dist. direct asc. node evening set conjunction	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04	13° 815'15 3° 830'07 0° II 0° © 0° Ω 9° Ω08'56 0° M 0° Ω 20° Ω38'57 0° M 0° 🛣 18° 🛪 43'29 18° 🛪 47'05 0° ጜ 29° ጜ12'34	0.68691 AU 1°05'43
retrograde min. Earth dist. opposition greatest brilliancy desc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Sep 13 19:23 15518 Oct 21 19:22	0° \$\mathcal{O}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 1° \$\mathcal{D}\$09'34 0° \$\mathcal{D}\$ 0° \$\mathcal{Z}\$ 0° \$\mathcal{D}\$ 10° \$\mathcal{D}\$ 10° \$\mathcal{D}\$ 10° \$\mathcal{D}\$ 13'20 3° \$\mathcal{D}\$ 24'18 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 24'127 30° \$\mathcal{D}\$ 28° \$\approx 01'40 22° \$\approx 37'28 0° \$\mathcal{D}\$	0°20'35	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist.	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51	13°815'15 3°830'07 0° II 0° © 0° Ω 9° Ω08'56 0° ID 0° Ω 20° Ω38'57 0° IL 0° 🕏 18° 🗷 43'29 18° 🗷 47'05 0° ♂ 29° ♂ 12'34 0° ≈	0.68691 AU 1°05'43 1°06'34
retrograde min. Earth dist. opposition greatest brilliancy desc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Sep 13 19:23 15518 Oct 21 19:22 15518 Dec 25 20:05	0° \$\mathcal{O}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 1° \$\mathcal{D}\$09'34 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 10° \$\mathcal{D}\$ 13'20 3° \$\mathcal{D}\$24'18 0° \$\mathcal{D}\$41'27 30° \$\mathcal{D}\$ 28° \$\mathcal{D}\$01'40 22° \$\mathcal{D}\$37'28 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$	0°20'35	min. Earth dist. direct asc. node evening set conjunction minimum elong	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 03:36 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 31 12:22	13°815'15 3°830'07 0° II 0° © 0° Ω 9° Ω08'56 0° II 0° Ω 20° Ω38'57 0° II 18° ¾43'29 18° ¾47'05 0° ♂ 29° ♂ 12'34 0° ≈ 9° ≈ 25'58	0.68691 AU 1°05'43 1°06'34
retrograde min. Earth dist. opposition greatest brilliancy desc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29 15518 Aug 15 17:29 15518 Aug 15 17:29 15518 Sep 13 19:23 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01	0° \$\mathcal{O}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 1° \$\mathcal{D}\$09'34 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 10° \$\mathcal{D}\$13'20 3° \$\mathcal{D}\$24'18 0° \$\mathcal{D}\$39'23 0° \$\mathcal{D}\$41'27 30° \$\mathcal{D}\$ 28° \$\mathcal{D}\$01'40 22° \$\mathcal{D}\$37'28 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$	0°20'35	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 03:36 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Feb 29 12:31	13°815'15 3°830'07 0° II 0° © 0° Ω 9° Ω08'56 0° II 0° Ω 20° Ω 38'57 0° II 0° ¾ 18° ¾ 43'29 18° ¾ 47'05 0° ♂ 29° ♂ 12'34 0° ≈ 9° ≈ 25'58 0° 升	0.68691 AU 1°05'43 1°06'34
retrograde min. Earth dist. opposition greatest brilliancy desc. node	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Sep 13 19:23 15518 Oct 21 19:22 15519 Feb 16 20:01 15519 Apr 07 02:49	0° \$\mathcal{O}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 1° \$\mathcal{D}\$09'34 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 10° \$\mathcal{D}\$13'20 3° \$\mathcal{D}\$24'18 0° \$\mathcal{D}\$39'23 0° \$\mathcal{D}\$41'27 30° \$\mathcal{D}\$ 28° \$\mathcal{D}\$01'40 22° \$\mathcal{D}\$37'28 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$	0°20'35	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist.	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 03:36 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Apr 06 13:22	13° 815'15 3° 830'07 0° II 0° \$\infty\$ 0° \$\Omega\$ 0° \$\Omega\$ 0° \$\Omega\$ 20° \$\Omega\$38'57 0° III 0° \$\omega\$ 20° \$\Omega\$38'57 0° III 0° \$\omega\$ 18° \$\omega\$43'29 18° \$\omega\$47'05 0° \$\omega\$ 29° \$\omega\$12'34 0° \$\infty\$ 9° \$\infty\$25'58 0° \$\omega\$ 25° \$\Omega\$04'29	0.68691 AU 1°05'43 1°06'34
retrograde min. Earth dist. opposition greatest brilliancy desc. node direct	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29 15518 Aug 10 08:02 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01 15519 May 23 17:49	0° \$\mathcal{O}\$ 0° \$\mathcal{D}\$ 0° \$\mathcal{D}\$ 1° \$\mathcal{D}\$09'34 0° \$\mathcal{D}\$ 0° \$\mathcal{E}\$ 0° \$\mathcal{E}\$ 0° \$\mathcal{E}\$ 10° \$\mathcal{E}\$13'20 3° \$\mathcal{E}\$24'18 0° \$\mathcal{E}\$39'23 0° \$\mathcal{E}\$41'27 30° \$\mathcal{E}\$\$28° \$\pi 01'40 22° \$\pi 37'28 0° \$\mathcal{E}\$	0°20'35	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Apr 06 13:22 15524 Apr 14 01:44	13°815'15 3°830'07 0°II 0°\$ 0°\$ 0°\$ 0°\$ 0°\$ 0°\$ 20°\$ 238'57 0°IL 0°\$ 18°\$\\$43'29 18°\$\\$43'29 18°\$\\$47'05 0°\$ 29°\$\$12'34 0°\$ 0°\$ 29°\$\$25'58 0°\$\$ 0°\$\$ 25°\$\$404'29 0°\$\$	0.68691 AU 1°05'43 1°06'34
retrograde min. Earth dist. opposition greatest brilliancy desc. node direct	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29 15518 Aug 10 08:02 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01 15519 Apr 07 02:49 15519 May 23 17:49 15519 May 27 11:00	0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 1° \$\mathcal{O}\$09'34 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$13'20 3° \$\mathcal{O}\$24'18 0° \$\mathcal{O}\$39'23 0° \$\mathcal{O}\$41'27 30° \$\mathcal{O}\$8\$ 28° \$\mathcal{O}\$1'40 22° \$\mathcal{O}\$37'28 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 2° \$\mathcal{O}\$27'40	0°20'35 -1.9m	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Apr 06 13:22 15524 Apr 14 01:44 15524 May 31 23:14	13°815'15 3°830'07 0° II 0° © 0° Ω 9° Ω08'56 0° II 0° Ω 20° Ω 38'57 0° II 0° ズ 18° ズ 43'29 18° ズ 47'05 0° ズ 29° 云 12'34 0° ≈ 9° ≈ 25'58 0° H 25° 升 04'29 0° ♈ 0° 엉	0.68691 AU 1°05'43 1°06'34
retrograde min. Earth dist. opposition greatest brilliancy desc. node direct	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Aug 01 09:59 15518 Aug 01 09:59 15518 Aug 08 12:29 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Aug 15 17:29 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01 15519 Apr 07 02:49 15519 May 23 17:49 15519 May 27 11:00 15519 Jun 13 22:38	0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 1° \$\time 009'34\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$ 13'20 3° \$\mathcal{O}\$ 139'23 0° \$\mathcal{O}\$ 139'23 0° \$\mathcal{O}\$ 141'27 30° \$\mathcal{O}\$ 20° \$\mathcal{O}\$ 37'28 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$ 2° \$\mathcal{O}\$ 27'40 14° \$\mathcal{O}\$ 11'27	0°20'35	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise desc. node	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Feb 29 12:31 15524 Apr 06 13:22 15524 Apr 14 01:44 15524 May 31 23:14 15524 Jul 24 18:27	13°815'15 3°830'07 0° II 0° © 0° Ω 9° Ω08'56 0° II 0° Ω 20° Ω38'57 0° II 0° ズ 18° ズ43'29 18° ズ47'05 0° ℧ 29° ℧12'34 0° ∞ 9° ≈ 25'58 0° ዢ 25° ℋ04'29 0° ϒ 0° ℧ 0° II	0.68691 AU 1°05'43 1°06'34
retrograde min. Earth dist. opposition greatest brilliancy desc. node direct	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29 15518 Aug 10 08:02 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01 15519 Apr 07 02:49 15519 May 23 17:49 15519 May 27 11:00	0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 1° \$\mathcal{O}\$09'34 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$13'20 3° \$\mathcal{O}\$24'18 0° \$\mathcal{O}\$39'23 0° \$\mathcal{O}\$41'27 30° \$\mathcal{O}\$8\$ 28° \$\mathcal{O}\$1'40 22° \$\mathcal{O}\$37'28 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 2° \$\mathcal{O}\$27'40	0°20'35 -1.9m	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise desc. node	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Apr 06 13:22 15524 Apr 14 01:44 15524 May 31 23:14 15524 Jul 24 18:27 15524 Oct 13 23:28	13° 815'15 3° 830'07 0° II 0° 95 0° Ω 9° Ω08'56 0° II 0° 92 20° 938'57 0° II 18° ₹43'29 18° ₹47'05 0° ₹ 29° ₹12'34 0° ≈ 9° ≈25'58 0° ¥ 25° ¥04'29 0° ♀ 0° ¥ 0° II 25° II 51'45	1°05'43 1°06'34 2.41586 AU
retrograde min. Earth dist. opposition greatest brilliancy desc. node direct evening set max. Earth dist.	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Jun 30 15:32 15518 Aug 01 09:59 15518 Aug 01 09:59 15518 Aug 10 08:02 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Aug 15 17:29 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01 15519 Apr 07 02:49 15519 May 23 17:49 15519 May 27 11:00 15519 Jun 13 22:38 15519 Jul 06 22:45	0° \(\Omega\) 0° \(\Omega\) 0° \(\Omega\) 0° \(\Omega\) 0° \(\Z\) 10° \(\X\) 13'20 3° \(\X\) 24'18 0° \(\X\) 39'23 0° \(\X\) 41'27 30° \(\x\) 20° \(\X\) 0° \(\X\) 0° \(\Y\) 0° \(\Y\) 0° \(\Y\) 0° \(\Z\) 0° \(\Y\) 0° \(\Z\) 0° \(\Z\) 10° \(\S\) 11'27 0° \(\Omega\)	0°20'35 -1.9m 2.55455 AU	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise desc. node retrograde opposition	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Feb 29 12:31 15524 Apr 06 13:22 15524 Apr 14 01:44 15524 May 31 23:14 15524 Jul 24 18:27 15524 Oct 13 23:28 15524 Nov 22 11:00	13° 815'15 3° 830'07 0° II 0° \$\operatorname{3} 0° \Omega 0° \Omega 20° \Omega 38'57 0° II 0° \$\operatorname{3} 47'05 0° \$\operatorname{3} 47'05 0° \$\operatorname{3} 29' \$\operatorname{3} 12'34 0° \$\operatorname{3} 9° \$\operatorname{2} 5'58 0° \$\operatorname{4} 25° \$\operatorname{4} 0'29 0° \$\operatorname{4} 0° \$\operator	0.68691 AU 1°05'43 1°06'34 2.41586 AU
retrograde min. Earth dist. opposition greatest brilliancy desc. node direct evening set max. Earth dist. conjunction	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Aug 01 09:59 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Aug 15 17:29 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01 15519 Apr 07 02:49 15519 May 27 11:00 15519 Jun 13 22:38 15519 Jul 06 22:45	0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 1° \$\mathcal{O}\$09'34 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$13'20 3° \$\mathcal{O}\$24'18 0° \$\mathcal{O}\$39'23 0° \$\mathcal{O}\$127'30° \$\mathcal{O}\$ 28° \$\mathcal{O}\$01'40 22° \$\mathcal{O}\$37'28 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$ 2° \$\mathcal{O}\$27'40 14° \$\mathcal{O}\$11'27 0° \$\mathcal{O}\$ 5° \$\mathcal{O}\$21'41	0°20'35 -1.9m 2.55455 AU -0°34'04	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Feb 29 12:31 15524 Apr 06 13:22 15524 Apr 14 01:44 15524 Jul 24 18:27 15524 Jul 24 18:27 15524 Oct 13 23:28 15524 Nov 22 11:00 15524 Nov 23 03:38	13°815'15 3°830'07 0° II 0° © 0° Ω 9° Ω08'56 0° ID 0° Ω 20° Ω38'57 0° IL 0° ズ 18° ズ 43'29 18° ズ 47'05 0° ズ 29° 云 12'34 0° ※ 9° ※ 25'58 0° H 25° H 04'29 0° Y 0° ႘ 0° II 25° II 51'45 16° II 32'49	0.68691 AU 1°05'43 1°06'34 2.41586 AU -4°50'56 -1.4m
retrograde min. Earth dist. opposition greatest brilliancy desc. node direct evening set max. Earth dist.	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Aug 01 09:59 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Aug 15 17:29 15518 Sep 13 19:23 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01 15519 Apr 07 02:49 15519 May 23 17:49 15519 Jul 14 14:33 15519 Jul 14 14:33 15519 Jul 14 14:33	0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 1° \$\tilde{\O}\$09'34 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$ 10° \$\mathcal{O}\$ 13° \$\mathcal{O}\$ 13° \$\mathcal{O}\$ 28° \$\mathcal{O}\$ 140 22° \$\mathcal{O}\$ 37' 28 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$ 2° \$\mathcal{O}\$ 2° \$\mathcal{O}\$ 27' 40 14° \$\mathcal{O}\$ 11'27 0° \$\mathcal{O}\$ 5° \$\mathcal{O}\$ 21'41 5° \$\mathcal{O}\$ 24'21	0°20'35 -1.9m 2.55455 AU -0°34'04	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist.	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Feb 29 12:31 15524 Apr 06 13:22 15524 Apr 14 01:44 15524 May 31 23:14 15524 Jul 24 18:27 15524 Oct 13 23:28 15524 Nov 22 11:00 15524 Nov 23 03:38 15524 Nov 26 14:45	13° 815'15 3° 830'07 0° II 0° © 0° Ω 9° Ω08'56 0° ID 0° Ω 20° Ω38'57 0° IL 0° ℤ 18° ℥43'29 18° ℥47'05 0° ℧ 29° ℧12'34 0° ≈ 9° ≈25'58 0° ℋ 25° ℋ04'29 0° ♈ 0° ௧ 0° II 25° II 51'45 16° II 48'57 16° II 32'49 15° II 12'09	0.68691 AU 1°05'43 1°06'34 2.41586 AU
retrograde min. Earth dist. opposition greatest brilliancy desc. node direct evening set max. Earth dist. conjunction	15517 Jul 25 17:14 15517 Sep 06 14:43 15517 Oct 17 19:52 15517 Oct 19 09:23 15517 Nov 26 17:07 15518 Jan 04 23:15 15518 Feb 13 18:22 15518 Mar 28 06:54 15518 May 20 01:15 15518 Aug 01 09:59 15518 Aug 01 09:59 15518 Aug 08 14:38 15518 Aug 08 12:29 15518 Aug 10 08:02 15518 Aug 15 17:29 15518 Aug 15 17:29 15518 Oct 21 19:22 15518 Dec 25 20:05 15519 Feb 16 20:01 15519 Apr 07 02:49 15519 May 27 11:00 15519 Jun 13 22:38 15519 Jul 06 22:45	0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 1° \$\mathcal{O}\$09'34 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$13'20 3° \$\mathcal{O}\$24'18 0° \$\mathcal{O}\$39'23 0° \$\mathcal{O}\$127'30° \$\mathcal{O}\$ 28° \$\mathcal{O}\$01'40 22° \$\mathcal{O}\$37'28 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 0° \$\mathcal{O}\$ 10° \$\mathcal{O}\$ 2° \$\mathcal{O}\$27'40 14° \$\mathcal{O}\$11'27 0° \$\mathcal{O}\$ 5° \$\mathcal{O}\$21'41	0°20'35 -1.9m 2.55455 AU -0°34'04	min. Earth dist. direct asc. node evening set conjunction minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy	15522 Oct 20 09:47 15522 Nov 30 10:26 15523 Feb 20 04:05 15523 Apr 13 01:59 15523 May 28 09:28 15523 Jun 10 09:58 15523 Jul 09 01:29 15523 Aug 17 10:01 15523 Sep 12 17:01 15523 Sep 24 12:03 15523 Nov 01 07:09 15523 Nov 25 03:36 15523 Nov 25 05:27 15523 Dec 09 17:17 15524 Jan 17 12:04 15524 Jan 18 13:51 15524 Jan 18 13:51 15524 Jan 31 12:22 15524 Feb 29 12:31 15524 Apr 06 13:22 15524 Apr 14 01:44 15524 Jul 24 18:27 15524 Jul 24 18:27 15524 Oct 13 23:28 15524 Nov 22 11:00 15524 Nov 23 03:38	13°815'15 3°830'07 0° II 0° © 0° Ω 9° Ω08'56 0° ID 0° Ω 20° Ω38'57 0° IL 0° ズ 18° ズ 43'29 18° ズ 47'05 0° ズ 29° 云 12'34 0° ※ 9° ※ 25'58 0° H 25° H 04'29 0° Y 0° ႘ 0° II 25° II 51'45 16° II 32'49	0.68691 AU 1°05'43 1°06'34 2.41586 AU -4°50'56 -1.4m

asc. node	15525 Apr 27 11:54	24° © 59'01		minimum elong	15530 Apr 17 04:13	8° 8 20'39	
	15525 May 05 03:54	0 \circ Ω		max. Earth dist.	15530 Apr 18 05:50		2.68441 AU
	15525 Jun 17 00:18	0° m)			15530 May 21 08:14	0°II	
	15525 Jul 26 16:53	0∘ ⊽		morning rise	15530 May 30 05:57	5° Ⅱ 39'10	
	15525 Sep 02 22:41	0° M ○			15530 Jul 07 10:25	0° ©	
	15525 Oct 10 23:18	0° ∡ ¹			15530 Aug 22 23:26	0° N	
. ,	15525 Nov 18 18:31	0° 궁 6° 궁 54'21			15530 Oct 07 20:54	0 ்⊽ 0்மி	
evening set	15525 Nov 27 21:31 15525 Dec 29 02:27	0° ≈		asc. node	15530 Nov 22 07:45 15530 Dec 19 07:07	0° 22 17° 2 43'14	
	13323 Dec 29 02.27	0 ~		asc. Houe	15531 Jan 07 08:25	0°ML	
conjunction	15526 Jan 27 08:30	20°≈53'18	0°16'01		15531 Feb 28 07:51	0° ⊼	
minimum elong	15526 Jan 27 09:28	20°≈55'00	0°16'37	retrograde	15531 Apr 16 05:31	12° х 57'40	
minimum ciong	15526 Feb 09 10:38	0° ₩	0 1037	min. Earth dist.	15531 May 12 12:17	8°×740'00	0.37420 AU
desc. node	15526 Feb 22 03:13	8°) 42′16		greatest brilliancy	15531 May 16 01:06	7° ∡ 741'05	-2.9m
max. Earth dist.	15526 Feb 28 18:42		2.55329 AU	opposition	15531 May 17 02:16	7° х 23′30	7°12'37
morning rise	15526 Mar 20 12:26	26°) 24'19		direct	15531 Jun 15 08:51	2° × 724'29	,
8	15526 Mar 25 23:14	0°Υ			15531 Sep 01 05:10	0°ප	
	15526 May 11 16:41	0°8		desc. node	15531 Oct 14 20:28	25° ට 25'15	
	15526 Jun 29 20:30	0°II			15531 Oct 22 09:48	0° ≈	
	15526 Aug 22 01:19	0°©			15531 Dec 10 04:37	0° ∀	
	15526 Nov 01 09:03	$0^{\circ}\Omega$			15532 Jan 27 14:24	0° Y	
retrograde	15526 Nov 25 15:09	3° £ 10′27			15532 Mar 15 18:51	9° 8	
	15526 Dec 18 03:06	30° ₹ 5		evening set	15532 Apr 07 05:36	14° 8 05'25	
opposition	15527 Jan 01 05:52	25° © 17'47	-3°27'52		15532 May 02 08:26	Π °0	
greatest brilliancy	15527 Jan 02 07:14	24°954'17	-1.8m	max. Earth dist.	15532 May 09 12:22	4° Ⅱ 34'18	2.66738 AU
min. Earth dist.	15527 Jan 08 23:04	22°526'25	0.55494 AU				
direct	15527 Feb 10 01:05	15° © 49'12		conjunction	15532 May 20 20:50	11° II 51'16	-1°12'28
asc. node	15527 Mar 15 20:09	22° © 37'49		minimum elong	15532 May 20 21:08	11° Ⅱ 51'47	1°13'17
	15527 Apr 01 23:24	0 $^{\circ}\Omega$			15532 Jun 17 19:47	0ಂಣ	
	15527 May 22 11:10	0° m)		morning rise	15532 Jul 03 23:10	10°937'56	
	15527 Jul 03 07:00	0∘ ⊽			15532 Aug 01 20:48	0 $^{\circ}\Omega$	
	15527 Aug 11 13:25	0° M -			15532 Sep 14 07:30	0° m p	
	15527 Sep 19 09:36	0° ∡ ¹			15532 Oct 26 04:56	0∘ ⊽	
	15527 Oct 29 01:28	0° ප		asc. node	15532 Nov 05 03:24	7° £ 15'59	
	15527 Dec 09 07:14	0° ≈			15532 Dec 05 20:02	0° M ○	
desc. node	15528 Jan 09 18:18	21°≈59'51 0° 米			15533 Jan 14 22:38	0°る	
	15528 Jan 21 11:19 15528 Jan 22 10:59	0° X 0° X 40'12			15533 Feb 25 01:34	0°≈	
evening set	15528 Jan 22 10:59 15528 Mar 06 12:18	0° Υ 40°12 0° Υ		rotro ara do	15533 Apr 12 06:40 15533 Jun 13 08:17	0°≈ 21°≈13'28	
	13326 Wiai 00 12.16	U I		retrograde min. Earth dist.	15533 Jul 12 17:21		0.49752 AU
conjunction	15528 Mar 11 19:06	3° Y 26'52	-0°35'32	opposition	15533 Jul 20 21:34	13 ≈10 12 12°≈16'45	
minimum elong	15528 Mar 11 17:52	3° Υ 24'52		greatest brilliancy	15533 Jul 20 06:21	12 ≈10 43 12°≈30'43	-2.2m
max. Earth dist.	15528 Mar 26 16:50		2.64616 AU	direct	15533 Aug 24 06:38	4°≈58'06	2.2111
man Daru dioc.	15528 Apr 22 02:14	0°8	2.0.010110	desc. node	15533 Sep 01 05:54	5° ≈ 21'49	
morning rise	15528 Apr 26 02:21	2° 8 32'36			15533 Nov 10 07:14	0° \	
S	15528 Jun 08 19:23	0°II			15534 Jan 04 16:04	0° Y	
	15528 Jul 27 12:11	0ංම			15534 Feb 24 13:27	0°8	
	15528 Sep 15 17:07	$0^{\circ}\Omega$			15534 Apr 14 02:56	$\Pi^{\circ}0$	
	15528 Nov 09 02:08	0° m		evening set	15534 May 12 15:44	18° Ⅱ 15′26	
retrograde	15529 Jan 23 23:51	24° Mp 26° 22			15534 May 30 14:15	0ංම	
asc. node	15529 Jan 31 04:10	24° Mp 06'50		max. Earth dist.	15534 Jun 02 19:36	2° © 07'56	2.59636 AU
opposition	15529 Feb 24 17:31	18° m 37'32	1°39'06				
greatest brilliancy	15529 Feb 25 04:31	18° m 28'59	-2.7m	conjunction	15534 Jun 27 15:02	18° 5 47'33	-0°51'08
min. Earth dist.	15529 Mar 04 10:35	16° m 14'41	0.41531 AU	minimum elong	15534 Jun 27 16:34	18°950'10	0°52'00
direct	15529 Mar 30 20:34	11° m 40'34			15534 Jul 13 22:50	0 \circ Ω	
	15529 May 26 04:37	0∘ ⊽		morning rise	15534 Aug 16 08:34	23° Ω 34'34	
	15529 Jul 12 08:07	0°M 0°. ⊼			15534 Aug 25 06:01	0° M)	
	15529 Aug 23 17:30	0° ∡		asc. node	15534 Sep 22 18:51	21° Mp 00'55	
	15529 Oct 04 20:51	5°0			15534 Oct 04 18:00	0∘ ™	
dogo m-1-	15529 Nov 17 02:33	0°≈ 6°222'05			15534 Nov 12 21:49	0°M 0°. 7	
desc. node	15529 Nov 26 14:59	6°≈28'05 0°¥			15534 Dec 21 10:33	0° ∡ 7	
	15529 Dec 31 20:33 15530 Feb 15 23:36	0° ℋ 0° Ƴ			15535 Jan 29 07:45 15535 Mar 10 21:50	0° そ	
evening set	15530 Mar 03 13:22	9° Υ 58'38			15535 Mai 10 21:30 15535 Apr 24 15:05	0 ≈ 0° ∀	
Croning oct	15530 Apr 04 00:26	0.8			15535 Apr 24 15.05 15535 Jun 23 07:26	0° Υ	
	10000 ггрт от 00.20	v O		desc. node	15535 Jul 20 12:01	5° Υ 35'10	
conjunction	15530 Apr 17 05:11	8° 8 22'11	-1°06'02	retrograde	15535 Jul 24 10:52	5° Υ 41'22	
. j			· · · · =		, 		

	15535 Aug 22 14:14	30° ₹			15540 May 14 01:44	$0^{\circ}\Omega$	
min. Earth dist.	15535 Aug 22 14:14 15535 Aug 28 14:38		0.61882 AU		15540 Jun 25 06:12	0° m y	
opposition	15535 Aug 26 14:56 15535 Sep 02 16:41	25°) 43'51			15540 Aug 03 17:35	ەر 20° <u>0</u>	
greatest brilliancy	15535 Sep 02 10:41 15535 Sep 02 07:15	25° X 53'08		greatest brilliancy	15540 Aug 29 23:31		1.1m
direct	15535 Oct 11 02:06	16° ¥ 53'08	1.0111	greatest orimancy	15540 Sep 10 20:30	0°M	1.1111
	15535 Dec 03 22:27	0°Υ			15540 Oct 18 17:35	0° ∡ 7	
	15536 Feb 02 13:17	0°8		evening set	15540 Oct 30 13:09	9° х 16′25	
	15536 Mar 24 19:31	0°II		evening sec	15540 Nov 26 07:52	0°ਰ	
	15536 May 11 00:29	0 . ದ				• •	
evening set	15536 Jun 21 03:56	27° © 51'53		conjunction	15541 Jan 05 13:39	0° ≈ 06'49	0°38'48
<i>8</i>	15536 Jun 24 05:20	$0^{\circ}\Omega$		minimum elong	15541 Jan 05 16:10	0° ≈ 11'25	
max. Earth dist.	15536 Jul 04 19:31		2.47666 AU	Č	15541 Jan 05 09:55	0° ≈	
	15536 Aug 04 22:23	0° m		max. Earth dist.	15541 Feb 15 15:22	29° ≈ 23'03	2.50345 AU
asc. node	15536 Aug 09 07:52	3° m 15'10			15541 Feb 16 12:40	0° ∀	
	-	•		morning rise	15541 Mar 03 12:09	10° ¥ 17'38	
conjunction	15536 Aug 14 00:03	6° Mp 43′46	0°03'16	desc. node	15541 Mar 10 20:48	15°) 17′02	
minimum elong	15536 Aug 13 23:51	6° Mp 43′24	0°02'50		15541 Apr 01 23:15	$0^{\circ}\Upsilon$	
behind sun begin	15536 Aug 12 23:31	5° m 58'05			15541 May 18 22:52	0° 8	
behind sun end	15536 Aug 15 00:11	7° Mp 28'46			15541 Jul 08 05:29	Π $^{\circ}0$	
	15536 Sep 13 16:46	0∘ ত			15541 Sep 03 19:21	0 \circ \odot	
morning rise	15536 Oct 17 11:07	26° ≏ 17'22		retrograde	15541 Nov 07 16:13	17° © 54'03	
	15536 Oct 22 04:16	0° M		opposition	15541 Dec 15 15:37	9° © 28'51	-4°16'55
greatest brilliancy	15536 Nov 13 05:56	17°M25'28	1.2m	greatest brilliancy	15541 Dec 16 16:11	9° 5 05'29	-1.6m
	15536 Nov 29 03:58	0°⊀		min. Earth dist.	15541 Dec 22 01:53	7° 5 02'18	0.60145 AU
	15537 Jan 06 13:25	5°0			15542 Jan 18 03:42	30°Ŗ Ⅱ	
	15537 Feb 15 07:51	0° ≈		direct	15542 Jan 25 10:39	29° Ⅲ 38'35	
	15537 Mar 29 14:18	0°) €			15542 Feb 01 20:37	0 \circ \mathfrak{s}	
	15537 May 15 04:37	0° Y		asc. node	15542 Apr 01 08:12	20° © 43'26	
desc. node	15537 Jun 06 13:31	12° Y 50'09			15542 Apr 17 16:09	$0^{\circ}\Omega$	
	15537 Jul 12 05:21	9° 8			15542 Jun 02 04:39	0° ™	
retrograde	15537 Aug 27 06:08	10° 8 36'07			15542 Jul 12 18:22	0∘ ⊽	
min. Earth dist.	15537 Oct 05 20:10		0.68094 AU		15542 Aug 20 10:47	0° M	
opposition	15537 Oct 07 03:03	0° 8 43'41			15542 Sep 27 20:14	0° ∡ 7	
greatest brilliancy	15537 Oct 06 21:16	0° 8 49'24	-1.3m		15542 Nov 06 01:22	0°ಕ	
	15537 Oct 08 23:15	30° ₹ Υ			15542 Dec 16 20:13	0° ≈	
direct	15537 Nov 16 20:46	21° Υ ′04'26		evening set	15543 Jan 03 05:29	12° ≈ 22'25	
	15537 Dec 29 23:26	0°8		desc. node	15543 Jan 26 10:58	28° ≈ 31'56	
	15538 Mar 02 12:43	0°П			15543 Jan 28 14:20	0° ∀	
	15538 Apr 21 05:10	0°95					
,	15538 Jun 04 23:29	0°N		conjunction	15543 Feb 24 22:31	18°) €28'37	
asc. node	15538 Jun 27 01:58	15° Ω 42'48		minimum elong	15543 Feb 24 21:45	18° ¥ 27'21	0°17'29
. ,	15538 Jul 16 13:12	0° Mp		T 41 11 4	15543 Mar 14 08:35	0°Υ 2°W24142	2 (1(0(A))
evening set	15538 Aug 15 06:52	22° m/31'29		max. Earth dist.	15543 Mar 18 00:53	2°Υ24'43	2.61606 AU
	15538 Aug 24 22:51 15538 Oct 02 02:10	0° Մ 0° ত		morning rise	15543 Apr 13 05:38	19° Y 22'43 0° と	
	13338 Oct 02 02.10	U IIG			15543 Apr 29 21:32 15543 Jun 16 23:39	0°II	
conjunction	15538 Oct 24 13:06	17° M 50'16	1005'00		15543 Aug 05 20:17	0°©	
minimum elong	15538 Oct 24 15:00 15538 Oct 24 10:40	17°M45'26	1°05'34		15543 Sep 28 05:31	0°€ 0°€	
minimum ciong	15538 Nov 08 21:12	17 11℃43 20 0° √ 7	1 05 54		15543 Dec 10 14:06	0°mp	
max. Earth dist.	15538 Nov 29 17:18		2.36523 AU	retrograde	15543 Dec 29 09:14	2° mg 00'55	
man. Durin tilst.	15538 Nov 29 17:18 15538 Dec 17 05:41	10 × 25 48	2.50525 110	.onograde	15544 Jan 16 03:55	2 11/00 33 30°RΩ	
morning rise	15539 Jan 06 02:36	ා 15° ට 10'01		opposition	15544 Feb 01 05:06	25° Ω 16'31	-0°58'50
morning rise	15539 Jan 25 23:40	0° ≈		greatest brilliancy	15544 Feb 01 14:29	25° Ω 08'29	
	15539 Mar 08 20:53	0°) €		min. Earth dist.	15544 Feb 09 20:40		0.46988 AU
	15539 Apr 22 14:48	0°Υ		asc. node	15544 Feb 17 15:45	19° Ω 57'19	0.10500710
desc. node	15539 Apr 24 07:59	1°Υ06'20		direct	15544 Mar 09 04:41	17°Ω00'13	
dese. node	15539 Jun 10 12:31	0°8		4	15544 Apr 24 22:25	0° my	
	15539 Aug 08 07:33	0°II			15544 Jun 13 10:54	0∘ ⊽	
retrograde	15539 Sep 30 15:41	13° ∏ 03'55			15544 Jul 25 03:40	0° m .	
opposition	15539 Nov 09 19:05	3° ∏ 42'45	-4°52'18		15544 Sep 03 09:36	0° ∡ 7	
greatest brilliancy	15539 Nov 10 04:58	3° П 33'05			15544 Oct 14 04:10	0° ਰ	
min. Earth dist.	15539 Nov 12 10:02		0.67542 AU		15544 Nov 25 09:15	0° ≈	
	15539 Nov 19 11:16	30° ₹ 8		desc. node	15544 Dec 13 06:43	12° ≈ 21'22	
direct	15539 Dec 21 10:07	23° 8 41'21			15545 Jan 08 08:27	0° ∀	
	15540 Jan 25 03:17	Π °0		evening set	15545 Feb 16 13:07	25°) €50'33	
	15540 Mar 27 20:07	0 \circ \odot			15545 Feb 22 22:43	0° Y	
asc. node	15540 May 14 02:45	0° Ω 01'44					

conjunction	15545 Apr 03 12:36	25° Y 25'15	0°56'50	desc. node	15550 Aug 06 00:51	15° ¥ 06'08	
minimum elong	15545 Apr 03 11:21	25° Y 23'15		min. Earth dist.	15550 Aug 11 16:26		0.57723 AU
max. Earth dist.	15545 Apr 09 20:10	29° Y 26'27		opposition	15550 Aug 11 10:20 15550 Aug 18 03:38	10°) € 31'03	
max. Lartii tist.	15545 Apr 10 17:16	0°8	2.07304710	greatest brilliancy	15550 Aug 17 24:00	10° X 31'03	
morning rise	15545 May 17 01:03	23° 8 00'51		direct	15550 Sep 24 04:34	2° ¥ 09'32	1.0111
	15545 May 28 02:30	0°II			15550 Dec 18 10:00	0°Υ	
	15545 Jul 14 15:54	0 . ಹ			15551 Feb 11 07:48	0°8	
	15545 Aug 31 05:13	$0^{\circ}\Omega$			15551 Apr 02 05:19	0°II	
	15545 Oct 17 23:43	0° m/y			15551 May 19 01:17	0°©	
	15545 Dec 06 02:21	0∘ ⊽		evening set	15551 Jun 05 07:08	11° © 29'53	
asc. node	15546 Jan 04 22:11	16° £ 52'56		max. Earth dist.	15551 Jun 21 00:28		2.52853 AU
	15546 Feb 01 01:39	0°M₊			15551 Jul 02 06:38	$0^{\circ}\Omega$	
retrograde	15546 Mar 15 09:01	10°M04'39					
opposition	15546 Apr 13 20:13	5° ™ 13'58	6°27'42	conjunction	15551 Jul 25 02:24	16° Ω 08'58	-0°21'56
greatest brilliancy	15546 Apr 13 23:40	5°M11'41	-3.0m	minimum elong	15551 Jul 25 03:36	16° Ω 11'07	
min. Earth dist.	15546 Apr 14 20:19	4°M57'58	0.36452 AU	Č	15551 Aug 13 04:25	0° m)	
direct	15546 May 13 09:11	0°M16'44		asc. node	15551 Aug 27 04:19	10° m 21'08	
	15546 Jul 30 18:19	0°⊀		morning rise	15551 Sep 20 09:13	28° m/37'03	
	15546 Sep 16 18:50	0° ට		C	15551 Sep 22 04:39	0∘ <u>v</u>	
desc. node	15546 Oct 31 08:10	28° る 51'55			15551 Oct 30 21:22	0° M	
	15546 Nov 02 02:13	0° ≈			15551 Dec 08 00:38	0° ∡ ¹	
	15546 Dec 18 17:18	0°) €			15552 Jan 15 12:27	ರ°0	
	15547 Feb 04 00:02	$0^{\circ}\mathbf{Y}$			15552 Feb 24 10:29	0° ≈	
	15547 Mar 23 14:56	0°8			15552 Apr 07 04:27	0° ∀	
evening set	15547 Mar 25 14:54	1° 8 15'34			15552 May 25 17:08	0° Y	
max. Earth dist.	15547 May 01 16:48	24° 8 42'25	2.68056 AU	desc. node	15552 Jun 23 03:53	14° Y 23'42	
	,			retrograde	15552 Aug 14 01:06	27° Y '48'26	
conjunction	15547 May 08 07:02	28° 8 53'58	-1°13'01	min. Earth dist.	15552 Sep 21 01:13	18° Ƴ 56'20	0.66455 AU
minimum elong	15547 May 08 06:48	28° 8 53'35	1°13'43	opposition	15552 Sep 23 20:11	17° Y ′50′00	-3°21'52
	15547 May 10 00:31	$\Pi^{\circ}0$		greatest brilliancy	15552 Sep 23 10:44	17° Y ′59′22	-1.3m
morning rise	15547 Jun 20 13:32	26° Ⅱ 41'09		direct	15552 Nov 02 20:04	8° Y 26'16	
	15547 Jun 25 15:58	0 \circ \odot			15553 Jan 14 18:56	9° 8	
	15547 Aug 10 04:12	$0^{\circ}\Omega$			15553 Mar 11 10:58	Π $^{\circ}0$	
	15547 Sep 23 08:36	0° ™			15553 Apr 28 20:45	0 \circ \odot	
	15547 Nov 05 05:01	0∘ ⊽			15553 Jun 12 07:50	$0^{\circ}\Omega$	
asc. node	15547 Nov 22 20:59	12° ≏ 36'40		asc. node	15553 Jul 13 19:46	22° Ω 33'15	
	15547 Dec 17 00:18	0° M		evening set	15553 Jul 22 00:53	28° Ω 36′07	
	15548 Jan 27 17:19	0° ∡ ¹			15553 Jul 23 22:08	0° ™	
	15548 Mar 12 02:46	5°0		max. Earth dist.	15553 Aug 10 19:23	13° m 24'55	2.39194 AU
retrograde	15548 May 24 10:28	28° る 34'08			15553 Sep 01 10:39	0∘ ⊽	
min. Earth dist.	15548 Jun 20 13:14	23° る 31'01	0.44193 AU				
opposition	15548 Jun 28 21:33	20° る 41'22	4°23'30	conjunction	15553 Sep 23 08:23	17° ≏ 06'10	0°46'25
greatest brilliancy	15548 Jun 27 16:02	21° る 06'28	-2.5m	minimum elong	15553 Sep 23 04:39	16° ≏ 58'50	0°46'33
direct	15548 Jul 31 02:15	14° る 17'10			15553 Oct 09 16:35	0° M	
desc. node	15548 Sep 17 16:18	26° る 12'00			15553 Nov 16 12:33	0° ∡	
	15548 Sep 26 09:21	0° ≈		morning rise	15553 Dec 06 19:53	15° ₹ 59'22	
	15548 Nov 22 21:40	0° ∀			15553 Dec 24 20:06	0°ප	
	15549 Jan 13 08:53	0° Υ			15554 Feb 02 12:26	0° ≈	
	15549 Mar 03 21:46	0° 8			15554 Mar 16 09:56	0°) €	
	15549 Apr 20 23:20	0°П			15554 Apr 30 13:03	0°Υ	
evening set	15549 Apr 28 13:58	4° ∏ 50′28		desc. node	15554 May 11 00:36	6° Y 34'27	
max. Earth dist.	15549 May 23 21:11		2.63034 AU		15554 Jun 20 04:06	0° 8	
	15549 Jun 06 09:22	0			15554 Sep 06 13:59	0°П	
	15540 1 10 04 10	200101	1002105	retrograde	15554 Sep 17 01:13	0°∏38′20	
conjunction	15549 Jun 12 04:10	3°549'21			15554 Sep 27 03:40	30°₹ ႘	4044127
minimum elong	15549 Jun 12 05:21	3°951'18	1~03'58	opposition	15554 Oct 27 15:02	21° 8 02'24	
	15549 Jul 20 23:03	0° Ω		greatest brilliancy	15554 Oct 27 18:10	20° 8 59'19	
morning rise	15549 Jul 28 23:14	5° Ω 31'48		min. Earth dist.	15554 Oct 28 17:09	20° 8 36'41	0.68578 AU
aga m-J-	15549 Sep 01 15:19	0° Mp		direct	15554 Dec 08 01:41	11° ႘ 06'40	
asc. node	15549 Oct 09 13:29	27° Mp 44'55			15555 Feb 12 01:35	0°¶	
	15549 Oct 12 13:58	ი∘ ო 0∘ ত			15555 Apr 07 08:31	0° ⊙	
	15549 Nov 21 04:24	0°M. 0°. 7		000 m-J-	15555 May 23 05:59	0° Ω 5° Ω 51'57	
	15549 Dec 30 03:01	0°る		asc. node	15555 May 31 16:28		
	15550 Feb 07 11:41 15550 Mar 21 00:07	0° ∞			15555 Jul 04 02:12	0° െ 0°ആ	
		0° ∺			15555 Aug 12 11:49		
retrograda	15550 May 07 23:36 15550 Jul 09 15:20	0° X 20° X 17'02		evening set	15555 Sep 19 14:15 15555 Sep 30 03:30	0°M 8°M22'59	
retrograde	15550 Jul 09 15.20	20 K 1/02		evening set	10000 ach 00 00:00	0 11644 39	

	15555 Oct 27 09:48	0° ∡ ¹		morning rise	15560 May 03 18:43	10° 8 21'40	
	15555 Dec 04 20:49	0°ಕ			15560 Jun 03 23:50	Π $^{\circ}$ 0	
					15560 Jul 22 04:45	0ಂಣ	
conjunction	15555 Dec 11 14:40	5° る 09'40	0°58'42		15560 Sep 09 05:02	0 $^{\circ}\Omega$	
minimum elong	15555 Dec 11 17:43	5° る 15'29	0°59'33		15560 Oct 30 05:18	0° m)	
	15556 Jan 13 18:29	0° ≈			15560 Dec 29 02:40	0∘ ত	
max. Earth dist.	15556 Jan 30 10:19	12° ≈ 06'40	2.44764 AU	asc. node	15561 Jan 21 11:03	7° £ 26′25	
morning rise	15556 Feb 12 23:00	21° ≈ 45'14		retrograde	15561 Feb 10 07:59	9° ≏ 46'24	
	15556 Feb 24 17:14	0° ℋ		opposition	15561 Mar 12 18:48	4° ≙ 27'57	3°29'58
desc. node	15556 Mar 27 16:40	21°) 46′18		greatest brilliancy	15561 Mar 13 11:49	4° £ 15'38	-2.8m
	15556 Apr 09 03:41	0 ° Υ		min. Earth dist.	15561 Mar 18 21:35	2° - 41'55	0.39013 AU
	15556 May 26 13:52	9° 8			15561 Mar 29 15:33	30° ₽, ™)	
	15556 Jul 17 15:27	Π \circ 0		direct	15561 Apr 14 02:47	28° ™ 21'38	
	15556 Sep 25 05:52	0 \circ \odot			15561 Apr 29 11:11	0∘ 亚	
retrograde	15556 Oct 22 13:18	3° 9 55'28			15561 Jul 02 01:19	0° M .	
	15556 Nov 16 16:43	30°RⅡ			15561 Aug 16 01:21	0°⊀	
opposition	15556 Nov 30 13:38	25° Ⅱ 04'33	-4°43'27		15561 Sep 28 10:36	0°る	
greatest brilliancy	15556 Dec 01 09:39	24° Ⅱ 45′13	-1.4m		15561 Nov 11 11:06	0° ≈	
min. Earth dist.	15556 Dec 05 13:12	23° I 09'08	0.63831 AU	desc. node	15561 Nov 16 21:30	3° ≈ 38'51	
direct	15557 Jan 10 22:17	15° 耳 04'10			15561 Dec 26 17:27	0° ∀	
	15557 Mar 06 23:01	0ං ම			15562 Feb 11 04:28	$0^{\circ}\mathbf{\Upsilon}$	
asc. node	15557 Apr 17 20:53	23° © 01'31		evening set	15562 Mar 11 16:48	18° Ƴ 09'22	
	15557 Apr 28 22:09	$0^{\circ}\Omega$		8	15562 Mar 30 09:13	0°8	
	15557 Jun 11 11:42	0° m/y		max. Earth dist.	15562 Apr 23 03:38	_	2.68544 AU
	15557 Jul 21 10:16	0∘ ⊽				•	
	15557 Aug 28 19:01	0° M .		conjunction	15562 Apr 24 20:49	16° 8 08'19	-1°09'43
	15557 Oct 05 21:52	0° ∡ 7		minimum elong	15562 Apr 24 20:05	16° 8 07'10	
	15557 Nov 13 19:32	0°ਤ		minimum crong	15562 May 16 17:08	0°II	1 10 17
evening set	15557 Dec 12 01:03	21° る 04'56		morning rise	15562 Jun 06 20:17	13° Ⅱ 27'43	
evening set	15557 Dec 24 06:19	0° ≈		morning rise	15562 Jul 02 15:05	0°9	
	15558 Feb 04 16:49	0° ∺			15562 Aug 17 18:11	0°Ω	
	133361 00 04 10.49	0 /			15562 Oct 01 22:34	0° m)	
conjunction	15558 Feb 07 07:59	1° ¥ 48'45	0°03'05		15562 Nov 15 05:12	0∘ ऌ ० ाक्र	
minimum elong	15558 Feb 07 08:09	1° H 49'02		aca mada		0 == 16° £ 41'01	
Č		1° H 11'36	0-03-33	asc. node	15562 Dec 09 14:19 15562 Dec 29 02:22		
behind sun begin	15558 Feb 06 10:23	2°\(\frac{1}{2}6'25\)				0° M 0° ∡ 1	
behind sun end desc. node	15558 Feb 08 05:55	2 H 20 23 5° H 10'34			15563 Feb 12 15:47	0°る	
	15558 Feb 12 05:44		2.57706 ATT	. 1	15563 Apr 19 08:01		
max. Earth dist.	15558 Mar 07 09:59	20°) 49'44	2.57786 AU	retrograde	15563 May 01 18:10	1°る06'59	
	15558 Mar 21 06:16	0°Υ 5° W 22107		· F 4 F 4	15563 May 14 05:16	30° ₹ ₹	0.20212.411
morning rise	15558 Mar 29 10:51	5° Y 22'07		min. Earth dist.	15563 May 27 16:17		0.39313 AU
	15558 May 06 20:27	0°8		greatest brilliancy	15563 Jun 01 23:10	25° х 08′39	-2.8m
	15558 Jun 24 12:13	0°II		opposition	15563 Jun 03 08:33	24° 🖈 43'22	6°30'38
	15558 Aug 15 03:14	0°©		direct	15563 Jul 03 11:39	19° ∡ 18′08	
	15558 Oct 14 05:51	0°N			15563 Aug 17 00:13	0°る	
retrograde	15558 Dec 06 22:10	13° Ω 11'31		desc. node	15563 Oct 05 03:17	24° る 45'19	
opposition	15559 Jan 11 14:42	5° Ω 40'15			15563 Oct 14 09:17	0° ≈	
greatest brilliancy	15559 Jan 12 13:12	5° Ω 19'49			15563 Dec 04 02:57	0°) €	
min. Earth dist.	15559 Jan 19 20:10		0.52611 AU		15564 Jan 22 09:33	0° Υ	
	15559 Jan 28 01:13	30° ₹ 5			15564 Mar 10 23:51	0° 8	
direct	15559 Feb 19 14:33	26°530'48		evening set	15564 Apr 14 22:41	21° 8 54'07	
asc. node	15559 Mar 06 04:46	27° 9 56'16			15564 Apr 27 17:13	$0^{\circ}\Pi$	
	15559 Mar 14 21:55	0 \circ Ω		max. Earth dist.	15564 May 14 16:31	10° Ⅱ 51′04	2.65661 AU
	15559 May 14 12:19	0° m)					
	15559 Jun 26 18:50	0∘ ⊽		conjunction	15564 May 28 18:13	19° Ⅱ 56′25	
	15559 Aug 05 15:13	0°M₊		minimum elong	15564 May 28 18:51	19° Ⅱ 57'29	1°11'10
	15559 Sep 13 19:55	0° ∡ ¹			15564 Jun 13 04:10	$0 \circ \mathfrak{S}$	
	15559 Oct 23 18:34	0°ಕ		morning rise	15564 Jul 12 14:04	19° © 32'03	
	15559 Dec 04 06:32	0° ≈			15564 Jul 28 01:12	0 $^{\circ}\Omega$	
desc. node	15559 Dec 30 21:50	18° ≈ 34'37			15564 Sep 09 05:21	0° m y	
	15560 Jan 16 15:37	0° ∀			15564 Oct 20 18:05	0∘ ⊽	
evening set	15560 Feb 01 08:24	10°) 32′56		asc. node	15564 Oct 26 09:25	4° ≙ 09'19	
	15560 Mar 01 20:06	0° Y			15564 Nov 29 23:12	0° M	
					15565 Jan 08 13:01	0° ∡ ¹	
conjunction	15560 Mar 20 06:34	11° Y 57'36			15565 Feb 17 18:21	0°ರ	
minimum elong	15560 Mar 20 05:15	11° Υ 55'28			15565 Apr 02 07:16	0° ≈	
max. Earth dist.	15560 Apr 01 00:09	19° Ƴ 30'14	2.65907 AU		15565 Jun 02 16:57	0° ℋ	
	15560 Apr 17 10:36	0° 8		retrograde	15565 Jun 23 11:02	2° 升 52′25	

	15565 Jul 13 07:59	30°R ≈			15570 Jul 11 16:35	0° m	
min. Earth dist.	15565 Jul 24 03:53	26°≈25'33	0.52737 AU		15570 Aug 20 02:27	0∘ ⊽	
opposition	15565 Jul 31 20:06	23°≈32'16	1°04'57	evening set	15570 Aug 30 17:25	ა _ 8° ჲ 17'22	
greatest brilliancy	15565 Jul 31 12:53	23°≈39'04	-2.0m	evening set	15570 Sep 27 05:27	0°M	
desc. node	15565 Aug 22 11:22	17°≈03'14	2.0111		15570 Nov 04 00:15	0° ∡ 7	
direct	15565 Sep 05 05:58	15° ≈ 48'18			100,0110, 01 00.10		
	15565 Oct 30 14:10	0°) €		conjunction	15570 Nov 11 11:31	5° ₹ '54'01	1°07'46
	15565 Dec 29 07:11	0° Υ		minimum elong	15570 Nov 11 11:36	5° ∡ 754'12	
	15566 Feb 19 07:55	0° ႘		8	15570 Dec 12 08:46	ರ°0	
	15566 Apr 09 07:41	$\Pi^{\circ}0$		max. Earth dist.	15571 Jan 03 15:28	16° ප 58'35	2.39083 AU
evening set	15566 May 20 23:05	26° Ⅱ 43'57		morning rise	15571 Jan 20 23:27	29° ප 53'31	
-	15566 May 25 22:12	0 \circ \odot		-	15571 Jan 21 02:58	0° ≈	
max. Earth dist.	15566 Jun 09 01:05	9° 5 23'43	2.57419 AU		15571 Mar 03 23:19	0°)	
				desc. node	15571 Apr 14 10:27	27°) 59'31	
conjunction	15566 Jul 07 00:26	28° © 27'25	-0°41'57		15571 Apr 17 12:23	$0^{\circ}\mathbf{\Upsilon}$	
minimum elong	15566 Jul 07 02:01	28° © 30'09	0°42'45		15571 Jun 04 16:27	9° 8	
	15566 Jul 09 05:51	0 $^{\circ}\Omega$			15571 Jul 29 22:24	Π $^{\circ}0$	
	15566 Aug 20 10:06	0° ™		retrograde	15571 Oct 08 17:52	20° Ⅱ 49'19	
morning rise	15566 Aug 27 22:45	5° Mp 30'21		opposition	15571 Nov 17 12:43	11° Ⅱ 37'54	
asc. node	15566 Sep 12 23:02	17° m 21'40		greatest brilliancy	15571 Nov 18 02:26	11° Ⅱ 24'32	
	15566 Sep 29 18:05	0∘ ⊽		min. Earth dist.	15571 Nov 21 00:02	10° Ⅱ 16'39	0.66496 AU
	15566 Nov 07 18:03	0° M		direct	15571 Dec 29 02:45	1° Ⅱ 35′22	
	15566 Dec 16 03:05	0° ∡			15572 Mar 20 17:44	0_{\circ} වෙ	
	15567 Jan 23 19:45	0°ಕ		asc. node	15572 May 04 09:22	27°520'14	
	15567 Mar 05 01:28	0° ≈			15572 May 08 09:26	0 $^{\circ}$ Ω	
	15567 Apr 17 17:46	0°) €			15572 Jun 20 00:01	0° m)	
	15567 Jun 09 14:13	0°Υ			15572 Jul 29 15:01	0° ⊡	
desc. node	15567 Jul 10 17:48	11° Υ 28'48			15572 Sep 05 19:54	0° M ○	
retrograde	15567 Aug 01 11:36	14° Υ 19'42	0.62565.433		15572 Oct 13 18:41	0° ∡ ¹	
min. Earth dist.	15567 Sep 06 16:42	6°Υ01'32		evening set	15572 Nov 15 23:11	25° х 48′09	
opposition	15567 Sep 10 23:24	4° Υ 20'00 4° Υ 30'29	-2°29′18 -1.5m		15572 Nov 21 10:49	0° 云 0°≈	
greatest brilliancy	15567 Sep 10 12:49 15567 Sep 22 15:07	4° 1 30 29 30°R ∺	-1.5m		15572 Dec 31 14:56	0°≈	
direct	15567 Oct 19 23:52	30 KX 25° ¥ 16'12		conjunction	15573 Jan 18 06:32	12° ≈ 44'36	0°25'48
direct	15567 Nov 19 05:50	25 χ 10 12 0° Υ		minimum elong	15573 Jan 18 08:11	12 ≈44 30 12°≈47'33	0°26'30
	15568 Jan 27 01:26	0°8		minimum clong	15573 Feb 11 19:10	0°) €	0 20 30
	15568 Mar 19 13:41	0°II		max. Earth dist.	15573 Feb 23 12:20		2.53174 AU
	15568 May 06 04:21	0°©		desc. node	15573 Mar 01 00:15	11°) 48'30	2.33171110
	15568 Jun 19 11:39	$0 {\circ} \Omega$		morning rise	15573 Mar 13 09:05	20° ₩ 08'55	
evening set	15568 Jul 01 13:20	8° Ω 30'46		morning 115¢	15573 Mar 28 05:16	0°Υ	
max. Earth dist.	15568 Jul 15 01:52		2.44621 AU		15573 May 13 23:30	0°8	
asc. node	15568 Jul 30 13:28	29° Ω 32'53			15573 Jul 02 12:00	0°II	
	15568 Jul 31 04:09	0° m)			15573 Aug 26 02:05	0ಂತಾ	
		•		retrograde	15573 Nov 17 14:39	26° © 52'31	
conjunction	15568 Aug 27 07:43	20° m 23'22	0°19'08	opposition	15573 Dec 24 20:15	18°544'18	-3°51'37
minimum elong	15568 Aug 27 06:14	20° m 20'32	0°18'53	greatest brilliancy	15573 Dec 25 21:47	18° 5 20'19	-1.7m
	15568 Sep 08 20:33	0∘ ⊽		min. Earth dist.	15573 Dec 31 23:59	16° © 03'05	0.57674 AU
	15568 Oct 17 06:04	0° M		direct	15574 Feb 03 02:58	9° 5 04'08	
morning rise	15568 Nov 04 02:41	14° M 07'31		asc. node	15574 Mar 22 16:57	21° 5 24'19	
	15568 Nov 24 04:11	0° ∡ ¹			15574 Apr 08 19:56	$0^{\circ}\Omega$	
	15569 Jan 01 12:17	0°ප			15574 May 26 16:31	0° m)	
	15569 Feb 10 04:53	0° ≈			15574 Jul 06 21:59	0∘ ಹ	
	15569 Mar 24 05:58	0° ∀			15574 Aug 14 21:42	0°ML	
	15569 May 09 02:10	0° Υ			15574 Sep 22 12:22	0° ∡ ¹	
desc. node	15569 May 27 18:01	11° Y 11'05			15574 Oct 31 22:14	0°ಕ	
	15569 Jul 02 00:54	0°8			15574 Dec 11 21:51	0° ≈	
retrograde	15569 Sep 03 19:07	18° 8 15'37	4010140	evening set	15575 Jan 14 10:13	23°≈32'25	
opposition	15569 Oct 14 14:26	8° 8 28'13		desc. node	15575 Jan 16 14:49	25°≈03'00	
greatest brilliancy	15569 Oct 14 11:29	8° 8 31'08			15575 Jan 23 20:05	0° ℋ	
min. Earth dist.	15569 Oct 14 03:47	8° 8 38'45 30° RY	0.68551 AU	aanium -ti	15575 M 06 00 55	270W 20150	0020120
direct	15569 Nov 10 07:16	30°₹°¥ 28° Y 42'11		conjunction	15575 Mar 06 02:55	27° 	
direct	15569 Nov 24 15:21 15569 Dec 09 19:51	0° 8		minimum elong	15575 Mar 06 01:49 15575 Mar 09 16:51	2/°π3/11 0°Υ	U 2021
	15570 Feb 23 21:44	0°II		max. Earth dist.	15575 Mar 23 15:07	0 1 9° Υ 05'07	2.63379 AU
	15570 Apr 15 20:52	0°©		morning rise	15575 Apr 21 05:04	27° Υ 27'10	2.03317 AU
	15570 May 31 00:09	0°Ω			15575 Apr 25 05:09	0°8	
asc. node	15570 Jun 17 08:39	12° Ω 14'39			15575 Jun 12 01:14	0°II	
	11 00.37	-= 361 +37			12 01.17		

	15575 Jul 31 04:22	0ංම			15580 Nov 15 05:02	0° ∀	
	15575 Sep 20 12:05	$0^{\circ}\Omega$			15581 Jan 07 15:01	0° Y	
	15575 Nov 17 22:56	0° m y			15581 Feb 26 21:25	9° 8	
retrograde	15576 Jan 12 16:16	14° m 34'28			15581 Apr 16 06:09	Π \circ 0	
asc. node	15576 Feb 08 01:17	10° m 19'55		evening set	15581 May 06 12:51	12° Ⅱ 55'56	
opposition	15576 Feb 14 09:41	8° m 19'56	0°24'27	max. Earth dist.	15581 May 29 14:14	27° II 55'30	2.61262 AU
greatest brilliancy	15576 Feb 14 12:50	8° m) 17'22	-2.5m		15581 Jun 01 17:54	0 \circ \odot	
min. Earth dist.	15576 Feb 22 19:27	5° m) 36'25	0.43892 AU				
direct	15576 Mar 20 21:44	0° Mp 44'28		conjunction	15581 Jun 20 19:14	12°940'56	-0°56'48
	15576 Jun 03 18:56	0∘ ত		minimum elong	15581 Jun 20 20:38	12°5643'18	
	15576 Jul 17 17:10	o <u>−</u> o∘m		minimum clong	15581 Jul 16 05:46	0°Ω	0 37 40
		0° ⊼ ¹					
	15576 Aug 27 22:36			morning rise	15581 Aug 08 01:41	15° Ω 56'30	
	15576 Oct 08 08:16	0°ಕ			15581 Aug 27 18:04	0° m)	
	15576 Nov 20 00:47	0° ≈		asc. node	15581 Sep 29 19:01	24° m 14'54	
desc. node	15576 Dec 03 10:24	9° ≈ 11'17			15581 Oct 07 11:27	0∘ ⊽	
	15577 Jan 03 08:44	0° ℋ			15581 Nov 15 20:15	0° M	
	15577 Feb 18 05:00	0 ° Υ			15581 Dec 24 13:03	0° ∡ ¹	
evening set	15577 Feb 25 05:34	4° Y 31'40			15582 Feb 01 13:48	0° ප	
•	15577 Apr 06 02:15	0°B			15582 Mar 14 10:14	0° ≈	
	1				15582 Apr 29 00:47	0°) €	
conjunction	15577 Apr 11 09:30	3° 8 22'00	-1°02'45	retrograde	15582 Jul 18 05:29	29°) 45'44	
minimum elong	15577 Apr 11 08:24	3° 8 20'15		desc. node	15582 Jul 27 06:28	29° X 11'13	
_	-						0.60120.411
max. Earth dist.	15577 Apr 14 19:13	_	2.68169 AU	min. Earth dist.	15582 Aug 21 11:04		0.60130 AU
	15577 May 23 10:26	0°Щ		opposition	15582 Aug 27 04:09	19°) € 51'48	
morning rise	15577 May 24 13:39	0° Ⅱ 43'06		greatest brilliancy	15582 Aug 26 20:21	19° ¥ 59'27	-1.7m
	15577 Jul 09 17:19	0 \circ		direct	15582 Oct 03 23:22	11° 米 13′20	
	15577 Aug 25 16:23	$0^{\circ}\Omega$			15582 Dec 09 17:00	0° Y	
	15577 Oct 11 07:46	0° m y			15583 Feb 05 12:01	8° 0	
	15577 Nov 27 01:33	0∘ ত			15583 Mar 28 04:29	$\Pi^{\circ}0$	
asc. node	15577 Dec 26 05:11	18° ♀ 15'04			15583 May 14 06:49	0°9	
	15578 Jan 14 21:09	0°M		evening set	15583 Jun 14 15:47	21° © 04'44	
retrograde	15578 Apr 02 19:30	28°M59'03		<i>8</i>	15583 Jun 27 13:09	0°N	
min. Earth dist.	15578 Apr 30 09:58	24°M29'51	0.36547 AU	max. Earth dist.	15583 Jun 29 01:04		2.50051 AU
opposition	15578 May 02 15:49	23°M54'00	7°14'51	max. Dartii dist.	15505 5411 25 01.01	1 0002 13	2.50051710
greatest brilliancy	15578 May 02 02:40	24°M02'46	-3.0m	conjunction	15583 Aug 05 12:17	27° Ω 52'46	0000104
direct	•	19°M05'08	-3.0111	minimum elong	•	$27^{\circ}\Omega_{53'44}$	
direct	15578 May 31 15:05			•	15583 Aug 05 12:49		0 0837
	15578 Jul 14 11:10	0° ∡ ¹		behind sun begin	15583 Aug 04 16:38	27° Ω 16'48	
	15578 Sep 07 23:38	0°ಕ		behind sun end	15583 Aug 06 08:59	28° Ω 30'43	
desc. node	15578 Oct 21 14:25	26° る 56'40			15583 Aug 08 09:37	0° m)	
	15578 Oct 26 11:15	0° ≈		asc. node	15583 Aug 17 08:08	6° Mg 36′32	
	15578 Dec 13 03:32	0°)			15583 Sep 17 07:29	0∘ 亚	
	15579 Jan 29 23:55	0 ° Υ		morning rise	15583 Oct 05 13:26	14° ≏ 05′23	
	15579 Mar 18 21:48	$_{0\circ}$ 8			15583 Oct 25 21:48	0° M ₊	
evening set	15579 Apr 02 10:00	9° 8 07'06			15583 Dec 02 23:06	0° ∡ ¹	
	15579 May 05 09:50	$\Pi^{\circ}0$			15584 Jan 10 08:51	0°ರ	
max. Earth dist.	15579 May 06 17:51		2.67439 AU		15584 Feb 19 03:19	0° ≈	
					15584 Apr 01 11:59	0°) €	
conjunction	15579 May 16 00:06	6° Ⅱ 45'46	-1°13'14		15584 May 18 14:59	0° Υ	
minimum elong	15579 May 16 00:11	6° Ⅱ 45'54		desc. node	15584 Jun 13 09:00	14° Y 12'39	
minimum clong	15579 Jun 20 23:30	0°9	1 1400	desc. Hode	15584 Jul 20 07:31	0°8	
				. 1			
morning rise	15579 Jun 28 15:40	5° © 01'13		retrograde	15584 Aug 21 15:14	5° 8 41'16	
	15579 Aug 05 05:58	0 $^{\circ}\Omega$			15584 Sep 20 10:09	30° ₹ Υ	
	15579 Sep 18 00:57	0° m)		min. Earth dist.	15584 Sep 29 12:15		0.67482 AU
	15579 Oct 30 08:21	0∘ 亚		opposition	15584 Oct 01 11:28	25° Ƴ 45'34	
asc. node	15579 Nov 13 02:39	9° ≙ 57'45		greatest brilliancy	15584 Oct 01 03:43	25° Ƴ 53'15	-1.3m
	15579 Dec 10 10:58	0° M		direct	15584 Nov 10 21:35	16° Ƴ 12'51	
	15580 Jan 20 03:16	0° ∡ ¹			15585 Jan 05 11:34	0° 8	
	15580 Mar 02 05:31	ರ∘ರ			15585 Mar 05 14:12	$\Pi^{\circ}0$	
	15580 Apr 21 03:27	0° ≈			15585 Apr 23 18:26	0ං ම	
retrograde	15580 Jun 05 02:33	12° ≈ 22'16			15585 Jun 07 10:55	0°N	
min. Earth dist.	15580 Jul 03 09:23	6°≈49'25	0.47258 AU	asc. node	15585 Jul 04 00:58	18° Ω 56'35	
opposition	15580 Jul 11 18:55	3°≈50'30	3°06'40		15585 Jul 19 02:13	0° m)	
greatest brilliancy	15580 Jul 10 21:19	4°≈09'46		evening set	15585 Aug 04 04:35	12° Mp 04'21	
greatest oriniancy	15580 Jul 10 21:19 15580 Jul 23 14:13	4°≋09'46 30°Rる	-4.3111	evening set	•	12°11004°21 0° Ω	
direct				mov E-ut- 1' (15585 Aug 27 13:54		2 26600 411
direct	15580 Aug 14 05:58	26° る 54'45		max. Earth dist.	15585 Sep 09 20:26		2.36689 AU
	15580 Sep 06 06:42	0° ≈			15585 Oct 04 18:46	0° M	
desc. node	15580 Sep 07 23:41	0° ≈ 26'17					

conjunction	15585 Oct 10 12:58	4°M33'58	0°58'50		15590 Jun 19 08:10	0°Щ	
minimum elong	15585 Oct 10 09:18	4°M26'41	0°59'15		15590 Aug 08 19:43	0ಂತಾ	
	15585 Nov 11 14:11	0° ∡ ″			15590 Oct 03 06:29	$0^{\circ}\Omega$	
	15585 Dec 19 21:37	ರ°0		retrograde	15590 Dec 19 02:41	23° Q 57′02	
morning rise	15585 Dec 24 09:34	3° る 28'00		opposition	15591 Jan 22 19:44	16° Ω 50′17	-1°49'46
	15586 Jan 28 13:42	0° ≈		greatest brilliancy	15591 Jan 23 12:10	16° Ω 35'45	-2.2m
	15586 Mar 11 09:24	0° ∀		min. Earth dist.	15591 Jan 31 09:29	13° Ω 49′12	0.49540 AU
	15586 Apr 25 04:35	0° Y		asc. node	15591 Feb 24 13:00	8° Ω 18'55	
desc. node	15586 May 01 05:04	3° Y 50'41		direct	15591 Mar 01 18:38	8° Ω 07'03	
	15586 Jun 13 14:11	9° 8			15591 May 04 16:12	0° m)	
	15586 Aug 14 23:51	Π °0			15591 Jun 19 13:59	0∘ ⊽	
retrograde	15586 Sep 24 18:17	8° Ⅱ 13′00			15591 Jul 30 07:25	0° M	
	15586 Oct 31 21:32	30° ₹ 8			15591 Sep 08 00:11	0° ∡	
opposition	15586 Nov 04 02:34	28° 8 44'47			15591 Oct 18 08:05	0°ಕ	
greatest brilliancy	15586 Nov 04 09:24	28° 8 38'03	-1.2m		15591 Nov 29 03:41	0° ≈	
min. Earth dist.	15586 Nov 06 00:51	27° 8 59'17	0.68140 AU	desc. node	15591 Dec 21 02:35	15°≈15′02	
direct	15586 Dec 15 15:53	18° 8 45'21			15592 Jan 11 19:04	0° ∀	
	15587 Feb 02 00:02	0°Щ		evening set	15592 Feb 10 17:29	19°) 54'41	
	15587 Apr 01 06:42	0°9			15592 Feb 26 03:38	0° Υ	
_	15587 May 17 23:05	0°Ω					
asc. node	15587 May 22 00:45	2° Ω 47'29		conjunction	15592 Mar 28 11:46	20° Y 13'12	
	15587 Jun 29 01:12	0° mp		minimum elong	15592 Mar 28 10:27	20° Y 11′06	
	15587 Aug 07 12:28	0∘ ⊽		max. Earth dist.	15592 Apr 06 05:00		2.66936 AU
	15587 Sep 14 15:18	0°M			15592 Apr 12 19:28	0°8	
evening set	15587 Oct 17 23:08	26°M26'17		morning rise	15592 May 11 09:03	18° 8 06'20	
	15587 Oct 22 11:23	0° 🗷			15592 May 30 05:56	0° I I	
greatest brilliancy	15587 Oct 31 13:48	7° ∡ 09'54	1.1m		15592 Jul 17 01:26	0ංම වෙර	
	15587 Nov 29 23:20	0°ප			15592 Sep 03 04:32	0° N	
. ,.	15507 D 26 10 22	200717150	0040105		15592 Oct 22 03:17	0° my	
conjunction	15587 Dec 26 19:23	20°る17'58	0°48'05	1	15592 Dec 13 03:52	0° ™	
minimum elong	15587 Dec 26 22:25	20° る 23'36	0°48'54	asc. node	15593 Jan 11 19:33	14° £ 35'57	
Fauth diet	15588 Jan 08 22:12	0°≈ 23°≈ •04!07	2 4701 (ATT	retrograde	15593 Feb 28 14:11	26° ₽ 39'32	5910121
max. Earth dist.	15588 Feb 10 00:08 15588 Feb 19 21:48	23° ≈ 0407 0°) €	2.47916 AU	opposition	15593 Mar 30 06:31 15593 Mar 30 20:09	21° £ 43'05 21° £ 33'45	-3.0m
morning rise	15588 Feb 24 09:35	3° ∺ 06'55		greatest brilliancy min. Earth dist.	15593 Apr 02 19:49	21 ≥ 33 43 20° ♀ 44'46	0.37204 AU
desc. node	15588 Mar 17 18:26	18°)(21'54		direct	15593 Apr 29 21:35	20 <u>≈</u> 44 40 16° <u>≈</u> 21'26	0.37204 AU
desc. node	15588 Apr 04 06:33	0°Υ		direct	15593 Jun 16 23:15	0°M₁	
	15588 May 21 08:35	%8 0°8			15593 Aug 07 01:07	0° ∡ ⊓	
	15588 Jul 11 04:55	0°II			15593 Sep 21 10:38	0°ਰ	
	15588 Sep 09 18:39	0ಂತಿ ೧.ಗ			15593 Nov 05 12:48	0° ≈	
retrograde	15588 Oct 31 12:59	12° © 14'53		desc. node	15593 Nov 07 03:08	1°≈03'14	
opposition	15588 Dec 08 23:47	3°937'26	-4°30'12	dese. node	15593 Dec 21 11:08	0° ∀	
greatest brilliancy	15588 Dec 09 22:36	3° © 15'34			15594 Feb 06 07:47	0° Υ	
min. Earth dist.	15588 Dec 14 18:27	1° 9 24'31	0.61923 AU	evening set	15594 Mar 19 16:43	26° Y 11'13	
	15588 Dec 18 13:12	30°R∏		S	15594 Mar 25 17:33	0° ႘	
direct	15589 Jan 19 01:26	23° ∏ 41′23		max. Earth dist.	15594 Apr 28 02:19		2.68375 AU
	15589 Feb 21 13:51	0°€			1	_	
asc. node	15589 Apr 08 05:41	21° © 42'35		conjunction	15594 May 02 12:49	23° 8 55'20	-1°12'09
	15589 Apr 22 02:04	$0^{\circ}\Omega$		minimum elong	15594 May 02 12:22	23° 8 54'37	
	15589 Jun 05 16:59	0° m			15594 May 12 02:23	Π°	
	15589 Jul 16 00:16	0∘ ⊽		morning rise	15594 Jun 14 14:41	21° Ⅲ 26′26	
	15589 Aug 23 13:09	0° M			15594 Jun 27 20:51	0 \circ \odot	
	15589 Sep 30 19:06	0° ∡			15594 Aug 12 15:56	$0^{\circ}\Omega$	
	15589 Nov 08 19:46	5°0			15594 Sep 26 06:54	0° m	
	15589 Dec 19 09:32	0° ≈			15594 Nov 08 17:27	0∘ ⊽	
evening set	15589 Dec 25 00:01	4° ≈ 02'05		asc. node	15594 Nov 29 20:06	14° ≏ 49'34	
	15590 Jan 30 22:47	0°)			15594 Dec 21 07:28	0° M	
desc. node	15590 Feb 02 07:40	1°) 37′45			15595 Feb 02 05:26	0° ∡ ¹	
					15595 Mar 21 22:13	0°⋜	
conjunction	15590 Feb 17 13:56	12° ∺ 01'12		retrograde	15595 May 15 15:17	17° る 38'35	
minimum elong	15590 Feb 17 13:30	12° ∺ 00′28	0°09'00	min. Earth dist.	15595 Jun 10 23:04	12° る 57'14	0.41842 AU
behind sun begin	15590 Feb 16 19:40	11° ∺ 30′22		greatest brilliancy	15595 Jun 17 11:50	10° ප් 51'01	-2.6m
behind sun end	15590 Feb 18 07:20	12°) € 30'33		opposition	15595 Jun 18 21:14	10° る 23'58	5°22'34
max. Earth dist.	15590 Mar 13 16:40	28°) €06'47	2.59993 AU	direct	15595 Jul 20 01:53	4°る26'42	
	15590 Mar 16 13:24	0° Υ		desc. node	15595 Sep 25 10:00	25° ⋜ 13'18	
morning rise	15590 Apr 07 00:07	13° Y 58'41			15595 Oct 04 20:42	0° ≈	
	15590 May 02 01:36	0°8			15595 Nov 27 15:48	0°) €	

	15596 Jan 17 01:09	0° Y		morning rise	15600 Nov 22 11:38	2° ∡ ³34′01
	15596 Mar 06 03:36	9° 8			15600 Dec 27 12:45	0°♂
evening set	15596 Apr 22 16:46	29° 8 45'28			15601 Feb 05 03:41	0° ≈
	15596 Apr 23 01:55	Π $^{\circ}0$			15601 Mar 19 00:40	0° ∀
max. Earth dist.	15596 May 19 23:19	17° Ⅲ 14′07	2.64303 AU		15601 May 03 07:24	$0^{\circ}\mathbf{\Upsilon}$
				desc. node	15601 May 17 20:41	8° Y 59'39
conjunction	15596 Jun 05 21:03	28° Ⅱ 15′06	-1°06'43		15601 Jun 23 21:04	0° ႘
minimum elong	15596 Jun 05 22:02	28° Ⅱ 16'41	1°07'34	retrograde	15601 Sep 11 08:53	25° 8 52'23
-	15596 Jun 08 12:58	0°ಅ		opposition	15601 Oct 22 01:17	16° 8 10'50 -4°34'07
morning rise	15596 Jul 21 16:33	28° © 54'48		greatest brilliancy	15601 Oct 22 01:34	16° 8 10'33 -1.2m
8	15596 Jul 23 06:40	$0^{\circ}\Omega$		min. Earth dist.	15601 Oct 22 10:41	16° 8 01'33 0.68702 AU
	15596 Sep 04 04:53	0° m)		direct	15601 Dec 02 07:53	6° 8 19'01
	15596 Oct 15 10:18	0∘ ⊽				
asc. node	15596 Oct 16 13:22	0° م 50'13				
use. Houe	15596 Nov 24 07:14	0°M				
	15597 Jan 02 12:03	0° ∡ 7				
	15597 Feb 11 03:35	0° ਠ				
	15597 Mar 25 06:15	0°≈				
		0 ≈ 0° ∺				
. 1	15597 May 14 22:18					
retrograde	15597 Jul 02 20:33	13°) €31'55	0.55555 ATT			
min. Earth dist.	15597 Aug 03 21:15	6°) € 37'06	0.55577 AU			
opposition	15597 Aug 10 21:52	3° ¥ 55'17	0°05'24			
greatest brilliancy	15597 Mar 04 16:40	15° る 42'24	0.2m			
desc. node	15597 Aug 12 18:54	3° ¥ 12'16				
	15597 Aug 21 20:50	30° R ≈				
direct	15597 Sep 16 05:23	25° ≈ 49'33				
	15597 Oct 14 00:20	0° ∀				
	15597 Dec 22 09:26	0 ° Υ				
	15598 Feb 13 22:56	0°B				
	15598 Apr 04 11:33	$\Pi^{\circ}0$				
	15598 May 21 06:11	0 \circ \odot				
evening set	15598 May 29 12:20	5° © 28'04				
max. Earth dist.	15598 Jun 15 15:55	17° 5 00'08	2.54979 AU			
	15598 Jul 04 13:44	$0^{\circ}\Omega$				
conjunction	15598 Jul 16 23:07	8° Ω 40'50	-0°31'06			
minimum elong	15598 Jul 17 00:34	8° Ω 43'23	0°31'49			
	15598 Aug 15 15:25	0° m)				
asc. node	15598 Sep 03 04:26	13° m) 41'25				
morning rise	15598 Sep 09 15:12	18° mp 30'54				
morning rise	15598 Sep 24 19:50	0∘ ⊽				
	15598 Nov 02 15:58	0°M				
	15598 Dec 10 21:37	0° ∡ 7				
	15599 Jan 18 10:43	0°ਤੇ				
	15599 Feb 27 10:09	0° ≈				
	15599 Apr 11 09:57	0 ∞ 0° ∺				
	15599 Apr 11 09.37 15599 May 31 02:35	0 K 0°Υ				
daga mada	15599 Jun 30 23:03	0 γ 14° Υ 16'54				
desc. node	15599 Aug 09 07:21	22° Υ 38'25				
retrograde			0.65200 ATT			
min. Earth dist.	15599 Sep 15 12:23	14° Υ 01'01	0.65388 AU			
opposition	15599 Sep 18 23:35	12° Υ 38'35				
greatest brilliancy	15599 Sep 18 13:07	12° Y 48'57	-1.4m			
direct	15599 Oct 28 13:31	3° Υ 23'17				
	15600 Jan 19 21:52	0° 8				
	15600 Mar 14 03:41	0°II				
	15600 May 01 06:25	0°©				
	15600 Jun 14 17:19	0° Ω				
evening set	15600 Jul 12 16:51	19° Ω 56'37				
asc. node	15600 Jul 20 19:23	25° Ω 52'04				
	15600 Jul 26 09:55	0° ™				
max. Earth dist.	15600 Jul 28 03:19	1°Mp 16'39	2.41579 AU			
	15600 Sep 04 01:05	0∘ ⊽				
conjunction	15600 Sep 10 21:56	5° ≙ 19'14				
minimum elong	15600 Sep 10 19:02	5° ≏ 13'36	0°35'02			
	15600 Oct 12 08:56	0° M				
	15600 Nov 19 05:42	0∘ ∡				

15600 Nov 19 05:42 0°**尽**