

Astronomische Vorschau für 2011

(von Marco Peuschel www.marco-peuschel.de)

Phenomena found:	Date (TT)		Comment
		d h	
Antares in conjunction with Moon	2011 Jan	1 18	2.51° South
Vesta in conjunction with Moon	2011 Jan	2 07	4.77° North
Jupiter in conjunction with Uranus	2011 Jan	2 14	0.57° South
Davidia in conjunction with Moon	2011 Jan	2 14	8.44° North
Mercury in conjunction with Moon	2011 Jan	2 15	3.79° North
Metis in conjunction with Moon	2011 Jan	2 23	0.08° South
Interamnia in conjunction with Moon	2011 Jan	3 00	3.91° South
Pallas in conjunction with Moon	2011 Jan	3 16	26.60° North
Pluto in conjunction with Moon	2011 Jan	3 17	4.28° North
Earth at perihelion	2011 Jan	3 19	0.983341273AU
New Moon	2011 Jan	4 09	
Mars in conjunction with Moon	2011 Jan	5 01	2.78° South
Ceres in conjunction with Moon	2011 Jan	5 22	8.65° South
Pallas in conjunction with Pluto	2011 Jan	5 22	22.28° North
Pluto in conjunction with Pallas	2011 Jan	5 22	22.28° South
Eunomia in conjunction with Moon	2011 Jan	6 12	0.75° North
Neptune in conjunction with Moon	2011 Jan	8 00	5.16° South
Venus at greatest elongation	2011 Jan	8 16	47.0° West
Mercury at greatest elongation	2011 Jan	9 14	23.3° West
Moon at apogee	2011 Jan	10 06	404976.837km
Uranus in conjunction with Moon	2011 Jan	10 15	6.52° South
Jupiter in conjunction with Moon	2011 Jan	10 17	7.07° South
Flora in conjunction with Moon	2011 Jan	11 15	11.86° South
Hebe in conjunction with Moon	2011 Jan	12 11	22.29° South
First Quarter	2011 Jan	12 12	
Mercury in conjunction with Metis	2011 Jan	13 09	2.02° North
Mercury in conjunction with Interamnia	2011 Jan	13 10	5.29° North
Metis in conjunction with Interamnia	2011 Jan	13 17	3.26° North
Cybele in conjunction with Moon	2011 Jan	14 05	8.33° South
Antares in conjunction with Venus	2011 Jan	15 22	8.00° South
Aldebaran in conjunction with Moon	2011 Jan	16 10	7.48° South
Psyche in conjunction with Moon	2011 Jan	16 11	5.88° South
Mercury in conjunction with Pluto	2011 Jan	18 03	4.09° South
Vesta in conjunction with Davidia	2011 Jan	18 14	4.12° South
Pollux in conjunction with Moon	2011 Jan	19 14	8.81° North
Full Moon	2011 Jan	19 21	
Iris in conjunction with Moon	2011 Jan	20 05	4.29° South

Mercury in conjunction with Pallas	2011 Jan 21 14	27.08° South
Moon at perigee	2011 Jan 22 00	362791.523km
Regulus in conjunction with Moon	2011 Jan 22 02	5.29° North
Juno in conjunction with Moon	2011 Jan 24 01	2.86° North
Iris at opposition	2011 Jan 24 08	
Europa in conjunction with Moon	2011 Jan 25 05	12.50° North
Saturn in conjunction with Moon	2011 Jan 25 10	8.08° North
Spica in conjunction with Moon	2011 Jan 25 18	2.96° North
Last Quarter	2011 Jan 26 13	
Hygiea in conjunction with Moon	2011 Jan 27 11	0.09° South
Metis in conjunction with Pluto	2011 Jan 28 05	5.66° South
Antares in conjunction with Moon	2011 Jan 29 00	2.58° South
Venus in conjunction with Moon	2011 Jan 30 04	3.48° North
Dauida in conjunction with Moon	2011 Jan 30 10	7.38° North
Vesta in conjunction with Moon	2011 Jan 30 16	2.88° North
Interamnia in conjunction with Pluto	2011 Jan 30 16	8.14° South
Ceres in conjunction with Sun	2011 Jan 31 01	6.14° South
Pluto in conjunction with Moon	2011 Jan 31 02	4.14° North
Interamnia in conjunction with Moon	2011 Jan 31 02	3.99° South
Metis in conjunction with Moon	2011 Jan 31 04	1.67° South
Pallas in conjunction with Moon	2011 Jan 31 16	26.23° North
Mars in conjunction with Ceres	2011 Feb 1 05	5.30° North
Mercury in conjunction with Moon	2011 Feb 1 18	3.60° South
New Moon	2011 Feb 3 03	
Venus in conjunction with Dauida	2011 Feb 3 04	4.40° South
Ceres in conjunction with Moon	2011 Feb 3 05	10.13° South
Mars in conjunction with Moon	2011 Feb 3 06	4.85° South
Eunomia in conjunction with Moon	2011 Feb 3 22	0.76° North
Neptune in conjunction with Moon	2011 Feb 4 10	5.14° South
Mars in conjunction with Sun	2011 Feb 4 17	1.08° South
Moon at apogee	2011 Feb 6 23	405923.846km
Uranus in conjunction with Moon	2011 Feb 7 00	6.36° South
Jupiter in conjunction with Moon	2011 Feb 7 10	6.82° South
Flora in conjunction with Moon	2011 Feb 9 03	9.92° South
Venus in conjunction with Vesta	2011 Feb 9 07	0.37° South
Hebe in conjunction with Moon	2011 Feb 9 19	19.05° South
Venus in conjunction with Pluto	2011 Feb 9 23	2.34° South
Cybele in conjunction with Moon	2011 Feb 10 19	7.53° South
Vesta in conjunction with Pluto	2011 Feb 10 22	1.96° South
First Quarter	2011 Feb 11 07	
Aldebaran in conjunction with Moon	2011 Feb 12 19	7.33° South
Psyche in conjunction with Moon	2011 Feb 12 22	4.89° South
Venus in conjunction with Interamnia	2011 Feb 14 02	5.07° North
Mercury in conjunction with Ceres	2011 Feb 15 02	4.55° North

Pollux in conjunction with Moon	2011 Feb 16 01	8.88° North
Iris in conjunction with Moon	2011 Feb 16 06	5.16° South
Venus in conjunction with Metis	2011 Feb 16 11	3.28° North
Eunomia in conjunction with Neptune	2011 Feb 16 18	6.00° North
Neptune in conjunction with Sun	2011 Feb 17 10	0.49° South
Full Moon	2011 Feb 18 09	
Regulus in conjunction with Moon	2011 Feb 18 13	5.23° North
Moon at perigee	2011 Feb 19 07	358247.141km
Juno in conjunction with Moon	2011 Feb 20 06	4.51° North
Mars in conjunction with Mercury	2011 Feb 20 14	1.06° North
Mercury in conjunction with Mars	2011 Feb 20 14	1.06° South
Mercury in conjunction with Neptune	2011 Feb 20 17	1.69° South
Mars in conjunction with Neptune	2011 Feb 20 21	0.63° South
Europa in conjunction with Moon	2011 Feb 21 14	14.03° North
Venus in conjunction with Pallas	2011 Feb 21 16	26.69° South
Saturn in conjunction with Moon	2011 Feb 21 17	8.04° North
Spica in conjunction with Moon	2011 Feb 22 01	2.76° North
Mercury in conjunction with Eunomia	2011 Feb 22 01	7.84° South
Eunomia in conjunction with Sun	2011 Feb 22 04	5.31° North
Hygiea in conjunction with Moon	2011 Feb 24 04	1.17° South
Last Quarter	2011 Feb 24 23	
Antares in conjunction with Moon	2011 Feb 25 06	2.79° South
Mercury in superior conjunction	2011 Feb 25 09	1.87° South
Mars in conjunction with Eunomia	2011 Feb 26 23	6.99° South
Dauida in conjunction with Moon	2011 Feb 27 04	6.45° North
Pluto in conjunction with Moon	2011 Feb 27 09	3.92° North
Vesta in conjunction with Moon	2011 Feb 28 00	0.88° North
Interamnia in conjunction with Moon	2011 Feb 28 02	4.06° South
Metis in conjunction with Moon	2011 Feb 28 07	3.40° South
Pallas in conjunction with Moon	2011 Feb 28 14	26.56° North
Venus in conjunction with Moon	2011 Mar 1 04	1.58° South
Ceres in conjunction with Moon	2011 Mar 3 11	11.64° South
Neptune in conjunction with Moon	2011 Mar 3 18	5.19° South
Eunomia in conjunction with Moon	2011 Mar 4 09	1.05° North
Mars in conjunction with Moon	2011 Mar 4 12	6.21° South
New Moon	2011 Mar 4 21	
Vesta in conjunction with Interamnia	2011 Mar 5 15	4.53° North
Mercury in conjunction with Moon	2011 Mar 5 19	6.53° South
Moon at apogee	2011 Mar 6 08	406583.007km
Uranus in conjunction with Moon	2011 Mar 6 10	6.22° South
Jupiter in conjunction with Moon	2011 Mar 7 05	6.51° South
Flora in conjunction with Moon	2011 Mar 9 15	7.67° South
Uranus in conjunction with Mercury	2011 Mar 9 18	0.37° South
Hebe in conjunction with Moon	2011 Mar 10 04	15.72° South

Cybele in conjunction with Moon	2011 Mar 10 11	6.55°	South
Aldebaran in conjunction with Moon	2011 Mar 12 03	7.07°	South
Juno at opposition	2011 Mar 12 10		
Psyche in conjunction with Moon	2011 Mar 12 15	3.56°	South
First Quarter	2011 Mar 13 00		
Ceres in conjunction with Neptune	2011 Mar 13 06	6.92°	South
Dauida in conjunction with Pluto	2011 Mar 13 17	2.25°	North
Pollux in conjunction with Moon	2011 Mar 15 11	9.07°	North
Iris in conjunction with Moon	2011 Mar 15 14	4.52°	South
Mercury in conjunction with Jupiter	2011 Mar 16 17	2.33°	North
Regulus in conjunction with Moon	2011 Mar 18 00	5.29°	North
Juno in conjunction with Moon	2011 Mar 19 08	6.48°	North
Full Moon	2011 Mar 19 18		
Moon at perigee	2011 Mar 19 19	356574.965km	
Europa in conjunction with Moon	2011 Mar 20 18	15.37°	North
Equinox	2011 Mar 20 23		
Saturn in conjunction with Moon	2011 Mar 21 00	8.03°	North
Spica in conjunction with Moon	2011 Mar 21 11	2.58°	North
Uranus in conjunction with Sun	2011 Mar 21 12	0.71°	South
Mercury at greatest elongation	2011 Mar 23 01	18.6°	East
Hygiea in conjunction with Moon	2011 Mar 23 17	2.09°	South
Antares in conjunction with Moon	2011 Mar 24 13	3.05°	South
Hebe in conjunction with Cybele	2011 Mar 25 08	7.96°	South
Last Quarter	2011 Mar 26 12		
Pluto in conjunction with Moon	2011 Mar 26 15	3.64°	North
Dauida in conjunction with Moon	2011 Mar 26 19	5.67°	North
Venus in conjunction with Neptune	2011 Mar 27 01	0.16°	South
Europa at opposition	2011 Mar 27 16		
Interamnia in conjunction with Moon	2011 Mar 27 23	3.90°	South
Vesta in conjunction with Moon	2011 Mar 28 07	1.21°	South
Metis in conjunction with Moon	2011 Mar 28 09	5.23°	South
Pallas in conjunction with Moon	2011 Mar 28 10	27.62°	North
Pallas in conjunction with Metis	2011 Mar 29 21	33.04°	North
Neptune in conjunction with Moon	2011 Mar 31 02	5.38°	South
Venus in conjunction with Moon	2011 Mar 31 13	5.99°	South
Ceres in conjunction with Moon	2011 Mar 31 16	13.16°	South
Eunomia in conjunction with Moon	2011 Apr 1 20	1.70°	North
Venus in conjunction with Ceres	2011 Apr 1 22	7.11°	North
Moon at apogee	2011 Apr 2 09	406656.171km	
Vesta in conjunction with Pallas	2011 Apr 2 13	29.52°	South
Mars in conjunction with Moon	2011 Apr 2 17	6.43°	South
Uranus in conjunction with Moon	2011 Apr 2 19	6.18°	South
New Moon	2011 Apr 3 15		
Mars in conjunction with Uranus	2011 Apr 3 18	0.23°	South

Saturn at opposition	2011 Apr 4 00		
Jupiter in conjunction with Moon	2011 Apr 4 00	6.21°	South
Mercury in conjunction with Moon	2011 Apr 4 11	1.33°	South
Jupiter in conjunction with Sun	2011 Apr 6 15	1.08°	South
Vesta in conjunction with Metis	2011 Apr 6 23	3.93°	North
Flora in conjunction with Moon	2011 Apr 7 04	5.30°	South
Cybele in conjunction with Moon	2011 Apr 7 06	5.55°	South
Hebe in conjunction with Moon	2011 Apr 7 12	12.50°	South
Aldebaran in conjunction with Moon	2011 Apr 8 09	6.83°	South
Psyche in conjunction with Moon	2011 Apr 9 11	2.14°	South
Mercury in inferior conjunction	2011 Apr 9 20	2.40°	North
Mercury in conjunction with Jupiter	2011 Apr 10 20	3.52°	North
Flora in conjunction with Cybele	2011 Apr 11 09	0.46°	North
First Quarter	2011 Apr 11 12		
Pollux in conjunction with Moon	2011 Apr 11 19	9.33°	North
Iris in conjunction with Moon	2011 Apr 12 06	3.19°	South
Regulus in conjunction with Moon	2011 Apr 14 10	5.47°	North
Juno in conjunction with Moon	2011 Apr 15 12	8.25°	North
Europa in conjunction with Moon	2011 Apr 16 21	15.84°	North
Moon at perigee	2011 Apr 17 06	358089.579km	
Saturn in conjunction with Moon	2011 Apr 17 08	8.11°	North
Spica in conjunction with Moon	2011 Apr 17 22	2.53°	North
Full Moon	2011 Apr 18 03		
Mercury in conjunction with Mars	2011 Apr 19 08	0.78°	North
Hygiea in conjunction with Moon	2011 Apr 20 00	2.43°	South
Eunomia in conjunction with Venus	2011 Apr 20 08	9.49°	North
Antares in conjunction with Moon	2011 Apr 20 23	3.26°	South
Venus in conjunction with Uranus	2011 Apr 22 19	0.92°	South
Pluto in conjunction with Moon	2011 Apr 23 00	3.41°	North
Davidia in conjunction with Moon	2011 Apr 23 07	5.08°	North
Interamnia in conjunction with Moon	2011 Apr 24 18	3.19°	South
Pallas in conjunction with Moon	2011 Apr 25 02	29.51°	North
Last Quarter	2011 Apr 25 03		
Metis in conjunction with Moon	2011 Apr 25 09	7.10°	South
Vesta in conjunction with Moon	2011 Apr 25 13	3.35°	South
Eunomia in conjunction with Uranus	2011 Apr 26 15	8.86°	North
Neptune in conjunction with Moon	2011 Apr 27 10	5.62°	South
Ceres in conjunction with Moon	2011 Apr 28 20	14.69°	South
Aldebaran in conjunction with Hebe	2011 Apr 29 12	3.45°	North
Moon at apogee	2011 Apr 29 18	406039.294km	
Uranus in conjunction with Moon	2011 Apr 30 04	6.26°	South
Eunomia in conjunction with Moon	2011 Apr 30 07	2.78°	North
Venus in conjunction with Moon	2011 Apr 30 23	7.02°	South
Mercury in conjunction with Moon	2011 May 1 07	7.80°	South

Jupiter in conjunction with Mars	2011 May 1 11	0.39°	South
Mars in conjunction with Jupiter	2011 May 1 11	0.39°	North
Mars in conjunction with Moon	2011 May 1 20	5.53°	South
New Moon	2011 May 3 07		
Aldebaran in conjunction with Flora	2011 May 4 07	3.64°	South
Cybele in conjunction with Moon	2011 May 5 02	4.63°	South
Aldebaran in conjunction with Moon	2011 May 5 14	6.70°	South
Flora in conjunction with Moon	2011 May 5 16	2.96°	South
Hebe in conjunction with Moon	2011 May 5 20	9.53°	South
Psyche in conjunction with Moon	2011 May 7 10	0.76°	South
Mercury at greatest elongation	2011 May 7 19	26.6°	West
Pollux in conjunction with Moon	2011 May 9 01	9.54°	North
Iris in conjunction with Moon	2011 May 10 02	1.77°	South
First Quarter	2011 May 10 21		
Mercury in conjunction with Jupiter	2011 May 10 23	2.20°	South
Venus in conjunction with Jupiter	2011 May 11 09	0.61°	South
Regulus in conjunction with Moon	2011 May 11 17	5.66°	North
Juno in conjunction with Moon	2011 May 12 20	9.53°	North
Hygiea at opposition	2011 May 13 10		
Europa in conjunction with Moon	2011 May 14 02	15.38°	North
Saturn in conjunction with Moon	2011 May 14 15	8.20°	North
Spica in conjunction with Moon	2011 May 15 08	2.58°	North
Moon at perigee	2011 May 15 11	362134.966km	
Hygiea in conjunction with Moon	2011 May 17 03	1.92°	South
Full Moon	2011 May 17 11		
Antares in conjunction with Moon	2011 May 18 09	3.33°	South
Mercury in conjunction with Mars	2011 May 20 01	2.35°	South
Pluto in conjunction with Moon	2011 May 20 08	3.31°	North
Dauida in conjunction with Moon	2011 May 20 15	4.66°	North
Interamnia in conjunction with Moon	2011 May 22 07	1.60°	South
Pallas in conjunction with Moon	2011 May 22 15	32.10°	North
Venus in conjunction with Mars	2011 May 22 15	1.06°	South
Metis in conjunction with Moon	2011 May 23 04	8.91°	South
Vesta in conjunction with Moon	2011 May 23 13	5.51°	South
Neptune in conjunction with Moon	2011 May 24 18	5.81°	South
Last Quarter	2011 May 24 19		
Aldebaran in conjunction with Cybele	2011 May 26 14	2.69°	South
Ceres in conjunction with Moon	2011 May 26 21	16.26°	South
Moon at apogee	2011 May 27 10	405003.365km	
Uranus in conjunction with Moon	2011 May 27 13	6.37°	South
Eunomia in conjunction with Moon	2011 May 28 19	4.33°	North
Jupiter in conjunction with Moon	2011 May 29 15	5.67°	South
Mars in conjunction with Moon	2011 May 30 20	3.83°	South
Venus in conjunction with Moon	2011 May 31 04	4.42°	South
Mercury in conjunction with Moon	2011 May 31 18	3.70°	South

Aldebaran in conjunction with Moon	2011 Jun 1 21	6.68° South
New Moon	2011 Jun 1 21	
Cybele in conjunction with Moon	2011 Jun 2 00	3.80° South
Flora in conjunction with Moon	2011 Jun 3 04	0.71° South
Hebe in conjunction with Moon	2011 Jun 3 04	6.85° South
Cybele in conjunction with Sun	2011 Jun 3 17	2.79° South
Psyche in conjunction with Moon	2011 Jun 4 11	0.50° North
Pollux in conjunction with Moon	2011 Jun 5 06	9.61° North
Hebe in conjunction with Flora	2011 Jun 6 02	6.11° South
Iris in conjunction with Moon	2011 Jun 7 01	0.56° South
Regulus in conjunction with Moon	2011 Jun 7 23	5.75° North
Aldebaran in conjunction with Mercury	2011 Jun 8 00	5.58° South
First Quarter	2011 Jun 9 02	
Juno in conjunction with Moon	2011 Jun 9 09	10.36° North
Mercury in conjunction with Cybele	2011 Jun 9 23	3.21° North
Europa in conjunction with Moon	2011 Jun 10 11	14.46° North
Saturn in conjunction with Moon	2011 Jun 10 21	8.18° North
Spica in conjunction with Moon	2011 Jun 11 16	2.64° North
Moon at perigee	2011 Jun 12 02	367189.340km
Mercury in superior conjunction	2011 Jun 13 00	0.89° North
Hygiea in conjunction with Moon	2011 Jun 13 05	0.86° South
Antares in conjunction with Moon	2011 Jun 14 19	3.33° South
Full Moon	2011 Jun 15 20	
Pluto in conjunction with Moon	2011 Jun 16 17	3.33° North
Dauida in conjunction with Moon	2011 Jun 16 18	4.19° North
Aldebaran in conjunction with Venus	2011 Jun 18 08	4.79° South
Interamnia in conjunction with Moon	2011 Jun 18 13	1.00° North
Pallas in conjunction with Moon	2011 Jun 18 21	34.72° North
Dauida in conjunction with Pluto	2011 Jun 19 04	0.80° North
Mercury in conjunction with Hebe	2011 Jun 19 09	8.22° North
Metis in conjunction with Moon	2011 Jun 19 14	10.50° South
Mercury in conjunction with Flora	2011 Jun 20 00	2.38° North
Vesta in conjunction with Moon	2011 Jun 20 06	7.72° South
Neptune in conjunction with Moon	2011 Jun 21 02	5.86° South
Solstice	2011 Jun 21 17	
Last Quarter	2011 Jun 23 12	
Ceres in conjunction with Moon	2011 Jun 23 18	17.94° South
Uranus in conjunction with Moon	2011 Jun 23 23	6.39° South
Moon at apogee	2011 Jun 24 04	404271.350km
Venus in conjunction with Cybele	2011 Jun 25 15	2.36° North
Eunomia in conjunction with Moon	2011 Jun 26 06	6.30° North
Jupiter in conjunction with Moon	2011 Jun 26 09	5.37° South
Dauida at opposition	2011 Jun 26 23	
Pluto at opposition	2011 Jun 28 05	
Mercury in conjunction with Psyche	2011 Jun 28 06	3.17° North

Mars in conjunction with Moon	2011 Jun 28 19	1.75° South
Pollux in conjunction with Mercury	2011 Jun 28 22	4.87° North
Aldebaran in conjunction with Moon	2011 Jun 29 05	6.68° South
Cybele in conjunction with Moon	2011 Jun 29 23	3.05° South
Venus in conjunction with Moon	2011 Jun 30 08	0.09° South
Eunomia in conjunction with Jupiter	2011 Jun 30 08	11.94° North
New Moon	2011 Jul 1 09	
Pollux in conjunction with Psyche	2011 Jul 1 12	7.99° North
Hebe in conjunction with Moon	2011 Jul 1 13	4.43° South
Flora in conjunction with Moon	2011 Jul 1 17	1.43° North
Pollux in conjunction with Moon	2011 Jul 2 13	9.60° North
Psyche in conjunction with Moon	2011 Jul 2 14	1.65° North
Mercury in conjunction with Moon	2011 Jul 3 02	5.12° North
Earth at aphelion	2011 Jul 4 15	1.016740385AU
Iris in conjunction with Moon	2011 Jul 5 01	0.34° North
Regulus in conjunction with Moon	2011 Jul 5 05	5.72° North
Aldebaran in conjunction with Mars	2011 Jul 6 07	5.50° South
Ceres in conjunction with Uranus	2011 Jul 6 18	12.44° South
Juno in conjunction with Moon	2011 Jul 7 01	10.80° North
Hebe in conjunction with Sun	2011 Jul 7 04	5.83° South
Moon at perigee	2011 Jul 7 14	369569.792km
Europa in conjunction with Moon	2011 Jul 8 00	13.37° North
Saturn in conjunction with Moon	2011 Jul 8 04	8.00° North
First Quarter	2011 Jul 8 07	
Spica in conjunction with Moon	2011 Jul 8 22	2.59° North
Regulus in conjunction with Iris	2011 Jul 9 17	5.25° North
Hygiea in conjunction with Moon	2011 Jul 10 11	0.05° North
Flora in conjunction with Sun	2011 Jul 11 08	0.16° South
Antares in conjunction with Moon	2011 Jul 12 02	3.35° South
Davidia in conjunction with Moon	2011 Jul 13 17	3.38° North
Pluto in conjunction with Moon	2011 Jul 14 00	3.34° North
Full Moon	2011 Jul 15 07	
Interamnia in conjunction with Moon	2011 Jul 15 12	4.13° North
Pallas in conjunction with Moon	2011 Jul 15 22	35.86° North
Metis in conjunction with Moon	2011 Jul 16 15	11.45° South
Vesta in conjunction with Moon	2011 Jul 17 10	9.79° South
Neptune in conjunction with Moon	2011 Jul 18 10	5.78° South
Interamnia at opposition	2011 Jul 18 15	
Europa in conjunction with Saturn	2011 Jul 19 01	5.03° North
Mercury at greatest elongation	2011 Jul 20 05	26.8° East
Hebe in conjunction with Venus	2011 Jul 20 21	5.92° South
Venus in conjunction with Hebe	2011 Jul 20 21	5.92° North
Uranus in conjunction with Moon	2011 Jul 21 07	6.30° South
Ceres in conjunction with Moon	2011 Jul 21 10	19.82° South

Moon at apogee	2011 Jul 21 23	404354.874km
Pollux in conjunction with Flora	2011 Jul 22 04	6.70° North
Last Quarter	2011 Jul 23 05	
Jupiter in conjunction with Moon	2011 Jul 24 01	5.06° South
Pollux in conjunction with Venus	2011 Jul 24 03	6.10° North
Eunomia in conjunction with Moon	2011 Jul 24 16	8.62° North
Venus in conjunction with Flora	2011 Jul 25 15	0.57° North
Aldebaran in conjunction with Moon	2011 Jul 26 14	6.61° South
Metis at opposition	2011 Jul 27 16	
Mars in conjunction with Moon	2011 Jul 27 17	0.48° North
Cybele in conjunction with Moon	2011 Jul 27 23	2.35° South
Psyche in conjunction with Sun	2011 Jul 28 14	0.99° South
Pollux in conjunction with Hebe	2011 Jul 29 12	11.82° North
Pallas at opposition	2011 Jul 29 14	
Pollux in conjunction with Moon	2011 Jul 29 22	9.59° North
Hebe in conjunction with Moon	2011 Jul 29 22	2.20° South
Flora in conjunction with Moon	2011 Jul 30 06	3.44° North
Venus in conjunction with Moon	2011 Jul 30 12	4.35° North
Psyche in conjunction with Moon	2011 Jul 30 18	2.68° North
New Moon	2011 Jul 30 19	

Mercury in conjunction with Moon	2011 Aug 1 11	1.49° North
Regulus in conjunction with Moon	2011 Aug 1 12	5.63° North
Iris in conjunction with Moon	2011 Aug 2 04	0.88° North
Moon at perigee	2011 Aug 2 21	365760.879km
Venus in conjunction with Psyche	2011 Aug 3 03	2.01° North
Juno in conjunction with Moon	2011 Aug 3 21	10.93° North
Mars in conjunction with Cybele	2011 Aug 4 07	3.24° North
Saturn in conjunction with Moon	2011 Aug 4 12	7.67° North
Europa in conjunction with Moon	2011 Aug 4 17	12.20° North
Spica in conjunction with Moon	2011 Aug 5 03	2.43° North
Vesta at opposition	2011 Aug 5 10	
First Quarter	2011 Aug 6 11	
Hygiea in conjunction with Moon	2011 Aug 6 23	0.43° North
Antares in conjunction with Moon	2011 Aug 8 08	3.48° South
Davidia in conjunction with Moon	2011 Aug 9 18	2.15° North
Pluto in conjunction with Moon	2011 Aug 10 06	3.24° North
Interamnia in conjunction with Moon	2011 Aug 11 09	6.60° North
Pallas in conjunction with Moon	2011 Aug 11 19	34.00° North
Metis in conjunction with Moon	2011 Aug 12 10	11.41° South
Vesta in conjunction with Moon	2011 Aug 13 06	11.11° South
Full Moon	2011 Aug 13 19	
Neptune in conjunction with Moon	2011 Aug 14 16	5.67° South
Mercury in conjunction with Venus	2011 Aug 15 23	6.34° South
Venus in superior conjunction	2011 Aug 16 12	1.29° North

Mercury in inferior conjunction	2011 Aug 17 01	4.59°	South
Uranus in conjunction with Moon	2011 Aug 17 13	6.15°	South
Ceres in conjunction with Moon	2011 Aug 17 16	21.66°	South
Moon at apogee	2011 Aug 18 16	405161.067km	
Jupiter in conjunction with Moon	2011 Aug 20 12	4.79°	South
Regulus in conjunction with Venus	2011 Aug 21 15	0.96°	South
Last Quarter	2011 Aug 21 22		
Eunomia in conjunction with Moon	2011 Aug 21 23	11.19°	North
Aldebaran in conjunction with Moon	2011 Aug 22 22	6.41°	South
Neptune at opposition	2011 Aug 22 23		
Cybele in conjunction with Moon	2011 Aug 24 21	1.72°	South
Mars in conjunction with Moon	2011 Aug 25 14	2.69°	North
Spica in conjunction with Europa	2011 Aug 25 15	9.00°	South
Pollux in conjunction with Moon	2011 Aug 26 08	9.69°	North
Hebe in conjunction with Moon	2011 Aug 27 07	0.12°	South
Flora in conjunction with Moon	2011 Aug 27 18	5.27°	North
Psyche in conjunction with Moon	2011 Aug 27 22	3.59°	North
Mercury in conjunction with Moon	2011 Aug 28 01	2.56°	North
Regulus in conjunction with Moon	2011 Aug 28 21	5.59°	North
New Moon	2011 Aug 29 03		
Venus in conjunction with Moon	2011 Aug 29 14	6.89°	North
Iris in conjunction with Moon	2011 Aug 30 08	1.07°	North
Moon at perigee	2011 Aug 30 18	360857.701km	
Ceres in conjunction with Uranus	2011 Aug 31 13	16.26°	South
Juno in conjunction with Moon	2011 Aug 31 19	10.83°	North
Saturn in conjunction with Moon	2011 Aug 31 23	7.29°	North

Spica in conjunction with Moon	2011 Sep 1 10	2.23°	North
Europa in conjunction with Moon	2011 Sep 1 14	10.97°	North
Mercury at greatest elongation	2011 Sep 3 06	18.1°	West
Hygiea in conjunction with Moon	2011 Sep 3 16	0.30°	North
Antares in conjunction with Moon	2011 Sep 4 13	3.71°	South
First Quarter	2011 Sep 4 18		
Davidia in conjunction with Moon	2011 Sep 5 23	0.64°	North
Pluto in conjunction with Moon	2011 Sep 6 11	2.97°	North
Interamnia in conjunction with Moon	2011 Sep 7 10	7.69°	North
Pallas in conjunction with Moon	2011 Sep 7 20	29.36°	North
Metis in conjunction with Moon	2011 Sep 8 08	10.77°	South
Regulus in conjunction with Mercury	2011 Sep 9 02	0.69°	South
Vesta in conjunction with Moon	2011 Sep 9 04	11.50°	South
Pollux in conjunction with Mars	2011 Sep 10 02	5.96°	North
Neptune in conjunction with Moon	2011 Sep 10 21	5.66°	South
Psyche in conjunction with Flora	2011 Sep 11 15	2.12°	South
Venus in conjunction with Iris	2011 Sep 11 16	5.80°	North
Juno in conjunction with Saturn	2011 Sep 12 04	3.61°	North

Full Moon	2011 Sep 12 09	
Ceres in conjunction with Moon	2011 Sep 13 14	22.63° South
Uranus in conjunction with Moon	2011 Sep 13 18	6.05° South
Moon at apogee	2011 Sep 15 06	406065.310km
Ceres at opposition	2011 Sep 16 17	
Jupiter in conjunction with Moon	2011 Sep 16 18	4.68° South
Eunomia in conjunction with Moon	2011 Sep 18 23	13.79° North
Aldebaran in conjunction with Moon	2011 Sep 19 06	6.15° South
Last Quarter	2011 Sep 20 14	
Cybele in conjunction with Moon	2011 Sep 21 16	1.23° South
Pollux in conjunction with Moon	2011 Sep 22 17	9.90° North
Mars in conjunction with Moon	2011 Sep 23 08	4.76° North
Equinox	2011 Sep 23 09	
Hebe in conjunction with Moon	2011 Sep 24 14	1.84° North
Psyche in conjunction with Moon	2011 Sep 25 02	4.37° North
Flora in conjunction with Moon	2011 Sep 25 05	6.86° North
Regulus in conjunction with Moon	2011 Sep 25 08	5.67° North
Uranus at opposition	2011 Sep 26 00	
Mercury in conjunction with Iris	2011 Sep 26 23	5.90° North
New Moon	2011 Sep 27 11	
Iris in conjunction with Moon	2011 Sep 27 13	0.96° North
Mercury in conjunction with Moon	2011 Sep 27 14	6.78° North
Moon at perigee	2011 Sep 28 01	357556.871km
Iris in conjunction with Sun	2011 Sep 28 09	3.91° South
Venus in conjunction with Moon	2011 Sep 28 10	5.74° North
Saturn in conjunction with Moon	2011 Sep 28 14	6.96° North
Regulus in conjunction with Flora	2011 Sep 28 16	1.35° South
Juno in conjunction with Moon	2011 Sep 28 20	10.62° North
Spica in conjunction with Moon	2011 Sep 28 20	2.08° North
Mercury in superior conjunction	2011 Sep 28 20	1.36° North
Spica in conjunction with Juno	2011 Sep 28 23	8.54° South
Europa in conjunction with Moon	2011 Sep 29 14	9.75° North
Venus in conjunction with Saturn	2011 Sep 30 11	1.40° South
Hygiea in conjunction with Moon	2011 Oct 1 15	0.21° South
Antares in conjunction with Moon	2011 Oct 1 20	3.96° South
Davida in conjunction with Moon	2011 Oct 3 10	0.97° South
Spica in conjunction with Venus	2011 Oct 3 12	3.15° South
Pluto in conjunction with Moon	2011 Oct 3 17	2.60° North
First Quarter	2011 Oct 4 03	
Interamnia in conjunction with Moon	2011 Oct 4 20	7.70° North
Pallas in conjunction with Moon	2011 Oct 5 03	23.67° North
Venus in conjunction with Juno	2011 Oct 5 07	5.57° South
Metis in conjunction with Moon	2011 Oct 5 16	10.27° South
Regulus in conjunction with Psyche	2011 Oct 6 05	1.09° North

Vesta in conjunction with Moon	2011 Oct 6 11	11.57°	South
Mercury in conjunction with Saturn	2011 Oct 7 09	1.87°	South
Neptune in conjunction with Moon	2011 Oct 8 02	5.78°	South
Spica in conjunction with Mercury	2011 Oct 9 04	2.55°	South
Antares in conjunction with Hygiea	2011 Oct 10 07	3.61°	South
Ceres in conjunction with Moon	2011 Oct 10 08	21.96°	South
Uranus in conjunction with Moon	2011 Oct 10 22	6.08°	South
Mercury in conjunction with Juno	2011 Oct 12 02	6.57°	South
Full Moon	2011 Oct 12 02		
Moon at apogee	2011 Oct 12 12	406433.650km	
Jupiter in conjunction with Moon	2011 Oct 13 20	4.79°	South
Saturn in conjunction with Sun	2011 Oct 13 21	2.25°	North
Eunomia in conjunction with Moon	2011 Oct 16 12	15.81°	North
Aldebaran in conjunction with Moon	2011 Oct 16 12	5.94°	South
Venus in conjunction with Europa	2011 Oct 18 07	5.69°	South
Cybele in conjunction with Moon	2011 Oct 19 06	1.00°	South
Pollux in conjunction with Moon	2011 Oct 20 01	10.14°	North
Last Quarter	2011 Oct 20 04		
Regulus in conjunction with Hebe	2011 Oct 21 04	2.26°	North
Mercury in conjunction with Europa	2011 Oct 21 20	7.19°	South
Mars in conjunction with Moon	2011 Oct 22 00	6.48°	North
Regulus in conjunction with Moon	2011 Oct 22 18	5.85°	North
Hebe in conjunction with Moon	2011 Oct 22 19	3.68°	North
Juno in conjunction with Sun	2011 Oct 23 01	6.34°	North
Psyche in conjunction with Moon	2011 Oct 23 03	5.00°	North
Flora in conjunction with Moon	2011 Oct 23 14	8.17°	North
Davidia in conjunction with Pluto	2011 Oct 23 21	4.48°	South
Iris in conjunction with Moon	2011 Oct 25 17	0.59°	North
Saturn in conjunction with Moon	2011 Oct 26 06	6.74°	North
Spica in conjunction with Moon	2011 Oct 26 07	2.06°	North
Moon at perigee	2011 Oct 26 12	357051.538km	
New Moon	2011 Oct 26 20		
Juno in conjunction with Moon	2011 Oct 26 22	10.42°	North
Europa in conjunction with Moon	2011 Oct 27 16	8.61°	North
Mercury in conjunction with Moon	2011 Oct 28 02	0.23°	North
Venus in conjunction with Moon	2011 Oct 28 05	1.80°	North
Jupiter at opposition	2011 Oct 29 02		
Antares in conjunction with Moon	2011 Oct 29 06	4.12°	South
Hygiea in conjunction with Moon	2011 Oct 29 18	0.90°	South
Pluto in conjunction with Moon	2011 Oct 31 02	2.25°	North
Davidia in conjunction with Moon	2011 Oct 31 05	2.55°	South
Spica in conjunction with Saturn	2011 Oct 31 05	4.65°	South
Interamnia in conjunction with Moon	2011 Nov 1 13	7.23°	North
Pallas in conjunction with Moon	2011 Nov 1 17	18.35°	North

Metis in conjunction with Moon	2011 Nov 2 10	10.13° South
First Quarter	2011 Nov 2 17	
Vesta in conjunction with Moon	2011 Nov 3 06	11.72° South
Neptune in conjunction with Moon	2011 Nov 4 08	5.96° South
Ceres in conjunction with Moon	2011 Nov 6 08	20.07° South
Uranus in conjunction with Moon	2011 Nov 7 02	6.20° South
Moon at apogee	2011 Nov 8 13	406177.148km
Jupiter in conjunction with Moon	2011 Nov 9 19	5.04° South
Antares in conjunction with Venus	2011 Nov 9 21	3.98° South
Regulus in conjunction with Mars	2011 Nov 10 05	1.40° South
Antares in conjunction with Mercury	2011 Nov 10 05	1.94° South
Full Moon	2011 Nov 10 20	
Europa in conjunction with Sun	2011 Nov 10 22	5.64° North
Eunomia in conjunction with Moon	2011 Nov 12 11	16.05° North
Aldebaran in conjunction with Moon	2011 Nov 12 18	5.85° South
Mercury at greatest elongation	2011 Nov 14 09	22.7° East
Cybele in conjunction with Moon	2011 Nov 15 13	1.13° South
Pollux in conjunction with Moon	2011 Nov 16 07	10.30° North
Spica in conjunction with Iris	2011 Nov 17 15	1.99° North
Last Quarter	2011 Nov 18 15	
Regulus in conjunction with Moon	2011 Nov 19 02	6.00° North
Mars in conjunction with Moon	2011 Nov 19 10	7.71° North
Hebe in conjunction with Moon	2011 Nov 19 19	5.48° North
Psyche in conjunction with Moon	2011 Nov 20 01	5.43° North
Flora in conjunction with Moon	2011 Nov 20 19	9.24° North
Spica in conjunction with Moon	2011 Nov 22 18	2.11° North
Iris in conjunction with Moon	2011 Nov 22 21	0.01° South
Saturn in conjunction with Moon	2011 Nov 22 22	6.61° North
Moon at perigee	2011 Nov 23 23	359691.152km
Juno in conjunction with Moon	2011 Nov 24 00	10.32° North
Venus in conjunction with Hygiea	2011 Nov 24 01	0.78° South
Europa in conjunction with Moon	2011 Nov 24 18	7.60° North
Iris in conjunction with Saturn	2011 Nov 25 04	6.68° South
New Moon	2011 Nov 25 06	
Antares in conjunction with Moon	2011 Nov 25 17	4.16° South
Mercury in conjunction with Moon	2011 Nov 26 10	1.75° South
Hygiea in conjunction with Moon	2011 Nov 27 00	1.65° South
Venus in conjunction with Moon	2011 Nov 27 04	2.82° South
Pluto in conjunction with Moon	2011 Nov 27 13	2.02° North
Davidia in conjunction with Moon	2011 Nov 28 03	4.05° South
Pallas in conjunction with Interamnia	2011 Nov 28 13	7.36° North
Eunomia at opposition	2011 Nov 28 21	
Pallas in conjunction with Moon	2011 Nov 29 14	13.96° North
Interamnia in conjunction with Moon	2011 Nov 29 14	6.73° North
Metis in conjunction with Moon	2011 Nov 30 13	10.18° South

Vesta in conjunction with Moon	2011 Dec 1 08	11.86° South
Venus in conjunction with Pluto	2011 Dec 1 09	5.43° South
Neptune in conjunction with Moon	2011 Dec 1 16	6.06° South
First Quarter	2011 Dec 2 10	
Ceres in conjunction with Moon	2011 Dec 3 17	17.88° South
Uranus in conjunction with Moon	2011 Dec 4 08	6.27° South
Mercury in inferior conjunction	2011 Dec 4 09	1.27° North
Moon at apogee	2011 Dec 6 01	405413.790km
Antares in conjunction with Mercury	2011 Dec 6 13	6.55° South
Jupiter in conjunction with Moon	2011 Dec 6 20	5.19° South
Eunomia in conjunction with Moon	2011 Dec 9 05	13.53° North
Aldebaran in conjunction with Moon	2011 Dec 10 00	5.85° South
Full Moon	2011 Dec 10 15	
Venus in conjunction with Davida	2011 Dec 10 16	0.02° North
Vesta in conjunction with Neptune	2011 Dec 11 08	5.80° South
Cybele in conjunction with Moon	2011 Dec 12 13	1.53° South
Pollux in conjunction with Moon	2011 Dec 13 13	10.32° North
Mars in conjunction with Hebe	2011 Dec 14 13	1.23° North
Regulus in conjunction with Moon	2011 Dec 16 08	6.02° North
Hygiea in conjunction with Pluto	2011 Dec 17 11	4.10° South
Hebe in conjunction with Moon	2011 Dec 17 12	7.42° North
Mars in conjunction with Moon	2011 Dec 17 13	8.50° North
Psyche in conjunction with Moon	2011 Dec 17 16	5.69° North
Last Quarter	2011 Dec 18 01	
Flora in conjunction with Moon	2011 Dec 18 18	10.22° North
Spica in conjunction with Moon	2011 Dec 20 02	2.11° North
Saturn in conjunction with Moon	2011 Dec 20 10	6.51° North
Iris in conjunction with Moon	2011 Dec 20 21	0.83° South
Juno in conjunction with Moon	2011 Dec 21 23	10.40° North
Moon at perigee	2011 Dec 22 03	364800.072km
Solstice	2011 Dec 22 06	
Europa in conjunction with Moon	2011 Dec 22 19	6.72° North
Antares in conjunction with Mercury	2011 Dec 22 20	6.80° South
Mars in conjunction with Psyche	2011 Dec 23 01	2.90° North
Mercury at greatest elongation	2011 Dec 23 03	21.8° West
Antares in conjunction with Moon	2011 Dec 23 03	4.16° South
Mercury in conjunction with Moon	2011 Dec 23 04	2.58° North
New Moon	2011 Dec 24 18	
Pluto in conjunction with Moon	2011 Dec 25 02	1.89° North
Hygiea in conjunction with Moon	2011 Dec 25 07	2.37° South
Davida in conjunction with Moon	2011 Dec 26 05	5.48° South
Venus in conjunction with Moon	2011 Dec 27 11	6.42° South
Pallas in conjunction with Moon	2011 Dec 27 15	10.52° North
Interamnia in conjunction with Moon	2011 Dec 27 19	6.45° North
Metis in conjunction with Moon	2011 Dec 28 20	10.18° South

Neptune in conjunction with Moon	2011 Dec 29 01	6.03° South
Pluto in conjunction with Sun	2011 Dec 29 08	3.92° North
Venus in conjunction with Pallas	2011 Dec 29 14	16.89° South
Vesta in conjunction with Moon	2011 Dec 29 15	11.80° South
Cybele at opposition	2011 Dec 31 11	
Ceres in conjunction with Moon	2011 Dec 31 11	15.79° South
Uranus in conjunction with Moon	2011 Dec 31 16	6.19° South

SOLSTICES AND EQUINOXES

Year	Equinox		Solstice		Equinox		Solstice		
	Date	Time	Date	Time	Date	Time	Date	Time	
	(TT)		(TT)		(TT)		(TT)		
	d	h	m	d	h	m	d	h	m
2011	Mar 20	23:22	Jun 21	17:18	Sep 23	9:06	Dec 22	5:31	

APSIDES OF THE EARTH

Earth at:	Date	Time	Julian Date	Distance	
	(TT)				
	d	h	m	AU	
Perihelion	2011 Jan	3	18 33	2455565.2730	0.983341273
Aphelion	2011 Jul	4	14 55	2455747.1216	1.016740385

APSIDES OF THE MOON

Moon at:	Date	Time	Julian Date	Distance	
	(TT)				
	d	h	m	km	
Apogee	2011 Jan	10	05 39	2455571.7351	404976.837
Perigee	2011 Jan	22	00 10	2455583.5072	362791.523
Apogee	2011 Feb	6	23 13	2455599.4673	405923.846
Perigee	2011 Feb	19	07 25	2455611.8093	358247.141
Apogee	2011 Mar	6	07 50	2455626.8266	406583.007
Perigee	2011 Mar	19	19 10	2455640.2984	356574.965

Apogee	2011 Apr 2 09 02	2455653.8761	406656.171
Perigee	2011 Apr 17 06 01	2455668.7505	358089.579
Apogee	2011 Apr 29 18 02	2455681.2512	406039.294
Perigee	2011 May 15 11 26	2455696.9761	362134.966
Apogee	2011 May 27 09 59	2455708.9157	405003.365
Perigee	2011 Jun 12 01 42	2455724.5709	367189.340
Apogee	2011 Jun 24 04 13	2455736.6760	404271.350
Perigee	2011 Jul 7 13 54	2455750.0794	369569.792
Apogee	2011 Jul 21 22 47	2455764.4493	404354.874
Perigee	2011 Aug 2 21 06	2455776.3789	365760.879
Apogee	2011 Aug 18 16 22	2455792.1823	405161.067
Perigee	2011 Aug 30 17 38	2455804.2345	360857.701
Apogee	2011 Sep 15 06 25	2455819.7672	406065.310
Perigee	2011 Sep 28 01 04	2455832.5447	357556.871
Apogee	2011 Oct 12 11 44	2455846.9887	406433.650
Perigee	2011 Oct 26 12 27	2455861.0186	357051.538
Apogee	2011 Nov 8 13 21	2455874.0561	406177.148
Perigee	2011 Nov 23 23 22	2455889.4738	359691.152
Apogee	2011 Dec 6 01 14	2455901.5514	405413.790
Perigee	2011 Dec 22 03 00	2455917.6250	364800.072

PHASES OF THE MOON

Phase	Date	Time	Julian Date
		(TT)	
		h m	d
New	2011 Jan 4	9:04	2455565.8776
First Quarter	2011 Jan 12	11:33	2455573.9809
Full	2011 Jan 19	21:23	2455581.3906
Last Quarter	2011 Jan 26	12:58	2455588.0405
New	2011 Feb 3	2:32	2455595.6054
First Quarter	2011 Feb 11	7:19	2455603.8051
Full	2011 Feb 18	8:37	2455610.8589
Last Quarter	2011 Feb 24	23:27	2455617.4774
New	2011 Mar 4	20:47	2455625.3660
First Quarter	2011 Mar 12	23:46	2455633.4903
Full	2011 Mar 19	18:11	2455640.2577
Last Quarter	2011 Mar 26	12:08	2455647.0059
New	2011 Apr 3	14:33	2455655.1065
First Quarter	2011 Apr 11	12:07	2455663.0045
Full	2011 Apr 18	2:45	2455669.6147

Last Quarter	2011 Apr 25	2:48	2455676.6167
New	2011 May 3	6:52	2455684.7860
First Quarter	2011 May 10	20:34	2455692.3570
Full	2011 May 17	11:10	2455698.9651
Last Quarter	2011 May 24	18:53	2455706.2870
New	2011 Jun 1	21:04	2455714.3776
First Quarter	2011 Jun 9	2:12	2455721.5914
Full	2011 Jun 15	20:15	2455728.3435
Last Quarter	2011 Jun 23	11:49	2455735.9926
New	2011 Jul 1	8:55	2455743.8715
First Quarter	2011 Jul 8	6:31	2455750.7712
Full	2011 Jul 15	6:41	2455757.7783
Last Quarter	2011 Jul 23	5:03	2455765.7105
New	2011 Jul 30	18:41	2455773.2784
First Quarter	2011 Aug 6	11:09	2455779.9649
Full	2011 Aug 13	18:59	2455787.2907
Last Quarter	2011 Aug 21	21:56	2455795.4136
New	2011 Aug 29	3:05	2455802.6286
First Quarter	2011 Sep 4	17:40	2455809.2364
Full	2011 Sep 12	9:28	2455816.8943
Last Quarter	2011 Sep 20	13:40	2455825.0692
New	2011 Sep 27	11:10	2455831.9651
First Quarter	2011 Oct 4	3:16	2455838.6363
Full	2011 Oct 12	2:07	2455846.5881
Last Quarter	2011 Oct 20	3:32	2455854.6469
New	2011 Oct 26	19:57	2455861.3312
First Quarter	2011 Nov 2	16:39	2455868.1939
Full	2011 Nov 10	20:17	2455876.3453
Last Quarter	2011 Nov 18	15:10	2455884.1321
New	2011 Nov 25	6:11	2455890.7575
First Quarter	2011 Dec 2	9:53	2455897.9121
Full	2011 Dec 10	14:37	2455906.1094
Last Quarter	2011 Dec 18	0:49	2455913.5339
New	2011 Dec 24	18:08	2455920.2552
First Quarter	2012 Jan 1	6:16	2455927.7609

CONJUNCTIONS WITH SUN
From: 2011 Jan 01 To: 2012 Jan 01

Planet	Date (TT)		Geocentric		Separation
			Ecliptic Longitude		
			°	°	
	d	h	m		
Mars	2011 Feb 4	16:41		315.51241	1.08 South
Neptune	2011 Feb 17	9:57		328.38231	0.49 South
Mercury superior	2011 Feb 25	8:49		336.39388	1.87 South
Uranus	2011 Mar 21	12:25		0.54022	0.71 South
Jupiter	2011 Apr 6	14:41		16.45574	1.08 South
Mercury inferior	2011 Apr 9	19:37		19.60848	2.40 North
Mercury superior	2011 Jun 12	23:45		81.66590	0.89 North
Venus superior	2011 Aug 16	12:09		143.29652	1.29 North
Mercury inferior	2011 Aug 17	1:05		143.81438	4.59 South
Mercury superior	2011 Sep 28	20:17		185.35885	1.36 North
Saturn	2011 Oct 13	21:14		200.18398	2.25 North
Mercury inferior	2011 Dec 4	8:53		251.84577	1.27 North
Pluto	2011 Dec 29	7:44		277.22792	3.92 North

OPPOSITIONS WITH SUN
From: 2011 Jan 01 To: 2012 Jan 01

Object	Date (TT)		Geocentric		Diam.	Mag.	
			R.A.	Declination			
			h	°			
	d	h	m	h	°	"	
Saturn	2011 Apr 3	23:57		12.92240	-2.95425	19.3	0.4
Pluto	2011 Jun 28	5:21		18.43559	-18.80691	0.1	14.0
Neptune	2011 Aug 22	23:27		22.12201	-12.15730	2.4	7.8
Uranus	2011 Sep 26	0:16		0.17815	0.31784	3.7	5.7
Jupiter	2011 Oct 29	1:43		2.23334	11.88643	49.7	-2.9

GREATEST ELONGATIONS
From: 2011 Jan 01 To: 2012 Jan 01

Planet	Date (TT)		Elongation		Mag.
			°		
	d	h	m	°	
Venus	2011 Jan 8	16	03	47.0	West -4.6
Mercury	2011 Jan 9	14	27	23.3	West -0.3
Mercury	2011 Mar 23	1	11	18.6	East -0.3
Mercury	2011 May 7	19	06	26.6	West 0.4
Mercury	2011 Jul 20	5	03	26.8	East 0.4

Mercury	2011 Sep 3	5 57	18.1	West	-0.3
Mercury	2011 Nov 14	8 41	22.7	East	-0.3
Mercury	2011 Dec 23	3 10	21.8	West	-0.4

Solar Eclipse of 2011 Jan. 04

Sun in Partial Eclipse at this Location
Delta T: 66.8s

Karl Schwarzschild Obs., Tautenburg
Location: E 11°42'48.0", N50°58'54.0", 331m
(Longitude referred to Greenwich meridian)

	TT	Sun's Altitude	Sun's Azimuth	Position Angle	Vertex Angle
	d h m s	°	°	°	°
Sunrise	4 07:16	----	126.6	-----	
Maximum Eclipse	4 08:23:44.1	6.8	140.0		
Eclipse Ends	4 09:49:18.1	13.7	158.8	68.8	83.2

Duration: 2h 33m 29.5s
Magnitude: 0.791
Obscuration: 72.0%

Total Eclipse of the Moon of 2011 June 15
Delta T: 67.1s

Karl Schwarzschild Obs., Tautenburg
Location: E 11°42'48.0", N50°58'54.0", 331m
(Longitude referred to Greenwich meridian)

	TT	Moon's Altitude	Moon's Azimuth	Position Angle
	d h m	°	°	°
Moonrise	15 19:21	----	129.1	-----
Maximum Eclipse	15 20:13.7	4.8	139.0	176.7
Moon exits totality	15 21:04.2	9.3	149.3	75.8
Moon exits umbra	15 22:03.7	13.1	162.2	261.7
Moon exits penumbra	15 23:03.3	14.8	175.7	263.4

Penumbral Duration: 3h 42.5m
 Umbral Duration: 2h 42.9m
 Duration of Totality: 1h 40.9m
 Magnitude: 1.706

Total Eclipse of the Moon of 2011 Dec. 10
 Delta T: 67.3s

Karl Schwarzschild Obs., Tautenburg
 Location: E 11°42'48.0", N50°58'54.0", 331m
 (Longitude referred to Greenwich meridian)

	TT	Moon's		Position
	d h m	Altitude °	Azimuth °	Angle °
Moonrise	10 15:04	----	52.6	-----
Moon exits umbra	10 16:19.4	8.8	66.0	293.7
Moon exits penumbra	10 17:32.8	19.5	78.9	284.8

Penumbral Duration: 2h 28.4m
 Umbral Duration: 1h 15.0m
 Magnitude: 1.111

Alle Ereignisse ohne Rücksicht auf Ihre Sichtbarkeit in Deutschland.
 Die Daten für die Finsternisse sind für Tautenburg/ Jena gerechnet, was
 geografisch ungefähr in der Mitte von Deutschland liegt und somit
 einen groben Überblick über die Finsternisumstände zeigt.

Wenn noch Fragen sind , kontaktieren Sie mich über astro@marco-peuschel.de
 Daten wurden erstellt mit MICA.

Viel Glück beim beobachten wünscht Marco Peuschel.