

Ingresses, 2003

This table includes all except lunar ingresses, and it is sorted by planet, then date.

Date	GMT	Pt 1	Pt 1's Position		Sign	Remarks	Magnitude
Jan 20	11:52	Sun	00Aq00	Enters	Aquarius	Enters Pi 2/19	
Feb 19	02:00	Sun	00Pi00	Enters	Pisces	Enters Ar 3/21	
Mar 21	00:59	Sun	00Ar00	Enters	Aries	Enters Ta 4/20	
Apr 20	12:02	Sun	00Ta00	Enters	Taurus	Enters Ge 5/21	
May 21	11:12	Sun	00Ge00	Enters	Gemini	Enters Cn 6/21	
Jun 21	19:10	Sun	00Cn00	Enters	Cancer	Enters Le 7/23	
Jul 23	06:04	Sun	00Le00	Enters	Leo	Enters Vi 8/23	
Aug 23	13:08	Sun	00Vi00	Enters	Virgo	Enters Li 9/23	
Sep 23	10:46	Sun	00Li00	Enters	Libra	Enters Sc 10/23	
Oct 23	20:08	Sun	00Sc00	Enters	Scorpio	Enters Sg 11/22	
Nov 22	17:43	Sun	00Sg00	Enters	Sagittarius	Enters Cp 12/22	
Dec 22	07:03	Sun	00Cp00	Enters	Capricorn	Enters Aq 1/20/04	
Feb 13	00:56	Mercury	00Aq00	Enters	Aquarius	Enters Pi 3/5	
Mar 5	02:02	Mercury	00Pi00	Enters	Pisces	Enters Ar 3/21	
Mar 21	12:15	Mercury	00Ar00	Enters	Aries	Enters Ta 4/5	
Apr 5	14:39	Mercury	00Ta00	Enters	Taurus	Enters Ge 6/13	
Jun 13	01:27	Mercury	00Ge00	Enters	Gemini	Enters Cn 6/29	
Jun 29	10:16	Mercury	00Cn00	Enters	Cancer	Enters Le 7/13	
Jul 13	12:09	Mercury	00Le00	Enters	Leo	Enters Vi 7/30	
Jul 30	14:06	Mercury	00Vi00	Enters	Virgo	Enters Li 10/7	
Oct 7	01:25	Mercury	00Li00	Enters	Libra	Enters Sc 10/24	
Oct 24	11:19	Mercury	00Sc00	Enters	Scorpio	Enters Sg 11/12	
Nov 12	07:19	Mercury	00Sg00	Enters	Sagittarius	Enters Cp 12/2	
Dec 2	21:37	Mercury	00Cp00	Enters	Capricorn	Re-enters Sg 12/30	
Dec 30	20:12	Mercury	00Cp00 R	Re-enters	Sagittarius	Re-enters Cp 1/14/04	
Jan 7	13:07	Venus	00Sg00	Enters	Sagittarius	Enters Cp 2/4	
Feb 4	13:26	Venus	00Cp00	Enters	Capricorn	Enters Aq 3/2	
Mar 2	12:39	Venus	00Aq00	Enters	Aquarius	Enters Pi 3/27	
Mar 27	18:13	Venus	00Pi00	Enters	Pisces	Enters Ar 4/21	
Apr 21	16:17	Venus	00Ar00	Enters	Aries	Enters Ta 5/16	
May 16	10:57	Venus	00Ta00	Enters	Taurus	Enters Ge 6/10	
Jun 10	03:31	Venus	00Ge00	Enters	Gemini	Enters Cn 7/4	
Jul 4	17:38	Venus	00Cn00	Enters	Cancer	Enters Le 7/29	
Jul 29	04:24	Venus	00Le00	Enters	Leo	Enters Vi 8/22	
Aug 22	11:35	Venus	00Vi00	Enters	Virgo	Enters Li 9/15	
Sep 15	15:57	Venus	00Li00	Enters	Libra	Enters Sc 10/9	
Oct 9	18:55	Venus	00Sc00	Enters	Scorpio	Enters Sg 11/2	
Nov 2	21:42	Venus	00Sg00	Enters	Sagittarius	Enters Cp 11/27	
Nov 27	01:07	Venus	00Cp00	Enters	Capricorn	Enters Aq 12/21	
Dec 21	06:32	Venus	00Aq00	Enters	Aquarius	Enters Pi 1/14/04	
Jan 17	04:22	Mars	00Sg00	Enters	Sagittarius	Enters Cp 3/4	***
Mar 4	21:16	Mars	00Cp00	Enters	Capricorn	Enters Aq 4/21	***
Apr 21	23:48	Mars	00Aq00	Enters	Aquarius	Enters Pi 6/17	***
Jun 17	02:27	Mars	00Pi00	Enters	Pisces	Enters Ar 12/16	***
Dec 16	13:23	Mars	00Ar00	Enters	Aries	Enters Ta 2/3/04	***
Aug 27	09:26	Jupiter	00Vi00	Enters	Virgo	Last in Vi 9/91-10/92. Enters Li 9/25/04	****
Jun 4	01:27	Saturn	00Cn00	Enters	Cancer	Last in Cn 1973-76. Enters Le 7/16/05	****
Mar 10	20:53	Uranus	00Pi00	Enters	Pisces	Last in Pi 1919-28. Re-enters Aq 9/15	*****
Sep 15	03:48	Uranus	00Pi00 R	Re-enters	Aquarius	Re-enters Pi 12/30	*****
Dec 30	09:12	Uranus	00Pi00	Re-enters	Pisces	Last in Pi 1919-28. Enters Ar 5/28/10	*****
May 13	17:49	N Node	00Ge00 R	Enters	Taurus	Last in Ta 10/84-4/86. Enters Ar 11/30/04	*****

This table of ingresses is sorted by date. Besides the major ingresses of Jupiter, Saturn and Uranus this year, note March 4-5, March 21, April 21, Sept 15, Oct 23-24, and Dec 30, when there are 2 ingresses within a 24-hour period.

Date	GMT	Pt 1	Pt 1's Position		Sign	Remarks	Magnitude
Jan 7	13:07	Venus	00Sg00	Enters	Sagittarius	Enters Cp 2/4	
Jan 17	04:22	Mars	00Sg00	Enters	Sagittarius	Enters Cp 3/4	***
Jan 20	11:52	Sun	00Aq00	Enters	Aquarius	Enters Pi 2/19	
Feb 4	13:26	Venus	00Cp00	Enters	Capricorn	Enters Aq 3/2	
Feb 13	00:56	Mercury	00Aq00	Enters	Aquarius	Enters Pi 3/5	
Feb 19	02:00	Sun	00Pi00	Enters	Pisces	Enters Ar 3/21	
Mar 2	12:39	Venus	00Aq00	Enters	Aquarius	Enters Pi 3/27	
Mar 4	21:16	Mars	00Cp00	Enters	Capricorn	Enters Aq 4/21	***
Mar 5	02:02	Mercury	00Pi00	Enters	Pisces	Enters Ar 3/21	
Mar 10	20:53	Uranus	00Pi00	Enters	Pisces	Last in Pi 1919-28. Re-enters Aq 9/15	*****
Mar 21	00:59	Sun	00Ar00	Enters	Aries	Enters Ta 4/20	
Mar 21	12:15	Mercury	00Ar00	Enters	Aries	Enters Ta 4/5	
Mar 27	18:13	Venus	00Pi00	Enters	Pisces	Enters Ar 4/21	
Apr 5	14:39	Mercury	00Ta00	Enters	Taurus	Enters Ge 6/13	
Apr 20	12:02	Sun	00Ta00	Enters	Taurus	Enters Ge 5/21	
Apr 21	16:17	Venus	00Ar00	Enters	Aries	Enters Ta 5/16	
Apr 21	23:48	Mars	00Aq00	Enters	Aquarius	Enters Pi 6/17	***
May 13	17:49	N Node	00Ge00 R	Enters	Taurus	Last in Ta 10/84-4/86. Enters Ar 11/30/04	****
May 16	10:57	Venus	00Ta00	Enters	Taurus	Enters Ge 6/10	
May 21	11:12	Sun	00Ge00	Enters	Gemini	Enters Cn 6/21	
Jun 4	01:27	Saturn	00Cn00	Enters	Cancer	Last in Cn 1973-76. Enters Le 7/16/05	****
Jun 10	03:31	Venus	00Ge00	Enters	Gemini	Enters Cn 7/4	
Jun 13	01:27	Mercury	00Ge00	Enters	Gemini	Enters Cn 6/29	
Jun 17	02:27	Mars	00Pi00	Enters	Pisces	Enters Ar 12/16	***
Jun 21	19:10	Sun	00Cn00	Enters	Cancer	Enters Le 7/23	
Jun 29	10:16	Mercury	00Cn00	Enters	Cancer	Enters Le 7/13	
Jul 4	17:38	Venus	00Cn00	Enters	Cancer	Enters Le 7/29	
Jul 13	12:09	Mercury	00Le00	Enters	Leo	Enters Vi 7/30	
Jul 23	06:04	Sun	00Le00	Enters	Leo	Enters Vi 8/23	
Jul 29	04:24	Venus	00Le00	Enters	Leo	Enters Vi 8/22	
Jul 30	14:06	Mercury	00Vi00	Enters	Virgo	Enters Li 10/7	
Aug 22	11:35	Venus	00Vi00	Enters	Virgo	Enters Li 9/15	
Aug 23	13:08	Sun	00Vi00	Enters	Virgo	Enters Li 9/23	
Aug 27	09:26	Jupiter	00Vi00	Enters	Virgo	Last in Vi 9/91-10/92. Enters Li 9/25/04	****
Sep 15	03:48	Uranus	00Pi00 R	Re-enters	Aquarius	Re-enters Pi 12/30	*****
Sep 15	15:57	Venus	00Li00	Enters	Libra	Enters Sc 10/9	
Sep 23	10:46	Sun	00Li00	Enters	Libra	Enters Sc 10/23	
Oct 7	01:25	Mercury	00Li00	Enters	Libra	Enters Sc 10/24	
Oct 9	18:55	Venus	00Sc00	Enters	Scorpio	Enters Sg 11/2	
Oct 23	20:08	Sun	00Sc00	Enters	Scorpio	Enters Sg 11/22	
Oct 24	11:19	Mercury	00Sc00	Enters	Scorpio	Enters Sg 11/12	
Nov 2	21:42	Venus	00Sg00	Enters	Sagittarius	Enters Cp 11/27	
Nov 12	07:19	Mercury	00Sg00	Enters	Sagittarius	Enters Cp 12/2	
Nov 22	17:43	Sun	00Sg00	Enters	Sagittarius	Enters Cp 12/22	
Nov 27	01:07	Venus	00Cp00	Enters	Capricorn	Enters Aq 12/21	
Dec 2	21:37	Mercury	00Cp00	Enters	Capricorn	Re-enters Sg 12/30	
Dec 16	13:23	Mars	00Ar00	Enters	Aries	Enters Ta 2/3/04	***
Dec 21	06:32	Venus	00Aq00	Enters	Aquarius	Enters Pi 1/14/04	
Dec 22	07:03	Sun	00Cp00	Enters	Capricorn	Enters Aq 1/20/04	
Dec 30	09:12	Uranus	00Pi00	Re-enters	Pisces	Last in Pi 1919-28. Enters Ar 5/28/10	*****
Dec 30	20:12	Mercury	00Cp00 R	Re-enters	Sagittarius	Re-enters Cp 1/14/04	

Stations and Retrograde Cycles, 2003

Sorted by planet, then date. Includes conjunctions to station degrees (entrances into and exits from the retrograde "shadow"). (Venus travels direct throughout 2003, until its next retrograde on May 17, 2004.)

Date	GMT	Pt 1	Pt 1's Position	Event Type	Pt 2	Pt 2's Position	Remarks	Magnitude
Jan 2	18:20	Mer	28Cp28 R	Retro			Dir 1/23 at 12Cp	***
Jan 23	01:09	Mer	12Cp18	Direct			Rx 1/2 at 28Cp	***
Feb 11		Mer	28Cp	Cnj	Rx Sta	28Cp	Enters 1/2 Rx station degree	
Apr 12		Mer	11Ta	Cnj	D Sta	11Ta	Enters 5/20 dir station degree	
Apr 26	12:00	Mer	20Ta33 R	Retro			Dir 5/20 at 11Ta	***
May 20	07:33	Mer	11Ta07	Direct			Rx 4/26 at 20Ta	***
Jun 5		Mer	20Ta	Cnj	Rx Sta	20Ta	Enters 4/26 Rx station degree	
Aug 8		Mer	12Vi	Cnj	D Sta	12Vi	Enters 9/20 dir station degree	
Aug 28	13:42	Mer	26Vi19 R	Retro			Dir 9/20 at 12Vi	***
Sep 20	08:53	Mer	12Vi12	Direct			Rx 8/28 at 26Vi	***
Oct 4		Mer	26Vi	Cnj	Rx Sta	26Vi	Enters 8/28 Rx station degree	
Nov 30		Mer	26Sg	Cnj	D Sta	26Sg	Enters 1/6/04 dir station degree	
Dec 17	16:02	Mer	12Cp34 R	Retro			Dir 1/6/04 at 26Sg	***
Jun 17		Mar	00Pi	Cnj	D Sta	00Pi	Enters 9/27 dir station degree	
Jul 29	07:37	Mar	10Pi08 R	Retro			Dir 9/27 at 0Pi	***
Sep 27	07:53	Mar	00Pi07	Direct			Rx 7/29 at 10Pi	***
Nov 8		Mar	10Pi	Cnj	Rx Sta	10Pi	Enters 7/29 Rx station degree	
Apr 4	03:04	Jup	08Le04	Direct			Rx 12/4/02 at 18Le	****
Jul 1		Jup	18Le	Cnj	Rx Sta	18Le	Enters 12/4/02 Rx station degree	
Feb 22	07:41	Sat	22Ge08	Direct			Rx 10/11/02 at 29Ge	****
May 27		Sat	29Ge	Cjn	Rx Sta	29Ge	Enters 10/11/02 Rx station degree	
Jul 23		Sat	06Cn	Cnj	D Sta	06Cn	Enters 3/7/04 dir station degree	
Oct 25	23:43	Sat	13Cn14 R	Retro			Dir 3/7/04 at 6Cn	****
Feb 19		Ura	28Aq	Cnj	D Sta	28Aq	Enters 11/8 dir station degree	
Jun 7	06:59	Ura	02Pi49 R	Retro			Dir 11/8 at 28Aq	*****
Nov 8	12:45	Ura	28Aq54	Direct			Rx 6/7 at 2Pi	*****
Jan 24		Nep	10Aq	Cnj	D Sta	10Aq	Enters 10/23 dir station degree	
May 16	00:47	Nep	13Aq11 R	Retro			Dir 10/23 at 10Aq	*****
Oct 23	01:54	Nep	10Aq24	Direct			Rx 5/16 at 13Aq	*****
Mar 23	05:13	Plu	19Sg57 R	Retro			Dir 8/29 at 17Sg	*****
Aug 29	03:34	Plu	17Sg14	Direct			Rx 3/23 at 19Sg	*****
Dec 17		Plu	19Sg	Cnj	Rx Sta	19Sg	Enters 3/23 Rx station degree	

Maximum Elongations of Mercury and Venus

Sorted by planet, then date.

Feb 4	03:43	Mer	19Cp34				Mercury at Maximum Elongation West	
Apr 16	12:00	Mer	15Ta40				Mercury at Maximum Elongation East	
Jun 3	09:08	Mer	18Ta13				Mercury at Maximum Elongation West	
Aug 14	15:17	Mer	18Vi48				Mercury at Maximum Elongation East	
Sep 26	21:41	Mer	15Vi33				Mercury at Maximum Elongation West	
Dec 9	09:25	Mer	07Cp43				Mercury at Maximum Elongation East	
Jan 11	05:51	Ven	03Sg43				Venus at Maximum Elongation West	

Conjunctions with the Sun

The Sun conjoins Mercury usually 6 (and occasionally 7), times a year, and Mars every 2 years, but it conjoins the other planets on a yearly basis. While conjunctions from the Sun are not a rare occurrence, some astrologers consider them important as the start of a new planetary cycle.

The big solar conjunction event during 2003 happens on May 7, when Mercury transits across the disk of the Sun. This is viewable in totality from most of Europe, Africa and Asia. The transit's end is viewable at sunrise in the northeastern U.S. and Canada, Brazil and West Africa, and the beginning is viewable at sunset in Australia and Japan.

There are 13 such transits of Mercury each century, at intervals from 3½ to 13 years. The last one was in November, 1999. (The next big solar conjunction event—the first in 122 years -- happens on June 8, 2004, when Venus transits the Sun.)

Transits (when Mercury or Venus passes in front of the Sun) and occultations (when a body, usually the Moon, obscures a planet or star) happen when the two bodies are close in latitude as well as longitude. You can think of them, like eclipses, as super-strong aspects.

Date	GMT	Pt 1	Pt 1's Position	Event Type	Pt 2	Pt 2's Position	Remarks	Magnitude
Jan 11	20:01	Sun	21Cp11	Cnj	Mer	21Cp11 R	Inferior Conjunction	
Mar 21	23:31	Sun	00Ar56	Cnj	Mer	00Ar56	Superior Conjunction	
May 7	07:19	Sun	16Ta20	Cnj	Mer	16Ta20 R	Inf. Cnj, Mer transits across Sun	*****
Jul 5	10:20	Sun	13Cn00	Cnj	Mer	13Cn00	Superior Conjunction	
Sep 11	01:58	Sun	17Vi56	Cnj	Mer	17Vi56 R	Inferior Conjunction	
Oct 25	09:58	Sun	01Sc34	Cnj	Mer	01Sc34	Superior Conjunction	
Dec 27	01:10	Sun	04Cp51	Cnj	Mer	04Cp51 R	Inferior Conjunction	
Aug 18	18:04	Sun	25Le23	Cnj	Ven	25Le23	Superior Conjunction	
Aug 22	10:07	Sun	28Le55	Cnj	Jup	28Le55		****
Jun 24	13:39	Sun	02Cn39	Cnj	Sat	02Cn39		****
Feb 17	21:37	Sun	28Aq48	Cnj	Ura	28Aq48		****
Jan 30	23:34	Sun	10Aq40	Cnj	Nep	10Aq40	Pll within 3 hrs	****
Dec 12	05:28	Sun	19Sg45	Cnj	Plu	19Sg45		****
May 21	01:32	Sun	29Ta37	Cnj	NNo	29Ta37 R	Pll within 5 minutes	****

Eclipses and Lunar Phases, 2003

This table includes “Supermoons” – that is, an eclipse, lunation or full Moon within a day of the lunar perigee (the Moon’s closest pass to the Earth that month). At Supermoons, the Moon exerts a greater-than-average gravitational pull, and the usually large Full- and New-Moon tides are especially so (both high and low). We include Supermoons here because they show which New and Full Moons are the most significant.

The quarter Moons take on importance as stages in the lunar “gestation cycle” noted by Dietrech Pessin. In her book *Lunar Shadows* she notes that 9 months after a New Moon or solar eclipse there is a 1st quarter at nearly the same degree, 9 months after that, there is a full Moon, and 9 months after that there is a 3rd quarter, both also at nearly the same degree. This can start again at the next lunation, until after a number of years the cycle goes out of phase. In her work with clients she notes that the lunation part of the cycle tends to begin a new matter, and the succeeding phases mark important milestones in the development of that matter – in the classic lunation-cycle pattern of birth, crisis, externalization, crisis and rebirth noted by Rudhyar and others.

Note that for eclipses, the time of the exact aspect in longitude is almost always slightly different from the time of totality. Both times are given here.

Date	GMT	Pt 1	Pt 1's Position	Event Type	Pt 2	Pt 2's Position	Remarks	Magnitude
Jan 2	20:23	Mon	12Cp01	Cnj	Sun	12Cp01	New Moon	***
Jan 10	13:14	Mon	19Ar53	Sqr	Sun	19Cp53	1 st Quarter	
Jan 18	10:46	Mon	27Cn55	Opp	Sun	27Cp55	Full Moon	**
Jan 25	08:33	Mon	04Sc57	Sqr	Sun	04Aq57	3 rd Quarter	
Feb 1	10:49	Mon	12Aq09	Cnj	Sun	12Aq09	New Moon	***
Feb 9	11:10	Mon	20Ta17	Sqr	Sun	20Aq17	1 st Quarter	
Feb 16	23:50	Mon	27Le53	Opp	Sun	27Aq53	Full Moon	**
Feb 23	16:46	Mon	04Sg39	Sqr	Sun	04Pi39	3 rd Quarter	
Mar 3	02:35	Mon	12Pi06	Cnj	Sun	12Pi06	New Moon	***
Mar 11	07:14	Mon	20Ge18	Sqr	Sun	20Pi18	1 st Quarter	
Mar 18	10:33	Mon	27Vi25	Opp	Sun	27Pi25	Full Moon	**
Mar 25	01:52	Mon	04Cp00	Sqr	Sun	04Ar00	3 rd Quarter	
Apr 1	19:18	Mon	11Ar39	Cnj	Sun	11Ar39	New Moon	***
Apr 9	23:38	Mon	19Cn42	Sqr	Sun	19Ar42	1 st Quarter	
Apr 16	19:35	Mon	26Li24	Opp	Sun	26Ar24	Full Moon, largest of 03, “Supermoon”	**
Apr 23	12:19	Mon	02Aq56	Sqr	Sun	02Ta56	3 rd Quarter	
May 1	12:14	Mon	10Ta43	Cnj	Sun	10Ta43	New Moon	***
May 9	11:51	Mon	18Le27	Sqr	Sun	18Ta27	1 st Quarter	
May 16	03:36	Mon	24Sc53	Opp	Sun	24Ta53	Lunar Eclipse, total, at 03:40, “Supermoon”	*****
May 23	00:31	Mon	01Pi30	Sqr	Sun	01Ge30	3 rd Quarter	
May 31	04:19	Mon	09Ge20	Occ	Sun	09Ge20	Solar Eclipse, annular, at 04:07,	*****
Jun 7	20:26	Mon	16Vi41	Sqr	Sun	16Ge41	1 st Quarter	
Jun 14	11:16	Mon	23Sg00	Opp	Sun	23Ge00	Full Moon	**
Jun 21	14:45	Mon	29Pi49	Sqr	Sun	29Ge49	3 rd Quarter	
Jun 29	18:38	Mon	07Cn37	Cnj	Sun	07Cn37	New Moon at year's closest planetary clustering: 5 planets within a 13°41 arc from Ven at 23Ge56 to Sun & Moon at 7Cn37	***
Jul 7	02:31	Mon	14Li36	Sqr	Sun	14Cn36	1 st Quarter	
Jul 13	19:21	Mon	20Cp59	Opp	Sun	20Cn59	Full Moon	**
Jul 21	07:01	Mon	28Ar08	Sqr	Sun	28Cn08	3 rd Quarter	
Jul 29	06:52	Mon	05Le46	Cnj	Sun	05Le46	New Moon	***
Aug 5	07:27	Mon	12Sc29	Sqr	Sun	12Le29	1 st Quarter	
Aug 12	04:48	Mon	19Aq05	Opp	Sun	19Le05	Full Moon	**
Aug 20	00:47	Mon	26Ta37	Sqr	Sun	26Le37	3 rd Quarter	

Aug 27	17:26	Mon	04Vi02	Cnj	Sun	04Vi02	New Moon	***
Sep 3	12:34	Mon	10Sg36	Sqr	Sun	10Vi36	1st Quarter	
Sep 10	16:36	Mon	17Pi34	Opp	Sun	17Vi34	Full Moon	**
Sep 18	19:02	Mon	25Ge27	Sqr	Sun	25Vi27	3rd Quarter	
Sep 26	03:08	Mon	02Li38	Cnj	Sun	02Li38	New Moon	***
Oct 2	19:09	Mon	09Cp11	Sqr	Sun	09Li11	1st Quarter	
Oct 10	07:27	Mon	16Ar35	Opp	Sun	16Li35	Full Moon	**
Oct 18	12:29	Mon	24Cn43	Sqr	Sun	24Li43	3rd Quarter	
Oct 25	12:49	Mon	01Sc41	Cnj	Sun	01Sc41	New Moon, "Supermoon"	***
Nov 1	04:25	Mon	08Aq20	Sqr	Sun	08Sc20	1st Quarter	
Nov 9	01:13	Mon	16Ta13	Opp	Sun	16Sc13	Lunar Eclipse, total, at 01:18	*****
Nov 17	04:14	Mon	24Le23	Sqr	Sun	24Sc23	3rd Quarter	
Nov 23	22:58	Mon	01Sg14	Occ	Sun	01Sg14	Solar Eclipse, total, at 22:49, "Supermoon"	*****
Nov 30	17:16	Mon	08Pi05	Sqr	Sun	08Sg05	1st Quarter	
Dec 8	20:36	Mon	16Ge20	Opp	Sun	16Sg20	Full Moon	
Dec 16	17:41	Mon	24Vi21	Sqr	Sun	24Sg21	3rd Quarter	**
Dec 23	09:43	Mon	01Cp08	Cnj	Sun	01Cp08	New Moon, "Supermoon"	***
Dec 30	10:04	Mon	08Ar17	Sqr	Sun	08Cp17	1st Quarter	

Four Lunar Cycles Together, 2003

The above Moon-phase table showed only the Moon's synodic cycle (the time between its conjunctions with the Sun, 29.53 days). Here we add key turning points in its anomalistic cycle (the time between perigees, 27.5 days), its latitude or nodical cycle (the time between transits of its North Node, 27.2 days), and its declination cycle (the time between 0 north declination passes). Because these cycles are of slightly varying length, they go in and out of phase with each other. Its possible that the various cyclical turning points listed below have an impact on prices in financial markets, particularly when one or more of them coincide closely in time.

The perigees mark the Moon's monthly minimum distance from Earth, when the lunar gravitational pull, and possibly its astrological influence, is especially strong. The apogees mark the Moon's maximum distance from Earth, when its gravitational pull is especially weak. Several times a year, this anomalistic cycle of the Moon comes into phase with the Moon's synodic cycle, creating what Richard Nolle calls a Supermoon. During 2003 there are 5 Supermoons -- times when the lunar perigee coincides with an eclipse, new Moon or full Moon within a day. By far the closest co-occurrence is on November 23, when there is a total solar eclipse only 33 minutes after perigee. The perigees that are the next closest in time to a New or Full Moon are on April 16-17 (9h16m apart, creating the largest Full Moon of the year), and on 12/22-23 (9h53m apart, creating a New Moon/Supermoon that also occurs only 26h40m after the Winter Solstice).

The Moon is at 0 latitude when it is crossing the plane of the Earth's orbit and is conjunct its own North or South True Node. The Moon is at 0 declination when it crosses Earth's equator. Here it spends equal time above and below the horizon, just as the Sun does at the equinoxes. Zero latitude and zero declination are both turning points that are well worth noting.

Date	GMT	Pt 1	Pt 1's Position	Event Type	Pt 2	Pt 2's Position	Remarks	Magnitude
Jan 2	20:23	Mon	12Cp01	Cnj	Sun	12Cp01	New Moon	***
Jan 9	17:37	Mon	10Ar10	0 Dec			Moon at 0 declination headed N	
Jan 10	13:14	Mon	19Ar53	Sqr	Sun	19Cp53	1 st Quarter	
Jan 11	00:50	Mon	25Ar35	ApG	Earth		Moon at Apogee	
Jan 14	13:37	Mon	07Ge53	0 Lat			Moon at 0 latitude headed N	
Jan 18	10:46	Mon	27Cn55	Opp	Sun	27Cp55	Full Moon	**
Jan 23	14:10	Mon	09Li56	0 Dec			Moon at 0 declination headed S	
Jan 23	22:08	Mon	14Li39	PerG	Earth		Moon at Perigee	
Jan 25	08:33	Mon	04Sc57	Sqr	Sun	04Aq57	3 rd Quarter	
Jan 27	15:23	Mon	06Sg56	0 Lat			Moon at 0 latitude headed S	
Feb 1	10:49	Mon	12Aq09	Cnj	Sun	12Aq09	New Moon	***
Feb 6	01:02	Mon	09Ar43	0 Dec			Moon at 0 declination headed N	
Feb 7	22:02	Mon	01Ta59	ApG	Earth		Moon at Apogee	
Feb 9	11:10	Mon	20Ta17	Sqr	Sun	20Aq17	1 st Quarter	
Feb 10	17:38	Mon	05Ge27	0 Lat			Moon at 0 latitude headed N	
Feb 16	23:50	Mon	27Le53	Opp	Sun	27Aq53	Full Moon	**
Feb 19	16:14	Mon	06Li58	PerG	Earth		Moon at Perigee	
Feb 19	20:23	Mon	09Li31	0 Dec			Moon at 0 declination headed S	
Feb 23	16:46	Mon	04Sg39	Sqr	Sun	04Pi39	3 rd Quarter	
Feb 23	15:47	Mon	04Sg05	0 Lat			Moon at 0 latitude headed S	
Mar 3	02:35	Mon	12Pi06	Cnj	Sun	12Pi06	New Moon	***
Mar 5	08:02	Mon	09Ar21	0 Dec			Moon at 0 declination headed N	
Mar 7	16:20	Mon	07Ta14	ApG	Earth		Moon at Apogee	
Mar 9	19:21	Mon	02Ge20	0 Lat			Moon at 0 latitude headed N	
Mar 11	07:14	Mon	20Ge18	Sqr	Sun	20Pi18	1 st Quarter	
Mar 18	10:33	Mon	27Vi25	Opp	Sun	27Pi25	Full Moon	**
Mar 19	19:00	Mon	17Li42	PerG	Earth		Moon at Perigee	
Mar 19	05:33	Mon	09Li17	0 Dec			Moon at 0 declination headed S	
Mar 22	17:37	Mon	01Sg15	0 Lat			Moon at 0 latitude headed S	
Mar 25	01:52	Mon	04Cp00	Sqr	Sun	04Ar00	3 rd Quarter	
Apr 1	19:18	Mon	11Ar39	Cnj	Sun	11Ar39	New Moon	***
Apr 1	14:31	Mon	09Ar15	0 Dec			Moon at 0 declination headed N	
Apr 4	04:25	Mon	09Ta52	ApG	Earth		Moon at Apogee	
Apr 5	21:39	Mon	00Ge07	0 Lat			Moon at 0 latitude headed N	

Apr 9	23:38	Mon	19Cn42	Sqr	Sun	19Ar42	1 st Quarter	
Apr 15	16:35	Mon	09Li19	0 Dec			Moon at 0 declination headed S	
Apr 16	19:35	Mon	26Li24	Opp	Sun	26Ar24	Full Moon, largest of 03, "Supermoon"	****
Apr 17	04:51	Mon	02Sc16	PerG	Earth		Moon at Perigee, 9h16m later, esp. large tides	
Apr 19	00:24	Mon	29Sc43	0 Lat			Moon at 0 latitude headed S	
Apr 23	12:19	Mon	02Aq56	Sqr	Sun	02Ta56	3 rd Quarter	
Apr 28	20:40	Mon	09Ar22	0 Dec			Moon at 0 declination headed N	
May 1	12:14	Mon	10Ta43	Cnj	Sun	10Ta43	New Moon	***
May 1	07:45	Mon	08Ta30	ApG	Earth		Moon at Apogee	
May 3	02:17	Mon	29Ta25	0 Lat			Moon at 0 latitude headed N	
May 9	11:51	Mon	18Le27	Sqr	Sun	18Ta27	1 st Quarter	
May 13	03:08	Mon	09Li24	0 Dec			Moon at 0 declination headed S	
May 15	15:32	Mon	17Sc15	PerG	Earth		Moon at Perigee; eclipse 12h8m later	
May 16	03:36	Mon	24Sc53	Opp	Sun	24Ta53	Lunar Eclipse, total, at 03:40, "Supermoon"	*****
May 16	10:51	Mon	29Sc28	0 Lat			Moon at 0 latitude headed S	
May 23	00:31	Mon	01Pi30	Sqr	Sun	01Ge30	3 rd Quarter	
May 26	02:51	Mon	09Ar26	0 Dec			Moon at 0 declination headed N	
May 28	12:45	Mon	07Ta57	ApG	Earth		Moon at Apogee	
May 30	08:32	Mon	29Ta31	0 Lat			Moon at 0 latitude headed N	
May 31	04:19	Mon	09Ge20	Occ	Sun	09Ge20	Solar Eclipse, annular, at 04:07,	*****
Jun 7	20:26	Mon	16Vi41	Sqr	Sun	16Ge41	1 st Quarter	
Jun 9	11:23	Mon	09Li22	0 Dec			Moon at 0 declination headed S	
Jun 12	21:16	Mon	29Sc25	0 Lat			Moon at 0 latitude headed S	
Jun 12	23:15	Mon	00Sg38	PerG	Earth		Moon at Perigee	
Jun 14	11:16	Mon	23Sg00	Opp	Sun	23Ge00	Full Moon	**
Jun 21	14:45	Mon	29Pi49	Sqr	Sun	29Ge49	3 rd Quarter	
Jun 22	09:28	Mon	09Ar17	0 Dec			Moon at 0 declination headed N	
Jun 25	02:22	Mon	11Ta21	ApG	Earth		Moon at Apogee	
Jun 26	14:32	Mon	29Ta10	0 Lat			Moon at 0 latitude headed N	
Jun 29	18:38	Mon	07Cn37	Cnj	Sun	07Cn37	New Moon at year's closest planetary clustering: 5 planets within a 13°41 arc from Ven at 23Ge56 to Sun & Moon at 7Cn37	***
Jul 6	17:03	Mon	09Li05	0 Dec			Moon at 0 declination headed S	
Jul 7	02:31	Mon	14Li36	Sqr	Sun	14Cn36	1 st Quarter	
Jul 10	04:17	Mon	28Sc29	0 Lat			Moon at 0 latitude headed S	
Jul 10	22:02	Mon	09Sg12	PerG	Earth		Moon at Perigee	
Jul 13	19:21	Mon	20Cp59	Opp	Sun	20Cn59	Full Moon	**
Jul 19	16:40	Mon	08Ar54	0 Dec			Moon at 0 declination headed N	
Jul 21	07:01	Mon	28Ar08	Sqr	Sun	28Cn08	3 rd Quarter	
Jul 22	19:43	Mon	16Ta12	ApG	Earth		Moon at Apogee	
Jul 23	18:45	Mon	27Ta33	0 Lat			Moon at 0 latitude headed N	
Jul 29	06:52	Mon	05Le46	Cnj	Sun	05Le46	New Moon	***
Aug 2	21:41	Mon	08Li39	0 Dec			Moon at 0 declination headed S	
Aug 5	07:27	Mon	12Sc29	Sqr	Sun	12Le29	1 st Quarter	
Aug 6	14:10	Mon	00Sg34	PerG	Earth		Moon at Perigee	
Aug 6	06:49	Mon	26Sc15	0 Lat			Moon at 0 latitude headed S	
Aug 12	04:48	Mon	19Aq05	Opp	Sun	19Le05	Full Moon	**
Aug 16	00:19	Mon	08Ar28	0 Dec			Moon at 0 declination headed N	
Aug 19	21:07	Mon	24Ta48	0 Lat			Moon at 0 latitude headed N	
Aug 19	14:17	Mon	21Ta26	ApG	Earth		Moon at Apogee	
Aug 20	00:47	Mon	26Ta37	Sqr	Sun	26Le37	3 rd Quarter	
Aug 27	17:26	Mon	04Vi02	Cnj	Sun	04Vi02	New Moon	***
Aug 30	03:37	Mon	08Li17	0 Dec			Moon at 0 declination headed S	
Aug 31	18:38	Mon	01Sc34	PerG	Earth		Moon at Perigee	
Sep 2	07:23	Mon	23Sc25	0 Lat			Moon at 0 latitude headed S	

Sep 3	12:34	Mon	10Sg36	Sqr	Sun	10Vi36	1 st Quarter	
Sep 10	16:36	Mon	17Pi34	Opp	Sun	17Vi34	Full Moon	**
Sep 12	07:54	Mon	08Ar11	0 Dec			Moon at 0 declination headed N	
Sep 15	23:27	Mon	22Ta06	0 Lat			Moon at 0 latitude headed N	
Sep 16	09:19	Mon	26Ta56	ApG	Earth		Moon at Apogee	
Sep 18	19:02	Mon	25Ge27	Sqr	Sun	25Vi27	3 rd Quarter	
Sep 26	03:08	Mon	02Li38	Cnj	Sun	02Li38	New Moon	***
Sep 26	12:14	Mon	08Li09	0 Dec			Moon at 0 declination headed S	
Sep 28	05:58	Mon	03Sc45	PerG	Earth		Moon at Perigee	
Sep 29	10:34	Mon	21Sc16	0 Lat			Moon at 0 latitude headed S	
Oct 2	19:09	Mon	09Cp11	Sqr	Sun	09Li11	1 st Quarter	
Oct 9	14:57	Mon	08Ar10	0 Dec			Moon at 0 declination headed N	
Oct 10	07:27	Mon	16Ar35	Opp	Sun	16Li35	Full Moon	**
Oct 13	03:40	Mon	20Ta37	0 Lat			Moon at 0 latitude headed N	
Oct 14	02:37	Mon	01Ge53	ApG	Earth		Moon at Apogee	
Oct 18	12:29	Mon	24Cn43	Sqr	Sun	24Li43	3 rd Quarter	
Oct 23	22:58	Mon	08Li12	0 Dec			Moon at 0 declination headed S	
Oct 25	12:49	Mon	01Sc41	Cnj	Sun	01Sc41	New Moon, "Supermoon"	****
Oct 26	11:41	Mon	16Sc02	PerG	Earth		Moon at Perigee, 22h52m after New Moon	
Oct 26	18:43	Mon	20Sc28	0 Lat			Moon at 0 latitude headed S	
Nov 1	04:25	Mon	08Aq20	Sqr	Sun	08Sc20	1 st Quarter	
Nov 5	21:12	Mon	08Ar15	0 Dec			Moon at 0 declination headed N	
Nov 9	01:13	Mon	16Ta13	Opp	Sun	16Sc13	Lunar Eclipse, total, at 01:18	*****
Nov 9	09:47	Mon	20Ta26	0 Lat			Moon at 0 latitude headed N	
Nov 10	12:18	Mon	03Ge27	ApG	Earth		Moon at Apogee	
Nov 17	04:14	Mon	24Le23	Sqr	Sun	24Sc23	3 rd Quarter	
Nov 20	09:39	Mon	08Li15	0 Dec			Moon at 0 declination headed S	
Nov 23	06:02	Mon	20Sc29	0 Lat			Moon at 0 latitude headed S	
Nov 23	22:58	Mon	01Sg14	Occ	Sun	01Sg14	Solar Eclipse, total, at 22:49, "Supermoon"	*****
Nov 23	23:25	Mon	01Sg30	PerG	Earth		Moon at Perigee, 36 min after eclipse, esp. large tides	
Nov 30	17:16	Mon	08Pi05	Sqr	Sun	08Sg05	1 st Quarter	
Dec 3	03:00	Mon	08Ar13	0 Dec			Moon at 0 declination headed N	
Dec 6	15:59	Mon	20Ta27	0 Lat			Moon at 0 latitude headed N	
Dec 7	12:14	Mon	00Ge23	ApG	Earth		Moon at Apogee	
Dec 8	20:36	Mon	16Ge20	Opp	Sun	16Sg20	Full Moon	
Dec 16	17:41	Mon	24Vi21	Sqr	Sun	24Sg21	3 rd Quarter	**
Dec 17	17:55	Mon	08Li03	0 Dec			Moon at 0 declination headed S	
Dec 20	16:06	Mon	19Sc57	0 Lat			Moon at 0 latitude headed S	
Dec 22	11:50	Mon	17Sg19	PerG	Earth		Moon at Perigee, 9h53m before New Moon, 4h47m after solstice, esp. large tides.	
Dec 23	09:43	Mon	01Cp08	Cnj	Sun	01Cp08	New Moon, "Supermoon", 26h40m after solstice	****
Dec 30	10:04	Mon	08Ar17	Sqr	Sun	08Cp17	1 st Quarter	
Dec 30	09:20	Mon	07Ar55	0 Dec			Moon at 0 declination headed N	

Lunar Occultations and Near-Occultations, 2003

When the Moon and another body than the Sun are not only conjunct but are also within about a degree and a half of latitude, the Moon eclipses or occults the other body for a period of several hours. Like solar eclipses, lunar occultations are visible only from certain spots on earth. Also, like eclipses, they are well worth noting. Occultations tend to repeat for several months, emphasizing certain planets during a given year. During the first half of 2002, the Moon occulted Saturn five times and Jupiter three times. In May, 2002, the Jupiter and Saturn occultations ceased and the emphasis switched to Mars. The first Mars occultation in the series happened on May 14 2002 (when the Moon not only opposed Pluto but also occulted Saturn, Venus and Mars on the same day!). The Moon occulted Mars two more times during 2002, on 6/12 and 12/29. From January through October 2003, the pattern continues with four more occultations of Mars, plus three near misses. (As near misses, we include all conjunctions in longitude that are also conjunct within 2 degrees or less of latitude.)

During 2003, Nov 25 is notable for an occultation of Mercury followed 14h39m later by a close pass to Venus .

We didn't plan to include asteroids in this series of tables, but here it seems worth listing the Moon's occultation of Ceres on December 12.

Date	GMT	Pt 1	Pt 1's Position	Event Type	Pt 2	Pt 2's Position	Remarks	Magnitude
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Mercury

Jun 29	02:30	Mon	29Ge19	Cnj	Mer	29Ge19	Close in Lat: Mer 2° S of Mon	**
Nov 25	03:17	Mon	19Sg11	Cnj	Mer	19Sg11	Occultation , Mer 0.3° N of Mon (Indian Ocean, Indonesia, Australia, N. Zealand, Easter Isl.)	***

Venus

May 29	03:57	Mon	15Ta26	Cnj	Ven	15Ta26	Occultation , Ven 0.1° S of Mon (eastern Africa, Madagascar, India, Sri Lanka, Thailand, China, Taiwan, Japan)	**
Oct 26	19:52	Mon	21Sc12	Cnj	Ven	21Sc12	Occultation , Ven 0.08° N of Mon (Hawaii, central & southern S. America)	***
Nov 25	17:56	Mon	28Sg23	Cnj	Ven	28Sg23	Close in Lat: Ven 2° N of Mon	**

Mars

Jan 27	15:02	Mon	06Sg44	Cnj	Mar	06Sg44	Occultation , Mar 0.4° N of Mon (Samoa, central Pacific, southern S. America)	***
Feb 25	04:27	Mon	25Sg05	Cnj	Mar	25Sg05	Close in Lat: Mar 1.9° N of Mon	**
Jun 19	07:39	Mon	00Pi56	Cnj	Mar	00Pi56	Close in Lat: Mar 1.7° N of Mon	**
Jul 17	08:01	Mon	09Pi11	Cnj	Mar	09Pi11	Occultation , Mar 0.3° S of Mon (central Pacific, Central America, northwest S. America, Caribbean, N. Atlantic)	***
Aug 13	16:01	Mon	08Pi38	Cnj	Mar	08Pi38 R	Close in Lat: Mar 1.9° S of Mon	**
Sep 9	12:00	Mon	02Pi07	Cnj	Mar	02Pi07 R	Occultation , Mar 1.2° S of Mon (eastern Siberia, northern China)	***
Oct 6	15:38	Mon	00Pi42	Cnj	Mar	00Pi42	Occultation , Mar 1.1° N of Mon (Tasmania, N. Zealand, Antarctica)	**

Ceres

Dec 12	00:22	Mon	24Cn15	Cnj	Ceres	24Cn15 R	Occultation , Ceres 1.1° N of Mon (South Atlantic Ocean)	***
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Zero Latitude Passes, 2003

A planet's celestial latitude is its distance north or south of the Earth's orbital plane -- that is, the ecliptic. All the planets orbit in the plane of the ecliptic -- sort of. Actually, each planet's orbital plane is tilted a bit, so that a planet is exactly on the ecliptic plane only twice in each orbital revolution. When planets cross the ecliptic plane, they are on their nodes and have zero latitude. At their north node, planets are coming from the direction of the Earth's Southern Hemisphere and heading north. At their south node, they are crossing over the ecliptic plane headed south.

When viewed heliocentrically, planetary nodes are much like the Moon's nodes in that they change longitude very slowly and their north and south nodes are exactly 180 degrees apart. When viewed from a constantly moving Earth, however, planetary nodes can appear to move quite swiftly around the zodiac, and the north and south nodes are anything but 180 degrees apart. The most extreme case is Mercury, whose helio nodes are at 18Ta/Sc21 to 18Ta/Sc22 all year, but whose geocentric nodes make nearly a complete circuit of the zodiac in 2003, and whose north and south geo nodes stay within a few signs of each other and can even be conjunct. In the case of the outer planets, the geo nodes oscillate slowly by only a few degrees around the helio nodes.

The table below includes all bodies except the Sun. Since the plane of the ecliptic is established by the relation of the Earth to the Sun, both the Earth and the Sun are, by definition, always at zero celestial latitude. Whenever a body reaches zero latitude, therefore, it is making a latitude parallel to the Sun. This is true of the Moon as well as the planets.

Because (barring a rare retrograde over its own node), a planet is a 0 latitude only twice during each orbital cycle, the 0 latitude passes of the outer planets are major events. During 2003, Jupiter, Saturn, Uranus and Pluto do not transit their own nodes, but Neptune reaches 0 latitude on August 11 and is extremely close to its south node for the entire year. Throughout the year, therefore, Neptune will be parallel the Sun in latitude. And every time another body reaches 0 latitude, Neptunian themes are likely to emerge with even greater strength.

Date	GMT	Pt 1	Pt 1's Position	Event Type		Remarks	Magnitude
Jan 14	13:37	Mon	07Ge53	0 Lat		Moon at 0 latitude headed North	
Jan 27	15:23	Mon	06Sg56	0 Lat		Moon at 0 latitude headed South	
Feb 10	17:38	Mon	05Ge27	0 Lat		Moon at 0 latitude headed North	
Feb 23	15:47	Mon	04Sg05	0 Lat		Moon at 0 latitude headed South	
Mar 9	19:21	Mon	02Ge20	0 Lat		Moon at 0 latitude headed North	
Mar 22	17:37	Mon	01Sg15	0 Lat		Moon at 0 latitude headed South	
Apr 5	21:39	Mon	00Ge07	0 Lat		Moon at 0 latitude headed North	
Apr 19	00:24	Mon	29Sc43	0 Lat		Moon at 0 latitude headed South	
May 3	02:17	Mon	29Ta25	0 Lat		Moon at 0 latitude headed North	
May 16	10:51	Mon	29Sc28	0 Lat		Moon at 0 latitude headed South	
May 30	08:32	Mon	29Ta31	0 Lat		Moon at 0 latitude headed North	
Jun 12	21:16	Mon	29Sc25	0 Lat		Moon at 0 latitude headed South	
Jun 26	14:32	Mon	29Ta10	0 Lat		Moon at 0 latitude headed North	
Jul 10	04:17	Mon	28Sc29	0 Lat		Moon at 0 latitude headed South	
Jul 23	18:45	Mon	27Ta33	0 Lat		Moon at 0 latitude headed North	
Aug 6	06:49	Mon	26Sc15	0 Lat		Moon at 0 latitude headed South	
Aug 19	21:07	Mon	24Ta48	0 Lat		Moon at 0 latitude headed North	
Sep 2	07:23	Mon	23Sc25	0 Lat		Moon at 0 latitude headed South	
Sep 15	23:27	Mon	22Ta06	0 Lat		Moon at 0 latitude headed North	
Sep 29	10:34	Mon	21Sc16	0 Lat		Moon at 0 latitude headed South	
Oct 13	03:40	Mon	20Ta37	0 Lat		Moon at 0 latitude headed North	
Oct 26	18:43	Mon	20Sc28	0 Lat		Moon at 0 latitude headed South	
Nov 9	09:47	Mon	20Ta26	0 Lat		Moon at 0 latitude headed North	
Nov 23	06:02	Mon	20Sc29	0 Lat		Moon at 0 latitude headed South	
Dec 6	15:59	Mon	20Ta27	0 Lat		Moon at 0 latitude headed North	
Dec 20	16:06	Mon	19Sc57	0 Lat		Moon at 0 latitude headed South	
Jan 1	17:30	Mer	28Cp22	0 Lat		Mercury at 0 latitude headed North	
Feb 9	00:48	Mer	24Cp59	0 Lat		Mercury at 0 latitude headed South	
Mar 30	16:53	Mer	18Ar34	0 Lat		Mercury at 0 latitude headed North	
May 7	23:53	Mer	15Ta55 R	0 Lat		Mercury at 0 latitude headed South	
Jun 26	16:14	Mer	24Ge13	0 Lat		Mercury at 0 latitude headed North	
Aug 3	23:08	Mer	06Vi16	0 Lat		Mercury at 0 latitude headed South	
Sep 22	15:28	Mer	12Vi37	0 Lat		Mercury at 0 latitude headed North	

Oct 30	22:32	Mer	10Sc36	0 Lat		Mercury at 0 latitude headed South	
Dec 19	14:34	Mer	12Cp13 R	0 Lat		Mercury at 0 latitude headed North	
Mar 16	05:33	Ven	16Aq14	0 Lat		Venus at 0 latitude headed South	
Jul 7	08:55	Ven	03Cn14	0 Lat		Venus at 0 latitude headed North	
Oct 26	22:22	Ven	21Sc20	0 Lat		Venus at 0 latitude headed South	
Feb 28	04:25	Mar	27Sg00	0 Lat		Mars at 0 latitude headed South	**
Dec 29	11:15	Mar	07Ar38	0 Lat		Mars at 0 latitude headed North	**
Aug 11	05:45	Nep	11Aq36 R	0 Lat		Neptune at 0 latitude headed South	*****

0 Latitude passes, rearranged by date of occurrence. Note June 26 and Oct 26, when two bodies are at 0 latitude (and therefore parallel the Sun in latitude) on the same day.

Date	GMT	Pt 1	Pt 1's Position	Event Type		Remarks	Magnitude
Jan 1	17:30	Mer	28Cp22	0 Lat		Mercury at 0 latitude headed North	
Jan 14	13:37	Mon	07Ge53	0 Lat		Moon at 0 latitude headed North	
Jan 27	15:23	Mon	06Sg56	0 Lat		Moon at 0 latitude headed South	
Feb 9	00:48	Mer	24Cp59	0 Lat		Mercury at 0 latitude headed South	
Feb 10	17:38	Mon	05Ge27	0 Lat		Moon at 0 latitude headed North	
Feb 23	15:47	Mon	04Sg05	0 Lat		Moon at 0 latitude headed South	
Feb 28	04:25	Mar	27Sg00	0 Lat		Mars at 0 latitude headed South	**
Mar 9	19:21	Mon	02Ge20	0 Lat		Moon at 0 latitude headed North	
Mar 16	05:33	Ven	16Aq14	0 Lat		Venus at 0 latitude headed South	
Mar 22	17:37	Mon	01Sg15	0 Lat		Moon at 0 latitude headed South	
Mar 30	16:53	Mer	18Ar34	0 Lat		Mercury at 0 latitude headed North	
Apr 5	21:39	Mon	00Ge07	0 Lat		Moon at 0 latitude headed North	
Apr 19	00:24	Mon	29Sc43	0 Lat		Moon at 0 latitude headed South	
May 3	02:17	Mon	29Ta25	0 Lat		Moon at 0 latitude headed North	
May 7	23:53	Mer	15Ta55 R	0 Lat		Mercury at 0 latitude headed South	
May 16	10:51	Mon	29Sc28	0 Lat		Moon at 0 latitude headed South	
May 30	08:32	Mon	29Ta31	0 Lat		Moon at 0 latitude headed North	
Jun 12	21:16	Mon	29Sc25	0 Lat		Moon at 0 latitude headed South	
Jun 26	14:32	Mon	29Ta10	0 Lat		Moon at 0 latitude headed North	
Jun 26	16:14	Mer	24Ge13	0 Lat		Mercury at 0 latitude headed North	
Jul 7	08:55	Ven	03Cn14	0 Lat		Venus at 0 latitude headed North	
Jul 10	04:17	Mon	28Sc29	0 Lat		Moon at 0 latitude headed South	
Jul 23	18:45	Mon	27Ta33	0 Lat		Moon at 0 latitude headed North	
Aug 3	23:08	Mer	06Vi16	0 Lat		Mercury at 0 latitude headed South	
Aug 6	06:49	Mon	26Sc15	0 Lat		Moon at 0 latitude headed South	
Aug 11	05:45	Nep	11Aq36 R	0 Lat		Neptune at 0 latitude headed South	*****
Aug 19	21:07	Mon	24Ta48	0 Lat		Moon at 0 latitude headed North	
Sep 2	07:23	Mon	23Sc25	0 Lat		Moon at 0 latitude headed South	
Sep 15	23:27	Mon	22Ta06	0 Lat		Moon at 0 latitude headed North	
Sep 22	15:28	Mer	12Vi37	0 Lat		Mercury at 0 latitude headed North	
Sep 29	10:34	Mon	21Sc16	0 Lat		Moon at 0 latitude headed South	
Oct 13	03:40	Mon	20Ta37	0 Lat		Moon at 0 latitude headed North	
Oct 26	18:43	Mon	20Sc28	0 Lat		Moon at 0 latitude headed South	
Oct 26	22:22	Ven	21Sc20	0 Lat		Venus at 0 latitude headed South	
Oct 30	22:32	Mer	10Sc36	0 Lat		Mercury at 0 latitude headed South	
Nov 9	09:47	Mon	20Ta26	0 Lat		Moon at 0 latitude headed North	
Nov 23	06:02	Mon	20Sc29	0 Lat		Moon at 0 latitude headed South	
Dec 6	15:59	Mon	20Ta27	0 Lat		Moon at 0 latitude headed North	
Dec 19	14:34	Mer	12Cp13 R	0 Lat		Mercury at 0 latitude headed North	
Dec 20	16:06	Mon	19Sc57	0 Lat		Moon at 0 latitude headed South	
Dec 29	11:15	Mar	07Ar38	0 Lat		Mars at 0 latitude headed North	**

Zero Declination Passes, 2003

When a planet is at zero declination, it is like the Sun at the equinoxes, in that it spends equal times above and below the horizon in the course of a day. This means that people all over the Earth, no matter what hemisphere they live in and no matter what latitude they live at, experience the planet in the same way.

This table includes all planets except the Sun, which is always at 0 declination at the Aries and Libra ingresses. During 2003, the most significant 0 declination pass is that of Mars, on December 17. Jupiter, Saturn, Uranus and Pluto do not reach 0 declination during 2003.

Date	GMT	Pt 1	Pt 1's Position	Event Type		Remarks	Magnitude
Jan 9	17:37	Mon	10Ar10	0 Dec		Moon at 0 declination headed North	
Jan 23	14:10	Mon	09Li56	0 Dec		Moon at 0 declination headed South	
Feb 6	01:02	Mon	09Ar43	0 Dec		Moon at 0 declination headed North	
Feb 19	20:23	Mon	09Li31	0 Dec		Moon at 0 declination headed South	
Mar 5	08:02	Mon	09Ar21	0 Dec		Moon at 0 declination headed North	
Mar 19	05:33	Mon	09Li17	0 Dec		Moon at 0 declination headed South	
Apr 1	14:31	Mon	09Ar15	0 Dec		Moon at 0 declination headed North	
Apr 15	16:35	Mon	09Li19	0 Dec		Moon at 0 declination headed South	
Apr 28	20:40	Mon	09Ar22	0 Dec		Moon at 0 declination headed North	
May 13	03:08	Mon	09Li24	0 Dec		Moon at 0 declination headed South	
May 26	02:51	Mon	09Ar26	0 Dec		Moon at 0 declination headed North	
Jun 9	11:23	Mon	09Li22	0 Dec		Moon at 0 declination headed South	
Jun 22	09:28	Mon	09Ar17	0 Dec		Moon at 0 declination headed North	
Jul 6	17:03	Mon	09Li05	0 Dec		Moon at 0 declination headed South	
Jul 19	16:40	Mon	08Ar54	0 Dec		Moon at 0 declination headed North	
Aug 2	21:41	Mon	08Li39	0 Dec		Moon at 0 declination headed South	
Aug 16	00:19	Mon	08Ar28	0 Dec		Moon at 0 declination headed North	
Aug 30	03:37	Mon	08Li17	0 Dec		Moon at 0 declination headed South	
Sep 12	07:54	Mon	08Ar11	0 Dec		Moon at 0 declination headed North	
Sep 26	12:14	Mon	08Li09	0 Dec		Moon at 0 declination headed South	
Oct 9	14:57	Mon	08Ar10	0 Dec		Moon at 0 declination headed North	
Oct 23	22:58	Mon	08Li12	0 Dec		Moon at 0 declination headed South	
Nov 5	21:12	Mon	08Ar15	0 Dec		Moon at 0 declination headed North	
Nov 20	09:39	Mon	08Li15	0 Dec		Moon at 0 declination headed South	
Dec 3	03:00	Mon	08Ar13	0 Dec		Moon at 0 declination headed North	
Dec 17	17:55	Mon	08Li03	0 Dec		Moon at 0 declination headed South	
Dec 30	09:20	Mon	07Ar55	0 Dec		Moon at 0 declination headed North	
Mar 22	22:39	Mer	02Ar51	0 Dec		Mercury at 0 declination headed North	
Aug 20	08:58	Mer	23Vi28	0 Dec		Mercury at 0 declination headed South	
Sep 8	09:47	Mer	20Vi36 R	0 Dec		Mercury at 0 declination headed North	
Oct 9	14:40	Mer	04Li22	0 Dec		Mercury at 0 declination headed South	
Apr 24	16:46	Ven	03Ar39	0 Dec		Venus at 0 declination headed North	
Sep 18	00:44	Ven	02Li56	0 Dec		Venus at 0 declination headed South	
Dec 17	19:18	Mar	00Ar43	0 Dec		Mars at 0 declination headed North	**

Below the table of 0 Declination passes is rearranged by date of occurrence. Note Oct 9 and Dec 17, when two bodies are at 0 declination on the same day, and Mar 22, when Mercury is at 0 declination less than 24 hours after the Sun's Aries ingress (probably not all that rare, since Mercury travels close to the Sun – but notable nonetheless).

Date	GMT	Pt 1	Pt 1's Position	Event Type		Remarks	Magnitude
Jan 9	17:37	Mon	10Ar10	0 Dec		Moon at 0 declination headed North	
Jan 23	14:10	Mon	09Li56	0 Dec		Moon at 0 declination headed South	
Feb 6	01:02	Mon	09Ar43	0 Dec		Moon at 0 declination headed North	
Feb 19	20:23	Mon	09Li31	0 Dec		Moon at 0 declination headed South	
Mar 5	08:02	Mon	09Ar21	0 Dec		Moon at 0 declination headed North	
Mar 19	05:33	Mon	09Li17	0 Dec		Moon at 0 declination headed South	
Mar 22	22:39	Mer	02Ar51	0 Dec		Mercury at 0 declination headed North	
Apr 1	14:31	Mon	09Ar15	0 Dec		Moon at 0 declination headed North	
Apr 15	16:35	Mon	09Li19	0 Dec		Moon at 0 declination headed South	
Apr 24	16:46	Ven	03Ar39	0 Dec		Venus at 0 declination headed North	
Apr 28	20:40	Mon	09Ar22	0 Dec		Moon at 0 declination headed North	
May 13	03:08	Mon	09Li24	0 Dec		Moon at 0 declination headed South	
May 26	02:51	Mon	09Ar26	0 Dec		Moon at 0 declination headed North	
Jun 9	11:23	Mon	09Li22	0 Dec		Moon at 0 declination headed South	
Jun 22	09:28	Mon	09Ar17	0 Dec		Moon at 0 declination headed North	
Jul 6	17:03	Mon	09Li05	0 Dec		Moon at 0 declination headed South	
Jul 19	16:40	Mon	08Ar54	0 Dec		Moon at 0 declination headed North	
Aug 2	21:41	Mon	08Li39	0 Dec		Moon at 0 declination headed South	
Aug 16	00:19	Mon	08Ar28	0 Dec		Moon at 0 declination headed North	
Aug 20	08:58	Mer	23Vi28	0 Dec		Mercury at 0 declination headed South	
Aug 30	03:37	Mon	08Li17	0 Dec		Moon at 0 declination headed South	
Sep 8	09:47	Mer	20Vi36 R	0 Dec		Mercury at 0 declination headed North	
Sep 12	07:54	Mon	08Ar11	0 Dec		Moon at 0 declination headed North	
Sep 18	00:44	Ven	02Li56	0 Dec		Venus at 0 declination headed South	
Sep 26	12:14	Mon	08Li09	0 Dec		Moon at 0 declination headed South	
Oct 9	14:40	Mer	04Li22	0 Dec		Mercury at 0 declination headed South	
Oct 9	14:57	Mon	08Ar10	0 Dec		Moon at 0 declination headed North	
Oct 23	22:58	Mon	08Li12	0 Dec		Moon at 0 declination headed South	
Nov 5	21:12	Mon	08Ar15	0 Dec		Moon at 0 declination headed North	
Nov 20	09:39	Mon	08Li15	0 Dec		Moon at 0 declination headed South	
Dec 3	03:00	Mon	08Ar13	0 Dec		Moon at 0 declination headed North	
Dec 17	17:55	Mon	08Li03	0 Dec		Moon at 0 declination headed South	
Dec 17	19:18	Mar	00Ar43	0 Dec		Mars at 0 declination headed North	**
Dec 30	09:20	Mon	07Ar55	0 Dec		Moon at 0 declination headed North	

Maximum and Minimum Distances from the Sun, 2003

Planetary orbits are elliptical rather than perfectly circular. Hence there is one point in a planet's orbit (its perihelion) where it comes closest to the Sun, and one point (its aphelion) where it is furthest from the Sun. Because there is only one perihelion and one aphelion during each orbital revolution, these events (like a planet's passages over its own nodes) mark important milestones in that planet's orbital cycle. As column 8 shows, from a heliocentric viewpoint, the longitudes of the perihelion and aphelion change very little over time. However, column 4 shows that the geocentric longitudes of the perihelion and aphelion can change considerably, particularly in the case of Mercury and Venus.

During 2003, the main perihelion event happens on July 25, when Saturn makes its perihelion (as it does every 29.45 years) in early Cancer. While the perihelion of Mars happens every 1.88 years, this year's is extra-special because this time the Earth happens to be positioned between Mars and the Sun at nearly the same time as the perihelion, making Mars record-breakingly close to the Earth.

Date	GMT	Pt 1	Pt 1's Position	Event Type		Remarks	Magnitude
Jan 6	09:21	Mer	27Cp11 R	PerH		Mercury at Perihelion (helio 17Ge19)	
Feb 19	08:59	Mer	8Aq41	ApH		Mercury at Aphelion (helio 17Sg19)	
Apr 4	08:36	Mer	27Ar41	PerH		Mercury at Perihelion (helio 17Ge20)	
May 18	08:14	Mer	11Ta16 R	ApH		Mercury at Aphelion (helio 17Sg20)	
Jul 1	07:51	Mer	05Cn04	PerH		Mercury at Perihelion (helio 17Ge20)	
Aug 14	07:29	Mer	18Vi29	ApH		Mercury at Aphelion (helio 17Sg20)	
Sep 27	07:06	Mer	15Vi57	PerH		Mercury at Perihelion (helio 17Ge20)	
Nov 10	06:44	Mer	26Sc53	ApH		Mercury at Aphelion (helio 17Sg20)	
Dec 24	06:23	Mer	08Cp29 R	PerH		Mercury at Perihelion (helio 17Ge20)	
Apr 19	21:10	Ven	27Pi50	ApH		Venus at Aphelion (helio 11Aq33)	
Aug 10	05:31	Ven	14Le51	PerH		Venus at Perihelion (helio 11Le33)	
Nov 30	12:30	Ven	04Cp19	ApH		Venus at Aphelion (helio 11Aq28)	
Aug 30	11:03	Mar	04Pi34 R	PerH		Mars at Perihelion (helio 06Pi07)	***
Jul 25	03:38	Sat	06Cn32	PerH		Saturn at Perihelion (helio 03Cn48)	*****

Perihelia and aphelia, rearranged by date of occurrence. The two major perihelia of the year, those of Saturn and Mars, occur at the ends of July and August.

Date	GMT	Pt 1	Pt 1's Position	Event Type		Remarks	Magnitude
Jan 6	09:21	Mer	27Cp11 R	PerH		Mercury at Perihelion (helio 17Ge19)	
Feb 19	08:59	Mer	8Aq41	ApH		Mercury at Aphelion (helio 17Sg19)	
Apr 4	08:36	Mer	27Ar41	PerH		Mercury at Perihelion (helio 17Ge20)	
Apr 19	21:10	Ven	27Pi50	ApH		Venus at Aphelion (helio 11Aq33)	
May 18	08:14	Mer	11Ta16 R	ApH		Mercury at Aphelion (helio 17Sg20)	
Jul 1	07:51	Mer	05Cn04	PerH		Mercury at Perihelion (helio 17Ge20)	
Jul 25	03:38	Sat	06Cn32	PerH		Saturn at Perihelion (helio 03Cn48)	*****
Aug 10	05:31	Ven	14Le51	PerH		Venus at Perihelion (helio 11Le33)	
Aug 14	07:29	Mer	18Vi29	ApH		Mercury at Aphelion (helio 17Sg20)	
Aug 30	11:03	Mar	04Pi34 R	PerH		Mars at Perihelion (helio 06Pi07)	***
Sep 27	07:06	Mer	15Vi57	PerH		Mercury at Perihelion (helio 17Ge20)	
Nov 10	06:44	Mer	26Sc53	ApH		Mercury at Aphelion (helio 17Sg20)	
Nov 30	12:30	Ven	04Cp19	ApH		Venus at Aphelion (helio 11Aq28)	
Dec 24	06:23	Mer	08Cp29 R	PerH		Mercury at Perihelion (helio 17Ge20)	

Maximum and Minimum Distances from the Earth, 2003

There is no doubt that the Moon's perigees, or closest passes to earth, increase the physical effect that Sun-Moon conjunctions and oppositions have on the Earth's tides. Since it is possible that planets might act more strongly when they are closer to us, researchers like Zipporah Dobyns and Theodor Landscheidt have experimented with planetary distances from the Earth.

Unlike perihelia and aphelia, which happen only once in each orbital cycle, perigees (when a body is closest to the Earth) and apogees (when a body is farthest from the Earth) usually occur one or more times a year. This is because they happen as a result of the Earth's yearly orbital cycle combined with a planet's orbital cycle. Because of the way the orbital periods of Venus and Mars resonate with the orbital period of the Earth, these are the only planets that do not reach apogee and perigee every year.

While you may think it strange, we include the Earth's perihelion and aphelion in the following table and not the perihelion/aphelion table, because these mark the Sun's closest and furthest approaches to the Earth. This happens on a regular basis early in January and July.

In the case of the inferior planets (Mercury and Venus), their perigee always coincides with their inferior conjunction, when they conjoin the Sun while traveling on the same side of the Sun as the Earth. Their apogee always coincides with their superior conjunction, when they are traveling on the other side of the Sun. As for the superior planets (Mars on out), the perigee comes when the planet is retrograde, around the time of that planet's opposition to the Sun. At these times, the Earth and the other planet are on the same side of the Sun, and hence the planet makes its closest pass to the Earth.

The main perigee event during 2003 is that of Mars, on August 27. Mars makes a perigee every second year, but because the perigee in 2003 happens only 3 days before the perihelion, astronomers estimate that this is the closest Mars perigee in around 100,000 years. However Mars is only very slightly closer to the Earth than it was in 1924, and it will be even closer (by 70,000 km) in 2287. Because of its proximity to the Earth, Mars reaches its maximum brilliance in late August, and it remains the brightest stellar object throughout late summer and fall, 2003.

Date	GMT	Pt 1	Pt 1's Position	Event Type		Remarks	Magnitude
Jan 4	05:05	Sun	13Cp25	PerH		Earth at Perihelion (= Sun at Perigee)	
Jul 4	05:47	Sun	11Cn52	ApH		Earth at Aphelion (= Sun at Apogee)	
Jan 12	19:23	Mer	19Cp53 R	PerG		Mercury at Perigee	
Mar 15	23:22	Mer	19Pi19	ApG		Mercury at Apogee	
May 9	14:00	Mer	14Ta56 R	PerG		Mercury at Perigee	
Jul 7	03:27	Mer	16Cn42	ApG		Mercury at Apogee	
Sep 8	09:16	Mer	20Vi37 R	PerG		Mercury at Perigee	
Oct 31	18:28	Mer	11Sc57	ApG		Mercury at Apogee	
Dec 27	11:55	Mer	04Cp14 R	PerG		Mercury at Perigee	
Aug 15	15:32	Ven	21Le33	ApG		Venus at Apogee	*
Aug 27	09:53	Mar	05Pi23 R	PerG		Mars Perigee, closest in 100,000 yrs	*****
Feb 1	19:15	Jup	13Le11 R	PerG		Jupiter at Perigee	
Aug 22	17:41	Jup	28Le59	ApG		Jupiter at Apogee	
Jun 24	18:48	Sat	02Cn40	ApG		Saturn at Apogee	
Dec 31	16:42	Sat	09Cn47 R	PerG		Saturn at Perigee	
Feb 18	21:11	Ura	28Aq52	ApG		Uranus at Apogee	
Aug 23	11:58	Ura	00Pi53 R	PerG		Uranus at Perigee	
Jan 31	8:28	Nep	10Aq41	ApG		Neptune at Apogee	
Aug 4	4:08	Nep	11Aq48 R	PerG		Neptune at Perigee	
Jun 8	21:26	Plu	18Sg38 R	PerG		Pluto at Perigee	
Dec 13	6:37	Plu	19Sg48D	ApG		Pluto at Apogee	

Perihelia and aphelia, rearranged by date of occurrence. In 2003, the greatest concentration of perigees occurs in August, when there are five, including the record perigee of Mars.

Date	GMT	Pt 1	Pt 1's Position	Event Type		Remarks	Magnitude
Jan 4	05:05	Sun	13Cp25	PerH		Earth at Perihelion (= Sun at Perigee)	
Jan 12	19:23	Mer	19Cp53 R	PerG		Mercury at Perigee	
Jan 31	8:28	Nep	10Aq41	ApG		Neptune at Apogee	
Feb 1	19:15	Jup	13Le11 R	PerG		Jupiter at Perigee	
Feb 18	21:11	Ura	28Aq52	ApG		Uranus at Apogee	
Mar 15	23:22	Mer	19Pi19	ApG		Mercury at Apogee	
May 9	14:00	Mer	14Ta56 R	PerG		Mercury at Perigee	
Jun 8	21:26	Plu	18Sg38 R	PerG		Pluto at Perigee	
Jun 24	18:48	Sat	02Cn40	ApG		Saturn at Apogee	
Jul 4	05:47	Sun	11Cn52	ApH		Earth at Aphelion (= Sun at Apogee)	
Jul 7	03:27	Mer	16Cn42	ApG		Mercury at Apogee	
Aug 4	4:08	Nep	11Aq48 R	PerG		Neptune at Perigee	
Aug 15	15:32	Ven	21Le33	ApG		Venus at Apogee	*
Aug 22	17:41	Jup	28Le59	ApG		Jupiter at Apogee	
Aug 23	11:58	Ura	00Pi53 R	PerG		Uranus at Perigee	
Aug 27	09:53	Mar	05Pi23 R	PerG		Mars Perigee, closest in 100,000 yrs	*****
Sep 8	09:16	Mer	20Vi37 R	PerG		Mercury at Perigee	
Oct 31	18:28	Mer	11Sc57	ApG		Mercury at Apogee	
Dec 13	6:37	Plu	19Sg48D	ApG		Pluto at Apogee	
Dec 27	11:55	Mer	04Cp14 R	PerG		Mercury at Perigee	
Dec 31	16:42	Sat	09Cn47 R	PerG		Saturn at Perigee	

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