

# MARCH 2008 ASTRONOMY CALENDAR BY DAVE MIITSKY

All times, unless otherwise noted, are UT(subtract five hours and, when appropriate, one calendar day for EST and four hours for DST after March 9)

- 3/1 Mercury is at the descending node today; the Curtis Cross, an x-shaped lunar apparition, is visible starting at 2:21
- 3/3 Jupiter is 4.0 degrees north of the Moon at 1:00; Mercury is at greatest western elongation (27 degrees) at 11:00
- 3/5 Mercury is 0.2 degree north of the Moon - an occultation is visible from northwestern Africa and the southern half of South America - at 14:00; Venus is 0.2 degree south of the Moon - an occultation is visible from most of North America, Polynesia, and eastern Melanesia - at 19:00; Neptune is 0.2 degree north of the Moon - an occultation is visible from western Mexico, Polynesia, New Zealand, and most of Australia - at 22:00
- 3/6 Venus is 0.6 degree south of Neptune at 20:00
- 3/7 A double Galilean satellite shadow transit begins at 15:05; New Moon (lunation 1054) occurs at 17:14
- 3/8 A minimum lunar libration of 5.3 degrees occurs at 1:00; Uranus is in conjunction with the Sun at 20:00
- 3/9 Daylight Saving Time (DST) begins today; Mercury is 0.9 degree south of Neptune at 2:00
- 3/10 Mars is 1.7 degrees north of the bright open cluster M35 in Gemini at 17:00; the Moon is at perigee, subtending 32'37" from a distance of 366,298 kilometers, at 22:39
- 3/11 Mercury is at aphelion today
- 3/13 A maximum lunar libration of 7.0 degrees occurs at 13:00
- 3/14 First Quarter Moon occurs at 10:46
- 3/15 Mars is 1.7 degrees south of the Moon at 3:00
- 3/17 The Moon is 0.3 degree north of the bright open cluster M44 (the Beehive or Praesepe) in Cancer at 14:00
- 3/19 The Moon is 0.8 degree south of the first magnitude star Regulus (Alpha Leonis) - an occultation is visible from a portion of Antarctica, Polynesia, New Zealand, and eastern Melanesia - at 8:00; Saturn is 3.0 degrees north of the Moon at 15:00; a minimum lunar libration of 5.0 degrees occurs at 15:00
- 3/20 The vernal equinox occurs at 5:49
- 3/21 Venus is at aphelion today; Full Moon (known as the Crow, Lenten, and Sap Moon) occurs at 18:40
- 3/23 Venus is 1.0 degree north of Mercury at 10:00
- 3/26 The Moon is at apogee, subtending 29'30" from a distance of 405,092 km, at 20:13
- 3/27 The Moon is 0.5 degree south of the first magnitude star Antares (Alpha Scorpii) - an occultation is visible from northern New Zealand, Polynesia, part of Antarctica, and the southern portion of South America - at 10:00
- 3/28 Venus is 0.7 degree south of Uranus at 17:00
- 3/29 A double Galilean satellite shadow transit begins at 4:22; Last Quarter Moon occurs at 21:47
- 3/30 Asteroid 2 Pallas is in conjunction with the Sun at 0:00; the Curtis Cross is visible starting at 15:39; Jupiter is 3.0 degrees north of the Moon at 17:00
- 3/31 A maximum lunar libration of 7.1 degrees occurs at 16:00

During the early and latter parts of March, the zodiacal light is visible in the west from a dark site after evening twilight.

The Moon is located in Sagittarius and is 22.8 days old at 0:00 UT on March 1. It's at its greatest southern declination of -28 degrees on March 1 and March 28 and its greatest northern declination of +28 degrees on March 14. The first photograph of the Moon was taken on March 23, 1840. Times and dates for the lunar light rays predicted to occur this month are available [here](#)

The Sun is in Aquarius on March 1 at 0:00 UT. It crosses the celestial equator at 1:48 a.m. EDT on March 20. This will be the earliest vernal equinox since 1896.

Brightness, apparent size, illumination, distance from the Earth in astronomical units, and location data for the planets and Pluto on March 1: Mercury (0.1 magnitude, 7.4", 53% illuminated, 0.9 a.u., Capricornus), Venus (-3.9 magnitude, 11.3", 90% illuminated, 1.5 a.u., Capricornus), Mars (0.2 magnitude, 9.1", 91% illuminated, 1.0 a.u., ), Jupiter (-2.0 magnitude, 34.4", 99% illuminated, 5.7 a.u., Sagittarius), Saturn (0.2 magnitude, 20.0", 100% illuminated, 8.3 a.u., Leo), Uranus (5.9 magnitude, 3.3", 100% illuminated, 21.1 a.u., Aquarius), Neptune (8.0 magnitude, 2.2", 100% illuminated, 30.9 a.u., Capricornus), and Pluto (14.0 magnitude, 0.1", 100% illuminated, 31.5 a.u., Sagittarius).

The locations of the classical planets at mid-month at local DST are as follows: Mercury is visible in the east during morning twilight; Venus rises at 6:00 a.m.; Mars transits the meridian at 8:00 p.m. and sets at 3:00 a.m.; Jupiter rises at 4:00 a.m.; Saturn transits at midnight and sets at 7:00 a.m.

Mercury shines at magnitude 0.1 and has an apparent diameter of 7.4" and an illumination of 53% when it is at greatest western elongation on the morning of March 3. The angular separation of the planet from the Sun is a near maximum 27.7 degrees but for mid-northern latitude observers Mercury is only five degrees above the eastern horizon shortly before the Sun rises. This will be the best morning apparition of 2008 for those in the Southern Hemisphere, however.

Venus is quite low in the east-southeast at dawn during the early part of March. Observers in the Southern Hemisphere have a far better view of both Mercury and Venus, which are less than two degrees apart on March 1 and March 2 and from March 18 to March 28. In the interim, the two inferior planets are within three degrees of each other.

Mars is due north of the first magnitude red giant star Betelgeuse on March 1. Three days later the Red Planet leaves Taurus and reenters Gemini. Mars is situated less than two degrees north of the bright open cluster M35 for several days centered on March 10. It is within 0.3 degree of the third magnitude star Epsilon Geminorum on March 29 and March 30. By the end of March, Mars has faded from magnitude 0.2 to magnitude 0.8 and has declined in apparent size from 9.1 arc seconds to 7.0 arc seconds.

Jupiter rises at approximately 4:00 a.m. EST on March 1. By the end of the month, it crests the horizon an hour and a half earlier. The third magnitude star Pi Sagittarii is one degree north of Jupiter on March 2. Using the nearby Last Quarter Moon, it may be possible to spot Jupiter without optical aid during the daytime on March 30. On the morning of March 31, the star 50 Sagittarii is just nine arc seconds north of the planet. [Click here to determine transits of the central meridian by the Great Red Spot.](#) Data on the Galilean satellites is available [here](#)

Saturn continues to approach Regulus as it retrogrades to the west. Its disk subtends 20 arc seconds and its rings span 45 arc seconds. At mid-month, the rings are inclined at approximately nine degrees. Since Saturn is now past opposition, the shadow of the planet becomes more prominent on the eastern portion of the far side of the rings. Titan (magnitude 8.4) passes north of Saturn on the nights of March 9 and March 25 and south of it on the nights of March 1 and March 17. During March, Rhea shines at a magnitude of 9.7, Tethys at 10.2, Dione at 10.4, and Enceladus at 11.3. At 11:00 p.m. EDT on the night of March 18, seven of Saturn's moons are visible. Enceladus and Iapetus lie to the west of the ball of the planet and Mimas, Tethys, Rhea, Dione, and Titan will be positioned in increasing distance to the east. Iapetus is just north of Saturn on the night of March 18 and is east or west of the planet by the listed separations at 0:00 UT on the following dates: March 1 (39" west), March 7 (33" west), March 11 (24" west), March 15 (13" west), March 19 (1" west), March 21 (5" east), March 25 (17" east), and March 31 (31" east). Iapetus shines at magnitude 10.1, about five times brighter than its minimum, when it lies to the west of Saturn. For further information on Saturn's satellites, [browse here](#)

Uranus is quite close to Venus and Mercury in the bright morning sky on March 27 and March 28. Neptune is even closer to Venus on March 6 and Mercury on March 9. However, the possibility of observing these events is very low, even from the Southern Hemisphere.

Pluto is not readily observable this month.

This month Comet 46P/Wirtanen travels through Auriga. On the nights of March 24 and 25, the ninth magnitude periodic comet passes just south of IC 405 (the Flaming Star Nebula). It is within the same high-magnification field of view as the reflection and emission nebula NGC 1931 on the night of March 27. On the next night, 46P/Wirtanen is less than 30' north of the open cluster M36.

During March, asteroid 1 Ceres leaves Aries and enters Taurus. The ninth magnitude dwarf planet lies about five degrees south of M45 from March 22 to March 27.

Thirty binary and multiple stars for March: Struve 1173, Struve 1181, Struve 1187, Zeta Cancri, 24 Cancri, Phi-2 Cancri, Iota-1 Cancri, Struve 1245, Iota-2 Cancri, 66 Cancri, Struve 1327 (Cancer); Struve 1270, Epsilon Hydrae, 15 Hydrae, 17 Hydrae, Theta Hydrae, 27 Hydrae, Struve 1347, Struve 1357, Struve 1365 (Hydra); 3 Leonis, Struve 1360, 6 Leonis, Omicron Leonis (Leo); Struve 1274, Struve 1282, Struve 1333, 38 Lyncis, Struve 1369 (Lynx); h4046 (Puppis)

Challenge binary star for March: Struve 1216 (Hydra)

Notable variable star for March: R Leonis (Leo)

Notable carbon star for March: T Cancri (Cancer)

Thirty-five deep-sky objects for March: M44, M67, NGC 2775 (Cancer); Abell 33, M48, NGC 2610, NGC 2642, NGC 2811, NGC 2835, NGC 2855, NGC 2935, NGC 2992, NGC 3052, NGC 3078 (Hydra); NGC 2903, NGC 2916, NGC 2964, NGC 2968, NGC 3020 (Leo); NGC 2859, NGC 3003, NGC 3021 (Leo Minor); NGC 2683 (Lynx); NGC 2567, NGC 2571 (Puppis); M81, M82, NGC 2639, NGC 2654, NGC 2681, NGC 2685, NGC 2742, NGC 2768, NGC 2787, NGC 2841, NGC 2880, NGC 2950, NGC 2976, NGC 2985 (Ursa Major)

Top ten binocular deep-sky objects for March: M44, M48, M67, M81, M82, NGC 2571, NGC 2683, NGC 2841, NGC 2903, NGC 2976

Top ten deep-sky objects for March: M44, M48, M67, M81, M82, NGC 2654, NGC 2683, NGC 2835, NGC 2841, NGC 2903

Challenge deep-sky object for March: Abell 30 (Cancer)

The objects listed above are located between 8:00 and 10:00 hours of right ascension.