

The Starry Sky — Spring 2013



How to Use this Map

The above map represents the night sky as it appears at the indicated times, and remains usable several hours before and after.

Hold the map up to the sky in front of you and turn it so the direction you are facing appears at the bottom. Lines identify the constellations. The light-coloured area outlines the Milky Way.

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This Star Map is Accurate on...

(Eastern Daylight Time)

- March 21 at 1 a.m.
- April 6 at midnight
- April 21 at 11 p.m.
- May 6 at 10 p.m.
- May 21 at 9 p.m.

The Sky This Spring

It's Saturn's turn to shine: Visible from dusk to dawn, the ringed planet is at its best this spring.

Jupiter gradually leaves the evening sky, while Venus and Mercury make their entrance:

At the end of May, these three bright planets converge for a spectacular twilight rendezvous...

Saturn reigns over the night

Saturn arrives at opposition on April 28: It rises at sunset in the southeast, and sets at daybreak in the southwest. Right now, the ringed planet is straddling the border of Virgo and Libra, and is about 15 degrees to the left of the star, Spica, whose blue-white brilliance contrasts with Saturn's pale yellow hue.

The hours surrounding midnight, when Saturn is high in the south, are the most favourable for observing the planet through a telescope: Its magnificent rings reveal themselves, even in small instruments. They are currently inclined about 18 degrees, showing their northern face. Titan, Saturn's largest moon, is also visible in small telescopes.

The ringed planet encounters the Moon several times over the course of this spring. First, the waning gibbous Moon will be near Saturn on the night of March 28 to 29, and on March 29 to 30. **On April 25, at twilight**, the full Moon will rise with Saturn above the east-southeast horizon; the two will travel in tandem throughout the night, eventually setting at dawn. And finally, the waxing gibbous Moon will be near Saturn on the evening and night of May 22 to 23, and again on June 19 to 20.

Jupiter takes a bow

At the beginning of spring, **Jupiter** is one of the first objects to appear at twilight, high in the west. The brilliant planet is currently in Taurus, just above the "V"-shaped Hyades star cluster and the orange star, Aldebaran. As the weeks go by, Jupiter moves away from the Hyades; at the same time, the gap between the giant planet and the Sun diminishes as Jupiter appears ever lower above the western horizon. Jupiter puts on quite a show for telescopes, with its cloud bands and four bright galilean moons, but you'll have to view it before mid-April as soon as night falls; after that it will be too low in the sky.

Phases of the Moon

(Eastern Daylight Time)

New moon	First quarter
March 11 at 15:51	March 19 at 13:27
April 10 at 5:35	April 18 at 8:31
May 9 at 20:28	May 18 at 0:34
June 8 at 11:56	June 16 at 13:24
Full moon	Last quarter
March 27 at 5:27	April 3 at 0:36
April 25 at 15:57	May 2 at 7:14
May 25 at 0:25	May 31 at 14:58
June 23 at 7:32	June 30 at 0:53

From **May 25 to 27** at twilight, Jupiter forms an outstanding triangle with Venus and Mercury, low in the west-northwest; **on May 28**, Venus and Jupiter are barely one degree apart. The giant planet continues its descent toward the horizon as it gradually moves into the glow of twilight, before disappearing completely early in June. Jupiter moves behind the Sun and is in conjunction on June 19 after which, it will emerge in the dawn sky in July.

The lunar crescent will appear just 3 degrees to the left of Jupiter on the evening of April 14; and on May 12, the crescent Moon will again be near Jupiter, though a bit farther to the planet's left.

Venus returns as the Evening Star

Venus is behind the Sun (superior conjunction) on March 28 and remains lost in our star's glare for another few weeks. The dazzling planet eventually reappears in the evening sky toward the end of April: You'll find it low on the west-northwest horizon right after sunset. In May, Venus gains altitude and rises to meet Jupiter: Note how the gap between the two planets decreases from evening to evening. During this period, Mercury also climbs above the west-northwest horizon and catches up to Venus.

From **May 25 to 27** at twilight, Venus, Jupiter and Mercury form a triangle, less than 3 degrees wide, low on the west-northwest horizon: **On the evening of May 28**, the two brightest planets, Jupiter on the left, and Venus on the right, are separated by just one degree! Over the following weeks, Venus continues to climb slightly higher, but the relative position of the Earth, Sun and Venus provides a poor apparition for the Evening Star this season. In fact, Venus will remain low on the horizon throughout the summer and fall.

On June 10, a thin crescent Moon will appear 8 degrees to the left of Venus.

Mercury at twilight

Mercury starts off spring in the morning sky, where it makes an unfavourable apparition in April. The furtive planet passes behind the Sun (superior conjunction) on May 11, and then emerges in the evening sky around May 17.

Mercury will be very bright at the beginning of this apparition; as the evenings pass, it rapidly ascends above the horizon and distances itself from the Sun. **On May 24**, Mercury will encounter Venus, passing just 1.3 degrees above and to the right of the Evening Star.

Comet Lemmon visible at dawn

Comet C/2012 F6 was discovered in March 2012 on images taken during a sky survey at the Mount Lemmon Observatory, in Arizona. As it neared the Sun over the winter, it gained naked-eye visibility status, but was only visible from the Southern Hemisphere. The situation will improve for us around the end of April, when comet Lemmon finally emerges above the east-northeast horizon at dawn. Because several weeks will have already passed since its closest approach to the Sun, on March 24, the comet will have lost a good part of its brightness: A pair of binoculars will most likely be necessary to spot comet Lemmon in the encroaching light of dawn.

From **May 25 to 27** at twilight, Mercury, Venus and Jupiter form a remarkable triangle low on the west-northwest horizon.

On June 10, the crescent Moon will appear a few degrees to the left of Venus and Mercury. Then on the 12th, Mercury reaches its greatest elongation east of the Sun. It plunges back down toward the Sun over the following evenings, and as the tiny planet rapidly fades, it becomes more and more difficult to spot in the twilight. On June 19, Mercury is located less than 2 degrees below and to the left of Venus. Finally, on July 9, Mercury will pass between the Earth and Sun (inferior conjunction).

Mars on the far side of the Sun

Mars is too close to the Sun to be seen in the springtime sky. The Red Planet passes behind our star on April 17 and will gradually reappear in the dawn sky toward the end of June. Mars will then become visible, with difficulty, low on the east-northeast horizon among the stars of Taurus, about thirty minutes before sunrise.

Clear skies!

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Seasonal Milestones

The **spring equinox** occurs on March 20, 2013, at 7:02 A.M. EDT; the **summer solstice** will take place on June 21 at 1:04 A.M. Spring will last exactly 92 d 18 h 2 min.