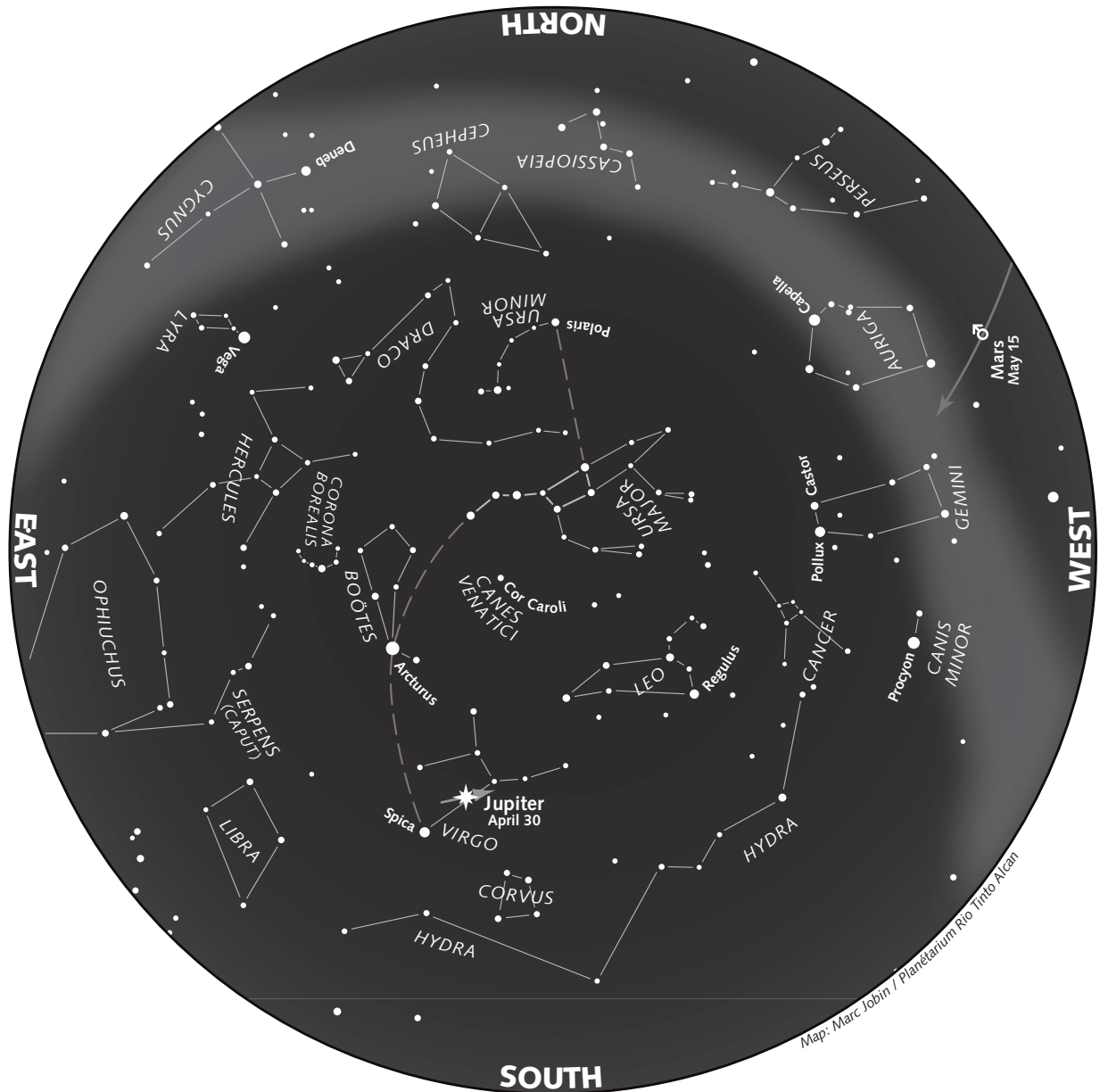


The Starry Sky — Spring 2017



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

Jupiter is the star of our spring evenings, along with Saturn, which joins it later in the night.

Early birds can spot Venus in the dawn sky.

Jupiter rules the night

Jupiter is at opposition on April 7, and the bright planet will be the centre of attention this spring. **On April 10**, just after sunset, look eastward in the twilight to see the full Moon rising along with Jupiter, 2 degrees to its right. The waxing gibbous Moon again lies close to Jupiter **on May 7** at twilight but moves away from the planet during the evening and night. **On June 3**, at twilight and in the evening, the Moon lies less than 1½ degrees above the giant planet.

Jupiter is undergoing its retrograde loop among the stars of Virgo, from February 6 to June 9. Later in the evening, when the planet rises higher in the south, note the presence of Spica, the main star in this vast constellation, a few degrees below Jupiter. Spica shines with a bluish white glow, much different from the planet's hue, which is creamier white. When Jupiter culminates in the south, at about 40 degrees from the horizon, it's the perfect time to aim your telescope at it. Even a small refractor reveals the presence of its four Galilean moons, whose configuration changes constantly from night to night and even from hour to hour if you watch carefully. The disc of the planet itself shows alternating dark and light parallel cloud bands, with details varying depending on the observation conditions, the optical quality of your instrument, and your level of experience using it. An ever-changing spectacle awaits you.

Venus becomes the Morning Star

Venus, which had been shining as the Evening Star for months, sank back toward the Sun in early March and is **at inferior conjunction on March 25**. This time, Venus passes very far to the north of the Sun, at over 8 degrees from our star. Given this advantageous position, **for two or three days around March 22**, it's possible to spot

Venus **both in the evening**, westward, right after sunset, **and on the following morning**, eastward, in the minutes just before sunrise. This opportunity occurs only every eight years, and to meet this observational challenge, you need an unencumbered, perfectly clear horizon. Binoculars can help you make out Venus low on the horizon in the bright sky.

Unlike other years in its eight-year cycle, there's no real period when Venus is completely unobservable during its inferior conjunction. It reappears immediately as **the Morning Star** as of late March. It can be seen above the eastern horizon at dawn till the late summer. The planet shines most brightly (magnitude -4.8) around April 26 and reaches its greatest elongation on June 3, 46 degrees west of the Sun. Through a telescope, it appears at dichotomy (half its disc illuminated) on June 4. The lunar crescent neighbours Venus on the mornings of April 23, May 22, and June 20 and 21.

Saturn rises earlier

The planet **Saturn** now lies about 15 degrees north of the tail of Scorpius, straddling the border between Ophiuchus and Sagittarius, where it undergoes its retrograde loop from April 6 to August 25. Through a telescope, its spectacular rings appear this year at their maximum opening, tilted about 27 degrees toward Earth (north face visible). Unfortunately, the planet is found in the lower part of the ecliptic (declination: -22 degrees) and therefore rises little on our horizon, a position that isn't very advantageous since atmospheric turbulence often blurs celestial objects at this low elevation.

Saturn is visible only in the second half of the night till early May, but it appears earlier and earlier above the southeastern horizon as spring turns to summer. During its opposition on June 15, the planet is visible from twilight to dawn. **On March 20**, late in the night and at dawn, the last quarter Moon lies 2½ degrees above Saturn. The waning gibbous Moon is found near Saturn, in the second half of the night and at dawn on April 16 and 17. **On May 13**, in the late evening, the waning gibbous Moon rises along with Saturn. Finally, **on June 9, at twilight**, you can watch the rise of the full Moon, which lies only 2½ degrees to the upper left of Saturn. The two bodies, however, move apart during the night.

Mercury in the evening sky

As the planet closest to the Sun, **Mercury** never moves too far away from our star. Good opportunities to see it in the sky occur only during a few brief periods each year. In 2017, Mercury makes its best appearance in the evening sky **from mid-March to the first week in April**. You can find it at twilight, 30 to 45 minutes after sunset, above the west-northwest horizon. Mercury is brighter at the start of this observation period and quickly dims after April 7. **On the evening of March 29**, the lunar crescent lies 10 degrees to the left of Mercury, forming a large triangle with Mars above. The trio is visible to the west at twilight, 45 minutes after sunset. Mercury passes between Earth and the Sun on April 20 (inferior conjunction). The smallest planet reappears in the morning sky, although in much less favourable conditions, from late May till June 12: look for it very low in the east-northeast, 20 minutes before sunrise. Mercury is brighter at the end of this period.

Mars at twilight

Mars has withstood the Sun's assault for months and remains visible above the horizon at nightfall. But our star now catches up with the red planet, which appears lower and lower on the west-northwest horizon at twilight. On May 30, the lunar crescent is 7 degrees to the left of Mars, in the west at twilight and in the early evening. **Around April 25**, Mars passes between the Pleiades and Hyades clusters. You can admire this beautiful scene one hour after sunset, once the sky becomes dark enough, but before all these bodies disappear below the horizon. The lunar crescent joins them **on April 28**. The red planet becomes harder and harder to make out at twilight in May and disappears completely in the glow of the Sun in June. Mars is in conjunction with the Sun on July 26 and reappears at dawn in September.

Clear skies!

Research and text: **Marc Jobin**

Phases of the Moon

(Eastern Daylight Time)

Last quarter	New moon
March 20 at 11:58	March 27 at 22:57
April 19 at 5:57	April 26 at 8:16
May 18 at 20:33	May 25 at 15:44
June 17 at 7:33	June 23 at 22:31
First quarter	Full moon
April 3 at 14:39	April 11 at 2:08
May 2 at 22:47	May 10 at 17:42
June 1 at 8:42	June 9 at 9:10
June 30 at 20:51	July 9 at 0:07

Seasonal Milestones

The **spring equinox** takes place March 20, 2017 at 6:29 a.m. EDT; the **summer solstice** occurs on June 21 at 0:24 a.m.: Spring will last exactly 92 days 17 hours 55 minutes.