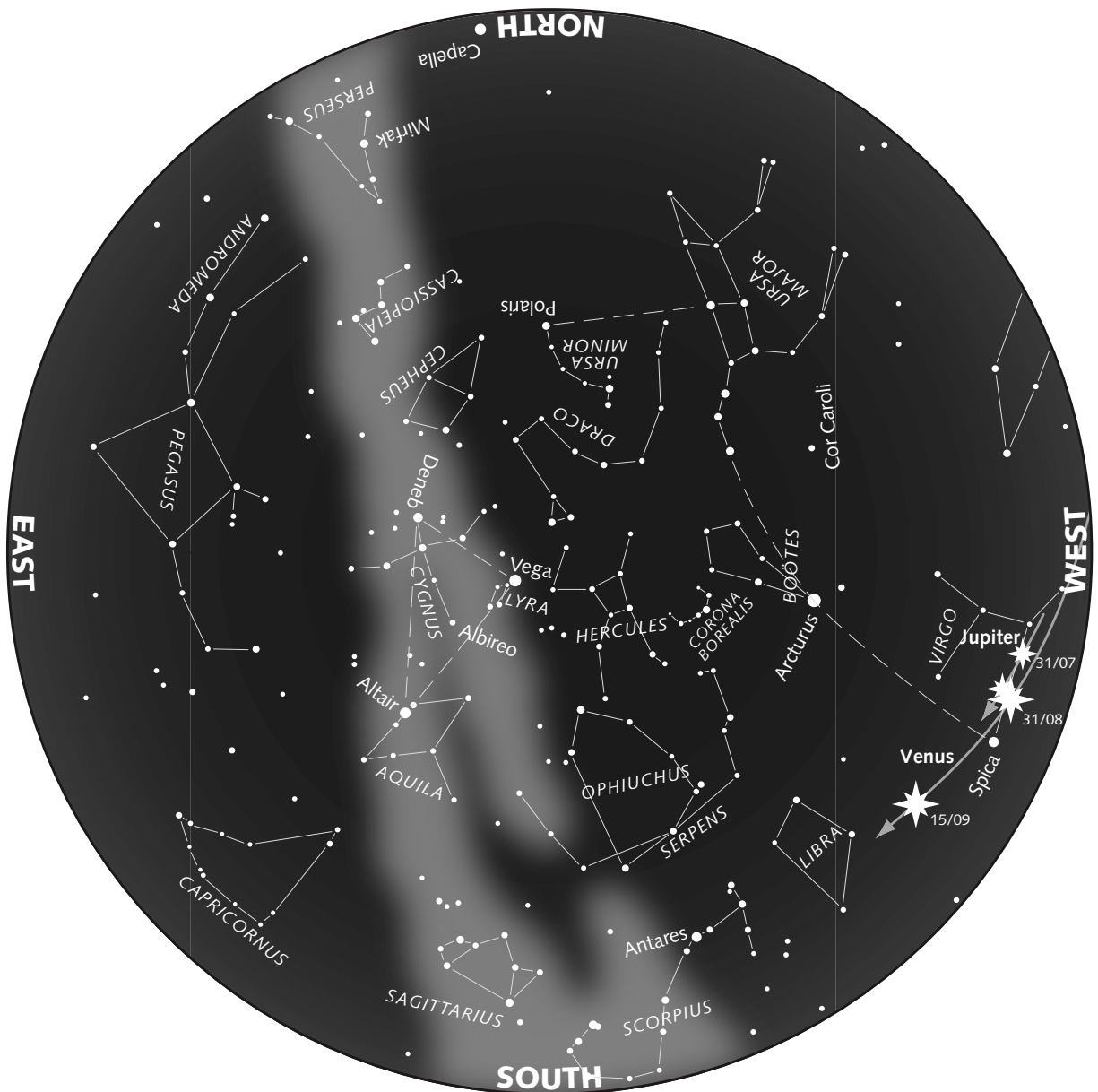


## The Starry Sky — Summer 2005



Map: Marc Jobin / Planétarium de Montréal

### 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.

### This Star Map is Accurate on...

(Eastern Daylight Time)

- June 21 at 1 a.m.
- July 6 at midnight
- July 21 at 11 p.m.
- August 6 at 10 p.m.
- August 21 at 9 p.m.
- September 6 at 8 p.m.

# The Sky This Summer

*This season, the planets stage their show in two parts. In the evening right after sunset, brilliant Venus captures our attention in multiple encounters with Mercury, Saturn, Jupiter and the Moon. Then, after midnight, Mars steals the show.*

## Venus, the evening star

Venus sets an hour-and-a-half after the sun this summer and remains caught in the twilight above the western horizon. Fortunately, its great brilliance makes it easy to see, which makes it an excellent beacon for locating the other planets that cross its path this summer.

The most spectacular of these celestial encounters takes place **from June 24 to 27**, when Venus appears right next to Mercury and Saturn. On June 26, half-an-hour after sunset, Mercury will be just 11 arc minutes to the right of Venus; and on the following evening, Mercury will be on the left, only 7 arc minutes away from Venus! The two planets will seem so close to one another that they'll be visible in the same telescopic field of view. Meanwhile, Saturn lurks nearby — less than 2 1/2 degrees from its planetary siblings.

Mercury remains near Venus over the following nights, and the crescent Moon joins the twilight duo on the evening of July 8. The moon appears near Venus again on the evening of August 7. And finally, **on September 6**, Jupiter enters the scene: The two brightest planets will dominate the sunset accompanied by a thin crescent Moon — truly a magical moment.

## Jupiter's final scene

The giant planet remains visible in the evening throughout summer, but it appears lower and lower in the west as the days progress. Come September, it begins to fade in the glow of twilight. Unfortunately, as Jupiter nears the horizon, atmospheric turbulence degrades its image, thus making telescopic observation nearly impossible after mid-July. The gap between Venus and Jupiter closes as the season goes by: The two brightest planets are just 1 1/4 degrees

apart on the evening of **September 1**.

A crescent Moon appears near Jupiter on July 13 and August 9. On September 6, Jupiter, Venus and the Moon form a magnificent trio in the glow of twilight.

## Mercury's two brief visits

Mercury's proximity to the Sun makes it difficult to see, except for a few days during the year. Your best chance to see it is at the end of June when it will be right next to Venus after sunset.

In late August and early September, Mercury makes a brief foray into the dawn sky: **On September 2**, half-an-hour before sunrise, a thin crescent Moon accompanies the tiny planet above the east-northeastern horizon.

## Saturn fades from view

Following its spectacular rendezvous with Venus and Mercury at the end of June, Saturn disappears in the Sun's glare for a few weeks: The ringed planet is in conjunction with the Sun on July 23. It gradually reappears in mid-August, low on the east-northeastern horizon at dawn. By month's end, Saturn rises 3 hours ahead of the Sun, and on the morning of August 31 and September 1, a thin crescent Moon appears nearby. Finally, in mid-September, Saturn passes close to Messier 44 (the Beehive cluster): A beautiful sight in binoculars or with a small telescope at minimum magnification.

## Mars prepares its entrance

During the summer, Mars becomes truly remarkable. The Red Planet crosses a number of faint constellations (Cetus and Pisces in July, and Aries in August) and over this period its brightness quickly intensifies: Come September, it's as bright as Sirius! Mars also rises earlier

and earlier, and appears higher and higher in the sky before dawn. It appears before midnight by the end of July, and rises around 22:00 at the beginning of September.

The Moon is near Mars, in the morning sky, on July 13, 27 and 28, and again, during the nights of August 24 to 25 and September 21 to 22.

The distance between Earth and Mars is still substantial this summer, so Mars remains too small to reveal much detail in a telescope. But from October to December the story changes. Stay tuned for more.

*Happy observing!*

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## Seasonal Milestones

The **summer solstice** occurs on June 21, 2005 at 02:46 EDT. The **autumn equinox** will take place on September 22 at 18:23. Summer 2005 lasts 93d 15h 37m.

The Earth is at **aphelion** on July 5 at 01:00 EDT. At that point, the Earth-Sun distance will be 152,102,400 km — its greatest of the year.

## Phases of the Moon

(Eastern Daylight Time)

New moon	First quarter
June 6 at 17:55	June 14 at 21:22
July 6 at 8:02	July 14 at 11:20
Aug. 4 at 23:05	Aug. 12 at 22:38
Sept. 3 at 14:45	Sept. 11 at 7:37
Full moon	Last quarter
June 22 at 0:14	June 28 at 14:23
July 21 at 7:00	July 27 at 23:19
Aug. 19 at 13:53	Aug. 26 at 11:18
Sept. 17 at 22:01	Sept. 25 at 2:41

**For more info, visit our Website!**  
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