Secret Planetarium Secret Secret

The Starry Sky — Spring 2009



How to Use this Map

ASTRONOMY

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.

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The Sky This Spring

As the last week of March begins, Venus disappears in the glow of sunset leaving Saturn alone in the night sky. But by the beginning of April, dazzling Venus reappears at dawn where it remains for the rest of the season. As spring progresses, Mercury and the Moon prepare for a breathtaking apparition in the evening twilight, while Mars and Jupiter rise earlier and earlier in the pre-dawn sky.

Mercury in the evening

Mercury has been lost in the Sun's glare since mid-February, but after the first week of April the tiny planet re-emerges in the evening twilight and quickly ascends above the western horizon. By mid-April, Mercury sets an hour-anda-half after the Sun: During this period, the planet rapidly moves from Aries into Taurus, in preparation for a beautiful apparition with the Moon and the Pleiades. On April 26, Mercury is at its greatest eastern elongation, its maximum separation from the Sun. On this date, the elusive planet lies just below the Pleiades, while the crescent Moon is right above. Use binoculars to make the most of this breathtaking sight.

During the closing days of April, Mercury continues to climb until it reaches a position just to the left of the Pleiades: There it remains until the beginning of May when it quickly descends once more into the glare of the Sun.

Seasonal Milestones

The **spring equinox** takes place on March 20 at 07:44 EDT, and the **summer solstice** will occur on June 21 at 1:46 EDT. Spring 2009 will last exactly 92 d 18h 02 min.

Phases of the Moon

(Eastern Daylight Time)

Last quarter	New moon
March 18 at 13:47	March 26 at 12:06
April 17 at 9:36	April 24 at 23:23
May 17 at 3:26	May 24 at 8:11
June 15 at 18:15	June 22 at 15:35
First quarter	Full moon
First quarter April 2 at 10:34	Full moon April 9 at 10:56
April 2 at 10:34	April 9 at 10:56

Saturn, alone all night

As spring begins, the ringed planet is well above the eastern horizon at twilight and remains a solitary night time fixture throughout the season. Saturn has been moving in retrograde since January 1, travelling westward among the stars of Leo. But on May 17, its long westward loop finally ends and the planet resumes its normal eastward motion across the sky. All winter long, the planet's rings have been nearly edge-on to our line of sight, however, during May the rings open to an inclination of about 4 degrees — the most visible they will be until November. This is prime time for observing Saturn. As the season progresses, Saturn sets earlier and earlier and by the end of spring it hovers low in the west at nightfall.

A waxing gibbous Moon appears below Saturn on the evenings of April 6 and May 3, while the first quarter, and gibbous Moon slip past the ringed planet on the evenings of May 30 & 31 respectively.

Venus in the morning

Venus has dominated the western evening sky all winter, however, as springtime begins the dazzling planet quickly disappears in the glow of sunset. But all is not lost! By mid-April Venus reappears at dawn, and takes part in a series of celestial displays. Though the dazzling planet remains low on the eastern horizon, its brilliance more than compensates for its lack of altitude.

On April 22, a thin crescent Moon appears next to Venus, creating a beautiful planetary scene in the dawn sky, with Mars just below. Then on May 21 and June 19, the waning lunar crescent appears above and between Venus and Mars. Use binoculars if you have them, to make the planetary grouping stand out against the glow of twilight.

Jupiter rising

Jupiter has remained low on the southeast horizon since mid-February, but by the beginning of spring the giant planet gains altitude and rises an hour-and-ahalf before the Sun. Look for dazzling Jupiter in the southeast, to the upper right of Venus and Mars. As springtime progresses, Jupiter moves steadily higher in the pre-dawn sky, and by season's end, the brilliant giant rises just before midnight.

This spring, the Moon approaches Jupiter on several occasions. A thin lunar crescent appears near the planet on the mornings of March 22 and April 19. On May 17, the last quarter Moon can be seen just above Jupiter; and look for a waning gibbous Moon to the upper right of the giant planet after midnight on June 13.

Mars at dawn

During the first half of spring, the red planet stays low on the eastern horizon at dawn, rising barely an hour before the Sun. But in May, **Mars** gains altitude and becomes easier to spot, though it remains relatively faint throughout the season. Fortunately, the Moon and Venus appear near Mars on several occasions this spring, helping to locate the muted planet.

Look for a thin, waning crescent Moon to appear right above Mars on the morning of March 24. On April 22, both Venus and a thin lunar crescent lie just above the tiny red planet; though the Moon moves on, Venus remains above Mars until April 30. Throughout May and June, Venus moves to the right of Mars: On May 21 and again on June 19, the crescent Moon appears above and between the two planets.

Happy observing!

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