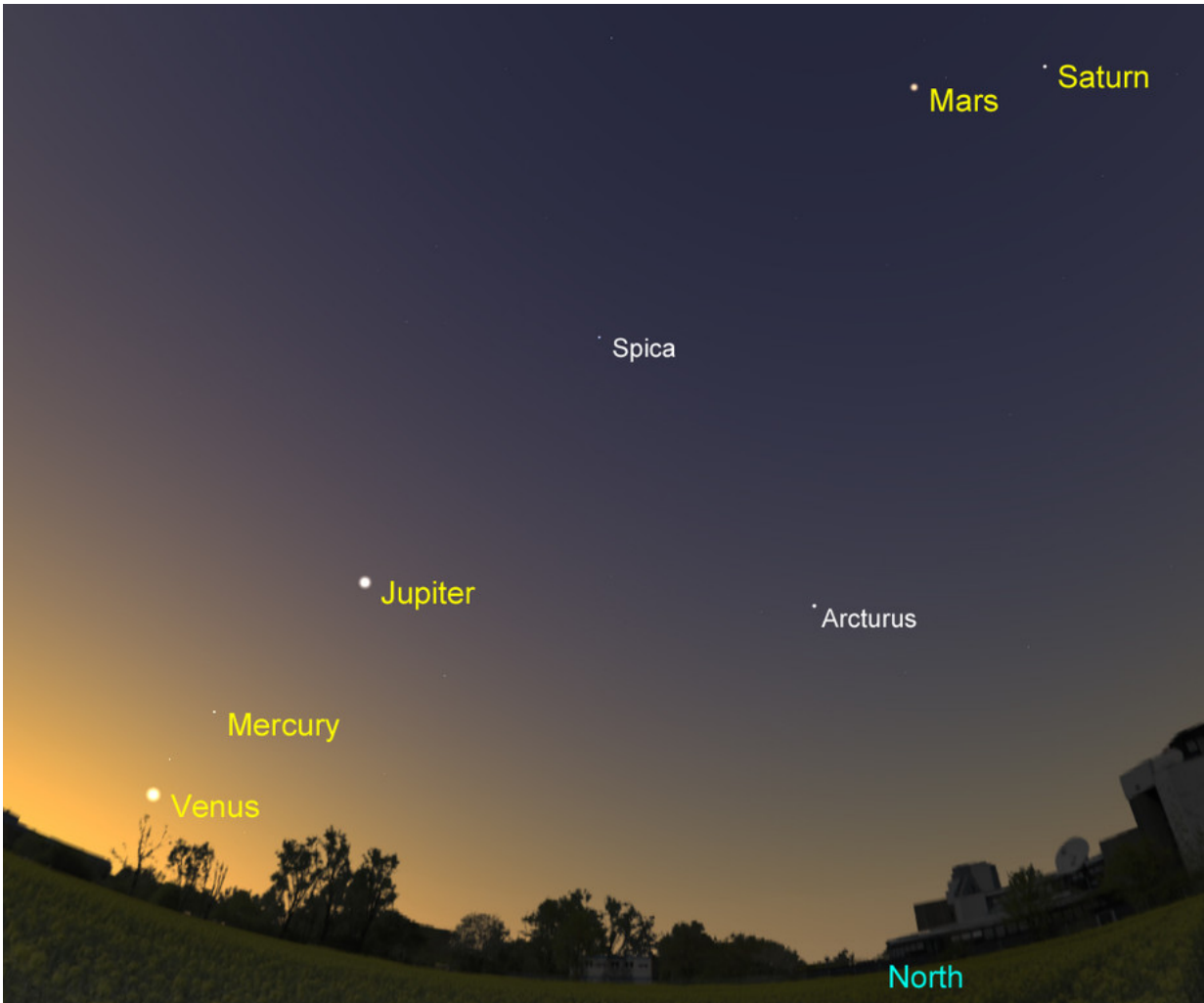


Your guide to see five planets after sunset

July 21 2016, by Tanya Hill, Museum Victoria



All five planets can be seen across the evening sky during August. Credit: Museum Victoria/Stellarium, CC BY-SA

After sundown from late July through August, there's the chance to see five planets at once in the evening sky.

Mercury, Venus, Mars, Jupiter and Saturn are the only planets in our [solar system](#) bright enough to be seen with the naked eye. This August, they can be found together forming a line that stretches from low in the north-west to high overhead in the north.

The planets are visible from across Australia for an hour or so after local sunset. Venus, Jupiter, Mars and Saturn are bright enough to be seen during twilight when the rays of the setting [sun](#) still brighten the sky. Mercury, the faintest of the planets, is the one that's most easily drowned out and it's always a little tricky to spot.

But don't leave it too long after sunset before looking for the planets. After about an hour or so, Venus and Mercury will disappear below the horizon. The earlier you see them, the higher they'll be.

Furthermore, throughout August Venus is drifting up to meet Mercury, so the view will get better as the month goes by. Of course, it's also important to have a clear, uninterrupted view of the north-west so you can catch the planets even as they approach the horizon.

Five ancient planets

These five bright planets have been observed since ancient times and we are fortunate today that even a modest backyard telescope can deliver amazing views of these unique worlds.

Saturn and its rings, Jupiter and its spot, Mars' reddish surface, the phases of Venus and the craters on Mercury – each planet has its own special features to explore and appreciate.

The line they form in the sky marks the ecliptic, the path that the sun appears to follow against the background stars. The planets are always huddled around the ecliptic because they orbit the sun in roughly the same plane as Earth.

Five planet season

Back in January, the five planets were visible in the morning sky for the first time in more than a decade. Now we've entered a kind of five planet season.

Think of the solar system as an athletics track, with each of the planets zipping around on their orbits. The closer they are to the sun the faster they travel, so Mercury completes an orbit in 88 days (or around three months), whereas Saturn takes a leisurely 29 years.

For the last decade, Jupiter and Saturn have been on opposite sides of the race track. But now, we've entered a period where Jupiter and Saturn have caught up to each other.

As a result, the next few years will bring about a number of chances to spot the five planets. It'll occur whenever all five planets plus Earth briefly converge on the same side of the sun, as shown in the video below.

You can also check it out yourself using the [Tour the Solar System](#) interactive by NOVA.

It's only ever possible to see the five planets together either just before dawn or just after sunset. Mars, Jupiter and Saturn can be seen at any time of the night, but Mercury and Venus being the [inner planets](#), plot another course.

They never wander too far from the sun and are only visible low in the west after sunset or low in the east before sunrise, depending on which side of the sun they happen to be.

Check out the moon too

During the early part of August, the moon will wander past each of the planets. On August 3, a beautiful faint crescent moon will sit just above Venus, low to the north-west horizon. The following nights the crescent moon will partner with Mercury and then Jupiter.

By August 9, the moon will be near the star Spica, the brightest star in the constellation of [Virgo](#). The moon's phase will have changed as well and on August 10, the First Quarter moon will sit right in the middle of the five planets line-up. Keep following the moon and by August 12, a bright gibbous [moon](#) will sit just below Mars and Saturn.

Dance of the planets

There's more too. Take a note of how the positions of the planets vary throughout the month. Mars and Saturn have been together in the constellation of [Scorpius](#) since the beginning of the year and they'll remain so throughout August.

On August 26, Mars will sit just to the right of Antares, a red supergiant star, whose name means '[rival of Mars](#)'.

Towards the horizon, Jupiter will be approaching Venus and Mercury. As the two brightest planets, Venus and Jupiter always make a stunning pair whenever they meet together in the sky. Jupiter will cross paths with Venus on August 27 and 28.

So for the next month, when the sun goes down, look to the skies to collect the full set of visible [planets](#).

This article was originally published on [The Conversation](#). Read the [original article](#).

Source: The Conversation

Citation: Your guide to see five planets after sunset (2016, July 21) retrieved 3 May 2024 from <https://phys.org/news/2016-07-planets-sunset.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--