

# Five visible planets in alignment this August

July 14 2016

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This August, stargazers will have a rare opportunity to see five visible planets in the night sky at the same time with the naked eye.

From Earth we will be able to see Mercury, Venus, Mars, Jupiter and Saturn trace a line on the sky away from the setting Sun.

Earlier this year we could catch this arrangement in the pre-dawn morning. This time it is in the evening, and it will be the last chance to see this phenomenon until October 2018.

For those near the equator, the [planets](#) trace a line directly vertical from the [horizon](#) overhead. As you move towards the poles – towards North America or Australia – the line the planets trace tilts lower towards the horizon.

Swinburne University of Technology astronomer Dr Alan Duffy says that anyone in the world will be able to see this event without requiring a telescope or binoculars.

"The fainter planets that lie closer to the Sun, such as Mercury and Venus, will be difficult to see so it is best to wait until after sunset for the twilight to fully fade, but before the planets set," Dr Duffy says.

"The planets stretch across the sky, anchored to the horizon following the setting Sun. This is because the entire Solar System is flat like an old vinyl record with the planets moving along these grooves of the record. Looking out from the Earth we will see this as a straight line, known as

the ecliptic plane, tracing across the sky.

"The further north or south you are from the equator, the closer to the horizon this line will be giving you less time after sunset to clearly spot Mercury in particular. Some planets don't orbit perfectly on the vinyl record, meaning they appear a little off the ecliptic plane so tend to form triangle shapes with each other as they pass by from our point of view such as Mercury, Venus and Jupiter later in August.

"The challenge with this event is to get the timing right to ensure the sunset has faded as much as possible but not wait so long that Venus or Mercury have raced below the horizon.

"For Australia it's best to look west by 7pm towards the end of August.

"If you're in Europe or North America you need to wait later for the Sun to set around 9pm. Even then, the further you are from the equator the less time you'll have before the planets appear to vanish beneath the horizon.

"The best time to look is either side of the Full Moon on 18 August as the light from the Moon washes out the fainter planets. The hardest planets to spot will be those fainter ones close to the horizon, so make sure to find somewhere dark with as clear a view as possible to the west where the Sun has set, meaning no low lying buildings or trees," Dr Duffy says.

"The event this year is your last chance to see all the visible planets together in the same [night sky](#) until 2018. It's a reminder of the size of the Solar System that these [giant planets](#) stretching over enormous distances appear to us no more than delicate lights strung across the sky."

Provided by Swinburne University of Technology

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