

# The Night Sky

## Jupiter and Venus Conjunction Prelude

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The month of June presents a celestial masterpiece as the two brightest planets in the night sky bare down on each other in the evening sky. At the beginning of the month, these two planets are  $20^\circ$  apart in the western sky. As the month progresses, both planets will sink lower with respect to the west-northwest horizon an hour after sunset and their separation diminishes. By June 30<sup>th</sup>, these two planets will only be  $1/3^{\text{rd}}$  of a degree apart as they approach their July 1<sup>st</sup> close conjunction. If you have access to a telescope, one should be able to see both planets in the same field of view in a low-power eyepiece. This July 1<sup>st</sup> conjunction, when these two bright planets are only  $1/4^{\text{th}}$  of a degree apart, will be the closest conjunction of these two planets until August 2016. In August of 2016, these planets will be nearly on top of each other, only 4 arcminutes apart from each other!

On the nights of June 19<sup>th</sup> and June 20<sup>th</sup>, the crescent Moon will be seen in the same part of the sky as Venus and Jupiter. The Moon will be directly below Venus on the 19<sup>th</sup> and to the lower left of Jupiter on the 20<sup>th</sup>. It should make a beautiful site to see, so let's hope for a clear sky on these two evenings.

After you are through viewing Jupiter and Venus in the western evening sky, turn to the opposite direction to spot Saturn, which will be low in the southeastern sky as evening twilight ends. The Moon will be less than one day short of full when it passes to the lower left of Saturn on June 1<sup>st</sup>. Nearly a month later, a waxing gibbous Moon will make an even closer pass to the upper left of Saturn on June 28<sup>th</sup>.

Sharp-eyed individuals might be able to spot Mercury low in the eastern sky 45 minutes before sunrise during the last week of the month. It will not be easy to spot in the early morning twilight, however if you are able to spot Aldebaran, Mercury will be a little brighter than and to the left of this red giant star. Planet Mars is in back of the Sun this month and will not be visible.

The Sun reaches the summer solstice at 12:38 p.m. EDT on June 21<sup>st</sup>. This marks the beginning of summer in the northern hemisphere and is the day with the longest amount of daylight hours for the year in the northern hemisphere.

The ETSU Powell Observatory open houses are on hiatus until September. Later this summer, the 2015-2016 schedule for our Astronomy open houses can be found on the web at <http://www.etsu.edu/cas/physics/observatory/default.aspx>.

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