

MOON SLIDING PAST 3 PLANETS THIS WEEK

Jupiter and Venus had their spectacular conjunction Monday morning – November 13, 2017 – but keep watching for these planets after that as well! The waning crescent Moon has joined the show, sliding first past Mars on November 14 and 15, and then continuing to move downward – closer to the sunrise each morning – to pass Venus and Jupiter before this week ends.

First ... the Moon and Mars on Tuesday and Wednesday mornings. The planet Mars is much fainter than Jupiter or Venus, but the Moon can help you find it. Also, notice the bright star Arcturus on our chart. From the Southern Hemisphere, Arcturus will be difficult or impossible to see. But Northern Hemisphere observers will see it. Its colour is orangish ... not very different from Mars, but more twinkly.

If you want to see Mars, remember, it's faint and far across the solar system now. Be sure to look for it before dawn, or about one and one-half to two hours before sunrise. This rather faint world will quickly fade from view once the predawn darkness gives way to morning twilight. And speaking of morning twilight ...

Venus and Jupiter. Their conjunction was Monday, November 13, when they were less than a moon-width apart. But they'll remain close as the Moon moves past them this week.

Venus and Jupiter won't climb up over your eastern horizon until shortly before sunrise, there will be a very narrow window of time – or maybe no time at all – during which you can see Venus, Jupiter and Mars all at the same time. In other words ... the light of the coming dawn will cause Mars to fade from view.

From the Southern Hemisphere, Jupiter and Venus rise even closer to the time of sunrise than they do at northerly latitudes.

Take a good look at Mars before dawn these next few mornings, as it casts its meek light in the predawn sky. Earth in its smaller, faster orbit around the sun is slowly but

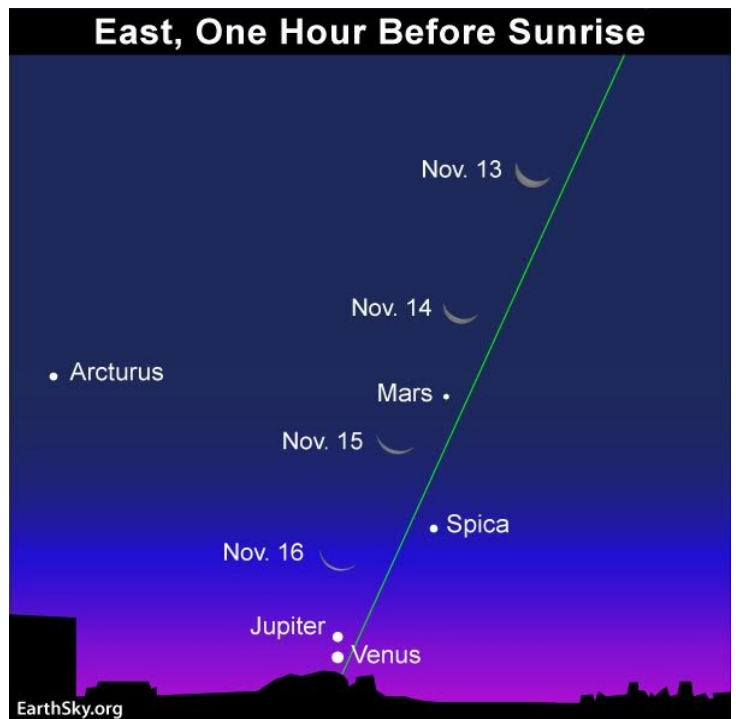
surely catching up with Mars, the fourth planet outward from the Sun. **Earth will pass between the Sun and Mars – and so reach what astronomers call opposition – on July 27, 2018. Then, Earth will be about six times closer to Mars than it is now. Mars, in turn, will shine nearly 40 times more brilliantly in our sky than it does now.**

In fact, 2018 will be a spectacular year for Mars! The planet has a 15 to 17-year cycle whereby Mars shines exceptionally brilliantly at opposition. The peak of that cycle will come again in 2018.

By mid-February 2018, Mars will have doubled in brilliance, shining on par with the 1st-magnitude stars Spica and Antares.

Moreover, Mars will be coupling up with the star Antares on the sky's dome in mid-February 2018, giving sky watchers an opportunity to view the red planet Mars and red star Antares shining next to each other on the great dome of sky.

Their similarity in brightness and colour will let you learn firsthand why this star was given the name Antares, which means like Mars.



Miska Saarikko in Stockholm, Sweden wrote: "There was a point when I thought I would give up when I saw the clouds form over my hometown, but, by watching on several forecast websites, I noticed that they would disappear by the time this conjunction was present. So I stuck on my plan to stay up all night long, watching some movies, and here we are."

