What's Up - October 2014

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What's up for October. A total lunar eclipse. A partial solar eclipse. And Mars meets a comet.

Hello and welcome. I'm Jane Houston Jones from NASA's Jet Propulsion Laboratory in Pasadena, California.

Mars and Comet Siding Spring are moving closer to each other this month. On October 19, the comet and the planet pass within 81,000 miles of one another. You may be able to spot the comet leading up to--and after--the 19th. But from the U.S., you'll need an unobstructed view of the south-southwestern horizon just after sunset. Try spotting Mars first. It's to the upper left of the orange star Antares, near the horizon at about 7:30 p.m. local time. Then, use your binoculars to scan for the comet. Even through amateur telescopes, Comet Siding Spring may be just too faint to see. Even if it's not visible at your location, the comet will be visible to our missions currently at Mars. And we hope to get back images.

Set your alarm clock for an after-midnight wakeup on the morning of October 8. The moon enters Earth's deep shadow for the second lunar eclipse of the year at 2:15 a.m. on the west coast of North America. That's 5:15 on the east coast. The total phase will begin at 3:15 a.m. on the west coast, or 6:15 on the east coast.

Two weeks later, from North America, a partial solar eclipse will be visible in the late afternoon. On the east coast, the sun sets before the eclipse reaches its maximum, but observers will see a dramatic partial eclipse. The deepest eclipse, where the moon's silhouette extends nearly all the way across the sun, will be visible far to the north in the Canadian Arctic. On the west coast, the dark silhouette will cover about half the sun in the late afternoon. The eclipse is not visible in Maine, Massachusetts or Rhode Island. Remember: Never look directly at the sun during an eclipse--or any time.

You can learn more about solar and lunar eclipses at: eclipse.gsfc.nasa.gov

And you can learn all about Comet Siding Spring's encounter with Mars at: mars.nasa.gov/comets/sidingspring

That's all for this month. I'm Jane Houston Jones.