

Hi, there. We've been identifying constellations in these articles for a couple of years now. The star groupings we see at night keep changing over the course of a year because as the Earth travels around the Sun, the nighttime side of the Earth keeps pointing at a different part of our galaxy. So, in addition to the constellations I've talked about over the past couple of installments, there are others in our night sky right now that we have discussed in the past. How's your memory? Here is a sky map of constellations between (roughly) 14 and 22 hours of Right Ascension. Fill in the blanks with the constellation names. How many can you name?

I hope you've been enjoying the parade of bright planets in our night sky right now – Venus, Jupiter, and Saturn. If you have been able to look at Saturn through even a small telescope, you have seen the planet's majestic ring system. Did you know that our view of the rings is always changing? Saturn's axis, like the Earth's, is tilted with respect to the plane of its orbit around the Sun. Because of this tilt, sometimes we are looking down onto the northern side of Saturn's rings and at other times we are looking up onto the southern side of the rings. This entire cycle takes place oven the time of one of Saturn's orbits around the Sun – about 30 years. Midway between our view of the northern side and the southern side of the rings, we view the rings edge-on. In fact, the rings are so thin (less than 100 meters) that from our point of view, they disappear for a while! Once we start seeing the other side of the rings, they start to appear wider and wider as the cycle repeats. Right now, we are looking at the northern side of the rings. In March 2025, the rings will be edge on and then, over the next 7 $\frac{1}{2}$ years the southern side of the rings will become more visible. Half a Saturn-orbit later, we will see them edge-on again. Here is a collage of Saturn images taken using the Hubble Space Telescope. They show changing views of the southern side of Saturn's ring system.





Saturn, along with Jupiter and Venus can be found in the South and Southwest

after the Sun sets.





This is What's Up? installment #53.

Keep looking up!



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