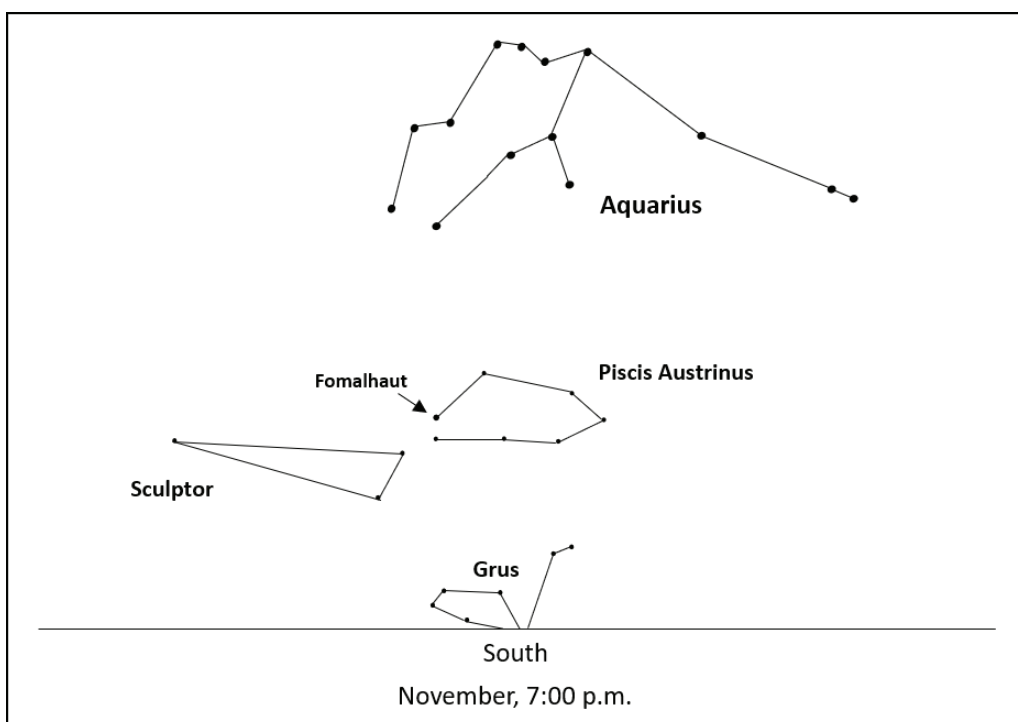


WHAT'S UP?

Hi. It's been a while since I've written. I hope that you have taken advantage of some of the crystal-clear nights we've had and gone outside at night to see the summer constellations begin to sink in the west, the winter constellations start to rise in the east, and Jupiter and Saturn in our skies all night. I have three more constellations to tell you about in this article. All three can be found low in the south in November around 9:00 p.m. Flying just above the horizon is *Grus, the Crane*. A "modern" constellation named in the 16th century, we can see most of the bird, but not its tail feathers. They are below our horizon as are the two brightest of the crane's stars. The third brightest star isn't too dim (3rd magnitude) and is named *Aldhanab*. Aldhanab is Arabic for "the tail" and is located in the neck of the crane. What? It turns out that some of the stars in Grus were taken from *Piscis Austrinus, the Southern Fish*. In that ancient constellation, Aldhanab was indeed at the fish's tail. In our sky, Piscis Austrinus can be seen just above Grus. The star at the fish's mouth is the 1st magnitude star *Fomalhaut*. Meaning "the fish's mouth", this star is located right where you'd think it would be. The fish's mouth is pictured as open and drinking the water pouring from the jar held by *Aquarius, the water bearer* just above the fish. Our last new constellation this time is found to the east of Piscis Austrinus and is *Sculptor, the Sculptor*. An 18th-century grouping by

Nicolas Louis de Lacaille, it depicts – you guessed it – a sculpture of a sculptor's head. The main outline forms a triangle of three fairly dim (4th to 5th magnitude) stars.

On the morning of November 8th, we will be treated to a total lunar eclipse! You will notice the eastern (left) edge of the Moon begin to darken at 4:09 a.m. The Moon will be entirely immersed in the Earth's shadow by 5:16 a.m. The Moon will set (and the Sun will rise) before the Moon begins to emerge from the shadow, so we won't see all of the eclipse phases. Also in November is the Leonids meteor shower. This annual event peaks on the night of November 17th-18th and is the result of dust and debris shed by the comet Tempel-Tuttle. The shower has been known to put on spectacular displays roughly every 33 years (the orbital period of Tempel-Tuttle). The last such display was in 1999. However, there were also good Leonid showers in 2001 and 2002, so you never know for sure. Keep an eye out! If it is



less-than-spectacular this year, after midnight you can still expect to see at least 10 meteors per hour streaming from a point in the head of the constellation *Leo, the lion*.

Planet Roundup: Around 9 p.m., Saturn is in the south among the stars of Capricornus, 30 degrees above the horizon. It has dimmed a little since the summer, but at magnitude 0.6, it still outshines all of the nearby stars and it will be easy to spot. Jupiter is east of Saturn and in the constellation Pisces. Still at a dazzling -2.8 magnitude, you can't miss it. Really – you can't. Between the two is Neptune in the constellation Aquarius. At magnitude 8, you'll need at least binoculars to see this small bluish disk. Mars is just rising in the east. Uranus can be found along the way from Jupiter to Mars. Uranus may be visible to the unaided eye, but a small telescope will reveal its greenish-blue disk. For Moon watchers, the 1Q Moon is on October 31st, the Full Moon is on the 8th (don't forget the eclipse!), the 3Q Moon is on the 16th, and the Moon will be New on the 23rd.

As always, you can reach me at astroblog@comcast.net with any question and comments. This is What's Up? installment #63.

Barry