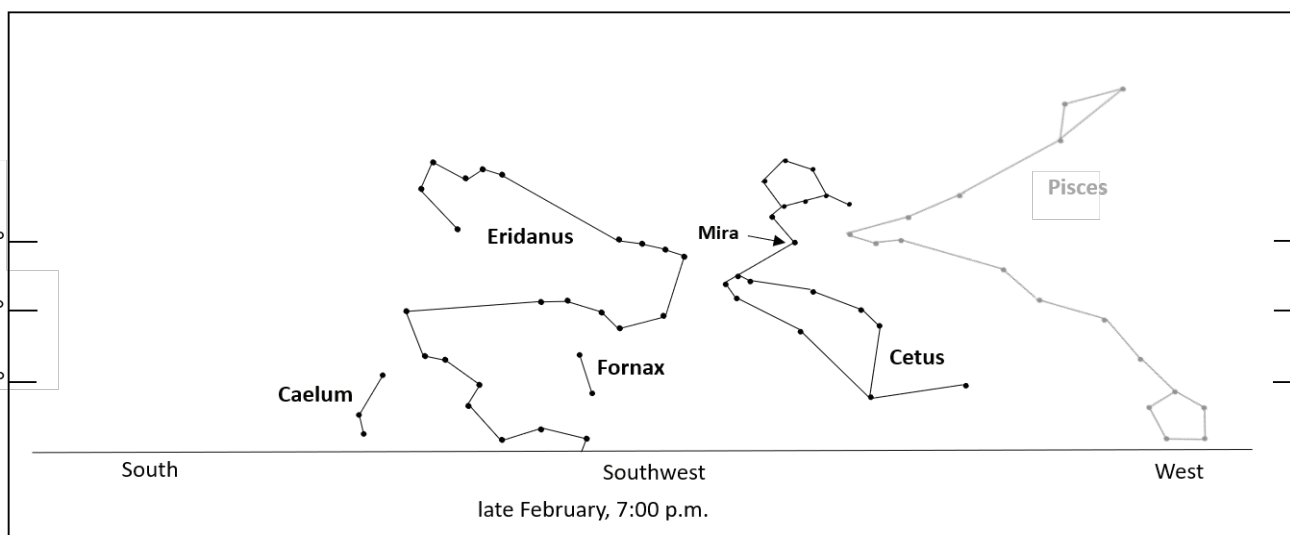


WHAT'S UP?

It's getting dark a bit later each night now and (once in a while) it's also getting a bit warmer. When it is finally dark, around 7 p.m., we can see a few more constellations that we haven't talked about yet. Three of them are completely above our southern horizon and one, just partially. Below Pisces we see another aquatic creature – *Cetus*. In his book *Star Tales*, Ian Ridpath tells the creature's backstory. Cassiopeia boasted that her beauty exceeded that of the sea nymphs. Poseidon, in retribution of the insult, sent a monster to ravage the kingdom's seacoast. That monster was Cetus. The Oracle of Ammon instructed King Cepheus that the only way to be rid of Cetus was to offer his daughter Andromeda as a sacrifice to the monster. If you remember *What's Up?* from August of 2020, you know how that turned out. Spoiler alert: Perseus comes to the rescue. While most of the stars in Cetus are not that bright (the brightest, *Diphda* is 2nd magnitude), Cetus is the home of a well-known star. *Mira* the "Wonderful Star" is a star that varies greatly in brightness. At its brightest, Mira can be easily seen as a 2nd magnitude star. At its dimmest, it appears almost 1600 times dimmer (10th magnitude) and you'll need binoculars to see it. Mira is actually a double star and it's the larger of the two that is the variable star. The length of one cycle of brightness change is about 11 months. Mira will reach a maximum brightness again in July. By then, Mira will be found in our morning sky. Cetus covers a large area of the sky and is one of the oldest named star groupings. Moving eastward we come to a river – *Eridanus*. Also a very large and very ancient star group, the river winds from below Orion to well down past our horizon. Tucked into a bend in the river is a relatively modern constellation. In the mid-18th century, Nicolas Louis de Lacaille dubbed this small and dim

group *le Fourneau*, a furnace used by chemists for distillation. Latinized, the name became *Fornax Chimiae* and was later shortened to what we call it now, *Fornax*. The last constellation on our list is *Caelum* (pronounced SEE-lum). Another dim, 18th century addition by de Lacaille and one of the smallest of all constellations, *Caelum* represents an engraver's chisel.

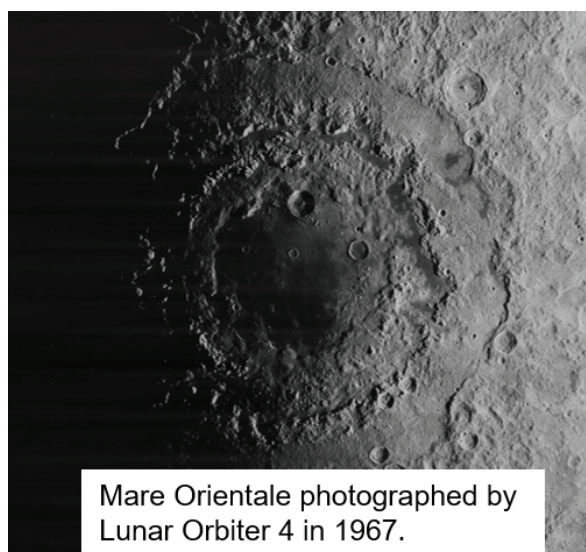


I have two shout-outs to make. In the January 21st edition of the Express, Alan Wheelock wrote an excellent and informative article about our dark skies. The article gives the highlights of Plympton's lighting bylaw which our Town Meeting members voted into effect a couple of decades ago. For towns that don't have similar provisions, it's never too late. By just requiring that any *future* lighting fixtures have some simple design features, towns can over time, change the patterns of unneeded light in our night sky. These types of fixtures also save their owners money because their electricity costs go to putting light only where it's needed. For more information on this I encourage you to check out the International Dark-Sky Association's website at www.darksky.org. Thank you, Alan! My second shoutout goes to the first woman president of the South Shore Astronomical Society (www.ssastros.org) in its 63-year history! At the club's January meeting, Carolyn DeCristofano was unanimously elected. Congratulations, Carolyn!

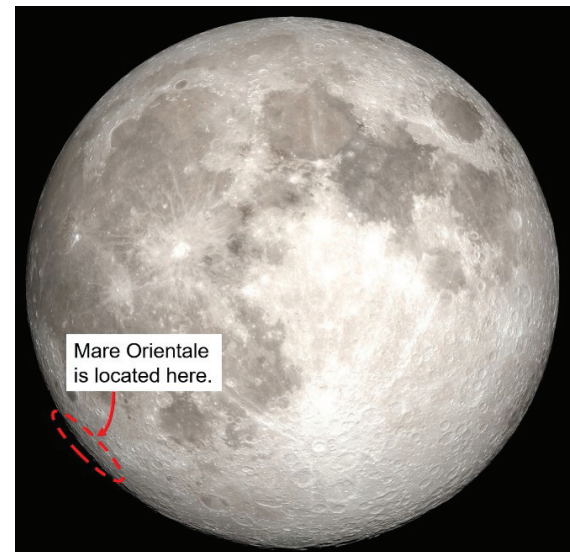
Planet Roundup:

Jupiter is just about gone at sunset now and won't be seen until it reappears in the east just before sunrise in late April. If you're looking for bright planets in our sky you need to wait until 5 a.m. or so. At that time, Venus will be above the eastern horizon. Brilliant at magnitude -4.8, it is now about 100 times brighter than the star Vega. You can find Vega about 60 degrees northeast (above and to the left) of Venus. Much dimmer than Venus is Mars, which will be southwest (down and to the right) of Venus and just barely above the horizon. On the morning of the 27th, the pair will be joined by a slender crescent Moon. Get your cameras ready! The upcoming Moon phases are: New Moon on March 2nd, 1Q on March 10th, and the next Full Moon will be on March 18th. Daylight Savings Time

starts for us on Sunday March 13th. While we are talking about the Moon, February 18th and 19th provide us with a very rare opportunity! In Installment #24 (July 3rd, 2020), I told you about the Moon's *librations*. These lunar orbital motions allow us to see a bit more than just the 50% that it seems like we should only be able to see. This month's libration brings *Mare Orientale* partially into our view. *Mare Orientale* is a basin about 560 miles in diameter and features concentric rings of mountains around the center. Use your binoculars or telescope and check this out!



Mare Orientale photographed by Lunar Orbiter 4 in 1967.



Mare Orientale is located here.

As always, you can reach me at astroblog@comcast.net with any questions and comments. This is What's Up? installment #57.

Barry