

**Climate change is parking the jet stream over NJ and increasing the turbulence and “poor seeing” for observers here.**

**Solar system:** Although Mars is still much in our thoughts, the main news this month is the aurora borealis. Mary Ducca, Kathy Vaccari, and Nancy Twaskas went to Norway for a week to see and to photograph the *northern lights*. They said that the sun set around 2:30 PM so by 4:00 it was totally dark.

By eye they mainly saw white and off-white but if you looked carefully you could see a little bit of red. It is amazing that our eyes can't see the colors but the camera picks up the color. When Mary took her first picture and saw the result in the camera screen she was so excited to see the colors! It's so strange to see white with your eyes but then see colors from the camera.



Clif Ashcraft imaged Mars in color and in Near Infrared. As *Mars* is getting further away from us, It is actually getting a bit easier to image since the altitude of the ecliptic is getting higher, now 38 degrees at meridian crossing. Dust is almost clear now and the color image is noticeably higher in resolution than the NIR image. Note the South Polar Ice Cap and bright Hellas Basin, a huge old impact scar. He also sent a montage of all his 28 images from June 12 to November 1, 2018.

Dennis Conti is one of the organizers of the AAVSO database to archive amateur



transit observations of exoplanets, <https://www.aavso.org/apps/exosite/doc>

**Presentations:** Clif gave a Friday talk on November 9 on Mars through the dust.

Jim Nordhausen, pointed out that the KELT-FUN and FP paper is now published online, <http://iopscience.iop.org/article/10.3847/1538-3881/aae582>

**Other:** Surplus Shed now sells a smaller (20 mm) trichroic beam splitter like the one from which Clif made his ONAG. Maybe other people can do the same. <https://www.surplussed.com/pages/item/L14828.html>

Helder Jacinto sadly reported that the Dawn spacecraft is dead.

Bobby Marinov pointed out an interesting article on astronomical tourism, “Where Will Science Take Us? To the Stars.” It was in The New York Times and describes visits to Chile and Hawaii. <https://www.nytimes.com/2018/11/12/travel/astronomy-stars-observatories-science-tourism.html>

Jim Nordhausen pointed out how to get information on the landing of the InSight spacecraft on Mars from NASA/JPL. He also pulled our leg with a fanciful “Butterball Nebula” on Thanksgiving.

*Respectfully submitted, Mary Lou West, Research Chair*