

# The Objective Lens

University Lowbrow Astronomers Monthly Newsletter Supplement

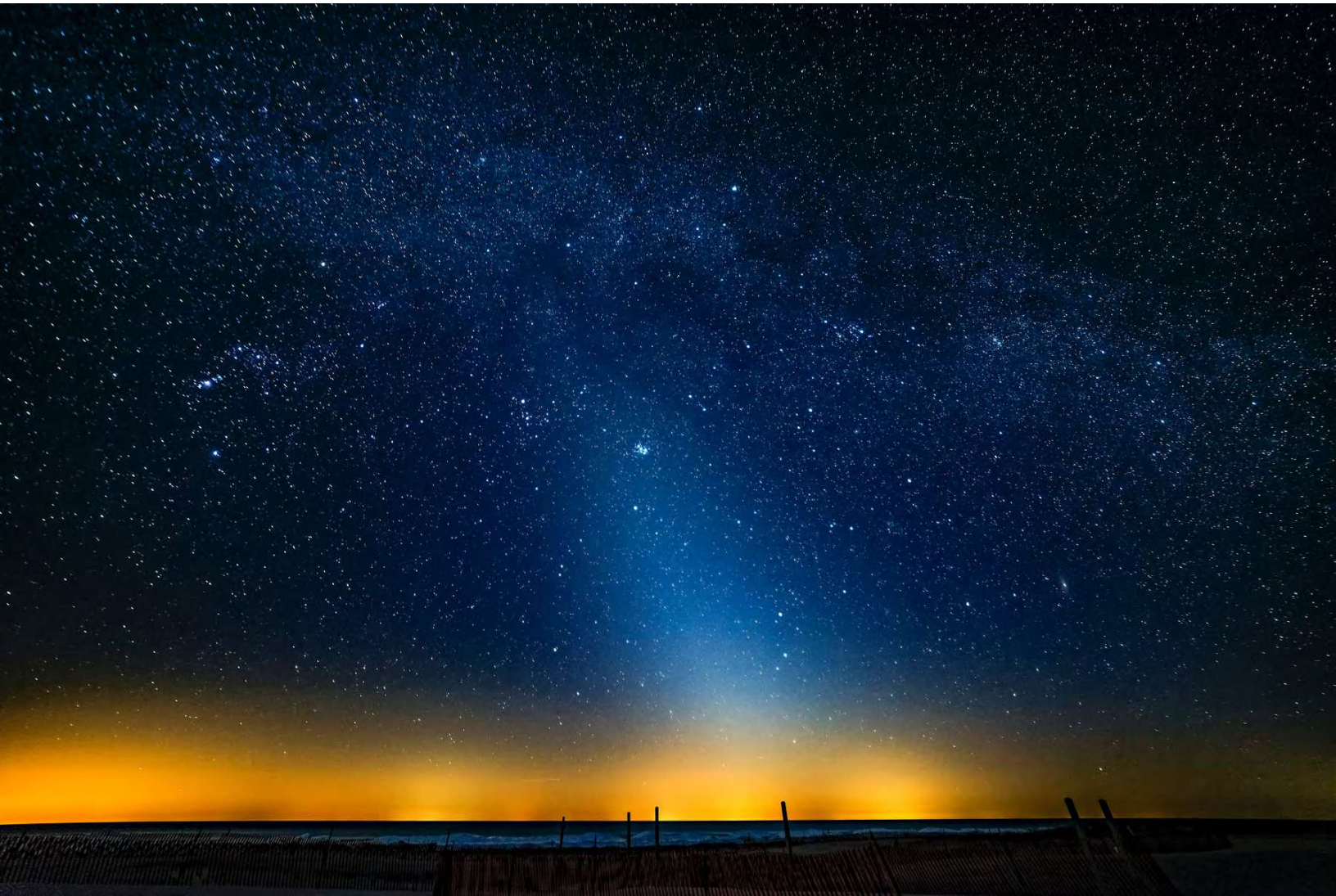
March 2023

## Mobile Observations: Observing outside of the home environment

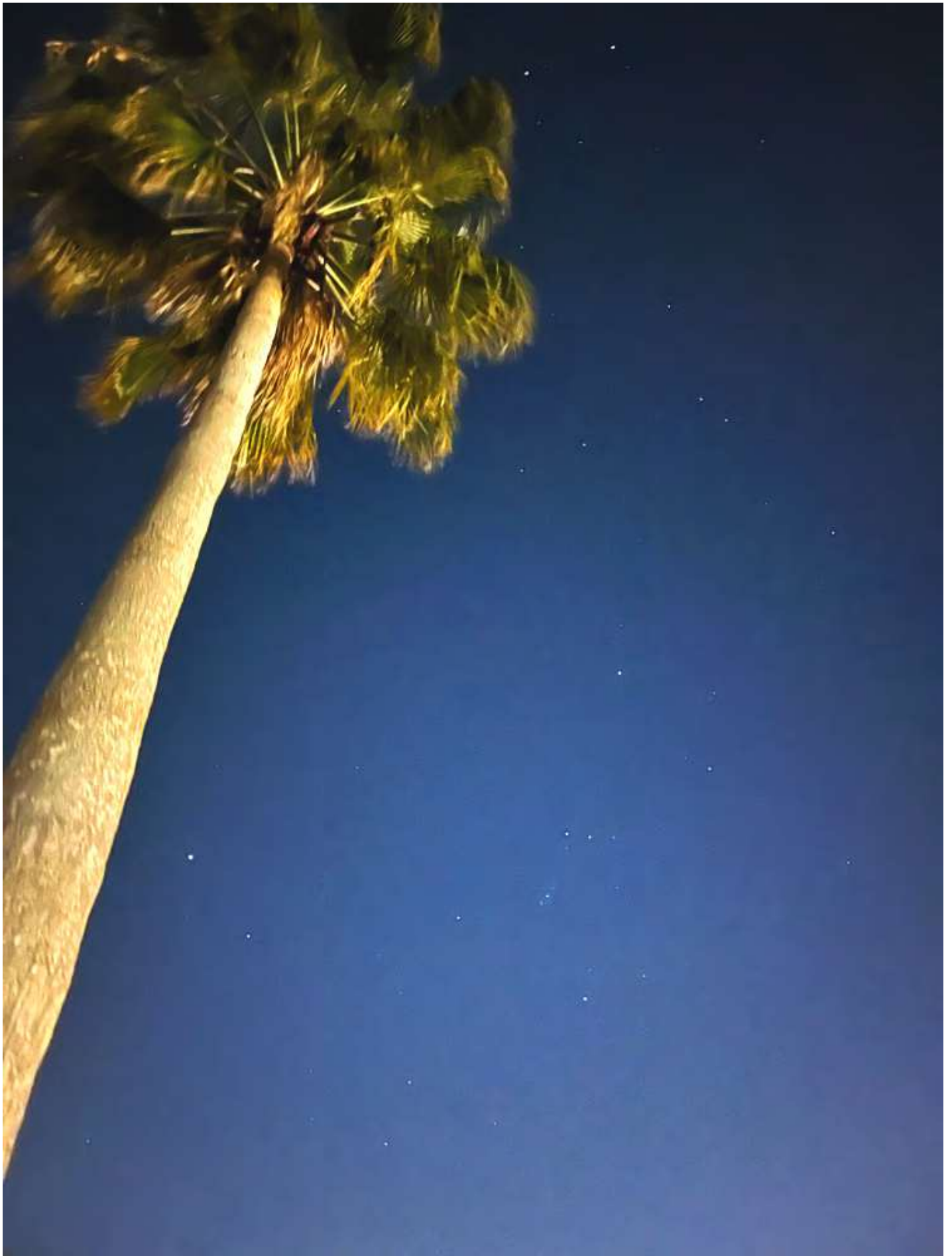


From **GLENN KAATZ**. "Attached is a photo I made in 2018 at 3 AM in Joshua Tree National Park. I was using a Nikon D750 with a Rokinon 14mm lens. The camera settings were f/2.8, ISO 3200, 30 s exposure. I edited the photo in Lightroom and Photoshop."





From **GLENN KAATZ**. "Zodiacal light with Milky Way and Pleiades. Image was obtained on the shores of Lake Michigan in March 2019. The temperature was 20 F and the wind was howling off the lake. This image was obtained using a tripod-mounted Nikon D750, 14mm Rokinon lens at F/2.8, ISO 3200, 30-sec exposure. Processing was done using Lightroom and Photoshop."



From **DOUG SCOBEL**. "Orion. Taken from our (rental's) backyard, in the middle of light-polluted Lakeland (Florida)."





From **HOWARD RITTER**. "The Palm of the Hunter. Our winter home is in Bortle 6 Sun City Center, south of Tampa Bay and 35 miles SW of Lakeland. This is my take on the Palm of the Hunter, from one end of our street. I took it on my wife's and my evening walk 3 years ago using Night Mode on my iPhone. Couldn't resist the temptation to do what all astroimagers do, though, and applied a little Photoshop plus just a touch of NR but no gradient reduction or sharpening. The palm, lit here by a landscaping light, came down in a hurricane in 2021."



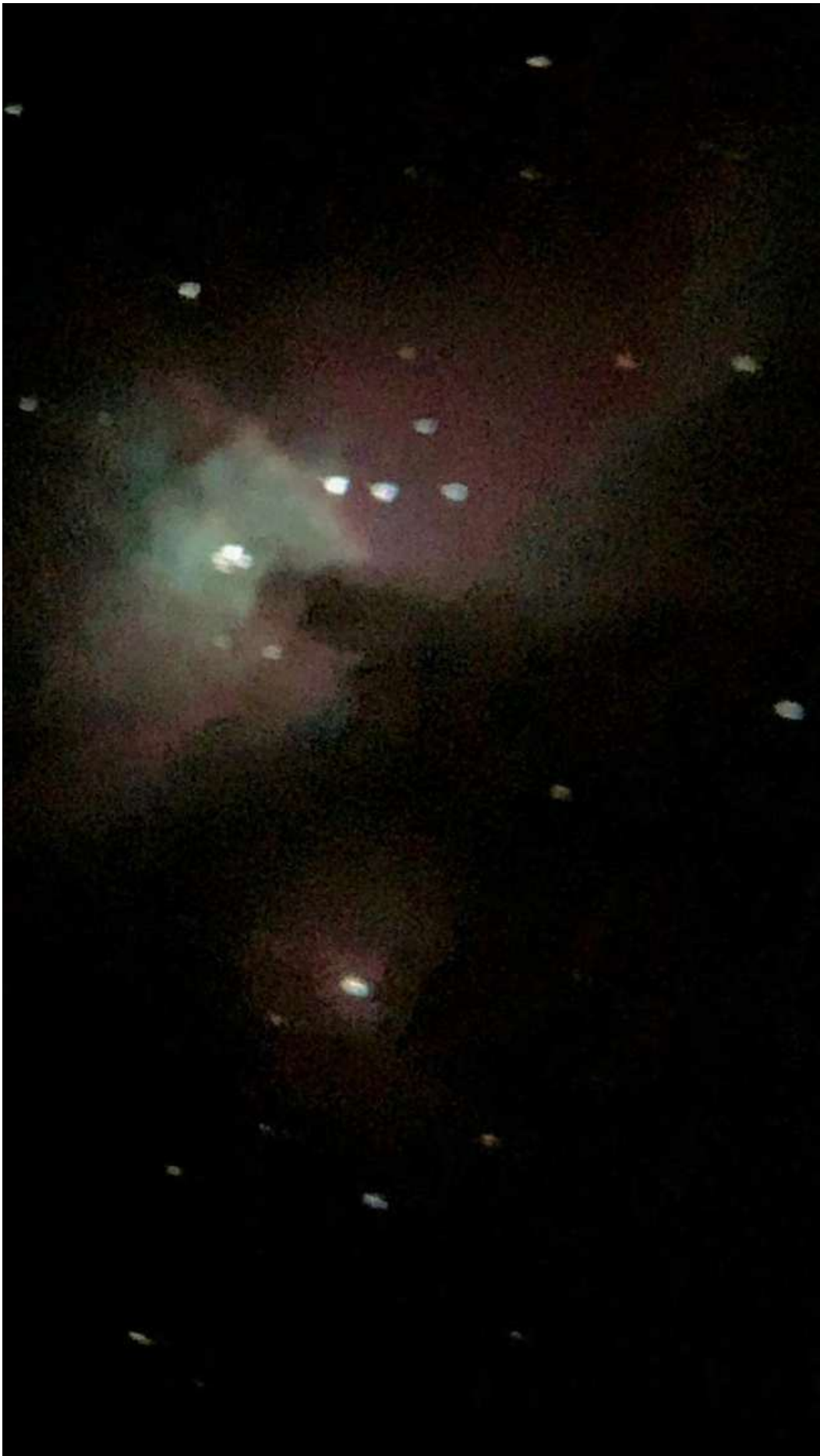


From **BRIAN OTTUM**. Orion with cellphone, also taken in Florida.





From **GLENN KAATZ**. "Orion, obtained from my backyard in February 2021. This image was captured using a tripod-mounted Nikon D5200, Sigma 24-70 lens at 48mm, f/4.0, ISO 800, 3 sec exposure. Processing was Lightroom and Photoshop. This image shows the true colors Orion's main stars very well - Saiph, Bellatrix, Rigel, Alniutak, Alnilam, and Mintaka are all blue and Betelgeuse red. The Orion Nebula shows up here as well but its colors are not distinct."



From **MATTHEW WEST**. Orion Nebula. Taken with cellphone.





From **AMY CANTU**. "I spent the night on a sheep farm near Hillsdale in January. Horsehead and Flame Nebula taken with a Redcat51 and ASI83MC Pro. Pleiades+California+bloated Mars taken with 6D Mk II and old 50mm lens. Processed in APP and Photoshop."

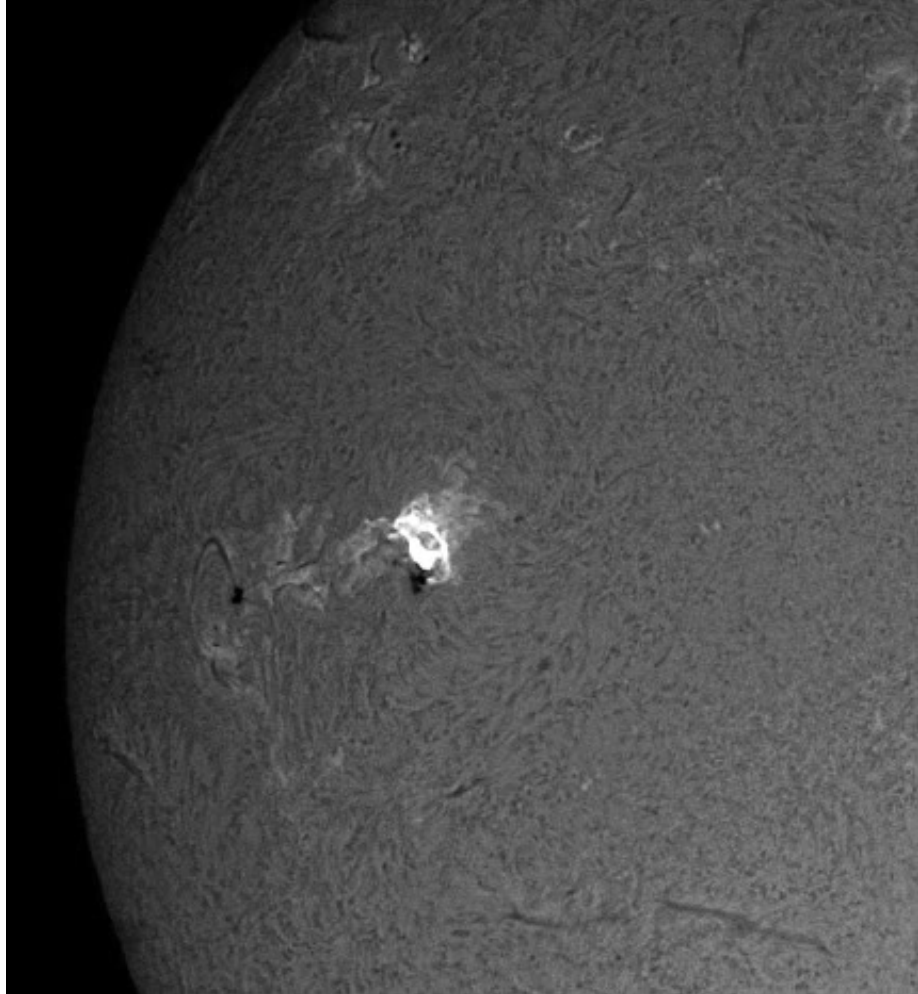






From **AMY CANTU**. "Tahquamenon Falls. Taken on a solo trip to the U.P. last summer. Rokinon 16mm lens, 6D Mk II. Falls lit with cellphone."





From **ROY MCCULLOUGH**. "Caught these images of yesterday's [2/11/2023] flare using ZWO 174 through Tele Vue 101 IS and Coronado 90 mm filter. Processed in Registax and Photoshop."





Calcium K



H Alpha



White Light

02-26-2023

Roy & Jodi McCullough





From **JACK SPRAGUE**. C/2022-E3-ZTF (10 seconds) 680mm f5.25 using 183mc pro at 0 C for 10 second image.



From **DONOVAN DREW**. M78.





From **DONOVAN DREW**. NGC 2403. .



From **HOWARD RITTER**. C/2022-E3-ZTF "It won't make APOD, but the weather in FL has been uncooperative and the comet is receding, so this is what I'm stuck with. Along with poor polar alignment that I was too fed up to try to tune out. This is a stack of 10 15s subs taken with a RASA 8 and ASI2600MC, on a portable mount on a portable tripod, stacked in Nebulosity and processed in Photoshop, GradientXTerminator, and DeNoise AI, since I don't yet know how to separate stars and comet in actual astroimaging software."





From **DOUG BOCK**. "NGC 2175 is an open cluster in the Orion constellation, embedded in a diffusion nebula NGC 2174. NGC 2174 is an H II emission nebula located in the constellation Orion and is associated with the open star cluster NGC 2175."

**Acquisition data:**

William Optics 105mm f/7 APO refractor.  
ZWO asi2600MC PRO camera @ gain 100, temperature 0C.  
Losmandy G11 mount  
SGPro used to acquire the data  
PHD2 used to autoguide  
FocusLock to keep focus

**Processing information:**

37 x 180-second frames stacked in DeepSkyStacker (DSS)  
PixInsight for all further processing. Topaz Denoise"





From **ADRIAN BRADLEY**. "I finally got to a dark enough site to do some of my own exploration of the comet as it is receding from us. I have a milky way panorama posted to the Michigan Amateur Astronomy Facebook page, but I also attempted to produce a closer widefield where the comet was. Hazy clouds interrupted this image, but I still got \*something\* at least.

This was a rough processing of 11 2-minute frames. You can see the tell tale 'green' glow of Dicarbon off of the comet not far from NGC 1647, an open cluster in Taurus. Mars and Aldebaran glow bright orange and you can see a couple of other DSOs nearby (M45, NGC 1499, the California Nebula, stand out.)

I also pulled out some Nikon 10x50 binoculars and easily spotted the comet in the location you will see in the image. I was able to pick up a little more detail in the coma and spied just a little bit of the tail. The SQM-L reading was 21.25 max, and averaged about 21.5 - that's high Bortle 4.

The location was Albert Sleeper State Park. It's a site that lends itself to setting up telescopes, but it would be a similar challenge to AATB for big scopes - having to transport to a site and then assemble. It faces northwest over Saginaw Bay, and of course, has great horizons from all directions involving north."





From **BRIAN PINKELMAN** and **BRIAN WAIT**. C/2022-E3-ZTF. Cavanaugh Lake County Park, west of Chelsea.

#### IMAGE CAPTURE / PROCESSING DETAILS

Primary Optic - William Optics WhiteCat Quadruplet Petzval Apochromatic Refractor - 250mm FL / f4.9

Mount - iOptron SkyGuider Pro w-Optical Polar Alignment Scope - No Guiding

Camera - Canon Ra 30MP Astro Camera

Filter(s) - Optolong L-Pro (General Light Pollution) Filter

ISO Setting - 1600

Subframe Exposure Time(s) - 62x 30 sec - 1/2 Hour Total Imaging Time

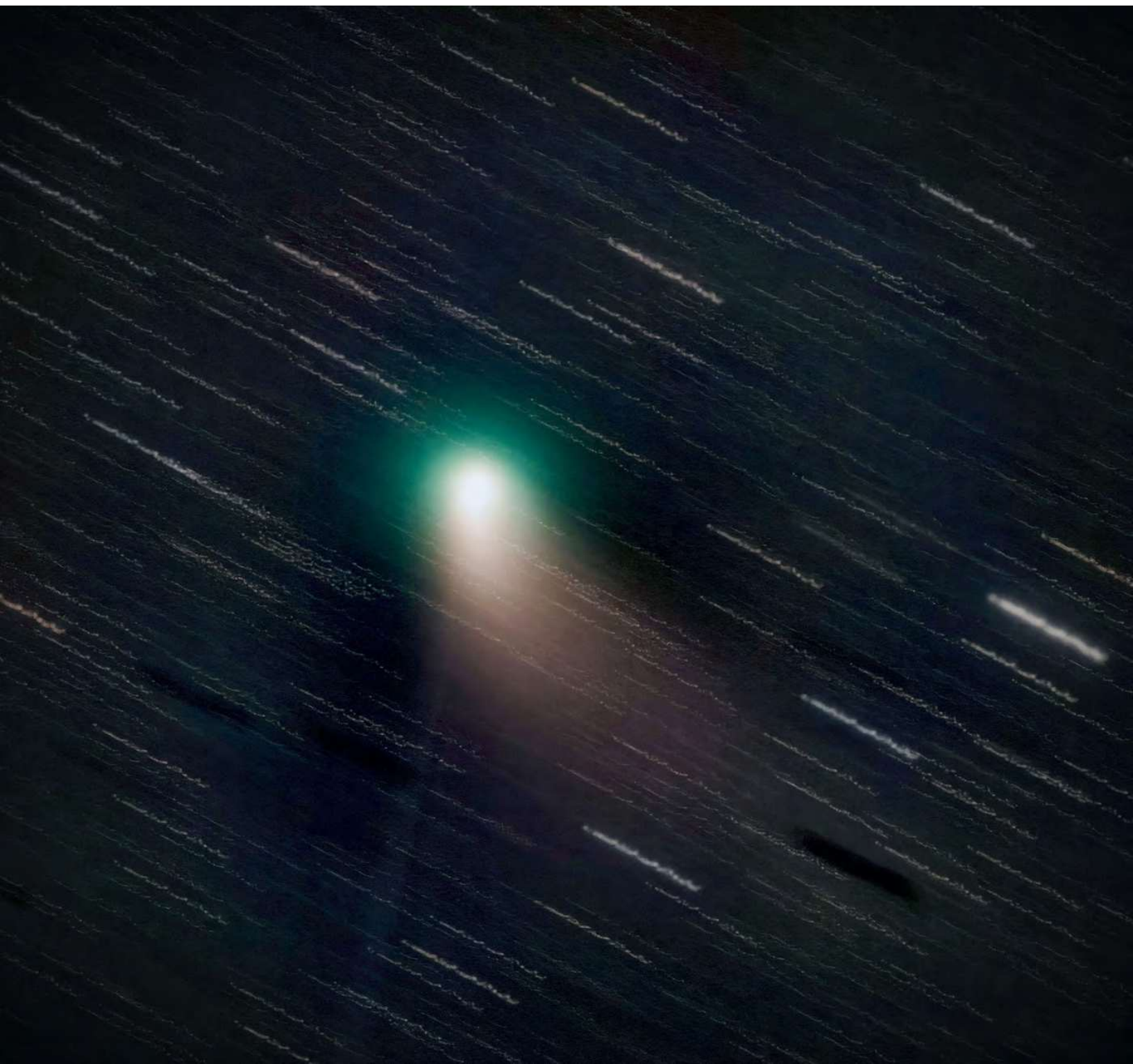
Calibration Frames - 12 Darks @ ISO 1600 30 sec; 12 Bias @ ISO 1600 1/8000th sec; No Flats

Sky / Observing / Site Conditions - 0 to 2%+ Clouds / Average Transparency / Average Seeing / Light

Pollution: Bortle Class-4; Bright Full Moon

- No Dew Issues; Very cold (4F) temperature

Processing Tools - DSS Deep Sky Stacker Comet / Star-Freeze Mode; APP Astro Pixel Processor for initial Stretching; GIMP for Processing / Layering



From **HOWARD RITTER**. C/2022-E3-ZTF. "Finally a sparkling clear night last night, albeit in Bortle 6. At a longer FL than most images of the Green Goblin, I got an hour on the comet with a 155mm f/7 apo and full-frame Nikon DSLR. 60 x 60s stacked in Nebulosity but not calibrated, then processed in PS and DeNoise. This is about a 50% crop. Something not going right with the flatting process, so dust shadows abound as dark trails. Also don't know what's causing the very rough star trails - maybe vibration from the mirror/shutter with every sub? Hope it's not the mount! I might have to run a test by cranking ISO down to 50 from 2500 and doing a 1-hour exposure. Also lock up the mirror! If you look closely, you can just see the ion tail pointing toward 6:30. And this comet's characteristic colors came through pretty nicely."





From **JODI and ROY MCCULLOUGH**. Venus and Jupiter conjunction.



From **GLENN KAATZ**. Venus and Jupiter conjunction from Canton. Nikon D850, tripod mounted, f/4.0, ISO 800, 5sec





From **JIM FORRESTER**. Conjunction of Venus and Jupiter. Shot with iPhone 8+ from Mt driveway in southwest Ann Arbor.



From **AMY CANTU**. Conjunction from my backyard. 6D Mk II, 300mm lens f/?