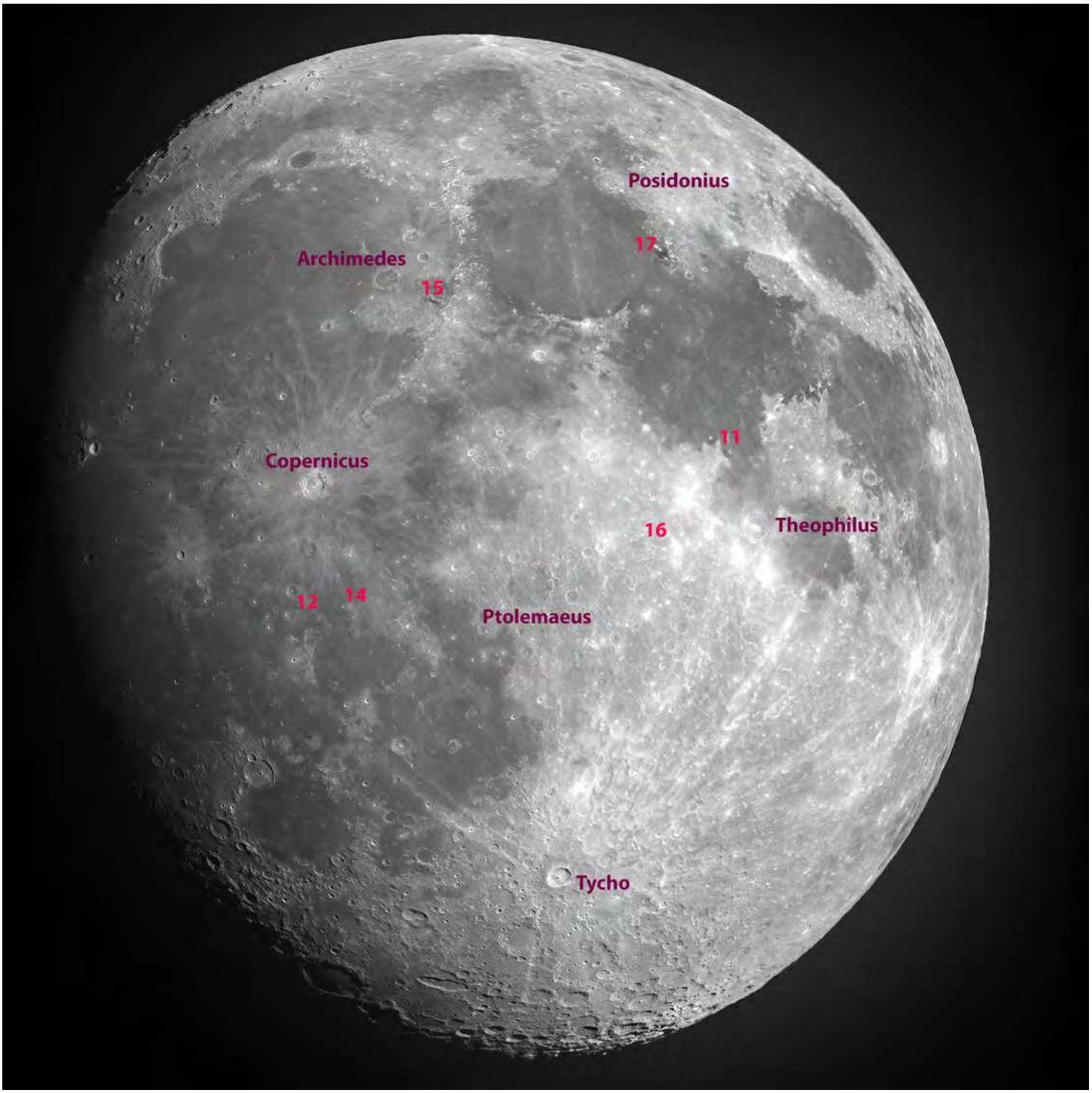
The Objective Lens

University Lowbrow Astronomers Monthly Newsletter Supplement

April 2023

MOONS



From **GLENN KAATZ** Notable craters and approximate landing sies. Celestron Edge HD 8 inch scope
0.7X Celestron focal reducer. CGX mount. ASI 1600 MM camera with an Optolong LPro filter
Camera settings: gain 139, exposure 10 ms X 180 frames
Software: PIPP, Photoshop (for adjustments in contrast, exposure, clarity, and annotation), Topaz Denoise

.

From K**ENNETH RUBLE**. 2019 Lunar Eclipse
Camera: Canon XSI, ISO1600, F14, (1/000 sec. to 4 sec.)
Zoom Lens set at 300mm

From **JEFF KOPMANIS**.
8" SCT and an iOptron AZ Mount Pro, with a ZWO ASI183MC cam. Autostackert3, and Photoshop.

From **JEFF KOPMANIS**.
8" SCT and an iOptron AZ Mount Pro, with a ZWO ASI183MC cam. Autostackert3, and Photoshop.

From **JEFF KOPMANIS**. Galilean moons.
8" SCT and an iOptron AZ Mount Pro, with a ZWO ASI183MC cam. Autostackert3, and Photoshop.

From **BRIAN OTTUM**. From Florida. "The moon/venus/Jupiter conjunction was from late February." Taken with a cell phone.

From **BRIAN OTTUM**. From Florida. "The close up shot was taken by pointing phone camera to eyepiece of my big binoculars (37x100s) – I guess they call it the “Afocal” method.."

From **MATTHEW WEST.**

From **MATTHEW WEST.**

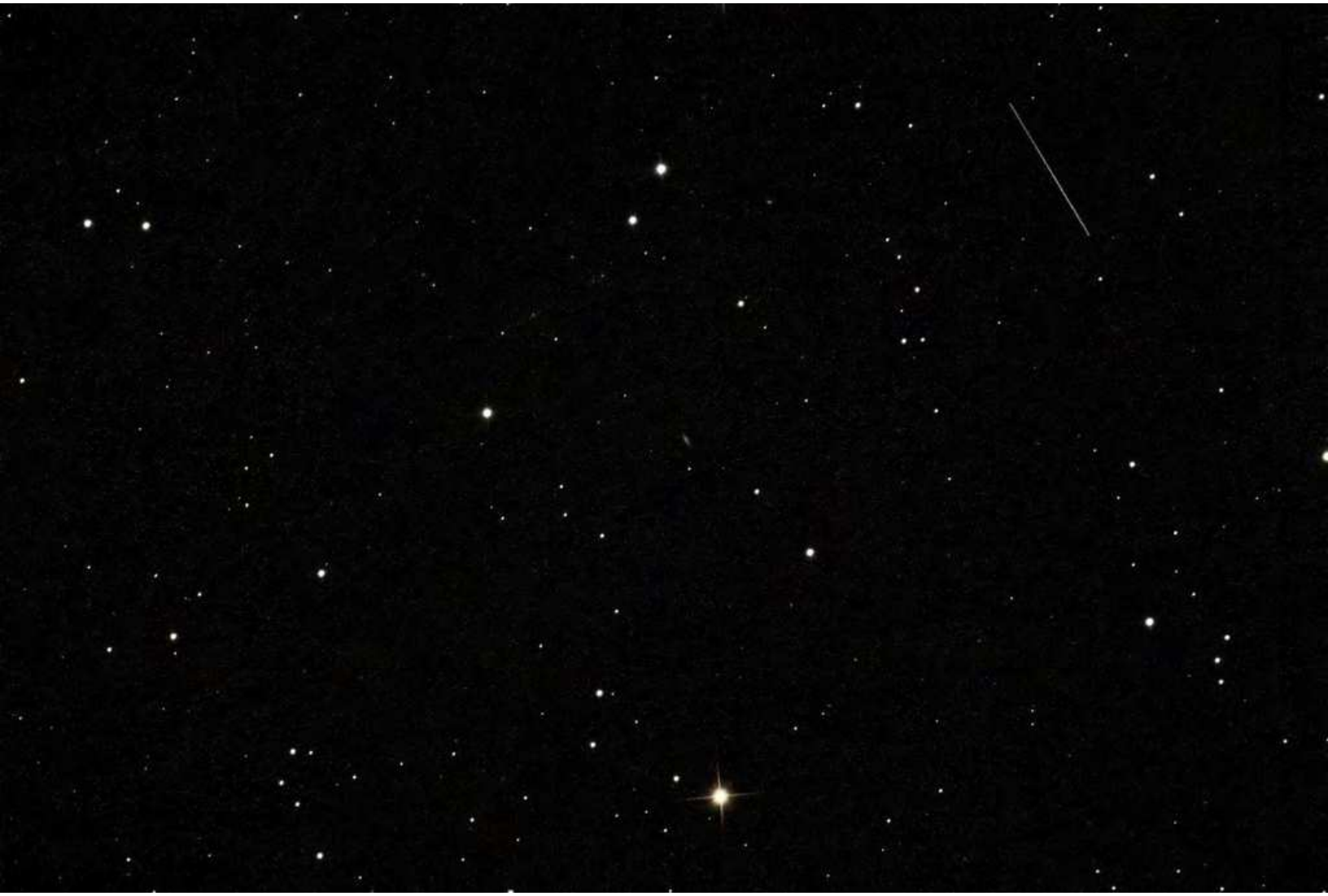
From **AMY CANTU**. Above: Smokin' moon. ASI183MCPro at 250mm. Below: Waning Gibbous moon. 6D Mk II at 300mm.

From **ADRIAN BRADLEY** "Camera, or Telescope? Both worm moons taken with the same Sony A7R4 Camera, but one was with a 600mm lens and the other was with a 102 ED Refractor. The same small edits were done to both to bring out the craters and terrain on the moon."

From **ADRIAN BRADLEY** Little Sable Lighthouse.

From **ADRIAN BRADLEY**.

From **HOWARD RITTER.** "Here is my best M51 to date. PlaneWave CDK 14 on an Astro-Physics 1600GTO mount on a Berlebach wooden tripod on a JMI Wheeley Bar dolly, Bortle 7 light pollution, ASI2600MC camera at prime focus, no filter. 147 subs of 60, 120, and 180 seconds unguided, depending on how good PA was on the nights in question. There's a lot more tidal spray to M51 than I was able to bring out, and I'm hoping more hours of data, as well as PI, will bring it out as well as get rid of the color noise and those curious concentric artefactual bands caused, I presume, by squeezing the data so hard."



From **HOWARD RITTER**. "Well, the asteroid 2023 DZ2 was not where SkySafari said it would be, maybe due to not having up-to-date orbital elements. But some detective work in real time by son Phil led to a field centered on the mag 17 galaxy PGC 1422467 a couple of degrees away, and we got it on a survey frame that was not saved, followed by a capture frame of 180-sec exposure that nailed the little sucker. After that, we couldn't find it again. This is a field about 0.53° by 0.35° centered on said galaxy, 180 sec with an ASI2600MC camera on the PlaneWave CDK14. Stretched and trimmed in Photoshop, cleaned up in Topaz DeNoise. Distance about 300,000 miles, mag 13. The target galaxy is barely visible just above a star at dead center."

From **AWNI HAFEDH**. NGC3718 86X3-min subs.
Equipment used:
Celestron 9.25" with 0.7x reducer
ZWO ASI533MC Camera
Astronomik filter
iOptron CEM60 mount

From **AWNI HAFEDH**. NGC5982 89X3-min subs.
Equipment used:
Celestron 9.25" with 0.7x reducer
ZWO ASI533MC Camera
Astronomik filter
iOptron CEM60 mount

From **DONOVAN DREW**. The forecast was looking iffy but it ended up being pretty much clear all night! M95 and M96 start pretty high in the sky by astronomical dark. 164 images at 120s exposure. Using an 8" F5 Newtonian on a Celestron AVX. Shot with a ZWO asi294mc-pro.

From **DONOVAN DREW**. M100 and friends. "Thursday night was one of the most amazing light shows I have ever seen. My past experiences viewing the Northern Lights has been, so so, to say the least. Mostly just a green haze to the Northern horizon with a little bit of movement.

Which was what my experience was around 9pm Thursday. So I thought it was pretty neat but nothing that has stood out from my past experiences. My goal that night was to capture M100 which is about 55 million light years away. I got on my target then hung around to watch the sky for 20 minutes.

M100 crossed the meridian at 2am so I came outside then to flip the scope. I couldn't believe what I saw. The whole sky was pulsing with color. Now did it help my imaging session? Absolutely not. I have never seen such a gradient in the background of one of my images haha. But it was worth it!"

From **ADRIAN BRADLEY** "I went out and soaked in some of it as I headed up to one of my favorite places to image --Pointe Aux Barques Lighthouse Park.

The windiness was in fact there, but so was the darkness: when I put my SQM-L meter to the sky for readings, I was rather shocked to see 21.42 as a max, and 21.3 as an average. Readings varied from multiple times at 21.40 down to 21.20. Horizon readings were predictably around 20.8.

From the lighthouse park, here's a return to the skies as they look around 9 pm in June, toward the start of the summer months:

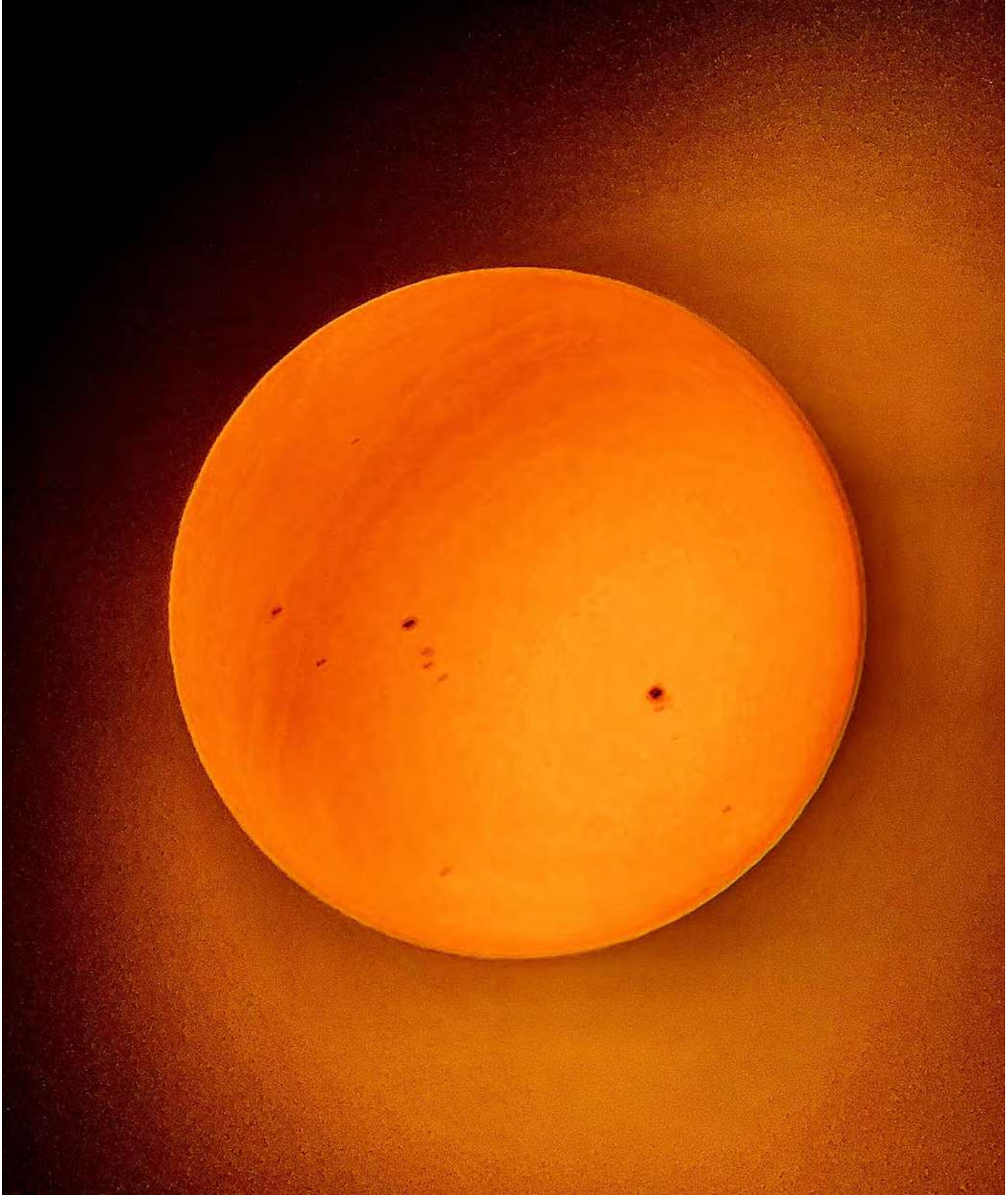
From **NORBERT VANCE**. Aurora at Fish Lake near Lapeer, MI. "The Kp index hit 7 during these auroral rays over the Fish Lake dorm tonight (NE of Lapeer, MI), then it clouded up. Skies cleared just long enough to get some great views of the fluctuating rays and even see the greens and reds easily."
Raw unprocessed jpg. Canon T6 18mm wide field 15 sec ISO 6400

From **AWNI HAFEDH**. Nov 1, 2022 - Witch Head Nebula (IC2118) "Let me start with how difficult and huge this target it, I imaged this target with 135mm lens and I am still unable to fit the whole thing in the field of view, it is also super dim, this was at F/3.2 and 3min exposure subs and added 260 subs and there are still some details that are not showing up. With that said I am very happy with the amount of details that I manager to capture from my backyard in Howell. Hopefully the sky will remain dark for the next 10 years even though I doubt it especially with the amount of constructions that we are going through.

As the name implies, this reflection nebula associated with the star Rigel looks suspiciously like a fairytale crone. Formally known as IC 2118 in the constellation Orion, the Witch Head Nebula glows primarily by light reflected from the star.

This was 260x3min with color ASI533 camera and Lum filter, that is a total exposure of 13 hours. Only used PixInsight and Luminar4 to produce this final image, I hope you like it."

Equipment used
Rokinon 135mm at F/3.2
ZWO ASI533MC Camera
Astronomik L2 filters
iOptron CEM25P mount



From **MATTHEW WEST**. The Sun.

Equipment:
Celestron sun shield
Orion 130st telescope
iPhone XS
Phone mount
Some edits from camera app