Planetary Nebula & SN2023IXF
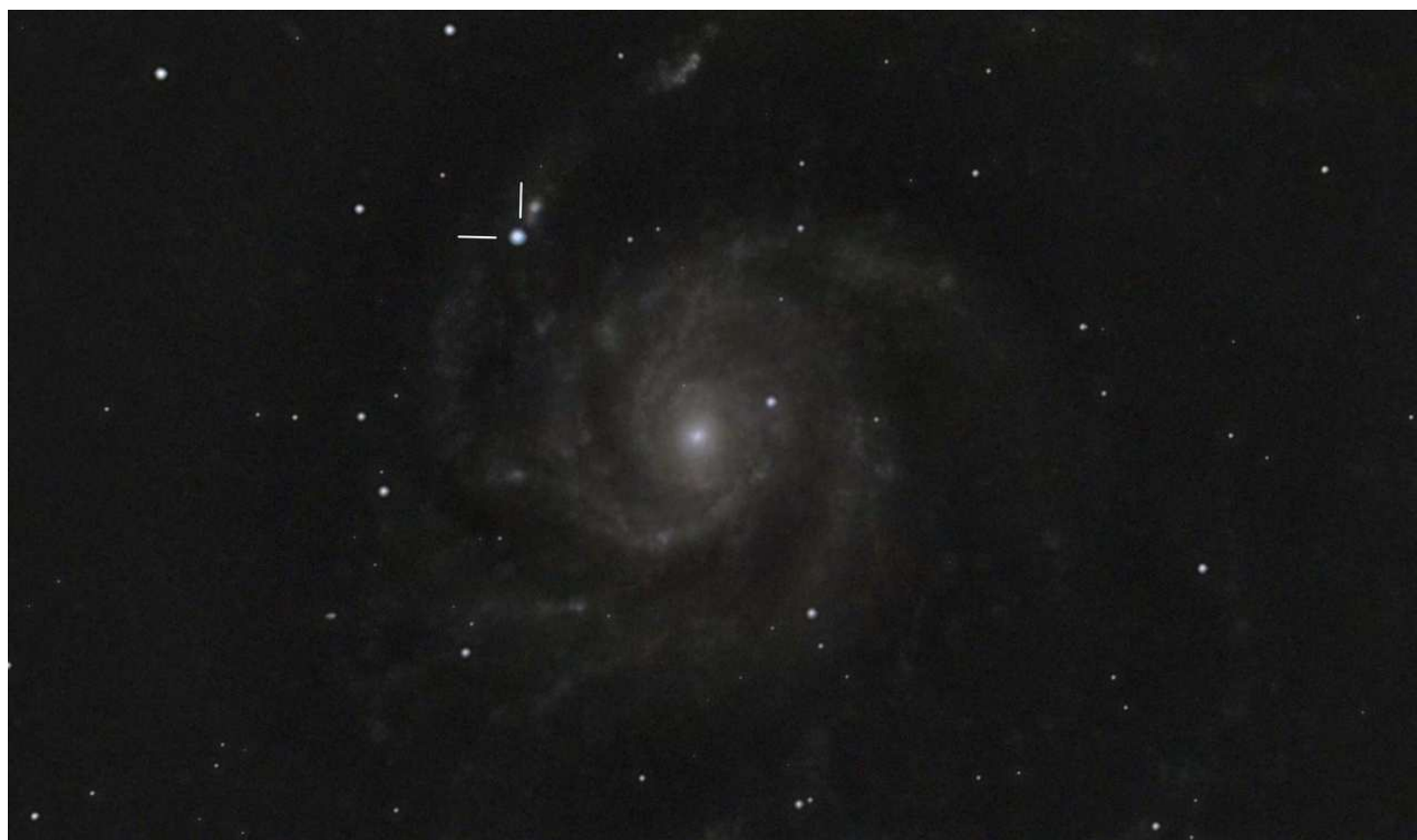
From **DONOVAN DREW**. Cat's Eye Nebula
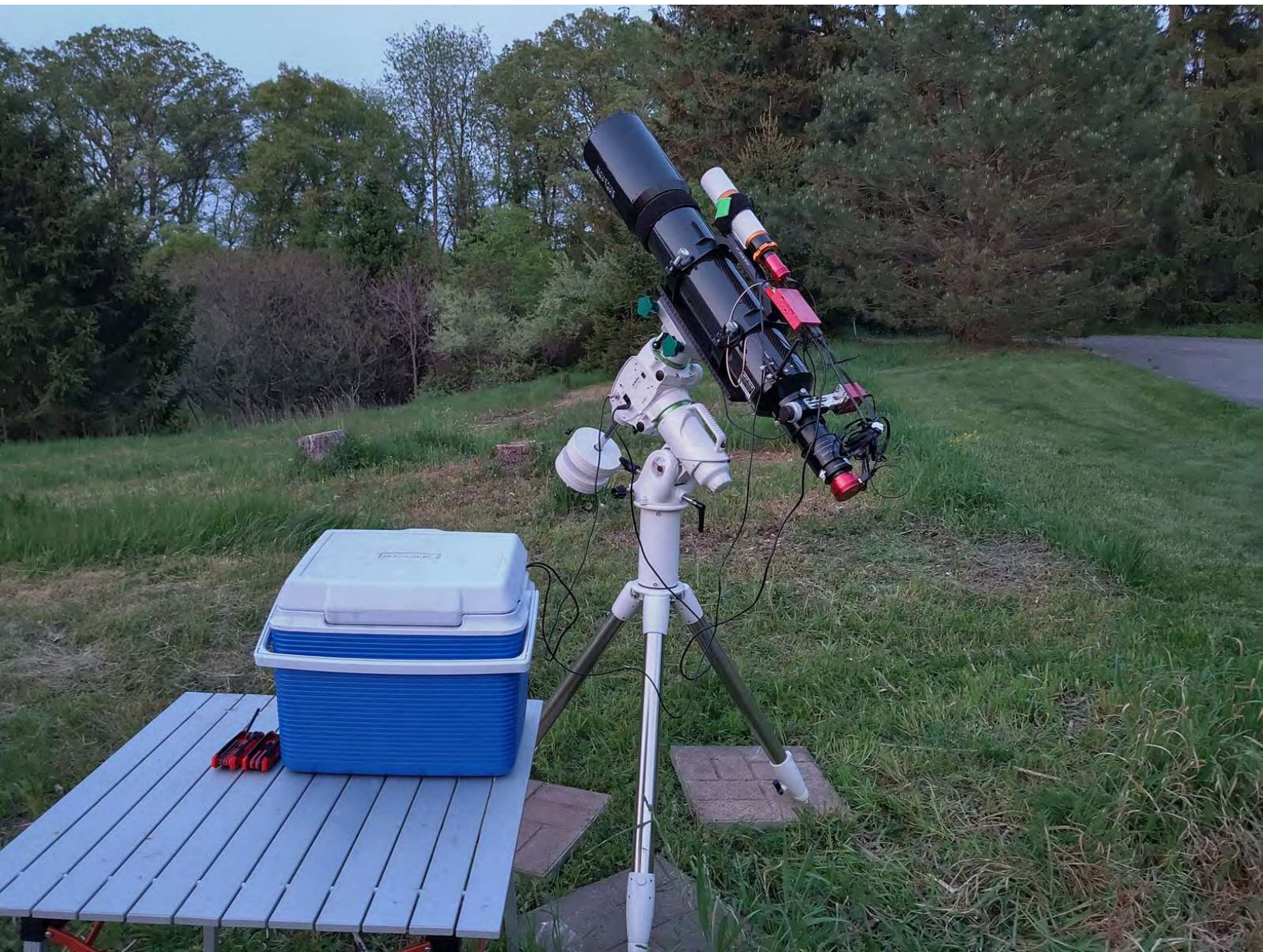
From **JACK SPRAGUE**. First light in "Beagle Meadows."

From **JACK SPRAGUE**. Supernova 2023ixf. I imaged the new supernova again (above) last night for 5 hours in my near-ir configuration. The supernova is adjacent to NGC5461 which is a luminous area in M101. It has become noticeably brighter.

Also my original (top) which I should reprocess but have been wrapped up.
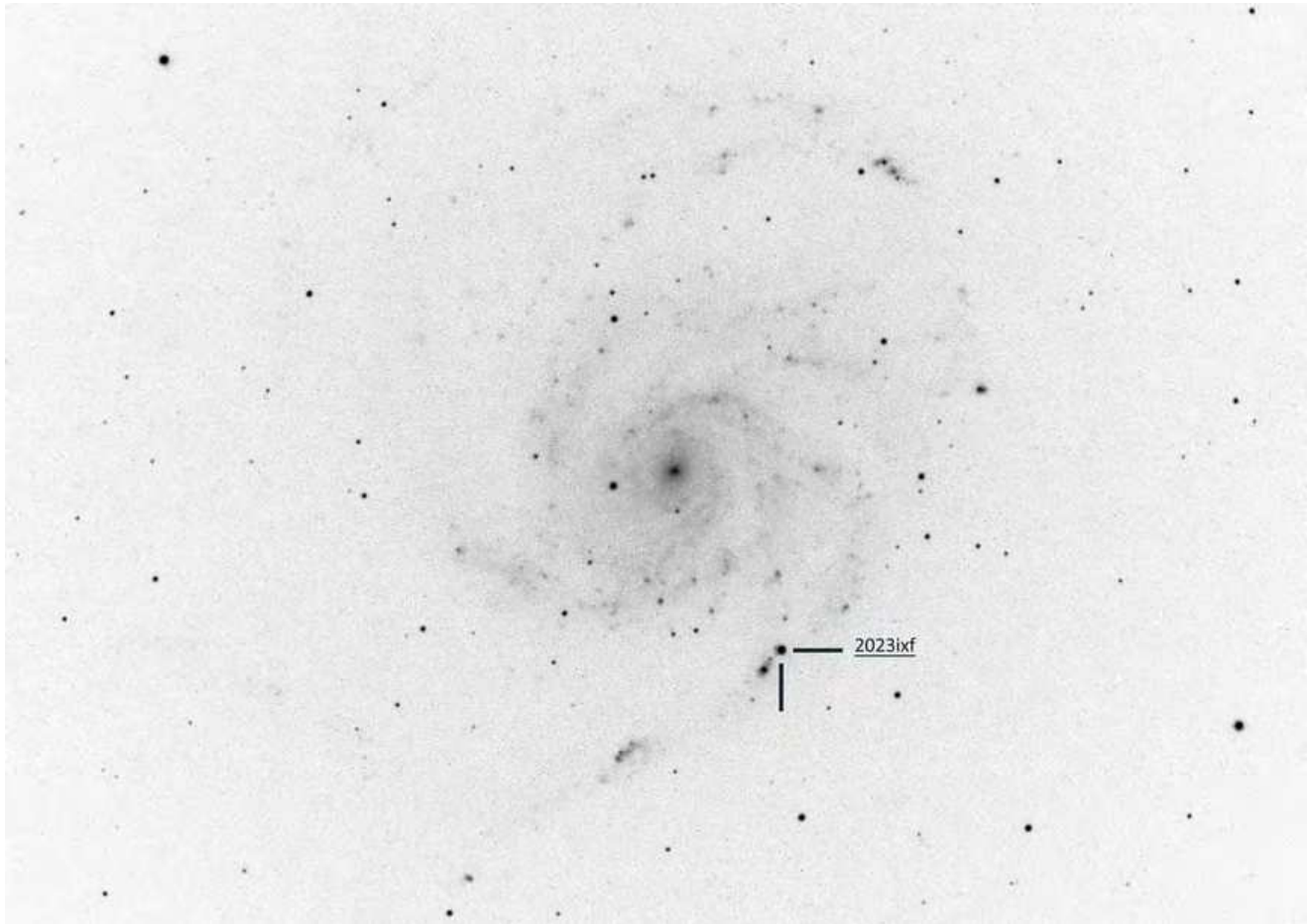
From **TONY LICATA**. Supernova 2023ixf

From **GLENN KAATZ**. Here are my images of the M101 supernova. I imaged this galaxy in July 2022 and again over the past two nights. These images are just the luminance filter data, with the 2022 data having 5.5 hours of integration and the 2023 with 3 hours. Images were captured with my Celestron HD 8 inch with a 0.7 focal reducer. Guiding was off-axis with an ASI174mm camera, and the main camera was an ASI1600MM. My ASIAir Plus controlled both imaging sessions. Processing was PI and PS, using Noise and Blur XTerminator plugins in PI.

From **BRIAN WAIT**. Supernova 2023ixf. From May 26 at the Brauer Preserve. Here is my attempt at capturing M101 & Supernova 2023ixf...someday someone will teach me to Guide - then I'll be happier!
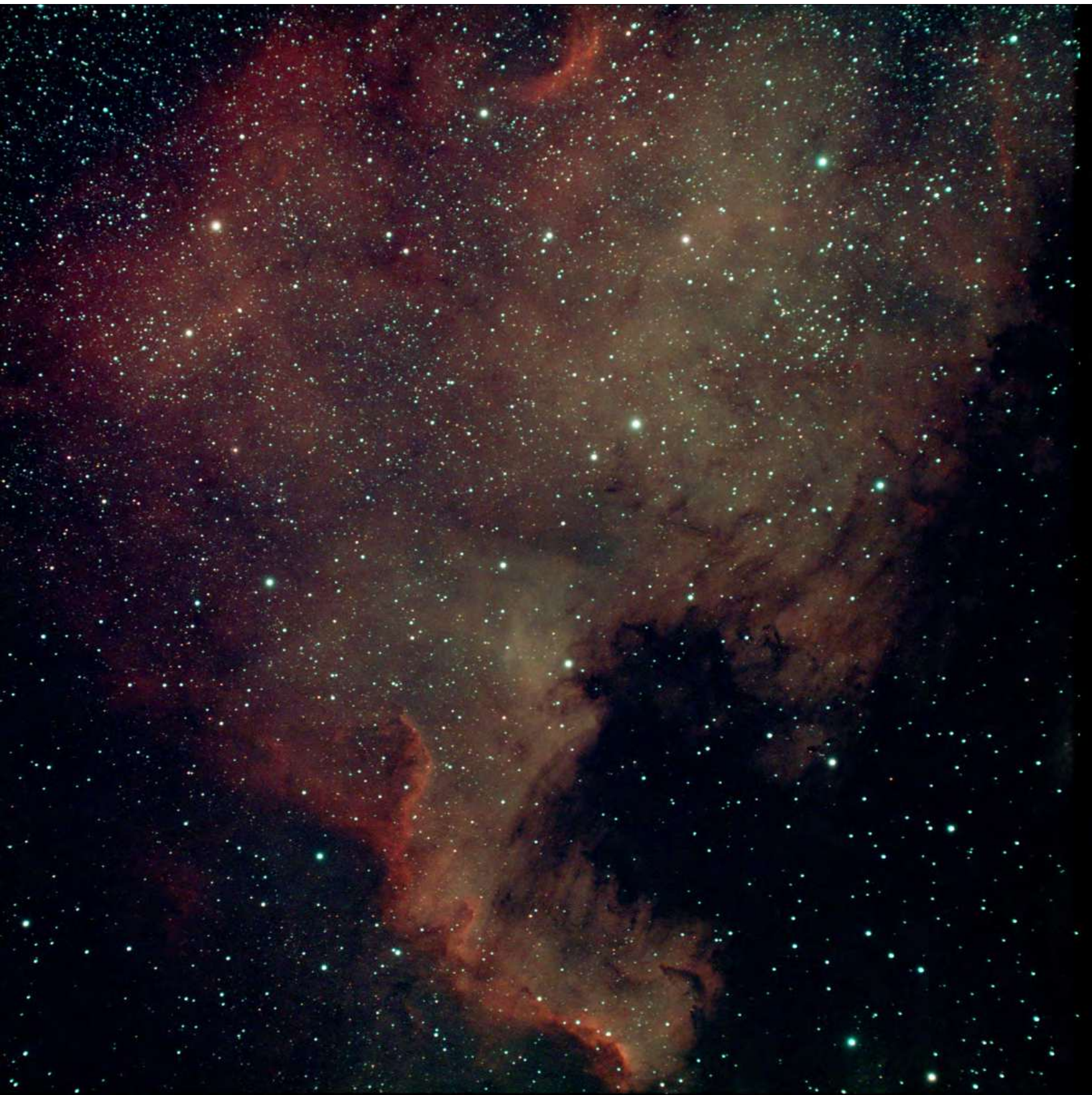
From **BILL SLOGERIS**. NGC7000 North American Nebula
55 120 seconds Bin1 gain100 5/21/23

ASIAir Plus processed
SkyWatcher Evostar 72ed
ZWO ASI533MC
SkyWatcher EQM-35 Pro

From **JACK SPRAGUE**. M51 Whirlpool in near-ir from multiple sessions in late May '23.

Es 127mm fcd-100 CF reduced to 680mm f/5.25 using zwo 462mc. 7.5 hrs integration.

From **AMY CANTU** Supernova 2023ixf. ASI183MC Pro with Redcat51, with flats, dark flats, darks. (Yeah, not enough integration. I know. Mistakes were made.)

From **DONOVAN DREW**. Used those clear nights over the long weekend to image the Cygnus Wall coming up in the east. This is just over 10 hours of integration using a ZWO asi294mc-pro along with a ZWO duoband filter on an 8" F5 Newtonian.

From **GLENN KAATZ**.
M81.
Celestron Edge HD 8 inch OTA on a CGX mount
Celestron 0.7X focal reducer
Celestron off-axis guider with an ASI174mm guide camera
ZWO 8 position electronic filter wheel with Optolong LPro, ZWO LRGB, OIII, and SII filters, and Astrodon 5nm H alpha filters
ASI1600mm Pro imaging camera
ASIAir Plus controlling everything

90 x 2 min images each using LProRGB filters 12 hours integration time) for M81, 90 x 2 min images each for RGB, 120 x 2 min for LPro, and 24 x 5 min for Ha (15 hours integration time) for M82

Processing was Pixinsight, Noise, Blur, and Star XTerminator plugins, and Photoshop for both

From **GLENN KAATZ**.
M82.
Celestron Edge HD 8 inch OTA on a CGX mount
Celestron 0.7X focal reducer
Celestron off-axis guider with an ASI174mm guide camera
ZWO 8 position electronic filter wheel with Optolong LPro, ZWO LRGB, OIII, and SII filters, and Astrodon 5nm H alpha filters
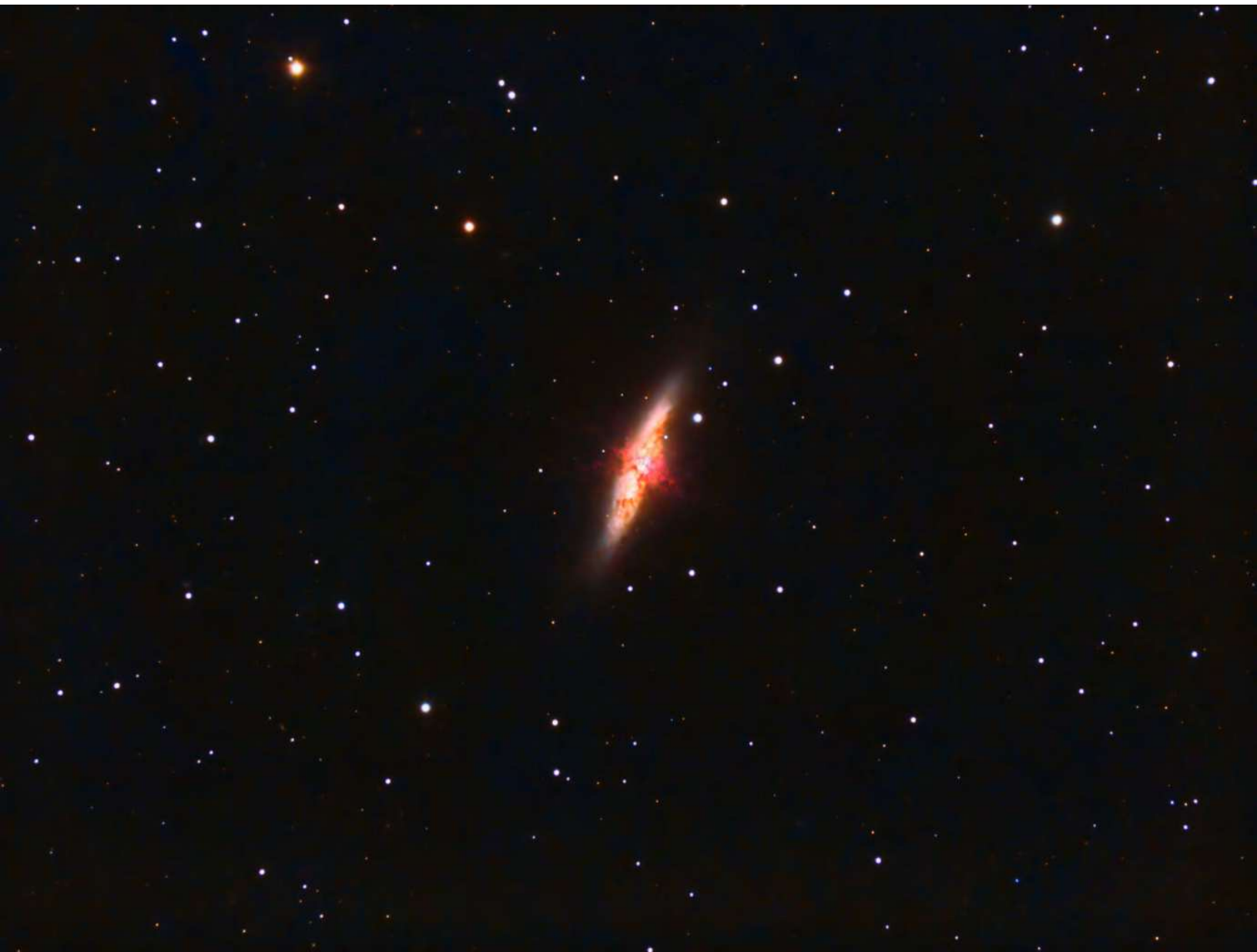ASI1600mm Pro imaging camera
ASIAir Plus controlling everything

90 x 2 min images each using LProRGB filters 12 hours integration time) for M81, 90 x 2 min images each for RGB, 120 x 2 min for LPro, and 24 x 5 min for Ha (15 hours integration time) for M82

Processing was Pixinsight, Noise, Blur, and Star XTerminator plugins, and Photoshop for both

From **JEFF KOPMANIS**. Observing partners in the camper.
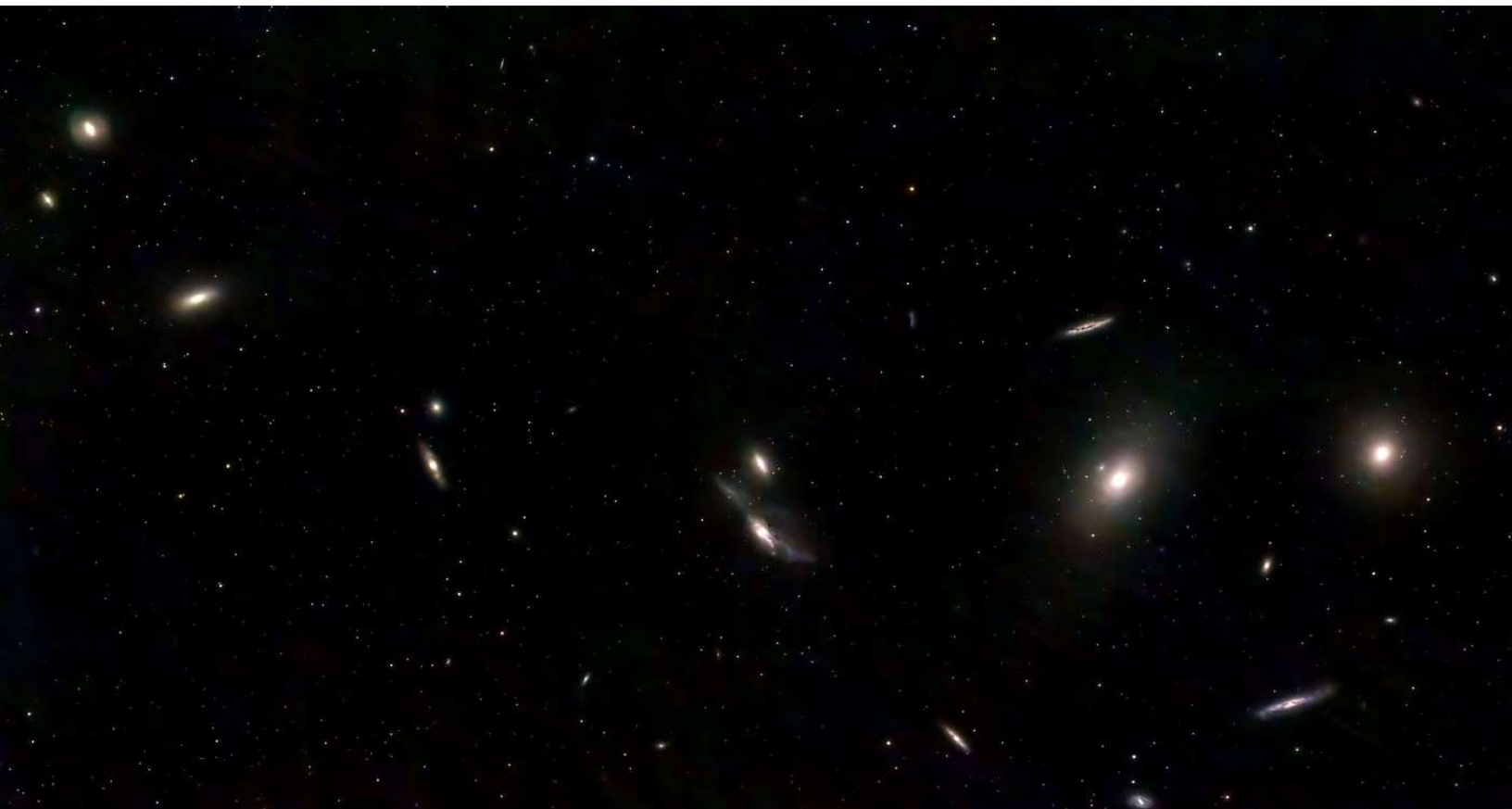
From **HOWARD RITTER**. So last night, my last in Florida for the year, turned out to be better than I expected, and lots better than Meteoblue had predicted. I got 180 x 60s subs on Markarian's Chain with the Nikon on the 155 EDF refractor. I thought I'd need the DSLR's full-frame sensor to encompass it, but I wish I had used the APS-C sized cooled camera, as there's lots of color noise in here that needed to be suppressed at the cost of the background and the galactic fringes. I think it's not bad, but as I learn more about PixInsight, especially how to do spectrophotometric color correction, and combine last night's data with earlier data, it'll look better. Calibrated and stacked in PI, cropped and then both Dynamic and Automatic Background Extractor, NoiseXTerminator and BlurXTerminator applied. Finally it was histogram-stretched and black level brought up in Photoshop.

But I just had a look at fields of view in SkySafari, and to my surprise found that I could in fact get this whole field, which is cropped from the full frame, on the APS-C sensor of my ASI2600MC. So as soon as I'm back in Ohio for the rest of the year, I'll get some major integration time on the Chain and hopefully be able to show it in real color. (Whatever that is.)

From **HOWARD RITTER**. FedEx Claus brought the new Mach2 mount from his workshop at Machesney Park, Illinois, two days ago and my AP 155 refractor leapt from its ancient AP mount (so old it has physical setting circles!) onto the new, where it looks like they were made for each other. I managed to get 2 hours of fairly well focused 180-second, non-guided subs using ASI Air's PA function to get within about 10 arcsec. I got a total of 5 hours of subs, but made a rookie mistake: The aluminum tube of the refractor must really contract even with a 10° or so drop in ambient air temperature, because there was a steady increase in mean star diameter from beginning to end. The star size literally tripled over that time, and well before the end, frames were visibly out of focus. Of course, I wasn't monitoring this, nor do I have electric autofocus and computer monitoring of star size, so this wend undetected until I was ready to stack. So this first-light image of M63 is literally the first two hours of light out of five altogether.

ASI2600MC camera, stacked and calibrated, then NoiseXTerminated and BlurXTerminated, all in PixInsight, with the final result nipped & tucked in Photoshop. Not color calibrated. It's possible I tried a little too hard in PS to go deep, as there's color noise in the outlying areas, but published images do show the odd straight tangential dark lane at the top of the galaxy as well as the nimbus of haze like a collar around the chunky arms — it really does look like a sunflower!

From **AMY CANTU**. M51 and a few other galaxies. ASI183MC Pro with Redcat51, with flats, dark flats, darks. (Yeah, not enough integration. Mistakes were made again.)

From **BRIAN OTTUM**. Wow, we've had some great observing weather! (Despite recent equipment purchases.) And the mosquitoes aren't bad at all.

Here's a snapshot I took last night [June 1]. When the moon is big and bright, might as well study it close up.

Tech Specs:
ZWO 2600 color camera
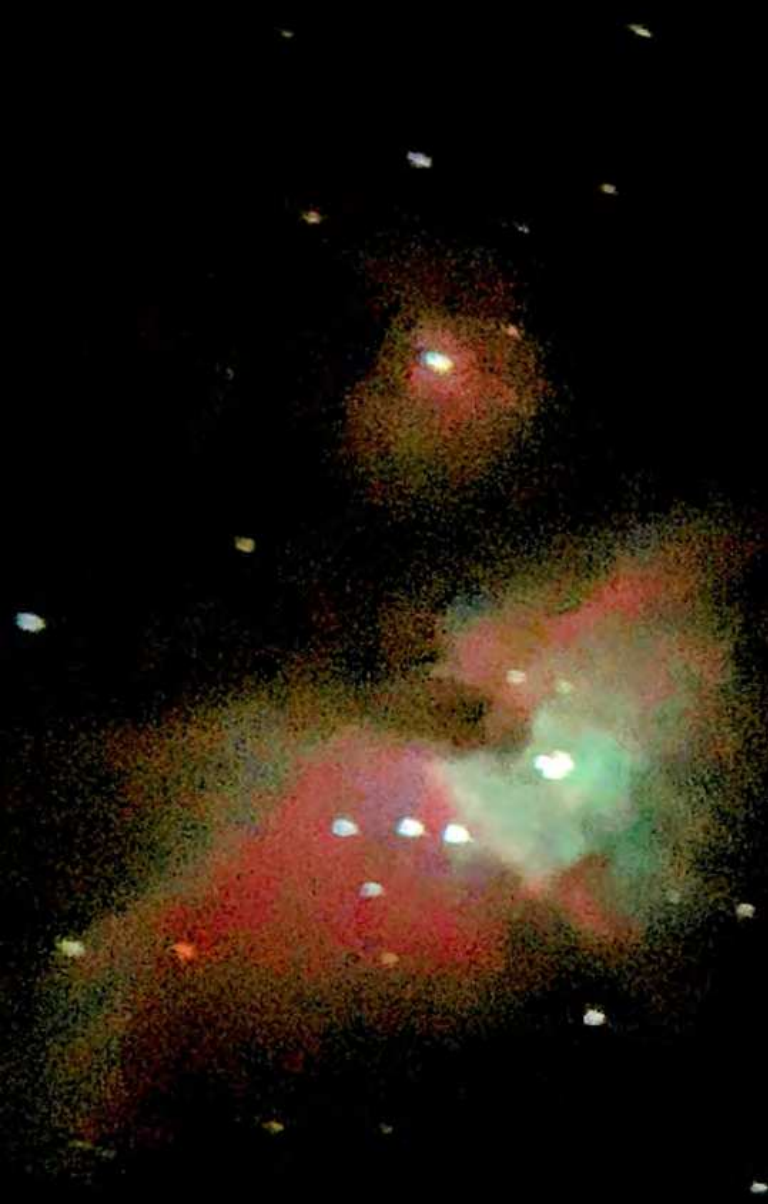7" f/15 maksutov (was Awni's)
ZWO AM5 goto mount

The mount continues to impress. Only weighs a few pound, yet supports the 26lb rig with no counterweight.

Maybe I'm weird (yes, wife will confirm) but I actually am entertained by using the polar alignment tool within SharpCap.
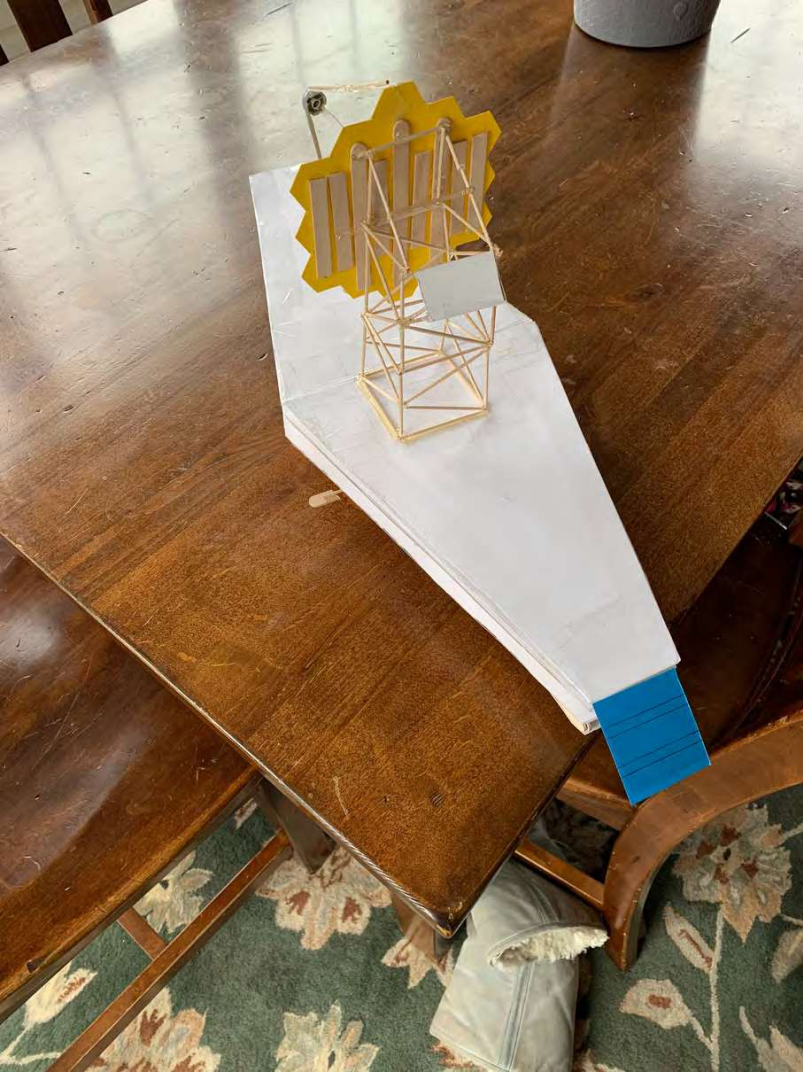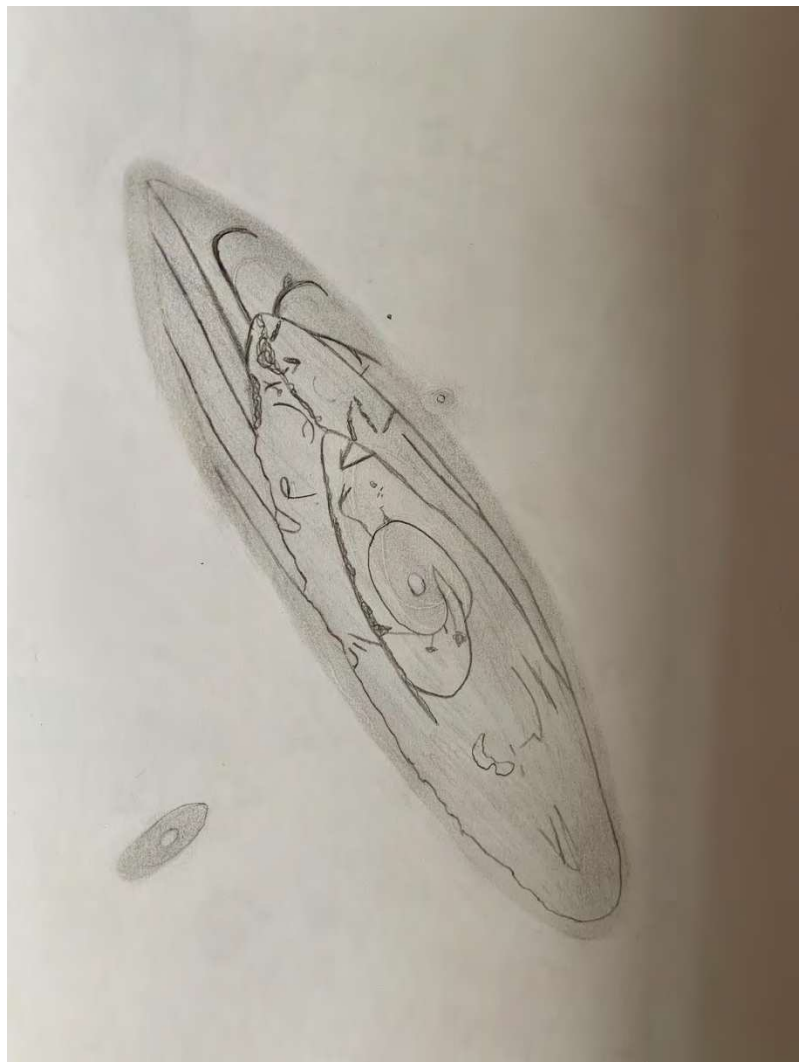
From **MATTHEW WEST.** The Moon.

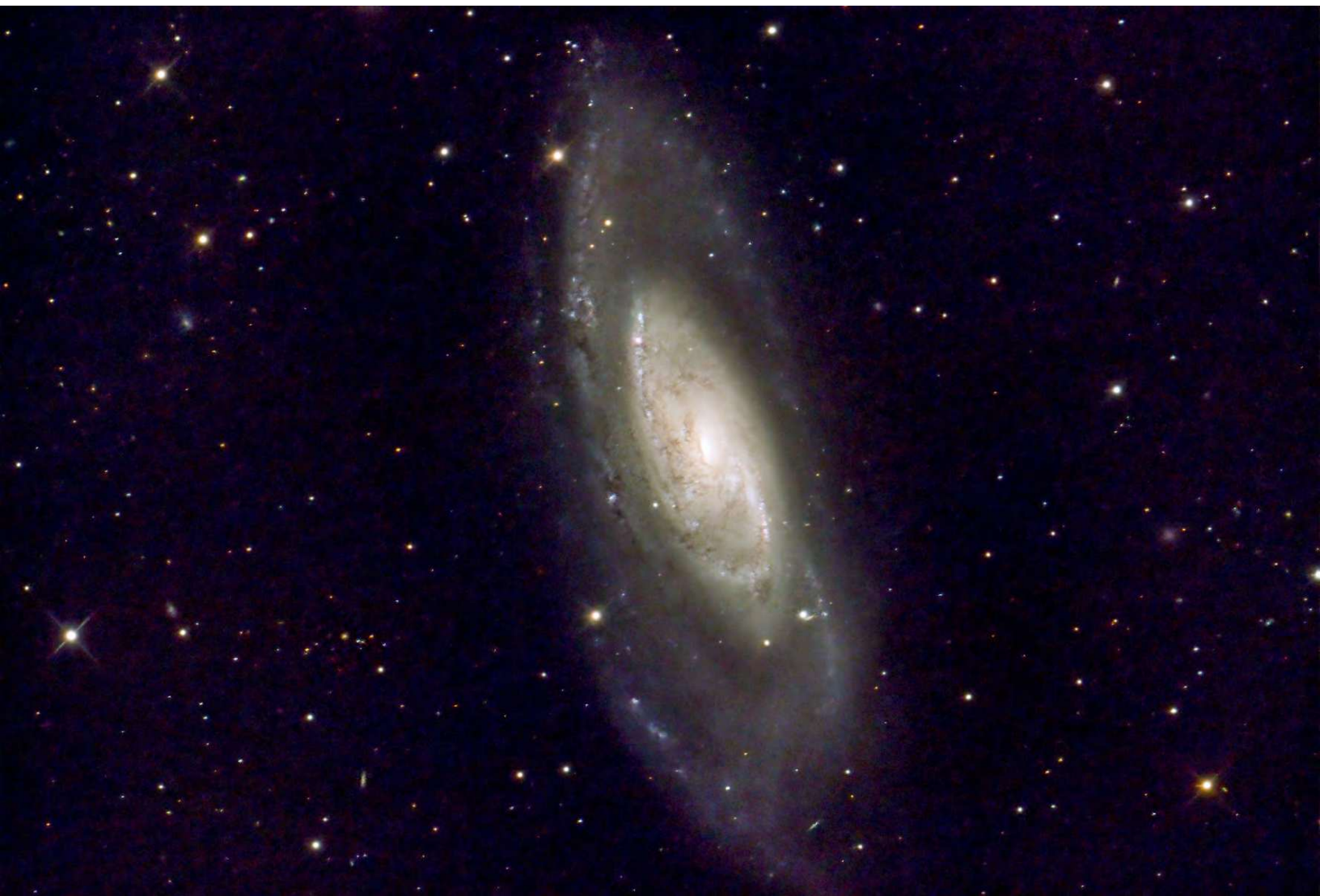From **MATTHEW WEST**. Orion Nebula and telescope

From **MATTHEW WEST**.

From **HOWARD RITTER**. I post this with some trepidation in the face of the fabulous images I've seen on these groups of the larger M106 field, which I'm going to do myself when my 155EDF + QuadTCC gets up on the Mach2 that FedEx promises to deliver next week, just in time to greet the full Moon. But as a newbie, I'm fairly well pleased by this tight shot of M106 done with the CDK14, no focal reducer, and an APS-C sized cooled camera in Bortle 6 at sea level. Kinda cramped because I can't rotate my camera.

This is 4h of 120s frames, unguided, RAPAS PA only, no filter, quarter Moon. Calibrated, corrected, stacked, de-noised, de-blurred in PI, then nipped & tucked in PS. Yet to be learned are SPCC and galactic histogram stretching in PI.