

# The Objective Lens

University Lowbrow Astronomers Monthly Newsletter Supplement

October 2023

## The Summer Milky Way



From **ADRIAN BRADLEY**. From Black Mesa, OK.  
Pictured here: Nate Murphy and Jim Forrester.



From **ADRIAN BRADLEY**. From the Okie-Tex Star Party



From **ADRIAN BRADLEY**. From the Okie-Tex Star Party



Photo by **AMY CANTU**. 35mm. Taken at Lake Hudson.



From **ADRIAN BRADLEY**. From the Okie-Tex Star Party



From **ADRIAN BRADLEY**. From the Okie-Tex Star Party



From **MARCUS CLARKE**. NCC7000. CAPTURED 8.27.2023  
Ss 400 sec, ISO 1600, 67 subs stacked, PS with  
astronomy tools, ASIAIR guiding, electronic focuser,  
STC narrowband filter, William Optics 81



From **AJAY CHOUDHARY**. M31, the Andromeda Galaxy.





From **AJAY CHOUDHARY.**  
Star trails.



LDN1251 - Sep 13, 2023  
© Awni Hafedh

From **AWNI HAFEDH**. LDN1251.



LBN777 BabyEagle - Sep 13, 2023  
© Awni Hafedh

From **AWNI HAFEDH**. LBN777. Baby Eagle.

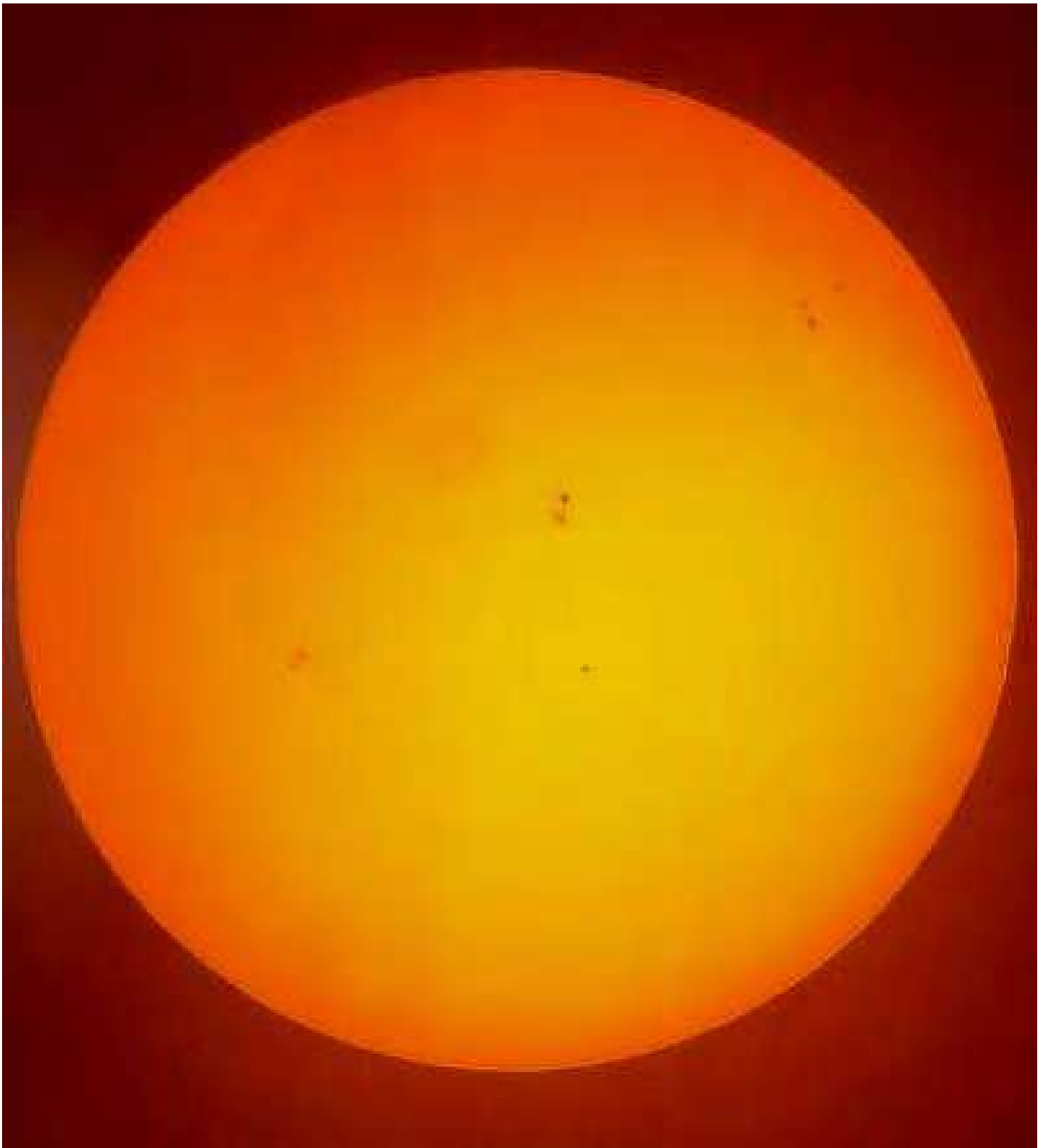


NGC1333 - Sep 14, 2023  
© Awni Hafedh

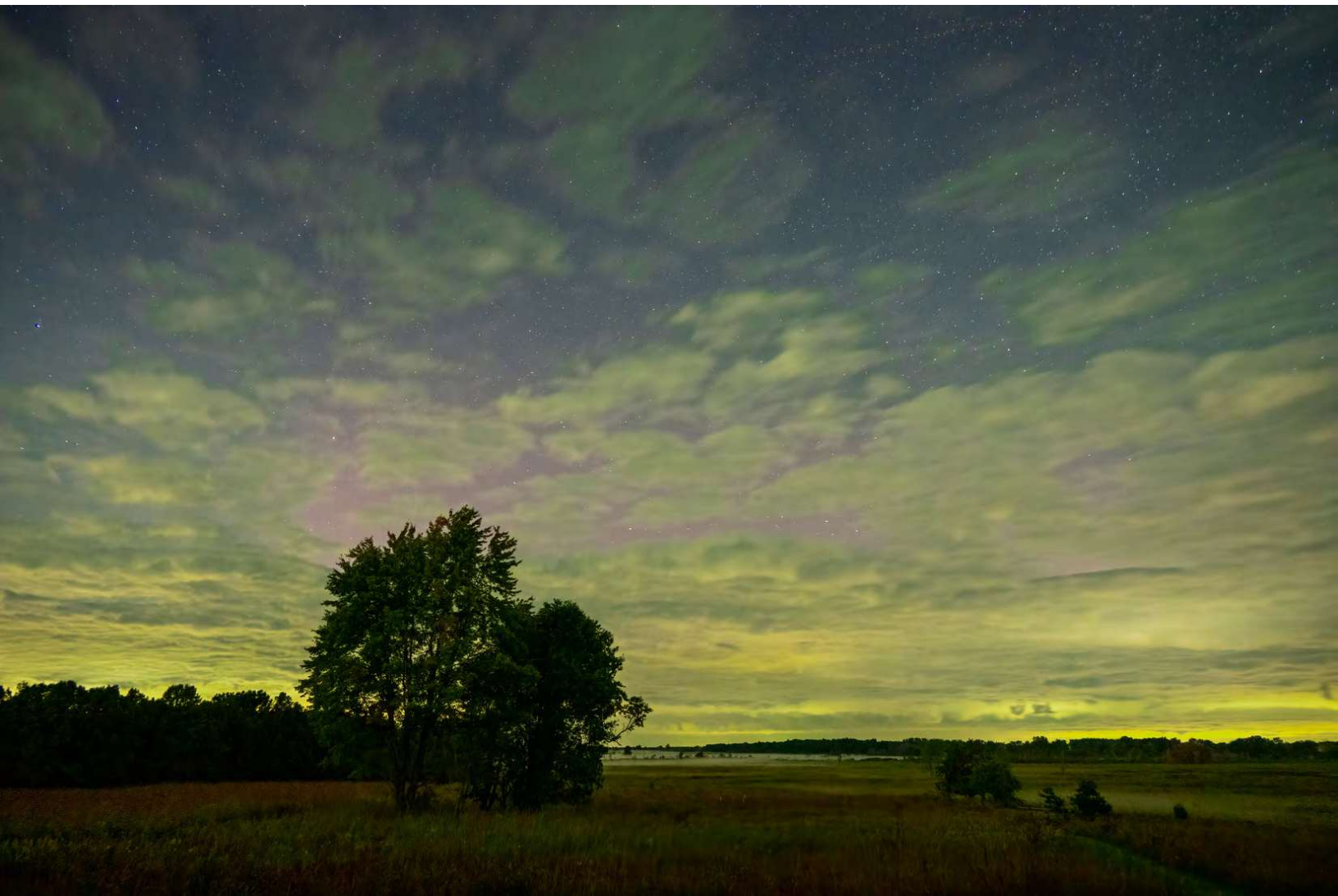
From **AWNI HAFEDH**. NGC1333.



From **AWNI HAFEDH**. Drone photos from the Great Lakes Star Gaze.



From **JACK BRISBIN**. Taken with a cellphone. The sunspot photo was taken Saturday, Sept 23 at 6:32 pm at AATB. Charlie Neilsen had Lorna the club's 3.5 inch Questar telescope set up Observing the Sun using a Solar filter Clay Kessler donated. I used my cell phone to take the picture.

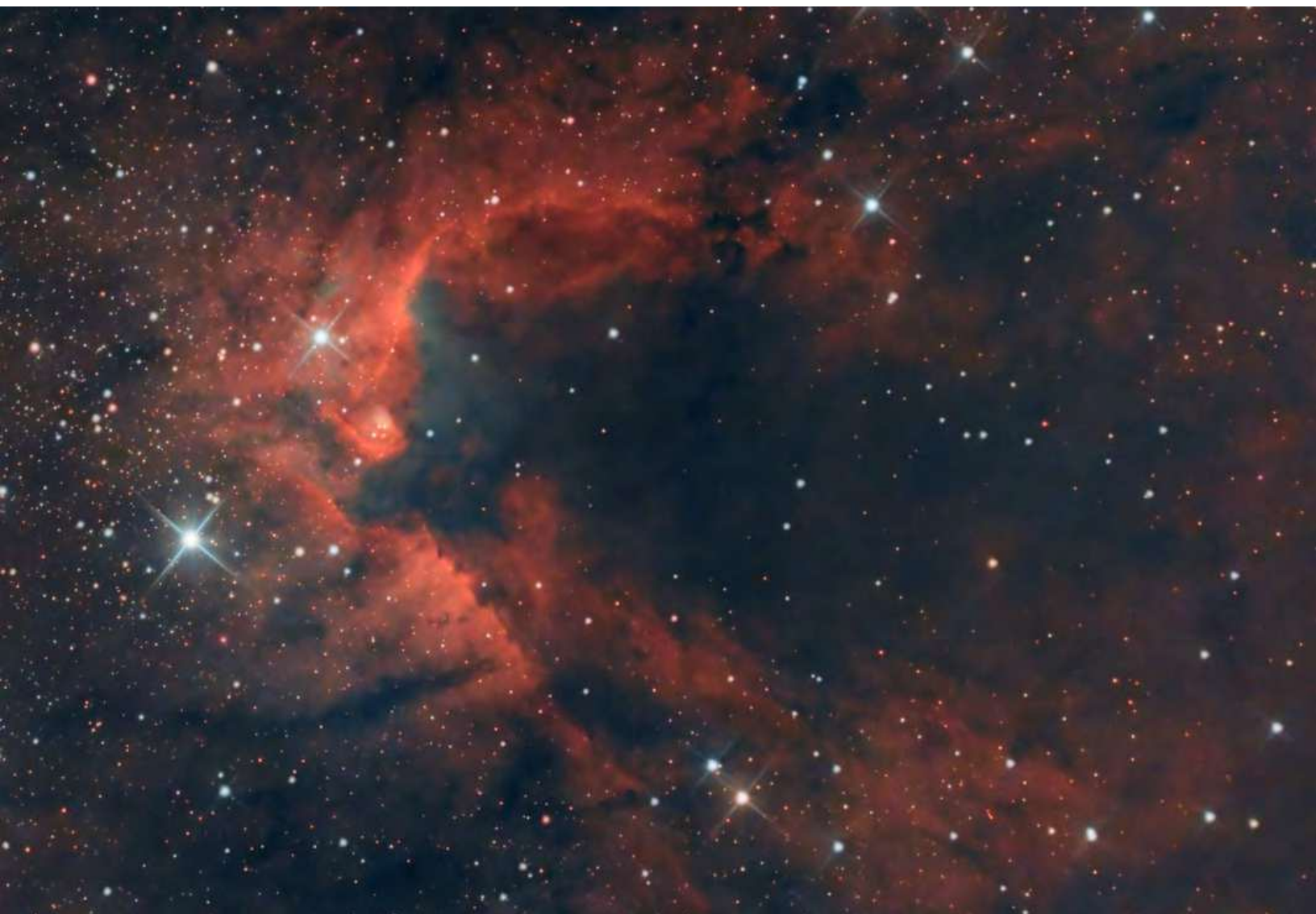


From **GINIA FORRESTER**. A ribbon of pink aurora peeks through the clouds,  
Haehnle Bird Sanctuary.



From **GINIA FORRESTER**. Haehnle Bird Sanctuary.





From **DONOVAN DREW**. Cave Nebula, SH2-155. ZWO asi294mc-pro with a duoband filter imaging through an 8"F5 newtonian sitting on a Celestron CGX. Processed in Pixinsight.



From **ADRIAN BRADLEY**.



From **GLENN W. KAATZ**. Comet 103P/Hartley (also called Hartley 2) is a small, peanut shaped comet with a nucleus of about 1.6 km diameter. It orbits the sun one every 6.5 years and lies within the asteroid belt.

Acquisition details are:

Celestron Edge HD 8 inch SCT with 0.7X Celestron focal reducer  
Celestron off-axis guider with ASI174 mini guide camera  
CGX mount  
ZWO 8 position electronic filter wheel; Optolong LPro filter used during image acquisition  
ZWO electronic automatic focuser  
ASI294MC pro imaging camera  
ASIAIR Plus controlling everything

116 30-second images captured

Processing done using Pixinsight, Star, Blur, and Noise Xterminator, Photoshop



From **DOUG BOCK**. NGC 891. Taken at the Great Lakes Star Gaze. NGC 891 is an edge-on unbarred spiral galaxy about 30 million light-years away in the constellation Andromeda. It was discovered by William Herschel on October 6, 1784. The galaxy is a member of the NGC 1023 group of galaxies in the Local Supercluster. It has an H II nucleus.



From **DOUG BOCK.**  
Great Lakes Star Gaze



More from **DOUG BOCK**. Great Lakes Star Gaze





From **BILL SLOGERIS**. The Trifid Nebula (M20, NGC 6514) is an H II region in the north-west of Sagittarius in a star-forming region in the Milky Way's Scutum-Centaurus Arm. Its name means 'three-lobe'.

The object is an unusual combination of an open cluster of stars, an emission nebula (the relatively dense, reddish-pink portion), a reflection nebula (the mainly NNE blue portion), and a dark nebula (the apparent 'gaps' in the former that cause the trifurcated appearance).



Photo by **BILL SLOGERIS**. The Elephant's Trunk Nebula (IC1386)

Is a concentration of interstellar gas and dust within the much larger ionized gas region IC 1396 located in the constellation Cepheus about 2,400 light years away from Earth.

The piece of the nebula shown here is the dark, it is commonly called the Elephant's Trunk nebula because of its appearance at visible light wavelengths, where there is a dark patch with a bright, sinuous rim.





Photo by **BILL SLOGERIS**. Globular Cluster (M15, NGC 7078) is a globular cluster in the constellation Pegasus. At an estimated 12.5 billion years old, it is one of the oldest known globular clusters.

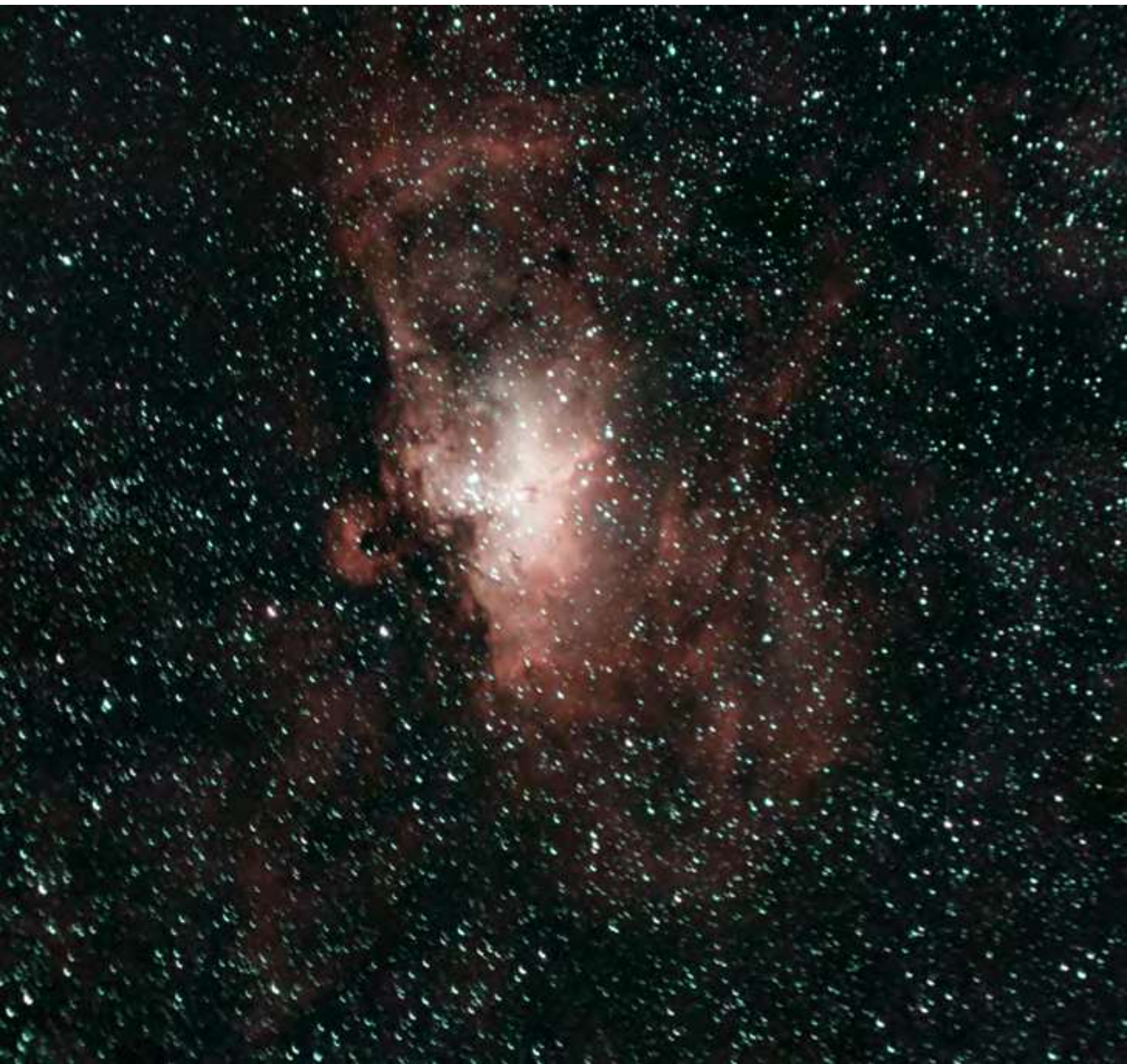


Photo by **BILL SLOGERIS**. The Eagle Nebula (M16, NGC 6611) Is a young open cluster of stars in the constellation Serpens. The "Eagle" refer to visual impressions of the dark silhouette near the center of the nebula, an area made famous as the "Pillars of Creation" imaged by the Hubble Space Telescope. The nebula contains several active star-forming gas and dust regions, including the aforementioned Pillars of Creation. The Eagle Nebula lies in the Sagittarius Arm of the Milky Way.



From **ADRIAN BRADLEY**.



Photo by **BILL SLOGERIS**. The Fish Head Nebula (NGC 896, IC 1795) is an emission nebula located at the narrow tip of IC 1805, the Heart Nebula in the constellation Cassiopeia.



Photo by **BILL SLOGERIS**. Bubble Nebula (NGC 7635, Caldwell 11)  
Is an H II region emission nebula in the constellation Cassiopeia.  
The "bubble" is created by the stellar wind from a massive hot, 8.7 magnitude young central  
star, SAO 20575

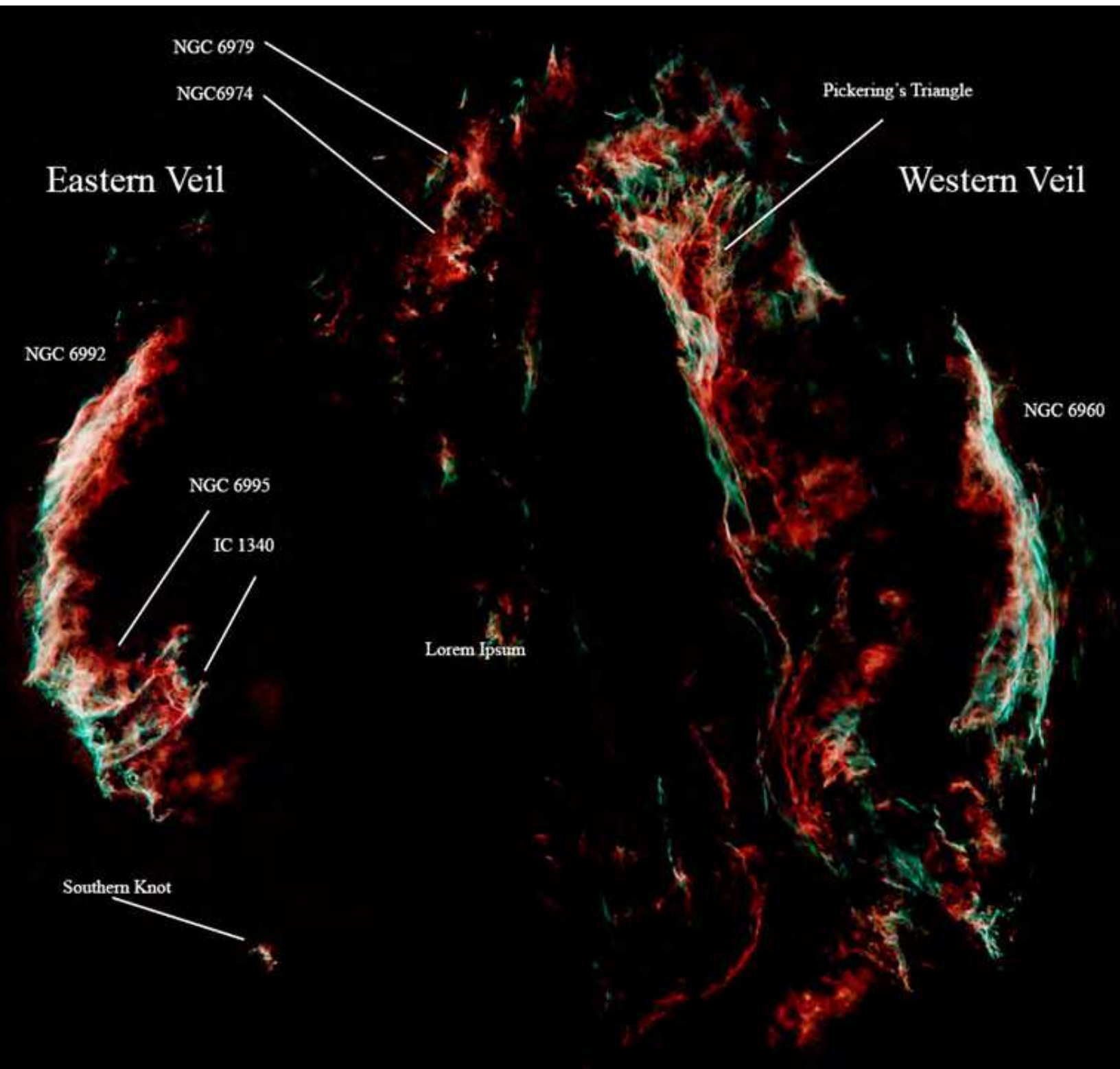


Photo by **BILL SLOGERIS**. The Veil Nebula is a cloud of heated and ionized gas and dust in the constellation Cygnus. It constitutes the visible portions of the Cygnus Loop, a supernova remnant. The source supernova was a star 20 times more massive than the Sun which exploded between 10,000 and 20,000 years ago. At the time of the explosion, the supernova would have appeared brighter than Venus in the sky, and visible in the daytime.

There are three main visual components:

The Western Veil, consisting of NGC 6960 (the "Witch's Broom")

The Eastern Veil, whose brightest area is NGC 6992, trailing off farther south into NGC 6995

NGC 6974 and NGC 6979 are luminous knots in a fainter patch of nebulosity on the northern rim between NGC 6992 and Pickering's Triangle.

More photos from AATB 2023



Photo by **BILL SLOGERIS.**

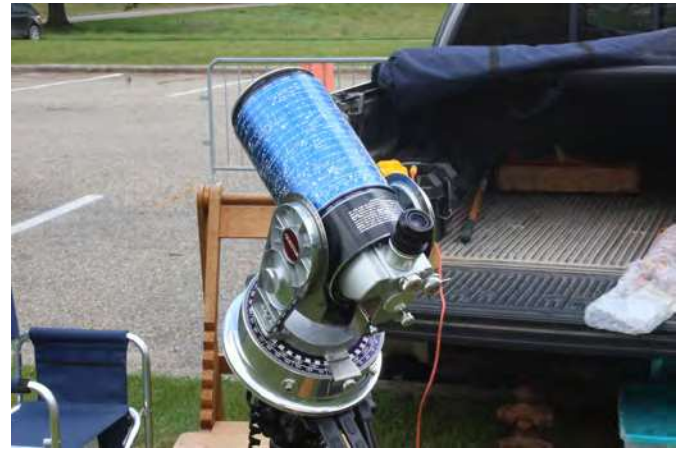


Photo by **BILL SLOGERIS.**



Photo by **BILL SLOGERIS.**



Photo by **GINIA FORRESTER.**



Photo by **AUSTIN EDMISTER.**



Photo by **GINIA FORRESTER**. Jim Forrester.



Photo by **REBEKAH SLOUP**.

**Even MORE photos from AATB 2023!**



Photo by **AUSTIN EDMISTER**.



Photo by **GINIA FORRESTER**.



Photo by **GINIA FORRESTER**.



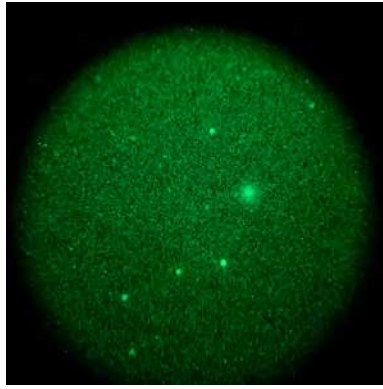
Brian Ottum.



Photo by **AMY CANTU**



Still more! From AMY CANTU



M13 at 85mm, through Ford Astronomy Club's Pat Mob's night-vision eyepiece.



Charlie, our fearless leader!



Jack Brisbin



Adrian Bradley



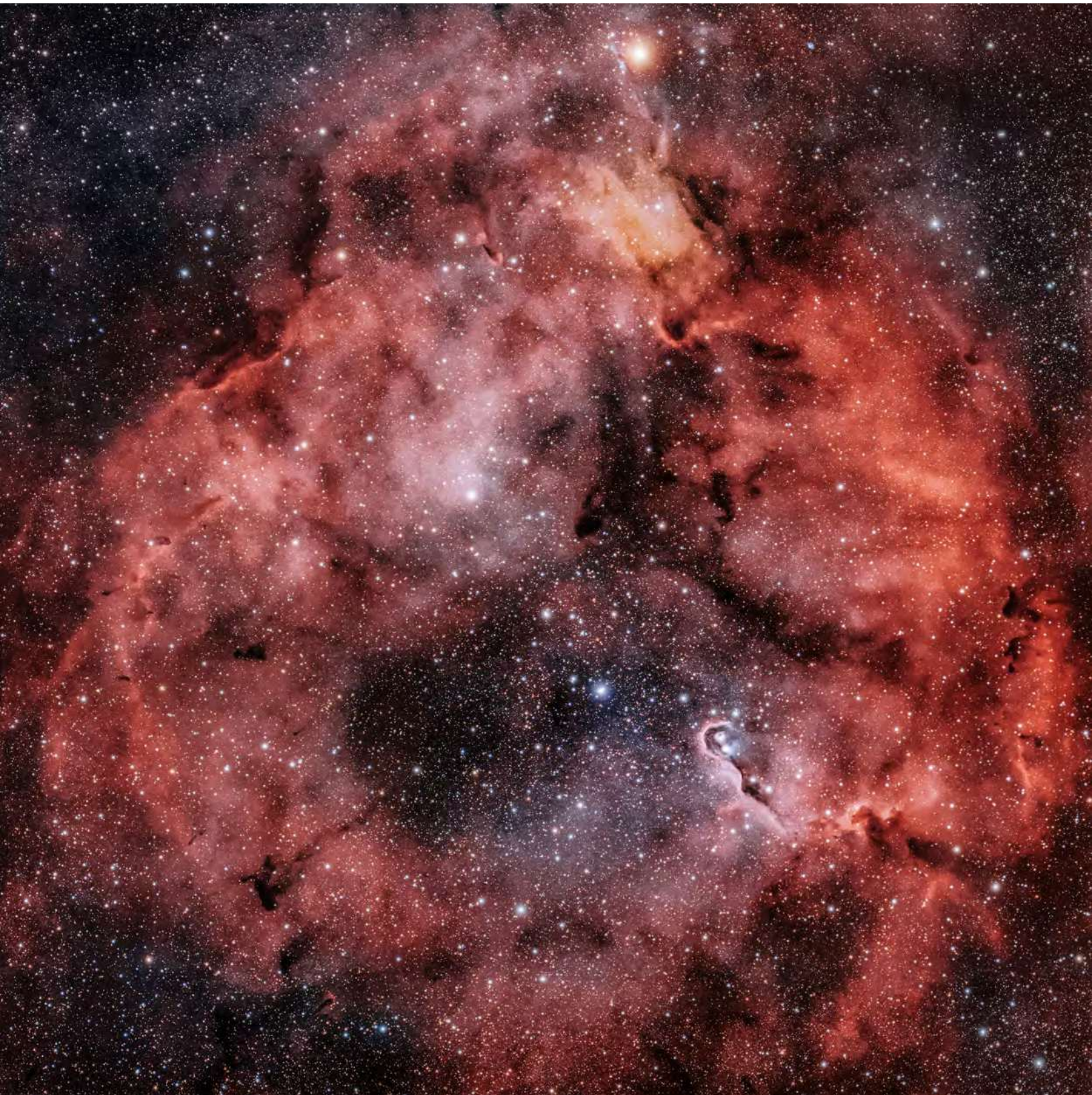


Photo by **AMY CANTU**. Elephant Trunk Nebula. Redcat 51 (250mm) with ASI533MC Pro. About 2.5 hours total. Mostly 240 seconds @ 100 gain, plus a few 60 seconds at 0 gain from a previous session. 30 minutes with L-eXtreme filter. Darks, flats, dark flats.

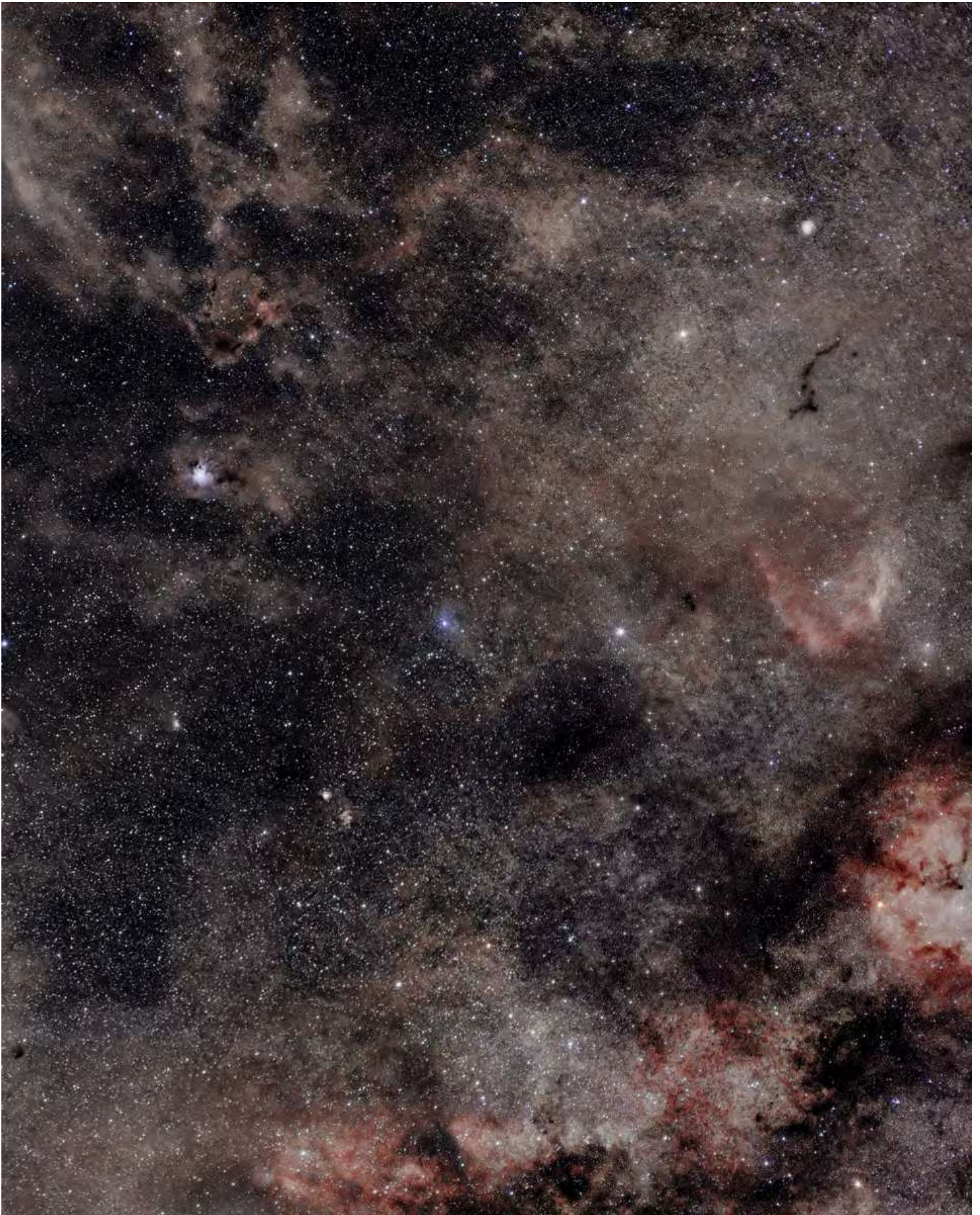


Photo by **AMY CANTU**. Cepheus area. Iris Nebula, Seahorse Nebula, Flying Bat Nebula, and part of Elephant Trunk Nebula. Canon 6d Mk II, Canon 85mm lens. Nearly 3 hours of 60-second shots @ ISO 1600, f/2.4. Darks, flats, and bias frames. Lots of star aberration at the right edge, so this was initially chopped off a larger photo.