**ORAS Astrophoto Art Show:**

In February 2025, ORAS partnered with Michelle's Café (https://michellescafe.com/) in Clarion, PA to put on an art show of astrophotography and nightscape photography images taken by ORAS members. Here are my submissions.

**1) The HorseHead**

**Submitted by:** Larry McHenry
**Technical:** 8" SCT @ f6.3, ASI294MC camera & broadband filter, 5 minute subframe stacked for 1 hour
**Description**: Located in the winter constellation of Orion "The Hunter" near the bright "O" class blue supergiant star Zeta Orionis, (known as 'Alnitak'), one of Orion's three belt stars, is Dark Nebula B33. Nicknamed "The HorseHead Nebula", B33 is silhouetted in front of red emission nebula IC434. Nearby to the lower left is the blue reflection nebula NGC2023, and the pink emission nebula NGC2024, called the "Flame nebula".
The HorseHead Nebula is about 1,375 light-years from Earth, and estimated to be around 3.5 ly in diameter.
All four objects are part of the giant Orion Molecular Cloud that contains nearly every bright, dark, and reflection nebula and starcluster visible within the constellation.

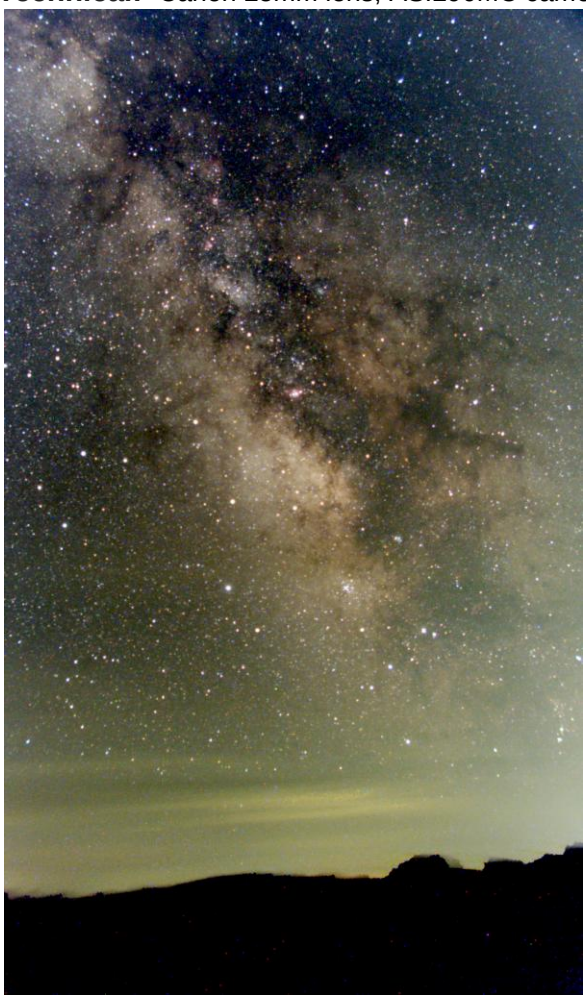
**2) Comet & Cluster**

**Submitted by:** Larry McHenry
**Technical:** 8" SCT @ f6.3, ASI294MC camera & broadband filter, 3 minute subframe stacked for 6 minutes
**Description:** Comet Leonard and Globular Cluster M3. The globular starcluster M3 is located in the spring constellation of Canes Venatici, the hunting dogs Asterion and Chara, and was discovered by French astronomer Charles Messier in May of 1764. At magnitude +6.3, the globular cluster has upwards of half a million stars in a glowing ball around 220 lights-years in diameter, is about 34,000 light years distant, and about 11.4 billion years old. Some sources say that it is this object which prompted Messier to actually start his catalog of "not a comet" objects. Comet Leonard is a solar system Oort cloud object that was discovered in January of 2021 and reached perihelion with the Sun in February 2022, whose in-bound orbital path from the Earth's perspective took it past M3. Leonard is a long-period comet not expected due back to the inner solar system until around 80,000 years. Unfortunately, after rounding the Sun, the comet nucleus was observed by Earth bound telescopes to have disintegrated completely, with the Hubble Space Telescope confirming that only a large debris cloud remained of the former comet.
Still, the one-and-done comet made a pretty conjunction of deep-sky and shallow-sky objects!

**3) The Running Man**

**Submitted by:** Larry McHenry
**Technical:** 8" SCT @ f6.3, ASI294MC camera & broadband filter, 60 second subframe stacked for 30 minutes
**Description:** Located in the northern end of Orion's Sword, and discovered by English astronomer William Herschel in 1786, is the trio of blue reflection nebula, NGC1973, NGC1975, and NGC1977, collectively known together as SH2-279. Among amateur astronomers, the grouping is popularly known as "The Running Man Nebula". The three nebulas are about 1,500 light-years from Earth, and estimated to be around 11 ly in diameter.
While difficult to see visually, the outline of the 'man' displays easily in astrophotos.
A number of protoplanetary "proplyd" disks have been discovered in the Running Man Nebula by the Hubble Space Telescope. Proplyds are gas and dust disks surrounding very young, new stars that are slowly being evaporated by highly ionized light from the star.

**4) Milky Way Central Bulge**
**Submitted by:** Larry McHenry
**Technical:** Canon 25mm lens, ASI290MC camera & IR filter, 60 second subframe, stacked for 15 minutes



**Description:** located just off the spout of the teapot in Sagittarius, home to the brightest star-clouds and dark rifts, is the central bulge of our home galaxy – the Milky Way. This region of the sky, stretching from the stinger of Scorpius in the lower right thru Sagittarius & Ophiuchus in the center of the image to Scutum and Aquila towards the upper left contains numerous deep-sky objects: loose open star clusters of hundreds to several thousands of stars such as M6 & M7, to globular star clusters of stars numbering n the 100's of thousands like M22, to bright glowing emission nebula of M8, dusty reflection nebula – M20, and finally the large and small Barnard dark nebula of unlit gas and dust. The actual galactic core is hidden behind the foreground starclouds such as the Large and Small Sagittarius Starclouds and the Great Rift of dust that blocks our line-of-sight in visible light. Only ground based Radio and orbital X-ray telescopes can penetrate the obscuring clouds of interstellar dust lanes revealing 26,000 light-years away the supermassive blackhole at the center of the Milky Way galaxy.
Using your imagination, can you make-out the prancing front legs of the "Galactic Dark Horse"? (he must be a circus horse as he's wearing a feather tussle on his head).