The RASC-Kingston Centre 2020 Member Image Gallery

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Member submitted
best imagery of the year

This image of a "Solar Skunk" flipping its tail in readiness to spray is by far my best image of this past RASC-KC year so far. This is my first grand image with my new SolarMaxIII70 Double Stack.

This double stack as completely revitalized my desire for solar observing and I am eagerly awaiting the renewed solar activity of solar cycle 25.

Canon EOS Rebel T7i / ACDSee Photo Editor 11, Exposure time 1 s, camera f-number 0/SolarMaxIII70DS f 5.7 with 1.5x Antares TL Barlow, ISO 200, Shutter speed = 1 s

Hank Bartlett

In August I images M27, the Dumbbell Nebula in Vulpecula. I didn't think I could improve on my best. But I did with this one. Sky transparency was good. Seeing was excellent and guiding was spot on. This is easily my best of the year.

M27 was imaged August 12, 2020. Taken with my Mallincam Universe camera, Celestron 11in F10 telescope. Exposure was 5x10 Min exposures, stacked in Deep Sky Stacker and processed in Photoshop.

Steve Craig

Malcolm Park

Comet C/2020 F8 SWAN.
This comet was the tease of the year. Little did we know at the time what would happen a few weeks later with NEOWISE. But long before comet NEOWISE blew us all away, we in the north had a bad case of comet envy as SWAN put on a show in the spring for the southern hemisphere.

My setup in San Pedro de Atacama consists of a TEC140APO refractor, a Moravian G4 16803 camera, and a 10 Micron G2000 mount. Accessible over the internet for remote control, I acquired the data for this picture in May.
I have always found processing of this kind of data to be extremely difficult, so I was quite pleased with the result. Processed in Pixinsight with some Photoshop processing also.
Image capture software is Sequence Generator Pro with PHD2.

Mark Kaye

By July 10th, Comet Neowise was beginning to rise in the morning in relatively dark skies from our Observatory. But still, it did not clear the neighbouring trees until nearly 0400. As it played peek-a-boo with the local cedars, I pointed my telescope at it and snapped off images as it moved higher into the on coming twilight.

This shot is one of my favourites of the comet, with twin jets of tail visible off of the comet nucleus. 16 seconds at ISO1600 with a Canon 7D MkI with a one metre f8 telescope at 0356.

Jelly Fish Nebula

While this may not be my "best" image it was definitely pushing the boundaries of how deep I could go on a target that was quite faint.

Up to this point I was pretty much just imaging the top 10 messier objects a couple of times as I tried to figure out all manner of issues from polar alignment and guiding all the way to advance post process techniques that really allowed me to go for fainter objects.

RedCat 51 - Nikon Z6 - Jelly Fish Nebula
32 x 300s @ ISO800
March 14 & 17th, 2020

Graeme Hay

Bruce Elliott

Comet NEOWISE (C/2020 F3) was discovered on March 22, 2020. It was closest to Earth on July 23rd, passing by our planet 103 million kilometers away. The nucleus of the comet is ~5 km in diameter. During its orbit around the sun, it reaches speeds up to 230,000 km/h. It has a long dust tail consisting primarily of sublimating ice, and a smaller second "ion" tail (arrow, upper right) thought to be made up of atomic sodium. The orbital plane of Comet Neowise indicates that it originated within our solar system from planetesimal-sized particles at the time of planet formation 4.5 billion years ago.

I took this photo on July 24th at Depot Creek Nature Reserve, a property of the Land Conservancy for Kingston, Frontenac, Lenox & Addington, near Bellrock ON. The horizon and Ursa Major remind us how close to Nature we are in the Universe!

Technical Details: The photo was taken at 10:30pm under clear skies with no wind; I used a Canon 60D camera on a tripod. *Left:* 18-200mm zoom lens at 18 mm, ISO 5000, f/4.5, 30s. *Upper right:* 50mm prime lens at ISO 3200, f/1.4, 10s.

Reference: https://www.space.com/comet-neowise-strange-facts.html

Venus and Comet Neowise over Ottawa skyline

Technical details:
Photo taken July 9, 2020 at 4.00 a.m.
Canon Rebel T3, standard lens
Camera and tripod from apartment balcony, 10 seconds at f/5, ISO 800
White balance set to 5200K
Facing east, Ottawa River on left
Parliament Hill to right of center

I have seen a variety of comets over the years - and my favorite photos have always been the ones that show a realistic representation of what each comet looked like when you just stood and looked up in the sky. Comet Neowise was much more spectacular from darker skies - but I wanted to show what it looked like from my own backyard, in this case, an apartment balcony about 5 km from Parliament Hill. Each morning for over a dozen mornings, I set my alarm, and set up my camera and tripod on the balcony for photos while I just enjoyed watching the comet through until morning twilight. There is something about the solitude of having just you and the comet and the quiet of the sky. I have enjoyed this solitude for many of my comets. For one comet, I sat cross-legged on a roof for many mornings, taking in the zen of the comet and a silent view of the ocean until dawn gradually approached. For another, I spent a long cold night out in a snowy field, alternating between taking photos and twirling around in the snow to take in the 360 degree view. For me, I enjoy the solitude of comets - and my photos are meant to show what my eyes have seen in the skies...

Cathy Hall

Roger Hill

Mars

I've had a fascination with Mars since reading one of Percival Lowell's books as a child. During the 2003 apparition of Mars, I was able to capture both Moons of Mars, using a Philips webcam and the 16" LX200GPS at the Tim Horton's Children's camp in St. George, Ontario (Les Nagy, a close personal friend, was the astronomy director there at the time, and we were able to use the scope occasionally after hours). Attempts to capture surface features were unsuccessful, though. I had originally planned to image Mars during 2020, from both my backyard in Milton and through the Hamilton Centre's C14, but moving to eastern Ontario in July stopped this from happening. I was unable to spend any significant time until October. Attempts to use Sharpcap to capture images of Mars were not particularly successful, and so, on October 30, I decided to try using FireCap to gather images of Mars, and then to use AstroStakker to process the video files. This proved to be a much better combination, and despite some wrestling with the software, this image is the result.

For me, what is particularly significant about this image is that Tithonius Lacus is the "delta" of Valles Marineris and the thin thread that can be seen is part of this great canyon. Seaway Observatory, Cardinal, ON 12" LX200GPS, FL=3010mm, ZWO ASI1600MM, ZWO Red filter, iOptron CEM120, FireCapture, AstroStakkert, Registax Captured 10,000 frames of Mars on October 30, 2020 at 10:48pm EDT, Astrostakkert was used to keep the best 1000 frames, then Registax, where wavelet processing occurred.

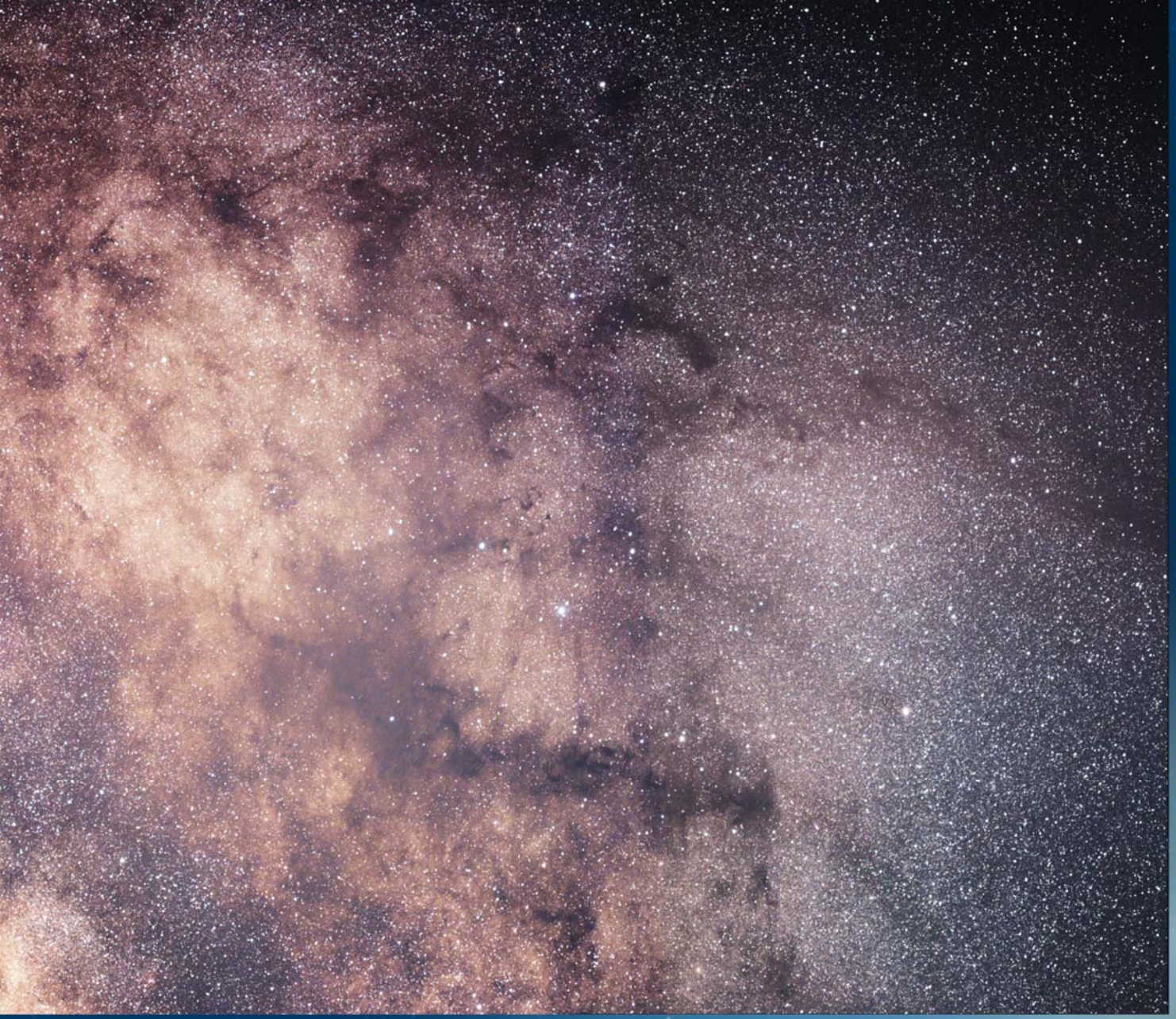
Kevin Kell

Mars

I await the opposition of Mars every couple of years like it was a once in a lifetime Christmas. I hope to have better skills and better equipment each time, but sometimes in life you backslide a bit. Taken on a Friday evening with the Moon up in poor seeing and poor transparency, yet my best of the year... so far.

Meade LXD55 Mount on tripod, Meade 102mm SC F10 FL=1000mm with x2 barlow, ZWO ASI290MC camera.
Best 25% of 5000 frames of 38ms each in a 180second run. Taken with firecapture beta stacked in autostakkert!3, wavelet processing in registax.

2020 September26 at 02:12 UTC



Dark Horse

This was intended to be part of a 5-panel mosaic incorporating Antares, the rho Ophiuci nebula, and on past the dark horse but the clear weather didn't last so it will be completed this coming summer.

A 2-panel mosaic shot on 22 Jun 2020; iOptron iEQ45 mount, no guiding, Canon 60Da with Canon 100/2.8 Macro lens wide open in portrait orientation, ISO3200, 36 x 60s images for the eastern half, 19 x 60s images for the western half.

Rick Wagner

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An annual collection of the best imagery for the Centre archives at kingston.rasc.ca

Hank Bartlett, Steve Craig, Malcolm Park, Mark Kaye, Graeme Hay, Bruce Elliott, Cathy Hall, Roger Hill, Kevin Kell, Rick Wagner