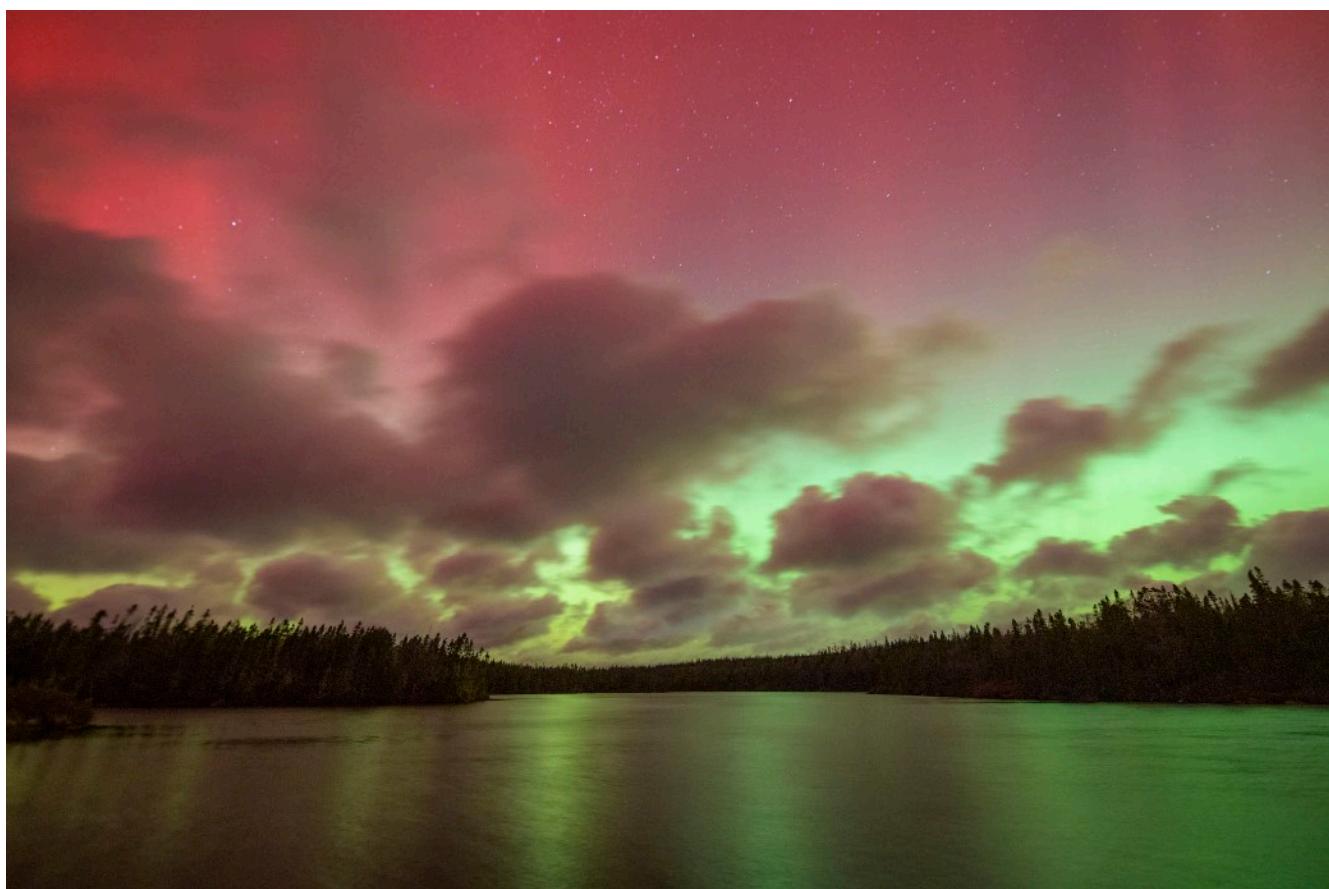


# Nova Notes

The Newsletter of the Halifax Centre of the Royal Astronomical Society of Canada



PO Box 31011, Halifax, Nova Scotia, Canada B3K 5T9 [www.halifax.rasc.ca](http://www.halifax.rasc.ca) [halifax@rasc.ca](mailto:halifax@rasc.ca)



## Celebrating the Aurora

NOV / DEC 2025

VOL 56 NO 5



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PLUS ALL YOUR FAVOURITE REGULAR FEATURES!

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### Cover Images:

#### Main Image:

Northern Lights, Aspotogan, NS  
November 11, 2025.  
Single shot from his d850 and Sigma Art 14mm lens that was shooting a timelapse.  
by Jason Dain

#### Thumbnail:

St. Croix Observatory drawing by Mary Lou Whitehorne

**Note: All photos and original works in this edition are the copyrighted property of the photographers, writers and artists. Permission to use any of their photos for other purposes must be obtained from the photographer.**

# From the Editor

As I sit and write, the winter solstice has come to stay for a bit. The constellations have shifted, as well as the rhythms of nature. Here in New Jersey, we've already had eight inches of snow. Large flocks of geese are vocal in the morning and evening skies as they shift to and from their roosts.

Turning the pages of the calendar, I see that 2026 is almost upon us!

That said, I would be remiss not to look back at 2025 and remember all the wonderful events in astronomy we've shared - comets, aurorae, partial eclipse, a very active Sun and even 3I/Atlas and all its mystery.

The Centre also continued to keep us informed, entertained and foster curiosity. Speakers from near and far at monthly meetings told us tales of the universe from many perspectives.

Dark Sky Weekend, Nova East and gatherings brought folks together. And of course, we continued to celebrate the legacy of Dave Lane through the continuing success of building the SCOPE fund.

We've shared these things through meetings, online and of course memorialized so many wonderful moments in *Nova Notes*.

I can't wait to see what gifts the universe sends us in 2026 and the joy that follows as we share those moments with each other!

Wishing you and yours a very happy and healthy holiday season, and all the best (not to mention clear skies) in 2026!

With continued gratitude,



Lisa



Surprises like this - an aurora in, of all places, New Jersey is what keeps the excitement in the hobby - one never knows what is possible and around the corner. Photo by **Lisa Ann Fanning**

## Upcoming Meeting Dates

**January 10 Speaker: David Baron - The Martians.**  
**February 7 Speaker: SMU's Devin Williams to address galaxy mergers.**

**March 7**

**April 11**

**May 2**

**June 6**

**September 12**

**October 3**

**November 7**

**December 5 & AGM**

*We are now hosting hybrid live/Zoom Members' Meetings. Halifax Centre meetings are usually held on the first Saturday of the month, except for July and August.*

*Come join us in-person in Room AT101 at Saint Mary's University or by pre-registering for the meeting on Zoom.*

*For information about the meeting and how to register for the Zoom session, please visit <https://halifax.rasc.ca/index.php/activities/rasc-events>*

**For past meeting replays, visit our YouTube Channel**

<https://www.youtube.com/c/raschalifax>



## St. Croix Observatory

Part of your membership in the Halifax RASC includes access to our observatory, located in the community of St. Croix, NS. The site has expanded over the last few years and includes a roll-off roof observatory with electrical outlets, a warm-room, and toilet facilities. We welcome you to bring your own equipment or to use the Centre's 400-mm Dobsonian telescope, 100-mm binoculars, and the recently acquired SCT and gear for astro-imaging.

Enjoy dark pristine skies far away from city lights and the company of like-minded observers searching out those faint "fuzzies" in the night. Most clear Moon-free nights, you will find our keen observers out there! Announcements of members visiting SCO are made on the Centre's Discussion List. If you are not a key holder and would like to become one or need more information, please contact the SCO Manager, Tony McGrath, at [scomanager@halifax.rasc.ca](mailto:scomanager@halifax.rasc.ca).

### SCO is Open!

Go to our website (<https://halifax.rasc.ca>) for the latest SCO usage guidelines and conditions.



St. Croix Observatory  
drawing by Mary Lou Whitehorse

*NOTE: As of Fall 2023, the building has lights again! (Thanks to Tony McGrath and Peter Hurley, the lights have been connected to 110v AC power.)*

## Halifax RASC Board of Directors, 2025

### Elected

**President** Tony McGrath

**Vice-President** Peter Hurley

**Secretary** Judy Black

**Treasurer** Gregg Dill

**Director** Jeff Donaldson

**Director** Matthew Dyer

**Director** David Hoskin

**Director** Vincent Vallée

**Director** David McMullin

### Appointed

**Honorary President** Patrick Kelly

**Auditor** David Chapman

**Communications Committee, Chair** TBD

**Dark-Sky Preserve Committee, Co-Chair** Peter Hurley

**Dark-Sky Preserve Committee, Co-Chair** Tony Schellinck

**Education & Public Outreach (EPO) Chair** David Hoskin

**Governance Committee, Chair** Judy Black

**National Council Representative** Judy Black

**Nominating Committee, Chair** Peter Hurley

**Nova Notes, Editor** Lisa Ann Fanning

**Nova Notes, Copy Editor** John McPhee

**Observing / EPO Chair** David Hoskin

**St. Croix Observatory, Manager** Tony McGrath

**Webmaster** Jerry Black

## SAVE THE DATES FOR 2026!

**Dark-Sky Weekend  
COMING SOON!**



**New Moon August 13, 2026**

**Nova East Star Party  
COMING SOON!**



# A Message from the President

## Where We Are — and Where We Could Go Together

As I come to the end of my second year as president, I've been reflecting on how our Centre is doing — what's working well and where we might need a bit of a spark.

Two years ago, I asked for your input through a membership survey. It took a bit of prodding to get enough responses, but the feedback we received helped shape a plan aimed at making RASC Halifax Centre more enjoyable and responsive to what members want. Since then, though, participation in planning and volunteering has been limited, and I would like to talk openly about what that means for our future.

Right now, our club is steady but static.

- Our membership numbers stay about the same each year.
- The same reliable few people take on all of the volunteer roles.
- When it comes time to fill executive positions, the same names keep coming up — and while that continuity has its advantages, it also means we're not developing the next generation of leaders.

None of this is unusual. Many volunteer organizations reach a stage like this. But if we want to keep the RASC Halifax Centre healthy and vibrant, we'll need to shift from "maintenance mode" to "renewal mode." That doesn't mean major changes — it means helping more people feel that RASC Halifax Centre is *their* Centre to shape and share.

Here's what I'd like us to try in the coming year:

1. **Small, specific roles.** Instead of asking for general volunteers, we'll post small, one-time opportunities — things that take a few hours, not a few months.
2. **Leadership shadowing.** Anyone curious about how the Board of Directors works can shadow an officer for a few months — no obligation, just a chance to learn.
3. **Member-led projects.** If you have an idea for an observing night, workshop, or outreach event, bring it forward — we'll support you to make it happen.

Halifax Centre has a long history and a wonderful foundation: dedicated members, deep knowledge, and a shared love of the night sky. What we need now is more hands and voices, not for the sake of busyness, but to keep that spark alive for ourselves and for those who will come after us. If you'd like to help in any small way — or even just talk about ideas — please reach out to me directly. Together we can make sure RASC Halifax continues to thrive and inspire new amateur astronomers for years to come.

We are heading into a new year, a time of fresh starts and renewed energy. I hope you will consider getting involved in even a small way. Sometimes the smallest contribution makes a real difference. If you're interested in helping, have ideas to share, or would simply like to talk about how you might participate, I encourage you to contact me directly.

All the best for a happy & joyful Christmas and I look forward to hearing from you!

Tony McGrath  
President RASC Halifax Centre

Email the Centre Executive:  
[president@halifax.rasc.ca](mailto:president@halifax.rasc.ca)

## **Nova Notes: The Newsletter of the RASC Halifax Centre of the RASC** **PO Box 31011, Halifax, Nova Scotia B3K 5T9**

*Nova Notes* is published five times a year, in February, April, June/July, September/October and December.

The opinions expressed herein are not necessarily those of the RASC Halifax Centre.

Articles on any aspect of astronomy and related activities will be considered for publication.

# “Chasing” the aurora from my driveway in Dartmouth: Night of Nov 11 into Nov 12, 2025

By Tiffany Fields

The night of Tuesday, Nov. 11, started as a normal wet and cloudy night in the Halifax area, but the Earth’s magnetic field had just been shocked by the effects of a coronal mass ejection that had arrived from the Sun and those with clear skies in much of North America were about to have a show of the Northern Lights. Though it was cloudy here, I texted many of my family in the U.S., encouraging them to get outside and point their phone cameras to the north. There were already reports on social media from many individuals along the Canada-U.S. border and farther south able to see the green or red lights on the horizon. To my delight, some family in Illinois reported back saying they could see a dim red glow near the northern horizon in photos – amazing! Even if I couldn’t see the aurora here in Halifax, I had successfully helped others elsewhere spot it.

But that wasn’t the end of the story. Sure, there were clouds covering the skies over Halifax, but I could tell there would be a clearing – the skies off to the west (as far as I could see from my front porch) were beginning to just have patchy areas, rather than a full aurora-covering blanket. I waited.

While my dogs chewed on sticks in the yard, I sat on my north-facing porch in the cold with my phone atop a tripod, taking photos of the sky while the clouds started to give way to some bits of clearing. By about 10:30 p.m., the sky had enough clear patches that I could see some stars. Then, I saw it – and I was shocked. There was a band of green appearing in my cell phone photos from my front porch!



Image: Green aurora in the sky over Dartmouth at roughly 11:00 p.m. on Nov. (1/2s iPhone 13 Mini photo). Photo by **Tiffany Fields**

I was STUNNED. I’m in urban Dartmouth! There was the aurora!!! For the next two hours, I sat outside in my driveway or on my porch marveling at what I could see. I texted those that I thought might be awake and posted on social media, hoping that others would be able to enjoy the same experience I was having.

During geomagnetic storms, there are short events called “substorms” that push strong aurora to more southern latitudes and have the potential to light-up the skies much more substantially. Generally, they only occur every few hours and are quite short, perhaps lasting half an hour or so before the aurora subsides back to a “normal” storm level. When folks think of beautiful, dancing aurora in usually-too-southern-to-see-aurora latitudes, they’re typically imaging the skies that substorms bring.

I waited around outdoors marveling at the reds and greens I could see in images, enjoying that I could see a faint white glow by-eye from my Dartmouth driveway, and also waiting to see if I could catch a substorm before I got too cold and too tired to continue. The beautiful greens that I could see in photos (and as a dim white blanket by-eye) were unbelievable for being in urban Dartmouth surrounded by streetlights. I tried taking a selfie with the green aurora colours.

At roughly 12:20 a.m., I went indoors to warm up my hands for a few minutes. You can likely predict where this story is about to go.

About ten minutes later, I went back outside, looked up from my door, and saw a huuuge pink-red band of light glowing across the sky – a substorm! (That I had nearly missed!) The glow of pink was visible across the sky, covering from about the zenith all the way down to the eastern horizon, and covering about 1/3 of the sky in the north-south direction, all visible naked-eye to my non-dark-adjusted eyeballs. To say I was stunned puts it way too lightly.

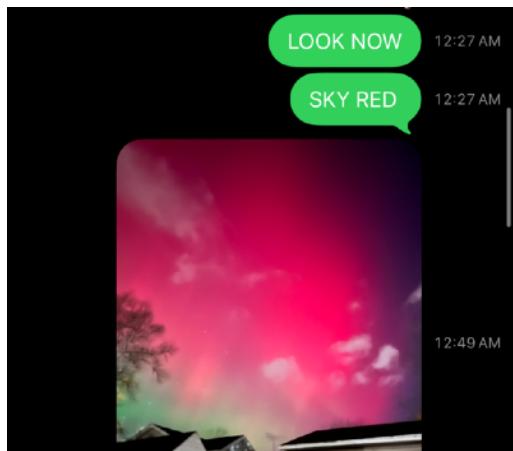


Image: A screenshot of the frantic texts I was sending to local friends when I saw the sky explode in colour.

It was magical. The substorm and intense pink glow lasted about 20 minutes before it had fully subsided.

Satisfied, realizing it was about 1 a.m. and that I'd have to get back into work early the next morning, I packed my things up (one tripod and a blanket that I had been sitting on) and went inside to properly warm up. I felt very lucky! Fingers crossed we'll have more opportunities to see aurora like this as the Sun winds down on its activity.



Image: Selfie of Tiffany in front of a green-hued dark sky at about 11:45 p.m. on Nov. 11. (1/4s iPhone 13 Mini photo).

I yelled for my husband to come outside. I started calling my neighbours and those in the area, leaving voicemails that I'm sure they were unhappy to hear in the morning once they realized what they missed. One neighbour came out and couldn't believe what she was seeing. We laughed and marveled together at the colours in the sky as the substorm slowly subsided, causing the bright pink-red we were seeing to grow smaller and fainter.



Image: Substorm explosion in the sky. The left image was taken at 12:18 a.m. on Nov 12, 2025 (1/2s iPhone 13 Mini photo). The right image was taken at 12:28 a.m. (1/2s iPhone 13 Mini photo).

# Photo Album: Centre Members Experience Aurora



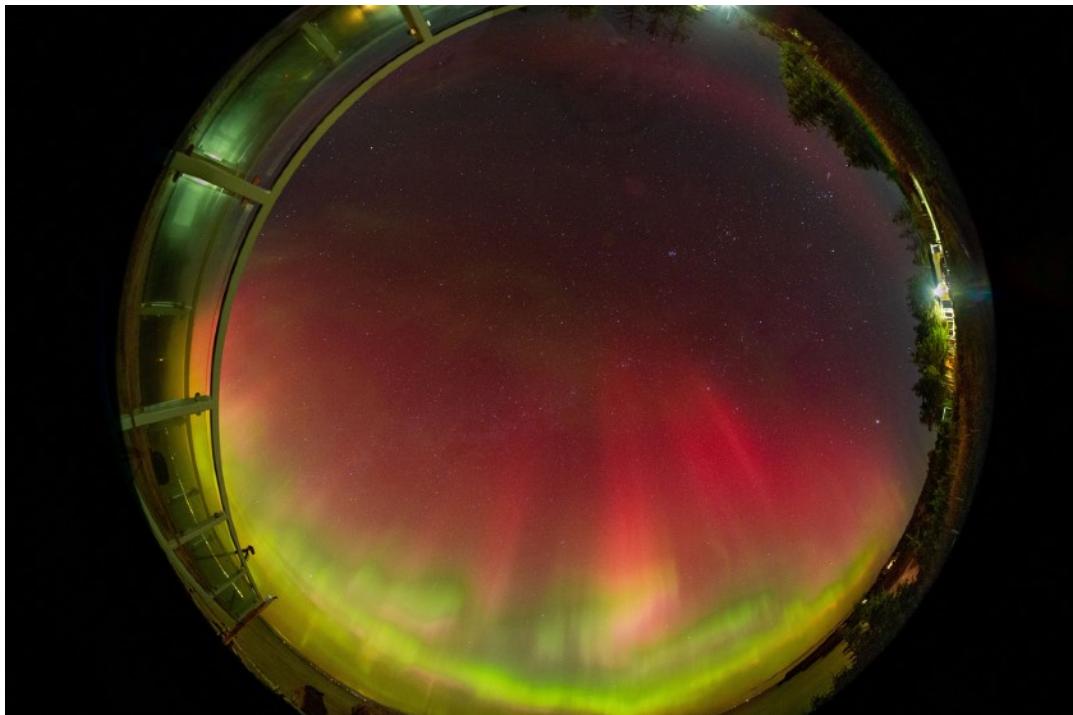
**James Somerville Edgar, FRASC** took these photos of the November 11/12 Aurora with his Samsung Galaxy S22 Ultra from Saskatchewan



**David Hoskin** captured the Northern Lights from Halifax on November 12, 2025. Photographed with a Google Pixel 9 camera phone set for night-time photography with a 3 sec exposure. A single frame was tweaked with Photoshop.

# Photo Album: Centre Members Experience Aurora

On November 12, 2025, **Barry Burgess** took these incredible photos from Pokeshaw, NB.



# Photo Album: Centre Members Experience Aurora

**Jason Dain** got to experience the magic of the Aurora from three different locations:



(Left) the Aurora November 11, 2025  
from Aspotogan NS.  
Photo by **Jason Dain**



(Right) Aurora with Meteor,  
November 12, 2025 from  
Neguac, NB  
Photo by **Jason Dain**



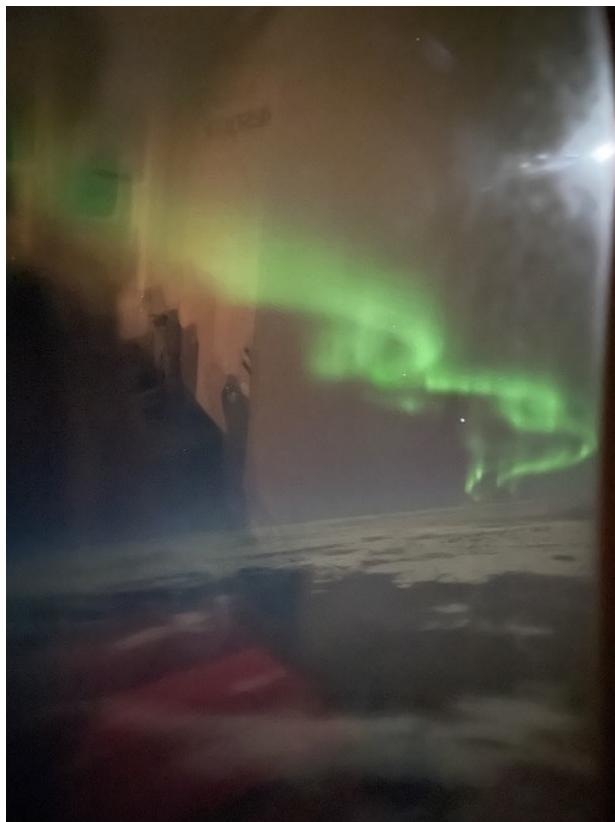
(Left) Aurora with Meteor over a barn  
in Saskatchewan.  
Photo by **Jason Dan**

# Photo Album: Centre Members Experience Aurora



Aurora were reported as far south as Mexico on November 11, 2025. Centre member **Lisa Ann Fanning** saw some dull colour with the unaided eye from New Jersey, but the camera told a different story.

## Most unique perspective goes to...



(Above) A gibbous Moon shines brightly at the upper right. At left are reflections from the dimly lit aircraft cabin. Below is a broken cloud deck. The display lasted for about an hour.

Aurora from 35,000 ft., taken through an aircraft window, on the night of October 11-12, 2025 somewhere over northern Saskatchewan and/or Manitoba, on a red-eye flight from Edmonton to Halifax.

(Below) Aiming rearwards, the stars of Ursa Major are seen under the auroral curtain, with a few lights from the ground showing through breaks in the cloud.

Photos by **Mary Lou Whitehorne**



# Astroimaging Contest Winners Announced

The winners of the 2025 Halifax Centre Astroimaging Contest have been announced. Winners will receive an 8x12 framed Canvas print of their photos courtesy of Atlantic Photo Supply. You can view all the entries and details [here](#).

**Congratulations to the winners!**



WF-08 Harvest Moon Rising  
**David Hoskin**  
Wide Field Category Winner  
Harvest Moon Rising (over the Atlantic Ocean).



SS-06 Moon  
**Paul Gray**  
Solar System Category Winner



DS-01 Heart Of the Heart IC1805  
**Jeff Donaldson**  
Deep Sky Category Winner

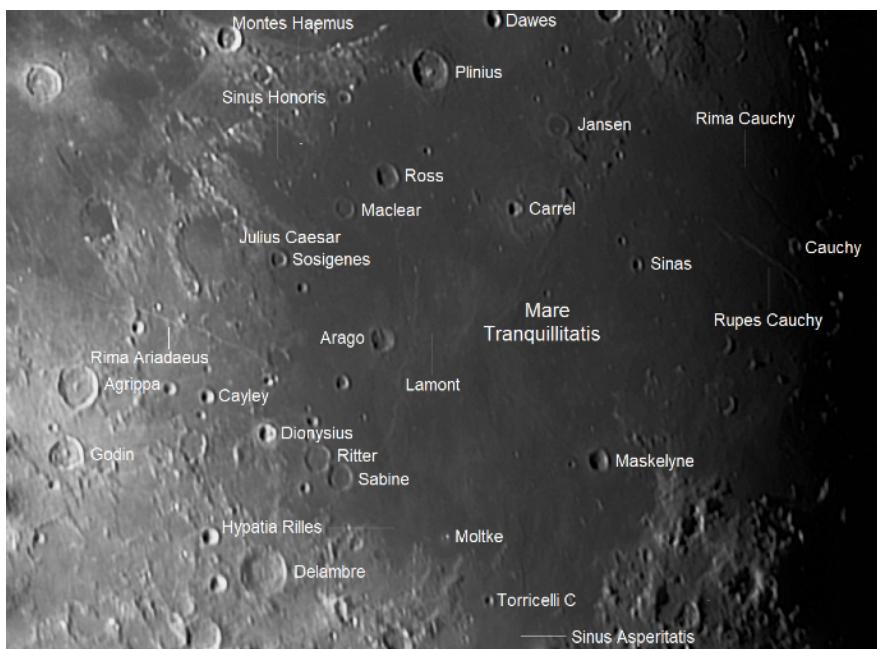


WF-06 Cosmic Coastline  
**Barry Burgess**  
Peoples Choice Winner  
Cosmic Coastline  
Comet C/2023 A3 (Tsuchinshan – atlas)

# Moonscapes: Mare Tranquillitatis

By David Hoskin

Mare Tranquillitatis (Sea of Tranquility – the circled area in the above image) is perhaps the best known of the lunar “seas” since it is the site of Tranquility Base, where the Apollo 11 lunar landing module Eagle touched down in 1969. This large, dark basaltic plain, which was formed by an ancient lava flow during the Imbrian period between 3.1 and 3.85 billion years ago, has a diameter of 873 kilometres. The Tranquillitatis Basin, in which the mare lies, has irregular margins and is even older than the mare as the basin is thought to have been formed during the Pre-Nectarian period. Interestingly, Mare Tranquillitatis has a slight bluish tint in cooler photographs due to a higher mineral content in the basaltic rock and soil. Unlike many other maria, Mare Tranquillitatis lacks a central mascon (mass concentration/gravitational high), as well as regular mountainous borders.



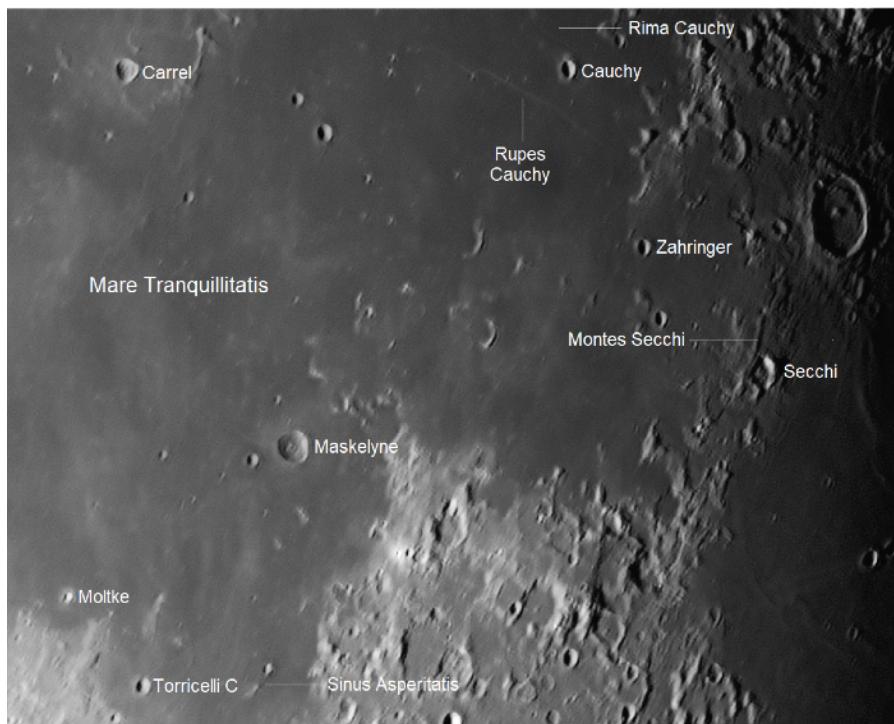
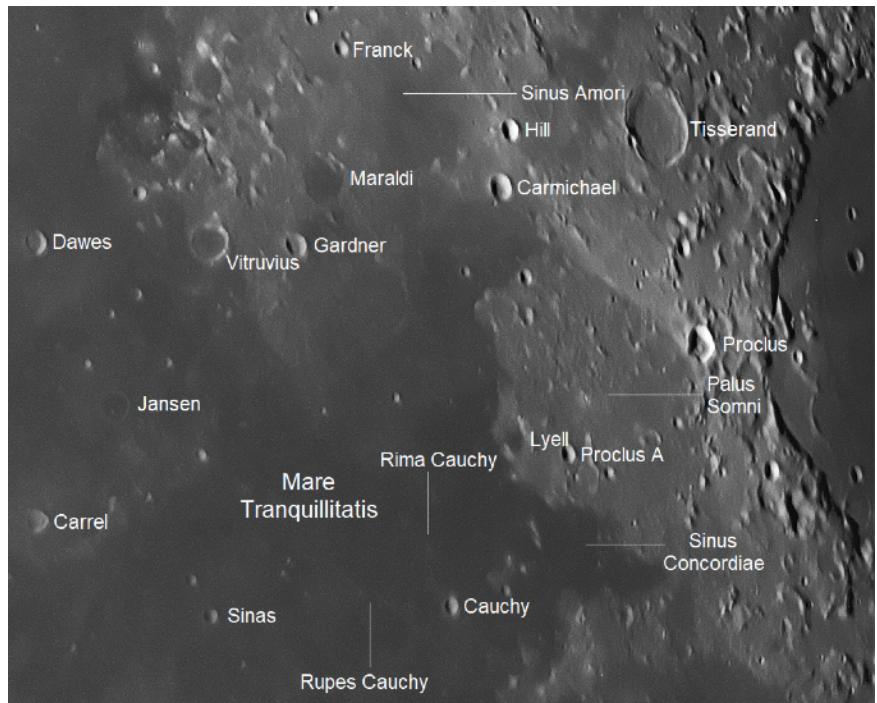
Mare Tranquillitatis is best seen between days 4 and 6, and days 17 and 19 of the lunar cycle. The close-up image of western and central Mare Tranquillitatis shown here was captured on day 18 of the lunar cycle. Plinius, a high-walled 43-kilometre-wide crater with a towering irregular central peak, lies at the junction between Mare Serenitatis and Mare Tranquillitatis. Lava-filled Jansen crater and a nearby rille are located just to the southeast of Plinius. Looking southwest from Plinius, one comes to Sinus Honoris and

a large lava-flooded crater named after the Roman statesman Julius Caesar. The low and heavily worn wall of this 85-kilometre-wide crater is consistent with a lunar impact prior to the lava flow that filled Tranquillitatis basin. To the south of Julius Caesar lies Rima Ariadaeus, a 300-kilometre-long rille that extends from the edge of Mare Tranquillitatis across lunar highlands to Mare Vaporum. Lamont, just to the west of Arago crater, is an unusual feature consisting of several mare ridges that radiate from an 80-kilometre-wide double oval that is believed to be a lava-flooded two-ring impact crater. These wrinkle ridges are best seen when they are illuminated by a low Sun. A pair of roughly circular impact craters of similar size (29 to 30 kilometres in width), Ritter and Sabine, are in the southwest part of Mare Tranquillitatis near a

series of parallel rilles. The Hypatia Rilles run northwest/southeast near tiny Moltke crater (6.5-kilometres-wide), which is notable for its collar of higher albedo material. Rough highlands border the southern shore of Mare Tranquillitatis.

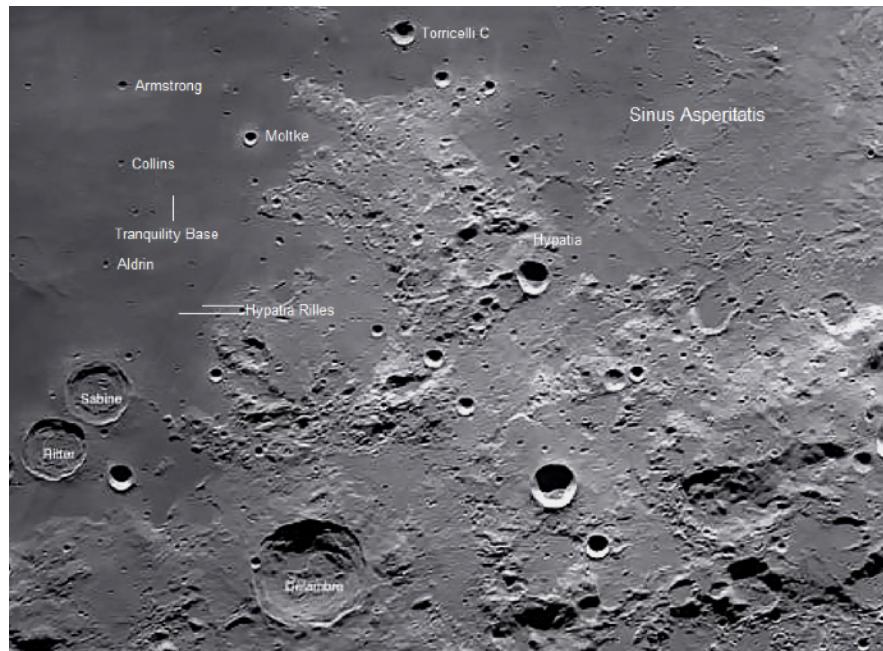
Features on the eastern side of Mare Tranquillitatis are best seen on days 4 and 5, and days 17 and 18 of the lunar cycle. Sinus Amori extends northward from the mare and contains at its eastern shore the bowl-shaped craters Hill and Carmichael. Immediately to the south lies Palus Somni, a large area of uneven terrain with a higher albedo than the darker basalt of the mare. The southern edge of Palus Somni borders on Sinus Concordiae. This region of Mare Tranquillitatis is notable for the volcanic and

tectonic features near the small (12-kilometre-wide) bowl-shaped Cauchy crater. North of Cauchy, Rima Cauchy runs for 210 kilometres northwest/ southeast across the mare. A 180-kilometre-long combined fault-scarp and rille, Rupes Cauchy, is located south of Cauchy. Although not visible in the above photograph, a low Sun will reveal two small volcanic domes topped with summit craters to the south of Rupes Cauchy.



The Montes Secchi are a minor range of lunar mountains that lie near the southeast border of Mare Tranquillitatis. The southern shore of the mare consists of rough highland terrain that contains several ancient lava-flooded craters, as well as younger bowl-shaped impact craters. A solitary impact crater with terraced inner walls and a low central rise, 22-kilometre-wide Maskelyne, is located near where Mare Tranquillitatis transitions to Sinus Asperitatis, which joins the southern part of Mare Tranquillitatis with the northern shore of Mare Nectaris.

Any observation of Mare Tranquillitatis is not complete without an examination of the area in which Tranquility Base is located, shown in the above photograph. Note that the image has been rotated so that east is on the top and west is on the bottom. A low Sun, good seeing, and a telescope with at least 150 mm aperture will reveal three small craters named for the crew of Apollo 11; west to east, Aldrin, Collins, and Armstrong. Prior to



this part of Mare Tranquillitatis was visited by the unmanned lunar probes Ranger 8 and Surveyor 5. Although it is not possible to see the lunar lander module from Earth, even with the largest earthbound telescope, NASA's Lunar Reconnaissance Orbiter has captured detailed images of historic Tranquility Base, including the lunar lander and tracks left by the astronauts. No doubt, at some point in the future Tranquility Base will be a popular tourist attraction!

#### Sources

*A Guide to the Moon's Mare Tranquillitatis* by Sir Patrick Moore, BBC Sky at Night Magazine

*Apollo 11 Moon Landing Site Seen in Unprecedented Detail* – Space.com, 13 March 2012

*Mare Tranquillitatis and Lamont* - Wikipedia, en.wikipedia.org

*Moon Observer's Guide* by Peter Grego, Firefly Books Limited

*21<sup>st</sup> Century Atlas of the Moon* by Charles Wood and Maurice Collins, West Virginia University Press

## Member News:

### Blair MacDonald Featured in Astronomy Magazine



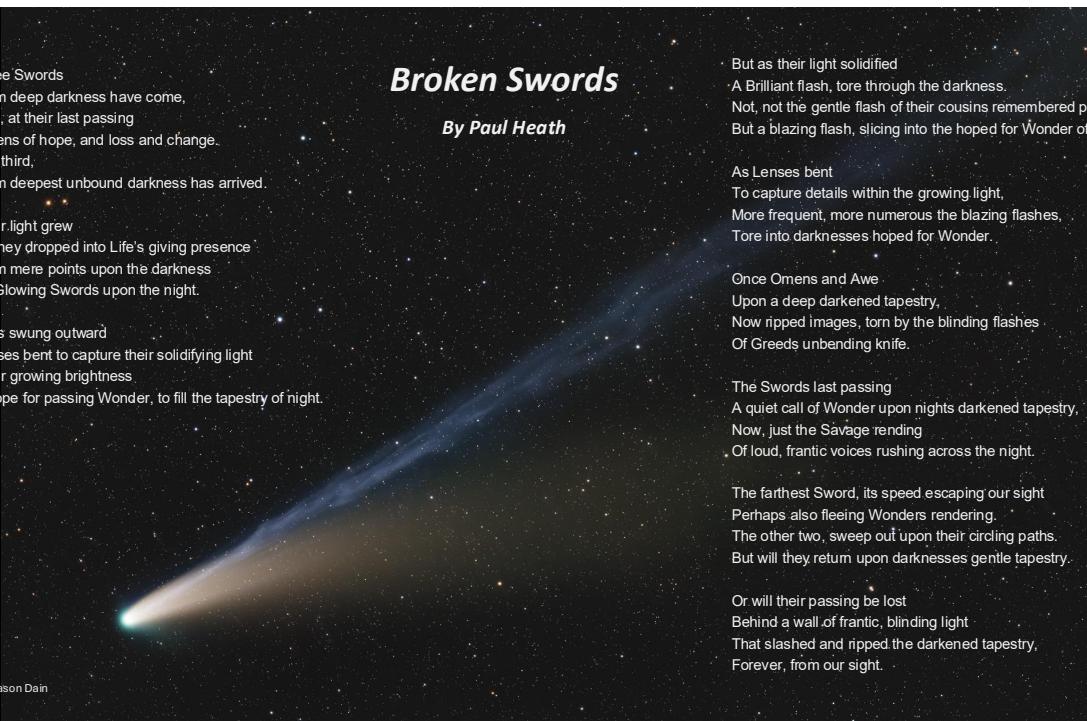
Blair MacDonald's image of the Fireworks Galaxy (NGC 6946), taken from Marion Bridge, Nova Scotia was featured as *Astronomy Magazine*'s "Pic of the Day"

To view online, visit: <https://www.astronomy.com/picture-of-the-day/photo/fireworks-and-smoke/>

Congratulations, Blair!

# Members' Universe

## Food for the Soul: The Poetry of Paul Heath



Three Swords  
From deep darkness have come,  
Two, at their last passing  
Omens of hope, and loss and change.  
The third,  
From deepest unbound darkness has arrived.

Their light grew  
As they dropped into Life's giving presence  
From mere points upon the darkness  
To Glowing Swords upon the night.

Eyes swung outward  
Lenses bent to capture their solidifying light  
Their growing brightness  
A hope for passing Wonder, to fill the tapestry of night.

**Broken Swords**  
*By Paul Heath*

But as their light solidified  
A Brilliant flash, tore through the darkness.  
Not, not the gentle flash of their cousins remembered passing,  
But a blazing flash, slicing into the hoped for Wonder of the night.

As Lenses bent  
To capture details within the growing light,  
More frequent, more numerous the blazing flashes,  
Tore into darknesses hoped for Wonder.

Once Omens and Awe  
Upon a deep darkened tapestry,  
Now ripped images, torn by the blinding flashes  
Of Greeds unbending knife.

The Swords last passing  
A quiet call of Wonder upon nights darkened tapestry,  
Now, just the Savage rending  
Of loud, frantic voices rushing across the night.

The farthest Sword, its speed escaping our sight  
Perhaps also fleeing Wonders rendering.  
The other two, sweep out upon their circling paths.  
But will they return upon darknesses gentle tapestry.

Or will their passing be lost  
Behind a wall of frantic, blinding light  
That slashed and ripped the darkened tapestry,  
Forever, from our sight.

Photo © Jason Dain

## The Sum of a Star - A Poem by Mary Lou Whitehorne

### The Sum of a Star

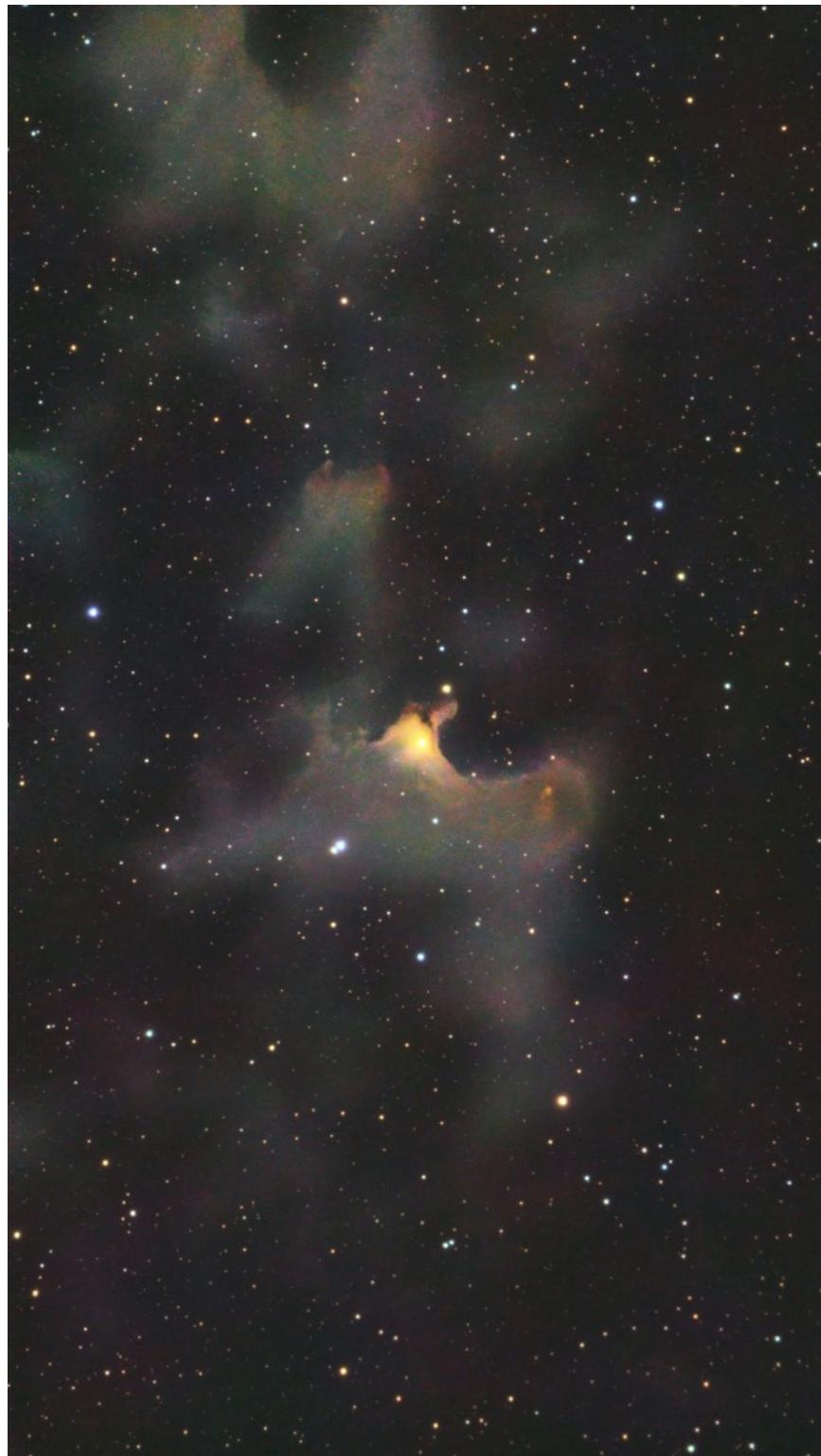
A gleam,  
A spark,  
Electric blue.  
I know you,  
Hot, high mass star.

Sizzling.  
Screeching, howling.  
Hypersonic winds blowing,  
Mass outflowing.  
Shining yourself,  
Shredding yourself,  
Toward the final violent oblivion.

But not quite yet.  
I've captured your spectral signature.  
I know you,  
And your blinding, killing radiance.

- Mary Lou Whitehorne

# Members' Universe: Bob Russell Sees a Ghost at SCO



**Bob Russell** recently visited SCO to collect some additional data on the Dark Shark nebula (LDN1235) and was also able to gather some data (3.5 hours) of the Ghost Nebula (VDB 141 // Sh 2-136) with his S50. He adds “conditions at SCO were good, overall, with no Moonshine and average transparency (SQM was 19.61) and relatively stable air for better seeing than earlier nights. Temperature cooled to -4°C. It was a good night.”

Venue: St. Croix Observatory, NS

Date/Time: 2025-11-19  
1930-2300

Optics: ZWO S50 SeeStar Smart (automated) telescope

Optical lens: APO triplet lens

Aperture: 50mm

Focal Ratio: f/5

Mount: Equatorial mode/wedge

Frame Exposure: 20s

Frames: 605 frames used

Integration: 3h 21m

Processing: PixInsight, RCA

Extensions, SetiAstro Scripts

# Members' Universe: Jerry Black's New SeeStar S30

Jerry Black is enjoying his new ZWO SeeStar S30 that he won as a door-prize in St. Andrews.



The Sun by **Jerry Black**

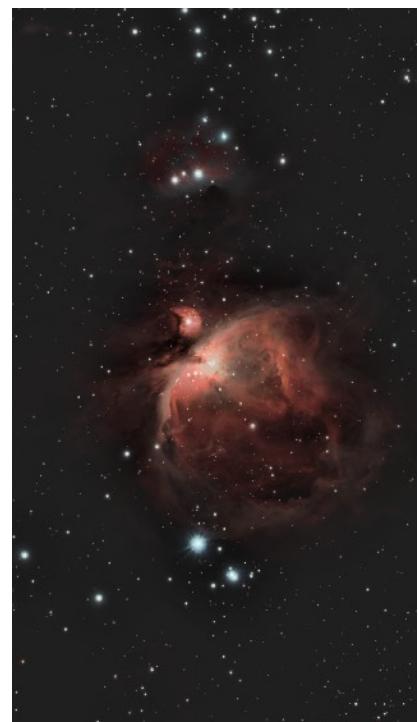
Just after unboxing, I rushed out to get the Sun near sunset.



The Pleiades by **Jerry Black**

Total image time: 3 hrs. and 3 min.  
Moon Phase: Just past Full Moon  
Exposure: 180 x 10 sec.  
Gain: 200  
Camera: ZWO SeeStar S30 [1920 x 1080] IMX662  
Optics: ZWO SeeStar S30 alt/az mode [Focal length 150, Aperture 30 mm, f/5]

More details [here](#)



M42 The Orion Nebula and the Running Man Now using EQ mode by **Jerry Black**

Total image time: 4 hrs.  
Moon Phase: Waning Gibbous 76%  
Exposure: 242 x 60 sec.  
Gain: 200  
Camera: ZWO SeeStar S30 [1920 x 1080] IMX662  
Optics: ZWO SeeStar S30 EQ mode [Focal length 150, Aperture 30 mm, f/5]

More details [here](#)

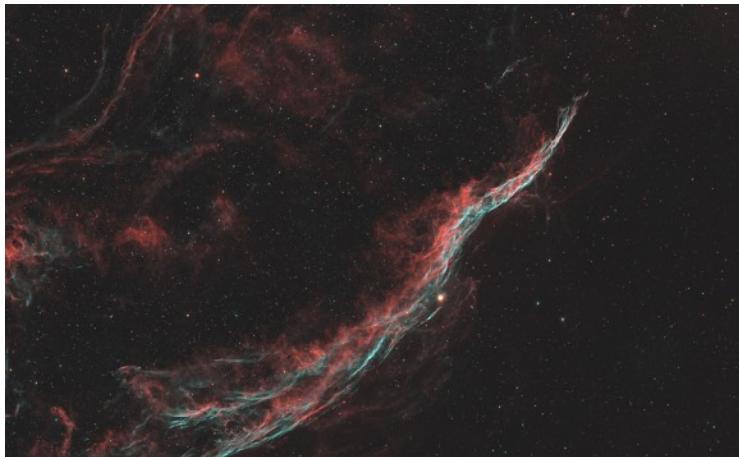


M31 The Andromeda Galaxy. In EQ mode by **Jerry Black**

Total image time: about 2 hrs.  
Moon Phase: Waning Gibbous 67%  
Exposure: 114 x 30 sec.  
Gain: 200  
Camera: ZWO SeeStar S30 [1920 x 1080] IMX662  
Optics: ZWO SeeStar S30 EQ mode [Focal length 150, Aperture 30 mm, f/5]  
Location: Lower Sackville, Nova Scotia.  
Date: 2025-12-09

More details [here](#)

# Members' Universe: Blair MacDonald



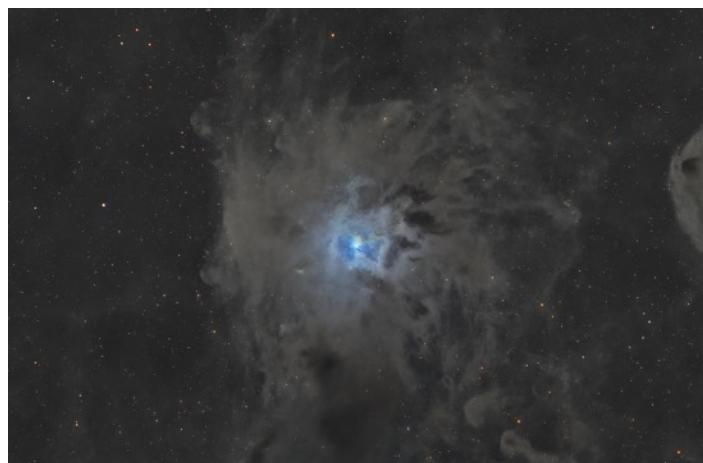
Blair shares: "Here is a reprocess of some older data using newer tools and techniques and it is a good example of why you should never throw away data. This is the second time I've processed this data and you can see my first attempt with older software leaves a little to be desired. The data was acquired from my urban driveway, and the older webpage shows the lighting conditions under which the image was taken."

NGC6960 (Witch's Broom Nebula) is one of the major parts of the Veil supernova remnant.

by **Blair MacDonald**

RA: 20:46:36  
Dec: +30:40:30  
Date: 6 November, 2021  
Exposure: 3 hours (12 X 15 minutes)  
Conditions: Bortle 7 skies  
Gain: 100  
Camera: Zwo ASI2600MC-Pro  
Optics: Prime focus of a SkyWatcher Esprit 120 f/7 APO refractor with a focal length of 840 mm  
Filter: Optolong L-eNhance  
Location: Bedford, Nova Scotia

For processing details, visit: <http://astrophotography.ddns.net/OneDrive/WebSite/ActualSiteFiles/gallery/ZwoUrbanNgc6960.html>



Blair shares: "The Iris Nebula (also known as NGC 7023) is a bright reflection nebula in the constellation Cepheus. The nebula, which shines at magnitude 6.8, is illuminated by the bright star, HD200775, at its center. It lies about 1,300 light-years away and with an angular size of 18 arcminutes it is six light-years across."

I have shot this target before using a DSLR and an 8 inch reflector. It is amazing the difference a good quality APO refractor, a modern CMOS astro-camera, and modern AI-based processing tools make in the data."

NGC7023 The Iris Nebula

by **Blair MacDonald**

RA: 21:01:37  
Dec: +68:09:48  
Date: 25 October, 2025  
Exposure: 2 hours 50 minutes (17 X 10 minutes)  
Conditions: Bortle 4 to 5 skies, good seeing  
Gain: 100  
Camera: Zwo ASI2600MC Pro  
Optics: Prime focus of a SkyWatcher Esprit 120 f/7 APO refractor with a focal length of 840 mm  
Filter: none  
Location: St. Croix, Nova Scotia

For processing details, visit: <http://astrophotography.ddns.net/OneDrive/WebSite/ActualSiteFiles/gallery/ZwoIrisNebula.html>

# Members' Universe: David Hoskin's Universe



## Comet C/2025 A6 Lemmon

October 23, 2025

Photographed with a Canon T3i DSLR and Canon 50mm lens (ISO-800, 30 sec, f/2.2) on a polar-aligned Star Adventurer mount; 22 subs were stacked with Sequator, post-processing with Siril and Photoshop. Photo by **David Hoskin**



## NGC 7789/Caroline's Rose

A ToupTek ATR2600C camera with Optolong L-Pro filter, Orion ED80T-CF f/6 triplet refractor, and SkyWatcher EQ6R mount were used to obtain 30 subs (gain 100, 6 min) and calibration frames, which were stacked with DeepSkyStacker; post-processing with Siril and Photoshop. Photo by **David Hoskin**



## Messier 36/Pinwheel Cluster

A ToupTek ATR2600C camera with Optolong L-Pro filter, Orion ED80T-CF f/6 triplet refractor, and SkyWatcher EQ6R mount was used to obtain 20 subs (gain 100, 6 min) and calibration frames, which were stacked with DeepSkyStacker; post-processing with Siril and Photoshop. Photo by **David Hoskin**



## Sunspots

December 5, 2025

A Dwarf 2 smart telescope was used to capture and stack 40 subs (gain 0, 0.0016 sec); post-processing with Photoshop. Photo by **David Hoskin**

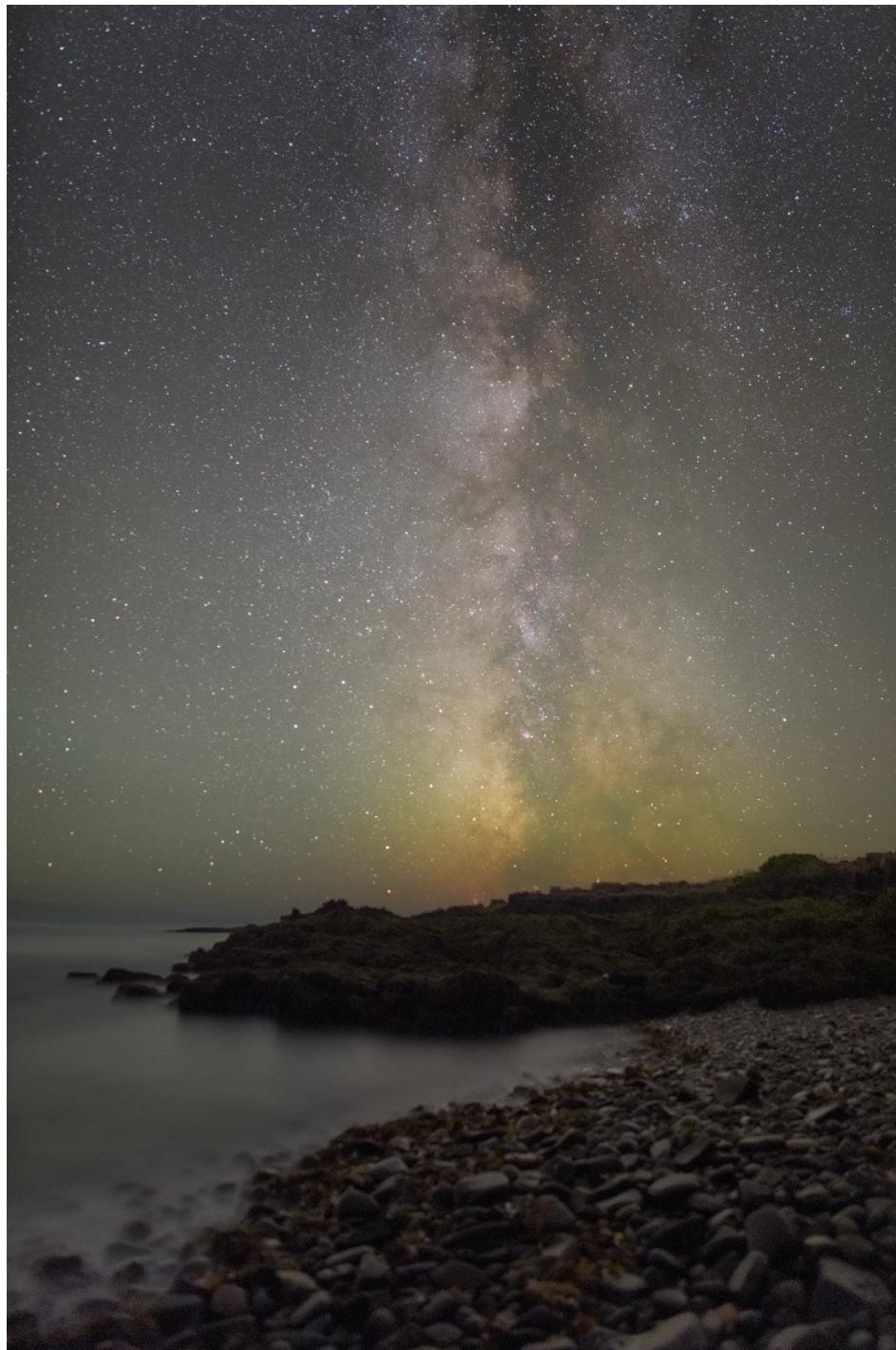


## Rivers Freezing Over Moon

December 5, 2025

A Dwarf 2 smart telescope was used to capture and stack 40 subs (gain 0, 0.0031 sec); post-processing with Photoshop. Photo by **David Hoskin**

# Members' Universe: Jason Dain's Milky Way Photo



**Jason Dain** shared this amazing photo of the Milky Way over Hog Yard Cove at the southern end of Gull Rock Road, Brier Island, N.S. from September, 2025

He shares, "This area is one of the darkest skies I have ever shot it at Bortle 1.

The Milky Way was plainly visible in the sky from horizon to horizon and was a sight to behold.

This is a combination of 6x25s sky exposures @ f/2, ISO 1600 using an iOptron Sky Guider Pro tracker combined with a single 1 minute, f/2, ISO 1600 exposure for the foreground. I shot both sky and foreground images with a Nikon D850a and Rokinon 24mm f/1.4 lens. The sky images were stacked in Sequator and then blended with the foreground and processed in Photoshop."

# PUZZLE CORNER – HOLIDAY GIFTS FOR THE ASTRONOMER

## Unscramble

By Lisa Ann Fanning

Can you unscramble these terms related to holiday gifts for the astronomer?

Solution will be in the next edition of *Nova Notes*.

A	B	K	M	N	O	O	O	O	—	R	S	T	Y
A	D	E	—	E	E	H	R	T	W				
D	E	G	—	H	I	L	R	T					
C	E	E	E	L	O	P	S	T					
A	D	E	E	E	G	—	H	L	O	S	T	V	
B	C	I	I	N	O	P	R	S	S	T	U		
A	B	C	E	—	E	H	I	M	M	P	R	R	S
A	C	C	F	H	—	I	M	O	R	Y			
A	C	D	F	—	G	I	R	T					
A	B	C	I	L	N	O	R	S	U				
C	E	E	F	F	G	—	M	O	U				
A	C	K	M	—	O	R	S	S	W				

## Answers to Last Edition's Puzzle

A	E	H	I	L	N	O	P						APHELION
B	I	O	R	T									ORBIT
C	D	E	I	I	O	P	R						PERIODIC
A	E	E	I	L	L	N	R	R	S	T	T		INTERSTELLAR
A	E	H	L	L	Y								HALLEY
E	E	H	I	I	L	M	P	R	U				PERIHELION
C	E	L	N	S	U	U							NUCLEUS
A	G	G	I	N	N	R	S	U	Z				SUNGRAZING
E	I	K	P	R	U								KUIPER
C	D	L	O	—	O	O	R	T	U				OORT CLOUD
A	A	E	H	K	K	T	U	Y					HYAKUTAKE
A	C	M	O										COMA

# November 1, 2025 RASC Halifax Centre Meeting:

(35 attendees)

To watch a replay of the meeting, please visit: [https://youtu.be/329\\_Zz5hJxQ?si=2ieihSu-GNWlpWf6](https://youtu.be/329_Zz5hJxQ?si=2ieihSu-GNWlpWf6) on the RASC Halifax YouTube Channel.

## Welcome - David Hoskin

RASC Halifax Director, Observing / EPO Chair and program emcee David Hoskin welcomed everyone to the monthly meeting, shared the Indigenous Land Acknowledgement and read the Centre's inclusivity and diversity statement and reviewed the Agenda.

## Announcement - Library Sale - Judy Black, Secretary of RASC Halifax

The RASC Halifax Library was shut down due to lack of use as well as challenges with storage. Books were stored at SCO. At the meeting there were two tables, one was for books for free (or for a donation). The other table had books for sale prices were: 2 for \$15, 3 for \$20, 4 for \$25 or 5 for \$30. The book sale was open during the break and after the meeting until 4:30 p.m. Any remaining books will be brought to the next meeting.

One title with special pricing (two copies available) is *Atlas of the Moon* by Antonin Rukl (price- \$75.)

2026 RASC Observer's Calendar is available for sale - \$25 in person or if mailed, add \$8 for shipping and handling.

## David Hoskin - Photo Montage

David presented photographs and sketches from Centre members Jerry Black, Michael Boschat, Barry Burgess, Dave Chapman, Jason Dain, Jeff Donaldson, Tim Doucette, Lisa Fanning, David Hoskin, Pat Kelly, Frank Logan, Blair MacDonald, Tom McIntyre, John McPhee, Bob Russell, Vincent Vallee, Kathy Walker and Mary Lou Whitehorne.

## Special Guest - Pat Kelly, FRASC, Past President/ Current Honorary President of RASC Halifax Centre

### *Telling Time in Scotland: From Stones to Sundials*

While humans still do not know exactly what time is, it has not stopped them from measuring its passage. Scotland contains ancient structures similar to both the standing stones of Stonehenge and the Irish portal chamber of Newgrange. Sundials arose along with the need to tell time a bit more accurately than "later today" or "tomorrow sometime before noon". Like a lot of Europe, public sundials, often with interesting designs, were common. Sadly for us, the development of accurate clocks and pocket watches meant that public sundials had fallen out of use by the time Europeans started building in the New World, and the few that you do see today are either very plain, or not very accurate.



Pat Kelly presents one of the Sundials he saw in his travels around Scotland. Photo by **Dave Chapman**

## Paul Heath - Food for the Soul - *Broken Swords*



Paul presented his latest poem, *Broken Swords*, which can be read on page 15 of this edition of Nova Notes. His poems are based on the topic of the day - this one was based on the many photos of three comets that were viewable at the time of this meeting, and the fact that many of the photos contained images of satellites.

(Left) Paul Heath - Photo by **Dave Chapman**

## News from the Board presented by Tony McGrath, President of RASC Halifax Centre

- Support SCO with the Dave Lane Memorial St. Croix Observatory Property Endowment (SCOPE) Fund - there are \$10,000 worth of matching funds available thanks to Michelle Lane and Tony Schellinck. Fundraising efforts are currently at 48% of the goal (\$4,785.)
- SCO Observing Nights: To find out when the next date is, visit <http://halifax.rasc.ca/> click on "Observing" and the list of dates is under "Observe With Us. Next date is November 21. In the event of cancellations due to weather, they will be posted on the list.
- Reminder: RASC Awards deadline for submission for 2026 is December 31, 2025. Visit <https://rasc.ca/rasc-awards> for more information.
- Don't forget to review the available Observing and Astroimaging certificate programs as well.
- Information for Observing Programs can be found at <https://rasc.ca/certificate-programs> and for information on the Astroimaging Certificate, visit <https://rasc.ca/astro-imaging-certificate>.
- Halifax Centre Astrophotography Contest - Categories are Deep Sky, Solar System, Wide Field & People's Choice. The deadline is November 11, 2025



President Tony McGrath  
Photo by Dave Chapman

## More News from the Board presented by Judy Black, Secretary of RASC Halifax Centre

- Halifax Centre member Michael Gatto was given special mention for his help with the graphics and production of the 2026 RASC Calendar
- The *Nova Notes* September / October 2025 edition has been posted in "Publications," which houses previous editions back to 1970. The deadline for the November / December edition is December 15, 2025. Content can be sent to [novanoteseditor@halifax.rasc.ca](mailto:novanoteseditor@halifax.rasc.ca).
- The 2026 *RASC Observer's Handbook* has been mailed. James Edgar is the editor. Its 63 contributors include Halifax RASC members Roy Bishop, Judy Black, Larry Bogan, Randall Brooks, David M.F. Chapman, Tiffany Fields, Paul Gray, Patrick Kelly, Blair MacDonald, Douglas Pitcairn and David Turner.
- Our AGM will be held December 6, 2025. The nominations are in but they will be re-opened for the board. So far the following nominations have been made: President - Tony McGrath; Vice-President - Peter Hurley; Secretary - Judy Black; Treasurer - Gregg Dill; Directors - Matthew Dyer, David Hoskin, David McMullin, Vincent Vallee and there are two vacancies. If anyone would like to run for any of the positions, please put your name forward. The centre would love to have new folks join the board for fresh perspectives and opinions.
- As a side note, in 2027, Tony McGrath will have fulfilled his three years as President, and Judy Black will no longer be able to run for Secretary, as she will have been on the board for 10 years and will need to step down. The appointments will be made by the Board in January 2026. The board is seeking names for Communications Chair and Nominating Committee Chair. If you are interested in those or any of the existing committees, please let us know. Mary Lou Whitehorne added that getting involved is "not scary, it is fun!" and encouraged people to get involved.

## Governance

The next meeting of the Halifax Centre Board of Directors is December 2, 2025. Comments and ideas are welcome. President Tony McGrath can be contacted at [president@halifax.rasc.ca](mailto:president@halifax.rasc.ca). For the emails of other board directors, go to Contact Us on <https://halifax.rasc.ca>.

The RASC National Council's next meeting is December 7, 2025 (Chair: Judy Black - [secretary@halifax.rasc.ca](mailto:secretary@halifax.rasc.ca)). The purpose of the National Council is to discuss what centres have in common and determine what may need to be addressed. It "gives centres a voice."

The next member and public meeting will be held December 6, 2025. It will be an Annual General Meeting as well as a member / public meeting. the speaker will be Paul Gray, FRASC *Starmus 2025*.

Judy also presented a revised graphic of the 2025 Nova East logo reminding everyone to "Stay Safe" and "Stay Curious." This is a reminder that even though you may be in your observatory or back yard alone, you are not. There are others under the same sky looking up with you.

### **David Hoskin (EPO/Observing Chair) - Outreach Opportunities**

- November 17 / Rain date November 19, 2025 - Cobequid Young Naturalists Club are having a sky gazing event at Gloscap Campground, Parrsboro.
- November 25, 2025 - Beaver Scouts at Harry DeWolf park stargazing event.

If anyone would like to help with outreach, please contact David Hoskin at [observing@halifax.rasc.ca](mailto:observing@halifax.rasc.ca).

### **David Hoskin (EPO/Observing Chair) - What's up in the November Night Sky**

David reviewed highlights of the November sky. He noted that our clocks will move back to standard time on November 2. The days are getting a lot shorter, bringing more darkness, which is great for imagers if the weather co-operates.

He highlighted the Sun, solar activity, the Moon, and targets needed to check off for Explore the Universe, and when they can be viewed. He also highlighted planetary positions, constellations, stars (including double and multiple), meteor showers and deep sky objects.

Each month, you can find David's presentations on the homepage at <http://halifax.rasc.ca>.

## **December 6, 2025 AGM +RASC Halifax Centre Meeting:**

**(35 attendees)**

To watch a replay of the meeting, please visit: <https://www.youtube.com/watch?v=5Jj2QhimX34&t=3256s> on the RASC Halifax YouTube Channel.

**Royal Astronomical Society of Canada - Halifax Centre  
Annual General Meeting (AGM)  
Saturday, December 6, 2025 – 1:00-1:35 PM  
Via Zoom - Meeting ID 849 0006 6600**

Time	Item
1:00 PM	<p><b>Annual General Meeting (AGM)</b></p> <p><b>1. Welcome &amp; Opening Remarks</b></p> <ul style="list-style-type: none"> <li>a. Approval of 2025 Agenda (<a href="#">poll</a>)</li> <li>b. Approval of AGM Minutes (December 7, 2024) (<a href="#">poll</a>)</li> <li>c. Appointment of Auditor for 2025-2026</li> </ul> <p><b>2. Reports</b></p> <ul style="list-style-type: none"> <li>a. Q&amp;A regarding pre-circulated reports (Note: reports are not read at the AGM)</li> <li>b. Financial reports <ul style="list-style-type: none"> <li>• Auditor Report – David Chapman (<a href="#">poll</a>)</li> <li>• Treasurer Report – Gregg Dill (<a href="#">poll</a>)</li> </ul> </li> <li>c. Approval of Pre-Circulated Annual Reports (with any amendments) (<a href="#">poll</a>) <ul style="list-style-type: none"> <li>• President Report – Tony McGrath</li> <li>• VP Report – Peter Hurley</li> <li>• Secretary Report – Judy Black</li> <li>• National Council Representative Report – Judy Black</li> <li>• Dark-Sky Preserve Committee – Peter Hurley, Tony Schellinck</li> <li>• Education &amp; Public Outreach (EPO) Chair – David Hoskin</li> <li>• Governance Committee – Judy Black</li> <li>• Nova East Star Party – Chris Young</li> <li>• Nova Notes – Lisa Ann Fanning, John McPhee</li> <li>• Observing Chair – David Hoskin</li> <li>• St. Croix Observatory (SCO) – Tony McGrath</li> <li>• Webmaster – Jerry Black</li> </ul> </li> </ul> <p><b>3. Call for Nominations and Election of 2024 Board of Directors</b></p> <ul style="list-style-type: none"> <li>a. Nominating Committee Report – <ul style="list-style-type: none"> <li>• Nominations for Board of Directors (<a href="#">poll</a>)</li> <li>• Elections for Officer and Director positions (<a href="#">poll</a>)</li> </ul> </li> </ul> <p><b>4. Call for Nominations for Appointed Positions</b></p> <ul style="list-style-type: none"> <li>a. Nominations for Appointed Positions</li> </ul> <p><b>5. By-Law No. 1 Amendments</b></p> <ul style="list-style-type: none"> <li>a. No amendments are recommended this year</li> </ul> <p><b>6. Adjournment of AGM (<a href="#">poll</a>)</b></p>
1:45 PM	

## **1. Welcome and Opening Remarks**

Tony McGrath welcomed the 7 RASC Halifax Centre members meeting by Zoom and the 18 attending in-person) and noted that because there was business requiring voting at this meeting, there would be voting and that polls will be provided electronically to those attending via Zoom. Only members in good standing are allowed to vote.

Halifax Centre welcomes all with an interest in astronomy, without prejudice, and that the stars belong to everyone. Halifax Centre also respectfully acknowledges that we live and observe on the unceded territory of the Mi'kmaq People. Quorum was met.

### **a. Approval of 2025 Agenda**

The agenda was presented for approval. It was explained the Treasurer, Nominating and By-Law Review reports would be addressed individually. The other reports cited had been pre-circulated and discussion for clarification purposes only would be held.

Tony invited members to participate at some level, to come have fun and be part of the Centre Team. He noted the acronym TEAM – Together Each Achieves More.

#### ***241207AGM-Mot01:***

It was moved by Blair MacDonald and seconded by Bob Russell to approve the December 6, 2025, AGM agenda as circulated.  
CARRIED unanimously.

### **b. Approval of 2024 AGM Minutes**

The minutes of the December 7, 2024, AGM had been pre-circulated to members and were also available online for one year. No errors or omissions were noted.

#### ***241207AGM-Mot02:***

It was moved by Mary Lou Whitehorse and seconded by Paul Gray to approve the minutes of the December 7, 2024, AGM as posted on the RASC Halifax Centre website.  
CARRIED.

### **c. Appointment of a New Auditor, 2025-2026 Fiscal Year**

Dave Chapman agreed to continue in his role as Auditor for 2025-2026.

#### ***241207AGM-Mot03:***

It was moved by Chris Young and seconded by David Hoskin to approve the appointment of David Chapman as the 2025-2026 Auditor.  
CARRIED unanimously.

## **2. Reports**

*(Note: Compiled reports will be included in the Jan/Feb 2026 edition of Nova Notes.)*

Tony McGrath noted the reports from the Board and the appointed positions had been pre-circulated on 3 occasions so would not be read during this meeting.

### **a. Auditor Report**

Dave Chapman's report was presented on screen. Tony noted the inventory was being worked on. The recommendations were noted.

#### ***241207AGM-Mot04:***

It was moved by Bob Russell and seconded by Chris Young to accept the 2024-2025 Auditor Report.  
CARRIED unanimously.

### a. Treasurer Report

Gregg Dill addressed the **Comparative Income Statement** as of September 30, 2025. This may be a bit more confusing than statements in the past. At the suggestion of the Auditor, the monies relating to the SCOPE Fund have been separated out. Operating revenue for the year exceeded 2024 operating revenue by \$191.00. SCOPE fund donations of \$19,320.00 raised the year-over-year increase to \$19,511.00.

Royal Astronomical Society of Canada, Halifax Centre  
Comparative Income Statement  
Years Ending September 30, 2024 and September 30, 2025

	Years Ended		Amount of Increase or (Decrease) during 2025
	September 30 2025	September 30 2024	
<b>Revenue</b>			
Membership Fees	\$3,241.41	\$3,463.88	(\$222.47)
Donations	\$817.29	\$704.00	\$113.29
Observatory Donations	\$275.00	\$140.00	\$135.00
Education & Outreach	\$75.00	\$0.00	\$75.00
Interest	\$483.58	\$449.81	\$33.77
Sales of Merchandise	\$475.00	\$1,325.00	(\$850.00)
Nova East (Net)	\$1,443.58	\$430.38	\$1,013.20
National Processing Fees (Income)	\$0.00	(\$12.87)	\$12.87
Miscellaneous	\$2.40	\$122.00	(\$119.60)
<b>Total Operating Revenue</b>	<b>\$6,813.26</b>	<b>\$6,622.20</b>	<b>\$191.06</b>
SCOPE Fund donations	\$19,320.00	\$0.00	\$19,320.00
<b>Total Revenue</b>	<b>\$26,133.26</b>	<b>\$6,622.20</b>	<b>\$19,511.06</b>
<b>Expenses</b>			
Meetings	\$266.98	\$411.51	(\$144.53)
Depreciation and write offs	\$860.34	\$951.18	(\$90.84)
Equipment and Supplies	\$0.00	\$0.00	\$0.00
Purchase of merchandise	\$321.79	\$675.73	(\$353.94)
Office Administration	\$511.56	\$329.33	\$182.23
Educational Activities	\$36.52	\$0.00	\$36.52
Insurance	\$1,321.00	\$1,966.00	(\$645.00)
Awards and Donations	\$200.00	\$120.00	\$80.00
National Office Processing	\$105.89	\$96.92	\$8.97
Operating Expenses SCO	\$126.69	\$30.15	\$96.54
Miscellaneous	\$62.30	\$70.00	(\$7.70)
<b>Total Expenses</b>	<b>\$3,813.07</b>	<b>\$4,650.82</b>	<b>(\$837.75)</b>
<b>Operational Surplus (Deficit)</b>	<b>\$3,000.19</b>	<b>\$1,971.38</b>	<b>\$1,028.81</b>
<b>Total Surplus (Deficit)</b>	<b>\$22,320.19</b>	<b>\$1,971.38</b>	<b>\$20,348.81</b>

### Income:

SCOPE Fund donations to year end were \$19,320.00 and included donations from Michelle Lane and Tony Schellinck plus matching funds of just under \$5000 contributing to this sum.

The balance of the SCOPE Fund as of this report is \$19,320.00

Gregg also noted there was an operational surplus of \$1028.81 this year compared to last year. Part of the surplus as due to a change in our insurance provider. Gregg suggested that the Cooperators did their homework and had a better sense of what our society is and does; consequently, there was a \$645.00 reduction in insurance costs.

Royal Astronomical Society of Canada, Halifax Centre  
Comparative Balance Sheet

Years Ending September 30, 2024 and September 30, 2025

September 30, 2025 Activity to: September 30, 2025	Years Ended		Amount of Increase or (Decrease) during 2025
	September 30 2025	September 30 2024	
<b>Assets</b>			
Cash	\$34,270.52	\$11,783.33	\$22,487.19
Investments	\$8,000.00	\$8,000.00	\$0.00
Accounts Receivable	\$361.69	\$485.97	(\$124.28)
Library Estimated	\$1,113.18	\$1,147.61	(\$34.43)
Observatory Equipment	\$7,435.19	\$8,263.10	(\$827.91)
Miscellaneous Estimated	\$0.00	\$13.00	(\$13.00)
<b>Total Assets</b>	<b>\$51,180.58</b>	<b>\$29,693.01</b>	<b>\$21,487.57</b>
<b>Liabilities</b>			
Accounts Payable	\$160.87	\$1,013.33	(\$852.46)
<b>Capital</b>			
Nova East Working Equity	\$5,000.00	\$5,000.00	\$0.00
Common Equity	\$46,019.71	\$23,679.68	\$22,340.03
<b>Total Capital</b>	<b>\$51,019.71</b>	<b>\$28,679.68</b>	<b>\$22,340.03</b>
<b>Total Liabilities and Capital</b>	<b>\$51,180.58</b>	<b>\$29,693.01</b>	<b>\$21,487.57</b>

The **Comparative Balance Statement** as of September 30, 2024, was presented.

### 241207AGM-Mot05:

It was moved by Blair MacDonald and seconded by Chris Young to approve the Financial Report as presented.

CARRIED unanimously.

#### a. Written Pre-Circulated Reports

Tony noted the reports are from the Executive and appointed committee Chairs. The reports would not be presented formally as they had been pre-circulated electronically to all members. Questions were welcomed. None were received.

#### **241207AGM-Mot06**

It was moved by Bob Russell and seconded by Mary Lou Whitehorne to approve the executive and appointed position reports as pre-circulated.

CARRIED unanimously.

### **3. Call for Nominations and Election of 2025 Board of Directors**

Peter Hurley, reporting on behalf of the Board that acted as the Nominating Committee, presented the nominations for the Board of Directors. He noted there were nine members elected last year with one stepping down. There are now two new members who agreed to have their names stand for election – Gerry Brosky and Frank Logan – which means there is a full slate of 10 members. The slate of nominees for the 2026 Board of Directors was then presented as follows:

<u>Executive Committee</u>	<u>Directors</u>
President – Tony McGrath	Gerry Brosky
Vice-President – Peter Hurley	Matthew Dyer
Secretary – Judy Black	David Hoskin
Treasurer – Gregg Dill	Peter Hurley
	Frank Logan
	Vincent Vallee

Peter noted that according to our Centre's By-Law No. 1, there is a requirement for up to 10 directors. All positions have nominees. There were 3 calls for nominations from the floor and from the online members in attendance for the 2026 Board of Directors. There being no further nominations, the 2026 Board of Directors positions were elected by acclamation. Congratulations to the newly elected Board.

Members of the newly elected Board were identified for members to identify them at future events and meetings.

### **4. Call for Nominations for Appointed Positions**

The Board had approved appointments at previous deliberations. There is one vacant position.

Honorary President	Patrick Kelly
Governance Review Committee	Judy Black
Education & Public Outreach (EPO), Chair	David Hoskin
Observing Chair	David Hoskin
Nova Notes, Editors	Lisa Ann Fanning, John McPhee
Webmaster	Jerry Black
DSP Committee, Co-Chairs	Peter Hurley, Tony Schellinck
Communications Chair	<b>vacant</b>
Nova East Planning Committee	Chris Young, Gary Weber, Judy Black, David Chapman, Tony McGrath, Gregg Dill (Treasurer), Michael Gatto, Vincent Vallee
SCO Manager	Tony McGrath

Peter Hurley asked that members contact him or any other Board member regarding any further nominations or for volunteering. He stated the appointments would be approved by the incoming Board at their January 11, 2026, meeting.

## 1. By-Law No. 1 (2024) Amendments

Tony McGrath noted there no bylaw amendments to consider this year.

## 2. Adjournment

Having concluded the business portion of the meeting, Tony McGrath called for a motion to adjourn.

### **241207AGM-Mot07:**

Moved by Paul Gray and seconded by Mary Lou Whitehorne to adjourn.

The meeting adjourned at 1:35 PM AST.

## **December 6, 2025 RASC Halifax Centre Meeting**

### **Special Guest - Marcin Sawicki, *Webb's Cosmos***

Mary Lou Whitehorne introduced Marcin Sawicki, a professional researcher at St. Mary's who has been involved with the CANUCS project, which utilizes the James Webb Space Telescope (JWST).

Marcin talked about his new book, *Webb's Cosmos* (published by Firefly) which is for sale. He gave an update on the events that have occurred since he last spoke to the members of Halifax Centre about the CANUCS project and some of the research and images that have come from the JWST.

### **David Hoskin - Photo Montage**

David presented photographs from Centre members Jerry Black, Michael Boschat, Barry Burgess, Jason Dain, Jeff Donaldson, Tim Doucette, Lisa Fanning, Paul Gray, David Hoskin, Blair MacDonald, John McPhee and Kathy Walker.

### **Special Guest - Paul Gray, FRASC, Halifax Centre - Starmus 2025**

Paul attended the Starmus 2025 festival, with the theme

"The Island of the Stars." It took place on the island of La Palma in the Canary Islands on April 25–28, 2025.

The event was held across multiple towns including Santa Cruz de La Palma, Los Llanos de Aridane, Puerto de Tazacorte, and Puerto Naos. The key activities were centered at CAMP Santa Cruz and CAMP Los Llanos. The festival featured a multidisciplinary program combining scientific lectures, interactive "STARMUS Camps," exhibitions, and live music performances.



Left, Paul Gray, FRASC shares his experience and memories at Starmus 2025. Photo by **Dave Chapman**

### **News from the Board presented by Tony McGrath, President of RASC Halifax Centre**

Reminder: RASC Awards deadline for submission for 2026 is December 31, 2025. Visit <https://rasc.ca/rasc-awards> for more information.

Don't forget to review the available Observing and Astroimaging certificate programs as well. Information for Observing Programs can be found at <https://rasc.ca/certificate-programs> and for information on the Astroimaging Certificate, visit <https://rasc.ca/astro-imaging-certificate>.

The *Nova Notes* September / October 2025 edition has been posted in "Publications," which houses previous editions back to 1970. The deadline for the November / December edition is December 15, 2025. Content can be sent to [novanoteseditor@halifax.rasc.ca](mailto:novanoteseditor@halifax.rasc.ca).

The next meeting of the Halifax Centre Board of Directors is January 6, 2025. Comments and ideas are welcome. President Tony McGrath can be contacted at [president@halifax.rasc.ca](mailto:president@halifax.rasc.ca) and email addresses for other positions - go to Contact Us on <https://halifax.rasc.ca>.

RASC National Council next meeting is December 7, 2025 (Chair: Judy Black - [secretary@halifax.rasc.ca](mailto:secretary@halifax.rasc.ca)). The NC's purpose is for a two-way flow of info and consultations. This was lifted from the RASC Policy C11: RASC National Council Terms of Reference - The purpose of the National Council is to consult with and advise the Society's Board of Directors concerning the business and operations of the RASC in general, including the formulation of policies and budgets, to communicate to the Board concerns raised by members, and to provide a framework and volunteers for the development of new Centre-level programs and practices.

Next Member & Public Meeting January 10, 2025 1PM AST - Speaker TBD - will be both in-person at SMU and via Zoom.

You can support SCO with the Dave Lane Memorial St. Croix Observatory Property Endowment (SCOPE) Fund. There are \$10,000 worth of matching funds available thanks to Michelle Lane and Tony Schellinck. To date, close to \$20,000 has been raised for the SCOPE Fund. The next phase of fundraising is focused on the astroimages sale.

### **Astroimaging Contest - Blair MacDonald**

Every year, the centre holds an astrophotography contest sponsored by Atlantic Photo Supply. Any Halifax Centre member and any resident of Nova Scotia is eligible.

There are three categories to accommodate a wide range of gear and skill levels: wide field, solar system, deep space and the People's Choice award.

This year's winners are:

Wide Field - David Hoskin "York Redoubt Moonrise"

Solar System - Paul Gray "The Moon"

Deep Space - Jeff Donaldson "Heart Nebula"

People's Choice award - Barry Burgess "Cosmic Coastline"

All the entries can be viewed here: <http://halifax.rasc.ca/index.php/astro-images/2025-astroimaging-contest>

### **Astrophotography sales in support of the SCOPE Fund - Blair MacDonald**

The Centre is selling astrophotos donated by members. All proceeds go to the SCOPE Fund. Photos can be picked up at Atlantic Photo Supply or shipped anywhere in Canada for \$20.

To order images, visit <https://halifaxrasc.appixpro.com/collections>. Note: To add to cart, you must be a registered user of the website.

Michelle Lane was presented with a set of the 2025 Astrophotos as a thank you for setting up the SCOPE Fund.

### **David Hoskin (EPO/Observing Chair) - What's up in the December Night Sky**

David reviewed highlights of the December sky. Winter Solstice occurs on December 21, 2025.

He highlighted the Sun, solar activity, the Moon, and targets needed to check off for Explore the Universe, and when they can be viewed. He also highlighted planetary positions, constellations, stars (including double and multiple), meteor showers and deep sky objects.

Each month, you can find David's presentations on the homepage at <https://halifax.rasc.ca/>.



Centre members Tiffany Fields (Astronomy Technician for the Astronomy & Physics department, including the Burke-Gaffney Observatory) and Dave Chapman show off their new Burke-Gaffney Observatory sweatshirts at the December meeting.

Photo courtesy of Dave Chapman

## Save the Dates!

### Save the Dates: Observing at SCO

- Members may be found observing at the [St. Croix Observatory](#) on almost every clear, dark night. Once a month, we encourage members and their guests to congregate at SCO, at which time new members are particularly welcome.
- Members are advised to sign up to the [email discussion list](#) to keep up to date on gatherings of fellow observers. The proposed dates for SCO Observing nights 2026 are below.

January	Fri, Jan 16, 2026
February	Fri, Feb 20, 2026
March	Fri, Mar 20, 2026
April	Fri, Apr 17, 2026
May	Fri, May 15, 2026
June	Fri, Jun 12, 2026
July	Fri, Jul 17, 2026
August	Fri, Aug 14, 2026
September	Fri, Sep 11, 2026
October	Fri, Oct 9, 2026
November	Fri, Nov 6, 2026
December	Fri, Dec 11, 2026

- Check the email discussion list or our website ([halifax.rasc.ca](http://halifax.rasc.ca)) for changes in schedule.  
<https://halifax.rasc.ca/index.php/observing/observe-with-us>