REFLECTIONS / REFRACTIONS

University Lowbrow Astronomers Monthly Newsletter

April, 2026, Vol 50, Issue 4

IN THIS ISSUE

CHASING NORTHERN LIGHTS: FROM NORTHERN MICHIGAN TO FAIRBANKS, ALASKA

BY AMI RYBICKI

There are moments in life that quietly change you, and then there are moments that grab you by the soul and never let go.

For me, that moment came years ago on a dark road in northern Michigan, just outside Rust, a small town near Alpena. I was on my way to visit my grandparents when I saw the Northern Lights for the first time. I didn't understand them. I didn't know what I was looking at. But I never forgot it.

I've been getting lost in the night sky ever since.

What started as curiosity turned into something much deeper. In 2020, I was sitting on the beach at our lake house in northern Michigan and saw the aurora again. I was hooked. Completely addicted! The kind of hooked where you check forecasts obsessively, step outside in the freezing cold without hesitation, and lose track of time under the stars.

Ami's story & photos continue on p. 5

But nothing, and I mean nothing, prepared me for Alaska.

YEAR IN REVIEW

BY CHARLIE NIELSEN

The year 2025 was another active year for our club. We had a pretty typical schedule of Open Houses and a few other events at other locations.

This year we continued to overhaul and move our website. We continued to look for a new Webmaster because our current one, Krishna, had very little time to spend on it due to career obligations and time constraints. Also, one of our VP's, Dmitri, resigned due to life circumstances consuming his time and preventing him from participating in club activities. Our club owes Krishna and Dmitri a ton of thanks for their work and dedication. It took us a while, but we did succeed in finding a new Webmaster and VP. It turns out that our new Webmaster, Barry Chapman, owns a website hosting company and we will very soon after this writing be moving our website there. Our new VP, Tim Miller, also has website experience, so both he and Barry are working with Jeff Kopmanis, our Online Coordinator, to get our website updated and moved. This has worked out very nicely!

Below is a month-by-month summary of our activities

January - Our speaker was the return of Professor David Gerdes, who has recently taken the position of Dean of Science at Case Western. This time David did an excellent job of explaining how he and his team discovered many trans-Neptunian objects, some of which are far too faint and distant to be seen telescopically. We had 30 in-person attendees, and 9 via Zoom. Did we do anything else this month? January in Michigan...what do you think?

February - Our meeting speaker, Jeff Macleod, NASA Solar System Ambassador and Outreach Coordinator for Warren Astronomical Society, gave an excellent presentation about how we managed to land on the Moon and return safely. Jeff emphasized how it was all about the weight. How much could we lift up there? He showed mathematically and schematically how several designs were considered and why the ones other than what NASA did were rejected. This was a great presentation and Jeff even dressed for the theme by wearing a white dress shirt with a pocket protector, and dark plastic-rimmed glasses. He really looked like a NASA scientist of the time. We had 24 in-person visitors and 14 via Zoom.

Did we do anything else, considering it was February in Michigan? Well, in this case, yes! We made a return trip to Glencairn Elementary School in East Lansing. Club members helping at the event were: Charlie N., Jim F., Dave S., Don F., Jeff K., Bobby G., Jack B., and Adrian B. Representing the Solar Sisters (a women's astrophotography group) were Amy C. and Ginia F. Astronomy targets were shown through several telescopes, including our club's new Seestar. Telescopes were explained and we used our laser optics demo. Astrophotography was shown. Don brought two visual devices showing what the night sky would look like while turning and looking around you. We were in one corner of the gymnasium, which limited our visibility. We had around twenty-five visitors, but there were hundreds at the event, which occupied several rooms and a hallway.

March - We had a great presentation by Dr. Richard Goodrich about the fear generated before the return of Halley's Comet in 1910. He covered how the newspapers generated a lot of the fear and loathing, and how some coincidental events, like flooding in France and the unexpected appearance of Comet A1 1910, compounded the situation. There was also much speculation about what might happen when we passed through the tail of Halley's Comet, but of course, nothing happened. Richard is a great speaker, and the audience enjoyed his presentation very much. He was connected to us via Zoom from Taiwan. It was 7:30 AM the next morning for him! We had 28 in-person attendees and 14 via Zoom.

April – At our April meeting, club VP and long-time member, Brian Ottum, gave us an excellent presentation on astrophotography. It was laid out in ten steps, starting from the easiest and least expensive methods, going up to the most difficult and expensive. He explained what types of objects fit into each category, the equipment and environment required, and a range of costs and frustration levels. The officer elections resulted in all current officers being re-elected. Attendance: In-person 20, Zoom 12.

VP Ken Cook was our Open House Coordinator for our first open house of the season on April 26, and it was a success. We had clear skies but not real good transparency. Galaxies were compromised, but star clusters looked fine. Club members helping were Jack Brisbin, Charlie Nielsen, John Wallbank, Ken Cook (OHC), Russ St Pierre, Joe Blackmer, and Joe Archbold. We had 14 guests.

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May – For our meeting speaker we had another great presentation by club member Jim Shedlowski, this time about the life and accomplishments of Russel Porter. Russel was an arctic explorer, author, artist, scientist, optical designer, and more. He was also considered the best cutaway drawing expert in the world. He started the astronomy club at Stellafane and authored books about amateur telescope making. Russel was also incredibly involved in the construction of the Hale 200-inch telescope. Jim did an excellent job covering all the contributions Russel Porter made to astronomy, both amateur and professional. We had 14 in-person attendees and 8 via Zoom.

We had an observing event scheduled at Tecumseh Parks and Recreation on May 2, but the weather had other ideas, as well as spoiling a "Mars and Moon Night" at the Ann Arbor District Library the following day.

We conducted another Open House on May 24. The weather turned out better than expected with intermittent, mostly high clouds and haze, mostly to the south. At times it was almost completely clear. We showed our guests what we could, when we could. Club members making it out to help were, Dmitri, Adrian, Fred (who was running his telescope), Jack (running the McMath), and Charlie Nielsen (OHC and greeter), who also got some images with his Seestar S50. We had 15 guests.

We had another Open House on the schedule for May 31. We had 34 guests and 13 (or 14) Lowbrows attended. Despite the terrible smoke we had a good open house. We could not see Polaris, so polar alignment was very difficult. Star hopping was difficult. The moon was a good target with lots of shadows. Mars, M13, and M51 were fair, despite the low contrast. Club members assisting were Don Fohey, Jack Brisbin, Jim Forrester, Joe Archbold, Ken Cook, David Cook, Adrian Bradley, and Fred Schebor.

June – We had an event scheduled at Westland Library for June 6, but the weather took it away from us. Our monthly meeting featured Adam Kall from KMI, in Marquette, Michigan. KMI is developing technology to locate, capture, and bring down large orbital debris. Earth orbit is becoming an increasingly dangerous place due to space debris and the possibility of collisions. One of the main concerns is large pieces, such as rocket boosters, which could collide (and eventually will) with something and produce a bunch of smaller debris, which is harder to locate and remove. Adam showed a bunch of graphs and statistics which described the magnitude of the problem and how it is getting worse. He then moved on to how KMI is planning to orbit spacecraft that can identify debris and move it to an orbit that will cause rapid reentry of the piece in question. He also spoke about other possibilities, such as collecting material in orbit and using it to manufacture new items aboard a space station. We had 22 attendees in-person and 5 via Zoom. It is interesting to note that, as I write this, in March of 2026, Marquette just got blasted by a blizzard a couple of days ago, resulting in about three feet of snow!

Our Open House on June 21 was unusual because we typically are concerned about getting enough help for these events, but in this case, we outnumbered the guests! It was a cloudless evening but very warm and humid. Transparency was not good and seeing was poor. We had a strong and gusty wind, which was favorable in that it kept the mosquitoes from eating us. We made the most of it by showing our guests a variety of brighter DSO's. We started as it was getting dark and continued until about 1:30 AM. Club members coming out to help in some ways were Jim Forrester, Jack Brisbin (McMath), Charlie Nielsen (OHC, McMath), Ken Cook (Greeter), Adrian Bradley, Fred Schebor, Tim Miller, Barry Wissman, Joe Archbold, Lee Shroder, Matt and Amy West, Zoltan, Tad and Rune. That is 16 club members helping, and we had 12 guests.

There was a second Open House on the books for June 28, and we conducted this one too. Have you noticed this consecutive run of Open House success? Wow! But are we going to pay a price for this good luck? We had clear skies with excellent steadiness and good transparency. For the second time in a row, we had a good turnout of club members and many bringing telescopes, and outnumbered our guests. Our OHC was Charlie Nielsen, greeter was Ken Cook, and main McMath operator was Jack Brisbin. Also helping were Jim Forrester, Tim Miller, Joe Archbold, Barry Wissman, Lee Schroeder, David Cooke, Nick Wutt, and one more "newer" member whose name escaped us. We also started training Nick on operating the McMath. Lowbrows 11, guests 10.

July - This month was our annual trip to Eastern Michigan University. We meet outside of the planetarium sphere to enjoy pizza, pop, and cookies, and this year, some banana bread provided by Ernie Behringer, who heads the astronomy department. After we eat, we head into the planetarium. This year our speaker was Dr. Kristina Collins, who spoke to us

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about how we can use radio signals to monitor our ionosphere. She used both the dome and large touch screen monitor for displays. We pushed the technology and Zoom broadcast to its limits, and beyond. After our business meeting our host Norbert Vance led us over to Sherzer Observatory, where we enjoyed views of Epsilon Lyra, M13, and Albireo as well as the urban surroundings from the roof observation deck. We had moderate wildfire smoke, but otherwise a very clear sky. We had 35 in-person attendees, and 5 via Zoom.

Our first Open House for July was scheduled for the 19th; but the weather made us cancel it. Reality check? Our OHC and VP Don Fohey had to make the painful decision. There was a second one scheduled for the following Saturday with Don being OHC again, but rain ruined that one Yep...here we go!

We had a Michigan Math and Science Scholars event scheduled for July 21. We had good skies for 17 MMSS students, plus Professor Dragan Huterer. We showed several objects with the McMath telescope, Charlie and Joe demonstrated Seestar S50's, Shannon a Unisteller, and Adrian had a 70mm refractor Ken deployed some binoculars and answered questions. Club members helping were Jack Brisbin, Ken Cook, Charlie Nielsen, Adrian Bradley, and Joe and Shannon Murphy.

August - This month we had a club picnic potluck at the home of Kathy and Kurt Hillig. We had 17 participants, the food was great, and several of us set up telescopes to view the clear night sky. Brian shared his night vision device, which was startling in what it showed, even without any magnification. We tried it both with and without a nebula filter. It was a great evening and night, except for the mosquitoes, which were apocalyptic in intensity.

On August 22 we made our third annual trip to Owosso Airport to help them celebrate a fly-in camping weekend for pilots and their families. The sky was not good again this year, but we did manage to show a few things, starting with the Sun in mine and Jeff's Seestars. I got a fairly good image of M27, and we ended up showing Saturn in Awni's and Jim's telescopes, The campers were pleased as usual, but we had fewer this year due to being there on Friday versus Saturday night. Club members who helped were me, Jim Forrester, Jeff Kopmanis, Adrian Bradley, and Awni Hafedh. Three years in a row, but none of them showed us good skies.

Our first Open House attempt was on the 16th, and OHC Charlie Nielsen had to pull the plug due to rain.

The following Saturday, Charlie was again OHC, and with better luck. The evening began with heavy rain, then blue sky, then thick clouds. The clouds dissipated around 10:30 PM. While a touch hazy, we had the best sky for an open house this summer. The Milky Way was easily visible. We packed up at about 1:30 AM. Lowbrows helping were Jack Brisbin (McMath), Jim Forrester (telescope), Tim Miller (telescope), Bill Paulson (telescope), Adrian Bradley (McMath), Charlie Nielsen (OHC and McMath), and Ken Cook (Greeter). We had 15 guests.

September - Our monthly meeting brought us some near-panic issues with our Zoom meeting link; we managed to get a different Zoom meeting going and waited out a delay in email delivery to our guest speaker in Argentina. Sebastian Garcia is the creator of Telescopius, an online and app-based astronomy resource for observing and astrophotography planning. It is amazingly deep and functional and is supported only by voluntary donations. Sebastian explained its creation briefly and spent most of the time showing us the many functions and features available, along with some insider tips. We were impressed! We had 14 in-person attendees and 4 via Zoom.

John Wallbank was our OHC for our September 20 Open House, and he had to cancel due to bad weather. This was our only scheduled Open House due to Astronomy At The Beach being on the 26th and 27th. This year, we moved back to our site in Island Lake State Recreation Area. The visitors seemed to be less than average for this event, but the numbers we got from the park officials indicate it was about average. Maybe the guests were not finding our cluster of scopes this year for some reason. We had fewer club members (7) coming out this year, also. But the event was a success both nights, with great talk turnout and clear skies both nights. An estimated 1000 guests attended on Friday night and 1800 on Saturday night.

October - This month, we reached out all the way to Hawaii to connect with Dr. Gregory Tarle, a retired UofM professor who is still working in experimental astrophysics. His presentation was about the latest research on dark energy and a theory that cosmologically coupled black holes may be driving the accelerating expansion of the universe by converting mass and energy into dark energy. So far, the theory looks promising and has the answers to several questions and meets several critical parameters. We had 17 in-person attendees and 7 via Zoom.

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Fairbanks: Where the Sky Comes Alive

From March 17th to 26th, I was in Alaska. I joined a photography tour with Capture the Atlas in Fairbanks for part of my visit.

And let me just say this, Fairbanks in March is magic.

The skies are crisp, clear, and alive in a way that feels almost unreal. It was seriously cold. When we first arrived, nighttime temperatures dropped to -31˚F. Thank goodness our tour didn't start for a few days. By the time we were out shooting, it had warmed up to around -12˚F, which, trust me, feels like a heat wave in comparison.

And every single night, we saw the lights. Not just faint glows or quick appearances, but full, dancing, sweeping displays. The kind that moves, shifts, and pulses like they are alive. The kind that reminds you how small you are in the best possible way.

In one of my favorite moments, standing under the sky with my arms raised, the aurora stretched and moved above me in real time, shifting from soft bands into structured rays. It felt like the sky was responding, like it was putting on a show just for us.

The Science Behind the Magic, Without Losing the Magic

Before this trip, I knew just enough to be dangerous. Solar flares, maybe a mention of particles, but not enough to fully understand what I was witnessing.

That changed quickly.

Our guide, MaryBeth, was not just incredible at finding locations, she understood the sky. She tracked space weather, studied solar activity, and knew exactly where we needed to be and when.

The Northern Lights, or aurora borealis, start 93 million miles away at the sun.

When the sun releases energy through solar flares or coronal mass ejections, it sends charged particles toward Earth. When those particles collide with gases in our atmosphere, primarily oxygen and nitrogen, they create light.

Oxygen gives us greens and reds.
Nitrogen gives us purples and blues.

What we were seeing in Fairbanks was the result of active solar conditions, with filaments and solar activity feeding energy into Earth's magnetic field.

And when that energy hits just right, the sky dances. Literally. Curtains of light ripple, twist, and surge across the sky in real time. It was not static. It was not subtle. It was alive.

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NORTHERN LIGHTS continues ...

One of the most incredible displays we witnessed formed what is called a corona, where the aurora appears to converge overhead in a burst of light. Looking straight up, it felt like everything was rushing toward a single point above us. Capturing that moment in my photos was one of the highlights of the entire trip.

What made this experience even more incredible was not just that we saw the lights, but how active and dynamic they were. During our time in Fairbanks, we were in a strong stretch of solar activity driven by high speed solar wind streams from coronal holes, along with filament activity on the sun adding bursts of energy into the system.

Being there right around the spring equinox also worked in our favor, as Earth's magnetic field is more aligned to efficiently receive that energy. You could see science playing out in real time.

The dominant greens we photographed came from oxygen atoms high in the atmosphere, while the purples and pinks, some of my favorite moments, were produced by nitrogen during more energetic interactions. In several of my images, those pink and purple tones appeared alongside the greens, showing just how active the aurora was during those nights.

In other moments, the aurora formed long, flowing curtains that stretched across the sky, rippling and shifting as charged particles followed Earth's magnetic field lines. Those were some of the most mesmerizing movements to watch and photograph.

Learning to See, Shoot, and Understand

Every night, MaryBeth guided us into the field, placing us in the best possible locations based on weather, cloud cover, and auroral forecasts. She had this ability to read conditions in a way that felt almost intuitive but was deeply rooted in science and experience.

Then the next day, after a night of shooting, she took it even further.

She walked us through what we had just photographed, breaking down the space weather, explaining what caused the intensity we saw, and even showing us how to read forecasts ourselves. She shared where she gets her data and how to interpret it, which honestly felt like unlocking a whole new level of this passion for me.

Dorian complemented that perfectly with daily editing sessions, helping us bring our images to life and truly understand how to process what we captured.

Seeing the final edits of our images after understanding the science behind them gave everything more meaning. It was not just about capturing something beautiful, it was about understanding what we were witnessing.

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NORTHERN LIGHTS continues ...

Moments That Didn't Feel Real

Prior to our photography tour, we stayed several nights at the Arctic Igloo Resort, and I still do not quite have words for this part.

Watching the Northern Lights from the warmth of your bed, through panoramic glass, as they move above and around you, it is surreal. Peaceful. Powerful. Almost dreamlike.

One night, I laid there watching the sky shift and move above the igloo, the lights stretching across the horizon and then sweeping overhead. It felt quiet and powerful at the same time, like the universe slowing down just enough for you to take it in.

We also spent time at Chena Hot Springs, surrounded by Alaska's raw beauty, and even got to walk with reindeer through the woods, which, yes, was just as magical as it sounds.

Why I'll Never Stop Chasing

I have chased the Northern Lights in northern Michigan for years. I have stood in the cold, scanning the horizon, hoping for a glimpse.

Alaska gave me something different. It gave me consistency, intensity, and understanding. And maybe most importantly, it deepened my connection to something I already loved. The night sky is not just something I photograph. It is something I feel. And now, when I look up, I do not just see beauty. I understand the story behind it. The journey from the sun to our atmosphere. The energy, the timing, and the science that make it all possible. ❑

UPCOMING SPEAKER SCHEDULE

April 17: Dr. Fan Zou, U-M Astronomy
Topic: The Cosmic Growth of Massive Black Holes: Insights from Deep Cosmic Surveys
May 15: Jeff Kopmanis/ Charlie Nielsen
Topic: Seestar - What We've Learned (In the Last Year)
June 19: TBD
July 17: TBD
August 21: Club Picnic!
September 18: canceled (conflict with AATB)

ARTEMIS II

BY LARRY COATES

Larry Coates caught this photo of the Artemis II launch from Orlando, Florida

YOU'RE INVITED TO ... ASTRONOMER DEAN REGAS' ONLINE CLASSES

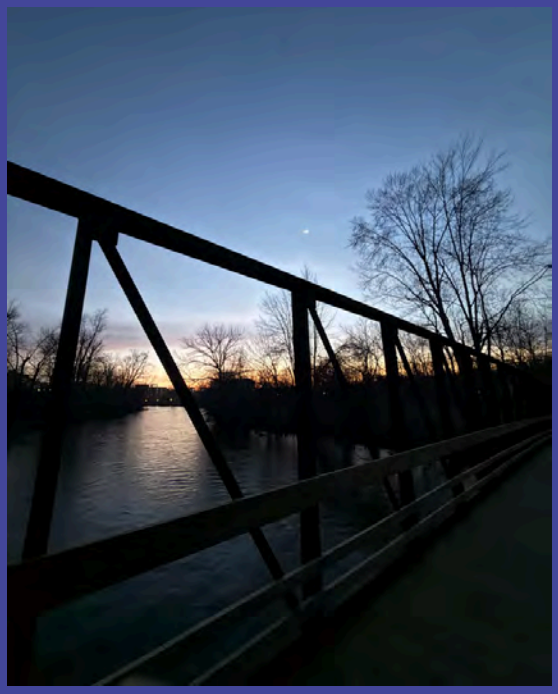
Top 10 Things to See in the Sky
Tuesday, April 7, 2026 07:00 PM Eastern Time

What are the absolute can't-miss, life-changing, jaw-droppingly awesome things to see in the sky? Astronomer Dean Regas goes through his Top 10 awesome astronomical events and welcomes your additions. Dean is joined by Canadian amateur astronomer and prolific author John Read.

Link:
https://us06web.zoom.us/j/83689544799?pwd=HBnGog7UfrfkxxVIY05hnbFjwRhQPy.1

Passcode:503270

Dean Regas, Your Astronomer
Host of the Looking Up podcast
https://www.astrodean.com



THE MOON

PHOTO & POEM BY SADHANA MURALI

I thought I was alone as I sat by the river.
Then I looked up
And saw a silver sliver

Though I see you almost every night
My breath still catches
When you fall into my sight.

For reasons I can't explain
My heart is in sync
With your every wax and wane

When you are hidden or are being "renewed"
I must confess
I too feel a bit subdued

You may have less gravitational pull
But to me you are magnetic
Whether you are crescent or full

Like your phases, the truth came quiet and slow
That I am not really alone
While awash with your beautiful glow

As somewhere, someone else, just like me
Is looking up at the deep, dark skies,
Admiring you, just as lovingly

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Our Open House dates were October 18 and 25. Charlie Nielsen was OHC for the first one and had to cancel. The 25th was Don Fohey at the wheel as OHC and he had better luck. The clouds chased us quite a bit but did cooperate for the Wing Academy elementary students that we invited. Unfortunately, 7 others were Google routed to the abandoned observatory building that is not ours (ugh). We did not know that happened until one of them emailed us about it the next day. Wing elementary had 8 students and 5 adults. They brought two loaner telescopes from the AA Library. The students were able to see Saturn, a comet, and globular cluster, plus other objects. Brian Ottum had an EAA scope with his laptop, projector, and screen to show live views, photos, and videos. Many Lowbrows helped by sharing the night sky with them. Lowbrows attending: Jack Brisbin, Ken Cook, Don Fohey, Tim Miller, Brian Ottum, Adrian Bradley, Barry Wissman, Bill Paulson, Branden Roche, and Zoltan Jung. We had 31 guests.

November - We had our last Open House of the year scheduled for the 15th, and it should come as no surprise for this time of year that OHC Charlie Nielsen had to cancel due to clouds. You may have noticed we started the year with exceptionally good luck with Open Houses, but as the season went on, reality set in for this part of the woods.

For our meeting, our guest speaker was Jeff MacLeod, who did a presentation for us earlier this year about the Apollo Program. This time he talked about the Gemini Missions and his creation of a Gemini simulator from the cab of a small pickup truck. It was a great and well-received presentation. We had 23 in-person attendees and 3 via Zoom.

December – For our monthly meeting, we were honored to connect to David Levy (living in eastern Arizona) via Zoom. David talked about his life as a comet hunter and, of course, the story about comet Shoemaker-Levy 9. He did a fantastic job and captivated the audience. We had 22 in-person attendees and 12 via Zoom.

2025 was not an astronomically spectacular year like 2024 was, which gave us a total solar eclipse, at least two aurora shows, one of which was spectacular, and a decent comet. But we still had fun, and that is our primary purpose, along with educating and enlightening others about astronomy. So, it was another successful year!

Our membership count has been hovering at or just below 120. We are still growing! What makes that special is that sadly, most astronomy clubs are shrinking. We must have some kind of secret sauce. I think it comes in the form of having a large, knowledgeable, and friendly membership. People see that and are attracted to it. Excellent work Lowbrows! ❑

LOWBROWS AT THE FAAC SWAP SHOP ON MARCH 28

PHOTO BY NORBERT VANCE

SEEKING WARMER, DARKER SKIES

BY BRIAN OTTUM

Of all the places I've lived, Michigan is the toughest place to pursue our hobby. It is one of the cloudiest of all states. When there are no clouds, we contend with bone-chilling cold, mosquitoes, dew, smoke, and late sunsets. Plus, light pollution is a problem that steadily gets worse.

This is my story of a February drive down to Georgia and Florida.

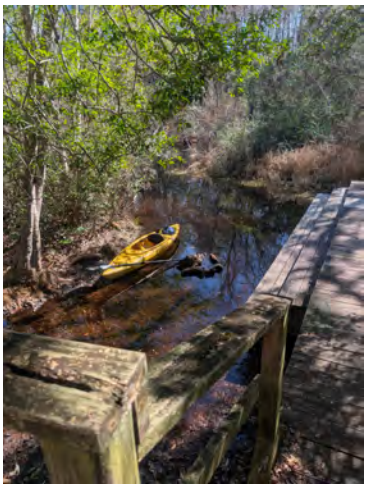
NEW DARK SKY PARK IN THE SWAMP

The Stephen Foster State Park is smack-dab in the center of the Okefenokee National Wildlife Refuge. A state park inside a federal park. It is located down in southwest Georgia, just above the Florida border (1000 miles from AA). The Okefenokee Swamp is the largest swamp in the US, covering 700 square miles.

Once I read that the state park recently gained dark sky status, I was motivated to visit. I drove my small Winnebago motor home to the park, after stocking up on food (it is over 30 miles from the nearest grocery store).

Stephen Foster recently spent millions upgrading its campground, so the shower houses/bathrooms are brand new. The sites have full hookups, pristine pea gravel, and plenty of separating foliage. Super nice!

Exploring the waterways is the main attraction. Though there were many canoes/kayaks available to rent, I brought my kayak and paddled a few miles each of three days. (The park's tour boat is not operating this year). I saw dozens of alligators (maxxing out at 10' long). There were many shore birds and raptors. A highlight was the "sunset paddle" with a park ranger.



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DARKER SKIES continues...

Walking the "sill" is also a fun activity. It is an aborted attempt at damming the Suwanee River that begins and flows out of the swamp. Saw a big gator. I was entertained by an otter for half an hour.

SO HOW WERE THE SKIES?
It was clear nearly all of the 5 nights I was there. The winter Milky Way was obvious. Spectacular! No light domes, except for Jacksonville low in the SE horizon. I could see even the faintest stars in the Little Dipper.

Since the tall southern pines cover the campsites, I had to set up my rig in a large open area a couple hundred yards away. My camping table, folding chair, ZWO AM-5 mount, SharpStar 6" f/2.8 scope, ZWO 2600 camera were left there for the duration (under tarps). Yes, I am a trusting individual.

I had fun taking shots with just my phone and caught Orion between the pines.

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DARKER SKIES continues...

Lowbrow Jeff Kopmanis had let me borrow his small guiding scope & camera and it worked great! I was quickly able to get PHD2 autoguiding going, so the mount was able to stay on target. (I will be buying that scope & camera from Jeff).

The dew was significant, as evening temperatures quickly dropped to about 50F. The skeeters were no issue, as well as the "no see ums". (However, these are a problem later in March and April once things warm up).

Here are a couple of shots I have processed so far. The Jellyfish is a supernova remnant in Gemini.

VISUAL OBSERVING

My second night was an official state park stargazing event. It was the young ranger's first one, so I helped her set up the Celestron 8 SCT. It was in rough shape, but the hand paddle worked for slewing. We had several enthusiastic guests. Unfortunately, high clouds prevented seeing anything except for Jupiter and its moons. But those were a big hit. I was able to point out a few fleeting stars with my laser.

Word spread that there was an astronomer in the campground. So I had guests come to my telescope for the next two nights. I did laser constellation tours. Then I passed around my night vision device to show stars down to mag 10. We saw tons of invisible satellites, airplanes, and even meteors. The Milky Way was resolved into distinct stars. A good time was had by all.

One night, I had an owl hoot at me from a nearby tree. Then I heard rustling in the woods. This was concerning since 800 bears live in the swamp.

There are so many bright stars in the winter sky compared to the summer! And Jupiter adds to the show.

WHEN TO VISIT OKEFENOKEE

I'm thinking that the optimal times are Oct-Nov and Feb-Mar. Those windows reduce the risk of hard freezes and skeeters.

ON TO FLORIDA

On Valentines Day, I continued 120 miles south to the Chiefland Astronomy Village. It is located in what they call the "Big Bend" region. Chiefland is a wonderful "astronomers retirement/vacation community." Founder Billy Dodd firmly believed in fellowship and hospitality, so there are dozens of camping spots (with electricity and nearby water). You can join for $40/year, giving you access to the observing/camping field. (They also request a $20/night donation if you are using electricity). There are folks at CAV every dark moon weekend observing and imaging. It is a super friendly place. There's a pavilion, clubhouse with two bathrooms and simple kitchen. The "Meteor Shower" is a small building with 3 open-air showers! (Be sure to turn on the water heater beforehand).

DARKER SKIES continues, p. 13

DARKER SKIES continues...

Richard and Lisa are the current managers of CAV. They are doing a fantastic job. I was totally blown away with the astronomy museum, featuring dozens of telescopes. They recently embarked on a project to refurbish a 10" Alvan Clark refractor and install it in the big dome. They do outreach to local school children and host astronomy events throughout the year.

Michael Tomich is a CAV member who lives nearby in Ocala Florida. He's also a Lowbrow, having observed with our crew at the Okie Tex Star Party. I was fortunate to be able to hang out with Michael for several nights. He has a superb 24" Starstructure dob. The view of Orion Nebula was great. And the view of Orion Nebula with my night vision device sent us into orbit.

When you go so far south, you can see things in the sky you cannot see from Michigan. A great example is Gum 17 and 15. They are two bright nebulae located in the constellation of Vela ("the sails"), straight south waaay below Canis Major.

My last night featured the Mercury occultation by the moon. Unfortunately, the only shot I got was just before the clouds ate the moon.

Orion is high in the south:

WHEN TO VISIT CHIEFLAND ASTRONOMY VILLAGE

Oct-Apr seems good. Beware: there can be cold snaps in Dec-Feb, bringing frost.

CONCLUSION

I highly recommend escaping Michigan's winter if you can. The camping at Stephen Foster State Park is wonderful, and they also have a few cabins to rent. The camping at Chiefland Astronomy Village is inexpensive and collegial. If you don't camp, there are many other places to stay in the Chiefland area.

Please email me with any questions: ottum@comcast.net ❑

Treasurer's Report for Fiscal Year April 1, 2025 to March 31, 2026
Doug Scobel, Treasurer

Overview:

We have $16,072.16 in the treasury, an increase of $2284.29 above last year.

We have 214 memberships, a net increase of one compared to last year. Our membership categories break down as follows:

- 51 Family/Individual (23.8%)
- 112 Senior (age 55+) (52.3%)
- 0 Student (0%)
- 35 Reside outside of Michigan's lower peninsula (16.4%)
- 16 Lifetime/Honorary/Hardship (7.5%)

Balance Sheet:

Income		**Expenses**	
Membership dues	$3,725.00	AT&T Open House "hotline"	$190.20
Astronomical League dues	$294.75	Astronomical League pmts	$340.75
Donations	$543.22	Donations	$500.00
Shirt/Cap sales	$291.00	Observatory/equipment	$526.24
Shipping/mailing	$80.00	Shipping/mailing	$83.84
Miscellaneous	$75.00	Miscellaneous	$701.16
RASC publications sales	$919.00	RASC publications from A.L.	$1,175.00
		Guest speaker expenses	$126.49
Total Income	**$5,927.97**	**Total Expenses**	**$3,643.68**
Balance 01 April 2025	**$13,787.87**	**Shirt Inventory**	**79**
Income	**$5,927.97**	**Cap Inventory**	**24**
Expenses	**$3,643.68**		
Balance 31 March 2026	**$16,072.16**		
Net Increase (Decrease)	**$2,284.29**		

Income and Expense Additional Details: This year 37 Lowbrows are also Astronomical League members, a decrease of 6 compared to last year. The income side represents the dues our members paid for their membership in the A.L. through the Lowbrows. The expense side represents what we paid for our membership as an A.L. member society. The difference between the two amounts is the $10.00 annual fee that the A.L. charges its member societies, plus a few members have paid ahead for multiple years' worth of A.L. membership.

In the Donations row, the expense and the majority of the income represent the erroneous $500.00 donation to Donovan Drew after his house fire, and the reimbursement we received from the GoFundMe for Donovan set up by member Ron Lev. The rest of the donation income is the amount we received from several members that included them with their membership dues payments. All these donations (however small) from members are greatly appreciated!

There were no additional donations going out. Normally we give annually to International Dark Sky, Vatican Observatory Foundation (in honor of Brother Guy), GLAAC (for Astronomy at the Beach), and for sponsorship of the Peach Mountain Clear Sky Chart. But due to some communication failures and other factors none of these donations happened. We will address these in the 2026-27 fiscal year.

Observatory and equipment expenses consisted of $228.42 for accessories for the telescope donated to the club by Dr. Stanley Watson, $139.91 for observatory maintenance items, and $157.91 for new mirror box batteries and charger for the club's 17.5" Dobsonian.

Shipping/Mailing income was payment from members for shipping Lowbrow apparel and RASC publications that they purchased. Similarly, shipping and mailing expenses were our actual costs for mailing those items.

The Miscellaneous income of $75.00 is from the sale of the club's Meade telescope mount at the FAAC swap meet.

Our main miscellaneous expenses were $210.00 for our annual rental of our USPS post office box, $264.49 for food and refreshments provided at the July meeting at EMU, and $225.78 to print 200 copies of our club brochure. In addition, there were a couple PayPal fees totaling $0.89.

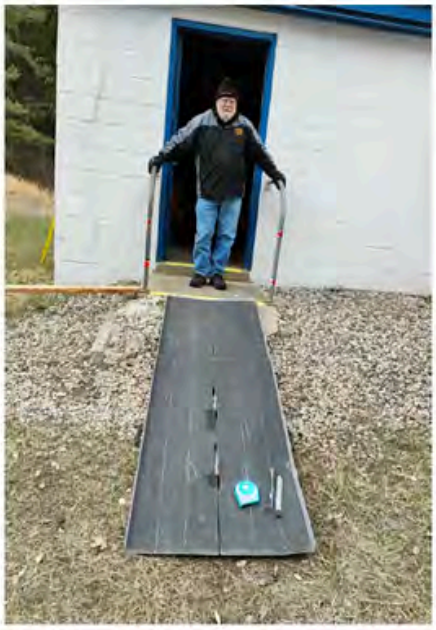
The RASC publications expense line item is the cost of the 2026 issues (25 each) of the Royal Astronomical Society of Canada (RASC) Observer's Calendars and Observer's Handbooks. We purchased them from the Astronomical League, instead of directly from RASC. The RASC publication sales line item is the total amount that our members paid for them. The difference is because the club purchases a handbook for the observatory and a handbook for our club president as our way of saying "Thank you!". Plus, not all of the RASC items have been sold.

Our speaker expenses were $50.40 for two attempts to ship a cap to September speaker Sebastian Garcia (who lives in Argentina), $11.30 to mail a t-shirt to October speaker Gregory Tarle (who lives in Hawai'i), $8.89 to mail a cap to November speaker Jeff MacLeod, and $55.90 to send a Visa gift card to February speaker John Monnier.

Note: Because of space limitations in the newsletter this report is necessarily brief. If you have questions or would like further detail about anything outlined here then please do not hesitate to contact me.

OBSERVATORY RAMP CONCLUSION REPORT

BY DON FOHEY



Jack Brisbin, Jim Forrester, and Don Fohey met at the Observatory on March 12th to investigate possibilities to make it easier to move the club's 17-inch telescope from the Observatory to the field. It was concluded that the existing foldable ramp that is used to move the 17-inch telescope into a vehicle could also be used to move the telescope out the door of the Observatory. That ramp is just short of 8 feet long and is 29 or so inches wide. The ramp can easily be moved into place and returned to the observatory after use.

The ground past the porch requires grading to make a smooth surface, level transverse, and descending uniformly to the grass. This will require breaking up the bit of concrete adjoining the porch and grading the landscape stones. We think it would be a good idea to construct a wood frame with cross members (treated wood?) placed into the ground just below the surface to better hold the stones from migrating and to provide a uniformly descending platform.

The image above is of Jack's personal ramp in place. The club ramp is identical and is in better condition without the bends and usage marks in the photo. ❑

THE RETURN OF THE ZODIACAL LIGHT

BY ADRIAN BRADLEY

Adrian celebrates the return of the Zodiacal Light each year: "It will show up in dark sites of at least 21.2 SQM-L (which is somewhere between Bortle 3 and 4 for those who use the Bortle scale.)" ❑

THE MILKY WAY CORE

BY AWNI HAFEDH

Capturing the Milkyway core is a challenging task especially where I live as it is close to the horizon, I've tried many setups in the past few years, but I believe I've nailed it this time.

First of all, I would never be able to pull up such an image if it wasn't for the beautiful dark southern skies at my friend's private property at Boone-MI.

I wanted to capture as many details of this wide field, so I decided to do a 10 panel mosaic of that region using a Rokinon 135mm lens with Canon 6D modified camera with CLS clip filter.

Each panel was roughly 70x30sec subs at ISO6400 35min panel exposure and with total exposure of 6 hours for all 10 panels, stitching and processing were done in PixInSight, Luminar and Photoshop.

Equipment used
Rokinon 135mm at F/2.8
Canon 6D Modified Camera
Astronomik CLS Clip-Filter EOS R XL
iOptron CEM26 mount ❑

GLENCAIRN SCIENCE NIGHT IN EAST LANSING

PHOTOS BY GRETCHEN KOPMANIS AND AMY CANTU

On March 9, several Lowbrows participated in Glencairn Elementary School's Science Night in E. Lansing. They were joined by hundreds of kids, a snake, spiders, and sundry experiments promoting science. ❑

University Lowbrow Astronomers - Meeting Minutes March 20, 2025 7:30pm - REVISED

Our March meeting at the Detroit Observatory began at 7:35 PM with our own Jim Shedlowski presenting an astronomy history lecture titled "The Way We Found The Universe" on the big question in the early 1900s: Was Andromeda a nebula or another island universe? With George Ellery Hale enabling the work of so many astronomers, leading to Edwin Hubble using the foundational Cepheid work of Henrietta Leavitt to determine the distance to Andromeda. As a finale, Jim led us singing his lyrics set to "Starry Starry Night"

During the discussion afterwards Jim offered his follow up presentation on "The Dark Universe". Also an audience member recommended the book "The Perfect Machine" about building the 200" Hale telescope used by Hubble.

At 8:46 PM Charlie Nielsen began our business meeting.

Charlie reminded us that officer elections will be at our April meeting, and that newsletter editor Amy Cantu has offered to continue, but she will step aside for anyone interested in the position.

Charlie received a large envelope from the NASA Night Sky Network (NSN) with many interesting items, including Braille moon charts and astronomy related calendars.

OD Jack Brisbin reported that the observatory is in good shape.

The FAAC Astronomy Conference and swap will be Saturday March 28th, 9 AM - 3 PM. Jack will reserve a swap table to sell some excess equipment. Members attending the swap may use the table and floor space to show and sell their equipment too. Please email Jack if you are interested in using the table space. Bob Stencil has donated a flip eyepiece diagonal and binoviewer which will be offered at the swap. Jack brought in a cleaned up 3 inch refractor from the observatory that will also be offered.

As part of our ongoing reworking of the club website, YoungAstronomers.com will be moved to the same domain registry as our other club URLs and the content will be part of our new hosting service run by club member Barry Chapman.

On March 12 Jack and other members met at the observatory to plan access improvements. Pictures of our current ramp on the sloped entrance showed some of the issues and possible remedies. Improving the soil surface and building a ramp of pressure treated "2 by" dimensional lumber with metal rods pounded in to stabilize it are being considered. Look for an email regarding possible work days at the observatory.

VP Don Fohey reminded those present to pick up a few copies of our newly revised ULA brochures and give them out to interested people. Don, as a past newsletter editor, mentioned it is fun to put together the newsletter once enough content is available.

We have new batteries for the club 17.5" scope and they will be installed.

For our April meeting, Dr Fan Zou with U of M will be our speaker discussing some early results from the Vera Ruben telescope.

We need more speakers for upcoming meetings. Any member can suggest or engage a speaker for our meetings, not just officers. Please email the officers with leads, and/or agreeable speakers.

The movie "*Project Hail Mary*" was released this week. The book was written by Andy Weir, author of *The Martian*. Both the book and movie are highly recommended.

VP Tim Miller reported by email that he continues to move content from our old website to the new one.

VP Ken Cook had nothing new to report, but his wife Christine has posted our upcoming club events with the Ann Arbor Observer for both print edition and on their website.

Jim Forrester might open Peach Mountain this weekend as March 21st is a Messier Marathon night. Look for an email with details.

He also mentioned that Adorama has R27 dark red theater lighting gels which can be cut to fit devices and provide night vision friendly dim screens. While the gel doesn't adhere directly to the screen it does allow finger-touch pickup, making it suitable for computers, phones, and tablets.

By email, Treasurer Doug Scobel reported the club expenses since the January 16 club meeting. Note that this covers the past two months because he was out of town in February.
We have 214 memberships.
Doug paid the following:

- made our usual monthly payments to AT&T for our Open House "hotline".
- paid $225.78 to Greko printing for 200 club brochures.
- reimbursed Jack Brisbin $25.42 for new heat lamps for the observatory.
- paid $55.90 ($50.00 plus fees) for a Visa gift card for February speaker John Monnier.
- paid $115.53 to BatteriesPlus for a set of four 6V batteries for the mirror box in the 17.5" Dob.

As always, the records he keeps are open for any and all Lowbrow members to examine.

Adrian Bradley reported via text message that he had a lowbrow table waiting at Pizza House.

And so, at 9:06 PM Doug Warshow made a motion to adjourn, supported by Jack Brisbin.

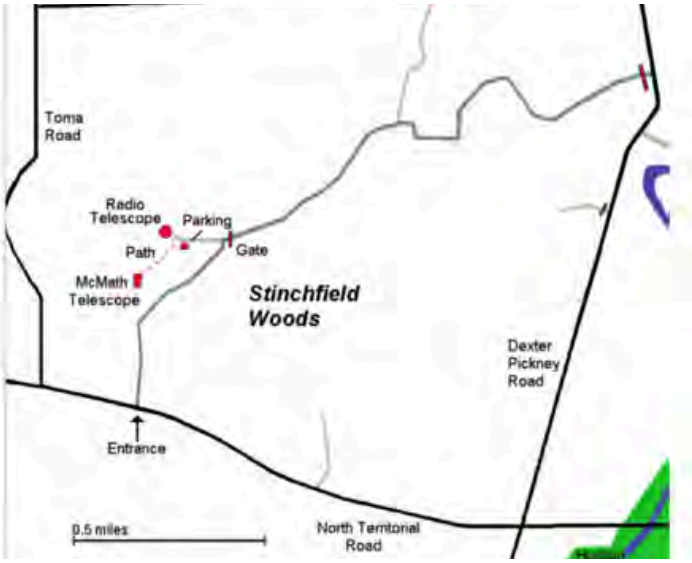
REMINDER: MEMBERS PLEASE HELP!
Plan on attending an open house this summer. Your presence with or without a scope is helpful. Come and share the night sky with the public, they appreciate learning about and seeing the stars that are fading away in our overly bright suburban nights.

Minutes respectfully submitted,
Ken Cook, VP

PLACES & TIMES

Monthly meetings of the University Lowbrow Astronomers are held on the third Friday of each month at 7:30 p.m. The location is usually the Judy & Stanley Frankel Detroit Observatory. The Observatory is located at 1398 E. Ann St., Ann Arbor. The Ann Street Parking Structure (M86), the Catherine Street Structure (M5), the Glen Street Structure (M61), and the School of Public Health II Lot are usually open after 6:00 p.m. Mon-Fri. The M86 structure is closest to the Detroit Observatory.

Peach Mountain Observatory is the home of the University of Michigan's 25-meter radio telescope and McMath 24" telescope, which is maintained and operated by the Lowbrows. The entrance is addressed at 10280 North Territorial Road, Dexter MI, which is 1.1 miles west of Dexter-Pinckney Rd. A maize and blue sign marks the gate. Follow the gravel road to the top of the hill to a parking area south of the radiotelescope, then walk about 100 yards along the path west of the fence to reach the McMath Observatory.



PUBLIC OPEN HOUSE / STAR PARTIES

Public Open Houses / Star Parties are generally held on the Saturdays before and after the New Moon at the Peach Mt. Observatory but are usually canceled if the forecast is for clouds or temperatures below 10 degrees F. For the most up-to-date info on the Open House / Star Party status call: (734) 975-3248 after 4 pm. Many members bring their telescope to share with the public and visitors are welcome to do the same. Mosquitoes can be numerous, so be prepared with bug repellent. Evenings can be cold so dress accordingly.

Lowbrow's Home Page
http://www.umich.edu/~lowbrows/

MEMBERSHIP

Annual dues are $30 for individuals and families, or $20 for full time students and seniors age 55+. If you live outside of Michigan's Lower Peninsula then dues are just $5.00. Membership lets you access our monthly newsletter online and use the 24" McMath telescope (after some training). Dues can be paid by PayPal or by mailing a check. For details about joining the Lowbrows, contact the club treasurer at: lowbrowdoug@gmail.com

Newsletter Contributions:
Members and non-members are encouraged to write about any astronomy-related topic. Contact the Newsletter Editor: Amy Cantu cantu.amy@gmail.com to discuss format. Announcements, article, and images are due by the 1st day of the month as publication is the 7th.

Telephone Numbers:

President:	Charlie Nielsen (734) 747-6585
Vice President:	Don Fohey
	Brian Ottum
	Ken Cook
	Tim Miller
Treasurer:	Doug Scobel
Observatory Director:	Jack Brisbin
Newsletter Editor:	Amy Cantu
Key-holders:	Jim Forrester
	Jack Brisbin
	Charlie Nielsen
Webmaster:	Barry Chapman
Online Coordinator	Jeff Kopmanis

A NOTE ON KEYS: The Club currently has three keys to the Observatory and the North Territorial Road gate to Peach Mountain. University policy limits possession of keys to those whom they are issued. If you desire access to the property at an unscheduled time, contact one of the key-holders. Lowbrow policy is to provide as much member access as possible.

Email to all members
Lowbrow-members@umich.edu