

Skyletter

October 2024
RASC Kingston Centre



SATURDAY, SEPTEMBER 28



Stefan: Look up.

Rick: Very pretty. Bummer about all that cloud—it was clear here all day (and all last night).

John: Is that a drone in the shot (top left corner)?

MONDAY, SEPTEMBER 30

Kevin (08:06): Nice Moon.

Susan: That is a very nice Moon! Great view.

Kevin (Oct 1): Thanks. We are back. Travel by air is not nearly so pain free as I remember. Travel to far away places was one of the foundations of my thinking about retiring...and now that foundation may not be that solid!

This image was coming back into Ottawa, looking east before sunrise on Monday morning.



WED/THU, OCTOBER 2/3

Roger: I was out in the observatory this morning before 6 a.m. and had a look for the comet.

I upgraded the Cartes du Ciel settings to use the latest updates from the Minor Planet Center and then used the CEM120 mount to point exactly at the spot where it would rise out of the trees on the other side of the river.

I hunted for the comet using a pair of 8×40's, and then a pair of the Celestron CanTire binoculars (I had recollimated them a couple of days ago, and they are now performing well). I was not successful.

I tried taking pictures of the area with a modified Canon T1i DSLR and a Tamron zoom lens at 20mm focal length, but I could not see anything there, either.

SO, just to confirm I was pointing in the right direction, I powered up the monochrome camera on the back of the scope (300mm aperture, 1900mm focal length) and sure enough, there was the comet, not quite in the exact centre of the field of view.

I went back to the 15×70's and by 'sneaking up on the position of the comet' I was able to catch glimpses of it. Tapping the side of the binoculars to create a little movement (the eye is very sensitive to movement) and I was sure there was something there.

I took a couple of very ugly pictures using the monochrome camera on the back of the LX-200, but the comet was now very faint against the background glow. I have an IR filter in the filter wheel, though, and this decreased the sky brightness just enough to allow me



to get a couple of pictures 20 minutes before sunrise. Unfortunately, there are quite a few “dust doughnuts” in the image, so I’m going to have to clean the filter(s) and the window in front of the camera sensor and give it another try tomorrow morning.

Kevin: This imaging session was #2024-50—the 50th of the year. In 2023 I had a goal of reaching 50 imaging sessions and I reached it. This year I had a goal of at least that many—we will be there in one more session!

This morning’s temperature at the observatory reached +2.8C, with dew everywhere. This was the first imaging session in over a week, and the first after Serenity Observatory interior renovations (mainly a bunch of shelving).

Jupiter was high up and the first image around 04:50 EDT showed the moon **Europa** transiting Jupiter left to right. The **Great Red Spot** is also just about to rotate out of the field of view.

Pointing continues to be a little off...less than 5 arcminutes and tracking is not too bad either, maybe a nudge every 10 minutes. I used an ROI of 1200×1200 and FireCapture’s cutout box of 800×800. This process continues to give better results than just an ROI of 800 and autoalignment turned on.

The last image around 05:40 EDT [top right] shows **Europa** well away from Jupiter on the right hand side. This also marks one of the first times I can remember imaging Jupiter when it has reached azimuth 180°, *i.e.* due south and at its highest altitude. The airmass equivalent of the first image was 1.09. The airmass equivalent of the last image was 1.08. About the best that can be expected!



THU/FRI, OCTOBER 3/4

Kevin: Another cold morning, maybe +5.8C or so when I bundled up and went out around 05:15 EDT. **Jupiter** was high, high, high in the sky and the 40–60% cloud cover forecast for this morning (as seen yesterday in my cloud app) was nowhere to be seen. Maybe it is a good thing to have a 5 a.m. o’clock alarm cat.

So, here is the last and best image. Turns out there was a lot of high cloud out and about; made the image a little less clear methinks.

No moons, no GRS. This is the best 5% of 15k frames using a 1200×1200 region of interest and an 800×800 cutout box for fast aligning. Exposures were on the order of 3.2ms each.

This was session #2024-51. Yay! I achieved the 2024 goal of more than 50 imaging sessions! Too bad only 5 runs were made this



morning as after 15 minutes I had to pack up and start the day prepping to go into work. It is dark enough I could have imaged another 15–30 minutes!

Saturday morning I take motivation from Mark Kaye: time to rip off the shingles and put down metal panels on the greenhouse roof. I do not think I can take three days however, as rain is forecast for Sunday afternoon...

Susan: Nice shot Kevin. This is a perfect example of what an observatory does for you. Even terrifically short observing sessions can be productive if set up is reduced to a minimum. Suits our crazy weather.

I also hope to be observing this weekend as our new deck now has stairs! No going out the front, through the garage into the back yard.

Rose-Marie: Clouds. There's supposed to be auroras tonight, weatherman says clouds. Supposed to be auroras on Monday night, again, CLOUDS. Would be nice if it'd hold off until tomorrow

night when it's supposed to be clear. However, looking at the satellite image, the clouds we're supposed to get look like they're dissipating somewhat, so perhaps there will be some sucker holes.

POSSIBLE BRIGHT SUNGRAZER

Mark: I know, it is on Twitter. But it could be good:

x.com/StarWalk/status/1840308323859546363

Rick: The designation [A11bP7I] they give it is not one I recognize—a definite hint of dubiousness (dubiousity?).

Malcolm: Is this the one? A11bP7I = C/2024 S1 accordingly with MPEC T22.

Rick: That seems to be it—new since I was looking. I've added it to my ECU and Stellarium. Thanks. Both programs show it currently at about mag 16. Not going to rush out with the binos yet.

Rick: Looking at its path in the sky on Oct 28 it whips all the way around the sun and is predicted to max out about mag -5. Un-

fortunately it's only 12 arcmin from the limb of the Sun. By the time it gets any reasonable distance from the Sun it is much fainter. I don't think this is going to be much of a show.

Mark: When it comes to comets, this is possibly the best forecast possible. It is when they call it the comet of the century that it crashes and burns.

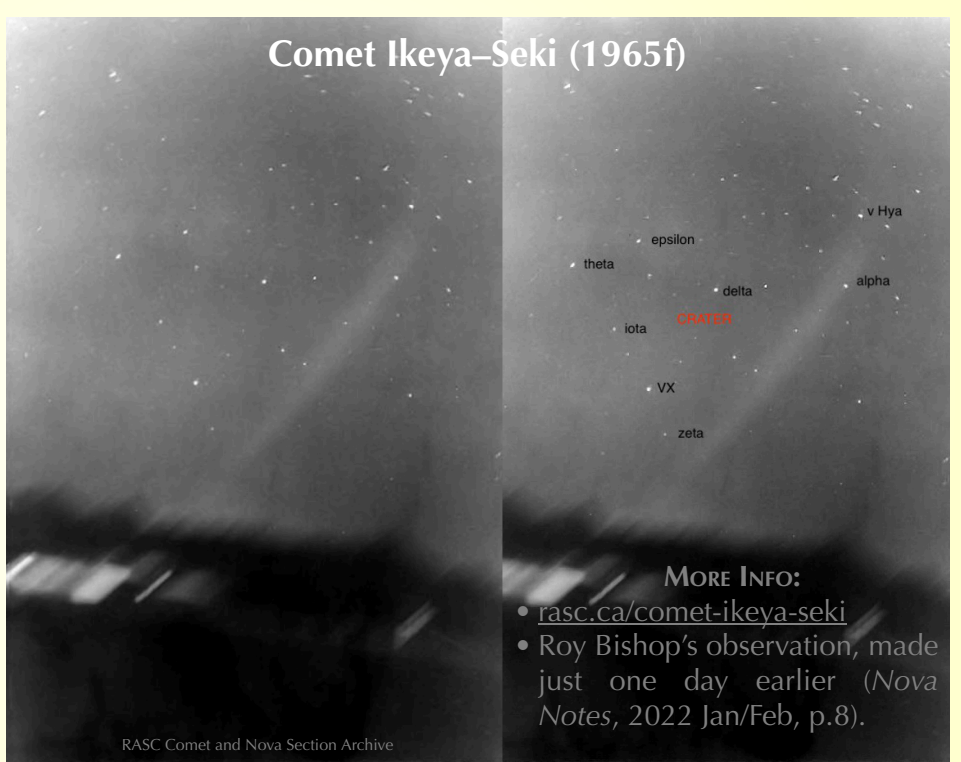
Malcolm:



Comet Ikeya-Seki rising in the morning sky on 1965 November 4 around 4:30 a.m. (haze is obscuring the comet's head). 10-minute exposure on Tri-X film. Photo by W.O. (Bill) Jenkins.

NOTES:

- Wide angle of lens caused stars to arc over comet's tail.
- Camera was mounted on 2" refractor and telescope trained on comet's head and guided. (Dawn was less than 1/2 hour away so sky is lighter than usual.)
- Head was just visible at horizon till haze obscured it visually, although still visible in telescope.
- (Faster film would have given better results but none was available.)



SAT/SUN, OCTOBER 5/6

Rose-Marie (07:15): I spent the night in the big armchair with jeans and sweatshirt on, had the alarm set to wake me every hour to check the aurora stats. Nada. Nothing. No sparklies for me. Kerrie had to go out at 2:30 a.m., nice clear dark sky, no clouds, no Moon.

But no sparklies. Just watch, stupid things will fire up during our daytime hours, and then the clouds and rain will move in.

Kim: I was out last night, 5C, it was clear, looking at **T CrB**. Lovely night. Out again this morning, 2.6C (but felt warmer than last night), looking at the **planets**, and **M42** in the Dob, never get tired of looking and sketching this object. No aurora, Kp1 and the oval from the map showed only a bit over Alaska.

The clouds are moving in now, and there was quite the lighting storm in St. Catherines last night, so I think its coming. Today's job: bring in your plants or cover up your crops, we're expecting frost.

John: Saturday night was very clear up here, humidity was high,

the stars were great and the **Milky Way** jumped out at you, but there was no light show from the north that I could see. Packed it in around 23:30 and went to bed.

Susan: Yes it was humid, lots of dew. I feel I was robbed of some transparency. Still, better than tonight will be.

MON/TUE, OCTOBER 7/8

Kevin (20:14): Kim just went out now with a small compact Canon camera to try to get some more. The AuroraCam1 image right now looks like this:



SUN/MON,
OCTOBER 6/7

Kevin: This is from SCGO AuroraCam1 (formerly known as Not-AllSky1), the Raspberry Pi ASI power camera system. There was a lot of aurora, but most of it behind the clouds. Here is one of the best clearest, around 22:31 EDT.

Stan: That is wonderful. Thanks for sharing.

Kim (20:29): After Malcolm's post on FB of the **aurora** last night, we checked the AllSky camera and we did catch it, the best after 10 p.m.

We have **aurora** tonight as well; it was being picked up on the AllSky, and it's being picked up on the small Canon camera.

There are clouds in the south, but it is clear in the north. Rose-Marie get your camera ready!

Stefan (22:50): We are getting a nice show. Quickly set up a DSLR with 18mm lens. Taking 5 sec pics at ISO1600 on continuous. Going

to let it run and see what we get.

Rose-Marie (00:38): Just got back in, and they're still going strong. I finally drove out to "the pond" and am so glad I did! Great view! Spent about an hour and a half taking pics.

Note to self: winter is coming. Dress warmly! Got the wood stove stoked up. Going to download pics now while my fingers and toes thaw out.

Rose-Marie (01:17): So I have discovered that out by "the pond" has a good view! Did a quick tweak on this one. Still wired for sound but I need to get myself off to bed and get some sleepin' done!

Stephen (01:32): I'm glad for you that you got your "sparklies." It's fogging my galaxy images!

Malcolm (01:55): What a show. Best I've ever seen.

Malcolm (03:02): This was just the beginning.

Mark D (07:37): My daughter sent me this picture from Calgary.

Trisha: I was out last night around 10/10:30 p.m. and saw nothing. Brockville west end suburbia so I think I should have been able to see something.

Susan: Well that is pretty nice from Calgary! Save some photos for the meeting.

Kevin (10:18): The SCGO Auroracam1 video is now available online at

starlightcascade.ca/allsky1/allsky.mp4

It was quite a show:

- 20:00 First wisps. Very bright! Overexposed nearest the horizon with a 25 sec exposure.
- 22:30 Spiking starts...goes south

past **Polaris** then quiets.

- 01:00 Major spiking and up past Polaris again...actually reaches the lower southern limits of the camera frame, east to west as well.
- 02:00 Cloud covers most of it, but still overexposed along the northern horizon.



- 02:46 Clouds clear a bit, aurora still going up to Polaris.
- 03:30 A lot of clouds show up.
- 04:30 Clears up, more purple showing now.

Stefan: Nice capture. The world is upside down. Lol. [Images here were rotated 180°—Ed.]

Kevin: Yes, I forgot to mention that N is up, E is left, W is right and

S is down. I am still working on condensation issues within the housing. The summer external fan blowing cooler air in is turned off but I am thinking of adding a very small circulation fan inside the housing itself, just to move existing heated air around a bit more.

WEDNESDAY, OCTOBER 9

Roger: Space weather is reporting a CME moving fast and may hit around 1600 UTC on Thursday.

Rose-Marie: G1 to G3, possibly even a G4! I'm already chompin' at the bit, especially since I've discovered the view at "the pond."

I'll mention it again for people in town: a good view can be seen from Unity Rd. between Elginburg and Glenburnie. There's a wide shoulder, just go past the cattails to near the culvert, *wiiide* view of the northern sky from there.

Kim: Plus don't forget the Comet A3.

Rose-Marie: One fantastic sparkly at a time please. Too much excitement and I might have a stroke! Then again, I'd die happy.

THURSDAY, OCTOBER 10

Kevin (10:30): Due to popular demand (and to be honest I never even considered switching ground up to ground-down, because the camera used to look straight up), the SCGO Auroracam1 now shows the north ground-down.

Sorry about the clouds, can't do anything about those!

East and West are still reversed however. The cell tower to the lower left is to our NE, and the neighbours' houses in the lower right are too our NW.

You can see this (updated hourly) at kingston.rasc.ca as well as at starlightcascade.ca/allsky1



Walter (10:36): What, your software doesn't have a horizontal flip function?

Kevin (10:53): Yes it does! Rick reminded me that the annotation happens within the AllSky software and not where I usually add it in...after the fact with linux bash scripts. So just this morning I had time to log into the web-based control interface, find the correct parameter, and change it.

Come on aurora! We are ready and waiting!

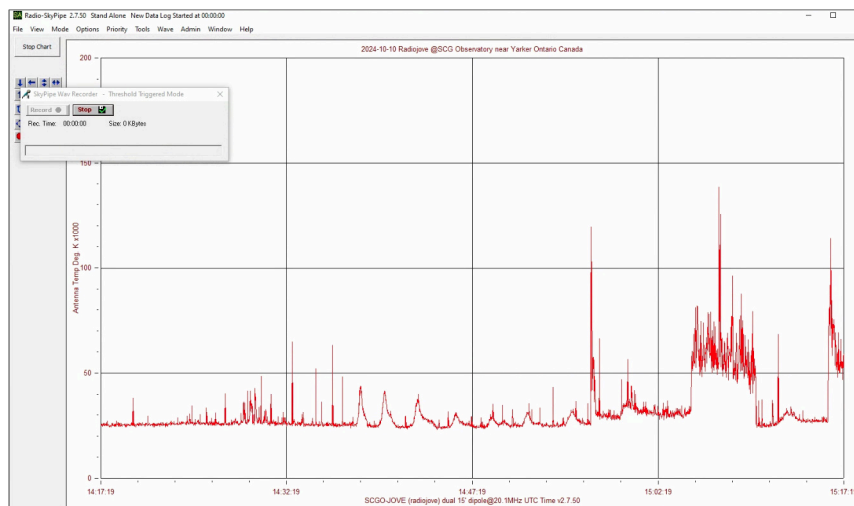
Rose-Marie (11:01): Come on clouds, SHOVE OFF! We should savour the anticipation. I have a lot of work to do in the firewood supply department, and need to take a few minutes to clean the sensor in my camera.

Malcolm (11:14): CME Impact detected.

Kevin (11:20): Did your source say when?

We are seeing some small activity on the RadioJove radio telescope: about 15:05 and 15:15 UTC. We normally get direct flare detection when it happens on the Sun but also get secondary detection when CMEs arrive some days later.

The SuperSID is



a better radio telescope for detecting CMEs hitting the ionosphere but ours has been down for a few months now.

Malcolm (11:25): I assume the post time was the detection time [10:54 AM on *SpaceWeatherLive*].

Malcolm (11:29): I would add, the notification in this case is likely from the L-1 satellite, which is 30 minutes or so advanced notice to arrival at earth.

Probably should have said that.

Malcolm (11:31): And we now have Kp5.

Malcolm (11:47): I think we know where this is going—Kp6 now.

Walter (11:49): KPmax 4 p.m., KPmin 8 p.m.?

Malcolm (12:11): I know I said I was done...I lied. [*SpaceWeather-Live reports Kp7 and strong G3 geomagnetic storm @ 15:49 UTC.*] Last time I'll post on it.

Rose-Marie (12:19): Going the same darned way some of them

have this past year. Europe hogs all the sparklies and there's none left by the time it gets dark here. The only hope is that since it was a long-lasting eruption there may be a bit of something left by our darkness. That is, if the clouds don't ruin the view.

Malcolm (13:18): One more time? **Kp8**.

Do I hear NINE?

Mark (15:18): I spent the day doing all the hardware and fiddly stuff to get the roof back open. I mounted the scope, put the Herschel Wedge on, and—a cloud moved over the Sun. But I will not complain, it was clear on April 8th.

The clouds eventually moved out of the way. Wow, there are a bunch of good spots on the **Sun**. The one that spawned the CME is huge. If you have a chance, go out and have a look.

THU/FRI, OCTOBER 10/11

Walter (19:03): There is going to be a massive **aurora** tonight! Why? Because I've lost the tripod adaptor for my phone.

You're welcome.

Rose-Marie (19:12): And there is also clear sky, the clouds moved out! Thank you Walter, thank you!

Thank you! Thank you!

Just got bundled up and am now heading out to the pond.

Roger (19:13): It is with grateful thanks that we accept your sacrifice!

Walter (19:16): Holy crap I finally found it! Sorry folks, the aurora is cancelled. (On the upside, I did find my

outlet tester that has been missing for the last few months, and finally cleaned out the trunk of my car.)

Malcolm (19:21): Folks, it's gonna be a doozy, it's not even dark and I can see crimson red at the zenith.

Rick (19:21): Strong, deep red **aurora** stretching to the zenith right now and it's not even dark yet!

Stephen (19:32): As soon as I turned my telescope on I knew there was a strong **aurora**. The image was blood red! It's spectacular tonight! Best I've seen in a long time.

Stefan (19:35): Yep. Cameras are firing:



Jeff (19:35): Even starting to see it in Oshawa.

Walter (19:40): I'm also seeing it in Oshawa. First in the north, then mostly in the east. It has faded a bit right now but hopefully the show is not over.

I might drive up north later depending on how things shake out.

Susan (19:45): It's even in the burbs here!

Stan (20:10): Down here in the city of Philadelphia PA you can see the effect. No banding or stratification but still it's cool to see. Bortle 7-8.

Susan (20:50): Fabulous Stan!

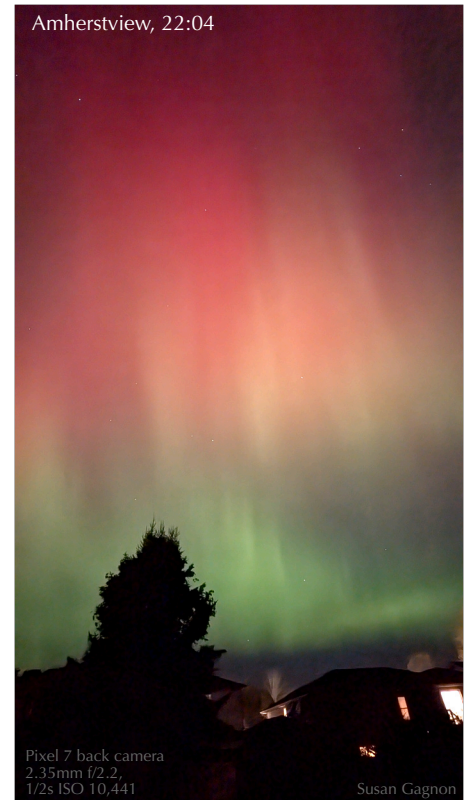
Stephen (20:42): Well, the aurora has died down quite a bit. It was spectacular while it lasted! It might spike up again. As it is there is still too much sky glow for me to do any imaging. I'll keep my eye on it for a while.



Susan (20:51): Many red stars tonight.

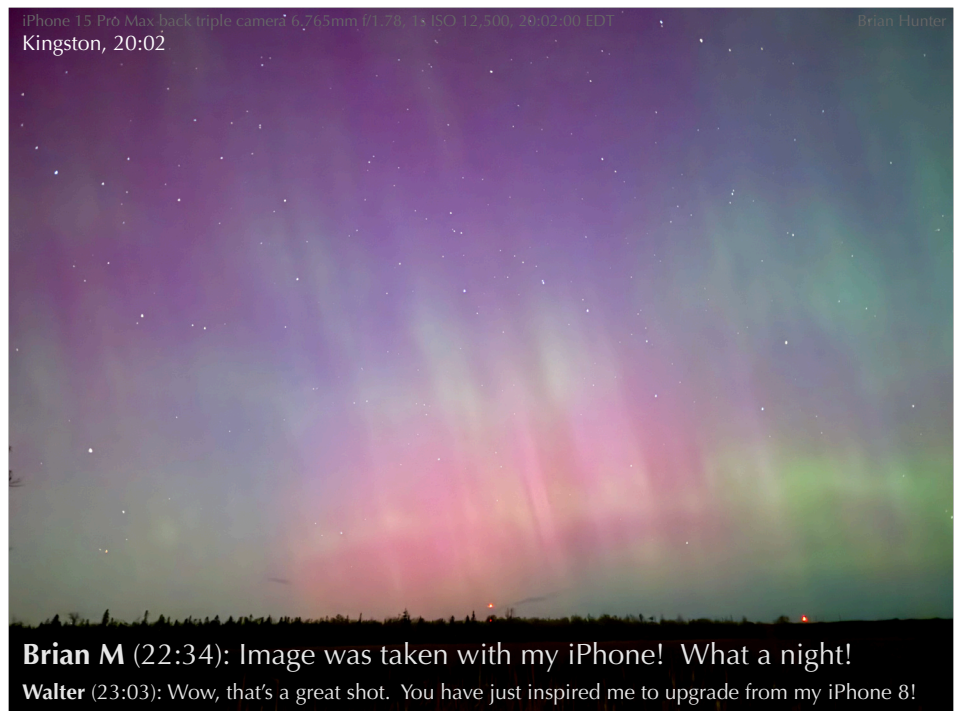
Walter (20:56): Yes, this is good data. I found my tripod adaptor around 19:15 and the aurora died down about 1½ hours later.

I forgot how inconvenient these **aurorae** are. You never know



what time will be the best time to look! I think Malcolm said the best time the other night was after 1 a.m. That was also the case in March 1989. Talk about FOMO. If you are not looking at the right time you really miss it all!

Rose-Marie (21:31): Keep an eye



Brian M (22:34): Image was taken with my iPhone! What a night!

Walter (23:03): Wow, that's a great shot. You have just inspired me to upgrade from my iPhone 8!

out, sometimes it waxes and wanes. I got out to the pond just as darkness set, could see the red bands naked eye. Taking a break as it just settled into a green glow. Warming up and having a cup of tea, then heading down to the dock to see what's stewin' and brewin'.

Kevin W (21:50): There is some nice dancing now here from the NE, and right overhead to the west, like a river that comes and goes.

Rick (21:54): I think those clouds are the aurora. When I first saw the aurora I wasn't sure if it was cloud illuminated by the very last rays of the Sun.

Great rapidly flickering ray extending E-W across the whole sky, shooting 5s exposures to try to capture some of it.

Walter (22:01): Yes indeed. I've got a couple of runs of video with my phone, covering the area around the Great Square which shows nice movement. Saw a nice oval arc earlier.

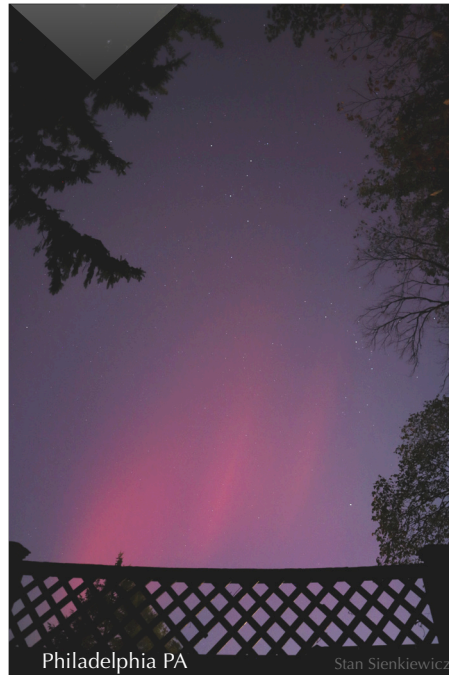
Stephen (22:01): It's still pretty good. Streamers all over the sky. It will likely come and go all night. I won't bother to try imaging so I closed up the observatory. It's not often we get an **aurora** this good.

Susan (22:19): Such a wildly dynamic sky!

Beyond the zenith to the south, so much colour.

Stan (23:00): Wow. You all are getting a treat.

Not as impressive here for me but finally a bit of structure. What a night.



Walter (23:04): Yes, it was even visible in the south for a while. You know it's good when it goes to the south! I'm really enjoying the reds.

Rose-Marie (23:25): And it fired up again! First I went over to the field, there were some weird white wispy streaks moving across the sky, and I thought okay, something's happening. After a few minutes the red and green fired up, and I got a few shots of the "swirly" at the zenith. Later I went over and sat on the dock and took

many more shots. There's a band of coyotes just over the ridge that started yowling, seemed appropriate for such a night. It's settle back down. The **Moon** has also set. Spaceweather still shows strong auroras, so I'll warm up here by the stove and rest in the chair, will check again in an hour, although it will probably start to move west. But, ya never know.

Walter (00:25): It's getting quite nice again!

Walter (01:38): Got a few nice time lapse sequences and now cloud is moving in from the west, so that's it for tonight. That was pretty good!

Rose-Marie (07:37): It was an exceptional night! I was out 3 times, first at the pond with wide view. Came back to the house, took Kerrie out, it was firing up again, so a long session down in the field and at the dock. Kerrie had to go out again around 12:30 so back down to the dock again. That third session, it was pulsing and flashing quite wildly.

The critters were vocal. Some coyotes were close by, just over the ridge, yowling and barking and chirping back and forth. I saw a deer a couple of times. The barred was calling. There were some other sounds I can't identify. I must admit to a bit of nervousness when I hear strange sounds.



Malcolm (00:36): South is CENTRE! as you can tell from the position of the Moon. Taken at Kingston Mills lock.

Stan: Wow! Which is the road less traveled.

Brian M: Fabulous image, Malcolm!

Roger: That is a lovely image, Malcolm. I particularly like the reflection of the aurora in the water (Fire in the Sky!).



23:09

Rose-Marie Burke
 Canon EOS REBEL T5,
 18mm f/5.8s ISO 1600
 23:09:16 EDT



05:28 (Yarker)

Canon EOS REBEL T7i,
 18mm f/3.5, 30s ISO 800
 Kim Hay
 23:09:16 EDT

Rose-Marie (08:13): One from last night. Won't have time til Sunday to do more processing, and still have some in the camera from the 3rd session to download.

Stefan: Nice pic. There will be so many great pics from this event.

Malcolm: Epic.

MarK: So glad you saw all this

Rose-Marie. It was quite a night.

Stan: Spectacular capture. I love the colours and rays.

Brian M: Wow! Fabulous!

Kim (10:11): Lots of beautiful images here and on FB. All across the country.

This is one is from 05:27 this morning, and there is purple, plus a **meteor!**

Was up at 2 a.m. still going, up at 5:00 a.m. and outside I went.

Stan: Colours and meteor! Wow.



21:36 (Oshawa)

22.5s, ISO 8,448,
 21:35:39 EDT



22:25

30.5s, ISO 6,400, 22:24:57 EDT



22:21

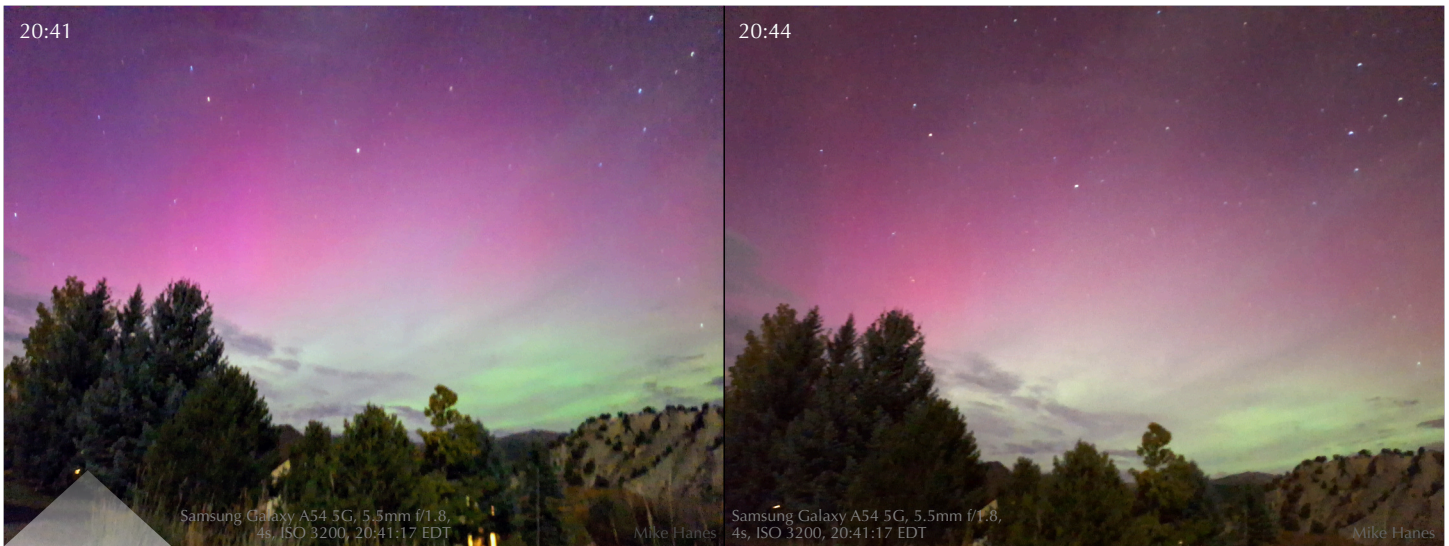
10.7s, ISO 3,200, 22:21:02 EDT



01:16

10.4s, ISO 6,400, 01:16:25 EDT

iPhone 8 back camera 3.99mm f/1.8 (all)
 Walter MacDonald (all)



Mike H: We are on our way to Arizona and spent the night in Eagle Colorado.

We could see it faintly here. My cell phone did a better job.

Cathy: Attached are a couple photos from Ottawa, just before 11 p.m. Took my DSLR (Rebel T3) and tripod out on my balcony for a couple hours. Rather chilly, put on a winter coat, air was damp.

Could see the red with the unaided eye—but just barely—from the city.

Stefan: Did anyone see the pulsating aurora around 12–12:30. Right overhead. Pulses of light flashing across the sky. Would have needed to take video to capture it. Pulses were less than a second long but huge flashes. Was really cool.

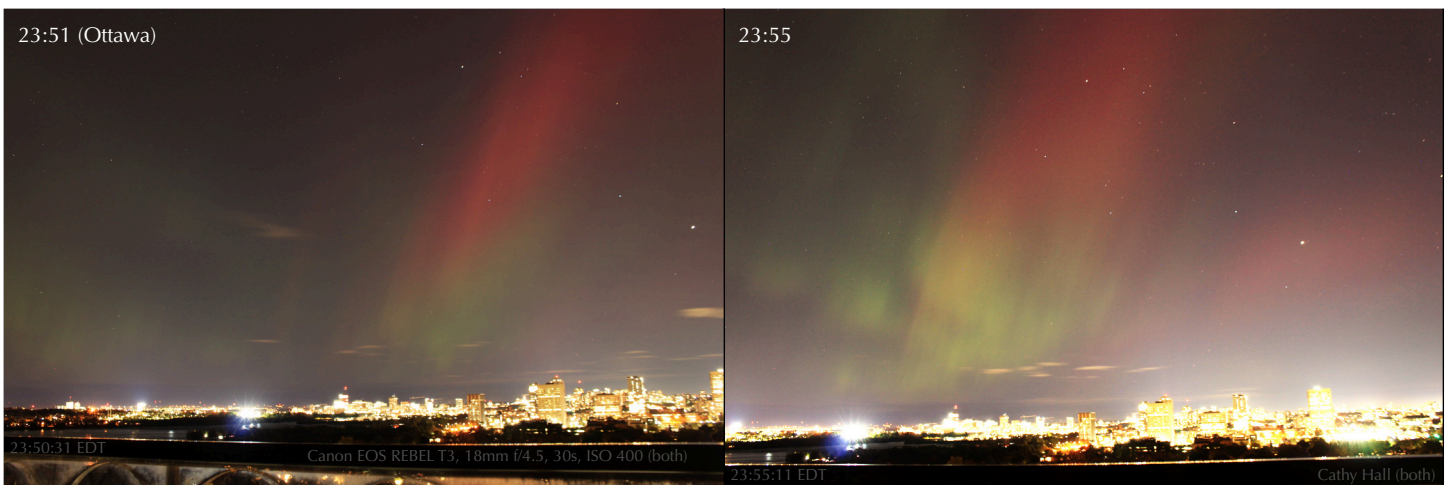
Rose-Marie: Yes. Kerrie needed

to go out and I checked the sky and saw the flashing. Back in to settle the dog and grab the camera. They were too quick to catch in stills and I have no video camera that would pick that up. I sat on the dock taking photos and enjoyed the show.

Mark: Roger and I were observing together, virtually, with Malcolm texting in from time to time. We would take turns sharing our live feed. Mine was an auto sequence, an image every three to twelve seconds long, 3000 in total. Thankfully, while everything else in The Observatory is soaked, the camera remained dew free. Roger was trying pushing real time video and while noisy, it worked. You could see what looked like clouds pulsing out of the light mass from the north.

The other neat thing, hopefully someone captured, was the east to west “contrails.” Some would persist, but some reminded me of a cloud chamber. There would be a long thin puff that would last for a second or less. Then there were the waves. The aurora would move from the north in patches all over the sky. At times, the best display was overhead and images taken pointing south still showed aurora. Strangely, the best colours to the eye were at sunset. The Sun had just set and it was not dark and mainly to the east, it was brilliant red. The reds remained in colour images, but only occasionally reappeared to the eye.

I got a text from Malcolm. “I got dude out.” I thought this was some sort of storm chaser sign off and asked Roger about it. It was



not until I said it out loud that I understood what Malcolm meant.

I kept thinking, I should go to bed, I am exhausted. But I kept on looking. Roger and I packed it in from fatigue well after 01:00 and then I got a text from Malcolm that he was done too. I wonder how many dental x-rays we all got last night? I did something I have never done before: I left the roof open, the camera running, and went to bed. Now I have to figure out how to take 40 gigs of images and turn them into a video.

Kevin W: Yes I saw the east-to-west pulsating aurora 'river', but could not image on my iPhone 8.

In a weird way, I was fortunate enough to be sick, coughing on and off for most of the night, so I went outside hourly. The [aurora](#) was always a bit different each time until it faded just before 6 AM. It seemed to speed up after 1:30 AM, more flashes and waves and dancing from the north to the zenith...

This display is for sure in the Ultimate Awesome category, like the aurora of May 10–11, and auroras of northern Canada.

PS: I am looking forward to the images/videos that people worked to capture!

Roger: I'll post some video later, perhaps on the Centre's facebook page of both a movie made from my DSLR and 8mm fish-eye, but also the 10 frames per second video.

Mark and I were chatting last night using the Hamilton Centre Zoom link, and he asked if I knew what STEVE was. I did not. However, this morning, I checked Wikipedia and found that STEVE is a "phenomenon that appears as a very narrow arc extending for hundreds or thousands of kilometres, aligned east-west." This is an excellent description of what we saw.

Lastly, may I suggest that the Kingston Centre ZOOM link be opened for events like this? The ability to chat with a great friend during the aurora made it even more enjoyable. I can think it would be even better if there were more people who had joined in. Frankly, I'm not sure I would have thought of trying to capture an aurora at 10 frames per second if I hadn't seen the live images from Mark.

Kevin: Yes the RASC Kingston Zoom has been used in the past for observing sessions...all it takes is one person to host and one of the Board members to start it up for them.

Rick: I wondered if what we were seeing was a STEVE but I thought STEVE was narrower and perhaps more persistent.

I took lots of pictures but they need some review. I drove to a roadside spot out east of Phillipsville where I shot about an hour of 15s and then 10s exposures at ISO1600 and, while they looked way overexposed on the camera back, the histograms looked good so I kept going. When I returned home things were picking up again (lots of high frequency pulsation and features going from invisible to bright in well under a second) so I set up the camera on the deck and started shooting 5s exposures to capture more of the rapid changes. Looked great on the back of the camera but they are all very dark on the computer. Camera dewed over and stopped shooting (don't know why) both around 11PM. Need to make another dew heater and get a new camera to replace this 2006-vintage Canon 30D.

I can't see zooming during an observing session—too much light, plus the computer in the Boltwood observatory still won't do audio (refuses to recognize any audio output devices) and the

Hankscope computer has no monitor. And if I'm away from home I have no internet. However it was nice exchanging a few texts with Mark K while I was out in the field (battery was at ~5% when I got home so I shut it off for charging).

Malcolm: Verified by Alan Dyer, I captured a SAR arc. Similar, yet distinct, from Steve.

Susan: I thought that a feature of STEVE was a pocket fence structure. A series of vertical bands.

Malcolm: I think that's called "The Picket Fence." STEVE is a slender isolated arc and I don't think it's limited to red. The SAR arc is thicker and has a specific wavelength in the red.

Malcolm: I looked it up; you were right, there is an association. Interesting that STEVE is not really an aurora at all.

Per Wikipedia:

STEVE

In 2016, more than fifty citizen science observations described what was to them an unknown type of aurora which they named "STEVE," for "Strong Thermal Emission Velocity Enhancement." STEVE is not an aurora but is caused by a 25 km (16 mi) wide ribbon of hot plasma at an altitude of 450 km (280 mi), with a temperature of 3,000°C (3,270K; 5,430°F) and flowing at a speed of 6 km/s (3.7 mi/s) (compared to 10 m/s (33 ft/s) outside the ribbon).

Picket-fence Aurora

The processes that cause STEVE are also associated with a picket-fence aurora, although the latter can be seen without STEVE. It is an aurora because it is caused by precipitation of electrons in the atmosphere but it appears outside the auroral oval, closer to the equator than typical auroras. When the picket-fence aurora appears with STEVE, it is below.

Rose-Marie: Whenever I've seen STEVE it's been pretty much a vertical column. I think I caught the SAR arc over the lake this time. When I get time to process the pics y'all can have a look. I think the SAR arc is pretty much what its name says, an arc, like a rainbow shape. At least that's what my armchair amateur impressions are of the two.

Malcolm: [Oct.13] The sequence begins at the Kingston Mills Locks, on the path by the lake. I ran it there until the aurora went green and mushy. I got dewed out anyway and decided it was time to go home.

I got home and set up the time lapse again, oriented north. Dew strap attached, I began just in time to capture the big outburst at 10 p.m. I'm getting lazy in my old age...I just used a battery, when an extension cord was literally 10 feet away. Anyway, I had to restart the sequence once because of that.

Ultimately I captured images between 7:50 p.m. and 2 a.m. when the battery finally cacked out.

photopark.ca/Videos/i-KQDTvGx/A

Cathy: [Oct.14] Was also experimenting with DSLR settings on the night of Thursday, October 10th.

Attached are aurora photos taken about midnight, with a daylight white balance of 5200, and then a fluorescent white balance of 4000, just to see the

differences.

The stellar magnitudes stay pretty much the same, the brownish tone of the city sky changes to a nice blue, but of course the reddish tone is downplayed. Still, it was interesting to try it out...

Susan: A nice experiment; I have to say I like it with the red in!

Kevin: From the overnight of Thu/Fri, October 10/11 about 40km NW of Kingston Ontario. This is from the formerly known as AllSky1 camera system, now aimed to the north and called the AuroraCam1. It is a Raspberry Pi 3, a ZWO ASI290MC camera inside a 4" housing with a 2.1mm lens.

The sequence runs from 19:03 to 06:40 EDT.

Stefan: Bet you're glad you repurposed that to an aurora cam. Great video.

Susan: Yes, perfect timing Kevin!

Kevin: Yes we are very happy that the time, motivation, and changes were made just in time. Still need to work on the condensation issue,



and now that everyone mentions it, maybe we should switch left and right as well so the view is actually correct! The stars rising on the left is disconcerting, makes we think I am in Australia. More changes on the way...

Rose-Marie: Wonderful! I'm wanting a second camera body that I can just put on, set it and forget it, and let it run.

Stan: That is a great idea. Wonderful video.

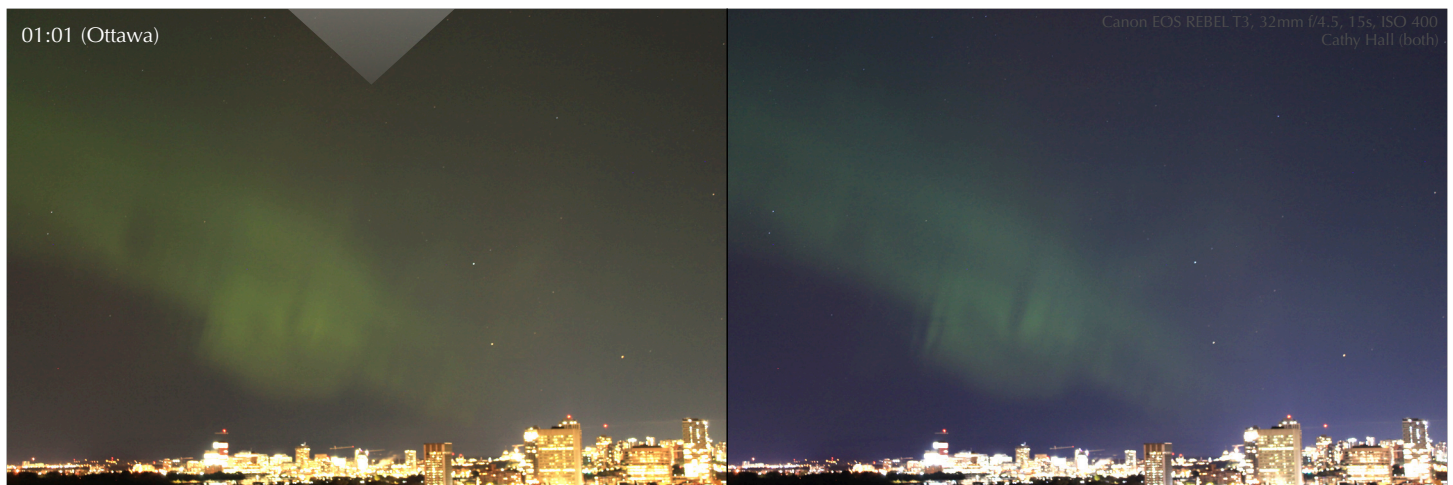
Kevin: I've added videos from the AuroraCam1 from Sunday and Monday nights to this page:

starlightcascade.ca/blog/2024/10/aurora-20241006/



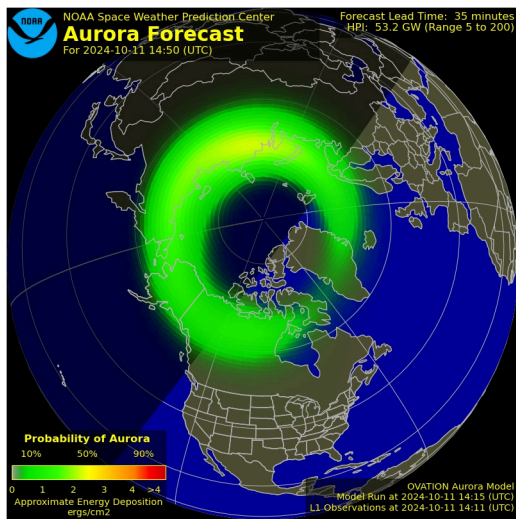
FRI/SAT, OCTOBER 11/12

Kevin (10:13): Sometimes one thinks to oneself, "you know,



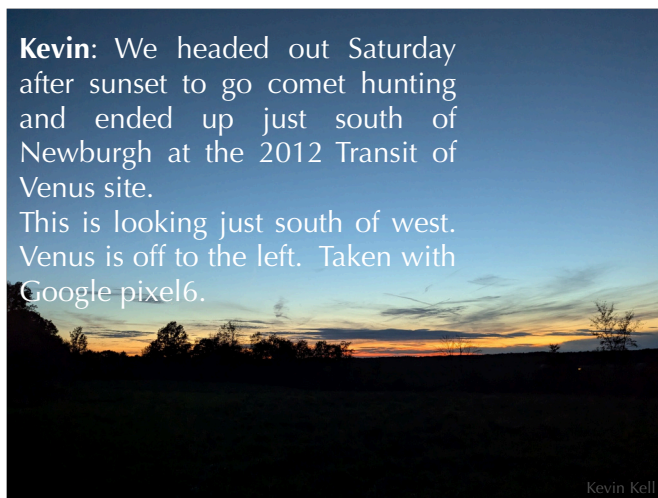
upgrading the software right now may not be such a good idea.” Then one typically goes ahead with it anyways. So, this morning the software used on the AuroraCam1 was upgraded from v2023.05.01_02 to v2023.05.01_05. A surprising number of bugfixes in the 3 sub-versions in between. Of course, after the install/upgrade it did NOT work. Another 30 minutes of troubleshooting and it finally is back online. Phew!

We are expecting tonight and maybe tomorrow night auroral storms as well. Even now it continues on the other side of the world. We are ready!



Susan (20:02): Nothing but fast moving cloud so far.

SAT/SUN, OCTOBER 12/13



Kevin: We headed out Saturday after sunset to go comet hunting and ended up just south of Newburgh at the 2012 Transit of Venus site. This is looking just south of west. Venus is off to the left. Taken with Google pixel6.

Kevin Kell



Malcolm (20:38 Oct.12): Starship [Flight] 5 launching tomorrow at 8 a.m. The chopsticks will try to catch the booster.
Walter (09:09 Oct.13): Welcome to the future! Starship coming back now.

SpaceX

We also has a Canon DSLR with a telephoto zoom...TOO BAD it was OUT OF FOCUS. Grrrrr. Focus changes so easily when changing zoom. The comet is in the centre of the image:



Kevin Kell; 19:15:25 Oct 12, Canon EOS Rebel T7i, 3.2s ISO 800, 140mm f/5

with people for scale:



Rose-Marie (10:24): and of course we have CLOUDS.

Kim (13:52): Look for the anti-tail tonight, people have got images of it; reported from a few news sources. It is a lovely comet, but aren't they all?

Walter (19:40): I saw it from Winchester! Also got some crappy shots of it with my phone (from 19:13 to 19:20). Very handy to have **Venus** as a reference point. The **comet** was much higher in the sky than I was expecting.



Walter MacDonald; 19:13:33 Oct 14, iPhone 8, 21.1s ISO 1600

Good news, we may have another chance tonight (Monday) after sunset. This time we will leave the zoom alone and focus on Venus or Arcturus. The location tonight should be on a line between Venus and Arcturus and about half way.

MON/TUE,
OCTOBER 14/15

Malcolm (10:09): If you were wondering “how big” this **comet** is, here it is yesterday from an iPhone in Arizona

Wouldn't you know it, I left my binoculars and tripod in Oshawa. Had to use the top of a fence as a monopod. Then the battery on my phone plummeted to 1% and some cloud started covering up the comet. So I just got this one by the skin of my teeth. (Very much looking forward to a new phone this week. From now on the bins and tripod will live in the car so they're always with me.)

Trisha (20:05): Cloudy in Brockville. Haven't seen it yet.

Mark (20:07): Despite the bright Moon and the fading twilight, quite a tail!



Google Pixel 6, 6.8mm f/1.9, 0.6s ISO 4751; Mark Kaye

Cathy: Beautiful photo, Mark!

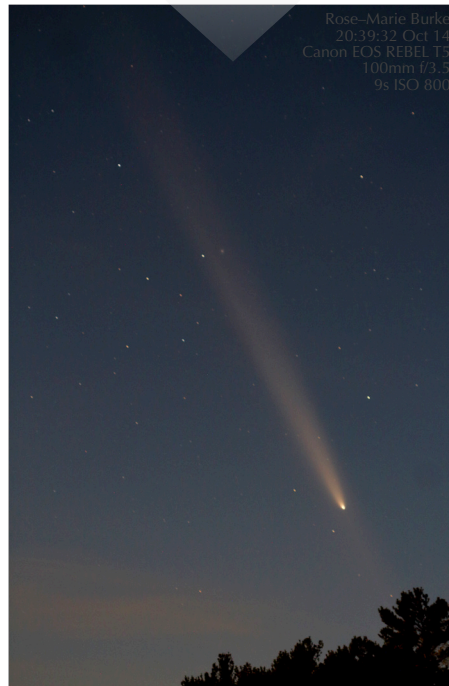
Stefan: Nice pic. Beautiful over the water.

Mark: Thank you. It is amazing what my phone can do, hand held. I would love to see how well it works if it was held steady.

Rose-Marie (20:29): I was cursing through supper while I was watching a big cloud coming across at sunset, but wonder of wonders...by the time it got dark I

had clear sky to the west!

So down to the dock I went, forgot my binocs, kept peering along the skyline, then took a few shots panning across...finally saw it on the camera screen. Took a few shots with the small lens, then ran (well, fast walked, at the end of the day saying I "ran" back up the hill is a generous description) to the house and grabbed the 100 mm lens. As it got darker it was easier to see naked eye.



Rose-Marie Burke
20:39:32 Oct 14
Canon EOS REBEL T5
100mm f/3.5
9s ISO 800

Cathy: Amazing! Very nice anti-tail as well.

Stan (20:53): I was able to see it through binoculars and grab some photos up on the roof in Philadelphia.

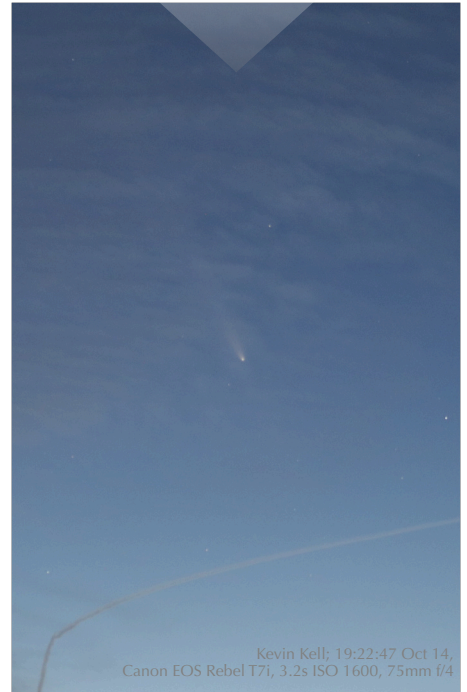
Brian M: Good capture, Stan! I was out at 7 p.m. but couldn't see anything in my images, and clouds were moving in, so I packed it in.

Kevin: Comet C/2023 A3 Tsuchinshan-ATLAS is a long-period comet, with an 80,000-year orbit around the Sun.

We were south of Newburgh, had the first camera image at 19:12 EDT, but did not know it. This is one of the fun ones, where the plane suddenly altered course to

avoid collision with the comet!

We did use the contrail to help each other find it visually and in binocs.

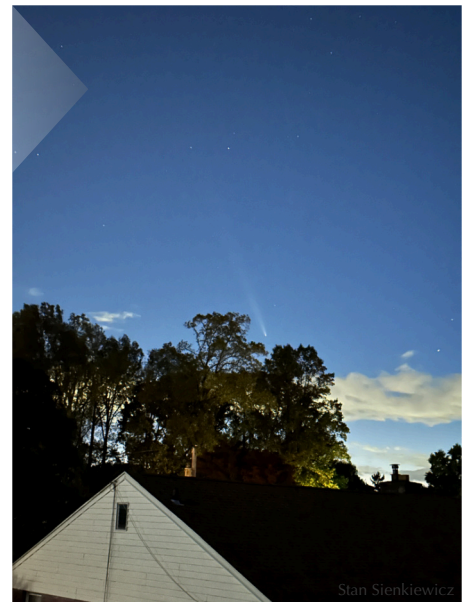


Kevin Kell; 19:22:47 Oct 14,
Canon EOS Rebel T7i, 3.2s ISO 1600, 75mm f/4

Mike H (22:55): We managed to see the comet tonight; despite the bright Moon the comet looked great! [Image next page.]

Stan (22:59): Very well done. Love the framing of the desert in the foreground. Even the one cactus has its arms up in amazement.

Kevin: Such a nice foreground



Stan Siemkiewicz

with character as well. Is that a tree face I see on the cactus to the left of the comet?



Cathy: Beautiful photos Mike! And a lot warmer than up here... Ottawa forecast says maybe some flakes of snow today...and the City of Ottawa is currently doing the voting on what to name our 24 snowplows...

Mike H: I saw that too! The cell makes it look like daylight but in reality it was quite dark!

I will look today in the 35C heat... This is the first time we have experienced the high heat here. Thank goodness astronomy is mostly done at night.

Rose-Marie: But “it’s a dry heat.” I’ve been to Aridzona when it was 97°F; I found it easier to tolerate than 97°F in Florida where it is brutally humid in summer.

Enjoy that heat, Environment Canada predicts 2C for tonight with rain showers or possible flurries.

Susan: Great photo! I agree the amazed cactus really adds to the

scene!

Trisha: May I ask what time people are going out to look at the comet? The direction is west, I do know that. With such a long tail you would think I would see something even in my burb environment.

Kevin: We went out to the south of Newburgh hill, overlooking the valley. On Saturday evening the comet was just a little south of west.

Last night it was half way between **Venus** and **Arcturus**, and much higher, about 15° above the horizon and roughly the same a little south of west. It is moving fast.

Our first DSLR image captured it at 19:12 EDT but we did not know that. Eventually (19:30 EDT?) it got dark enough to easily spot in 10×50 binocs and then naked eye...coma and tail. The moving cloud, aircraft, and maybe a satellite or two really made the image compositions come alive.

It was cold so we packed it in before 20:00 and headed back home. The images this evening seemed to be in better focus than Saturday. We were shooting with a 75–300mm zoom on the Canon T7i with an ISO of 800 and 1600. exposures ran from 2s up to 15s, in an attempt to actually find it.

As it got darker we zoomed out as more and more of the tail appeared.

Kim also brought along the ZWO Seestar S50 and got an image as well.

We may not get to the images for a few days...tonight is cold and wet but garden prep work must get done. Same for Wednesday...a little drier but still cold and more compost to mix in.

WED/THU, OCTOBER 16/17

Susan (20:09): Just in time!

Rose-Marie (20:12): There we go! Darned moonlight is making it hard to see, had to swing the camera back and forth trying to get it in the viewfinder.

Brian M: Good capture, Susan!

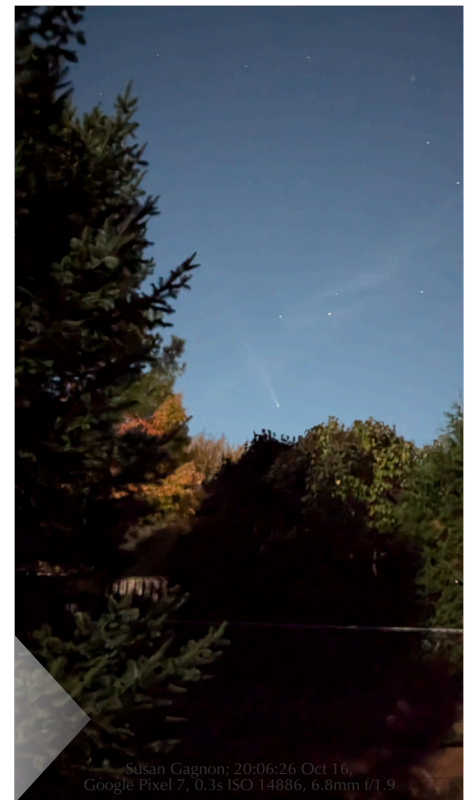
Malcolm: Nice!

Kevin: Yes you have bagged a comet! Yay!

We went out last night but this time stayed at home instead of driving 15–20 minutes. It was a success! At 19:30 the comet was a little higher than **Arcturus** (say 20°) but the friggin’ **Moon** was so bright and lighting everything up. It affected exposures and we did not see it naked eye until even later on.

Walter (20:59): I saw and imaged the comet again tonight from Winchester!

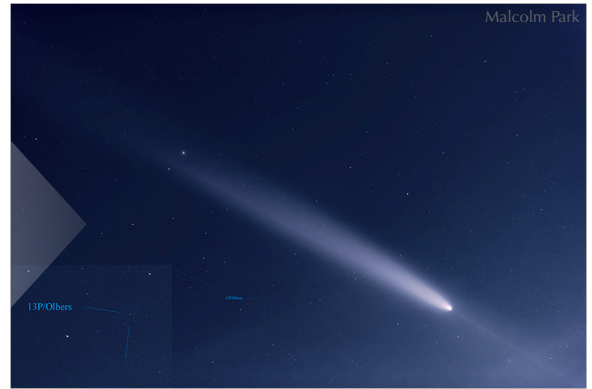
I bought a new phone (16) but didn’t have it set up in time, so my sister loaned me her iPhone 12 Pro Max. Wow, what a great camera! In a 2s exposure it got a way better image than my iPhone 8 (with a 20s exposure)—plus you can hand–hold it, no tripod required!





Walter MacDonald: 19:33:19 Oct 16, iPhone 12 Pro Max, 1s ISO 4000, 5.1mm f/1.6

few photons of 13P/Olbers in my C/2023 A3 T-A image. A dam Block's image



Malcolm Park

showed it, I took a closer look, seems to be right where it is in his

I have to say the reflections in the camera from distant streetlights are absolutely brutal though. (From what I've seen on YouTube the iPhone has steadily reduced the unwanted reflection problem.) So I drove over to the arena and went out to an empty field with no lights to the west and got an even better shot with the comet between two trees, complete with autumn colours! (The arena's lights did a nice job of lighting up the trees.) The full Moon was rising in the east, but the comet was just visible to the naked eye. Not as good as Hale-Bopp, but I'll take it.

CSC says clear the next two nights, so I can hardly wait to try out my new phone and see what it can do.

Elena: Michael and I saw the comet last night with binoculars. It's pretty impressive! Neighbours are coming over tonight to see it, too many trees on their property.

Stephen: I managed to see the comet last night. It was behind the tree from my observatory so I went out on the back street. I wasn't dressed warmly enough and darn near froze to death. I'll try again tonight with warmer clothes and gloves!

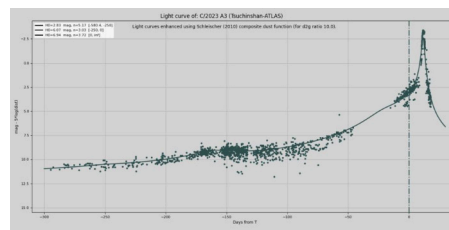
Susan: A lovely artsy shot Steve!

Malcolm: Just looking at my data from Oct 14 it appears that I got a

image.

Dieter: That's pretty cool!

Malcolm: Observe it while you can naked eye, it is fading fast, like it fell of a cliff:



Rose-Marie: Yes, I couldn't get over how much harder it was to find last night.

THU/FRI, OCTOBER 17/18

Rick (20:35): I was just down on

the dock to check it out, shows nicely in 8×42 binos but I was unable to see it naked eye. The Moon is just too bright. I must admit I didn't spend a lot of time dark adapting and hunting. But barely detecting a faint wisp of comet tail (is it a comet or a contrail?) doesn't seem to thrill me.

Yesterday evening I drove down to the RV park at the end of our road where there is a better western horizon than at home and steadier viewing than on the dock. It was visible naked eye as a faint streak, sometimes, sometimes not. Also checked it out with 8x42 and 15×70 binos and 20cm f/5.6 Dob. My first look at the comet in the Dob appeared to show the nucleus elongated in the direction of the tail but I was later unable to confirm that. Maybe there was a faint star



Stephen Craig: Oct 16, Canon EOS Rebel T7i, 2.9s ISO 1600, 31mm f/4

which the nucleus then moved to cover—there is an 11 mag star in approximately the correct position. I shot a bunch of images, Canon 30D (APS-C chip) with 18mm, 50mm, and 100mm on a barn-door tracker, exposures of 10s, 7s, and 5s. I've downloaded them and looked them over briefly and they look OK, just need to process them. The 100mm shots seemed to show signs of the anti-tail even just on the back of the camera. While I was there I also did an estimate of **T CrB**—still faint as it was tonight as well.

I will likely go down to the dock again in coming evenings to have a look but won't try anything serious for a couple of days until the Moon is rising after the end of nautical twilight so the sky is darker.

Susan (21:05): Tonight much like last night here.

I have been very irritated by satellite activity this p.m.

Malcolm (21:31): I looked up tonight and saw nothing naked eye.

It has been a nice comet, but not Great IMO.

Walter (02:03): Not as good as NEOWISE, that's for sure.

I went over behind the Winchester arena and managed to see the **comet** (with some effort), but only with averted vision. Got a few pics with my new phone.

I forgot about **T CrB**, but did not see any new 2nd mag star in the evening sky. Murphy is likely at work here: T won't do its thing until mid-November when it is very low in both the evening and morning sky. At least it is far enough north that we won't miss it (give or take November cloudiness).

Susan (07:55): No, not as nice as some others but any one I can see is fine with me.

Kim: Exactly Susan, since this is a once-in-a-lifetime comet and we

got to see it.

I saw it after 8 p.m. with the binos. Tried to get others in our book club to take a view, only one other came out, but she did see it. There were issues with the person's outdoor lights and the Moon, but it was viewable. I'm hopeful for tonight's viewing.

Kevin: Went out around 19:45–20:00 EDT and did not see it naked eye. I did find it on the DSLR at 75mm, then zoomed in to 300mm. There was a *lot* of high cloud, lit up by the brilliant full **Moon**...

I could visually see only the brightest star in Corona Borealis.

Took some shots of the **comet**, **CorBor** ...still nothing going on there.

John: Peggy and I were outside last night also,

looking for the **comet**. We were outside around 1915 to 2000 EDT and we did see it naked eye, just. It was very faint to the eye and the **Moon** was behind us, very bright. I think it is dimming fast. We will try again tonight. We did get some pictures with the cell phones and with the Canon D60. Post some later.

John: Here is the comet with the solar panels from next door at about 1930 hours.



Brian M: The **comet** shows up well on your phone. That's what I had to do to locate it as I couldn't see it naked eye.

FRI/SAT, OCTOBER 18/19

Trisha (19:46): I finally saw the **comet**, in binocs, very dim, could not see naked eye. Now I can say I saw it.

Kim (20:01): Great going Trisha. We just came in from viewing taking pictures on the DSLR and SS50. The **comet** still has the anti-tail.

We were able to see it naked eye. The tail is still about 5°. Started to observe before 7, as the Moon rose at 6:46 p.m. The Moon is now washing out the sky and the view of the comet.



Hot chocolate time!

Rick (21:37): Jeanette and I were down on the dock about a half hour ago looking at the comet and taking a few pictures. It was very nice in bins (8×42 and 15×70) and I could see it naked eye about half the time but right at the limit. I also shot some pictures with the Canon 30D and 18–50mm f/2.8 lens on a tripod—no need for a barn-door tracker since the dock was bobbing in the waves anyway. I thought the pictures may be a little trailed, but they are only for a record to show motion in the sky. And they aren't trailed anyway. Here's the wide shot with minimal processing, stack of 5×8s exposures, ISO 1600.

Bruce (23:18): Janet and I are at Snug Harbour on Desert Lake looking SW. We could see **Venus** (beside **Antares**) but no comet. Took photos with DSLR 18–100 mm but still did not see it. Neither with bins.

John (07:49): Peggy and I were outside again last night looking at the **comet**, and we were able to see it naked eye again after 19:18. It was very faint just at the limit of seeing it. It is fading fast. We found it in some bins first and then we could pick it out with our eyes.

Walter: I was out last night in Winchester and was not able to see the **comet**. I even went out of town. As I was taking some shots, I noticed a couple of cars stop along the side of the road just south of me. So I stopped on my way back in to town and talked with 3 people who heard there was a comet but couldn't see it. I explained the comet was fading beyond naked eye visibility now and showed them some shots on my phone which seemed to make their evening.

This time I took a shot of **Corona Borealis** and all is quiet there.



SAT/SUN, OCTOBER 19/20

Mark (09:32): It was really humid last night. It was just on the edge of naked eye visibility for me after I found it in binoculars. It is still behind that darn tree from the Observatory. Monday it was easy. Wednesday it was still fairly easy if you knew where to look. Thursday it was tough, but I was still able to point it out to inexperienced viewers. Last night, it was just plain tough. I am glad I got to see

it when it was at its best.

Rick (13:29): I was out last evening on the dock and found the **comet** more easily visible than the previous night, still averted vision but consistently visible rather than intermittently like the night before. The Moon was not yet up so the sky was that much darker. It was also much breezier so the dock was bobbing about more, so I didn't try any pictures. This evening I will go down to the RV park again and shoot some pics before moonrise.

Bruce (23:28): Janet and I are at Snug Harbour on Desert Lake, and finally saw the **comet** between 8:30 and 9:30 p.m. just before the Moon came out! It was also visible by binos.

Malcolm: Nice shot.

Brian M: Well done, Bruce!

Kim: Nice image Bruce. It was such a nice Stanfield that the comet was in.

Rick: How do you tell what kind of underwear it uses? Seems very personal.

Walter: His exposure was brief...

Kevin W: Those Stanfield's must be from out of this world to cover a tail like that. We are not alone.

But it might be appropriate to use averted vision next time...

Kim: I really hate autocorrect. *Starfield...*

SUN/MON, OCTOBER 20/21

Rick (17:59): Looks like tonight should be a good night to look for the comet. The Moon doesn't rise until 14min after the start of astronomical dark, so we should have a half hour or so of quite dark skies. On the other hand there is a band of cloud coming, hopefully it won't interfere. I will be down the road with camera, barn-door tracker, binos, and telescope.

Malcolm (18:32): Maybe. There's a nasty looking line of cirrus moving through although it is putting on a nice display at sunset. Maybe it moves through quickly, it is quite windy.

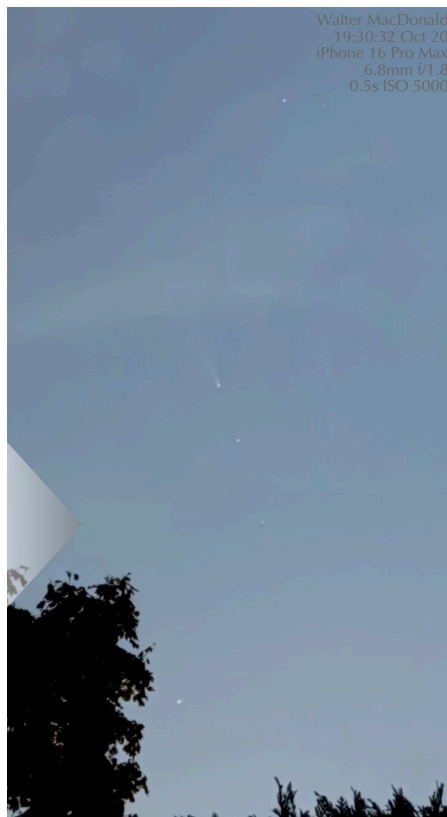
Walter (19:45): Got some pix of the **comet** with my phone from Oshawa this evening (below the cirrus cloud), and noted that the comet fills the field of the 15x70s quite nicely. Saw some vivid colours in a scintillating **Capella** (in 15x70s) as it cleared a hedge.

CSC says clear tomorrow evening, and cloud might hold off just long enough Tuesday evening



to see the comet. (Of course CSC says nothing about this cloud we're getting now, so who knows.)

Kevin: *Too much comet!* For the 4th(?) night in a row we were able to observe and image the **comet**, the last 3 times from our own backyard as the comet has continued its climb. We are behind on image processing! So no images in this post.



With averted vision, and knowing where it has been the last few days, the tail did stand out.

Kim did ZWO Seestar S50 imaging and I did DSLR with a 75-300mm lens. I thought the comet was about the same brightness... until at the end of the session I realized that I had bumped up the ISO from 1600 to 12800 to fine focus on **Arcturus** and forgot to turn the ISO back down again to 1600. So of course the comet looked just as bright as previous nights.

The new intervalometer is working fine as well. The old one has cryptic markings that were not intuitive but the new one from Amazon is much better and also has an off/on switch, which should help with the battery life (\$30, JJC Intervalometer Timer Remote Control Shutter Release for Canon).

John (08:31): We missed the **comet** due to clouds to the west after sunset.

Rose-Marie: Clouds here as well, and I was too tired from 2 days of manning the Kingston Field Naturalist display at Little Cat to tolerate that wind blowing up the lake. I'm hoping tonight is clear, going to slap on that 50mm lens

that picks up the dimmest of objects.

BigWetNose roused me at 1:30 a.m. and I thought, “oh, tonight is the peak of the **Orionids**.” What did I see? CLOUDS. The whole sky was clouded over. That’s about the 15th year in a row. Okay, now looking forward to the Geminids: last year had 3 clear nights of a really good display.

MON/TUE, OCTOBER 21/22

Keith (11:13): Where is this comet? We just got back from camping, so what direction and when to view?

Kevin: After sunset into the west.

We went out at 19:45 EDT Sunday evening, looked a little south of west and about 20–25° up with binocs and BOOM! Comet! It is dimmer than mag 4. We have been comparing it to two mag 3 and one mag 4 stars over the last few nights.

And my note about images at ISO 12800 instead of ISO 1600 means it is really fading fast!

We did still image the anti-tail Sunday evening but it too is getting faint.

Keith: Thanks, Kevin, I will go out tonight, weather permitting!

Malcolm: I got this **comet** pic last night with a remote telescope (not mine). It’s the setup I went down to New Mexico to help install.

Mark (19:11): The **comet** is still nicely visible in still twilit skies in binoculars. It is quite a lot higher than a week ago.

Rick (20:45): Jeanette and I both went down to the dock last evening and again this evening. I think the **comet** is holding its brightness quite well. I can still see it naked eye direct vision; with averted vision I can see a 4° tail. With careful sweeping back and forth with the 8×42 binos to enhance



Rick Wagner

extremely low contrast features I can trace the tail about 18° up to **IC4665** last night and nearly to **71** and **72 Oph** this evening.

Last evening I also drove down to the public boat launch at the end of the road with the camera on the barn-door tracker. With the much darker skies I was shooting 30s exposures instead of the 5 or 8s from a couple of nights ago. Shot nightscapes at 18mm and 10mm and a closeup at 100mm. Really nice 100mm shot, almost identical



Malcolm Park

to Malcolm’s so here’s the 18mm shot showing the tail exactly as I saw it in the binos, right to **IC4665**.

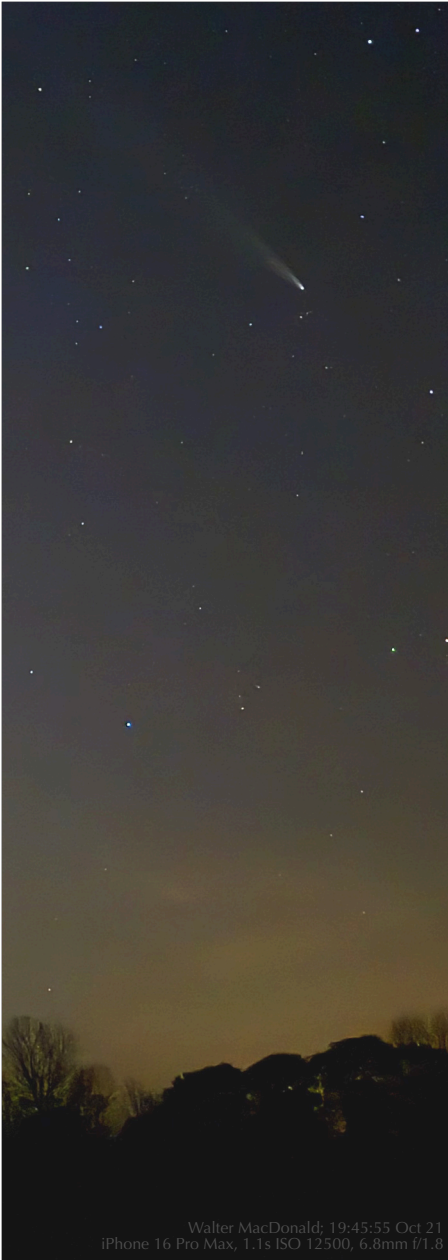
T CrB is in the top right corner where it looks very much like my contemporaneous estimate through the 20cm Dob., *i.e.* still faint. Did my 402nd observation of the star this evening. Still faint. Sigh.

Walter (21:43): Observed and imaged the **comet** from the farm this evening. Easily naked eye from here (dark skies: accept no substitutes). The tail was many degrees long as others have noted. Quite nice in 15×70s and C8.

I can report that the iPhone 16 cam is better than the iPhone 8 cam, although my Night Cap app has serious issues with the new phone. I’ll have to email the devs.

Observed **M11**, **13**, **15**, **16**, **17**, **22**, **23**, **24**, **25**, **27**, **28**, **31**, **33**, **57**, **71** and the **Helix Nebula** with 15×70 binoculars. I’m really liking them in dark skies.

The night was so warm and yet no bugs. Also no wind or dew. A perfect night. So it will come as no surprise when I tell you that it clouded over at 9. Oh well, it was nice while it lasted and I was pleased to have made the most of it.



Walter MacDonald; 19:45:55 Oct 21
iPhone 16 Pro Max, 1.1s ISO 12500, 6.8mm f/1.8

Walter (10:00): Forgot to mention in my last post that I also observed the **Double Cluster** in binoculars.

Got up and observed 04:30 to 05:10 (it had cleared sometime after I went to bed) and took some more photos to test out the new phone. Still no wind/bugs and just a very tiny amount of dew. Saw a few planes but no **meteors**.

Rose-Marie: What kind of phone did you get? My Samsung 6 is on its last legs, I need to start looking for a new one, and would like to get one with good camera features.

Walter: Went for the iPhone 16

Pro Max. Hoping to get 7 years out of it. (Got 5 out of my 8.) The big screen is pretty awesome.

Stan: A quick grab from Philadelphia. No time for equipment tonight.

Kevin: Kim & I were out *again* observing and imaging the **comet**. After dark adaptation we were able to see the tail naked eye and once in a while perhaps even the coma.

Kim did ZWO Seestar S50 imaging and I did DSLR 75mm f/4 10s ISO 12800 sequences.

At least one newly launched set of **Starlink** satellites went right by and through the comet and its tail from our perspective. It was nice the first time we saw Starlinks...not so much anymore.

Two sporadic meteors, a bunch of other satellites, a lot of planes. It was pleasant out back, mid teens C, a little wind, and NO BUGS.

Also imaging CorBor...as Rick mentioned, **T CrB** is still dim and not showing.

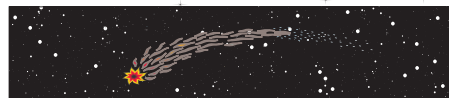
Mark D (09:05): Up in Lavant chasing mooses. Rick Stankiewicz also with a Seestar taking comet pics. The **comet** was very bright and easily seen naked eye. Very dark skies here.

Got some tutoring on the Seestar, can't beat it for the price. Anybody thinking of a first telescope should consider. Love the auto focus. I only see one weakness: may be disappointing for planet hunting. Also solar.

Rick also has a \$35 accessory package from a fellow Peterborough club member that includes printed dew shield additional filter holders lens and USB caps in bright green and some other things.

Rick says 8 members have Seestar scopes.

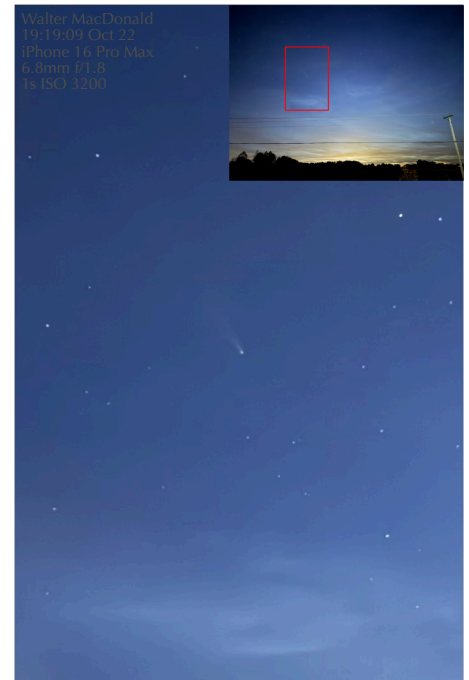
Lots of stars but no moose yet.



C/2023 A3 2024-10-21
11:27 UTC 4.5mag 16°
75°W 40°N Bortle 7/8 Stan Stankiewicz

TUE/WED, OCTOBER 22/23

Walter: With some cloud moving in I headed back to Oshawa, but stopped near Colborne to image the **comet** at twilight:



Walter MacDonald
19:19:09 Oct 22
iPhone 16 Pro Max
6.8mm f/1.8
1s ISO 3200

Susan: I had a look at the **comet** in the scope. I find the more impressive views of this, and most comets, are the ones that include landscape like Rick's. I can't help but think of our ancestors seeing this view from their cave entrances.

I got some variables done,

fortunately these were in brighter phases as I had some issues with light pollution. A neighbour who does not usually leave their deck light on must have forgotten it or not been home. Thank heavens for the swivel on the diagonal to provide an escape from the glare!

In the end the frustration got to me and I did a few other tasks like checking collimation and tweaking my polar alignment. The warm temperatures were nice too.

Can't say how much I love the extension for the hand paddle!

Hope to do better later this week.

THU/FRI, OCTOBER 24/25

Susan (17:28): Any moose yet Mark?

Mark D (19:17): Moose are more scarce than Rose Marie's sparklies.

Mark D (19:20): Picture taken by Rick Stankiewicz' Seestar.



Walter (19:55): Tried to image the comet tonight with my phone from Oshawa, but there was some thin

cloud in the west. Astrospheric confirms this, but shows those further east should be OK this evening. I was going to go up north of Columbus for a darker sky, but no point with the cloud.



SAT/SUN, OCTOBER 26/27

Kim (20:22): Well, disappointed with the skies tonight. Lots of clouds, transparency not good, and chilly; at least the wind died down.

I did see the comet A3 in binos and did take a picture with the SeeStar. It is getting really faint.

Malcolm (20:31): Need to move to Battersea.

Rose-Marie (21:11): I just came in from a half hour session down on the dock. Other than a band of clouds to the far south horizon, the skies out here are quite clear. I took some shots of the sky, doing the shotgun approach to find the comet, found it. Took several pics. (Left the binocs up at the house, too tired to drag along one more

piece of gear.) I was hoping some auroras would fire up, at least give me a little green to the north, nada. I'm hoping that sunspot group will fire off something when it turns towards us; hopefully something will happen on a clear sky night before the Moon comes back around.

Chilly tonight! I should have worn gloves. Would have stayed out longer if I'd been dressed warmer. Have somewhere to be tomorrow morning so not staying up late.

Kevin: First time out in 23 days... just installed the finderscope and finder camera as well. It works! It is just not quite aligned and with no fine alignment ability we are back to shimming the dovetail again. Also the dovetail shoe that just arrived did not fit the existing screw spacing on the C9.25 so it had to be drilled out enough for the screw spacing to work.

This is the best 5% of 15k frames exposed at 3.6ms using a 1200x1200 ROI and an 800x800 FireCapture cutout. Jupiter was an amazing 67° of altitude. The Great Red Spot is showing nicely on the right side.★

