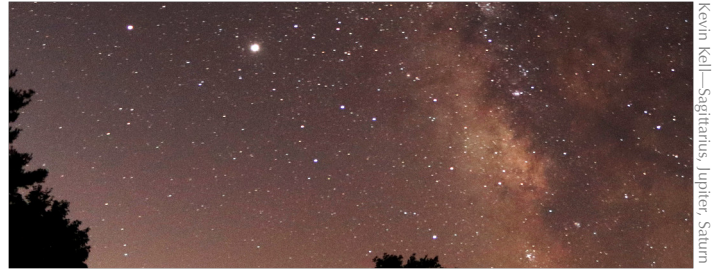


Skyletter

August 2020
RASC Kingston Centre



Kevin Kell—Sagittarius, Jupiter, Saturn

SATURDAY, JULY 25

Graeme: Apparently there is a new **sunspot** (saw it on spaceweather, thinking of giving it a go). It's tiny but more than nothing.

Kim (16:22): I just came in from observing it.

Hank: I haven't looked at today's images yet, rather hazy tho. Yesterday's images were good.

SAT/SUN, JULY 25/26

Stephen (18:52): It looks like there will be too much cirrus tonight, unless by some miracle it evaporates. I'll get a good night's sleep.

MarK (21:11): It is looking pretty clear here, except to the NW, where there is cloud right now.



Hank (21:17): Newburgh, SW & NW (inset).

Hank Bartlett — SW & NW Sky

Malcolm (21:14): Kp4...will it go higher?

Rick (21:17): Probably—it's overcast here. I'm looking forward to a nice night's sleep like Steve.

Rose-Marie (22:27): I'm hoping ...checked to the N, no glow like last night. **Moon** is in the way of the comet and it is hazed over with cirrus. Setting the alarm for past moonset, slim chance but something might be showing.

MarK: I got up several times and there was partial or total cloud cover and always cloudy in the north.

SUN/MON, JULY 26/27

Stephen (18:05): The Craig Institute of Meteorology says cloudy tonight and tomorrow night. It's a maybe for Tuesday.

Hank (20:01): Gee, sitting back on the patio and the sky is clearing!

Stephen (20:10): Darn! The satellite is offline. I can't tell what I'm looking at! It looks pretty clear to me. I hope it holds. I don't

mind being wrong when I forecast cloud!

Malcolm (20:23): All cirrus here, yucky.

MarK (20:36): Yes, it has gone from mostly clear to very poor in a short period of time. I guess I should pay heed to the Craig Institute of Meteorology...

Stephen (20:53): That [AWC] only shows up to 20:31 UT. The satellite has been offline since then.

Malcolm (21:10): The west satellite is updating, and the east is not.

Stephen (21:23): I hope it is just a temporary outage. I depend on that satellite to plan my nights.

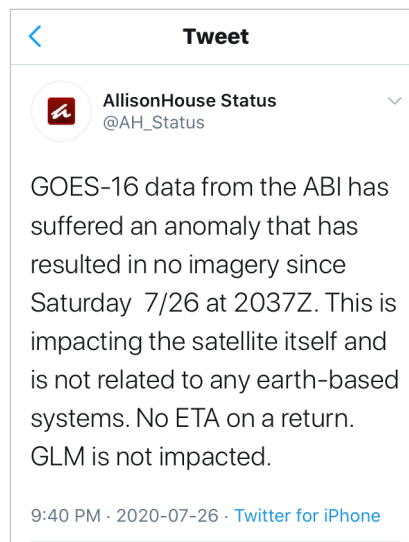
MarK (22:59): It was clear, I found the **comet** in binoculars. Pointed the scope at the spot, darn, it is behind a branch of the Trembling Aspen. It will come out in a minute. Waited, noticed that all the stars had disappeared. It had clouded over. Now it is spitting a bit. I guess it will have to wait.

Stephen (23:50): I managed some images of the comet before the clouds rolled in. I saw that the satellite was back online. Solid cloud here, so I packed it in. I'm hopeful for Tuesday.

TUE/WED, JULY 28/29

Bruce: I was out again at the outdoor Drive-in Movie entrance just north of the 401 (towards Little Cat). I saw the **Big Dipper** nicely, but the comet was not visible even with my zoom lens.

Was anyone else able to see it this week, or is it now too faint or below horizon?



Kevin: Best 5% of the images in a 120s run, using FireCapture, AutoStakkert! 3, and RegiStax 6 software, a Meade 102mm SCT (1000mm FL) and a ZWO ASI290MC camera.



MONDAY, AUGUST 3

Rick: Well, OK, it doesn't really qualify as an observation, more the development of a potential observational technique:

As I was on my way to bed last night I happened to pass just the right location to catch a reflection of the **Full Moon** in the glass over a painting on the mantelpiece. The reflection was so clear it felt like looking at it directly out the window. Except the brightness was greatly reduced of course. Without the usual overpowering glare, the maria *etc.* were wonderfully clear. Many years ago one of my observing projects was naked eye sketching of the moon in different phases. Looking at it reflected in a piece of glass would have made drawing the brighter phases much easier.

THU/FRI, AUGUST 6/7

Mark: I had a brief time when the pair [**NEOWISE** & **M53**] was out from behind the tree and above the roof. Unfortunately, the moon



came up before I was able to shoot these, and that erased the tail. 20 seconds at ISO 4000.

Susan: I did see this! With 10x50 binoculars. Yes, also a rush for me to get at it before it sank below the wall and tree line.

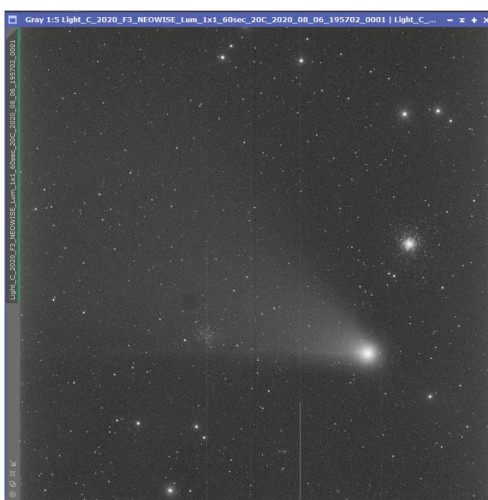
I made a sketch for my record as I did not have a super detailed map of the area. I knew I had 2 objects but I did not know if it was **M53** and the comet or **M53** and **NGC 5053**. I was pretty sure that the brightness ruled out the PanSTARRS [C/2017 T2].

Mark: Visually, M53 would have been to the right (or N) of the comet and about the same brightness as NEOWISE. 5053 would have been above and a bit to the left and quite a bit fainter. I could not see Panstarrs—it was firmly behind the Aspen all night. It would have been further to the left of F3 [NEOWISE].

Malcolm: I took images of **NEOWISE** and **M53/NGC 5053** last night. I also took a test shot of **Panstarrs**, but I didn't take any more of Panstarrs, as it was so small in my FOV. I hope to make a pretty picture of the globular clusters and comet.

NEOWISE is still nice and the ion tail extends beyond the edge of the frame in my setup (2° FOV). Taken from the Atacama last night around 7:30 p.m., 1x60s LUM (unprocessed):

Malcolm Park: Comet & M53 & NGC 5053



Mark: Before the moon rose. I could see some of that **tail** in binoculars before moonrise, but as soon as it came up, the tail disappeared. I am going to have to look more closely for **NGC 5053**, it should be in some of the shots I took, but may be too faint to see in 20s exposures. Are the lines dreaded satellites?

Malcolm: No, those are dead columns on the sensor which go away in processing.

It gets dark in Chile at 7:30 p.m., so I had 90 minutes to shoot until the moon rose just after 9 p.m. **Neowise** was at 35° and **Panstarrs** a bit higher.

Mark D: Just thought I would share my first-ever picture of **Jupiter**. This is with my 6" Celestron using a ZWO 225 colour camera. I also tried **Saturn** but that is a work in progress. I think it is suffering from being low in altitude more than Jupiter.



FRI/SAT, AUGUST 7/8

Rick: I was trying **Jupiter** and **Saturn** last night just after midnight but the seeing was absolutely appalling. I haven't had time to process them yet, but I'm not expecting anything this good.



MON/TUE, AUGUST 10/11

Malcolm (22:36): Camera is running. I saw one visually too. I'll stop the camera about 12:30.

Hank (22:48): Processing today's solar, stepped out for a few minutes and saw a nice **satellite** pass in the SE of **Cygnus**, no **Perseids**. Sky is clear but humid: 85%. A few more tweaks and off to bed for me.

Rose-Marie (23:55): I've been down on the dock, camera running on tripod, me sprawled comfortably on the lawn chair with thick pad. Wonderfully dark and clear. Saw a few **meteors**, none as bright as the 2 from last night. Battery ran out so thought I'd come up to the house, change the battery and then set up on the patio. Problem: #2 battery has no charge! Argh! So off to bed I go. Will set the alarm for an hour from now to check conditions.

Rose-Marie Burke — Meteor 22:45 EDT, Canon EOS T5, 18-55 lens at 18mm f/3.5, 25s, ISO 800



Stephen (00:51): I'm having a good night after starting off with some cloudy periods. The **moon** is not as much of an issue as it was and the seeing is pretty good. I'm catching up on some star clusters and planetaries. I'll get back to

galaxies over the next few nights as the moon moves out of the way.

Stephen (02:33): Fogged out at 2:30.

Rose-Marie (02:39): Really foggy out here at 2:40 a.m. Was headed for bed at 10:30 p.m. and when I turned out the light **Jupiter** was shining in the window, so I went to the living room to check if the sky was clear, and saw one nice, bright **meteor**. So, got dressed and got camera ready and headed down to the patio to watch. Caught one very nice meteor with the camera, saw about 4 more. Then the clouds came, so I packed it in. Will download pics tomorrow.

Malcolm (01:36) It started to crap out as the moon rose, so I stopped the camera. As I was scrolling through the frames (400 of them) I found a gem!

Rose-Marie: Wonderful shot! Take a look at spaceweather.com, they've already got it featured.

Susan: Saturday night before the cloud moved in I also saw a very bright **Perseid**. I hope this means we will see some good ones during this week. Here in the burbs they have to be bright.

I was in the observatory for a short while just after 11. I have never been so hot in there! I had to leave the door open. I saw no clouds, but stars were going away so closed up and moved to the lounge for a while and saw nothing.

Bruce: I was at Glenburnie cemetery from 10:30–11:30pm. A nice dark sky. But I did not see anything. Will go out again tonite if it is clear.

TUE/WED, AUGUST 11/12

Rick (21:11): Well, it may have cleared up out there but I sure can't tell. The sky is a sort of uniform ugly brownish grey. I can't tell if it's overcast or clear but extremely hazy, deathly humid. Either way,

the scope is pointing into **Corona Borealis**, the camera is cooling, the DSLR is on its tripod with all settings set.

Stephen (22:15): It cleared up nicely here. Transparency seems pretty good though seeing is a little rough. I'm back to imaging galaxies now that the moon is out of the way.

Graeme (22:17): I'm trying to capture the meteor shower with a fish eye lens. See if I capture anything. Just about to head up to the main scope to test some planetary.

Malcolm (22:25): Stunningly perfect night. Clear, lowish humidity. Great temperature. T-shirt weather. DSLR running, and I'm just on the deck looking up.

Hank (22:27): One faint so far, but saw 3 nice BEFORE I brought the camera out.

Rick (22:50): Somewhat cooler here than before but still humid and even smelly like a too-old dishrag. However, there are stars.

Stephen (23:01): It's crystal clear here and low humidity. A bit of dew on the grass. You are not that far away from here. Maybe Keith gave you his weather!

Rick (23:37): Certainly the sky has cleared beautifully—much better transparency than just a half hour ago.

Hank (23:57): Nice and clear in the Hollow, but a little dew. 109 images, 4 very faint short **meteors** but I saw nine altogether. The first was the best and falsely inspired me to go out. Bed time now.

Rose-Marie (02:34): Nothing like setting up the camera to make them fizzle out, is there?!

Rose-Marie (02:31): I got up at midnight, set the camera up on the patio, then settled into lawn chair with my tea and spoke to the stars saying "entertain me." The show was not award winning, although I caught one good one in the corner of the frame and one smaller one.

Saw a few others. If nothing else I got a series of shots to make an avi video. Hopefully tomorrow night will be a better show.

Stephen (02:45): I saw a Perseid “Storm” back in 1968. Since that nothing else has come close.

Malcolm: Ya, this was a mediocre Perseids, eh? A bit below average in my experience. Geminids still remain the best, and the Leonids are the most overhyped waste of time ever. At least I got to lie on a deck chair (on the deck!) for a couple of hours and star gaze in a t-shirt.

Most of the **meteors** I “saw” were in the corner of an eye, not direct. Some nice trains too, but photographically my count was 10 bright meteors out of over 1100 frames. On a clear night, the Geminids could yield 100 frames with meteors in them.

Susan: I did not check the temperature but spent an hour in the lounge with long sleeves, long pants, and a blanket! Saw 3 fairly bright ones and a few faint. Could have stayed longer but had a busy day ahead. Perhaps I’ll go out again tonight. I still enjoy the bats and fireflies.

Mark: The best display I ever witnessed was a Leonid. Back at the turn of the millennium we had a display that was producing three or four meteors a minute and at one point, every couple of seconds. The trouble is, we only get a display of any note from the Leonids in 33-year cycles. I agree, the Geminids is the best reliable shower.

Rick: I took a bunch of images, not many results (see my previous email) but I did spend 10 min in the zero gravity chair looking. Saw one very quick mag 2 green **Perseid**, and two mag 1 **sporadics**. The Leonids are a shower you have to pick the right year. In 2002(?) there was a minor storm. Saw a few thousand meteors overnight.

Driving home in the bright twilight I saw a dozen out the windshield.

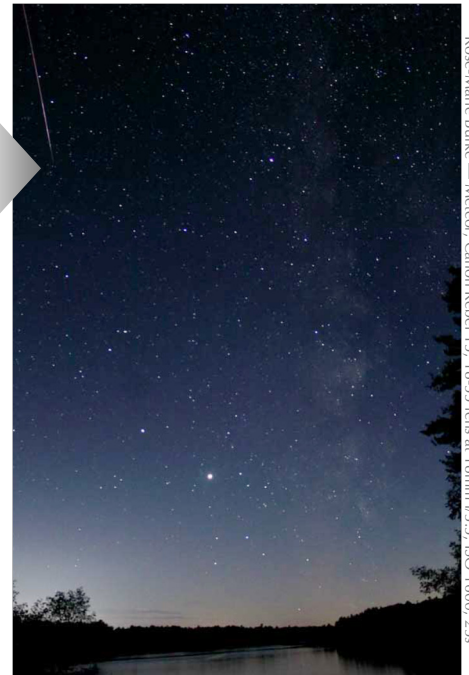
Rose-Marie: I caught two with the camera last night, one good one and one that barely shows up. Here is the better one. The bottom left sky is Kingston, lotta people must have had lights on. One of these nights there will be a power outage and I’ll go nuts shooting south.

I was out from after midnight til about 2:00 a.m., was disappointed that there weren’t more bright ones. Saw about 10 overall, most little *pffftts* **Perseids**, one very faint sporadic but very long from SW to E.

Graeme: I still need to check my camera, but I saw two huge ones at the same time when I was out—both in the sky at the same time diverging, arcing S and SE.

Kevin: This is the only **Perseid** captured on DSLR 20s exposures of the southern sky—just after setting up no less! This one is from 22:06 EDT. I’m finding the sweet spot for the Canon T7i to be ISO 3200 for saturation, and shorter exposures for less star trailing.

Saturn, Jupiter, and Sagittarius and the **Milky Way** were the targets of about 150 images before the lens dewed over around 23:06 EDT.



Rose-Marie Burke — Meteor, Canon Rebel T5, 18-55 lens at 18mm f/3.5, ISO 1600, 25s

We packed up the camera gear and observed with eyeballs from 00:10–01:00. Our counts were between 10–20 for that time, over half being Perseids, the remainder sporadics.

Rick: I had the Canon 60Da with 18–50mm/2.8 Sigma lens at 18mm f/4, 20s exposures, ISO 6400, on a tripod for nearly an hour. The lens fogged up about half way through, it was so humid. *Dewed, where’s my stars?!* The only dew heaters I have are mounted on the Sky90, so I mounted the camera piggyback



Kevin Kell — Meteor & Milky Way, 8/71 @ 22:06, Canon T7i, 18mm f/3.5, ISO 3200, 30s

on the iOptron iEQ45, tracking **Cygnus** for another half hour until the **moon** was well up and I figured the sky was only going to get worse.

I caught one faint meteor, two half meteors (unfortunately two halves don't make a decent whole), and one good one. Here is the good one, exactly the image I was aiming for—a nice **Milky Way** shot with a **meteor** in it. This picture is a stack (in Siril) of 44 images to get a nice smooth Milky Way background with the single meteor shot layered over top.

Wed/Thu, August 12/13

Kevin (21:40): Early twitter reports from UK say **Perseids** much better tonight.

Malcolm (23:32): Well, my camera is running. I set it up at 7:30 p.m. and used the intervalometer to set a 2hr & 15-minute delay while I was out, and I just got in and had a look and it seems to be running properly. Pointing east tonight. No reason. Just trying it out.

It's a very nice night again, nice and stable, not very windy here at all, no clouds, transparency seems good too.

Hank (23:39): Looks a little cloudy your way in my 23:09 image. Damp and cooler here tonight. Came in to review the first set. Heading back out soon.

Kim (23:39): We saw quite a few and some **sporadics**. May get up a bit later for early am meteors.

Rick (23:51): It's been cloudy here for an hour now. I've given up and am heading to bed.

Malcolm (00:11): Seems more active tonight than last.

Hank (00:45): No way? Really. It must be more clear there, or it is just the "don't look where Hank is looking" thing. It is so dead here I packed it in at 12:30.

Stephen (02:19): I'm getting some



Rick Wagner — Meteor & Milky Way, Canon 60Da, 18mm f/4, ISO 6400

good galaxy images in spite of the **moon**. The sky is so transparent that the Quarter Moon is not a major factor in my long exposures. I can compensate for it quite easily. It will even get better over the next few nights.

Rick: Yeah, the cloud never showed up on any of the satellite images that I checked. Not knowing when it would move off is what prompted me to go to bed. As it happened, I spent another hour cleaning up the work I had been doing on the computer and by that time the sky had cleared so I opened the observatory back up, put out the camera for meteors. I did spend ~3min out watching the sky and saw 3 **Perseids**, none particularly bright, and one **sporadic**. Later when I was up for a target change I went out to check on the camera and a nice **Perseid** went right through the centre of the frame.

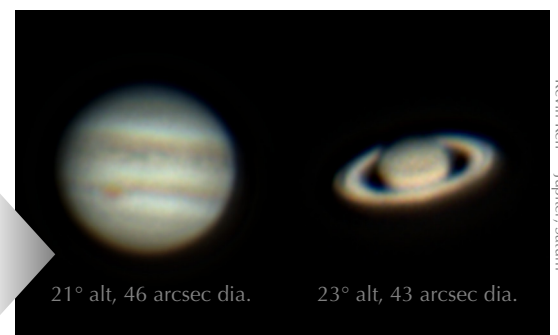
Kevin: Another night of developing imaging workflow for the Meade 102. Tonight was with a 2x Barlow. This gave much softer, lower contrast, was harder to focus, and required longer exposure times.

This small SCT has only a small coarse focus knob to move the primary mirror in and out. Every time you touch the focus knob, everything shakes and blurs and does not settle down for a few seconds. So, focus was not the best. (After last night's weekly Centre chat, I expect everyone to be out making Hartmann masks today...I know I did.)

This is the last or 2nd last image of the night (N is up), before I switched over to Saturn. The **Great Red Spot** was appearing...I did not see that at all in the raw images. **Saturn** exposures were 370ms (vs. 100ms without a Barlow).

THU/FRI, AUGUST 13/14

Rose-Marie: So...how did it turn out? Did I miss any sparklies? I



21° alt, 46 arcsec dia.

23° alt, 43 arcsec dia.

Kevin Kell — Jupiter, Saturn

was just way too tired to go out last night and those few clouds coming in told me to just go to bed.

I woke up at 3:00 a.m. and checked the sky but it was clouded over. I was thinking of setting the camera out on the patio and let it run, but no stars were visible.

Rick (01:16): Well, it isn't very good out there, but it's acceptable. I started the evening off pulling images of **CT CrB** between cloudy periods then went to bed for an hour. I got up to image **Jupiter** and **Saturn** but the southern sky was cloudy. Since my next target, **BL Peg**, was not yet close enough to the meridian to slew to it without a meridian flip, I decided to spend a little time collimating the Boltwood scope. It went very well: 15min of tweaking the adjustments brought it to a much better state. A quick focus and it was time to start hitting **BL Peg**. I'm shooting it now until 3:30. All the observations I have of it this summer so far only cover the light curve from phase ~0 to 0.6 and tonight I get to fill in from 0.75 to 0.95, and tomorrow will give me 0.55 to 0.75, nearly completing the whole light curve. At 3:30 it's on to **CSS_J234900.5+270316** until the start of nautical twilight. I may try to image Mars during twilight, though the seeing is not predicted to be very good.

FRI/SAT, AUGUST 14/15

Stephen (00:16): I'm having a good night. The air is calm, transparency is good, and seeing is reasonable. I started off experimenting with different exposures of **M13** while I waited for **Pegasus** to rise. Now I'm doing a series of galaxies in Pegasus.

Hank (00:20): Glad to know you are out there guarding the universe. I'm trying to finish my whiter light solar processing, then off to bed. Good luck my friend.

Rick (00:54): I just tried a bit of planetary imaging and at that scale the seeing is atrocious. Working with 2x and 1.8x Barlows for a focal length of about 7000mm, f/17.5. I have a very narrow band of sky that far south so I only get to image **Jupiter** and **Saturn** for about 30min each. I'll try Mars during nautical twilight to see if it's better seeing that high and early in the morning.

Ah well, enough playing. Back to photometry. Last night I got a beautiful record of **BL Peg** going through maximum. Tonight I catch the steepest part of the rise to max.

Graeme (01:13): I seemed to have mirrored Richard's planetary madness: 2000mm and a 5x Powermate = 10,000mm (plus crop of 1/3rd sensor, so 7.2x crop factor to 72,000mm full frame equivalent.. or am I just too tired to do proper math at 1 a.m. in the morning?)... yeah, I'm surprised the planet stayed in frame.

Imaged **Saturn** (2000mm) and **Jupiter** (10,000) for around five minutes each; will process in the morning. Zzz for me now.

This is my first planetary imaging in a long time, so there was a lot of zaniness getting everything to work. Hopefully when I process it out tomorrow it shows some sort of positive result.

Rose-Marie (01:51): Beautiful night here, but was too tired dealing with happy campers during the day. Love my set-it-and-forget-it settings on the camera. Set up the camera on the patio at 11:00 for 20s exposures.

I just brought the camera in and checked what I'd got before the battery died—looks like there's one nice green **Perseid**.

Keith: I went out last night to look at a very blobby **Jupiter**, **Saturn** and even more blobby **Mars**—so much for viewing at night. Maybe I will stick to the sun like Hank.

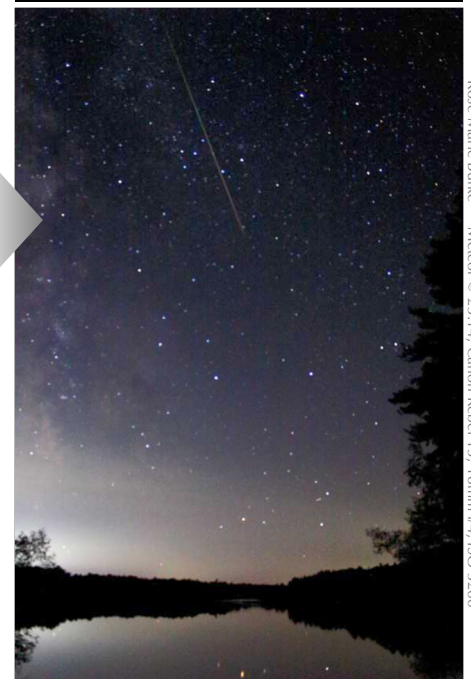
Kim: I did go out for a bit last night, mainly to take pictures of **Vega** for spectroscopy. (But the camera does not tilt enough, so finding a new camera tilt head today is in the works.)

So I fired up the scope and observed the planets, a few **M** objects: **22**, **8**, **13**, **31**, and **Alberio**. My sky is limited to mainly NE, E, SE, S. Then I just closed up the observatory and lay on the chair with the 15x70 binoculars. Another piece fell off them last night—will look at them today. I came in around 11 p.m. It was a very nice night with a light breeze but zero **meteors**, just a few satellites.

Kevin: This is an image (02:56 UT) of the shadow of the moon **Ganymede** (top left) and you can barely make out the moon itself leaving transit on the limb (right, a little above middle).



Kevin Kell — Jupiter



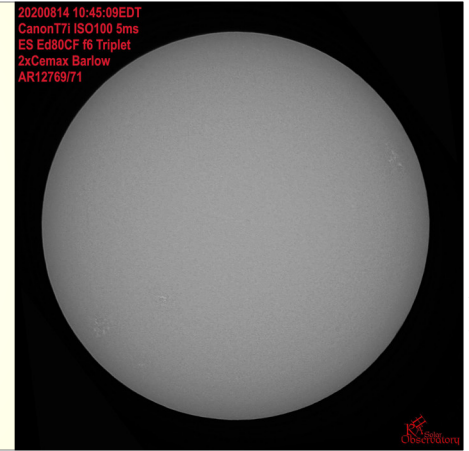
Rose-Marie Burke — Meteor @ 23:14, Canon Rebel T5, 18mm f/4, ISO 3200

FRIDAY, AUGUST 14

Hank: This week has been a little blah for day as well, but the sky has been good.

There was a C2 flare today but at 06:47UT, so sure couldn't see it here.

AR12770 is acting up now that it is leaving.



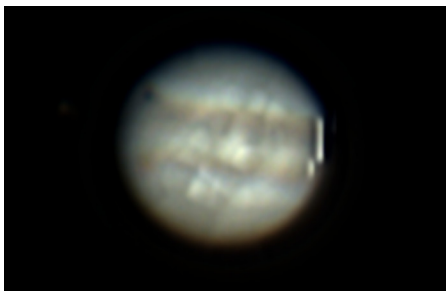
Hank Bartlett — The Sun (both)

I successfully used the two-holer (Hartmann mask). I focused by eye first on **Arcturus** then used the mask and saw two distinct images, adjusted the focus until it was as good as possible, then removed the mask and slewed to **Jupiter**. After 20 minutes I found Jupiter! (I had tried using the mask on Jupiter but on a non-point source it did not work at all.)

Tracking was problematic and I had to manually guide the exposures. Just after 23:00 EDT I thought the focus was a little off, so tried the Hartmann mask again, lost Jupiter completely, and decided to pack it in for the night. So I did NOT get the double shadow transit—maybe next time!

Of the 18 imaging runs I did, maybe 3 or 4 were useful—the rest had a dust ring in the FOV at some point and processing turned it into what you see in this image [below] taken at 02:46 UT!

I did not have such a bad success rate with the 1.5x Barlow so I am suspecting it may be in the 2x Barlow that I used. I will try out the 2.5x next time!



Susan: I did not do any planning for my session but was pleased to stumble on this event. I began observing at 22:40 and kept an eye on **Jupiter** while it was possible until around 00:40.

I had to spend some time sorting out my little sketches to see what I had been looking at, if you follow me. I had seen both shadows, **Io's** ingress, and noted **Ganymede's** shadow tracking the Great Red Spot movement. The **GRS** seemed particularly vivid colour-wise, by the way.

Saturn was a bust.

Mars: I'm quite sure I caught a polar cap, south. Also saw some features in the form of inky mottling.

A good night.

SAT/SUN, AUGUST 15/16

Kevin: I was imaging **Jupiter** with:
a) cleaned optics (camera window, Barlow)
b) removed 90° adapter (reducing exposure times 10–20%)
c) 2.5x Barlow (previous attempts have been 1.5x and 2x).



The Hartmann mask was used to focus on **Vega**, then moved to Jupiter for imaging. Image runs were 120s and exposure times were better than the 100ms the past few days—down to 86–90ms.

This was the best 20% of the 1395 frames taken. No transits or shadows that evening. The **Great Red Spot** was just leaving.

TUE/WED, AUGUST 18/19

Stephen (23:39): I'm packing it in. It will be cloudy for at least another hour or two. Wednesday night will be better.

Hank (23:40): Me too, just posted today's solar.

Kim: Intermittent cloud all night.

Malcolm: I saw **Orion** this morning.

Kim: I sketched **M42** yesterday morning.

WED/THU, AUGUST 19/20

Stephen (00:25): I'm having a good night so far. I'm imaging galaxies in **Pegasus**. Just hoping to get another hour in before the clouds arrive.

Stephen (02:30): Cloud at 2:30. Time to quit.

Rick: It was a good night for me too. We finally had broken thin cloud (that I could have done photometry through if I had to) move in during nautical twilight so I was done anyway. I was doing

photometry with the Boltwood scope as usual, but last night was also my first night trying my 4 1/4" f/4 with the 24mm eyepiece, which went quite well. It's a little hard to find things given that you can't sight along a tube that you're cradling in your arms, but it's great for sweeping along the [Milky Way](#) and such. Quality of the view is as good or better than they've ever been.

It was also my first night with the new set up of different computer/all upgraded software/Sky90/iOptron/Canon 60Da. That didn't go quite so well. For some reason the iOptron ASCOM drivers are having trouble connecting to the mount. At first it just refused, then it connected, but says 'mount doesn't support the required PulseGuide commands' which of course means no guiding. However the mount worked and tracked pretty well, and the camera worked well with BackyardEOS so I limited myself to 60s exposures, many of which seemed to be coming out OK. I did ~1hr runs on the Crescent Nebula ([NGC 6888](#)), [Barnard's E](#) [B142, B143], [M17](#), and several hours on the [Pleiades](#).

Mark: Did you see the moon? I was able to, but by the time I got my camera ready (I was charging the batteries) the faint sliver of a crescent had descended into the muck and was not visible any more.

Rick: Oh yeah, I can't believe I didn't mention that. I canoed across to one of the small islands with my 15x70 binos and a compass to measure the azimuth to the moon. There was, of course, a band of cloud right where the moon should have been. But I sat on the rock and panned about for ~35min and finally saw the bottom third of a microscopically thin crescent hanging from the bottom of the cloud. At 20:29 local time, the moon was 21^h 25^m old and 3.3°

above the horizon.

Over the next 10min it gradually moved lower and out from behind the cloud. It was very easy to see and just gorgeous. Like a little silver eye-lash against the yellow-orange sky but even thinner. I watched it for maybe 10min then headed home but you guys had signed off the social. So finally after ~20 years of trying I have my <24hr-old moon.

Mark: Did you notice that even the ultra-thin crescent moon showed the larger-moon-near-the-horizon affect? It did for me.

Rick: I never saw it naked eye. But I would assume it would—the effect shouldn't depend on the phase.

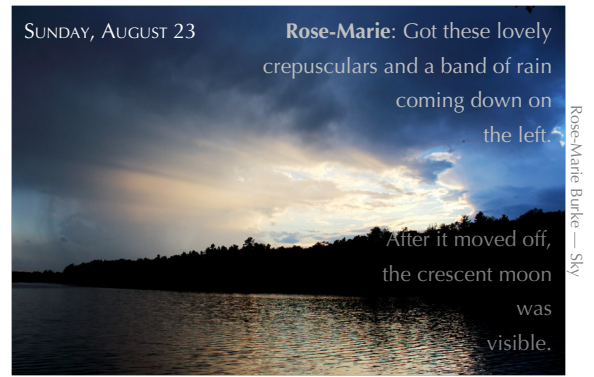
FRI/SAT, AUGUST 21/22

Stephen (20:56): The night is tempting me with clear sky. But I see more cloud coming. I'll have to resist the temptation.

Rick (21:20): Definitely one of those iffy nights which might just clear off or might be hours of frustration with lost guide stars every whipstitch. I'm committed to the latter and am going to get some sleep (keeping eyes wide shut to any stars until then) although I'm driving the remote scope tonight, so it won't be early to bed anyway (though their weather doesn't look great either.)

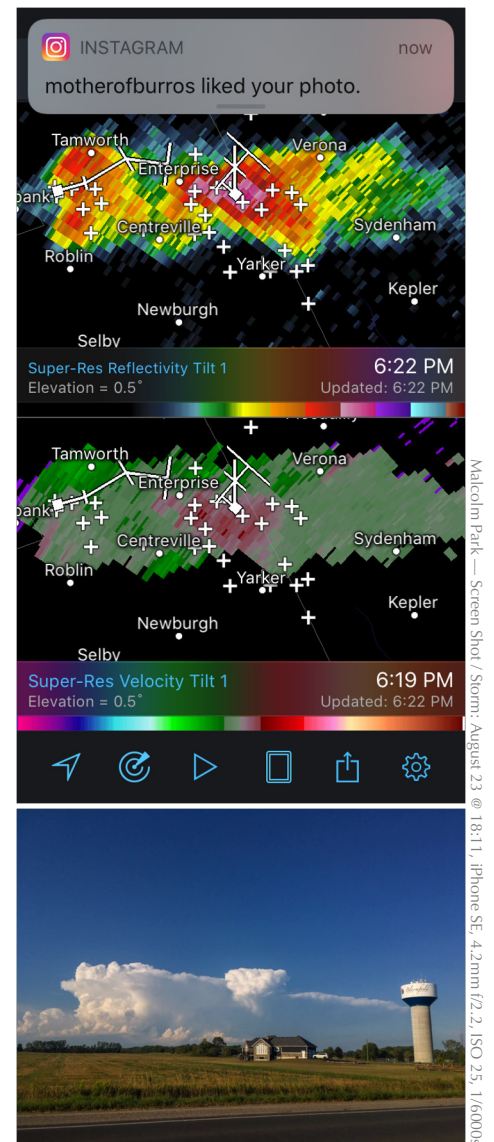
Rose-Marie: Just before heading for bed I walked the BigWetNose and saw that it was clear, so set up the camera at the window to do a series. Woke up a little while later and checked: just a bit of charge in the battery, and the camera shows bands of clouds that had moved through. Got the battery on the charger, will download later.

"The world is a dynamic mess of jiggling things if you look at it right."
 —Richard Feynmann



SUNDAY, AUGUST 23

Malcolm (18:24): I think I want to move to Yarker!



Hank: Nothing in the Hollow, just sun/cloud and the pool back to 85.5°F.

Mark (19:35): It is just N of us and it just sits there and has been

sitting there since 1530. It popped up and made lots of noise and never came over us. It is still there. **Kim:** It's been an interesting afternoon: lots of thunder, but hardly any rain. I was out this morning during a sucker hole and there was lighting in the NE.

MON/TUE, AUGUST 24/25

Stephen (20:25): Either through voodoo witchcraft or a miracle of modern meteorology the sky has cleared! We may get some brief intervals of scattered cloud but they shouldn't last long as the system is moving fast. I'll take what I can get!

Hank (20:33): Go for it Steve and then show us the wonders of our galactic universe.

Susan (21:18): Last night here it was sort of clear at the zenith but quickly faded to nothing.

Stephen (22:28): Now I have scattered cloud and showers developing. I guess I'd better close up. I got one image run done. That's a bonus. I'll try again tomorrow night.

Malcolm (23:58): Be ready for a quick shutdown, there's a line of storms coming.

Hank: Beautiful images, I slept through it all, dang!

Malcolm: I slept through it too, although I was aware of it briefly as it crashed and flashed above me. I think the heat of the day knocked me out.

Susan: We had a full hour of continuous light, noise, a bit of wind, and a lot of rain. For the first time ever I had left the flippy door of the observatory open. The floor was a bit wet in one area but aside from the feeling of a heavy dew there was no damage. The wind was in my favour for the most part. And it appears that no squirrels sought refuge there.

TUE/WED, AUGUST 25/26

Rick (22:49): So it did clear. The cloud to the N has mostly evaporated and I'm collecting data. As a semi-break from photometry I spent an hour shooting part of the Draco Dwarf, [UGC 10822](#). It's way bigger than my field of view so I'll only get a part of it (a part that gives me a good guide star.) Plus I think it is just a thin scattering of extremely faint (>18mag) stars so I'm not sure what will actually show up. It isn't

a complete break from photometry because I'd like to try to detect and measure periods for some of its Cepheids and see if I can measure a rough distance.

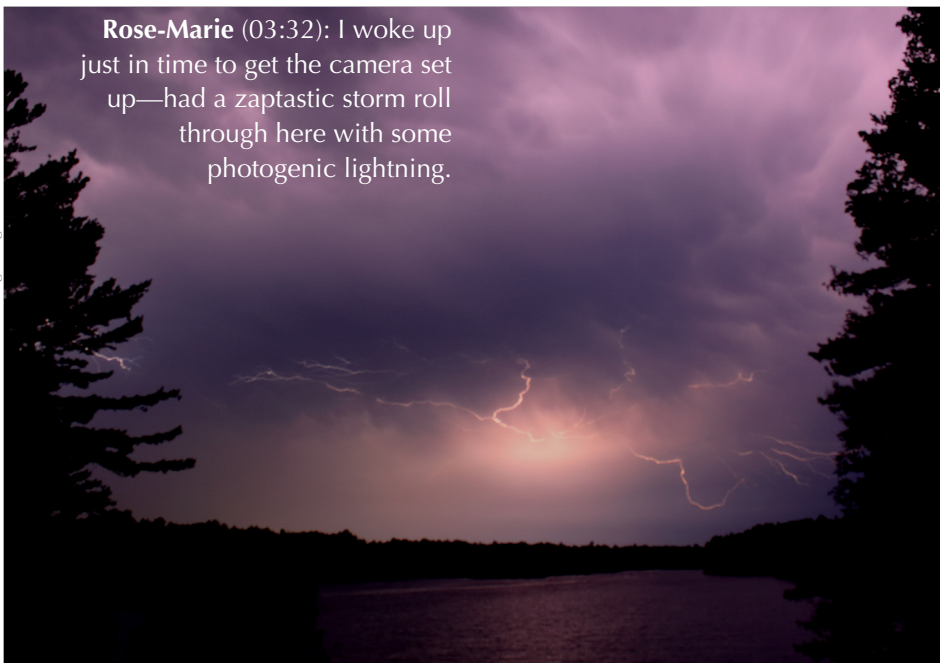
Stephen (22:54): Well, it's clear tonight. Seeing is not great and wind gusts are playing havoc with my guiding. But I'll take what I can get. The wind should be dying down soon. I'm trying for some globulars in [Sagittarius](#) while the moon is up. Then it will be back to galaxies in [Pegasus](#).

Francesco: Clear sky today. I had a good view of [M22](#) and [M25](#). I cannot wait to see how they look with a telescope. I was also hoping to spot the [Aristoteles](#) crater on the moon, but I couldn't find it. I'll try again next time.

Stephen (02:09): By 2 a.m. the seeing had improved and the wind died down. My guiding was still pretty ratty for some reason. I recalibrated my guider which improved guiding somewhat. It's not as accurate as I would like, but it is within limits of the seeing so it will do. I'm picking up a couple of nice little spiral galaxies. All in all it's a good night.

Rick: Google Sky is crap! Well, I just tried to look up [UGC 10822](#) (the Draco Dwarf galaxy I imaged last night) on Google Sky. They don't even have a search capability. No go-to RA and Dec capability. It does indicate the RA and dec of the mouse cursor so you can manually pan to the location you're interested in, but it doesn't go very

Rose-Marie (03:32): I woke up just in time to get the camera set up—had a zaptastic storm roll through here with some photogenic lightning.



Rose-Marie-Burke — Lightning

Rose-Marie-Burke — Lightning (both)

faint and has no markers/labels for any objects. Plus the picture is really ugly, with lots of off-colour stars. What a complete waste of storage and electricity.

I checked online and the RRL stars in the galaxy should be about mag 20.5 which is about the absolute limit of where I can do photometry. I don't think it's worth the bother at this point in time.

Mark: Wow, great capture. As usual, we had lots of promise and then, 0.8mm of rain is all.

Rick: We got about half that, and I never heard a thing. We were in Kingston yesterday afternoon and early evening, but were pleased to find 6mm had fallen while we were away.

Such a beautifully clear afternoon, sky a lovely deep blue, how could it not be clear tonight? But the satellite image shows some cloud N of us and moving S. Westport forecast is for clearing overnight, CSC says pretty good all night, and Clear Outside says clear until ~0200. I'm all prepped, targets chosen, holding my breath.

Mark D: I am all set up to attempt to get a decent pic of [Saturn](#). Hopefully my StarSense camera will not decide to go awry and head straight to zenith. I've been having problems lately getting a more accurate plate solve. (Using CPWI and SharpCap Pro.) I always seem to have a different problem to solve at each outing.

Malcolm (19:27): Quite breezy here, straight out of the N. It was a nice change.

Kim (05:44): Very cold N wind. It died down overnight. There was some cloud out this morning and it was 9C out. Lots of dew.

Next season is warning us: I'm back.

Kevin: It was 9C this morning at 05:00 and our low hit 5.1C at just after 07:00.

Mark: Got down to 11C. It was

nice to air out and cool the house down a bit.

Hank (09:10): Low of 7C here in the Hollow, which is about 10C too cool. I just got up and it is up to 13 already and CLEAR.

All of the GONG cameras are down right now for either dark, cloud, or whatever. The most recent image I can get is 4 hours old but it looks worth getting out to the RHA as soon as the sun clears the trees, maybe some breakfast first. The supposed new sunspot still doesn't seem to have appeared according to [spaceweather.com](#), just some good plage.★

Solar Filters

Hank (August 27): If anyone needs Baader film for a telescope/camera/binocular filter, this week I ordered a 500mm x 1000mm sheet of Baader visual solar film (I am refitting the filter for my C235mm Schmidt Cass). At least half of this sheet will be for resale @ \$0.05/sq cm. in square sheets (no cutting circles for anyone).

Mark D: Thanks for the offer. I purchased some and made a filter for the Mercury transit last year. Unfortunately deer hunting took precedence and I think it was cloudy anyway. Hope all is well. I bet the pool temp has decreased this week.

Hank: You are welcome Mark. Yes the Mercury transit was a real disappointment. We were not in the pool yesterday and it has now dropped to 76°F—generally that is my low limit. Keep imaging when that clear sky shows itself.

Walter: Perhaps if you removed the solar filter from your telescope and aimed the focus into the pool you could heat up the water a bit on the sunny days. A large aperture Dob would be even more effective... Just trying to combine your solar and pool activities!

Mark: We can always count on Walter for great ideas!★

Hank: If it were that simple I would surely be doing it; temperature rose to 77.5 yesterday so the kids were in. This morning down to 74 and now back up to 76 this afternoon. The solar heaters are doing their best but it has now clouded over again.

I did manage some solar imaging around 15:50.

Rick: Baader says on their website that the telescope-only film is of premium optical quality. It is not recommended for naked eye use because it will not hold up under the abuse to which eclipse glasses are often subjected. Whereas the more durable eclipse glasses type of product trades lower optical quality (doesn't matter for unit-magnification viewing) for better durability.

I had a glass solar filter that developed pinholes. I felt that the pinholes let through additional light at all wavelengths. Therefore if the image got a little brighter because of the pinholes I could be confident that any increase in IR or UV light transmitted would be at most proportional so the level of safety would not be significantly worsened. I pooh-pooed the paranoid crowd who dabbed black paint over all the pinholes. Not only did I think this was unnecessary, I worried that all those dabs of paint would cause diffraction effects. However, what I eventually realized is that the pinholes were actually making very large (~FOV) circles of scattered light which were in fact ruining the view. It was much worse than just a general decrease in contrast since the circles seemed to create random bright patches over the field. I finally did the black paint thing and the views were much improved.

I've since built a mylar filter which I hoped might have better optical quality, and the glass filter went into storage. I never actually did a careful comparison of the two and I never had any complaint about the quality of the glass filter.★