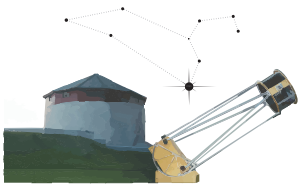
Regulus

September 2012

RASC Kingston Centre



Upcoming Meetings

July-August *No meetings.*

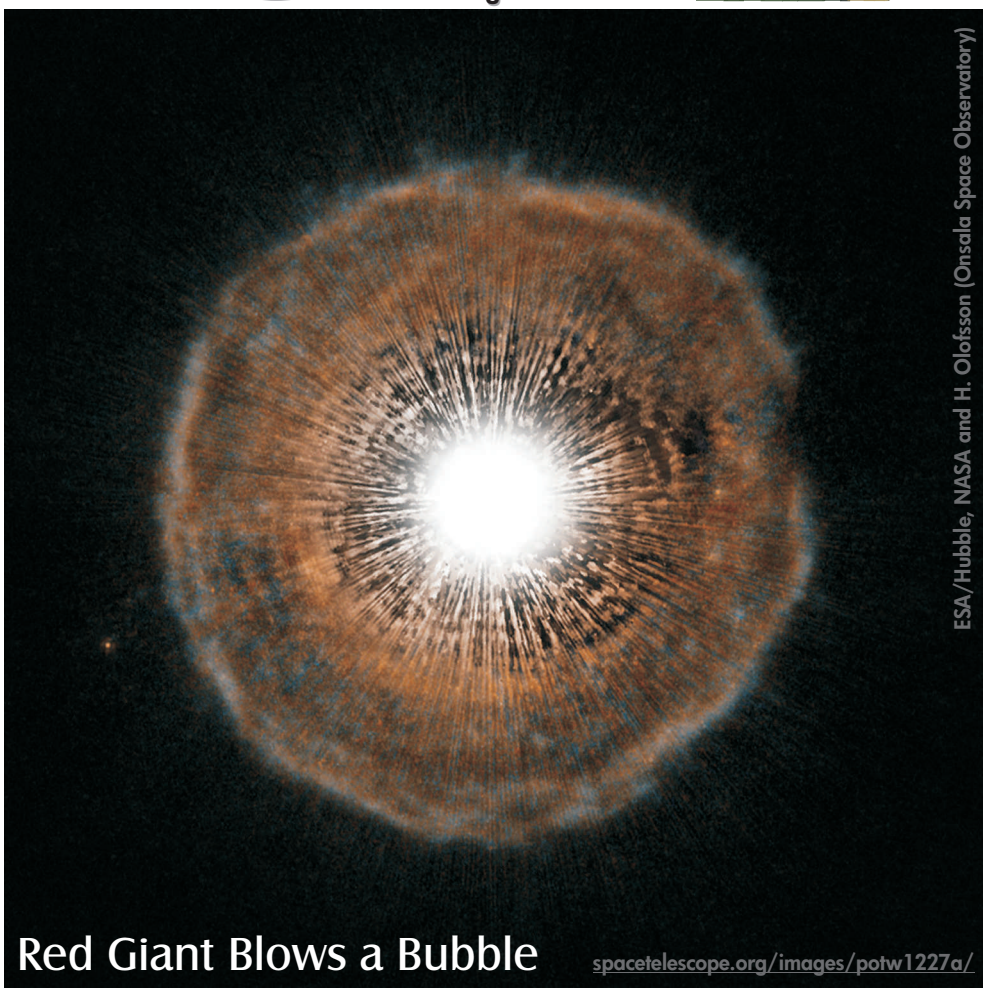
September TBA

Friday-Sunday, September 14-16

Fall'n'Stars, at
Vanderwater Conservation Area ★

In this issue:

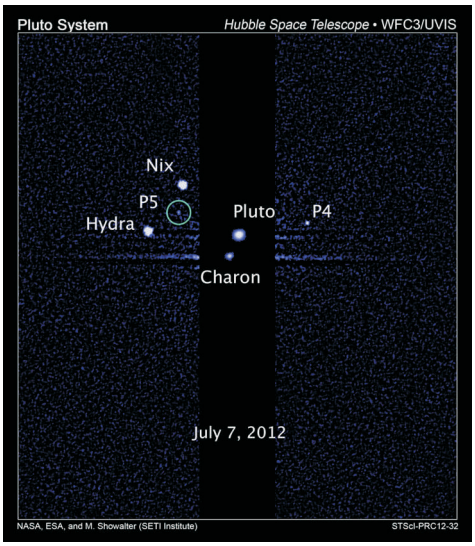
* These items are in the members' edition only.



t The carbon star U Camelopardalis is becoming unstable as it nears the end of its life and it periodically ejects a shell of gas. As **Chris Baldock** astutely noted on the RASCals list, it's like looking down the throat of the doomsday machine (from the original *Star Trek* series)!

Recent AAVSO visual observations show U Cam varying approximately between 7½ and 9, so it (but not the nebula!) is an easy target for your small telescope or binoculars. As an added incentive to observe this very red star, it is located less than 2° west of Kemble's Cascade!

RASC·Kingston Centre



Reports & Other Items

From Kingston Centre, the RASC, and Beyond...

Efston Science Goes Online

The famous store at 3350 Dufferin Street in Toronto is closing and Efston's Science & Astronomy store is going entirely online. Wow, we really are living in the future!

West Coast Update

Angelika Hackett *writes*: Thank you for the paper copy of *Regulus*! It was good to read "Remembering Enrico," and I'm glad a mountain climb has been named after him. I remember **Enrico** since I was an active member in Kingston at the same time, before moving away (to Edmonton and then Vancouver) in early 1983. He was a great guy and it was always fun to have him at meetings and events.

Unfortunately, Vancouver isn't the best place for astronomy—both the May 20th **solar eclipse** and the **Transit of Venus** were rained out. I did, however, see the live feed from Hawaii in the planetarium.

Other Items

The **ToV field** that members were outstanding in as pictured on last issue's cover is at latitude 44° 19' 7" N, longitude 76° 52' 17" W, altitude 170m...a **leap second** was added at the end of June—the latest reminder of the Earth's slowing rotation...HST strikes again with the discovery of a **fifth moon of Pluto**!...The **New Horizons spacecraft** is just 3 years from Pluto now...**Rose-Marie Burke** won the *SkyNews* Photo of the Week contest (Sep/Oct issue, p.18) for her image which appeared on the cover of the April issue of *Regulus*.★

KAON Report: July 13th

Kevin Kell

THE **K**ingston **A**stronomy **O**utreach **N**etwork held an open house observing session at 9:00 p.m. A talk was given by **Dr. Poonam Chandra** (Royal Military College) on "Cosmic Explosions: Seeds of Life," *aka* Gamma Ray Bursters. The talk ran until about 9:30 p.m.

Kim Hay, **Brian Hunter** and myself were set up on the observing deck where it was much cooler than it was downstairs in room 324, where there was no air conditioning! The Fitzgerald performed very well looking at Saturn and a little bit of Mars. It was very cloudy, with sucker holes here and there and a lot of high haze as well. No aurora showed itself in town and we packed up at 10:30 p.m.

We had over 50 guests that night with **Nathalie** showing the 16" Torus scope for the last time.

The August KAON is cancelled due to observatory renovations. The new 16" Celestron telescope is there, still in the shipping boxes. It should be the highlight of the KAON session on Saturday, September 8th.★

The 16" Torus telescope at Queen's Observatory

Spica, Saturn, and Mars as seen from the Queen's Observatory observing deck at 21:53 EDT. Several stars in Virgo are also faintly visible in this 15s exposure by Kim Hay and Kevin Kell.

Debugging a Camera

Kevin Kell

WE'VE NOTICED wasps attempting to build nests up against the outside housing of the All-Sky 1 camera system; also that the temperature was not cooling down as much as it should be. We've taken them down twice from the outside and just noticed more wasps congregating yet again. This time it was serious. They had infiltrated the housing and set up house. A very large honeycomb had already been built, in a very short time period.

After spraying to get rid of the stinging ones, we opened the housing

continues on page 12...

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Regulus Needs You!

ITEMS OF INTEREST FROM MEMBERS—full articles, or even just a couple of paragraphs are always welcome. Items are gratefully accepted on each and every day of the year! Send items to:

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or:

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New SID Receiver Goes Into Service

Kevin Kell

We recently received a SID receiver from a member of the AAVSO that will detect solar storms impacting the Earth's Ionosphere. It consists of a coiled loop antenna, in our case oriented east-west, connected to the RF receiver, which is basically an RF preamplifier and amplifier.

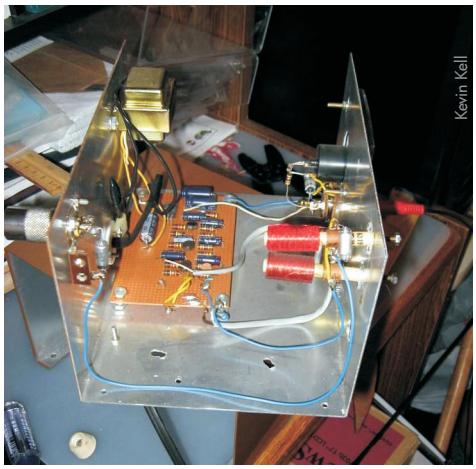
The output of the receiver is approximately ½ Volt DC output. This is fed into a radioshack data logging multimeter.

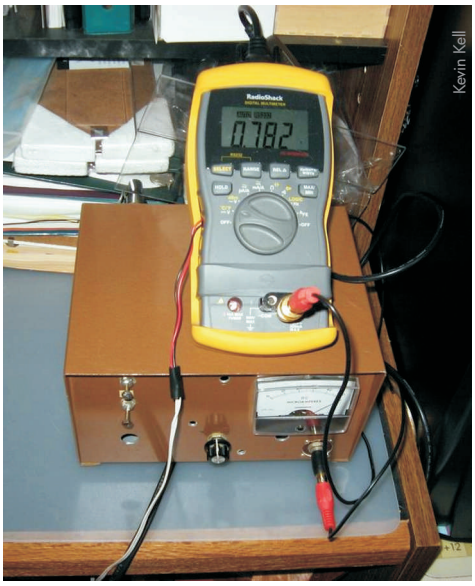
From there, the RadioShack multimeter sends data out a serial port which is converted via a serial-USB adapter and plugged into a computer.

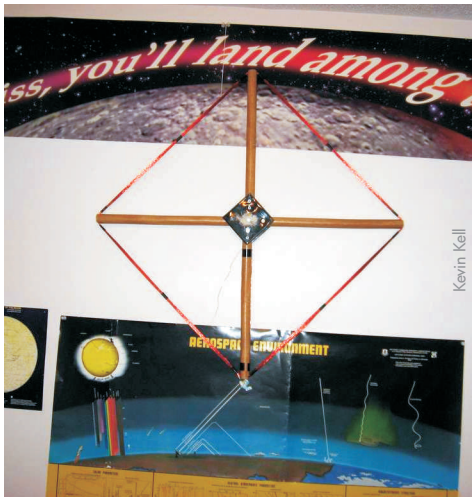
The computer in question is our radio room computer, which is running Windows 2000, and the RadioShack program MeterView 1.0. Every day at approximately 00:00 UT we save the data file out to a text file. From here we work on automating the data logging and analysis.

The background theory is much the same as our 40kHz solar radio telescope. We monitor an over-the-horizon transmitter in the mid 20–60 kHz range. When the ionosphere kicks up from a solar disturbance the signal strength goes up and the receiver picks it up. This is a real-time indication of solar activity impacting the earth, much like aurora at night, but this works 24 hours/day.

The older 40kHz solar receiver we use records data on a 4 minute cycle, this new one on a 5 second cycle. This still comes up as 17,280 data points/day. Luckily it is just a small text file so the data files for this system are pretty small.★







Outreach at Carruthers House/Point, July 13th

Susan Gagnon

It was a very hot, humid, sticky, buggy night with a really crappy sky. Thanks to **Tim** [**Seitz**] for coming out and having a go at putting their scope together and making it clear that they would not likely see much with it.

There were 32 girls and various leaders. I had a handout with a lot of detail, Starfinders, and the Sidewalk Astronomy handout, all in a page protector sleeve so that they may save them and have a look when they are less distracted. I did a little run through with the handout before it got dark and we put the Starfinders together. I had a variety of general guides to show and a couple of atlases that were very intriguing to some.

I warned them to look for aurora the next couple of nights and left an Iridium schedule with a leader. We looked at highly coloured stars and talked about what that indicated. We did a test of their young eyesight in splitting doubles, as much of a sky tour as I could with so few stars available; they loved the laser. I think it went as well as it could with the given attention span. Those little ones sure like their LED flashlights! They were very sweet but also most were very young.

There is always a moment or two when someone actually seems to hear what you say and there were tons of fireflies! I stayed longer than planned and around 10:30 p.m. I could actually put the scope on M13 for one of the leaders. I left for home at about 11.

For a future event we may think of having a session for the leaders so that Astronomy can be inserted when the timing is right.★

Observing Reports: Summer 2012

Various Members

Sat/Sun, June 16/17

Kevin Kell: Wow...what a night... not a lot of observing actually, but we were out at both ends of midnight. Killer. Saturday evening. I was out after 21:00 waiting for it to get dark. I did some more testing of the LX200-GPS and wow...from park to Saturn in the field of view without any other work needed! Saturn is looking very good. I imaged the heck out of it for awhile and then tried Mars. Not so good there. I had to hunt around the 30-minute Telrad inside circle for quite awhile to find it. Still no detail. I tried some of the camera controls to adjust brightness, contrast, gamma, exposure. Nada.

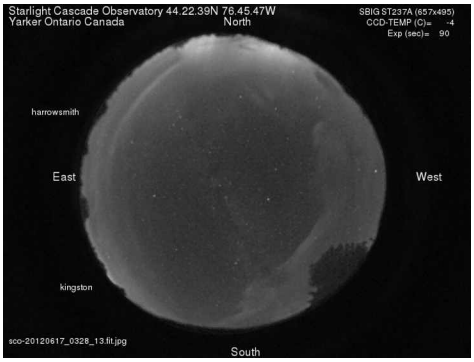
I went back to Saturn. Again I had to hunt around a bit for it. I can really see the need for another camera on a much lower power finderscope just to find the #@($@# target.

We packed it in around 22:00. The mosquitoes were just as bad as Friday night. There were lots of fireflies too though. Flying a couple of meters over your head, they look remarkably like fireballs.

Time passes...

Up at 3:30 a.m., look out the window for cloud and see spiking aurora. Rush outside and the aurora is not to be seen. The best image is from 03:28 EDT. Just a passing cloud of particles, nothing lasting that long at all.

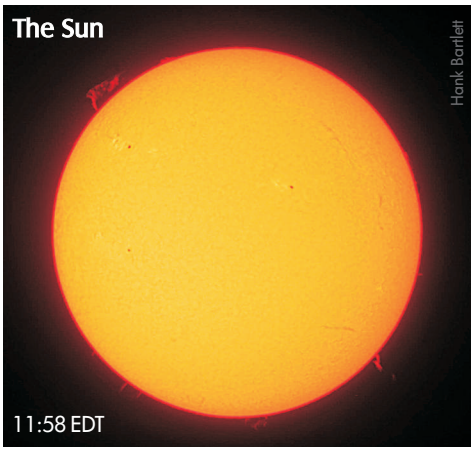
I wrote about the conjunction a few days ago but that morning twilight viewing was hocum...I could not see a thing. The Moon, Jupiter, Pleiades, Venus. Did not see a single one. By 04:00 it was getting quite a bit into twilight. I packed it in for the morning and headed inside.



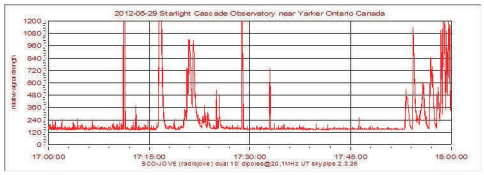
Rose-Marie Burke: Does me good to hear someone else had trouble finding that supposed conjunction. I hauled my sorry old self out of bed at 3:30 a.m. to look for it. The only interesting thing I saw on the eastern horizon was one of what I call the fireplace coal-type meteors: slow, red, travels across a long stretch of sky before poofing out. I was looking for the aurorae that we were supposed to have, didn't see anything in spite of being out at midnight getting mosquito-bitten.

Friday, June 29

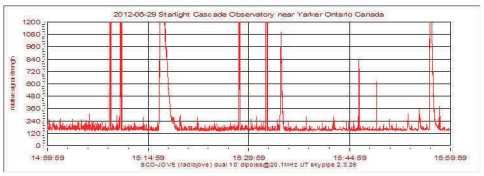
Hank Bartlett: This prom has been growing since this morning, it is fantastic!



Kevin: There is an amazing amount of radio as well. This is just for one hour between 1–2 p.m. and there was more activity earlier today.

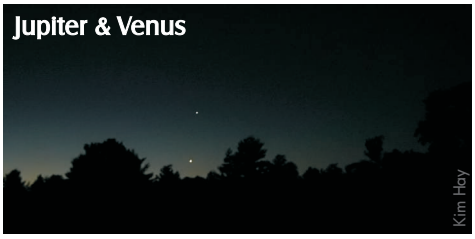


The timestamp on your image shows 15:58 UT. Here is the radio graph (20.1MHz) of the equivalent time. We can do a little more research to see if that prominence is related to any of these radio events.



Kim Hay: I hope everyone was out this morning looking at the Pleiades, Jupiter, Venus, and Aldebaran alignment. I set the alarm for 4:00 a.m.—yes even **Kevin** got up, a little blurry-eyed, actually more like a walking zoombie. We both took pictures, and I stayed out a bit longer to see Aldeberan.

It was very bright at 4:00 a.m. and the Pleiades were just visible. Aldebaran was just clearing the trees at 4:20 a.m. and it was getting brighter—in fact so bright that I could see it, but it was not showing up on the camera.



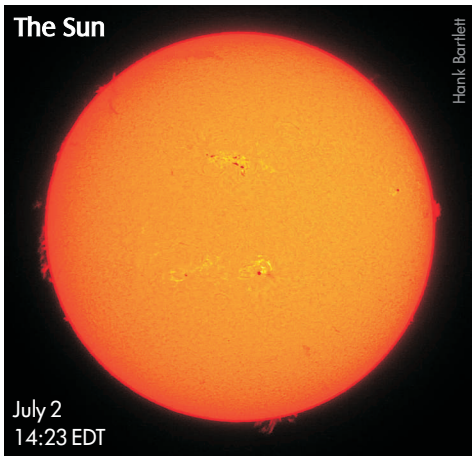
Monday, July 2

Hank: I took this image (next page) at 14:23 EDT, this could become an aurora week!

Mark Coady: I was looking at the sun with a white light filter and was quite impressed. Sunspot AR1515 was big enough that my Coronado Mini-Mite binoculars picked it up. I posted a message about it erupting to the centre's facebook page. Look for

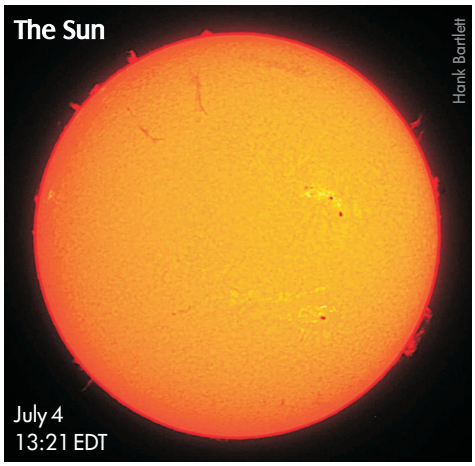
auroras tonight.

Kim: You mean cloud don't you?



WEDNESDAY, JULY 4

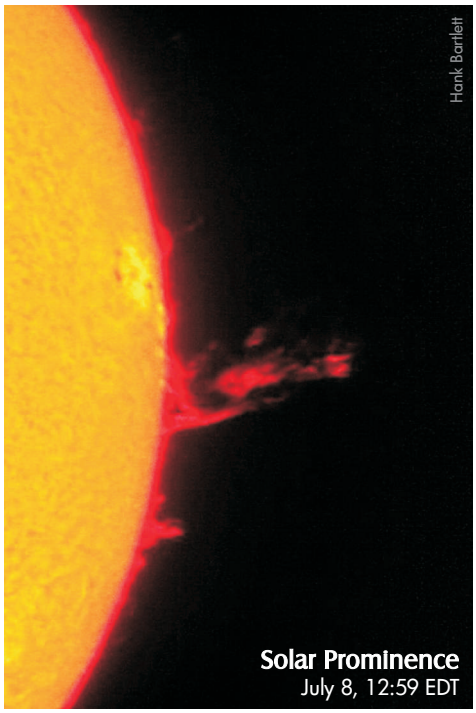
Hank: 13.35 EDT and we are still waiting for the X-FACTOR!



SUN/MON, JULY 8/9

Hank: This image (top middle) is from 12:59. I started shooting 211 images at 12:49. Unfortunately I was plagued by a phone call already in progress when I looked, cloud, and a dead battery on the drive. Anyway this was a huge blast, and for anyone who has looked through H-alpha the active region above the prominence was absolutely GLOWING BRIGHT PINK just before this blew. This image is the prom at its longest; it was very cool to see it changing. This appeared to come from SS1514.

Kevin: There was a little bit of aurora tonight from ~22:50 to ~24:00...then



the moon came up...then the clouds came in.

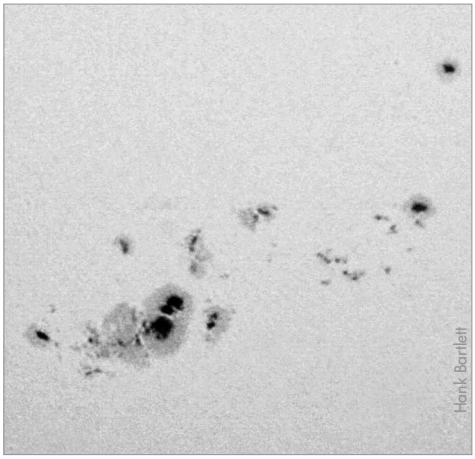
Rose-Marie: Around 10:30 I checked the computer one last time and got all excited about the aurora map, so I grabbed my camera and tripod, jumped into my big old rowboat and headed down the lake. I jammed the front of the boat into the shallows at the small island, and sat and waited...took some generic star pics...swatted mosquitoes (thank heavens I had thought to spray myself down before heading out, but there's always a few that disregard the taste of OFF)....waited...watched the fireflies blinking along the shore... FINALLY some colour started showing up on the viewscreen. It was very faint, could *just* make out some light streaks with the naked eye, but with 30-second exposures

the colours came through for me. Well worth the effort to get out there.

This shot is 38 seconds, ISO 1600, f/4, Canon Rebel XT, Sigma 10-22 lens @ 10mm, timestamp 23:15. Some tweaking of exposure and contrast.

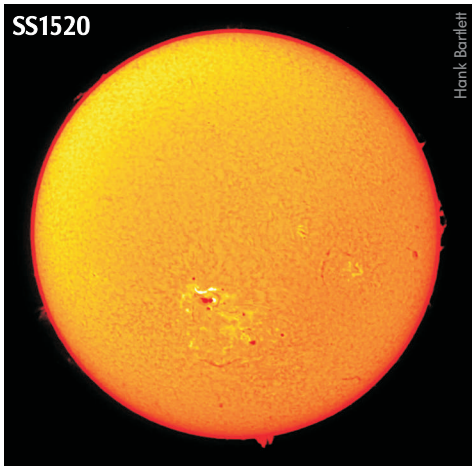
TUESDAY, JULY 10

Hank: I shot this image this morning before going to work. Details: C80, Baader film, Canon EOS Rebel XS 1/50s f/2, 07:23 EDT. What an awesome sunspot; we have been waiting since 2003 for something like this.



THURSDAY, JULY 12

Hank: Check out the active region around SS1520 at 12:19 EDT today.



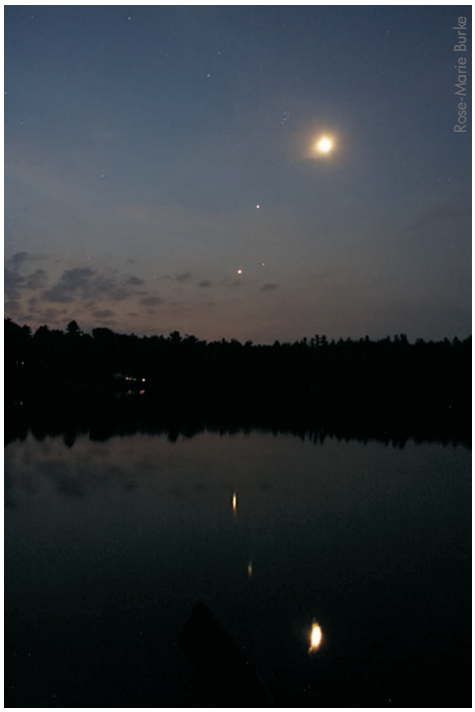
Walter: I can see that big sunspot naked eye with my #14 welder's glass (confirmed in 7x50 binocs)!

Kim: Yesterday afternoon while at the Food Bank Garden doing some volunteer work, I looked at the sun, and the larger spots in AR1520 are starting to break apart...

Fri/Sat, July 13/14

Kim: Nothing at 1:30 a.m. **Kevin** reports nothing at 4:30 a.m.

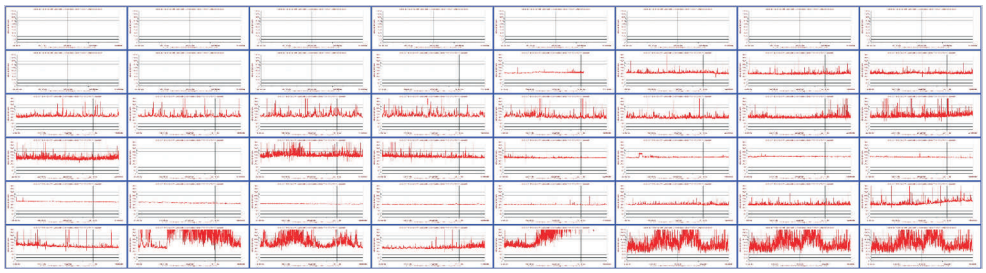
Rose-Marie: Woke up at 2:30 a.m. Nada. Zilch. Reset alarm for 3:30. Still nothing. Was going to go back to bed when I saw the crescent moon and thought, oh yeah, conjunction. So I hauled my groggy self down to the boat with camera and tripod and rowed up the lake. As I headed south Jupiter and Venus came into view. From where we sit down in the valley east and north is obscured by trees on the rock ridges. So...no aurorae, but at least I came back with something to regale you with.



Canon 350D/Rebel XT, 18-55 lens at 18mm, ISO 800, f/5, 20 seconds, timestamp 4:12 a.m.

Sat/Sun, July 14/15

With a recent solar eruption, everyone was anticipating aurora! Hank was monitoring the solar wind speeds while Kevin was busy monitoring his Radiojove setup:



Hourly charts of the latest solar storm event from 00:00 July 13th to 22:00 July 14th (UT)
Source: http://starlightcascade.ca/radiojove/archive/scorj-20120714_1839_01.htm

Kevin: It looks like it hit Yarker around 16:30UT (2:30 p.m. EDT). I've had to rescale the radiojove/solar chart 3 or 4 times in the last little while. Typically solar noise is around 200–400 units on the scale. At 800 we start recording events. It is now charting over 3000.

Negative reports: **Hank** *at Yarker ~23:00,* **Mark Coady** at Peterborough *~00:30.*

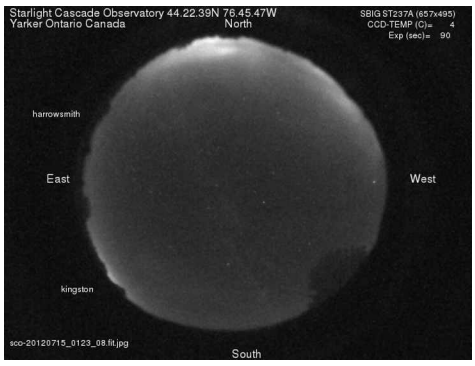
Rose-Marie: Oh, Ye of little faith!! Wasn't the most spectacular but it was as good as I've seen this year.

Rowed my boat out to the side of the lake and waited. Swatted mosquitoes and waited. Thankfully I had that chair pad and had sprayed my feet and pant legs with Off, but I don't like the stuff around my head, and the mosquitoes zeroed in on their target. 'Twas quite difficult holding still during the 30 second exposures, any little twitch rocks the boat, kept my hands up near my face and gently but firmly squished the little varmints landing on my cheeks and neck. At 22:50 the first hint of green glow began to appear in some shots. I had a near panic moment when I turned on the camera and it said "no CF card," but thankfully there was a 512MB one in the side pocket of the camera bag. The good glowing spikes didn't last long. The best spikes started at 22:30 and subsided by 23:45, leaving just a dull glow on the horizon. But I got 'em, by golly, I got 'em!! Good thing I didn't go that far up the lake, when I pushed off the shore and started rowing back one oar lock fell apart, and I had to paddle that big ol' boat like a bulky canoe. All worth it, got my sparklies!

Kevin: We arrived home from the KAON session saturday night around 23:00 and went outside to image the aurora. They were pretty low-key, mostly greens and low in the north with a lot of cloud around.

We got up at 03:30 and got to witness, observe, and image some great green, purple and pink(?) aurora 10–20° up out of the north with some really nice spikes as well. Looking at the concam all-sky images, there was a great peak around 01:00–01:30 but we missed that (see image below).

The radiojove receiver is show-



ing low normal levels again, down in the 300 range. The CME event is over.

Kim: Well, what Kevin forgot to tell you was, he went back in around 4:00 a.m.; I stayed out a bit longer, to hopefully catch the Venus, Jupiter, Moon, Aldebaran and Pleiades alignment, which we saw naked eye, but the clouds rolled in.

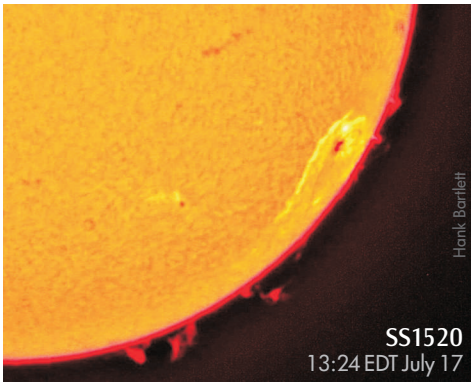
Here is a picture of the red spike that Kevin missed. It was very intense, then it died away, and the clouds slowly left a very narrow area to view the sky.

SUN/MON, JULY 15/16

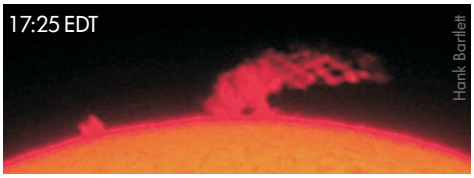
Rose-Marie: Last night the predictions looked very promising, so I headed out in my boat again. Good thing I sprayed down with Off, the hordes of mosquitoes were worse than the night before. There was one patch on my ankle that I missed, they zeroed in on it, had to cross my legs and rub ankle with toe of sandal to keep smashing them. The aurorae were disappointing, just a dull glow on the horizon. I sat out there 'til 1:00 a.m., there was only one short spell of spiking and then the whole thing went whoop and faded right out. I was not happy with distant lightning, every now and then the sky would light up, I said "No! I don't need backlighting!" If the storm had come and dumped some rain on us I wouldn't have minded...I also saw a few little meteors, nothing spectacular, and as always either out of focal range of the lens or zipping down between shots.

TUESDAY, JULY 17

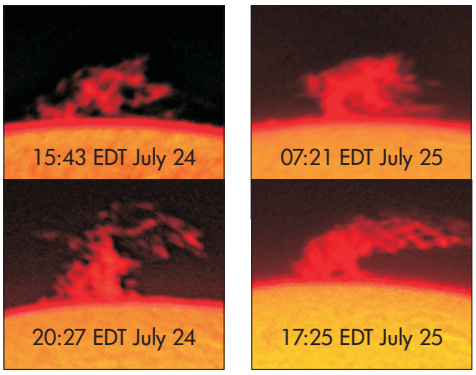
Hank: SS1520 may be rotating out of sight but it is not out of energy. It looks as if it is getting ready to blow again.



WEDNESDAY, JULY 25



I have been watching this prom for a few days now and it is big and ever changing. Today at lunch it appeared to be braided, so cool!



Kim: Nice. It was pretty windy here, and by noon it had hazed over, so the solar scope has not been out this week.

SUN/MON, JULY 28/29

Rose-Marie: Well I managed to haul myself out there at 2:00 a.m. I was supposed to get up at 1:30 to catch the moonset but I hit the snooze button and then dawdled, trying to get up and dressed and upright. 'Twas a good night to be out, stars were nice and bright. When I first got out I saw one very bright meteor that got me waking up, so I set up down by the lakeshore. That must have been the *one* good one of the night; I only saw a handful more during the next two hours, and only caught one "for sure" with the camera. There were a couple that were *just* out of focal range, as always, you have the camera pointed here, the meteor flies over there. I had company distracting me, there was one demented beaver swimming back and forth along the shoreline, throwing a fit. I can only describe it as a temper tantrum. In all my years I have never been afraid of beavers, they're like an overgrown guinea pig with a big tail, but this one was indulging in behaviour I've never seen before. It was swimming back and forth making grunting/snarly noises, smacking its tail on the water. I told it to go away, shone the light on it. It went over the swampy area across the bay, and started charging back and

forth in the shallows. For a minute or two I wondered if there were a bear chasing something but then it would hit a deeper spot and smack its tail. It then came back to my shoreline, charging in and out of the cattails about 40 feet away. At this point I dug out the heavy canoe paddle and banged it on the bench a few times and shone the light at it, and kept the paddle handy. It stayed over in the cattails but geez, too close for comfort with that display. At around 3:00 a.m. I headed over to the beach area and set up there. I kept taking 30-second exposures, but didn't catch any more meteors. During setup I got really ticked off: there was a very bright flaring satellite coming over the trees, and I couldn't get the camera and tripod set up quick enough, so I missed that.

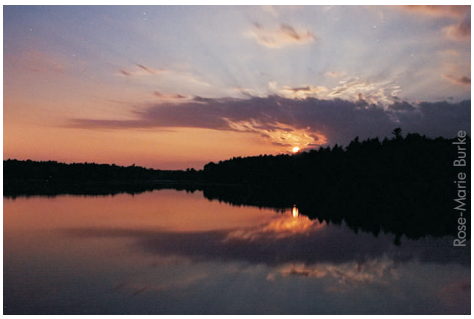
So...just went through the 126 shots, got one "for sure" meteor (picture below): it's the one on the left. The streak on the right is some satellite. There is another streak in another shot but I have my doubts, although it is tapered at one end and coming from the right direction the streak is too even for its length, might be a satellite coming down and tapering off. Shot settings: Canon Rebel XT, Sigma 10-20 mm lens at 10mm, ISO 1600, f/4.5, 44 seconds, timestamp 2:22 a.m.

SUN/MON, JULY 29/30

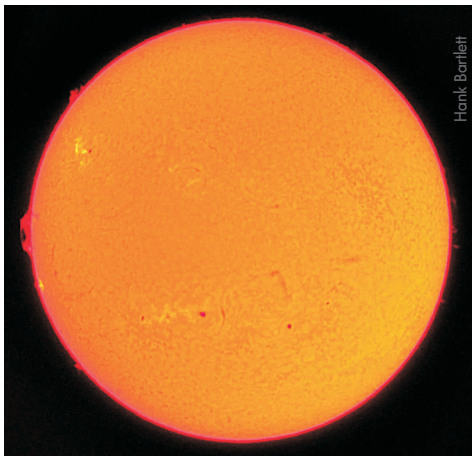
Rose-Marie: I woke up around 2:30 and went on the prowl, looked for the ISS, but "WNW" puts its track behind some trees. Not good for photography. Later I went over to where I have a view to the east. Had I been more awake I would have taken the boat out for a better view, but some nights it just ain't happening. So I stood on my dock and took shots of Taurus and Jupiter until Venus started coming out from the treetops. I was hoping for an early Perseid to whiz through, but nada.

MON/TUE, JULY 30/31

Rose-Marie: Clouds ain't always bad, once in a blue moon they'll enhance the view. I took this shot this morning as the moon set: Canon Rebel XT, Canon 18-55 lens at 24mm, ISO 1600, f/4, 19-second exposure, timestamp 3:41 a.m.



Hank: More aurora factories are coming around the east limb: 1534 was building and brightening this morning in the north and a new SS in the south. This is a rough image as



the sun was still in haze and the sky poor at 7:11 EDT.

WED/THU, AUGUST 1/2

Kevin: Last night (Wednesday) we had some really interesting imagery from the UWO All-sky 2 camera system at Starlight Cascade Observatory...

Video revealed that the source was a curious racoon...

Hank: Just watched the AVI and WOW! I never would have guessed but AFTER you can see it. This is tooooo funny!
starlightcascade.ca/blog/2012/08/allsky2-interesting-imagery/

Tue/Wed, August 7/8

Kevin *reported a couple of nice Perseid fireballs that were imaged during the night.*

Rose-Marie: Oh weren't those darned clouds fun last night?? Good that you caught something. At around 10:00 p.m. the aurora oval looked like it might produce something, so I hopped into my boat and headed across the bay. It looked like there *might* be a bit of pink in the sky, and I took a couple test shots, but the clouds swiftly covered the northern sky and had me grouching. I went back to the beach and took some 30-second exposures of the open sky to the south and east, but didn't catch any meteors, even though I had seen two bright ones while rowing back and forth.

Kevin: Keep your chin up! We recorded about a dozen good, bright Perseids last night. It looks like tonight will not cloud over until the morning. The density is slowly increasing but will unfortunately drop off sharply after the peak on Sunday.

Sat/Sun, August 11/12

Kim: Kevin and I went out around 9:30 p.m., and saw quite a few Perseids. Kevin retired around 10:00 pm, but I stayed out until 10:50 p.m. before all the clouds closed in, and only a star here and there was showing.

In an hour we were averaging around 20 Perseids. Many were fast, but quite a few were medium slow, bright, with 25° trains. One in particular was a –5 white-yellow, and a 30° tail.

Many satellites were seen, some Iridiums, and flashers, and the ISS was passing over around 10:21 p.m. for a very long pass. –1 stated at 22:19 and lasted until 22:25 p.m.

Kevin: I tend to call all meteors I see during a shower, a shower meteor, even though I know there are sporadics once in awhile. This morning at 02:00:42, there was a great overhead meteor, caught on two cameras, and a good video of it as well.

The cameras recorded 57 events overnight, with maybe a dozen false positives. We did not take out our portable cameras at all...they tend not to be wide-angle enough to make it worthwhile.

Ian Levstein: I woke up with a start at about 2:55 a.m.! I knew in the back of my mind that there was a reason I needed to pull myself out of bed but it wasn't until the dog heard me moving around, jumped on the bed, and licked my face that I remembered...I didn't feed him. So I dutifully went into the kitchen and fed the dog.

I poked my head outside, grabbed a lawn chair from the breezeway, and went out to sit for a while in the shadow of Sheila's car—alas, we have a street light about 100 feet down the road which effectively blocks my view of the southeast. I sat out there for an hour and saw only five Perseids. There might have been more that were dim and just got lost in the glow of the sky... but, overall, I was pretty disappointed.

Hank: I was out, so was the rum & Coke, the laptop, the easy chair and the chips, no Perseids. DANG! Clouds!

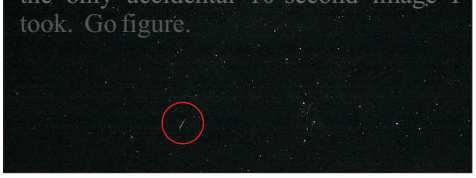
Rose-Marie: I rowed down the island last night, nice clear sky on the way down, some one beautiful bolide leaving a dandy smoke trail, thought oh yeah, this'll be a good show! I get down there, jammed the boat, set up the camera...and the clouds roll in. Some very unladylike language was heard for the next 15 minutes as I rowed back. Set the alarm for 1:00 a.m. Clouds. 2:00 a.m. Clouds. 3:00 a.m., I see stars when I stuck my nose out the door, so I get bundled up and out I go to the dock. Got the lawn chair and cushion settled, got camera set up...and only some piddly little *pfff pfft pft*. Saw one bright flaring satellite as I was setting up, missed the shot of that. Around 3:40, clouds start rolling back in. Went over to the other side, took a couple lousy shots of the Moon and Jupiter and Taurus, clouds covered the sky.

Susan: I did not go out very early but when I did I caught the ISS and three very bright meteors before the clouds rolled in. Also...I had looked at the Garnet Star before and was not that impressed but last night it was very red. Very nice.

Sun/Mon, August 12/13

Hank: I went out for one more peek before going to bed and CLEAR! Where did that come from?

I just came in from 1½ hours of imaging and as per the Meteor Law, the IM (Incidence of Meteors) was inversely proportional to the TSO (Time the Shutter is Open). 47 images, one tiny Perseid and the only accidental 10-second image I took. Go figure.



Rose-Marie: Unfortunately, nothing here to report. It was clear after supper, but then around 8:30 this big cloud came sneaking in from the west and dumped rain on us for over an hour. I was tired from a long day and decided to head to bed early, set the alarm for 1:00 a.m., solid cloud. Reset for 3:00 a.m., still cloud cover.
Kim: I woke up at 2:00 a.m. and the skies where clear. I laid there for several minutes fighting to keep my eyes open for at least a peek of one meteor—nothing...so back to sleep I went...

Fri/Sat, August 17/18
Elbow Lake Session

All Elbow Lake images by Kevin Kell

Rose-Marie: So, what did I miss? I had work to tend to last night and this morning and couldn't go.

It was a lovely clear night last night, I did manage to sit on the dock for a bit and took a few 30-second exposures hoping to catch a meteor. I saw four good meteors as I was walking around earlier, but only caught one faint one near Sagittarius. Had to head to bed as there are things to tend to today, argh.
Mark Coady: You missed getting a hug and you missed a good time.

The observing field is small but the facilities are tremendous. The trees did, however, block the light domes. I'm all in favour of returning.
Susan: I vote that we get back to Elbow Lake before the snow flies.

There may be a limited horizon but the strip is oriented almost N/S so the sky is acceptable to me. My view of Cassiopeia at home is not nearly as good as I had there. And the better northern view allowed me a chance to make sense of Draco and its wandering ways. As for the remainder of the sky, when the Milky Way looks so nice overhead there is really no shortage of things to look at. I planned a near-overhead observing session and was not disappointed.


The field, with Mark, Brian, and Kim ready to observe.

I added to my observing list: NGC 752, 6946, 6939, 6543, 457. We also tried to see detail in NGC 7000 naked eye (the North America Nebula).

Shortly after 23:00 I dragged Brian into the main building to make some coffee as we were a bit cooled off by that time. It was very nice to be able to do this—along with a stop to a regular washroom!

After a bit of a warmup we went back out to the scopes. It is great to have an observing buddy and get feedback on what you are looking at. We stayed up until about 01:20. By then our feet were damp and getting a bit cold.

I was weary when I headed to the cabin but then had trouble getting to sleep because I could not believe how comfortable I was!

This may not be the dark sky destination for people who are in the habit of travelling to sites near Algonquin, but I think that until we get a place of our own, this may allow members from Kingston a chance to get in some observing experience and make it more likely that they will take part enthusiastically in a Centre facility. Observing late into the night and driving home half asleep is not appealing to me.

Mark: Being the person that had to drive the farthest (I left just before 8 a.m. and arrived home after 11 a.m.), I really like comfortable facilities—especially one with proper amenities...*i.e.* no rustic outhouses.
Kevin: Sometimes it takes a while to recover from this Astronomy stuff. Friday was an early day for us, starting around 4 a.m. After work we headed home, packed, ordered pizza, and headed out to the Elbow Lake facility. We arrived around 7 p.m., unloaded the gear, setup in the cabin and went back to the observing field to chat and eat dinner.

The observing field is roughly 20m x 50m in a north-south direction. The horizons are generally pretty poor, what with a lot of tall trees very close up. Lotsa grass and thistles too.

Sunset was around 20:10 EDT and we got the scopes ready. Kim was using our 20cm "Starbuck" Dobsonian along with a small folding table and lawn chair. She also had our 12VDC power centre (a very large


Cassiopeia clears the trees...

Nautilus deepcycle marine battery) powering the primary mirror, eyepiece, and telrad dew heaters.

I had our Meade DS90 refractor and a lawn chair. (It is time to build another small folding table or two.)

Brian Hunter, **Mark Coady** and **Susan Gagnon** were the other participants, all with their own equipment.

More lessons learned (aren't there always?): The Meade DS90 was missing an eyepiece setscrew since the transit of Venus back on June 5th. Hmmm, I must get that fixed. It also had the block of wood the video camera was mounted on, in the place of the finder. Hmm, no finder—have to replace that soon.

The 8 AA batteries the telescope runs on are starting to sound (via the motors) a little old and slow. I must install an external power jack for it sometime soon. Hmmm, I also forgot to bring along a cover for the scope when done for the night.

The temperature was not bad at all, maybe dipping down to 18 and the dew didn't really start up until later in the evening, so not too bad.

I wanted to see how the Meade DS90 Autostar did that night, so I let it run the show. Startup with the scope very roughly north and level, then a two-star alignment of Arcturus (behind a tree so I made a guess) and Altair. After that I let it run through the "To-nights Best" list. Too bad at least half of the items it chose where in the Sagittarius area and hence, behind trees. But in any event we went through the following objects (with a 25mm Plossl at 32x):

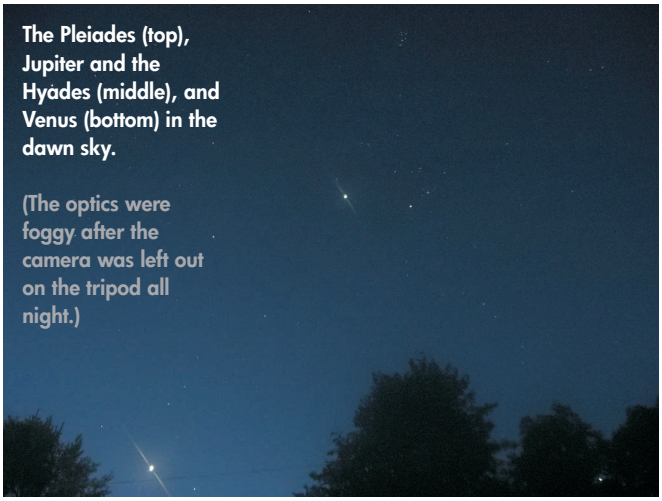
- Alberio with a 40mm eyepiece (20x)
- M57, the Ring Nebula in Lyra
- M13, the great cluster in Hercules
- M31, the Andromeda Galaxy
- M22, a globular in Sagittarius

Mark took a Sky Quality Meter reading at 21:40EDT showing 20.94 but it was still twilight.

- M15, a globular in Pegasus
- M27, the Dumbbell Nebula

A bright Meteor went by Cygnus at 21:45; ISS went across the northern sky at 21:58.

- M20, the Trifid Nebula in Sagittarius
- M17, the Swan Nebula in Sagittarius
- M82, the Cigar Galaxy in Ursa Major (had an aircraft fly through the field of view at 22:14. Scary!)



The Pleiades (top), Jupiter and the Hyades (middle), and Venus (bottom) in the dawn sky.

(The optics were foggy after the camera was left out on the tripod all night.)

A close-up of Jupiter and the Hyades.

- M11, the Wild Duck cluster in Scutum.

Another SQ meter reading of 21.21 at 22:31EDT; Another bright meteor Zenith to WSW.

Kim & I had to pack it in before 23:00 but were back up and out again at 05:00 to image Jupiter and Venus. After it got to bright for Astronomy anymore, we went down to the waterfront to watch the Sun come up. We headed out around 06:30 and were home after 07:00

All in all a nice night observing group session. The facility is better for a retreat than observing. The main lodge is very nice and well equipped. The entire facility is very clean, but some major maintenance on the outdoors parts may be needed in the near future.

IF it had a big clear field it would be almost perfect for a regular observing group meeting, but alas, as a Nature Conservancy property, we will not hold our breath for a lot of trees to come down to make a wide open field.

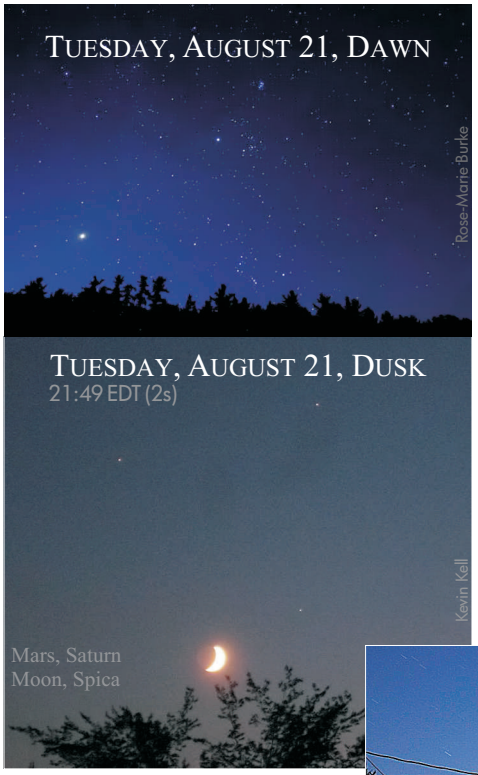
Sat/Sun, August 18/19

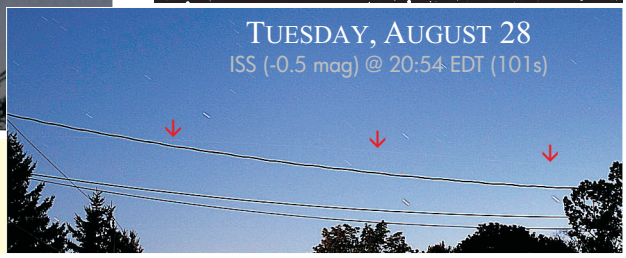
Rose-Marie: Sat out on the dock with my binocs last night to peer at things around Sagittarius, noticed all kinds of little wee meteors between Sagittarius and Aquila. Saw one bright meteor shoot from east to west and hooked up the camera, but didn't manage to photograph any of them. I got bleary-eyed and headed for bed. At 4:15 a.m. BigWetNose got me up, and I saw Orion coming up over the pine trees. It is depressing seeing the "winter" constellations appear!

Kim: I was up at 4:00 a.m. this morning, as I wanted to finish the *Sky & Telescope*'s Pocket Atlas August viewing list, but most are for Scorpius and Sagittarius, so they would need an earlier, evening observation session.

...Observing Reports: Summer 2012

I did look at Jupiter, Venus, M42 (always a favourite) and Kemble's Cascade. I saw two satellites, one meteor, and the temperature was +10C with 72% humidity. That was it; I came back in around 5:15 a.m. and tried to get a few more hours of sleep...





Hank: This would have been a great pass if it were darker and no moon.★

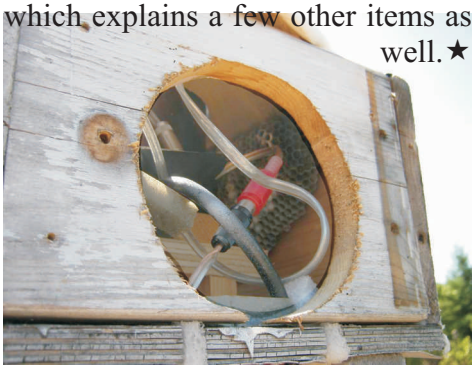
...Debugging ...continued from page 2

and removed the nest, along with a bunch of the wasps as well. After that it was repairing the screen, gluing it in, adding in more blocks to fill in the tiny holes that had existed before in the housing, adding a new white aircore shield to the top of the camera, and put the whole thing back together again.

Let's see them try that again!

Kim: Holy Batman, that was one large nest, the picture does not do it justice. There were filled egg sacks and some newborns just breaking out. Spray foam applied, left for a bit. Then after the newly glued intake was fixed, put back together. They were still flying around, but have not seen any today. Today we have liquid sunshine, and it's muchly appreciated.

Also, the coding was checked; for some reason it had changed to 0C, which explains a few other items as well.★



Dr. Richard Schmude Wins 2012 Jon Wood Award

Kim Hay

KINGSTON CENTRE MEMBER **Dr. Richard Schmude** of Barnesville, Georgia, is a co-winner of the 2012 Jon Wood Award. Richard received a 9.25-inch Celestron GPS fully-loaded telescope. I am sure he will be using this with his students and his studies of Jupiter and remote planets.

Dr. Shmude is also the Section Coordinator of the Association of Lunar and Planetary Observers (alpo.astronomy.org) Jupiter and Remote Planet Sections.

The Jon Wood Award recognizes those what excel in the field of public astronomy outreach and/or display a keen potential in the sciences. **Jon Wood** was a member of the Charlie Elliot Chapter Astronomy Club who enjoyed sharing his knowledge of astronomy with others. See more about Jon and the award at stephenramsden.com/charliebates/pages/JonWoodAward.html.

Congratulations Richard from all of us at the RASC Kingston Centre. Your contributions to bringing astronomy to students and the public is appreciated.★

Information and images were provided by Stephen W. Ramsden of the Charles Bates Solar Astronomy Project (solarastronomy.org).

Dr. Richard Schmude (left) and Stephen Ramsden (right).