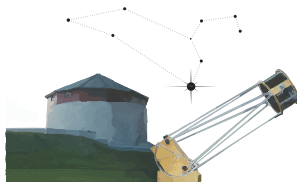


# Regulus

RASC Kingston Centre

June 2012



## Upcoming Meetings

July-August *No meetings.*

September TBA

Friday-Sunday, September 14-16

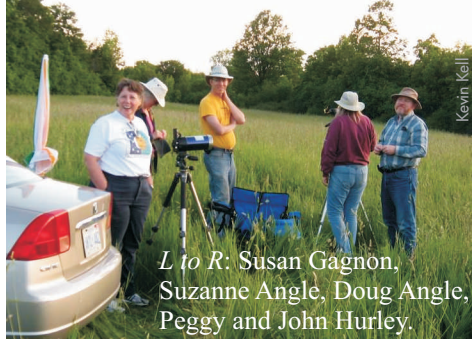
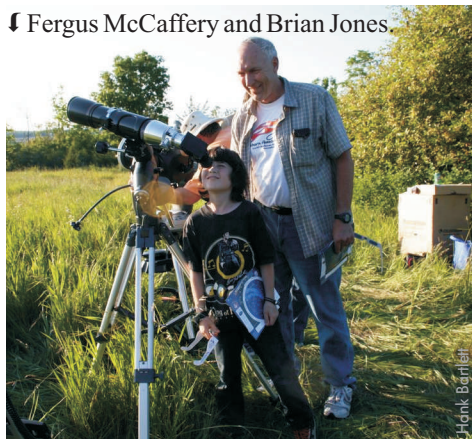
Fall'n'Stars, at  
Vanderwater Conservation Area ★



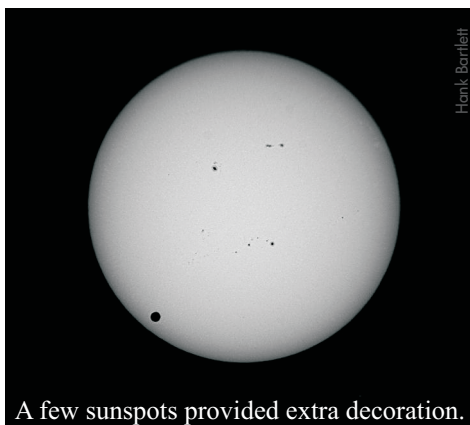
## Transit of Venus 2012

↑ As usual, Centre members were outstanding in their field, this time near Newburgh for the historic Transit of Venus. *L to R:* Daniel Wolfe, Hank Bartlett, Brian Jones, Bill Trenhaile, Leslie Roberts, and Kim Hay.

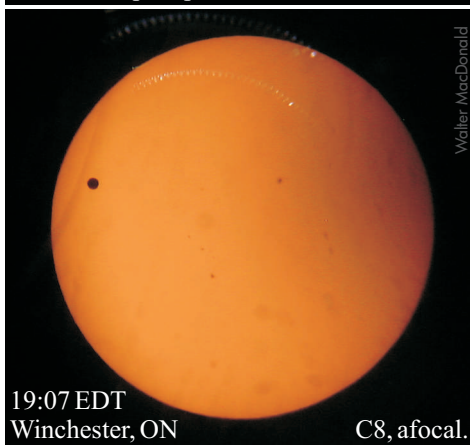
↓ Fergus McCaffery and Brian Jones.



*L to R:* Susan Gagnon, Suzanne Angle, Doug Angle, Peggy and John Hurley.

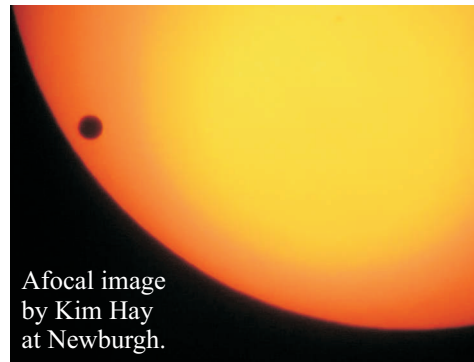


A few sunspots provided extra decoration.

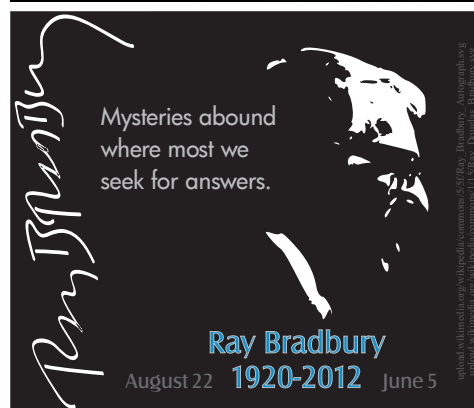


19:07 EDT  
Winchester, ON

C8, afocal.



Afocal image  
by Kim Hay  
at Newburgh.



Ray Bradbury

August 22 1920-2012 June 5

## In this issue:

- ▶ Reports & Other Items . . . . . 1
- ▶ Meade DS90 Transit Video . . . . . 2
- ▶ May Meeting Reports . . . . . 3
- ▶ Midnight Skies at SCO . . . . . 4
- ▶ June Meeting Reports . . . . . 4
- ▶ Observing Reports. . . . . 5
- ▶ Blast from the Past. . . . . 10
- ▶ A Homemade Solar Filter . . . . . 11
- ▶ UWO Network Expands East . 12
- ▶ Bioblitz / Enrico Kindl . . . . . 13
- ▶ Guarding Data / Elbow Lake. . 14

## Reports & Other Items

### KC MEETING WEBCASTS

The May and June meetings were successfully webcast using the [anymeeting.com](http://anymeeting.com) service (see the screenshot on page 3). The virtual audience consisted of **Ian Levstein** in Ashland, KY, USA, and **Walter MacDonald** in Winchester, ON. Thanks (as usual!) are due to **Kevin**

**Kell** for handling the technical side of things and making this happen. Hopefully more Centre members will attend virtually in the future.

### SETI RETIREMENT

Jill Tarter, a prominent longtime SETI researcher, is retiring. There is a Kingston connection here: some

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

KC members may remember a telephone session with her and our Youth Group over a decade ago.

### IMAX COMING TO KINGSTON

The *Whig-Standard* (June 12) reports that an IMAX theatre will be opening in December at Division St. and Dalton Ave. ★

## Meade DS90 Transit Video

Kevin Kell

IN PREPARATION for the June 5th, 2012 Transit of Venus, we wanted to have one telescope system tracking the Sun so we would be able to leave it relatively unattended and be able to observe with other instruments. The Meade DS90 refractor is the only portable system we have to do that so we used it as the base platform.

A Baader solar film filter was made for the scope, but this blocked the optical path for the camcorder, which was mounted on the back for tracking as well. The camcorder was raised up using a piece of 2x2 wood, some sticky velcro patches and a velcro cord. Bits of clothes pin were used to finely align or collimate the camcorder to the telescope optical axis.

In the telescope itself was an Olivion digital eyepiece, which gave a 640x480 image at up to 15 frames per second. This is a USB telescope camera that worked without issues on the Windows 7 notebook we used to record on. The software that came with it proved to be the only one that would work well, so it was turned on and let loose to record 2 hours 43 minutes of discrete images packed together to form a 99GB AVI video file (with no sound).

I was a little shocked at the file

size, composed of over 120 thousand images. It will take some time to process that as well! Actually, it was about a day to shrink it down to 1GB in order to transport the file and show selected bits of it at the meeting. The small size of the CCD chip meant that it was a relatively small field of view/high magnification, on the order of 120x to 150x.

All in all it worked well. Again the Baader solar film filter was not light-sealed tightly enough to prevent light from hitting the rear of the filter. That is being fixed. The digital eyepiece turned out to be a colour camera as well, and when used on a Coronado Solarmax telescope, it gave great imagery! Especially since the Coronado Solarmax 60 focal length is shorter than the Meade DS90's and therefore has a lower magnification, thus showing more of the solar disc. ★



## 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:

walter.macdonald2 (at)  
gmail (dot) com

or:

Walter MacDonald  
PO Box 142  
Winchester ON K0C 2K0

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## RASC-KC Board of Directors

<b>President:</b>	Susan Gagnon
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<b>Librarian:</b>	David Maguire
<b>Editor:</b>	Walter MacDonald
<b>National Council Rep:</b>	Brian Hunter

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<b>Equipment Loan:</b>	Kevin Kell
<b>KAON:</b>	Susan Gagnon
<b>Webmaster:</b>	Walter MacDonald

THE REGULAR MEETING of the Kingston Centre began with the rundown of near-future events and introductions of executive members present. Then we got right into the members photo presentations.

**Brian Hunter** had a video of **Comet Garradd** that gave a realistic view of how fast the comet was moving, something that is lost on the observer unless they are out every night.

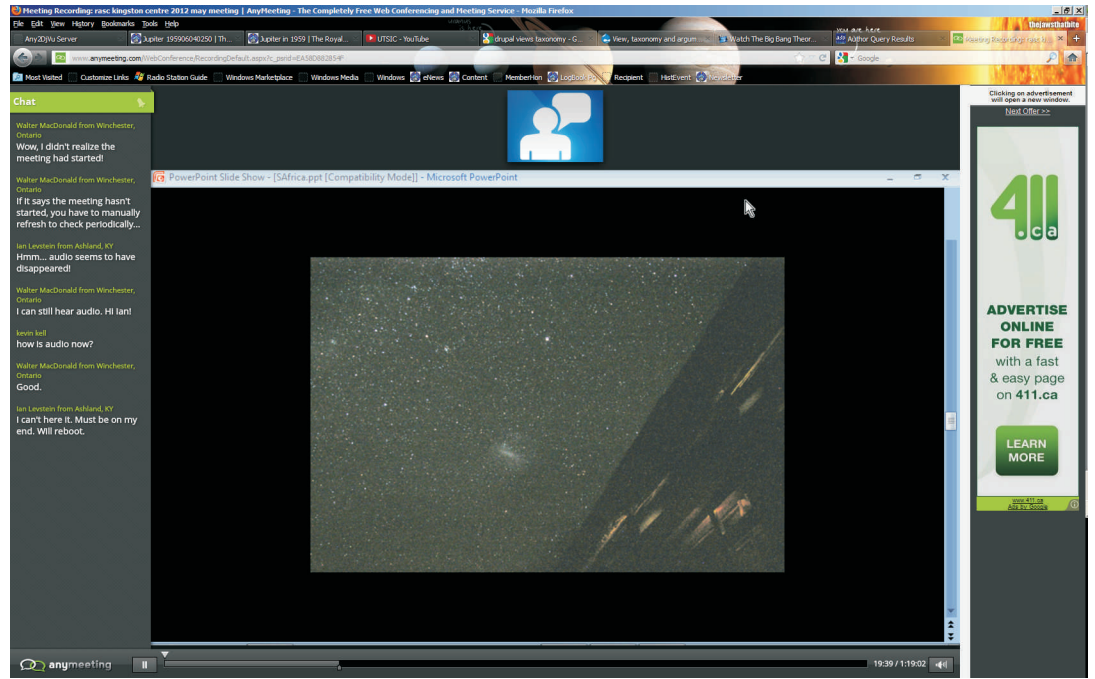
We had some deep sky imaging from **Leslie Roberts**. I particularly enjoyed the shots taken around a galaxy cluster in **Hercules**.

**Hank Bartlett** rounded out the show with a variety of solar views, H $\alpha$ , Baader, and 1000 Oaks glass. This last presentation was a bit rushed as has been the case during our Open House/meeting experiment. There is a rush to close up shop in time for the next round of events, this night in particular as we all wanted seats in the larger theatre for a talk by **Terry Dickinson**: "The Largest Observatory in the World," a talk covering his trip to Chile. It was a great talk as usual with lots of terrific photos.

Public observing was cancelled on the deck due to weather so there were only tours of the dome.

**Hank:** I ENJOYED tonight's meeting, I am glad I went. I was very pleased to see about 20 people there. It is true that participation makes the meeting and also helps devour the TimBits!

That said, having been an absentee member for quite some time I did not realize the rush that is put on the exec by having the meeting before KAON. Previously I thought it was a good idea so that members did not have to trek out two nights a month in order to participate in both. Tonight however it meant cutting



A screenshot from the virtual version of May's KC meeting. Audience members can type text messages on the left side, ads appear on the right side. The contents of the host computer appear in the centre along with an audio feed. This meeting was recorded and can still be viewed at [anymeeting.com/rascck/EA58D882854F](http://anymeeting.com/rascck/EA58D882854F) (for however long it stays there).

things short in order to get to the next talk by **Terry Dickinson**. I did say in the past that it was always a bother having two weekend nights occupied for RASC; yes, I am stingy with my time. As for changing, maybe I am just fickle and willing to sway in the breeze and go with any new idea, or I just want to have my TimBits and eat them too. Maybe a weeknight is NOT a bad idea. However Tuesday night is gym, Wednesday is Mom or the kids for supper, Thursday night is gym, Friday night is pizza night—wow that only leaves Monday. Life is not simple; I am glad I am not on the exec. Maybe we should canvas to have "8 Days a Week."

Thank you for the compliments from some members on my solar images, even though we did not have time to straighten out the screen resolution. I don't see my images as being of the quality that some take of the night sky but I do enjoy my H-alpha observing. I have rattled on to long now. I hope to see many of you on June 5th in Newburgh...

On a side note while pouring my Bacardi & Coke to accompany this article I learned that plain TimBits do have their place in the Universe after all: I slopped some rum (a cardinal sin) on the stove top, and not wanting to waste it, I spotted that last TimBit from the meeting (I knew there had to be a reason I brought them home) and plucked the plain TimBit out of the box, broke it in half, soaked up the rum, and ate it!!! YUM! I think I should e-mail **Tim** about this new flavour! Oh wait, Tim is dead, hmmm, *somebody* needs to hear my idea.

**Rose-Marie**, we missed you.

KAON

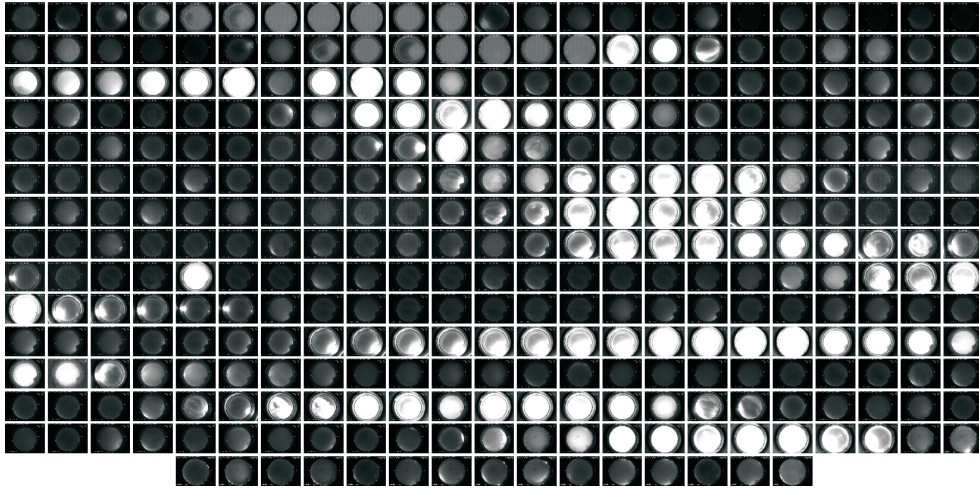
**Kevin:** **Terry Dickinson** was the guest speaker at the Kingston Astronomical Outreach Network (KAON) open house at the Queen's Observatory on Saturday, May 12th, 2012. His talk started a 9 p.m. in the Ellis Hall auditorium to a crowd of 76

continues on page 4...

QUITE OFTEN it comes up that someone somewhere asks about a particular night and the sky conditions. I generally go trudging through the Starlight Cascade all-sky archives looking for that particular date and then rummage around for a particular time frame.

I've always wanted a page-at-a-glance imagery summary and I think I have finally found a way to create one. Check out [starlightcascade.ca/concam/midnights/](http://starlightcascade.ca/concam/midnights/)

[concam/midnights/](http://concam/midnights/) for an automated script that regenerates this page every day to provide a historical summary of one image each day around midnight. The collection procedure has only been running for a couple of months but I figure I can import all of the images going back to March 2007. The page interface will need changing then as there will be hundreds of thumbnail images.★



Midnight skies for 2011, as seen at [starlightcascade.ca/concam/midnights/2011/](http://starlightcascade.ca/concam/midnights/2011/)

## Meeting Report: June 9

Kim Hay

JUST AS WE ANTICIPATED the [Transit of Venus](#), so we were all anticipating tonight's meeting. Though the turnout was good but small (~20), we had a very informal and relaxed meeting. Introductions were made of all who showed up in person, along with our two virtual members, who were attending via the service [anymeeting.com](http://anymeeting.com). Our President, **Susan Gagnon**, sent her regrets, as she had been called into work at the last minute. Those who have missed this (and May's) meeting can watch/listen to them on [anymeeting.com](http://anymeeting.com) (see the Members Only section of [kingston.rasc.ca](http://kingston.rasc.ca) for full information).

We started into the night's event with **Hank Bartlett** who showed an excellent slide show on comparisons of 2004's sunrise transit (3rd and 4th

contact) with the 2012 sunset transit (1st and 2nd contact). **Hank** showed the various images taken from various telescopes, and the cameras used. Some observers were taken by surprise on the red and blue tinge around Venus when it was on the sun. This was the reflection off the earth's atmosphere[?]. The *black drop effect* was very hard to capture, as it just seemed that [Venus](#) clung to the edge of the sun, this is still under debate as to if we had seen it or not.

Next up was **Rose-Marie** who showed us her images of [Venus](#) from the boat ramp using her spotting telescope and camera. Her first contact time was 22:03:19, and then proceeded with more images. She also showed us some images of the [Aurora](#) on April 12th in which it was a serendipitous find, since she was

...continued from page 3

people.

Terry is fast approaching his 70th year and still has the ability to mesmerize the audience with his speaking voice and fabulous images. The talk ran for an hour and was mostly about his trips down to Chile (pronounced 'Chil-eh' not 'Chili' and had fantastic images. Wow! Mind-blowing. Wow again. I wish we had been able to record this event as well.

He brought a box of 100 *Skynews* magazines WITH the solar glasses included that we as RASC members did not receive...politics! Bah! Afterward it was totally clouded out so the session ended without any observing on the deck.

The focus of the night was *Science Rendezvous*, a celebration of science at Queen's. Hopefully we'll be able to find out more about it later.

The June 9th 2012 KAON is CANCELLED. The observatory will be undergoing renovations which include:

- ▶ the removal of the existing telescope, a 16" Torus technologies CC04 automated telescope (1999) with Ash dome, equipped with an Apogee Alta U9000 CCD Camera (2007). It has been out of service for some months now and appears

continues on page 13...

trying to capture the [Moon](#) and [Venus](#).

**Kevin** proceeded with various images taken with the Meade DS90 that held an Olivion Digital Eyepiece. These images were captured and stored on the netbook that was used. This same setup was tried in **Hank Bartlett's** SM60, in which the camera is colour. There was also a complete movie taken with a Sony Handy Cam DCR-SX45 with 70x optical zoom, which turned out to be an 11 gigabyte file. Big yes, but the

continues on page 9...

THURSDAY, MAY 17

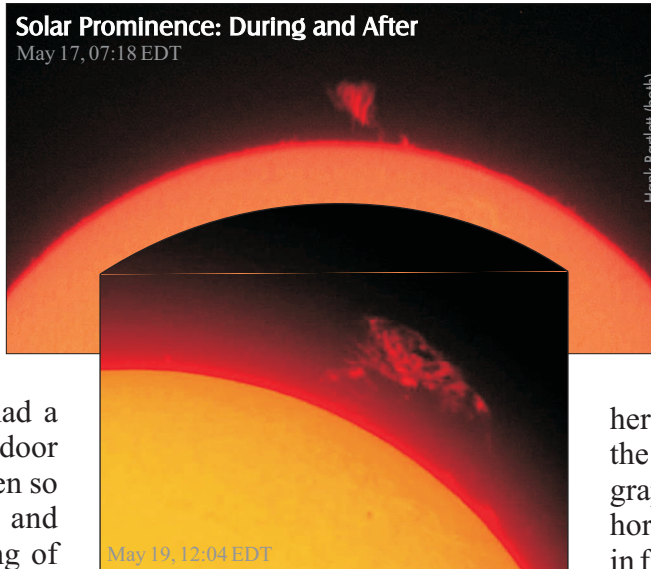
**Hank Bartlett:** If only I could get the focus better. This is twisting around just like a tornado, soooo cool. Unfortunately work got in the way this morning or I would have gotten a better image and of course by lunch it was gone. So sad.

**Rose-Marie Burke:** I finally had a chance to play with the barndoor tracker last night. There has been so much plumbing and fixing and running of chainsaws and raking of leaves and whatnot that there has been no time to drag out the telescope. Pangs of withdrawal got me out on the dock last night with the camera. At any rate, after much cursing because the tracker kept slipping sideways (was the tripod column not twisted tight) I ran a couple long exposures, wanted to get the constellation Leo as it's still high in the sky. When I downloaded the pics this morning I see that I caught one streak of what is either a meteor or a flaring satellite.

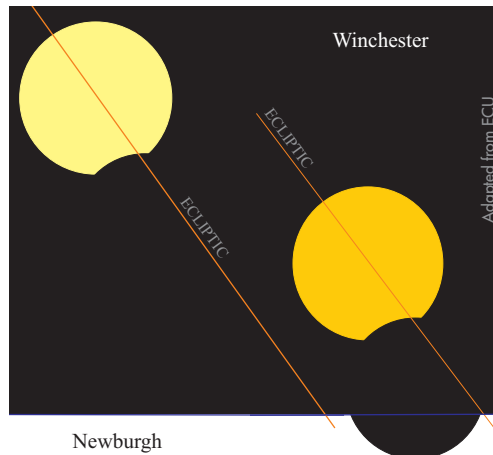


THU/FRI, MAY 17/18

**Walter MacDonald:** I observed with the C8 in the Merry-Go-Round tonight from 1–4 a.m. It was a calm night with almost no dew and a pleasant temperature of +7C. In addition to the old faves [M13](#), [57](#), [27](#), and [11](#) (Sagittarius was behind the apple tree), I visited [M71](#), [M15](#), [NGC 6210](#), [6760](#), [6781](#), [T CrB](#), [W Her](#), and [U Her](#), and [Albireo](#).



*Below: Eclipse circumstances at 20:25 EDT from the Newburgh ToV site (left) and Winchester (right). The solar altitudes were 60' and 31' respectively (the blue line is the horizon) with a solar azimuth of 300°, so this eclipse provided a great horizon test for the upcoming Venus transit. This eclipse could possibly be observed as far east as Québec.*



SUNDAY, MAY 20

**Hank:** I headed up to the ToV site to catch the [solar eclipse](#). For some reason I didn't even think of using the SM60 and instead put the C80 with Baader film on the tripod and attached the EOS.

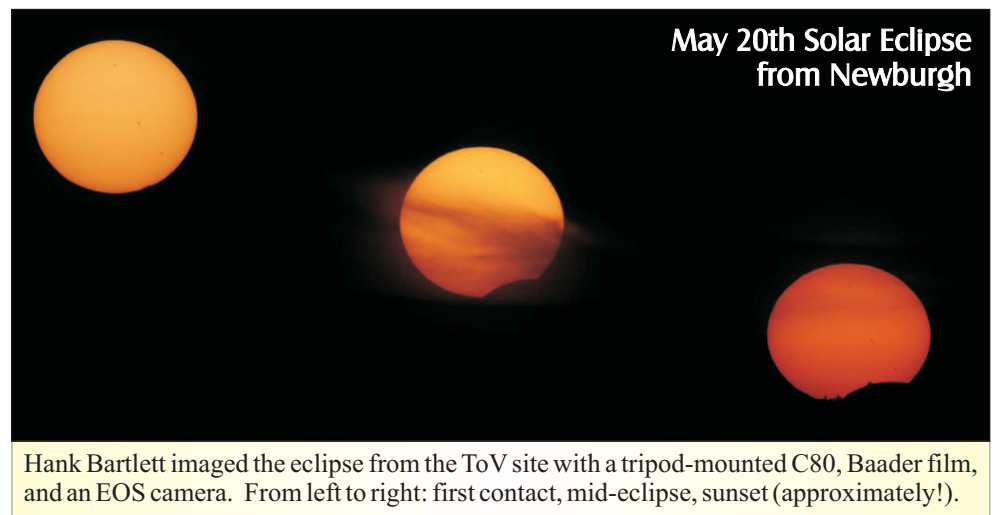
**Walter:** I was able to observe the [eclipse](#) from Mt. Reynolds here in Winchester. Unfortunately the [Sun](#) got a little faint for photographing due to cirrus cloud near the horizon, but I was happy just to see it in filtered 7x50 binoculars.

TUE/WED, MAY 23

**Kevin K:** Some nice [aurora](#) this morning between 00:00 and 01:00 EDT. The clouds were nice enough to go away for this short time and they aurora looked pretty intense but low in the north.



continues on next page...



Hank Bartlett imaged the eclipse from the ToV site with a tripod-mounted C80, Baader film, and an EOS camera. From left to right: first contact, mid-eclipse, sunset (approximately!).



**Kevin K:** I imaged the crescent Moon and Venus at 21:40. Does it strike anyone else odd that Venus can be so high and far away from the sun with only 13-odd days left before it crosses the face of the sun? It must really be moving! [Since Venus is making a run through inferior conjunction, it is as close to Earth as it gets, so it will move along at a very respectable rate as it passes by.—Ed.]

THU/FRI, MAY 24/25

**Rose-Marie:** I hadn't paid much attention to this new Dragon thingie blasting off and carrying supplies to the ISS until Spaceweather started featuring stuff about it, so when I checked the satellite tracking site it showed them both coming overhead during the wee hours. I set the alarm for 3:30 a.m., had some guy from the BBC blaring me out of my deep sleep, smacked the snooze button, then lay there listening the strong wind blowing and considering whether or not to get up and look. The BigWetNose prodded me, she decided I should be up and about. So after taking her out I got dressed, grabbed the camera bag and tripod

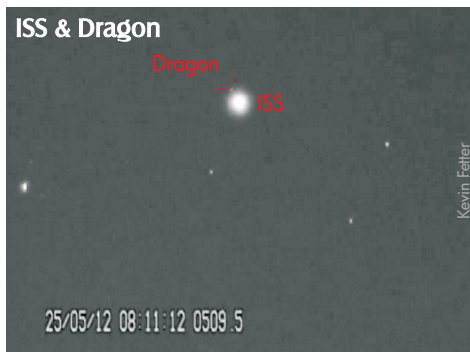


and plodded my way blurry-eyed to where I could see WSW. Took a few shots, nothing to write home about. The ISS was bright and clear, followed a smaller dot of light. So, at least I watched it traverse the sky.

Being out there early in the morning reminded me of what bugs me about summer: it doesn't get dark until late evening, and it starts brightening up too early.

**Kevin K:** We had medium cloud cover...just barely make out the ISS overhead in the 04:10 all-sky camera image. Cannot see the Dragon. ☹ No aurora seen.

**Kevin Fetter:** I had a nice clear (but twilight) sky, so I got to see it ☺ It was nice and close to the ISS.



TUESDAY, JUNE 5  
TRANSIT OF VENUS!

**Kim:** (06:27) Took morning pictures of the sunrise and the Moon in the west, awesome day! Got to get my stuff in one spot...

**Kevin K:** (08:50) The [KC] web site locked up last week for about a day and had to be restarted. I notice this morning that it is acting up and not responding to the members-only section. I am restarting it again...

**Mark:** (11:11) I was up this morning at 02:35 and the northern sky was all awash in faint green, but there were not any spikes or other features. It was as if the it was still faint twilight.

**Mark:** (13:06) Hello gang. I am bailing out and heading to Salmon Point to meet up with Malcolm [Park]. He has a nose for clear skies.

Good luck to all of you!

**Hank:** (15:35) Why am I getting anxious??? You would think I was a little kid getting ready to go to the fair and go on some scary rides for Pete's sake, duh.

**Susan:** (16:17) I am quite calm, packing very little, just looking forward to seeing what I can and seeing my buddies! Leaving here around 4:30. I will not need an hour to set my chair out and open a bag of chips.

The sky is beautiful. Sorry that Mark and Rose-Marie will not be there, can't wait to see who else comes out.

Things were very quiet on email until close to sunset... ☺

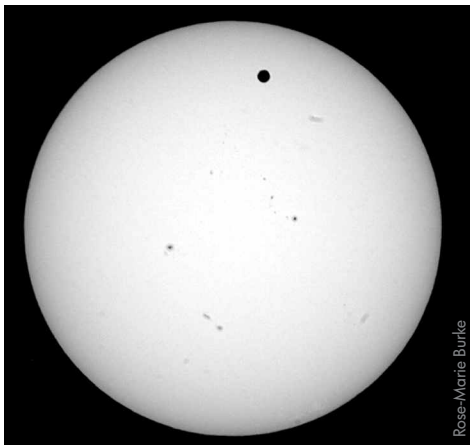
**Rose-Marie:** (19:55) I sat on my dock, viewing the show through my 60mm spotting scope with Baader filter, camera attached. Now downloading.

**Walter:** (20:07) The weather cooperated! I watched the transit from the backyard here in Winchester with my C8 and full aperture solar filter—very convenient! Venus came along right on time; it was exciting to see that first little bite out of the Sun's limb. There was some black drop effect too. I shared the show with a couple of relatives and four neighbours; two of us were able to see the transit naked eye with #14 welder's glass once Venus was well away from the limb. There was a nice selection of sunspots, including two with large penumbrae. I tried a few afocal shots—hopefully there will be one or two usable ones. The seeing deteriorated as the Sun's altitude decreased, but that was not a surprise. I had to move the scope a couple of times to extend the show, but by 19:30 the Sun finally set behind the house and I decided I'd seen all there was to see of this transit. Ah, another lifetime memory!

**Paul Winkler:** (20:52) Well, the sun has set behind some horizon cloud from my viewpoint in Kingston. I would guess the transit had reached between a third and a quarter of its way across the sun's disk. When I came inside, I looked at the NASA site from Mauna Kea, and the position of Venus on the disk was quite different from what it had been from Kingston. Very cool!

I missed the Black Drop due to a big thick cumulus cloud at exactly the wrong moment—phooie.

A great experience. I hope you all had a great time in Newburg!



**Rose-Marie:** (20:53) A wee black spot moving ever so slowly across a white disk. Be still my heart, I could hardly contain the excitement!

Note to self: clean the damned sensor.

Okay, I got some shots. Got some out of focus shots, the Sun reflecting off the water made it hard to see. But...I did see, and got the pictures. If I had grandkids I could tell them about it.

**Kevin K:** (22:06) All in all an excellent event with excellent weather and seeing. About a dozen folks, mostly members, some locals and friends of the property owner, dropped in.

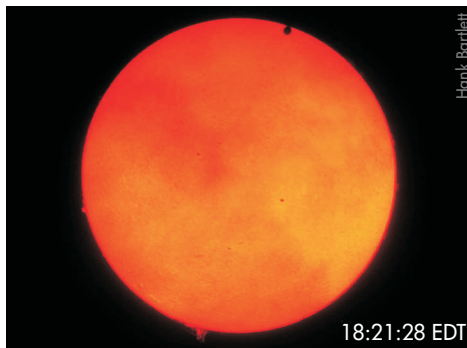
1st contact was clear, 2nd contact was clear, clouds were very cooperative right up until about 20:30 local, about 10 minutes before sunset.

pictures to come much later... tomorrow maybe.

**Mark Coady:** (22:24) The PAA were atop Armour Hill beside the liftlocks in Peterborough. They lost track after counting 150 carloads of people. I set up at a fun fair held at my church. I had between 50 and 100 adults and kids look at the Sun, sunspots, and Venus. The picture is of my great niece who came along with me.



**Hank:** (22:26) The Newburgh ToV was a great event. It was so good to observe with old and new friends, I thank all for coming. We toasted with champagne, ate steak & chips, had TimBits for dessert. What a wonderful time and rekindling of my love for Astronomy. I did not realize until today how much I have missed these events. I do not regret not doing a public event; this was soooo special that I felt it was a personal event. Also it was so broadcast that non-astronomers had plenty of opportunity to see it, so no guilt here. I have over 600 images to go through so I have not picked a favorite but here is one, sorry I didn't downsize it more, but I tried and it destroyed it.



**Dieter Brueckner:** (23:32) We had a lovely evening, great sky, great view of Venus. When I arrived, there was already a group from Ottawa, set up here to escape bad weather there. (**Gary Boyle** of [WondersOfAstronomy.com](http://WondersOfAstronomy.com) and two associates). I had about 35 viewers in all, friends, neighbours, three teachers, and passers-by who were visiting the conservation area. All were pretty impressed.

That first bite out of the sun is still for me the most amazing part. Also amazing were the serendipitous encounters with people out of my past or linked to people I knew. Most striking was my re-meeting with **Kai Millyard**, who had worked with **Bob Garrison**, my thesis supervisor, at U of T. He happened to be in Kingston for a three-day business trip, and was at Lemoine Point not to view the transit, but to birdwatch! Pretty amazing. We spent much time reminiscing about astronomy at U of T.

I was a bit disappointed, but not surprised, that not more people from the Limestone Board showed up. I had gone to some effort to make especially science teachers aware of the event. I did, however, spend some time today distributing about half the solar viewers to teachers and staff at Loughborough Public School (where I taught today) and Sydenham High School next door. Most were thrilled to get the viewers, so thank-you very much **Kim** and **Kevin** for providing them to me. I hope these folks were not disappointed when they realized how challenging to see Venus was through these. Would you like me to return the leftover viewers? If not, I'll add them to my collection for potential future use.

Happy to hear you all had a good time. I am interested to hear from **Mark Coady** and the news from Peterborough, where I hope my daughter **Irene** was able to connect as

### Various Members

she had planned.

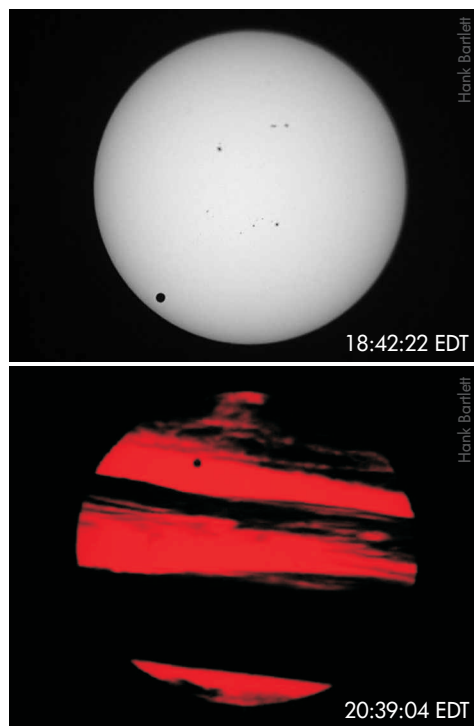
...quite a few passers-by already had solar viewers that they were carrying with them on their walk in the conservation area. One female person told me she was an associate of **Kevin's**, and that she had received her viewers through him. She said she also knew you. So another one of those serendipitous connections.

All-in-all a satisfying day.

**Kim:** Glad to see that **Gary** made it, he and I were facebooking each other all day on where people were setting up. It sounds like you had a wonderful time meeting old friends and making new ones. Please keep the viewers for future endeavours. We do have a Mercury transit coming up in our future, so that may be more of a challenge.

It was a wonderful lifetime experience, and we shared it with those who wanted to see and learn for themselves.

**Hank:** (01:02) I have got to go to bed, I should have taken tomorrow, I mean today, off too. Here are two more, one white light and one H-alpha. The H $\alpha$  was terrible seeing but the cloud bands were so cool. Good night all.



*(These were taken with a Solar Max 60mm and a Celestron 80mm; they are a far cry from the images in 2004 taken with my 254mm Meade SN!)*

**Walter:** Wow, what luck with the weather! Four days of clouds and rain, then clear for transit day. It clouded over right after sunset and by midnight it was raining. Mostly clear skies again when I woke up this morning. I'm so thrilled to have seen both of this century's transits!

**Rose-Marie:** I've only got to see this one, but thrilled to have been able to!!! The way the weather forces have been for me these past three years I wasn't holding my breath, figuring that for such a rare event we were going to have rain, rain, rain. Surprise, surprise! Out here the clouds slowly and steadily cleared away during the afternoon, leaving us with clear blue sky. I set up on the dock, indulged in a bit of cursing when trying to find the sun with the scope (good thing I put that pinhole in the filter board), then plunked into the chair and enjoyed the show. The water was calm; in between taking shots and constantly re-adjusting (amazing how fast that sun moves through the viewfinder) I was watching the bass and sunfish, one bass had a few hundred fry that had just hatched, he was protecting the swarm from anything that came near. I amused myself by throwing a twig onto the water every now and then: he'd attack it. One admirable thing about bass, it's the males that set up the nest and tend to the young'uns. The beaver came by at one point, eyeing me with consternation and condemnation, as if to tell me I was the prime suspect in the vandalism on his engineering at the dam. I just laughed and thumbed my nose at him. I need to get me another camera body: when one sits quietly by the lake on such a calm evening, one gets to see more than just transits—coulda had a good shot of that beaver. A

swarm of midges rose up beside the dock, the dragonflies sparkled in the late day sun, swooping down and snatching a few. Birds were singing, tree frogs were trilling, a chipmunk was scurrying, just a perfect afternoon to view a transit. The only damper was the few no-see-ums that found me when the sun hit the trees. Missed being with you all out in Newburgh, but had just as good a time by my little old self.

**Mark K:** Glad to hear that success was wide spread. We had an amazing time on the edge of the lake. It did not cloud up until the last half hour or so and then, only in the part of the sky where the Sun was.

Huge moment of panic for me: I hemmed and hahed about taking the big scope and mount out of the Observatory and decided not to tempt fate and took only the WO66. As I was going out the door, it occurred to me that I do not have a solar filter for the small scope. I grabbed another filter and stripped it for parts and made a filter on-site from a piece of cardboard I had lying in the car and some scotch tape. It worked just fine.

I had a scrap piece of Baader film and I taped that over the front of the scope. The image was absolutely awful! Then I looked through the tube and I could plainly see numerous pinholes in the film. That was when I started ripping apart filters. I nearly came to the point of taking apart my full aperture filter for the big scope, but was saved from that when I found a filter I had made for my telephoto.

I now need to order some more Baader film. Maybe I will get it right by the time of the next transit...

**Rose-Marie:** LOL! Wish I had seen you scrambling to jury-rig a filter; sounds like a predicament I always seem to wind up in.

Also glad you all are posting such nice pics—now I can see which spots on mine are dust on the sensor; when I get around to editing a few shots I'll

...continued from page 4...

know what to hit with the clone tool.

You all had pretty clouds to swallow your sun, I had pine trees. Looks like some wierd monkey hand grabbing my sun away before the transit was finished.

**Walter** on Dieter's encounter with Kai Millyard: Wow, now there's a blast from the past indeed! Kai is also well-known to Toronto Centre and NYAA members from the 70's and early 80's. What is he doing these days?

**Dieter:** Yes, we did talk about his Toronto Centre and NYAA connections. **Kai** told me he is now mostly a consultant and occasional advocate for environmentally-related issues, mostly, if I understood him correctly, with respect to power generation and consumption. I think he's here to advise Kingston how to improve things in that regard. If you Google him you may get a flavour—it appears he has his own consultancy.

**Dave Lane** reports on the RASC web server: I checked the web traffic for the last few days and starting on Friday there was a large uptick in visits to our website (despite overload problems with the server yesterday). We average about 400 visits (one user visiting one or more pages in a defined period) per day. Removing those gave us just over 7000 additional visits from Friday to Tuesday.

**Rose-Marie:** I slapped together 3 cropped images of the ingress. Now, we all know not to trust my settings on my camera, it's been "adjusted,"



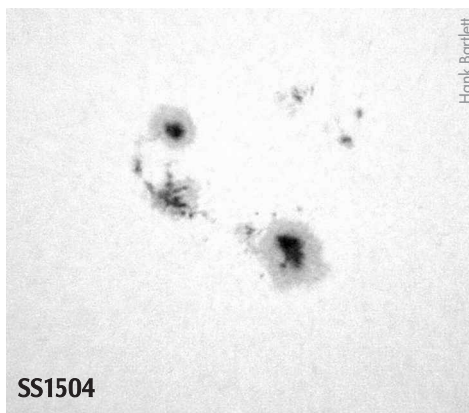
but I don't have the exact time. It's at least a few seconds off.

**Kim:** I was looking mainly through the H $\alpha$  scope and here are the times that I got for 1st/2nd contact:

- ▶ 1st contact: 18:04:16
- ▶ 2nd contact: 18:19:24

It has been said that H $\alpha$  will show the planet sooner than the white light image, hence why I concentrated on this scope.

I have sketches of the event, and some pictures, mine pale in comparison with others, but I like the movies I did on the Canon, A495 digital camera.



FRIDAY, JUNE 15

**Hank:** I was off work today so I decided to do a little white light solar this aft, too bad there was a cloudy haze by then. SS1504 is looking good, maybe this will be the one to finally give us some decent aurora! I took this image with the EOS through the C9.25 1/400th @ ISO 100. If it wasn't for the cloud I could have gotten some nice surface features. I am thinking of putting the SN10" on this mount and trying it as the Schmidt-Newt optics seem to be better than the Schmidt-Cass. It could just be that the SN10 is a faster scope at f/4.5 compared to f/10 for the C9.25. The contrast in the SN10 is much better as I recall. ★



camera runs up to 2GB then restarts imaging. This camera was mounted on top of the DS90 which was a trackable telescope. Images in H-alpha were taken by **Kim Hay**, along with sketches she did to capture the event...without having to manipulate electronics, just coloured pencils, were also shown.

We moved onto other topics of interest. **Brian Hunter** gave an update on the Queen's Telescope, both the new one (16 inch SCT-



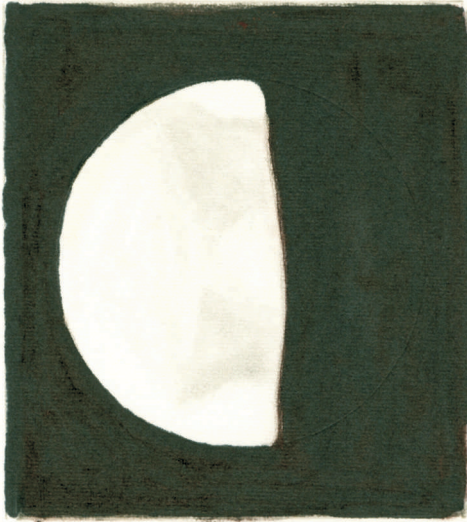
Susan Gagnon's Transit Cake displays the beginning, middle, and end phases as seen from the Kingston area.

Meade) which should be arriving around early September, and the current telescope (Torus Technologies CC04 automated telescope.

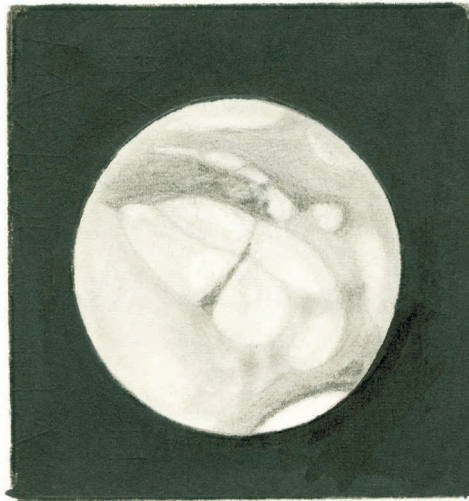
**Susan** had sent in a presentation on the Elbow Lake Retreat (the old Hewlett Packard facility). Queen's University, along with the Nature Conservancy, acquired the property and it is available for renting out. The area is being looked at as a possible get-together and observing area. More information will be forthcoming from Susan. We may be able to do something over the summer months.

**Kevin** discussed the new All-Sky Camera setup we received from University of Western Ontario. This was installed on Friday, June 9th, extending UWO's coverage further east for meteor and bolide information. The StarlightCascade camera is #10 in the network. We are

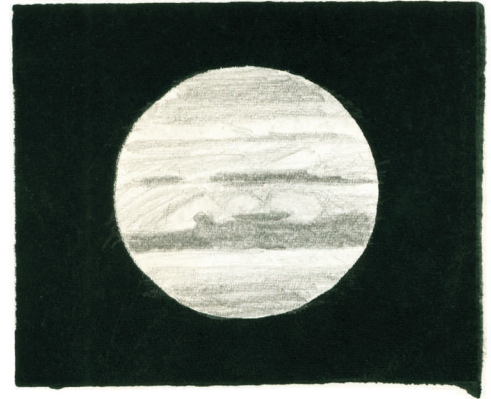
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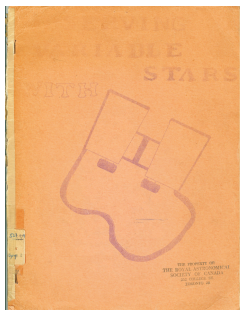
**Venus** on 1960 December 11/12 at 21:30-21:45 UT as sketched by K.R. Brasch. This is just one of 86 Venus sketches at [rasc.ca/venus-1960-61](http://rasc.ca/venus-1960-61).



**Mars** on 1961 February 11/12 at 22:45-23:15 UT as sketched by K.R. Brasch. This is just one of 49 Mars sketches at [rasc.ca/mars-1960-61](http://rasc.ca/mars-1960-61).



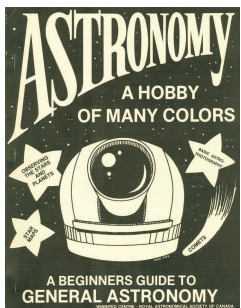
**Jupiter** on 1959 May 25/26 at 04:25 UT as sketched by Geoffrey Gaherty, Jr. This is just one of 123 Jupiter sketches at [rasc.ca/jupiter-1959-60](http://rasc.ca/jupiter-1959-60).



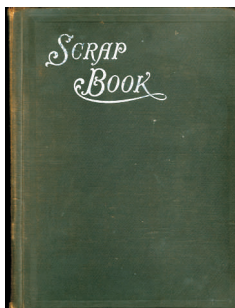
*Observing Variable Stars with Binoculars*, by Ken Chilton of the Hamilton Centre. [rasc.ca/observing-variable-stars-chilton](http://rasc.ca/observing-variable-stars-chilton)



*MEMOIRE* sur les origines et l'oeuvre de la SOCIÉTÉ ASTRONOMIQUE DE QUÉBEC [rasc.ca/saq-memoire](http://rasc.ca/saq-memoire)



*Astronomy, A Hobby of Many Colors*, by the Winnipeg Centre. [rasc.ca/astronomy-a-hobby-of-many-colours](http://rasc.ca/astronomy-a-hobby-of-many-colours)



Scrapbook from the 1905 Eclipse Expedition to Labrador. [rasc.ca/scrapbook-1905](http://rasc.ca/scrapbook-1905)

THE DIGITIZATION OF MATERIALS from the Society's archives continues! The original paper forms that the planetary sketches were taken from are available as logbooks in PDF files from [rasc.ca/archives/logbooks](http://rasc.ca/archives/logbooks).

The photometric program went along well enough for a couple of years until we got a bride in our household, and then things began to happen. Not enjoying the long evenings alone, she found that if she came to the observatory and acted as a recorder, she could get me home earlier. She wrote down the numbers as the observer called them, but after some nights of recording a hundred readings to get just one magnitude, she said it was pretty slow business. I responded that someday we would do all this by electricity. That was a fatal remark. Thereafter she would often prod me with the question: "When are you going to change to electricity?"

—Joel Stebbins

(Publ. Astron. Soc. Pacific, 69, 506)

*Dr. Stebbins travelled with his new bride to Labrador to study the 1905 eclipse. ★*

## ...Meeting Report: June 9

...continued from page 2

very excited about this, as we are still using our original All-Sky camera and will be able to see both data sets being produced for any event.

The meeting wound down, but not until we all had some Venus Transit cake, made by **Susan Gagnon**, Timbits from **Hank Bartlett**, and refreshments from **Kim & Kevin**. This was our last meeting

before the summer solstice, which is June 20th.

See you in September, as the song goes. Have a safe and happy summer, clear skies and dark nights (at least as dark as we can get in the summer time). Make some memories and share them with us at the September's Members' Meeting.

continues on page 11...

## A Homemade Solar Filter

Hank Bartlett

A FRIEND JUST PURCHASED a Skywatcher 8-inch Dob. **Bill** is a newbie to Astronomy and not a late-night kind of guy, which is totally contrary to summer Astronomy. I decided to make a solar filter to keep him interested during the upcoming “short night” season.

To keep things simple I built a sliding Baader film filter to fit the moon hole in the 8" cover. The images should be self-explanatory: basically a cardboard sleeve with a round hole in both sides wraps around a single cardboard with a matching round hole covered with Baader film. A square hole for the slide grip in only the front side of the

outer cardboard allows for the handle to keep the filter gliding smoothly into place.

The sliding function allows the cover to still be used for lunar observing at night. The complete filter is taped to the inside of the cover with 2-inch tape to maximize adhesion and safety. You will notice there are ample warnings on the filter and instructions to keep the novice from making a serious error.

Aperture is always important, however for solar the 2.25" is adequate to observe sunspots, but not the granularity of the solar surface. This quick and easy filter cost only the price of the film, printer ink, and



tape to make. We tried this filter out May 12th on SS 1476 and **Bill** was wowed! What more could you want?★



## ...Meeting Report: June 9

...continued from page 10

Various Members

**Paul Winkler:** It was an awesome meeting, with Timbits and a Transit of Venus cake too. Thank you sincerely for the delicious yummys, whomever I should be thanking!

**Kevin Kell:** This is the 2nd regular meeting we have broadcast and recorded. There were technical difficulties yet again with the USB webcam on a 2m cable not having working video. It would take a single image and then freeze. The webcam audio was also very poor. You may almost want to turn down the audio and watch the pretty pictures. We will definitely investigate a better audio system for next time.

**Ian Levstein:** Further to this, and from my POV as a remote participant, Saturday's *anymeeting* effort was much better than last month's. The video from the computer was quite good and whenever **Kevin** spoke, the audio was clear and understandable. I'm not sure if he had a remote mic or if he was just closer to the mic that was being used. When someone in the audience spoke, it was very difficult to hear so perhaps a wireless mic that can be passed around would solve that issue.

The ToV images on the computer were compressed horizontally, so the sun looked somewhat oval. I think

**Walter** was right when he suggested the distortion was caused by 4:3 vs. 16:9 aspect ratios. But, that aside, everything else was really good.

Anyway, this was the first full meeting I've attended in many years, and I thoroughly enjoyed it. I thought the ToV stories were great—alas, I was totally clouded out so wasn't able to see any of the action first hand. I look forward to the September meeting!

**Kevin K:** Thanks for the feedback. The loud noise you heard was when I was repositioning the mic to aim it at the person speaking.

The notebook was initially set to

1024x600 and that distorted items on the projection screen even though they looked OK on the netbook. At 800x600 they looked good on the projection screen but oval on the netbook, plus there was not enough screen real estate to show the entire image and the [anymeeting.com](http://anymeeting.com) panel, etc.

The dual-core netbook did seem to have enough horsepower to run, although we were getting constant warnings: 'presentation has halted,' 'presentation has resumed,' or some such. We were actually disconnected from the [anymeeting.com](http://anymeeting.com) server once, then it re-established.

**Susan:** I am sorry that I was unable to get to the meeting. It sounded like a great one.

Thanks **Kim** for taking the helm; **Kevin** for taking my pics and cake, (and saving David and I a piece); **Rose-Marie** for filling in the gaps in the Elbow Lake slide show.

As some of you know I was called to work, but there was a gap in the action some time after 2 a.m. This is when I says to myself, "Suze," I says, "let's have a look at that there meeting online." The electrons were still warm! I am a convert; I never thought that I would enjoy in the least viewing a meeting online. Aside from the sound that dipped a bit here and there, I had a great virtual visit. I really liked seeing what **Walter** and **Ian** were chatting about, and all of the slides were perfect. I would still rather be there, and I was unable to see all of it, but in a pinch it can keep you in touch.

Thanks to all who came out in person! Watch the chat list through the summer for updates on what people are doing. Don't forget the *Movies in the Square* downtown: there is usually an astronomy/sci-fi picture in the lot—Thursday evenings in Market Square... ★

WE ARE ECSTATIC to announce that we are providing a hosting location for a new all-sky camera system here at the Starlight Cascade Observatory just outside Yarker Ontario. The system was installed on Friday, June 8th and will be undergoing some testing and configuration over the next little while.



This image shows the inner workings of the camera system, including a low light camera, a wide angle lens with iris, a heater, and photocells to shut down the camera and heater in the daytime. The dome and housing are in the background. The camera puts out 30 fps as a composite video signal, running approx 20m into the house and into a video capture card on the computer system.

It needed a solid mounting point, so it went on the peak of the garage.

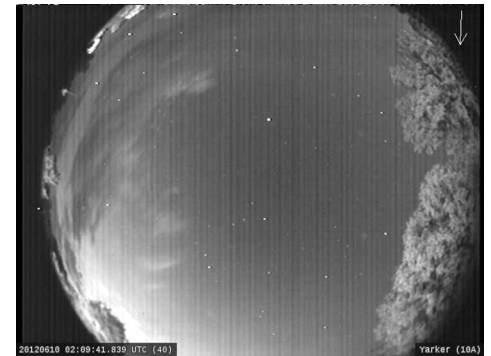


The system basically stores and analyzes realtime video, saving any detected events as well as 1 second before and after the event.

More details will be coming once we learn more about the system, its operation, and what we can actually do with the data, in that we are only provided a hosting location for it.

30 frames per second is a big improvement on the 90-second-exposure existing system, giving much better accuracy and not being drowned out nearly so much in a full moon exposure.

Ironically enough, about 4 hours after the system was installed, we had an event (below) recorded on our old camera system ending 23:24:51 EDT June 8 (03:24:51 UT June 9). We are awaiting word if this southwest event in our camera was recorded by the other network cameras. ★



The view from the camera at 02:09UT (22:09 EDT), with a GPS time inserted into the bottom of the frame. This image may have been triggered by our headlights on the trees as we arrived home from the Centre meeting.

The preferred western horizon (because the rest of the camera network is in SW Ontario) is relatively clear, whereas the eastern horizon is pretty much blocked by our trees.

THE PERIOD FROM 3 p.m. on June 15th through to 3 p.m. on June 16th marked the 24 hours set aside on Amherst Island for the annual **BioBlitz**. The biologically curious get together over this time to measure the number of species that can be identified in a specified location. The Kingston Centre was invited to provide some dark sky entertainment for the participants.

I arrived during the day on Friday with my birding sister-in-law. We set up a tent and scouted the surroundings for creatures. While we were looking for wildlife we were by no means under the impression that we were in the wilderness. A private property had been offered for the event and we had trimmed grass to set up our tent on and nicely cut trails to observe from. This was great as most of my walking during the heat of the day could be done in sandals. Super!

Around 7 p.m. **Doug Angle** arrived with the Venor and immediately started attracting attention as we started getting the scope set up. Strangely enough no one had noticed my scope set up by the tent, hmmm? Around 9 p.m. we were gathered around the scopes and the stars were

coming out. Right out of the gate and well before dark was **Saturn** and of course it was a big hit. I had a little list of things to show in my scope while Doug ran the Venor, and then Doug showed the same items in the larger scope. I had large binoculars on a tripod as well.

The audience was grateful and excited by the opportunity to have a small star party to themselves. Everyone was keen but calm at all times, even the kids. With the small group and two scopes we had a lot of high quality observing time. No one felt rushed to get to the eyepiece and then move on as sometimes happens at a regular open house event. It was a great success. My sister-in-law **Allison** was the last non-RASC to hit the hay around 12:45 or so. Doug and I remained observing for another hour after that, looking for some fainter galaxies and we even did a bit of Pluto chasing.

So, you ask, how dark is the sky

out there in the middle of the lake? It was not the mind-blowing faint-object-a-thon that I expected; Doug checked the sky quality meter and got 21.13 or so. The glow from Kingston was quite obvious and made looking at **Andromeda** very uninteresting. Having said that, the air was heavy with moisture and the view to the south was pretty nice. If you want to get a good look at the south on a drier night, and you have an observing spot, it is worth a try. And don't forget that Wolf Island has already been reported as a good spot. Great opportunities for investigation over the summer! ★



## ...May 12th Meetings

to be unrepairable(?)

- ▶ the installation of a new Meade 16" Schmidt Cass telescope. Googling prices shows it runs about \$10k

Hopefully everything will be in place for the July 14th KAON session at 9 p.m. (There are no Centre meetings in July and August however.)

**Susan:** Thanks to everyone who came out to the meeting and especially those who worked the meeting! Great video and photos.

Yes **Hank**, the meeting gets compressed with the KAON speaker every night as they usually set up in

...continued from page 4

the same room. I also would have liked for more time for questions about the H $\alpha$ , there probably were some as those photos have a special appeal. Just one more reason why we are desperate to abandon the pre-open-house time slot. We'll see what kind of response we get for a meeting night choice. I miss having a chance to visit with anyone as well.

Thanks **Kevin** for the webcast! It sounds like there is a real future for this as long as we have people like you who are able to put it all together computer-wise.

Thanks to **Ian** and all our other cyber-samplers who played along. It was nice to have a larger turnout. ★

## Remembering Enrico

**ENRICO KINDL** was a Centre member from the mid-1970s to the early 1980s. He served as Secretary in 1978, Treasurer in '78 & '79, and received his Messier Certificate in 1983. Later, he relocated to UBC to continue his studies; his Ph.D. thesis is here: [hdl.handle.net/2429/30722](http://hdl.handle.net/2429/30722)

Enrico died 25 years ago (see *Regulus*, Nov-Dec 1987, p.5), in the summer of 1987, killed by an avalanche on the Kain Face of Mount Robson after a successful ascent of that mountain's North Face. A climb up the South Peak of the twin-peaked Mount Judge Howay has been named *Kindl Buttress* in honour of Enrico. ★ [kobus.ca/adventures/kindl\\_buttress/index.html](http://kobus.ca/adventures/kindl_buttress/index.html)

## Guarding Your Data

Kevin Kell

AS WE'VE WRITTEN ABOUT MANY TIMES, we have a lot of automated data collection going on that includes but is not limited to:

- ▶ all-sky camera images
- ▶ radiojove images and audio
- ▶ solar radio telescope data
- ▶ weather webcam
- ▶ weather station

They all used to feed their data directly into a network computer inside the house. Then over the years, the bunnies ate the ethernet cable out to the observatory, not once but many times, etc., etc., so we decided to reconfigure everything to store data on the local computer that the stuff was hooked into and send it to the file server at a later time. This would help out against all kinds of outages and bunnies.

That design paid off again recently when our ~10 year old file server died. It was an AMD Athlon 1.8 GHz with 1 GB RAM. The motherboard died for no readily apparent reason.

One of the things that I really like about Linux was our ability to move the three hard drives out of the old box, into my newer (only 5 years old!) desktop (after removing its drive), powering up and presto chango, in less than 20 minutes, everything is up and running again. No problems with a totally different motherboard, chipset, processor, drivers with all of the above, moving from a PCI SATA drive card to one on the motherboard... no problems at all.

I manually ran the data commands that moved and processed the data from the remote computers to the main one and everything seems back to normal now...except a lot faster as well! I'll have to check that SETI@Home benchmark over the next few days to see how much.

As a bonus I can start shopping for a new desktop computer... ok, not necessarily new, but new-er.

A moral of the story: guard your data (images!), and check your data backup system! Make a data backup system if you don't have one! ★

## THE YUCCA FILAMENTOSA. ADAM'S NEEDLE.

...These are of a delicate creamy white, slightly tinged—as seen in the glare of sun-light—with green; but in the moon-light look like frosted silver. It must be seen in the moon-light to be seen in its beauty; then the plant looks stately, and the silver bells glisten and shine in the soft rays of the moon with a most bewitching loveliness. Yet it is not true that it blooms only at the full of the moon. It is too bad to break the charm that Margaret Fuller has thrown over this flower, holding it spell-bound by the moon, unable or unwilling to open its flowers until she shines forth upon it in full orb'd brightness; yet we have seen a bed of them that bloomed and faded before the moon came to the full, only here and there a flower upon the almost naked stalks to reflect her light; yet it is none the less true that its beauty can be seen in its perfection only if it be in full bloom when the moon is at the full, shining upon it from a cloudless sky, in the soft air of a July night. One stands and looks at it with wondering eye, amazed at the purity of its whiteness, as though some fairy's wand had touched it since the evening hour, transforming its greenish petals to a frost-work of silver, and turning its dull grey filaments into silver threads.

—*The Canadian Horticulturist*,  
Vol. 1, No. 11, November 1878

## Elbow Lake Biological Research Station

Susan Gagnon

JUNE 2ND WAS OPEN HOUSE DAY at the Queen's University Biological Research Station at Elbow Lake. After **Rose-Marie Burke** had mentioned the site as welcoming visitors on a rent-a-cabin basis and that it was probably a dark site, several of us thought it was worth checking out. This facility was a Hewlett Packard staff retreat at one time and is located north of the eastern half of Loughborough Lake. When I asked about a peek at the place it was suggested that I attend the open house in just a few weeks. So...I did.

The photo here is of the largest open space on the site, located between the Nature Centre and cabin 11. The drive that is marked as

passing through this open area is mostly imaginary so it is quite a bit bigger than the map would suggest.

Individual cabins rent at \$36 per night. There are weekly rates and group rates. Cabins have two bedrooms, a sitting room and a bit of a kitchen. All bathroom facilities are in a larger main building but they are of this century! If anyone has an interest in getting there before a group trip could be organized please let us know what you think of the sky.

For more info go to the Queen's website at:

[elbowlakecentre.ca](http://elbowlakecentre.ca). All bookings are done through Steven Lougheed so look for his name on the site.

Thanks to Rose-Marie for filling in the narration of my photos at the June meeting that I missed. ★

