October 2009

Regulus

RASC Kingston Centre

Two passes of the shuttle (STS-128) and ISS as seen from Starlight Cascade Observatory on September 9th. The main picture was taken at 20:10 EDT during the first pass while the inset was taken at 21:41 during the second. This issue's observing reports contain lots of sightings of these (and other) passes.

Imaging System of the Future?

Hal Boden

You don't hear much about 'convergence' these days but I was reminded of it when I purchased a mega zoom camera recently. This combines excellent optics with a computerised imaging system to provide a very compact imaging device. Some recently posted images taken with the Canon SX10 support this, although only for bright objects. The same principles might be used to develop a lightweight, compact astronomical observing combination. I have a Meade 80mm refractor which has two observing ports, one with a Barlow if needed. Using the NexImage camera in one port and the Stellacam in the other would provide a unit for both solar and deep sky observing. Although cumbersome this would provide images with far more detail than is possible through an eyepiece even with some larger telescopes. An example of an image of the Orion Nebula has been posted (*see Hal's images at*: kingston.rasc.ca/gallery.php.) If this combination were engineered into an integrated system then this might become the observing equipment of the future. The expense of the camera would, to some extent, be offset by the lower cost of the smaller aperture optics.★

In this issue:

Upcoming Meetings

Friday, October 9, 2009
Members' Night 7:30-9:30 p.m.

Monday, October 26, 2009
7:30-9:30 p.m.

IYA Public Lecture:
William Harris of McMaster University:
Galileo, Shakespeare, and van Gogh: Creative Reactions to the End of the World
at Stirling Hall, Theatre D

Friday, November 13, 2009
7:30-9:30 p.m.

Annual Meeting & Movie Night
at Chernoff Auditorium
(located next door to Stirling Hall)

Friday, December 11, 2009
Raymond Francis, former member of ESA:
A Perspective of Space Programs Beyond North America

Friday, January 8, 2010
Members' Night 7:30-9:30 p.m.

Meetings are held at 7:30 p.m. at Stirling Hall Theatre "A" on Bader Lane at Queen's University in Kingston, Ontario. Our meetings are co-sponsored by the Queen's Physics Department and include astronomy lectures open to the public.★

KAON Public Observing

Saturday, October 10 7:30 p.m.
Brian Hunter will speak on **"The Galilean Moons"**

Saturday, November 14 7:30 p.m.

Saturday, December 12 7:30 p.m.

KAON (Kingston Astronomy Outreach Network) sessions are held at Queen's Observatory on the 4th floor of Ellis Hall.★

Other Events

Friday, October 2, 2009
RASC Belleville Meeting
Malcolm Park (NYAA) will speak about astrophotography from Chile.

Saturday, November 14
10:30 a.m.-3:00 p.m.

History of Astronomy Jamboree
at Chernoff Auditorium
(located next door to Stirling Hall)★

More info at kingston.rasc.ca

SLOOH.com Update

Walter MacDonald

A REVAMPED LaunchPad interface is now online, as is the high mag scope in Australia. A few minor issues with the scopes in Chile are being worked on, but as of right now it is possible (weather permitting) to image almost around the clock!

NGC 253, imaged with SLOOH's Australia telescope on September 18th (4x5min).

Sound in a Box 4

Sound in a Box 4 (see *Regulus*, May 2009, page 9) can now be heard online at the CFRC radio website. Just point your browser here:

http://cfrcradio.com/blog/index.php?s=sound+in+a+box

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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:

walter2 (at) starlightccd (dot) com

or:

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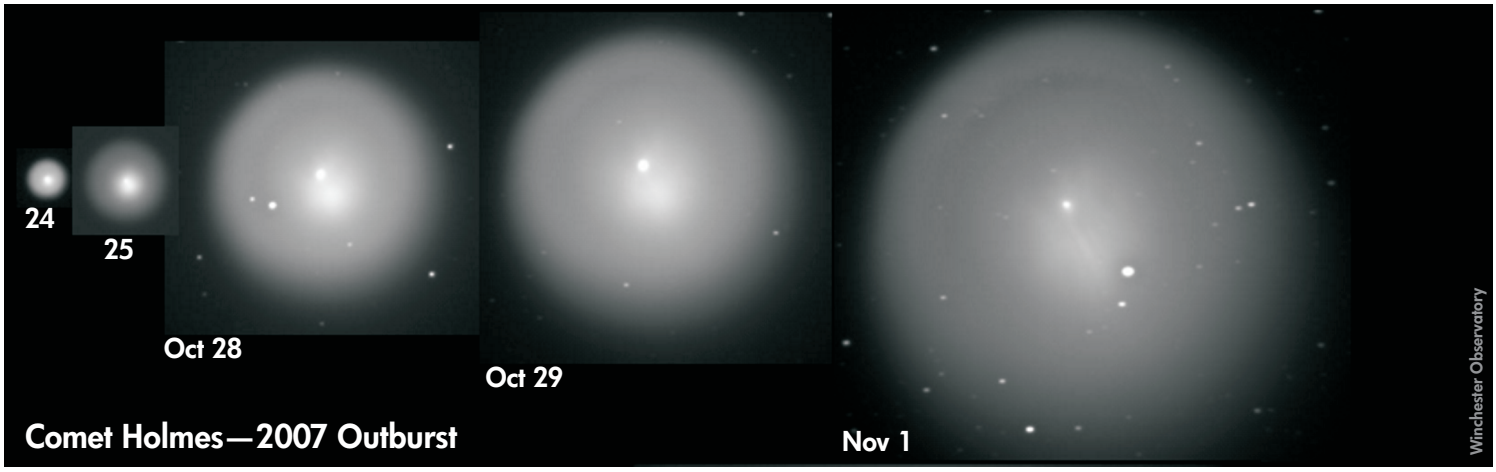
Blast from the Past: Holmes' Comet

THIS REPORT IS FROM the Transactions of the Astronomical and Physical Society of Toronto, *1893, p.10-11, and talks about a presentation given at the meeting held on 1893 March 21, whose attendance was described as being "unusually large," much like the comet it is concerned with!*

"Holmes' Comet" was the subject of the first paper, which was read by Mr. J. A. Copland, who had paid considerable attention to the observation of meteors. Mr. Copland reviewed the history of the comet since its discovery, quite accidentally, on the 6th of November, 1892, by Mr. Edwin Holmes, F.R.A.S., a well-known English amateur astronomer. At first, the visitor, which, almost at once, assumed startling proportions, was identified with the lost comet of Biela, and a German astronomer of reputation having announced that it would probably strike the Earth on Sunday evening, the 27th of November, much popular excitement was the result. But, before that date arrived, apprehension was removed by the discovery that the comet was really receding from, and not approaching, the Earth. The interest in the comet was heightened, however, by the magnificent meteoric displays witnessed in many places on Wednesday evening, the 23rd of November. Mr. Copland said that the chief point of radiation seemed to lie in the constellation of Andromeda, approximately ten degrees East and four degrees North of the position of the Holmes' Comet at the time, and that a noticeable feature of the rich shower was the paucity of really brilliant individuals. Some Toronto observers calculated that the numerical rate of fall was about twenty per minute. Professor Young, of Princeton, N.J., counted the meteors shooting downward at the rate of one hundred in four or five minutes; and, in his report, he calculated that within his range of vision the total number which fell during five hours was over thirty thousand. Other observers recorded from fifty to sixty every five minutes. This would correspond to a deluge of four hundred million meteors descending upon the half of the Earth's surface turned toward the radiant. If each meteor be averaged as being fractionally over one cubic inch in bulk, there was a mass of thirty-four million cubic feet of matter deposited upon one hemisphere of the Earth, which, it was calculated, must have moved across a meteoric stream three hundred and sixty thousand miles wide. In the course of his paper, Mr. Copland discussed the peculiar variation in the brightness of the comet, referring specially to the outburst on the 16th of January, 1893; its orbit, its period, it having proved to belong to Jupiter's family, and its connection with a meteoric stream having, apparently, a shifting radiant-point. The paper was illustrated by several large diagrams, carefully drawn to scale, and was deeply interesting and instructive. ★

Holmes' Comet and the Andromeda Nebula on 1892 November 10. Source: *A Popular Guide to the Heavens*, by R.S. Ball, 1905.



The discovery of this comet by Edwin Holmes was made possible by a bright outburst like we saw in autumn 2007. In 1892, it reached naked eye visibility (magnitude 4-5) for several weeks. The comet was seen at the 1899 and 1906 apparitions, lost until 1964, and observed at every apparition since then. In 2007 it brightened from mag 17 to mag 3 in less than 2 days and remained at naked eye brightness for several months.

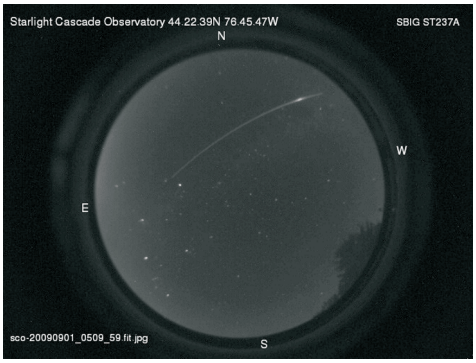
September Observing Reports

Various Members

August 31/September 1

Kevin Kell: This morning at 05:09 there was a nice pass of the ISS & Space Shuttle STS-128 (the shuttle is presently docked with the station) with a 65° maximum altitude. This image is from the all-sky camera, new and improved with the dead bugs vacuumed out!

I am beginning to think that the new solar panel orientation since the last module was attached will always be giving us some kind of mid pass flare.



Kim Hay *rebuts*: And to think some of us...umm, I, was out looking at it, while others observed from a window, tsk tsk...

It was a great morning to be out, though I did not get out as early as I wanted. I did do a visual obs of rho Cas, and saw two meteors—one was an early September Aurigid, the other a sporadic.

I took some SQM measurments and 21.09 was the average of two—one the older version and one that I borrowed from the RASC that has a narrow field of view.

Awesome morning...

Kevin Fetter *was out too*: While playing back the video from last night, a flashing satellite passed by: it was TIROS N (catalog number 11060). So a nice sat to observe in binoculars.

I was tracking the USA 202 rocket, to see how it was flashing. It gives a magnitude 7 flash, every ~3 minutes.

Before going into work, I observed some magnitude 7 flashes from the Gorizont 31 geo sat (#23775). It gives a flash every ~90 seconds.

Mark Kaye: Heartened by this news of new spots, I put the solar filter on and had a look. I could not see any spots. I could see surface granulation on the limbs, so I had focus, but I could not find any spots at all. Just a rumour...

Kim: I checked at lunch, but could only see a disturbance where the spot was reported. Yesterday at 12:15 (16:15 UT) it was not there, but at 18:17 UT it was seen. My hopes are dashed again... Good for you Mark, going out to observe.

I came home and tried all the coloured filters I have, and did not detect anything, it is definitely gone... A friend of mine could not see it in his CaK scope either.

September 2/3: Jumpin' Jupiter

From 12:43 (III TrI) to 2:29 a.m. (I EcR) Jupiter appeared moonless. As **Geoff Gaherty** *noted*: Between the e-mail circulating about Mars being as big as the Moon and the people who are convinced that Pluto is no longer part of the Solar System, it's worth emphasizing that all that's really happening is that Jupiter's moons are all hiding behind or in front of the planet, but are all still there.

Kim: We went out early around 9:20 p.m., and looked at Jupiter, it had two moons, Ganymede and Io. I went out at 2:30 a.m. (6:30 UT) Sep 3 and with the binoculars (18x70s) and observed no moons around Jupiter; it appears the Io was coming out of shadow by Geoff's note, but I did not see it. Of course the Moon was very bright, and there was a lot of dew; this morning we have heavy fog.

Kevin K: Kim & I went out around 21:20 EDT and looked at Jupiter in the 20cm scope...two moons were visible. It turns out that Europa and Ganymede were very close together on one side and Io was on the other side. I couldn't resolve the two on one side...they were that close. There was lots of haze and humidity last night as all of the fog that came up this morning showed.

Hank Bartlett: Europa and Ganymede were easily separated at the SGO last night in both the Celestron 9.25" Schmidt and the small apo.

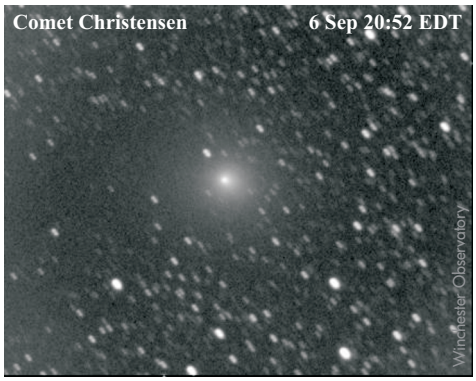
Walter MacDonald: I was watching through the evening on slooh.com and saw the two moons on one side and one on the other as they gradually closed in on Jupiter. The Great Red Spot was scooting across the disk during this time so all in all it was a great show, by Jove!

Tim Seitz: Do you think the moons might have been obscured from our perspective because the Moon and Jupiter were so close and further to that also because of what artifactual residues might have been afloat in our atmosphere?

Walter: There was definitely lots of moisture in the atmosphere last night, and that plus a fullish moon is never a good combo transparency-wise. However Jupiter appeared moonless simply because the moons were either in front of, behind, or in the shadow of Jupiter. This happens rarely enough to make it a bit of an occasion.

Kim: Next time this will happen is in 2019...so you snooze, you loose.

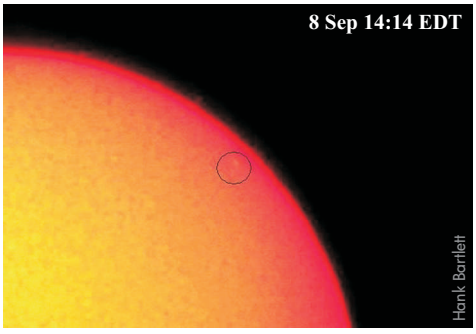
Always check your Handbook or the RASC Calendar for events that will happen. Those in a green box are items we can see.



September 7/8

Walter: Last night I watched ISS go by; this morning, at the end of astronomical darkness, I did a visual estimate of the brightness of epsilon Aurigae. It was not easy with the moonlight and haze: the mag 3.8 was close to the visual limit. Once the moon has waned some more, doing visual estimates of epsilon will be much easier.

Kim and Kevin *were out and although they had the camera mis-pointed for the first pass, they got this nice image of the second pass showing the ISS/shuttle coming out of Scorpius.*



Hank: Hey gang, get out there if you can and get a quick look, oops, its probably gone tomorrow. There is an active region but it is on the west, not east, side.

I originally touched up the image and started to write this thinking we will have to keep track of it, then I remembered to mirror flip the image if I want it to be right, dang.

I didn't see this visually but when they showed it on spaceweather I had to click off a few images just to document it.

The ISS/shuttle duo's pass on the evening of September 8 was partly obscured by clouds in the Kingston area. **Randy Attwood** *reported on RASCals that the two spacecraft were 50 miles apart and that the separation was increasing by 15 miles per orbit.* **Kevin Fetter** *reported a very nice view of the pass also, and he managed to get a picture as well.*

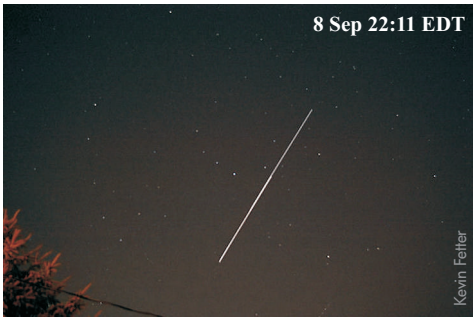
Hank: I don't know which was which but the two were popping in and out of the clouds. I would assume that the ISS was leading. Too bad there were clouds but it also gave a cool effect as they appeared and re-

appeared, one would fade, the other would light, then that would fade, and the first would light.

Kevin K: There was heavy intermittent cloud here but we did catch glimpses of the shuttle/ISS passing over at 21:19 EDT.

Walter: I was on my way back to Winchester from Petawawa this evening and driving east on highway 43 at 20:52 I first caught sight of a huge, dark orange moon. ECU tells me that at this time the moon was 53 arcmin in altitude in Winchester, so was probably slightly lower than this at my actual location (several kilometres west of Winchester) at that time. The moon was directly over the highway for the last five kilometres or so into Winchester and I was able to watch it gradually rise higher. It was almost as good as a lunar eclipse!

I arrived back in Winchester around 21:00, in plenty of time for the ISS / shuttle pass. My cousins and I stood



on the 2nd floor porch and the shuttle and ISS appeared at the predicted time, almost 5° apart. We were wondering which was which but then the following object got much brighter than the leading one, so we then figured that the bright one had to be ISS. They both faded from view almost due north shortly after reaching their highest altitude. As usual, seeing ISS and the shuttle as twin "stars" was quite spectacular!

Kevin F *comments:* The shuttle was

the one in the lead. After the undocking and fly-around of the ISS, it heads away from the ISS, and so leads it across the sky. *He also notes that the angle between the observer, sun, and object in orbit has a big effect on the observed brightness of the object.*

Back to solar, **your editor** *comments*: Wow, you solar guys are getting really desperate for some sunspot activity, aren't you? Perhaps there is a new line of business here for the folks at the Betty Ford Clinic...

Susan Gagnon: Sad but true. The thing is that when you look back through old sketches with spots that trail all across the disk it is almost unbelievable these days.

Walter: Perhaps I should run a contest in *Regulus* like Leo used to do on occasion:
I am so desperate to see a sunspot that I would be willing to _____.
There might be some interesting answers! Hopefully participation in the contest would not be *spotty*, and might attract the participation of some people of *prominence* who would show great *flare* for their work. At any rate I am sure it will be a *gas*, with many *stellar* replies.

Hank: OK Walter, if anyone needs clinical help it may be the editor himself! You are too funny. Hank is so desperate to see a sunspot that he would be willing to extend his lunch time to 4 hours from 2¾!

Kim: Went out at lunch, with scope on mount, and 82A blue and 58 green filter and did not see any evidence of sunspot, or disturbance activity...still spotless...

Hank: I got your message when I got out of the "pool" (24.5C) and took a

look. There is some prominence and "maybe" surface activity but it is on the west edge now. I am going to upload the images to the computer and take a look this afternoon. Oh well, back to the grind.

Kim, you were so right, nothing, plain as desert sand. What a blah Sun, even the few prominences were tiny. When will it all end? What will we do without our sunspots? Walter lead us somewhere!

September 9/10: More ISS/Shuttle

Kevin F: I was setting up my stuff, and was aimed at Altair. Shortly after a bright star passed by it. I looked up, and thought it was the space station. But then I observed another bright light, this time the ISS. What a nice view, of the shuttle and ISS passing across the sky. Here I wasn't planning on observing them, and they just happened to pass by.

Walter: Wow, another great duo going by tonight! Was there a fuel dump or something? I had 10 people out watching (I even corralled a passerby when it became clear he was

going to walk through us without stopping to see what we were all gawking at!) and most of them said there was a flare, but of course it was at a moment when I happened to be looking elsewhere, darn it! I hope someone was taking pictures!

I think I'll give the 21:42 pass a try tonight as well. Here's hoping the weather in Florida is bad tomorrow so we can watch the duo again tomorrow night too.

Kim *and* **Kevin K** *were out tonight too, and Kim saw the shuttle flare up.* **Kevin F** *was out too for another satellite observing session and caught the duo serendipitously.*

Walter: I just observed the 2nd pass tonight—much shorter than the previous one. The shuttle seemed to go a few degrees further before reaching invisibility than ISS did. They both faded out near the end star of the Big Dipper's handle.

Hank: What I saw, apparition or not, was a long fuzzy hook shaped glow coming from the first (shuttle?) and following it as it moved. This did not show in the image, did anyone else see this? Was this a fuel dump like Walter spoke of earlier?

Walter: My neighbour was watching in binoculars when the dump occurred—he thought something bad had happened to the shuttle!

Kevin K: Yes...we saw the comet shuttle as well... at first thought it was low ground fog, then far away ground fog...but the ISS did not have the fuzzy curving hook.

Kim: Watched the ISS come out of Scorpius. Then the Shuttle seemed to pop into view. I caught the flare of the Shuttle. I followed both till they went in to shadow.

We saw the second pass as well. The hook on the shuttle was really cool, not seeing a dump before. This pass was not as bright as the first one, but it was amazing how the trajectory

had changed from the first path to the second.

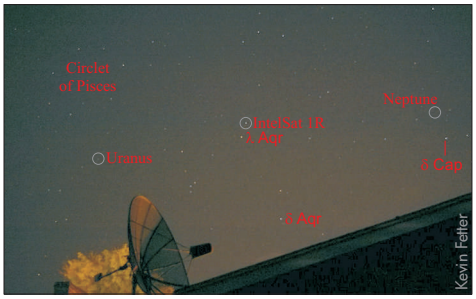
Hank: Thank goodness, I was about to become an abstainer!

September 10/11

Mark: Last night, at 02:34±1 minute, I observed a bright meteor falling towards the east roughly parallel to the shoulders of Orion. Did your camera catch anything at that time? Since I was driving, it is hard to give a more accurate report. It was quite near the Moon, below her and a bit to the north, but I could see the glow of her when I leaned forward to see if any stars were visible and I did notice that the meteor lit up the haze of the clouds. It was a very fast meteor and just a bit blue. The colour may be from the tint of the windscreen, however.

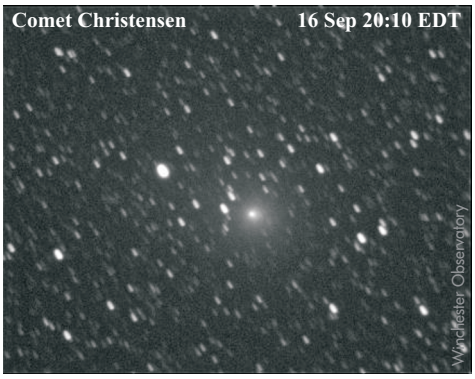
Kevin K: We now have snapshots of the latest uploaded to the website every 5 minutes throughout the night. This is mainly as an aid to see if it is clear or not. It overwrites the previous starlightcascde.ca/concam/

The night's run is processed after sunrise and uploaded, so it should be available online around 8 a.m. or so. Right now I checked around your time but the bright moon combined with lit up cloud did not show anything. They are two minute exposures with no iris on the lens—one of the deficiencies in the design. The next all-sky camera will have shorter exposures, a more sensitive camera, and an iris so it can work in the daytime as well.



September 12/13

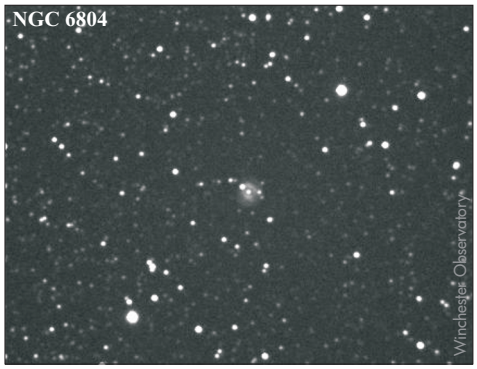
Kevin F observed a naked eye (4th magnitude) flare of IntelSat 1R (26608) at 02:05 UT.



September 16/17

Walter: Wow, what a nice night! Clear, calm, and the transparency is excellent. I assume that is why the e-mail list has been so quiet this evening!

I fired up the dome and imaged Comet Christensen and also the planetary nebula NGC 6804, then commenced my variable star run—a whole whack of Mira stars that I had not imaged for 10 days. After a quick 20 minute nap, I headed out to the Merry-Go-Round Observatory in the backyard and observed with the C8. Quite by accident I noticed a bright satellite move across Ursa Major and fade out in the bowl—a later check of Heavens Above showed it was indeed ISS as I had suspected. A few minutes later I found Comet Christensen in the C8—not as bright as in the 17.5" a while back, but still nicely fuzzy with a nice stellar condensation.



Next I hunted down NGC 6804 and it was easily seen thanks to its decent surface brightness. Since I was in the vicinity, I decided to look at one of the local gems: NGC 6781. I found it with little trouble; it was a big, round ghost of a thing, having a much lower surface brightness than NGC 6804. Again, the 17.5" does a much nicer job with these objects, but I just wanted to give the ol' C8 a bit of a workout. Moving north, I stopped at M71 briefly before moving on to M27. The C8 does a great job with these two objects and they never fail to impress!

Jupiter was firmly embedded in the neighbour's apple tree, so I finished off the session with three more deep sky objects. A quick stop at NGC 7331 was rather disappointing—guess I've been looking at CCD images for too long! No point trying Stephan's Quintet then... My penultimate stop was at the Blue Snowball, NGC 7662 and it was very nice as usual, thanks to its very high surface brightness. I even tried the UHC filter with it, and it seemed to make the centre darker. In my lowest power eyepiece (36x) it looked like a slightly out of focus star in a field of focused ones—I have always liked that kind of view of certain planetaries. Dropping down a couple of degrees, I tried to spot NGC 7640 (not surprisingly) without success. Oh well, you have to test the limits once in a while.

At 23:04, as I was wrapping up my session, I saw a nice long moderate-speed 2nd magnitude meteor going east through Aries with a nice terminal burst.

September 17

Kevin F *recorded video of the Meteor satellite passing by (following three fainter satellites!), which had just been launched on a Soyuz rocket on the 16th.*

September 18/19

Kevin F: I setup my stuff, and observed the pass of the recently launched Nimiq 5 geo sat. It was over 12000 km away, at the time. It's in a geo transfer orbit, now to watch the orbital data, as they start to raise it, to geo-synchronous orbit.

Kim Hay: My observing moved to the morning of the 19th. I observed rho Cas, epsilon Aur, M42, and Venus which is in Leo now right beside Regulus. The temperatures dipped to -2C can you say...what the he**? It is time to bring in the rest of the harvests. It's going to be colder tonight, so it will be clear for once.

Walter: I got up this morning at 4 a.m. to have a pre-dawn session with the C8. Looking out the window I could see some bright cloud on the south horizon, but it was otherwise clear. A few minutes later I was standing in the back yard and half the sky was covered with fast moving fog—chunks of it would cross the whole sky in just 20 seconds! A few minutes after that the whole sky was covered and the fog started descending to ground level. So I went upstairs and shut down the CCD run in progress. Oh well, maybe tomorrow night will be clear all the way through.

Kim: Fog was very evident this morning. After coming home from our Lake Ontario event, I managed to take two variable star estimates, since I figured I would miss the morning 5:00 a.m. observing...

Lake Ontario was a great event, and I will let Susan do the report, but without her organizational skills, humour, and letting things roll off the shoulders, it might have been chaos. It was a great night, thank you Susan.

For anyone who knows Pascal: he defended his thesis on Friday, and now is a Ph.D. He will be staying in Kingston for one more year, with some research money and will be doing research. I cannot remember what his thesis was on, but there was a lot of talk of dark matter and black holes.

It was down to -1C this morning; I did not see frost...

September 20
Spotting a Spot on the Sun!

Kim: Dare I say it...there is a sunspot. It has rotated onto the sun in the lower southeast quadrant. It's not numbered yet, however this may be the one they were talking of in early September which was due to rotate into view today. Yesterday it was not there.

Lets keep our fingers crossed. Check out www.spaceweather.com and see the great image taken by Pete Lawrence of Selsey, UK. I managed to view it between the clouds...

Hank: YES, how dare you! And right you are: I saw it too! I tried to get an image but the clouds would not go away long enough to get a conclusive one. It definitely looks just like Pete Lawrence's image. Get out there everyone.

Mark *adds*: It figures that the first rainy day in a month, there is a Sunspot...

September 20/21

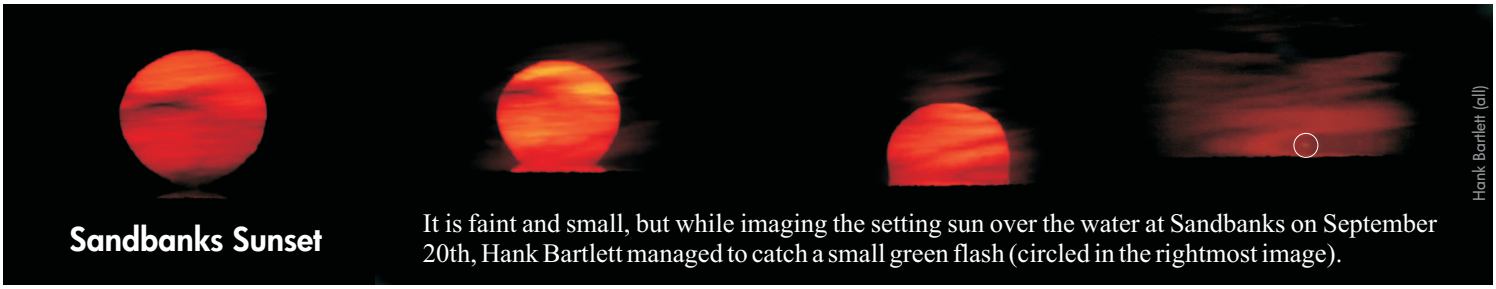
Walter: I observed with the C8 and binoculars from 04:15 to 05:30. The transparency was very good—we're so lucky to have a couple of transparent nights in one week. I could get used to nights like this! It was great to see the winter constellations again. With the C8 I observed M1, 42/3, and 35 (along with NGC 2158 of course); with binoculars the Hyades and neighbouring open clusters NGC 1647 and 1746. Mars was just one degree from the R Geminorum field which was neat—and not so close as to interfere. The finale to the session was the very nice Venus-Regulus conjunction, which I was able to see from the backyard thanks to my neighbour cutting down his big willow tree last winter.

September 22

Hank *reports that there are now two sunspots visible*: Hey another one...it must be going to be cloudy for a week!

September 26/27

As noted in the **Fall'N'Stars** report (page 9) it was a cool, clear night. **Your editor** concluded his observing for September (since Hank's clouds wiped out all the nights after this!) with a pre-dawn session observing some deep sky objects and variable stars with his C8.★



Hank Bartlett (all)

Sandbanks Sunset

It is faint and small, but while imaging the setting sun over the water at Sandbanks on September 20th, Hank Bartlett managed to catch a small green flash (circled in the rightmost image).

Fall'N'Stars 2009

Kevin Kell

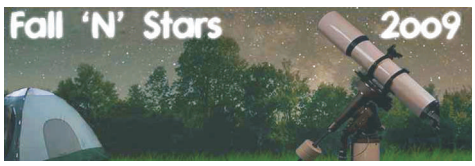
Fall'N'Stars, the annual star party co-hosted by the RASC Belleville and Kingston Centres, has come and gone this past Friday-Sunday, September 25-27, 2009. This was our 10th star party and we did manage a night of observing on Friday night accompanied by cold, dew and frost.

Friday saw many solar observations with both H-alpha and Baader film filters. We also managed to get in a low level pass of the International Space Station and a -2 magnitude Iridium flare to add to the night.

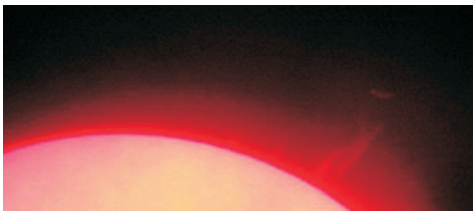
A big hit was the -10 magnitude fireball with a terminal flash in the west around 21:03:10 Friday evening (September 25). Most had time to see the light and turn to see it blow up just around the western tree line. No images were taken unfortunately.

The entire event was 2-3 seconds and ended about 15-20 degrees altitude. No train, no trail, no sound afterwards. As more reports come in, it appears that many centre members saw this.

Saturday morning saw frost on the ground, on telescopes and anything else left out in the open. During more solar observations later in the day we found a huge solar prominence that was estimated to be 10-15 Earth diameters tall. Breathtaking!



Above: Many of the participants at Fall'N'Stars 2009. **Right**: A very nice solar prominence that was observed on Saturday afternoon.



We took apart a few power packs to find out why they failed so early during Friday night's observing, only to find in most case, the lead acid batteries were cracked.

Talks on Saturday afternoon included John Crossen (Buckhorn Observatory), Dave McCarter (RASC London Centre), Doug Angle and Kevin Kell (RASC Kingston). We had more members from the Peterborough Astronomical Association and ended up with about 31 registrants in total.

The clouds were coming in but the rain held off until late evening, which was quite nice.

We took the group photo late in the afternoon. A catered dinner ended Saturday afternoon and was delicious as always. A 10th anniversary cake was desert and then we counted up the ballots for the photo contest and the winner was Greg Lisk. He received a Meade LPI camera donated by Mark Coady. Steve Fritz walked away with the raffle prizes donated by Hank & Di Bartlett.

We went around the entire room once for door prizes and started in on the 2nd round before we ran out.

Rain continued throughout Saturday night and all through Sunday morning. Bummer. We packed up, locked up, and headed out late in the morning. We are looking forward to Fall'N'Stars 2010!

Thanks to the Fall'N'Stars 2009 chair, Kim Hay, to the organizing committee from Belleville: Joanne Burns, Joe Shields, Les Dempsey, to the organizing committee from Kingston: Susan Gagnon, Hank Bartlett and Kevin Kell, and also to Mark Coady, representing the Peterborough Astronomical Association.★

Some pictures of this event have been posted to the "Images" section of the Centre's website.

KAON Report: September 19

Kevin Kell

Setting up for September's special KAON event.

Our special KAON event down at Lake Ontario Park on Saturday September 19th went well. It was moved from the regular 2nd Saturday to the 3rd Saturday, for reasons that we really don't remember anymore, almost a year ago. It was meant to be a telescope extravaganza of over 20 telescopes out in the public where we went out instead of the public coming into Queen's.

The event kicked off at 18:30 EDT with some outdoor observing of the sun (with solar filters) until it set around 19:08, followed by a talk on Solar Cycles by **Gregg Wade** (RMC) from 19:45 to 20:30. After that it was stellar observing until people went home. We had approximately 115 people at the talk in the pavillion and those and another 40 or so at the telescope viewing for a grand total of 155.

Thanks to **Kim Hay, Brian Hunter, Doug Angle, Susan Gagnon, Steve Hart, Judith Irwin,** and **Vic Smida** for coming out in support and those from Queen's and RMC, including **Melanie Hall, James Silvester, Pascal Elahi, Gregg Wade, Terry Bridges** and **Stephane Courteau** among others who I didn't get to meet. **Ken Kingdon** also helped out as did one or two members of the public who brought scopes.

Primary targets were Jupiter and its moons, M13 in Hercules, Sagittarius, and the centre of the Milky Way Galaxy. By 22:30 the last of the crowds had gone and we started packing up the telescopes, including the 60-cm Venor telescope from the Centre. The wind was quite active coming off the lake for most of the viewing but otherwise the weather was very, very good. The 64-second image of Sagittarius (below) shows how nice the view was, especially down to the horizon.

We only managed to get six telescopes out, plus a couple more that we didn't expect, which was a little disappointing; we made up for the lack of scopes with sky tours and binoculars added into the mix of a mostly whole new crowd of people. We handed out 50 complete kits of *SkyNews* magazines, red filters for flashlights, star charts, *What's Up?* and more.

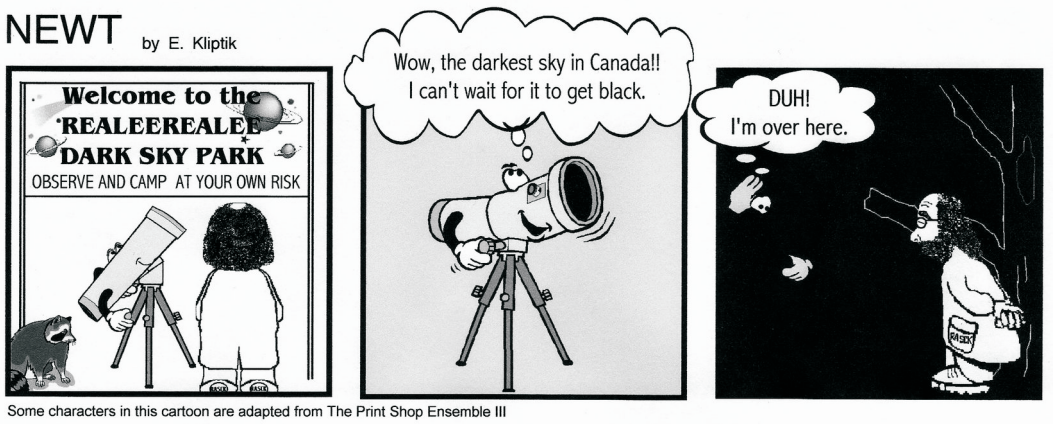
KAON sessions now return to the 2nd Saturday of the month, starting at 21:00 local time, for the rest of 2009. ★

Kevin Kell (all images this page)

Solar observing started the evening.

The pavillion was the setting for a talk on Solar Cycles attended by over 100 people.

Sagittarius.



Some characters in this cartoon are adapted from The Print Shop Ensemble III