

Upcoming Meetings

Saturday, March 9 7:30 p.m.

KAON Observing Session
Dr. Terry Bridges (Queen's University)
Misconceptions About The Universe

Monday, March 18 7p.m.

Regular Meeting
Tom Field of Field Tested Systems
You Can Almost Touch the Stars
See outline & speaker info on page two.

Fri/Sat, April 12/13
Observing at Elbow Lake

Saturday, April 13 9 p.m.
KAON Observing Session

Note: No meeting on April 15

Meetings are held in Room 324 at Ellis Hall on University Avenue at Queen's University in Kingston, Ontario. **KAON** (Kingston Astronomy Outreach Network) sessions are held at Queen's Observatory on the 4th floor of Ellis Hall. ★

EDITOR'S NOTE: This issue of *Regulus* is a few days late since I was busy with other things, including two consecutive clear nights on the weekend of March 16-17 (not that I'm complaining!) right when I had hoped to finish this issue and get it out the door. On the upside, observing reports are right up to the moment.

The 2012 Geminid Meteor Shower on December 14th

WE COMPLETED NEW CODE to process all of the nights' imagery from the allsky2 camera system. Currently its own ASGARD software identifies meteor-like images and stores them. The last 7 days of these can be seen at starlightcascade.ca/allsky2

The problem is, it generates a lot of false positives, mainly from car headlights driving by. So last weekend we went through 5000+ images and manually selected only those real meteor events (and then only the brighter ones) and put them into a

"specialevents" folder for more processing. What the new code does is to combine the entire night's image run into one single image, for easy recognition of meteors, and even better, fireballs. The process runs automatically, generating one summary image for each night, from the entire history of images, updating daily: starlightcascade.ca/allsky2/specialevents

In the image above, the series of bright dots are stars in their paths as the night goes on; the brightest is **Jupiter**. North is down.—Kevin Kell.

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Reports and Other Items

DAVID LEVY UPDATE

Plans for David's speaking tour are moving forward steadily. He will be speaking in Kingston on June 3rd at 8 p.m.; after his introduction by Terry Dickinson, David will give his talk on *Visual Comet Searching: A Requiem?* This will without a doubt be the premier event of the year for Kingston Centre and continues a long tradition of grand meetings with our Centre's Honorary President.

DAVID LEVY UPDATE II

There is a RASC web page for David's speaking tour: rasc.ca/david-levy-speaking-tour-2013

NEW CENTRE MAILING ADDRESS

Please note the Centre's new mailing address given on page two. This will change from time to time in the future. The Centre is giving up its PO



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

box as a cost-saving measure.

COMET C/2011 L4 (PANSTARRS)

There have been lots of obs from our members, and Hank had one of his images on The Weather Network website. See more on page eight.



About Our March Meeting

Kevin Kell, Tom Field

THE CENTRE'S UPCOMING REGULAR MEETING will be held on Monday March 18th, 2013 at 7:00 p.m. in Ellis Hall Room 324. We will be using a new and different web video-conferencing technology (driven by the speaker) and are not sure at this time if we will be able to simultaneously use anymeeting.com to either stream in realtime or record the talk.

Our speaker will be **Tom Field** and his talk is titled "You can almost touch the stars." He has provided the following outline of his upcoming talk:

Even if you wanted to touch a star, they're impossibly distant. But despite these great distances, researchers have learned a great deal about quite a few stars. How? The most common method to study the stars is called spectroscopy, which is the art and science of analyzing the colorful rainbow spectrum produced by a prism-like device.

Until recently, spectroscopy was too expensive and too complicated for all but a handful of amateurs. Today, though, new tools make spectroscopy accessible to almost all of us. You no longer need a PhD, dark skies, long exposures, enormous

aperture...or a big budget! With your current telescope and FITS camera (or a simple web cam or even a DSLR without a telescope) you can now easily study the stars yourself. Wouldn't you like to detect the atmosphere on Neptune or the red shift of a quasar right from your own backyard?!

This talk, with lots of interesting examples, will show you what it's all about and help you understand how spectroscopy is used in research. And, it will show you how to get started.

Tom Field of Field Tested Systems and is a Contributing Editor at *Sky & Telescope*. Tom's first article in the magazine appeared in August 2011 on the topic of spectroscopy. He's the author of the RSpec software (www.rspec-astro.com) which received their "Hot Product 2012" award last year. Tom is a popular speaker who has spoken at many different venues, including NEAF, the NEAF Imaging Conference, PATS, the Winter Star Party, the Advanced Imaging Conference, SCAE, and others. His enthusiastic style is lively and engaging. He promises to open the door for you to this fascinating field! ★

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)
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or:

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The Kingston Astronomy Outreach Network (KAON) held an open house at Queen's University Observatory on Saturday, February 9 starting at 7:30 p.m. EST. **Nathalie Ouellette**, the observatory coordinator was there along with her assistant **Jonathan Sick** and faculty member **Stéphane Courteau** was also on hand. Many thanks to Jonathan for doing the back-breaking snow shovelling of the observing deck. (Plan B had been to take the telescopes down to the sidewalk, but it turns out that the sidewalk had not been cleared either.)

The evening's talk, *Super-stars: The Dramatic Lives (and Deaths) of the Giants in the Sky*, was by Mr. **Alexandre David-Uraz** (Queen's University). Kim reports that he gave a great talk to 120 people in Ellis Hall 324, where all 80 seats were occupied, plus another 40 standing around the walls of the room! It was an amazingly great turnout yet again.

We had a table of freebies to hand out including: starfinders, journals,

Skynews, *Mary Lou's New Telescope*, how to become a sidewalk astronomer, solar and galactic trading cards, light pollution cards, red flashlight material, and rubber bands, Centre business cards, and more. Very little if any material came back home.

Out on the deck, **Laurie Graham** and son Devon with their 20cm Meade, **Susan Gagnon** with her just short of 4" SC, and **Kim Hay** and myself manned the 20cm Fitzgerald Dobsonian. We did manage to make the modifications in time beforehand, removing the Teflon altitude bearing pads and replacing them with sticky felt pads. It did make a noticeable difference, but it could still use more friction. Perhaps some kind of quick release hold down or spring.

Heavy haze had moved in and our only targets of opportunity were **Jupiter** and its moons (from outside to inside) **Ganymede**, **Europa**, **Callisto**, and **Io**; and **M42** in Orion and **M41** in Canis Major

There was not a lot of room on the

deck, maybe 20 people at a time for the three telescopes, and room for maybe 15 people in the dome upstairs with the C14, so we ran a little overtime, cycling people through various stages.

The deck was surprisingly warm even though it should have been freezing cold. At 20:00 EST last night it was -19°C in Yarker with no wind. In Kingston there was some wind from the east as seen on the steam plant exhaust, but we felt nothing on deck and were almost comfortable working without gloves or headgear. We arrived back home to -21°C and falling. Sunday morning turned out to be -26°C . What was the temperature on the observing deck? The nearest weather station was at the Kingston Yacht Club, who reported -9°C during the observing run. At 22:00, Kingston got down to -12°C , showing the not-yet-frozen lake's huge influence with at least a nine degree difference between Kingston and Yarker—normally only a five degree difference. ★

L&A County Dark Sky Viewing Area Wins Provincial Award

MEGHAN BALOGH, NAPANEE GUIDE
2013 FEBRUARY 14:

A tourism initiative spearheaded by community members and staff at Lennox & Addington County has received provincial recognition. At last week's Economic Developers Council of Ontario (EDCO) annual conference in London, Ont., the L&A Dark Sky Viewing Area won a provincial marketing award. The Dark Sky Viewing Area was named the 2012 Tourism Infrastructure Award winner at the event. This award recognizes organizations that have developed, designed and implemented new initiatives or best practices to foster tourism growth.

"We are thrilled to receive this award," stated Lennox & Addington



County economic development manager Stephen Paul. "The Dark Sky Viewing Area has been a huge success and has drawn astronomers from across Ontario to L&A County. This award recognizes the uniqueness and success of this project."

Expert judges reviewed all of the marketing award entries that covered everything from promotional brochures to infrastructure development projects. EDCO is Canada's largest

provincial economic development association with close to 600 public and private sector members.

The L&A County Dark Sky Viewing Area is the most southerly point in Ontario where the night sky is so pristine, offering a night sky experience very similar to what was available more than 100 years ago. The site includes a large concrete pad for camera or telescope setup, or placement of lawn chairs for general stargazing.

While the L&A Dark Sky Viewing Area is ideal for both professional and amateur astronomers and astrophotographers, it is designed for anyone wishing to observe the natural wonder of the stars.

For more information please visit DarkSkyViewing.com ★

The Kingston Astronomy Outreach Network (KAON) held an open house and lecture at the Queen's University Observatory on Saturday March 9, 2013 starting at 19:30 EST. Terry Bridges gave a talk titled "Heavenly Errors: Misconceptions About The Universe."

Kim Hay and **Kevin Kell** manned the 20cm Fitzgerald telescope on the deck and **Rick Wagner** joined in with his 20cm Dobsonian as well. **Rose Marie Burke** also came out on to the deck for a time. It was partially cloudy with a few better clear times here and there. **Jupiter** was the primary target tonight to over 150 people(!) including a group of 20 cub scouts who arrived on the observing deck like an oncoming tsunami! The telescopes survived however. A university residence Don also brought her floor of students out, helping to contribute to the massive numbers.

Nathalie Oullette (Observatory Coordinator) ran the Celestron 14" scope to group after group of people while **Stephane Courteau** showed up to help manage the crowd control and gave impromptu talks in the warm room for the group waiting to go upstairs.

Many thanks to Rick for showing up with a second telescope. It was a long night as it was, as we did not head home at the expected 9:00 p.m. start time, but actually after 10:00 p.m., and not getting home until near 11.

We had a brief discussion with Stephane about storing a second Dobsonian up there, the club's 20cm Barney scope, so that volunteers will not have to lug a telescope up to the observing deck. He informed us that he too was looking to put another scope out on the deck, perhaps another newer Meade or Celestron Schmidt Cass, with working electronics. The older LX200 has seen better days and its paddle interface is



even more confusing than the new ones. We suggested a Celestron, so that it would have the same controller as the 14" in the dome, allowing better familiarity with it. Also the event is seeing signs of distress at its own success. The last few months have seen continuous full houses in 80 person capacity lecture room of Ellis 324. There is a distinct lack of manpower on both sides and it seems the event would need at least five (one in the dome, one in the warm room, two with scopes on the deck and another floater to guide folks). That's a lot of people for a monthly event.

Historically we have been keeping records since November 2003 (a big kickoff event with a total lunar eclipse I believe, with 300 people showing up). Since then it has been a solid ten years of monthly events (with a few exceptions for renovations, etc). We had participated in irregular Open Houses as far back as 1995 but they were not nearly so frequent.

There is no news on the Torus scope moving anytime soon. It is still in the warm room gathering dust.

ROSE-MARIE: It was indeed a busy night! I made sure I got down there early to get a good seat, came in the



room at 19:10 and there were already about 20 people seated. After 19:15 there came a continuous stream of people like wildebeasts crossing the Serengeti. The speaker had some frustrations with a laptop that had a mind of its own, but the atmosphere was light-hearted and in spite of the delays of a cantankerous PowerPoint presentation the message came across with some good humour in between. Some of the comments from little boys in the audience were entertaining. When the talk ended and the herd hoofed it up the stairs I took my time so as not to get trampled in the stampede. Coming out of the room I found some people browsing over the freebies table, looking puzzled at the cardboard planispheres. That gave me to opportunity to talk to them and show them how to put the two pieces together and line up the date and time to see what constellations were visible on any given night. (Y'all will be happy to know that I did refrain from calling them "spinnies.") I headed up to the deck, navigated through the mob waiting in the hallway waiting patiently for their turn to look through the big scope, and out into the dark where two lines had formed to look through the two scopes. Kim and I admired Rick's telescope. I stayed for a while to help chat with people and point out a few constellations now and then, but the dampness was getting to me—still a wee bit of the effects of a recent cold lingering. My hat's off to Kim who braved the event while still battling this sinus-battering illness, she gets extra points.

Susan Gagnon: It is good to hear about the great turn-out, and I'm glad to see you dressed warmly. Thanks to all who worked the deck! I agree that those numbers without adequate volunteers are difficult. Sorry I missed the night, was a bit bagged from the day of travel on Friday. ★

FRIDAY, FEBRUARY 15

This was a big day! First the ½ megaton meteor blast over Russia, and then the flyby of asteroid 2012 DA:

Brian Hunter: We (the Space Geodesy group and I) made a big effort to observe [2012 DA](#). Three telescopes(0.50m, 0.40m, and my puny 0.12m), four cameras, and reprogramming the bigger ones to think that the asteroid was an Earth satellite, to find the beast. The result, 100% cloud; images obtained zero. Nada, zilch.

Kevin K: It sounds like a great attempt! Thanks for trying...it would have been nice to see.

We watched the NASA JPL on ustream and it was not too bad (the after-the-fact version). The NASA realtime show was pretty boring. I had it and *Bad Astronomy* guy Phil Plait up on a Google Hangout and he was far more entertaining

I was impressed by the live video from Gingin Observatory on the west coast of Australia. It looks like a bunch of recreational astronomers with a huge roll off roof observatory and some nice equipment:

ginginobservatory.com yep...a 7½ tonne roof!

Rick Wagner: Same results here at Sand Lake. I don't have the same impressive collection of instrumentation, but I did plot the asteroids position on *Uranometria* for every 10 minutes, had the scope out ready to go... There were a few very small cracks in the cloud but not nearly enough to even try looking through the scope.

SAT/SUN, FEBRUARY 16/17

Walter: CSC was initially calling for a completely clear night, but the satellite loop kept looking worse—and indeed the transparency did slip during the night. I finally gave

up at 01:54 after imaging 189 vars. By that time CSC had updated and was indicating some cloud for the rest of the night, which I was already seeing. So I call it a half-night, and a very productive one.

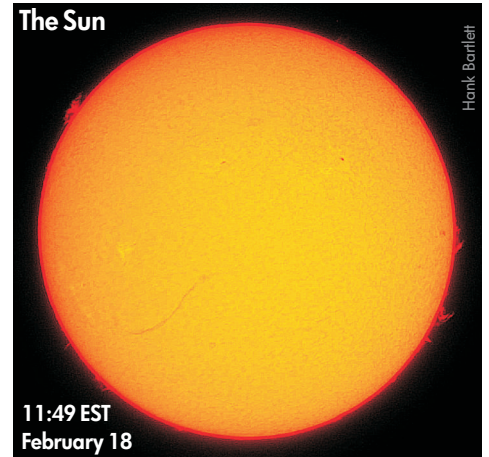
SUN/MON, FEBRUARY 17/18

Walter: The sky cleared sometime after midnight and I was finally able to motivate myself to get out of bed just before 04:30 for a quickie imaging session. In 80 minutes I was able to cover 51 Miras, so this basically completed last night's run. I made it all the way through Hercules and partway through Lyra. Another 20 minutes would have put a great dent in my Lyra list but I'm still very happy with what I got.

Rick: So, was anyone looking at the [Sun](#) yesterday [Sunday] morning? I was out starting about 10:00 with the H-alpha filter and noticed that group 1675 was decidedly brighter than anything else on the disk. The seeing slowly improved (to where it was merely bad) until finally I could see that there was a j-shaped line of very bright material snaking around and to the SE from the largest spot in the group. Over the next 45 minutes this bright area faded and turned into two short parallel filaments. It was a very impressive display. I presumed it was a flare, but spaceweather.com this morning confirms that there was a very strong flare from that group yesterday. I took some pictures but the seeing, even once it improved, was pretty poor and my imaging techniques are still not up to scratch.

Hank: I had a rushed look around 9:30 and 16:30 before and after the flare. I noticed the same but it was not as bright either time as it would have been at eruption. In other words: *DANG, I missed it.*

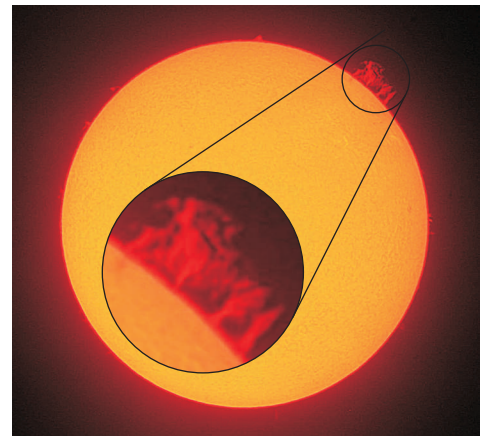
Today [Monday] the action is around 1673; 75 is quiet looking:



Kim: Yesterday was white light, today 1675 is still very bright in h-alpha. I took several pictures and sketched it today; put a couple of images on facebook.

TUESDAY, FEBRUARY 26

Hank: Too bad it was cloudy this would have been awesomer [*sic!*] in a clear sky:



Then, a bunch of cloudy days and nights followed...

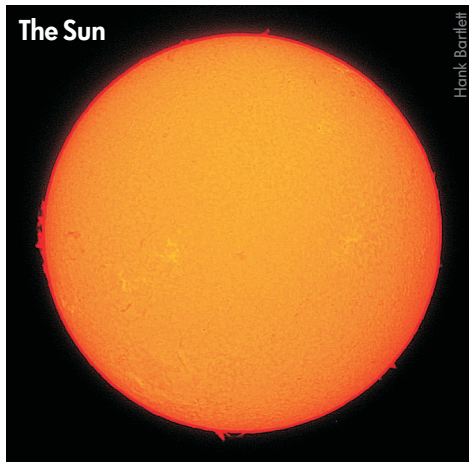
MONDAY, MARCH 4

Rick: Speaking of storms, a couple of days after the last meeting I was poking around online and in the spaceweather.com archives for 17 Feb found that I had in fact observed a full-blown flare. They report it as the strongest flare so far in 2013 and have a UV video of it. It even shows the filament that I saw develop after the

solar flare.

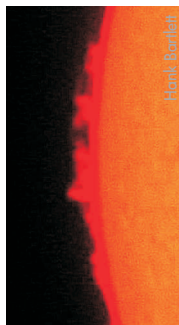
Kim: It was pretty good today, though I only did white light at work, there was a lot of plage on the SW limb, my NE limb. I was wondering if any one was checking it out in h-alpha. There seemed to be a lot of activity.

Hank: I was rushed and only managed a few quick poorly focused images at lunch. Here is the best of the lot, it backs up what you are saying. However proms and filaments were few.



Rick: I was out for a little while with the H α filter. Seeing was better than I've seen it on some days but still not very good. There seemed to be a collection of (I think) 4 very, very narrow filaments in the NW hemisphere but they didn't seem to show up on either of our photo-graphs. I could only see them for brief periods when the combination of seeing and tuning of the etalon got things perfect.

And Hank, you still did better than did I in the photo department. I did a bunch of shots with the DSLR, but none of them look very good. Without live view the focusing is really hit or miss. I also tried a couple of videos with my QHY5 camera which



should make something that I can stack. But that won't get processed for a while. However, visually I did think the forest of prominences on the left side was pretty cool. That's the area on which I focused for the videos so we'll see how they turn out.

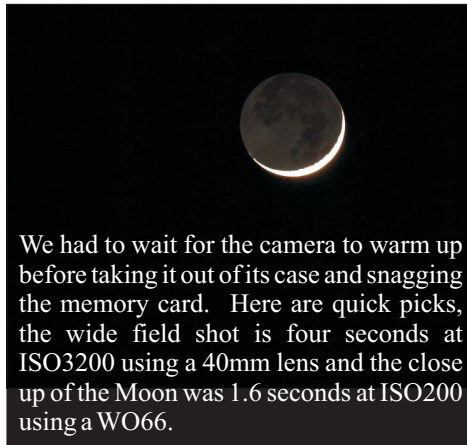
FRI/SAT MARCH 8/9

Walter: I had a great night last night, imaging 10 comets (see page 10) and 135 variables (mostly Miras)—and a few pesky Earth satellites. There was a very beautiful 7% crescent Moon with Earthshine at dawn this morning.

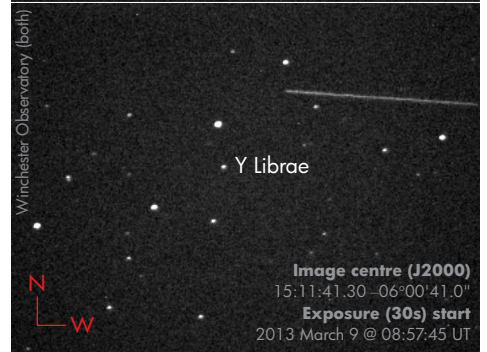
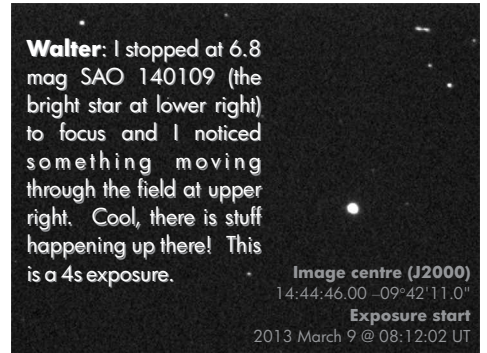
Kevin F: I had a good night of observing those things that Walter doesn't like. I watched the geo sats flare up nice and bright, like Echostar 16 got naked eye.

WED/THU MARCH 13/14

Mark K: Lyndsay and I managed to spot [Comet Panstarrs](#) from Gros Cap west of the Sault this evening. When



We had to wait for the camera to warm up before taking it out of its case and snagging the memory card. Here are quick picks, the wide field shot is four seconds at ISO3200 using a 40mm lens and the close up of the Moon was 1.6 seconds at ISO200 using a WO66.



we first arrived, the sky was still quite light and the comet was only visible in binoculars and then the WO66, but gradually, as it got closer to the horizon, it was barely visible to the unaided eye. Lyndsay has taken some pictures at various iso and exposure levels and we will go through them and see if anything turned out. She also took a lot of the thin crescent Moon alight with Earthshine. It was quite cold and very windy. Eventually, the comet then an hour or so later, the Moon settled into a low band of clouds far off in the west.

THU/FRI MARCH 14/15

Ken Kingdon: Just after our local sunset at 7:09 p.m. EDT, Thu., Mar. 14, I saw that the western sky had suddenly opened after many cloudy Kingston days, and thought I'd go out for a comet search at 7:30pm. But I forgot, until just after 8 p.m., and by then some clouds and/or houses blocked its view.

I drove 3-minutes away to a more open part of our neighbourhood suburban parkland, and from there at 8:18 p.m. I easily saw [Comet 2011 L4](#)

...Observing Reports: February–March

Various Members

(PanSTARRS) with 15x70 giant binoculars. By then, it was very low, at altitude 3.5° and getting into the murk, so an unaided eye observation was not possible. Its tail was at least 1° long, and well developed. I am sure it is bright enough to be visible unaided if seen higher and out of the Sun's twilight afterglow. I also saw it go behind a very distant cirrus streamer, and with binoculars it still shone undiminished right through this cloud!

It is certainly bright enough that any size binocular will find it; you do not require giant binoculars.

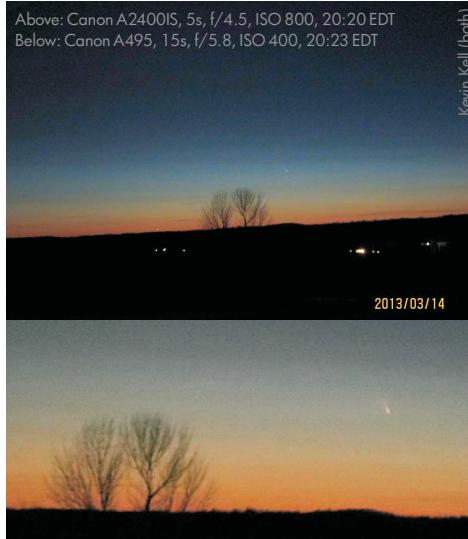
Hank: Kim, Kevin and Hank headed up to the Newburgh ToV site and imaged Panstarrs tonight. I say I was "Delightfully Disappointed", scoping and imaging Panstarrs was delightful, naked eye it was a big disappointment. I arrived at 7 p.m. and set up the C80 and camera, then I went to get the binoculars, oh right I left them home. The task of finding Panstarrs was now a little more difficult but by the time my partners arrived I had it in the scope and it was looking nice with a short broad tail. Each of us did see it naked eye at one time or another but by the time it was setting it was very dim.

As always comets are worth the effort regardless of the result.

Rose-Marie: I bundled myself up (good thing, there was a nasty raw cold wind a'blowin') and drove the truck over to the back of the cemetery, but here the clouds were rolling further west when it finally got dark enough. I took a bunch of pictures, shotgun approach, but the comet's not showing up in any of them.

Paul Winkler: So far, from where I am there's been no clear western horizon (even tonight!).

Kevin K: We went out to suddenly clear skies around 20:00 EDT to the transit of Venus observing site south of Newburgh. There is a com-



munication tower being put up on the site!

There was a good view to the west. I never saw it naked eye but Kim and Hank pulled it out of the mush. It was very low to the horizon.

Rick: I just got back in from watching it as well and took a bunch of pictures not much different from Kevin's. I first caught it in bins at 19:44:50; glimpsed it naked eye at about 20:20. In my 80mm/6 refractor at 54x it showed about a 1° tail pointing straight up from the horizon. It was obviously sharper edged on the N side than the S—it

was very faint but it looks like a dust tail curving up and to the right. Stellar coma/nucleus. The tail was parabolic-shaped near the head—the coma/nucleus was right at the tip of the tail—no fainter coma in front. I'm glad to have finally seen it.

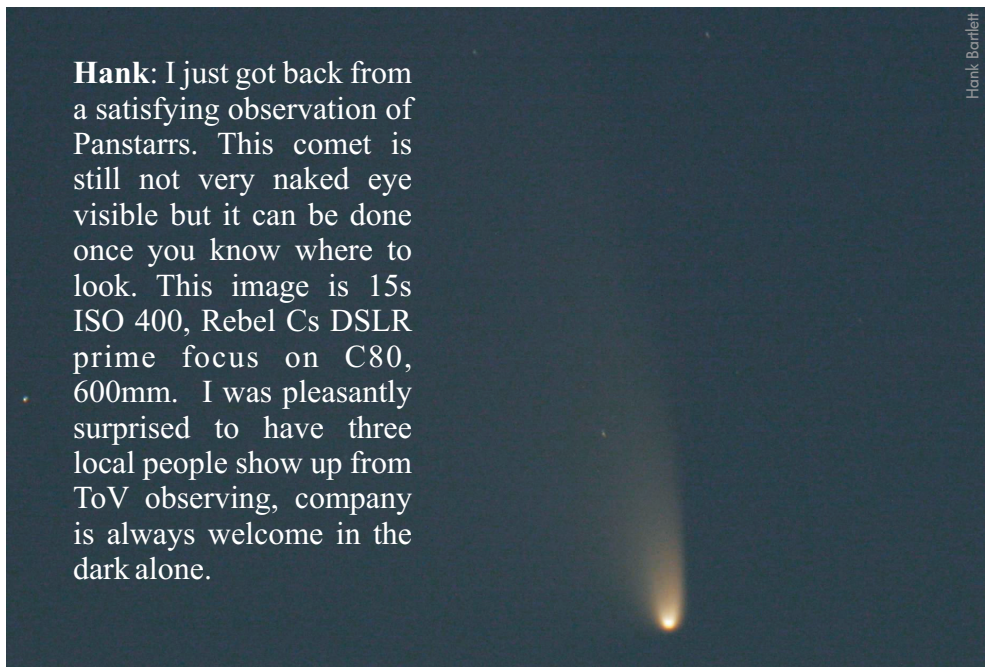
FRI/SAT MARCH 15/16

Ken: For the second time, the constant local overcast ended right about sunset tonight!

At 8:10 p.m. EDT, I stepped out into my backyard, in shirt sleeves, and in the pleasant calm of a nice Canadian-winter day, and had a superb naked-eye view of [Comet PanSTARRS](#). Then with my 82mm refractor at 60x, it was an utterly awesome view.

Being straight above the Sun, this comet glowed with a brilliant silvery-golden hue, and the head of the comet was a sharp-edged sphere, with a necked-down tail where it attaches to the head, then broadening along the axis...a real spectacle.

I looked through all my comet observations, and I had to go back 6 years to find a better comet...that was [Comet McNaught](#) on Jan. 10, 2007.



Hank: I just got back from a satisfying observation of Panstarrs. This comet is still not very naked eye visible but it can be done once you know where to look. This image is 15s ISO 400, Rebel Cs DSLR prime focus on C80, 600mm. I was pleasantly surprised to have three local people show up from ToV observing, company is always welcome in the dark alone.

...Observing Reports: February–March

Various Members

(I was the only person in Canada to view it in perfectly clear skies, plus from a truly dark site on a trip to Algonquin Park). Time flies.

SAT/SUN MARCH 16/17

Kevin K: We have just finished opening up the observatory roof for the first time in over a month (or two!) and are getting ready for some Jupiter and Saturn imaging...

Mark K: Major drag here. I looked out at 19:30 and it was completely clear. So we packed up the car and started to drive to our good western view location. By the time 19:47



rolled around, the sky was covered with clouds. Now it is snowing.

Glad you are having better luck. I am interested to hear if the comet is calving or not, any indication?

Dieter Brueckner: I did go out this evening, beautiful clear night, to the south parking lot of the Lemoine Point Conservation Area. There were already four other people searching for the comet. I'm proud to say I was the first to spot it at about 8:20 p.m. It was just visible to the naked eye, and nice in binoculars.

Hank: I could not see any evidence of calving. I enlarged and overdrove a few images to see if there were any "buds" but nothing showed. Unless this comet has an outburst I think I have what I want.

Kevin K: We snagged it from our backyard. It was much lower in elevation than the ToV site and it was actually down below the trees around 20:20 or 25. We attempted to video it with the video camcorder but picked up absolutely nothing.

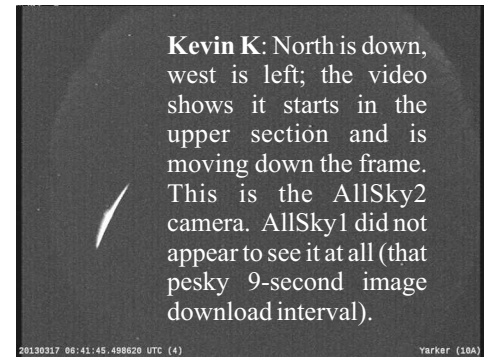
Rose-Marie: I drove to the back of the cemetery; as soon as I got out of the truck and lifted the binoculars, there was my comet. I set up the camera and took some pics until I lost the comet in the trees. Here are two images, one shot of the wide angle, cropped and enlarged—the itty bitty thing gets lost in the big sky:

Kim: Kevin did not mention it, but there was some flickering in SkyCamII to the north around midnight: some minor [aurora](#), but not too much.

Susan: Tonight was my first view of the comet, naked eye before it was truly dark. Very nice indeed.

Walter: Tonight's imaging run was six hours, ending at 02:22 with cloud moving in from the north. The transparency was not great, but with usable nights so rare one cannot afford to be fussy. I was able to clean out the supply of [Miras](#) in the evening sky and east to Virgo, padding out the

run with some CVs to use up all the time. 162 variables were imaged tonight.



SAT/SUN MARCH 16/17

Kim: I just popped out and took some pictures of [Jupiter](#), [Moon](#), and [Taurus](#). Took a few images in the direction of the [comet](#). Came in and looked in the bins (10x50) from the dining room and got it at 8:17 p.m.

Rose-Marie: Was out again just now taking pics, now about to download. Was taking a series of shots of the comet headed for the trees, and the darned battery died. Had another one, but by the time you get the camera off and put in a new one your setting is off. Now thawing out toes and legs, forgot my overpants. Not much of a breeze but still chilly out there.

Rick: I was out as well, with Jeanette. We drove up to Portland to get a better horizon. And it's a good thing Jeanette came along—she spotted the [comet](#) naked eye before I could sweep it up with the 7x35 finder on my scope (forgot my compass so was searching a wide swath of horizon.) The sky wasn't exactly stellar (pun intended) but the view was nice nevertheless. I took along the 20cm f/5.6 for viewing—could see about 2° of dust tail sweeping off to the SE with the slightest hint of a gas tail. Also did a bunch of pics with the Canon 30D and 70-300mm lens @300mm f/5.6 on the barn door tracker. Mostly 30s but a few at 60s and 120s exposures. They confirm

...Observing Reports

the gas tail.

Walter: I walked over to the east side of the Winchester Arena and saw The Comet in 7x50 binocs at 20:20—next to a tree, so the azimuth was just right for success! Tonight’s imaging run went from 20:57 to 06:04 covering 141 variables. I was able to finish off Hercules and all but three Miras in Lyra before dawn arrived.

R CrB is up to mag 10 now! ★

Space beyond space: stars needling into night:
Through rack, above, I gaze from Earth below—
Spinning in unintelligible quiet beneath
A moonlit drift of cloudlets, still as snow.

—Walter de la Mare
Inward Companion, Days and Moments

Variable Views and News

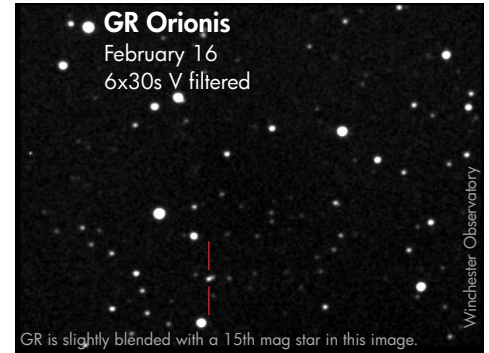
Walter MacDonald

ON THE MORNING of Monday, February 11 (EST), super-duper-observer **Rod Stubbings** (Tetoora Observatory, Victoria, Australia) announced that **Nova Orionis 1916** was once again visible, at magnitude 13.0!

The quiescent magnitude of GR is 22.8V; speculation was that it is either a UGWZ or recurrent nova, but spectra obtained in Japan indicate it is a dwarf nova:

astronomerstelegram.org/?read=4811

This illustrates the importance of keeping a nightly watch on old novae, something that amateurs (with their basically unlimited available telescope time) are well suited for.



BREAKING NEWS:

GK Persei (Nova 1901) appears to be going into another outburst. As of March 18th it is up almost a full magnitude from its quiescent 13th mag. In its last outburst (spring 2010), GK went to mag 9½. ★

The Nagler 1 Asterism

In the RASC’s March *Bulletin*, Dave Chapman (our esteemed *Observer’s Handbook* editor) writes:

AT THE WINTER STAR PARTY 2013, I learned of the binocular asterism **Nagler 1**, which is included in Tele Vue’s Sky Tour push-to software. It appears as an inverted V of stars magnitude 6–8 at the location RA 6h 23m Dec $-26^{\circ} 17'$. While **Canis**

Major is still high in the evening sky, there is still time to snag this object. Find it ½ of the way between zeta (ζ) Canis Majoris (Furud) and beta (β) Canis Majoris (Murzim). The top-most star is HD 44736.

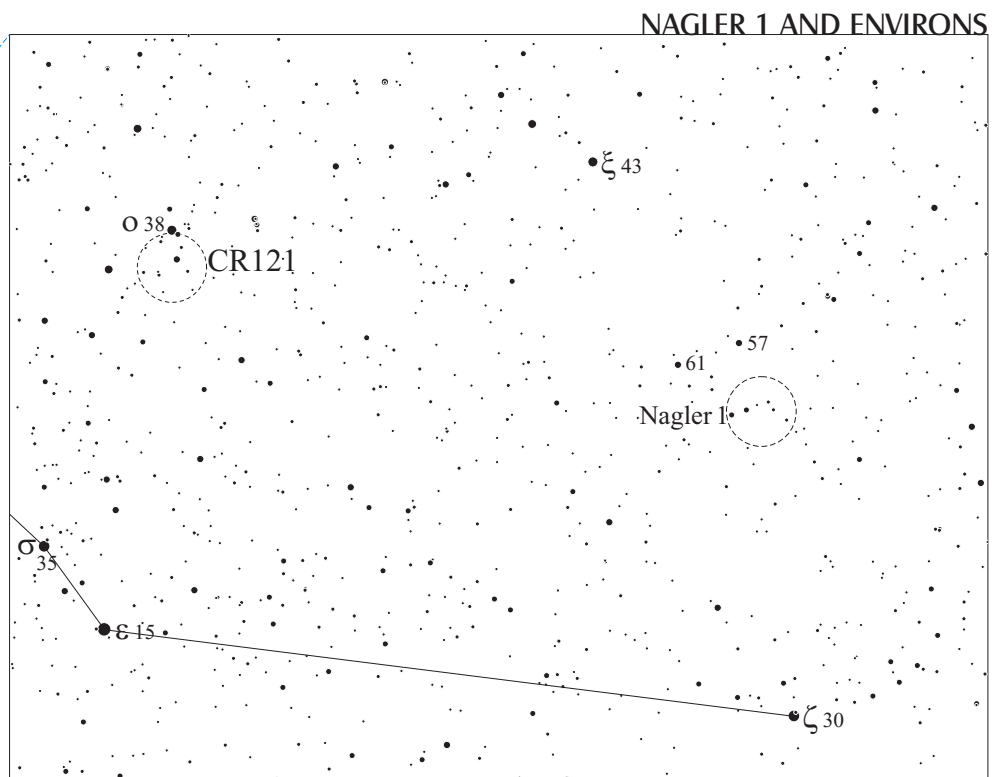
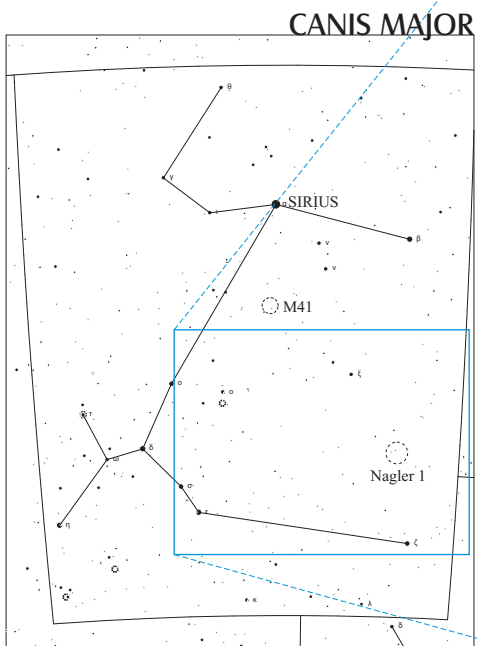
The charts below include magnitudes

for the brightest field stars (decimal point omitted). Don’t forget to check out M41 and Cr 121 too.

If it’s a serious telescopic challenge you’re after, why not try for “the Pup” (Sirius B)? Here is lots of background and practical info:

rasc.ca/sirius-b-observing-challenge ★

Walter MacDonald



March Comets

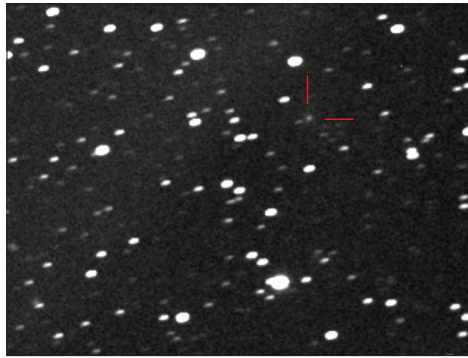
All times are mid-point.

Walter MacDonald

COMETS of calculated magnitude 16.0 or brighter in the IAU CBAT's Observable Comets file are followed with ECU and CCD. Some comets from last time have become fainter and/or too low in the sky and have been dropped. Of course this runs the risk of missing an outburst in an otherwise expected-to-be-very-faint comet, but there is only so much sky that can be covered with multiple observing programmes competing for imaging time!

C/2012 T5 (Bressi)—ECU says it is mag 10.0!, C/2010 S1 (LINEAR), and 91P/Russell remain just a bit too low to image at dawn. C/2011 L4 (PANSTARRS) at zero magnitude is rapidly (over 6 arcsec per minute!) creeping north to meet us.

All times here are mid-point; all images are shot through a Johnson V filter since it lives full-time in the camera's nosepiece for purposes of variable star photometry. ★



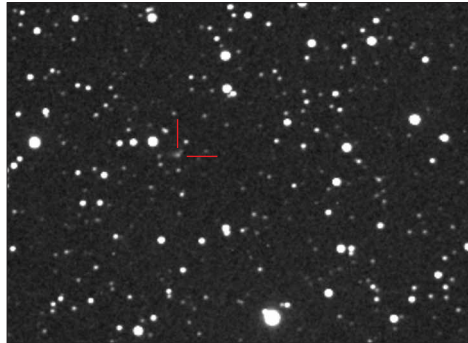
C/2012 V2 (LINEAR)

20x30s, V filtered; Mar. 8 @ 20:09 EST
Motion: 1.13"/minute @ 110°.



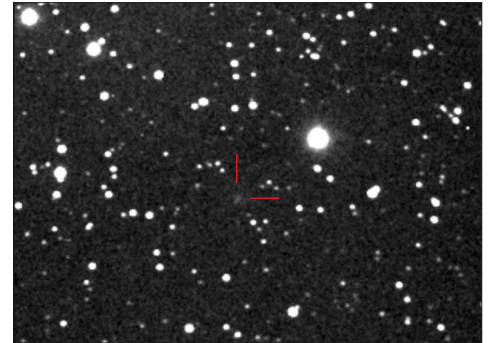
C/2012 L2 (LINEAR)

12x30s, V filtered; Mar. 8 @ 20:23 EST
Motion: 0.70"/minute @ 72°.



C/2012 S1 (ISON)

19x30s, V filtered; Mar. 8 @ 22:03 EST
Motion: 0.32"/minute @ 257°.



C/2009 P1 (Garradd)

21x30s, V filtered; Mar. 8 @ 21:42 EST
Motion: 0.48"/minute @ 286°.



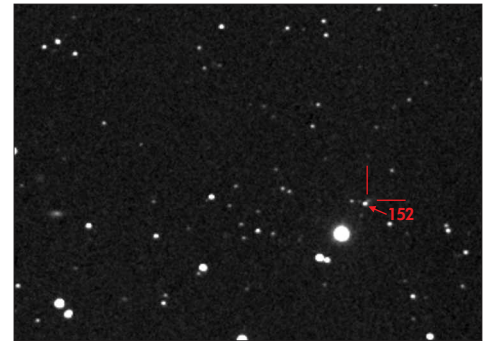
63P/Wild

18x30s, V filtered; Mar. 8 @ 22:26 EST
Motion: 0.79"/minute @ 210°.



C/2011 J2 (LINEAR)

24x30s, V filtered; Mar. 8 @ 22:47 EST
Motion: 0.91"/minute @ 305°.



117P/Helin-Roman-Alu

42x30s, V filtered; Mar. 9 @ 03:25 EST
Motion: 0.01"/minute @ 205°.



C/2006 S3 (LONEOS)

11x30s, V filtered; Mar. 9 @ 03:37 EST
Motion: 0.50"/minute @ 279°.



C/2011 R1 (McNaught)

15x30s, V filtered; Mar. 9 @ 03:50 EST.
Motion: 1.22"/minute @ 328°.



273P/Pons-Gambart

16x30s, V filtered; Mar. 9 @ 04:48 EST.
Motion: 3.08"/minute @ 324°.