

POLARIS



Royal Astronomical Society of Canada
London Centre Newsletter
February 2009

Old and New, Big and Small

Patrick Whelan

It has actually been clear out a few nights lately. I guess the South Western Ontario winter blues are almost over. We certainly have had a lot of clouds the past few months.

After fixing up my 127mm refractor, I was able to get out with it last December one or two nights. I even had the 10 inch Meade Schmidt Newtonian out in December as well. I put both of those scopes on my LXD75 mount and it handles them quite well.

Sometimes I just don't want to lug a big telescope and mount around. Now keep in mind I usually only lug them onto my front porch or maybe the backyard. (depending on snow or mud conditions) So I am not carrying them too far, but it makes for extra effort. Here is the list of events (as many people know or probably even exceed with ALL their gear)

Bring the mount out.

Point it willy-nilly towards the North.

Bring the counterweights out (3 of them, heavy) and put them on the mount

Bring the telescope out and put it on the mount.

Bring out the finder scope and a medium size eyepiece and put them on the telescope.

Balance the telescope in RA and DEC.

Bring out the hand controller and the battery and hook them up.

Bring out my eyepiece case(s) and get ready to observe.

As far as 'big and small' are concerned, this is the 'big'.

Keep in mind I don't have as much 'stuff' as other people do. They can have extra batteries, heaters for mirrors and lenses and eyepieces and cords for it all. They can have imaging chips or cameras or even imaging telescopes piggybacking on their main telescope. Other people might have laptops they bring out with them as well.

Ahhhh, the things we do for our hobbies.

Last night I decided to go small.

For the first part of the night I grabbed my Celestron 15x70 binoculars and put them on a photography tripod and put them in the backyard. That took one trip and I was ready to go! I looked at the Orion nebula and it was 'okay'. I looked at the Beehive cluster in Cancer (the Praesepe) and it was 'okay'. The sky was quite washed out with light pollution and only the brightest of stars were visible. Because I only have the binoculars on a normal tripod looking up is a pain in the neck. Quite literally it is a pain in the neck! When the skies are light polluted the best viewing is straight up since that direction takes the shortest path toward the stars and has the least amount of haze or pollution or whatever. If only I had a binocular chair! That would make it much easier. I packed it in after a little while. There wasn't much visible with the binoculars even though they are bigger than 'standard' 7x50's or 10x50's and have more light gathering ability. I brought them back in the house tripod and all and watched as frost formed upon them. I keep the lens caps on for a while after bring them in from the cold. I hope I can trap the cold dry air against the lenses while outside and when they warm up I take the caps off to make sure the lenses are dry and won't be going moldy. I just *hate* seeing my lenses or mirrors with frost on them!

Next I decided to take my old Bushnell ball scope into the backyard. This scope is a knock off of the famous Edmund Astroscan telescope. It has a 4.5 inch mirror and the secondary mirror is held in place by a glass window in the front on the tube. Other than the focuser, it is a sealed tube. The Astroscan had a parabolic mirror and the Bushnell uses a spherical mirror. That means the Bushnell won't handle higher powers like the Astroscan and it will have more aberrations at the outside of the field. Now let me say this right now, you can't really use the ball scope at high powers anyhow. Both the Bushnell and the Astroscan are best suited for rich field viewing and that means low power. Think of pictures you have seen of either telescope where a person has it in their lap and viewing the sky. High power when the telescope is on your lap? Can you

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Moon Phases



February 25 2009



March 4 2009



March 11 2009



March 18 2009

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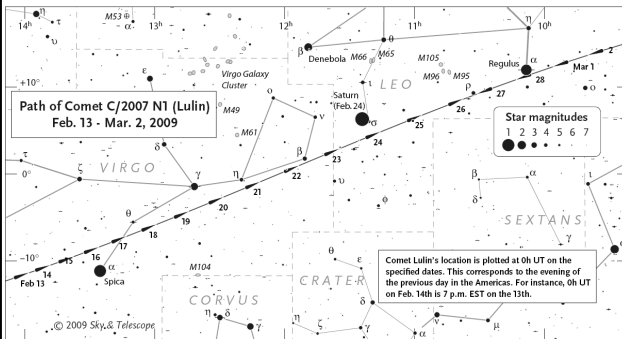
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Letter from the Editor

Comet Lulin is fast approaching! It is getting higher in the morning sky every day. It is currently in Virgo and on the 25th it will be under Leo. It is predicted to reach 5th magnitude. The finder chart below is from Sky and Telescope. I hope it isn't too small...



Find the Polaris newsletters on the internet at: www.patusratus.ca/Polaris

LONDON RASC MONTHLY MEETINGS

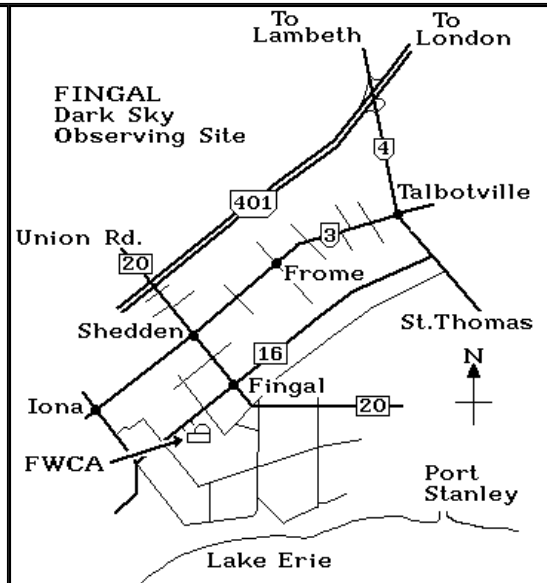
The London RASC group meets at Fanshawe college in London Ontario, September through July on the third Friday of the month at 19:00. They meet in room B1073.

Everyone interested in astronomy is invited to attend and enjoy our guest speaker, member activity and observing reports, announcements of new discoveries and upcoming events, telescopes and telescope accessories show and tell, and other fun activities. Have a look at our future and past activities on our website to see what we are doing.

Parking is free on Friday evenings, and there is plenty of room in the east parking lot off Oxford St. and parking spaces on the south side of B building. Enter the college by B building doors near Oxford Street, just west of the bus stop. College signs at key hallway locations will help you find us. The London RASC webpage can be found at:

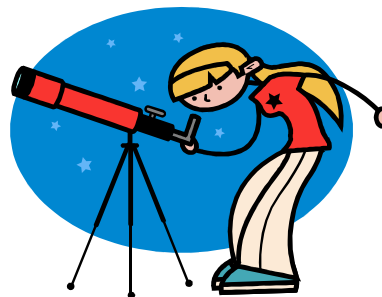
www.rasc.ca/London

They have a preferred observing site at Fingal Wildlife Management area.



Sky Events for January and February 2008

February 22 Mercury 1.1° S of Moon
 February 23 Jupiter 0.7° S of Moon
 February 23 Mars 1.7° S of Moon
 February 24 Mercury 0.6° S of Jupiter
 February 25 Ceres at opposition
 March 1 Mercury 0.6° S of Mars
 March 3 Moon 0.8° N of Pleiades (M45)
 March 8 Daylight Saving Time begins
 March 8 Saturn at opposition
 March 11 Double shadow transit on Jupiter
 March 13 Zodiacal light
 March 17 Antares 0.2° S of Moon
 March 20 Vernal Equinox



Look for comet Lulin!

Jupiter is a morning planet

Saturn is in Leo and transits around 1:49am. The rings are only inclined 1.74°

Venus is the evening star and dominates the evening sky

Mars is a morning planet

R.A.S.C. London Centre Library Books of the Month February 2009 By Robert Duff

In order to make our library collection available to members, I bring three books to our general monthly meetings. These "Books of the Month" are available for loan, to be returned at the following monthly meeting.

The books for February 2009 are as follows:

The Astronomers, by Donald Goldsmith. c1991.

Here be Dragons: the Scientific Quest for Extraterrestrial Life, by David Koerner & Simon LeVay. c2000.

A Portfolio of Lunar Drawings, by Harold Hill. 1991. (Practical astronomy handbooks, 1)

For a complete listing of our library collection please see our RASC London Centre Web site at: <http://www.astro.uwo.ca/~rasc/>

If there is a particular book or video you wish to borrow, please feel free to contact me by telephone at (519) 439-7504 or by e-mail at rduff@sympatico.ca



Sky and Telescope Subscriptions

Sky & Telescope subscriptions are available at a discounted rate through the London Centre. The cost is \$39.95USD instead of the normal \$49.95USD subscription rate. Please see Bill Gardner for details.

Exploring the Stars, Cronyn Observatory January 13th —February 12th, 2009

By Robert Duff

Please note that I attended most of these Exploring the Stars events and brought the RASC London Centre's 2008 General Assembly photographic display with me.

Tuesday, January 13th

71st Brownies, 10 visitors, including 5 Brownies and 5 adults. Graduate student Ryan Marciniak showed the digital slide presentation, "Constellations." RASC London Centre member Dave McCarter reported no observing due to snow flurries.

Wednesday, January 14th

66th Cubs & Scouts, 20 visitors, including 12 children and 8 adults. Graduate student Amanda Papadimos made her digital slide presentation, "Constellations," followed by a second presentation on the "Phases of the Moon" selected from the "Earth / Moon System" digital slide presentation. Amanda showed and explained to the group the 25.4cm refractor in the dome, which was not opened due to snow flurry conditions.

Bob Duff brought the RASC London Centre's 2008 General Assembly photographic display, but forgot to set it up on the table near the east wall of the lecture room and show it to the group until the end of the evening.

Thursday, January 15th

97th Beavers, 27 visitors, including 15 children and 12 adults. Graduate student Alyssa Gilbert took the group into the dome early to view the planet Venus through the big 25.4cm refractor while it was still high in the sky. Dave McCarter placed the 32mm Erfle eyepiece in the diagonal for a splendid shimmering view of the crescent Venus at 137X. Alyssa took the group back downstairs for the digital slide presentation, "Stars," followed by the activity, "Earth, Moon & Sun." The second observing session featured views of the Orion Nebula (M42) through the 25.4cm refractor. M42 looked green through the Observatory's 2-inch Orion Narrow Band light pollution filter used with the 32mm Erfle eyepiece. Dave later showed them the Double Cluster in Perseus to few remaining visitors. Bob Duff brought the RASC London Centre's 2008 General Assembly photographic display and gave a RASC London Centre brochure to one Beaver keenly interested in astronomy.

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say shake rattle and roll? Low power only please!

I brought two eyepieces to use with the ball scope. I brought a 26mm Meade series 5000 for low power and I brought my 16mm type 5 Televue Nagler for high power. I really believe that eyepieces for telescopes are like speakers for home sound systems. They are the weakest link. You can have a real nice amplifier but if you use crappy speakers it will sound crappy. If you have an average amplifier it will sound better with good speakers. The same is true with telescopes. A good telescope won't perform very well with crappy eyepieces and an average telescope will seem better with good eyepieces. I could immediately tell I was looking through a telescope and not the binoculars. There were so many more stars visible with 4.5 inches (110mm) of aperture instead of just 70mm (2.7inches).

Using the 26mm Meade eyepiece I pointed the Bushnell at Orion. The nebula looked pretty good for a small scope. The stars in the outer field of view start looking like seagulls but it was a very acceptable view. I think this is the low limit for magnification because I could sometimes make out the shadow of the secondary mirror in the view but it was not too bad. Then I tried the 16mm Nagler. Wow. I can't believe this is the little Bushnell. (I feel like saying: the little Bushnell that could) The 16mm Nagler is probably the best eyepiece I own. The view through this little scope was very good. The eyepiece has a 82 degree field of view and that is a lot! The nebula was looking even better with the Nagler. There still wasn't enough magnification to see the Trapezium but it was still very nice to look at.

I put the 26mm Meade back in the telescope and tried

to find the Beehive in the constellation Cancer. It really is in a bleak part of the sky without a lot of other stars around to help you find it. My zodiacal sign is Cancer and it is hard to see that constellation at the best of times. I found the Beehive and it is really nice in the 26mm. Using the 26mm is like having a finder scope eyepiece. I just scan up and down near where I hope my target is and eventually I find it. There are lots of stars visible and again I remind myself of the tiny telescope I am using. Then I put in the Nagler and the Beehive fills the view! The whole centre of the view looks really nice and the stars are pinpoints and...What a great view. I imagine I could use higher powers but moving the little scope around on its concave resting pad is a bit hit and miss. If you move off the object when you are viewing at higher powers, you may not get it centred again!

NOTE: When using the Bushnell at 45 degrees from vertical or lower the whole telescope will slowly slew to the ground because of the weight of the 26mm Meade or 16mm Nagler. When viewing you have to hold the telescope to keep it from moving! The real trick is to remove the eyepiece when you are not observing so the scope doesn't move and then put an eyepiece back in when you are ready to observe again! And do that carefully.

I started the evening with my *old* and *small* 15x70 binoculars.

I ended the evening with my *old* and *small* Bushnell ballscope and *new* eyepieces.

No *big* stuff was used at all last night! Only my impressions of the "little telescope that could" were big.

And that was big enough.

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Tuesday, Jan. 20th

5th Cubs, 29 visitors, including 18 children and 11 adults. Graduate student Ryan Marciniak made digital slide presentation, "Constellations." RASC London Centre member Dave McCarter helped with showing the group Venus through the 25.4cm refractor in dome and they watched the ISS pass at 7:15 p.m. The group assembled 29 Star Finder planispheres and received Galileo Moment (GM) cards.

Wednesday, Jan. 21st

36th Guides, 15 visitors, including 10 children and 5 adults. Graduate student Amanda Papadimos made digital slide presentation, "Earth / Moon System," RASC London Centre members Dave McCarter and Bob Duff observed Venus and Uranus through 25.4cm refractor in dome and Venus also through 25.4cm Dobsonian but the sky clouded out for the visitors. Assembled possibly 10 Star Finder planispheres and distributed GM cards.

Thursday, Jan. 22nd

Altaqwa Islamic School, 43 visitors, including 33 children and 10 adults. Graduate student Alyssa Gilbert made the digital slide presentation, "Constellations," and then showed the group the 25.4cm refractor in dome. RASC London Centre member Bob Duff helped and explained to a few adults the 25.4cm Dobsonian. This was followed by the "Rocket Races" activity involving balloon-propelled rockets. GM cards were distributed.

Tuesday, Jan. 27th

80th Westmount Cubs, 21 visitors, including 14 children and 7 adults. Graduate student Ryan Marciniak made the digital slide presentation "Earth / Moon System" and demonstrated eclipses with globes of the Earth and Moon using the activity "Earth Moon and Sun." The group was shown the 25.4cm refractor in the dome but clouds prevented any observing. This was followed by a constellation activity with pencil and paper. Bob Duff handed out GM cards to each child and the adults. One copy of the book, "Mary Lou's New Telescope," was given to the Cub who asked Ryan the best question. Dave McCarter was at the event briefly at the beginning to give Bob several copies of the aforementioned book as well as copies of the pamphlet "Become a Sidewalk Astronomer," one copy of which was given to a Cub leader / parent who had a small telescope.

Wednesday, Jan. 28th

Grace Church Elements, 10 visitors, including 6 children and 4 adults. Graduate student Amanda Papadimos showed the IYA2009 trailer, the digital slide presentation, "Constellations," and the activity, "Constellations Story." The group assembled "Star Finder" planispheres brought by Bob Duff and were shown the 25.4cm refractor in the dome but clouds prevented any observing. Amanda handed out GM cards and the group finished with a "connect the dots" constellation activity on paper with pencil crayons. A RASC

London Centre brochure and pamphlet "Become a Sidewalk Astronomer," was given to a parent who had a small telescope. RASC London Centre members Dave McCarter and Bob Duff helped out.

Thursday, Jan. 29th

Jeanne Sauve Public School – Grade 6, 40 visitors, including 21 children and 19 adults. Graduate student Alyssa Gilbert made the digital slide presentation, "Comets & Asteroids," and activity, "Kitchen Comet." The group was shown the 25.4cm refractor and Dobsonian telescopes in the dome but clouds prevented any observing. Alyssa distributed GM cards and awarded one copy of the book, "Mary Lou's New Telescope," as a prize. RASC London Centre member Bob Duff assisted, bringing the RASC London Centre's 2008 General Assembly photographic display and setting it up on a table in the dome.

Saturday, Jan. 31st

Cronyn Observatory Open House, 7:00—9:00 p.m. 48 visitors, including adults and children, enjoyed the digital slide presentation, "Galaxies," by graduate student Ryan Marciniak. Clearing skies under wind blown cirrus clouds allowed Dave McCarter and Ryan to show visitors the crescent Moon and Venus with the 25.4cm refractor in the dome. Peter Jedicke and Bob Duff also took the 25.4cm Dobsonian outside in front of the Observatory where people were shown the Moon, Venus, M42 and the Pleiades (M45). Dave McCarter also brought his Galileo telescope to show visitors and GM cards were distributed.

Tuesday, Feb. 3rd

5th Brownies, 13 visitors, including 8 children and 5 adults. Graduate student Ryan Marciniak made the digital slide presentation, "Constellations," followed by "Starry Night" sky charting software. Bob Duff made ready the 25.4cm refractor (32mm Erfle eyepiece, 137X) in the dome and the group observed the Moon (one day past First Quarter) through clouds blowing in from west. Richard Gibbens was also there. Ryan distributed GM cards to children as they asked question. The group also did a "connect the dots" constellation activity.

Thursday, Feb. 5th

Altaqwa Islamic School, 34 visitors, including 21 children and 13 adults. Graduate student Alyssa Gilbert brought the group into the dome before the clouds moved in from the west. They observed the Moon through the 25.4cm refractor using the 32mm Erfle eyepiece (137X). They observed Venus and the Moon through the 25.4cm Dobsonian using the 17mm Nagler (67X) eyepiece set up on the Observatory roof patio by Bob Duff. The group enjoyed the digital slide presentation, "Constellations," followed by a sky tour "Starry Night" software and a constellation drawing activity with colour pencils and GM cards were distributed.

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Tuesday, February 10th

86th Guides, 15 visitors, including 8 children and 7 adults. Graduate student Ryan Marciniak made the digital slide presentations "Comets & Asteroids" and "Constellations." Because it was cloudy, the group viewed the red lights on a distant communications tower to the south through the 25.4cm refractor in the dome. Bob Duff assisted, bringing the RASC London Centre's 2008 General Assembly photographic display, and Dave McCarter brought additional copies of the book, "Mary Lou's New Telescope," with 8 copies being distributed to the children. Ryan also gave the Guide Leader GM cards to distribute to the group.

Wednesday, February 11th

99th Sparks, 7 visitors, including 5 children and 2 adults. Graduate student Amanda Papadimos made the digital slide presentation "Our Solar System" and also made a constellation tour with the software, "Starry Night." Since clouds and rain ruled out observing, Amanda showed the group the 25.4cm refractor in the dome. This was followed by the activity, "Rocket Races." Amanda also handed out GM cards to the group.

Thursday, Feb. 12th

84th Brownies, 42 visitors, including 24 children and 18 adults. Graduate student Alyssa Gilbert made the digital slide presentation "Our Solar System" followed by the activity "Kitchen Comet," which involved making a comet with

dry ice, dirt, water and molasses (representing hydrocarbons). Since it was cloudy the group viewed a red light on the communications tower in south London through the 25.4cm dome refractor. Alyssa distributed GM cards and gave away one copy of the book, "Mary Lou's New Telescope."

Star Night, 20th London Beavers

**Stoneybrook Public School
Wednesday, February 4th, 2009**

By Robert Duff

It was clear with a slight sky haze on Wednesday at 6:30 p.m. when John Kulczycki and I met at Stoneybrook Public School to do a star night for the 20th London Beavers. There were 16 people in all, including 9 children (Beavers aged 5—7) and 7 adults. We set up on the snow-covered playground on the south side of the school. John set up his binoculars on a tripod and I brought my 20.3cm Dobsonian telescope. It was bitterly cold but the children and adults had great views of the Moon and Venus through my telescope, using the 25mm eyepiece at 49X. They also got nice views through John's binoculars.

Afterwards, as we had hot chocolate in the school gym, I talked a little bit about the IYA2009, answered questions about astronomy and handed out the Galileo Moment cards to each of the children and adults. It was a great evening and everybody enjoyed it very much.

Amazing Nova

Miroslav

Dear friends of astronomy

The night of 23 to 24 February was a first really good variable stars observing night in 2008.

Not only did I "nailed" U Gem declining from recent outburst and SS Cyg in quiescence, (required by AAVSO as special project) but for the first time in 2008 Nova Sgr 07 designated V5558 Sgr was observed.

Discovered on April 14 - 2007 by Yukio Sakurai of Japan, my first observation recorded magnitude 9.8mV April 22 - 2007.

On July 12 - 2007 Nova reached max 6.6mV (my obs 35) and started to decline.

My last observation 2007 was on November 23 standing on garden-table (my backyard) with light 4" f 5 not-equatorially mounted Sky Watcher. Nova was still at magnitude 9.0mV and getting too close to south-west horizon at dusk.

At 5h30m am February 24, 2008 (finally!!) V5558 Sgr was estimated at magnitude 10.2mV with my 8" f10 SCT.

So far I did make 103 observations of this rather southern object (position is about -18 degrees)

This nova is obviously a long-lasting one. The night was good (about 35 objects observed) with exception of bright Moon.

17 March 2008 nova observed at 5h16m am magnitude 10.1mV

3 April another observation, this time at 3h22m am, estimated magnitude 10.9mV The night was very successful, looks like famous R CrB is awakening from deep minimum, reported at magnitude 14.1mV.

31 objects observed, however supernova 2008ax in NGC4490 not seen, below magnitude 13.4.

9 April 2008 yet another good observation of famous Nova Saggiarii V5558. At early morning hours magnitude estimate 10.7mV.

Looks like this Nova is going to be with us all 2008 summer. I certainly wish so.

And yes, this Nova Sgr was with us all 2008, my last observation was 6 November 2008 at 19h51m local time.

Clear skies!