

POLARIS



Royal Astronomical Society of Canada
London Centre Newsletter
January 2011

Stay Warm Out There! Patrick Whelan

It sure gets cold up here in the "Great White North". But that doesn't mean you can't go observing! Just remember to bundle up. Here are some hints for cold night observing:

Layers. Lots of layers. Don't just wear one real thick parka with a t-shirt underneath. Wear layers all over you. Start with an undershirt, then a shirt, then a polar fleece sweatshirt and then the parka. I always wear a long sleeve turtle neck t-shirt. It gives a little more protection for my neck. Wear long johns (or a pair of pyjama bottoms) and pants or jeans and then put a pair of ski pants or snowmobile pants over top! I have snowmobile pants that have fleece inner pants and a real sturdy out pant. They are warm!

Boots. You need really warm boots. Let's face it. Most of the time while you are observing, you are just standing still on the frozen ground. Just thinking about that is getting my feet cold right now. I wear electric socks in real warm Sorel boots. These boots are made for Canadian winters and they are very warm. Get boots that have a removable liner. When the liner gets damp, you can just take it out and let it air dry.

Hats. You need to wear a warm hat or toque. It needs to cover your ears. I wear a 'watchman's cap' with a 3-in-1 hood over it. The 3-in-1 hood is sold in many stores, and is like a balaclava only it is more loose fitting and can be worn three different ways, hence its name. Balaclava's are good when it gets colder. I have even seen down filled balaclavas. Those must be real toasty! And don't forget to wear a scarf to keep your neck warm.

Mitts/Gloves: My fingers get cold so easily on chilly nights. If it isn't too cold, you can wear a pair of fleece gloves. But if you're like me, you need more than that. I have a real warm pair of gauntlet gloves that have a fleece liner and an outer shell.

Electric heat. You read it right. I saw at Canadian Tire they are selling electric socks for \$25 and electric mitts or gloves for \$25 as well. I have a pair of electric socks I bought years ago and they really keep your toes warm! If you go to a motorbike or snowmobile shop you will find

they have all kinds of electrical clothing. Here are some links:

<http://www.steenhansens.com/gerbing/>

<http://www.gearscanada.com/products/12/heated-clothing.html>

<http://www.12voltclothing.com>

<http://blazewearusa.com/>

<http://cozywinters.com/heated-clothing/>

<http://freedomheatedclothing.ca/>

Or make your own using Teflon wire as in:

<http://www.instructables.com/id/DIY-heated-clothing/>

Disposable chemical heat. You can buy heater packs from many stores now. They come in small flat sizes to go in your boots to keep your feet warm.

They come in bigger packs to put in your pockets to keep your hands warm. They are disposable and are thrown out after use. You bend or flex them to activate the chemicals inside that produce the warmth. They keep warm for hours. I have a pocket warmer that uses some kind of carbon fuel that goes in a metal sleeve with insulation in it. You light it with a match and it really gets warm, but it is kinda smelly and the smell sticks to your hands. It is definitely old technology, but it works. Forest city surplus has these pocket warmers and disposable hand and feet warmers too.

Reusable chemical heat. You can also buy newer gel packs for heating. They are reusable. This is how it works: The heat pack itself contains a solution of sodium acetate, a type of salt. The salt solution is supersaturated, meaning it actually has more salt molecules than it can keep in a stable liquid form. The user presses a 'trigger' made from stainless steel, causing one sodium molecule to change to the solid state and that starts a chain reaction. As the solution begins to solidify, heat is generated. You can reuse them by putting them in boiling water and then letting them cool down. I highly recommend using this type of warmer.

Warm drinks. At the end of the night I like to sip on a cup or two of hot chocolate. I can warm my hands on the cup and the chocolate warms me up inside.



Moon Phases



January 12 2011



January 19 2011



January 26 2011



February 3 2011

Blow, blow, thou winter wind.
 Thou art not so unkind
 As man's ingratitude;
 Thy tooth is not so keen,
 Because thou art not seen,
 Although thy breath be rude.
 Heigh-ho! sing, heigh-ho! unto the green holly:
 Most friendship is feigning, most loving mere folly:
 Then, heigh-ho, the holly!
 This life is most jolly.
 Freeze, freeze, thou bitter sky,
 That dost not bite so nigh
 As benefits forgot:
 Though thou the waters warp,
 Thy sting is not so sharp
 As friend remember'd not.
 Heigh-ho!

William Shakespeare

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LONDON RASC MONTHLY MEETINGS

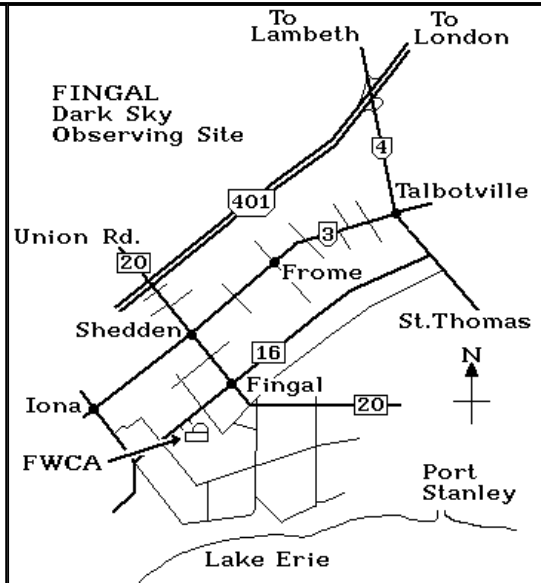
The London RASC group meets at Fanshawe College in London Ontario, September through July on the third Friday of the month at 19:00. We meet in room B1073.

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

Our dark sky observing site is at the **Fingal Wildlife Management Area**.



Sky Events for late January and early February 2011

Jan 25 Double satellite transit on Jupiter
 Jan 30 Venus 3.0 N of Moon
 Jan 31 Mercury at aphelion
 Feb 11 Moon 1.4 S of Pleiades (M45)
 Feb 14 Moon 1.0 S of M35



Venus is brilliant in the eastern morning sky
Mars is not visible
Jupiter in the early evening sky in Pisces
Saturn rises at midnight in Virgo
Uranus and Neptune low in the western evening sky

R.A.S.C. London Centre Library Books of the Month January 2011 By Robert Duff

As always, these “Books of the Month” are available for loan to members, to be returned at the following monthly meeting. The books for January 2011 are as follows:

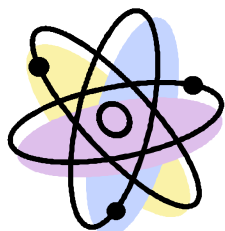
Here be Dragons: the Scientific Quest for Extraterrestrial Life, by David Koerner & Simon LeVay. c2000.

Observing Variable Stars: a Guide for the Beginner, by David H. Levy. c1989.

Star Ware: the Amateur Astronomer's Ultimate Guide to Choosing, Buying, and Using Telescopes and Accessories, by Philip S. Harrington. c1994.

For a complete listing of our library collection please see our RASC London Centre Library Web page at: http://www.astro.uwo.ca/~rasc/newrasc_library.html

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



You can find the last four years (or so) of Polaris newsletters online at:
<http://patusratus.ca/Polaris/index.html>

Exploring the Stars, Cronyn Observatory, January 12th—13th, 2011

By Robert Duff

I assisted at these events, bringing the RASC London Centre's photographic display and setting it up and laying out some brochures.

Exploring the Stars, 120th London Brownies, January 12th, 2011

Graduate student Robin Wing greeted 19 visitors (11 children and 8 adults) from the 120th London Brownies, for an evening of Exploring the Stars, Wednesday, January 12th, 6:30 p.m. He made the digital slide presentation, "Brownie Exploration Space Badge." He then had the children distribute and assemble "Star Finder" planispheres.

Robin showed them the First Quarter Moon through the big 25.4cm refractor in the Cronyn Observatory's dome. They also viewed the Moon through the RASC London Centre's 25.4cm Dobsonian set up by Bob Duff on the Observatory's

roof patio. They delighted at views of the Moon glimpsed through breaks in the clouds, drifting west to east, and asked questions. The group left after a very enjoyable evening and we closed the Observatory by 8:25 p.m.

Exploring the Stars, 66th London Brownies, January 13th, 2011

Graduate student Emily McCullough greeted 15 visitors (10 children and 5 adults) from the 66th London Brownies, for Exploring the Stars, Thursday, January 13th, 6:30 p.m. She began with the digital slide presentation, "Brownie Exploration Space Badge," and continued with some activities after problems developed with the laptop computer.

Emily showed them views of the Moon at one-day-past First Quarter through the big 25.4cm refractor in the Cronyn Observatory's dome. On the Observatory's roof patio Bob Duff showed them the Moon through the 25.4cm Dobsonian, visible through hazy clouds, drifting west to east. The group left after a very enjoyable evening and we closed the Observatory by 8:30 p.m.

January 2011 Pocket Sky Atlas Challenges

Motivation: for some, they'll need a whole truck load of it before they wander out into bone chilling cold on clear January nights. If you are one of these types, you can still do a little "Winter Training Camp" from time to time just to keep keen. If you have astronomy programs, use them and figure out all the features they have, make sure you know how to print off charts when the next new comet comes around during warmer months. You can also go to the library and go through some of those books you didn't have time to look at during busy months. This time of year is also a good time to set out some goals for objects you'd like to see during the year and make plans on how you would do that.

Or, you could just get a new parka.

I've indexed the object to its star chart page.



Naked Eye:

Propus, page 14; Aldebaran, page 15; Mirzam, page 16, Menkar, page 17

Small Scopes and binoculars:

NGC 2215 page 16; NGC 1582 page 12

Larger Scopes:

vdB-26, page 15; NGC 1535, page 17

Bonus objects:

NGC 1407 and NGC 1400, Page 17; NGC 1554 page 15

For those heading south this winter:

NGC 2210, Page 20

Happy hunting.

John Kulczyk

