

POLARIS



Royal Astronomical Society of Canada
London Centre Newsletter
January 2008

Winter Astronomy (oxymoron?)

Patrick Whelan

Welcome to 2008. Are you tired of the weather yet? I know that I am. Living here in Southwestern Ontario can be very trying in the winter. I know other parts of Canada have it bad too. It rains a lot in British Columbia. They get bad weather out on the east coast. It is very cold up north, especially in the winter. And Manitoba is the mosquito capital of the world. But there is something about being smack dab in the middle of these Great Lakes that wrecks havoc with the weather.

It's not just the clouds of course, although we get plenty of that. It is cold and snowy. And sometimes it is rainy. All of this means we are not getting out observing. So we hibernate and suffer photon withdrawal. Oh sure there are lots of photons hitting my retinas all day long, but I mean 'ancient' photons. Photons that have been traveling for years to get to my eyes. Maybe photons that have traveled for thousands or millions of years. Those are the photons we need. Those are the photons we crave. Those are the photons we gather with our lenses and big mirrors to concentrate them onto our retinas or imaging chips. And they make us feel warm inside and give us a smile on our face and a sense of satisfaction.

So what I do is read magazines and cruise the internet and keep the hobby alive with 'pseudo' astronomy until the nights come clear again. I took part in the Galaxy Zoo project.

(www.galaxyzoo.org) They train you to classify galaxies (on the internet) and then send you images and you classify the galaxies and send your results back. It is fun and they have millions of images to classify. There are multiple people doing each image so they hope they can get good results. Some people crunch numbers for SETI looking for signals from alien life elsewhere in the galaxy. Other people will work on images they took months ago with their telescopes and coax out the detail and make them look pretty. Still others will work on their hardware and fix up and modify their scopes and tripods and everything else. And some lucky people get to travel south and go to star parties where it is warm and comfy and hopefully have clear skies. Winter has its uses.

But other than the last bit (traveling south) it isn't what people really want. I end up feeling like have SAD. Seasonal Affective Disorder. SAD is most likely caused by not getting enough photons from our local star and many just call it the winter blues. I can sense people have it. The biggest sign for me (the editor) is that I get very few articles. People don't have much to write about. When you are in the doldrums, you just don't feel like writing.

So come on spring and summer and bring the clear skies and once more we will all be looking up!

Moon Phases



January 8 2008 11:37



January 15 2008 19:46



January 22 2007 13:35



January 30 2008 5:03

Letter from the Editor

January 2008

Eyeball Observing

You don't always need to use a telescope or binoculars to enjoy the sky. Just a pair of eyes and a curious mind. Mars is a ruddy red and anyone can see that. It helps to find it in the sky. And Saturn is a very nice ivory white. Over the course of weeks or months you can see them move in relation to the background stars. That is why they are called planets. The word comes from the Greek word 'planetes' for wanderer. The ancient people knew they were different from the other stars. They also knew the sun had sunspots! Without a telescope that is really cool feat! And I just read an article about trying to see the phase of Venus with just your eyeballs. That would be trick!

London Centre Executive

President and ATM Chair

Dave McCarter
email: dmccarter (at) sympatico.ca

Vice-President and Newsletter Editor

Patrick Whelan
email: patusratus (at) sympatico.ca

Tri-County Public Star Party Coordinator, Librarian and Hume

Cronyn Coordinator

Robert Duff
519-439-7504
email: rduff (at) sympatico.ca

Treasurer and Sky and Telescope Coordinator

Bill Gardner
email: gardner.w (at) rogers.com

Secretary and Webmaster

Rick Saunders
email: ozzzy1 (at) real.ca

National Representative

Craig Levine
email: craigslevine (at) gmail.com

Observer's Chair

Peter Raine
pete_raine (at) rogers.com

Honorary President and past National President

Peter Jedicke
email: PJedicke (at) fanshawec.ca

Past President

John Rousom
email: jdr (at) netscape.ca

Observatory Trustee and Supplier of Fine Telescopes

Joe O'Neil
email: joneil (at) oneilphoto.on.ca

LONDON RASC MONTHLY MEETINGS

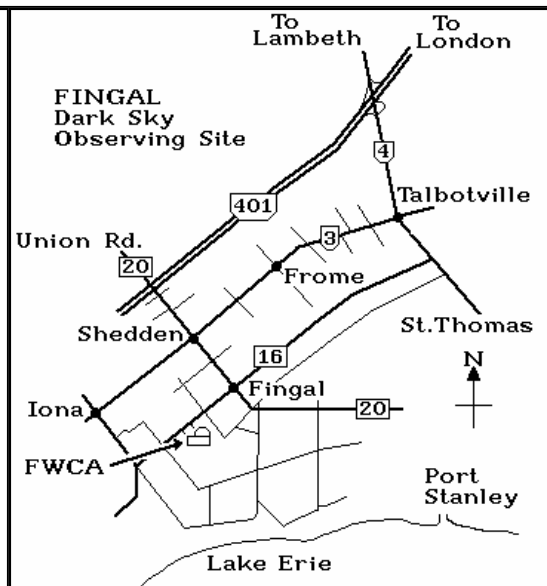
The London RASC group meets at Fanshawe college in London Ontario, September through July on the third Friday of the month at 19:00. They meet in room B1073.

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:

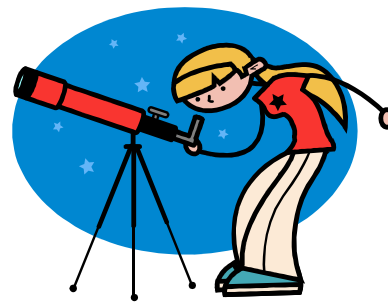
www.rasc.ca/London

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



Sky Events for January and February 2008

Jan 18 Moon 1.1 N of Pleiades (M45)
 Jan 20 Mars 1.1 S of Moon
 Jan 22 Mercury greatest elongation E (19)
 Jan 23 Moon 0.3 N of Beehive (M44)
 Jan 24 Regulus 0.7 N of Moon
 Feb 01 Venus 0.6 N of Jupiter
 Feb 01 Antares 0.6 N of Moon
 Feb 04 Jupiter 4 N of Moon
 Feb 04 Venus 4 N of Moon



Mercury is visible in the evening twilight
Mars rises around sunset and transits around 10 pm
Saturn rises in the east northeast and transits around 3:00am
Venus dominates the morning sky

R.A.S.C. London Centre Library Books of the Month January 2008 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 January 2008 are as follows:

The Backyard Astronomer's Guide, by Terence Dickinson & Alan Dyer. Revised Edition. 2002.

NightWatch: a Practical Guide to Viewing the Universe, by Terence Dickinson. 3rd Edition. c1998, 2003 printing.

Looking Up: a History of the Royal Astronomical Society of Canada, by R. Peter Broughton. c1994.

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

Simply scroll down the Web page and click on library of astronomy books under the section, Benefits of Membership, or go directly to the Library Web page at: <http://www.astro.uwo.ca/~rasc/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

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 December 4th—13th, 2008

By Robert Duff

Ingersoll Scouts, December 4th

On Tuesday, December 4th, 9 Scouts and 3 leaders of the Ingersoll Scouts enjoyed a digital slide presentation on the Constellations by doctoral student Alyssa Moldowan, which was followed by questions. Since there were clouds and some falling snow, I set up the RASC London Centre's 25.4cm Dobsonian inside the dome and also made ready the Cronyn Observatory's 25.4cm refractor. I gave a brief explanation of the Dobsonian after Alyssa demonstrated the observatory's big refractor. The Scouts enjoyed an interesting evening despite the clouds.

Baden Powell Scouts/Explorers, December 11th

On Tuesday, December 11th, members of the Baden Powell Scouts/Explorers enjoyed an interesting and informative digital slide presentation on the Constellations by doctoral student Alyssa Moldowan and it was followed by numerous questions. There were 18 visitors in all including 12 Scouts and 6 adults. Since it was cloudy, I made ready the Observatory's big 25.4cm refractor and also set up the RASC London Centre's Dobsonian inside the dome. Alyssa demonstrated the Cronyn Observatory's 25.4cm refractor and I explained the RASC London Centre's 25.4cm Dobsonian. Despite the clouds it was an evening well spent talking about astronomy and telescopes.

North Middlesex High School, December 13th

Clouds greeted 35 grade-9 students and 4 teachers / adults from North Middlesex High School who arrived on Thursday, December 13th, for the last Exploring the Stars event for 2007. Program coordinator and doctoral student Alyssa Moldowan gave an overview of the past 50 years of space exploration since Sputnik with her presentation, Mission to Space. The students asked a lot of questions and we had a good discussion concerning both robotic and human piloted missions. We took the students up into the dome where Alyssa demonstrated the big 25.4cm refractor after which I briefly explained the RASC London Centre's 25.4cm Dobsonian. In spite of the clouds the students had an interesting evening of discussion about space exploration with spacecraft and telescopes.

Joking Off

When Mr. Leno of the Tonight Show went J-walking and asked pedestrians some science questions, he discovered some amazing new facts about the universe:

Jay Leno: "Why does dew appear on plants in the morning when the Sun comes up?" A waitress: "Is it because the Sun makes them perspire?"

Jay Leno: "Why does the Moon orbit the Earth?" An auto mechanic: "To get to the other side?"

Jay Leno: "What are magnets?" A taxi driver: "Are they the things crawling over a week-old dead cat?"

Jay Leno: "Which is more useful, the Sun or the Moon?" A thirteen-year old: [Pause] "I think it's the Moon because the moon shines at night when you want the light, whereas the Sun shines during the day when you don't need it."

Internet Links

Here are some links that you might find useful. There may be no explanations with them, but here they are nonetheless.

Here is a site for comet pictures and all kinds of space photography:

<http://www.ne.jp/asahi/stellsr/scenes/english/comet.htm>

Gerald Kennedy

Here is a list of 100 top astronomy sites that Romek sent in:

<http://www.top100astronomy.com/>

Here is a huge list of amateur observatories sent by Miroslav:

<http://obs.nineplanets.org/obs/obslist.html>

And here is part of my astro-favourites:

Title	URL
Canon Digital Rebel Astrophotography Procedures	http://www.covingtoninnovations.com/dslr/EOS300Dastro.html
DSLR Images	http://spacetruckin.dyndns.org/DSLR/index2.html
Eyepieces	http://members.shaw.ca/quadibloc/science/opt04.htm
ISS and Shuttle flight paths	http://spaceflight.nasa.gov/realdata/sightings/cities/view.cgi?country=Canada&region=Ontario&city=London
Itchy's Astro Images	http://www.itchyastro.net/index.htm
London Clear Sky Clock	http://cleardarksky.com/c/Londonkey.html?1
London · Weather	http://www.theweathernetwork.com/weather/cities/can/Pages/CAON0383.htm
Mars Pathfinder Project Information	http://nssdc.gsfc.nasa.gov/planetary/mesur.html
National Weather Service Radar from Cleveland, OH	http://radar.weather.gov/radar_lite.php?rid=cle&product=N0R.&overlay=11101111&loop=yes
NWS Radar Mosaic Central Great Lakes Sector Loop	http://radar.weather.gov/Conus/centrtlakes_lite_loop.php
Pete's Film Astrophotography	http://www.petesastrophotography.com/index.html?mainframe=/tutorial.html&tutomain=/tutorial/polaralignment.html
SN-10 LXD75 EASY Polar Alignment	http://www.weasner.com/lxd/techtips/polar_alignment.html
sn10 focuser - Google Search	http://www.google.ca/search?hl=en&q=sn10+focuser&meta=
Solar System Images	http://www.sightsabove.com/gallery.php?cat=3
StarGPS	http://www.stargps.ca/
Astronomy free software	http://freeware.intrastar.net/astronomy.htm

www.skyshedpod.com
<http://www.astrobuysell.com/>
<http://www.astromart.com/>
www.oneilphoto.on.ca/news
www.astronomy-mall.com

Mars Exploration:
mar.jpl.nasa.gov

(Continued on page 6)

(Continued from page 5)

Pathfinder:

<http://mpfwww.jpl.nasa.gov/default.html>
www.hubblesite.org

Clear Sky Clock

<http://cleardarksky.com/c/Londonkey.html?1>
www.cloudynights.com
www.scopereviews.com

Mauna Kea!

<http://www.ifa.hawaii.edu/>

NASA for kids

<http://www.nasa.gov/audience/forkids/home/index.html>

NASA paper models

<http://www.nasa.gov/audience/foreducators/topnav/subjects/technology/Models.html>

Sky and Telescope

<http://skytonight.com/>

Now I understand why I didn't get a flood of emails with everyone's favourite astronomy sites. I found it quite difficult to get a nice list from Internet Explorer. I had to copy and paste the image you see on the previous page.

Miscellaneous Facts:

(I got these from this link: <http://www.astronomyforbeginners.com/astronomy/facts.php>)

When you look at the Andromeda galaxy (which is 2.3 million light years away), the light you are seeing took 2.3 million years to reach you. Thus you are seeing the galaxy as it was 2.3 million years ago.

Light from the sun takes 8 minutes to reach you, thus you see the sun as it was 8 minutes ago. It might have blown up 4 minutes ago and you wouldn't know about it!

The Earth is not a sphere! It actually is an oblate spheroid, it is squashed slightly at the poles and bulges out at the equator due to its rotation.

Spare a thought for the constellations that never made it into the official list... these include Machina Electrica (the electricity generator), Officina Typographica (The Printing Office), and Turdus Solitarius (the solitary thrush)

When Galileo viewed Saturn for the first time through a telescope, he described the planet as having "ears". It was not until 1655 that Christian Huygens suggested the crazy theory that they might be an enormous set of rings around the planet.

If you could put Saturn in an enormous bathtub, it would float. The planet is less dense than water.

A teaspoon-full of Neutron star would weigh about 112 million tonnes.

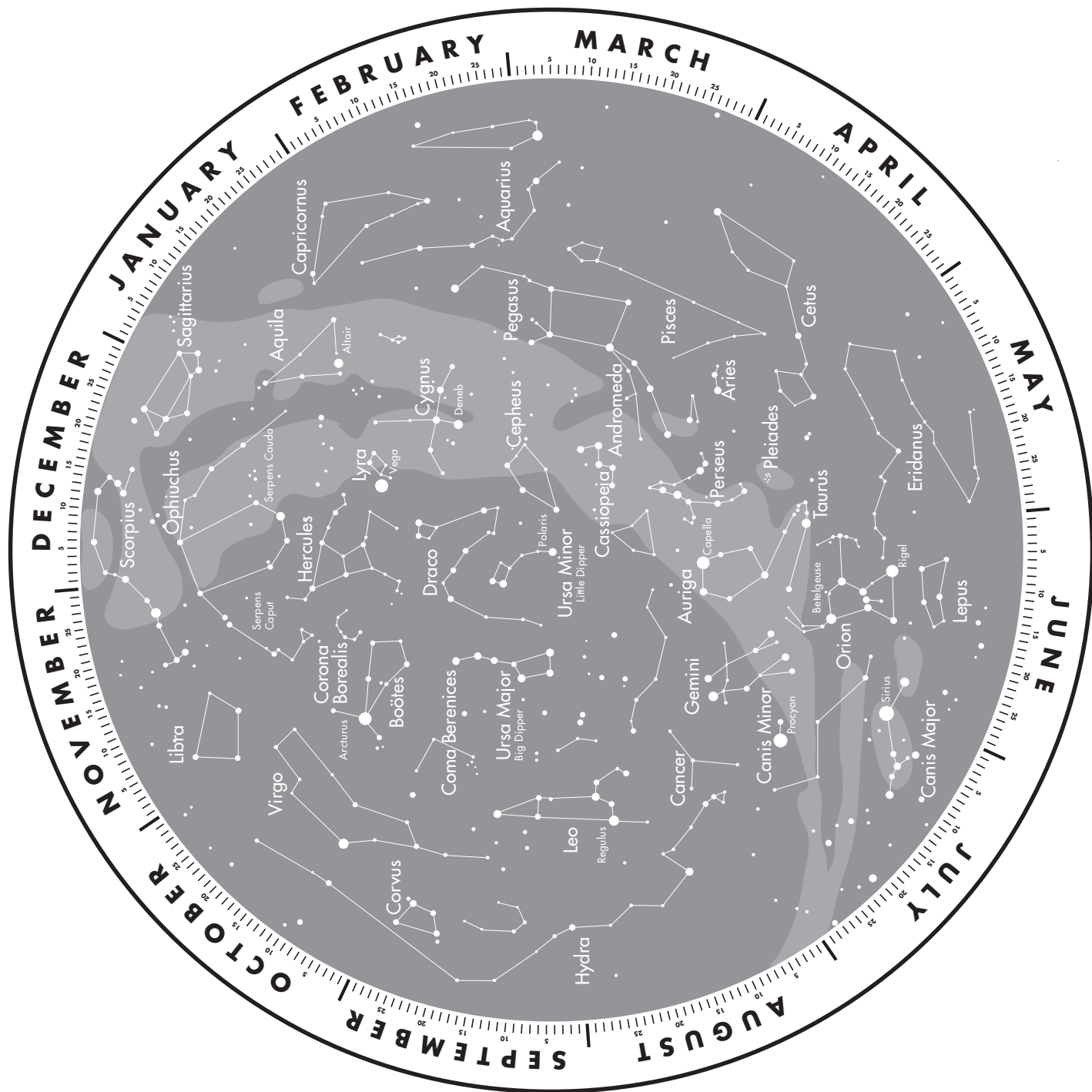
Jupiter is heavier than all the other planets put together.

Even on the clearest night, the human eye can only see about 3,000 stars. There are an estimated 100,000,000,000 in our galaxy alone!

The tallest mountain in the solar system is Olympus Mons, on Mars at a height of about 15 miles, three times the height of Mount Everest. It covers an area about half the size of Spain.

If the sun were the size of a dot on an ordinary-sized letter 'i', then the nearest star would be 10 miles away.

Half-a-billionth of the energy released by the sun reaches the Earth



WHAT TO DO

1. See Figures A and B. Photocopy each. Figure A is a replica of the star chart on the front of the poster. You may, if you wish, cut out a piece of cardboard and glue the star chart to it. Figure B represents the guide that will enable you to view the stars and constellations in the sky based on the time of day. Make sure to cut out the oval where indicated and fold the flaps (also indicated) down. Slide the star chart into the flaps. To determine which constellations and stars are visible on any given day or month, simply rotate the star chart disc. What appears in the oval is what you will see.

