

POLARIS



Royal Astronomical Society of Canada London Centre Newsletter May 2011

Astronomical Exercise John Kulczycki

How do you get some exercise while thinking about astronomy? Well, just take this short walking tour of our solar system!

Start at your house, which represents the sun, (or any other land mark you choose) and walk in any direction that will give you a long straight walk. If you like, take nine markers (stakes, balls etc...), that you can place on your journey through the solar system to represent the relative position of the planets.

Take 39 steps and place your maker for MERCURY.

Take another 33 steps and place your marker for VENUS.

Take another 28 steps and place your marker for EARTH. You are now a relative distance of One Astronomical unit (A.U.) from the sun.

Take another 52 steps and place your marker for MARS.

Take another 368 steps and place your marker for JUPITER. You are now a relative distance of 5.2 Astronomical units from the sun.

Take another 430 steps and place your marker for SATURN. You are now a relative distance of 9.5 Astronomical units from the sun.

Take another 970 steps and place your marker for URANUS. You are now a relative distance of 19.2 Astronomical units from the sun.

Take another 1090 steps and place your marker for NEPTUNE. You are now a relative distance of 30.1 Astronomical units from the sun.



Take another 1,890 steps to place your marker for PLUTO at the point of furthest distance during its 247.7-year elliptical orbit of the sun. You are now a relative distance of 49 Astronomical units (4,900 steps, almost 2.5 kilometers walking distance) from the sun. If you are tired from all this walking, you can take ten steps backward from

NEPTUNE to mark the closest point at which PLUTO orbits the sun.

So there you have a nice 5 km out and back walk for those sunny days or cloudy nights.

Moon Phases



May 10 2011



May 17 2011



May 24 2011



June 1 2011

Editor's Note

For the last many issues I have tried to keep the newsletter to only two pages. There are not a lot of submissions for the newsletter so it is pretty easy. However Bob Duff likes to write about all the outreach the club does and that he does as well. Bob's articles can get quite long since there is a lot of activity in our club. This issue like many others I have had to edit his article.

You can find the entire text of his articles in the Polaris newsletters online at:

<http://patusratus.ca/Polaris/index.html>

Keep up the great work Bob!

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LONDON RASC MONTHLY MEETINGS

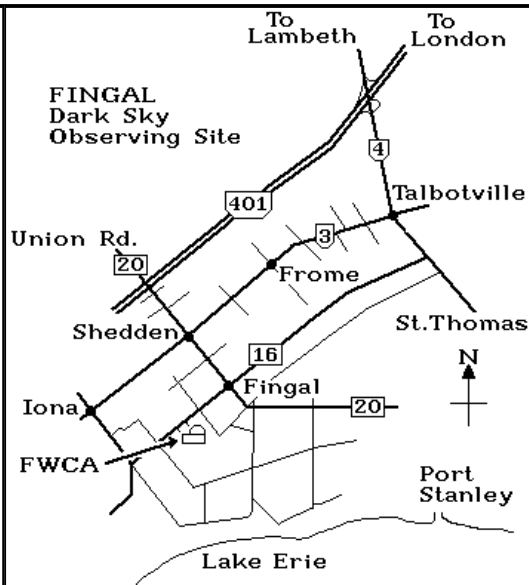
The London RASC group meets at Fanshawe College in London Ontario, September through July on the third Friday of the month at 19:00. We meet in room B1073.

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.

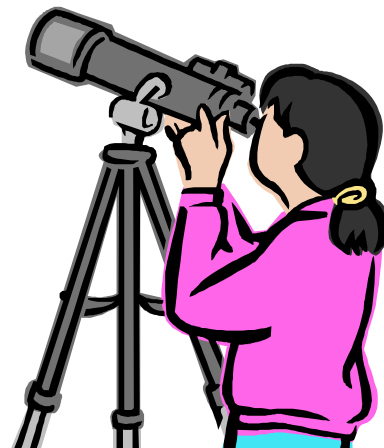
The London RASC webpage can be found at: www.rasc.ca/London

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



Sky Events for late May and early June 2011

May 20 Mercury 2.0 S of Mars
 May 21 Double shadow transit on Jupiter
 May 22 Venus 1.1 S of Mars
 May 25 Double shadow transit on Jupiter
 May 28 Double shadow transit on Jupiter
 June 1 Double shadow transit on Jupiter
 June 1 Partial solar eclipse
 June 3 Double shadow transit on Jupiter
 June 3 Moon 1.7 S of M35
 June 5, 8, 10, 12, 15 Double shadow transit on Jupiter
 June 15 Total lunar eclipse



Mercury is in superior conjunction
Venus is in the eastern morning sky
Mars is low in the dawn sky
Jupiter in low in the morning sky
Saturn is well placed in the western late-evening sky
Uranus is in the eastern morning sky
Neptune is in the eastern morning sky

R.A.S.C. London Centre Library Books of the Month May 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 May 2011 are as follows:

Burnham's Celestial Handbook: an Observer's Guide to the Universe Beyond the Solar System, by Robert Burnham. Revised and Enlarged Edition. c1978. Volume Two, Chamaeleon—Orion.

Webb Society Deep-Sky Observer's Handbook, compiled by the Webb Society, edited by Kenneth Glyn Jones. 1979-1990. Volume 4, Galaxies

Star Ware: the Amateur Astronomer's Ultimate Guide to Choosing, Buying, and Using Telescopes and Accessories, 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



Star Nights & Other Events

By Robert Duff

Slide Presentation & Solar Observing, Orchard Park Public School, May 5th, 2011

On Thursday, May 5th, Dave McCarter spent the afternoon with 17 interested students in the grade 5/6 class at Orchard Park School. He used Stellarium to tour the night sky as if they were at Fingal. During afternoon recess Dave set up his 80mm Stellarview refractor equipped with a white-light so-

lar filter and showed the students complex sunspots on the Sun's surface. Following recess the discussion turned to black holes, asteroids and meteorites. The students got to hold and examine several meteorites.

Star Night, Orchard Park Public School, May 5th, 2011

A hazy sky with some clouds did not dampen the spirits of some 40 children and adults, including 17 grade 5-6 students with their teachers and parents, at Orchard Park Public School in London on Thursday evening, May 5th. Five RASC London Centre members were there including Harold

May 2011

(Continued from page 3)

Tutt, with his 80mm Stellarvue refractor; Dave McCarter with his 25.4cm Dobsonian and 80mm Stellarvue refractor; Everett Clark, with his 11.4cm Newtonian reflector, Bob Duff with his 20.3cm Dobsonian; and Maria Lavdas.

Observing began around 8:00 p.m. with people viewing the two-day-old crescent Moon through hazy clouds in the west. As the sky darkened they observed Saturn, Arcturus, the double star Castor and Mizar and Alcor through various telescopes. It was a great evening and everyone was gone by 9:45 p.m.

Star Night, Byron Northview Public School May 9th, 2011

Hazy clouds cleared out early in the evening as some 35 grade-6 children and 15 parents arrived for a star night at Byron Northview Public School, Monday, May 9th, 8:00 p.m.

RASC London Centre members included Phil Marusaik, with his 127mm Sky-Watcher Maksutov; Everett Clark, with his 11.4cm Tasco Newtonian; Mike Roffey, with his Celestron 80mm refractor; Peter Jedicke, with his 50mm Galileoscope; Dave McCarter with his 25.4cm Dobsonian; Bob Duff, with his 20.3cm Dobsonian; and Harold Tutt as advisor. In addition, there was one 20.3cm Sky-Watcher Dobsonian set up by the grade-6 teacher.

Dave found Saturn in the still bright evening sky and a lineup quickly formed at his telescope. Splendid views of the one-day-prior-to-full Moon and Saturn were revealed in all the telescopes. Dave pointed out various sky objects with his green laser pointer. Several people photographed both the Moon and Saturn through various telescopes using their cell phones. There were many questions and it was generally a very informative evening. Everybody was gone by 9:45 p.m. after what was a very enjoyable star night.

Star Night, London Regional Children's Museum, May 13th, 2011

Despite cloudy skies Dave McCarter set up his 25.4cm Dobsonian in the playground outside the London Regional Children's Museum on Friday, May 13th, for a star night beginning 7:00 p.m. He was joined by Harold Tutt. Bob Duff brought his 50mm Galileoscope and set it up on a camera tripod. Matt Neima arrived and set up his 20.3cm Celestron Schmidt-Cassegrain on its Losmandy mount. After a fleeting glimpse of the gibbous Moon through hazy clouds they showed a handful of visitors tree branches across the street. In all there were perhaps 3 adults, who stopped to talk, and 2 children looked through the telescopes. After a brief conversation with the museum staff member coordinating the event they left around 8:20 p.m. with hopes of clear skies for a future star night.

Astronomy Display, Cherryhill Village Mall, May 14th, 2011

On Saturday, May 14th, 10 a.m.—4 p.m., RASC London Centre Members set up a Mall Display at Cherryhill Village Mall in cooperation with McKittricks Photo/Video/Astro. Paul Kerans set up his newly acquired Obsession Truss-Tube Dobsonian with its 22-inch (56cm) Galaxy Optics mirror. Other members who brought telescopes included Matt Neima, with his 20.3cm Celestron Schmidt-Cassegrain on its Losmandy mount and Harold Tutt and John Kulczycki, with their alt-azimuth mounted 80mm and 70mm Stellarview refractors, respectively. Bob Duff set up the London Centre's digital slide projector and Bill Gardner got it going to show 337 celestial slides continuously on a screen provided by McKittrick's. Charlie Barbara arrived, and with an extra table provided by the Mall, set up an extensive display of meteorites, which attracted a lot of public attention. In all we had an estimated 30 people stopping to chat with members about meteorites and ask questions about telescopes. One man brought the primary mirror of his 11.4cm Celestron Newtonian for advice on collimation.

(Continued on page 5)

May 2011 Pocket Sky Atlas Challenges

So here we are, another orbit of the Sun is complete for the Pocket Sky Atlas Challenges. I hope these monthly exercises have helped all the folks who were part of the original purchase of the PSA at London RASC, to become more comfortable with this very useful set of charts. For others I hope it was enough to encourage purchasing a copy of your own.

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

Naked Eye:

Zubeneschamali, Zubenelgenubi Page 56; Izar, Page 53; Eltanin, Page 63.

Small Scopes and binoculars:

Mebstuta Page 25 ; NGC 7662 Page 72; NGC 7039, Page 73; Brocchi's Cluster, Page 65; M18, Page 67; NGC 6814, Page 66.

Larger Scopes:

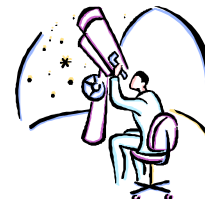
NGC 4612, Page 45; UGC 6887, Page 45; NGC 5363, NGC 5364 Page 44.

Bonus objects:

NGC 5694, Page 46; NGC 6760, Page 65.

Happy hunting.

John Kulczycki



An older gentlemen came with a telescope, indicated to have been made in 1867 (date uncertain) obtained from his father and in his family since then. It had a couple of screws missing and had tape around it. Harold and Bill gave him Dave Rubenhagen's name to contact for replacing them with proper thread-sized screws. Peter Jedicke later suggested the telescope was an antique of historical interest and that we should get him to the CASCA Conference to see RASC Archivist Randall Rosenfeld. Someone in the Ottawa museum is the top expert.

In all 11 RASC London Centre members showed up for most or part of the day, including Paul Kerans, Matt Neima, Harold Tutt, Bill Gardner, Rick Saunders, Charlie Barbara, Dan Tremblay, Roman Dubinski, John Kulczycki, Peter Jedicke and Bob Duff.

Thank you to everybody who helped out, especially Charlie Barbara with his meteor collection and Paul Kerans with his 22-inch Galaxy mirror / Obsession telescopes as well as to Matt, Harold and John for bringing their telescopes.

Exploring the Stars, Cronyn Observatory, January 12th—April 21st, 2011: Summary Report

By Robert Duff

A total of 35 Exploring the Stars events took place, January 12th—April 21st, 2011, which involved 945 visitors (children and adults). RASC London Centre members took part in 32 out of 35 of these events, involving 857 out of 945 visitors. There were no RASC London Centre members present for the March 22 (25+ visitors), April 5th (56 visitors) and April 19th (7 visitors) events.

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We would like to thank the following RASC London Centre members for volunteering with Exploring the Stars: Greg Andres, Richard Gibbens, Paul and Charlene Kerans, Dave McCarter, Mike Roffey, Harold Tutt and Bob Duff.

Cronyn Observatory Open Houses, January 29th and March 26th, 2011

There were just two Cronyn Observatory Open Houses on the last Saturday of the month, including January 29th (22 visitors) and March 26th (about 50 visitors) for a total of about 72 visitors. We would like to thank the following 7 RASC London Centre members for assisting with these events: Dave McCarter, Paul and Charlene Kerans, Mike Roffey, Adam Priestap-Suttis, Patrick Whelan and Bob Duff.

Exploring the Stars, Cronyn Observatory, April 5th, 12th—21st, 2011

By Robert Duff

The following Exploring the Stars event on April 5th was not recorded in the April 2011 edition of *Polaris*:

Exploring the Stars, UWO Lab School JK/SK Kindergarten, April 5th, 2011

Graduate student Emily McCullough made the digital slide presentation, "Our Solar System," before 56 visitors, 28 children (ages 3-5) and 28 adults, from the University of Western Ontario Lab School at the Cronyn Observatory for Exploring the Stars, Tuesday, April 5th, 6:00—7:30 p.m. She followed this with activity, "Solar System Walk," and a tour of the big 25.4cm refractor in the dome. While there were no RASC London Centre members present, Emily gave two RASC London Centre brochures to interested adults.

Exploring the Stars, 29th Byron Cub Pack, April 12th, 2011

Clear skies with a few clouds greeted 28 visitors (17 children and 11 adults) from the 29th Byron Cub Pack to the Cronyn Observatory for Exploring the Stars, Tuesday, April 12th, 7:00 p.m. Graduate student Alexander DeSouza made the digital slide presentation, "Life in the Universe," and answered questions. Alexander gave the group a tour of the big 25.4cm refractor in the dome and this was followed by observing.

The Cubs, leaders and parents enjoyed splendid views of the one-day-past First Quarter Moon and Saturn through the 25.4cm refractor, using the Meade 28mm Ultra-Wide Angle eyepiece (157X). RASC London Centre member Bob Duff showed them additional views of the moon and Saturn through the London Centre's 25.4cm Dobsonian set up on the Observatory's roof patio, using the 17mm Nagler (67X) and 6mm Orthoscopic (190.5X) eyepieces. Everybody was gone by around 9:00 p.m.

after a very interesting and enjoyable evening of astronomy.

Exploring the Stars, 68th London Beaver Colony, April 13th, 2011

Graduate student Robin Wing made the digital slide presentation, "The Brownie Exploring Space Badge," before 24 visitors (16 children and 8 adults) from the 68th London Beaver Colony at the Cronyn Observatory for Exploring the Stars, Wednesday, April 14th, 7:00 p.m. Clearing skies enabled Robin to show them excellent views of the Moon through the big 25.4cm refractor in the dome, using the Meade 28mm Ultra-Wide Angle eyepiece (157X). RASC London Centre member Bob Duff showed them additional views of the Moon through the 25.4cm Dobsonian set up on the Observatory's roof patio, using the 17mm Nagler (67X) and 6mm Orthoscopic (190.5X) eyepieces. Everybody was gone by around 8:30 p.m. after an enjoyable and informative evening of astronomy.

Exploring the Stars, Huron Heights French Immersion School, April 14th, 2011

Clear skies greeted 47 visitors (24 students and 23 adults) from Huron Heights French Immersion School, Grade-6 class, at the Cronyn Observatory for Exploring the Stars, Thursday, April 14th, 6:30 p.m. Graduate student Emily McCullough made the presentation, "The Big Bang." A graduate student from the Centre for Planetary Science and Explorations (CPSX) was also present. RASC London Centre members Paul and Charlene Kerans set up their 30.5cm Meade Lightbridge Truss-Tube Dobsonian on the roof patio alongside the London Centre's 25.4cm Dobsonian set up by Bob Duff.

Emily showed visitors the Moon and later Saturn through the big 25.4cm refractor, using the 28mm Meade Ultra Wide Angle eyepiece (157X). They also observed the Moon and Saturn through Paul and Charlene's 30.5mm and the London Centre's 25.4cm Dobsonian. The visitors were gone by around 8:30 p.m. after an enjoyable and interesting evening of astronomy.

Exploring the Stars, Family Booking, April 19th, 2011

Graduate student Alexander DeSouza reported that he had a family booking for Exploring the Stars, Tuesday, April 19th, 7:30—9:00 p.m. The group was from Windsor and there were 7 adults in total. A lady in the group organized it as a present for her husband. Alexander made a special presentation, which he said might be called, "Exploring the Stars." It was a successful eve-

ning despite overcast skies and rain, which ruled out observing. There were no RASC London Centre members present at this event.

Exploring the Stars, Calvinist Cadets, Thursday, April 21st, 2011

Representing the RASC London Centre, Dave McCarter reported that there were 25 visitors from the Calvinist Cadets, including 15 boys and 10 adults (4 much older boys and 6 men) at the Cronyn Observatory for Exploring the Stars, Thursday, April 21st, 7:00 p.m. Graduate student Emily McCullough made the presentation, "Life in the Universe."

Dave opened the dome and put out the London Centre's 25.4cm Dobsonian. He found Saturn in the Dobsonian shortly after 8:00 p.m. but had to find it again when one of the visitors bumped the scope. Emily was pleased that people could see Saturn in the telescope while still invisible to the unaided eye. Dave eventually found Saturn in the big 25.4cm refractor, using the 12mm Orthoscopic eyepiece (365.5X) to get some great views. He also showed them 3 nice double stars, including Mizar, Cor Caroli and Castor. They saw the ISS (very bright) as it came over the Engineering building and followed it until it disappeared behind Alumni Hall. Emily reported that they also looked at the Big Dipper and found Polaris. It was a very enjoyable evening of astronomy.

Cronyn Observatory Saturday Evening Summer Open House, May 7th—14th, 2011

By Robert Duff

Cronyn Observatory Open House, Saturday, May 7th, 2011

Astronomy faculty member Dr. Els Peeters made a digital slide presentation while Dr. Jan Cami operated the big 25.4cm refractor in the dome for the first Open House of the 2011 summer season, Saturday, May 7th, 8:30 p.m. Els Peeters began her digital slide presentation, "The PAH Universe," with an audience of 4 people, which would increase to 18 visitors by the end of the evening.

Clear skies made for an excellent evening of observing. Jan Cami showed visitors the 4-days-past-new crescent Moon through the Observatory's 25.4cm refractor, which delivered splendid views with the 28mm Meade ultra-Wide-Angle eyepiece (157X). He later directed the big telescope towards Saturn.

Steve Imrie, Dave McCarter and Bob Duff represented the RASC London Centre. From the Observatory's roof patio Steve showed visitors the Moon, Saturn, Mizar and Alcor and other sky objects through his 20.3cm Orion SkyQuest Dobsonian. Using the London Centre's 25.4cm Dobsonian, Bob and Dave showed them the Moon, Saturn, Arcturus, the double star Castor, the galaxies M51, M82 and the globular clusters M13 and M5. The Observatory was closed down around 11:00 p.m. after a great evening under the stars.

Cronyn Observatory Open House, Saturday, May 14th, 2011

Cloudy skies ruled out observing at the Cronyn Observatory for the Open House, Saturday, May 14th, 8:30 p.m. Postdoctoral student Mohaddesseh Azimlu made her digital slide presentation, "Stars from Birth to Death," before 2 visitors who were soon joined by 2 more. Two more people arrived in time for a tour of the big 25.4cm refractor in the dome by Professor Carol Jones, for a total of 6 visitors that evening. Bob Duff set up the RASC London Centre's photo display and invited the visitors to take copies of the March / April and May / June 2011 issues of Sky News magazine received earlier that day from McKittrick's Photo / Video at the Astronomy Day display at Cherryhill Mall. The visitors were very appreciative of both the presentation and the issues of Sky News, RASC London Centre brochures and copies of "Become a Sidewalk Astronomer." Everybody left the Observatory by around 9:30 p.m., under a heavy downpour or rain.