POLARIS

Royal Astronomical Society of Canada
London Centre Newsletter
September 2009

3D-Parallax-Parsecs
Patrick Whelan

Isn't it wonderful to have bilateral symmetry? Do you know what that means?

It means that our bodies are, more or less, the same on the right as on the left. If we put the edge of a mirror along the middle of our bodies we would still look normal, like a person.

We have left and right arms, hands, legs, feet, ears, eyes, eyebrows and, well you get the picture!
I want to talk about one small bit of this symmetry. Or two bits of it I guess, the eyes.

Having two eyes gives us a tremendous ability. We can detect distance and see in three dimensions (binocular vision or stereopsis). Try walking around with a patch over one eye and you will quickly 'see' what I mean. It will be hard to judge distances, and if you don't move around, things will look flat.

In nature predators usually have binocular vision while prey do not. Think of predator animals, wolves and dingoes and hyenas and lions and tigers and cougars. Think of prey animals, deer and antelope and zebras. The predators have two on the front of their head. They see in three dimensions and can gauge how far their prey is. Prey animals have two eyes but one on each side of their head. They don't see so much three dimensions but they see a lot more all around them. One eye sees pretty everything to the left and other eye everything to the right. If they detect movement, perhaps a predator, they are ready to run.

Two eyes on the front of the head. Three dimensional vision. How does this work? Look at a distant object. It doesn't have to be really far away. The other side of the room you are in or if you are outside, something on the horizon. Now put your hand in front of you with one finger pointing up. (careful which finger you choose if there is anyone else around..) Close one eye leaving the other open and notice where your finger is in relation to the distant object. Now close the other eye and open the one you closed the first time. You should notice that your finger now has a radically position in comparison to the distant object.

If your finger is close to your face and you try this, you should notice that your right eye sees more of the right side of the object and your left eye sees more of the left of it. When you have both eyes open your brain fuses these two images together and that is how we see things in three dimensions. This is the basis of depth perception.

Strictly speaking you don't need two eyes to perceive depth. Try this experiment. If you are in a room, pick out something that is half way between you and the wall. If you are outside, pick something that is about 3 to 7 meters away. Now with only one eye open look at the object and its position relative to the wall or an object on the horizon. Now move your head to the right and left. You will see the near object moves in relation to the distant object. Using only one eye you can tell the object is closer to you by the way it moves. That it parallax.

If you have ever viewed 3D pictures you know exactly what I mean. The ViewMasters so many of us had as children are a perfect example. There are two pictures of a scene. One picture represents one eye's view of the scene and the other picture represents the other eye's view of the scene. When we view them with a 'viewing device', they become three dimensional.

So what does all this have to do with astronomy? Up to now, nothing. But here it comes:

We can use the principle of parallax to measure astronomical distances! How? We measure and note the positions of stars in regards to other stars. We can then measure the positions again after 6 months. Why after six months? Our planet Earth circles the Sun. The diameter of the orbit is approximately 300,000,000 kilometers. If we take pictures or measurements 6 months apart that is like having our eyes 300,000,000 kilometers apart from each other! So in essence we are 'blinking our eyes' (which are

(Continued on page 4)

Moon Phases


Sept 18 2009


Sept 26 2009


Oct 4 2009


Oct 11 2009

Starfest: A Celebration of Tornados?

My daughter and I normally camp the week of Starfest at a provincial park and then arrive at Starfest on the Thursday. This year was no different.

We were driving to Starfest from Collingwood where we had just finished the Ecotour at Scenic Caves. The weather was intense with torrential rains and lightning. Arriving in Durham I remarked they must have had high winds since I could see a large tree branch that had fallen. Then I noticed there was a house with no roof and a house with all its siding removed. We had missed the Durham tornado by a couple hours! The devastation was horrible. It made my heart sink and then I thought of the campers at Starfest.

Starfest had suffered high winds and most dining shelters were ruined but everyone was okay. What a relief.

And we even had some clear skies!

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

LONDON RASC MONTHLY MEETINGS

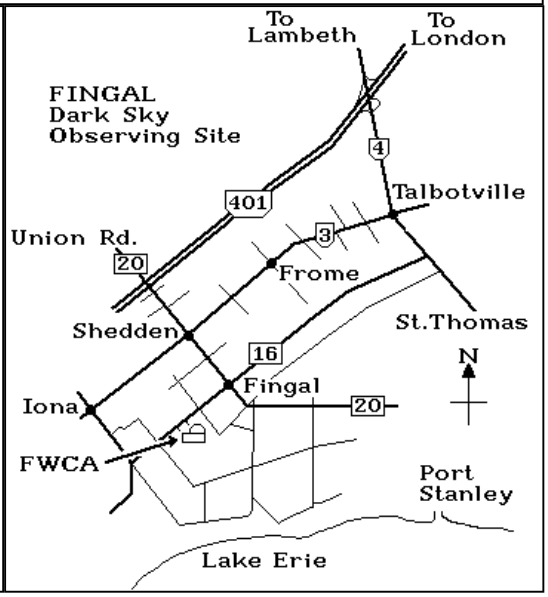
The London RASC group meets at Fanshawe college in London Ontario, September through July on the third Friday of the month at 19:00. They meet in room B1073.

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 September and October 2009

September 20 Venus 0.5° N of Regulus
September 22 Equinox
September 24 Antares 0.8° S of Moon
October 6 Mercury greatest elongation W
October 10 Moon 1.2° N of M35
October 12 Mars 1.2° N of Moon
October 13 Venus 0.6° S of Saturn
October 15 Zodiacal light

Venus is the morning star
Mars is in Gemini
Jupiter transits at 9:50 on the 15th
Saturn is in conjunction with the Sun on the 17th
Uranus is in Pisces and can be seen with the unaided eye

R.A.S.C. London Centre Library
Books of the Month September 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 September 2009 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 Three, Pavo—Vulpecula.

Relativity: the Special and the General Theory, by Albert Einstein. Authorized translation by Robert W. Lawson. Introduced by Roger Penrose. London: The Folio Society, 2004.

Universe on a T-shirt: the Quest for the Theory of Everything, by Dan Falk. c2002.

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.

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300,000,000 kilometers from each other) and trying to see if any stars move around compared to others. And there is! By using this technique we can figure out which stars are really far away, (they don't move at all) and which stars are really quite close since they do move. You can see what I mean by looking at the diagram.

When we measure the angle that a star moves in relation to distant stars we can then determine the distance in 'parsecs'. The parsec (3.26 light-years) is defined as the distance for which the annual parallax is 1 arc second. The nearest star to the Sun (and thus the star with the largest parallax), Proxima Centauri, has a parallax of 0.77 arc second, which is 1.29 parsecs. This angle is approximately what an object 2 centimeters in diameter would look like 5 kilometers away! Because the angles are so small, using parallax to measure stellar distances only works out to a distance of about 160 light years. That is about 1/10 of a percent of the size of our galaxy. There is a satellite that was launched to increase the sensitivity of parallax called Hipparcos. It can measure up to 1600 light years away, but that is only 1% of the size of our galaxy.

From predators and prey to binocular vision to measuring distances to stars. Have a great month!

Bad sky

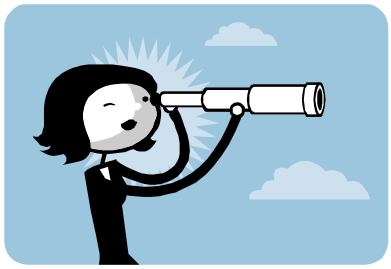
Starfest Panorama 2009

Nice sky

September Pocket Sky Atlas Challenges

By 20:30 hours you should be able to start doing astronomy on a September night. No more waiting for darkness. Time to dust off and air out the warmer clothes you'll need this fall for observing sessions. It's also a good time to get kids out to the telescope before the weather turns cold. Any Astronomy seeds you plant now will most likely sprout in late spring.

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



Naked Eye:
M31 Page3, Algol Page 2

Small Scopes and binoculars:
NGC 752 Page 2, M27 Page 67

Larger Scopes:
M33, Page 5 NGC 6891 Page 64

Bonus objects:
NGC 7635 Page 72
NGC 6633 Page 65

Happy hunting

John Kulczycki

THE BOB DUFF REPORT

Cronyn Observatory Saturday Evening Summer Open House, May 2nd—August 29th, 2009

By Robert Duff

Cronyn Observatory Open House, Saturday, July 18th

It was raining when I arrived at the Cronyn Observatory just before 8:30 p.m. on Saturday, July 18th. Graduate students Amanda Papadimos and Sarah Malek were there and had already laid out Galileo Moment cards. I set up the RASC London Centre's photographic display and brochures on the table just behind the GM cards and placed the IYA 2009 poster board at the front of the room beside the screen. Richard Gibbens was also there.

Two boys with their father expressed an interest in the display and the RASC London Centre and took a brochure. I told them they could come to our meetings and they wanted to bring their telescope out to Fingal.

Amanda began with the IYA 2009 trailer and followed this with her presentation on "Planets." The evening began with 24 visitor, which later increased to 28. People asked questions following Amanda's interesting presentation. Sarah Malek showed people the telescope in the dome but there was no observing due to the rain. The evening was ended with the Observatory being closed down just before 10:00 p.m.

Cronyn Observatory Open House, Saturday, July 25th

It was cloudy with rain showers when I arrived at the Cronyn Observatory around 8:30 p.m. on Saturday, July 25th. I set up the RASC London Centre's photographic display and IYA 2009 poster board and laid out brochures and GM cards on the table in the lecture room. RASC London Centre member Richard Gibbens was also there.

Dr. Martin Houde made his digital slide presentation, "Submillimetre Astronomy," before a group of 15 visitors. Graduate student Talayeh Hezareh gave them a tour of the big refractor in the dome. Two groups, of 3 and 4 people respectively, arrived later and also went up into the dome. In all, I counted 22 visitors and the Observatory was closed around 10:00 p.m.

Cronyn Observatory Open House, Saturday, August 1st

Clouds made for an unlikely star night at the Cronyn Observatory when I arrived just after 8:00 p.m. on Saturday, August 1st. I set up the RASC London Centre's photographic display and IYA 2009 poster board and laid out brochures and Galileo Moment cards on the table in the lecture room. London Centre member Richard Gibbens was also there.

Peter Jedicke made a digital slide presentation, "The Wonderful Universe," a title borrowed from a 1922 lecture by London Centre founder, Dr. H. R. Kingston. Peter also displayed his Galileoscope on a camera tripod. There were 16 visitors at the beginning of the presentation, and 30 visitors in all by the end of the evening.

Graduate student Shadi Chitsazzadeh directed the 25.4cm refractor in the dome towards the red lights on the communications tower in south London. However, we were also able to show visitors glimpses of the gibbous Moon between clouds until the sky became completely clouded out to the south. We made sure people took GM cards and Peter called everybody's attention to the booklet, "Become a Backyard Astronomer."

We closed down the Observatory near 11:00 p.m. after an evening with a digital tour of the universe, some viewing through the big telescope in the dome and lively discussion.

Cronyn Observatory Open House, Saturday, August 8th

Peter Jedicke reported in his e-mail that, despite occasional rain and almost complete overcast, some 20 visitors attended the Cronyn Observatory Open House on Saturday evening, August 8th. Richard Gibbens was also there. Graduate student Meghan McGill and fellow students, Rhianan and Reto, were there. Reto made the digital slide presentation and Rhiannon showed the visitors the 25.4cm refractor in the dome. People were given Galileo Moment cards and invited to look at a nearby EXIT sign through Peter's Galileoscope set up with a camera tripod on the Observatory's roof patio. There was heavy rain after everybody left.

Cronyn Observatory Open House, Saturday, August 15th

Tom Czinege, an interested non-member, reported in his e-mail that he went to the Cronyn Observatory Open House, Saturday, August 15th, with his GEM mounted Celestron C8 Schmidt-Cassegrain telescope.

RASC London Centre member Eric Clinton was also there with his son Ben and set up his 130mm Astro-Physics Starfire refractor on the front lawn. Eric's son Ben set up their venerable orange-tube Celestron C5 Schmidt-Cassegrain on the west side of the roof patio, while Tom Czinege set up his C8 on the east side.

Eric Clinton reported in his e-mail that he showed visitors Jupiter (83X) and Albireo through his Starfire refractor. He also pointed out several satellites with his green laser pointer. His son Ben showed people Jupiter and a few stars in his C5.

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Eric mentioned seeing Dr. Amelia Wehlau and London Centre member Paul Chodas, who works as an Orbital Dynamicist at JPL in Pasadena, California. Dropping by the Cronyn on a family visit to London, Paul Chodas was evidently impressed by the knowledge of the amateurs using the telescopes.

RASC London Centre member Steve Imrie also reported in his e-mail that he set up his 20.3cm Dobsonian on the front lawn and showed visitors Jupiter.

Graduate students Alexander DeSouza and Emily McCullough were there along with undergraduate student, Cory Shankman. Emily was just back from Eureka in the High Arctic.

Emily McCullough reported, in her e-mail that there were well over 100 people, probably close to 140—150. The lecture room was completely full with people standing and Tom Czinege estimated that there were over 100 visitors, perhaps 120—140.

Graduate student Alexander DeSouza gave a digital slide talk on "Star Formation" and there was a steady traffic of visitors through the dome all evening. They spent a lot of time looking at Jupiter through the big 25.4cm refractor in the dome and—with the four Galilean moons visible—there were definitely some Galileo moments!

Cronyn Observatory Open House, Saturday, August 22nd

Clouds seemed to make for an unlikely star night at the Cronyn Observatory when I arrived after 8:00 p.m. on Saturday, August 22nd. I set up the RASC London Centre's photographic display and IYA 2009 poster board and laid out London Centre brochures, copies of "Become a Sidewalk Astronomer" and Galileo Moment cards on the table in the lecture room.

Dr. Gordon "Oz" Osinski began with the IYA2009 trailer shortly after 8:30 p.m. and this was followed by his digital slide presentation, "Meteorite Impact Events: the Good, the Bad and the Ugly!" Graduate students Stephanie Keating and Robbie Halonen were also there. The sky cleared dramatically during the course of the slide presentation.

Peter Jedicke arrived with his Galileoscope on a camera tripod for demonstration, and later went home to get several Galileoscopes, which he sold to enthusiastic visitors. Former RASC London Centre member and current Ottawa member, Dale Armstrong also arrived and helped me show visitors Jupiter, M13, M15, M57 and Albireo through the 25.4cm Dobsonian set up on the roof patio. Peter showed visitors Jupiter through his Galileoscope.

Graduate student Robbie Halonen showed visitors Jupiter through the 25.4cm refractor in the dome at 137X, using the 32mm Erfle eyepiece. He later showed them the Andromeda Galaxy (M31). In all some 54 visitors came to the Cronyn and closing down of the observatory did not begin until around 11:15 p.m. All in all it was a very successful Cronyn Open House.

Cronyn Observatory Open House, Saturday, August 29th

Clear skies greeted visitors to the Cronyn Observatory on this last evening of the Summer Open Houses, Saturday, August 29th. Undergraduate students Allison Hill and Patrick Cookson were there along with graduate student Meghan McGill. RASC London Centre member Richard Gibbens was also there. Since nobody had a key, a Campus Security Officer unlocked the door and allowed us into the Observatory, along with some 30—40 visitors.

The room was full by the time I made a brief presentation to the audience, explaining how the International Year of Astronomy, 2009, celebrated 400 years since Galileo directed a telescope at the sky in 1609 and reported his observations. I invited people to take the Galileo Moment cards laid out on the table in front of the RASC London Centre's photographic display and IYA 2009 poster board, which I had brought along with London Centre brochures and copies of "Become a Sidewalk Astronomer."

Undergraduate student Allison Hill made her digital slide presentation on "Stellar Astrophysics" while graduate student Meghan McGill showed visitors views of the gibbous Moon through the 25.4cm refractor in the dome. Another student helped me set up the RASC London Centre's Dobsonian on the front lawn, since the Security Officer had not unlocked the door to the roof patio. We gave visitors pleasing views of Jupiter through the Dobsonian with the 17mm Nagler eyepiece (67X).

People got good views of the Moon through the 25.4cm refractor in the dome and of Jupiter through the London Centre's Dobsonian until the sky clouded over. RASC London Centre member Suzie Chelico arrived and counted 75 visitors in the lecture room. Earlier, I had counted some 75 people in the lecture room and an additional 10 in the dome making the total visitor count

some 85 people.

The Security Officer locked up the Observatory for us at around 10:45 p.m. after a successful evening of an astronomy lecture and stargazing. It was a very satisfactory end to the Cronyn Observatory Saturday evening Open Houses for the 2009 summer season.

Cronyn Observatory Saturday Evening Summer Open House, May 2nd—August 29th, 2009 Summary Report

By Robert Duff

As Outreach Coordinator for the Royal Astronomical Society of Canada, London Centre, I would like to acknowledge with my deepest thanks the London Centre members who took part in the Saturday evening summer Open House at the Hume Cronyn Observatory, May 2nd—August 29th, 2009.

A total of 15 RASC London Centre members (and one non-member with a telescope) took part in all 18 of these Open House events, including: Stuart Happy, Mike Roffey, Bill Gardner, Greg Andres, Steve Imrie, Adam Priestap-Suttis, Dave McCarter, Peter Jedicke, Robert Duff, Craig Levine, John Bontje, John Kulcycki, Eric Clinton, Richard Gibbens, Suzie Chelico, Dale Armstrong (Ottawa member) and one non-member, Tom Czinege. In all, 13 amateur telescopes were used and we counted some 672 visitors to the Cronyn Observatory.

This was especially significant as the International Year of Astronomy, 2009, celebrating 400 years since Galileo directed a telescope at the sky and reported his observations. Visitors were invited to take Galileo Moment cards and view the RASC London Centre's photographic display and IYA 2009 poster board, as well as take London Centre brochures and copies of "Become a Sidewalk Astronomer."

Objects observed included the Moon, the planets Saturn and Jupiter; the galaxies M81 and M82; the globular cluster M13; the Ring Nebula (M57) and the double and multiple stars Mizar and Alcor, Albireo and Epsilon Lyrae. People asked a lot of questions about astronomy and made many inquiries about the London Centre.

Astronomy Slide Presentation, Grand Wood Park Apartments & Retirement Residence, Tuesday, July 21st

By Robert Duff

I made a digital slide presentation before a small group of residents at the Grand Wood Park Apartments & Retirement Residence, on Tuesday evening, July 21st, beginning around 6:30 p.m. The event was in the auditorium and I set up the RASC London Centre photo display on a table with some London Centre brochures and Galileo Moment cards laid out in front of it. The IYA 2009 poster board was set up at the entrance of the auditorium.

The theme for the month of July at the Residence was the 40th anniversary of the Apollo 11 landing on the Moon. I therefore tailored my digital slide presentation "Exploring the Solar System" to this event.

I began my presentation talking about the RASC London Centre and the International Year of Astronomy and the fact that it celebrated 400 years since Galileo directed a telescope at the sky and reported his observations in 1609. I followed this by showing the IYA 2009 trailer.

My slide presentation toured craters and other features on the Moon, lunar phases and libration and images from the Apollo 11 and 17 missions to the Moon. I also showed them NASA images of the Orion spacecraft that will hopefully return astronauts to the Moon by 2020. I showed them an image of the International Space Station and discussed the fact that currently there were two Canadians on board, Bob Thirsk (for 6 month stay) and Julie Payette (for a 16 day mission on the Space Shuttle Endeavour, docked to the Station). Two Canadians were in space at the same time—a first! Finally, I showed them images from the Spirit and Opportunity rovers on Mars and the Cassini spacecraft orbiting Saturn.

There were some interested and thoughtful questions from the audience, who remembered the landing of Apollo 11 on the Moon, July 20th, 1969. The audience varied in size, with about 10 or 11 people near the beginning, and as many as 15 during the talk, as some people came and left. They were very appreciative and there was a good discussion. Galileo Moment cards were distributed and the event ended around 8:30 p.m.

Quai du Von Winery Star Night, Friday, July 24th

By Robert Duff

The overcast sky had cleared by the time I arrived at the Quai du Vin Winery on Friday, July 24th, although a thin sky haze persisted throughout the evening. I counted 47 visitors during Peter Jedicke's digital slide

presentation, which was projected on a big outdoor screen. The number of visitors increased as the evening progressed to an estimated 70 adults and children.

I counted 17 RASC London Centre members with 15 telescopes and 3 binoculars on tripods. Of these, members brought 13 telescopes and a non-member brought one Schmidt-Cassegrain and there was a 60mm equatorially mounted refractor, which may also have been brought by a visitor.

Members who were there included Mike Roffey, with his 30.5cm Sky-Watcher Truss-Tube Dobsonian; Roman Dubinski, 130mm Vixen Newtonian; Peter Raine, 25.4cm Dobsonian; Cheri McCracken; Peter Jedicke, 40.6cm Truss-Tube Dobsonian and Galileoscope; Harold Tutt, 80mm Stellarvue refractor; Glen Spooner, 80mm refractor; Steve Imrie, 20.3cm Orion Dobsonian; Dale Haves, 130mm Sky-Watcher Newtonian; Eric Clinton (and son, Ben), Celestron C5 Schmidt Cassegrain; Jeff Harrison, 20.3cm Dobsonian and 127mm Sky-Watcher Maksutov; Patrick Whelan (and daughter), 10cm Bushnell Ballscope; Bob Duff, 20.3cm Dobsonian; Gary Hinks, large binoculars; Dave Rubenhagen, Ross Blakey and Richard Gibbens.

I used a Meade MA25mm (49X) and 7mm Nagler (174.3X) eyepiece in my 20.3cm Dobsonian to show visitors Epsilon Lyrae, M57, M13, the double star Albireo and the planet Jupiter, which was near the eastern horizon.

There was an ISS pass. Most of the visitors were gone by 11:30 p.m. and we celebrated Dave Rubenhagen's 50th birthday with a cake and some wine. It was a very enjoyable evening and the sky ended up pretty clear.

Quai du Von Winery Star Night, Saturday July 25th

By Robert Duff

Peter Jedicke reported in his e-mail that Marcus Stevens, Dave Rubenhagen, Rick Saunders, Joe O'Neil (and son, Tristan) joined him at Quai du Vin Winery under overcast skies with rain, heavy at times. Four guests showed up despite the weather and Peter had a lot of fun answering questions for two hours. When pretty much everyone had gone home, and Peter had taken down his 40.6cm Truss-Tube Dobsonian, the sky cleared!

St. Mary's Public Library Star Night, McCully's Hill Farm, Wednesday, July 29th

By Robert Duff

Despite rain and clouds for most of Wednesday, July 29th, the sky cleared out for the St. Mary's Public Library star night at McCully's Hill Farm. Members arrived around 8:00 p.m. or a little after.

Six RASC London Centre members set up their telescopes, including: Harold Tutt, with his equatorially mounted 80mm refractor; Bill Gardner, with his equatorially mounted 101mm refractor; Adam Priestap-Suttis and Cheryl, with Adam's 20.3cm Sky-Watcher Dobsonian; Peter Jedicke, with his 40.6cm truss-tube Dobsonian; Gary Hinks, with his 80mm alt-azimuth mounted refractor; and me, with my 20.3cm Dobsonian. Peter also set up a Galileoscope on a camera tripod.

Some 15 visitors showed up, including adults and children. I gave the librarian, who coordinated the event with me, two copies of the book, "Mary Lou's New Telescope," one for his daughter and the other for St. Mary's Public Library. Harold Tutt reported that one man expressed an interest in joining the RASC London Centre and may show up at the September meeting.

Peter Jedicke made an introductory address to the group at twilight, 9:10 p.m., and later gave a laser-guided tour of the sky (with the assistance of myself and other members with laser pointers). Through our telescopes visitors viewed the Moon at one day past First Quarter and later Jupiter. Peter Jedicke located the Whirlpool Galaxy (M51) in his 40.6cm Dobsonian. I showed people the Moon, the orange and blue double star Albireo, the Ring Nebula (M57), Epsilon Lyrae and Jupiter.

I gave RASC London Centre brochures to several interested people. Two keenly interested girls each received a copy of, "Become a Sidewalk Astronomer."

The star night ended around 11:00 p.m. when visitors had pretty well gone home. It was a successful and enjoyable star night for everybody involved, although there was a ground mist and considerable dewing of eyepieces.

On the way home we stopped at Tim Horton's in St. Mary's for refreshment.

Solar Observing, London Regional Children's Museum, Saturday, August 1st

By Robert Duff

Mixed clouds and Sun greeted RASC London Centre members as they set up telescopes in the parking lot of the London Regional Children's on Saturday, August 1st, around 1:00 p.m., for a solar observing session. Harold Tutt set up his 80mm Stellarvue refractor, on its German equatorial mount, with a white light full aperture Baader solar filter. Peter Jedicke arrived bringing Craig Levine's 40mm Coronado solar telescope, with a German equatorial mount, and a Sunspotter (folded refractor solar projector) borrowed from Fanshawe College. Peter also brought his Galileoscope, which was mounted on a camera tripod for display only and not used for solar observing. I arrived bringing the digital projector, brochures and Galileo Moment cards. One other RASC London Centre member, Don Leppington, was there with of his family.

While Peter made a digital slide presentation in the museum, Harold and I showed people views of the Sun through the telescopes outside. Between passing clouds the Sun displayed a completely featureless white disk with no sunspots in both Harold's telescope and in the Sunspotter. With some trial and error we learned how to focus and tune the Coronado solar telescope to a sharp image. However, even in the Coronado telescope the Sun was a completely featureless red disk, with no prominences visible on the edge or filaments on the surface. We wondered how the Sun could fail to even display prominences and if perhaps we had not tuned the filter properly.

People admired the views of the Sun shown in all three telescopes, even though no activity could be seen on the solar surface. In all, 50 visitors, including adults and children as well as museum staff, looked through our telescopes. We distributed GM cards and talked to people about astronomy and the London Centre. We packed up and left around 3:30 p.m. after what was a successful public solar observing event, even though the Sun appeared featureless.

Astronomy Slide Presentation, Lake Whittaker Conservation Area, Saturday, August 8th

By Robert Duff

Clouds and rain ruled out the star night originally planned for Lake Whittaker Conservation Area on Saturday, August 8th; however, I made a digital slide presentation in the campsite's recreation centre building. Arriving around 8:00 p.m., I set up the RASC London Centre photo display on a table with some London Centre brochures and Galileo Moment cards laid out in front of it. The IYA 2009 poster board was set up on a kitchen serving counter near the entrance.

I began my presentation at 9:00 p.m. with the IYA trailer, using speakers from my home computer to amplify the sound to a more dramatic level than otherwise allowed by the laptop computer. I presented my somewhat revised version of Dave McCarter's original, "From Here to Here" digital slide show. It lasted an hour and seemed to go well. At the end I asked if there were any questions and there were none, although several questions were asked during the presentation.

In all, 14 people showed up on a rainy night and I received a small thank you card from the "Campers and Staff of Lake Whittaker!"

Pinery Provincial Park Star Night, Saturday, August 15th

By Robert Duff

Saturday, August 15th, 2009, was the 13th Annual Pinery Star Party with a good turnout of members setting up their telescopes around the Amphitheatre. These included John, Nancy, Bram and Faye Bontje; Mike Roffey; Adam and Cheryl Priestap-Suttis; Mike Hanes; Harold Tutt; John and Darle Rousom; Dave and Jan McCarter; Bill, Danielle and Maryn Gardner; Richard Gibbens; and Bob Duff.

John Bontje brought his 16-inch (40.6cm) home-built truss-tube Dobsonian, and Bram and Faye Bontje each brought their 20.3cm home-built Dobsonians. Mike Roffey brought his 12-inch (30.5cm) Sky-Watcher truss-tube Dobsonian as well as his camera-tripod-mounted 15X70mm binoculars. Adam Priestap-Suttis brought his 20.3cm Sky-Watcher Dobsonian and 60mm refractor; Mike Hanes, his 12 ½-inch (32cm) home-built truss-tube Dobsonian; Harold Tutt, his GEM mounted Stellarvue 80mm refractor; John Rousom, his 10-inch (25.4cm) Celestron Dobsonian; Dave McCarter, his 25.4cm Dobsonian and tripod mounted Galileoscope; Bill Gardner, his GEM mounted 101mm refractor; Richard Gibbens, his 20.3cm Dobsonian; and Bob Duff, his 20.3cm Dobsonian. In all, we had 18 people with 13 telescopes (not including Dave's Galileoscope) and one tripod-mounted binoculars from the RASC London Centre.

Dave began his presentation with the IYA2009 trailer and followed it with his digital slide presentation, "The

Telescope," before an audience some 750 Pinery campers. A Galileoscope was given to a deserving member of the audience. The sky was hazy in the early evening but cleared later to reveal the Milky Way and many stars. Objects viewed by visitors through our telescopes included the planet Jupiter, Albireo, Epsilon Lyrae, M13 and M57. Harold Tutt reported in his e-mail (August 18th) that he gave constellation tours with his green laser pointer, including the Summer Triangle and NGC 457 in Cassiopeia. Observing continued until 1:00 a.m. and members drove home through patches of dense fog.

Perth Hall Star Night, Saturday, September 12th

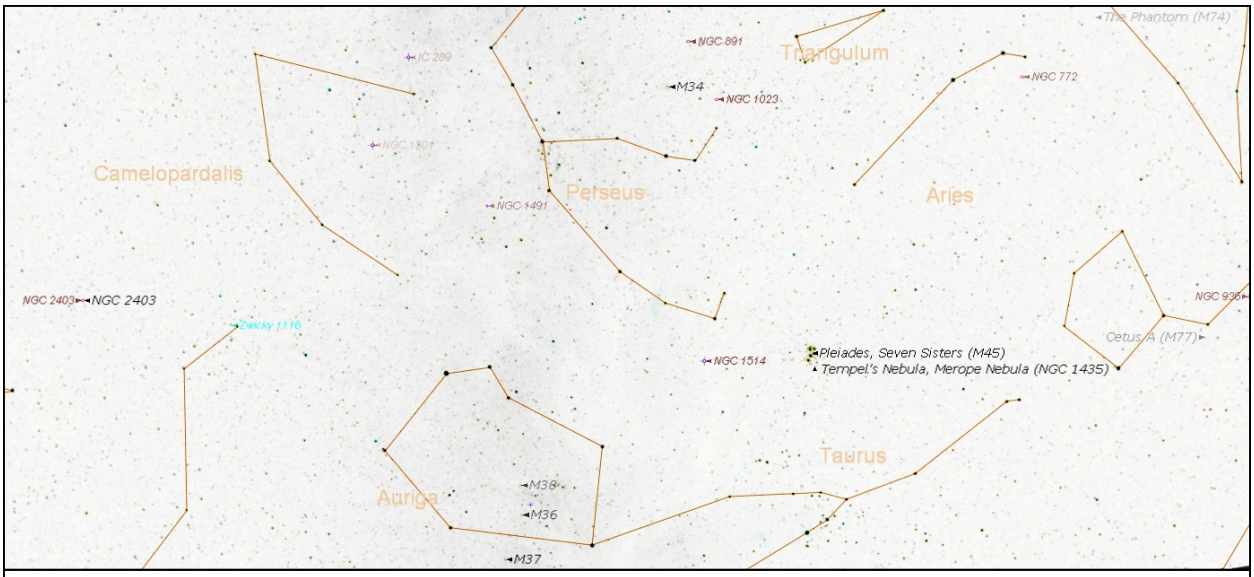
By Robert Duff

To help celebrate the end of Freshman Orientation Week at the University of Western Ontario, RASC London Centre members were invited to set up their telescopes at Perth Hall Residence, Saturday, September 12th.
The evening was cool, clear and slightly windy when I arrived a little after 8:00 p.m. John Kulcycki was there and the student coordinating the event for Perth Hall greeted us. John set up his Meade 15cm Schmidt Newtonian on a home-built wooden alt-azimuth mount and tripod. I set up my Meade Starfinder 20.3cm Newtonian on its Dobsonian mount. Mike Roffey arrived shortly thereafter and set up his 127mm Maksutov on a Vixen alt-azimuth mount and 80mm Celeston refractor in a Sky-Watcher Go-To mount. Peter Jedicke arrived and set up his 50mm Galileoscope on a camera tripod. Harold also showed up but decided to leave his scope in the car, as there were enough already set up.
We showed students Jupiter, Albireo, Epsilon Lyrae, M57 and Mizar and Alcor.

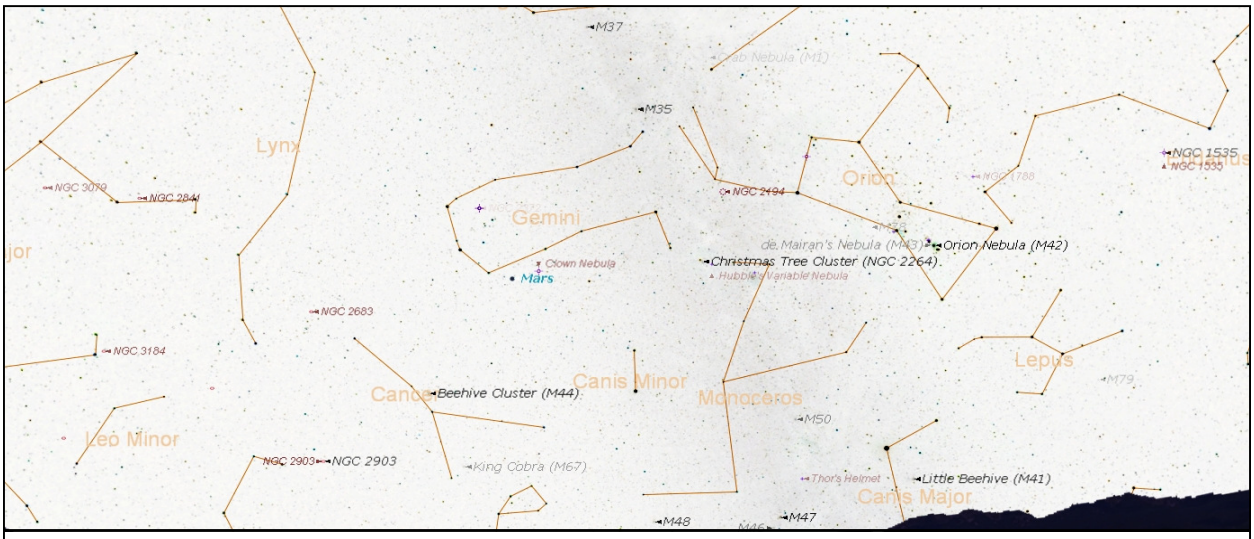
Since most of the students were at a concert on main campus we had only about 25 visitors, who were enthusiastic and asked many good questions. As a token of their appreciation the students gave us each a 50"X60" (127cm X 152.4cm) navy blue polyester blanket, with a small light blue emblem (or mascot) of Perth Hall, a platypus, sewn into one corner. It was the kind of thing you might wrap yourself in at a fall football game or chilly star night.

It was an enjoyable star night, despite the cool weather, and we finished up by around 11:30 p.m. Peter, Mike, Harold and I went to the Dairy Queen afterwards for refreshments and discussion.

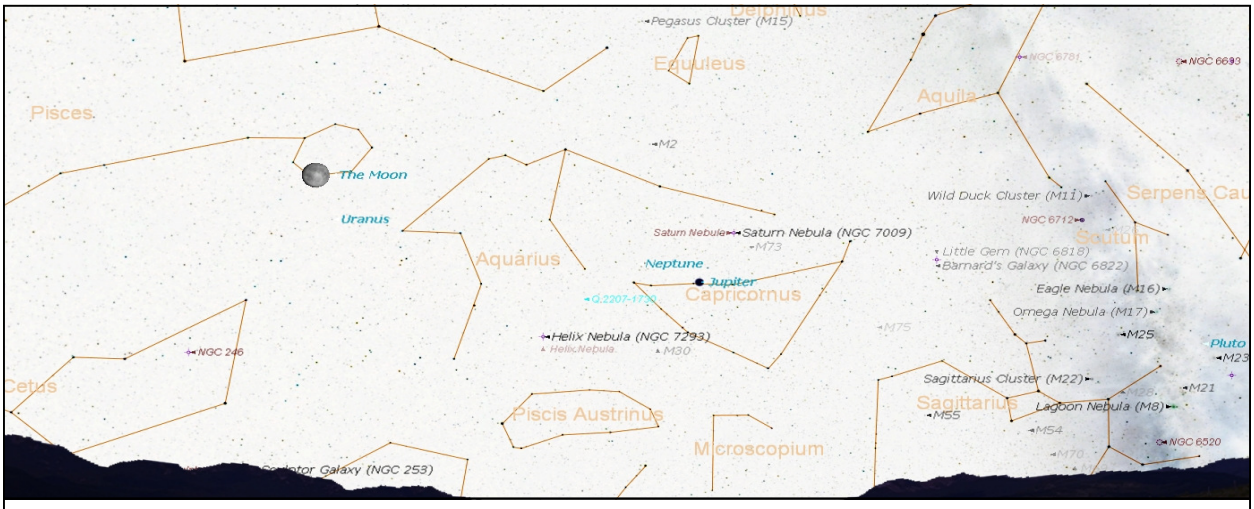
Hubble Pictures



This is the view from London on October 2 looking east at 11pm



This is the view from London on October 2 looking east at 4am.



This is the view from London on October 2 looking south at 10pm.