POLARIS

Royal Astronomical Society of Canada
London Centre Newsletter
August 2016

What Did You Do This Summer?

Patrick Whelan

During the meeting, make sure you tell everyone what you did this summer. You don't have to tell everything you did, just the astronomy stuff!

I spent a lot of the summer testing out my new -to-me dob. It is a 12" Skywatcher collapsible. It is a great telescope. It is fairly portable since it is collapsible. It fits into my back seat easily. I had it out a number of times in my front yard showing my neighbours Mars and Saturn. I also brought it to Port Stanley and showed a number of people the planets (and the Moon) as well. The mirror was horribly dirty when I got it. People, myself included, will tell you not to clean your optics unless they really need it. This mirror REALLY needed it. Looking down the tube I could hardly see my reflection. Yikes! After some running water, warm slightly soapy water, some cotton balls and some distilled water later it was a mirror again!

I had my LXD75 mount on my front porch a few nights ago. The one handset went wonky (a technical term) so I pulled out my spare. It wasn't tracking properly? Oh yea! I modified my mount with the Warp Corps belt drive system. When I did that I had to change the gear ratios in the handset. I never changed them in this handset! On to the internet to find the numbers, put them into the handset. Presto! Just like magic, tracking is great!

I didn't go to any star parties this summer. Bummer. I hope some people talk about Starfest and Gordon's Park and Grundy Lake and wherever!

I am now commuting to Waterloo for my new job. Last Friday (September 9) was RASC Waterloo's meeting night. I decided to stay in town after work and attend. They are bunch of good friendly people just like our group! A few people got up to talk. One of them was Jim. He walked the length of New Zealand this year from North to South! It took him over 4 months. He gave a slide show of the various observatories he visited as well as some museums.

I sure hope everyone got out and viewed Saturn and Mars. What a great summer for that! They were and still are wonderfully placed in the Southern summer sky with all those great deep sky wonders. How can you resist?

Now put up your hand, stand up, and tell everyone what YOU did this summer!

Moon Phases

September 9 2016

September 15 2016

September 23 2016

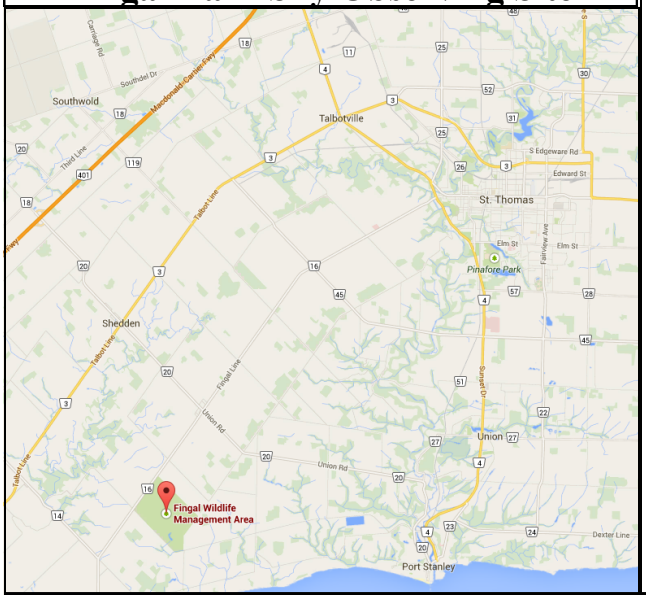
October 1 2016

September Meeting

The guest speaker for September will be RASC London Centre member Tyrone Klassen.

His topic will be "The Electric Universe and the power of charged particles".

Fingal Dark Sky Observing Site



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London RASC Website: **http://www.rasclondon.ca/**
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Sky Events for Late September and early October

September 21 Aldeberan 0.2 S° of Moon
September 22 EQUINOX
September 27 Regulus 1.7° N of Moon
September 28 Mercury greatest elongation W
September 29 Zodiacal light in E before morning twilight for next 2 weeks
September 29 Mercury 0.7° N of Moon
October 3 Venus 5.0° S of Moon
October 13 Neptune 1.2° S of Moon
October 15 Uranus at opposition
October 19 Aldeberan 0.3° S of Moon, occultation

Mercury well placed in the evening sky
Venus in the western sky after sunset
Mars in Ophiucus, sets in mid-evening
Jupiter vanishes into the evening twilight
Saturn is low in the southwest sky, sets late evening
Uranus rises mid-evening in Pisces
Neptune visible all night in Aquarius

R.A.S.C. London Centre Library
Books of the Month September 2016
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 September 2016 are as follows:

Foundations of Astronomy, by Michael A. Seeds. – 7th Edition, c2003

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

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 go to the Main Menu on the left side of the RASC London Centre Web site main page and click on Club Library:
http://www.rasclondon.ca/joomla34/library-and-rentals

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

Cronyn Observatory Public Nights & Special Events, July 7th —August 30th, 2016

By Robert Duff

Ontario Association of Physics Teachers, Physics Camp: Evening Observing at the Cronyn Observatory, July 7th, 2016

Partly cloudy skies with hazy clouds greeted 14 visitors (including one young boy) from the Ontario Association of Physics Teachers (OAPT) Physics Camp for evening observing at Western University's Cronyn Observatory, Thursday, July 7th, 2016, 9:00—11:00 p.m. They were welcomed by Professor Stan Metchev and Physics and Astronomy Department staff member Henry Leparskas was also there.

RASC London Centre was represented by Everett Clark, Paul Kerans, Bob Duff, Heather MacIsaac, Steve Gauthier and Peter Jedicke. Henry Leparskas made ready the big 25.4cm refractor (28mm Meade Super Wide Angle eyepiece, 157X) in the dome and Everett Clark directed it towards the 3-day-past-new crescent Moon in the western sky. Throughout the evening the visitors viewed the Moon, Jupiter and Saturn though the 28mm Meade SWA eyepiece (157X), and Saturn again though Paul's 13mm Ethos eyepiece (337X).

Downstairs in the "Black Room" Physics and Astronomy staff member Henry Leparskas operated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets—and gave tours of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope.

On the observatory's roof patio outside the dome, Steve Gauthier adjusted the collimation on the London Centre's 25.4cm Dobsonian with his laser collimator. Throughout the evening Steve showed the teachers the Moon and Jupiter through the 25.4cm Dobsonian, using the 17mm Nagler eyepiece (66X), later swapping in his 7mm Nagler (159X) and 9mm Nagler (124X) for good views of Mars. Steve also used his Orion Shorty 2X Barlow lens together with his 7mm Nagler eyepiece for a high magnification view (318X) of Mars in the 25.4cm Dobsonian.

Paul Kerans set up his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain on his Sky-Watcher EQ6 mount and showed the teachers spectacular views of the Moon, using his 21mm Ethos eyepiece (112X), Jupiter, with his 13mm Ethos eyepiece (181X), and the Ring Nebula (M57) with his 21mm Ethos eyepiece (112X). Heather MacIsaac showed the teachers Jupiter, Saturn and Mars through her Celestron Go-To 90mm Maksutov (17mm Plossl eyepiece, 73.5X).

The teachers were gone after thanking everybody for a very interesting and enjoyable evening of astronomy and the observatory was closed down around 11:15 p.m.

Cronyn Observatory Public Night, Saturday, July 9th, 2016

Partly cloudy, later clearing skies greeted some 27 visitors to the Western University's Cronyn Observatory Summer Public Night, Saturday, July 9th, 2016, 8:30 p.m. Professor Martin Houde made 2 presentations of his digital slide presentation "Submillimetre Astronomy." There were 18 people for the first slide presentation and 4 for the second slide presentation.

RASC London Centre was represented by Paul Kerans, Heather MacIsaac, Bob Duff, Peter Jedicke, Steve Gauthier, Dale Armstrong, Tricia Colvin and Mark Tovey. Graduate student Megan Tannock was telescope operator for the big 25.4cm refractor in the dome and graduate student Isabelle Cyr greeted and supervised visitors. Paul brought his Moon and Mars meteorite fragments in small plastic display cases, which he swapped in and out of a wooden block with a transparent Lexan polycarbonate sheet cover and invited visitors to walk on the Moon and Mars. Paul also showed people his iron meteorite.

Downstairs in the "Black Room" Physics and Astronomy staff member Henry Leparskas operated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets—and showed visitors the historic "Period Room." Tricia and Mark soon take Henry's place in the "Black Room" and "Period Room."

Peter Jedicke tried to identify craters and other features on the Moon through the big 25.4cm refractor in the dome using his 21st Century Atlas of the Moon (Charles A. Wood and Maurice J. S. Collins, c2012). Steve Gauthier downloaded the freeware Virtual Moon Atlas 6.0 on the dome computer. Dale brought his camera and tripod and took pictures in the observatory dome and roof patio during the course of the evening.

Throughout the evening people viewed the 5-day-past-new crescent Moon, Jupiter and Saturn though the 25.4cm refractor with the 28mm Meade Super Wide Angle eyepiece (157X), and Saturn again though Paul's 21mm Ethos eyepiece (209X). They viewed Saturn and Mars through Paul's 21mm Ethos eyepiece (209X) with the extension tube swapped in place of the diagonal prism in the 25.4cm refractor. They also viewed globular cluster M13 through the 25.4cm refractor with the diagonal and Paul's 21mm Ethos eyepiece (209X).

On the roof patio outside the dome, undergraduate student William Hyland operated the observatory's 8-inch (20.3cm) Meade Schmidt-Cassegrain, showing visitors the Moon and Mars, using the 12.5mm Ortho eyepiece (160X). Steve Gauthier showed visitors the Moon through the 25.4cm Dobsonian, using the 17mm Nagler eyepiece (66X), later swapping in his 7mm Nagler (159X) to show them Jupiter, and then combining his 7mm Nagler and Orion Shorty 2X Barlow lens (318X) to view Saturn.

Paul Kerans set up his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain (Sky-Watcher EQ6 mount) on the roof patio and showed visitors the Moon, Jupiter and Saturn, and later the orange and blue double star Albireo, using his 21mm Ethos eyepiece (112X). Paul swapped in his 13mm Ethos eyepiece (181X) to

show people the globular cluster M13 though his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain.

Heather MacIsaac showed visitors the Moon and Jupiter through her Celestron Go-To 90mm Maksutov, using her 17mm Plossl eyepiece (73.5X). Heather later swapped in Steve Gauthier's Tele Vue 15mm Panoptic eyepiece (83.3X) to show them Jupiter, Antares, Saturn and Mizar and Alcor through her 90mm Maksutov telescope.

The last visitors left around 11:00 p.m. and the observatory was closed down around 11:45 a.m. after an excellent evening of observing.

SHAD: Solar Observing at the Cronyn Observatory, July 15th, 2016

Partly cloudy skies, with a brief rain shower around 2:00 p.m., greeted 60 visitors (including 56 students and 4 adults) from the SHAD program, for solar observing at Western University's Cronyn Observatory, Friday, July 15th, 2016, 2:00 p.m. They were welcomed by Professor Jan Cami who made a digital slide presentation on "Astronomy and Space Research at Western." The SHAD program is for highly gifted high school students from across the country and included students from as far away as Newfoundland and British Columbia.

Downstairs in the "Black Room" recently graduated undergraduate student Nathalie Thibert demonstrated the "Spectroscopy Demo" with the visitors putting on diffraction grating glasses to view the spectra of 4 gas discharge lamps set out on the table, including: hydrogen, helium, neon and mercury. Undergraduate student William Hyland demonstrated the "Transit Demo"—a turntable with a lighted model star (or distant "sun") in the middle and model planets revolving around it, with a photodiode (representing the Kepler space telescope) clamped to a laboratory stand and linked to a laptop computer. The laptop computer displayed the dipping light curve, which was also displayed on a larger screen, as various size model planets revolved around and in front of the lighted model star. These were very impressive demonstrations in the darkened "Black Room" and the students were joined by Professor Stan Metchev.

Upstairs in the dome, Professor Phil McCausland, from the Department of Earth Sciences, set up a display of meteorites and impactites on the table near the window and spoke with the students and fielded questions. The meteorites were from Western's Centre for Planetary Science and Exploration (CPSX) and the Western Meteorite Collection and represented samples from freshly fallen meteorites, iron meteorites and samples of meteorites from the Moon and Mars. The impactites were terrestrial rocks from impact craters, showing evidence of impact-related shock, melting and hydrothermal activity. There was a microscope available for students to examine minerals and chondrules in thin sections of meteorites. The meteorites and impactites represented the interaction of extraterrestrial materials with the Earth and allowed for an excellent discussion of the Earth's place in the solar system, future impact events and solar system exploration.

RASC London Centre was represented by Everett Clark, Paul Kerans and Bob Duff. Since rain was in the forecast, Paul set up 3 amateur telescopes inside the dome, included the observatory's 90mm Coronado H-Alpha Solar Telescope (Sky-Watcher EQ5 mount)— set up nearest the door to the roof patio—and 8-inch (20.3cm) Meade Schmidt-Cassegrain (26mm Plossl eyepiece, 77X), which was directed through the door towards the communications tower in south London. Paul set up his own 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain (Sky-Watcher EQ6 mount) between these 2 observatory telescopes. Everett and Paul explained to the students how these telescopes worked.

With the Sun occasionally visible, the 90mm Coronado H-Alpha Solar Telescope was moved out on to the roof patio and Paul showed a few students glimpses of the Sun between clouds through the CEMAX 25mm eyepiece (32X).

Physics and Astronomy staff member Henry Leparskas was there with his camera taking pictures of the event. The visitors were gone by around 4:00 p.m. after an interesting and enjoyable afternoon learning about astronomy at Western, including spectroscopy, the transit detection method for finding extra-solar planets, meteorites and solar observing.

SHAD: Evening Observing at the Cronyn Observatory, July 15th, 2016

Clear, later partly cloudy skies greeted 59 visitors (including 56 students and 3 adults) from the SHAD program, for evening observing at Western University's Cronyn Observatory, Friday, July 15th, 2016, 8:30 p.m. They were welcomed by Professor Jan Cami who gave a telescope talk upstairs in the dome. The SHAD program is for highly gifted high school students from across the country.

RASC London Centre was represented by Paul Kerans. Professor Jan Cami and Physics and Astronomy staff member Henry Leparskas showed the students Jupiter and Saturn with the 25.4cm refractor in the dome, using the 18mm Radian eyepiece (244X). On the roof patio outside the dome, undergraduate student William Hyland operated the observatory's 8-inch (20.3cm) Meade Schmidt-Cassegrain, showing the visitors the 4-day-past-first-quarter gibbous Moon, using the 12.5mm Ortho (160X) and 26mm Plossl (77X) eyepieces; and Mars, Saturn and the orange and blue double star Albireo, using the 12.5mm Ortho eyepiece (160X). Paul Kerans set up his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain (Sky-Watcher EQ6 mount) on the roof patio and showed the students the Moon, using his 21mm Ethos (112X) and 13mm Ethos (181X) eyepieces; and Jupiter, Saturn and the galaxy M81 using his 13mm Ethos (181X) eyepiece.

The students left by around 10:30 p.m. and Jan, Henry, William and Paul remained until 11:00 p.m. talking and putting away

equipment, after an interesting and enjoyable evening of astronomy.

Cronyn Observatory Public Night, Saturday, July 16th, 2016

Clear skies greeted an estimated 150 visitors to the Western University's Cronyn Observatory Summer Public Night, Saturday, July 16th, 2016, 8:30 p.m. Professor Margaret Campbell-Brown made 3 presentations of her digital slide presentation "When Worlds Collide: Asteroids, Comets and the Earth." Some 119 visitors attended the presentations, including 75 visitors for the first presentation, 18 for the second and 26 for the third presentation. Since a number of people did not attend the presentations or arrived after they were over, the estimated number is close to 150 visitors.

Professor Peter Brown was telescope operator for the big 25.4cm refractor in the dome. Professor Jan Cami was there along with Physics and Astronomy staff member Henry Leparskas, graduate student Mark Baker and postdoc Aycha Tammour. RASC London Centre was represented by Everett Clark, Norm McCall, Bob Duff, Steve Imrie, Peter Jedicke, Dale Armstrong, Heather MacIsaac, Tricia Colvin and Mark Tovey.

Peter Brown and Jan Cami directed the big 25.4 refractor (28mm Meade Super Wide Angle eyepiece, 157X), towards the 5-day-past-first quarter waxing gibbous Moon around 8:45 p.m. They were later joined by Peter Jedicke and directed the big 25.4cm refractor to show visitors Jupiter (157X) and Saturn (18mm Radian eyepiece, 244X). Everett Clark set up the London Centre's 25.4cm Dobsonian and the observatory's 8-inch (20.3cm) Meade Schmidt-Cassegrain on the roof patio outside the dome.

Steve Imrie operated the 25.4cm Dobsonian (17mm Nagler eyepiece, 66X), showing visitors the Moon, Mars and Saturn. Dale Armstrong operated the 8-inch (20.3cm) Meade Schmidt-Cassegrain showing visitors the Moon, using the 20mm Plossl eyepiece (100X), and Mars, using the 15mm Sky-Watcher UltraWide eyepiece together with the 2X Barlow lens (266X). (The 2X Barlow lens was borrowed from the observatory's 90mm Coronado H-alpha solar telescope.) Dale also showed the visitors M13 and M57 in the 8-inch (20.3cm) Schmidt-Cassegrain, using the 26mm Plossl eyepiece (77X), and the Moon, using the 15mm SkyWatcher eyepiece / 2X Barlow lens (266X) combination, and the 12.5mm Ortho eyepiece (160X).

Postdoc Aycha Tammour familiarized herself with the observatory's Orion AstroView 6 (15cm) Newtonian reflector—set up on the roof patio outside the dome—showing visitors various sky objects.

Norm McCall set up his 25.4cm (f/4.5) Meade DS-10 Newtonian reflector in the Alumni / Thompson Parking Lot on the south side of the Cronyn Observatory and showed visitors the Moon, Jupiter, Saturn and the stars Mizar and Alcor and Arcturus, using his 20mm Explore Scientific eyepiece (57X) and doubling the magnification with the addition of a 2X Barlow lens (114X).

Downstairs in the "Black Room" Professor Jan Cami and graduate student Mark Baker demonstrated the "Spectroscopy Demo" with the visitors putting on diffraction grating glasses to view the spectra of 4 gas discharge lamps set out on the table, including: hydrogen, helium, neon and mercury. Tricia Colvin demonstrated the transit method for finding extra-solar planets, with "Transit Demo"—a turntable with a lighted model star (or distant "sun") in the middle and model planets revolving around it, with a photodiode (representing the Kepler space telescope) clamped to a laboratory stand and linked to a laptop computer. The laptop computer displayed the dipping light curve, which was also displayed on a larger screen, as various size model planets revolved around and in front of the lighted model star. These were very impressive demonstrations in the darkened "Black Room." Tricia was later joined by Mark Tovey, who took over from Mark Baker in demonstrating the "Spectroscopy Demo."

The last visitors were gone by around 11:35 p.m. after a very interesting and enjoyable evening of astronomy.

Indigenous Services, Evening Observing at the Cronyn Observatory, July 18th, 2016

Clear skies greeted 31 visitors from Indigenous Services, for evening observing at Western University's Cronyn Observatory, Monday, July 18th, 2016, 8:30 p.m. Professor Jan Cami made the digital slide presentation "The Sun, Our Star" and fielded questions.

Downstairs into the "Black Room," Jan demonstrated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets—and the "Spectroscopy Demo" inviting the visitors to put on diffraction grating glasses and view the spectra of 4 gas discharge lamps set up on the table, including: hydrogen, helium, neon and mercury.

RASC London Centre was represented by Everett Clark, Paul Kerans and Bob Duff. Physics and Astronomy staff member Henry Leparskas made ready the big 25.4cm refractor in the dome and, working with Paul, opened the freeware Virtual Moon Atlas 6.0 and accessed Calsky for the transit time of Jupiter's Great Red Spot on the computer in the dome. Everett assisted with the big 25.4cm refractor in the dome, with the visitors viewing Jupiter (28mm Meade Super Wide Angle eyepiece, 167X) and Saturn, the orange and blue double star Albireo, and globular cluster M13 (17mm Nagler eyepiece, 258X).

On the roof patio outside the dome, Bob Duff operated the London Centre's 25.4cm Dobsonian for a good part of the evening, with visitors viewing the Moon (17mm Nagler eyepiece, 66X), Mars and Saturn (6mm Ortho eyepiece, 186X) and Mars again (12.5mm Ortho eyepiece, 89X) and finally, the Moon again (18mm Ortho eyepiece). Paul Kerans set up his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain (Sky-Watcher EQ6 mount) showing the visitors the Moon, with his 31mm Nagler (76X), 13mm Ethos (181X) and Celestron 10mm Axiom LX (235X) eyepieces; and Mars and the galaxy M81, with his 21mm Ethos (112X) eyepiece.

The visitors were gone by 10:45 p.m. and the observatory was closed around 11:00 p.m. after a very interesting and enjoyable evening of astronomy.

First-Year Students Evening Observing at the Cronyn Observatory, July 20th, 2016

Clear skies greeted 45 visitors from the Summer Academic Writing Clinic for incoming first-year students, for evening observing at Western University's Cronyn Observatory, Wednesday, July 20th, 2016, 8:30—11:00 p.m. Professor Jan Cami made the digital slide presentation "Astronomy at Western" and answered questions. Downstairs in the "Black Room" Physics and Astronomy staff member Henry Leparskas demonstrated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets—for about a dozen students.

RASC London Centre was represented by Everett Clark, Paul Kerans, Bob Duff, Heather MacIsaac and Peter Jedicke. Henry Leparskas located Jupiter with the big 25.4cm refractor in the dome around 8:45 p.m., which made a splendid view in the 18mm Radian eyepiece (244X). Everett operated the 25.4cm refractor for most of the evening with the students viewing Jupiter, Saturn and Mars through the 18mm Radian eyepiece (244X). Other objects viewed through the big 25.4cm refractor, with the 18mm Radian eyepiece (244X), included the Ring Nebula (M57) and the orange and blue double star Albireo. Jan and Henry located globular cluster M13, in the 25.4cm refractor, with the 28mm Meade Super Wide Angle eyepiece (157X), swapping in the 17mm Nagler (258X) and 52mm Erfle (84X) eyepieces for different views.

On the roof patio outside the dome Peter Jedicke showed the students Mars and Saturn and the double-stars Albireo and Cor Caroli through the London Centre's 25.4cm Dobsonian, using the 17mm Nagler eyepiece (66X). Peter also directed the 25.4cm Dobsonian towards the Moon after the students had left. Paul Kerans set up his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain (Sky-Watcher EQ6 mount) and showed the students Jupiter and Mars with his 21mm Ethos eyepiece (112X), swapping in the 13mm Ethos eyepiece (181X) to view Saturn. Paul also showed them the galaxy M81 and the Ring Nebula (M57) in his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain, with the 21mm Ethos eyepiece (112X). Heather MacIsaac showed the students Mars, the stars Mizar and Alcor, and the one-day-past-full Moon through her Celestron Go-To 90mm Maksutov, using her 17mm Plossl eyepiece (73.5X), and installing a Moon filter when viewing the Moon for a more comfortable view.

Observing continued in the dome with Jan, Henry, Paul, Bob and one remaining student until the Cronyn Observatory was shut down around 11:30 p.m., after a very interesting and enjoyable evening of astronomy.

Cronyn Observatory Public Night, Saturday, July 23rd, 2016

Partly cloudy skies greeted an estimated 130 visitors to the Western University's Cronyn Observatory Summer Public Night, Saturday, July 23rd, 2016, 8:30 p.m. Postdoctoral fellow Anahi Granada made 3 presentations of her digital slide presentation "Stellar Winds." Graduate students present included Matthew Shannon, who was telescope operator for the big 25.4cm refractor in the dome, Viraja Khatu, who greeted and directed visitors, and Rebecca Stabile. There were 56 visitors in the lecture room early in the first presentation and, with more people arriving, 116 visitors counted with an estimated total of perhaps 130 visitors for the evening.

RASC London Centre was represented by Paul Kerans, Bob Duff, Heather MacIsaac, Dale Armstrong, Peter Jedicke, Tricia Colvin and Mark Tovey, with Everett Clark arriving later around 10:45 p.m. London Centre member Richard Gibbens was there and listened to the slide lecture. Graduate student Matthew Shannon directed the big 25.4cm refractor in the dome, showing visitors Jupiter, using the 28mm Meade Super Wide Angle eyepiece (157X). Peter Jedicke later directed the big 25.4cm refractor towards Saturn (157X) and Everett Clark swapped in the 18mm Radian eyepiece (244X) for a better view at greater magnification.

On the roof patio outside the dome, Dale Armstrong operated the observatory's 8-inch (20.3cm) Meade Schmidt-Cassegrain, showing visitors Mars, using the 15mm Sky-Watcher UltraWide eyepiece together with the CEMAX 2X Barlow lens—borrowed from the observatory's 90mm Coronado H-Alpha Solar Telescope—for a total magnification of 266X. Dale called people's attention to the good view of features on Mars. Paul Kerans set up his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain (Sky-Watcher EQ6 mount), showing visitors Mars, using his 21mm Ethos eyepiece (112X); and Saturn, globular cluster M13, the Ring Nebula (M57), and globular cluster M4, using his 13mm Ethos eyepiece (181X); and the orange and blue double-star Albireo (112X). Heather MacIsaac showed visitors Mars and Saturn through her Celestron Go-To 90mm Maksutov, using her 17mm Plossl eyepiece (73.5X).

A lady and a man brought their older model Meade 114mm, f/8, Newtonian reflector on an equatorial mount and RASC London Centre members helped them locate Mars, Saturn and the stars Mizar and Alcor.

Downstairs in the "Black Room" Tricia Colvin operated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets—and was later joined by Mark Tovey. Physics and Astronomy staff member Henry Leparskas gave tours of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope.

The visitors were gone by around 11:00 p.m. after a very enjoyable evening of astronomy.

Cronyn Observatory Public Night, Saturday, July 30th, 2016

Written by Robert Duff, as Reported by Paul Kerans

Partly cloudy skies, clouding over after 10:00 p.m., greeted some 120 visitors to the Western University's Cronyn Observatory Summer Public Night, Saturday, July 30th, 2016, 8:30 p.m. Graduate student Sahar Rahmani made 2 presentations of her digital slide presentation "The Life Cycle of Stars," with the first presentation at 8:30 p.m. and the second one at 9:30 p.m. Physics and Astronomy staff member Henry Leparskas supervised visitors and undergraduate student William Hyland was also there.

Graduate student Robin Arnason was telescope operator for the big 25.4cm refractor in the dome. RASC London Centre was represented by Everett Clark, Paul Kerans, Dale Armstrong, Peter Jedicke, Heather MacIsaac, Tricia Colvin and Mark Tovey. London Centre member Richard Gibbens was there and listened to the slide lecture.

Robin directed the big 25.4cm refractor (18mm Radian eyepiece, 244X) in the dome towards Mars and later Saturn. Dale Armstrong gave a brief telescope talk in the dome and also adjusted the collimation on the London Centre's 25.4cm Dobsonian, which was set up on the roof patio outside the dome. Peter Jedicke operated the 25.4cm Dobsonian (17mm Nagler eyepiece, 66X) for the evening, showing visitors Saturn, Mars and Antares.

Dale Armstrong operated the observatory's 8-inch (20.3cm) Meade Schmidt-Cassegrain, showing visitors Mars, Saturn, Antares and Altair, using the 15mm Sky-Watcher UltraWide eyepiece together with the CEMAX 2X Barlow lens—borrowed from the observatory's 90mm Coronado H-Alpha Solar Telescope—for a total magnification of 266X. Heather MacIsaac showed visitors Mars and Saturn through her Celestron Go-To 90mm Maksutov, using her 17mm Plossl eyepiece (73.5X).

Downstairs in the "Black Room" Tricia Colvin operated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets. Mark Tovey gave tours of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope.

The last visitors were gone by around 10:45 p.m. after a very enjoyable evening of astronomy and the Cronyn Observatory was closed down shortly thereafter.

First-Year Students Evening Observing at the Cronyn Observatory, August 3rd, 2016

Clear skies greeted visitors from the Summer Academic Writing Clinic for incoming first-year students, for evening observing at Western University's Cronyn Observatory, Wednesday, August 3rd, 2016, 8:30—11:00 p.m. Professor Jan Cami made the digital slide presentation "Astronomy at Western" before an audience of 44 visitors and answered questions. Some 25—30 students arrived later in the evening, after the slide presentation, for an estimated total of 69—74 visitors.

Downstairs in the "Black Room" Jan made 3 demonstrations of the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets—and one tour of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope.

RASC London Centre was represented by Everett Clark, Paul Kerans, Heather MacIsaac and Bob Duff. Everett and Physics and Astronomy staff member Henry Leparskas directed the big 25.4cm refractor (28mm Meade Super Wide Angle eyepiece, 157X) towards Jupiter early in the evening, using celestial coordinates provided by the software "Starry Night Pro" on the dome computer. They showed the visitors Jupiter (157X) and later Saturn and Mars, using the 17mm Nagler eyepiece (258X). Everett also set up the London Centre's 25.4cm Dobsonian (17mm Nagler eyepiece, 66X) on the roof patio outside the dome.

Bob Duff operated the 25.4cm Dobsonian, showing the students Mars, using the 17mm Nagler eyepiece (66X), later swapping in the 6mm Ortho eyepiece (186X) for a better view at greater magnification. Bob then showed the students Saturn, and the stars Mizar and Alcor and Antares, using the 18mm Radian eyepiece together with the CEMAX 2X Barlow lens—borrowed from the observatory's 90mm Coronado H-Alpha Solar Telescope—for a total magnification of 124X.

Paul Kerans set up his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain (Sky-Watcher EQ6 mount), showing the students Mars and Saturn, using his Celestron 10mm Axiom LX eyepiece (235X); and the Ring Nebula (M57) and the orange and blue double-star Albireo, using his 13mm Ethos eyepiece (181X). Heather MacIsaac showed the students Mars and Saturn through her Celestron Go-To 90mm Maksutov, using her 17mm Plossl eyepiece (73.5X).

The students were gone by 10:15 p.m. after a very interesting and enjoyable evening of astronomy. After the visitors had gone, Paul placed his Celestron 10mm Axiom LX eyepiece in the big 25.4cm refractor in the dome for an excellent high magnification view of Saturn (438.6X).

Cronyn Observatory Public Night, Saturday, August 6th, 2016

Clear skies greeted an estimated 120 visitors to the Western University's Cronyn Observatory Summer Public Night, Saturday, August 6th, 2016, 8:30 p.m. Professor Stan Metchev made 3 presentations of his digital slide presentation "Shadows in the Dark: The Mysterious Comets of the Outer Solar System." Some 90 visitors attended the presentations, including 55 visitors for the first presentation, 15 for the second and 20 for the third presentation. Since a number of people did not attend the presentations or

arrived after they were over, the estimated number is close to 120 visitors.

Graduate student Viraja Khatu was telescope operator in the dome and, together with Physics and Astronomy staff member Henry Leparskas, directed the big 25.4cm refractor (28mm Meade Super Wide Angle eyepiece, 157X) towards Jupiter early in the evening, using celestial coordinates provided by the software "Starry Night Pro" on the observatory's computer. They later showed visitors Saturn in the 25.4cm refractor, using the 17mm Nagler eyepiece (258X). Henry also looked up the Web site "CalSky" to obtain the transit time for Jupiter's Great Red Spot and the transit and occultation times for the Galilean moons, although seeing conditions low in the western sky made these phenomena unobservable.

RASC London Centre was represented by Paul Kerans, Bob Duff, Tricia Colvin, Mark Tovey, Steve Imrie and Everett Clark; and Heather MacIsaac, who arrived later, around 10:00 p.m. On the roof patio outside the dome, Henry Leparskas showed a few visitors the 4-day-past-new crescent Moon through the London Centre's 25.4cm Dobsonian, using the17mm Nagler eyepiece (66X) —which was soon swapped out for use with the big 25.4cm refractor in the dome. Steve Imrie took over the 25.4cm Dobsonian, showing visitors Mars and Saturn, using the 12.5mm Ortho eyepiece (89X), and again using the 6mm Ortho eyepiece (186X).

Henry Leparskas, Bob Duff and Everett Clark took turns operating the observatory's 8-inch (20.3cm) Meade Schmidt-Cassegrain for the evening. Henry began by showing visitors Saturn through the 8-inch (20.3cm) Schmidt-Cassegrain, using the 18mm Radian eyepiece (111X). When Bob took over, he swapped in the 15mm Sky-Watcher UltraWide eyepiece together with the CEMAX 2X Barlow lens—borrowed from the observatory's 90mm Coronado H-Alpha Solar Telescope—in the 8-inch (20.3cm) Schmidt-Cassegrain, for a total magnification of 266X. Everett later took over operation of the Schmidt-Cassegrain.

Paul Kerans set up his 9.25-inch (23.5cm) Celestron Schmidt-Cassegrain (Sky-Watcher EQ6 mount) in the Alumni / Thompson Parking Lot on the south side of the Cronyn Observatory and showed visitors the crescent Moon, Saturn, the Ring Nebula (M57), globular cluster M13 and the Andromeda Galaxy (M31), using his 21mm Ethos eyepiece (112X).

Downstairs in the "Black Room" Tricia Colvin operated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets. Mark Tovey gave tours of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope.

The visitors were gone by around 11:00 p.m. after a very enjoyable evening of astronomy.

X-treme Science Camp: Solar Observing at the Cronyn Observatory, August 8th, 2016

Clear skies greeted 35 visitors, including 31 children (ages 8—14 years) and 4 adults / leaders from the X-treme Science Camp (Boys and Girls Club of London), for solar observing at Western University's Cronyn Observatory, Monday, August 8th, 2016, 11:00 a.m. They were welcomed by graduate student Dilini Subasinghe and Physics and Astronomy staff member Henry Leparskas.

RASC London Centre was represented by Paul Kerans, Heather MacIsaac and Bob Duff.
Henry set up both the observatory's 90mm Coronado H-Alpha Solar Telescope (Sky-Watcher EQ5 mount) and 8-inch (20.3cm) Meade Schmidt-Cassegrain, with the Kendrick Astro Baader film solar filter, on the roof patio outside the dome. Henry gave a telescope talk in the dome. The children were divided into 3 groups to view through the telescopes.

Paul showed the children the Sun through the 90mm Coronado H-Alpha Solar Telescope, using the CEMAX 12mm eyepiece (66.7X). Seeing conditions were good with prominences visible on the edge of the Sun as well as filaments and granulation noticeable on the solar surface. Dilini showed the children sunspots on the Sun through the 20.3cm Schmidt-Cassegrain (18mm Radian eyepiece, 111X) with the Kendrick Astro solar filter. Heather MacIsaac showed the children the Sun through her Celestron Go-To 90mm Maksutov (32mm Plossl eyepiece, 39X) with a Kendrik Astro solar filter.

Downstairs in the "Black Room" Dilini made 2 demonstrations of the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets—and Henry gave 2 tours of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope.

The children and their leaders were gone by around 12:08 p.m., after a very interesting and enjoyable observatory tour and opportunity to view the Sun through solar filtered telescopes.

First-Year Students Evening Observing at the Cronyn Observatory, August 10th, 2016

Clear skies greeted some 38 visitors from the Summer Academic Writing Clinic for incoming first-year students, for evening observing at Western University's Cronyn Observatory, Wednesday, August 10th, 2016, 8:30—11:00 p.m. Graduate student Shannon Hicks presented the digital slide presentation "Astronomy at Western" and answered questions. Downstairs in the "Black Room" Shannon made 3 demonstrations of the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets.

Shannon reported that there were some 30 students at the slide presentation with a maximum of 6 or 7 missing and the room almost full. There were at least 15 students for each of the first 2 demonstrations of the "Transit Demo" and 5 for the third "Transit Demo" demonstration. Therefore the estimated number of students is perhaps 36—37 students. RASC London Centre member

Bob Duff counted 28 students in the dome and roof patio and Shannon indicated that 10 had left earlier, suggesting the number was closer to 38. Physics and Astronomy staff member Henry Leparskas thought the number closer to 28—30. However, the total of 36—37 students—possibly 38 students—seems more accurate.

RASC London Centre was represented by Paul Kerans, Bob Duff and Heather MacIsaac. Henry Leparskas directed the big 25.4cm refractor (28mm Meade Super Wide Angle eyepiece, 157X) in the dome towards Jupiter early in the evening, using celestial coordinates provided by the software "Starry Night Pro" on the dome computer. He soon swapped in the 17mm Nagler eyepiece (258X) show the students a better view of Jupiter, and then Saturn, through the 25.4cm refractor. The globular cluster M13 was viewed later in the evening through the 25.4cm refractor, using the 28mm Meade SWA eyepiece (157X).

Henry also set up the observatory's 8-inch (20.3cm) Meade Schmidt-Cassegrain on the roof patio and Bob operated it for the evening, showing the students the first quarter Moon, using the 20mm Plossl eyepiece (100X). Bob also showed them Saturn and Mars, using the 12.5mm Ortho eyepiece (160X) in the 8-inch (20.3cm) Schmidt-Cassegrain and then swapped in the 15mm Sky-Watcher UltraWide eyepiece together with the CEMAX 2X Barlow lens—from the observatory's 90mm Coronado H-Alpha Solar Telescope—for a view of Mars at 266X.

Paul Kerans set up the observatory's 15cm Orion AstroView 6 Newtonian reflector on the Sky-Watcher EQ5 mount and showed the students the Moon, Mars and Saturn, and later the Owl Cluster (NGC457), using the 10mm Plossl eyepiece (75X). Paul also showed them Mars and Saturn through the 15cm Orion Newtonian reflector, using the 10mm Plossl eyepiece together with the CEMAX 2X Barlow lens for a total magnification of 150X. Heather MacIsaac showed the students the Moon through her Celestron Go-To 90mm Maksutov, using her 32mm Plossl eyepiece (39X), and then Saturn and the stars Mizar and Alcor and Albireo, using the observatory's 12.5mm Ortho eyepiece (100X).

There was an ISS pass observed (9:08—9:14 p.m.) travelling northwest to east northeast, reaching an altitude of 26 degrees above the north northeast horizon at 9:11 p.m. There was another ISS pass observed (10:44—10:47 p.m.) travelling west northwest to west, reaching and altitude of 55 degrees above the western horizon at 10:47 p.m. The students were present for the first ISS pass but were gone around by 10:30 p.m., after a very interesting and enjoyable evening of astronomy.

Cronyn Observatory Public Night, Saturday, August 13th, 2016

Written by Robert Duff, as Reported by Everett Clark

Cloudy skies with some clearing, later clouding over again, greeted 35 visitors to the Western University's Cronyn Observatory Summer Public Night, Saturday, August 13th, 2016, 8:30 p.m. Professor Robert Cockcroft made 2 presentations of his digital slide presentation "New Horizons: A New look at Pluto" and fielded questions. RASC London member Everett Clark reported that there were 32 visitors for the first slide presentation (including 3 people from Rogers Cable TV) and 3 people for the second slide presentation for a total of 35 visitors for the evening.

RASC London Centre was represented by Everett Clark, Heather MacIsaac, Dale Armstrong, Peter Jedicke, Tricia Colvin and Mark Tovey. Cronyn Observatory Director Professor Jan Cami gave tours of the observatory. Graduate student Kendra Kellogg was telescope operator for the evening and directed the big 25.4cm refractor (32mm Erfle eyepiece, 137X) in the dome towards the 3-day-past-first-quarter waxing gibbous Moon.

On the roof patio outside the dome, Dale Armstrong operated the observatory's 8-inch (20.3cm) Meade Schmidt-Cassegrain, showing visitors Arcturus, using the 15mm Sky-Watcher UltraWide eyepiece (133X), and then doubling the magnification with the addition of the CEMAX 2X Barlow lens—from the observatory's 90mm Coronado H-Alpha Solar Telescope—for views of Mars and Saturn at 266X. Dale also showed people the Canadian flag on top of University College to the northeast and the communications tower in south London through the 8-inch (20.3cm) Meade Schmidt-Cassegrain, using the 26mm Plossl eyepiece (77X).

Everett Clark set up the London Centre's Dobsonian (17mm Nagler eyepiece, 66X) and with Heather MacIsaac showed visitors the Moon, Mars and the wind turbine on the Engineering building. Heather MacIsaac also showed visitors the Moon through her Celestron Go-To 90mm Maksutov, using her 32mm Plossl eyepiece (39X).

Downstairs in the "Black Room" Tricia Colvin operated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets. Mark Tovey gave tours of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope.

The visitors were gone by around 10:50 p.m. after a very enjoyable evening of astronomy.

Cronyn Observatory Public Night, Saturday, August 20th, 2016

Cloudy skies with some rain showers greeted 53 visitors to the Western University's Cronyn Observatory Summer Public Night, Saturday, August 20th, 2016, 8:30 p.m. Postdoctoral fellow Dr. Mattia Galiazzo made 2 presentations of his digital slide presentation "Cosmic Smashing Pumpkins in the Solar System" and fielded questions. Professor Jan Cami counted 40 people for the first slide presentation and 13 for the second for a total of 53 visitors.

RASC London Centre was represented by Bob Duff, Heather MacIsaac, Dale Armstrong, Peter Jedicke, Steve Gauthier, Tricia Colvin and Mark Tovey. Graduate student Jeff VanKerkhove was telescope operator in the dome and staff member Henry Leparskas was also there. Rain showers and possible thunderstorms

ruled out opening the dome and Jeff talked to the visitors. Dale explained a little about the observatory's big 25.4cm refractor. Bob set up the London Centre's 25.4cm Dobsonian (17mm Nagler eyepiece, 66X) and Heather her Celestron Go-To 90mm Maksutov (32mm Plossl eyepiece, 39X) inside the dome, so as to show visitors the lights on the communications tower in south London through the door. Bob spoke to one couple who inquired about the "Atlas Borealis 1950.0" (author: Antonin Becvar) on the map display table, giving them a "Getting Started in Astronomy" (RASC, SkyNews [2015]) pamphlet and a "Star Finder" planisphere after explaining its use and assembling it with adhesive tape.

Downstairs in the "Black Room" Tricia Colvin operated the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets. Mark Tovey gave tours of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope. Professor Jan Cami also talked to some visitors in the "Period Room."

The visitors were gone by around 10:45 p.m. and the observatory was closed down after an interesting evening learning about astronomy and telescopes.

Art Camp: Solar Observing at the Cronyn Observatory, August 22nd, 2016

Mostly clear skies with some clouds greeted 31 visitors, including 26 children (ages 6—10) and 5 adults / leaders from the Boys & Girls Club of London Art Camp, for solar observing at Western University's Cronyn Observatory, Monday, August 22nd, 2016, 10:00 a.m. They were welcomed by Professor Jan Cami who presented the digital slide presentation "Astronomy at Western" and fielded questions. The children were then divided into 2 groups, with one group going upstairs into the dome and the other downstairs for the "Transit Demo" in the "Black Room."

RASC London Centre was represented by Paul Kerans and Bob Duff. Prior to the event Jan Cami and Paul Kerans set up both the observatory's 90mm Coronado H-Alpha Solar Telescope (Sky-Watcher EQ5 mount) and 8-inch (20.3cm) Meade Schmidt-Cassegrain, with the Kendrick Astro Baader film white light solar filter, on the dome roof patio. Paul installed his MallinCam digital CDD camera on the 90mm Coronado but did not get an image on the flat screen TV he had set up on a chair inside the dome door.

Bob Duff gave a brief talk about the big 25.4cm refractor in the dome to the first group in the dome. Physics and Astronomy staff member Henry Leparskas opened the dome to let in some light and also accessed the NASA Solar Dynamic Observatory Web site on the dome computer. On the roof patio outside the dome, Paul showed the children the Sun through the 90mm Coronado H-Alpha Solar Telescope, using the CEMAX 18mm eyepiece (44.4X). Seeing conditions were good with prominences visible on the edge of the Sun as well as filaments and granulation noticeable on the solar surface. Bob showed the children sunspots on the Sun through the 20.3cm Schmidt-Cassegrain (26mm Plossl eyepiece, 77X) with the white light solar filter. Henry gave the telescope talk when the second group came upstairs into the dome.

Downstairs in the "Black Room" Jan made 2 demonstrations of the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets—with the second demonstration to the group coming downstairs from the dome.

The children and their leaders were gone by around 11:05 a.m., after a very interesting and enjoyable slide presentation, "Transit Demo" and views of the Sun through solar filtered telescopes.

Western Sports Space Camp: Solar Observing at the Cronyn Observatory, August 22nd, 2016

Mostly clear skies with some clouds greeted 14 visitors, including 12 children (ages 8—13) and 2 adult / leaders, from the Western Sports Space Camp, who arrived for solar observing at Western University's Cronyn Observatory, Monday, August 22nd, 2016, 11:15 a.m. (This was shortly after the children from the Boys & Girls Club of London Art Camp had finished their solar observing session and departed from the observatory.)

Professor Jan Cami greeted the visitors from the Western Sports Space Camp with the digital slide presentation "Astronomy at Western" and fielded questions. Bringing the group upstairs into the dome, Jan gave a telescope talk about the big 25.4cm refractor. The children were divided into 2 groups to view through the observatory's 2 solar filtered telescopes set up on the roof patio outside the dome.

RASC London Centre Paul Kerans and Bob Duff operated the solar filtered telescopes and Physics and Astronomy staff member Henry Leparskas showed visitors the NASA Solar Dynamic Observatory Web site on the dome computer. Paul showed the children the Sun through the 90mm Coronado H-Alpha Solar Telescope (Sky-Watcher EQ5 mount), using the CEMAX 18mm eyepiece (44.4X). Seeing conditions were good with prominences visible on the edge of the Sun as well as sunspots, filaments and granulation noticeable on the solar surface. Bob showed the children sunspots on the Sun through the 8-inch (20.3cm) Meade Schmidt-Cassegrain (26mm Plossl eyepiece, 77X) with the Kendrick Astro Baader film white light solar filter.

Jan also distributed some 14 solar eclipse glasses (4 were later returned) for the visitors to view the Sun from the roof patio outside the dome. The visitors were gone by around 12:00 noon, after a very interesting and enjoyable slide presentation and views of the Sun through solar filtered telescopes.

Cronyn Observatory Public Night, Saturday, August 27th, 2016

Cloudy skies with occasional light rain greeted some 42 visitors to the Western University's Cronyn Observatory Summer Public Night, Saturday, August 27th, 2016, 8:30 p.m. Professor Sarah

Gallagher made her digital slide presentation "The Wonderful Thing about Transits" and fielded questions. Graduate student Viraja Khatu greeted and directed visitors. There were 38 visitors for the slide presentation and with 4 more arrivals who did not attend the presentation the total was 42 visitors for the evening.

Downstairs in the "Black Room" Professor Jan Cami showed visitors the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets. Physics and Astronomy Department staff member Henry Leparskas gave tours of the historic "Period Room," which featured the "Sotellunium" mechanical eclipse demonstration model and Dr. H. R. Kingston's brass refractor telescope.

RASC London Centre was represented by Bob Duff, Peter Jedicke, Paul Kerans, Dale Armstrong and Steve Gauthier. Professor Robert Cockcroft was telescope operator and made ready the big 25.4cm refractor (17mm Nagler eyepiece, 258X). Since rain ruled out opening the dome, Dale Armstrong gave a telescope talk, explaining the difference between a refractor and reflector telescope. Dale demonstrated the shutter on the Schmidt camera and called people's attention to the Cassegrain reflector—both piggy-backed on the big 25.4cm refractor. Dale also invited visitors to view through the observatory's Meade 8-inch (20.3cm) Schmidt-Cassegrain (26mm Plossl eyepiece, 77X), set up on the table and directed through the open window towards the red light above the campus building to the north.

The visitors also viewed the red and white lights on the communications tower in south London through the London Centre's 25.4cm Dobsonian (32mm Erfle eyepiece, 35X) set up just inside the roof patio door. Paul Kerans showed visitors his iron-nickel meteorite, as well as samples of Moon and Mars meteorites in small display cases. Paul invited children to "walk on the Moon" with the Moon meteorite sample display case placed in a wooden block.

Peter Jedicke, Steve Gauthier and Bob Duff answered questions and 2 "Star Finder" planispheres, 2 "Moon Gazers' Guide" cards and 2 "Getting Started in Astronomy" (RASC, SkyNews [2015]) pamphlets, along with RASC London pamphlets, were given to interested visitors. Everybody was gone by 11:00 p.m., after an interesting evening learning about astronomy, despite the cloudy, rainy weather.

Western Sports Space Camp: Solar Observing at the Cronyn Observatory, August 30th, 2016

Partly cloudy skies with hazy clouds greeted 33 visitors (30 children and 3 adult / leaders)—including 22 children and 2 adult / leaders from the Western Sports Space Camp and 8 children and 1 adult / leader from the Mini-University Camp—for solar observing at Western University's Cronyn Observatory, Tuesday, August 30th, 2016, 10:30 a.m. Professor Jan Cami made the digital slide presentation "Astronomy at Western" and fielded questions. The children were then divided into 2 groups with one group going upstairs into the dome and the other downstairs to see the "Transit Demo" in the "Black Room."

Downstairs in the "Black Room" Jan made 2 demonstrations—one to each group—of the "Transit Demo" model—demonstrating the transit detection method for finding extra-solar planets. The 2 groups alternated between the dome and the "Black Room."

RASC London Centre was represented by Everett Clark, Paul Kerans and Bob Duff. Physics and Astronomy staff member Henry accessed the NASA Solar Dynamic Observatory (SDO) Web site—with the image of "The Sun Now"—on the dome computer. When the first group arrived upstairs, Bob Duff opened the dome to allow in more light and gave a telescope talk about the observatory's big 25.4cm refractor. Bob demonstrated the shutter on the Schmidt camera and called the visitor's attention to the Cassegrain reflector—both piggy-backed on the big 25.4cm refractor.

Bob gave another telescope talk to the second group—who arrived upstairs from the "Transit Demo"—while the first group went out on the roof patio to observe the Sun through solar filtered telescopes and then downstairs for the "Transit Demo" in the "Black Room."

Paul showed the visitors the Sun through the 90mm Coronado H-Alpha Solar Telescope (Sky-Watcher EQ5 mount), using the CEMAX 18mm eyepiece (44.4X). Despite occasional hazy clouds prominences were visible on the edge of the Sun as well as mottling on the solar surface. Everett showed them sunspots on the Sun through the 8-inch (20.3cm) Meade Schmidt-Cassegrain (26mm Plossl eyepiece, 77X) with the Kendrick Astro Baader film white light solar filter. Paul later doubled the magnification in the 90mm Coronado H-Alpha Solar Telescope by combining the CEMAX 2X Barlow lens with the 18mm eyepiece (89X) to show a few visitors a better view of the Sun.

Jan distributed some 25—30 solar eclipse glasses to the visitors and Henry explained how to use them and to avoid scratching the solar film. They could keep or return the glasses as they wished and some returned the glasses.

The visitors were gone by around 11:30 a.m., after an interesting and enjoyable slide presentation about astronomy at Western, demonstrations of the "Transit Demo"—showing how extra-solar planets are detected—and observing the Sun through solar filtered telescopes.

RASC London Centre Star Nights & Public Outreach, July 5th — **August 19th, 2016**

By Robert Duff

Star Night, Fanshawe Conservation Area, Tuesday, July 5th, 2016

Written by Robert Duff, as Reported by Norman McCall

Clear skies and some 20 guests welcomed RASC London Centre members Everett Clark, Gaetan Godin and Norman McCall who

arrived around 8:15 p.m. for the Star Night at Fanshawe Conservation Area, Tuesday, July 5th, 2016.

Gaetan Godin set up his home-built 20.3cm Newtonian reflector (Sky-Watcher NEQ6 PRO SynScan mount); Everett Clark, his 114mm Tasco Newtonian reflector (Super Polaris mount); and Norman McCall, his 25.4cm (f/4.5) Meade DS-10 Newtonian reflector. Gaetan gave a presentation on the different types of telescope and their use. An Android astronomy software application was demonstrated which showed the night sky. There were a few questions asked including: what was the most memorable experience at the telescope, and another by a 5 or 6 year old girl, who asked what added advantage a telescope gave over binoculars.

Gaetan showed about 20 people the setting Sun—visible as a circular disk of light peeking out among tree branches on the western horizon—through his 20.3cm Newtonian, using a Kendrick Astro Baader film solar filter. While it was still dusk Gaetan tracked objects manually for viewing. Gaetan polar aligned the mount when Polaris became visible and was then able to use the SynScan computer system to Go-To Jupiter, Mars and Saturn, using his 32mm Antares Erfle (37.5X) and 17mm Hyperion (71X) eyepieces for viewing.

Everett Clark showed people Jupiter, Mars and Saturn through his 114mm Newtonian reflector. Norman McCall showed people Jupiter, Mars, Saturn and Arcturus through his 25.4cm Meade DS-10 Newtonian reflector, using his 20mm Explore Scientific eyepiece (57X) and doubling the magnification with the addition of a 2X Barlow lens (114X). There were a number of very interested children and adults who asked good questions.

There were some 25—30 people in attendance and planetary observing did not begin until around 9:30 p.m. due to the long dusk period. The star night ended shortly after 11:00 p.m. after a very enjoyable evening of astronomy.

Star Night, Girl Guides at Camp Orenda, Friday, August 19th, 2016

Written by Robert Duff, as Reported by Heather MacIsaac

It was a great evening for the 19 Girl Guides and 3 leaders of the 1st Wyoming Guides on the Soames site at Camp Orenda, Friday, August 19th, 2016, 8:30 p.m. RASC London Centre member Heather MacIsaac was the event organizer, bringing her 90mm Celestron Go-To Maksutov telescope. She was joined by RASC London Centre Public Outreach Coordinator Dave McCarter, with his 25.4cm Dobsonian; Steve Imrie, with his Orion SkyQuest 8-inch (20.3cm) Dobsonian; and Everett Clark, with the London Centre's 25.4cm Dobsonian.

Dave McCarter gave a great star talk before directing the girls to the 4 telescopes set up and directed towards Mars and Saturn. As clouds and lightning rolled in, Heather showed the Guides how to locate sky objects for their astronomy badge, including the Summer Triangle (the stars Vega, Deneb and Altair), Polaris and Arcturus. There were questions from the Guides and the evening ended around 10:10 p.m. after clouds had covered much of the sky.

The best part of the evening for Heather was when one of the Guides told her "I don't really like science, but now I really like astronomy"—mission success! Many thanks go to Heather, Steve, Everett and Dave for an excellent Guides' star night despite the uncertain weather.