



October 2017 - Volume 12, Number 10

We welcome your comments on the *Bulletin*.
Email them to the Editor, David Garner at
bulletin@rasc.ca

► [News @ RASC.ca](#)

News from the Society Office

by [Randy Attwood](#), RASC Executive Director

October Holiday Hours

Please note: the RASC Society Office will be closed on Monday, October 9th for Thanksgiving. Have a safe holiday and clear skies!

RASC 150th

Next year the **RASC celebrates its 150th anniversary**. Be sure to follow plans for the celebration on the 150th anniversary page <http://rasc.ca/2018>

NEW Products: RASC 150th!

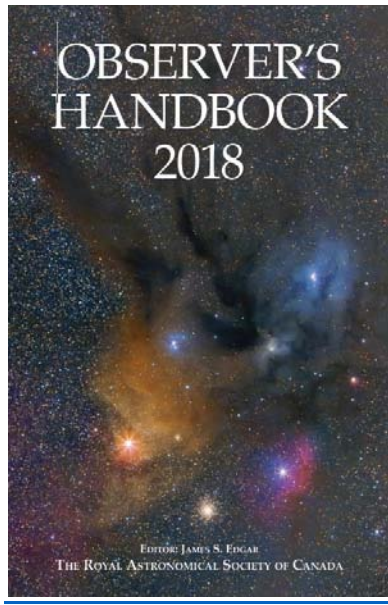
We have many new items available on our eStore celebrating our 150th anniversary in 2018! **Stop by our eStore today** and check them out!





NEW Item: **Observer's Calendar 2018**

A beautiful calendar showcasing RASC members' astro-images with information on what's up in the sky tonight. A perfect gift for the beginner and a must-have for the experienced observer. **Now available for pre-order!**



NEW Item: **Observer's Handbook 2018**

The *Observer's Handbook*, a 352-page guide published annually by The Royal Astronomical Society of Canada, has come to be regarded as the standard North American reference for data on the sky. The Handbook material is of interest to astronomers, scientists, teachers, students, science writers, campers, Scout and Guide leaders, and interested readers. The Handbook forms the basis of many secondary and university astronomy courses, and it should be in every library.

The 2018 Handbook will be sent out to all RASC members late October/early November.

Volunteers wanted!

The office staff could use the help of volunteers to work on small projects. These would be accomplished at the volunteer's home. All that is needed is access to a computer and the internet. Projects would take 5 – 10 hours and could be worked on during the evenings over a period of weeks.

If interested please contact: Randy Attwood, Executive Director:

Execdir@rasc.ca 416 924 7973

Welcome Lisa Di Veto!

The Board would like to announce that the Society has engaged a professional fundraiser. Lisa Di Veto is on a 6-month contract to help develop our fundraising programs.

We identified fundraising as key to the charitable activities that we wish to undertake, as part of our strategic plan, and as requests arise from our committees.

Our Society generates charitable funds through much volunteer effort and some donations. Lisa is here to help us be more effective in fundraising, by identifying new revenue sources, and ensuring we cast our nets wider than before. We see great potential, and believe we will be able to accomplish more in the coming months.

Lisa has experience in providing fundraising expertise to various organizations in a consulting role by providing and running grant workshops, annual giving seminars and legacy gift presentations. We welcome Lisa to the RASC and look forward to working with her.

Awards Deadline

by **Craig Levine**, RASC Past President

The deadline for the RASC's National Awards Program, 2017 December 31, is rapidly approaching.

Here is an outline of the awards and their criteria:

CHANT MEDAL This award is based on a significant body of work of lasting value to the astronomical community and is named after C.A. Chant, a noted astronomer at the University of Toronto who helped to found the David Dunlap Observatory there.

KEN CHILTON PRIZE Established in memory of Ken Chilton, this prize is awarded for a specific piece of astronomical research or work carried out or published recently.

SERVICE AWARD Established in 1959, is awarded to RASC members who have made significant contributions at the National and/or the Centre levels.

SIMON NEWCOMB AWARD Established in 1979 for excellence in astronomical writing by an RASC member.

QILAK AWARD Established in 2011, this award is intended to recognize individual Canadian residents or teams of residents who have made an outstanding contribution during a particular time period either to the public understanding and appreciation of astronomy in Canada or to informal astronomy education in Canada and to promote such activities among the members of the sponsoring organizations.

FELLOWSHIP AWARD Established in 2013, this award is given to recognize long-term commitment to the Society.

Nominations for awards should be sent to the Awards Committee at awards20000@rasc.ca.

For more information on the awards nominations, see [RASC Awards](#).

Astronomy Outreach Events "Focussed" on the Moon

by [Roland Dechesne](#), Membership and Development Committee Chair

After the summer star party season has ended in Canada, the earlier onset of twilight in the fall provides ideal situations for public outreach events with "reasonable" hours for families. Classically, astronomy clubs will select an evening near a first quarter Moon to provide visual interest for guest observers of all abilities and to have a dark-enough sky for some of the brighter deep sky objects. One such opportunity is the International Observe the Moon Night, October 28, promoted by the Lunar and Planetary Institute. This event has its own Twitter account, [@observethemoon](#), and social media tag: [#observethemoon](#). The web

site, www.lpi.usra.edu/observe_the_moon_night/ has promotional and outreach materials.

Why not try a less traditional outreach situation? While many astronomers shun observing on full Moon nights, the public is fascinated by the bright orb of our nearest celestial neighbour. Take advantage of this with an event built around the Harvest or Hunter's Moons. The full Moon closest to the autumn equinox is known as the Harvest Moon (this year October 5) and the Hunter's Moon is the full Moon of the following lunation (November 3). This year, both of these are a bit later in the season than typical. A successful event for these full Moons requires a good view of the eastern horizon for moonrise, and only modest optical equipment – a few small telescopes or binoculars mounted on tripods. Encourage guests to bring their own binoculars. Discussions about the seasons, the times of moonrise as the Moon moves rapidly northward in the sky from night to night (a consequence of being opposite in the sky to the Sun, which is moving quickly southward), and the minimal span of twilight before moonrise will "enlighten" your guests. A crowd pleaser is the so-called "Moon illusion", where the Moon looks outlandishly large near the horizon. Because these events represent a process that takes a few days to fully appreciate, there is a 2-3 day window to host your event in case of inclement weather. However, a few clouds won't spoil the experience and may even enhance the spectacle. Be sure to point out Venus's Girdle, the grey and pink band in the eastern sky that represents the Earth's shadow on the atmosphere. When I do, I underscore that night does not "fall," it rises.

The RASC has some excellent outreach materials for Moon-centric public events, like the "**Moon Gazers' Guide / Guide D'Observation Lunaire**" available for purchase, so make sure you are stocked up in advance. Additionally, there are a number of printable brochures regarding the Moon available here:

<http://calgary.rasc.ca/downloads/index.htm>

Fall 'n' Stars 2017, September 22 - 24

by **Kim Hay**, RASC, Kingston Centre

Fall 'n' Stars is set in the Colonel Roscoe Vanderwater Conservation area at the Boy Scout Camp Sagonaska, in Thomasburg, Ontario. There is a beautiful walk to go swimming in the Moira River down the road, and lovely nature trails.

The event started off with our traditional rocket launch.

This year, was a true treat with setting camp up in the summer and ushering in the fall equinox at 16:02 local (20:02 UT) in the warmest year we have had yet. Each day was in the high 30C range, and nights went down to 13-15 °C. Despite the heavy dew in the evening and early mornings, the skies were great with relatively no cloud. Many were up observing or having great conversations till the early hours.

We had 30 people in attendance for all or part of the weekend. The swap table had some good deals. We saw some Black Swallowtail, and Monarch chrysalis in a glass aired container being cared for by Janet Elliot. There was daytime planetary and solar observing done, along with many talks on everyone's adventures on the total or partial solar eclipse inside the long house, which had been recently upgraded. Dinner was catered by a local company, and door prizes, 50/50 and raffle draws after dinner. A good time was had by all.

Sunday saw us having the closing ceremony of another rocket launch, which is still at the camp resting high in a tree.....another one bites the dust.

Thank you all to our volunteers from both groups who helped put together another great weekend.



Group photo by Richard Wagner

RASC Yukon Events

by **Anthony Gucciardo**, RASC, Yukon Centre

The 1st-Ever Yukon Star Party:

Join the RASC: Yukon Centre in welcoming Dr. Phil Plait (a.k.a The Bad Astronomer), Dr. Christa van Laerhoven (UBC), and Pierre Paquette (RASC) to the Yukon for our 1st-Ever STAR PARTY. This Star Party event will run between the 20th and 27th of October at the Takhinin Hotsprings.

<http://yukonastronomicalsociety.com/>

On Sunday October 22nd at The Old Fire Hall, Dr. Phil Plait & Dr. Christa van Laerhoven will discuss and dispel common misconceptions about the many fascinating objects in the Yukon night sky! Come discover secrets about the aurora borealis, our ever-changing Universe, and the many current, and near-future roles YOU can be a part of! Your moderator for the evening will be Jaclyn Semple, B.Sc, M.Sc of the Yukon College. This is a FREE presentation.

Throughout the week, a variety of day and night presentations, workshops, discussions, and hands-on experiences with solar and deep-sky astronomical

observing are included at the Takhini Hotsprings!! These events will require you to purchase a 1-day, or our 7-day Star Pass via www.YukonTickets.com. Unlimited access to the Hotsprings is included with every day or week pass purchase!!

Accommodations are also available at the Takhini Hostel for those who wish to remain on-site, please book via our e-mail address (yukonastronomicalsociety@gmail.com), or with any number of hotels in Whitehorse (www.yukoninfo.com/whitehorse-yukon/).

All passes are now available on-line through www.YukonTickets.com!



Aurora 360:

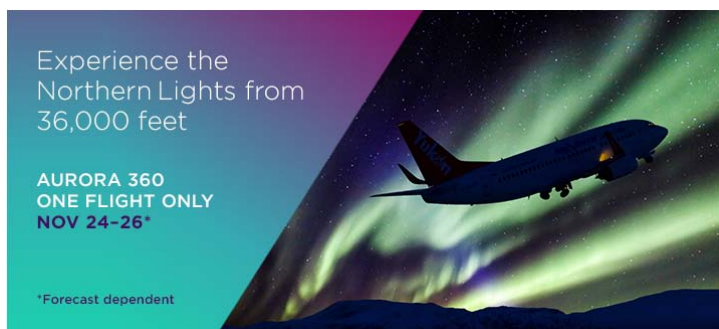
View the Northern Lights from the Air: Join with Tourism Yukon, the Yukon Astronomical Society and Air North, Yukon's Airline Partner, for a Once-in-a-Lifetime Opportunity

Tourism Yukon, the Yukon Astronomical Society and Air North, are partnering to offer a once-in-a-lifetime opportunity to view the northern lights from the air. For the first time ever in Canada, this one-of-a-kind experience will offer spectacular and unmatched views of high altitude aurora at 36,000 feet.

Limited to just 78 passengers, ensuring an optimal viewing experience, the flight will depart from Whitehorse on either November 24th or 25th pending the aurora forecast. Featuring guest speakers and entertainment, an invitation-only event will be held at the beautiful Kwanlin Dün Cultural Centre, centrally located along the riverfront in downtown Whitehorse, Yukon the evening of November 24th.

For more information, or to book your seat:

www.flyairnorth.com/DealsAndNews/Aurora360.aspx



Non-Credit Astronomy at the Yukon College:

The Department Head of Continuing Education & Training at the Yukon College had accepted YAS's non-credit Astronomy program proposal. We will be starting in September 2017. This will later include Astronomy at the College campuses across the Yukon.

Universe from Your Backyard

ASTR CE02

Learn how to find the circumpolar constellations, the Orion Nebula, and stay on top of weekly sky events and space news.

Astrophotography

ASTR CE03

A general overview of modern Astronomy, fostering the use of a scientific lexicon, and reviewing data reduction and image processing methods.

[Dark Sky Friendly Lighting-Retrofit-Compliance](#)

ASTR CE04

This course will introduce the concepts of luminous flux, illuminance, luminance, and the reflectance equation as well as understanding measurement and simulation techniques. www.yukoncollege.yk.ca/ce/courses

RASC Montreal Centre Upcoming Events for October

by [Carl Jorgensen](#), Secretary, Montreal Centre

Wednesday, October 4, 7:30 – 11:30 pm: Members Observing at the Morgan Arboretum, 150 Chemin des Pins, Sainte-Anne-de-Bellevue. Only if the skies are clear.

Saturday, October 7, 7:00 – 11:00 pm: Members Arbo Clubhouse at the Morgan Arboretum.

Wednesday, October 11, 7:30 – 11:30 pm: Members Observing at the Morgan Arboretum. Only if the skies are clear.

Thursday, October 12, 7:00 – 9:30 pm: Members Library Clubhouse. John Abbott College, HO-107 21275 Rue Lakeshore, Sainte-Anne-de-Bellevue. Doors open 7:00 pm. Short presentation "Tidal Forces" 7:30pm. RASC Members Only can borrow & return books. Talk with other members, show and tell, etc..

Saturday, October 14, 7:30 – 11:00 pm: Members Observing at Woody Woods (Our Darkest out of Town Site), 45 Rang Saint Antoine, Saint-Chrysostome. Only if the skies are clear.

Monday, October 16, 7:00 – 10:30 pm: Townsend Lecture Featuring David Levy. John Abbott College. Doors open 7:00 pm. RASC Montreal Centre Double Star Bronze Certificates will be presented to David Levy and Carl Jorgensen. Townsend Lecture by David Levy "Personal Experiences of Lunar & Solar Eclipses" 7:30 pm.

Wednesday, October 18, 7:30 – 11:30 pm: Members Observing at the Morgan Arboretum. Only if the skies are clear.

Saturday, October 21, 7:30 – 11:00 pm: Members Observing at Cooper's Aviation, 1700 Chemin Ste Angélique, Saint-Lazare. Only if the skies are clear.

Wednesday, October 25, 7:30 – 11:30 pm: Members Observing at the Morgan Arboretum. Only if the skies are clear.

Saturday, October 28, 7:30 – 11:30 pm: Public Event at the Morgan Arboretum. The Morgan Arboretum will be hosting "Halloween in the Haunted Forest". Doors Open at 7:30 pm. Public talk Kevin Kemball (Spooky) 8:00 pm. After talk the Montreal Centre will be opening the Observatory for all guests to take a peek at what's up there! Centre members will be on hand with extra telescopes. One never knows what might pop up on this frightful night! (weather permitting).

CASCA Autumnal Equinox 2017 Newsletter

by **Eric Briggs**, RASC, Toronto Centre

The society of academic Canadian astronomers, CASCA has published its quarterly newsletter, *Cassiopeia*. The current newsletter features updates on all ground- and space-based investments of Canadian astrophysics and the Canadian Space Agency. The recent recommendation concerning the Thirty Meter Telescope was announced after this newsletter went to press.

This newsletter features the First Light report from the Canadian Hydrogen Intensity Mapping Experiment (CHIME) with a graph of the galaxy Cygnus A.

This newsletter also features three abstracts of Ph.D. dissertations in Canadian astrophysics.

The Effects of Environment on the Atomic and Molecular Gas Properties of Star-Forming Galaxies

By Angus King Fai Mok, McMaster University

Thesis advisor: Dr. Christine Wilson

Lights in Dark Places: Inferring the Milky Way Mass Profile using Galactic Satellites and Hierarchical Bayes

By Gwendolyn Eadie, McMaster University

Thesis advisor: Dr. William Harris

Investigating Brown Dwarf Atmospheres: Gravity, Dust Content, Cloud Structure and Metallicity

By Kendra Kellogg, Western University

Thesis advisor: Dr. Stanimir Metchev

<http://casca.ca/?p=9388>

Thank You to our Sponsors!

by [Julia Neeser](#), RASC Marketing Coordinator

The Royal Astronomical Society of Canada has a unique partnership with our friends in the astronomy industry. We are now offering companies the distinction of becoming a charter sponsor of the RASC, Canada's pre-eminent amateur astronomy organization. This offer is available only to those industry leaders who recognize the value in being associated with the amateur astronomy community.

www.rasc.ca/rasc-sponsors.



What's New in the Sky

Members are encouraged to check out the [Northern Skies](#) section of the RASC website. Thanks to Gary Boyle for keeping us all in the know.



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