



# The Royal Astronomical Society of Canada NATIONAL NEWSLETTER

JANUARY/FEBRUARY 2018 VOLUME 2, NUMBER 4

## RASC 150: UNITY IN DIVERSITY AND SAVING YOUR CENTRE'S PAST

Nearly as old as Canada itself, the RASC, like the country, enjoys a type of federal existence through its Centres. Our particular federation could be characterized as a unity willed out of regional diversity. RASC members countrywide hold the same categories of membership, receive the same *Journal* and *Observer's Handbook*, contribute to comparable public programming and subscribe to the same national objectives. As astronomers, we may cultivate the same interests and attempt to similarly refine our skills, but we do so differently. No two observers see exactly the same way, no two imagers ought to produce indistinguishable photos, no two volunteers perceive and describe Saturn's rings, the Double Cluster's appearance or Albireo's colours in the same fashion at public star parties—and no two amateurs follow the exact same path to and through astronomy. And so it is with our Centres.

The history of each of the Centres—the local and regional nodes of the RASC—is conditioned by its own dialect of experience, with a style and approach to astronomy formed by the members working in tandem within their community. The diversity of ways of “promoting astronomy and allied sciences” across the nation is a source of strength for the RASC as a whole. Each Centre, from the oldest (Toronto) to the newest (Yukon), has

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### CONTACT US

We invite all Centres to contribute articles about their latest activities. Have you had any public star parties, award ceremonies, special events or observatory activities? Photos are welcome. Please send articles and pictures to [newsletter@rasc.ca](mailto:newsletter@rasc.ca).

### NGC7023

This 10-hour LRGB image of the Iris Nebula, NGC7023, was taken using a Tele Vue NP127is telescope and a QSI 583wsg camera.

—Dan Meek, Calgary Centre





RASC 150 cont'd.

had to adapt to its local cultural topography in order to effect national programs and its own initiatives. At one time, the Montreal Centre sponsored the most active planetary patrols in the country; at other times, the Victoria, Ottawa, London and Kitchener-Waterloo Centres had (and have) notable telescope makers and opticians; real scientific research was carried out at the Toronto, Halifax and Ottawa Centres, to name a few (these lists are not exhaustive); and the Calgary Centre's youth programs were successful beyond the dreams of most other places. In every case, the combination of particular people and local resources was crucial to those enterprises.

Many of the stories of the outstandingly interesting characters, undertakings and successes (and not so successes) of the various Centres are hardly known outside the Centres and, indeed, may not be well known within the Centres themselves. There may be important stories that have thus far not been officially recorded and key documents and artifacts that have not been properly preserved. Older Centre members may know much of local Centre history that has not been committed to writing. Their memories of Centre members who have passed away, Centre traditions that have fallen by the wayside and the beginnings of things would be invaluable to record. Besides being of historical importance for the course of amateur astronomy in Canada, these historic materials may contain initiatives, ideas and approaches worth reviving or adapting to today's circumstances—they can, in fact, be a resource for enriching present and future RASC programs. They can't be a potential resource, however, if no action is taken to ensure that they survive.

Why not celebrate the RASC's sesquicentennial locally by helping to preserve some aspect of your Centre's heritage? You may be thanked when your Centre comes to celebrate its 150th anniversary.

—R.A. Rosenfeld, RASC Archivist

*Should you require guidance or assistance, please contact the RASC Archivist.*

## EDITOR'S CORNER

### MY FIRST SOLAR ECLIPSE

Last August 21, my neighbour and I took a trip down to Nashville, Tennessee, to see the solar eclipse. We expected the roads to be packed with eclipse chasers like ourselves, but in fact, it was a pleasant drive. It seems that everyone who was going to view the event went at various earlier times. What we didn't anticipate was the harried drive home. Everyone seemed to be on the road at the same time—right after the eclipse.

Since this was my first total solar eclipse, I had the usual set of expectations—you know, the Moon covers the Sun, it gets dark for a couple of minutes and then back to normal again. But I learned a lesson. You can read all the descriptions and look at all the photos, but it is one of those things where you just have to be there. Compare looking at a photo of the Grand Canyon with actually standing there. It truly was an experience I didn't expect and had never had before. Even though the drive back was tedious, my neighbour and I marvelled at the event we had just witnessed.

I took a few photos, and although I am far from being an expert photographer, I hope you get a bit of what I saw and felt last August from my images, above.

—David Garner

## RASC AWARDS FOR 2018: FINAL CALL FOR NOMINATIONS

The deadline for the RASC's National Awards Program, 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, this award is presented to RASC members who have made significant contributions at the national and/or the Centre levels.

**SIMON NEWCOMB AWARD** Established in 1979, this award recognizes 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 in recognition of long-term commitment to the Society.

Nominations for the RASC National Awards Program should be sent to the Awards Committee at [awards20000@rasc.ca](mailto:awards20000@rasc.ca). For more information on the awards nominations, see [www.rasc.ca/rasc-awards](http://www.rasc.ca/rasc-awards).

—Craig Levine  
Past President, RASC

# RASC NEWSLETTER



## EXPLORE THE UNIVERSE— AND THEN SOME

Over the past decade, Explore the Universe has been the most popular RASC observing program, accounting for almost one-third of all observing certificates awarded. By observing 55 objects or phenomena out of a possible 110, novice observers can truly begin to explore the cosmos just by using their eyes and a pair of binoculars, even from their own backyard. Many recipients go on to earn certificates for the Messier Catalogue and the Finest NGC Objects. The full range of RASC observing programs can be found at [www.rasc.ca/certificate-programs](http://www.rasc.ca/certificate-programs)—there's something for everyone!

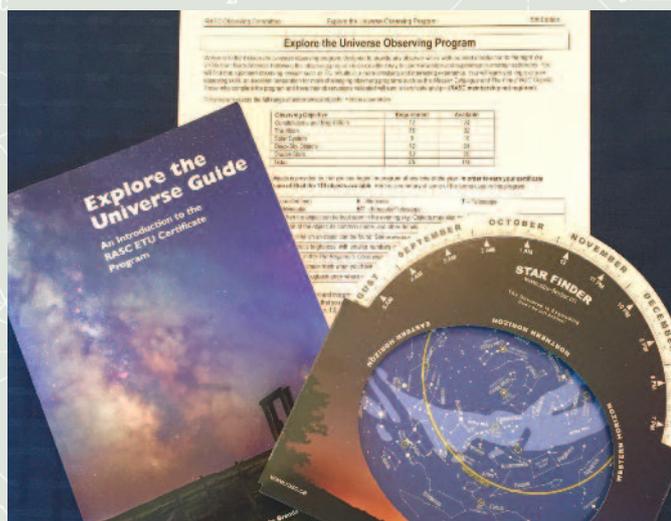
The 2016 publication *Explore the Universe Guide* by Brenda Shaw proved quite popular and, in fact, sold out. Over the summer of 2017, the Publications Committee and the Observing Committee worked together to prepare a reprint of this title. The original text was reviewed by experienced observers and clarified in several places, and the revised, expanded edition is now available.

The new material includes lists of all of the program's objectives, Roy Bishop's all-sky star maps and a lunar chart specific to the lunar features of the program.

Of course, you still need the Explore the Universe observing checklist, and this, too, has been revised, but don't worry—the objectives remain the same. Changes were made in response to observer comments to improve clarity and appeal. Even if you have already begun this program, have a look at the fifth edition: [www.rasc.ca/explore-universe](http://www.rasc.ca/explore-universe).

A growing number of RASC Centres are Local Certification Centres for this program, which means there are mentors to help you along, validate your observations and request your certificate and pin. Seek them out. It has never been easier to Explore the Universe!

—Dave Chapman, Chair, RASC Observing Committee



## NEW DARK-SKY PRESERVE

In November 2016, the RASC National Council voted to designate Alberta's Lakeland Provincial Park and Recreation Area a Dark-Sky Preserve. This was confirmed by our Board of Directors. This is the fifth Dark-Sky Preserve in the province.

Covering 57,870 hectares, the park and recreation area is 200 kilometres northeast of Edmonton. It is on the southwest corner of the Cold Lake Air Weapons Range, so there shouldn't be much urban development nearby!

There are five observing sites within the park and surveyed light fixtures at four of the locations. One of these is a ranger station, where the lights are turned off until needed. The other three are privately owned and operate with a generator. As part of the park's outreach program, the owners are being informed that when their leases are renewed, they will be required to change the lights to be compliant.

We welcome Lakeland to our suite of Dark-Sky Preserves.

—Robert Dick, RASC Light-Pollution Abatement Committee

## ASTROIMAGING CERTIFICATES

Astroimagers, here is your opportunity to earn a certificate for all your hard work, learning your craft and keeping up with the latest photography techniques. Three new certificates are available: Wide Field, Solar System and Deep Sky. In addition to a certificate, which is nicely suitable for framing, your winning photographs will be showcased on the RASC Zenfolio site at [rascastroimaging.zenfolio.com](http://rascastroimaging.zenfolio.com).

For the category requirements and submission details, go to [www.rasc.ca/astro-imaging-certificate](http://www.rasc.ca/astro-imaging-certificate).

—James Edgar, RASC Astroimaging Committee



# RASC NEWSLETTER

## WHAT USE IS ASTRONOMY?

We live in a world where science and technology are increasingly valued only for their economic benefits. How can we justify our interest in astronomy in such a world? Here are some ways.

- Astronomy is an exciting frontier science (Nobel Prizes in 2015 and 2017!) that advances other physical sciences through the discovery of new and extreme phenomena and environments. The universe is the ultimate physical laboratory. Astronomy has advanced mathematics and, more recently, computing, and it has contributed to technologies such as light and radio detectors, image processing and space applications. A recent KPMG report shows that investment in Canadian astronomy repays itself twice over, economically.
- It has obvious practical applications: clock, calendar, compass, the Sun's radiation (including potentially harmful solar flares), rare but deadly asteroid and comet impacts.
- At the same time, astronomy is deeply rooted in history and culture as a result of both its practical applications and its philosophical implications. Think Copernican revolution and great scientists such as Galileo and Newton. Being the ultimate interdisciplinary subject, it connects naturally with the arts and humanities.
- In formal education, it exemplifies the "observational" mode of doing science. It can illustrate concepts of physics, such as light and gravity. It can provide practical examples of enormous scales of time, distance and size. Most of all, it can help to promote rational, critical thinking.
- Astronomy reveals our cosmic origins and our place in space and time, and it addresses the ultimate question: Are we alone in the universe? It harnesses curiosity, imagination and a sense of shared exploration and discovery (I thank Doug Cunningham for those wonderful words).
- It reveals a sky and a universe that are vast, varied, beautiful, wondrous and sometimes bizarre. Although we are just a "pale blue dot" in this immensity, we have the capacity to understand it. And images of our fragile planet from space provide a powerful environmental message.
- Astronomy can attract young people to science and technology. Indeed, it can promote awareness, interest, understanding and appreciation of science and technology in people of all ages.

Astronomy also provides an enjoyable, inexpensive interest or hobby for millions of people—probably including you. All you need is your mind and a guide to the universe, like *SkyNews*. Share it with others. Remember: "The stars belong to everyone."

—John Percy, University of Toronto



Halley Davies (left) and Andrea Misner behind the scenes at the video shoot.

## HOW TO USE A STAR FINDER

Over the past summer, RASC members Andrea Misner (Winnipeg), Halley Davies (Halifax) and myself (also Halifax) produced a short video on the use of the RASC star finder. The URL to the video is <https://youtu.be/6Z2dmnTWuWU>, but you can also find it on YouTube by searching for "RASC Halifax."

The video was conceived and planned in May, shot at the end of July (when Andrea was home for a visit), edited and captioned in September and released at the September meeting of the RASC Halifax Centre, which provided funding for the project. The location was the Centre's Saint Croix Observatory, near Windsor, Nova Scotia.

We hope you find the video entertaining and educational—feel free to share it widely.

—Dave Chapman, Halifax Centre

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