



The Royal Astronomical Society of Canada NATIONAL NEWSLETTER

JULY/AUGUST 2017

VOLUME 2, NUMBER 1

RASC 150 NATIONAL STAR PARTY

Hey everyone, let's have a National Star Party that's 5,000 kilometres wide! It's happening on Saturday, July 29, and is hosted by RASC Centres from St. John's to Victoria and places in between.



The St. John's Centre, in Newfoundland, is inviting the public to its Butter Pot Star Party, July 28-29 (www.stjohnsrasc.ca). Moving southwest to Nova Scotia, the Halifax Centre is hosting its Nova East Star Party at Smileys Provincial Park, July 28-30, and the public is invited on Saturday night (halifax.rasc.ca/ne). On that same weekend, the New Brunswick Centre is having its annual star party, the Camping Observing Weekend and Summer Stargaze, at Mactaquac Provincial Park—the public is welcome (www.nb.rasc.ca/meetinginformation.html). In Ontario, the Niagara Centre is holding a star party on July 29 at the Chippawa Creek Conservation Area (npca.ca/conservation-areas/chippawa-creek) in Wellandport. In

Alberta, the Edmonton Centre shows folks the skies at the RASC Observatory at TELUS World of Science year-round (telusworldofscience.edmonton.com). In British Columbia, the Victoria Centre is

hosting two events: the annual RASCals Star Party, July 28-30, in Metchosin (<https://victoria.rasc.ca/events/rascals-star-party/>) and one of a series of Saturday Star Parties at the Dominion Astrophysical Observatory (www.observatoryhill.org/content/events). The event at Metchosin municipal grounds, on Happy Valley Road, includes afternoon solar observing and workshops. Note that there is limited attendance for the Dominion Astrophysical Observatory event, so book your FREE ticket in advance.

These are all the RASC events confirmed at press time. For an up-to-date list on all the groups participating, please see <https://www.rasc.ca/national-star-party>.

—Dave Chapman

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2017 GA Organizing Committee

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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.

WHIRLPOOL GALAXY This 7-hour LRGB exposure was taken using an 11-inch EdgeHD SCT and a QSI 583wsg camera.

—Dan Meek, Calgary Centre





CALDWELL 20, part of the Pelican Nebula, fills a vast area of the late-fall sky. This image is an Ha+LRGB blend jpeg (tiff available for print file). It was taken over three nights for about 10 hours total using a modified Ceravolo f/4.9 1800mm carbon fibre scope guided on a Paramount ME mount. The CCD camera was a Moravian G4-16000EC with Astrodon filters.

—Brian McGaffney, Kingston Centre

EXPLORING SPACE

In April, I had occasion to visit some elementary school classes, grades two to six—something I had not done for a while. We looked at some awesome images, discussed the usual gee-whiz topics (such as black holes), did some interactive activities and dealt with lots and lots of questions. The theme was “exploring space.” There were the usual references to (and pictures of) rockets, astronauts, robot spacecraft and telescopes of various kinds. But what I really hoped to get across was that people could look into the sky and explore space themselves. They can track the motions of the Sun, observe the Moon by day or night, identify some bright planets and stars and think carefully about what they are looking at. For a few minutes during my most recent school visit, we were able to observe the Sun with a special telescope (a Sunspotter®) before clouds intervened.

As a reader of this Newsletter, you have shown an interest in space and what’s there. Explore it! The articles and star maps in *SkyNews* make that possible. At a more advanced level, read and use the material in the *Observer’s Handbook*. As the name suggests, it’s for people who observe the sky. You can explore space at an even deeper level by becoming a “citizen scientist” through projects such as Galaxy Zoo (www.galaxyzoo.org). I work closely with the American Association of Variable Star Observers (www.aavso.org), which enables you to contribute to astronomical research through the simple process of measuring the changing brightness of stars. You can do it visually and experience a direct eyes-on connection with the universe.

Or you can help others to explore space. Get involved with your Centre’s public star parties or do it independently. A young person’s first glimpse of the Moon, Saturn or Jupiter through a telescope may be the

spark that ignites a lifelong interest in science. We especially need to reach students of all races, genders and socioeconomic classes. Go into a school classroom. I’m sure you have a family member or friend who is a teacher (or student) and would appreciate your sharing your passion for the sky. But prepare yourself! As always, I would be glad to offer advice. Check out the Education page on the RASC website (www.rasc.ca/education-public-outreach). There’s also a national bilingual program called Discover the Universe (www.discovertheuniverse.ca) that is building up an excellent set of resources and offering educators webinars and other support.

This may be my last message to you as RASC Honorary President, as my term expires at the 2017 General Assembly. I wish you clear skies and years of enjoyment as you pursue astronomy.

—John Percy, Honorary President
RASC (2013-2017)

BOARD NEWS

The RASC Strategic Plan for the next three to five years: membership retention, sustainable growth and publications

As I reported in the last issue, the Board was to meet in Calgary with facilitator Dr. Wilma Slenders, which we did over a busy two-day weekend in March. Dr. Slenders is good at leading the group to a final solution, one that the Board has presented to National Council and the Centre presidents. It’s important to keep in mind that the “Society” is not five or nine people on the executive or on the Board—the Society is all of us together, individual members, Centre executives and oftentimes members’ families.

So when we have a Strategic Plan, our job as members is to weigh most of what we do against the long-term goals of the Society. When a proposal is made, we have to ask the questions: Is this in the Strategic Plan? and Do we have money in the budget to do this? and How will this proposal work toward the RASC’s mandate of outreach and education?

What the plan does is to outline specific goals and, most important, measurable goals that we can strive for. It gives our Executive Director a working document, agreed on by National Councillors and Centre executive members, that sets out where we want to go with our Society in the future and where the long-range focus needs to be in the daily work at the Society office.

Once the plan is in place, it’s our job to assist and support these measures for a sustainable Society moving on into the next 150 years!

—James Edgar, Past President, RASC

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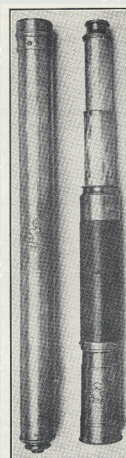
THE GREAT WAR AND THE RASC

Under the aegis of Canada 150, the nation has recently marked the centenary of the Battle of Vimy Ridge of 1917, April 9–12. The engagement was hard-fought and, over the past century, has been called up to serve in diverse narratives, with variance enough to keep the Ridge a contested land in modern discourse (for a balanced account, see *Vimy: The Battle and the Legend* by Tim Cook; Toronto: Allen Lane Canada, 2017).

What of the RASC during the Great War? Society members served. Some were lost, some were scarred physically and mentally, and some were decorated. Bert Topham, the first recipient of our Chant Medal (www.rasc.ca/bert-topham), lost his hearing due to a shell blast and was awarded the Distinguished Conduct Medal for gallantry in the field; Gordon Shrum, who fought at Vimy, was awarded the Military Medal (www.rasc.ca/rasc-members-order-canada#shrum); and John L. Godwin died in action (a partial

list of RASC members serving at the end of 1917 is at tinyurl.com/lhpr3j).

And amateurs' well-known preoccupation with gear was marshalled to the war effort. The RASC received an appeal for telescopes with objectives of no more than 50.8mm for reconnaissance at the front, and the Society and some of its members lent their telescopes to the 4th Battalion, Canadian Mounted Rifles (tinyurl.com/kvn3upb). Some telescopes saw service at Vimy (tinyurl.com/mloy7gk). Unexpectedly, several scopes were returned to the Society, engraved with their



Inscription
4th C.M.R. Overseas
Vimy
Passchendaele
Amiens
Arras
Cambrai
Mons

Telescopes supplied by the Royal Astronomical Society of Canada to a Toronto Battalion in France, with battle honors inscribed upon them.

military honours. Unfortunately, these are no longer in our possession. Having survived the Great War, it is uncertain whether they survived the ensuing peace.

The story of the RASC and its members before, during and after the Great War has yet to be fully discovered, connected and narrated—perhaps one day it will be (Dr. Jeremy Shears has attempted this for the British Astronomical Association; <https://arxiv.org/abs/1309.5205>). We can be grateful that we have not had to rebuild our Society, and ourselves, in the wake of experiences and losses comparable to those our predecessors endured a century ago.

—R.A. Rosenfeld,
with Roland Dechesne



2017 RASC OTTAWA GENERAL ASSEMBLY, JUNE 29 TO JULY 3

Registration for the 2017 General Assembly in Ottawa closes Monday, June 5. Thank you to everyone who has already registered. Please visit our GA website for important information and the latest updates to our program. Look for us at: www.ottawa.rasc.ca/content/2017-general-assembly-ottawa.

See you in Ottawa!

—Brian McCullough and Tim Cole
2017 GA Organizing Committee

RASC OBSERVING AND ASTROIMAGING CERTIFICATES (earned in January–March 2017)

ASTROIMAGING CERTIFICATES

This new program, instituted in late 2016, celebrates the wealth of astroimaging talent in the RASC. There are three subcategories: Wide Field, Solar System and Deep Sky.

For information on how to qualify, see www.rasc.ca/astro-imaging-certificate. For a spectacular gallery of images by most recipients, see www.rascastroimaging.zenfolio.com.

WIDE FIELD: Stuart McNair (Toronto)

SOLAR SYSTEM: Ian Doctor (Edmonton)

DEEP SKY: Dave Gamble (Okanagan) and Dan Meek (Calgary)

OBSERVING CERTIFICATES

The RASC has dozens of active members who have distinguished themselves by earning observing certificates. See www.rasc.ca/certificate-programs for more details.

EXPLORE THE UNIVERSE: Maurice Gaugon (Yukon) and Michael Snair (Belleville)

EXPLORE THE MOON (telescope): Mike Matwyuk (Prince George; earned in 2016)

EXPLORE THE MOON (binoculars): Paul Evans (Halifax)

MESSIER CATALOGUE: Mike Hengeveld (Vancouver)

ISABEL WILLIAMSON LUNAR OBSERVING PROGRAM: Colin McKenzie (Vancouver).

Colin further distinguished himself by observing more than 141 of the challenge objects.

—Dave Chapman



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CHASING THE GRAZE

On the late afternoon of December 22, 1996, the southern limb of the Moon grazed the bright star Aldebaran, in Taurus, along a tract that ran just north of Ayr, Ontario. This was only about a kilometre or two from the Kitchener-Waterloo Centre's observatory, which is now closed. Nearby roads had been scouted to organize a place to observe and possibly even record the event. On the morning of that day, it was obvious that any plans had to be scrapped. Although not entirely unexpected, it was hopelessly overcast. Maybe next time.

Finally, more than 20 years later, on the evening of March 4 of this year, another opportunity arose. This one was different. Not only was the graze line nearby, but Aldebaran would graze on the unlit side of the northern limb at a decent hour on a weekend evening. The last piece of the puzzle was a beautiful, albeit very cold, clear sky!

A friend and I drove north from Kitchener to Arthur and stopped at a coffee shop to determine our observing location. While there, we chanced meeting a gentleman from Toronto who had been doing the exact same thing. We left the coffee shop in a small convoy of two cars and drove along a gravel road until we hit the precise point where the graze line was

to pass. We ultimately chose a spot some 500 metres south of that line.

Three observers, each with a telescope, set up their equipment and waited. As the star very slowly moved closer to the Moon, it was impossible to predict whether the bright star would completely miss the Moon, disappear for a brief time or blink in and out repeatedly. We trusted the predictions but were anxious as we waited.

Then the star was gone. Aldebaran blinked out behind the Moon to a small cheer that was captured by a camera on video-record mode piggybacked to my telescope. Aldebaran blinked in and out from behind the Moon too many times to tally for certain. On a couple of occasions, the star fluctuated wildly in magnitude. Each instance lasted for only a few seconds. When I had convinced myself that the event was over, the star would disappear again.

From the first disappearance to the last reappearance, the time lapse was only 1 minute 48 seconds. While the video confirms this, it seemed much longer. I think this was, in part, due to observing intently several minutes ahead of the predicted start of the graze to decide which eyepiece, magnification, and so on, would be appropriate.

We were all delighted by the event. It exceeded my expectations and was well



Aldebaran is seen very close to the Moon in this 1/30-second exposure, which was taken roughly four minutes after the graze event with a 300mm zoom lens on a handheld Nikon D3400 camera.

worth the effort. In the following days, several observing reports from British Columbia through Ontario and into the northeast United States materialized. Many of the reports, including mine, were analyzed, and the results were posted by the International Occultation Timing Association.

I hope it isn't 20 years until the next opportunity.

—Clark Muir
Kitchener-Waterloo Centre

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ALSO: SEE OUR NEW RASC 150th PRODUCTS!



For the latest on plans to observe the August 21 solar eclipse, visit:
www.rasc.ca/solar-eclipse-2017

