



January 2019 - Volume 14, Number 1

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

► [News @ RASC.ca](#)

Editor's Corner

by **David Garner**, Bulletin/NNL Editor

We would like to form an Editorial Panel made up from your Centre Newsletter Editors (and any other interested RASC members) to provide regular and timely articles for the Bulletin and National Newsletter (NNL).

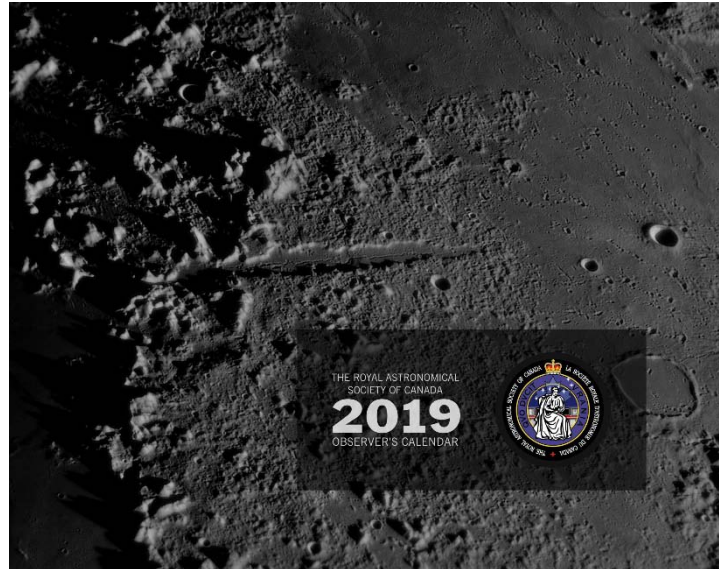
As a national organization it is important that we are aware of the activities in other Centres. It not only unites us but also gives us ideas about outreach events that we could hold in our own Centres.

I look forward to hearing from you so, if this is something you would like to be a part of please contact me (bulletin@rasc.ca) and/or Randy Attwood (attwood@rasc.ca) .

Clear Skies,
Dave Garner

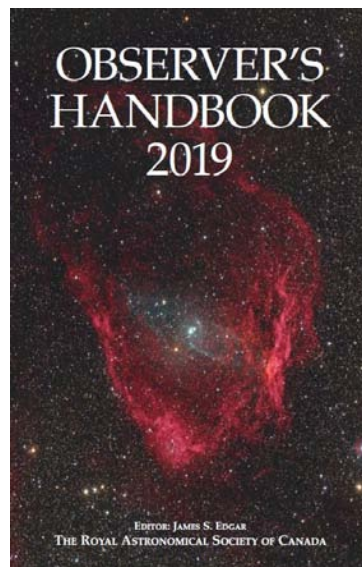
News from the Society Office

by **Randy Attwood**, RASC Executive Director



Observer's Calendar 2019 Editor: Paul Gray

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. IN STOCK. [Available for order!](#)



Observer's Handbook 2019 Editor: James Edgar

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. Also available: US Edition. [Order Here!](#)

Annual Report 2018

A note to Centre Treasurers and Secretaries: please note the deadline for reports to the AR2018 is **2019 February 28**. Please send Treasurer reports to Julia Neeser mempub@rasc.ca and Secretary reports to James Edgar jedgar@rasc.ca.

Please include the number of participants reached through outreach events and number of youth 21 and under reached (if tracked, or an estimate) in the Secretary reports.

Create a Logo for Castor and Win!

by [Chris Gainor](#), RASC, President

Canadian astronomers have established themselves in space-based astronomy by using space telescopes such as Hubble and Chandra. In 2003 Canada's MOST (Microvariability and Oscillations of Stars) space telescope was launched, and now Canada is a full partner in the James Webb Space Telescope (JWST).

Hubble and Chandra are nearing the end of their lifetimes, and JWST won't have the long lifetime of Hubble, so Canadian astronomers are already looking at what comes after JWST. The National Aeronautics and Space Administration is developing WFIRST (Wide Field Infrared Survey Telescope) and the European Space Agency is building Euclid.

Since both WFIRST and Euclid will operate in the infrared like JWST, ultraviolet and visible light capabilities in space will be lost when Hubble ceases operations. Because of this problem, many Canadian astronomers are supporting a proposal for a new Canadian space telescope, CASTOR, the Cosmological Advanced Survey Telescope for Optical and ultraviolet Research.

CASTOR is planned to have a primary mirror of a metre in diameter inside a spacecraft weighing about 500 kg. Its camera is planned to have a similar resolution to Hubble, but it would be able to cover a much larger part of the sky than Hubble.

CASTOR would provide unique data in the ultraviolet part of the spectrum to complement data from JWST, WFIRST and Euclid, assisting in the search for dark energy. It would also challenge and stimulate Canadian industry and Canadian science.

The Canadian Space Agency is conducting a study of CASTOR that Canadian astronomers hope will lead to approval of the mission. While CSA would lead CASTOR, other space agencies would be involved, including NASA and the Indian Space Research Organization, which would provide the launch vehicle.

Now Canadian astronomers are seeking a logo for CASTOR, whose name pays tribute in French to Canada's national animal, the beaver.

Members of the Royal Astronomical Society of Canada and the Fédération des astronomes amateurs du Québec are invited to submit their designs for a CASTOR logo.

Entries can be sent before February 1, 2019, to: RASC National Office at 203-4920 Dundas St West, Toronto ON M9A 1B7 or at nationaloffice@rasc.ca

They will be judged by a panel of astronomers selected by mission scientists, RASC and FAAQ.

The winner will receive a prize of merchandise from Ingenium: Canada's Museums of Science and Innovation.

<https://www.castormission.org>

Clear skies,
Chris Gainor, President

Aurora 360

by **Anthony Gucciardo**, RASC Yukon Centre

AURORA | 360

Chasing the Northern Lights, and Living the “360 Experience”

After a successful pilot program in 2017 November, Consulta Meta is proud to announce the official launch of the Aurora | 360 Experience tour! You may recall the Yukon-based activities presented in the 2017 October RASC Bulletin, related to astronomical initiatives such as the Star Party, which preceded the ‘Beta’ Aurora-360 flight in November. As recorded in the 2017 December Bulletin: “The airplane was only in the air for ten minutes when participants of the first Aurora 360 charter flight were greeted by the beautiful lights dancing outside the windows! The airplane flew under and around the Aurora Oval, and the kp3-kp4 strength auroras gave great opportunities for picture-taking almost for the entire duration of the nearly four-hour flight!”



Courtesy of Neil Zeller Photography

Aurora-360-NZ-9152

Based in Whitehorse, Yukon, this once in a lifetime trip brings together science, culture and nature in an exclusive educational opportunity unparalleled anywhere else in the World. The 5-day itinerary showcases the best of the Whitehorse area with an exciting mix of local attractions, culinary options, outdoor activities, cultural performances and of course the Aurora | 360 flight itself! Once on board the private Air North chartered jet, you'll spend the entire 3 hour flight learning from experts such as RASC member Pierre Paquette and gaining valuable photography tips from Neil Zeller, all while enjoying the socially dynamic atmosphere.



Courtesy of Neil Zeller Photography

Aurora-360-NZ-9014

This exciting new tour is limited to only 70 guests so don't delay – book your spot today! Full details at: <https://aurora-360.ca/>

Merry Christmas Comet

by **Dave Chapman**, Chair, RASC Observing Committee



Comet P/46 Wirtanen on the night of 2018 December 23. Two images from the PlaneWave 24" robotic telescope at Burke-Gaffney Observatory in Halifax, taken 2h 36m apart and combined, showing 24' of motion against the stars.

CASCA News

by **Eric Briggs**, National Council Co-chair

The Winter Solstice newsletter of the Canadian Astronomical Society/Société Canadienne d'Astronomie (CASCA) has been published. Here is the link:

<https://casca.ca/?p=11263>

Le Centre de recherche en astrophysique du Québec (CRAQ) annonce son école d'été annuelle, qui aura lieu du 12 au 14 juin 2019 à Montréal, Québec. Il n'y a aucuns frais d'inscription.

In late 2017, the Equity and Inclusivity Committee (EIC) of CASCA executed the first climate survey of its membership.

The current Canadian university funding for operations of the James Clerk Maxwell Telescope runs out this February.

Canadian academic astronomers continue to voice concern at the lack of a stable and adequate space science budget and mandate for the Canadian Space Agency.

Approximately 65 members of the space astronomy community, from universities, industry, government, and public institutions, gathered at the Université de Montréal on 2018 November 6-7 for the Future of Space Astronomy in Canada workshop.

Dissertation: From large-scale molecular clouds to filaments and cores: Unveiling the role of the magnetic fields in star formation

by Dr. Sayantan Auddy

Thesis defended on July 10, 2018

Department of Physics and Astronomy, Western University

Thesis advisor: Prof. Shantanu Basu

RASC Montreal Centre Upcoming Events

by **Carl Jorgensen**, Secretary, Montreal Centre

Saturday, January 5, 7:30 – 11:00 pm: Members Arbo Clubhouse at the Morgan Arboretum Conservation Center, 150 Chemin des Pins, Sainte-Anne-de-Bellevue. Observing afterwards(weather permitting). The Bellevue Observatory will be closed, but you can bring your own telescope or binoculars.

Friday, January 11, 7:30 – 11:00 pm: Members observing at the Morgan Arboretum Conservation Center. The Bellevue Observatory will be closed, but you can bring your own telescope or binoculars (weather permitting).

Saturday, January 18, 7:30 – 9:30 pm: Public event “David Levy Presentation” at Abbott College Rm P-204, 21275 Rue Lakeshore, Sainte-Anne-de-Bellevue. Doors Open at 7:30 pm. Public talk begins at 8:00 pm. "A Time for Comets" David Levy will review his 60 years of searching for comets.

Sunday, January 20, 7:30 – 11:00 pm: Members observing at the Morgan Arboretum Conservation Center. The Bellevue Observatory will be closed, but you can bring your own telescope or binoculars (weather permitting).

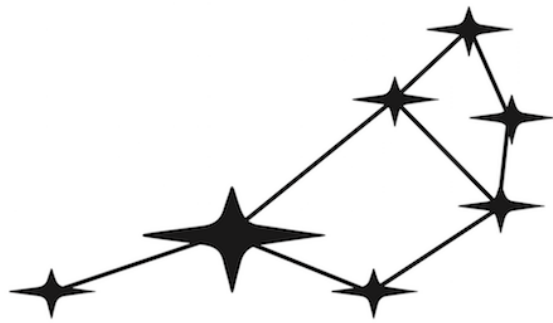
Monday, January 21, 6:00 – 9:00 pm: Private event “Scout Visit” at the Morgan Arboretum Conservation Center. The Valois United Scouts will be visiting us at the Arbo. If clear we need some of our members to volunteer to bring their telescopes for the event. Leader: Santiago Lopez

Saturday, January 25, 7:30 – 11:00 pm: Members Arbo Clubhouse at the Morgan Arboretum Conservation Center. Observing afterwards (weather permitting). The Bellevue Observatory will be closed, but you can bring your own telescope or binoculars.

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.



SUBARU
DARK SKY





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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The *Bulletin* of the Royal Astronomical Society of Canada
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