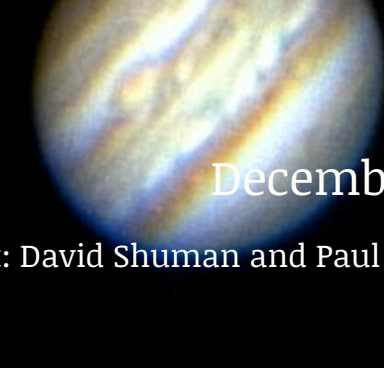


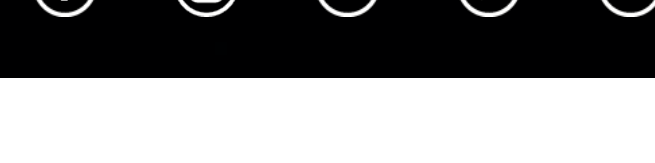


ROYAL ASTRONOMICAL SOCIETY OF CANADA



December 2020 Bulletin

Image Credit: David Shumin and Paul Simard, RASC Montreal

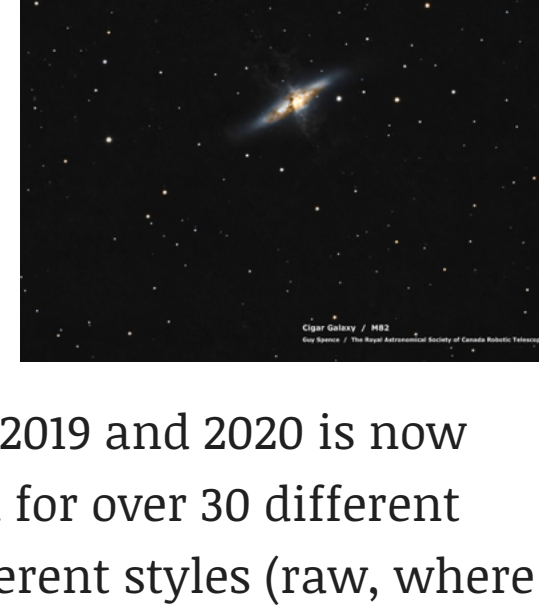


## New RASC Centre: Fraser Valley!

As our Society grows more individuals are being reached and clubs being included, hence we are pleased to welcome our 30th RASC Centre! **Fraser Valley Astronomy Society's website** includes all kinds of interesting pages. They offer everything from mirror making, to telescope making, news events updated daily, links and educational sites for students and teachers. Make sure to check them out!

## Robotic Telescope Data Now Available for Purchase

Calling all astroimagers! The data from our Robotic Telescope is finally available for purchase. This is the perfect gift for the aspiring astroimagers in your life, and with no shipping costs! Have you been checking out the contests we've been hosting with SkyNews Magazine over the past couple months ALL of the data from the RASC Robotic Telescope for 2019 and 2020 is now available for purchase. You'll receive data for over 30 different narrowband and I/RGB targets in two different styles (raw, where you can calibrate the data yourself to have the most control over the final result, and pre calibrated, for beginner or intermediate astrophotographers).



For THIS YEAR ONLY we are releasing two years' worth of data for the price of one! Adults pay only \$100, and students receive a 50% discount.

Head to our online store to purchase this item! Choose the item (adult or student) that applies to you or the person you're buying the item for. If you are gifting this purchase, please contact [telescope@rasc.ca](mailto:telescope@rasc.ca) to inform them of your intent.

Buy Now!

Check out the [Robotic Telescope image gallery](#) for more information about the available data sets and to view some of the processed images.

This represents years of work of the Robotic Telescope team, and we are all so excited to be able to release this data for use. Stay tuned in early 2021 as we launch new elements of the Robotic Telescope Program that will allow you to help choose the targets and become more involved.

## Awards Deadline Reminder

Please note the deadline for nominations of National Awards for 2021 is December 31, 2020. Here is an outline of the awards and their criteria:

- **The Chant Medal:** Awarded 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.
- **The Service Award:** Established in 1959, is awarded to RASC members who have made significant contributions at the National and/or the Centre levels.
- **The Simon Newcomb Award:** Established in 1979 for excellence in astronomical writing by an RASC member.
- **The Qilok 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.
- **Fellow of the RASC:** Established in 2013, this designation is made to recognize an individual's long-term commitment to the Society.

Please note: The deadline for submitting awards is 2020 December 31. Nominations for awards should be sent to the Awards Committee at [cgainor@shaw.ca](mailto:cgainor@shaw.ca). For more information on the awards nominations, see <https://rasc.ca/rasc-awards>. To add to that, if your centre plans to nominate a member for an award but can not make the deadline – please inform the undersigned for your need for an extension.

Chris Gainor  
Awards Committee Chair  
[cgainor@shaw.ca](mailto:cgainor@shaw.ca)

## Gift Memberships

The holiday season may look a little different this year,, but we have the perfect idea to brighten up the lives of your closest astronomy enthusiasts!

This holiday season, give the gift of RASC membership to your friends and loved ones, offering them access to not only astronomical resources, publications, and equipment, but a welcoming community of astronomy supporters, all across the globe! Now that we are all spending more time at home, our annual membership, available for individuals and families, is the perfect gift for anyone interested in taking up or returning to their passion of astronomy!

To purchase a gift membership, please contact Membership Coordinator, Adela Zyfi at [mempub@rasc.ca](mailto:mempub@rasc.ca).

## RASC Members Dr. P.J.E. Peebles and Dr. Sara Seager have been appointed to the Order of Canada

Fellow RASC Members, please join me, your Board of Directors and the entire Society, in congratulating two of our Members for receiving one of Canada's highest civilian honours.

Dr. P.J.E. Peebles and Dr. Sara Seager were appointed to the Order of Canada on November 27<sup>th</sup>. Note that the Order of Canada has three categories, Companion, Officer and Member.

Dr. Peebles, an Honorary Member of the RASC, was appointed as a Companion of the Order of Canada, for his pioneering discoveries regarding the evolution of the cosmos. I'm particularly fond of his perseverance in the face of pursuing what was considered to be a scientific dead end in the 1960's. His 2004 Shaw Prize in Astronomy citation states "He laid the foundations for almost all modern investigations in cosmology, both theoretical and observational, transforming a highly speculative field into a precision science." His more than 50 years of contributions to our understanding of the Universe were recognized with his receipt of the 2019 Noble Prize in Physics "for contributions to our understanding of the evolution of the universe and Earth's place in the cosmos." It's notable that even Canadian elementary students know about the big bang and have some perception about our Universe and Dr. Peebles work, which underlies much of that understanding, touches all of us in some way.

Dr. Sara Seager, both an Honorary Member and an active Member of the Toronto Centre (thank you Charley), was appointed as an Officer of the Order of Canada, for her multidisciplinary research that has contributed to transforming the study of extrasolar planets into a full-fledged planetary science. Dr. Seager caught the bug as a child at a RASC Star Party with her father then joined the Society as a teenager. I first met Dr. Seager at the Thunder Bay General Assembly where she was the Keynote Speaker and where she officially became an Honorary Member. Something of greater significance occurred at that GA and I'll point you to the Guest Editorial of your 2015 Observers Handbook for her personal account of that and her relationship with the RASC. Dr. Seager received her B.Sc. from the University of Toronto and her Ph.D. from Harvard University. In addition to numerous Academic Awards and Distinctions, the media too has recognized her 4 times, popularizing Astronomy and Physics in a unique manner. Popular Science named her 5<sup>th</sup> in their annual Brilliant 10 (2006), Discover Magazine placed her with the Best 20 under 40 (2008), Nature placed her in the Top Ten (2011), and Time Magazine considered her as one of the 25 Most Influential in Space (2012). Perseverance played a role in Dr. Seager's path too. While many scientists were skeptical of the newly discovered exoplanets and some even thought that claims made in her thesis would never be substantiated, exoplanets kept turning up and her early work was eventually validated. With a focus on theoretical models of atmospheres and interiors of all kinds of exoplanets, and introducing new ideas to the field of exoplanet classification, her work has led to the first detection of an exoplanet atmosphere. Currently a Professor at MIT, she was awarded a MacArthur Fellowship in 2013 (AKA the Genius Grant) and she was elected to the National Academy of Sciences in 2015, a significant honor for scholars based on "distinguished and continuing achievements in original research" throughout their careers.

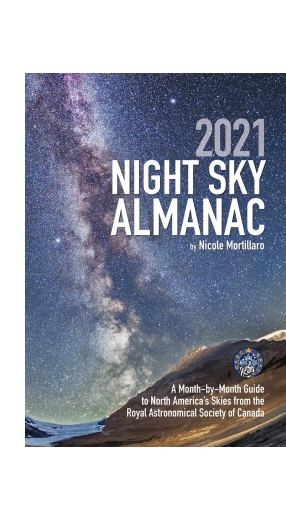
It is encouraging to see our Country recognize the hard work and the journey into uncharted territory, that Dr. Peebles and Dr. Seager undertook to the benefit of us all.

Robyn Foret  
President, RASC

## Night Sky Almanac - Review by Judy Anderson, Winnipeg RASC

If you're wondering how you might help yourself and others adapt to life through the next year of COVID-19, this little book is just the thing! 2021 Night Sky Almanac by Nicole Mortillaro is a recent publication of the RASC, and is much more accessible to the general public than the amazingly comprehensive resource of the Observer's Handbook. The Almanac is subtitled A Month-by-Month Guide to North America's Skies for The Royal Astronomical Society of Canada – essentially a "What's Up" for the whole year.

As the long winter nights are now upon us, and still lengthening, the book will definitely come in handy for ideas on seeing planets, constellations, eclipses, meteor showers and comets, and deep-sky objects, the Moon, and the Sun, when you need to get outside and look up for some healthy calm. We are all hoping that viewing during the short nights of summertime will be less restricted to small groupings and distancing. Regardless, events like noctilucent clouds and meteor showers will still be visible, and are nicely described for use by a novice recipient of your gifted 2021 Night Sky Almanac, viewing on their own from somewhere in North America. The book is small enough that postage will be reasonable, too.



The last two thirds of the book give month-by-month descriptions of what's visible and how or when it will appear in the sky. A calendar of events and a pictorial lunar calendar begin the pages for each month. That opening is followed by text on the highlights to be seen in the sky looking north and south, each direction with an accompanying map of the visible constellations and notable objects plus a few really nice images of deep-sky objects or wide-angle views of the sky. And there's a glossary at the back for quick reference.

The good thing about the 2021 Night Sky Almanac is that it's so well-organized that a particular month or event or chart is easy to find; it will be useful right away, without much study, while someone is gazing up while walking the dog in a city or wondering upon in the backyard, a nearby park, or a cottage. The Almanac is a lovely, affordable (\$14.95 CAD, available through the RASC shop online), and handy way to enjoy a hobby, or start a new one, and it will help bring others to understand and share your fascination for the night sky. And you can connect by zoom with others to help them plan and enjoy looking up, even if they're not in your physical bubble. Awe and curiosity can easily transcend this pandemic – let's help others look up!

Buy Now

## Land Acknowledgements by RASC Centre

Bill Weir (Victoria RASC, and member of The RASC Inclusivity and Diversity Committee), with minor additional text from Roland Dechesne (Calgary RASC, and Chair of the Inclusivity and Diversity Committee), has assembled resources for Centres wishing to incorporate land acknowledgements in their events, documentation and correspondences. The document is [available here](#), and will soon be available under the [Centre Support menu](#).

On the first page of the document are Centre by Centre land acknowledgements. To determine this, it was necessary to document where each Centre held their meetings (more often than not a post-secondary institution or public facility). If possible, the land acknowledgment presented for each Centre reflects that of the institution that hosts the Centre meetings, since if a Centre is using that facility then they should probably already be using that acknowledgment before each meeting.

On the second page of the document are general links regarding the various First Nations territories so if RASC members are interested they can find out exactly whose land they live on. There are also links to guides on what to consider and how to compose a guide if they want to create their own land acknowledgement.

View, download and save land acknowledgements document

[View this email in your browser](#)

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