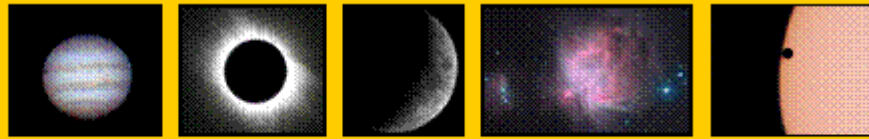


BULLETIN



OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

April 2013 - Volume 8, Number 4

David Garner, Editor

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

A PDF version of the *Bulletin* is available [here](#).

A Web-based version of the *Bulletin* is available [here](#).

➤ Editor's Notebook

by David Garner

April's Sky

According to the 2013 [Observer's Handbook](#), Mercury is in the dawn sky all month, whereas Venus and Mars are lost in the solar glare. Look for Jupiter in the western evening sky and setting in the late evening whereas Saturn will be visible most of the night. Uranus reappears in the dawn sky late in the month for southern observers and Neptune can also be found in the dawn sky. The next full Moon occurs on April 25th (UT). Don't forget to check out Gary Boyle's [Northern Skies](#) for complete details.

➤ News @ RASC.ca

2013 GA Registration!

by [Dave Gallant](#), Thunder Bay Centre, 2013 GA Chairman

Register now for 2013 GA in Thunder Bay, ON

The Thunder Bay Centre would like to encourage everyone to sign up for the GA by going to <http://www.rasc.ca/events>.

We have a good program planned out that is sure to please. Don't forget to come early to participate in Dennis Mammana's photo night sky workshop, or to stay for the day of tours and see all the natural wonder that Northwestern Ontario is known for.

Wanted! GA Booklets

by [Randall Rosenfeld](#), RASC Webmaster

and [Walter MacDonald](#), RASC National Archivist

For over half a century the General Assembly (GA) has been the official annual occasion where RASC members congregate in realtime to audit scientific sessions with glazed and somnolent receptivity, to look on the grand machinery of Society governance with fascinated incredulity, to bolster the fortunes of local breweries, and to bond together through a number of activities peculiar to our company.* We all

remember our GA experiences with fond memories.†

We need your help to perpetuate the record of our GAs, and make them available in their entirety on <http://www.rasc.ca/ga/history>. We are missing GA booklets/programs for the following years: 1981, 1984, 1986, 1987, 1988, 1998, 2000-2005, 2007, 2010, 2011.

If any of you have copies which you can spare for digitization, we would greatly appreciate receiving them. You can contact either of us.

*An illustrated account of these will soon be published in *Urania Blushed: the RASC Secret Chronicles*.
†It is understood that this refers only to those memories GA delegates can actually recall.

By-Law # 1

by [James Edgar](#), RASC National Secretary

As of NC131, the proposed By-Law #1 under the CNCA is now on-line at [RASC By-Law # 1](#). At its meeting on March 31, National Council voted to proceed with changes to By-Law#1, which acts as the constitution of the RASC, to bring it into line with a new federal law, the Canada Not-for-Profit Corporations Act. The new By-Law#1 must still be presented to the RASC's Annual General Meeting in Thunder Bay on June 30 before it can officially come into operation.

All members are urged to review this new By-Law#1 before the AGM.

Earthshine Observation Project

by [Clark Muir](#), Kitchener-Waterloo Centre

Earthshine is easily observed on the Moon in the evening during the first few days after new Moon or in the mornings prior to new Moon. However, on occasion many observers have noticed an earthshine of unusual brightness.

There is both anecdotal and scientific evidence that this enhanced earthshine is caused by a fogbow. When the Sun-Earth-Moon angle is approximately 41° , the Earth can appear up to 40% brighter as seen from the surface of the Moon. This added illumination contributes to a brighter earthshine. Since the critical angle is presented for only a few hours during any lunar month, each opportunity is visible from just a portion of the Earth's surface. For this reason, calculations are necessary to determine when enhanced earthshine is visible from a specific region.

On the evening of 2013 April 13, the skies of North America are favoured. Therefore, near the end of twilight will be an excellent opportunity to look for unusually bright earthshine. Unaided eye or binoculars should be adequate to determine if a brightened earthshine is visible. It may be helpful for some to observe on this date and also the night before or after to get a general comparison. We would like to hear from observers with their results. Note time and date, approximate location, sky conditions, and a brief description of the brightness of the earthshine. All results (regardless of the conclusions) are desired.

For more information see p. 199 of the *2013 Observers Handbook "Rainbow Light on the Moon"*. Please send your results to ursaminor@rogers.com with the subject header: "Earthshine"



Image credit: Sergio Mammoliti, K-W Centre
1994 June 19 Shot using a Canon Rebel DSLR, 0.5 second exposure at f10 with a 150mm zoom lens.
ISO 1600.

BACK TO THE MOON with Isabel Williamson!

by [Chris Beckett](#), RASC National Observing Chair

Revised 2nd Edition Guide for the Isabel Williamson Lunar Observing Program

During this unusually long, cold winter, *Observer's Handbook* editor and lunar observer Dave Chapman volunteered his time and effort performing updates to the Isabel Williamson Lunar Observing Program (IWLOP). Many experienced lunar observers have assisted: Ken Backer, Roy Bishop, Paul Gray, Glen Harris, Mike Stephens, and Tenho Tuomi, with proofreading by James Edgar (who implemented the RASC document standard, no small feat!), not to mention the once-over by Kate Fane, our resident "eagle eyes" at National Office.

Updates include: spelling corrections, directional changes (east for west, etc.), description accuracy, and the addition of "Observable Craters with Canadian Connections" (a new Part 4). In line with a 2011

National Council motion proposed by the Observing Committee, Objective D—Crescent Moon Less Than 24 Hours From New—was changed from a Required to a Challenge objective.

The Observing Committee is now pleased to offer the complete Revised 2nd Edition program (including observing forms) in downloadable pdf format on the certificate web page

www.rasc.ca/observing/williamson-lunar-observing-certificate.

Making the IWLOP open-access allows the RASC to fully share and popularize this amazing observing program. For convenience, anyone can purchase a printed copy from the RASC eStore or by contacting National Office.

For more information, please contact the Observing Chair www.rasc.ca/contact/observing.



Moon image credit: Tenho Tuomi

A New Honorary President

by [James Edgar](#), RASC National Secretary

Dr. John Percy is named as the next Honorary President of The Royal Astronomical Society of Canada, commencing at the General Assembly in Thunder Bay on June 30. Dr. Percy is succeeding Dr. Jim Hesser of Victoria, who has served as honorary president for the last four years.

Congratulations, Dr. Percy!

A New Honorary Member

by [James Edgar](#), RASC National Secretary

Dr. Sara Seager has been named as our newest Honorary Member at National Council meeting NC131 on March 23.

See www.rasc.ca/honorary-members#Seager for a complete biography.

David Levy Speaking Tour

by [Randy Attwood](#), Past President, Mississauga Centre

The National Society Public Speaker Program was set up to encourage our Centres to organize and host public talks and presentations, by speakers from outside their local area, about astronomical and related topics.

This spring, eight centres will participate in a rare speaking tour by RASC member David Levy. A long time observer and author, David has been observing for most of his life, has discovered 22 comets, written 34 books and is an RASC Chant Medal recipient.

The dates are as follows:

- May 31 Ottawa
- June 1 Montreal
- June 3 Kingston
- June 5 Toronto
- June 6 Kitchener-Waterloo
- June 7 Mississauga
- June 8 Hamilton
- June 9 London

The Public Speaking Program is sponsoring David's travel to/from Canada as well as some of his travel within Canada. Centres are sharing in the total costs of his lodging.

RASC Membership Development News

by [Deborah Thompson](#), Executive Director

The RASC Membership Development News for March 2013 is available at: [RASC Member Development News March 2013](#).

➤ Across the RASC

RASC Hamilton Centre Hosts the Canadian Astronomy Telescope Show

(AstroCATS) May 25/26, Oakville, ON

by [Gary Bennett](#), Hamilton Centre, Membership Director

What is an Astronomy Trade Show?

It's just like an auto/boat/outdoor/cottage show, only with astronomy gadgets that will leave you drooling. Some exhibitors will be showcasing brand new products; others will offer a retail purchase opportunity. Some visitors will see this as an excellent opportunity to plan their next investment in new equipment. A trade show is where you get to see the "real thing" and kick a few tires (gently please!). And no trade show would be complete without fabulous door and raffle prizes! There will also be several seminars outside of the trade show floor.

AstroCATS is the first show of this kind in Canada and ideally situated as an alternative for attendees who would otherwise need to travel to New York or Chicago, California, or Arizona to get their astronomy "toy fix." For some of you, it will be the first convenient opportunity for you to attend a world class display of astronomy products up close and personal!

If you are ready to buy new astronomy gear there will be approx. \$ 400,000 of merchandise available for purchase at the show. Everything from telescopes, mounts, CCD cameras, focusers, and more. There is something for everyone...entry level to high-end professional grade equipment will be on display. And there is sure to be a few "new product unveilings" at the show.

Held just 25km West of Toronto (only 90km North of Buffalo, NY), at Sheridan Community College in Oakville, Ontario, AstroCATS is a 2-day event featuring the largest commercial display and sale of telescopes and related astronomical products in Canada.

Seminars: Our seminar schedule will be posted shortly. There will be everything from beginner level to advanced astrophotography and our guest speakers are well known experts in their field.

Early Bird Prizes: The first 200 guests to arrive on Saturday and again on Sunday will receive 1 of 2 fabulous publications courtesy of Astronomy Magazine.

Door/Raffle Prizes: Our Sponsors will be generous!

Tickets can be purchased on-line or at the door. Save \$ 2.00 when purchased on-line. We already have an impressive number of vendors on-board and as the show gets closer we are sure to have even more. For more information: www.astrocats.ca.

Pro-Am Double Star Discoveries

by [Charles Banville](#), Victoria Centre, Vice President

We would like to highlight the exceptional work accomplished by one of our members. As you may know Michel Michaud has been busy photographing stars in the Pleiades. Last year Michel submitted a paper titled "Double Star Measurements in the Pleiades Cluster Using a DSLR Camera" to the University of South Alabama. This paper was subsequently published in the October 2012 edition of the *Journal of Double Star Observations*. In his conclusion Michel states that: "Five currently unlisted components which are excellent candidates to be double stars were found, and two unlisted new pairs."

Following the publication of this paper the United States Naval Observatory, which maintains the Washington Double Star Catalog, [assigned these five stars](#) with the discoverer code "MCD", Michel's own.

- 03457+2427MCD
- 03473+2344MCD
- 03499+2357MCD
- 03500+2351MCD
- 03502+2353MCD

All five can be found in the 00-06 hour section, <http://ad.usno.navy.mil/wds/Webtextfiles/wdsnewframe1.html>.

You can access the full [Washington Double Star Catalog](#).

Michels's [paper is published](#) in the *Journal of Double Star Observations* by the University of South Alabama.

It is remarkable that in this day and age amateurs can make this sort of contribution using commercial off-the-shelf equipment. We encourage you to download and read Michel's paper.

Congratulations on your findings Michel.

2013 All Star Alberta Star Party in New Mexico

by [W. John McDonald](#), Victoria Centre

Comet and New Moon

Comet PanSTARRS (c2011 14) and the New Moon were very close on the evening of March 12 and those of us who were attending the 2013 Alberta All Star Party in New Mexico had an excellent view. I captured this image just as the bright lower limb of the Moon disappeared behind the Chiricahua Mountains causing the sky to darken and the comet to shine. Visually it was such a treat that the locals and visitors who were watching simultaneously began clapping.



Rio Tinto Alcan Planetarium in Montreal

by [Eric Briggs](#), Toronto Centre

The new Rio Tinto Alcan Planetarium in Montreal is opening on April 6th. The new building is a \$50 million project with connections in astronomical public outreach and education. A visit would be right up the street of any RASC members living in or passing through the Montreal area.

► Bulletin Photo of the Month

Comet PanSTARRS

by [Debra Ceravolo](#), Ottawa Centre

The photo was taken by Debra Ceravolo on March 16th around 8:30pm.

It was taken with a Canon 60D on a tripod. Telephoto lens set at 135mm focal length, aperture f/4, 5-second exposure. The ISO was 1600 for better sensitivity. The location was a rural road just west of Ottawa.



➤ The Sky this Month

What's New in the Sky

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



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