



Volume 53 No 2 March 2014 Editor: Janet Tulloch
Send submissions to: jhtulloch@gmail.com

Letters to the Editor

Great job on putting [AstroNotes] together. One comment, I hope the courier "typewriter" font is only a homage for this first edition and that future ones will use a more reader friendly one. Keep up the great work!

-Stephen Nourse

Dear Stephen,

You are lucky I decided not to use **CHILLER :)** Point taken. I have increased the size of the font from II to I2 pt. to see if that improves things. One of the "perks" of being editor is that I am also the layout artist. Since both jobs are volunteer and I really like "Truetyewriter polyglOTT" please humour me for now. Chances are it will bother my eyes in the not too distant future and you will see a change. -ed.

Announcements

New: Earth Hour at the Museum of Science and Technology - March 29th The museum is looking for volunteers with security clearance to help out with telescope support and an indoor display. The magic hour for "lights out" is 8.30-9.30pm. Set up by 7:30pm. Contact Chris Teron: chris@Teron.ca.

New: NASA's Asteroid Data Hunter contest series will offer \$35,000 in awards over the next six months to citizen scientists who develop improved algorithms that can be used to identify asteroids. This contest series is being conducted in partnership with Planetary Resources Inc. of Bellevue, Wash. The first contest in the series will kick off on **March 17**. Prior to the kick off, competitors can create an account on the contest series website and learn more about the rules and different phases of the contest series by going to: <http://bit.ly/AsteroidHunters>

Reminder: Call for Images for 2015 Calendar Astronomical images and sketches of all types are invited for consideration for publication in the 2015 RASC Observer's Calendar including: deep sky, solar system, and dramatic astronomically themed landscapes. Please send jpeg submission to: Paul Gray snpgray@gmail.com If



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selected, a full resolution tiff will be requested. Deadline for jpg submission:
April 30, 2014.

Members' News

Nothing submitted for this month. As was noted at the March 7th meeting, Ottawa RASC member Michael Wirths' image of Sinus Iridium is the pin-up image for the March 2014 Observer's Calendar. Well done Michael.

The Sky this Month - March 2014

See Gary Boyle's article on Hydra the Water Serpent and other interesting features of the March sky on the RASC Ottawa web-site at:

<http://www.rasc.ca/news/sky-month-march-2014>

But wait, there is more...

The Occultation of Regulus

by Brian Burke

Most minor planet occultations of stars involve rather dim stars. However, this month, the 1.3 magnitude star Regulus will be occulted by the minor planet 163 Erigone. This event occurs on March 20 at approximately 06:08 U.T. (02:08 EDT). The central path is predicted to pass through eastern Ontario about 140 km southwest of Ottawa. Here are the Ottawa circumstances for this event:

	Date	2014 Mar 20
	Object	163 Erigone
	SAO #	98967
	Star Mag	1.3
	Occ. Dmag	11.1
	Dur Sec	14
	U. T.	6:08
Distances	Arc Sec	0.08
	Km	70
	Diams	1.0
Ephm. Err.	Arc Sec	0.5
	Min.	2.1
Star	Alt.	41.3
	Az.	240.1



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The asteroid's magnitude is 12.4 so for a central occultation the decrease in magnitude (Occ. Dmag) is 1.1. The duration for a central occultation is predicted to be 14 seconds.

Additional details for this occultation are at:

<http://www.poyntsource.com/New/Global.htm>

The above web site includes a KMZ file that when downloaded and then double-clicked will open Google Earth (if you have it installed on your computer) and show the complete occultation path. You will then be able to zoom-in to your geographical area to locate possible locations from which the occultation could be observed.

Reviews - Books; Films; Dark sky sites, Equipment, other

The Bower 8 mm Fisheye Lens

by Robert Dick

There has been a bit of talk at our meetings, and afterwards at Kelsey's, around the Bower 8 mm Fish-eye lens. Since a number of respected astro photographers in our group have been impressed, I decided to get one too. Here is a quick review of the image quality of the one I got.

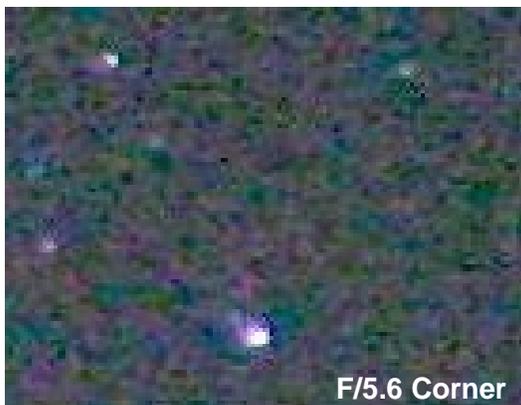
I bought this lens for my Canon Rebel XT (an old one) to avoid all the "mosaicing" of images I have been doing. It is essentially a mechanical lens with no connection to the camera's computer, so we have to set the f-stop and focus. As an old-time photographer, this was fine for me. Henry's in Kanata did not have one in stock, so I bought it on-line through Amazon. The list price was \$229, and after shipping, taxes and Can-US conversion it was about CAN\$329.

My main concern was focus and image quality. The focus hardly mattered, the stars were essentially in focus with the lens set at either 3-metres to infinity. However the focus ring could not quite go to the infinity mark (!).

Because of the enormous field of view and wide range of angles the light rays enter the lens to provide such a field of view, we should expect some progressive distortion away from the image centre - and indeed this is the case. However, I was

surprised to see the amount of flare (coma-like) in the “centre” of the image. It got progressively worse towards the corners.

Here are some example images. The first row is for $f/3.5$ (wide open) at the upper left corner of the frame (left) and in the centre (right). The second row images are for $f/5.6$ (the next “step” down from $f/3.5$ for the f -stop ring). We can see the significant improvement by stopping down the lens, but at the cost of a lot of light. A less drastic change in f -stop may have provided sufficient improvement, but there is no indent for intermediate settings.



Notice that the flare in the centred images (top) is towards the left! To me this suggests that a lens element is not assembled square to the optical axis.

Summary

So, the price is great, but you get what you pay for. The quality control for Bower may not be good enough for fine lenses. For scenes with plenty of light I think it is a good lens, but astrophotography is pushing its limits.

TV Critic Reviews are out: "The Cosmos: A Spacetime Odyssey" with Neil deGrasse Tyson
(On Fox and other networks) Sunday, 9:00pm EST

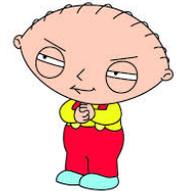
Headlines compiled by Janet Tulloch



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- "Neil deGrasse Tyson's 'Cosmos' premiere ratings not so stellar on Fox" - Los Angeles Times
- "'Cosmos' dazzles in debut" - CNN
- "'Cosmos' could help wake us from our stupor" - Ann Druyan, writer for the new series and Carl Sagan's widow

- “After Three Decades, New ‘Cosmos’ Series Brings TV Science Full Circle” - NBC News
- “I wanted the part of the evil pope” - Stewie Griffin, *Family Guy*

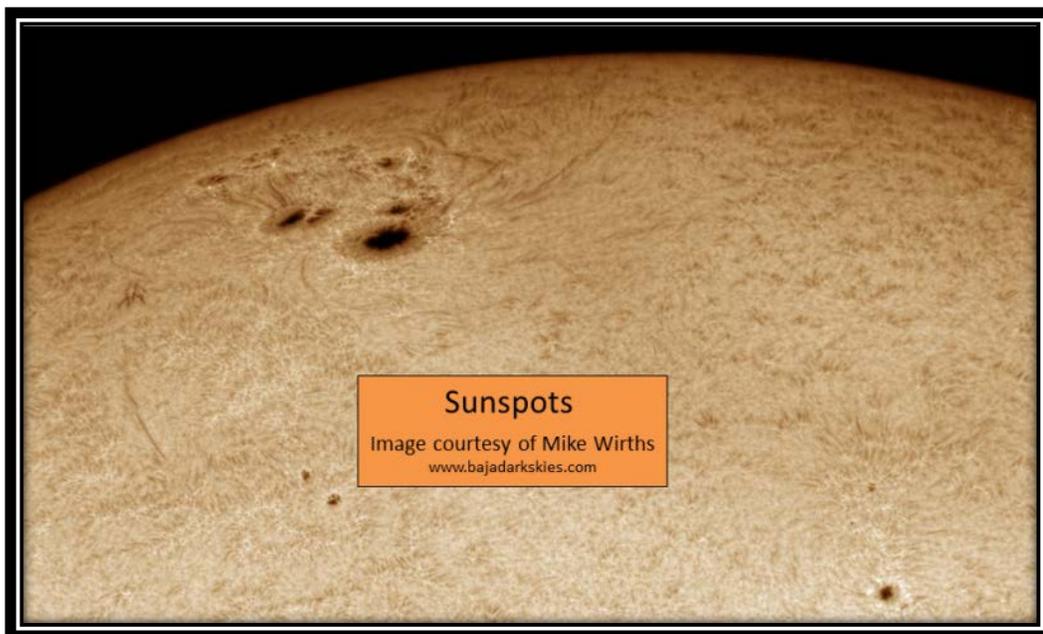


Did you watch the new “Cosmos” series on Sunday night? If so tell me what you thought in 50 words or less. Send your emails to the editor: jhtulloch@gmail.com with “Cosmos” in the subject line.

Upcoming meeting agenda - special presentations

Friday, April 4th, 2014

- I. **An Introduction to Solar Observing** with Ken Whitnall. A basic discussion on solar observing using safe and inexpensive solar filters that can be used with your existing telescope. Don't pack up your telescope just because the Sun came up, experience the dynamic and exciting activity that can be seen on our closest star!



2. **Remote Observing** with Bob Hillier. Not as hard as you might think. Lots of little steps in a well-rehearsed dance.
3. **An Ancient View on Comets.** John Wayne Ross, the winner of the 2013 Ottawa RASC Presentation of Year award, is back with another presentation guaranteed to be just as captivating.

Editor's "Observer" of the month

Julia looking through her telescope.

Photograph by Gordon Webster



Quote of the Month

"The future of
Astronomy looks
bright" - Brian the
dog.