BULLETIN OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

September 2013 - Volume 8, Number 9 **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

September's Sky

On the 8th of September, the waxing crescent Moon passes 0.4 degrees south of Venus. This will be a great sight in binoculars with Spica in the same field. The full Moon occurs 11 days later on the 19th. Don't forget to check out Gary Boyle's **Northern Skies** for complete details.

News @ RASC.ca

The 2014 General Assembly

by **Paul Schumacher**, Victoria Centre, Co-chair of 2014 GA Organizing Committee

2014 GA : Victoria Centre : June 27th - June 30th

Please join the members of Victoria Centre as we celebrate 100 years of being a RASC centre at our 2014 RASC General Assembly. To add to the festivities, we will also be celebrating the 100th anniversary of the Dominion Astrophysical Observatory, located in Saanich, B.C., just to the north of downtown Victoria.

The 2014 General Assembly will showcase the DAO, University of Victoria's new observatory located on the campus, which is our assembly headquarters, a wide ranging scientific and cultural program for your entire family, and all this conducted against the spectacular natural beauty of Canada's West Coast.

Victoria is serviced by both of our domestic air carriers and can be reached by convenient car ferry service connecting Victoria to Vancouver, B.C. and Seattle, Washington.

From on-campus accommodation at the University of Victoria to nearby hotel and RV facilities, there are many lodging options available to our members in Greater Victoria.

Registration will go live in early February 2014 at RASC.ca.

Join us in Victoria, June 27 to June 30 for the 2014 GA.

RASC VICTORIA CENTRE

2014 General Assembly Organizing Committee

Mark Bohlman, Co-Chair mbohlman@shaw.ca

Paul Schumacher, Co-Chair docpschu@shaw.ca

Observe Nova Delphinus 2013

by **Richard Huziak**, Saskatoon Centre

Nova Delphinus 2013 has now faded to 6th magnitude after its peak of 4.3 magnitude about two weeks ago. Since the peak, the star has remained bright, levelling off into a fairly flat plateau, dimming around 0.1 magnitudes per night. This is very clear from the visual data submitted so far from amateur astronomers all around the world. The light curve can be seen here: Nova Delphinus light curve.

Although the nova is easy to find by star hopping from Delphinus, an unfortunate trend in monitoring these transient stars is that once the peak has come and gone, interest in the star from general observers usually drops off. Yet continued monitoring is essential for classifying and understanding what kind of nova this is. So far, the nova hasn't shown any signs of flaring or oscillations that would reveal the accretion disk rotation period or orbital period of the system. However, novae are not always predictable, and they can do unexpected things without any notice, so they remain interesting even as they fade.

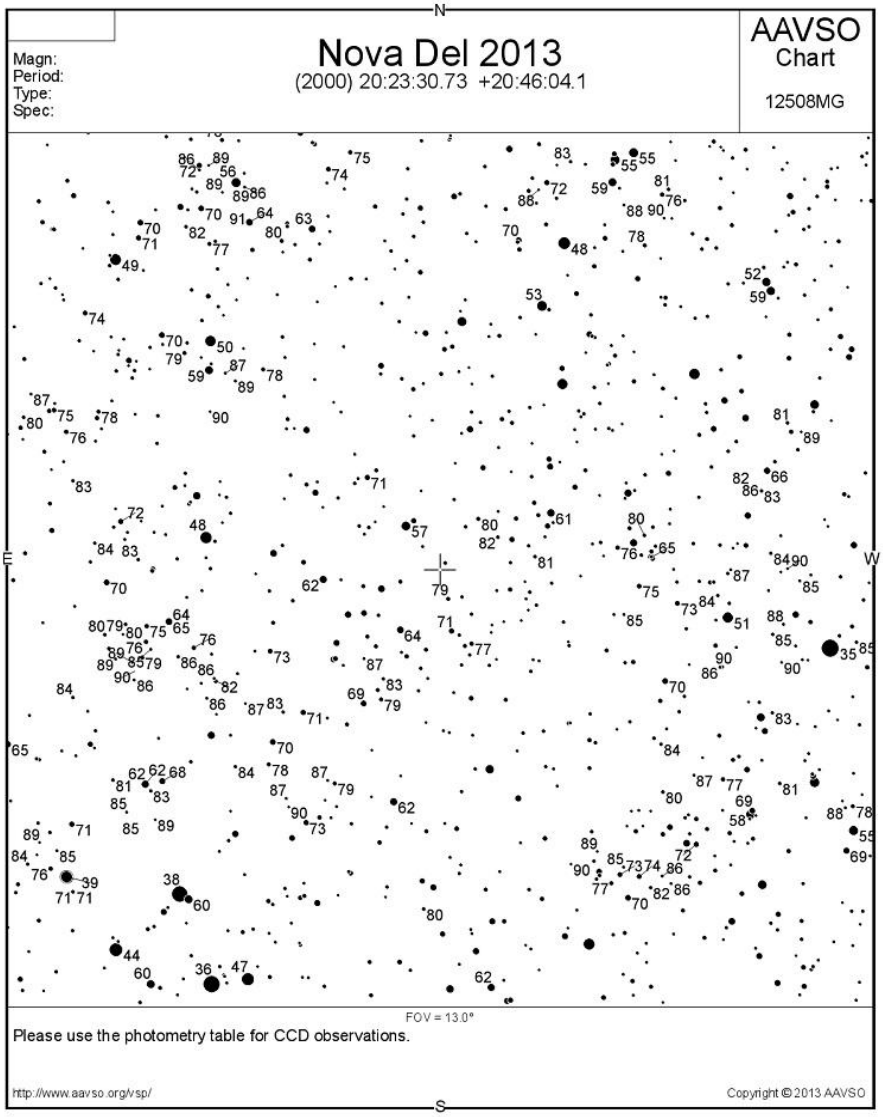
To date, 12975 observations have been made by 320 observers around the world, and 34 Canadians have now made observations and reported them to the *American Association of Variable Star Observers* (AAVSO) database. Watching things that actually change night to night is a rarity in astronomy, and I always encourage deep-sky observers to add a few variable stars to their observing routine. It only takes a few minutes to check out your favourite stars (even from the city!) and watch them change nightly! And by reporting your observation to the AAVSO, your data become useful to others who are researching these stars.

The AAVSO *Variable Star Plotter* (vsp) allows you to make a chart for any variable-star field, and I made one called “12508MG” for Nova Del 2013. This chart can be downloaded from www.aavso.org/vsp/ by typing “12508MG” into the “Chart ID” box (or the illustration for this article can be used – it is the same

chart.) The chart is for binocular use. The nova is the cross at the centre of the chart, and the chart provides comparison stars you can use to make an estimate. The lower left of the chart shows the diamond of Delphinus that you can use as your star-hop starting point. The numbers on the chart are the magnitudes of the comparison stars with decimals removed (i.e. 67 = 6.7 magnitude.) To make your estimate, just interpolate the brightness of the nova between two nearby stars – one brighter and one dimmer than the nova.

Once the star fades below binocular level, the AAVSO will provide a new calibration of the field for telescopic use. So please look at this nova every clear night, make an estimate of its brightness, and report your estimate to the AAVSO Web site. You will need an AAVSO observer code www.aavso.org/observers, and then can enter your data here: www.aavso.org/webobs.

Try it out! I'd like to see 100 of our 4000 members submit a report, and who knows; maybe you'll expand your observing horizons every night with a few new variable-star friends. If you need any guidance in using the AAVSO utilities, email me, and I will be glad to help you out.



Centre of the Universe Closes

by **Chris Gainor**, RASC 2nd Vice-President

The Centre of the Universe educational outreach centre at the Dominion Astrophysical Observatory near Victoria closed on August 24 as a result of decisions made earlier in the year in Ottawa by the National Research Council. On the final day of programming at the Centre, members of the Victoria Centre of the RASC brought their telescopes to the observatory to show the public the Sun, the Moon, and more distant objects.

On that final day and evening, members of the public had to be turned back when the capacity of the Centre of the Universe was exceeded. A local Member of the BC Legislature collected more than 600 signatures on a petition that day at a table at the bottom of Observatory Hill while the final evening's activities took place at the observatory.

Although the Centre of the Universe has been closed, there is still hope that programs can be resumed there, perhaps by a new entity. Two petitions are in circulation protesting the closure. First is an online petition on Change.org.

http://www.change.org/petitions/the-honourable-greg-rickford-minister-of-state-science-and-technology-find-a-way-to-keep-the-nrc-s-centre-of-the-universe-visitors-centre-open.

There is also a written petition being circulated by Esquimalt-Juan de Fuca Member of Parliament Randall Garrison that he will present to the House of Commons when it returns in October. Interested people can pick up copies of the petition, just sign it at Garrison's office or download a copy of the petition here: http://randallgarrison.ndp.ca/save-the-centre-of-the-universe-petition-launched. Signed copies of the petition should be sent to Garrison's office.

The Victoria Centre has a tradition going back decades of providing outreach to the members of the public visiting the observatory, and this continued even when the Centre of the Universe opened in 2001. The Centre includes a lecture room and a hall containing exhibits on astronomy in Canada. Staff at the Centre ran programs for the public, including tours of the historic 72-inch Plaskett Telescope, which opened in 1918. The Centre also offered special programs for children, providing them with an introduction to our universe.

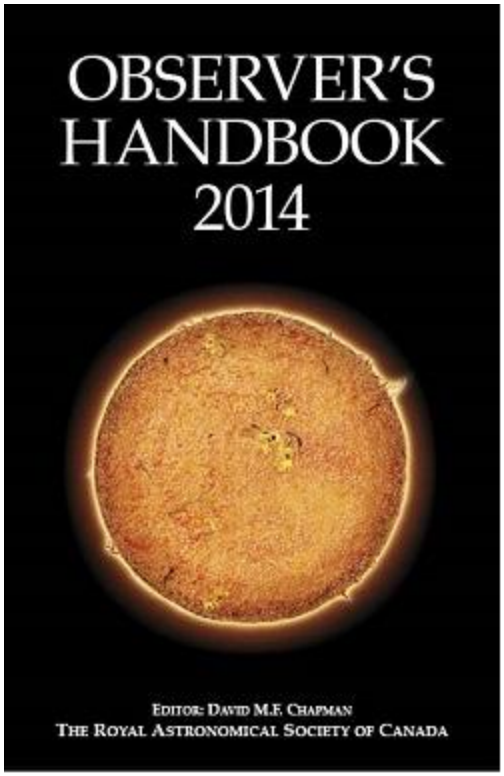
The Victoria Centre is in discussions with officials at the observatory about continuing outreach activities at the observatory. The news in late June that the Centre of the Universe would be closed has caused a strong public and media reaction in the Victoria area.

More information on the closure of this educational centre can be found here: http://victoria.rasc.ca/articles/2013/2013.08.25-CUfinale.htm.

RASC Observer's Handbook 2014 Update

by **Dave Chapman**, Editor, Observer's Handbook

The 2014 edition of the Observer's Handbook exists as a complete first draft and is the hands of the proofreaders. It will be printed in late September for mailing in October. There are a few changes from 2013. Look for the new articles: Astronomical Precession, Observing Artificial Satellites, and Feature Constellation: Auriga. The front cover includes a drawing of the Sun in Hydrogen-alpha light by Randall Rosenfeld.



Beta Testers Needed for New Society Web Site

by **Denis Grey**, Toronto Centre, Information Technology Committee

The RASC Webteam is looking for 5-10 volunteers who have an hour or two between September 11 and 15th to conduct beta testing of our new RASC Web site. The new secure Web site will manage memberships, product sales and donations as well as help to promote the Society in general. Beta testers will be responsible for carrying out a variety of basic tasks on-line by updating their personal RASC accounts, creating one or two new accounts and processing some orders using dummy credit card numbers. We are looking for reports on your experiences, which will then be used to make final changes and improvements before the site goes live.

We need people using both Windows and Macintosh platforms and ideally some tablet and smartphone interfaces. While some familiarity with web concepts and issues is useful it is not 100% required - we also need the input of Joe and Jane Average Member. The time commitment is only about one hour in total.

If you have some time in the middle of the month to give us your feedback, then please contact Ryan May, Chair of the Information Technology Committee at www.rasc.ca/contact/itc to put your name forward.

Asteroids with a Canadian Connection

by **Eric Briggs**, Toronto Centre

The following have been added to the List of Asteroids with Canadian Connections:

(236616) Gray = 2006 JR61

Discovered 2006 May 1 by P. A. Wiegert at Mauna Kea.

David Frank Gray (b. 1938) is a stellar spectroscopist who has advanced our knowledge of stellar rotation, magnetic fields, granulation and turbulence, oscillations and star spots. He was President of IAU Commission 36 from 1988 to 1991 and Director of the Elgin Field Observatory in London (Canada) from 1991 to 2011.

Reference: MPC 84675

http://www.rasc.ca/content/asteroid-236616

(273262) Cottam = 2006 KJ142

Discovered 2006 May 25 by P. A. Wiegert at Mauna Kea.

Michael Gordon Cottam (b. 1945) is an English-Canadian physicist known for his work on the quantum theory of condensed matter systems, particularly in low dimensions and in nanostructures. His expertise includes the excitations or waves that can propagate in these systems and their nonlinear dynamics.

Reference: MPC 84676

http://www.rasc.ca/content/asteroid-273262

These are listed on the Web site, www.rasc.ca/canadian-asteroids.

Across the RASC

A New Exhibit at the National Air Force Museum of Canada

by **Greg Lisk**, Belleville Centre, President

There is a new exhibit at the National Air Force Museum of Canada at CFB Trenton, Ontario.

The exhibit will run until the end of September or October and includes a large collection of tektites, impactites, and Meteorites (including Mars, Moon, Canyon Diablo, Sikhote-Alin, Campo del cielo, Chelyabinsk, and many more), space artifacts and memorabilia (including a fragment of the *Hubble Space Telescope*), A gallery of photos taken by local RASC members, Telescopes and a 1/4-kilometre-long, outdoor scale model of the Solar System.

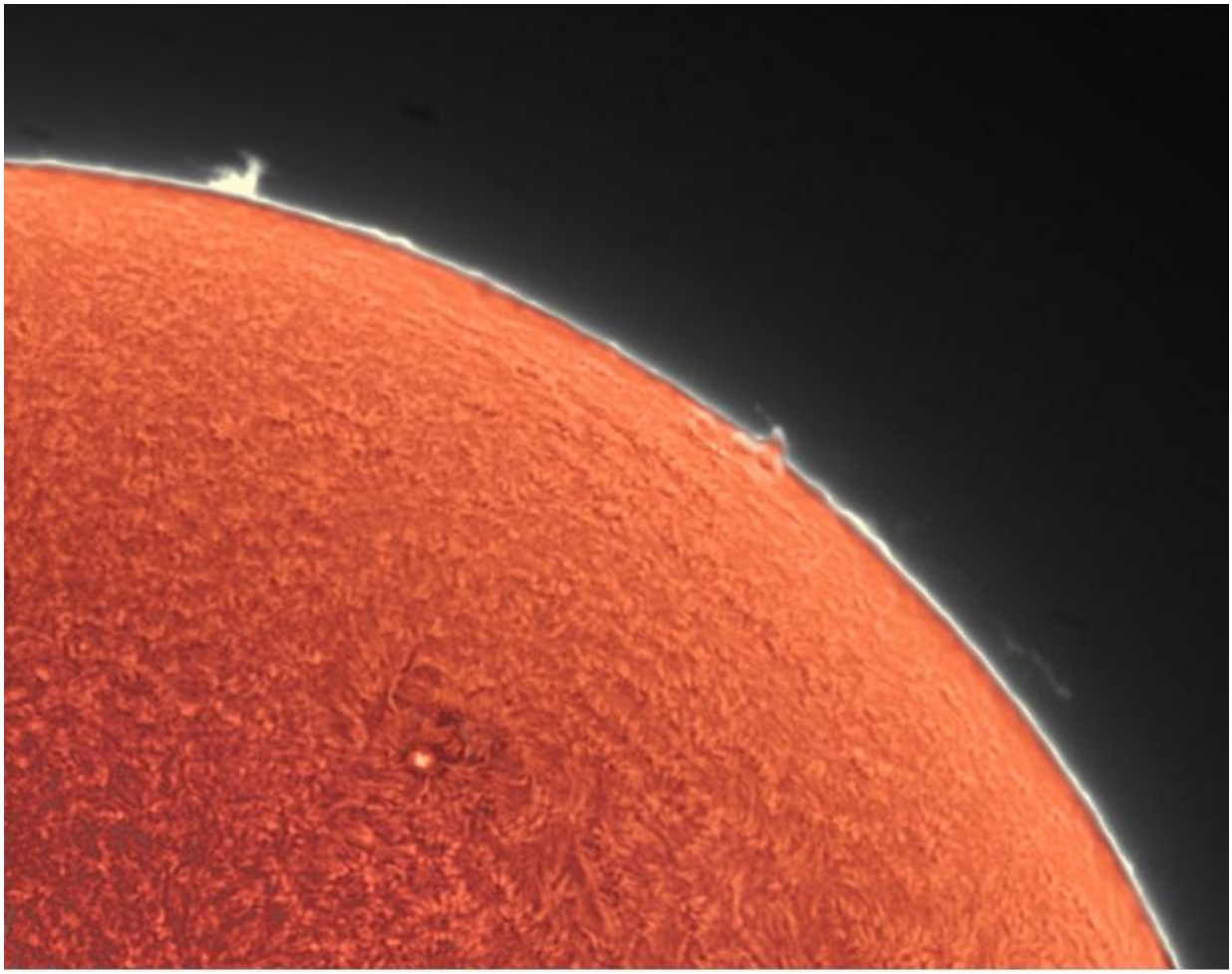
The Belleville Centre will also be hosting solar and nighttime public observing sessions throughout August and September (weather permitting). Check www.rascbelleville.ca for dates.

Bulletin Photo of the Month

The High Definition Sun

by **Brian McGaffney**, Kingston Centre

This a composite image using a Solarscope 100 with a 3x Barlow and captured using AVI video on a 41 AWG mono ccd camera. Processing was done in Registrax, IC Capture and PhotoShop CS5.



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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