

SKYNEWS



The Great Nebula in Orion and the Running Man

by

Daniel Posey

IN THIS ISSUE

On the Cover
President's Report
Book Review
Venus in the New Year
Observing Events for 2012



JANUARY MEETING

Eric Steinbring
Associate Research Officer, HIA
7:30pm

A104 Bob Wright Bldg,
University of Victoria
3800 Finnerty Rd.

www.victoria.rasc.ca

On the Cover

by *Daniel Posey*

The Great Nebula in Orion

This is an image of the Orion Nebula (M42) and the Running Man nebula. The wide-field data (primarily the Running man) was taken on November 20th with my SVR90t on the clubs HEQ5. This was an hour and a half of 30 second exposures calibrated with darks flats and bias frames. The Main nebula is a composite, featuring wide field data plus 4 hours from my CPC taken last December 29th, and January 2nd. This was a combination of 40 and 45 second exposures calibrated with flats, darks, and bias frames.

January Speaker



Eric Steinbring, Associate Research Officer at the Herzberg Institute of Astrophysics. He obtained his PhD in Astronomy at UVic. In addition to his work studying galaxy formation and

evolution, he is involved in the siting of future ground-based telescopes. He will present a "video travelogue" of his exploration of one such site, at 80 degrees North, a site called "Eureka." More details may be had at his website: members.shaw.ca/ericsteinbring/

Eureka is a new scientific observatory to study the protective ozone layer over Canada's high Arctic became fully operational on Ellesmere Island. Located 15 km from Eureka, a remote weather station 1,100 km from the north pole, the ultra-modern facility became a centre for international research. The building shell

was erected in summer 1992 and the scientific instrumentation was installed in 1993. The observatory includes four large laboratories, a roof-top observing platform for instrumentation and a small living quarters.

The Presidents Report

by *Laurie Roche*



Happy New Year to everyone. Have you made your New Year's resolutions yet? I know I have a list but, unfortunately, some of mine have been broken already. Holiday treats just get the better of me every

year. Two resolutions that I do have, though, are to "play" around a bit more with some astrophotography this year and to check off significantly more Messier objects. Here's hoping the weather improves enough to see these through.

But what about resolutions for the RASC Victoria Centre? Here are two that I think are worthy of attention:

As mentioned in the December Skynews, one initiative I would like to see is a gradual increase in our membership over the year. We would like to encourage new people to join, and to keep our already dedicated members involved and supported so that they continue to enjoy the benefits of the RASC. Do you have some suggestions for reaching out in new ways, or different directions to bring new people into the group? How can we publicize our meetings and events to a wider public? How can we have our current members become more involved at our observatory, or at Astronomy Day or the

summer Star Party? How can we better share the load of volunteering at public events? Would you like to see changes in format or presentation at meetings? Should we be using more social media? Please make your thoughts and suggestions known to me or to another member of council so that we can always be making improvements in our planning, communications and programming. The other initiative that is important this year is to work toward having Cattle Point in Oak Bay designated as an Urban Sky Park by the National RASC. If we are successful it will be one of the only Urban areas designated in Canada and should be a valuable site for members and the public to enjoy astronomical explorations close to home. The Light Pollution Abatement Committee has a lot of work ahead but we hope we can rely on your support in our requests to municipal or regional Councils or to help out when we organize public programming at the site. There are lots of other events we are looking forward to this year and I could make a good long list of other resolutions that we could work on but I believe that these are two initiatives that are both important and have a good chance of being successful. We will check things out in twelve months' time to see how effective we were.

Now, if only I could be as successful about my own resolution on losing some weight!

Sigh.....

Good Luck to all of you this year and, as always, clear skies.

Lauri Roche



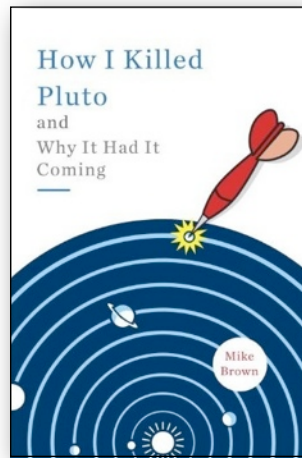
Book Review

By Chris Gainor

How I Killed Pluto and Why It Had It Coming
By Mike Brown

New York: Spiegel and Grau, 2010.
258 pages.

More than five years have elapsed since the International Astronomical Union (IAU)



decided to refine the definition of planet – a decision that remains controversial even today because it demoted Pluto from being the ninth planet of the Sun to being one of a growing number of dwarf planets.

Since then a number of books have been written on this decision, but anyone who picks up *How I Killed Pluto* expecting an expose on IAU politics will be surprised.

Instead, author Mike Brown tells a story of discovery – his team's discoveries of dwarf planets, most famously Sedna, a body slightly bigger than Pluto that was briefly considered to be the tenth planet of the Sun until it, too, was demoted to dwarf planet status.

Brown is a planetary astronomer at the California Institute of Technology whose discoveries helped lead his colleagues to change the definition of planet at the IAU's 2006 meeting in Prague. Brown himself wasn't in Prague, but his story explains why maintaining the planetary definition status quo was no longer sustainable.

How I Killed Pluto is a very readable and human story from an astronomer who writes about the challenges and joys of starting a family and building an academic career while discovering new Pluto-sized bodies in the outer reaches of the solar system.

Along the way Brown discovered an object now known as the dwarf planet Haumea, but the discovery was shrouded in controversy when a Spanish astronomer who had gained premature access to information on the internet about the new object was the first to claim to have found it. Brown's account of this episode shows that competition even in the world of science can be cutthroat.

For much of the 20th century, solar system astronomy had taken a back seat as new discoveries were made about the nature of galaxies and our larger universe. Discoveries of new objects in the Kuiper belt in the outer reaches of our solar system are changing what we know about our cosmic neighbourhood.

I can recommend *How I Killed Pluto* as a good read about astronomy and about people. And I look forward to hearing from our own astronomers at the Herzberg Institute of Astrophysics who have also been making major contributions to solar system astronomy with their own discoveries of objects in the Kuiper belt.

VCO report for 2011

by John McDonald

Victoria Centre is fortunate to have an outstanding observatory facility that is well equipped. The telescopes include a Celestron 14" SCT, A Televue 127mm refractor and a guide scope and camera all mounted on a Paramount ME precision tracking mount. In

addition 12 and 20 inch Dobsonian mounted scopes are available for use outside the observatory shed.

The facilities continue to function well thanks to the good work of the Tech committee who maintain and upgrade it facility as needed. Remote operation has been demonstrated. Further development requires improvements to speed and reliability of the internet. Possible improvements have been discussed with DAO and may be possible in 2012.

The Observatory was quite actively used in 2011 thanks to the efforts of the MIC group who make it available for the use of Active Observers. Any member wishing to become an Active Observer should contact Sherry Buttner.

Observing Events for 2012

Weather permitting of course except International Astronomy Day

Plaskett Session Saturday Jan 21st

To be able to attend you must be a member of the Active Observing group. Contact Sherry Buttner directly or by email. (See page 6.)

Messier Marathon

The Messier Marathon has been presented and organized by Nelson Walker over the past year or so. It is tentatively scheduled to be held at the VCO between the 23rd and 25th of April. The New Moon is on the 22nd.

International Astronomy Day 2012

Saturday, Apr 28, 2012

We are looking at presenting this event at the University of Victoria as we did last year.

Metchosin Star Party

August 17th, 18th, and 19th.

Observing events for 2012



On June 5, 2012, you will see the planet Venus as it moves across the face of the early morning sun. This astronomical oddity has played a very important role over the last few centuries

in giving scientists a way to understand the size of the solar system. On December 6, 1882, the transit made the front pages of every national and international newspaper! Thousands of photographs were taken with improved calibrations. Only a few astronomers were trusted to carry out the complex calculations from the resulting data. In 1896, Simon Newcomb's value, a distance from Earth to Sun of 92,702,000 plus or minus 53,700 miles, was adopted by the international scientific community. Today most textbooks report the Astronomical Unit (or AU) as "93 million miles."

The Venus transit has continued to yield fascinating new information for scientists and the public. Take this unique opportunity to make your own observations and calculations. Information and how to make your own calculations is all part of the larger Sun-Earth Day-Shadows of the Sun.

[Venus Transit iPhone App](#)

Annular Solar Eclipse

May 20, 2012

The centerline for a spectacular annular solar eclipse extends through the Western United States. In the U.S., the path of annularity crosses Lake Tahoe as well as a number of

National Parks including Lassen, Zion, Bryce, Grand Canyon, Canyon de Chelly, and Chaco Canyon. Partial phases will be widely observable across much of the U.S.

Venus in the New Year



(left to right): Mercury, Venus, Earth, and Mars

Venus is the focus in the Western sky after sunset in the coming months and shines brightly. It is very close in size to our own planet but the atmosphere of Venus would not be kind to life. It is mainly made up of dense Carbon and Sulfur Dioxide and would quickly suffocate any human being or any other forms of life there. The atmospheric pressure is about 92 times that of our own planet and that would feel like being pressed on by a kilometer of water. If the pressure doesn't kill you then the temperature of 460 degrees C might in about 10 minutes. Not exactly a holiday vacation hot spot!

Studies of Venus have suggested that several billion years ago Venus was much like our own planet with liquid water on the surface, but a runaway greenhouse effect caused the evaporation of all the liquid water to evaporate into it's atmosphere.

It will be having some nice pairing in the sky in the coming months with the Moon and Jupiter. These are excellent for observers and photographers alike, so be ready with your telescope or camera.

Find a nice setting with a foreground object like a tree or building which would make a nice picture. Always use a tripod when you can so your picture can be as sharp as possible.

Dates to look:

Jan 26th 7° S of Moon
 Feb 25th 3° S of Moon
 Mar 12th 3° of Jupiter
 Mar 26th 1.8° of Moon
 Apr 2nd 0.5° of Pleiades, M45



Venus, Moon and Mercury 15th April, 2010 from the VCO. Photograph by Malcolm Scrimger.

ASTRONOMY CAFE



Fairfield Community Centre

1330 Fairfield Rd. Victoria,
 7:30pm - 10pm
 Call Malcolm at (778) 430-4136 for directions and information.
 New comers are especially encouraged.



New Observers Group

Hosted by Sid Sidhu
 1642 Davies Road, Highlands. Call (250).391-0540 for information and directions.



Email Lists

Observer / CU Volunteers / Members

Contact Joe Carr to subscribe
web@victoria.rasc.ca

NEXT REGULAR MEETING

Wednesday February - 8th 7:30pm - A104 Bob Wright Bldg, University of Victoria, 3800 Finnerty Rd.

RASC Victoria Council for 2010 / 2011

Past President John McDonald pastpres@victoria.rasc.ca	Secretary / Recorder Mark Bohlman secretary@victoria.rasc.ca	National Representative Chris Gainor nationalrep@victoria.rasc.ca
President Lauri Roche president@victoria.rasc.ca	Librarian Michel Michaud librarian@victoria.rasc.ca	Light Pollution Abatement Mark Bohlman lpa@victoria.rasc.ca
First Vice President Nelson Walker vp@victoria.rasc.ca	Website / E mail lists Joe Carr web@victoria.rasc.ca	New Member Liaison Sherry Buttner NewMembers@victoria.rasc.ca
Second Vice President Sherry Buttner vp2@victoria.rasc.ca	Skynews Editor Malcolm Scrimger editor@victoria.rasc.ca	Membership Coordinator Sherry Buttner Membership@victoria.rasc.ca
Treasurer Li-Ann Skibo treasurer@victoria.rasc.ca	Telescopes / School Programs Sid Sidhu telescopes@victoria.rasc.ca	Members at Large Bill Almond, Jim Hesser, Alex Schmitt, David Lee