

SKYNEWS



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The Milky Way From The DAO
By John McDonald

John's image was selected as
The Astro Photo of the Week
by SkyNews Magazine

NEXT MEETING

Wednesday Feb 10th 2016
At 7:30 PM
Room A104
Bob Wright Centre
University of Victoria
3800 Finnerty Road

www.victoria.rasc.ca

On the Cover

DAO Evening

by *John McDonald*

A fisheye lens captures the Milky Way over the Dominion Astrophysical Observatory. Taken on November 28th 2015 under clear moist skies with no wind and 3 deg C temperature. Modified Canon 6D camera with Peleng 8mm fisheye lens on iOptron skytracker mount. Exposure: 2 min at ISO 400. Processed using Adobe Camera Raw and Photoshop

Presidents Report

by *Sherry Buttnor*

Happy New Year!

I hope 2016 will be very kind to you all, bringing health, happiness, and clear skies! We have plenty of great events in the planning stage right now; these include:

-Hobby Show: February 6, 7, and 8. This is one of the big events for the Victoria Centre; we get lots of exposure and interest (in both astronomy in general, and RASC in particular), and we also get to sell lots of Sid's raffle tickets, which brings in significant revenue for us. Bruce Lane is coordinating this event at Westshore Town Centre Mall, so please consider volunteering some time when he calls you.

-International Astronomy Day: May 14. A worldwide event in which we participate each year, and one which is very popular with our visitors. Nelson Walker is coordinating IAD this year, likely at the Royal BC Museum during the day, and the Dominion Astrophysical Observatory the same evening. We would appreciate your help with either daytime, or evening segments (or both!).

-RASCals Star Party in Metchosin.

August 26, 27, 28. I've just confirmed the star party field is available to us for our annual star party on this weekend, so mark it on your calendar. The slim, waning crescent moon will not be a huge issue this year, rising around 1:30am and not bright enough to hamper observing and astrophotography. Guest speakers and prizes yet to be determined, but the Star Party is always fun!

Don't forget our other activities. Visit our website www.victoria.rasc.ca and hover your mouse over the "Events" tab for a list. One event not listed is our increasingly-popular observing sessions on the UVic 32" telescope, held on the second Friday of each month. Next session February 12th.

Have you seen Comet Catalina (C/2013-US10) yet? If not, a finder chart can be found here:

<http://www.skynews.ca/comet-catalina-c2013us10/>

I'm trying to get some time on the UVic telescope for us to have a good look before it's gone for ever.

Here's another once-in-a-lifetime event for many of us: the **August 21st 2017 Total Solar Eclipse**. Over multiple meetings recently, Council has been discussing whether there is sufficient interest in trying to organize a 2017 eclipse viewing opportunity for Centre members.

At our January 13 general meeting, we will take a poll to ascertain interest in a coordinated Victoria Centre effort. If you would be interested and unable to attend, please contact me directly. Ultimately, such an effort will depend upon someone volunteering to lead the effort.

Lots of fun in store for 2016 and beyond!

**Clear skies,
Sherry.**

January Meeting Speaker

Azadeh Fattahi: What dwarfs teach us about the galaxy formation.

The standard model of cosmology has been very successful in explaining the galaxy formation and structures in large scales, but observations on smaller scales raised potential questions about the validity of the model.

Bio: Azadeh was born and raised in Iran. She studied Physics for her BSc in Tehran-Iran at the Sharif University of Technology. In 2011 she moved to UVic for her MSc in Astronomy, transferring into a PhD program in 2013

Scheduled Speakers 2016

Feb 10: Sebastien Lavoie, How to Build a Universe.

Mar 8: James DiFrancesco, Topic TBA

Apr 13: Dr. Helen Kirk, Watching the birth of stars with the James Clerk Maxwell Telescope and Herschel Space Observatory.



ASTRONOMY CAFE



Our weekly **Astronomy Cafe** is an excellent, informal, way to meet us. New comers are especially encouraged. Bring your coffee mug and join the chat! <http://victoria.rasc.ca/events/astro-cafe/>

Fairfield Community Centre
1330 Fairfield Rd. Victoria.

7:30pm - 10pm

Contact: Chris Purse for further details
vp2@victoria.rasc.ca



Email Lists

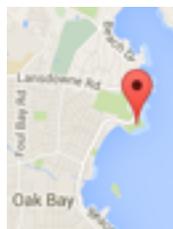
Observer / CU Volunteers / Members

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



New Observers Group

Hosted by Sid Sidhu - 1642 Davies Road, Highlands. Call 250.391-0540 for information and directions.



Cattle Point observing in Victoria's own Urban Dark Sky Park:

<http://victoria.rasc.ca/events/rascals-cattle-point/>

January 15th, 2016 at 6:00 pm

February 5th at 6:30 pm

March 4th at 7:00 pm



Victoria Centre Observatory: Every Saturday Evening

Open to those on *the Active Observers list only*

Weather permitting. Use extreme caution while driving on Observatory Hill. We're now into the season of black ice and slippery conditions, so take care.

Membership Report - January 2016

Total membership is currently **218**. There are 14 members in the grace period which means their membership has expired in the past 2 months. Please contact Chris Purse (membership@victoria.rasc.ca) if you would like to check the status of your membership.

Some Reflections on 2015

by Reg Dunkley

The Victoria Centre enjoyed many wonderful events in 2015. These included traditional activities such as Astronomy Day, The Metchosin Star Party and the extremely popular Saturday Night Outreach Series at the DAO. There were also a number of pleasant surprises. The announcement of the Federal contribution toward the Thirty Metre Telescope was welcome news for the Victoria astronomical community. The lively party at Pluto's restaurant in July was a perfect way to celebrate New Horizon's flyby. Despite being recently demoted to a sub-planet Pluto displayed it's heart to assure that it harboured no hard feelings.

The highlight for me, however, was the total lunar eclipse. Whether it was Joe Carr's interview in the paper or the perfect weather, it certainly captured the imagination of Victoria. I thought I was in plenty of time when I headed for the RASC event on Mount Tolmie. But when I arrived the road was already choked with cars. So instead, I aimed for Cattle Point only to find that area swarming with vehicles. As I beat a retreat along Beach Drive, droves of people hauling lawn chairs and binoculars were shuffling out of lanes towards the waterfront in a zombie like manner. It was the same all over the City. People came by the thousand to Clover Point, Island View Beach, Esquimalt Lagoon and the DAO to bear witness to an astronomical spectacle. The magnitude of the response was a wonderful surprise.

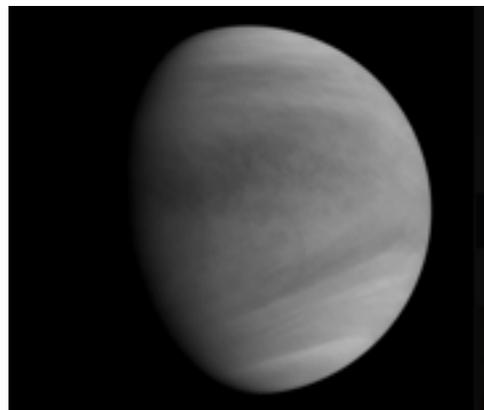
As 2015 came to a close the tenacious Japan Aerospace Exploration Agency scored a technological triumph as their wounded spacecraft Akatsuki limped into orbit around Venus. See the December issue of SkyNews for the background story. It was a great way to end the year!



Pluto: A Heart Shaped World



Leaving Totality by David Lee
September 27 2015



Venus by Akatsuki
December 7 2015

Spending New Years at a Million Star Spot

by Diane Bell

"What are you doing on New Years Eve?" That was one of the questions I was asked after Christmas by family and friends. I cast my memory back many years ago - remembering the restaurant and club parties where you could get an overpriced dinner, a drink and some noisemakers. Long gone are those days. In the past two decades, my New Year celebrations were spent with friends over quiet dinners or at home, watching classic movies in front of the TV. If I was feeling adventurous, I would climb some narrow stairs up to the top of the bell tower of Christ Church Anglican Cathedral - watching the chief bell-ringer, Dr. Alan Batten, and his team, peal in the New Year.

This year, I wanted a new experience. We were given the rare gift of several clear nights, back to back, between Christmas and the New Year.

Why not spend a few hours up at the Victoria Centre Observatory? I put an E-mail request up, and YES! One of our members was going to the VCO, to use the main 'scopes for project work.

So....I packed my winter layers; two pairs of gloves and socks, a scarf and hat, and a warm parka. I organized my chair and stool, the Pocket Sky Atlas, two pairs of binoculars, my headlamp, and a notepad and pen. I put some assorted snacks into a lunch bag to get me through the cold hours of the night.

And....ginger ale to toast the New Year. I met Michel at the gate at 10:30 PM, and up to the VCO we went.

I've never regretted my decision to do this, once we got up to the pad. Our sky conditions were excellent. Beautiful Orion and Sirius blazed down on us in the south; Perseus was high overhead. The minor constellations were recognizable and the northern Milky Way was lovely as well. Ursa Major and the other circumpolar constellations made their counterclockwise journey, and the mane of the Lion was beginning the climb from behind the trees. Michel set up the 'scopes to focus on the Pleiades and I arranged my little observing corner. I decided on a slow Messier hunt that night and in spite of a bit of moisture and frost, my 25x100 binoculars didn't disappoint. I was able to target some of my old favourites as they

slowly curved up over the horizon. It was quite a while before I had a look at my watch! I checked a few Messiers off my list, in the dying year. I was able to spot some of the fainter "fuzzies" with the giant binos. After I found M106 in Canes Venatici about 11:59 PM, the first of the fireworks went off around Victoria and the Peninsula. For the first few minutes, the show did rival the night sky somewhat. Michel came out from behind the computer and we watched the festivities toward the West. Some Canada geese, disturbed by the noise and light from the revellers below, circled Little Saanich Mountain and Prospect Lake. We could hear them well past midnight....

The time went quickly and in spite of my cooler hands, (I had one pair of gloves on for mobility) I was warm. I spotted almost 30 Messiers that night and when it was time for the Last Quarter moon to rise over the trees, we were preparing to pack up. It was almost 1:45 AM when we left. Oh, but what a perfect night to get re-acquainted with our beautiful Winter sky! A priceless opportunity to experience the arrival of 2016 under lovely starfields....

Here's hoping for more crystal-clear skies for the New Year. There are many treasures waiting to be re-discovered at our wonderful little Observatory.



**Diane's Famous 25 X 100
"Light Bucket" Binoculars**

The VCO Astro Planner

By Reg Dunkley

On the following page we are introducing an experimental graph that may be of use when planning observing sessions. Called the **Victoria Centre Observatory Astro Planner**, this graph amalgamates the time of moon rise and moonset together with the time of astronomical twilight. That is the time when the sun is 18 degrees below the horizon and skies are dark enough for deep sky astrophotography. The time in PST is located on the left axis and has been adjusted so that Midnight and the zone of greatest interest for astronomers appears in a contiguous region in the centre of the chart.

The axis on the right side of the chart displays the percentage of illumination of the Moon. With familiarization, one can at a glance find **interludes of moon free skies** when the sky is dark enough to permit astrophotography. Some of this information is available on a daily basis on the excellent RASC Observers Calendar but this graph avoids jumping from day to day and the need to interpolate for latitude. The Astro Planner displays the “shape and growth” of the moon free zone and may be more useful to identify and optimize observing opportunities when we have an extended break in the weather.

The times are obtained from the US Naval Observatory web application and are based on the latitude and longitude of the Victoria Centre Observatory. This graph can be used over the Greater Victoria area and surroundings with reasonable accuracy. The percentage of the moon that is illuminated is valid at Noon each day. When using the graph keep in mind that the **zone just above the red line is Moon Free**.

Have You Ever Dreamed of Having a Backyard Observatory?

You may want to check out Bill Almond's outstanding “**A Centennial History of the Victoria Centre**”. Section Five is devoted to “**Individual Observatories built by Centre Members**”. Bill has assembled photos and stories that highlight the innovation and accomplishments of Victoria amateur astronomers. Go to: <http://victoria.rasc.ca/about-us/centre-history/> Then click “*RASC Victoria Centre History*” to download a 12MB PDF file. You are in for a treat!

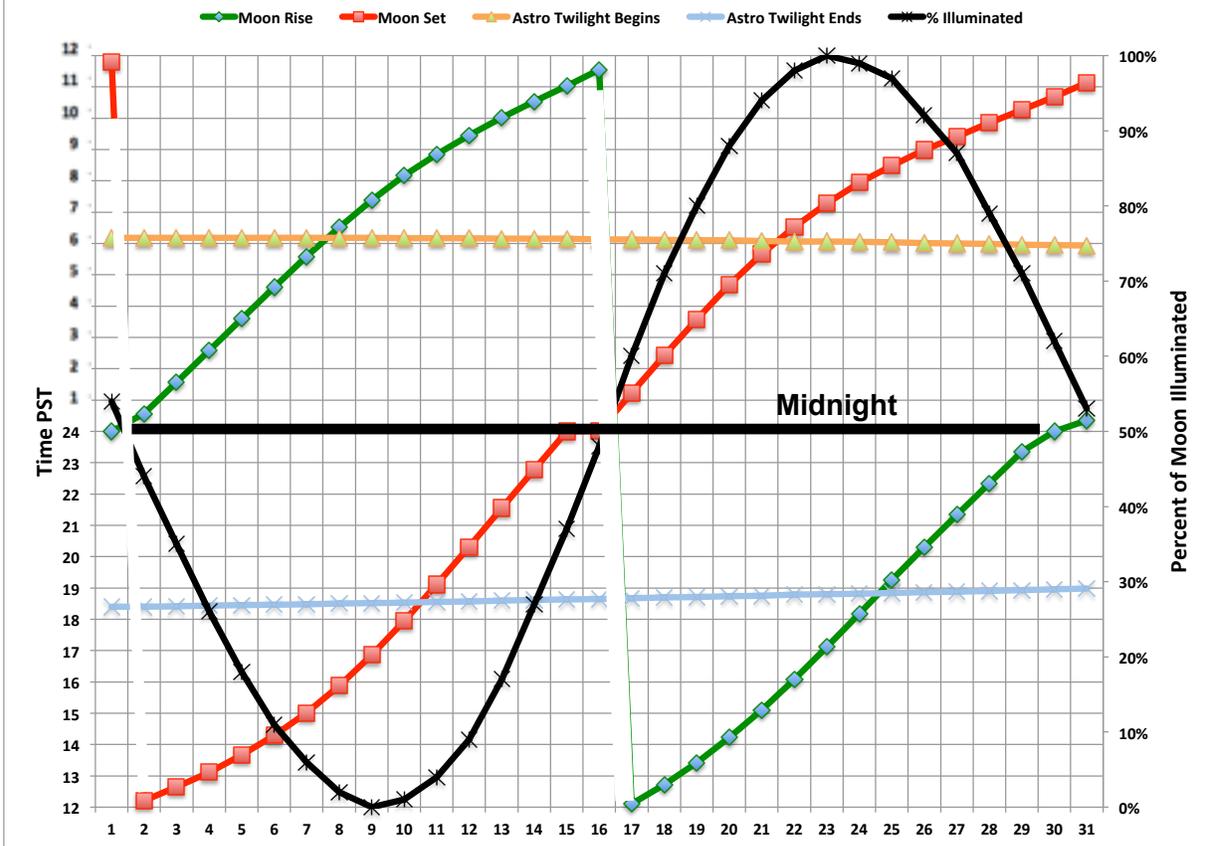


Timo Markkanen
at the 2014
RASC
Victoria
Star Party

In Memoriam Timo Markkanen

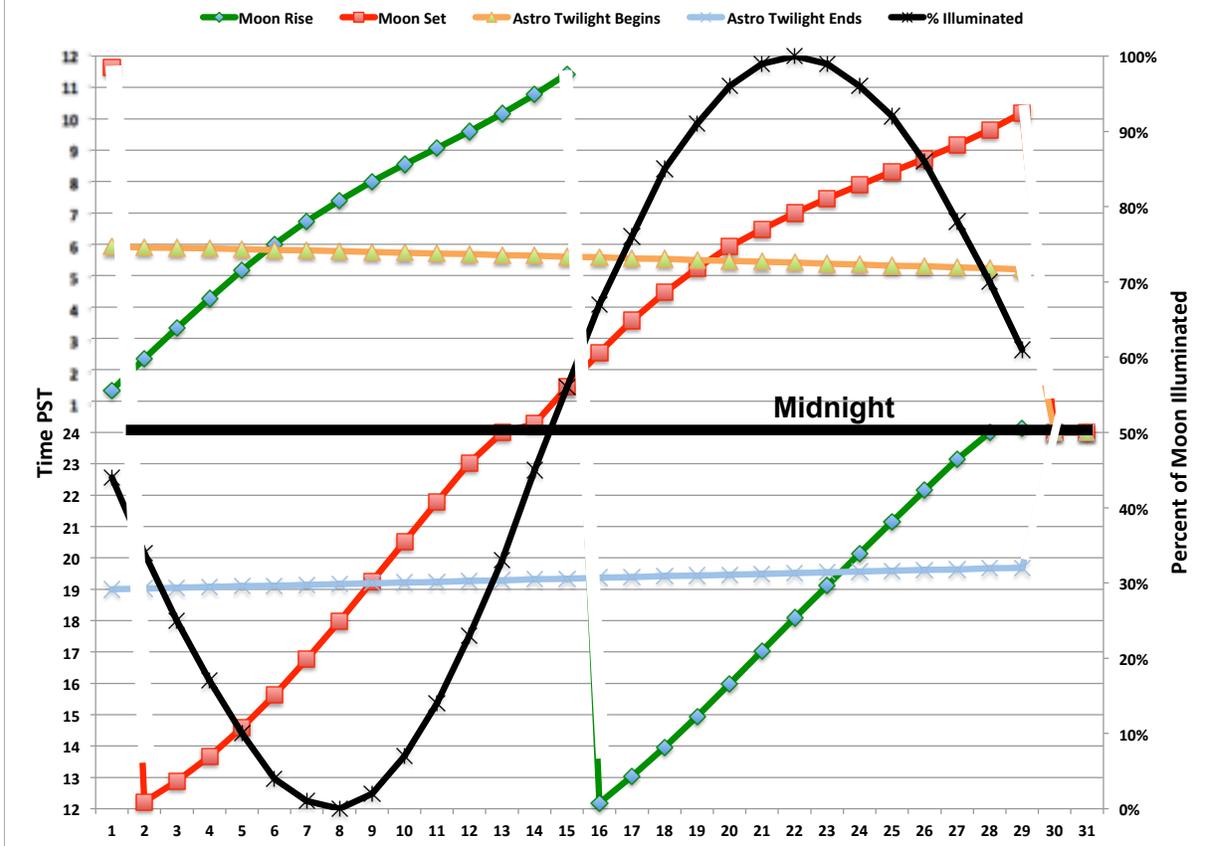
It is with sadness that we announce the sudden passing of RASC Victoria Member Timo Markkanen on Dec 29th 2015. Timo was frequently found perched on a special stool at Astro Cafe. He made many interesting contributions to the discussion and he was looking forward to mastering the use of his recently acquired telescope. The stool at the Cafe, now vacant, will remind us of Timo. He will be missed by his many friends in the Astronomy Community.

Victoria Centre Observatory Astro Planner - January 2016



NOTE: The Zone Immediately ABOVE The RED Curve is MOON FREE

Victoria Centre Observatory Astro Planner - February 2016



RASC Victoria Centre Council 2015 / 2016

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Treasurer	Bruce Lane	treasurer@victoria.rasc.ca
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NRC Liaison	Dr. James Hesser	
NRC Liaison	James di Francesco	
UVic Liaison	Alex Schmid	
Member at Large	David Lee	

Online Resources

Magazines

[SkyNews](#) Our National RASC Newsletter
[Sky & Telescope](#) Magazine
[Astronomy](#) Magazine
[Astronomy Now](#) Astronomy in the UK
[Amateur Astronomy](#) Magazine
[Astrophotography](#) Magazine

Borrowing Telescopes



The centre has telescopes for new and seasoned observers that members can use. Contact Sid Sidhu from the email list above.