

H T T P : / / V I C T O R I A . R A S C . C A



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ROYAL ASTRONOMICAL SOCIETY OF CANADA ✦ VICTORIA CENTRE

skynews



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this month

Members' Night

January 11th, 7:30 PM, Elliott Lecture Theatre, Rm 060, UVic

Brian Robilliard - The Evolution of Amateur Telescopes

Cliff Capriani - The Sky Guy - a 15 minute film (video) about a sidewalk astronomer in Kitsilano, Vancouver

Bill Weir - Sketching Mars

David Lee - Special General Meeting - a discussion about two initiatives at the special National General Meeting

on the cover

Seeing High in the Sky

The Cassini space craft continues to send back incredible images of Saturn. In this magnificent view, delicate haze layers high in the atmosphere encircle the oblate figure of Saturn. A methane-sensitive filter (centered at 889 nanometers) makes high altitude features stand out, while a polarizing filter makes small haze particles appear bright.

The Victoria Centre - RASC is working with the Vancouver Centre to bring Dr. Carolyn Porco, head of Cassini's imaging team to Victoria for Astronomy Day in May.

For current images from Cassini see: <http://saturn.jpl.nasa.gov>

contact us on-line

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this month

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Bill Almond, Jim Hesser, Ed Maxfield,
Frank Ogonoski, Blaire Pellatt, Colin Scarfe,
Rich Willis

New Member Liaison

Sandy Barta
sbarta@shaw.ca

monday nights

Astronomy Cafe

Hosted by Bruno Quenneville
2019 Casa Marcia Crescent
Victoria, BC

Call 477-2257 for directions or more information.

New comers are especially welcome. Come and enjoy!

second wednesday of the month

Monthly Meeting

7:30 PM, Elliott Lecture Theatre, Rm 060, UVic

third wednesday of the month

Astro Imaging

Hosted by Bill Almond
354 Benhomer Drive
Only if the sky is clear.
Call Bill to confirm: 478-6718

as sky and interest dictate

New Observers Group

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

by email

Observer/CU Volunteers/ Members email lists

Contact Joe Carr to subscribe to these email lists for important, timely member-related news.

library report

The RASC, Victoria Centre maintains a library housing around six hundred books and periodicals, in a constrained space on the 4th floor of the Elliot building at UVic. Some of these books are quite old dating back to 1878. Over recent times, the preference of our membership has been for books with more current topics. To meet this demand, we are continuously adding new books written by contemporary authors with contemporary themes. However, this has put pressure on the library space. The librarian is facing the dilemma of either adding more shelves or creating more space by removing old books that have outdated astronomical information.

Based upon the existing location of the library, it is not practical to add more cabinets, so the easy solution is to remove books that are of no use to the general membership. Late last year, I sent an urgent request for assistance to review all books published before 1950 and tag any book that should be removed from the library. I am pleased to report the review process is underway and it is being assisted by a dedicated team of individuals (John McDonald, David Griffiths, Ed Maxfield, Colin Wyatt, Li-Ann Skibo, Ray White). The original request was for the reviewer to simply thumb through the book and tag it “Yes” or “No”: “No” meaning remove it from the library. However from the review work done so far, I am grateful of the additional information being provided, such as the condition the book ie; does it need repair work, relevancy to current astronomical thinking, and its market value.

Talking of the value (money?), while reading the 2005 December issue of the Sky and Telescope I came across an article under the heading of “A Classic Book Reborn” I was just amazed to read the worth of a set of two books (volume 1 & volume 2) that we have in the library. It is a collector’s hot item because in 1927 only 700 copies of the atlas “A Photographical Atlas of Selected Regions of Milky Way” were produced. Now this set is worth \$20,000.00.

On completion of the review process of other old books housed in our library, we may find that some of these are worth more than we imagined. Stay tuned.

next month

Dr. David Andersen, NRC-HIA
Galaxy Structures, ground layered optics and new instrumentation developments

February 8th, 7:30 PM, Elliott Lecture Theatre, Rm 060, UVic

David will present an overview of astronomical adaptive optics and the exciting astronomy that will result from this developing technology. He will update us on the on-going adaptive optics program at HIA: the new Laser Guide Star installed at Gemini last summer; and the extreme adaptive optics instrument being developed for Gemini; and the adaptive optics instruments being developed for the Thirty Meter Telescope.

David received his PhD in Astronomy & Astrophysics from Penn State University in 2001. He was a Co-principal Investigator of SparsePak, an integral field unit, commissioned on the 3.5m WIYN telescope in 2001. From Penn State, David joined the Max Planck Institute for Astronomy in Heidelberg, Germany as an instrument scientist for LINC-NIRVANA, an interferometric camera employing adaptive optics which is being built for the twin 8m Large Binocular Telescope. In 2004, David joined the Herzberg Institute of Astrophysics as a research associate. He has contributed to several of the instrumentation studies at HIA; he served as instrument scientist for the Ground Layer Adaptive system feasibility study for the 8m Gemini telescope, is contributing to the facility Adaptive Optics system design study and is managing a Multi-Object Adaptive Optics system feasibility study for the TMT (30 metre telescope).



*Centre of the Universe***Asteroid Observer's Club**

Do you know a Grade 11 or 12 student who's really into astronomy? Tell them about the new Asteroid Observer's Club! This club will give students the chance to participate in real astronomical research. Starting in the middle of January, the club will meet weekly to learn about potentially hazardous asteroids and how astronomers track them. Club members will write a real proposal to use the Plaskett Telescope, and if it is successful, will participate in real observing sessions to track asteroids.

The Asteroid Observer's Club meetings will start the week of January 16th - the day and time of meetings will be chosen based on club members' schedules. Registration fees are \$75+GST for the 8 weeks of classes, and then \$10+GST per month afterwards for club dues. The club is designed for students in Grade 11 and 12 - younger or older students should contact the Centre to discuss their enrolment.

To register for the Asteroid Observer's Club, please call the Centre at 363-8262. Space is limited, so sign up early to avoid disappointment!

Hawaiian Star Party

Is the winter weather getting you down? Join us for our Hawaiian Star Party! Astronomy has always been a big part of Hawaiian culture. Come see ancient Hawaiian constellations in our planetarium, and hear Dr. Luc Simard from the HIA talk about observing with the big telescopes in Hawaii. We'll even have Polynesian decorations and entertainment to set the mood! Of course, we'll also have tours of our telescope and, weather permitting, observing of the night sky.

As a special promotion, wear your best Hawaiian shirt and you'll receive a discount coupon for the gift shop!

The Hawaiian Star Party will be held on Saturday, January 21st from 7:00 - 11:00 pm. For more information, please call the Centre at 363-8262.

Night Courses in January

Registration is open now for the Planets course, running from 7:00 - 10:00 pm on January 24th, 26th, 31st and February 2nd. Take a tour of our Solar System and explore all its orbiting bodies - planets, asteroids and comets - including the newly discovered and possible 10th planet 2003 UB313.

each activity or event taking place on Observatory Hill, and if the MIC is endorsed by Council, NRC will issue them a key to the property. Please note, if you successfully register as an Active Observer, Victoria Centre Council will share your name, email address, and telephone number with NRC as part of the pre-approval process stated in the Policy and the Agreement. You will also be made a member of an email list operated by Victoria Centre where notices of observing sessions will be posted by MICs. NRC will also post notices of closures or restrictions to this list, as required.

From time to time, an MIC will post a notice to the Active Observers (and other MICs and NRC) through the email list stating that they will be hosting an observing session on Observatory Hill. The MIC will post the following information in the email notice:

Date and time MIC proposes to be at the gate (stating how long the MIC will wait at the gate for arrivals - should be at least 10 minutes),

Time MIC proposes to leave Observatory Hill (can be a window, such as "staying until at least 11:00 pm, but may stay until midnight at the latest")

The location on the Hill the MIC plans to use (Old 16" site, Lower Parking Lot, Upper Parking Lot). Active Observers may indicate they wish to use other locations, but it is the MIC's responsibility to know where everyone is located, and ensure they use areas that are covered by our License to Use Land Agreement.

The MIC determines the beginning and ending times for observing. Once they have posted a notice to the email list and an Active Observer has signed up through the email list, an Active Observer has no right to request that a MIC change the arrangements (i.e. open earlier or stay later).

As an Active Observer, it is up to you to respond with an email stating you will attend. NRC insists on pre-registration for off-hours use of Observatory Hill, so unless you state your intentions by email, you are not "registered" and the MIC cannot allow you access.

Observers Group News

RASC Victoria Centre and National Research Council have License to Use Land Agreement which gives members of Victoria Centre expanded access to NRC property located on Observatory Hill, including access during times which are outside the normal operating hours of the Centre of the Universe Interpretation Centre.

If you are a member in good standing of Victoria Centre RASC, consider yourself an “active observer”, and if you wish to take advantage of observing from Observatory Hill, please send an email to both the 1st Vice President and the 2nd Vice President indicating your wishes.

Victoria Centre Council has put an Observing Site Policy in place to govern use of this new access to the NRC land on Observatory Hill.

If you have a strong interest in serving your fellow members, intend to register as an Active Observer, and wish to be considered for selection



Nov 18, 2005 - our first observing session at old 16" site, atop Observatory Hill
- Dave Bennett, Charles Banville, Liz Davidson, Guy Walton.

as a Member-In-Charge (MIC) by Victoria Centre Council, please also indicate this in your email. If you are considering volunteering to be an MIC, it is strongly suggested you carefully read the “Member-In-Charge (MIC)” section of the above policy to ensure you are comfortable with the duties of an MIC. Victoria Centre Council will assign an MIC for

course fees are \$120+GST for the four evenings, or \$105+GST for season's pass holders. The first evening of each course will offer a general introduction to astronomy. If students have taken previous courses, this first evening is optional and the course fee will be reduced to \$90+GST for three evenings (\$80+GST for season's pass holders). Our courses are most appropriate for adult learners. Any interested students under the age of 18 are asked to contact the Centre to discuss their enrolment. All courses will be held at the Centre of the Universe, located at 5071 West Saanich Road . For more information or to register, please call the Centre at 363-8262.

The Sky This Month

January 1	Happy New Year!
January 3	Quadrantid Meteor Shower Peak
January 4	Earth at Perihelion (7:00 am PST)
January 6	First Quarter Moon (10:58 pm PST)
January 8	Mars 1.3° south of Moon
January 10	Moon 0.1° south of Pleiades
January 15	Saturn 4.0° south of Moon
January 19	Full Moon (1:49 am PST)
January 27	Saturn at opposition (3:00 pm PST)
January 29	New Moon (7:15 am PST)

January 4th is the date when Earth is at its closest distance, 147.1 million kilometres, to the sun. This position is called perihelion and occurs every year around the beginning of January. What causes the Earth to be at different distances throughout the year? The orbit of the Earth (as well as the rest of the planets in our solar system) around the Sun is elliptical, not circular. In our winter, Earth is at its closest point in its orbit around the sun and in our summer Earth is at its furthest point from the sun. Many people believe that it is our distance from the sun that causes the seasons. As you can see, if this were the case, summer would be in January everywhere on Earth and winter would be in July everywhere on Earth. The tilt of the Earth and the amount of direct sunlight that we receive is what truly causes our seasons. In January in the northern hemisphere, our half of the Earth, is tilted 23.5 degrees away from the sun thus receiving less direct sunlight than in the summer. In the south in January, their half of the Earth is tilted 23.5 degrees toward the sun, therefore receiving more sunlight than in winter. The opposite is true for summer in the north and winter in the south. At the equator they receive a similar amount of direct sunlight throughout the year and therefore

don't really experience the seasons that we do where we live. For more information on seasons visit the Zoom Astronomy website at <http://www.enchantedlearning.com/subjects/astronomy/planets/earth/Seasons.shtml>.

The Quadrantid meteor shower will peak early in the month on January 3rd. Usually meteor showers are named for the constellation from which they appear to be radiating. This shower is situated in the constellation Boötes, but it is named for a constellation that is no longer recognized by astronomers, Quadrans Muralis. This shower is generally a good shower but is difficult to observe, partly due to weather, but also due to the fact that Boötes is situated very low in the sky at this time of year. Most people in the northern hemisphere will not be able to see them. Having said that, if the skies are clear, the moon conditions will be ideal for an evening of meteor spotting - so bundle up, look to the northeast after 11 pm and enjoy the show.

The winter constellations are shining brightly in Victoria skies. Look to the west to find the "great square" of Pegasus sitting above the horizon. Pegasus looks like a diamond at this time of that year. To the Northeast you will find the big dipper standing on its handle. To the East, look for two bright stars perpendicular to the horizon. These are Castor and Pollux, the heads of the Gemini, the twins. Above the twins you will find a very bright star twinkling in our skies. This star is called Capella and is part of the constellation Auriga, the charioteer. This star is quite bright and often mistaken for a planet or aircraft. It twinkles and changes colours as its starlight bounces off particles in our atmosphere.

Orion the hunter, the gem of the winter sky, can be seen just above the Southeastern horizon. Orion's belt, three stars in a row at the centre of the "hourglass", makes Orion one of the most well-known constellations in the night sky. Follow the belt down toward the horizon and you will see a very bright star. This is Sirius, part of the constellation Canis Major. Sirius is seriously the brightest star in our nighttime sky.

Four planets are visible in the month of January. Look below and to the left of Gemini to spot Saturn in the night sky. It will appear as a yellow coloured star just below Castor and Pollux and is sitting graciously in the constellation Cancer, the crab. Want to see the king of the gas giants? Turn to the east before sunrise to find Jupiter in the constellation Libra. Jupiter will shine brightly in the sky. Look at it with a pair of binoculars

and you will be sure to see the four largest moons of Jupiter. They will look like little stars very close to Jupiter in your field of view.

In early January, Venus will be low in the southwestern sky after sunset. Venus is, by far, the brightest planet seen in our skies. Look for it to disappear for a few days in mid-January as it orbits across the face of the sun. After this time it will become the "morning star" and will be seen shining brightly in the east before sunrise. Mars will still be glowing high in the southern skies throughout the evenings in January.

The January full moon is called the Full Wolf Moon by the Algonquin people. This is the time of year when in the cold of the night the wolf packs would howl. For the Saanich people, the January full moon is called Ninene - Moon of the Child. This moon signifies the "birth" of a new year in the Saanich cycle of moons. From mid-December on the days start getting longer and the year is reborn. At this time, since it is still cold, indoor teaching occurred and ceremonial dances continued. Families would start making nettle nets for reef-net fishing; some would brave the seas and fish for halibut. Mostly the people relied on the food gathered in the fall for their nourishment. This is also the time when fawns are born so the January moon signaled a time to stop deer hunting.

Clear skies, happy stargazing and Happy New Year!

Margaret & Stasia

address change? information incorrect

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