

skynews



this month

Russ Robb

A Search for Transiting Extrasolar Planets

May 9th, 7:30 PM, Elliott Lecture Theatre, Rm 060, UVic

Many extra-solar planets have been found by the variations they cause in the radial velocity of some stars similar to the sun. A few have orbits inclined such that the planet will transit the face of the star causing a diminution in the brightness of the star. We have observed this eclipse in two of the known systems and are now mounting a campaign to discover unknown extra-solar planets.



Bio: I have been extremely fortunate to spend the last 25 years at the University of Victoria talking about astronomy, teaching astronomy, observing and writing articles about variable "stars". I spent the previous 10 years at the University of Calgary and I was raised in a small town where the sky was dark and we could see the stars. <http://astrowww.phys.uvic.ca/~robb/>

job jar

Victoria Centre Council has established a **Job Jar**, where we will have clearly-defined volunteer jobs that need to be done for Victoria Centre. If you are a member and wish to volunteer for one of these jobs, please contact the Council member indicated below.

RASCALS Star Party Coordinator Coordination of the 2007 RASCALS Star Party being held Aug 24-26. Time commitment; 3-5 hrs/month and 3 days during event.

Contact Sid Sidhu or Joe Carr for more details.

Monthly Meeting Coffee Maker Set-up the Centre's coffee maker in the 4th floor lounge (UVic Physics and Astronomy) and make coffee. Time commitment: 1 hour/month.

For more information contact Sid Sidhu.

on the cover

Bill Weir

Upper tangent arc & Sun halo - April 29, 2007

The Sun halo was spectacular. I took the opportunity of using my scope to apply a little art to the situation.

coming up

Cowichan Valley Starfinders 12th Annual Star Party
July 20th & 21st, Victoria Fish and Game Protection Association,
Holker Road (opposite Whittaker Road turnoff to Spectacle Lake)

For more information see: <http://starfinders.ca/starparty2007.htm>

6th Annual RASCals Star Party
August 24 - 26, Victoria Fish and Game Protection Association,
Holker Road (opposite Whittaker Road turnoff to Spectacle Lake)
For more information see: <http://victoria.rasc.ca/events/StarParty/Default.htm>

address change? information incorrect

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President's Report

President's Message **May, 2007**



Although the weather didn't cooperate, Astronomy Day was still a great success here in Victoria! The inside exhibits at the Royal BC Museum during the day included: Ask an Astronomer booth, telescope making, Astro kids activities, tour the solar system, astrophotography. A special feature this year was the live music inspired by the stars with June Bugg and the Ugly Brothers. Later at the Centre of the Universe, a special presentation was given: Phoenix - an international mission to Mars - by Dr. Victoria Hipkin, as well as Telescope tours and Planetarium shows.

Many thanks go to our members who volunteered for this year's event, as well as our partners: Royal British Columbia Museum, Capital Regional District Parks, Dominion Astrophysical Observatory, University of Victoria, and Pearson College of the Pacific.

I wish I could report progress on the building of our new observatory shed at the old 16" site atop Observatory Hill, but nothing has happened on this front to date. Victoria Centre has done everything we can to help the NRC with this building project, however they have made virtually no progress. On a more positive note, we are still investigating the acquisition of our new 16" robotic telescope, and at present we are favoring buying a good robotic-capable equatorial mount with this year's funds. The funds we received from the BC Gaming Commission were not adequate to purchase a whole robotic telescope system, but we feel if we have a good mount, it will serve us well into the future. The two Vice Presidents and myself are handling this acquisition, so if you have any feedback or opinions you wish to share, we would be happy to hear from you.

Our regular meeting will be held May 9th, 7:30 pm at UVic. Russ Robb from UVic will be talking about his favorite subject: extrasolar planets. Considering the recent news coverage on some exciting new discoveries, it will be interesting to find out first hand how the science around these objects is done. Consult the Meeting Schedule for more information about this talk.

Astronomy Day

Huge thanks to all the RASCals that helped to make this year's Astronomy Day such a great success.

Bill Almond, Fred Balchunas, Charles Banville, Sandy Barta, David Bennett, Jennifer Bigelow, Mary-Clare Carder, Joe Carr, Brian Chapel, Jim Cliffe, Steven Courtin, Elizabeth Davidson, Chris Gainor, George Gibson, David Griffiths, Greg Higgs, David Lee, John McDonald,



Ed Maxfield, Blaire Pellatt, Bruno Quenneville, Jim Rawling, Brian Robilliard, Mike Romaine, Alexander Schmid, Sid Sidhu, James Stilburn, Brenda Stuart, Constantine Thomas, Guy Walton, Roy Watson, Michael Wheatley, Raymond White, and Colin Wyatt.



We also had wonderful help from all of our partners:

Physics and Astronomy Department, University of Victoria

Colin Scarfe, Russell Robb, Brian York and Tony Burke.

Pearson College of the Pacific

Mark When and his students: Teo Firpo, Yuzan Aldehagat, Sebastian Arroyo, Heather Yang,



Alex de Forge, Eanna O Siadhail, and Mona Aditya.



Capital Regional District Parks

Lori Bartley, Scott Mair, and Reed Osler.

National Research Council, Herzberg Institute of Astrophysics

Jacques Vallee, James Di Franchesco, Eric Peng, Thomas Puzia, Chris Bidfell and the Staff at the Centre of the Universe.



Royal BC Museum

And special thanks to the staff at the Royal BC Museum for helping us host the event again this year especially Gordon Green and Leslie Johnson.

International Year of Astronomy

The International Year of Astronomy 2009 (IYA2009) will be a global celebration of astronomy and its contributions to society and culture, stimulating worldwide interest not only in astronomy, but in science in general, with a particular slant towards young people. To learn more see: <http://www.astronomy2009.org/>. or join us for our regular monthly meeting, **May 9th, 7:30 PM, Elliott Lecture Theatre, Rm 060, UVic** - Jim Hesser will be making a short presentation on IYA 2009.

centre of the universe

Well hello again! I'm sure many of you have noticed that the skies are starting to clear up and the weather is getting warmer. We have tons of things going on at the Observatory this month and we hope that you will make your way up to participate in them.

The Plaskett Telescope Turns 89

Happy Birthday to us! May 6th is the 89th birthday of the Plaskett Telescope at the Dominion Astrophysical Observatory! Since 1918, the 1.8-metre research telescope has been in use every clear night of the year by astronomers. Once the largest telescope in the world, the telescope was put together using some real "horse power" – horses and people were used to put together the structure which is still standing today. Every Saturday night since "first light" through the Plaskett telescope in 1918 has been dedicated to the public and this year is no exception!

The Star Parties are back!

The wait is finally over. We will then be open every Saturday evening from 3 PM until 11 PM leading up to the May long weekend. Starting May 26, we will be open every evening from Tuesday until Saturday during the summer months. Our evening programs will be packed with tours, planetariums, talks and shows, special guest lecturers, and of course some observing (weather permitting).

Star Party Themes for May include:

Saturn Saturday, May 5th

With Saturn high in the sky join us discovering some of the latest scientific breakthroughs from the Cassini-Huygens probe. These range from the discovery of liquid water to an exploration of the moon titan. Stay with us after the talk for a glimpse of the famous rings on one of our deck telescopes.

Our Place in the Cosmos Saturday, May 12th

As our society and culture have evolved so has our understanding of the universe we inhabit. Join us on this look back from Aristotle to Kepler to Einstein, to a glimpse forward at the changing perspectives and the latest theories pertaining to the unfolding of the cosmos. We've learned a lot but our Journey has only just begun.

Tour of the Solar System Saturday, May 19th, Tuesday, May 22nd to Saturday, May 26th

Take a journey through our planetary neighbours as we salute the solar system! Learn interesting facts about all the planets and where to find them in the night sky!

Radio Astronomy with the Centre of the Universe?

For those of you who thought that the observatory in Victoria didn't do radio astronomy, try tuning into CFX 1070 in Victoria and you might just hear one of our staff providing all kinds of astronomy advice and even answering some questions on the air approximately once a month. The next broadcast will be on Thursday, May 17th so be sure not to miss it.

The Sky This Month

May 2nd	Full "Flower" moon (3:10 am PDT)
May 6th	Eta Aquarids Meteor Shower peaks
May 6th	Plaskett Telescope's 87th Birthday
May 9th	Last Quarter Moon (9:28 pm PDT)
May 16th	New Moon (12:28 pm PDT)
May 23rd	First Quarter Moon (2:04 pm PDT)
May 31st	Full Moon (6:05 pm PDT)

May skies feature another meteor shower, the Eta Aquarids. For the Eta Aquarids, we are passing through debris left behind by Halley's Comet, one of the most famous comets discovered! The light from the moon will interfere with meteor observing this year so the forecast for the peak night is only around 20 meteors per hour as only the brightest meteors will be visible. If you find yourself awake 1 to 2 hours before dawn on May 6th take a look to the southeast to see if you can spot any.

PLANETS Mercury is very low in the west just after the sun dips below the horizon. Venus, the brightest planet in the sky is not too far behind and is very prominent in the western sky. Saturn remains well-placed in the west in the evening sky. Jupiter will creep over the horizon a little later in the evening and will stay fairly low to the horizon.

What is a full flower moon? Many First Nations People kept track of the seasons by giving names to each recurring full moon. The names are applied to the entire month in which each occurred. May's full moon is called the flower moon by the Algonquin people because flowers were abundant in most regions by this time of year. The Saanich people call May's moon Penawen - The Moon of the Camas Harvest. At this time of year, the Wsanec or Saanich people traditionally harvested blue Camas (a native flowering plant) for their bulbs. The bulbs were cooked for up to two days to improve taste and food value. Baked camas can be eaten right away but for long-term storage the cooked bulbs were sun-dried, mashed, shaped into a flat loaf, and baked again. Only Blue Camas can be harvested and eaten; white Camas or death Camas is poisonous).

Clouds from Top to Bottom

By Patrick L. Barry

During the summer and fall of 2006, U.S. Coast Guard planes flew over the North Pacific in search of illegal, unlicensed, and unregulated fishing boats. It was a tricky operation—in part because low clouds often block the pilots' view of anything floating on the ocean surface below.

To assist in these efforts, they got a little help from the stars. Actually, it was a satellite—CloudSat, an experimental NASA mission to study Earth's clouds in an entirely new way. While ordinary weather satellites see only the tops of clouds, CloudSat's radar penetrates clouds from top to bottom, measuring their vertical structure and extent. By tapping into CloudSat data processed at the Naval Research Laboratory (NRL) in Monterey, CA, Coast Guard pilots were better able to contend with low-lying clouds that might have otherwise hindered their search for illegal fishing activity.

In the past, Coast Guard pilots would fly out over the ocean not knowing what visibility to expect. Now they can find out quickly. Data from research satellites usually takes days to weeks to process into a usable form, but NASA makes CloudSat's data publicly available on its QuickLook website and to users such as NRL in only a matter of hours—making the data useful for practical applications.

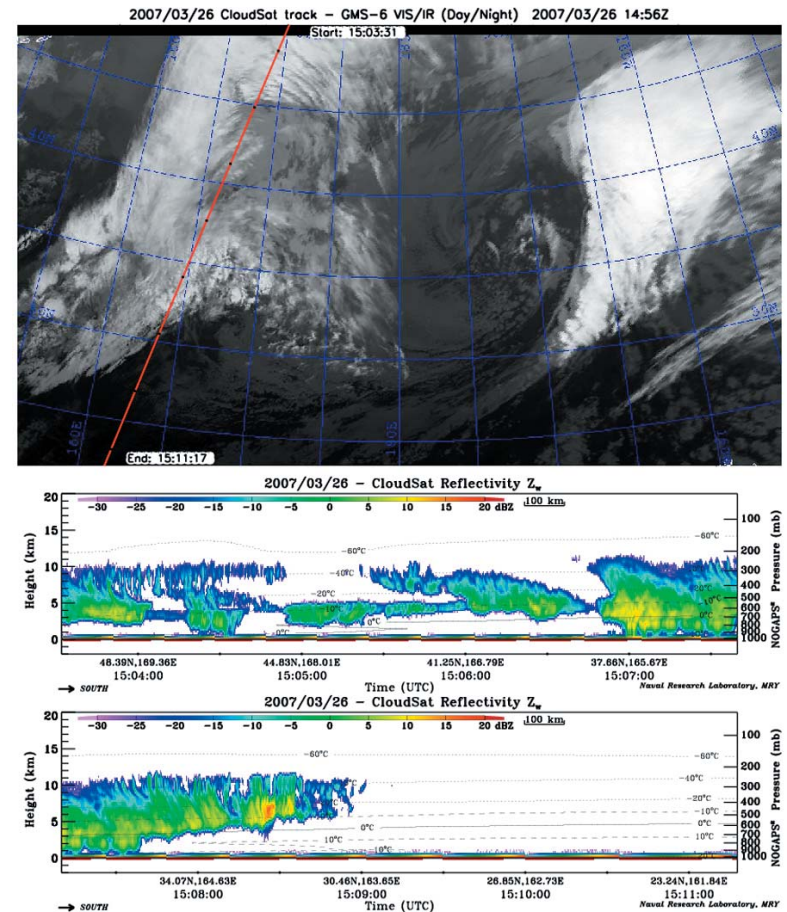
"Before CloudSat, there was no way to measure cloud base from space worldwide," says Deborah Vane, project manager for CloudSat at NASA's Jet Propulsion Laboratory.

CloudSat's primary purpose is to better understand the critical role that clouds play in Earth's climate. But knowledge about the structure of clouds is useful not only for scientific research, but also to users such as Coast Guard patrol aircraft and Navy and commercial ships at sea.

"Especially when it's dark, there's limited information about storms at sea," says Vane. "With CloudSat, we can sort out towering thunderclouds from blankets of calmer clouds. And we have the ability to distinguish between light rain and rain that is falling from severe storms." CloudSat's radar is much more sensitive to cloud structure than are radar systems operating at airports, and from its vantage point in space, Cloudsat builds up a view of almost the entire planet, not just one local area. "That

gives you weather information that you don't have in any other way."

There is an archive of all data collected since the start of the mission in May 2006 on the CloudSat QuickLook website at cloudsat.atmos.colostate.edu. And to introduce kids to the fun of observing the clouds, go to spaceplace.nasa.gov/en/kids/cloudsat_puz.shtml.



A CloudSat ground track appears as a red line overlaid upon a GMS-6 (a Japanese weather satellite) infrared image. CloudSat is crossing the north-central Pacific Ocean on a descending orbit (from upper-right to lower-left) near a storm front. The radar data corresponding to this ground track (beginning in the center panel and continuing into the lower panel) shows a vertical cloud profile far more complex than the two-dimensional GMS-6 imagery would suggest. Thicker clouds and larger droplets are shown in yellow/red tones, while thinner clouds are shown in blue.

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observers group

RASC Victoria Centre and the NRC have signed a License to Use Land Agreement which gives members of Victoria Centre expanded access to NRC property on Observatory Hill.

If you are a member in good standing of Victoria Centre RASC, consider yourself an "active observer", and wish to take advantage of this opportunity, please send an email to the 1st or 2nd Vice President. More information on this program see: <http://victoria.rasc.ca>

RASC victoria council

this month

monday nights

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Astronomy Cafe

Fairfield Community Centre,
1330 Fairfield, Victoria
7:30-11pm
Call John at 250.480.0928 for directions and information. New comers are especially welcome. Come and enjoy!

ASTRONOMY CAFE



second wednesday of the month

Monthly Meeting

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

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.