

# skynews



*this month*

## **David Orenstein** **Pre-Confederation Astronomy in** **Quebec City**

June 11, 2008, 7:30 PM, Elliott Lecture Theatre, Rm 060, UVic

Drawn largely from the period manuscripts and historical books still on site at the Seminaire de Quebec (established 1663), you will see the highlights of astronomy education, publication and observation from before 1867 in Quebec City. Major historical figures such as Jean Talon (the first Intendant of the Crown Colony of Nouvelle-France) and Elzear-Alexandre Taschereau (first Catholic cardinal from Canada) make a direct appearance.

The Seminaire also inherited the teaching mandate and collection (including for astronomy) of the College des Jesuits. The College, founded in 1632, ceased to function in 1759 when it was occupied as barracks by the conquering British forces.

See the actual four volume set of Jérôme de Lalande's 1774 *Traite de L'Astronomie* used by the Seminaire as the basis for astronomy education for over fifty years ([http://en.wikipedia.org/wiki/Jérôme\\_Lalande](http://en.wikipedia.org/wiki/Jérôme_Lalande)). Follow the eclipse observations, some very thorough and scientifically advanced, carried out by the teaching fathers.



*Jérôme de Lalande*

It's all original, genuine and still there!

Bio: David is a high school math teacher who lives and works in downtown Toronto. Despite these light polluted skies he gets great pleasure from naked eye and binocular observation and also sharing the fun with colleagues and students. He first joined the RASC in 1990 and has served for many years on the RASC's national historical committee. His research efforts in the history of astronomy date back five and a half years to his first visit to the archives of the Seminaire de Quebec in Quebec City. From regular follow up visits, and from exploring other Canadian Archives, have come a series of about thirty talks, mostly at local and national RASC meetings and several short publications.

*on the cover***Canada on Mars****by Phoenix Lander**

May 26, 2008

On Monday, May 26, 2008, the Phoenix Mars Lander beamed back this image taken by the Surface Stereo Imager, showing the Canada wordmark displayed prominently on the side of the lidar instrument, a component of the Canadian-built Meteorology Station that will probe Mars's weather and climate. Phoenix's landing ellipse is centered at approximately 68 degree N latitude, 233 degrees E longitude. This same location on the Earth is in the Northwest Territories of northern Canada, very close to the Arctic Ocean.

*Upcoming Events*

**Monthly Victoria Centre Meeting** - June 11, 7:30 pm, Elliott Lecture Theatre, Rm 060, UVic. David Orenstein, Pre-Confederation Astronomy in Quebec City.

**Celebrating Solstice** - June 21, 11am - 2 pm, Beaver Beach - co-sponsored by CRD Parks and Victoria Centre.

**Island Star Party** - July 4-5, Hosted by our friends Cowichan Valley Star Finders; location is the Victoria Fish and Game Association, Malahat, BC.

**RASCals Star Party** - August 29-31. Hosted by Victoria Centre; location is the Victoria Fish and Game Association, Malahat, BC,

**Monthly Victoria Centre Meeting** - September 10, 7:30 pm, Elliott Lecture Theatre, Rm 060, UVic. Member's Night.

*President's Report***President's Message**  
**June, 2008**

Despite our cool weather, I know summer is approaching. We attended our last Astronomy Café at the end of May, and the Centre of the Universe is now open for their summer season. Our volunteers kicked off this milestone by setting up their telescopes in the parking lot beside the Plaskett telescope, as so many before us have done over the decades. I think Scott Mair put it best in his President's Message for April 2005 when he wrote:



*The creaking of the shutter doors of the Plaskett dome remind me of the squeals all the pajama clad kids that scrambled up rickety ladders to peer through the eyepiece of what was once the largest telescope in the world. Saturday public telescope viewing has been part of the DAO since the telescope was completed in 1918.*

*How many chances to you have to be part of history? Each Saturday I set-up my telescope I continue a tradition that began 87 years ago.*

The 90th birthday of the Plaskett telescope was celebrated a few weeks ago at the Canadian Astronomical Society (CASCA) tour of the facilities on Observatory Hill. Cake was served, speeches were made, and many of our RASC volunteers attended. As I sat inside the dome, I was thinking about all the important science that has happened in this place since that time 90 years ago when the Plaskett saw first light. Again, quoting Scott's April 2005 message:

*In the silent spinning of the great white dome I'm reminded of all the astronomers that reached back into space and time to unravel the story of the Universe from this site. JS Plaskett and Pearce confirmed the rotation and size of our galaxy; McKellar discovered molecules (including organic ones) in interstellar space; Beals showed that interstellar matter is clumpy not spread evenly through space; and in the search for potentially hazardous near-earth asteroids the Plaskett Telescope has*

*played a vital role.*

Here in Victoria, we are blessed to be in the midst of this rich Canadian astronomical history. However we don't rest on our laurels. We continue to contribute to this heritage, and nurture it as we move forward into the future of astronomy. These aren't just empty words; I see the fire of enthusiasm in our members whenever I attend an event in which Victoria Centre is involved. I also see it in the excitement that the professional astronomers have for their work when we hear from them at our meetings and events. Finally, astronomy is a subject that never fails to fascinate the public. As was said at the CASCA meetings I attended recently, the whole world's population can't seem to get enough of astronomy and cosmology - a rare circumstance not shared by most other sciences, as I learned. RASC's stated mission is to bring astronomy to the public. I think we do pretty well at fulfilling that goal.

**Astronomy Day 2008** was a great success, with about 500 adults (and countless children) attending this year's event. As always, our volunteers did a terrific job of reaching out to the public. Staging the event for the whole day at the Centre of the Universe worked well. As expected, we saw more local people attend this year, which is good news for Victoria Centre, and it certainly can't help but encourage people to come back to the Centre of the Universe throughout the rest of the year. Please take some time to browse the photos on our website to see our volunteers and the CU staff in action. Thanks go to Scott Mair, who organized this year's event. Thanks also go to our corporate partners. Without their support, this year's event would have been a much more modest affair. For more information and pictures see <http://victoria.rasc.ca/events/AstroDay/2008/Default.htm>

In addition to the TV interview I gave for Astronomy Day, another TV station interviewed me a few days later about Virtual Observing using WorldWide Telescope. This new service by Microsoft promises to combine what their competitor Google Sky offers, and add in online collaboration tools to allow anyone with a web connection to show others what excites them about the cosmos. RASC has plans to take advantage of this new technology. I think we will be hearing much more about this and other competing services that take astronomy to the public in new ways.

**Observatory Project** <http://victoria.rasc.ca/observatory/Default.htm>:

*continued on page 11*

## **Ozone, the Greenhouse Gas**

We all know that ozone in the stratosphere blocks harmful ultraviolet sunlight, and perhaps some people know that ozone at the Earth's surface is itself harmful, damaging people's lungs and contributing to smog.

But did you know that ozone also acts as a potent greenhouse gas? At middle altitudes between the ground and the stratosphere, ozone captures heat much as carbon dioxide does.

In fact, pound for pound, ozone is about 3000 times stronger as a greenhouse gas than CO<sub>2</sub>. So even though there's much less ozone at middle altitudes than CO<sub>2</sub>, it still packs a considerable punch. Ozone traps up to one-third as much heat as the better known culprit in climate change.

Scientists now have an unprecedented view of this mid-altitude ozone thanks to an instrument aboard NASA's Aura satellite called the Tropospheric Emission Spectrometer—"TES" for short.

Most satellites can measure only the total amount of ozone in a vertical column of air. They can't distinguish between helpful ozone in the stratosphere, harmful ozone at the ground, and heat-trapping ozone in between. By looking sideways toward Earth's horizon, a few satellites have managed to probe the vertical distribution of ozone, but only to the bottom of the stratosphere.

Unlike the others, TES can measure the distribution of ozone all the way down to the heat-trapping middle altitudes. "We see vertical information in ozone that nobody else has measured before from space," says Annmarie Eldering, Deputy Principal Investigator for TES.

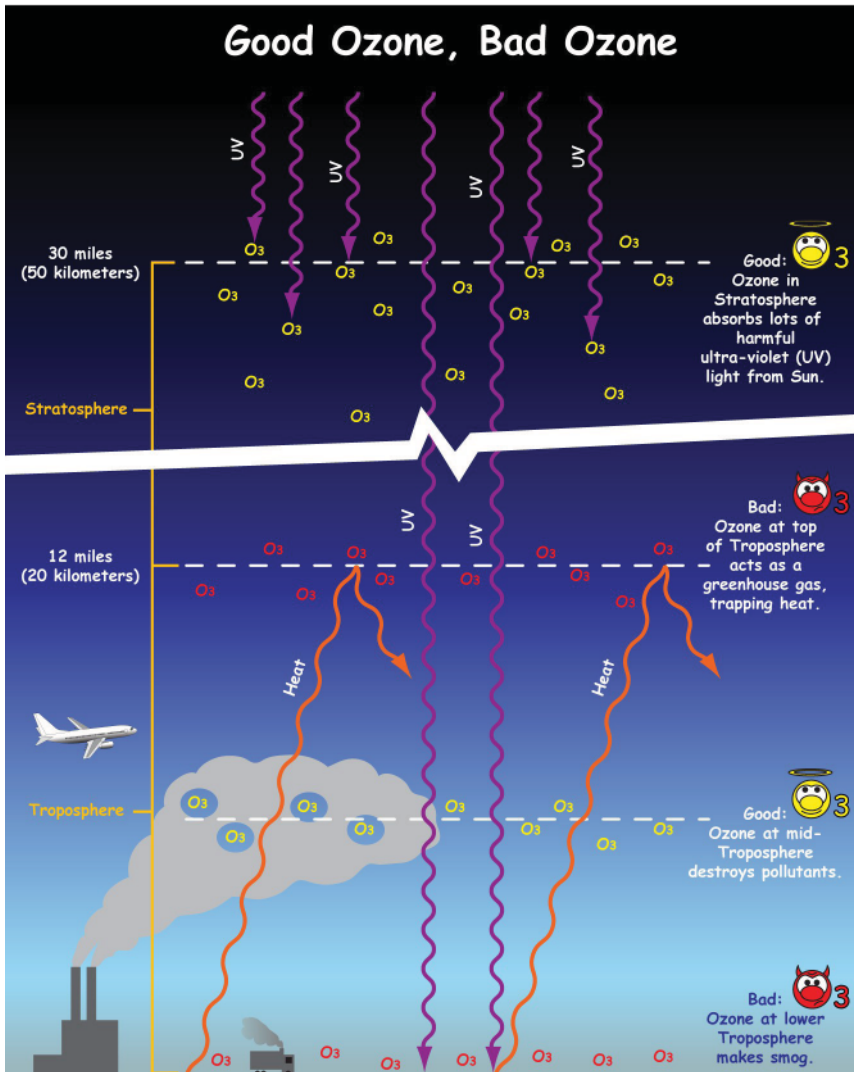
The global perspective offered by an orbiting satellite is especially important for ozone. Ozone is highly reactive. It is constantly being created and destroyed by photochemical reactions in the atmosphere and by lightning. So its concentration varies from region to region, from season to season, and as the wind blows.

Data from TES show that ozone's heat-trapping effect is greatest in the spring, when intensifying sunlight and warming temperatures fuel the reactions that generate ozone. Most of ozone's contribution to the greenhouse effect occurs within 45 degrees latitude from the equator.

Increasing industrialization, particularly in the developing world, could lead to an increase in mid-altitude ozone, Eldering says. Cars and coal-fired power plants release air pollutants that later react to produce more ozone.

"There's concern that overall background levels are slowly increasing over time," Eldering says. TES will continue to monitor these trends, she says, keeping a careful eye on ozone, the greenhouse gas.

Learn more about TES and the science of ozone at [tes.jpl.nasa.gov/](http://tes.jpl.nasa.gov/).



[www.islandeyepiece.com](http://www.islandeyepiece.com)  
Ph: 743-6633

# Island Telescope Science Emporium

107-2690 Mill Bay Rd (near Thrifty's)

**New Location Opening May 2008**

Telescopes, Spotting Scopes, Binoculars  
Science Kits, Globes & Posters, Dinosaurs  
Sea Creatures, Educational & Kinetic Toys  
Microscopes & Magnifiers, Rocks & Minerals

*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>

*address change? information incorrect*

**Contact the National Office**

**Telephone** - 416.924.7973 or toll-free in Canada 888.924.RASC  
**Fax** - 416.924.2911  
**Email** - [nationaloffice@rasc.ca](mailto:nationaloffice@rasc.ca)  
**Post** - RASC, 136 Dupont Street, Toronto, ON M5R 1V2  
**General enquiries** - [nationaloffice@rasc.ca](mailto:nationaloffice@rasc.ca)



# Astronomy Day 2008

Many thanks to all the volunteers that helped make Astronomy Day such a big success this year:

### From the Victoria Centre, RASC:

Bill Almond, David Bennet, Jennifer Bigelow, Sherry Buttnor, Joe Carr, Mary-Clare Carter, Stephen Courtin, Don Dundee, Elizabeth Davidson, George Gibson, David Griffiths, David Lee, Scott Mair, John McDonald, Pamela Norton, Dorothy Paul, Jim Rawling, Mike Romaine, Alexander Schmid, Sid Sidhu, Malcolm Scrimger, Li-ann Skibo, Constantine Thomas, Guy Walton, Roy Watson, Raymond White and Colin Wyatt.



From CRD Parks: Reed Osler and Robyn Sealy.



From UVic: Colin Scarfe, Sarah Sadovoy, Glass Lisa, Melissa Graham.

From HIA: James Di Franchesco, Thomas Puzia, Chien Peng, Chris Onen, Jim Hesser, Jacques Vallée Eric Chisholm and his staff at the Centre of the Universe.

From Pearson College: Mark Wheen, Kobita Malek, Vivien Sin, Haby Ly, Dia'a Bishart, and Mohamad Amine.



Hope I got everybody. My sincere apology if I missed you.

*continued from page 5*

Speaking of taking astronomy to the public, our Observatory Project is moving along well. We purchased a Meade 14" SCT optical tube from a fellow RASC member in Ontario for a bargain price, and it is now installed in our Victoria Centre Observatory. As I write this, the Technical Committee is working hard to finish the important tasks to make the facility ready for our members as quickly as possible. I expect to see our new observatory operational for visual use before I write next month's President's Message, so stay tuned for news about our grand opening!

**Outreach:** Victoria Centre participated in Beaveree 2008, which is a fun event held each year locally at Camp Barnard for Beavers (6-8 year olds). We had telescopes setup, along with the solar system model (complete with an asteroid belt), and Steven Courtin brought his ecliptic calendar and ecliptic VW bus. Kids this age are super enthusiastic about almost everything, and when they get together in a crowd of several hundred, the combined energy could probably power a small city if only we could harness it! Our volunteers enjoyed themselves in the nice sunny weather, and the kids got to put their eyeballs to eyepieces to see a spotless Sun and a daytime Moon. More pictures at <http://rascvic.zenfolio.com/p869344166/>



*contact us on-line*

**Web Site** [www.victoria.rasc.ca](http://www.victoria.rasc.ca)  
**New Members** [newmembers@victoria.rasc.ca](mailto:newmembers@victoria.rasc.ca)  
**General Inquiries** [info@victoria.rasc.ca](mailto:info@victoria.rasc.ca)

*RASC victoria council*

*this month*

*monday nights*

**President/Website Editor/Email Lists**

Joe Carr  
[president@victoria.rasc.ca](mailto:president@victoria.rasc.ca)

**First Vice President/ Telescopes / Schools**

Sid Sidhu  
[vp@victoria.rasc.ca](mailto:vp@victoria.rasc.ca)

**Second Vice President**

John McDonald  
[vp2@victoria.rasc.ca](mailto:vp2@victoria.rasc.ca)

**Treasurer**

Bill Almond  
[treasurer@victoria.rasc.ca](mailto:treasurer@victoria.rasc.ca)

**Secretary and Recorder**

Li-Ann Skibo  
[secretary@victoria.rasc.ca](mailto:secretary@victoria.rasc.ca)

**Librarian**

Charles Banville  
[librarian@victoria.rasc.ca](mailto:librarian@victoria.rasc.ca)

**Skynews Editor/ Past President**

Scott Mair  
[scottmair@gmail.com](mailto:scottmair@gmail.com)

**National Representative**

Chris Gainor  
[nationalrep@victoria.rasc.ca](mailto:nationalrep@victoria.rasc.ca)

**Members at Large**

Bill Almond, Sandy Barta, Dave Bennett, Jim Hesser, David Lee, Ed Maxfield, Colin Scarfe, Malcolm Scrimger, Dirk Yzenbrand

**New Member Liaison**

Bruno Quenville  
[newmembers@victoria.rasc.ca](mailto:newmembers@victoria.rasc.ca)

**Astronomy Cafe**

Fairfield Community Centre,  
 1330 Fairfield, Victoria

**Closed for the summer**

**ASTRONOMY  
 CAFÉ**



*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.