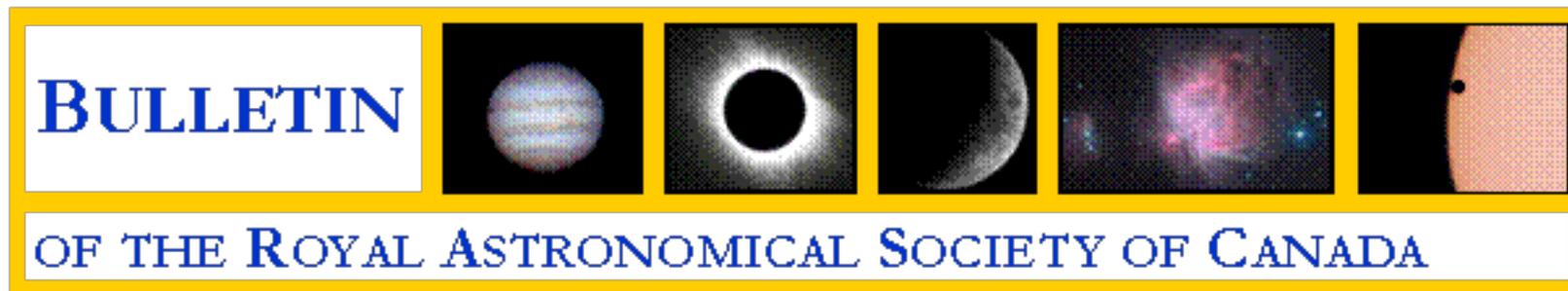


2009-01



January 2009 - Volume 4, Number 1

Ian Levstein, Editor

We welcome your comments on the *Bulletin*. Email them to the Editor at bulletin@rasc.ca [1].

Member: ~FULL_NAME~, RASC ID: ~ID~

► [News @ RASC.ca](#)

Search-beams or Streetlights?

by **Alister Ling** This is the best time of year to see light pillars. Most commonly seen just before sunrise or just after sunset, pillars aptly describe the vertical shaft of light that is seen shooting skyward above the position of the Sun.



A classic solar light pillar: ice crystals reflecting the Sun.

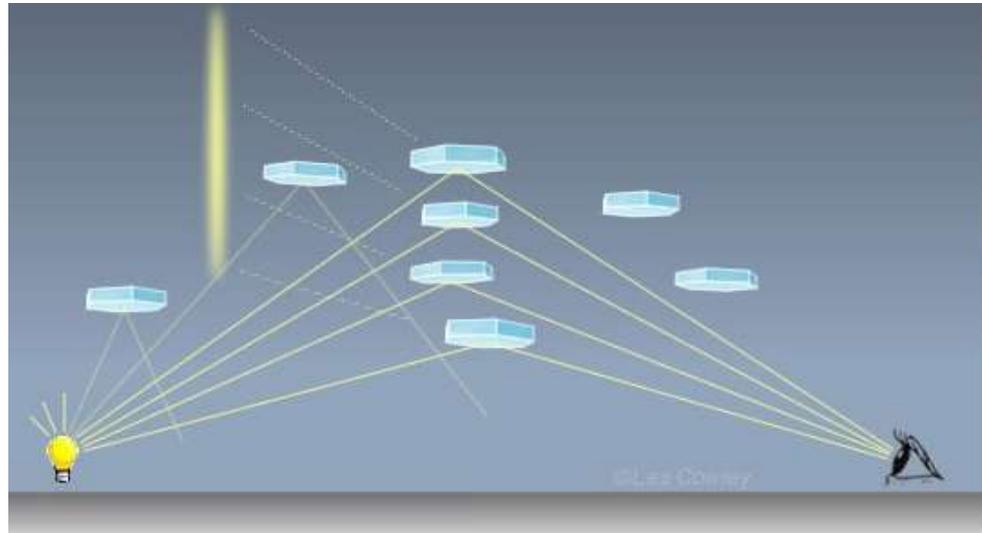
They occur just as much when the Sun is above the horizon, but it takes a little more effort on the observer's part: you must block out the Sun and wear sunglasses to reduce the brightness and stall tear buildup in the eyes. You can even have pillars that stretch out below the Sun's position.

Lunar pillars are a little more unusual simply because you need a Moon within a few days of full to provide the necessary light source, and you have to try harder to find one among the artificial lights. Streetlights and security lights unfortunately provide a ubiquitous source for light pillars. As you can see

from the geometry, there would be no upward

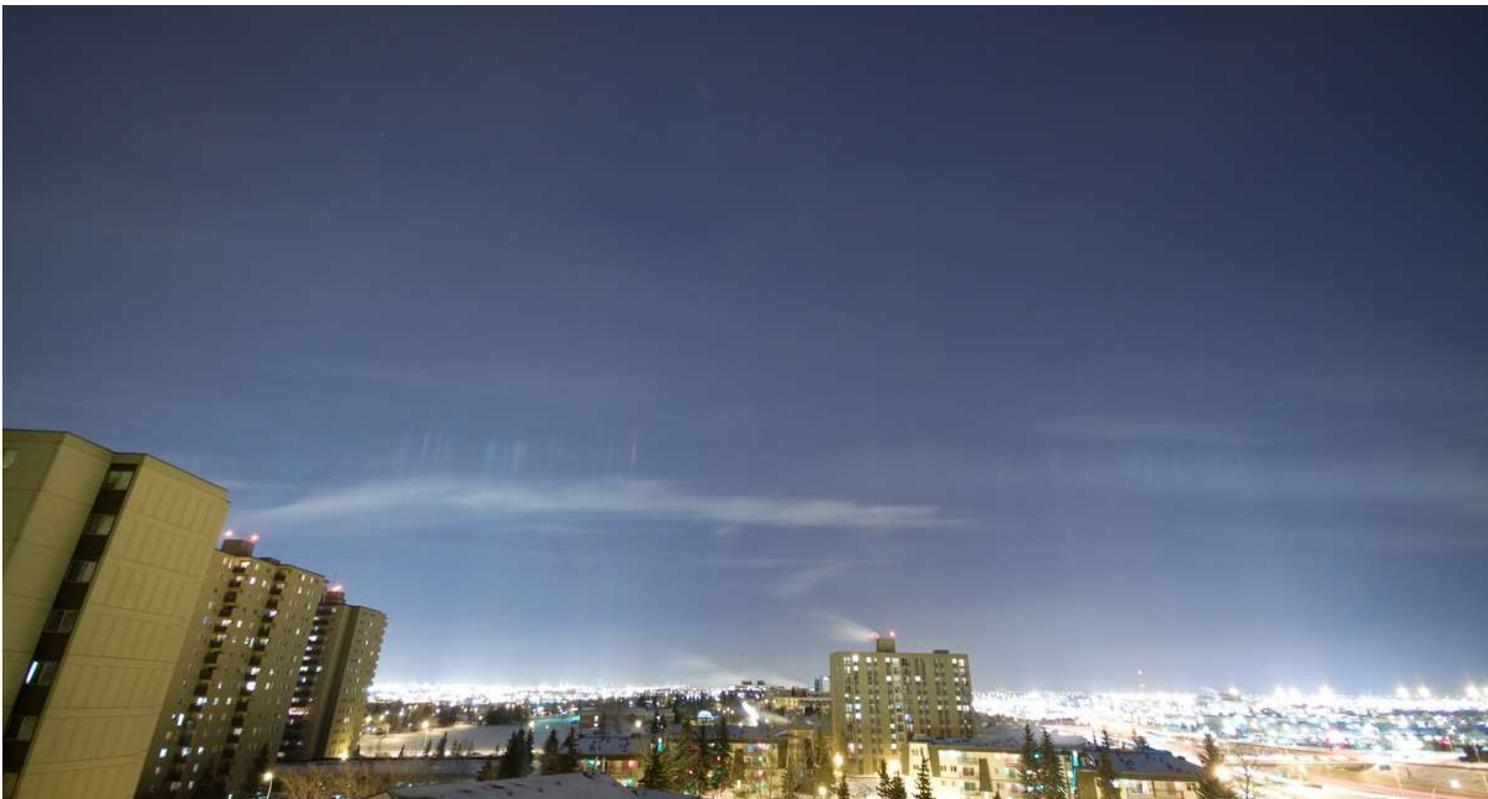
pillars if the lights were full cut-off!

Aside on ice crystals: many forms are almost two-dimensional, like a plate, or a playing card. When they fall in the sky they tend to fall bases flat or tumble end over end, which is why the pillar only lights up the crystals above and below, and never to the side – very few crystals fall with flat faces at an angle of more than a couple of degrees. I remember one superb cold night in Montreal when ice crystals filled the lower atmosphere. Several people phoned in to the police and radio stations to warn them that the aliens had landed and were pointing their search-beams upward!



Reflection geometry for streetlight pillars.

For more information, see [here](#) [2]. Reproduced by permission.



Jesse Houston captured a row of pillars from streetlights on a crisp Edmonton night.

When the aurora does not move after a few seconds, suspect a pillar!

by **Heide DeBond**, Toronto Centre In fall 2007, the University of Toronto decided to sell the David Dunlap Observatory and the surrounding property. It was sold in July 2008. Your help is needed to help save and protect the observatory buildings and surrounding parkland. In particular, letters of support that can be presented in person are needed at a Conservation Review Board hearing to be held on January 15. It will be argued by several groups presenting at this hearing that "historical, cultural and/or natural designations" be attached to the buildings and the associated land. For more information, read the full eNews article [here](#) [3]

Toronto Centre President Resigns

by **Charles Darrow**, Secretary, Toronto Centre It is with regret that we announce the resignation, for personal reasons, of **Denis Grey** as President of the RASC Toronto Centre, effective 2008 December 12. His hard work and unswerving determination has greatly benefitted the Centre since rising to the position in November 2006. With warmest personal regards, we wish Denis every success in his future endeavours and thank him again for his contributions to the Centre. Toronto Centre Council convened an emergency meeting on 2008 December 17 and accepted Denis' resignation. In accordance with Toronto Centre by-laws, the following adjustments were made to Council:

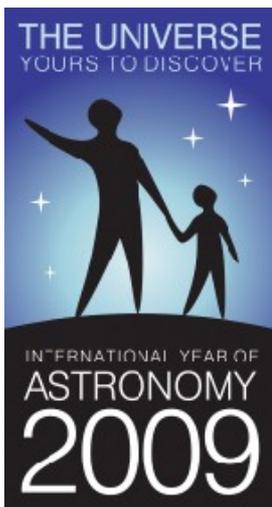
- **B. Ralph Chou** - promoted from First Vice-President to President
- **Tony Horvatin** - appointed First Vice-President
- **Guy Nason** - appointed First Past President

The position of Second Past President is currently vacant.

► International Year of Astronomy 2009

International Year of Astronomy Begins!

by **Kim Hay** and **Dave Lane**



It's hard to believe that the International Year of Astronomy 2009 is upon us. The national IYA team and many Centres have been planning activities and events for over a year and most of us are now ready to promote Astronomy and provide Galileo Moments to all. Though the worldwide IYA kickoff is not until January 15-16 in Paris, France (your president will be in attendance), Canada has many local events planned to promote the IYA Canadian kickoff prior to this. On January 8, the Canada Museum of Science and Technology in Ottawa will host a press conference launching IYA in Canada. This involves many of our IYA partners: CASCA, FAAQ, the CSA, and members of the aboriginal community. Most local kickoff events occur over the following several days. If anyone wishes to help out with local IYA events, please contact your Centre and lend your support. It will be appreciated. To check for events in your area, go [here](#) [4] and click the link under the Events Menu. All IYA RASC-produced items have been shipped from our

distributor to the local Centre IYA liaisons. Happy New Year to Everyone from the RASC IYA team, and many thanks to the volunteers who got us where we are!

Call For Participation in the IYA Sky Quality Meter Program

by **Dan Taylor**



Measure your skies and help understand how light pollution is affecting your area! Looking for something meaningful to do for the International Year of Astronomy? One worthwhile and appealing project is the RASC's Sky Quality Meter (SQM) program. Enrolled Centres across the RASC can borrow an SQM unit for a period of time, and will be asked to do public outreach and take a multitude of measurements throughout your region. Ultimately, you will join in an effort to expand awareness of light pollution levels in and around communities across Canada. Shortly, look for a Web page that will be dedicated to providing information about the program. Please consider partaking in the program, your help is vital. Eight units are currently available, so act now to secure an SQM. Email [me](#) [5] to submit your Centre's reservation and make queries. Please note: shipping will be conducted via Centre officers.

Amateur Radio Callsign Prefix for IYA2009

by **Malcolm Scrimger**, VE7DAO The use of a Special Event Prefix callsign has been approved by Industry Canada and can be used by all Canadian Amateur Radio Operators starting at 0h UT January 1 and ending 0h UT February 28.

- **VE** changes to **CG**
- **VA** changes to **CF**
- **VO** changes to **CH**
- **VY** changes to **CI**

During the IYA kickoff event on January 10, those with IRLP nodes close to them, are encouraged to connect to the Vancouver Reflector 9005 to talk with other Ham Radio operators involved in IYA events across Canada. General discussions about astronomy will present a new medium to the public, and show how Amateur Astronomers can collaborate and communicate in Canada and throughout the World using a simple handheld radio.

For further details on this project and to download the QSL card, visit [here](#) [6].

Venus and Jupiter from 11,500m



Venus and Jupiter from 11,500m, 2008 December 16
photo by: **Rick Stankiewicz**

by **Rick Stankiewicz**

While *en route* from Saskatoon to Toronto on December 16 (6:47 p.m. EST), I looked out the west side of the WestJet Boeing 737 to see the wingtip sandwiched by Venus (upper left) and Jupiter (right). The endlight on the wing even gives the impression of a first quarter Moon! It was a nice sight on a 5-hour flight. At the time we were at 37,690 ft. (11,500 m) elevation and traveling at 589 mph (948 kph). A solid cloud deck made it impossible to see the ground (over Lake Superior at the time), but the view was incredible with clear skies above, right after the Sun had set! I used a Canon 400D and Sigma 17-70mm lens at 40mm; 1/4 sec; f/4.0 and 800 ISO.

Toronto Astronomy Festival

Just a reminder that the Toronto Astronomy Festival begins on Saturday, January 10. For full program information check [here](#) [7].

► *Bulletin* Photo of the Month

Phillips Photo Selected for S&T

One of **Larry Phillips'** photographs has been selected for publication in *Sky & Telescope's* annual "Beautiful Universe" special. It is part of the chapter entitled "Over the Rainbow... and Beyond."

The same photo has also been published in a Norwegian textbook called *Hvorfor Faller Ikke*



Anti-crepuscular rays overlaying a rainbow. Photo by: **Larry Phillips**

► The Sky this Month

What's New in the Sky

Readers are encouraged to check out the **Northern Skies** ^[8] section of the RASC Web site. Thanks to **Gary Boyle** for keeping us all in the know!

► Dates to Remember

- - **2009 January 8** - Canadian IYA Launch, Canada Science & Technology Museum
 - **2009 January 9-11** - Canadian IYA Kickoff Events, Across Canada ^[4]
 - **2009 January 10** - Astronomy Fair, Toronto
 - **2009 March 29** - National Council Meeting, Toronto
 - **2009 April 2-5** - 100 Hours of Astronomy
 - **2009 June 19-21** - EfstonScience Star Party, DSP in Gordon's Park
 - **2009 July 16-26** - Total Solar Eclipse Tour, China
 - **2009 July 17-21** - Stargazing Manitoulin, DSP in Gordon's Park
 - **2009 August 14-18** - Manitoulin Star Party, DSP in Gordon's Park



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Links:

[1] <mailto:bulletin@rasc.ca>

[2] <http://www.atoptics.co.uk/halo/pillar.htm>

[3] <https://www.rasc.ca/news/help-david-dunlap-observatory-be-given-historical-cultural-andor-natural-designation>

[4] <http://www.astronomy2009.ca>

[5] [mailto:dctaylor@xplornet.com?subject=SQM Program](mailto:dctaylor@xplornet.com?subject=SQM%20Program)

[6] <http://hamiya2009.info/>

[7] <http://rascto.ca/index.php>

[8] <https://www.rasc.ca/news/northern-skies>

[9] <mailto:mempub@rasc.ca>

[10] <http://www.rasc.ca>