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Niagara Whirlpool

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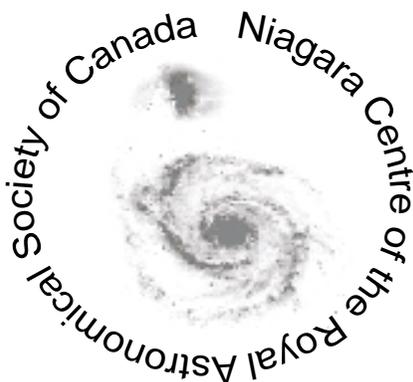


In November and December early risers were treated to close approaches of Mars, the Moon and Venus. Les Marczi took this picture with a Nikon Coolpix at 6:30 a.m., December 1.

Niagara Centre Member Winter Photography



On the morning of December 30th Darlene Marano woke up to a beautiful blue sky with Venus shining high above a crescent moon. Photo taken with a Canon S30 digital camera.



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Niagara Centre Store

RASC 2003 Calenders.....\$13.00

Beginner's Observer's Guide.....\$13.00

RASC 2003 Observer's Handbook.....\$16.00

Planispheres...\$15.00 RASC Lapel Pins...\$6.00

Centre Crest...\$5.00 Bumper sticker...\$3.00

RASC Cloth Crest.....\$13.00

Niagara Centre T-shirts are available.

See Dave Stremlaw for above items.

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Niagara Centre Website: E-mail Discussion List & Member's Only Area

The Niagara Centre has an e-mail discussion list and a member's area on the website. By subscribing to the e-mail list you will be able to post messages and carry on discussions about astronomy and activities with other Niagara Centre members. This is a great way to interact and get to know other members, or enhance your knowledge of astronomy. Please note that a login procedure is required to initially join the Discussion List. Complete instructions are available on the discussion list page on the website.

A member's only area of the website is also available. This area contains Niagara Centre information for the use of its members only. The member's area contains astrophotography by Niagara members, the Niagara library book list, and lots of other Centre related info of interest to members.

To receive the logins and passwords for the e-mail discussion list and member's area, contact John VanderBrugge or Ron Gasbarini and they will send you the needed information by e-mail.

Another holiday season has come and gone, and I hope everyone had a safe and happy one. I, like most of us, ate way too much. We had a great time at Chatters for our annual Christmas party after the December general meeting, Chris Rigas put on quite a feast for us.

Things are going well for our annual Spring Banquet, which will be held on April 12th at the Delphi Room in Niagara Falls. Thanks to Brian Pihack and Chris for their work organizing it. Tickets are on sale now, so please get yours soon.

Phil Downey and I did try the new CCD camera in December. It works, although our pictures won't be appearing in Sky & Telescope anytime soon.

After looking over some photos I took this past year, it's easy to see it was a great year for the Niagara Centre RASC. We had a successful spring banquet, many great public and member starnights, a wonderful crowd at our StarBQ, and the largest Niagara Centre, RASC member turn out for a Starfest with perfect weather.

We have a fabulous club that we should be proud of. With a group like ours 2003 should be even better.

Banquet Speaker for 2003 Spring Banquet

The Niagara Centre is pleased to welcome *Ivan Semeniuk* as our guest speaker for next year's banquet. Ivan has been the astronomy reporter for the Discovery Channel's daily science news program, Daily Planet (formerly @discovery.ca), since 1999. He has also written about astronomy for SkyNews, New Scientist and Sky & Telescope. Ivan was the club's guest speaker in the early 1990s, and is looking forward to visiting again with the Niagara Centre.

The banquet will be held Saturday, April 12, 2003, at the Delphi Hall in Niagara Falls, a brand new banquet hall owned by Centre member Chris Rigas. We look forward to seeing many club members and guests at the banquet. We hope everyone will stay for the dancing after Ivan's talk.

Tickets are \$45 and can be purchased from Joyce Sims at General Meetings, or send your order and cheque to the Niagara Centre P.O. Box.

RASC President Visits in February

Rajiv Gupta, President of the RASC, will be attending the Niagara Centre's February general meeting. He will be giving a talk entitled *Imaging the Heavens*.

Over the past eight years he has been developing methods to produce finely detailed colour images using the wonder film of astrophotography, Kodak's black-and-white Technical Pan.

Rajiv, by day a mathematics professor at the University of British Columbia, is codeveloper of RegiStar software, which automates the alignment of images. He is also editor of the RASC's Observer's Calendar, and the Handbook. His photos have appeared in Sky & Telescope, where he has also written about his imaging techniques.

Rajiv will demonstrate some of these exciting techniques at our meeting with several real-time demonstrations. Please come out to the meeting and also join us afterwards, when we show him our famous Niagara Centre hospitality.

Welcome to 2003 Niagara members. Hope you all had a good holiday season with your friends and families. Unfortunately the holiday time period was clouded out and no observing was possible, even though many of us had the time off work to do some observing for a change. Oh well. Mother Nature once again shows her power over our clear sky dependent hobby. I was hoping to get some use out of my newly completed 15 inch Dob, but it stayed firmly entrenched in the basement for the holidays. A few of us did manage to catch some fleeting glances of Saturn through Glen Pidsadnick's new 9.2 inch telescope one night. We were a desperate bunch that night trying to time the holes in the clouds to our meagre viewing attempts. There's no sorrier sight than a bunch of desperate amateur astronomers.

The Niagara Centre has three new members joining us to start the new year. It's rare we don't have new members each month as the club continues it's growth. I'd like to welcome Bill Gall, Pat Protomanni, and Pawel Starski to our ranks. Enjoy the club and all we have to offer. Feel free to ask questions of any of us, and become involved in the centre's activities to learn and make new friends.

We have our banquet plans finalized for the April 12 Spring Banquet. Ivan Semeniuk will be our speaker this year, and we have a new and better location for the banquet. This year we will be having music and dancing to finish the evening for the first time. Look for complete banquet details in this issue of the Whirlpool and get your tickets soon as there is a limited number.

I mentioned in the last Whirlpool that we will be doing some work on the present observatory come spring time. The steel roofing donated by Fonhill Lumber has now been moved to the observatory site and is ready for installation when the time comes. Hopefully we'll have enough steel to do the roof and some of the walls as well. This should give the observatory a maintenance-free exterior that will last for years to come. After some re-work of the west side roof to prevent further water leakage we will install the steel all around. A volunteer work crew will as usual be needed for this when the date comes. Have a good new year all. Hopefully clearer skies are on their way.

Double Shadow Transits on Jupiter in January

A single moon of Jupiter often casts a shadow on the giant planet. Through January two moons will cast their shadows at the same time on the giant planet. On January 17, three will touch. Some of these transits will be viewable from Niagara. They are listed below with approximate times.

January 14, 2:48 a.m.

January 16, 12:25 a.m.

January 17, 6:05 p.m., two shadows, then at 6:52 p.m. the third shadow.

January 21, 6:24 a.m.

January 25, 8:42 p.m.

January 31, 11:19 p.m.



I would like to first wish everyone a Happy New Year, I hope you all had a great Christmas holiday. Lately the weather has been the pits — our last two Member's Nights were washouts. The night of the Leonid meteor shower proved to be much the same.

Let's start with the November Leonids: we did get to view a few through high thin clouds and the full moon's glare. We had a good crowd show up, even though the show proved to be less than exciting. It was great to get together with you all and chew the fat around John VanderBrugge's kettle of hot cider (thanks John).

The December 7th Member's Night was a bust, however I did open up the observatory the next night. The skies cleared nicely after a small snow squall, revealing the best night I have seen in a long while. A few members showed up — Tom Halbert and Carl Midgley came out to try Tom's new 8 inch Celestron Nexstar. I had to work early the next day, so I could not stay out too late. I'd like to thank Mike Panucci for locking up, I wish I could have stayed out longer with him. We were also treated to some early Geminids. I counted between 10 to 15. Three were very bright, blue, and moved slowly from the east (the radiant from rising Gemini) and headed northwest, west and southwest. The next members' starnights are February 1, March 1, and April 5.

Let's reflect on the past year in astronomy, since we have had some very special events. The first one that comes to mind is the springtime planetary alignment of all five naked-eye planets. We had excellent views of this over a three-month period. I have literally hundreds of photos of this beautiful dance of the planets.

The Moon occulted Saturn in February. Even though the skies were not the greatest it was visible. I was lucky enough to get a couple images of Saturn emerging from behind the Moon.

And we can't forget the very photogenic springtime comet Ikeya-Zhang. At the time I was between scopes and only caught a few so-so images of it. I did observe it through the club's 16" scope, with very nice views.

In June we had a nice partial solar eclipse. I didn't think this event was going to be visible, but I set up my scope and cameras anyway, and waited. To my delight the clouds cleared a bit, but the summer haze lingered. This proved to be a bonus as it acted as a filter for the setting eclipse. I snapped a few photos of it and observed it naked eye, it was amazing.

For a good number of members September's Members' Night proved to be a wondrous event. The night of the 7th at the observatory was one of the best turnouts I've seen, due to warm weather and clear skies. I'll bet all of you were glad you came. The auroral display was one of the brightest and most colourful I've seen.

I may have missed some of the events of 2002, these are just ones that come to mind. I'm now looking forward to 2003, for instance the new dawn comet C/2002 Kudo, and Mars and its close summer showing.

Again, I wish all of you the best in 2003.

In November 2002 I was able to visit two sites in London, England that played a huge role in the history of astronomy.

The first one was a surprise, since I thought it was only a site of imprisonment, the royal court and many famous beheadings. It was the Tower of London, located in the middle of London itself. It was founded in the 11th century by William the Conqueror. After he conquered England in 1066 he decided he needed a strong and impressive castle in London to solidify his power. Construction of the White Tower is thought to have started around 1078. Over the next 500 years more castles, buildings, walls and moats were added to the grounds.

Six hundred and four years after construction began, Edmond Halley saw a comet from the top of the White Tower in 1682. Using Isaac Newton's newly formulated laws of gravitation, he worked out that this was the same comet that had been recorded in 1531 and 1607. He predicted that it would return again in 1758. He was right, but he didn't live to see it, having died in 1742. Many of us saw Halley's Comet in 1986. The next appearance will be in 2061.

The other astronomical site I was able to visit was the Royal Observatory Greenwich. Greenwich is a suburb of London, something like The Beaches is to Toronto. The Observatory is west of London and is set back about a kilometer from the Thames River on a small (but steep) rise, just like any good observatory. Previously, all astronomy had been done from the Tower of London, but (I'm sure you can see this coming) light pollution forced the move to the suburbs in the 17th century.

Construction of the observatory began in 1675, after King Charles II set his scientists to finding a solution to the longitude problem. The observatory was designed and built by Sir Christopher Wren, who also built St. Paul's Cathedral over a period of 30 years, as well as many other London buildings.

At that time calculating longitude at sea was a devilish problem. Ships routinely got lost at sea. Any nation that could do it accurately would have a gigantic advantage in war and trade.

John Flamsteed, the first Astronomer Royal, was put in charge of the observatory and the problem. His goal was to make accurate maps of the stars and the moon's position at various phases and times. Your longitude could be calculated if you knew your date, time and the moon's position.

Over the next 30 years he made thousands of observations from the Octagon Room at the observatory. Today it is the only surviving Christopher Wren interior anywhere. Flamsteed didn't use a telescope as we know it. What he had was a sighting device that allowed him to measure precise





Philip Downey standing on the Prime Meridian

elevations of stars as they passed directly overhead.

To make these measurements he needed a baseline for his longitude calculations. This was the Prime Meridian. Although its position has shifted over the years as astronomers built new instruments and telescopes at the observatory, today it's still pretty close to the original line.

A monument stands today along the Prime Meridian, which defines Greenwich Mean Time for the entire world. At night the Observatory shines a green laser due north along the meridian. Depending on weather conditions, it can be seen up to 25 kilometers north. Like thousands of other tourists I have a picture of myself with one foot in the Eastern hemisphere, and my other in the Western. Sort of.

Today, the actual meridian is 336 feet west of this monument and is defined by Global Positioning System satellites.

Links:

The Tower of London

http://www.hrp.org.uk/webcode/tower_home.asp

Royal Observatory Greenwich

<http://www.rog.nmm.ac.uk>

So You Know Where You Are? -

<http://website.lineone.net/~frelin/meri.html>

Public Observing Co-ordinators Report

by Darlene Marano

Happy New Year! I sit here on my couch during the first "Blizzard of 2003", wondering if we will ever see a starnight again. Actually, I shouldn't complain. On the morning of December 30th, I woke up to a beautiful blue sky with Venus shining high above a crescent moon. I grabbed my Canon S30 digital camera, ran outside in my pajamas (sign of a diehard scopie) and snapped off a couple of Christmas card photos. I hope we'll have many more days like this ahead.

Public starnights have unfortunately been non-existent. But never fear, we will keep our fingers crossed and hope for brighter days (and nights) in 2003. Weather permitting, we have scheduled public starnights at Fireman's Park for January 11, February 8, March 8 and April 5. The events will take place from 7 p.m. until 9 p.m. All members are encouraged to participate in our public starnights and gather afterwards for something warm to drink at a local establishment. I wish all of you the best and hope to see you often in the new year.

(see picture on front cover of Whirlpool)

Niagara Centre Event Horizon

January 11	Public Starnight, Fireman's Park, Niagara Falls, 7:00 - 9:00 p.m. Venus at greatest elongation in morning sky.
January 16	General Meeting, 7:00 p.m., Niagara Falls Public Library.
January 20	Executive meeting. Glen Pidsadnick's house, 7:00 p.m.
January 27	Mars near moon in morning sky.
January 28	Venus near moon in morning sky.
February 1	Member's Starnight, Niagara Centre Observatory. New moon, 5:48 a.m.
February 2	Jupiter at opposition, can be seen all night long.
February 8	Public Starnight, Fireman's Park, Niagara Fall, 7:00 - 9:00 p.m.
February 11	Saturn near moon in evening.
February 20	General Meeting, 7:00 p.m., Niagara Falls Public Library. Rajiv Gupta, RASC President, will be guest speaker.
February 25	Mars near moon in morning.
March 1	Member's Starnight, Niagara Centre Observatory.
March 2	New moon, 9:35 p.m.
March 8	Public Starnight, Fireman's Park, Niagara Fall, 7:00 - 9:00 p.m.
March 20	General Meeting, 7:00 p.m., Niagara Falls Public Library. Spring equinox.
March 28	Venus 0.5 degrees North of Uranus.
April 12	Annual banquet with guest speaker Ivan Semeniuk. Delphi Hall, Niagara Falls.

A 30-year Anniversary

Congratulations to Ron Gasbarini, who, as of January 2003, has been a Niagara Centre member for thirty years. Ron has been an active and valued club member since he joined the club at age 12. In his time with us he has served in every executive position and is currently the club's webmaster.

Here's to thirty more years!