Les Marczi photographed the sky’s greatest nebulae, M42 and M43, in December 2003. The two, at the center of this image, can be seen with the naked eye as part of Orion’s Sword. At the left of this picture is the nebular complex NGC 1973, 1975 and 1977, which many observers often neglect.
The Niagara Whirlpool is an official publication of the Royal Astronomical Society of Canada, Niagara Centre. It is published bi-monthly, except for July and August, and is distributed free to all Centre members. The subscription rate for non-members is $12 per annum.

Original articles on astronomy and related subjects, observation reports, book reviews, letters, images and other items are needed. Please submit them at the meetings, mail them to RASC Niagara Centre, P.O. Box 4040, St. Catharines, Ontario, L2R 7S3, or e-mail them to the editor at niagarawhirlpool@yahoo.ca

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Opinions expressed are those of the author’s, and do not necessarily reflect those of the RASC or the RASC, Niagara Centre.

Next General Meeting
Thursday, January 15 at 7:00 pm

Next Executive Meeting
Tuesday, February 10 at Glen’s

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 log-in 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 log-ins 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.
President’s Report

By Glen Pidsadnick

First I would like to wish everyone a healthy, happy and prosperous New Year, full of clear skies. Hope Santa brought you all Naglers for Christmas. I know he missed my house. For a change we got a full weekend of clear skies right after Christmas, and lots of stars. This must mean no one got a new telescope for Christmas. Many members took full advantage of the skies, and did lots of observing after all the turkey. Myself included.

Many of the ATM group members got their mirrors back from MoonWard, where they were figured and coated. They all turned out beautifully. It’s amazing what you can do simply by rubbing two pieces of glass together. This spring we should see some new home-built scopes. I look forward to seeing the end products.

Secretary’s Report

by John VanderBrugge

I hope all of you enjoyed a great holiday season with your families and friends. We had some clear skies over the Christmas period for a change. Many members took advantage of this observing break. With Saturn at opposition and the rings near maximum tilt many of us enjoyed great views of the ringed planet, as well as other winter sky targets such as the Orion Nebula, a.k.a. M42, and Jupiter. The clear skies and warmer nights were welcome after a cloudy fall.

January will be an exceptional month for Mars exploration with three Mars probes and their respective rovers on the surface. We can look forward to the new discoveries and pictures these explorers will be transmitting back over the coming months.

We’ve had three new members join our club since my last report. They are Andres Beaton, Donald Cruikshank, and James Wagner. Welcome to the club. As always become involved, ask questions, and enjoy the benefits the Niagara Centre has to offer.

All new members and beginners please remember that we are now holding beginner’s workshops before each monthly general meeting from 7:00 to 7:30 p.m. in the meeting room beside the Lamarsh Room where we hold our main meetings. These workshops have proven popular and are a good opportunity for members new to astronomy to learn the basics and ask questions.

As you will read elsewhere in this Whirlpool we have our spring banquet planned and ready to go. It should be a good one with Eric Dunn of Cosmic Highway fame speaking, once again at our excellent location, the Delphi Hall. I’ll have tickets ready for sale at the January general meeting, and each meeting after that up until the banquet on April 3. Hope to see lots of you there for our annual Niagara Centre party.

Clear skies to all and let’s hope for more of the observing opportunities we have enjoyed recently.
Public Observing Coordinator’s Report

By Darlene Marano

Happy New Year to all of our members! I hope that everyone had a safe and happy holiday season. Speaking of our new year, we have an exciting astronomical line up for 2004. I’ll keep my fingers crossed that we have the cooperation of the skies to make our stargazing in 2004 a huge success.

Here’s a brief outline of the events. At the end of March we will once again be graced with a lineup of the five naked-eye planets and moon. While it will not be quite as spectacular as 2002’s arrangement it will still be a fine sight.

Venus will pass just to the south of the Pleiades on April 2 and 3, which will be a sight to see with low power.

During May and June, comets NEAT 2001 Q4 and LINEAR 2002 T7 will be visible in the Western sky.

On June 8, and only visible to the eastern part of Canada, will be a very rare transit of Venus with the sun. The last time this astronomical event occurred was on December 6, 1882.

The last of our total lunar eclipses for North America until the year 2007 will be on October 27. This event can be seen from anywhere in Canada. We’ll keep our fingers crossed that the evening is as spectacular as the eclipse of 2003!

On the mornings of the November 4 and 5 Venus will be just north of Jupiter at a distance of less than 45 arc minutes. By the 9, the moon will have joined the pair.

Last, but not least, December 7 provides us with a rare occultation of the Moon with Jupiter. The last such event occurred in 1990. For further information on these events, I refer you to your Nov/Dec issue of SkyNews.

Just a reminder to everyone about our upcoming public starnights which will be held at Fireman’s Park in Niagara Falls on January 31 and February 28 from 7 to 9 p.m. I look forward to seeing you there and thank everyone for their continued support of these important club events.

Lunar Eclipse shots taken by Les Welgan 8 Nov 2003 during Public Observing Night at Fairview Mall, St. Catharines. The times (EST) the images were taken are as follows. Starting at Full Moon at the bottom center, then left to right: 6:20 p.m., 7:30 p.m., 7:55 p.m., 8:12 p.m., 8:50 p.m., and 9:20 p.m.
As 2003 draws to a close, I ponder the highlights of the year gone by. Although the sky gods were not that good to us over the past twelve months, I think it was a great year all in all.

Most scheduled Members’ Nights were washouts, but the impromptu ones we had turned out to be some of the best. A few come to mind, especially the night of the opposition of Mars. We had quite a few members out for this event. It was great to see the Red Planet through so many different optical systems. There were refractors, reflectors and CATs of different sizes, all delivering their own special view of Mars.

I must say that it was a very good year for auroral displays, I think the count was four or five. October 30th produced one of the brightest and most colorful shows I have ever witnessed. Many of our members were ready for this one, and lots of great photos were taken.

Now it is time to look ahead to the events of the New Year. I’m personally excited about the transit of Venus on June 8th. Here in Southern Ontario, we will only see a partial transit as the Sun rises. It will be more than half over by then. Observing anywhere in Europe for this rarest of events is ideal, as people there will see the six hours it will take for Venus to transit the Sun.

March will bring a planetary alignment of all five naked-eye planets, although they won’t be grouped as close as they were two years ago.

The end of October will give us a near carbon copy of last October’s total lunar eclipse. I’ll be on holidays that week, and I hope the weather is half as good as it was for 2003’s. I made it out to the observatory to view and photograph the eclipse. The skies couldn’t have been better - clear, cool and stable.

The next Members’ Nights will be on January 24 and February 21. Our March 20 night coincides with the best time to attempt a Messier Marathon. Hope to see you there.

Wishing you all the very best in the New Year.

Les Marczi took this picture of the nebulosity near the bright star Zeta Orionis, called Alnitak, the leftmost star of Orion’s belt. NGC 2024, the Flame Nebula, appears to its left. To the right and down is the faint nebula IC 434, and the dark Horsehead Nebula, formally catalogued as Barnard 33. The multiple star Sigma Orionis directly to its left is the source of its illumination.
Annual Banquet, April 03, 2004

The Niagara Centre’s annual banquet will be held on April 3, 2004. This is our big chance for all of us to get together for a fun night of entertainment, learning and socializing.

This year our guest speaker is Eric Dunn, the producer of the Cosmic Highway and Cosmic Odyssey television series. Eric joined the RASC at age 11 and is now a writer, illustrator and broadcaster who specializes in astronomy and the history of science. He lives in Vancouver.

The banquet will be held at the Delphi Hall in Niagara Falls, right beside Chatters, the site of our post-meeting debates.

Tickets will be on sale at all of our general meetings. If you can’t purchase your tickets in person, contact John VanderBrugge to make arrangements. The price will be announced at the January meeting.

Messier Marathon Weekend

By Philip Downey

This year’s best opportunity to view all 110 Messier objects in a single night comes on the weekend of March 20, which is also Members’ Night at the CCCA Observatory. This weekend features the March New Moon and the spring equinox. So we’ll have exactly 12 hours to hunt down 11 nebulae, 27 open clusters, 29 globular clusters, 40 galaxies, one star cloud, one double star, and one asterism. If you can find them all in one night from sundown to sunup you’ll be joining a select group of skilled amateurs.

Keep your schedules open. If Friday’s weather looks better than Saturday’s, you’ll know there’ll be other members out there. An excellent guide to Messier Marathons and the Messier objects can be found here: http://www.seds.org/messier/xtra/marathon/marathon.html

The Messier objects were catalogued in the late 18th century by Charles Messier, a French comet hunter. He made a list of the fuzzy objects and star clusters he kept running into during his searches. He wasn’t the first to view many of these objects, but he was the first to see some of them. Today his comet research is mostly forgotten, but his catalog remains the list of the best sights to see in the Northern Hemisphere.

For Sale: Supercircuits PC-23C monochrome low lux video camera (unmodified). Asking $100.00. Contact Rick Eller at 519-426-2471.

For Sale: Antares 2x, FMC, 3-element barlow. Barely used. (It's only a few weeks old.) Asking $100.00 or best offer. Contact Brian Blais at 905-682-0257.

For Sale: Finished but uncoated 8-inch f/3.8 mirror, 1 3/8" thick Pyrex. Comes with proper plywood shipping crate. Suitable for a fast Newtonian or it is cored if you want to make a Cassegrain. If you would like to pick it up I will also include the tube and mirror cell that were built for this as well as a polished but unfigured Cassegrain secondary. Mirror was completed a year-and-a-half ago. It looks ugly as I started with a rough looking blank, but this will have negligible effect on the image. Asking $100 or best offer. Contact Joe Iannandrea at 905-991-0781.

Thinking of selling something? Free ad space for members. Contact Philip Downey - see contact information in this issue.

Niagara Centre Ads

Slide/Negative Scanning: For anyone wanting to have their slides/negatives converted to digital files, I can scan them at high resolution, 2800 dpi, and save them onto a CD-R. Cost: $1.00 per file, $5.00 for CD-R. Contact Les Welgan at 905-934-4647, astro_nuts@cogeco.ca

Khan Scope Centre
Ray Khan
3243 Dufferin Street
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416-783-4140
416-783-7697 (fax)
www.khanscope.com

Sky Optics
Steve Barnes
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Burlington, ON L7L 2A4
905-631-9944
905-633-8293 (fax)
www.skyoptics.net

Magazines

Sky & Telescope, Astronomy Group rate available.

Anyone who is interested in getting the club discount for subscriptions to Astronomy or Sky & Telescope magazines should contact Dave Stremlaw. With a group subscription plan you also receive 10% discounts on Sky & Telescope's wide selection of astronomy books. Sign up with Dave at the next General Meeting, or call him at 892-2767 to get these great discounts.

RASC Store

RASC 2004 Calenders
Beginner's Observer's Guide
RASC 2004 Observer's Handbook
Planispheres
RASC Lapel Pins
Centre Crest
Bumper sticker
RASC Cloth Crest
Niagara Centre T-shirts are available. See Dave Stremlaw for above items.

RASC 2004 Calenders $13.00
Beginner's Observer's Guide $13.00
RASC 2004 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 turtleneck sweaters are now available for order. The turtlenecks are black with ‘RASC Niagara’ stitched into the neck in red and white. They look very sharp and are perfect for cool weather observing. The turtlenecks come in small, medium, large and extra-large. To place your order please call Joanne at (905) 295-0972 or talk to her at the next meeting.

RASC 2004 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

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<thead>
<tr>
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<td>January 14</td>
<td>Venus one degree from Uranus in evening</td>
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<td>February 25</td>
<td>Mars and Moon make close pair</td>
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<td>March 9</td>
<td>Watch for zodiacal light after sunset for the next weeks</td>
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**SPECIAL NOTICE**

The CASCA-Westar Lectureship Series Presents an Astronomy Public Lecture by:
Dr. J.R. Percy, Professor of Astronomy, University of Toronto  
will be speaking on "Cosmic Evolution"  
Friday, January 23, 2004  
7:00 pm  
Mandeville Theatre, Ridley College  
St. Catharines, Ontario  
***Free admission - All are welcome!***

Saturn taken at near opposition  
by Deloris Welgan  
Shot with Pentax EI2000 digital camera  
Afocal through Meade AR6 refractor mounted on LXD55.

Saturn taken at near opposition  
by Les Welgan  
Shot with Nikon Coolpix 995  
Afocal through Celestron 8” SCT mounted on Losmandy GM8.