

skynews



this month

Helen Kirk

How to become a professional astronomer in four easy(?) steps

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

Have you ever wondered how astronomy professors got to be where they are today? I will discuss the challenging but enjoyable path that leads from undergraduate student to graduate student to postdoctoral fellow and finally to a professor in astronomy. I will highlight some of my more memorable experiences as an undergraduate and graduate student including observing in Hawaii and Spain.

Bio:

Helen Kirk grew up in Caledon, Ontario (near Toronto). She completed an Hon BSc in Astronomy & Physics at the University of Toronto in 2003 and also received an RASC gold medal from the Toronto Centre in her final year of school there. She moved to Victoria for graduate research and studies how stars are born under the supervision of Dr. Doug Johnstone (HIA). She completed her MSc thesis in 2005 and is currently working on her PhD thesis.

next month and beyond

February 13, 2008

Astrophysics Astronomical Activities at the HIA

Dr. Patrick Côté, NRC Senior Researcher at the Herzberg Institute of

March 12, 2008

Teaching Astronomy - Teacher's perspective

Dr. Jim Nemec

April 9, 2008

Dwarf Galaxies

Dr. Alan McConnachie, Postdoctoral Fellow in Astrophysics in the Department of Physics and Astronomy at the University of Victoria

on the cover

Jim Cliffe
24 Day Moon
 8 August 2006

Age 24 days, 8 hours. Colongitude 203°.

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>

contact us on-line

Web Site	www.victoria.rasc.ca
New Members	newmembers@victoria.rasc.ca
General Inquiries	info@victoria.rasc.ca

address change? information incorrect

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President's Report

President's Message
January, 2008



Observatory Project

Our Project Manager Bruno Quenville reports that the construction has started on our Skyshed design observatory. He expects the basic components of the building will be put in place quite quickly. As I write this on the last day of 2007, the basic frame is in place. Please refer to the Observatory Project web page (<http://victoria.rasc.ca/observatory/Default.htm>) for details and a photo gallery. Members regularly tell me how excited they are to see this project underway. I share their excitement, and can't wait to see first light!

The New Year

As we head into the new year 2008, I can't help but look back on 2007 - we had a very active year! Our secretary Li-Ann Skibo compiled a very thorough 2007 Annual Report (see http://victoria.rasc.ca/membersonly/annual/2007_RASCVictoria_Annual_Report.pdf for details), which was presented at our AGM in November. Here are the highlights:

- 7th Annual RASCALS Star Party - Aug 24-26 - we had some good weather this year, the prizes were terrific, the speakers were interesting, and let's not forget the social aspect of this popular event!
- Victoria Centre Picnic - Sept 1 - a sublime setting for a picnic held at Pearson College's Newton-Godin Observatory.
- Regular Meetings - held monthly except July, August and November. We always have excellent speakers.
- Public Outreach - School Telescope Program, several public observing events at Gonzales Hill Regional Park, the Centre of the Universe, and Pearson College of the Pacific, and sidewalk astronomy at the Oak Bay Library.
- International Astronomy Day - April 21 - exhibits at the Royal BC Museum and observing at the Centre of the Universe.
- George Ball died in 2007, as did Henk Meursing. George was Victoria Centre's Honorary President until his death, and Henk was

involved with light pollution abatement for many years. They will both be missed.

The Observatory Project was kicked off early in 2007 with National Research Council's encouragement. We raised funds, purchased a Paramount ME mount, and commenced construction of our Skyshed design observatory at the old 16" atop Observatory Hill.

We honoured our own with some awards - The Newton-Ball Award was presented to David Lee; astrophotography awards were presented to Charles Banville, John McDonald, and Guy Walton; and a Certificate of Appreciation was given to Stephen Courtin for his outstanding volunteer work on our behalf.

I've had fun during the first year of my two year term as your President. Meeting with so many members and gaining insight from their diverse knowledge helps me move Victoria Centre forward on behalf of everyone. Our Council functioned as a real team this past year, and I'm happy to see that most of them will be continuing on into 2008 with their work and projects.

Victoria Centre is always forging new community partnerships and nurturing existing ones. Members may not appreciate just how important these partners are with assisting us to reach our goals. We look forward to continuing to work with these partners in 2008 and beyond:

- National Research Council of Canada
- Herzberg Institute of Astrophysics
- Dominion Astrophysical Observatory
- BC Gaming Commission
- University of Victoria
- Pearson College of the Pacific
- Royal BC Museum Corporation
- Capital Region District Parks
- Victoria School Districts
- Fairfield Community Association

I think 2008 is going to be a very good year for Victoria Centre. I hope you share my optimism, and will consider participating in the New Year. All the best to you and your families for 2008 from Victoria Centre Council. May we all prosper and grow, and above all else, please take time to have some fun!

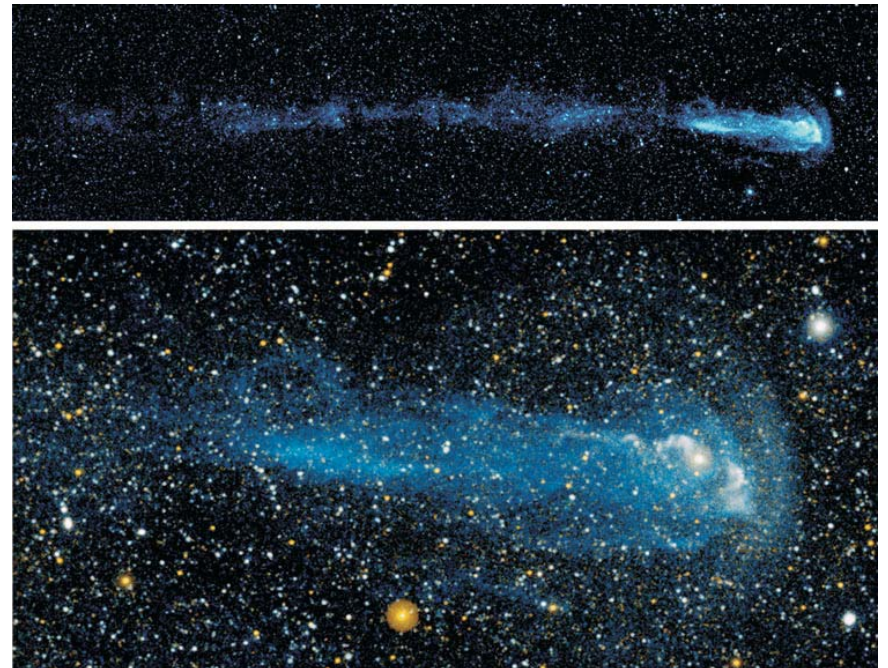
Ultraviolet Surprise by Patrick L. Barry and Tony Phillips

How would you like to visit a universe full of exotic stars and weird galaxies the likes of which astronomers on Earth have never seen before?

Now you can. Just point your web browser to galex.stsci.edu and start exploring.

That's the address of the Galaxy Evolution Explorer image archive, a survey of the whole sky at ultraviolet wavelengths that can't be seen from the ground. Earth's atmosphere blocks far-ultraviolet light, so the only way to see the ultraviolet sky is by using a space telescope such as NASA's Galaxy Evolution Explorer.

About 65% of the images from the all-sky survey haven't been closely



Astronomers looking at new ultraviolet images from the Galaxy Evolution Explorer spacecraft were surprised to discover a 13-light-year long tail on Mira, a star that has been extensively studied for 400 years.

examined by astronomers yet, so there are plenty of surprises waiting to be uncovered.

“The Galaxy Evolution Explorer produces so much data that, beyond basic quality control, we just don’t have time to look at it all,” says Mark Seibert, an astronomy postdoc at the Observatories of the Carnegie Institution of Washington in Pasadena, California.

This fresh view of the sky has already revealed striking and unexpected features of familiar celestial objects. Mira is a good example. Occasionally visible to the naked eye, Mira is a pulsating star monitored carefully by astronomers for more than 400 years. Yet until Galaxy Evolution Explorer recently examined Mira, no one would have guessed its secret: Mira possesses a comet-like tail 13 light-years long.

“Mira shows us that even well-observed stars can surprise us if we look at them in a different way and at different frequencies,” Seibert says.

Another example: In April, scientists announced that galaxies such as NGC 1512 have giant ultraviolet spiral arms extending three times farther out into space than the arms that can be seen by visible-light telescopes. It would be like looking at your pet dog through an ultraviolet telescope and discovering his ears are really three times longer than you thought!

The images from the ultraviolet space telescope are ideal for hunting new phenomena. The telescope’s small, 20-inch primary mirror (not much bigger than a typical backyard telescope) offers a wide field of view. Each image covers 1.2 degrees of sky—lots of territory for the unexpected.

If someone combing the archives does find something of interest, Seibert advises that she or he should first search astronomy journals to see whether the phenomenon has been observed before. If it hasn’t, email a member of the Galaxy Evolution Explorer science team and let them know, Seibert says.

So what are you waiting for? Fire up your web browser and let the discoveries begin!

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

Sir Arthur C Clarke’s 90th Birthday Blog

Sixty two years ago Arthur C. Clarke of the British Interplanetary Society sent a letter to the editor titled Peacetime Uses for V2 which was published in the 1945 February issue of the Wireless World magazine suggesting the use of Geostationary Satellites for the instant global communications. Quoting, “I would like to close by mentioning a possibility of the more remote future—perhaps half a century ahead. An “artificial satellite” at the correct distance from the earth would make one revolution every 24 hours; i.e., it would remain stationary above the same spot and would be within optical range of nearly half the earth’s surface. Three repeater stations, 120 degrees apart in the correct orbit, could give television and microwave coverage to the entire planet.”

Today, the Clarke Orbit has over 330 satellites. Sir Arthur C. Clarke, a science-fiction author, inventor, and futurist, simply a great mind celebrates his 90th birth anniversary on 16th of December, 2007.

In 1959, he founded the Ceylon Astronomical Association (now known as Sri Lanka Astronomical Association). As the current General Secretary of the Association, I’m honored to run an association founded by him. And as a big fan of his writings and admirer of his work, I have put up a blog where every one could wish him for his 90th birth day.

If you are a friend, colleague, fan or simply an earthling who admires work of Sir Arthur Clarke, please write your greetings and good wishes on the blog: <http://SirArthurCClarke90.blogspot.com>

Thilina Heenatigala
General Secretary, Sri Lanka Astronomical Association



RASC calendars

2008 RASC Observers Calendars are now available of only \$15 (it’s \$22 if you order it from the national website). You can purchase your calendar at our Monthly meeting.

Observatory project

December 21, 2007 - First delivery of the lumber for the Skyshed

Our Project Manager Bruno Quenneville placed the first order for lumber to construct our Skyshed observatory. Our building supplies are being purchased from Lumberworld, who is very generously giving us preferred contractor prices and service, despite the relative small scale of our project.



December 28, 2007 - First day of construction

Malcolm Scrimger, Nelson Walker and Bruno Quenneville had a very busy day cutting all of our wall framing stock and starting our South elevation assembly. The pile of lumber seems to have reduced somewhat with all of the cutting behind us now. A very productive day! Many thanks to the volunteers for a fine job and a great clean-up.



December 30, 2007 - basic frame in place

Despite sub-zero temperatures, black ice, overcast conditions and high winds, volunteers Bruno Quenneville and Nelson Walker returned to the site today to resume assembly of the wall sections. A quick mounting of these shed sections now clearly show a true perspective of what will be: a great location and observing facility!



job jar

If you are a member and wish to volunteer for one of these jobs, please contact the Council member indicated below.

Star Party Coordinator Victoria Centre's Annual Star Party is planned to be held August 29-31, 2008 at Victoria Fish and Game Association's property atop the Malahat. We need someone to act as overall coordinator for this event, and to report to Victoria Centre Council on a regular basis. Bruno Quenneville is our former Star Party Coordinator, and is willing to help the new person for the first year
Skills: people and organizational skills. 2 hrs/mo, 3 full days during the event. See Bruno Quenneville for info.

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Astrophotography

Guy Walton

Horse Head and Flame Nebula

December 30/07, Victoria, BC.

Optics: Orion 100mm, F9 ED Refractor on Skywatcher HEQ5 Mount.

Camera: Nikon D50 modified
Exposures: 38, 60 second exposures at ISO 1600 and calibrated with 15 dark frames and 15 flat frames using Images Plus, Photoshop and Noise Ninja.



Bill Weir

Comet 17P/Holmes with M 34

At the end of December 2007 in addition to the close encounter of M33 with Comet 8P/Tuttle, Comet 17P/Holmes has been sharing the same area of the sky with the next Messier object, the open cluster M34. On the same night as I did the M33 with comet Tuttle sketch I also did one of M34 with comet Holmes. In order to see the two within the same FOV I used my f/6.8, 80mm ED refractor and a widefield 40mm eyepiece. Even then with this approximately 4 degree FOV the two just barely fit in the view. In order to do the sketch some sense of justice I did an interlocking adjacent FOV sketch. This is how I saw things on the night of Dec. 30, 2007 at 2030hrs PST.

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.