Charles Banville - Comet Swan
Guy Walton and I were treated with excellent viewing conditions last night at the DAO. We both imaged comet SWAN and here is my result. The tail of the comet is so long I could not frame it all!

Comet SWAN C/2006 M4 - 29 October 2006, from the DAO
Optics: TeleVue NP-101, f/5.4 on Losmandy G-11.
Camera: Canon 20Da
Exposures: 75 light frames of 60 sec @ ISO 800.
Processing: ImagesPlus and Neat Image.
See page 9 for more RASC Victoria Centre members’ pictures of Comet Swan.
Dr. Eric Steinbring, NRC-HIA
Astronomy in Canada’s High Arctic - Long nights and clear skies.
December 13, 7:30 PM, Elliott Lecture Theatre, Rm 060, UVic

The earth’s polar regions are well suited for astronomy. And they have advantages over Hawaii and Chile, which have been viewed as the best locations for the last few decades. The poles are not only extremely dry, but also beneficial for work in the infrared, incredibly cold. Plus, they provide months of uninterrupted darkness. It has already been shown that the Antarctic offers places that combine these qualities with clear skies. Satellite imagery suggests that mountains in Canada’s far North should also possess excellent sky conditions - and there is reason to believe they might be even better places than the Antarctic to put telescopes. To confirm this our group has begun testing two mountains on Northern Ellesmere Island, about as far north as one can go and still remain within Canada. I’ll talk about our initial efforts this summer, which put in place two robotic weather stations and sky monitors.

astrophotography tips

I just picked up a photo accessory that I will be pressing in to use for mounting my guide scope. The most common method is using rings with radial set screws. Given the light weight of the Mini Borg I’m using I scanned the internet for something lighter that could use the 1/4-20 fitting of the guide scope.

As a photographer I’m familiar with Manfrotto as an Italian company known for their tripods and ingenious attachment accessories. They make a compact leveling platform that seemed perfect. It allows for tilting the scope up to 10 degrees. I added a panoramic attachment that I already had for lateral movement though the head already accommodates this. The other reason this was necessary was the top of the platform is threaded 3/8” and not 1/4”.

When secured the platform is very rigid and does not slip. The ball part of the platform is quite a bit larger than a similar sized ball and socket head one might use. This makes it substantially more stable.

http://www.manfrotto.com/Jahia/site/manfrotto/pid/3204

David Lee
The RASC Victoria Centre and its members have enjoyed an active, successful 2006.

**Annual Events**
This year the RASCALs Star Party was held May 26 - 28 at the Victoria Fish and Game Association. Events included presentations by Dr. Patrick Côté and Dr. Brenda Matthews, both from the Herzberg Institute of Astrophysics, Victoria, a workshop on digital astrophotography by David Lee and Joe Carr, a swap meet and door prizes, including a pair of Celestron 20x80 binoculars! For six years now we have held Star Parties and they have all been a great successes. The Summer Picnic was held at Pearson College Observatory on August 19 where members enjoyed good food, great company and perfect weather allowing for fantastic observing from the darkest skies available in the Capital Region.

**Regular Events**
Regular Meetings were held every second Wednesday of the month except July, August and November at the University of Victoria. Bruno Quenneville organized an interesting series of speakers and arranged for two members’ nights to see what members have been up to. Astronomy Cafe is an informal get together every Monday evening. The events were hosted by Bruno Quenneville and John McDonald and a new record of 17 in attendance early in the year, suggested that it was time for a new location with more space. For the remainder of the year, Astronomy Cafe was held at Fairfield Community Centre (N48° 24' 56" W123° 20' 50" 23m elevation). The site offers a good viewing field, washroom facilities, handicap access, parking and nearby bus service and a room adapted for society services with the capacity to host astronomy related public events.

The New Observers Observing Group hosted by Sid Sidhu ran every fourth Friday of the month at 8:00 p.m. under the dark skies of the Highlands and continues to be very popular. Bill Almond hosted a few Astro Imaging events this year and looked at digital photography. A good portion of the remainder of the year was spent refurbishing and retooling equipment.

**Guy Walton**
Camera: Nikon D50 - IR filter and replaced with clear glass.
Telescope: Orion 100, f9 ED Apo Refractor - Sky-Watcher HEQ5 mount.
Processing: ImagesPlus, PhotoShop CS2 and Noise Ninja.
Exposures: ISO 800, 44 Light Frames and 18 Dark Frames.

**Joe Carr**
26 raw images (30 seconds, ISO3200) taken with my Canon 30D and Canon 400mm L telephoto (operating at f/6.3) piggybacked on the Meade LX200R (tracking, no guiding). Processed in ImagesPlus centroid/translate&rotate, aligned on the comet head and a star in the comet’s tail. Combined using Adaptive Addition (3.0), aggressive Digital Development, then default noise reduction in NeatImage, and finally cropped and colour depth reduced in Corel Photopaint X3.

**David Lee**
Telescope: Televue NP101is 540mm/5.4, Mount: Losmandy GM8 Camera: Fuji Finepix S2 Pro, ISO: 1600
Exposures: Aligned comet nucleus - 19 light frames (60 second exposures) aligned and stacked with Registax; Aligned on star field - 5 light frames 30 second exposures) aligned and stacked with Registar. Contrast and sharpening in Adobe Photoshop CS.
Scott Mair, as RASC Victoria Centre President 2005 - 2006 in public outreach and media relations.

RASC Victoria Centre Award for Astrophotography were presented to:
- Tripod Wide field - Malcolm Scrimger, Milky way and Telescope Silhouette at Pearson College.
- Digital SLR Camera, Galaxy - Joe Carr, Andromeda Galaxy M31,M32 and M110.
- Digital SLR Camera, Deep Space Wide field - John McDonald, M8 (Lagoon), M20 Trifid and M21.

Special Awards
- Astronomical Observations and Sketching Award - Bill Weir, observing and documenting Mars, M44 and Saturn conjunction.
- Award of Excellence - Guy Walton, redesigning and constructing a 16" Truss Dobsonian Telescope.
- Award of Innovation - Alex Schmid, reactivating and imaging with a water-cooled CCD camera.

Meeting Schedule for 2006
- Members’ Night, January 11 - Brian Robilliard, Cliff Caprani, Bill Weir, David Lee
- Adaptive Optics, February 8 - Dr. David Anderson, NRC/HIA
- Zarbula’s Sundials, March 8 - Roger Bailey
- Chemical Evolution of Local Group Galaxies, April 12 - Kim Venn
- Adventures in the Promised Land: Cassini Explores Saturn, Titan, and the Fountains of Enceladus, May 3 - Dr. Carolyn Porco
- Widespread Influence of Supermassive Black Holes, June 14 - Dr. Chris Onken
- Members’ Night, September 13 - 2006 Solar Eclipse by Joe Carr, member’s astrophotographs
- Is this year 2006? Calendars and Time Reckoning from Antiquity to the Present, October 11 - Florin Diacu
- Annual General Meeting and Dinner- Adventures in Amateur Astronomy November 4- Gary Seronik
- Astronomy in Canada’s High Arctic, Long nights and clear skies, December 13 - Dr. Eric Steinbring, NRC/HIA.

Li-Ann Skibo
Secretary, RASC Victoria Centre

upgrading the Almond observatory which is now ready for the long winter nights and hopefully some clear skies. Our Active Observers have enjoyed many viewing opportunities this year at Observatory Hill. The site offers magnitude 4.0 to 4.5 skies under favorable conditions and is within a 15 minute drive from most suburban areas of Greater Victoria. The Victoria Centre is proud of the long-standing relationship with the National Research Council and the Centre of the Universe. Our members have been particularly busy this year taking many fine astrophotographs mainly using digital cameras. Some 125 photographs of celestial objects were posted to the Victoria Centre website, as well as a half dozen sketches. Our members are finding new ways to “observe”, and they find it easy to communicate these observations to the rest of the Centre through digital photography and the Internet.

Public Outreach Programs
The Victoria Centre has celebrated International Astronomy Day since 1997. We are very fortunate to have developed a relationship with the Royal BC Museum to celebrate Astronomy Day each year on museum grounds. This year’s theme was “Capture the Experience” and activities on May 6 included; poster displays, an ecliptic calendar, a telescope making workshop, astrophotography displays, ask the professional astronomer desk, a scale model of the solar system, Star Lab Tour Through Space and Time, a comparison of a model of Galileo’s telescope with a modern off-the shelf one as well as an arts and crafts area for children - always a popular event with a telescope as a door prize. The festivities concluded with night sky viewing at the Centre of the Universe. Great fun was had by all involved. The Centre of the Universe is the public interpretative centre at the Dominion Astrophysical Observatory. Dedicated Victoria Centre volunteers joined the friendly staff for Public Observing included Saturday Star Parties from April through October, Stargazer Sundays in July and August, Holiday Star parties and special events such as Astronomy day. At Lester B. Pearson College of the Pacific, Bill Weir maintains the long established link between the Victoria Centre and the schools astronomy program. The program focuses on viewing skills, the uses of astronomical telescopes, imaging and learning about the night sky. All RASC members are welcome at any time to use the schools observatory facilities. The School Telescopes Program is offered free of charge to the local schools, scouts and girl guides clubs. It involves power point presentations in a classroom setting and night sky viewing for the children and adults. In
the past year we were able to share the excitement of the night sky with 500 school aged children. The Sidewalk Astronomy program with Blaire Pellatt and RASC Victoria members brings the opportunity for celestial observing to the public on an informal basis. This year viewing sessions were held on the grounds of the Oak Bay Branch of the Greater Victoria Public Library. Morning sessions focused on the sun in white light and through an h-alpha filter and during evening sessions the public often stayed up to an hour after the library closed. Bill Weir also set up at the Metchosin fire hall during the halloween bonfire, a great opportunity when many people were outside at night. Sidewalk Astronomy can be especially rewarding when you can help people see a familiar object like the moon through new eyes and hear a little voice repeating excitedly as walk away hand in hand with their parents, “I saw the Moon, I saw the Moon, I saw the Moon....”

Committees
This year the Light Pollution Abatement Committee focused on maintaining a dialog with local municipalities to convince authorities to regulate outdoor lighting. In addition, RASC Victoria has collected quantitative data by taking sky brightness readings at various locations around Greater Victoria with the hope that this data will aid us in convincing decision makers of the seriousness of the problem. This is an ongoing issue requiring patience and persistence by the committee. The Membership Committee reported 185 members were registered as of the end of September 2006, and several visiting and new members from other RASC Centre’s were welcomed at monthly meetings and observing events. The Victoria Centre maintains an extensive library of 600 books and periodicals. The library space is limited, so the Librarian along with some dedicated members has continued with its through review of the library’s assets. Some books date back to 1834 and may have historic value, but in the age of high tech gadgetry may have no current astronomical interest. Eventually we will have to make a collective decision regarding disposal of these old books.

Equipment
The centre purchased a Meade 8” LX90 Schmidt-Cassegrain Telescope, and a Skywatcher HEQ 5, for public outreach programs. Eyepieces and solar filters were also added to the inventory. Members in good standing often borrow the Centre’s’ scopes when they were not in use for public outreach events.

Awards
The Chant Medal was established in 1940 by the Society in appreciation of the late Prof. C.A. Chant for furthering the interests of astronomy in Canada. **Ed Majden** received this award on May 21, 2006 for his work on meteor spectra. Ed has led the way with innovation and perseverance to advance the field, and showed that professional-amateur collaboration can contribute to scientific research.

Several awards were presented at the Annual Christmas Dinner and General Meeting held in November.

The Newton-Ball Award was presented by Scott Mair to **Bruno Quenneville**. In his position as Vice-President of our Centre, Bruno Quenneville has played many roles: New Member Liaison, Astronomy Cafe host, coordinator of the RASCALs Star Party, Astronomy Day & School Telescope Volunteer, principal negotiator with NRC for the Centre’s “Licence to Use Land Agreement” and outreach astronomer to so many members and nonmembers alike. His nonstop cheerful attitude and never-failing support and enthusiasm for astronomy has benefited the people of Victoria in so many ways. Without him, many of our new members would not have discovered the excitement that astronomy presents to us all, as members of Victoria Centre.

The Ernie Pfannenschmidt Annual Award for Amateur Telescope Making was presented to **John McDonald**, for his outstanding achievement in constructing various optical and electronic devices for use in amateur astronomy.

Certificates of Appreciation were presented to the following members:
- **David Griffiths**, as RASC Victoria Centre Treasurer and Special Events Coordinator.
- **Alex Schmid**, as RASC Skynews Newsletter team support.
- **Sandy Barta**, as Astronomy Day Volunteer Team Coordinator.