

Skynews



<http://www.edmontonrasc.com/>

Learn more about our club

The Edmonton Centre holds public meetings ten months of the year, generally on the second Monday of the month. Centre observing nights are held monthly at a dark site within an hour's drive of the city. Starting this year, we also have an observer's group meeting for those interested in more "hands-on" astronomy. Please feel free to browse our newly renovated website and/or attend one of our upcoming meetings or observing sessions to. There is no charge to attend either of these, including visiting us out at the Odysium Observatory deck where many members volunteer their time to answer any questions you might have about the club, or the Night Sky.

George Moores' Astronomy Workshop

The Edmonton Chapter of the RASC will be hosting an Astronomy Workshop the weekend of April 5-7, 2002, at St. John's School of Alberta near Wabamum. The Workshop runs from Friday night until Sunday afternoon, and is entirely devoted to our great hobby of astronomy.



January 2003

<http://victoria.tc.ca/~rasc/>

Number 241

This Month

January 8, 2003

MEMBERS' NIGHT

David Lee: Astrophotography seminar at the Centre of the Universe in February.

Brian of Island Eyepiece: Great service and new products.

Bob Earl: A proposal for an astronomical observatory at Camp Bernard.

Ron Bell of Bellstar Telescopes: Homemade quality without the homemade work.

January 10, 2003 — 7:30 pm

Centre of the Universe

Dr. David DeVorkin is Curator of Astronomy at the Smithsonian Institute and has recently opened a fascinating exhibit called "Exploring the Universe". This exhibit, ten years in the making, assembles "some of the most famous astronomical tools in all history", including William Herschel's telescope, the viewing cage from Mount Wilson's 100-inch telescope (from which Edwin Hubble made his famous observations), and the backup mirror from the Hubble Space Telescope, among others. Dr. DeVorkin will share some of his experiences researching and putting together this exhibit.

More info: <http://www.nasm.si.edu/galleries/gal111/universe/>

We also welcome **Ray Villard**, Public Information Manager for the Space Telescope Science Institute at the Johns Hopkins University in Baltimore, Maryland. Ray Villard is responsible for disseminating news about the most recent discoveries made with Hubble Space Telescope, and will share with us stories and images of the recently-upgraded Hubble.

More info: <http://www.stsci.edu/resources/>

IMPORTANT: Attendance will be limited to 60 people. Please RSVP to Jennifer Hawkes at the Centre of the Universe, (250) 363-8262.

Address Change? Information Incorrect?

Telephone: (416) 924-7973 (toll-free at (888) 924-RASC in Canada)

Fax: (416) 924-2911

E-Mail: rasc@rasc.ca Website: www.rasc.ca

Postal Mail: RASC, 136 Dupont Street, Toronto, ON, M5R 1V2, Canada

RASC Victoria Council

This Month

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Skynews Editor: Sandy Barta
Website Editor: David Lee
Email list: Joe Carr

Members at Large:
Bill Almond, Sandy Barta,
Li-Ann Dorrance, Jim Hesser,
Ed Maxfield, Frank Ogonoski,
Blair Pellait, Bruno
Quenneville, Colin Scarfe

New Members Liason:
Sandy Barta

Every
CLEAR
Friday

Astronomy Cafe

At Sandy Barta's, 2949 Michelson Road,
Sooke, BC
Call 642-0205 for more information or
directions.

And you **WILL** need directions!

The Astronomy Café is an astronomical
conflab and if it's clear (and we are willing
to give up our comfy chairs) we observe
under an unbelievably dark sky.

Newcomers are most welcome.

Come and enjoy!

Please :

**Call or check our website to find out
if it's likely to be clear.**

Jan
24

New Observer's Group

At Sid Sidhu's:

1642 Davies Road (off Millstream Lake
Road) at 8:00 PM.

Call 391-0540 for more information or
directions

February Meeting

University of Victoria, Room 060
Elliott Building
Topic: TBA

**Astronomy Day
Saturday May 10, 2003
at the Royal BC Museum**

Online information about the RASCvic and
Skynews email lists:

<http://www.rasc.joetourist.net/>

Ray Villard

Ray Villard, Public Information Manager of the Space Telescope Science Institute at Johns Hopkins University, will speak on the latest results from the Hubble Space Telescope

<http://www.stsci.edu/stsci/>

Monday, January 13, 2003

7:00 p.m.

Community Gospel Chapel

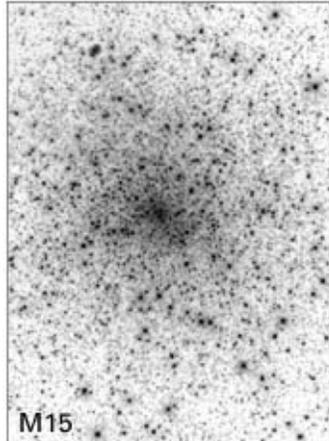
**147 Vesuvius Bay Road
Salt Spring Island B.C.**

Presented by Artspring

**Tickets from Artspring Box Office
or call 537-2102**

Cheers Chris

Image Credits for M15: NASA and The Hubble Heritage Team (STScI/AURA)



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source for astronomy**

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Island Eyepiece and Telescope

Phone: 250-743-6633

Email: sales@islandeyepiece.com

www.islandeyepiece.com

We Ship World Wide

President's Message

One of the big news stories of 2002 was the outbreak of the Norwalk virus aboard cruise ships and in hospitals. I will look back at 2002 as the year I succumbed to a malady that has affected astronomers for hundreds of years.

I was stricken in September, late one night at our star party at the Victoria Fish and Game Club. My system had been weakened by several observing sessions straining to see the Ring Nebula and other faint fuzzies through my little ETX.

At the star party put on in June by our friends at the Cowichan Valley Starfinders I had a particularly frustrating night. Try as I might, I just couldn't make out that ring, even with 'go to' technology. So in September, the early evening rain had caused me to put away my scope. I stayed up anyway to enjoy some liquid refreshments, and the skies cleared.

Then Guy Walton pulled the covers off his 12-inch Dobsonian, and M57 jumped out at me so brightly my eye almost hurt. The Veil Nebula took my breath away. Yes, I had come down with a bad case of Aperture Fever.

A few days later, I drove up Little Saanich Mountain to behold the most beautiful skies I have seen at the DAO. Fortunately for me, I was there to spend the night at the controls of John Plaskett's cure for his own case of Aperture Fever 90 years ago, the 74-inch telescope that now bears his name. I had an unforgettable observing experience, but the fever had spread throughout my system.

I will now spend the rest of my life seeking the cure. Thanks to being part of the RASC, I will get further glimpses through the telescopes of Guy and others who have done something about their fever. And with luck, my turn at the Plaskett telescope last fall won't be my last.

In 2003, I hope to see many of you at our observing sessions. You don't have to catch Aperture Fever, but do catch some unforgettable glimpses of our universe.

Chris Gainor

The deadline for the next issue of Skynews is

January 25 2003

ATTENTION READERS!

Get your Skynews early and in colour. Tell Laura, our Treasurer, that you get Skynews on line and we won't mail you a copy.

General Meeting Minutes

December 10, 2002, 7:30 pm at UVic

Welcome: Chris Gainor began his tenure as the new president by thanking the outgoing council for all their hard work over the past year. Special thanks went to out-going president David Lee for his leadership. Chris also thanked John Howell and Don Dundee who are leaving council after many years of continuous service.

New Members: Sandy Barta introduced herself as the new members liaison and indicated she has a number of resources for new members. She will stay after the meeting to answer any questions new members may have.

Sidewalk Astronomy Group: Blair Pellat proposed to the Centre to form a sidewalk astronomy group. This group would meet about once a month in a busy public place and bring telescopes to show various sights to anyone interested. He has left forms on the table for anyone to sign up if they are interested. He will also provide copies of the form for inclusion in the next SkyNews and to be placed on the Centre web site as well.

Treasurers Report: Lauri Roche reports that 52 members and guests attended the annual dinner. This resulted in a net loss of \$500. Next year we may have to select a fixed menu rather than a buffet to reduce costs as there was a fair amount of food left over.

Our current bank balance as of Nov 30 is \$3719.13

We finally received a gaming grant of \$1900. This was quite a bit lower than the \$26,000 we asked for.

Lauri reminded everyone that they can order subscriptions to Sky & Telescope through her at a reduced rate over the general public rate. Members also get a 10% discount on all Sky Publishing orders submitted through the Centre.

She also reminds everyone to sign up for Internet delivery of our SkyNews newsletter to help reduce the Centre's mailing costs.

Library and Telescopes: Sid Sidhu asks that people return borrowed books to the library. The library will be open after the meeting for 15 minutes for members to borrow books. Sid also thanked the school telescope program volunteers.

May 10th, 2003 will be **Astronomy Day** at the Royal BC Museum again this year. We will need a number of volunteers again, so please consider signing up. More details to follow in the new year.

Sid and Bill Almond will make a presentation to the District of Metchosin regarding **light pollution abatement**. They ask that if any members need

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Check it Out

From the National RASC email list

Canada Weather.Com at: <http://www.canadianweather.com/>

Click on your province, and in the left frame click on the link to "Astronomy". Enter your postal code and a page with a star map appears like magic. You can fiddle with the time and direction. You can click on objects for information. It's one of those sites that you wish would work better but it's kind of neat. ~Editor

The Peoria club has a marvelous web site. Check out the information under "Constellations". This club has pages that would interest a beginner, a 3-D star map, and there are lots more goodies as well:

<http://www.astronomical.org/pasmenu.htm>

There's more catalogs than you could ever want at:

<http://adc.gsfc.nasa.gov/adc.html>

And the planet we live on: <http://rapidfire.sci.gsfc.nasa.gov/gallery/>

Planetaries

This is a really neat site. Thanks Harry. These seem like they'd be fun to recognize. I started off checking into this for a friend but this site has many asterisms that seem like they might be fun to tackle. Dave Pianosi, Kingston Centre: http://www.gatecom.com/~ckessler/STAR_List.htm

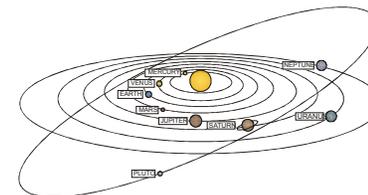
This is a good site to get started with all kinds of Planetary Nebula resources: <http://www.blackskies.com/>

Also, a good catalogue is the Strasborg-ESO Catalogue of Galactic Planetary Nebulae. It is available at:

<http://adc.gsfc.nasa.gov/cgi-bin/adc/cat.pl?/catalogs/5/5084/>

I parsed the file into a database to create an ECU User object file. Works great.

Michael J. Cook: <http://members.rogers.com/michaeljcook/>



JoeTourist Continued

Resources

There are many narratives available **online** which describe the upcoming celestial events. The local Victoria Chapter of RASC offers [Observer's Corner](#), and another excellent source is the Abrams Planetarium [Skywatcher's Diary](#).

Of course, the **RASC Observers Handbook** is also a great printed source of what to see in the skies (both daylight and night time). Don't forget to make use of your astronomical software to help you plan your observing sessions.

In addition to the links provided above, here are some others for you to browse:



Portals and Magazines:

- [The Nine Planets](#)
- [Astronomy Magazine](#)
- [Astronomy Daily](#)
- [Astronomy Picture of the Day](#)
- [AstronomyOutreach Network](#)
- [Heavens Above!](#)
- [BBCi - Space](#)
- [LiveSky.com](#)
- [Sky & Telescope magazine](#)
- [Space.com](#)
- [SkyNews magazine](#)

Groups and Discussion:

- [Absolute Beginners Astronomy](#)
- [Astronomy.net](#)
- [Cowichan Valley StarFinders Astronomy Club](#)
- [RASC – Victoria Centre](#)
- [Sidewalk Astronomers Organization](#)
- [Fraser Valley Astronomers Society](#)

So there you go – some starting points to get started with your new-found interest in astronomy.

Joe Carr

General Meeting Minutes Continued

assistance with light pollution issues or concerns in their municipality or neighborhood they contact Sid or Bill for assistance.

Other Business: Chris thanked Peter Schlatter for looking after the coffee over the past year and called for a new volunteer to look after the preparation of coffee for after our regular meetings. Please speak to Chris if you are willing.

Chris also noted that Ray Villard, the Public Information Manager of the Space Telescope Science Institute, will speak on the latest results from the Hubble Space Telescope on Monday Jan 13, 2003 on Salt Spring Island. Tickets available on Salt Spring or directly from Chris Gainor after the meeting. See SkyNews for more details.

This Evening's Speaker: Chris introduced tonight's speaker Dr. Richard Herd, Curator of the National Meteorite Collection of the Geological Survey of Canada. Dr. Herd provided a fascinating discussion of meteorites and how they can tell us about the origin of our solar system and our universe. He provided a number of slides of the National Meteor Collection including recent acquisitions. He also discussed recent experiences investigating a number of Canadian meteorite falls.

The meeting adjourned at 2230h

Robert Walker, Recorder

Spratt Collection

Victoria Centre member Christopher Spratt has donated his meteorite and tektite collection to the National Meteorite Collection of Canada. The collection, which includes 800 samples from more than 400 meteorites, adds 76 previously unrepresented meteorites to the national collection.

Spratt's gift also was the reason that the collection's curator, Dr. Richard Herd, was in Victoria to speak at our December meeting. During his trip to pick up the Spratt collection, Dr. Herd gave Victoria Centre members an interesting and sometimes humorous glimpse at the world of meteorites and his work at the Geological Survey of Canada.

The national collection now includes more than 2,700 meteorite fragments representing 1,100 meteorites recovered from all parts of the world. Dr. Herd said the Spratt collection is well documented and organized, and therefore makes a good addition to the national collection.

Chris Gainor

The Space Place



Frisbees in Space

When Pete Rossoni was a kid he loved to throw Frisbees. Most kids do—it's pure fun. But in Pete's case it was serious business. He didn't know it, but he was practicing for his future career in space exploration.

Grown-up Pete Rossoni is now an engineer at NASA's Goddard Space Flight Center. His main project there is figuring out how to hurl spacecraft into orbit Frisbee-style.

The spacecraft are small—about the size of birthday cakes. "This wouldn't work with big satellites or heavy space ships like the shuttle," notes Rossoni. But a cake-sized "nanosatellite" is just right.

Nanosatellites—nanosats for short—are an exciting new idea in space exploration. Ordinary satellites tend to be heavy and expensive to launch. The cost alone is a deterrent to space research. Nanosats, on the other hand, can travel on a budget. For example, a Delta 4 rocket delivering a communications satellite to orbit could also carry a few nanosats piggyback-style with little extra effort or expense.

"Once the nanosats reach space, however, they have to separate from their ride," says Rossoni. And that's where Frisbee tossing comes in.

Rossoni has designed a device that can fling a nanosat off the back of its host rocket. "It's a lot like throwing a Frisbee," he explains. "The basic mechanics are the same. You need to impart the spin and release it cleanly—all in about a tenth of a second." (The spinning motion is important because it allows the science magnetometer to measure the surrounding field and lets sunlight to play across all of the nanosat's solar panels.)

The ST5 nanosats are designed to study Earth's magnetosphere—a magnetic bubble that surrounds our planet and protects us from the solar wind. But their primary goal, notes Rossoni, is to test the technology of miniature satellites.

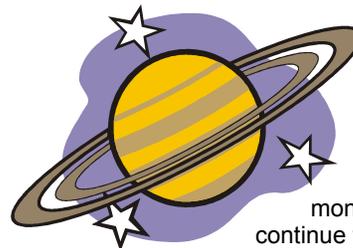
"We haven't done anything like this before," says Rossoni. Soon, however, the concept will be tested. A trio of nanosats is slated for launch in 2004 on the back of a rocket yet to be determined. The name of the mission, which is managed by JPL's New Millennium Program, is Space Technology 5 (ST5).

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JoeTourist Continued

Goals

Set yourself targets that include some **quick wins and easy rewards**. If you have your new telescope, concentrate on setting it up successfully within 15 minutes. Practice at home in daylight first. Remember, when you setup your telescope at a remote site, you will be doing it in the dark with only a dim red flashlight to aid you. It takes about 15 minutes or so for your eyes to adapt to good night vision, which is essential to "seeing" those faint nebulae and star clusters. If you are using binoculars, take a reclining lawn chair with you so you can settle back and relax instead of craning your neck and back into painful positions.



Research your proposed targets before leaving home: print out star charts from your astronomy software, bookmark your observing handbook, annotate your sky charts. Start out with the brightest and easiest-to-find targets. Jupiter, Saturn, Venus, and the Moon all offer enough for the beginner to stay interested in for months. Even after years of observing, astronomers continue to pick up new details in these "easy" targets. Try some of the brighter double stars, and test your vision acuteness.

Don't forget the moon. Each phase offers new views of the fascinating topography of the moon.

Share

Share your new interest with others. Astronomy can be pursued alone, but it is fun to share your triumphs with others. Perhaps your partner doesn't share your enthusiasm, but if you mention your interest to your co-workers, friends and acquaintances, there are bound to be some who share your interest.

Record

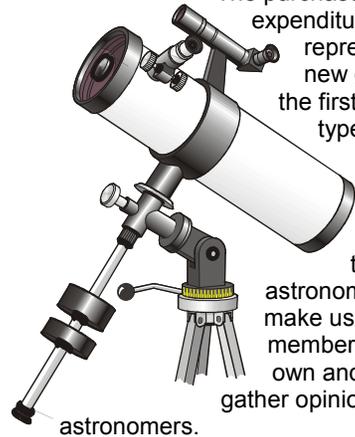
Take notes or **keep a journal** of your observing sessions. There are pre-built forms available for download from the Internet, or use a simple lined notebook. Record the date, time, visibility, location, any equipment you used, and any other astronomers you were observing with. Take note of each celestial object you observed, perhaps do a quick sketch if that helps describe what you saw, and add simple comments. As you progress, your notes will become invaluable to help you get the most out of your observing sessions – avoiding repeated mistakes, and taking advantage of your successes.



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JoeTourist Continued

Hardware:



The purchase of a **good quality telescope** is a serious expenditure, and more importantly, this purchase represents a commitment to actually make use of this new gear. Take it slowly, and don't go out and buy the first scope you see. Research what the various types of telescopes can do for you. Don't try to speculate on how that fancy new telescope in the shop window will work for you when you have no experience in astronomy. Build up your experience first without purchasing a telescope. If you have joined an amateur astronomy group, there are lots of telescopes for you to make use of – both scopes the group loans out to members, and also scopes your fellow members already own and use. Make use of these free resources, and gather opinions from more experienced amateur astronomers.

Before long, you will have a pretty good idea of what type of telescope will fit your needs. Also consider purchasing a **good set of astronomical binoculars** before you purchase a telescope. Binoculars offer an excellent way to observe the night sky. Astronomical binoculars typically have the designation 10x50 (10x magnification, 50mm aperture) or higher, and usually cost about \$200 or more. This cost is still well below what a good quality telescope will cost, and the binoculars will still be very useful for wide field observing after you purchase your new scope.

Be a "generalist"

It's a good idea to be a "generalist" for at least a year or two. The field of astronomy is filled with specialists, even in the amateur ranks. There are the telescope junkies who must have the "biggest and best" (aka "aperture madness"), and those who only observe using radio waves. Others are only interested in solar eclipses, and end up travelling the world seeking the perfect eclipse. Still other amateur astronomers only observe sun spots, planets, binary stars, comets, or supernova. Amateurs sometimes cross the line by becoming experts in their chosen specialty, and are sought out by professional astronomers for collaboration, and some end up lecturing at colleges and universities. Amateurs build themselves private observatories, spend months observing from the dark skies of Arizona, and operate very sophisticated telescopes. OK, let's **settle down and concentrate on the basics** for now...but you can see the possibilities in astronomy are as vast as the skies.

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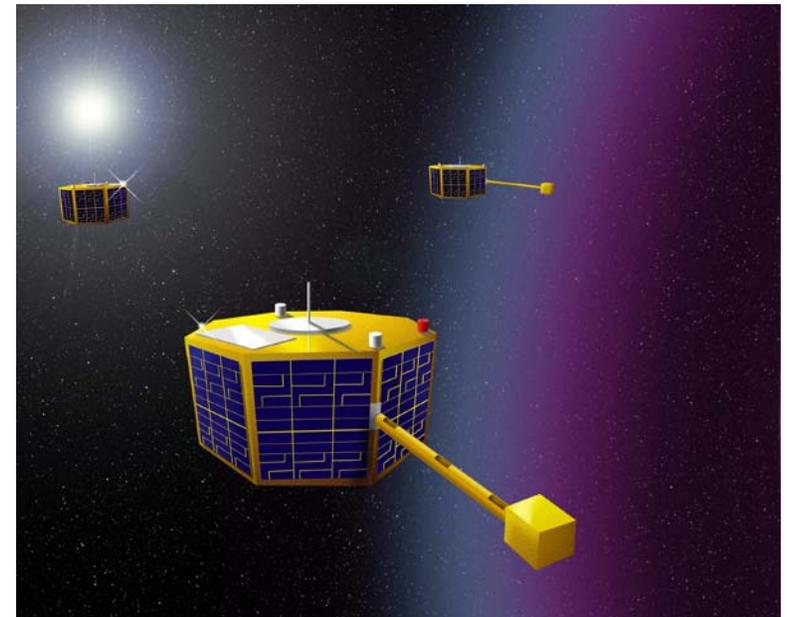
The Space Place Continued

Can groups of nanosats maintain formation as they fly through space? Will their internal systems—miniaturized versions of full-sized satellite components—satisfy the demands of both the harsh space environment and critical science measurements? Is Frisbee-tossing as much fun in orbit as it is on Earth? ST5 will provide the answers.

Read about ST5 at <http://nmp.nasa.gov/st5>

Budding young astronomers can learn more at: http://spaceplace.nasa.gov/st5/st5_tortillas1.htm

by Dr. Tony Phillips



Nanosat

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



The Cover

Ammonite

It's almost Christmas and the end of the year. Where the does the time go? I continue to keep the Fuji S2 busy creating images. I've yet to make prints but that will be coming soon.

Fuji Finepix S2
60mm Micro Nikkor
1/125 at f/4
ISO 400 setting
Object: fossilized shell

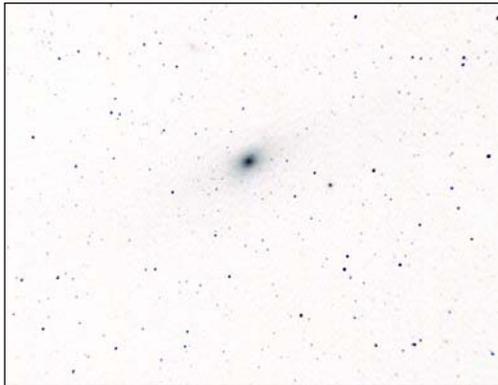
David Lee

Ammonites were very common in the oceans of the Paleozoic and Mesozoic eras, approximately 400 to 65 million years ago. They flourished in the Devonian and went belly-up with the dinosaurs.

Where were we? Imagine—we take about 200 million years to make one wild and crazy trip around our galaxy. And what did our night skies look like? David's favourite, the Double Cluster in Perseus (a mere 7600 light years away), hatched out of its star cloud about 13 million years ago.

Editor

David's Andromeda



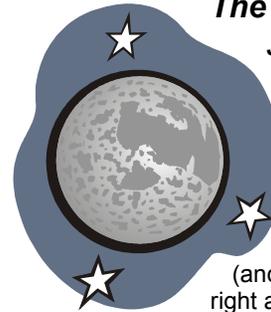
Well tonight was a clear night and having missed many good nights already this week I decided to test my new Finepix S2 on the heavens. Already proven itself a fine performer for available light I tried it at its highest ISO setting of 1600 to see what could be produced at 30 seconds through my Pronto refractor. With the CCD sensor being smaller than 35mm film the effective focal length was 720mm at an f/ratio of 6.8.

David

*JoeTourist,
the Beginning Amateur Astronomer
Part 1*

What's a beginning amateur astronomer to do? Or more to the point, where and how should beginners get started? I still consider myself a beginner, so I won't attempt to answer all the questions a beginner might ask. However, there are some simple steps to follow which will ensure you enjoy this fascinating subject for the rest of your life. It is very important to avoid becoming overwhelmed by the virtually endless possibilities astronomy offers the amateur.

The first step is simple and inexpensive:



Join an amateur astronomers' group. Most urban centres have at least one group, so seek them out by doing a search on the Internet, contact your public library, or enquire at your local university physics faculty. Don't forget to participate! The [Royal Astronomical Society of Canada \(RASC\)](#) and the [Astronomical Society of the Pacific \(ASP\)](#) are two excellent examples of amateur astronomers' groups which have a national (and international) scope. If you don't feel like joining a group right away, find out when Star Parties are being held in your area.

There may be a small admission fee, but you can then talk to different amateurs, listen to lectures from the professionals and amateurs alike, and have a look through a wide variety of telescopes.

Do some research:

Buy some books, a star atlas, and a field reference book. Use an Internet search engine to start building a collection of astronomical bookmarks. Follow up links you find on other astronomy websites. Both ASP and RASC offer members (at a discount) and non-members an excellent choice of publications, and both produce membership-only magazines.

Armchair astronomy is an excellent way to get acquainted with this vast subject. If you have a personal computer, purchase a low cost version of the many planetarium-style programs available on the market. Some are even free downloads off the Internet. Speaking of the Internet, there are several astronomy gateways available online, which will offer you a wide variety of features to let you explore the night sky using a simple web browser. No telescope is necessary for armchair astronomy, you don't have to contend with bad weather, and you can explore at your own pace.

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