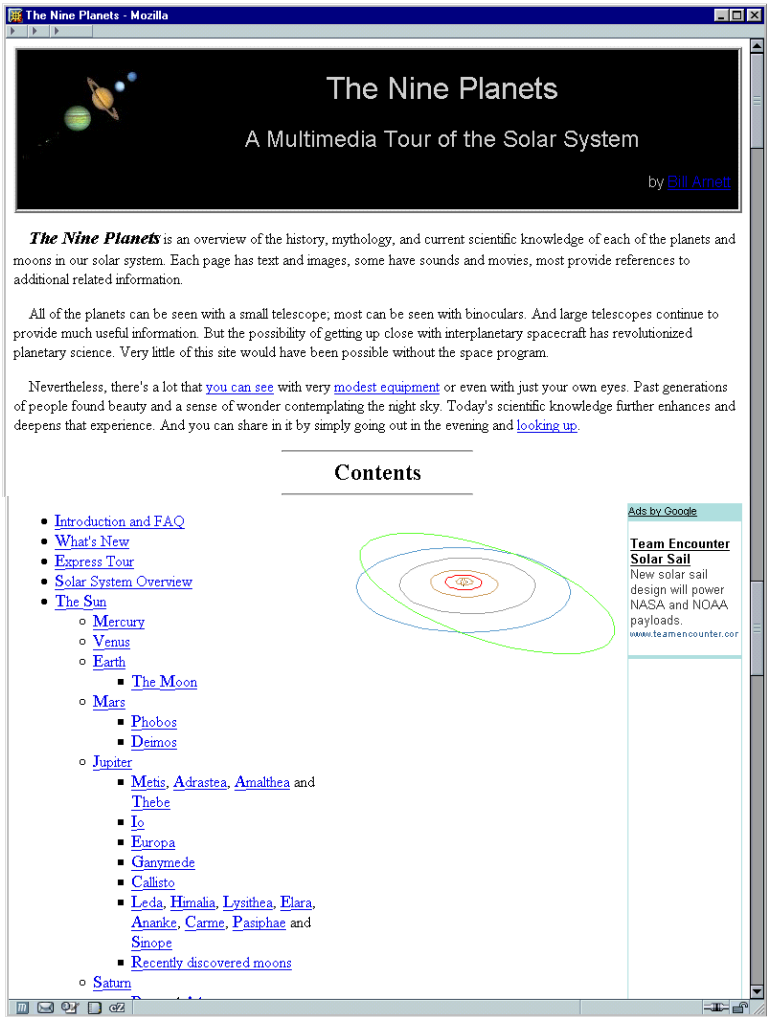
Web Page of the Month



Bill Arnett's "The Nine Planets" is an overview of what we know today. We are still exploring. Much more is still to come ...

http://www.nineplanets.org/

ROYAL ASTRONOMICAL SOCIETY OF CANADA • VICTORIA CENTRE

SkyNews

http://victoria.rasc.ca/

This Month

Stephen Courtin

The Evolution of the Ecliptic Calendar

For more than twenty years I have explored the graphic potential of showing the world my view of the cosmos. I see it as the big picture and can be used as the base map for seeing the Earth's perspective from a singular point of view. With the movements of the Sun, Moon, and Planets, I've followed the marvels of human discovery and the expanding visual realms of our Universe. I see the Ecliptic Calendar as a bridge to knowledge through this common point of reference and by mapping of the solar systems movements find the key to unlock my own grand unified theory.

I plan to provide a chronology of visual arts as a starting point for my talk and discuss the future directions in the art of science.

Address Change? Information Incorrect?

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ROYAL ASTRONOMICAL SOCIETY OF CANADA • VICTORIA CENTRE

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Members at Large:
Bill Almond, Jim Hesser,
Ed Maxfield, Frank Ogonoski,
Blaire Pellatt, Colin Scarfe,
Rich Willis

New Members Liason:
Sandy Barta

This Month

Astronomy Cafe

At Bruno Quenneville's
2019 Casa Marcia Crescent,
Victoria, BC.
Call 477-2257 for more information or directions.

Newcomers are most welcome.

Come and enjoy!

May 19

Astro Imaging

Every 3rd Wednesday
at
Bill Almond's

354 Benhomer Drive
478-6718

May 28

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

June 9

June Meeting

7:30 pm
Room 060, Elliott Building, UVic

Yes, We post important, timely, member-related news to our email list.

Online information about the RASCVic and Skynews email lists:
http://victoria.rasc.ca/
click on: 'Members Only'

For Sale

For sale and in excellent condition:

EXT-125EC Astro Telescope (Meade Instruments)

Includes:

- Deluxe Field Tripod
- Metal Carrying Case
- Autostar Computer Controller.

Retail Value $2,800 — Will consider best offer!

Contact: artist@cavelle.net

Island Eyepiece and Telescope

President's Message

The month just ended has gone into the books as the sunniest (or to us, the clearest) April on record in Victoria. But this past month has been remarkable for other reasons as well.

It started on a sunny April 1, when a group led by our Vice President, Bruno Quenneville, carried out the work of moving George Ball's dome and telescope supports from George's longtime home in the Gorge Burnside area.

The move went well, especially due to some skillful work by Steve Tidder of Advantage Cranes, who threaded the dome between power wires and hedges, and then transferred the dome for temporary safekeeping in Bruno's back yard. Sid Sidhu picked up George's telescope equipment for storage.

We held our monthly meeting at the Centre of the Universe on Little Saanich Mountain, and there we met the CU's new director, Jacqueline Porter, whose experience and drive are a match for the big challenges of running this important facility. We also enjoyed a great lecture from Jean-Rene Roy on the Gemini Telescopes.

The focus then turned to Astronomy Day, which took place on Saturday April 24 at the Royal BC Museum and later at the CU. We enjoyed large crowds at the museum, in spite of the hundreds of other activities that seem to take place at this time of year on weekends.

We all heard scores of children exclaim "wow" and "cool" as they got their first glimpse of a sunspot, a lunar crater, a Jovian moon, or a Saturnian ring. And our string of excellent weather for Astronomy Day continued unbroken.

Again, this wouldn't be possible without the hard work of people like Sid, Bruno, Sandy Barta, David Lee, Lauri Roche, Stephen Courtin, and many others. Many of our members come out and play important roles in making Astronomy Day a

(Continued on page 4)

The deadline for the next issue of SKYNEWS is

May 23 2004

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

President's Message Continued

success, and I want to thank all of you.

There were also our school observing events, including one at Keating Elementary, and another at Millstream Elementary conducted by Sid.

Finally, on April 28, the Victoria Centre council held a special meeting to recognize our Honorary President, George Ball, and his gigantic contributions to our group. We presented him with photos contributed by Bruno, David and Bill Almond, and with a Certificate of Appreciation for all his work.

And in between all that, many of us took advantage of those clear skies and got some observing in, too!

Chris Gainor

George Ball—On the Cover!

On April 28th 2004, at a special council meeting, we presented George Ball with a number of mementos which included a certificate of appreciation, a photo album of images from the recent move of his dome and a book of that photographically inventories the astronomical equipment that he has donated to the Centre. Present was Jim Hesser, Betty Hesser, Frank Ogonoski, Li-ann Dorrance, Chris Gainor, Bruno Quenneville, Ed Maxfield, Sid Sidhu, Lauri Roche and David Lee.

Special thanks to Joe Carr and Bruno Quenneville for documenting the move and equipment and to Brenda Stuart for the production of the certificate.

Cheers, Chris

David posted some images from the presentation to George Ball on April 28th:

http://victoria.rasc.ca/articles/2004/GeorgeBallPresentation/Default.htm
(see page 6 for some of David's pictures)

CERTIFICATE OF APPRECIATION

This certificate is awarded to
George Ball
HONOURARY PRESIDENT
RASC Victoria Centre

This certificate is presented in recognition of George's many years of generous service helping generations of Victorians learn about the wonders of the heavens. He has produced a legacy for future astronomers that will include his dome and telescopes, the well-kept historical records of his work and the respected Newton-Ball Award.

ROYAL ASTRONOMICAL SOCIETY OF CANADA • VICTORIA CENTRE

lower of the Ann Landers philosophy that "If it ain't broke, don't fix it." The optics are, you see, from a glassworks factory originally founded by the famous optician Joseph von Fraunhofer in the early 1800s. Fraunhofer gave us the original experimental basis for all of modern spectrographic analysis; you may recall seeing the bright yellow Fraunhofer Sodium D lines during a high school physics lab. Fraunhofer needed good optics to get it right, at the time, so he made his own lenses. His high standards persist to this day. For our telescope, our aspiration is to supplement the optics with some equally fine filters for observing; light pollution filters are our top priority — something Fraunhofer could never have predicted, I'm sure.

So that is a bit of the story of the M51 Josef Erz Observatory and refractor. A 160 mm instrument may seem like a finder scope to some people, but history can be as important as function. And the kids that have had a chance to look through it are always thrilled. Those same kids are now wishing for a 400 mm instrument, ogling GPS-equipped Go-to 'scopes, and spending more time looking up at the skies and less looking down at the pavement. To me, that's what astronomy has always been about: making sure we can look out and beyond our current confines.

Jack Ruitenbeek is a life member of RASC with the Victoria Centre. He lives part time on Gabriola Island and part time in Divonne.

Observatoire Josef Erz, Divonne-les-Bains, France.

Finding Treasure in a French Village

We often get so wrapped up in the newest telescope gadgets that we forget the history of telescopes, and the joy that an old instrument can bring. Many an attic and garage has coughed up a dusty old misaligned reflector that nevertheless sparked the interest of a young budding astronomer. Discovering such treasures is always a delight, and the surprise of it enriches the experience even further.

Imagine my surprise when I stumbled upon a refractor with almost century-old optics in a small French village, just 200 meters from the Swiss border. With the city lights of Geneva sparkling in the distance, and the alps with Mont Blanc behind, sits a small observatory at the outskirts of Divonne-les-Bains. Divonne is rather unassuming — known mainly for its thermal springs — but when the north wind (the French call it the “Bise”) settles down, the skies can be crystal clear: not a bad spot for an observatory.

Helping rehabilitate the refractor has become my astronomy project for the next year or two. The instrument — 160 mm diameter with a 2300 mm focal length — was made by Josef Erz, who was an engineer from Trèves, Germany. After seeing use as a personal telescope for many years, it was donated by the family to the M51 Astronomy Club in Divonne on condition that it be accessible to schools and the general public. M51 is a small club, with a dedicated executive (the treasurer is the niece of Josef Erz) and a membership of 30 people that is about half teenagers and younger children! The adults meet formally a few times a year, whereas the kids have monthly meetings to do projects that range from a model solar system to making a 1 metre round planisphere. The telescope could not have found a better home, but it needs some tender loving care.

Rehabilitation, in this case, involves tackling a long series of small problems. If we get them all right, then the facility will be first class. The observatory was recently rehabilitated with a slotted dome, connections for a 2kW generator, and some other handywork to keep the flies and birds out. But now the club is concentrating on the interior, and my efforts are consumed by the alignment and drive mechanism. (I seem to have the combined advantages of knowing a bit about telescope alignment and electronics and, probably more important, having some time on my hands!) We know that the pier — on which the telescope and its polar-aligned mount sits — was originally well-aligned but settling grounds and the odd earthquake take their toll. The “modern” electric drive system — which consists of hand-made WWII vintage parts accompanied by hand-penciled schematics that will require some deciphering — can also use a bit of an upgrade. Step one will be to calculate the precise amount of misalignment from careful observations of reference stars. Step two will be to add some electronics to the drive mechanism to permit more precise tracking. Then, and only then, will we concern ourselves with the optics.

Why do the optics last? Because they are still in fine condition. I am a fond fol-

ROYAL ASTRONOMICAL SOCIETY OF CANADA • VICTORIA CENTRE

Book (well, magazine really) Review

Hands up, those who knew

Five of the seven stars that make up the Big Dipper are about equal distance from Earth, 80 light years (or, as the brand new magazine *night sky* goes on to explain, their light takes 80 years to reach us).

Fairly basic stuff, one would suppose.

But information like this is not common for a new RASCal who would really like to know what other members are talking about when they rattle on about red dwarfs (surely they mean dwarves!), string theory, Markarian's Chain, gamma-ray bursts and such. Newbie eyes have the habit of glazing over when some of our wonderful guest speakers roll out their spectacular power point presentations.

Sky & Telescope, the popular monthly astronomy magazine, is making a strong try to cover off this knowledge gap. It has just published *night sky*. It has the same page design and type font as its big brother but is to be published only six times per year. It's skinnier — and cheaper ($5.99 vs $6.50 Cdn per copy. Thrifty's and others carry it.)

Is it better? Probably yes, is the answer from this newcomer. The illustrations match the editorial attempt to provide the grounding so necessary to continue in this pursuit. The writing is plain, as are the drawings.

The publisher has also attempted to attract advertisers who sell telescopes and their many attachments, most of which will be of interest to just-joiners. But *night sky* can't resist larding in some of the Meade and Celestron high-priced eye candy that is so tempting.

The reviewer has been waiting for something like this to appear. Perhaps it will be enough to push him off the high-diving board and into actually purchasing a telescope.

(George Gibson, who wrote this review, is really, really thinking about buying a simple scope. It's either that or a self-cleaning stove.)

Upcoming Meeting

June

Chris Gainor will talk on Mars at the June 9th meeting and Joe and David will share some snapshots of the night sky.

George

George accepts his certificate

Chris and Bruno

Betty, Frank, Li-Ann and Chris

Sid and Lauri

Astronomy Day on our web site

It was good to see everyone at Astronomy Day. Special thanks to Joe Carr and Bill Weir who helped add to our collection of astrophotos; to everyone that helped out at the astro-photography display, thanks for answering questions and enhancing the understanding and enjoyment of the images. Of course Astronomy Day is never complete without Saturday night up on the Hill.

Congratulations to Dave Bennett who on Astronomy Day created his first astro images through a telescope!

Malcom kindly documented the events at the Royal BC Museum during the day … look for more images on the RASC Victoria website, now can I remember how to post stuff to the website ?

David

Report from the C.V. Continued

May 26	Moon beside Jupiter
May 27	First Quarter

May skies will feature a beautiful comet. Comet NEAT (c/2001 Q4) will be reaching its peak brightness around the 6th of May and for us in Victoria, around this day we should be catching our first glimpse of it. Look to the south-western horizon just after sunset. The bright "yellow" star you see is Sirius. Look up and left of Sirius for a "fuzzy star". This should be comet NEAT. As we get deeper into May, the comet will appear higher above the horizon, but not as bright. Use binoculars to discover more detail. For more information and detailed sky charts, visit:
http://skyandtelescope.com/observing/objects/comets/article_1229_1.asp

May skies feature another meteor shower, the Eta Aquarids! Meteor showers occur when the Earth passes through the "leftovers" of a comet. For the Eta Aquarids, we are passing through debris left behind by Halley's Comet, one of the most famous comets discovered! Although the show will not be spectacular, we should see about 20 shooting stars per hour. For more information on where and how to view this month's meteor shower, please visit
http://skyandtelescope.com/observing/objects/meteors/article_577_1.asp

As our days are getting longer, we have stay up late to star gaze! At 10 p.m. head outside to view the constellations. Start by finding the Big Dipper. It is almost straight up after sunset high in the north. Look down from the Big Dipper in the north to see the beautiful "w" of Cassiopeia just above the horizon.

Turn to the south east to see two bright stars. The higher one is Arcturus, in the constellation Boötes, while the lower one is the brightest star in Virgo: Spica. Astronomers use an easy trick to remember these two stars. First, find the Big Dipper and notice how the handle of the dipper forms an arc. Then, "follow the arc to Arcturus and speed up to Spica". If you compare these two stars, you may notice that Spica looks blue while Arcturus is more orange, showing that Spica is hotter than Arcturus.

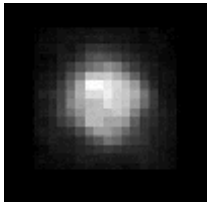
Look to the south west to find Leo, the lion. A large backwards "question mark" is the head of the lion. You will find the bright yellow Jupiter just to the upper-left of the sickle shape to Leo. Just above the western horizon, look for Venus, Mars and Saturn just off the horizon. Venus will be the brightest "star" you are able to see with Mars and Saturn just above it and off to the left. Near the end of the month, look for the planets next to the moon as it makes its way across the sky.

Clear skies and happy stargazing!
Cassie

NASA's Space Place

Voyage to a Double Planet

Download a "nine planets" screensaver for your computer with spectacular photos of our solar system, and you'll notice that one planet is conspicuously missing: Pluto. Icy and mysterious, Pluto is the only planet never visited and photographed by NASA space probes.



In fact, the clearest image we have of Pluto is a tiny, pixelated blob of light and dark patches taken by the Hubble Space Telescope in 1994. It's tantalizing but not much more. Earth-based telescopes have succeeded, however, in discovering one amazing fact: Pluto is not a lone world, but a double-planet system. Its companion, measuring about half the size of Pluto itself, is named Charon.

Work is underway to launch a robotic probe to visit and photograph Pluto and Charon. The project, called New Horizons, will map both worlds. Sensors will chart surface minerals and ices, and catalog the gases that make up Pluto's wispy atmosphere.

"It's the second epoch in the exploration of the planets," says Alan Stern, the principal investigator for New Horizons at the Southwest Research Institute in Colorado. "We're going to the very edge of the solar system."

The probe is scheduled to launch in January 2006. Its journey will be a long one. Pluto is more than 30 times further away from the Sun than Earth is! Even with a speed boost from a flyby of Jupiter, the probe won't arrive at Pluto until July 2015. Afterward, the probe will venture on to explore the Kuiper Belt, a distant "halo" of small, frozen objects surrounding the solar system, from which comets originate.

Aside from sheer curiosity about these distant worlds, scientists are motivated by questions about the formation of the solar system. Orbiting in the deep freeze far from the sun, Pluto and Charon have undergone less change than the inner planets during the solar system's 4.5 billion year history. These two worlds will provide a glimpse into the past.

Pluto could also shed light on the origin of our own Moon. Earth, with its single, large moon, is unusual. The Pluto-Charon system is the only other pair like it in the solar system. In fact, some astronomers consider Earth and the Moon to be

(Continued on page 8)

The Space Place Continued

a double planet, too. So knowing more about Pluto and Charon could give clues about how the Earth-Moon system formed.

And, of course, the spectacular, up-close photos of Pluto and Charon are going to look great as a screensaver!

By Patrick L. Barry and Tony Phillips

Artist's idea of the New Horizons spacecraft flying by Pluto and its moon, Charon . (Credit: Dan Durda.)

Check out http://pluto.jhuapl.edu/iav.htm for more information on New Horizons. Be sure to browse the other Pluto web sites...and check out the rest of the planets

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

Report from the Centre of the Universe

Hello everyone!

We are now open Friday and Saturday nights for viewings on the Plaskett!

Happy Birthday to Us!

May 6th is the 86th birthday of the Plaskett Telescope at the Dominion Astrophysical Observatory! Since 1918, the 1.8-metre research telescope has been in use every clear night of the year by astronomers. Once the largest telescope in the world, the telescope was put together using some real "horse power" — horses and people were used to put together the structure which is still standing today. Every Saturday night during the warmer months since "first light" through the Plaskett telescope in 1918 has been dedicated to the public. This year is no exception! Join us Saturday nights from 7 to 11 p.m. for viewings on the telescope plus a variety of fabulous programs at the Centre of the Universe. This year, we are also pleased to offer Friday night Plaskett telescope observation, also from 7 to 11 p.m.

For more information, please visit:
http://www.hia-iha.nrc-cnrc.gc.ca/cu/hours_e.html

We are also open daily from 10 am to 6 pm for some wonderful programs and solar viewing with small telescopes should the weather permit!

The staff at the Centre of the Universe has worked with the media relations branch of the National Research Council of Canada to develop an on-line sky chart called "Canadian Skies". Based on a poster developed several years ago, this site is great way to explore the constellations in the night sky. Activities for kids, resources for teachers and information for all is also found on this website! Check out:
http://www.nrc-cnrc.gc.ca/education/canadianskies_e.shtml

The Sky This Month: April 2004 (All times and dates local to Victoria, BC)

May 4	Full Moon
May 5	Eta Aquarids Meteor Shower peaks
May 6	Plaskett Telescope's 86th Birthday
	Comet NEAT (c/2001 Q4) at its brightest
May 9	Mother's Day
May 11	Last Quarter
May 19	New Moon
May 21	Moon just above Venus at sunset
May 22	Moon just above Mars and Saturn
May 24	Victoria Day

(Continued on page 10)