

Next week Dan will meet with Windsor public school officials regarding FCO lighting at schools. Mel Richardson told members his contact with the city on their 311 line regarding the glaring lights on the new Princess Auto store. It seems the only "clout" in the building standards is holding back the building permit fee new projects until FCO standards are met. There are no bylaws to enforce FCO lighting should the offender later return to glaring fixtures. Dave Panton reported the new York Town plaza parking lot lights are the shielded type but still quite bright. Randy pointed out there are also standards for brilliance.

Observatory Director: Peter Bondy

Peter's new business has been established and he is able to return to work on a second Trillium grant for observatory equipment.

Memberships: Paul Pratt Paul was not available.

Short Presentation by Randy Groundwater

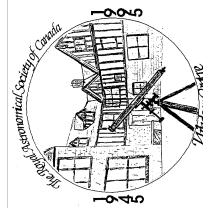
Types of Telescopes for Amateur Observers Randy's long experience with all manner of telescopes qualifies him to speak with authority in these matters. The three main types of telescopes on display were described in detail and their principles of operation, various features, performance and advantages and disadvantages highlighted by Randy. Refracting telescopes can be costly in high quality larger sizes but having no central obstruction can provide highly detailed images of distant objects. They are rarely very large due to high costs and subsequently cannot gather as much light per dollar. Much less costly size for size, reflecting telescopes like the simple white tube 6 inch diameter classic Newtonian set on a Dobsonian mount are the winners in performance for the dollar. They are great for persons wishing to learn the skills of finding objects in the night sky by map reading and "star hopping". The orange tube "Schmidt Cassegrain" type telescope from the old St. Clair College observatory has become a near standard for those wishing short tube convenience and high performance in a small package. In days past their more complex mirror system was very costly but today they are affordable. When computerized they can put a complete beginner in full command of finding virtually any object moments after a brief setup. Randy's prime advice was "No matter which type chosen it is very important to buy a high quality instrument".

Director of Observing this Month: Randy Groundwater.

Comet McNaught, huge and very spectacular came and went quickly. Local observers had only a couple of brief observing opportunities. Southern Hemisphere observers were treated to a very bright comet with a huge tail of trailing dust sprayed in a fan visible simultaneously by observers in southern hemisphere from near dusk to dawn. March will feature a total lunar eclipse visible in totality as the Moon rises on Saturday March 3rd. Hallam will be a great place to observe. A super nova, easily visible to the naked eye peaked in Scorpius at magnitude 3.7 on February 16th. It too should be visible from Hallam for a period of time as it fades.

As a special treat, Randy played the "Mars" from Holst's "The Planets", combining the classical music piece with a series of gorgeous views of the planet Mars.

Pierre thanked all for a very successful meeting and adjourned the meeting at 10:37 pm.



Aurora



Flyer

Next Meeting

Tuesday, April 17, 2007
8:00 p.m.

Maidstone K of C Hall
10720 County Road 34
(Old Talbot Road)

Speaker: *Dr. William Baylis*

Topic: *TBA*

Upcoming Events

Hallam Observatory Open House:

			Moon Age
March 24	7:30 p.m.	6 days	
April 21	8:30 p.m.	4 days	
May 19	9:30 p.m.	3 days	

Earth Day April 22nd at Mic Mac Park

Celestial Events:

April 21 International Astronomy Day
April 21/22 Lyrid Meteors

Centre Events:

June 12th Council at Harry Brydon
June 16th Annual Centre Picnic (Plus?!)
Oct 9th Council at Dave Panton
Feb 2008 Council at Donna Ronconi

Monthly Meeting Minutes for Feb 20, 2007 compiled by Dave Panton

Chaired by Pierre Boulos

The minutes from the January meeting were read, KC Masterson made a motion to accept, John Marn seconded and the motion carried. The council meeting planned for February 13th. was lost due to fine blowing snow. It will be held on March 6th. at Pierre's home.

Main Presentation: Pierre introduced Juliana Grigorescu, main speaker for the meeting. The Fascinating Magnetism Physics and astronomy are sister sciences, Juliana explained with astronomy the major science of today. Using power point illustrations, a big powerful donut magnet and a smaller cylindrical companion she showed the basics of their behavior. Passed around the floor members were able to feel the strong attractive or repulsive forces they mysteriously generate. Magnetic materials and their basic properties were explained. One was of special interest, loss and recovery of magnetism with temperature change in some materials. A video of a tiny "Curie magnetic engine" running simply by alternately flame heating and air cooling a nickel wire pendulum as it swung to and fro from a small magnet. Then electricity was brought into her presentation and linked to it's relationship with magnetism. The shapes of magnetic and electric fields, interdependent and proportional to one another's motion were illustrated. A video of alternating electric and magnetic fields propagating at right angles to one another helped clarify their relationship. It was not until the 1800's that electricity and magnetism work by prior scientists was incorporated into mathematical equations by James Clerk Maxwell. They provided a sound basis from which it became possible to design electromagnetic devices. The familiar old analog volt-ammeter is an early example. Having given members the basics, Juliana went directly to astronomy. Our Earth has a slowly rotating molten iron core producing the magnetic field evident in our compasses. It is misaligned with Earth's axis of rotation and gradually tips end for end exchanging North and South Poles. Recorded in solidified lavas, 171 "flips" have occurred in the last 71 million years. Very importantly, it protects life on Earth by deflecting Solar winds.

The Sun also has a magnetic field, much more active flipping end for end every 11 years. Huge loops of electrically conductive plasmas also create localized magnetic fields with reduced Sun surface temperatures below them, observable as Sun spots. Mercury has a very weak field. Venus none and thus no protection from destructive solar winds. Our Moon has almost none, Mars has none at all, reasons unknown. Jupiter has a very strong field which captures electrically charged particles from its moon Io's volcanic eruptions and holds them in a huge dust donut around the planet.

Saturn also has a strong magnetic field Further out, Uranus and Neptune have magnetic fields greatly off set from their rotational axis. Uranus is believed to have a metallic hydrogen core rotating deep inside. Again, Juliana showed us another well done video of the strange motions it exhibits. Deep in space, many more phenomenon involving magnetism are found. Magnetars are collapsed stars composed of only neutrons. Their magnetic fields are extremely high. They are believed to emit radio waves when their surfaces quake. Juliana pointed out magnetism, is also a property of space-time. Short of local time, she concluded her talk leaving much more material for the future. Pierre thanked Juliana for her well done presentation.

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Coffee Break and 50/50 Draw

Tom Sobocan, back on track after a computer failure and move to a new home, set up the usual refreshments assisted by Peter Bondy. Cash and a 2007 calendar were the prizes.

Correspondence Secretary: Dave Panton

There was no correspondence other than masses of Internet traffic regarding our National organization's many ideas for restructuring.

Treasurer: Ken Garber

The bank balance is \$3447.98 after paying our annual observatory insurance premium of \$1400. A few 2007 calendars remain for sale at a reduced price. There are 89 paid up members. National is surveying "come and go" members to help understand member turnover.

Newsletter Editor: Ken Garber

The January newsletter featured a color photograph of comet McNaught taken by Paul Pratt. A bonus this meeting, Bert Huneault brought copies of a four page article he wrote describing the Sun and it's multifaceted activity.

Librarian: Rick Marian

Rick was not available. Randy reminded members there are several rental club telescopes with eyepieces available for member rentals at very modest rates.

Director of Public Education: Randy Groundwater

Pierre gave a 1-1/2 hour presentation at the U of W Faculty of Education to acquaint student teachers with astronomy basics and the role of RASC in Canadian astronomy. Steve Pellarin took 14 students out to observe Venus. Mike Mastroianni is set to make a presentation to grade 6 pupils at Anderdon Public School. Randy encouraged members to come and bring friends to the next monthly observatory open house on Saturday Feb 24th.

Director of Public Relations: Tina Chichkan

Tina reported she had arranged to have our RASC events and website broadcast on Cogeco Cable 11.

Light Pollution Abatement: Dan Taylor

Dan has been very busy and has made significant progress with reluctant MTO officials planning Highway 3 bypass improvements. They have not adopted the term "Full Cutoff Lighting", instead using the term "Shielded lights" for highway light poles. David Suzuki has been in the area and spoke in favour of wind turbines, satisfactory lighting for which has been established via Dan's efforts with Transport Canada. Parks Canada people at Point Pelee have removed most of their glaring lights at the entrance. They have asked for a talk on dark skies at the 2007 Festival of Birds event.

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