Orbit

The official publication of the Hamilton Centre of the Royal Astronomical Society of Canada

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Hamilton Centre Turns 100

Bob Botts created this graphic to commemorate the club's 100th birthday.

On December 20, 1901 the Astronomical Society of Hamilton was founded with the Reverend D.B Marsh as its presiding officer. Early the following year it became a section of the Hamilton Association for the Advancement of Literature, Science and Art which was established in 1857.

Marsh had his own dome and a 13cm refractor and was well respected for the work he did. In December 1908, he and, then president of the group G. Parry Jenkins, attended an RASC council meeting, where their application for Hamilton to become a centre was enthusiastically received. So, Hamilton held their first official meeting as a centre on January 15, 1909.

We have a long and illustrious history that you might want to read about in "Looking Up" a history of the RASC by R. Peter Broughton. The book can be found in the centre library. The centre spread of this issue of Orbit has a few pictures and quotes found in the book.

SB

Editorial:

by: Scott Barrie

This issue of Orbit is special for a couple of reasons. First and foremost, of course, is the fact that it this month we are marking the 100th anniversary of the day the club originally came into existence. On December 20th, 1901 a group of astronomy enthusiasts gathered in Hamilton and formed the club from which we have descended. It's a momentous occasion and one of which we should all be justly proud.

The second reason this issue is a little special is that it's the first issue that is designed to be delivered electronically in .pdf format. There are many advantages to doing it this way. The most significant reason is that it will dramatically reduce the cost of producing Orbit if the number of copies we need to print and mail is kept to a minimum. Secondly, it allows us to use colour as much as we like. It will also make it easy to file and store for the long term. There may be some bugs to work out, but let me know what you think

What's In Orbit

by: Ev Rilett

With Christmas and New Year around the corner, I'm hearing from the birds that winter is going to hit us with a vengeance. Maybe this year we'll have a white holiday. Hope you all have the clothing to bundle up in.

This month I'd like to introduce a new project specifically geared to beginners. It is offered by the RASC Observing Committee, referenced with the "The Beginner's Observing Guide" (not a pre-requisite).

The program introduces you to a good assortment of the things our world has to offer. It could also be a great refresher for those who've been away from observing for a while. I also know that all the experienced observers will help and share their knowledge and expertise.

A brief description:

There is a wide range of 110 Observing objects with a requirement of 55 objects to be hunted down. The categories are organized by seasons, and span the Moon, Deep Sky, Constellations and Bright Stars, Solar System and Double Stars.

I will supply details of the **"Explore the Universe Observing Certificate"** by email for anyone interested and you can pick and choose which objects you'd like to chase. You should keep a log of sorts, and check off objects as you find them. Logs are a great way of keeping track of your observations and also to watch as you grow with experience.

There is no time limit, and this certificate should be easily obtainable within a year. So get out your binoculars, small telescopes and most importantly your eyes. You don't want to miss any of them so 'Let's get to it'.

Just a reminder; the Observatory is a facility for you to use anytime. Please come out and enjoy the benefits and companionship of the members. We can all share and learn from each other. Looking forward to seeing you all there.

I'd like to wish everyone a safe a happy holiday. May Santa bring all the Astro goodies in his sleigh.

Ev Rilett, Observing Director
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From the Eyepiece

by: Mark Kaye

November was quite a month. The Leonid meteor shower was spectacular! Against all odds, it was a beautiful clear night at The Observatory. Of course, photographic evidence of meteors is scarce. Meteors know where an open shutter is pointed and they are notoriously camera shy.

But hoping to get good photographs of a meteor shower is only a side bar to actually lying under the stars and watching for meteors. I saw more meteors in one night than I have seen in the rest of my observing life. Fireballs, lasting trains, different colours, bright flashes and faint fast streaks. The 2001 Leonids are going to be a pretty hard show to ever beat.

I was pretty concerned for the night of the Leonid peak, because the night before had been a beautiful clear night, if cold and a bit windy. It is hard to get two good clear nights in a row in November and I figured that the clearness was spent when the Sun came up on the morning of the 17th. How could we possibly have a second clear night, had the weather peaked one day too soon?

I had observed the night of the 16th through until it started getting light and then tried to get some shut eye during the day. By evening time, there were but a few clouds in the sky, but they were disappearing, maybe, just maybe it would still be clear. I put the girls to bed and then set the alarm for midnight hoping to get a few hours of sleep so that I could make it through until dawn for the second night. Midnight came too quickly, but it was clear. Usually, I have trouble getting going in the middle of the night if I have tried to nap, but this night I was right up and at it. I observed with the telescope for a while until the first bright meteor caught my attention.

Then I busied myself setting up cameras for a short time, set the sleeping bag out on the open roof of The Observatory and laid back and watched. I was doing eight minute exposures and the timer beeps at five minutes, so I started a count for the five minute periods. At first, numbers were at about 15 in each five minute segment, but that number grew steadily until when the numbers hit 30, I woke up the rest of the family.

I had sent Robin and Linda to bed with an FRS radio, so I did not have to go down, I just keyed the radio. Soon three sleepy eyed faces appeared and they were impressed. Meteors were coming fast and furious at this point, as many as two or three a second for a brief stretch of time. Many of the meteors were bright fast fireballs that ended with a flash, leaving a lasting train. There did not seem to be any really faint meteors.

All of a sudden, at 05:41, the stars disappeared. A bank of fog or clouds came out of the south at an incredible clip considering there was not any wind at all. Even after the clouds came in, the meteors continued to back light the sky. What a night. I was too excited to sleep, but I sent the girls back to bed. You can tell when they enjoyed something, because they talk about it later.

What a show!

I can count myself lucky for that one exceptional clear weekend. I have always wanted to observe an occultation of Saturn, but I guess I used up my allocation of clear skies as it was down right miserable for that event. Maybe next time.

Finally, December is an important month in the history of the Hamilton Centre. 100 years ago, on the 20th, a group of local astronomers formed our astronomy club in Hamilton. This month marks quite a milestone for the club, not every group that you can join has that kind of history. Let us hope that the next 100 years have as much to offer in the night skies.

Clear skies!

MK

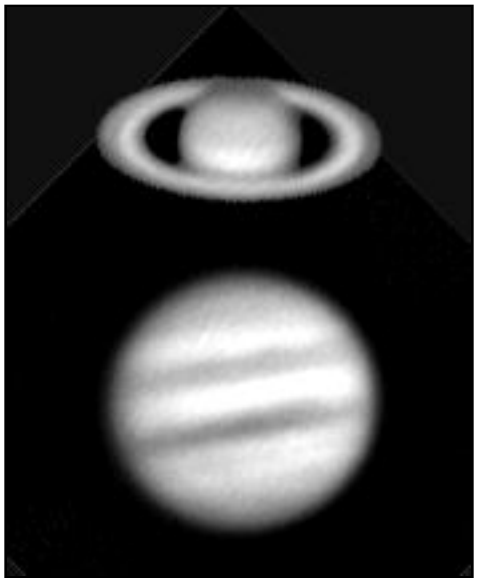


Photo-montage of Saturn and Jupiter by Bob Botts

Greek in the Round

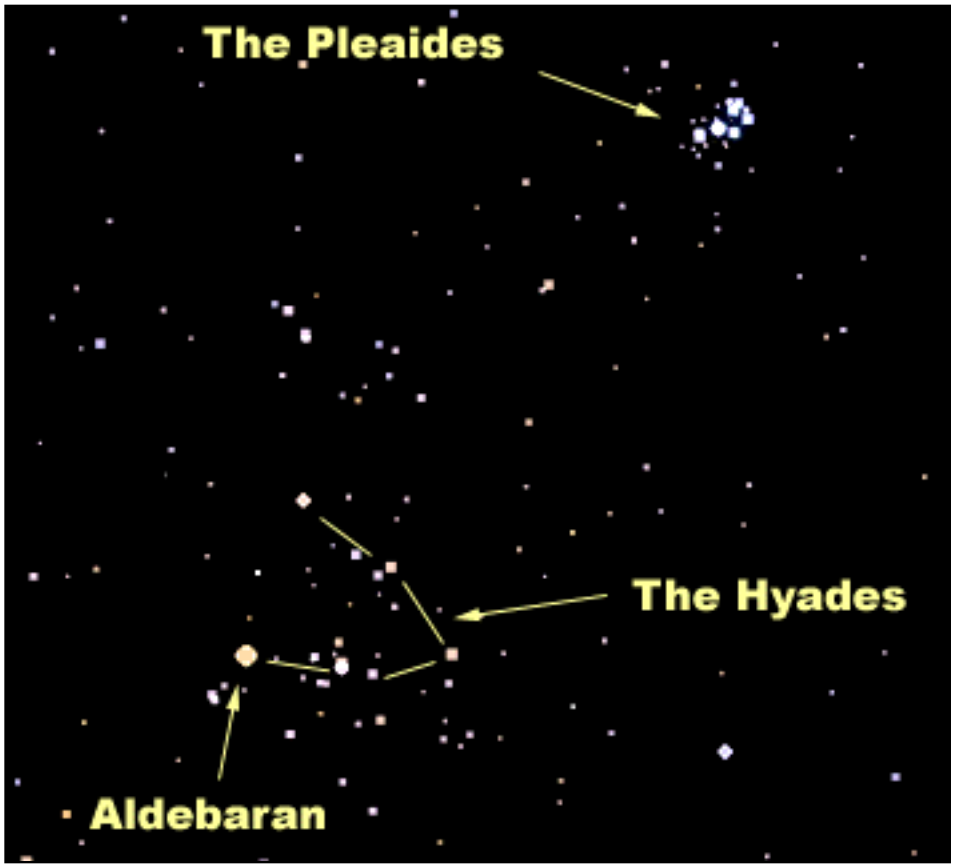
by: Ev Rilett

In Celebration of the missed Saturn Occultation in Taurus, I dedicate this month's mythology to Saturn and the Moon which both resided in the beautiful cluster the Hyades of Taurus, the Bull on Friday November 30, 2001.

Taurus - Perhaps the most famous of Zeus' relations with earthly maidens was his affair with Europa. Europa went out one morning with other maidens to gather flowers in their favourite meadow by the sea. She caught sight of a mighty but beautiful form - a bull like none other she had ever seen. Some say his colour was snow-white, others chestnut; but all agree that his coat glistened with beauty in the sun.

His horns were the shape of the crescent Moon, and though he looked powerful, his demeanour seemed so gentle that Europa and the other maidens drew nearer to admire the creature. Europa thought to herself that the bull seemed more like a man than an animal.

When he lay down at her feet, it seemed like an invitation to mount him and she accepted that invitation. The mighty bull leaped to his feet and raced to the open sea. Her terror blended with amazement when she opened her eyes and saw that his heavy galloping hooves were airborne upon the tops of the waves. All around her, sea-gods on dolphins (even Poseidon himself) sprang up and accompanied the pair.



She was, of course, carried off by the king of the gods, Zeus, in the guise of a bull. After a 600-mile journey across the wave tops, Zeus ravished Europa in Crete, his birth-land. Unlike some of Zeus' less fortunate conquests, however, Europa did not suffer the revenge of Hera, Zeus' wife. She eventually bore Zeus three sons. Europa had five brothers, all of whom went in search of her, but never found her although they had many adventures themselves.

The constellation Taurus has usually been identified with the disguise Zeus assumed to carry Europa away. Europa's name has been given to a major moon of Jupiter (Roman version of Zeus) and also to the continent we now call Europe.

The Hyades is a star cluster located in Taurus and in Greek mythology the Hyades were the daughters of Atlas and Aethra and half-sisters of the Pleiades. Zeus had a son Dionysus, by Demeter, who was kidnapped and nearly killed. Thus, Zeus changed him into the shape of a kid to hide him from Hera (his extremely jealous wife) and entrusted him the care of the Hyades sisters.

He rewarded their faithfulness by placing them in the stars. The Hyades make the shape of a V in the sky that is composed of 6 stars, the bright red Aldebaran (meaning the "Next One", from the fact that it rises after the Pleaides) being the main one. In the lore of the ancients, the Hyades were associated with wet and

stormy weather; the name itself is said by some to be derived from an archaic Greek word meaning "to rain". Pliny speaks of them as "...a star violent and troublesome; bringing forth storms and tempests raging both on land and sea..."

The Pleaides, M45, are the small group of stars most often referred to as the "Seven Sisters", the most famous cluster in the night skies. One of the most significant roles the Pleaides played was to the Agricultural seasons. In ancient times of no calenders, the Pleaides marked the beginning of the new year, which was divided into two parts. The rising indicated the winter and the setting indicated the spring. When the Pleiades rose in the fall, it was time to reap and in the spring when they set, it was time to sow. Thirty centuries ago, sailors waited for the spring rising of the Pleaides before setting to sea and also the ships were taken out of the water at the fall rising.

Although they are known as the "Seven Sisters", to the naked eye, the average individual can see only 6 of them. There are many stories as to why this is so. The Big Dipper is often referred to as the Seven Brothers and it is said that the lost Pleaid was taken by Mizar to be his wife, and to this day she resides with him as Alcor. Another legend is that 6 of the Pleaids married immortal gods while Merope married a -mortal- and, out of shame, the light of her star is so weak that it cannot be seen.

If you want to test your vision, try to see how many Pleaides you can count with your naked eye. If you cannot see 6, maybe you need to think about having your vision checked.

A. Muse

Explore the Universe

by: Grant Maguire

Explore the universe is coming to the Hamilton Centre.

What is Explore the Universe?

Explore the Universe is an observing certificate program. This program is designed to provide the observer with a well-rounded introduction to the night sky.

Why should you get involved?

Using this observing program is an excellent way to gain knowledge and experience in astronomy. This program will help introduce you to amateur astronomy and prepare you for other more challenging certificate programs such as Messier and Finest NGC.

Do I need a telescope to participate?

No. Binoculars are an ideal first observing instrument and this program has been designed so that it can be completed using binoculars alone. While a telescope can show many objects on this list in more detail, experienced observers always have a pair of binoculars handy.

Will I need a guide or a star atlas?

Explore the Universe Observing Certificate program can be used in conjunction with The Beginner's Observing Guide. This publication provides a clear introduction to observing techniques. In addition you will need a star map or atlas to assist you with locating a number of objects in this program. The Leslie V. Powis Observatory, library has many star maps and atlases that you can sign out or use while you are at the observatory.

How is RASC – Hamilton Centre going to assist me?

The Hamilton Centre is applying to be a Local Certification Centre. This will allow us to locally administer the program with our members, evaluate the progress of participants, lend assistance to participants, and award their observing certificates at general meetings. Our Observing Director we will be recommending certain objects each month in Orbit to assist participants. RASC National will be sponsoring a contest for all participants who successfully complete the program by October 2002.

What do I need to get started with Explore the Universe?

• A list of observing objectives and objects that the user must complete.

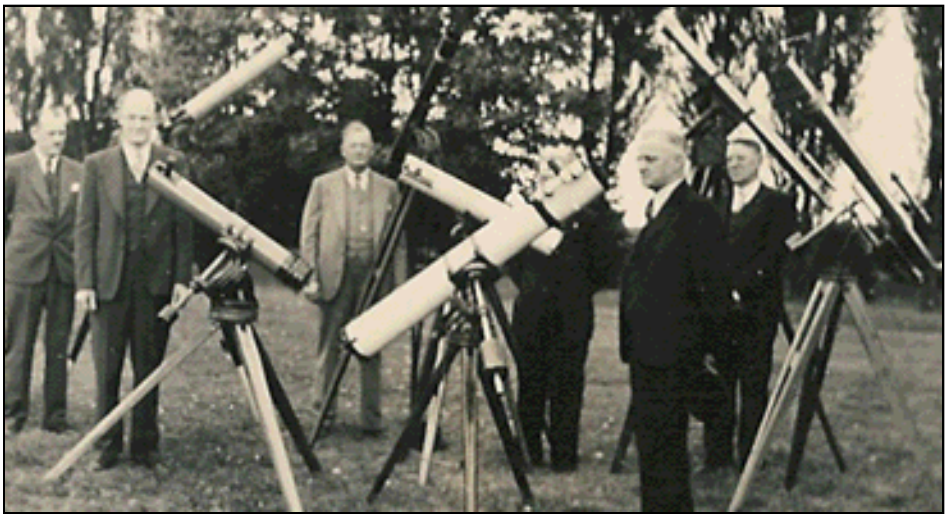
*See **Universe** on Page 9.*

A few Centre Memories

Photo of D.B. Marsh and his 13cm refractor - the scope that currently resides in the Hamilton Centre dome.

"There is a hearty interest among the members and several of our young men are looking toward an Astronomical Course in the University of Toronto -- two intending to devote their lives to the study. The Board of Education has generously supplied us with rooms, including light and heat, without charge. The telescopes ... [are] in constant use."

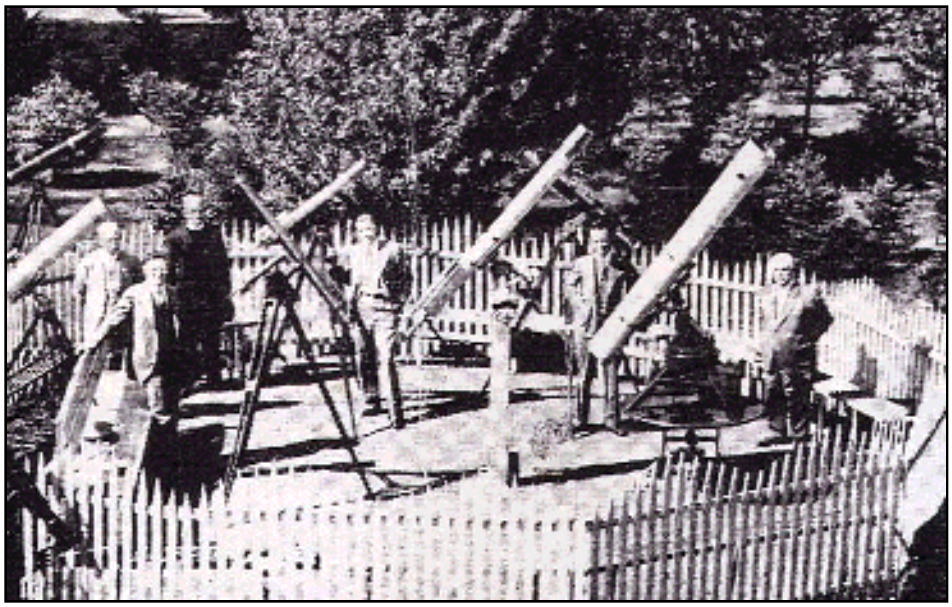
Dr. Marsh discussing the club in 1913



Former members gathered on the grounds of McMaster University in 1946.

Above: Treating a young girl to a look through an old refractor.

Left: Ken Chilton, former president of the IAUU, Hamilton Centre President, VP, Observing Director, Orbit Editor, etc. etc., looks on as Roger Speck simluates the Apollo-Saturn II separation at the time of the first lunar landing in 1969.



This photo, from the Hamilton Spectator for May 28, 1936 shows the set-up for the "field parties" describted to the right.

"Twelve hundred visitors turned out to see the Moon, Jupiter, Mars and more distant objects through several telescopes erected for the occasion by the members of the Hamilton Centre. Alderman John Marsh, M.P., was in charge of Mr Goddard's 5-inch [13-cm] clock-driven refractor. The other telescopes ranged from 8 inch reflectors to 2 1/2-inch refractors. ... Due to a combina - tion of circumstances, including a perfect night, splendid publicity with the cooperation of The Hamilton Spectator and Mr Goddard's inviting estate, this was a red-letter day in the annals of the Hamilton Centre. ... The Goddard family were busy until well after midnight supplying their guests with coffee, cakes and cookies."

Description of a "field party" held in 1937

This more recent memory by Bob Botts shows the observatory dome bathed in the light of aurora.

Mid Atlantic Star Party a Beaming Success

by: M.J. Spicer

Foothills Astronomical Society vice-president Steve Prewitt invited me to attend MASP2001 with him last week and we met Mark Hornbeck there last Wednesday 17 October at Camp Reeves, N.C. We stayed until Sunday afternoon the 21st.

The MASP web site (http://www.masp.org/maspindex.htm) has information about the location and activities of this annual astronomical get-together. I was amazed at the level of organization and the excellent facilities available for only a $20 registration fee.

We had 4 nights of almost cloud-free skies. The sky was not black, but you could easily see to mag 6.0 and there were no lights to interfere with the expansive view. It was in fact SO dark that after a while, even red lights were noticeable. THAT is dark.

Trees surrounded the field to about 15 degrees, but otherwise the entire sky was unobstructed.

"Cold" best described the first two days: bundled up with coats and gloves and wool caps or hoods, stamping feet and wearing winter boots, brushing frost (not just dew) from scopes and charts... but Thursday was an exceptionally good night. Friday and Saturday were warm by comparison, with only dew and lack of sleep to contend with. Our group all relied on dew heaters and were justly rewarded. Thank you Mr. Kendrick (a Canadian, I might add).

Mark Hornbeck generously put Steve and me up for the week in his camper - a portable 3-star hotel to which all the women at MASP were often pointing and whispering "it even has its own shower and toilet!". Most of the 300 or so in attendance camped out in tents.

I would estimate there were about 400 telescopes of all kinds and sizes. Mark brought his small solar telescope and the new Celestron 11" GPS SCT; Steve had his excellent 8" SCT and I brought binoculars and a 10" Meade LX-200.

MASP gave us several important opportunities: (1) to make new friends and renew acquaintances, (2) to compare our optical systems with others of similar style, (3) to try out eyepieces we had thought of buying, by asking to borrow them from other astronomers, (4) to dialogue with others about our systems and learn some "tricks", (5) to test our systems under the excellent conditions. And we did all of these things and more. I am sure Mark and Steve will post details of their gleanings from MASP.

Some memorable snapshots: (a) looking through the 6" AstroPhysics refractor at Epsilon Lyrae, both doubles at the edge of field, each split more cleanly than I had ever seen before; (b) the 24" strut newtonian's views of the Veil Nebula and M42, and glimpsing a 16th magnitude galaxy through this excellent "canon"; the satisfaction on Steve's face as his beautifully-collimated 8" SCT could see almost as well as a 10"; (c) the unbelievable surplus of stars in almost any eyepiece of any telescope under these great conditions.

No telescope worked perfectly; we all had moments of temporary electrical or optical glitches. But every telescope worked very well at some time, and we took the good with the bad. The site was filled almost to capacity on Saturday evening and the boy scouts came around as well, to earn their astronomy badges.

I was most impressed with the friendliness and generosity of all the astronomers. They were solicitous of any problem you might have, and acted at once to solve it. "Power cord? Take this one." Steve and I walked among the telescopes and were shown some magnificent sights of our choice by their owners.

What did we accomplish at MASP? (1) News articles about MASP brought people to the site to raise their knowledge of astronomy; (2) The need to preserve dark observing sites was brought home to some municipal administrators; (3) Our observing-goals were largely met - Messier and Caldwell targets were noted; double stars filled one night; no one was unsatisfied with the views of Jupiter, Saturn ("Look! There's Mimas!"), Uranus and Neptune; Mark's 11" captured views of NGC objects and galaxies as faint as mag 12 (and

maybe 13, or was that just imagination?); (4) we made many new friends and cemented our intention to return to MASP next year; (5) we discovered that our telescopes compared favourably with others, and that nagler eyepieces are not necessarily better than the Plossl eyepieces we were using...

Only a 15 hour drive to MASP for me, and well worth it! My special thanks to Mark and Steve for their camaraderie and to the West Virginia State Trooper for not giving a speeding ticket to a tired astronomer returning home.

***Universe** cont'd from Page 5.*

• A submission form for forwarding to the Hamilton Centre.

• Sample logbook pages and guidelines for observations.

These documents are available in hard copy by contacting Grant Maguire at email gmaguire@lara.on.ca , Phone number (905) 639-8926 (I will have some copies available at the December general meeting) These documents are also available for download in PDF format by visiting the RASC website at http://rasc.ca/observing/page2.html.

If you require ABOBE reader to read PDF files it can be downloaded at http://www.adobe.com/products/acrobat/readstep.html. If you require further information or assistance please contact me in the evenings.

Grant Maguire

Hamilton Centre of the RASC - Minutes of the General Meeting, November 1, 2001/12/03

• President Mark Kaye called the Meeting to order at 8:15 pm.

• Mark asked if new members or visitors could introduce themselves, and then informed the membership about the Membership Survey.

• Ev Rillet, Observing Director, stated that she is planning a number of observing workshops. She noted that the Leonid Meteor shower should be quite spectacular this year, and that if the weather is clear, people should bring lawn chairs and very warm clothes to the Observatory on the night of November 17th/18th. She further stated that she will have more information on other workshops in December.

• Treasurer Tina Coppolina noted that she would be happy to receive the dues for Observatory keys.

• Grant McGuire explained that the RASC was now offering a new Observing Certificate called "Explore the Universe", and that the RASC National Office will be providing forms and a slide set to accompany this program. More data is available at www.rasc.ca. (ed. note there is additional information elsewhere in this issue of Orbit)

•Mike Jefferson noted that in December, the Hamilton Centre turns 100. He noted that he wants to get as many people as possible out to the December meeting, with an emphasis on long-time members. He noted that there will be an event at the Observatory commemorating this event on December 20, with is the actual date of our centenary. Mike and John Gauvreau will host this latter event.

• Mark Kaye then took the floor for the evening with a fascinating talk about observatories and observing aids he has used or seen. Mark showed a large number of slides illustrating a large range of aids and accessories that he has come across during his travels. He showed us telescope piers from Kingston, Calgary and Georgetown. He showed us how he had modified scopes from his youth through to today, and several personal observatories from friends across the country, including Jack Newton, Kim Hay, Mark Castell and Roger Hill. Marks talk was a testament to the amateur telescope maker and inveterate tinkerer. He also showed us a number of stunning photographs and astrophotos that resulted from his work. He noted that this talk will be given to the members of the Moncton Centre sometime in the near future.

• In closing, Mark noted that the next Board meeting was to take place at the Hamilton Centre Observatory at 8 pm on November 8th, 2001.

• A motion to adjourn was made by Bob Botts and seconded by Scott Barrie.

Submitted by:
Roger Hill, Recorder

The Magic of the Leonids

by: Roger Hill

Over the last few years the Leonids have promised much, but geography, the phase of the Moon, or the weather, have conspired against us here in southern Ontario. Hearing reports of over 1000 meteors an hour from places like the Azores a couple of years ago only whetted my appetite to see a good storm. For the past few months, several predictions had been made as to where would be best to catch this years possible storm, and it looked like North America was favoured by a peak...not THE peak, but a respectable peak of a Zenithal Hourly Rate in excess of 3000 meteors an hour. Now this is not up to 1966 standards, where rates of 100,000 an hour were supposedly observed, but 3000 is far more than anything I have ever observed before.

The week prior to November 18th, I checked avidly with Environment Canada, and at first I was disappointed. Although the skies would be partly cloudy on the Saturday and Sunday, the 'lows' published indicated a clear night to me.

Two days before the event, and Environment Canada indicates that the weather will be clear all day and clouds forming late on Sunday! Sounding better. The forecast on Saturday for that night was nothing short of phenomenal. Clear all Saturday, clear all night, Sunny on Sunday. It could not possibly be better. At 5 pm on Saturday, EC issued its last forecast prior to the shower. Clear ALL NIGHT!!!

Our plan was to go to my in-laws cottage, north of Kitchener on a man-made lake. It will only take an hour to get there, but the sky is quite dark, and we can use the deck which is oriented quite nicely. I got ready to go, putting tarps into the van, along with old camping mattresses, pillows, sleeping bags, camera, camcorder, voltage inverter, and other assorted goodies. I rinsed out our thermoses, and put aside the stuff for making hot chocolate. The plan was that I would wake up at 2 am, make the coffee and wake up my wife, make the hot chocolate and then wake the kids. My children had already set aside their snow suits, boots and gloves, and the level of anticipation in the house was rising.

At 10 o'clock, just before going to bed, my wife comes and tells me that there sure is a lot of light pollution. Oh, maybe an Aurora? Perhaps I will get to swear at this phenomenon with the same sort of gusto that only Mark seems to reserve for it. Out I go onto the deck, faced with CLOUDS. Disaster? Maybe, but I console myself that maybe what I see are not clouds, but a fog bank being gently blown over the escarpment. Once we get to high ground...there'll be no problem. Or so I managed to convince myself.

2 am sure comes quickly. Up I get and remember to turn on the coffee maker as I head out the back door to check on the sky. Oh no, it's worse than before. I went downstairs to check the Environment Canada web site, and the stupid buggers are still calling for clear skies all night, despite 'mist' at Pearson Airport. I checked all the airports I could find in Ontario, to try to figure out which direction to drive, but ALL of them are reporting overcast, except for Kingston, which is not reporting anything. Satellite pictures are inconclusive, but on a whim I check out the weather RADAR.

This gives a bit of information. It looks like there are two areas that I can get to in 90 minutes of driving. This would put me on site at around 4:30 am, in time to watch the peak, and the denouement. It looks like up toward the Bruce Peninsula is clear as is Orillia. The latter looks like the better bet, since it gives me more options, and I could take the 401 and 400 highways to get there.

So my wife and I woke up the kids, and headed out with thermoses of coffee and hot chocolate, and fresh batteries in the GPS. Basically we decided that we would rather miss the Leonids by looking for clear skies than just give up.

So, our expedition left home at 3 am, and off we went. We listened to the radio, flipping around the various news stations, not-so-silently cursing the imbeciles still happily forecasting perfect conditions. We flipped around the dial several times hoping to pull in a station from Barrie, or anywhere up north that would tell us

what conditions really were, rather than listening to some regurgitated nonsense from EC. As we started driving up Hwy 400 at, well, more than the posted speed limit, we would pass through small half-kilometer sized areas where it was clear, and I could see Orion to my left. My wife saw the occasional meteor through the passenger window, and the kids in the back joined in. My mood started to lighten. Maybe, just maybe, our gamble would pay off. The fog was slowing us down, however.

We entered Barrie where the clouds and fog vanished miraculously, only to re-appear once we were north of the city. We drove about 10 km north, but the fog kept getting worse. We turned around and headed back, trying for the southeastern edge of town, to put the bright lights behind us. No doubt about it...Barrie was the single largest clearing we had come across, and it was 4:20 when we got off the highway and started looking for an observation spot south and east of the City.

No good...you got out of Barrie, even only slightly, and the clouds and fog returned. We drove back into town slightly, to a suburban residential area looking for a park or a school, or soccer field we could drive on to where we could be shielded from lights shining in our eyes. This turned out to be exceedingly difficult to do. There was no place without streetlights and their glare. Then, we lucked out. At 4:45 I was getting frantic, but we finally, we found a place called "Assikinack Public School" (44 degrees 21 minutes, 58.4 seconds North, 79 degrees, 40 minutes, 20 seconds West), and we parked on their soccer field, putting the van between us and the two streetlights we could see.

Two tarps on the grass, old camping mattresses on top, and then into sleeping bags we went...toasty and comfortable. I set up my camera (400 ASA Slide film), and camcorder (to record the ooohs and ahhhs), and we settled back to be treated to a wonderful show. We saw hundreds of meteors in the next hour. We did not keep count, but did note the 'clumpiness' of the meteors, where you see only a few faint meteors for a couple of minutes, and then see five or six bright ones in 15 seconds or less. It was magnificent! There where some really bright (mag -4 or better) fireballs, and others that left long persistent trails. Several times it would seem as if a meteor flash was interrupted, almost like it went out for a second, and then re-ignited. I had never seen this before, or even heard of it, but other reports I have read since have alluded to this same phenomenon.

Every now and then, according to no schedule whatsoever, I would close the shutter, advance the film, and take another exposure. Some exposures were only a couple of minutes, while others approached 10 minutes. If I get any decent pictures, I will be happy, but if not, well, c'est la vie. This was an eyeballs only event for me, as I was not going to let the meticulous taking of pictures and notes get in the way of sharing this with my family. Astronomy is my hobby and my passion, and it does not really interest them too much, so when an event came along like this, it was time to sit back and enjoy the event.

With the Sun still below the horizon, and only the brighter stars of Orion still showing, the brightest meteor yet lit the sky, leaving a trail that lasted for 30 seconds against a very blue sky...that one would have been magnificent in the dark.

The camcorder was still going as we packed up. It had lasted for the hour and a half we were there, which considering the temperature was quite remarkable. I had taken it just to get an aural recording of the event, but when I reviewed the first ten minutes of tape, I was astonished to find half a dozen meteors. All told, over 30 meteors were recorded. Some were rather faint, but there are some nice bright ones, too. I spent a couple of hours dubbing just the meteors onto a VHS tape. However, I'll have to turn down the audio when I show it since hearing me say things like "Wow", "Nice one", "Beautiful", and "Whoa" thirty times in the space of three or four minutes makes it sound like I am at some sort of meteorgy

I drove my tired but very happy family to a nearby Tim Hortons for coffee and timbits (and the washroom) and then back to Milton. All in all, we had a wondrous time.

Roger Hill

Coming Events:

December 6, 2001 - General Meeting at 8:00pm at the Steam Museum. Michael De Robertis - Pseudoscience in the New Millennium

December 13, 2001 - Board Meeting at 8:00 at the observatory. Come on out and shape the future of the centre.

December 20, 2001 - Informal get-together at the Observatory to observe the club's 100th birthday.

January 10, 2002 - General Meeting at 8:00pm at the Steam Museum. **Note the date change**. - Program TBA.

January 17, 2001 - Board Meeting at 8:00 at the observatory. Come on out and shape the future of the centre.

February 7, 2002 - General Meeting at 8:00pm at the Steam Museum. Program TBA.

Directions to Observatory:

From Hamilton or Guelph:

- Hwy 6 N of Hamilton,
- Take Concession 7 East eastbound, cross Centre Rd.
- Continue on 7E, past the rail tracks, proceed to near the end.
- Our gate is on the south side on the last lot (south west).

From Mississauga or Milton:

- Britannia Road past Hwy 25, Guelph Line, Cedar Springs to end
- South 1 block on Milborough Town Line to Concession 7 East.
- Right on 7th Concession, then first driveway on left.
- Our gate is on the south side on the last lot (south west)

From Burlington or Oakville:

- Dundas Street (HWY #5) to Cedar Springs Road
- Cedar Springs Road to Britannia Road
- Left (west on Britannia road to Milborough Town Line
- South 1 block on Milborough Town Line to Concession 7 East.
- Right on 7th Concession, then first driveway on left.
- Our gate is on the south side on the last lot (south west)

Hamilton Centre Observatory

43° 23, 26" N 79° 55, 22" W **Telephone 905-689-0266**

Club web site - http://www.rasc.ca/hamilton/

ORBIT

Return to:
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P.O. Box 1223 Waterdown Ontario, L0R 2H0