

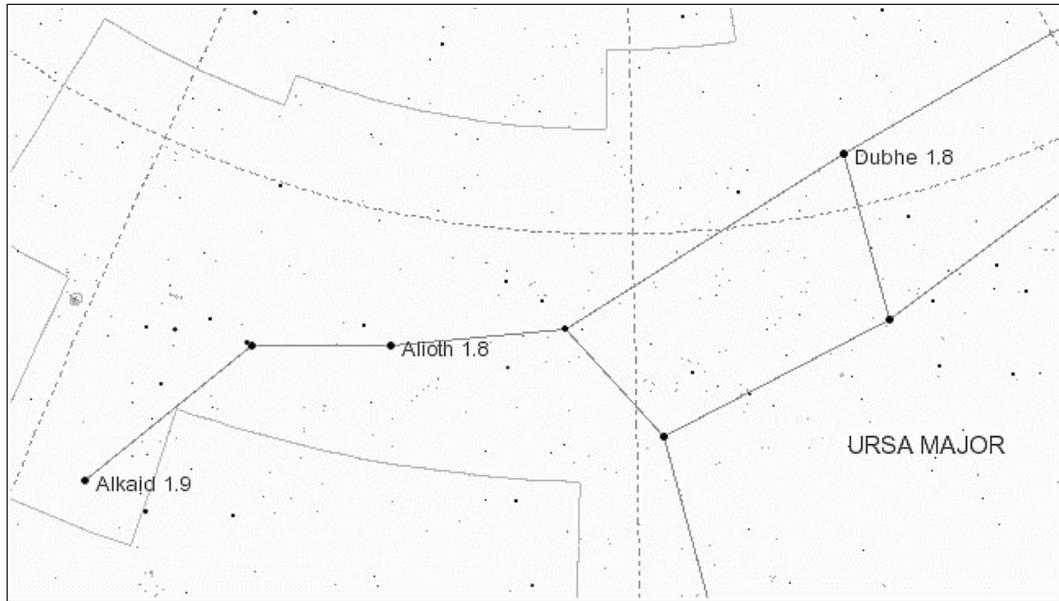
STARDUST

Newsletter of the Royal Astronomical Society of Canada
Edmonton Centre



December 2006

Volume 52 Issue 4



*Always visible from Edmonton, Ursa Major is probably the most easily recognized constellation.
Image courtesy of free software, Kstars and IrfanView.*

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Centre Contact Information

If you do not want your email and/or phone listed here, please contact the editor.

Council Positions			
President	Orla Aaquist		
Past-president	David Cleary		
Vice-president	Krista Stefan		
Secretary	Luca Vanzella		
Treasurer	Cheryl Salava		
Co-Nat'l Council Rep	Bruce McCurdy		
Co-Nat'l Council Rep	Roy Ramdeen		
Councillor	Sharon Tansey		
Councillor	Alicja Borowski		
Councillor	Sheldon Helbert		
Councillor	Andrew Soon		
Councillor	VACANT		
Observing Group Chair	Larry Wood		
Stardust Editor	Michael Ward		
Portfolio Positions			
Archive Liaison	VACANT		
Astronomy Days Coordinator	VACANT		
Casino Manager	Franklin Loehde		
Equipment Director	Bob Jahrig		
George Moores Workshop Coord	Sherry Campbell		
Librarian	Shannon Austman		
Librarian (backup)	Vicki Huntsman		
Light Pollution Abatement Committee Chair	John Cliff		
Membership Secretary	Mark MacDonald		
New Member Advisor	Pat Abbott		
Outreach Coordinator	Dave Robinson		
Public Education Director	VACANT		
Public Relations/Promotion Officer	Shelly Sodergren		
Scope Rentals	Larry Wood		
Scope Rentals - backup	Roy Ramdeen		
Social Director	David Cleary		
Speaker Coordinator	Orla Aaquist		
Stardust Distribution	Mark MacDonald		
Web-site Administrator	Howard Gibbins		

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Stardust Articles to Stardust may be submitted by email to mward@interbaun.com. Submission deadline is the last day of the previous month (e.g. for the May issue submit by 30 Apr). Submit as MSOffice OR OpenOffice OR AbiWord OR plain text. Avoid use of fancy formatting, odd spacing, and strange fonts. Bold, italics, underline, and bullets are fine.

Upcoming Events, Meetings, Deadlines, Announcements

Regular Meetings

2007	Dec 11	7:30	Regular Meeting
	Jan 8	7:30	Annual General Meeting / Regular Meeting

Observing Schedule

December 15 & 16

Observer's Report by Larry Wood, for the last time.

Cloudy weather and plenty of snow kept observers from heading out to the dark site for most of the month. Then on the centre's scheduled monthly observing weekend the skies showed signs of clearing so several members trekked out to spend some time under the stars. On Thursday evening Jnani Cevvel went out to Black Nugget Lake and Denis Boucher and I along with another Dennis from Smoky Lake were out at Blackfoot. Mostly clear skies allowed Jnani to work on his "Finest" and Caldwell list, while Denis B and I were chasing down 3 comets that were in the sky. Dennis had a 10" LX200 that he was having trouble with – we discovered that the Dec motor wasn't working, and as far as he knew it never had. AHHH another fine Meade product.

Friday night Paul and Sherry Campbell went to Blackfoot and had to contend with some cloud so they spent the night chasing sucker holes. Then on Saturday evening about an even dozen of us were out at Blackfoot again with a chance to observe a few Leonid meteors. The group included Kyle ?? and his mom, Ross Sinclair, another center member (sorry), Mike Noble, Mike Hoskinson and his daughter Angela, Jnani Cevvel, Dave Boyd, and Alicia from Ft Nelson and her friend. It was nice to see Angela again (was a deck volunteer at one time). Mike H had his new purchase (Randy Pakan's 16" DOB) out for the first time – still a very nice scope –congrats Mike. Bruce McCurdy and Alister Ling showed up later on to watch for any Leonids. Bruce and I stayed quite late until the haze took over ending a very pleasant night.

What's up this month?

December 14 is the peak of the Geminid meteor shower. The shower is described best in the brief cut of an article by Joe Rao on the Space.com site at: http://www.space.com/spacewatch/geminid_meteors_021206.html

Less than a month after the Leonid Meteor shower, another excellent display is just around the corner. The reliable, annual Geminid meteor shower is scheduled to reach its peak during the pre-dawn hours of Saturday, Dec. 14. The Geminids should produce a fine display of 1-2 meteor every minute for North American observers with dark skies, weather permitting. Brief

New Members Report by Pat Abbott

The following members have joined the Centre since my last report.

Terry Lee has a 4" reflector and a 90mm ETX. He also has a 16½" mirror blank that he one day hopes to grind into a mirror. He is very interested in astrophotography and has been using a webcam.

Robert Warden has an LX200R and is very impressed with it.

bursts of activity could produce even higher rates. The nights and mornings surrounding the peak activity should prove rewarding, too.

There will be activity from this radiant from Dec 7 to Dec 17 with the peak expected at about 4:00am. on the morning of Dec 13/14. The radiant rises just as the sky darkens with a third quarter Moon rising at 2:15 a.m. You can expect to see up to 120 meteors per hour (ZHR) and any Geminids will be moving at a medium speed of 35 km/sec, radiating from a point very near Castor (alpha Geminorum) the most northerly of the Gemini pair.

Winter Solstice occurs at 17:22 on December 21.

On the evening of Dec 27 at 9:38 the Moon will occult the mag 6 star 60 Piscium – with reappearance at 10:57, then 12 minutes later at 11:09 the mag 6 star 62 Piscium is occulted – reappearance is at 11:37. Disappearance is on the dark limb.

Then on the early morning of Dec 30/31 the Moon will occult several stars in the Pleiades. They are as follows:

1. Electra (mag 4.2) at 4:13 a.m. – re-appear at 5:05 a.m.

2. Celaeno (mag 5.5) at 4:26. – re-appear at **4:55 **

3. Merope (mag 4.2) at 4:48 – reappear at 5:29 a.m.

4. Maia (mag 3.9) at 5:04 will be in conjunction with the Moon (from Edmonton). The graze line is down near Devon.

4. Alcyone (mag 2.8) at 5:11 – reappear at 6:00 a.m.

5. Pleione (mag 5.0) at 5:48 – (Moon has set in WNW)

6. Atlas (mag 3.6) at 5:50 – (Moon has set)

Then that afternoon a 17:17 the Moon will occult the mag 5.4 star chi Tauri. It reappears at 17:50.

The peak of the Quadrantid meteor shower is on January 3, but with the full Moon up at this time rates will be disappointing but with a ZHR count of 120 you may still see a fair bit of activity. Any meteors from this shower will be travelling at a medium speed of 41 km/sec, and will radiate from a point about 8° above beta Bootis (the top point of the kite). The last couple of hours before morning twilight should offer the best chance to see some nice meteors.

In the predawn hours of Jan 6 the nearly Full Moon will be 2.2° to the right of Saturn. Then that evening La Lune will pass about 0.5° above Regulus. Good observing.

He also has an interest in astrophotography but wants to try a bit of everything as far as observing is concerned.

David Parliament is looking to buy a telescope ; probably a 4" reflector. He would like to look around and try a few out before making up his mind.

Ross Sinclair has a pair of binoculars and a Celestron 130 Newtonian. He is at the stage of general observing.

Mark Leenders was a member from 1971 to 1985 and was very involved in the Centre during that time. He is a past member of Council. Now he is back in the fold. He has a 6" f/4 reflector that he made (including grinding the mirror) and a 6" f/10 refractor that he assembled using one of the classic Jaegers objectives. He has a variety of mounts for this telescope. He is particularly interested in the possibilities of 3D astrophotography.

John Martens has a pair of 7x35 Celestron binoculars and is

finding his way around the sky. He lives on the edge of Devon so is not as badly affected by light pollution as those in the City. He also has a cottage at Pigeon Lake. He intends to try out the Rental Scopes to get a feel for the various telescopes before he purchases his own.

To all our new members, *Cead mile failte* (a hundred thousand welcomes).

The Planets by Murray Paulson

Last month, the transit of Mercury posed some serious challenges. I had thought of heading to Calgary to see the event, but at the last minute the Environment Canada's weather information convinced me that the clearing would be coming out of the north west. As it happened, the sky was clear in the morning in southern Alberta, but clouded up at 2 pm and became fully overcast before the storm by 2:30 pm. This was the condition at Rothney Observatory. They had a good first contact and got the first half of the transit before the curtain call. If I had been there, the following snow storm would have kept me in southern Alberta till the next day. As it turned out, the weather here sucked! Yes, anywhere but Edmonton... I watched the weather maps and saw the clearing bubbles coming down from the north over the Swan hills. As I missed first contact I called Alister to get his advice and it still looked like we might get something if we sat tight. I waited for the 1:00 pm update on the Environment Canada site weather movie. That was the one that showed that the southerly flow from northern Alberta was running into a flow out of BC coming from the Jasper area and it was turning the clearing bubbles south east motion to an easterly motion. Dang! The clearings were going to skirt the Edmonton area entirely. I finally made the call and headed north just after 2 and found clearings near Clive corner on the highway to Athabasca. I stopped on a side road about 5 km north of Clive and watched an hour of the transit with the sun flirting with the ever-present band of cloud on the horizon. It was quite the visage to see that tiny black hole in the midst of the sun. Much smaller than that of Venus back in 2004, but it was such a crisp black dot, and much blacker than the lovely pairing of sunspots near the sun's limb. Occasionally a band of cloud would cross the sun creating a visage strikingly similar to a shadow transit on Jupiter. Cool! The sun slowly sunk into the band of cloud and faded away. Well, I finally got to see a Mercury transit after many years of trying. Now I can relax and wait for 2016.

A month after the transit, Mercury vaults its way into the morning sky and provides a great morning apparition. By early December, Mercury has already culminated in its greatest eastern elongation and is now headed back toward the sun. It still is shining at magnitude -0.5 and a telescope will show you its 5.5" gibbous disk in the hour before sunrise. On Dec 10th, we have a close conjunction of Mercury Mars and Jupiter. The three planets will be closer than 3 degrees apart from Friday the 8th to Tuesday the 12th. On December 10th, the grouping will be especially tight with the three planets occupying less than 1 degree of space. The grouping rises at 7:20 am with Mercury only 10 minutes of arc

above Jupiter. Mars sits 1 degree to the right of Jupiter and Mercury. Mars is the dim red speck at magnitude 1.5 with Mercury at magnitude -0.6 and Jupiter shining at Magnitude -1.7. A medium power telescope field is the way to see this one, so mark it on your calendar.

Have you seen Venus yet? By early December Venus shines at magnitude -3.9 and sets ½ hour after the sun. You will need a really really good south west horizon to hunt for it. It should be more prominent by Christmas, and will make a pretty evening star before it sets just after 5 pm. Venus is sitting 1 degree below the ecliptic which makes it's southern excursion into Sagittarius even worse for us at these high latitudes. Give it a shot over the holidays. One note is that the Moon and Venus 4.3° apart, Sep=+04°18'34", Alt=-24°, 72% Dark

Mars sticks close to the sun for the second month in a row sitting in Scorpio. It will not be striking in the morning sky even when it climbs out of the twilight glare in the late part of the month. Its brightness still sits at 0.5 magnitude and in the eyepiece Mars shows a disk of 3.8". We have another year before the next good apparition, so watch it as it comes back.

Jupiter was in a favorable planetary conjunction at the beginning of December, which I have detailed in the section on Mercury. By the months end Jupiter will be a prominent morning star as you head off to work, or out for your weekend morning walk. It rises 2 hours before the sun and shines at magnitude -1.8. In the eyepiece, you will see its familiar 32" oblate disk.

Saturn will stay in the sickle of Leo over the next month and sit almost stationary. It shines at magnitude 0.3 and at the beginning of the month, it rises just before 10 pm. By the end of the month Saturn rises around 8 pm and becomes a fine object for your testing of those new Naglers that Santa left under the tree. In the eyepiece you will see the 19.4" disk with a rather shallow ring plane. Despite the shallowness of the plane of the rings, and the orbital plane of Saturn's moons, watch to see how high the moons pass over Saturn. It is surprising how far Iapetus and Titan sit above the planet. On December 10th at 05:26 am the Moon and Saturn are only 35' apart. In one lunar months time we get a repeat, but the best is too be seen on the other side of the planet. When the moon rises on January 7th, Saturn is 4 degrees to the right of it.

Well, the best to you over the holiday season. May you raise a glass over the season, and point it skyward!

Proposed Council and Portfolio Positions for 2007 - 2008

Edmonton Centre's Nominating Committee has come up with the following slate of candidates for 2007/2008. There are a few open positions (note the blank spaces), and a few positions with potential nominees from whom we are awaiting final responses. The Nominating Committee consists of Cornelia Blunck, Orla Aaquist, Krista Stefan, and Dave Cleary (chair). If you are interested in serving, please contact Dave Cleary at 444-9095, or davecleary@shaw.ca.

Council - Elected Officers - voting rights

Position	Name
President	Krista Stefan
Immediate Past-president	Orla Aaquist
Vice-president	Sherry Campbell
Secretary	Luca Vanzella
Treasurer	Mark MacDonald
Co-Nat'l Council Rep	Roy Ramdeen
Co-Nat'l Council Rep	
Public Education Director (PED)	Orla Aaquist
Fundraising Coordinator	Franklin Loehde
Councillor at Large	Bruce McCurdy
Councillor at Large	Sheldon Helbert
Councillor at Large	Andrew Soon
Councillor at Large	To be confirmed
Councillor at Large	
Internal Communications Officer	To be confirmed
Observing Group Director	Paul Campbell
Membership Secretary	Massimo Torri
New Member Advisor	Pat Abbott

Appointed Officers – may vote with Council approval

Position	Name
Editor	Michael Ward
Library Coordinator	Roxy Welter
Web-site Coordinator	Howard Gibbins
Equipment Coordinator	Bob Jahrig

Other Positions

Position	Name
Light Pollution Abatement Chair	Bruce McCurdy
Outreach Coordinator (OrC)	Dave Robinson
Scope Rentals	Roy Ramdeen
Scope Rentals - backup	
Speaker Coordinator	To be confirmed
George Moore's Workshop Coord	Sherry Campbell
Archive Liaison	Leave vacant
Librarian (backup)	Vicki Huntsman
Observatory Planning Committee Chair (OPC)	Paul Campbell
Social Director	Dave Cleary
Stardust Distribution	Massimo Torri
Deck Activities Coordinator (DAC)	Cornelia Blunck
Astronomy Days Coordinator (ADC)	
Outreach Coordinator (OrC)	Dave Robinson
Public Relations Officer (PRO)	Shelly Sodergren
2007 Auditors	Peggy Graham and Associates

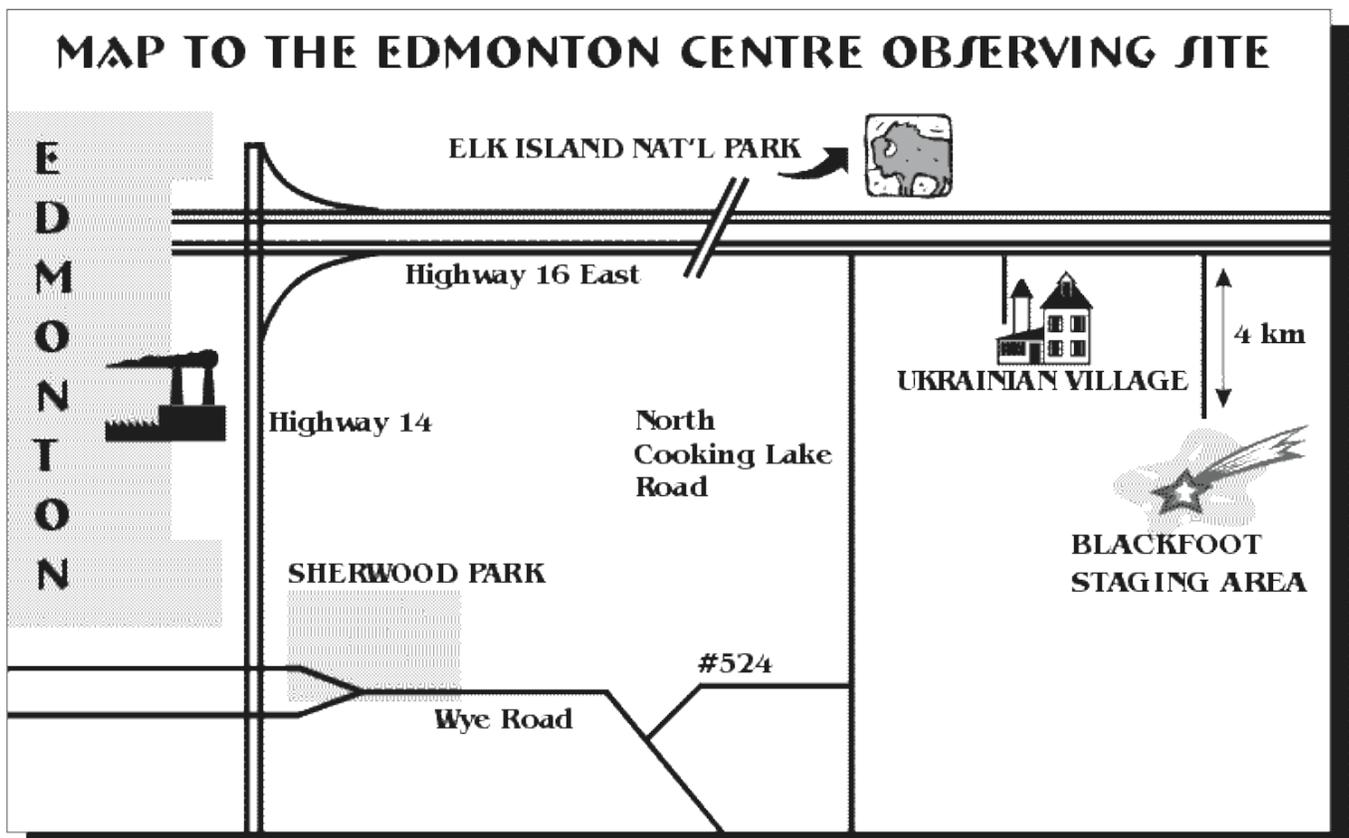
Expenditure Proposals

The six expenditure proposals below were approved at the November 27 Council meeting and will be presented to the general membership for discussion and approval at the January 8 general meeting in 2007.

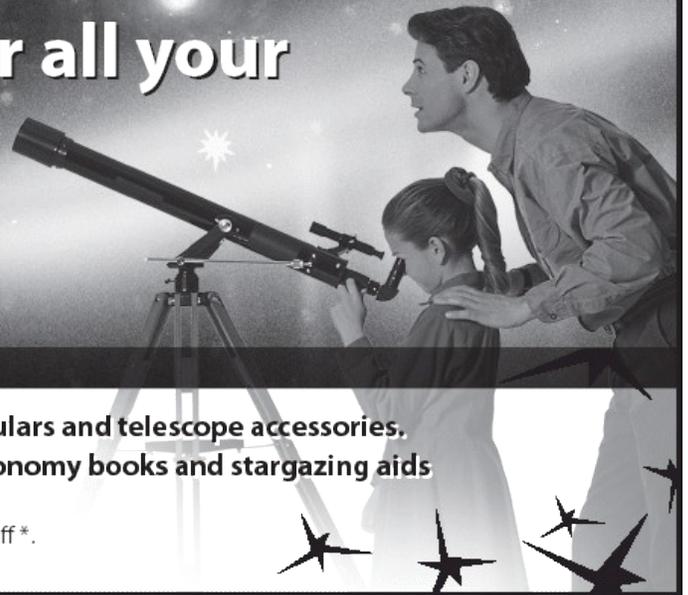
1. Roy Ramdeen moved and Franklin Loehde seconded that \$10,000 from the Casino Fund be donated to the University of Alberta Press to support publication of the book "The Meteorites of Alberta" by Tony Whyte. CARRIED.
2. Luca Vanzella moved and Roy Ramdeen seconded that \$1500 from the Casino Fund be donated to the Edmonton Public Library to acquire astronomy related books. CARRIED.
3. Dave Cleary moved and Alicja Borowski seconded that up to \$5000 from the Casino Fund be used to provide funding to offset the cost of holding the next George Moore's Astronomy Workshop. CARRIED.
4. Dave Cleary moved and Mark MacDonald seconded that \$6890 from the Casino Fund be used to purchase video equipment for the Observing Deck at TWOSE to enable handicapped visitors to view astronomical objects. CARRIED.
5. Larry Wood moved and Roy Ramdeen seconded that up to \$2000 from the Casino Fund be used to rent space at a central storage location for all Centre telescopes (not including those at the Observing Deck). CARRIED.
6. Mark MacDonald moved and Alicja Borowski seconded that the Centre supports two-thirds (2/3) of the cost of producing a new set of planet cards for use at the Observing Deck at TWOSE, to a maximum of \$10,000 monies to be obtained from the Casino Fund. CARRIED.

A detailed document (PDF) may be found on the Edmonton RASC web site:

http://www.edmontonrasc.com/download/Proposals2006_summary.pdf



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