Regulus

The Newsletter of the Kingston Centre of the Royal Astronomical Society of Canada - August 2003

The 61 cm Venor Dobsonian-Mount telescope.

2003 - The Year of The Observatory*

**Our primary goal this year is to find a location to build an observatory for the Centre in general and the Venor telescope in specific.*

Kingston Centre
of the Royal Astronomical Society of Canada
Box 1793 Kingston Ontario K7L 5J6
http://www.rasc.ca/kingston
infoline: 613-377-6029
email: rascexec@cliff.path.queensu.ca

Next Meeting(s)

Friday August 8th at 5:00pm
at the home of member Mark Kaye
(regular meeting at Queens University cancelled)
Mystery Guest Speaker, BBQ and Observing Session (contact the executive for directions or pick them up at the July meeting)

Friday September 12th at 7:30pm
at Stirling Hall Theatre D
Guest Speaker: Leo Enright (Kingston)
Topic: Transits of Mercury and Venus.

Welcome the newest addition to the RASC: the Belleville Centre
(Located just an hour west of Kingston)
you folks are invited to Markfest 2003, our annual BBQ, Mystery Guest Speaker and Observing Session

RASC Kingston Email Lists:
rasckcchat - about 20 members chat about astronomy

Contents of this Issue

available at
http://130.15.144.99/rasc/secure/regulus/reg200308pdf and include:

Contents of the July 2003 issue are available at

http://130.15.144.99/rasc/secure/regulus/reg200307.pdf and include:

What's a Not-New Member To Do?

by Kevin Kell

So, you've joined the RASC Kingston Centre. Now what?
A lot of "What's a Not-New Member To Do?" depends on the reasons that you joined.
Maybe you want to build your own telescope. Maybe you had a telescope given to you as a gift and now your want to use it and learn how to use it. It's hard to answer specific circumstances, so let's answer some general ones.

#1 Start working on your observing Cerftificates.
The RASC offers a Beginners Certificate, Messier Certificate, Finest NGC Certificate and more to come. Check out http://www.rasc.ca/observe.htm

#2 That was fun! What else?
Weather permitting, pop down to one of the monthly public observing sessions run at the Murney Tower

Museum Park (King and Barrie Streets on Kingston's waterfront) on the first Tuesday after a new moon around dusk. We have been running this program since 1996.

#3 Sign up to the rasckcchat email list.
There are about 25 members on the list and just a few messages/day if you are worried about being inundated with email. Ask questions, arrange observing sessions, or just chat.

#4 Like other projects?
We are looking for people to create some more displays like the three you see at our meetings (RASC-KC, Amateur Telescope Making and Responsible Lighting). We could use displays on: solar observing, lunar observing, the RASC Observing Certificate programs, meteor observing, our education projects, or anything else that you might have an interest in!

News from Other Places

Starfest 2003

http://www.nyaa-starfest.com/

The North York Astronomical Association invites you to attend its twenty-second annual Starfest. Starfest is Canada's largest annual observing convention and star party. It attracts over nine hundred astronomy enthusiasts from Ontario, and neighbouring provinces and states. It has been ranked among the top seven star parties in North America by Sky & Telescope magazine.

Starfest offers a wide variety of observing-oriented activities that address the needs and interests of experienced observers and astrophotographers, as well as those new to the hobby. Activities include observing sessions, formal and informal presentations, workshops, commercial exhibits, and a children's program. You are invited to bring your telescope, astronomical images, and share your observing experiences with others.

Starfest 2003: Not Just A Mars Tour. This year, to celebrate the close approach of Mars, we explore the wonders of our solar system. Our understanding of this amazing place is growing at an incredible pace. As we further probe the surface of Mars, circle the gas giants and their moons, land on asteroids and collect comet dust, we continue to expand our knowledge. The latest discoveries about the sun, planets, moons and asteroids will be examined at Starfest this summer. We will also focus on how to maximize the way in which we observe these solar system objects. You are invited to join us for this unique opportunity to enjoy Mars at its very best, within the context of the solar system as a whole.

Starfest 2003 features over eighteen presentations and workshops, given by leading professional and amateur astronomers. This year's stellar line up includes: Terence Dickinson, Doug Hallman, David Levy, Doug Welch, and many more.

Submissions from Members

CCD Observing: More Than Just Pretty Pictures!

By Walter MacDonald

Sooner or later (OK, probably later!) you will get tired of just taking "pretty pictures" all the time. Why not do something different with your CCD tonight? There are lots of asteroids and variable stars to be observed and novae/supernovae to be hunted. Each of these endeavours can provide a lifetime of fun!

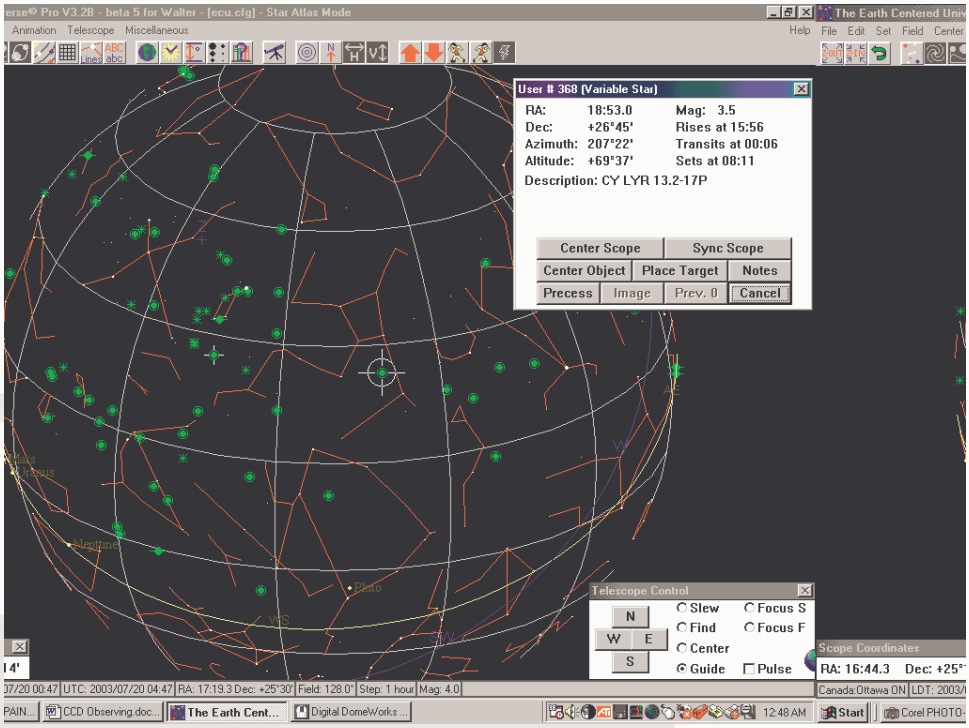
The CCD combined with a GOTO telescope opens up new dimensions of observing to the amateur astronomer. Observing with a 10-inch scope and CCD from my urban backyard in Oshawa, I was able to easily image 16th magnitude asteroids and see 17th magnitude variable stars at full moon! The only downside to this is that full moon is no longer an excuse for not going observing! (Nor is being stuck in the city!)

AAVSO & CCD

Since 2001, I have been visiting variable stars with my CCD camera (especially at full moon) and having a lot of fun doing it. Recent advances at the AAVSO website (www.aavso.org) have enhanced this enterprise considerably: one can now download charts, report observations (they are integrated into the database within 10 minutes), see recent observations by star, and generate light curves. There is even a CCD newsletter. Wow! If you happen to catch an outburst of a cataclysmic variable, you will even see your observations reported in the next AAVSO News Flash! This is getting to be close to a real-time observing system! (This applies to visual observations too, which I still do from time to time!)

There are many different observing programs at the AAVSO: visual, CCD, photoelectric, eclipsing binary, and RR Lyrae among others. CCD observing is one of the newest programs, and it complements the efforts going on in the others. This is an important point to note. It has been suggested at various times over the years (increasingly so in the last decade), that visual variable star observers are now obsolete! It takes

only a couple of peeks at the AAVSO's "Quick Look" page to see how the CCD observations dovetail" with the visual ones quite nicely. Indeed, one major thrust of CCD observations is to provide observations of stars that are too faint for visual observers to get positive estimates of. There are still many stars that need better coverage, and it will take the combined efforts of many visual and CCD observers to provide that coverage. A worldwide network of robotic telescopes could ultimately do this (and put us all "out of business"), but that is still years (hopefully many years!) away.



The most challenging CCD observations are those involving small amplitude stars and the BVRI program. Observing a star in four different colours and/or doing high precision photometry is demanding work. A much simpler program is the AAVSO's "Faint CV and LPV" (Cataclysmic Variable and Long Period Variable) project. This involves observing faint stars with just a "V" filter. So, no filter wheel is required (less $ and work!) and as long as you do dark and flat frames, you can generate some pretty decent results! (V filters approximate the visual response of the human eye and CCD observations done with these filters mesh pretty nicely with the visual observers' data.)

Just Do It

The first thing you need to do is to choose some stars to observe and download charts for them. For CCD observing, I choose cataclysmic and Mira stars that have faint minima (say 15th magnitude or less) or that are poorly observed (the AAVSO produces an annual list of these). These stars may have "standard" or "preliminary" charts, or even special "CCD" charts. It doesn't matter which you use (though the CCD charts generally have better comparison star magnitudes). Chart scales of "E" or "F" are best for CCD work (these go deepest and have the most stars on them).

With an Johnson V filter (1.25") threaded into the nosepiece of my MX916 camera, I use ECU to see where my variables are in the sky and point my scope. For each star, I take a series of 30 second exposures (binned 2x2). How many exposures are needed depends on how faint the star is. Ten minutes will get me to 17th magnitude with a usable signal to noise ratio with my setup.

My custom ECU setup for variable stars. *I built a custom list of stars using three different symbols: one each for "urgent", "nightly", and "weekly" stars.*

The next day (or sometimes later than that) I calibrate and stack my images for each star and then "reduce" the data. AstroArt and MaxIm software both have good photometry features that are easy to learn and use. (See www.starlightccd.com/faq/primer/aa-aavso/aa-phot.htm for a demonstration of AstroArt photometry.)

Once I have all my data for an observing session ready to submit, I go to the "WebObs" page at the AAVSO website. Here I login and enter my observations. Within 10 minutes they will become part of the AAVSO database!

Logging out of WebObs, I next go to the "Quick Look" page. Here I can see how my observations fit with those of others. For some stars, mine

may be the only observation that night, week, or even month! To me, the best thing about the Quick Look page is the ability to see how well-observed a star is or if it is starting to show activity. During subsequent observing sessions, I give higher priority to stars that are poorly observed or that are showing signs of activity (possibly a prelude to an outburst!).

```
Desig    Star       Date (UT)    JD
Mag     Obs   Comments
1848+26  CY LYR     JUN 15.2132  2452805.7132
<13.6   TDB
1848+26  CY LYR     JUN 16.1000  2452806.6
<13.6   CGF
1848+26  CY LYR     JUN 16.2444  2452806.7444
<13.6   TDB
1848+26  CY LYR     JUN 16.2514  2452806.7514
14.68  MDW   CCDV
1848+26  CY LYR     JUN 17.2000  2452807.7
<14.0   CGF
1848+26  CY LYR     JUN 17.2208  2452807.7208
15.84  MDW   CCDV
1848+26  CY LYR     JUN 18.0083  2452808.5083
<14.4   GCO
1848+26  CY LYR     JUN 18.2049  2452808.7049
16.27  MDW   CCDV
1848+26  CY LYR     JUN 18.9667  2452809.4667
<14.4   GCO
1848+26  CY LYR     JUN 19.9132  2452810.4132
<14.0   OJR
1848+26  CY LYR     JUN 19.9625  2452810.4625
<14.4   GCO
1848+26  CY LYR     JUN 19.9880  2452810.488
<14.0   MGH
```

Some "Quick Look" data for CY Lyrae for part of June 2003 is shown above. My observations are marked "CCDV". The column marked "Obs" are the AAVSO initials of the contributing observers (mine are MDW). This is a good example of how CCD data can improve coverage of faint stars: instead of just a bunch of "fainter than" data points, we now have some positive measurements, maybe even enough to give an idea of what the star is doing (or not doing!) near minimum brightness.

So if you have a CCD camera and want to try something different, why not try your hand (chip?) at some variables? I highly recommend it!

The SEA of SERENITY
by Ken Kingdon

Leading up to the 2003 Mars close-apparition, I (Ken Kingdon) wanted to find a unique observing site which would improve the chances for better seeing. Unfortunately, poor seeing had degraded much of the 2001 apparition. For readers new to astronomy, the term "seeing" relates to turbulence effects when looking through air of varying index of refraction caused by differing temperatures. These turbulence effects can make a high-power view of Mars appear as if it is in a fish pond, with waves passing over it, resulting in little visible detail.

It is known that good seeing often occurs at locations beside a large water bodies. This is because temperatures over water are much more uniform than over land. I examined a map that revealed that Point Petre on Lake Ontario (south of Picton, mid-way from Kingston and Belleville) had some advantages:

1. Road access right to shores of Lake Ontario - which is a massive inland "sea" about 60km wide x 250 km long. This large, cool waterbody optimizes the chances for excellent seeing.
2. Point Petre extends almost half-way across Lake Ontario, and is the furthest south (lat 43.8 deg) that one can drive out to. Being surrounded by water of uniform temperature, seeing should be more steady.
3. Being unpopulated, there is no light pollution, so views of all deep-sky objects should also be great.
4. A lakeside location has the best horizons possible, and might later be used for a Messier Marathon.

I arranged with Attilla Danko to create a Clear Sky Clock website so I could keep an eye on the weather, as a lakeshore location also has a risk of

fog and dew. The CSC for Point Petre has a clickable Light Pollution Map, and I pleasantly realized that it's in a blue-coloured zone, which is a 3 on the Bortle Dark Sky Scale (1=perfect, 10=downtown Toronto! Note that most of North America is in the Bortle range 4-10). Thus, Point Petre has "visual observing which is relatively unimpaired by ambient light pollution".

In discussions with Norm Welbanks, we determined to go to Point Petre on the weekend of July 19-20, when Mars would then reach its highest altitude during the 2003 apparition. The higher the altitude, the better the seeing - another factor to consider for an optimum view of Mars. On July 19th, the CSC predicted a "go" (despite heavy cloud all day), and we departed to meet Dave Pianosi and Robert Adye (RASC - Belleville). However, at Point Petre itself there are bright security lights on the Air Force radio/radar towers, on the Lighthouse, and at the weather Station, but Robert Adye knew of a darker spot 3 km east, at the foot of seasonal Simpson Road, and we wound up observing 10-feet from Lake Ontario. From east to west the horizon was completely unobstructed. There were only two faint light domes (just 5° high) at Rochester, NY sitting 86km SSW, and at Syracuse 119km SE.

Since a last quarter Moon would rise just after midnight, we planned to divide our observing into two "sessions" - a couple of hours for deep-sky observing, followed later by observing Mars after moonrise. Some highlites during our deep-sky period were:

* Awesome views in a couple of scopes of M8 the Lagoon Nebula.
* M11 the "Wild Ducks Cluster" was perfect.
* The open cluster NGC 6520 with the incredibly dark molecular cloud called The Ink Spot (Barnard 86) right beside it. As Dave said, it's a "must see" object. This is #103 on the Finest NGC List.
* Two great passes of the bright ISS.
* About 10PM in the dark NE, we saw aurora of the ray-type, which were tall and sharp like sky-scrapers. Mercifully, these beautiful bright aurorae lasted for just 5-7minutes.
* Comet 65P/Gunn (12th mag) in Sagittarius was not found in my 12.5" reflector. I used 250x to darken the background after star-hopping to its vicinity at low power. Truth is, this Comet is for larger scopes. During star-hopping toward this target, I also observed the nice globular cluster NGC 6652.
* Through my 12.5" reflector, we watched a lake freighter several kilometers offshore going by in the dark, and through the lit windows we could see details such as light switches on walls and a calendar... one cool view.
* Dave got his 45th object on the Finest NGC List, and while searching for NGC 7029 near the North American Nebula, he got very lucky indeed when the TiPS (Tether Physics Survivability experiment) satellite flew across the big wide-field of his new 32mm Erfle 2-inch eyepiece. He was easily able to keep it in the 1.9 degree FOV, then hand his 10-inch Dob off to each of us in turn to follow it for several minutes. Its 11:25PM EDT pass took it over James Bay, past Quebec City, and out over the Atlantic near Cape Cod. TiPS uses two satellites at an altitude of 1,022 km with a 4 km long reflective tether joining them. The distinctly brighter ends are the actual satellites, and the fairly bright 4km tether appears as a glowing thread that joins them. Because of its 4 km length, it may be claimed that TiPS is the largest artificial satellite, and thus it makes for an intriguing view. Conversely, it may also be claimed to be the smallest object that can be resolved at the furthest distance; afterall, its 2mm diameter tether may be seen from a distance of 1000 km... like resolving a grain of sand in Boston!

The lower body is called "Ralph" (ie, the fat one) and has a mass of 37.6 kg, while the upper one is called "Norton" (ie, the skinny one) with a 10.8 kg mass. The tether itself has a mass of 5.4 kg, and is a non-conducting reflecting braid that was originally coiled, then paid out, from the fat one "Ralph". TiPS orbits in a vertical orientation, with "Ralph" closest to Earth. TiPS is an interesting satellite for amateur astronomers to observe through binoculars or small scopes. You can find orbital passes for TiPS on the Heavens Above website by entering US Space Command #23937 in the "select" option.

As the Moon rose, I immediately slewed my scope right down to the horizon to catch the lowest view of the Moon that I may ever see. Except for the appearance of Mars, I normally do not drive 75 minutes to get a look at the Moon rising over a distant horizon, so I may never see this again. It was crystal clear. Amazingly, the low-altitude view was virtually rock-steady, a testament to, as Robert Adye astutely remarked: "the superb seeing that Point Petre provides, even at such low altitude". The silhouettes along the upper edge of the Moon indicated that I was watching the Moon rise over New York's Adirondack Mountains, about 250km away. A power of 117x gave a wonderful full-FOV image with about six ultra-narrow cloud bands overlaying the giant moon. Between the gaps, like looking through venetian blinds, the craters near The Sea of Serenity were exquisite. The Moon's reflection was spread right across the calm surface of Lake Ontario - our own Sea of Serenity right here on Earth. This was an orgasmic image! I offer thanks to our May speaker David Levy, whose RASC-KC presentation included music by Alabama, entitled: "On This Side of the Moon". Here, read some of the lyrics - and I'm sure a magical picture will appear for you too...

"Some folks look thru telescopes... and dream of flying high above the stars.
And they say, it won't be long, til we can all hop on a ship to Mars...

And I'm always amazed that the good Lord can make so many stars.
But I know I'd feel out of place, roamin' thru the Milky Way.
Oh, with due respect to Astronauts, I think I'd rather stay...
On this side of the Moon.

On this side of the Moon, things are goin' my way,
Your love keeps shining thru, even when it rains.
There's no where else I'd rather be, I'm happy standing in these shoes.
With you here in my life, the world keeps lookin' bright,
On this side of the Moon".

Alabama, 1993

As if the Moon was not enough, our attention then turned toward Mars, still climbing towards its transit of the meridian. On my 4mm Radian eyepiece, an experimental 1mm occulting bar was too narrow and did not permit me to block out Mars in order to find its two moons, Diemos and Phobos. However, I used a W80A blue filter which accentuated the South Polar Ice Cap and its melt line. During moments of superb seeing, I even caught a glimpse of the really difficult... the recently developed large dark cleft into the melting South Polar Ice Cap.

We then enjoyed the Red Planet's red reflection right across The Sea of Serenity at our feet. This scene of Mars, together with the Moon, both reflecting over the calm waters of Lake Ontario was the most serene thing I've ever seen. It was unforgettable.

Mike Eheler (RASC - Vancouver Centre) wrote..."the most beautiful thing I have ever seen... was tonight. I went outside, and looked south... there was the Moon in about 60% of its glory, and roughly 30 degrees west of it was Mars. For the first time ever, I actually felt like I was on a giant ball of rockfloating around a point, along with other giant balls of rock. Truly spectacular, I had to share it. Sometimes I get so involved with my observing programs that I forget to take a moment or two to take in the big picture".

Here is the nice response by John Gauvreau (RASC - Toronto) to Mike Eheler's description... "Glad you did share that Mike. We all got into this hobby because, at one time, we had a sense of wonder about the universe we live in and we wanted to know more. And then, so many of us end up getting tied up in details and technicalities and accomplishments (how many things can I observe in one night, how many hundred CCD images can I stack if my autoguider is working right) - which are, of course, fine pursuits, and lots of fun - but, we must not forget why we do all this. Learning more about our cosmos enhances the viewing experience, as understanding creates appreciation, and it is so nice when one day it all clicks for you, and there you are, on a ball in space, part of a grand celestial dance with the other planets and stars, and it is all so worthwhile..."

Our little group of four were all struck by that same impression of: "there you are, on a rock ball in space". I suppose that, of the 12 million residents of Ontario, we were the lucky four who were out in the middle of The Sea of Serenity, under "to die for" gorgeous skies, with the reflections of two magnificent celestial bodies right beside us. As Dave Pianosi stated: "Point Petre has a special kind of ambiance that you cannot find elsewhere".

Point Petre, like so many rural sites during July, has a horde of mosquitos that drove us away

before the transit of Mars, so we actually did not fulfil our goal of being there at the moment of optimum seeing. But, we were impressed enough that soon, when the skitters will be gone, we hope to return. Point Petre is a unique place "On This Side of the Moon" which deserves more attention and more exploration.

Ken Kingdon, RASC - KC member.

Observing Group Meetings

These are regular meets at the home of members who volunteer their locations and homes to us on or near a new moon. Contact Kevin Fetter if you are interested in hosting a session in 2003. Contact one of the Executive, or the host, for directions or visit the members only website.

August: Cancelled due to Starfest
(*alternatively defined as Markfest on Friday August 8th after the BBQ and speaker)*

September 26/27: Fall'N'Stars 2003 near Thomasburg see
http://www.rascbelleville.ca/fallnstars/

Saturday October 18, 2003
At Diane Torney's home near Picton.
Note: There is a HOT TUB in case of clouds, so bring your swimsuits!

The Messier Certificate Holders (16)
Leo Enright (1982), Gus Johnson (1983), Jim Scotti (1983), Mark Sorensen (1986), Stan Hanna (1990), Steve Manders (1990), Bill Broderick (1993), Dan Rombaugh (1993), Ray Berg (1996), Ken Kingdon (1998), David Pianosi (1998), Doug Angle (1999), Vic Smida (2002), Mark Kaye (2003), Norm Welbanks (2003), Kevin Kell (2003)

The Finest NGC Certificate Holders (5)
Walter MacDonald (1995), Cathy Hall (1997), Leo Enright (1999) Jan Wisniewski (2001), Ken Kingdon (2002)

Public Observing Sessions

These are the public observing sessions, normally held at Murney Tower Park on the Kingston waterfront on King & Barrie Sts. On the first Tuesday after a new moon.
The next POS are:

Tuesday August 5th at dusk
Tuesday September 2nd at dusk

Equipment Loan Program

Members in good standing are able to sign out Centre equipment, including:
☆ 25cm (10") f5.5 Douglas Dobsonian Advanced Users
☆20cm (8") f7 FitzGerald Dobsonian Intermediate Users
☆20cm (8") f4.5 Barney Dobsonian Intermediate Users
☆11cm (4.5") f4.3 Bushnell Voyager Starter Users
☆11cm (4.5") f7.9 Orbitor 3500 Equatorial Starter Users
☆ 5 barndoor tracking platforms 1999 February - Starter Users
☆ Collimating Tool 2001 August - All Users
☆ Binocular Set #1 B&L7x50 1999 April - Starter Users
☆ Binocular Set #2 B&L10x50 1999 April- Starter Users
☆ Binocular Set #3 Bushnell 7x50 1999 April - Starter Users
☆ Binoculars Set #4 Stem 7x50 1995 - Starter Users
☆ 19mm Televue Panoptic Eyepiece 2000 March - Intermediate Users
☆ Filter Set - ND13, 4 colour, O3 nebula - all 1.25" 2000 September - Intermediate Users
☆Kodak Ektagraphic 35mm slide projector 2000 November
Contact Tom Dean at thomas.dean@ece.queensu.ca or 389-2408

Coming Soon: an *equatorial tracking platform* for Dobsonian telescopes. We've taken delivery of it and now need to sit down with it, write up a manual, test out it's load limits, etc.

RASC Kingston Centre Meetings

The Kingston Centre RASC meets once a month on the **2nd Friday of each month at 7:30 pm (19:30) in Stirling Hall** Theatre D on Queen's University Campus **unless noted otherwise.** We have adopted a policy of moving any meeting that is held on a holiday weekend.

Friday August 8th 5 pm Annual BBQ and Observing session at Mark Kaye's - Mystery guest speaker. For directions contact the executive (see below)

Friday September 12th 7:30 pm
at Stirling Hall Theatre D
Guest Speaker: Leo Enright (Kingston)
Topic: Transits of Mercury and Venus.

Friday Oct 10th 7:30 pm TBA

Friday November 7th 7:30 pm - General Elections (Voting for 2004 Executive)

Annual Awards Banquet
Saturday, November 29, 2003

Harbour Restaurant, Portsmouth Olympic Harbour.
Drinks: 18:00
Dinner: 19:00
Speaker:

Tickets are $25 and can be purchased at meetings August, Sept, October, and November. or by mailing in cheques to the Centre mailbox, please mark them attn. Susan. Tickets may be requested by telephone to Susan xxx-xxxx but only cold hard cash (or cheque) will get you beyond the **deadline of November 24 (Monday** before).
Please notify Susan early if you have any food allergies or vegetarian needs. Menu will be announced well in advance.

Friday December 12th 7:30pm
Last meeting of the year.

The Kingston Centre of the RASC

The Kingston Centre was founded in 1961.
PO Box 1793, Kingston, On K7L 5J6
Infoline & answering machine: 613-377-6029
Email: <rascexec@cliff.path.queensu.ca>
http://members.kingston.net/rasc

We also have an email chat list "rascchat". Send your email address to Kevin Kell to be added to the RASCCHAT list.

Executive Officers - 2003

President: Hank Bartlett

Vice President: Doug Angle

Secretary: Brian Hunter

Treasurer: John Hurley

Librarian: David Maguire

Editor: Kevin Kell

National Council Rep: Peggy Hurley

Regulus is published 6 times per year on paper and 12 times per year in adobe acrobat format files. Both are available on our web site. Views and opinions expressed herein do not necessarily reflect the official position of the Royal Astronomical Society of Canada or its officers and members.
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August Print Run=0

The Newsletter of the Kingston Centre of the Royal Astronomical Society of Canada
Newsletter Submission Info: The deadline is usually the 3rd Friday of each month. The preferred method of submission is E-MAIL file attachmentr.
E-mail: <***kell@cliff.path.queensu.ca***>
Fax: 1-613-533-2907 (with cover page to Kevin Kell)
Post: 76 Colebrook Road RR#1, Yarker Ontario K0K 3N0 Canada

Resources Available to Members:
(See bottom of page 10 for passwords to "member-only" RASC web sites)

- **RASC-Kingston Centre Handbook** at: http://130.15.144.99/rasc/secure/kingstonmanual.pdf

-**RASC National manual** at http://www.rasc.ca/private/rascmanual.pdf

- **RASC-Kingston Centre Loan Program** at: http://members.kingston.net/rasc/loan.htm

Ramblings from the Editor

by Kevin Kell

Telescope Manuals online!
We have been producing operator's manuals for our equipment loan telescopes and other pieces of equipment. One copy of the manual travel with the instrument, one is kept by the Equipment Loan Chair and the originals are kept online our website.
As of right now: you can access:

✪Douglas Telescope manual at http://130.15.144.99/rasc/secure/douglasmanual2003march07.pdf

✪ Venor Telescope manual at http://130.15.144.99/rasc/secure/venormanual2003august01.pdf

✪ Bushnell Voyager Telescope manual at http://130.15.144.99/rasc/secure/bushnellvoyagermanual2003august01.pdf

The other manuals are coming along nicely and we should have all of them done by the end of 2003.

For Sale

Telescope for sale:
Someone at work (Kingston General Hospital) has some stuff to sell, a bit of an observing slump I guess. His name is John and his number is on the bottom of the posting. I wish I had some cash but there you go.

Celestron 4 inch refractor
Equatorial mount
wooden tripod with accessories tray
6x finder scope
2x barlow
26mm Celestron Plossl lens
17mm Celestron Plossl lens

Asking price $500
I would prefer to sell it as one package. 384-9151.

Annual General Meeting and Elections

The Annual General Meeting is coming up in November and as always, we are looking for people to serve on the Executive of the Kingston Centre. Every year we publish information about the positions and encourage members to ask questions of any of the executive if they are even remotely interested in running in the elections.
There are 7 elected executive positions.

Committees, Their Chairs and What They Do

Normally there are few enough volunteers to fill each position every year, so a lot of the positions get doubled or tripled up. If you are interested in Chairing any of these Roles, please contact the President at any time.
Committee Chairs/Roles/Positions will be filled by going through the volunteer lists by the outgoing and incoming executives, either at the end of the year, or early on in the year (December/January time frame).

Amateur Telescope Making

Objectives:	Is responsible for organizing, designing, planning and building various ATM projects, both for the Centre and for members.. A member of Council and other members of the Centre comprise the ATM Committee. A central ATM workshop is needed to house the Grinding Machine and other inventory (grit, parts, tools, optics, etc) the Group holds.
Chair:	Brian Hunter (2003)
Members:	Hank Bartlett, Doug Angle
Status:	Active
Activities:	- Design, plan and built the 8" Fitzgerald Dobsonian Telescope - Design, plan and built the 8" Barney Dobsonian Telescope - Designing, planning and building of 24" Venor Dobsonian Telescope - Providing expert assistance to members building their own ATM projects. **Duties & Responsibilities of Committee Chairs - ATM Group** - prepare a budget for the upcoming year (January) - Prepare an Annual Report for the Centre Annual General Meeting - maintain ATM equipment and parts inventory
Proposed Activities:	- Design and build a dedicated solar telescope for public events (with large display) - Design and build an Equatorial Tracking platform for Dobsonian telescopes (a Poncet platform) - Design and build an number of type 4 double arm barn door tracking platforms (some for the loan program, some for members, some for sale) - Assist in the design and building of the Centre Observatory.

Awards

Objectives:	Is responsible for maintaining the Centre's Awards information, selecting recipients for the annual awards and presenting them at the Annual Awards Banquet. In addition it is responsible to nominate and submit to national office those names that may be eligible for National Awards.
Chair:	Laura Gagne (2003)
Members:	Brian Hunter, Hank Bartlett, Peggy Hurley
Status:	Active
Activities:	- Award the **AV Douglas Award** (select the member according to the Douglas award guidelines, get the name engraved on the large plaque and get a smaller plaque for the award winner) - Produce the Centre's **"Mighty Thank You" Awards** for over and above contributions to the Centre that year with names given by the president). - Implement Centre version of now defunct National Membership Certificate. **Duties & Responsibilities of Committee Chairs - Awards Group** - prepare a budget for the upcoming year (January) - Prepare an Annual Report for the Centre Annual General Meeting - organize AV Douglas Award group, select winner in secret, get Big plaque from president or previous holder in September, get big plaque updated, get small plaque for winner.

	- organize Mighty Thank You Awards for members contributing above and beyond (plastic frames from Business Depot, custom inkjet printing job) - manage the judging and prizes awarded annually to the Kingston Area Science Fair - we normally give out 1st Prize: a one year RASC-KC membership 2nd. Prize: BOG 3rd Prize: RASC Current Year Calendar in the event of partnered projects, we may award two prizes of each based on the judgement of the Awards Chair.
Proposed Activities:	- Design and document new centre awards (ie Best Observer of the Year, Best Research of the Year, Best Seminar Presentation etc)

CCD Group

Objectives:	Be responsible for the implementation of projects and activities designed to promote interest in the science of astronomy among the school system and the general public. A member of Council and one other member of the Centre comprise the Public Education Committee.
Chair:	Doug Angle (2003)
Members:	Kim Hay, Kevin Kell, Robert Olson, Tom Dean, Fred Barrett, Hank Bartlett
Status:	On Hiatus
Activities:	Monthly meetings introducing CCD imaging techniques, protocols, software and hardware
Proposed Activities:	- Design plan and build CCD imaging systems for the 24" telescope - Assist in the design, planning and building of CCD systems by members - Act as Expert contact for CCD related questions

Education Group

Objectives:	Be responsible for the implementation of projects and activities designed to promote interest in the science of astronomy among the school system and the general public. A member of Council and one other member of the Centre comprise the Public Education Committee.
Chair:	Laura Gagne (2003)
Members:	Kevin Kell, Hank Bartlett
Status:	Active
Activities:	**Duties & Responsibilities of Committee Chairs - Education** - prepare a budget for the upcoming year (January) - review educational products for makeovers, changes, new editions, new products - Prepare an Annual Report for the Centre Annual General Meeting - Arrange for participation in STAO annually and other educational activities - coordinate astronomer in the classroom Teacher help - market education publications and products - Coordinate with the National RASC Education Committee
Proposed Activities:	***Public Service Announcements*** From time to time, newsworthy events are disseminated to the media. There is no full-time person in charge of this duty. In the past, most of these releases have been prepared by xx, and xx xx

Equipment Loan Coordinator

Objectives:	To manage and maintain the items in the Equipment Loan Program.
Chair:	Tom Dean (1998-2003)
Members:	Hank Bartlett
Status:	Active
Activities:	- maintain inventory of equipment loan program and manage it, maintain equipment

	- perform an annual audit of all equipment loan with the President - prepare a budget for the upcoming year (January) - hold the inventory of Telescope and Equipment Loan Program and manage the loans to members in good standing. - currently policy is for one month terms at no charge - maintain the condition of the loan equipment (paint, small parts) - estimated previous budgets for this maintenance is about $100 - Prepare an Annual Report for the Centre Annual General Meeting - recommend capital equipment purchases

Events Coordinator

Objectives:	Is responsible for coordinating the International Astronomy Day/Week event, Sky is the Limit Festival participation, FallNStars Star Party and any other major event not covered by the Public Observing or Observing Group Chair.
Chair:	Don Cooke (2003)
Members:	Kim Hay, Kevin Kell, Hank Bartlett
Status:	Active
Activities:	**Duties & Responsibilities of Committee Chairs -Events** - set location and date for at least one annual Public Display, sign contract for location, arrange for member volunteers to man the display, be there for setup, shutdown and preferably for the whole event as the person-in-charge. - get the Observing Chair to organize solar (noon hour) and stellar (evening) observing sessions either the week before or after Astronomy Day - write suppliers of handout material (Sky & Tel, Astronomy, Skynews, etc) - ensure the centre has sufficient quantities of brochures: rasc-kc (200), ATM (100), LPA (100), business cards (200) from the Editor or Publicity Chair - ensure plenty of display materials available from Center stores and members - prepare a budget for the upcoming year (January) - arrange for appropriate displays - Prepare an Annual Report for the Centre Annual General Meeting - estimated previous budgets for this event (excluding regular brochures, etc) is about $100 - think about more than one display per year, possibly in different locations, or longer term displays (like in public libraries, malls, etc) Book a location, set date, time, activities. Publicize. **Duties & Responsibilities of Committee Chairs - Fall'N'Stars** - prepare a budget for the upcoming year (January) - Prepare an Annual Report for the Centre Annual General Meeting - estimated previous budgets for this event is about $250 - Work with other partners in the Event (Belleville Astronomy Club) **Duties & Responsibilities of Committee Chairs - Sky is the Limit Festival** - organize our participation in this annual charity event (usually held the first Saturday in July)
Proposed Activities:	

Observing Group Coordinator

Objectives:	Organize and coordinate programs, meetings and activities associated with astronomical observations within the Centre for members. A member of Council and one other member of the Centre comprise the Observing Group Committee.
Chair:	Kevin Fetter (2003)
Members:	
Status:	Active
Activities:	**Duties & Responsibilities of Committee Chairs - Observing Group** - post email list reminders to RASCCHAT about upcoming events, post after-event reports

	- organize RASC-KC Observing Group meetings (solicit volunteers homes) monthly UNTIL the Observatory site is built - post email list reminders to RASCCHAT about upcoming events, post after-event reports - organize at least monthly observing group sessions at our Observatory or at the homes of volunteer members and post email reminders before and email reports after the events. - Prepare an Annual Report for the Centre Annual General Meeting - inspect and recommend Observing Awards for Centre Members (eg National Messier, Finest NGC lists, etc) - maintain records for these and Centre Awards

Public Observing Coordinator

Objectives:	Organize and coordinate programs, meetings and activities associated with astronomical observations for the public. A member of Council and one other member of the Centre comprise the Observing Group Committee.
Chair:	Tom Dean (2003)
Members:	
Status:	Active
Activities:	**Duties & Responsibilities of Committee Chairs - Public Observing** - post email list reminders to RASCCHAT about upcoming events, post after-event reports - organize at least monthly public observing sessions at the Murney Tower Museum Park on King and Barrie Sts in Kingston, normally the first Tuesday after a new moon. - keep stats on clear/cloudy nights and public attendance at these sessions.

Publicity Coordinator

Objectives:	Be responsible for publicizing the events of the RASC-KC to local media
Chair:	Kim Hay (1999-2003)
Members:	
Status:	Active
Activities:	**Duties & Responsibilities of Committee Chairs - Publicity** - at least monthly and in a timely fashion, notify media list of all of our public events (but not events for members) - media list (tv, cable, free newspapers) - maintain telephone number with answering machine with monthly events and pass on messages to others as appropriate - prepare a budget for the upcoming year (January) - Prepare an Annual Report for the Centre Annual General Meeting - Prepare annual updates to Centre brochures (eg Centre, Getting Started, Youth Observing, and any other), business cards

Responsible Lighting Committee

Objectives:	The mandate of Light Pollution Committee (LPC) is to inform members and the community about light pollution and to influence efforts to reduce light pollution. The LPC is active in local education about light pollution, is a strong member of the RASC's National Light Pollution Committee and supports the efforts of the International Dark-Sky Association.
Chair:	Kim Hay (2003)
Members:	Kevin Kell
Status:	Active
Activities:	Designed and published an informative pamphlet about light pollution. This pamphlet is distributed at all Kingston Centre public activities and is used nationally by the RASC. Created the Responsible Lighting Award (RLA) with which the Kingston Centre recognizes local companies and organizations that use good lighting practices. This programme was officially

	adopted by National Council and a National RLA is awarded annually in the province of the RASC centre hosting the General Assembly. Created an award winning display about light pollution that is used at various Kingston Centre functions, such as Astronomy Day, Sky is the Limit Festival, and Charleston Lake star nights. Write articles about light pollution for the Regulus. Published a full page article about light pollution in the Kingston Whig. Working with neighbours of our Observatory to improve their lighting practices. If you would like more information or would like to help preserve dark skies, contact any of the LPC members. **Duties & Responsibilities of Committee Chairs - Responsible Lighting** - prepare a budget for the upcoming year (January) - Prepare an Annual Report for the Centre Annual General Meeting - liaise with Queen's University Observatory and RASC National LPA groups - research other municipalities bylaws, efforts and prepare action plan for our area. - prepare and maintain a Light Pollution Abatement / Responsible Lighting Brochure and Display

Social Activities Committee

Objectives:	Be responsible for the organization of any social activities of the Centre, such as, parties, banquets, receptions and picnics. A member of Council and one other member of the Centre comprise the Social Activities Committee.
Chair:	Susan Gagnon (1999-2003)
Members:	Hank Bartlett, Kim Hay
Status:	Active
Activities:	***Annual Banquet & Awards Night*** is held in November. The banquet is followed by; presentation of awards to members who have performed meritorious service to the club, and dancing. The evening is always a great success. ***Annual Member's BBQ*** is held in August at the home of Mark Kaye. The BBQ is a family oriented event with the club supplying hot dogs, hamburgers, salad, refreshments and desert. Members wishing something different, like streak, must provided their own. **Duties & Responsibilities of Committee Chairs - Annual Awards Banquet** - prepare a budget for the upcoming year (January) - set location and date for Annual Awards Banquet, usually held in November before the Christmas Rush - Fund raise throughout the year to help with extra expenses (ie room charge, decoration, door prizes, etc) - Get a guest speaker and offer free dinner and possibly a 2nd ticket for spouse/guest guest. - Prepare an Annual Report for the Centre Annual General Meeting and for publication in Regulus. - estimated previous budgets for this event is about $200-300

Webmaster

Objectives:	Be responsible for the Centre's Web presence
Chair:	Kevin Fetter (2003)
Members:	Hank Bartlett
Status:	Active
Activities:	- maintain a weekly update of the web site with current events for members and public - notify national webmaster <webmaster@rasc.ca> of any web site moves - take content from the Executive and various committee chairs to update the primary and secondary web sites

2003 PUBLICATIONS ORDER FORM

Item	**Price per unit (Shipping and taxes included) Regular (Member)**	**Quantity**	**$ SubTotal**
*Expanding Their Universe 2nd Edition - The Teacher's Companion for Secondary School Astronomy 161 pg 2002 **NEW!**	$30 ($24)		
*Worlds to Discover 1st Edition - Astronomy for Elementary School 154 pg 2000	$15 ($12)		
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* Secondary School **Combo 2:** ETU book, Slide Sets #1 AND #2 (Circle Choice), Careers in Space	$160 ($125)		
*Elementary School **Combo** : WTD book, Slide Set #3, Careers in Space	$50 ($40)		
Beginner's Observing Guide by Leo Enright	$15		
2004 RASC Observer's Calendar	$17		
2004 Observer's Handbook	$25		
		Total	

Payment must accompany all orders. Cheques should be made out to: RASC Kingston Centre.
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