# Regulus

The Newsletter of the RASC Kingston Centre 2000 September-October


# StarFest 2000 - Year of the Toga


**StarFest was a Blast!**

Over 22 members of the Kingston Centre attended and the encampment was quite a sight to see.. Side trips included a night out at the Torrance Barrens Dark Sky Conservation Area near Gravenhurst (and a stormy night it was too!) with first arrivals at Mount Forest on Tuesday night. The sun set on Wednesday and the dew fell from the sky. Thursday was spent buying and making dew zapper-ing heaters and it paid off... the best night of the event. Friday was dewy and murky and Saturday was another thunderstorm. Fantastic guest speakers, good food and lots of making new friends. Portable shelters (8 of them!) saved our bacon from both sun and rain and none of them blew away this year! *(Starfest Rule #23 - do not attempt to erect structures in the afternoon winds!)* Some folks got some good deals at the Swap Table and as usual (3 out of the last 4 years), it was raining on Sunday morning during the decampment.

**From the Prez**
Doug Angle

At the annual meeting of the national RASC, the membership approved a fee increase, from $36 to $40. The reasons and debate on this topic have been published in the Journal, and so I won't repeat them here. This would normally result in an increase to Kingston Center members as well. However, we have done well in membership and other fundraising in the last few years. Consequently, the executive approved a reduction in the center surcharge by an equivalent amount, and so the total cost for Kingston membership remains at $45.

**Both take effect 2000 September 1st.**

National fees are split between National and the local centers, so we already receive 40% of membership fees. The increase of $4.00 would normally net $1.60 for the Center, and so reducing our surcharge will only cost $2.60 per person. This still amounts to about $500 in lost revenue. This is balanced by some economy of scale as our membership increases. Perhaps more importantly, we have had some great success with the education program, sales of slide sets and other items. We have also had a number of donations. Still, fee reduction (or increase) should be taken seriously, and it was with some trepidation that we made this decision. Above all else, it is the responsibility of the executive to ensure the ongoing viability of the Center, and we need to look at the long term effects. We trust that you, the members, agree with our decision. As always, contact any member of the executive if you have concerns.

We understand that National printed new forms showing the increased fees, before accounting for our change. Consequently, those renewing in August or September may find the renewal form showing a $9 surcharge. If you do, this is an error. The correct surcharge is $5 for a total of $45. We apologize for any inconvenience. *[Ed note: some renewal notices for September have been received by members and they have shown the correct amounts.]*

## Submissions from Members

**YOG**
by Hank Bartlett

YOG, the Youth Observing Group of the Kingston Centre will start up again in September. Currently we are set to start back on the first Wednesday of September. It was indicated at the end of last term that we will still be able to use a room at Holy Cross Secondary School in Kingston. Unless otherwise posted meetings will be in Room 108 from 6:30pm until 8:00pm. Weather permitting meetings will be split about 50/50 observing and classroom time. Meetings will run on the first and third Wednesday of each month as long as the school is open. We will make every effort to notify members of school closures, however sometimes they come as a surprise to us as well.

There is no mandatory attendance or fees and youth need not be a member of the Kingston Centre RASC. The preferred age is from 12 to 18 years of age, however exceptions will be made for those who are *keenly interested* in astronomy if they are younger. Classroom time will not involve intense study or reference, rather this time will be used to discuss observing practices, current events and ask those questions we can. Observing will not be canceled for cold weather except in the extreme, dress appropriately!

Parents are encouraged to attend and share this hobby with their child. Parental attendance also allows the parent to learn enough about astronomy to allow them to help their child at home. As this is basically an after dark hobby it is best to that children are not left alone, but also it is fun to share this experience with them.

For more information call Hank at xxx-xxx-xxxx or email xxxx@xxxx.xxxxxx.xxx .

**ATM Projects: The Observing Table**
by Kevin Kell

Every year I and many other Astro-Dudes partake of the Star Party known as StarFest, held at Mount Forest Ontario. And every year we come back full of ideas and energy to do something

about them. This observing table project came out of those ideas. Of our group of 8-12 transgressors, only 2 had observing tables and they weren't happy with them in any event. So about the beginning of March I started hunting the net for project ideas.

**The Benefits of a Table**

-It gives one a horizontal work space at a decent height for writing, reading and placing cups of hot coffee or cold Barbarian

-It allows ones to have a package of observing equipment all set up and ready to travel, instead of having to hunt around for various bits and pieces

- It is a nice size and weight for packing around other equipment

-Built in legs means you will never lose them

-The plexiglass allows the chart(s)in use to be self flattening and on easy display (prevents wind from blowing them around - but the case design doesn't hold up well in wind with the lid up)

- protects everything from DEW (when the lid is closed :)

**The Design**

The first step was to see what others thought of their tables. Too small and too low. OK, the internet table was 29 x 20 inches, but if we want to make a bunch of these the dimensions should fit better into standard pieces of wood (ie 4x8 or 4x4 or 2x4). So I picked 24" x 18" as a compromise. 6" deep looked good so I split it between 5" on the bottom and 1" for the lid to allow for a pouch in the lid. Having builtin legs was a convenient must so I added another 2" depth to the frame only of the box, leaving the bottom of the box 5" from the top. Looked at material and chose 3/8" plywood for the box sides and 1/4" plywood for the lid, base, internal partitions and leg braces. The leg design would not allow for a straight fold out leg of more than 22" or so, add another 6" to that for the box height and the lid was 28" above grade. Not enough. So we came up with a double folding leg design that would take the boxtop to approx 36".

Inside the box I wanted space for at least 4 eyepieces along one side, a large area big enough for the biggest charts I could find around here (14"x19") (Star Atlas 2000) with the Observers Handbook, magazines, binoculars and whatever else, and another spot for flashlights, pens, pencils, etc. A plexiglass cover plate would be neat to put charts under to protect from dew. Initially this was in the lid (with no pouch), but later was moved into the box itself over the 14"x19" chart area to allow for a pouch to be built into the lid. Built in Red LED's with variable lighting would also be nice, so as to avoid the whole problem of flashlight mouth..

The lid could be propped open (with an arm?) to allow access to the eyepieces and charts or closed to be used as a writing surface.

**The Reality**

The box was knocked together in a few hours. The leg design went through 3 or 4 major revisions as I was never satisfied with their stability. The current (and last) legs in use are a TV tray like scissor design (not shown here) that fit underneath the box. They are not attached and are one piece. The best solution for now as it has a good stance and resists wind.

The electrical system was finally added in and provides for 4 superbright red LEDs on a dimmer switch and a lid switch, so it turns on when the lid pops open. This is run from a 12vdc battery inside the case. I added a power jack to the outside of the box to make it easier to tap into the power for other devices (barn door tracker) or for recharging the onboard battery.

Parts lists, pictures and more gory construction details can be found on my web site: http://130.15.144.100/atm/table.htm

The cost of this initial prototype and its many revisions was well over C$100. I suspect that the 2nd one built by Tom Dean should come in well under that price (and hopefully an article on it in the November Regulus).

**"Of Cabbages and Kings and Eclipses and Hot Tubs"** by Diane Torney

I have been meaning to write this for a while... or give an observing report, but that hasn't happened while I have been there. Reading all

those reports about how everyone suffered frozen feet, etc. to watch the eclipse reminded me.

I had big plans for the night of the eclipse... living as I do on the north eastern edge of Toronto, with Oshawa to the southeast, planetary observing is best. I do have one large advantage over most of the Kingston group members who have darker skies... I have a hot tub in my backyard! This makes observing meteor showers very comfortable. So for the night of the eclipse, I figured I would at least be warm! Well, wouldn't you know that on the coldest night of the year, THAT night, my hot tub's control panel decides to go on the fritz! Although it read 102 degrees, it was more like 120 degrees! I couldn't even sit in it! So there I was, in my wet bathing suit, toasting the moon's show with hot chocolate, with my feet being scalded! I knew right then I was probably the ONLY person in North America who could say she was TOO DARN HOT while watching the eclipse!

I followed this up by drying off and getting the telescope out to try to find the Beehive cluster. Didn't get it, but I did find a few other clusters. By then, of course, my feet were blocks of ice! They didn't thaw out until morning! I knew I should have dipped them back in that cauldron!
I spent the rest of the week worrying whether the tub would freeze before they found a new control pad! The repairman found the parts the day my income tax return came in... they were made for each other!

## *"Greenwich Tales"*

by Susan Phillips

On a recent visit to Britain I was lucky to be able to spend some time at the Royal Observatory in Greenwich. What had drawn me there was to be able to stand on the Prime Meridian, but I also got a fascinating tour of the site and some of its exhibits: telescopes and time-keepers.

(The photo shows my nephew Christopher and me in a standard tourist pose, straddling the Prime Meridian, with one foot in each hemisphere.)

### The moving meridian

The current meridian is marked with a red stripe that runs down the outside of the main building and across the courtyard. At night they project a laser beam which extends 15 miles along this path.

Signs nearby say "The Millennium starts here", and describe the role of the prime meridian in determination of time. What is cleverly omitted is any reference to the year that the millennium actually starts.

The very knowledgeable ex-engineer who took us around the exhibits packed all sorts of details into our 2-hour tour. He had anecdotes about the people who had lived and worked there, details about the contributions of the astronomers and the instruments on display.

I learned there have been a number of meridians used over time. In 1675, Flamsteed, the first Astronomer Royal, set up the first one along a wall in his observatory where he took observations using a 10-foot mural quadrant.

By the time the next Astronomer Royal (Halley) was appointed, Flamsteed's transit wall had subsided down the hill a bit, so he set up a new meridian wall, a few feet to the east. In 1749, Bradley, the 3rd Astronomer Royal, built a new observatory next to Halley's, pushing the meridian a few feet further east again. Cartographers used this meridian as Longitude 0 degrees in the first British Ordnance survey map in 1801, and this meridian is still used today for that purpose.

When Airy became the 7th Astronomer Royal he also had reasons to move the Prime Meridian to its present location, about 4 metres east of the Bradley line.

### Stars and the sea

You have probably recognized the names of these astronomers, and remember their contributions (Flamsteed's catalogue of the heavens, Bradley's constant of aberration etc.) but the irony of it all is that the observatory and its astronomers were not installed for love of the stars. Rather they were trying to solve a problem that had to do with the seas, and shipping: a reliable way to calculate longitude.

For want of an accurate way to calculate position a shipping disaster in 1707 resulted in the loss of almost 2,000 lives. This prompted the British Parliament to offer a $20,000 reward for a way of determining longitude at sea to within half a degree. The fascinating story of John Harrison's 45-year quest for the solution has been described in detail in the book "*Longitude*" (a television version of which will be aired July 9th on A&E).

The Greenwich Museum displays and explains many of Harrison's chronometers, as well as other timekeepers, both functional and fanciful. There is also good display explaining the development of standard time zones, and how Greenwich became the Prime Meridian of the World. (There's a story with a Canadian connection there, also, but perhaps not the one you think you know…)

**Traditions**

The Observatory is well inside London's light dome, so research functions have moved elsewhere, but there is public and educational observing done using the 28-inch refractor in the Great Equatorial Building. (We were told this scope has a very fine object lens and is particularly useful for observing double stars.)

One of the towers of the building is topped with a large red globe mounted on a mast. Every day at 12:55 p.m. this Time Ball is hoisted halfway up this mast, raised to the top at 12.58, and then dropped at exactly 1 pm. This method has been used since 1833 to send a time signal to the shipping in the Thames.

The reason it occurs at 1 p.m. is that at noon, the astronomers were busy doing their daily transit observations. (Later when the time signal began to be broadcast by radio, it was also transmitted at 1 p.m. Canada follows this tradition with the Dominion Time signal, now the NRC time signal, still broadcast at 1 p.m.)

Funny how things are connected, huh?

*[Ed: photos from this trip appeared in the last issue of Regulus]*

**The Sky is the Limit Festival**

Saturday 2000 July 8 by Kevin Kell

I'm exhausted. I'm typing this from the couch.. in the prone position no less... ugg. 8 solid hours at the Festival. Continuous lineups at 3 solar scopes whenever the sun was out (and boy was it out a lot). Many thanks to the three solar hombres Hank Laura and Tom. I betcha they'll be radiating glow-in-the-dark tonight. We were out of our 100 star maps before lunchtime and started moving a lot of YOG brochures (they too had star maps). Watch out Hank! Come September you may have a few hundred campers on the doorstep, waiting for the next Youth Observing Group!

In the 8 hours of mirror grinding we completed two blanks (rough grinding out at 60 grit. One had some work on it already but we got them ground out gosh darn!

Thanks to the folks who stopped by during the day to help out (we actually had 4 scopes out, a table display and a grinding session and had to shut down a telescope due to lack of people (our people) at times. Busy! Kim Susan Steve and Barb.. Tim and Bob. There may have been more but I didn't get out much :)

Having the CF helicopter come in and land less than 10 m from us was exciting (luckily we weren't set up yet).. The table did blow away a little, with me hanging onto it yet! Near the end of the day, when the great giant inflatable cow, next to us and the chopper, started to deflate, we knew that they would be lifting off soon and we packed up tres vitement!

I daresay the people throughput (those who stopped by to look, browse, chat) was far higher than most of our Astronomy Days. Maybe we should start looking at other outdoor public events? The solar viewing was excellent (the sun cooperated by having many many groups and spots). Jupiter and the moon were other targets during the day as were the courthouse statuery, the pretty police constablette on the repelling tower, some Queen's University building chimneys and the canadian flag on the Courthouse.

The new ***stellar*** tableclothes were put to good use (Susan has custody... unless Hank got ahold of them.. he was threatening to make them into a matching set of pants for his shirt). Colourful, decorative and stopped people as well. That's about all my failing fingers can get out tonight.. time to find another glass of pain killer... Oct 98 Chardonnay is wonderful.!

# Notes from the Secretary

Regular Meeting of the Kingston Centre of the RASC July 14, 2000

The meeting began with a quick round of reports. The first report was from yours truly, wearing my National Rep. hat, and having left my notes at home it was a short report. (There is a better update in this newsletter.) The big item was the National fee increase which will come into effect September 1st, when the base fee will rise from $36 to $40. At this point our President explained, that the price will not change for Kingston renewals because the surcharge will be dropped from $9 to $5 for regular members and the surcharge will be dropped for youth all together. On the financial front the Treasurer, John announced that our bank account was in good shape and anyone with outstanding claims for reimbursement should get them in soon. There is approximately $15,000 in the bank and the next round of expenses will include newsletter mailings, 24 inch and small scope supplies (hopefully a few Starfest bargains) and BOGs. There was a donation to the Centre of a mutual fund investment and the donor is still a mystery. The amount is over $3000 and we are all very grateful, unfortunately there is no name to go with the gift, so proper thanks are pending. This could be an anonymous gift but the search for facts continues. New members were announced at this point and it was moved by Peggy and seconded by Leo that we vote in, Geoff Warne, Robert Gulley, Barbara Gulley and William Comars, carried. ATM report was delivered by Kendra. Work continues on the 24 inch and it is at the polishing stage. The tube will be started this summer and people with metal (stainless) and wood working skills are encouraged to come forward. Sessions will continue on Mondays at 7 p.m. until the end of July and then there will be a reassessment of the work. The VP report from Laura included a rundown of the upcoming speakers, and events. August 11 Mark's BBQ with a mystery guest speaker, September 8 J.J. Kavelaars, October 13, Bill Broderick, November 10, Annual General Meeting and Members night (Laura is low on submissions for this so get your slides etc. ready and give her a call). As Education Committee chair Laura announced that the Grade 6 book was nearing completion. Kevin announced that the newsletter had gone out at the end of last month and the mailing list totalled 196. The next issue will be late August. David Maguire, our new librarian , announced that he had successfully moved the library to his house and his number will appear in the newsletter now. David Pianosi has arranged a dark site for a combination Centre and Belleville Astronomy Club camp out and handouts were available. The dates will be September 23, all day to September 24. 2000 at Presqu'ile Provincial Park. The price is $10 to be paid to the Centre and at the gate $4 per person and $3 per car. You can check for more details at http://www3.sympatico.ca/aimdave.pianosi/rasc.htm. Dave's email is removed (at) sympatico.ca and his telephone is (613)xxx-xxxx Tom was not available to do the Observing committee chair thing but Peggy announced that the next Members Observing night would be at her place in Sharbot Lake, and Leo announced that the Huronia Star Party would be September 1 and 2. Leo also had some slides of the January eclipse and several conjunctions, and gave an update on the latest aurora display predictions.
Kevin gave a brief report on the Sky is the Limit Festival which included, solar and lunar observing, as well as Jupiter to really wow the public. 100 star maps were passed out as well and a good supply of the Getting Started and Welcome to Astronomy handouts that were left from Astronomy Day. YOG and Kingston Centre brochures went out as well. There was also a mirror grinding display.
After a short break there were 3 draws, Linear is Here wine from the fine cellar de Hank won by Peggy, 3D space shuttle puzzle won by Geoff, and the 50/50 at $7.75 went to Cliff, a man on a winning streak! Jan Wisniewski has invited members to his house on August 18th for a CCD and general observing session.

Finally the evening rolled around to our guest speaker, Kathy Perrett. Kathy is a graduate student studying galaxy formation at Queen's and is the Co-ordinator for the Queen's Observatory. The evening included a history of the Observatory, a demo of some observing software, and a tour of the dome.

# Notes from National

## Highlights of the GA 2000 Winnipeg, National Council Rep.

As many of you know the official minutes are posted electronically, first the Flash Minutes which give a bare bones list of motions etc. and later on a more complete account of what took place. The following is a list of highlights from the GA and associated Council meetings that may interest Centre members. All reports submitted to council are also available on the National web site.

There had been a request for a complementary one year subscription to Mr K Sakthivel in India and this was approved . The National Executive has 5 such discretionary subscriptions that they may award in any given year. This is an Indian astronomy club that has few resources of its own. Randy Attwood distributed an item called The Long Range Plan and the RASC. It will probably show up on the web, and a copy was sent out with the last issue of the Journal The plan involves the use of $160M over 10 years for Astronomy research and public outreach and education. There is a website listed in the document and tips on what to write to your MP about to help secure these Federal Funds. Randy is also working on the Government to issue an astronomical stamp to commemorate the 100th anniversary of RASC in 2003.

The merging of administrative duties of CASCA and RASC have been put on hold ntil next March. There was a

list of things that CASCA needed to give to RASC which did not get done in time to complete the job.

The National Secretary, Kim Hay has announced that the new manual is complete and Centres will be able to download updates more easily from the web site and keep their books up to date.

New positions filled: President Bob Garrison
2nd Vice president Peter Jedicke
Editor of the Handbook Rajiv Gupta
Editor of the Journal Wayne Barkhouse, Doing Ph.D. at UofT, originally from the Maritimes. (there will probably be no August Issue, as we know it, of the Journal, that will be the official switch off issue, however SkyNews will still have to go out so……)

**Constitution** New sample centre bylaws are being prepared to bring centre's in line with changes at the national level, such as the membership year. These will be ready by October's meeting.

There were two new centre's approved Moncton and Charlottetown, which means that the total is 25 and there is now a centre in each Province.

**Public Education Committee** has been given a 2 year extension.

**Historical Committee,** Kingston missing Newsletters, this would be where Kevin, David and I search the stacks of paper we hold as Newsletter Editor, Librarian and Secretary to find these issues if they exist. 81 August September 90 May-August 95 Jan/Feb, May/June, July/August

**Light Pollution Abatement** RASC contributed $1000 to a colour brochure promoting The Dark Sky Preserve Benefits… Logo, contact information for RASC in the brochure.

**New National Fee Schedule** $40 regular, $25 Youth, $800 Life September 1, 2000

I have given a copy of a new observers certification scheme to Tom Dean to evaluate as chair of the observing committee. The list was submitted at the GA and there will be a need for feedback at the October meeting. If anyone else has an interest in checking the list for feedback give me a call and I can get you a copy. That committee may still be looking for someone to volunteer to get the full list into an electronic form.

**GA** line up is 2001 London on the July 1st weekend, and possibly 2002 Montreal on the May 24th weekend.

All committees were settled at the Council meeting after the Annual Meeting.

**Standing committees** (except for the exec, chairs only listed)
Executive
President: Bob Garrison
First V.P. Rajiv Gupta
Second V.P. Peter Jedicke
National Secretary Kim Hay
Treasurer Michael Watson
Executive Secretary Bonnie Bird
Membership and Publications Co-ordinator Issac McGillis
Awards Chair, Randy Attwood
Constitution Chair, Michael Watson.
Finance Chair Michael Watson
Historical Chair Peter Broughton
Library Chair Colin Haig
Membership and Promotion Chair Kim Hay
Nominating Chair Randy Attwood
Property Chair Bob May
Publications Chair Rajiv Gupta

**Special Committees**
Astronomy Day Co-ordinator, Scott Young
Computer Use , Colin Haig
Light Pollution Abatement, Rob Dick
Observing Certificate, Chris Flemming
Public Education, David Orenstein.

## Editor's Corner

by Kevin Kell

This issue continues with the bookmark concept introduced last issue on pages 9&10. Additionally the printing process has had an improvement in resolution (moving from a 600 dpi to 1200 dpi laser printer). Hopefully we'll be able to notice the difference on the final product. This issue was also delayed by a combination of Starfest2000, the Labour Day holiday and the camera store that lost my slides for 2 days :)

**News from Afar:** From removed @ursa.fi
By the way, I greatly enjoy reading the Regulus newsletter. I have also visited a few times your web-pages. Some of the things I liked were the presentation of your educational material, especially the slide sets.
*[Ed: Feedback! I love feedback! Especially the nice complimentary kind!]*

**Slide Loan Sets:**
To remind you that we have a large selection of 35mm slide that can be loaned out to members for use in giving public talks, talks to schools, etc. And we forgot to mention three of our own!

Expanding Their Universe Set #1 (40 slides)
Expanding Their Universe Set #2 (40 slides)
Worlds to Discover Set #1 (20 slides)

We have also taken the 170+ slides donated by members and sorted them according to topic into 13 sets. This should make it easier to set up a talk and locate the slides you need. Thanks to Kevin Fetter for his donation of slides to the collection... we'll have those categorized soon!

**Messier Hunters:**

Are you hunting Messier objects? If so, send in your name and the number of objects you have logged. I'll be running a regular Regulus column with names and numbers to help create some incentive and motivation for getting out and observing more! Every 2 months you can send in an update for the next issue.

| Name | Last status | recent adds | Current Total |
|---|---|---|---|
| Tom Dean | 36 | 0 | 36 |
| Laura Gagne | 65 | 0 | 65 |
| Peggy Hurley | 55 | 0 | 55 |
| Kevin Kell | 21 | 30 | 51 |

## Education Group News

As part of our public education, some members have brought forward this web site, the home of the Ontario Skeptics, and questioned whether we should be more aggressive in debunking pseudo-science as related to astronomy and other related areas (space, physics, etc).

http://aries.phys.yorku.ca/~mmdr/o-skeptics.html

"The Ontario Skeptics are a group of concerned people whose aim is to keep informed about scientific investigations of claimed paranormal events. We are comprised of people from all walks of life; including doctors, homemakers, educators, entertainers and academics. This diversity provides a wide range of expertise and perspective.

Our Objectives

To investigate scientifically, and with an open mind, claims of an apparent paranormal nature.

To inform members, the media, and the public of these investigations.

To provide, wherever possible, a rational scientific explanation for claims which otherwise seem incredible.

To encourage a critical, skeptical attitude toward claims of a pseudoscientific and paranormal nature.

To develop and improve critical thinking skills in order to better evaluate information and sources and to alert both educators and the public to the dangers of uncritical acceptance of pseudoscientific and paranormal claims.

To understand the psychology behind the acceptance and perpetration of such claims, as well as other irrational belief systems.

To promote good science in order to achieve a better understanding of our world and ourselves. "

How does this affect RASC-KC? Astrology jumps to mind immediately, as does horror-scopes, planetary alignments and more.

**On the Teaching of the History of the Universe**
**[Ed. This statement appeared in the last newsletter of the American Astronomical Society.]**
**http://www.aas.org/governance/council/resolutions.html#evolution**

Resolutions Adopted by the Council of the American Astronomical Society

AAS Statement on the Teaching of the History of the Universe Adopted 11 January 2000, Atlanta, GA

"The American Astronomical Society (AAS) is the largest organization of professional astronomers in the United States. Its 6,000 members are men and women of all convictions and a variety of religious faiths. They work in ALL fields of astronomy, including the study of planets, of stars and of the Universe as a whole. Research in each of these areas, and in many other areas of astronomy, has produced clear, compelling and widely accepted evidence that astronomical objects and systems evolve. That is, their properties change with time, often over very long time scales.

Specifically, the scientific evidence clearly indicates that the Universe is 10 to 15 billion years old, and began in a hot, dense state we call the Big Bang.

Given the ample evidence that change over time is a crucial property of planets, including our own, of stars, of galaxies and of the Universe as a whole, it is important for the nation's school children to learn about the great age of, and changes in, astronomical systems, as well as their present properties.

More generally we believe that it is important to teach students the nature of the scientific method. Scientific inquiry involves the development and testing of hypotheses based on a systematic collection and analysis of data acquired through observations, experiments, and computer simulations. Science is not a collection of facts but an ongoing process, with continual revisions and refinements of concepts necessary in order to arrive at the best current views of the Universe. Science is unified; it is not possible to make use of scientific laws in one context, and then deny them in another. The same laws of science that govern --or empower-- our advanced technology also underlie changes

in time of astronomical systems. Science is not based on faith, nor does it preclude faith. Whatever personal beliefs teachers, students, parents or administrators may hold, the teaching of important scientific concepts, such as the formation and aging of planets, stars, galaxies and the Universe, should not be altered or constrained in response to demands external to the scientific disciplines.

The astronomical discoveries of the past century, many made by American scientists, are among the great triumphs of the human intellect, and we deeply regret any attempt to ignore them or deny them.

Children whose education is denied the benefits of this expansion of our understanding of the world around us are being deprived of part of their intellectual heritage. They may also be at a competitive disadvantage in a world where scientific and technological literacy is becoming more and more important economically and culturally."

This Statement was distributed to the AAS Membership in Newsletter #100, June 2000.

## Public Observing Sessions

This will be the last "2nd Tuesday" of the month as the lunar cycle is getting out of whack. Rather we'll start referring to these sessions as the ones "about the first Tuesday after a New Moon"
The sessions generally start with setup around dusk and run for an hour or so and are held at the Murney Tower Museum Park (King & Barrie Sts) in Downtown Kingston
**Tuesday September 5th** (7 days old)
**Tuesday October 3rd** (6 days old)

## Equipment Loan Program

- the newest addition to our loan program are 1.25" 3-stop neutral density and 3 colour filters.

## RASC Kingston Centre Meetings

The Kingston Centre RASC meets once a month on the 2nd Friday of each month at 8:00 pm (20:00) in Mackintosh-Corry Hall, Room B-201 on Queen's University Campus **unless noted otherwise.** We have adopted a policy of moving any meeting that is held on a holiday weekend to the **WEEK BEFORE**.

**Event Horizon 2000**

- **Friday September 8th** Regular Meeting Guest Speaker: JJ. Kavelaars Topic TBA
- **Saturday September 23rd**: Kingston/Belleville Observing Group Session at Presquille Provincial Park
- **Friday October 13th** Regular Meeting. Guest Speaker: Bill Broderick (Kingston) Topic: TBA
- **Friday November 10th** Annual General Meeting and Elections and Member's Night Presentations
- **Saturday November 25th Annual Awards Dinner** Guest Speaker Dr. Dave Hanes (Queen's University) Topic TBA
- **Friday December 8th** Regular Meeting Guest Speaker: Jan Wisniewski Topic: CCD Imager/imaging

**2000 Officers and Executive Council**
PO Box 1793, Kingston, On K7L 5J6
Infoline & answering machine xxx-xxx-xxxx

**President:** Doug Angle
**Vice President:** Laura Gagne
**Secretary:** Susan Gagnon
**Treasurer:** John Hurley
**Librarian:** David Maguire
**Editor:** Kevin Kell
**National Council Rep:** Susan Gagnon

**Standing Committee Chairs:**

Observing Group: Tom Dean
ATM Group: Kendra Angle
Youth Group: Hank Bartlett
Education Group: Laura Gagne
Astronomy Day: vacant
Publicity: Kim Hay
Awards: Dave Pianosi

## Observing Group Meetings

**September 23rd (Saturday)**
**The Kingston Centre and**
**The Belleville Astronomy Club**
**present:**
**A Dark Sky Night Observing Session**

To be held at Presqu'ile Provincial Park (near Brighton) in the Group Camping Area
For more details and maps see
http://www3.sympatico.ca/aimdave.pianosi/rasc.htm

This promises to be a great overnighter... the first that the Observing Group has done, AND in a very dark dark site! Contact Dave Pianosi for more details and registration. You will be responsible for paying your own way into the Park (if you have a season pass already, then you are set!) and we will be charging $10/person to pay for the site reservation/camping spaces.

## Buy Sell and Trade

compiled by Kevin Kell

**Eyepieces for sale** I have the following eyepieces for sale. Both are in very good condition both optically and cosmetically. Prices include postage, or pickup in Kingston where I live.
-Meade 18mm SWA. 67 degreee FOV, fully multi coated, soft rubber eyeguard and knurled finder grip. Threaded for filters.Very sharp and contrasty. Selling to raise money for other projects. $185.00 Cdn.
-No Name 9mm Plossl. 52 degree FOV. fully coated. Made by the same lab that makes Orion Sirius Plossl's. Soft rubber eyeguard. Threaded for filters. $39.00 Cdn.
If interested, please E mail me at
<removed @home.com> Malcolm Bird

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**Newsletter Submission Info:** The deadline is the 3rd Friday before regular meetings in odd numbered months. The preferred method is E-MAIL, then disk, lastly paper.
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