



# Regulus



The Newsletter of the RASC Kingston Centre

2001 May-June

## 2001 - A Kingston Odyssey

### *40 years of Astronomy in Kingston RASC*

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One of the “celebration” ideas we have is to create a 40<sup>th</sup> anniversary yearbook of the centre, publish it on CDROM and include it in the November/December issue of Regulus. Please consider submissions of photos and stories to us soon!

### **A Tribute to Dr Arthur E. Covington 1914-2001 by Leo Enright**

When Dr. Arthur Edwin Covington died in Kingston on Sunday March 18<sup>th</sup>, 2001, the Kingston Center lost a truly great and inspirational member, the Society and the whole astronomical community lost a renowned scientist, and Canadian society lost a remarkable gentleman and brilliant scholar of internal reputation.

Mr. Covington was born in Regina, Saskatchewan in 1914, and after this family moved to the west coast, he grew up in Vancouver and received his early education there, developing a life long interest in astronomy with a particular passion for astrophysical research. He received a Master’s degree in Physics at the University of British Columbia, and did his post-graduate studies at the University of California at Berkley, where he became a Teaching Instructor. Some of his earliest research on what was called “the wireless” was done there, and also at California’s Lawrence Radiation Laboratory. During the Second World War he was asked to return to Canada to assist in a national wartime research program; this he did in 1942, collaborating and leading in the development of radar systems at the National Research Council in Ottawa. After World War Two, he continued to use microwave radar technologies to conduct

cutting edge research in cosmic radiation at radio wave-lengths, including but not limited to, solar radiation. Using these methods and technologies, Dr. Covington soon became Canada’s foremost radio astronomer. He contributed numerous papers, over the years, to the Journal of the RASC, many of them about his research on radio astronomy, and relating to such topics as White Light Observations Associated With a Solar Flare, and the Variable Components of the Solar Radio Flux. By the 1970’s Dr. Covington was regarded as an eminent authority on solar radiation and its measurement, in particular, as well as the country’s pioneer in Radio Astronomy, in general.

Arthur was ever devoted to his wife, Charlotte, to who he was married for almost 59 years, and to their four children. In the last decade since his retirement, Arthur and Charlotte divided their time between Ottawa and their home in Kingston, where he maintained an interested in our local Centre, frequently attending the monthly meetings, as his health allowed.

His many non-professional interested included the history of astronomy and collecting rare books. Queen’s university is the fortunate recipient of many books from his library.

Those of us who have been fortunate enough to have known Arthur Covington will always remember him as a quiet soft-spoken, very kind and very thoughtful man who always had time to talk to anyone in a very friendly and honest way. He was very close to the definition of a “true gentleman” in everything that he did, and in the way in which he did it. A respected scientist, a noted astronomical pioneer, and an enormously wonderful human being, Arthur Covington left an indelible impression on all of us who knew him.



On Friday, March 23, 2001, after 15 years of dedicated service to Russia, the venerable Mir spacestation was intentionally de-orbited to reenter the Earth's atmosphere and crash into the South Pacific Ocean.

Mir reentered at 0600 GMT (1:00am EST) into an unpopulated area of the South Pacific Ocean.



## Submissions from Members

I was pleased to see how well my article "The Mathematics....." came over in the last issue of Regulus. The drawings were clear and the black-white photo was impressive. There were a number of double stars and they showed up very well.

In the text was one error namely at the bottom of page 4 beside the star picture. The last full line should read "This is easily checked by continuing the exposure after ten minutes guiding" The next sentence gave the correct method and perhaps most readers came already to that conclusion.

As I promised, I will write a following article about a good way to align the Hinge axis to the Celestial Northpole.

clear skies!

Hein van Asperen

## USING THE BARNDOR TO FULL ADVANTAGE

by Hein van Asperen

In the Jan/Feb issue of Regulus I mentioned that the hinge of the platform must be directed to the Celestial North Pole and I promised to tell how I achieved this.

There are two steps involved. The first step is to ensure that the viewfinder is parallel to the hinge. On one side of the top board of the barndoor, I cut the bed for the leaves of the two

hinges. This should be done on a radial arm saw while one edge of the board is used as a guide. The guide is firmly pressed against the guide fence of the radial arm saw. The leaves of the hinges fit then accurately in the bed of the board. Good quality hinges are very accurate and the axis of the hinge is parallel to the edge of the leave and therefore parallel to the cuts made with the radial arm saw. Later the two hinges can then easily and accurately be mounted on the board. Then glue a piece of wood on the other side of the board. Use the same edge of the board, that was used for the bed, as a guide to cut a "V" in that piece of wood. When the cylindrical viewfinder is resting in the V-groove you can be quite confident that the axes of the two hinges are parallel with the view-axis of the finder. (see fig 1)

The arm distances between the hinge axes and the contact points for the control screw are important. To improve the accuracy put a flat metal strip against the hinges (see fig 2). The arm distance =  $D/2 + S + L$  Where  $D$  = the diameter of the round part of the hinge and  $S$  = the width of the strip. When the arm distance is known (see previous article), the length  $L$  can be calculated. The same procedure is done for the bottom board.

If the celestial North Pole was marked with a bright star, lining up the barndoor would be simple. Just put that star at the intersection of the cross-hairs in the viewfinder. However the closest bright star is Polaris and lining up to Polaris is not good enough. This brings us to the second step.

The crosshairs in the viewfinder are two thin wires perpendicular to each other. For the accurate lining up of the barndoor we must add a second wire parallel to one of the cross wires. The distance between the two parallel wires must be found in the following way. (see fig 3)

The celestial coordinates for Polaris (in the year 2001) are :

Ra = 2 hrs 33.4 min. Declination = 89 degrees 16 min.

I use my program in Q-Basic (File name STELCOOR.BAS) to convert for a given day and time the RA and the Declination to Azimuth and Altitude. (I use this program to find faint

objects with my Dobsonian telescope). With this program I calculated the Azimuth and Altitude for four days in the year:

Date	Loc. T.	UT
Az	Alt.	GMST LMST
20010201	17:43	22.72 360.02
45.35	6.53	2.48
20010501	17:45	22.75 358.97
44.62	13.41	8.37
20010801	17:50	22.83 359.98
43.88	19.54	14.49
20011101	17:54	22.90 1.03
44.62	1.66	20.60

The LMST is calculated as follows :

$$\text{GMST} = \text{GMST (at 0 hr UT on day 0)} + 0.06571 * d + 1.002738 * t$$

$$\text{LMST} = \text{GMST} - \text{west longitude}$$

The GMST for each month at 0 hr. on day 0 is listed in "Observer's Handbook 2001, page 35. The month and the d (day) and t (time in decimal hours UT) are listed in the first and third column of the above table. The west longitude for my observatory in Brockville is 75.7042/15 hours

The local time was selected to make either the Azimuth very close to 360 degrees or the Altitude almost equal to the Latitude of my home observatory in Brockville ( 44.6118 degrees)

The above listing shows that on 20010201 (local time 17:43) Polaris is 0.74 degrees above the Celestial North pole and on 20010801 (local time 17:50) Polaris is 0.74 degrees below the Celestial North pole. The table shows the Azimuth and the Altitude in two decimals but they were calculated with four decimals and the difference is then 0.7333 degrees. The two parallel hairs in the viewfinder must be positioned to reflect these 0.7333 degrees.

A ruler viewed at a distance of U units must have two marks separated by  $U * \text{TAN } 0.7333$  units. If U = 100 meter then the two marks are  $0.0128 * 100 = 1.28$  meter apart. The intersections of the two parallel hairs and the cross hair must cover the two marks. When you open the viewfinder you find a little ring with the crosshairs. Just glue a parallel hair on that ring and observe the two marks on the ruler. Any difference can be corrected by moving the parallel hair. After two or three trials you will be right. Then use some epoxy glue to fix the parallel hair in place.

The cross hairs must also be adjusted in the right direction to find the Celestial North Pole. For this we make a strip of paper with a length equal to the outside circumference of the viewfinder. On this strip we draw lines spaced equally and marked 0 2 4 6.....20 22 24 (the 24 mark is also the 0 mark). In the above table we notice that on the date 20010201 the azimuth = 360 degrees and the LMST equals 2.48 hours. At that moment Polaris is above the Celestial North Pole. However when viewed through the finder, Polaris is observed in the lower part of the finder's view. When the single hair is in the vertical position and the parallel hair below the main hair, the 2.48 mark on the strip should be at a pointer positioned close to the viewfinder tube. When looking through the finder the sequence of the time marks on the strip should be clock-wise. Glue the paper strip on the viewfinder tube. The viewfinder is now calibrated and ready for use. We need only one date and time for the calibration (fig 4). The other three lines in the above table were added to give an impression how Polaris moves around the Celestial North Pole.

These calculations are for Brockville and surroundings including Kingston (the value 2.48 changes to 2.49). For observers farther away similar calculations must be made. My program STELCOOR.BAS would be helpful. Strictly speaking the calculations should be repeated for each year but the differences are very small and can be ignored.

Any time we want to use the platform we must rotate the viewfinder to the proper position. For instance when we want to use the platform during the early night of March 15 we calculate the LMST for 19:00 local time (24:00 UT) with the equations mentioned above.

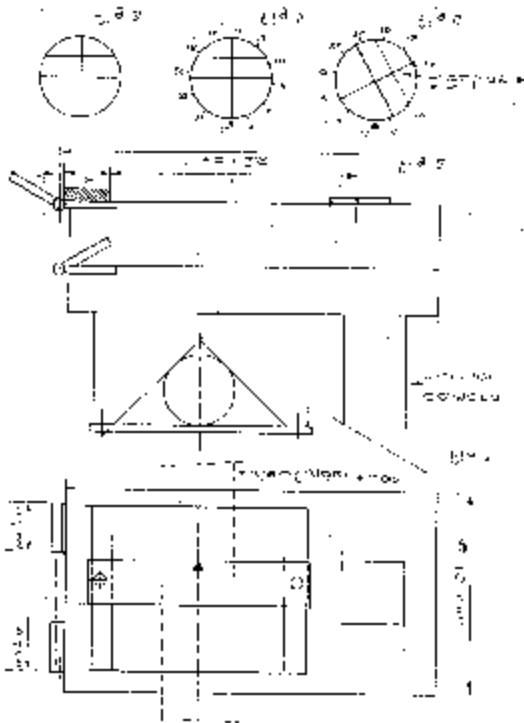
$$\text{GMST for March 0 and time 0} = 10.5255 \text{ hours}$$

$$\text{GMST for March 15 and time 24:00}$$

$$\text{GMST} = 10.5255 + 0.06571 * 15 + 1.002738 * 24.$$

$$\text{LMST} = 11.62 - 75.7042/15 = 6.57$$

At the time 19:00 the view-finder is now rotated until the 6.57 corresponds with the pointer and the barndoor is set up (fig 5). Polaris is adjusted at the intersect point of the parallel cross-hair



with the perpendicular hair. The barndoor is now properly calibrated for the duration of the observing session.

### Some Entertaining Limericks from the Centre Email Chat list (*rascchat*)

There's a wonderful family named Stein.  
There's Ep, there's Gert, and there's Ein.  
Ep's statues are junk,  
Gert's poems are bunk,  
And nobody understands Ein.

*Bill Broderick*

The members of Canada's RASC.  
Under the stars they love to bask,  
They look up to the heaven  
to see Sisters Seven.  
When the weather is up to the task.

*Hank Bartlett*

There is a woman named Sune,  
Who likes to look at the Moon.  
The stars are not in fashion  
cause the Moon is her passion  
Especially when it's full in June.

*Hank Bartlett*

There once was a guy from Belleville  
Who built an observatory up on a hill.  
He hammered and sawed  
And photo'd and drewed  
And he's observing up there still.

*Bill Broderick*

All the members of the old BAC \*  
Observe with verve and with glee.  
They spot all the stars,  
Even the canals on Mars,  
Just like at the Kingston RASC  
\*Belleville Astronomy Club

*Bill Broderick*

And then there's the RASCAl named Kevin  
Whose 'scopes are all aimed up to heaven.  
At star parties he's a hit  
When the weather is shit  
With his DVD and double o seven.

*Susan Phillips*

An assiduous observer named Laura  
Froze her eyeballs while watching the aurora.  
Now Canadians are bold  
When it comes to the cold,  
But Laura's gone off to Bora-Bora! \*

\* Not really, she's still here I'm sure.

*Bill Broderick*

### The History of the RASC Kingston Centre - Part 2

#### Some reminiscences on the Third Decade of the Centre from 1981 to 1990 by Leo Enright

[The following is from the notes used for a paper presented to the Kingston Centre on February 9, 2001 to mark the occasion of the fortieth anniversary of the founding of the Centre in 1961.]

The Kingston Centre in the 1980's: "An Explosion of Activity"

The great explosion of activity during the 1980's was marked by the following events or activities:

- Centre exchanges were promoted between the Kingston Centre and the London, Ottawa and Halifax Centres
  - Holleford Crater Tours became more common, and were undertaken much more frequently
  - The general assemblies of the society drew wider participation from across the country and certainly from members of our Centre.
- Our member David Levy discovered his first comet, and later several other comets, and became well known in the astronomical world (from Comet Levy-Rudenko to Comet Levy 1990)
- Stellafane and the Syracuse Summer Seminar conventions drew members to popular summer events
  - Popular attention (in both the tabloid and legitimate press) was drawn to the "The Superconjunction of 1982" and to the appearance of Halley's Comet in 1985-86.
  - Recognition was given by the City of Kingston for Ontario's first astronomical observatory at a ceremony in MacDonald Park.
  - There was greater participation by members of the Centre in the affairs of the Society.
  - There were increased activities associated with participation in International Astronomy Day.

## YOG

(Youth Observing Group)  
by Hank Bartlett

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.  
Meetings in 2001:

**Wednesday May 2nd and 16th**

**Wednesday June 6<sup>th</sup> and 20<sup>th</sup>** (tentative)

The Group will adjourn for the summer months of July and August and will be back in September .

For more information call Hank at xxx-xxxxxxx or email <xxx@xxxx.xxx> .

April 18<sup>th</sup>: Tonight we had 3 youth in attendance and Kevin dropped by to deliver some slides and take some pictures. Tonight we welcomed a new member, Ted the winner of our Science Fair award. After introducing him to Nick and Richard we headed outside at 18:40. We observed the Sun, counting and sketching the sunspots until 19:20. Next we headed in to the class where we

looked over handouts about the Canadarm2 and Chris Hadfield. After discussing the unique design of the arm we looked at the first 17 slides in the grade 9 set. At 20:00 we finished for the night.

## Notes from the Secretary

### Minutes of the Regular Meeting March 9, 2001

**Laura** called the meeting to order at 8 PM and we began with Tom's What's Happening in the Sky. April 3 at 8:15 there will only be one moon visible near Jupiter and between 9 and 9:50 two more will reappear. The usual round of reports then began with **Paul** giving the speaker line up for the next few months, **Susan** began to circulate some cards of congratulations to be signed and sent out to observers **Levy, Berg and Morrison** commending them on their recent AAVSO Awards for variable star observation milestones. **Kevin** encouraged people to let the centre know by way of the web site if they were interested in coordinating trips to the GA in London.

**Tom** announced that he was off to the National Council the next day and that the Next Public Observing night would be March 27th. **Kendra** announced that next Saturday would be the ATM meeting at their house and we saw more pieces of the scope that were completed. There was no news from YOG as **Hank** was away. **Kim** reported that more contact on the light pollution front had been made with Queen's and that the engineering department would probably be quite helpful. **Susan** reported for **Don** on the final arrangements for Astronomy Day at the CTC on April 28th. **Jan** announced that the next CCD session would take place March 17 at his house and that anyone interested in participating in a Messier Marathon should contact him.

There was a short break and then **Leo** began his presentation. He challenged members to observe some of David Levy's favourite objects as recorded in this months Sky and Tel, then he moved on the second installment of the history of the Centre, the 80's. A quick recap of the last talk revealed that the meeting to elect the first officers was held on March 9th as well. Back to the 80's which **Leo** described as a time of an explosion of activities including center exchanges, crater tours, an increased participation in the GA, and David Levy's first comet. Once again the talk was filled with great slides of star parties and GA's across the country as well as a trip to Kitt Peak.

After this **Laura** gave a short presentation of the Malia Pendant, a very old piece of ornamentation from the island of Crete. She gave a detailed list of the features of the pendant and what their astronomical connection might be. There were slides from **Susan** of the Sky is the Limit held last summer and some beginner astrophotos, (plenty of interpretation required!). **Mark** had great slides of the Christmas Day eclipse. The meeting was adjourned to Harvey's.

### Minutes of the Regular Meeting April 6, 2001

**Laura** opened the meeting with **Tom's** Observing Highlights. This month Tom's picks were Mercury, the Beehive and the Virgo Cluster. Tom also reminded us that this year Mars will be closer to us than it has been in the last 22 years and June 21st will be the closest point.

**Don** gave a report on Astronomy Day, April 28. Our display will be at the Catarauqui Town Center where the fountain used to be. There will be a Public Observing Blitz similar to last year but following rather than preceding. This will allow advertising during the mall display. Public Observing will be scheduled as solar:noon to 13:00hrs April 29 through May 4th and an evening session 90 minutes beginning at sunset April 28th through May 4th, all weather permitting. If you would like to spend some time at the booth talking to the public, have a suitable display, or would like to cover some observing sessions, please let **Susan** Gagnon (389-4710, or email) know and she can work out the details with you. Updated will be posted on the Chat list.

**Paul** introduced the evening speaker for the evening **Alan Ward** of Moonward Vacuum Coatings. This was a great talk for the Kingston Centre where we have a good deal of interest in telescope making. We really appreciated Alan and Harold Healey making the trip from Sudbury. After a short break reports continued with the most recent speaker line up by Paul. The secretary said that the mail box had been quiet. **Kevin** says that new Centre brochures are ready. **Tom** gave a sneak preview of the National Council report with these highlights: there will be a vote on a 10% fee increase at the GA (please use your proxy when it arrives), there is a new Centre in Prince George, WELCOME!, and the 5 and 25 year certificates have been discontinued as it is National Council's opinion that these would be better done at the Centre level where members' efforts are best known and appreciated. **Tom** also reported as Observing Chair and dates will be in the newsletter. There is also always a need for more dark sites for members observing sessions. **Doug** had an ATM report which included slides of focault testing and sand casting of aluminum parts for the 24 inch. **Hank** says that the YOG has been quiet and low on interest. He has been running it for the last couple of years and would like to know if anyone else would like to help out by taking the reins and he and Tim could still help out. **Ruth and Terry** donated a large supply of magazines and books to the Centre. **Kim** reported that the Light Pollution brochure will be ready for Astronomy Day and she will be attending the next Land O Lakes tourism meeting in Napanee. **Jan** announced the next CCD session date at his house will be April 21. **Christine** had various books for sale and wanted to draw attention to the next SkyNews as it contains the star party line up for this year. **Dieter** is doing the Enrichment Program thing at Queen's again and is looking for people with scopes who can assist with the kids observing sessions May 7,8,14,15. There will also be a dark sky observing session at Gould Lake

and a trip to the Holleford Crater. Contact Dieter at 384-8033 if you can help. The meeting was adjourned at 23:00 (a lot of Q and A after and during the talk!)

#### Guest Speaker

The Bulbous Bow

On April 6th, 2001 the Kingston Centre was very fortunate to have as a guest speaker, **Alan Ward** of Moonward Vacuum Coatings. Alan was president of the Sudbury Astronomy Club for 6 years, a testament to his interest in astronomy since age 17. The SAC is currently celebrating its 20th anniversary as an institution promoting amateur telescope making. Alan is an engineer with Inco. The talk began with Alan explaining the title. He used the example of an energy conserving, wake-decreasing wave pattern employed by large lake boats to emphasize just how practical and efficient destructive interference can be.

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## National Council Report

by Tom Dean

### National Council Report for March 2001 Meeting

The meeting was held Saturday, March 10 in Toronto. There was a reasonably good attendance. A fair amount of ground was covered and I not attempt to cover everything in this report. Most of the reports are available on the Kingston Center web site and I have copies of any of the others if anyone wishes to see them. I'll cover some of the more important topics first and then cover some other points of interest.

### Finance Report

Last year's deficit is not really as big as reported. The main reason is that the reports are given using cost accounting. Some of the larger ticket items are multi-year elements and should properly be dealt with using accrual accounting. In particular, the print run for the Beginner's Observing Guide, some of the computer expenses and the filling of the postage meter are expenses that cover several years. Thus the deficit for the last year is considerably less. The flip side of course is that the budget surplus is very modest (less than \$1500).

### Fees

Much of the meeting was spent discussing fees for the upcoming year. This is the usual case with the March meeting (GA resolutions require some advance notice for the general membership). The finance committee report circulated in advance specifically recommended that the fees not be increased. The rationale presented at the meeting was to allow the effects of the fee increase passed last year to be assessed. However, at the meeting, the 1st Vice President (Rajiv Gupta) expressed concern that the real budget was a very small surplus, and any increase requires 2 years to implement. So he proposed a 10% increase. The vote of the council was tied, broken in favor

of the fee increase by the President (Bob Garrison). I personally feel that the fee increase should have been left for at least another year.

Proxies for the GA will be arriving in the mail soon. If you feel strongly on the issue, and cannot attend the GA, make sure you fill out your proxy and give it to someone that will be attending the GA.

There was some discussion of decoupling the center and national fees. This would eliminate the need for separate surcharges, since each center would be able to set the center fee independent of the size of the national fee. It also means that any increase to national fee would not affect center fees. Some people expressed some sentiment that this might cause people to join only the center and not the national society. The answer to this was that according to the rules of society, the only way someone can be a member of a local center and not the national is by being an associate member, and they cannot vote in center annual assembly or hold executive positions. There are remaining issues, one of which is life memberships. The current life membership fund is administrated at the national level, with a split given to the centers to which life members belong. Unattached members will have to pay higher national fees to prevent mass defections from local centers. This was referred to committee for more discussion.

#### Awards

The membership certificates have been abolished, and this is the last year they will be available. The last meeting they will be voted on is the July meeting at the GA. Therefore any nominations must be made now. All limits have been lifted so that centers can nominate as many as they wish.

#### Other Things of Interest

Individual centers can elect to opt in or out of using the national office to collect fees. On of the opted out centers, Saskatoon has decided to opt into the system.

The astronomy club in Prince George has applied to become a center. After receiving assurances from President & Exec Sec that all was in order, the council accepted the application. It now goes to the GA.

Public Education - Full color insert in Forum (a magazine for Ontario teachers). Should appear in the November issue.

Observing - New observing programs based on the BOG. Prototypes were distributed. I have them if any is interested.

Light Pollution - brochures for Torrence Barrens dark sky preserve. I have some if anyone is interested.

Publications - All available back issues of journals older than 1 year will be available in pdf form RASC website. The annual report was produced this year for a substantially smaller amount (less than \$500) than last year. The committee is also looking into more general distribution of the Observer's Handbook. One possibility

is to get professors offering observational astronomy classes to put the handbook on the required textbook list, or to get them into the campus bookstores of Canadian universities.

## Editor's Corner

by Kevin Kell

We and I are always looking for news about our own members and if you know of any tidbits... send them in! A short email to me with a subject of Regulus submission and a couple of sentences about your topics/idea/bit of info and off to the presses we go!

**Judith Irwin** has compiled Kingston Area Nightly Cloud Cover Statistics, which you can view at: <http://www.astro.queensu.ca/~irwin/weather/weather.html>

From the **Annual District FLA Science Fair** with our Judge, Leo Enright: We regularly offer prizes and these are the 2001 results:

1. A one year Youth membership went to: Ted Down Gr. 8. Home-schooled. A project called "Taking The Pulse of The Earth". About trying to measure the Geomagnetic Field. A good effort!
2. The 2 copies of The Beginner's Observing Guide and a certificate went to: Erin McRae and Danielle Auclair Gr. 7. Ecole Secondaire Mille Iles A bilingual project -- "Comets".
3. The Observer's Calendar and a certificate went to Damon Surgenor. Gr. 6. Winston Churchill P.S. A project about "Sojourner on Mars". He also had a small solar cell, and a small model he had made of the Sojourner. He had a Mars map from National Geographic, and fairly good understanding of the project.

#### Speaker Exchange List

Over on the national email list there is the inkling of a rumour that someone might be interested in starting up a web page collection of centre speakers who are willing to travel to other centres to give talks. Before that happens, we as a centre should probably have such a list ourselves. So I would like to ask all of you folks who have given talks before (I figure before we inflict you on another centre, you should have at least given the talk to us first), to consider sending in to me by email, if you are interested in going on our centre list.

Some of the info I would need:

- Your name
- email address
- title of talk
- length of talk
- the most distance you would consider traveling (or list centres that you would be willing to travel to)
- and a paragraph abstract of your talk.

**Astronomy Day Saturday April 28<sup>th</sup>**

This issue of Regulus was already at the printers when we trooped out to set up our easels and posters and pictures and telescopes amongst the throngs of shopping-going Kingstonians. Hopefully we'll have a pile of photos and maybe even a story or five for the July issue.

**General Assembly 2001**

Early registration for the June/July GA is fast approaching. Check out their web site with a fairly functional automated registration system (linked from our home web page).

*Anonymously from the Internet:*

**The Ten Commandments for Amateur Astronomers:**

1. Thou shalt have no white light before thee, behind thee, or to the side of thee whilst sharing the night sky with thy fellow stargazers.
2. Thou shalt not love thy telescope more than thy spouse or thy children; as much as, maybe, but not more.
3. Thou shalt not covet thy neighbor's telescope, unless it exceeds in aperture or electronics twice that of thy wildest dreams.
4. Thou shalt not read "Astronomy" or "Sky & Telescope" on company time, for thine employer makes it possible to continue thine astronomical hobby.
5. Thou shalt have at least two telescopes so as to keep thy spouse interested when the same accompanies thee under the night sky or on eclipse expeditions to strange lands where exotic wild animals doth roam freely.
6. Thou shalt not allow either thy sons or thy daughters to get married during the Holy Days of Starfest.
7. Thou shalt not reveal to thy spouse the true cost of thy telescope collection; only the individual components and that shall be done with great infrequency.
8. Thou shalt not buy thy spouse any lenses, filters, dew shields, maps, charts, or any other necessities for Christmas, anniversaries, or birthdays unless thy spouse needs them for their own telescope.
9. Thou shalt not deceive thy spouse into thinking that ye are taking them for a romantic Saturday night drive when indeed thou art heading for a dark sky site.
10. Thou shalt not store thy telescope in thy living room, dining room, or bedroom, lest thou be sleeping with it full time.
11. Verily, observe not through thy neighbor's AP or Tak, lest thee be utterly consumed by the lust of apo-fever, and thy brain and thy bank account shall shrivel and wither like branches in a flame...
12. Verily, observe not through thy neighbor's Dob of Goliath, lest thee be lain bare to the fires of aperture-fever, and thy sanity, thy sacroiliac and thy life savings be crushed as ye grapes of wrath...
13. Thou shalt not partake of the fruits of the eyepiece, when it is written in the Holy Book [IMO Meteor Calendar] that thou shouldst be observing a minor meteor

shower of meager ZHR, even unto ye lawnchair of righteousness. [Oh, the deep-sky guilt!]

14. Thou shalt neither read from nor post to, nor vouchsafe thyself to be posted from, thy astronomy club's email list at thy labors, lest a righteous vengeance be poured out on thee by ye corporate email police.

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**ATM Group News**

Saturday March 17<sup>th</sup> was the last meeting where some experimental aluminum casting was done, along with other material preparation for the 24" scope. The next meeting will be held some time in May as April seems to be rather busy!

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**CCD Group News**

The meetings are on the 3<sup>rd</sup> Saturday of the month and the location is at the home of Jan Wisniewski just northwest of Harrowsmith.

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**Public Observing Sessions**

Our monthly Public Observing Session is normally held "about the first Tuesday after a New Moon". The sessions generally start with setup around dusk (in the summer, in the winter it's early evening, after dinner) and run for an hour or so and are held at the Murney Tower Museum Park (King & Barrie Sts) in Downtown Kingston

**Tuesday May TBA<sup>th</sup>** ( days old)

**Tuesday June TBA<sup>th</sup>** ( day old)

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**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 2001**

**! Friday May 11<sup>th</sup> Dr. DJ Sakia (Queen's University) Topic: Active Galaxies**

- ! **Friday June 8<sup>th</sup>** Guest Speaker: **Terry Dickinson (Skynews)** Topic: "**Mars 2001: Observations and Expectations.**" The talk will be a brief review of observations of Mars from Schaparelli to the present. Then a more detailed section on observing Mars around its opposition this June. I should be able to include a report on my own observations made in the weeks before the meeting. I will be bringing a tray of slides, as usual.
- ! **Friday July 6<sup>th</sup>\*** Guest Speaker: **Richard Schmude (Kingston Centre)** Topic: **My Photoelectric magnitude study of Mars over the last 10 years.** The talk will include a few pictures of Mars along with drawings and summaries of magnitude and color measurements of the Planet Mars. Hopefully we will be able to look at Mars as well if it gets dark at a the correct time. Mars rises at 18:59 EDT and hits max at 23:04 EDT Sunset is 20:51 Moonrise is 21:57 almost full Meeting gets out at 22:30 latest so it will be dark.
- ! **Friday August 10<sup>th</sup>** No regular meeting at Queens- Annual Markfest BBQ
- ! **Friday September 14<sup>th</sup>**
- ! **Friday October 12<sup>th</sup>**
- ! **Friday November 9<sup>th</sup> Dr. Barry Robertson (Queen's University)** Topic: **SNO**
- ! **Friday December 14<sup>th</sup>**

**\*\* NOTE JULY MEETING IS ONE WEEK EARLY! \*\***

### *Other Special Events:*

Sky Is The Limit Festival **Sat July 7th**  
 StarFest **August 16-19**  
 Charleston Lake Star Party **Fri August 24<sup>th</sup>**

### **2001 Officers and Executive Council**

PO Box 1793, Kingston, On K7L 5J6  
 Infoline & answering machine 613-542-3974

**President:** Laura Gagne  
**Vice President:** Paul Winkler  
**Secretary:** Susan Gagnon  
**Treasurer:** John Hurley  
**Librarian:** David Maguire  
**Editor:** Kevin Kell  
**National Council Rep:** Tom Dean

### **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 Tom Dean if you are interested in hosting a session.

**2001 May: TBA**  
**2001 June: TBA**

Check the main web page for the latest info!

**Equipment Loan Program:** Most of the slides have been out consistently but much of the telescope hardware has not :(  
 Must be the cloudy skies!  
 New additions include a 10" Baader Film Solar Filter for the Douglas telescope, and a 4.5" Baader Film Solar Filter for the Orbitor scope.



RASC

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Web Site

[http://www.rasc.ca/  
kingston](http://www.rasc.ca/kingston)

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2001 May

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May-June Run=200







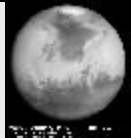



**The Newsletter of the Kingston Centre of the Royal Astronomical Society of Canada**

**Newsletter Submission Info:** The deadline is the 3<sup>rd</sup> Friday before regular meetings in odd numbered months. The preferred method is E-MAIL, then disk, lastly paper. E-mail: <kell (at) cliff(dot) path.queensu.ca> Fax: 1-613-533-2907 (with cover page to Kevin Kell) Post: Box xxxx Kingston Ontario K7L5J8 Canada ascii or most major word processors (Corel WP8 for windows preferred) via E-mail or cdrom or 3.5" PC floppy disk

**Kim's Kingston Kosmic Kalendar**

Prepared by Kim Hay

?Aquarid Meteor Shower		May 4 Peak at 7:00 pm
Full Moon		May 7
Texas Star Party, Fort Davis TX		May 13-20 <a href="http://www.metronet.com/~tsp/">http://www.metronet.com/~tsp/</a>
3 <sup>rd</sup> Quarter Moon		May 15
New Moon	<b>DARK SKIES</b>	May 22

Riverside Telescope Makers Conference, Big Bear CA		May 25-27 <a href="http://www.minresco.com/shows/rtmc.htm">http://www.minresco.com/shows/rtmc.htm</a>
1 <sup>st</sup> Quarter Moon		May 29
Full Moon		June 5 21:39 EDT June 6 1:39 UT
3 <sup>rd</sup> Quarter Moon		June 13
Summer Solstice		June 21 3:38 am edt
Total Solar Eclipse		June 21 Visible in South Africa
New Moon	<b>DARK SKIES</b>	June 21
Mars Closest Approach		June 21 23 UT
1 <sup>st</sup> Quarter		June 27 23:19 edt June 27 10:08 UT
General Assembly 2001 London, Ontario		June 29-July 1 <a href="http://www.rasc.ca/ga2001">http://www.rasc.ca/ga2001</a>
Full Moon		July 5

For more detailed information, please refer to the RASC 2001 Calendar, and the RASC 2001 Observers Handbook. Available from your local promotions committee or from National Office, <http://www.rasc.ca/>



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