



Regulus



The Newsletter of the RASC Kingston Centre

2001 November - December

1961-2001 - 40 Years of Astronomy in Kingston

40 years of Astronomy in Kingston RASC

2001 Annual Awards Banquet

Saturday November 24th
Portsmouth Olympic Harbour
Restaurant (King Street west of
Kingston Pen), upstairs.

Tickets: \$25/person available from
Susan Gagnon and can be purchased at
the November meeting, or you can
mail in a cheque to the RASC-KC mail
box:

RASC-KC P.O. Box 1793
Kingston, ON K7L 5J6

Bar: 5:30 pm Dinner: 6:30 pm
Door prizes!

Guest Speaker:

Cathy McWatters (NYAA)

Dinner will be a served meal rather than a
buffet this year. To reserve a ticket \$\$\$ must
be in the hands of the secretary or the mail
box by November 20th to make the head
count deadline for the restaurant.



Sample Image from
CDROM

40th Anniversary CDROM details.

As a current member of the RASC-KC you have
received with this issue of Regulus, a 40th Anniversary
Yearbook on CDROM.

You will need a long filename capable operating
system (like windows 95, 98, me, 2000, NT, XP, or
Linux as the CDROM uses the Joilet filesystem) and a
frames-capable web browser (like Netscape v4+ or
Internet Explorer v4+) to view the CDROM by loading
index.htm from the CD.

RASC-KC Regular Meeting Room and time change effective November 2001

After much deliberation the executive committee has
decided that our centre needs a change of location for
our regular monthly meetings.

We considered moving back to the original room in
Ellis Hall where our centre was formed, but we feel
that this room would not accommodate our growing
meeting attendance, nor is it particularly easy to
access for handicapped or elderly members and
guests.

The best choice we considered is to move to Stirling
Hall, Theatre D. This room is in the physics building,
thereby strengthening our ties to the physics
department of which our founder, Dr. A.V. Douglas
was a prominent member. By moving to this
building, we hope to foster an interest in our centre
among the students of Queen's University, perhaps
even allowing us to include them in our own
activities. We will have access to a spacious lounge
for socializing before and after the meetings. The
displays of scientific instruments and telescopes are
right outside the door, giving early-birds some very
interesting things to look at.

We would like to extend our heartfelt gratitude to Dr.
Judith Irwin who has arranged for us to have this
wonderful room in which to hold our meetings. We
will begin holding meetings there in November.
Please check the centre web page for more
information.

Laura Gagne, President - Kingston Centre

Annual General Meeting Election Results

(2001 Oct 12th)

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

Submissions from Members

The following article appeared in the October 2001 issue of SHAPE ("Signs, Houses, Aspects, Planets & Editorials") published by astrologer Sylvia Jean Smith, P.O. Box 47039 Gloucester, Ontario K1B 5P9, <mailto:sj.rasmith@sympatico.com>. We have the permission of both publisher and author to publish and/or circulate to our members.

Submitted by Bill Broderick

Basic Principles of Astrology Made Easy for the Absolute Beginner

By Abou Ben Hokum (a British astrologer a.k.a. Paul F. Newman)

Astrology is the study of the stars and planets, but it should not be confused with Astronomy, which is simply the study of stars and planets.

Astrology takes us as the centre of the universe, which is why it attracts so many Leos and other know-it-alls. But Astronomy does not see the Earth as the centre of the universe, yet somehow it still manages to attract a fair amount of Leos and other know-it-alls. (Note: Heliocentric astrologers see the Sun as the centre of the universe, but then they are just a group of eccentrics.)

There is Nothing occult or dangerous about astrology (unless you persist in setting up stall at the Holy Scriptures Fundamentalist Convention.) But an astronomer, alone on a dark hill with his telescope late at night, runs the risk of having his eye out.

Zodiac Signs are not the same as zodiac constellations. Yet in another sense they are. Most astronomers think that astrologers think that the zodiac constellations are the zodiac signs, but that does not take into account the Tropical Zodiac which is usually too hot to be bothered to know what to think.

The Birth Chart is not only a map of the sky but also a map of your mind. Therefore the sky is also a mind and the mind also a sky. Both astrology and astronomy concur on this. Astrology believes that the vastness of the cosmos resides inside one's head, and astronomy agrees

with this premise (that there is a lot of empty space inside an astrologer's head).

The Ascendent is the zodiac sign that is rising in the East, but only symbolically of course. However a rising planet manages to be not only symbolic but real at the same time. (Unless it is Neptune in which case it is symbolic and unreal at the same time.)

Transits and Progressions only happen to astrologers and not to astronomers. The latter are affected by Chance, Fate and Coincidence.

Different Zodiac Signs are compatible or otherwise according to their element and gender. But human beings are basically incompatible (especially when they are discussing Horary).

The Midheaven is not the middle of the heavens, nor is it much good as an emcee either.

Science. This is a word you might hear being bandied about on the fringes of astrological circles. Remember: There is no astrological proof that science exists.

Fixed Height Tripod Project

by Kevin Kell



Start of the Project:
2000 Sept 03

Intro

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 fixed height tripod came from the design of Les

Dempsey of the Belleville Astronomy Club, which he brought to Starfest 2001 and also to Fall'N'Stars 2000 and 2001.

Benefits

The biggest benefit was to replace a rickety old variable height tripod that was a pain to move around, not very stable and was always pinching fingers off! We thought we could use it as a mount for the Voyager telescope, where standard camera tripods were often too small and unstable for such a large object. Later on we could add a wedge to allow for barndoor tracking mounts (see next months article)

Design

The design is not changed from Les Dempsey's basic design. Three legs which are friction fitted to the top table surface and three smaller arms that limit the leg spread, with a tray sitting on top.

Parts List

x4 1"x2"x8' pine (legs and tray arms)
 x1 12"x16"x1/2" plywood (can use 3/4" as well)
 (table top and tray base)
 x1 12"x12"x1/4" plywood (tray)
 x1 2"x2"x12" pine (leg mounts)
 x3 2" hinges
 and x7 #4x1/2" wood screws (tray base to hinge)
 and x6 #4x3/4" wood screws (tray arms to hinge)
 x3 1/4-20 carriage bolts 3.5" long (leg mounts)
 x3 1/4-20 carriage bolts 2.5" long (tray arm
 mounts)
 x6 1/4" washers
 x6 1/4-20 lock nuts \$1
 x6 1 3/4" (if using 1/2" plywood)
 or 2" wood screws (if using 3/4" plywood)
 (table top to table mounts)
 x6 1 1/4" wood screws (legs)
 x1 24" of 1/2" quarter round molding \$2
 carpenters glue

Supplies needed:

tape measure, tsquare, drill, jigsaw, palm
 sanders, #80, #240 sandpaper, clamp, counter sink
 drill bit, 1/4" drill bit, small 1/16"
 drill bit

The Assembly

Table Top Mark the centre of an 11x11 square and drill a 1/4" hole. Cut an 11" circle from the 1/2" or 3/4" plywood. We used a large dinner plate to trace the circle then a jigsaw to cut it out and then #80 sandpaper on the palm sander to smooth it out, followed by #240 sandpaper.



Legs Cut two 48" long legs from the 1"x2" pine. Clamp the two together and pilot drill holes at 4" and 8" from one end. Glue from the bottom to the 8" mark or a little further, put back together and install two screws, 1 1/4". The free ends should be able to spread apart 2" without a problem. Mark out a drill hole 3/4" from the open end of the legs and drill a 1/4" hole through both pieces of wood. Using a jigsaw or saw round off the open end to allow the legs to move without running into the bottom of the table top. Repeat for the other two legs. Sand down the legs

Leg Mounts Cut a 4" long piece from the 2"x2". Drill a 1/4" hole 3/4" from one end and offset more towards the bottom of the block rather than centered, say 3/4" from the bottom. You can taper them (which we did for the first prototype but not the second)



as well Repeat for the other two mounts. Sand down the mounts



Tray Arm From the leftover 1"x2" cut out a 9" piece. Drill a 1/4" hole in one end 3/4" from the end and centered. Taper the other end by slicing off a piece approximately 1" from the top. Repeat for the other two arms. Sand down the arms.

Table Top Draw 3 lines on the bottom (to align the mounts) and top (to align the screws) of the table top 120 degrees apart. Glue a mount and align in so the outside edge just comes up to the outside of the table top. Clamp and turn over. Drill pilots holes 1" and 3" from the outside edge, drill counter sinks and then install two 1 3/4" screws. Drill them down past the surface of the table top. Repeat for the other two mounts. Sand down the table top.

Leg assembly Line up a leg with the leg mount and insert a 3.5" carriage bolt. It should go all of the way through with a little force. secure with a washer and a lock nut. Tighten all of the way for now.. then loosen off the lock nut a little later to test the leg swing. The carriage bolt head bites into the wood and prevents the bolt from turning. Repeat for the other two legs.



Tray Mark the center of a 12"x12" piece of the 1/4" plywood and drill a small pilot hole. Next mark out and cut an equilateral triangle (inside angles 120 degrees), 12 inches a side. Then mark out 2 inches from each point, draw a line across and cut them off. You should be left with an 8" a side equilateral triangle. We cut off the ends as they stick out quite a lot when the legs are stowed. You are now going to cut out an equilateral triangle tray base from the leftover 1/2" or 3/4" plywood. This should be a triangle with 6" sides. Attached the hinges to each point with the hinge itself inside the wood so the tray does not overextend when deployed. Drill pilot holes and use two small #4 or #6 1/2" screws in each hinge.



Attaching the tray arms is next. With the tray base upside down, fold the hinge up, place the tray arm with the pointy end onto the inside of the hinge, align and drill a pilot hole in the farthest hole from the hinge then put in a #4x3/4" screw. Drill a pilot hole in the next hinge hole (it might have 3) and put in a #4 x1/2" screw. Repeat for the other two arms. Now attach the tray to the tray base by



gluing and using a single #4x1/2" screw in the centre from the top

Tray walls Optionally you can cut up three 8" sections of 1/2" quarter round molding and glue it onto the tray, leaving three "openings". This is to help items stop rolling off the sides.



Mounting the Tray Set up the tripod with the legs apart. Insert the tray from the top and bring the tray down with the arms extended until the tray is level and the arms are level. Pull out the legs until the arms no longer jut out from the legs. Mark a leg for a 1/4" hole and measure it (it should be approx 18" +/-).

Mark the other two legs. Remove the tray and drill a 1/4" hole in each leg (through both pieces of wood). Put the tray back in and connect each arm to each leg using a 2.5"



carriage bolt and secure it with a washer and a lock nut until the carriage bolt is firmly in the wood, then loosen off a bit. The tripod should now be able to close by putting your hand under the tray base and pushing upwards and open by pushing down on the tray and pulling out one of the legs.



Lastly, open the tripod to it's fullest extend. Draw a parallel line to the floor on the feet so that when you cut that bottom bit of leg off, the entire foot will rest on the ground, and not just the tip of the foot. Repeat for all three legs.

After the Fact

The table top surface.. flat, strong and stable. It took about 4 hours for the first tripod, mainly figuring out how things were supposed to go. The 2nd one went together in under 2 hours. We plan on finishing them, one by paint and the other by a clear varathane. One will have a wedge attached using a 1/4-20 bolt and be used on a small scope. The other will be tested on the Voyager telescope by attaching it's base using a 1/4-20 bolt. It will also be getting a custom built wooden wedge (see next project!) to allow a barndoor to be mounted on it. My barndoor currently is mounted on my camera tripod with a quick release mount. Too bad it doesn't lock down well enough.

Total Cost: under \$20

It helps to have scrap wood hanging around (1/4", 1/2" or

3/4" plywood). I happened to have 1/4" and 3/4" plywood leftover from another project and used it.

You can shorten the legs by up to 3 inches or so (up to the first screw) if you are a vertically-challenged person. The 1st tripod has had two coats of exterior grade white latex paint and now will get 3-4 coats of water based varathane. The 2nd tripod got two coats of oil based hard shell spar varnish directly on the pine and a light sanding. Onto building the wedge!

[This is part of a series of ATM projects by Kevin Kell that include:

- Variable Height Observing Chair (Regulus 2000 Nov)

-Observing Table (Regulus 2000 Sept)

-Power Box (Regulus 2000 July)

-Type I Barndoor (Regulus 1999 March)

Coming in the 2002 January issue:

-Wedge for the Fixed Height Tripod]

Fall 'n' Stars??

by E. Kliptik

As I recall by mid Friday night we were ready to change the name to Fall 'n' Rain! Oh well, if you do these treks right you can always have a good time.

First and most important, take some time off work, head out early and plan a side trip or two. "K" and I hit the road about noon on Friday and headed for Belleville map in hand, well at least map in van. There was the mandatory Tim Horton's stop for coffee and Tim bits of course, PRIORITIES you know! If you haven't been to "A Taste of Country" on the north side of the 401 at Belleville, look it up. Frozen food, candy, crafts, a new Christmas Room, a real must. Okay, we did the craft thing and we are now headed up that long lonesome highway. Groceries, ah, we'll get them in Thomasburg they must have a grocery store. "Gee I haven't been all the way to Tweed on this road in a long time." Tweed does have a grocery store, a trip that would have been unnecessary had I known in advance about Sandy's stash of home "Pacific" smoked salmon.

Finding the campground was easier than deciding where exactly to camp. After a couple of laps of the field we decided to set up on the south side to get shade from the trees. All we really ended up doing was segregating ourselves from the main campers, something we will avoid next year (look out, we are joining you). Over the next few hours more and more friends arrived and we eagerly awaited the night's observing session.

Observing report for Friday night - Close Encounters of the Third Kind is much better on a larger screen as opposed to a laptop. A bonfire may not be as beautiful as a clear dark sky but it is warm and somehow primal no matter when or where, and you and me and rain on the roof does set a nice mood. The evening went very

late for some, into the morning hours in fact. There was a great deal of discussion between some RASCals and BAC members. Overall the evening was a success of a non-observing kind, good friendships were made and renewed.

Saturday morning came far too early for this old man, and was mentally foggy at times. The downpours through the night did not dampen our spirits as much as KK's tent. We were greeted by clearing sky and a beautiful speckled Sun. I chased daylight Jupiter and Saturn but quick moving cloud and a slow moving mind made them too elusive for this guy. After having some juice and coffee while observing we started up a small "Cometon" game, next time the chalkboard goes so we can keep score and finish that tournament, Doug. Being the old man of the group I soon retired (undefeated?) and prepared to embark on a totally new experience at a star party for me. I headed home about noon to pick up Mrs. Kliptik! Now it took a great deal of prodding from myself and a couple of dear friends this summer to convince my spouse (a non astronomer, but ISS and Iridium watcher) to join us. This was a triumph.

Arriving back at the campsite in late afternoon I found a jovial crowd gathered around Camp RASC enjoying the usual spirit(s) of astronomy. Ah, more smoked salmon. You know we really do go for the observing, but if the weather does not 100% cooperate you do have to make the best of the camaraderie. The day wore on quickly and it was soon time to be treated to a lovely chicken and pasta dinner put on by the Belleville Astronomy Club, with home made pie no less. Complimented by the proper beverage it was a dinner shared with friends that fit the occasion very well. Next it was time for a group picture before we lost the light and got on to the talks and more bonfire under the pavilion roof. A wide range of tech talks of significant value and the first reading of the Astro-Rant started the evening. There was a great deal of "sharing" as the evening went on in all ways, tech, friendship and snack/liquid. I guess what I am trying to say is that these events are not just an observing session (especially in poor weather) they are an opportunity for us to, dare I say "bond" as a group. One of the best things you can learn is that, beginner, novice or pro, at a star party we are all one.

Observing report for Saturday night - there was a rumour that some did get the opportunity to observe and even take some photos early Sunday. This was verified by observing reports at our Oct. meeting so I must concede to having missed this one. I was told that someone "knocked" on my tent to wake me. Really how hard can you knock on nylon?

If you have been reluctant so far to come to a star party, believe me there is something there for everyone to take away with them, and you will be surprised what you have to give others. Pack up your tent and sleeping bag, load the scope in the car and join us next at Fall 'n' Stars 2002. Watch the Regulus and web site for details, be a real RASCAl.

Oh, how about Mrs. Kliptic? Well by the ooooo's and aaaah's during a few between the clouds observations before turning in Saturday night, I think she has gotten the bug, aperture fever is next!

ASTRO RANT

I am not an astrologer or a fortune teller,

And I don't live in a gypsy wagon or own a crystal ball,

I don't know Jimmie, Sally or Suzie from the psychic hotline although I am certain they are really, really, weird.

Uh, I have an Equatorial Newtonian not a fig newton.

I speak my own tongue not the tongue of those who are deceased, and I say "Bootes" not Boots.

I can proudly mount my scope in my yard, I have DARK SKY!

I believe in minimal lighting, not security floodlamps, eyepiece observing not CCD imaging, and that the Dobsonian is a truly noble and simple mount.

A toque is a dust cover, a chesterfield a meteor observing platform, and it is pronounced Schmidt, not shit, Schmidt.

Canada will have one of the smallest telescopes in orbit, but has the only arm, and the United States would not have gotten to the Moon in '69 without us.

My name is _____,
and **I AM, AN ASTRONOMER!**
Thank you.

Fall "N" Star's September 21-22, 2001- Vanderwater Conservation Area, Thomasburg, Ontario

By Kim Hay

This was the second year of the Fall "N" Stars Star Party, hosted by Belleville Astronomy Club and the RASC Kingston Centre. Though the weather (Murphy's Law) was not the greatest for observing the clear star filled sky, the talks that were presented by members of both clubs were very informative and exciting.

After dinner on the evening of September 22, we moved to the pavilion to sit by the fire and partake in conversation, and a very special glassed of wine. Steve Manders, presented a bottle of white wine from the late winery estate of Kingston Centre member, Gordon Taylor, who passed away in the summer of 2000 from cancer. A special toast was given, and a moment of remembrance was given to a good person and friend.

At 7:04 pm (est.) we then proceeded to celebrate (well others were in mourning that the summer was gone) the fall of 2002.

Doug Angle opened the evening's talks, past president of the Kingston Centre. The first speaker was Joe Shields (Belleville), presented blueprints and a working model of a solar telescope. There are still some modifications to be put into place by both Joe and Greg Lisk, but the final plans should be available on the Belleville website <http://www.bellevilleastronomyclub.ca>

Hank Bartlett (Kingston) gave a wonderful talk and visual display of his first telescope URANUS. He then proceeded to give us the chant "I am Astronomer", located in this newsletter, this ditty, should make us all proud.

Les Dempsey (Belleville) gave us a pictorial display of his drawings through his telescope (4.5 " Voyager). His drawings consisted of Orion, M4, Anates, Andromeda, Solar Eclipse and some of his Persied 2000 charting of the meteors. Les had one of his drawings appear in the July/August issue of Skynews.

Doug Angle (Kingston) gave a talk on his telescope in a toolbox. It has a 2 " focuser, and diagonal, and gives a 4 1/2 ° field in a 40 mm eyepiece. The telescope consists of 7 layers of veneer and epoxy, and the astrophysics lenses are great. The telescope rests on an equatorial mount. However, the one draw back is that the inside is not dark enough.

Kevin Kell (Kingston) gave a talk on the construction of his tripod (Les Dempsey) design, and his tripod wedge with a 35 to 60° latitude adjustment. This tripod wedge will be used for barndoor pictures. All information one these two projects are located on his website <http://130.15.144.100>

Ken Kingdon (Kingston) gave a talk on his portable scope- a birding scope that is a 60 mm Bushnell. He uses a 4-section carbon fiber tripod (very sturdy, and a

bit expensive \$300) that also uses a panning head with a pistol grip. The pistol grip is available at Camera Kingston for around \$100.

Doug Angle, then gave an update on the 24" Venor Telescope, and showed the bearings that were cast. He also reported that 3rd year St.Lawrence students were working on a tracking device for the telescope, and will be meeting with them in the future for an update on the project.

This ended the evening's talks, and then came the small group discussions on various topics. Though the moon and stars were peeking out of the clouds, there were not clear skies until much later or earlier the next morning. Some observing and astrophotography was attempted, but then the fog rolled in and thick, giving any chance of observing a no go.

Sunday morning, the sky was still partially cloudy, as we all started to pack up, the dew was very heavy. Its amazing how your car that is packed up so neatly before you get to any star party or observing session, turns into a scattered mess upon packing up to go home, and somehow articles seem to multiply or clone, and your packing job just isn't as neat as before. Despite this, everything was crammed into the vehicles and we said our goodbyes to the Belleville members, and bidding adieu to the campsite, we all set off down the road, and the longing of waiting for next years Fall 'N' Stars.

Editor's Corner

by Kevin Kell

Kingston Centre Members for Membership Certificates Awarded at the 2001 General Assembly

Doug Angle- Doug has been the President of the Kingston Centre, and has been the chair of the ATM group, along with helping out at many functions and educational presentations. Joined Jan 93

Tom Dean- Tom has worked on the ATM group, is the Observing Chair and has been for the last 2 years, sets up Public Observing and member observing sessions, and is currently the Kingston Centre National Council Representative. Joined Jan 96

Laura Gagné- Laura has been the Vice President for 2 years, and current President of the Kingston Centre. Is the Education Chair, has done public education seminars, and has prepared along with other Centre members 3 publications for the use in Education. Joined Jan 96

Judith Irwin- Judith has helped at securing rooms within Queen's for the Kingston Centre, has given talks and

Queen's observatory tour to Centre Members. She is a great resource for Radio Astronomy and Galactic information. Joined Jan 1996

Mark Kaye- Mark has been a member of the Kingston Centre since before 1989, though the books (as of 1998) have him as down as 1996. Mark has helped at many public events, has hosted member events at his observatory, provided very interesting pictures for Education purposes and has done slide duping for the purposes of Education. He is the past editor of the Kingston Centre newsletter Regulus. Joined Jan 1996

Ian Levstein- Ian has been the President at the Kingston Centre for a 2 year term, plus the secretary before that. He has also helped out at many of the past Astronomy Day events. Joined Apr 98

Dave Pianosi- Dave is currently the Awards Committee Chair, which includes work on the Science Fairs, local awards. Dave is also helping along with the Belleville club to organize a members observing weekend. He has also helped out at many local functions and educational functions.

Ray Berg- Ray has been very beneficial to the Kingston Centre and to Astronomy. Ray has been up to Kingston twice from Indiana, and submits his variable star observations to the AAVSO along with his Solar observing.

Hank Bartlett- Hank is the current Chair of the Youth Group. Which is held twice a month at one of the local high schools. He also looks after the education materials and the fund raising draws held at the Kingston Centre. Hank also participates in the Education aspect of giving talks to schools.

25 year Membership Certificate

Javier Ramirez Joined 1971
Gordon Francis Joined 1950
Helen Brooks Joined 1960
Frank Aldrich Joined 1950

Last Issues **PHOTO CONTEST** drew a grand total of **ZERO ENTRIES**. So the glossy 8x10 picture will be donated to the door prize draw at the Annual Awards banquet coming up.

Also at the banquet will be the first annual **Regulus Award:** The **Regulus Award** was instituted in the Fall of 2001 and is awarded annually to the Centre Member who has the best article published in Regulus over the past year. The Editor shall not be eligible.

Time/Date details

The article must have appeared in a Regulus issue from the Nov/Dec issue of the previous year to the Sept/Oct issue of the present year. The award will be given out at the Annual Awards Banquet.

Award details

The Award will consist of an 8.5"x11" framed Certificate, a copy of the article and a prize of some sort usually not exceeding \$10. Suggestions include calendars, books, etc. The Editor will cover the costs on a voluntary basis unless the Centre wishes to cover the costs.

The award winner will be published in the next issue of Regulus (but not a reprint of the article).

Judging

The best article will be judged by the Editor of Regulus or other person as designated by the Editor or Awards Committee.

Messier Hunters

Name	old status	recent additions	Current Totals
Tom Dean	36	0	36
Laura Gagne	65	0	65
Peggy Hurley	55	0	55
Kevin Kell	65	0	65
Kim Hay	17	0	17

Our last few **Public Observing Sessions** actually went ahead with good weather

Tuesday September 18th saw a few visitors

Tuesday October 23rd saw a few visitors

November 2001: Meetings have moved from 8:00pm to 7:30pm and from Mac-Corry Hall to Stirling Hall Theatre D

What's New at the Kingston Centre Web Site

- ✧ 2001 Oct 15 - added [2001 Annual Reports](#), changed 4 years (1998-2001) back issues of the [Public-version](#) of Regulus from .html to adobe acrobat .pdf
- ✧ 2001 Oct 14 - add [2002 Election Results](#)
- ✧ 2001 Oct 12 - updated large amounts of the [secure members only web site](#) (meeting minutes, financial summaries, national meetings and more)
- ✧ 2001 Sept 23 - [Fall'N'Stars 2001](#) images

◇ 2001 Sept 16 - STARTING IN NOVEMBER 2001:
 Regular Meetings have moved from 8:00pm to 7:30 pm and from MacCorry Hall B201 TO Stirling Hall Theatre D (see map) or park in the regular MacCorry parking lot at the sound end, walk down the hill, cross the street and there is Stirling Hall (big round building for Physics/Astronomy)
 ◇ 2001 Sept 06 - updated [ATM page](#) with new Tripod project.

The current members-only RASC-KC web site password will be changing in early January 2002, roughly about the time you receive the January/February 2002 issue of Regulus.
 The National members-only RASC website password is not expected to change anytime soon .
 Until then the current userids and passwords for these two members-only sites are included on the sticker below:

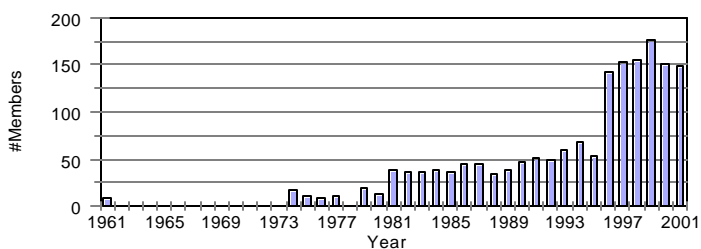
WebSite Passwords for Member-only Secure areas:
 RASC-Kingston: user: Xxx pass: xxxxx
 RASC-National: user: xxx pass: xxxxx

Inspired by the **National RASC Manual** (available on the National Members only web site), we have created a **RASC-KC Manual**, which is now available online the RASC-KC members-only website. It contains what we

Year	Members	Change	National Fee	Centre Surcharge
2001	149	-2	44	5
2000	151	-25	40	9
1999	176	20	40	9
1998	156	4	40	9
1997	152	10	40	9
1996	142	79	40	9
1995	63	-6	40	9
1994	69	9	40	9
1993	60	10	36	9
1992	50	-2	36	8
1991	52	4	32	8
1990	48	10	32	5
1989	38	3	32	5
1988	35	-11	25	5
1987	46	2	25	5

RASC-KC Members

1961-2001



hope is useful information about the functioning of the Centre. We expect at least annual updates to the manual and hope to keep the distribution to electronic versions in adobe acrobat format, rather than 30-50 odd pages or more of paper.

Kingston Centre Membership Summary

For a more complete summary, see the Web site for both Kingston & National Membership and Financial Summaries going back for 10 years.

Treasurer's Corner

From the National Annual Reports

A five year budget summary:

	1996	1997	1998	1999	2000
Revenue :	\$4312	\$10520	\$8160	\$7454	\$16864
Expenses:	\$4770	\$8724	\$3166	\$6752	\$8496
Surplus \ (deficit)	\$(458)	\$ 1796	\$4994	\$702	\$8368

The large revenues you see from the last few years are a direct result of our educational activities as well as donations from members. Thank you all for your hard work and kind donations and please think of support for our activities again.

And for item we sell Centre members on Centre produced material you get a 20% discount!

Item Regular price (member price)

Item	Regular price	(member price)
Books		
Expanding Their Universe Grade 9 (ETU)	\$15	(\$12)
Worlds to Discover Grade 6 (WTD)	\$15	(\$12)
Careers in Space (CiS)	\$5	(\$4)
Misc		
RASC-KC pins	\$6	(\$4.80)
Slide Set #1 (40 slides)	\$75	(\$60)
Slide Set #2 (40 slides)	\$75	(\$60)
Slide Set #3 (20 slides)	\$35	(\$28)
Grade 9 Combo #1 (ETU9, Slide Set #1 or #2, CiS)	\$90	(\$70)
Grade 9 Combo #1 (ETU9, Slide Sets #1, CiS)		

Grade 6 Combo #1 (WTD, Slide Set #3, CiS)	\$160 (\$125)
RASC2002 Calendars	\$50 (\$40)
Beginners Observing Guides	\$15
Observers Handbook 2002	\$15
	\$22

Memberships

Regular 1 Year	\$49
Youth (under 21) 1 Year	\$27.50

Orders must be prepaid by cheque or by Institutional Purchase Order. You can email rascexec@cliff.path.queensu.ca or see our online catalog at <http://members.kingston.net/rasc/educate.htm> or mail the order to PO Box 1793 Kingston Ontario K7L 5J6 Canada

Notes from the Secretary

Minutes of the Regular Meeting September 14th 2001

President Laura Gagné called the meeting to order at 8:05 pm

Laura expressed the condolences of the Centre to those affected by the September 11th tragedy at the World Trade Centre and the Pentagon in the USA. She reminded members of elections in October, soliciting nominations and expressions of interest. Meetings will move to Stirling Hall D in November, beginning at the earlier hour of 7:30 pm. She pointed out that the current issue of Astronomy magazine contains a photograph taken by member Leo Enright.

Observing Chair Thomas Dean then presented a "Starry Night Pro" view of the Autumn sky for Beginner observers, touching on Mars, Lagoon & Trifid nebulae, Summer Triangle, Ring Nebula, Albireo, Dumbbell Nebula, M13 Globular, M-31 Galaxy, Pleiades, Hyades, Jupiter, Saturn, Callisto shadow eclipse in late September, Comet Petriew, M81 & M82, and the supernova in Cygnus.

Vice-President Paul Winkler then introduced member Ken Kingdon. Ken gave a fascinating talk on "Deep Sky Secrets". He is an "amateur mobile astronomer" who described his observing methods and some tricks he uses to improve his night vision, deal with inclement natural phenomena (such as mosquitos, cold and dew). He also explained "seeing", the NGC numbering system and how to use it to plan viewing expeditions, cleaning optics, the importance of a notebook, and numerous tips and tricks of observing.

President Laura Gagné thanked Ken and announced a 20-minute break.

At 10:14 pm Hank Bartlett held a draw for a bottle of wine and a 50/50.

Vice-President Paul Winkler listed this year's final meetings: October 12, elections; November 9, Dr Barry Robertson on SNO project; Awards Banquet (date/location TBA) speaker Cathy McWatters; December 14, open at this time.

National Council Representative Thomas Dean reported on the issue of decoupling Centre and National fees, and noted that Peggy Hurley would be attending the October 22 Council Meeting in Toronto in Tom's stead.

President Laura appealed for anyone with an interest to volunteer for the position of Youth Group Coordinator, and acknowledged Hank's commitment and hard work up to now.

Education Committee Chair Laura Gagné advised that the new Grade 9 book would be forthcoming shortly.

Light Pollution Committee Chair Kim Hay reported she is going to be seeking information from Kingston Public Utilities.

Observing Chair Tom Dean reported that the previous Public Observing Session at Murney Tower, there were about 15 visitors, and appealed for volunteers to help at the next session on Tuesday, 18 September weather permitting). The Members' Observing Session will be held on Saturday, 20 October at the home of Paul Kerr, east of Brockville.

Amateur Telescope Makers' Group: Doug Angle presented a list of outstanding tasks on the Robert Venor telescope, and advised of those tasks now underway and recently completed. Fred Barrett showed the recently cast altitude bearings, and Jan Wisniewski confirmed the secondary mirror is coming along.

Newsletter Editor Kevin Kell reported a correction to the Youth RASC membership annual fee, to \$27.50. In the next issue of Regulus, the CD-ROM Yearbook will be included. The next Regulus Newsletter deadline is the 3rd Friday in October.

CCD Group Chair Jan Wisniewski reported the next meeting would be at his house Saturday, 15 September (3rd Saturday of each month). He also advised that his web page briefly describes the methodology of Charge-Coupled Devices. It also contains all the Finest NGC List Objects.

Kevin showed a unique double-exposure photograph from Starfest 2001.

Leo Enright showed slides of the London 2001 RASC General Assembly and some solar photos (he made his 2,000th solar observation this summer). He also showed aurorae from the Huronia Star Party, and First Light festivities at Toronto Centre member Guy Nason's Gneiss Hill Observatory.

The meeting was adjourned to Harvey's at 11:20 pm.

Minutes of the Regular Meeting October 12th, 2001

Doug called the meeting to order and began with our Beginners Observing Tips. Doug's highlights this week were, Mars, M32, Pleiades, Orion Nebula, Sirius,



Jupiter, and the Double Cluster.

Laura then resumed as chair and began a call for reports. The Secretary's report was read and Leo moved acceptance, seconded by Peggy, carried. Next was the Treasurers report which was a brief verbal report with the final to be submitted at a later meeting since there were a few outstanding issues to be cleared up, but the centre is doing well. Next were VP, Pres, Editor (Regulus, webpage, etc.), Librarian, Light Pollution Abatement, Public Relations, and Education. All reports submitted in hard copy and filed.

News to Kingston Centre members who are attending STAO: Leo says that Randy Attwood has arranged a booth and someone will be promoting the Society publications and they would like to include the Kingston Centre books. Laura will look into this.

The majority of Executive members were willing to continue on in their posts resulting in a swift and painless election process. The results are as follows:
 President, Laura Gagne
 VP, Paul Winkler
 Sec, Susan Gagnon
 Treasurer, John Hurley
 Editor, Kevin Kell
 Librarian, Dave Maguire
 National Council, (changed) Peggy Hurley

New Position: Membership Services, Non-elected, Kim has taken this on to start it up and will assist the Treasurer and Sec with handling membership, questions, concerns and complaints.

During the break tickets were sold for the 50/50, wine, and a CD and Banquet tickets for November 24th at the Portsmouth Olympic Harbour. The price is \$25 and it will be a served meal rather than a buffet this year. The bar opens at 17:30 and dinner will be served at 18:30. The speaker will be Cathy McWatters, "an interactive ionospheric experience".

After the break Doug gave a very complete report of the progress of the 24 inch. The scope was on display, with the mirror in place! It is so huge! A description of work to be done, computer control, fine tuning, and a trip

to the David Dunlop for aluminizing lie ahead. Well done ATM team! The scope will remain at Doug's until a permanent home can be arranged.

Observing reports followed with several people reporting their Messier progress, solar, satellite tracking, community efforts (pie in the sky, combination pie sales and solar observing, a combo to remember) and some slides.

The meeting adjourned at 22:35, and Dave organized the packing up of the library book case to be taken to his house with all of the books, as this was our last meeting in Mac-Cory. Next month we move to Stirling D.

Committee/Group News

ATM (Amateur Telescope Makers) Group News

The 24" telescope approaches completion! The Oct 12th meeting saw the first assembly of the major components. Too bad no one had a camera!

CCD Group News

The next two meetings will be held at the home of Jan Wisniewski just northwest of Harrowsmith on Sat Nov 17th. Call ahead in December as this meeting may be cancelled due to close proximity to the holidays.

Education Group News

The 2nd edition of Expanding Their Universe (Grade 9) is well underway. The last production run of slide sets #1 and #2 have been labelled and stuffed and are on the inventory shelves. A 2nd print run of the Worlds To Discover book (Grade6) was done in time for the Science Teachers of Ontario (STAO) conference held on Nov 1-3. We are sending two people (Susan Gagnon and Doug Angle) this year to give presentations. In addition, the National Education Committee has bought a booth at the

show and has offered to display some of our educational material.

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.

November: TBA

December: TBA

Equipment Loan Program:

- * The scopes are available to members in good standing and the standard borrowing time is one month.
- * At present there is no charge for borrowing.
- * A short checkout is required on the scopes before you haul them away.
- * If you have a scope during a public event, the Observing Chair may require you to bring it to the event (eg, public observing session, Astronomy Day, etc).
- * You are liable for the equipment and will be required to sign it out and have it operational.

- ☆ 25cm (10") f5.5 "Douglas" Dobsonian
- ☆ 20cm (8") f7 "FitzGerald" Dobsonian
- ☆ 20cm (8") f4.5 "Barney" Dobsonian
- ☆ 11cm (4.5") f4.3 "Bushnell" Voyager
- ☆ 11cm (4.5") f7.9 "Orbitor 3500" Equatorial
- ☆ 5 barndoor tracking platforms
- ☆ Collimating Tool
- ☆ Binocular Set #1 B&L7x50
- ☆ Binocular Set #2 B&L10x50
- ☆ Binocular Set #3 Bushnell 7x50
- ☆ Binoculars Set #4 Stem 7x50
- ☆ 19mm Televue Panoptic Eyepiece
- ☆ Filter Set - ND13, 4 colour, O3 nebula - all 1.25"
- ☆ Kodak Ektagraphic 35mm slide projector

November 2001: Meetings have moved from 8:00pm to 7:30pm and from Mac-Corry Hall to Stirling Hall Theatre D

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 to the **WEEK BEFORE**.

2001 Officers and Executive Council

PO Box 1793, Kingston, On K7L 5J6

Infoline & answering machine 613-542-3974

Email: [<rascexec@cliff.path.queensu.ca>](mailto:rascexec@cliff.path.queensu.ca)

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

President: Laura Gagne

Vice President: Paul Winkler

Secretary: Susan Gagnon

Treasurer: John Hurley

Librarian: David Maguire

Editor: Kevin Kell

National Council Rep: Tom Dean

Regulus is published 6 times per year. 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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Contributions are more than welcome. Submitted material may be edited for brevity or clarity. Copyright 2001. All rights reserved. Permission is granted to other publications of a similar nature to print material from Regulus provided that full credit is given to the author and to Regulus.

November-December Print Run=200

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

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.

E-mail: [<kell@cliff.path.queensu.ca>](mailto:kell@cliff.path.queensu.ca)

Fax: 1-613-533-2907 (with cover page to Kevin Kell)

Post: Box 2033 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

Regulus 1996-2001 Article Index

[Ed: If anyone wishes to index previous issues of Regulus, please do so and send in the results! :)]

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Mars Odyssey Mission Status October 23, 2001

The United States returned to Mars tonight as NASA's 2001 Mars Odyssey fired its main engine at 7:26 p.m. Pacific time and was captured into orbit around the red planet.

At 7:55 p.m. Pacific time, flight controllers at the Deep Space Network station in Goldstone, Calif., and Canberra, Australia, picked up the first radio signal from the spacecraft as it emerged from behind the planet Mars.

"Early information indicates everything went great," said Matt Landano, the Odyssey project manager at NASA's Jet Propulsion Laboratory in Pasadena. "The orbit insertion burn went off just as we planned and we will now begin the three-month long aerobraking phase."

Working list of visual meteor showers for 2002.

The details in this Table are correct according to the best information available in June 2001. Contact the IMO's Visual Commission (<http://www.imo.org/>) for more information. Showers in this table are for both hemispheres, and include major and minor showers.

For more information on meteors please visit: North American Meteor Network <http://www.nammeteors.org/> or the American Meteor Society <http://www.amsmeteors.org/>

Shower	Activity	Maximum	ZHR	Code
Quadrantids	Jan 01-Jan 05	Jan 3	41	QUA
Delta-Cancriids	Jan 01-Jan 24	Jan 17	28	DCA
Alpha-Centaurids	Jan 28-Feb 21	Feb 08	56	ACE
Delta-Leonids	Feb 15-Mar 10	Feb 24	23	DLE
Gamma-Normids	Feb 25-Mar 22	Mar 13	56	GNO
Virginids	Jan 25-Apr 15	Mar 24	30	VIR
Lyrids	Apr 16-Apr 25	Apr 22	49	LYR
Pi-Puppids	Apr 15-Apr 28	Apr 23	18	PPU
Eta-Aquarids	Apr 19-May 28	May 06	66	ETA
Sagittarids	Apr 15-Jul 15	May 20	30	SAG
June Bootids	Jun 26-Jul 02	Jun 27	18	JBO
Pegasids	Jul 07-Jul 13	Jul 09	70	JPE
July Pheonids	Jul 10-Jul 16	Jul 13	47	PHE
Pisces Austrinids	Jul 15-Aug 10	Jul 27	35	PAU
Southern delta-Aquarids	Jul 12-Aug 19	Jul 28	41	SDA
Alpha-Capricornids	Jul 3-Aug 15	Jul 29	25	CAP
Southern iota-Aquarids	Jul 25-Aug 15	Aug 04	34	SIA
Northern delta-Aquarids	Jul 15-Aug 25	Aug 08	42	NDA
Perseids	Jul 17-Aug 24	Aug 12	59	PER
Kappa-Cygnids	Aug 03-Aug 25	Aug 17	25	KCG
Northern iota-Aquarids	Aug 11-Aug 31	Aug 20	31	NIA
alpha-Aurigids	Aug 25-Sep 05	Aug 31	66	AUR
Delta-Aurigids	Sep 5-Oct 10	Sep 08	64	DAU
Piscids	Sep 01-Sep 30	Sep 20	26	SPI
Draconids	Oct 06-Oct 10	Oct 08	20	GIA
Epsilon-Geminids	Oct 14-Oct 27	Oct 18	70	EGE
Orionids	Oct 02-Nov 07	Oct 21	66	ORI
Southern Taurids	Oct 01-Nov 25	Nov 05	13	STA
Northern Taurids	Oct 01-Nov 25	Nov 12	29	NTA
Leonids	Nov 14-Nov 21	Nov 17	71	LEO
Alpha-Monocerotids	Nov 15-Nov 25	Nov 21	65	AMO
Chi-Orionids	Nov 26-Dec 15	Dec 01	28	XOR
Phoenicids	Nov 28-Dec 09	Dec 06	18	PHO
Puppilid-Velids	Dec 01-Dec 15	Dec 06	40	PUP
Monocerotids	Nov 27-Dec 17	Dec 08	42	MON
Sigma-Hydrids	Dec 03-Dec 15	Dec 12	58	HYD
Geminids	Dec 07-Dec 17	Dec 13	35	GEM
Coma Berenicids	Dec 12-Jan 23	Dec 20	65	COM
Ursids	Dec 17-Dec 26	Dec 22	33	URS

(presented by Kim Hay, Meteor observer and Member of IMO, AMS and NAMN.)



Kingston Kosmic & Event Kalendar 2001

Prepared by Kim Hay

Month and Date	Event
Thu November 1	Full Moon (The Hunter's Moon)
Thu-Sat November 1-3	STAO(Science Teachers of Ontario) Conference in Toronto Kingston Presentations – Thursday (S. Gagnon) & Saturday (D. Angle)
Thu November 8	Last Quarter Moon
Fri November 9	RASC-KC Regular Meeting ** NEW LOCATION & TIME** Stirling Hall, Theatre D TIME: 7:30 pm. Speaker Dr. Barry Robertson (Queen's University) Topic: Sudbury Neutrino Observatory
Tue November 13	N.Taurid meteor peak
Thu November 15	New Moon
Sat November 17	CCD Imaging Group - Jan Wisniewski's
Sun November 18	Leonid Meteor Peak (1 & 2)(best in early hours after midnight Nov 17)
Tue November 20	Public Observing session at 6:30-7:30pm Murney Tower, King St. West & Barrie St
Thu November 22	1 st Quarter Moon
Sat November 24	RASC-KC Awards Banquet- Olympic Harbour 6:30pm Contact Susan Gagnon for tickets, \$25.00 each
Fri November 30	Full Moon- Moon passes in front of Saturn starting at 7:30 pm. est
Mon December 3	Saturn nearest Earth in 2001 at 1.204 billion km(748 million mi)
Fri December 7	Last Quarter Moon
Fri December 14	Geminid Meteor Peak- best after midnight
Fri December 14	New Moon - Annular Solar Eclipse
Fri December 14	RASC-KC Regular Meeting 7:30 pm. Stirling Hall Theatre D, Queen's University
Sat December 15	CCD Imaging Group -Jan Wisniewski's
Tue December 18	Public Observing session from 6:30-7:30pm - Murney Tower, King St.West & Barrie St
Fri December 21	Winter Solstice –shortest day of the year starts at 2:23 am est.
Sat December 22	Ursid Meteor Peak
Sat December 22	1 st Quarter Moon
Sun December 30	Full Moon Penumbral Lunar Eclipse
Tue January 1	Happy New Year, 2002
Thu January 3	Quadrantid Meteor Peak 1 pm.edt
Sat January 5	3 rd Quarter Moon
Fri January 11	RASC-KC Regular Meeting Stirling Hal Theatre D, Queen's University
Sun January 13	New Moon
Sat January 19	CCD Imaging Group
Mon January 21	1 st Quarter Moon

For more detailed information, please refer to the RASC 2001 or 2002 Calendar, and the RASC 2001 or 2002 Observers Handbook. Available from your local promotions committee or from National Office,

<http://www.rasc.ca/>