



Regulus



The Newsletter of the Royal Astronomical Society of Canada – Kingston Centre — 2008 June

Coming up...

RASC-KC Meetings

Stirling Hall Theatre “A”, Bader Lane, Queen’s University
Kingston, Ontario.

Friday 13 June 7:30-9:30 pm

Friday 12 September 7:30-9:30pm

Meetings are co-sponsored by Queen’s Physics and include astronomy lectures open to the public.

KAON Public Observing:

Queen’s Observatory Ellis Hall, 4th floor from 7:30 pm to 9:30 pm

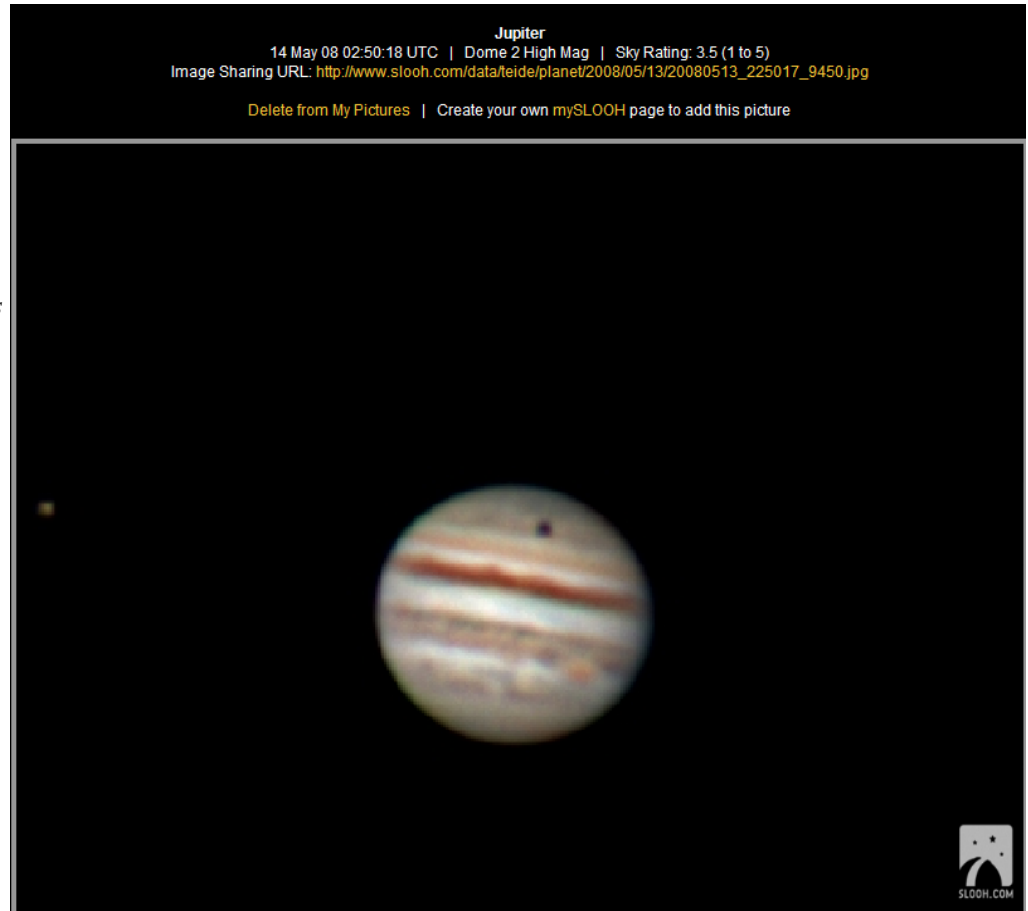
Saturday 14 June 9-10:30 pm

Saturday 12 July 9-10:30 pm

Saturday 09 August 9-10:30 pm

List of contents

Transit of Jupiter Photo
Notes from the Prez
The Queen’s Observatory
9 May 2008 Meeting Notes
Binocular Observing Session
2008 General Assembly
RASC-KC and IYA2009
KAON Report
Astronomy Day
Cancer Society Relay for Life
Astronomy Night in Canada
Callisto Transits Jupiter
Masthead
Kingston Cosmic & Events
Calendar for Four Months



A Transit of Jupiter

This expanded image shows a black dot in the upper hemisphere of Jupiter that is the Galilean satellite Callisto in transit across the planet. The Great Red Spot is visible in the lower hemisphere. A Galilean satellite that is probably Io is faintly visible east (to the left) of Jupiter. This photo has been cropped and enlarged to show the proximity of Io. I snapped the original picture on the morning of May 14 using a remote telescope of Slooh.com located in the Canary Islands. It appears on page 11 with accompanying argument for the identification of Callisto.

—Joseph Benderavage

Kingston Centre of the Royal Astronomical Society of Canada

Box 1793 Kingston Ontario K7L 5J6

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

Infoline:613-377-6029

Email:kingston (at) rasc (dot). ca

News from the Prez

Greetings Centre Members!

First of, a summary of the upcoming events, sure to be mentioned elsewhere, but you can never be absolutely, positively sure :)

The Cancer Society Relay for Life at RMC on Friday May 30th was basically clouded out with a thunderstorm that appeared near midnight. We were packed up by then and will show some images at the June meeting.

Susan Gagnon, our insanely active Vice President, has successfully run a binocular observing session late in May. Our next members observing event is the CCD workshop on Friday June 20th, mentioned elsewhere this issue and on the website. Space is limited so pre-register as soon as you can!

Saturday July 5th is the Sky Is the Limit Festival. We hope to have a revamped solar system model deployed along with several solar scopes for the estimated 9500 people attending to enjoy and take a look through.

On the national front, the 2007 RASC Annual Report has been released (all members with email registered with the National RASC Office should have received notification and accounts needed to get at it). Otherwise you can find them at <http://www.rasc.ca/private/governance/annualreports.shtml>

There is also a proxy ballot for your use if you will not be attending the Annual General Meeting on Monday June 30th and want your voice/vote to be heard. We will have paper forms available for those who want one at the June 13th Kingston meeting.

I've been asked by some members if the Board/Executive has a position on the motions of the AGM, to help guide the member in making a decision. The Board will be considering those motions at its next meeting on June 13th and will pass along any decision then.

The most controversial will be the \$8 fee increase or lose the paper Skynews, along with bigger increases for US members (by my math, \$24 increase) and for international members (a \$53 increase). As of 2008 March, we have 83 members in Canada, 19 in the US and 3 International, so this does affect our Centre considerably.

Any and every fee increase does have a negative effect on membership numbers and if this vote passes I suspect we will lose more members. Are there any alternatives? If you have any ideas, contact John Hurley our National Council Representative or the Kingston Board.

That about wraps it up for this month. As always, LET US KNOW what you think. Feedback is so very rare from the membership to the Board of Directors that ANY suggestion you might make will be taken seriously and quickly. For instance, a passing comment that we need more outside speakers and we agreed and are actively tracking down guest speakers from outside the area. Clear Skies and let's see a few more ETU certificates completed this summer!

--Kevin Kell, RASC-Kingston Centre President



RASC-Kingston Centre Members Observing Night at the Queen's University Observatory, by Kevin Kell

When? Friday June 20th, 2008 from 22:00-24:00 EDT
 Cloud/Rain date Saturday June 21st 22:00-24:00 EDT

Where? Queen's University Ellis Hall Observatory (4th floor)

What? Twelve members will have the opportunity to select a target, control and point the 40cm McGirr Family Telescope, and expose a CCD image for up to five minutes.

How? Interested members must preregister by contacting Kevin Kell ([kevin \(at\) starlightcascade.ca](mailto:kevin@starlightcascade.ca) or 613-377-6029). Limited space available! Leave your name and telephone number.

Background: Many members have expressed interest in CCD imagery and the Queen's University telescope. We have this limited opportunity to have the Observatory Coordinator, James Silvester, to give us a ten minute tutorial on the warmroom big screen, and then rotate through the registered members, each member receiving one five-minute session. Each person will be able to sit at the controls with James present to provide guidance and assistance, identify a target, and drive the telescope to that target. The object here is for you to get hands on experience with the remote operation of a CCD equipped telescope.

9 May 2008 Meeting Notes, by Susan Gagnon

The run will end at 24:00 as we do not want to impose an endless night of time commitment with James as he is busy with his Ph.D. and we don't want to distract him... too much :)

If there are fewer registrants than time slots (twelve slots of ten minutes, five minutes to find the target and rotate the dome shutter manually, and up to five minutes for the exposures), then we will randomly draw for slots in another round.

Registration is necessary to fill the slots and to be able to issue a cancellation in the event of a cloudy night. If we are clouded out the decision will be made at 18:00 Friday night and I will contact registrants by telephone letting them know that Saturday, the next night, is a go. If it is cloudy Saturday as well, the cancellation decision will also be made at 18:00 and I will call.

Successful or clouded out, we will attempt to schedule another event later in the year.

Preparation:

- 1) Register with Kevin;
- 2) Choose one or two targets that you want to image, and ensure that they will be in the sky on that date and time;
- 3) Bring along a USB flash drive to take your image home that night, or wait until they are posted on the RASC-KC website the next day;
- 4) Arrive around 21:30 to give everyone time to settle in, get set up, chat, etc.

Kevin called the meeting to order at 7:30. After a few announcements and a KAON report, we introduced our guest speaker for the night, Dr Kristine Spekkens. Dr. Spekkens spent her undergraduate years at Queen's, did her PhD at Cornell and post doc work at Rutgers. Now she is an assistant professor in a dual appointment to Queen's and RMC. Having just completed the first, very busy year of her appointment, Kristine has tackled the task of making her way through the stock of functioning and non functioning observing equipment at RMC. The focus of Dr. Spekkens' research is to understand the structure and evolution of nearby galaxies. This talk was a look at discrepancies between predictions and reality.

The most daunting problem that presents is the gap between the mass calculated from objects that can be counted, and the mass inferred through the study of the motions of these objects. For galaxies that is the mass of stars, dust, planets etc. vs. the rotational velocity of the whole. The mass inferred seems to be 10 times the mass observed. The gap is attributed to dark matter. Techniques employed to investigate dark matter range from galaxy and cluster counts, dark matter/galaxy formation simulations, lensing experiments and a study of the Cosmic Microwave Background Radiation which reaches back in time to when the Universe had cooled sufficiently to allow the 1st photons to stream freely. The search for the origins of today's observed structure begins at the beginning. It is suspected that a minimum of 85% of the mass of the universe is dark matter. The dark side can be subdivided into dark matter and dark energy. It is proposed that the dark matter portion acts like gravity thus creating the pattern of motion that we detect. But the dark energy is much different in that it pushes outward and is credited with the unexpected expansion of the universe. The first object that comes to mind for most as a candidate

for dark matter is the black hole. But apparently black is not dark enough. The black hole is not the best candidate because of its instability, a characteristic that is thought to be common to all black holes. Dark energy is very stable. It is cold in that it is collisionless. It is non-reactive with particles of its own ilk or with regular matter. This means that it cannot dissipate energy, contributing to its ability to avoid detection.

There are various simulations that have been developed to describe the influence of dark matter on galaxy rotation. Some are successful only for specific sizes of galaxies. Nothing is perfect yet.

The best work to date for study of the influence of dark matter on large scale structure comes from the 2Micron All Sky Survey (2MASS, northern hemisphere: Mt. Hopkins; southern hemisphere: Cerro Tololo). It is a near infrared detection system that reveals the filamentous structure of galaxy formation thought to be influenced by massive dark matter wells.

The best candidates so far for this matter are WIMPs (Weakly Interacting Massive Particles), which would be non-reactive and 1000 X the mass of a proton. A topic for another time?

This was an excellent talk with plenty of great visuals of the research material, and my notes can only give you a glimpse of the rich content presented. Kristine is a terrific speaker, 40 minutes, no notes, and a great Q and A afterwards. Astronomy students at Kingston universities are in for a treat!

Then it was break time with several items for door prize draws. We had observing reports and Susan proposed a beginners binocular observing session for the last week in May and she would work out some details and post them to the chat list. Kevin reminded everyone about the GA and registration deadlines, and the next centre meeting June 13. See you there! The Meeting adjourned to Wendy's at 9:30.

Binocular Observing Session, by Susan Gagnon

I would like to thank Ian, Kirk, and Carlos for coming out to the Observing session last night.

We met at the Country Style coffee shop at 20:15 and then went off to the Conservation area. The sky did clear quite nicely by the time darkness arrived. There were no bugs, the temperature was quite reasonable. There were very few visitors coming and going. The sky to the south was a bit overcast near the horizon so it was difficult to appreciate that view. Some of the best binocular Messiers were visible even before it was dark; faint, mind you, but visible. We packed it in at about 23:00. It was a very pleasant evening. I enjoy observing alone, but it is a nice change to get to know fellow members away from the meetings where sometimes visiting time is limited. Now if we could have 12 months of reasonable observing skies!

I really appreciate the feedback on the session. This site had been used by Ken Kingdon in the past for member nights so I must give him the credit for the location idea. There are always cycles in membership participation for various events. The binocular session has appeal because it is very low tech, quick, easy set up.

Anyone who wants to initiate a session should post the idea to the list and see if they get any takers. There may not be one every month, but that is to be expected with most of us working full time. Do not be discouraged. If anyone knows of sites to the east that may be good, let me know. I have the impression that there would be fewer suitable sites in that direction, but I am no expert.

2008 General Assembly

Hello everyone,

The 2008 General Assembly is coming up fast and we want this year's event to be the largest and best-attended of any GA in recent history. To help make this happen we need your help to promote the GA within your Centres.

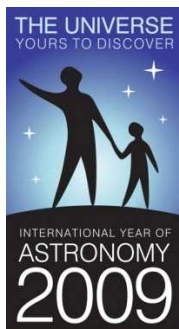
We are looking for every Centre in the Society to help us out in two easy ways:

* Forward the attached article to your newsletter editor and ask them to publish it as soon as possible. Feel free to add local flavour like car-pooling plans or the location of your Aunt Mildred's house in Toronto where everyone can stay!

* Look for the 2008 GA promotional DVD which will be mailed to your Centre later this week and arriving by the end of March.

Please set aside 10 minutes on the agenda of your next Centre meeting in April to show the promo DVD to your Centre. Many people who are new to the Society think that the "General Assembly" is a stuffy affair where advanced astronomy is discussed. Many don't realize that it is a very friendly and entertaining event so be sure to talk up the social aspect of our Society's annual gathering when you speak to your members. The official "Astronomy Night in Canada" logo can be downloaded from http://www.rasc.ca/im/GA2008_Logo_160.jpg. Larger versions are also available (please contact me off-list) if needed. Finally, stay tuned to the GA news channel at www.rasc.ca/news/ga2008.shtml for program and event updates as they become available. See you in Toronto!

-Denis Grey, Chair
2008 General Assembly Organizing Committee



RASC Kingston Centre and IYA2009, by Kim Hay

The Kingston Centre is starting to ramp up its thought process on IYA2009.

We have a few people interested, but if you are interested in Astronomy, outreach, observing, and have a great idea that you would like to help promote the International Year of

Astronomy in 2009, please contact me at kim (at) starlightcascade.ca

We will be meeting with Queen's (James Silvester, Stéphane Courteau) and the RMC (Kristine

Spekkens) representatives on Thursday June 19 to see what the three groups can come up with for plans on IYA2009. The CASCA Annual meeting was held May 20-24 in which there was much discussion on IYA2009, so we are looking forward to reports on their activities.

At the GA (June 28-June 30, 2008) this year, there will be presentations, and panel discussions on IYA2009 with Dr. Jim Hesser the Canadian Node Chair representing all of Canada (DAO Director, National Research Council of Canada Herzberg Institute of Astrophysics), and others, so we will be able to report back more ideas from this event.

The IYA2009 will be a great year to show off Astronomy to everyone. We do a great job now, but there are always new objects in our universe that we can show, promote, and observe, because it's an ever-changing universe. To keep up to date on what is happening, visit one or all of the following IYA websites

RASC Kingston Centre <http://130.15.144.99/rasc/Committees/iya2009.php>

RASC National www.rasc.ca/education/iya

Canadian IYA Site <http://www.astronomy2009.ca/>

International IYA Site <http://www.astronomy2009.org/>

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KAON Report, May 10th 2008, Astronomy Day, by Susan Gagnon

After months of waiting, the Kingston Astronomy Outreach Network was rewarded with clear skies for the monthly open house at Queen's Observatory on top of Ellis Hall. Summer hours are 9pm to 10:30pm so, as usual, members of the public began arriving at 8:25! We sure have some keeners! Norm Welbanks, Kim Hay, Kevin Kell and Susan Gagnon operated 'scopes on the deck as well as a set of binoculars on a tripod. In the dome the 16 inch was operating. Steve Hart greeted and directed the crowd at the door. There were other members circulating in the dark so there was always the chance to have a little visit when there was a lull in the action. The talk in the warm room was Atmospheric Phenomena and the speaker was Joel Roediger of Queen's. With 101 visitors there were two presentations to accommodate everyone. It was great to have line-ups at the scopes again and such good viewing. Saturn was a big hit and other targets were Mars and the Moon. It was the first KAON session for James Silvester as the temporary Observatory Coordinator and he was off to a good start. Ahh yes, the energy of youth! James and Tara Parkin with Bernie Ziomkiewicz have got the LX200 functioning and we had it on the deck as well as the university's Questar. This makes the session much easier with the decreased number of scopes that must be carried up to the deck. With any luck we can keep those two scopes and the Fitz ready for duty, possibly opening up the events for more volunteers. Remember that the open house happens the second Saturday of every month, rain or shine, so come on

Sun shines and Stars come out for May 10, Astronomy Day at the RASC Kingston Centre, by Susan Gagnon, Kim Hay

The clouds parted and hazy sunshine skies helped kick start RASC-Kingston Centre's Astronomy Day festivities on Saturday, May 10, 2008.

The Kingston Centre took a quiet approach to the event and set up several telescopes (including 2 Coronado Solar Max scopes) to show viewers the sun in white light and H-alpha.

The sky was hazy, the breeze was cool, the temperature was 18° C. at Murney Park lake front, but we did sidewalk or parkwalk astronomy at its best. Though we had only 20 visitors for our two hour setup, observers could take their time at all the telescopes and enjoy the view of the somewhat spotless sun. But they also were treated to the sun's forming prominences.

Posters, hand-outs and great conversations with the public on today's event and other astronomical wonders were prevalent, and our afternoon was a success.

Special thanks to James Silvester, Hank Bartlett, Susan Gagnon, and Kevin Kell for coming out to man the telescopes and to help educate the public on Solar Observing.

Cancer Society 30 May 2008 Relay for Life, Kim Hay

Though the clouds were thick and the odd sprinkle had happened earlier in the day, Kevin Kell and I ventured to RMC with the telescope, posters, and handouts to participate as entertainment in this year's Relay for Life. This was our third year in helping with the event.

The area had a different set up this year, with most tents located on the outer perimeter where we used to park, and our position was a tent on the southeast shore by the water. Not the greatest of spots to reach the people, as cars were lined up on both sides of the road, so our tent was obstructed.

The Technical organizer and his partner came by to ask if the tent and location was ok, but we explained the situation. Next year he promised to put us back up on the southeast hill.

We managed to view the Wolfe Island CKWS tower, the ferry, and swarming masses of bugs, on the other side of the lake at the tops of the trees. (Those who have attended in years past will remember the swarms).

Starmaps, "What's Up," and pamphlets of upcoming events were handed out to only a few people. One individual remarked in 2007 she was in Edmonton for the Relay for Life, and they had a lovely view of Venus and the Moon; we would not be so lucky this year.

As the wind shifted and the rain came harder, we packed up early this year, around 9:30 pm, but a smell of lilac lingered, and so did the remembrance of the real reason that we came was to show our support for the cancer survivors and lost loved ones.

Thank you, Hank (Star Maps, What's Up), and Kevin for helping with this year's Relay for Life. We're hoping the odds of a clear night will increase next year, and it will be better. As one person stated, we have had only two clear years out of nine. So, its just not astronomy that gets the bad weather, but perhaps its just teardrops from heaven.



Image by Kevin Kell

Astronomy Night in Canada, by Katrina Ince-Lum

The 2008 General Assembly of the Royal Astronomical Society of Canada (RASC) will be held in Toronto at York University, Keele Campus, from June 27 to July 1, 2008.

This year's General Assembly (GA) will be co-hosted by the Hamilton, Mississauga, and Toronto Centres along with the Department of Physics and Astronomy at York University. These Centres would like to invite members from across the country to join them for the GA, and to help them celebrate the 100th anniversary of the Hamilton Centre, the 140th anniversary of the Toronto Centre, and the second anniversary of the Mississauga Centre. The GA will also serve as a launch pad and forum for the exciting events and programs that will highlight astronomy in Canada and around the world in 2009 during the International Year of Astronomy. The theme of this year's GA is "Astronomy Night in Canada," and the schedule will feature many entertaining mash-ups between hockey and astronomy!"

We are very fortunate to have an excellent line up for the GA. Speakers so far include:

- Dr. Phil Plait, internationally renowned astronomer, author, and lecturer. His numerous appearances on radio, television, podcasts, and in front of live audiences have made him a celebrity in science circles, putting him in demand as an expert on astronomical matters. Dr. Plait will be giving the Helen Sawyer Hogg lecture this year, as well as talking to the RASC about dealing with the public about the International Year of Astronomy;
- Dr. James Hesser, Director of the Dominion Astrophysical Observatory in Victoria, B.C. His research applies ground and space-based facilities, like the Canada-France-Hawaii Telescope and the Hubble Space Telescope, to questions concerning the history of how the Milky Way and other galaxies formed and have evolved, with particular emphasis on the oldest stars and on clusters of stars. He joins us at the 2008 General Assembly in his role as Canada's national representative for the International Year of Astronomy;
- Terence Dickinson, editor of *SkyNews* since the magazine's first issue in 1995. He has been involved in astronomy full-time since 1967 as a writer, an editor, a teacher and a broadcaster. He will celebrate his 50th anniversary as a member of the Society at the 2008 General Assembly;
- Scott Young, the Society's National President. He is an accomplished science educator, Director of the Planetarium at the Manitoba Museum, and speaker. Scott will be speaking at the closing banquet of the 2008 General Assembly, setting forth his vision for the Society as we enter the International Year of Astronomy.

Friday is tour day at the GA. In the afternoon, we plan to visit MacDonald, Dettwiler and Associates Limited (MDA). Plan to arrive early for the General Assembly in order to get a firsthand look at Canada's role in space exploration. The creators of Canadarm I and II, components for the Mars Phoenix Lander and other space hardware, along with the Dextre Manipulator System launched aboard STS-123 and transferred to the International Space Station in March 2008. The Space Mission's division of MDA hosts a special tour of their facilities for RASC delegates. The Toronto Telescope Tour will be held later that same day.

Transportation will be provided to dinner at a deli situated between two of Toronto's telescope stores, Efston Science and Kahnscope Centre. There will be time to eat (members from Montreal can critique Toronto smoked meat sandwiches!), and to shop. These tours have limited capacity, so book early.

There will be two banquets during the GA. On Sunday June 29, the Hamilton Centre will be celebrating its centenary at the Ontario Science Centre, with an early arrival planned to view the exciting new exhibit "Facing Mars." On Monday, the Toronto Centre hosts the closing banquet following the Helen Sawyer Hogg lecture.

GAs are not usually renowned for the observing, especially in an urban environment. However, the observatory of the Department of Physics and Astronomy will be accessible evenings during the GA, weather permitting. If you are on vacation, there is much to do in Toronto during the summer months for members and their families. There is a TTC (Toronto Transit Commission) bus stop within short walking distance of the Vanier residence building, which provides public transportation to Downsview subway station, and to downtown Toronto and all its attractions.

There will be many opportunities to talk about how to best celebrate International Year of Astronomy in 2009, including a Saturday morning panel session led by Dr. Hesser.

When official ceremonies have ended, plan to stay in Toronto for an extra day or two to spend Canada Day at E.C. Carr Astronomical Observatory (CAO). It belongs to RASC-Toronto Centre, and it is one of the best amateur observatories in Canada. It is located on the beautiful Niagara Escarpment overlooking Georgian Bay. Come see it for yourself.

Mark your calendars and make your plans to attend, to renew friendships, and to meet members from all Centres across the country.

Registration is now open and early bird registration ends April 30. Please visit www.rasc.ca/ga2008 for more information, to register and to apply to present a paper session. Check back regularly for updates as more information becomes available.

Come and join us for the opening face-off on 2008 June 28!

Gleanings from Regulus of 30 and 25 Years Ago

by Leo Enright

Since this column of reminiscences about our Centre's activities of three and two-and-a-half decades ago has not appeared for several issues, the present effort will concern itself with a few issues of our newsletter spread over the first half of the years 1978 and 1983.

In the first half of 1978, our newsletter, as had been the case in previous years, was still designated "*The Newsletter of the Royal Astronomical Society of Canada – Kingston Centre and The Queen's University Astronomy Club*". As its editor, I saw to it that issues in those days were published monthly with the stated dates at that time being: Mid-January, Mid-February, and so on to Mid-June, with an additional publication in early March – dated March 3rd, 1978. Of those seven missives that I received via Canada Post, the postage for the first two was ten cents, and the cost for delivering the last one rose to twelve cents.

Prominent in the news that was featured from our Centre and from Centres across the country were reports on the achievements of two RASC members. The January 1978 issue reported that Jack Newton, then a member of the Toronto Centre, had received the Queen's Silver Jubilee Medal from the Governor-General in recognition of his outstanding astrophotography. The May issue contained my report that Rolf Meier had discovered Comet 1978f (the letter "f" in those days indicating the sixth comet discovery of that year) which would henceforth be designated "Comet Meier". The date of that discovery, which was of the first comet EVER discovered from Canada, was April 27, and Rolf would go on to discover three more comets which also bore his name. The instrument used, the Ottawa Centre's famous 16-inch reflector, located at their Indian River Observatory near Almonte, was the one that was later also used by Doug George in his discovery of a comet that was subsequently named Comet Scorichenko-George. [The newsletter report mentions that I first hear of Rolf's singular discovery in a radio news report at 6:00 a.m. on Saturday April 29th, and I believe I had heard it on the car radio just after I had started driving to Kingston for our Centre's Astronomy Day Mall Display that year.]

The May issue also reported on the opening of a new Canadian observatory with the third largest instrument in the country, the Observatoire de Mont-Megantic, whose 1.6m Cassegrain-Coude reflector was exceeded in size only by that of the David Dunlap Observatory in Toronto and the Dominion Astrophysical Observatory near Victoria. Speculation was that the new observatory would be more fortunate than its larger sisters, since its problems with light pollution would be much less severe because it was a considerable distance from the cities of Sherbrooke and Montreal and sat atop a high mountain near the Quebec-Maine border. It would be a great facility for astronomy students from both Laval University and the Université de Montreal.

The newsletters of the spring of 1978 reported on several well-received talks that had been given at our Centre meetings. On January 24th, David Levy spoke on the topic "Comets and Particularly the Great Comet of 1861". [As amateur astronomers around the world have by now come to know as an axiom: Whenever David Levy speaks on the topic of comets, there will be a wildly enthusiastic reception for whatever he has to say.] My topic for the February 7th talk was "The Astrolabe: Its History, Construction, and Use". On February 21st, Dr. Douglas spoke on "The IAU and Its Triennial Congresses". In the first of the two March newsletters, both David Levy and I reported on what a magnificent presentation it had been. There was no one in Canada more qualified to speak on the meetings of the International Astronomical Union, since no one in this country had attended as many of them as she had. Both David and I, and indeed the whole audience, were awestruck by the fact that she could say she had given her first talk to an RASC group on January 14, 1926, and "here I am now 52 years later still at it." She said she would look forward to being at her twelfth triennial congress of the IAU the following year when it convened in Montreal. [Indeed, she was there! David and I must have been inspired too; we were there in Montreal also for that 1979 event.]

On March 7th, David Levy spoke on "Observing Variable Stars". Our Centre members were thrilled not only with his wealth of experience in observing variables of such variety, but also with his special emphasis on his favourites – the very dramatic novae and recurring novae, and the cataclysmic variables. On March 21st, we had our annual meeting with the election of officers who were to begin their year in September, as was always the custom in those days. For that meeting we had also planned to set up binoculars and/or small telescopes outside Ellis Hall for a Public Lunar Observing Session, but unfavourable weather did not allow us to do so.

On April 4th, my talk was on “Faint Light In The Night Sky”. I explored the science behind five faint celestial phenomena: the Zodiacal Light, the Gegenschein, Interplanetary Light, Nightglow, and Integrated Starlight.

At the Centre meeting of June 13th, it was decided that we would change the meeting schedule, so that, instead of holding our meetings on Tuesday nights, we would meet, beginning in September, on every second Thursday, yes, every second Thursday! (There was a break for Christmas with no meetings scheduled during the week of Christmas or the week after.)

The General Assembly that year was held in Edmonton on the Victoria Day Weekend, and the only representative from the Kingston Centre was Sue McDougall. [The previous year, 1977, both Paul Brown and I had been able to attend the G.A. in Toronto, and in the following year, 1979, I was also able to attend the London G.A.]

Both the May and June newsletters referred to plans for 1978 summer activities. Two of those projected plans did develop into real events: a Summer Solstice Celebration and Observing Session at my place on Sharbot Lake (Sunday-Monday June 25-26, and a Perseid Meteor Shower Observing Session throughout the night of August 11-12 at the same site. It was certainly a year with many events and activities available for our members.

Twenty-five years ago, in 1983, the name of our newsletter had been established – *Regulus* – as was fitting for the place once called the “City of Kings” (with the university of Queen’s) where one of its oldest educational institutions had long been called “Regiopolis” (from the same royal tradition). I was still the editor, as I had been five years previously, but the production schedule was less hectic, with editions produced once every two months, though the size of each issue had markedly increased. In 1983, the Centre president was Terry Hicks, and the vice-president was David Levy, though his place of residence had changed three years previously from Amherstview to southern Arizona – to enable him to augment his number of ‘useable nights per year’! Gerald Schieven was our Secretary and National Council Representative; John Hansen was Treasurer; David Stokes was Librarian; and as stated, I was the Editor.

The March-April newsletter announced plans for our April 23rd Astronomy Day Activities – a mall display from 10:00 a.m. to 7:00 p.m. at Frontenac Mall and a Public Star Night at MacDonald Park from 7:30 p.m. to 10:30 p.m. The May-June newsletter reported on the activities being “a fine success”. To quote from the report: “Dozens, maybe hundreds of people, many perhaps for the first time, had a chance to look through an 8-inch telescope or see photographs taken by local amateur astronomers.” Another quote mentions the large crowd of people at the park “to get a glimpse of lunar craters or one of the planets as seen through some of the eight or nine telescopes which were set up.” Quotes were given from some of the people in attendance at MacDonald Park: “That’s amazing! Those craters are so clear and distinct!” and “I never knew you could see the rings of Saturn like this!”

The big event of the month of May 1983 was the General Assembly in Quebec City, a large astronomical celebration involving three organizations: the RASC, the AAVSO (American Association of Variable Star Observers), and AGAA. (Association des Groupes D’Astronomes Amateurs). Our Kingston Centre had 12 delegates to the GA, an outstanding representation from a Centre the size of ours. Two of our members, David Stokes and David Levy, presented papers which were well received, and I entered the astrophotography contest with lunar landscape displays, and managed to win its category’s first prize. David Stokes’s outstanding paper on The Islamic Lunar Calendar was serialized in subsequent issues of *Regulus*. The Quebec City event would be a gathering that many astronomers would recall for a long time.

Several observing events of early 1983 were simply outstanding. The newly discovered Comet IRAS-Araki-Alcock (1983d) was one that brightened incredibly quickly. It was the first of many comet discoveries by the Infra-Red Astronomical Satellite, and also a binocular discovery (from inside his living room) by the incredible English observer George Alcock. It was also one that was so bright that, on the very evening after David Levy phoned me about the discovery’s report earlier that day, I was able to see it NAKED-EYE. Being the second closest to earth of all the comets of recorded history (!!), it marched quickly across the sky from night to night and was soon gone, but its bright image was seared into the memory of those of us fortunate enough to see it. The discovery date was April 26th by IRAS, and May 3rd by both George Alcock and Genichi Araki.

For David Levy, one of the very remarkable events of his observing career was his Observing Session # 6207

on the night of March 15-16, 1983 when he CAREFULLY observed 109 objects of the RASC's 110-object Messier List, and during that session he examined also an additional 34 faint NGC objects. A marathon of epic proportions: 143 splendours of the deep sky! The only Messier object not recorded by David that night was M30. In the morning twilight, as the night's session was ending, he did have it in his telescope's field of view, but did not record it because it could not be seen distinctly enough in the glow of twilight to count as a true sighting. In the article beginning on page 17 of the May-June 1983 issue of *Regulus*, David listed the order of his sightings of the Messier objects. [Anyone contemplating a 'Messier Marathon' would be well advised to review the order in which David observed those objects.] [At an RASC GA years later, we had two people who wondered if their records of 107 and 108 Messier objects were "tops" for the RASC. I was able to inform them of the David's Observing Session 6207, and they were both happy then to be photographed with "the real RASC Messier Marathon Champion, Kingston Centre's David Levy".]

That same newsletter also contained two letters from our famous observer, Gus Johnson, who lived in the hills of western Maryland and had sent us letters in both April and May, reporting on his recent observing programs. His second letter also included two poems that had been inspired by his nights spent under Appalachian skies. An aid to learning the sky for all Centre members was the introduction in the same newsletter of the first edition of the Kingston Centre Sky Search Program. [It is now 25 years old.] At that time it was called The Kingston Centre's Nova and Comet Search Program, but the name was subsequently changed, and it continues to the present time with the latest complete version being available on our Centre's website. The name then used did not imply that one was expected to discover a nova or a comet, but that by carefully and repeatedly searching a chosen specific area of the sky 10 degrees in Declination by 1 hr in Right Ascension, one could hope to know the area very well (down to a certain stated magnitude) and possibly detect an interloper, if such intruded into the region. To complete the list of many things included in that May-June 1983 issue of *Regulus*, I will add that there was a one-page ad from Camera Kingston and the newsletter's first published astrophotograph, one of the Crater Copernicus that I had taken with the C14 using eyepiece projection. In total, it was a newsletter of 23 pages, a bountiful well-spring of Kingston Centre lore.

Reminiscing about these earlier days in the life of the Kingston Centre is a most valuable exercise, replete with fond memories for those who lived them and sources of edification for those who have come later and may hope to emulate the pioneers who founded and nurtured both our Society and its Centres when they both were much younger.

Jupiter

14 May 08 02:50:18 UTC | Dome 2 High Mag | Sky Rating: 3.5 (1 to 5)

Image Sharing URL: http://www.slooh.com/data/teide/planet/2008/05/13/20080513_225017_9450.jpg[Delete from My Pictures](#) | [Create your own mySLOOH page to add this picture](#)**Transit of Jupiter by a Galilean Satellite**, by Joseph Benderavage

The table of “Satellites of Jupiter, UT of 2008 Geocentric Phenomena” on pages 215-220 of the RASC *Observer’s Handbook 2008* posits the Galilean satellite Callisto as being in transit of planet Jupiter from 0:52 UT to 4:25 UT on May 14, 2008. Callisto transits from east to west (from left to right in the photograph) across the face of the planet. This particular transit lasts three hours and 33 minutes (or 213 minutes).

Callisto, the black spot in the northern hemisphere of Jupiter, appears to be slightly more than half way through its transit. Half of a 213-minute transit is 106 minutes and 30 seconds, or one hour and 46.5 minutes. The time of the May 14 photograph is 2:50:18. Since Callisto began its transit of Jupiter at 0:52 minutes on that day, then the time elapsed between 0:52 UT and 2:50:18 UT is one hour 57 minutes, 42 seconds, or 117 minutes 42 seconds. This is eleven minutes and twelve seconds past an east-to-west midpoint, which reflects reasonably well the position of the black dot in the photographic image, verifying it as Callisto.

Jupiter was imaged with a high magnification Slooh.com remote telescope in the Canary Islands. A date and time stamp appears in the legend above the photograph.



Regulus



The Newsletter of the Royal Astronomical Society of Canada – Kingston Centre — 2008 June

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The Royal Astronomical Society of Canada— Kingston Centre

Newsletter Submission Info:

I can take most common formats, although I prefer plain text. Pictures should be sent as image files in attachments separate from the articles. Please avoid the use of capitals, asterisks etc for formatting, as I use the publishing software's formats for this kind of emphasis.

E-mail: lbenderavage (at) sympatico (dot) ca
 Post: Joseph Benderavage, 147 Braemar Road, Kingston, Ontario, Canada K7M 4B7

2008 Publication Deadlines

For the month (Deadline)

September (August 22)
 October (September 26)

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Telescope for Sale

If anyone is interested please contact Don directly. Please be nice with any offers. If this is a 6" skywatcher reflector Dobsonian, the new retail price alone is somewhere around \$300. I didn't get more details so you may have to ask about the fiddly details. He may have purchased it some time ago when prices were much higher.

----- Forwarded message follows -----

6" Skywatcher reflector telescope for sale
 Contact 613-xxx-xxxx Don Watson or [wtsdona \(at\) netscape \(dot\) ca](mailto:wtsdona@netscape.ca)

Telescope in good shape
 x2 Barlow
 10mm Antares
 6mm Plossl
 nd 25 lunar filter
 \$600

----- End of forwarded message -----

Kevin Kell
 starlightcascade.ca
 >From Starlight Cascade Observatory & Gardens
 Just outside Yarker Ontario
 RASC-Kingston Centre President

Kingston Cosmic & Events Calendar, June—July 2008, by Joseph Benderavage

Date	Events	Local Time
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- 01 - Double shadow transit on **Jupiter** 13:20
- 8** 03 - Moon at perigee, large tides; 09:00; New Moon 15:23
- 07 - Moon is 0.4° S of Beehive (M44) 07:00; **Mars** 1.1° N of Moon 22:00
- 0** 08 - Moon 2.1° S of **Mars** 12 am; Double shadow transit on **Jupiter** 15:54; Regulus 1.4° N of Moon 23:00
- 09 - **Saturn** 3° N of Moon 05:00
- 0** 10 - First Quarter Moon 10:04
- 13 - **Regular Meeting** Stirling Hall “A” 7:30-9:30 pm. Spkr :Leo Enright, “Two Topical Time Topics”
- 14 - **KAON** Observing, Ellis Hall Queen’s Observatory 9:00-10:30 pm
- 15 - Double shadow transit on **Jupiter** 18:42
- 17 - Antares 0.2° N of Moon 00.100
- 18 - Full Moon 13:30
- E** 20 - **Jupiter** 2° N of Moon 09:00; Solstice 20:00
- 22 - Double shadow transit on **Jupiter** 22:40; visible in E of N America
- N** 23 - **Neptune** 0.8° S of Moon, occultation visible in W of N. America 05:00
- 26 - Last Quarter Moon 08:10
- U** 30 - Moon occults Pleiades best in E of N America 3 am; **Mars** 0.7° N of Regulus, visible soon after dark
- J** **PLANETS** for June: **Mercury**: not easily observed; **Venus**: not easily observed; **Mars**: low in W in evening twilight, sets in WNW near midnight; **Jupiter**: rises in ESE in evening twilight, low in S at dawn; **Saturn**: low in W in evening twilight, sets in WNW after midnight.

- 8** 01 - **Mercury** at greatest elongation W (22 deg located about 7.5 deg S of Moon); 8 deg S of Moon at 11:00; Moon at Perigee (359513 km) at 17:00; **Mars** 0.7 deg N of Regulus (49 deg E) at midnight;
- 02 - New Moon 22:19
- 0** 04 - **Earth** at Aphelion (152, 104, 200 km) at 4 a.m; Moon at 0.5 deg S of Beehive (M44) at 17:00;
- 06 - Regulus 1.6 deg N of Moon at 08:00
- 09 - **Jupiter** at opposition (m=2.7) at 04:00
- 0** 10 - **Saturn** 0.7 deg N of **Mars**, visible in evening twilight; first quarter at 00:35
- 11 - **Mars** 0.7 deg S of **Saturn** (46 deg E) at 02:00
- 12 - **Mercury** 1.9 deg S of M35 (18 deg W) at 01:00
- 12 - **KAON** Observing, Ellis Hall Queen’s Observatory 9:00-10:30 pm
- 14 - Antares 0.3 deg N of Moon at 08:00
- 17 - **Jupiter** 3 deg N of Moon at 08:00
- 2** 18 - Full Moon at 03:59
- 20 - **Neptune** 0.9 deg S of Moon, occultation NW part of Canada at 09:00
- 25 - Last quarter at 14:42
- L** 27 - Moon 1.1 deg N of Pleiades (M45 at 12:00)
- 28 - S.δ-Aquarid meteors peak (ZHR=20) at 4 p.m.

- U** **PLANETS** for July: **Mercury**: very low in ENE in morning twilight in first half of month; **Venus**: slowly emerges in evening twilight in WNW, very late in month; **Mars**: very low in W in evening twilight;
- J** **Jupiter**: low in SSE after dark, sets in WSW in morning twilight; **Saturn**: very low in W in evening twilight, except late in month,

Kingston Cosmic & Events Calendar, August—September 2008, by Joseph Benderavage

<i>Date</i>	<i>Events</i>	<i>Local Time</i>
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- 8** 01 - New Moon 06:12; total solar eclipse visible in Arctic Canada, Greenland, Russia, and China
 02 - *Venus* 2° N of Moon 11:00
- 0** 05 - Double shadow transit on *Jupiter* 05:04
 08 - First Quarter 16:20
- 0** 09 - **KAON** Observing, Ellis Hall Queen's Observatory 9:00-10:30 pm
 10 - *Antares* 0.4° N of Moon 15:00
- 2** 12 - Perseid meteors peak (ZHR=90) 07:00
 13 - *Venus* 0.2° S of *Saturn* (17° E) 15:00
 15 - *Neptune* at opposition 04:00; *Mercury* 0.7° S of *Saturn* (16° E) 20:00
- S** 16 - *Neptune* 0.8° S of Moon 15:00; Full Moon, partial lunar eclipse, visible extreme E of Nfld 17:16
 19 - Double shadow transit on *Jupiter* 08:55
 23 - *Mercury* 1.3° S of *Venus* (20° E) 01:00; Moon 1.1° N of Pleiades (M45) 18:00; Last Quarter 19:49
 26 - Double shadow transit on *Jupiter* 10:50
 28 - Zodiacal Light visible N lat in E before morning twilight for next 2 weeks; Moon 0.6° S of M44 12:00
 30 - New Moon 15:58

AUGUST
PLANETS for August: *Mercury*: not easily observed; *Venus*: very low in W after sunset; *Mars* very low in W in evening twilight in first half of month; *Jupiter* low in S after dark, sets in WSW by 3 a.m.; *Saturn* not easily observed

- 8** 01 - Labour Day
 02 - Double shadow transit on *Jupiter* 14:40
- 0** 06 - *Antares* 0.3° N of Moon 23:00
 07 - First Quarter 10:04; Double shadow transit on *Jupiter* 20:00
- 0** 11 - *Mercury* greatest elongation E (27°) 00:00; *Venus* 0.3° N of *Mars* (25° E)
 12 - *Neptune* 0.8° S of Moon, occultation visible in E of N America 10 p.m.; *Uranus* at opposition 10:00
- 2** 12 - **Regular Meeting** Stirling Hall "A" 7:30-9:30 pm. Members Night
 13 - **KAON** Observing, Ellis Hall Queen's Observatory 9:00-10:30 pm
 15 - Full Moon known as the Harvest Moon 05:13
 20 - Moon 1.0° N of Pleiades (M45) 00:00
 22 - Last Quarter 01:04; Equinox 11:45
 24 - Moon 0.7° S of Beehive (M44) 18:00
 26 - *Regulus* 1.7° N of Moon 11:00
 27 - Zodiacal Light vis in N latitude in E before morning twilight for next 2 weeks
 29 - New Moon 04:12
 30 - *Mercury* 1.1° N of Moon 07:00

SEPTEMBER
PLANETS for September: *Mercury*: not easily observed; *Venus*: very low in WSW after sunset; *Mars*: not easily observed; *Jupiter*: low in S after dark, sets in WSW soon after midnight; *Saturn*: very low in E in morning twilight, late in month