



# REGULUS

MAY-JUNE 1992

NEWSLETTER OF THE KINGSTON CENTRE  
OF THE ROYAL ASTRONOMICAL SOCIETY OF CANADA

## MEETINGS AND EVENTS HORIZON

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**ADVERTISING:** Classified advertisements re items to buy, sell, or trade, are free to members of the Centre. Commercial advertising is \$25 per half page, \$50 for full page. Commercial advertisers must provide clean, camera-ready copy.

**CONTRIBUTIONS WELCOME:** Articles, notes on observations, humour, poetry, artwork, anything on astronomy or related topics, are invited. Submitted material may be edited for brevity or clarity. Please send all submissions to the **Editor** as follows:

Bill Broderick  
XXXXXXXXXX  
XXXXXXXXXX, Ontario XXX XXX

DEADLINE FOR MATERIAL IS THE 15th OF THE MONTH PRIOR TO PUBLICATION.

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**Regular Meetings** of the Kingston Centre, RASC, are held on the **second Friday** of each month (unless otherwise noted) at **8 p.m.**, in **Room D-216, Macintosh-Corry Hall, Queen's University**. **Non-members are welcome.** Executive meetings are at 7:30 p.m.

**Fri., May 8** REGULAR MEETING.  
Speaker, Gordon Taylor, et al.  
"Astronomy Software".

**NOTE:** Meeting moved to Dupuis Auditorium, Dupuis Hall.

**Fri., May 9** ASTRONOMY DAY. Display at Frontenac Mall, 9:30 a.m. to 6 p.m. Public Observing (weather permitting) at MacDonald Park, 9 p.m. to midnight.

**Fri., June 12** REGULAR MEETING.  
Speaker, Walter MacDonald,  
"Variable Star Observing--Astronomy's Black Sheep."

**Fri., July 10** REGULAR MEETING  
Program to be announced.

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# **EDITORIAL** -- HINT TAKEN

In the **Reflections** section of the **RASC BULLETIN** for February 1992 (**Astronomy and the Four R's**), Scott Young (Winnipeg Centre) pointed out that few of the Centres of our Society are printing their newsletters on recycled paper.

His thesis was that, as astronomers, we are especially cognizant of the consequences of misusing and wasting natural resources, resulting in such problems as ozone depletion and carbon dioxide buildup in the atmosphere. He pointed out that Mars and Venus are good examples of what the Earth could become if we do not mend our ways. As “naturalists of the night”, we should know better. We do know better. And we have a responsibility to lead the way.

The **RASC BULLETIN**, I'm happy to say, is doing its part. It has been printed on recycled paper since its first issue in February 1991. I'm also happy to report that **our** newsletter **REGULUS** is now being printed on recycled paper, beginning with this issue. This decision was taken following a motion and discussion at our regular meeting on March 6th.

As editor of **REGULUS**, I would like to say thank you to **Scott Young** for his very timely reminder.

As a final note, perhaps those of us who are members of other organizations that publish newsletters, could bring the matter up with them as well, and save a few more trees. For example, I discussed the matter with the editor of Quinte Field Naturalists newsletter and sent him a copy of the article by **Scott Young**. **THE QUINTE NATURALIST** is now being printed on recycled paper.

At the present time printing on recycled paper may cost a little more. But if the demand for it were to increase significantly, perhaps we will eventually reach the point where it would cost less than the other kind. Then we would not only save trees—and the environment—but money as well.



Printed on Recycled Paper

The Royal Astronomical Society of Canada

**1992 GENERAL ASSEMBLY**

**Announcement**

**July 1 - 5, 1992**

**In Calgary, Alberta**

**Pick up your Registration Package at the Meeting**

**or write to RASC-Calgary Centre**

**C/o Ms. Dennis Goodman**

**XXXXXXXXXXXXXXXXXXXXXXX**

**XXXXXXX, Alberta XXX XXX**

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# THE MOON, MYTHS AND MANKIND

By David Stokes

## PART 2 OF 5

Egypt, the gift of the Nile, is linked to Mesopotamia by the many wandering tribes that moved across desert and between caravanserais to trade, or to make war. The life of the Egyptian people depended vitally on the annual flooding of the Nile valley. The flood carried rich alluvial soil and watered a thirsty desert making it bloom again. The moon was linked with this annual flooding for was not the moon the giver of fertility and growth and the provider of every good thing? Its opposite, the sun, was the destroyer, burning everything and returning it to dust. For the Egyptians, the rising and the setting of both sun and moon were but daily journeys between the living world and the kingdom of the world below, the world of the dead. Osiris, male god of the moon, was also Lord of Hades, presider over death and resurrection. His wife was Isis, and also his sister, and their son was Horus.

The Egyptians reckoned the year to contain 360 days proper and they added to these five more that were dedicated to Osiris, Horus, Set, Isis and Nephthys a sister of Isis whose name means "end" or "Victory". This 365-day year was to continue until the time of Julius Caesar when the residual error of roughly 0.25 days per year had become apparent and the calendar had again fallen out of line with the Seasons.

The knowledge of Egypt became the heritage of Greece and with it the perception of the sun and moon as gods. In Egypt Nut was the mother of the gods whose birthday celebrations we have seen marked the end of the year. In Greece Rhea is the mother of the gods, symbolizing eternal flux and chaos and secretly married to Kronos, the god of Time. Ra, the Egyptian sun-god, becomes Helios and Thoth, the orderer, measurer of Justice, becomes Hermes. The moon Selene rules over all for a time, but Greece was made up of many different people who use different names for the moon. Their religions seem to have been taken for granted and little was written about moon worship until the old order was threatened and began to break up and decay. Thus we find Selene gives way to Aphrodite, symbolizing the bright moon while the waning and dark moon period is ruled by Hecate. Still later, Artemis represents the influence of the new moon, Selene that of the full moon, while Hecate's rites are performed at night to placate the Queen of ghosts and spirits. Even Plutarch says, "waxing moon is good intent but waning moon brings sickness and death".

To the Greeks the moon goddess influenced the outward and the inward life of the people. The positive influence was seen in fertility, the negative influence in sudden storms and destruction. Likewise, Cybele and Hecate were the senders of nocturnal visions and responsible for madness (lunacy). The son of Hecate, Museos, influenced the mind by magic and inspiration and was one source of inspiration to the poets. To the Greeks it seems the inner world and underworld were the same, or very close. The underworld held hidden terrifying depths. To obtain the cooperation of these dark forces required "drawing down the dark side of the moon" in order to affect magic. Here by magic we refer to "pharmaka" or medicine by spells and potent healing herbs, for the moon was the prime influence of growing plants. Medicinal herbs and their potent magic must be released in the sick to effect a cure. Greek medicine was to cast a long shadow over civilizations to follow but its origins are intimately connected with worship of these aspects of the moon goddess.

Somewhere in this time it was realized that the power of the gods could be overcome and that man might thereby direct his own destiny, freed from their influence. Enter Superman to challenge the gods, the first of the Heroes of Greece. This heroic effort had begun with Gilgamesh who confronted Ishtar, and his story unfolds in the Gilgamesh Epic after 1800 B.C. Astarte or Artemis was the god challenged by the Greeks whose name is consonant with Ishtar of Babylon, Astarte of Canaan, Attar of Mesopotamia, Ashtar of south Arabia, Aster of Abyssinia and Atargatis of Syria. The moon myth was now threatened as never before and the spiritual history of mankind takes on a new quest, nothing less than the defeat of the gods by a superman from their own number! These were heady times!

(To Be Continued)

# ISAAC ASIMOV

1920 - 1992

**Isaac Asimov**, one of America's most prolific writers of science fiction, died in hospital in New York City, on April 6, 1992. Eminently successful in the field of science fiction, **Asimov** also wrote numerous books and articles on popular science for the lay reader.

Born on January 2, 1920, in Petrovichi, Russia, Asimov was brought to the United States by his parents at the age of three. He grew up in Brooklyn, New York.

His father had a small candy store in Brooklyn, where magazines and comic books were also sold. Young **Asimov** read some of these, hiding the fact from his father for a time, and so was introduced to science fiction—to which he took a deep liking.

**Asimov** himself began to write science fiction. He became good enough at it that his stories helped considerably to pay for his tuition at Columbia University, from which he graduated in 1939. He later took his Ph.D. in biochemistry there, in 1947. He held an associate professorship in biochemistry at Boston University, which he never gave up.

**Asimov** did give up teaching, however, for full time writing. He made a point of spending at least eight hours a day at his typewriter. As a result, he leaves a rich legacy of literary work both in science fiction—and in popular science—that has enriched the lives of countless readers, and will continue to do so for generations to come.

In addition to his writings on science and science fiction, Asimov will also be remembered for his works on a variety of other subjects, such as Shakespeare, the Bible, and even humour.

Once asked to give a brief biographical resume, he wrote:

**I decided to get a Ph.D. in chemistry, so I did.  
I decided to get married to a particular girl, so I did.  
I decided to have two children, a boy and a girl, so I did.  
I decided to write stories, so I did; then I decided to write novels,  
so I did; then I decided to write books on science, so I did.  
Finally, I decided to be a full time writer, so I became one.**

A story I like best about **Isaac Asimov** is one that he once told about himself, in **The Stars in their Courses** (White Lion Publishers, 1974). It exemplifies, I think, his zest for life and living in a way that is "**pure Asimov**": He was to give an after dinner speech to students at a certain university. It happened that during the dinner he got into conversation with an attractive eighteen-year-old coed seated next to him. He was at his "genial and witty best, simply oozing gallantry and charm" all through the meal. Somewhere around the dessert, however, he paused for breath, and in the silence the sound of conversation elsewhere along the table welled up about them. They both stopped to listen. "It was the other collegiates talking; all of them earnest young men and women, deeply involved in the burning issues of the day." Although **Asimov** himself was to talk on the "burning issues of the day", he felt ashamed that he had burdened his "companion of the meal with nothing more than nonsense." Just as he was beginning to launch into some deep philosophy, she said to him, "Everyone is so serious here. Ever since I came to college I've met only serious people." She paused to think, then said with every sign of absolute sincerity. "In fact, in all the time I've been here, you're the first eighteen-year-old I've met."

So he kissed her!

That's how I like to remember **Isaac Asimov**—forever young at heart!



# A CURE FOR MOSQUITOS

By Bill Broderick

With the mosquito season soon to be upon us, you may be interested in a letter that appeared in ASTRONOMY for September 1991 (page 6). Mr. E. W. Brisley of Cornwall, England, wrote giving a very effective formula for mosquito repellent, recommended by the Entomology Department of the British Museum.

The ingredients are readily available in drugstores (ask at the pharmacy counter) and the mixing is simple: just follow the proportions given in the letter.\* You can keep the mixture in the two bottles the main ingredients come in if you get them in identical sizes.

Mr. Brisley's letter in its entirety is printed below with the kind permission of ASTRONOMY and Kalmbach Publishing:

I have a solution to the mosquito problem Carol Loveridge described in her April 1991 Viewpoints article. Years ago, a letter appeared in our local newspaper written by a woman who said that she was a keen gardener but that her enjoyment of gardening activities had waned because of many mosquito bites. She had tried various insect repellents, but with little success, and could the editor suggest a more effective remedy.

A week later the editor thanked readers for the numerous suggestions he had received and published only one letter, sent to him by the Department of Entomology at the British Museum and giving the following formula:

1 fluid ounce of oil of eucalyptus  
1 fluid ounce of oil of citronella  
1 drop of pure carbolic acid

As a person fond of trout fishing at dusk, I was painfully familiar with the mosquito problem and had, myself, tried various repellents without much success. I had the concoction made up for me by a local pharmacist and a few evening later took a bus to some woods near a lake, an area I knew one didn't much linger in during the evening. The trial was successful. This mixture is pungent and persistent and mosquitos don't like it one bit. So a bottle of this is now an essential item of vacation equipment for me.

I hope that this solution from across the sea benefits others like me who like star gazing—and trout fishing, too.

If you try the formula, I would appreciate it very much if you would let me know how effective it was for you. I will of course have my own experience, but I would like to know how others find it.

Good luck and good observing!

\* NOTE: 1 fluid ounce = 29.57 milliliters, which can be rounded off to 30 ml for simplicity. If you buy the oils in 50 ml bottles, that's almost two fluid ounces of each. Just mix the two together and add two drops of the acid.

# NEWS AND NOTES

## NEW MEMBERS

A warm welcome to our newest members **HELENE B. MCDONALD, JIM FETTER and GORDON TAYLOR.** We're very happy to have you all with us.

## AT THE MCLAUGHLIN PLANETARIUM

**IMPACT! Asteroids, Comets and Cosmic Collisions.** This interesting show looks at recent discoveries and theories about asteroids, comets and meteoroids and the effect of their collisions on other bodies in the solar system. Playing until June 21. Tue - Fri. 3 & 7:30 p.m. Sat. & Sun. 12:30, 3 & 7:30 p.m. Victoria Day (May 18) 12:30 & 3 p.m.

**Stories of the Night Sky.** Learn about the night sky and basic astronomy with your whole family. To June 28. Sat., Sun. & Victoria Day (May 18) 1:45 p.m.

**Searching For Extra Terrestrial Life,** opens June 26. Explores the arguments for and against the likely existence of other intelligent life in the universe and the probability of discovering it.

Each show \$5 adults; \$3 seniors (seniors admitted free on Tue.), students and children. ROM Members free. Children under 14 years of age must be accompanied by an adult. Planetarium is closed on Mondays.

## LIGHT POLLUTION

Letter to the Editor published in the Belleville **Intelligencer** on April 6. On April 23, spoke to children from kindergarten to Grade 8 (slide presentation and talk) at an Earth Day Workshop held at Our Lady of Fatima Separate School in Belleville. A two-part article on light pollution was published in the February and March issues of **The Quinte Naturalist**, newsletter of the Quinte Field Naturalists in Belleville. **The Blue Bill**, published by the Kingston Field Naturalists, carried a nice write-up on the presentation we made to them on January 18, in their March issue. I was also recently informed by the President of the KFN that they have written letters to the City of Kingston, etc. about light pollution. Our efforts are definitely having an impact, awareness is definitely being raised, but there's a lot of work still to be done.

# ASTRO JUMBLE

Unscramble the letters (see clue), then use the **circled letters** to solve the puzzle. Answer in next issue. Good luck!

**CLUE: SUMMER STARS**

G	E	V	A				
		○					
B	E	D	E	N			
		○					
L	A	R	I	T	A		
	○			○			
S	T	A	R	A	N	E	
○					○		
T	A	R	U	C	U	R	S
			○		○		

**THREE OF THESE MAKE UP A GEOMETRIC FIGURE THAT DOMINATES THE SUMMER SKY, CALLED (OF COURSE!)...**

**THE SUMMER**

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Answer from last issue

**CLAVIUS, COPERNICUS, KEPLER, PLATO, TYCHO**

**These folks love to observe under a Full Moon..**

LOVERS

**A NEW STAR RISES!**

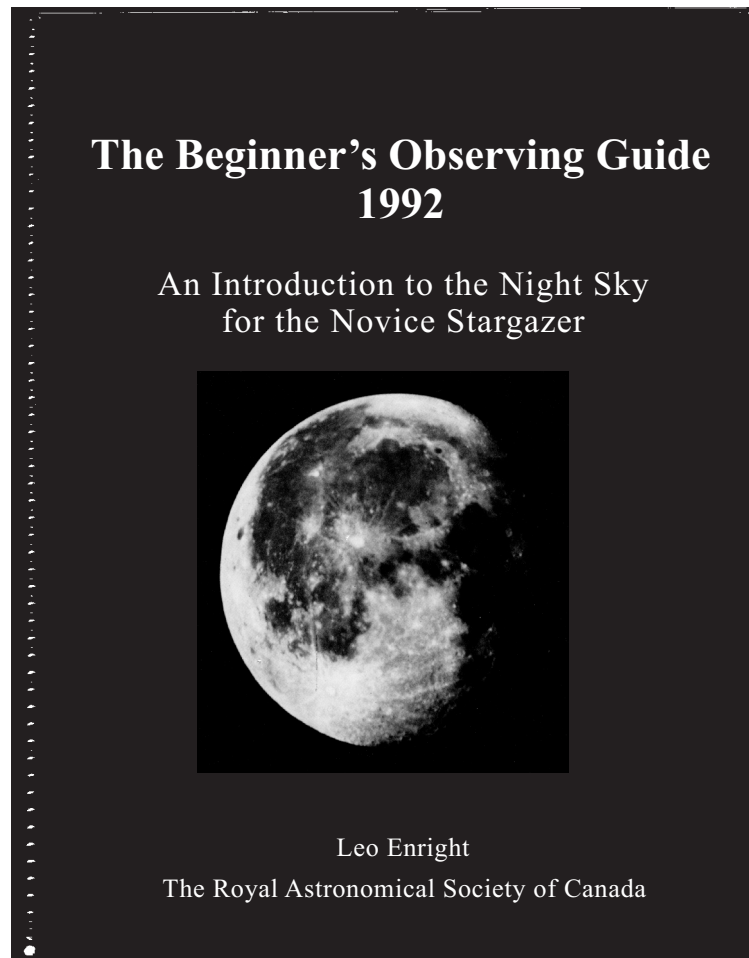
## **THE BEGINNER'S OBSERVING GUIDE 1992**

**THE BEGINNER'S OBSERVING GUIDE** is written especially for young people, children and teens, who have had little or no introduction to astronomy. It's suitable also for adults who would like some basic knowledge about astronomy and observing. As well, teachers and persons involved with **Scouting, Cubs, Guides** and **Brownies**, may find the book helpful.

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This new **Guide** may now be purchased directly from the **Kingston Centre of The Royal Astronomical Society of Canada**. Price is only **\$5.35** (GST included) for individual copies. Discounts are available on **bulk orders** to non-profit educational institutions and groups.

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K7L 5J6

THE TENT ASTRONOMER

As a barrier against mosquitos,  
I pull an old sheet from the closet,  
then cross the yard,  
enter the field bordering the orange grove  
where the sleeping bag lies behind the low tripod,  
the hammer and stakes wait in the damp grass.

At each corner  
one stake goes into the sandy ground,  
then the sheet stretched over the four points,  
pulled down and anchored with stones,  
the darkness underneath is private.

I lie still for a while  
and listen to cicadas crying by the canal,  
the crickets and barking toads,  
stinkbugs breaking against the walls like small clods,  
then with my knife  
cut a hole for the barrel,  
let lens and mirror left me up toward light.

-AUTHOR UNKNOWN

(Submitted by John Eustace)

**The Celestial Observer**

