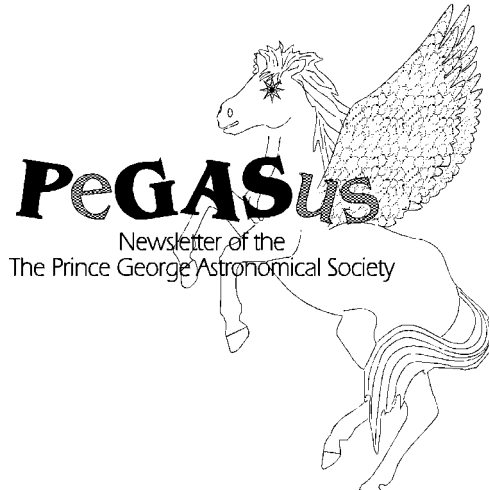


PeGASus
Newsletter of the
Royal Astronomical Society of Canada
Prince George Centre

February 2006

Our pursuits are out of this world.
Our activities are astronomical.
Our aim is the sky.

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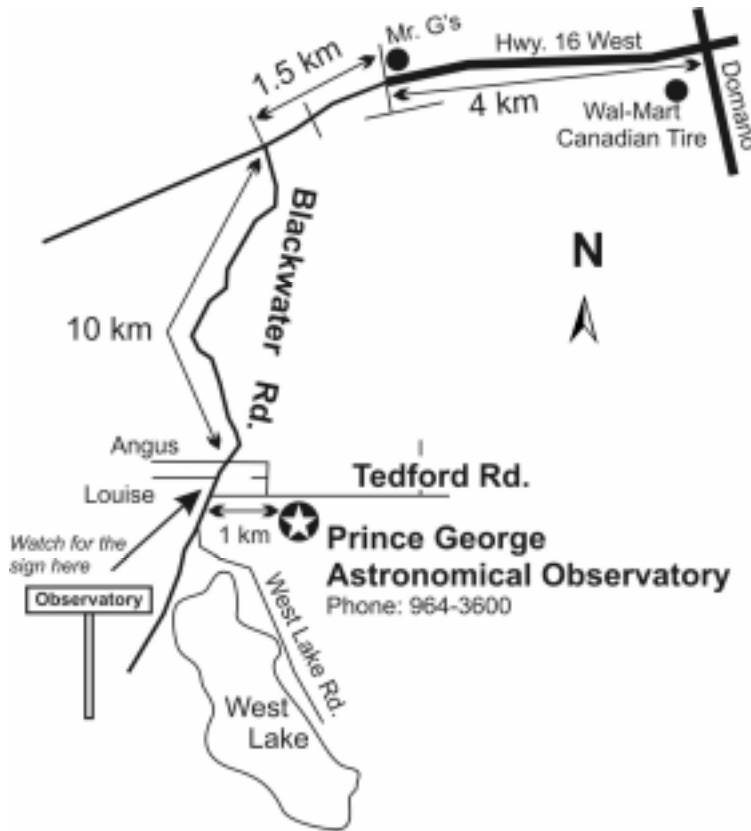
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The RASC-PG meets next at 7:30 pm
Wednesday February 22
at The Observatory

This months meeting:
John Ascah on Sun Halos





Contributions to the newsletter are welcome.

Deadline for the next issue is

March 17

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Coming Events

Open Houses run every Friday evening starting in March

Members Nights run every Saturday evening alternating with NOVA

Executive meeting 6:30 pm February 22

Followed by

PGAS General meeting 7:45pm at the observatory

Rec Mart

Pine Centre Mall

March 4 and 5th

Editorial

Gil Self

We are fast approaching spring. I look forward to those lovely spring evenings, it gets dark at a reasonable time, and we can usually count on lots of clear nights. There is less temperature differential day and night and the seeing clears up; sometimes very rapidly. And, of course, no bugs!!!

This is the best time of year, if you haven't already done so, to spend some time with Orion. Don't let spring proceed too far or you will miss your chance. The club's 24 inch brings out the solar nursery very well, just give your eyes some time to adapt and pick out the color and the wispy details. I've never had Alan Whitman's flair for describing my astronomical experiences, so I simply suggest, if you haven't seen Orion up close, don't let this opportunity go by.

At the next general meeting we will be looking for volunteers for two up-coming events. On March 4 and 5th we will have a booth at the annual Rec Mart at Pine Centre Mall. We have already put together a basic schedule of folks to man the booth. If you can spare some time over that weekend and come down and help out. We will also be starting the week to week schedule for our Friday night open house. This is one of the very basic items in our public outreach program. If you haven't been involved, come to the February 22 meeting and find out what it would take to qualify as a host.

This year we are trying something different with how we manage the business affairs of the club. In the past the executive has held a meeting during the second week of the month. At this meeting there was usually much discussion regarding running the club. The executive has always been very committed to ensuring that club funds were spent appropriately and that events and activities were well planned. There was one item that became very key during that time and needed our attention. That was, our reliance on too few people to carry out our planned events. There was also discussion about the commute time needed to get to the meetings. We needed to spread the work around and reduce hours spent by individuals. One tool that I think will do that is e-mail. We are now having a short, timed executive meeting just before the general meeting. The key to this is that the discussion is done before hand, on e-mail. E-mail has several advantages. One very important advantage to me is that people have a chance to think. You can read someone's opinion, think about it and than respond. Another big advantage is that everyone gets heard. If the items up for discussion are available soon enough, everyone gets a chance to contribute. The agenda for this month is already late, this is a "short" month and right now I'm doing this. I am still looking for someone to take over the newsletter. Normal months, there is time to discuss each item and by the time the meeting comes we can move through the agenda fairly quickly. At least that's the plan.

I came across a very timely article, I have included it on page 6 and some responses on page 7. If we can learn to use this "tool" well, I feel very strongly that we can do an even better job of managing the business affairs, and then we should have more time for what we really want to do!!

Gil

The Night Sky for March 2006

by Bob Nelson, PhD

Hi Folks,

By the time you read this, my wife Lois and I (God willing) should be back in PG having made the long flight (15 hours!!) from Santiago to Vancouver, via Dallas-Fort Worth and then home. Hopefully it will have been worth it (it usually is!), and that I'll have some nifty tails to tell.

Now, it is time to get back to work, observing, helping out a club functions, and generally trying to make things better.

Anyway, here's what will be happening in our skies next month:

MERCURY starts the month as an evening object, spends a week when it is visible (barely) at dawn and dusk, and ends the month as a morning object. 'How does it perform this feat?' I hear you ask. Well, you see, it's like this: owing to the inclination of the planet's orbit to the ecliptic (plane of Earth's orbit = plane of the Sun's apparent motion), Mercury can be (and is at this time) above the ecliptic. Therefore, it can linger for a short time after the Sun sets and poke its head up before sunrise (so to speak). At mid-month, it rises one half hour before sunrise; at sunup, it lies 5° above the eastern horizon and is an 11" disk of magnitude 4.0 (not so bright, eh?).

VENUS, a morning object, rises at mid-month at 04:40, some two hours before sunrise (still). On the 25th, it reaches greatest elongation (47°) west of the Sun. Have a look, if you are up then. It's a 28" gibbous disk of magnitude -4.5.

MARS, in Taurus until April, is still there! At mid-month at sunset, it lies some 59° above the SW horizon, is a 6" disk of magnitude 1.0, and sets at 02:00. It's a blob now!

JUPITER, in Libra until December, is coming around to better viewing as Earth catches up with it again. At mid-month, it rises at 23:00 and is 10° above the SW horizon at sunrise. It is stationary (at the end of its retrograde – eastward -- motion) on Mar 5. It's a 41" disk of magnitude -2.3.

SATURN, in Cancer until August, is becoming an evening object (as Earth leaves it in its dust again). At mid-month, it is 43° above the SE horizon at sunset and sets around 04:30. It's a 20" disk of magnitude -0.3.

URANUS, in Aquarius until 2009 (March), is a morning object (just barely) all month. At mid-month, it rises only 15 minutes before the Sun, (so big deal!). As usual, it's a 3" disk at about magnitude 5.9.

NEPTUNE, in Capricornus until 2010 (March), is now an early-morning object, rising at mid-month at around 04:20. At sunrise, it is only 7° above the SE horizon. As usual, it's a 2.3" disk at about magnitude 8.0.

PLUTO, in Serpens until September, is a morning object all month. At mid-month, it lies 20° above the southern horizon at sunrise. As usual, it's a 0.1" disk at magnitude 13.8.

March Equinox occurs on March 20th at 10:26, PST. Spring will be sprung.

CONSTELLATIONS to look for in March (at 9:00 PM, PST) are Pyxis, Puppis, Western Hydra, Cancer and Lynx.

Pyxis (“the compass on the Argonaut’s ship”) is visible on the extreme south at 9:30 PM on the 15th. It’s just at the edge of the Milky Way but contains little of interest (no open clusters, etc.).

Puppis (“the stern on the Argonaut’s ship”) is just to the northwest of Pyxis. Straddling the Milky Way, it contains numerous goodies including open clusters M46, M47, M93, NGC 2477 and others. M46 (at 7 deg south, and therefore visible in P.G.) is a rich open cluster, about 1/2 degree in diameter containing around 150 stars between magnitude 8 and 13 lying about 500 light years away. It also contains the planetary nebula NGC 2438 about 7' north of the cluster centre.

Hydra (“the Sea Serpent” - not to be confused with Hydrus, a small boring constellation) extends all the way up to declination +5°. The western part contains M48, another fine open cluster. It does contain the bright eclipsing binary KW Hya. This system, which has a period of 7.75 days and varies between 6.11 and 6.6 magnitudes, is one of the brightest Algols in the sky. While not a classical Algol (which is supposed to have the cooler star filling its Roche lobe), this contains two type A (hot) stars which are detached (completely separate). SIMBAD (the engine that finds all the papers on a given celestial object) tells me that there are 42 publications that at least mention KW Hya, so it appears to have been well studied.

Cancer (“the Crab”) is more familiar to us northerners, lying as it does between Gemini and Leo. It contains the famous “Praesepe” or “Beehive” Cluster, M44 and M67, a rich old cluster. It also contains RS Cancr, a RR Lyrae semi-regular variable star that is comprised of a type M6 supergiant star that pulsates in and out with a period of around 120 days.

Lynx (“the Lynx” -- gee!) lies to the north of Cancer, out of the Milky Way and contains only NGC 2419, the famous “Intergalactic Wanderer”, the most distant of the globular clusters. It was discovered in 1788 by William Herschel (and rediscovered by his son John in 1833), observed by Lord Rosse in 1861, and finally classified as a globular in 1922 when photos were taken by the 42" reflector at Lowell Observatory. The distance was determined by observing 31 RR Lyrae stars in the cluster; it’s some 182,000 light years (55,800 pc) from us (and 210,000 light years = 64,400 pc) from the galactic centre. This distance is comparable to that of the Magellanic Clouds and suggests that this cluster indeed is intergalactic.

**Clear skies,
-Bob**



The Secret Cause of Flame Wars

By Stephen Leahy , Feb, 13, 2006

"Don't work too hard," wrote a colleague in an e-mail today. Was she sincere or sarcastic? I think I know (sarcastic), but I'm probably wrong.

According to recent research published in the Journal of Personality and Social Psychology, I've only a 50-50 chance of ascertaining the tone of any e-mail message. The study also shows that people think they've correctly interpreted the tone of e-mails they receive 90 percent of the time.

"That's how flame wars get started," says psychologist Nicholas Epley of the University of Chicago, who conducted the research with Justin Kruger of New York University. "People in our study were convinced they've accurately understood the tone of an e-mail message when in fact their odds are no better than chance," says Epley.

The researchers took 30 pairs of undergraduate students and gave each one a list of 20 statements about topics like campus food or the weather. Assuming either a serious or sarcastic tone, one member of each pair e-mailed the statements to his or her partner. The partners then guessed the intended tone and indicated how confident they were in their answers.

Those who sent the messages predicted that nearly 80 percent of the time their partners would correctly interpret the tone. In fact the recipients got it right just over 50 percent of the time.

"People often think the tone or emotion in their messages is obvious because they 'hear' the tone they intend in their head as they write," Epley explains.

At the same time, those reading messages unconsciously interpret them based on their current mood, stereotypes and expectations. Despite this, the research subjects thought they accurately interpreted the messages nine out of 10 times.

The reason for this is egocentrism, or the difficulty some people have detaching themselves from their own perspective, says Epley. In other words, people aren't that good at imagining how a message might be understood from another person's perspective.

"E-mail is very easy to misinterpret, which not only triggers flame wars but lots of litigation," says Nancy Flynn, executive director of the e-Policy Institute and author of guidebooks E-Mail Rules and Instant Messaging Rules. Many companies battle workplace lawsuits triggered by employee e-mail, according to Flynn.

Some People write absolutely, incredibly stupid things in company e-mails," said Flynn.

Following on page 7 are some responses to this article.

In my experience crafting (yes, "crafting", not simply writing...;-) emails through the years, I've come to find a couple of very obvious solutions to this:

- 1) Re-read everything! Take a second apps at it to reflect good, appropriate languaging.
- 2) Don't be pointed... use the same considerations you'd use as a counselor. Write as though you were the recipient, and it will help remove some of the "heat", and hopefully help avoid the potential flame...
- 3) Mutual respect. 'Nuff said here.
- 4) Always ALWAYS lead with courtesies known within the context of letters. Don't just start a rant; begin with both the recipient's name and a soft intro: "Dear Lisa, First, thanks for taking the time to read, blah blah blah", then address your issue in a calm, measured tone. Works wonders.
- 5) Migrate to phone or face2face when it comes to real conflict issues. I've headed to the phone and found that it has instantly both corrected the feel of the original email and diffused the issue immediately. Especially when it comes to relationship-oriented issues.
- 6) Email is an opportunity to truly communicate your heart and mind. Use it as a tool for such and it will open up a world of amazing opportunities to you.

Really.

best,
Mark Alan Effinger

I've been saying this for years.

Ever since my friends and I have communicated via BBS chatrooms in the early 90s, it was painfully obvious that anything you write can be read at least two different ways. You don't have vocal inflection, facial expressions, or body language to provide context clues - only text. So a little care must be exercised, is all.

Proper grammar and punctuation would solve most miscommunications. I don't know about others, but I base my opinion of the sender's intelligence on their spelling and grammar (which directly correlates to how much attention/interest I give their message).

If you have any question about the tone of an email it is best to check with the person emailing you before offering to much of a response. This way if you guess the wrong tone/intention wrong you don't offer too much of a response down a path before some basic assumptions have been clarified.

Example: "The rock concert I went to last night was loud."

Reponse: "Did you mean it hurt your ears or was a rockin good time?" SEND

This is better than assuming that it was TOO loud and responding with a long winded answer regarding why you thought it was great. etc.

Checking in with someone about what they meant is much easier in verbal communication since it only takes a second (and of course you can hear the tone). When you first begin doing this with email it may seem weird, but it add great quality to your communications and relationships.

David Bergquist

Micro-sats with Macro-potential

By Patrick L. Barry

Future space telescopes might not consist of a single satellite such as Hubble, but a constellation of dozens or even hundreds of small satellites, or “micro-sats,” operating in unison.

Such a swarm of little satellites could act as one enormous telescope with a mirror as large as the entire constellation, just as arrays of Earth-bound radio telescopes do. It could also last for a long time, because damage to one micro-sat wouldn't ruin the whole space telescope; the rest of the swarm could continue as if nothing had happened.

And that's just one example of the cool things that micro-sats could do. Plus, micro-sats are simply smaller and lighter than normal satellites, so they're much cheaper to launch into space.

In February, NASA plans to launch its first experimental micro-sat mission, called Space Technology 5. As part of the New Millennium Program, ST5 will test out the crucial technologies needed for micro-sats—such as miniature thrust and guidance systems—so that future missions can use those technologies dependably.

Measuring only 53 centimeters (20 inches) across and weighing a mere 25 kilograms (55 pounds), each of the three micro-sats for ST5 resembles a small television in size and weight. Normal satellites can be as large and heavy as a school bus.

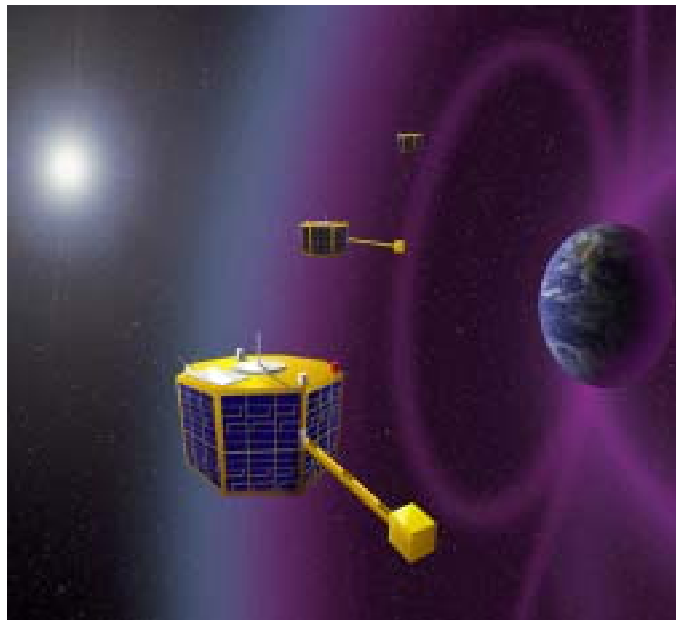
“ST5 will also gather scientific data, helping scientists explore Earth's magnetic field and space weather,” says James Slavin, Project Scientist for ST5.

A cluster of micro-sats between the Earth and the Sun—spread out in space like little sensor buoys floating in the ocean—could sample incoming waves of high-speed particles from an erupting solar flare, thus giving scientists hours of warning of the threat posed to city power grids and communications satellites.

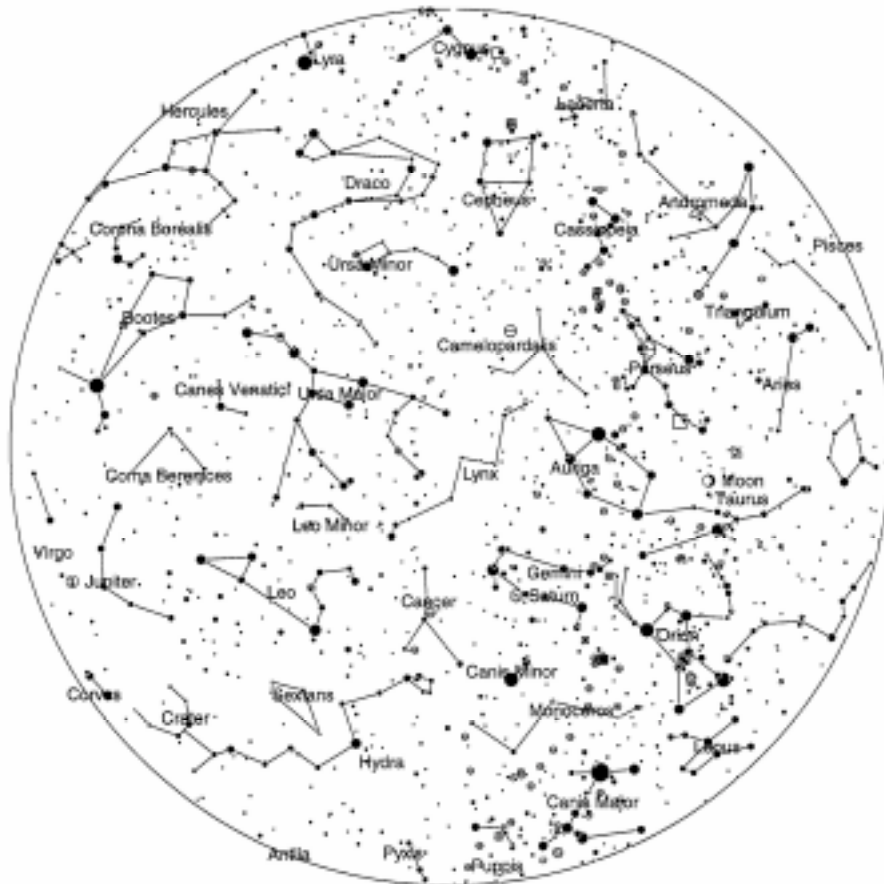
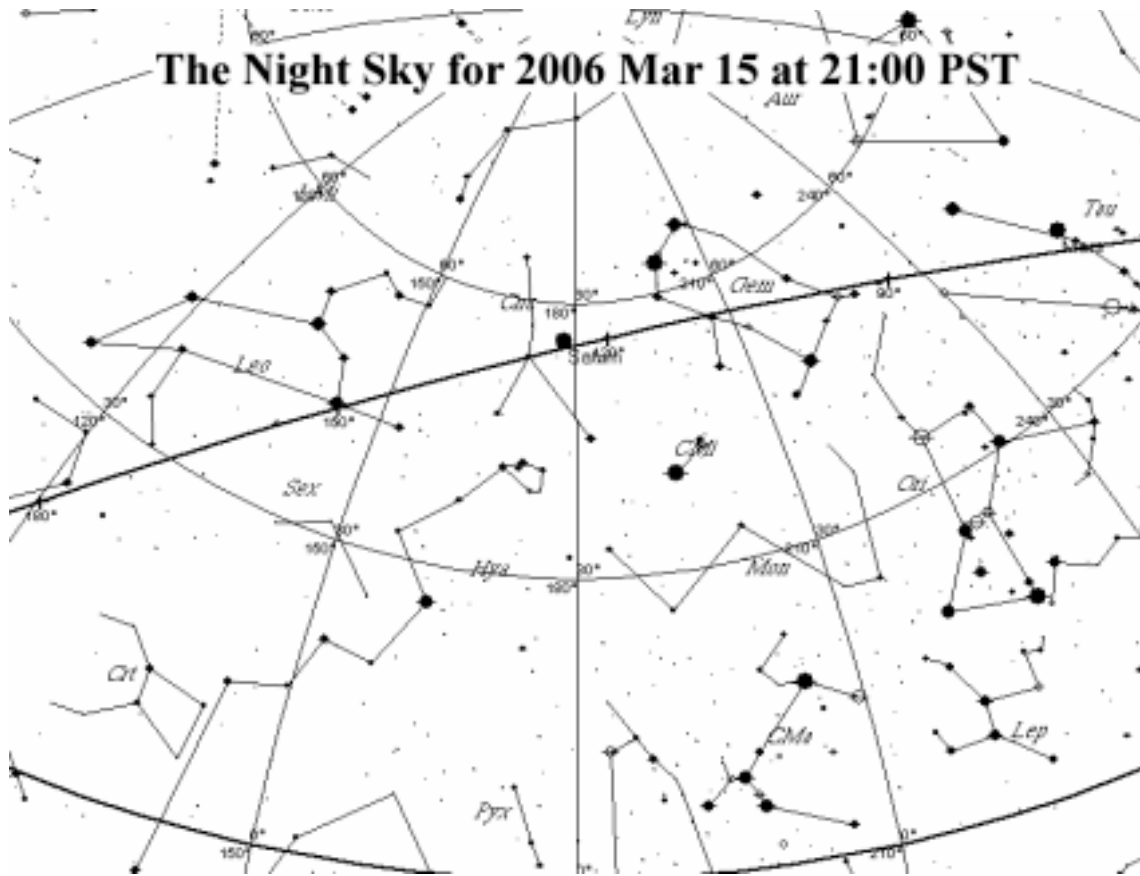
Or perhaps a string of micro-sats, flying single file in low-Earth orbit, could take a series of snapshots of violent thunderstorms as each micro-sat in the “train” passes over the storm. This technology would combine the continuous large-scale storm monitoring of geosynchronous weather satellites—which orbit far from the Earth at about 36,000 kilometers' altitude—with the up-close, highly detailed view of satellites only 400 kilometers overhead. If ST5 is successful, these little satellites could end up playing a big role in future exploration.

The Space Technology 5 mission will test crucial micro-satellite technologies.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Map courtesy Dr Bob Nelson



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