

# Event Horizon

December 2006

Volume 14 Issue 1

## 2006 Scope Contest Winner!

For the HAA's second annual "Scope Contest", entrants were required to compose a short article for the Event Horizon. The topic could be anything with an astronomical thread, and the length was set at 300-600 words.

The contest ran through September and October of this year, and, at first, it appeared as if we had set the bar too high as we only received a couple of entries in the first weeks. As October progressed, however, more e-mailed submissions arrived and by the Halloween cut-off date we had a half-dozen gems.

After much deliberation, the judges selected the following article and, after you read it, we're sure you'll agree it was a worthy choice.

Congratulations to Neil Galloway of Hamilton for his winning entry, and thank you to Mike Spicer for donating the prize.



## I Spy with My Little Eye . . . or, How I Discovered a New Galaxy *by Neil Galloway*

When I was a child, we often played I Spy. On vacation with my family, sitting around the campfire, my father would sometimes look up at the sky and say, "I spy with my little eye a constellation named Orion." And we would have to point it out to him. He showed me the North Star (probably the first star pointed out to all kids), Ursa Major, Orion, and other mystifying celestial objects with mythological names.

We never owned a telescope, but with my dad's WWI binoculars we would search for the man in the moon and try to see the rings around Saturn. Some years later, when my own children were young I showed them the things my dad showed me. Using newer and better binoculars, and with the aid of a photography tripod, they swore to me that they could see Saturn's rings.

While camping during summer vacation we watched the changing phases of the moon, looked for meteor showers, and the Northern Lights. We were enchanted by the sudden appearance of satellites tracing elegant arcs across the summer night sky.

Even after many years my curiosity about all things astronomical never waned. At our summer cottage near Parry Sound we continued to view the night sky. We observed meteor showers and actually saw some space debris falling to earth. When the schedules for satellite passages and Iridium flares became available on the Internet, I downloaded them and arranged our star watching time accordingly.

But the greatest event of my astronomical career (hmmm, maybe I should say star watching career) occurred late one August evening at the cottage.

Sitting comfortably in deck chairs on the dock, a friend and I watched for the scheduled satellites, tried to see the binary stars in Ursa Major, and generally scanned the heavens. Each evening as we sat there, we tried to find a constellation we had not seen before. One night, with Cassiopeia staring straight back at us, we continued our vigil. She seemed to mock us in our vain attempts to understand the heavens.

Tired of Cassiopeia's mocking, my view wandered to the east. "Hey. Look over here. What's that fuzzy spot?" I hollered. "Clean your binocular lenses," my friend replied. I did, and looked again. The fuzzy spot was still there. My friend also focused his binoculars on the spot. He agreed. Indeed there was a fuzzy spot in the sky. "Strange, isn't it?" he said. "I wonder what it can be?"

Later that night we consulted my skywatcher's handbook. I was disappointed to find that I had not discovered anything new (well, I hadn't *really* thought it would be). The object wasn't so strange after all. It was the M31 galaxy. But, accidentally sighting it after all these years of casual stargazing was the highlight of my astronomical career. I had found a new object for my father's I Spy game!

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Meeting space for the Hamilton Amateur  
Astronomy club provided by  
**Teamsters Local 879** and  
**The Hamilton Spectator**

Domain Name and Web hosting for the  
Hamilton Amateur Astronomy club supplied  
by  
**Axess Communications**  
Corporate and Residential DSL and Web  
Hosting  
<http://www.axess.com>  
[support@axess.com](mailto:support@axess.com)

### Email Reminder notice

We send email reminders before each meeting which describes the location, time and topic of the general meeting.

If you're not on the list, make sure that you receive your reminder by sending a note to:

[publicity@amateurastronomy.org](mailto:publicity@amateurastronomy.org)

### An Offer

Thinking of buying your first telescope but wondering what kind to get? Before you buy, consider this offer from Mike Spicer: a "loaner" 5 inch telescope with electronic alt-az controls. The scopes are lightweight, easy to set up and very easy to use. Mike is offering newer members of our club one of these telescopes to try out for a month or so. Interested? You can reach Mike by email at [deBeneEsse2001@AOL.com](mailto:deBeneEsse2001@AOL.com) or by phone at (905) 388-0602.

### Articles submissions

The HAA welcomes your astronomy related writings for the Event Horizon newsletter. Please send your articles, big or small, to:

[editor@amateurastronomy.org](mailto:editor@amateurastronomy.org)

The submission deadline is two days before each general meeting.



Event Horizon is a publication of the Hamilton Amateur Astronomers (HAA).

The HAA is an amateur astronomy club dedicated to the promotion and enjoyment of astronomy for people of all ages and experience levels.

The cost of the subscription is included in the \$25 individual or \$30 family membership fee for the year. Event Horizon is published a minimum of 10 times a year.

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PO Box 65578, Dundas, ON L9H 6Y6

**Web:** ..... [amateurastronomy.org](http://amateurastronomy.org)

### General Inquiries:

[secretary@amateurastronomy.org](mailto:secretary@amateurastronomy.org) ..... (905) 575-5433

### Membership Inquiries:

[membership@amateurastronomy.org](mailto:membership@amateurastronomy.org)

### Meeting Inquiries:

[chair@amateurastronomy.org](mailto:chair@amateurastronomy.org) ..... (905) 945-5050

### Public Event Inquiries:

[publicity@amateurastronomy.org](mailto:publicity@amateurastronomy.org)

### Binbrook Observing Inquiries:

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[DeBeneEsse2001@aol.com](mailto:DeBeneEsse2001@aol.com)

### Newsletter Inquiries/Submissions:

[editor@amateurastronomy.org](mailto:editor@amateurastronomy.org)

Submissions to the web site or newsletter are welcome, and may be edited for size & content.

## Chair's Report

by Glenn Muller

This past September, Gail and I received requests from two groups in the Grimsby area for "astronomy nights". With other commitments factored in, our hope of getting the best combination of weather, moon phase, and daylight saving time pushed the possible dates into late November. Despite our optimistic scheduling, however, the weather was horrendous on both confirmed nights, and we had to settle for indoor presentations, instead.

The groups; a grade 5/6 class at Park Public School and the 1<sup>st</sup> Caistor Scout Troop, consisted of teens, pre-teens, and interested adults. Both sessions offered opportunities for fostering a greater comprehension of our Universe, and my confidence as facilitator was bolstered with knowledge gained at HAA meetings, and various astronomy gatherings. In other words, I was more than happy to "pass it on."

While nothing can replace the eyeball-to-eyepiece experience, a Powerpoint presentation does allow for open discussion with the convenience of expanding an explanation with pictures. In the short time allowed, the best one can do is couple basic knowledge with some images that you hope will inform and inspire.

My favourite part, though, is always the Q&A session at the end. It's not only a barometer of how well your message was conveyed, but it also offers a chance to fill in the gaps. Here are some of the questions I was asked:

- "Are there other solar systems?"
- "How many stars are in the Universe?"
- "Is Space infinite?"
- "What is outside of the Universe?"
- "When the astronaut hit the golf ball, on the Moon, did it go off into Space?"
- "What is a black hole?"
- "Where can I get one of those pointers?"

When I put questions to the group, one or two hands always came up except for when I asked how many of the group used the Internet, then all hands were raised!

For Gail, myself, and on one night Anthony Tekatch, those were enjoyable evenings, but they also reinforced the fact that, although the Internet is a great tool for learning, there is no real substitute for the personal touch.

So, on that note, let me personally wish you all a very Merry Christmas, a Happy New Year, and Clear (?) Skies!

Glenn invites your comments on these topics or any aspect of the club. He can be reached via:

[chair@amateurastronomy.org](mailto:chair@amateurastronomy.org)



## Camp Quality

As part of the HAA's ongoing public outreach, Jackie Fulton reports that John Gauvreau and Mike Jefferson took the mysteries of the night sky up to Camp Quality this past August 17. This is a summer camp for children and young people who are living with the affliction of various cancers and other attendant problems. Although the skies did not cooperate that night, the children, young people and adult supervisors were treated to slides of ethereal objects and tales of 'deepest space'. John was a magnificent presenter and Mike did his best to assist him as ably as he could! The audience loved it and many of those present got hugely involved, almost to the point of hyper-activity. There were a zillion questions. It was interesting to see how the presentation transported them to the limits of their imaginations and allowed them to forget their predicaments for at least a short while. This is a most worthwhile activity and we would like to see more of the HAA participate next year, when we will again take an 'expedition' up just to the northeast of Starfest and Hanover.

**"It's nothing but a hoax! The sky doesn't look like that!"** by Ward Kaiser (Scope Contest Entry)

Young Neil Tyson kept talking and thinking as he walked out of the Hayden Planetarium. He had just been there for the first time.

Part of the American Museum of Natural History, the Hayden specializes in showing people things about Space that they could never even guess at. Small wonder this kid from the Bronx grew skeptical: based on what he saw night after night with his own eyes. The sky they projected at the planetarium was just plain wrong.

Did he let the question rest? No way! Neil managed to borrow binoculars so he could peer at the moon. At age 14 he went to a youth camp far from "civilization", where in the clear night air he found stars he had never seen in the city. He took courses in astrophysics at high school. He pursued his education at university. Then, to pursue his research, Neil – by then Neil Tyson, Ph.D. – used telescopes all over the world.

He is now the Astrophysicist of the American Museum, and the Frederick P. Rose Director of the Hayden Planetarium in New York City. To many, his face and name are familiar as the occasional and ever genial host of TV's NOVA,

or as writer of a monthly essay, "The Universe," in *Natural History Magazine*. As a mark of esteem, the International Astrophysical Union named an asteroid for him.

Shall we read this as a modern success story? *African-American youngster from poor neighbourhood achieves world renown as an astronomer*. If so, the account resembles a typical Horatio Alger narrative, mixing elements of high intelligence, strong determination, an independent spirit, the ability to stay with a problem until it surrenders its secret, and the support of a willing community. Maybe some good luck, too.

At another level, however, the story grows even more fascinating – though more straightforward. Everything hinges on Tyson's ability to look at things in a new way. To let go of the idea that what he had always "known" was absolutely right. To dream. To open himself to new possibilities. Without that openness of mind, Tyson's story would have dead-ended before it began.

That's what life is all about. It's about a way of seeing – how we see the world and the vast, fascinating neighbourhood that we call the cosmos ... and therefore how we understand our place in the total scheme of things, how we connect to the world and to all the people with whom we share this space-ship called Earth. Astronomy never offers an easy answer, but it always extends the human horizon, always opens us to new possibilities and always sets all our personal problems in a new perspective. Could anything be more important?

## Web Watch

This is a cute little video show on space & society at [SPACEGEEK.org](http://SPACEGEEK.org)

Interactive and multimedia Astronomy at [MyAstroSpace.com](http://MyAstroSpace.com)

## Reports

### A PACKED HOUSE FOR THE ANNUAL GENERAL MEETING by Mike Spicer

Hamilton Amateur Astronomers held their AGM in the spacious Spectator auditorium November 10th. I arrived early to distribute Observers' Handbooks to those who had ordered them. Thank goodness, because the auditorium was packed and there were long lines of members and guests.

A line at the Welcome Desk where Stewart and Cindy were taking in membership applications and renewals... a long line to look at items on display, including a great camera set up from Bill Warren, several photographs, some new books, eyepieces and give-away Sky & Telescope magazines... a long line finding seats for the AGM. So many people turned out that more chairs had to be set up at the last minute. Rows of chairs eventually stretched from the dais right back to the rear wall... it looked like about 85 people had come for the annual meeting, and the crowding was compounded by the television crew who came to film proceedings for later broadcast. HAA meetings are most well attended!



AGM 2006 - A PACKED AUDITORIUM AND TV CAMERA (Photo by Mark Gemmell)

The HAA is an astronomy group, not a group interested in politics. Our AGM election consisted of an overwhelming show of hands in support of our Chair Glenn Muller (is he in his 4th year now?) and the slate of officers for 2007. The treasurer's report, available in writing to everyone in attendance, garnered only a couple of questions that Cindy handled with expertise to everyone's satisfaction. The Chair made announcements such as the sale of calendars, Heather encouraged members to sign up for short presentations at future meetings, and the AGM business was all over in a few minutes.

On to the astronomy! The guest lecturer was Professor Bill Harris, who surprised many of us with a switch in his subject matter - we had expected a presentation on the evolution of giant Elliptical galaxies, based on his recent research on globular star clusters. Instead, he showed us interesting relationships between Newton, Shakespeare and Tycho Brahe to underscore the revolution in scientific thinking that took place (with some literary repercussions) in Shakespeare's time. Fascinating.



Dr. Harris revealed published delights (Photo by Mark Gemmell)

The Sky for November brought members up to speed on developments with transits, comets, novae, asteroids etc.. in the early winter sky, with some information left over to be put onto our fine web site. After the talks, much exchanging of monies among members, discussion of new telescopes and

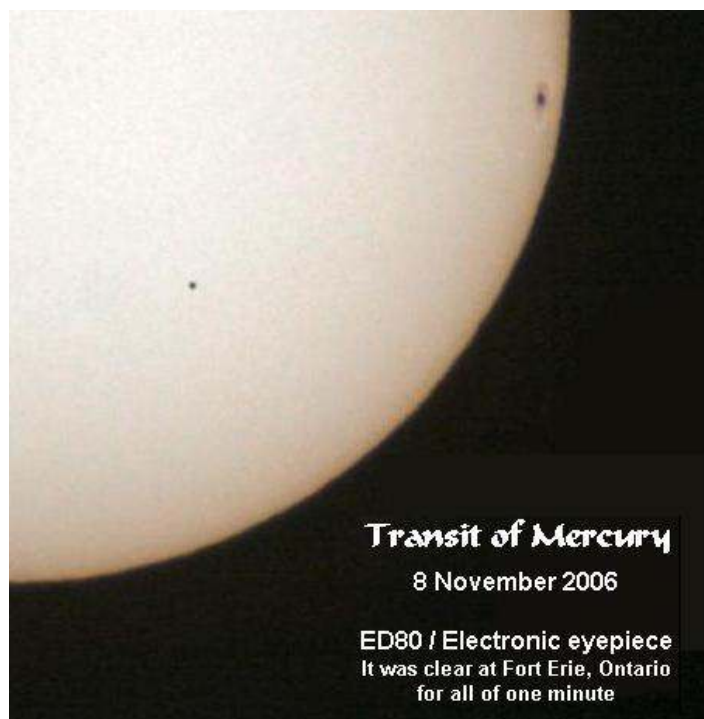


accessories, and an invitation to all in attendance to continue the same over drinks and dining at East Side Mario's, because HAMILTON AMATEUR ASTRONOMERS IS A GREAT ASTRONOMY CLUB!

### 2006-11-09 MERCURY TRANSIT EXPEDITION, 8 NOV 2006 by Mike Spicer

We awoke to a dreary day of drizzle and fog for the Transit of Mercury. Fortunately we had pored over the weather info and planned an expedition to Fort Erie where clear sky had been promised. Loading telescopes and imaging gear into the car, Tim Philp and I left Hamilton for the Sunny South at lunchtime.

Arriving in Fort Erie we set up by the Great Peace Gate and War Memorial on the shores of an inland sea. It was overcast and foggy when we arrived; it was overcast and foggy when we packed up and left three hours later. But there was a break in the cloud cover after much waiting and the sun shone brightly for all of one minute. That was enough time for a brief burst of imaging to show the Mercury Transit. Here is a solitary good image:

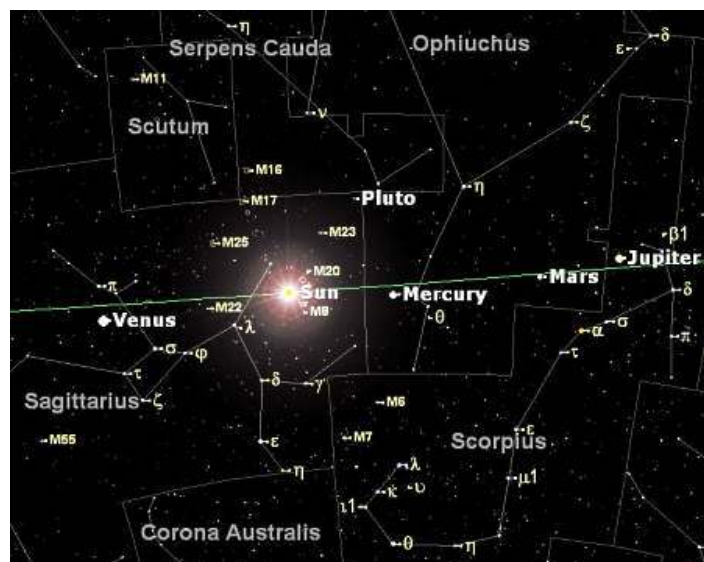


You might have captured this image if you had joined the Fort Erie Expedition

## Skywatch

### 2006-11-25 WONDERING WHERE THE PLANETS ARE? By Mike Spicer

Alas, the chart below shows the positions of most of the planets very close to the Sun in December. Console yourself with evening views of Uranus and Neptune (if you can find them) and early morning views of glorious Saturn:



They are hiding close to the Sun this month

### HAA COUNCIL MEETING FOR NOVEMBER

by Mike Spicer

The HAA November Council meeting was held at Cindy & Stewart's lovely home in Oakville. Under the capable direction of Chairman Glenn, we started with the usual: the schedule of speakers at upcoming meetings, articles for Event Horizon, public events and getting the RASC calendars for distribution at December's meeting. It is gratifying to see so many HAA members making worthwhile contributions. Our Club's vitality can be seen in our newsletter, published regularly each month with articles and observing notes from so many members! The Scope Contest winner will be contacted to attend our presentation of the prize in December. Meanwhile, the Council continues to explore the possibility of a new meeting centre.

Our Public Outreach is certainly being noticed, with so much newspaper and TV coverage! We discussed a generous offer of a large donation to the club from an outside source; Tim and Cindy volunteered to set up a meeting to explore it further. The AGM financial report was discussed. We considered a number of ways to increase income and economize on expenses. Some avenues will be delayed for months (like a springtime Messier Marathon, and use of the University's Planetarium currently being refurbished) There were a number of excellent ideas; some of which may be discussed

at the December meeting and some which didn't receive the whole-hearted support of Council. We are an informal and wide-ranging group and we don't always agree, but discussion is always civil and focused on what's best for the club. I think everyone's contribution should receive equal weight and equal consideration; sometimes - like last night - we even put ideas to a vote!

As one fellow in attendance said, being on the Council is a lot more strenuous than reading the EH, observing on the occasional clear night, and coming out to the HAA monthly meetings! Your Council works hard with the members in mind, keeping H.A.A. THE MOST ACTIVE, GROWING CLUB !

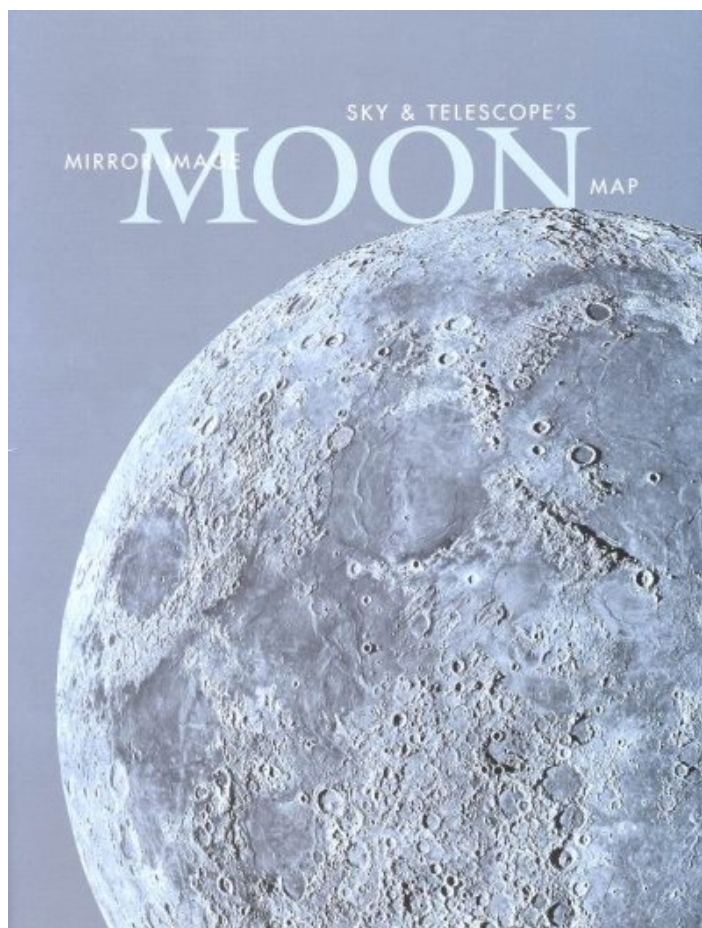
### For Sale

Like NEW 15x70 Celestron Skymaster Binoculars \$100.00. These were always kept away from dust in a case. Included is the original box, soft carry case, tripod adapter, and all lens caps. Contact Mark Gemmell bytor\_666@hotmail.com



### REVIEW OF S&T'S NEW MOON MAP

by Mike Spicer



The past six months you may have noticed that the sky's cloudy most of the time but mysteriously clears around the full moon. Perhaps that's a hint that we should be giving the Moon some observational attention. I have reviewed some excellent Lunar books in past issues but this month I turn to the inexpensive new Moon Map from Sky Publishing as ISBN 1-931559-21-X.

Sky has other laminated 11 x 17" folded Moon maps that are not as good as this 2005 issue. This map has a very dark looking Moon in the centerfold, with 300+ features identified in yellow, easily illuminated in your nightlight. There are two indices: a numerical one beside the map and a second alphabetical index on the back page. The map itself is much easier to use than older S&T maps, with features clearly marked (I found #181 Sacrobosco in under 15 seconds).

This is exactly the kind of observing aid that you want at the telescope: laminated against dew and frost, plenty of features identified, great resolution and with a version available in mirror-reversed format (for SCTs). Well worth ten bucks.





## Martian Devils

by Dr. Tony Phillips

Admit it. Whenever you see a new picture of Mars beamed back by Spirit or Opportunity, you scan the rocks to check for things peeking out of the shadows. A pair of quivering green antennas, perhaps, or a little furry creature crouched on five legs...? Looking for Martians is such a guilty pleasure.

Well, you can imagine the thrill in 2004 when scientists were checking some of those pictures and they *did* see something leap out. It skittered across the rocky floor of Gusev Crater and quickly disappeared. But it wasn't a Martian; Spirit had photographed a dust devil!

Dust devils are tornadoes of dust. On a planet like Mars which is literally covered with dust, and where it never rains, dust devils are an important form of weather. Some Martian dust devils grow almost as tall as Mt. Everest, and researchers suspect they're crackling with static electricity—a form of “Martian lightning.”

NASA is keen to learn more. How strong are the winds? Do dust devils carry a charge? When does “devil season” begin—and end? Astronauts are going to want to know the answers before they set foot on the red planet.

The problem is, these dusty twisters can be devilishly difficult to catch. Most images of Martian dust devils have been taken by accident, while the rovers were looking for other things. This catch-as-catch-can approach limits what researchers can learn.

No more! The two rovers have just gotten a boost of artificial intelligence to help them recognize and photograph dust devils. It comes in the form of new software, uploaded in July and activated in September 2006.

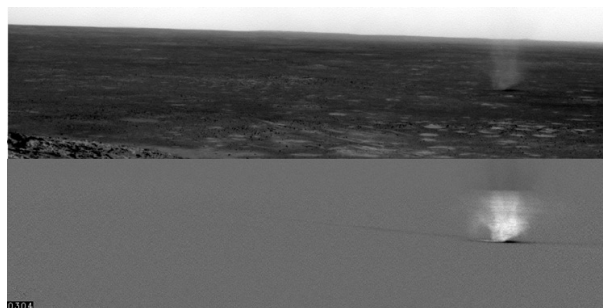
“This software is based on techniques developed and tested as part of the NASA New Millennium Program’s Space Technology 6 project. Testing was done in Earth orbit on-board the EO-1 (Earth Observing-1) satellite,” says Steve Chien, supervisor of JPL’s Artificial Intelligence Group. Scientists using EO-1 data were especially interested in dynamic events such as volcanoes erupting or sea ice breaking apart. So Chien and colleagues programmed the satellite to notice change. It worked beautifully: “We measured a 100-fold increase in science results for transient events.”

Now that the techniques have been tested in Earth orbit, they are ready to help Spirit and Opportunity catch dust devils—or anything else that moves—on Mars.

“If we saw Martians, that would be great,” laughs Chien. Even scientists have their guilty pleasures.

Find out more about the Space Technology 6 “Autonomous Sciencecraft” technology experiment at [nmp.nasa.gov/st6/TECHNOLOGY/sciencecraft\\\_tech.html](http://nmp.nasa.gov/st6/TECHNOLOGY/sciencecraft\_tech.html), and the use of the technology on the Mars Rovers at [nmp.nasa.gov/](http://nmp.nasa.gov/)

[TECHNOLOGY/infusion.html](http://TECHNOLOGY/infusion.html). Kids can visit [spaceplace.nasa.gov/en/kids/nmp\\\_action.shtml](http://spaceplace.nasa.gov/en/kids/nmp\_action.shtml) and do a New Millennium Program-like test at home to see if a familiar material would work well in space



The top half of this image is part of a series of images of a passing dust devil on Mars caught by Spirit. In the bottom half, the image has been filtered to remove everything that did not change from one image to the other. Notice the faint track left by the dust devil. Credit NASA/JPL/Mark T. Lemmon, Univ. of Arizona Lunar and Planetary Laboratory.

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

## Council meetings

All club members are welcome to attend the council meetings. Contact [info@amateurastronomy.org](mailto:info@amateurastronomy.org) for details.

## Next meeting

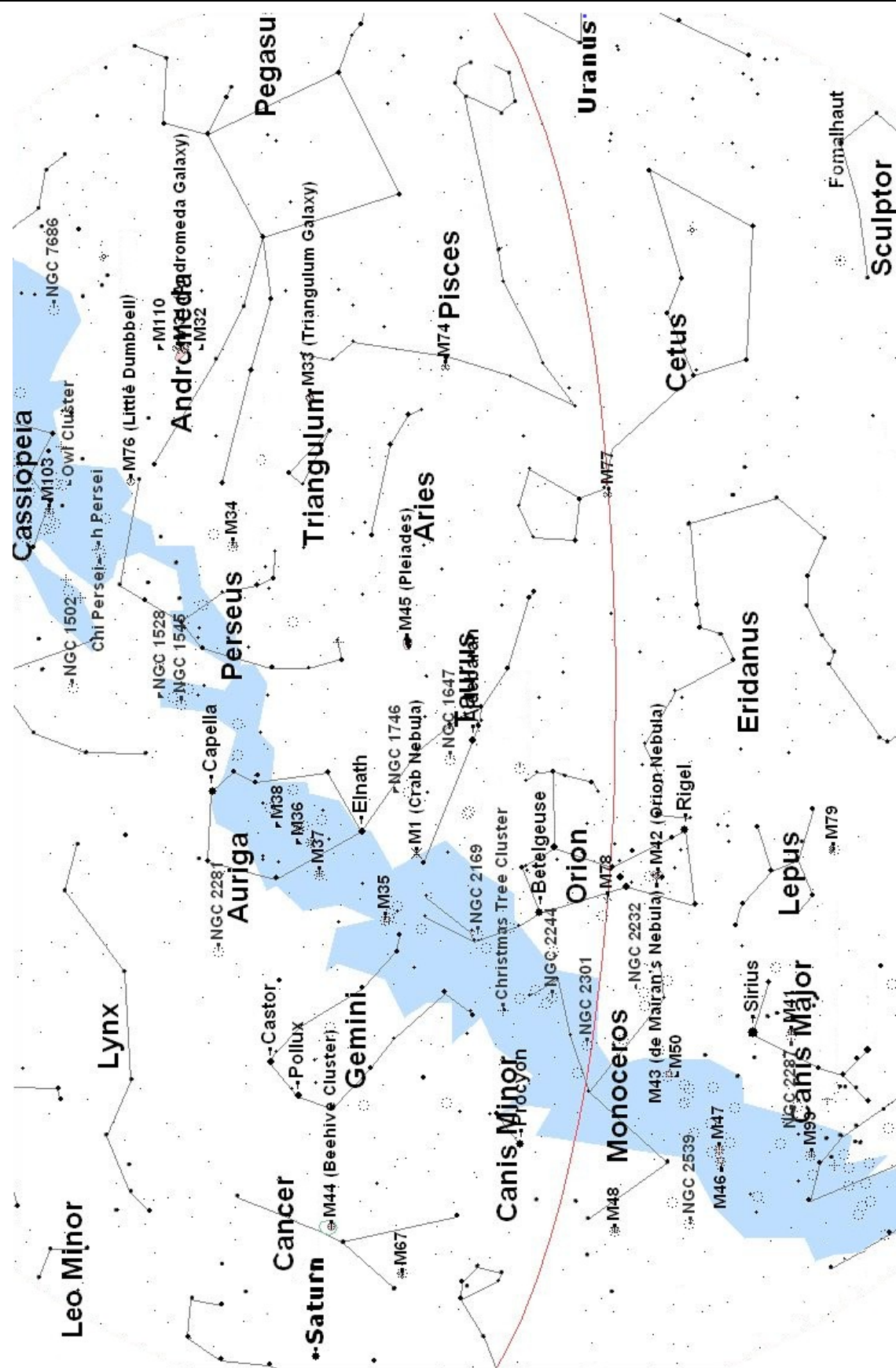
The next HAA meeting is Jan 12, 2007 at the Hamilton Spectator Building which is located at 44 Frid St, near the junction of Highway 403 and Main St West in Hamilton. Admission is free. Everyone is welcome! If it is clear, there will be observing in the parking lot after the meeting.

Please check our website [www.amateurastronomy.org](http://www.amateurastronomy.org) for more up-to-date event listings.

Also, check our “Observing” link at [www.amateurastronomy.org](http://www.amateurastronomy.org) for dates and times that club members will be going observing with their telescopes.

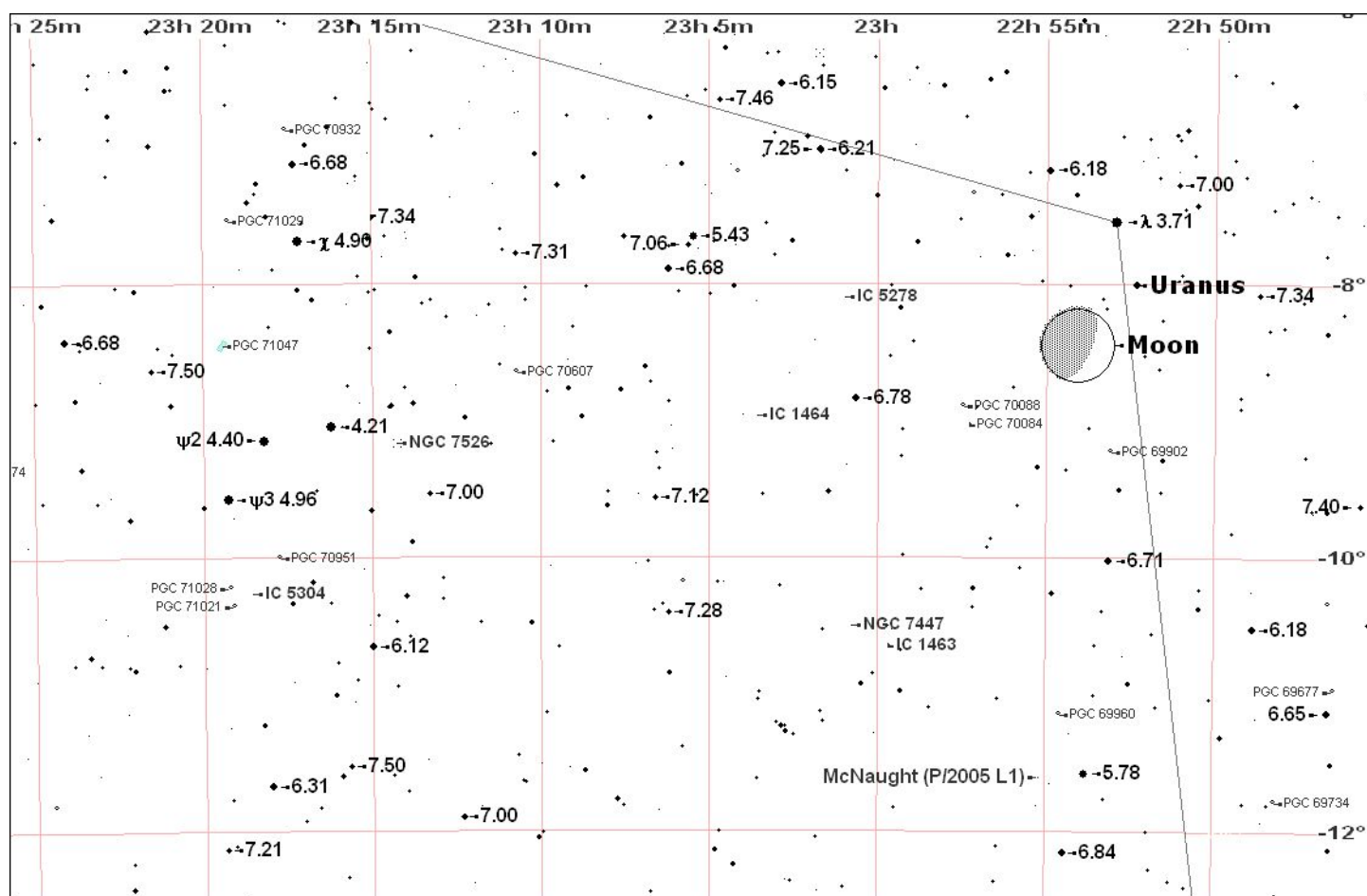
## Notes

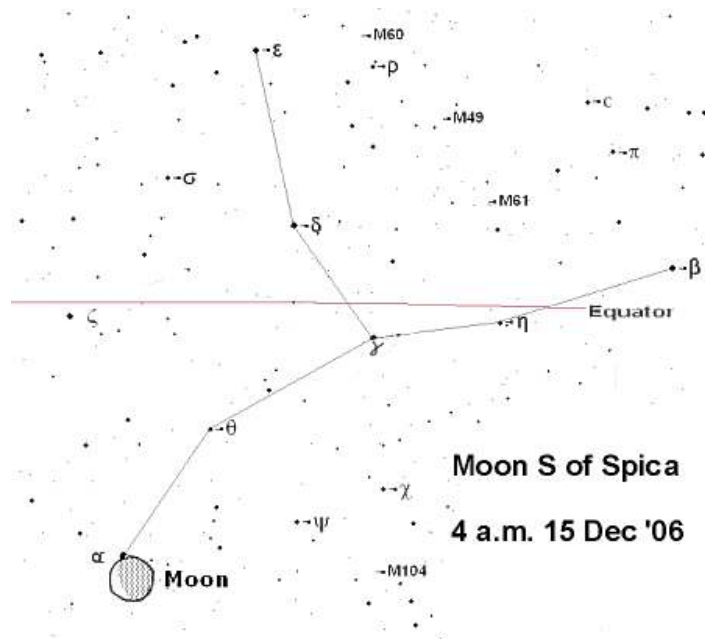
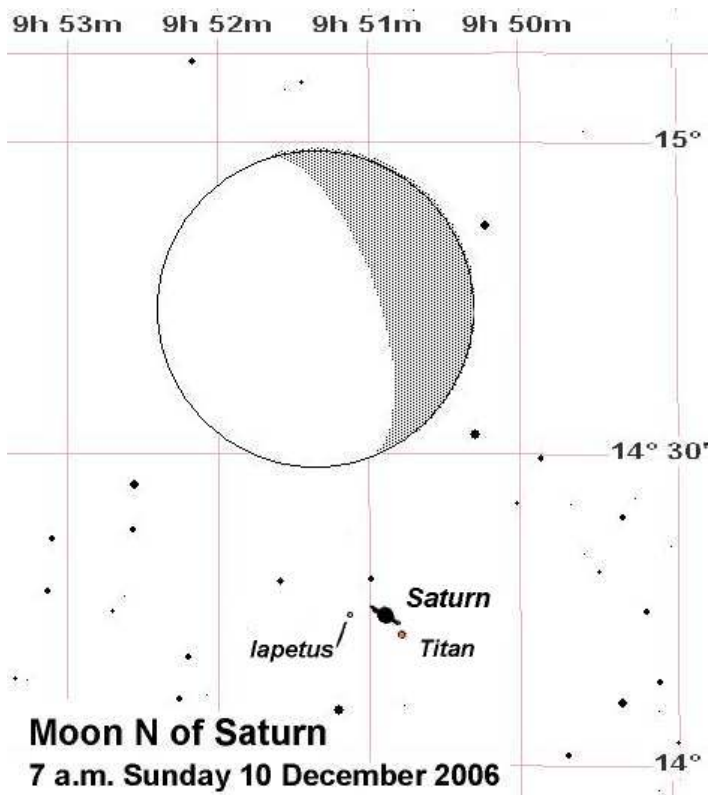
After the sad passing of John Kidner, Perceptor Telescopes is once again back in business under new management. You can visit them at [www.perceptor.ca](http://www.perceptor.ca)





**Saturn** rises before 11 pm, slowly moving west and away from Regulus (Alpha Leonis) this month. The planet is magnitude 0.3 with rings tilted at 12 degrees during December. As the rings close, satellite transits become more common: so far, Mimas and Enceladus are casting shadows on the planet as they transit – too small to see in small telescopes.





## HAA Membership Renewal

November 1, 2006 - October 31, 2007

Name	
Address	
City	
Postal Code	
Phone	
E-mail	
EH emailed	Yes/No

Please make cheque payable to:

Hamilton Amateur Astronomers  
P.O. Box 65578  
Dundas, Ontario  
L9H 6Y6  
CANADA

Type of Membership:

Individual (\$25 Cdn/year)	
Family (\$30 Cdn/year)	
Royal (\$50 Cdn/year)*	
Friend (\$100 Cdn/year)*	
Patron (\$250 Cdn/year)*	
Voluntary Donation \$	

\* These levels of membership confer the same rights and privileges as a Family membership. We greatly appreciate the additional financial support our members provide by signing up as a Royal, Friend or Patron.

All membership dues are eligible for tax receipts.

Total:	\$
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Membership renewals are due November 1.