



## A Summer of Stargazing

Well, the summer is winding down and the nights are starting to get colder. Dew busting equipment will soon be as important as a winter coat and a thermos of hot chocolate. Before we start preparing for winter, however, we should take a quick review of the past summer.

It was a summer that had a seemingly endless supply of clear nights. After a spring that was less than glorious, the warm clear nights were welcome. Starfest was looking like it might be another bust with bad weather, but the nights magically cleared up and some great observing opportunities were to be had. Check out our Starfest Memories section in this issue for a closer look at the fun that was had.

The annual HAA picnic at Binbrook was a great success with many



The lunar eclipse was one of the highlights of the summer's events. Here the moon takes on the familiar 'brick-red' colour in a photo by HAA Observing director, Mike Spicer

### From The Editor's Desk

It is hard to believe that the summer is almost over. Fall, however, brings the start of the HAA meetings and the popular presentations that these meetings provide. As well, it is time to start thinking about the coming year and the new council. Our chairman, Glenn Muller has decided to retire at the end of his term and our club will be poorer for that. However, there is a mixture of new and old people who have volunteered to carry on the fine example that Glenn has left for us. The HAA is one of the finest astronomy clubs in the country and we should be proud to be members.



Tim Philp, Editor

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**Don't forget that next month is the HAA Annual General Meeting. It is your turn to have a voice in running your astronomy club! Friday October 12th 7:30 PM**

## Summer Stargazing (Continued from Front Page)

members getting out for good food, companionship and some great observing. While many people set up next to the pavilion, the deep-sky observers were set up on the usual hill overlooking the lake. It was a great time to meet old friends and to check out the latest equipment that people purchased over the summer. For a couple of people, it was a great time to purchase some of that equipment to add to their collections.

Astrophotography seems to be on almost everyone's list of things to make and do as several of the more active members purchased digital SLR cameras to go sky-hunting. The Canon digital Rebel seems to be the camera of choice for most members, but some people took advantage of sales to get new DSI cameras to go 'big game' hunting for those elusive faint fuzzies.

Of course, the club continued its outreach activities with two shows at the Discovery Centre at Harbourfront in Hamilton. Presentations were made to appreciative audiences that were followed by an observing session just outside the centre.

Brantford was the scene of a well-attended public event where the club presented information about astronomy and how to get into the hobby. We may have a few extra members as a result!

The moon passed into the Earth's shadow for the last time in 2007 and was observed and photographed by club members. Eclipses are great opportunities for the club to reach out to the public to open their eyes to the universe above them. It is the only way that our hobby can grow and we can get legislators to care about our concerns such as light pollution.

All in all it was a great summer for stargazing and the fall holds some promise to continue the trend. Get your scopes out and working before the snow flies. Its not that far away!



# HAA BUS TRIP!

## David Dunlop Observatory (DDO)

**WHEN: SATURDAY, SEPTEMBER 22, 2007**

**TIME: 8:00 PM**

**PRICE: \$10.00**

**Tickets are still available for the Observatory show ONLY!**

## REMINDER TO BUS TICKET HOLDERS

Boarding Time: 5:30-6:00pm at Spectator Building  
Leaving DDO at 11:00pm

Available at the: General Meeting June 8

Contact Jackie Fulton: [j.afulton@295.ca](mailto:j.afulton@295.ca)

## Evening Star by Edgar Allan Poe

'Twas noontide of summer,  
And mid-time of night;  
And stars, in their orbits,  
Shone pale, thro' the light  
Of the brighter, cold moon,  
'Mid planets her slaves,  
Herself in the Heavens,  
Her beam on the waves.

I gazed awhile  
On her cold smile;  
Too cold- too cold for me-  
There pass'd, as a shroud,  
A fleecy cloud,  
And I turned away to thee,  
Proud Evening Star,  
In thy glory afar,  
And dearer thy beam shall be;  
For joy to my heart  
Is the proud part  
Thou bearest in Heaven at night,  
And more I admire  
Thy distant fire,  
Than that colder, lowly light.



## Chair's Report by—Glenn Muller

There has been so much Club activity since the last newsletter that, looking back, I'm glad that most happenings have already been covered on the website. Even if I reduced everything to the "n"th degree I'd still have to type public events, star parties, picnics, and campouts.

I should also add the word volunteers to that mix to acknowledge members who not only helped to put on events but took on the special assignment of entertaining groups with special needs. John Gauvreau, Jackie Fulton, and Mike Jefferson's efforts in this regard brought astronomical smiles to many folks in the past few weeks.

Just like at the beginning of a new school year, September is also a time for the HAA to look ahead. As Chair, one of my duties is to facilitate the transition from one term to the next and, in that regard, there are two main areas to be addressed.

One priority is to ensure there is a healthy membership base, and by membership I mean those folks who dutifully, and often generously, support the Club with annual dues of various levels. In return, of course, you get all the advantages of being associated with the HAA such as the excellent meetings, newsletters, discount on Sky & Telescope subscriptions to name a few. The new fiscal year doesn't start until November but that only leaves two more meetings to get your dues in on time.

The other priority is to make sure that the Council can meet the administrative demands of such a vibrant organization as the HAA. Since the inception of the Club in 1993 there has been slate after slate of hard-working folks. For the past few years I've personally had the great pleasure of such support, but, for any Club to maintain such a high level of energy it must have the occasional influx of new blood.

Many of you may already know that I will resign from Council at the end of this term. A number of other long-time councilors have also made the decision to change or vacate council posts. This is all done in the best interest of the Club, and with full

confidence that there are many qualified and energetic people, within the membership, who are willing and able to participate at the council level.

While several of the current councilors will continue into the next term there may be one or two openings for those interested in joining the committee. If this level of participation appeals to you, I encourage you to let me know as soon as possible. You will find below a listing of the proposed council slate for 2008, and your approval will be sought at the Annual General Meeting in October. These and other exciting events will require your participation in the coming months so stay tuned and get involved!

### Proposed HAA Council Slate for 2008

Chair	Mike Spicer
Secretary	Gary Krevenky
Treasurer	Don Pullen
Membership Director	Jim Wamsley
Publicity	Jackie Fulton
Observing Director	Greg Emery
Postmaster/Web Support	Bob Christmas
Event Horizon Editor	Tim Philp
Councillor	Harvey Garden
Councillor	Tim Harpur
Councillor	VACANT
Councillor	VACANT
Councillor	VACANT
Councillor	VACANT





## Looking Back, Looking Ahead—by Mike Spicer

As observing director for the Hamilton Amateur Astronomers, it's important for me to keep abreast of the latest news and developments in our hobby. I read *Sky & Telescope* and *Astronomy* magazines, check on a number of web sites regularly, and even look in the RASC *Observers Handbook* from time to time. I look ahead to make those timely "Sky this Month" presentations each month. I also look back.

When there are a few cloudy days in a row, I take a break from observing and processing images to look in

past magazines. What a font of knowledge the old articles can be! The monthly sky does not change much from year to year for deep sky observers. Articles on eyepiece designs, collimating telescopes and polar alignment are timeless and every writer has an interesting way of pitching the data. Old magazines are time capsules of the machinery and optical designs that were on the cutting edge of astronomy back then.

How things have changed! Only five years ago the Meade LX-200 SCTs were the newest thing in computerized telescopes, their bulky hand controllers and high-power requirements were quickly done away with as Celestron introduced the ergonomically superior Nexstar telescopes. Only five years ago a small not-quite apo refractor sold for US\$2,500 (and our Canadian dollar was worth a lot less then) and the cheapest Meade Series 4000 plossl eyepiece cost \$149 at



Today's equipment allows you to take astro-photos that rival the best that professionals could do only a few years ago

Photo Credit: Tim Harpur

that store with the telescope on the roof in Toronto.

Five years ago CCD cameras were quite expensive little chips that held the promise of deep-sky imaging nirvana. I'd have to say that CCD cameras have largely been replaced with the modern digital SLR cameras, with their large sensitive chips, tremendous ease of use and ability to shoot through lenses or scopes. One might say it's foolish to invest fifteen thousand dollars or more in a CCD chip that few are able to use, when with a digital camera anyone can capture stellar beauty for a few hundred bucks and take point-and-press photos of your family as well!

And the images! Ten years ago the "award-winning best" images in the back pages of those glossy magazines were hazy photographs. Compare those with the digital images that members of our club are posting

lately. There's no comparison. It has been said many times that digital images taken through small telescopes today rival photographic images taken through the world's largest telescopes of only a couple of decades ago.

Have you compared today's prices against those of the past? Remember the slim Unitron telescope ads of the 70's? The cost of those early non-computerized 8" SCTs? They cost about the same as an automobile and they weren't all that great. Today you can have a beautiful apo telescope on a go-to mount for under a thousand dollars, or an observatory-class computerized SCT or Mak for under \$3,000 - it's unbelievably cheap to get into the astronomy hobby today.

We stand at a crossroads in the astronomy hobby. What a fabulous time to spend your nights under the sky with friends!





## Starfest Memories and Photos— By Bob Christmas

During this year's Starfest, we were very fortunate to have gotten clear skies for two nights, and part of a third night, during our stay at The River Place.

The only rain was a few minutes of sprinkles Thursday morning.

I'm not a huge fan of tenting, but the spectacular clear skies on the

Wednesday and Friday nights, and excellent camaraderie amongst fellow astronomers and fellow club members, not to mention all those Perseid meteors, including a few bright bolides, more than made up for the camping chores.

Here are images from Starfest that I took from two of the clear nights.

Sunday Morning, when it was all over, it was time to pack it in. We had our work cut out for us, taking everything down and packing it away. But we all managed to get packed before an approaching cold front from the west brought in rain Sunday afternoon. What timing!



Just above the Lagoon in Sagittarius is the Trifid Nebula (M20) Canon Digital Rebel 300D; Tamron 300mm f/2.8 telephoto lens; ISO 1600; 2-minute exposure; magnified excerpt]



The Lagoon Nebula (M8) in Sagittarius. [Canon Digital Rebel 300D; Tamron 300mm f/2.8 telephoto lens; ISO 1600; 2-minute exposure; magnified excerpt]:



The Andromeda Galaxy (M31), as well as its two dwarf-elliptical companions M110 (above) and M32 (below)[Canon Digital Rebel 300D;





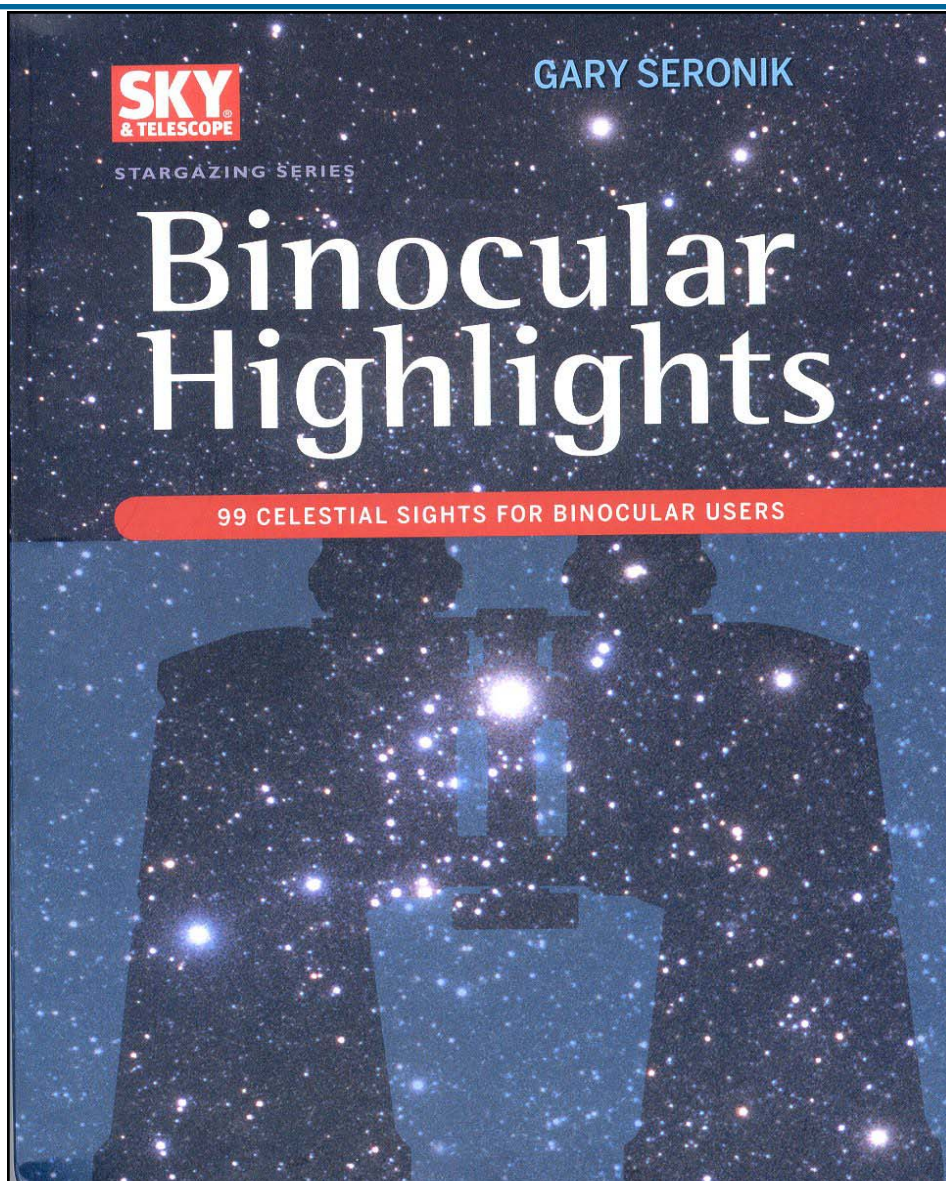
## Book Reviews—by Mike Spicer

It can't be said enough that the best introduction to astronomy comes through binoculars. "The night sky is full of wonders; some subtle, some grand. And you don't need a telescope to appreciate them", says Gary Seronik a editor of Sky & Telescope who has been writing the Binocular Highlights column since 1999.

This little spiral-bound booklet reprints 99 articles on various celestial objects well-viewed in binoculars. The same size and composition, it is an excellent companion to S&T's Pocket Sky Atlas. Seronik starts off giving his opinion on what binoculars are best for astronomy, shying away from heavier instruments. His book selects a variety of objects visible from mid-Northern latitudes and divides them by season.

If you are just getting started in astronomy or after many years of telescope observing, you want just to use binoculars one evening, this book is an excellent start. Each object is easy to see in binoculars. Each has a very good celestial chart to guide you and gives an excellent description of the object and its significance.

I highly recommend this \$25 observing booklet as a companion to the Pocket Sky Atlas which I reviewed and recommended in last fall's Event Horizon.



## A Stimulating June Meeting—by Glenn Muller

Close to four dozen members arrived at the Spectator Auditorium on June 8th, for the last HAA monthly meeting before the Summer break. After picking up a door prize ticket and a super-sized Event Horizon (EH), most made a beeline for Jackie Fulton to reserve a spot on the bus trip to the David Dunlap Observatory. Ticket sales were brisk and Jackie later reported that there were only about a

dozen seats left so if anyone wants to go they should contact her at [publicity@amateurastronomy.org](mailto:publicity@amateurastronomy.org) as soon as possible. There had been a special request for contributions for the EH and the result was another newsletter full of excellent content masterfully compiled by Tim Philp. The centerfold sky-chart and accompanying article by Mike Spicer covers the next 2

months as did Mike's precise "Sky This Month" presentation. Ann Tekatch, who with husband Bill and daughter Alex, had collected the astronomical estate of late Honorary Chair, Jim Winger, urged all members to attend the garage sale/auction at their home on the morning of June 9th. Interest for this was high and a good turnout expected.

Continued on page 7

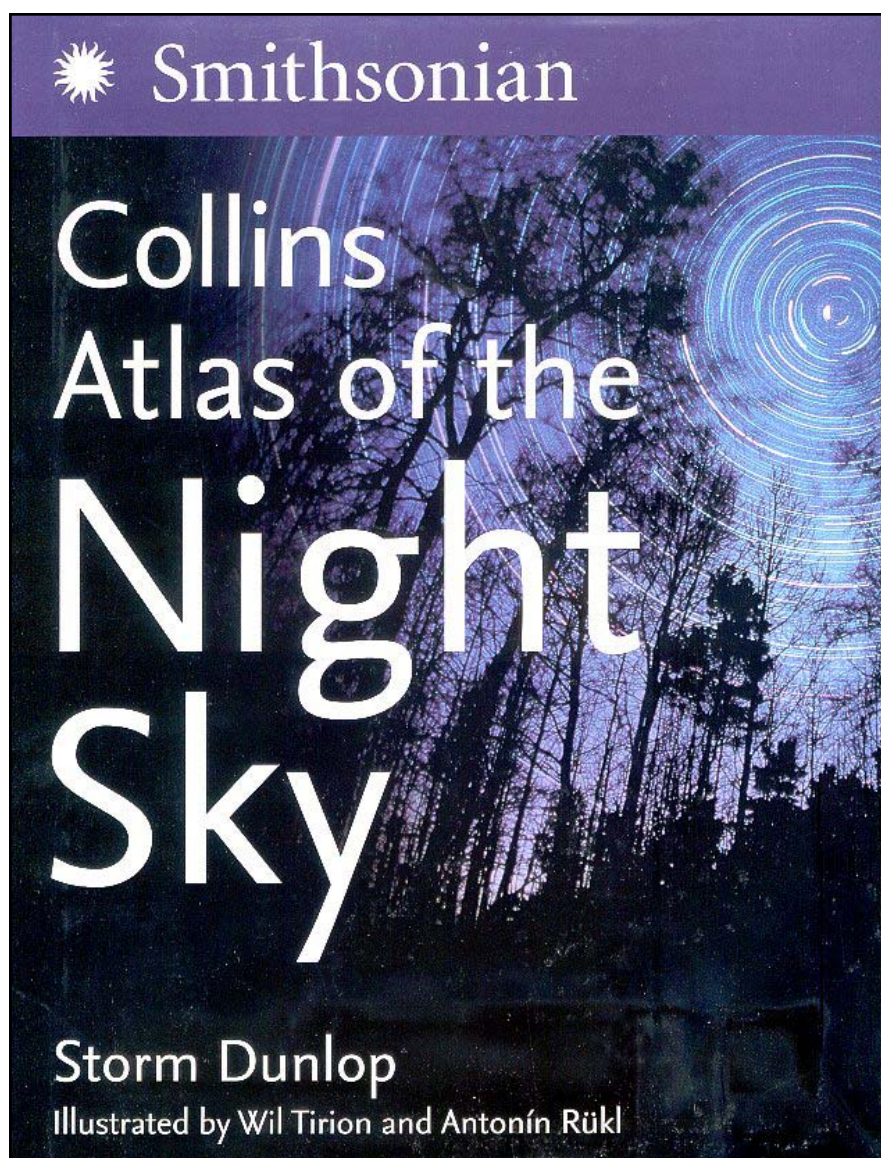


## Book Reviews (Continued)

There are a lot of star atlases out there and this latest publication has to be one of the very best. It combines several atlases into one 224 page 8.5 x 11" hardcover book. The seasonal sky charts and list of observable objects that Tirion first published in the Cambridge Star Atlas; the detailed sky charts Wil Tirion has made famous, this time listed constellation by constellation, each chart with detailed information about the objects in each constellation; finally, the fabulous Moon charts of Antonin Rukl; covering the lunar near side in 16 charts - each focused on a major crater or land form - with a reduced-size mirror image map for those with reversed E-W optical systems! All of these are included! And to top it off, the authors have added an introduction to observing the Moon and a lot of interesting text for each chart.

I was never a fan of the Cambridge Atlas. Its sky charts were too small and the text was listed sideways in the book with the writing above rather than below the charts (just think about using it outside, in the dark). But this book is worth the \$30 price just for the Moon chart section, or for the individual constellation charts with their explanatory text.

This won't be a text you use regularly at the telescope, but as a comprehensive observing source for preparing for an observing session with binoculars or a telescope up to 8" aperture, this new publication is really outstanding. I highly recommend it.



## A Stimulating June Meeting—by Glenn Muller (continued)

Next was a report on the Club's LO-FAR II project by Mike Jefferson. Mike brought in the .9 metre antennae that he had painstakingly assembled and was close to operational state.

As a preview of the estate sale, Ann Tekatch had brought in a few books and a poster which were given away

as the door prizes, then it was onto the final presentation of the night; a celestial trivia contest hosted by Glenn Muller. After assembling the group into seven teams Glenn teased everyone's brains with sixty questions ranging from Messier object identification to observatory locations. It came as little surprise that the team with both Ray Badgerow and Bob Christmas on it claimed first

place with an amazing 52/60. As John Gauvreau put it "Once Ray and Bob got on the same team, everyone else was just playing for second place!" But there was lots of laughter, and much discussion and comparing of scores afterwards when many of the attendees assembled at Kelsey's on Main where refreshments were served by a courteous and efficient staff.





## The Lunar Eclipse— by Mike Spicer

Hamilton's local astronomy club members were out in force with cameras and telescopes early on the morning of August 28, observing the last total lunar eclipse of 2007 from Binbrook Conservation Area south of the City.

Lunar eclipses don't happen very often - there was one back in March - but this eclipse had the Moon pass deep into the shadow cast behind the Earth by the Sun. The Moon took on a brick red colour just before dawn, as these images taken by Mike Spicer show.

Right; image through 3.5" refractor telescope using Canon Digital Rebel, 2 sec. images at ISO 1600.



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## The Sky this Month—by Mike Spicer

### Moon

Last Quarter	Sept 4	Oct 11
New Moon	Sept 11	Oct 19
First Quarter	Sept 19	Oct 25
Full Moon	Sept 26	Oct 3

Mercury is at greatest Eastern elongation on Sept 29th but as the planet will be in **Virgo** and low in declination, it will be very hard to spot in the West at dusk, magnitude 0.0 with a crescent disk 6" in diameter.

Venus is that brilliant object in the East before sunrise moving against the stars at 0.25° per day. On Sept 15th it shines at magnitude -4.5 with a bright yellow crescent disk 20% illuminated and 43" in diameter.

**Sept 30** **Venus** (mag - 4.5, 32% ill., 35" disk) is 1/4° N of 3.5 magnitude **Omicron Leonis**

**Oct 7** **Venus** makes a lovely triangle 3° on each side with the crescent Moon and **Regulus**

**Oct 15** **Venus** is just 3° S of **Saturn**, the ringed planet much fainter at magnitude +0.8

Mars rises before midnight as a red "star" magnitude +0.1. Moving closer to **Earth**, **Mars** is now only 1 AU away and its 9" disk is 86% illuminated, well suited for imaging. On 17 September **Mars** will be 1° N of the supernova remnant **M1** in **Taurus**.

The moons of **Mars** are visible in medium-aperture telescopes (small ones with long exposure imaging): **Phobos** the inner moon is magnitude 12.8; **Deimos** the outer moon is magnitude 13.9 but easier to see because it gets outside the planet's glare. **Mars** and its moons move rapidly against the stars and at the moment the two moons are oriented to transit the planet and to be eclipsed by it as they orbit. Look for **Phobos** and **Deimos** when they draw close to somewhat brighter background stars:

**Sept 15** 2 a.m. **Deimos** passes 1.2" away from mag 11.5 star **GSC1848-1181** while the moon is 11" away from **Mars**

**Sept 16** **Deimos**, 24" distant from **Mars**, passes close to magnitude 12.5 **GSC1848-1570**

**Sept 18** 1:12 - 1.19 a.m., **Mars** will occult 12.3 magnitude star **GSC1861-1470**

**Sept 29-30** **Mars** is located just 10' from 7th magnitude open cluster **NGC2129**

**Oct 3-4** **Mars**, now in **Gemini** with a 10" disk, passes just 1° S of the open cluster **M35**

**Oct 13** 1:30 a.m. **Mars** will occult magnitude 11.3 star **GSC1879-281**

Jupiter in **Ophiuchus** is now low in the SW at dusk and while details of the cloud bands are difficult to observe with the unsteady air, the following events will provide some excitement to observers:

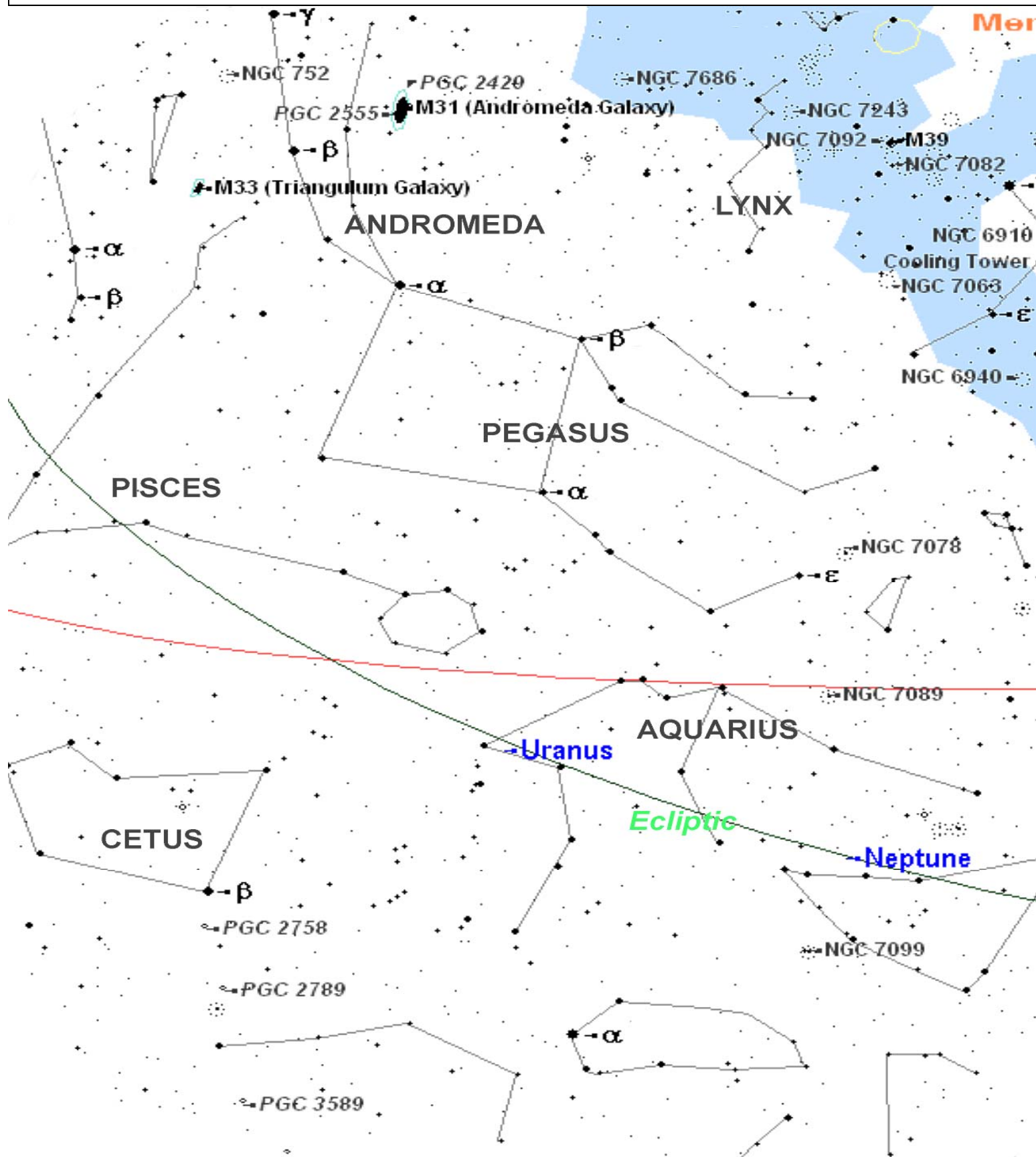
**Sept 14** moons **Io**, **Europa**, **Ganymede** and **Callisto** appear stretched out in order of distance from **Jupiter**

**Sept 16** **Great Red Spot (GRS)** transits about 9:15 pm

**Sept 19** **Io** transits starting at 7:45 p.m. followed by its shadow at 9 pm

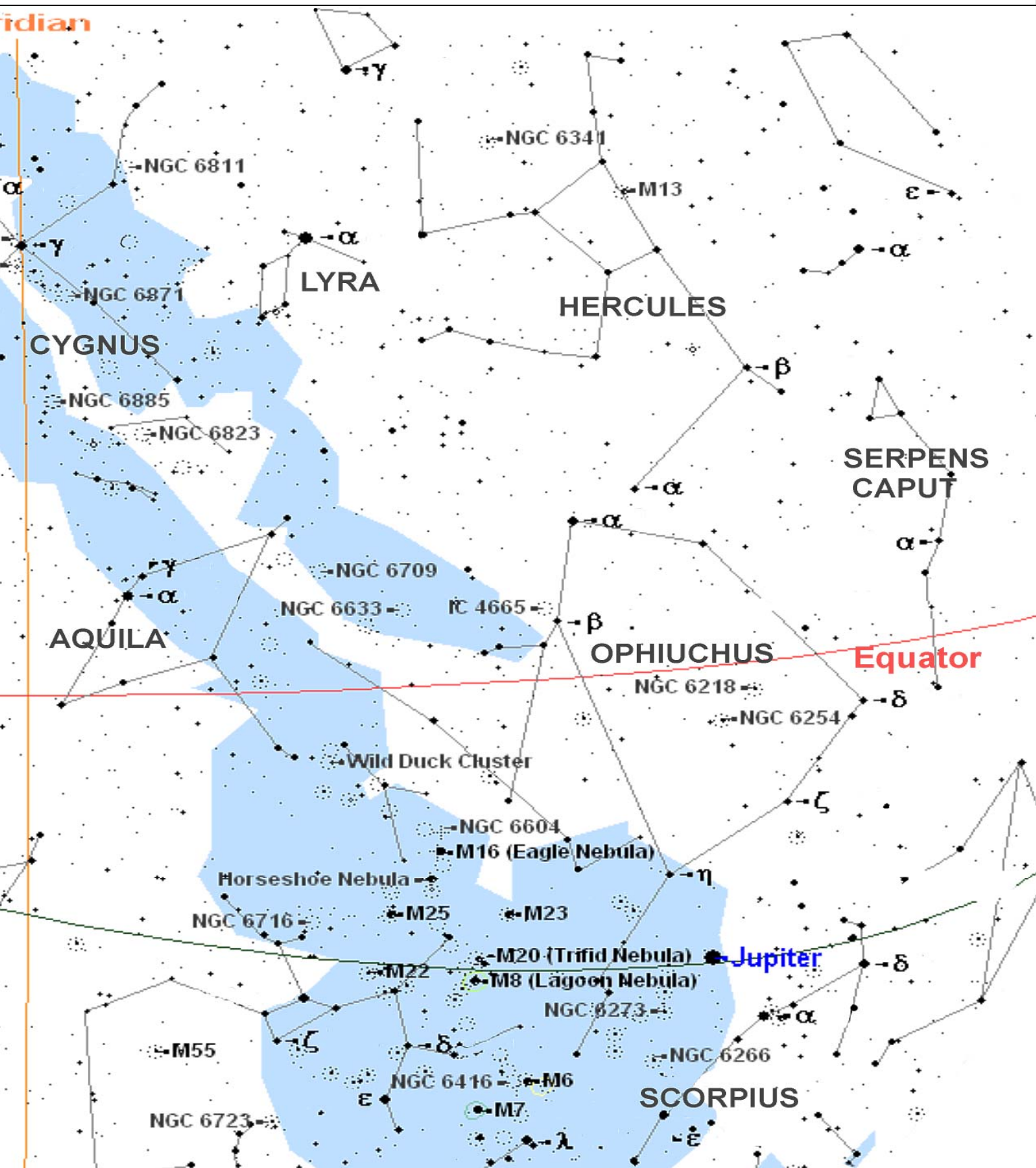
**Sept 21** **GRS** transits at 8:30 pm

# The Sky T





# his Month



## The Sky this Month (Continued)

- Sept 26**      **Europa's** shadow transits from dusk until 9 pm
- Sept 28**      **GRS** transits at 9 pm
- Sept 29**      **Callisto** passes S of **Jupiter's** disk at 9:30 pm
- Oct 1**        **GRS** transits at 6:45 pm; **Ganymede's** shadow transits at dusk
- Oct 3**        **Europa** transits starting 7 pm; **GRS** transits at 8:15 pm  
**Jupiter** enters globular cluster **NGC 6235**
- Oct 5**        **Io** shadow transits starting 7:20 pm
- Oct 8**        **Ganymede** transits starting at 7:30 pm
- Oct 13**      **GRS** transits at 7:30 pm
- Oct 20**      **Jupiter** passes 9' N of globular cluster **NGC6287**  
**Europa** may occult 12th mag star **GSC6811-670** at 6:30 pm  
**GRS** transits at 8 pm

**Saturn** in **Leo**, rises just before dawn, on **Sept 15** showing a 16" disk and appearing as a magnitude +0.7 star just 3° W of **Regulus** (compare the two in brightness)

**Oct 7**        **Saturn** will be 1.2° S of a very thin crescent Moon

Eight of the 60 moons of **Saturn** are visible in moderate telescopes. **Titan** at magnitude 8.6 is visible in a small telescope. For those with large telescopes, the moons **Mimas**, **Enceladus** and **Tethys** are oriented to transit the planet with **Tethys** (diam 1,000 km) casting a sizeable shadow on the N tip of the planet's bright cloud-tops on **Sept 29 @ 9 a.m** when the planet will be alt. 45° above the horizon; **Oct 1 @ 7 am** (alt 29°) and **Oct 3 @ 5 am** (alt 10°) - well, you won't ever see the shadow if you don't try!

**Oct 8-9**      **Saturn** passes 1/4° between two stars, mag. 6.6 and 7.5

**Oct 10-13**    **Iapetus** (magnitude 11.3) passes 20" N of Saturn's disk with the moons **Hyperion**, **Titan**, **Rhea**, **Enceladus**, **Mimas**, **Tethys** and **Dione** lined up in an almost-straight line from E to West, parallel to the rings.

**Uranus** was at opposition September 9th 19.2 AU distant from us. This month is the best for locating the planet's magnitude 5.7 and 3.7" diameter blue-green disk low in the SE near 3rd magnitude **Phi Aquarii**.

For those with large telescopes (or imaging equipment) the five major moons of **Uranus** are all magnitude 16: **Titania**, **Ariel**, **Umbriel**, **Oberon** and **Miranda** are oriented to transit the disk of the planet or be eclipsed behind it as they orbit.

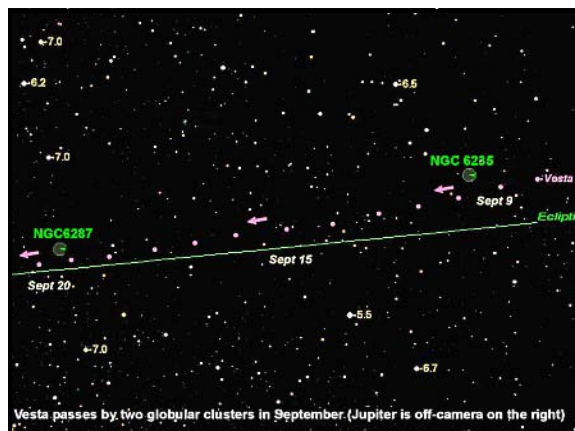
**Neptune** is easily observable low in the south as a 7th magnitude blue "star" in **Capricornus**. The tiny disk of the planet is difficult to discern even in medium-sized telescopes, but its moon **Triton** at magnitude 16 can be seen in 12" telescopes or larger. **Triton** appears to move in an almost-circular orbit 12" from **Neptune**, making it easier to locate... if you can find **Neptune** that is!

**Sept 26**      Magnitude 9.5 asteroid **Prokne** will pass by **Neptune**. Moving south, the asteroid will pass 1/2° W of the planet, a good imaging opportunity (otherwise, who could say "I have seen **Prokne**"?)



## Minor Planets

**Vesta** (yes, it's a planet, though "dwarf") continues to move Eastward through **Ophiuchus** as it pulls slowly away from **Jupiter**. What a beautiful imaging opportunity this yellow-green 6th magnitude celestial body offers:



- Sept 18** **Vesta**, magnitude 6.6, passes 12' S of 9th magnitude globular cluster **NGC 6287**
- Sept 26** **Vesta** passes 15' N of 10th magnitude globular cluster **NGC 6325**
- Oct 2** **Vesta** passes 7' S of 13th magnitude Little Ghost planetary nebula **NGC 6369** (yes, it's faint but very compact with high surface brightness)
- Oct 3** **Vesta** makes a triangle with mag **4.8 51 Ophiuchi** and a 7.4 magnitude star
- Oct 7** **Vesta** passes 15' S of globular cluster **NGC 6401**
- Oct 20** **Vesta** passes 10' S of the **Lagoon Nebula**, but you'll have to be set up at dusk!
- Oct 31** **Vesta** passes through **M28**, a 6th magnitude globular cluster in **Ophiuchus**.



## Tech Tips Dew Drops—by Tim Philp

As the nights get colder and the dew point drops, the amount of time that you can observe could be severely limited as the optics of your telescope system start to dew over.

Rather than give in, there are some things that you can do to increase the time that you can spend at the telescope.

First, dew prevention is far better than dew-busting. Once the objective lens, corrector plate, or mirror

starts to dew over, it can take heroic action to reverse it.

Don't leave your scope pointing overhead. The sky is very cold and will suck the heat out of the lens and leave it vulnerable to premature dewing. Put the lens cap back on if you will not be using the scope even for just a few minutes.

Any kind of dew shield is better than nothing. You don't need a fancy plastic dew shield that is a

custom fit for your scope. Even a rolled up piece of cereal box is better than nothing.

As a last resort, dew heaters such as the Kendrick system will keep the dew away for a long time, but they are expensive to buy and power hungry.

Finally, NEVER put your telescope equipment away covered with dew. Make sure it is allowed to dry out before being put away in its case.

# Starfest Memories!

## Kerry-Ann Lecky Hepburn's Memories

I arrived at Starfest Wednesday afternoon. I wanted to get there early enough so that I could find a good spot to set up camp. Glenn and Gail were already there and set up on the "HAA hill" (so we called it). The day was very hot, humid and windy. It was a bit of a struggle setting up my tent under those conditions but I had a few helping hands. Glenn and Gail had set up a shelter and picnic table which we all ended up sharing for meal times, and relief from the burning sun.

That evening I got my gear organized, anxiously awaiting the dark skies that I hear so much about. Sure enough after the sun set many stars started to appear and the Milky way just got brighter and brighter. Actually it was the best that I have seen it in years. As the night wore on it became extremely dewy... but we were all prepared. I had my C6 set up with my Canon 300D for imaging, the 80mm was used for guiding with my DSI, and the laptop and guiding software controlled the mount. I took my first images of m16, and the Veil. While my camera was collecting the frames, I was running from scope to scope viewing various DSOs. I also spent a bit of time giving a helping hand to another nearby amateur astronomer (from another club) that was fairly new to the hobby and had recently purchased an Orion 10in DOB.

Thursday morning we all arose pretty early (early considering we were up so late the night before). I made pancakes for all who wanted them. BobC and SteveG had no trouble accepting and enjoying a few. We all had some great conversations about the previous nights imaging, observing, and battling the extreme dew. The rest of the day I spent exploring and taking it easy checking out the vendors and chatting with more astronomy buffs. I took a good look at the Skyshed POD and spoke with one of the engineers. I

also had a good chat with Wayne Parker (the inventor of the POD and band member of Glass Tiger). In the afternoon SteveG and I went to a very informative astrophotography clinic that focused on photo processing using photo-shop. We were prepared that the upcoming night would not be great in terms of cloud cover and ended up packing it in early that night... with the exception of a few die-hards. Apparently there were some clear breaks that appeared pretty late in the night.

Friday morning TimH arrived and he joined JimW and I for a big breakfast in town. Of course we talked about nothing but astronomy and imaging. In the afternoon the camp ground filled with even more astronomers and their gear. I didn't even want to think of the total cost of equipment in just one small area. My hubby, Bill, arrived pretty late in the afternoon and we both started to set up for another potentially good night of astronomy. Since his main hobby is radio DXing he couldn't resist setting up his gear for meteor scatter. Saturday morning we all arose fairly early... again. Bob, Tim and I were in image processing mode and took over the picnic table with our laptops (sorry Glenn and Gail). We enjoyed checking out the final results of our images from last night and shared a few tips here and there. As the day wore on the heat became unbearable. They had the swap table up for a short while and I ended up buying a sturdy, mini tripod off of Tim. That tripod has now proven to be an invaluable accessory for table top viewing with my 15x70 binoculars. That evening they had the buffet dinner and Bill and I met a fellow from an astronomy internet forum that I visit regularly. As the night wore on I set up for imaging but ended up spending a good portion of the night looking through other scopes including Attila Danko's (inventor of the Clear Sky Clock) very large DOB.

We were shown some spectacular views of galaxies, globular clusters and nebulas.

Sunday morning greeted us with invading clouds, and instead of spending another night most of us opted to pack up and head back home. The rain started just moments after leaving... what perfect timing.

I think after having such a great time I am going to be adding Starfest to my list of annual must dos. I am already counting down the days till the next one. Anyone that is new or a veteran to the hobby should definitely experience this at least once. The dark skies, camaraderie, and just overall fun is really hard to beat in just one small area.

## Mike Jefferson's Memories

"Starfest 2007 was great! The HAA had quite a large contingent of people representing the club and we were divided into about 3 main groups. The Maudes and I were in the Mount Forest Plaza Motel and the rest of the group was divided between those who stayed with Tim Harpur on one hill in the park and those who were with Stewart and Cindy on the other hill near the ravine. We managed to find one another and good times were shared all around - I for the 23rd year. Observing was fun and instructive and the best night (for me, at least) was the Friday session. Charles Baetsen and kids joined up with us and the Starfest tradition continued for yet another convention."



# Starfest Memories! (Continued)

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## Glenn Muller's Memories

It's a given that anyone who attended Starfest this year, and even some that didn't, watched the weather forecast like a hawk. But how many groups at the River Place campground could boast their own personal forecasting team?

This year, the HAA's impressive representation of members included professional meteorologists Kerry and Bill who, with wireless WiFi on site, were able to obtain current weather data and give everyone timely assurance of clear skies so we could set up, with confidence, at dusk.

My primary observing mission for this event was to have Gail and I bag galaxy M74 thereby finishing our Messier list. This faint object had eluded me for about three years, however, a minute examination of Cartes Du Ciel on the first night, made me realize that it was actually a degree or so from the marker star that I'd originally thought it was "attached" to. With this new insight, and averted vision, the faint face-on spiral was finally seen and confirmed.

It was great to see so many new members enjoying their first Starfest, including a couple who joined on the spot – welcome Les and Terry! There's strength in numbers and the Club snared several door prizes including the top prize for a second consecutive year - but I'll let the lucky winner tell you about that.

## Member of the Month— Mike Spicer— by Tim Philp

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I hate to realize that it was almost 40 years ago that I met Mike Spicer. A friend of mine came to my house and said I should meet someone he knew in Hamilton. We drove to Mike's house on East Ave where I met a very intense and knowledgeable young high school student and amateur astronomer—Mike Spicer.



As a teenager, Mike was an avid observer. I still remember one of the coldest nights of my life with him on the mountain observing from a road cut that was still under construction. The area was so icy that one of the group slipped, fell and broke his leg. If I recall correctly, Mike was upset that the observing came to an end that night as we packed the unfortunate lad into the ambulance... of course, that COULD just be my aging memory.

Mike was, and is, a great communicator. At that time, he had a group of his friends organized in a loose astronomy club. He

published a newsletter about the group's astronomy adventures called *En Haute*. It detailed the adventures of his group of young observers and was well-written even then.

Everyone in the club is aware that Mike has more equipment than most astronomy stores. I asked him why he had so much... much more

than he could ever use. He said that he wanted to have some good equipment available so that people who wanted to get into the hobby would have access to quality equipment at a reasonable price. Probably half of the club members have purchased equipment from Mike and have been well-satisfied with their acquisitions.

Perhaps the most telling thing that I can say about my friend Mike is that he goes out of his way to help newcomers get started in astronomy. He is perhaps the best ambassador that the club has

had. All you have to do is watch him when a new member shows up at an observing session. Almost invariably, he will put aside his plan of observation and assist the newcomer.

Mike is also a dedicated astro-imager. His photos have appeared in *The Expositor* in Brantford and the *Hamilton Spectator*. On any clear night you'll find Mike at an observing site... usually Binbrook or in winter, his backyard observing pad

As observing director, Mike has certainly raised the bar with his skillful use of graphics and animations during his monthly *Sky this Month* presentations. I know from the comments that I hear after his talks, that they are much appreciated and admired.

Mike and I drifted apart as we both went off to school. I found him again through the Internet just over two years ago and since then, the years have melted away as we resumed our friendship as if the time had never past. I am still happy to call him my friend.

## Starfest Memories! (Continued)

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### Darrell & Sandy Maude's Memories

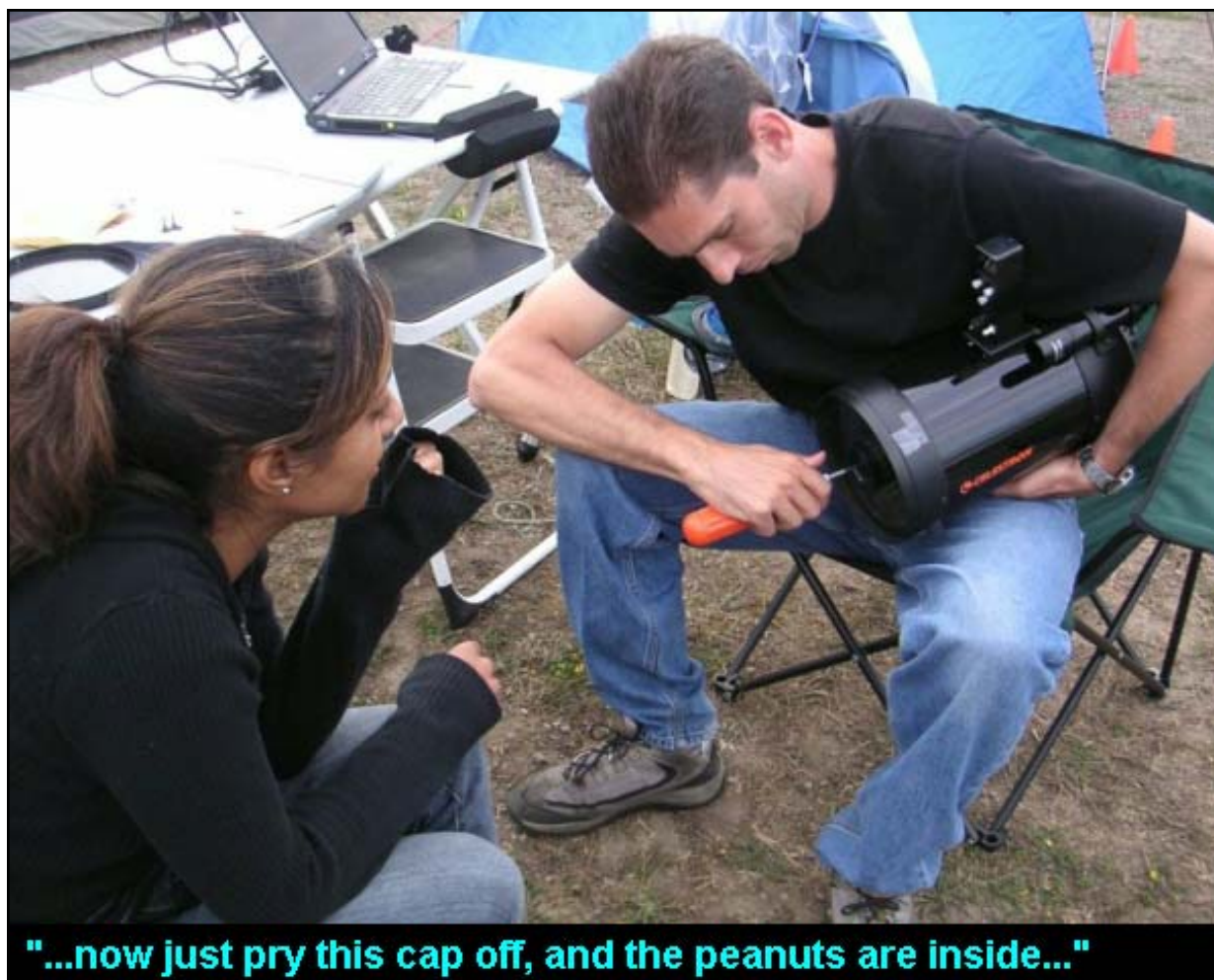
Our second Starfest experience was every bit as enjoyable as the first. We arrived late Friday night to a beautiful sky. Thanks to the generosity of fellow HAA members, Gail, Glenn and Steve G., we observed many excellent objects, some of them through a quite "large" 16.0" scope (not a 16.25"). We also enjoyed visiting with Mike J., Kerry, Bill, Tim H., Bob, and Anthony. Not wanting to be executed by hoards of irate observers, we opted to spend the night more or less comfortably in our car, rather than attempting to exit the park to our waiting hotel room.

We spent Saturday milling around the park, chatting with other members (Jackie, Jim, Ann and Bill T., Doug, and Cindy just to mention a few). We checked out the various vendors, especially the Skypod exhibit, and enjoyed meeting other astronomy enthusiasts at the buffet dinner. Alas, we did not win any door prizes this year, but were pleased that a number of our club members did.

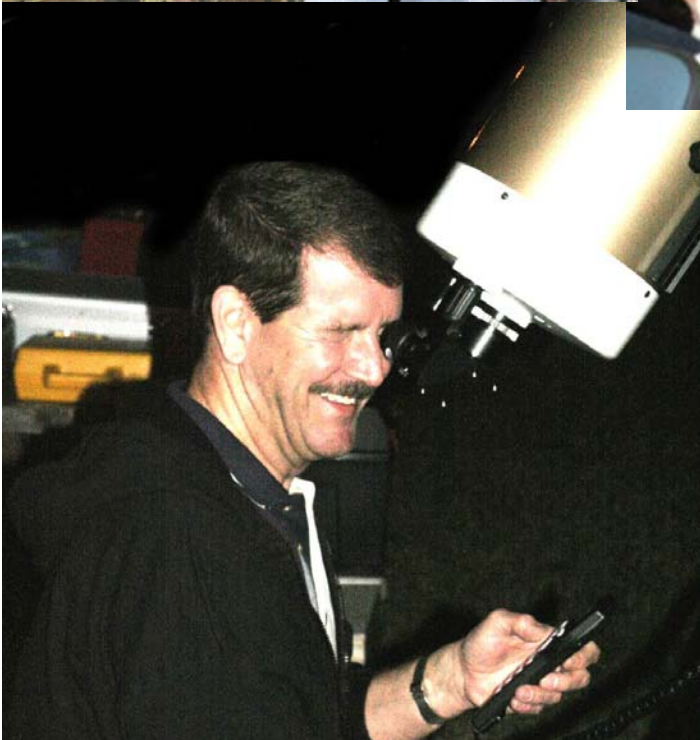
We are looking forward to continuing the adventure next year.

## HAA Public Outreach Photo Gallery—Photos by Mike Spicer & Glenn Muller

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## From The Event Horizon— Ten Years ago—Summer Issue 1997

### Eugene Shoemaker

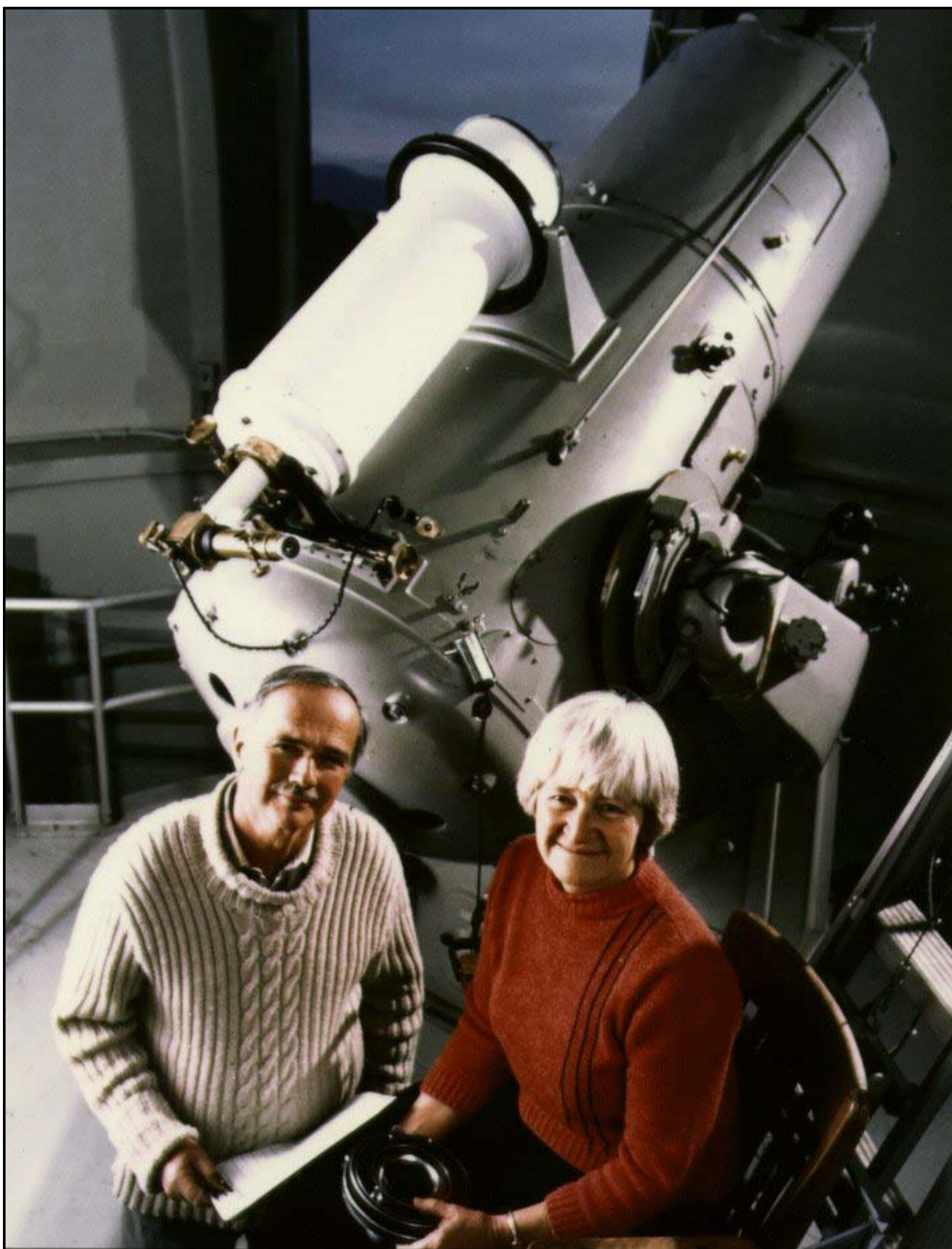
The world has lost one of its most renowned scientists with the death of Eugene Shoemaker at age 69. On the afternoon of July 18th, Gene and his wife Carolyn were involved in a car accident in central Australia. He was fatally injured; Carolyn suffered broken ribs but is expected to recover. The pair had arrived in Australia just six days before to study some of the continent's numerous impact craters—an annual trek Down Under that they'd made a habit in recent years.

Best known for his pioneering work in elucidating the mechanics of impacts and in the discovery of Earth-crossing bodies. Gene gained worldwide fame in March 1993 for his discovery, with Carolyn and colleagues David Levy, of a comet that would strike Jupiter 16 months later. Comet Shoemaker-Levy 9 was just one of the finds that made this husband-wife team the leading comet discoverers of this century. They are also credited with discovering more than 800 asteroids. But the one research interest he never tired of was Meteor Crater, the kilometer-wide pit East of Flagstaff, Arizona.

While still in his teens, Gene realized that someday astronauts would walk on the moon and from that point forward his whole professional life would be di-

rected toward becoming one of them. But a medical condition prevented him from ever being selected for the Apollo program "Not going to the Moon and banging on it with my own hammer has been the biggest disappointment in life" he said last year.

"But then, I probably wouldn't have gone to Palomar Observatory to take some 25,000 films of the night sky with Carolyn—she scanned them all—and we wouldn't have had the thrills of finding those things that go bump in the night







## Cosmic Cockroaches by Dr. Tony Phillips

Cockroaches are supposed to be tough, able to survive anything from a good stomping to a nuclear blast. But roaches are wimps compared to a little molecule that has recently caught the eye of biologists and astronomers—the polycyclic aromatic hydrocarbon.

Polycyclic aromatic hydrocarbons (PAHs for short) are ring-shaped molecules made of carbon and hydrogen. “They’re

all around us,” says Achim Tappe of the Harvard Center for Astrophysics. “PAHs are present in mineral oils, coal, tar, tobacco smoke and automobile exhaust.” Aromatic, ring-shaped molecules structurally akin to PAHs are found in DNA itself!

That’s why Tappe’s recent discovery may be so important. “PAHs are so tough, they can survive a supernova.”

The story begins a few thousand years ago when a massive star in the Large Magellanic Cloud exploded, blasting nearby star systems and interstellar clouds with hot gas and deadly radiation. The expanding shell, still visible from Earth after all these years and catalogued by astronomers as “N132D,” spans 80 light years and has swept up some 600 Suns worth of mass.

Last year “we observed N132D



*Using the IR spectrometer on the Spitzer Space Telescope, scientists found organic molecules in supernova remnant N132D.*

using NASA’s Spitzer Space Telescope,” says Tappe. Spitzer is an infrared (IR) telescope, and it has a spectrometer onboard sensitive to the IR emissions of PAHs. One look at N132D revealed “PAHs all around the supernova’s expanding shell. They appear to be swept up by a shock wave of 8 million degree gas. This is causing some damage to the molecules, but many of the PAHs are surviving.”

Astronomers have long known that PAHs are abundant not only on Earth but throughout the cosmos—they’ve been found in comet dust, meteorites and many cold interstellar clouds—but who knew they were so tough? “This is our first evidence that PAHs can withstand a supernova blast,” he says.

Their ability to survive may be key to life on Earth. Many astronomers are convinced that a super-

nova exploded in our corner of the galaxy 4-to-5 billion years ago just as the solar system was coalescing from primitive interstellar gas. In one scenario of life’s origins, PAHs survived and made their way to our planet. It turns out that stacks of PAHs can form in water—think, primordial seas—and provide a scaffold for nucleic acids with architectural properties akin to RNA and DNA. PAHs may be just tough enough for genesis.

Cockroaches, eat your hearts out.

Find out about other Spitzer discoveries at;

[www.spitzer.caltech.edu](http://www.spitzer.caltech.edu).

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**HAMILTON AMATEUR  
ASTRONOMERS**

PO Box 65578  
Dundas, Ontario  
L9H 6Y6

**General Inquiries**

secretary@amateurastronomy.org

**Membership**

membership@amateurastronomy.org

**Meeting Inquiries**

chair@amateurastronomy.org

**Public Events**

publicity@amateurastronomy.org

**Observing Inquiries**

observing@amateurastronomy.org

**Newsletter**

editor@amateurastronomy.org

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## Special Notice

Anyone with Internet access can download the latest newsletter (and any previous ones) from the club's website:

[www.amateurastronomy.org](http://www.amateurastronomy.org).

Having the newsletter available online also allows us to publish it in full colour.

If you do not have Internet access, **you will still be able to pick up a paper copy at each meeting.** Copies of the newsletter will also be available to any newcomers at our meetings. **If you do not have Internet access, and cannot attend the meetings, please call Ann Tekatch at 905-575-5433 and she will place you on the special mailings list.**

*The Event Horizon is a publication of the Hamilton Amateur Astronomers (HAA) The HAA is an amateur astronomy club, for people of all ages and experience levels, dedicated to the promotion and enjoyment of astronomy. 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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### Annual General Meeting

October 12<sup>th</sup>, 2007

7:30 PM @

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### **Article 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 weeks before each general meeting.

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