



## **HAC MEETING: Friday, January 9, 2009**

7 pm, Cochise College, Sierra Vista, Rm. 305A/B

**PLUS our monthly Show-N-Tells, upcoming event details, refreshments & NEW Exciting Door Prizes!**

**Speaker: Bob Gent**

**Topic: "Welcome to the Exciting World of Astronomy."**

### **STAR PARTY CORNER**

Keith Mullen, Star Party Coordinator (520) 366-0049 email: [repogazer@msn.com](mailto:repogazer@msn.com)

***Participation is the Lifeblood of the Club!***

With the holiday season now behind us, it's time to refocus on Astronomy. International Year of Astronomy 2009 (IYA 2009) will be packed with events, including the 400<sup>th</sup> birthday of the telescope. To recap last month's events, we had another roaring Christmas party with close to 40 attending. I'm not sure if we can get any more than that into the house but we have agreed to try it again in 2009.

The monthly Public Star Party was held at JBO with Bob Gent standing in as the club rep while I was recovering from a shoulder surgery. Bob reported a good turnout although it broke up early. Paul and Dorothy Dybvig hosted the Member Star Party out at SOLO. Even though it was in between Christmas and New Years, we had a good turnout. Dorothy's chili was a lifeline for those who braved the sub-freezing temperatures out in the observatory that night. Paul has finally got the 14" MAC NEWT all dialed in and *wow*, is that scope sharp as a tack on clusters and galaxies! I'm looking forward to a chance to put that 14" through its paces when the weather is warmer.

### **January Star Party Schedule**

Saturday, Jan 24<sup>th</sup> is the Member Star Party at Jim and Dianne's WSO. Hopefully we'll have warmer temperatures than December's MSP. Jim's 25" Obsession is one of the finest telescopes in the valley and makes easy work out of those faint fuzzies that are so prevalent during the

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## President's Perspective

Wayne Johnson

Happy New Year to Everyone! Despite the cold weather we've had a couple successful Member Star Parties north of Sierra Vista and we will have yet another one at Jim and Diane McCaw's place in J-Six at the end of January. Let us thank Dave Healy for continuing to have Public Star Parties at his wonderful facility.

We have at least two important club items to remember for this year. The first is that it is the International Year of Astronomy (IYA 2009) celebrating the 400th anniversary of the recognized invention of the telescope, though it took Galileo until the year 1610 to use it for astronomical purposes. The telescope was purportedly invented by Hans Lippershey in Holland who wanted to patent it as a military tool. Galileo heard about it and wanted to do much the same with the instrument, but happily he found productive use for his telescope in the field of astronomical research. Doug Snyder will give a short talk at the beginning of our January meeting about activities going on locally and globally associated with this special year.

The second very important item to remember is that our HAC newsletter will no longer be sent out via surface mail, but will be available for reading and/or printing from our HAC website, [www.HACAstronomy.com](http://www.HACAstronomy.com). This will place some responsibility upon club members to visit the website and to remember when meeting times are scheduled (the second Friday of the month until August this year). We'll try to help jog your memory by sending out meeting notifications by email, but we haven't set up the mechanics to accomplish that yet. We hope that by having the newsletter available on the HAC website we will be able to divert club money to more worthwhile activities like supporting scholarships and light pollution efforts, plus, members (like me!) will no longer have to worry about losing their newsletters. This should also open up the possibility for a larger newsletter with color images, so consider this to be a request for more members to contribute images and articles, even references to various sources on the web or in the magazines, to share with the mem-

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**Huachuca Astronomy Club** P.O. Box 922 Sierra Vista, AZ 85636 <http://hacastronomy.com> email: [mrgalaxy@juno.com](mailto:mrgalaxy@juno.com)

Yearly Membership: Individual: \$25; Family: \$35; Military: \$20; Student: \$10 (with restrictions)

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This issue of Nightfall can also be found on-line at [hacastronomy.com](http://hacastronomy.com). Click 'Newsletter' link. There is much more information about astronomy and our HAC activities on our club web site. \*To join the HAC-LIST, send an email to [haclist-subscribe@yahoogroups.com](mailto:haclist-subscribe@yahoogroups.com).

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bership. Since most members have access to the web by one means or another, many clubs and organizations are finding that making their newsletters available on their websites to be a viable way of disseminating club information. Let's see how this experiment works. Sorry if some of you received multiple messages, but I wasn't sure whether the new BOD members were included on the HACBOD list yet.

Clear skies,  
Wayne (aka Mr. Galaxy)

# It's 2009...

# Don't forget to support your Club and pay your Annual HAC Membership Dues during the month of January.

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winter months. Jim also usually stirs up a crock of chili or soup to keep everyone warm. Don't miss this IYA 2009 kickoff Star Party.

Friday, Jan. 30<sup>th</sup> is the Public Star Party held at JBO. With IYA 2009 in the news, we are expecting larger turnouts at the public events. So we are asking for more member participation; yes, that means please bring a scope when you come. Dave promises to have Big Blue in optimum shape all year. See you there!

Keep an eye on both the Nightfall and HAC Web Page for upcoming IYA 2009 events!



**About the Speaker:**

*Bob Gent is a retired USAF lieutenant colonel, and he is the past-president of the International Dark-Sky Association (IDA). He also served as president of the Astronomical League, a non-profit federation of 275 astronomical societies and nearly 17,000 members. Among other activities, he taught astronomy at Pima Community College in 1997-98. He holds university degrees in mathematics, astronomy, and international relations.*

**Topic:**

Bob's talk will be "Welcome to the Exciting World of Astronomy." The program will include selected astronomical images from spacecraft, some from professional observatories, and others from amateur astronomers. In addition, Bob will show some of his favourite reference materials that he used to get started in astronomy. He will conclude his talk with a brief discussion of the urgent need to protect the beauty of our night skies.



Doug Snyder will give a short talk on the upcoming IYA2009 (International Year of Astronomy). He will have a power point presentation created by the IAU and will also have some hand outs for the folks in attendance.



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Space Place Partner Column

## Superstar Hide and Seek

by Dr. Tony Phillips

It sounds like an impossible task: Take a star a hundred times larger in diameter and millions of times more luminous than the Sun and hide it in our own galaxy where the most powerful optical telescopes on Earth cannot find it.

But it is not impossible. In fact, there could be dozens to hundreds of such stars hiding in the Milky Way right now. Furiously burning their inner stores of hydrogen, these hidden superstars are like ticking bombs poised to 'go supernova' at any moment, possibly unleashing powerful gamma-ray bursts. No wonder astronomers are hunting for them.

Earlier this year, they found one. "It's called the Peony nebula star," says Lidia Oskinova of Potsdam University in Germany. "It shines like 3.2 million suns and weighs in at about 90 solar masses."

The star lies behind a dense veil of dust near the center of the Milky Way galaxy. Starlight traveling through the dust is attenuated so much that the Peony star, at first glance, looks rather dim and ordinary. Oskinova's team set the record straight using NASA's Spitzer Space Telescope. Clouds of dust can hide a star from visible-light telescopes, but Spitzer is an infrared telescope able to penetrate the dusty gloom.

"Using data from Spitzer, along with infrared observations from the ESO's New Technology Telescope in Chile, we calculated the Peony star's true luminosity," she explains. "In the Milky Way galaxy, it is second only to another known super-star, Eta Carina, which shines like 4.7 million suns."

Oskinova believes this is just the tip of the iceberg. Theoretical models of star formation suggest that one Peony-type star is born in our galaxy every 10,000 years. Given that the lifetime of such a star is about one million years, there should be 100 of them in the Milky Way at any given moment.

Could that be a hundred deadly gamma-ray bursts waiting to happen? Oskinova is not worried.

"There's no threat to Earth," she believes. "Gamma-ray bursts produce tightly focused jets of radiation and we would be extremely unlucky to be in the way of one. Furthermore, there don't appear to be any supermassive stars within a thousand light years of our planet."

Nevertheless, the hunt continues. Mapping and studying supermassive stars will help researchers understand the inner workings of extreme star formation and, moreover, identify stars on the brink of supernova. One day, astronomers monitoring a Peony-type star could witness with their own eyes one of the biggest explosions since the Big Bang itself. Now *that* might be hard to hide.

Find out the latest news on discoveries using the Spitzer at [www.spitzer.caltech.edu](http://www.spitzer.caltech.edu). Kids (of all ages) can read about "Lucy's Planet Hunt" using the Spitzer Space Telescope at [spaceplace.nasa.gov/en/kids/spitzer/lucy](http://spaceplace.nasa.gov/en/kids/spitzer/lucy).

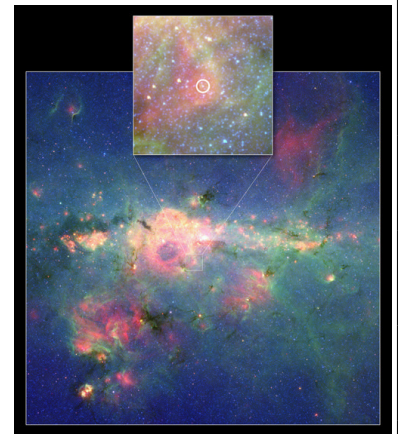
This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

*Caption:*

*The "Peony Nebula" star is the second-brightest found in the Milky Way Galaxy, after Eta Carina. The Peony star blazes with the light of 3.2 million suns.*

**Note to editors:**

You can download a high-resolution file of this image from [http://spaceplace.nasa.gov/news\\_images/peony.jpg](http://spaceplace.nasa.gov/news_images/peony.jpg)



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