# AU AstroNews

The Newsletter of the Astronomical Unit

August 2002 Sponsored by the Santa Barbara Museum of Natural History

## Perseids

There's good news and bad news about the **Perseid Meteor Shower** for us this year. Good news – the Moon will be a waxing crescent that sets before prime viewing hours. Bad news – the predicted main peak is in the daytime of Monday, August 12 for us. Good news – a possible secondary peak at midnight on August 12 is perfect for us. The shower has increased rates for days on either side of the main peak, so get out there and watch. After midnight is best, since then you're on the leading edge of the Earth in its orbit. Also, the radiant point in Perseus doesn't get very high above the horizon until 11 PM or so.

You don't need any fancy equipment to observe the Perseids. Just find the darkest site you can with a view of as much of the sky as possible. Lie back in a lounge chair with your feet to the northeast and look up. The meteors may appear anywhere in the sky, and if you trace their paths back, they will tend to converge in Perseus. Perseids are debris from Comet Swift-Tuttle, and tend to be fast-moving (37 miles per second) and to leave bright trails. Expect about one meteor per minute – nothing like that meteor storm from the Leonids last November.

## July Outreach Volunteers

July was a busy month! Since the last newsletter, volunteers Jim Billig, Warren Bitters, Dave Bloom, John Boyd, Gretchen & Greg Brinser, Art Harris, Marv Johnson, June Kelley, Pat McPartlin, Edgar Ocampo, Helen Osenga, Ron Pembleton, Craig Prater, Yessie & Matt Thomas, and Jim Williams brought astronomy fun to **903** customers at outreach events.

## AU Events for August

Thursday, August 8, setup 7:45 PM – Santa Barbara City Nature Camp kids at Skofield Park. We need some extra help for this outreach, since Pat and Chuck can't come with their scopes. Contact Edgar to help out.

Friday, August 9, setup 8 PM – Refugio Beach State Park. We need some extra help for this outreach, since Pat and Chuck can't come with their scopes. Contact Edgar to help out.

Saturday, August 10, 8:30 PM – Monthly Star Party at SBMNH.

Thursday, August 15, setup 7:30 PM – Santa Barbara City Aqua Camp kids at Sycamore campsite at Sage Hill Campground.

Friday, August 16, setup 8 PM – Monthly Public Observation at Westmont. We've removed the big mirror for recoating, so we will need folks with scopes for this one!

Saturday, August 17, setup 7:30 PM – Slide show and telescopes at Dakota Plains at Cachuma Lake.

Thursday, August 22, setup 7 PM – Slide show and telescopes for Senior Summer School at Francisco Torres in Isla Vista. Which is worse – the Full Moon or the light pollution?

Saturday, August 24, setup 7 PM – Los Padres Family Camp at Paradise Overflow.

Remember that outreach events often change at the last minute. Contact Edgar for the latest developments.

## Gun Club Permit

The Forest Service is considering a renewal of the permit allowing the Winchester Canyon Gun Club to continue operating at its current location near the end of West Camino Cielo. They want to hear comments from the public. In addition to providing a safe place for people to shoot, the Gun Club allows us to use their Shotgun Range facilities at night for observations. This gives us a safe, level place to park and set up our scopes for (semi) dark sky observing, without the need for an Adventure Pass.

The Forest Service is asking for comments from the public, in writing or by phone, with a deadline of

August 13. If you've taken advantage of the Gun Club's hospitality, you should let the Forset Service know that it is a recreational resource for you. Contact Jeff Benson, Recreation Assistant, Santa Barbara Ranger District, 3505 Paradise Road, Santa Barbara, CA 93105, or phone 805-967-3481 extension 227.

## A Letter From Alex

A Letter from the President of the ASP, Alex Filippenko, who visited us in January:

Let me tell you a personal story about my introduction to the world of astronomy. As a kid, I had always been a science buff, playing at home with microscopes, magnets, and various gadgets. The snippets of astronomy that I heard in grade school and junior high were fascinating, and I yearned to learn more. So it was natural that I received a 6-cm refractor as a gift from my parents in December 1972, when I was a freshman in high school.

I still remember my first night with that telescope, nearly 30 years ago, as though it were only yesterday. Pointing toward a bright star, I was rewarded with a much brighter view, though of course it still looked like a tiny point of light with no details. A second bright star looked about the same, and the thrill was beginning to wane. I knew, though, that to find out where the "good stuff" is, I would have to consult more experienced amateur astronomers. So, I decided to have a quick look at a third bright star before giving up for the night. As I let go of the telescope and peered through the eyepiece, waiting for the jiggling to subside, I suddenly realized that I was viewing the planet Saturn, with its glorious set of rings! I was dazzled -- the sight knocked my socks off! It didn't matter that millions of people had seen Saturn before; that night, in my mind, I had "discovered" Saturn on my own, and the amateur astronomy bug bit me hard... really hard.

I promptly joined the **Santa Barbara Astronomy Club** and was inundated with helpful observing advice, unbridled enthusiasm and camaraderie, great views of objects through telescopes much larger than mine, and informative presentations at the monthly meetings. I learned so much from my amateur astronomy buddies -- it was incredible. And they showed the same love for explaining the wonders of the heavens to laypersons during public star parties and other events. I personally witnessed many people enthralled, inspired, and awed by what they saw and heard, the majesty of the Universe grandly displayed before them. It became clear to me that amateur astronomers were highly effective in bringing science to the public.

Now, three decades later, I am the President of the non-profit Astronomical Society of the Pacific (ASP), a main goal of which is the public dissemination of astronomical knowledge. I would not be in this fortunate position without my early exposure to amateur astronomy. Like you, we at the ASP want to explore the cosmos, and also excite and inform the general public about astronomy. YOU can help us by becoming a member of the ASP and thus supporting our educational activities -- including Project ASTRO (a national astronomy education program), The Teachers' Newsletter, an extensive catalog of astronomy-related products for educators and the public (members get a 10% discount), K-12 teachers' workshops, public lectures, and much more. Also, you'll receive our bimonthly Mercury magazine with insightful articles and other items. Please go to our web site at www.astrosociety.org and consider joining! Annual dues are only $48 for individuals ($35 for students) and $75 for families.

Let me also take this opportunity to invite you to attend the ASP's public symposium, co-sponsored by the Astronomical Association of Northern California (AANC) http://www.aanc-astronomy.org/, on September 29, in Pimentel Hall at the UC Berkeley campus. It is entitled "The Cosmic Thread: From Stars to Life," and features a stellar list of speakers (Seth Shostak, Geoff Marcy, Jill Tarter, David Morrison, and others). You can register at the ASP web site: $35 for the general public, $30 for ASP members, and $25 for students. It is certain to be a great event.

Happy viewing!

Alex Filippenko
Professor of Astronomy
University Distinguished Teacher
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## E-Nose is E-Nose is E-Nose

It is very important to keep a "nose" on the air during space missions. Odors from dangerous chemicals in the air must be detected early and fast. One possible danger is hydrazine, the rocket fuel carried on board spaceships. If it leaked into the cabin area, it could do a lot of damage before anyone knew it was there. The job calls for a "super nose" that can detect faint smells far beyond the ability of human beings.

Scientists at Caltech studied the way human and animal noses worked. They thought it might be possible to make a super-nose. NASA thought this was a good idea, so scientists and engineers at the Jet Propulsion Laboratory in Pasadena developed an electronic nose, or "E-Nose." This nose can sniff using a pump, smell using polymer sensors, and decide what's in the air using a mini-computer. E-Nose was developed to monitor the air that the crew in the International Space Station will breathe. It was tried out on the Space Shuttle, and it worked just fine.

E-Nose will also have many uses here on Earth. It can monitor the air inside submarines and in factories to warn people very early if something is making the air unsafe to breathe. It can be used in processing food to tell if food is beginning to spoil. And someday it may be used on another planet or moon to sniff out what's "cooking" up there.

You can find out more about E-Nose and have fun testing your own nose at the Space Place Web site, spaceplace.nasa.gov/enose_do1.htm. The Space Place has fun and educational activities for parents, children, and teachers -- and lots of facts related to many of NASA's space missions.

*This article was provided by NASA's Jet Propulsion Laboratory, managed by Caltech in Pasadena.*

## Desert Sunset Star Party

The Desert Sunset Star Party, held May 1-4, 2003 at the Kartchner Cavern State Park, in Benson AZ, is looking for volunteers and presenters. See their site at http://chartmarker.tripod.com. Provide a written title and brief description by email to chartmarker@cox.net by Sept. 30, 2002.

**AU Information Box**

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| **Refreshments:** | **Position Vacant!**<br>**Do you want to help out?** | |
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Single $15 Family $25

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# August 2002

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| 4 | 5 | 6 | 7 | 8 ● Nature Camp | 9 Refugio Beach | 10 SBMNH Star Party Dark Sky |
| 11 *Perseids* | 12 | 13 | 14 | 15 ◐ Aqua Camp | 16 Westmont Public Obs | 17 Cachuma |
| 18 | 19 | 20 | 21 | 22 ○ Senior Summer School | 23 | 24 Family Camp |
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