



# Desert Sky Observer

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NEWSLETTER OF THE ANTELOPE VALLEY ASTRONOMY CLUB, INC  
P.O. BOX 4595, LANCASTER, CALIFORNIA 93539-4595  
*The Antelope Valley Astronomy Club, Inc., is a 501(c)(3) Non-Profit Corporation.  
Visit the Antelope Valley Astronomy Club website at [www.avastronomyclub.org/](http://www.avastronomyclub.org/) The  
A.V.A.C. is a Sustaining Member of The Astronomical League and the International  
Dark-Sky Association.*



## Up-Coming Events

- March 6:** First Quarter Moon  
**March 10:** **Monthly Club Meeting\***  
**March 14:** Full Moon  
**March 15:** Last Day to Submit Essays for YEA  
**March 17:** Executive Board Meeting  
**March 21:** Lecture Series at the Huntington  
**March 22:** Last Quarter Moon  
**March 25:** Messier Marathon at [Red Rock Canyon](#)  
**March 29:** New Moon

\* Monthly meetings are held at the S.A.G.E. Planetarium at the Cactus School in Palmdale on the second Friday of each month. The meeting location is at the northeast corner of Avenue R and 20<sup>th</sup> Street East. Meetings start at 7 p.m. and are open to the public. Please note that food and drink are not allowed in the planetarium

## *Club President* *Doug Drake*

Welcome to our club newsletter, the Desert Sky Observer, also known as the DSO. We have one of our greatest club events occurring at this time, the Youth Exploring Astronomy (YEA) contest for school students from fifth through eighth grade. This will be the sixth year our club has held this essay contest. The students are to write on a topic selected from a list of subjects dependent upon their grade level. Get on our club web site, [www.avastronomyclub.org](http://www.avastronomyclub.org), and click on "Youth Exploring Astronomy Essay Contest" to find out the details. March 15 is the last day they can submit their entry. After the winners are selected, eight in all, we will have an awards night at our May 12 club meeting. This is a very exciting event for all of us and I want to thank all of you that are putting in the effort to make this happen.

On March 25 we will have our annual Messier Marathon club star party. I am not able to get Saddle Back Butte because another group has booked this day before the first of the year. I have e-mailed the ranger at Red Rock to see if we can have our Messier Marathon there; however as a backup, the Matt Leone family has invited us to have it at their place, just north of Rosamond. Rose Moore has setup a school star party at the Vista San Gabriel School on Friday, March 31. She will have all the details for you, please plan on supporting her in this important event for our club.

Do you get excited or scared when you see lightning. The Cassini Scientists are tracking the strongest lightning storm ever detected on Saturn. How big is this storm? Well the storm is larger than the continental United States and about 1,000 times stronger than any lightning recorded on Earth!!

See you at our next club meeting, Friday, March 10, and feel free to talk with me. You are a member of one of the best astronomy clubs in Southern California.

Your, Pres Doug

## *Vice President*

### *Richard Hague*

Jeremy Amarant will present the program this month. It is a spectacular show entitled, "The Story of the Planets." We all know Jeremy but here are a few details about his background and interests:

Jeremy joined the Palmdale Elementary School District in December of 1999 as SAGE Planetarium Director. He got his Degree from Humboldt State in astrophotography, combining studies in physics, physical science, and photography. While there he assisted in managing their observatory. He then went to Griffith Observatory as a Museum Guide and followed that as a Planetarium Presenter at the Arizona Science Center. Along the way he also worked as a graphics designer and in a chemistry laboratory. Among the many facets of astronomy he considers the study of cosmology to be of particular interest.

The YEA awards will be presented at our regular meeting in May. It will be quite a show so please plan to attend. Look forward to our multi-station astronomy fair in June, some of the presenters may surprise you. Kevin Grazer will be with us in July and Chris Butler in August.

Dick Hague

## *Director Community Development: Rose Moore*

We've had a few changes for some of our tentative star parties. The star party for Vista San Gabriel School has been moved up to March 31st, a Friday. If anyone is interested in helping out please let me know, or please let Doug know at our club meeting March 10th; I will not be present at March's meeting. Anyone interested in helping out at the Poppy Festival on the weekend of April 22 and 23, please sign up! Doug will have the sign up sheet at March's meeting. We also need volunteers to set up on Friday. There is an Executive Board Meeting that Friday, so members of the Board won't be available to help set up. The star party for the home school children will be at the Poppy Reserve, as stated in the last DSO, on April 29th. The application is ready and will be faxed shortly. We are expecting approximately 50-70 students. They will be separate from our club star party that same night. The Brownies and Girl Scouts will be at Prime Desert Woodlands on Friday, May 5th. We are waiting for confirmation from the Director of PDW for that date. There will be approximately 10-14 Brownies plus parents (total about 30-35 persons), and I do not have a count yet from the Girl Scouts. If anyone is interested in signing up for any of the events, please contact me by e-mail, phone, or sign up at the club meeting! Good Luck to everyone at the Messier Marathon on March 25th!!!

Rose Moore, Community Development Director



Dr. Alex Meier, getting ready for the January Meeting. He is part of the Heavenword program. [www.heavenword.org](http://www.heavenword.org)



## ***Micro-sats with Macro-potential***

by Patrick L. Barry

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

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

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

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

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

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

Slavin suggests some other potential uses for micro-sats:

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

Or perhaps a string of micro-sats, flying single file in low-Earth orbit, could take a series of snapshots of violent thunderstorms as each micro-sat in the "train" passes over the storm. This technology would combine the continuous large-scale storm monitoring of geosynchronous weather satellites-which orbit far from the Earth at about 36,000 kilometers' altitude-with the up-close, highly detailed view of satellites only 400 kilometers overhead.

If ST5 is successful, these little satellites could end up playing a big role in future exploration.

The ST5 Web site at [nmp.jpl.nasa.gov/st5](http://nmp.jpl.nasa.gov/st5) has the details. Kids can have fun with ST5 at [spaceplace.nasa.gov](http://spaceplace.nasa.gov), by just typing ST5 in the site's Find It field.

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

***Did you know? ? ?***

Charlatans sold gas masks and comet pills that claimed to protect people from the cyanide gas given off by some comets.

***? ? ?***

## *News and Headlines*

### **Look at Orion to Help Fight Light Pollution**

The National Optical Astronomy Observatory invites you to join the GLOBE at Night Program for a Star-Hunting Party during March 22-29, 2006! Participation is open to anyone, anywhere who can go outside and look up. There is no cost and they are trying to get 5000 observations from around the world!

<http://www.globe.gov/globeatnight>

### **Comet Pojmanski Reaches 5th Magnitude**

In On January 1 2006, Grzegorz Pojmanski from Warsaw University Astronomical Observatory discovered comet Pojmanski at the magnitude of 12.5. It is in Capricorn in the beginning of the month and moving up between Aquila and Aquarius, passing very close to Delphinus in the middle of the month and ending March in Lacerta. It will continue north and circle very close to the pole.

<http://cfa-www.harvard.edu/iau/Ephemerides/Comets/2006A1.html>

[http://spaceweather.com/images2006/28feb06/skymap\\_north.gif](http://spaceweather.com/images2006/28feb06/skymap_north.gif)

### **Nearby Supernova Startles Astrophysicists**

GRB 060218 was detected on Feb. 17 by NASA's Swift satellite. It was an unprecedented blast of high-energy radiation, called a gamma ray burst (GRB), from a galaxy 440 million light-years from Earth. This one startled the world's astrophysicists because it was 25 times closer to Earth than the typical gamma ray burst. Although it seemed unusually weak, it lasted for 2,000 seconds, about 33 min. <http://www.baltimoresun.com/news/nationworld/bal-te.bang25feb25.0.471565.story?coll=bal-pe-asection>

### **March and April Good Time for Zodiacal Light**

This is really the best time of year to look for the Zodiacal Light. It follows the ecliptic, or the flat plane of our Solar System, and is very faint. An experienced observer may have trouble with this one. It looks a little like the Milky Way, but it is in the wrong place in the sky. It can stretch across the sky, but usually only appears on the horizon running straight up and down. You will need a very dark area and a Moonless night.

[http://en.wikipedia.org/wiki/Zodiacal\\_light](http://en.wikipedia.org/wiki/Zodiacal_light)

### **YEA is in the News**

The AV Press did a supporting article for the Youth Exploring Astronomy Essay Contest. It ran on February 22 for those of you who still have your old copies. Entry forms are on our club's website.

## **Astronomy Links on the Web**

<http://www.darksky.org/>

(International Dark-Sky Association)

<http://www.astro-tom.com/>

(Tom Koonce's website)

<http://www.noexitrecords.com/zerobox/astro.htm>

(Tom Varden's website)

<http://www.astropaws.com>

(Terry Babineaux's astrophotos)

<http://www.actonastro.com/>

(Steve Trotta's website)

<http://saturn.jpl.nasa.gov/multimedia/images/latest/index.cfm>

(the latest Saturn pics from Cassini)

<http://astronomy-mall.com/>

(shop 'til you go broke)



[Astro-tom.com](http://Astro-tom.com) is dedicated to amateur astronomy

### **A.V.A.C. Membership Information**

Membership in the Antelope Valley Astronomy Club is open to any individual.

The Club has three categories of membership.

- Family membership at \$30.00 per year.
- Individual membership at \$25.00 per year.
- Junior membership at \$15.00 per year.

Membership entitles you to...

- Desert Sky Observer—monthly newsletter.
- The Reflector—the quarterly publication of the Astronomical League.
- The A.V.A.C. Membership Manual.
- To borrow club telescopes, binoculars, camera, books, videos and other items.

The Desert Sky Observer is available as a separate publication to individuals at a cost of \$10.00 per year. Subscription to the Desert Sky Observer does not entitle the subscriber to membership in the Antelope Valley Astronomy Club and its associated privileges.

### **A.V.A.C. Board Members**

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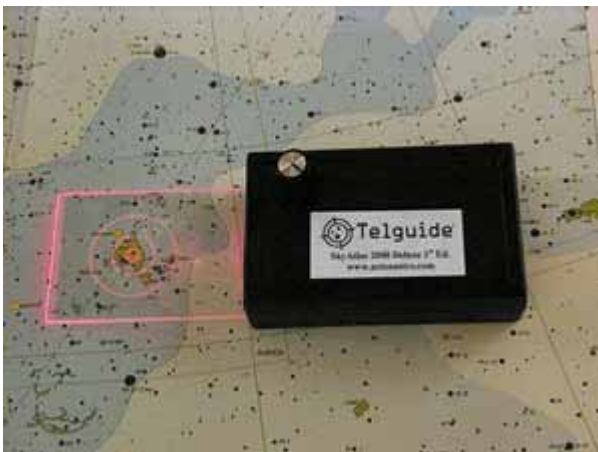
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**High Desert Broadcasting:** General Manager, Vicky Connors (661) 947-3107; They assist us in advertising our Club.

**Woodland Hills Camera:** 5348 Topanga Canyon Blvd., Woodland Hills. 888-427-8766. [www.telescopes.net](http://www.telescopes.net)

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