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# 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 Is A California Non Profit Corporation  
Visit The Antelope Valley Astronomy Club Web Site At [www.avac.av.org](http://www.avac.av.org)  
The A.V.A.C. Is A Sustaining Member Of The Astronomical League*



## Up-Coming Events

**January 6:** Last Quarter Moon

**January 11:** Monthly Club Meeting\*

**January 12:** Star Party, Red Rock State Park

**January 13:** New Moon

**January 21:** First Quarter Moon

**January 28:** Full Moon

**Anytime:** Observe.

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

## President's Report

*Terry Pedroza*

I hope everyone had a wonderful Christmas and a happy New Year! The Christmas Party was a huge success. We had forty members present, with all having a great time. With raffles, silent auctions, and tales of new scopes to be, all were busy with merriment.

I would like to thank and congratulate the members of the 2001 Executive Board on their success and for a job well done! Our club has grown from a handful of members to right at one hundred in a very short time. We have new equipment and our library is growing steadily. Our efforts in the community are growing by leaps and bounds and I expect these trends to continue.

Our new Executive Board's job will be easier because of the wonderful results of the outgoing Board. The new members are full of

enthusiasm and are ready to start the New Year. They have some great ideas for our club and I am excited to be a part of this group.

If any of you have an idea for the club, let me or one of the other Board members know. I hope to see all of you at the next meeting or star party.

## Community Development Director

*Debora Pedroza*

Hello AVAC members and families. The year 2002 is upon us and I'm excited to welcome all of you into another calendar year- a year filled with a variety of community events as well as our 2nd Annual Youth Exploring Astronomy Essay Contest. Part of our club's mission is to introduce and educate the community on the many wonders of astronomy. Adults and children throughout the entire valley have enjoyed the telescope viewing we have offered. Hearing and seeing their "WOW's!" is an awesome experience! Make it one of your goals this year to join us in these fun-filled community events.

Sponsorship is another way to involve and promote the community. We will happily display the name of any business- at all of our public events- that contributes to our club. No contribution is too small... or too large. We need your help! We all know someone who owns or runs a business (friend, family member, acquaintance etc.). Please ask them to join us in a "win-win partnership." If you would like the club to make the initial contact, then pass the

information on to me or any other Board member. Thanks in advance for your support!

See you all soon and Happy New Year!

## *Minutes of the Antelope Valley Astronomy Club, Inc. Christmas Party*

***December 14, 2001***

We came, we ate, we had fun. There was no meeting and no minutes. We did, however, have a fun time at the Greenhouse Café. If you missed out, mark your calendars for next year... only 11 more months!

### **In The News**

Since Jupiter is shining brilliantly in the east, now is a good time to learn more about the gas giant, courtesy of *Sky&Telescope* magazine online:

Telescopic observers from the 19th century may not have had the technological wizardry available to modern-day sky watchers — but they apparently had an easier time spotting Jupiter's signature feature, its Great Red Spot. According to Amy Simon-Miller (NASA/Goddard Space Flight Center), today this giant cyclonic storm is only about half as big as it was in the 1880s. Simon-Miller and three colleagues confirmed the shrinkage during a careful comparison of historical records and contemporary images from the Voyager, Galileo, and Cassini spacecraft. She presented their results last month at a meeting of planetary scientists.

Astronomers have known since the early 1900s that the Great Red Spot's longitudinal extent has been decreasing. Late in the 19th century the spot was nearly 35° wide, which corresponds to about 40,000 kilometers, or more than three times Earth's diameter. By 1979, when Voyagers 1 and 2 swept past, it had shrunk to 21° (about 25,000 km), yet its latitudinal "height" remained essentially unchanged, about 12,000 km from top to bottom.

Simon-Miller has discovered that the contraction seems to have picked up steam since the Voyager visits: at its present rate of shrinkage (0.19° in longitude per year), the spot will become the "Great Red Circle" by the year 2040.

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However a perfectly round shape is unlikely, she explains, because the strong, opposing jet streams that confine the spot's northern and southern boundaries will always distort it into an oval.

No one knows why the not-so-Great Red Spot has shrunk — or, for that matter, why its color intensifies and fades over time. One clue is that the winds around its circumference are whirling 70 percent faster now (about 700 km per hour) than they were in the Voyager era. Some historical observations suggest that the Red Spot grows and shrinks in a decades-long sequence. "I'm not sure the behavior is really cyclical," Simon-Miller comments, "but I certainly would not be surprised in the least if this shrinking trend slowed or reversed."

One possible explanation is that deep-seated bursts of thunderstorm-like convection periodically energize the overlying cloud layers, causing the spot to bloat in size, then gradually contract as the turbulence subsides. "All of the weather on Jupiter seems to have sporadic increases in activity," she notes, "so whatever feeds the Great Red Spot likely will too." — J. Kelly Beatty

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Here's a strange story from JPL's website. NASA and JPL are not just about exploring distant new worlds...

### **NASA Sensor Captures Plight of Periled Antarctic Penguins**

December 27, 2001

A NASA remote sensing instrument is capturing an unfolding ecological disaster affecting hundreds of thousands of penguins at Earth's southern tip.

Images from the Multi-angle Imaging SpectroRadiometer, a remote sensor built and managed by NASA's Jet Propulsion Laboratory, Pasadena, Calif., are documenting the movement of huge icebergs and spreading sea ice in Antarctica's Ross Sea. These natural phenomena are adversely affecting the region's penguin population, according to a new study funded by the National Science Foundation.

Two massive icebergs, initially designated B-15 and C-16, broke away from the Ross Ice Shelf in March 2000 and migrated west to a point northeast of McMurdo Sound. The resulting barrier altered wind and current patterns. In addition, earlier this season

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sea ice in the region of the main U.S. Antarctic facility, McMurdo Station, expanded from its normal distance of 24 to 32 kilometers (15 to 20 nautical miles) north of the base to approximately 128 kilometers (80 nautical miles). The combination of icebergs and sea ice has made it difficult for entire colonies of penguins to return from their feeding grounds in the open sea to their breeding areas. The result is expected to be a significant reduction in regional penguin populations, with one colony in danger of extinction.

An image sequence is available online at:

<http://www.jpl.nasa.gov/images/earth/antarctica> .

The images, taken between December 2000 and December 2001, depict the rapid motion of the C-16 iceberg in late 2000 and early 2001 and its subsequent stall, as well as the incursion of the B-15A iceberg, a large fragment of the original B-15 iceberg. The increase in sea ice is particularly pronounced in the final image.

The Multi-angle Imaging SpectroRadiometer is one of several Earth-observing experiments aboard the Terra satellite, launched in December 1999. The instrument acquires images of Earth at nine angles simultaneously, using nine separate cameras pointed forward, downward and backward along its flight path. More information is available at:

<http://www-misr.jpl.nasa.gov>.

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#### Helpful Hint:

Times are often given in UT, Universal Time. This is the time in Greenwich, England - so count over the hours to get to your own time zone! For observers on Pacific Time, it is 8 hours earlier - i.e. using the 24 hour system: 02.01, 09.31 and 10.19, or in normal clock time: 2.01 am, 9.31 am, and 10.19 am.

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**DO YOU** know of a business willing to sponsor the AVAC as we reach out to our community and educate young people about astronomy? If so, contact Debora Pedroza at [res0hqoz@verizon.net](mailto:res0hqoz@verizon.net)

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### Did you know?

**Two of Jupiter's moons, Ganymede and Callisto, are as big as or bigger than the planet Mercury.**

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### Astronomy Links on the Web

<http://oposite.stsci.edu/pubinfo/>

(Hubble Telescope Photos)

<http://www.space.com/php/dse/wallpaper/>

(Neat wallpaper for your desktop)

<http://planetescapes.com/>

(Photos and info about the planets)

[http://encke.jpl.nasa.gov/whats\\_visible.html](http://encke.jpl.nasa.gov/whats_visible.html)

(visible comets)

[http://antwrp.gsfc.nasa.gov/apod/image/0011/earthlights\\_dmsp\\_big.jpg](http://antwrp.gsfc.nasa.gov/apod/image/0011/earthlights_dmsp_big.jpg)

(dark skies? where?)

<http://www.avac.av.org/>

(Hey, that's us! So go there!)

### For Sale

**Celestron CD-150HD – 6” Refractor with Motor Drive.** (Reduced \$100!) \$425  
Contact Holland Fountain at (661) 942-3505 with additional questions.

Got something you want to see in the *Desert Sky Observer*? Whether it's a website, a type of story (i.e. stories about the Mars *Odyssey* mission), or astronomy jokes (please, no Uranus jokes), then e-mail Brian Peterson at [cybrpete@sbcglobal.net](mailto:cybrpete@sbcglobal.net) and he'll be happy to consider your request.

## 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

**President:** Terry Pedroza (661) 949-6975 - [res0hqoz@verizon.net](mailto:res0hqoz@verizon.net)

**Vice-President:** Matt Leone (661) 948-1521 - [als@hughes.net](mailto:als@hughes.net)

**Secretary:** Brian Peterson (661) 273-1693 - [cybrpete@sbcglobal.net](mailto:cybrpete@sbcglobal.net)

**Treasurer:** Mary Andrus (661) 946-0372 - [mfandrus@aol.com](mailto:mfandrus@aol.com)

**Member At Large:** Debora Pedroza (661) 949-6975 - [res0hqoz@verizon.net](mailto:res0hqoz@verizon.net)

## COMMUNITY DEVELOPMENT

Debora Pedroza (661) 949-6975 - [res0hqoz@verizon.net](mailto:res0hqoz@verizon.net)

## Desert Sky Observer

### NEWSLETTER COMMITTEE

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Steve Trotta (661) 269-5428 - [ssrott@prodigy.net](mailto:ssrott@prodigy.net)

### WEBSITE COMMITTEE

Steve Trotta (661) 269-5428 - [ssrott@prodigy.net](mailto:ssrott@prodigy.net)

### CLUB LIBRARIAN

Terry Pedroza (661) 949-6975 - [res0hqoz@verizon.net](mailto:res0hqoz@verizon.net)

### ASTRONOMICAL LEAGUE

Tom Koonce (661) 943-8200 - [takoonce@aol.com](mailto:takoonce@aol.com)

## Our Sponsors

**Al's Vacuum and Sewing:** 904 West Lancaster Blvd. (661) 948-1521. Stop by and say "hey" to Matthew and Suzanne.

**Darkrooms Plus:** 20th St. W. near Pep Boys in Lancaster. (661) 945-1444. They offer all club members a 10% discount on all purchases. Stop by and say "hey" to Dean or Hank.

**King Photo:** 749 W. Lancaster Blvd. (661) 948-8441. As a telescope dealer, they always support the AVAC. Stop by and say "hey" to Stokely or Paul.

**QNET:** 1529 E. Palmdale Blvd., Suite 200. (661) 538-2028. As an Internet provider, they are kind enough to provide us with a free website.

**Vista Golf:** 43517 N. 13th Street West, Lancaster. (661) 945-7003.

*Thanks for your generous support!*