
Desert Sky Observer

Volume 23 Issue 2

February 2003



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 website At www.avac.av.org
The A.V.A.C. is a Sustaining Member of The Astronomical League*



Up-Coming Events

February 1: Star Parties: Prime Desert Woodlands event and [Crystalaire](#). New Moon

February 9: First Quarter Moon

February 14: Monthly Club Meeting*

February 16: Full Moon

February 23: Last Quarter Moon

Anytime: Observe

* Monthly meetings 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 20th 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

This is an exciting time for the Antelope Valley Astronomy Club. We are seeing many of our dreams coming to fruition. We are beginning to get fantastic pictures and real-time video from the Stellacam EX that the club purchased last year. This camera has tempered my excitement many times when I have tried to use it. But now, with knowledge gained and many hours of trial and error we are getting top-notch pictures.

The Club has been looking into property for a permanent observing site this last year and our search has paid off. Tom Koonce and I did a presentation at Antelope Valley College last year, where we met Ken Basham. We invited Ken to an AVAC meeting and he attended the next month, when I announced that the club was looking for an observing site. After the meeting, Ken told us that he had fifty acres and that if we were interested we could use part of it as our observing site. Errol Van Horne, Doug Drake, Matt Leone and myself went to Ken's place on January 17th and were immediately impressed by the dark skies so close to town. We will plan on having a couple of Star Parties there before we begin doing any improvements so as to get member input on the viability of the site. Please try to attend these star parties, as everyone's input is important.

2003 promises to be another exciting year. The calendar is starting to fill and the community is calling. Let's show the A.V. what our club is all about.

Vice President's Report*Tom Koonce*

Thank you for electing me as your Vice President. I have so much fun putting together events and getting the speakers for the club. I wish to thank Dr. Dave Meier again for his excellent talk this last month on "Cosmic Jets; New Building Blocks of the Universe." It certainly was right on target for our club's audience and fascinating.

Back in November, I first mentioned that the AVAC would be sponsoring the 1st Annual AVAC Conference on Amateur Astronomy (AACAA) on September 20th, 2003. That's a Saturday. It will be held at George Lane Park, located at 55th West and Avenue L-8, in the facility located right on the corner. We have the entire facility reserved for a day and evening of amateur astronomy classes, a sack lunch, astronomy lectures and a complete telescope-making class taught by Matt Leone, followed by a barbecue and an evening star party. This ambitious undertaking is being made possible by our own members- members like you who are willing to learn a little bit more about a particular subject they might be interested in and then teach others about what they've learned. We'll have classes at the Beginner, Intermediate and even the Advanced level. I'm looking for volunteers to help with a couple of the classes and with the evening barbecue. As the Conference Chairman, please give me an e-mail or a phone call. The club can really use your help. (Tom Koonce, takoonce@aol.com, 661-943-8200, before 9 PM)

I am proud to announce that the Astronomical League-sponsored Messier Observers Group has gained several new members from our club, including (as of this writing) Sam Prestel (more than 70 objects - within two objects of all 110), Michael Leone (more than 70 Objects), Mindy Peterson (the first woman in the Antelope Valley Astronomy Club to get all 110 objects), Brian Peterson (all 110 objects and Mindy's companion through their voyage of discovery), and Susan Leone (more than 70 Messier objects.) If you have been tracking their progress in these DSO pages, the Leone's are the first family of four to have EVERY member in the family to have at least their Messier Certificate. I would bet that within a couple of months they may be the only family of four in the entire Astronomical League to have all members with their Messier Pins. Way to go!

In February, we will be fortunate to have Dr. Carl Grillmair, from CalTech and JPL, speaking to us on "Astronomy at JPL: SIRTf and Beyond. SIRTf (Space Infrared Telescope Facility) is the culmination of NASA's Great Observatories program: four space telescopes built specially to address some of the most fundamental questions in Astronomy. Please make plans to attend this special presentation and tell your friends.

Dir. of Community Development*Debora Pedroza*

What a phenomenal start we have had for the year 2003! I do believe that January's club meeting attendance was the highest ever, as was the attendance for the Introduction class. This means that we are reaching out to more people, increasing member involvement, and best of all, you can feel the enthusiasm in the air. Isn't astronomy just wonderful? Let us take a look at what lies ahead for the fabulous month of February.

We have a community engagement scheduled for Saturday, February 1st at 6pm at Prime Desert Woodlands. Our President, Terry, will be giving a talk on "Astronomy Essentials" and afterwards we will offer night viewing to the public. We will need 3-4 telescopes set up and

we are still looking for volunteers to help. Due to club members' popular demand, we were able to book Crystallaire that same evening for a star party. We should be done at Prime Desert Woodlands fairly early so some of us can do both. Please let me know if you can help.

The 3rd Annual Youth Exploring Astronomy Essay Contest is set to start on February 15 with the deadline set for April 15. This two-month time frame is needed to ensure we can catch all the students, with consideration given to their off-track schedule. At this point, we are in the midst of getting School District approval and organizing to get the materials out to the science heads. For those club members who have offered their time to help me achieve this goal, you will be hearing from me real soon. We have found that the one-on-one approach, the "hands-on" method, works best. The schools that have participated the most in the past two years have been schools that were personally contacted by a member of our club. So let's put on our club badges and smiles and hit the schools!

Thank you for all of your help this past year and a warm thank you in advance for the difference I know you will make this year. Enjoy the skies...and take good care.

Doug Drake's *Planet Watch*



Jupiter is now becoming the second wonder of the evening sky, Saturn is the first. Jupiter will be at opposition this month, the closest to us, and will be very high to the south at midnight. Look for festoons between the dark belts and lighter zones and see if you can observe the Great Red Spot (GRS) in the southern equatorial belt that has become very pale. Use a No. 21 Orange filter to help bring the GRS into better contrast. During the 1960s, the GRS was indeed an orange spot.

Saturn is still our first wonder of the evening sky and now in Taurus the Bull. Saturn still holds the *wow* factor for us all. The best way to get the most of Saturn is to draw a sketch and look for white bright spots in the equatorial zone and notice if any of the rings are darker than the others. If you make a sketch, bring it to our club meeting and show it to me- I would like to see it.

Venus is our morning beauty in the east. You may need a neutral density (ND) filter to subdue Venus' brightness. If you're up just before sunrise with your telescope, see if you can observe limb brightening on the outer-edge of the planet. If you can then you are observing Venus' sulfuric acid atmosphere. By the way, if you look to the west in the morning you will also see Jupiter.

Star Party Report



by Tom Koonce

Hello Everyone. What a great time to be part of this club! We've never been more active, had better speakers, nor had more fun at star parties and meetings. To give you an example, we had nearly 40 people at our last star party at Saddleback Butte State Park on January 4th, and nearly 25 telescopes set up. The only thing that makes this great attendance unusual for our club is that the sky was partly clear (notice I didn't say partly cloudy!) Even though we chased holes in the clouds all evening, several new members were able to log their first Messier Objects - congratulations! We also had a successful explanation of some constellations, a whole lot of socializing. Everyone got a chance to look through other people's telescopes and Christmas present eyepieces and filters. We also found out that it's possible to watch skiers come down the slopes of Mountain High Ski Area from 20 miles away with a Meade ETX-125. We also proved that you can see the Andromeda Galaxy (M31) through thin clouds without a problem. We have two events occurring on the same night in February. Come on out and join us at Crystallaire Country Club at the February dark star party, or that same evening, you may join us in town at Prime Desert Woodlands (35th West and Avenue K-8) for Terry Pedroza's talk on "Astronomy Essentials" at 6:00 PM. Please bring your telescope and join him for an evening of fun, or come out to Crystallaire and hop through the deep sky with other members that are so inclined.



Invisible Tornadoes

By Tony Phillips

The biggest problem with tornados- next to the swirling 300-mph winds- is that it's hard to see them coming.

But soon scientists will be able to foresee, not merely tornados but the severe storms that spawn them, hours before there's even a cloud in the sky. Mind you, this isn't a vague "30 percent chance of rain today" type forecast. Thanks to a new satellite technology being co-developed by NASA, NOAA and the U.S. Navy, emergency personnel will actually watch the invisible beginnings of a storm unfold.

"They're going to know where the storm centers are forming before the storms are there," says James Miller, project manager for Earth Observing 3 (EO3), a satellite that will test out this new technology in 2005 or 2006.

Unlike the tiny water droplets that make up clouds, the water vapor that feeds storms is invisible to the human eye. Water vapor is easy to detect, however, at infrared (IR) wavelengths. EO3 will use an IR-sensitive device called GIFTS- short for Geosynchronous Imaging Fourier Transform Spectrometer- to make 3D movies of temperature, pressure, and water vapor in Earth's atmosphere.

Three or four hours before the storm clouds are visible, meteorologists will notice water vapor converging toward an area. This water vapor, which provides the "fuel" for the coming storm, is too close to the ground for today's weather satellites to see. Then meteorologists will check precisely how the air temperature over that area varies vertically (something else ordinary satellites can't do). This temperature variation determines whether the humid air will rise to form storm clouds. When these conditions look ominous, the meteorologists can alert the public.

The goal of EO3 is to "test drive" this new technology and prove that it works. If successful, NOAA plans to incorporate GIFTS-style sensors into its next generation of weather satellites.

These future satellites will give meteorologists exactly what they need in order to give the people exactly what *they* need: an earlier warning that tornados may be on the way.

GIFTS and EO3 are managed by NASA's New Millennium Program. NASA and NOAA will operate EO3 during its first year in geosynchronous orbit above the United States. If the technology works as planned, the U.S. Navy will assume control of EO3, move the satellite to a point above the Indian Ocean, and use it to monitor weather in shipping lanes there.

The EO3 web site at <http://nmp.jpl.nasa.gov/eo3> has more about the mission and the GIFTS instrument.

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

Announcements:

Astronomy Class

Have you already taken the beginner's "Intro to Amateur Astronomy Class?" Tom Koonce will be holding the first ever "Intermediate Amateur Astronomy Class" beginning at 6:00 p.m. at the Planetarium before the meeting. He will be covering lunar and planetary observation skills, introducing deep sky objects and talking about astronomy hardware. You must sign up with Tom by February 12th. Unfortunately, seating arrangements force class size to be limited to 10 people. The next Beginner's class will be before the March club meeting. To help members learn the sky, Matt Leone, Steve Trotta and Tom have started doing a brief constellation class right at the beginning of each star party to get newcomers oriented with the sky.

Desert Sunset Star Party May 1-4, 2003

The Desert Sunset Star Party (DSSP) is one of the newest amateur astronomer star parties in the US, scheduled for May 1-4, 2003 at the Kartchner Caverns State Park in Benson, AZ. Additional information and registration forms are now on our website. <http://chartmarker.tripod.com/sunset.htm>. We invite you all to come and enjoy the dark southern Arizona skies and the many attractions in this area.

In the late afternoons as we wait for dinner, we will have a few of the seasoned amateurs and professionals demonstrating specialized techniques. We will have a swap meet on Saturday afternoon followed by a contest for your homemade innovative astronomy gadget.

After dinner, attendees can listen to speakers at the amphitheater while we wait for the sun to set. We still have openings for speakers – please contact us if you are interested. We should have a good selection of door prizes donated from some local businesses and other vendors we have contacted in our star party travels.

During the days, we are encouraging attendees to visit places like Kitt Peak, the UA Mirror Lab and Flandrau Planetarium, the Pima Air and Space Museum and Titan Missile Silo, and of course the many non-astronomy related sites such as the Arizona Sonora Desert Museum, Old Tombstone and much more. Check our Day Trip links for details. (If you plan to tour Kartchner Caverns (advanced registration is required for this very popular tour) you can access the Cavern tours through our Day Trip links.)

Chart Markers and More

Pat and Arleen Heimann

<http://chartmarker.tripod.com>

Did you know? ?

Without Jupiter's presence, we would not have the asteroid belt, but we would likely get plowed more often by comets.

? ? ?

* * For Sale * *

Starry Night Backyard program

paid \$54.00 including shipping

asking \$40.00 o.b.o.;

Starry Night Pro, Version 3.1

asking \$100.00

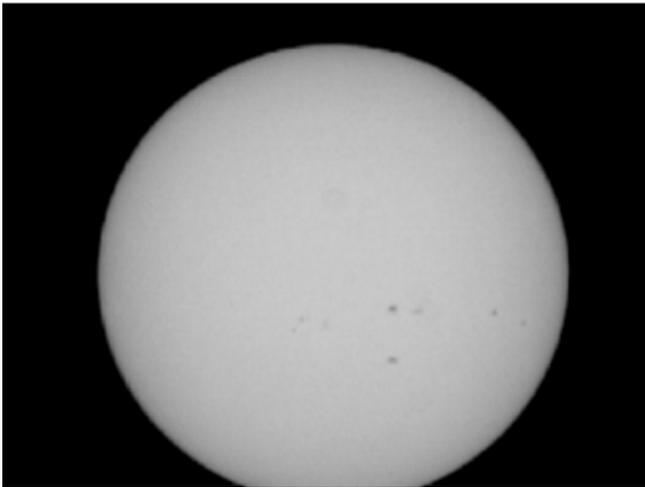
Call Al Shoomliansky at 945-8900

* * * * *

nEWS

January 19, 2003 | A ferocious wildfire swept across the western outskirts of Canberra, Australia, on January 18th, destroying the extensive observatory compound atop Mount Stromlo. At least six telescopes have been lost, including the 1.9-meter (74-inch) Grubb-Parsons reflector, the 1.3-meter (50-inch) Great Melbourne telescope, and the 0.7-meter (26-inch) Yale-Columbia refractor. Also destroyed were the 23-cm (9-inch) Oddie refractor, which was installed on the summit in 1910, and a laser-ranging station with its 1-meter telescope.

Perhaps the most significant scientific loss, reports John Howard of the Canberra Astronomical Society, was the workshop containing a \$5-million imaging spectrograph known as NIFS. The nearly completed instrument was just months away from being shipped to the 8-meter Gillett (Gemini North) telescope atop Mauna Kea, Hawaii.



This photo of the sun was taken by Club President Terry Pedroza with the Club's new Stella Cam.

Astronomy Links on the Web

<http://pages.prodigy.net/sstrott/>

(Steve Trotta's website)

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

(Tom Koonce's website)

<http://www.projectsandhobbies.com/howtolearnastronomy.htm>

(Getting started in Astronomy...)

<http://www.physics.sfasu.edu/astro/jupiter.html>

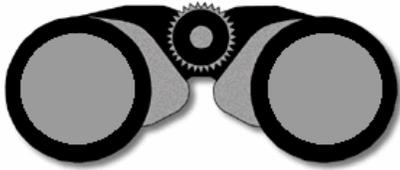
(everything Jupiter)

<http://antwrp.gsfc.nasa.gov/apod/archivepix.html>

(Astronomy Picture of the Day)

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

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

A Look Ahead...**March Calendar**

March 1: Messier Marathon, Crystalaire Country Club

March 14: Club Meeting, S.A.G.E. Planetarium; John Dobson, speaker

March 29: Dark Star Party, Crystalaire Country Club

April Calendar

April 11: Club Meeting, S.A.G.E. Planetarium; Tom Koonce, speaker

**Antelope Valley's Only Authorized
Celestron and Meade Dealer**



**KING
PHOTO SUPPLY**

749 W. Lancaster Blvd. Lancaster Ca.
661-948-8441
E-mail staff@kingphotosupply.com
Antelope Valley Astronomy Club
Members Receive a 10% Discount
On All Celestron and Meade
Telescope Accessories

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) 718-3963 reslatuo@verizon.net

Vice-President: Tom Koonce(661) 943-8200 takoonce@aol.com

Secretary: Lu Shoomliansky (661) 945-8900 lace.s@as.net

Treasurer: Mike Presswood (661) 949-8718 mikeymash@yahoo.com

Director of Community Development:

Debora Pedroza (661) 718-3963 reslatuo@verizon.net

Newsletter Editor

Brian Peterson (661) 273-1693 cybrpete@sbcglobal.net

Club Librarian

Terry Pedroza (661) 718-3963 reslatuo@verizon.net

Astronomical League & Club Historian

Tom Koonce (661) 943-8200 takoonce@aol.com

Webmaster of Club Site

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

Our Sponsors

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

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.

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.

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.

V106.3 Radio: Please welcome our newest sponsor, who assists in advertising our Club.

Thanks for your generous support!