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



Up-Coming Events

October 5: Dark Star Party, Red Rock Canyon State Recreation Area ([Map](#))

October 5: Super Science Saturday, Joe Walker Middle School

October 6: New Moon

October 11: Monthly Club Meeting* Annual Business Meeting

October 12-13: Palmdale Fall Festival

October 13: First Quarter Moon

October 21: Full Moon

October 23: Red Ribbon Day, Tierra Bonita School

October 26: Halloween Star Party, Prime Desert Woodlands

October 29: 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

Well, it's election time again. The Antelope Valley Astronomy Club is growing at a steady rate and we expect to break one hundred members again this year. We have a steady stream of events planned for the rest of the year and a great group of people to man those events. All we need now is a great group to lead our club in 2003. You can help make this great leadership group by running for an office. It makes me proud to say I have been a part of the leadership at the AVAC, you too can have that feeling. Run for an office of the AVAC!

Our club has grown an amazing amount in the time that I have been here, from twenty members to eighty-six at present. From a library that fit in a grocery bag to one that takes two people twenty minutes to unload. We are doing more events in a month now than we did in all of the first year I was here! You, our members are what is making this club what it is and what it will be. Keep up the good work.

We have so many events going on in October that it will take a concerted effort by all to make them as good as we are accustomed to. I ask you to please help at one of these events. We are looking into purchasing or building a trailer for the club because we can no longer get everything into one pickup load. If you have ideas or the knowledge needed for this project please see me.

The October meeting is our Annual Business Meeting and when we hold elections so please plan to attend. See you there.

Dir. of Community Development*Debora Pedroza*

Greetings everyone and welcome to the upcoming fall season. We have a busy schedule of events coming up and here is a brief summary of what lies ahead: The last weekend of this month, we have two community activities. The first is on Saturday, September 28, from 10am to 2pm. It is the Aerospace Walk of Honor, which is located on Sierra Highway and Lancaster Boulevard (across from the sheriff station). If you enjoy the aerospace industry and the warm feelings of patriotism then this is the event for you.

On Sunday the 29, we will be joining in on the Antelope Valley Youth Expo event held at the Fairgrounds from 1pm to 6pm. Thanks to everyone who has already volunteered their time to do these events. You are all welcome to come and help make these events a success.

Let us move on to "Outrageous October" and what a fun month it is going to be! Kicking off the month is our first event, "Super Science Saturday" at Joe Walker Middle School. We will offer solar viewing and our outside wall exhibit from 8am until 1:30pm. This particular age group gets so excited about the sunspots; in fact, this event was the inspiration behind our annual essay contest!

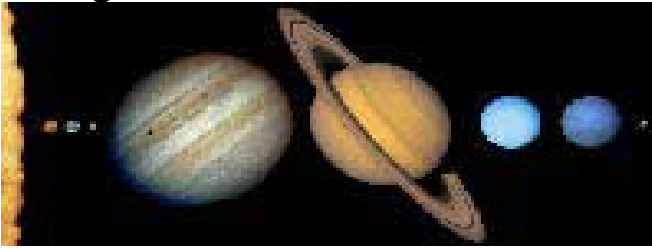
For the first time ever, we will be participating in the Palmdale Fall Festival on both days, October 12 and 13. Saturday's hours are from 9am-8pm and Sunday's hours are 9am-5pm. We will have our usual set-up with the addition of an opportunity drawing for a telescope. Set up time is only allowed on Friday, October 11 from 9am-2pm and the club will need volunteers who can help with this task. Our club will get tremendous exposure during this weekend and I will need to schedule shifts on both days so we do not suffer burnout AND so we can all enjoy the festival as well.

We only received four vendor passes and only one vehicle is allowed on the grounds to unload on Friday. If you are planning on helping out during these two days, we can obtain additional passes for \$5.00 each before the event. Otherwise, the entry fee is \$6.00 to get in. If you are planning to volunteer for any shift on either day and would like to save one dollar, please let me or a board member know so that we can pre-purchase these passes.

Finally, yet importantly, we have two events closing out our month. Wednesday, October 23 is Red Ribbon Day at Tierra Bonita School from 8:45 am- 2:45 pm and Saturday, October 26 is a Halloween Star Party at the Prime Desert Woodlands. As usual, I will have sign-up sheets available for all of these events and I will leave "reminder e-mails" with specifics as these events draw closer. Whew! We have become a very busy club. Thanks to each one of you. We all make a difference.

Until next time...take good care.

Doug Drake's *Planet Watch*



Venus will be very low in the Western sunset sky this month and you will have to look just after sunset (between 6:30PM and 6:45PM). This is the most exciting time to view Venus because it narrows to a sliver crescent, just before it will be in conjunction with the Sun (31 October.) Take a look because you'll have to wait a long time before you will get a chance to do this again.

Saturn is an after-midnight object in the southeast. Look for Saturn's shadow on the back side of the ring- a real treat.



Seeking the Edge of the Solar System

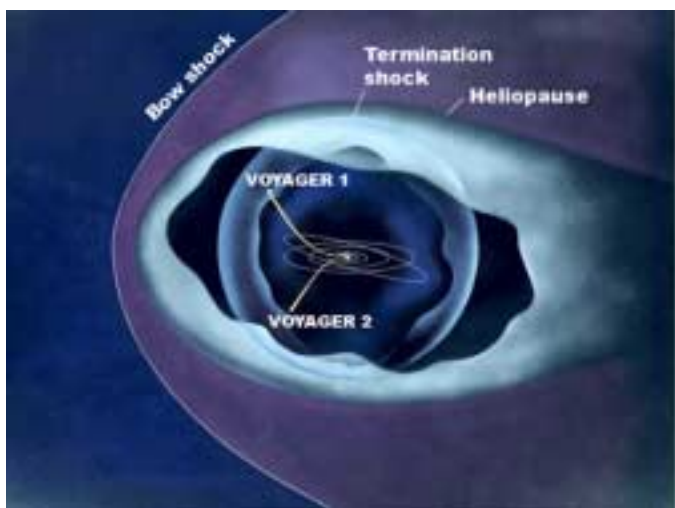


In September and August, respectively, 2002, the Voyager 1 and 2 spacecraft will observe their 25th anniversaries in space, continuing to perform long after their original mission to visit the Jupiter and Saturn systems. After Voyager 1's encounter with the two gas giants, it was aimed upward out of the plane of the ecliptic. Voyager 2, after its visit at Jupiter and Saturn, was given two more planetary destinations, Uranus and Neptune. It completed its "grand tour" of the outer planets in 1989. It was then aimed downward out of the ecliptic plane.

Now, at about 85 AU, Voyager 1 is the most distant human-made object. Round-trip light time is 24 hours. Voyager 2 is at about 68 AU. Their mission now is to study the heliosphere, the vast bubble of space within the Sun's influence, and the heliopause, the boundary of the solar system with interstellar space. At the heliopause, the outward pressure exerted by the solar wind balances the inward pressure of the interstellar wind. The region where solar wind particles begin piling up against the heliopause is the termination shock, where the solar wind should drop from about 1,500,000 kilometers (nearly 1,000,000 miles) per hour to 400,000 kilometers (250,000 miles) per hour. Voyager 1 is already detecting a slowing of the solar wind from the pressure of inbound interstellar particles leaking through the heliopause.

No one knows exactly how much farther Voyager 1 must travel to reach the termination shock or the heliopause. Dr. Ed Stone, Voyager Project Scientist since mission inception, estimates that the spacecraft could reach the termination shock within three years. Once there, Dr. Stone predicts it will still have about 5 billion to 8 billion kilometers (3 billion to 5 billion miles) and 10 to 15 years to go before actually crossing the heliopause into interstellar space. Because the heliosphere expands and contracts with the level of solar activity and the inward pressure of the interstellar wind is uncertain, it is very difficult for scientists to estimate the actual extent of the heliosphere.

Read more about the Voyager mission to find the heliopause at <http://voyager.jpl.nasa.gov/> Kids, go to http://spaceplace.nasa.gov/vgr_fact1.htm to read about the Voyagers' grand tour of the outer planets and find out the secret code they use to send pictures back from space.



Did you know? ?

Neptune and Pluto will not intersect orbits again until the year 2226. Until then, Pluto remains farther from the sun.

? ? ?



Errol Van Horne examines Moon rocks provided by NASA. (photo by Marc Walker)



Doug Drake accepts congratulations from Astronomical League Coordinator Tom Koonce for completion of his Planetary Club certification. (photo by Marc Walker)

* * For Sale * *

High Quality Eyepieces For Sale

Used very rarely, these eyepieces are in excellent condition. The 1 1/4" barrels are not marked or scratched, they look and perform with crisp, clear images. Tele Vue plossls are known as the best plossls on the market. All have great eye relief... I wear glasses and had no problems at all with these. I also have a Meade Series 4000 Super Plossl (with rubber eye-guard) that delivers stunning views of large objects like the Andromeda Galaxy and the M13 Globular Cluster. Original box, caps, and screw top case with each eyepiece. I'm only selling these to fund a 2" eyepiece! Call Tom Koonce at 661-943-8200.

Tele Vue 13mm Plossl - \$75

Tele Vue 17mm Plossl - \$65

Tele Vue 21mm Plossl - \$65

Meade 32mm Series 4000 Super Plossl - \$65

Astronomy Links on the Web

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

(Steve Trotta's website)

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

(Tom Koonce's website)

<http://spaceplace.nasa.gov>

(NASA's website for children)

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

(That's us)

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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Our Sponsors

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

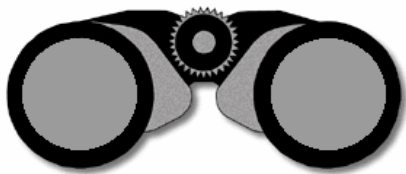
Darkrooms Plus: 20th St. W. near Pep Boys in Lancaster. (661) 945-1444. They offer all club members a 10% discount on all purchases. Stop by and say "hey" to Dean or Hank.

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!

A Look Ahead...**November Calendar**

November 2: Dark Sky Party, Saddleback Butte

November 8: Club Meeting, Sage Planetarium;

November 16: Star Party, Poppy Reserve (Leonid Meteor Shower)

December Calendar

December 14: Annual Christmas Party, Greenhouse Café in Lancaster

Yikes! Go back to the first page and check out that October calendar. We need all of the volunteers we can get. If you can volunteer for an event, please call Debora Pedroza before she faints from over-work.