
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
The A.V.A.C. Is A Sustaining Member Of The Astronomical League*



Up-Coming Events

November 1: Full Moon

November 8: Last Quarter Moon

November 9: Monthly Club Meeting*

November 15: New Moon

November 17: Star Party, Poppy Reserve

November 22: First Quarter Moon

November 22: Thanksgiving

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 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

Doug Drake, Sr.

Hi everyone, welcome all of you. This time of the year begins an exciting time for us all. As we go into autumn and winter, a wonderful part of the sky opens up to us. Pleiades (the seven sisters), Taurus (the bull) and Orion (the giant hunter) all begin to show in the night sky of the East. Orion is considered to be the finest constellation in the heavens and there is little difficulty in identifying it with "the belt's" three bright stars in a row. In the sword of Orion is the great Orion nebula that is considered one of the most remarkable objects in the night sky. This nebula is a stupendous mass of gas where new stars are being born. The night gets a bit cooler and the visibility gets clearer.

Remember Saturday, November 17th, the Leonids meteor shower— another most exciting time for us to observe at the Poppy Reserve.

In December we will have our Christmas Party at the Greenhouse Café in Lancaster on Saturday, December 15th, beginning at 7:00PM. The menu and cost will be listed in our December newsletter.

Vice President's Report

Terry Pedroza

I would like to thank all of the wonderful people in our club who sent their prayers and best wishes during my recent illness. These are the kind of people that make this club the great club that it is. I'm proud to say that you are my friends. **THANK YOU.**

Saturday night, October 20th, at the Prime Desert Woodlands was a great success. Thank you to all the members who made this such a special night. The house was overflowing with people from the community who came to hear Jeremy Amaran speak. Afterwards they flowed out to the parking lot to get great views of the Moon, Mars, M57 and the like. The city of Lancaster had nothing but praise for the wonderful job our members did.

I need to address the recent problem of library items not being returned on time. Please remember to return these items so that others may also enjoy them! Our Club has a policy that if an individual does not return an item, or call the librarian in advance that an item will be late, that on the second offense that person will lose their privilege to borrow from the library for the remainder of the year. Please do not let this happen to you! Thank you in advance for returning borrowed items on time.

Don't forget to mark your calendar for Saturday, November 17th, for the Leonid Meteor

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shower. We will be meeting at the Poppy Reserve at dusk that night to view the shower. There are predictions of a possible Meteor Storm early Sunday morning. Hope to see you all there and at the club meeting.

Minutes of the Antelope Valley Astronomy Club, Inc. 2001 Annual Business Meeting

October 12, 2001

Call To Order:

Doug Drake, President, called the meeting to order at 7:00 pm.

Doug welcomed visitors and our especially our newest members: **Michael Burnett, Rosi Hernandez, Tina and Lance Eldredge, Raymond Green, Rich Harper, Ken Krueger, Jim Kellogg, Leslie Peralta, James Rothenflue, and Arlouse White.**

Treasurer's Report:

Steve Trotta, Club Treasurer, announced that the Club treasury balance now stands at \$556.77.

Secretary's Report:

Tom Koonce, Club Secretary and Astronomical League Coordinator, presented **Dave Allen** his Honorary Messier Certificate. Dave is one of the first three in the AVAC to have observed and documented ALL of the Messier objects. Congratulations!

New Business:

A role call was held of the membership and it was determined that a quorum was present and that the annual business of the Club could be conducted. It was also determined that the membership had received proper notification that a vote on amendments to the Constitution and Bylaws and that a vote on Dues was to take place at this Annual Business Meeting.

Elections:

Doug read the duties of each office and allowed time for last minute nominations to be made. Closing the

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nominations and then passing out one ballot per membership, the 2002 Board was elected. The Club officers for next year are:

President: **Terry Pedroza**

Vice Prez: **Matt Leone**

Treasurer: **Mary Andrus**

Secretary: **Brian Peterson**

Member-at-Large: **Debora Pedroza**

Amendments:

Eleven proposed amendments to the AVAC Constitution and Bylaws were discussed at length and voted on. Most of the changes centered on clarification of wording throughout the document. Other changes included defining additional duties for the Club officers. The revised document will be available to all members at the next Club meeting.

Dues:

A motion was made and seconded that the prorated dues structure beginning January 1, 2002 to be as follows:

Family Membership	\$30
Single Membership	\$25
Junior Membership	\$15 (unchanged)

The vote was overwhelmingly in favor of the new dues structure.

Other New Business:

Errol Van Horne discussed the upcoming Joe Walker Middle School "Super Science Saturday" and the need for more participation in the Star Party at the Prime Desert Woodlands event scheduled for October 20th at 5:30 pm.

Terry Pedroza announced that the next Star Party will be at the Poppy Reserve, November 17th for the Leonid Meteor Shower (could be a "Storm"!)) Terry also spoke briefly about the Club's library of books, videos, telescopes and other equipment, as well as the rules for checking them out and returning them on time. At our next Club meeting on November 9th, **Tony Cook** will give a presentation on, "Selecting a First Telescope."

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Jeremy Amarant, S.A.G.E. Planetarium Director, gave a 10-minute "Star Talk" using the planetarium to give insight into the astronomical meanings of 'Hansel and Gretel.' Surprisingly the themes of metamorphosis, the lunar cycle and even Moby Dick were key elements of his talk.

Close of Meeting:

The 2001 Annual Business Meeting was adjourned at 9:15 pm.

Minutes written and respectively submitted to the Executive Board, October 18, 2001

In The News

Leonid Meteor Shower

What is this shower? The Leonids are a sight of a lifetime when they storm, and they are predicted to storm in large numbers this year. These meteors are debris from Comet 55P/Tempel-Tuttle.

There are a number of models predicting the activity of the Leonid meteors this year. It will only be after the event has occurred that we will know which model best fits the activity seen! Hence it is really important for all observers to monitor the nights around November 17th and 18th and 19th - before the maximum, during the maximum, and after the maximum. Surprises can always occur. Consider the fireballs of 1998 - they arrived the night before anyone was expecting major Leonid activity!

According to the Armagh Observatory website - the predictions of Robert McNaught of Australia and David Asher of Armagh - the times of maximum Leonid activity and the estimated meteor rates are as follows, quoted from

<http://www.arm.ac.uk/leonid/encounters.html>

Date	Time	ZHR rate	Visible from
1. Nov. 18	10.01 UT	2,500/hr ?	N. & Central America

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i.e. debris shed by the comet in 1767, 7 'revolutions' ago in its trip around the sun

2. Nov. 18 17.31 UT 9,000/hr
Australia & E. Asia

i.e. debris shed by the comet in 1699, 9 'revolutions' ago in its trip around the sun

3. Nov. 18 18.19 UT 15,000/hr W.
Australia, E., SE & Central Asia

i.e. debris shed by the comet in 1866, 4 'revolutions' ago in its trip around the sun

The time is 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. for the above, 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. Time is tricky - so be careful. You can see from these times that North America only gets 1 peak at night.

Can you see Leonid meteors at other times besides those listed above? Of course you can! As quoted from the Armagh website:

"You can view the background of the Leonid meteor shower at other times, basically between your own local midnight (exact time being latitude dependent) and morning twilight; it's just that you'll miss the encounters of the Earth with meteors from these particular dust trails if you're not in the parts of the world on these maps."

(Reprinted from the North American Meteor Network)

Mars Odyssey Mission Status

Flight Controllers for NASA's 2001 Mars Odyssey mission report the spacecraft is in excellent health and is in a looping orbit around Mars of 18 hours and 36 minutes.

"Odyssey flawlessly achieved last night's one-time critical event of Mars orbit insertion. Hundreds and hundreds of things had to go right, and they did," said Matt Landano, Mars Odyssey project manager at NASA's Jet Propulsion Laboratory. "We are all excited about our success and I am proud of all the members of our team."

The navigation proved to be equally precise. "We were aiming for a point 300 kilometers (186.5 miles) above Mars and we hit that point within one kilometer (.6 miles)," reports Bob Mase, the Mars Odyssey lead navigator at JPL. "Because of the excellent main engine burn, we will not need to do any more maneuvers to adjust the orbit before we begin aerobraking on Friday."

In the weeks and months ahead, the spacecraft will be literally surfing the waves of the Martian atmosphere, in a process called aerobraking, which will reduce the long elliptical orbit into a shorter, 2-hour circular orbit of approximately 400 kilometers (about 250 miles) altitude. (Reprinted from a JPL release)

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On Sunday, Oct. 21st, a cloud of magnetized gas from the Sun (a "coronal mass ejection") swept past Earth and rocked our planet's magnetic field. Northern sky watchers were delighted as red and green lights rippled across the sky. It was the aurora borealis -- breaking out for the third time this month.

"The auroras were probably the most spectacular I have ever witnessed," says Ryan Kramer, an observer in North Dakota. "It was like being under a giant canopy. Northern Lights filled the sky -- including directly above and even within 30 degrees of the southern horizon."

"I was amazed that the auroras were so bright to the south of me," agreed Todd Carlson, who enjoyed the spectacle from his home in Ontario, Canada. Indeed, before the storm was done, observers as far south as the Carolinas in the United States had caught a rare glimpse of Northern Lights.

"What an awesome display!" exclaimed Ronnie Sherrill of Troutman, North Carolina, where the sky "exploded into bright red and yellowish beams." The auroras were so bright Sherrill and others saw them against an early evening sky still lit by faint sunshine.

It was a good time to be outside.

Indeed, it may have been the *best* time: Autumn nights are long and dark, but not yet wintry-cold -- a good combination for sky watching. But there's more to it than that, say researchers. Geomagnetic storms that ignite auroras actually happen more often during the months around the equinoxes -- that is, early Autumn and Spring. (Reprinted from <http://science.nasa.gov>)

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Did you know?

If Neptune were hollow, it could hold 60 planet Earths!

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Astronomy Links on the Web

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

(Hubble Telescope Photos)

<http://sohowww.nascom.nasa.gov/>

(Photos and info about the sun)

<http://planetescapes.com/>

(Photos and info about the planets)

http://encke.jpl.nasa.gov/whats_visible.html

(visible comets)

<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 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 \$25.00 per year. *
- Individual membership at \$20.00 per year. *
- Junior membership at \$15.00 per year.

Membership entitles you to...

- Desert Sky Observer—monthly newsletter.

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- 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.

* *Effective through this year*

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.

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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.

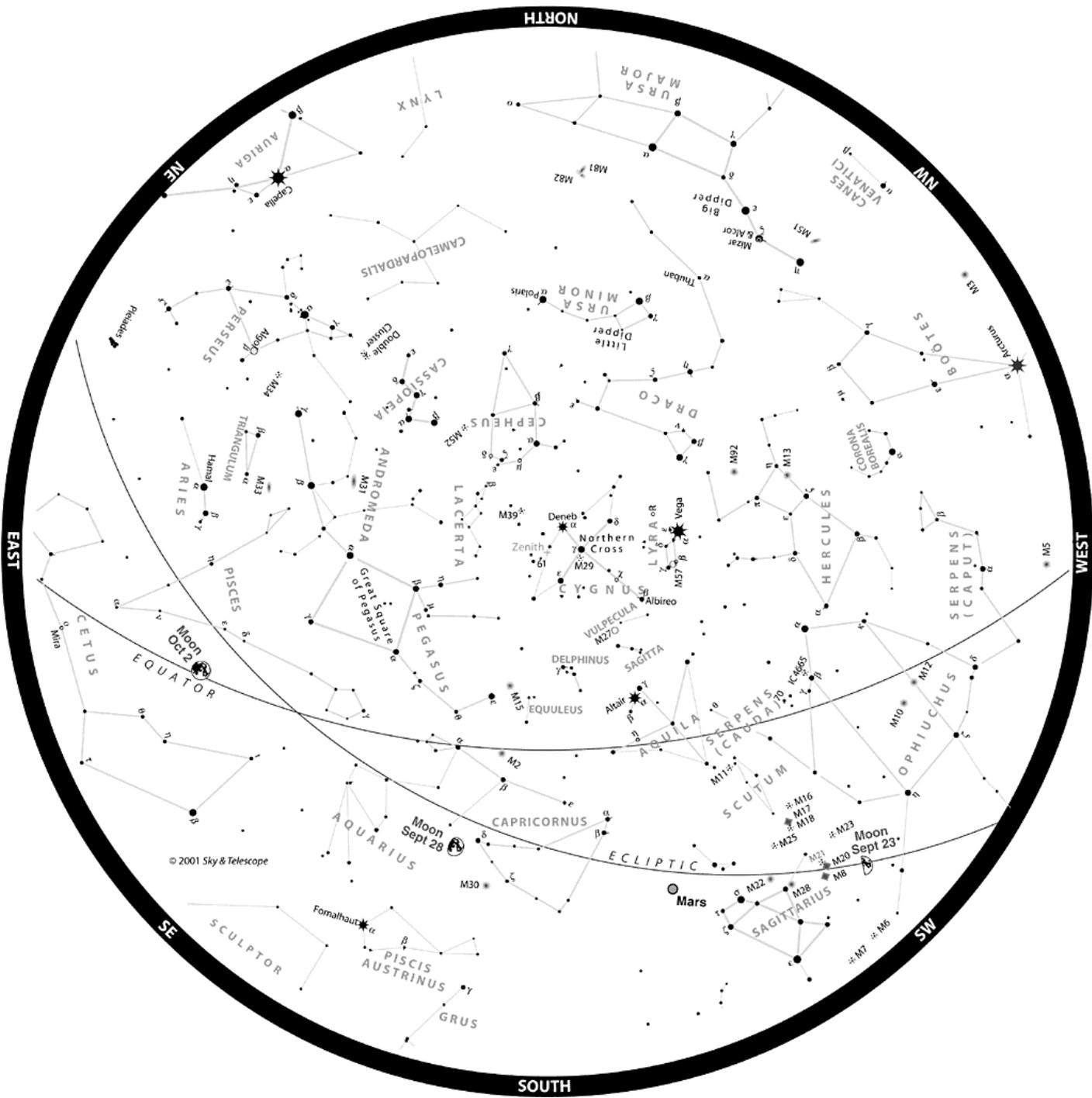
Darkrooms Plus: 20th St. W. near Pep Boys in Lancaster. (661) 945-1444. They offer all club members a 10% discount on all purchases. Stop by and say "hey" to Dean or Hank.

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!



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