
Desert Sky Observer

Volume 22 Issue 2

February 2002



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

February 4: Last Quarter Moon

February 8: Monthly Club Meeting*

February 8: Saturn “stands still” in the sky

February 9: Star Party, Saddleback Butte

February 12: New Moon

February 20: First Quarter Moon

February 20: Mercury reaches greatest elongation

February 27: 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 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

I have a goal. That goal is for our club to be the best club that it can be! My goal is not to just have more members, but to have more active members. I am hoping to do this by making a couple of minor changes to our meetings. I am hoping that by doing this we can get our members to be more involved in the decision-making process of our club. Below is a tentative agenda for our meetings.

- 7:00 Welcome
 - Introduce first time attendees
 - Previous meeting minutes
 - Executive Board members' reports
 - Committee members' reports
 - Old Business
 - New Business
 - Close business meeting
- 7:30 Intermission
- 7:45 Introduce speaker, Speaker begins
- 8:30 Speaker ends presentation, Question and answers
- 8:45 Introduce Jeremy's star talk
- 9:00 End meeting

As you can see, we will have a lot to do in a short time. Please be ready to start at 7:00. I will be asking for member input on various issues and am hoping for input from all of you.

On tap for this month is: Do you think that an astrovid type of camera would be a good resource for our club? Also, Should new members be required to take a short introduction class before being able to check out club scopes? Any thoughts or suggestions? Please bring them to the meeting.

Please remember that members whose dues are not paid by the last day of February will be dropped from the membership roster. If you paid your due last month, your badge will be ready at the February meeting. Hope to see everyone at the meeting!

Vice President's Report

Matt Leone

Well, it's another year and I can't believe that you voted me into office. Yes, if you think I am panicking... well, I am. I just want to thank God that Terry Pedroza is fine, even though I cannot find one of my lens caps.

This year is going to be a great year for viewing. I just know it. There are so many people in the Club who are increasing their knowledge of the sky. It's great! After March, there will be quite a few members who will be moving to the Caldwell list. These objects are difficult and easy at the same time.

Well, I finally sent off my better half. I will have to go seven weeks on my own without my mirror. So if you wonder why I have that glassy look, don't worry, I'll be fine. Newport Glass will put a 96 reflective finish on my mirror along with a new spider, a secondary holder, and mirror. It will be great.

If you missed out on the Leonids you better start crying because it was beyond words.

I hope to see everyone out at Saddleback Feb. 9, that's if my wife lets me go (we are renewing our wedding vows that day). The viewing should be great! My 'scope will be back in action. I plan to see nebulas in Cepus, Orion, and then there is the Leo and Virgo cluster of galaxies. In view you can see about 50 galaxies, so bring your drooling bib and see Mr. Hot Water Heater in action.

Dir. of Community Development

Debora Pedroza

John Fischer once quoted... "The essence of our effort to see that every child has a chance must be to assure each an opportunity, not to become equal, but to become different- to realize whatever unique potential of body, mind, and spirit he or she possesses." This statement clearly describes the purpose of our second annual "Youth Exploring Astronomy Essay Contest." All 6th, 7th, 8th graders in the Antelope Valley will have the opportunity to write an essay on the following topics: **Astronomy is...or Voyage into Space...** or **If Stars Could Talk**. The essay contest begins on February 15th and ends on April 15th. I need help getting the essay applications, flyers and posters distributed to all the schools and to various business locations no later than February 14th. Call or e-mail me if you want to join the team to enhance our school childrens' enthusiasm into the worlds of astronomy and space. Make A Difference!

The Poppy Festival is right around the corner, folks, and once again we have been invited to join in this popular annual event. The festival is being held on April 20th and 21st. Event specifics and club participation needs will be announced soon. We have been asked by the City of Lancaster to set up our booth with a "Historical" theme...all ideas and suggestions are welcome!

S.O.S.....SEEK OUT SPONSORSHIPS!

*Minutes of the Antelope Valley Astronomy Club, Inc.
Club Meeting*

January

Call To Order:

Terry Pedroza, President, called the meeting to order at 7:05 pm.;

Terry welcomed visitors, and our newest member, Jimmy; He also thanked last year's board members for their hard work and leading the club through a period of strong growth;

Vice President's Report:

Matt Leone stated that his goal is to see 25 members make their own telescopes through the upcoming class and to see the Club grow to 150 members by the end of the year;

Secretary's Report:

Brian Peterson explained the Desert Sky Observer method of delivery- the e-mailed version is better because of links; the DSO will include an increasing number of color graphics;

Treasurer's Report:

Mary Andrus, Club Treasurer, announced that Club badges are available once people join;

Director of Community Development:

Debora Pedroza has two passions for the Club: to see growth in the community for astronomy and for more sponsors to be cultivated in the community; her goal is to have "too many" volunteers;

New Business:

February 8: Saturn "stands still" in the sky; February 21: Mercury reaches its greatest elongation;

Speaker/Presentation:

Guest Speaker: Gary Peterson, Professor of Geology from San Diego State University, spoke on "Exploring the Martian Desert." The professor stated that he "has no doubt" that Mars had oceans a couple of billion years ago. Oceans were likely as deep as earth's oceans but they dried up between 2-3 billion years ago. Part of Professor Peterson's methodology is to find areas on earth that are similar to the Martian landscape in order to understand how Martian features may have been formed. His earth-based photos, when compared to the Martian topography, were quite convincing in regard to a Martian history of oceans. The professor also believes that the Martian climate was tropical on a global scale.

Before water slowly disappeared, Prof. Peterson believes that bacterial life was likely the most advanced form of life on the red planet.

According to Prof. Peterson, the oceans gradually dried up because of Mars' small mass, and the same fate will likely await earth- in a couple of billion years hence.

Prof. Peterson's riveting presentation ended with a Q&A session.

Jeremy Amarant gave a 10-minute "Star Talk" about the progression of the sun through the sky- from the winter solstice through the vernal equinox, to the summer solstice through the autumnal equinox and back to the winter solstice. As always, we learned something from Jeremy.

Close of Meeting:

The meeting was adjourned at 9:02 pm.

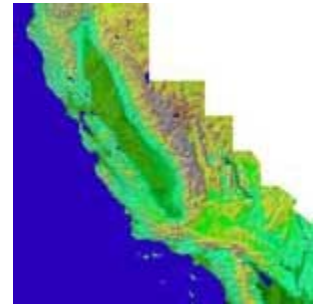
Minutes written and respectively submitted to the Executive Board, January 14, 2001, by Brian Peterson, Secretary.

In The News

Pictures from the Real Edge: NASA Posts U.S. Topography Data

Displaying spectacular new 3-D images and animations of California from space, scientists at NASA's Jet Propulsion Laboratory, Pasadena, Calif., today announced the release of high-resolution topographic data of the continental United States gathered during the February 2000 Shuttle Radar Topography Mission -- a mission that is creating the world's best topographic map.

"The release of the California mosaic and continental-U.S. Shuttle Radar Topography Mission data is a tantalizing preview of things to come from this program," said Dr. Michael Koznick, mission project scientist at JPL. "We are processing data for the rest of the world on a continent-by-continent basis, mapping and exploring many relatively unknown regions where our maps will be far more precise than the best global maps in use today."



California mosaic from Shuttle Radar Topography Mission data
[Caption page](#)
[Go to image series](#)

Dr. Yunjin Kim, mission project manager at JPL, said users in the United States and elsewhere would find wide applications for the data. "The maps produced from the mission will be among the most valuable, universally beneficial data ever produced by a science mission. National and local government organizations, scientists, commercial enterprises and civilians alike will find the data useful for applications as diverse as earthquake studies, flood control, transportation and urban planning, enhanced ground-collision warning systems for aircraft and better placement of cell phone towers," he explained.

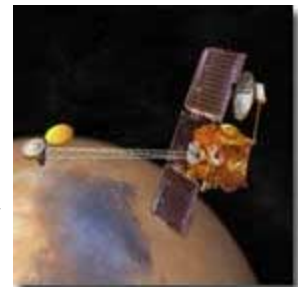
(reprinted from JPL's website)

* * * * *

Mars Odyssey Mission Status

NASA's Mars Odyssey spacecraft completed two maneuvers this week, fine-tuning its orbit in preparation for the science mapping mission that will begin in late February.

At 2 p.m. Pacific Time, January 17, Odyssey reduced the farthest point in its orbit, called the apoapsis, from an altitude of 520 kilometers (323 miles) to an altitude of 450 kilometers (280 miles). The spacecraft fired its thrusters for 195 seconds, and decreased the velocity of the spacecraft by 27 meters per second (60 miles per hour). This maneuver also moved the closest point of the orbit, called the periapsis, under the south pole of the planet.



Artist's concept of Odyssey
[Browse image](#)
[Odyssey home page](#)

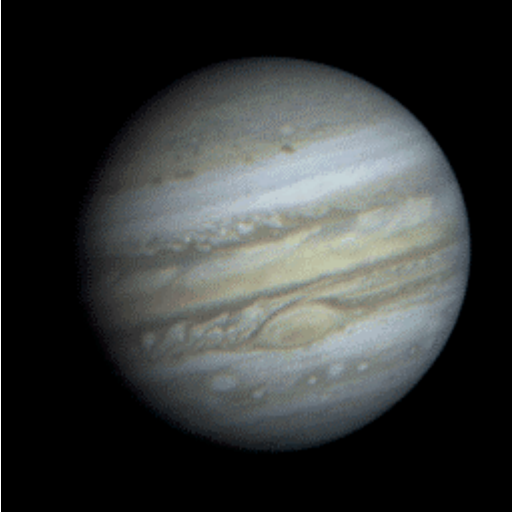
On January 15, Odyssey fired its thrusters for 398 seconds, increasing its speed by 56 meters per second (125 miles per hour) and raising the closest point in its orbit from 186 kilometers (116 miles) to 419 kilometers (260 miles). Flight controllers also changed the inclination of the orbit, the angle between the orbit plane and the Mars equator, to 93.1 degrees.

"Aside from the orbit insertion burn in October, these are the largest maneuvers that we have executed and they help us circularize the orbit. They were also the most complex to design and implement," said Bob Mase, Odyssey's lead navigator at NASA's Jet Propulsion Laboratory, Pasadena, Calif. "These burns had to be executed at specific times to achieve the desired results, so the flight team had a lot of work to do in a very short amount of time. The maneuver performance was excellent."

During the next few weeks, flight controllers will continue to refine the orbit to achieve a final mapping orbit with a periapsis altitude of 387 kilometers (240 miles) and apoapsis altitude of 450 kilometers (280 miles).

(reprinted from JPL's website)

* * * * *



Now is this a beautiful sight, or what? Check it out in tonight's sky. Look toward the east in the early evening or nearly straight up around midnight.

* * * * *

Galileo Passes Io for the Last Time

Just after 9 a.m. Eastern Standard Time on January 17th, the [Galileo](#) spacecraft made its closest and last flyby of the volcano-riddled moon Io. During this seventh and final passage, the probe glided just 100 kilometers (60 miles) from Io's surface. Unfortunately, less than a half-hour before closest approach, Galileo's onboard computer reset, causing the probe to cease taking images and other data and enter a "safe mode."

"We're not totally surprised," says Eilene Theilig, Galileo's project manager at the Jet Propulsion Laboratory (JPL). "Galileo has already outlived expectations and we knew that it might encounter additional difficulties from the high-radiation environment on this flyby." Although battered by the intense radiation of Jupiter's magnetic field, Galileo has continued to operate well beyond its design limits. Nevertheless, it has become more prone to radiation-induced glitches such as Thursday's.

Despite Galileo's ruggedness, its remaining days are now numbered. Because its steering fuel is nearly gone, mission planners chose to make one last orbit of Jupiter before plunging the probe headlong into the planet's crushing atmosphere in September 2003. The decision was made to insure that the spacecraft could not collide with — and contaminate — Europa, which many scientists believe has a subsurface ocean that could potentially harbor life.

The JPL flight team is working to bring Galileo back online so it can resume taking data during its final swing by Jupiter. And with luck, there will be one more imaging session: In November Galileo will pass by Amalthea, a 125-kilometer-long, irregular moon within Io's orbit. (reprinted from Sky&Telescope online)

* * * * *

Did you know? ?

The Moon's rotation *AND* revolution rates around the earth are 27 days, 7 hours, and 43 minutes.

? ? ?
* * * * *

Astronomy Links on the Web

<http://sci.esa.int/>

(European Space Agency)

<http://www.griffithobs.org/skyreport.html>

(Griffith Observatory Sky Report)

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

(Astronomy Picture of the Day)

http://encke.jpl.nasa.gov/whats_visible.html (visible comets)

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

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

For Sale**Meade #882 Standard Field Tripod: Near mint condition, includes original box and packing!**

Designed exclusively for ETX-60AT and ETX-70AT telescopes, the #882 Field Tripod includes all the rigidity and stability required for high-power astronomical observing. The tripod includes an accessory shelf to hold eyepieces and the Autostar hand controller. It comes with its own rugged Cordura-type carry bag for transport in the field that has a zippered compartment just to hold the accessory tray when not in use. All you would need to provide are two attaching bolts for your ETX 60/70 to attach to this great tripod. Sold as is, but it's in perfect shape! \$40. Call Tom Koonce, 661-943-8200.

For Sale

A Sirius Deal! Two fully-coated "Sirius" brand 1 1/4" Plossl eyepieces. Included are a medium power 17mm and a high power 10mm Plossl with good eye relief and rubber eyeguards. They are in excellent condition. The chrome barrels have VERY faint marks, but detectable. This in no way affects the superb optical performance of the eyepieces. The barrels are threaded for standard colored filters. The price for both eyepieces is \$40 total, and includes two good cases to keep the dust off of them between observing sessions. I have used both eyepieces and found them quite nice for deepsky observing. Call Tom Koonce, 661-943-8200

For Sale

Meade Series 4000 56mm 2" Super Plossl. Near mint condition! If you are interested in WIDE field views and two inch eyepieces, the crisp optics of this eyepiece will make you smile. Comes in its original box and in its original Meade screw top storage case. This one was babied since I bought it 1 1/2 years ago and it was never used as a star party eyepiece. Sold as is, but it's perfectly clean, no scratches on the barrel or body. I hate to lose this one, but I'm saving up for a bigger scope... \$120. Call Tom Koonce 661-943-8200.

Got something you want to see in the *Desert Sky Observer*? Whether it's a website, a type of story (ie. 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 \$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

Vice-President: Matt Leone (661) 948-1521 - als@antelecom.net

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

Treasurer: Mary Andrus (661) 946-0372 - mfandrus@aol.com

Director of Community Development: Debora Pedroza (661) 949-6975 - res0hqoz@verizon.net

NEWSLETTER COMMITTEE

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

Steve Trotta (661) 269-5428 - sstrott@prodigy.net

CLUB LIBRARIAN

Terry Pedroza (661) 949-6975 - res0hqoz@verizon.net

ASTRONOMICAL LEAGUE

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

WEBMASTER of CLUB SITE

Steve Trotta (661) 269-5428 - sstrott@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.

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!

And don't forget to bring a friend to the next Club meeting! Oh yeah, and a warm coat to the star party... and some longjohns... and a hat... and...