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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, Inc., is a 501(c)(3) Non-Profit Corporation. Visit the Antelope Valley Astronomy Club website at [www.avastronomyclub.org/](http://www.avastronomyclub.org/) The A.V.A.C. is a Sustaining Member of The Astronomical League and the International Darksky Association*



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## Up-Coming Events

**March 6:** Full Moon

**March 12:** Monthly Club Meeting\*

**March 13:** Last Quarter Moon

**March 13:** "Our Solar System" talk and Star Party at [Prime Desert Woodlands](#)

**March 20:** New Moon

**March 20:** Messier Marathon, [Saddleback](#)

**March 28:** First 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 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 Babineaux*

The image of astronomers and scientists in general is often one of pocket-protected, tweed-jacketed, pipe-smoking, horned-rimmed eggheads practicing esoterica in the deep bowels of a university or the rarified strata of an observatory. Countless sci-fi "B" pictures from the Fifties and Sixties featured such stern characters outwitting bug-eyed Martians (and sometimes even beating the jocks to the ladies) despite their bumbling ways. When we speak of a task, we sometimes judge its difficulty in terms of whether it is "rocket science" or not: "I can't program this VCR! I'm not a *rocket scientist!*" The unfortunate result of this stereotype is that sciences are perceived as difficult and boring and it's practitioners as stiff, dull and not the sort of folks you'd want telling stories at your next barbecue.

The way I see it, astronomy is really no more difficult than baking a cake would be for someone who has never before cooked. If you approach astronomy like you would baking that cake, carefully mastering each step and ingredient as you go, you'll quickly find your appetite whetted for different flavors. Once you've learned the difference between a white dwarf and a neutron star, you may then want to learn about the different kind of nebulas. You may then become curious about quasars and black holes.

Your wife (or husband) will complain about all those telescopes and other “junk” you keep collecting. Your daughter will complain when you yell at her boyfriend- not for bringing her home past curfew, but rather for ruining with his headlights the astrophoto you’ve been guiding for the last hour.

There is always some new flavor to be enjoyed in amateur astronomy, be it a new discovery (it is quite the challenge keeping up with articles in *Sky and Telescope* and *Astronomy* magazines) or that elusive object you have yet to find in your telescope. And one of the best ways to keep up with what is new is by belonging to a club such as ours. We have members at all levels of expertise (including even a few real rocket scientists!). Learning new things and enjoying the results of that education happens much quicker in a friendly group. Through our meetings, star parties, and public outreach, that is exactly what we strive to do.

The moral of the story? Don’t ever hesitate to participate because you feel you don’t know enough or are perhaps intimidated by the science. It’s not about what we know, but the joy that can be experienced in sharing the journey.

### **Vice President’s Report**

*Doug Drake*

In the early part of March, you should be able to observe Comet Linear (C/2002 T7) with your binoculars. Comets, in the stage as Comet Linear is, are observed as a small fuzzy cotton ball and may possibly have some elongation. Train your binoculars to the west and above the true horizon at about 20 degrees. The best time to do this is between 45 minutes to 1 1/2 hours after sunset. Hint: If you stretch you arm out and put your thumb on the true horizon line and then outstretch your little pinky, then the tip of your pinky should be about 20 degrees above the horizon. For a star chart location look in the area between the Pegasus and Pisces constellations.

### **Dir. of Community Development**

*Michael Roberson*

Hello again. Last month was a good one for the books. Some clouds got in our way, but we will not let that and the rain dampen our spirits.

Some things to look forward to: the Poppy Festival- we will need plenty of volunteers for this event. What better way to have a weekend of fun? A sign-up sheet should be making its way around at the next club meeting, so be looking for that.

In March, we well have our Messier Marathon. This event is mainly for our club, but if you have guests, there will be space provided for you and them. Remember, others will be totally into their work, so please be kind to others. The first rule is to have fun, and not ruin fun for others.

There is a star talk and viewing coming up for the Cub Scouts, and a star talk for the 4-H Club coming soon. Please be ready to help out in anyway you can.

Please contact me or anyone on the Executive Board for more information. I look forward to seeing all of you at the next club meeting.

## Doug Drake's *Planet Watch*



### Sun

The Sun will set at the vernal equinox in the west on March 20th, and if you observe this sunset you will mark the arrival of spring.

### Moon

Observe one of the most beautiful splendors in the sky on March 24th, when the crescent moon and Venus are almost holding hands with each other in the western sunset sky.

### Venus and Mercury

You will be able to observe Venus during all of March and observe Mercury during the last half of March. Venus shines as a beautiful diamond in the southwestern sky just after sunset. On March 29th, both Venus and Mercury will be at their greatest elongation from the Sun. This means that both planets will be observed at their highest points in our sky. Mercury will be below and a little to the right of Venus. If you have trouble finding Mercury, use your binoculars to scope it out.

### Jupiter

Jupiter is just below Leo the lion this month. On March 3rd, Jupiter will be at opposition, which means Jupiter will be rising in the east as the Sun goes down in the west. However, you may have to wait until late twilight time to see Jupiter coming up in the east.

On the night of March 27th and the morning of March 28th, you will be able to observe the dance of Jupiter's moons. At 12:10 am., try to observe three moon shadows on the face of Jupiter, all at the same time.

The Gillian moon & shadow dance (Times are "pm." unless shown):

### Time

6:59 Callisto has transited across and off Jupiter at this time, you might try seeing this if your view is clear;

8:59 Callisto's shadow begins to transit Jupiter;

9:44 Ganymede begins to transit Jupiter;

10:32 Europa disappears behind Jupiter- see this moon disappear;

10:59 Io begins to transit Jupiter;

11:32 Io's shadow begins to transit Jupiter;

12:00 am. Ganymede's shadow begins to transit Jupiter;

12:19 am. Callisto's shadow moves off Jupiter;

By the way, Galileo devised a plan to set your time piece by observing Jupiter's moons appear and disappear behind Jupiter. This was of most importance for land surveyors and nautical navigators to determine their longitudinal position.

### Saturn

Saturn is between the Gemini twins (Pollux and Castor) and Orion. This month is a good time to observe Saturn's shadow, from its globe, onto its rings.



## **Deep Space Network 2-for-1 Sale!**

by Patrick L. Barry

Call it a "buy one, get one free" sale for astronomers: Build a network of radio dishes for communicating with solar system probes, get a world-class radio telescope with a resolution nearly as good as a telescope the size of earth.

That's the incidental bonus that NASA's Deep Space Network (DSN) offers the astronomy community. Designed to maintain contact with distant spacecraft in spite of the earth's rotation, the large, widely spaced dishes of the DSN are ideal for performing a form of radio astronomy called "very long baseline interferometry" (VLBI).

VLBI produces very high resolution images of the cosmos by combining the output from two or more telescopes. The result is like having a giant "virtual" telescope as large as the distance between the real dishes. Because bigger telescopes can produce higher resolution images than smaller ones, astronomers need to use dishes that are as far apart as possible.

That need dovetails nicely with the DSN's design. To maintain continuous contact with deep space missions, the DSN has tracking stations placed in California, Spain, and Australia. These locations are roughly equally spaced around the earth, each about 120 degrees of longitude from the others. That way, at least one dish can always communicate with a probe regardless of earth's rotation. That also means, though, that the straight-line distance between any two of the stations is roughly 85 percent of earth's diameter- or about 6,700 miles. That's almost as far apart as land-based telescopes can be.

"We often collaborate with other VLBI groups around the world, combining our dishes with theirs to produce even better images," says Michael J. Klein, manager of the DSN Science Office at NASA's Jet Propulsion Laboratory. "Since our 70-meter dish in Canberra, Australia, is the largest dish in the southern hemisphere, adding that dish in particular makes a huge difference in the quality of a VLBI observation."

Even though only about 1 percent of the DSN's schedule is typically spared from probe-tracking duty and scheduled for radio astronomy, it manages to make some important contributions to radio astronomy. For example, the DSN is currently helping image the expanding remnant of supernova 1987A, and Dr. Lincoln Greenhill of the Smithsonian Astrophysical Observatory is using the DSN dishes to explore a new way to measure the distances and velocities of galaxies.

And all of this comes as a "bonus" from the dishes of the DSN.

To introduce kids to multi-wavelength astronomy, NASA's website for kids, The Space Place, has just added the interactive demo, "Cosmic Colors," at [www.spaceplace.nasa.gov/cosmic](http://www.spaceplace.nasa.gov/cosmic)

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

## Also from NASA...fun for Kids

"Blast off to a Mars Adventure" at [http://spaceplace.nasa.gov/mars\\_rocket.htm](http://spaceplace.nasa.gov/mars_rocket.htm)

"Tails of Wonder" (Stardust) at <http://spaceplace.nasa.gov/stardust/index.shtml>



Introducing the *Telguide*.

Our own Steve Trotta has invented the Telguide to aid you in your galactic hunts. To purchase a Telguide, [click here](#).

## \* \* FOR SALE\* \*

Discovery Premium DHQ Dobsonian Telescope

12.5" f/5 with cooling fan, JMI Crayford Focuser, Telrad and 9X50 Correct Image 90 degree finder.

Aluminum Cover. Asking \$1,000; Paid \$1,390

Al Shoomliansky, 945-8900

\* \* \* \* \*

C-8 Telescope System

Includes Celestron C-8 optical tube, Vixen Super Polaris German Equatorial mount, Lumicon 80mm Super Finder, many additional eyepieces and other accessories. \$1,500 firm

Please contact Steve Nootenboom:

Home: 661-944-1665

Cell: 661-406-2453

Did you know? ?

Of Jupiter's sixteen moons, three were unknown to us until Voyager discovered them.

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**Astronomy Links on the Web**

<http://www.actonastro.com/>

(Steve Trotta's website- note the new address)

<http://www.noexitrecords.com/zerobox/astro.htm>

(Tom Varden's website)

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

(Tom Koonce's website)

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

(Jupiter events)

<http://chandra.harvard.edu/index.html>

(The latest from the Chandra X-ray Observatory)

<http://www.astro.ucla.edu/~obs/intro.html>

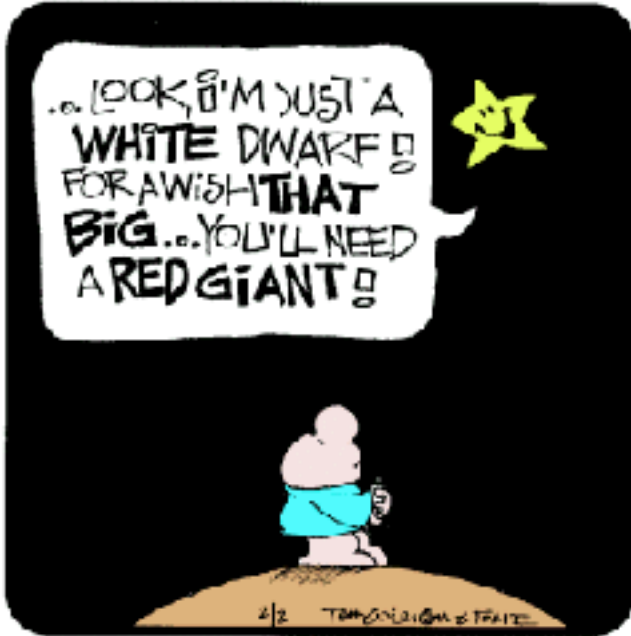
(The sun from Mt. Wilson)

[http://skyandtelescope.com/observing/objects/planets/article\\_304\\_1.asp](http://skyandtelescope.com/observing/objects/planets/article_304_1.asp)

(Check out Saturn before it's too late)

[www.avastronomyclub.org/](http://www.avastronomyclub.org/)

(The Club's new website address)



\* \* WANTED \* \*

Counterweight, 4-7 pounds with 3/4" to 1" hole (shaft size); contact Terry Pedroza, 718-3963

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Desert Sunset Star Party - May 13-16, 2004

The 2004 Desert Sunset Star Party will be held at the Caballo Loco Ranch, about 11.5 miles south of Three Points, AZ, on Rt. 286, and then east for 8 miles. This RV ranch is in a secluded area of Arizona with dark skies. The telescopes of Kitt Peak are in clear view to the west. The DSSP begins on Thursday night and runs through Saturday night. We will have a speaker on both Friday and Saturday evenings, along with door prize giveaways. Registration information will be posted on the DSSP website:

<http://chartmarker.tripod.com/sunset.htm>

**COMING SOON...**

... In April, artist Chris Butler will speak at our Club Meeting, and

... In May, SDSU Professor Peterson will return to our club to discuss "The Geological Case for Life on Mars."

**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 new sletter.
- 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.

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**Our Sponsors**

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

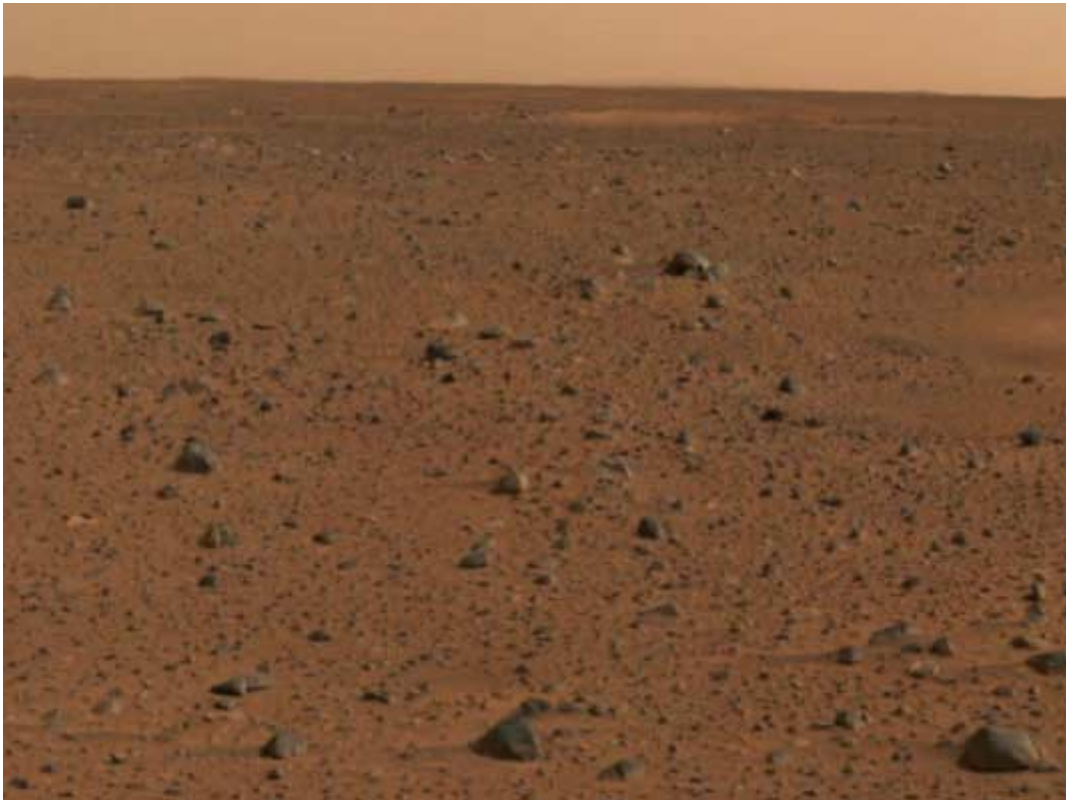
**ONET:** 1529 E. Palmdale Blvd., Suite 200. (661) 538-2028. As an Internet provider, they are kind enough to provide us with a free website.

**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 Cathy or Hank.

**High Desert Broadcasting:** General Manager, Vicky Connors (661) 947-3107; They assist us in advertising our Club.

**Woodland Hills Camera:** 5348 Topanga Canyon Blvd., Woodland Hills. 888-427-8766.  
[www.telescopes.net](http://www.telescopes.net)

***Thanks for your generous support!***



High real estate prices got you down? There's plenty of room for that garden on our celestial neighbor, Mars. And it's affordable. Well, sort of.