



Desert Sky Observer

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NEWSLETTER OF THE ANTELOPE VALLEY ASTRONOMY CLUB, INC
P.O. BOX 8545, LANCASTER, CALIFORNIA 93539-8545
*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/ The
A.V.A.C. is a Sustaining Member of The Astronomical League and the International
Dark-Sky Association.*



Up-Coming Events

October 06: Full Moon

October 13: Monthly Club Meeting*

October 13: First Quarter Moon

October 14&15: [Palmdale Fall Festival](#)

October 20: Board Meeting

October 21: Dark Star Party at [Paradise Hot Springs](#)

October 22: New Moon

October 29: Last Quarter Moon

October 29: Day Light Savings Time ends

* Monthly meetings are held at the S.A.G.E. Planetarium on the Cactus School campus in Palmdale, the second Friday of each month. The meeting location is at the northeast corner of Avenue R and 20th Street East. Meetings start at 7 p.m. and are open to the public. *Please note that food and drink are not allowed in the planetarium*

Club President

Doug Drake

We had our first community event, Lancaster's "Walk of Honor," with our new club's 6X12 foot covered trailer! All I can say is wow! That trailer is an excellent asset for our club functions.

Before we had our trailer this is the scenario we had to go through:

Drive to Larry's home to pickup the club stuff that supports our community events. Then, we loaded vehicles up with all that stuff, drove off to the event location, unload all that stuff and then setup for the event. But wait, were not done! After the event we loaded all our club stuff into vehicles and drove off to Larry's place. You guessed it, now we had to unload all that stuff and put it into Larry's shipping container. If you're a club member that hasn't supported our club events, or drove to Larry's place to load stuff, then you've missed out, on a whole bunch of stuff!

We are now ready to support community events without all the labor and hassle. We simply take the trailer to an event, unload and setup. The trailer is used as part of our setup, along with our popup canopy and tables, so the trailer is a player even in our display setup. After the event we load the trailer up and drive off, the job is done, what a great day! We have tables, chairs and shade to make it easy for you to be at one of our club community events. Please support Rose, Director of Community Development, for our next event (the Palmdale Fall Festival, 14&15 October) and give her a call, 661-822-4580, it's really a lot of fun, especially without all the stuff.

Be sure to come to our next club meeting, October 13 at 7:00 PM, and vote for a new board member for 2007. You can really be part of what makes our club terrific by saying you would like to be a candidate. Our club needs your help, so be there or be square.

Doug

Vice President***Richard Hague***

This is our annual business meeting. We hear how the club is doing, ask you for your suggestions and comments, and elect next year's officers who will assume office the first of January. We also have an "Ask the Experts" panel who can answer your questions about most things astronomical: from esoteric galactic questions to grinding your own telescope mirrors, to polar aligning your 'scope the easy way, and everything in between. It's a fun time especially if you can stump the experts. Of course we follow up with a sky show from Jeremy and a raffle of interesting items picked up by our President.

Next month (November 10) we have, as our guest, a prominent sky photographer. Details to follow.

Dick Hague

Director of Community Development***Rose Moore***

Coming up is the Palmdale Fall Festival on October 14th and 15th, Saturday and Sunday. If you would like to help out, please call Doug or me, or sign up at the October meeting. We can use your help!

October 21st is the event at Prime Desert Woodlands, starting at 6:45pm with a Nature Walk by Jeremy Amarant, followed by a public star party. This is on the same night as the Club Star Party. For those who will not be going to the club's event, you're welcome to join us at the PDW!

We have 2 events for Saturday, November 18th. Joe Walker Middle School 'Super Science Saturday' is scheduled for approximately 9am to 12noon. We will need scopes for solar observing, and any displays or demonstrations that the kids might enjoy. We will also be doing a raffle for a few items. That night is the Club's Star Party, as well as a public star party, at the Poppy Reserve. We'll have the club's event at one side of the parking lot, and the public event at the other. If interested in either of these November events, please call me or Doug or sign up at the next meeting. Your help and participation is always needed, so please sign up!

Clear skies to all (without so much wind!)

Rose

Did you know ? ? ?

Over 200 planets have been found orbiting nearby stars. Last month the Transatlantic Exoplanet Survey (TrES) announced the discovery of the second one found by the transit method. TrEs-2 was found in the same field that the soon to be launched NASA Kepler spacecraft will be examining for extra solar planets, making it a useful calibration target for this mission and for NASA's upcoming search.

News and Headlines

NASA Mars Rover Arrives At Dramatic Vista On Red Planet

NASA's Mars Rover Opportunity has arrived at the rim of a crater approximately five times wider than a previous stadium-sized one it studied for half a year. Initial images from the rover's first overlook after a 21-month journey to "Victoria Crater" show rugged walls with layers of exposed rock and a floor blanketed with dunes. The far wall is approximately one-half mile from the rover.

http://www.marsdaily.com/reports/NASA_Mars_Rover_Arrives_At_Dramatic_Vista_On_Red_Planet_999.html

NASA's New Mars Camera Gives Dramatic View of Planet

Mars is ready for its close-up. The highest-resolution camera ever to orbit Mars is returning low-altitude images to Earth from NASA's Mars Reconnaissance Orbiter.

<http://www.spaceref.com/news/viewpr.html?pid=20940>

Indian Moon Mission To Launch By Early 2008

India's first mission to the moon, Chandrayaan-1, will be launched in the first half of 2008, the scientist heading the project said today. Jitendranath Goswami, a scientist with Ahmedabad-based Physical Research Laboratory, said the date for the Indian Space Research Organization's unmanned moon mission will be finalized later as an eclipse is scheduled for February 2008.

http://www.moondaily.com/reports/Indian_Moon_Mission_To_Launch_By_Early_2008_999.html

Doctors Fly High For First Ever Operation In Zero Gravity

French doctors on Wednesday carried out the world's first ever operation on a human in zero gravity, using a specially adapted aircraft to simulate conditions in space. During a three-hour flight from Bordeaux in southwest France, the team of surgeons and anesthetists successfully removed a benign tumor from the forearm of a 46-year-old volunteer.

http://www.space-travel.com/reports/Doctors_Fly_High_For_First_Ever_Operation_In_Zero_Gravity_999.html

More trouble for Hubble

The main camera on the Hubble Space Telescope has shut down unexpectedly for the second time this year, the operators of the orbiting observatory announced Friday. The Space Telescope Science Institute, which coordinates use of the telescope, said the camera shut down Saturday.

http://www.cnn.com/2006/TECH/space/09/29/hubble.problem.ap/index.html?section=cnn_space

NASA OKs night launch for shuttle

For the first time in four years, the next space shuttle launch attempt most likely will be at night, NASA said Thursday. The first launch possibility for Discovery will be December 7 at 9:38 p.m. EDT, the first try at night since Endeavour lifted off November 23, 2002 at 7:49 p.m. Discovery's launch window extends to December 26.

http://www.cnn.com/2006/TECH/space/09/29/space.shuttle.ap/index.html?section=cnn_space



Staggering Distance

By Dr. Tony Phillips

Tonight, when the sun sets and the twilight fades to black, go outside and look southwest. There's mighty Jupiter, gleaming brightly. It looks so nearby, yet Jupiter is 830 million km away. Light from the sun takes 43 minutes to reach the giant planet, and for Earth's fastest spaceship, New Horizons, it's a trip of 13 months.

That's nothing.

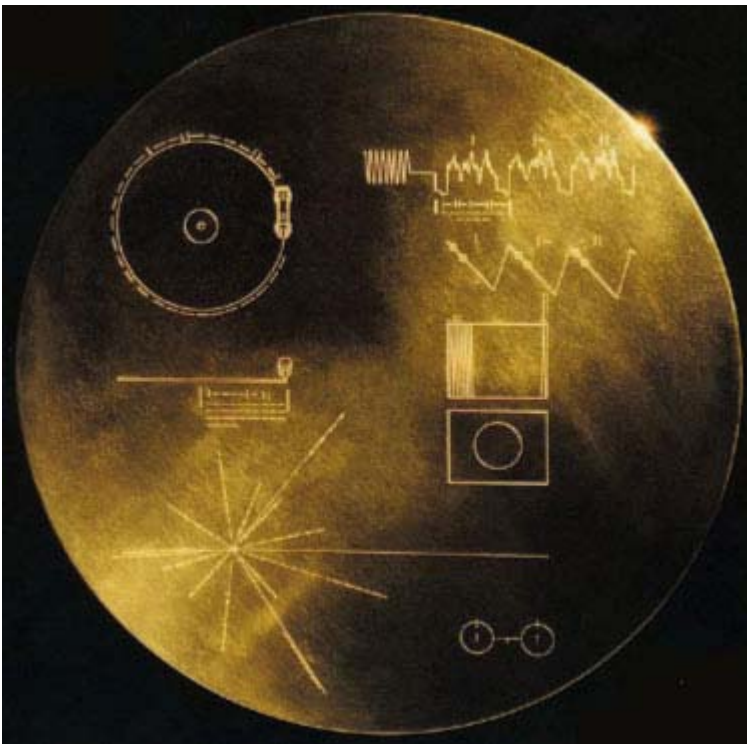
Not far to the left of Jupiter is Pluto. Oh, you won't be able to see it. Tiny Pluto is almost 5 billion km away. Sunlight takes more than 4 hours to get there, and New Horizons 9 years. From Pluto, the sun is merely the brightest star in a cold, jet-black sky.

That's nothing.

A smidgen to the right of Pluto, among the stars of the constellation Ophiuchus, is Voyager 1. Launched from Florida 29 years ago, the spacecraft is a staggering 15 billion km away. It has traveled beyond all the known planets, beyond the warmth of the sun, almost beyond the edge of the solar system itself.

Now that's something.

"On August 15, 2006, Voyager 1 reached the 100 AU mark—in other words, it is 100 times farther from the Sun than Earth," says Ed Stone, Voyager project scientist and the former director of NASA's Jet Propulsion Laboratory. "This is an important milestone in our exploration of the Solar System. No other spacecraft has gone so far."



In case it is ever found by intelligent beings elsewhere in the galaxy, Voyager carries a recording of images and sounds of Earth and its inhabitants. The diagrams on the cover of the recording symbolize Earth's location in the galaxy and how to play the record.

At 100 AU (astronomical units), Voyager 1 is in a strange realm called "the heliosheath."

As Stone explains, our entire solar system—planets and all—sits inside a giant bubble of gas called the heliosphere. The sun is responsible; it blows the bubble by means of the solar wind. Voyager 1 has traveled all the way from the bubble's heart to its outer edge, a gassy membrane dividing the solar system from interstellar space. This "membrane" is the heliosheath.

Before Voyager 1 reached its present location, researchers had calculated what the heliosheath might be like. "Many of our predictions were wrong," says Stone. In situ, Voyager 1 has encountered unexpected magnetic anomalies and a surprising increase in low-energy cosmic rays, among other things. It's all very strange—"and we're not even out of the Solar System yet."

To report new developments, Voyager radios Earth almost every day. At the speed of light, the messages take 14 hours to arrive. Says Stone, "it's worth the wait."

Keep up with the Voyager mission at voyager.jpl.nasa.gov.

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:**

Doug Drake (661) 724-0849 president@avastronomyclub.org

Vice-President and:

Richard Hague (661) 724-1623 vice-president@avastronomyclub.org

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Rose Moore (661) 822-4580 community@avastronomyclub.org

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Night Sky Chairperson

Richard Hague (661) 724-1623 vice-president@avastronomyclub.org

Equipment and Library Chairperson:

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Club Historian:

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

Astronomy Links on the Web

<http://www.darksky.org/> (International Dark-Sky Association)

<http://www.astro-tom.com/> (Tom Koonce's website)

<http://www.noexitrecords.com/zerobox/astro.htm> (Tom Varden's website)

<http://www.astropaws.com> (Terry Babineaux's astrophotos)

<http://www.actonastro.com/> (Steve Trotta's website)

<http://saturn.jpl.nasa.gov/multimedia/images/latest/index.cfm> (the latest Saturn pics from Cassini)

<http://astronomy-mall.com/> (shop 'til you go broke)

Thank you to our sponsors for your generous support!

Al's Vacuum and Sewing: 904 West Lancaster Blvd. (661) 948-1521. Stop by and say "hi" to Matt and Sue.

Woodland Hills Camera: 5348 Topanga Canyon Blvd., Woodland Hills. 888-427-8766. www.telescopes.net

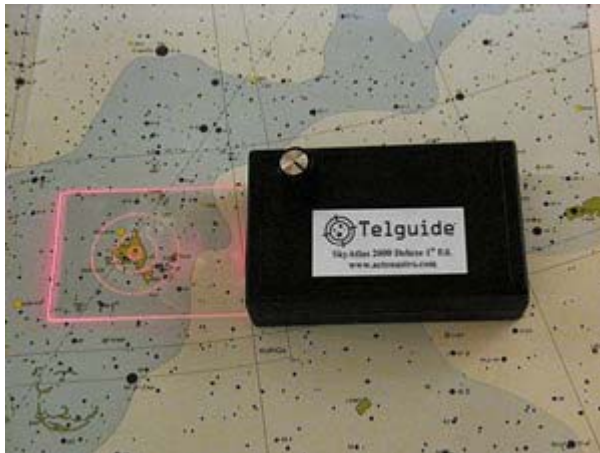
Telguide: A supper guide to use with your star chart. www.actonastro.com

Astro-Tom: Tom is dedicated to amateur astronomy. www.astro-tom.com



Al's Vacuum and Sewing

WOODLAND HILLS Camera



The Telguide

Our own Steve Trotta has invented the Telguide to aid you in your galactic hunts.

For more information on how a Telguide can help you, <http://www.actonastro.com>



A HARTWIG COMPANY with offices in Palmdale and Lancaster

Errol Van Horne (661 305 8148) and Jim Jeffra (661 733 8363) offer residential and commercial real estate services to all club members and their referrals, which include a 15% donation to the Youth Exploring Astronomy Program, of any commission earned from those sources.