
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/ The A.V.A.C. is a Sustaining Member of The Astronomical League and the International Darksky Association



Up-Coming Events

February 6: Full Moon

February 13: Monthly Club Meeting*

February 13: Last Quarter Moon

February 20: New Moon

February 21: Star Party, [Poppy Reserve](#)

February 27: 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 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.

In Memory of Ron Coleman

The Antelope Valley Astronomy Club has lost another of its fine members with the passing of Ron Coleman. Ron left us to be with the Lord on November 29, 2003. He will never leave our hearts and thoughts. Ron was always willing to help with any project, and when his health was up to it he did just that. Ron fought a valiant battle with the cancer that eventually took his life. The sky has a new star.

President's Report

Terry Babineaux

A seeming eternity ago, I would spend countless hours building all manner of gadgets from a huge Lego collection I received for Christmas. It seems that three or four relatives all had the same idea, each giving me a Lego kit that, when combined with the other sets, resulted in some rather massive possibilities. Around the same time, Neil Armstrong set mankind's first foot on the moon. I still remember those images emanating from a fuzzy old black and white TV, its vacuum tubes glowing red: the fascinating artists' conceptions, the colossal Saturn V rocket blasting off, astronauts prancing in moon dust, leaving footsteps that may outlive mankind itself. Imagine my surprise when this year I received for Christmas a Lego Robotics Invention kit, a modern version of Lego that can be interfaced with a computer (personal computers didn't even exist when I was a child). To make a long story short, the computer geek that I am was immediately hooked. Work on my first computerized robot is well under way. What a joy to be able to simply *play!*

We truly do live in an amazing age. The Internet wasn't that old when photos taken by Sojourner, the first Mars rover, began appearing on computer screens, ready for devouring anywhere in the world. Many trials later, we have now a newer, far more sophisticated robot poised to explore an alien world in a manner never before seen.

Begin a conversation with just about anyone and, as far as space exploration is concerned, you'll find proponents, naysayers, and pretty much everything in between. But rarely discussed is mankind's instinctive need to explore. I believe this need is what continues to drive us forward along the evolutionary path and that our space program is not a luxury, but rather a mechanism that helps ensure our very survival as a species. Without it, we may find ourselves sinking in a sea of stagnation. So basic is this need that the lesser trappings of politics and religion are forgotten when a crew is in trouble (Apollo 13) or a new set of eyes (Spirit) open for the first time on a red landscape. JPL's Rover web site is reporting over a billion visits since Spirit landed: the entire world is watching and waiting.

Having come from simple Lego blocks to computers, from that old black and white TV to the Internet, I realize that I have, in a very real sense, come full circle. Perhaps I am also learning to slow down, to re-learn how to play and to re-experience some of that faded wonder. The next time you are out under the stars, I hope that you, too, will take a moment to reflect on what an amazing journey our lives can be.

Vice President's Report

Doug Drake

We are living during a great epoch with space exploration at full speed ahead. Before the 1960's, our only concept of the Solar system and outer space was through a telescope, a slide rule, and look-up tables. Computers in the 1960's were so slow that we would put mathematical computations into the computer before going home at night and come back the next morning to collect the computed answers.

Look at our computers power now- no waiting over night! I remember reading about Mars and learning that Mars must have some sort of vegetation. Oh how exciting, because we could see seasonal changes, somewhat like here on Earth, through our telescopes. Little did we know that the seasonal changes are really caused by the subsiding polar caps and cause a horrific amount of atmospheric pressure changes that result in monsoonal winds that blast the fine red Mars dust to cover over whatever came in contact with it.

Then, during the 1970's, our spacecraft explored Jupiter and discovered that the Jovian moons are very dynamic. One is extremely volcanic, and another just might contain some form of aqueous life. In just a few months, our Cassini spacecraft will orbit Saturn to explore the mystery of its rings, and who knows what wonders may be hidden in the enormous moon Titan?

We have landed man on our Moon and even taken back rock samples for us to examine. We are exploring the very depths of the universe with both our telescope that is in orbit around the Earth and our Earth-bound telescopes, using sophisticated techniques to phase out the effect of the scintillating atmosphere and observing life and death of the stuff that cycles stars, planets and other galaxies.

At this present time, we have landed roving robotic explorers on Mars to search for geological evidence of water. Yes, we are so lucky, so blessed, to be living in an epoch of space exploration thus providing full excitement and the wonder of it all.

Dir. of Community Development

Michael Roberson

Hello again! Our first month is almost over, and the year is looking better. We have a lot of activities coming soon, giving everyone plenty of opportunity to share astronomy with our community.

The star party on Saturday, January 17th, was good, if a little cold. We had three visitors come and spend some time with us, as well as a new couple who just joined the club last month. I would like to thank everyone that came out and made this a good time to be had.

The Youth Exploring Astronomy essay contest is ongoing. If you can help with the essay contest, by passing out information or visiting schools, or anything at all, please give me a call or e-mail me. Your help is much needed.

There are some great things to look forward to in the coming months. Next month, our club meeting is on the 13th of February. Don't let anything stop you from being with us for our/your meetings. If you still need to pay your club dues, please make yourself available to Tom Koonce at the front door as you come in. We look forward to you renewing for this new year, and your help is needed.

The next star party will be at the Poppy Reserve on Avenue I on Saturday the 21st. Invite a friend and share the wonders of the night sky with someone new. We get to see things in deep space that most people will only see if they watch a Spielberg or Lucas movie.

If you have any ideas or suggestions, please see me at the club meetings, events or star parties. I am also looking forward to your phone calls as well (home number: 948-1303; cell: 492-6578). We look forward to your involvement. See you at the meetings.

* * WANTED * *

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

Did you know? ?

To better see Jupiter's Great Red Spot, use a light green or blue filter.

? ? ?

Doug Drake's *Planet Watch*



Moon

The crescent Moon will be paired with Venus on February 23rd. What a wondrous pair to observe.

Venus

Venus will become higher and higher in the evening sky and will continue this motion until March. Venus will become bright, like a diamond shining in the sky that is becoming night.

Jupiter

Jupiter can be seen below Leo, the lion, as it becomes three-quarters of an arc-minute in size. Take a few days and record the Galilean moon positions as did Galileo Galilee.

Saturn

Saturn can be seen between Orion, the hunter, and Gemini, the twins. You will just now be able to see the globe's shadow on the rings. Also notice that Saturn has a lighter band around its equator. At times you can see subtle light spots between the equator and pole. Check it out to see what might just be a delight.



Introducing the *Telguide*.

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



AVAC Product Review

by Tom Koonce

I thought I'd write a review about Warm Clothes, an important topic since we have upcoming Star Parties where the temperature promises to be well below freezing(!)... and being cold will ruin your star party experience very quickly.

Wearguard Men's Regular Large Steelguard Supreme Coveralls (\$99 on sale, \$50 off!)

[Http://www.wearguard.com](http://www.wearguard.com)

Colors are: Black duck and Navy duck
Coveralls rated at -30 degrees F.

I realize that the quoted temps are probably for situations where they are worn by an ex-Navy SEALs doing calisthenics, and not an amateur astronomer standing around! I have been quite comfortably warm in these down to +5 degrees on top of Mt. Pinos in a light wind.

Data:

Insulated with Thinsulate "Lite Loft", YKK Zippers on front, and back left Pocket, zips up from crotch and down from neck, four front pockets that close with Velcro and two hand warmer pockets. From hip to foot, YKK Zippers run to vent the outside edge of the leg and to allow the leg to be zipped down over boots. The flap along the edge of the leg is covered by a 1" insulated cloth flap that snaps via four snaps to keep out drafts. The entire shell is made out of abrasion and puncture-resistant 12 oz. cotton, coated with WearTex for water resistance. The shell is lined with taffet, a cloth, for added warmth. It also has internal suspenders to make it easy to move in the garment.

The right leg has two side pockets sized for tools or even a cell phone and red-light flashlights. The knees and elbows are separately reinforced with nylon for durability. The cuffs and around the neck are lined with Thinsulate and cotton mesh to keep out drafts. The warm hood snaps into place.

The company, WearGuard, has excellent service, and delivery times have been under a week for anything that I have ordered from them. If you're like me and you Do Not like to be cold at a Star Party, I can recommend Wearguard Men's Steelguard Supreme Coveralls.

Underneath the coveralls, I believe in the "layer" method of dressing as taught in the Air Force Winter Survival Schools.

I usually dress in long johns, then sweat pants, two pairs of socks - a thin "work" pair, covered by a thick wool pair of ski socks that I got for skiing somewhere. When it comes to keeping your feet warm, take as much care as you did selecting your boots as you did picking out the coveralls. For my boots, I chose a pair of Soloman 'Conta group' boots, lined with synthetic fur, 1/2 size too big for my foot (so I could fit with two or three layers of Socks on underneath). I got these on sale for a fraction of their retail price because I went to the sporting goods store after ski season last year and dug through all of the boots they were going to send back to the warehouse. I found a pair mislabeled with a cost \$100 less than they should have been, ...but I told them at the counter...twice...then after the clerk started to argue with me, I bought the boots at the marked cost! By the way, they are incredibly warm.

Soloman Conta group boots - SALE PRICE \$63.00 (Usually \$159.00).



Flying in Formation

by Patrick L. Barry

You can almost see the tabloid headlines now: "Midwest farmer spies UFO squadron flying in formation!" "First signs of imminent alien invasion," the subtitle will read.

If only this fictional farmer had been keeping up with NASA's Space Place column, he would have known better. The string of white dots moving in formation across the pre-dawn sky were satellites, not alien spaceships.

Beginning next year, a series of challenging, high-precision launches will insert four satellites into orbits with just the right altitude, position, and orbital inclination to follow in lock-step behind NASA's Aqua satellite (launched in May 2002). Scientists have dubbed this squadron of satellites the "A-Train." Along with Aqua, the celestial parade will include Cloudsat, CALIPSO, PARASOL, and Aura.

In April 2004, NASA will launch CloudSat, an Earth-observing satellite with unique cloud-measurement abilities. These measurements will fill an important role in our understanding of global climate change, making long-term climate change scenarios more accurate and dependable.

So why bother flying in formation? By passing over the same swath of land within seconds or minutes of each other, the satellites will give scientists snapshots of essentially the same scene using a total of 14 different measuring instruments. CloudSat alone carries only one: a millimeter-wavelength radar sounder.

This sounder- the first of its kind put into orbit- lets scientists see a vertical "slice" of the atmosphere that shows clouds, water, and ice between the ground and 30 km altitude, with a vertical resolution of 0.5 km. Even by itself, this instrument would provide an important and unique view of Earth's atmosphere, since the accurate portrayal of clouds is one of the glaring weaknesses with current simulations of climate change.

But this cloud data is even more valuable when combined with measurements from the other satellites in the A-Train, such as air temperature, trace gases, and radiation into and out of the atmosphere. Scientists can then see connections between, say, temperature and the resulting behavior of clouds. A better understanding of these connections is one of the most sought-after goals of climate research, because changes to global cloud cover would, in turn, have a feedback effect on global temperatures.

The real story of this satellite squadron may not make the tabloid headlines, but at least there's evidence that the imminent threat of climate change is real, which is a lot more than you can say for alien invaders!

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

(although your fearless editor helped the spacecraft gather comet dust at Tails of Wonder)

“Blast off to a Mars Adventure” at

http://spaceplace.nasa.gov/mars_rocket.htm

“Tails of Wonder” (Stardust) at

<http://spaceplace.nasa.gov/stardust/index.shtml>

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)

www.avastronomyclub.org/

(Hey, that’s us at our new website address)

HERMAN®

by Jim Unger



**“She’s here to get some entry forms
for the Miss Universe competition.”**

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.

A.V.A.C. Board Members

President: Terry Babineaux (661) 724-1248 president@avastronomyclub.org

Vice-President: Doug Drake (661) 946-7751 vice-president@avastronomyclub.org

Secretary: Larry Ochsner (661) 274-9006 secretary@avastronomyclub.org

Treasurer: Tom Koonce (661) 943-8200 treasurer@avastronomyclub.org

Director of Community Development:

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Herb Boyd (661) 274-8418 library@avastronomyclub.org

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Tom Koonce (661) 943-8200 al@avastronomyclub.org

Webmaster of Club Site:

Steve Trotta (661) 269-5428 webmaster@avastronomyclub.org

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

Thanks for your generous support!

Yo, did you make note of our new website address? Well get it bookmarked!
www.avastronomyclub.org/