



Desert Sky Observer

Volume 25 Issue 4

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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

- April 2: Last Quarter Moon
- April 2: Star Party, Saddleback Butte
- April 8: New Moon
- April 8: **Monthly Club Meeting***
- April 9: Star Party, Prime Desert Woodlands
- Apr 16-17: Poppy Festival
- April 16: First Quarter Moon
- April 24: Full Moon

* Monthly meetings are 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. 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 Debora
Pedroza*

The spring season is a favorite time of year for many of our club members, kicking off a few of our highly anticipated annual events. The Poppy Festival is a guaranteed fun time for everyone whether you're working in the club booth, sharing the phenomena of sunspots or just partaking in the various festivities that Lancaster Parks and Recreation has to offer. Year after year, this weekend event continues to be one of the club's most successful community outreach endeavors, attracting many to the exciting world of astronomy as well as enhancing our membership drive. Many core club members volunteer every year because they enjoy the enthusiasm and the time spent interacting with fellow club members and with the public. If you are relatively new to the club or have never taken the opportunity to partake in this event, this is your year. Sign-ups sheets have been started and you can check all the details in the Director of Community Development report.

Another highly anticipated event is being held on Memorial Weekend at Camp Oakes in Big Bear. The Riverside Telescope Makers Conference (RTMC) is every amateur astronomer's dream, offering incredible shopping venues with pricing deals, homemade telescopes to feast your eyes upon, camping, a Saturday swap meet, and of course dark sky parties. Register now and join the fun... details on our club website.

We have some very exciting “speaker” surprises coming up and I would like to remind all of you to please acknowledge our speakers with speaker donations. We want our guests to feel appreciated and valued for what they bring to our meetings, not to mention the price of fuel these days- WHEW! I personally find it a bit uncomfortable asking for these donations in front of our speakers and experience shows that they feel a little uncomfortable, too. So please have your donation ready to give to our club treasurer, David Abrass, and let him know if it you would like a tax donation letter. I would like to extend a warm **thank you** to all of you in advance. I know our club can count on you.

In closing this month, I would like to acknowledge the fine work that our Executive Board members have been doing. Mindy, David, Larry and Terry- you guys are awesome! All of your time and dedication is sooo appreciated.

Here's to beautiful spring skies. See you all soon. Until then...take good care.



*Vice
President
Mindy
Peterson*

This month's meeting will be a lot of fun. Chris Butler is back again to give us a new tale of adventure. Last year he thrilled us with a look at traveling the universe from a different perspective. His talk this year is sure to be just as exciting. Chris is a renowned artist and illustrator whose talents are amazing. Visit his website at www.sciencecenter.net/butlerart/ to see a sample of his artwork.

His topic this year is “Alien Skies.”

The poppies are out in full force this year, which will bring a lot of folks to the Antelope Valley for the Poppy Festival on April 16th and 17th. Don't forget to sign up to work a shift. We need everyone to participate so that there will be a lot of Club members to assist the public.

We are still working on getting the tickets for the opportunity drawing for the quilt “Galaxy.” Hopefully we will have the tickets by the meeting so that we can begin selling them. I am looking forward to the quilt making a lot of money for the Club.

Stay tuned for news of our guest speaker for the May meeting. I will be confirming the date with his secretary by April 19th. An email will be sent out informing everyone of the speaker and the announcement will also appear in the May Desert Sky Observer. Until then, clear skies.



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***Director of
Community
Development
Terry Pedroza***

It's that time of year again- time for the Antelope Valley Poppy Festival, which includes Astronomy Day this year. We have received from *Sky & Telescope* magazine many items to celebrate Astronomy Day. JPL will be handing out the materials to the public. Jeremy Amarant and I have been working hard at perfecting our skills at Comet making, with great success I might add. We will be performing this feat at the Poppy Festival. We will have scopes set up again and will be doing two opportunity drawings: one for a telescope to be awarded on Sunday and another for the opportunity quilt to be awarded on Sunday, October 9th at the Fall Festival.

I have not had the response that I had hoped for with Poppy Festival volunteers and I still need many, many more. The last time I looked my name and two others were on the sign-up sheet. HELP! Each day is broken down into three shifts, starting at 9:00am, Noon, and 3:00pm for three hours each, and a set-up and teardown crew for the event. The club needs at least four people on each shift to man the event properly. Please get involved to help your Club shine like I know it can.

Prime Desert Woodlands is having an event on April 9th and we need to man this event also. We will need three or more volunteers for this event, from 5:45 until about 8:00 pm. We would like to have at least three scopes set up for the public to view through. If you can help, contact me at the meeting, by e-mail, or call me at 718-3963.

A heads-up for May: we will need members to man the booth at RTMC. What better excuse do you need to attend? "Honey, I have to go. The club needs me to help out." See you there.



Rich Harper's Planet Watch



Mercury

Mercury is a morning "star" this month. In case you missed it in March, it will be well-positioned for viewing in the pre-dawn sky from mid- to late-April, rising at about 5:00 am.

Venus

Venus is finally peeking out from behind the sun this month. It will be visible as a bright "star" just after sunset in the latter half of the month.

Mars

Mars lies in Capricorn and is slowing drifting eastward. It is moving quickly enough that you may be able to detect positional changes from night to night. On the 13th, Mars will lie about one degree south of Neptune. It currently rises at about 3:30 am. and will lie low in the southeastern sky. It is still quite small and it is unlikely that it will show much detail in the telescope.

Jupiter

Jupiter is in Virgo, about 13 degrees west of Spica. The great galaxy cluster in Virgo lies 15 degrees north of Jupiter.

Saturn

Saturn is in Gemini, about 7 degrees away from Castor and Pollux. The moon will pass about 4 degrees north of Saturn at about 8:00 pm. on the 15th.

Uranus

Uranus is in Aquarius, visible in the early morning sky. At magnitude 5.9, it should be a naked-eye object from a dark-sky location.

Neptune

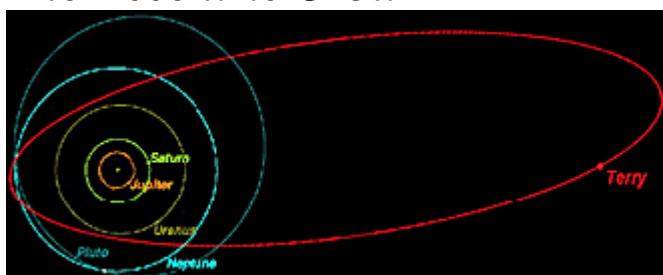
Neptune is in Capricornus and is a telescope or binocular object at magnitude 8. See if you can spot it in binoculars or a small telescope as it is passed by Mars on the 15th.

Did you know? ? ?

The comet Hale-Bopp is still visible from Earth (but only with a REALLY big telescope- 6.5 meters).

? ? ?

The Eccentric Orbit



of Terry Babineaux

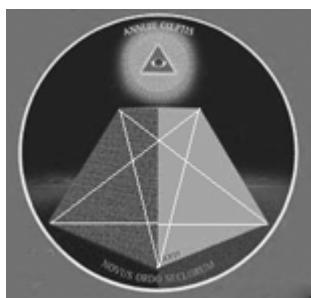
The most powerful symbol I can think of is money. Though the paper upon which it is printed is valueless, its symbolic power affects every aspect of our lives. So powerful is this symbolic paper that life and death frequently depend upon it. The night sky is also defined in symbolic terms. Constellations are arbitrary symbols most useful for identifying areas of interest. They are, however, meaningless when it comes to describing the physical nature of their components. For example, Orion's sword is home to the Orion Nebula, a region of ongoing star birth activity. None of this activity has any relevance to a "sword." In fact, if viewed from another part of the galaxy, this "sword" may not even vaguely resemble a sword at all.

Astrology purports to predict events based on the arrangements of celestial objects at a given moment in time, such as the birth of a child. These arrangements are entirely symbolic: the gravitational pull from the body of a nurse in the delivery room exerts more force upon a newborn than does the nearest planet. Despite this, many people allow astrological symbols to affect their lives.

Venus, at certain times of the year, is the brightest object in the night sky. This so impressed ancient observers that they gave Venus special status. Entire mythologies developed in which Venus plays an important role.



Great Seal of the United States



Masonic
Pyramid"

"Unfinished
Pyramid"

But Venus has another curious property: if the position of Venus relative to the sun is charted over five synodic periods* and lines are then drawn between these plotted points, a pentagram will result. This phenomenon was noted by ancient observers: one theory holds that the original eight year span between ancient Greek Olympics was based on five Venutian synodic periods, the time needed for the planet to trace a pentagram. Yet another ancient theory describes the world as comprised of five parts: earth, air, fire, water, and spirit. This five-component model achieved a symmetry with observed celestial phenomena and in a way predated today's quest for a unifying theory that describes the entire universe in terms of a relatively few simple laws.

Ask any child to draw a star. Most will draw a pentagram, which nowadays has become the standard stylized representation, perhaps a result of Venus' ancient status as the grandest of stars. Most of our early politicians were Freemasons (as are many of our current ones). Freemasons love symbols, and many of these ancient symbols persist to this day, such as in our Great Seal (the Star of David, another Masonic symbol, can be drawn here as well). Ancient coinage frequently depicts pentagrams, as does the "unfinished pyramid" in ours. Also, much of the layout of Washington, DC (a symbol of power unto itself) is based on five-sided figures.

Not that any of this actually *proves* anything. At the very least, the properties of the heavens have made a profound impact on common symbols affecting our daily lives.

* A *synodic period* is the length of time it takes for an object to return to the same location relative to the sun, approximately 584 days in the case of Venus.

Making a Point



by Brian Peterson

With the promulgation of laser pointers, it is important to make a point that probably does not need to be made. Our club has shown itself to be a mature and responsible bunch (nobody and no telescopes have ended up in the pond at Crystalaire, anyway). Nonetheless, given the seriousness of the subject, it needs to be said.

The misuse of laser pointers is serious business. A few months ago, reports in the national press claimed that terrorists were likely to use these powerful devices to blind airline pilots and thus bring down commercial airliners.

Just as with nearly every other scare since September 11th, no real evidence to support the claim has been brought forward. Even forest fires brought media reports of possible terrorism.

Nevertheless, it is a serious matter. On at least two occasions, airplane pilots have reported being "lasered." No serious consequences have resulted for the pilots, but it is serious business for the owners of laser pointers.

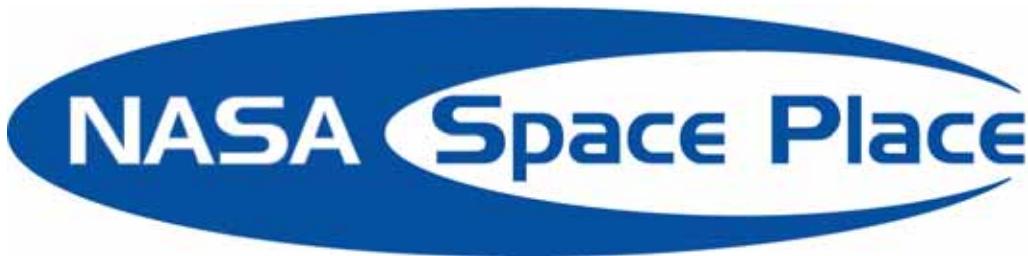
On at least one occasion, FBI agents showed up at a person's door to discuss the matter. That's serious enough right there. The person in question was convincing enough in his claim of stupidity that federal agents merely took away his pointer. It could have been worse for the man.

Please be mindful of where you point those things. You remember what our mamas used to say about our BB guns. Well, it's true. Be mindful of those around you, but also be aware of planes flying overhead. One accidental or unfortunate moment could lead to a long chat with men in dark suits. And those guys usually don't have humorous personalities.

Remember, what may seem funny at the moment could bring serious consequences for you and others with you. While they are awesome tools for pointing out constellations and planets to others, laser pointers are incredibly powerful and could be easily misused.

The Antelope Valley Astronomy Club is a 501(c)(3). We won't bail you out of jail.

All joking aside- this is a serious matter: When you hold a laser pointer in your hand, be conscious of its powerful beam. Make a point of it.



Utterly Alien

by Dr. Tony Phillips

There's a planet in our solar system so cold that in winter its nitrogen atmosphere freezes and falls to the ground. The empty sky becomes perfectly clear, jet-black even at noontime. You can see thousands of stars. Not one twinkles.

The brightest star in the sky is the Sun, so distant and tiny you could eclipse it with the head of a pin. There's a moon, too, so *big* you couldn't blot it out with your entire hand. Together, moonlight and sunshine cast a twilight glow across the icy landscape revealing . . . what? twisted spires, craggy mountains, frozen volcanoes?

No one knows, because no one has ever been to Pluto. "Pluto is an alien world," says Alan Stern of the Southwest Research Institute in Colorado. "It's the only planet never visited or photographed by NASA space probes."

That's about to change. A robot-ship called New Horizons is scheduled to blast off for Pluto in January 2006. It's a long journey: More than 6 billion kilometers (about 3.7 billion miles). New Horizons won't arrive until 2015.

"I hope we get there before the atmosphere collapses," says Stern, the mission's principal investigator. Winter is coming, and while it's warm enough now for Pluto's air to float, it won't be for long. Imagine seeing a planet's atmosphere collapse. New Horizons might.

"This is a flyby mission," notes Stern. "Slowing the spacecraft down to *orbit* Pluto would burn more fuel than we can carry." New Horizons will glide past the planet furiously snapping pictures. "Our best images will resolve features the size of a house," Stern says.

The cameras will also target Pluto's moon, Charon. Charon is more than half the size of Pluto, and the two circle one another only 19,200 kilometers (12,000 miles) apart. (For comparison, the Moon is 382,400 kilometers (239,000 miles) from Earth). No wonder some astronomers call the pair a "double planet."

Researchers believe that Pluto and Charon were created billions of years ago by some terrific impact, which split a bigger planet into two smaller ones. This idea is supported by the fact that Pluto and Charon spin on their sides like sibling worlds knocked askew.

Yet there are some curious differences: Pluto is bright; Charon is darker. Pluto is covered with frozen nitrogen; Charon by frozen water. Pluto has an atmosphere; Charon might not. "These are things we plan to investigate," says Stern.

Two worlds. So alike, yet so different. So utterly alien. Stay tuned for New Horizons.

Find out more about the New Horizons mission at pluto.jhuapl.edu/. Kids can learn amazing facts about Pluto at <http://spaceplace.nasa.gov/en/kids/pluto>.

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

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

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.

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

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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.

Speaker Donation Policy



The AVAC wishes to continue to bring in quality speakers to Club meetings. In order to show our appreciation to such speakers, we collect voluntary donations from members in attendance. However, it is awkward- particularly for the speakers- for us to ask for donations in their presence. Therefore, in the future we will keep an envelope at the front desk in the Planetarium lobby, which is manned by the Club Treasurer. We ask that you personally give your donations to the Club Treasurer because we need to know the source of the donations for our records. You may still ask that your donation be treated as anonymous, if you wish. If you would like to receive a receipt, please let Treasurer David Abrass or any other Club Officer know. Be aware that your contribution is expressly for the speakers at the Club Meetings and will not be collected on behalf of the school district.

Please consider making a small donation for each speaker. Even merely paying for the speaker's gasoline or a meal is a gesture which will help ensure that guest speakers understand that they are appreciated.



AVAC Product Review

by Tom Kounce

Orion® Waist Case™ Accessory Holder (Item 15178)

I needed some other place to keep my Nagler eyepieces than my front shirt pockets as I changed between eyepieces. At Star Parties, I like to walk around and talk to other members, but I still feel more than a little uncomfortable leaving one of these investments in the focuser as members of the 'anonymous public' walk around in the dark. So I asked Santa for one of these bags for Christmas. The first opportunity to use the bag was at the Messier Marathon and now I don't know how I got along without it before.

Essentially the bag is a waist pack (fanny pack) that has exact foam cut-outs for 1 ¼" and 2" eyepieces- you pick which one you'll be using. It also holds filters in a front pocket, and has a place for your red-light flashlight and star map, keeping most of your most used accessories within easy reach at all times. It is comfortable to wear, well-made out of rugged polyester, has room for seven 1 ¼" eyepieces or three 2" eyepieces and three 1 ¼" eyepieces and a barlow lens. The top flap unzips and folds back, out of the way, if desired. It fits waist sizes up to 58". At about \$33, I believe it is a good value, and I recommend it to anyone needing a third hand when switching out eyepieces frequently, or like me, is paranoid about losing an eyepiece to the sticky fingers of non-members.

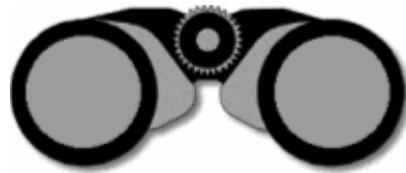
<http://www.telescope.com/jump.jsp?itemType=CATEGORY&itemId=23>



Top flap folded back



Loaded for big game!

A Look Ahead...**Upcoming Events**

May 7 : Star Party

May 27-30 : RTMC

June 4 : Paradise Hot Springs Star Party



The Drakes rest up for the Messier Marathon.



The Pfafman-Trotta-Bennett Gang was caught not long after this photo was taken.



Matt Leone and his personal army prepare for an assault on Messier.