



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
Dark-Sky Association.*



Up-Coming Events

- August 4:** Star Party, Prime Desert Woodlands
- August 5:** New Moon
- August 6:** Annual Bash at [Trottas](#), members only
- August 12:** **Monthly Club Meeting***
- August 12:** Perseid Meteor Shower, Saddleback
- August 13:** First Quarter Moon
- August 18:** "Thursday Night on the Square"
- August 18:** Moon Party, Prime Desert Woodlands
- August 19:** Full Moon
- August 26:** Last Quarter 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*

Summer has arrived with a vengeance this year and I hope that everyone is staying cool and safe. The Executive Board would like to extend a huge thank you to every club member who came out to Crystallaire Country Club to participate in our annual picnic. There was the usual abundance of food, including the fantastic grilled hamburgers, homemade salads, fruit and vegetables trays, and desserts galore. Members, new and old, tried to outwit each other during the silent auction and our generous raffle included many interesting items. As your club president, I enjoyed observing the enthusiastic interaction between members and the willingness to help and share whenever needed. Thank you everyone, for taking the time to respond to my phone calls- it was great to touch bases with all of you.

There are a few reminders that I would like to mention. First, October is our annual business meeting where desired club changes can be voted upon along with the election of the 2006 Executive Board members. Our club has dedicated core members who consistently help out but have never tried their hands as club officers. We also have new club members with a variety of experience and talent. In my book, everyone has something unique to offer, and being on the board is an opportunity for each one of us to make a difference.

The second reminder pertains to our club library. The club has a rather large inventory for members to enjoy. There are books, telescopes, software and eyepieces. If you have attended the "New Members Class," please take advantage of these items at the next general club meeting. Last, but not least, do not miss out on the next meteor star party; sometimes it can turn out to be a "once in a lifetime event!" Details to follow in this issue.

That's it for now. Please take good care.



*Vice
President
Mindy
Peterson*

I hope everyone will join us for our August meeting. JPL planetary scientist Dr. Diana Blaney will be our speaker for the evening. Dr. Blaney will be speaking about the "Phoenix Mission," set to launch in 2007. The "Phoenix Mission" is a joint effort by the University of Arizona, Lockheed Martin and JPL. According to scientists, the mission has two goals. One is to study the geologic history of water on Mars, the key to unlocking the story of past climate change. The second is to search for evidence of a habitable zone that may exist in the ice-soil boundary of Mars, the "biological pay dirt."

Dr. Blaney also worked on the original "Pathfinder Mission," launched on December 4, 1996. Pathfinder reached Mars on July 4, 1997, directly entering the planet's atmosphere and bouncing on inflated airbags as a technology demonstration of a new way to deliver a lander and rover to Mars. It also took 16,600 images from the surface of Mars during 83 days in 1997.

Dr. Blaney followed up her work on the "Pathfinder Mission" with time spent on the Mars Rovers. She will also speak about her days on the "Pathfinder Mission" and give us an update on the Mars Rovers. It should be an interesting and informative evening.

Following our meeting, drive out to Saddleback Butte State Park for an evening of viewing of the Perseid Meteor shower. This is one opportunity to view without having to lug heavy equipment, set up and then take down your equipment in the dark. Just bring a lawn chair, something warm to drink and a blanket. Kick back and enjoy.



Astro-tom.com is dedicated to amateur astronomy



*Director of
Community
Development
Terry Pedroza*

What is light pollution? How can we help prevent it? For the last couple of months, I have written about light pollution but I have not explained what I mean by the term.

The International Dark-Sky Association's definition of light pollution is: "Any adverse effect of man-made light. Often used to denote sky glow, but also includes glare, light trespass, visual clutter, and other adverse effects of lighting." My definition is: "any man-made light that interferes with natural light, as in star light, moonlight or even sunlight."

We recently experienced the effect of light pollution when we tried to find Comet 9/P Temple 1 on the night of Deep Impact. Many were unable to find the Comet due to L.A.'s sky glow. On this night, the effect of light pollution was highlighted due to the target we were looking for. The problem unfortunately is always there.

So, how do we help prevent light pollution? First, join the IDA. Second, get as much information and knowledge as possible. Start at home, use outdoor lighting only when needed, and use timers and motion detectors. Direct the light down, where it does the most good. Use low-pressure sodium light sources when possible for security lighting, not mercury. Low-pressure sodium is cheaper to use and has less effect on the night sky. While you're at it, put those security lights on motion detectors, what better way to gain attention than to turn on the lights.

This is just the tip of the iceberg concerning light pollution and its prevention, I hope that all of you become more involved with this issue and help in its prevention.

On August 6th we will be having a barbeque and star party at the Trottas' house. Please RSVP if you will be attending. On August 12th, right after the meeting we will be having the Perseid meteor shower party at Saddleback Butte. This is in partnership with the Mojave State Parks. If any of you can help set up, please let me know. On the 18th we have two events going: one at the Prime Desert Woodlands and one at Palmdale's "Thursday Nights on the Square." If you can help out with either of these events please let me know.



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Rich Harper's Planet Watch



Mercury

Mercury will be very near the Sun at the beginning of the month, but will spend most of the month as a morning star. At dawn on the 8th, Mercury will pass about one degree away from M67. At mid-month, Mercury will rise at about 5:00 am.

Venus

Venus is in Leo, passing into Virgo. At the beginning of the month, Venus will lie about 4 degrees from M95/96/105 in Leo. At the end of the month, Venus will be within one degree of Jupiter.

Mars

Mars is in Pisces, rising about midnight, and will pass into Aries this month. It is increasing in brightness and size as we approach a very favorable opposition. Mars has a diameter of 11 arcseconds and a magnitude of -0.5 in early August and will have increased in size to 14 arcseconds with a magnitude of -1.0 by the end of the month. As Mars grows nearer the Earth, now is a good time to start brushing up on your planetary observing skills. Larger surface features and the polar caps should be visible. A red or orange filter will enhance the surface features. A blue filter will bring out the polar caps. In spite of its fainter magnitude, Mars is actually brighter, per square arcsecond of area, than Jupiter, and can withstand a great deal of magnification. 300x would not be unreasonable with a 6" telescope, with up to 500x for a large instrument not being out of the question- assuming very good seeing conditions. Now is also the time to begin sketching Mars to help yourself become familiar with its surface features, before opposition. Remember, too, that Mars has a 25-hour day, and by observing throughout the month, you will be able to map the entire surface.

Jupiter

Jupiter lies in Virgo. A thin crescent moon will pass a few degrees from Jupiter on the 9th. Jupiter is closing with the sun and will be lost in Sol's glare before too long. Observing Jupiter is also good practice to train your eye to see fine details for our upcoming Martian opposition. With a moderate aperture telescope, Jupiter shows the best views at 150x to 185x. Higher powers can be used with larger telescopes if the seeing is very good.

Saturn

Saturn is now peeking out from behind the sun, rising about 30 minutes before dawn early in the month, and about two hours before dawn at the end of the month. Saturn will be 2 degrees east of M44 on the 31st.

Uranus

Uranus lies in Aquarius, about 23 degrees west of Neptune, and may still be visible as a naked-eye object at magnitude 5.7. It's diameter is 3.7 arcseconds.

Neptune

Neptune is in Capricornus at magnitude 7.9. It is non-stellar in the telescope, with a diameter of 2.3 arcseconds. Neptune can be found about 5 degrees south of M72/M73.

Astrophoto of the Month

by Matt Taylor, with a 12" Meade at F/3.52

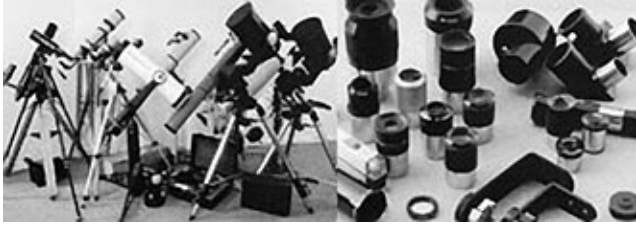
Submit your "Astrophoto of the Month" to the following address by the 20th of each month:

newsletter@avastronomyclub.org

Did you know? ? ?

The Space Shuttle is visible from your backyard, if it is dark enough and you know when to look.

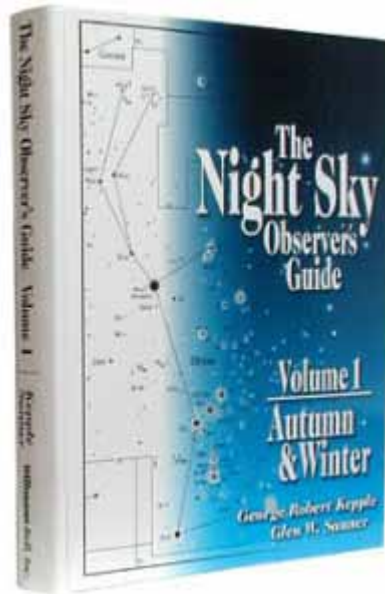
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AVAC Product Review

by Mindy Peterson

“The Night Sky Observer’s Guide, Volume 1, Autumn & Winter” “The Night Sky Observer’s Guide, Volume 2, Spring & Summer” by George Robert Kepple and Glen W. Sanner



I purchased these two books at the 2004 Riverside Telescopes Makers’ Conference (RTMC) and have used them almost exclusively as my star charts. Mr. Kepple was on hand to sign the books for me and describe how long it took to compile all of the information contained in these two volumes. The books contain more than 5,000 objects between Volumes 1 and 2, including star clusters, nebulae and galaxies. There are photographs of many of the objects and several are actually hand drawn sketches, showing what you expect to see through your telescope.

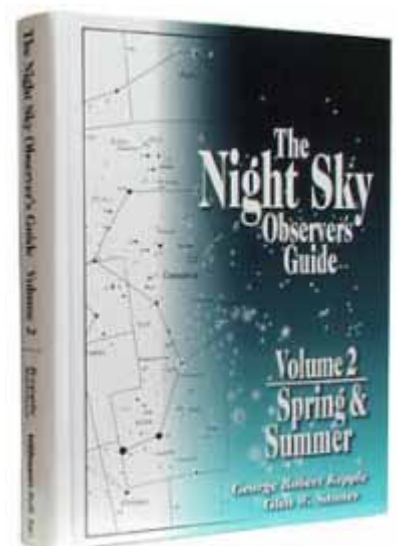
Each volume is broken down into constellations and arranged in alphabetical order. It makes it very easy to find the Messier objects, NGC objects, etc. Each chapter gives great descriptions of all of the deep sky objects. The books even break down what you expect to see in different size telescopes. Most of the descriptions are written for the 8”-10”, 12”-14” and 16”-18” scopes.

The chapters begin with a description of the constellation and how the constellation was named. It is then followed by a list of the “Interesting Stars;” a large chart showing where all of the objects are

in relation to the entire constellation; a Table of Selected Variable Stars; and a Table of Selected Double Stars followed by the Deep-Sky Objects. Not only are there Messier objects and NGC objects, the books also list several other deep sky objects.

One great chart is at the beginning of each chapter. It lists the name of the constellation, how to pronounce it, the abbreviation, culmination, area, showpieces within the constellation and which objects can be viewed through binoculars.

The books are written in a style that is easy for the beginner amateur astronomer to understand, yet they give the advanced astronomer great information, too. There are tables on Stellar Spectral Types, the Hertzsprung-Russell Diagram, Planetary Nebulae Types, de Vaucouleurs Revised Morphological Galaxy Classification System, etc. There is a great hand-drawn sketch of galaxy types. The books even teach you how to sketch an object.



There is a Master Finder Chart and then there are Finder Charts which relate back to the original Master. The only negative I have with that system is that you have to constantly flip back and forth from the Finder Chart to the Master to find the object in the night sky. Sometimes you have to flip the book upside down to get the correct orientation for the night sky at that moment. The only other negative is that sometimes the photo or drawing of the object is not on the page of the description of the object. However, that is just a minor hassle.

Other than the two negatives above, I would highly recommend that you purchase these two volumes for your star party observing. They have come in very handy as I go through the Herschel 400 list. You can find the books at RTMC and meet one of the very kind authors or you may purchase them online at the Sky & Telescope website. They retail there for \$34.95 each.

A.V.A.C. Board Members

President:

Debora Pedroza (661) 718-3963 president@avastronomyclub.org

Vice-President:

Mindy Peterson (661) 273-1693 vice-president@avastronomyclub.org

Secretary:

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

Treasurer & Astronomical League Coordinator:

David Abrass treasurer@avastronomyclub.org

Director of Community Development & Club Librarian:

Terry Pedroza (661) 718-3963 community@avastronomyclub.org

Newsletter Editor:

Brian Peterson (661) 273-1693 newsletter@avastronomyclub.org

Club Historian:

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

Webmaster of Club Site:

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



The Perseids

Don't miss the Perseid Meteor Shower after the club meeting. As Terry mentioned above, it will be at Saddleback Park. Meteor showers are a lot of fun when viewed with the club. We have a chance to enjoy astronomy together but we are not spread out across a large field. You can try to count how many we see in an hour, or you can just chat and watch the show. Matt Leone is still tabulating the Leonids he counted a few years ago. Come join the fun.

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.

Our Sponsors

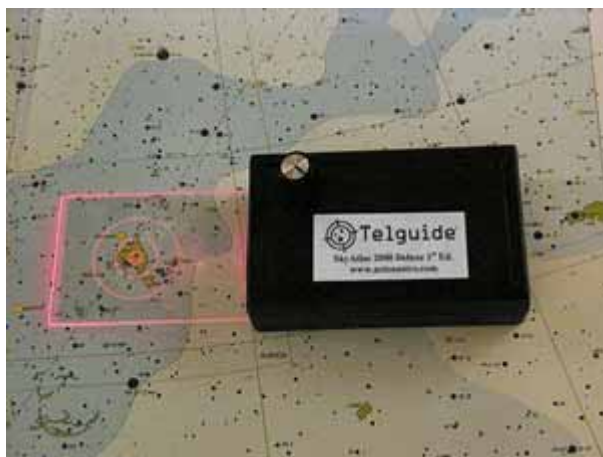
Al's Vacuum and Sewing: 904 West Lancaster Blvd. (661) 948-1521. Stop by and say “hey” to Matt and Sue and run from Michael.

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.

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

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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, [click here](#).

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

September 3:	Star Party, Mt. Pinos
October 1:	Star Party, somewhere
October 3:	Star Party, Prime Desert Woodlands
October 8&9:	Palmdale Fall Festival
October 14:	Annual Business Meeting
October 29:	Star Party, somewhere else
November 12:	Mars Star Party, Poppy Reserve
December 10:	Annual Christmas Party

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)

<http://sci.esa.int> (The European Space Agency)

<http://www.astro.ucla.edu/~obs/intro.html> (Mt. Wilson's website)

<http://www.jpl.nasa.gov/> (JPL)

<http://sohowww.nascom.nasa.gov/> (the latest SOHO images)

<http://www.telescope.com> (Orion Telescopes)

<http://www.astroleague.org/> (The Astronomical League site)

<http://antwrp.gsfc.nasa.gov/apod/archivepix.html> (Pic of the Day)

www.avastronomyclub.org/ (Hint: you've heard of that bunch)