



# Desert Sky Observer

Volume 26 Issue 7

July 2006



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  
Dark-Sky Association.*



## Up-Coming Events

**July 3:** First Quarter Moon

**July 14:** Monthly Club Meeting\*

**July 11:** Full Moon

**July 21:** Executive Board Meeting

**July 17:** Last Quarter Moon

**July 22:** Dark Star Party at Mt.Pinos

**July 25:** New Moon

\* 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 20<sup>th</sup> 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 are now getting into summer time and nights are not as cold as they used to be. That's a good thing because I remember this last December when the temps were getting down to 15 deg F, burrrr. Fact is, I remember being up at Mr. Pinos with Tom Koonce, some years ago in December, walking on snow and ice and looking at M51, the whirlpool galaxy, and Tom remarking, "you know, I think I want to get an 18 inch Obsession." Well guess what, Tom did get that 18 inch Obsession and has been enjoying astronomy even more.

Generally we all want a bigger telescope than what we already have and sometimes get that bigger scope. Wendy and I just did that and went from a 4" refractor to a 14.5" computer controlled Dobsonian. We all have fun with our larger scopes, but for those that still have a small, or the same scope please don't despair. I had a small 2" refractor and a 6" Newtonian and remember looking at the night sky with awe and had tons of fun identifying what I was observing. Did you know that all of the Messier objects can be observed through a 4" telescope? Even observing the celestial night with your binoculars is fun, although some objects look like smudges, you still have fun scoping out the vastness of our beautiful night sky.

We can observe right from our own home and with the warmer nights we can enjoy the night sky even more. Just setup your telescope, get a chair to set on and look at a planisphere (a star wheel) or the star chart in Sky & Tel. Find an "M" object or planet on the star wheel, or star chart, and train you telescope on that object. Do you have the object in the eyepiece? If you found it then sit and relax a bit. Don't get into the habit of just taking a quick look and go on to the next, but look at the object for a little bit longer, let your eye and brain relax and take in all the attributes the object has to offer. You will find a more in-depth and rewarding observation if you do so. I take in big breath of air and hold it for just a second and let the air out slowly. This technique relaxes your mind and provides more oxygen for you eyes to see better, ask any sharpshooter and they will tell you the same thing. Relax and enjoy our astronomy hobby, it's a great stress reliever, I love it so much I've been observing since the mid nineteen sixties and I only claim to be 39.

Doug

*Vice President*  
*Richard Hague*

At our July 14 meeting Dr. Kevin Grazier will be giving us an update on the Cassini Mission. He earned undergraduate degrees in computer science and physics from Purdue University and Oakland University respectively. After several years in industry, he returned to Purdue and earned an MS degree in physics and then on to UCLA doctoral research in planetary physics, performing long-term large-scale computer simulations of early Solar System evolution. While at UCLA, he worked simultaneously at the RAND Corporation, processing Viking Mars imagery. Kevin started at JPL in 1995 as an academic part-time student, finishing his Ph.D. dissertation in 1997 and writing multi-mission planning and analysis software that won JPL- and NASA-wide awards. He came to the Cassini Mission as Science System Engineer in early 1998, and shortly thereafter assumed the additional role of Investigation Scientist for the Cassini Imaging Science Subsystem. He continues research involving computer simulations of Solar System dynamics and evolution with collaborators at UCLA, Los Alamos National Laboratory, Purdue University, the RAND Corporation, and Southwest Research Institute.

Dr. Grazier is active in teaching the public, in particular children, about science in general and space in specific. He teaches classes in astronomy and the search for extraterrestrial life at UCLA Extension and Santa Monica College. He can also be found performing planetarium presentations at Griffith observatory for both school groups and general audiences. He is a Visiting Researcher in the Challenger Center for Space Science Education program called "Journey through the Universe." Dr. Grazier also co-hosted the premiere episode of Discovery Channel's "Science Live! Kids' Edition", and serves on a NASA educational products review panel. In the fall of 2001, Dr. Grazier was honored as the first-ever honorary Chairperson of Oakland University's "Week of Champions" (Homecoming) celebration.

Dr. Grazier is also active in Hollywood. Based upon the strength of a script he and his friend Ges Seger submitted to Paramount, they were invited to pitch storylines for the series Star Trek: Voyager on numerous occasions. Kevin also served as science advisor in the production Battlestar Galactica: The Second Coming. He is currently science advisor/actor for The Great War of Magellan project, and has advised on several books, movies and documentaries.

In what passes for spare time, he enjoys working out, martial arts, and SCUBA diving.

Dick Hague



Dr. Kevin Grazier

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

We have some events coming up in the next month or two. I am waiting to hear back from Jessica Santos regarding the Painted Turtle Camp astronomy event this summer. It looks like we may be doing the event for the Liver Transplant kids sometime during the last week of July. Further information will be coming. Nancy Mossman will be contacting me in about 3 weeks regarding the Aerospace Walk of Honor event on September 16th. It doesn't look like we will be taking a trip to Mt. Wilson this summer. We did not have a good choice of dates, and I think that this had a bearing on sign ups. So we will cancel it at this time, and plan way ahead for sometime next spring or early summer, and hopefully on a Saturday. We need volunteers to help out with the Publicity Committee. Please email me or call. This involves telephoning radio stations once in a while, or making sure we have press coverage before and after an astronomy event. I've had 2 short radio interviews in the last couple of weeks, and the AV Press was out for our Astronomy Fair in June. Have a great summer, and looking forward to seeing everyone at the upcoming meetings and club picnic! Clear skies to you all!!

Rose Moore

***Riverside Telescope Makers Conference***

About twenty club members got to RTMC this year and had lots of fun visiting old friends and walking down vender row. Yes, we spent as much money as our budgets could withstand and then a little more, but that's the fun of it. Think of it as this way, we saved so much money getting things on sale that we were able to buy more stuff. Between all of us, we came away with a CCD Deep Sky imaging camera, binoculars, T-shirts, celestial jewelry, meteorites, books and some things I'm not too sure we can identify, but really needed for our telescopes. Some of us got there Thursday, the day before the event started, and were able to get in some good viewing that night. On Friday, a weather front started to move in with winds so high that we were not able to set up our telescopes. By Saturday night the weather front settled in with a cold air mass that literally froze everything outside, so once again we were not able to use our telescopes. By noon Sunday, we all left for home to get out of the wind and cold. Did we have fun? You bet we did and we'll be back next year.

Our club had a fine turnout for this year's RTMC







Past President Terry Pedroza found this rock lying around and tried to tell everyone that it was quite old. Current President Doug Drake explained to him that it was brand new when he was a kid and he's only 39.



President Doug Drake can't wait for nightfall.

## ***Mount Pinos Star Party***

About ten club members made the journey to Mt. Pinos and were rewarded with good night viewing on Friday and Saturday nights. Throughout each day we worried about overcast skies messing up our viewing, but on each night the clouds dissipated in plenty of time for great views at the eyepiece. On Friday night some of the clouds started to come back around midnight causing the viewing to go from moderate to good, but Saturday night proved to be the best. Saturday's viewing was clear and steady enough for us to see the festoons around Jupiter's belts and the deep sky views took our breath away. All in all, we had a good time and all were grouped together to talk astronomy during the day. For those of you that remember, Dan Connell, one of our original club members made the trip all the way from Vista, California.



These were some of the big dobs at Mt. Pinos



Here were some of the smaller scopes



## From Thunderstorms to Solar Storms...

by Patrick L. Barry

When severe weather occurs, there's a world of difference for people on the ground between a storm that's overhead and one that's several kilometers away. Yet current geostationary weather satellites can be as much as 3 km off in pinpointing the true locations of storms.

A new generation of weather satellites will boost this accuracy by 2 to 4 times. The first in this new installment of NOAA's Geostationary Operational Environmental Satellites series, called GOES-N, was launched May 24 by NASA and Boeing for NOAA (National Oceanic and Atmospheric Administration). (A new polar-orbiting weather satellite, NOAA-18, was launched May 2005.)

Along with better accuracy at pinpointing storms, GOES-N sports a raft of improvements that will enhance our ability to monitor the weather—both normal, atmospheric weather and “space weather.”

“Satellites eventually wear out or get low on fuel, so we've got to launch new weather satellites every few years if we want to keep up the continuous eye on weather that NOAA has maintained for more than 30 years now,” says Thomas Wrublewski, liaison officer for NOAA at NASA's Goddard Space Flight Center.

Currently, GOES-N is in a “parking” orbit at 90° west longitude over the equator. For the next 6 months it will remain there while NASA thoroughly tests all its systems. If all goes well, it will someday replace one of the two active GOES satellites—either the eastern satellite (75°W) or the western one (135°W), depending on the condition of those satellites at the time.

Unlike all previous GOES satellites, GOES-N carries star trackers aboard to precisely determine its orientation in space. Also for the first time, the storm-tracking instruments have been mounted to an “optical bench,” which is a very stable platform that resists thermal warping. These two improvements will let scientists say with 2 to 4 times greater accuracy exactly where storms are located.

Also, X-ray images of the Sun taken by GOES-N will be about twice as sharp as before. The new Solar X-ray Imager (SXI) will also automatically identify solar flares as they happen, instead of waiting for a scientist on the ground to analyze the images. Flares affect space weather, triggering geomagnetic storms that can damage communications satellites and even knock out city power grids. The improved imaging and detection of solar flares by GOES-N will allow for earlier warnings.

So for thunderstorms and solar storms alike, GOES-N will be an even sharper eye in the sky.

Find out more about GOES-N at [goespoes.gsfc.nasa.gov/goes](http://goespoes.gsfc.nasa.gov/goes). Also, for young people, the SciJinks Weather Laboratory at [scijinks.nasa.gov](http://scijinks.nasa.gov) now includes a printable booklet titled “How Do You Make a Weather Satellite?” Just click on Technology.

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





*New GOES-N satellite launches, carrying an imaging radiometer, an atmospheric sounder, and a collection of other space environment monitoring instruments.*

### ***Did you know ? ? ?***

While heat from the Sun drives weather patterns here on earth, it has less influence on some other planets. For example, the weather on Jupiter is largely driven from heat that comes from its deep interior.

## *News and Headlines*

### **Gravitational Wave Detector Is Operational**

The joint German-British Gravitational Wave Detector GEO600 has started an 18-month run of continuous measurement of gravitational waves. Researchers say they are optimistic they will be able to observe the never before seen phenomena that is one of the great untested predictions of Einstein's General Theory of Relativity.

[http://www.spacedaily.com/reports/Gravitational\\_Wave\\_Detector\\_Is\\_Operational\\_999.html](http://www.spacedaily.com/reports/Gravitational_Wave_Detector_Is_Operational_999.html)

### **Space Clothes Saving The Lives Of Earthlings**

From bras and babysuits equipped with monitors to tough suits to protect sportsmen and adventurers from the hazards of life on Earth, space technology is boldly pushing back fashion frontiers.

[http://www.spacemart.com/reports/Space\\_Clothes\\_Saving\\_The\\_Lives\\_Of\\_Earthlings\\_999.html](http://www.spacemart.com/reports/Space_Clothes_Saving_The_Lives_Of_Earthlings_999.html)

### **NASA Updates Hubble Status**

NASA announced Tuesday that its engineers are continuing to study the problem related to the Hubble Space Telescope's Advanced Camera for Surveys. Engineers first received indications on June 19 that the power supply voltages had fallen below acceptable operational limits, which caused the camera to switch automatically into a safe mode - and to stop operating.

[http://www.spacedaily.com/reports/NASA\\_Updates\\_Hubble\\_Status\\_999.html](http://www.spacedaily.com/reports/NASA_Updates_Hubble_Status_999.html)

### **Cassini Shines At Mission Halfway Point**

This Friday, June 30, NASA's Cassini spacecraft will reach the official halfway mark in its four-year mission to the Saturnian system, and already it has provided scientists with unprecedented views of the ringed planet and its nearly three dozen moons.

[http://www.saturndaily.com/reports/Cassini\\_Shines\\_At\\_Mission\\_Halfway\\_Point\\_999.html](http://www.saturndaily.com/reports/Cassini_Shines_At_Mission_Halfway_Point_999.html)

### **Hubble Sees Twin Dust Disks Around Nearby Star**

The Hubble Space Telescope has revealed two dust disks circling the nearby star Beta Pictoris. The images confirm a decade of scientific speculation that a warp in the young star's dust disk may actually be a second inclined disk, which is evidence for the possibility of at least one Jupiter-size planet orbiting the star.

[http://www.spacedaily.com/reports/Hubble\\_Sees\\_Twin\\_Dust\\_Disks\\_Around\\_Nearby\\_Star\\_999.html](http://www.spacedaily.com/reports/Hubble_Sees_Twin_Dust_Disks_Around_Nearby_Star_999.html)

### **Astronomers Solve Black Hole Paradox**

Astronomers said they may have discovered how black holes light up the universe in X-ray light. The team analyzed data from NASA's Chandra X-ray Observatory to show for the first time how powerful magnetic fields power these brilliant light shows.

[http://www.spacedaily.com/reports/Astronomers\\_Solve\\_Black\\_Hole\\_Paradox.html](http://www.spacedaily.com/reports/Astronomers_Solve_Black_Hole_Paradox.html)



**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](mailto:president@avastronomyclub.org)

**Vice-President:**

Richard Hague (661) 724-1623 [vice-president@avastronomyclub.org](mailto:vice-president@avastronomyclub.org)

**Secretary:**

Larry Ochsner (661) 274-9006 [secretary@avastronomyclub.org](mailto:secretary@avastronomyclub.org)

**Treasurer & Astronomical League Coordinator:**

Steve Trotta (661) 269-5428 [treasurer@avastronomyclub.org](mailto:treasurer@avastronomyclub.org)

**Director of Community Development:**

Rose Moore (661) 822-4580 [community@avastronomyclub.org](mailto:community@avastronomyclub.org)

**Newsletter Editor:**

Errol Van Horne (661) 273-7646 [newsletter@avastronomyclub.org](mailto:newsletter@avastronomyclub.org)

**Equipment & Library:**

Karol Barker (661) 940-3312 [library@avastronomyclub.org](mailto:library@avastronomyclub.org)

**Club Historian:**

Tom Koonce (661) 943-8200 [Takoonce@aol.com](mailto:Takoonce@aol.com)

**Webmaster of Club Site:**

Steve Trotta (661) 269-5428 [webmaster@avastronomyclub.org](mailto:webmaster@avastronomyclub.org)

**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](http://www.telescopes.net)

**Telguide:** A supper guide to use with your star chart. [www.actonastro.com](http://www.actonastro.com)

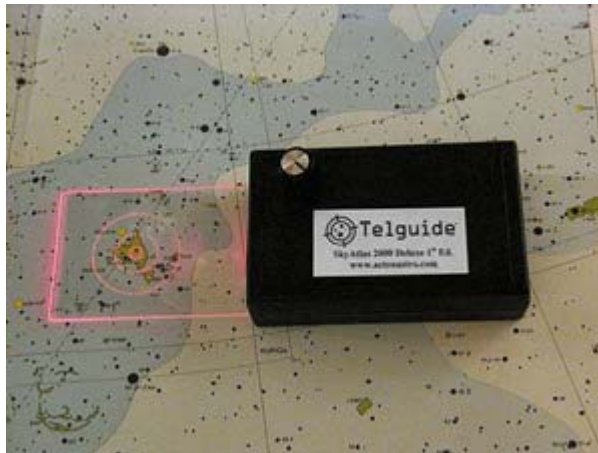
**Astro-Tom:** Tom is dedicated to amateur astronomy. [www.astro-tom.com](http://www.astro-tom.com)

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



*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.