



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

- May 1:** Last Quarter Moon
- May 7:** Star Party, Saddleback Butte
- May 8:** New Moon
- May 13:** **Monthly Club Meeting***
- May 14:** Star Party, Poppy Reserve
- May 16:** First Quarter Moon
- May 23:** Full Moon
- May 30:** Last Quarter Moon
- May 27-30:** RTMC

* 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 Antelope Valley Astronomy Club and the Lancaster Parks and Recreation have developed a winning partnership over the years. The California Poppy Festival broke new records for both organizations, resulting in an amazing flurry of activity felt throughout the entire weekend event. The festival brought in over 53,000 people and our members enjoyed the constant flow of interaction with the public. The response to our club was tremendously positive. Hundreds of brochures were given out and we picked up two new members with more expected to join. Our opportunity drawings did excellent as well. The club generated \$515.00 on the telescope and \$190.00 on our "Galaxy Quilt." Wow!

Everyone pitched in to help sell the tickets but the club has to give special "kudos" to Milt Sawyer and Michael Roberson. They are truly the tickets masters. Michael came out both days and was relentless... I can still hear him. Great job Michael.

As president, I am so proud to be representing such a top-notch organization. Our booth was one of the nicest displayed at the festival. The club wall has been rebuilt and beautifully painted by Larry Oschner. Thank you, Larry.

On Friday, volunteers spent their time arranging and displaying newly laminated posters and club materials. We offered a free drawing on both days for a lucky child to win our "Big Space Book" donated by Mary Andrus and Milt Sawyer. Our own Jeremy Amarant also came out both days and did a "live" demonstration on how to make comets. It was awesome...a must see. And last but not least, we offered the public a chance to look through our wonderful telescopes, sharing with all the wonders of the daytime sky.

As a member of the Board, I wish to extend a very warm thank you to each and everyone of you who helped to make this event such an amazing success. You know who you are. Please take a bow. Until next time, take good care.

Vice President



Mindy Peterson

May has finally arrived and I am thrilled to announce that our guest speaker for the May 13th meeting is Dick Rutan, pilot of Voyager. Mr. Rutan is also donating items for a silent auction to be held that night, with half of the proceeds going to his scholarship fund and half going to the Club. I have also obtained photographs and a calendar signed by Burt Rutan, Mike Melvill and Brian Binnie, all of SpaceShipOne fame. I urge everyone to bring a friend to the meeting and to actively bid on the silent auction items. Mr. Rutan is also graciously donating a telescope to the Club. Please give a generous speaker donation any time during the evening. Treasurer David Abrass will be available to accept the donations.

The following is a brief highlight of Dick Rutan's career:

Dick received both his solo pilots' license and drivers' license on his sixteenth birthday. At the age of nineteen, Dick joined the Air Force Aviation Cadet Program, was commissioned Lieutenant and later received a Bachelor of Science Degree at the American Technological University through the Air Force Professional Education "Boot Strap" Program.

As a Tactical Air Command fighter pilot during most of his two decades in the Air Force, Rutan flew 325 combat missions in Vietnam, 105 of them as a member of a high-risk classified operation commonly known as the "MISTY's." While on his last strike reconnaissance mission over North Vietnam in September of 1968, he was hit by enemy ground fire and forced to eject from his burning F-100. Dick evaded enemy capture and was later rescued by the Air Force's "Jolly Green Giant" helicopter team. Before retiring from the Air Force in 1978, Lt. Col. Rutan had been awarded the Silver Star, five Distinguished Flying Crosses, 16 Air Medals and the Purple Heart.

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After retirement, Dick joined his brother, Burt, as Production Manager and Chief Test Pilot for Rutan Aircraft Factory. Dick Rutan flew the test flight development program of many military and civilian experimental aircraft and set numerous world speed and distance records in his Long-EZ, a popular Rutan-designed home-built airplane. Dick was awarded the Louis Bleriot Medal by the prestigious Federation Aeronautique Internationale during a ceremony in Brussels, Belgium in recognition of these record-setting flights.

In early 1981, Dick Rutan resigned from his brother's company and founded Voyager Aircraft, Inc., where he prepared to complete the first-ever around the world, non-stop, non-refueled flight. On the morning of December 14, 1986, a fuel-laden Voyager took off on the history-making flight. Nine days, three minutes and forty-four seconds later, Dick set the storm-battered Voyager down on the dry lakebed at Edwards Air Force Base, successfully completing the six-year quest. The Voyager is now proudly suspended in the Smithsonian Air and Space Museum's "Milestones of Flight" gallery in our nation's capitol.

Four days after the historic flight of the Voyager, President Ronald Reagan awarded Dick the Presidential Citizen's Medal of Honor at a special ceremony.

Please join us for this exciting club meeting on May 13. You may want to arrive early: we are hoping for a large crowd.



*Director of
Community
Development
Terry Pedroza*

Deb has talked about the wonderful success we experienced at the 2005 Poppy Festival; I would like to thank all of those fine folks who made it happen. Thank you, thank you, thank you! We had everyone show up who said they would and then more. It was a great success. Thank you all for your support of the Antelope Valley Astronomy Club and the 2005 Poppy Festival.

Our next big event is the Riverside Telescope Makers Conference and I seem to be having problems filling the manning requirement. If you will be there, please sign up for one shift, three hours of telling the public about our group. I say public: is this the perfect audience for an amateur or what? It's guaranteed to be a fun learning experience. This much fun should be illegal. We will be running three shifts on Friday and Saturday, May 27 and 28, beginning at 9:00 am. and ending at 6:00pm, and one shift on Sunday the 29th from 9:00 am. until Noon. See me at the meeting for more info or to sign up.

The city of Palmdale is having "Thursday Night on the Square" in June, July and August and has asked us to help out on August 18th, which we agreed to do. They have also asked if we would like to have a booth each Thursday night that the event is running. I am asking you, the members of the AVAC, if this is something that *you* would like to do. Please contact me or see me at the meeting and give me your input.

Once again, thank you, to all those members of the AVAC who have volunteered your time at any of the AVAC events this year. You are the greatest!

Rich Harper's Planet WatchMercury

Mercury lies in Pisces, and is visible as a morning star. Before dawn on May 6th, it will lie four degrees away from a very old moon. Mercury will be well-placed for viewing until about the 20th of May, when it starts to get close to the sun again. As the early morning sky tends to be more stable and turbulence-free than the evening sky, opportunities for viewing and photographing Mercury are favorable this month.

Venus

Venus will lie close to the sun early in the month in the evening sky, but will be better placed for viewing by mid-month. On the 10th, Venus will pass a few degrees south of M-45 just after sunset. A #21 orange or #25 red filter will reduce Venus' glare and the effects of atmospheric turbulence.

Mars

Mars is rapidly approaching a favorable opposition in November. It is currently moving across the sky at nearly 10' of arc per day. Day-to-day movements may be difficult to spot, but weekly movements should be obvious. Mars is still small, with an angular diameter of only 7.5" of arc, but should form a nice pairing with Uranus on the 15th, when it passes by a mere degree to the north.

Jupiter

Jupiter is slowly drifting through Virgo. Examine Jupiter closely, taking note of its coloration. I find the base color of the disk to be a pale, creamy color, with the bands a pale salmon color. A blue filter will enhance the contrast between the disk and the bands. Io can sometimes be identified by its salmon color as well when compared to the bright whites of Callisto, Ganymede, and Europa.

Saturn

Saturn lies in Gemini, near Castor and Pollux. Take advantage of the opportunity to observe both Saturn and Jupiter. Where I find Jupiter to have a creamy color, Saturn shows more of a bright, icy white. Saturn lacks Jupiter's colorful bands, but the poles become distinctly darker in three or four steps. As Saturn is now past opposition, the planet's shadow should now be visible on the rings. Also try to spot the faint Crepe ring. It is easiest to see as a faint, indistinct haze where it passes in front of the planet's disk at the inside edge of the main rings.

Uranus

Uranus hovers at the edge of naked-eye visibility at magnitude 5.9, but should be easier to spot around the 15th when Mars whisks past. Using a low-power eyepiece, note the distinct color of the two planets.

Neptune

Neptune lies in Capricorn, about 6 degrees south of M-73.

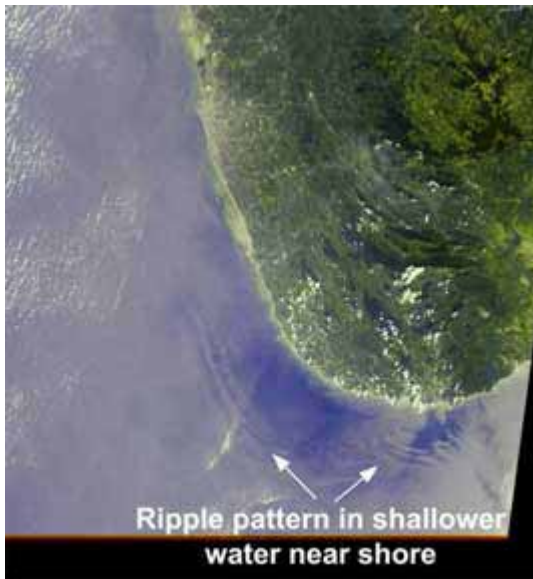


Asian Tsunami Seen from Space

by Patrick L. Barry

When JPL research scientist Michael Garay first heard the news that a tsunami had struck southern Asia, he felt the same shock and sadness over the tremendous loss of human life that most people certainly felt. Later, though, he began to wonder: were these waves big enough to see from space?

So he decided to check. At JPL, Garay analyzes data from MISR- the Multi-angle Imaging SpectroRadiometer instrument aboard NASA's Terra satellite. He scoured MISR images from the day of the tsunami, looking for signs of the waves near the coasts of India, Sri Lanka, Indonesia, and Thailand.



This December 26, 2004, MISR image of the southern tip of Sri Lanka was taken several hours after the first tsunami wave hit the island. It was taken with MISR's 46° forward-looking camera.

Looking at an image of the southern tip of Sri Lanka taken by one of MISR's angled cameras, he spotted the distinct shape of waves made visible by the glint of reflected sunlight. They look a bit like normal waves, except for their scale: These waves were more than a kilometer wide!

Most satellites have cameras that point straight down. From that angle, waves are hard to see. But MISR is unique in having nine cameras, each viewing Earth at a different angle. "We could see the waves because MISR's forward-looking camera caught the reflected sunlight just right," Garay explains.

In another set of images, MISR's cameras caught the white foam of tsunami waves breaking off the coast of India. By looking at various angles as the Terra satellite passed over the area, MISR's cameras snapped seven shots of the breaking waves, each about a minute apart. This gave scientists a unique time-lapse view of the motion of the waves, providing valuable data such as the location, speed, and direction of the breaking waves.

Realizing the importance of the find, Garay contacted Vasily Titov at the National Oceanic and Atmospheric Administration's Pacific Marine Environmental Laboratory in Seattle, Washington. Titov is a tsunami expert who had made a computer simulation of the Asian tsunami.

"Because the Indian Ocean doesn't have a tsunami warning system, hardly any scientific measurements of the tsunami's propagation exist, making it hard for Dr. Titov to check his simulations against reality," Garay explains. "Our images provide some important data points to help make his simulations more accurate. By predicting where a tsunami will hit hardest, those simulations may someday help authorities issue more effective warnings next time a tsunami strikes."

Find out more about MISR and see the latest images at www-misr.jpl.nasa.gov/. Kids can read their own version of the MISR tsunami story at http://spaceplace.nasa.gov/en/kids/misr_tsunami.

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

Did you know? ? ?

The sun converts 700 million tons of hydrogen into helium and gamma rays every **second**.

? ? ?



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Astrophoto of the Month

by Matt Taylor; M51 through a Meade 12" LX200; Meade DSI Imaging Camera with an H-Alpha filter;

Submit your "Astrophoto of the Month" to the following address by the 20th of each month:
newsletter@avastronomyclub.org

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Vice-President:

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

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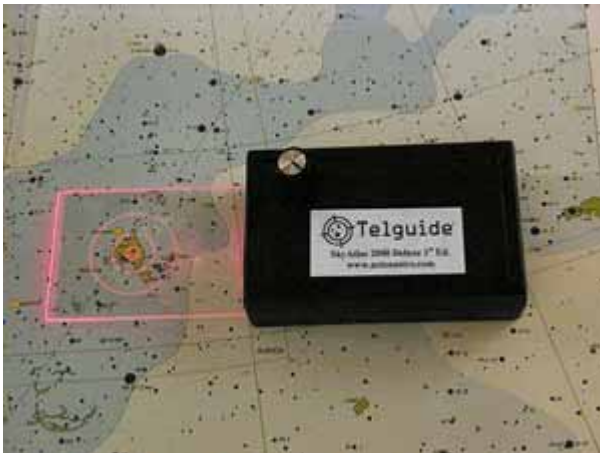
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The *Telguide*.

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](#).



Astro-tom.com is dedicated to amateur astronomy

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

AI'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

Thank you to our sponsors for your generous support!

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.



10" Meade Dobsonian Telescope with upgraded new JMI 1 1/4" precision focuser, 10mm x 50mm finder scope, filters, eye pieces, and one eye piece holder mounted on telescope base. Mitch Moody, 760 949-4800 home; 760 245-5790 work; moodyblues69@hotmail.com

* * * * *

Celestron F80 EQ WA Refractor Telescope - \$140 (firm); Will pack properly and ship at buyer's expense; Seller located in Northern California; This telescope is brand new. It is in the original, sealed box. Never opened/never used. Includes: German Equatorial Mount; 25mm SMA Eyepiece - 1.25 inch (16X); adjustable height wood tripod with accessory tray; more optional accessories available. John L. Henry johnh@cds1.net

* * * * *

Ultra 8, used very little, tons of accessories such as Advanced Astromaster set-up plus multiple eyepieces, filters (including solar), dew shield, Telrad, custom wheeled trolley to get it around easily, etc. I'd like to get \$2500 for the lot of it. Dr. John Glassco, jglassco@pol.net, 805-379-0155.

* * * * *

33-year old "vintage" Celestron C8 telescope; good condition, heavy-duty tubes and fork mount (sand-mould casting) along with portable tripod, car plug-in, dual clock drive, etc.; Set up for observation and astro-photography, including a full-aperture 8 in. solar filter, full set of oculars, drive corrector, off-axis guiding system, tele-extender, lunar and planetary filters, etc; I had it checked out at the Celestron factory when I first bought it used some 30 years ago. They measured the mirror at 1/40th wave length (better than the 1/10th wave they normally advertise) and pronounced it was one of the better C8 mirrors they had ever made- a "fluke" if you will. If interested contact: John Hicks jshicks@cybersurfers.net or 822-5765. Asking \$1200 for everything, including star atlases, etc.

A Look Ahead...



Upcoming Events

May 27-30 : RTMC

June 4 : Mt. Pinos

Astronomy Links on the Web

<http://www.astropaws.com>

(Terry Babineaux's astrophotos)

<http://www.actonastro.com/>

(Steve Trotta's website)

<http://www.noexitrecords.com/zerobox/astro.htm>

(Tom Varden's website)

<http://www.astro-tom.com/>

(Tom Koonce's website)

<http://saturn.jpl.nasa.gov/multimedia/images/latest/index.cfm>

(the latest Saturn pics from Cassini)

<http://www.astroleague.org/>

(The Astronomical League site)

<http://antwrp.gsfc.nasa.gov/apod/archivepix.html>

(Pic of the Day)

www.avastronomyclub.org/

(sounds sorta familiar, doesn't it?)

The Poppy Festival 2005



Chuck Lahmeyer helps a youngster view the sun via the Sunspotter.



Too long in the desert sun does this to some people.



Darrell Bennett also assists a youngster in discovering a different view of our nearest star.



More fun in the sun as David Abrass explains differential rotation as it relates to the number of ergs per second produced by the sun, or something like that.



The crew takes refuge from the sun.



Jeremy Amarant either left the steaks on too long or he's at it again with his comet demonstration.