
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 Is A California Non Profit Corporation
Visit The Antelope Valley Astronomy Club Web Site At www.avac.av.org
The A.V.A.C. Is A Sustaining Member Of The Astronomical League*



Up-Coming Events

July 5: Full Moon at 15h 04m UT.

July 13: Last Quarter Moon at 18h 45m UT.

July 13: Monthly meeting, held at the S.A.G.E. Planetarium at the Cactus School in Palmdale. 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.

Ted Ayers will give the July meeting presentation. Details on page 2.

July 20: New Moon at 19h 44m UT.

July 21: Annual Club Picnic. Details at meeting.

July 26: Y.E.A. Essay Contest winners trip to J.P.L. and Griffith Park.

July 27: First Quarter Moon at 10h 08m UT.

August 10: Monthly Club meeting.

Anytime: Observe.

President's Report

Doug Drake, Sr.

Welcome new members! You will find you have joined an exciting club to seek and explore the realms of the universe. And for present club members; we explore together, with our telescopes and imaginations the wonders of the night sky. If you don't have a telescope there's always someone close by that's happy to share – it's free because it's fun to share. We have three brand new telescopes, a six, an eight and a ten inch. Also included are new eyepieces for each telescope. We also have our two older telescopes, eight and ten inch dobsonians, that may be refurbished by the end of this year by

Fred, or we may auction off these scopes at our annual club picnic.

Please read further in this newsletter from your board members. They are working very hard to bring quality and excitement you deserve as an AVAC member. Believe me, your board members and committee members, deserve credit in maintaining the high standards and quality that AVAC represents to you as members, to the community and to our school children.

I hope to see you at our next club meeting, 13 July, and at our star parties. I'd like to say hello to you, so if you see me, come on over and we can talk about astronomy. Your friend, Doug

Vice-President's Report

Terry Pedroza

Yes, It's that time of year again. Time for the annual club picnic. I didn't think we would be able to do it, but I think we will...Have a picnic as good as last years'!

The picnic will be at Crystallaire Country Club on July 21 starting at 10:00 am. There will be fishing, hiking, swimming and golf. And of course observing! There are showers and restrooms at the site, a snack bar at the pool and much more! Shirts with collars are required on the golf course and at the Country Club. At this month's meeting, Matt Leone will be handing out info sheets on the site and any rules that we must follow. For those not attending the meeting we will mail the information to you.

The site is at about 4,000 feet with plenty of campsites and a large barbeque area. We will

have a list of food items that we hope you can help with. Hamburgers and hot dogs will be our main course. We are planning door prizes and possibly a silent auction. Anyone wishing to donate items please see Terry or Matt.

We have asked the Local group if they would like to join us and are awaiting their reply.

To get there take Hwy 138 east to 165th east and turn right (south), go to Crystallaire Drive and turn right then follow the "AVAC" signs to the camping area. Hope to see you all there.

Member-At-Large Report

Errol Van Horne

COMMUNITY DEVELOPMENT

Our "Youth Exploring Astronomy, Essay Contest" was quite success with some seventy-five entries that gave the review committee, headed up by Debora Pedroza, many hours of very hard decision making while they tried to sort the best in each group. Debora has contacted the winning students' parents and teachers, finding them to be as enthusiastic as their young writers. Due to time constraints and in an effort to ensure a fair and rewarding event, the date for presenting the winners to the general membership was moved ahead to the July meeting where their achievement will be recognized. If you can only get to one club meeting this year, please make every attempt to attend the July 13 meeting so that these terrific young people will get the applause they so richly deserve.

Several members have asked if we will be sponsoring a booth at the Antelope Valley Fair this year. Unfortunately we will have to pass this time, the mandatory commitment is to man the booth and scopes every afternoon and evening for the entire two weeks. With a base requirement of five members, six hours per day, we simply don't have the resources to do it. Debora is however already working on getting our spot confirmed for the Fall Festival in

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Palmdale where we will set up scopes, a booth and have a drawing for another scope.

That's it for now, I just got back from a week in Durango, Colorado where it is such a pleasure to be able to look up and see the sky as it was meant to be seen, no light pollution, crystal clear air and plenty of time to just look. A trip like that makes you realize how important the efforts of the Dark Sky Association are to the quality of all our lives. Please support Tom Koonce in his efforts to preserve the sky at Mt. Pinos, his work directly benefits everyone of us.

In The News

A.V.A.C. Videos

Because of cost, the Executive Board has had to implement a new policy pertaining to the astronomy videos that are given out by the club. Members are requested to exchange a blank video for an astronomy video at the time of acquisition.

NASA Airborne Science Program

Ted Ayers

My plan is to provide a brief description of NASA's Airborne Science Program with primary emphasis on the Astronomy. It will include a brief description of the KAO and SOFIA and will include some insight into a KAO mission to the southern Hemisphere.

Following three years in the US Army I attended and graduated from Northrop Aeronautical Institute. In 1961 I joined the Langley research Center in Hampton Virginia where I worked as an aerodynamicist in the 8-Foot Transonic Pressure Tunnel. I went on to specialize in Supercritical Aerodynamics and aircraft performance. I have been involved on some way in nearly every US aircraft developed between 1957 and 1993. I retired from NASA in January 1993. Half of my career was spent at the Langley research Center in Hampton Virginia and the other half at the Hugh L. Dryden Flight Research Center at Edwards, California. During

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that time period I held a number of technical and managerial positions and at the time of my retirement I was the Deputy Director of the Dryden Flight Research Center.

I am an avid photographer and have backpacked and trekked many parts of the world including the U.S., Alaska, Australia, New Zealand, Nepal, and England, N. Ireland and N. Wales. I have trekked all or part of the John Muir Trail every year since 1993. My Nepal journeys have taken me to Everest Base Camp and to the Summit of Kala Patar at 18760 ft.

Humor



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 \$25.00 per year.
- Individual membership at \$20.00 per year.
- Junior membership at \$15.00 per year.

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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 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.

VCAS to Offer Astrophoto XIII

The Ventura County Astronomical Society will be hosting "Astrophoto XIII" on Saturday, August 4, 2001 from 8:00 am to 5:00 pm at the Verizon Building, One Verizon Way, Thousand Oaks, CA. The event includes the lecture series with James Foster, George Greaney and others featured, an extensive astrophotography display and several astronomical vendors. It's suggested to pre-register by July 14 (Cost \$20) or you may pay \$25 at the door. Please see www.vcas.org for details, phone 805-520-9666, or mail VCAS, P.O. Box 982, Simi Valley, CA, 93062.

Mars Previewer II Software

Mars Previewer II was designed by Leandro Rios, an amateur astronomer in Argentina. Rios based his freeware program -- that displays the central meridian and angular size of the red planet for any date and time -- on the algorithm used in MARS.BAS. After you download mp201.zip (3.0 megabytes), unzip it and run setup.exe to install. The program runs on Windows 95, 98 and NT. When you run Mars Previewer, enter dates in dd/mm/yyyy format and set your time zone relative to Greenwich Mean Time (+ numbers to the west, - to the east). Rios' e-mail: leandror@iname.net. The Program is at www.skypub.com/resources/software/basic/basic.html#mars

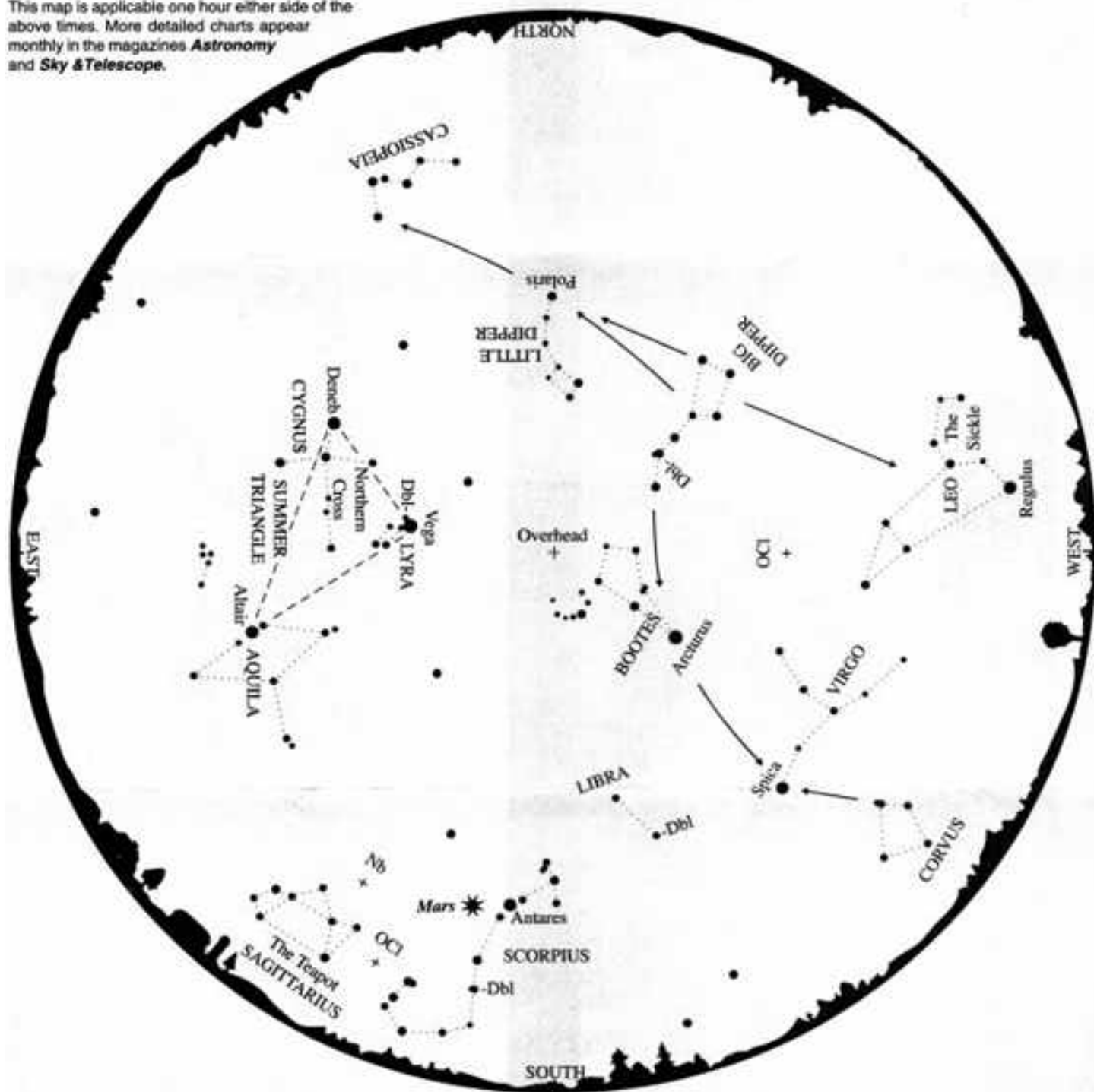
July Evening Skies

This chart is drawn for latitude 40° north, but should be useful to stargazers throughout the continental United States. It represents the sky at the following local daylight times:

Late June	11 p.m.
Early July	10 p.m.
Late July	9 p.m.

This map is applicable one hour either side of the above times. More detailed charts appear monthly in the magazines *Astronomy* and *Sky & Telescope*.

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Subscription: \$10.00 per year, from *Sky Calendar*,
 Abrams Planetarium, Michigan State University,
 East Lansing, MI 48824-1324.



The planet Mars is plotted for mid-July 2001. Eight objects of first magnitude or brighter are visible. In order of brightness they are: Mars, Arcturus, Vega, Altair, Antares, Spica, Deneb, and Regulus. In addition to stars, other objects that should be visible to the unaided eye are labeled on the map. The double star (Dbl) at the bend of the handle of the Big Dipper is easily detected. The double star in Scorpius is somewhat harder. Much more difficult is the double

star near Vega in Lyra. The open or galactic star cluster (OCI) known as Coma Berenices, "The Hair of Berenice," is located between Leo and Bootes. A more compact open cluster is located between Sagittarius and the "tail" of Scorpius. Nearby, marked (Nb) above the "spout" of the "teapot," is the Lagoon Nebula, a cloud of gas and dust out of which stars are forming. Try to observe these objects with unaided eye and binoculars.

—D. David Ratch

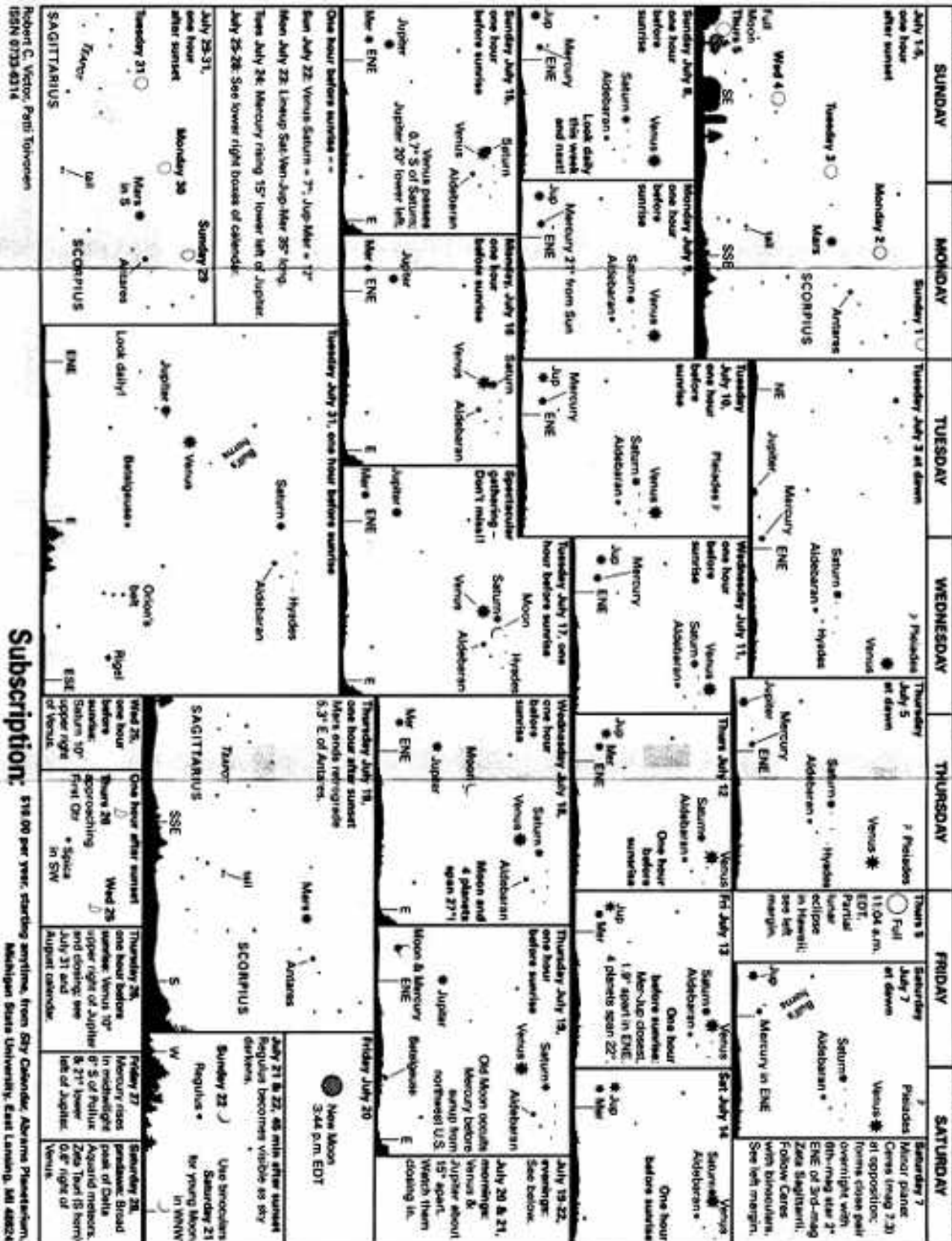
GABRAMS PLANETARIUM SKY CALENDAR JULY 2001

An aid to enjoying the changing sky

Use this scale to measure angular distances between objects on diagrams below.

Planetarium business office:
617) 365-6276
Rayweather's Diary on World Wide Web:
http://www.pa.msu.edu/diary/diary.html

Evening: Mars gleams in SSE to S at dusk, at mag -2.2 to -1.5, or 8 to 6 times as bright as golden Arcturus or blue white Vega. Rows above Mars for July 15, 19, and 23-31. Mars is best for telescope viewing when due south, from 42° N, start with Mars only 22° up, about 28 hours after sunset July 1, and one hour after sunset Aug 1. The surface feature Meridiani Scors is nearly centered on Mars' disk when the planet is south on the evening of July 7 for eastern U.S., July 11 for W Coast, July 15 for Hawaii. Syris Major, darkest surface feature on Mars, follows a week later for each location. Note also bright S polar cap, striking in the Martian S hemisphere spring. For more on Mars, see June calendar and visit www.usra.net/astronomy/astronomy/planets/planets15.htm. Spectacular gathering of planets at dawn in ENE to E is depicted July 3, 5, daily July 7-19, and 21. Venus glimmers at brilliant mag -4 in east, Saturn (mag -0.2) is 14' to Venus' lower left on July 1, 6, 7, 9, 10, 16, 17, 18, and 19. Upper right on July 15, and 17 appear right on July 21, while at month's end Saturn is 4' above right of Saturn. All three fit within a 3" binocular field July 11-13. Jupiter (mag -1.8) and Mercury emerge early in month. Mercury brightening rapidly from mag +1.6 to -0.7 in first week, and to 0.0 by July 13 when it passes within 2' lower right of Jupiter. Moon's second pair both pairs of phases July 17 (see calendar) and occurs on covers. Venus on July 17 just before sunrise in Hawaii, after 10 a.m. EDT West Coast, after 2:30 p.m. EDT East Coast. Moon occults Mercury on July 19, before sunrise Pacific Northwest, W Canada, Alaska. For more on these occultations, visit www.usra.net/astronomy/planets/planets15.htm. Comet, largest minor planet, at opposition this weekend (see July 7), passes 0.2-5.0' 2nd-mag zero magnitude July 16. Using binoculars, look right to follow the asteroid's retrograde motion, 0.2° per day. Period near retrograde visible July 5. Moon enters umbra 3:35 a.m. EDT. Deepset eclipse, with N half of Moon's diameter in shadow, occurs at 4:55 a.m. EDT; after twilight has begun is brightest.



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Our Sponsors

Al's Vacuum and Sewing: 904 West Lancaster Blvd. They can be reached at (661) 948-1521. Stop by and say hi to Matthew and Suzanne.

Darkrooms Plus: 20 St. W. near Pep Boys in Lancaster. They can be reached at (661) 945-1444. Darkrooms Plus offers all club members a 10% discount on all purchases. Stop by and say hi to Dean or Hank.

King Photo: 749 W. Lancaster Blvd. They can be reached at (661) 948-8441. As a telescope dealer, they always support the AVAC. Stop by and say hi to Stokely or Paul.

QNET: 1529 E. Palmdale Blvd., Suite 200. They can be reached at (661) 538-2028. As an Internet provider, they are kind enough to provide us with a free website.

Vista Golf: 43517 N. 13th Street West, Lancaster. They can be reached at (661) 945-7003. Thanks for your generous support.



Antelope Valley Astronomy Club, Inc.

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Monthly Meeting: July 13.