
Desert Sky Observer

Volume 21 Issue 6

June 2001



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.org
The A.V.A.C. Is A Sustaining Member Of The Astronomical League*



Up-Coming Events

June 6: Full Moon at 1h 39m UT.

June 8: 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 AVAC meetings are open to the public.

The June meeting presentation will be on the planet Mars, by Doug Drake.

June 9: Saddleback Butte State Park Star Party.

June 10: Fundraiser for Vern Saxon Museum at Boron, details in this newsletter.

June 14: Last Quarter Moon at 3h 28m UT.

June 21: New Moon at 11h 58m UT.

June 28: First Quarter Moon at 3h 20m UT.

July 13: Monthly Club meeting.

Anytime: Observe.

President's Report

Doug Drake, Sr.

This is a very exciting month for amateur astronomers like us because this month Mars and Earth will be within 41,000,000 Miles of other and provide us with a spectacular view of Mars. Even without a telescope we can see the angry red planet glowing vividly between Sagittarius and Scorpio.

By the way; the star Antares in Scorpio, also red, is said to be the rival of Mars. We will see faint markings on the planet when using our telescope to observe Mars.

At this month's club meeting, 8 June, I'll give a talk on how to observe Mars and what to look for. This meeting is a must for those

wanting to get the most out of this special time of observing Mars. This close encounter only last a few months because Earth will be pulling away from Mars so now is the time of essence.

See you all at our club meeting and until then may your sky be clear and visibility unlimited.

Vice-President's Report

Terry Pedroza

Well the RTMC has come and gone and if you missed it, YOU GOOFED. This year's event had many of the same vendors, some new ones, all with loads of information for those who wanted it. The weather was near perfect with excellent observing conditions Friday and Saturday night. There were **SO** many telescopes there that I lost count. My favorite was the 200-inch focal length refractor. All wood with beautiful workmanship like most have never seen!

The club made out, with the purchase of three new telescopes from Discovery Telescopes. I can't wait for you all to see.

See you all at the next meeting.

Secretary's Report

Tom Koonce

Our President, Doug Drake called the meeting to order at precisely 7:00 pm, and welcomed our new members. Our Vice-President and Librarian, Terry Pedroza announced the star party for the following evening at his father house to begin at dusk.

Our Member-at-Large and Director of Community Development, Errol Van Horne, debuted the 6 minute video tape that the club produced to advertise the Youth Exploring Astronomy Essay Contest for Antelope Valley school children. Senator "Pete" Knight appeared on the video to kick the event off!

Errol then discussed the success of the Air and Space Exploratorium at the Antelope Valley Mall. We had a booth inside where we handed out over 600 flyers, 1000 handouts, and talked to countless people about the sky...then they got to go outside in front of the Mall, where several of our members had their telescopes set up to view the Sun through solar filters.

Mr. Jed Dike was the featured speaker whose talk centered on the Space Shuttle. He discussed the evolution of the shuttle's original design to incorporate the latest weight saving technology. He brought examples of the new shuttle tiles, thermal blankets, and a video of the development program for the shuttle program. His talk was very well received and had nearly 20 minutes of questions and answers.

The meeting concluded after Jeremy Amarant, the Director of the SAGE Planetarium stepped us through a "5 Minute Star Talk." Doug closed the meeting at 8:45 pm.

Astron. League Coordinator Report

Tom Koonce

"The area surrounding Mt. Pinos and the high country of Tejon Ranch contain a rare and precious resource, a star filled night sky. Any Obtrusive outdoor lighting within 25 miles of these locations will have a negative impact on that sky." - Laverne Booth, representing the 450 Southern California members of the International Dark-sky Association (IDA)

As the Club's Astronomical League Coordinator, I have recently represented the AVAC at a meeting with Tejon Development Corporation, the development company developing large amounts of acreage at the foot of Mt. Pinos along I-5 and also at the Highway 138 - I-5 interchange. Also at the meeting were

Desert Sky Observer

Laverne Booth representing the International Dark Sky Association (IDA), Lisa Schwartz representing the Ventura County Astronomical Group, and Richard Wade representing the Local Group astronomy club. We met with their Vice President of Community Development, their Environmental Impact spokesperson and leading the meeting was their VP in charge of Commercial and Special Projects.

With all of these people lining up across the table, you'd think that it would be adversarial, but after a briefing about the project, the VP in charge let us know that he had previously directed a large community development just miles from Mt. Palomar and was already very familiar with lighting standards and their benefit for the 'quality of life' issues that Ms. Booth presented. My predictions of his interest in the economics of the lighting changes we were suggesting were met, and we are supplying him an extensive catalog of choices, along with the reduced wattages (cost savings and break-even points) of choosing dark sky friendly lighting. They have not yet developed their community lighting plan and are interested in working with the IDA. As a matter of coincidence, we were actually present when a secretary came in with papers to be signed that included the exterior lights for the new IKEA warehouse facility off of I-5 just north of Tejon Pass. He is considering lighting from Ms. Booth's catalog and not the standard industrial "wall-pak" units that have a tremendous amount of up-lighting.

Ms. Schwartz presented the Tejon group with two exquisite 11X17 Tony Hallas photographs taken from Mt. Pinos, and Ms. Booth gave them a copy of the recent Sky & Telescope issue that featured Mt. Pinos as the top publicly accessible observing site in the country. Richard Wade nearly stole the show when he suggested that the exclusive retreat community that they plan around the lake across from the Frazier Park exit be called by the Spanish name for "Sky View Estates." They really liked that.

The bottom line is that we will continue meeting with them over the course of the next two years as the development continues. We

3

hope to make even a small difference in protecting the night sky of Mt. Pinos for all to enjoy. We do need help. We could use someone who has experience with developing lighting standards to help us locate the lighting specifications for areas like Mt. Palomar. Do you know anyone?! (Tom Koonce, 943-8200) On the other side of the coin, the development project will continue, and it is HUGE. My impression was that it involves hundreds or thousands of homes at the Hwy 138 / I-5 interchange, and a major industrial development close to the IKEA facility. We really could lose this astronomy resource completely within TWO years if we are unable to work with the Tejon Development Group. But right now, we're off to a very positive start. Again, if you would like to help with this cause, please contact Laverne Booth at 661-259-3284 or at LJBooth@thevine.net.

Member-At-Large Report

Errol Van Horne

COMMUNITY DEVELOPMENT

Our participation in the "Air And Space Exploratorium" was well received by the community again this year with many more people viewing the sun through our scopes and visiting our booth, which was shared with the SAGE Planetarium. Also on hand was Fred Ley with his meteorite display and Tom Hames with his incomparable artwork. The event was also a tremendous kick off for our "Youth Exploring Astronomy, Essay Contest" where Karen Weed, Mary Andres, Mindy Peterson and Debora Pedroza "talked till they dropped" about the contest and the club as did Pat McCord, Herb Boyd and Tom Koonce. A very special thanks to these folks and those tireless scope drivers who braved the heat including; Pat Bailey, Bob McCord, Charlie Lesieke, Bill Ellison, Steve Trotta, Paul Geseriech, Doug Drake and Brian Peterson. A special thanks goes to Matt, Mathew and Michael Leone for making sure we had hats, a tent, and the 16-inch telescope for the public's viewing pleasure. A great guy who helped

Desert Sky Observer

photograph the event is Milt Sawyer who deserves our heartfelt thanks and Terry Pedroza who did most of the hard work in getting the booth set up. Also, we want to recognize John Eakin who took a double whammy, first he works tirelessly to make sure we have the fantastic Hubble images you see at our events, and then he shows up and stands out in the hot sun to help with the scopes.

Sorry if I missed anyone, next event planned at this point is the Fall Festival.

The Essay Contest will now receive the committee's attention to make sure we have a successful event. Winners will be announced at our next meeting on June eighth where they will receive certificates, club hats and club jackets. Until then, thank you all for your support and for making our club an important part of the Antelope Valley.

In The News

There will be a fundraiser at a new museum in Boron for the late Colonel Vern Saxon, Jr. Vern was a charter member of the A.V.A.C. and the recipient of the first Life Time Member award given by the A.V.A.C.

The museum is located at 26962 20 Mule Team Road in Boron. There is a \$10.00 donation/lunch, which consists of either Santa Maria Chicken or Tri-tip cooked over oak. If you can attend, you need to place your lunch order with Cynthia Phillips at (661) 277-5552 at Edwards or you may reach her at (760) 762-6977 and leave a message. The museum's telephone number is (760) 762-5870. The event is from 2-6 p.m. Jeremy Amarant and the DSO Editor will be there.

Colonel Saxon was born 7 August 1945 in Birmingham, Alabama. As a member of a family with a strong military heritage, he accompanied his parents on their assignments which included Wiesbaden, Germany for the Berlin Airlift; March Air Force Base, California; and Offut Air Force Base, Nebraska, where he graduated from Bellevue Senior High School, Bellevue, Nebraska in June 1963.

He held a Bachelor of Science degree in Military Science from the United States Military Academy (USMA), West Point, and a Master of Science degree in Astronautical Engineering from the Air Force Institute of Technology. He was also a graduate of the United States Air Force Test Pilot School, Air Command and Staff College, Air War College and the Industrial College of the Armed Forces.

Upon Air Force commissioning through West Point in 1967, Colonel Saxon attended undergraduate pilot training at Moody Air Force Base, Georgia. His first flying assignment was with the Combat Crew Training Squadron, Eglin Air Force Base, Florida, in the A-1E/H. He was subsequently assigned as an A-1E/H pilot with the 1st Special Operations Squadron, 56th Special Operations Wing, Nakhon Phanom Royal Thai Air Base, Thailand, in March 1969. While in Southeast Asia, he became an O-2 forward air controller and was later assigned to the 19th Tactical Air Support Squadron, Bien Hoa Air Base, Republic of Vietnam.

In March of 1970 Colonel Saxon returned to the states as a T-38 instructor pilot with the 80th Flying Training Wing at Sheppard Air Force Base, Texas, where he was chosen Outstanding Flight Instructor. He was also active as a member of a special awareness team speaking in many communities in North Texas regarding POW/MIA issues during the Vietnam War.

Following graduation from the Air Force Institute of Technology, where he received the Marvin E. Gross Award as the Outstanding student in the School of Engineering in 1974, he moved to Los Angeles Air Force Base, California, to join the staff of the Navstar-Global Positioning System Joint Program Office as an astronautical engineer. In December 1976 he was transferred to Edwards Air Force Base to attend the United States Air Force Test Pilot School, Class 77A, where he received the Liethen-Tittle Award as the Outstanding Graduate.

He was assigned test pilot duties with the 6512th Test Squadron in February 1978 and became the assistant Operations Officer of the F-15 Combined Task Force in May 1978. In

Desert Sky Observer

October of that year, he became the Systems Safety Officer, Office of Safety, Air Force Flight Test Center, Edwards AFB. He returned to his position as assistant Operations Officer at the F-15 CTF in November 1979. One year later, he flew as Assistant Operations Officer in the Air Force Flight Test Center Safety Office.

In 1980, he attended Air Command and Staff College, returning to Edwards Air Force as the Chief, Operations Division, United States Air Force Test Pilot School. He later became Director of the F-15 Combined Test Force and Director of Safety for the Air Force Flight Test Center.

Colonel Saxon transferred in 1986 to Andrews Air Force Base, Maryland, as the Director, Programs and Resources, Deputy Chief of Staff for Test and Evaluation, Headquarters Air Force Systems Command. A year later, he attended the Industrial College of the Armed Forces. Following graduation in 1988, he returned to Edwards Air Force Base to become Vice Commander of the 6510th Test Wing and Commander in March 1989.

He assumed his final duties as the Air Force Flight Test Center Vice Center Commander in January 1992 and served as Air Force Flight Test Center Inspector General, Chairman of the Company Grade Officer Quarterly and Yearly Award Boards and the Air Force Flight Test Center representative to the American Cancer Society. As Air Force Flight Test Center Installation Co-Chair of the Restoration Advisory Board, he coordinated base environmental management efforts with its neighboring communities of Boron, North Edwards, California City, Mojave, Rosamond and Lancaster. He was also the guest lecturer in flight history for the USAF ROTC Squadron at San Diego State University.

Colonel Saxon was the Flight Test Historical Foundation Advisor and Liaison with the Air Force Flight Test Center and was instrumental in the foundation's progress towards completion of its campaign to build a museum honoring the rich flight test history of Edwards Air Force Base.

A Command Pilot with more than 4000 flying hours, including 789 combat flying hours, Colonel Saxon flew 34 aircraft. His military decorations included the Legion of Merit, Distinguished Flying Cross with one oak leaf cluster, Meritorius Service Medal with one oak leaf cluster, Air Medal With 14 oak leaf clusters, Joint Service Commendation Medal and the Air Force Commendation Medal.

Long active in local choirs and musical productions at Sheppard Air Force Base and Wichita Falls, Texas, St. Paul's Episcopal Church, Lancaster, and the Protestant Liturgical Community and Chapel Festival Choirs at Edwards Air Force Base, he was the headliner in many High Desert Players Productions. At the Sunset Sound Studios in Hollywood California in 1994 he recorded John Denver's musical rendition of John Gillespie Magee, Jr.'s famous poem "High Flight" for the Flight Test Historical Foundation's "Legacy of Pancho Barnes" video soundtrack.

A member of the Society of Experimental Test Pilots (SETP), Colonel Saxon was also active on the Boards of the Experimental Aircraft Association (EAA) Chapter 1000 where he was also a charter member and the Edwards AFB Aero Club where he was also a pilot for the orientation flight program and served as the club clearing authority. He was a member of the Order of Daedalians, the Antelope Valley Astronomy Club, the Muroc Model Masters, the National Military Family Association (NMFA), the Air Force Association (AFA), The Retired Officers Association (TROA), the USMA Association of Graduates, the American Institute of Aeronautics and Astronautics (AIAA) and Tau Beta Pi honor society.

He retired with over 29 years of active duty service in August 1996.

Colonel Saxon was married to the former Claire Lyn Newton of Kenmore, New York. Their two children are Jennifer Lind of San Luis Obispo and Vernon Jeffrey of San Diego, California. His father, Colonel Vernon P. Saxon, Sr., (USAF Ret); mother, Ruth; and sister, Martha Jean, reside in Kathleen, Georgia.

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.

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.

Month of the Red Planet!
Mars is brighter, mag -2.4
 at midmonth, than anytime
 since 1988. Watch for its rising
 in SE within 1½ hours after
 sunset on June 1 (see evening
 diagram for June 4-6) and just
 minutes after sunset on June
 13, as Earth passes between
 Mars and Sun. That night,
 Mars is at opposition, nearly
 180° from Sun. Consecutive
 boxes on calendar show Mars
 three times on special night
 of June 13-14. Low in SE in
 evening twilight, in S in
 middle of night, and low in
 SW in morning twilight. Mars
 is in SSE at dusk at month's
 end, see June 29.

Closest approach of Mars
 occurs on June 21, at a
 distance of 42 million miles.
 Longline skywatchers become
 aware that opposition of Mars
 occur at intervals of 25 to 27
 months, or 1 to 3 months over
 two years. Over many years, as
 the date when Earth overtakes
 Mars progresses around the
 calendar, the least distance of
 Mars at successive encounters
 ebbes and flows between very
 close approaches every 15 or
 17 years, which occur between
 late July and late September.
 In the rare case when the
 opposition occurs in late
 August, as in 2003, Mars comes
 within 35 million miles of Earth
 and gleams at mag -2.9. When
 Mars is nearly as distant as
 possible but still visible, as in
 Sept-Oct 2002 at dawn or
 June-July 2004 at dusk, it can
 glow as dimly as mag +1.8.
 Of all the planets, Mars has
 the largest observable range
 of brightness.

Mars retrogrades 9° against
 stars in June as faster moving
 Earth overtakes it. Mars begins
 month 17° E of Antares and
 10° W of Lambda Sagittari,
 top of Teapot. On nights of
 June 15-17, Mars, going W X
 per day, passes 1.7° S of
 3.3-mag Theta Ophiuchi.
 By June 30, Mars is 8° E of
 Antares. On July 19 Mars ends
 retrograde 9° E of Antares.

Morning planets: Venus rises
 shortly before a.m. twilight and
 is in E as dawn brightens. Its
 phase changes from crescent
 through half to gibbous. Mars,
 from lat 40° N, sets in SW at
 sunset on June 12, and
 1 hr 40 min before sunrise on
 June 30. See morning boxes for
 June 4-8, 14. Saturn emerges in
 ENE after midmonth, to lower
 left of Venus, by 20° on June 19,
 20° on June 24, 15° on June 30.
 See July!

©ABRAMS PLANETARIUM SKY CALENDAR JUNE 2001

An aid to enjoying the changing sky

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

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p>Sunday June 4, 14 hours before sunrise</p> <p>ARIES Two superb morning stars! See also next box.</p> <p>Venus</p> <p>ENE</p>	<p>Monday June 5, 11 hours before sunrise</p> <p>Fri 8</p> <p>Mars</p> <p>Scorpion's tail</p> <p>Monday 4</p> <p>SW</p> <p>SSW</p>	<p>Tuesday June 6, 8 hours before sunrise</p> <p>Thurs 7</p> <p>Mars</p> <p>Antares</p> <p>Just past Full</p> <p>SW</p> <p>SSW</p>	<p>Wednesday June 7, 5 hours before sunrise</p> <p>Mon 4</p> <p>Full Moon</p> <p>Mars</p> <p>SE</p> <p>SSW</p>	<p>Thursday June 8, 3 hours after sunset</p> <p>Fri 8</p> <p>Mars</p> <p>SE</p> <p>SSW</p>	<p>Friday June 9, one hour after sunset</p> <p>Polux</p> <p>Castor</p> <p>One hour after sunset</p> <p>Use binoculars for Mercury • Imig 2</p> <p>Gamma Gem</p> <p>WVW</p> <p>Wed 6</p> <p>Thurs 7</p> <p>SE</p> <p>SSW</p>	<p>Saturday June 10, one hour after sunset</p> <p>Spica</p> <p>Sat 7</p> <p>SSE</p> <p>Alpha in Libra</p> <p>Sunday 3</p> <p>Fri 6</p> <p>15 hours before sunrise</p> <p>ARIES</p> <p>Venus at greatest elongation, 46° from Sun.</p> <p>Moon</p>
<p>Sunday June 11, at dawn</p> <p>Venus</p> <p>Pleiades</p> <p>Saturn</p> <p>ENE</p>	<p>Monday June 12, at dawn</p> <p>F Pleiades</p> <p>Saturn</p> <p>ENE</p>	<p>Tuesday June 13, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Wednesday June 14, at dawn</p> <p>F Pleiades</p> <p>Saturn</p> <p>ENE</p>	<p>Thursday June 15, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Friday June 16, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Saturday June 17, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>
<p>Sunday June 18, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Monday June 19, at dawn</p> <p>F Pleiades</p> <p>Saturn</p> <p>ENE</p>	<p>Tuesday June 20, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Wednesday June 21, at dawn</p> <p>F Pleiades</p> <p>Saturn</p> <p>ENE</p>	<p>Thursday June 22, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Friday June 23, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Saturday June 24, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>
<p>Sunday June 25, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Monday June 26, at dawn</p> <p>F Pleiades</p> <p>Saturn</p> <p>ENE</p>	<p>Tuesday June 27, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Wednesday June 28, at dawn</p> <p>F Pleiades</p> <p>Saturn</p> <p>ENE</p>	<p>Thursday June 29, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Friday June 30, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>	<p>Saturday June 31, at dawn</p> <p>Venus</p> <p>Moon</p> <p>ENE</p>

Robert C. Victor, Pat Toivonen
 ISSN 0733-8314
 Subscription: \$10.00 per year, starting anytime, from Sky Calendar, Abrams Planetarium, Michigan State University, East Lansing, MI 48824

June Evening Skies

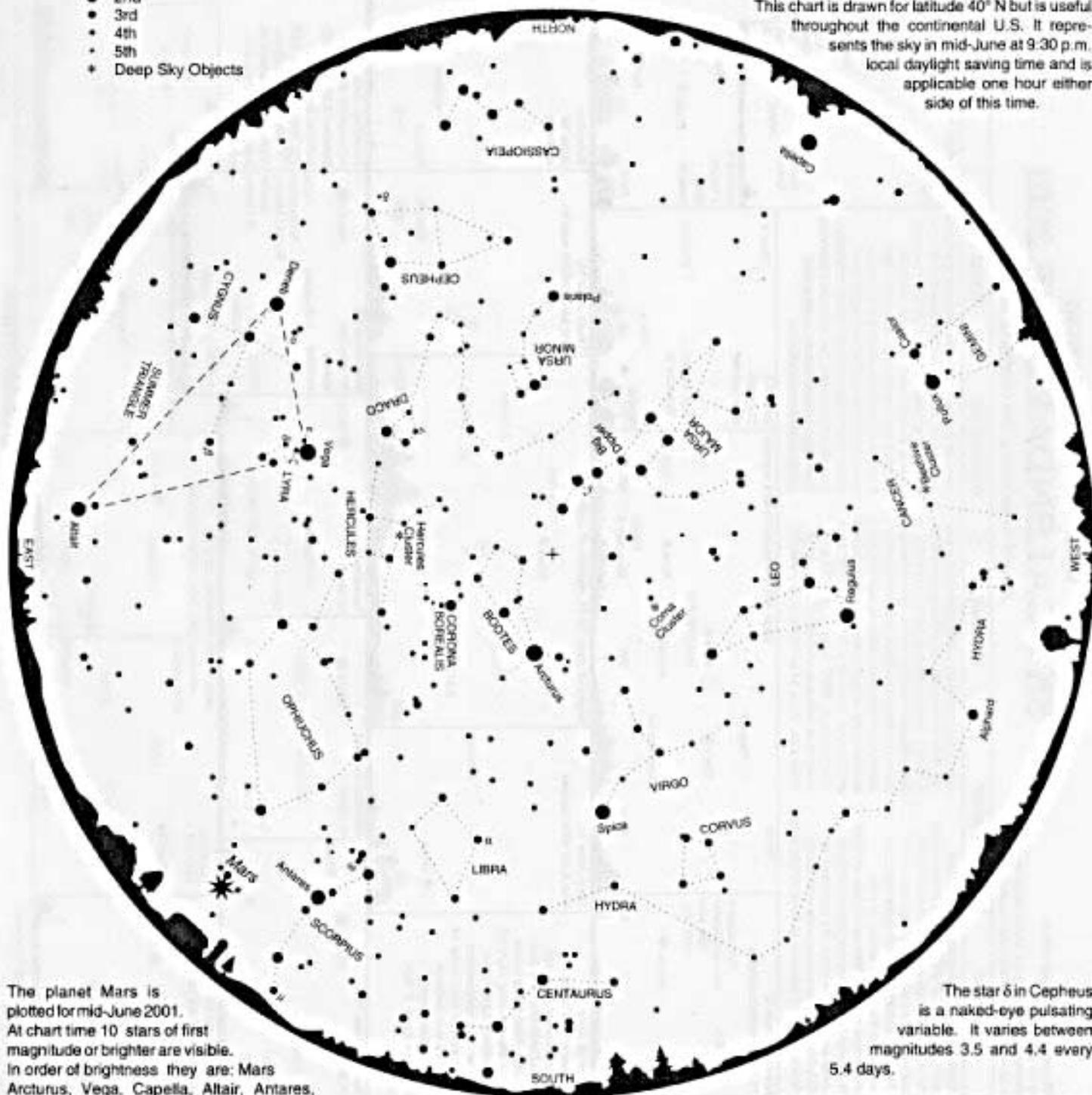
LEGEND Star Magnitudes

- Zero or brighter
- 1st
- 2nd
- 3rd
- 4th
- 5th
- + Deep Sky Objects

© 2001 Abrams Planetarium

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

This chart is drawn for latitude 40° N but is useful throughout the continental U.S. It represents the sky in mid-June at 9:30 p.m. local daylight saving time and is applicable one hour either side of this time.



The planet Mars is plotted for mid-June 2001. At chart time 10 stars of first magnitude or brighter are visible. In order of brightness they are: Mars, Arcturus, Vega, Capella, Altair, Antares, Spica, Pollux, Deneb, and Regulus.

Our usual monthly maps are designed for stargazers just beginning to find their way around the sky. This month's map is useful for serious stargazing from dark locations. It contains many more stars, inclusive to magnitude 4.5 and some fainter stars as needed to complete patterns or assist in locating special objects.

A selection of double stars (labeled with Greek letters) and "deep sky objects" is also plotted. All are visible with modest equipment; most are within the range of the unaided eye or binoculars.

The double stars, in order of decreasing angular separation, are ω Sco, ζ UMa, δ Lyr, μ Sco, ν Cyg, α Lib, ϵ Lyr, ν Dra, ζ Lyr, β Cyg.

The star δ in Cepheus is a naked-eye pulsating variable. It varies between magnitudes 3.5 and 4.4 every 5.4 days.

Two open or galactic clusters are noted. The Coma Cluster is a loose group of naked-eye stars below the handle of the Big Dipper. The Beehive or Praesepe in Cancer is much more compact, resembling a hazy patch of light.

The Hercules Cluster appears still more compact. It is a fine example of a globular cluster, a dense concentration of about a million stars.