



July 2003  
Volume 2, Issue 7

# Stars and Scopes

Newsletter of the Rocky Mountain Astronomy Club  
[www.rmastronomy.com](http://www.rmastronomy.com)

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*The brightest star near Antares is Delta Scorpii, now in its 36th month of an unexpected flareup. To the naked eye Delta is obviously the brightest star in the nearly vertical row of three forming the head of Scorpius. Photo by Jimmy Westlake.*



## Upcoming Events

Jul 14 – **Board Meeting**, 6 pm,  
**Club Meeting** and Program,  
7 pm at University of  
Southern Colorado

Jul 19 – **Public Star Watch**,  
8 pm, at the Southern  
Colorado Observatory,  
Pueblo, CO

Jul 26 – **Club Star Watch**,  
8 pm, at Graneros Gorge,  
near Pueblo West, CO

Aug 11 – **Board Meeting**,  
6 pm, **Club Meeting** and  
Program, 7 pm at University  
of Southern Colorado

Aug 16 – **Public Star Watch**,  
8 pm, at the Southern  
Colorado Observatory,  
Pueblo, CO

Aug 23 – **Club Star Watch**,  
8 pm, at Graneros Gorge,  
near Pueblo West, CO

Sep 8 – **Board Meeting**, 6 pm,  
**Club Meeting** and Program,  
7 pm at University of  
Southern Colorado

## Delta Scorpii Still Showing Off

By Alan M. MacRobert, *Sky & Telescope*

For the fourth summer in a row, the head of the bright constellation Scorpius carries a note of excitement. Delta Scorpii, normally magnitude 2.3, became a variable star in July 2000, flaring in a matter of weeks to magnitude 1.9. In the next few months it dipped almost back to normal, then rebrightened. It has fluctuated between about magnitude 2.0 and 1.6 ever since. As of a few days ago it was hovering at 1.6 or 1.7, barely under the official definition of a 1st-magnitude star (1.5). "The outburst keeps gaining strength,"

*continued on page 3*

## More Martian Dust?

By Roger W. Sinnott and David Tytell, *Sky & Telescope*

To quote the baseball great Yogi Berra, "It's déjà vu all over again." This summer Mars will be the brightest it will ever be in our lifetimes. But just as in 2001, the last time Mars was bright in the sky, a global dust storm threatens to block out all observable surface features.

Veteran Mars observer Donald C. Parker reports that significant changes have taken place on Mars in the last 72 hours. On Wednesday, Parker said, "I'd call it a dust cloud, not a dust storm." But after looking at images from this morning, his outlook was far more bleak.

Beginning on July 1st, Parker noticed a marked weakening, or lightening, of the conspicuous dark feature Syrtis Major in images taken with his 16-inch Newtonian reflector in Coral Gables, Florida. Yet just the previous morning another Mars expert, Jeffrey D. Beish, had described Syrtis Major as dark and normal when viewed visually with his own 16-inch at Lake Placid, Florida. Parker also noticed some bright ochre spots rimming the Hellas impact basin and partially obscuring the Iapygia region (between Hellas and Syrtis Major). Similar spots around Hellas had been imaged by Texas amateur Ed Grafton on June 28th.

*continued on page 2*



## July Club Program

"Observing Techniques"

### SCO Open House

The **Southern Colorado Observatory** will hold an open house on Tuesday nights, beginning June 24 and continuing until August 2003.

### Celestial Events

August 27, 2003

**Mars** closest to Earth in many centuries. Don't miss it!

October 2003

**Comet Encke**; 3.3 year orbit will bring it close enough to almost see naked eye nice with binoculars or scopes.

November 23, 2003

**Lunar eclipse**; totality lasts 24 minutes

December 2003

At Midnight, **Saturn** will be at its highest point in the sky in 30 years. Spectacular viewing!

### Regional SPs

July 27-August 1, 2003

**Nebraska Star Party**, Merritt reservoir near Valentine, NE. Hosted by Prairie Astronomy Club and Omaha Astro Society, go to: <http://www.nebraskastarparty.org> for more info.

September 25-28, 2003

**Enchanted Skies Star Party**, near Socorro, NM. For more information, go to: <http://www.socorro-nm.com/starparty>.

September 21-28, 2003

**Okie-Tex Star Party**, Camp Billy Joe located near Kenton, OK. For more information, go to: <http://www.okie-tex.com>.

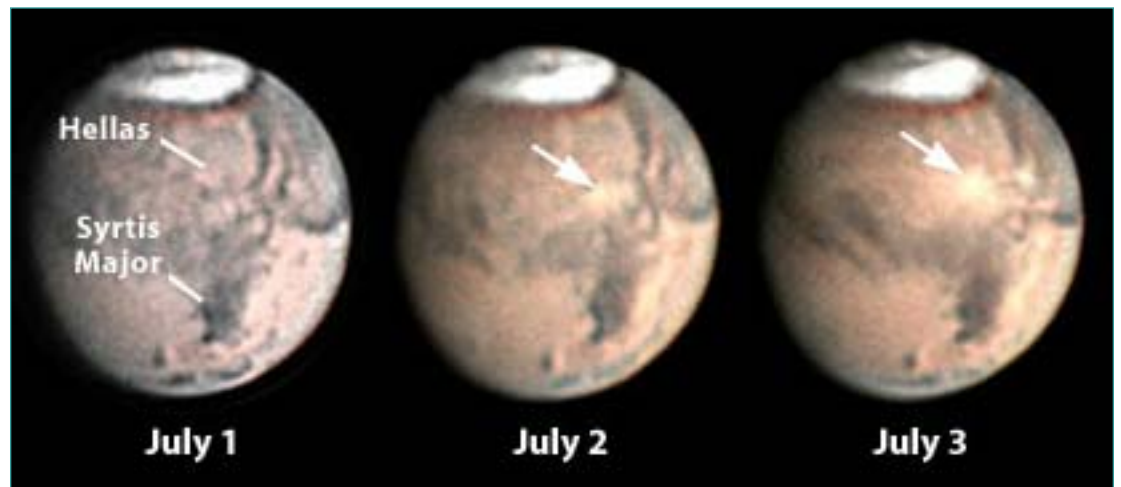
September 23-28, 2003

**Great Plains Star Party**, at Scopeville, KS. For more information, go to: <http://astronomyvillage.org/gpsp/gpsp.htm>.

**Phil Brown** will be our guest speaker for the July 2003 meeting. Please join us as he speaks on "**Observing Techniques**." He will be focusing on planetary observing, especially Mars, in preparation for the opposition in August. Don't miss it!

### More Martian Dust (continued from page 1)

By early yesterday morning, July 2nd, it was clear that something major was taking place. Parker noted that the isolated clouds he'd seen over Iapygia the night before had coalesced and expanded to form one cloud, bright when viewed in red light. The coalescing cloud is on the side of the planet that can currently be studied most easily from the Americas. It is centered at Martian latitude 25° south, longitude 294° west.



This morning Parker noted that the "cloud" had doubled in size and appeared to be a bona fide storm. "It's extremely bright," remarks Parker, and "it looks like the dust has spread in the past 24 hours." The storm has grown such that it is now covering part of the Hellas basin and has extended east into Mare Tyrrhenum.

"It's scary. This is almost a repeat of what happened in 2001," adds Parker. "But with Mars, who knows? Maybe we'll get lucky and it will just go away. We should know in a day or two."

Parker credits Beish, former Mars recorder for the Association of Lunar and Planetary Observers, with having predicted this localized event almost to the day. In Beish's view the dust cloud is unlikely to become widespread. Rather, it may be the precursor of a global dust storm that Beish feels is a distinct possibility for September.

*Opposite page: In 2001 the Hubble Space Telescope captured a dramatic change in Mars's weather: in June (right), the seeds of the storm were caught brewing in the giant Hellas Basin (oval at 4 o'clock position on disk); in early September (left), the storm had been raging across the planet for two months. Photo courtesy of NASA.*



*This three-panel image of Mars shows how the dust storm (arrowed) between Syrtis Major and the Hellas impact basin has grown in size and brightness. These images were taken by Donald C. Parker with his 16-inch Newtonian reflector in Coral Gables, Florida. South is up.*



## Delta Scorpii Still Showing Off (continued from page 1)



writes its discoverer, Sebastián Otero of Buenos Aires, Argentina. The naked-eye look of Scorpius is visibly changed from its age-old state, and Delta stands out as the brightest thing in the big swath of sky between Antares and Spica.

Delta Sco is a large, hot, rapidly rotating star of spectral type B0 about 400 light-years away. Spectra show that it began throwing off luminous gas from its equator when the outburst began. A fainter companion star orbits it in a very eccentric, looping orbit; the two stars swing close by each other (separated by about 20 times the primary star's diameter) every 10.6 years. The last time this happened was in the summer of 2000, suggesting that this particular pass somehow triggered the flare-up. No one knows what Delta Sco will do next.

## Arizona Scopes Escape Wildfire

By Alan M. MacRobert, *Sky & Telescope*

After 10 days, firefighters are getting the wildfire northeast of Tucson, Arizona, under control — and have saved the telescopes of the University of Arizona's Steward Observatory from destruction.

The Aspen Fire, which has consumed more than 30,000 acres of forest and 300 buildings since it began on June 17th, threatened to destroy the two 60-inch (1.5-meter) telescopes, two 40-inch telescopes, and others on Mount Lemmon, as well as the 61-inch Kuiper Telescope and others on Mount Bigelow about four miles (6 kilometers) away.

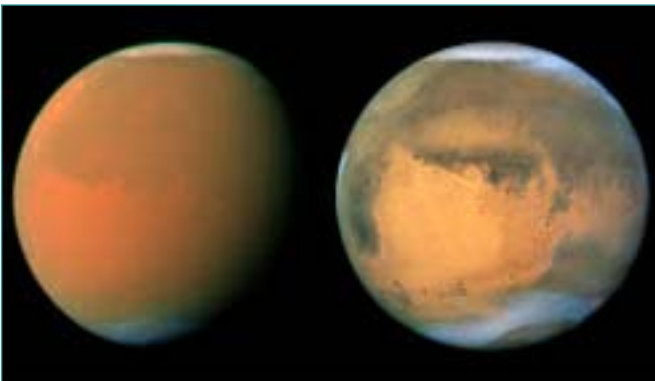
"The fire came right up to the perimeter" of the Mount Lemmon facility, says telescope operations manager Robert Peterson. Helicopters dumped water to beat back the flames' advance. "We were under battle there for four or five days. The fire completely encircled the observatory. We had some spotting fires within the compound, but all of the buildings were untouched. We're going to go up and clean the optics this weekend."

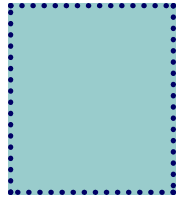
The fire also advanced to within a half mile of the Mount Bigelow facility. "We're very lucky they both survived," says Peterson.

These close calls come five months after wildfire wiped out Mount Stromlo Observatory in Australia after record heat and drought. The Tucson blaze follows several years of drought and fires across the American West — including the 30,000-acre Bullock Fire that climbed up a different slope of Mount Lemmon and threatened the telescopes last year.



*Forest fires blaze near the dome of Steward Observatory's 61-inch Kuiper Telescope (arrowed). This picture was taken a mile from downtown Tucson; the scene was about 35 miles away. Courtesy Richard A. Buchroeder.*





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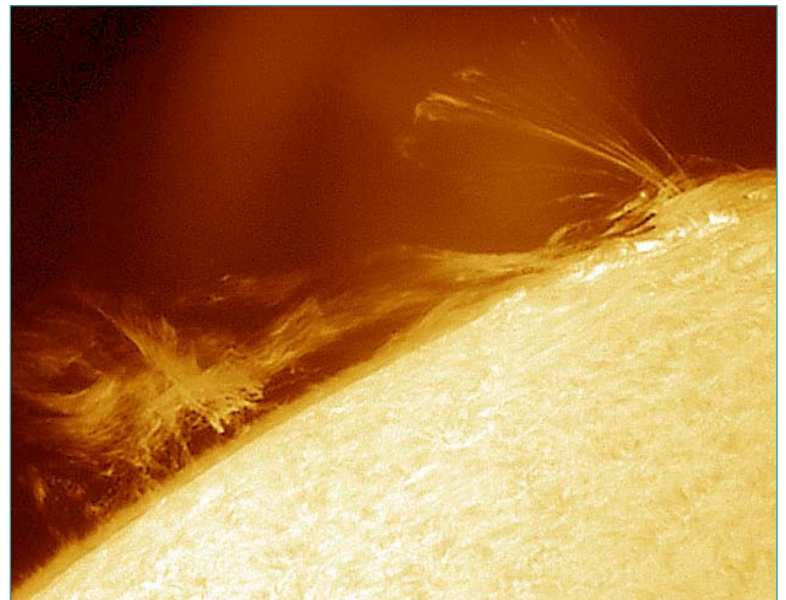
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***At the Edge of the Sun***

*Dramatic prominences  
can sometimes be seen  
looming just beyond the  
edge of the sun.*

*This image in false  
color was taken on  
June 1 from Stuttgart,  
Germany with an amateur  
telescope and camera.  
Photo by Stefan Seip.*



## **A Call for Newsletter Submissions**

If you would like to contribute an **article**, **observing report** or **astrophoto** to be published in *Stars and Scopes*, please send them to Debbie Schermerhorn at **astrogirl@astrogirl.org** or PO Box 25396, Colorado Springs, CO 80936-5396. When sending photos, please send them in **JPG format** and as large as possible.