

Skywatchers

Newsletter of the China Lake Astronomical Society

Volume 43 No. 05

May 1, 2006

NEXT MEETING 7:30 p.m., Monday, May 1, 2006

Maturango Museum, 100 East Las Flores Avenue, Ridgecrest

PROGRAM FOR THE MAY 1 MEETING

May is prime time for observing Ursa Major and its wealth of fine objects. Let's talk about them at our May meeting. If you have pictures or observing hints, bring them along. Hopefully we will have some good viewing of Ursa Major at our April star party which is just three days before our May club meeting.

DATES TO KEEP IN MIND

Friday, April 28: Public Star Party. Signs out at 8:00 p.m., Star viewing at 8:30 p.m. See below.

Monday, May 1, 2006: Regular CLAS Meeting at the Maturango Museum in Ridgecrest, 7:30 p.m.

Wednesday, May 24, 2006: Deadline for next Skywatchers Newsletter

Friday, May 26, 2006: Public Star Party. See below.

Monday, June 5, 2006: Regular CLAS Meeting at the Maturango Museum in Ridgecrest, 7:30 p.m.

STAR PARTY SCHEDULE FOR THE 2006 SEASON:

Star Parties will be held on the dates listed below. Star Parties are an activity where members and guests join together to share views of the skies. If you have a telescope, bring it. If not, come and look through someone else's. Star parties are held at a site in the open desert south of Ridgecrest. To reach the star party site from Ridgecrest, go south on China Lake Boulevard 6.5 miles from its intersection with Ridgecrest Boulevard. Continue straight across Highway 395 and you will be on Brown Road (Old Highway 395). Follow Brown Road as it curves to the right and goes west. After 2.3 miles there will be a 30-inch orange cone on the left. Turn left and follow the dirt road marked by 12-inch cones. The CLAS Star party is 0.5 miles along this road. Watch for signs and cones, which will be put out about a half hour before viewing starts. Call Carroll Evans 760-375-5681, or Bruce Churchill 760-375-7247, for more information.

Friday, May 26: Signs out at 8:30 p.m., Star viewing at 9:00 p.m.

Friday, June 23: Signs out at 8:30 p.m., Star viewing at 9:00 p.m.

Friday, July 28: Signs out at 8:00 p.m., Star viewing at 8:30 p.m.

Friday, August 25: Signs out at 7:30 p.m., Star viewing at 8:00 p.m.

Friday, September 22: Signs out at 7:30 p.m., Star viewing 7:30 p.m.

Friday, October 20: Signs out at 7:00 p.m., Star viewing at 7:30 p.m.

Friday, November 17: Signs out at 6:00 p.m., Star viewing at 6:30 p.m.

THE SKY IN MAY (Roger Brower)

1. Venus is in the morning sky and rises about 5AM local daylight time. Look for it low in the east-southeast before dawn.

2. Mercury can be seen very low in the east before dawn in the morning for only the first 2 or 3 days in May. It then moves to the evening sky where it can be seen in the west after sunset for the last few days of May.
3. Jupiter reaches opposition so will be finely placed for viewing all night. Look for it rising in the east at sunset.
4. Saturn and Mars will both be in the western sky in the evening and will be joined by the crescent moon the first of the month. Look for them in the west-southwest after dark.
5. The Eta Aquarid meteor shower peaks on May 5th.

REPORT ON THE MARCH 31, 2006 CLAS STAR PARTY (Alex Shlanta)

Conditions for the star party were certainly not ideal. There were scattered clouds, the wind was blowing at 15 miles per hours (predominantly from the southwest) and the temperature was in the upper 40's. There were three CLAS members in attendance (Bruce Churchill, Peter Eiserloh, and Alex Shlanta) and two Cerro Coso College astronomy students. There was one telescope, a 10-inch Orion SkyQuest Dobsonian. To make the best of the situation we parked the vehicles in a barricading configuration that offered us some protection from the wind. The crescent phase Moon limited the deep sky seeing but clouds obscured it periodically. In our viewing we worked around the elements. We did end up with some fairly decent seeing by essentially looking at celestial "targets of opportunity."

For the crescent Moon we were able to look along the terminator to see more crater detail. Saturn was overhead and we able to see the Cassini division in the rings as well as the moons Titan and Rhea. Close by, M44 the Beehive cluster was viewed through the telescope but actually was more impressive through a 9 x 50 finder scope. M42 the Orion Nebula could be seen clearly with the Trapezium showing up quite well. Looking at the nebula with an OIII filter we were able to get a good perspective of its structure. No longer at opposition, Mars appeared as a small reddish disk, but no surface detail could be seen. M41 the open star cluster in Canis Major was seen also. We looked at the Pleiades and Hyades, which again were a more impressive view in the finder scope. The vicinity near Ursa Major was free of clouds so we looked at several objects in that neighborhood. Polaris and its 8th magnitude companion could be seen clearly which indicated the atmospheric turbulence wasn't too bad. Mizar was resolved into Mizar A and Mizar B along with Alcor. We also were able to see quite clearly, in the same field-of-view, M81 face-on spiral galaxy and M82 side-on irregular galaxy. M51 the whirlpool galaxy and its companion NGC 5194 were seen as well. Astronomical seeing this winter has not been good due to weather conditions. Here is hoping the 28 April 2006 star party will have more favorable weather and in turn a better CLAS member turnout.

TELESCOPE FOR SALE

Carroll, I'm Randy Hopkins from the KAS in Bakersfield Calif. I have a 10" Hardin F/5 scope for sale. I bought it new in Jan. 2005. Would it be possible to post an ad in your newsletter? I have pics of the mods that I've made. I'm asking \$375.00. I'm willing to deal with someone. I just picked up an Orion 10" XTi. Thanks, Randy Hopkins randyh@earthlink.net. A photo was included with the request.

A STAR PARTY

Rocky Mountain Star Stare (RMSS) is not your typical star party. It's laid back. It's family oriented. It's in the heart of the Rocky Mountains, just 65 miles west of Colorado Springs. You don't camp on top of your neighbor. You can set up outside of your tent or RV. You have great trout fishing just a short drive away. You have turn of the century casinos just a short drive away. There is white water rafting, nature hiking, and horseback riding just a short drive away. But best of all there's a universe of stars, galaxies, nebulae, and clusters just above the horizon in every direction. Whether you are looking through a 20 inch Dob or a pair of

binoculars there's more to see in a night than most people get to see in a month and some see in a lifetime.

Introduce your family to the wonders of the Colorado Rockies and the awesome spectacle of dark skies. Who knows, you might make a scientist out of one of your kids yet. And even if you don't it will be an unforgettable family experience. Join us for our 20th Anniversary celebrating the night sky.

This year's event is held from June 22nd-25th and pre-registration is currently open. Information on RMSS and online registration can be found at <http://www.rmss.org>. To speak to someone regarding RMSS, groups, or other items pertaining to RMSS, please contact Alan Gorski, Public Relations Director, Colorado Springs Astronomical Society, at csaspr@csastro.org or 719.651.8476.

ASTRONOMICAL INFORMATION FROM EARL TOWSON

PLANETARY & LUNAR ASTRONOMY:

XENA'S DIAMETER IS ONLY 70 MILES BIGGER THAN PLUTO'S: Hubble found that Xena is about 2400 km (1,490 miles) across, which makes it only 113 km (70 miles) larger than Pluto. Xena is smaller than comparatively bright; it must be one of the most reflective objects in the solar system. The object may have had an atmosphere when it was closer to the sun, but as it moved to its current location farther away this atmosphere would have "frozen out," settling on the surface as frost. Xena's takes about 560 years to orbit the sun, and it is now very close to aphelion (the point on its orbit that is farthest from the sun). Its discoverer, Brown, next plans to use Hubble and other telescopes to study other recently discovered Kuiper Belt objects that are almost as large as Pluto and Xena. The Kuiper Belt is a vast ring of primordial icy comets and larger bodies encircling Neptune's orbit. Finding that the largest known Kuiper Belt object is a virtual twin to Pluto may only further complicate the debate about whether to categorize the large icy worlds that populate the belt as planets. If Pluto were considered to be the minimum size for a planet, then Xena would fulfill this criterion, too. In time, the International Astronomical Union will designate the official name.

MARS: NASA's Mars rover Spirit has reached a safe site for the Martian winter, while its twin, Opportunity, is making fast progress toward a destination of its own. The two rovers recently set out on important – but very different -- drives after earlier weeks inspecting sites with layers of Mars history. Opportunity finished examining sedimentary evidence of ancient water at a crater called "Erebus," and is now rapidly crossing flat ground toward the scientific lure of a much larger crater, "Victoria." Spirit studied signs of a long-ago explosion at a bright, low plateau called "Home Plate" during February and March. Then one of its six wheels quit working, and Spirit struggled to complete a short advance to a north-facing slope for the winter. "For Spirit, the priority has been to reach a safe winter haven," said Dr. Steve Squyres of Cornell University, Ithaca, N.Y., principal investigator for the Mars Exploration Rover project. The rovers have operated more than eight times as long as their originally planned three-month explorations on Mars. Each has driven more than 6.8 kilometers (4.2 miles) about 11 times as far as planned. Combined, they have returned more than 150,000 images. Two years ago, the project had already confirmed that at least one place on Mars had a wet and possibly habitable environment long ago. The scientific findings continue. Opportunity spent most of the last four months at Erebus, a highly eroded impact crater about 300 meters (1,000 feet) in diameter, where the rover found extensive exposures of thin, rippled layering interpreted as a fingerprint of flowing water. "What we see at Erebus is a thicker interval of wetted sediment than we've seen anywhere else," said Dr. John Grotzinger of the California Institute of Technology, "The same outcrops also have cracks that may have formed from wetting and drying." In mid-March, Opportunity began a 2-kilometer (1.6-mile) trek from Erebus to Victoria, a crater about 800 meters (half a mile) across, where a thick sequence of sedimentary rocks is exposed. In the past three weeks, Opportunity has already driven more than a fourth of that distance. At Home that fits accumulation of material falling to the ground after a volcanic or impact explosion. In one place, the layers are deformed where a golf ball-size rock appears to have fallen on them while they were soft. "Geologists call that 'bomb sag,' and it is strong evidence for some kind of explosive origin," Squyres said. "We would like to have had time to study Home Plate longer, but we needed to head for a north-facing slope before winter got too bad." For images and information about the rovers, see www.nasa.gov/rovers

MEMBERSHIP INFORMATION

Basic CLAS dues are \$20.00 per year, which includes the *Skywatchers Newsletter*. As a benefit of membership you may also receive *Astronomy Magazine* and/or *Sky and Telescope Magazine*. The fee schedule is as follows:

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| Basic membership | \$20.00 per year |
| Membership with Astronomy magazine | \$51.00 per year |
| Membership with Sky and Telescope magazine | \$53.00 per year |
| Membership with both S & T and Astronomy | \$84.00 per year |

Send your check to: Roger Brower, Treasurer, China Lake Astronomical Society, P.O. Box 1783, Ridgecrest, CA 93556.

PRESIDENT – Earl Wilson – 760-876-5455 (email zearl.email@gmail.com)
VICE-PRESIDENT – Bruce Churchill - 760-375-7247 (email bchurchill@atsecure.net)
SECRETARY – Ted Hodgkinson - 661- 824-2738 (email longeyes@antelecom.net)
TREASURER – Roger Brower - 760-375-1181 (email brower@iwvisp.com)
NEWSLETTER EDITOR – Carroll Evans Jr. - 760-375-5681 (email clevans@ridgenet.net)

WESTERN AMATEUR ASTRONOMERS WEB SITE <http://www.waa.av.org/>

Meetings of the China Lake Astronomical Society are held at the **Maturango Museum** at 7:30 p.m. on the first Monday evening of each month, except when the first Monday is a holiday.

SKYWATCHERS

Newsletter of the

**CHINA LAKE ASTRONOMICAL SOCIETY
POST OFFICE BOX 1783
RIDGECREST, CA 93556-1783**

FIRST CLASS

**NEXT MEETING: 7:30 p.m., MONDAY, MAY 1, 2006: “The Objects of Ursa Major”
AT THE MATURANGO MUSEUM, 100 EAST LAS FLORES AVE.**

CLAS WEB PAGE <http://www1.iwvisp.com/brower/clas.html>

INDEX OF CLAS NEWSLETTERS <http://www.ridgenet.net/~jebush/clas/>

