

"CLEAR SKIES"



NEWSLETTER of the CHAMPAIGN-URBANA ASTRONOMICAL SOCIETY, Inc.
An affiliate of the Champaign Park District

Celebrating our 20th Anniversary!!

November, 2006

PRESIDENT'S MESSAGE

Well, it's election time, and let me be frank – meeting attendance has been fairly low lately, and I'm not sure why. So I hope that you'll make a point of coming to our meeting on November 9th and voting for our next set of officers. Without your attendance and input, we officers can only guess at what members want. We really want to hear your suggestions, ideas and your vision for the future of the club.

Recently we (the Tuesday night mirror- and telescope-making group) completed refiguring the primary mirror from a donated 6" F/8 Criterion telescope. The optics are now excellent. The primary and secondary have been recoated and the telescope is now reassembled. So, for a mere \$350, we (CUAS) now have for sale an excellent telescope on a working equatorial mount. Granted, it's not in perfect condition and might need a little paint, but it works and provides nice views. So, please tell your friends and observing buddies and maybe we can find this telescope a good home and raise some money for the club.

As I near the end of my first year as a club officer, I want to thank the other officers and those who have contributed to the club in the past year, whether it was doing work at the dome, giving a talk at a meeting, recruiting new members, attending a public or club event, or just promoting amateur astronomy in general. Many of us live very busy lives and we're grateful for the time you spend helping run the club and spread the hobby.

Now something about me - over the past few years I have had lots of fun making optics. I've progressed from a novice mirror maker to the point of fixing numerous optics made by professional opticians. Now I am very close to moving to the point of having a small optical business. I've had two articles published in Sky and Telescope magazine, with another likely on the way soon. For this I have worked VERY hard, but I would also like to thank those club members who have supported me in my telescope and mirror making by giving compliments and constructive criticism and by entrusting me with their optics to fix. It's been a thrilling journey, and I look forward to even more exciting projects in the future. I have big dreams. Thanks everyone.

Mike Lockwood



CUAS DIRECTORY:

Mike Lockwood, President	398-9778
Guy Hampel, Vice-pres.	352-3690
Jeff Bryant, Secretary	840-5251
Phil Wall, Treasurer	352-5442
Dave Leake, 5 th Director	359-6644
Mike Rosenberger, Obs. Dir.	598-2254
Chris Pond, Webmaster	352-5426
Bill Marble, Newsletter Ed.	359-6407
Cell phone	621-7882
Jameel Jones, CPD	398-2550

LOOKING UP THIS MONTH

The big event this month doesn't involve planets you can see at night. In fact, until Saturn rises just after midnight, the sky is pretty much devoid of bright planets. So let's look for them in the daytime!

On Wednesday, November 8, we'll have a transit of Mercury. This is when an inner planet (Mercury or Venus) ventures across the disk of the Sun from our point of view. Transits of Venus are pretty rare (remember the one in 2004?) but Mercury transits the Sun 13 times a century. If you miss the one on the 8th, the next one is in 2016. The last one was in 2003. The main thing in observing a transit is *don't look at the Sun* unless you have proper protection . . . and sunglasses are *not* proper protection! You can project the Sun's image on a note card or observe directly with a special filter. If your filter happens to thread into the eyepiece of your telescope, don't use it! In fact, pitch it! You're trying to filter the Sun's light right at the spot where the light is the most intense. If the heat cracks the lens, you've lost one eye. Don't take the chance!

Beginning at about 1:15pm, Mercury will begin its five hour trip across the Sun's face, moving left to right. The Sun will set before we get to the end of the transit, but we'll see a lot of the event. All CUAS members are invited out to the Staerkel Planetarium on this day (if clear, of course). The planetarium has several 10-inch Dobs that can be equipped with special filters for safe viewing. Dave Leake teaches a class from 2-3pm, but otherwise he'll probably be out there. Feel free to show up and, if you want to, you can run the telescopes from 2-3pm!

After the transit, Mercury swings into the morning sky where you can find it in the east-southeast. It'll remain here until the end of the year. On the 25th Mercury reaches its greatest separation from the Sun (a full 20-degrees) and it will rise at about 5:15am CST.

As said, it's pretty slim pickens for the other planets! Mars passed behind the Sun on

October 23 and Venus did the same four days later. Technically Mars went into the morning sky, but it's very low in the east-southeast (below Mercury) at the end of November. Venus finally heads into the evening sky but it's setting at 5pm at the end of the month. Wait until closer to New Years for this one. And Jupiter passes behind the Sun on November 21.

Saturn rises a bit north of east, if you can stay up for it. At the beginning of November, Saturn rises at roughly midnight, but this time decreases to 10pm by month's end. Of course you have to wait later than this to make sure Saturn is high enough to get out of the haze on the horizon! Saturn now moves into Leo and reaches quadrature at mid-month. Quadrature means you can draw a line from the Sun to the Earth and then a line from Earth to Saturn and these two lines make a 90-degree angle. This is a good time to see the shadow of the planet itself on the ring system.

The Leonid Meteor Shower peaks during the early morning hours of November 17th and 18th. The "big shower" (occurring every 33 years) is over but some are thinking we might hit a dense filament left by Comet Tempel-Tuttle during its last passage through the Solar System. Most of the time we see the most meteors after midnight and that should be your best bet here. However, if this suspected filament is, in fact, there, there might be a small outburst of "shooting stars" at around 10:45pm on the 18th. We never know unless we look, eh?

And have you seen Comet SWAN yet? The comet was named for an ultraviolet camera on the SOHO spacecraft that found the comet during its observations of the Sun. The downside though, is that the comet is fading. This month it's expected to fade from magnitude 7.2 to 9.6 as it travels in eastern Hercules towards Aquila in the southeast.

Good luck & good hunting! -DCL

Moon Phases:

1 st Quarter	November 28	December 27
Full	November 5	December 20
3 rd Quarter	November 12	December 12
New	November 20	December 20



CUAS NEWS

We were a little disappointed that only two people participated in our **telescope buyer's clinic**, especially given the early response to some of the publicity. Still, thanks to Mike Conron, Guy Hampel, Bob Rubendunst, John Stone, Mike Lockwood, and Dave Leake for making short presentations on scopes, mounts and accessories.

Officer nominations! The following members were nominated for an office for calendar year 2007. Further nominations may be taken up to the November 9 meeting and an absentee ballot appears in this newsletter. Absentee ballots must be received at the club's mailing address by meeting time to be counted. One ballot per paying membership. :

President: acts as spokesperson for the club and runs the meetings

Mike Lockwood, Dave Leake

Vice-president: serves in the president's absence and handles club publicity

Guy Hampel, Mike Matthews

Secretary: takes meeting minutes and handles club correspondence

Mike Conron, Mark Prather

Treasurer: manages club finances, including dues, magazine subscriptions, and any reporting.

Jeff Bryant, Dave Leake

Fifth Director: serves on the board as voting member

John Stone, Mike Lockwood

Other appointed positions are web master, observatory director, and newsletter editor.

There was a short discussion of doing a small **star party at Allerton Park** near the 4H camp. Nothing on the order of "Prairie Skies" or "Astrofest" but something small that could grow. Dave Leake and Stuart Levy took some photos of the site several months ago – we may show these again at the November meeting. There were some thoughts of doing some observing near the Sun Singer statue, which would be darker but also lacking in facilities.

The October CUAS meeting has been designated as one in which we invite the public to talk about telescopes. It's a "**telescope buyer's clinic**" of sorts. This appears in the Parkland College fall "Live & Learn" guide and several people have called the planetarium about it. While this is not a difficult

topic, we want to be organized. If you're interested in presenting something, make sure you tell an officer. We want to be sure who is going to talk about what topic.

The **Allerton Park observing** session was very successful with about a dozen people attending. Dave Leake did the talk based on the Night Sky Network's Galaxy kit. This information has been logged on the NSN web site. There are other resources on the site, too. Check it out at:
<http://nightsky.jpl.nasa.gov/>

It's time for **officer nominations!** We nominate officers in October, vote in November and then the officers serve the calendar year. We will elect five officers and any club member in good standing is welcome to serve:

President: acts as spokesperson for the club and runs the meetings

Vice-president: serves in the president's absence and handles club publicity

Secretary: takes meeting minutes and handles club correspondence

Treasurer: manages club finances, including dues, magazine subscriptions, and any reporting.

Fifth Director: serves on the board as voting member

Other appointed positions are web master, observatory director, and newsletter editor. Nominate someone at the October meeting or please nominate yourself! You don't have to be present to be nominated!

Thanks to treasurer, Phil Wall, we now have a batch of *Astronomy* magazine **2007 calendars**. There were 20 left after the last meeting. They are first come, first served and \$10 for members and \$12 for non-members.

The Bottenfield Elementary School **Junior Stargazers** group is looking for some guest speakers. It doesn't have to be anything technical, but there are about a dozen youngsters in the group (with parents) who have a common interest in the stars and planets. They would appreciate anything you'd like to talk to them about. Contact Kim Dalluge at dalluge@uiuc.edu if you're interested.

For sale: 6-inch f/8 Criterion reflector with completely redone optics. Equatorial mount and clock drive included. The optics were redone by the Tuesday night ATM group that meets at Mike Lockwood's home. Asking \$350. Contact Mike if you're interested.

Treasurer's Report:

Champaign Urbana Astronomical Society

Treasurer's report 31 October 2006

for the past 30 days

Assets

\$2139.21 - checkbook balance as of Oct 31, 2006

111.00 - petty cash envelope as of Oct 31, 2006

0.00 - cash and checks awaiting deposit

\$2250.21 - Total assets

Income past 30 days

\$ 0.00 - Total income

Expenses past 30 days

\$ 195.08 - to Mike Lockwood, reimbursement for mirror coatings

\$ 195.08 - Total expenses

by Philip Wall

CUAS Treasurer 2006

OBSERVATORY NEWS!

If you're returning the 8-inch red Dobsonian telescopes to the dome, remember to try to store them horizontally to help protect the mirror coatings.



The mow list may be done for the year, but we did get through one complete round. Would anyone like to drain the mowers of gasoline? Winter is coming!

- | | | | |
|---------------------|---------------------|------------------|--------------------|
| 1) Mike Rosenberger | 4) Audrey Ishii | 7) Mike Lockwood | 10) Dick Robrock |
| 2) Dave Leake | 5) Willard Brinegar | 8) Mike Matthews | 11) Bob Rubendunst |
| 3) Mark Prather | 6) Guy Hampel | 9) Wayne James | 12) John Stone |
| 13) Bill Marble | | | |



LOOKING AHEAD

November 3 "World of Science" talk 7pm Staerkel Planetarium
Rich Blazier, professor emeritus in Biology at Parkland College, will talk about the Intelligent Design movement, what it is, its impact on science education, and why scientists have a problem with it. It should be an interesting night.

November 8 Transit of Mercury viewing 1-5pm Staerkel Planetarium
(See "Looking Up" for details)

November 9 CUAS Club meeting 7-8:30pm Staerkel Planetarium
John Stone will discuss observing sights and some astrophotography, plus we'll be having officer elections this night.

November 18 New Moon Observing 7pm-? Observatory
This is our members-only night. Bundle up and join us for a night under hopefully clear skies. Weather permitting.

November 25 CUAS Family Skywatch 7-10pm Observatory
This is Thanksgiving weekend so we want to make sure we have enough volunteers to cover this session. The observatory is southwest of Champaign. Take I-57 south to the Monticello exit. Go west 1.4 miles to county road 700E. Turn left (south) here and the dome is 0.8 miles down this road on your left. Weather permitting.

December 1 "World of Science" talk 7pm Staerkel Planetarium
The planetarium welcomes back astronomer Jim Kaler to talk about how the cosmos directly interacts with the Earth. Topics include meteors, aurora, and even supernovae. Admission is \$1 at the door.

December 14 CUAS Club Meeting 7-8:30pm Staerkel Planetarium

The December meeting has traditionally been a social gathering. Bring goodies if you like as there will be a table set-up in the planetarium lobby. Happy holidays!

December 16 New Moon Observing 7-?pm Observatory
For those impervious to chill. *Note that, due to the proximity to the holidays, there is no officially public open house in December.*

CHECK OUT ALL CLUB EVENTS ON THE CUAS HOME PAGE:

<http://www.prairienet.org/cuas> or <http://www.cuas.org>



Take a look at http://spaceplace.jpl.nasa.gov/astro_clubs/. There is an interesting article on weather. Below is an excerpt.

Written by Diane Fisher and Tony Phillips. The idea is that a butterfly flapping its wings in Brazil can, over time, cause a tornado in Kansas. The “butterfly effect” is a common term to evoke the complexity of interdependent variables affecting weather around the globe. In other words, small changes in initial conditions can cause wildly varying outcomes.

Understanding how it all fits together is a relatively new field called Earth system science. Earth system scientists work on building and fine-tuning mathematical models (computer programs) that describe the complex inter-relationships of Earth’s carbon, water, energy, and trace gases as they are exchanged between the terrestrial biosphere and the atmosphere. Ultimately, they hope to understand Earth as an integrated system, and model changes in climate over the next 50-100 years. The better the models, the more accurate and detailed will be the image in the crystal ball.

Multiply that millions of times and you can see why weather is so complex. Anyway, check it out, very interesting.

For more information go to , <http://spaceplace.nasa.gov/> , under “Cool Subjects.”

MEMBERSHIP FORM

- Enroll me as a new member!
 Membership renewal [attach mailing label]
 Change of address only

Name _____
Address _____
Phone # _____
Email address: _____

Make all checks payable to:
"Champaign-Urbana Astronomical Society"

Circle all that apply:

Basic membership	\$15
Observatory key fee	\$10
<i>Astronomy</i> magazine renewal*	\$34
<i>Sky & Telescope</i> renewal*	\$33
Donation	\$ _____
Total Enclosed	\$ _____

*enclose mailing label

Detach and mail to:

C.U.A.S. Treasurer
c/o Staerkel Planetarium/Parkland College
2400 West Bradley Avenue
Champaign, IL 61821

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The Champaign-Urbana Astronomical Society is an affiliate group of the **Champaign Park**

District. <http://www.champaignparkdistrict.com>

William M. Staerkel Planetarium has public shows on Friday evenings in August. Call 217/351-2446 for more information. <http://www.parkland.edu/coned/pla>



**Champaign-Urbana Astronomical Society
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