

"CLEAR SKIES"



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

Celebrating our 20th Anniversary!!

December, 2006

PRESIDENT'S MESSAGE

Well the snow is finally flying and winter is here in full force. It's that cloudy time of year when a clear night is a real blessing and often a risk for frostbite! There's a small part of me that can't wait for a very dry, cold, and dark night on which to seek such faint wonders as the Horsehead and Flame nebulas, the Rosette, and maybe even the Cone.

This means that our annual Christmas party must be coming up soon, and I look forward to a meeting where food and conversation amongst members are the main activities. Please come out if you can on December 14th and enjoy a very social and calorie-filled evening.

I want to say thanks to those who elected me again. I think my first item of business will be to try to make the meetings a bit more interesting by looking outside of our club for speakers and programs next year. We have a town full of interesting people with related interests and professions, so I think we should try to find the ones who are willing to come and give talks to our club. I already have a few folks in mind for these talks, but there are ~10 meeting programs next year and I am open to and asking for suggestions. Who would you like to hear speak? Have any friends in the university astronomy or physics department? Please ask around and see if they are interested in spending an hour and a half with us on the second Thursday of some month next year.

So, to conclude this short column I would like to wish all of our members and their families very happy holidays, and a joyous new year. Hope to see many of you at the Christmas party.

Mike Lockwood

LOOKING UP THIS MONTH

When will be the first day you can see Venus in the west-southwest? True, it's low, but gaining altitude each day and it's magnitude -3.8, the brightest thing in the sky save for the Sun and Moon. On December 3, Venus sets just after 5pm. This time increases to nearly 6pm by New Year's Eve, a full hour and 15 minutes after sunset. Look in the west-southwest just after sunset. On the 21st, a beautiful waxing crescent Moon can be seen just to the left of Venus.

The next planet to rise is Saturn. For those of us who can't stay up as late as we used to (no



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names mentioned), Saturn is becoming more and more visible. Early in the month it rises at 10pm, but this becomes 8pm by the end of December. Of course, you'll want to view Saturn in a thinner atmosphere, so wait until it gets higher before you point a telescope. The star below Saturn and a bit fainter is Regulus, the heart of Leo, the Lion. The waning gibbous Moon is near Saturn on December 9th. Telescopically, the rings reach their minimum tilt early in the month – be sure to check that one out!

The rest of the planetary action is in the morning sky and you'll have to have an unobstructed east-southeast horizon for the show. As we begin December, Mercury is getting lower and both Mars and Jupiter have passed behind the Sun and are gaining altitude. They pass each other in grand fashion in early December. From the 7th to the 14th the trio of planets fits into a five-degree circle. On the 10th they are less than two-degrees apart. The trio are joined by the bright double star, Beta Scorpii. We won't have three planets this close until 2029! But, again, you have to look low, probably starting only 40 minutes before sunrise. Use binoculars. After the 10th, the trio break and head in separate directions, Mars and Jupiter heading higher in the sky and Mercury towards a conjunction with the Sun. On the 18th, a lovely thin crescent Moon can be seen just to the right of Mars and Jupiter.

The winter solstice occurs on the evening of the 21st at 6:22pm. The Sun is now at its lowest point on its annual path. The good news is the Sun will now be getting higher in the sky at noon as each day passes.

The Moon toys around with the Pleiades star cluster this month. On December 3, a slightly-less-than-full Moon just missed the cluster on its northern side. A gibbous Moon occults some of the Pleiades on New Year's Eve.

So . . . want to do some meteor watching? The annual Geminids peak on the December 13-14. The Moon will be thin and a non-factor if you want to take a look. A group of us sat out at the observatory site several years ago and counted well over 300 meteors in just 3-4 hours. Granted . . . it's more than likely pretty frosty during the pre-dawn hours in December, but if you bundle up, it could be worth it. Anyone want to take a shot at the Geminids this year? A couple of years ago, the hourly rates exceeded 100 at peak times. The Geminids rival the August Perseids . . . it's just most don't want to brave the cold. The Geminids are much slower than the Perseids since we don't hit the meteor stream head-on like the other showers. An oddity on the Geminids is that we think they result, not from a comet, but from an asteroid . . . that being 3200 Phaethon.

Bundle up and have fun! -DCL

Moon Phases

1 st quarter	December 27	January 25
Full	December 4	January 3
3 rd quarter	December 12	January 11
New	December 20	January 19

Gibbous Moon



If you would like to see the phases of the moon, past, present, and future log on to <http://aa.usno.navy.mil/data/docs/MoonPhase.html#y2007>



CUAS NEWS

Oddly enough, we had clear weather for the **transit of Mercury!** Roughly 100 people showed up at the planetarium for a look through three 10-inch Dobsonians. Two had mylar filters and one used a projection screen. Though there were no long lines, but steady use of the telescopes. The same could be said for the group at the UI Observatory. They also got a front page photo in the *Daily Illini*.

Congratulations to the following individuals who will run our club in **2007** as **officers**:

President: Mike Lockwood

Vice-president: Guy Hampel

Secretary: Mike Conron

Treasurer: Willard Brinegar

Fifth Director: John Stone

These gentlemen are looking for some feedback. What would you like to see the club do in 2007? Mike Lockwood talked briefly about raising awareness of the club in town. Possibly a park observing tour? Bring your ideas!

Another question that was asked”**where is everyone?**” We had only 11 people attend the November meeting. How can we entice you back?

Remember to renew your membership dues! For most of us, annual dues and key fees (if you have an observatory key) are due at the end of this month. Why not renew today? Use the form at the end of this newsletter.

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.

Dave Leake now has a copy of the Manatee County (Florida) **lighting ordinance** that was passed by their county board. The ordinance was written by an amateur astronomer but there’s no mention of astronomy or skywatching in the ordinance. The plan here is to try to adapt this ordinance for our county. Anyone interested in tackling this? Give Dave a yell and he can email it to you.

Speaking of lighting, John Stone reports that an official from the university chancellor’s office sent a campus-wide email to UI employees asking them for suggestions in reducing the university’s reliance on energy. Might a hard look at campus lighting be in the works? Again, the point here is not to diminish lighting but to use it more efficiently.

It can be easily shown that lower wattage bulbs can be used IF you direct all the light downward and not up or sideways. Write your chancellor if you're a university employee!

We're happy to report that we now have, not one, but two **Junior Stargazers groups** with the addition of a group at the Next Generation School just off Galen Drive, south of Windsor. Sherri Givens is the coordinator. Our first group is the Bottenfield Junior Stargazers led by Kim Dalluge. Kim and Sherri have each other's email addresses and they may plan some joint observing. The Bottenfield group was also planning a trip to the Adler Planetarium in late November. It was mentioned that we should have an affiliate page on our web site. There is a JS page on our site already but this could be expanded.

We still have 15 *Astronomy* magazine **2007 calendars**. They are first come, first served and \$10 for members and \$12 for non-members. Support the club and get a nice gift for someone!

Editors Note: The following is from Sherri Givens:

The Next Generation School Astronomy Club (Junior Stargazers) held their first meeting, Tuesday, November 28, 2006. Our enthusiastic students range in age from 5 to 11. The Club is meeting after school from 4 - 5 on Tuesday's through late February. I would love to have a guest speaker come to a meeting to explain how telescopes work. If anyone has some free time and would be willing to give a short presentation 10 -15 minutes, please contact me: Sherri Givens sgivens2@charter.net

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. The mirrors are now back from the coating people and the scope is ready to roll. Contact Mike Lockwood if you're interested.

For sale: 10" F/6.8 and 10" F/5.5 truss-tube Newtonians, both built by me, with primary mirrors made by me. The F/6.8 is plate glass and about 1/15th wave, and the Pyrex F/5.5 is roughly 1/30th wave. They are not inexpensive, but if you're interested in a serious, high-quality telescope that will provide the best of planetary views, please give me a call (398-9778) or talk to me at a meeting. The F/5.5 is the brother to my 10" F/8.8, featured in the March S&T. Both scopes can be seen on my web site at (<http://bi-staff.beckman.uiuc.edu/~melockwo/index.html>) under "Telescopes". I am willing to customize the f/6.8 a bit. - Mike Lockwood

TREASURERS REPORT

Champaign Urbana Astronomical Society
Treasurer's report 30 November 2006
for past 30 days

Assets

\$1935.73 - checkbook balance as of Nov. 30,
2006
111.00 - petty cash envelope as of Nov. 30, 2006
0.00 - cash and checks awaiting deposit

\$2046.73 - Total assets
\$ 15.00 - donation
\$ 10.00 - donation

Income past 30 days (not counting magazine
renewals)

\$ 60.00 - Four membership renewals
\$ 20.00 - two calendars

\$ 105.00 - Total income
Expenses past 30 days (not counting magazine
renewals)

\$ 418.48 - State Farm for 2007 dome site
insurance

\$ 418.48 - Total expense

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!