

"CLEAR SKIES"



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

March, 2008

CUAS OFFICERS MESSAGE

It is March and we have had a typical Illinois winter, let us see how, does it go, clear nights are full moon nights or cold, cold snow covered nights. The remainder of this years nights so far have been either, as I remember, cloudy, rainy or snowy. Well we had one event that was actually a good one. That was the February 20, 2008 lunar eclipse. The public celebration of the event was held at Parkland College just outside the Planetarium. The event was well attended by at least 50 guests who braved the cold, they came with questions and the need for stories or just the facts of why it is going to turn red and of course then came the question, Is that really red? The club was represented by 4 of it members including our host Dave Leake. The guests were treated to looks through a variety of telescopes, taking pictures of the moon through the telescopes and snapping pictures using one of our member's camera with a telephoto lens, I guess we now need to publish them to the web as some of the guests asked if they would be available. One of our member's girl friend even shared her birthday cake with all. The parkland site's visibility improved as the moon was covered by the earth's shadow, more and more stars, clusters and nebula appeared as an extra bonus for those who looked up.



CUAS DIRECTORY:

Guy Hampel, President	398-9778
John Stone, Vice-pres.	352-3690
Mike Conron, Secretary	355-5996
Willard Brineger, Treasurer	356-5929
Mike Lockwood, 5 th Director	337-1893
Mike Rosenberger, Obs. Dir.	598-2254
Phil Wall, Webmaster	352-5442
Bill Marble, Newsletter Ed.	359-6407

The club's small group of us that meet once in a while at Mike Lockwood's home to discuss telescopes and other related topics finally had the opportunity to meet. Two of the big topics of interest were The Winter Star Party in the Florida Keys and the other was Bob Holmes new telescope that will start construction soon. The new scope is large and will be available for universities to rent time for their own projects. If you have not attended one of these meetings they are informal, informative and always interesting.

Exo-planets is the topic for the March meeting. Please come with questions, comments and your thoughts on these distant planets. Are there more planets out there and do they have beings looking up at us? We will show a portion of a show that I saw at a Kentucky Planetarium that uses full dome digital projection. This show was on distances in the universe trying to help us understand the magnitude of

space. As technology continues to improve we need to use it to look up and continue to expand our knowledge of this universe.

A parting thought, sometime we try to look to far out and we miss the objects that pass between us and our nearest neighbor, the moon.

Guy

LOOKING UP THIS MONTH

Hopefully you were able to observe the total lunar eclipse last night. Oddly enough (and completely out of character for Central Illinois) it was clear! It was also cold! Guy & Sher Hampel, Justin Moberg, Christopher Smith, and Dave Leake were at the planetarium entertaining the roughly 50-60 people who braved the cold for the event. The observing began at 7:30pm and they finally called it quits by 10:30pm. What a beautiful eclipse, though!!

Unfortunately, no such big event is scheduled for the month of March, but hopefully warmer weather. Mars is nearly straight up and due south as the sun sets this month. It's the "extra reddish star" in the constellation of Gemini. Mars is moving from west to east now that its retrograde loop is completed. Mars won't set until after 2am all month.

Next up is Saturn, just to the southeast of (and brighter than) Regulus in Leo. Saturn transits the meridian (meaning it appears high in the sky, due south) about four hours after Mars. Since opposition was in late February, Saturn is already above the horizon as the Sun sets nearly due east.

As Mars sets, Jupiter rises in the southeast. This time is at 3am at the beginning of March and then 1:45am near the end of the month. Of course, that's really 2:45am by the clock face since daylight savings time begins on March 9. I'll withhold editorial comment on daylight savings time (though it would have involved the word "stupid."). Though Mars is appearing much smaller through the telescope, it will pass just a few degrees north of the rich open cluster M35 this month. Mars is at a point in its orbit called "quadrature," meaning a line from the Sun to the Earth and then to Mars makes a 90 degree angle. It also means Mars should appear distinctly gibbous. Check it out for sure.

Continuing into the morning sky, we have Venus and Mercury very low on the eastern horizon. On March 3, Mercury has its greatest separation from the Sun, but the angle of the ecliptic to the horizon isn't very favorable. On March 3, Mercury rises at just before 5:30am, or right about at the beginning of morning twilight. By the end of the month it is rising in the twilight (at about 6:30am CDT). On the 24th Mercury comes to within a degree of Venus. Look for Mercury just to the lower right of Venus, but look low on the horizon. Mercury will pass behind the Sun in mid-April to go on to the best evening view of the year in May. Venus will also pass behind the Sun, but it will take its time. Look for a very thin crescent Moon to join the pair on March 5. If you have the time, follow the Moon and Venus into the daylight and see you if you can still see Venus in the daytime.

The vernal equinox occurs just after midnight on March 20, signaling the beginning of spring. "Vernus" is spring or green in Latin and "equinox" is "equal night." Due to the Sun being larger than a point source (it's about a half degree across) and the fact that the atmosphere bends some of the sunlight, making it appear higher than it is, we really don't have "equal night." The noon sun on the equator would be directly overhead on this day. Bring it on . . . I'm tired of snow! -DCL

Moon Phases

Last Quarter Moon



1 st quarter	March 14	April 12
Full	March 21	April 20
3 rd quarter	March 29	April 28
New	March 7	April 5



CUAS NEWS

The Staerke Planetarium will be offering **scout merit badge workshops** once again this year. Girl scout Sky Search badge seminars will held April 3, 9 and 15 from 7-8:30pm with the fee being \$4 per scout. The boy scout Astronomy Merit Badge seminars will be held on May 7 and 13 from 7-9:30pm with the fee being \$5 per scout. Advance registration is required with the registration deadline being a week before the workshop. See the planetarium web site or the spring “Live & Learn” guide to Parkland non-credit programs for more info and registration information.

We still have a few **2008 Astronomy calendars**. They are \$10 for members and \$12 for non-members, first come, first served! Get your copy while supplies last at the club meetings. This is a fundraiser for us!

If any club members might be interested in being a **science fair judge**, the regional event will be held at Parkland College on the morning of Saturday, March 8. Karen Tillman is running the event and is desperate for judges. Call her at 351-2285 if you are interested.

Light pollution news:

The Urbana City Council did discuss the lighting issue in January. Though no vote was taken, several took issue with the views of a lighting engineerthis may be more of a discussion for a meeting than in print!

The county zoning board had two meetings in February regarding county lighting issues. There was some discussion between the terms “fully shielded” and “full cut-off.” Some figure that a “shielded” light can still shine up IF you don’t see the bulb directly. By this definition, globe lights are considered “shielded!”

The CUAS draft ordinance continues to be revised. A request be made that it be much shorter and to the point. Other ordinances can be downloaded from the www.darksky.org web site. More info on upcoming will appear on the club listserv.

A reminder that CUAS is a part of the **Night Sky Network**. As a member, we are to use their materials to conduct several events over the calendar year. If anyone has been asked to do a talk or some other presentation, we have the materials! The latest is the “Shadows and Silhouettes” toolkit which just arrived! The web site for the network is <http://nightsky.jpl.nasa.gov/>.

TREASURERS REPORT

CUAS Treasurer’s Report for February 2008
Willard Brinegar, Treasurer 2008

As of 2/29/08

Assets*

\$ 111.00	petty cash envelope
\$ 2964.14	checking account

\$ 3075.14 Total Assets

Income*

\$ 10.00	one calendars to member @ \$10
\$ 60.00	four membership renewals @ \$15
\$ 15.00	new member @15
\$ 10.00	Donations
\$ 95.00	Total Income

Outgo*

\$ 0.00

*Note: Magazine subscription funds are not reflected in Income and Expenses since they are simply sent on to the respective publishers. As of 1/31/07, all received subscription payments have been sent on, so they are not reflected in the Assets category either.

OBSERVATORY NEWS



As the snow melts, be *very careful* about parking at the observatory site. We have had a *lot* of water fall in places and some of the grounds are very soft. *Don't get stuck!*

Spring projects we probably need to **scrape paint** again, both inside and outside. The inside looks pretty bad in the daylight! Thank goodness it's used in the dark! Also, new **tarp** for the 16-inch, cooling **fans** in the telescope, and a **vent** for the shed. 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.

Mike Lockwood and John Pratt will soon look at the dome-mounted **16-inch scope's mount**, which is very tight in right ascension. The plan is to turn the shaft to a smaller diameter and then replace the two large bearings with five smaller ones. We'll be discussing this at an upcoming meeting. The project could cost \$1,000.

It's a bit early for the **mow list**, but just in case it warms up. This is basically last year's list. If you'd like to be added (or deleted), let Dave Leake know. When you mow, let the next person know immediately. If you'll be out of town or can't mow, let the next person know ASAP so we don't lose control of the lawn out there. Thank you!:

- | | | | |
|---------------------|---------------------|------------------|--------------------|
| 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

March 7 “World of Science” talk 7pm Staerkel Planetarium
Vijay Singh (no, not the famous golfer) will be in the dome to talk about ethanol, how it is produced, and its future use. Admission is \$1 at the door.

March 7/8 “Arctic Light” film 8pm Staerkel Planetarium
A beautiful two-story-tall film was shot at 70-degrees north in Tromso, Norway and contains some beautiful time-lapse footage of the Northern Lights. This is part of the planetarium’s “First (and Last) 35mm Film Festival.” This is the last time the film will be shown to a public audience. See www.parkland.edu/planetarium for more details on the series.

March 8 Members-Only Observing 7-?pm Observatory
It is our night to search for faint fuzzies at the dome site. Dress warm and watch where you park. Weather permitting.

March 13 CUAS Club Meeting 7-8:30pm Staerkel Planetarium
The program will be on planets surrounding other solar systems and how we can find them at the observatory open houses.

March 15 CUAS Family Skywatch 7-9pm Observatory
Take I-57 to the south of Champaign to the Monticello Exit. Take the exit and then turn right (west) on the Monticello Road. Go 1.4 miles and then turn left on County Road 700E. The Observatory will be 0.8 miles south on this road, on your left.

March 25 David Levy talk 7:30pm Beckman Institute
Amateur astronomer extraordinaire David Levy will be in town on this night. If you’ve never heard Mr. Levy, he gives a very inspiring presentation. The talk is in the Beckman auditorium and is open to the public.

March 28 “Spring Prairie Skies” opens 7pm Staerkel Planetarium

April 3 “Moonwalk 2008” kickoff 5-6:30pm Staerkel Planetarium
Champaign-Urbana is being challenged by Peoria to walk to the Moon and back . . .twice! That’s about 960,000 miles! More details will follow!

April 4 “World of Science” talk 7pm Staerkel Planetarium
Our last talk of the year features our Natural Sciences department chair and chemist, Ed O’Sullivan, speaking on a timely topic . . . “Steroids in Sports.” Admission is \$1.

April 4-5 ISAAPT meeting Loomis Lab
The Illinois Section of the American Association of Physics Teachers will meet on the UI campus. See www.isaapt.org for more information.

April 5	Members-Only Observing	7-?	Observatory
April 10	CUAS Club meeting	7-8:30pm	Staerkel Planetarium
April 12	CUAS Family Skywatch	7-9:30pm	Observatory
April 24	“Rocket into Space”	5:30-8:30pm	Staerkel Planetarium
<p>CUAS teams up with the planetarium, WILL TV, both Champaign and Urbana Libraries, the Krannert Art Museum, Central Illinois Aerospace, and the Orpheum Children’s Science Museum for a night of hands-on activities for the kids (aimed at grades K-2) at the planetarium. More details will be forthcoming, but CUAS will have a table and maybe do some solar observing outside. Put this Thursday evening on the calendar!</p>			
April 26	Science Olympiad State finals		University of Illinois
May 3	Members-only Viewing	8-? pm	Observatory
May 8	CUAS Club meeting	7-8:30pm	Staerkel Planetarium
May 10	GLPA State Planetarium meeting		Peoria
May 10	CUAS Family Skywatch	8-10pm	Observatory
May 31-April 4	ASP/AAS meeting		St. Louis

CHECK OUT ALL CLUB EVENTS ON THE CUAS HOME PAGE:
<http://www.prairienet.org/cuas> or <http://www.cuas.org>

“**Clear Skies**” is published twelve times per year for its membership. [Circulation: 78]
The Champaign-Urbana Astronomical Society is an affiliate group of the **Champaign Park District**. <http://www.champaignparkdistrict.com>

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 Staerke Planetarium/Parkland College
2400 West Bradley Avenue
Champaign, IL 61821

William M. Staerke 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
C/O William M. Staerkel Planetarium
Parkland College
2400 West Bradley Avenue
Champaign, IL 61821**