

"CLEAR SKIES"



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

Volume 21
Issue 9

September, 2008

CUAS OFFICERS MESSAGE

The month of September is supposed to be our best month for viewing, the weather is mild and the sky gets dark at a more reasonable hour. Now all we have to do is find areas that are free of fog or heavy dew, oh well, this month also has many star parties if you are up for travel. There are star parties in basically any direction so it is just how far you want to go. We have club members going to Springfield area and others go just this side of the ends of the earth, Okee-Tex the last week of the month. The report from both places is that you will enjoy the view and the night sky is something to be seen at least once in your life. We start off the month, well close enough, with a trip to Middlefork Bird Sanctuary north of Penfield, thank you Bob R for making arrangements for our August 30th outing. I know that it will have already happened when you read this, but you should have been there, rumor has it that the 30th was to be out for a test drive before heading to the edge of the earth at the end of the month.

Hopefully the sky will be good the next Saturday for the public sky watch please come and practice sharing with those new to Astronomy so that we are ready for next year's in the parks of Champaign and Urbana for Galileo's 400th birthday. This next year's adventure should be fun if we want it to be. Come to the meeting ready to sign up for one or more of the park. I would suggest that you visit the parks of your choice both during the day and again at night to suggest the best location for us to setup and provide ease the public finding us.

This month's meeting we will have the well known John Stone as a presenter, he will talk about astrophotography, equipment, and getting the best results, life, the universe and everything, or something else, you will have to come and see.



CUAS DIRECTORY:

Guy Hampel, President	352-3690
John Stone, Vice-Prez	337-1893
Mike Conron, Secretary	355-5996
Willard Brineger, Treasurer	356-5929
Mike Lockwood, 5 th Director	398-9778
Phil Wall	352-5442
Bill Marble	621-7882

This month on September 10 we will have Mercury, Venus and Mars all tightly packed together in the western sky 30 minutes after sunset. Jupiter will provide us a good view and showing us lots of moons, more viewing information elsewhere in the newsletter.

Last month we discussed next year's event and explored many options of what the club should provide for best viewing by the public. The consensus was that a web camera style camera on a wide field short focal length refractor telescope would be best and the club might provide a 15" or 17" LCD low power monitor so that many people can see the sky at one time. Well obviously the club will have to vote on that kind of purchase in the future. We will have to see what kind of ideas those telescope makers in the club come up with.

Come to the next meeting and contribute to the education of the rest of the club members with what is astronomically new with you.

Guy

LOOKING UP THIS MONTH

Happy equinox, everyone! Fall officially begins at 10:44am on September 22 when the Sun will be directly above the Earth's equator.

Planet-wise, there's a traffic jam of sorts in the west-southwestern sky. There is a trio of planets including Venus, Mercury and Mars all within a tight circle. In fact, they will be within 5-degrees of each other for most of the month (the 3rd through the 19th). Start early in the month and keep an eye on the three. Venus will be the brightest, then Mercury, then Mars. Venus and Mercury will be getting higher in the sky, passing Mars. In fact, Venus comes to within 18 arc minutes on the evening of the 11th. By mid-September, Mercury will do an about-face and head back towards the Sun. If you begin looking on September 1st you'll see a thin crescent Moon below the trio. The next night, it will be situated to the far left of the group. Use binoculars to see Mars and Mercury. Venus sets at 8pm later in September. Jupiter is the brightest thing in the south as the Sun sets. The planet begins its retrograde (east to west) motion on the 7th. Two nights later, you'll find a waxing gibbous Moon just below and to the left. Jupiter sets after midnight at mid-month.

The planet Uranus reaches opposition this month, on September 12. You can see this planet in binoculars if you know where to look . . . which is just above and to the left of Φ Aquarii.

Saturn passes behind the Sun from our point of view early in the month and then ventures into the morning sky. Look for it in the east later in the month, below the star Regulus. A thin crescent Moon can be found just to the right of Saturn on the morning of September 27. Telescopically, the rings are only 4-degrees from edge-on. Saturn rises at 5:30am in mid-September.

If you get up early on the morning of September 19 and look for the Moon rising in the east-northeast, you may see it very close to the Pleiades star cluster. In some places, an occultation occurs when you'll see the stars reappearing from the dark limb of the waning gibbous Moon.

And speaking of the Moon, the Harvest Moon rises at sunset on the 15th. The Harvest Moon is the full Moon closest to the autumn equinox and can occur in October. Around the time of full Moon this month, the rise times from night to night don't change all that much.

The magazines report an asteroid occultation on the night of August 11. The asteroid Metis (magnitude 10) will pass in front of a sixth magnitude stars that is above and to the left of the head of Cetus the Whale. The predicted shadow path of this event will pass to the north and west of Champaign County . . . but you never know!

-DCL

Moon Phases

Waning Gibbous Moon

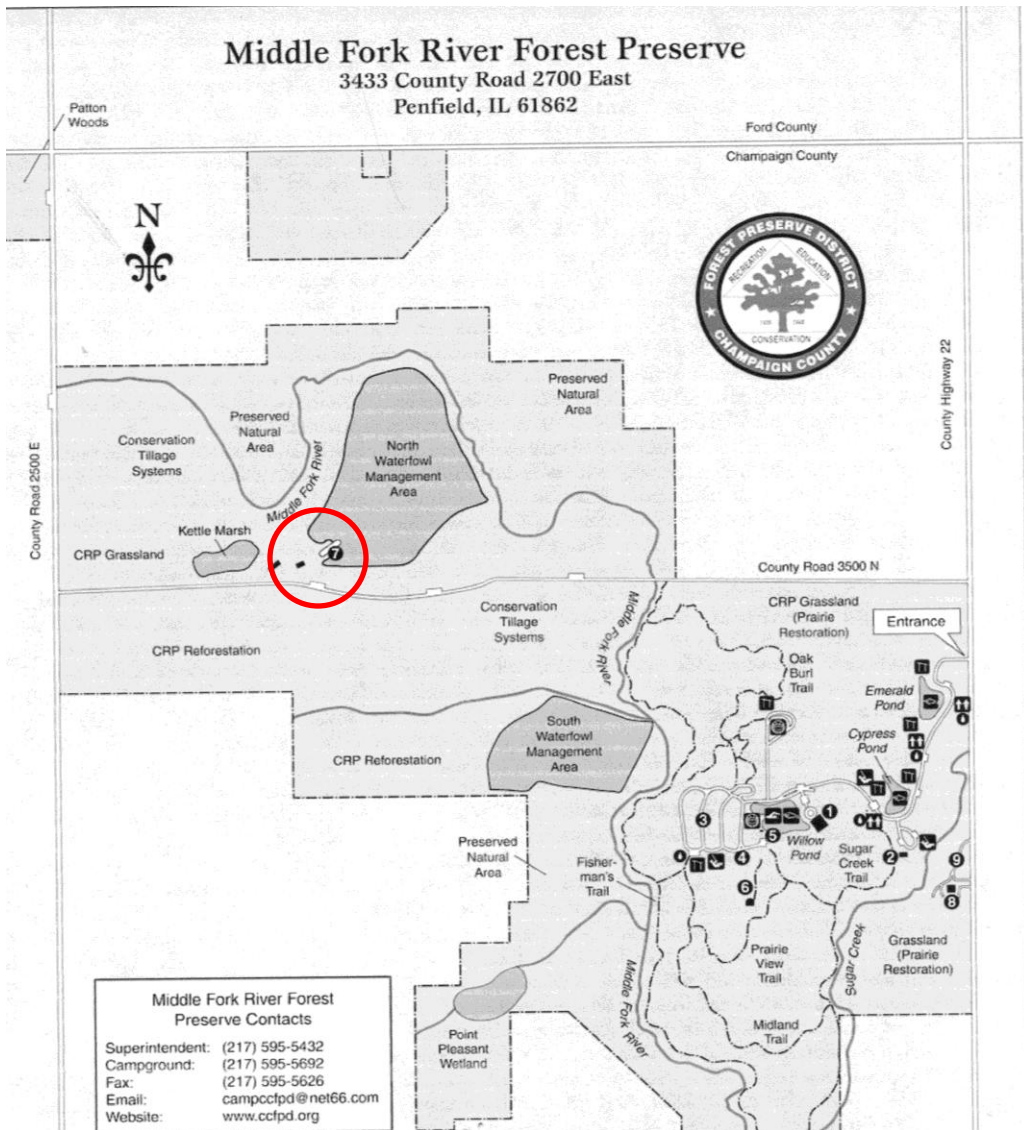


1 st quarter	September 7	October 7
Full	September 15	October 14
Last quarter	September 22	October 21
New	September 29	October 28

CUAS NEWS

On Saturday, August 30, CUAS has been invited to observe from the **Middle Fork Forest Preserve**, northeast of Rantoul. We were here earlier in the year and the skies are excellent! Please note that we will not be at the campground, but at the water fowl viewing area, north of this campground. A map is pasted in here but you can also see a map at http://www.ccfpd.org/about/CCFPD_Middle_Fork_Map.pdf The observing spot is labeled with a number 7 just off County Road 3500 North. Take route 136 out of Rantoul to the east and look for the brown park signs. This event begins at dusk and is weather permitting. Our thanks to Bob Rubendunst for setting up this time for us. Campers in the campground area will be invited to join us.

Note: this is too late for this time, but just in case, here is the map again.



We opened the closet at the June meeting and got out both the **club library** and our assortment of **T-shirts** for purchase. Any club member in good standing can check out books from the library for a month. The T-shirts are \$10 each.

International Year of Astronomy update After conferring with the Champaign Park District, Dave Leake distributed a draft schedule of IYA events for next year. Granted there are quite a few observing events, but there are no rain dates (and realistically over a third of these dates may be clouded out), plus we have avoided dates around the summer solstice since it gets dark so late. The key now for CUAS is to try to get some members to commit to attending a few dates. If each of us takes a night or two, then we're covered. Especially if you own a telescope, consider volunteering for 1-2 dates. We can do some telescope training if need be. The use of a possible video camera and a TV to handle large groups was also discussed. Dave will contact the News-Gazette about a collaboration. The schedule reads:

Mon	Mar. 30	8-10pm	Douglass, C
Thu	Apr. 2	8-10pm	Crestview, U
Mon	Apr. 6	8-10pm	Prairie, U
Tue	Apr. 21	8:30-10:30	Eisner, C
Tue	Apr.28	8:30-10:30	Blair Park, U
Thu	Apr. 30	8:30-10:30	Robeson, C
Mon	May 4	8:30-10:30	Morrissey, C
Sun	May 17	8:30-10:30	Hessel Park, C
Tues	May 26	8:30-10:30	Cherry Hills, C
Thu	May 28	8:30-10:30	Meadowbrook, 1
Wed	Aug. 26	8:30-10:30	Anita Purves, U
Thu	Aug. 27	8:30-10:30	Lohmann, U
Tue	Sep. 22	8-10pm	Clark, C
Thu	Sep. 24	8-10pm	Garden Hills, C
Mon	Sep. 28	8-10pm	Centennial, C

* Daylight Savings Time

Membership at the meetings has been dwindling as of late. Granted, the summers are prime vacation time, though the high gas prices are reducing that. Bring a friend to the next meeting or invite a coworker.

Lighting Updateno updates since the last newsletter, though the International Dark Sky Association has released some new information on LED streetlighting. You can find out more at www.darksky.org.

The **2009 calendars** are in! Thanks to Willard Brinegar, they will be available at the meetings for \$10 (members) and \$12 (non-members).

The Staerkel Planetarium will again offer a five-week **“Backyard Astronomy” workshop** beginning September 29 from 7-8:30pm in the planetarium. The workshop is directed at the beginner and will include how to read a star chart, how to find planets and constellations, how to observe meteor showers, and what to look for in buying a telescope. The cost is \$20 per person. Advance registration is required with the deadline being September 22. For more information, consult the planetarium web page (www.parkland.edu/planetarium) or see Parkland’s fall “Live & Learn” brochure, which should come out in early August.

The **club listserv** may be going away in its present form. Though the club has not officially been notified at press time, other groups using prairienet for their lists are being told that this function will cease to operate by the end of the year. Club webmaster Phil Wall has been notified and is looking into other options for the group.

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Fall Star parties . . .note the August pre-registration deadlines!

- ❑ Astrofest <http://www.chicagoastro.org/af/index.html> September 5-7 (Pre-reg deadline: Aug. 11) Vana’s Farm, west of Kankakee.
- ❑ Prairie Skies <http://www.prairieskies.org/> September 25-28 (Pre-reg deadline: Aug. 23) Camp Shaw-Waw-Nas-See 4H campground, northwest of Kankakee
- ❑ Illinois Dark Skies <http://www.sas-sky.org/main.html> September 25-28 (Pre-reg deadline: ?) Panther Creek Wildlife Area north of Springfield.
- ❑ Nice list of others: <http://www.slasonline.org/starparties.html>

The Staerkel Planetarium is pleased to announce the 2008-2009 **“World of Science” Lecture Series**. The talks occur on the first Friday of the month at 7pm and admission is only \$1 at the door. Note Dr. Kaler’s return to the dome in December. The line-up of speakers includes:

October 3 "Stem Cells"

What are stem cells, how are they made, and why are they important? These questions and more will be discussed by Joanne Manaster from the Cell & Developmental Biology Department at the UI.

November 7 "Wind on the Prairie: A New Look at Growing Energy"

We welcome Randy Lloyd from the UI Extension Office in Bloomington to talk about the development and growth for wind energy and the Twin Groves Wind Farm, situated just east of Bloomington.

December 5 "The Milky Way "

Dr. James B. Kaler returns to the dome for a breathtaking tour of our Milky Way galaxy, "seen" from both outside and from within.

February 6 "Recovering Energy From Wastes"

Dr. Timothy Lindsey, manager of the Pollution Prevention Program at the Illinois Waste Management & Research Center, will show us some practical approaches for reducing fossil fuel consumption and demands on our landfills.

March 6 "Climate Extremes and Their Impacts in Illinois"

Climatologist Jim Angel, with the Illinois Water Survey, will talk about several climate events, including the powerful floods of 2008, where agricultural losses in Illinois alone exceed \$1.5 billion!

The Staerkel Planetarium continues to raise funds for a full-dome immersive video system to replace their 57 slide projectors. Thanks to Worden-Martin, the Parkland Foundation will be raffling off a **Saturn Sky**, which is a sporty convertible retailing for \$26,000. At press time, raffle ticket information is sketchy. The car will be given away at the Parkland gala this October.

We will need volunteers for the **summer observatory open houses** (“Skywatch”). Even if you can’t run the observatory, you can help by staffing some of the telescopes outside or even helping with parking. The weather has been horrible for our spring events – maybe the summer will be different.

See the calendar section, put the Skywatch dates on your calendar, and join us!

Consider taking your **CUAS newsletter** by email only and save the club some money. By your request, we can email you a pdf file monthly instead of spending money on stamps.

TREASURERS REPORT

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

As of 8/31/08

Assets*

\$ 111.00	petty cash envelope
\$ 3996.46	checking account
\$ 27.50	income not deposited yet
\$ 4134.96	Total Assets

Income*

\$ 7.50	one membership prorated
\$ 20.00	two calendars
\$ 27.50	Total Income

Expense*

\$ 0.00

*Note: Magazine subscription funds are not reflected in Income and Expense since they are simply sent on to the respective publishers. As of 8/31/08, all received subscription payments have been sent on, so they are not reflected in the Assets category either.

OBSERVATORY NEWS



Thanks to Guy Hampel, we now have another mower at the dome. It currently isn't self-propelled but all that is needed is a cable to be attached to make it so. The cable will be delivered to the dome soon.

The membership at the August meeting voted to purchase a **laser collimator** to keep at the dome to be used primarily with the 16-inch truss tube telescope in the shed.

Summer 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 (no paper or plastic), 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. We also need to strip the paint on the inside but, given the dust that would be created, it might be best to wait until the telescope is removed.

There were a few issues with the **mow list**. Dave has mowed twice so (as of the August meeting) we'll go to John Stone, then Mike Rosenberger, then Mark Prather. If you want on the list or removed from the list, contact Dave Leake. Immediately after you mow the lot, contact the next person so they can plan to check the grass height. Allow a couple of hours to complete the job.

The infamous **mow list** has returned! 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) Bob Rubendunst | 11) John Stone |
| 3) Mark Prather | 6) Guy Hampel | 9) Wayne James | 12) Bill Marble |



LOOKING AHEAD

September 6	CUAS Family Skywatch	8-10:30pm	Observatory
September 11	CUAS Club meeting	7-8:30pm	Staerkel Planetarium
September 19	"Fall Prairie Skies" opens	7pm	Staerkel Planetarium
September 27	"Member's Only" Observing	8pm-?	Observatory
October 3	"World of Science" talk Joanne Manaster will give us the scoop on stem cell research.	7pm	Staerkel Planetarium Admission is \$1 at the door.
October 4	CUAS Family Skwatch	8-10pm	Observatory

October 4 Decatur Astronomy Jamboree 6:30-11pm
The jamboree has a new web site thanks to Bryan Maple: <http://www.astrojam.com/>. Though technically a Decatur event, it is held in Friends Creek Regional Park, which is just on the other side of Cisco, just off I-72. It's not that far from Champaign. This year's speaker is Decatur club VP David Berns on the International Year of Astronomy.

October 9 CUAS Club Meeting 7-8:30pm Staerkel Planetarium

October 25 Allerton Park Observing 7-10pm Allerton Park
We'll observe from the meadow, just south of the visitor's center, weather permitting. We'll also need someone to give a short presentation in the visitor's center at 7pm. Any takers?

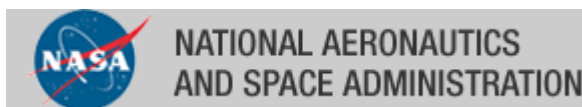
November 1 CUAS Family Skywatch 7-9pm CUAS Observatory

November 7 "World of Science" talk 7pm Staerkel Planetarium
Randy Lloyd, from the UI Extension in Bloomington, will visit to discuss the Twin Groves Wind Farm, north of Farmer City. Admission is \$1.

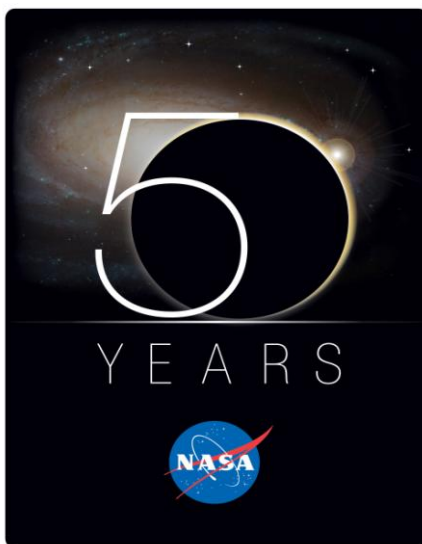
November 10 "Journey to Palomar" 7pm PBS (WILL)
Public Television will premier a new show called "Journey to Palomar." See your local listings for details or www.pbs.org.

November 13 CUAS Club Meeting 7-8:30pm Staerkel Planetarium

November 28 "Rites of the Season" 8pm Staerkel Planetarium
The planetarium's holiday special returns to the dome over Thanksgiving weekend. Hear about our traditions that surround the winter solstice under winter's star-rich sky.



Astronomy Club Resources



"A Google for Satellitest"

Has anyone been doing anything with google earth? I look at it every once in a while. But now, according to NASA, you will soon be able track satellites. How cool is that? Whenever I go out to do any viewing, I look for satellites. So, if you know what you are looking for, I don't, you can identify the satellites as they pass overhead. Daniel Mandl a researcher at NASA is developing a google for satellites. This is a web portal that would make requesting data from Earth observing satellites almost as easy as typing a search into Google. Satellites are now controlled separately through a complex array of electronics. But with NASA's EO-1 satellite, Mandl and his team are building a prototype that stitches these satellites into an easy to use network called Sensor Web 2.0.

This is, to me, very interesting. I am always trying to find ways to identify the satellites I see in the evening. I can spot them but can't identify them. So even if I still can't identify them I can find out when they will be in our area. For further information go to NASA's website.

WM
Editor

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>

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>

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
Astronomy magazine renewal*	\$34
Sky & Telescope 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



**Champaign-Urbana Astronomical Society
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