

"CLEAR SKIES"



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Issue 6

Newsletter of the Champaign Urbana Astronomical Society, c/o Staerkel Planetarium, 2400 W Bradley Ave Champaign, IL 61821

An affiliate of the Champaign Park District

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CUAS OFFICERS MESSAGE

It looks like we may be in for a hot summer. Hopefully it will be good for looking at the stars and planets. Now that the rain is over with for awhile, get you scopes dusted off and get out there and look for something. This issue is chock full of information about what to look for and when.

Bill Marble editor

LOOKING UP THIS MONTH

Remember that old physics problem that involved two trains leaving a station? One leaves before the other but the second train travels faster and then you have to figure out when they meet. Remember that one? Well, it's happening in the east on warm June evenings. Instead of two trains, though, you have two planets, Saturn and Mars. Since Saturn is farther from the Sun, it moves slower, but it also gets a head start. Both planets are heading eastward on the ecliptic. Mars is in Cancer and Saturn is in Leo, just above and to the left of the star Regulus. Saturn and Regulus begin the month three degrees apart and, by the end of June, this distance increases to five degrees.

The two planets begin the month 12° apart (a bit more than one fist held at arm's length). By the end of the month, this has decreased to 3°. Be sure to catch the Moon (which beats them both!) sliding by, being just below Mars on June 7 and then near Saturn the next night. At midmonth, Mars sets at midnight with Saturn following about a half hour later. And if you don't like the train problem, know that Mars catches Saturn on July 11.

And how about the Phoenix lander, eh? If you watched the landing live on the internet, it



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went flawlessly and the first photos came in the Sunday night of Memorial Day weekend. You can see them at <http://phoenix.jpl.ua.edu>.

You don't have to wait too long for Jupiter to rise in the southeast, which occurs at 11pm at the beginning of the month which decreases to 9pm at the end of June. This will get earlier still next month as Jupiter's opposition occurs in early July. A waning gibbous Moon appears just to the right of Jupiter on the evening of the 19th.

Venus and Mercury are hanging out near the Sun. Venus finally passes behind the Sun (after hugging the predawn horizon for the last three months) and technically appears in the evening sky. By the end of June, it sets at 9pm,

but that is in the evening twilight. When can you first spot Venus with just your eyes? Did you see Mercury last month? Mercury passes between the Sun and Earth and into the morning sky in early June. It then begins a rather favorable apparition in the morning sky, with the greatest separation from the Sun occurring on July 1. Early risers should be able to see Mercury in the east-northeast until the end of July.

Set your alarm for the morning of June 30 and then look to the east-northeast for a thin waning crescent Moon. On this morning, the Moon passes through the Pleiades star cluster. See if you can see the stars of the Seven Sisters in binoculars.

We also need to mention the “dwarf planet” Pluto as it comes to opposition on the 20th of the month. If you want to give Pluto a shot, make sure you have a scope with at least 8-inches of aperture. Pluto is in a star-rich region of the Milky Way which can be good and bad news. If you want to spy Pluto directly, you have LOTS of bright dots to choose from - that’s bad. However the way to *really* see Pluto is to find it twice and note its movement. If you subscribe to this

method, you have a lot of stars to compare to! I guess that’s good!

Lastly, the summer solstice occurs at 6:59pm CDT on June 20, which is earlier than usual. We hope you’ll join us for the Summer Solstice Celebration at the Krannert Center for the Performing Arts on this night. See “CUAS News” for more details. The event is free of charge.

-DCL

Trivia Question and other items.

What is the oldest spacecraft still in space?
Ed.

Did you know that the longest flight by dogs was by Veterok and Ugolyok. Russian dogs launched on February 22, 1966 on board Cosomos 110 and returned to Earth 22 days later.

Moon Phases

1 st quarter	June 10 11:04 a.m.	July 10 12:35 a.m.
Full	June 18 1:30 p.m.	July 18 3:59 p.m.
Last quarter	June 26 8:10 a.m.	July 25 2:42 p.m.
New	June 3 3:23 p.m.	July 2 10:19 p.m.

Summer Solstice June 20 7:59 p.m.



Waxing Gibbous



CUAS NEWS

Next year (2009) is the 400th anniversary of the telescope. It has been designated the “**International Year of Astronomy**” (IYA). Though plans are still being discussed, one of the goals for the IYA is to have *everyone* on the globe look through a telescope at least once. This is a monumental undertaking and will require some dedication from amateur astronomers. So the question becomes, are you up for it? One is to do a “park tour” in Champaign and Urbana where club members would visit a local park (weather permitting of course) for a couple of hours and offer free observing. I volunteered to put together a list of parks, plus draft a letter to each of the park districts so they can assist in the publicity. I’ll go over this at the June meeting plus have a program on Galileo – Dave Leake

CUAS has been asked to provide a telescope or two at an “afterglow” event at the **Krannert Center for the Performing Arts** on Friday, June 20 (the summer solstice) from 4:30-11pm. Granted it will be too light at 4:30 but that is when the event begins. Inside Krannert, Wayne James will have the ROE’s portable Starlab Planetarium set up in the lobby for interested passers-by. Be sure to get a free ticket with your showtime on it. At 9:30pm Jim Kaler will provide commentary to a jazz event where the songs have to do with the Sun and Moon. Granted the skies won’t be great, but we’ll still be able to spy a few things. Be sure to join us at the Krannert Center on June 20. This event is free to the public.

We’re tentatively planning on some **dark sky observing** from the water fowl area at the Middle Fork Forest Preserve on August 30. We also talked about a date or two in the fall at the meadow at Allerton Park. Dave Leake will check with Kim Petzing regarding September 20 and/or October 18 or 25.

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 Updatethere has been a lot of email traffic as of late regarding lighting issues in both Champaign and Urbana. In Champaign, the city council discussed lighting in the University district during their May 20th meeting. Dave Leake has contacted council woman Deb Feinen who says she will share the “request for proposals” when it officially comes out, but she thought the RFP would have more to do with the poles themselves than the light fixtures. She also says that Champaign is committed to friendly lighting.

As this issue goes to press, the Urbana City Council was to discuss the issue further at their May 27th meeting. It is disappointing that Urbana appears to be taking steps backwards! After good discussions over full-cut-off lighting, a proposal was made to go with the existing fixtures on Green Street in campustown for the entire Urbana side of the University! If you have been on Green Street as of late, this isn’t good for people interested in safety, energy savings, and the reduction of glare! Council member Charlie Smyth has been leading the charge with a lot of help, including Professor Gary Cziko plus our own Mike Lockwood and Stuart Levy. Stuart has attended some of the meetings that have included a rather uninformed lighting consultant. The RFP was pulled for the May 19 meeting for further review. More news will hopefully be discussed at the June meeting.

Other emails tell of UI Chancellor Herman chairing campus sustainability committee. Parkland College just created such a committee and (admittedly in action unrelated to the committee) is replacing most of its parking lot light fixtures. Also, the UI Department of Energy has established a goal of reducing

electrical energy spent for lighting by 50% by the year 2010. See www.lrc.rpi.edu/resources/newsroom/quickfacts.asp for more info.

Keep “fighting the good fight!”

We also 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 May 2008
Willard Brinegar, Treasurer 2008

As of 5/31/08

Assets*

\$ 111.00 petty cash envelope

\$ 3960.10 checking account

\$ 4071.1 Total Assets

Income*

\$ 45.00 Three membership renewals @ \$15

\$ 30.00 Two new member @15

\$ 10.00 one key fee @ \$10

\$ 85.00 Total Income

Expense*

\$ 80.00 Champaign Park district for Postage

*Note: Magazine subscription funds are not reflected in Income and Expenses since they are simply sent on to the respective publishers. As of 5/31/08, all received subscription payments have been sent on, so they are not reflected in the Assets category either.

OBSERVATORY NEWS

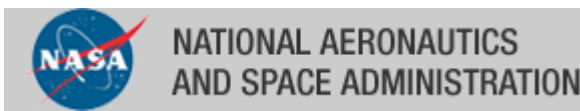
The infamous “**mow list**” returns! If you want on the list or removed from the list, contact Dave Leake. Immediately after you mow the lot, contact the next person so they can plan to check the grass height. There is a mower and gas in the shed. Allow a couple of hours to complete the job.



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

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, 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. *Be at the dome work day on May 17 to help with these projects.* 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.

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.



Wasn’t the Phoenix landing on Mars awesome? You couldn’t see anything, but I watched the action on the science channel. If you have Comcast cable, you can get the science channel. I think it is 466, but am not really positive on that. Anyway, just watching the scientists at NASA do what they do and watch the scientific data come in from Phoenix was really neat. I watched until the first pictures came in, and that was really exciting.

What does this have to do with the NASA website? Because the science channel was showing all the NASA people waiting for the event. There are lots of websites out there with first pictures of the ground and even some showing the opening of the solar panels and of the backhoe. So take a look at them and enjoy. Below are some of the websites I have found that show these events. WM ed.

<http://search.nasa.gov/search/search.jsp?nasaInclude=phoenix>

<http://www.msnbc.msn.com/id/24811991/>

<http://phoenix.lpl.arizona.edu/gallery.php>

You can also do Google and find lots more. Enjoy.

Below is a photo of one of the first sent by Phoenix. Submitted by Dave Leake.



LOOKING AHEAD

June 7 CUAS Family Skywatch 8-10pm Observatory
This is our public observing event for the month. 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. All viewing sessions are weather permitting.

June 12 CUAS Club meeting 7-8:30pm Staerkel Planetarium
Dave Leake will have a program on the legacy of Galileo and then talk about some things that we can do for the International Year of Astronomy.

June 20 Krannert Center Observing dusk to 10pm Krannert Center
Dr. James Kaler has requested that we participate in summer solstice celebration at the Krannert Center for the Performing Arts. If you can make it, we need several telescopes set up either on the east or west side of Krannert to do some observing for patrons. See "CUAS news" for more details.

June 20 Summer Prairie Skies opens 7pm Staerkel Planetarium

June 27-Aug. 3 International Planetarium Society meeting Adler Planetarium

July 5	Member's Only Observing	8pm-?	Observatory
July 10	CUAS Club Meeting	7-8:30pm	Staerkel Planetarium
July 12	CUAS Family Skywatch	8-10:30pm	Observatory
July 26	Mars Presentation	3pm	Pages for All Ages
Dave Leake gives a presentation on the exploration of Mars, past, present, and future.			
August 2	Member's Only Observing	8pm - ?	Observatory
August 9	CUAS Family Skywatch	8-10pm	Observatory
August 14	CUAS Club meeting	7-8:30pm	Staerkel Planetarium
Note . . .there will be a wedding rehearsal from 6-7pm this night.			
August 23	Weekend Wizards: Astronomy	1-3pm	Orpheum
If anyone wants to help out, we could use a few hands at the Orpheum Children's Science Museum for Weekend Wizards for the kids.			
August 30	Dark Sky Observing	8pm-?	Middle Fork, Penfield
September 6	CUAS Family Skywatch	8-10:30pm	Observatory

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.

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

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>



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