

**IN THIS ISSUE:**

ANNUAL MEETING AND BANQUET DETAILS	1
THE PILLARS OF STANDARD BIG BANG COSMOLOGY	1
NOMINATIONS NEEDED FOR TCAA BOARD OF DIRECTORS	2
MINUTES OF THE TCAA BOARD OF DIRECTORS MEETING	2
TCAA OBSERVERS' LOG BOOK	2
PROPERTY MANAGER NOTES	3
POS AND MOOS COORDINATORS FOR 2007 NEEDED	3
TCAA ADULT EDUCATION COURSE AT SGNC	3
TCAA GARB AVAILABLE	4
FLYING HIGH AT THE CLC	4
FEBRUARY SKY GUIDE	4
TREASURER'S REPORT	5
FEBRUARY SKY MAP	

## ANNUAL MEETING AND BANQUET DETAILS

By Michael Rogers and Jean Memken

Each February, the TCAA meets for its Annual Banquet to celebrate another year, eat a lot, and enjoy an entertaining talk about ... astronomy! It's getting to be that time of year again, so consider this your invitation to join us at the festivities. The Annual Meeting, banquet, and follow-up talk will be held on Saturday, February 10<sup>th</sup>, at Turner Hall, room 104, on the Illinois State University campus. There will be no basketball game that evening, so there should be abundant parking just west of Turner Hall.

The agenda is action packed, starting with a social hour in Turner 104 at

5:00 p.m. The banquet will commence at 6:00 p.m. in the same room. The Annual meeting will be held immediately following the banquet and beginning around 7:00 p.m. The keynote address will begin at 7:30 p.m. in Turner 203. Our keynote speaker is the noted cosmologist Dr. Casey Watson, who will be talking about one of the most pressing questions in modern cosmology, which can be succinctly if inexactly put as, "Where's the mass?"

You need not attend the banquet in order to attend the annual business meeting and follow-up presentation by the guest speaker. Of

course, we hope that everyone can make the \*entire\* event, but if not, at least don't miss what promises to be an enjoyable and educational presentation.

The meal will be presented by ISU Catering, and is always scrumptious. There will be vegetarian and non-vegetarian options; ask if you need a special meal. The cost of the banquet is \$15, a bargain considering everything that comes with it! Please RSVP by February 4<sup>th</sup> to Jean Memken by emailing [jmemken@ilstu.edu](mailto:jmemken@ilstu.edu) or phoning 309-828-8655.

## THE PILLARS OF STANDARD BIG BANG COSMOLOGY

### Annual Meeting Presentation

By Dr. Casey Watson

The results of several extensive and independent cosmological data sets have converged to reveal the basic constituents of the cosmos and their relative importance at the present epoch. The results may surprise you.

Protons and neutrons (which are more generally referred to as baryons) and other ordinary matter (like us) account for only 4% of the total energy density of the Universe. Non-baryonic dark matter, an enormous spherical halo of which surrounds the Milky Way and all other galaxies observed to

date, comprises 23% of the total, while an even stranger component, which has been dubbed dark energy and does not cluster into or around galaxies or anything of the kind, accounts for the lion's share: 73%.

I will discuss the four main pillars that support this strange and interesting broad-brush picture of our universe: Big Bang nucleosynthesis, the cosmic microwave background, galaxy surveys, and type Ia supernovae.

*The Observer* is a monthly publication of the Twin City Amateur Astronomers, Inc., a registered 501 (c) (3) non-profit educational organization of amateur astronomers interested in studying astronomy and sharing their hobby with the public.

### **TCAA OFFICERS**

President Dan Miller  
damiller@mail.millikin.edu

Vice-President Brian Barling  
309-454-5493  
res2213h@verizon.net

Secretary/Historian Carl Wenning  
309-454-4164  
cjwennin@ilstu.edu

Treasurer Duane Yockey  
309-452-3936  
duane@lybinc.com

Publicity/Web Michael Rogers  
309-825-6454  
mprogers@mac.com

5th Director Neale Lehmkuhl  
309-378-4335  
PETREALEHM@aol.com

### **Property Manager**

William Carney 309-829-7748  
aillcarney@aol.com

### **Observer Editor**

Erin Estabrook  
314 Covey Court  
Normal, IL 61761  
309-454-6894  
erin@lybinc.com

Submission deadline is the first of each month.

### **Membership Dues**

Individual Adult/Family \$40  
Full-time Student/Senior \$25  
Electronic Newsletter \$25

To join the TCAA, send your name, contact info and dues payment to

Duane Yockey  
508 Normal Avenue  
Normal, IL 61761

## **NOMINATIONS NEEDED FOR TCAA BOARD OF DIRECTORS**

Each year at the Annual Meeting, the membership of the Twin City Amateur Astronomers, Inc., elects five individuals to the Board of Directors to manage the affairs of the corporation. These five individuals appoint the major officers (president, vice president, secretary, and treasurer) and minor officials (historian, property manager, registered agent, etc.) of the club. The president serves as head of the Board of Directors.

This year, as with every year, nominations are needed for the five Board member positions. Nominations are now being sought for these important positions. If you would like to nominate (or even self nominate), please contact one of the current Board members as soon as possible. Contact information for the Board of Directors can be found at the right-hand side of this page of [The OBSERVER](#).

## **MINUTES OF THE TCAA BOARD OF DIRECTORS MEETING**

**Wednesday, January 17, 2007  
Lewis, Yockey & Brown, Inc., Bloomington**

The meeting of the board was called to order by Dan Miller at 6:45pm. In attendance were Dan Miller, Mike Rogers, Duane Yockey, Brian Barling and Lee Green. Secretary Carl Wenning was unable to attend.

The first item on the agenda was a discussion of the purchase of an extended service contract from Meade. This was considered to have merit because the contract covers existing problems as well as those arising during the term of the contract. The contract has an annual cost of \$300 and requires 30 days before Meade will accept an initial repair. We noted that our Meade may have issues and we would prefer to have service performed before the summer. This expenditure was authorized, and Dan volunteered to contact Meade to formalize the terms of the contract.

The Annual Meeting occurs February 10, 2007 at 7:30pm in

Room 104, Turner Hall, ISU. Mike to send out announcement to membership. The speaker is Dr. Casey Watson, Ph.D. in cosmology from The Ohio State University. The consensus amount for our distinguished speaker's honorarium of \$100 was approved and the disbursement was prepared.

The schedule for the 2007 MOOS/POS was discussed. Lee will host the March 17 MOOS and the March 24 POS. Mike and Dan will host the April 21 POS. Mike will host the May 19 POS. We will invite other members to sign up for additional dates on the calendar.

We discussed several candidates for the board. Lee expressed interest in becoming a board member and noted the tenure of all the attendees. Duane provided Lee with a membership list.

Carl has been conducting the Adult Education class. Duane assisted on January 13. Dan may be able to help on January 20. Lee offered to help on January 27. Other topics included the following:

- Dan is conducting the Decatur Leadership Institute on January 25 using Millikin's scope. He invited us to join him then. Please contact him.

- We are all enthusiastic about hosting the 2010 NCRAL conference. The 2007 conference is in Fargo, ND. Lee and Duane expressed interest in attending.

- Dan suggested the purchase of canned presentations from the Astronomical League.

- Mike reported that apparel sporting the TCAA logo would soon be available.

- Dan has card stock for new membership cards and he and Mike agreed to review the format with hopes of handing out new cards at the Annual Meeting.

The meeting was adjourned at 7:25pm.

Lee Green, Secretary Pro Tem

## **TCAA OBSERVERS' LOG BOOK**

William Carney, David Osenga, Gerry Schroeder, and perhaps a few other stalwart members of the TCAA, have taken advantage of the very few clear evenings of January to observe Comets McNaught and Faye.

On January 10<sup>th</sup>, Gerry exclaimed via listserv, "WOW!!!! What a great view of the comet tonight! First comet I've seen naked eye sense Hale Bopp." The next evening David remarked, "I did see [Comet McNaught] from way north in Normal. It was higher in the sky and more to the north than I expected, but it was worth standing in the cold and wind." That same evening several members viewed the comet from Maxwell Park. William responded, "Glad you finally saw it. I even tried to take a few pictures tonight from Maxwell Park, and it was very cold in the wind again."

On January 20<sup>th</sup> William wrote, "I know it's a lot smaller and dimmer than McNaught, but I spotted [Comet] Faye last night using the club's 12 inch. The best view seemed to be with my 50mm Lanthanium [eyepiece]. It's currently 12.2 and receding about 0.1 magnitude every 2-3 days. It's between Taurus and Cetus, and definitely has a coma but no tail. Still, not bad for a little 12th magnitude fuzz ball."

## PROPERTY MANAGER NOTES

By William Carney

*For all key holders:* Don't over tighten the mirror lock on the SGO LX200. If you tighten the mirror lock too much, it will slip off the geared plate and cause problems. I was able to fix it last time after much work. The geared plate and the lock mechanism can be damaged if tightened too much. The geared plate has a stop on it, if you try to tighten the lock past the stop on the geared plate it will deform the plate and lock mechanism then slip off. Once you encounter resistance you don't need to tighten it much more.

If the telescope exhibits a rapid motion (usually pointing to the ground), it has to be shut off at once. You then must put the scope back in "PARK" position manually. Several times I have gone out to see the scope in a different direction from the normal park position. To place the scope in park manually you have to release the manual locks on the RA and DEC drives and manually move the scope to its home position. Level the scope horizontally then ro-

tate the scope completely in one direction till it stops. Once it stops and can go no farther rotate the scope back in the opposite direction for 1 1/2 turns, this is its park position. The scope only rotates three times from one side before it encounters a stop at the other side. If you turn the scope on before you place it in the normal "PARK" position, you could damage the gears as the scope rotates around then hits this stop. The software should tell you though to set the scope in park but it might not. I can be available most evenings now for a short time to show any key holder this procedure if needed.

I have been out several times and had no problems with the "China Dance" as I call it. I left the solar warning run for about 5 minutes to let the electronics warm up. Moisture may be part of the problem. While training Josh it did a dance about five times before settling down. One thing I did notice that since other key holders had not been quick enough to turn off the telescope when

it exhibited its dance, the gears in the fork might be starting to strip (in the fork they are just plastic). We might have to send the scope in for repair if it gets too bad. The gears were making grinding noises just like it did before when they went bad, keep an eye or ear on it and let me know if it continues. Again, if the scope suddenly moves downward without notice immediately shut it off. I know you have to realign it but there is not other way to stop it. Turn it off as quick as you can to prevent damage to the fork gears. Return the scope to "PARK" position before leaving, don't just turn it off.

Please e-mail me at BOTH of my addresses when you have any problems with the telescope. (Copy to second address)

[wcarney@titan.iwu.edu](mailto:wcarney@titan.iwu.edu)  
and  
[willcarney@aol.com](mailto:willcarney@aol.com)

## POS AND MOOS COORDINATORS FOR 2007 NEEDED

Coordinators are needed still for several of the 2007 Public and Members Only Observing Sessions at Sugar Grove Nature Center. To date, the following sessions and topics have been spoken for by Lee, Mike, Dan, and Carl. Additional POS coordinators are needed. Please contact one of the Board members if you'd like to add your name to this listing.

- March 24 – Great Nebula of Orion (Lee Green)
- April 21 – Ring World Saturn (Mike Rogers & Dan Miller)
- May 19 – Galaxies of Leo, Coma, and Virgo (Mike Miller)
- June 16 – Globular Clusters M3 and M13 (coordinator needed)
- July 21 – First Quarter Moon and Jupiter (coordinator needed)
- August 18 – Planetary Nebulas M27 and M57 (Carl Wenning)
- September 15 – The Milky Way Galaxy (Carl Wenning)
- October 13 – Double Cluster in Perseus (coordinator needed)

Members Only Observing Sessions occur one week earlier than the above POS. Coordinators (who should be SGNC key holders unless they have their own telescope) are still needed for nearly all of these sessions:

- March 17 (Lee Green)
- April 14 (coordinator needed)
- May 12 (coordinator needed)
- June 9 (coordinator needed)
- July 14 (coordinator needed)
- August 11 (coordinator needed)
- September 8 (coordinator needed)
- October 6 (coordinator needed)

## TCAA ADULT EDUCATION COURSE AT SGNC












Five members of the general public and one club member (Ginnie Underwood) participated in the 2<sup>nd</sup> annual adult education astronomy program at SGNC on Saturday, January 13. The subject matter for that evening was constellations and the Sun. Presenting were Carl Wenning and Duane Yockey.

On Saturday, January 20, Carl and Lee Green spoke about the moon, how to use a planisphere, and telescopes. One member of the class, Lois from Springfield, brought in a Celestron NexStar 102 SLT "goto" telescope that she had received as a gift from her children but had never used. Both Lee and Carl assured Lois that they could help her use

this telescope effectively, but the sky was cloudy and nothing could be done at the time.

The third and final class will be held on Saturday, January 27<sup>th</sup>. Details about the whole course will be related in the next issue of The OBSERVER>

## FEBRUARY SKY GUIDE

01	Asteroid Pallas is in conjunction with the Sun, 4 P.M.	
02	The Moon passes 0.9° north of Saturn, 5 P.M.	
03	The Moon passes 1.1° north of Regulus, 8 A.M.	
07	Venus passes 0.7° south of Uranus, 7 A.M.	
	Mercury is at greatest eastern elongation (18°), 11 A.M.	
	The Moon passes 1.3° south of Spica, 10 P.M.	
08	Neptune is in conjunction with the Sun, 10 A.M.	
10	Saturn is at opposition, 1 P.M.	
11	The Moon passes 0.7° south of Antares, 4 P.M.	
12	The Moon passes 6° south of Jupiter, 4 A.M.	
14	The Moon passes 4° south of Mars, 7 P.M.	
19	The Moon passes 2° north of Venus, 11 A.M.	
22	Mercury is in inferior conjunction, 11 P.M.	
23	The Moon passes 1.0° north of the Pleiades, 5 P.M.	

## TCAA GARB AVAILABLE

By Michael Rogers

At some of our gatherings, you may have noticed a few TCAAers wearing stylish TCAA garb -- consisting of a TCAA logo on the front, and a stylized version of the solar system on the back. While TCAA garb has been out of stock for some time, I am now delighted to announce that you, too, can be the proud owner of a TCAA t-shirt, sweatshirt, polo shirt, hooded sweatshirt, or full-zip hooded sweatshirt.

These are high-quality products, incredibly durable and very comfortable, made by C-Tees of Normal. T-shirts and polo shirts are available in black, red, maroon, navy and teal. The sweatshirts, hooded sweatshirts, and full-zip hooded sweatshirts are not available in teal.

T-Shirts: \$14.25 (s-xl) ; \$15.25 (xx); \$16.25 (xxx)

Sweatshirts: \$17.50(s-xl); \$18.70 (xx, xxx)

Hooded sweatshirts: \$21.60 (s-xl); \$23.40 (xx,xxx)

Full-zip hooded sweatshirts: \$28.70 (s-xl); \$21.05 (xx); \$33.85 (xxx)

Polo-shirts: \$17.50 (s-xl); \$20.05 (xx,xxx)

If you would like to order some for yourself, friends, or family, please let me know what you'd like to order, listing the quantity, color, size, and item, one per line. For example:

- 3 red large t-shirts
- 1 maroon xx t-shirt
- 1 navy small polo-shirt

Send the check to me (M. Rogers, 2206 Case Drive, Bloomington, IL 61701-1474), and make it payable to me. Put "TCAA garb" in the memo as a reminder, and I promise not to spend it on a trip to France :-)

## FLYING HIGH AT THE CLC

TCAA member Carl Wenning recently has been serving as part-time volunteer flight commander for the Athena earth-to-space transporter at the CLC in Bloomington. As such he has conducted several 3<sup>rd</sup> and 4<sup>th</sup> grader school groups on missions through the solar system searching for a wayward space probe. This 45-minute adventure is part of the *Micronauts* program that the CLC is piloting.

Carl is a founding member of the CLC, and has been involved with the project since its inception at the Prairie Aviation Museum (PAM) in October 1999. The center was opened in December 2003, the 100<sup>th</sup> anniversary of the flight of the Wright brothers at Kitty Hawk, NC. Carl has helped to write several grants, and has recently nominated PAM for an honorary award through the Institute of Museum and Library Services.

Carl and Carolyn Wenning will be co-sponsoring (along with 3 or 4 other couples) an "envelop party" at the CLC on May 10<sup>th</sup> in support of the growing financial needs of the Center. This event will constitute a fundraiser at



Commander Carl J. Wenning  
(November 2006)

which interested parties are asked to bring an envelope that includes a financial offering. Wine and hors d'oeuvres will be served, and a behind the scenes tour provided (and even a flight on Athena!). Mark this date on your calendar if you think you'd like to attend. More information will be provided as it develops.

# TCAA Treasurer's Report – January 2007

---

OPERATING FUND BALANCE – December 31, 2006 - \$ 2,086.75

Income

Gary Showers (Dues Renewal, PayPal) -	\$ 40.00
Lee Green (Dues Renewal, PayPal) -	\$ 40.00
Ginny Underwood (Sen. Dues Renewal) -	\$ 25.00
Jerod Gross (Dues, PayPal) -	\$ 40.00
John Stein (Dues, PayPal) -	\$ 40.00
Andrew Morrison (Dues, PayPal) -	\$ 40.00
Robert Snyder (Dues, PayPal) -	\$ 40.00
Marsha Fogarty (Dues, PayPal) -	\$ 40.00

Expenses

LYB Inc. (January Observer) -	\$ 14.67
-------------------------------	----------

---

OPERATING FUND BALANCE – January 31, 2007 - \$ 2,377.08

---

OBSERVATORY FUND BALANCE – December 31, 2006- \$ 1,034.33

Income

Interest -	\$ 1.78
------------	---------

Expenses

None -	\$ 0.00
--------	---------

---

OBSERVATORY FUND BALANCE – January 31, 2007 - \$ 1,036.11

---

TOTAL TCAA FUNDS – January 31, 2007 - \$ 3,413.19

---

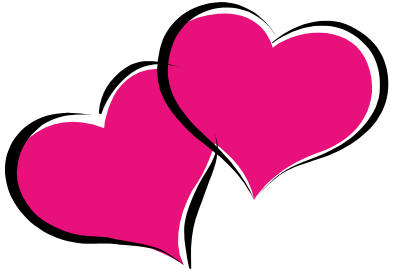
Respectfully submitted,  
L. Duane Yockey, Treasurer

## **Sugar Grove Observatory**

### **Listing of Official Keyholders (Paid \$10 deposit/\$5 renewal)**

Duane Yockey (April 2001, renewed through 2006)  
Michael Rogers (August 2001, renewed through 2006)  
William Carney (March 2002, renewed through 2006)  
Carl Wenning (January 2004, renewed through 2006)  
Brian Barling (February 2004, renewed through 2006)  
Kevin Brown (May 2005, renewed through 2006)  
Christopher Franklin (July 2005, renewed through 2006)  
David Osenga (January 2006)  
Gerry Schoeder (February 2006, renewed through 2007)  
Karen & Ed Duran (February 2006)  
Josh Lindsey (August 2007)

# Welcome to New Members



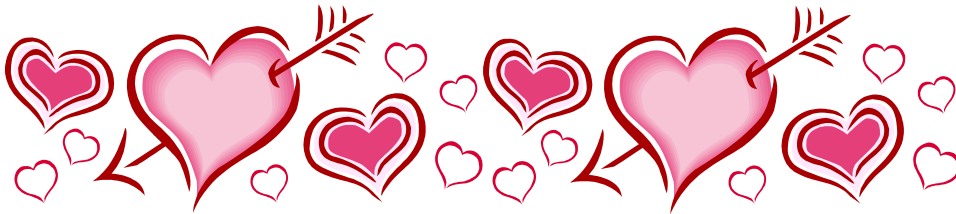
**Jerod Gross**

**John Stein**

**Andrew Morrison**

**Robert Snyder**

**Marsha Fogarty**



---

## **The OBSERVER**

Newletter of the TCAA, Inc.

Erin Estabrook, Editor  
314 Covey Court  
Normal, IL 61761

Are your dues due?

## **The Dues Blues?**

If you see a check in the box above, it means your dues are due. To retain membership, please send your dues renewal to our esteemed Treasurer:

**Duane Yockey**  
508 Normal Avenue  
Normal, IL 61761

Visit the Twin City Amateur Astronomers  
on the web at  
[www.twincityamateurastronomers.org/](http://www.twincityamateurastronomers.org/)