

IN THIS ISSUE:

A NOTE FROM PRESIDENT TOM WEILAND	1
SPEAKER SET FOR ANNUAL MEETING	1
POS SCHEDULE FOR 2013	1
SGNC AUTUMN FESTIVAL 2012	2
ADVENTURES IN METEOR HUNTING	3
OCTOBER'S EDUCATION AND PUBLIC OUTREACH	4
2012 ILLINOIS DARK SKY STAR PARTY	4
NOVEMBER TCAA EVENTS	4
THE NIGHT SHIFT	5
PSO AND MEO UPDATES	5
CONSTELLATION OF THE MONTH: AQUARIUS—THE WATER BEARER	5
ASTROBITS	6
TREASURER'S REPORT	7
HOW TIME FLIES	Back Cover

A NOTE FROM PRESIDENT TOM WEILAND

We have officially ended our Public Observation Sessions (POS) for 2012. Regrettably they ended with the cancellation of our final event due to predicted rain and severe weather. Unfortunately also for our guests the weather was not very cooperative during many of the earlier POS of the season, with numerous evenings of cloud cover. However, those who did venture out to Sugar Grove Nature Center (SGNC) on those clear (and sometimes cloudy but not rainy) nights enjoyed excellent presentations on the topics that we had chosen for the year. I would like to again thank those who prepared and presented at each of the monthly sessions. After much deliberation, eight interesting and informative topics have now been chosen for next year. Our monthly public observations at Sugar Grove Nature Center will resume on March 9th of 2013. The POS schedule and list of presentation topics for 2013 can be found elsewhere in this newsletter. Our 2013 POS brochure is also available on our website for downloading at www.tcaa.us.

There has been discussion at the TCAA board level about planning some public activities November through February, those months when we are not presenting at SGNC. Discussions around coordinating some possible activities with other groups/individuals are ongoing at this time. If this all works out we will give you adequate time to plan so that you may attend. Be on the lookout for further information and details.

Finally, I would like to inform you that the TCAA annual meeting is scheduled for February 23, 2013. More information will follow, but I want to provide you with this date so that you can get it on your calendar. This is our annual business meeting with dinner and an invited guest speaker. All TCAA members are encouraged to attend. Clear Skies!!

SPEAKER SET FOR ANNUAL MEETING

Dan Miller has arranged for the appearance of Dr. Christopher Powell at the 2013 Annual Meeting in February. Dr. Powell has over twelve years experience conducting, supervising and directing archaeological excavations at the Mayan ceremonial centers of Cerros in Belizé, Copan in Honduras, and Palenque in Chiapas, Mexico. He also has conducted anthropological investigations in the Yucatan, Honduras, southern Mexico and the highlands of Guatemala. Powell received his undergraduate training at the University of Arizona at Tucson, and his graduate training at the University of Texas at Austin under the direction of the late Dr. Linda Schele. His Master's thesis "A New View on Mayan Astronomy" investigated the hidden, underlying mathematical structure of Mayan astronomical calculations. His Ph.D. thesis, "The Shapes of Sacred Space", defines the fundamental characteristics of a sophisticated system of geometry and proportion incorporated into the design of Maya art and architecture. An enthusiastic, engaging speaker, he has published numerous papers and presented at many academic conferences on these and other intriguing subjects. Stay tuned for details.

POS SCHEDULE FOR 2013

Six coordinators are needed for the 2013 "family friendly sky viewing sessions" a.k.a. public observing sessions to the TCAA membership. John Werner and Tom Weiland have already agreed to present two of the talks. Additional coordinators are needed. Dates, time, and topics for the 2013 schedule are listed below. The topics were detailed in the October issue of *The OBSERVER*. If you are both able and willing to coordinate one of these POSs, please contact President Tom Weiland.

Date	Time	Topic	Coordinator
Mar 9	7:00 pm – 9:00 pm	Jupiter and the Galilean Moon	Undetermined
Apr 20	8:00 pm – 10:00 pm	Our Marvelous Moon	Undetermined
May 11	8:30 pm – 10:30 pm	The Expanding Universe	John Werner
Jun 8	9:00 pm – 11:00 pm	Astronomical Curiosities of Saturn	Undetermined
Jul 6	9:00 pm – 11:00 pm	The World's Great Telescopes	Tom Weiland
Aug 10	8:30 pm – 10:30 pm	Meteors, Space Rocks, and Comets	Undetermined
Sep 7	8:00 pm – 10:00 pm	Births and Deaths of Stars	Undetermined
Oct 5	7:00 pm – 9:00 pm	Our Galaxy, the Milky Way	Undetermined

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	Tom Weiland 309-830-0167 tomcea52@yahoo.com
Vice-President	Dave Osenga 309-287-0789 DaveOsenga@msn.com
Secretary	Lee Green 309-454-7349 lee@starlightsoftware.com
Treasurer/ ALCor/RA	Duane Yockey 309-452-3936 duane@lybinc.com
3rd Director	Paul Pouliot 815-844-7065 ppouliot2@mchsi.com
4th Director	Tony Cellini 309-829-9269 drksky1056@comcast.net
5th Director	Dan Miller 309-473-3465 damiller@mail.millikin.edu
Historian	Carl Wenning 309-830-4085 carlwenning@gmail.com
Webmaster	Lee Green 309-454-7349 lee@starlightsoftware.com
Property Manager	Lee Green 309-454-7349 lee@starlightsoftware.com

The 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

SGNC AUTUMN FESTIVAL 2012

By President Tom Weiland

On Saturday, October 20 the annual Autumn Celebration was held at Sugar Grove Nature Center. *Indras* and *The Emerald Underground* provided live music. A variety of activities were available for families to participate in for a nominal fee. Activities included pumpkin bowling, sack racing, bobbing for mini pumpkins, a scarecrow factory, and pumpkin decorating. Vendors provided a variety of fall festival foods and drink. Good weather provided a wonderful opportunity for many people to enjoy a day in the country.

TCAA was also part of the event. We opened our observatory building for tours and provided several scopes for viewing. Members present for all or part of the day included, Bob Finnigan, Tony Cellini, William Carney, Dan Miller, Carl Wenning, Dave Osenga, Lee Green, Paul Pouliot with granddaughters Eve and Amber, Brian Barling, and Tom and Carolyn Weiland. With so many members available we were able to provide several opportunities for interacting with adults and kids alike.

A 6-inch refractor and a tripod-mounted pair of binoculars were set up for landscape viewing. Several additional scopes were focused on the sun (a couple of nice sunspots were visible when cloud cover allowed) including a new Coronado solar scope that was showing spectacular solar prominence activity. Some lunar observing was also provided. A computer in the observatory was running a continuous slide show of images taken by our members who have been working on astrophotography.

Several members spent some time during the late afternoon/evening on October 12 cleaning and preparing the observatory building for tours and moving some nonessential equipment to the storage area in the adjacent machine shed, their efforts were much appreciated.

Available for people to take away were informational brochures about TCAA membership and our 2013 Public Observation Sessions, which includes our future public observation dates and presentation topics. Many individuals expressed interest in attending future observation sessions. It was estimated that we had the opportunity to interact with as many as 350 people.

A HUGE thanks goes out to all the members who prepared for, and worked the event that made it such a success.



ADVENTURES IN METEOR HUNTING

By Duane Yockey

Editor's Note: The Leonids Meteor Shower will peak the night of November 17 this year. Viewing should be good after the moon sets, but the number of visible meteors is always hard to gauge. The last really good year for the Leonids was 2001, and one of our members narrates his viewing that year:

November 2001

The long awaited day of the Leonid meteor shower arrived Saturday. I was really looking forward to going out to the observatory with other Twin City Amateur Astronomers and seeing the "show" from 2:00 a.m. to 6:00 a.m. early Sunday morning. So I packed my car early with a lawn chair, and I threw in my telescope, star charts and binoculars just in case the meteors didn't live up to their billing. Saturday was clear, and when I got back from a play at Illinois State University around 10:30 p.m. the sky was still showing lots of stars. I called Laura (my oldest daughter), who said the skies were clear down in southern Indiana and I could drive down there, if the clouds rolled in (ha, ha!). I assured her that the sky would cooperate, it was looking good then, and I wished her good luck (if she managed to wake up to view the sky down there).

So, after a brief nap, I went out on the back porch at 1:15 a.m. and saw clouds.....arrrrghh!!! I hurried down to turn on the Weather Channel, which showed clouds throughout Illinois, turning to dense fog at the Indiana border. It seemed that I had two choices: 1. go back to bed like a normal, sane person, or 2. drive east and get ahead of the clouds. So obviously I hopped in my previously packed car and started east at a speed, let us say, faster than the clouds were traveling.

I kept a lookout through my sunroof (finally a useful thing to have) and kept seeing mostly clouds, with an occasional glimpse of a bright star through the thinner patches. Just past Champaign/Urbanda, the clouds started to disappear. I decided to head for Kickapoo State Park to be sure of being past the worst of the clouds. However, as I was approaching that area, the fog started rolling in. I could see stars overhead through my sunroof, but couldn't see much past the hood of my car. So I continued past the barely visible Kickapoo exit looking for a break in the fog, only to drive into even denser fog, all the way into that dreaded state of Indiana (ha, ha?). I found the Indiana Welcome Center through the fog and stopped there to check out the map. It was a beautiful surreal scene with clouds suspended about 20 feet above the ground illuminated by the invisible overhead lights. I checked out the map and decided to head to Turkey Run State Park, hoping that going a little south would get me out of the soup. Back onto the road, heading east, I went up through the fog briefly in time to see a meteor flash ahead, which certainly kept me going on my crazy jaunt. I found the exit for Turkey Run (barely through the fog) and headed south, but the fog got no better. The road rose up through the dense clouds and I clearly saw two meteors streaking ahead of me, and then back into the fog I went. Oh, no, I am missing it all!! So I decided to turn off the road and find a clear spot, somewhere. I turned left on a County Road and went about two miles through the soup to a tee in the road, so I turned south again.....more fog. So I turned right on a narrow fog shrouded road, which suddenly climbed up out of the fog, and I turned into a pasture(?) entrance, from which I could see a clear, dark, star-filled sky bordered by a foggy horizon and meteors streaking all across the sky!!

I quickly set up my lawn chair and sat back to view what I considered an awesome spectacle. I saw literally hundreds of meteors (I would say at least a thousand between 3:30 a.m. and 5:00 a.m.). Most were small streaks, but there were many larger ones and a good two dozen, which flared brightly during their track across the sky and left a luminescent trail for a good 5 minutes after they had disappeared. The track of most of the meteors was away from Leo. I saw 5 to 10 at one time radiating out from Leo. At other times, you could see 3 or more at once streaking parallel to one another. I concentrated on the Leo part of the sky, but the meteors were all over, even into the foggy perimeter of my little viewing island. During some of the bright displays, dogs (coyotes ?) began howling and yipping somewhere not so far in the distance. It was a unique sensory experience!

Although still going strong at 5:00 a.m., the meteor intensity had slackened. So I broke out of the enchantment of the scene, and packed up to get back to my Sunday obligations, including a couple of hours of sleep. The fog was pretty much gone by the Illinois border, but the clouds had encroached that far to the east by the time I returned, so I am glad I didn't stop in Illinois.

Sunday morning at church many of my friends asked how the meteors were last night, with knowing grins (because they hadn't seen anything). When I told them I had seen a wondrous display of the beauty of God's universe and how I did it, I could see their minds working and re-evaluating their opinion of my sanity. But it was worth it!!

Clear skies!

Duane Yockey

"Normal", Illinois

OCTOBER'S EDUCATION AND PUBLIC OUTREACH

On October 2nd, we were invited back for a third year to East Bay Camp to share an introduction to astronomy with the 6th grade classes. Lee gave a presentation about astronomy to the 56 students, but the skies were overcast and we could not view anything.

The October 13th public observing session – our last for 2012 – was cancelled due to threatening severe weather... The night before, October 12th, was successful. Lee Green, who led the outreach that evening wrote shortly thereafter, "We had a beautiful clear evening for the Sugar Creek Community Church. Penny Freehan was our sponsor and we had 40 people join us, including many kids. Tony, Tom and Lee had telescopes set up. William, Bob and Tim Stone assisted." Lee also reported that, "Before the event we did some housecleaning at the SGO in preparation for the SGNC's Autumn Celebration."

The TCAA hosted an SGO open house for SGNC's Autumn Celebration on Saturday, October 20th. Our open house from ran from 10 a.m. – 5 p.m. This gave the membership an opportunity to provide solar and lunar observing, as well as a glimpse of Venus. Many 2013 Public Sky Viewing Session brochures were distributed. See Tom Weiland's article that follows for details.

Following the close of Autumn Fest activities at SGNC, Carl Wenning headed north to Roanoke to hold an observing session for 20 students from the high school's astronomy course. Joining him was Jerod Gross, the course teacher, and Dave Peters from Flanagan, IL, who regularly attends POS activities at SNGC.

On Saturday, October 27th, Lee Green was present at a monthly Youth Temperance Council meeting held at a private home. He brought his telescope for the 15 kids and four adults in attendance to view some celestial objects. While conditions were mostly cloudy, they afforded a few opportunities for viewing and more for discussions.

2012 ILLINOIS DARK SKY STAR PARTY

By Duane Yockey

The 2012 Illinois Dark Sky Star Party was scheduled from Thursday, October 11 to Sunday October 14. Attendance was down, probably because it was later in the year and the weather forecast was bad.

I arrived Thursday evening and set up my tent and telescope. We had excellent skies until the sun went down and then a light overcast throughout the night. It got a bit better around 2:00 a.m., but most of us had given up viewing with our telescopes for the night.

Friday evening looked good (many people were doing solar observing during the day, as the sky was clear). It stayed clear until about 10:00 Saturday evening, when the entire sky became overcast. Most of us got about an hour and a half of good observing in.

The weather was good during the day Saturday afternoon and many of us enjoyed the park with the autumn foliage in full display. However, the rain developed by late afternoon and observing that evening was "washed out".

Because of the weather, many speakers cancelled, but we did have one good presentation on the Venus transit from Hawaii.

I was very disappointed this year because of the weather. However, the attendees were fun to be around, the food was excellent, and viewing the autumn colors of the forests and prairie was worth the trip. I encourage TCAA members to consider attending this event next year when the weather will be better!

NOVEMBER TCAA EVENTS

The TCAA Board of Directors will hold their bi-monthly business meeting on November 6th. The meeting will take place at Lewis, Yockey, & Brown, Inc., in downtown Bloomington starting at 6:30 p.m. Officers and key observers will be in attendance. This meeting is open to the membership, and members are encouraged to attend.

THE NIGHT SHIFT

By Carl J. Wenning

I didn't get out much during October, but had a good time on the evening of Sunday, October 21st. I arrived at SGNC shortly after sunset and Bob Finnigan already had the telescope up and running. As the evening twilight dimmed, Bob again coached me on how to find and center objects, select filters, remotely focus the 17" telescope, identify guide stars, calibrate the telescope guider and tracking system, and take individual shots. I have a pleasurable time doing so, and took a number of draft images of M31, M32, M110, and NGC 891. I was amazed at how easy this process is and am convinced that any club member can early learn how to do this with a couple of sessions under the tutelage of our more experienced photographers. This activity also gave me some ideas for an adult education course in telescopic photography that we might want to offer during the coming year. During Autumn Celebration a few weeks earlier I mentioned this to several individuals sporting camera equipment, and they all seemed quite interested.

On Friday, October 26th, I visited the University of Illinois Observatory as part of the observatory's Friends group and general open house. This was the first time I had been there for many years. When I first arrived I was met by UIUC Astronomy Department assistant chair Dr. Bryan Dunne. We had a nice conversation about the observatory. Later on, I had a chance to see my friend Dr. Michael Svec from Furman University who was also present for the occasion. Mike reviewed with me the needs associated with the perseveration of the 12" refractor and the work of Joel Stebbins that took place at this historical site more than a century ago. Especially interesting was a review of century-old astronomical instruments that had been used with the 12" telescope. As the evening progressed I introduced my self to Dr. Charles Gammie, Chairman of the Astronomy Department who is an expert on black holes. We, too, had a great conversation and he was impressed to hear of advances in our capabilities over the past two years. Early on the public observing session was more or less clouded out, but as I departed around 8:15 p.m. the Moon and Jupiter were showing well. I hope that the public open house visitors got a peek as these luminaries.

PSO AND MEO UPDATES

Bob Finnigan and Carl Wenning moved the CGE Pro mount to IWU's Mark Evans Observatory on Monday, October 1st. After assembling the instrument, it inexplicably would not work. Despite that fact, Carl provided Dr. Linda French with a bill for \$50.67 seeking reimbursement of the club for the 3/8" steel plate that one of its members has purchased previously to mate the CGE Pro mount to the existing pier.

Also on October 1st, Jim Dunham met with Bob, Carl, Drs. French and Lew Detweiler, and several others from the IWU Physics Department to examine the job before him of adapting the CGE Pro mount to the existing pier. He thereafter began work on adapting the 3/8" steel plate to the existing MEO pier and preparation for linking the pier extension and then the CGE Pro mount permanently. Once that is done and the CGE Pro properly aligned, efforts will begin on training a number of IWU students in how to operate the Celestron 11" telescope with QSI 583 camera and Lodestar guider. In addition, they will learn how to use *TheSKY* and *MaxIm DL* for taking astronomical images.

On the evening of Tuesday, October 9th, an overcast night, Bob and Tony Cellini returned to MEO to determine what the problem was. Bob first reported that Tony had been able to get the mount to operate properly. Tony later that evening noted, "I'm not sure what was wrong. I just re-seated the cables and it [the mount] was able to find its home position. One of them is a little hard to plug in, so that might have been the problem. It's like one of the pins was slightly out of alignment. I gave a quick demo to the student that Dr. French had sent to unlock MEO for us. We could only show an alignment dry run since the clouds had moved in by then."

On Monday, October 29th, Carl had a conversation with ISU machinist Jim Dunham to see how work was progressing on the new mount assembly for MEO. Jim has purchased additional materials to build a 2-foot-tall pier that will be connected to the existing base and also to the special adapter flange that will be connected to the base of the CGE Pro mount. Carl reiterated the need to have the top of the mount swivel in order to correct for non-polar alignment of the CGE Pro's right ascension axis. Jim noted that he expects to have the mount ready for installation by the end of the first week of November.

CONSTELLATION OF THE MONTH: AQUARIUS—THE WATER BEARER

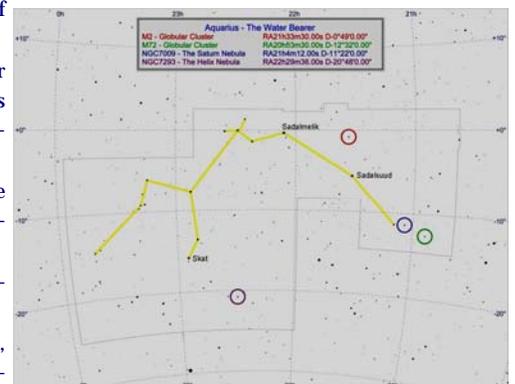
Aquarius is a zodiac constellation that lies south of Pisces, east of Capricornus, north of Pisces Austrinus and west of Cetus.

Aquarius is depicted as a youth holding an urn or bucket with flowing water. The water descends from a Y-shaped group of stars in the northern part of the constellation. The water is flowing toward the fish Pisces Austrinus. These constellations, along with the nearby Capricornus, Cetus, Delphinus and Pisces, are often seen as the "sea" of the sky.

Aquarius has several named stars. The alpha star is Sadalmelik means the Lucky One of the King. The beta star is Sadalsuud means the Luckiest of the Lucky. These stars are at the shoulders of the Water Bearer, and Skat, at his shin.

Aquarius is the 10th largest constellation covering 980 square degrees and is the 32nd brightest. The Sun passes through Aquarius from February 16 through March 11.

Aquarius contains three Messier objects. M2 is a bright globular cluster, M72 is a small, dim, distant globular cluster and M73 is a small, 4-star Y-shaped asterism. Two famous planetary nebulae in Aquarius are the Helix Nebula, NGC7293, and the Saturn Nebula, NGC7009.



ASTROBITS

- ★ One of our club members recently acquired a Coronado 90mm SolarMax II double-stack tuning solar telescope. This unit excels at observations of the solar chromosphere given its two hydrogen-alpha etalon filters with a 0.5-Ångstrom bandpass. The filter are fully tunable with one internal and the other external. It was used the first time at SGNC's autumn Festival on October 20th. Sweet!
- ★ Bob Finnigan, Tony Cellini, Carl Wenning assembled at SGNC on October 21st to work with the new SolarMax II 90mm telescope – but mostly to watch Tony make video captures and do some stacking to generate a few good images of the sun. That evening the trio returned to SGNC and was joined by Tim Stone. The focus that evening was on videography of the moon (Tony) and imaging of galaxies (Carl) and nebula (Tim).
- ★ Tim Stone has indicated the intention of rejoining the TCAA following a nearly 30-year hiatus during which he got married and raised a couple of kids. Never having lost his interest in astrophotography, Tim continued to shoot from his home near Miller Park over the years. Finally, after running into Carl W. at Avanti's Italian Restaurant recently, Tim decided to return to the club to renew old friendships and make use of our excellent equipment.
- ★ The University of Arizona has just announced a new website proving information for those who want to learn more about astronomy and observe the night sky. *Teach Astronomy* is an astronomy learning tool intended either as a supplement for classroom instruction or for those wanting to know more about a particular subject. Check it out at <http://www.teachastronomy.com/>.
- ★ Tony Cellini recently found some software that allows him to use his disused Starshoot autoguider to take video that, according to Tony, "makes it a pretty decent solar system imager." He shared four images of the moon recently via email that he took Sunday, October 28th, using the club's Celestron HD1100 telescope at prime focus. One of these images can be found below.



- ★ The TCAA received an Imaging Source DMK51 monochrome camera on Monday, October 29th, and Tony C. immediately connected it to the Coronado 90mm SolarMax II double-stack tuning solar telescope. He was able to capture some amazing views. The image below was created using video capture. As Tony noted, "All images are the best frames pulled from runs of 1000, graded and stacked in Registax 6 and sharpened with wavelets. Post-processing and colorization was done in Photoshop PS5." Simply stunning!
- ★ Carl W. recently heard from former TCAA member Darren Drake. Darren, from Indian Head Park near Chicago, hopes to visit sometime in the not too distant future. Darren has spent the last 6 full summers living at Camp Eberhart near Three Rivers, MI, where he serves as the resident astronomer. Darren wrote, "Check out my articles about running the

(Continued on page 7)

TCAA Treasurer's Report – October 2012

OPERATING FUND BALANCE – September 30, 2012 - \$ 1,127.74

Income

Orlyn Edge (Senior Dues) -	\$ 25.00
Daniel Mardis (Dues) -	\$ 41.00

Expenses

LYB Inc. (Observer copies & postage) -	\$ 33.35
PayPal (Daniel Mardis fee) -	\$ 1.20

OPERATING FUND BALANCE – October 31, 2012 - \$ 1,159.19

OBSERVATORY FUND BALANCE – September 30, 2012 - \$12,562.18

Income

Interest (3 rd quarter) -	\$ 0.71
Donation (Carl Wenning) -	\$ 5,000.00

Expenses

Astro-Physics, Inc. (German Equ. Mount) -	\$ 5,000.00
---	-------------

OBSERVATORY FUND BALANCE – October 31, 2012 - \$12,562.89

TOTAL TCAA FUNDS – October 31, 2012 - \$13,722.08

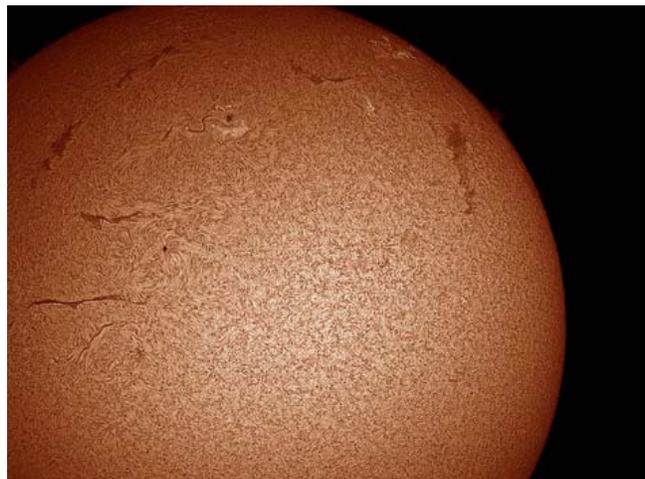
Respectfully submitted,

L. Duane Yockey, Treasurer

ASTROBITS (CONT.)

(Continued from page 6)

astronomy program at Camp Eberhart, http://www.cloudynights.com/item.php?item_id=2406 and http://www.cloudynights.com/item.php?item_id=1926. I have written a number of astronomy articles for *Cloudy Nights* and if you Google my name they will come right up.” Darren is an accomplished Chicago area observer as well as a very active TCAAer while he was a student at ISU back in the 1980s. We look forward to seeing him once again in the not too distant future. The last time Darren visited was back in 2001.



HOW TIME FLIES

TCAA Historian Carl Wenning provides monthly updates about the history of the club going back to intervals of 50, 25, and 10 years. Details about all mentioned events will be found in either the club history (<http://www.tcaa.us/History.aspx>) or in *The OBSERVER* archive found on the club's web site (<http://www.tcaa.us/Observer.aspx>).

50 Years Ago

November 1962 – The club's membership stands at 30 according to a count by Bertha Kieviet. Members ordered copies of the annual *RASC Observer's Handbook*, a tradition that continued until the time of the computer and Internet revolutions of the 1990s.

25 Years Ago

November 1987 – Monthly club meetings are still taking place, often at Mark Evans Observatory or the ISU Planetarium. At this month's meeting, Darren Drake reviewed some recent deep sky observations and Don Johnson reviewed a comet magnitude formula.

10 Years Ago

November 2002 – Members-only observing sessions (MOOS) are taking place regularly now with members converging on SGNC for an evening of celestial viewing. Club field trips to the planetarium are not yet a thing of history. Members are also still receiving quarterly distributions of *Sky Calendar* from Abrams Planetarium at Michigan State University.

MISSING OUT ON TCAA ACTIVITIES & EVENTS?

If you are missing out on club activities or celestial events, be certain to join the TCAA listserv. Many activities are planned at the last minute, and announced only hours in advance through the club's listserv. Reminders about celestial events are also broadcast to the membership through the club's listserv. To join this free service by Yahoo, send a blank email to TCAA-subscribe@yahogroups.com. Unsubscribing is just as easy. To unsubscribe, just send a blank email to TCAA-unsubscribe@yahogroups.com.

To keep up to date on celestial events not described in *The OBSERVER* or addressed in the listserv, visit Carl Wenning's observing page at www.phy.ilstu.edu/~wenning/observing_page.htm. It has been recently updated to include an extended sky calendar of events as well as additional space weather and satellite viewing links.

The OBSERVER

Newsletter 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**