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A NOTE FROM PRESIDENT TOM WEILAND

Outreach: An activity providing services to populations who might not otherwise have access to those services. A key component of outreach is that the groups providing it are not stationary, but mobile, in other words they are meeting those in need of outreach services at the places where the people are located. Outreach also has an educational role, raising awareness of existing services.

Outreach is an important goal of our organization. We try to be mobile in our approach, reaching out to groups such as scouts, schools, and churches. We try to go where the people are at. We provide access to telescopes and our knowledge of astronomy where it is convenient for them. Occasionally opportunities for outreach happen around us. I'm sure any telescope owner who has set up for an evening of viewing has had the experience of someone coming along and asking what they are doing.....a door has just been opened to share our experiences and our enthusiasm and to teach a little bit about the cosmos. Sometimes however, because of the nature of the service we provide, people have to come to us. We need the dark location provided by the nature center or access to equipment that is just too large to move easily.

We just finished our last Public Observation Session (POS) of this viewing season a couple of hours ago at this writing, but other opportunities for outreach still exist. The Sugar Grove Nature Center (SGNC) will be having their Autumn Celebration on Saturday, October 19th. This is an example of an outreach opportunity that is going to happen around us. On a good day hundreds of people will visit the SGNC for this event. Those people will be walking past our observatories and our telescopes. A very large door will be opened for us to share information about our hobby. We will also be able to tell about the existing services we provide such as our POS and other outreach information about Twin City Amateur Astronomers (TCAA). It is a great way to "get your feet wet" if you aren't an active member. It's actually the first opportunity that I took advantage of as a new member to reach out to the public when I joined TCAA. Here's a chance to be part of an outreach activity. Sign up for a time slot, come meet other members, share your experiences and why you joined.

Hope to see you there.....clear skies!!

PRAIRIE SKY OBSERVATORY OFFICIALLY OPENED

Prairie Sky Observatory was officially opened on September 28th. Vivian Hoette, director of educational outreach at Yerkes Observatory in Williams Bay, WI, was our keynote speaker for the grand opening ceremony. Approximately 30 individuals were present for this event, including TCAA members and guests, and some 4 members of the general public.

The events began a 7:15 pm with President Tom Weiland welcoming everyone and expressing thanks on behalf of the club to the donors who made the new Prairie Sky Observatory possible, and to those who assisted in the effort. Carl Wenning then expressed thanks to members for support during the two-year observatory building process. He concluded by introducing his friend Vivian who spoke for some

45 minutes about astronomical outreach of Yerkes Observatory and how the TCAA might increase the scope of its outreach with a facility rarely seen among a group of amateur astronomers.

Following Vivian's presentation, the group held a celebration with treats and a tour of Prairie Sky Observatory. Refreshments included champagne (thanks Bob), home brew (thanks Tony), and lemonade (thanks Tom and Carl). Treats including cupcakes and cookies were brought by a variety of others. Of special note were cookies made by Paul Pouliot and cupcakes. Thanks to all who contributed to this effort.

(See Page 3 for additional photos)



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.

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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
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MINUTES OF THE TCAA BOARD MEETING SEPTEMBER 17, 2013

The TCAA Board met on September 17, 2013 at the office of Duane Yockey. At the meeting were Board members Tom Weiland, Tony Cellini, Lee Green, Dave Osenga and Paul Pouliot, and members Bob Finnigan, Craig Prost, Tim Stone, Carl Wenning and Duane Yockey. The meeting was called to order at 6:30pm. The minutes of the previous meeting were approved as was the Treasurer's report.

Officer reports included Duane who noted the date of the 2013 Illinois Dark Sky Star Party at Panther Creek, and Lee who noted that several updates of the club's web site had been completed.

Tim reported that the recent installation of shelves in our storage area was a great help and that the newly painted stairs in the SGO looked great. He thanked Tom for all his hard work and all expressed their appreciation. Tim further reported that the manual focuser on the 20" scope had failed and was returned for repair or replacement. The new PSO siding has some problems in that several boards on the south gable were split and the northwest siding was incorrectly measured. Tom volunteered to address the problems with the SGNC staff. Carl reported that he will order blinds for the PSO interior. Tom indicated that the painting of the sidings had been completed and noted that the inside had not been finished and that the door had only a primer coat applied. Bob reported that all the imaging computers had been networked together.

Vivian Hoette and her associate Peggy Pifer will join us for the PSO Grand Opening scheduled for September 28, 2013. Tom noted that he will be travelling on that date and that an emcee would be needed. Carl volunteered to coordinate activities and Tim volunteered to serve as a backup if needed. Carl suggested that a honorarium would be appropriate, and the Board approved \$100 for this purpose. Lee agreed to send emails invitations to our mailing list.

Discussions turned to the upcoming Comet ISON and it was noted that the comet had not brightened as much as anticipated. Lee indicated that he will include the comet in his October POS remarks. Tim said he would try to image the object.

Returning to evaluation of club equipment, it was agreed that we will meet prior to the PSO Grand Opening to review the various pieces and decide on their disposition. Bob suggested that the iOptron mount, the 14" Celestron optical tube and the 5" Takahashi refractor be sold. The Board discussed the proposal with emphasis on the use of any resulting funds. It was agreed to sell the equipment since it had had little recent use, but a decision on the disposition of any funds was delayed. Tim and Craig agreed to investigate the value of the equipment and make a recommendation to the Board.

A proposal to develop and present a course on astrophotography has been ongoing. Tim indicated that between his hobby and other duties, he has not had time to pursue this subject.

Bob reported that a new camera was on its way and should arrive shortly. He indicated that a shutter problem had been resolved and that the equipment was ready for use.

Lee reported that the mailing list has been integrated into the club website. He thanked Carl for his efforts at collecting and inputting the data. He further reported that club members could now schedule use of the observatories on a daily basis through a web page. It was further suggested that when scheduling the facilities, we may want to have a more granular schedule to allow multiple members to use the equipment for a portion of an evening. Concern was expressed about allowing only qualified users to schedule time on the facilities. To highlight this need, it was reported that the 20" scope would occasionally perform an uncontrolled slew when moving off the park position. Tim agreed to document requirements for use of the facilities.

Carl presented a revised 5-year plan for the club. We reviewed the document, helped to prioritize the items and suggested a few changes. Carl will update the document and submit it for review.

Bob reported that a proposal to investigate an alternate viewing site had yielded no agreement and that the investigation had been terminated.

The next Board meeting was scheduled for November 12. Tom indicated that he will be away and Dave agreed to chair the meeting.

We discussed an additional question related to the telescope giveaway about how to verify the winner of the scope. It was agreed that the winner would be contacted by email to prevent any possible confusion or mistake. Lee agreed to provide the list of invalid emails so the winner could be checked against this list at the time of the drawing. If an invalid email address is chosen as a winner, a provisional backup address would also be chosen. It was agreed that the winner would have 7 days to respond to the official notification.

Turning to new business, the 2014 POS schedule was reviewed and approved unanimously. Lee noted that we would need a brief description for use in marketing the events and Carl agreed to provide those.

(Continued on page 8)

PRAIRIE SKY OBSERVATORY CELEBRATION



RECENT AND FUTURE E/PO EVENTS

Lee visited the CUAS on August 8 as a follow-up on our joint meeting from a few weeks ago. He had dinner with Dave Leake, and addressed the club members with a presentation reviewing current missions and recent developments at NASA.

The University of Illinois Extension Master Naturalists instructional gathering was held on August 30 at Heartland Community College. For the third year, Lee addressed the class of 25 individuals and shared an introduction to astronomy and described how the study of astronomy impacts and informs the students' investigation of natural events.

The seventh POS for 2013 was held on September 7th. Despite a somewhat overcast sky, about 50 members of the general public showed up for the event. Lee Green gave a talk *Births and Deaths of Stars*.

Saturday, September 14, was the rain date for the Great American Campout at SGNC – the fourth such event held locally. Though we were met with wispy clouds for part of the time, nighttime observers did get a chance to view a few celestial objects. Bob Finnigan opened the PSO starting at noon, and showed the sun using the H-alpha telescope. That evening, Tom Weiland and Carl Wenning joined Bob in his unrelenting effort to share amateur astronomy with the many dozens of campers present. Tom opened the SGO and Carl set up his CPC 11" for viewing from 7 until 9 pm. There was a steady flow of observers – mostly families with small children. Many noted their appreciation for both the club's presence and the cooler evening temperatures.

On Friday, September 27th, Carl Wenning hosted the ISU Astronomy Club for observing at SGNC. The observing lasted from 9:50-11:00 pm at which time the 10 club members present toured both the PSO and SGO thanks to efforts by Tim Stone, Craig Prost, and Bob Finnigan. During the session, at precisely 10:33 pm, Carl and the ISU group observed a bright flash. "Sky watchers in more than a dozen US states witnessed a bright flash of light," according to spaceweather.com. "NASA all-sky cameras recorded a brilliant fireball, which analysts believe was a meter-class space rock exploding almost directly above Columbus, Ohio." Unfortunately, the meteor passed behind the Nature Center from the perspective of the parking lot, so it was not directly seen. Images and more information about this event may be found on the September 28 edition of <http://spaceweather.com>.

Future E/PO events, in addition to those already scheduled as part of public observing sessions, include the following:

- Wednesday, October 2, Metcalf Outdoor Education program, 7:00 pm, East Bay Camp. The Metcalf 6th grade is holding its annual Outdoor Education event on at East Bay Camp. The TCAA has been invited back for a third year to address the class about the wonders of astronomy.
- Friday, October 4 – Dickson Mounds – Master Naturalist Observing Session, 7:00 pm. The Master Naturalist will hold their annual camping event at Occoquon campgrounds. The TCAA will hold an observing session to follow up on the instruction provided for observing the night sky.
- Friday, October 4 – PSO and SGO Open Houses – meeting of the Illinois Section of AAPT. Visitors will be arriving by bus at approximately 9:00 pm and will be staying for approximately one hour. Carl is coordinating this event.
- Saturday, October 5 – 7:00 pm, October Public Observing Session, *Our Galaxy, the Milky Way*. Our view from inside of our home galaxy provides many unexpected perspectives.
- The TCAA will participate in the ISU Astronomy Night by offering telescopic views of the heavens on Friday, October 11 from 6:30 – 9:30 pm. The ISU planetarium and astronomy club will be there as well as Children's Discovery Museum. The tentative location is Milner Plaza; stay tuned for details.
- Friday, October 11, Lee Green will be giving a presentation to a group of Girl Scouts.
- Saturday, October 12 - Penny Frehan's Church Group ostensibly at Sugar Grove Nature Center.
- Thursday, October 17 - Dave Osenga is scheduled to give a talk to the Stevenson School Cub Scouts (approximately 40 kids with parental supervision, 2nd-5th grade). Dave will provide information about Comet ISON that is the focus of the event.
- Saturday, October 19, 2013, 10:00 a.m. – 5:00 p.m., Autumn Celebration! This busy little festival will be held at the Sugar Grove Nature Center. The club will hold an open house, and will distribute informational fliers. Come out and enjoy the beauty of nature and have fun with the many activities that are available at the wonderful annual event. Please arrive early and inform the workers that you are working the event. They will then will then waive the \$3 admission fee.

Lee Green is most graciously coordinating many of these events, and assistance is needed by club members to help out. Please put these events in you calendar so that you can assist when Lee calls for help.

AL OBSERVING PROGRAM STANDINGS—QUARTERLY REPORT

Below is a listing of the status of active TCAA observers pursuing AL observing programs reported as of September 30th. But first, here is a summary of some of some recent observing successes:

★ William C. has been adding to his asteroid count. William has also continued working on the Herschel II observing program; his tally is now 17.

★ Dave O. has been working on the Analemma Project. According Dave, "I had to restart because I miscalculated the observing time, so it will be next spring before this is done." All observing projects are learning exercises, so we are all bound to make a mistake from time to time. Thanks, Dave, for not giving up.

★ Brian Barling reported on June 6 that he has now observed 389 of the required objects for the Herschel 400 Club. This is 26 more objects than he reported two months earlier.

★ Carl W. spent a couple of hours on September 27 and 29 working on his Carbon Star Observing program. He observed and recorded 35 additional stars the first night and 17 the second night. He has now completed observing the 100 stars required for his next Astronomical League observing club award. Carl commenced work on this observing program on April 1. By April 3 he had observed 48 of the required 100 stars. The entire program was completed in only seven nights of observing.

★ Carl W. was recognized in the June issue of the AL *Reflector* for having earned the only Herschel II award during the past three months (certificate number 82-DA). He will receive his certificate and pin at the TCAA's Annual Meeting in February.

If you would like to have your information included in next January's listing, be certain to forward your observing totals to Carl by the end of December. Be certain to get your completed observing records to our ALCor, Duane Yockey, as soon as an observing program is complete so that you might be appropriately recognized on a timely basis. Our next AL observing award presentation will be at the club's Annual Meeting held in February.

Astronomical League Observing Club	Brian Barling	William Carney	Lee Green	Dave Osenga	Carl Wenning	Duane Yockey
Asteroid Club 25/100		(65)*				
Binocular Double Star 120		(120)				
Binocular Messier 50		(100)	(72)	(59)	(78)	54*
Caldwell 70/109					34	
Carbon Star 100					100*	
Comet 12/30		(31)			4	
Dark Nebula Imaging 70			63			
Deep Sky Binocular 60		(60)	(60)		(60)	
Double Star 100	29	100*	(100)		(100)	
Galileo 13		2				
Globular Cluster 50			(55)		(65)	
Herschel 400	389	(400)	(400)		(400)	
Herschel II 400		17			400*	
Lunar Club 100	(100)	(100)	(100)	(100)	(100)	
Lunar II 100		85				
Open Cluster 100/25//125/50			(125)		2	
Planetary Nebula 60/110		1			(107)*	
S. Skies Binocular 50		9		25	(50)	(50)
S. Sky Telescope 50					(52)	(50)
Telescope Messier 70/110	(110)	(110)	(110)	(110)	(110)	71*
Master Observer 10	2	10	10	4	(12)	3
Urban Club 100		(100)	(100)		(100)	
Outreach Award 10/60/160			(***)		(***)	

* Program or first award level now complete. ** Second award level now complete. *** Third award level now complete. AL recognition (certificate and/or pin) will be given at the next general membership meeting if available. Numbers in parentheses (#) indicate that the associated pin and/or certificate has been conferred on the recipient. Awards are conferred during the summer picnic and the February Annual Meeting.

TOPICS FOR 2014 POS SET

The 2014 public observing schedule for 2014 has been worked out already so we can begin distributing the POS brochure at the remaining 2013 public observing session on October 5th. The dates, topics, and volunteer speakers are as follows:

Date	Topic	Coordinator
Mar 29	A Trip to the Sun	John Mori
April 26	Mars in All its Glory	John Mori
May 31	Star Birth and Open Clusters	Craig Prost
June 21	Ringed Worlds of the Solar System	Dave Osenga
July 26	Star Death	Tim Stone
August 30	From Earth to the Edge of the Universe	John Mori
September 27	Globular Clusters	Tom Weiland
October 25	The Andromeda Galaxy	Kevin Brown

TCAA FEATURED IN SEVERAL ARTICLES

A wonderful article about the TCAA appeared "above the fold" on pages A1 and A2 of the *Pantagraph* on Friday, September 27th. The article – by Paul Swiech – focused on the new Prairie Sky Observatory and the work being done there. If you missed the article (with two great photographs by Lori Ann Cook-Neisler), you may access it here: <http://bit.ly/16FOIYQ> (case sensitive). The article was sent out over the Associated Press wire service at the same time.

The article must have impressed others, as variations of the story appeared in several locations. Tom Weiland reported that a variation of the story appeared in the *Quincy Herald Whig* newspaper. Tony Cellini reported that we were featured on WLS-TV of Chicago, WREX-TV in Rockford, and the *Peoria Journal Star* newspaper. Lee Green also reported, "I got a call from my friend in the Chicago area who had heard about the observatory in the news outlets there!!!"

TELESCOPE GIVEAWAY OCTOBER 5TH

This past spring, an area amateur astronomer – Bob Hoy – gave the club a used 4" Maksutov telescope that he suggested might be used in a raffle or a drawing to benefit the club. The Board of Directors chose to do the latter of these – a drawing. It was agreed early in the year that email addresses would be gathered for the purpose of both a drawing and to send out reminders about the public observing sessions. Up to this point some 175 working email addresses have been collected for promoting public observing sessions and other activities of the TCAA. A drawing for this telescope will be held during the October 5th POS.

ASTROBITS

- ★ FOR SALE: John Mori is selling the three-volume set of *Burnham's Celestial Handbook*, revised and enlarged edition. New condition. He is also selling *The Astronomical Companion*, also in new condition. \$37.00 for all. Contact: johnlmori@icloud.com.
- ★ FOR SALE: Patty Blair – a former member of the club – has a 12.5" Discovery telescope that she would like to sell. Here are the details as reported to Tom Weiland: telescope is an f/5 PDHQ with the upgraded Crayford focuser and purchased for \$1099; the telescope has the Discovery premium 12.5" telescope cover purchased at \$72; it has the Discovery Digital Setting Circle Kit PDHQ (go-to) purchased at \$499; the scope is in virtually new condition and has only seen starlight about six times. The asking price is \$600. If anyone is interested in acquiring this telescope, contact (309) 963-4333.
- ★ The club recently received the donation of a Meade ETX-125 PE 5" telescope from Jim and Nancy McCriskin. Dan Miller received this telescope on behalf of the club. The Board has agreed to use this fully functional device in another telescope drawing following the 2014 public observing session season.
- ★ The latest edition of the *What's Up With the Astronomical League* ALCor newsletter is posted on the Astronomical League's website for members' use. Check it out at <http://www.astroleague.org>
- ★ President Tom Weiland painted and then gave a second coat to the PSO door and the SGO steps on Thursday and Friday 12/13. Thanks, Tom, for doing this work. We now look in fine shape for future public events.
- ★ Property manager Tim Stone hung the set of blinds between the observing room and telescope room in PSO just prior to the grand opening. Thanks, Tim!
- ★ On September 23rd a group of observers met at SGNC with Pantagraph reporter Paul Sweitch and his photographer to talk about PSO. Tom, Tim, Tony, Robert, Craig, and Larry were part of this discussion.
- ★ Also on September 23, after the above meeting, those who were present considered the location of the PSO's third pier. The pier had been delivered that day so they could actually set it in place and discuss the pro's and con's of two proposed locations. The final consensus was to move the pier slightly farther north and west from the location marked in the photo that was sent to Board members, officers, and key observers earlier. This new location provides for greater flexibility for current and future use. The third pier was installed in PSO on Wednesday, September 26th, with the assistance of carpenter Garry Devine. This will be used to mount Craig Prost's photographic rig.
- ★ Patty Blair has donated a canvas/pvc portable observing shelter that her husband Steve had made before he got sick. She and her husband were members of TCAA several years ago. Mr. Blair passed away a couple of years ago. Tim Stone arranged for pickup from Danvers.
- ★ The anxiously awaited Apogee 16m camera was received on Tuesday, September 24th, and by Wednesday evening it – as well as the new 10-position filter wheel assembly – was mounted on the CCA250 telescope. Images were taken that evening with the replacement Takahashi telescope which has been described as "exquisite" and "superb" with excellent image quality and an amazing 2.5-degree square field.
- ★ Bob F. and Carl W. will be heading up to Yerkes Observatory over the October 4/5 weekend to work with teachers as part of an outreach program.
- ★ This past summer, the historic 12-inch telescope at the University of Illinois campus observatory had its first major restoration in almost 60 years. This effort to preserve one of Illinois' national historic landmarks happened thanks to the generosity of donors to the Chancellor's Fund and the Friends of the U of I Observatory. There will be a public open house at the historic UIUC Observatory on Friday, October 25 starting at 8 pm. The telescope will be used if the sky is clear, and the museum's collection of historic instruments will be on display. Refreshments will be served. Contact Carl Wenning if you'd like to join him as he might well be going over...
- ★ Illinois Governor Pat Quinn signed a proclamation marking August 11-17 as the first ever *Starlight Week*. See <http://www.gadboisproductions.com/cas/audrey/audrey.html>

MINUTES OF THE TCAA BOARD SEPTEMBER 17, 2013, MEETING (CONT.)

(Continued from page 2)

Guidelines for use of the SGO and PSO facilities were determined to be needed to avoid confusion, limit the number of people and coordinate the use during POS event. The Board asked that these guidelines be developed. Tim volunteered to coordinate this activity and to report at the next Board meeting. Dave agreed to help document the procedures for the PSO and for operating the 20" telescope. Carl volunteered to contribute notes on the use of the 17" and Paramount mounts.

Storage facilities were next raised. Craig reported that he was donating a storage cabinet for the PSO. Dave indicated that we are 'on the list' for consideration at receiving furniture from State Farm. The Board held that we should allow time for that effort to complete before we made additional purchases.

Carl submitted a detailed list of expenditures made in the construction of the PSO. In pursuance of an agreement with the club, he request reimbursement of \$1000. The Board concurred and directed Duane to provide the reimbursement.

Discussions turned to the need for additional improvements at the new Prairie Sky Observatory. It was noted that the ground at the entry of the facility was heavily used but unimproved. Currently the SGNC has approved the placement of mulch around the facility. It was noted that this is messy. A discussion about an entryway was held and ranged from a desire to place a sidewalk to the door, to various ways we might address the concern including gravel, asphalt and 'paver.' Since the SGNC and FGCA Boards would need to approve any permanent solution, Tom agreed to discuss the questions with them informally before we submitted a formal proposal.

Property insurance for the observatories is now required by our lease agreement. Execution of these is still pending firm quotes from the carrier, and is further delayed by the SGNC other building projects. Discussion on this topic will continue.

Paul Swiech from The Pantagraph will not be able to join us at the PSO Grand Opening. Tom will coordinate an alternate time for them to visit the facility before the opening so that an article could appear in the newspaper.

Discussions turned to a proposal to install a third pier into the PSO. Dave moved that we approve the installation of a new pier at a location determined by and under the direction our Property Manager. Discussions included considerations for the impact on visitor traffic, on how the location would impact the usefulness of equipment located there and questions about how wiring would be run. The Board approved the proposal without objection.

The club received a donation of a Meade ETX-125 PE 5" telescope from Jim and Nancy McCriskin. It was moved that we use this telescope as the grand prize in a giveaway program for 2014. The proposal passed unanimously.

As stated in our observatory lease agreement, the club will maintain a membership in the Sugar Grove Nature Center. The Board unanimously approved a \$100 disbursement of funds for this purpose.

The meeting adjourned at 8:58pm.

Respectfully submitted,

Lee Green, Secretary

TCAA 5-YEAR PLAN (2013-2018)

The next TCAA 5-year plan was discussed at the September Board of Directors meeting, and a revised version was approved in the following days using an electronic vote. The vote was 3 in favor, with 2 board members not voting.

Improve our professional capacity:

- Present a 10-session astronomy laboratory course with a focus on observational astronomy
- Begin serious observing programs (e.g., photometry, spectroscopy, search for supernovas and asteroids, color magnitude diagrams, etc.)

Change TCAA image from “amateur” to “professional”:

- Host higher profile events to which we invite high-caliber public speakers
- Offer several levels of photography courses to novice, advanced, and professional photographers
- Increase membership from among a wider variety of population types

Increase our visibility to the general public:

- Implement sidewalk amateur astronomy
- Offer additional adult education courses
- Include a variety of presentations, white papers, and other content on website
- Produce press releases for important astronomical events
- Assist with observations of major astronomical events such as Comet ISON
- Sponsor a group field trip to southern Illinois to observe the August 21, 2017 total solar eclipse

Increase our outreach to youth:

- Continue with our photographic program for youth during public observing sessions
- Continue participating in Family Science Day
- Increase our presentations to schools and social groups

Improve membership services with the goal of increasing membership and participation:

- Meet regularly at some location or over a meal to improve camaraderie
- Create a “guide” to amateur astronomy by revising and shortening observer’s packet

Interface with other astronomy-related organizations:

- Continue TCAA/CUAS/PAS joint observing sessions
- Host the North Central Region Astronomical Leagues (NCRAL) meeting once again
- Establish, confirm, or strengthen our relationships with Astronomical League, International Dark Sky Association, etc.

Sustain our observatories:

- Generate an annual income (perhaps through a two-tier key holder fee) to pay for the upkeep of club observatories including insurance coverage and a required annual contribution to the SGNC required by our lease agreement.
- Host “professional” social events (wine and hors d’oeuvres) as fund raisers
- Create a new set of key holder policies for key holders, including consideration for a two-tiered membership fee structure.
- Create a set of procedural guidelines and policies for operation of club observatories

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

October 1963 – The club is working diligently to salvage scrap lumber from an old “barn” (chicken coop actually) near Lexington for use in construction of the club's first observatory – a roll-off-roof facility. During the club's second monthly meeting, Dr. Harlow Shapley spoke about the international nature of astronomy illustrating his talk with slides from 30 years of travel. The club started a “junior section” that was launched following the club's first monthly meeting for October. (Membership meetings were then held twice per month.)

25 Years Ago

October 1988 – The club recently purchased a 102mm refractor to supplement its growing armada of small loaner telescopes. Dues were raised this month to offset some of the club's increasing expenses. The club recently had member Bob Ryburn rebuild the 16” reflector purchased from the DAAC President some time before. Garth Bock and Jim Moncher established the club's first web page on a local dial-up “bulletin board”.

10 Years Ago

October 2003 – William Carney writes part two of his inspirational “Observing Programs” article for *The OBSERVER*. Reports are given of the Meade 12” LX200 telescope under performing. Concern has been expressed about poor optical quality that has nothing to do with the mount. Members are also beginning to hear from Director Tom Willmitch that the ISU Planetarium could use some assistance with fund raising.

CONSTELLATION OF THE MONTH: LYRA—THE LYRE

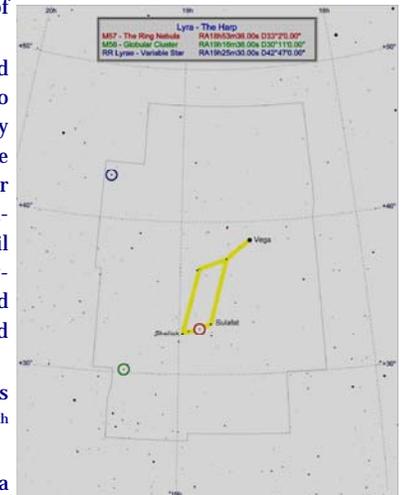
Lyra is a small constellation located between Hercules and Cygnus, north of Vulpecula. It lies at the edge of the Milky Way.

In mythology, the god Hermes built a stringed instrument from a tortoise shell and called it the lyre. He gave the instrument to his brother Apollo who in turn gave it to his son with the muse Calliope, Orpheus. Orpheus learned to play the lyre so beautifully that all who heard were soothed, including people, wild animals, even the trees and the rocks. When his wife Eurydice died, Orpheus travelled to the underworld to reclaim her and played his music for the ghosts, furies. Pluto relented and allowed Eurydice to follow Orpheus back to the world under the condition that Orpheus not look at her until they reached the open air. Just before their escape, Orpheus glanced behind and Eurydice was immediately borne back to the underworld. Orpheus was inconsolable and died at the edge of the underworld finally reunited with his beloved wife. Jupiter placed the Lyre in the heavens in his honor.

Astronomically, Lyra is the 52nd largest constellation covering 286 square degrees yet is the 17th brightest due to the presence of the brightest star Vega which is the 5th brightest star in the sky. Lyra reaches opposition on July 1.

Two other stars in Lyra are named, Sheliak and Sulafat. Sheliak, also known as beta Lyrae, is a double star system where the stars are rotating so closely around each other that their shape has been distorted from spherical to ovoid. Beta Lyrae is the prototype for this class of variable stars. As these stars rotate every 12 days, their visible surface area is never constant so their light curve is more complex than other eclipsing binaries that have a more linear light curve. Epsilon Lyrae is a famous double-double star that is used to test the quality of telescope optics. RR Lyrae, another prototype variable star which has a fast period and lower luminosities, has a 13 hour period.

Among the deep space objects in Lyra are M57 the Ring Nebula and M56, a globular cluster. Several galaxies are visible in the western portion of Lyra where it lies away from the Milky Way.



TCAA Treasurer's Report – September 2013

OPERATING FUND BALANCE – August 31, 2013 - \$ 1,930.32

Income

Bryce Heiniger (Student Dues) - \$ 25.00

Tom Weiland (Dues) - \$ 40.00

Clayton Garmon. (Student Dues) - \$ 26.00

Expenses

LYB Inc. (Observer copies & postage) - \$ 30.14

Sugar Grove Nature Center (dues) - \$ 100.00

OPERATING FUND BALANCE – September 30, 2013 - \$ 1,891.18

OBSERVATORY FUND BALANCE – August 31, 2013 - \$ 4,614.73

Income

Kentuckiana Kampground - \$ 50.00

Expenses

Vivian Hoette (honorarium) - \$ 100.00

RORO Construction - \$ 1,000.00

OBSERVATORY FUND BALANCE – September 30, 2013 - \$ 3,564.73

TOTAL TCAA FUNDS – September 30, 2013 - \$ 5,455.91

Respectfully submitted,

L. Duane Yockey, Treasurer

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@yahoogroups.com. Unsubscribing is just as easy. To unsubscribe, just send a blank email to TCAA-unsubscribe@yahoogroups.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**