TWIN CITY AMATEUR ASTRONOMERS, INC.

The OBSERVER

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VOLUME 36, NUMBER I

JANUARY 2011

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JANUARY EVENTS

TCAA Board meetings are being held on the first Tuesday of odd numbered months. As a result, the next Board meeting will be held on Tuesday, January 4th, at 6:30 p.m. in the offices of LYB, Inc. in downtown Bloomington.

With January's new moon falling on Tuesday, the 4th, and this issue of *The OBSERVER* not likely to be published until the end of the first week of January, the most logical date for this month's MOOS will be on Saturday, January 8th. Observing will start at dusk if the sky is clear, it's not too cold, and the wind isn't blowing. Watch the club's listserv for updates. Looking further ahead (so we don't forget about them), the TCAA has been asked to present at the following events:

- ☆ March 12 (Sat.), 2011 Our first POS for the year will be MESSENGER to Mercury. NASA Solar System Ambassador Lee Green will be previewing the arrival of the MESSENGER at Mercury. This will by the first spacecraft to orbit the innermost planet in our Solar System and will give us a better understanding of this small, strange world. We will also tour the night skies and point out the constellation and give you a look through our telescopes at beautiful celestial objects.
- ☆ April 17 (Sun.), 2011 Family Science Day, Sponsored by CeMaST, Coordinator Lee Green; three interactive displays (how telescopes work, laptop planetarium, and solar observing.)
- ☆ May 7 (Sat.), 2011 Space Day, sponsored by the Challenger Learning Center. The coordinator is Carl Wenning. He will present a 15-20 minute talk about telescopes, astronomy, space exploration, etc. for a class of up to 24 enrollees.

INFORMATION ABOUT 51ST ANNUAL MEETING

The club's 51st Annual Meeting will be held on Saturday, February 5th, at Turner Hall, room 104. Events are tentatively scheduled to begin at 6:00 p.m. with an informal reception over refreshments and hors d'oeuvres. Starting at 6:30 p.m., we will hold our banquet hosted by the catering club of ISU. Following the banquet will be a brief business meeting at which we hear officer reports, present awards, and elect the year's Board of Directors. Following the business meeting, we will listen to an invited speaker.

Dr. Nancy Sultan, Professor and Director of Greek and Roman Studies at Illinois Wesleyan University, is *tentatively* scheduled to talk about the myths of constellations for the banquet. Sounds like fun! Right now the date is open in her schedule book, but she is a program scholar for an NEH grant that requires her to travel on weekends from time to time. She doesn't have the full schedule yet, and will let us know if and when she finds out that she has a conflict.

Arrangements are not entirely made as of yet. However, if you will be attending the social hour starting at 6:00 p.m., please bring a treat or refreshment to share. The banquet will likely feature an entrée of chicken and some variant of potato and vegetable. A salad and refreshment will also be served. The evening will likely be topped off with a cake as this is a celebration of the club's 51st year.

Reservation are required, and the cost will likely be on the order of \$10 to \$15 for adults, and half that for children. Reservations must be made with Carl Wenning (<u>carlwenning@gmail.com</u>, 309-8930-4085) not less than 5 days before the event. Payment will be taken at the door only. If for any reason you make reservations and are not able to attend, please cancel your reservations with Carl not less than three days in advance of the event. Failure to cancel reservations in a timely fashion might result in billing for the cost of the banquet.

As there is no basketball program that evening, parking will be available to the west of Turner Hall on the ISU campus. Please watch the TCAA listserv for further details. They will be distributed as they are developed. DO NOT count on the February issue of *The OBSERVER* for details; by the time it reaches you, it will already be too late to make reservations.

REPORT ON SATURNALIA

There was a small turnout for the holiday part hosted by Dave and Donna Osenga this year. Failing to receive an official report, word has it that Lee Green, Bob Finnigan, Tom Weiland, and Duane Yockey (and perhaps others) were in attendance. In addition to other topics, time was spent discussing updates at SGO. Thanks and a tip of the hat to Dave and Donna for hosting this joyous event once again.

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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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Submission deadline is the first of each month.

<u>Membership Dues</u> 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

HISTORICAL DVD TO BE DISTRIBUTED

Pursuant to his work of writing and publishing *History of the Twin City Amateur Astronomers 1960-2010*, TCAA Historian Carl Wenning will distribute at cost DVDs containing nearly 3 gigabytes of photographs and printed information dealing with the club's history starting at the club's February 5th Annual Meeting. Dissemination of this DVD will help protect the club's history record for posterity's sake.

The DVD will include scanned images from the club's two scrapbooks thought lost until early 2010, an archive of all club newsletters extant since August 1961 (thanks primarily to the scanning work of Lee Green), scanned minutes of meeting minutes from 1960-1963, scans of early newspaper clippings, *Central Illinois Sky* columns (published by the *Pantagraph*) from 1966-1967, *A Bolivian Adventure* chronicling the club's 1994 solar eclipse expedition, and more. It will also include version 5.0.1 of the club's history that is a very slight update of the printed version made available this past September.

In order to obtain a copy of the DVD, you will need to request a copy in advance of the Annual Meeting by contacting Carl (<u>carlwenning@gmail.com</u> or 309-830-4085). The cost of copies distributed at the Annual Meeting (or face-to-face anytime) will be \$1 each. DVDs will be mailed upon request; the cost of mail distribution will be \$3. Send your \$3 pre-payment directly to Carl Wenning, 21 Grandview Drive, Normal, IL 61761-4071. Be certain to include your mailing address. Checks should be made payable to Carl.

Printed copies of the club historical volume are now in the hands of about 10 club members, and additional copies are maintained in the TCAA library as well as the McLean County Historical Society. An electronic copy of the history book is also available on the TCAA website at <u>http://tcaa.us</u>. Two hard copies of the club's history book are still available for purchase from the Historian for \$49.50 plus \$5 shipping if any.

WEBSITE UPGRADES

By Lee Green

You may have noticed the recent improvements on our web site. I was never happy with the look and feel of the site because it didn't look like an astronomy site. I always had four different styles available but showed a basic style by default. With the latest version, I have set the style to choose a new background image every day. I downloaded the 100 best images from the STScI site and formatted them to give us a background that is used as a canvas for our content. I hope you'll agree that the new container is more compelling. Any members who have suggestions about additional content they would like to see, or if you would like to contribute to the site in any way, you help would be welcome. Please contact me.

The other big change is that we recently completed our move to the new web address. As you may know, our original web site was widely known as **twincityamateurastronomers.org**. This URL was established years ago and was widely listed by sites that link to us. A couple years ago, Mike Rogers tried get the tcaa.org address for our club, but since that was taken, he registered our new web address, **tcaa.us**. He pointed this address to my servers, so the site now lives at my office.

During the recent upgrade, I stopped running the two addresses in parallel. Now, when someone asks for the old address, I forward then to the new address. I remember well Mike's observation that when entering a web address, the protocol and the intent to browse a site is always specified by the required **http:**// prefix; the **www** is superfluous. So keeping with this astute observation, I forwarded all traffic to the <u>http://tcaa.us</u> address.

As far as search results go, we're doing well. Almost all the engines have picked up our new address. A sampling of search terms shows modestly good current results. Now if we can get all the third-party sites to update their links to us, we may rise a bit further in the rankings.

Search Term	Rank (Google/Bing/altavista/ask)
TCAA	Page 1/#4/#4/Page 2
astronomy Bloomington	#1/#6/#6/#2
astronomy Normal	#4/#7/#7/#2
amateur astronomy Illinois	#1/Page 1/Page 2/#1
astronomy club illinois	Page 3/Page 1/Page 2
Amateur astronomers	Page 4/Page 1/Page 5

So, if anyone asks, our web site is $\underline{http://tcaa.us}$ and our email is $\underline{tcaa@tcaa.us}$.

AL OBSERVING PROGRAM STANDINGS-QUARTERLY REPORT

Below is a listing of the status of observers pursuing AL observing programs reported as of December 30th. If you would like to have your information included in next April's listing, be certain to forward your observing totals to Carl Wenning by the end of March. Be certain to get your completed observing records to our ALCor, Duane Yockey, as soon as the observing program is complete so that you might be appropriately recognized on a timely basis. Our next award presentation will be at the Annual Meeting in February.

Lee Green recently completed the honorary level of the Messier club and also the Globular Cluster club. He also advanced his observing record in the Deep Sky Binocular club. Carl Wenning recently completed the Deep Sky Binocular club. Having completed 10 observing clubs, Carl now qualifies for the AL's Master Observer award. Carl increased the count of southern sky Caldwell objects during his December trip to Chile. He also completed enough education and public outreach hours to qualify for the AL's Outreach Award.

Astronomical League Observing Club	Brian Barling	William Carney	Lee Green	David Hahn	Chuck Mosier	Dave Osenga	Carl J. Wenning	Duane Yockey
S. Skies Binocular 50							(50)	(50)
S. Sky Telescope 50							(52)	(50)
Telescope Messier Prov70/ Honorary110	(110)	(110)	110**	(110)		87*	(110)	31
Caldwell 109							34	
Binocular Messier 50		(100)	72*	22	8	45	(78)	49
Deep Sky Binocular 60		60*	43				60*	
Herschel Club 400	268	(400)	(400)				(400)	
Herschel II Club 400							66	
Urban Club 100		(100)	100*				(100)	
Comet Club Silver12/Gold30		(31**)					4	
Double Star Club 100	17		51				(100)	
Planetary Nebula Club Basic60/Adv110		1					(93)	
Globular Cluster Club 50			55*				65*	
Lunar Club 100	(100)	(100)	(100)			(100)	(100)	
Lunar II Club 100		34						
Asteroid Club Reg25/Gold100		(52)						
Earth Orbiting Satellite 28		5		13			3	
Outreach Award Bas10/Stel60/ Mast160			(*,**)				* ** ***	

* Program or first award level now complete. ** Second award level now complete. *** Third award level now complete. AL recognition (certificate and 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 received.

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JANUARY SKY GUIDE



DECEMBER OBSERVER'S LOG

Carl Wenning took advantage of the beautifully transparent (if not terribly dark) skies of Chile to observe and record 20 Caldwell objects using binoculars during the first week of December. See the accompanying article **Observing from Chile** for details.

Lee Green was at SGO with Bob Finnigan on the evening of December 8th. Lee reported that the new CGE Pro mount and photographic telescope performed well using remote control from the ground floor of the observatory. They were able to take several images including this one of M33.

Duane Yockey noted that the only "observing" he's done lately was braving the minus 13 degree wind chill to watch the Geminid meteor shower up at Lake Evergreen from midnight till 2:00 a.m. on the morning of December 14th. According to Duane, "It was pretty good (better than others this year), but by no means outstanding."

The first total lunar eclipse on the winter solstice in the last 456 years (and the first total lunar eclipse visible locally for the past three years) was not observed locally due to the presence of an entirely overcast sky on the morning of December 21st. Mark Castleman, a high school physics teacher and former TCAA member, took the accompanying photograph of the eclipse from his home in Colorado at 1:10 a.m. MST.

M33



Lunar Eclipse



CONSTELLATION OF THE MONTH: CAMELOPARDALIS—THE GIRAFFE

Camelopardalis is a large, but dim constellation that stretches from the polar region south towards Perseus and Auriga. Camelopardalis is difficult to find since the stars that make up the figure are 4^{th} magnitude or dimmer.

First described Petrus Plancius and adopted by German astronomer Jakob Bartsch (Bartschius) as a camel, Camelus, it was renamed by Hevelius to be the spotted camel, Camelopardalis, and is now commonly called the Giraffe.

Camelopardalis is the 18^{th} largest constellation covering 757 square degrees, but it is the 51^{st} brightest. Camelopardalis reaches opposition on December 5. None of the stars of Camelopardalis are named.

While the stars of Camelopardalis are dim, many of the deep space objects are relatively bright. IC342 is a beautiful spiral galaxy. NGC1501 is a planetary nebula. NGC2403 is a bright galaxy with a mottled appearance.



SGO UPDATES

As you will recall, the C-14 telescope donated by Bob Finnigan to the TCAA was shipped to California during the autumn for complete cleaning, hardware refurbishment, rebuilding and so on. After several weeks of delay in starting the work due to a backlog, Optic Wave Laboratories (OWL) began work on the telescope. On December 1st, OWL's Cary Chleborad remarked to William Carney via email, "I've finished completely going through the scope and cleaning it up. I have to say that this is was the messiest scope I have ever received! All I have to do is perform the final collimation, which I plan on doing tomorrow morning. After that I will get it packed up and shipped back to you." On December 11th, Cary wrote again saying, "Just dropping a note to let you know that I finally finished the collimation on your C-14. I had to mount the scope on my Paramount and do the final collimation on the sky as I just couldn't get what I felt to be a really good bench collimation. In the end it worked out very well." The telescope was shipped back to us on December 14th and arrived on December 17th. The repair services included the following work:

- ☆ Total disassembly of optical tube assembly, cleaning and inspection.
- ☆ Primary and secondary mirrors stripped and recoated.
- ☆ Replacement cork & paper shims with new materials.
- ☆ Careful re-alignment of optics & shimming to dead center.
- ☆ Re-lubrication of SCT primary focus mechanism.
- ☆ Bench collimation of optics.
- ☆ Star testing & final collimation



The total repair cost was \$ 757.32, which included return shipping and insurance. All in all, this was a good deal. William Carney and Carl Wenning moved the telescope to SGO on Sunday, December 19th, where it was placed under the Ash dome from which it was removed nearly three decades ago.

Efforts have also been ongoing in relation to affixing the CGE Pro mount to the SGO's concrete column. On December 9^{th} , Lee Green met Jim – our machinist – at SGO to take additional measurements for the mono pier and create a new template of the location of the bolts. According to Lee later that day, "It sounds like he will be starting work on this in the next week and he suggested that the project would not take long to complete."

At the club's Christmas party on December 18th, time was spent discussing updates at SGO. Of note were reports by Lee and Bob of being able to produce images from SGO operating the telescope remotely from the ground floor of SGO as well as the Sugar Grove Nature Center. Time was also spent developing ideas for secure storage within SGO and the adjoining outbuilding which is currently being refurbished to make it weather tight.

On December 20th, Bob and Lee identified a security cabinet for storage purposes at SGO pending the Board's approval.

Bob, Lee, Tony Cellini, Carl and Jim gathered at SGO on December 22^{nd} to install the mono pier. Working together, the team installed the mating plate followed by mono pier. The CGE Pro mount was then installed. Atop this unit Bob's C14 telescope was erected under the Ash dome for the first time in nearly 30. Following this effort, two refracting telescopes were mounted in tandem (one for auto-guiding and the other for photographing) on the CGE Pro.

SGO is now functional for the first time since the failure of the Meade 12" LX200 mount. This success was achieved thanks largely to the contributions of time, treasure, and talent of Bob, Dan, Jim, Lee, William, Tony, and Carl. Thanks to all who participated in any fashion whatsoever – including everyone who pays dues or gives contributions to the TCAA – for making the recent updates to SGO possible.

New procedures and operating policies now must be developed and instituted to ensure the safe, efficient, and equitable operation of the reformulated club observatory. The Board will begin to address these concerns at the January Board meeting.

REMOTE CONTROL AT SGO By Lee Green

Bob Finnigan and I have been able to make take some pretty good images at the SGO. In spite of the frigid weather we had during early December, we traveled several times to the Nature Center to make the most of the clear cold skies we had.

We set up a wireless router in the SGO that lets us share computers together on a common network segment. While this segment is not connected to the internet, we have been able to talk between the computers. Bob purchased the VNC program that lets us share a computer's video, keyboard and mouse across the network, effectively giving us remote control.

This remote control is currently rudimentary. Yes, we can control the computer that is connected directly to the telescope, but to date, all of the equipment setup, alignment, calibration and focusing activities have been done while we were under the dome. During our sessions, we were able to successively refine the polar align of the tripod mounted scope to a reasonably high degree, within a few arcminutes. We expect to match and improve this precision now that a permanent pier is installed. But we had to manually position the dome for our targets, deciding early on which of the two configurations we would use for the evening and adjusting the rotation periodically to keep the camera following the target's path through the sky. It certainly has been exciting to be able to control the telescope from an alternate location.

Let me express my appreciation to Bob for all his work and guidance and contributions in helping to get the SGO ready for us to rise to new heights. In addition to the VNC program, Bob signed up for an internet based service that provides desktop sharing. With an internet connection at the SGO computer, and someone helping out with the dome, we could then show images *as we take them* just about anywhere.

Let me express my appreciation to Angela Funk and the Sugar Grove Nature Center, for hosting our facility and providing us with so much support. They graciously provided me a key to the building and that gave us the chance to control the telescope while sitting inside in the warmth. I know that many will consider this "cheating" since we did not suffer the elements while we spent those hours collecting images. And while I agree with this sentiment, I feel that it allowed us to do productive work at a time that the equipment would have otherwise been unutilized.

Using this remote system, we were able to take several images of note. Here are two that I was very happy to record. The first is M1, the Crab Nebula. While this target, a supernova remnant about 8 arc-minutes in diameter, is a bit small for our optics, it was a big surprise. Taking the L, R, G and B channels seemed like nothing special was happening. Then we took the Ha channel and we had to pick up our jaws from the floor. The level of detail was stunning and yielded this photo. I am now anxious to return to this subject using optics that will put the nebula into a more favorable scale.

The second object was M52 and the Bubble Nebula in Cassiopeia. Here, the LRGB channels were yielding a hint of the bubble shown in the lower right. It was the Ha channel that completed the circle to show how dramatic this target appears. As I understand, the bubble is formed by a young energetic star whose winds are blowing away the material from which it formed.

It has been fun to take these images and I hope you'll agree that the recent improvements at SGO will expand our horizons and give us all the opportunity to learn more about astronomy as we continue enjoying our hobby.



M1, The Crab Nebula



M52 and the Bubble Nebula in Cassiopeia

OBSERVING FROM CHILE By Carl Wenning

During the first full week of December, I observed the southern sky from the environs of Santiago, Chile. Accompanying me was my friend Mitch Luman, a science museum curator from Evansville, Indiana. On Thursday evening, December 2nd we spent time observing from the Universidad Metropolitana de Cienceias de la Educatión (UMCE) observatory in Santiago, and visiting with Dr. Luis Barrera, an astronomer and regular observer at the 4.1-meter (162-inch) telescope at the SOAR observatory in northern Chile. Dr. Barrera took the time to show us how the SOAR telescope is controlled using the operating system from Santiago.

We had a chance to view a few objects with the University's 16-inch Meade telescope. Viewing was limited due to earthquake damage to the mount. The 6th magnitude earthquake back in late February (as measured at UMCE) had entirely knocked the dome off its foundation. The done subsequently had been repaired, but not the telescope. We met with about ten physics teacher education majors from UMCE as well as from the University of Chile that evening. Among them was the night assistant – Guillermo – who aided Duane Yockey and me during our 2008 visit to Observatorio Cruz del Sur at Combarbalá.

On Friday, Mitch and I went with our hosts – Selma and Claudio Perez Matzen – to El Ingenio, a small town about 30 miles southwest of downtown Santiago. There were had a traditional dinner with neighbors that lasted until 1:15 a.m. at which time Mitch went out to do some binocular observing. Due to a combination of alcohol and cold, I picked up a case of tremors (DTs) earlier that evening that prevented me from observing until the next night. Mitch worked late into the night viewing southern binocular objects.

On Saturday afternoon, Mitch and I attended a signing ceremony at Pailalén Observatory in Cajón del Maipo not far from El Ingenio. Signed was a 10-point contract between Pailalén Observatory and UMCE that called for physics teacher education majors to provide "informal education" to visitors at Pailalén. The observatory will offer a new form of casual sky viewing for the public who will visit the observatory for an evening of fine dining followed by observations using the Meade 14-inch SCT emplaced there under a dome.

That evening Mitch and I viewed very briefly through the observatory's main and smaller telescopes, and spent a considerable amount of time viewing through binoculars. I was able to observe and record 20 southern sky Caldwell objects using my trusty 15X70 Celestron binoculars. Later that evening we descended to the valley floor below where we continued observing until near dawn. By the time his two observing runs were complete, Mitch had observed some 50 southern sky binocular objects. He intends to finish the northern objects from the southern US early in 2011.

On Sunday our team of intrepid travelers drove to and then hiked Cajón del Colorado. That evening we returned to Santiago. On Monday, Mitch and I toured downtown Santiago using the city's subway system to get around. That afternoon we met with a faculty member of UMCE to discuss possible faculty and student exchanges between our two countries to promote informal education. Later that evening, Claudio and I drove Mitch to the airport for return to the USA. I flew out a day later, following yet another day with our friends Claudio and Selma.

WHERE ARE THEY NOW?

Eugene P. Sutton was born on January 20, 1918. He was a member of the TCAA starting in the early 1970s, having migrated to the club from the Peoria Astronomical Society along with Bob Finnigan. Gene was a WWII veteran, and earned a BS degree in Psychology from Bradley University after the war. He never used his degree, and spent most of his life as a factory worker for Caterpillar. After his retirement, he served as a handyman working on cars and home maintenance.

Gene was an older and somewhat frail member of the TCAA during his most active years in the 1970s and 1980s. Still he had an active – if not overactive – mind. He once mentioned that he heard of a UFO that had exploded in orbit above earth. He suggested that we track the parts backward in their orbits and use that information to reassemble the UFO! So much for reading *National Inquirer*!

Gene was well liked by the membership. He could always be counted on to be present at meetings, picnics, Astronomy Day and other public events. Interestingly, he rarely did much observing other than peering trough other members' telescopes; he never owned a telescope of his own.

He was a member of the TCAA until his death from Parkinson's disease on July 15, 2001. Unfortunately, Gene passed away at 83 years of age, and his death went unnoticed by the club. In failing health beginning in the early 1990s, he contributed a large number of his books to the TCAA library during July 1992. In increasingly poor health, he rarely attended club functions thereafter. He passed away on January 20, 2001, and his death wasn't discovered until several months later to the great sadness of club members who knew him.

In honor of his request, Gene's body to donated to science for medical research purposes. His remains were interred on July 31, 2002, at Bloomington's Evergreen Cemetery at the foot of his parent's grave according to cemetery records. There is no tombstone to mark his presence. The accompanying photograph of his parents' tombstone, provided by Bob Finnigan, shows his final resting place. Thanks to Bob for this contribution as well as finding Gene's obituary as part of his genealogical hobby.





THE EVOLUTION OF AMATEUR ASTRONOMY: THE TCAA THEN AND NOW—CONCLUSION By Carl J. Wenning, Historian

Social Changes. Perhaps the greatest change in the TCAA over its 50-year history has been the social aspects of the club. During the earliest days of the club, meetings were held twice per month. Rather intense meetings featured discussions, talks, displays, readings of "vital statistics" and other program activities. There were good turnouts for field trips. In the half century since, the club has changed rather dramatically. The focus is now almost exclusively on observing and public outreach. Membership now consists of an active core of 8-10 observers and a much larger group of dues-paying members show up mostly at public observing sessions but only rarely at members-only observing sessions.

A notable number of grade and high school students were involved with the TCAA early on – enough to start and sustain a TCAA youth group for several years. Today our group consists mostly of adults, though children do show interest when encouraged and sustained by parents or grandparents. The number of active college students over the past 1-15 years has hovered in the vicinity of zero.

During the early years of the club, families generally formed the active membership, with husbands, wives, and children attending meetings. Today that is rarely the case. Members attend mostly as individuals despite their marital estate or size of family. Family members do show up today, but mostly for the Annual Meeting or a summer picnic.

When the club started, there were a comparatively large number of women in the group. Not so today. Early on the TCAA was a pretty much stay-at-home group with a few outings every year. Today, we see many members as part of the Jet Set. Members undertake international travel to view total solar eclipses around the world or to high and far away places merely for viewing pleasure.

The number of social events has changed. There were once frequent pizza parties, family-oriented summer picnics, regular meetings at IWU's Mark Evan Observatory, monthly programs at ISU's Physics Department Planetarium, and crowded Christmas parties. Today we have no membership meetings other than Annual Meeting and Board of Directors meetings. Formal and informal observing sessions are now the lifeblood of the TCAA.

Possible Causes. So, why did these very pronounced changes in the social structure of the club take place? The author can only speculate. After thinking through these changes for the fast few years, here is what I have concluded – be it right or wrong:

<u>Club members are wealthier</u>. The founders by in large were not wealthy. While some had technical training, few had college degrees. During the early days of the club, a 4.25-inch reflecting telescope or smaller refractor was the norm. Today, an amateur is hardly considered serious without a 10-inch telescope or an apochromatic refractor if it's smaller than that. A wealthier and more educated clientele, make up the TCAA today. Active club members typically own sophisticated and expensive rigs. It's not at all uncommon to see set ups costing thousands of dollars – commercially-made telescopes of large aperture, sophisticated tripods, costly cameras, and GOTO capacity to name but a few. These items are outside the financial reach of many family units. Perhaps amateur astronomy is pricing itself out of existence for the masses.

<u>Technology is more accessible</u>. The ISU Planetarium was once the lifeblood of the TCAA. Lots of early club members were recruited through the planetarium. At one time ISU's planetarium directors - Nerio Calgaro, Patrick McGee, and Carl Wenning – were involved in the TCAA and helped to draw attendance for club meetings. This is no longer happening. The public's growing disinterest in the planetarium is understandable for a number of reasons. The planetarium equipment has grown old and tired. Computers can now demonstrate the motions of the heavens in much more effective ways (but not as impressively in the author's humble opinion). Still, few seem to realize this.

Society itself has changed. Modern perspectives on society suggest that certain social aspects of society decaying; people more into individual pursuits; family structures have eroded; smaller families exist but are often fractured if not entirely dysfunctional. Social lives of children are now frenetic with everyone rushing from one competitive or artsy event to another; science is rarely seen as important. Social networking has come to replace socialization; computers have take over lives; hobbies seem to have almost disappeared.

I am not saying that these changes are bad; rather, they are merely reflective of the nature of society and the membership over time. So, where does this leave the TCAA and its future? Good question, and one for which I do not have an answer. If the current trends continue, one has to wonder about the future of not only the TCAA but other science-based social groups as well.

OPERATIN	G FUND BALANCE – November 30, 2010 -	\$	1,876.75	
Inco	me	17		
	Orlyn Edge (Senior Dues) -	\$	25.00	御太子(前)
P. M. L.	Duane Yockey (Dues) -	\$	40.00	
	Allan Timke (Dues) -	\$	40.00	
	Don Cooper (Dues) -	\$	41.00	화장 장양
Exp	enses		1063 682	
	LYB Inc. (Observer copies & postage) -	\$	35.94	1995 1949
	PayPal (Don Cooper)	\$	1.20	國當
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OPERATIN	G FUND BALANCE – December 31, 2010 -	\$	1,985.41	
OPERATIN OBSERVAT	G FUND BALANCE – December 31, 2010 - 	\$	1,985.41 3,186.66	
OPERATIN OBSERVAT	G FUND BALANCE – December 31, 2010 - FORY FUND BALANCE – November 30, 2010 - <u>me</u>	\$	1,985.41 3,186.66	
OBSERVA Incc	G FUND BALANCE – December 31, 2010 - FORY FUND BALANCE – November 30, 2010 - me Donation (Duane Yockey) -	\$	1,985.41 3,186.66 100.00	
OBSERVA <u>Incc</u>	G FUND BALANCE – December 31, 2010 - TORY FUND BALANCE – November 30, 2010 - <u>me</u> Donation (Duane Yockey) - Donation (Carl Wenning) -	\$ \$ \$ \$	1,985.41 3,186.66 100.00 150.00	
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OBSERVA Incc <u>Exp</u> OBSERVA	G FUND BALANCE – December 31, 2010 - TORY FUND BALANCE – November 30, 2010 - me Donation (Duane Yockey) - Donation (Carl Wenning) - enses Carl Wenning (C-14 Repair) - TORY FUND BALANCE – December 31, 2010 -	\$ \$ \$ \$ \$	1,985.41 3,186.66 100.00 150.00 757.32 2,679.34	

TCAA Treasurer's Report - December 2010

Respectfully submitted, L. Duane Yockey, Treasurer

Sugar Grove Observatory

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

Duane Yockey (renewed through 2009) William Carney (renewed through 2010) Carl Wenning (renewed through 2009) Brian Barling (renewed through 2010) David Osenga (renewed through 2010) Josh Lindsey (renewed through 2010) Dan Miller (renewed through 2009) Lee Green (renewed through 2009)

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 <u>TCAA-subscribe@yahoogroups.com</u>. Unsubscribing is just as easy. To unsubscribe, just send a blank email to <u>TCAA-unsubscribe@yahoogroups.com</u>.

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 <u>www.phy.ilstu.edu/~wenning/observing page.htm</u>. 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 <u>your</u> 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