

The OBSERVER

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OCTOBER TCAA EVENTS

The TCAA will go on a field trip to Staerkel Planetarium on Friday, October 15th. See the article following this one for details. Lee Green will hold an observing session for another group on this same evening if the sky is clear. If you are not going on the field trip and can assist Lee, your assistance would be much appreciated.

The October public sky viewing session at SGNC will take place on Saturday, October 16th, from 7:00 p.m. to 9:00 p.m. Dan Miller will speak about the Perseus double star cluster. Following this talk will be a laser-mediated sky lecture and viewing with telescopes.

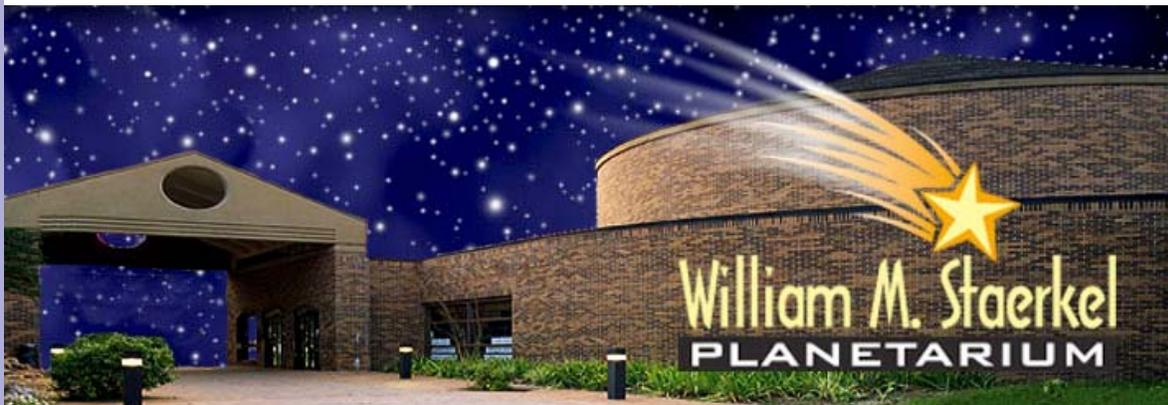
The now traditional Autumn Fest celebration at Sugar Grove Nature Center will be held on Saturday October 23rd from 10 a.m. to 5 p.m. The TCAA will hold an open house at Sugar Grove Observatory, and will provide public viewing of the Sun and Venus if the sky is clear.

While not a TCAA event, there will be a celebration at the Mark Evans Observatory on Saturday, October 9th from 4:30-6:00 p.m. and TCAAers are invited to attend. The event is being held in honor of Lew Detweiler and Ray Wilson – both now retired from the Physics Department of Illinois Wesleyan University. It is also the 40th anniversary of the Mark Evans Observatory, and they are holding a reception on Homecoming weekend. If you have any photographs or reminiscences about the observatory, those would be welcome. But mostly, organizers would like to have colleagues of Lew and Ray present. If you happen to know Ray and/or Lew, organizers do hope that you can attend.

TCAAers – come on out and take advantage of these events. While we do have a core of dedicated observers out under the stars on a regular basis, it would be great to see those who pay their dues but so rarely attend. Rest assured, the more you put into the hobby of amateur astronomy, the more you will get out of it.

STAERKEL PLANETARIUM FIELD TRIP OCTOBER 15

The TCAA is going on a road trip! The place? Staerkel Planetarium on the campus of Parkland College in Champaign. The date? Friday, October 15th. The time? For those who want to car pool, we will depart Bloomington at 5:30 p.m. sharp from the Sale Barn just north of I-74, on the west side of US Route 51. Plan on arriving at least 10 minutes early. If you want to attend only the second of their two evening programs, you may depart Bloomington at 6:30 p.m., leaving adequate time for travel prior to the 8 p.m. showing. Please arrive on time; latecomers generally are not admitted to planetarium programs in progress.



There are two showing on Friday evening. At 7 p.m. they will present a live planetarium sky lecture titled *Prairie Sky*. At 8 p.m. they will be showing the program *Violent Universe*. Admission for one show is \$5 for adults; for two shows (both tickets purchased at the same time), the second showing is half price for a combined total of \$7.50.

Each individual will be responsible for purchasing his or her show tickets. It is advisable to share in the cost of gas for transportation if riding with another, though transportation cannot be guaranteed. Be prepared to drive your own vehicle

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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

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STAERKEL PLANETARIUM FIELD TRIP OCTOBER 15 (CONT.)

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(e.g., sufficient gas) if necessary. We might stay over for a short pizza party after the final planetarium program. Please work out details relating to payments for gas and return time with the driver if you intend to ride with someone else to Parkland College.

For more information about the Staerkel Planetarium, visit its website at the following URL: <http://www2.parkland.edu/planetarium/>. Also see this site for driving, arrival, and parking information. If you have any questions not answered by the planetarium's web site, please contact Carl Wenning at (309) 830-4085 or email him at wenning@phy.ilstu.edu.

MINUTES OF SEPTEMBER 7TH BOARD MEETING

The TCAA Board of Directors met on September 7, 2010, at the office of Duane Yockey. In attendance were Dave Osenga, Duane, Carl Wenning, John Werner, Lee Green, William Carney and Dan Miller. President Dave Osenga called the meeting to order at 6:35pm. The minutes of the previous meeting were approved.

Lee reported that a 60mm telescope had been donated to the club by Kay Wilson and he brought the telescope for inspection. William noted that the scope was quite old since the eyepiece was made of brass and agreed to describe the scope on Cloudy Nights in order to learn more about the device. Lee further reported that little recent progress had been made on the club web site.

Duane presented the Treasurer's report as was printed in the recent *Observer* and the finances were approved. As ALCOR, Duane reported that he is still holding a number of AL observing club awards until an appropriate time for them to be bestowed. Lee submitted his Binocular Messier requesting that club's pin.

William reported that the Meade fork mount has been listed for sale for a price of \$500 and he has had some interest shown, but no firm offers yet. William presented an updated PowerPoint presentation about the many repairs he has made on the Sugar Grove Observatory. His recent efforts included removing, repairing and replacing many of the siding boards on the upper section of the building. He noted that the dome seal, which could still allow a minor amount of possible leaking, was the only remaining item and that he would contact Ash Dome about this issue. William estimates that these improvements will extend the useful life of the observatory by many years. He tallied the time he has spent so far at 234 hours over 42 days this summer, at a cost for materials at \$432.47. The Board applauded William for his outstanding efforts.

Discussion turned to the calendar of events. Dave hosted several observing session recently. Lee reported that he and Paul Pouliot attended the event with the Peoria Astronomical Society and enjoyed meeting many of the 15 PAS members that attended public viewing at Jubilee State Park. Dan indicated that he was hosting an Easter Seals event on September 10th for special needs kids and requested assistance. It was noted that several members are scheduled to attend the IDSSP at Panther Creek, IL that same weekend. Dan will host the September 11th Public Observing Session at SGO. Carl and William will offer viewing to the Cub Scouts on September 17th. Lee will confirm a September 29th Metcalf sixth grade event at East Bay Camp. John will host the October POS. The Sugar Grove Nature Center is holding its annual Autumn Celebration on October 23rd and the club will have an open house at SGO from 9am to 5pm. Several members expressed their intent to attend and other members are welcome to help with the large crowds expected.

Dave then turned the discussion to the 5-year plan. Several members recognized the progress we've made in recent years, the informal nature of the club and the desire to include more members at our various events. The success of our Public Observing Sessions was noted and Carl suggested that having handouts was an effective way to interact with the audience and that asking question of the audience could lead to additional education opportunities.

Duane pointed out that we currently have three main events for the membership, the Annual Meeting, the summer picnic and Saturnalia. He suggested that a field trip could be enjoyable that such an event could be added to our list of annual member activities and that might engage a wider segment of the membership. Discussions quickly turned to the new improvements at the Staerkel Planetarium and that a future trip there would be of great interest. Dan noted that the U of I supports an observatory near Monticello that houses a 24" telescope might be an interesting additional trip. Carl agreed to contact David Leake to see if a field trip to Staerkel Planetarium could be arranged – perhaps as a joint meeting with the Champaign astronomy club.

Carl suggested that the time for nominations for club awards was upcoming. He noted the plaque for the G.

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PROFILES IN AMATEUR ASTRONOMY: TONY CELLINI

Tony Cellini has been an active amateur astronomer for about 15 years, but has been interested in astronomy for at least three decades. His interest was sparked when, at the age of 13, he received a Tasco refractor for his birthday. His fondest astronomical memory was his first view of Saturn through that 3-inch Tasco. He was absolutely thrilled. Tony reported, "It was shaky and fuzzy, but distinctively a ringed planet. My family though I was crazy."

Since that time his hobby has gotten more complex and expensive. No longer using a toy refractor, Tony has moved up a bit. He built his own 6-inch reflector following guidance from Richard Berry's book *Build Your Own Telescope*. After that, he moved on to a commercially made 8-inch Meade LX200, but not before dealing with the complexities of life. "Back in the mid '90s, when I was in college, was the first time I was active in the hobby of amateur astronomy. Active, in the sense that I actually owned a telescope and spent late nights in the dark getting chewed on by mosquitoes or freezing my butt off trying to observe the details of some fuzzy blob in the sky."

"Fiscal responsibility at the time forced me to sell my equipment and drop out of being 'active' in the hobby. I never lost the interest, just the means to seriously pursue astronomy. I never got out of the habit of looking up every time I walked outside at night, or spending some time in the wee hours of a balmy August morning looking for Perseid meteors, or jumping into the car and speeding to a nearby dark site with the report of an auroral display."

Tony currently owns an 8-inch Ritchey-Cretien astrograph (shown in the first accompanying picture taken on September 11th) that he uses very successfully for astrophotography. He also has an AstroTech 106mm, f/6.8 apochromatic refractor, and Orion Giant 20x80 binoculars. He is more than well prepared to view and record images the sky.

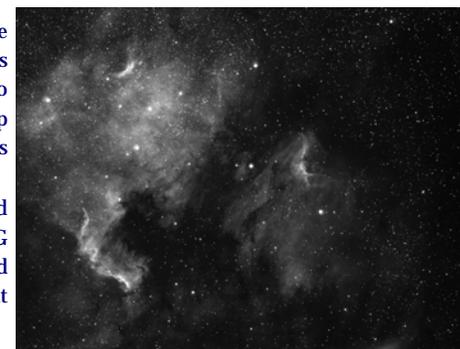
Right now Tony is spending most of his time with astrophotography and has been having some stunning successes as the second image of the North American/Pelican Nebula complex shows. It is one of his most recent successes, and was his first photo subject 15 years ago. Recently, he wanted to try it again with updated equipment. Tony notes, "Affordable digital and CCD cameras have opened up a whole new world to amateur astrophotographers. We've come a long way from taking single, hours long exposures."

As evidence of this, Tony indicates that the accompanying image of the nebulas in Cygnus resulted from the use of modern approaches. "This is a stack of twenty 5-minute exposures taken with an SBIG ST-8300M camera through a Canon 300mm f/4 EF-L lens." More details about this photograph and what he has learned through another year of experience can be found on his "Drinking Bird" blog at <http://www.dwfoto.com/blogs/blog6.php/2010/08/29/ngc7000-then-and-now>.

When he is not photographing the heavens, Tony can be found dabbling with the AL's Binocular Messier list. It's a "casual thing" he says, because astrophotography has taken nearly all his time. He admitted that he hasn't really worked seriously on any of the AL observing clubs. This is understandable, in light of his many successes behind the camera lens. Tony's greatest satisfaction in the realm of astronomy is producing astrophotos of which he can be proud. In relation to this goal, Tony must be very satisfied, but not entirely satisfied. It is his goal to continue improving his astrophotographic results.

About modern astronomy Tony quips, "The professional field is very exciting today, especially with all the exoplanet discoveries. It was one of those things that I never thought I'd see in my lifetime; now, there are hundreds of them." Still, he has his concerns for amateur astronomy. "I fear for the amateur community in some ways. I think with the 'I want it now' society that we've become, that the amateur community will keep getting smaller. Non-astronomers seem interested, but many feel the let-down when the view through a telescope doesn't match the pictures from Hubble."

After all these years, the TCAA members who remember him from years earlier were delighted to see him return. A very active amateur astronomer then, he's even more so now.



HISTORICAL VOLUME ARRIVES FROM PRINTER

On September 21st, Historian Carl Wenning proceeded to *StarNet digital printing* in Bloomington to have 18 copies of *History of the Twin City Amateur Astronomers 1960 – 2010* printed. The copies became available on September 29th, and Carl is now distributing copies to those who ordered them. For the record, ordering copies of this 50th anniversary volume were: John Werner, Lee Green, William Carney, Dave Osenga, Duane Yockey, Carl Wenning (5, including copies for the TCAA Library and the McLean County Historical Society), Bill Blunk, Taylor Cisco, Sharon MacDonald, Mike Ryder, Paul Pouliot and Brian Barling. Two additional copies were printed for those who might wish to acquire a copy in the future.

The per-copy cost is \$49.50 plus shipping if applicable. Carl will be distributing these 139-page, full-color books to club members when he sees them. He will ship books via US Mail to former club members Bill Blunk, Taylor Cisco, and Mike Ryder. Because Carl has a couple of extra copies available. Members may purchase them by emailing Carl at wenning@phy.ilstu.edu. You may add yourself to a waiting list for any unsold copies. Unreserved and unsold book will be sold on a first-come, first-served basis.

OCTOBER SKY GUIDE

- 09** The Moon passes 3° north of Venus, 11 A.M. 
- The Moon passes 4° south of Mars, 
- 16** Mercury is in superior conjunction, 8 P.M.
- 17** The Moon passes 5° north of Neptune, 5 P.M. 
- 20** The Moon passes 7° north of Jupiter, 6 A.M. 
- The Moon passes 6° north of Uranus, 10 A.M. 
- 21** Orionid meteor shower peaks 
- 28** Venus is in inferior conjunction,

SEPTEMBER EDUCATION/PUBLIC OUTREACH

Sky watchers were greeted with an exceptionally dark and clear sky during the September POS on September 11th. A beautifully pairing of a crescent moon next to brilliant Venus welcomed observers as they arrived at SGNC. As the formal program began a about 7:50 p.m., some 40 members of the general public spent a bit of time peering through the TCAA telescopes. Representing the TCAA were Dan Miller, Paul Pouliot, Carl Wenning, Tony Cellini, Dave Osenga, William Carney, and Randall Byland. Also present but without telescopes were Bob Finnigan and Sean Lance. During the formal presentation, Dan spoke about Bobby Arn's latest astrophotography book and then set off on a description of stellar appearances and evolution. Dave followed with a laser mediated sky lecture. Observers then concluded the evening getting a "peek at the Milky Way" and things therein. The program drew to a close around 10 p.m. after which several TCAAs continued observing later into the night.

The TCAA hosted an evening of talks and observations for Cub Scouts on Friday, September 17th, at SGNC. Starting shortly after 7:30 p.m., Carl Wenning gave his comedic *Milky Way* presentation before a group of 50 Cub Scouts and about 20 parents who were camping overnight and staying the next day for additional outdoor experiences. He followed up with a very brief laser-mediated sky lecture. Despite the gibbous moon and a sky crisscrossed with vapor trails, William Carney, Tony Cellini, and Tim Henning conducted an observing session that lasted until shortly after 9:30 p.m.

A fall trip for 45 sixth graders from Metcalf School was held at the Three Bears campsite at East Bay Camp at Lake Bloomington on Wednesday, September 29th. The TCAA was invited and Lee Green gave a 45-minute introduction to astronomy that was well received and class members were enthusiastic with their many questions. After the presentation, Carl Wenning gave a laser-guided sky tour. Dave Osenga, Paul Pouliot, William Carney and Bob Finnigan joined us for this two-hour program with their telescopes to help keep the viewing lines short. It was a fun outing and the kids and teachers were great!

Dave Osenga and Carl Wenning hosted an observing session at Ironwood Golf Course for the 5th and 6th graders from Prairieland Grade School in Normal on Thursday, September 30th. Several parents brought along small telescopes to assist with observing. Dave gave a sky lecture and students were able to view a few celestial objects before the observing session was brought to an abrupt halt at 8:20 p.m. when the golf course's sprinkling system came on! Fortunately, no equipment was harmed. Dave and Carl remained behind for another 75 minutes to talk during which time they observed a bright fire ball shoot across the sky moving from east to west.

SEPTEMBER OBSERVING NOTES

With the moonless night and clear skies of early September, TCAA observers found their way to SGNC for observing. For instance, on September 7th William Carney, Lee Green, Bob Finnigan, Mark Cabaj, and Carl Wenning observed late into the evening. Attending with Mark were a number of his astronomy students from Heartland Community College. He spent the time after dusk pointing out constellations, and his students took the opportunity to peer through club members' telescopes.

The next evening, September 8th, Carl took advantage of the unusually dark, clear sky to view in detail the objects of Sagittarius. He observed alone starting at dusk and continuing through 10 p.m. He used his CPC1100 with his wireless control system and iPad to view 55 deep space objects (emission and dark nebulas, open and globular star clusters, planetary nebulas).

From September 8-12, Duane Yockey attended the IDSSP events at Panther Creek – Jim Edgar State Park. Unfortunately, some of weekend was clouded out and even dampened by rain. If the local weather was an indicator of the skies of western Illinois, then Duane was able to make observations on Thursday and Saturday evenings.

William Carney has continued to pursue observations of Comet Hartley 2. He showed it to club members at the POS on September 11th. A night later, William sighted the comet and noted, "I spotted 103P Hartley 2 again as well as tried to take some pictures of it. Magnitude estimates are all over the place. NASA NEO puts it at 12 while the Weekly Comet page puts it at 9.8/9.1 in magnitude. 9.5-9.8 is closer to what I have observed. Very dim and diffuse."

William continued observing, taking advantage of the clear skies despite the presence of the moon as the month progressed. He noted, "I started the Galileo Club and did one observation Friday night (September 24th) and two observations Sunday night. On Friday night I also got a few fair pictures of Comet Hartley."

AL OBSERVING PROGRAM STANDINGS—QUARTERLY REPORT

AL Observing Program Standings – Quarterly Report

Below is a listing of the status of observers pursuing AL observing programs reported as of September 30th. If you would like to have your information included in next January's listing, be certain to forward your observing totals to Carl Wenning by the end of December. 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.

AL Award	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/	(110)	(110)	108*	(110)		87*	(110)	31
Caldwell 109							39	
Binocular Messier 50		(100)	72*	22	8	45	(78)	49
Deep Sky Binocular 60		60*	42				43	
Herschel 400 Club	268	(400)	(400)				(400)	
Urban Club 100		(100)	100*				(100)	
Comet Club Silver12/		(31**)					4	
Double Star Club 100	17		51				(100)	
Planetary Neb Club Ba-		1					(72)	
Globular Cluster Club 50			33				65*	
Lunar Club 100	(100)	(100)	(100)			(100)	(100)	
Lunar II Club 100		34						
Asteroid Club Reg25/		(52)						
Earth Orbiting Satellite 28		5		13			3	
Outreach Award Basic10/			(,**)				*,**,***	

* 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.

CLUB RECEIVES REIMBURSEMENT

On September 14th, TCAA Treasurer Duane Yockey announced to the club's Board members and officers that the TCAA had received a reimbursement for some recent uncovered conference expenses. According to Duane, "We have received a check from NCRAL in the amount of \$500 towards our shortfall for the NCRAL 2010 convention!!!" The triple exclamation point says it all.

With this donation, the club comes within \$200 of breaking even on the meeting, not counting the small amount of income from the CLC mission and a subsequent gift by an anonymous donor. With all three sources of additional income taken into account, the TCAA actually turned a small profit on the NCRAL 2010 convention.

ASTRONOMICAL LEAGUE UPDATES

It is possible that a number of TCAAers do not realize that the club is part of the Astronomical League (AL). As such, each member should be receiving a quarterly publication known as *The Reflector*. To learn more about the AL and its many benefits and activities, club members should periodically visit the AL website at the following URL: <http://www.astroleague.org/>.

The AL upgraded its website recently. While the AL periodically sends out releases to AL coordinators (ALCors), perhaps the best way to keep informed about events on the national and regional levels is to check out the web pages for yourself.

By virtue of its membership in the AL, the TCAA is also part of the North Central Region of the Astronomical League (NCRAL). The region also maintains a website the following URL: <http://www.ncral.net/>. A quick inspection of this page will show that our neighbors, the Decatur Area Astronomy Club, recently joined the AL.

There is plenty of interesting online reading for both armchair amateur astronomers as well as active observers. Check it out.

TCAA'S ONLINE PRESENCE

The TCAA's online presence is slowly growing thanks to web master Lee Green. Not only has Lee redeveloped and maintained the current website, he has also moved the club into other social networking services as well. For instance, working with the NASA Night Sky Network, Lee has gotten our club and its events listed on *Go StarGaze*. *Go StarGaze* is an iTunes application available for iPods, iPhones, iPads and such, that connects users to the astronomy clubs and events of the Night Sky Network from anywhere in the USA. With just a click of a button users can find out about club meetings and public events anywhere within a pre-determined radius.

Facebook is another social network where the TCAA can be found. Lee developed a page on July 5 (as opposed to a friends account) under the name Twin City Amateur Astronomers. Subscribers to this page can see our logo, website address, and get updates about current events.

Of course, the TCAA continues to maintain its listserv. 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 http://www.phy.ilstu.edu/~wenning/observing_page.htm.

MINUTES OF SEPTEMBER 7TH BOARD MEETING (CONT.)

(Continued from page 2)

Weldon Schuette Society of Outstanding Amateur Astronomers is nearly full. We discussed the possibility of purchasing a plaque that would accommodate additional names, but, of the current membership, only Carl and William had met Weldon. It was suggested that an alternative of establishing a Distinguished Service Citation might be considered.

The Board then turned to the SGO telescope and William said that the 10" scope was currently mounted. Dave noted that Bob Finnegan recently donated his C14 to the club and expressed the club's appreciation and excitement at this generous donation. Dan suggested using the mono-pier and that he would be will to donate the electronics, gears and motors from his equivalent C14 and together would provide an excellent telescope for SGO. William found a company – Optic Wave Labs – that could refurbish the OTA. Lee moved and Duane seconded the motion to spend such funds as may be needed to make the OTA usable and the motion was agreed to. William and Carl volunteered to investigate the costs and report those back to the Board, but expected that progress on this project could begin in the near future.

Carl then circulated a draft copy of the *History of the Twin City Amateur Astronomers* book. It was beautifully formatted and printed in color. Carl stated his intention to print a limited number of these at a projected cost of \$50. A sheet was passed around to indicate which members where interested in obtaining a copy of this excellent document.

Dave noted that the next meeting would be held on November 2nd. The meeting adjourned at 7:55pm.

Respectfully submitted,
Lee Green, Secretary

2010 IDSSP

By Duane Yockey

The 2010 Illinois Dark Sky Star Party was held from Thursday, September 9 to Sunday September 12. It was well attended and much warmer than last year! However the weather had its usual impact on the event as it does for most things astronomical.

I arrived Thursday afternoon under cloudy skies. The forecast was possible clearing later, but most of the attendees were not optimistic. I set up my CPC 1100 just in case and the skies magically cleared at dusk. We had excellent viewing until after 1:00 a.m., when the clouds returned.

Friday was cloudy all day, but the afternoon was filled with excellent speakers. Tom and Edith Auchter, of the Northwest Suburban Astronomers, gave a fantastic program on their trip to Easter Island to view the total solar eclipse. They showed pictures of the island and the events before, during and after the eclipse, including a video during the entire event. The highlight was a band of thin clouds covering the sun as totality was ending, which resulted in a circular rainbow around the sun/moon! After that presentation and many questions and answers, they continued with a pictorial program on their trip to Chile before the eclipse. They were inspired to visit that country by the program that Carl Wenning and I presented at the IDSSP last year. They were in the area north of where we visited, and showed pictures of both the amateur and professional observatories (Tolono) that they visited. Also shown were the valley of the moon (the driest land on earth) and other areas of the country. It was a very entertaining and educational afternoon. That evening we were visited by the remnants of hurricane ??, which dumped 3 inches of rain on us that night (I got back home and found out that Bloomington Normal hardly got any precipitation). I awoke Saturday morning with my tent surrounded by a moat, which lasted into Sunday. My tent was my castle!

Saturday was an excellent day weather wise, but very soggy. I missed the Astronomy Bowl due to a conference call. The afternoon speaker was Dr. John Martin, Prof. of Physics and Astronomy (U of I). He spoke on the Epsilon Aurigae Pro-Am, which was very enlightening to me regarding that particular unusual variable star and how amateurs can assist professionals to unlock its mysteries. That evening, the sky was quite clear. I used both my CPC 1100 and my 10" dobsonian (with bailing twine, Carl) to work on my Messier list until the dew put an end to my viewing. I assume the dew was especially bad that evening because of the soggy conditions, and the electronics of several scopes (including mine) stopped working because of the extreme humidity. Even binoculars were dewed over within seconds of cleaning off the moisture. Naked eye viewing was not affected!

I had a very enjoyable time at the event again this year. The attendees were fun to be around, the food was excellent, the programs were enlightening, and viewing the butterflies and dragonflies (most I have every seen) was worth the trip. I encourage TCAA members to consider attending this event next year.

C14 TELESCOPE FOR SGO ON THE MOVE

On August 2nd, Bob and Cheryl Finnigan graciously donated an unused C14 optical tube assembly (OTA) and fork mount that Bob once housed under his 10-foot Ash Dome at Downs, IL. (That dome is now a part of SGO.) On September 9th, following a decision by the Board of Directors two nights earlier to repair the telescope, Carl Wenning transferred the OTA to William Carney. On September 10th, William shipped it to Optic Wave Laboratories in California for cleaning and refurbishing – it was expected to arrive on September 16th. On September 11th, Dan Miller dropped off at SGNC his generously donated mono-pier for mounting the telescope in SGO. (This item now joins the C14 wedge and tripod he previously donated to the TCAA a couple of months earlier.) That evening Dan also exhibited the hand controller, visual tailpiece and other items he will donate to the TCAA to be used with the updated C14. Carl Wenning transferred Bob's C14 fork mount to Dan on the 11th, and now Dan and John Werner are using the part's from Bob fork mount to repair Dan's fork mount that he also will donate to the club. It is hoped that within a month or two all these items will come together under the dome of SGO, just in time for the winter viewing season. Thanks and a tip 'o the hat to those who have been assisting with this project to get SGO operational once again following the continuing and finally terminal failure of the 12-inch Meade LX200 telescope earlier this year.

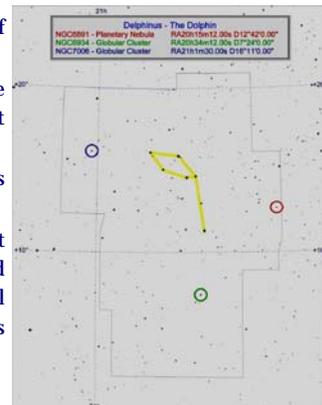
CONSTELLATION OF THE MONTH: DELPHINUS—THE DOLPHIN

Delphinus is a small constellation that lies southeast of Cygnus. Its image is of a dolphin that is jumping out of the Milky Way.

One story a dolphin convinces the sea-nymph Amphitrite to marry Neptune and become goddess of the sea. Another recalls the dolphin's rescue of the poet Arion.

Delphinus is the 69th largest constellation covering 189 square degrees and is the 66th brightest. Delphinus reaches opposition on July 30.

Although Delphinus is located near the edge of the Milky Way, it does not contain open clusters. We find several Globular Clusters including NGC6934 and NGC7006, one of the most distant globulars. Delphinus also includes several planetary nebulae such as NGC6981 and NGC6905, the Blue Flash Nebula, as well as several faint galaxies.



WHERE ARE THEY NOW?

By Carl Wenning, TCAA Historian

For the historical record, I'm starting a new (but thankfully short) series titled *Where are They Now?* This series will review the final resting places of some of the TCAA's most notable luminaries. It will also include a short reminiscence by the club's historian about these individuals. The intention is to help future club members find graves of club members; this is a popular past time with some folks. Indeed, there is even a Find a Grave website for those with this interest. The names of these luminaries will be included on that website in the future for the sake of completeness of the club's historical record. This month, I begin with the Kieviets, the founders of the TCAA.

In 1960 the group to become known as Twin City Amateur Astronomers was founded. John H. and Bertha L. Kieviet provided impetus for the new club after they moved to Normal in 1957. They resided at 715 N. School Street. Both John and Bertha had been very active in the Galesburg Amateur Astronomers of Galesburg, Illinois, with John only recently having served as president. This was a club whose members came from the local community, including Galesburg High School students and professors from Knox College. John's work as an architect eventually drew him to the Twin Cities. Upon arriving in their new community, the Kieviets discovered much to their chagrin that no astronomy club existed in their new town. With the passing of the next three years, the lack of an astronomy club seemed to be a growing

omission in light of the fact that so many space-related "firsts" were happening: Sputnik, Leika the space dog, the satellites Explorer and Vanguard, the selection of the Mercury astronauts, the Luna 2 hard landing, and the first pictures of the Moon's far side taken by Luna 3. John and Bertha resolved to rectify the situation. The rest is history.

John was born October 22, 1908, Chicago, son of Nicholas and Cora Owens Kieviet; he died October 28, 1981. Bertha was born February 24, 1912, Bremen Township, Cook County, IL, daughter of Ewald and Niesja Dyk Ziebell; she died October 6, 1994. John and Bertha married on May 26, 1934, in Harvey, IL. After graduating from Lindblom High School in Chicago on June 24, 1926, John went on to become a licensed architect. He did so following personal study; he never attended college. After moving to Normal, he worked for Schaefer, Wilson & Evans, Architects, 108 W. Monroe Street, Bloomington, Illinois, for 16 years, retiring in 1973. He was frequently involved in the work of Bloomington's Elks Lodge, the Loyal Order of Moose, and the Corn Belt Stamp Club.

John and Bertha married on May 26, 1934, in Harvey, IL. They had two daughters when the club was founded, Valeria (18; later married Vernelle Armour; Valeria passed away on January 1, 2010) and Kora (13; later married James Searcy). There was also a son, Victor, who was stillborn in 1939. Both daughters spent their lives in Bloomington-Normal. Bertha was a traditional 1950s stay-at-home mom with no external employment. Both John and Bertha were of Dutch extraction. Bertha and John are interred at Park Hill Cemetery Mausoleum (west exterior) in Bloomington.



THE EVOLUTION OF AMATEUR ASTRONOMY: THE TCAA THEN AND NOW—PART I

By Carl J. Wenning, Historian

Now that the historical volume *History of the Twin City Amateur Astronomers 1960-2010* has been published, I'm turning my hand to other historical pursuits. Starting with this article, I want to reflect on the last 50 years of change in amateur astronomy in general and the TCAA in particular. The changes in technology and society have been spectacular, and account for many of the events occurring within the club's history.

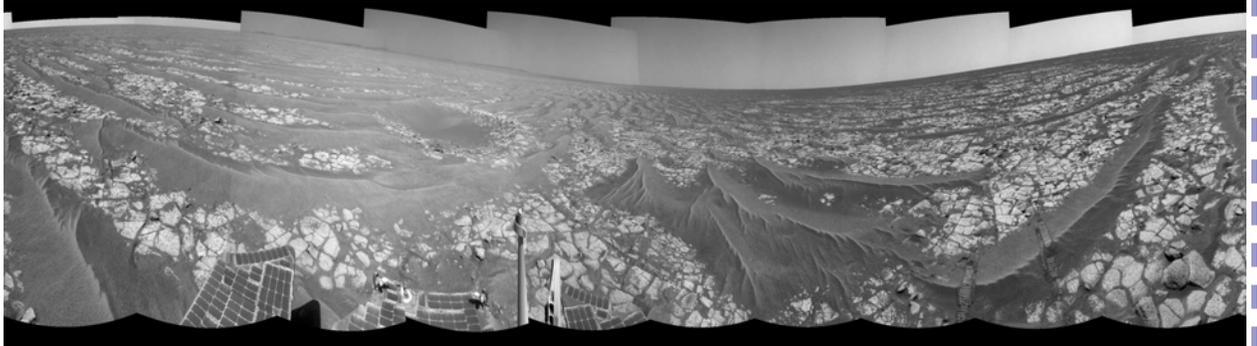
I started off this little work by drawing up a table of "thens" and "nows" and even some "transitions." Following that, I attempted to develop explanations for the changes if they seemed in any way less than obvious. Here are my thoughts on what has changed for TCAAers between 1960 and 2010:

Telescopes, Mounts, and Finders: In the early days of the TCAA, small aperture, mostly home-built reflectors were the norm, and even these were not all that common. In fact, the club's founder – John Kieviet – did not own a significant telescope until he built a 6-inch reflector working with club members in the early 1960s. The closest thing to an equatorial mount for amateur astronomers at that time was a combination of 45- and 90-degree pipe fittings that approximated the motions of a German equatorial head. Sure, commercially made telescopes such as the Dynascope were available, but few people had enough money to purchase them, and fewer people still understood how to use setting circles. Many amateur astronomers failed to grasp the use of setting circles and, as a result, they did not have a large impact on many amateurs. Telescope objectives eventually inched upward from 6in, to 8in, to 10in and more. In the early 1970s, larger commercially prepared telescopes with setting circles became available as evidenced by Bob Finnigan's purchase of a C14 – an alt-azimuth telescope mounted on a wedge. Following the work of San Francisco sidewalk astronomer John Dobson, commercially built light buckets on Dobsonian mounts started to become widely available in the early 1980s. The mirrors in these telescopes typically were very thin and subject to flexure, and the surfaces polished to ¼ wave or perhaps even less. Who cared if all one was looking at were dim fuzzy objects? By the mid 1980s it wasn't terribly uncommon to see 13.1in and 17.5in Odyssey telescopes – true light buckets – used by the club membership; still, something was missing as people seemed to be growing tired of having to bend half way to the ground to look through inconvenient "straight through" finder scopes. In 1986, GoTo mounts were introduced on telescopes of intermediate aperture. Mike Rogers purchased an 8in Celestron Compustar telescope at this time and eventually set the club afire with the desire to purchase more GoTo instruments. This revolution in mounts represented a quantum leap in the way that amateur astronomers found celestial objects – no more finder scopes and no more star hopping; no more German equatorial heads and no more incomprehensible setting circles – alt-azimuth mounts were more than adequate for visual observations. Just point the telescope on two alignment stars and align and tell the telescope to GoTo. The same thing could also be said for equatorial mounts of outstanding precision. Today, large aperture telescopes of exceptional quality (e.g., 1/40 wave mirrors) are not at all uncommon. In recent years, the TCAA's larger amateur instruments have been in the 14- to 18- to 20-inch range with anything under 10 inches growing relatively uncommon. Also with the turn of the century, small apochromatic refractors of exceptional quality (camera lenses really) became available that opened up new frontiers in astrophotography.

Charts, Maps, and other Guides: During the 1960s, the only common guides to the night sky were such things as the Webb Society handbooks (5), Alcott's *Handbook of the Heavens*, and the *Norton Star Atlas*. The Webb Society handbooks contained lists of information, but no finder charts. The Alcott work contained lots of mythology, and simple constellation charts that at best showed only the very brightest celestial objects visible in a "small glass." Norton's *Star Atlas* was full of all sky charts for the middle northern latitudes – and little else – one each for every two hours of sidereal time. These materials, when used in conjunction, were suitable for an age when observers used only very small telescopes, but this would not be so with the coming improvements in the instrumentation of amateur astronomers. As amateur astronomy became more popular and accessible to the unwashed masses in the 1960s – sparked in large part due to advances in space flight and professional astronomy – changes were taking place that would require more and better guides to the heavens. In the 1970s, Robert Burham began to publish, constellation by constellation, his observer's guide. By the early 1980s, these were published in three large volumes that contained lots of photographs, mythology, and technical data; still, very few finder charts but for the dimmest and least accessible celestial objects, and no star maps. Large-scale (and rather ungainly) star charts became available for the first time such as the *Skalnate Pleso*, *Uranometria*, Vehrenburg's *Atlas of the Heavens*, and Tirion's *SkyAtlas 2000*. Still, nothing was available until the late 1980s – with the advent of the personal computer – that brought star charts and technical information together in a convenient fashion. A few planetarium-style programs became available for desktop computers at this time. Immediately prior to that, static seasonal star maps were replaced by planispheres – literally analog computers. The digital computer in its many later forms and iterations would have a much greater impact. In the early years of the 21st century it became possible to interface a laptop computer with a telescope to take advantage of GoTo functions. Later still, in 2010, one could set up a wireless network and control a telescope from an iPod, iPad, a cell phone, and similar handheld devices. Laptop computers and iPads did an exceptional job of interfacing the telescope, star charts, technical information and photographs, with the amateur astronomer. No longer did one need to struggle with ungainly books and charts at the finder and eyepiece. Touch screen devices were wirelessly integrated with highly accurate telescope aiming systems that allowed complete control with the tap of a finger. It is utterly amazing what the past 50 years has wrought.

Next month: Look for Part II of this series in the November issue of *The OBSERVER*. The next article will deal with topics such as photographic equipment and presentation media for use with the membership and the general public.

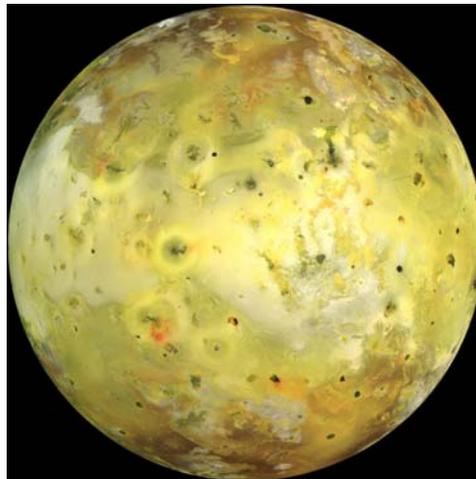
ASTRONOMY PICTURES OF THE DAY



Rolling Across the Rocky Plains of Mars

Credit: Mars Exploration Rover Mission, JPL, NASA

Explanation: You stare out across the rocky plains of Mars. Before you, in every direction, is dark sand and bright rock. Although little has changed here for millions of years, no one has ever seen this view before. You are being sent on a long journey to a distant crater, the largest crater in the region. Your human overlords back on planet Earth wonder if the impact that created this distant crater might have also uncovered unique clues to the distant past of Earth's neighboring planet, clues that might reveal if life ever existed here. Breaking the monotony, visible toward the image center, an unusual rock sticks out from the landscape. Quite possibly, this rock is not from this world, and you divert to inspect it. You are the robotic Opportunity rover, and you are the eyes for countless humans following your trek back on planet Earth. Rolling about a football field a day, you might reach Endeavour crater sometime in 2012. If you survive.



Io in True Color

Credit: Galileo Project, JPL, NASA

Explanation: The strangest moon in the Solar System is bright yellow. This picture, an attempt to show how Io would appear in the "true colors" perceptible to the average human eye, was taken in 1999 July by the Galileo spacecraft that orbited Jupiter from 1995 to 2003. Io's colors derive from sulfur and molten silicate rock. The unusual surface of Io is kept very young by its system of active volcanoes. The intense tidal gravity of Jupiter stretches Io and damps wobbles caused by Jupiter's other Galilean moons. The resulting friction greatly heats Io's interior, causing molten rock to explode through the surface. Io's volcanoes are so active that they are effectively turning the whole moon inside out. Some of Io's volcanic lava is so hot it glows in the dark.

TCAA Treasurer's Report – September 2010

OPERATING FUND BALANCE – August 31, 2010 - \$ 1,391.96

Income

Tim Henning (Dues) -	\$ 41.00
NCRAL (NCRAL 2010 contribution)	\$ 500.00
Tom Weiland (Dues) -	\$ 41.00
Mason Toni & Dan Wudtke (Dues) -	\$ 40.00

Expenses

LYB Inc. (August Observer) -	\$ 33.88
Paypal (Tim Henning dues) -	\$ 1.20

OPERATING FUND BALANCE – September 30, 2010 - \$ 1,978.88

OBSERVATORY FUND BALANCE – August 31, 2010 - \$ 3,176.13

Income

None -	\$ 0.00
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Expenses

None -	\$ 0.00
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OBSERVATORY FUND BALANCE – September 30, 2010 - \$ 3,176.13

TOTAL TCAA FUNDS – September 30, 2010 - \$ 5,155.01

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 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**