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ASTRONOMY JAMBOREE OCTOBER 6

The 24th annual (DAAC) Astronomy Jamboree will be held at Friends Creek Conservation Area on Saturday, October 6th, beginning at 7 p.m. The stage is set for a full evening of stargazing fun for the entire family. Learn how to read a star chart with guest speaker David Leake, coordinator of the William M. Stearkel Planetarium in Champaign. Following this introduction, we will head out under the stars for viewing with members of the general public. There will be story telling,

door prizes, refreshments, a campfire with marshmallows for roasting, and telescopes for viewing the night sky. TCAAers are invited and encouraged to attend and, if we have our own telescopes, to bring them along.

If TCAAers would like to attend this event, they'll also more than likely want to attend the private potluck picnic that has been part of this event since the very beginning. The picnic begins at 5 p.m., and participants should – like with TCAA potlucks –

bring an entrée, a dish to share, and a table setting. Refreshments will be available on-site for purchase.

Friends Creek is located 9 miles east of Maroa, IL, on County Highway 38. Carl Wenning who has presented at the Jamboree many times, will lead a TCAA car caravan from Bloomington to the site starting at 4:30 p.m. Please plan on arriving in the Sale Barn parking lot (or failing that McDonald's across the street) by 4:15 p.m. at the latest.

MINUTES OF THE SEPTEMBER 12, 2007 BOARD MEETING

President Lee Green called the Board, officers, and guests to order at 6:41 p.m. in the office of Lewis, Yockey & Brown, Inc. Also in attendance were Mike Rogers, Dan Miller, Duane Yockey, William Carney, and Carl Wenning. The following business was addressed and decisions made:

- Carl reviewed the minutes of the prior meeting and the following topics were addressed in an informational way: (1) Lee reported and Dan agreed that the huge video projector stored in SGO will be removed but the TV will stay; (2) Duane has checked into the Normal's Parks and Recreation Department publicity and it is too late to do anything now that their autumn brochure has just come out; he will write a new release and send it to both Normal and Bloomington's Parks and Recreation Departments using web addresses instead of phone numbers; (3) Mike reported that on October 24th there will be a "How to Buy a Telescope" presentation at Bloomington Public Library running from 7-8 pm; and (4) Carl reported that there are no "suitable" sidewalk amateur astronomer events for the remainder of the year, but will organize a Mars opposition viewing session in cooperation with the CLC shortly after Christmas.
- It was noted that the tentatively planned astrophotography seminar planned for September 13th won't be happening due to the fact that no arrangements were made as had been anticipated.
- Carl related information about the Astronomy Jamboree to be held at Friends Creek Regional Park 9 miles east of Maroa on October 6th. The Board agreed to merge the October MOOS with this event; no MOOS will be scheduled at SGNC during October.

- Carl mentioned a request by SGNC for the club to participate in Autumn Fest on October 20th. Carl, Dan, Duane, William, and possibly Mike will be present to assist. Dan will bring the TCAA display; Carl will bring his telescope with white-light and Hydrogen-alpha filters for observing the Sun.
- Carl will host the November MOOS.
- It was agreed that a December holiday party will be held, and Carl will work out details with Angela Smith at SGNC about holding the event there. The event will be early December in conjunction with the MOOS.
- William reported that Meade has acknowledged receiving the SGO's LX200 telescope, but they have not been forthcoming with information about its repair. Three problems being addressed are the grinding altitude gears, the "China syndrome" motions, and the faulty control pad.
- William will be donating a flexible dew shield for the replacement 10-inch Meade telescope currently in place at SGO. He requested that approximately \$65 be allocated for him to purchase a Telrad and a 2-inch visual tailpiece for this instrument. Mike motioned, William seconded, and the motion carried.
- William reported that mice had attacked two library books in the SGO collection recently, and that he will be closing small openings through which mice have entered the observatory. One mouse nest was recently removed.
- No submissions were received for a new TCAA logo. It was agreed that Millikin, ISU, and IWU faculty will be

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Electronic Newsletter \$25

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MINUTES OF THE SEPTEMBER 12, 2007 BOARD MEETING (CONT.)

(Continued from page 1)

contacted with information about a \$100 prize design competition for anyone who cares to submit an offering. Lee will write up an announcement about seeking ideas for the logo and forward it to Dan, Carl, and William respectively. TCAA members will be eligible for this competition that will draw to a close by the end of autumn semester at these schools. The announcement will appear in the next issue of *The OBSERVER*.

- It was agreed that membership cards need to be completed soon despite the fact that we do not yet have a new logo. Mike was requested to generate the membership cards as previously specified, and these will be distributed along with the October issue of *The OBSERVER*.
- The club's draft 5-year plan was again addressed. Some 40 suggestions were evaluated in rapid-fire succession. More than a dozen suggestions were rejected by a majority vote of the group, and others were relegated to the webpage redesign group. Carl will revise the document and make it available at the next Board meeting for prioritization.
- Due to the fact that the meeting was running long and Mike had to leave and without him there would not be a quorum of the Board present, the following business was handled expeditiously.
- Summaries and reviews of the NCRAL planning committee work and website planning work were tabled. Carl was asked to call a meeting of the NCRAL group; William distributed a planning document from the AL for regional conferences, along with the association's bylaws. Lee has already met with the website group, and they will

continue to meet.

- Mike motioned and William seconded a motion to donate \$100 to the International Dark Sky Association in memory of Lenore Trainor. Duane will see to the contribution.
 - Lee distributed a document about the Night Sky Network. Mike motioned and William seconded that the TCAA join the Night Sky Network; the motion was passed unanimously. Dan and Lee will serve as coordinators and work to complete the online application process by September 17th deadline. Club members are directed to the WWW for details about the Network.
 - Attention then shifted to the Annual Meeting. The dates of February 9th, 16th, and 23rd were mentioned as most desirable. Mike will check with Jean Memken about having the Catering Club host the event in Turner Hall on a non-basketball night. Several names were suggested for keynote speaker, but no consensus was reached. These decisions will be made at the November meeting of the Board.
 - Carl will work up a list of events and prepare the 2008 Public Observing Session brochure. The themes this year will be constellation-based. Topics such as "The Stars of Orion" will be used.
 - The next meeting of the Board will be on Monday, November 12th, at LYB, Inc.
- The meeting was adjourned at 8:37 p.m.

Respectfully submitted,
Carl J. Wenning, TCAA Secretary

REGISTER NOW FOR NIGHT SKY WATCH

Now is the time to register for the TCAA's adult education program offered through Heartland Community College. *Night Sky Watch* (SCIENCE 1034, Course Code: 5092), led by former ISU Planetarium Director Carl Wenning (1978-2001), will feature two classroom presentations, one visit to the ISU Planetarium, and an optional field trip to Sugar Grove Observatory.

The four sessions will be held each Saturday from January 5 through January 26, 2008, from 7 to 9 PM each night. The first two classes will be held in HCC CCB Room 2401. The cost for this course is \$60 per person, and the fee includes materials (but not transportation).

The focus of this short course will be on the denizens of the night sky – moon, planets, comets, asteroids, stars, nebulas, clusters, and galaxies – and how to find and observe them using binoculars and telescopes.

You may register online anytime at www.heartland.edu/communityEd or by phone (with credit or debit card) by calling (309) 268-8160 M-F, 8 AM to 4:30 PM. Registration deadline is December 15th.

MAKING MEMORIES

~ reflections on life as an amateur astronomer ~

by Carl J. Wenning

Fifty years ago this month the Russians shocked the world when they launched and orbited the first artificial Earth satellite – Sputnik. While I was only a month shy of five years of age at that time, I can still vividly remember the events of that day. I was sick when I woke up, and spent the morning in bed. Later, I spent much of the afternoon playing with my metal cars and Lincoln logs on the living room floor in the warming sunlight streaming through the front door. It was a clear and brisk autumn day. Later that evening, my Grandfather came over for supper. As I lay on the couch in the living room not feeling so well once again, I remember him angrily protesting to my father about the Russians and the events of that day. It was October 4, 1957. This is one of the very few days I can remember from my early childhood.

Another day that I remember was when this same grandfather stood me on a wire fence one evening in late summer of 1956. He pointed out Venus and explained that it was a planet. I vaguely recall him later that evening pointing out the constellations and the Milky Way filling what was then a very dark sky. Even then I was amazed that anyone could know the names of sky objects, and the concept of a galaxy deeply impressed me. That evening's events so impressed me that I eventually went on to college to earn a degree in astronomy.

I have learned during these past five decades that salient events such as these make for powerful memories that are a joy to recollect. While I can't remember what I had for breakfast this morning or what I did at work two days ago, I do remember unique events because of their saliency. I remember counting Perseid meteors all night long at Perkins Observatory in Ohio. I remember observing total solar eclipses from Bolivia and off the island of Crete. I remember a night observing with the 72-inch reflector at Anderson Mesa. I remember handling Percival Lowell's drawings of the canals of Mars at Lowell Observatory. I remember photographing the heavens using the 24"-36" Schmidt camera at Kitt Peak. I vividly remember all events of my life that were in some way special. I can hardly remember the common, ordinary, day-to-day events. I suspect that we all have these sorts of memories and non-memories, and this should tell us something.

I frequently tell two daughters, "Do something special; make a memory for yourself." Special events make life richer, more rewarding, and memorable. I think that as amateur astronomers we should also attempt to make memories for ourselves. So, when you have an opportunity to take advantage of a TCAA event, be certain to make a memory for yourself.



TCAAers HELP WITH ASTRONOMY OPEN HOUSE

TCAA member Rebecca (Wenning) Veyra is now teaching physics and physical science at East Peoria Community High School. Along with her job, she "inherited" an observatory housing a 14-inch Meade LX200 telescope. On Tuesday, September 18th, Rebecca held her first astronomy open house. Assisting were former ISU Planetarium directors Nerio Calgaro (1969-1974) and Carl Wenning (1978-2001), and Dan Miller along with four of his astronomy students from Millikin University in Decatur.

The evening's events began with the talk *Our Amazing Moon*, and was followed by a presentation by the school librarian who spoke about and read from *The War of the Worlds*. Observing then ensued with Dan's three 8-inch telescopes, and Carl's 11-inch telescope. The parents, teachers, and administrators who were present were very impressed and stated it vocally. The students were much more circumspect with their comments, but they appeared to have enjoyed themselves nonetheless.

TCAA SELECTED BY NASA AS MEMBER OF NIGHT SKY NETWORK

The Twin City Amateur Astronomers has been selected by NASA to be a member of the Night Sky Network, a nationwide coalition of amateur astronomy societies committed to sharing their time, their telescopes, and their enthusiasm for astronomy with their local communities. Club members hold outreach events at public astronomy nights, during classroom visits, at youth group events, and at other public events catering to students of all ages.

Membership in the Night Sky Network includes training for club members, special opportunities for working with NASA scientists and educators, access to a dedicated website for communicating with other Night Sky Network participants, and public recognition by NASA for their outreach activities.

"NASA is very excited to be working closely with the amateur astronomy community," said Michael Greene, head of public engagement for NASA's Navigator Program based at the Jet Propulsion Laboratory in Pasadena, California. "Amateur astronomers want more people to look at the sky and understand astronomy, and so do we. We have a strong commitment to inspiring the next generation of explorers. Lending support to the energy that the amateur astronomy community brings to students and the public will allow NASA to reach many more people."

For more information, go to <http://nightsky.jpl.nasa.gov>.

Special thanks to Dan Miller for helping us achieve this prestigious membership.

OCTOBER SKY GUIDE

02	The Moon passes 5° north of Mars, 3 P.M.	
06	The Moon passes 3° north of Venus, 10 P.M.	
07	The Moon passes 0.2° north of Regulus, 2 A.M.	
	The Moon passes 1.3° south of Saturn, 11 A.M.	
09	Venus passes 3° south of Regulus, 6 A.M.	
12	The Moon passes 1.3° south of Mercury, 8 P.M.	
15	Venus passes 3° south of Saturn, 9 A.M.	
	The Moon passes 0.5° south of Antares, 10 A.M.	
16	The Moon passes 5° south of Jupiter, 1 A.M.	
20	The Moon passes 1.3° south of Neptune, 10 P.M.	
21	Orionid meteor shower peaks	
22	The Moon passes 1.8° north of Uranus, 9 P.M.	
23	Mercury is in inferior conjunction, 7 P.M.	
28	Venus is at greatest western elongation (46°), 10 A.M.	
30	The Moon passes 3° north of Mars, 2 P.M.	

OBSERVERS' LOGBOOK FOR SEPTEMBER

On the morning of Monday, September 3rd, between approximately 12:20 and 1:15 a.m., Carl Wenning was able to observe five disappearances and four reappearances as the Moon occulted the Pleiades star cluster in Taurus. Carl observed this event from his front yard in Normal using an 11-inch CPC. Lee Green made similar observations from his home, also in Normal, using his C14.

During the evening of September 13th, William Carney, Duane Yockey, and Carl Wenning met at SGNC for a short observing run. Joining the trio were four students from the ISU Physics Club. Duane, working with his new CPC 11-inch, was able to stay only until 9:30 p.m. Carl and William observed nearby with Carl's CPC 11-inch and the club's 16-inch respectively. After Duane and the students left, Carl was able to capture an additional 5 NCG objects bringing him up to 181 of the 400 required for the AL's Herschel 400 Club. Carl left at about 10:30 p.m. after getting tired of the eau d' skunk that was wafting through the air from about 9:45 p.m. on. William continued to observe blissfully from the SGO.

TCAAers Sandy McNamara-Wolford, Lee Green, and Carl Wenning attended parts of the Illinois Dark Sky Star Party over the four-day September 13-16 "weekend." Also in attendance were former members Joe DeHoff and Robert Ryburn. More than 100 other observers attended the weekend event, and telescopes as large as 30-inches in diameter were on site. (The image to the left shows the 30-inch telescope.)

Lee picked out Mercury at 7:25 p.m. on Friday evening, and pointed it out to Carl. The speedy little planet was shining brilliantly at 0.0 magnitude adjacent to the thin crescent moon. Lee noted that this was probably the first time he had ever seen the elusive planet.

The "dark sky" component of the name is justifiably used; the Milky Way was visible nearly down to southern horizon even though the lights of Springfield were faintly visible low in the southeast. The naked-eye limiting magnitude was definitely > 5.5. While Lee observed continuously from 9 p.m. to 2 a.m., Carl observed at a more leisurely pace. Carl sighted 21 new Herschel 400 objects after midnight, and is now more than half way to his goal.



SUGAR GROVE OBSERVATORY UPDATE

William Carney reports that the SGO 12-inch was returned from Meade Corporation on September 18th. It had been returned to the factory for "warranty service." Recent experiences with the instrument indicated that its altitude gears were grinding, that it has the "China syndrome," and that the control pad wasn't working very well.

Following a general cleaning of the observatory (including removal of several dead mice and mice nests, and repairing some of the external paneling and plugging holes), the telescope was put back in place on September 19th. According to William, "We got the 12-inch scope mounted on the pedestal last night. I turned it on and ran through everything and it does seem to work fine. The software was updated and boots up a little differently than before. The hand controller is also a little different. So we may do a key-holder refresher to bring keyholders up to speed."

William indicated that all keyholders should download new operating instructions from Meade for the 12" scope's update. Click on "New Initialization instructions for Autostar" linked at the following URL: <http://www.meade.com/support/auto.html>.

Coordinators are needed still for several of the 2007 Public and Members Only Observing Sessions at Sugar Grove Nature Center. Additional POS coordinators are needed; two per session are preferred. Please sign up by contacting one of the Board members if you are willing to host or co-host one of these sessions.

Members Only Observing Sessions occur one week earlier than the above POS. Coordinators (who should be SGNC key holders unless they have their own telescope) are still needed for nearly all of these sessions. Please sign up by contacting one of the Board members if you are willing to coordinate one of these events.

MOOS 2007 Date	MOOS Coordinator(s)
October 6—with Astronomy Jamboree	Held at Friends Creek Regional Park, 9 miles east of Maroa

2007 Date	POS Topic(s)	POS Coordinator(s)
October 13	Double Cluster in Perseus	1. Lee Green 2.

CHASING M57

By Lee Green

I've been trying to improve my astrophotography techniques. I had a chance over Labor Day weekend, when we had a string of four nights of stellar atmospheric conditions.

I've been plagued with star elongation due to periodic error and determined to overcome the problem.

Training the scope's PEC function is a tricky process.

You can't do it manually unless you have a lighted-reticule eyepiece. Otherwise you're just guessing.

I chose to set up my system to perform training through the computer.

Rotate the camera orthogonally so that left-right buttons create left-right movement on the screen.

Then monitor throughout the training period to reverse RA transients.

After PEC is trained, you can playback the corrections to compensate.

How does PEC compare/contrast/interact with

auto-guiding? Both are feedback systems and can cause instability.

On Friday, I repeat previous steps, 6x4 aggressiveness. Good guide star.

On Sunday, I did a very careful PEC training and let that playback throughout the sequence. I noticed less stable tracking and reduced the auto-guiding aggressiveness to no avail. Guide star was not good when filtered.

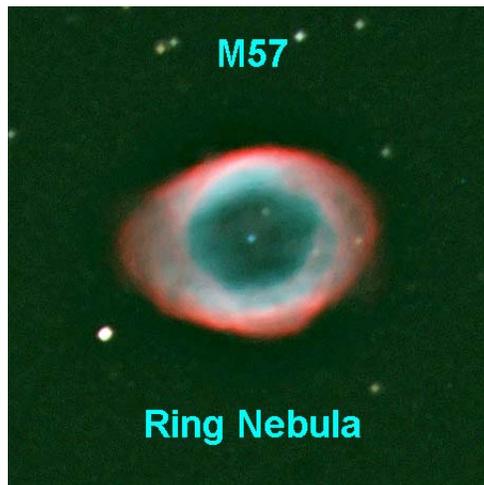
On Monday evening, given the results of hybrid guiding, I went back to auto-guided only mode. Focusing on Mizar, drift was noted, so I performed a through-camera Polar alignment. That eliminated drift noticed during focusing. Different guidstar, that seemed well behaved in all channels! The first set of luminance used a high aggressiveness (9) in RA. Checked hand-controller rate and set aggressiveness to 7. Then everything worked as expected!

Grab BGRLLs.

So low rate (1/2 sidereal - Rate-1), higher aggressiveness seem to be the trick. Was good

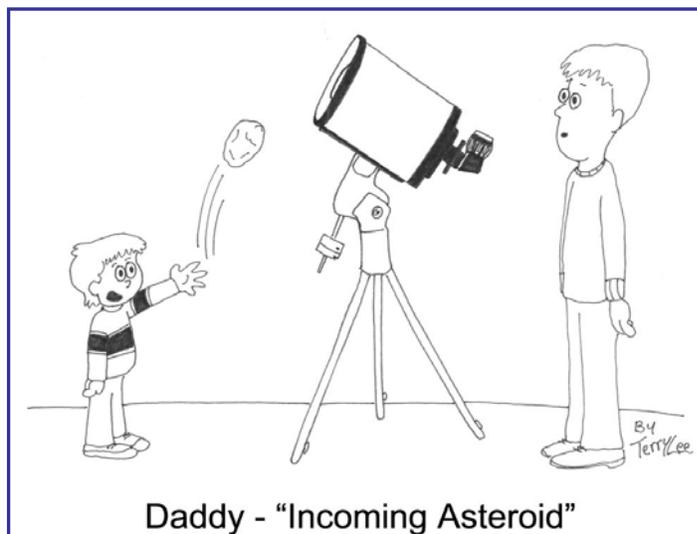
polar align in play too? Or seeing conditions?

But the guide star, guiding calibration (camera rotation), guiding aggressiveness combine to affect the resulting image.



SEPTEMBER POS VERY SUCCESSFUL

There was a great turnout for our September observing session. At least 61 people attended the session, although it may have been as many as 70 as more as people kept arriving throughout the session. Carl Wenning presented a whimsical talk *The Milky Way: A Guide for the Perplexed*. It wowed the crowd and was greatly enjoyed by everyone. Dave Osenga did a wonderful follow-up sky tour pointing out many constellations, asterisms and other objects and discussing several topics of interest. Everyone enjoyed viewing until the clouds came in about 9:30 p.m. We had six telescopes in use with William Carney, Prakash Muduli, Duane Yockey, Dave Osenga, Lee Green and Carl Wenning running them. Thanks to all the members who attended (Ginnie Underwood, Gail Nelsen, and perhaps others), and special thanks to Terry Lee Wright and John Williamson for all their assistance.



PROFILES IN AMATEUR ASTRONOMY: SANDY (McNAMARA) WOLFORD

By Carl Wenning

Historian's note: Over the next few months I will focus the membership's attention on the TCAA's premiere observers with their help. The intention is to introduce our membership to one another and to provide opportunities to further develop relationships within our association.



A few years ago, the TCAA “lost” one of its premiere members – Sandy McNamara. Sandy married and moved to Indiana after meeting another kindred spirit and now her husband Mike Wolford. Sandy was described as the “heart and soul” of the club when she left. She served many consecutive years as TCAA president, and oversaw such things as the construction of the Sugar Grove Observatory. TCAAers who were around in her days will always remember the late night observing sessions at Sandy’s home in Stanford, IL.

Sandy has been interested in amateur astronomy for about 25 years now. As she noted recently, “I’ve always been intrigued by cultural mythology and how astronomy played such an important role in all ancient (and many modern) cultures. After moving to a dark rural area, seeing skies as our ancestors may have seen them led me to further explorations and my love of science and technology in general kept me diving deeper.”

Sandy started out with a small 80mm refractor, and then moved up to an 8-inch SCT that she used to observe for many years. She currently owns a 12.5-in Starmaster Newtonian reflector with premium Zambuto optics, ServoCat drive system, and Sky Commander computerized digital setting circles. She has access to her spouse’s 15-in reflector with ServoCat and ArgoNavis systems, 20x80 tripod mounted giant binoculars,

short-tube 80mm refractor, NexStar 5 SCT, and an assortment of smaller Dobsonian reflectors.

Only after five years of becoming immersed in amateur astronomy did Sandy join the TCAA. That was around 20 years ago. Having moved to Indiana, she is currently a member of the Indianapolis Astronomical Society (the major central Indiana organization), the Twin City Amateur Astronomers (by virtue of an honorary lifelong membership conferred in 1994), the Astronomical Society of Kansas City (because she and her husband camp at their dark sky site on occasional vacations), and Stone Belt Stargazers (a group near Bedford/Bloomington, Indiana, which concentrates on public outreach).

As her lifelong honorary membership in the TCAA suggests, over the course of the years Sandy has been extremely active in both the club and in observing programs. She served as club President in 1994, 2001, and 2002; Vice President in 1992, 1993, and 1997; Secretary in 1997; Treasurer from 1995 through 1999; ALCor from 1995 to 2000; and Property Manager from 1998 to 2003. No one in the history of the club has held so many different offices for so long.

Sandy currently holds the AL Honorary Messier Observing Award (1994), the AL Double Star Observing Award (2000), and the AL Herschel 400 Observing Award (2001) all completed using star hopping. Regarding her many observing awards Sandy recently noted, “Perhaps the heart and soul of my interest in astronomy is visual observing. The observing awards I’ve earned are not the main reason for my nights out under the skies but completion of them gives the unique satisfaction of a goal accomplished. I enjoy the challenge of the hunt as well as the curiosity of discovering whether the next item on the list is a beautiful hidden treasure or a ‘hmmph!’ Perhaps most of all simply being out in the quiet of the night under the majesty of the heavens, either in solitude or in the company of friends, brings a serenity to the mind and soul that is difficult to explain to those who have not experienced it.

In recognition of her contributions to the club and observing prowess, Sandy was inducted into the TCAA’s Schuette Society of Outstanding Amateur Astronomers in 2004. She was the first and only member of the club to receive the John & Bertha Kieviet Founders Award in 1996.

Clearly, Sandy is greatly satisfied with her experiences in the real of amateur astronomy. Perhaps her greatest satisfaction comes from showing others the skies and teaching people how to expand their knowledge. Over the years these efforts have resulted in some fond memories. She notes among her most favorite memories the following: “Observing at a quiet site on New Year’s Eve and taking a break to watch fireworks in the distance. Sitting on the ground at a public observing session with a fascinated 6-year-old and telling stories of the constellations as we found them in the skies. Quietly observing far from

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PROFILES IN AMATEUR ASTRONOMY: SANDY (McNAMARA) WOLFORD (CONT.)

(Continued from page 6)

civilization when a great horned owl in a tree directly behind me decided to express his annoyance... loudly ... at my presence (it took 10 minutes for my heart to stop racing!). Talking long into the night with friends while casually observing.” Such are the memories of someone who has dedicated their life to promoting amateur astronomy.

Sandy’s goals today for amateur astronomy are simply to continue explorations of the night skies and discovering some of the beautiful and intriguing objects hidden among the stars. To this end she is actively engaged in AL observing programs for Arp galaxies, galaxy groups, and planetary nebulae. Sandy believes that, “Most of the exciting work from professionals and dedicated amateur astronomers is being accomplished with automated CCD equipment and computer data analysis. Pure observational (i.e. LOOKING through an eyepiece) astronomy is being relegated to an admittedly enjoyable recreational past time.” And so it is.

Because of her many years of observing and working with the general public, Sandy offers the following advice, “Don’t be concerned about your equipment or knowledge – or your perceived lack of either. Both will come with time. Just go on outside and enjoy the beauty and tranquility of the night skies as our ancestors have done since creation.”

OBSERVING WITH THE CORONADO PST

~ by Carl Wenning ~

During a July/August conference trip to Greensboro, NC, TCAAer Andrew Morrison and I had a chance to visit with two astronomy club members from the Raleigh-Duram and Boone areas. They had deployed several telescopes for solar viewing at the conference, and among these telescopes was the Coronado PST – Personal Solar Telescope. I had seen this item advertised, but never had a chance to view through one before. After a few minutes of viewing, I was convinced that I needed to buy one of these small, self-contained units that are available for just under \$600. The PST competes very well with units that cost a thousand dollars more and then must be affixed to an even more expensive telescope.

The Coronado PST has been designed with one object – the sun – and one wavelength of light – Hydrogen-alpha ($H-\alpha$) – in mind. Observed with a bandpass of less than 1 Ångstrom centered on this emission line of hydrogen allows one to observe the sun’s chromosphere, the active region above the sun’s normally observed photosphere. Viewing the photosphere in “white light” shows sunspots, granulation, plages, and limb darkening. Viewing the chromosphere in $H-\alpha$ shows much more dramatic prominences (leaping upward from the edge of the sun), filaments (long worm-like features on the disk of the sun), faculae (bright regions associated with sunspots), and flares (violent explosions on the face of the sun) – all of which can change significantly in a very short period of time. As observations in $H-\alpha$ have shown, our daystar is the most dynamic celestial object that can be seen with any telescope.

Recent observations of the sun in white light and $H-\alpha$ have shown it to be essentially featureless (NOAA has predicted that sunspot cycle 23 will reach a minimum and come to an end during March 2008 +/- 6 months). However, the sun continues to show small numbers of solar features in both bandpasses.

The Coronado PST requires no more time to set up than a tripod with camera. I can now mount the PST on the back of my CPC 11” telescope (outfitted with a full aperture white light solar filter) providing a pleasing combination of white light and $H-\alpha$ viewing. With this very substantial combination of white light and $H-\alpha$ filters, it looks like its time for some public “sun day” observations.

2nd ANNUAL HOBBY SHOW AT NPL

The 2nd annual hobby show at Normal public library on September 8th was “interesting” according to Lee Green who single-handedly managed the TCAA display. Unfortunately, the event was not well attended. About 20 hobbies were represented, but only about 25 members of the public came to the display. The road construction in the area, as well as the beautiful weather, surely dampened the attendance. Lee was able to pass out a number of TCAA brochures, and several attendees indicated an interest in participating in the September POS. Thanks to Lee for helping the club put its best foot forward.



ASTRONOMY EQUIPMENT

by Terry Lee Wright

As I was looking through my 8x50 finder scope one evening at the Milky Way, I was thinking there's got to be something better than 8x50. I mean the 8x50 is good, it picks up things my naked eye can't see. But what am I missing up there? The Milky Way – wow, there're a lot of items out there to see. Maybe I need some magnification to help aim the larger scope. I'm not just looking at the well known up there. I'm also searching for anything new.

Well, I found just the item. It's a super Finder, a grab & go scope, spotting scope and an astrograph. So I have many uses for it, and since I travel a lot, it's a great, easy to carry, grab & go scope. I'm talking about the Astro-Tech AT 66 ED, this apochromatic doublet is just what I'm looking for.

Yes, it's tiny, but larger than my 8x50, the tube length is 11.5" with the lens shade retracted and extended it's 14.4". It weighs 3.9 lbs. So for my 8" SCT, this is just right. The 1.6" visual lock has SCT threads that allow you to attach a range of accessories easily. The short focal length makes it a great tool for scanning the Milky Way and the small aperture with its FPL – 51 glass will let you raise magnification on the Moon without false color being too intrusive.

For a little 66mm scope, all I can say is – seeing is believing. The image from its 400mm f/6 ED (Extra-Low Dispersion) glass element air-spaced doublet optics are virtually color free, even at high magnifications. The optical performance is clearly astonishing.

Its lowest power, 10x (with 40mm eyepiece), then 67x (with 6mm eyepiece), and 100x (with 4mm eyepiece) and the maximum 133x (with 3mm). The highest practical power is about 100x with 4mm. I'm using the 82° field, Meade ultra-wide eyepieces, 8mm and 14mm with great results.

The AT66 has multicoated optics, the objective lens has the latest state-of-the art antireflection multicoatings on all four air-to-glass surfaces for high light transmission and excellent contrast. And it's easy to see by looking into the objective lens of the scope. Virtually no reflection of your face will be seen. And this means that the high transmission coatings are doing their job by letting all the light enter the scope, rather than reflecting some light back to your eye.

There are ten contrast-enhancing light baffles in the optical tube, for truly dark sky, backgrounds and high terrestrial contrast, the edges of the objective lens are blackened to eliminate contrast-reducing stray internal reflections.

This little scope has a dual speed microfine crayford-style focuser with a 1.25" adapter. This is a very precision-made focuser with dual speed focusing, which I find very pleasant to use. There are two coarse focusing knobs. The right knob also has a smaller concentric knob with 11:1 reducing gear microfine focusing ratio. And this will give you precise image control during visual observing or with 35mm and CCD imaging. And the knobs are easy to use with gloves on in cold weather. There's also a lock knob under the focuser to lock in your photographic focus. Also, there are locking rings on the body of the scope to allow focuser to be rotated a full 360°. This allows you to lock in place, to lineup a camera for landscape or portrait work.

I'm also using the Astro-Tech Star Diagonal 1.25", the compression ring won't scratch the barrel of your eyepieces as a thumbscrew can. You can also use a 2" diagonal and 2" eyepiece.

Now if I had a larger scope, say 14" or more, I'd go with all 2" pieces.

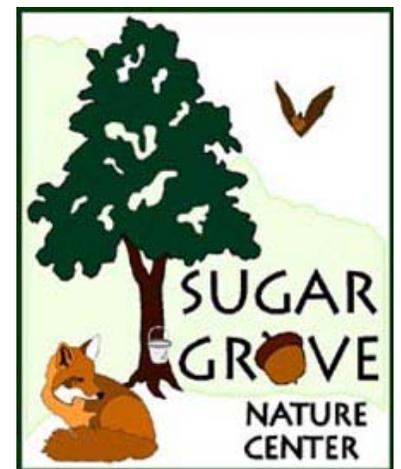
This little scope wonder comes with a hard case and a lens cover. And the hardest thing about getting one of these scopes is choosing the color. They come in an anodized finish or in a durable paint.

Be sure to check with other TCAA members about any piggybacking or other ideas you may have for your scope or setup.

TCAA-RELATED WEB PAGES

Carl Wenning has developed a "TCAA Observing Page" making use of RSS programming. The web page gives up-to-the minute weather reports, forecasts, moon phase, hyperlinks to important web sites that can provide detailed local data, and a day-by-day calendar of astronomical events provided by the authors of the *Abrams Planetarium Sky Calendar* that is published at Michigan State University. You can access the observing page at http://www.phy.ilstu.edu/~wenning/observing_page.htm. Be certain to bookmark this site. Sugar Grove Nature Center now has an official web site that can be reached at <http://www.sugargrovenaturecenter.org>.

Of course, don't forget to take a periodic look at the TCAA's website at <http://twincityamateurastronomers.org>.



TCAA Treasurer's Report – September 2007

OPERATING FUND BALANCE – August 31, 2007 - \$ 2,411.61 *

Income

None - \$ 0.00

Expenses

LYB Inc. (August Observer) - \$ 18.42

Int. Dark Sky Ass. (Lenore Trainor Mem.) - \$ 100.00

OPERATING FUND BALANCE – September 30, 2007 - \$ 2,293.19

OBSERVATORY FUND BALANCE – August 31, 2007 - \$ 1,149.63

Income

None - \$ 0.00

Expenses

None - \$ 0.00

OBSERVATORY FUND BALANCE – September 30, 2007 - \$ 1,149.63

TOTAL TCAA FUNDS – September 30, 2007 - \$ 3,442.82

Respectfully submitted,
L. Duane Yockey, Treasurer

Sugar Grove Observatory

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

Duane Yockey (renewed through 2007)
Michael Rogers (renewed through 2006)
William Carney (renewed through 2007)
Carl Wenning (renewed through 2007)
Brian Barling (renewed through 2007)
Christopher Franklin (renewed through 2007)
David Osenga (renewed through 2007)
Gerry Schroeder (renewed through 2007)
Josh Lindsey (renewed through 2007)
Andrew Morrison (February 2007)
Dan Miller (renewed through 2007)
Lee Green (April 2007, renewed through 2008)



UPCOMING EVENTS

October 6— MOOS & Jamboree,
Friends Creek Regional Park
near Maroa

October 13—POS

October 20—SGNC Autumn Fest

October 24—”How to Buy a Tele-
scope,” 7PM-8PM, Bloomington
Public Library

The OBSERVER

Newletter of the TCAA, Inc.

Erin Estabrook, Editor
314 Covey Court
Normal, IL 61761

Are your dues due?

The Dues Blues?

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

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

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