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## A NOTE FROM PRESIDENT TOM WEILAND

Summer.....picnics, cookouts, family reunions and this year some really high temperatures with little rain. The weather may have put a damper on some gatherings, but we have finalized the plans for the annual summer get together of our TCAA family.

This will be a rain or shine event held at our home in rural Heyworth on Saturday, August 25<sup>th</sup>. We'll plan on everyone arriving around 6:30. As this is a potluck we ask that you bring a dish to pass (be creative) as well as your own meat. A grill will be available for your use. Please bring lawn chairs. Drinks, table service, and a variety of chips will be provided.

This is a social event, so even if you are a casual TCAA member, I encourage you to attend so that we can get to know each other. I would also like to make this a family event, so I am encouraging members to bring spouses/significant others. My wife Carolyn and I are looking forward to seeing all of you on the 25<sup>th</sup>.

**Directions:** Go three miles south of Heyworth on US 51. Turn west on Bucks Rd. Proceed to the "T". At the "T" turn north (right) for a quarter mile until you see Alexander Rd. Turn west (left) and proceed to 7645 Alexander Road. We are the second home on the right, a tan house with a half circle drive and skylights among large oak trees.

## MINUTES OF THE JULY 10, 2012, TCAA BOARD MEETING

The TCAA Board meeting was held at the office of Duane Yockey on July 10, 2012. President Tom Weiland called the meeting to order at 6:35pm. In attendance were Board members Tom Weiland, Tony Cellini, Dan Miller, Dave Osenga and Paul Pouliot, and members Bob Finnigan, Lee Green, Carl Wenning and Duane Yockey. The minutes of the previous meeting were unanimously approved. Duane presented the Treasurer's report noted that the balance of fund held by the club continued to slip in spite of the increased membership numbers, currently at 34 members, up from 27 last year.

Lee had nothing to report as Secretary. In his role as webmaster, he announced that, in addition to the Android mobile application, he had completed a Window Phone app for the club. These will be posted to the club web site. As Property Manager, he thanked Tom and Dan for their recent assistance with the final phase of the electrical project in the SGNC shed. They will be continuing the efforts and hope to complete the project in the coming weeks.

Bob reminded us that the power supply for the CGEM had failed and that a replacement power supply would soon be needed. Dave indicated that he may have a replacement from personal materials and will work with Lee to achieve that. Bob reported that the primary hook for operating the dome had failed, but that the replacement unit was working well. He then presented a bill for materials he had purchased from Ash Dome for the observatory including eye bolts and "J" hooks. Lee noted that we have a spare eye bolt already and that any expenditure should be approved by the Board before materials are purchased. The Board approved the payment to Bob for the materials.

Reviewing recent activities, Tom thanked everyone for their efforts with the Venus transit event. Reports indicated that our turnout was among the highest in the state for the event. We were all very pleased with the results and commended Tom for his leadership in planning and coordinating the event.

Bob recounted the many visitors he had at the observatory during the recent Great American Campout. Arriving during the afternoon, he had 75 visitors who saw the facility and viewed his program showing the fabulous astro-photos we have taken.

Carl described the ALCon 2012 held in Chicago and attended by him, John and Joyce Werner and Sharon MacDonald. He was impressed by the programs that included a number of excellent speakers and featured trips to Yerkes Observatory, Fermi Lab, Adler Planetarium and other venues. He noted that he spoke with people from the Night Sky Network and was impressed by the many resources provided by the program and that he would be using some of the resources for the July POS program, Asteroids, Meteors, and Meteorites. He then showed a 1300g, L chondrite mete-

*(Continued on page 2)*

The *OBSERVER* is a monthly publication of the Twin City Amateur Astronomers, Inc., a registered 501 (c) (3) non-profit educational organization of amateur astronomers interested in studying astronomy and sharing their hobby with the public.

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#### **Membership Dues**

Individual Adult/Family \$40  
Full-time Student/Senior \$25  
Electronic Newsletter \$25

To join the TCAA, send your name, contact info and dues payment to  
Duane Yockey  
508 Normal Avenue  
Normal, IL 61761

## **MINUTES OF THE JULY 10, 2012, TCAA BOARD MEETING (CONT.)**

*(Continued from page 1)*

write that he had borrowed for inclusion in his presentation.

Tom announced that the next Board meetings will be held on September 4 and November 6.

The roll-off roof observatory was discussed next. Bob reported that the McLean County Zoning Board had heard the issue and will report to the full County Board for consideration at their next meeting. Angela Funk has been a great help in advancing the needed approvals, including Illinois and McLean County Departments of Public Health, the Illinois Nature Preserves Commission and an application for ecological compliance. To that end, Angela has requested a meeting with the Board to discuss these procedures. Tom polled the members and will set a date agreeable to the parties involved.

Illinois Wesleyan University has approved the Memorandum of Understanding for the purchase of the club equipment as previously agreed. It is anticipated that the purchase will be completed within the next few weeks. In preparation for this, the existing telescope was removed by Dan Miller and is under renovation at Millikin University.

Turning to new business, we discussed media relations after the Pantagraph printed a story about the proposed new observatory before the county Zoning Board heard the case. We were concerned that the publicity might negatively impact the official proceeding. We reviewed the contacts we had with the reporters and were satisfied that we had handled the situation well. The consensus was that in our dealing with the press, the President should be our primary spokesperson.

Tom volunteered to host a summer picnic for members. August 25 was discussed as a possible date and Tom will announce the official date to the members soon. Tom also suggested that we should start thinking about possible speakers for the annual meetings. Several suggestions were made and discussions will be opened.

Lee noted that we have an outstanding request for observing with the Cub Scout on September 22. Several members indicated they would check their schedule for covering the event.

The meeting adjourned at 7:45pm.

Respectfully submitted,

Lee Green

Secretary

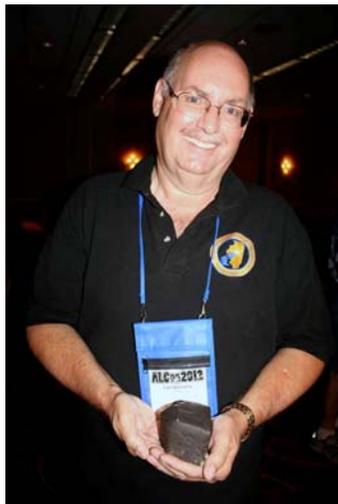
## **NEXT POS AUGUST 18<sup>th</sup>**

The fifth public observing session of 2012 will take place on August 18<sup>th</sup> at Sugar Grove Nature Center. The program will start at 8:00 p.m. with John Werner giving a talk titled, "Clusters and Nebulas of the Milky Way." The talk will run for approximately 20-30 minutes, and will focus on these spectacular objects of our home galaxy. John's talk will be followed by a brief laser-mediated constellation tour. Subsequent to the sky lecture, members of the general public will be invited to view through a variety of telescopes set up for their viewing pleasure.

Recall that all POSs are on Saturday evenings, and this year feature a nearly moonless sky most evenings. Additional prominent sky objects such as planets, nebulae, star clusters, and galaxies will be viewed when visible. The schedule for the rest of the year can be found below. A 2012 POS program brochure is available on the TCAA website at <http://www.tcaa.us/>.

| <b>Date (Sat.)</b> | <b>Time</b>       | <b>Topic</b>                  | <b>Coordinator</b> |
|--------------------|-------------------|-------------------------------|--------------------|
| Sep 15             | 7:30 PM ~ 9:30 PM | Stories of the Constellations | Eve Pouliot        |
| Oct 13             | 7:00 PM ~ 9:00 PM | Uranus and Neptune            | Lee Green          |

## IOWA METEORITE PROBABLY AN L CHONDRITE



Carl Wenning recently received on loan a 1,300-gram meteorite that he included as part of his August POS. Carl notes that according to the owner, "On April 23, 1980, BP, my wife's uncle who had been installing electrical circuitry in a rural location in north central Iowa (Webster County), came to work and discovered an impact 'crater'. Just prior to BP's death in 1993, he gave the meteorite to me, CC, knowing I would appreciate what it was. My four children and I shared it at school whenever meteorites were being studied. BP told me that an elderly lady who lived near the worksite informed him that she'd seen something 'streak across the sky' earlier the previous evening. Also, BP said that that crushed rock [where the meteorite landed] had just been spread the previous afternoon and had not been packed down yet."

According to Wikipedia, "The parent body/bodies for this group are not known, but plausible suggestions include 433 Eros and 8 Flora, or the Flora family as a whole. 433 Eros has been found to have a similar spectrum, while several pieces of circumstantial evidence for the Flora family exist: (1) the Flora family is thought to have formed about 1,000 to 500 million years ago; (2) the Flora family lies in a region of the asteroid belt that contributes strongly to the meteorite flux at Earth; (3) the Flora family consists of S-type asteroids whose composition is similar to that of chondrite meteorites; and (4) the Flora family parent body was over 100km in diameter." 433 Eros is the second largest near-Earth asteroid.

Carl observed 433 Eros as it passed by the earth this past February 18<sup>th</sup>. He wrote about this observation for the March 2012 issue of *The OBSERVER*. In Carl's opinion, "It was an amazing sensation to find out that this was a likely L chondrite, and possibly even from Eros."

**Above:** Astronomer Carl Wenning shows a magnificent meteorite find from Iowa, Lincolnshire, Illinois, July 4, 2012. Image and caption by David J. Eicher, *Astronomy* magazine; image from <http://cs.astronomy.com/asy/m/trips/488029.aspx>

## PSO, SGNC, MEO AND OTHER UPDATES

On July 3<sup>rd</sup>, the McLean County Zoning Commission approved of SGNC's request to make seven changes at the nature center. Among these changes is the construction of the TCAA's proposed roll-off-roof observatory. Two weeks later, July 17<sup>th</sup>, was another auspicious date as on that day the McLean County Board approved the recommendation of the Zoning Commission, *and* the new 17" PlaneWave Dall-Kirkham telescope was delivered to SGNC.

Bob F. and Carl W. met the delivery driver at the Pilot Truck Stop Bloomington and then led him to SGNC. There they met up with Lee G. and Randy C. from the Nature Center and the group opened the shipping crate and moved the telescope up to SGO's dome. Arriving in time to mount the telescoped, Larry L. assisted in placing the telescope atop the Paramount ME. Later that evening Bob F., Tony C., and Dave O. attached the visual tailpiece and saw first light. Despite the telescope not being properly balanced, these observers were able to view first the binary star Albireo in Cygnus and then the Dumbbell Nebula (M27) in Vulpecula as both were near the meridian where proper balancing was not critical. The views were "great" according to Bob.

Additional counterweights need to be added to the telescope to bring it into proper balance. A counterweight extender is also needed and has been ordered. It will be used to include two additional counterweights taken temporarily from the new Paramount ME mount currently in storage and awaiting installation in the new roll-off-roof observatory.



On July 26<sup>th</sup>, Lee Green reported on the recent work in the SGNC storage shed, "I nearly completed the electrical project today. Except for having brought the wrong faceplates for two outlets, all the items on my list were completed. George Farnsworth was there, so I had a chance to show him the work we did; he seemed pleased. In talking with Randy, he suggested that the west corners could use better illumination. We have just enough materials for at least one of the corners, so I will go ahead and install that. Thanks to all who assisted on this project, including Lex Green, Dan Miller, Tom Weiland, Brian Barling and John Werner." Indeed, thanks and a tip 'o the hat to all who have worked dili-

## JULY 21<sup>st</sup> PUBLIC OBSERVING SESSION

By Tom Weiland

Despite the cloudy conditions on July 21<sup>st</sup>, we had over 40 guests in attendance for our July public observation session. In addition, members Paul (with Eve, Amber and friend) William, Bob, Tony, Dan, Carl, and Tom were also present. No scopes were set up as conditions became increasingly cloudy as the evening progressed.

Carl Wenning gave a well-received and detailed presentation on meteors, meteorites and asteroids. He also had three different meteorites for people to inspect, perhaps the most interesting being the large L chondrite meteorite (about the size of a baseball).

Tours of the observatory were conducted since no viewing was available. Bob provided commentary for a computer slide show displaying a variety of photos taken by club members using several different scope/camera configurations. Tony provided information, and answered questions, about the new 17-inch PlaneWave telescope. Although not yet operational, our guests were impressed with the new telescope and mount.

Individuals were also able to examine some new equipment that Dan Miller brought from Millikin. He showed how two parallelogram mounts can be used to improve group viewing, one utilizing an iPad and the other a small scope. The iPad mount was used to display a sky map using the PH Universe program. This dual setup provides groups of viewers with the opportunity to see a visual representation of what they can then view through a scope on the second mount. The mounts also allow for easy height adjustment, an issue when both adults and kids are viewing.

In an attempt to provide another avenue of communication regarding our events, guests were asked to provide names and email addresses. These slips were then used in a drawing. Door prizes [three *Astronomy* magazine special publications] were awarded to lucky guests.

As always, thanks to all who made the evening a success.

## MONTHLY REFLECTIONS

By Carl J. Wenning

July 2012 started off – and ended – as the hottest continuous July since the start of record keeping. Daytime highs reached the upper 90s and exceeded 100 degrees for several days July 2-7 and again later in the month. This was the back-drop against which I attended the ALCon 2012 meeting in Lincolnshire, IL, from July 4-7. (TCAAers also in attendance included Dan and Joyce Werner and former member Sharon MacDonald.) The afternoon outdoor field trips taken by bus were somewhat stressful due to such high temperatures. At one point on July 4, the temperature soared to 107 degrees F where I was eating lunch just north of the convention center.

Dan sent daily reports from ALCon, so I'll not mention the day-to-day events as these have already been described. I would, however, like to mention the one thing that made the convention most appealing to me. It was the play *Creation's Birthday* presented at Wilson Auditorium at FermiLab in Batavia, IL. This play was written and produced by physicist Hasan Padamsee who was present to greet us and introduce the program. The playbill read, "How did boxing champ, war-hero, and prodigy astronomer, Edwin Hubble (of Hubble Telescope fame) gang up with a moon-shine-peddling janitor to defeat the Goliath of science, Albert Einstein? How did a Jesuit priest find a flaw in Einstein's universe to unlock the mystery of Creation? Come witness how the mysterious Big Bang Creation co-exists with the poetic story of the Genesis in Creation's Birthday." I really enjoyed this 2-hour play. It's characters were true-to-life, and conveyed the trials and tribulations, foibles, anguish, and glory of scientist working at the cutting edge of science. Prominent in this play were Edwin Hubble, Harlow Shapley (who once visited with the TCAA membership), Fr. George Lemaitre, George Ellery Hale, Milton Humason, Henrietta Levitt, and on and on. It was revelation to me to see "Einstein" struggle as he slowly came to a realization that his failure to predict the expanding universe was one of his greatest professional shortcomings. His theoretical work had predicted it, yet he introduced the fictitious cosmological constant that he admitted was the greatest scientific blunder of his life. I recommend *Creation's Birthday* highly to anyone with an interest in such subject matter. Unfortunately, after a 3-week run at Gorilla Tango Theater in this past November, it is no longer showing to the best of my knowledge.

I got my first observations for July done on July 9<sup>th</sup> at SGNC. Because I was not able to work on my remaining 7 planetary nebulas and 13 Herschel II objects, I decided to resume my Caldwell observing program. My goal here is to observe at least 70 of the 109 objects, many of which are in the southern hemisphere and have already been observed. I would be able to earn the provisional certificate from here, but will have to return to South American (or go to Australia) to pick up the remaining telescopic objects. On this evening I was able to observe only 3 Caldwell (C) objects at SGNC before clouds moved in and ended my observations for the night. This program definitely will help me hone my observing skills that have diminished with the advent of "goto" telescopes. All C objects, like the M (Messier) objects, must be found without assistance of anything more than a finder scope. My aching back and neck quickly reminded me why I so quickly adopted the "goto" technological marvel back in 2006 when I purchase my first real telescope, the CPC 11".

# CURIOSITY ROVER

By Lee Green

The Mars Science Laboratory (MSL), a.k.a. the Curiosity Rover, will arrive at Mars on August 6 at 12:31am Central time. Launched from Cape Canaveral on Nov 26, 2011 on a direct flight to Mars, MSL successfully landed at Gale crater to begin its two year mission of exploration to see if Mars ever could have supported small life forms called microbes, and if humans could survive there someday.

Curiosity's ambitious science goals are among the mission's many differences from earlier Mars rovers. Over the duration of its primary science mission, one Martian year or about two Earth years, Curiosity will investigate the chemistry and mineralogy of Gale Crater. Gale Crater was chosen from a wide variety of candidate sites for many reasons. The crater is 120 km in diameter and 4km deep with a 5km high central mountain called Mount Sharp that exposes a stratified terrain with several distinct geologies. The changing mineralogy that Curiosity will encounter as it climbs up through the canyons includes clays at lower elevations and sulfates higher up.

Before the science mission can begin, the spacecraft had to make an automated entry through Mars' atmosphere and executed a complex series of steps on its descent to the surface. As it descended, choreographed through a series of configurations that slowed its speed and adjusted its trajectory to keep it on course towards a pinpoint landing. Hitting the thin Martian atmosphere at a speed of about 13,000 miles per hour, the heat shield absorbed the shock of the atmosphere, quickly heating to over 1600°. Onboard camera sensed the progress towards the target site and used guiding rockets to steer the descent within the entry window. As the spacecraft reached the lower atmosphere, a giant parachute deployed, slowing the heavy payload to subsonic speeds, but the thin atmosphere could not slow the payload enough for a soft landing. A powered descent vehicle then took over for the final stage of descent, first executing a maneuver to avoid the released parachute, and used an innovative "sky crane" technique to deposit the rover directly on the surface.

The Mars Reconnaissance Orbiter was nearly directly over the landing site and was able to capture an image of MSL as it descended. The image shows the spacecraft with its parachute deployed as it approached the Martian surface.

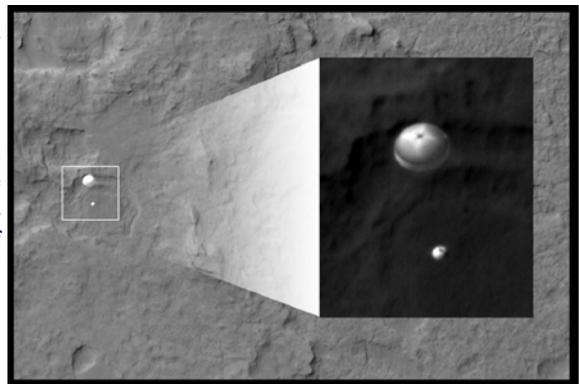
JPL has released a new video that captures the 'thrills and chills' of landing Curiosity rover on Mars on August 6. Engineers who designed the entry, descent and landing (EDL) system candidly talk about the new landing system, and describe the challenges of Curiosity's final moments before touchdown. The movie (.mov) files are available at several resolutions, as well as a captioned version and a PDF file of the narration, at the following link: <http://mars.jpl.nasa.gov/msl/multimedia/videos/index.cfm?v=49>

The controllers are so confident in their techniques that they have recently narrowed the target window for the landing site from a 25-mile wide oval to one of 6-miles. A precise landing zone will enable the rover to be positioned closer to the area where scientific observations will be most productive, and this should allow the rover to reach its initial site as much as two months earlier than previously planned.

MSL safely reached the smooth, flat crater planes in good operating condition, beginning a journey that will take several months towards Mount Sharp where its core science will be conducted. The instrument package, designed to be a mobile geochemical and environmental laboratory, includes radiation and atmospheric monitoring sensors, remote sensing cameras to survey nearby features, a robotic arm for close-up imaging and spectral analysis of material, and two "ovens" for detailed mineralogical examination. All this equipment is packaged in the car-sized, six-wheeled Curiosity rover that stands over 6 feet tall, weighs near 2,000 pounds and is powered by a plutonium generator and has a cruising speed of over 100 yards per hour.

After analyzing rocks with high resolution camera at the end of its robotic arm, a drill and scoop are used to gather soil and powdered samples of selected rock interiors, then sieve and parcel out these samples into analytical laboratory instruments inside the rover. Curiosity carries 10 science instruments with a total mass 15 times as large as the science-instrument payloads on the Mars rovers Spirit and Opportunity. Some of the tools are the first of their kind on Mars, such as a laser-firing instrument for checking rocks' elemental composition from a distance (ChemCam), and an X-ray diffraction instrument for definitive identification of minerals in powdered samples (CheMin).

Coverage of the entry event will begin late in the evening on August 5 on NASA TV and other outlets. News about the success or failure to land on the surface of Mars will arrive in the early morning hours. For additional information and complete coverage of this newest scientific probe, go to <http://mars.jpl.nasa.gov/msl>.



## CONSTELLATION OF THE MONTH: SCORPIUS—THE SCORPION

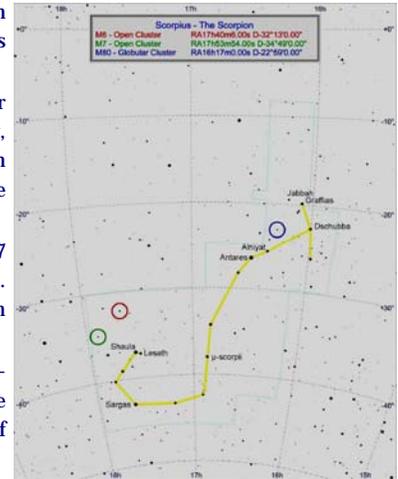
Scorpius lies near the heart of the Milky Way, southeast of Libra and south of Ophiuchus. This zodiac constellation has a number of bright stars and is easily recognized by its fishhook shape.

In mythology, the scorpion was the slayer of Orion, the boastful warrior who loved and was beloved of the goddess Diana. Orion's position in the sky, setting when Scorpius is rising, remembers the result of the great battle. In Polynesian mythology, Scorpius is the great fishhook which the goddess Pele used to raise the land from the sea.

Astronomically, Scorpius is the 33<sup>rd</sup> largest constellation covering 497 square degrees and is the 5<sup>th</sup> brightest. Scorpius reaches opposition on June 4. The sun passes through a small part of Scorpius from November 23 through November 29.

The brightest star in Scorpius is Antares, a red giant star. Antares and Alniyat are double stars, Graffias is a triple star and Jabbah is a double-double star.  $\mu$ -scorpii is a double star that is also an eclipsing binary with a period of 1.44 days.

Due to its position in the Milky Way, Scorpius contains a wide variety of objects including open clusters including the naked-eye visible clusters M6 and M7, globular clusters including M4 and M80 and variety of emission and dark nebulae.



## HOW TIME FLIES

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

### 50 Years Ago

August 1962 – Mike Ryder, his father, and David Williams observed from Peoria's North Moor Observatory of the Peoria Academy of Science on August 21<sup>st</sup>. David and Warren Light viewed Comet Humason from a rural setting. Observations of variable stars continue as does work on a 10" mirror.

### 25 Years Ago

August 1987 – The club has obtained a 22'-diamater dome from a group in northern Illinois for use with a future observatory. The dome was paid for with a \$550 grant from the Vesto M. Slipher Fund. So successful was the club's first adult education program that plans are now being made for a second.

### 10 Years Ago

August 2002 – The club's 16" telescope has been outfitted with a set of wheelbarrow handles to make it more portable. The TCAARG (reading group) continues its monthly meetings. Four people have now qualified to use the club's new 12" LX200 telescope: Duane Yockey, Jim Swindler, Dan Meyer, and Sandy McNamara.

# TCAA Treasurer's Report – July 2012

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OPERATING FUND BALANCE – June 30, 2012 - \$ 1,050.24

Income

Craig Prost (Dues) - \$ 41.00

Expenses

LYB Inc. (Observer copies & postage) - \$ 40.20

PayPal (Craig Prost fee) - \$ 1.20

OPERATING FUND BALANCE – July 31, 2012 - \$ 1,049.84

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OBSERVATORY FUND BALANCE – June 30, 2012 - \$ 3,024.91

Income

Interest (2<sup>nd</sup> quarter) - \$ 0.25

Expenses

None! - \$ 0.00

OBSERVATORY FUND BALANCE – July 31, 2012 - \$ 3,025.16

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TOTAL TCAA FUNDS – July 31, 2012 - \$ 4,075.00

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Respectfully submitted,

L. Duane Yockey, Treasurer

## ASTROBITS

- ★ A short article about expansion projects at Sugar Grove Nature Center appeared online at Pantagraph.com on Sunday, July 1<sup>st</sup>.
- ★ On July 17<sup>th</sup>, three sets of hooks and eyelets for the SGO dome slot opening/closing mechanism arrived from Ash Dome in Plainfield, IL.
- ★ At the POS on July 21<sup>st</sup>, slips with names and email addresses were used in a drawing and 10 household email addresses were obtained. These email addresses will be used to periodically contact those interested in receiving updates about observing opportunities. Carl W. will maintain this listing.
- ★ Brian Barling has reached 360 of the 400 required observations for the Herschel Club; all of his observations have been made without goto telescope.
- ★ Troy Berg and his sons Johan and Logan have been working on the Binocular Messier Club. Johan has 12 recorded objects and both Logan and Try have three completed.
- ★ The Illinois Dark Skies Star Party, hosted annually by the Sangamon Astronomical Society of Springfield, will take place October 11-14 at Jim Edgar Panther Creek State Fish & Wildlife Area. You may register online or pay upon arrival. Check out the star party website for details at <http://sas-sky.org/>

## 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](mailto:TCAA-subscribe@yahoogroups.com). Unsubscribing is just as easy. To unsubscribe, just send a blank email to [TCAA-unsubscribe@yahoogroups.com](mailto: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](http://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:**

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Normal, IL 61761**