

THE OBSERVER

OF THE TWIN CITY AMATEUR ASTRONOMERS



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Editor's Choice: Image of the Month

This month's image is Messier 42 by Tim Stone. The image above represents a total of 9.6 hours of imaging, and easily a day worth of processing. Details about this image can be found on page 3.



A Note from President Tom Weiland

Every day brings us closer to our first Public Observation Session (POS) of 2014. As you read this issue of *The OBSERVER*, we are less than two months away from our first session at Sugar Grove Nature Center (SGNC). Our first POS is scheduled for March 29, from 7:15 to 9:15 p.m. The topic that evening will be "A Trip to the Sun" presented by John Mori. Just a reminder that POS events will no longer be cancelled because of overcast skies; we will cancel only if it is actually raining. Along with the regular evening presentations, telescope viewing, and laser sky tours, we will be continuing tours of the observatories while sharing some of the recent work of our dedicated astrophotographers.

It's never too soon to start looking ahead at our POS schedule to make sure that your calendar is open for these great family events, so take a peek at our website at www.tcaa.us to review the dates and topics. I would also ask you to please

help us with our goal of community outreach by inviting friends and family to one or more of our POS at SGNC. Word of mouth is a great way of spreading the interest in our events.

Finally, at this writing we are preparing for our 54th Annual TCAA Dinner Meeting scheduled for Saturday evening, February 1st. I'm sure more will be included about this in a separate article, if not in this issue of *The OBSERVER* then certainly in the next. I'll take the opportunity now to thank some of the people who helped prepare for this event, Webmaster Lee Green for providing registration via our TCAA website, VP Dave Osenga for coordinating the location and catering, and Club Historian Carl Wenning for creating the printed program. I'm sure there will be others I will need to thank after the successful completion of this annual event. As always it takes a team to get things done and we have a great team. Clear Skies!!

Minutes of the January 14th Board of Directors Meeting

The meeting was called to order at 6:32pm in Bloomington at the office of Duane Yockey. In attendance were Tony Cellini, Paul Pouliot, Lee Green, Bob Finnigan, Dave Osenga, Tom Weiland, Craig Prost, Carl Wenning, Duane Yockey and Tim Stone. The Minutes of the previous meeting were approved.

Officer reports were heard. Duane distributed the latest Treasurer's Report. He also provided Carl with a list of members' email addresses for distribution of the newsletter, and provided Tom with the current AL awards for presentation at the Annual Meeting to Tom. Lee reported minor improvements in the website and indicated that additional improvements were being considered. Tim reported that the newly installed roof tie-downs were in place and effective, that the new counter was installed in the PSO control room, that snow was seen after the recent snow storm on the floor of both the observing area and the control room, that weather stripping on the door was shredded, and that he had found an 8" Meade telescope in a blue box of which he had been unaware.

Turning to old business, Tim indicated that the Oberwerk binoculars are still missing, but presumed to be in the possession of a member. Tim indicated that the equipment inventory spreadsheet was nearly up-to-date; several minor additions were discussed and Tim will make the changes and forward the list to Duane for use with the required tax filings. We discussed the idea of posting the list in the members-only document library, but concerns were raised about posting a document that included that cost of the equipment and we chose not to do that. Tim also indicated that pictures of the club's excess equipment were available.

A proposal to conduct an astrophotography class was tabled for the time being.

A document defining usage parameters for the PSO was discussed. Tom expressed concern that little progress had been made and that few comments had been received. Duane noted that the document should contain key holder requirement, rights and responsibilities. Carl indicated that he had notes for inclusion in the document and will forward those for review and inclusion.

A related document recommending the operating procedures for the observatories was reported to have little progress from previously. Dave will spearhead the effort to compile recommendations for the operating procedures, for key holder fees, required training, and policies for shared use of the 3rd mount. Bob indicated that the new Astro Physics mount was delayed, but should soon arrive and that the adapter for the mount was installed on the 3rd pier.

We reviewed the intents of the Board when the PSO was built and when the expansion (third) position was approved. It had been intended that one position would be available for visual observers, but the equipment installed has been reported to be difficult and unsatisfactory to use as a visual observing station. It was further intended that the third station was to be used as shared space available for use by all members. Craig expressed interest in using the third position to mount his 5" refractor. Several members expressed their opinion that this was entirely consistent with the original intent, but had concerns about how the position would be shared and how potential conflicts would be resolved. It was agreed that Dave will attempt to establish workable guidelines for use of the shared position in the operating procedures document.

Dave reported that preparations for the Annual Meeting were complete with Redbird Catering to provide the meal. An honorarium for Dr. Linda French was approved and Duane provided a check to Tom.

The Board formally approved a proposal to maintain club dues at their current level and to switch to electronic delivery of the newsletter, and the proposal will be submitted to the membership at the Annual Meeting. Tom will arrange to reprint the proposal in the next issue of *The OBSERVER*. Six individuals will be standing for election to the next Board of Directors, including Robert Finnigan, Dave Osenga, Craig Prost, Tim Stone, Tom Weiland and Carl Wenning. Dave agreed to ensure that ballots would be available at the meeting.

Discussions turn to new business. Duane expressed concern about the publishing of email addresses to the general membership. It was agreed to limit distribution those only to those officers with a need to know them.

Carl indicated that submissions for *The OBSERVER* should generally be made by the end of the month so that the newsletter could be published early in each month.

Lee reported that the web site now supports a forum feature. This was added to allow review by members of its functionality, but that few members had used the feature. Several people indicated that they missed the announcement, and Lee will send out another announcement. He indicated that as an add-on, the forum did not easily allow integration with existing club login accounts. He also noted that his attempt to add WordPress to the site was unsuccessful due to its requirement of using MySQL which caused conflicts with existing database software.

Bob raised a proposal to install USB cables to connect the third pier with the control room. Dave moved and Tom seconded, that Bob and Tim should devise and present a plan of action to accomplish this goal. Bob raised a proposal to install an alternative means of securing the roof. After discussions about the means proposed and the need for these improvements, the proposal was tabled.

The next meeting of the Board will be at the Annual Meeting on February 1. The meeting adjourned at 8:35pm.

Respectfully submitted,
Lee Green, TCAA Secretary

Annual Meeting Successful

The 54th Annual Meeting and Banquet was successfully held on Saturday, February 1st, despite the recent bout of bad winter weather. Twenty-six were in attendance including our guests Dr. Linda French and Ron Emmons. As the purpose of the Annual Meeting is to elect a Board of Directors and deal with matters of special importance that might come before the membership, two items are noted here. First, a new Board of Directors was elected. The 2014-15 Board consists of Bob Finnigan, Dave Osenga, Tim Stone, Tom Weiland, and Carl Wenning. Second, it was unanimously agreed to eliminate the "Newsletter only" of membership category. This was made necessary as a result of the Board's proposal to transition to an all-digital version of *The OBSERVER*. The newsletter will no longer be made available in print form effective immediately. The members in attendance at the meeting approved these changes unanimously. A detailed accounting of all the events of the evening will be provided through the Secretary's minutes that will appear in next month's issue of this publication.

Editor's Choice: Image of the Month

~ Notes by Tim Stone ~

M42 was one of the first astronomical objects I ever tried to photograph. On September 8, 2010, I attached my Nikon D200 to my 5" Meade achromat, and took a single unguided 30-second frame at ISO 800. I knew nothing about darks and flats and stacking and such, but I was so proud of [that image!](#) Little did I realize what a challenge this object is, just because it's so bright.

This nebula is easily visible to the naked eye, even from within the Twin Cities. It's hanging down (from our northern vantage point) from Orion's belt, and it is one of the star factories nearest us. A multitude of stars are forming or have formed in this cloud of hydrogen. Four of them form an intensely bright cluster right in the middle of the brightest part of the cloud. The power of the radiation from those four stars has carved a cavity in the cloud. The blister of gas and dust around that cavity has "popped" to expose the fluorescing hydrogen inside.

NGC 1977 is another large star forming region near M42, above it in this image. It has been dubbed "The Running Man Nebula" for the shape of the reddish nebulosity at its center. In fact, this is simply an earlier stage of the same process that shaped M42. The dusty reflection nebula surrounding the interior cavity has just started to dissipate under the pressure of the powerful stars within. As a result, we can peek into its interior, glowing red with Hydrogen Alpha emission.

Photographically, M42 is notoriously difficult to capture. The brightest parts of the nebula are thousands of times brighter than the faintest parts. Multiple exposures of different lengths are required to fully capture the detail over the entire area. These exposures are then combined using a technique called High Dynamic Range (HDR) processing. Many HDR images of this beautiful nebula look pasty and flat. They lack the depth... the glow... that make them truly captivating. I've tried to avoid that with this image, sacrificing some detail contrast for the 'feel' of the brightness difference between the inner, outer, and extended envelope nebulosity.

One of the biggest challenges in the creation of this image involved the geosynchronous satellite band, which runs right

through that region of sky. Dozens of satellite trails were present in the combined image, requiring a couple of hours of manual work to remove. Virtually every subframe had at least one satellite streak in it, and a lot of them had several. It's amazing how many geosynchronous satellites are up there.

This 38-megapixel image is my very first attempt at an HDR rendition. I combined exposures of 30 and 240 seconds from the Takahashi CCA250/Apogee Aspen 16M, 10 and 60 seconds from the PlaneWave CDK17/Apogee Alta 16M, and 10 seconds from the PlaneWave CDK20/SBIG STT8300M. The 441 subframes combined to create this image required 9.6 hours of imaging over 6 nights from November 7, 2013, to January 23, 2014.

The distance to the Orion Nebula has recently been geometrically [determined to be 1,425±61 light years](#). At that distance, this image is about 58 light years across. [Image acquired at Prairie Sky Observatory and Sugar Grove Observatory, facilities of the Twin City Amateur Astronomers (tcaa.us).]

CALENDAR OF CELESTIAL EVENTS – FEBRUARY 2014

EVENING STARS (MIDMONTH): MERCURY, JUPITER, URANUS, NEPTUNE

MORNING STARS (MIDMONTH): MERCURY, VENUS, MARS, & SATURN

Question: How is it possible that Mercury can be both a morning star and an evening star at the same time (at midmonth)? It is possible... The explanation is below.

06 Two shadows transit the cloud tops of Jupiter from 10:20 UT-12:44 UT, favoring western North America.

14 Jupiter is at opposition. Jupiter and Earth are at their closest distance from one another. Jupiter is fully illuminated by the Sun making this the ideal time to observe it. This phase occurs at 23:53 UT

14 Full moon. The moon, being opposite the sun, rises at sunset and sets near sunrise tonight.

21 The Moon occults Saturn as seen from the Indian Ocean at ~22:18 UT.

26 The 14% waning crescent Moon occults Venus for central Africa at ~5:23 UT.

Answer: At midmonth during February 2014, when in conjunction with the sun, Mercury appears north of the sun (i.e., in the direction of Polaris, the North Star) as seen from Earth. That being the case, Mercury rises slightly before the sun in the morning and sets shortly after the sun in the evening at this time. The two are so close together, however, that Mercury cannot be seen at this time because it is lost in the glare of the sun. Every seven years, however, Venus CAN be viewed both on the evening of one day and the morning of the next so far north of the sun is it.

NEW AND RENEWING MEMBERS

The following individual have paid dues for new or renewing memberships as of February 1, 2014. (Others who paid after that date will appear in the March 2014 issue of *The OBSERVER*.)

Mark and Carol Cabaj
David Peters
Lee Green
Dave Osenga
Tim and Diann Stone
Paul, Eve, and Amber Pouliot
Mark and Nataya Bulware
Brian Barling

DUES BLUES

Members whose membership payments are now due or will expire at the end of February are the following (along with year and month of membership expiration):

William Carney (201402)
Don Cooper (201402)
Angela Estes (201212)
Larry Leetzow (201402)
Dan & Paulette Miller (201312)
Michael Starasta (201402)
Allan Timke (201312)

The following memberships will expire at the end of March:

Pablo Eves (201403)
Randy Gleason (201403)
Roy & Diane Lawry (201403)
John Mori (201403)
Libby Norcross (201403)

Please send dues payments (\$25 senior – for those 60 and over – and \$40 regular) to Duane Yockey, TCAA Treasurer, 508 Normal Avenue, Normal, IL 61761.

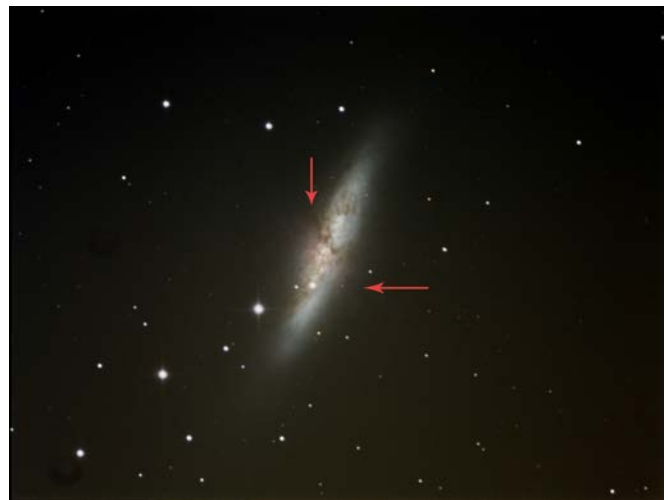
TOPICS FOR 2014 PUBLIC OBSERVING SESSIONS

The public observing schedule for 2014 has been set. The dates, topics, and volunteer speakers are as follows:

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

ASTROBITS

- ★ Lee Green and Carl Wenning will be hosting a two-part merit badge workshop for area Boy Scouts on March 1st and May 24th. Scouts must attend both sessions as well as at least one public observing session. Email the editor (carlwenning@gmail.com) if you would like to receive additional information and a registration form.
- ★ Carl Wenning has applied to become a certified BSA Astronomy Merit Badge Counselor.
- ★ On January 11th Tim Stone noted a bit of water seeping into the PSO though one of the floor cuts. The leakage was minor and might have resulted from banked snow on the east side of the observatory melting. We'll have to keep an eye on this in the future.
- ★ The Northern Cross Science Foundation will be hosting the 2014 North Central Region Astronomical League conference April 4-5 at Country Inn & Suites, Lakeview Conference Center, Port Washington, WI. Detailed information can be found at <http://www.ncsf.info/ncral2014.htm>. Early bird registration deadline is March 15th; the registration fee increases after this date. Unfortunately, this is the same weekend as Family Science Day at ISU. Members will have to decide which event they would prefer to be part of.
- ★ It appears that the club's Takihashi CCA250 telescope was the test subject written up in a review by the New Mexico Skies staff. In their report, available at <http://telescopes.net/store/cca-250p-takahashi-cca-250p-tri-focal-astrograph.html>, our telescope was described as the best such telescope they had ever had the opportunity to test. According to the authors, the telescope images are "perfect" and "It does not get any better than this." Thanks to Craig Prost for pointing out this review.
- ★ Dave Osenga, Bob Finnigan, Carl Wenning, and Tim Stone met at SGNC on January 23rd to review possible changes within Prairie Sky Observatory that included possible electrical wiring for the east telescope, hurricane straps and possible new tied down system for the roof, and ideas for the utilization of an east (and possible west) piers and mounts for visual observing. The east 48" pier was removed for mating a new mounting plate for the new Astro Physics 1100 mount.
- ★ Club members recently have been photographing a supernova that appeared in galaxy M82 located among the stars of Ursa Major. To the right is an image that Bob Finnigan took using the 20-inch telescope on January 25th. The image is a composite of three 600-second RGB and three 600-second luminance channel images. The intersection of the two red arrows indicates the position of the supernova. M82 is a "starburst galaxy" 12 million light years away in the constellation of Ursa Major.



Supernova in Messier 82

- ★ On January 28th another supernova appeared in M99, a spiral galaxy about 50 million light-years away in the constellation Coma Berenices. Not enough time has passed and the skies haven't been clear enough for Bob Finnigan to capture a good image of the galaxy. Nonetheless, a provisional image has been produced as seen to the right. Additional information (and a more detailed color image) will likely appear in the March issue of this newsletter.
- ★ The ***Nature of the Grove***, the quarterly newsletter of the Sugar Grove Nature Center, always contains a listing of public events offered by the TCAA at that location. Check it out online at <http://sugargrovenaturecenter.org>
- ★ Carl Wenning is working on developing a new observing club for the Astronomical League. It is sort of a "universe sampler" requiring observations of a wide variety of solar system and deep space objects (from asteroids and comets, to black hole candidates and quasars). It is expected that the program will have more than 250 required observations. If you are interested in working with Carl on this project, please drop him an email at carlwenning@gmail.com
- ★ It is with heavy heart that informed amateur astronomers everywhere mourn the death of famed colleague John Dobson. If you have not heard, John – who lived in California – passed away on January 15, 2014. He had been hospitalized with an infection and it just weakened him too much. He died peacefully after a long and very impressive life. As his official Facebook site mentioned, "It is a great loss to the thousands of people that he mentored, inspired, influenced, and befriended. There are been many wonderful statements made in the many remembrances and obituaries, but perhaps the one JD would like the best is: 'I think we all have to accept his big inheritance - we all can continue his work, going to the streets, showing to the people the wonders of our universe to continue John's spirit.' While we are all saddened, we are all lucky to have been influenced and touched by his passion for sharing the Universe and we will be forever grateful."
- ★ The latest "What's Up With the Astronomical League", the ALCor Newsletter, is now available on the [Astronomical League's website](#). This issue features award information for: National Young Astronomer Award (NYAA), Jack Horkheimer Service Awards, Jack Horkheimer/O'Meara Journalism Award, Webmaster Award, Mabel Sterns Newsletter Award, and a tribute to John Dobson. Check it out.
- ★ This issue of ***The OBSERVER*** is being distributed via our website manager, Lee Green, in an effort to circumvent problems with unreadable PDFs. Last month several members reported difficulties opening the newsletter regardless of whether it was produced using a Macintosh or PC computer. Problems appear to occur for those with Yahoo! email accounts.



Messier 99 Supernova

CLC Celebrates 10th Anniversary

CELEBRATE THE 10TH ANNIVERSARY OF THE CHALLENGER LEARNING CENTER

YOU ARE CORDIALLY INVITED TO ATTEND

A Night of Discovery

Friday, February 7, 2014

5:30 p.m. Meet & Greet

6:30-8:00 p.m. Presentation



Heartland Community College
Astroth Community Education Center
1500 W. Raab Rd., Normal, IL 61761

309.268.8700

This year the Challenger Learning Center (now located at Heartland Community College) celebrates 10 years of inspiring, exploring, and learning in Central Illinois. NASA Astronaut, Colonel Douglas Wheelock (STS-120 and International Space Station Expedition 24/25) will present a 60-minute lecture to address topics of space exploration (private and commercial) and share many of his experiences with NASA. This exciting presentation will be followed by Q&A time during which participants can ask questions about space exploration.



There will be a short meet-and-greet before the main event so be sure to bring your camera for pictures. Meet-and-greet will run from 5:30-6:30pm with the presentation starting promptly at 6:30pm. Don't miss out on this very unique opportunity to hear from one of NASA's astronauts. This event is free of charge, but *registration is strongly encouraged*. Please phone (309) 268-8700 as soon as possible to register.

ECLIPSE AGENDA FOR OUR LIFETIMES

Editor's Note: The following article was excerpted from a longer article appearing in the February 1989 issue of *The OBSERVER*. It was written by Carl Wenning 25 years ago and is quoted essentially verbatim here.

Another sunset solar eclipse will occur on October 23, 2014. We will be able to observe central eclipse when the moon will cover some 55% of the sun's diameter.

If any of us can hold out until August 21, 2017, we will be adequately rewarded. On that date there will be a total solar eclipse as seen from southern Illinois. The umbral shadow will move southeastward across Oregon, Nebraska, and South Carolina. It will graze southern Illinois. The eclipse will occur at midday but it will only be about 93% total as seen from Bloomington-Normal.

We will be rewarded with a sunrise solar eclipse – almost over – on June 10, 2021. This will serve to complement all those sunset eclipses we will have an opportunity to see. (Since passed.)

The last significant eclipse that most of us can reasonably hope to observe without traveling too far will occur on October 14, 2023. A total solar eclipse shadow will once again course its way across the U.S. on this day. The umbral shadow moves through Oregon, over the Four Corners area, and enters the Gulf through Texas. From our location here, the eclipse will appear as partial, the moon covering only 60% of the sun's diameter at maximum eclipse.

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 [Twin City Amateur Astronomers: 1960-2010](#) or in [The OBSERVER archive](#) found on the [TCAA website](#).

50 Years Ago

February 1964 – The club celebrates its fourth anniversary with a celebration at IWU's Sherff Hall of Science. The meeting featured a slide show of events happening during the past year. The club took a field trip to Lakeview Museum's planetarium in Peoria. Weldon Schuette continues to use his analog computer to make forecasts for visible passes of the Echo II satellite. The club's Fissel Farm observatory, the so-called Beehive Observatory, is nearing completion north-northeast of Normal.

25 Years Ago

February 1989 – The club's Annual Meeting was held at Jummer's Chateau and Lodge in Bloomington. Mike Miller and Carl Wenning, having recently returned from three days at Space Camp in Huntsville, AL, were the featured speakers. Dressed like astronauts, the two produced quite a stir among hotel guests. Carl wrote an article for the newsletter – Eclipse Agenda for Our Lifetimes – that is reproduced in this issue of *The OBSERVER*.

10 Years Ago

February 2004 – The 44th anniversary of the TCAA was celebrated with a banquet to Sugar Grove Nature Center on the evening of February 21st. Some 30 members and guests were in attendance including "long ago" members Taylor Cisco, Lyle Rich, and Barry Beaman. Barry and Carol Beaman jointly presented the keynote address titled "E/PO (Education/Public Outreach) in Astronomy." Barry, it was noted, was the past president of the Astronomical League.

SUBSCRIBING TO THE TCAA'S E-MAIL LIST

Subscribing to a group's mailing list means that subscribers will receive email messages from the group so one won't have access to the group's web features (like photos, files, links, polls, calendar, etc.) unless members [activate it later](#).

1. Send a blank email to TCAA-subscribe@yahoogroups.com Note: You'll be sent a confirmation email from the group.
2. Reply to the confirmation email to activate your subscription.

Once members join the group, they can [manage group and subscription settings](#) whenever it is desired to customize the group experience.

ASK THE EDITOR

The Editor (who is also the club's historian) is now answering questions posed by club members. If you have a question about something of interest to you – either about the present day TCAA or its past – please send your question to Carl at carlwenning@gmail.com.

Question: Why is it that amateur astronomy on the national level appears to be “graying”? That is, why do we not see as many young people involved in amateur astronomy as we did years ago?

Answer: That's the \$64,000 question, but it's important to realize that the TCAA isn't reflecting the national trend thanks to supportive parents and grand parents. Consider the TCAA and its recent influx of youth named here (along with parent/grandparent). Nataya (Mark) Boulware, Jonah and Logan (Troy) Berg, Eve and Amber (Paul) Pouliot, Bryce (Mark) Heiniger, Colby (Craig) Prost, and Jade (Wendy) Bates.

But getting back to that \$64,000 question. Don't we all wish that we knew the answer to that question? I know that I do. Unfortunately, I can only speculate as to the nature of the answer or answers. This question has been asked many times in the past by many people in many different organizations. Here are some reasons why – in my opinion – amateur astronomy might be “graying” on a national basis and why the TCAA is bucking the national trend. I don't know which one, if any of these, is the correct answer to your question. Perhaps it is a combination of the following:

1. Amateur astronomy appears to most have become a very expensive hobby. Many amateurs own equipment that costs in the thousands or tens of thousands of dollars.
2. Many of our youth appear to have failed to develop interpersonal skills. Since 1994 this has become more and more of a problem following the advent of computers. It has only gotten worse as a result of social networking where kids spend more time interfacing with electronic devices such as computers, iPods, iPads, iPhones, and other platforms.
3. There are many more easily accessible outlets today for astronomy, from publications to television to Internet.
4. Views in telescopes are lackluster in comparison to what can be found using Hubble Space Telescope images and those images of major observatories.
5. The centers of populations – those places where one would find the bulk of the population – have become so light polluted that it's hard to even see any stars in the night sky. In short, the sky is accessible only to those who live or travel to the countryside.
6. A lack of time for potentially supportive adults. There probably are many parents, grand parents, and guardians who would like to share their love of the night sky with youth if only they had time. Unfortunately, many are working long hours, commuting, and dealing with the needs of everyday life.
7. There are many other things that vie for the attention of youth. Today sports, social networking, Internet, and so forth draw potential young amateur astronomers away from the hobby.

Can you think of more reasons for the “graying” of amateur astronomy? I suspect that you can. We need to keep these points in mind as we conduct education/public outreach over the coming years. One question that bothers me, still, is why among adults do we find for few female amateur astronomers. That's the topic of another column.

TCAA Treasurer's Report – January 2014

=====	
OPERATING FUND BALANCE – December 31, 2013 -	\$ 2,098.66
Income	
David Peters (Dues) -	\$ 41.00
Mark Cabaj (Dues) -	\$ 100.00
Expenses	
LYB Inc. (OBSERVER copies & postage) -	\$ 3.52
PayPal (David Peters) -	\$ 1.20
OPERATING FUND BALANCE – January 31, 2014 -	\$ 2,234.94
=====	
OBSERVATORY FUND BALANCE – December 31, 2013 -	\$ 4,129.94
Income	
Donation (Mark & Nataya Boulware) -	\$ 150.00
Interest (4th quarter) -	\$ 0.47
Expenses	
None -	\$ 0.00
OBSERVATORY FUND BALANCE – January 31, 2014 -	\$ 4,280.41
=====	
INSURANCE ESCROW BALANCE – December 31, 2013 -	\$ 5,274.00
Income	
None -	\$ 0.00
Expenses	
None -	\$ 0.00
INSURANCE ESCROW BALANCE – January 31, 2014 -	\$ 5,274.00
=====	
TOTAL TCAA FUNDS – January 31, 2014 -	\$ 11,789.35
=====	

Respectfully submitted,
L. Duane Yockey, Treasurer