

THE OBSERVER

OF THE TWIN CITY AMATEUR ASTRONOMERS



Volume 39, Number 9

September 2014

INSIDE THIS ISSUE:

Central Illinois Mini Confab Successful.....	1
A Note from President Weiland.....	2
TCAA Summer Picnic a Success.....	2
Calendar of Celestial Events – September 2014.....	3
New & Renewing Members/Dues Blues.....	3
The Star-splitter.....	4
This Month’s Phases of the Moon.....	5
Central Illinois Confab (continued).....	5
Editor’s Choice: Image of the Month.....	5
Next Public Observing Session September 27 th	6
Unique Partial Solar Eclipse October 23 rd	6
October Field Trip Reminder.....	6
Education/Public Outreach for August 2014.....	7
Astrobits.....	7
Profiles in Amateur Astronomy: Geoff Hughes.....	7
HowTimeFlies.....	8
TCAA Treasurer’s Report – August 2014.....	8

CENTRAL ILLINOIS MINI CONFAB SUCCESSFUL

By all reports, the first Central Illinois Mini Conference on Saturday, August 23rd was successful. Thirty individuals were present: 12 from the TCAA, 14 from the Champaign Urbana Astronomical Society (CUAS), 2 from the Peoria Astronomical Society (PAS), and 3 invitees including 2 from Astro-Physics and 1 from the Chicago Astronomical Society (CAS). All tolled, there were 31 in attendance at this event. Attending from the TCAA were Dave Osenga, Tony Cellini, Carl Wenning, Mark and Nataya Boulware, Lisa Wentzel, Tim Stone, Bob Finnigan, Darren Erickson, Lee Green, Sharon MacDonald, and Duane Yockey.

The event began at 4PM with Darren Erickson staffing registration, and an open house at Prairie Sky Observatory where Tony Cellini, Bob Finnigan, and Tim Stone showcased our facility. At 4:30PM Dave Osenga welcomed everyone, led introductions, and introduced speakers. There were five speakers contributing 15-minute talks: *Equipment of TCAA* by Tim Stone, *Remote Imaging in Chile with Astro-Physics* by Howard Hedlund, *Newtonian Primary Collimation Using a Star* by Michael Lockwood (CUAS), *Restoring Starlight in Illinois – It’s Up to Us* by Audrey Fischer (CAS), and *Observing in the Southern Hemisphere* by Erik Johnson (CUAS). All talks were held inside the nature center due to the hot and humid conditions outside.

Following another break showcasing both Prairie Sky and Sugar Grove Observatories, attendees assembled in the picnic shelter for a Star-B-Q prepared by Carl & Carolyn Wenning. The crowd was hungry and consumed 35 bratwursts, 19 hamburgers, 4 hotdogs, 3 large bags of potato chips, a quart of noddle salad, two quarts of baked beans, a 3-pound jar of cinnamon applesauce, lots of condiments, 4 dozen cookies, 2 gallons of real lemonade, and lots of soda and water. We must not overlook the fact that Tony Cellini shared a gallon or two of home brew much to the delight of several attendees! The total cost of the meal (minus Tony’s contribution for beer) was only about \$4 per person. Two anonymous TCAA donors paid for the meal; the club paid for the remaining liquid refreshments.

Following the evening meal and just before the keynote address, Richard Theoness (PAS) read the poem *The Star-splitter* by Robert Frost. It brought a few chuckles to attendees and is reproduced later in this issue of **The OBSERVER** for the benefit of those who missed out on Rich’s reading. Following this poetic interlude, Carl took the floor to present *Getting Ready for 2017* in which he spoke about the upcoming triad of solar eclipses: 2017 (total), 2023 (annular), and 2024 (total).



The TCAA is an affiliate of the [Astronomical League](#). For more information about the TCAA, be certain to visit our [club website](#).

(continued on page 5)

The OBSERVER is the monthly electronic publication of the Twin City Amateur Astronomers, Inc., a registered 501(c)(3) not-for-profit educational organization of amateur astronomers interested in studying astronomy and sharing their hobby with the public.

TCAA OFFICERS

President

Tom Weiland 309-830-0167
tomcea52@yahoo.com

Vice-President

Dave Osenga 309-287-0789
DaveOsenga@msn.com

Secretary/Webmaster

Lee Green 309-454-7349
lee@starlightsoftware.com

Treasurer/ALCor/Registered Agent

Duane Yockey 309-452-3936
duane@lybinc.com

3rd Director/Property Manager

Tim Stone 309-531-2401
tim.stone.piano@gmail.com

4th Director/Historian/Editor

Carl Wenning 309-830-4085
carlwenning@gmail.com

5th Director

Robert Finnigan 309-846-9533
robertfinnigan5@gmail.com

The OBSERVER

Carl J. Wenning, Editor
 21 Grandview Drive
 Normal, IL 61761-4071

Submission deadline is the end of each month.

Membership Dues

Individual Adult/Family \$40
 Full-time Student/Senior \$25
 (senior status equals ages 60+)

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

A NOTE FROM PRESIDENT WEILAND

We had a great TCAA Summer Picnic at our home a few weeks ago. The weather was good and the food was excellent. One thing I noticed about the evening was, with the exception of two individuals, those who were present were members who are always present at such activities. A concerted effort has been made over the last several years to include spouses (and several were present), so we could get to know each other on a different level, but we still had what might be termed as the "core group" at the gathering. I know this is the case in many organizations, but it still begs the question, "Are we missing something?"

We have around 45 members, but seldom see more than 10 or 15 members at most of our events. The "core" seems to be a rather homogenous group....nothing inherently wrong with that....but we would like to encourage broader participation. These numbers show us that the larger percentage of our membership does not participate actively in TCAA. Is there something we can provide to you as members to meet your needs that we are missing? What can we do to encourage greater regular participation in club activities, both social and outreach?

We have a handful of younger members who attend regularly with adult family members (one of whom has again requested to make one of our monthly presentations next season). We regularly provide our services to scout groups, science classes and other organizations. We often have a wide range of age groups at our monthly Public Observation Sessions (POS) as well as the planned activities we participate in at Sugar Grove nature Center (SGNC), but this doesn't seem to carry over to active interest in club membership and participation of younger amateur astronomers. What can we do to encourage greater interest in youth membership (those who don't depend on their parents for transportation) and participation in club activities?

Viewing at our POS may meet many people's needs, but some of our social activities also provide opportunities for members to learn more ways to explore their interests in astronomy. We have an active group of astrophotographers who are willing and eager to share their skills. The club's addition a year ago of the new Prairie Sky Observatory at SGNC provides access to world-class equipment and additional observing and photographing opportunities. This equipment is available to all club members after some training in its use.

There is much going on in TCAA and we want to share it, so let us know what we can do to help you pursue your astronomy goals and help us spread the word about club participation and the benefits of membership.

If you have any suggestions, comments, or questions, please contact me at tomcea52@yahoo.com. I would appreciate your input.

TCAA SUMMER PICNIC A SUCCESS

Club members gathered on Saturday, August 9th, at the home of Tom and Carolyn Weiland in rural Heyworth for the club's traditional summer picnic. Festivities began around 5:30 p.m. Among things set out for club member amusement was a zip line! Eve Pouliot and Tim Stone demonstrated their courage by taking the trip.

Around 6:30 p.m. the family barbeque was set ablaze and entrees were prepared. Everyone shared in the potluck treats brought by members and the many refreshments provided by the Weilands. Festivities continued until members slowly departed from approximately 8:30 to 9:00 p.m.

In attendance (in addition to those named above) were Paul Pouliot, Dave and Donna Osenga, Bob and Cheryl Finnigan, Tim Stone, Carl and Carolyn Wenning, and new member Lisa Wentzel along with her father Dick. Thanks and a "tip o' the hat" to Tom and Carolyn for once again hosting this pleasurable annual event.

CALENDAR OF CELESTIAL EVENTS – SEPTEMBER 2014

MORNING STARS (9/15): VENUS, JUPITER, AND URANUS

EVENING STARS (9/15): MERCURY, MARS, SATURN, AND NEPTUNE

Question: Why aren't day and night of equal length on the equinox as noted in the information for the date of September 23 below? See answer following list of events.

02 First Quarter Moon – The moon sets at midnight and rises at midday.

05 Venus-Regulus Conjunction – Venus passes 0.7 degrees from the bright star Regulus in Leo.

08 Full Moon – The moon rises at sunset and sets at sunrise. Early Native American tribes knew this full moon as the Full Corn Moon because corn is harvested around this time of year. This moon is therefore also known as the Harvest Moon. The Harvest Moon is the full moon that occurs closest to the September equinox each year. Because the moon rises in the eastern sky and its night-to-night ecliptic motion is roughly parallel to the horizon, it rises only about 25 minutes later each evening and in the past helped farmers with the work of harvesting corn after sunset. The average delay is 50 minutes.

15 Third Quarter Moon – The moon rises at midnight and sets at midday.

20 Mercury-Spica Conjunction – Mercury passes 0.5 degrees south of the bright star Spica in Virgo at 21:00 UT.

21 Mercury at Greatest Eastern Elongation – Mercury reaches its greatest elongation of 26.4 degrees east of the Sun shining at magnitude +0.0 in the dawn sky. Mercury's best sunset apparition for 2014 for *southern* hemisphere observers.

23 September Equinox – The September equinox occurs at 02:29 UTC. The Sun will cross over the equator moving from north to south. There will be nearly equal amounts of day and night throughout the world. This is the first day of fall (autumnal equinox) in the northern hemisphere and the first day of spring (vernal equinox) in the southern hemisphere.

24 New Moon – The moon rises and sets with the sun and is not visible.

Answer: This would be the case but for the facts that the sun is not a point source and there is atmospheric refraction. Sunset occurs when the sun's upper limb disappears below the horizon, not when its center does so. Also, the atmosphere bends the sun's light making it appear higher in the sky than it really is. In fact, when the sun's lower limb touches the horizon, most of its disk has set.

NEW & RENEWING MEMBERS

The following individuals have paid dues for new or renewed memberships as of August 31st, 2014. (Others who paid after that date will appear in the October 2014 issue of *The OBSERVER*.)

Geoff Hughes

DUES BLUES

If you have received a "your dues are due" statement along with the email that brought you this issue of *The OBSERVER*, please remit your dues to Mr. Duane Yockey, TCAA Treasurer, 508 Normal Avenue, Normal, IL 61761. Current dues are \$25 for senior (60 years of age and over) and \$40 regular.

SUBSCRIBING TO OUR E-MAIL LISTS

By subscribing to a group's mailing list you will receive email messages from the group so you won't have access to the group's web features (like photos, files, links, polls, calendar, etc.) unless members [activate it later](#). The club now has two email listservs. The main email listserv is known as the **TCAA** listserv. It will be used to share announcements and reminders about astronomical and club events. To join this main listserv you must do the following:

1. Subscribe: Send a blank email to TCAA-subscribe@yahoogroups.com Note: You'll be sent a confirmation email from the group. Reply to the confirmation email to activate your subscription.
2. Unsubscribe: tcaa-unsubscribe@yahoogroups.com
3. To post a message: tcaa@yahoogroups.com

A second listserv – **TCAA-imaging** – is for club astronomical photographers as well as those who want to view their images and follow their discussions. It is an easy way to keep up with all the stuff we're doing at the observatories.

1. Subscribe: tcaa-imaging-subscribe@yahoogroups.com
2. Unsubscribe: tcaa-imaging-unsubscribe@yahoogroups.com
3. To post a message: tcaa-imaging@yahoogroups.com

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

THE STAR-SPLITTER

~ by Robert Frost ~

"You know Orion always comes up sideways.
 Throwing a leg up over our fence of mountains,
 And rising on his hands, he looks in on me
 Busy outdoors by lantern-light with something
 I should have done by daylight, and indeed,
 After the ground is frozen, I should have done
 Before it froze, and a gust flings a handful
 Of waste leaves at my smoky lantern chimney
 To make fun of my way of doing things,
 Or else fun of Orion's having caught me.
 Has a man, I should like to ask, no rights
 These forces are obliged to pay respect to?"
 So Brad McLaughlin mingled reckless talk
 Of heavenly stars with hugger-mugger farming,
 Till having failed at hugger-mugger farming,
 He burned his house down for the fire insurance
 And spent the proceeds on a telescope
 To satisfy a lifelong curiosity
 About our place among the infinities.

"What do you want with one of those blame things?"
 I asked him well beforehand. "Don't you get one!"

"Don't call it blamed; there isn't anything
 More blameless in the sense of being less
 A weapon in our human fight," he said.
 "I'll have one if I sell my farm to buy it."
 There where he moved the rocks to plow the ground
 And plowed between the rocks he couldn't move,
 Few farms changed hands; so rather than spend years
 Trying to sell his farm and then not selling,
 He burned his house down for the fire insurance
 And bought the telescope with what it came to.
 He had been heard to say by several:
 "The best thing that we're put here for's to see;
 The strongest thing that's given us to see with's
 A telescope. Someone in every town
 Seems to me owes it to the town to keep one.
 In Littleton it may as well be me."
 After such loose talk it was no surprise
 When he did what he did and burned his house down.

Mean laughter went about the town that day
 To let him know we weren't the least imposed on,
 And he could wait—we'd see to him tomorrow.
 Our thief, the one who does our stealing from us,
 We don't cut off from coming to church suppers,
 But what we miss we go to him and ask for.
 He promptly gives it back, that is if still
 Uneaten, unworn out, or undisposed of.
 It wouldn't do to be too hard on Brad
 About his telescope. Beyond the age
 Of being given one for Christmas gift,

But the first thing next morning we reflected
 If one by one we counted people out
 For the least sin, it wouldn't take us long
 To get so we had no one left to live with.
 For to be social is to be forgiving.
 He had to take the best way he knew how
 To find himself in one. Well, all we said was
 He took a strange thing to be roguish over.
 Some sympathy was wasted on the house,
 A good old-timer dating back along;
 But a house isn't sentient; the house
 Didn't feel anything. And if it did,
 Why not regard it as a sacrifice,
 And an old-fashioned sacrifice by fire,
 Instead of a new-fashioned one at auction?

Out of a house and so out of a farm
 At one stroke (of a match), Brad had to turn
 To earn a living on the Concord railroad,
 As under-ticket-agent at a station
 Where his job, when he wasn't selling tickets,
 Was setting out up track and down, not plants
 As on a farm, but planets, evening stars
 That varied in their hue from red to green.

He got a good glass for six hundred dollars.
 His new job gave him leisure for stargazing.
 Often he bid me come and have a look
 Up the brass barrel, velvet black inside,
 At a star quaking in the other end.
 I recollect a night of broken clouds
 And underfoot snow melted down to ice,
 And melting further in the wind to mud.
 Bradford and I had out the telescope.
 We spread our two legs as it spread its three,
 Pointed our thoughts the way we pointed it,
 And standing at our leisure till the day broke,
 Said some of the best things we ever said.
 That telescope was christened the Star-Splitter,
 Because it didn't do a thing but split
 A star in two or three the way you split
 A globule of quicksilver in your hand
 With one stroke of your finger in the middle.
 It's a star-splitter if there ever was one,
 And ought to do some good if splitting stars
 'Sa thing to be compared with splitting wood.

We've looked and looked, but after all where are we?
 Do we know any better where we are,
 And how it stands between the night tonight
 And a man with a smoky lantern chimney?
 How different from the way it ever stood?

THIS MONTH'S PHASES OF THE MOON



First Quarter
September 2



Full Moon
September 8



Third Quarter
September 15



New Moon
September 24

All moon phase dates are given for Central Daylight Time. Additional moon phases can be found for the 2014 calendar year by clicking [here](#). These four images were provided by J.K. Howell of the Champaign-Urbana Astronomical Society and are used with permission.

Central Illinois Mini Confab Successful

(continued from page 1)

This topic is of significance because both total solar eclipses will be visible from here in Illinois, and will be the theme of the NCRAL-MSRAL 2016 regional meeting that the TCAA will host in April of that year.

In his talk Carl spoke about the characteristics of these events describing his own two experiences – Bolivia in 1994 and near the island of Crete in 2006. At Carl's request, Sharon MacDonald – who herself has observed 6 total eclipses! – told of some of her experiences as well. Carl then went on to speak about how best to view the 2017 eclipse, things to look for, and things not to do. He described the NCRAL-MSRAL 2016 event indicating that the TCAA would try its best to provide useful information and workshops. This information was warmly received. The goal of “energizing” local astronomy clubs to attend the regional meeting seems to have gone well. The meeting concluded with Audrey Fischer (CAS) giving away two door prizes relating to avoiding problems associated with light pollution – a set of filtered glasses and a lamp. Nataya Boulware drew the winning tickets and our own Dave Osenga won a “pollution fighting” amber-colored, palm-sized, LED flashlight. The event came to a close with expressions of thanks and a hearty round of applause for those who labored to put on this event.



One of the displays and a sampling of the door prizes offered by CAS's Audrey Fischer. Image by C. Wenning



Some of the audience members listening to PAS's Rich Theoness read "The Star-splitter" by Robert Frost. Image by D. Osenga



Open house at Prairie Sky Observatory. The sky was just clear enough for attendees to observe the sun in Hydrogen-alpha light thanks to Tony Cellini. Image by D. Osenga

EDITOR'S CHOICE: IMAGE OF THE MONTH

The image to the right gives a good impression of what the sky has looked like in Central Illinois since April. The editor takes great sadness in reporting that this picture is Image of the Month for August.



NEXT PUBLIC OBSERVING SESSION SEPTEMBER 27TH

The 2014 public observing sessions are continuing. Recall that these events will be held cloudy or clear. Only in the case of active rain will the events be cancelled. The September 27th program runs from 7:15 to 9:15 p.m. September's program, to be led by Tom Weiland, is titled *Globular Clusters*.

Tom's presentation has been described as follows, "These are the oldest star clusters in the Milky Way, and only about 140 are known. They pre-date the appearance of the rest of our home galaxy and are an amazing sight even in small telescopes." The POS brochure with additional information can be found on the [TCAA public events webpage](#).

This year's on remaining date, topic, and speaker is as follows:

Date	Topic	Coordinator
October 25	<i>The Andromeda Galaxy</i>	Kevin Brown

Once again in 2014, the club will be collecting email addresses in exchange for a chance to win a basic telescope during an October POS free drawing. This year the telescope is a Meade ETX-125AT (f/15) Maksutov-Cassegrain telescope recently donated to the club. TCAA members *are* eligible for the drawing. Attendees may register for the drawing each time they come to a public observing session. The more frequently one registers, the greater one's chances of winning this fully functional telescope.



UNIQUE PARTIAL SOLAR ECLIPSE VISIBLE HERE OCTOBER 23RD

While preparing for this Mini Conference talk, Carl W. took a look at future solar eclipses and discovered that the partial solar eclipse of October 23rd (visible here near sunset) will feature an unusual double conjunction involving sun, moon, and Venus. At the time of greatest eclipse, the sun will be low in the west-southwestern sky as observed locally. The moon will be to the sun's upper right and Venus will be to the moon's upper right. At this time Venus will be shining at magnitude -3.9 and might well be visible during this event if one is careful to shield the light of the sun from one's eyes! Carl is now working on a more detailed article for the October issue of **The OBSERVER**. Stay tuned and perhaps plan on a "special" observing session for the general public!

OCTOBER FIELD TRIP REMINDER

TCAAers might not be familiar with the asteroid observation program sponsored by NASA that is taking place near Charleston, IL. The program features a number of large automated photographic telescopes operated by Bob Holmes. The largest telescope, a 50-inch behemoth, will soon be operating at the Astronomical Research Institute, and we have been invited to attend a rare open house event.

The date of Saturday, October 11th has been set aside for this daytime visit. The TCAA membership is invited to join with the CUAS membership to participate in this very rare event. Put this into your schedule now if you want to participate. Watch the October edition of **The OBSERVER** for details. We should feel honored to have been invited. To learn more about Bob Holmes and his work, see this somewhat dated online article by the [Herald-Review](#).

Perhaps, if we are lucky, we might be able to arrange for a visit to the nearby optical shop where the 50-inch telescope mirror was ground and figured.



Bob Holmes

E/PO FOR AUGUST 2014

Carl Wenning, working with well-known photographer Robert Shaw (perhaps best known for *Abraham Lincoln Passed This Way: The America Lincoln Knew* – with Michael Burlingame, 2011) hosted “A Shower of Stardust – The Perseid Meteor Shower” program at Weldon Springs State Park on the evening of August 12th. The event had been postponed from the night previous due to an overcast sky. On Tuesday evening the sky was beautifully clear and many stars and Perseid meteors were visible despite the intrusion of the waning gibbous moon.

ASTROBITS

- ★ News wise August has been a “slow month”. The sky has been overcast for most of the past four months and there is little activity to report from the observatory with but one exception. Some time during August an “Observatory” sign appeared on the western exterior wall of the Prairie Sky Observatory. The membership was taken quite by surprise. The sign is shown here with Tim Stone “included for scale”.
- ★ The editor is happy to report that the club’s “first family” was not hurt in the August 24th Napa Valley earthquake. They had been traveling not far from the area when the earthquake occurred.
- ★ The following statement appeared in the **HowTimeFlies** column of the *Pantagraph* on Monday, August 25th: 25 years ago - **Aug. 25, 1989**: Voyager 2 has found two new moons orbiting the planet Neptune. That was a big deal at ISU where planetarium director Carl Wenning and fellow astronomers watched the pictures beamed back on classroom TV. Atmospheric study is the key now, he says.



Tim Stone standing astride Prairie Sky Observatory

PROFILES IN AMATEUR ASTRONOMY: GEOFF HUGHES

The TCAA welcomes new member Geoff Hughes! Geoff does not yet consider himself an amateur astronomer because “I have no gear.” But that never stopped anyone from being an amateur astronomer as most of us well know!

Geoff is a semi-retired photographer who recently completed a 96-session DVD course called “Understanding the Universe” presented by Alex Filippenko through The Great Courses series. He is on fire with a love of astronomy.

He is greatly intrigued by seeing beautiful deep space photos as would be natural for a photographer. His immediate goal is “seeing and capturing beautiful images”. He knows that becoming an astrophotographer can mean encountering a steep and expensive learning curve. Nonetheless, he hopes to learn a lot from members of the club, and the membership can be relatively certain that we’ll be seeing lots of Geoff at the TCAA observatories.

Like many others within the TCAA, Geoff sees astronomy as providing a “spiritual experience”. Contemplating “the vastness of space and the virtually infinite number of bodies that occupy it, not to mention the immensity of time their presence represents”, fascinates him.

Welcome Geoff. We look forward to getting to know you better and working with you to become the astrophotographer that you want to be. We are delighted to have you in our presence.



New Member Geoff Hughes

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: September 1964 – The TCAA membership is greatly excited by the opening of the ISU Planetarium. The newsletter reported that “The ISU Planetarium is now installed and in full working order. Mike Ryder, David Williams, and Taylor Cisco got a sneak preview on September 4 while Ray Wilson was adjusting the planetary projectors.” The planetarium opened without fanfare along with ISU’s Felmley Hall on September 1, 1964.

25 Years Ago: September 1989 – The club began another Adult Education program on September 24th with 14 members of the general public in attendance. The ISU Planetarium announced that starting September 1990 it will begin charging admission for its public programs as a way of generating revenue for operations.

10 Years Ago: September 2004 – Club meetings are now regularly held immediately preceding the public observing sessions. William Carney spoke about “The Moon” and Rebecca Wenning spoke about the “Moon Illusion” before the September 18th POS that was attended by 25 members and guests.

TCAA TREASURER’S REPORT – AUGUST 2014

OPERATING FUND BALANCE – July 31, 2014 -		\$ 2,228.01
<u>Income</u>		
Dues (Geoff Hughes)	\$	26.00
<u>Expenses</u>		
PayPal (Geoff Hughes)	\$	00.83
OPERATING FUND BALANCE – August 31, 2014 -		\$ 2,253.18
OBSERVATORY FUND BALANCE – July 31, 2014 -		\$ 4,381.65
<u>Income</u>		
None	\$	0.00
<u>Expenses</u>		
None	\$	0.00
OBSERVATORY FUND BALANCE – August 31, 2014 -		\$ 4,381.65
INSURANCE ESCROW BALANCE – July 31, 2014 -		\$ 5,274.00
<u>Income</u>		
None	-	\$ 0.00
<u>Expenses</u>		
None	-	\$ 0.00
INSURANCE ESCROW BALANCE – August 31, 2014 -		\$ 5,274.00
TOTAL TCAA FUNDS – August 31, 2014 -		\$ 11,908.83

Respectfully submitted,
L. Duane Yockey, Treasurer