

IN THIS ISSUE:

| | |
|--|---|
| A NOTE FROM PRESIDENT TOM WEILAND | 1 |
| SPEAKER SET FOR ANNUAL MEETING | 1 |
| MINUTES OF THE NOVEMBER 6, 2012, BOARD MEETING | 2 |
| CALL FOR NOMINATIONS | 3 |
| BYLAWS AMENDMENT PROPOSED FOR CON- SIDERATION AT AN- NUAL MEETING | 3 |
| PSO AND MEO UPDATES | 4 |
| TCAA AT ISU PLANETARIUM JANUARY 19 TH | 4 |
| POS SCHEDULE FOR 2013 | 5 |
| GET THOSE OBSERV- ING RECORDS IN! | 5 |
| NOVEMBER'S EDUCA- TION AND PUBLIC OUTREACH | 5 |
| ASTROBITS | 6 |
| HOW TIME FLIES | 8 |
| CONSTELLATION OF THE MONTH: ANDROMEDA—THE PRINCESS | 8 |
| TREASURER'S REPORT | 9 |
| END-OF-YEAR DONATIONS TO TCAA REQUESTED | 9 |

A NOTE FROM PRESIDENT TOM WEILAND

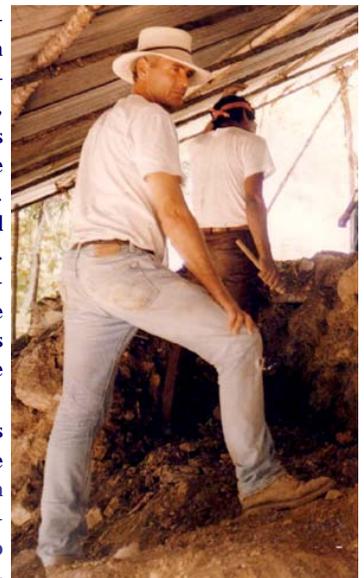
Astronomers are nothing if not endlessly optimistic. Many things about our chosen hobby are quite predictable. There are a myriad of charts, websites, magazines and books that help us to locate just about anything we would like to view in the heavens above. There is however much left to chance. As an example, after reading fellow TCAA member Duane Yockey's experience viewing the Leonid meteor storm in 2001 (republished in last month's Observer) during which he estimated he saw over 1000 meteors in a 90 minute period, I resolved to set my alarm and see what the 2012 Leonids might have to offer.

Historically, the Leonid meteor shower has produced some spectacular events and although this year's predictions were for 15 to 20 meteors per hour one can never accept that as a guarantee when it comes to viewing a reoccurring meteor shower. So I ventured outside around 3:30 a.m. and spent about 35 minutes in the cold to see ONE meteor before heading back inside. (Duane shared with me that he fared somewhat better, seeing about a dozen meteors in 90 minutes this year). So after a less than spectacular shower this year I have set my sites on next year, or even the next major meteor shower (the Geminid shower peaks on December 13!) anticipating another opportunity under a clear sky to view a dazzling show.....that is if there is a clear sky.....well that's something also that we have no choice but to be optimistic about. Clear skies!!

SPEAKER SET FOR ANNUAL MEETING

Dan Miller has arranged for the appearance of Dr. Christopher Powell at the 2013 Annual Meeting on February 23rd. Dr. Powell has over twelve years of experience conducting, supervising and directing archaeological excavations at the Mayan ceremonial centers of Cerros in Belizé, Copan in Honduras, and Palenque in Chiapas, Mexico. He also has conducted anthropological investigations in the Yucatan, Honduras, southern Mexico and the highlands of Guatemala. Powell received his undergraduate training at the University of Arizona at Tucson, and his graduate training at the University of Texas at Austin under the direction of the late Dr. Linda Schele. His Master's thesis "A New View on Mayan Astronomy" investigated the hidden, underlying mathematical structure of Mayan astronomical calculations. His Ph.D. thesis, "The Shapes of Sacred Space", defines the fundamental characteristics of a sophisticated system of geometry and proportion incorporated into the design of Maya art and architecture. An enthusiastic, engaging speaker, he has published numerous papers and presented at many academic conferences on these and other intriguing subjects. Stay tuned for details.

In the meantime, consider the following. Chris was featured in a FOXNews Thanksgiving holiday TV program *Countdown to Doomsday*. According to the survivalandproperty.com website, "It is a fact that the Maya calendar will end on December 21, 2012. But, don't believe the hype. The world is not about to end. Debunking the doomsday scenarios are astronomer Anthony Aveni, physicist Michio Kaku, archaeologist Christopher Powell and author Graham Hancock. Plus, psychiatrist Dr. Keith Ablow tells why the idea of a doomsday is appealing to some people."



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.

TCAA OFFICERS

| | |
|------------------------|--|
| President | Tom Weiland 309-830-0167 tomcea52@yahoo.com |
| Vice-President | Dave Osenga 309-287-0789 DaveOsenga@msn.com |
| Secretary | Lee Green 309-454-7349 lee@starlightsoftware.com |
| Treasurer/ ALCor/RA | Duane Yockey 309-452-3936 duane@lybinc.com |
| 3rd Director | Paul Pouliot 815-844-7065 ppouliot2@mchsi.com |
| 4th Director | Tony Cellini 309-829-9269 drksky1056@comcast.net |
| 5th Director | Dan Miller 309-473-3465 damiller@mail.millikin.edu |
| Historian | Carl Wenning 309-830-4085 carlwenning@gmail.com |
| Webmaster | Lee Green 309-454-7349 lee@starlightsoftware.com |
| Property Manager | Lee Green 309-454-7349 lee@starlightsoftware.com |

The Observer Editor

Erin Estabrook
314 Covey Court
Normal, IL 61761
309-454-6894
erin@lybinc.com

Submission deadline is the first of each month.

Membership Dues

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

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

MINUTES OF THE NOVEMBER 6, 2012, BOARD MEETING

The TCAA Board meeting was held at the office of Duane Yockey on November 6, 2012. President Tom Weiland called the meeting to order at 6:30pm. In attendance were Board members Tom Weiland, Tony Cellini, Dave Osenga and Dan Miller, and members Bob Finnigan, Lee Green, Carl Wenning, John Werner and Duane Yockey.

The minutes of the previous meeting were unanimously approved as was the current Treasurer's report. Lee reported that the website had been updated to reflect the 2013 event schedule. He also indicated that only minor progress had been made towards completing the current inventory and promised to have this completed for the next meeting. Duane reported that the weather for the Illinois Dark Sky Star Party had been very beneficial in helping to eliminate the summer's drought.

Turning to old business, Tom reviewed last month's Autumn Celebration at the SGNC and indicated that we had distributed over half of the 500 brochures he had printed. He estimated that we had 350 people visit the observatory and he thanked all the members who helped make the event a success. The remaining brochures are at the observatory for those needing copies. At Duane's suggestion, additional copies of the POS brochure will be made available at the annual meeting for members to take with them for distribution to other interested individuals.

Discussion turned to the roll-off roof observatory (RORO) and Tom indicated that Angela had assured us that the needed approvals were on track. We then reviewed an updated Memorandum of Understanding concerning the RORO. Two provisions that caused additional discussions were the cost of insurance and a perpetual membership in the SGNC. Because these two topics would bind future Boards, a concern was raised about our ability to fund these obligations. The cost of the insurance was estimated to be quite modest, but firm quotes were not available. Dave moved that we specify the level of membership in the SGNC at \$100 per year. This provision was approved. Carl will make changes to the memorandum and distribute those to the Board.

Bob, Carl and Tony have assisted with the installation of the telescope sold to IWU and Bob and Tony have commenced training their staff. Installation is likely to be completed during November.

Dan reported that Chris Powell has accepted our invitation to speak at our annual meeting. Dave noted that the Normal Township Hall had been reserved for Feb. 23, 2013 for the event and that arrangements with the caterer are pending.

Turning to new business, Carl reported that Tom Willmitch, the director of the ISU Planetarium, has indicated his interest in increasing cooperation with the TCAA. The Board consensus was that we would like to pursue additional activities with them. Carl will follow up to coordinate an event. Duane suggested Saturday, January 19 would be favorable date. Carl also recounted his recent visit to University of Illinois's observatory where he met with several members of the faculty. He noted that they are trying to raise funds to restore their historic 12" refractor and suggested that we might want to host an event in their support. The Board was supportive and Carl agreed to pursue such an event for a spring or early summer timeframe.

With the recent expansions of equipment, Tony raised the suggestion that the Property Manager position might be split to address the increased responsibilities, perhaps along the line between facilities and equipment. Dan noted that a high-tech/low-tech division would be another natural division. Carl questioned the specific duties of the position and, after a review of the description of the position, noted that the by-laws might need to be amended to allow such a division. John suggested that the Property Manager could simply delegate duties to other members. John agreed to propose an alternate description for the position.

Tony has evaluated the 6" refractor and reports that the scope is effective for those areas for which it was designed although the azimuth plate bearings are troublesome. He requested permission to make improvements on the mount at his expense. The Board approved with his plan and expressed their appreciation.

Carl suggested holding seminars as a possible way to raise money, noting that astrophotography would be one possible topic that may be warmly received. John noted the large amount of preparation needed for materials for such an endeavor. Dan recounted several of the successful fundraising activities he has held for Millikin University. Carl agreed to further investigate our option for these seminars. Carl also suggested that we assist with the Great Lakes Planetarium Association meeting on April 23, 2013, and this request was approved. He also noted that the Illinois Section of the American Association of Physics Teachers would be holding their event at Heartland College on October 4, 2013 and invited member to assist in speaking at the event. Carl will coordinate these activities.

It was noted that the time is near for the annual meeting and that the Board should consider recommending a slate of candidates to stand for next year's Board of Directors. Tom requested that anyone wishing to volunteer to serve on the Board should contact him. In addition, annual awards are made for exemplary service to the club and any nominations should be forwarded to Tom.

(Continued on page 3)

CALL FOR NOMINATIONS

Each year, at the club's Annual Meeting, the membership elects a Board of Directors to serve for the next 12 months, and members are recognized for their service to the club. This coming year will be no different.

Nominations are needed for the Board. The TCAA membership is hereby reminded that nominations are needed for the 2013-2014 Board of Directors. An election for the next Board will be held at the club's Annual Meeting on February 23rd to be held at the Normal Township Hall. As an incorporated entity operating under the laws of Illinois, a Board of Directors (consisting of 5 members) manages the operations of the club. When elected, these 5 individuals select from among themselves the next president and vice president of the club. The group then appoints or re-appoints major officers (secretary and treasurer) and minor officers (ALCor, official registered agent, historian, property manager, etc.)

Nominations are being accepted for the John and Bertha Kieviet Founders Award. This award is conferred upon a TCAA member to recognize demonstrated leadership to the club. Those so recognized need not have been a president of the club. If leadership is interpreted in terms of service to the membership, this is as close as the TCAA comes to having a distinguished service citation. Lee Green received this award last February.

Nominations are being accepted for the Eugene and Donna Miller Family Award. This award acknowledges the strong efforts by a family to participate in the club as a unit. One or more parents are recognized for their efforts to instill within their children interest in and dedication to amateur astronomy. No one received this award last February.

Nominations are being accepted for Lifelong Honorary Membership. This designation is reserved for those TCAA members show have provided exceptional meritorious services to the club in terms of contributions of time and resources. This signal honor has been conferred only five times in the 50-year history of the TCAA.

Please note that G. Weldon Schuette Society of Outstanding Amateur Astronomers has been discontinued by a prior vote of the TCAA Board of Directors.

To see who has previously been recognized with such awards, be certain to check out the club's historical volume *History of the Twin City Amateur Astronomers 1960-2010* available online at http://www.tcaa.us/Download/TCAA_History.pdf (139-pages) as well as the March issue of *The OBSERVER* for 2011.

Please e-mail your nomination(s) to President Tom Weiland at tomcea52@yahoo.com. If recommending candidates for the Kieviet or Miller awards or lifelong membership, a short description explaining why you feel the nominee(s) deserve(s) the award(s) is required. The current Board of Directors and appointed officers will make decisions about the awards during the January 8th Board meeting, so be certain to get your nominations in at least a day before.

BYLAWS AMENDMENT PROPOSED FOR CONSIDERATION AT ANNUAL MEETING

In compliance with bylaw requirements, the TCAA membership is hereby put on notice that one or more amendments to the bylaws will be brought up for a vote at the February Annual Meeting. One proposed amendment redefines the duties of the position of Property Manager that will allow for delegation of responsibilities for ordinary property (e.g., observatory building, loaner telescopes, library) and specialized equipment (e.g., permanently mounted telescopes and associated equipment such as astronomical cameras, filter wheels, and computers.) More details about the proposal will appear in a later issue of *The OBSERVER*.

MINUTES OF THE NOVEMBER 6, 2012, BOARD MEETING (CONT.)

(Continued from page 2)

Bob noted that money had been earmarked for the purchase of a new camera for the club. He recommended that an Apogee CD16M with a 10-position filter wheel would be an outstanding candidate for this purchase. The Board will discuss this issue in more detail at the January meeting.

A member raised concerns about the new lights installed at the Dixie Truck Stop. We considered whether we wanted to raise the issue with them, but took no immediate action.

The next meeting was scheduled for January 8, 2013. We adjourned at 8:24pm.

Respectfully submitted,

Lee Green, Secretary

PSO AND MEO UPDATES

On November 13th Carl W. forwarded that latest version of the proposed Prairie Sky Observatory (PSO) Memorandum of Agreement to Angela Funk for forwarding to the SGNC Foundation and Funks Grove Cemetery Association. The Foundation meets on November 23rd to discuss this document. On the evening of this same day, Carl spoke with Angela Funk immediately following the SGNC Foundation Board meeting. She indicated that everyone on the Board is "very supportive, but they want clarification on several points in the Memorandum of Agreement." The FGCA Board president, Linda Bristow, who is also a member of the FGNC Foundation, would like to have a face-to-face meeting with representatives of the TCAA to this end. Tom W., Tony C. Robert F., Dave O., and Carl W. will be meeting with Linda, chair of the Funks Grove Cemetery Association, during early December to work out details and answer any final questions in anticipation of signing off on the Memorandum of Agreement that will allow for the construction of the Prairie Sky Observatory if indeed it is signed.

On November 26th, Carl spoke with Jim Dunham and found out that the new steel pier for MEO is completed and ready for installation. At that time he was waiting for Linda French to obtain several specialized bolts for securing the steel pier to the existing concrete pier. On the morning of Friday, November 30th, Bob Finnigan and Carl W. met with Jim D. and Linda F. to transfer the Celestron Pro mount and 11"HD telescope to the newly completed MEO pier. Later that evening Bob and Carl returned and were joined by Tony C., Cheryl Finnigan, Tim and Joel Stone, and Lew Detweiler. The mount was reconfigured and the telescope roughly aligned to the north. Tony then expertly ran a 4-star calibration. The telescope was about 3 degrees off in azimuth. After a correction and a second calibration procedure, the telescope was off some 19' of arc in azimuth and 13' of arc in elevation. These errors will be corrected in the next observing run when we have clearer skies. Training in the use of the mount and imaging systems will likely begin after the first of the New Year.



TCAA AT ISU PLANETARIUM JANUARY 19TH

Mark your calendar now for the evening of Saturday, January 19th. The TCAA, in cooperation with the ISU Planetarium, will host of showing for the membership as well as the general public – but especially those who have attended our public observing sessions this year. The content of the program has not yet been worked out, but planetarium director Tom Willmitch has invited us for a feature program including a sky lecture dealing with the winter skies. President Tom W. has asked Carl W. to coordinate this event.

POS SCHEDULE FOR 2013

Coordinators have been arranged for the POS schedule during 2013. Dates, time, and topics are listed below. The topics were detailed in the October issue of *The OBSERVER*. If you would like to assist with these presentations, be certain to contact the coordinators noted below.

| Date | Time | Topic | Coordinator |
|-------------|--------------------|---|--------------------|
| Mar 9 | 7:00 pm – 9:00 pm | <i>Jupiter and the Galilean Moon</i> | Dave Osenga |
| Apr 20 | 8:00 pm – 10:00 pm | <i>Our Marvelous Moon</i> | Carl Wenning |
| May 11 | 8:30 pm – 10:30 pm | <i>The Expanding Universe</i> | John Werner |
| Jun 8 | 9:00 pm – 11:00 pm | <i>Astronomical Curiosities of Saturn</i> | Tom Weiland |
| Jul 6 | 9:00 pm – 11:00 pm | <i>The World's Great Telescopes</i> | Tom Weiland |
| Aug 10 | 8:30 pm – 10:30 pm | <i>Meteors, Space Rocks, and Comets</i> | Carl Wenning |
| Sep 7 | 8:00 pm – 10:00 pm | <i>Births and Deaths of Stars</i> | Lee Green |
| Oct 5 | 7:00 pm – 9:00 pm | <i>Our Galaxy, the Milky Way</i> | Lee Green |

GET THOSE OBSERVING RECORDS IN!

Every year during the February Annual Meeting and the Summer Picnic, members receive formal recognition from the Astronomical League for completing observing and service programs. Recognition consists of pins and certificates, as well as a well-deserved round of applause from the assembled membership.

The February meeting typically sees 4 or 5 members receiving such honors. If you have completed an observing or service program recently, be certain to get your records to Duane Yockey, the TCAA's Astronomical League Coordinator (ALCor) so that you can be duly recognized. It typically takes several weeks to receive pins and certificates from the AL, so don't delay if you hope to be recognized at this coming February's Annual Meeting.

The January issue of *The OBSERVER* will carry the annual report of Astronomical League Observing Club observations. If you have made progress in any of your observing club's since last October, please provide your latest totals to carl-wenning@gmail.com by December 31st.

NOVEMBER'S EDUCATION AND PUBLIC OUTREACH

On November 5th, Lee Green assisted 7th grade science students at Olympia Middle School in starting a science/math club. Approximately 40 students, 4 teachers, and a few parents were in attendance. Lee gave a brief Introduction to Astronomy presentation, followed by sky tour, observatory tour and viewing.

Paul, Eve, and Amber Pouliot and Carl Wenning hosted an observing session for students at Pontiac's 4-H Park on Thursday, November 8th. A total of 24 were present in addition to the four TCAA observers. The session was held for 12 members of two earth science courses taught by Paul Ritter and Brian Hitchins. The additional dozen viewers were fellow Pontiac High School teachers and their family members.

On November 10th, Lee helped assisted 32 Cub Scouts earn their Astronomy Belt Loops at an event held in conjunction with the Inali District Friends of Scouting in Galesburg. The TCAA has now reached a milestone. According to Lee, "With this event (and all our others this year), we have surpassed 2000 people that we have interacted with this year! Well done TCAAs!"

ASTROBITS

- ★ Carl W. had a nice conversation with former TCAAer Bob Ryburn and his wife Marian recently. Bob is still making home-built telescopes and selling them on eBay. Now 79, Bob lives just south of Moraine View State Park. He informed Carl that former TCAA member and telescope maker Joe DeHoff has retired and moved to San Antonio, TX, to be closer to one of his children. Bob also took all mirror making supplies that Carl recently offered club members.
- ★ C. Robert O'Dell, a 1950s graduate of the ISU Physics Department, wrote the article "How the Orion Nebula Works" that appears in the December issue of *Astronomy*. Dr. O'Dell as you might recall was the lead project scientist on the Hubble Space Telescope.



★ Tony Cellini has been working diligently recently to image the sun with the new SolarMax II 90mm H-alpha telescope. He recently mounted this instrument piggy back on the SGO's 17" PlaneWave telescope. As Tony mentioned, this makes it "much more convenient to use at a moment's notice as well as provid[es] a well-aligned equatorial mount that's sheltered from the elements." Tony has captured some amazing images recently, one of which is shown here.

★ Tim Stone and Bob Finnigan continue to image objects during the nighttime. Both Tim and Bob imaged the Bubble Nebula shown here, and this is Tim's rendering. The picture consists of 12 ten-minute H-alpha, OIII, and SII images taken with the SGO's PlaneWave 17-inch

and Apogee 16u camera. Images were recorded from September 29th through November 4th.

- ★ Peoria's new Riverfront Museum opened in October and includes a new planetarium facility. This facility incorporates the relatively new planetarium projector the club saw on its last club field trip to Lakeview Museum a couple of years ago. Carl W. visited the Riverfront facility on November 21st and watched the show "Planet Quest." He was not at all impressed. The program was presented "live" and seemed only an excuse to utilize the new all-sky projection system to take a tour of the planets. Much better "programs" can be done at home using computers with free software in Carl's opinion. The program began with about 20 people in attendance but by the end only 4 remained. More than a dozen patrons walked out during the rather dull performance. This does not bode well for a TCAA fieldtrip.
- ★ It has been reported recently that Dixie Truck Stop, 4 miles to the south-southwest of Sugar Grove Nature Center, has installed brighter outdoor lighting. Recent observations from SGNC seem to indicate that on clear nights its impact on our SGNC observing site is not great. Still, might some sort of action be required to combat the increased amount of light pollution? How might growing light pollution affect our observing?
- ★ The TCAA is now considering one or more mini courses in astrophotography. Carl W. has proposed six different courses from basic (SLR cameras on tripods) to advanced (imaging with the 17" PlaneWave and post processing). The Board has not acted on these recommendations yet; it is expected that these proposals will come before the Board during its January meeting. If you are interested in such courses, please let President Tom Weiland know.



(Continued on page 7)

ASTROBITS (CONT.)

(Continued from page 6)

- ★ Carl W. met up with famed “celestial mechanics” Chris Ray (Antique Telescope Society, left in the accompanying picture) and Dr. Fred Orthlieb (Swarthmore College - Mechanical Engineering, right) in Urbana on Wednesday, November 13th. Chris and Fred have rebuilt many of the nation’s classic refractors made around the turn of the last century by Alvan Clark and Sons, Warner and Swasey, and J. W. Fecker. The goal of this meeting was to assess the quality of the ISU Physics Department’s 1882 Alvan Clark 4-inch refractor. Chris described the telescope as being in “great condition”, and was impressed by the complete collection of eyepieces,



filter, prism-based diagonal, and Herschel

wedge. Look forward to peering through this classic brass telescope at a future observing session where it will be located on a modern “goto” mount.

- ★ Carl W. recently refurbished the ISU Planetarium’s old Del N. Woods H-alpha solar filter. He used it with his CPC 11-inch telescope for the first time in more than a decade to view the sun on November 16th. The filter has a bandpass of 0.75 Ångstroms so the contrast of coronal phenomena is not as good as views provided by the club’s recently acquired 0.5-Ångstrom-bandpass Coronado SolarMax II 90mm telescope. Nonetheless, the older Woods system clearly shows coronal elements such as prominences, filaments, and plages. On November

19th he observed the sun for 6 hours and watched as a huge prominent arose from the sun and dissipated into space. Tony C., using the club’s H-alpha system was able to photograph this memorable event.

- ★ Brian Barling continues to make observations for his AL Herschel 400 list. Recently he added 3 more objects. Carl W. continues to do the same with his AL Planetary Nebula list. He has finally acquiesced and is now willing to accept “negative observations” because he admits there is no way he is going to view diffuse 14th magnitude objects with his CPC 11-inch telescope.
- ★ Carl W. has been in contact with Vivian Hoette, director of outreach at Yerkes Observatory in Williams Bay, Wisconsin. Carl has known Vivian for many years. Vivian’s son is now at ISU, and Vivian comes to visit about every three weeks. She has indicated that she would be delighted to meet and speak with the TCAA during one of her next visits. She can also coordinate a visit to Yerkes Observatory by the club. Stay tuned for updates.



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

December 1962 – Taylor Cisco, now a student at New Mexico State University, returned home for Christmas vacation. He and David Williams spent a night of “hard observing” at the North Moore Observatory on the night of December 26-27. They remained until morning twilight.

25 Years Ago

December 1987 – The club held a memorable potluck dinner at ISU's Moulton Hall. Forty-one members and guests were present, and Mike Miller played Santa Claus. A group photograph was taken. A planetarium program, “Christmas Around the World”, followed the meeting.

10 Years Ago

December 2002 – The club continues with members-only observing sessions (MOOS). Several members are now contributing regular columns to *The OBSERVER*. The group is debating raising dues once again. Unfortunately, meeting minutes are not being published in the newsletter.

CONSTELLATION OF THE MONTH: ANDROMEDA—THE PRINCESS

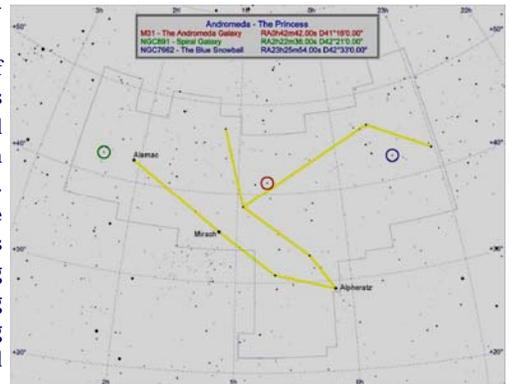
Andromeda is a northern constellation visible in the autumn and winter.

King Cepheus and Queen Cassiopeia of Ethiopia were the parents of Andromeda. Cassiopeia was very proud, and she bragged that she was more beautiful than the Nereids, the water nymphs. The nymphs heard this and complained to Poseidon, God of the Seas. Poseidon created a monster, Cetus, to rise out of the water and prey on the people of Ethiopia. Cepheus wanted to save his people from this monster. However, an oracle told him that the only way he could save his people was to sacrifice his daughter to Cetus. Cepheus unhappily chained Andromeda to a rock along the shore to await her fate. At that time Perseus was flying past, wearing the winged shoes of Mercury. Perseus was on his way home after killing the Gorgon Medusa. He offered to save Andromeda only if Cepheus would allow Perseus to marry her. When Cetus came toward Andromeda, Perseus took Medusa's head out of a bag and showed it to Cetus. Cetus was turned into a rock along the shore. Perseus and Andromeda were married and the people celebrated both the wedding and the end of their terrible ordeal of fear. This myth is told with several variations. It is commemorated in the sky with the adjacent constellations of Cepheus, Cassiopeia, Perseus, Pegasus, and Cetus.

Andromeda is the 19th largest constellation covering 722 square degrees. It is the 37th brightest constellation.

The brightest star, Alpheratz, represents Andromeda's head and is shared with Pegasus. Other named stars include Mirach and Alamac.

The most prominent object in the constellation is the Andromeda Galaxy, M31. M31 along with its companions M32 and MGC205, are members of our Local Galaxy Group. M31 is over 3° long and over 1° wide and is visible to the naked eye. It is a stunning sight in binoculars.



TCAA Treasurer's Report – November 2012

OPERATING FUND BALANCE – October 31, 2012 - \$ 1,159.19

Income

| | |
|-----------------------|----------|
| Tim Stone (Dues) - | \$ 40.00 |
| Tony Cellini (Dues) - | \$ 40.00 |
| IWU (steel plate) - | \$ 50.67 |

Expenses

| | |
|--|----------|
| LYB Inc. (Observer copies & postage) - | \$ 25.85 |
| Robert Finnigan (steel plate reimb.) - | \$ 50.67 |

OPERATING FUND BALANCE – November 30, 2012 - \$ 1,213.34

OBSERVATORY FUND BALANCE – October 31, 2012 - \$12,562.89

Income

| | |
|----------------------------|----------|
| Donation (C.S. Pack #38) - | \$ 25.00 |
|----------------------------|----------|

Expenses

| | |
|--------|---------|
| None - | \$ 0.00 |
|--------|---------|

OBSERVATORY FUND BALANCE – November 30, 2012 - \$12,587.89

TOTAL TCAA FUNDS – November 30, 2012 - \$13,801.23

Respectfully submitted,

L. Duane Yockey, Treasurer

END-OF-YEAR DONATIONS TO TCAA REQUESTED

By any standard, the TCAA does an incredible amount of education and public outreach (E/PO) each year, and many of its members are generous beyond belief – freely giving of their time, talents, and treasures. While the club's coffers seem full at the moment, much of the balance has been set aside by the Board to purchase a new imaging camera for the proposed Prairie Sky Observatory. Won't you consider making a tax-deductible donation to the TCAA this year to help further E/PO?

As a TCAA member, you are encouraged to support the club through an end-of-year contribution either small or large. Please note that the TCAA is a federally recognized 501(c)1 educational non-profit organization, and that your donation is fully deductible under federal law. If you would like to monetarily donate to the support of the club before the end of the year, please do so now by sending your contribution to our Treasurer Mr. Duane Yockey, 508 Normal Ave, Normal, IL 61761. Thanks! ©

MISSING OUT ON TCAA ACTIVITIES & EVENTS?

If you are missing out on club activities or celestial events, be certain to join the TCAA listserv. Many activities are planned at the last minute, and announced only hours in advance through the club's listserv. Reminders about celestial events are also broadcast to the membership through the club's listserv. To join this free service by Yahoo, send a blank email to TCAA-subscribe@yahoogroups.com. Unsubscribing is just as easy. To unsubscribe, just send a blank email to TCAA-unsubscribe@yahoogroups.com.

To keep up to date on celestial events not described in *The OBSERVER* or addressed in the listserv, visit Carl Wenning's observing page at www.phy.ilstu.edu/~wenning/observing_page.htm. It has been recently updated to include an extended sky calendar of events as well as additional space weather and satellite viewing links.

The OBSERVER

Newsletter of the TCAA, Inc.

Erin Estabrook, Editor
314 Covey Court
Normal, IL 61761

Are your dues due?



The Dues Blues?

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

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