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PRESIDENT'S MESSAGE: REPORT ON 2008

Congratulations for the fantastic year we had in 2008!

During the year we made some notable progress in a number of important areas:

- We increased and improved our activities.
- We expanded our capabilities and our reach.
- We're looking ahead to 2009 the IYA and to hosting NCRAL 2010
- Our financial position is stable but modest. We added capital equipment
- The observatory needs repairs in the coming year.

We increased the number of people we reached this year to 1469 as we held or participated in 50 events. Members attended those events 214 times so we averaged over 4 members per event. 85 times somebody brought a telescope to an event. Thanks x 3 to everyone for helping to make this one of our most active years ever.

Last year we joined the NASA Night Sky Network. This year we logged 15 events where we used the materials from that excellent program. That ranks us as "Stars" of the NSN. They are also providing a lot of presentation material and guidance in support of this year's International Year of Astronomy.

We have made good progress in our planning to host the NCRAL meeting in 2010 and are in the final stages of signing the contract for the facility for that meeting. Thanks to all the people who have so generously volunteered to help on the many tasks involved.

Our financial position is stable. While our revenues are modest and consist mostly of member dues, our expenditures have been equally modest. We did make two purchases of capital equipment this year, a projector and a computer, and these were funded by an anonymous donation made for that purpose. These purchases have given us the tools we need to continue to provide effective education and outreach activities.

Special thanks should be given to Property Manager William Carney for the tireless and continuing efforts he has made in maintaining our Sugar Grove Observatory. He has noted that some repairs are needed to maintain the facility in top condition and those will need to be completed during 2009.

I would recommend that each club member try to:

- recruit one new club member for the new year.
- identify additional venues where we can reach out to more people.
- identify additional revenues sources to help us fund our activities.
- resolve to participate in the club as much as we can during 2009.

In summary, we had a good year during 2008 and are well positioned to continue to expand our activities during 2009.

On a personal note, it has been a lot of fun to participate with you as we share our love of astronomy and it has been my pleasure to serve as your club's president.

Respectfully,

Lee Green

ANNUAL MEETING FEBRUARY 7TH

TCAAers, mark your schedules now for the club's 2009 Annual Meeting. The event will take place on Saturday, February 7th. At this meeting there will be an election of a Board of Directors, and presentation of lots of awards. In addition, we will hear from Dr. Linda French from Illinois Wesleyan University who has agreed to honor us with her presence.

As has been the tradition for about a decade now, the club will meet in ISU's Turner Hall at 6:00 p.m. for a social, and at 6:30 p.m. a banquet will be served. At about 7:15 p.m. we will hold our annual business meeting, and Dr. Linda French will address us at around 8 p.m.

This event is the club's "high water mark" of the year, and

you'll not want to miss it. In addition to the business that regularly comes before the membership, this year there will be an unusually high number of service and observing awards. You'll not want to miss this event. Again, pencil us into your calendar should you like to join us.

Advance reservations will be required a week before the banquet, and a fee will be assessed to cover the cost of the meal as well. Members need not participate in the banquet in order to attend the annual business meeting. More information will be made available through the TCAA listserv as soon as it becomes available, including the program for the meeting.

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

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SATURNALIA PARTY SMALL BUT ENJOYABLE

Despite a terrific ice storm Thursday night and into Friday morning, the TCAA's Saturday night 2008 Saturnalia party went off without a hitch. The earlier ice storm had knocked out electricity for 20 hours for the Yockey family and for over 30 hours for the Wenning family. Over 6,000 residents in central Illinois were without power for up to two days. Nonetheless, six hardy members – William Carney, Carl Wenning, Duane Yockey, Dave Osenga, Lee Green, and Dan Miller – were able to make it to SGNC for an evening of frivolities on December 20th.

There were lots of treats to share from shrimp to meatballs, from finger sandwiches to chips, from punch to cider, from cheese to crackers, and from cookies to Rice Krispies treats. There were lots of conversations about astronomy, astronomical travel, and observing. The Board met long enough to take a vote that would allow Duane to sign the contract with the Holiday Inn on behalf of the Board for the 2010 NCRAL meeting after adding two provisions: (1) we will be permitted to use our own video project and computer systems, and (2) we might want to reduce the number of rooms placed on hold.

The event drew to a close at 9:45 p.m. after William showed dozens of photographs taken during the early years of the TCAA. He recently has been getting reprints and digitized images from his old negatives that are critically important to the history of the club. The membership was wowed by the many interesting images of club events and people, mostly from the 1980s. Thanks and a tip o' the hat to all who participated in this fun and memorable event.



FINAL CALL FOR AWARD 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 is the final call for these nominations, as the Board will act on them at their January Board meeting.

Nominations are needed for the G. Weldon Schuette Society of Outstanding Amateur Astronomers. This award recognizes a TCAA member who has demonstrated great skill in observing, dedication to the club's education and public outreach efforts, and commitment to providing service to the membership. While holding the AL's Messier Award is recommended, it is not required by the Standing Rule that established this award in 1987. Dan Miller was our winner last February.

Nominations are needed 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. Duane Yockey was our award winner at the last Annual Meeting.

Nominations are needed 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. Michael Rogers and Jean Memken were our winners last February.

Please e-mail your nomination(s) for these awards to either President Lee Green at lee@starlightsoftware.com or Secretary Carl Wenning at wenning@phy.ilstu.edu. A short description explaining why you feel the nominee(s) deserve(s) the award(s) is required. The current Board of Directors will make decisions about the awards during their January meeting.

Nominations are needed for the Board. Five nominees are needed to "take the reins" of the club. As the TCAA is a legally incorporated body, our Board of Directors formally runs its business under Illinois law. Its members elect the head of the Board; this person becomes president of the club. The Board then appoints members to the positions of vice president, secretary, treasurer, historian, property manager, and so on. These appointees need not be members of the Board, but are expected to attend Board meetings every other month. Nominations for Board positions will be accepted until immediately before the election at the annual business meeting.

AL OBSERVING PROGRAM STANDINGS

Below is a listing of the status of observers pursuing AL observing programs reported as of December 31st. If you would like to have your information included in next month's listing, be certain to forward your observing totals to Carl Wenning before the end of the month.

AL Award	Brian Barling	William Carney	Lee Green	David Hahn	Dave Osenga	Carl Wenning	Sandy Wolford	Duane Yockey
S. Skies Binocular 50						50*		50*
S. Sky Telescope 50						52*		50*
Telescope Messier	(110)	(110)	87*	101*	48	(110)	(110)	31
Binocular Messier 50		(100)	42			71*		16
Herschel I Club 400	221	391	400*			400*	(400)	
Urban Club 100		(100)	89			100*		
Comet Club Silver12/		(23)						
Double Star Club 100	17		7			100*	(100)	
Visual Planetary Nebula Club Basic60/ Advanced110						37		
Globular Cluster Club						47		
Lunar Club 100	100*	(100)	87			76		
Lunar II Club 100		2						
Asteroid Club Reg25/		29*						
Outreach Award Basic10/ Stellar60/ Master160 hours						31 ^h - ['] 06* 26 ^h - ['] 07 44 ^h - ['] 08**		

* Program or first award level now complete. ** Second award level now complete. Both * and ** will receive AL recognition (certificate and pin) at the next TCAA Annual Meeting on February 7th if available. Numbers in parentheses (#) indicate that award has been both earned and received.

Those who have completed the required observations and have properly documented them and sent their reports in a timely fashion to ALCOR Duane Yockey will be eligible to receive AL pins and/or certificates at the club's Annual Meeting on February 7, 2009.

Those TCAA members who have been actively involved in the education/public outreach of the club are encouraged to review back issues of *The OBSERVER* (available online through the club's websites) to count the number of hours they have been actively involved in these activities. The outreach award is available at several levels to those who have completed 10, 60, and 160 hours of such service since the start of 2006.

ASTRONOMY DAY 2009

Astronomy Day is a grass roots movement designed to share the joy of astronomy with the general population – *Bringing Astronomy to the People*. On Astronomy Day, thousands of people who have never looked through a telescope will have an opportunity to see first hand what has so many amateur and professional astronomers all excited. Astronomy clubs, science museums, observatories, universities, planetariums, laboratories, libraries, and nature centers host special events and activities to acquaint their population with local astronomical resources and facilities. Many of these events are located at non-astronomical sites; shopping malls, parks, urban centers—truly bringing astronomy to the people. It is an astronomical PR event that helps highlight ways the general public can get involved with astronomy – or at least get some of their questions about astronomy answered.

Because 2009 is the International Year of Astronomy, national Astronomy Day coordinator Gary Tomlinson has set two Astronomy Day dates – May 2nd and October 24th. Both Saturdays are approximately one week after new moon phase, so an in-town observing session would be best for viewing the first-quarter moon and other bright celestial objects. Whether or not and to what extent the TCAA will be involved in Astronomy Day this year will depend upon the new Board of Directors to be elected during the Annual Meeting.

EVENTS FOR JANUARY

JANUARY SKY GUIDE

- 02** The Moon passes 5° north of Uranus, 11 A.M. 
- 03** Quadrantid meteor shower peaks 
- 04** Mercury is at greatest eastern elongation (19°), 8 A.M. 
- 14** Venus is at greatest eastern elongation (47°), 3 P.M. 
- 15** The Moon passes 6° south of Saturn, 6 A.M. 
- 18** Asteroid Juno is in conjunction with the Sun, 4 P.M.
- 20** Mercury is in inferior conjunction, 10 A.M.
- 21** The Moon passes 0.02° north of Antares, 7 A.M. 
- 23** Venus passes 1.4° north of Uranus, 10 A.M. 
- 24** Jupiter is in conjunction with the Sun, midnight
- 26** Annular solar eclipse, 2 A.M. 
- 27** The Moon passes 1.8° north of Neptune, noon 
- 29** The Moon passes 5° north of Uranus, 7 P.M. 
- 30** The Moon passes 3° north of Venus, 6 A.M. 

Grove School Science Club: Lee Green and Carl Wenning will work with teacher Jeff Colledge on Friday, January 9th, to give a presentation to the school's 4th grade science club. It is anticipated that there will be on the order of 30-35 fourth grade students, plus parents, and the school principal present. The event will run from 3:00 to 4:30 p.m. Students will work as a large group to lay out a model of the earth-moon-sun system, and in small groups to develop models to explain phases of the moon, and eclipses of the sun and moon. Following these activities, the students will view the moon and Venus through a telescope if the sky is clear, or view a PowerPoint presentation that will address many of their questions about the moon if the sky is overcast.

TCAA Board Meeting & 2010 NCRAL Planning Meeting: The next Board of Directors meeting is scheduled for Tuesday, January 27th at 6:30 p.m. at the offices of LYB, Inc. Immediately following this meeting, the 2010 NCRAL committee will assemble to continue their work.

2009 IYA Begins with BPL Series: A 12-month saga into astronomy will commence on Saturday, January 24th, in recognition of the 2009 International Year of Astronomy. Family astronomy workshops for those aged 10 years and above will take place from 1:30 to 3:00 p.m. on the 4th Saturday of each month at Bloomington Public Library. The tentative dates and topics are as follows:

Date	Topic	Possible Activity	Coordinator
January 24	Telescopes and Space Probes – Today's Starry Messengers	Building telescopes	
February 28	Our Solar System	Scale models of the solar system	
March 28	Observing at night... and in the Day	Telescopes, optical and radio	
April 25	Galaxies and the Distant Universe		
May 23	Our Sun	Eclipses, seeing	
June	Clusters of Stars	The color-magnitude	
July	Black Holes	Building a black hole	
August	Rocks and Ice in our Solar System	Making a comet	
September	Planets and Moons	CLC goo activity – cornstarch and oil	
October	What is the Fate of the Universe?	Study an explosion	
November	The Lives of Stars	Light and spectra	
December	Discovering Other Worlds		

Adult Education @ HCC: The TCAA will offer a "part 2" adult education course following on the heels of this autumn's *Night Sky Watch*. The new course, *Exploring the Milky Way*, will be held on Thursdays from 7 to 9 p.m. at Heartland Community College beginning January 29th and concluding with an optional observing session at SGNC on or shortly after February 19th.

Join us as we move beyond solar system objects and the constellation to explore the denizens of the Milky Way. During this course we will take an in-depth look at stars and star clusters, their births, lives and deaths. Learn about nebulae, main sequence stars, white dwarfs, neutron stars, and black holes. Learn about the role of astronomical theory in the study of astronomy, and examine the amazing photographic results of the Hubble Space Telescope. During an optional fourth session at Sugar Grove Observatory, we will focus telescopes on a wide variety of representative deep space objects and more.

The registration fee for these four sessions will be \$60 per person, and will include an array of materials to help participants better understand the Milky Way and things found in it. Advance registration through HCC is required. Details about registering for this course can be obtained from Carl Wenning by e-mailing him at wenning@phy.ilstu.edu or phoning him at 830-4085.

2009 PUBLIC SKY VIEWING SESSIONS

Throughout 2009 – the 400th anniversary of the invention of the telescope – we acknowledge the astronomical work of Galileo in our Public Observing Sessions. A typical public sky viewing session will include the following:

- *Lecture about the featured object.* This 20-30 minute presentation, held in the SGNC picnic shelter, includes images of and details about the featured sky object as well as information on other interesting celestial objects that might be viewed that evening.
- *Sky tour using a laser pointer.* We step out under the stars to point out the major constellations and planets, and to designate the location of the featured celestial object for the evening.
- *Telescope observing session.* We use the 12-inch Sugar Grove Observatory telescope and other telescopes at ground level to observe the featured object and other wonders of the heavens.

One, and preferably two, coordinators are needed for all Saturday events as illustrated in the table below. Don't hesitate to volunteer to lead a public sky viewing session if you are qualified to do so.

Date	Times	Sunset	Topic	Coordinator(s)
March 28	8:00 PM ~ 10:00 PM	7:17 PM CDT	The Great Nebula of Orion	
April 25	8:30 PM ~ 10:30 PM	7:46 PM CDT	The Rings of Saturn	
May 23	9:00 PM ~ 11:00 PM	8:13 PM CDT	Galileo's Universe	
June 27	9:00 PM ~ 11:00 PM	8:31 PM CDT	Craters of the Moon	
July 25	9:00 PM ~ 11:00 PM	8:18 PM CDT	Galileo's Telescope	
August 22	8:30 PM ~ 10:30 PM	7:43 PM CDT	Jupiter and Neptune	
September 19	7:30 PM ~ 9:30 PM	6:58 PM CDT	Exploring the Milky Way	
October 17	7:00 PM ~ 9:00 PM	6:13 PM CDT	The Pleiades Star Cluster	

Additional prominent sky objects such as planets, nebulae, star clusters, and galaxies will be viewed when visible. *When uncertain if an observing session will be held, call one of the following cell phone numbers after 6:00 pm: 309-830-4085 (Carl) or 309-824-2804 (Lee).* The updated 2009 public brochure for these sessions can be downloaded from the club's web site: www.twincityamateurastronomers.org

2009 MEMBERS-ONLY OBSERVING SESSIONS

The club's members-only observing sessions are slated one week earlier than the club's public sky viewing sessions. This ensures club members with a dark night, and a public sky viewing session with typically a crescent moon. Member-only observing sessions begin as soon as the sky grows dark enough for viewing, usually one hour after sunset. Coordinators are needed for each session to ensure that at least one telescope is available for viewing with TCAAers not in possession of their own telescopes.

Date	Coordinator(s)	Date	Coordinator(s)
January 24		July 18	
February 21		August 15	
March 21		September 12	
April 18		October 10	
May 16		November 14	
June 20		December 19 (Saturnalia)	

PROPERTY MANAGER REPORT

By William Carney

The ice storm [in late December] damaged the weather seal on the bottom of the observatory door and I will replace it in a few days. We got a little water in the dome and on the first floor but not too bad considering the amount of ice, snow and rain we got. Several notes to key holders: Do not do the "AUTOMATIC" alignment. It will fail most of the time. I believe that one of the level sensors or something internal is failing. Use instead the "EASY" alignment. This will not do the home, tilt, level and find North movements that seem to fail a lot. It will pick two stars and that's it. The keypad is increasingly non responsive and nothing you do will change that, just take your time. Once you align the scope you don't need the keypad anyway, use *Cartes du Ciel* on the laptop to control the scope. Keep the dome parked in its proper position to help prevent water infiltration.

Secretary's note: SGO key holders are hereby reminded that annual payments are now due for those who wish to maintain access to Sugar Grove Observatory. The annual key holder renewal fee is \$5 and should be paid to TCAA Treasurer Duane Yockey.

DECEMBER E/PO AND OBSERVERS' LOG

With public observing programs concluded in early October, the only remaining E/PO events on the TCAA schedule for December was the fifth and final "Conversations with Amateur Astronomers" discussion at Bloomington Public Library. Unfortunately, a 2-inch snowfall on a very cold central Illinois really stuck on December 16th, and the BPL was forced to cancel our event.

The cold winds and precipitation of December have put a kibosh on most of the club members' observing activities as well, but not all. Carl Wenning got out on the evening of December 2nd to observe the moon despite a freezing temperature and a 20° wind chill. Battling blowing snow, he was able to observe and record five lunar craters using binoculars thereby raising his AL Lunar Club total from 70 to 75. And despite the 7° temperature and a sluggish telescope, Carl was able to observe N Hydrae (SAO 179967) at 5:43 a.m. on December 7th, thus concluding an 8-month saga to observe the 100 binary stars required for the Astronomical League's Double Star Club.

Brian Barling has added the final two required observations to earn the AL's Lunar Club observing award. Congratulations Brian! William Carney also reported that his comet count is now 23, his Lunar Club II is now 2, and his Asteroid Club is now 29. He has not increased his Herschel 400 count.

On Sunday, December 28th, William Carney, Carl Wenning, and Lee Green gathered to observe at SGNC despite a temperature in the upper 20s and a southerly breeze. William observed Mercury and the razor-thin 1.44-day-old moon from SGO at around 5 p.m.; Carl did the same thing from in town before departing for SGNC. During the evening session at SGNC Lee updated a few Herschel observations; Carl borrowed Lee's 2-inch, 31mm Nagler eyepiece and conducted a number of comparisons with his own 1-1/4 inch eyepieces; William observed an asteroid that he later shared with Carl. William departed around 7 p.m., Carl around 9 p.m., and Lee around 10 p.m.

On Monday evening, William returned to SGO and was able to observe another 39 Herschel objects. He now has only 9 more Herschel objects to observe in the late spring skies, bringing his overall Herschel 400 Club total to 391. Carl was able to repeat his observations of the moon and Mercury from town the same evening.

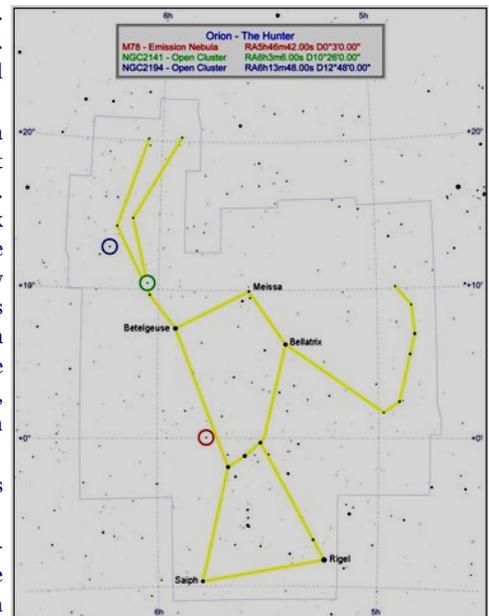
CONSTELLATION OF THE MONTH: ORION—THE HUNTER

Orion is a large bright constellation that is prominent in the winter sky. Two bright star, Betelgeuse and Rigel are among the brightest stars in the sky. Two asterism are easily seen including Orion's belt, a line of three equal-spaced stars and Orion's Belt which descend from the center Belt star.

Orion was said to be the son of Neptune and the nymph Euryale and was a giant and a great hunter. One story relates Orion's hunting prowess saying that he had no fear of any animal and threatened to kill all the animals on Earth. Gaia was shocked and afraid for her creatures and sent the Scorpion to attack Orion. The Scorpion stung Orion on the heel and killed him. His place in the stars has Orion setting in fear as the Scorpion rises. Another story tells of how Orion's hunting skill made him a favorite of the goddess Diana. Her jealous brother Apollo, seeing Orion nearly submerged during a hunt, taunted Diana to shoot an arrow through a dark blot on the water. Diane prowess with the arrow being legendary, she rose to the challenge loosing the arrow unerringly, not knowing that it was her love Orion. Diana killed Orion but placed him in the Heavens to remember him.

Orion is the 26th largest constellation covering 594 square degrees and is the 4th brightest. Orion reaches opposition on December 15.

Orion contains many clouds of dust and gas including three Messier objects. M42 and M43, the Great Orion Nebula, are adjacent emission nebulae that are the size of the full moon and are visible to the naked eye. These form the nearest stellar nursery, about 1500 light years away. Four new hot stars clustered in the heart of the nebula are called the Trapezium. M78 is another beautiful emission nebula in Orion that is overshadowed by M42. Many other nebulae are also found in Orion. The Flame Nebula, NGC2024, is an emission nebula next to easternmost star of Orion's Belt and the Horsehead Nebula is a dark nebula to the star's south. Barnard's Loop, a 30° circular band of hydrogen that is only visible photographically using long exposures with a red filter, is among the largest objects in the sky.



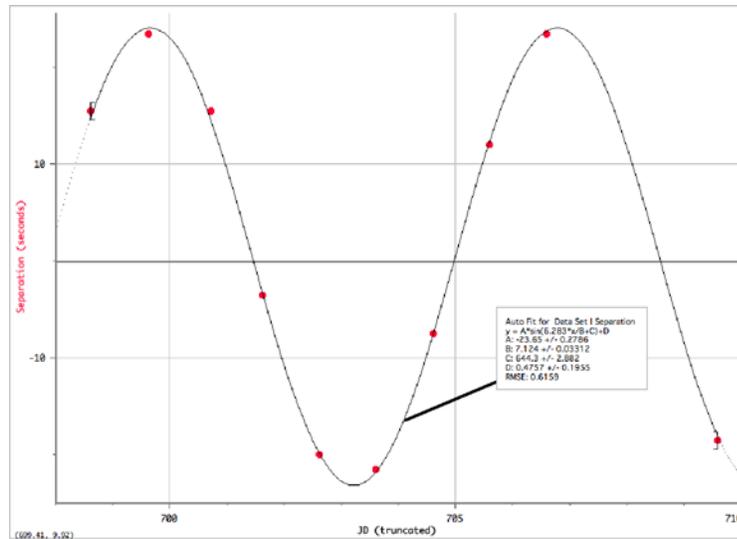
OBSERVING PROJECT: FINDING THE MASS OF JUPITER (PART 2)

By Carl J. Wenning

In the October 2008 issue of *The OBSERVER*, I provided a summary of how Newton's formulation of gravity ($F = GMm/r^2$) and second law of motion ($F = ma$) tied into the definition a centripetal acceleration ($a = v^2/r$) can be used to determine the mass of Jupiter ($M = 4\pi^2 r^3 / GP^2$). This month I'm sharing my observations of Jupiter's moon Ganymede, and the results of this observational project begun last August.

Now, my task was to observe Jupiter and Ganymede once each night if possible over the course of about ten days. This allowed me to make a reasonable determination of the orbital period of Ganymede and the mean Jupiter-Ganymede orbital distance. Observations of the ball of Jupiter with its known diameter would give me a scale to the distances obtained by timing successive transits of the moon and planet across an artificial meridian established with the use of the cross hairs of an illuminated reticule eyepiece.

Plotting the Jupiter-Ganymede separations in seconds of time versus Julian Day (JD) number, I came up with a graph that I was able to curve fit.



The data were fit using the following user-defined formula: $y = A * \sin(2\pi * x/B + C) + D$. The important numbers in the fitting equation are A which corresponds to the maximum value of the separation that represents (roughly) the mean distance of Ganymede from Jupiter (in units of time that must be converted to meters), and B that corresponds to the orbital period of Ganymede in days. The following values were obtained with the curve-fitting routine: $A = 23.65$ seconds, and $B = 7.124$ days.

Using a stopwatch, I determined how long it took Jupiter to move from one side of the reticule line to the other. I did this three to five times and then averaged the results. For instance, here is what I observed on the evening of Friday, August 8th: Jupiter from proceeding to following edge: 3.1s, 3.3s, 3.4s, 3.2s, and 3.1s giving an average of 3.2s. I then determine the distance scale of the eyepiece-telescope combination reasoning that if 3.2s corresponds to 143,000km (the diameter of Jupiter), then 1s corresponds to a distance of 44,700km for the date in question. Multiplying the time scale by the *maximum* time separation, I was able to get the apparent distance of Ganymede from Jupiter. (Note that these are only apparent distances that are foreshortened due to "projection." These are distances "in the plane of the sky.") Using this scale, I converted r into km.

$$r = 23.65s * \left[\frac{44,700km}{s} \right] = 1,057,000km$$

Converting P into s , I entered all data into the following formula to find M in kg:

$$M = \frac{4\pi^2 r^3}{GP^2}$$

where:

$$G = 6.674 \times 10^{-11} m^3 kg^{-1} s^{-2}$$

$$r = 1,057,000,000m (1,057,000km)$$

$$P = 615,500s (7.124d)$$

which gives:

$$M = \frac{4(3.142)^2 (1,057,000,000m)^3}{(6.674 \times 10^{-11} m^3 kg^{-1} s^{-2})(615,500s)^2}$$

from which it is determined that:

$$M = 1.844 \times 10^{27} kg$$

Comparing this with the known value of the mass of Jupiter ($1.899 \times 10^{27} kg$), I was able to find the mass of Jupiter to within 2.9% of its currently accepted value. Not bad for a one-week observing project.

INTERNATIONAL YEAR OF ASTRONOMY

By Lee Green

What is it?

The International Year of Astronomy 2009 is a global effort initiated by the International Astronomical Union and UNESCO to help the citizens of the world rediscover their place in the Universe through the day- and night-time sky, and thereby engage a personal sense of wonder and discovery.

The International Year of Astronomy (IYA2009) will be a global celebration of astronomy and its contributions to society and culture, highlighted by the 400th anniversary of the first use of an astronomical telescope by Galileo Galilei. The aim of the Year is to stimulate worldwide interest, especially among young people, in astronomy and science under the central theme "The Universe, Yours to Discover". IYA2009 events and activities will promote a greater appreciation of the inspirational aspects of astronomy that embody an invaluable shared resource for all nations.

Everyone should realize the impact of astronomy and other fundamental sciences on our daily lives, and understand how scientific knowledge can contribute to a more equitable and peaceful society. IYA2009 activities will take place locally, nationally, regionally and internationally. National Nodes have been formed in each country to prepare activities for 2009. These nodes will establish collaborations between professional and amateur astronomers, science centers and science communicators to prepare activities for 2009. Already now, 135 countries are involved and well over 140 are expected to participate eventually.

To help coordinate this huge global program and to provide an important resource for the participating countries, the IAU has established a central Secretariat and an IYA2009 website (www.astronomy2009.org) as the principal IYA2009 resource for public, professionals and media alike.

The IYA2009 activities will take place at the global and regional levels, and especially at the national and local levels. National Nodes in each country have been formed to prepare activities for 2009. These Nodes establish collaborations between professional and amateur astronomers, science centers, educators, and science communicators.

How is the TCAA involved?

The TCAA will be participating in the IYA2009 in at least two ways. First, for our Public Observing Sessions we have organized the sessions around themes that reflect several of Galileo's discoveries. Refer to our Public Observing Session schedule for 2009 for more information.

Next we will be participating in a program sponsored by the Bloomington Public Library that will address topics that align with the IYA outreach calendar. These programs will be held on the fourth Saturday of each month from January through May. The schedule for later months is still being finalized.

We need your help

With the IYA now officially upon us, now is the time for you to become more involved with your club. We need members to attend our events to help reach out to those people who come to learn about astronomy. We need you to find additional venues so we can reach out to new groups so we can better share our love of astronomy. There are many ways for you to be more involved in the club and I ask you to resolve to be more active in your club during this New Year, the International Year of Astronomy 2009.

Schedule for the Bloomington Public Library IYA Series

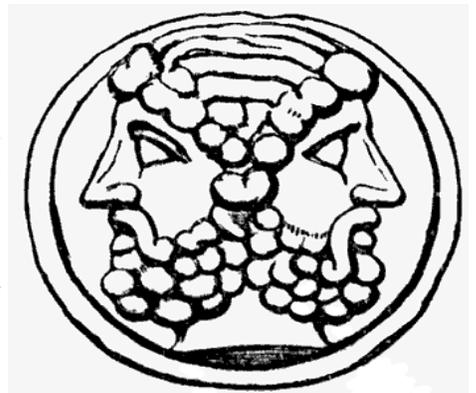
January 24	Telescopes and Space Probes – Today's Starry Messengers
February 28	Our Solar System
March 28	Observing at night... and in the Day
April 25	Galaxies and the Distant Universe
May 23	Our Sun

STARGEEZER: YESTERDAY, TODAY AND TOMORROW

By Carl J. Wenning

Janus, the two-faced god, gives his name to January, the month at the head of our calendar – the ending of one year and the beginning of another. At this time of year reflective people do have a tendency think back on the past and look forward to the future. Still, for some, there is often a disconnection between yesterday and tomorrow, and it is today. Today links yesterday with tomorrow; tomorrow is rooted in today in the same way that today is rooted in yesterday.

If a generation can be defined in any way, it is in what we pass on to the next generation. I hope that with the New Year TCAA members will place special focus on youth through our 2009 International Year of Astronomy events. I fervently hope to see more TCAAs involved in our education and public outreach activities this year.



TCAA Treasurer's Report – December 2008

OPERATING FUND BALANCE – November 30, 2008 - \$ 2,716.24

Income

David Hahn (student dues renewal) - \$ 25.00

Expenses

LYB Inc. (December Observer) - \$ 14.70

OPERATING FUND BALANCE – December 31, 2008 - \$ 2,726.54

OBSERVATORY FUND BALANCE – November 30, 2008 - \$ 1,918.90

Income

Donation (Carl Wenning) - \$ 100.00

Donation (Duane Yockey) - \$ 100.00

Expenses

None - \$ 0.00

OBSERVATORY FUND BALANCE – December 31, 2008 - \$ 2,118.90

TOTAL TCAA FUNDS – December 31, 2008 - \$ 4,845.44

Respectfully submitted,

L. Duane Yockey, Treasurer

Sugar Grove Observatory

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

Duane Yockey (renewed through 2008)

Michael Rogers (renewed through 2008)

William Carney (renewed through 2008)

Carl Wenning (renewed through 2008)

Brian Barling (renewed through 2008)

Christopher Franklin (renewed through 2008)

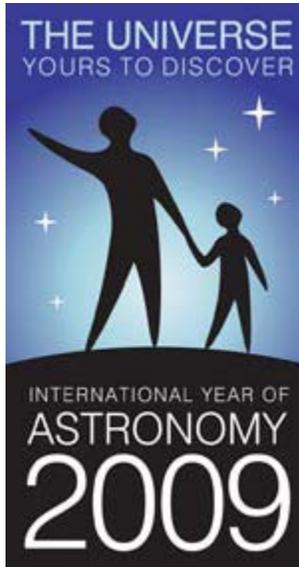
David Osenga (renewed through 2008)

Josh Lindsey (renewed through 2008)

Andrew Morrison (February 2008)

Dan Miller (renewed through 2008)

Lee Green (April 2007, renewed through 2008)



UPCOMING EVENTS

January 24—BPL Series starts

January 24—MOOS

February 7—Annual Meeting

The OBSERVER

Newletter of the TCAA, Inc.

Erin Estabrook, Editor
314 Covey Court
Normal, IL 61761

Are your dues due?



The Dues Blues?

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

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

Visit the Twin City Amateur Astronomers
on the web at
www.twincityamateurastronomers.org/