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## PRESIDENT'S MESSAGE

By Lee Green

What a great club! Our by-laws state:

The purposes for which the TCAA is formed are: to promote in every way among its members and the general public an interest in, and knowledge of, astronomy and its allied sciences; to advance amateur astronomy and observational techniques; to render assistance to other individuals or organizations working in the same or related fields; and to do everything necessary and proper to further such on a formal or informal basis.

This is your club, and for nearly 50 years, members like you have joined in to fulfill the noble purposes for which we were formed. Thank you for the opportunity to serve the club as this year's president. While I've been a club member for a short time, I have enjoyed the club activities and I look forward to seeing you all soon.

This year we have an exciting schedule of events, for

observing, for education and for fun. I hope everyone will join in the club activities to the extent that you can. Every month we hold a MOOS, Members Only Observing Sessions, that coincides with the new Moon which serve as good opportunities for our observing activities. The following week we hold our POS, Public Observing Sessions, that let us celebrate astronomy with the public.

This year brings us another year closer to the 50th anniversary of the club. We hope to host the 2010 meeting of the North Central region of the Astronomy League to mark this anniversary. Among our major goals for the year to secure official approval for this meeting from the Astronomy League and to begin our preparations for this meeting.

Please join me in making 2007 a year when we learn more about the wonders of the cosmos, observe more of the heavens and join in club activities so we can further the goals so eloquently stated in our by-laws. What a great club!

## BOARD MEETING MINUTES

12 MARCH 2007

Since the club has had a lot of new members in recent years, I thought it would be worthwhile prefacing these minutes with a few words about Board meetings. Six times per year, as mandated by the club's constitution, the TCAA Board of Directors — as elected by the membership at our February meeting/banquet — gather to plan club activities and engage in strategic planning. The meetings are usually sparsely attended, but they are open to everyone — yes, including you — and if you don't come, you won't know what you're missing.

A case in point: even before the March 12th meeting had commenced, John Werner wowed us with some *stunning* astroimages that he has been taking with a Canon EOS Rebel XT — modified to remove the IR filter. The telescope at Millikin is now in fine working

order, and warrants a field trip to check it out.

### Election of Officers:

The meeting came to order at 6:39 PM, with Dan Miller presiding. In attendance were Dan Miller, Lee Green, John Werner, Duane Yockey, and Michael Rogers, joined shortly thereafter by William Carney.

The first order of business was to elect officers. Duane Yockey nominated Lee Green to be president, and chair the meeting. It was seconded by John, and passed by acclamation. Michael Rogers was nominated to be Vice President by Lee, seconded by John. The motion passed after a brief discussion. Michael then nominated Duane to be treasurer; seconded by Lee. The motion passed by acclamation, a tribute to the fine work that Duane has done and continues to do for the club. Carl Wenning, who had previ-

ously indicated his willingness to continue in his role, was nominated and universally acclaimed to be secretary. Since Carl was absent, and Michael had a cool computer, the latter took notes.

Other officers were elected as follows:

Property Manager — William Carney.

Historian — Carl Wenning  
Newsletter Editor — Erin Estabrook

ALCOR -- Duane Yockey  
Registered Agent — Duane Yockey  
Webmaster -- Michael Rogers

Duane reported that Erin has graciously offered to continue being newsletter editor — that most important and thankless of tasks (except occasionally: Thank You, Erin!). Duane further noted that

(Continued on page 2)

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

### **TCAA OFFICERS**

President	Lee Green lee@starlightsoftware.com
Vice-President	Michael Rogers 309-825-6454 mprogers@mac.com
Secretary/Historian	Carl Wenning 309-454-4164 cjwennin@ilstu.edu
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Publicity/Web	Michael Rogers 309-825-6454 mprogers@mac.com
4th Director	Dave Osenga DaveOsenga@msn.com
5th Director	John Werner res1mpc9@verizon.net

### **Property Manager**

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### **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

## **BOARD MEETING MINUTES (CONT.)**

*(Continued from page 1)*

Erin would like more articles to be written, and it was suggested that she post a note about a week before deadline, to give prospective writers ample time. Newsletters are usually done at the end of the month or the 1st week in the new month. So, articles to be submitted should be in Erin's hands by the end of the month.

Following the election of officers, Dan Miller was thanked for his outstanding efforts and it was the unanimous hope of all present that he continue to be as active as he has been thus far.

### **Old Business and Club Background:**

Duane remarked upon the recently received treasurer's report, which appears elsewhere in this issue. Once again, we are in the black.

At this point, it was requested that we digress to describe how the club function, to bring the new board members up to speed. The TCAA board meets, as has been observed earlier, 6 times per year as per our constitution. The Treasurer maintains permanent records as per state law, and files the tax returns (due in June, and requiring the President's signature). As part of this discussion, it was observed that the bylaws are online, at [twincityamateurastronomers.org](http://twincityamateurastronomers.org).

This segued into ideas to improve the website. It was suggested that we add a list of telescopes be put on website (possibly on an intranet, behind a password that will only be revealed to people who show up at TCAA meetings :-). For the record, at present we have: an 8" Meade Dobsonian, 10" and 14" Celestron Schmidt-Cassegrains (the latter on loan), a 16" Dobsonian, two 4.5" Celestron German equatorial telescopes, and other miscellaneous telescopes of unknown size/vintage. We have insurance through Funk Insurance, as per our bylaws. The

TCAA is a member of the Astronomical League and the International Dark Sky Association.

Following a discussion, Lee moved (seconded by Michael) that we join the Sugar Grove Nature. The motion passed unanimously. Duane was directed to send a check their way. Duane suggested that we check with Carl Wenning regarding the Challenger Learning Center (whether we can join it).

### **Establish Goals for Upcoming Year:**

Dan volunteered to single-handedly build a new observatory near the north side / parking lot of the Sugar Grove Nature Center. It would give us a better view of the south, and block some of the light from the North. Dan will talk to Eric confirming that we can do so. A brief and complex discussion of building plans ensued. Terms like "foam blocks" concrete walls, concrete floor, etc., were mentioned. It was estimated that the walls would cost \$1500, the slab would be cheap, and nobody would see a bill.

Another possibility would be to either go for a smaller observatory, or possibly commit with ISU or Illinois Wesleyan. Dan will contact Andrew Morrison and ask about working with Illinois Wesleyan.

We could build a small classroom, but since the SGNC has plans to do so, there would really be no point.

The North Central Region of the Astronomical League (NCRAL) will meet on the 18-19th of May. Duane will remind NCRAL that we had volunteered to hold the NCRAL in 2010, as part of the celebration of the TCAA's 50<sup>th</sup> anniversary. We will try and set up a program with other astronomically related groups (Challenger Learning Center, ISU Planetarium, Normal Theatre, etc.). John Werner, Carl Wenning, Dan Miller, William Carney volunteered to form a committee to spearhead the NCRAL 2010 meeting.

Duane noted that anybody working on Astronomy League programs

should let him know.

There is a question about POS leader on the 19th of May, since NCRAL is then. Related to this, it was decided to put a list of POSs and MOOSs on the web site.

### **Upcoming Events:**

It was noted that Astronomy Day is approaching. It will be held at Barnes and Noble on the 21st of April. Michael has already contacted Barnes and Noble, and Duane will order "Let's Go Stargazing" and other brochures from Sky and Telescope.

We have several presentations already lined up for the summer, primarily for children. It was thought that a calendar of events, perhaps tied into iCal, would help keep track of them all. Currently we have been contacted about presenting to the Bloomington, Pontiac, and O'Dell Public Libraries. We have also been asked about doing a "Harry Potter Presentation" at the Children's Discovery Museum. Michael will investigate the latter.

A general discussion of membership and programs ensued. Right now we have approximately 50 or so families. It was thought that, to spur membership, we might host some presentations at the library, geared to adults and older children who are interested in astronomy but not at all knowledgeable in the area. Some in-town public observing sessions might also help attract members. John will research impending astronomical events that might be suitable for local viewing.

Ruing a lack of meetings (as opposed to observing sessions), Michael suggested that we could have a local program with "Pastronomy" — that's Pizza + Astronomy — at Biaggi's.

It was decided to hold a field trip to Millikin on the 14<sup>th</sup> of April. We will start by dining at Panera's, in Decatur. As backup, we will dine at Panera's south, in Bloomington.

*(Continued on page 3)*

## MARCH POS/MOOS

By Lee Green

This month's MOOS was held March 17 at Sugar Grove Nature Center. The evening arrived clear and cool with temperatures falling from 45° to 25°. The skies were clear and dark from sundown until 11PM when clouds crept in. Lee had his C14 fired up and observed many objects from the Herschel 400 program. "It got cold and there was a lot of frost build up," but his dew shield let him continue observing. Attendance was understandably sparse.

The POS on March 24 was cancelled due to weather. Dan and Chris Miller and Lee Green were present in spite of the weather and met one member of the public who saw the notice in the newspaper and attended.

With warmer weather upon us, we are all looking forward to better observing conditions soon.

## TELESCOPE LOANER PROGRAM

By Lee Green

Did you know that the club has several telescopes that you can borrow? That's right, we have 6 telescopes that are ready for your use, including 4 easy-to-use Dobsonians, a reflector, a refractor and a Schmitt-Cassegraine. While these scopes do not have "go to" capability, you can use them quickly and easily and they will give you an excellent view of everything in the sky.

One of the nice things about the Dobsonian scopes is that they are simple to setup and use. You put the base on the ground, place the tube on the base, put in your eyepiece and aim it at your target. These are light weight and don't require power or complicated alignment procedures, it's just easy setup and great viewing right in your back yard.

Ready for a bigger challenge? We have one scope available that has motor drives. This 10" scope needs power and must be aligned to be used effectively. We recommend a training session be scheduled so you can be familiarized with the operation of this device.

If you want to borrow a telescope, just contact William or Lee to arrange this. We'll be happy show you how to set up and use the scope so you have fun stargazing. Scopes can be checked out for a week, a month, up to one year depending on the waiting list. When you are done using it, return the scope so we can check it in and prepare it for the next person.

Now you can enjoy astronomy in your own back yard and it's quick, easy, fun and free.

## BOARD MEETING MINUTES (CONT.)

(Continued from page 2)

### Schedule for Upcoming Board Meetings:

All board meetings will take place, unless otherwise noted, at Duane's office, on Wednesdays at 6:30 PM — 16th May, 11 July, 12 September, 14 November, 16th January.

### Property Manager Report:

William described problems with the Meade 12", related to temperature/moisture. The telescope occasionally appears possessed, and spontaneously moves/rotates by itself. The telescope therefore needs to be attended by a keyholder at all times who is ready to shut off the telescope when it misbehaves. Telescope needs to be attended to, and it needs to have its service contract renewed.

The meeting adjourned at 8:37 PM.

Coordinators are needed still for several of the 2007 Public and Members Only Observing Sessions at Sugar Grove Nature Center. Additional POS coordinators are needed; two per session are preferred. Please sign up by contacting one of the Board members if you are willing to host or co-host one of these sessions.

Members Only Observing Sessions occur one week earlier than the above POS. Coordinators (who should be SGNC key holders unless they have their own telescope) are still needed for nearly all of these sessions. Please sign up by contacting one of the Board members if you are willing to coordinate one of these events.

2007 Date	POS Topic(s)	POS Coordinator(s)
April 21	Ring World Saturn	1. Mike Rogers 2. Dan Miller
May 19	Galaxies of Leo, Coma, and Virgo	1. Mike Rogers 2.
June 16	Globular Clusters M3 and M13	1. Dave Osenga 2. Duane Yockey
July 21	First Quarter Moon and Jupiter	1. John Werner 2.
August 18	Planetary Nebulas M27 and M57	1. Carl Wenning 2.
September 15	The Milky Way Galaxy	1. Carl Wenning 2. Dave Osenga
October 13	Double Cluster in Perseus	1. 2.

MOOS 2007 Date	MOOS Coordinator(s)
March 17	1. Lee Green 2.
April 14	Millikin Observatory Field Trip (Dinner at Panera Bread)
May 12	1. 2.
June 9	1. Duane Yockey 2.
July 14	1. Brian Barling 2.
August 11	1. 2.
September 8	1. 2.
October 6	1. 2.

## AN ICELAND ADVENTURE

### APRIL SKY GUIDE

01	Mercury passes 1.6° south of Uranus, 2 A.M.	
07	The Moon passes 0.6° south of Antares, 8 A.M.	
08	The Moon passes 6° south of Jupiter, 4 A.M.	
09	Asteroid Juno is at opposition, 9 P.M.	
12	The Moon passes 2° south of Neptune, 7 P.M.	
13	The Moon passes 0.5° north of Mars, 9 P.M.	
14	The Moon passes 1.0° north of Uranus, 3 P.M.	
16	The Moon passes 5° north of Mercury, 6 A.M.	
20	The Moon passes 3° north of Venus, 3 A.M.	
21	Venus passes 7° north of Aldebaran, 7 A.M.	
22	Lyrind meteor shower peaks	
25	The Moon passes 1.1° north of Saturn, 5 A.M.	
26	The Moon passes 1.0° north of Regulus, 4 A.M.	
28	Mars passes 0.7° south of Uranus, 2 P.M.	

Duane Yockey went on a trip to Iceland to see the sights and aurora. The trip was sponsored by Astronomy Magazine. The following is a compilation of his emails back home.

#### Iceland #1 - March 17 evening

I'm Here!

Hello everyone and Happy St. Patrick's Day,

I'm trying to figure out this keyboard, which has all sorts of strange symbols where the one's I'm used to using are.

We arrived in Iceland around 6:30 a.m. local time, which is 1:30 a.m. your time. The weather changes every 15 minutes like they warned.

I did the dip in the blue lagoon (about 45 minutes), which was very relaxing, so relaxing that most of the bus went to sleep soon after we left. One person said it was like swimming on Mars, as the landscape around the area is very very desolate. It was strange to be warm from the neck down and have snow falling on your head. Getting out was very invigorating as the wind was blowing big time and it was cold enough to snow. We went on a city tour after that, which was going really well until the blizzard hit. After that we couldn't see anything, but the hotel was ready for us by then.

We are done touring for the day and we have orders to rest now, but don't go to sleep too early. So, I have visited the ATM and found the hotel's complementary internet site.

We have a full day tomorrow touring around the island. I knew I was forgetting something and it hit me while I was outside going around a lookout site. I left my good gloves in my other coat. Oh well, good reason for me to bring home a wool souvenir for me.

I will try to send more news later, when there is more to write about. I hope everyone is well.

#### Iceland #2 - March 18 evening

Today was quite interesting. We toured the 'Golden Circle' and saw inside a functioning green house, checked out inside a crater, saw the golden falls, went into the bishop's church (in the afternoon after church services were over), witnessed an erupting geyser and saw a lot of white countryside.

But today's main story was the weather. We just got over the mountain pass going into the lowlands (and saw only one car off the road) when they closed the road behind us. (It was sunny but the winds were blowing 40+ mph and snow was going sidewase making the roads slick and visibility poor). Our intrepid bus and its really good driver continued on. We passed a bus going to the falls, which was halfway over the edge of a drop off. We assumed the tourists got out the back door. They were trying to pull it out as we left. At the geysers, you had to lean way forward to make any headway into the wind. Of course around the geyser there was lots of ice and you could not stay in one spot because you would be blown along (ideally not into the hot springs, but there was a rope to grab). After that the weather got worse and we had to cancel a few stops (many cars off the road and there really was not much traffic). At times, if you looked either right or left, you could only see white. It was like some of those shows on the discovery channel, and the guide said she had not experienced such weather before (during the day).

I'm about to venture forth to find a place to eat. The weather became much better as we got back to Reykjavik. It's really nice to experience new and different places!!!!

#### Iceland #3 - March 20 morning

Hello from sunny (at the moment) Iceland,

It is late morning and we have had our astronomy lecture. It was pretty good on the technical aspects of aurora and another session on how Astronomy Magazine is put together. Both were quite interesting.

We head out on the bus around 1:30 p.m. to tour the the south coast, then have a lobster feast at 8:00 and after that we head for a dark site to look up (we were told to wear everything we've got). As we may not be back until after midnight, I thought I should send this now. By the way, there is a complementary email kiosk off the lobby of the hotel, which is nice.

(Continued on page 5)

## AN ICELAND ADVENTURE (CONT.)

*(Continued from page 4)*

### **Iceland #4 - March 21 morning**

It's right after breakfast and I have a few minutes before I put on everything I have and meet the off road vehicles for our trip to Thorsmork Valley. A picnic sounds inviting right now, doesn't it.

Yesterday afternoon we went to an interesting museum, saw waterfalls and the south coast (could see the Westman Islands from the coast). We then had our lobsterfest, and I ate well over 12 lobsters. You need to understand that Icelandic lobsters are a bit undersized compared to their Maine brethren.

After changing into more layers, we came out of the restaurant and found overcast skies. We drove around looking for stars (sounds familiar), but were not successful. Around midnight we found a hole in the clouds but either the aurora was dormant that night or not in our little field of view. Back to the hotel a bit before 1:00 a.m. We will try again tonight.

Well I had better get dressed for this excursion. I'll email you when I can.

### **Iceland #5 - March 21 evening**

"Mother Nature is Boss" is the theme here.

Those of us going on our optional trip to Thorsmork Valley loaded into two all terrain vehicles early this morning. The driver mentioned right off that the weather was not good (wind, snow, wind, sleet, wind, and rain) was forecast. So we headed off in good spirits knowing it would be nice and clear this evening. We soon got into white-out conditions again before we got to the lower valley, where it was just nice and snowy without quite as much wind. Before we got to the turn off to the valley, we got the news they had closed the road behind us. Heading on, the road gradually diminished until it didn't seem to exist at all. We reached a jeep that had turned around, but when we showed up it headed off again with us. It was easy to see why you don't go in one vehicle. When one of our vehicles got stuck, the other one would pull us out and vice versa several times. Main culprits were huge snowdrifts caused by the wind and stream beds that you could not see because of the snow. We asked our driver if he came up that way often and he said "ya, lots of time.....but in the winter, not so much". That made us feel much more secure. We continued on and finally came to a sign that told us we were on the right path, it said "impassible". I couldn't find that on the map, but everyone else seemed relieved. We were most of the way to our destination, when we came to a large wall of snow and a half buried vehicle in the way. At that point, we turned back. So I saw a lot of the valley, but never came to the end and the wonderful outdoor picnic spot. Darn, I always wanted to picnic in 40+ mph winds and below zero temperatures. One passenger said that she and her husband take turns taking hot and cold vacations. Another passenger suggested an active volcano for their next trip to make up for this one. :)

On the way back, the snow changed to sleet and gradually to a hard rain. The road was reopened because of the warmth, I assume, and we got back to the hotel around 4:30 p.m. It is still raining, but we have high hopes of clear skies after we visit the SAGA museum and have dinner tonight.

Signing off for now from boring Iceland.

### **Iceland #6 - March 22 morning**

Good Morning!

Most of the snow here in Reykjavik has disappeared because of all the rain we have had. I checked the temperature last night as we were coming in and it said 2 degrees celcius, so the south winds have warmed up at least the low areas.

We visited the SAGA museum last night, which was nice, before dinner. Dinner was very good from the rotating top floor of "The Pearl", which houses the museum and other things. The rain was coming down on the glass ceiling throughout dinner. As we left from dinner around 11:00, the skies were clearing, so we went out a ways and stood out under the stars for a while. No aurora, but we saw some meteors and the perspective of the night skies from 66 degrees latitude was quite different.

I slept in a bit this morning and now plan to head downtown to see the sights. The weather is overcast, but nothing is coming down at the moment.

### **Iceland #7 - March 23 morning**

Well our guide was skunked for the first of all her aurora huntings up here in seven trips. We went out after dinner last evening to a site that had a few stars, but the clouds soon rolled in. You cannot see aurora in the snow. So we went back fairly early for us and I started packing till around 1:00.

By the way, part of our group did the optional tour to the Westman Islands yesterday. They flew there in the morning, but when they went to fly back in the early afternoon, the weather would not allow it. So they took the ferry. I gather the ferry rocked and rolled, water washed across the deck and most of our group got very seasick. They got back at 8:30 p.m., only 6 hours late. So the weather never quits over here!

I did some more walking this morning. Now we are waiting for the bus. It's been a good trip, I have met many interesting people, and since I have seen the aurora before, I am not as disappointed as some in our group. But most everyone agreed we came here to see Iceland and the aurora would just have been a bonus.

## TWO SPACECRAFT WATCH JUPITER

Provided by ESA courtesy of Astronomy.com

The European Space Agency's Rosetta and NASA's New Horizons are working well together in their joint campaign to observe Jupiter. A preliminary analysis of the data from Rosetta's Alice ultraviolet spectrometer indicates that the data quality is excellent and that good science is expected to follow.

New Horizons made its closest approach to Jupiter February 28, 2007. Its principal objective was to use the gravity of the giant planet to slingshot it onwards to its rendezvous with Pluto, planned for 2015. However, as Alan Stern, Southwest Research Institute, San Antonio, Texas, and New Horizons' Principal Investigator says, "We couldn't pass up this opportunity to study Jupiter's meteorology, rings, aurorae, satellites, and magnetosphere."

Rosetta, just after having swung by Mars and while being on its way to Comet 67P-Churyumov Gerasimenko, played an important role in this research, providing global observations of Jupiter's aurora and the Io plasma torus that can be correlated with New Horizons' detailed in-situ measurements.

Rosetta's Jupiter observations began on the same day as the New Horizons swingby. Because Rosetta is presently close to Mars and Jupiter is still far away, to some of the instruments the giant planet is just a pinprick of light. Nevertheless, Rosetta's Alice instrument splits this light into a spectrum, in which the separate contributing regions can be distinguished.

"We have now clearly separated the three components that make up the spectrum," says Alice team member Andrew Steffl, Southwest Research Institute. The first component is simply sunlight, reflecting off Jupiter's cloud tops. The second part of the spectrum is composed of ultraviolet emission given off by particles ejected in volcanic eruptions by Jupiter's moon Io. The third is light from Jupiter's aurorae, caused by particles striking the planet's atmosphere, some from the Sun, some ejected from Io.

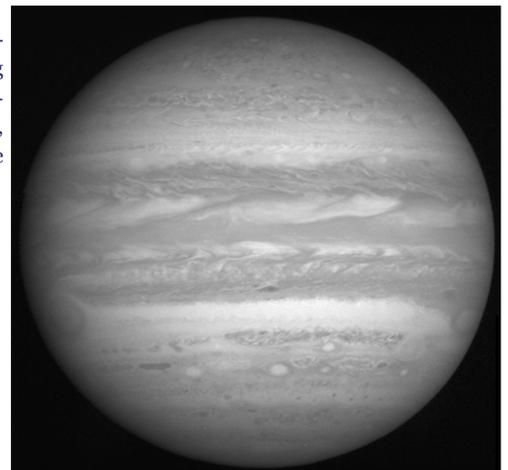
Alice is an ultraviolet imaging spectrometer designed to analyze the composition and density of gas molecules, and an almost identical Alice UVS instrument is on New Horizons. Rosetta's Alice will measure the rates at which water vapor, carbon monoxide and carbon dioxide are given off by comet Churyumov-Gerasimenko, after the rendezvous in 2014. New Horizons' Alice instrument will study the tenuous atmosphere at Pluto in mid-2015.

"New Horizons cannot observe Jupiter using its Alice instrument at the moment," says Joel Parker, also at the Southwest Research Institute, and Alice Project Manager. This is because New Horizons' Alice would have to be pointed back at Jupiter, towards the Sun. If bright sunlight fell into the instrument, it could damage the sensitive optics. But the scientists will not take the risk.

Instead, other instruments on New Horizons can detect the actual particles that are trapped in Jupiter's magnetic field, but to better understand these data, spectra of Jupiter's aurora and the Io torus are also needed. This is where Rosetta's Alice makes its important contribution. Some of the things the team will be looking for are solar wind events. These are gusts in the number of electrically charged particles that the Sun gives out. When they strike the magnetic field of Jupiter, they can cause the aurora to shine more brightly. Rosetta's Alice will see this, too, and the team can then look for changes in the particles detected by New Horizons. "This is a really nice synergy between the two projects," says Parker.

Rosetta's observations are set to continue until May 8 and, when complete, will include some 400 hours' worth of observations. Using Rosetta's Alice is proving to be invaluable to the team in their preparations for the 2014 comet rendezvous. "Every time we use the instrument, we learn more about how to get the most out of it when we arrive at the comet," says Parker.

*The Long Range Reconnaissance Imager (LORRI) aboard NASA's New Horizons spacecraft snapped this view of Jupiter February 10, 2007. The spacecraft was 18 million miles (29 million kilometers) from Jupiter. NASA/JHUAPL/SWRI*



## TCAA Treasurer's Report – March 2007

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OPERATING FUND BALANCE – February 28, 2007 - \$ 2,856.82

Income

Brian Barling (Dues Renewal) - \$ 40.00

Expenses

LYB Inc. (March Observer) - \$ 15.99

Sugar Grove Nature Center (Astr. Class) - \$ 80.00

Carl Wenning (Astr. Cl. & TCAA mtl) - \$ 70.00

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OPERATING FUND BALANCE – March 31, 2007 - \$ 2,730.83

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OBSERVATORY FUND BALANCE – February 28, 2007 - \$ 1,076.11

Income

None - \$ 0.00

Expenses

None - \$ 0.00

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OBSERVATORY FUND BALANCE – March 31, 2007 - \$ 1,076.11

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TOTAL TCAA FUNDS – March 31, 2007 - \$ 3,806.94

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Respectfully submitted,  
L. Duane Yockey, Treasurer

### **Sugar Grove Observatory**

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

Duane Yockey (renewed through 2007)

Michael Rogers (renewed through 2006)

William Carney (renewed through 2007)

Carl Wenning (renewed through 2007)

Brian Barling (renewed through 2007)

Kevin Brown (renewed through 2006)

Christopher Franklin (renewed through 2006)

David Osenga (renewed through 2007)

Gerry Schroeder (renewed through 2007)

Karen & Ed Duran (renewed through 2006)

Josh Lindsey (August 2006)

Andrew Morrison (February 2007)

Dan Miller (renewed through 2007)



## UPCOMING EVENTS

April 14—MOOS Field Trip to Millikin Observatory  
with dinner at Panera Bread

April 21—Astronomy Day at Barnes & Noble

April 21—POS

May 12—MOOS

May 18-19—NCRAL

May 19—POS



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### 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/](http://www.twincityamateurastronomers.org/)