TWIN CITY AMATEUR ASTRONOMERS, INC.

IN THIS ISSUE:

The OBSERVER

VOLUME 36, NUMBER 4

APRIL 2011

RECENT AND UPCOMING E/PO EVENTS

On March 5^{th} , Lee Green gave a talk at BPL about MESSENGER to Mercury. He reported that ten individuals were in attendance, mostly children with parents.

Despite a temperature in the upper 30s and a chilly breeze, the first public observing session for 2011 was successfully completed on Saturday, March 12th. This was the first scheduled POS to actually take place during March in quite a few years owing the typically overcast skies. The sky was mostly clear during the evening session with a thin layer of haze intruding around 9 p.m.

NASA Solar System Ambassador Lee Green coordinated this event and spoke about MESSENGER to Mercury. Sixteen members of the general public in attendance as were 12 club members: Lee Green, Bob Finnigan, Carl Wenning, William Carney, Paul Pouliot along with Amber and Eve, Dave Osenga, Tony Cellini, Tom Wieland, Larry Leetzow, and Nancy Sultan. Larry and Nancy arrived late, but began the Messier Binocular observing program using recently acquired Celestron 15x70 binoculars. They were able to view M42 (in Orion), M41 (in Canis Major), M35 (in Gemini), and M45 (in Taurus) despite the presence of a first quarter moon dominating the zenith.

During the viewing session which was somewhat depressed due to the brightly shining moon at zenith, Bob worked under the dome of SGO illustrating how astrophotographic work is done there using the C14 telescope to image M65 in Leo.

A pack of noisy coyotes provided for a bit of entertainment during the viewing session as they ran around in the open area to the northwest of the picnic shelter. Most members of the general public were gone by 9 p.m., but club members stayed on to observe for a short time thereafter.

Former TCAAer Bobby Arn had a picture featured in APOD – Astronomy Picture of the Day – on Monday, March $14^{\rm th}$. It showed the passage of the International Space Station and Space Shuttle Discovery racing along in parallel paths above a butte on a Colorado horizon not far from where Bobby is attending graduate school. Check it out at http://apod.nasa.gov/apod/astropix.html

Looking ahead (so we don't forget about them), the TCAA has scheduled or has been asked to participate in or present the following events now through the first week of May:

- ☆ April 2 (Sat., 7:00 p.m.) Keyholder Orientation and MOOS, Coordinator: Lee
- ☆ April 8 (Fri., 7:30 p.m.) Girl Scouts Intro to Astronomy, Coordinator: Lee with assistance from John
- ☆ April 9 (Sat., 7:30 p.m.) POS Birth of Stars: Orion's Nebula, Coordinator: Paul
- ☆ April 17 (Sun., 1:00 5:00 p.m.) Family Science Day, Sponsored by CeMaST, Three interactive displays (how telescopes work, laptop planetarium, and solar observing.) Horton Field House on ISU campus. Coordinator: Lee
- ☆ April 28 (Thu., 8:30 p.m.) Viewing session following Jimmy Simek's 7:30 p.m. presentation at the Challenger Learning Center, Coordinator: Carl
- ☆ April 29-30 (Fri.-Sat.) NCRAL 2011 Green Bay, WI.
- April 30 (Sat., 7:00 p.m.) Telescope Training Class (reservations required, see below). SGNC. Coordinator: Carl
- **☆** April 30 (Sat., dusk) MOOS, No coordinator.
- ☆ May 6 (Fri., 8:30 p.m.) Marty Morris' 4th grade class at Weldon Springs SRA. Program with observing to follow. Co-ordinator: Carl with assistance of Lee and Paul
- ☆ May 7 (Sat.) Space Day, sponsored by the Challenger Learning Center. The TCAA has been asked to present a 15-20 minute talk about telescopes, astronomy, space exploration, etc. for a class of up to 24 enrollees. Coordinator: Carl
- May 7 May POS Saturn's Rings Coordinator: Carl

MRS. HANK JANECEK PASSES AWAY

Angeline (nee Alletto) Janecek died at the age of 82 on March 16, 2011. She was the wife of Henry (Hank) Janecek, and had been living in Laurel, NJ. Their daughter, Claudia Janecek, continues to live in Normal at this time. Hank Janecek figured prominently in the history of the TCAA during the 1960s and 1970s, having served three terms as president (1962, 1963, and 1968). Carl Wenning has expressed condolences on behalf of the club.

RECENT AND UP-COMING E/PO EVENTS MRS. HANK JANECEK I **PASSES AWAY** MINUTES OF THE MARCH BOARD OF **DIRECTORS MEETING ASTRONOMERS** TRAVEL WEST MARCH OBSERVERS' LOG TELESCOPE TRAINING 4 SESSION FOR CLUB **MEMBERS** APRIL SKY GUIDE TCAA STORAGE AT **SGNC UPDATES AT SGO** 5 AL OBSERVING PRO-GRAM STANDINGS-QUARTERLY REPORT KITTY KISSES FROM SGNC'S DAISY THE CAT CONSTELLATION OF THE MONTH: VELA-THE SAILS FROM NASA NEWS TREASURER'S REPORT 9

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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

Duane Yockey 508 Normal Avenue Normal, IL 61761

MINUTES OF THE MARCH BOARD OF DIRECTORS MEETING

The TCAA Board meeting was held at the Illinois Wesleyan University Student Center on March 1, 2011. President Dave Osenga called the meeting to order at 6:34pm. In attendance were Dave, William Carney, Carl Wenning, Bob Finnigan, Tony Cellini, Dan Miller, Paul Pouliot, Tom Weiland and Lee Green. Dave welcomed new Board members Paul, Tom and Tony. The minutes of the previous meeting were approved.

The Board of Directors includes Tony Cellini, Dan Miller, Dave Osenga, Paul Pouliot and Tom Weiland. With Carl relating the requirements of the By-Laws, the officers of the club were elected. Dave Osenga will serve as President and Tom Weiland as Vice President. Other officer roles include Lee Green as Secretary and Webmaster, Duane Yockey as Treasurer and ALCOR, William Carney as Property Manager, Carl Wenning as Historian and Erin Estabrook as Observer Editor. Tom requested information about the club bylaws and was referred to the website where the document is available.

Dave noted that the Treasurer report was in order, although the bill for the Annual Meeting banquet has not yet been received, and it was unanimously approved. He expressed the club's satisfaction with the recent Annual Meeting and all agreed that Dr. Nancy Sultan's talk about Mythology was interesting in content and excellently presented

William reported that the funds received from the recent sale of the Meade mount have been remitted to Duane. In his role as Property Manager, William has performed a variety of maintenance tasks, including improving drainage around the SGO foundation and filling potholes. He will soon be performing spring cleaning and removal of the numerous bugs at the observatory.

Lee reported that the web site now has several additional documents listed on the Keyholder member page, including a preliminary training guide, a guide to astrophotography written by him, manual on the telescope and links to other resources. Formal key holder procedures are still being formulated and will be announced in the near future. Current key holders include William, Tony, Lee and Bob.

Bob and Lee, noting that the Board meeting was being held near the New Moon and that they would be travelling afterwards to SGO for imaging, requested that future meetings be held nearer the full Moon. In the interest of keeping the meeting length to a minimum, discussions about an award plaque for Life Members and for a future Distinguished Service Award were tabled.

Dave noted that the Public Observing Session calendar incorrectly stated the October 8 date should be October 1. Lee will make this correction and notify parties that have received this information. Members volunteered for hosting the monthly POS events. Here's who signed up:

March 12 – Lee April 9– Paul May 7 - Carl June 4 – Lee July 9 – Carl August 6 – Dave Sept 3 – Carl Oct 1 - Tom

Members-Only Observing Sessions were slated to occur on Saturday evening one week prior to the POS events. Carl suggested a "how to use a telescope" course for beginning observers using the planetarium's two Odyssey 10-inch telescopes. He also requested permission for the club's Telrad finders be mounted on those scopes. His requests were unanimously approved. Lee suggested that other MOOS be used to perform a series of training sessions for the membership on the use of new equipment at SGO and for astro-imaging training. Dan reported the Bobby Arn's book was nearing publication and the Bobby would likely agree to let us use that material to help members take wide field, unguided exposures as a means to achieve images and help member gain confidence in the process. Dan further suggested that a good approach would be to separate various training sessions to cover a single topic and that by using existing data, instead of live images, the topics could be covered despite inclement weather. Suggested topics included Equipment (installing and balancing optical configurations), data collection techniques, image processing techniques including stacking, stretching and image calibration. Lee agreed to prepare a list of topics in consultation with other members.

At a previous meeting, Duane had agreed to check into the cost for fire and theft insurance for the observatory, but since he could not attend, that discussion was tabled. Also tabled was a proposal to establish a 'warm room' by installing a door to the stairway at the observatory.

(Continued on page 3)

ASTRONOMERS TRAVEL WEST



John Werner reports that he and Dan Miller traveled to Canyonlands National Park to meet up with Bobby Arn (of recent APOD fame!) over Millikin's Spring Break March 12th to March 17th. The purpose of the trip was to capture unique nightscapes at several National Parks and to explore the ancient culture and natural beauty of the area for a future cultural immersion course.

John remarked, "We set up a tent-camp at Canyonlands and visited Arches and Capitol Reef National Parks, as well as Dead Horse Canyon State Park. At 6,000 feet and above elevation, several good nights of nightscape photography were completed. The waxing Moon provided excellent ambient lighting. I experimented with narrowband imaging with my Meade SN10 astrograph. Daytime activities included study of area geology, petroglyphs, ranger presentations, wildlife observing, and 4-wheel drive-only trekking (good story on this!). Look for future posts by Bobby to his website (barn.zenfolio.com)."

MINUTES OF THE MARCH BOARD OF DIRECTORS MEETING (CONT.)

(Continued from page 2)

Tom asked about the availability of using the SGO for visual observing. All agreed that this was an appropriate use for the observatory and that imaging was not its sole use. Carl suggested that a schedule be developed and published to inform member of the anticipated schedule of installed equipment configurations so that members could plan their observing activities in advance.

Discussion turned to the storage space that might be available at the Nature Center. Lee noted that he had not yet contacted George Farnsworth, the person heading up the improvement, after a lunch meeting with George, Duane and Carl, and he agreed to do so. Dan suggested that a pod would be an excellent solution to the expressed concerns about security and cleanliness and offered to look into the cost associated with purchasing one. We will contact the Nature Center to see if that solution would be acceptable.

Carl reiterated his offer to make a generous donation to build a roll-off observatory as this would be useful for public and member activities. Dan suggested that the SGNC location was likely to be as good as other possible site with respect to light pollution and had many features that made it the preferred location for such a structure. He suggested being able to roll out a telescope on a 'scope buggy' would be a quick and easy way to support member activities and public events. It was agreed that these ideas were good ones and that they should be discussed with the Nature Center.

Dave announced two outreach events in cooperation with Sugar Grove Nature Center. The annual Olympia South Elementary School field day is slated for May 20. Lee will set up an activity for the kids and coordinate that with Nature Center staff. The Nature Center also will have an overnight camping trip for the McLean County Master Naturalists class on October 7. Lee agreed to present an astronomy program on that evening. Other members agreed to check their calendars for these events. Dave noted that the Neville Public Museum Astronomical Society has invited us to the NCRAL 2011 Convention, to be held in Green Bay, Wisconsin on April 29th and 30th. Astronomy Day is slated for May 7 this year and we discussed several options for celebrating that. Carl noted that the ISU Planetarium had indicated an interest in holding an event and that he was working with the Challenger Learning Center that day. With our May Public Observing Session slated for the same day, we decided not to hold another special event.

William suggested that the club might consider purchasing a dovetail bar for the Meade 12" OTA. With other newer equipment in the club's possession, it was questioned what value the tube had for the club. William agreed to explore what value could be realized by the sale of the tube.

Lee agreed to update the club stationary to reflect the new Board members and to print "business" cards for Board members.

Upcoming Board meetings were scheduled for May 3 and Jul 5. The meeting was adjourned at 8:00pm and the new Board stood for photographs by Carl.

Respectfully submitted,

Lee Green

Secretary

APRIL SKY GUIDE

03 Saturn is at opposition, 7 P.M.



- **06** Jupiter is in conjunction with the Sun, 10 A.M.
- **09** Mercury is in inferior conjunction, 3 P.M.
- The Moon passes 8° south of Saturn,
- Mercury passes 0.8° north of Mars, 3 A.M.
- 22 Venus passes 0.9° south of Uranus, 2 P.M.

Lyrid meteor shower peaks



- 27 The Moon passes 6° north of Neptune, 5 A.M.
- 29 The Moon passes 6° north of Uranus, 11 P.M.
- 30 The Moon passes 7° north of Venus, 6 P.M.

MARCH OBSERVERS' LOG

With last-minute clearing, there was a bit of frenetic observing that took place at SGO on the evening of February 28^{th} after this column's February content was submitted for publication. Several club members repaired to SGO where astronomical imaging was the order of the day. During several subsequent evenings in early March, observers made it out despite the presence of the waxing crescent moon.

On Thursday, March 10th, the sky rapidly cleared allowing for some serious observing to take place under the dome of SGO. That evening Lee and Bob mounted the club's recently refurbished 1973 Celestron 14-inch SCT on the pier and took the opportunity to make some visual observations. This constituted "first light" for the telescope that Bob donated late last summer. The telescope had been housed under Bob's Ash dome when it was located at Downs, IL, in the 1970s and 1980s. The telescope had not been used much since that time and had fallen into disrepair. Bob reported that the instrument performed up to expectation as it had been an excellent instrument years before

Tony has started mounting his apochromatic refractors on the new CGEM mount Bob Finnigan donated to the club recently (including his C11 telescope) that was purchased last year and is now stored at SGO.

On March 30th Dave Osenga reported, "My wife, Donna, and I went on our first cruise this week. One of my goals was to do some observing of the night sky while at sea. My first attempts were from the deck of the ship, but because of all the lights, my results were very disappointing. On the evening of Thursday, March 24, I sat on the small balcony outside of our cabin, with my new Celestron 15 X 70 binoculars, looking to the southeast. At first, I was very disoriented, confused, and disappointed that I could not make any sense of the star patterns I saw. We were at about 18 degrees north latitude and 80 degrees west longitude, between Jamaica and the south of the east end of Cuba."

TELESCOPE TRAINING SESSION FOR CLUB MEMBERS

Carl Wenning will offer a one-session, no-fee short course for TCAA members starting on Saturday, April 30, starting at 7:00 p.m. and continuing into the evening assuming the sky is clear. The session will be postponed in the event of an overcast sky. The class will deal with how to use a 10.1-inch aperture Dobsonian telescope to make visual observations of objects in the night sky. Two such telescopes are part of the club's loaner telescope inventory.

During April, Carl will be repairing, cleaning, painting, and laser collimating two Coulter Odyssey 10.1-inch telescopes to teach the session. Both of these telescopes are on indefinite loan from the ISU Planetarium. Two of the club's Telrad finders, taken from dysfunctional club telescopes and provided by property manager William Carney, will be used to replace the wobbly 6x30 finders currently mounted on these telescopes as approved by the TCAA Board of Directors at their last meeting.



This session is intended for those without substantial telescope operating experience. Class size will be limited to four students so that each participant will get lots of hand-on experience with a telescope. Participants will learn about the various powers of the telescope, how to find objects in the night sky using Messier cards and star hopping, and learn about Astronomical League observing programs. Details also will be provided about the club's telescope loaner program of which these telescopes are a part. Participation is by reservation only. To sign up for this free short course now, please contact Carl immediately via email at carlwenning@gmail.com.

Thus far two TCAAers have signed up leaving openings for two additional observers, and third has indicated an interest. Additional sessions will be scheduled throughout the summer if interest dictates.

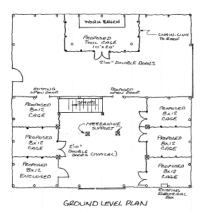
TCAA STORAGE AT SGNC

Five members of the TCAA met at Cracker Barrel Restaurant in Bloomington on Saturday, March 26th, to talk about storage needs for the TCAA. Storage space is being made available to the club as part of the process to refurbish the machine shed located to the southwest of Sugar Grove Observatory. In attendance were Duane Yockey, Lee Green, Paul Pouliot, Bob Finnigan, and Carl Wenning.

Following an hour-long meeting over breakfast, attendees (with the exception of Carl who had another meeting to attend) went out to the nature center to look at a mock-up of the potential storage area inside the metal shed. The team thought that the 8' x 12' storage area seemed quite adequate and that the location within the shed would work well. They developed a few questions for George Farnsworth (project leader and key donor supporting the renewal of the shed) and the SGNC Board. Duane sent the following questions to George:

- 1. Is the sliding door going to be used on the east side and available for us to access the storage? (it was "locked" when we visited this morning). Is the area just inside the sliding doors going to be a common area to access the various compartments?
- 2. If so, would there be any consideration for a sidewalk, linking the existing sidewalk to the sliding door? This would allow easier access, especially if we were rolling large/heavy loads up the slope. (as a sidebar, are there plans for a sidewalk to the man door on the south side of the building?)
- 3. Would we be allowed to sink and anchor posts in the ground as a part of any structure we would fabricate to house our equipment? Also, can we connect to existing posts that are sunk in the ground for our structure?
- 4. Would we be allowed to put a smooth floor in the interior structure that we would make to house our equipment? (concrete?, wood?)
- 5. Are you still planning for a mezzanine above the various compartments? How high could the structure in our compartment be? Around 8'?

The SGNC Board met on Monday, March 28th, and George got back with the club the day after. He presented us with a ground-level plan for storage shown below. The TCAA's storage area will be a 8'x12" enclosed area in the southeast portion of the barn.



In his communication George noted, "Details are still pending, but following are answers to some of your questions below. Attached (above) is a preliminary sketch of the plan which the board and Angela have reviewed but the architect has not yet seen. The storage barn will be accessible from the doorway in the south wall of the lean to. All sliding doors will be secured from inside and only opened from the inside. There will be a permanent opening in the interior wall to connect the lean to with the barn space. Angela is working on an exterior landscaping plan that will address your sidewalk question. When we do the gravel floor we will also figure out how to fix the east door drainage problem. Once the plan is done we will have an accurate materials list and will be working on fund raising for materials purchase. We think we have a good work supervisor identified and can do the work with volunteers. We would appreciate TCAA group help with the project understanding that hobby club treasuries have a hollow sound these days."

UPDATES AT SGO

Property manager William Carney reported on March 7th, "I did some more work [at SGO] this last Friday and Saturday. Before the rains came in Friday, I managed to fix a few siding panels up high just under the dome. There were two that were nailed too high and the bolts from the dome were hitting them. I removed enough wood for the dome to clear and resealed the two panels. The dome will move a little better, but still has a small sticking place due to a distortion in the tracks. I vacuumed the bugs and moped the floor, a usual spring chore. I removed the steel pedestal from upstairs and it is now on the ground floor. Not an easy task by myself. The 12" scope and its tripod are now at my house pending Board approval to sell...."

AL OBSERVING PROGRAM STANDINGS—QUARTERLY REPORT

Below is a listing of the status of active TCAA observers pursuing AL observing programs reported as of March 31st. Because the winter skies have been pretty much overcast this year, very few new observations were made but with a few rare exceptions. (Lee has successfully completed all observations required for the Double Star observing club.) If you would like to have your information included in next July's listing, be certain to forward your observing totals to Carl Wenning by the end of June. Be certain to get your completed observing records to our ALCor, Duane Yockey, as soon as the observing program is complete so that you might be appropriately recognized on a timely basis. Our next award presentation will be at the summer picnic. At that time Lee should be receiving his Messier pin (honorary level) which didn't arrive in time for February's annual business meeting.

| Astronomical League Observing Club | Brian Barling | William Carney | Lee Green | Dave Osenga | Carl Wenning | Duane Yockey |
|--|------------------|-------------------|--------------|----------------|-----------------|-----------------|
| S. Skies Binocular 50 | | | | | (50) | (50) |
| S. Sky Telescope 50 | | | | | (52) | (50) |
| Telescope Messier Prov70/Honorary110 | (110) | (110) | 110** | 87* | (110) | 31 |
| Caldwell 109 | | | | | 34 | |
| Binocular Messier 50 | | (100) | 72* | 45 | (78) | 49 |
| Deep Sky Binocular 60 | | 60* | 43 | | (60) | |
| Herschel Club 400 | 268 | (400) | (400) | | (400) | |
| Herschel II Club 400 | | | | | 66 | |
| Urban Club 100 | | (100) | 100* | | (100) | |
| Comet Club Silver12/ Gold30 | | (31) | | | 4 | |
| Double Star Club 100 | 17 | | 100* | | (100) | |
| Planetary Nebula Club Basic60/Adv110 | | 1 | | | (93)* | |
| Globular Cluster Club 50 | | | 55* | | (65) | |
| Lunar Club 100 | (100) | (100) | (100) | (100) | (100) | |
| Lunar II Club 100 | | 34 | | | | |
| Asteroid Club Reg25/ Gold100 | | (52) | | | | |
| Earth Orbiting Satel- lite 28 | | 5 | | | | |
| Master Observer 10 obs. clubs | 2 | 8 | 7 | 2 | (10) | 2 |
| Outreach Award Ba- sic10/Stel60/ Master160 | | | (*, **), *** | | (*, **, ***) | |

^{*} Program or first award level now complete. ** Second award level now complete. *** Third award level now complete. AL recognition (certificate and pin) will be given at the next general membership meeting if available. Numbers in parentheses (#) indicate that the associated pin and/or certificate has been received.

KITTY KISSES FROM SGNC'S DAISY THE CAT

In the event that you are not a contributing member of SGNC and do not receive *Nature of the Grove* newsletter, here is what the cat Daisy Kitty has written about TCAAers as appears in the April-May-June issue of that publication:

Dear Readers,

What cats do at night is a secret you know. Still, I'll let my human friends in on my secret for a very important reason. What happens here during the dark of night leaves me sleepless. It's best that you know about it. You'd think that after sunset I'd be all curled up dreaming about birds and mice and things but, no, some nights I can barely sleep! I blame it all on the sky. Read on, and you'll understand.

Some nights when I'm sleeping in the bird room I'm woken from my well-deserved slumber by the meoon! The evil glowing meoon! It sometimes shines so brightly that I think that it's time to get up. Meow!

At other times there are people who run around in the middle of the night moving things about and talking excitedly. All that noise keeps me awake. Instead of spending their time calling "Hey, Kitty, Kitty" and coming to pet me, they spend all their energy looking through telescopes and using composoters and cameras to study things in the sky. What do they call them? Flies? No, stars!

On some nights, when I look out the bird room window at that big silo-like building sitting nearby, I see strange red glows and intense green beams of light shooting out from the top! It scares the wits out of me. I wonder if I haven't lost more than a few of my nine lives as a result. But sometimes I sit and watch the dome whirl round and round. It lasts for hours and hours. It's enough to make a cat of my delicate composition a bit dizzy.

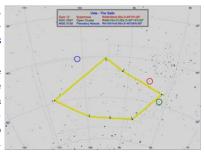
Well, I understand these people – they call themselves amateur astronomers (but I have a different name for them) – will be back! Maybe you should check them out and let me know what's going on. I'd really appreciate it.

Kitty Kisses, Daisy

CONSTELLATION OF THE MONTH: VELA—THE SAILS

Vela is a constellation in the southern skies. From North America, Vela northern-most stars barely crest the horizon during the late winter/ early spring months. It is located east of Puppis and south of Pyxis and Antlia.

Vela is called the Sails because it was originally part of an obsolete constellation called Argo Navis, which immortalizes the ship used in the mythological tale of Jason and his quest for the Golden Fleece. Vela represents the sails of the ship, which along with Puppis the Stern, Carina the Keel and Pyxis the Compass include the whole of the Argo Navis. LaCaille is credited with having broken up the original constellation in the 1750s.



Along with Jason and the Argo, many other constellations are included in this tale of their journey through the Bosporus into the Black Sea. Phryxus and Helle were the children of the King of Thessaly saved from their evil stepmother by Mercury, whose Golden Ram (Aries) took them away from harm. During the flight, Helle fell from the ram's back into the sea at a place then called Hellepoint, now the Dardanelles. The ram was sacrificed by Phryxus to Jupiter and the Fleece was placed in a sacred grove under the watch of a dragon.

Jason undertook to recover the Fleece to win his rightful kingship from his regent uncle Pelias. Jason enlisted the bravest crewmembers he could find, including Castor and Pollux, the twins of Gemini, Aesculapius the surgeon (Ophiuchus), Hercules and Charon the wise Centaur. Together his crew became the Argonauts.

Vela is the 31^{st} largest constellation covering 500 square degrees. It is the 32^{nd} brightest constellation and reaches opposition on February 4.

FROM NASA NEWS

MESSENGER UPDATE

Data from its first three days in orbit about Mercury have confirmed the initial assessment of the spacecraft team that MES-SENGER is in its intended orbit and operating nominally.

"The team is relieved that things have gone so well, but they remain busy as they continue to configure the spacecraft for orbital operations and monitor its health and safety in the new environment," says MESSENGER Project Manager Peter Bedini, of the Johns Hopkins University Applied Physics Laboratory in Laurel, Md.

Today the navigation team delivered an orbit determination that will span MESSENGER's first four weeks in orbit. Starting on March 23, 2011, the team will begin commissioning the science instruments. That day the Energetic Particle and Plasma Spectrometer, Magnetometer, Mercury Atmospheric and Surface Composition Spectrometer, Mercury Laser Altimeter, Neutron Spectrometer, and X-Ray Spectrometer will be turned on.

On March 29, 2011, the Mercury Dual Imaging System will be powered on and will take its first images. The year-long science observation campaign will begin on April 4, 2011.

"We are about to embark on the first essentially continuous observations of Mercury by an orbiting spacecraft," adds MESSEN-GER Principal investigator Sean Solomon, of the Carnegie Institution of Washington. "It will be a shared adventure long anticipated and much to be relished."

You can follow MESSENGER's journey in its orbit about Mercury with the newly revised "Where Is MESSENGER?" website feature, which offers simulated views of the spacecraft's current orbit and what Mercury looks like from MESSENGER's current perspective. The Solar System Simulator offers another option for portraying Mercury from the perspective of the MESSENGER spacecraft at any time during the remainder of the mission. Simulated views of nearby Mercury or distant Earth from MESSENGER may be created for a variety of fields of view.

For complete information on MESSENGER's Mercury orbital operations, go online to $http://messenger.jhuapl.edu/mer_orbit.html$.

FAILED GLORY

Glory's launch was aborted and the satellite was lost into the depths of the Pacific Ocean. This tragic end to the mission highlights the difficulties associated with performing advanced research. I think of all the people whose time, dedication and efforts went to preparing this mission. Each of them must feel a profound loss.

WASHINGTON -- NASA's Glory mission ended Friday (March 4, 2011) after the spacecraft failed to reach orbit following its launch from Vandenberg Air Force Base in California.

NASA has begun the process of creating a Mishap Investigation Board to evaluate the cause of the failure. Telemetry indicated the fairing, a protective shell atop the satellite's Taurus XL rocket, did not separate as expected.

The launch proceeded as planned from its liftoff at 5:09 a.m. EST through the ignition of the Taurus XL's second stage. However, the fairing failure occurred during the second stage engine burn. It is likely the spacecraft fell into the South Pacific, although the exact location is not yet known.

NASA's previous launch attempt of an Earth science spacecraft, the Orbiting Carbon Observatory onboard a Taurus XL on Feb. 24, 2009, also failed to reach orbit when the fairing did not separate.

NASA's Orbiting Carbon Observatory Mishap Investigation Board reviewed launch data and the fairing separation system design, and developed a corrective action plan. The plan was implemented by Taurus XL manufacturer Orbital Sciences Corporation. In October 2010, NASA's Flight Planning Board confirmed the successful closure of the corrective actions.

The Glory Earth-observing satellite was intended to improve our understanding of how the sun and tiny atmospheric particles called aerosols affect Earth's climate.

TCAA Treasurer's Report – March 2011

| OPERATING FUND BALANCE – February 28, 2011 - | \$ 2,127.52 |
|--|-------------|
| <u>Income</u> | |
| Roy Lawry (Sen. Dues) - | \$ 26.00 |
| Randy Gleason (Dues) - | \$ 40.00 |
| Expenses | |
| LYB Inc. (Observer copies & postage) - | \$ 43.24 |
| Redbird Catering (annual dinner) - | \$ 284.25 |
| PayPal fee (Roy Lawry) - | \$ 0.87 |
| Secretary of State (annual report fee) - | \$ 10.00 |
| OPERATING FUND BALANCE – March 31, 2011 - | \$ 1,855.16 |
| | |
| OBSERVATORY FUND BALANCE – February 28, 2011 - | \$ 2,242.81 |
| Income | |
| None - | \$ 0.00 |
| <u>Expenses</u> | |
| None! - | \$ 0.00 |
| OBSERVATORY FUND BALANCE – March 31, 2011 - | \$ 2,242.81 |
| TOTAL TCAA FUNDS – March 31, 2011 - | \$ 4,097.97 |

Respectfully submitted, L. Duane Yockey, Treasurer

Sugar Grove Observatory

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

Duane Yockey (renewed through 2009)

William Carney (renewed through 2010)

Carl Wenning (renewed through 2009)

Brian Barling (renewed through 2010)

David Osenga (renewed through 2010)

Josh Lindsey (renewed through 2010)

Dan Miller (renewed through 2009)

Lee Green (renewed through 2009)

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 listsery, 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.

2011 POS SCHEDULE AND COORDINATORS

The 2011 POS schedule was announced here last month; this month the schedule is published along with the names of the event coordinators. TCAA leaders need to keep in mind that there are only four SGO key holders at present (William, Tony, Lee, and Bob), and that one of these will have to be present at each session to assure access to SGO so that the screen can be retrieved for use. (There are likely to be more keyholders following the April 2 orientation provided by Lee; see above.) Coordinators are reminded that Lee Green is in charge of the club's video projector. You will need to bring your own laptop computer or iPad with dongle if you plan to give a PowerPoint presentation.

- April 9: Birth of Stars: Orion's Nebula (5 day old moon) Coordinator: Paul Pouliot
- ☆ May 7: Saturn's Rings (9 day old moon) Coordinator: Carl Wenning
- ☆ July 9: Galactic Travelers: Globular Clusters (7 day old moon) Coordinator: Carl Wenning
- August 6: Small Bodies Large Impacts (9 day old moon) Coordinator: Dave Osenga
- **☆** September 3: Phases of the Moon (7 day old moon) Coordinator: Carl Wenning
- ⇒ October 1: Jupiter's Moons (4 day old moon) Coordinator: Tom Weiland

| Newsletter of the TCAA, Inc. |
|------------------------------|
| Erin Estabrook, Editor |
| 0440 |

314 Covey Court Normal, IL 61761

The OBSERVER

| Are <u>your</u> 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