



ECLIPSE



The Newsletter of the Barnard-Seyfert Astronomical Society

Organized in 1928

July 2006

THERE IS NO MEMBERSHIP MEETING IN SEPTEMBER.

**FOR BSAS MEMBERS, THE TNSP 06 WILL START ON SEPTEMBER 21
TO ALLOW THE TAG CAMP TO BE READIED
FOR THE TNSP 06 ATTENDEES WHO WILL START ARRIVING ON
FRIDAY, SEPTEMBER 22.**

President's Message

This month I want to review rules and etiquette at BSAS sponsored star parties. As you know, BSAS sponsors or assists in the staffing of several star parties each month. Some are private BSAS functions at the Natchez Trace (although this year the weather hasn't cooperated), while others are open to the public and are held at the Warner Parks Nature Center, Long Hunter State Park, MTSU and elsewhere. Also, each year BSAS puts on the Tennessee Star Party (TNSP). This month the TNSP 2006 will be held at the Tennessee Alabama Georgia Youth Camp near Lynchburg.

Most if not all of the rules listed below are straightforward and more or less obvious to anyone who has spent some time observing through a telescope at night with a group of people who are arriving in automobiles. Although all of them are important to maximize enjoyment of the star party, the most important one by far is to operate your automobile safely. Night vision can be restored with some time, equipment can be replaced, but an injury to a person, adult or child, may be permanent. Even a minor personal injury will likely result in BSAS losing its privileged status with the owner of the property.

Arrival issues. If at all possible, arrive at the star party on time and prior to darkness. If you do arrive after the event start time, please stop and park your vehicle at the entrance and find a BSAS volunteer for instructions on how to proceed to the observing field. For star parties at a state or local park, remember that we are there at the invitation and pleasure of the park, and we MUST cheerfully follow the directions or requests of park employees. Absent any instruction to the contrary, use common sense when driving in an area with poor lighting and assume that a child or adult will run in front of your vehicle without looking. As some of you know, at some star parties, many people will be found reclining on the ground on blankets. This type of "speed bump" is to be avoided!

Red Light Rules. It takes from 10 minutes to 30 minutes or so for eyes to become dark adapted. One good dose of white light will ruin this adaptation. Light also ruins images in process. Red light is much easier to take, so please bring a flashlight that has a red LED or red cover over the lens. Too much red light will harm your night vision too, so keep the intensity to a reasonable level. Cars pose special problems, in particular those with headlights that come on automatically, and bright dome lights that come on when the doors are opened. Please cover all headlights and dome lights with a red material. If you don't have any, ask a BSAS volunteer and we will assist you. Digital cameras should have their flash settings to off rather than on or auto.

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President's Message continued from Page 1

Laser pointers. Green laser pointers are great tools for pointing out objects in the sky. However, as you know there have been several cases of criminal prosecution involving laser pointers pointed at aircraft. If you use a laser pointer, do not point it at an aircraft, do not point it at anyone at any time on the observing field, do not point it in the light path of a telescope, and don't use one in continuous mode as a finder on your scope. In the case of star parties where imaging is being done, the BSAS may prohibit the use of laser pointers, since they can ruin a long duration exposure if the pointer is held on the area being imaged.

Petri dish issues. Just as in the case of penicillin's discovery as a result of noticing a zone of destruction around a bit of mold in a Petri dish containing bacteria, we all need to respect the personal space of others on the observing field. Be careful with your red lights so you don't shine them in the eyes of the observer you are approaching. Don't touch or bump someone's telescope or mount, or trip over electric or control cables. Loud talking, music, smoking and other behavior that extends beyond your area should be avoided. The secular version of the golden rule should be applied on the observing field.

Clean up. When you leave, please clean up your area and properly dispose of all trash. If you don't do it, someone else will have to, and everyone at the star party is a volunteer!

Thanks for your attention to these rules. Please feel free to contact me with any questions or concerns about the BSAS.

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<http://www.spotastro.com>

<http://groups.yahoo.com/group/tnastronomy/>

MAGAZINE SUBSCRIPTIONS FOR BSAS MEMBERS

We are always able to accept requests for new and renewal yearly subscriptions to SKY AND TELESCOPE and ASTRONOMY from our members in good standing.

The current yearly rates are as follows:

SKY AND TELESCOPE: \$32.95

ASTRONOMY: \$37.00

Checks or Money Orders should be made out to the Barnard-Seyfert Astronomical Society (BSAS) and sent to the following address:

BSAS
P. O. Box 150713
Nashville, TN 37215-0713

DUES INFORMATION

On your Eclipse mailing label is the expiration date for your current membership in the BSAS. There will be a two month grace period before any member's name is removed from the current mailing list. You will be receiving a number of warnings informing you that your membership is expiring.

Dues per year are \$20.00 Regular (1 vote); \$30 Family (2 votes); \$15.00 Student (under 22 years of age)(1 vote); \$15 Seniors (65 years or older)(1 vote); \$25 Senior Family (65 years or older)(2 votes).

Contact president@bsasnashville.com if you have questions. Dues can be sent to:

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THE ECLIPSE NEWSLETTER

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BSAS Logo by Tony Campbell

Happy Birthday Johann Franz Encke

by Robin Byrne

This month we celebrate the life of an astronomer whose name is associated with both comets and Saturn. Johann Franz Encke was born in Hamburg, Germany on September 23, 1791. At the age of 20, he began studying astronomy and mathematics at the University of Göttingen, where one of Encke's primary professors was Carl Freidrich Gauss.

Two years later, Encke entered the military and, by the year 1815, had achieved the rank of Lieutenant of Artillery in the Prussian army. The following year, Encke was back at Göttingen, where he was given the position of assistant to the director of the Observatory of Seeburg.

It was at Seeburg that Encke began studying comets. His first endeavor was to determine the orbit of the comet of 1680. His work was so thorough that he was awarded the Cotta prize in 1817. Encke went on to determine the period of orbit for the comet of 1812, which is now known as 12P/Pons-Brooks. Encke found the period to be 71 years.

At this time, all known comets had periods of 70 years or longer, but Encke was about to change all that. A colleague suggested Encke investigate a comet discovered in 1818, suspecting that it may be the same comet observed in 1805. Encke succeeded in determining that the comet had an orbital period of only 3.3 years. Encke predicted its return in 1822, which held true, with confirming observations being made from Australia. The same comet was then traced back to observations made earlier, including one by Caroline Herschel in 1795. Encke shared his calculations with some of the most famous astronomers in Germany, including Gauss, Olbers and Bessel. Gauss published Encke's work, which led to Encke's fame as the discoverer of short-period comets. The comet was then officially named Encke's Comet. This is one of the rare cases where the comet was not named after its discoverer. Encke's Comet is now also known as the source for the Taurid meteor shower. Encke was later honored for this work with a Gold Medal from the Royal Astronomical Society in 1824. That same year, Encke married Amalie Becker, with whom he had 5 children (3 boys and 2 girls).

In 1822, Encke was appointed the directorship of the Seeburg observatory, and later was also made director of the observatory in Berlin. In Berlin, Encke oversaw the construction of a new observatory. Upon its completion in 1835, Encke became its director, as well. For almost another 30 years, Encke continued to work with short-period comets, vastly increasing the catalog of both short-period comets and asteroids.

In 1837, Encke seemed to deviate from his normal routine, and began to study Saturn. It was during this time that he discovered a thin gap in Saturn's A-ring. After extensive study, it was found to be approximately 325 kilometers wide (roughly 200 miles). That gap is now officially known as the Encke Division.

In 1844, Encke became a professor of astronomy at Berlin University. Here, he worked on a method for determining the orbits of asteroids. Encke developed a technique that would allow the orbit to be found from only 3 observation points.

In 1863, Encke left public life, due to a brain disease, but remained director of the Berlin observatory until his death on August 26, 1865 in Spandau, Germany. Although both Encke's Comet and the Encke Division are well known, the man behind those discoveries is not nearly as famous. If you happen to catch Saturn in the predawn glow one of these mornings, try to see the tiny gap in the rings named for this month's honoree - Johann Encke.

References:

Johann Franz Encke - Wikipedia
http://en.wikipedia.org/wiki/Johann_Franz_Encke

Johann Franz Encke
<http://www.nndb.com/people/825/000095540/>

**Barnard-Seyfert Astronomical Society
Minutes of a Regular Meeting of the Board of Directors
Held On Thursday, August 3, 2006**

The board of directors of the Barnard-Seyfert Astronomical Society met in regular session at the Cumberland Valley Girl Scout Council Building in Nashville, Tennessee on August 3, 2006. A sign-in sheet was circulated in lieu of a roll call. Board members Keith Burneson, JanaRuth Ford, Bill Griswold, Mark Manner, Bob Rice, Randy Smith, and Pam Thomas were present. Board members Mike Benson, Tony Campbell, Kris McCall, and Gary Wilkerson were absent. Also attending were Long Range Planning Committee Chair Joe Boyd and Equipment Committee Chair Lonnie Puterbaugh. A quorum being present, President Mark Manner called the meeting to order at 7:30 P.M.

Tennessee Star Party (TNSP) Coordinator Keith Burneson reported that housing would be provided for speakers Dr. David Hathaway and Dr. Charles McGruder at the star party. TNSP Treasurer Bob Rice reported that 11 people - including 3 via PayPal - had registered to attend.

BSAS Treasurer Randy Smith reported that the Society's bank balance was still approximately \$3,500.00 as stated during the July 20th membership meeting. In order to avoid being left with unsold stock, Mr. Smith recommended that members pay in advance for the calendars and observers handbooks to be ordered for sale in the fall. The board agreed unanimously with his recommendation.

Mark Manner commented that workshops were planned for the TNSP in September. Lonnie Puterbaugh announced that 16 persons had made arrangements to attend the Video Astronomy Workshop at his home on Saturday, August 5th. Mark Manner reported that Sudekum Planetarium Director Kris McCall had requested a schedule of upcoming BSAS star parties. Bill Griswold agreed to coordinate BSAS meetings and other activities with the Adventure Science Center (ASC) during the upcoming renovation and construction at their facility. Mark Manner noted that Warner Park Naturalist Heather Gallagher had attempted to call him.

The board noted that BSAS member Steve Wheeler would present the August membership meeting program on low cost imaging techniques with Middle Tennessee State University (MTSU) Assistant Professor Dr. Chuck Higgins to speak at either the October or November meeting. The board discussed the possibility of asking MTSU's Dr. Eric Klumpe to speak on science and religion during the December potluck supper at the ASC, but decided that a local church might be a more appropriate venue for this highly-regarded presentation.

Mark Manner asked for the names of all those wishing to tour the TNSP site at the Tennessee Alabama Georgia (TAG) Youth Camp on August 19th. Since there was no further business to discuss, President Manner declared the meeting adjourned at 8:28 P.M.

Respectfully submitted,
Bob Rice
Secretary

Free Telescope Offer!

Did someone say free telescope? Yes, you did read that correctly. The BSAS Equipment & Facilities Committee has free telescopes ranging in size from 2.6" to 8" that current members can actually have to use for up to 60 days at a time. We also have some other items in the loaner program such as a photometer, H-alpha solar telescope, educational CDs, tapes, DVDs, and books. Some restrictions apply. A waiting list is applicable in some cases. The BSAS Equipment Committee will not be held responsible for lost sleep or other problems arising from use of this excellent astronomy gear. For information on what equipment is currently available, contact Lonnie Puterbaugh at 615-661-9540.

**Barnard-Seyfert Astronomical Society
Minutes of the Monthly Membership Meeting
Held on Thursday, August 17, 2006**

President Mark Manner called the meeting to order at 7:35 P.M. in the Adventure Science Center (ASC) and welcomed new members and visitors. Bob Rice, reporting for Treasurer Randy Smith, announced that the Society's bank balance was \$3,288.91. The minutes of the previous meeting held on July 20, 2006 were approved without exception as published in the August 2006 edition of the *Eclipse* newsletter.

Mark Manner pointed out that the expiration date for High Point Scientific's Advantage Card that BSAS members can use to obtain purchase discounts was actually 2007 and not 2006 as described on the brochures handed out at the July meeting. Mr. Manner also announced that BSAS board member Mike Benson had been selected as the National Observing Program Coordinator for the Astronomical League. Kris McCall announced that on Tuesday evening, August 22, the ASC would conduct a panel discussion regarding the number of planets in the solar system. She explained that the ASC would send emails containing details about this event.

Mark Manner announced that he would place an article on Star Party Etiquette – especially about driving too fast – in the next *Eclipse* newsletter. Mr. Manner also announced that there would be no September membership meeting because of the BSAS' sponsored Tennessee Star Party (TNSP) starting so near the usual meeting date. TNSP Coordinator Keith Burneson announced that speakers and a t-shirt design were in place for the star party. Mr. Burneson also pointed out that only active BSAS members (i.e., those whose dues were paid) could attend the extra day on September 21 at the TNSP.

Mark Manner introduced BSAS member Steve Wheeler who delivered the evening's program on "Above Average Astrophotography." Emphasizing that the terms "low cost" and "budget" were relative concepts, Mr. Wheeler showed a series of images that he had taken using various equipment including camcorders, digital cameras, and webcams. He explained that most imaging equipment could not be obtained locally, but must be mail ordered. He also noted that astrophotography was not easy and required a lot of determination. Mr. Wheeler then described several combinations of equipment and techniques that he had found to be effective for imaging different celestial objects. Following his presentation, Mr. Wheeler graciously answered questions from the audience.

Elaborating upon her earlier announcement, Kris McCall noted that the ASC's August 22 program would be free to the public and include the planetarium show "Nine Planets and Counting" to be followed at 7:15 P.M. by a panel discussion among local university astronomers probing the question of "What Constitutes a Planet?" The panelists will include Dr. Spencer Buckner, Austin Peay State University; Dr. Todd Gary, Tennessee State University; and Dr. David J. James, Vanderbilt and Fisk Universities. Ms McCall invited BSAS members to bring their telescopes for public viewing before and after the program.

Since there was no further business to discuss, President Manner declared the meeting adjourned at 8:58 P.M.

Respectfully submitted,
Bob Rice, Secretary

Activities and Events

September 1 — 30, 2006

- 9/4 Double shadow transit on Jupiter
- 9/5 Uranus at opposition
- 9/7 FULL MOON (largest of 2006), partial lunar eclipse;
Uranus 0.4° N of Moon
- 9/7 BSAS Board of Directors mtg., 7:30 p.m. at Girl Scout
Office
- 9/11 Double shadow transit on Jupiter
- 9/12 Moon 0.7° N of Pleiades (M45)
- 9/14 LAST QUARTER
- 9/15 Double shadow transit on Jupiter
- 9/18 Saturn 2° S of Moon
- 9/21-24 TNSP 2006, TAG camp (no BSAS membership meeting
in September)
- 9/22 NEW MOON; annular solar eclipse
- 9/23 Equinox, 11:03 PM; Mercury 1.8° N of Moon
- 9/24 Spica 0.5° N of Moon
- 9/27 Mercury 1.3° N of Spica (19° E)
- 9/28 Antares 0.5° N of Moon
- 9/30 FIRST QUARTER; Star Party, Long Hunter Park, 8:30-
10:30

October 1 — 31, 2006

- 10/4 Uranus 0.5° N of Moon
- 10/5 BSAS Board of Directors mtg., 7:30 p.m. at Girl Scout
Office
- 10/6 FULL MOON; Star Party, MTSU, 6:30-9:00
- 10/10 Moon 0.7° N of Pleiades (M45)
- 10/13 LAST QUARTER
- 10/16 Saturn 2° S of Moon; Mercury greatest elongation E (25°)
- 10/19 BSAS monthly meeting at ASC: 7:30 p.m.
Juno 0.3° N of Moon
- 10/20 Zodiacal Light vis. In N lat. In E before morning twilight
for next two weeks
- 10/21 Private Star Party, Natchez Trace mile 435
- 10/22 NEW MOON
- 10/24 Mercury 1.4° N of Moon
- 10/25 Antares 0.4° N of Moon
- 10/29 Daylight Saving Time ends
FIRST QUARTER

Note: all dates & hours according to Central Time

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