

The February membership meeting will be held on Thursday, February 21, 2008 at 7:30 pm at the Adventure Science Center

On Thursday, February 21, 2008 we will hold our regularly scheduled membership meeting at the Adventure Science Center.

The topic this month will be *2009— The International Year of Astronomy*. We are privileged to have our own Lonnie Puterbaugh to present information on this exciting time in modern astronomy.

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.

In order to gear up for this celebration, BSAS is planning numerous outreach activities, as is Lonnie and the Astronomy Channel (TAC). This is a big year-long event for astronomers throughout the world, so be sure to attend this month’s meeting to get a jump on the festivities.

Message from the President

Just in case you missed it, there is something big coming up next year. It is called the International Year of Astronomy (IYA). In 2009, we will be celebrating the 400th year anniversary of Galileo's use of a telescope to look at the heavens and change the world. You will be hearing more about this as the year progresses. In fact, Lonnie Puterbaugh will be speaking at this month's membership meeting about the IYA. The IYA promises to be a most exciting time to be in astronomy. There are lots of cool things happening. Both professional and amateur astronomers worldwide will be gearing up to celebrate the beginning of the modern era of astronomy.

The IYA will also be a time for us to do even more outreach. In case you were not paying attention, a major focus of our club is astronomy outreach. In fact, we have two public star parties scheduled for this month (weather permitting). The first is at Warner Park on the evening of Saturday, February 9. The scheduled start time is 7:30 PM. Please check the web site for updates. I encourage all of you to come and participate. If you are bringing your telescope, please come early enough to get set up since 7:30 PM is when the public will start arriving. The second star party is the evening of Wednesday, February 20 at the Adventure Science Center. The main attraction for the second star party is the last full eclipse of the moon that we will see for a few years. The scheduled start time is 7:00 PM. Once again, please arrive a bit early to get set up. Finally, please come and help even if you do not have a telescope. We can always use people to help watch over things and make the public feel welcome. It is also a good opportunity to learn some more about how

to operate a telescope and to see a few sights for yourself. Remember to keep a watch on our web site, <http://www.bsasnashville.com>, the Sudekum Planetarium's star parties page on their web site, <http://sudekumplanetarium.com/starparties/index.shtml>, and the tnastronomy group on Yahoo. At least one of those places should have a notice of any cancellations.

In the fun department, we have a Messier Marathon coming up on the night of Saturday,



Message from the President

Continued from Page 1

March 8. Mark Manner has, once again, invited us to his home out near Bucksnot. For those of you who do not know what a Messier Marathon is, it is an attempt to view every one of the Messier objects (the ones that start with M) in one single night. We will be talking more about this at the February meeting. If the weather does not cooperate, we have an alternate night scheduled in April.

I would like to mention that we have five committees that help run the club: Program, Outreach, Equipment, Dark Sky, and Finance. If you would like to help out with keeping the lights on, please let me know. My telephone number is (615)-833-6759. I won't promise you that I will be home to take your call, but my answering machine is usually home. The Dark Sky committee has specifically requested more members. If you don't call me, I may call you.

Finally, I would like to thank Spencer and Lonnie for the program that they did this past month. Those two do a lot for our club, and we should all make sure to thank them.

Terry Reeves
President

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

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: \$34.00

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:

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

THE ECLIPSE NEWSLETTER

Editor: Pam Thomas
pam.thomas@charter.net

BSAS Officers:

Terry Reeves, President
Keith Burneson, Vice President
Bob Rice, Secretary
Randy Smith, Treasurer
Bill Griswold, Ex Officio

Board of Directors
Spencer Buckner
Tony Campbell
Jana Ruth Ford
Donna Hummell
Theo Wellington
Steve Wheeler

Kris McCall, board member at-large
BSAS website: www.bsasnashville.com
BSAS Logo by Tony Campbell

Happy Birthday John Dreyer

by Robin Byrne

This month we honor the life of a man whose catalog is still the standard in astronomy. John Louis Emil Dreyer was born February 13, 1852 in Copenhagen, Denmark (where he was originally named Johan Ludvig Emil Dreyer). Growing up in Copenhagen, Dreyer seemed to always have an interest in three main areas: history, mathematics and physics. It shouldn't be surprising that his career spanned all three.

At the age of 22, Dreyer began his professional life with his first astronomical job. For the position, Dreyer found himself moving to Ireland, where he changed his name to an anglicized version of his birth name. Here he would work as an assistant for the Third Earl of Rosse at Birr Castle. At Birr, he had access to the largest telescope of the time, the Leviathon, built by the Third Earl's father. Using this immense instrument, Dreyer began his study of deep sky objects, such as star clusters and nebulae. The result of his observations was the publication in 1878 of a supplement to John Herschel's General Catalog, with the addition of roughly 1000 new nebulae. It was while working at Birr Castle that Dreyer met his future wife. In 1875, John Dreyer married Katherine Tuthill. Over the years, the couple would have three sons and one daughter.

Dreyer's work at Birr would lead to a job offer in Dublin. From 1878 to 1882, Dreyer served as an assistant at Dunsink Observatory. But in 1882, he moved once more, this time to be director of Armagh Observatory in the town of Armagh in Northern Ireland, where he stayed until 1916. When Dreyer arrived, the observatory was in trouble financially. The telescopes there were old and small, especially compared to those Dreyer had become accustomed. Dreyer was successful in getting a one-time grant from the Irish government of 2000 pounds, with which Dreyer purchased a 10 inch refractor built by Howard Grubb. This allowed Dreyer to continue his study of deep sky objects. At this time in astronomical history, the question remained whether nebulae were inside or outside the Milky Way. Early observations had claimed that the nebulae changed position, implying that they were nearby objects. Dreyer's observations concluded that no such motion occurred, adding support to the hypothesis that the nebulae were beyond the Milky Way.

Because of the poor funding at Armagh (there wasn't even enough money to pay for an assistant), Dreyer decided to spend his time there on efforts other than observing. His first endeavor was to compile earlier observations made at the observatory into a single volume. The subsequent book was titled "The Second Armagh Catalogue of Stars." However, the next book Dreyer worked on would be his most famous and enduring work. Originally, Dreyer had only planned another supplement to the General Catalog, but the Royal Astronomical Society requested that he compile a "new" catalog of nonstellar objects. "The New General Catalogue of Nebulae and Clusters of Stars" is a standard reference to this day, with NGC numbers still being used for the names of deep sky objects. The catalog contains 7840 objects observed by William and John Herschel, Lord Rosse and others at Birr, plus 17 objects discovered by Dreyer himself. The NGC catalog was followed by two "Index Catalogues" which added another 5386 objects to the list.

Dreyer's interest in history would lead to his next publication. Having been born in Denmark, Dreyer had always been interested in one of his fellow countrymen and astronomer: Tycho Brahe. In 1890, Dreyer published what is considered the standard biography of Brahe. This 15 volume publication contained all of Brahe's observations, which had never been published before. The Royal Library in Copenhagen would send to Dreyer one manuscript at a time, where he compiled them for publication. Another of Dreyer's books was also of an historical nature. "The History of the Planetary System from Thales to Kepler" was published in 1905, and was a complete survey of the history of astronomy up to that time.

John Dreyer died in Oxford, England on September 14, 1926 at the age of 74. Anyone with an interest in deep sky objects are very familiar with NGC numbers. Although not as appealing to the masses as proper names, the NGC and IC numbers are much more manageable than looking for something like the "Wilberforce Galaxy", let alone trying come up with unique names for thousands of objects (I had a hard enough time coming up with Wilberforce). The work of John Dreyer is recognized by all astronomers for its importance, as evidenced by the naming of a crater on the Moon after him. As you work on your Astronomical League NGC observing list, take a moment to give thanks to the man who compiled all of those objects into a single catalog - Johan Ludvig Emil Dreyer.

References:

John Louis Emil Dreyer

<http://star.arm.ac.uk/history/dreyer.html>

John Dreyer - Wikipedia, the free encyclopedia

http://en.wikipedia.org/wiki/John_Dreyer

John Louis Emil Dreyer (1852 - 1926)

<http://messier.obspm.fr/xtra/Bios/dreyer.html>

Dreyer, John Louis Emil (1852 - 1926)

<http://www.daviddarling.info/encyclopedia/D/Dreyer.html>

A Short History of Armagh Observatory

<http://www.arm.ac.uk/history/history.html#Sect10>

Barnard-Seyfert Astronomical Society Minutes of a Regular Meeting of the Board of Directors Held on Thursday, January 3, 2007

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 January 3, 2008. A sign-in sheet was circulated in lieu of a roll call. All board members were present; these were Dr. Spencer Buckner, Keith Burneson, Tony Campbell, JanaRuth Ford, Bill Griswold, Dr. Donna Hummell, Kris McCall, Dr. Terry Reeves, Bob Rice, Randy Smith, Theo Wellington, and Steve Wheeler. Also attending were BSAS members Dr. Joe Boyd, Lonnie Puterbaugh, Heinrich Tischler, and Charlie Warren. A quorum being present, President Terry Reeves called the meeting to order at 7:38 P.M.

Terry Reeves outlined two main goals for the BSAS during 2008: (1) for members to have more fun observing and using their telescopes and (2) to develop more public outreach activities. Treasurer Randy Smith reported that the Society had a bank balance of \$2,833.99 exclusive of proceeds from the 2007 Tennessee Star Party (TNSP) that will be transferred to the main account once all outstanding checks have cleared.

Star Party Coordinator Steve Wheeler reported these upcoming events:

- January 12 - Members only star party at the Natchez Trace mile marker 435 site,
- February 9 - Public star party at Warner Park,
- February 20 - Public star party at the Adventure Science Center (ASC) to observe the total lunar eclipse, and
- April 11-13 - Public outreach event for the Boy Scouts at Camp Boxwell.

Kris McCall noted that the February 20th lunar eclipse star party date was also a designated Home School Science Day at the ASC and outlined a possible program to be presented indoors in conjunction with that event. She also stated that the ASC's new Chief Executive Officer was interested in including astronomy related events - such as the BSAS' public star parties - in the Science Center's bulletin.

Terry Reeves reiterated some of the board's prior comments regarding the TNSP and introduced BSAS member and *Amateur Astronomy* magazine editor Charlie Warren. Drawing upon his editorial experience, contacts with other amateurs, and personal attendance at many star parties Mr. Warren offered these observations and suggestions:

- The Chiefland (Florida) Winter Star Party got too big at 300 – 500 attendees,
- The Chiefland Fall Star Party was more manageable at 150 attendees (all members),
- Keep the club's star party website up to maintain year-round interest,
- Clubs need a variety of star party facilities,
- Improve up-front marketing and direct promotion,
- Decide on type of observing: public or strict "red light" rules,
- People mostly attend for the skies and to be around other observers,
- Expand star party times, but keep it less formal,
- Pool with other clubs (i.e., the Texas Star Party), but can be problematic, and
- People may not volunteer at first, but will if they are asked.

Charlie Warren's insightful observations were well received and prompted a number of comments and questions from the board. Kris McCall commented that the BSAS had never strictly determined what the TNSP's goals should be. Responding to JanaRuth Ford's inquiry, Mr. Warren replied that people seemed to have a really good time at the Texas Star Party that was very formal. However, he pointed out that other successful star parties only tried to have a good time. Either way, he said the most important thing was to let people know in advance. Mr. Warren also suggested that a star party might involve public outreach for a while (maybe to 10:30 P.M.) and then have the public leave to make way for serious observers. Bill Griswold commented that star parties should be limited to amateur observers and not be a public event. Theo Wellington noted that novices might tend to be timid. Steve Wheeler suggested that the TNSP might be planned as an "in-reach" event for BSAS members only. Responding to Bob Rice's inquiry, Mr. Warren noted that \$75 was the largest star party registration fee that he knew about, but suggested that charges in this range must be for a top-level event. Tony Campbell pointed out that there was no circulation among the TNSP's core group of organizers. Terry Reeves summarized the discussion by suggesting that the board should serve as "idea innovators" for future TNSPs and for the club.

JanaRuth Ford suggested that the BSAS should begin outreach planning for the International Astronomical Union's designated International Year of Astronomy (IYA2009) to be observed during the following year. Lonnie Puterbaugh announced that there would be an outreach meeting at his home next Wednesday, January 9, at 7:30 P.M. Mr. Puterbaugh also announced that a new Optima EP749 digital projector with case and cables had been purchased for the Society. In addition, he informed the board that DVD copies of Ron Howard's recent movie *In the Shadow of the Moon* would be available from Amazon.com on February 8, 2008.

Heinrich Tischler asked if the BSAS had plans for showing the ASC's new Chief Executive Officer what the club was about and what it could do for her? Kris McCall responded that we should select an appropriate meeting for her to attend. Joe Boyd asked if membership dues were behind and Bill Griswold replied that he had given the treasurer six membership checks tonight. Mr. Boyd suggested that perhaps the board should contact delinquent members.

Program Coordinator JanaRuth Ford announced these upcoming monthly meeting programs:

- January - How To Use Your New Telescope (Dr. Spencer Buckner),
- February - Background for the International Year of Astronomy, and
- March - DVD by the International Dark-Sky Association.

Kris McCall suggested that an ASC representative might be able to speak at the April meeting. Spencer Buckner suggested that he could add a brief introduction to the BSAS as part of his presentation later this month. Joe Boyd announced that he would contact Mary Hance at the *Tennessean* newspaper about including the upcoming January program as a topic in her widely read *Ms Cheep* column.

There being no further business to discuss, President Reeves asked for a motion to adjourn the meeting at 9:34 P.M. Spencer Buckner so moved and Steve Wheeler seconded the motion that was approved by a unanimous voice vote.

Respectfully submitted,

Bob Rice, Secretary

(with gracious assistance from Dr. Donna Hummell)

**Barnard-Seyfert Astronomical Society
Minutes of the Monthly Membership Meeting
Held On Thursday, January 17, 2007**

President Terry Reeves called the meeting to order at 7:41 P.M. in the Adventure Science Center (ASC) and, after introducing himself, welcomed new members and guests. Steve Wheeler recognized Keith Burneson for his leadership and contribution to the Tennessee Star Party (TNSP) 2007. Lonnie Puterbaugh displayed newly transmitted images from the Mercury Messenger mission explaining that these were the first close-up views of Mercury since those from Mariner 10 in 1975. Mr. Puterbaugh added that the Messenger mission hoped to explore Mercury's greatest mystery – why such a small planet had such a large mass. He also reminded the audience that 2009 was the International Year of Astronomy.

Terry Reeves announced these upcoming public star parties: February 9 at Warner Park and February 20 at the ASC to observe the total lunar eclipse. Treasurer Randy Smith reported that BSAS had a bank balance of \$1,652.75 and announced that he still had copies of the Royal Astronomical Society of Canada's 2008 *Observers Guide* and Kalmbach's *Deep Space Mysteries* calendar for sale. The minutes of the previous meeting on December 20, 2007 were approved without exception as published in the January 2008 edition of the *Eclipse* newsletter.

Randy Smith introduced Dr. Spencer Buckner, a fellow BSAS member and Professor of Physics and Astronomy at Austin Peay State University, who delivered the evening's program on "How to use your new telescope (and other astronomy toys)." Dr. Buckner began by describing sky maps ranging from simple planispheres to planetarium software for home computers. He then demonstrated the various types of mounts and their respective advantages. Noting that Dobsonian reflectors were the easiest to use, he emphasized that the size of any telescope should be commensurate with the user's size and strength. Dr. Buckner also touched upon collimation, eyepiece types and selection, and using finder scopes including "zero magnification" types such as the Telrad. He described the basic components and techniques involved in imaging and cited Lonnie Puterbaugh as an experienced resource within the BSAS. With assistance from Terry Reeves, Dr. Buckner demonstrated the technique (and strength) required to mount a 10-inch Schmidt-Cassegrain optical tube assembly with its attached fork on an awaiting equatorial wedge and tripod. Lastly, he commented on the use of solar filters for observing the sun. Following this presentation, Dr. Buckner graciously answered questions from the audience.

Terry Reeves announced that the Dark Sky Committee would meet on February 5. Since there was no further business to discuss, President Reeves declared the business meeting adjourned at 9:04 P.M. Thereafter members mingled with attendees who had brought their telescopes to answer more specific questions and to assist them with using their particular instruments.

Respectfully submitted,
Bob Rice, Secretary

ACTIVITIES and EVENTS*February 1—29, 2008*

2/4 Jupiter 4° N of Moon, Venus 4° N of Moon
2/7 BSAS Board of Directors mtg., 7:30 p.m. at Girl Scout Office, NEW MOON
2/9 Public Star Party 7:30 p.m.-9:30 p.m. Ridgefield at Warner Park
2/14 FIRST QUARTER
2/16 Mars 1.6° S of Moon
2/19 Moon 0.3° N of Beehive (M44)
2/20 Public Lunar Eclipse Party at ASC 7:00 p.m.-9:30 p.m.
2/21 BSAS Membership mtg. 7:30 p.m. at ASC, FULL MOON, total lunar eclipse
2/26 Mercury 1.3° N of Venus
2/29 LAST QUARTER

March 1-31, 2008

3/3 Jupiter 4° N of Moon,
3/5 Venus 0.2° S of Moon
3/6 BSAS Board of Directors mtg., 7:30 p.m. at Girl Scout Office,
3/7 NEW MOON
3/8 Messier Marathon at Spot Observatory, dusk to dawn
3/9 Daylight Savings Time begins
3/14 FIRST QUARTER
3/15 Mars 1.7° S of Moon
3/19 Saturn 3° N of Moon
3/20 BSAS Membership mtg. 7:30 p.m. at ASC, Spring Equinox
3/21 FULL MOON
3/29 LAST QUARTER

*All times listed are Central Time

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