

The newsletter of the Barnard Seyfert Astronomical Society, PO Box 150713, Nashville, TN 37215-0713

Upcoming Events

Board of Directors Meeting

February 4th at the Cumberland Valley Girl Scout Council Building – 7:30 pm

March 4th at the Cumberland Valley Girl Scout Council Building – 7:30 pm

Membership Meeting

February 18th at the Adventure Science Center – 7:30 pm

March 18th at the Adventure Science Center – 7:30 pm

Star Parties

February 13th - BSAS Private Star Party at Natchez Trace mile marker 435.5

February 20th - BSAS Public Star Party at Shelby Bottoms
7:30 - 9:30 pm

March 13th – BSAS Messier Marathon – details to follow

March 20th - BSAS Public Star Party at Warner Park Special Events Field – 8 -10:00 pm

March 26th - BSAS Public Star Party at Bells Bend Outdoor Center - 8:00 -10:00pm

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Monthly Membership Meeting

February 18, 2010
Adventure Science Center
7:30 pm



Join former BSAS president Dr. Terry Reeves and newsletter editor Steve Wheeler for an informative "What's Up?" tour of the night sky, including objects visible in binoculars and telescopes. Don't miss this informative presentation!



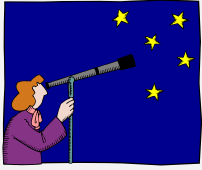
From The President

Greetings from your snow-bound president. As I write this I am gazing out my upstairs window at my front yard which is buried in about 6" of snow. The road I live on is called Sharp Top Road for a very good reason; it is steeply downhill whichever way I turn out of my driveway. I finally ventured out Sunday afternoon just to test the road to see if I can get to work Monday morning. It's still a bit slippery but passable. I hope all the members of the BSAS manage a safe trip to work or school Monday (I know many of us had at least half a day off Friday because of the road conditions).

Monday, February 1 brings sad news for the American manned space program. In his new budget, President Obama has cut all funding for the Constellation program; NASA's program for sending Americans back to the Moon. The Obama plan is to privatize the US's ability to launch humans into low Earth orbit (LOE) to staff and supply the International Space Station (ISS). While this may be the way to go for putting humans into LOE, it completely kills any chance of putting Americans back on the Moon. The ISS was always envisioned as being a place to do research in materials science and human adaptation to microgravity. Commercialization of the transport of humans to and from the ISS makes sense. The problem is manned exploration beyond LOE. Since Thomas Jefferson funded the scientific explorations of Lewis and Clark, exploration has been a federally funded enterprise. The explorations of Antarctica were funded by the federal government. The exploration of LOE by the Mercury and Gemini projects were federally funded, and, of course, the Apollo missions to the Moon were federally funded. Exploration is a risky business with no guarantee of return so private industry is not likely to take up the mantle of human space exploration. Once the way has been paved by government programs, then privatization becomes feasible. Human transport to the ISS is ripe for privatization, the Moon is not.

In October of last year NASA's LCROSS mission impacted the Moon in search of water. While the visual impact was a bust, the science did show there is water in shadowed craters on the Moon. The first humans to return to the Moon will very likely land close to sites where there is water. With the Obama administration's decision to terminate the Constellation program, we are now guaranteed that that water will not be available to Americans. The flag that is planted on those few patches of dirty ice will most likely have a red background with five yellow stars or a spinning wheel on saffron, white and green stripes. Having footed the bill to get there, they aren't likely to be willing to share.

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"Science is built up of facts, as a house is built of stones; but an accumulation of facts is no more a science than a heap of stones is a house."

Henri Poincare
(1854 – 1912)

FREE TELESCOPES!

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, and a waiting list may be 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.

Observing Highlights

all times listed are Central Standard Time

LUNAR PHASES

February 2010

02/05 LAST Quarter
02/14 NEW Moon
02/22 FIRST Quarter
02/28 FULL Moon

March 2010

03/07 LAST Quarter
03/15 NEW Moon
03/23 FIRST Quarter
03/30 FULL Moon

OBJECTS VISIBLE THIS MONTH

Messier Objects:

Supernova Remnant:
M1 (The Crab Nebula)

Open Star Clusters:
M35, M36, M37, M38, M45 (The Pleiades)

Nebula:
M42 (The Orion Nebula), M43, M78

Globular Clusters:
M79

President's Message *Continued*

So, what can you do? Call or write your congressman. Let them know you think a US return to the Moon is important to our national prestige. Play the China and India card. The reason we went to the Moon in the 1960's had very little to do with science, it had everything to do with geopolitics. A reminder that geopolitics is still alive and well might just be what is needed to get us back on track to the Moon. The Chinese and Indians will get to the Moon before us and claim all the good real estate unless we get back in the race.

Sorry if this president's message sounds a bit preachy but this is something I feel passionate about. Like many of my generation, watching the Mercury, Gemini and Apollo missions inspired me to a career in science. The generation after mine had to wait a decade after Apollo for the space shuttle to kindle more dreams of science and technology in the youth of our nation. In the decades since the first shuttle launches, travel to space has become mundane to the general public. It is most definitely not routine as evidenced by the Columbia and Challenger but the public has a short memory. We need something to inspire another generation to pursue careers in science and engineering. An American return to the Moon by the end of this decade would fit the bill nicely and lead to uncounted spin-off technologies just like Apollo did in the 1960's.

Dr. Spencer Buckner
President

Book Review: The Immortal Fire Within by William Sheehan

Robin Byrne

It's time for another book review. "The Immortal Fire Within: The Life and Work of Edward Emerson Barnard" by William Sheehan chronicles the life of Barnard from birth to death. For anyone with an interest in the personalities from astronomy history, this will be an enlightening read.

The book begins with Barnard's early, impoverished life in Nashville, Tennessee. In a fatherless home (his father died 3 months before his birth) and a frail mother, Barnard left school and went to work in a photography studio at an early age. It was during this time that Barnard was first introduced to astronomy and received his first telescope. In this phase of his life we see some of the traits he will carry throughout his career: patience, skill, and the obsessive desire to observe through his telescope during any clear nighttime hour.

The book takes us through an era in Barnard's life when he makes a name for himself by discovering comets. His comet-hunting was beneficial both financially (through the Warner prize) and professionally (with a position at Vanderbilt University). Despite his growing fame and success, Barnard is shown to still feel very inferior to the professional astronomers with whom he corresponds. Barnard never could forget his humble, uneducated beginnings.

We see Barnard given the opportunity to move to California and work at the, not yet complete, Lick Observatory. The director would be Edward Holden, and he would be Barnard's nemesis during his entire tenure at Lick. The book goes into great detail during this era of Barnard's life, and shows us an intimate glimpse of the petty backbiting and fragile egos involved. Citing written records from Lick Observatory, we see two men who, time and again, felt wronged by the other. Having the local newspaper editorials consistently siding with Barnard (and calling for Holden's removal) could not have helped matters.

The story ends with Barnard moving on to Yerkes Observatory at the end of the 19th century. By this time astronomy was changing.

An astronomer sketching his view through a telescope was rapidly being replaced by photographic images. Barnard's early years in photography served him well, and he took some of the best, early images of comets, and more notably, of the Milky Way. However, an even more important change was the ascendance of astrophysics as the wave of the future. With his lack of education, and especially weak mathematical skills, Barnard was finding himself falling further and further behind. Yet, despite this, he continued to make important discoveries and contributions until his final years.

The story of Edward Emerson Barnard is a fascinating tale of triumph over seemingly insurmountable odds. William Sheehan has clearly devoted a tremendous amount of time and effort putting together the pieces of Barnard's life, with documented evidence for every twist and turn. Sheehan's research efforts pay off in a rich tapestry that gives insights into Barnard as a man, as an astronomer, his discoveries, and into the world of astronomy in the late 19th/early 20th century.

The Immortal Fire Within: The Life and Work of Edward Emerson Barnard by William Sheehan; Published by Cambridge University Press; 1995

Board Meeting Minutes – January 21, 2010

Bob Rice, Secretary

The board of directors of the Barnard-Seyfert Astronomical Society met in regular session at the Adventure Science Center (ASC) in Nashville, Tennessee immediately following the monthly membership meeting on January 21, 2010 because the earlier scheduled board meeting on January 7 was cancelled due to inclement weather. Board members Dr. Spencer Buckner, Bill Griswold, Bob Norling, Curt Porter, Dr. Terry Reeves, Bob Rice, and Theo Wellington were present. Board Members Tony Campbell, JanaRuth Ford, Dr. Donna Hummell, Santos Lopez, and Kris McCall were absent. A quorum being present, President Dr. Spencer Buckner called the meeting to order at 8:40 P.M.

Dr. Spencer Buckner reported that past president Joe Boyd's telephone number was still listed as the official BSAS voice mail contact on the club's website and elsewhere. Dr. Buckner recommended that the BSAS adopt the practice of changing their official telephone number to that of the new president's following each annual election in November. The board unanimously agreed to adopt this practice. Curt Porter suggested that the board consider requiring potential purchasers of the RASC's Observers Handbook and Kalmbach's Deep Space Mysteries calendar to put down a deposit when ordering these items each year. The board agreed to discuss this topic further at the next board meeting.

Dr. Terry Reeves reported that the BSAS might be able to offer membership subscriptions to Astronomy and Sky & Telescope magazines through its affiliation with NASA's Night Sky Network. Theo Wellington reported that the ASC was currently engaged in fund raising activities and asked that BSAS members think about donating "personalized services" such as a night at a telescope as prizes. Dr. Spencer Buckner thanked prior-president Dr. Terry Reeves for canceling the originally scheduled board meeting due to sleet and snow.

Since there was no further business to discuss, President Buckner declared the meeting adjourned at 8:50 P.M.

OFFICERS

Dr. Spencer Buckner
President

Dr. Donna Hummell
Vice-President

Bob Rice
Secretary

Bob Norling
Treasurer

Directors at Large

Tony Campbell
Jana Ruth Ford
Bill Griswold
Santos Lopez
Curt Porter
Theo Wellington
Kris McCall (ex officio)

Steve Wheeler
Newsletter Editor
wsw261@hotmail.com

*Monthly meetings
are held at:*



*The Adventure
Science Center*

*800 Fort Negley Blvd
Nashville, TN 37203*

Monthly Meeting Minutes – January 21, 2010

Bob Rice, Secretary

President Dr. Spencer Buckner called the meeting to order at 7:32 P.M. in the Adventure Science Center (ASC) and welcomed new members and visitors. Treasurer Bob Norling reported that the BSAS had \$2,205.80 in its regular bank account and \$150.00 in its equipment account. Dr. Buckner announced these upcoming events:

- Jan 23 – a public star party at the Warner Parks' special events field from 7:30 – 9:30 P.M.
- Feb 13 – a private star party on the Natchez Trace Parkway at mile marker 435.5
- Feb 20 – a public star party at Shelby Bottoms Park from 7:30 – 9:30 P.M.
- Mar 13 – Messier Marathon – location will be confirmed later – rain date is April 10

Mike Benson announced that he had a copy of Guy Ottewell's Astronomical Calendar 2010 for sale.

Dr. Spencer Buckner began the evening's program on "How To Use Your New Astronomy Toys" that was intended to assist anyone who may have received an astronomy-related device over the holidays that they didn't fully understand. In fact attendees had been previously encouraged to bring their new telescopes or other devices to this meeting for that purpose. Dr. Buckner first showed a very brief PowerPoint display illustrating the basic types of telescopes and mounts. He then quickly discussed these additional "things to consider" that could assist or improve the observing process:

- Illuminated reticule eyepieces to better center observed objects in the field of view
- Planispheres or sky maps to better locate objects at different time of the year
- Star atlases to show more detailed views of the sky
- Planetarium software to provide yet more detailed and automated views

Following this brief introduction, the audience formed into groups by the telescope types that were brought with BSAS members providing additional one-on-one instruction as needed. These friendly and informal gatherings typically lasted until around 8:30 – 8:45 P.M.

BSAS Affiliations

The Astronomical League
<http://www.astroleague.org/>



The Night Sky Network
<http://nightsky.jpl.nasa.gov/>



International Dark Sky Association
<http://www.darksky.org/>



Become a Member of the BSAS!

Download and print the Application for membership from www.bsasnashville.com (Adobe® Acrobat Reader® required).

Then fill it out and bring it to the next monthly meeting or mail it along with your first year's membership dues to:

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

Annual dues, which include membership in the BSAS and Astronomical League, and subscriptions to their newsletters, are:

- \$20** Individual
- \$30** Family
- \$15** Senior (+65)
- \$25** Senior Family (+65)
- \$15** Student*

* To qualify, you must be 21 or younger & enrolled in an accredited institution.

All memberships have a vote in BSAS elections and other membership votes,

Also included are subscriptions to the BSAS and Astronomical League newsletters.

IMPORTANT DUES INFORMATION

On your Eclipse mailing label is the expiration date for your current membership. There will be a two month grace period before any member's name is removed from the current mailing list.



We're on the Web!
See us at:
<http://www.bsasnashville.com>

About Our Organization

Organized in 1928, the Barnard-Seyfert Astronomical Society is an association of amateur and professional astronomers who have joined to share our knowledge and our love of the sky.

The BSAS meets on the third Thursday of each month at the Adventure Science Center in Nashville. Experienced members or guest speakers talk about some aspect of astronomy or observing. Subjects range from how the universe first formed to how to build your own telescope. The meetings are informal and time is allotted for fellowship. You do not have to be a member to attend the meetings.

Membership entitles you to subscriptions to *Astronomy and Sky & Telescope* at reduced rates; the club's newsletter, the *Eclipse*, is sent to members monthly. BSAS members also receive membership in the Astronomical League, receiving their quarterly newsletter, the *Reflector*, discounts on all astronomical books, and many other benefits.

In addition to the meetings, BSAS also sponsors many public events, such as star parties and Astronomy Day; we go into the schools on occasion to hold star parties for the children and their parents. Often the public star parties are centered on a special astronomical event, such as a lunar eclipse or a planetary opposition.

Most information about BSAS and our activities may be found at www.bsasnashville.com. If you need more information, write to us at info@bsasnashville.com or call President, Spencer Buckner, (931) 221-6241.

**BARNARD-SEYFERT
ASTRONOMICAL SOCIETY**
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