

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

## Upcoming Events

### Board of Directors Meeting

March 5<sup>th</sup> at the Cumberland  
Valley Girl Scout Council Building  
– 7:30 pm

April 2<sup>nd</sup> at the Cumberland  
Valley Girl Scout Council Building  
– 7:30 pm

### Membership Meeting

March 19<sup>th</sup> at the Adventure  
Science Center – 7:30 pm

April 16<sup>th</sup> at the Adventure  
Science Center – 7:30 pm

### BSAS Annual Messier Marathon

April 25<sup>th</sup> at Spot Observatory

### Public Star Party

May 2<sup>nd</sup> – Long Hunter State Park

### IYA 2009 Events

See page 7 for details.

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## Monthly Membership Meeting

Thursday, 03/19/2009  
Adventure Science Center  
7:30 pm



Our guest speaker will be **Dr. Susana Duestua** (STScI Instruments Division), a Harlow Shapley visiting astronomer who is visiting Austin Peay State University this month. She will be speaking on The International Year of Astronomy 2009, a global celebration of astronomy and its contributions to society and culture. IYA 2009 also marks the 400th anniversary of the first use of an astronomical telescope by Galileo Galilei.



## From The President

Just in case you really have not been paying attention, this year, 2009, is the International Year of Astronomy. We are celebrating the four hundredth year since Galileo Galilei pointed his telescope at the night sky and reported what he saw. For once, the statement "This changes everything" was not a cliché, it was an understatement. As part of the celebration of the International Year of Astronomy, there is an event called the "100 Hours of Astronomy" that we will be celebrating with two public star parties. You can read more about this starting on page two and page seven of the newsletter.

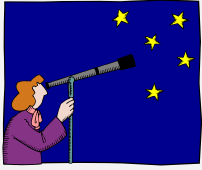
In addition to the International Year of Astronomy, another event is coming to Nashville that you may have heard of, Earth Hour 2009. This is an event that I would never have expected to reach Nashville, but here it is. On March 28, from 8:30 PM until 9:30 PM, the lights in Nashville are supposed to be turned off. We will be having a public star party at the Adventure Science Center that night from 8:00 PM until 10:00 PM. Seeing Nashville without all of those pesky lights should be quite amazing.

While we are on the subject of light pollution, there is a way that you can participate. If you go to <http://www.globe.gov/GaNY/>, you will find the home page for the Globe at Night project. Print off one of the Family Activity Packets. Sometime between March 16 and March 28, you will measure the amount of light pollution at your location. The procedure looks very easy. The primary effort involves looking at the constellation Orion and determining which of their diagrams looks the most like your sky. I know that I will be curious to see how the results change at the Adventure Science Center during Earth Hour.

We have a special treat for the program for the March meeting. We will be hosting the Harlow Shapley Public Lecture. The speaker will be Dr. Susana E. Duestua. She currently works in the Instruments Division of the Space Telescope Science Institute as a part of the WFC3 team. Prior to joining the STScI, she was Director of Education of the American Astronomical Society. She was a staff scientist at the Lawrence Berkeley National Laboratory, where she worked with the Supernova Cosmology Project, led by Saul Perlmutter. The Supernova Cosmology Project and the competing High-Z Supernova Team discovered dark energy. She currently leads the Calibration Working Group of the Supernova/Acceleration Project (SNAP) which is investigating the nature of dark energy. She is also the US Co-Chair of the International Year of Astronomy. She will be speaking on the International Year of Astronomy 2009. This is one program you do not want to miss.

We are still working on the details for the April meeting.

Dr. Terry Reeves  
President



*Space isn't remote at all. It's only an hour's drive away if your car could go straight upwards.*

**Sir Fred Hoyle**  
1915-2001

### 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

#### March 2009

03/04 FIRST Quarter Moon  
03/10 FULL Moon  
03/18 LAST Quarter Moon  
03/26 NEW Quarter Moon

#### April 2009

04/02 FIRST Quarter Moon  
04/09 FULL Moon  
04/17 LAST Quarter Moon  
04/25 NEW Quarter Moon

### OBJECTS VISIBLE THIS MONTH

#### Messier Objects:

##### *Open Clusters:*

M41, M44 (The Beehive), M46, M47, M48, M50, M67

##### Galaxies:

M81 (Bode's Galaxy), M82, M93

## Outreach Update *Dr. Terry Reeves, president*

We had one public star party planned for February 28 at Shelby Bottoms. Unfortunately, it was canceled due to bad weather. (I believe that it snowed that night.)

For March, we have one public star party scheduled for Saturday, March 28, at the Adventure Science Center from 8:00 PM until 10:00 PM. This is in celebration of Earth Hour 2009 which I mentioned above.

On Friday, April 3, we have another public star party scheduled at the Adventure Science Center from 8:00 PM until 10:00 PM. We will be supporting the opening of the planetarium show, "Two Small Pieces of Glass". This program is being shown as a part of IYA 2009, and as a companion to the documentary "400 Years of the Telescope" which will air locally on PBS on the night of Friday, April 10. The next night, Saturday, April 4, we will have a public star party at Warner Park from 8:00 PM until 10:00 PM.

On Saturday, May 2, we have a public star party scheduled at Long Hunter State Park from 8:00 PM until 10:00 PM.

As always, you need to show up early enough to get set up before the public arrives. Additionally, at Warner Park, we need to arrive by 7:30 PM to avoid moving cars and moving people in the viewing area at the same time.

There is a private viewing opportunity on Saturday, March 28, at Mark Manner's home. This was originally our primary Messier Marathon night until we learned about Nashville's participation in Earth Hour 2009. If you have questions about the weather on that night at Mark's home, call him at (615) 351-3172.

We have moved the night of the Messier Marathon to Saturday, April 25. It will be held at Mark Manner's home. The BSAS annual picnic is scheduled to start at 4:00 PM on Saturday, May 23. (This is Memorial Day weekend.) There will be opportunity for viewing afterward, weather permitting.

# Happy Birthday Wernher von Braun

by Robin Byrne

This month we celebrate the life of a man whose name is synonymous with America's early space program. Wernher Magnus Maximilian Freiherr von Braun was born on March 23, 1912 in the town of Wirsitz in the German Empire. The middle child of three sons, von Braun was raised in a privileged home. After his confirmation in the Lutheran church, von Braun received as a gift from his mother, a telescope. This was the beginning of his passion for astronomy and space. In 1918, after their town had been given to Poland, the von Braun family moved to Berlin. Here, at the age of 12, von Braun made his first attempt at rocketry: he attached several fireworks to a small wagon to see how fast it would go. The disruption of the careening wagon created led to von Braun's "arrest" by the police until his father could come to get him. At first, von Braun did not excel in school, until he was inspired by the book "The Rocket into Interplanetary Space" by Hermann Oberth. After that, von Braun suddenly became motivated enough to do well in math and physics.

In 1930, von Braun entered the Technical University of Berlin to study physics and engineering. It was around this time that he also joined the Spaceflight Society and worked with Hermann Oberth on liquid-fueled rockets. As the Nazi party took power in Germany, the area of rocketry shifted its focus from spaceflight to military uses. Rocket clubs were closed down. To continue his work on rocketry, von Braun went to work for the German army in 1932 as a developer of ballistic missiles. The work he performed became the basis for his doctoral thesis, and von Braun received his Ph.D. in physics from the University of Berlin on July 27, 1934. Due to the nature of his research, most of the thesis was classified until 1960.

As the military interest in rockets continued to grow, a larger facility was needed. The town of Peenemunde was chosen for the new complex. The technical director would be Wernher von Braun. Here, they developed rocket engines for aircraft, as well as long-range ballistic missiles. During the 1930's (the exact date seems to be in question), von Braun joined the National Socialist German Workers Party (the Nazi Party) and the SS. Although von Braun claimed that he joined due to pressure from his superiors, including Himmler, others say that there was no such pressure this early in the war.

During World War II, one of von Braun's achievements was the development of, what would become known as, the V-2 rocket. On December 22, 1942, Hitler officially ordered the production of the weapons, with the plans to target London. When

looking at the development of the V-2 from an historical point-of-view, there is controversy. At this time in Germany, most production was performed by slave labor from concentration camps. The same was true for the V-2. Between the dangerous nature of the rockets themselves and the inexperience of the slave labor, disasters were waiting to happen. It is claimed that more people died constructing the rockets than were killed in V-2 bombings. Questions surround how much von Braun knew, and how much he could have done, about the working conditions. Some say that he was appalled by how the prisoners were treated, but was afraid to say anything for fear of being imprisoned or put to death.

Von Braun's fear of imprisonment may not be unfounded. Unbeknownst to him, von Braun had been under surveillance since 1943. Complaints by him and a few colleagues over the use of rockets for bombs, and Himmler's claim that von Braun was a Communist sympathizer who had tried to sabotage the V-2 program, led to von Braun's arrest. In March of 1944, he was imprisoned for two weeks, without ever being told what the charges were. Colleagues from Peenemunde made appeals on his behalf to Hitler, who agreed to have von Braun reinstated in the V-2 program, since his contributions were essential to its success. The experience, however, did not change von Braun's feelings about his rockets. After the first successful rocket attack on London, von Braun is attributed to having said, "The rocket worked perfectly except for landing on the wrong planet."

By 1945, it was clear the Germany was losing the war. The Soviet Army was nearing Peenemunde. Afraid of how the Soviets would treat German prisoners, von Braun and 500 of his colleagues started planning for how they would surrender to the Americans. However, they were being guarded by the SS, who had orders to kill the rocket team if it looked like they would be taken prisoner by any of the Allied forces. Fortunately, von Braun convinced the SS that it would be better to let the group disperse into surrounding villages, so that they would not be an easy bombing target. This provided them with the opportunity they were waiting for. Magnus von Braun, Wernher's brother, rode a bicycle toward a group of American troops, yelling, "My name is Magnus von Braun. My brother invented the V-2. We want to surrender."

On June 20, 1945, von Braun and his team were officially transferred to America. Because of the paperclips used to designate the paperwork, it became known as Operation Paperclip. Their first

## Happy Birthday Wernher von Braun, cont.

stop would be Fort Bliss, Texas. Here, they developed rockets for the U.S. Army, and performed test launches at White Sands Proving Ground in New Mexico. It was during his time in Texas that von Braun wrote a letter to his cousin in Germany, Maria Luise von Quistorp, asking her to marry him. On March 1, 1947, in Landshut, Germany, they married. Five days later, von Braun returned to America with his new bride and his parents. The von Brauns would have three children over the next 13 years, two daughters and a son.

In 1950, von Braun's team was moved to Huntsville, Alabama to the Redstone Arsenal. They built the Redstone rocket, which was used for America's first live nuclear ballistic missile test. This was then modified to become the Jupiter-C rocket, which would ultimately be used to put America's first satellite, Explorer 1, into Earth orbit in 1958.

During the 1950's, von Braun became a media darling, extolling the virtues of space exploration. He wrote several articles for magazines outlining the engineering designs that would allow man to travel to the Moon and Mars. Von Braun also teamed up with Walt Disney to produce three television programs about space travel, mainly with the hope that it would inspire future generations to want to travel into space.

In 1955, von Braun officially became a U.S. citizen. Five years later, NASA was established, and von Braun became director of the Marshall Space Flight Center in Huntsville. Their main focus was the development of the Saturn V rocket to fulfill Kennedy's promise of landing a man on the Moon before the end of the decade. However, after the successful landing in 1969, von Braun was distressed by how quickly people lost interest in the space program. After moving to Washington, D. C in 1970 to become NASA's Deputy Associate Administrator for Planning, von Braun realized that his vision of the future of the space program was not the same as NASA's. On May 26, 1972, von Braun retired from NASA.

In 1973, von Braun discovered that he had inoperable cancer. He continued to work and travel the country giving lectures, hoping to continue to spark an interest in space exploration. In 1975, von Braun was awarded the National Medal of Science, but his deteriorating health prevented him from attending the ceremony. On June 16, 1977, Wernher von Braun died in Alexandria, Virginia.

Considered the father of the U.S. space program, we are greatly indebted to Wernher von Braun. Our efforts to put men in orbit and to, ultimately, land on the Moon, would not have been achieved nearly so quickly if it had not been for von Braun and his team of engineers. His association with Nazi Germany will always hang over von Braun and his achievements. However, von Braun's greatest achievement, the successful Moon landing, occurred when he was an American citizen working to fulfill the goals set by an American president. Ultimately, however, the achievements of von Braun are not German or American, they belong to the world. We all owe a debt of gratitude to Wernher von Braun.

### References:

Sputnik Biographies - Wernher von Braun (1912 - 1977)  
<http://www.hq.nasa.gov/office/pao/History/sputnik/braun.html>

Wernher von Braun - Wikipedia  
[http://en.wikipedia.org/wiki/Wernher\\_von\\_Braun](http://en.wikipedia.org/wiki/Wernher_von_Braun)



## February 2009 Board Meeting Minutes

*Steve Wheeler, Board Member*

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 February 5, 2009. A sign-in sheet was circulated in lieu of a roll call. Board members Dr. Terry Reeves, Steve Wheeler, Curt Porter, Bill Griswold, Bob Norling, Dr. Donna Hummell, Kris McCall, Theo Wellington, and JanaRuth Ford were present. Board members Dr. Spencer Buckner, Tony Campbell, and Bob Rice were absent. Visitors included Joe Boyd. A quorum being present, President Terry Reeves called the meeting to order at 7:37 P.M.

Treasurer Bob Norling reported the bank balance to be \$1915.04 with some additional checks pending deposit. Steve Wheeler indicated a donation from Camp Idywild day camp would be pending as a way of thanking BSAS for participating in their summer camp astronomy nights last summer. Dr. Terry Reeves reminded the board that the February 19th membership meeting program was to be a What's Up? Tour of objects currently visible. Dr. Terry Reeves reported that the program committee has planned these upcoming monthly meeting program topics:

March	Possible guest speaker
April	Planetarium Messier Marathon – Kris McCall
May	Meteorites – JanaRuth Ford
June	Southeast Planetarium Directors Meeting/Observing at Spot Observatory
July	What's Up? Tour of objects currently visible
August	Free Astronomy Software – Randy Smith
September	TBD
October	What's Up? Tour of objects currently visible
November	How to Buy a Telescope
December	Annual Christmas Party
January	How to Use Your New Astronomy equipment

Dr. Reeves also mentioned the following outreach opportunities:

February 28th – Star Party at Shelby Bottoms, March 21st – Annual Messier Marathon, March 28th – Earth Hour, April 3rd – Star Party Adventure Science Center, April 4th – Star Party Warner Park  
April 25th – Alternate Messier Marathon date, May 2nd – Star Party Longhunter State Park  
May 23rd – Club Picnic

Kris McCall announced that the final attendance count at the Warner Park Star Party in January was 168. Dr. Reeves indicated that the Girl Scout Camp activity previously scheduled for February 28th had been cancelled.

Kris McCall announced that a documentary and planetarium show had been created in conjunction with the International Year of Astronomy, and the Nashville Public Television had been selected as one of the stations to premier the documentary on April 10th. She also noted there would be activities associated with the premier including a private reception, planetarium show, a star party, and other activities. JanaRuth Ford also mentioned possible Night Sky Network activities, and Joe Boyd mentioned the International Dark Sky Association would be involved in the Earth Hour events. Kris McCall also indicated the International Sidewalk Astronomy association will be planning events.

Curt Porter asked that the club newsletter include two months worth of upcoming events instead of the current one month – newsletter editor Steve Wheeler agreed to begin this in the March issue. Kris McCall reminded the board that the 2nd Saturday events at the Adventure Science Center needs volunteers to set up telescopes for those attending the planetarium shows.

Bill Griswold indicated we need a name badge volunteer to organize the name badges at monthly meetings. Kris McCall indicated they can be stored at the Adventure Science Center, and Curt Porter volunteered to set them up at the meetings. JanaRuth Ford posed an idea for a presentation on binocular observing, possibly at Warner Park on June 20th or 27th. Curt Porter mentioned Centennial Park as an option as well. JanaRuth Ford also volunteered to seek coverage for the event via the Mrs. Cheap column in the Tennessean and would contact Warner park officials to set up the event. Kris McCall indicated that the Adventure Science Center would be unveiling new prints from the Hubble Space Telescope at the next monthly meeting. She also mentioned that she will be featured on the PBS special Tennessee Crossroads in either late March or April.

At 8:42 P.M. Bill Griswold motioned that we adjourn. Kris McCall seconded the motion. There being no further business to discuss. Dr. Reeves declared the meeting to be adjourned at 8:42 P.M.

### OFFICERS

*Dr. Terry Reeves*  
President

*Dr. Spencer Buckner*  
Vice-President

*Bob Rice*  
Secretary

*Bob Norling*  
Treasurer

### Directors at Large

*Tony Campbell*  
*Jana Ruth Ford*  
*Dr. Donna Hummel*  
*Curt Porter*  
*Theo Wellington*  
*Steve Wheeler*  
*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*

## February 2009 Monthly Meeting Minutes

*Bob Rice, Secretary*

President Dr. Terry Reeves called the meeting to order at 7:36 P.M. in the Adventure Science Center (ASC) and welcomed new members and guests. Sudekum Planetarium Director and BSAS board member Kris McCall announced that a new series of photographs just released by the Space Telescope Science Institute for the International Year of Astronomy (IYA) 2009 was on display in the upper level Space Chase outside the planetarium. These photographs showed four views of M101 (the Pinwheel Galaxy) in "white" light from the Hubble Space Telescope (HST), infrared light from the Spitzer Space Telescope, ultraviolet light from the Chandra Space Telescope, and lastly a stunning combined mosaic image in all three wavelengths of light.

Joe Boyd announced that he would provide signed verification for Jana Ruth Ford's Middle Tennessee State University students so that they would receive credit for attending the meeting. Dr. Terry Reeves reminded attendees about the public star party scheduled on February 28th at Shelby Bottoms Park. He also announced that the board of directors would briefly meet following tonight's membership session and that Mike Benson had two copies of Guy Ottewell's Astronomical Calendar 2009 for sale.

Dr. Terry Reeves then delivered the program on "What's Up Tonight," a continuing series of presentations designed to provide seasonal guidance to observers about what can be seen in the night sky even from light-infested backyards. All items were carefully selected to include naked eye objects, binocular objects, and many telescopic objects. These included the planet Venus, – a naked eye object – currently showing a 38 arc second crescent and binocular open clusters M36, M37, and M38 in the constellation Auriga along with M45 (the Pleiades) in the constellation Taurus. Objects that were mainly telescopic ranged from the easy to the difficult to see and included M1 in the constellation Cancer, the only supernova remnant in Charles Messier's catalog; Hind's crimson star (a carbon star) in the constellation Leporis; and Comet Lulin (that may become visible to the naked eye later this season) in the constellation Leo. Each object's location was illustrated with projected star charts derived from planetarium software and several also included images made by BSAS member Steve Wheeler. Following his presentation, Dr. Reeves answered questions from the audience.

Kris McCall announced that attendees could log onto the HST website at [hubblesite.org](http://hubblesite.org) to vote for one of six objects to be selected for study in their "You Decide" feature. Dr. Spencer Buckner announced that Harlow Shapley Visiting Lecturer Dr. Susana Deustua would speak on the IYA at the March meeting. Since there was no further business to discuss, President Reeves declared the formal meeting to be adjourned at 9:28 P.M. Kris McCall and Drew Gilmore then demonstrated how the planetarium's new digital projection system could be used to augment a "What's Up Tonight" program by showing constellation outlines and high definition images of deep space objects on the sixty-three foot screen.

*Minutes of a Special Meeting of the Board of Directors  
Held On Thursday, February 19, 2009*

The board of directors of the Barnard-Seyfert Astronomical Society met in special session at the Adventure Science Center in Nashville, Tennessee on February 19, 2009 immediately following the monthly membership meeting on that date. Board members Dr. Spencer Buckner, Bill Griswold, Bob Norling, Dr. Terry Reeves, Bob Rice, and Steve Wheeler were present. Board members Tony Campbell, Jana Ruth Ford, Dr. Donna Hummell, Kris McCall, Curt Porter, and Theo Wellington, were absent. Also attending was BSAS member Mike Benson. A quorum being present, President Dr. Terry Reeves called the meeting to order at 9:30 P.M.

The purpose of this meeting was to consider sponsoring prizes in the BSAS' name for astronomy-related student projects at the 57th Middle Tennessee Science and Engineering Fair to be held at Austin Peay State University in Clarksville, TN on March 19-21, 2009. This is a practice that the BSAS has followed for a number of years with prizes of \$100.00 for first place, \$50.00 for second place, and \$25.00 for third place being awarded. Bill Griswold moved that the BSAS continue this practice in these amounts for the 2009 Fair and Steve Wheeler seconded his motion that, following a brief discussion, subsequently passed by a unanimous voice vote.

Since the specific purpose of this meeting had been carried out, Dr. Reeves declared it to be adjourned at 9:36 P.M.

### BSAS Affiliations

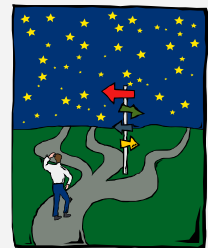
*The Astronomical League*  
<http://www.astroleague.org/>



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



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





## Celebrate the **International Year of Astronomy**

2009 is the International Year of Astronomy, and the Barnard-Seyfert Astronomical Society will be participating in many events to celebrate the wonders of the night sky.

For the latest event information visit  
<http://www.sudekumplanetarium.com/>  
 or <http://www.bsasnashville.com/> .

- March 16 - 28** Globe At Night Global Sky Observation  
 ( <http://www.globe.gov/GaN/> )
  
- March 28** Earth Hour 8:30 – 9:30 pm  
 ( <http://www.earthhourus.org/nashville/nashville.php> )
  
- March 28** Public Star Party at the Adventure Science Center  
 (8:00 – 10:00 PM)
  
- April 3** Public Star Party at the Adventure Science Center  
 (8:00 – 10:00 PM)
  
- April 4** Public Star Party at Warner Park  
 (8:00 – 10:00 PM)
  
- April 10** NPT airs documentary *400 Years of the Telescope*  
 (check local listings for air times)

**Become a Member of the BSAS!**

Download and print the Application for membership from [www.bsasnashville.com](http://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:  
[www.bsasnashville.com](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](http://www.bsasnashville.com). If you need more information, write to us at [info@bsasnashville.com](mailto:info@bsasnashville.com) or call Joe Boyd at (615) 386-3134.

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