

The July membership meeting will be held on Thursday, July 19, 2007 at 7:30 pm at the Adventure Science Center

On Thursday, July 19, 2007 we will hold our regularly scheduled membership meeting at the Adventure Science Center. Our speaker this month is Charlie Warren, the editor of Amateur Astronomy Magazine.

Mr. Warren will speak on an Astronomy Village in Florida and will also entertain and educate our members by engaging us in Astronomy Jeopardy.

This promises to be a very enjoyable meeting full of surprises, definitely not one to miss! See you there!

Message from the President

HURRAH !!! We really had a wonderful "Annual Picnic and Star Party" at Mark Manner's home and Spot Observatory. Mark and Anne were perfect host and hostess and made us all feel welcome. I have never seen the "Nashville Clear Sky Clock" or the "Spot Observatory Clear Sky Clock" with so much dark blue in the Cloud Cover, Transparency, and Seeing categories and with the night viewing in the total black since there was no moon. Yes, it was a beautiful night for observing. The food was wonderful, there were no insects and the temperature after the sun set was a little on the cold side. A relief from the middle nineties down into the low sixties. I had my first chance to use my new green laser to locate different stars when setting up my LX200 telescope. It worked like a charm and with it I could align the telescope so that when I was using the goto function, the object was in the field of view each time.

The web pages, computer programs and databases at cleardarksky.com are written by: Attila Danko, Software Architect | Software Designer, High Availability | Embedded Operating Systems | Large Systems

* <http://cleardarksky.com/c/NashTEkey.html?1>

** <http://cleardarksky.com/c/SptObTNkey.html?1>

There is one star party planned for the month of July. It will be on the Natchez Trace on July 14th starting at 8:30. The Board of Directors have decided to alternate the location on the Natchez Trace between mile marker 433.5 parking lot and the Water Valley Overlook parking lot at approximate mile marker 412. Therefore, this Star Party will be at the Water Valley Overlook. For most of us the Water Valley overlook is a little farther but the horizon is better and we are a quarter mile from the Natchez Trace roadway and the sky is a little darker. It will also hold more people with all their equipment and cars.



Message from the President

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There is a Star Party to be held in Warner Park on August 11, 2007. The location will be announced at a later date and the scheduled time is 7:00 – 10:30 pm. This will be to observe Jupiter and Perseid meteors, and there is no moon. The BSAS is negotiating with the Warner Parks to allow us to stay later in the park since the meteor showers occur mostly in the early morning hours (about 1:00 to 4:00 am). At the present, we have to remove our equipment and selves at 10:30 pm.

I am preparing to contact the United States Dept. of the Interior, National Park Service, Natchez Trace Parkway to try to have them allow us to have Star Parties on the Parkway most clear nights (not just scheduled nights). We would have to contact the local ranger prior to the time set for the Star Party and have our permit in hand. Last year we had six scheduled Star Parties on the Natchez Trace and they all had to be cancelled because of weather on each scheduled night.

The Board of Directors and Officers of the BSAS are trying to figure why the attendance at the regular membership meetings has fallen off. We have good programs and good speakers. The meetings are held at the Adventure Science Center and the parking is well lit. If you have any ideas, please contact me. And please come to the meeting. (By actual count, at the membership meeting on 6/21/07, we had 37 attendees.)

by Bill Griswold,
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:

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DARK SKY COMMITTEE MEETING

June 5, 2007

The BSAS Dark Sky Committee met at the home of BSAS Past President Joe Boyd on Tuesday, 5 June 2007. Committee Chair Powell Hall was unable to attend, so had requested that Joe Boyd host the meeting and preside at it.

Therefore, the meeting was called to order by Joe Boyd at 1935 hours. Those present were Bill Griswold, Douglas S. Hall, Terry Wayne Reeves, and Joe Boyd.

Joe Boyd presented a brief history of the Dark Sky Committee, pointing out that the committee was originally established and the members appointed when he was president in 2003. The original membership for the 2003-2004 year consisted of Powell Hall, Chair; Joseph Baxter; Joe Boyd, *ex officio*; Carey DeWitt Allyn; Michael Green; Douglas S. Hall; John Harrington; Deborah Paschal; Terry Wayne Reeves; and Jill Thompson. Since that time there have been many changes in membership, including Joseph Baxter, no longer active; Joe Boyd - no longer *ex officio* but has stayed on at request of Powell Hall; Carey Allyn, who resigned last month; Michael Green; John Harrington, who is no longer in town; Jill Thompson, who is no longer active in BSAS; Bill Griswold, now president, so member *ex officio*; and perhaps others I am not aware of. Lonnie Puterbaugh, although not officially a member, has attended at least one meeting. New members have not been appointed.

Joe pointed out that the original purpose of Dark Sky Committee was as follows:

“The **DARK SKY COMMITTEE** will serve as liaison with the International Dark Sky Association (IDA), of which BSAS is a member, and with the Middle Tennessee Section of the IDA which has recently been organized.. In addition, the committee’s duties are to (1) promote dark skies in the Middle Tennessee area, by working with local groups, particularly shopping centers and schools, to inform them of the advantages of dark skies and of the ways they can help achieve dark skies and save money at the same time; and (2) contact local power distributors and inform them of the availability of full cut off lighting and its advantages. The committee should obtain materials from the IDA and other sources, and should become informed on all aspects of light pollution and ways to reduce and/or prevent it.”

Joe reported that during the intervening years, as a committee, we have served as liaison with the International Dark Sky Association (IDA); Powell has attended one or more national meetings; we helped organize the Middle TN section of IDA; Powell was elected chair of the Middle TN section; we have obtained materials, some from IDA but most from other sources, with Joe presently having about 500 pages of materials; we have met with Rick Bernhardt, Metro Planning Director; we have sought to become informed about light pollution; we have contacted Nashville Electric Service (NES) regarding their lighting policies; and we have studied the problems and solutions extensively.

As a committee, or as BSAS, we have NOT done the following: we have not worked with many local groups, shopping centers, and schools; have not contacted planning commissions in neighboring counties; have not informed NES & other power sources of availability of full cut off lighting and the advantages of the better lighting; have not tried to sell NES on better lighting; have not contacted Public Works to try to persuade it to change street lighting practices and to change traffic signals to LEDs; and have not recognized and rewarded those whose lighting is dark sky compliant.

The committee was then briefed on where we are now. For example, Nashville Public Works is presently installing many new lights and traffic signals, putting the old incandescent traffic signals in the new fixtures and using acorn light fixtures; NES does not have a single dark sky compliant fixture in its recommended list for developers; developers are building mega houses with excessive outdoor lighting and lighting which shines upward; the billboard industry is ready to install more billboards with upward lights; Roane State is working to get lighting controls to protect its observatory, asked for a 10 mile radius light control but the Planning Commission recommended the entire county be included; global warming is all over the news now; energy conservation is now a big issue; green power is being promoted widely, the documentary Kilowatt Ours has had a huge impact; and even churches are getting into the act. Now is the time for us to go to work.

The committee basically agreed to recommend to the BSAS board that we re-energize this committee by getting several new members appointed to the committee; appoint teams in the committee to contact various groups and agencies; set up a plan of action and a schedule, and stick with it; set deadlines; start a recognition program; have certificates designed and printed; get all committee members as well as other BSAS members to nominate recipients for recognition; contact the media and offer to make presentations to every TV station in Nashville and make presentations to every newspaper here, including the Tennessean, Nashville Scene, local papers, and newspapers in surrounding counties; and make presentations to selected radio stations in the area. In addition, we should contact churches by sending a generic letter to churches, signed by Powell and Bill Griswold, discussing their lighting and pointing out that reducing light pollution would allow people to see the entire creation; and that we offer to make presentations to every church which will hear us. Also, we should contact area school superintendents to request an opportunity meet with them, and have a Dark Sky column have a column in every issue of the Eclipse.

The meeting was adjourned at 2210.

Respectfully submitted,
Joe Boyd, acting Chair and acting Secretary

Barnard-Seyfert Astronomical Society
Minutes of the Monthly Membership Meeting
Held On Thursday, June 21, 2007

President Bill Griswold called the meeting to order at 7:40 P.M. in the Adventure Science Center (ASC) and welcomed new members and guests. Mr. Griswold asked for any corrections to the minutes of the previous meeting held on May 19, 2007 as published in the June 2007 edition of the *Eclipse* newsletter. There being none, the minutes were approved by a unanimous voice vote.

Bill Griswold reminded attendees about these upcoming star parties:

July 14 @ 7:30 P.M. – Private star party at the Natchez Trace 412 mile marker
August 11 @ 7:00 – 10:00 P.M – Warner Park for Perseid meteor shower

Since the Perseid shower on August 11 peaks from 3:00 to 4:00 A.M., Mr. Griswold is making arrangements with the Warner Parks management for BSAS members to stay after regular closing.

JanaRuth Ford, reporting for Treasurer Randy Smith, announced that the BSAS' bank balanced was unchanged from last month. Then, as the BSAS Program Coordinator, Ms Ford reported that *Amateur Astronomy* magazine editor Charlie Warren will speak at our July meeting about this publication. She also reported that Vanderbilt graduate student William Teets will speak at our August meeting about his research on T Tauri Stars – A Look at Our Sun's Adolescence.

Joe Boyd reported that the Dark Sky Committee met on June 5 to discuss programs that had been carried out. Mr. Boyd announced that they had contacted the Metro Planner and will also contact the Nashville Electric Service. He noted that the International Dark-Sky Association had announced that light pollution worldwide was getting worse. A member of the audience commented that he had spoken to his Councilman about this issue and Mr. Boyd suggested that everyone should contact their councilmen.

Bill Griswold announced that the BSAS' Tennessee Star Party (TNSP) was scheduled for September 14, 15, and 16 at the Tennessee Alabama Georgia (TAG) youth camp. Mr. Griswold noted that, due to the quality of the programs, last year's TNSP still had 30 walk-on attendees despite being rained out. JanaRuth Ford announced that the BSAS was ranked 8th in the nation for its participation in NASA's Night Sky Network program.

Program Coordinator JanaRuth introduced Taffy O'Neal, a recent graduate of Greenbrier High School and a BSAS-funded Astronomy Award winner at the 2007 Middle Tennessee Science and Engineering Fair, who delivered an informative presentation on "Star-Streak Photography for the Accurate Calculation of Stellar Declination." Noting that photographic star trails show how far the earth has rotated, Ms O'Neal explained that, with the help of her science teacher Ronnie Nixon, she first had to learn the basics of photography, then how to use a star map, and finally to acquire the mathematical specifics of stellar declination. She recounted how she set up her apparatus in a rural location and then used a SLR camera with a wide angle lens to track the star Capella for a series of 60 and 90 minute exposures. Ms O'Neal then displayed a chart of raw data and the mostly algebraic and geometric formulae that she used. The outcome of her work was that the derived data corresponded very favorably with NASA specifications. Following her presentation, Ms O'Neal enthusiastically answered questions from the audience. Lastly, revealing that she was also a published author in addition to her skills in mathematics and science, Ms O'Neal displayed copies of and described her recent science fiction novel *Stoodie* about futuristic education.

Joe Boyd, Bill Griswold, and Greenbrier High School science teacher Ronnie Nixon took seats in front of the audience as an informal panel. Noting that they had recently served as judges for the 2007 Middle Tennessee Science and Engineering Fair, Mr. Boyd and Mr. Griswold asked the question "How do we increase interest in learning science among high school students?" Taffy O'Neal commented that young people were intimidated by science and afraid that they might fail. Teacher Ronnie Nixon expressed the opinion that schools don't provide enough early opportunities to experience science. When Mr. Boyd asked "How early," he replied "In early elementary school." One young man in the audience commented that children were not shown the fun of science in school. Then Joe Boyd asked Mr. Nixon what the BSAS could do and he simply replied "Be there."

BSAS member Chuck Schlemm next described his recent trip to the Adler Planetarium in Chicago. Noting that the planetarium was located downtown next to the lake, Mr. Schlemm showed pictures of the huge sundial outside along with a Stonehenge-like arrangement. Inside, he showed pictures of a display illustrating the size and distance scale of the planets; he commented that there was no Pluto! Mr. Schlemm showed other pictures of a full-sized model of a lunar rover and a collection of antique sundials. He also explained that Adler had models of telescopes used by Galileo Galilei and William Herschel. In addition, Mr. Schlemm noted that an early metal sphere from 1910 with holes punched in it to let light shine through was on display. Lastly, he described a section of the planetarium devoted to Apollo 13 Commander Jim Lovell.

BSAS member John Greene then briefly described his recent trip to Cape Kennedy just south of Daytona Beach in Florida. JanaRuth Ford thanked ASC staff member Drew Gilmore for his assistance with the audio visual equipment. Since there was no further business to discuss, President Griswold declared the meeting adjourned at 8:56 P.M.

Respectfully submitted,
Bob Rice, Secretary

Barnard-Seyfert Astronomical Society
Minutes of a Regular Meeting of the Board of Directors
Held on Thursday, June 7, 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 June 7, 2007. A sign-in sheet was circulated in lieu of a roll call. Board members Keith Burneson, JanaRuth Ford, Bill Griswold, Donna Hummell, Terry Reeves, and Bob Rice, were present. Board members Mike Benson, Tony Campbell, Kris McCall, Mark Manner, Randy Smith, and Steve Wheeler were absent. Also attending were BSAS members Joe Boyd and Heinrich Tischler. A quorum being present, President Bill Griswold called the meeting to order at 7:49 P.M.

Regarding private star parties held on the Natchez Trace Parkway, Bill Griswold noted that several members had expressed a preference for the more distant Water Valley site at mile marker 412 rather than the closer site at mile marker 435 because it was darker and generally considered to be better. Mr. Griswold asked the board for guidance in selecting these sites for future star parties and, following a brief discussion, they recommended alternating the two locations with the next (July 14) star party to be held at Water Valley. Mr. Griswold additionally commented that, since all five of the scheduled private star parties at Natchez Trace were clouded out last year, he wanted to get a modified permit that would allow BSAS members to use either or both sites on any clear night if we notified the Park Ranger in advance. He also reminded the Board about the upcoming BSAS picnic to be held at Mark Manner's Spot Observatory on June 16. Donna Hummell announced that her much loved gumbo would be available at the picnic.

Bill Griswold reported that the joint public star party held at Warner Park on May 31 was located on a hill away from oncoming traffic lights. Mr. Griswold also reported that, during a meeting with Warner Parks Superintendent Bob Parrish on Monday, June 4, he requested permission at future star parties for BSAS members to set up on that same hill after the public left. He noted that Warner Parks' management was considering this request in light of safety and potential liability.

Program Coordinator JanaRuth Ford reported that Chloe Alexander will speak on "The Relationship Between Galaxy Distance and Redshift" and Taffy O'Neal will speak about "Star-Streak Photography for the Accurate Calculation of Stellar Declination" at the June meeting. These two high school students were BSAS-funded Astronomy Award winners at the 2007 Science and Engineering Fair. She noted that Bill Griswold and Joe Boyd would fill in if Ms Alexander could not attend. In addition, Ms Ford reported that Chuck Schlemm would also speak about the Adler Planetarium in Chicago. She furthermore reported that *Amateur Astronomy* magazine editor Charlie Warren will speak at our July meeting and that Vanderbilt graduate student William Teets will speak at our August meeting about his research on T Tauri Stars – A Look at Our Sun's Adolescence. Upon learning that there would be a meeting in September following the Tennessee Star Party (TNSP), Ms. Ford suggested showing a video on dark skies on that occasion.

TNSP Coordinator Keith Burneson reported that he had secured the final speaker, Dr. David Weintraub of Vanderbilt University, who would deliver a presentation on Pluto. Mr. Burneson also reported that he had obtained a signed contract with the Tennessee Alabama Georgia (TAG) camp management and arranged for turning off the security light adjacent to the observing field. In addition, he noted that the BSAS would be allowed to control the opening of cabins. JanaRuth Ford suggested that a proposed TNSP teacher workshop should not be attempted due to the low teacher response for a similar project in Murfreesboro. The board briefly discussed software formatting problems encountered with the online TNSP registration form last year. Keith Burneson suggested raising the prices for meals and cabins this year. Bill Griswold agreed with this proposal, but suggested that any changes should be evaluated based upon mathematical algorithms. Heinrich Tischler volunteered to make these calculations if Mr. Burneson would send him the necessary information. Mr. Tischler also suggested inviting non-astronomy based vendors this year. Joe Boyd recommended that, since a contract had not been executed with the caterer, the BSAS should send a "letter of understanding" to document our expectations.

Joe Boyd reported that the Dark Sky Committee met on June 5 to review their completed work and to look at a related video. Mr. Boyd noted that several original committee members were no longer active and suggested that replacements be appointed. In addition, he recounted several public awareness activities on light pollution that were proposed by the committee. These included Lonnie Puterbaugh taking his "Astronomy Channel" minivan to area TV stations and Committee Chairman Powell Hall, who is a clergyman, making presentations to churches. He also suggested adding a column on Dark Sky Committee activities in the *Eclipse* newsletter. Mr. Boyd moved that the BSAS establish a program to formally recognize and award a certificate to people who have promoted or otherwise advanced the public's awareness for the need to preserve dark skies in the community. Terry Reeves seconded this motion that was subsequently approved by a unanimous voice vote.

Keith Burneson reminded the board that our CPR-trained volunteers will need to be retrained shortly after TNSP2007. There being no further business to discuss, President Griswold asked for a motion to adjourn the meeting; Keith Burneson so moved and Terry Reeves seconded this motion. Following approval by a unanimous voice vote, the meeting was adjourned at 9:05 P.M.

Respectfully submitted,
Bob Rice
Secretary

ACTIVITIES and EVENTS*July 1—31, 2007*

7/2 Venus 0.8° S of Saturn
7/3 Conj. of Moon & Neptune
7/5 BSAS Board of Directors mtg., 7:30 p.m. at Girl Scout Office
7/7 LAST QUARTER
7/9 Mars 6° S of Moon
7/13 Mercury 9° S of Moon
7/14 Private Star Party Natchez Trace (mile marker 412) 8:30 p.m., NEW MOON
7/16 Conj. Of Saturn & Moon
7/17 Venus 3° S of Moon
7/19 BSAS Membership mtg. 7:30 p.m. at ASC
7/22 FIRST QUARTER
7/25 Jupiter 6° N of Moon
7/30 FULL MOON

August 1—31, 2007

8/2 BSAS Board of Directors mtg., 7:30 p.m. at Girl Scout Office
8/5 LAST QUARTER, Mars 5° S of Pleiades
8/7 Moon 1.1° N of Pleiades
8/11 Star Party 7:00-10:30 p.m. Warner Park
8/12 NEW MOON
8/13 Perseid meteors peak
8/16 BSAS Membership mtg. 7:30 p.m. at ASC
8/20 FIRST QUARTER
8/21 Saturn in conjunction with the Sun
8/22 Jupiter 6° N of Moon
8/24 Mars 5° N of Aldebaran
8/28 FULL MOON, TOTAL LUNAR ECLIPSE

*All times listed are Central Time

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