

## The August membership meeting will be held on Thursday, July 16, 2007 at 7:30 pm at the Adventure Science Center

On Thursday, August 16, 2007 we will hold our regularly scheduled membership meeting at the Adventure Science Center. Our originally scheduled speaker had to reschedule his program for later this fall, so our own Mike Benson has graciously offered to provide a stimulating substitute.

Mike will be bringing a DVD documentary by an Iranian amateur astronomer who has been touring the world profiling eclipses. Following the movie, Mike, who is our Astronomical League representative, will present highlights from the 2007 Astronomical League Convention held in Portland, Oregon on August 3rd & 4th.

Finally, as this is our last meeting before TNSP 2007, Keith Burneson and the TNSP committee will fill us in on all the events and details planned for this exciting event. We hope to see you there!

### Message from the President

There is a Star Party to be held in Warner Park on August 11, 2007 from 8:30—10:30. The location will be at Ridgefield in Edwin Warner Park. This will be to observe Jupiter and Perseid meteors, and there is no moon. The BSAS has negotiated 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). Because the liability problems which might arise, the general public will have to leave at 10:30. In the past, we had to remove our equipment and selves at 10:30 pm. The hours posted above are for the general public. I would recommend that we get there in time to finish setting up by 8:30.

How to get there: Turn onto Old Hickory Boulevard and go to the light at Vaughn Road (across Old Hickory Boulevard from the Steeple Chase Field.) Turn into Vaughn Road and take the third right into Edwin Warner Park Picnic Areas. Follow drive to parking area at Shelter 4 (on right). Warner Park Staff and volunteers will greet the public and astronomers at the parking lot of Shelter 4. Astronomers will be advised to drive through the pipe gate at Shelter 4 and up into the field. Public participants will park at the lot below and proceed by foot to the Ridgefield where we will have our equipment set up.

We need to support this star party by our presence and equipment. It is a good outreach to the general public. We are getting much help from the Warner Parks also.

The Board of Directors and Officers of the BSAS have been trying to figure why the attendance at the regular membership meetings had fallen off. We have good programs and good speakers. The meetings are held at the Adventure Science Center and the parking is well lit. The attendance at the July Membership meeting was much better. We almost filled up the Ingram Theater with about 48 persons. Lets keep on coming.



## Message from the President

Continued from Page 1

### Astronomy 101

#### "Time"

The Ancients probably used the Moon to tell time. That was "many Moons ago." One revolution of the Moon around the Earth is about 28 days. It was large and bright and easy to see. It also had a "second hand" which broke the revolution into quarters. One could look at the Moon and get a real feel of time.

Now however we use the Sun to tell time. A day is divided into 24 hours and noon is always when the Sun is close to directly overhead (there is a small variation because of the elliptic orbit around the Sun). The Earth is revolving around the Sun about every 365.25 days or one year. We use 365 days on our calendar. Every 4 years (approximately) we add another day in our calendar to account for the 1/4<sup>th</sup> day each year. So one complete revolution around the Sun takes almost 365 days. All the variations are added and the average or mean is mathematically determined and this is then called Solar Mean Time. There are 24 time zones ( $360^\circ \div 24 \text{ hours} = 15^\circ$  per time zone). These time zones actually vary for political reasons or natural boundaries and there are even some half time zones.

Sidereal time keeps the stars aligned in the same direction with respect to the Sun. Since the Earth keeps noon, with the Sun overhead, the Earth rotates one time more than the Sidereal positions of the stars in a years time.

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](mailto:president@bsasnashville.com) if you have questions. Dues can be sent to:

BSAS  
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### THE ECLIPSE NEWSLETTER

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BSAS Logo by Tony Campbell

## HAPPY BIRTHDAY HELEN SAWYER HOGG

By: Robin Byrne

This month we celebrate the life of an astronomer who quietly pursued her career, despite being an oddity for her time. Helen Sawyer Hogg was born August 1, 1905 in Lowell, Massachusetts. With the encouragement of her parents, Helen was taught the joys of science, even observing the 1910 apparition of Halley's Comet at the age of 5. She again saw the comet in 1986.

In 1922, Helen enrolled in Mount Holyoke College to major in chemistry. However in 1925, after a solar eclipse trip to Connecticut with her astronomy professor, Hogg changed her major to astronomy. The following year, she met Annie Cannon, who helped to arrange for Helen to attend graduate school at Harvard and to work with Harlow Shapley. Hogg was the first of Shapley's students to work on globular clusters, an area she would spend the rest of her career studying. By studying variable stars in the clusters, Hogg was able to measure their distances and estimate the size of the Milky Way. Prior to graduation, Helen held teaching positions at Smith College and Mount Holyoke. She received her M.A. in 1928 and her Ph.D. in 1931. However, since Harvard did not officially award graduate degrees to women, the degrees are from Radcliffe College.

In 1930, Helen married her fellow graduate student, Frank Scott Hogg. Frank had a job offer from the Dominion Astrophysical Observatory in Victoria, British Columbia, Canada, so the newlyweds moved to Canada after graduation. Since this was during the Depression, women were not offered many jobs, especially if her husband was already working at the same place. So Helen contented herself with doing voluntary work and research at the observatory, with no pay. Although women were typically not allowed in the observatory at night with the all-male staff, Helen could accompany her husband and continue to pursue her research with photographs of globular clusters. It was during this time that their daughter was born, who by the age of 1 month was already a regular at the observatory, sleeping in her basket while her parents made their observations.

In 1935, the Hoggs moved to Toronto to work at the David Dunlap Observatory. Again, Helen worked as a volunteer, until in 1936 she was given a research assistant position. She focused her attention on stars with unusual absorption lines. Using a photographic technique developed by her husband, Helen was able to detect 142 variable stars in globular clusters. This led to her publication of a catalog of variable stars in 1939, which contained over 1100 variable stars. It was during this time that their 2 sons were born, one of whom (David) now works as a radio astronomer.

In 1951, Frank Hogg died unexpectedly. Helen managed to raise her children alone while continuing her astronomical work. Up to this time, Frank had written a weekly astronomy column for the Toronto Star newspaper. Helen took over writing the articles for the next 30 years. She also wrote articles about the history of astronomy for the Royal Astronomical Society of Canada from 1946 to 1965. In 1970, Helen hosted a show on TV Ontario to popularize astronomy. Six years later, she published the book "The Stars Belong to Everyone: How to Enjoy Astronomy."

From 1957 until her retirement in 1976, Hogg was a full professor at the University of Toronto. However, even after retirement, Helen continued to make observations at the school's observatory on any clear night. When she physically could no longer climb the observatory's stairs, Hogg worked on her many publications, continuing to analyze earlier photographs and publishing 2 more updated editions of her variable star catalog.

Helen Sawyer Hogg died January 28, 1993 of a heart attack in Richmond Hill, Ontario, Canada; she was 87 years old. Only a few days earlier, she had taped a video for the University of Toronto to encourage women to pursue careers in the sciences. Although not a militant leader for women's rights, Helen Sawyer Hogg led, instead, by her example. At a time in the early 20th century when few women had careers, Helen pursued not only a career, but a career in science. The long list of awards and honors presented to Helen Sawyer Hogg (including the naming of an observatory, a telescope and Asteroid 2917 after her) are a testament to her contributions to the field. Quietly working to study globular clusters and their stars, whether for pay or not, Helen Sawyer Hogg was interested more in the pursuit of science than attention. However, through her writings about astronomy for the public, and her position as a role model for young women in the sciences, Helen Sawyer Hogg left a legacy worthy of recognition.

References:

Helen Sawyer Hogg - Wikipedia, the free encyclopedia

[http://en.wikipedia.org/wiki/Helen\\_Sawyer\\_Hogg](http://en.wikipedia.org/wiki/Helen_Sawyer_Hogg)

Helen Sawyer Hogg: Biography and Much More from Answers.com

<http://www.answers.com/topic/helen-sawyer-hogg>

U of Toronto Department of Astronomy Helen Sawyer Hogg RASC article by Christine Clement and Peter Broughton

<http://www.astro.utoronto.ca/hsh/hshrasc.html>

Barnard-Seyfert Astronomical Society  
Minutes of a Regular Meeting of the Board of Directors  
Held on Thursday, July 5, 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 July 5, 2007. A sign-in sheet was circulated in lieu of a roll call. Board members Keith Burneson, Tony Campbell, JanaRuth Ford, Bill Griswold, Terry Reeves, Bob Rice, and Randy Smith were present. Board members Mike Benson, Donna Hummell, Kris McCall, Mark Manner, and Steve Wheeler were absent. Also attending were BSAS members Joe Boyd, Lonnie Puterbaugh, and Heinrich Tischler. A quorum being present, President Bill Griswold called the meeting to order at 7:35 P.M.

Bill Griswold asked for a motion to approve the minutes of the June 7 board meeting as published in the July 2007 edition of the *Eclipse* newsletter. There being no corrections, Keith Burneson so moved and Terry Reeves seconded the motion that carried by a unanimous voice vote. Treasurer Randy Smith reported that the Society had a \$2,655.54 bank balance and that he had paid \$430.00 in membership dues to the Astronomical League that reflected the BSAS' membership count at June 30, 2007.

Program Coordinator JanaRuth Ford announced that *Amateur Astronomy* magazine editor Charlie Warren will speak at the July meeting about Chiefland Astronomy Village in Florida and conduct an astronomy game patterned after the popular "Jeopardy" TV quiz show. For August she announced that Vanderbilt graduate student William Teets will speak about his research on T Tauri Stars – A Look at Our Sun's Adolescence. For September, Ms. Ford said that we would probably show a video on dark skies that had been favorably reviewed by the Dark Sky Committee.

Bill Griswold announced that a private star party for BSAS members would be held on July 14 at the Natchez Trace Water Valley Overlook site at mile marker 412. Mr. Griswold also announced that a public star party would be held at Warner Park on August 11 to observe Jupiter and the Perseid meteor shower. He explained that, as a favorable development, Superintendent Bob Parrish would issue a special permit allowing BSAS members to stay late after the park is closed to the public.

Tennessee Star Party (TNSP) Coordinator Keith Burneson displayed a copy of the proposed logo for TNSP t-shirts. This design continued the popular cows theme from previous star parties and was favorably received by the board. Mr. Burneson announced that he was also selecting colors for the t-shirts and logos. He also presented a list of meals to be provided by the caterer that met with universal approval by the board. The board briefly discussed attendee charges for meals and cabins at the TNSP without arriving at a final decision. Bill Griswold stated that he would obtain the number of walk-ons and meals served at the 2006 TNSP as an aid to planning. Mr. Burneson noted that he would try to get the 2007 TNSP listed on both the *Astronomy* and *Sky and Telescope* magazines' websites.

Webmaster Tony Campbell reported that an attempted hack on the BSAS' website –ultimately traced to a Russian server - had been fended off. Mr. Campbell also stated that he was adding more information to the website with the long-term goal of making postings by board members much easier. JanaRuth Ford reported that Lonnie Puterbaugh recently put on a star party at Middle Tennessee State University that the students and teachers really liked. Heinrich Tischler announced that he would try to run an Excel program to optimize proposed prices for the TNSP.

Joe Boyd reported that he and Bill Griswold met with a Nashville Electric Service (NES) engineer on Monday, July 2, to discuss light pollution issues. Mr. Boyd commented that, although no resolution was reached on specific matters, he felt that very favorable rapport was established. He further stated that we must have legislation from Metro Government or the State of Tennessee to overcome light pollution. Mr. Boyd also reported on another meeting that he and Mr. Griswold had with the Metro Public Works Department on July 5 to discuss similar light pollution issues. He noted that the department was gradually converting over to LEDs (light emitting diodes) as a cheaper and more efficient source of lighting. Mr. Boyd said he also suggested the use of full-cutoff lighting. He stated that during the discussion he noted an apparent conflict between the Public Works Department and NES regarding the amount of light needed. Bill Griswold commented that Metro needed to change the respective lighting requirements for both residential and main-thoroughfare areas.

Lonnie Puterbaugh stated that he could design a dual-purpose program on light pollution for presentation to the media and at the upcoming TNSP. Mr. Puterbaugh also commented that the Von Braun Astronomical Society in Huntsville was offering lifetime memberships and suggested that the BSAS might consider doing the same thing. There being no further business to discuss, President Griswold declared the meeting adjourned at 9:45 P.M.

Respectfully submitted,  
Bob Rice

Barnard-Seyfert Astronomical Society  
Minutes of the Monthly Membership Meeting  
Held On Thursday, July 19, 2007

President Bill Griswold called the meeting to order at 7:30 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 June 21, 2007 and, there being none, then asked for a motion to accept them as published in the June 2007 edition of the *Eclipse* newsletter. A member so moved, followed by a second, and the minutes were approved by a unanimous voice vote.

Bill Griswold, reporting for Star Party Coordinator Steve Wheeler, stated that the July 14 private star party on the Natchez Trace Parkway was cancelled due to cloudy skies. Mr. Griswold announced that a public star party would be held at Warner Park on August 11 and that the exact location would be emailed as soon as it was available. He additionally announced that special arrangements had been made for BSAS members to stay after the park was closed to the public. Lastly, he noted that the annual Tennessee Star Party (TNSP) would be held on September 14-16 at the Tennessee Alabama Georgia (TAG) youth camp near Lynchburg.

Treasurer Randy Smith reported that the Society's bank balance was \$2,543.52 and noted that membership dues were running approximately \$100.00 under budget. Program Coordinator JanaRuth Ford reported that for the August meeting Vanderbilt graduate student William Teets will speak about his research on T Tauri Stars – A Look at Our Sun's Adolescence.

Joe Boyd reported that he and Bill Griswold met with engineers from the Nashville Electric Service (NES) on July 2 and the Metro Public Works Department on July 5 to discuss light pollution issues. Mr. Boyd stated that these meetings clearly indicated that economics was a major consideration in the pursuit of better lighting to preserve dark skies. As an example, he pointed out that NES was in the business of selling electricity whereas Public Works was interested in using less electricity. Mr. Boyd noted that a second meeting would soon be held with Public Works. He also asked the audience to recommend dark sky compliant lighting installations to be considered for an award from the BSAS Dark Sky Committee. In addition, Mr. Boyd reported that, due to the persuasive arguments of Dr. David Fields of Tamke-Allen Observatory near Harriman, the Roane County Planning Commission had agreed extend a proposed dark sky ordinance to the entire county.

TNSP Coordinator Keith Burneson reported these development for the September star party: t-shirt colors and a logo design were completed; the TNSP website was ready; a dining menu was selected; and a separate bank account was being set up. Bill Griswold asked anyone having recent problems receiving their *Eclipse* newsletter via email to see him after the meeting.

JanaRuth Ford introduced *Amateur Astronomy* magazine editor Charlie Warren who delivered the evening's program on the Chiefland Astronomy Village. This remote residential area, located near Cedar Key on the northwest coast of Florida, was the first village to be exclusively devoted to astronomical observing. Mr. Warren pointed out that having water on two sides seemed to stabilize the seeing conditions there. He noted that the 150-acre village had over 350 club members and conducted a star party during the new moon of each month. As a result, there are now fifteen private observatories in the village. Mr. Warren explained that, although not all of the village residents were amateur astronomy buffs, good manners and thoughtful approaches to developing situations had circumvented any potential problems. His personal comments accompanying the slides of several members and residents made them all seem like people everyone in the audience would be glad to know. As an example, Mr. Warren mentioned that noted amateur astrophotographer Jack Newton was a former member. Following his presentation, Mr. Warren graciously answered questions from the audience.

Since there was no further business to discuss, President Griswold declared the meeting adjourned at 9:00 P.M.

Respectfully submitted,  
Bob Rice, Secretary

**DARK SKY COMMITTEE UPDATE:**

August 7—No meeting of the Dark-sky Committee

September 4—The Dark-sky Committee will meet at 7:30 p.m. at Room 201, McKendree Towers, 4343 Lebanon Pike, Hermitage

We have recently been very active meeting with Nashville Electric Service and with different government officers in charge of lighting activities and policies in the Nashville Metropolitan area. Their interest has been positive and encouraging.

The committee, like the Marine Corps, is looking for a few good men and women to join our endeavors toward becoming informed concerning better lighting and toward effecting public and private lighting policies and practice accordingly. Check Joe Boyd's piece in the *July Eclipse*.

—Powell Hall, Chair

**ACTIVITIES and EVENTS***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

*September 1—30, 2007*

9/3 Moon 1.2° N of Pleiades  
9/4 LAST QUARTER  
9/6 BSAS Board of Directors mtg., 7:30 p.m. at Girl Scout Office  
9/8 Venus 9° S of Moon  
9/10 Conj. of Saturn & Moon  
9/11 NEW MOON, Partial Solar Eclipse  
9/13 Mercury 2° N of Moon  
**9/14-9/16 TNSP 2007 at TAG Youth Camp near Lynchburg, TN**  
9/18 Jupiter 6° N of Moon  
9/19 FIRST QUARTER.  
9/20 BSAS Membership mtg. 7:30 p.m. at ASC  
9/23 Equinox  
9/26 FULL MOON  
9/30 Moon 1.1° N of Pleiades

\*All times listed are Central Time

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