



ECLIPSE



The Newsletter of the Barnard-Seyfert Astronomical Society

Celebrating our 76th Year

December 2005

The Membership meeting will be held on December 15, 2005 at the Adventure Science Center at 6:30 pm.

The December 15 meeting is our annual Christmas party and covered dish dinner. Please plan to arrive at about 6:00 pm to help set up the tables and lay out your covered dish on the food serving table. The BSAS will furnish the meats, drinks and all plastic ware. You bring either a salad, vegetable or dessert.

Powell Hall and Joe Boyd will present a program on

The Winter Solstice
and
The Star of Bethlehem

Powell will present the calendar as the earliest achievement of science in human history, and will tell briefly how various civilizations have celebrated the shortest day of the year and the return of light thereafter.

Joe will present a suggested explanation for one of the most familiar and most misunderstood astronomical events in human history, the so called "Star of Bethlehem". Was it really a star? Was its appearance a supernatural event? Who were the "Wise Men", where did they come from, and when did they arrive in Bethlehem? Joe will consider each of these questions in a timely seasonal presentation.

President's Message

Well, this is the final message that I will write. We have successfully nominated our new officers and filled the vacant board of director slots. Our new officers for 2006 are as follows:

Mark Manner – President

Keith Burneson – Vice President

Randy Smith – Treasurer

Bob Rice – Secretary

We also filled the 2 open board member positions. JanaRuth Ford and Gary Wilkerson have graciously agreed to continue on in these roles.

I feel that our as a society, we have been through a great transition period over the last couple of years. We have had some very strong leadership during my tenure, and I am so pleased to know that the dedication and enrichment of our organization will continue under our new leadership.

Mark Manner is relatively "new" to our group, but has proven to all of us that he is committed to our growth and success. His talent with CCD imaging and astrophotography is priceless and anyone who has been fortunate enough to listen to his presentations on these subjects can definitely attest. He has some fantastic ideas and goals that will help continue our development and outreach.

Keith Burneson has been a very active member of BSAS for several months. He came to visit us at an outreach event and decided to stay. He has been Lonnie Puterbaugh's right hand on the equipment committee, as well as dedicating himself to virtually every outreach and private event that we hold. His loyalty and dedication is obvious

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to all of us who have spent any time talking with him. I am also excited that he, with Glenn Whelan, has taken on the enormous task of heading up TNSP 2006! You can be on the lookout for a whole new Tennessee Star Party under their direction.

Randy Smith has been our treasurer for the past year and I am so happy that he has agreed to continue on in this position. He has been so thorough and extremely accurate. He has faithfully stayed on top of our finances and given monthly reports without fail. We have seen a very successful year financially under his direction and I look forward to the continuation.

Bob Rice has also agreed to continue his position as secretary for 2006. Bob has taken the most accurate minutes of both the board of directors meetings and our monthly membership meetings. He is very detailed and timely and we can count on him to be able to answer any questions regarding the events of these meetings. I am so proud that he has agreed to continue.

Finally JanaRuth Ford and Gary Wilkerson have been definite assets to our Board of Directors. They each contribute in their own unique ways, adding to the "team" consensus that we strive for. I am very pleased that we will be able to rely on them for another term.

In closing, I would just like to say that it was wonderful serving first as your vice president and then later as your president. We can look to our future with high anticipation, as our veteran members continue to carry on our goals and our newer members bring a whole new set of ideas and talents. As we enter into our 78th year of teaching, learning and sharing Astronomy, know that we are on the path to greatness, and that we just keep getting better!

Pam Thomas,
President

The BSAS Dark-sky committee will not meet in December or January. We plan to meet on the first Tuesday of February, i. e. the 7th of the month, in 2006, at the usual place, at 7:30 p. m.

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: \$29.00

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). Please call President, John Harrington, (615) 269-5078 if you have questions. Dues can be sent to:

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THE ECLIPSE NEWSLETTER

Editor: Bill Griswold
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BSAS Officers:

Pam Thomas, President
Vice President
Bob Rice, Secretary
Randy Smith, Treasurer
Joe Boyd, Immediate Past President

Board of Directors

Mike Benson
Tony Campbell
JanaRuth Ford
Bill Griswold
Kris McCall
Gary Wilkerson

BSAS website: www.bsasnashville.com
BSAS information line: 615 252-4091

BSAS Logo by Tony Campbell

Happy Birthday Arthur C. Clarke

by Robin Byrne

This month we look at the life of a man best known for his fictional contributions, but whose scientific work is also noteworthy. Arthur C. Clarke was born in Minehead, Somerset, England on December 16, 1917. After the equivalent of high school, Arthur moved to London. In London, he pursued his interest in science by joining the British Interplanetary Society (BIS). Through this group, he became a regular contributor to their newsletter and began writing science fiction.

In 1939, with the beginning of World War II, Clarke fulfilled his duty to his country by joining the Royal Air Force. After the war, he entered King's College, where he majored in Physics and Mathematics. Clarke graduated with first class honors in 1948.

In 1945, Clarke published a scientific paper outlining the means of communicating with a satellite located at a fixed point. Clarke pointed out that at an altitude of 42,000 km, the rate at which the satellite orbits around the Earth is equal to the rate at which Earth rotates. What is now commonly known as geostationary satellites (like the ones used for television broadcasts) can be attributed back to Clarke's paper. Because of this contribution, Clarke received several honors, including the International Astronomical Union renaming geostationary orbits the "Clarke Orbit."

Clarke also worked with scientists on a variety of subjects. He worked with engineers in the US to help develop launch systems and spacecraft. Clarke also addressed the United Nations during their conference on the Peaceful Uses of Outer Space.

In 1954, Clarke began to talk to various people about the use of satellites to help in weather forecasting. One of the people he contacted was Dr. Harry Wexler, who was one of the lead people at the US Weather Bureau. Because of Clarke's persuasion, Wexler became convinced that space was the new frontier for meteorology. Wexler became one of the pioneers in the use of rockets and satellites for meteorological use.

It was also in 1954 that Clarke discovered his love for the sea, and for diving. Saying that diving is the best (and cheapest) substitute for experiencing weightlessness, Clarke continues to pursue it along the Barrier Reef. His love of the sea was one of the driving forces behind his move to Sri Lanka in 1956, where he still lives today.

Ever since the end of World War II, Clarke has been a prolific writer of science fiction, having written over 70 stories. In 1964, he began on a project with Stanley Kubrick to write a screenplay. Four years later, "2001: A Space Odyssey" was completed. Considered one of the best, and most scientifically accurate, science fiction films ever made, "2001" earned Clarke and Kubrick an Oscar nomination. The sequel, "2010: Odyssey Two" was published in 1985. When Peter Hyams wanted to make it into a movie, he and Clarke communicated via a fledgling technology called e-mail. Their correspondences were published in a book, "The Odyssey File - The Making of 2010."

Arthur C. Clarke became Sir Arthur on May 26, 2000. Although it was announced in 1998, it wasn't until two years later that he officially received the honor, when Prince Charles visited Clarke in Sri Lanka. Although wheelchair bound, due to a post polio syndrome, Clarke remains active today and is still writing.

Although mostly remembered for 2001, Arthur C. Clarke has contributed much to the world. One of the first people to visualize the resource of space and its uses, Clarke's vision brought us satellite communications and weather satellites. His works of fiction helped to spark the imagination of many future scientists. His visions of space exploration have, partially, become reality. So, on this 88th year of his life, let us thank Arthur C. Clarke for all he has done, and wish him many more years of changing the world.

References:

Arthur C. Clarke Biography <http://www.lsi.usp.br/~rbianchi/clarke/ACC.Biography.html>

The Arthur C. Clarke Foundation <http://www.clarkefoundation.org/acc/biography.php>

**Barnard-Seyfert Astronomical Society
Minutes of a Regular Meeting of the Board of Directors
Held On Thursday, November 3, 2005**

The November meeting of the BSAS Board of Directors was called to order at 7:38 pm. BSAS President Pam Thomas; Treasurer Randy Smith; Directors-at-Large members Mike Benson, Tony Campbell, JanaRuth Ford, Bill Griswold and Gary Wilkerson; and BSAS members Glenn Whelan and Keith Burneson were in attendance. Absent was immediate past President Joe Boyd, who arrived later, and Director-at-Large Kris McCall.

Pam reported that she had just received a large number of free passes to an advance screening of "Zathura" from a company promoting the film, and offered them to all interested meeting attendees. Several attendees took stacks of the passes for distribution.

In her President's report, Pam reported that on the 11/28 event for a homeschool group at Hillview Baptist Church in Franklin had an excellent turnout of 35-40 adults and children, and that the visitors were very interested both in the telescopes and Lonnie's "The Astronomy Channel" portable digital presentation, and that the group expressed a great interest in doing another event in the spring. Pam was impressed with the intelligent questions and excellent demeanor of the group.

Lonnie reported that the 11/29 Mars event with the Von Braun Astronomical Society was a great success, with attendance was so great that the indoor presentations were delivered twice and people were still turned away. He also showed a plaque presented to him by the VBAS in honor of his work on "The Astronomy Channel."

Lonnie also reported that "The Astronomy Channel" was covered on the front page of the Huntsville Times as well as the front page of the lifestyle section, along with excellent photos.

Treasurer Randy Smith reported on the club's finances, including a wrapup of the budget for the Tennessee Star Party. He noted that we were below our projections for the collection of membership dues. Lonnie added that he had been given a check for \$200 by the Bays Mountain Astronomy Club for speaking at StarFest, and had chosen to donate half that to the BMAC and the other half to the BSAS. Pam graciously accepted the check on the Society's behalf.

Tennessee Star Party Chairman Glenn Whelan gave a detailed report on his recent visit with Keith and Lonnie to the TAG camp near Lynchburg, being considered as an alternate site for TNSP'06. The board discussed the advantages offered by the facility and the surrounding region, as well as such details as catering and coordination with other groups.

Glenn also presented a number of ideas that he had developed for improving the TNSP. Glenn discussed the possibility of adding another day to the party, adjusting the scheduling of events, providing alternate activities and presentations for less advanced attendees and including more events for children.

Glenn also suggested involving TNSP presenters throughout the year; for example, video presentations could be developed highlighting their work and shown at BSAS meetings in the months leading up to the event. Glenn also presented a preliminary design for TNSP sweatshirts which was favorably discussed by the board.

Pam on the Mars event at MTSU on 11/4 and asked for volunteers to staff that event as well as the BSAS-supported events at ASC and Warner Park on 11/5. JanaRuth reported that the MTSU observatory should be ready in December. Mike reported that he spoke with John Sharlet at Warner Park who asked that we let him know how many telescopes the BSAS would provide for their event.

Pam reported that while BSAS members were bringing side dishes, the Society would be providing the main course, plateware and other items. Pam asked for suggestions for a caterer who might provide prepared turkey for the meal. She noted that Powell and Joe would be speaking, and that Kris would provide a demonstration of new technology at Sudekum Planetarium.

Pam asked for the assistance of the board to prepare for the election in two weeks. The open board positions were determined and Pam recommended that the BSAS select a star party coordinator to make final "go/no go" calls on our observing events. She stated that she would ask for volunteers for the position at the November Membership Meeting.

Pam then introduced the "new member package" created by Glenn Whelan in the form of a CD-ROM-based interactive presentation, which was enthusiastically received.

Pam asked if it would be possible to provide a list of members' email addresses on the BSAS website in a way that would only be accessible to members. Privacy and security concerns were raised, and it was decided that we would table this until a later date.

Mike Benson brought up offering an honorarium to our out of town speakers to cover their costs. Joe Boyd moved that we offer Dr. Jeff Moersch one hundred dollars plus dinner. Randy Smith seconded the motion which was passed by unanimous decision.

Joe Boyd displayed educational information, materials and calendars sent for our Solar Ambassador.

The meeting was adjourned at 9:19 pm.

Respectfully submitted by Tony Campbell, acting Secretary

**Barnard-Seyfert Astronomical Society
Minutes of the Monthly Membership Meeting
Held on Thursday, November 17, 2005**

Vice-President Pam Thomas called the meeting to order at 7:35 P.M. in the Adventure Science Center (ASC) and welcomed new members and visitors. The minutes of the previous membership meeting held on October 20, 2005 were approved without exception as published in the November 2005 issue of the *Eclipse* newsletter.

Program Committee Chair JanaRuth Ford introduced Dr. Jeffrey Moersch, Assistant Professor of Earth and Planetary Sciences at the University of Tennessee (U.T.), who presented the evening's program on Martian Geology. Dr. Moersch was one of a seven-member team from U.T. that participated in NASA's Mars Exploration Rover (MER) Mission at the Jet Propulsion Laboratory in California. He delivered a fascinating description via PowerPoint and NASA-supplied videos of the team's direct involvement in controlling the Spirit and Opportunity rovers on Mars and recounted some of the results from the rovers' exploration of the Gusev and Endurance craters. Dr. Moersch explained that he still assists in guiding the two rovers during the final stages of their mission via a computer link from his laboratory in Knoxville. He then graciously answered extensive questions from the audience following his presentation.

Pam Thomas recalled the meeting to order at 9:18 P.M. BSAS Treasurer Randy Smith reported that the Society's bank balance was \$1,922.60. Mr. Smith announced that the pre-ordered Kalmbach 2006 *Deep Space Mysteries Calendars* were ready to be picked up and that the 2006 Royal Astronomical Society of Canada's *Observers Handbooks* would be available at the next meeting.

Dark Sky Committee Chair Powell Hall announced that this committee would next meet on the 1st Tuesday in February 2006. Mr. Hall also noted that the annual meeting of the International Dark Sky Association would be held in Phoenix, Arizona on March 16-18, 2006. Pam Thomas reported that Keith Burneson and Glenn Whealan were looking at potential new sites for the 2006 Tennessee Star Party.

Pam Thomas initiated the annual election of officers and directors by reporting these recommendations from the Nominating Committee: Mark Manner for President; Keith Burneson for Vice-President; Bob Rice for Secretary; and Randy Smith for Treasurer. Ms Thomas called for nominations from the floor and, there being none, asked for a motion to accept the recommended nominees by acclamation. Powell Hall so moved and Mary English seconded the motion that passed by a unanimous voice vote of the membership.

Pam Thomas announced that the annual BSAS Christmas Dinner would again be held at the ASC in December with members bringing potluck side dishes and the Society providing the main course. Ms Thomas asked members to sign up for the dishes they would bring and announced that Joe Boyd and Powell Hall would be the after-dinner speakers to be followed by a laser show in the Sudekum Planetarium. She also announced that last year's very successful silent auction would be repeated noting that non-book items would be gladly accepted. Kris Mc Call asked those wishing to bring items for the auction to contact her at the ASC.

Mike Benson reminded everyone that two at-large director positions had not been presented for a vote. Pam Thomas immediately reopened the election by announcing that board members JanaRuth Ford and Gary Wilkerson had both agreed to serve another term. Ms Thomas then called for nominations from the floor and, there being none, asked for a motion to accept these two by acclamation. Powell Hall so moved and Bill Griswold seconded the motion that was passed by a unanimous voice vote of the membership.

Mike Benson announced that he had received orders for seven 2006 *Guy Ottewell Astronomical Calendars* and, not wishing to lose money as he did last year, would only order additional copies for those who communicated their interest in advance.

There being no further business to discuss, Vice-President Thomas declared the meeting adjourned at 9:45 P.M.

Respectfully submitted,
Bob Rice, Secretary

Activities and Events

December 1 — 31, 2005

12/1 NEW MOON; BSAS Board of Directors mtg., 7:30 p.m.
 12/3 Venus 2° N of Moon
 12/7 Uranus 2° N of Moon
 12/8 FIRST QUARTER
 12/9 Juno at opposition
 12/11 Mars 1.3° S of Moon
 12/12 Mercury greatest elongation W (21°)
 12/13 Moon 0.3° S of Pleiades (M45)
 12/15 BSAS monthly mtg. (Christmas Party), 7:30 p.m., at
 Adventure Science Center
 12/15 FULL MOON
 12/21 Solstice
 12/23 LAST QUARTER
 12/25 Christmas; Bill & Vesta Griswold's 57th anniversary
 12/25 Spica 0.9° S of Moon
 12/28 Antares 0.2° S of Moon
 12/30 NEW MOON

January 1 — 31, 2006

1/1 NEW YEAR'S DAY; Conj., Venus & Moon
 1/2 Conj., Neptune & Moon
 1/3 Quaranid meteors; No dark-sky committee mtg. until
 February 7th.
 1/4 Conj., Uranus & Moon; Earth at perihelion.
 1/5 BSAS Board of Directors mtg., 7:30 p.m.
 1/6 EIPHANY; FIRST QUARTER.
 1/8 Conj., Moon & Mars.
 1/10 Mercury at aphelion.
 1/13 Venus at inferior conjunction.
 1/14 FULL MOON; Venus at inferior conjunction
 1/15 Conj., Moon & Saturn.
 1/19 BSAS monthly meeting at ASC: 7:30 p. m.; Program:
 Todd Gary, Astrobiologist
 1/20 Sun enters Capricornus.
 1/21 Conj., Moon & Spica.
 1/22 LAST QUARTER
 1/23 Conj., Jupiter & Moon.
 1/26 Mercury at superior conj.
 1/27 Saturn at opposition. Conj., Venus & Moon
 1/29 NEW MOON
 1/31 Conj., Uranus and Moon.

Note: all dates & hours according to Central Time

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