



ECLIPSE



The Newsletter of the Barnard-Seyfert Astronomical Society

Celebrating our 75th Year in 2003

June 2003

June 19 Meeting of the BSAS at Dyer Observatory, 7:30 pm

The June presentation will address one of the questions most often asked by astronomy newcomers--what kind of telescope should I buy??? Astronomy newcomers now have more options than ever before, especially given the recent proliferation of sophisticated go-to cassegrains, large dobsonians and exquisite apochromatic refractors. The goal of the presentation will be to describe the strengths and weaknesses of each major telescope type, not only with regard to theoretical optical quality, but also with regard to day-to-day essential issues like cost, ease of transport, time required for set-up, cool-down and (where necessary) collimation. We hope this presentation will serve as a useful guide to our members who are contemplating parting with their hard-earned dollars for a telescope, whether it is their first or fifteenth.

FROM THE PRESIDENT

By Joseph M. Boyd, Jr.

We are now about six weeks from our hosting of the Astronomical League National Convention for 2003, known locally as ALCON 03. Mike Benson and Jill Thompson and their committee members are working very long and hard to make this a success, both financially and in quality. Hosting a national convention is a huge financial undertaking, and this is one in which we can make a little money or lose a lot of it. I call on every member of the BSAS to call Jill Thompson at 615-361-9983 and volunteer to help with the convention, either now during the preparation or during the actual convention itself. Jill is scheduling every minute of the convention, to make sure all activities are covered. Time is of the essence, and we need your help NOW.

Many of you will want to attend parts of the convention, which will include some outstanding speakers and programs. Those who work on the convention are rewarded by being able to attend some of the sessions without registration charge. Jill can explain that to you when you call. There are enough jobs available that everyone in the BSAS can have a significant role in the success of this venture. It will also afford a chance for you to meet and learn from some of the real leaders in amateur astronomy in this country. Don't miss this opportunity.

During the past month, we have been engaged in talks designed to clarify our relationship to Dyer Observatory and Vanderbilt University. BSAS has for many years had what was in effect a partnership with Dyer in which our members assisted Dyer on public nights, and Dyer provided us with a meeting space and access to certain designated equipment. Some misunderstandings have arisen, and rumors have abounded that we were no longer welcome at Dyer. We have been assured during these talks that our members are not just invited to help Dyer but are urged to participate in its activities, including demonstrating some of the telescopes, bringing our own telescopes to set up and show, explaining to members of the public what they are seeing and how the telescopes work, and helping direct traffic both inside the observatory and outside. In addition, our members are to continue to have access to the C-14 Bergquist telescope. I expect to have either

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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: \$29.95
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 are \$20.00 per year for Regular and Family memberships and \$15.00 per year for Seniors (over 60 years of age), and \$10.00 for students (under 22 years of age). Please call President, Joe Boyd, (615) 386-3134 if you have questions. Dues can be sent to:

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

THE ECLIPSE NEWSLETTER

Editor: Bill Griswold
bgriz@comcast.net

BSAS Officers:

Joe Boyd, President
John Harrington, Vice President
Evelyn Wright, Secretary
A.G. Kasselberg, Treasurer
Powell Hall, Immediate Past President

Board of Directors

Mike Benson
Bill Collins
JanaRuth Ford
Bill Griswold
Kris McCall
Jill Thompson

Logo Photograph:
Francisco Diego

**Regular Meeting of the Barnard-Seyfert Astronomical Society
Board of Directors on May 1, 2003**

The meeting was called to order by President Joe Boyd at 7:07 PM on Thursday May 1, 2003 at the Jefferson Square Clubhouse. A quorum was present consisting of board members Joe Boyd, Mike Benson, JanaRuth Ford, Bill Griswold, Kris McCall and Evelyn Wright. Board Members A.G. Kasselberg, Powell Hall, and John Harrington arrived later. Board member Bill Collins was absent. Dudley Pitts, Lonnie Puterbaugh, Greg Selah, Larry Southerland, Jill Thompson, and Lloyd Watkins attended as guests. The minutes of the April board meeting were approved as published in the May issue of "The Eclipse" newsletter.

Treasurer A.G. Kasselberg reported that the club account has \$4990.46 after having paid magazine subscriptions. Joe Boyd announced that Rocky Alvey would not be able to attend due to activities at Dyer Observatory.

Lonnie Puterbaugh reported that Jill Thompson had returned the 4.5" loaner reflector telescope that Lonnie would like to upgrade before sending out again. He also mentioned the latest improvements made to the LX 200 SCT which still needs a dew heater and battery system. A BSAS banner requisitioned by Lonnie should be available for club activities soon.

Mike Benson noted that plans for ALCON 2003 are moving well on most fronts, but door prize donations must be increased, and several are working on it. Jill Thompson noted that 15 people have registered. Lonnie Puterbaugh indicated he and others will be visiting several regional clubs to promote ALCON 2003, and he still needs someone to visit Bays Mountain in East Tennessee.

Kris McCall listed several ALCON 2003 advertising efforts by the Publicity committee which normally meets on the first Monday of the month.

Lloyd Watkins noted the TNSP 2003 emailing already sent out, and the registration form and brochure Rocky Alvey is helping him with. Kris McCall offered to send materials to area planetariums, and Joe Boyd noted that Heather Perry of Warner Park has offered to distribute BSAS materials as well. Mike Benson reported that Adam Fanns of Bays Mountain would like to give a workshop on building a wooden tripod based on Terry Alford's input.

Greg Selah described various ways his committee devised to memorialize John Bradford. Powell Hall read the note of appreciation of kindness and sympathy sent to him by John's parents, indicating he thought it included everyone. Action on the memorial was delayed until later in the meeting.

Under old business, it was re-iterated that most of the TNSP 2002 profit came from the sale of telescopes. Lloyd Watkins plans to charge \$5 or \$6 per child in scout groups for TNSP 2003, and has asked for recommendations on how to improve TNSP in his TNSP 2003 contacts.

Powell Hall moved that the treasurer be authorized to pay up to \$200 for the BSAS banner Lonnie Puterbaugh ordered. Kris McCall seconded the motion which passed.

Joe Boyd indicated that Rocky Alvey had related the possibility of Vanderbilt University paying the BSAS the contributions it made to the C-14 Bergquist telescope that resides in a dome on the roof of Dyer Observatory. It was noted that the club makes little use of the telescope, and Vanderbilt University would like to upgrade the mount to allow solar tracking by students. During discussion, several sources of friction between Vanderbilt University and some BSAS members were aired. It became apparent that most of the problems could be explained by misunderstanding or misinterpretation by BSAS members, not by Vanderbilt University staff which had taken unusual steps to accommodate the BSAS.

While A.G. Kasselberg related that Rocky Alvey did not expect an immediate decision, Joe Boyd indicated a decision must be made at once lest the offer not be available later. There were several attempts at a motion to accept the offer, of which only one reached a vote and failed to pass. Powell Hall agreed to amend his final motion to: The board of directors of BSAS agrees in principal to the verbal proposal relayed by Rocky Alvey that the previous agreement between BSAS and Vanderbilt University be rescinded and that Vanderbilt University will pay to BSAS an amount equal to the contributions on behalf of the Bergquist C-14 telescope by BSAS and its members in the approximate amount of \$3500, and the BSAS president be authorized to negotiate the agreement. JanaRuth Ford seconded the motion which passed.

Joe Boyd asked that the mailing address of the BSAS be changed to a post office box in Green Hills. Mike Benson noted that it was not a central location and would be inconvenient to anyone not living or working in Green Hills. Kris McCall noted that the Adventure Science Center could provide the BSAS a mailing address for free. Bill Griswold moved that Joe Boyd go ahead and get a Green Hills post office box. Mike Benson seconded the motion which passed, adding an ongoing item to the operating budget of at least \$68 per year.

Powell Hall noted that the date and time of the Dark-Sky Committee meeting with IDA's Scott Davis was not decided yet, and Powell was not sure the McKendree Towers meeting room would hold the entire board of directors.

It was decided to table the John Bradford memorial proposal for now and let the committee work on it some

Regular Board of Directors Meeting, Continued from Page 2

more. John Harrington announced that Jill Thompson has been nominated as a candidate to fill John Bradford's unexpired term on the board of directors in the upcoming election on May 15.

With no objection, Joe Boyd declared the meeting adjourned at 10:14 PM.

Respectfully submitted,
Evelyn Wright, Secretary

Upcoming Events 2003

- | | |
|---------|---|
| 6/5 | BOARD MEETING, 7pm at Jefferson Square Condominiums |
| 6/19 | BSAS MEETING, 730 pm at Dyer Observatory |
| 7/3 | BOARD MEETING, 7pm at Jefferson Square Condominiums |
| 7/8-12 | ALCon 2003 at Embassy Suites Hotel—Airport, Nashville TN |
| 7/17 | BSAS MEETING, 730 pm at Dyer Observatory |
| 8/7 | BOARD MEETING, 7pm at Jefferson Square Condominiums |
| 8/21 | BSAS MEETING, 730 pm at Dyer Observatory |
| 8/23 | Public Stargaze, 8-11 pm at Edwin Warner Park model airplane field |
| 9/4 | BOARD MEETING, 7pm at Jefferson Square Condominiums |
| 9/18 | BSAS MEETING, 730 pm at Dyer Observatory |
| 9/26-28 | TNSP 2003 at Camp Nakanawa near Crossville, TN |
| 10/2 | BOARD MEETING, 7pm at Jefferson Square Condominiums |
| 10/16 | BSAS MEETING, 730 pm at Dyer Observatory |
| 11/6 | BOARD MEETING, 7pm at Jefferson Square Condominiums |
| 11/8 | Total Lunar Eclipse Stargaze, 515-915 pm at Adventure Science Center |
| 11/20 | BSAS MEETING, 730 pm at Dyer Observatory |
| 12/4 | BOARD MEETING, 7pm at Jefferson Square Condominiums |
| 12/13 | Public Stargaze, 730-930 pm at Edwin Warner Park model airplane field |
| 12/18 | BSAS MEETING, 630 pm at Adventure Science Center |

HOT FLASH

By Gerald Lappin

More of Dr.Zarkov

Students at North Carolina State University have devised a new method for exploring Mars. Their Mars rover resembles tumbleweed which Martian winds could move randomly over the surface of the planet, sending back data on the local environment. Dr. Zarkov, who regrets that this idea did not occur to him, was quick to pick up on more exotic possibilities. Basing his ideas on the fact that it has been speculated that cells could act as transistors, he believes that actual tumbleweeds could be genetically modified to develop small internal radio transmitters and instruments to determine the nature of its surroundings. Because tumbleweeds are known to disperse seeds as they tumble these hybrid plants, once introduced to Mars, could eventually spread to monitor the whole planet. Initial seeding of Mars would require only a small, relatively inexpensive, vehicle. Cr. Zarkov also believes that this same concept could be applied to kudzu that would spread even faster. Kudzu would have an additional advantage because both the roots and the leaves are edible and would provide future human explorers with a safe and reliable local food supply. The Zarkov Foundation will soon announce Project Mars Greening to push forward with these concepts. Contributions to the Foundation will, of course, be tax deductible. Your contribution to help this worthy cause can be sent to Dr. Zarkov in care of the Bays Mountain Planetarium. Checks should be payable to Dr. z. z. Zarkov.

Happy Birthday Tunguska Impact

by Robin Byrne

This month we celebrate the anniversary of an event that shook a large portion of the world. On June 30, 1908 at 7:17 am, a large explosion occurred near the Stony Tunguska River in central Siberia. The true nature of the explosion is still being debated.

Most of what we know about the actual event comes from eyewitness accounts. Observers from up to hundreds of miles away described a fireball traveling across the sky accompanied by loud noises. A farmer 120 miles from the impact site told the following story: "At that time I was plowing my land at Narodima. When I sat down to have my breakfast beside my plow, I heard sudden bangs, as if from gunfire. My horse fell on its knees. From the north side above the forest a flame shot up... Then I saw that the fir forest had been bent over by the wind and I thought of a hurricane. I seized hold of my plow with both hands, so that it would not be carried off. The wind was so strong that it carried off some of the soil from the surface of the ground, and then the hurricane drove a wall of water up the Angara."

Those closer to the impact site had more dramatic stories to tell. The fireball was described as looking larger than the Sun, although not as bright, with a fiery trail extending out behind it. Those within 40 miles away were thrown to the ground by the shock wave. One witness, who was at a trading station nearby, described the event as follows: "I was sitting on the porch of the house at the trading station, looking north. Suddenly in the north...the sky was split in two, and high above the forest the whole northern part of the sky appeared covered with fire. I felt a great heat, as if my shirt had caught fire... At that moment there was a bang in the sky, and a mighty crash... I was thrown twenty feet from the porch and lost consciousness for a moment.... The crash was followed by a noise like stones falling from the sky... The earth trembled.... At the moment when the sky opened, a hot wind, as if from a cannon, blew past the huts from the north... Later, we found that many panes in the windows had been blown out and the iron hasp in the barn door had been broken." The closest witnesses were reindeer herders who were about 20 miles away. The explosion hurled them into the air, knocking some unconscious. One witness recalled, "The ground shook and incredibly prolonged roaring was heard. Everything round about was shrouded in smoke and fog from burning, falling trees. Eventually the noise died away and the wind dropped, but the forest went on burning. Many reindeer rushed away and were lost." One of the herders was thrown 40 feet into a tree and later died from the injuries. He is the only known casualty from the event.

After such a dramatic event, most people expected to find a crater, but none was found. Instead they discovered that the forest had been devastated. At the center of the explosion, tree trunks were standing, but the trees had been stripped bare. About 3 to 10 miles from the center, all the trees were lying flat on the ground, pointing away from the explosion center.

The first scientific studies of the event were when seismic recordings were made of the vibrations created by the event. These were recorded as far as 600 miles away. Analysis of these measurements determined that the explosion was equivalent to 3 atomic bombs. Because no crater was found, the conclusion was that whatever it was, it exploded in midair about 4 miles above the ground. Because of this, most of the energy went into the air (knocking down the trees) rather than into the ground (causing earthquake-like vibrations). In fact, the air compression wave was measured to travel twice around the world by meteorological stations. The heat wave produced temperatures of up to 30 million degrees Fahrenheit at the center, and traveled outward faster than the shock wave. The first time people actually traveled to the site of the explosion was not until 1927. L.A. Kulik, from the Academy of Sciences, led an expedition in hopes of finding meteorites from the impacting object. Over the next 50 years, people continued to look for pieces of the impacting body, but none were found. What were found were small stony fragments embedded in the trunks of the downed trees. Also found was evidence of magnetite and silicate globules in the soil, which appeared to not be of earthly origin.

So... what was it? Many different theories have been put forth, some more unusual than others. Among the more fanciful ideas include: a nuclear powered spaceship that was intentionally crashed into the Earth, a piece of antimatter that reacted with our atmosphere, and a mini-black hole that traveled through the Earth. However, the two most popular scientific theories are that it was either a comet or a meteorite that exploded midair. For many years the comet theory was the most popular due to the snowball-like structure of comets seeming to be more likely to break apart during a fiery entry into our atmosphere, and less likely to leave behind any fragments. However, more recent analysis of meteorites have shown that when a rocky object enters our atmosphere at speeds of 20,000 to 45,000 miles per hour (which is the typical range for meteors), the sudden decrease in speed from atmospheric drag is enough to break it apart in a large explosion, vaporizing most of the material. The discovery of small stony fragments, with compositions consistent with stony-type meteorites, in the fallen trees help to support the idea that a stony meteorite, originally 150 - 200 feet across, was the source of all that devastation.

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Happy Birthday Tunguska Impact, Continued from Page 4

The likelihood of an impact of comparable size is about once per century. The Tunguska impact occurred 95 years ago... do the math. While more and more scientists are attempting to monitor for these types of events, the number of people involved and resources available are still relatively small. Also, any object approaching from the direction of the Sun would be almost impossible to spot ahead of time. So all we can do is learn from the past, from events like Tunguska, and plan for the future and whatever that may bring.

References:

1908 Siberian Explosion: Reconstructing an Asteroid Impact from Eyewitness Accounts <http://www.psi.edu/projects/siberia/siberia.html>

The Tunguska Explosion of 1908 by Mark W. Brazo and Steven A. Austin <http://www.icr.org/research/sa/sa-r05.htm>

Satellite Study Established Frequency of Megaton-sized Asteroid Impacts, SpaceDaily Web Site <http://www.spacedaily.com/news/deepimpact-02w.html>

**Minutes of Regular Monthly Membership Meeting of
Barnard-Seyfert Astronomical Society on May 15, 2003**

The meeting was called to order at 7:38 PM on Thursday, 15 May 2003 by President Joe Boyd in the Tennessee Engineering Center of the Adventure Science Center. About 38 members and visitors were present for the start of the meeting, with approximately 7 others arriving later. Joe Boyd welcomed new members and visitors.

The minutes of the April meeting as published in the May issue of "The Eclipse" newsletter were approved.

Joe Boyd announced that the June BSAS membership meeting would be held at Dyer Observatory, the normal meeting place. Kris McCall noted that Scott Davis will be meeting with the Illuminating Engineering Society of North America at the University Club of Vanderbilt on May 27 that anyone can attend for the \$15 cost of lunch. Also, the International Dark-Sky Association (IDA) will be loaning its light pollution exhibit to the Adventure Science Center for 2 weeks. Kris also reminded the group that the Mars Star Party at Warner Park on August 23 from 8 to 11 PM. Kris asked for a show of hands of those willing to bring telescopes for a public star party at Long Hunter State Park on August 16 from 9 to 11 PM. Another possible "War of the Worlds" star party at Centennial Park sponsored by the drama society in Franklin is still in the planning stage, but is scheduled for August 27 to take advantage of the nearness of Mars.

Joe Boyd announced that the board had accepted the latest proposal by the committee to memorialize recently deceased BSAS member John Bradford. The proposal would have the equipment committee purchase an 8" Dobsonian telescope to which a brass plate would be attached with John Bradford's name and the word "ENJOY" on it. Also, Joe Boyd would send a note to the family describing how the BSAS was memorializing John. Steven Balay suggested that there be a dedication ceremony that the family could attend.

John Harrington noted that the board endorsed the nominating committee's proposal to nominate Jill Thompson as a candidate to fill out the remaining two years of John Bradford's seat on the BSAS board of directors. The floor was opened to other nominations of which there were none. Perry Leaming moved that nominations cease, and Bill Griswold seconded the motion, which carried. A vote was called, and Jill Thompson was elected to the vacant seat on the board of directors.

Mike Benson and Jill Thompson discussed ALCON 2003, noting that more BSAS members were needed to solicit door prizes and to staff the event. Jill noted that 10 hours of volunteer time would result in a waiver of that volunteer's registration fee for the entire event, while 2 hours would allow access to the event for one day. Greg Selah asked that anyone interested in registration contact him.

A.G. Kasselberg announced that the American Astronomical Society (AAS) would be hosting a public lecture by Daniel Weedman on Seyfert Galaxies and Quasars at 7:30 PM on May 27 at the Nashville Convention Center.

Joe Boyd introduced Brock Schippers who has been appointed to become the new BSAS webmaster. It was noted that Bill Collins has done a wonderful job on the website, but had asked to be relieved of this duty after his move to Maryland.

Joe Boyd expressed the club's appreciation for the refreshments provided by Pam Thomas for the meeting.

Joe Boyd gave membership application forms to those visitors interested in joining the BSAS. Steven Balay noted that the Membership committee was finalizing the new member orientation to help new people get started in astronomy.

Minutes of Regular Monthly Membership Meeting, Continued from Page 5

Joe Boyd related that Dyer Observatory desires that the BSAS help with its public nights, including bringing telescopes or manning Dyer's telescopes. Dyer Observatory does ask that any astronomical questions be referred to Dr. Heiser or another professional astronomer if the BSAS volunteer is not an expert in the matter.

Joe Boyd asked that anyone wanting to be club historian contact him.

With no objections, Joe Boyd declared the meeting adjourned at 8:40 PM in order to allow those present to observe the total lunar eclipse which competed with intermittent cloud cover, and to enjoy the refreshments.

Respectfully submitted,
Evelyn Wright, Secretary

From the President, cont. from Page 1

an article in a coming Eclipse or have a program at our membership meeting that will set out the details of our relationship. In the meantime, we are requested to fully participate in public nights, which represent a great outreach opportunity.

Also, to avoid future misunderstandings, if you hear a rumor about our relationship with Dyer or any other entity, please call me and I will get a definitive response and get back to you.

We appreciate the opportunity to have had our last membership meeting at the Adventure Science Center, where we set up a parking lot full of telescopes to view the lunar eclipse after the meeting. The facilities were great, and we had an excellent meeting. However, the clouds did not cooperate on the eclipse and its viewing was marginal. Nevertheless, we had great fellowship and our people got to know each other better, particularly some of our newer members. Our thanks to Kris McCall and others at the ASC for their hospitality, and to Hospitality Committee Chair Pam Thomas for the great refreshments.

**Frisbees in Space**

by Dr. Tony Phillips

When Pete Rossoni was a kid he loved to throw Frisbees. "Most kids do-it's pure fun. "But in Pete's case it was serious business. He didn't know it, but he was practicing for his future career " in space exploration.

Grown-up Pete Rossoni is now an engineer at NASA's Goddard Space Flight Center. "His main project there is figuring out how to hurl spacecraft into orbit Frisbee-style.

The spacecraft are small-about the size of birthday cakes. "This wouldn't work with big satellites or heavy space ships like the shuttle," notes Rossoni. "But a cake-sized "nanosatellite" is just right.

Nanosatellites-nanosats for short—are an exciting new idea in space exploration. "Ordinary satellites tend to be heavy and expensive to launch. "The cost alone is a deterrent to space research. Nanosats, on the other hand, can travel on a budget. "For example, a Delta 4 rocket delivering a communications satellite to orbit could also carry a few nanosats piggyback-style with little extra effort or expense.

"Once the nanosats reach space, however, they have to separate from their ride," says Rossoni. And that's where Frisbee tossing comes in".

Rossoni has designed a device that can fling a nanosat off the back of its host rocket. "It's a lot like throwing a Frisbee," he explains. "The basic mechanics are the same. "You need to impart the spin and release it cleanly-all in about a tenth of a second." (The spinning motion is important because it allows the science magnetometer to measure the surrounding field and lets sunlight to play across all of the nanosat's solar panels.)

The ST5 nanosats are designed to study Earth's magnetosphere-a magnetic bubble that surrounds our planet and protects us from the solar wind. "But their primary goal, notes Rossoni, is to test the technology of miniature satellites.

"We haven't done anything like this before," says Rossoni. "Soon, however, the concept will be tested. "A trio of nanosats is slated for launch in 2004 on the back of a rocket yet to be determined. "The name of the mission, which is managed by JPL's New Millennium Program, is Space Technology 5 (ST5).

Can groups of nanosats maintain formation as they fly through space? Will their internal systems-miniaturized versions of full-sized satellite components-satisfy the demands of both the harsh space environment and critical science measurements? Is Frisbee-tossing as much fun in orbit as it is on Earth?

ST5 will provide the answers.

Read about ST5 at at <http://nmp.nasa.gov/st5> . Budding young astronomers can learn more at http://spaceplace.nasa.gov/st5/st5_tortillas1.htm

Minutes of the Special Meeting of the Barnard-Seyfert Astronomical Society Board of Directors on May 15, 2003

The special meeting of the board of directors was called to order by President Joe Boyd at 7:10 PM on Thursday May 15, 2003 in the Volunteer Lounge at Adventure Science Center. A quorum was present consisting of board members Joe Boyd, Mike Benson, Bill Griswold, Kris McCall, Powell Hall, and Evelyn Wright. Board Member John Harrington arrived later. Board members A.G. Kasselberg and Bill Collins were absent. Greg Selah, Larry Southerland, and Jill Thompson attended as guests.

Greg Selah described the latest proposal his committee devised to memorialize John Bradford. A brass plate reading "The John A. Bradford Telescope, Dedicated June 2003, ENJOY" would be attached to an 8" loaner Dobsonian telescope to be acquired by the equipment committee. Also, President Joe Boyd would send a note to John Bradford's family describing the memorial telescope, and invite them to its dedication ceremony if there is one. Bill Griswold moved that the board accept the idea of the brass plate on a loaner 8" Dobsonian telescope and the explanatory letter to the family. Mike Benson seconded the motion which passed unanimously.

John Harrington moved that Jill Thompson be endorsed as a candidate in the upcoming election of a board member to fill out the remaining two years of John Bradford's term. Kris McCall seconded the motion which passed unanimously.

Joe Boyd reported that Bill Collins had asked to be relieved as BSAS webmaster. It was the consensus of the board that Brock Schippers be appointed as the new BSAS webmaster.

Joe Boyd reported that he, John Harrington, Rocky Alvey, and Richard Chappell met at Dyer Observatory to discuss the mount upgrade of the C-14 (SCT) Bergquist telescope, and BSAS' participation in Dyer's public nights. It was agreed that keys would still be made available for BSAS C-14 stewards, but that the scope would be available on a first-come, first-serve basis along with Vanderbilt University and Tennessee State University. This arrangement could be re-visited if BSAS members needed more access than they are getting. It was noted that the mount upgrade would be beneficial in any case. It was also noted that there had been no firm offer of paying the BSAS and its members the money that had been contributed to help acquire and install the telescope, and that Dyer Observatory contended that there were no legal documents requiring that such an offer be made. The maintenance of the C-14 had been questioned in the past, but there was some confusion on what methods are appropriate to collimate an SCT. Mike Benson will suggest to Dudley Pitts that Dudley offer to help Dyer Observatory with the C-14 since he was involved from the beginning with the telescope installation. BSAS volunteers are still needed to help out with public nights, but Dyer Observatory does ask that astronomical questions be referred to Dr. Heiser or a professional astronomer if the volunteer is not an expert in the matter.

While Powell Hall was in Knoxville to promote ALCON 2003 to the Smoky Mountain Astronomical Society (SMAS), he was asked by SMAS President Bob Arr if the BSAS would like to split the cost of buying at discount 50 copies of Edmund Scientific's introductory star atlas. It was decided to wait until a copy could be provided for examination before making a decision.

With no objection, Joe Boyd declared the meeting recessed at 7:42 PM, to be reconvened if necessary after the regular membership meeting immediately following. As there was no need to reconvene, the special board meeting adjourned at the end of the membership meeting at 8:40 PM.

Respectfully submitted,
Evelyn Wright, Secretary

Activities & Events

June 1 – June 30, 2003

- 6/1 Conj., Moon & Saturn; Immediate Past President's Golden Wedding Day!
- 6/3 Mercury at gr. western elongation (i. e. as a morning star)
- 6/5 Conj., Moon & Jupiter; BSAS Board at Jefferson Square Condos, 7 p.
- 6/7 FIRST QUARTER
- 6/9 Pluto at opposition
- 6/14 FULL MOON
- 6/17 Conj., Neptune & Moon
- 6/18 Conj., Venus & Aldebaran
- 6/19 BSAS MEETING, 7:30 p. m. at Dyer Observatory;
Conj.: Mars & Moon; Mercury & Moon; Mercury & Aldebaran
- 6/20 Conj.: Uranus & Mars; Venus & Mercury
- 6/21 LAST QUARTER; SUMMER SOLSTICE, 2:10 P. M. C.D.T.
- 6/24 Conj., Sun & Saturn
- 6/28 Private Star Party, Natchez Trace site
- 6/29 NEW MOON

July 1 – July 31, 2003

- 7/2 Conj., Moon & Jupiter
- 7/3 BSAS Board at Jefferson Square Condos, 7 p.m.
- 7/4 Independence Day; Sun at aphelion
- 7/5 Mercury in superior conj.; Private Star Party, Natchez Trace site
- 7/6 FIRST QUARTER
- 7/8-12 ALCON 2003 at Embassy Suites Hotel
- 7/8 Conj. Venus & Saturn
- 7/13 FULL MOON
- 7/15 Conj., Neptune & Moon
- 7/16 Conj., Uranus & Moon
- 7/17 BSAS MEETING, 7:30 p. m. at Dyer Observatory.; Conj. Moon & Mars
- 7/21 LAST QUARTER
- 7/25 Conj., Mercury & Jupiter
- 7/26 Conj. Moon & Saturn. Private Star Party, Natchez Trace site
- 7/29 NEW MOON; Delta Aquarid Meteors
- 7/30 Conj.; Mercury & Regulus; Moon & Jupiter; Moon & Mercury

BSAS c/o Dyer Observatory
1000 Oman Drive
Brentwood, TN 37027