



ECLIPSE



The Newsletter of the Barnard-Seyfert Astronomical Society

Celebrating our 76th Year in 2004

July 2004

BSAS Membership Meeting, July 15, 2004

Come to the Adventure Science Center for the regular membership meeting of the Barnard-Seyfert Astronomical Society at 7:30 p.m.

For our July meeting we are fortunate to have Scott Davis of the International Dark Sky Association (IDA) in Tucson, Arizona, as our speaker. Scott is the IDA's Technical Manager and has an extensive background in lighting engineering, having previously worked as Senior Marketing Coordinator for GE Lighting Systems. Scott will speak on the subject of light pollution, the malady that threatens our entire hobby. He will discuss the distinction between good lighting and bad, the IDA's philosophy regarding combating light pollution, and what local astronomy enthusiasts can do to help reduce light pollution.

Our club is flying Scott in for this presentation, so please make it a point to attend this important presentation.

See you on the 15th!

FROM THE PRESIDENT

Joseph M. Boyd, Jr.

As I told you in this column last month, Mary and I traveled to Annapolis in April to visit our son, daughter in law, and our two grandchildren. After seeing the giant radio telescope antenna farm at Green Bank, West Virginia, we had the opportunity to go on the Friday before Easter to see the U. S. Naval Observatory, located near the center of Washington, DC. We had requested a tour of the facility, but got the VIP tour (they must not have known who we weren't) par excellence.

The Naval Observatory for most of its long life has been basically an open facility. However, events of recent years have changed all of that. The large residence on the grounds was formerly the home of the Chief of Naval Operations, but that was changed a few years ago to be the residence of the Vice President. Naturally, that necessitated far more security than was needed when the CNO was living there. Then along came 9-11, and security really got bumped up (literally). At the one entrance which is now open, there are concrete barriers which look like they could stop a tank, armed guards all over the place, and communication vehicles cruising around looking for terrorists. When our tour was set up, I received a call from the Director of Public Affairs for the Observatory, giving me specific instructions on what to tell the guards at the gate and that we would be expected. All of our family got to go, but we were required to submit in advance a list of all six of us, with full names and social security numbers so we could be checked out in advance. The gate guards were very courteous, checked our photo IDs, then called our guide for instructions on where we were to meet. They relayed his instructions that he would be waiting at the door of the main office building, and that we were to go there and nowhere else.

The Director of Public Affairs, it turned out, was himself our guide on what was a fabulous tour. Geoff Chester was a walking encyclopedia about the Observatory. He had more than a casual interest, for as we were in the hall of the main building, he showed us a line of portraits and photographs all of the Superintendents of the Naval Observatory since it was instituted in the 1830s. He pointed out one of the early pictures, and proudly announced that this was his great great grandfather. Geoff then explained to us the various aspects of the Observatory complex, including some of the oldest buildings, the architecture of which is amazing. We saw the equipment used to keep exact time. As he explained, if you have one clock, you know what time it is, but if you have two clocks, you are never really sure. Therefore, they have three cesium clocks, completely enclosed in glass. A computer apparently averages the results together, to give the official Naval Observatory time.

Some of you can remember the old Western Union offices, and can remember seeing on the wall of each one a large clock, with an inscription on the face of the clock that said "Official U. S. Naval Observatory Time". When I was a child, I noticed that but did not understand really what it meant. Geoff Chester explained that for many years, every telegraph office in the United States had one of those clocks, all of which were connected through Western Union's wires to the Naval Observatory. At 1155 each day, all telegraphy on Western Union stopped, and at exactly 1200 noon, a signal went out from the Observatory which reset every clock in the system to the exact same time. The Observatory did not have one of those clocks until recently, and wanted one for their museum.

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They finally found one on eBay, and bought it, thus preserving an important part of our history.

We saw many other interesting sights, and heard many wonderful stories about how the Navy used astronomy and astronomical data from the Observatory. We saw and had explained to us a number of artifacts, some of great historical significance. When we were ready to leave, Geoff Chester presented us with picture mementos and presented our grandchildren, ages 7 and 4, with special pins to memorialize their tour of the Observatory.

If you have an opportunity to go to Washington, I recommend that you try to get a group tour of the Naval Observatory. Rep. Jim Cooper's office will be very helpful in making the necessary arrangements. Don't try to set up the tour after you get there. Osama has seen to that. And by the way, I do not in any way disparage any of the security they have there. Believe me, in this day and time, it is essential. There are too many nuts roaming around with hatred in their hearts and explosives in their pockets to be casual about safety.

We are now working to complete arrangements for the TNSP 2004. Many of you volunteered for various jobs at the last membership meeting, but we still need more. If you can work on it either before the Star Party or during the event itself, please call Bob Rice, Bill Griswold, or JanaRuth Ford to volunteer your services.

Warner Park Master Plan

By Heinrich Tischler

On the night of May 27th the third and last public meeting for the presentation of the new Master Plan for Warner Park occurred at Warner Park. The field of our Star Parties will be reconfigured to provide more parking (all paved) and more playing fields. There will be space for two full size soccer fields as well as four baseball fields. There will be new restrooms next to the playing fields.

The model airplane people will have an area for radio control and wire control. The two circular landing areas will be replaced by a single 400 foot long by 45 foot wide runway. Bob Parrish (Superintendent of Warner Parks) made a special point to say the Astronomical Society will be allowed to access the runway with our vehicles for "Star Parties." He also said there will be electricity at the runway as well.

There will be new evergreens lining the entry drive as well as trees along Vaughn's Gap Road. The area now occupied by the baseball fields and secondary parking will be turned into a green area for the general public. All this will help protect us from headlights.

The best news for last...this Master Plan requires the REMOVAL of ALL LIGHTS from the entire area. This will allow the use of fields during daylight hours only and permit the tranquility and beauty of nature to come out at night.

The only real contention occurred when the baseball enthusiasts demanded the lights be returned to the ball fields so they may play late into the evening. The original mandate for this Park was for it to be a "Nature" center and not a sports center. The Park Officials are being very gracious to allow recreational play in the day time, but stressed they will hold true to the real purpose of the park and will not allow the large field lights.

PLEASE, PLEASE, PLEASE contact Mr. Bob Parrish via e-mail (bob.parrish@Nashville.gov) and show your support for him and the rest of the Warner Park Staff as they defend nature and the dark sky.

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, Joe Boyd, (615) 386-3134 if you have questions. Dues can be sent to:

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THE ECLIPSE NEWSLETTER

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Bob Rice, Asst. Secretary
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Board of Directors

Mike Benson
Tony Campbell
JanaRuth Ford
Bill Griswold
Kris McCall
Pam Thomas

Logo Photograph:
Francisco Diego

Happy Anniversary First Spacewalk by a Woman

by Robin Byrne

This month we look at another first in the history of space exploration. In 1980, the Soviet Union was aware of NASA's plan to recruit female astronauts for the Space Shuttle. In an attempt to beat America in a variety of firsts, the Soviets also recruited a class of female cosmonauts. Among that class was Svetlana Savitskaya.

In 1982, Savitskaya made her first flight and became the second woman to fly in space (Valentina Tereshkova was the first in 1963). Sally Ride wouldn't become America's first female astronaut until June, 1983, and the Soviets had already sent two women into space. However, the Soviets weren't through beating the Americans at the propaganda game.

In July, 1984, Savitskaya flew on her second flight as part of the Soyuz T-12 crew, along with Vladimir Dzhanibekov and Igor Volk. On July 25th, Savitskaya became the first woman to perform a spacewalk, as she and Dzhanibekov worked for 3.58 hours, performing experiments on the Salyut 7 space station. Kathryn Sullivan would become America's first female spacewalker 3 months later, in October of 1984. There were plans for Savitskaya to be part of an all-female crew to the Salyut 7 space station to celebrate International Women's Day. However, the mission was canceled because not enough Soyuz spacecraft were available for all the missions the Soviets had originally planned to the space station. Savitskaya left the cosmonaut program in 1993. During her two flights, she logged a total of 19.71 hours in space.

Although there is no denying that Savitskaya's flights were designed with propaganda in mind, it by no means diminishes her accomplishments and qualifications for the flights. Savitskaya began skydiving at the age of 16 and had logged 450 jumps by the time she was 17. That same year, she set a record by jumping from a height of 14,252 meters (8.86 miles) and not opening her parachute until she was 500 meters (1640 feet) above the ground. When she turned 18, she began pilot training and became a world champion aerobatic flyer in 1970. In 1972, she entered test pilot school and set another female record by flying 1667 miles/hour in a MiG-21.

We usually think of the space race between the United States and the Soviet Union as ending in 1969, when Neil Armstrong walked on the Moon. However, the Soviets continued to compete with America until the Mir space station finally left orbit in 2001. The Soviets accomplished many spaceflight firsts: first satellite, first man in space, first woman in space, first spacewalk by a man, and first spacewalk by a woman. Whether the driving force was for propaganda reasons or not, the competition that drove both nations to take bold steps helped to move space exploration forward. Svetlana Savitskaya took one of those steps as the first woman to walk in space.

References:

Svetlana Savitskaya - Second Woman in Space http://great.russian-women.net/Svetlana_Savitskaya.shtml

Savitskaya <http://www.astronautix.com/astros/savskaya.htm>

Dr. Sally Ride http://starchild.gsfc.nasa.gov/docs/StarChild/whos_who_level2/ride.html

Astronaut Bio: Kathryn D. Sullivan <http://www.jsc.nasa.gov/Bios/htmlbios/sullivan-kd.html>

Equipment Party and Picnic, 5:30 pm

by Heinrich Tischler

Not long ago, in a galaxy far, far away, BSAS had its' first "Equipment Party". This was the place where the apprentices came to learn at the feet of the masters. The apprentices would hold their breaths in order not to miss a word from the enlighten ones. After a while we encouraged the enlighten ones to speak louder so that the apprentices might stop passing out.

We will continue this process of enlightenment for BSAS members on July 11, 2004 at Crockett Park's Picnic Shelter (same place we were last time). Members are encouraged to bring food and families. If your family can't make it, please bring their food anyway. We will stay for the Crockett Concert that night and afterward have a star party for the public. This is a great location and it is always fun to spend time with your astronomy buddies!

Check the Forum on the BSAS website for a rain date and other details. By the way, if you have not already registered, please do so now. Our website is a treasure for our organization and a great way to stay in touch.

Barnard-Seyfert Astronomical Society
Minutes of a Regular Meeting of the Board of Directors
Held On Thursday, June 3, 2004

The Board of Directors of the Barnard-Seyfert Astronomical Society met in regular session at the Jefferson Square Club House in Nashville, Tennessee on June 3, 2004. A sign-in sheet was passed around in lieu of a roll call. President Joe Boyd declared a quorum to be present and called the meeting to order at 7:44 P.M. Board members Mike Benson, Joe Boyd, Tony Campbell, JanaRuth Ford, Bill Griswold, Powell Hall, John Harrington, Lonnie Puterbaugh, and Pam Thomas were present. Board members Kris McCall and Jill Thompson were absent. In addition to members of the board, Assistant Secretary Bob Rice and Outreach Chair Heinrich Tischler were also present. The minutes of the previous regular board meeting held on May 6, 2004 were approved as published in the June 2004 issue of the *Eclipse* newsletter.

Treasurer Lonnie Puterbaugh reported that the BSAS had a cash balance of \$6,373.50.

Outreach Committee Chair Heinrich Tischler reported that he and Kris McCall attended the recent Warner Park master planning meeting. Park officials announced that Warner Park would remain a natural area and would have four baseball fields along with two soccer fields. Favorable news for the BSAS was that these areas would not be lighted at night which will greatly benefit future star parties and public outreach efforts at the park. Mr. Tischler stated that the BSAS would have access to a 400 foot runway at the new radio controlled model airplane field. Mr. Tischler suggested that the BSAS email Metro Parks Superintendent Bob Parrish to support Warner Park's "no light" policy as a positive endeavor. Powell Hall moved that the BSAS draft a formal resolution to the Metro Park Board in support of keeping Warner Park a natural area. This motion was seconded by JanaRuth Ford and adopted by a unanimous vote.

Equipment Committee Chair Lonnie Puterbaugh reported that this committee met on June 2. Mr. Puterbaugh also reported that the 8 inch Bradford Memorial Telescope was accidentally damaged while it was on loan, but that the borrower had responsibly offered to compensate the Society for repairs or replacement as appropriate.

Mentoring Committee Chair JanaRuth Ford reported that the BSAS will complete five events using Nightsky Network materials in time to be eligible for awards from NASA. Ms Ford pointed out that a members-only equipment party was scheduled at Warner Park for Saturday, June 5 at 5:30 PM to be followed by a star party at 8:30 PM. She also suggested that the BSAS needed to have regular club observing sessions at a closer and more convenient location than our current Natchez Trace dark sky site. In addition, Ms Ford suggested having more social gatherings perhaps patterned after our successful Christmas parties.

A discussion arose concerning scheduling and other matters related to upcoming events. JanaRuth Ford noted that we needed six volunteers for a possible "treasure hunt" of sky objects on August 13 at Warner Park. Lonnie Puterbaugh announced that star parties could be scheduled at the Crocket Park Concerts in Brentwood on June 13, June 27, July 11, and July 18. JanaRuth Ford moved that this schedule be adopted, Pam Thomas seconded the motion, and, following a brief discussion, it passed unanimously.

Finance & Budget Committee Chair Bob Rice reported that the BSAS must file its first annual report (form 990-EZ) with the IRS as a 509(a) (2) organization exempt from paying federal income tax. The board authorized Mr. Rice to prepare a draft report for review by the President and to then submit the approved report including any revisions to the IRS. Mr. Rice recognized and thanked Finance & Budget Committee member Robert Norling, CPA for his valuable assistance with this matter.

Bob Rice reported on the possibility of the BSAS establishing an Associate account with Amazon.com. Under this arrangement the BSAS would provide links on its website for members to make purchases through Amazon and receive fees based upon the amount of sales for providing this service. However, because of potential privacy concerns regarding member email addresses, the board unanimously decided not to pursue this action.

Programs Committee Chair John Harrington reported the following speaker schedule for upcoming membership meetings: June - Marvin Berwind; July - Scott Davis; August - open; September - Rhea Seddon; and October - open.

Minutes of Board meeting, continued from Page 4

Dark Sky Committee Chair Powell Hall reported that this committee had met the previous Tuesday, June 1, and would meet again on Tuesday, July 6.

Webmaster Tony Campbell reported that the board might wish to reconsider adopting the telephone service approved at the previous board meeting because of changes in service including a one minute limit on calls and only billing to a credit card. Mr. Campbell recommended another service that would provide the Society with a voicemail number to set up an information line for less than \$10 per month. Pam Thomas moved to rescind the earlier motion and to adopt Mr. Campbell's current recommendation. Bill Griswold seconded this motion and it was passed by a unanimous vote.

Pam Thomas suggested that the BSAS consider acquiring business cards containing only its name, mailing address, website address, and telephone number to be quickly and conveniently handed out to interested individuals at star parties and other events. Ms Thomas further suggested that these could be obtained at low or no cost from several websites. Lonnie Puterbaugh moved that she look into doing this, Powell Hall seconded the motion, and it was passed by a unanimous vote.

Equipment Committee Chair Lonnie Puterbaugh handed out copies of a resolution for establishing an equipment loan program. Following review and discussion, John Harrington moved that the resolution be adopted. Powell Hall seconded the motion which then passed by a unanimous vote.

Joe Boyd reported that he and Bill Griswold had delivered the BSAS' reissued check to pay for past services to Dyer Observatory Director Rick Chappell. Mr. Boyd noted that arrangements for additional discussions with Dyer Observatory management were still being explored.

Joe Boyd commented that the proposed protocol for canceling scheduled events due to adverse weather conditions should be discussed with Warner Park Naturalist Heather Gallagher and Sudekum Planetarium Director Kris McCall before taking any action. Following a brief discussion, Mr. Boyd and JanaRuth Ford agreed to contact both of the aforementioned parties.

Bill Griswold moved that the annual meeting for officer elections be moved back a week from September 16 to September 23 because of its proximity to the start of TNSP 2004. Pam Thomas seconded the motion, but following considerable discussion, the board unanimously voted against changing the date.

JanaRuth Ford commented that at a future meeting attorney and BSAS member Mary Boyd might be willing to discuss legal considerations for dealing with minors at star parties and other outreach activities.

Joe Boyd noted that a committee should be established to oversee TNSP 2004. John Harrington suggested that perhaps two committees should be formed: one to handle logistics and a second to deal with operations. Lonnie Puterbaugh suggested that discussing the TNSP be rescheduled for a separate meeting. The board agreed and set the meeting at 4:00 PM on June 5 at Warner Park to precede the previously scheduled equipment party at 5:30 PM.

Joe Boyd suggested that a written resolution be prepared to acknowledge asteroid hunter Loren Ball's generous and valuable contributions to the BSAS. Powell Hall volunteered to draft this resolution. Bill Griswold put this suggestion into a motion that was seconded by John Harrington and passed by a unanimous vote.

Powell Hall moved that the meeting be adjourned and Pam Thomas seconded the motion which passed by a unanimous vote. President Boyd then declared the meeting adjourned at 10:35 P.M.

Respectfully submitted,
Bob Rice
Assistant Secretary

Lawnchair Astronomy - The Summer Triangle

By JanaRuth Ford

If you have time during the summer to leave the city lights behind and take a trip to the country, be sure to look up! The night sky in summer is rich with star clusters, double stars, nebulae, and starclouds. The Milky Way is at its brightest in summer and looks like a faint ribbon of light crossing the sky from the south to the north-northeast. Check it out on a moonless night with binoculars. The hazy ribbon will be transformed into a river of glittering stars. This is the thickest part of our own spiral galaxy and a Lawnchair treasure chest of night sky jewels.

Cygnus, the Swan, and Aquila, the Eagle fly high overhead through the summer Milky Way. These are two of the three main constellations in the summer triangle, the other being Lyra, the Harp. Use a star chart from <www.SudekumPlanetarium.com> to trace out the triangle in the night sky. Three bright stars overhead form the summer triangle. The brightest is blue-white Vega in the small constellation of Lyra. This star, the third brightest from the northern hemisphere, is 27 light-years from Earth and 58 times as bright as our Sun. In twelve thousand years, Vega will be the north star instead of Polaris due to the precession of Earth's axis of rotation. It was also the north star fourteen thousand years ago. Epsilon Lyrae, to the upper left of Vega, is known as the double-double star because it consists of a pair that is easily split with binoculars. Both of these, in turn, can be split with a telescope giving a total of four component stars that make up Epsilon Lyrae. The famous Ring Nebula, M-57, is found at the bottom of the Harp. It is a planetary nebula, an expanding shell of gas that looks like a smoke ring that ejected from the central dying star. Note that planetary nebulae have no relationship to planets.

To the left of Vega is the large constellation of Cygnus, home to one of the massive Milky Way starclouds that are easily visible in binoculars. Use them to scan the Milky Way along the body of the Swan. The star representing the head of the Swan, Beta Cygni or Albireo, is possibly the most striking double star in the heavens. Even binoculars can split Albireo into a brilliant gold and sapphire blue pair. The Swan is also known as the Northern Cross. The bright star at the top of the cross is Deneb, marking the tail of the Swan. This star is 1,600 light-years from Earth but 60,000 times brighter than our Sun. This is why Vega and Deneb seem to be similar in brightness from Earth even though relatively nearby Vega is actually much dimmer. Just to the left of Deneb is a luminous emission nebula known as the North American Nebula due to its shape. It is visible as a glowing patch of light in binoculars. To the south of Vega and Deneb is Altair, the brightest star in the constellation of Aquila, the Eagle. It is only 17 light-years away and 10 times the brightness of our Sun. Between Cygnus and Aquila is the Dumbbell nebula, M27, an exceptional planetary nebula and another Lawnchair jewel.

Just to the east of the summer triangle, straight down from Cygnus, is the small, easily identified constellation of Delphinus, the Dolphin. The entire constellation consists of just six stars, four of which form a tiny diamond. The star in the Dolphin's nose is another double. The primary star is yellow and the secondary is white. To the west of the summer triangle is the constellation of the mighty warrior Hercules, also known as Heracles. The central part of the constellation is a box or trapezoid formed by four stars. On the right of the box is a spectacular globular star cluster known as M-13. It is the brightest globular in the northern skies and consists of tens of thousands of stars. Look for a round fuzzy ball through binoculars. The southernmost star in this constellation is Alpha Hercules, also known as Rasalgethi. It is another colorful double star with an orbital period of around 3,600 years. The brighter star is orange-red and its companion appears green. Be sure to enjoy these colorful double stars during your Lawnchair tour of the summer sky.

REMEMBER THIS NUMBER; (615) 252-4091

The BSAS now has its own telephone number which both our members and the public can call to get information and announcements.

The Board of Directors voted at a recent meeting to authorize a subscription to the service which will furnish a telephone number which can be called day or night, with multiple calls being made at the same time. The telephone will answer with a recorded message plus any current announcements, after which the calling party may leave a message. The message left by the caller can be monitored daily, and calls from the public can be returned by a designated member of the BSAS on a daily basis. Therefore, if a prospective member wants information about the BSAS, and either does not have internet capability or does not know the BSAS web site address, the prospect can leave a message and number, and the request can be processed within 24 hours.

In addition, the recorded message which plays when the phone is answered can be used to update the status of star parties or other events. This could be very useful for our members to call to see if an event has been cancelled, particularly if the member is away from internet access but has telephone or cell phone access. In the event of a private star party, the message can simply refer to the event as members only.

The number can be placed in future brochures, on the BSAS web site, in any advertising materials such as notices about the Tennessee Star Party, or in news articles which may appear in local media. The telephone number is 615-252-4091.

**Barnard-Seyfert Astronomical Society
Minutes of the Monthly Membership Meeting
Held on Thursday, June 17, 2004**

President Joe Boyd called the meeting to order at 7:50 P.M. at the Adventure Science Center and welcomed new members and visitors. The minutes of the previous membership meeting held on May 20, 2004 were approved as published in the June 2004 issue of the *Eclipse* newsletter. Treasurer Lonnie Puterbaugh reported that the BSAS had a total cash balance of \$6,315.58. Mr. Puterbaugh also reported that the next public observing outreach at Crockett Park in Brentwood was scheduled for Sunday, June 20, at 7:00 PM. He noted that additional outreaches at Crockett Park were scheduled for July 11 and 18. Joe Boyd complimented Membership Committee Chair Bill Griswold for his good work in keeping our members' nametags up to date; Mr. Griswold received a well-deserved round of applause from everyone attending.

Program Committee Chair John Harrington introduced Marvin Berwind from the Tennessee Division of Geology who gave an informative lecture with graphics on ancient impact craters in Tennessee including sites at Flynn Creek and Wells Creek. Mr. Berwind, a member of the Tennessee Academy of Science, had previously led a tour of the Wells Creek site for BSAS members late last month. Mr. Berwind graciously answered members' questions following his presentation. John Harrington commented that Mr. Berwind might lead another trip in the fall or winter when impact crater sites would be more exposed from foliage.

President Boyd recalled the meeting to order at 9:07 P.M. Mr. Boyd reported that the BSAS now had a voicemail service that members could call to learn about upcoming events of interest and also to leave messages.

Mike Benson, the BSAS' Astronomical League (AL) Correspondent, reported on several upcoming AL issues requiring decisions by the membership. First, Mr. Benson suggested nominations for President, Vice-President, and Executive Secretary that were put into a motion by Spencer Buckner, seconded by Bill Griswold, and passed by a unanimous vote. Mr. Benson next described proposed changes to the League's bylaws regarding membership of the Executive Council and voting procedures. Pam Thomas moved that these proposals be adopted which was seconded by Bill Griswold and approved by a unanimous vote. On the last issue regarding the BSAS renewing its AL membership, Mr. Benson pointed out that, since the Society would be assessed according to its total number of members, it was important to purge all those with dues in arrears from the membership roll. Pam Thomas moved that the BSAS renew its AL membership which was seconded by Heinrich Tischler. During the discussion that followed a number of AL benefits were considered including the *Reflector* newsletter, observing clubs, insurance, and awards. The most important benefit appeared to be that a club membership cost much less than if members joined the AL individually at \$50 each. Following this discussion, the members decided by a majority voice vote to renew the BSAS' AL membership.

Mentoring Committee Chair JanaRuth Ford reported that the next equipment party would be held at Crockett Park on July 11 with a rain date set for July 18. Ms Ford moved that the BSAS volunteer to test the new NightSky Network kit "Our Galaxy, Our Universe." Heinrich Tischler seconded this motion which was passed by a unanimous vote.

Lonnie Puterbaugh announced that the star party at Henry Horton State Park was scheduled for tomorrow night (Friday, June 18) and the following day (Saturday, June 19). Mr. Puterbaugh stated that this event was sponsored by the Cumberland Astronomical Society and that a go/no-go decision due to weather would be issued on Friday morning.

Outreach Committee Chair Heinrich Tischler encouraged members to email Warner Park Superintendent Bob Parrish to express support for the Park's new "no lights" policy. Mr. Tischler pointed out that full details about this policy gleaned from his attending the Park's recent Master Plan meeting were on the BSAS' website.

Joe Boyd announced that Bill Griswold was putting together a working group to oversee the 2004 Tennessee Star Party and asked for volunteers. Program Committee Chair John Harrington reported that Scott Davis from the International Dark-Sky Association would present the July program. Webmaster Tony Campbell encouraged members to register for the Member Forum on the BSAS' website. Mr. Campbell also announced 252-4091 as the BSAS' new voicemail telephone number.

There, being no further business, the President declared the meeting adjourned at 9:44 P.M.

Respectfully submitted,
Bob Rice
Assistant Secretary

Activities and Events

July 1 — 31, 2004

- 7/1 BSAS Bd. of Directors, 7:30 p. m. at Jefferson Sq.;
Spacecraft Cassini orbits Saturn.
- 7/2 FULL MOON
- 7/3 Dog Days begin.
- 7/4 INDEPENDENCE DAY; conj., Neptune & Moon
- 7/5 Conj., Uranus & Moon; Earth at aphelion.
- 7/6 Dark-sky committee, 7:30 p. m. at McKendree Towers
- 7/8 Conj., Saturn & Sun
- 7/9 LAST QUARTER
- 7/10 Conj., Mercury & Mars
- 7/13 Conj., Moon & Venus
- 7/14 Greatest brilliancy of Morning Star Venus
- 7/15 BSAS meeting, 7:30 p. m. at Adventure Science Center,
Speaker: Mr. Scott Davis.
- 7/17 NEW MOON; private star party
- 7/18 Conj., Moon & Mars
- 7/19 Conj., Moon & Mercury
- 7/21 Conj., Moon & Jupiter
- 7/24 FIRST QUARTER
- 7/26 Mercury, gr. elong. E (i. e. as evening star)
- 7/31 Conj., Neptune & Moon; FULL "BLUE" MOON (i. e.
second full month of the calendar month). N. B.
When two celestial objects pass closely, they are
said to be in conjunction; in the listing above, the
more northerly of the two is named first.

August 1 — 31, 2004

- 8/1 Neptune 5° N of Moon; Vesta stationary
- 8/2 Conj., Moon & Uranus; Algol at minimum
- 8/5 BSAS Bd. Of Directors, 7:30 p.m. at Jefferson Sq.
- 8/6 Neptune at opposition
- 8/7 LAST QUARTER; Mars at aphelion
- 8/11 Venus 8° S of Moon
- 8/11-13 Perseids Meteor Showers, (peak on 8/12); Conj., Moon &
Venus
- 8/13 Star Party, Warner Park, 8:00-10:00 pm; Conj., Moon &
Saturn
- 8/16 NEW MOON; Conj., Mars & Mercury; Algol at minimum
- 8/17 Mercury 6° S. of Mars; Venus greatest western elong.
- 8/19 BSAS meeting, 7:30 p. m. at Adventure Science Center,
Speaker: Mrs Mary Boyd
- 8/23 FIRST QUARTER
- 8/24 Venus, gr. Elong. Rises about 3.5 hours before the Sun
- 8/27 Uranus at opposition
- 8/28 Neptune 5° N of Moon
- 8/29 Uranus 4° N of Moon
- 8/30 FULL MOON
- 8/31 Juno & Pluto stationary; Conj., Saturn and Venus

Note: all dates & hours according to Central Time

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