



ECLIPSE



The Newsletter of the Barnard-Seyfert Astronomical Society

February 2003

BSAS Program, February 20, 2003

The regular February membership meeting will be held at the Adventure Science Museum (Cumberland Science Museum) on Thursday, 20 February, at 1930.

The speaker will be Vandy grad student Jeff Bary to speak on the topic "More Sun-like stars may have planetary systems than currently thought Study of planetary disks around T Tauri stars. There may be a lot more planets circling stars like the Sun than current models of star and planet formation predict." Jeff Bary, graduate student is taking a critical look at T Tauri stars. These are stellar adolescents, less than 10 million years old, which are destined to become stars similar to the Sun as they age. (Note: Jeff was to speak at the January meeting which was called off due to the weather.)

FROM THE PRESIDENT

By Joseph M. Boyd, Jr.

The decision to cancel the January membership meeting was something I had hoped we could avoid, but the circumstances seemed to dictate that due to the unusual circumstances, it was the best course of action. Hopefully, we will not have to do that again.

You will see elsewhere in this Eclipse that since we received our tax exempt status last month, we have already had two pieces of equipment donated to the Society. The LX-200 was donated shortly after Christmas, and the chair of the Equipment Committee, Lonnie Puterbaugh, and I went to pick it up. The other item is a camera which was donated by our own member, Lloyd Watkins. This type of camera is hard to find today, and will be a real asset to the BSAS. We are beginning to reap the rewards of our work to get the tax exempt status, and can only hope that these are the first of many donations that will be made.

If any of you know of someone who has a telescope which is not being utilized, and which the owner would rather have used as part of our educational outreach, ask them if they would donate the scope to the BSAS. If they are willing to do so, contact Lonnie or me and we will prepare the necessary paper work to enable the donor to take an income tax deduction. Also, we need all kinds of equipment, so don't limit your search to telescopes. It is my hope that if we can assemble several pieces of equipment, we may be able to let our members use them to help decide what kind of telescope or other equipment to buy.

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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 Treasurer at the following address:

BSAS
Dyer Observatory
1000 Oman Drive
Brentwood, TN 37027

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 the Dyer Observatory (373-4897) if you have questions. Dues can be sent to:

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

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
John Bradford
Bill Collins
JanaRuth Ford
Bill Griswold
Kris McCall

Logo Photograph:
Francisco Diego

Regular Meeting of the Barnard-Seyfert Astronomical Society Board of Directors on January 2, 2003

The meeting was called to order by President Joe Boyd at 7:35 PM on Thursday January 2, 2003 at the Jefferson Square Clubhouse. A quorum was present consisting of board members Mike Benson, Joe Boyd, Bill Griswold, John Harrington, A.G. Kasselberg, and Evelyn Wright. Board members John Bradford, Bill Collins, JanaRuth Ford, Powell Hall, and Kris McCall were absent. Guests attending were Rocky Alvey, Lonnie Puterbaugh, Bob Rice, Larry Southerland, Jill Thompson, and Lloyd Watkins.

With no objection, the minutes of the December board meeting were approved as printed in the December issue of "The Eclipse". Joe Boyd distributed copies of his "President's Report to Board of Directors" which indicated that the IRS has, until it might decide otherwise, approved the BSAS for 509(a)2 tax-exempt status (publicly supported organization). All expenses must be in support of the educational outreach activities of the club.

Treasurer A.G. Kasselberg reported that the club's account has \$4655.23 with some outstanding expenses. Lloyd Watkins mentioned the \$800 owed to Bill Burgess for delivered TNSP 2002 telescopes, with another \$200 due when the final two are delivered.

Joe Boyd stated that he wants name tags for each membership meeting. Bill Griswold suggested setting up a table at each meeting that would allow attendees to sign the attendance list and pick up a name tag. Joe Boyd also needs reimbursement by several board members (\$9 each) for the ham served at the December potluck supper.

Under other reports, Joe Boyd noted that Dark Sky Committee Chair Powell Hall sent word that he has scheduled a Dark Sky Committee meeting at 7 PM on Tuesday, January 7, 2003 at the same place as the last meeting. The club's membership in the International Dark-Sky Association is up for renewal at the end of January. Program Committee Chair John Harrington reported that the speaker at the January club meeting will be Vanderbilt graduate student Jeff Bary, and the February program will be a Sudekum Planetarium show. TNSP 2003 Chair Lloyd Watkins will come up with a budget for TNSP 2003, and will try to get some 6", 8", and 10" telescopes and binoculars in hand about three months before the event so that the club can deliver them on time at TNSP 2003.

Budget Committee Chair Bob Rice distributed copies of the proposed BSAS 2003 operating budget. John Harrington moved that the board adopt the budget generally in the form presented as attached to these minutes with A.G. Kasselberg's recommendations that the "Sales To Members" and "Magazine Subscriptions" items be removed from both the Income and Expense categories, and that the "Organization Memberships" expense be increased to \$530. Mike Benson seconded the motion. A.G. Kasselberg proposed that John's motion be amended to collapse the \$400 of committee allowances into one unallocated fund, since the modified budget has only one percent of unallocated income, makes no allowance for rate increases and unexpected expenses, and some committees may not require any funds at all. The vote on the amendment failed with 2 in favor, 3 against, and 1 abstaining. The vote on the original motion to adopt the low-cushion budget then passed with 4 in favor and 2 against.

Rocky Alvey reported that Judy Butler is writing an article for "The Tennessean" about TSU's astrobiology push. She would like to get pictures of 4 or 5 BSAS amateur astronomers with their telescopes, along with captions of their views on whether there is "life out there". A.G. Kasselberg moved that the board give Rocky the discretion to arrange the 4 or 5 vignettes which Bill Griswold seconded. The motion passed with at least one abstaining.

Mike Benson stated that Jill Thompson accepted the position of ALCon 2003 Treasurer which resulted in a round of applause. The board approved her appointment unanimously. Mike Benson also moved that the board approve cash awards for the upcoming Vanderbilt Science Fair in the amounts of \$100, \$50, and \$25. John Harrington seconded the motion which passed unanimously.

Lonnie Puterbaugh noted that the Messier Marathon will be held at the Natchez Trace dark sky site with the end of March as the primary date. John Harrington moved that the board appoint Lonnie Puterbaugh to be in charge of the Messier Marathon this year. Bill Griswold seconded the motion which passed unanimously.

Equipment Committee Chair Lonnie Puterbaugh reported that the club equipment inventory has been completed and his survey at the December meeting indicated that members were willing to contribute about \$1000 for equipment refurbishment and purchase. He requested that a board member make a motion that all donations received this year that have no specified purpose go to the Equipment Committee to use to the best of its ability for equipment upgrades and equipment purchases to help in the club's public outreach activities. John Harrington so moved, and Mike Benson seconded the motion which passed.

With no objection, Joe Boyd declared the meeting adjourned at 9:42 PM.

Respectfully submitted,
Evelyn Wright, Secretary

Upcoming Events

2003

ASC = Adventure Science Center (formerly Cumberland Science Museum)

| | | | | | |
|-------|-----|-------|------------|-----------------|---------------------------------|
| Th | Feb | 6 | 7 PM | Jeff. Sqr. Cond | board mtg |
| Fr | Feb | 7 | 730-930 PM | Warner Park | public stargaze - Jup, Sat |
| Th | Feb | 20 | 730 PM | ASC | club mtg |
| Sa-Su | Mar | 1-2 | | Natchez Trace | practice Messier Marathon |
| Th | Mar | 6 | 7 PM | Jeff. Sqr. Cond | board mtg |
| Sa-Su | Mar | 8-9 | | Natchez Trace | practice Messier Marathon |
| Th | Mar | 21 | 730-930 PM | Dyer Obsrv. | club mtg |
| Sa-Su | Mar | 29-30 | | Natchez Trace | Messier Marathon |
| Th | Apr | 3 | 7 PM | Jeff.Sqr. Cond | board mtg |
| Th | Apr | 17 | 730 PM | Dyer Obsrv. | club mtg |
| Fr | Apr | 25 | 8-10 PM | Warner Park | public stargaze - Astr. Day Eve |
| Sa | Apr | 26 | | ASC | Astronomy Day |
| Tu-Sa | Jul | 8-12 | | Embassy Su | ALCon 2003 |
| Sa | Aug | 23 | 8-10 PM | Warner Park | public stargaze - Mars |
| Fr-Su | Sep | 26-28 | | C. Nakanawa | TNSP 2003 |

HOT FLASH

By Jerry Lappin

Planets interest me more than do stars, perhaps because I've always lived on a planet, never on a star. Also, with only nine planets in the sky it's easier to remember which is which than it is to recall a few thousand star names. However, it is no longer enough to consider just solar planets with all those extra solar ones now being found. 2002 was a confusing year for extrasolar planet fanciers. New ones were discovered, sometimes in job lots but at the same time some discovered earlier were being demoted to figments of the discoverer's imagination. Some stars that appeared to blink because of repeated eclipses by an orbiting planet turned out to really be suffering from very large sunspots.

This is not the first time that sunspots have masqueraded as planets. For some years after Galileo discovered the sun was spotted some astronomers believed that these spots were small planets orbiting between Mercury and the sun. Even with high tech observations it is still easy to fall into ancient error. Other new planets, revealed only by a wiggle in the position of a star may be only wiggles in the observer's telescope or tiny glitches in a computer program. Even those new planets that passed all the tests for reality failed to provide what astronomers truly want, an earth sized planet circling a sun-like star just at the right distance to make life comfortable. All the smaller planets appear to be in highly eccentric orbits, alternately burning and freezing any incipient life forms. More common are giant stars, larger than Jupiter, which orbit very close to their sun. One circles its star so closely that the planet's atmosphere might be vaporized iron, bathing the surface with drops of molten iron rain. Although it is only 5,000 light years distant it doesn't seem to be a good candidate for colonization so keep looking. We may need a new home planet before many millions of years have passed.

BUDGET ADOPTED FOR BSAS

An annual budget for the 2002-2003 fiscal year of the BSAS was adopted by the board of directors at the regular monthly board meeting on January 2, 2003.

One of the first things BSAS president Joe Boyd did after taking office was the setting up of a committee structure, and one of the most important committees established was the Finance and Budget Committee. President Boyd appointed Robert L. (Bob) Rice as chair of the committee and Steven Balay, Vice President John Harrington, Treasurer A. G. Kasselberg, Lance Krafft, Lonnie Puterbaugh, Larry Southerland, and Lloyd Watkins as members. President Joe Boyd serves on the committee ex officio. As his first action as committee chair, Bob Rice contacted all other committee and project chairs, and requested their input on what funds their committees would need during the year. The committee then held meetings, both in person and by email, and drafted and revised the budget. The final draft was personally presented to the board of directors by Mr. Rice, and after much discussion and a few last minute revisions, was adopted by the board.

Because the Society has not had a budget for several years, it was necessary for the Finance and Budget Committee to determine what has been collected and what has been spent for various activities over the past two years. At the conclusion of the discussion and adoption of the budget by the board of directors, President Boyd publicly complimented Mr. Rice and his committee for their dedication and hard work on the budget. He added that the adoption of this budget will enable the BSAS to operate on a business like basis.

The budget, along with Mr. Rice's comments, follows.

**BARNARD-SEYFERT ASTRONOMICAL SOCIETY
2002-2003 OPERATING BUDGET**

INCOME

| | |
|----------------------|-----------------|
| Interest On Deposits | \$ 25.00 |
| Membership Dues | 1,800.00 |
| TNSP 2003 Receipts | <u>8,900.00</u> |
| | \$10,725.00 |

EXPENSES

| | |
|-------------------------------|-----------------|
| Equipment Committee | \$ 25.00 |
| ISSAT Committee | 25.00 |
| Liaison Committee | 25.00 |
| Long Range Planning | 25.00 |
| Membership Committee | 25.00 |
| Public Relations Committee | 25.00 |
| Office Supplies & Postage | 25.00 |
| Legal Registrations & Filings | 40.00 |
| Dark Sky Committee | 75.00 |
| Hospitality Committee | 75.00 |
| Programs & Speakers | 75.00 |
| Website | 130.00 |
| Awards & Recognition | 350.00 |
| Liability Insurance | 350.00 |
| Organizational Memberships | 530.00 |
| Newsletter Costs | 1,100.00 |
| TNSP 2003 Costs | <u>7,650.00</u> |
| | \$10,550.00 |

| | |
|---------------------|---------------|
| Unallocated Reserve | |
| | <u>175.00</u> |
| | \$10,725.00 |

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BUDGET COMMENTS

No amounts were projected for ALCON 2003 because accounting for that activity will be separate from that of the BSAS. Should the BSAS advance cash to ALCON, the Board of Directors may wish to have a revised budget prepared to reflect the nature of those transfers. Any profits resulting from ALCON should be treated as an unbudgeted windfall and any losses should be submitted to the Board for consideration.

This budget represents a starting point for expressing our upcoming plans in terms of dollars. Of course, no monetary statement can adequately capture the dedication and hard work of those who will put these plans into action. The real benefit will occur next fall when we can compare what we planned with what we actually did and apply that experience to the budget for 2004.

Happy Birthday Sikhote-Alin Meteorite

by Robin Byrne

This month we celebrate the anniversary of a relatively rare event - the eyewitness fall of a meteorite.

On February 12, 1947, the Sikhote-Alin meteorite fell to Earth. It is named for the Sikhote-Alin Mountains of eastern Siberia, the location of the fall. Those who saw it said that the fireball was brighter than the Sun. As it fell, the meteor showed many different colors, but the dominant one was red. A trail of dust and smoke stretched across the sky and lasted for hours after the fall. As the meteorite fell through the air, it began to break apart. This was due to all the friction with our atmosphere that was generated as it entered at a speed of about 31,000 miles per hour. At a height of 3.5 miles (lower than the height of a flying airplane), the largest piece exploded apart. Several fragments fell as a group over an area of a half square mile, with some pieces strewn along a line up to 1.2 miles long.

People as far as 200 miles away saw the light of the fireball and heard the sound of the crash. There were loggers nearby who saw most of the fall. They described it as sounding like thunder as it flew across the sky. Up to 100 miles away, people felt the ground shake from the impact, and, in between, windows broke from the shock wave. As the pieces hit the ground, they made several craters. The largest crater was 85 feet across and 20 feet deep.

Within a few weeks, Russian geologists began looking for the point of impact. They found a large area of devastation, with pieces of rock and tree branches thrown all over the snow. A total of 122 craters were counted. Once the impact site was found, a team of scientists, including astronomers, meteoriticists and geologists began studying it. They also brought in surveyors and geographers to make an accurate map of the impact. Artists and photographers were employed to record what everything looked like. The Russians were very interested in preserving what the site looked like for the historical record. Also, to preserve the site for future scientific study, they built buildings over some of the craters to protect them from the elements.

Approximately 1000 tons of meteorite material fell to the ground. The largest fragment has a mass of 1,745 kg (3839 lbs) and is on display in Moscow. The meteorites are primarily composed of iron, with small percentages of other metals, like nickel, mixed in, which would classify them as octahedrites. There are actually two kinds of meteorites from this fall. The complete pieces are fragments that broke off early in the fall and show the typical fusion crust with thumb prints, where lighter elements vaporized during entry into the atmosphere leaving pits on the surface. The second group are incomplete fragments that are probably from the large piece that exploded low in the atmosphere. Some are described as looking like shrapnel.

Collecting meteorites has become more and more popular recently, and anything that adds notoriety to a meteorite adds to its desirability. Because the Sikhote-Alin meteorites are from a witnessed fall, they are considered more collectible than others and have a slightly higher price to match. Witnessing an actual fall is a rare treat for anyone (as long as you are well away from the actual landing site). Owning a piece of such an event is a little easier to achieve - for a price. And, easiest of all, is to just sit at home, read an article, and remember the anniversary of a meteorite fall like Sikhote-Alin.

References:

Sikhote-Alin Meteorite - Meteorite Market Web page <http://www.alaska.net/~meteor/SAinfo.htm>

Meteorites Sikhote-Alin Meteorite - The Nature Source Web page <http://www.nature-source.com/large-sikhote-alin.htm>

Find a Falling Star, Harvey Nininger, 1972

Where can you...

See E. E. Barnard's original astronomy equipment • Tour the observatory Carl Seyfert built • Visit Rocket Park and walk under a Saturn V Rocket • Hear the latest about the Orion Nebula from one of the world's leading experts • Learn how the Supernovae Cosmology Project uses CCDs to measure the rate of expansion of the Universe • Walk through the only full size replica of the Parthenon • Visit solemn Civil War battlefields • See country music legends perform • Take CCD images with the ISSAT Telescope Alpha • and much more...



Dyer Observatory



Barnard's Transit Telescope



ISSAT Telescope Alpha

At ALCON 2003 in Nashville, That's where!

July 9-12

www.bsasnashville.com

Dyer Image, Vanderbilt University/Neil Brake - ISSAT Image, Lloyd Watkins

President's Message, continued from Page 6

Several of the committees have been meeting and working, even during the holiday season. I am asking that EVERY committee chair who has not had a meeting so far call a meeting of his or her committee within the next two weeks so we can get the work of BSAS accomplished. Remember that if you are not on a committee, simply contact me and you WILL be put on one. Also, the committee chairs must not try to do all of the work themselves, but should have frequent committee meetings so every member of the committee can have a voice in the decisions made and a part in the work done.

The work on the Astronomical League Convention, ALCON 2003, which the BSAS is sponsoring here in Nashville in July, is proceeding, but there is still so much work to do that it will require the efforts of many members to get the job done.

My thanks to all of you who have been so active in the work of the BSAS since we took office in September, particularly by your service on the committees. We are planning big things for the remainder of the year, and I urge all members to actively participate.

MAJOR DONATIONS TO BSAS

Two donations of important value have been made to the Barnard-Seyfert Astronomical Society in the last month, according to President Joe Boyd and Equipment Chair Lonnie Puterbaugh.

The first is an Olympus OM-1 35mm film camera and some peripheral items. This was donated by our long time member, Lloyd Watkins. The OM-1 is cited by many prominent astrophotographers as being the premier 35mm film camera for astronomy purposes.

The second is an 8 inch Meade LX200 Classic Schmidt-Cassegrain Telescope. The telescope was donated by Mr. and Mrs. John B. Dodd, who felt the scope was too nice to be used as infrequently as it had been while in their possession. The scope is about six years old and has several nice eyepieces included. This was Meade's top-of-the-line offering in that time period. The LX200 is an altitude-azimuth fork mounted telescope on a steel-legged field tripod; it has full "go to" capability.

This scope can be used with the film camera donated by Lloyd to take good quality lunar and planetary pictures as it is. A wedge would have to be added to do deep-sky film or ccd work, however, and a focal reducer would really help, according to Lonnie. Lonnie added that this telescope would be ideal for public use with a video camera for lunar and planetary work as it is, or, with the addition of a focal reducer, deep-sky view and images should equal those seen in the 24 inch Seyfert telescope even without a wedge.

On Sunday evening right after Christmas, Mrs. Dodd called Mike Benson, whose name had been given to her, to see if the BSAS would have an interest in the telescope, which had been owned by the family for about three years. Mike was able to tell her that the BSAS is now a tax exempt organization, and that apparently cinched the desire to make the contribution. Mike called President Joe Boyd and gave him the number to call, and Joe followed up immediately. An appointment was made for the following night, at which time Joe, as president, and Lonnie Puterbaugh, as chair of the Equipment Committee, went to the Dodd home and accepted the telescope. The paperwork had already been prepared, and the donation certificate was signed by Mr. Dodd and by the President, certifying that the BSAS was a tax exempt organization and that donations could be used as income tax deductions.

Mr. and Mrs. Dodd requested that the donation be made in honor of some friends who had originally bought the telescope and had later given it to them. The honorees will be announced at the February membership meeting

Joe Boyd stated that these donations are the first made under the new tax exempt status, and that he hopes this will be only the beginning of many donations of equipment to the BSAS, equipment which can be used for public star parties and for educational outreach. In addition, if enough equipment is donated, he added, perhaps it can be loaned or rented to the BSAS members.

You Can Master the Messier Marathon:

by Lonnie Puterbaugh

In last month's Eclipse, I talked about the what, when, where, and why of a Messier Marathon. This month we'll talk about HOW to do a marathon. One change is that the best weekend is still March 29th, but the second best date is actually March 8th and not March 1st. I will be at our Natchez Trace site on both of these dates prepared to do a full marathon unless we have poor viewing conditions. On March 8th, we will have a 29% illuminated Moon located about 9° south of the Pleiades. It shouldn't interfere a lot in that area of the sky. Weather cancellations will be made by way of the Yahoo group website at <http://groups.yahoo.com/group/tnastronomy/>. I will be supplying hot water, hot chocolate mix, and hot cups throughout the night. Bring anything else you would like to drink or contribute to a snack table.

We will officially use NGC5866 in the constellation Draco for Messier object #102. This is a very nice galaxy to observe. Charles Messier's list duplicated M101 twice and many people have since adopted NGC5866 as M102.

The first thing you should do is to select and prepare your equipment. Make use of binoculars if you have them. At least half of the Messier objects are visible in 50mm binoculars! These offer a very wide-field capability for searching. Clean your eyepieces. Some objects may be dim enough to appear as the same smudge on an eyepiece. I suggest using only two eyepieces — one for very low-power wide-field capability and one that yields about 100X magnification. I would suggest at least a 4" diameter telescope with 6"-8" preferred. I would also suggest that anyone doing the manual marathon use a scope with an overall focal length under 1200mm for its increased field-of-view capability. Other scopes will work though! One of the most important pieces of equipment you could bring to a Messier Marathon is Harvard Pennington's book, "The Year-Round Messier Marathon Field Guide". This is the best book available for chasing down the Messier objects during a marathon. The charts in this book are made to work with a Telrad, or an 8x50 finder scope. Another good reference during a marathon is two plastic-coated flip chart books by Brent Watson called, "The Messier Objects". These are also made specifically for a Telrad, but will work with any finder device. A Telrad is a unity-power locating device that projects a red-illuminated bulls-eye pattern on a clear plastic lens that you point at the sky and look through. They are very handy. Our club has one mounted on our C14. A Rigel finder is very similar, but works better on smaller telescopes. Any charts you bring should include the entire Messier list. I will have a table set up for persons who need additional reference materials to look things up. Please leave the materials on the table for others to use and either get a mental picture or make a quick sketch. Things to bring include: lots of extra clothing layers, munchies, drinks, chemical hand warmers, fresh batteries, red lights (to read charts), binoculars, a telescope, a few eyepieces, charts, books, paper, pencil, or a pen that works in cold weather, anti-dew heaters, and dew shields. You WILL need anti-dew equipment to go all night like this. You can purchase this equipment from many sources on the Internet or you can make it yourself.

The second thing to do is to simulate a mini-marathon in your backyard for an hour or two on several nights before the marathon. Those who will be using automated goto-capable mounts can skip this step. Training is extremely important for those who will be trying to observe high numbers of objects manually. Remember that each person will have to average about 10 objects per hour to complete the marathon. I would suggest trying to get to a pace of 15/hour to be able to take plenty of breaks. That's one object every four minutes. I have personally witnessed John Bradford attain over 40 objects in a two hour practice session with me when John was still fairly new to observing. I knew right away that John had indeed been practicing! John used a simple 8"/f6 dob-mounted Meade manual scope for the marathon. You must train to be successful in the early hours of the marathon. This is possibly the most stressful time, unless you have practiced. By training ahead of time, you will get a feel for the pace you need to keep and you will know where to look for the objects and what to expect when you find them. This is a huge advantage. There is a preferred sequence for finding the objects. I will pass out a list at the marathon for checking off of the objects, but you can get a list at www.messiermarathon.com. The list is in order by setting times. It is by no means mandatory to adhere to the sequence though. Several of the objects are naked eye objects, like M45 (the Pleiades). On an occasion in the past, I've personally observed up to ten of these objects with just my eyes. One of the "tricks" to use, is to realize that while the objects you will need to work on first lie in the western sky at sunset, the eastern and overhead sky will be darker much sooner. It may be to your advantage to go ahead and grab some of the objects in Orion while waiting for the western sky to darken. Just don't wait too long! M74 and M77 can really be tough to locate. M33 is so huge that is also can be difficult. You may be looking right at it and not even notice it if you haven't seen it before. M76 is another tough one. These objects may not have seemed hard at other times of the year when they're high overhead, but now you're trying to locate them near the horizon at sunset! Another area of concern for most people is near midnight when they arrive at the Virgo cluster of galaxies. You will need to stay up late on a weekend to practice these. The problem here is that there are so many galaxies so close together, that it becomes hard to identify each one individually. The Messier Marathon Field Guide is your best friend in accomplishing this task. The last hard drive is near sunrise

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Activities & Events

February 1 – February 28, 2003

- 2/1 NEW MOON; Chinese New Year; Private star party, Natchez Trace site
- 2/3 Mercury, gr. elong. W. (i. e. as a Morning Star)
- 2/6 BSAS Bd. of Directors, 7:00 p. m.
- 2/9 FIRST QUARTER
- 2/11 Conj., Moon and Saturn
- 2/12 Lincoln's birthday
- 2/14 St. Valentine's Day
- 2/15 Conj., Moon and Jupiter
- 2/16 FULL MOON
- 2/17 Conj., Sun and Uranus
- 2/20 Conj., Mercury and Neptune; BSAS MEETING, 7:30 P. M., at Adventure Science Museum
- 2/22 Washington's birthday; private star party, Natchez Trace site.
- 2/23 LAST QUARTER
- 2/25 Conj., Moon and Mars
- 2/27 Conj., Moon and Venus
- 2/28 Conj., Moon and Neptune

March 1 – March 31, 2003

- 3/1 Conj. Moon & Mercury; Private star party, Natchez Trace site
- 3/2 NEW MOON,
- 3/2 BSAS Board meeting, 7:00 p.m.
- 3/4 Mardi Gras; Conj., Mercury & Uranus
- 3/11 FIRST QUARTER, Conj., Moon & Saturn
- 3/12 Conj., Venus & Neptune
- 3/13 Dyer Public Night, 7-9 p.m.
- 3/14 Conj., Moon & Jupiter
- 3/18 FULL MOON
- 3/20 Vernal equinox at 7 p.m.
- 3/20 BSAS MEETING, 7:30 p.m., at Dyer Observatory
- 3/21 Mercury in superior conjunction.
- 3/24 LAST QUARTER
- 3/25 Conj., Moon & Mars
- 3/27 Conj., Moon & Neptune
- 3/28 Conj., Venus & Uranus; Dyer Public Night, 7-9 p.m.
- 3/29 Conj., Moon with Venus & Uranus; Private star party, Natchez Trace site.

Continued from Page 8

when we should all have our scopes pointed at the eastern horizon waiting for the next object to rise. M30 probably won't be up early enough on the 8th to observe, but it should be observable by 4:30am on the 29th. The eastern sky will start brightening by about 5am on the 8th.

The third thing to do is to get plenty of sleep on the nights leading up to the marathon. I would suggest that you consider staying up late the night before the marathon and then sleep into the early afternoon before getting ready to go.

The fourth thing to do is arrive at the Natchez Trace site early to setup. For the March 8th date, I would suggest having your equipment ready to go by 6:15pm. This will give you a few minutes to relax and take a breather. The first objects should appear by around 6:30-6:40pm. For the March 29th date, I would suggest 6:30pm for setup completion, and the first objects will be appearing by 6:45-6:55pm. It is good to have some downtime here in case something goes wrong and to talk with others before the quickened pace arrives.

The last thing to do is to remember to have fun! It is very exciting to see this many beautiful deep-sky objects in one night and it's extremely rewarding to snag them yourself. If you can afford the time, walk around and ask others for a peek in their scopes, but remember that they too will be under pressure at times and may not be able to afford much time for really observing many of the objects. Hopefully, a few of the veterans will have some spare time to show off some of the better objects in their scopes.

We should be packing up and heading for home (or the nearest Waffle House) by 5:30-6am. I'll see you next month and remember to practice, practice, and practice!