

S.C.R.A.P.S.

Society's ChRONological Astronomical PaperS



From the President by Bob (Darksky) Arr

Chief Ranger Jim Northup of the GSMNP told me that the washout on Foothills Parkway is so severe that it may take a whole year to repair-part of the problem being additional funding. We will have to forego using our traditional Look Rock observing site until the repairs are completed.

Luckily, there is a good alternate site on the Parkway, just 1 ½ miles from the entrance on US 321. It's far larger, and will almost certainly have more automobile traffic. But hey! that's our "public invited" star party, so it plays directly into our hands, right? (We're going to have a large portable sign at the site to let the public know they've found us.)

We will have our annual picnic on Saturday, July 19, at the Tamke-Allen Observatory near Rockwood. Angela Quick is coordinator of the gastronomical elements. As always, it will be a covered dish affair, but if you can't bring a dish, a cash donation will do as well. There will be observing after the meal, weather permitting. (For those of you who knew Trapper the Wolf at TAO, we're sorry to report that he has joined the great canine constellation in the sky.)

There will not be a July meeting at PSTCC (no air conditioning, remember?)

SMAS Depends Upon Its Friends Help!

SMAS is looking for...a few good men! Or women. Three impending events listed below need volunteers to make them realities. If you would like to participate, just speak up.

Astronomical League Conference at Nashville, July 7-12 Please let us know if you will attend. We need a member to represent SMAS at the Southeast Region meeting on Saturday, July 12. Contact any SMAS officer.

SMAS Annual Picnic on Saturday, July 19 at Tamke-Allen Observatory Angela Quick has volunteered to organize the logistics, but she could use some help. Please contact Angela.

Telescopic support for the Boy Scout Camporee in Knoxville, October 4 Do you enjoy working with Scouts? There will be 2000 of them at the Camporee, and SMAS has agreed to bring telescopes--lots of them! We need a project officer to coordinate times, sites, access, etc. Contact any SMAS officer.

June Meeting Agenda

Owen Hoffman will present a slide show and talk about his experiences as a park naturalist and budding astronomer at Crater Lake, Zion, and Yosemite National Parks. Ed Gorney will show and tell about the Clear Sky Clock. We will have a discussion of future agenda items. Got new ideas? Let's hear 'em! There will be a rollicking rumble in the student lounge. Still not a member of our Yahoo Group? Erik Iversen will be available at 6:30 to help you get on board. All the inputs can be done right on the computer in our classroom, setting it up to your specifications. It's quick and painless.

THE WIZ

Hey Wiz, sometimes my eyepieces get crud on 'em. I'd like you to pass along my foolproof technique for gettin' 'em clean. Wiggle yer tongue across yer salivary gland just under yer tongue to get some fresh, clean spit, and spit it on the lens. (Don't hawk back and hack up those sinus drippings--they leave a yellow stain.) Use yer handkerchief (but find a clean corner) and really work that spit around good. You may need a long fingernail to get down around the edges. Keep rubbin' until all the moisture evaporates. They'll be clean as a whistle. Yer welcome.

N. Yrboy

Dear Nate, Usually I'm never at a loss for words, but today is special. I will use someone else's words.

CLEANING EYEPIECE AND TELESCOPE OPTICS

From Tele Vue Optics, <http://televue.com> (yes, Al Nagler's outfit)

Optics of any type should be cleaned only in a clean environment. Most optics get scratched by being cleaned too often, under less than ideal conditions. Never clean lenses under "field" conditions. And never try to clean lenses using a red light; you won't be able to see the scratch-causing particles that need to be blown off.

Prepare a clean work area, such as a freshly washed kitchen table. Get a bulb-type puffer from the pharmacy (an ear syringe will do), some Q-tips and clean tissue, such as untreated facial tissue or bathroom tissue. Avoid tissues with perfumes or lotions, as they will leave a film on the lens. Also, an inspection lamp would be helpful.

Choosing a cleaning fluid is the most widely debated topic involving lens cleaning. The anti-reflective coatings on eyepieces and objective lenses are durable enough so that almost no liquid (short of a corrosive) is going to damage them, although some cleaning fluids can leave a film. Reagent grade acetone and methanol are ideal, and may be available in some pharmacies, but alcohol or acetone from a hardware store can also be used. Do not use nail polish remover, as this usually contains perfumes and oils which will leave a film. Windex or Glass Plus can be used to remove water-soluble deposits. If you have a favorite lens cleaner, feel free to continue using it. Methodology is what's most important.

First, use the bulb-type puffer to blow off any dust or loose particles from the lens surface. Don't blow the dust off with your mouth, as droplets of moisture can get on the lens, causing spots. If the eyepiece or objective lens has particles stuck to it that can't be blown off, moisten (do not soak) a tissue with Windex and gently blot the surface, without rubbing. On smaller lenses, use a Q-tip or fold a tissue into a steep triangle, moistened with Windex. Use the puffer again to blow off any more dust.

Second, moisten (do not soak) a Q-tip or tissue with alcohol, acetone or your favorite lens cleaner and gently wipe from the center out to the edge, using a circular motion. Move the Q-tip or tissue slowly

THE WIZ (CONTINUED)

enough so that the cleaning fluid appears to "follow" the Q-tip or tissue around and is re-absorbed. If you move it too quickly, some of the liquid will "break away" and dry separately, leaving spots. You'll probably use several tissues or Q-tips to thoroughly clean a lens. Use a new tissue or Q-tip after each swipe; this will prevent any contaminants from getting back onto the lens or scratching it. Do not touch the lens with your fingers, as the grease on your hands and fingers will cause smudges. Also, be careful the grease from your hands and fingers does not get on the Q-tips or tissues; it will smudge the lens. If it does, throw it away and use a clean one.

Cleaning the edge of a lens is the most difficult part, especially where the Q-tip or tissue is lifted from the surface. Don't use too much liquid or put the liquid directly onto the surface being cleaned, because capillary action could draw the liquid inside. Try folding a tissue into a sharp point, moistening it slightly and use it to wipe around the edge.

If, after cleaning, any spots remain, try "fogging" the lens surface with your breath, then wiping it with a Q-tip or tissue moistened with alcohol. This method usually works with spots that are water-soluble. Because pure alcohol and pure acetone contain no water, without the moisture from your breath to help, neither can remove water-soluble spots.

IMPORTANT NOTE: Don't use acetone on binocular or camera lenses, only alcohol. Many of these lenses have painted surfaces surrounding the lenses; acetone will dissolve and smear this paint across the lens and may damage any parts made from plastic or other materials.

TAO News: Lunar Eclipse was a Great Sight by Dave Fields

A small group of amateur astronomers gathered at Tamke Allan Observatory on May 15 to view and study events of the Lunar Eclipse. The clouds cooperated and permitted intermittent views of a moon in various stages of shadow. Most surprising was the grey moon at totality, suggesting that the moon was illuminated by sunlight scattered through earthly clouds.

We took some lunar spectra at various stages of the eclipse, but we had stopped the camera down to f/4 to give high resolution and the exposures were too short for our film. Attempts to locate gas-hypered film had been unsuccessful. One of our calibration spectra taken the same night is right, and shows fine mercury emission and absorption lines along with some phosphor fluorescence. We're planning to get together with Bob Arr soon to take some spectra of the carbon star, La Superba!

We also took some radio emission measurements on the moon using the MIT Haystack radio telescope. We had a lot of trouble getting a good radio calibration using Jupiter as a source, but we did get some measurements on moon emissions. This is a wonderful site for SMAS astronomers. See you there next time (public nights on the 1st and 3rd Saturday evenings).



May Lunar Eclipse by Michael McCullough

Well, this was my first attempt at taking a photo through a telescope! I recently bought an attachment bracket for my Olympus digital camera and decided tonight (May 15/16) was the night to try it. Focusing was difficult since the camera's LCD struggled to show any detail of the moon (I really had to wait until just after totality to get a sliver to focus on), but here are the results. I tried exporting to GIF, JPEG, or PNG but the subtle shading of the coppery red is lost. The PDF does a decent job of reproducing the color -- but the PSD image is the best if you have a copy of Photoshop.

The copper colors were rather nice through the scope as well.



May Meeting by Angela Quick

SMAS Meeting
 Friday, May 10, 2003
 Division Street Campus, Pellissippi State Technical Community College

President Bob Arr began the meeting at 7 PM by showing a video of weatherman Matt Hinkin's first publicity announcement for SMAS. Yeah!

Bob then introduced our guests from the Barnard Seyfert Astronomical Society in Nashville, Larry Southerland, Evelyn Wright, and Powell Hall. Mr. Hall gave a presentation on the Astronomy League Convention, or ALCON, which will be held at the Embassy Suites Airport Hotel in Nashville July 9 – 12. Mr. Hall passed around copies of the conference brochure and schedules, which can also be found at <http://www.bsasnashville.com/alcon2003.htm>. He also mentioned the Tennessee Star Party, which will be held at Camp Nakanawa (near Crossville) September 26 – 28.

The rest of the meeting was spent introducing new members to the club, and the club to new members! Bob highlighted the benefits of SMAS membership:

- 1) Meetings (second Friday of each month, Pellissippi State Division Street campus, 7 PM)
- 2) Star parties (held the weekend before new moon at Unicoi Crest and the weekend after new moon at Look Rock)
- 3) the library
- 4) the SCRAPS newsletter (which always gratefully accepts contributions, and is posted on the club web page)
- 5) the club web page (<http://www.smokymtnastro.org>)
- 6) the Yahoo! discussion group – you will receive an invitation to join shortly if you have not already received one (<http://groups.yahoo.com/group/smokymtnastro/>)

May Meeting (continued)

- 7) membership in the Astronomical League (<http://www.astroleague.org>), including the Reflector magazine and participation in observing clubs
- 8) discounted subscriptions to Sky & Telescope and Astronomy magazines
- 9) Use of the club's telescopes (a 90 mm refractor, a 10" dobsonian, and 20" dobsonian Sasquatch)
- 10) Private star parties and participation in public outreach events
- 11) An annual picnic and a Christmas party the first week of December

Lee Erickson, the ombudsman for new members, then introduced himself and asked new members to introduce themselves.

Meeting adjourned at 8:30 for social time in the lounge. Several of us stayed well past 9:00 in the parking lot, checking out views of Jupiter through Eric Neumann's Meade ETX 90.

New Member Profiles

Peter Bush, general contractor, found out about the club through Robb Feldhege. He claims to be "green," as in brand new to the hobby of astronomy. He has a 127 mm Maksutov Cassegrain scope from Orion. He's here because he wants to know what he should look at!

Michael McCulloch is following up an interest in astronomy that began when he was a teenager, and explored the skies with a 4 ½ inch reflector. He now has an Orion 100 mm f/6 refractor and an 8" Celestron Schmidt Cassegrain. He knows the sky, but has not had much experience working with his new scopes. He found out about the club from Charles Ferguson.

Jim Sanders, electrical engineer, said the Internet sparked his interest in astronomy via different sky map and planetarium pages. He printed a sky map from an online page, took it outside, looked up, and found Saturn – he was hooked! Scott Buckman, who worked on refurbishing the Heritage Planetarium with Jim, introduced him to the club. Jim has an 8" Meade LX200 go to scope, which he runs using his palm pilot, and is using it to learn the constellations and experiment with piggyback 35 mm photography.

John Tipton is a Linux network security administrator, and is following up a high school interest in astronomy. Back then, he didn't have the equipment for serious observing, so he recently bought an 8" f/4 equatorial reflector. John is looking forward to star parties so he can "try before he buys" additional equipment!

PUT YOUR MIND IN GEAR!

Share your astronomical experience with the rest of SMAS and everyone on the Internet by writing an article for SCRAPs. Contact Mike Littleton at (865) 671-1022 or email littlem@ix.netcom.com.



June 2003

President:
Bob Arr

Vice President:
Rob Feldhege

Observe Chair:
Ron Dinkins

Secretary:
Angela Quick

Star Party Organizer: Tom Rimmell

Treasurer/ALCOR:
Erik Iverson

SCRAPS Editor:
Mike Littleton

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6 UTK	7 TAO 1st Qt. Moon
8	9	10	11	12	13 SMAS Mtg.	14 Full Moon
15	16	17	18	19	20 UTK	21 TAO Last Qt. Moon
22	23	24	25	26	27	28 Starparty
29 New Moon	30	7/1	7/2	7/3	7/4	7/5 Starparty

SCHEDULE OF EVENTS

SMAS Website:
<http://www.smokymtnastro.org/>

Webmaster:
Mike Fleenor

- 6/6/03 and 6/20/03** Public observing from the roof of the Physics Building at UTK
- 6/7/03 and 6/21/03** Public observing at Tamke Allen Observatory
- 6/13/03** SMAS Meeting 7 PM at the Division Street Campus of PSCC
- 6/15/03** Mercury rises at 5:10 AM; Venus rises at 5:15 AM; Mars rises at 12:52 AM; Jupiter sets at 12:05 AM; Saturn sets at 9:20 PM
- 6/28/03** SMAS starparty at Unicoi Crest, NC
- 7/5/03** SMAS starparty off Foothills Parkway (See "From the President" on Page 1.)