

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

Society's ChRonological Astronomical PaperS



From the Chair By Bob Arr

Our annual club picnic will be held on Saturday, September 14, at 7 pm. Atop an idyllic and secluded hill overlooking Watts Bar Lake, SMAS will be guests of David Fields at the Tamke-Allen Observatory, just southeast of Rockwood. There will not be a Discovery Center meeting in September (nor will there be a UT game on the 14th!)

For those of you who contributed to last year's wonderful food and refreshments, well...we'd like you to do it again! At the August club meeting, we will have a sign up sheet for volunteers to indicate what they can bring. For non-cooks, cash donations are perfectly acceptable (see Jan Erickson). If you are new to the club, by all means try to attend. This is not only a great get-acquainted opportunity, but as night falls, it will become a star party as well.

Presentation for August: Measuring Up-From the Earth to the Sun and Planets

SMAS Secretary Lee Erickson will present the first of a two-part series called "Measuring Up." Part One, "From the Earth to the Sun and Planets," begins in ancient Greece, dealing with the amazingly perceptive insights of Aristarchus and Eratosthenes, that determined the size, shape and separation of the earth, moon and sun with only their naked eyes and fertile minds.

Lee traces the development of celestial knowledge through the middle ages, and beyond, and how the entire solar system's dimensions were ultimately calculated. All of these were later confirmed as mankind moved into today's Space Age. Part Two will detail development of "standard candles," the starry mile-stones that help us measure our universe.

September/October Regional Star Parties

The three biggest regional Star Parties in our area all begin within 7 days of each other. (That's what the moon will do to you!) All are famous, and many SMAS members have attended them in the past. We present them here chronologically.

September 28, 29 (Saturday and Sunday) StarFest 2002 at Bays Mountain Park, Kingsport, TN Mailings to be sent out in August (limited number, apply early) Latest information at www.baysmountain.com

October 3, 4, 5, 6 (Thursday-Sunday) Peach State Star Gaze '02 at Ocoee, TN Speakers: David Levy (comets) and Will Tirion (sky atlas) Registration already in progress: <http://personal.atl.bellsouth.net/atlp/o/poshedly/pssg/About/About.htm>

October 4, 5, 6 (Friday-Sunday) Tennessee Star Party 2002 at Crossville, TN Speaker: Richard Berry (CCDs) Registration already in progress: <http://www.bsasnashville.com/>

The Joys of an O III Filter

BY ED GORNEY

Well look at that, it really does have a bow tie shape! At least that is what I thought the first time I saw M27 through my OIII filter. Even before the July issue of SCRAPS, I wanted one of these filters. I have read all of the reviews at www.scopereviews.com several times.

Ed Ting, who writes the articles, refers to a seemingly magical thing called an OIII filter. The OIII stands for Oxygen III filter, which transmits the light from the emission of oxygen with two electrons removed. Mr. Ting makes several remarks in his website about the things he can see even with a small 100 mm refractor with this marvel of this filter.

Of course, I checked into buying an OIII filter and the bad news was that new it costs 99.95 plus shipping. Well, I did not want to spend quite that much on a filter. Then, I learned about a website called Astromart from Bob Arr the first time I met him at an SMAS star party at Look Rock. I loved looking at the deals for various things on the website. My mouth drooled more and more at the deals on the Lumicon UHC, Orion Ultrablock, and the various OIII filters that popped up from time to time. Finally, I decided to purchase filters from a guy in PA. He was selling three filters at once: a Lumicon OIII, and two planetary (colored) filters. The filters arrived in just 2 days.

I took the OIII filter out amidst the fireworks in my neighborhood on the 4th of July. I remember how disappointed I was the first time I observed M27 compared to bright M57. Tonight, I hoped, would be different now that I had this new toy for my telescope. Initially, I decided to use the filter on the Ring Nebula. With my 40-mm eyepiece without the filter, the Ring is plainly visible. With the filter, it was so bright I mistook it initially for a bright out-of-focus star. Wow, I was amazed! Then, I turned it excitedly to the Dumbbell and there it was, bright as can be. I looked at it for what seemed like forever. I am not sure how well this filter will work for other nebulas, but for these two I was sincerely impressed and can see why people will pay so much for this filter to have it in their arsenal. I can't wait to try this out on other emission and planetary nebulas.

Star Party at Unicoi Crest

By Mike Littleton

July 6, 2002 was a great night for observing at the parking area on Unicoi Crest right across the NC Border. It was dark, clear, cool, and with a slight breeze. Bob Arr (formerly "Raincloud") finally broke his spell of bad weather! There were about 11 astronomers and a few spectators. One particularly memorable view was of the spiral structure in M-51 in Arr's big dob. The only distraction was the proximity of the highway near our observing site with sporadic traffic. One person pulled into the parking area with lights on and finally left after a couple of minutes. After another 15 minutes, he pulls back into the parking area again with lights on. After a few mostly polite demands to kill the lights, he finally did so. Although unaware of the correct etiquette, he wanted to look through the telescopes and was obliged by club members. At about 3 AM, most observing died out-probably due to fatigue and sensory overload. When SMAS returns to this great site, I hope to see you there!

TIRED OF SUMMER RERUNS?

Bored with TV? Leave the Tube and 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 littlen@ix.netcom.com.

AUGUST STAR PARTY BY TOM RIMMELL

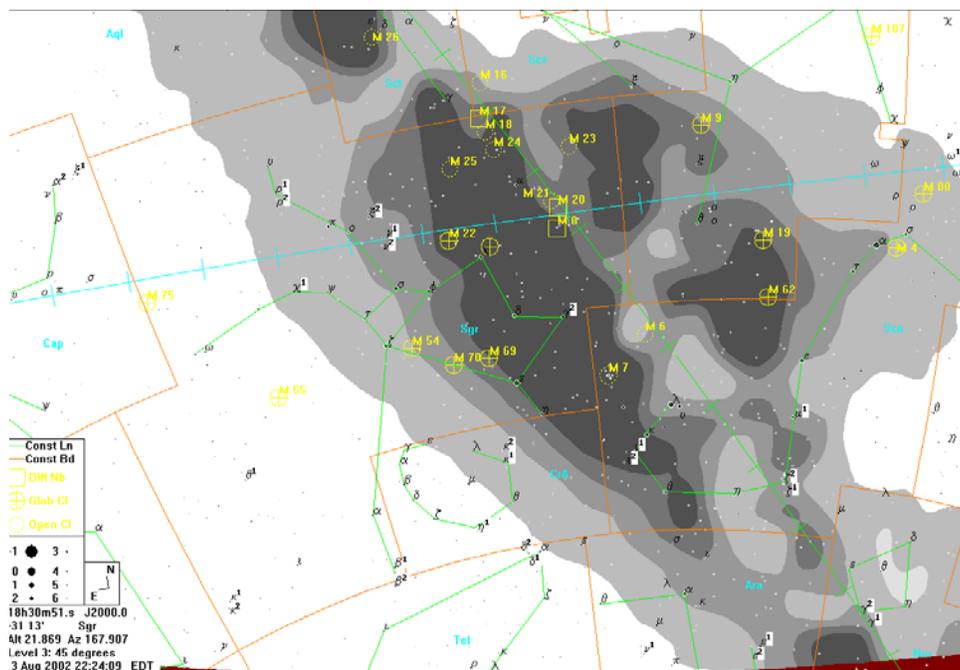
Treasures of summer skies

This month we will have our star parties on August 3rd and 10th at Look Rock.

The constellation Sagittarius contains a wealth of objects nestled among the Milky Way star cloud. In a telescope with a wide field of view, or good binoculars, these objects are simply stunning to look at. Some well known Messier objects in Sagittarius are:

- M8: Lagoon Nebula
- M17: Omega Nebula
- M18: Open cluster located just below M17
- M20: Trifid Nebula
- M22: Globular cluster

There are many other Messier objects worth observing in Sagittarius, so be prepared to spend a considerable amount of time looking for them. It is worth your time to see these wonderful sights.



Eye Relief BY THE WIZ

Dear Wiz,

I'm starting to need reading glasses, and I've noticed that when I look through an eyepiece I almost always have to refocus it a lot from where the previous person had it. Should I get a set of glasses specifically for the telescope? F. Ayes

Dear Four,

Put it off for as long as you can bring the telescope into focus! You give up a lot...I mean A LOT...when you have to use glasses. When you wear glasses, your eye can't get as close to the eyepiece: that's when you learn the hard way what "Eye Relief" means. The image exiting the eyepiece tapers smaller and smaller, and the farther back your eye is, the smaller the image it sees. Besides getting smaller, your alignment becomes so critical that if you move ever so slightly, the image blacks out. It really sucks.

Manufacturers make eyepieces with eye relief as much as 20 mm, just to accommodate eyeglass wearers, but the price goes up dramatically. Eye relief of average eyepieces is in the 12-15 mm range, but there are a sizable number of eyepieces with relief smaller than that, some as low as 8 mm. These are virtually impossible to use with eyeglasses.

Don't confuse the focal length with the eye relief. The focal length will always be printed on the eyepiece; the eye relief never. You find out the eye relief with the printed specifications when you buy the eyepiece. So if you can still focus (no matter how far you have to crank!), stick with it. Everything is downhill from there.

JULY MEETING

by Lee Erickson

The meeting was held July 12, 2002 at Discovery Center. There were 17 members in attendance.

Program: The month's program was presented by Roy Morrow entitled "Stellar Alchemy and Evolution of the Periodic Table". Roy described the composition of stars, how they burn one type of atom into another. Roy described how the initial mass of a star sets the stage for the life of a the star, its eventual fate and what elements it will synthesize.

Charles Ferguson's Night Sky: At the July meeting, we learned about the prominent summer constellation of Scorpio and Sagittarius and their relation to the winter constellation of Orion. It seems that Orion, a handsome and successful hunter, caused some jealousy with in the Greek gods. Some gods sent the giant scorpion, Scorpio, to kill Orion and then set Scorpio into the sky as a reward for a job well done. Other Greek gods took pity on Orion and placed him in the sky. So that the two did not tangle again, they were set in opposite sides of the sky. That is why we never see both Scorpio and Orion in the sky together. But the gods who are friends to Orion placed Sagittarius behind Scorpio armed with a bow and an arrow. The arrow is aimed straight at the red heart (the star Antares) of the scorpion. So, go out this summer and see this drama in the southern sky for your self.

Club Business: Bob Arr reports that the Astro League liability insurance program has fallen through. Without such insurance, SMAS will not advertise star parties to the public. Janice Erickson presented the treasurer's report. The club's summer picnic is set for Saturday September 14th at 7:00 PM. The picnic will be held at the Roane State Community College Tamke-Allan Observatory. At the next meeting, we will begin a sign up sheet for food. Mike Littleton has volunteered to bring his grill again this year, but needs someone to help him load it and unload it at his home. If you can not make the next meeting, but would like to sign up to bring something, please send an email to Lee Erickson at leeerickson@earthlink.net or call at 865-977-1242.

Several members are currently receiving discounted subscriptions to Sky and Telescope through SMAS, but we currently do not have enough people interested in subscribing to Astronomy magazine to meet the minimum requirements for club rates. So if anyone is interested in Astronomy magazine at a club rate (or Sky and Telescope) please let the club treasurer know. Send an email Janice Erickson <gemsandstones@earthlink.net> or call 865-977-1242.

Telescopes for Kids Project: Bill and Tammy Burgess set July 14th and 21st as work dates for building telescopes. We hope to finish up the first three and get a start on the next two.

After the club business was concluded we broke up into our Messier and Lunar-observing clubs to discuss our progress

For Sale or Wanted

10" f/10 LX200 with custom Milburn equatorial wedge, dew heater, dew/light shield, focal reducer and counterbalance system for sale. For more info please contact Mike Fleenor at 675-5488 or mfeenor@tds.net

North and south Real Sky 20 CD set. This is the digitized Palomar Sky Survey that has been compressed to 20 CDs. The cost is \$180 for both or \$100 each. They go for \$250 new. Contact Shawn Grant at s.grant2001@comcast.net or (865) 470-9439.



August 2002

Chair:
Bob Arr

Vice Chair:
Tom Rimmell

ALCOR:
John Sparks

Secretary:
Lee Erickson

Treasurer:
Janice Erickson

SCRAPS Editor:
Mike Littleton

SUN	MON	TUE	WED	THU	FRI	SAT
				1 Last Qt. Moon	2 UTK	3 Star Party Look Rock
4	5	6	7	8 New Moon	9 SMAS Mtg.	10 Star Party Look Rock
11 Perseids	12 Perseids	13	14	15 1st Qt. Moon	16 UTK	17
18	19	20	21	22	23	24
25	26	27	28	29	30 Last Qt Moon	31

SCHEDULE OF EVENTS

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

Webmaster:
Mike Fleenor

- **8/2/02 and 8/16/02** Public observing from the roof of the Physics Building at UTK
- **8/3/02** Star Party at Look Rock
- **8/9/02** SMAS meeting 7 PM at the Discovery Center
- **8/10/02** Star Party at Look Rock
- **8/11/02-8/12/02** This is the best time to observe the Perseids Meteor Shower
- **8/15/02** Venus sets at 9:18 PM; Jupiter rises at 4:19 AM; Saturn rises at 1:34 AM