

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

Society's **Ch**Ronological **A**stronomical **P**aper**S**



Oct. 14th SMAS MEETING

PSTCC, Main Campus,
Hardin Valley Road
7:30 pm, Alexander Bldg, Room 223

From The President—Mike Littleton

On Saturday October 8th, SMAS will host a public observing event at Cades Cove in the Smoky Mountain National Park. This event is in cooperation with the National Park Service, which will pay SMAS a \$100 stipend. The program will be the following:

Time	Activity
17:00-19:00	Setup telescopes and SMAS picnic
19:30-21:00	Lunar observing
21:00-21:30	Presentation on the Summer Triangle using PA system and laser pointer
21:30-23:00	Telescopic observing of selected objects-one object per telescope
23:00-??	SMAS star party

Unfortunately this event conflicts with the Tennessee Star party, but in October the weather is more likely to cooperate, it is a time of year when the park gets many visitors, and the Moon allows lunar observing and it sets early.

Erik and I had some feedback from some of the members at the September Meeting. One item was that the program should contain time for open discussions among the members. We will schedule some time during the meeting on October 14th for open discussion. Another comment was that the 7:00 PM meeting time was too early for members getting off work. The next meeting program will start at 7:30 PM. The room at PSTCC should be open for those members desiring more open discussion time before the meeting.

The next topic I was thinking of writing as the Wiz. Unfortunately, I am not the Wiz and I do not know how to contact the Wiz, so I will just have to write as me. Have you ever seen

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a bright path in the daylight sky like a second or third Sun? This is a phenomena known as a *Sun Dog*, *Mock Sun*, or *parhelia*. Sun Dogs may have bright tails extending away from the Sun. They are a result of ice crystals in the atmosphere reflecting and refracting sunlight. Depending on the movement of clouds and the Sun, the phenomenon will change. If you get a chance, watch the display change with time. It may change to a vertically



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stretched image of the Sun called a *Sun Pillar*. There are many good pictures of Sun Dogs, halos, glories, silver linings and other optical phenomena at <http://www.astrophys-assist.com/wilobs/weathwin/weathwin.htm>. Sometimes, there is good observing with the Sun still up.

Minutes of the meeting of the SMAS, September 9, 2005

SMAS met in Room 223 of the Alexander building of the Harden Valley campus of Pellissippi State Community College.

Mike Littleton presided over the meeting which began at about 7:15 PM.

14 Members attended and there were no guests.

Mike Littleton described the upcoming SMAS public outreach event: Observing at Cades Cove.

SMAS participants will be asked to bring telescopes and be prepared to show and speak on an object or two.

The moon will be young then and viewing the moon will be the first item on the evening plan at about 7:30.

Participants will need to be at the Cove well before then so that you will be setup before dark.

Bob Arr discussed the progress with the mechanical rebuild of the 20 inch telescope. There was a lively exchange about evolving design ideas for the focuser assembly. There are trade-offs to be worked out regarding the length of travel of the focus tube. The general conclusion

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was that the focuser must be mounted on a spacer away from the secondary cage surface sufficient so that when racked fully in the tube does not enter the light path and cause light scatter. I found it delightful that so much detail and attention is being given to the design of this important club resource. There was also discussion about how a filter holder might be incorporated into the design of the secondary and the constraints that a filter holder would further place on the location of the focuser. It sounds as if the final length of the truss polls will be determined by slow cutting and fitting by trial and error.

Michael McCulloch demonstrated his computer controlled Olympus D10 camera for us. The major part of his demonstration was of the software he uses to focus the camera. Michael uses **DSLR Focus** which is available at www.dsrlrfocus.com/ and is currently selling for \$45. The software works with computer controllable focuser that are ASCOM compliant. However, Michael was demonstrating the focusing process with the manually focused lens on his Olympus camera. Focusing on dim objects is difficult and this software has a nice display of the intensity profile of a star image which you can use to get the focus exact. Luckily there were no massive bodies of fusing hydrogen in the room with us, and I believe it was Bob Arr that used a hand held light source (cell phone) to simulate a distant such body of fusing hydrogen. The nature of the focusing process was thus demonstrated as the camera's shutter speed and focus was literally improved until we had Bob's stellar image.

Special Star Party Conjunction Report, Star Party Mix 1. September 2005

Those of you who missed the September Unicoi Crest Star Party missed the debut of the Star Party Mix 1. (An audio CD compilation especially created for SMAS Star Parties.) Made of a generous sampling of Carly Simon, Gloria Estefan, Henry Mancini and Glen Miller, the Star Party Mix 1 also contained Howard Shore, Rosanne Cash, Pink Floyd, Enya, The Ventures, Linda Ronstadt, Jimmy Buffett, Herb Albert, The Eagles and the special Russian ingredients Kino and Tatu.

This delightful recipe will appear at future Star Parties if interest warrants. I invite and challenge you all to find a mix of your own. The criteria for the ingredients are that the item must have a Star, Moon, Sun, the night or astronomical theme, reference or element. A single word, title or an association is good enough.

I look forward to future SMAstronomical conjunctions with inspired mixes from other members.

Noah Kidding
SMAS lead gastronomer and musical mixologist.

Sasquatch Progress Report – September 29 – Bob Arr

New Sasquatch is looking quite a bit like a telescope these days. No, it isn't finished yet, but it's getting close.

These items are functionally finished, although they may lack some cosmetic touches:

- the secondary cage, spider, Feathertouch focuser and secondary heater
- the mirror box, with mirror cell and primary mirror
- the rocker box
- the ground board

All wooden surfaces have been finished with 5 coats of varnish (except for internal blackened surfaces). All bearing surfaces are installed, tested and operational. The altitude bearings are Ebony Star with Teflon guides, and the azimuth bearing is Glasboard laminate with Teflon guides.



New Sas waits expectantly for nightfall. Note the temporary trusses and bracing.



Later tonight, Polaris will appear directly over that tree

What is not finished are the trusses. We have only begun work on them. They had to wait until last because they are sized to fit the space remaining between the mirror box and the secondary cage. One may attempt to calculate this space (actually, I calculated 73.375"), but in the final analysis it must be dead accurate or the eyepieces will not come to focus.

And so we ultimately depend on a field testing, with the parts connected by adjustable, temporary trusses, while actually focusing on Polaris. That test will have occurred by the time you read this. What will remain then is to fabricate the trusses – a week or so.

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While the trusses are being made, the remaining small items will be accomplished, such as painting the spider black, running wires to the secondary heater, adding a battery holder and installing the ABS wall inside the secondary cage.

I hope to deliver the finished telescope to the club at the October meeting.



Here's what the photons arriving from the stars see (except for the reflection of the photographer)



The new stainless steel mirror cell nestling our beautiful 20" mirror



Noted Maryville astronomer Heywood j' Buzov inspects the fledgling Sasquatch prior to its truss test

For Sale

I am offering for sale my 10 inch Meade Schmidt-Cassgrain OTA. This is the telescope assembly only not the tripod. F/10 D=254mm F=2500mm

I am including two 10 inch tube rings and a 1 5/8" wide dovetail to mount to Vixen GT style mounts. Televue SCT 2" visual back. AstroZap rollup dew shield and 10 inch 12Vdc dew zapper. One 11 lb counterweight.

I bought the OTA about a year ago off Astromart but its too much scope for my Celestron Advanced GT goto mount. Would like to get \$550. If no club members want it, I will try to sell it on Astromart for \$125 more. Drop me an email or phone call if you want to look it over. rldinkins@yahoo.com or 865-376-4646

Thanks
Ron Dinkins

October 2005

SUN	MON	TUE	WED	THU	FRI	SAT
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> UTK—roof of Neilson Physics Building on The Hill at UT 1st & 3rd Fridays TAO —Tamke-Allan Observatory Public Stargaze Watts Bar Lake, Roane County 1st & 3rd Saturdays </div>						1 SMAS Star Party Unicoi Crest TAO
2	3 Annular eclipse of Sun <i>New Moon</i>	4	5	6	7 UTK	8 SMAS Star Party Cades Cove Draconids Meteor Shower
9	10	11	12	13	14 SMAS Meeting PSTCC Rm 223 7:30 pm	15 TAO
16	17 <i>Full Moon</i>	18	19	20	21 UTK	22
23	24	25	26	27	28	29
30 Turn Clocks Back 1 hr.	31 Halloween					