Smoky Mountain Astronomical Society

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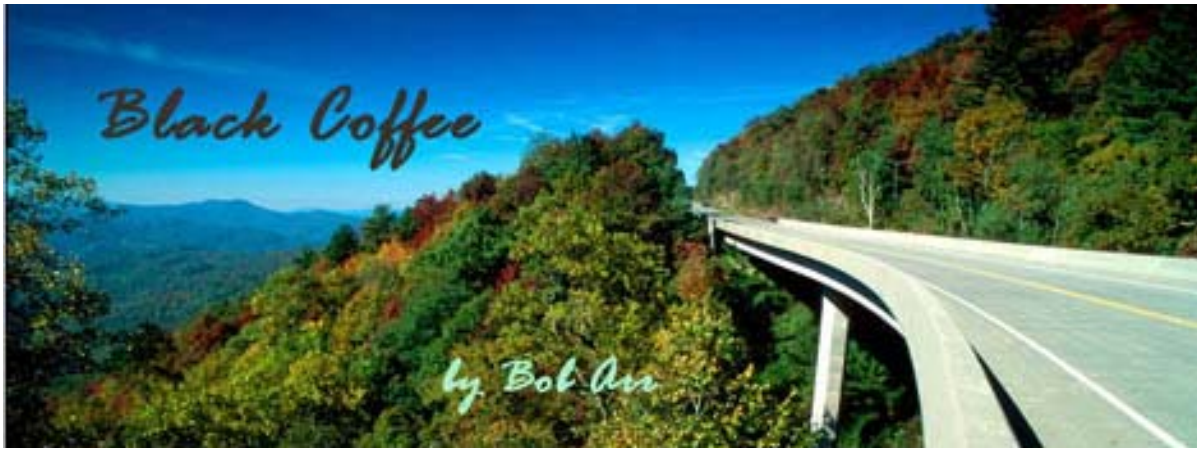
S. C. R. A. P. S.

Society's ChRonological Astronomical PaperS

In awe I watched the waxing moon ride across the zenith of the heavens like an amber chariot towards the ebon void of infinite space wherein the tethered belts of Jupiter and Mars hang forever festooned in their orbital majesty. And as I looked at all this I thought...I must put a roof on this outhouse. Les Dawson



From my house in Maryville, it takes me an hour and twenty minutes to drive to Unicoi Crest, 75 miles on my odometer. From west Knoxville, it's about an hour thirty, down I75, US 68 at Sweetwater to Tellico Plains.

My round trip is 150 miles, at 21 mpg (actual). That's 7.5 gallons of gas. When gas was $3.50, I complained, but went anyway. Now that it's $4.00, the round trip costs me an extra 50 cents per gallon, an extra $3.75 overall. Well, what am I gonna do?

You know perfectly well what I'm gonna do: swallow hard and pay. I wait all month for this event; I'm not gonna forsake it for an extra three dollars and seventy-five cents.

Oh, I'll check the weather every which way I can ahead of time. I absolutely don't want to waste the trip. I am retired, and a few other members are self-employed, which gives us the wonderful flexibility to shift a few days either side of the new moon to enjoy UC's fabulous sky. I don't write this to gloat about our good fortune, but just to set the record straight. UC is simply the best sky in this area. We are blessed to have it. We do what we have to do to use it.

Our website is invaluable in coordinating late changes due to weather, but the phone is even better, especially when we don't have access to our computers. Cell phones are the epitome, of course, and while I have a lot of the members' cell phone numbers, I would truly like to see us publish a telephone roster of all members on our private website in order to coordinate last minute weather changes.

Speaking of telephones, you cannot get a signal up at Unicoi Crest on any cell phone. It's simply blocked by Sassafras Ridge to the north. I have used my cell phone normally at Hooper Bald, 7 miles beyond UC, but it's also higher and has a small segment of the Tennessee valley visible on the horizon.

So far this year, the local weather forecasts have been amazingly inaccurate. Maybe global climate change has something to do with it, but in fairness we must note that on at least two star parties, a stationary front laid across Tennessee from west to east. That does make for tough forecasting. CSC apparently contains some algorithms for altitude and convective lifting that don't work well with stationary fronts. In past years they have been pretty good, but we seldom had these kind of fronts to deal with.

Assuming that traditional summertime patterns soon take familiar forms, the Bermuda high should again predominate, and at least CSC ought to return to form. But that also means hazy skies, even worse if western forest fires intensify. That can't be helped, but occasionally a relatively clear air mass moves up from the Gulf. Let's just hope it arrives with the new moon.

Cherohala Skyway on April 15, 2008

2008 SMAS Picnic By Mike Littleton

The 2008 SMAS picnic was held on Saturday June 21st at TAO. Members and guests brought a wide assortment of delicious foods ranging from the main dish of pork barbecue sandwiches to the desserts of banana pudding, cookies and cupcakes. D.R. Fudge brought a "lethal" bottle of hot sauce which brought tears to the users' eyes.

After everyone had sated their appetites, conversations centered primarily on astronomy. Members of the Barnard Astronomical Society in Chattanooga attended the picnic and had some novel ideas on promoting membership. One idea was, after reading it, to take your copy of *Astronomy* or *Sky and Telescope,* cover the mailing information with a label with SMAS's contact information. Then after getting permission, put the magazine in the waiting room of your doctor or dentist.

Due to weather, no solar or deep-sky astronomy was possible as the evening wore on, but the evening ended with an excellent presentation on Radio Astronomy in Mexico. The one sad note of the evening was that the picnic is Tim Hunt's last SMAS event. He is leaving East Tennessee to return home to California. Thank you Tim for your active participation in SMAS and good luck!

Clear skies,Tim !

Impromptu Unicoi Crest Visit by Michael McCulloch

Several SMAS members were disappointed by the weather on our regularly scheduled Unicoi Crest (UC) date of May 31st. That star party date was a bust. Those same members rejoiced at the weather the following week and just could not resist taking advantage on a "work night". The result was an impromptu meeting at UC on the evening of June 5th, a Thursday no less!

Much credit should be given to the signal caller: Bob Arr. There was much debate on which would be the "best" night. We almost visited on Wednesday evening, but a last minute change in the weather resulted in clouds moving in after dark. The predictions of the Clear Sky Clock were all over the map from update-to-update and it was a dicey situation. Bob made the call on Thursday for a "go" with great conviction. He would be proved correct much to the delight of those that attended.

I arrived at UC just after sunset. Dennis Hutcheson was already there and setup with his fantastic 8" Tak Mewlon. I proceeded to setup my giant Oberwerk 100mm 45-degree binos. The weather was refreshing. The sky was completely clear. A breeze did buffet the parking area at times, with occasional gusts, but it was not constant and we dealt with it.

Shortly after my arrival, Bob and Lee Erickson arrived in the carpool lane. Bob brought Emily (14.5" Starmaster) and this time he remembered her head! She would provide fantastic views the rest of the evening. As darkness approached we picked out the stars as they popped into view. The very young Moon provided some nice views during twilight. Saturn was also an early evening target. Dennis' Tak is a great planetary scope that provides views that exceed expectations for its aperture.

As darkness fell it was obvious that the transparency would be exceptional. The Milky Way started to appear and showed structure by 11 PM even though it was still low in the eastern sky. Antares peeked over the ridge to the south, but the Teapot was still hidden. Once again it was possible to get a glimpse of Omega Centauri as it also skirted along the ridge to the south from UC. About that time, Steve Braddy arrived.

Steve had the unfortunate fate of being directed by his GPS system to follow a "shortcut" to UC. This involved taking Hwy 360 from Vonore to Tellico Plains. Other SMAS members have already taken this bait in the past and knew better. That is why we have directions posted on the SMAS website. Suffice to say that the shortest distance on a map isn't always the quickest time wise.

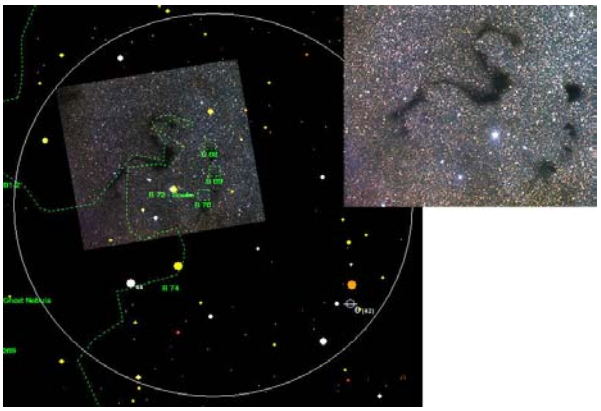
Bob and I took notice of Ophiuchus as it dominated the pre-midnight sky to the south. I visited all the Messier globulars of Ophiuchus with my binos. Each had a little character of its own, but M10 was the most striking. By this time Steve had his 8" SCT setup and we also observed M10

in his scope. Bob pursued several double and multiple stars in Ophiuchus and we all compared visual color determinations on his targets. Several were beautiful doubles with subtle color variations of blue and yellow.

The thing that really amazed me is how defined the dark Pipe Nebula appeared as it rose with Scorpius. Perhaps it was the fact that I had prepared myself to observe in Ophiuchus that made it stand out to my eyes, but it was striking. Also, perhaps I am the odd person out, but I prefer my own "horsey" designation to the area of the Pipe Nebula. It just looks more like a horse to me.

If you refer to the picture included at right, the Pipe is labeled. The extended dark nebula above the Pipe is usually considered the "smoke". Instead, I see the Pipe itself as the hind haunches of a horse. The extended dark nebula above form the body of a horse (a sideview) with one of the front legs bent and slight forward, with the elongated head at the very top.

There is also a famous dark nebula just above the Pipe that has long been a personal target: the Snake dark nebula or Barnard 72. I have included a finder chart that includes theta Ophiuchi and a white circle that defines the field of view of my Oberwerk binos with 20mm eyepieces inserted. The wide field of the binos made framing this object very easy with easy bright star references in the field to better locate where I should see the object. It also helped that the binos provide an erect view (i.e. no flipped or reversed view).



With careful study of the view I was able to see the largest and darkest portion of the Snake just above the brightest star shown in the inset picture of the Snake included below. I could not make out the full "S" shape. I did also see a strong hint of B68, the inky black spot that is the topmost of the three spots to the west of the Snake. I imagine this would be an easy target under mag 7 Arizona skies, but it is quite the challenge under even UC skies here in Tennessee. I would estimate that the limiting magnitude at UC was about magnitude 6.0 near zenith this night, but not as dark of course as you approached the horizons where Ophiuchus/Sagittarius/Scorpius unfortunately live at our latitude.

Another highlight of the evening was an amazing view of M101 in Dennis' Tak. I think we observed spiral structure with one side of the galaxy displaying the "unbalanced" appearance that is seen in photos. Bob remarked that M51 would be wonderful if M101 was so good -- and sure

enough M51 was glorious in Dennis' scope. The spiral arms and bridge to companion NGC5195 were easily observed.

As the evening progressed, more of the southern Milky Way became visible. Bob took the opportunity to target his personal favorite: M22, a glorious globular. Steve was interested in learning more about that area of the sky and I used my laser pointer to guide him along the string of wonderful Messier objects that site above the Teapot. We progressed through M8, M20, M24, M23, M25, M17, M18, and finally M11. We used various filters on the nebulae and various eyepieces of different focal lengths to best frame each object in his C8. I also enjoyed the views through my binos which frames open clusters in a wonderful fashion.

We all eventually settled into some serious personal observing of our own targets of interest. I concentrated on the area of Scorpius in and around NGC 6231, which itself is a beautiful open cluster shining with the light of some of the largest and hottest stars in the Milky Way. NGC 6242 was an odd-appearing little open cluster in my binos. It had a distinct rectangular shape. The area is just peppered with open clusters and I viewed and id'ed several.

I roamed up through the Milky Way, as the clock ticked well past 1 AM, stopping to view many of my favorite objects such as M11, M26, and B142/B143. Dennis was the first to leave as he had a schedule to keep the next day.

Bob trained Emily on the Veil Nebula with a UHC filter and widefield eyepiece and we all enjoyed the view. Steve left on the road for home shortly thereafter (we encouraged him to stick to Hwy 68 and I-75 for the trip home). Bob, Lee, and I continued observing between rests. I visited several objects near Cygnus and found the energy to concentrate on another newish area of the sky for me near Lacerta. I worked my way eastward from M39 and was rewarded with very nice views of open clusters NGC 7209 and NGC 7243. Nestled in between was the obvious dark streak of B168 which contains the famous "Cocoon Nebula" at one end. The nebula itself was too faint to observe but the dark nebula was an easy target.

Eventually we all tired and readied to leave about 3:30 AM. As I drove down the mountain it was possible to see the star clouds of the Milky Way above the Teapot out my pickup truck's window. I so wish we could enjoy such views without the necessity of a long drive. However, it was one evening that I surely did not regret making the effort.

July 2008

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2 New Moon	3	4 UTK	5 Star Party UC TAO
6	7	8	9	10	11 Meeting PSTCC 7 pm	12 Star Party LR #1
13	14	15	16	17	18 UTK	19 TAO
20	21	22	23	24	25	26
27	28	29	30	31		

SCRAPS depends Upon its friends

Help! Help!

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