

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

Society's ChRonological Astronomical PaperS



## Message from the President

I love to hear that "Wow".

I have heard it when scouts looked at Jupiter and also saw his moons.

I have heard it when young people of less than a decade and young people with at least 7 decades looked at Mars and saw the ice caps.

I heard it when, one after another standing in line to look through my ETX, they saw the color contrast in Alberio.

I heard Wow and a squeal when a four year old saw the mountains and craters on the moon. She like me wanted to share and said "Look Mama it's the moon."

With our telescopes we can offer a gift to young minds which is a kind of fertilizer. Nursing the curiosity all young minds have. Thrilling the imagination with wonders unimagined and feeding the hunger to know the world into which we were born.

These are some of the reasons I get such fun from our hobby, our avocation, our quest.

Occasionally, my mind shudders at the vast, cold, void through which we peer. I think of the burning blaze of xrays and ultra violet which bathe the nebula which are so beautiful to use out here at a safe distance but near instantly fry our kind of life.

I think of the star, perhaps with a planet inhabited by intelligent life unlucky enough to be flung into intergalactic space and wonder if they notice the galaxies around them so distant and can find a way understand them as we do our galaxy. I think of the immense gulf between even the stars in our galaxy and wonder if we will even if only by radio or light beams hold conversation with life not of the earth.

These are some of the reasons I get a deep feeling of just how precious is the thin layer life clinging to our planet.

I wonder what the generations who will shortly follow us will do with the promising start we have made understanding our solar system. I hope humanity will not remain confined to just the Earth. It will be hard but I believe and hope we can establish ourselves in several other places in our solar system. Under the surface of the Moon and Mars to hide from the solar radiation seems to me the first places we might get a toe hold and where the first human extra terrestrial will be born. Perhaps we can build nests in side asteroids too. I assume it will take more advance rocket technology to get to such places. Energy sources

other than fossil fuels we develop for use here will be all the more important out there.

Can we one day terra form these places. Build or release an atmosphere for Mars. Sequester or siphon off most of that at Venus. It is to these opportunities we should aspire.

These are some of the reasons I feel time is too precious to waste and that we should be reaching out from our Earthly cradle today and all the tomorrows for generations.

Can the generations who follow at more distant millenarian devise how to send life to planets around other stars. Can we realize construction systems which could build life from raw materials at the destination using information we send the only way feasible, sub light. Will we develop cultures and civilization which endure in our solar system who look back at us with admiration for what we built with the tools of mostly inorganic chemistry, fossil fuels, vacuum tubes and silicon semiconductors understanding how difficult it is to be a child in this unearned boon we call our universe.

These are some of the futures I ponder as I wonder if anyone is out there, looking our way, pondering like I do.

I heard "Wow!" and it was me.

**Lee Erickson**

## Events – Future

September 4, 2010 – Star party at Unicoi Crest (weather permitting).

September 10, 2010 – Regular SMAS meeting at PSTCC.

**Tentative program:**

Vincente Diaz: Basic Spectroscopy

Michael Reuter: Where to Find M31

GSNMP Star Party Discussion

September 11, 2010 – Special SMAS Star Party: Visitor's Center in Townsend

October 2, 2010 Special SMAS Star Party – Cades Cove GSMNP Star Party 2010

**From Michael McCulloch about the September 11 event:**

This event is a GO! Everything is in place. This is a good event to use as practice for the Cades Cove event that follows three weeks later.

SMAS'ers plan to show up about 7:30 PM to setup your scopes. The exact location on the neighboring field hasn't yet been determined. We will try to select

a place that blocks as much of the surrounding light as possible. You WILL be able to drive your vehicle into the grassy field.

The grass may not be mowed however, so it is suggested that you bring a tarp to setup on if the grass bothers you. A porta-pottie will also be provided.

=====

SUGGESTED PRESS RELEASE:

=====

When: September 11, 2010 @ 8 PM  
Where: Townsend Visitors Center, 7906 E. Lamar Alexander Parkway,  
Townsend, TN 37882  
Website: [www.smokymtnastro.org](http://www.smokymtnastro.org)

The Smoky Mountain Astronomical Society, in cooperation with the Smoky Mountain Convention and Visitors Bureau, will delight you with views of the wonders in the heavens the evening of September 11th. The public should gather in the parking areas at the Townsend Visitors Center. A short walk to an adjoining grassy field will be required to access the telescopes.

As the sky darkens, SMAS members will briefly speak about sights, lore and legends of the autumn sky. The program continues after nightfall with public viewing using the society's powerful telescopes to explore deep into the cosmos. SMAS members will be available to point out the summer stars and constellations. The sights in our telescopes will include the Moon, colorful double stars, the gaseous cocoon of a dying star, star clusters and nurseries near the center of our own galaxy, great swarms of stars called "globular clusters", and our closest galaxy neighbor comparable to our own.

Bring a canvas chair or blanket on which to sit, wear comfortable shoes, and be sure to dress warmly. A flashlight is also recommended (red or red-covered flashlight preferred but not required).

In case of rain or overcast skies on Sept 11th, please check the SMAS website or call the Visitors Center at 865-448-6134 the day of the event for status.

=====

---  
Michael McCulloch

**Events – Past**

August 7, 2010 – Star party at Unicoi Crest



Michael Reuter with his new DSLR camera getting help from Lee Erickson on the use of Lee's barndoor tracker



Dennis Hutcheson with his Takahashi Mewlon 210 ( a Dall-Kirkham Cassegrain design 8" scope) on a Discmounts Inc DM-6 (Alt-Azimuth mount) equipped with a Sky Commander XP-4 DSC



Lee Erickson and Kenny Pridgen setting up Sasquatch



Duane Dunlap setting up his Celestron 9.5



Photo by Michael Reuter, Andromeda and M31 in center, Square of Pegasus in upper right, Cassiopeia in upper left, with double cluster between Cassiopeia and the trees



Photo by Michael Reuter – great view of Scorpius and part of the Milky Way from Unicoi Crest – 8/14/2010

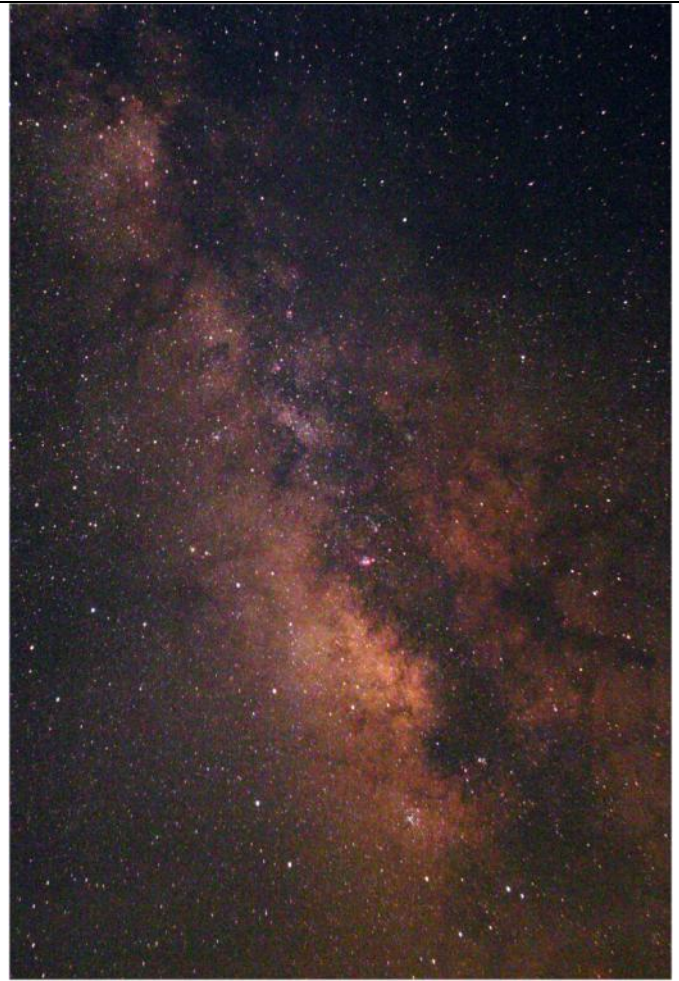


Photo by Jim Sanders – Milky Way with M8 near the center – taken at Unicoi Crest on 8/14/2010

### **Perseid Meteor Watch August 12-13, 2010 - Observation reports:**

From Gary Bridges: Ralph and I sat out last night. We started at dusk and watched a lightning show to the northeast of us. It was partly cloudy to hazy cloudy for the first couple of hours we were out. At about 11:30 the clouds and haze moved out and we were rewarded with clear skies the rest of the night except for a few passing scattered clouds. We ended up with a count of 70 by 5:30. Most were bright and left trains behind them. We probably would have seen more but for the light scatter from White Pine that is to the north of us and having to chase a raccoon out of my equipment building. All in all, not a bad night.

From Michael Reuter: I got up at 2:30 AM and stayed out until 5 AM. The transparency of the sky from my house was about mag 4. In order to not stare at streetlights, I observed from my back deck, which means the house and trees block a large portion of the sky. I counted only 10 meteors while I was out. I managed to get an out-of-focus picture of one of them.



From Michael McCulloch: I went out about midnight in my backyard and could barely see the brightest stars. I watched for about 20 minutes and saw two meteors. Given the warnings about West Nile virus in the Cedar Bluff area, I decided to give it up and leave it to the skeeters.

From Lee Erickson: Observed from Look Rock - Early in the evening we had a couple of bright meteors which were not radiating from Perseus. I think they were north to south like what we saw last Saturday at Unicoi Crest. As the night went on about mid night activity picked up. However I think I fell asleep a few times so I may have missed it. About 1:30 to 2:00 I defiantly woke up and decided I had best drive home while I was fresh from my unintended nap. In my driveway after 2:00 I lay on my pickup truck bed and watched some more and snoozed some more.

I saw over 12 fast moving meteors with the bright ones green in color. About 3:30 to 4:00 I again woke up and went inside to sleep.

## Minutes of August 13, 2010 Meeting

Attendees: Brent Holt, Michael McCulloch, Lee Erikson, Vicente Diaz, Jim Sanders, Michael Reuter and  
Guests: Andy Cunnyngham and Donald Sharpe

Call to order by President Lee Erickson at 7:30 PM.

Began with a group discussion of experiences during the Perseids Meteor Shower. In addition, Andy Cunnyngham and Donald Sharpe shared their experiences with photographing the event.

Lee Erickson informed the club that the Heritage Planetarium has a good upcoming presentation "2 Pieces of Glass". The presentation describes a Star Party and Lee recommends that we try to have an impromptu star party at Look Rock following the presentation.

Treasurer's Report from Michael Littleton (presented by Lee Erickson):

Income: \$320.00

Expenses: \$462.95

Bank Acct Balance: \$ 607.94

Program: Widefield Astrophotography by Jim Sanders

Jim's presentation included introduction to several "freeware" programs that he uses for Astrophotography work. These were GIMP (for image processing), Astrolabrium (for measurement of FOV of photos), and DeepSky Stacker (for image calibration, aligning and stacking, and some image processing). Two example images were used to illustrate the techniques of "Stretching" and "Align and Stack". Jim also showed some examples of images he has taken using a Cannon Digital Rebel 35mm DSLR camera with standard lens or with a short focal length telescope.

Shown below are a few of the images presented:



M45 Original Photo – with considerable "sky fog"



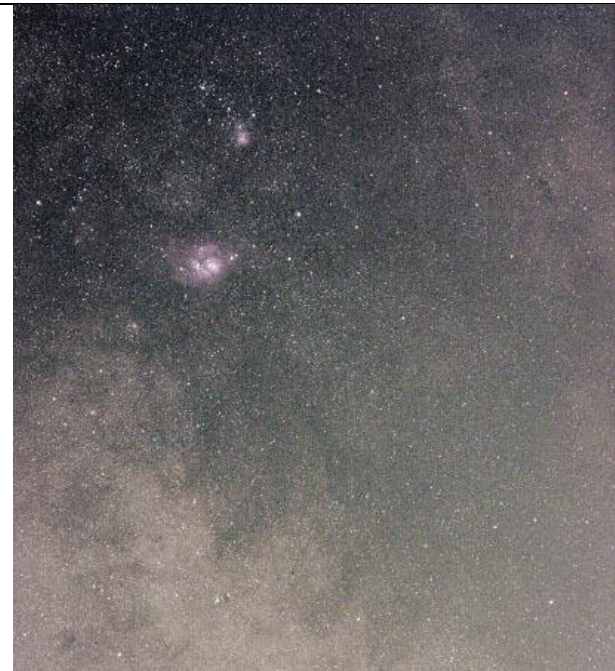
M45 Photo after stretching and cropping



M31 Original Photo – 1 of 6 (60 second exposures)



M31 Photo after stacking and non-linear stretching



M8 and M20 ( 135 mm lens, 30 sec exposure)



Sagittarius Star Cloud and M17 Omega Nebula  
( 135 mm lens, 30 sec exposure)

Measuring True FOV - Lee Erikson. The skies were somewhat clear, so a small group moved to Michael McCulloch's driveway to carry out the measurement using Lee's telescope. Two eyepieces were measured.

## Sky Events – September and October

**September 8** - New Moon

**September 21** - Jupiter at Opposition. The Solar System's largest planet will be at its closest approach to Earth. This is the best time to view and photograph Jupiter and its moons. The giant planet will be a big and bright as it gets in the night sky. A medium-sized telescope should be able to show you some of the details in Jupiter's cloud bands.

**September 22** - Uranus at Opposition. The blue-green planet will be at its closest approach to Earth. This is the best time to view Uranus, although it will only appear as a tiny blue-green dot in all but the most powerful telescopes.

**September 23** - The Autumnal Equinox occurs in the northern hemisphere at 03:09 UT. There will be equal amounts of day and night. This is also the first day of fall.

**September 23** - Full Moon

**October 7** - New Moon

**October 16** - Astronomy Day Part 2. Astronomy day is a grass roots movement to share the joys of astronomy with the general public. Two days this year have been designated as Astronomy Day. On these days astronomy and stargazing clubs and other organizations around the world will plan special events. You can find out more about October's events by checking the Web sites for [AstronomyDay.org](http://AstronomyDay.org) and the [Astronomical League](http://Astronomical League).

**October 20** - Comet Hartley 2 will make its closest approach to Earth, coming within 11.2 million miles. For a few days around October 20, the comet should be bright enough to view with the naked eye in the early morning sky. You will, however, need to be far away from the glow of city lights. Look to the east just before sunrise. In early November, NASA's Deep Impact spacecraft will observe comet Hartley 2 from a distance of about 600 miles.

**October 21, 22** - Orionids Meteor Shower. The Orionids is an average shower producing about 20 meteors per hour at their peak. This shower usually peaks on the 21st, but it is highly irregular. A good show could be experienced on any morning from October 20 - 24, and some meteors may be seen any time from October 17 - 25. Best viewing will be to the east after midnight.

**October 23** - Full Moon




## **News Articles Needed**

In order to have a better newsletter, I would ask that members contribute articles for publication in SCRAPS. Write about

- a project you have underway,
- a trip or visit made that had some astronomical connection,
- a review of an interesting book,
- a link to a useful website,
- or any other subject that might be of interest to the group.

Please send your articles to Jim Sanders ([sandersj@chartern.net](mailto:sandersj@chartern.net))

## September 2010

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	3 UT K	4 <b>SMAS Star Party Unicoi Crest</b>  TAO
5	6	7	8  New Moon	9	10 <b>SMAS Meeting PSTCC</b>	11 Special SMAS Star Party Townsend Visitors Center.
12	13	14	15	16	17 UT K	18 TAO
19	20	21	22	23  Full Moon	24	25
26	27	28	29	30	<b>October 2, 2010</b>  <b>Cades Cove GSMNP Star Party 2010</b>	

UTK – roof of Neilson Physics Building on the Hill At UT on 1<sup>st</sup> and 3<sup>rd</sup> Fridays  
<http://www.phys.utk.edu/trdc/telescope.html>

TAO – Tamke-Allen Observatory  
Public Stargaze  
Watts Bar Lake, Roane County  
1<sup>st</sup> and 3<sup>rd</sup> Saturdays  
<http://www.roanestate.edu/obs/>

S.CR.A.PS. is published monthly.

Editor: JC Sanders (sandersj@chartertn.net)