

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

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



## **June 3rd SMAS Picnic**

Tamke-Allan Observatory,  
Caney Creek Rd, Rockwood, TN  
Arrival 4:00 pm - Dinner 5:00pm

## **SMAS MEETING**

There is no regular club meeting in June.  
It is replaced by the picnic

### **From the President - Lee Erickson**

Summer is almost upon us. It officially begins on the Solstice at 7:26 EDT or 12:26 UTC June 21st. During daylight savings time the offset between eastern time and "Greenwich" is just 5 hours. During standard time it increases to 6 hours. We have Ben (Early to bed, early to rise, makes a man healthy, wealth and wise) Franklin to thank (or curse) for this seasonal time change.

The SMAS will be having the "summer" picnic technically in the late spring on June 3rd. This is a change from a previously discussed date. The Picnic will be at the Tamke-Allan Observatory (TAO). If you have never been to TAO you will need directions. You can always find them at our web site: <http://www.smokymtnastro.org/>. You can find TAO under the link to star parties.

But for those of you not yet on the web, directions can be found further below in the body of this newsletter.

June 24th is our deep sky observing star party at Unicoi Crest. If memory serves me correctly, in June we have sometimes observed nice displays of fire flies there. It is worth the drive just for the fire flies. At midnight, M13 a large globular cluster in Hercules, will be straight overhead.

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I can just imagine climbing up the ladder and peering into all those stars with Sasquatch. Over to the east will be rising Lyra. There, we will undoubtedly observe M57, the Ring Nebula, and I will undoubtedly look in vain for the central star. Perhaps one of you, with younger eagle eyes, will see it. Near by are some spectacular double stars. The Double Double, Epsilon Lyra. We can measure the position angles for them and confirm if the books have them right. (Separation 2.6 seconds and PA of 357 for A and B separation of 2.3 and PA of 94 for C and D from the night sky observers guide.)

Hope you come for Gastronomy June 3 and the deep sky of June 24

### **Tamke-Allan Directions - from Knoxville:**

Take I-40 West to the Midtown exit, Exit 350. Midtown is the next exit west of the Clinch River bridge (at the Kingston Steam Plant's tall chimneys). Many people speed right past the exit. As soon as you cross the bridge, start looking for Exit 350.

At the stop sign at the end of the exit ramp, turn left. In 400 yards, you will hit US 70. Turn right.

In roughly 2 ½ miles, find Caney Ford Baptist Church on the left. Turn left onto Caney Creek Road which borders the far side of the church. (If you get to the Roane County Park, you've overshot: turn around.) Continue on Caney Creek Road, turning right over the bridge in about one mile and pass the boat dock on your right.

In about 2 more miles, Joiner Hollow Road tees in from the right; bear left. Just 500 feet past that intersection you will see a sign on the left indicating the turn to the observatory. Follow that road to the top and be careful! It's curvy and narrow.

The observatory is at the end of the road. (Parking lot is to the right, through an open gate.)

We have some moon the night of the Picnic but we should not let it stop us from observing and interacting with the public that will arrive at TAO.

## **Picnic Sign-up - Lee Erickson**

Fellow Gastronomers,

We scheduled the SMAS picnic on June 3rd this year in hopes of cooler weather than last year. Meet at TAO at 4:00 and plan on consuming at 5:00. June 3rd is a regular TAO night and the non SMAS public will arrive latter to help finish any leftovers.

The main course will be Taurus BBQ Pork Shoulder and Smoked Apus (Chicken or Turkey).

The club will also bring plastic eating utensils from our leftover stock of previous Gastronomical events.

We would like club members to sign up with Lee Erickson to bring other items in a coordinated fashion.

You can contact Lee at 865- 977-1242 or by email at [leerickson@earthlink.net](mailto:leerickson@earthlink.net)

Items we would like:

Water and Soft drinks with and without sugar, and cups.

Coffee, creamer, sweetener and coffee cups.

Salad and dressing.

Snaking vegetable and dip.

Snaking fruit and dip.

Hot side vegetable.

Desserts. (Always popular.)

Paper plates and bowels.

And please feel free to suggest something not listed.

Gastronomy themes are most appreciated. Please submit recipes and an explanation of the Gastronomical significance of the items to the Secretary if at all possible. Gastronomical items need not be new or original works, old favorites are welcome, and plagiarism is encouraged.

If you are not up to making a Gastronomical "discovery" you can make a monetary contribution to cover some of the club expenses.

See you there!

Lee Erickson

## **The SMAS meeting of May 12, 2006 – Bill Dittus**

Socializing began at about 7:00 PM and President Lee Erickson presided over the meeting which began at 7:30 PM. 8 Members attended and two guests, Lee Wallace, and our guest speaker Paul Lewis. Thanks for coming Lee and Paul!

President Lee Erickson began the meeting per his agenda, outlining the upcoming star parties which we hope everyone will want to attend.

Fourth Star Party is scheduled to be held at:  
Look Rock #4 on Saturday May 20<sup>th</sup>.

Fifth Star Party is scheduled to be held at:  
Unicoi Crest on Saturday May 27<sup>th</sup>.

**Please Note: ALL scheduled Star Parties are subject to local weather conditions.**

SMAS will be featuring our annual picnic and Star Party at:  
Tamke-Allan Observatory on June 3<sup>rd</sup>. Please sign up ASAP!

Heritage Planetarium will feature the program:  
Search for Life June 2<sup>nd</sup>.  
Admission at the door will be \$1.00

Dues were collected from Mike Fleenor, and a motion was made and passed to renew the club's insurance policy.

Paul Lewis made a spectacular presentation on NASA's current unmanned probe missions to Pluto, Mars, and Mercury.

Paul started off by discussing that a tenth planet had been discovered and initially it was referred to as "Zena" this planet is larger than Pluto and current thinking maintains it must be at the very edge of the Kuiper Belt.

Paul stated the unmanned probe on its way to Pluto is called New Horizons.

Next on the agenda, Paul discussed the Star Dust project which captured Comet ejecta in Aerogel.

Paul was gracious enough to bring some Aerogel so that we could see the material and feel how light weight it really was.

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Next Paul discussed the probe MESSENGER which will enter Mercury orbit in March 2011 and carry out comprehensive measurements for one Earth year. Orbital data collection concludes in March 2012.

#### Science Payload

- Mercury Dual Imaging System (MDIS) takes detailed color and monochrome images of Mercury's surface
- Gamma-Ray and Neutron Spectrometer (GRNS) measures surface elements (including polar materials)
- X-Ray Spectrometer (XRS) maps elements in Mercury's crust
- Magnetometer (MAG) maps Mercury's magnetic field
- Mercury Laser Altimeter (MLA) measures topography of surface features; determines whether Mercury has a fluid core
- Mercury Atmospheric and Surface Composition Spectrometer (MASCS) measures atmospheric species and surface minerals
- Energetic Particle and Plasma Spectrometer (EPPS) measures charged particles in Mercury's magnetosphere
- Radio Science uses Doppler tracking to determine Mercury's mass distribution

Next Paul discussed the Mars probe Odyssey

Paul had some spectacular 3-D images from Mars by these required the 3-D glasses he provided

**You REALLY missed something special, these were awesome!!!!**

Next Paul discussed the latest information concerning the Hubble Space Telescope.

Last but not least Paul discussed going back to the Moon, planned objectives, he also brought a Moon Rock which contains microscopic bits of Iron (FE). He stated that all moon rocks have Iron but NONE have iron Oxide, due to the lack of any Oxygen atmosphere on the Moon.

**GREAT JOB Paul!!!!**

Next Bob Arr made a presentation on the "Night Sky" Nearing the end of Springtime.

Bob discussed a beautiful Double Star "Gamma Leo, the second star up from Regulus in the reverse question mark of the constellation Leo.

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Bob also pointed out a splendid Blue-Gold double in Coma Berenices called the 24 Coma.

Next Bob went on to discuss M51 and M101 near Alkaid, the first star in the handle of the Big Dipper, as well a Spring's most famous double, Mizar (#2 in the handle of the Big Dipper). Actually Mizar is a gravitational double/double.

Finally Bob discussed M3 a terrific globular cluster, found about halfway between Cor Caroli and Arcturus.

**GREAT JOB Bob!!!!**

***Now aren't you sorry you missed this meeting!!!!***

We still want to mention that a few positions are still available to anyone interested in volunteering.

These include:

Meet & Greeter	- <b><i>OPEN, waiting for YOU to Volunteer</i></b>
Publicity	- <b><i>OPEN, waiting for YOU to Volunteer</i></b>
Dark Sky Project coordinator	- <b><i>OPEN, waiting for YOU to Volunteer</i></b>

Any open appointments are just ***waiting*** for ***YOU TO VOLUNTEER*** !!!!

Lee tabled discussion on the subject of "***Future Goals***" until our next meeting.

A good time was had by all.





## Not a Moment Wasted

by Dr. Tony Phillips

The Ring Nebula. Check. M13. Check. Next up: The Whirlpool galaxy.

You punch in the coordinates and your telescope takes off, slewing across the sky. You tap your feet and stare at the stars. These Messier marathons would go much faster if the telescope didn't take so long to slew. What a waste of time!

Don't tell that to the x-ray astronomers.

"We're putting our slew time to good use," explains Norbert ScharTEL, project scientist for the European Space Agency's XMM-Newton x-ray telescope. The telescope, named for Sir Isaac Newton, was launched into Earth orbit in 1999. It's now midway through an 11-year mission to study black holes, neutron stars, active galaxies and other violent denizens of the Universe that show up particularly well at x-ray wavelengths.

For the past four years, whenever XMM-Newton slewed from one object to another, astronomers kept the telescope's cameras running, recording whatever might drift through the field of view. The result is a stunning survey of the heavens covering 15% of the entire sky.

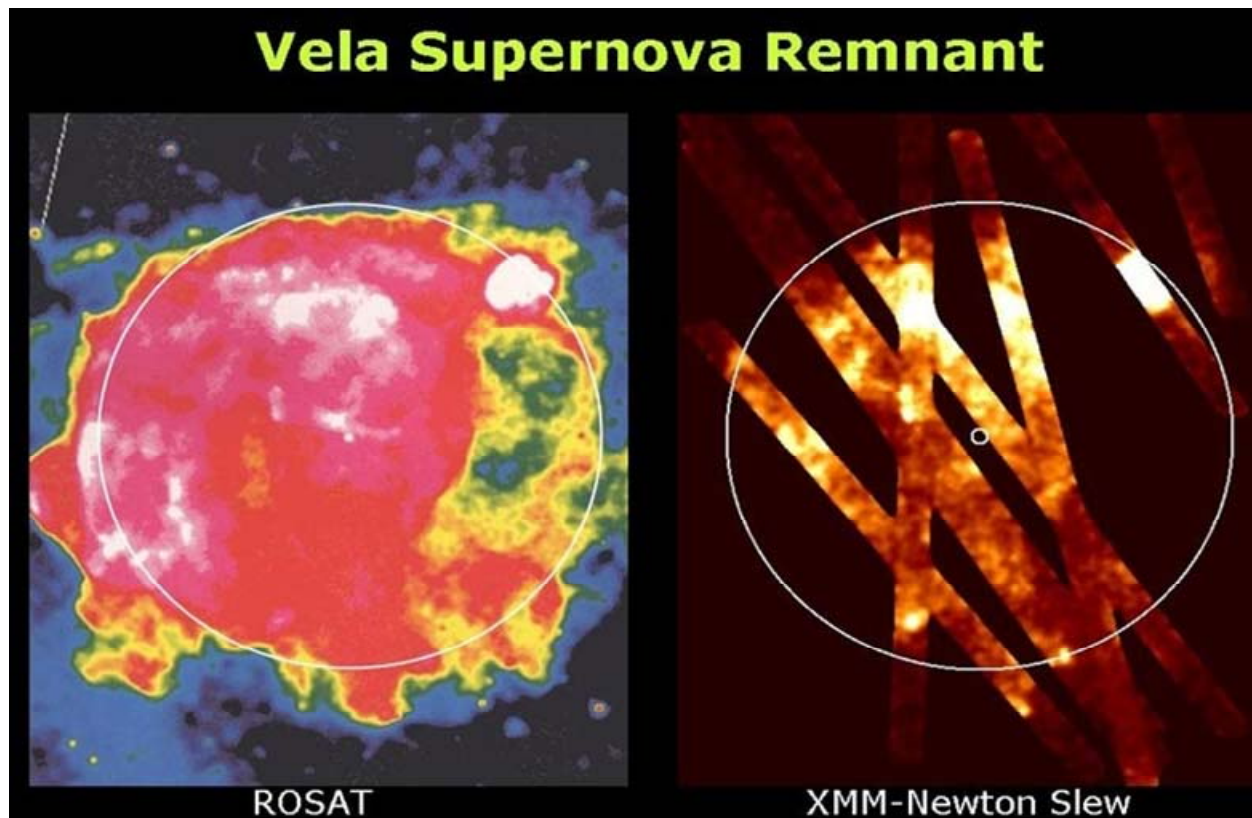
Sifting through the data, ESA astronomers have found entire clusters of galaxies unknown before anyone started paying attention to "slew time." Some already-known galaxies have been caught in the act of flaring—a sign, researchers believe, of a central black hole gobbling matter from nearby stars and interstellar clouds. Here in our own galaxy, the 20,000 year old Vela supernova remnant has been expanding. XMM-Newton has slewed across it many times, tracing its changing contours in exquisite detail.

The slew technique works because of XMM-Newton's great sensitivity. It has more collecting area than any other x-ray telescope in the history of astronomy. Sources flit through the field of view in only 10 seconds, but that's plenty of time in most cases to gather valuable data.

The work is just beginning. Astronomers plan to continue the slew survey, eventually mapping as much as 80% of the entire sky. No one knows how many new clusters will be found or how many black holes might be caught gobbling their neighbors. One thing's for sure: "There *will* be new discoveries," says ScharTEL.

Tap, tap, tap. The next time you're in the backyard with your telescope, and it takes off for the Whirlpool galaxy, don't just stand there. Try to keep up with the moving eyepiece. Look, you never know what might drift by.

See some of the other XMM-Newton images at <http://sci.esa.int>. For more about XMM-Newton's Education and Public Outreach program, including downloadable classroom materials, go to <http://xmm.sonoma.edu>. Kids can learn about black holes and play "Black Hole Rescue" at The Space Place, <http://spaceplace.nasa.gov/>, under "Games."



*The image on the left is the Vela Supernova Remnant as imaged in X-rays by ROSAT. On the right are some of the slew images obtained by XMM-Newton in its "spare" time.*

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.





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# June 2006

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2 UTK	3 SMAS Picnic 4:00 pm TAO
4	5	6	7	8	9	10
11 <i>Full Moon</i>	12	13	14	15	16 UTK	17 Saturn & Mars 1/2° apart near Beehive Cluster TAO
18	19	20	21 Summer Solstice 8:26 am EDT	22	23	24 SMAS Star Party Unicoi Crest
25 <i>New Moon</i>	26	27	28	29	30	