

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

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



Jan. 13th SMAS MEETING

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

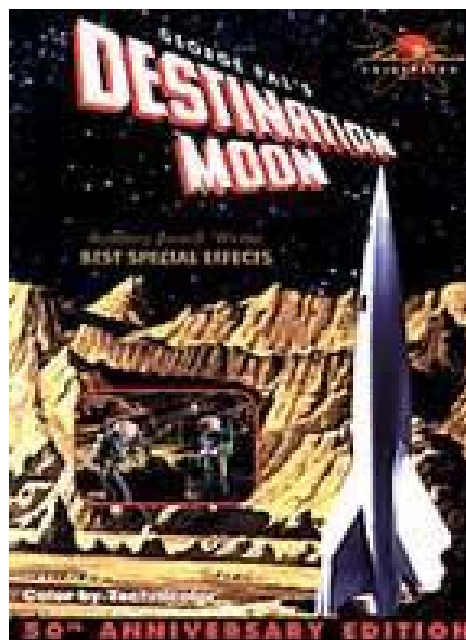
From the President - Mike Littleton

Return to the Moon

Last night, I watched a classic science fiction movie from 1950 called *Destination Moon*. It was written by Robert Heinlein, directed by George Pal, and used artwork by Chesley Bonestell. With these giants, it had to be good, and was good! Different from most science fiction movies then and now, it was scientifically accurate (*2001 A Space Odyssey* excluded). There was no “whooshing” of stars moving rapidly astern as the spacecraft moved through the vacuum of space. The plot of the movie was that the US must get to the Moon first so that the Soviets could not use it as a platform to rain nuclear weapons down upon us. (It was made during the height of the Cold War.)

The US has lost 17 people during manned space flight and many more in related activities (e.g. Elliot See and Charles Bass died in a T-38 crash on way to visit the manufacturer of the Apollo spacecraft. We have spent billions of dollars on manned space flight, ICBMs and bombers are cheaper and faster to deliver nuclear weapons, the US “won” the Space Race, so why should we return to the Moon?

I must admit my prejudice. I have been fascinated by space flight since before I could read. As a child, I expected there would be a permanent lunar base by the end of the Twentieth Century. It did not happen. Man last set foot on the Moon more than thirty years ago and only now are we making preliminary plans for a return. The Apollo Program was established to gain a political goal and had



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no clear long-term goal to establish a permanent human presence on the Moon. The reason to return to the Moon is that the Human Race has all its “eggs in one basket”. We know of catastrophic events in Earth’s history. Climate is not constant even over millennia. There was a little ice age from the fourteenth to the nineteenth centuries. Man’s goal should be to establish a permanent and self-sufficient lunar base.

The other reason is more intangible-it is for the adventure. The reason why you and I stand out in the cold at night is to see beautiful things and learn about the universe. The Moon allows astronomy at all wavelengths of the electromagnetic spectrum. The lunar gravity and raw material will make it a good launching place for manned and unmanned exploration of the Solar System and later the nearer stars. That is why we should return to the Moon.

In Remembrance of Mary Watson by Dave Fields

Mary Ellen Watson of Knoxville, Tennessee, died on Saturday, December 17, 2005. She was a caring friend and a wonderful companion who generously contributed to the lives of her friends, students, and fellow amateur astronomers. These categories often overlapped as she stimulated those around her by her dynamic, thoughtful exploration of the heavens. She selflessly helped and encouraged other people, assisted many visitors and students at the Tamke-Allan Observatory near Rockwood, and enriched all who knew her. Though Mary was a person of quiet dignity, she nonetheless had a zest for life, which she shared with twinkling eyes and gentle smile. She will be deeply missed.

Born in Florida and growing up in Oklahoma, Mary had a full life with a career in the U.S. Air Force, followed by completion of a 2-year degree with highest honors at a community college. She worked at Duncan Automotive; participated in astronomy education at Roane State CC and UT; and attended conferences at the National Radio Astronomy Observatories at Green Bank, West Virginia and Arecibo, Puerto Rico.

A memorial fund has been established in Mary's name, to support students, especially girls in grades 7-12 who share her love for astronomy, as they do research in radio and optical astronomy at Tamke-Allan Observatory or an approved radio astronomy site. In lieu of flowers, please send donations to the Mary E. Watson Memorial Astronomy Research Endowment, in care of the Roane State Foundation, 276 Patton Lane, Harriman, TN, 37748.



SMAS HOLIDAY PARTY DECEMBER 2nd 2005 - Lee Erickson

The close of 2005 saw an evening gathering of 14 SMAS astronomers and spouses. During these dark days near the winter solstice, the sunny Italian food of the Gondolier Restaurant and enlightening company of fellow SMAS gastronomers was a very pleasant experience. As we arrived and our orders were taken, we discussed events of the previous year and upcoming holiday plans.

Unknown to some of us, late in the day before the holiday gathering Bill Dittus had sent out an email trivia challenge, "What are the words to the first verse of Good King Wenceslas?" Angela Quick answered the challenge by singing the first verse!

After the trivia question and serenade, we were entertained by a multimedia extravaganza DVD featuring some highlights of this past year. This video was put together by Mike Littleton and includes some astro-photos taken by various SMAS members, an overview of the rebuild to the club's 20 inch telescope and the assembly of the telescope at night in the dark on its most recent first light at Look Rock. Who knows how many first lights the 20 inch has now had?

Unfortunately, the SMAS Holiday Party photographer was too distracted by his wonderful meal and the interesting conversations to get complete photographic coverage of all of the participants or the gastronomical delights of the Gondolier Restaurant. Since most of the photos were taken before the food arrived, several of us are pictured with only bread sticks, and or beverage mugs in hand.



Roger Macklin, Joe Baldwin, Teresa and Bill Dittus

(Continued)



Bob Arr, Jean and Mike Littleton, Roger Macklin

After the meal your photographer belatedly recovered his wits and snapped this photo (*see next page*) with evidence of the consumption of meals.

Yes, once again SMAS participants demonstrated their unique Gastronomical accomplishments.

To all the members present and members not present at the Holiday Party, may you all enjoy clear skies and pleasant observing in 2006.



Roger Macklin, Joe Baldwin, Jerry Calia

A note on image processing of Gastronomical images.

Just like images taken by Astronomers, the images taken by Gastronomers sometimes need further processing before they can be presented. Since these photos were taken under challenging gastronomical lighting conditions they will serve to illustrate an elementary image enhancement lesson.

Here is an unprocessed Gastronomical image.



Details lost in the dark regions of this image can be recovered by “gamma correction”. Gamma correction is a mathematical operation where the brightness of each pixel is raised to a power. The power is conventionally called gamma and so the process is gamma correction.

The same image with the gamma corrected or "adjusted" by raising to the power of 2.1.



Notice that behind the gastronomers the details of the window blinds can now be easily seen.

If you tried to use a brightness increase to get the same detail visible you burn out the high lights.



I hope this lesson in gastronomical image processing has been helpful to you. - Lee Erickson

The Wiz

Dear Wiz,

I enjoy a night under the stars with lovely music, friends and an atmosphere of exploring and sharing. But it just seems to me that a bottle of Liebfraumilch (or maybe even a sixpack of Coors) might contribute a perfect ambience to it all. What do you think?

C. Lugg

Dear Chuga,

You may have a point. After all, it's a Star PARTY, isn't it?

I suppose it all depends on one's expectations. The drive home notwithstanding, a little schmoozing with one's buddies can certainly be a pleasure. An occasional glimpse of something special in an eyepiece can add interest and even excitement to the proceedings. What's NELM among friends, eh?

By the way, that means Naked Eye Limiting Magnitude... in other words, what's the dimmest star you can see?

You might want to take a look at

<http://jeff.medkeff.com/astro/observing/beer/>

Skoal!

Da Wiz

Hind's Crimson Star now at its best

R Leporis, better known as Hind's Crimson Star, is a ~432 day variable. But when it is dimmest it is also reddest...and right now, it is gorgeously red. And its viewing position could hardly be better, since it's directly below the knees of Orion. See SCRAPs, January 2004.

January 2006

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4 Quadrantid Meteor Shower	5	6 UTK	7 TAO
8	9	10	11	12	13 SMAS Meeting PSTCC Rm 223 7:30 pm	14 <i>Full Moon</i>
15	16	17	18	19	20 UTK	21 TAO
22	23	24	25	26	27 1967: Flash fire kills three Apollo 1 Astronauts	28 TBA SMAS Star Party ? 1986: Space shuttle Challenger ex- plodes
29 <i>New Moon</i>	30	31				

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