

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

Society's ChRonological Astronomical PaperS



## From the President by Bob Arr

In August, our club undertook the largest effort it has ever made to reach out to the public--a week-long, two-site viewing of Mars at its opposition. The public's response was overwhelming, and I can't say enough for the willingness and sacrifice of the members who participated. I don't think any of them got to bed before 2 am, and this went on for five nights. But Lordy, It was worth it! They ranged from under-4 to over 80, some in wheelchairs and on crutches...but they came. The eagerness on their faces, their patience with long lines, and the audible sincerity in their Thanks told time after time how much they appreciated our effort. (Read Article I in our Constitution..."The goal of SMAS is to facilitate ...appreciation of astronomy and related physical sciences in our community." It couldn't have been done better, gang.)

### The Mars Volunteers:

Monday Aug 25: Pellissippi: Mike Fleenor, Robb Feldhege, Michael McCulloch, and Bob Arr.

Tuesday Aug 26: Pellissippi: Mike Fleenor, Robb Feldhege, Michael McCulloch. Maryville: Angela Quick, Erik Iverson, and Bob Arr

Wednesday Aug 27: Pellissippi: Mike Fleenor, Michael McCulloch, Mike Littleton, Mike Naney, Mike Arr. Maryville: Angela Quick, and Erik Iverson

Thursday Aug 28: Rained out, but Roy Morrow didn't get the word. He showed up at Pellissippi after the clouds passed and serviced a crowd of 30 single handedly.

Friday Aug 29: Pellissippi: Jerry Calia, Lee Erickson, Janice Erickson, Bill Buchanan, Ed Gorney, Michael McCulloch, Bob Arr. Maryville: Angela Quick, Erik Iverson, Steve Rothschild, and Tom Rimmell.

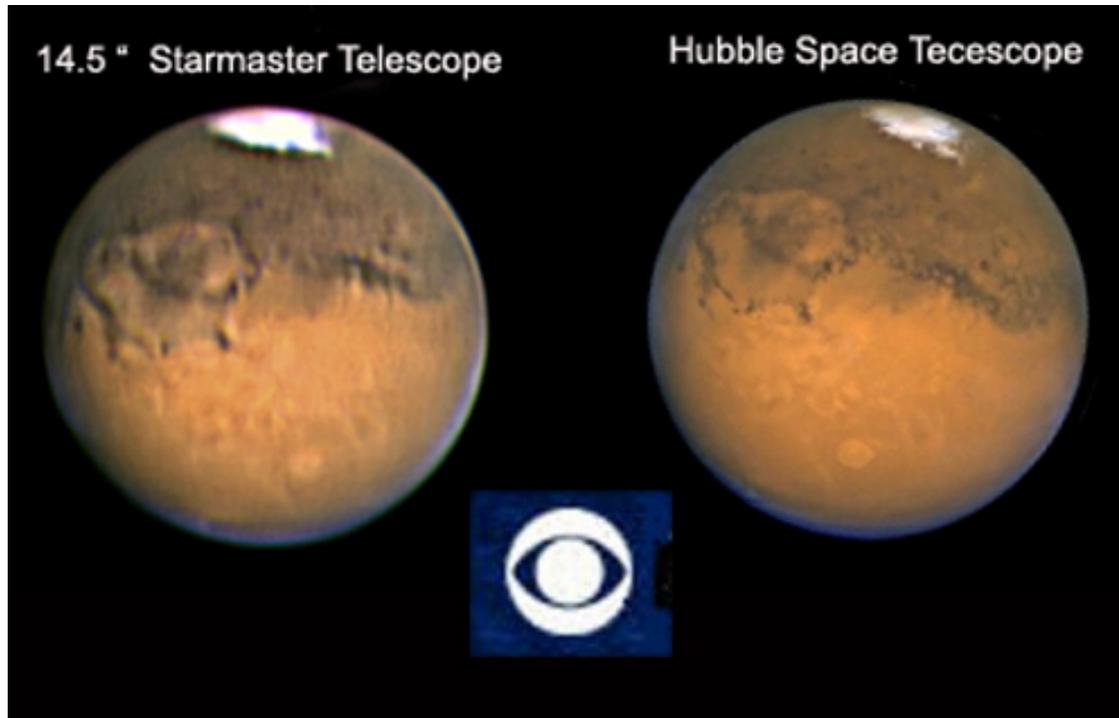
Accolades, whooplas and hoo-boys to all. We dun good.

On Saturday, October 4, we will take part in the Camporee of the Great Smoky Mountain Council of the Boy Scouts of America. It takes place in south Knoxville, just east of Ijams Nature park. It's really going to be a big event--they expect 2,000 boys to participate. Our role will be to have telescopes set up in the afternoon for solar viewing, and even more telescopes in the evening for night skies. The sun sets at 7:30, and by 9 the moon will be overhead, two days past 1<sup>st</sup> quarter. Mars, almost overhead, will still be impressive. Owen Hoffman is our project officer for this endeavor, and he will shortly be asking for volunteers to support this one-day effort. Please join in; these kids are fun, as well as future SMAS members!

**September Meeting Agenda:** Angela Quick and Erik Iverson will talk about their trip to Star Hill Inn. Ed Gorney will lead a dark sky discussion; Steve Rothschild will present "The Night Sky". Owen Hoffman will discuss the Camporee. Finally, Bob Arr will lead a discussion of the proposed John Dobson visit and lead a cleaning eyepieces clinic. (If you have a dirty one, bring it!)

## CBS on Mars?

Unicoi Crest observers were startled to see this feature of Mars appear about 3 am on August 24. None of them were familiar with it, except as CBS's famous logo. It is properly known as Solis Lacus, the Lake of the Sun (aka The Eye of Mars). If you aren't familiar with it, it's quite a surprise. *(Also quite a stretch! The Editor)*



## Lick Observatory by Ron Dinkins

I was in San Jose, CA on a business trip June 5<sup>th</sup> and took off after work to Lick Observatory on Mt. Hamilton just 23 miles from my hotel. Lick Observatory is only 13 miles from the San Jose city limits as the crow flies, but 19 of the curviest miles I have ever driven in my life. California Highway 130 travels up to Mt. Hamilton following the original wagon road used for the construction of the observatory. The road is not only winding but has steep drop-offs of hundreds of feet with no guardrails at anytime. My wife who is afraid of heights asked me to stop once to calm down on the way up.



At the top of the mountain we finally arrived at Lick Observatory. The elevation is 4200 feet above sea level in the parking lot. We got there just 10 minutes before closing time. The dome here is for the 36 inch Lick refractor installed in 1888. Luckily the lady in the gift store was kind enough to give us a quick tour of the 36 inch refractor before she locked up for the evening. (Her husband is one of the full time astronomers there so they live on Mt. Hamilton.)

The 36 inch refractor is 58 feet long giving a focal length of  $f/19$ . The crown and flint lens were ground by Alvin Clark and Sons over a one year period. The scope saw first light in

## LICK OBSERVATORY (CONTINUED)



**36" Refractor**

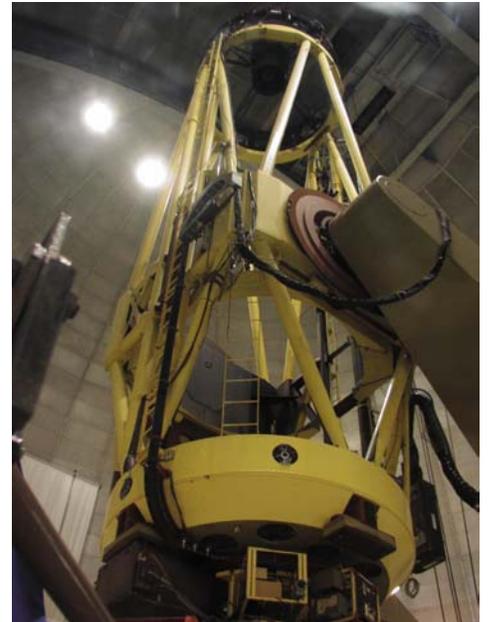
1888. It is the 2<sup>nd</sup> largest refractor in the world, and was the largest until the Yerkes 40 inch was completed in 1897. Mr. Lick is buried under the center pedestal. It is still used 2 weekends every month by two graduate students studying globular cluster core star movements. The scope has recorded globular cluster photographs dating back over 100 years. To reach the eyepiece, the entire 60 foot diameter floor raises and lowers up to 16 ½ feet. Counter-weights are housed in columns spaced around the floor. One is visible behind me in the photograph.

After visiting the refractor, we were pointed to the Shane reflector telescope located ¼ mile west of the visitor center. The astronomers were still eating dinner at 5:30 PM so we were told we could take a quick peek before they began their work for the evening. The Shane 120 inch reflector is the main research telescope on Mt. Hamilton. It is used every good observing night available. More extra-solar planets have been discovered with the Shane than any other telescope. It is a Cassegrain f/5 telescope in a yoke mount and weighs 147 tons.



**Ron, Daughter Hayley, and Son Christopher Listening to Tour Guide**

The observatory has 14 full time astronomers but in the summer the numbers swell to up to 60. On the way back down Mt. Hamilton, we saw a black tail deer, a bobcat, and a 5' rattlesnake in the road. The drive down was easier since we knew what to expect. It was a long drive but definitely worth the trip. For a virtual tour on the Internet, try out [www.irving.org/xplore/lick/contents.html](http://www.irving.org/xplore/lick/contents.html)



**Shane Reflector**

## BEAT THE HEAT!

Stay inside and share your astronomical experience with the rest of SMAS and everyone on the Internet by writing an article for SCRAPS. Contact Mike Littleton at (865) 671-1022 or email [littlem@ix.netcom.com](mailto:littlem@ix.netcom.com).

## WANTED

Wanted: 3 small finderscopes (perhaps the 6x30 el cheapos that came on an old reflector). Needed to complete Telescopes for Kids. Call Bob Arr at 982-3599

## August Meeting by Angela Quick

The August SMAS meeting was held on Friday, August 8, 2003 at the Division Street Campus, Pellissippi State Technical Community College. Thirteen members were present at the August meeting, which president Bob Arr began at 7 PM. Bob introduced new member Bill Buchanan. Five guests joined us for this meeting: John Widloski, a guest speaker for this evening, Mark Widloski, John's father, David and Pamela Crawford, Angela Quick's mother and stepfather, and D. R. Fudge, a member of the ORION club.

Wayne Thompson spoke on Radio Astronomy in the Southwest, telling us about his visit to the National Radio Astronomy Observatory in Socorro, New Mexico. Wayne gave us an overview of how radio astronomy works, some important research that has been done in the field of radio astronomy, a quick tour of radio astronomy facilities around the world, a detailed description operations at the NRAO in Socorro, and a quick peek at the future of radio astronomy.

Michael McCulloch treated us to a tour of the constellation Cygnus for the evening's Night Sky program. Objects included were open clusters M39, NGC 7082, NGC 7039, NGC 7063, NGC6910, NGC 6866, NGC 6811, NGC 6819, NGC 6871, NGC 6940, NGC 6885, NGC 6882, and NGC 6823; the Crescent, Veil, Blinking Planetary, North American, and Dumbell nebulae; and double stars Albireo, 61 Cygni, 17 Cygni, and the nearby double-double star Epsilon Lyrae. The overlay map Michael used for his presentation is available at <http://www.gamesforone.com/stars/Cygnus.html>.

John Widloski presented an independent study project on supernovae and elemental formation.

After these excellent programs, we began the business portion of the meeting at 8:30. We discussed two major possible projects for the club.

**Project #1 -- A Visit from John Dobson:** It has been suggested that SMAS try to arrange an east Tennessee visit for famous sidewalk astronomer John Dobson. SMAS would do this in conjunction with ORION and perhaps in conjunction with other east Tennessee astronomy groups. Since such a visit would involve significant planning and volunteer work from members and some expense, all members of the club should give the idea serious consideration. We will further discuss the pros and cons of this project at the September 12 meeting. Please look over the information on page 2 of the August newsletter (<http://www.smokymtnastro.org/scraps/Aug2003.pdf>) and at Dobson's home page, [www.johndobson.com](http://www.johndobson.com), before the meeting to help you decide how interested you are in helping with this project. Please come prepared to make a decision on whether or not this is an activity SMAS should sponsor.

**Project #2 -- Public Viewing Events for the Opposition of Mars:** Who would be interested in setting up their telescopes to give the public opportunities to view the opposition of Mars? Has anyone already planned to do this? For this activity, we would want to set up where we could easily attract people's interest -- bright lights would not really an obstacle, since Mars itself is so bright right now. Since the best time for viewing Mars happens before our next meeting, let's try to come to some conclusion on this during social time at the end of the meeting. Bob will coordinate activities for the last week of August -- watch email / the Yahoo group for more information. The meeting concluded with social time from at approximately 8:45 PM.

## Insuring Your Equipment by Bob Arr

Most of you know that I own a Starmaster telescope. They are expensive, and even though I bought mine used, if something catastrophic were to happen to it, I'd probably have to buy a new one to replace it. Used ones are few and far between, and only a little cheaper than new ones. Also, I am a member of the yahoo Starmaster Group, and I read its posts daily. The subject of insurance was recently addressed, and I was truly surprised by some of the insights. They apply to all telescopic equipment, not just Starmasters. I have assembled and edited what I think are the most significant messages, in order to give anyone interested an idea of the current experience. I have added my comments to a few.

**Post 1:** "I searched the archives and could not find a thread covering insurance. Curious if many SM owners insure them, and if so as an addition to homeowners policy or are there other underwriters who specialize in this type policy?" Bill H.

**Post 2:** "Good luck. I have been unable to find coverage that will cover my 18" that is affordable." Marvin

COMMENT: he owns a \$10,000 scope and can't afford insurance? Hmmm??

**Post 3:** "I have American Family insurance and my agent assured me that my scopes are covered under my homeowners insurance. I have no special rider on the homeowners and am not paying any extra premium. I do make sure my replacement amounts are adequate...every year or two." Ginger

**Post 4:** "Be careful with this! They will try to replace your premium Starmaster with a not so premium replacement price. To them an 18" Starmaster is the same as an 18" junk scope (or whatever size you have). Years ago I had an expensive premium banjo that was stolen (approx. value of \$2000.00). They wanted to offer me \$120.00 because there were banjos that cost that much. You need a letter of appraisal and an invoice from your purchase and it should be a line item in your insurance policy." Neil

COMMENT: according to my insurer, USAA, Posts 3 & 4 will probably confuse the average homeowner, because they fail to explain the difference between "standard coverage" and "replacement cost coverage." Homeowner's policies usually include standard Personal Property coverage, which does in fact cover telescopes and accessories. However, the payoff is based on the price you originally paid, and it automatically reduces the payoffs by depreciation and deductibles. There's no such thing as "I do make sure my replacement amounts are adequate...every year or two." under homeowners standard Personal Property coverage.

But with "replacement cost coverage" (a Personal Property option available for an extra charge), one may indeed recover the full cost of buying a brand-new replacements. Trouble is, this option can only be purchased for total replacement of everything in your house (as if it burned to the ground.) In other words, under the Personal Property replacement cost option, you've got to insure all your belongings, not just your astronomy stuff. The premium goes up significantly. And yes, the value of the old telescope (and everything else) does have to be validated when the policy is taken out, by receipts (or, without them, an appraisal.) This effectively "locks in" the amount of a payoff. Here's another rub. If the price of a comparable telescope rises over time (and expensive ones certainly do!), you must update the insurance company's replacement amount to continue to have full coverage. Needless to say, this will increase your premium, but maybe not much. Now comes the good news. There is yet another option called a "Personal Articles Rider." With it, you get to buy replacement cost coverage on whatever specific items you want, but not on the rest of your belongings.

**Post 5:** "I have a separate rider on my homeowner's policy for my scopes, eyepieces, etc. State Farm, for whatever reason, puts it under the 'cameras' rider. It's "replacement cost" coverage, not any of this 10

## Insuring Your Equipment (continued)

cents on the dollar stuff (they ask up front for proof of value/cost when writing the rider.) I too was worried about what happens away from home, such as getting rear ended by an uninsured motorist, theft, etc. The policy covers most things, including breakage. It is not cheap, but the peace of mind is worth it." Alex

**Post 6:** "I have a similar rider with West Bend Mutual. One thing with Starmasters, though: you want to update the replacement price every once in a while. I recently discovered that my Starmaster 22" has nearly DOUBLED in value in the five years I've had it. I'm getting my coverage adjusted to keep up." Astrosetz

COMMENT: Updates are up to you--your insurance company will not volunteer to do it for you. If you really want full coverage, you better track the value and notify the company when it changes, maybe every year or two.

**Post 7:** "I just got through updating my policy with State Farm and it is a personal property policy that is itemized with all my equipment and prices that I update yearly. It covers everything, damage, theft, fire, rain anything you could possibly do is covered. I don't think it is priced too bad and the price of this stuff adds up so fast that I don't see how you could afford not to insure it. Like a good neighbor." Dan

COMMENT: he didn't say it completely, but what he has is personal property coverage with the full-cost replacement option.

**Post 8:** "I have a personal articles policy with State Farm. I listed everything that is inside my trailer including a 20" SM, 7" SM, about a dozen TeleVue eyepieces, camera equipment, laptop, filters, giant binos, other stuff. Everything is individually listed on the policy and they have serial numbers and photos of most of everything. Total contents are valued at about \$20K. A year's worth of coverage is \$204.00. Scott Kranz

COMMENT: Scott is one of the Astronomical League's Observer Club chairmen (Messier, others). My impression is that he has observed the insurance problem quite well. USAA offers this "Personal Articles Rider" also. I am in the process of compiling my list, receipts, appraisals and photos, to submit so I can get a quote. That's how it works: you tell them what special stuff you want them to cover at what value, and their underwriters calculate a premium for it. So far as I can tell, all insurers offer this coverage.



# September 2003

**President:**  
**Bob Arr**

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**Rob Feldhege**

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**Angela Quick**

**Treasurer/ALCOR:**  
**Erik Iverson**

**SCRAPS Editor:**  
**Mike Littleton**

**Webmaster:**  
**Mike Fleenor**

**Observe Chair:**  
**Ron Dinkins**

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3 1st Qt. Moon	4	5 UTK	6 TAO
7	8	9	10 Full Moon	11	12 SMAS Mtg.	13
14	15	16	17	18 Last Qt. Moon	19 UTK	20 TAO Starparty
21	22	23 Autumnal Equinox	24	25	26 New Moon	27 Starparty
28	29	30				

### SCHEDULE OF EVENTS

**SMAS Website:**  
<http://www.smokymtnastro.org/>

- 9/5/03 and 9/19/03** Public observing from the roof of the Physics Building at UTK
- 9/6/03 and 9/20/03** Public observing at Tamke Allen Observatory
- 9/12/03** SMAS Meeting 7 PM at the Division Street Campus of PSCC
- 9/15/03** Mercury rises at 6:42 AM; Mars rises at 7:04 PM; Jupiter rises at 5:50 AM; Saturn rises at 1:39 AM
- 9/20/03** SMAS starparty at Unicoi Crest, NC
- 9/23/03** Autumnal Equinox at 6:47 AM EDT
- 9/27/03** SMAS starparty off Foothills Parkway at "Look Pebble"