



The Prairie Astronomer

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SOLAR MIRRORS MIGHT PROVIDE NITE TIME LITE FOR CITIES

In the near future cities across the country could have their nite time light furnish by 16 1/2 mile wide solar mirrors which would be placed in Earth orbit. The reflecting power of this setup could provide enough sunlight to cause considerable energy savings in the lighting of our cities.

This idea was developed by NASA scientists John Allaen and John Canaday of the Langley Research Center in Hampton, VA. But, and here is what every astronomer wants to hear, this setup would provide the equivalent of 56, thats right 56 full moons. This idea could have many advantages they say. It could illuminate disaster areas for nighttme rescues or brighten cities darkened by a power failure and cause me to pack up my 10", store it in the attic and go back to my old hobby of watching grass grow.

Japan seems to be interested in developing a space shuttle. This will be capable of leaving Earth without the aid of a rocket booster. It will be some what like ours in that it will use a standard runway for landing purposes, but it will carry its own fuel and booster rather than an external one. The prototype has provided excellant results and Japan plans on making it launch ready in 15 to 20 years, obviously because the design engineers draw very slowly.

***** NEWSWORTHY NOTES *****

GUEST SPEAKER AT NEXT MEETING

Be sure and attend our March meeting. We will have LT. COL. Michael P. Schwitters from SAC from Omaha as a speaker. His talk will be around Astronomy in the Air Force.

HUTCHINSON TRIP

Our semi-regular trips to the Cosmosphere and Discovery Center in Hutchinson KS. is planned for the 9th and 10th of April. Jack Dunn informs us that there are two films being shown on the ominous Omnimax. Great Barrier Reef and Fliers. Fliers we're told is an excellant film with a plot and similar to To Fly which we all enjoyed before.

CONVENTIONS

Earl Moser reminds us of the upcoming National Astronomy Convention July 26-30th in Jacksonville FL.

Also the Mid States Convention is June 3,4,&5th in Liberty Missouri. This is close enough that we should be well represented there by our club. For registration forms attend the march meeting as we will have them there for you to pick up. Events include Astrophoto contest, paper sessions, swap shop, star party and astro prizes. The Astronomical Society of Kansas City is the host and I'm sure it will be interesting, entertaining, and well run, they are some dedicated people down there.

ASTRONOMY DAY IN LINCOLN

Astronomy day in Lincoln will be put on not at the usual Gateway Mall but at East Park Plaza. This Mall seems to be busy and could be good place for us to show Lincoln What amateur astronomy is all about. We will need volunteers for committees so please attend and speak up.

SPECIAL DRAWING AT MARCH MEETING

We have had an anonymous donation of a free subscription to Astronomy magazine. This is to be used for one of our junior members. So we will have a drawing from those junior members who are in attendance only at our March meeting. So juniors, attend!

PRESIDENT'S MESSAGE

You know what? I did something strange the other nite. I decided on the spur of the moment to go out and view. That's right, old computerized, organized, pre-planned out Russ didn't do any of that. I just grabbed my eyepieces, flashlight and went outside.

Once outside I swung my telescope around and started looking. As it happens it was in the area of Orion. So I just sat there and looked, not for anything in particular, just looked. Then I started sweeping the sky. Sometimes I'd stop at some obscure area of the sky and look at a patch of dim stars, then single out the dimmest of them and found myself looking at it for as long as a couple of minutes. Thinking, was I looking at a star that was my very own? Maybe uncharted. Left alone. Maybe this one out of all of them had planets orbiting it. Some with an atmosphere...oh well. Then my neck would get a little stiff and I'd back away and stretch. Then I'd take in the whole sky. Pointing my flashlight to the sky I flipped it on. "Wonder where those little lite particles will end up"? After a while I went back to sweeping the sky at random. And as before not for anything in particular, just to look. Every once in awhile I could sense myself smiling. Occasionally I would come across a galaxy. Although they are one of my passions, this time I didn't worry whether it was spiral or elliptical, SB, or SC I just looked. After some time my back was beginning to get sore. So I looked at my watch. Good Lord has it really been two hours! As I packed up my eyepieces I thought, well, no charting tonite, no work with the calculator, no drawing of sketches of my viewing. Boy, all I did was just...look. As I walked back to the house I thought to myself smiling. Now I know what the true meaning of the word "Hobby" is.

The Prairie Astronomer is published monthly by the Prairie Astronomy Club.
Membership structure.

1. Newsletter subscriber only, \$6.00. Over 21 years of age no voting privileges (newsletter only).
 2. Junior member (New) \$6.00. 21 years of age and less. Receive newsletter and club voting privileges. No Sky and Tele subscription through club at this rate.
 3. Regular member \$19.00. Receives newsletter, voting privileges, Sky and Telescope subscription with dues through club. No age restriction.
 4. Family members \$21.00. Same as regular member, but receives 2 votes in elections.
- Numbers 2,3, and 4 above also can receive as an elective, Astronomy Magazine through the club at \$12.00 per year. Address membership renewals to: Prairie Astronomy Club, Inc., P.O. Box 80553, Lincoln Ne. 68501. address all articles for inclusion in the newsletter to Russ Genzmer 5301 South 30th. Lincoln Ne. 68516. All articles must be received 10 days before the meeting date.

VISITING ASTRONOMER FROM KITT PEAK

Ed Schmidt our member from UNL Physics and Astronomy dept. tells us the Dr. Catherine A. Pilachowski, Associate Astronomer from Kitt Peak National Observatory will be in Lincoln April 14th. Her talk will begin at 8:00 pm in the Love Library Auditorium at the University (13th and R streets) and be on The Age of th Galaxy. I urge a good turn out from the PAC members.

Observer's Report

BULLETIN: MAJOR BREAKTHROUGH IN DEEP SKY OBSERVING TECHNIQUES ****

At the last star party, I used a new set of filters that could revolutionize the way we look at the night sky. Editors note---has this guy been talking to Veys lately?

The Lumicon company has developed a new set of nebular and wide band deep sky interference filters that put most of the others to shame. They use layers of thin dielectrics to notch out light pollution from Mercury vapor lights and airglow while passing the narrow emission lines from nebulae. While these types of filters have been out for a number of years, these new "premium" filters are much better because of their high transmission factor enabling much more of the desired light to get to the eye while still omitting unwanted skyglow.

The "premium" filters are more expensive than most filters due to the difficulty involved in their production, but the cost is well within th budget of most amateurs. The "Ultra High Contrast" or UHC filter is a narrow band nebula filter that passes light from the OII lines of

Oxygen and from the Hydrogen alpha line allowing an enormous increase in contrast when used on gaseous emission nebulae. When used in a 12 1/2 inch telescope, the Orion Nebula was showing unbelievable details which were not visible without the use of the filter. Similar fantastic results were obtained on the Rosette Nebula, but the real surprise came when I held the filter up to my eye and looked up at the night sky. I saw visually the Rosette, M42, and the nebulosity near S Monocerotis. (Editors note again---somebody set Dave down and get him a glass of water!) With averted vision, even the faint nebulosity of Barnard's loop could be glimpsed clearly! The UHC "premium" filter runs about \$100 or so.

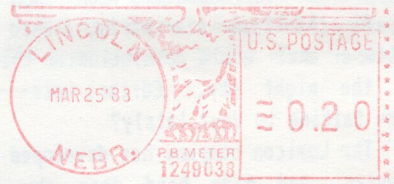
These UHC filters make most stars fainter than usual, so Lumicon developed their "premium" Deep Sky Filters for observing galaxies and star clusters as well as nebulae. The effect on nebulae isn't quite as striking as in the UHC filter, but it is still better than the telescope alone. I used the Deep Sky Filter on several galaxies and I noted a dramatic increase in the contrast as well as some increase in the visible detail, all without dimming the galaxy appreciably. Under city skies, both filters should significantly reduce light pollution problems. Under dark sky conditions, the filters are even more useful at enhancing faint details in almost all deep sky objects.

David Knisely



"What I especially like about this baby is this little drawer where I can keep my lunch."

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