The Prairie Astronomer

The Official Newsletter Of The Prairie Astronomy Club, Inc.

September 1997 Volume 38 Issue #9

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Omaha Astronomical Society Web Page:	http://www.tom.net/cdcheney
NEKAAL Web Page:	http://world.std.com/~wic/

BEHLEN OBSERVATORY OPEN NIGHT

The Behlen Observatory Fall Open Night is scheduled for Friday October 3rd, at 8:00 PM. Once again Prairie Astronomy Club and the Omaha Astronomical Society are invited to help with this event. Last year, thanks to shirt-sleeve temperatures, 400 - 500 people showed up! This is a great time for the clubs to recruit new members. Consider bringing your telescope to set up outside the observatory no matter how modest your 'scope might be. The public will also be interested in seeing through binoculars and having constellations pointed out to them. Do you have a interesting computer display that could be set up inside for people to watch while they are standing in line? If so call Martin Gaskell (472-4788 office; 464-9664 home; e-mail gaskell@unlinfo). Let's hope the weather is as good as last year.

If you want to set up equipment, you can show up early around 7:30, but please make sure the public understands that the observatory opens at 8:00 and not 7:30.

NOMINATION OF PAC OFFICERS for 1998

at the September 30th meeting

AUGUST & SEPTEMBER MEETINGS & EVENTS

PAC MEETING
TUESDAY SEPTEMBER 30, 1997, 7:30 PM
at Hyde Memorial Observatory

MAHONEY PUBLIC OBSERVING NIGHT
FRIDAY OCTOBER 10, 1997
at Mahoney State Park - Soccer Field

NSP-5 PLANNING MEETING
THURSDAY OCTOBER 16, 1997, 7:30 pm
at Mahoney State Park lodge

PAC MEETING
TUESDAY OCTOBER 28, 1997, 7:30 PM
at Hyde Memorial Observatory

Great Red Spot Meridian Crossings Times for October, 1997

(all times CDT until 10/26)

1, 3:01, 12:56, 22:52	**2,** 8:48, 18:43	**3,** 4:39, 14:35
4, 0:30, 10:26, 20:22	**5,** 6:18, 16:13	**6,** 2:09, 12:05, 22:01
7, 7:56, 17:52	**8,** 3:48, 13:43, 23:39	**9,** 9:35, 19:31
10, 5:26, 15:22	**11,** 1:18, 11:14, 21:09	**12,** 7:05, 17:01
13, 2:56, 12:52, 22:48	**14,** 8:44, 18:39	**15,** 4:35, 14:31
16, 0:27, 10:22, 20:18	**17,** 6:14, 16:10	**18,** 2:05, 12:01, 21:57
19, 7:53, 17:48	**20,** 3:44, 13:40, 23:36	**21,** 9:31, 19:27
22, 5:23, 15:19	**23,** 1:14, 11:10, 21:06	**24,** 7:02, 16:58
25, 2:53, 12:49, 22:45	**NOTE: CST starts at 2am 10/26**	
26, 7:41, 17:36	**27,** 3:32, 13:28, 23:24	**28,** 9:20, 19:15
29, 5:11, 15:07	**30,** 1:03, 10:58, 20:54	**31,** 6:50, 16:46

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The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc. Membership expiration date is listed on the mailing label. Membership dues are: Regular $20/yr, Family $22/yr. Address all new memberships, renewals, or questions to: The Prairie Astronomy Club, Inc., PO Box 80553, Lincoln, NE 68501. For other club information, contact one of the following: Doug Bell -President (402) 489-8197, Ron Veys - V.P. (402) 486-1449, John Bruce - Treasurer (402) 483-0389. All newsletter comments and articles should be sent to: Dave Scherping, 640 S. 30th St., Lincoln, NE 68510 (402) 477-2596 or e-mail dscherping@juno.com ten days prior to the club meeting. Club meetings are held the last Tuesday of each month at Hyde Memorial Observatory in Lincoln, NE.

NEW OBSERVATORY AT UNL

By Dr. Martin Gaskell

If all goes well, soon after you get this issue of The Prairie Astronomer, a new observatory should be opening up in town. It's the new University of Nebraska Student Observatory with a 16" Meade Schmidt-Cassegrain. You might have spotted the dome already. It's quite prominent on the southwest corner of the new parking structure that has been built across the road from Memorial Stadium. We think it's the world's first observatory on a multi-story parking garage! The location is so interesting that Ash Domes, the manufacturer of the dome, has asked for a picture of it to consider putting in their glossy brochure.

How has the university ended up with a new observatory, particularly since we already have Behlen Observatory out at Mead? The story begins back when I moved to UNL in 1992. Before I joined the physics and astronomy department I had taught at the University of Michigan and the University of Oklahoma. Both Michigan and Oklahoma had had fine old on-campus student observatories dating back to before the second world war. Having undergraduates use these observatories had been a key part of my astronomy teaching. I was very disappointed when I came to UNL to discover that there was no comparable on-campus observatory. Over the years, thanks largely to the generosity of an alumnus and the alumnus's employer, Don Taylor had built up a good collection of various portable telescopes (mostly Dobsonians). Don had also designed and had built the unique Minnich 6" Coude refractor on the south facing wall of the Ferguson building. The Minnich refractor was the only permanently mounted telescope on campus. Be sure to look at Don Taylor's excellent article on the Minnich refractor on page 75 of the May 1996 issue of Sky & Telescope. The Minnich refractor was designed primarily as a solar telescope, but it gives good night time views too, especially of the planets. Don had purchased a Lynxx CCD system for the Minnich telescope, but the telescope was really only suitable for planetary imaging. I wanted a bigger permanently mounted instrument similar to the ones I had used in Michigan and Oklahoma so that students could get better deep sky views and so that the more advanced students could do CCD imaging and spectroscopy. I wanted a dome too! The Minnich Observatory is a relatively normal inside room in Ferguson. I think that being in an open dome with cold air blowing in is part of the romance of doing astronomy that students should be exposed to.

The department had long been using the roof of Ferguson for student "roof nights" and this seemed to me to be the ideal secluded location for the new observatory. I persuaded Don Taylor to join me in submitting a proposal to the National Science Foundation for money for a 16". Don is a very experienced telescope maker, both as an ATM (I think he's made over two dozen telescopes) and as a professional (overseeing the Steward 90", the Behlen 30" and other large ground-based and space based instrumentation projects). Tony Starace, the chairman at the time, agreed to back the project and to try to raise the additional money needed locally. Initially we proposed getting a Parks 16" H.I.T. combined Cassegrain/Newtonian. Well, our proposal got the highest possible rating by the National Science Foundation review panel and soon the check was in the mail. There were some delays in raising the local money needed to complete the project (the NSF would pay for equipment, not buildings and building modifications) and it was not until 1995 that Tony Starace was able to give us the go ahead to order the telescope. In the meantime Parks had raised the price of the 16" H.I.T. substantially. Don and I agonized for quite a while over what to do about this. Should we pay the extra money? In the end, both being amateur telescope makers, we felt that the price that Parks was asking for a 16" was ridiculous and we switched over to ordering a cheaper but more electronically sophisticated 16" Meade Schmidt-Cassegrain.

The Meade 16" and an Ash dome showed up in the summer of 1995, but our excitement was quickly tempered by a major problem: since the roof ofFerguson had last been modified about 20 years earlier, there had been major changes in building and fire codes and we could no longer legally use the roof of Ferguson for astronomy. The problem was that there was only one stair case and above the third floor of a building there had to be two independent exits. Not only could we not build the new observatory on the roof, but the we had to immediately stop having our "roof nights" with the portable telescopes on the roof. Our efforts to improve facilities for the department had resulted in a massive step-back for undergraduate astronomy at UNL! This was frustrating because when facilities management had given us the original estimate for the cost of putting the dome on the roof (around $6,000) they had not told us about the building code problems.

We had meetings with UNL physical plant to see what we could do about the new building code problems. We could not get an exemption. Putting in the extra stair case would cost a staggering $200,000 they told us! -- just so that we could use a 16" Schmidt-Cassegrain. Roger Kirby, who had just become the new chairman of the physics and astronomy department referred to it as "the mother of all staircases!" There was no way the department could pay for, or justify paying for a $200,000 staircase going up only one level. It looked like we would have to put the observatory at ground level somewhere.

Although putting the dome at ground level might not sound bad, it was something I was not happy with. I had two major concerns: vandalism and the safety of students working in the observatory late at night. I was worried about drunks throwing glass bottles through the open, for example, if the observatory were too accessible. Don and I scouted out various ground-level sites on campus. I don't think that either of us was really keen on any of them. It turned out that essentially all desirable sites on campus on the ground were out of bounds to us anyhow because they were reserved for future modern "sculptures"! I won't express any artistic opinions here, but the quotation marks probably give away my (and many other people's) feelings on this subject! (Incidentally, before anyone gets too irate over this use of space on campus, please note that the no state or student money has been spend on these "sculptures".)

At this point Don and I began to worry that history might be repeating itself. If you look on page 77 of the May 1996 issue of Sky & Telescope you can read an article entitled "The Observatory That Never Was". It's by Gene Rudd, UNL emeritus physics professor and antique telescope collector (by the way, Gene ought to give a program to the club sometime). Gene tells of how Goodwin DeLoss Sweazey, the only astronomer at the University of Nebraska at the turn of the century, had designed and built at 12" refractor from around 1908 to 1916. The objective had been made by local amateur astronomer Charles S. Minnich. Because of a cost overrun on another building on campus the regents of the university rescinded their appropriation of money for the building to house the refractor. The observatory never got built. Sadly, the massive German equatorial mounting eventually got melted down for scrap and the university lost the box with Minnich's 12" lens in it. Don and I wondered if our student observatory would suffer a similar fate! The Ash dome spent two years in rented space over at the campus mail service and the pier of the telescope spend two years in my office getting occasional use as a coat rack.

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NEW OBSERVATORY AT UNL

- continued from page 2 -

Tony Starace came up with the eventual solution to the problem of where to put the telescope without spending $200,000: put it on top of the new parking garage across from the stadium. The regents had already approved the money for the parking garage and construction was about to begin. One of our main concerns was vibration when cars drove up and down the garage. Don carried out some tests on roof of the new garage on the corner of Q and 11th. He looked through a high power eyepiece with a 6" Maksutov while the garage manager drove a pickup truck vigorously up and down the ramps. There was some vibration, but with some damping it could be made negligible. My feeling was that we didn't really have much choice about where to put the 16" and if vibration on the Stadium parking garage did prove to be a problem we would cross that bridge when we came to it. In a few weeks we will find out.

Things now went fairly smoothly. The design called for a separate heated control room to the east of the dome with a room at ambient temperature next to it to store the portable telescopes (the door on the right if you look at the observatory from the south). The temperature controlled control room will be fully handicapped accessible so someone in a wheelchair could operate the telescope and take data from the heated control room. It will not be practical for someone in a wheel chair to go into the dome and see through the telescope, but I have had success with a student in a wheel chair looking through a portable 8" Schmidt-Cassegrain. This is a big step forward for the handicapped because he old roof of Ferguson was completely handicapped inaccessible. There will be a switch in the control room to turn the parking garage lights on the roof while we are observing (don't you wish you had a switch like that for when you observe?!).

Construction of the observatory began over the summer. The main advice I would give to anyone overseeing an observatory project like this whether on a college campus or in your own backyard is to watch the architects and contractors carefully! There are many potential well-meant changes that they might make that you don't want. The only things (so far!) that have happened that I wish hadn't, are that the control room got put closer to the done than in the original plans, and the control room walls got made higher than I wanted. By the time I discovered this the control-room walls had already been built. It turned out that the architects' drawings we got were not the same as what the contractors got. The architects had used a conventional generous door and ceiling height for the control room, but this raised the roof and will loose us a bit of the eastern horizon.

Although it is not as dark as the old roof of Ferguson the new student observatory site offers a number of advantages. The parking structure is higher than it looks from the ground and the view from the top is spectacular. There is a totally unobstructed view of the majority of the horizon -- something I've almost never enjoyed before except at major professional observatories. Even over the downtown area one gets down to within a few degrees of most of the horizon. The unobstructed view of the horizon is going to be great for the next comet that shows up. The roof around the observatory makes a nice area for setting up portable telescopes. I've already had around 100 introductory astronomy students up there on the roof together. It's great for large crowds. Other advantages include 24 hour access for students, security cameras, the campus police located in the garage, and, of course... great on-site parking!

The Physics/Astronomy Department has already started planning an opening ceremony. The date is not set yet, but this will probably be some weekday afternoon in mid- to late-October. We are thinking of following this with a night time open house or two.

What will the observatory be used for? The main justification for getting the NSF funding was to have a state-of-the art facility so that our astronomy majors and minors could get hands-on experience of modern observing. Starting this spring we will be having a new required nighttime astronomy lab course for our astronomy majors and minors. Most of you probably know that a 16" SCT in an urban location can go as deep in CCD-imaging as the giant 48" Schmidt on Palomar Mountain went photographically in the 1950's. I want to take an image as soon as possible to make this point and post it on our departmental web page side-by-side with the same region of the sky from the Palomar Sky Survey. Almost every known class of astrophysical object will be reachable with the telescope. Our astronomy majors will be able to undertake a variety of independent study research projects with the telescope with minimal supervision. We will also be having our introductory astronomy students look through the telescope. Currently over 25% of the student body at UNL takes our popular introductory Astronomy 103 course. I envision that over a thousand students per year could be looking through our Meade 16". We will also be having some public viewings, but how many remains to be decided. Although our telescope is a little bigger and more modern than the Hyde 14" SCT, the public will get better viewing at Hyde because Hyde is a darker site.

I should end by thanking the many people who have made the project possible. In addition to Don Taylor, who has worked hard on all phases of the project, thanks are due to the two chairman of the Physics and Astronomy Department, Tony Starace, and Roger Kirby, for their efforts in locating the local funding for the project. Funding for the observatory came from three sources, the National Science Foundation, from major private donations to the department and from a number of sources within the University of Nebraska. The private funding was from gifts by the Coe family and the Stowell family. Within the University we have to thank the following for their financial support of the project: Brian Foster, the Dean of the College of Arts and Sciences, Donald Helmuth, the Associate Vice Chancellor for Research, David Brinkerhoff, the Associate Vice Chancellor for Academic Affairs and Irvin Omtvedt, the Acting Senior Vice Chancellor for Academic Affairs. Dick O'Hearn of Facilities management was the project manager. An observatory like this has a very long lifetime so students should be benefiting from it for a long time to come. Observatories from the last century are still in active use and our new student observatory should last well into the middle of the next century.

Maybe in the next issue of the Prairie Astronomer I'll give a "first light" report.

PRODUCT REVIEW

by David Knisely

THE LUMICON MULTIPLE FILTER SELECTOR

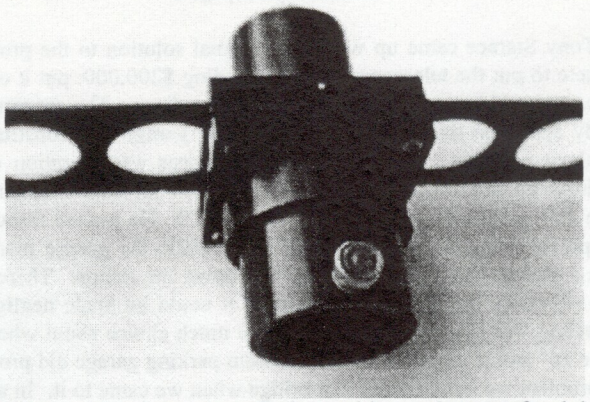
$129 from Lumicon, 2111 Research Dr. #5, Livermore, Ca 94550

For those of us who have more than one filter in our equipment arsenal, it is frequently a hastle (and even a hazard) to keep screwing, unscrewing, or even handling small 1.25" eyepiece filters, especially in the dark. Enter the Lumicon Multiple Filter Selector, a filter holder and selector for up to 5 Lumicon filters (or other low-profile filters with similar threads) at once for instant access at the eyepiece while viewing. In this way, the right filter for any object can be moved into place without looking away from the eyepiece, or fumbling in the dark for each filter. While this is potentially a great convenience for the observer, it comes at a price, both financial and logistical.

The Selector is basically a built-up filter adapter for 1.25" eyepieces which has wide slits near its middle, allowing a straight metal slide holding up to five filters to move through just ahead of the front of the eyepiece. The selector in total is about 3" long, with a thumb-screw-equipped upper tube to hold the eyepiece, a squarish middle section for the filter slide, and a lower 1.25" O.D. tube which goes into the telescope's focuser in place of the eyepiece. The open end of this lower tube is threaded for the addition of a 1.5x "relay lens" out front if needed (see below). The selector is made of black anodized aluminum, and is quite light, not significantly affecting my 10" Newtonian's balance. The filter slide is a thick aluminum bar just over 7" long, which has five holes, each of which is just over 1" across and threaded for a Lumicon filter. The slide has a notched detent system to "click-stop" at each filter, with the filters being mounted on the eyepiece side of the slide. The slide also has an Allen screw on each end to prevent the slide from coming out of the selector completely.

Operating the Multiple Filter Selector in the field posed several problems. Once I had the first of my filters screwed into the slide, I discovered, much to my agitation, that the selector slit was just a tad too narrow to allow a filter mounted on the slide to move through and into place in front of the eyepiece! You would think that Lumicon would remember how thick their filters are, but apparently their machinist did not. Fortunately, the center section of the unit is in several pieces held together by 4 Allen screws, and when I loosened all 4 slightly, the filter slid through with no difficulty, although the unit did rattle a bit unnervingly.

I put in my Deep-Sky, UHC, OIII, and a borrowed H-Beta filter into the slide, and prepared to start work on my project to compare the performance of various filters on different objects. Then I ran into a new problem: Focus. The Lumicon ad mentions a "1.5x relay lens (for Newtonians)", but doesn't exactly say why one is needed. I assumed (rightly) that is was for high-profile focusers. The selector effectively adds about 2.25" to the height of the focuser, which means that most Newtonians will need some sort of focus extension in order to for the eyepiece to reach focus. My focuser is very low profile (1.5" above the tube at minimum distance), but with my telescope's prime focus being about 3.25" above the tube, none of my eyepieces would quite reach focus with the selector in place! After some rather



colorful remarks, I put in a barlow with my longest focal length eyepiece (a 30mm) and went back to observing at a somewhat higher power (100x instead of 47x). In short, if you have a Newtonian and really want to use this selector, GET THE 1.5X RELAY LENS (you DON'T have a choice!). Unfortunatly, the relay lens boosts the cost of the filter selector to $185, so at least for those of us with fixed or limited focal ranges, the selector isn't so cheap anymore! Of course, those using Schmidt-Cassegrains or refractors with large focuser travel will probably not have this problem.

The Multiple Filter Selector worked basically as advertised, with the selection of filters being fairly easy. The slide worked smoothly, and the detent worked fairly well in both holding the filter selection in place, and not being too stiff to allow an easy change of filter selection. Moving the slide didn't move the telescope all that much, although it did require two steady hands at 100x. When the slide had been positioned all the way to one side, the filter selector was out of balance, and at times tended to rotate in the focuser unless all the focuser's set screws were tightened.

During observation, I ran into another problem: Dew. In a normal filter use situation, the filter is snug inside the focuser away from most dewing problems, but when installed on the filter slide, the filters mounted there which are not currently in viewing position inside the selector's body will all be subject to dewing. This can be a potentially serious problem, as some of the coatings in some filters do not react well to repeated exposure to water on a long-term basis. In short: if you have dewing problems, keep your filters in their protective cases when not in use, or have them screwed onto your working eyepiece.

As a solution to some of the selector's problems, I removed the slide for stand-alone use by taking out the Allen screws on the slide's ends and pulling out the slide. With the filters in the slide, I can still do quick comparisons of filters by holding the slide between my eye and the eyepiece, rather than using the selector. To protect all the mounted filters when they are installed in the slide prior to use, I store the slide in a section of clear plastic 35mm negative sleeve. I just wish the slide alone, perhaps equipped with a handle, could have been offered for sale by itself.

In summary, the Lumicon Multiple Filter Selector is a nice idea which can be somewhat useful. However, it has some practical problems which reduce its effectiveness somewhat. Its cost, focuser height addition, lack of filter clearance, and potential exposure of the filters to dew, may make the selector something which the average amateur might be able to do without.

SECRETARY'S REPORT

Minutes From The August PAC Meeting

By Liz Bergstrom

The 26 August 1997 meeting of the Prairie Astronomy Club was called to order promptly at 7:30 pm by president Doug Bell. Doug brought up a trivia question. There has been discussion whether you can see the flags and the Apollo lunar lander? The lunar lander was imaged on the moon. The answer will be given later in the meeting. Doug then asked if there were any guests in the audience. Our guests were "Daisy" who came with Marta Boswell and Dan (did not catch his last name). The club welcomed our guests.

NEWS:
Doug said that Patty Kurtz, writer/editor of Astronomy magazine will have an article on NSP-4 and related activities. The article will most likely appear in the January issue which will be out in December 1997. Doug congratulated Jason Stahl, the NSP-4 coordinator, for a great and well done job. The largest telescope at NSP-4 was a 36 inch scope. One hundred tubes went down the Niobrara river and wouldn't you know Earl Moser had the one that leaked. Despite the leak problem, Earl valiantly managed to get down the river to Smith Falls State Park. Also, Roger Welch from one of the top television networks is interested in coming to NSP-5 next year (1998) along with his crew for a television report.

NSP NEWS:
Discussion ensued about the relationship of NSP and PAC with the Omaha club. The coordinator for NSP-5 will be Dave Hamilton. Dave Scherping brought up the need to formalize how to handle the NSP moneys. He said that the PAC treasurer should be able to appoint a NSP treasurer who can also handle NSP registrations ad other duties as required. Possibly the bylaws should include that an annual audit be done by the PAC treasurer. Lee Thomas said that there was no need to change the bylaws.Should NSP stand alone then it would have to be incorporated, however at the current time the moneys are legally in PAC. Should the bylaws be changed regarding PAC and NSP? Louis Dorland said it would be clearer for PAC to separate from NSP which would leave NSP as a stand alone entity and the clubs, PAC & OAS would do the work. It was then mentioned that NSP would need to incorporate as a non-profit organization. To qualify for this status, NSP would have to put on educational programs for the public. Also mentioned was the fact that there would be the need to audit the NSP treasurer.

Questions? What would happen to the NSP moneys should NSP be dissolved. Would the money be divided equallt between PAC and OAS? If there is a deficit, who would pay off the debt?

There is a definite need to resolve and define NSP as an entity. Erik Hubl spoke up and said that an NSP committee be formed and then they need to consult with Rick Johnson, one of the founders of PAC. Any other questions, call Dave Hamilton.

OTHER NEWS:
Election of officers takes place in October each year. The September meeting is the time for nominations to be brought up and placed on the ballot. Voting for nominees will take place next month.

The PAC annual picnic will be 6 September at 5:30 pm with PAC providing soft drinks. This was put into a motion, seconded and passed. See the August newsletter for picnic info.

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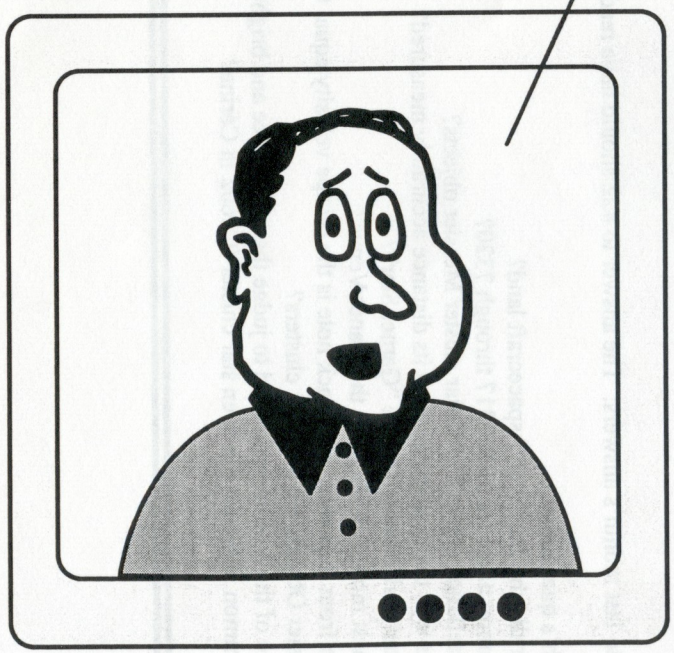
more astro trivia....

First, a correction to last month's answers: The answer to #22 should have read, "Pisces".

Now for this month's questions.....
1) Near what crater did the Surveyor 7 spacecraft land?
2) What is the common name for NGC7317 through 7320?
3) Which two constellations have 7 globular cluster Messier objects?
4) What double star was the first star to have its distance accurately measured?
5) What variable star is also known as the "Garnet Star"?
6) What is the highest mountain range on the planet Venus?
7) At what distance from the center of a black hole is the escape velosity equal to the speed of light?
8) How many Messier Objects are globular clusters?
9) What is the name of the 5 point scale used to judge the appearance and brightness of lunar eclipses?
10) What is the common name for the open star cluster IC2602 in Carina?

ASTRO MAN

By Dave Scherping



ASTROMAN NEWS FLASH....

THE NEW "BRADY BUNCH" ASSAULT TELESCOPE BAN HAS BEEN INTRODUCED IN CONGRESS. ACCORDING TO THE NEW BILL:

1) "ASSAULT TELESCOPE" IS DEFINED AS ANYTHING OVER 12" APERTURE THAT COULD BE USED TO FIND MORE THAN 10 OBJECTS PER HOUR.

2) "ASSAULT SCOPES" MAY HAVE NO MORE THAN 2 OF THE FOLLOWING 5 ACCESSORIES ATTACHED AT ANY GIVEN TIME: A) TELRAD, B) FINDERSCOPE, C) WIDEFIELD EYEPIECE, D) DIGITAL SETTING CIRCLES, E) MOTORIZED FOCUSER.

   THIS WILL ENSURE THAT OWNERS OF "ASSAULT SCOPES" CAN NOT FIND OBJECTS ANY FASTER THAN THE GUY USING A "DIME STORE" REFRACTOR. (OF COURSE, THEY WILL STILL BE ABLE TO FIND THEM, IT'LL JUST TAKE LONGER)

3) THERE WILL BE A MANDITORY 5-DAY WAITING PERIOD TO CONDUCT A BACKGROUND CHECK ON ANYONE BUYING A NEW SCOPE. THIS WILL ENSURE THE BUYER IS JUST AN AVERAGE AMATEUR ASTRONOMER & NOT SOME NUT LOOKING TO KNOCK-OFF HUNDREDS OF INNOCENT NGC OBJECTS. AMATEUR ASTRONOMERS WILL BE LIMITED TO BUYING NO MORE THAN ONE "ASSAULT SCOPE" PER MONTH. "ASTRO-CRIMINALS" HOWEVER CAN BUY AS MANY AS THEY WISH ON THE BLACK MARKET (ie. THROUGH STARRY MESSENGER OR ASTROMART).

4) "ASSAULT SCOPES" MUST BE EQUIPPED WITH FOCUSER LOCKS TO PREVENT PEOPLE FROM USING SCOPES THEY CAN'T FIND THE KEY TO. "UH... YEAH RIGHT!"

5) "NEB KILLER" FILTERS WILL BE OUTLAWED. THESE ARE DEFINED AS ANY FILTER WHICH ALLOWS SOMEONE TO PENETRATE LIGHT POLLUTION.

6) OBSERVATORIES & THE HOMES OF THOSE WHO OWN "ASSAULT SCOPES" WILL FROM NOW ON BE REFERRED TO BY THE MEDIA AS "COMPOUNDS".

A SIMILAR BILL, BANNING ALL TELESCOPES, IS BEING PUSHED BY SEVERAL GALAXY RIGHTS GROUPS. STAND UP FOR YOUR RIGHTS. LET YOUR CONGRESSMEN KNOW YOU LIKE BIG DOBS.

The PRAIRIE ASTRONOMY CLUB CALENDAR
OCTOBER 1997

SUNDAY	*MONDAY*	*TUESDAY*	*WEDNESDAY*	*THURSDAY*	*FRIDAY*	*SATURDAY*
		SEPT 30 **PAC MEETING** 7:30 pm Hyde Observatory ! ! !	**1** NEW MOON 	**2**	**3** **BEHLEN OBSERVATORY OPEN NIGHT** **8:00 PM**	**4**
5	**6**	**7**	**8**	**9** 1ST QUARTER MOON 	**10** **MAHONEY STAR PARTY** **Soccer Field at Mahoney State Park**	**11**
12	**13**	**14**	**15** FULL MOON 	**16** **NSP-5 Planning Meeting 7:30 pm at Mahoney State Park Lodge**	**17**	**18**
19	**20**	21	**22** 3RD QUARTER MOON 	**23**	**24**	**25**
26	**27**	**28** **PAC MEETING** 7:30 pm Hyde Observatory ! ! !	29	30	31 NEW MOON 	

SECRETARY'S REPORT

- continued from page 5 -

The next Mahoney star party will be held 5 September 1997, the day before the PAC picnic.

The Boy Scouts from Lincoln and the surrounding area celebrated their founding anniversary with an encampment at Holmes Lake Park the weekend before our PAC meeting. Those wanting to go to the observatory that Saturday night had a bit of difficulty in getting there. A few of the Boy Scouts did come to the observatory.

The answer to the trivia question is Surveyor 3 went to the moon where it took detailed images of the flags and the lunar module.

No further business was brought up for discussion, therefore the meeting was moved and seconded for adjournment.

PROGRAM:
Mark Dahmke presented some of his camcorder photos, Ricoh digital camera photos (he took over 100 images a day at NSP) and a video presentation of events from NSP. It was fun to see the scenes from NSP and to see the great views of the heavens from a really dark sky site. Mark, you have the makings of a great program for later viewing at a club meeting and for a public night at the observatory.

Liz Bergstrom, Secretary

Please send all submissions for The Prairie Astronomer to:
Dave Scherping
640 S. 30th St., Lincoln, NE 68510
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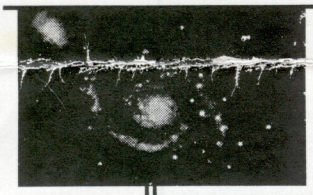

Next PAC Meeting
August 26, 1997
7:30 PM
Hyde Observatory

The Prairie Astronomer
c/o The Prairie Astronomy Club, Inc.
P.O. Box 80553
Lincoln, NE 68501

9-97

Mr. Earl Moser
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