

President's Report

by Dave Scherping

After NSP, it kind of feels like last year is over and we're beginning a new one. In a way, that's true, but there's still alot of exciting things to come this year, as I'll describe in a moment. But first, there's congratulations in order.

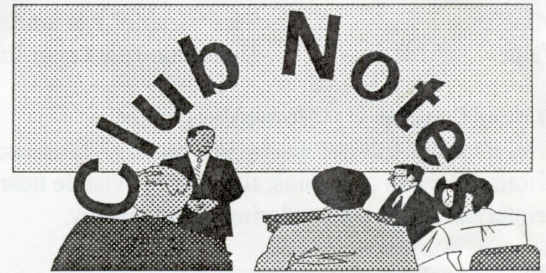
I'm proud to announce that Erik Hubl has completed the requirements for the Honorary Messier Award and was awarded his pin and certificate at NSP. To receive this award, Erik had to independently locate, observe, and record all 110 Messier Objects. Not only did he record them, but he drew them! And drew them well. Great job Erik.

Now for PAC happenings: If you get this newsletter in time, don't forget the PAC Picnic on Saturday August 26th. Also, dont forget the Mahoney Public Star Party on September 1st. If you missed the last Mahoney Star Party, which was held August 4th, you missed a great time. Plus, we could have used you. Visitors greatly outnumbered astronomers. For about 2 hours, the line to my scope was 10 to 30 people long! So even if you don't have a scope, come out & help. You can help man one of the scopes that are there. September 1st will be the last Mahoney Star Party this year. Let's make it a great one.

The Prairie Astronomy Club has recently assisted Prairie Peace Park in developing a scale model of the Solar System at their park. We helped organize the facts that will go on the plaques that will be spread accross the park. If you want to help install these, let me know.

If you're looking for other ways to get involved, read the NSP HIGHLIGHTS article. We could sure use your help preparing for next year's Nebraska Star Party. We've really started something big folks! Let's not let it fall apart. Other ways you can get involved include volunteering your time at Hyde Observatory on Saturday nights (see Erik Hubl, Ron Veys, Lee Thomas, or any of the other supervisors). Or you may wish to give a presenta-

tion at one of our upcoming meetings (See Dave Knisley). How about submitting an article to this newsletter? We're always interested in hearing your ideas. Or, you may want to run for office. Elections are coming up in October. If you have any other ideas for new PAC activities, let me know.

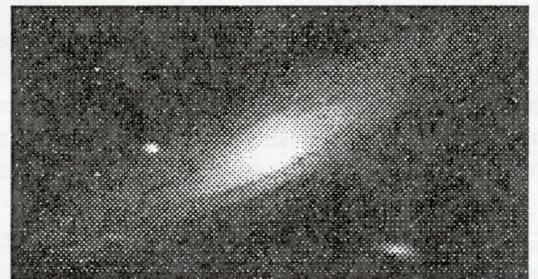


AUGUST MEETING NOTICE

AUGUST 29th, 1995, 7:30 p.m.,
at Hyde Memorial Observatory

Program: Newtonian Collimation and working with the Club Telescope.

The August meeting's program will deal with the subject which had a lot of people concerned with at the Nebraska Star Party, namely, HOW IN THE WORLD DO YOU GET THIS STUPID THING COLLIMATED?! Hopefully, there will be a short video and then a demonstration by Kelley Erlandson using some unique collimation tools and the club telescope. There should also be a recap of the activities and future plans for the Nebraska Star Party, so be sure and attend. I am still looking for programs for September and October, so if you have an idea, now is the time to talk to me... *Dave Knisley*



The Prairie Astronomer

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Observing Chairman's Report

by Douglas Bell

For September observing.

Next star party: Sept 22 (Atlas site)
New Moon: Aug 26, Sep 24
Lunar object: Hortensius Domes
Planet: The Sun
Messier monthly: M 76
Top 40: M27
Deep sky: NGC 3242
Challenge: Naked eye Lunar craters
Quote: The "Beagle" has landed! - Charles Darwin
Tip: Hold binoculars near the objective lenses, not the eyepieces. It looks funny but it's a lot less jiggly.

Lunar feature: Hortensius Domes

Not all lunar features are impact craters. These domes are volcanic artifacts. Located just west of Copernicus, between the craters Hortensius and Milichius, they're only visible near the terminator (2 1/2 days after First Quarter). Look for the small summit craterlets and the meandering ridges nearby.

Planet of the month: The Sun

I love this time of year. For some reason I feel closer to ancient rhythms of the seasons and the Solstice. Now that so much of our lives is disconnected from the universe, it's reassuring to see eternal cycle moving on. Try watching the time of sunset each day. It's changing by a minute a day and speeding up. When it peaks at the Solstice we'll be losing more than 15 minutes a week.

Top 40: M 27

The D(ou)gumbell nebula I'll never live this down.

Messier Monthly: M 76

The little dumbbell The faintest messier. This mag 11.5 planetary in Perseus is a difficult catch in small scopes. Maybe someday someone will explain how Charles listed this and left out the double cluster.

Deep Sky: NGC 3242 Jupiter's Ghost

Maybe I should have saved this for Halloween. A 16" mag 8.6 planetary should be an easy catch. Smaller and fainter than Jupiter, it shares most planetary's ghostly appearance.

Challenge: Naked eye lunar features.

No, not the maria (sheet!). But can you see craters and mountains without optical aid? Yes you can. You will have to look during twilight (otherwise the bright moon washes out the fine detail), and when the feature is right on the terminator near first quarter. I've seen distinct anomalies in the lunar terminator corresponding to the Apennine mountains and the crater Tycho. Can you see any others? Let me know. By the way. The ancients believed the Moon to be a perfect sphere. Guess they didn't look.

Astro trivia: NASA recently celebrated its 100th manned launch. How many different types of NASA launch vehicles have placed a person in orbit? **Last month's answer.** One hundred is the magic number for our magnitude scale. An object which is 100 times as bright as another is defined to be exactly five magnitudes brighter. Did you know? Our friends at JPL report that they've been able to push the Galileo baud rate to nearly 160 bps (on a good day). This is up from the 16bps available without any upgrades. Compressing this will give (up to) an additional 80x improvement. Amazing work in a tough situation. Expect over 1,500 images, and nearly all of the other instrument data, to be returned successfully.

The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc., and is free to all club members. Membership status and expiration date are listed on the mailing label. Membership dues are: Regular Members...\$10/yr; Family Memberships...\$12/yr; Address all new memberships, renewals, or questions to THE PRAIRIE ASTRONOMY CLUB, INC., P.O. BOX 80553, LINCOLN, NE 68501. For other club information contact one of the following: John Bruce (Lincoln) 483-0389, Lee Thomas (Lincoln) 483-5639, John Lortz (Omaha) 496-1122. All newsletter comments and articles should be sent to Newsletter Editor JOHN LORTZ, 11684 MEYER AVE., OMAHA, NE 68164 no later than 10 days before monthly club meetings. Club meetings are held the last Tuesday of each month at Hyde Observatory, NE.

TOP HIGHLIGHTS

By Dave Scherping

The 2nd annual Nebraska Star Party has come & gone. I'm sure that all of those who attended had a great time. In case you didn't, here's a few highlights:

I arrived at Merritt Reservoir on Sunday July 23rd, and even though NSP didn't officially start until Tuesday, I wasn't the first. Del Motycka, Tom Miller and a few people from out-of-state arrived a day earlier. John Bruce arrived a short while after me. Sunday evening, the scattered clouds cleared and we were in for a great night of observing. We were really getting into observing when around 1:30am a glow appeared in the north. At first it looked like distant city lights but within minutes it erupted into a fantastic aurora display that lasted an hour or so. There were dark distant clouds on the horizon and the aurora came out from behind it shooting up in spikes 30 to 40 degrees into the sky. This gave the appearance of a great crown. The amazingly ironic thing was that Jason Stahl, our "Clear Skies Coordinator" had promised me an NSP aurora back in January!

Monday morning I awoke to a violent, but luckily short thunderstorm. The winds were strong & continuously changing directions. I was amazed my tent withstood it. I think I slept about a half hour before the storm hit and then I was up for the day. Later that morning, after relocating my tent, we began to take care of many of the details such as signs and registration. NSP attendees continued to arrive throughout the day. Monday night was devoted to showing the night sky to visitors from the surrounding area. We set up our scopes at the Merritt Resort rather than our normal observing site at the south end of the lake. The first half of the night was partly cloudy, but we still had 50 visitors or more. Mike Burge from Valentine also visited us and did an interview for the North Platte TV station and invited us to be on the radio in Valentine the next morning (later in the week, articles about NSP appeared in the Omaha World Herald, the Lincoln Journal-Star, and the Valentine paper). Later that night, after our local visitors left, several of us joined Dave Kriege of Obsession Telescopes at the observing field and viewed through his 25" scope the remainder of the night.

Tuesday morning, I awoke to another short storm. Amazingly, my tent withstood the wind again. That morning I got about 2 hours sleep. After showing my scope to another astronomer, I inadvertently locked my keys in my car. It was 8:00 am & I needed to get to the cabins to wake up Tom Miller & get to Valentine by 10:00 for the radio show. Luckily, my wife reminded me to bring another set of car keys. Unluckily, they were locked in the car also! After nearly giving up hope of getting it unlocked, Gordon Major of Omaha tried the key to one of his cars. It worked!! And by 10:00am, Tom & I were in Valentine, ready to do the half hour radio show. Considering our

lack of sleep and a little nervousness, the radio show turned out great. Several astronomers enroute to NSP listened to the program on their way. NSP had officially begun. Tuesday night was another exceptional night. Not a cloud in the sky, very little wind, and of course, no signs of light pollution whatsoever. We observed until dawn.

We enjoyed a good morning's sleep, and then Wednesday afternoon enjoyed Dave Kriege's mirror cleaning and collimation demonstration followed by the NSP barbecue. Thanks to the NSP Clear Skies Coordinator, we had perfect observing conditions again on Wednesday night.

Thursday featured the Niobrara canoe and tubing trip. I'm not sure how many people canoed, but we had 35 tubes tied together, with as many people on them, stretching at least 1/2 way across the river. The tubing trip was incredibly fun. Some claimed it was the highlight of the week. Judging for the telescope making contest was held just before sunset Thursday. Our judges were Dave Kriege of Obsession Telescopes, Pete Smitka of MAG1 (Portaball), and Randy Cunningham of AstroSystems. There were several fantastic scopes entered in the contest. Though tired and a little beat-up from the rocks in the river, we managed to enjoy yet another perfect night of observing under the dark skies of the sandhills. That NSP "Clear Skies" guy was really doing a great job!

Friday, the astronomers moved to the Peppermill Restaurant in Valentine for a day of programs, a banquet, and awards. Louis Dorland of OAS & PAC was our first speaker. Though plagued by TV & VCR difficulties, he gave a great presentation on the May 1994 annular solar eclipse. He was followed by Brenda Culbertson's presentation of "Low Tech Solar Observing". After lunch, we enjoyed presentations by Ron Dyvig, of Rapid City, SD, Dr. Wakefield Dort of the University of Kansas, and Kendra Stahl of Lincoln. Ron spoke about making his 26" mirror, Dr. Dort gave a talk on the Merna Meteor Crater, and Kendra's presentation was about interacting binary stars. Also throughout the day, attendees were allowed to view the entries in the astrophoto contest and cast their ballots. Plus, AstroSystem was set up at the meeting room, selling all sorts of great astro items.

The presentations were followed by "Name That Object" contest, coordinated by Jason Stahl, and by a fantastic magic show by Mike Sibbernsen and Kendra Stahl. We then sat down for the banquet dinner, followed by our featured speaker, Barbara Wilson of Houston, Texas. Barbara spoke about her 3-year project to observe all of the galactic globular clusters north of -55 declination. It was an incredible talk; one of the best I have ever heard. We ended the day with awards for telescope making, astrophotography, the "Great NSP Deep Sky Challenge", and of course, a huge selection of door prizes. Winners of the ATM contest were Ron Dyvig, for "Most Innovative Design", Roger Thoming for "Best Design", and Steve Ebner for "Finest

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Workmanship". Winners in the Astrophoto contest were Erik Hubl for "Planetary", Tom Bressler (Norfolk) for "Deep Sky", and Brenda Culbertson (Kansas) for "1x". NSP Deep Sky Challenge certificates were awarded to Erik Hubl (PAC), Dave Hamilton (PAC), David Knisley (PAC), Kelly Erlandson (PAC), David Nash (Illinois), & Gary Fugman (Iowa). Way to go Prairie Astronomers!!

As the sun set Friday evening, we then moved back down to Merritt Reservoir for another night of perfect observing conditions.

Saturday, there was the swap meet in the afternoon and a catered chicken dinner in the early evening. That night, it was mostly clear but very windy. Being satisfied with the many previous six nights of perfect conditions, most of the astronomers chose to socialize and/or turn in early. By late Sunday morning, most had left or were packing up. We were all sad it was over but nobody left unhappy. Everyone had a great time. Most of us looked forward to a good night's sleep in our own beds, but we all agreed it was worth it. We really received some great reviews in the papers & on Internet. This event really did alot for PAC. Also, look for additional articles on NSP in Astronomy, Sky & Telescope, The Reflector, and Amateur Astronomy.

Next year's Nebraska Star Party will be held August 10-17, 1996 at Merritt Reservoir. This will coincide with the peak of the Perseids. We're in need of alot of volunteer help for next year. Here's a list of the jobs that need to be done. Please contact me at 477-2596 or see me at the PAC meeting if you want to volunteer.

- Coordinator
(Dave Scherping)
- Treasurer
(John Bruce)
- Registrations
(Tom Miller)
- Registration Table Coordinator
(plus several people to help man the table)
- Registration Pamphlet & Pre-Star Party Mailings
(modify 1995 designs & coordinate mailings)
- Star Party Schedule Booklet
(develop book & get copies run)
- Banquet & Meeting Room Coordinator
(plus a few helpers for set-up, etc.)
- Tee Shirts
(ordering, picking up, etc.)
- Canoe Trip Coordinator
- Traffic Control Coordinator
(plus alot of helpers)
- Publicity & Advertizing
(press releases, articles, etc.)

Campground & Observing Field Coordinator

Door Prizes

(send out letters, play with door prizes up to 10 minutes, then distribute)

Programs Coordinator

(line up the speakers & lay out the schedule)

Astrophoto & ATM Contest

(most of the ground work is done, just coordinate & fine-tune)

Name That Object Contest

Deep Sky Challenge

YOU ONLY THOUGHT YOU SAW

"APOLLO 13"

by Lee Thomas

Interesting, isn't it, that the biggest movie of the summer is "Apollo 13?" Millions of people are, according to Conventional Wisdom, indifferent to the notion of space exploration. Their craven minds are obsessed with more earthly matters, convinced that "Any country that can put a man on the moon can (fill in your favorite social reform program here). Yet, those millions who saw "Apollo 13" obviously got a feeling pride and inspiration from a film about that musty old era 25 years ago when the country (albeit for the wrong reason: to "beat" the Russians) sent men where no one had gone before. I suspect it is not the public so much as the news media, in their constant quest for something glamorous, sexy and new, that lost interest in space. As the film itself notes, the TV networks wouldn't have covered Apollo 13 at all, if it weren't for the "drama".

Anyway, if you saw and enjoyed "Apollo 13" anywhere in Nebraska, I hate to be the one to tell you that you missed a really great movie. Even if you saw it in "Dolby Stereo", you missed better than half the impact.

Last month, courtesy of some friends in the motion picture exhibition business, I had the opportunity to see "Apollo 13" in half a dozen different theaters in Denver, after having seen it in Lincoln. I viewed it in every sound format that it was running in: Dolby Stereo, DTS (Digital Theatre Sound) Stereo, and DTS 6-track. Only one theater in Denver, the UATC Greenwood 12, was equipped for the latter format. This theater is less than a year old, and is considered the flagship for the country's largest theater chain, which is headquartered in Denver. Some of us remember when UATC briefly owned theaters in Lincoln and let them run down to the pits. Fortunately, the Greenwood is right down the Interstate from corporate headquarters, so it's kept tuned up.

(Cont.)

comparison between 6-track digital and... When the Saturn lifts Apollo off the pad in... well, kind of loud. In DTS stereo, it's even... In 6-track, it's a visceral experience: you don't just... it, you feel it... the very floor rumbles, your seat... vibrates, and you're at the threshold of wanting to vacate... the premises.

In the scene where the astronauts are staging their little TV program... the one the networks ignored ... Fred Haise (Bill Paxton) playfully tests a valve, and a momentarily-startled Jim Lovell (Tom Hanks) chuckles, slightly nervously, that Fred "always gets us with that one." The sound in Dolby is a... a tinny little "thunk!" that you hardly notice. In DTS stereo, it's almost enough to wake up the audience. In 6-track, it grabs you like one of those mechanical "clonks!" that the old 707's used to deliver to innocent passengers while cruising at 32,000 feet: the kind that shook the entire plane, sent your heart into your throat, and forced the cabin crew to distribute free drinks while the captain tried to reassure a near-panic Tourist Section that the tail hadn't really fallen off.

And when the oxygen tank explodes? In 6-track, the combination of rumbling bass, grinding and wrenching torn metal literally simulates the entire theater coming apart around you. Nothing in the other sound formats remotely approaches it.

Some movies don't really benefit all that much from digital sound, or, for that matter, just plain old Dolby surround. When Universal Pictures refused to screen "Apollo 13" in advance of its release date in Lincoln because no theater was equipped with DTS, we folk who see these screenings assumed it was because Universal has a financial stake in the DTS system and was trying to make a point: buy our system instead of the competing Dolby or SDDS (Sony Dynamic Digital Sound) systems. But, vested interest or not, they had a point: "Apollo 13" seen any other way is a totally different -- and far less powerful -- experience.

If you're ever traveling and spot a theater playing "Apollo 13" in 6-track digital DTS, don't assume "I've already seen that movie." Believe me, you haven't!

A VERY SATISFYING VACATION

by David Knisely

It is very interesting how the term "Star Party" brings up certain preconceived notions about how things will turn out. While I liked the idea of a regional star party, I had my doubts whether the first Nebraska Star Party would attract... such attention, let alone, spawn a second NSP. When the... attracted about 80 people, I decided it might be

worth the effort to go up to Meritt to see what all the fuss was about. After a pleasant drive through some of the prettiest country in the state, I ended up joining about 200 people at a great site for what turned out to be a lot more than a star party. It was a wonderful summer vacation, which I will remember for years to come.

If you have never seen the sand "hills", you really should drive up Highway 2, and then north out of Thedford. These are more sand mountains than hills, and have a stark beauty all their own which gets bigger and better the closer you get to Valentine. As you approach the outskirts of Valentine, the road does a wonderful dive down into the Niobrara canyon, where the south walls are lined with tall pine trees. A number of attendees were camping at the Meritt Reservoir or staying in the cabins at the resort, while others (like me) were staying at a motel in Valentine (I like air conditioning and TV). The road to the Meritt winds along and into the canyon southwest of Valentine, climbing out again for perhaps 25 miles until you reach the lake, which is nestled at 3100 feet above sea level between tall green ridges of grass-covered sand and rock. It is huge, and has wonderful white sand beaches and warm blue water which said "swim in me", all the time I was there. The first person I saw was Tom Miller, who immediately grabbed my old club hat, replacing it with a red one which said "NSP Staff", and told me "You're drafted!" I expected to work, since I had signed up earlier, but I appreciated the hat. I helped set up registration, and then greeted a few early birds, some of whom I hadn't seen since the last national convention. A bunch of us later went back into town for a nice dinner at the Pepper Mill restaurant (they have a wonderful French-dip sandwich), and then went back to my motel for some sleep, while the others went out to the lake to put on an observing session for the general public.

The next morning, I did some sightseeing and photography around the lake before we opened the registration table. Late in the day, a group of us tried the Snake River Falls Restaurant near the lake, which gave us good food and a wonderful view of the largest waterfall (volume wise) in Nebraska. After supper, we all went up the road to the observing site. I counted about 40 telescopes on the three observing fields, ranging in size from 4" to several 20 to 30" giants. I set my 10" up on the top field which we called "Dave's Hill" (there were at least five people in our little observing group named Dave), while the lower field was known as "the Valley of the Dobs". Tom and Dave had told me all the wonderful stories about how clear and dark it is up at Meritt, and people, let me tell you: THEY ARE ALL TRUE! The Milky Way was incredibly bright, and yes, IT DID CAST A SHADOW! People were having trouble finding objects because there were too many stars visible to make out the constellations easily. I got stunning views of deep sky objects in several big Dobsonians which

(Continued on page 6)

(Continued from page 5)

seemed better than many photographs. I stayed out all night and had an absolutely glorious time.

The next afternoon, Dave Kriege of Obsession Telescopes conducted a workshop on mirror cleaning and collimation, followed by a nice friendly cookout behind the cabins. Then, we spent another evening observing the wonderful skies of western Nebraska. We cut the night short, because, the next morning was the great NSP Canoe/Tube trip on the Niobrara. This was a new experience for me, since I hadn't been in a canoe on a "wild" river. The scenery in the canyon was wonderful, and I didn't get dunked into the river, although I did get rather wet standing under Smith Falls (don't try that for very long, it is COLD!). Thursday evening again brought out wonderful skies, and I started working on Dave Scherping's NSP Deep Sky Challenge observing award. Once again, I didn't get back to bed until dawn.

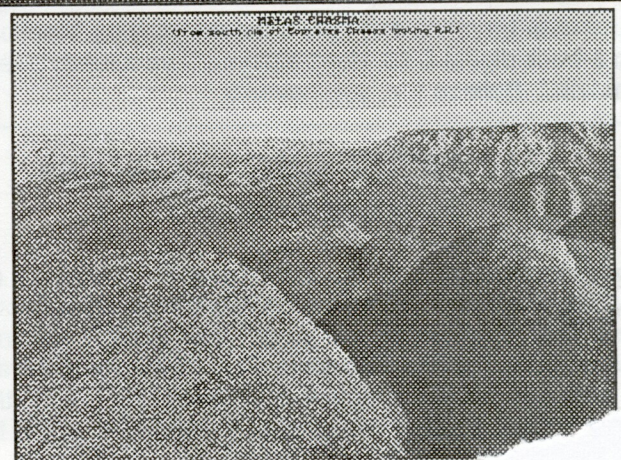
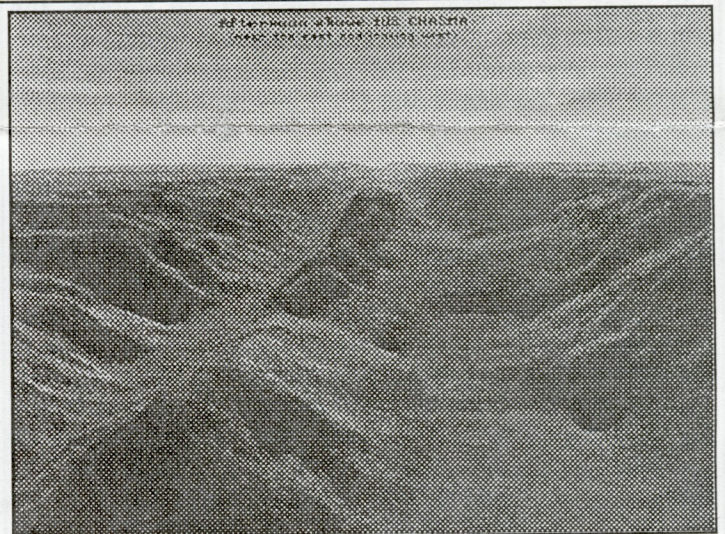
Friday, the paper sessions started back at the Pepper Mill, followed by the wonderful magic show put on by Mike Sibbersen, assisted by Kendra Stahl, to change the pace a bit. We had a rather filling banquet, topped off by Barbara Wilson's talk on observing globular clusters. Also three out of the four observing awards presented during the banquet went to P.A.C. members. Friday night was again gloriously clear, making for another productive observing session. As a matter of fact, the sky remained clear almost the entire time we were up there (thank you Jason)!

Saturday morning, I took a trip through the Fort Niobrara Wildlife Refuge to do more sightseeing and take more pictures. The afternoon brought out the Swap meet (I got a new focuser), along with 107 degree heat, so I went for an extended swim in the lake. It was rather windy, and Tom Miller joined me in the water, where we tried to stay above the waves. There was a nice catered barbecued chicken dinner at the lake in the early evening, and then another night of rather windy observing to close down the event.

Our club should be proud of the effort and organization which went into the second annual NSP. I heard no negative and a LOT of positive comments from people from as far away as Wisconsin, Washington, Texas, and Louisiana, many of whom said they would be back next year. Jim Marsh of St. Louis got up unannounced at the banquet and stated that in all the years he has attended star parties, this one was the best! Our club got a standing ovation. All this would not have been possible if it weren't for a few dedicated club members who gave an enormous amount of their time and effort. I wish to formally thank Tom Miller, Dave Scherping, John Bruce, Del Motycka, Jason Stahl, and all the other volunteers who helped staff the NSP. I would especially like to salute Tom Miller for having the wild idea that this sort of event would work in Nebraska, and then having the guts enough to make it fly

two years in a row. However, these themselves, and could probably have help pulling things together. Next year's NSP indicates an indication of being a lot bigger, and those of you who should really consider helping out in at least a small way, even if you are not going to attend. Come to the planning meetings, and you might find out how you can contribute, even if it is just stuffing envelopes, doing mailings, or providing ideas and moral support. Thank you everyone, and SEE YOU NEXT YEAR AT THE 3rd ANNUAL NEBRASKA STAR PARTY, AUGUST 10-17th.

Below are two PCX images sent in by David Knisely which were generated by VISTAPRO Vs. 3.0 of the surface of Mars. The first is an aerial view of the west half of Ius Chasma west of 80 degrees longitude taken late in the afternoon. This is the deepest part of Vallis Marineris, with the floor as much as 7 miles below the rim. The width of the canyon varies, but it is on the order of 75 miles wide in the picture. On the left are the side canyons of Lauras Valles, which are comparable to the Grand Canyon in Arizona, and the horizon at the center is about 300 miles away from the viewer. The second image is of the wide shallow canyon Melas Chasma, looking in the direction of the mouths of Ius and Candor Chasmas about 150 miles away. On the extreme right is the north wall of the west end of Coprates Chasma, and the picture is taken from a point on the south rim where Coprates and Melas join.



"THE MESSIER & HERSCHEL STAR-HOPPER"

I created a booklet entitled "The Messier & Herschel Star-Hopper" which contains a listing of Messier and Herschel objects, at least twice as many others which aren't among those lists, and on each page of the booklet appears a drawing of the entire constellation in which the objects are located. The drawings include most of the stars which have Bayer designations and any other bright stars.

The listing of objects contains the common, or NGC designation, Messier number, if any, or a name derived from the object's discoverer's catalog. The type of object is not noted, as I felt the purpose of this book would be to use for observational purposes. Other catalogs are easily available to the armchair enthusiast. Following the object name is a list of stars whereby one can initiate a star-hop from one of the major stars which can be sighted naked eye to the Object itself. Usually each Object listing contains at least 3 or 4 stars, and possibly numbers of arc degrees north or south, or R.A. minutes east or west. Following the hop star list and/or directions the Uranometria 2000.0 map number is noted along with whether the object is an award object in the Astronomical Society's list of objects for either the Messier or Herschel award.

The constellation coordinates are not noted on their respective maps. But neighboring constellations are shown with their abbreviations. It is assumed that even the beginner has access to a planisphere or the rudimentary star charts. If a particular constellation's listing occupies more than one page, the entire constellation is drawn on each of the subsequent pages so that the observer doesn't have to constantly turn pages to eyeball the next object he wishes to find.

The entire volume is about 140 pages and is duco-bound with hard front and back pages. I've applied for a copyright, and when it comes I'm going to try to get it published by a publisher. Until then, I'll be running off copies locally. The cost is pretty substantial so I'll ask for \$22.00 per copy, which would include a book-rate shipping cost.

Some of the club members may have seen it at the '95 NAP. One copy was given away as a door prize, plus I took 4 copies of the 6 that I had made to sell. Two were sold within 2 hours of my arrival, so I guess I can be glad that I was right about it being needed. I use my personal copy all of the time. Whereas I used to carry Tirion maps, Uranometria volumes, a pocket book with constellation maps, a planisphere, and two loose-leaf books I have compiled from the Saguaro Astronomy Club in Arizona's listing of objects, now I only use the book I printed and the two Uranometria volumes. I figure that I can check the details of the object when logging my observing session from compiled notes. Most notes in a log book are made concerning the appearance of the object, such as how much of the field in a particular eyepiece it occupies some of its accompanying field stars, colors, etc. Even sketches and photographs only show these particulars.

I'd like to take prepaid advance orders for the volume and plan to put out the first large printing sometime in the first part of 1996, preferably January. For practical reasons, if I don't receive more than 25 orders I won't be running another printing. That being the case, any bank draft I receive in the mail will be returned to its sender promptly before February 1996.

Orders may be sent to myself, Kevin Koutnik, 2860 31st Ave., Columbus, NE 68601, and I may be contacted by phone at (402) 564-2432.

Astro-Man
BY DAVE SCHERPING

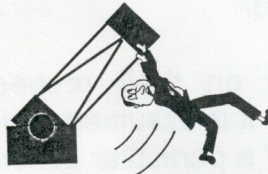
EXTREME OBSERVING...



KUIPER AIRBORNE
ASTROSCAN

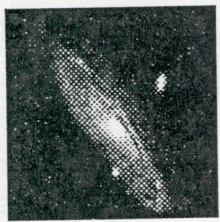
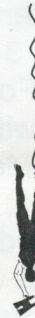


BIG DOB
IN THE WIND

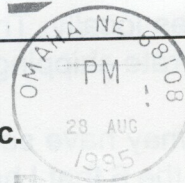


WHITE WATER
ECLIPSE CHASING

BUNGEE BINOCULAR
MESSIER MARATHON



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First Class Mail

Next Meeting
August 29, 1995

Mr. Earl Moser 9/95
P. O. Box #162
Hickman, NE 68372

AUG

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President's Report

by Dave Scherping

After NSP, it kind of feels like last year is over and we're beginning a new one. In a way, that's true, but there's still a lot of exciting things to come this year, as I'll describe in a moment. But first, there's congratulations in order.

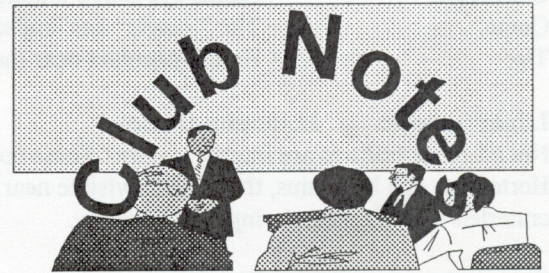
I'm proud to announce that Erik Hubl has completed the requirements for the Honorary Messier Award and was awarded his pin and certificate at NSP. To receive this award, Erik had to independently locate, observe, and record all 110 Messier Objects. Not only did he record them, but he drew them! And drew them well. Great job Erik.

Now for PAC happenings: If you get this newsletter in time, don't forget the PAC Picnic on Saturday August 26th. Also, don't forget the Mahoney Public Star Party on September 1st. If you missed the last Mahoney Star Party, which was held August 4th, you missed a great time. Plus, we could have used you. Visitors greatly outnumbered astronomers. For about 2 hours, the line to my scope was 10 to 30 people long! So even if you don't have a scope, come out & help. You can help man one of the scopes that are there. September 1st will be the last Mahoney Star Party this year. Let's make it a great one.

The Prairie Astronomy Club has recently assisted Prairie Peace Park in developing a scale model of the Solar System at their park. We helped organize the facts that will go on the plaques that will be spread across the park. If you want to help install these, let me know.

If you're looking for other ways to get involved, read the NSP HIGHLIGHTS article. We could sure use your help preparing for next year's Nebraska Star Party. We've really started something big folks! Let's not let it fall apart. Other ways you can get involved include volunteering your time at Hyde Observatory on Saturday nights (see Erik Hubl, Ron Veys, Lee Thomas, or any of the other supervisors). Or you may wish to give a presenta-

tion at one of our upcoming meetings (See Dave Knisely). How about submitting an article to this newsletter? We're always interested in hearing your ideas. Or, you may want to run for office. Elections are coming up in October. If you have any other ideas for new PAC activities, let me know.

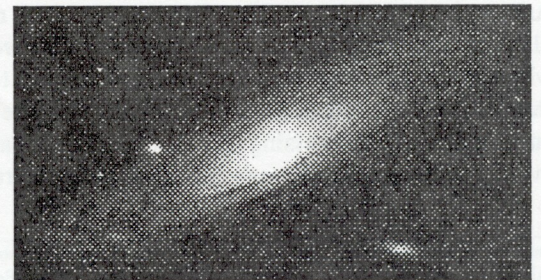


AUGUST MEETING NOTICE

AUGUST 29th, 1995, 7:30 p.m.,
at Hyde Memorial Observatory

Program: Newtonian Collimation and working with the Club Telescope.

The August meeting's program will deal with the subject which had a lot of people concerned with at the Nebraska Star Party, namely, HOW IN THE WORLD DO YOU GET THIS STUPID THING COLLIMATED?! Hopefully, there will be a short video and then a demonstration by Kelley Erlandson using some unique collimation tools and the club telescope. There should also be a recap of the activities and future plans for the Nebraska Star Party, so be sure and attend. I am still looking for programs for September and October, so if you have an idea, now is the time to talk to me... *Dave Knisely*



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Observing Chairman's Report

by Douglas Bell

For September observing.

Next star party: Sept 22 (Atlas site)
 New Moon: Aug 26, Sep 24
 Lunar object: Hortensius Domes
 Planet: The Sun
 Messier monthly: M 76
 Top 40: M27
 Deep sky: NGC 3242
 Challenge: Naked eye Lunar craters
 Quote: The "Beagle" has landed! - Charles Darwin
 Tip: Hold binoculars near the objective lenses, not the eyepieces. It looks funny but it's a lot less jiggly.

Lunar feature: Hortensius Domes

Not all lunar features are impact craters. These domes are volcanic artifacts. Located just west of Copernicus, between the craters Hortensius and Milichius, they're only visible near the terminator (2 1/2 days after First Quarter). Look for the small summit craterlets and the meandering ridges nearby.

Planet of the month: The Sun

I love this time of year. For some reason I feel closer to ancient rhythms of the seasons and the Solstice. Now that so much of our lives is disconnected from the universe, it's reassuring to see eternal cycle moving on. Try watching the time of sunset each day. It's changing by a minute a day and speeding up. When it peaks at the Solstice we'll be losing more than 15 minutes a week.

Top 40: M 27

The D(ou)gumbell nebula I'll never live this down.

Messier Monthly: M 76

The little dumbbell The faintest messier. This mag 11.5 planetary in Perseus is a difficult catch in small scopes. Maybe someday someone will explain how Charles listed this and left out the double cluster.

Deep Sky: NGC 3242 Jupiter's Ghost

Maybe I should have saved this for Halloween. A 16" mag 8.6 planetary should be an easy catch. Smaller and fainter than Jupiter, it shares most planetary's ghostly appearance.

Challenge: Naked eye lunar features.

No, not the maria (sheet!). But can you see craters and mountains without optical aid? Yes you can. You will have to look during twilight (otherwise the bright moon washes out the fine detail), and when the feature is right on the terminator near first quarter. I've seen distinct anomalies in the lunar terminator corresponding to the Apennine mountains and the crater Tycho. Can you see any others? Let me know. By the way. The ancient believed the Moon to be a perfect sphere. Guess they didn't look.

Astro trivia: NASA recently celebrated it's 100th manned launch. How many different types of NASA launch vehicles have placed a person in orbit? **Last month's answer.** One hundred is the magic number for our magnitude scale. An object which is 100 times as bright as another is defined to be exactly five magnitudes brighter. Did you know? Our friends at JPL report that they've been able to push the Galileo baud rate to nearly 160 bps (on a good day). This is up from the 16bps available without any upgrades. Compressing this will give (up to) an additional 80x improvement. Amazing work in a tough situation. Expect over 1,500 images, and nearly all of the other instrument data, to be returned successfully.

The Prairie Astronomer is published monthly by the Prairie Astronomy Club, Inc., and is free to all club members. Membership status and expiration date are listed on the mailing label. Membership dues are: Regular Members...\$10/yr; Family Memberships...\$12/yr; Address all new memberships, renewals, or questions to THE PRAIRIE ASTRONOMY CLUB, INC., P.O. BOX 80553, LINCOLN, NE 68501. For other club information contact one of the following: John Bruce (Lincoln) 483-0389, Lee Thomas (Lincoln) 483-5639, John Lortz (Omaha) 496-1122. All newsletter comments and articles should be sent to Newsletter Editor JOHN LORTZ, 11684 MEREDITH AVE., OMAHA, NE 68164 no later than 10 days before monthly club meetings. Club meetings are held the last Tuesday of each month at Hyde Observatory in Lincoln, NE.

NSP HIGHLIGHTS

By Dave Scherping

Well, the 2nd annual Nebraska Star Party has come & gone. I'm sure that all of those who attended had a great time. In case you didn't, here's a few highlights:

I arrived at Merritt Reservoir on Sunday July 23rd, and even though NSP didn't officially start until Tuesday, I wasn't the first. Del Motycka, Tom Miller and a few people from out-of-state arrived a day earlier. John Bruce arrived a short while after me. Sunday evening, the scattered clouds cleared and we were in for a great night of observing. We were really getting into observing when around 1:30am a glow appeared in the north. At first it looked like distant city lights but within minutes it erupted into a fantastic aurora display that lasted an hour or so. There were dark distant clouds on the horizon and the aurora came out from behind it shooting up in spikes 30 to 40 degrees into the sky. This gave the appearance of a great crown. The amazingly ironic thing was that Jason Stahl, our "Clear Skies Coordinator" had promised me an NSP aurora back in January!

Monday morning I awoke to a violent, but luckily short thunderstorm. The winds were strong & continuously changing directions. I was amazed my tent withstood it. I think I slept about a half hour before the storm hit and then I was up for the day. Later that morning, after relocating my tent, we began to take care of many of the details such as signs and registration. NSP attendees continued to arrive throughout the day. Monday night was devoted to showing the night sky to visitors from the surrounding area. We set up our scopes at the Merritt Resort rather than our normal observing site at the south end of the lake. The first half of the night was partly cloudy, but we still had 50 visitors or more. Mike Burge from Valentine also visited us and did an interview for the North Platte TV station and invited us to be on the radio in Valentine the next morning (later in the week, articles about NSP appeared in the Omaha World Herald, the Lincoln Journal-Star, and the Valentine paper). Later that night, after our local visitors left, several of us joined Dave Kriege of Obsession Telescopes at the observing field and viewed through his 25" scope the remainder of the night.

Tuesday morning, I awoke to another short storm. Amazingly, my tent withstood the wind again. That morning I got about 2 hours sleep. After showing my scope to another astronomer, I inadvertently locked my keys in my car. It was 8:00 am & I needed to get to the cabins to wake up Tom Miller & get to Valentine by 10:00 for the radio show. Luckily, my wife reminded me to bring another set of car keys. Unluckily, they were locked in the car also! After nearly giving up hope of getting it unlocked, Gordon Major of Omaha tried the key to one of his cars. It worked!! And by 10:00am, Tom & I were in Valentine, ready to do the half hour radio show. Considering our

lack of sleep and a little nervousness, the radio show turned out great. Several astronomers enroute to NSP listened to the program on their way. NSP had officially begun. Tuesday night was another exceptional night. not a cloud in the sky, very little wind, and of course, no signs of light pollution whatsoever. We observed until dawn.

We enjoyed a good morning's sleep, and then Wednesday afternoon enjoyed Dave Kriege's mirror cleaning and collimation demonstration followed by the NSP barbecue. Thanks to the NSP Clear Skies Coordinator, we had perfect observing conditions again on Wednesday night.

Thursday featured the Niobrara canoe and tubing trip. I'm not sure how many people canoed, but we had 35 tubes tied together, with as many people on them, stretching at least 1/2 way across the river. The tubing trip was incredibly fun. Some claimed it was the highlight of the week. Judging for the telescope making contest was held just before sunset Thursday. Our judges were Dave Kriege of Obsession Telescopes, Pete Smitka of MAG1 (Portaball), and Randy Cunningham of AstroSystems. There were several fantastic scopes entered in the contest. Though tired and a little beat-up from the rocks in the river, we managed to enjoy yet another perfect night of observing under the dark skies of the sandhills. That NSP "Clear Skies" guy was really doing a great job!

Friday, the astronomers moved to the Peppermill Restaurant in Valentine for a day of programs, a banquet, and awards. Louis Dorland of OAS & PAC was our first speaker. Though plagued by TV & VCR difficulties, he gave a great presentation on the May 1994 annular solar eclipse. He was followed by Brenda Culbertson's presentation of "Low Tech Solar Observing". After lunch, we enjoyed presentations by Ron Dyvig, of Rapid City, SD, Dr. Wakefield Dort of the University of Kansas, and Kendra Stahl of Lincoln. Ron spoke about making his 26" mirror, Dr. Dort gave a talk on the Merna Meteor Crater, and Kendra's presentation was about interacting binary stars. Also throughout the day, attendees were allowed to view the entries in the astrophoto contest and cast their ballots. Plus, AstroSystem was set up at the meeting room, selling all sorts of great astro items.

The presentations were followed by "Name That Object" contest, coordinated by Jason Stahl, and by a fantastic magic show by Mike Sibbernsen and Kendra Stahl. We then sat down for the banquet dinner, followed by our featured speaker, Barbara Wilson of Houston, Texas. Barbara spoke about her 3-year project to observe all of the galactic globular clusters north of -55 declination. It was an incredible talk; one of the best I have ever heard. We ended the day with awards for telescope making, astrophotography, the "Great NSP Deep Sky Challenge", and of course, a huge selection of door prizes. Winners of the ATM contest were Ron Dyvig, for "Most Innovative Design", Roger Thoming for "Best Design", and Steve Ebner for "Finest

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Workmanship". Winners in the Astrophoto contest were Erik Hubl for "Planetary", Tom Bressler (Norfolk) for "Deep Sky", and Brenda Culbertson (Kansas) for "1x". NSP Deep Sky Challenge certificates were awarded to Erik Hubl (PAC), Dave Hamilton (PAC), David Knisley (PAC), Kelly Erlandson (PAC), David Nash (Illinois), & Gary Fugman (Iowa). Way to go Prairie Astronomers!!

As the sun set Friday evening, we then moved back down to Merritt Reservoir for another night of perfect observing conditions.

Saturday, there was the swap meet in the afternoon and a catered chicken dinner in the early evening. That night, it was mostly clear but very windy. Being satisfied with the many previous six nights of perfect conditions, most of the astronomers chose to socialize and/or turn in early. By late Sunday morning, most had left or were packing up. We were all sad it was over but nobody left unhappy. Everyone had a great time. Most of us looked forward to a good night's sleep in our own beds, but we all agreed it was worth it. We really received some great reviews in the papers & on Internet. This event really did alot for PAC. Also, look for additional articles on NSP in Astronomy, Sky & Telescope, The Reflector, and Amateur Astronomy.

Next year's Nebraska Star Party will be held August 10-17, 1996 at Merritt Reservoir. This will coincide with the peak of the Perseids. We're in need of alot of volunteer help for next year. Here's a list of the jobs that need to be done. Please contact me at 477-2596 or see me at the PAC meeting if you want to volunteer.

Coordinator

(Dave Scherping)

Treasurer

(John Bruce)

Registrations

(Tom Miller)

Registration Table Coordinator

(plus several people to help man the table)

Registration Pamphlet & Pre-Star Party Mailings

(modify 1995 designs & coordinate mailings)

Star Party Schedule Booklet

(develop book & get copies run)

Banquet & Meeting Room Coordinator

(plus a few helpers for set-up, etc.)

Tee Shirts

(ordering, picking up, etc.)

Canoe Trip Coordinator

Traffic Control Coordinator

(plus alot of helpers)

Publicity & Advertizing

(press releases, articles, etc.)

Campground & Observing Field Coordinator

Door Prizes

(send out letters, play with door prizes up until NSP, then distribute)

Programs Coordinator

(line up the speakers & lay out the schedule)

Astrophoto & ATM Contest

(most of the ground work is done, just coordinate & fine-tune)

Name That Object Contest

Deep Sky Challenge

YOU ONLY THOUGHT YOU SAW

"APOLLO 13"

by Lee Thomas

Interesting, isn't it, that the biggest movie of the summer is "Apollo 13?" Millions of people are, according to Conventional Wisdom, indifferent to the notion of space exploration. Their craven minds are obsessed with more earthly matters, convinced that "Any country that can put a man on the moon can (fill in your favorite social reform program here). Yet, those millions who saw "Apollo 13" obviously got a feeling pride and inspiration from a film about that musty old era 25 years ago when the country (albeit for the wrong reason: to "beat" the Russians) sent men where no one had gone before. I suspect it is not the public so much as the news media, in their constant quest for something glamorous, sexy and new, that lost interest in space. As the film itself notes, the TV networks wouldn't have covered Apollo 13 at all, if it weren't for the "drama".

Anyway, if you saw and enjoyed "Apollo 13" anywhere in Nebraska, I hate to be the one to tell you that you missed a really great movie. Even if you saw it in "Dolby Stereo", you missed better than half the impact.

Last month, courtesy of some friends in the motion picture exhibition business, I had the opportunity to see "Apollo 13" in half a dozen different theaters in Denver, after having seen it in Lincoln. I viewed it in every sound format that it was running in: Dolby Stereo, DTS (Digital Theatre Sound) Stereo, and DTS 6-track. Only one theater in Denver, the UATC Greenwood 12, was equipped for the latter format. This theater is less than a year old, and is considered the flagship for the country's largest theater chain, which is headquartered in Denver. Some of us remember when UATC briefly owned theaters in Lincoln and let them run down to the pits. Fortunately, the Greenwood is right down the Interstate from corporate headquarters, so it's kept tuned up.

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There is no comparison between 6-track digital and everything else. When the Saturn lifts Apollo off the pad in Dolby, it's, well, kind of loud. In DTS stereo, it's even louder. In 6-track, it's a visceral experience: you don't just hear it, you feel it... the very floor rumbles, your seat vibrates, and you're at the threshold of wanting to vacate the premises.

In the scene where the astronauts are staging their little TV program... the one the networks ignored ... Fred Haise (Bill Paxton) playfully tests a valve, and a momentarily-startled Jim Lovell (Tom Hanks) chuckles, slightly nervously, that Fred "always gets us with that one." The sound in Dolby is a tinny little "thunk!" that you hardly notice. In DTS stereo, it's almost enough to wake up the audience. In 6-track, it grabs you like one of those mechanical "clonks!" that the old 707's used to deliver to innocent passengers while cruising at 32,000 feet: the kind that shook the entire plane, sent your heart into your throat, and forced the cabin crew to distribute free drinks while the captain tried to reassure a near-panic Tourist Section that the tail hadn't really fallen off.

And when the oxygen tank explodes? In 6-track, the combination of rumbling bass, grinding and wrenching torn metal literally simulates the entire theater coming apart around you. Nothing in the other sound formats remotely approaches it.

Some movies don't really benefit all that much from digital sound, or, for that matter, just plain old Dolby surround. When Universal Pictures refused to screen "Apollo 13" in advance of its release date in Lincoln because no theater was equipped with DTS, we folk who see these screenings assumed it was because Universal has a financial stake in the DTS system and was trying to make a point: buy our system instead of the competing Dolby or SDDS (Sony Dynamic Digital Sound) systems. But, vested interest or not, they had a point: "Apollo 13" seen any other way is a totally different -- and far less powerful -- experience.

If you're ever traveling and spot a theater playing "Apollo 13" in 6-track digital DTS, don't assume "I've already seen that movie." Believe me, you haven't!

A VERY SATISFYING VACATION

by David Knisely

It is very interesting how the term "Star Party" brings up certain preconceived notions about how things will turn out. While I liked the idea of a regional star party, I had my doubts whether the first Nebraska Star Party would attract much attention, let alone, spawn a second NSP. When the first one attracted about 80 people, I decided it might be

worth the effort to go up to Meritt to see what all the fuss was about. After a pleasant drive through some of the prettiest country in the state, I ended up joining about 200 people at a great site for what turned out to be a lot more than a star party. It was a wonderful summer vacation, which I will remember for years to come.

If you have never seen the sand "hills", you really should drive up Highway 2, and then north out of Thedford. These are more sand mountains than hills, and have a stark beauty all their own which gets bigger and better the closer you get to Valentine. As you approach the outskirts of Valentine, the road does a wonderful dive down into the Niobrara canyon, where the south walls are lined with tall pine trees. A number of attendees were camping at the Meritt Reservoir or staying in the cabins at the resort, while others (like me) were staying at a motel in Valentine (I like air conditioning and TV). The road to the Meritt winds along and into the canyon southwest of Valentine, climbing out again for perhaps 25 miles until you reach the lake, which is nestled at 3100 feet above sea level between tall green ridges of grass-covered sand and rock. It is huge, and has wonderful white sand beaches and warm blue water which said "swim in me", all the time I was there. The first person I saw was Tom Miller, who immediately grabbed my old club hat, replacing it with a red one which said "NSP Staff", and told me "You're drafted!" I expected to work, since I had signed up earlier, but I appreciated the hat. I helped set up registration, and then greeted a few early birds, some of whom I hadn't seen since the last national convention. A bunch of us later went back into town for a nice dinner at the Pepper Mill restaurant (they have a wonderful French-dip sandwich), and then went back to my motel for some sleep, while the others went out to the lake to put on an observing session for the general public.

The next morning, I did some sightseeing and photography around the lake before we opened the registration table. Late in the day, a group of us tried the Snake River Falls Restaurant near the lake, which gave us good food and a wonderful view of the largest waterfall (volume wise) in Nebraska. After supper, we all went up the road to the observing site. I counted about 40 telescopes on the three observing fields, ranging in size from 4" to several 20 to 30" giants. I set my 10" up on the top field which we called "Dave's Hill" (there were at least five people in our little observing group named Dave), while the lower field was known as "the Valley of the Dobs". Tom and Dave had told me all the wonderful stories about how clear and dark it is up at Meritt, and people, let me tell you: THEY ARE ALL TRUE! The Milky Way was incredibly bright, and yes, IT DID CAST A SHADOW! People were having trouble finding objects because there were too many stars visible to make out the constellations easily. I got stunning views of deep sky objects in several big Dobsonians which

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seemed better than many photographs. I stayed out all night and had an absolutely glorious time.

The next afternoon, Dave Kriege of Obsession Telescopes conducted a workshop on mirror cleaning and collimation, followed by a nice friendly cookout behind the cabins. Then, we spent another evening observing the wonderful skies of western Nebraska. We cut the night short, because, the next morning was the great NSP Canoe/Tube trip on the Niobrara. This was a new experience for me, since I hadn't been in a canoe on a "wild" river. The scenery in the canyon was wonderful, and I didn't get dunked into the river, although I did get rather wet standing under Smith Falls (don't try that for very long, it is COLD!). Thursday evening again brought out wonderful skies, and I started working on Dave Scherping's NSP Deep Sky Challenge observing award. Once again, I didn't get back to bed until dawn.

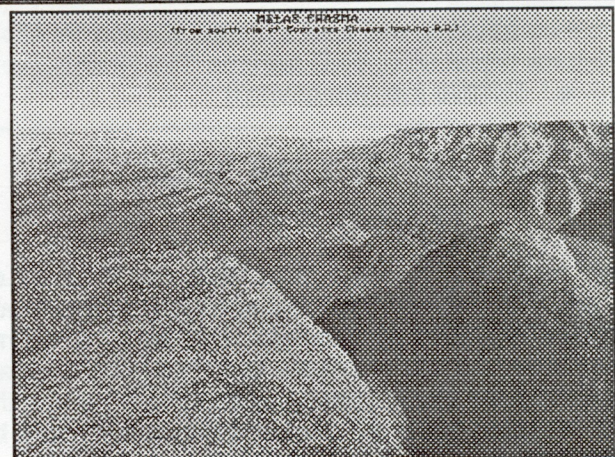
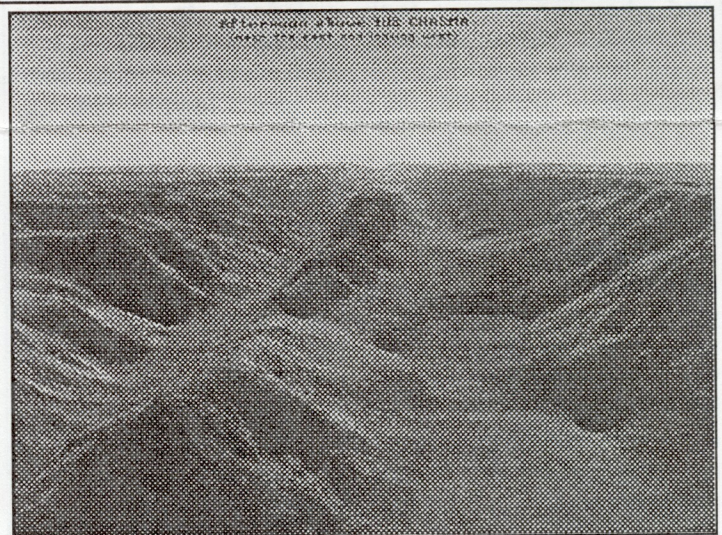
Friday, the paper sessions started back at the Pepper Mill, followed by the wonderful magic show put on by Mike Sibbersen, assisted by Kendra Stahl, to change the pace a bit. We had a rather filling banquet, topped off by Barbara Wilson's talk on observing globular clusters. Also three out of the four observing awards presented during the banquet went to P.A.C. members. Friday night was again gloriously clear, making for another productive observing session. As a matter of fact, the sky remained clear almost the entire time we were up there (thank you Jason)!

Saturday morning, I took a trip through the Fort Niobrara Wildlife Refuge to do more sightseeing and take more pictures. The afternoon brought out the Swap meet (I got a new focuser), along with 107 degree heat, so I went for an extended swim in the lake. It was rather windy, and Tom Miller joined me in the water, where we tried to stay above the waves. There was a nice catered barbecued chicken dinner at the lake in the early evening, and then another night of rather windy observing to close down the event.

Our club should be proud of the effort and organization which went into the second annual NSP. I heard no negative and a LOT of positive comments from people from as far away as Wisconsin, Washington, Texas, and Louisiana, many of whom said they would be back next year. Jim Marsh of St. Louis got up unannounced at the banquet and stated that in all the years he has attended star parties, this one was the best! Our club got a standing ovation. All this would not have been possible if it weren't for a few dedicated club members who gave an enormous amount of their time and effort. I wish to formally thank Tom Miller, Dave Scherping, John Bruce, Del Motycka, Jason Stahl, and all the other volunteers who helped staff the NSP. I would especially like to salute Tom Miller for having the wild idea that this sort of event would work in Nebraska, and then having the guts enough to make it fly

two years in a row. However, these few people did a lot themselves, and could probably have used some more help pulling things together. Next year's NSP shows every indication of being a lot bigger, and those of you in our club should really consider helping out in at least a small way, even if you are not going to attend. Come to the planning meetings, and you might find out how you can contribute, even if it is just stuffing envelopes, doing mailings, or providing ideas and moral support. Thank you everyone, and SEE YOU NEXT YEAR AT THE 3rd ANNUAL NEBRASKA STAR PARTY, AUGUST 10-17th.

Below are two PCX images sent in by David Knisely which were generated by VISTAPRO Vs. 3.0 of the surface of Mars. The first is an aerial view of the west half of Ius Chasma west of 80 degrees longitude taken late in the afternoon. This is the deepest part of Vallis Marineris, with the floor as much as 7 miles below the rim. The width of the canyon varies, but it is on the order of 75 miles wide in the picture. On the left are the side canyons of Laurus Valles, which are comparable to the Grand Canyon in Arizona, and the horizon at the center is about 300 miles away from the viewer. The second image is of the wide shallow canyon Melas Chasma, looking in the direction of the mouths of Ius and Candor Chasmas about 150 miles away. On the extreme right is the north wall of the west end of Coprates Chasma, and the picture is taken from a point on the south rim where Coprates and Melas join.



“THE MESSIER & HERSCHEL STAR-HOPPER”

I have compiled a booklet entitled “The Messier & Herschel Star-Hopper” which contains a listing of all of the Herschel and Messier objects, at least twice as many others which aren't among those lists, and, on each page of the booklet appears a drawing of the entire constellation in which the objects reside. The drawings include most of the stars which have Bayer designations and any other bright stars.

The listing of objects contains the common, or NGC designation, Messier number, if any, or a name derived from the object's discoverer's catalog. The type of object is not noted, as I felt the purpose of this book would be to use for observational purposes. Other catalogs are easily available to the armchair enthusiast. Following the object name is a list of stars whereby one can initiate a star-hop from one of the major stars which can be sighted naked eye to the Object itself. Usually each Object listing contains at least 3 or 4 stars, and possibly numbers of arc degrees north or south, or R.A. minutes east or west. Following the hop star list and/or directions the Uranometria 2000.0 map number is noted along with whether the object is an award object in the Astronomical Society's list of objects for either the Messier or Herschel award.

The constellation coordinates are not noted on their respective maps. But neighboring constellations are shown with their abbreviations. It is assumed that even the beginner has access to a planisphere or the rudimentary star charts. If a particular constellation's listing occupies more than one page, the entire constellation is drawn on each of the subsequent pages so that the observer doesn't have to constantly turn pages to eyeball the next object he wishes to find.

The entire volume is about 140 pages and is duco-bound with hard front and back pages. I've applied for a copyright, and when it comes I'm going to try to get it published by a publisher. Until then, I'll be running off copies locally. The cost is pretty substantial so I'll ask for \$22.00 per copy, which would include a book-rate shipping cost.

Some of the club members may have seen it at the '95 NAP. One copy was given away as a door prize, plus I took 4 copies of the 6 that I had made to sell. Two were sold within 2 hours of my arrival, so I guess I can be glad that I was right about it being needed. I use my personal copy all of the time. Whereas I used to carry Tirion maps, Uranometria volumes, a pocket book with constellation maps, a planisphere, and two loose-leaf books I have compiled from the Saguaro Astronomy Club in Arizona's listing of objects, now I only use the book I printed and the two Uranometria volumes. I figure that I can check the details of the object when logging my observing session from compiled notes. Most notes in a log book are made concerning the appearance of the object, such as how much of the field in a particular eyepiece it Occupiers some of its accompanying field stars, colors, etc. Even sketches and photographs only show these particulars.

I'd like to take prepaid advance orders for the volume and plan to put out the first large printing sometime in the first part of 1996, preferably January. For practical reasons, if I don't receive more than 25 orders I won't be running another printing. That being the case, any bank draft I receive in the mail will be returned to its sender promptly before February 1996.

Orders may be sent to myself, Kevin Koutnik, 2860 31st Ave., Columbus, NE 68601, and I may be contacted by phone at (402) 564-2432.

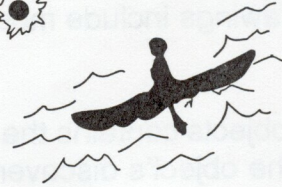
Astro-Man
BY DAVE SCHERPING

EXTREME OBSERVING...

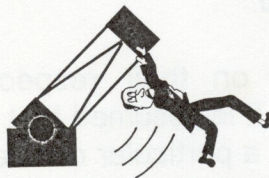
KUIPER AIRBORNE
ASTROSCAN



WHITE WATER
ECLIPSE CHASING



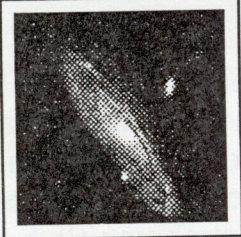
BIG DOB
IN THE WIND



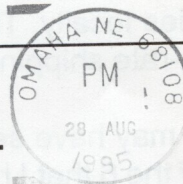
BUNGEE BINOCULAR
MESSIER MARATHON



ATLA



The Prairie Astronomer
c/o The Prairie Astronomy Club, Inc.
P.O. Box 80553
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First Class Mail

Next Meeting
August 29, 1995

Mr. David Hamilton 8/95
3140 O Street
Lincoln, NE 68510

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President's Message
Observing Chairman's Report
NSP Highlights
You Only Thought You Saw Apollo 13
A Very Satisfying Vacation
The Messier & Herschel Star-Hopper

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