

THE GREAT MARS DRAWING

by Martin Gaskell



If you have access to Internet, see the Prairie Astronomy Club web page: <http://www.4w.com/pac/>
E-mail us at: pac@infoanalytic.com
Omaha Astronomical Society web page: <http://www.top.net/cdcheney>
NEKAAL web page: <http://world.std.com/~wic/>

JUNE/JULY MEETING NOTICES:

PAC MEETING
TUESDAY, JUNE 24th, 7:30 p.m.
at Hyde Memorial Observatory

NSP MEETING
THURSDAY, JULY 17th, 7:30 p.m.
at Mahoney State Park Lodge, Prairie Agate Room

BRIEFS:

Please note that I am the new newsletter editor starting with the July issue of *The Prairie Astronomer*. Send all newsletter submissions to my address: 640 So. 30th Street, Lincoln, NE. 68510 or email to: dscherping@juno.com. In the case of email submissions please do not send file attachments, but rather send the submissions in the body of email, for the time being.

The NSP committee is looking for volunteers to lead workshops at the Nebraska Star Party. These demonstrations will be conducted on Friday, August 8 at the Valentine High School in addition to the formal presentations. Actual times are flexible and can be arranged as needed.

We would like to do workshops on Mirror Grinding, Foucault Testing, Collimation, Solar Observing, and possibly set up a computer to demonstrate astronomy related applications. If you are knowledgeable about any of these topics and would like to volunteer and/or if you have equipment that could be used for any of these demonstrations, please contact me at 477-2596. -Dave Scherping

Reminder: Watch the news for the scheduled July 4th landing of *Pathfinder* on Mars! The *Mars Global Surveyor* orbiter is scheduled to enter Martian orbit on September 12th. -Bryan Schaaf

Back one evening in May I wanted to relax. Barbara was reading books to the children on the couch. I sat down next to them on the couch with an old observing notebook and began to copy some 1994-95 Mars sketches onto British Astronomical Association Mars Section forms to send to the BAA. It's impossible to do anything around our children without them asking about it and trying to imitate it too. The next day Timothy (7) and then Daniel (5) were using the bottoms of soup cans to draw circles on pieces of paper. They were using crayons to blacken around them and then they were drawing "Mars" in the circles. They started giving them to me because they thought I wanted drawings of "Mars"!

I decided to give them a real Mars image to copy. I taped up that 1995 Hubble Space Telescope color image of Mars in the kitchen (the one we used for practicing drawing at the PAC meeting program on Mars last fall). They made many many copies of it. We talked about what all the features on Mars were, about the ice cap, the clouds and about the seasons. I explained how the seasons worked and how the appearance of Mars changed. I had them cut out little circular "ice caps" that we loosely glued to a large ball. I tipped the ball over and used different size circles to explain how the caps shrank and grew. I wondered how much of it they were understanding. The answer would turn out to be "all of it". Daniel went and explained everything to her, Barbara later told me.

I knew that Mars would soon be showing the same face towards us as in the HST picture. I suggested that they try to draw what Mars looked like in the telescope. On Friday May 30, I set up Mars in the 8" during twilight. The seeing was absolutely superb. I gave them each an official ALPO Mars section blank. Timothy looked first.

"All I see is an orange disk", he said

"Well, draw what you see", I said, hoping that they would see at least SOMETHING on the disk.

Timothy went off and came back with one of the ALPO blanks colored completely orange. ("At least it's an honest observation!", I thought.)

Meanwhile Daniel was looking. At first he too saw only an orange disk. "Wait, now I can see the polar ice cap, but it's in the

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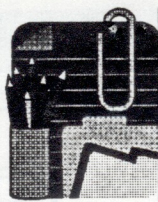
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MEETING ADJOURNED...

Secretary's Report

OF THE APRIL 1997 MEETING

by Liz Bergstrom



The 29 April 1997 meeting of the Prairie Astronomy Club was called to order promptly at 7:30PM by vice president, Ron Veys as Doug Bell was out of town. Ron asked if there were any guests in the audience. Our guests were Clark & Deb Cheney and Bill Wells. The club welcomed our guests.

WHAT'S UP:

Comet Hale-Bopp is now in the western sky and is getting smaller. It can still be seen quite well around 9:30PM. After the middle of May we will be unable to see the comet as it will be out of our line of sight. The comet will now be best seen in the southern hemisphere. Mars is still in view. Dave Knicely reported that the polar cap can be seen but not much else. Also, surface detail on Mars is not very clear. Dave also, stated that there have been reports of solar flares seen on the sun. These are not as large as the ones of several years ago but due to the solar flares reports have come in that Auroras have been seen as far south as Philadelphia PA. Every clear morning Jupiter can be seen early in the am in the Southeast. On clear mornings its four moon are prominently visible. What a sight to see to start the day.

HALE-BOPP VIEWING NIGHTS:

Jack Dunn thanked all the volunteers, scheduled and unscheduled, who helped on the Hale-Bopp public viewing nights. He especially commented that Doc Manthy had been at the observatory 18 times to help and that Jerry Williams had been there almost as many times.

ASTRONOMY DAY:

Dave Knisely reported that Astronomy day which was to be held on Saturday 12 April 1997 at 8:00AM at Mueller Planetarium on the UNL campus was postponed due to the freak snow storm of the previous day and that day. The day was rescheduled for Sunday 27 April 1997. Participation was not as good due to the change of day and the fact that it was a Sunday. Next year Astronomy day will be held on a Saturday.

SITE NEWS:

John Bruce reported that 20th Century Castles has exercised its option to buy the Atlas Site with a full offer of \$20,000. The closing was set for Friday 25 April 1997 but was delayed. The latest closing day will be 2 May 1997. One of the terms of the sale is that the seller {the club} states that there is no hazardous materials and that the purchaser {20th Century Castles} accepts the property as is and will not hold the seller liable. Any and all records compiled by the club will be kept in the club's possession. Any personal belongings of club members which are currently at the site are to be removed by the club members within 45 days after the closing date.

A new site search committee is to be selected at the May 1997 meeting. In the meantime, Earl Moser offered to lease some of his land {2 acres or more} to the club as a viewing site. Earl's place is near Hickman NE. It is located approximately 1 mile west of Casey's in Hickman and 1/4 mile south.

NSP NEWS:

At the May meeting a detailed list will be available of activities and other things to do while at the NSP party. Tom Miller reported that there are lots of door prizes, however, Mead Instrument Corporation is not donating one of their new ETX 90mm Maksutov-Cassegrain telescopes. They are instead, donating an Ultra Lite telescope. Tom mentioned that some of the activities are an ice cream social on Monday, a photo day for those who want to take photos of people and telescopes, of the area and other related subjects. There have already been articles about NSP in the Astronomy and Sky and Tel magazines. There is to be an article in the AAA Home & Away magazine on NSP. The dates for NSP are from 2 August to 9 August 1997 at Merritt Reservoir near Valentine NE. 75 persons have registered, the cabins are all reserved and the motel rooms in Valentine are filling up fast. Apparently there is a rodeo or a horse show being held at the same time as NSP.

Ron Veys brought an article to the meeting which was in the Lincoln Journal on Monday 28 April 1997 about Smith Falls State Park. The park is to the east of Valentine NE. To get from the north side of the park to view Smith Falls one had to either cross the Niobrara river by wading or by canoeing across {this being nearly impossible by ones self} or to tube down the Niobrara and land on the south bank of the river and then hike to the falls. Now there is a pedestrian bridge across the river. The article showed a photo of a historic bridge from the area which is now in place for the start of the 1997 recreational season. What a relief to know that you can walk across the river and not get your feet or your whole self wet in the process. Hooray!!!!

OTHER NEWS:

The Mid States Regional Convention is being held in St Louis, MO in June 1997.

The 75th Anniversary Convention of the Astronomical League will be held at Copper Mountain CO from 1 July to 6 July 1997.

DOOR PRIZES:

There were no door prizes for this meeting.

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

DAVE KNICELY brought a video of comet Hale-Bopp. Dave reported that he had gone to Rockford Lake Recreation Area near Beatrice NE in the early morning of 8 March 1997 to view Comet Hale-Bopp which at that time had a brightness of between -.6 to -.8 and took photos of the comet. Dave had some of his better photos video taped to show the club. These were excellent photos. Dave said that he used Kodak Royal

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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 Members...\$20/yr.; Family Memberships...\$22/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: President Doug Bell (Lincoln) 489-8197, Vice President Ron Veys (Lincoln) 486-1449, Treasurer John Bruce (Lincoln) 483-0389. All newsletter comments and articles should be sent to: Dave Scherping, 640 SO. 30th STREET, LINCOLN, NE 68510 (or e-mail to 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, Nebraska.

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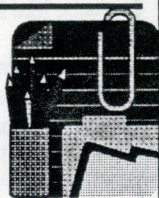
Print Film with an ISO of 1,000 and gave the exposure times as an experiment of between 10 to 20 seconds. He stated that those photos with a 15 second exposure seemed to have the best rendition. Some of Dave's photos showed views of the comet's arcs as the jet spews out material from the nucleus forming the arcs as it rotates once every 11 1/2 hours. These arcs are gasses and form repetitive ever expanding arcs as they move away from the comet. Dave had some really neat photos of the double tail showing the blue ion tail to the left side of the comet and the reddish dust tail to the right. Dave also had gone to Big Indian Lake 20 miles south of Beatrice for other photos of the comet. Some of the photos were taken on a full moonlit night and looked as though they were taken during the day. Other photos were taken on 13 April 1997, the Sunday night after the Saturday snowstorm. The night snow photos were very well done and were lit by a first 1/4 moon. Dave said that he used a normal 50mm f2.8 lense. for the photos.
Note: Kudos to Dave for the excellent photos, subject matter and for sharing with the club.

MEETING ADJOURNED...

Secretary's Report

OF THE MAY 1997 MEETING

by Liz Bergstrom



The 27 May 1997 meeting of the Prairie Astronomy Club was called to order promptly at 7:30PM by president, Doug Bell. Doug asked if there were any guests in the audience. Our guests were Dale Motycka's son, Wayne and son in law, Dennis. Our other guest and soon to be member was Stephanie Snedden, who works with Martin Gaskell. The club welcomed our guests.

NEWS:

Ron Veys, our vice president, was in the hospital last week for the replacement of a heart valve. He was not at the meeting as he went back into the hospital due to a high fever. Holly Johnson went to the hospital of St. Elizabeth, to visit Ron. She came later to the meeting to report that Ron was OK, the fever had spiked and he would be at home by the next day. A get well card was passed around for all to sign.

Bryan Schaaf, our current editor for the Prairie Astronomer newsletter, announced in the May 1997 issue that he is ready to relinquish editorship to someone else. Dave Scherping volunteered for the assignment.

OTHER NEWS:

Doug bought up that the club, as a member of the Astronomical League, was to vote for the new secretary and treasurer of the League. The nominees were Terry Mann for secretary and Jackie Wade, known as the star lady, for treasurer. Jack Dunn moved that the club vote for the two nominees. The motion was seconded and voted upon. It was a unanimous vote for both the nominees and will be reported as such to the league.

SITE NEWS:

Doug Bell announced that there is no longer a club viewing site as it was sold effective 2 May 1997. Earl Moser volunteered to lease some of his pasture ground near Hickman NE to the club for the interim while

the club continued to explore and search for another site. Dale Motycka said that the club should accept Earl's kind offer and that a Site Search Committee should be appointed. Rick Johnson said that he would either draw a map or give written directions to Earl's pasture land. The next question was how will the spools be moved and the other items that belong to the club?

It was decided that on Friday 07 June 1997 at 6PM we would meet at the Atlas site [if rain that night then the next day] to gather up the club items for the move to the interim site. Any personal belongings of club members which are currently at the site are to be removed by the club members within 45 days after the closing date of 2 May 1997.

To get to the Atlas site, go south of Lincoln on Hwy 77 to Cortland. Turn left at the first street south of the Cortland water tower and proceed east for 3.6 miles. Then turn left onto a paved road/driveway [signs say no admittance] proceed a short way north past the uncompleted house to the site.

The sale of the Atlas site is the end of a 13 year ownership and tradition for the club.

NSP NEWS:

NSP reported that there are 59 reservations already with \$2,200 already paid. Again it was mentioned that there will not be a formal banquet as in the past. However there will be a catered meal with the actual location still to be decided upon. During the week there will be 40 students and 15 adults from the Valentine School system at NSP. During one of the days there will be a demonstration of the sun.

See more news on NSP in the May issue of the Prairie Astronomer newsletter.

DOOR PRIZES:

There were door prizes for our visitors which were the current issues of the Astronomy Magazine and the Sky & Tel Magazine. Larry Hancock, our program chairman said that the door prizes for the members were a CCD Cook Book, How to Make a CCD Camera and a Planisphere. Door prize tickets and the hat were passed out for the door prize awards.

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

DAVE SCHERPING presented a group of slides of various sky and planet phenomenon, star clusters, galaxies, constellations, nebulas and other deep sky objects. The members had write down the name of the objects either the common name or the messier/general catalogue number of the object.

There were 30 objects shown plus there was a play off section of eight more objects to name in case of ties. Prizes were awarded for first, second and third place for the most objects correctly named.

Respectfully Submitted
Liz Bergstrom, Secretary

Liz Bergstrom
6611 Vine Street
Lincoln NE 68505-2234

Observing Chairman's Report

by Douglas Bell



For July observing:

New Moon: July 4th
Lunar object: Stadius Crater
Planet: Neptune
Messier monthly: M 12
Top 40: M 8
Deep sky: NGC 6210
Challenge: B 72 "The Snake"

Quote of the month: "Time is nature's way of keeping everything from happening all at once." - unknown

Tip of the month: Fight dew with a dewcap made from a piece of bubble insulation.

Lunar feature: Stadius Crater
Stadius is a buried crater just east of Copernicus filled with small craterlets. It's a real challenge to see how many you can find.

Planet of the month: Neptune
Neptune is the last of the Gas Giants (not counting Alan) and the most distant planet explored. Don't expect to see much. It's only a few arc seconds of green light. But it sure puts the size of the solar system into perspective.

Messier Monthly: M 12
M12 is a loose globular cluster in the mother of all globulars, Ophiuchus. Is there a more pleasant way to spend a Summer evening than scanning globulars in Ophiuchus?

Top 40: M 8 - "The Lagoon"
Are there really any more famous nebula? Not since the Hubble photos of inter-stellar "tornados" and newborn stars. A dark site brings out a luscious emission nebula and from town you'll notice the spanking new open cluster, which is a delight either way.

Deep Sky: NGC 6210
It is something with a little challenge to it. A "starlike" blue planetary. "Starlike" is a strange description since at 14" it's as big as Mars got in last year's opposition. Still, it's a lot fainter, fuzzier, and harder to see.

Challenge: B 72 "The Snake"
It's not for the squeamish. Barnard's dark object number 72 is a snaking dark lane in the heart of the Milky Way; a genuine toughy, saved for the big scopes and dark nights. Try it again at NSP ... if you dare!

Last month's answer: Every optical telescope uses lenses, even mirrored Newtonians. Depending on the eyepiece design you'll have between three and nine lenses in a Dobsonian telescope.

Astro-Trivia: What planet is farthest from the Sun?

BINOCULAR VIEWING

by Brenda Culbertson

It was NOT a dark and dreary night with nothing happening. It was dark, yes, but it was relatively clear and I had decided to take myself and my trusty 7 X 35 binoculars out to do some observing. May 31, 1997 was a Saturday night around the Last Quarter Moon period. Temps were high enough that all I needed was a sweat shirt to keep warm; an ideal evening for observing.

I went out to a pasture north of Topeka, Kansas and pulled up on a hilltop, layed out my charts and focused my binoculars. Before I was completely dark adapted I started seeing many different naked eye objects, like Praesepe, a couple planets, and a few asterisms.

After more dark adaptation I lifted my binoculars to my eyes and began locating objects I have not looked at through this instrument for a long while. I began with a few Messier Objects, such as M-80 & 81, M-51, M-13, and all those along the southern Summer Milky Way. I had almost forgotten how unique the images are in binoculars. M-13 was tight and very bright; M-80 & 81, being so close together were nearly unmistakable; M-51 was more challenging, but still resolvable.

Many other more difficult objects can be observed through binoculars. The stronger the magnification, of course, the fainter the objects to be seen, but my 7 X 35's provide a fantastic view of many celestial objects.

Volunteers are needed for the fourth annual Nebraska Star Party. Your help will be greatly appreciated in the following areas: Registration table helpers*, Beach Day Activities helpers, Ice Cream Social helpers and if anyone is interested in working on the parking arrangements please let me know.

*Those who help with the registration table will need to complete a short training session sometime during the end of July.

Does anyone have a complete volleyball set NSP can borrow? Contact me at: bgstahl@juno.com or phone 402-423-4936.

One last note, if you have not registered for NSP, June 31 is the deadline before the late registration fees apply. Better hurry! -Jason Stahl

("A Great Mars Drawing" continued from page 1)
wrong place".

"That's because the orientation of the image in the telescope is not the same as the picture in the kitchen", I explained.

"Let me see too", said Timothy, now more interested because Daniel had seen something.

"Ok, Daniel, you draw what you see while Timothy looks". Now Timothy could see things on Mars too. The lawn became a hive of activity. They took turns in looking. While one was looking the other was drawing.

"There's the other polar ice cap", said one.

"No, it's not the other polar ice cap. That's behind the planet where you can't see it. It's the clouds on Mars where it's winter", replied the other.

"But the other polar ice cap is forming under it. That's why I called it the other polar ice cap".

"Where's the orange crayon?"

"There's some blue cloud down there".

"And I saw a blue cloud over here", said another drawer, "where the sun is rising".

"What do you see?", I asked, as Daniel looked.

"I see a light region at the bottom".

"Let me take a look", I said. He was right. There was Chryse shining brightly in the late afternoon sun on Mars. "Do you see a dark mark-

ing?", I asked, curious that he had not commented on Mare Acidaliu.

"Yes. It's connected to the polar ice cap", he explained.

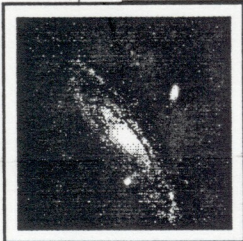
"There's a dark area at the other end of the planet too", said Timothy, as he lay down on the lawn drawing intently.

The excited discussion between the two boys continued. I forgot about the fact that I was missing making my own drawing of Mars under the superb seeing conditions. I just listened to the young observers eagerly drawing and discussing Mars in the darkening twilight and wished I had my portable tape recorder to record the occasion. They just sounded so professional going about observing Mars! For a planet that was only 9.1 arcseconds across they saw an awful lot. And they managed to do the whole thing at a magnification of over 400 times without knocking the planet out of the field of view!

The next day the talking about Mars continued. "This bit [Margaritifer Sinus] was really dark brown, but I drew it dark blue, because it was dark last night and I couldn't tell which color crayon I was using", explained Timothy. [Hmm . . . I suppose ALPO doesn't get observations sent in with that problem too often!]

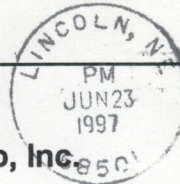
"I had to do this bit gray because Timothy had the color I wanted", explained Daniel.

I explained to Daniel how Timothy could help him write an explanation under the "notes" section at the bottom of the ALPO form. I suggested that they send in their observations to the British Astronomical Association. It would give the BAA a laugh, but the boys weren't interested. All in all it was quite an evening. We'll have to repeat this later in the summer with Jupiter and Saturn. Now you know why we have a FAMILY membership in the PAC!



**Next PAC Meeting
June 24th, 1997**

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



First Class Mail

6-97

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