



August 2004 Newsletter of the Omaha Astronomical Society Issue 200

Sunset over NSP 11



General Meeting of the
Omaha Astronomical Society
Friday, April 2nd at 7:30 PM
Durham Science Center, Room 169
UNO Campus

Program: See Page 3

Events

AUGUST CLUB STAR PARTY
Saturday, August 14th
Club Site Weeping Water

MAHONEY PUBLIC STAR PARTIES

Friday August 13, 2004

Friday September 17, 2004

PLANNING MEETING FOR 2005 NEBRASKA STAR PARTY

???

Mahoney State Park Lodge
Join us and do your part to help plan NSP 12!

NEALE WOODS NATURE CENTER PROGRAMS

Phone number: (402) 453 - 5615

Friday, 10th Sept 8:30 –10:00 PM Summer Triangle

Friday, 24th Sept 8:00 - 9:30 PM Harvest Moon

OAS members are encouraged to help out with these events.

STELLA is a publication of The Omaha Astronomical Society. Please send related correspondence to: STELLA, c/o Omaha Astronomical Society, P O Box 540424, Omaha, NE



BULLETINS

August Meeting

Discussion on items to show at
Star Parties
&
Hopefully tales from some of the
participants at NSP

Good August Dates to Observe at the OAS Club Site or at any good location

Friday 7 August, last quarter moon
Saturday 8 August, last quarter moon
Friday 13 August, new moon
Saturday 14 August, new moon

Upcoming Events

Hitchcock Nature Center on the
Friday the 13th for Persied
Meteor Shower viewing

- - - - -

Site Clean-up 14 August
At 10:00 AM

- - - - -

Papillion-Lavista @ Grenta 4H
Programs begins August 26

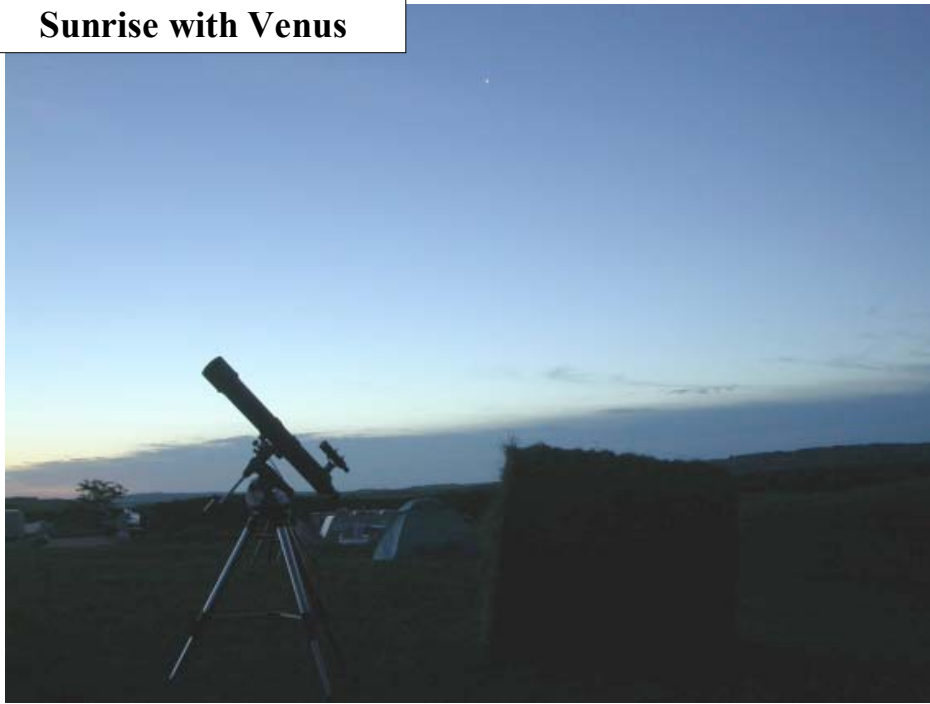
An Astronomy Quiz

This Month Quiz - Answers next month.

1. What do SuperWASP, OFLE III, STARE, PSST, Vulcan, TASS, and others projects all have in common?
2. What type of star is Delta Cephei?
3. Using current measuring techniques, what is the closest Globular Cluster to Earth, and how far away is it?
4. What & Where is Titania, and can it be seen in a 12" scope?
5. What is Sayh al Uhaymir 169, and where was it found, and where did it reportedly come from?
6. How deep is Endymion crater?
7. What star was our pole star 12,000 years ago?
8. How long is the day on Jupiter?
9. What does Antares mean?
10. What constellation does the sun spend time in every year that is not a sign of the Zodiac?



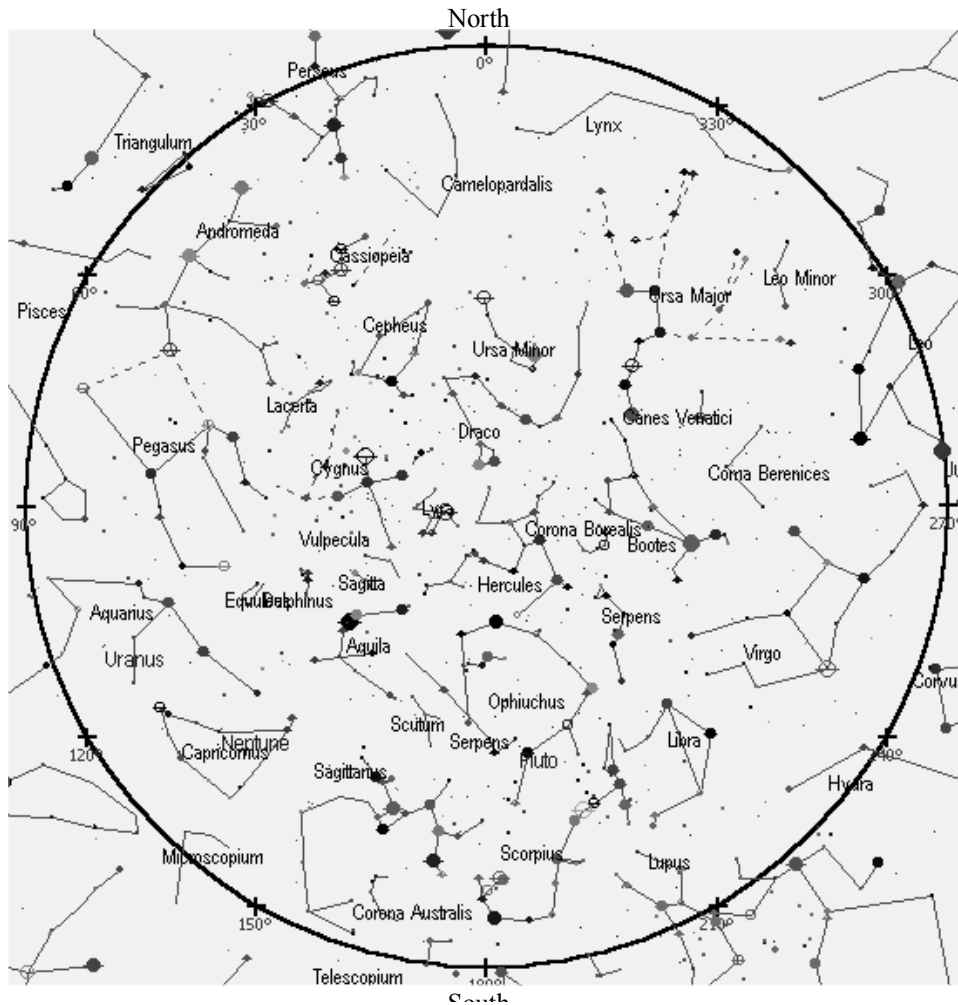
Sunrise with Venus



Standing Room Only



The August Sky



This map reflects the Northern Hemisphere sky at the following times:

| | |
|-----------------------|------|
| Early August, 2004 | 10pm |
| Late August, 2004 | 9pm |
| Early September, 2004 | 8pm |

August Sky Calendar

7th Last Quarter Moon
11/12 Night of Perseid Meteor shower
15th New Moon
23rd First Quarter Moon
29th Full Moon

Recent Observing Awards

No new awards this month

Visit the club web site at: **www.OmahaAstro.com**

Save the club money... and get your newsletter in full color by signing up for the email edition of the Stella. Signing up is easy... just go to:

[Http://www.omahaastro.com/DigitalStella](http://www.omahaastro.com/DigitalStella)

The Very Successful Eleventh Nebraska Star Party

Harlan Seyfer

NSP XI began early for me. I couldn't wait to escape work and get under the dark skies of Merritt Reservoir. I drove up Thursday and had my pick of campsites along the lakeshore. Even though the Lower Observing Field doesn't have the clear view of the southern horizon that the Upper Observing Field possesses, it has shade trees, protection from high winds (OK — a little protection), and the lake invites a cooling swim on 100+ degree days.

Thursday night was perfect — cloudy. After getting up early to pack, driving for seven hours, and pitching camp, sleep was welcome. The rancher who mowed the grass finished bailing around 7:00 that evening. I fell into a deep sleep surrounded by the smell of freshly mowed hay.

Friday morning arrived cloudy with the day turning partly so after noon. Two groups of NSP first-timers came up to me that afternoon to ask where they could camp and where the scopes could be set up. Anywhere the grass is mowed. One group was experienced imagers from Indiana, at NSP for the dark skies.

Nearly every cloud vanished shortly after sunset Friday night. The seeing was excellent, providing outstanding conditions for my Oberwerk 22X100 binoculars' first light. I was looking forward to scanning the Milky Way through its 3.3 degree field of view and four-inch aperture. The Oberwerk didn't disappoint and the entire evening was spent exploring our home galaxy from Scorpius to Aquila. The Lagoon Nebula (M8) and the Trifid Nebula (M20) fit neatly into one view. M6, the Butterfly Cluster, and its neighbor M7, Ptolemy's Cluster, just barely missed fitting into one view. I kept moving back and forth between the two and exploring their neighborhood. Both are open clusters. With a diameter of about 26 arcminutes, M6 is half the size of M7. Nonetheless M6 stands out more clearly to me, because of the dark cloud of obscuring dust and gas behind it: an extension of the Milky Way's Great Rift. M7 is imbedded in the Galaxy's starry background, but still resembles a collection of gems scattered on unbleached muslin. While viewing

M6, two other open clusters were visible: eighth magnitude NGC 6416 (about ½ degree to the east of M6) and tenth magnitude NGC 6404 (about one degree south of M6). NGC 6416 has a diameter of about 22 arcminutes, while NGC 6404 reportedly is five arcminutes wide. But it looked larger to me. Since it pretty much is at the magnitude limit of the Oberwerk (even at NSP), I could be confusing “field stars” as members. NGC 6404 is magnitude 11, while NGC 6416 is a 9.

The Oberwerk was mounted on a Universal Astronomics Unimount, a heavy-duty parallelogram. The parallelogram feature allows the binoculars to be raised or lowered while maintaining the direction in which the binos are pointed. At around nine pounds, the 22X100 Oberwerk can't be hand held for long.

Saturday was partly cloudy, but cleared at sunset. Interestingly, throughout the day three more groups of new arrivals stopped by to ask for camping and observing directions. Later Jim and Marnie from Houston pulled in, as did Leon and Mary from Arkansas after them. Jim had just come from the Rocky Mountain Star Party in Colorado. This year, he referred to it as the Rocky Mountain Storm Party. Bruce and Virginia Mues with teenagers Amanda and Zach also arrived. Amanda shows a budding interest in astronomy — assisted by dad. All of us had met for the first time last year and were in nearly the same campsites this year. Nice to see familiar faces.

Suspenseful cloudy days not clearing until after sunset seemed to be a special feature of NSP this year. Saturday continued to set the pattern. The Oberwerk was set aside, and the LX90 was brought out to hunt down triple star systems. Struve 2306 in Scutum was the prize catch of the night. Components A and B (magnitude 7.9 and 8.6) are separated by 10.2 arcseconds. These are a relatively easy catch. It's the C component (magnitude 9.0) that's the challenge at about one arcsecond from B. It could be seen as an elongation of B.

Sunday morning, observing buddy Bob Runyan arrived. After he encamped, we drove over to the resort to register, then into Valentine. We stopped at McDonalds for lunch. As we sat by

the windows, a pickup pulled in with a huge tube in the back. Bob and I speculated on whether it was a 25- or 30-inch Dob. It was clearly built solid. Then Bob noticed the spigot. Someone had bought an industrial-size water heater.

Back at NSP that night, the Oberwerk was employed seeking out Barnard objects — dense clouds of interstellar gas and dust that obscure the light from stars and other objects behind them. Binoculars (the bigger the better) and dark skies (the darker the better) are an ideal combination for hunting these critters. The easiest places to seek these are in front of the Milky Way backdrop, where they “more or less” stand out. We quickly traced out the Pipe Nebula and found the Snake Nebula, which has been described as a small curl of smoke leaving the pipe bowl. About one-half degree west of M9 is Barnard 64, a hole in the Milky Way about twice the size of M9. Because of its proximity to Messier’s globular cluster, B64 is an easy catch. It wasn’t surprising that one of the NSP Challenges was the dark nebulae of Sagittarius. One can’t hope for a better site from which to hunt them down than the Nebraska Sandhills.

Monday evening the Ice Cream Social was popular, judging from the fact that the ice cream ran out, but only during seconds. The group I was with still got theirs, despite being near the last in line. All of the late arrivals on Monday must have brought the clouds with them. No DSO hunting that night.

Tuesday the buffalo burgers at the evening catered meal were thick and tasty. A storm blew in with high winds and rain just before sunset. At least one scope blew over and an unoccupied (by people or equipment) dome tent on the Upper Observing Field decided to take off on its own. Following insult with injury, the night sky stayed cloudy.

Wednesday was mostly cloudy but still hot when the Swap Meet and the Beach Barbeque were held. One thing I have learned from past NSP Swap Meets is to watch for John Johnson setting up his used book offerings. Always some good buys. The Barbeque line was long but rewarding with plenty of hot dogs and buffalo brats. Wednesday night was one of the best nights NSP has seen, as a result of the cold front passing through and the jet stream staying up in North Dakota. This was outstanding double star hunting weather. Struve 2306 BC, mentioned above, was cleanly split with a 13mm Nagler and 3X Barlow on the LX90.

Several Herschel doubles were resolved. These have been too dim to be seen from the Weeping Water site. For the first time in NSP memory equipment began to dew up around 1:30 AM. But shortly after 2:00 a light breeze came up to chase the humidity away.

Thursday saw a continual drizzle. Bob Runyan (Shelton), Dan Montgomery (Chelsea, MI), Bruce Mues (Scottsbluff), and Dennis Bullock (Tucson, AZ) spent a pleasant afternoon under the tarp talking everything astronomical.

Thursday's sky, true to form, cleared just after sunset. Fifteen-year-old Amanda Mues helped out in an experiment. Back in 130 AD, Ptolemy wrote the *Almagest* in which he gave the positions of 1,022 stars (and declared that the Sun revolved around the Earth, but that's another story). In his star catalogue, he described Nu (n) Sagittarii as "the nebular and double star in the eye" of the Archer. This is the earliest written reference to a double star. The Nu Sagittarii pair can be found above the handle of the Sagittarian tea pot. Draw an imaginary line from Zeta (z) Sagittarii (the star that connects the bottom of the handle to the tea pot) through Sigma (s) Sagittarii (the leftmost upper star of the handle). Extend the line beyond Sigma for the distance between Zeta and Sigma. At this point, a little to the left of the line, is a smudge of light — Nu Sagittarii. Do you see both stars? I don't, but Amanda easily saw the pair. Both components are magnitude five and separated by approximately 13 arcminutes. They should be visible from a rural location such as the OAS Weeping Water site. Age obviously affects how well these stars are perceived.

Congratulates to Eric Balcom and accomplices for putting together a tremendous NSP. Their hard work resulted in a record attendance this year. Thanks Indeed!

SITE CLEAN-UP 14 Aug, 2004 10AM

Volunteers Needed as site is overgrown with weeds and grass.

Clark Cheney will bring his riding mower, if someone can supply a trailer. Please Help!!



Club Officers

President: Al Dorn 291-5595

all@ditol.com

Vice President: Deb Cheney 296-4733

cdcheney@jagwireless.net

Treasurer: Bill Bond 491-4135

bill.bond1@cox.net

Secretary: Eric Balcom 491-3502

ecbalcom@msn.com

Program Chair: Mark Weiss 291-5322

mweiss4@cox.net

Outreach Coordinator: John Johnson 333-5460

jwjohnson@oppd.com

Stella Editor: Mark Weiss 291-5322

mweiss4@cox.net

BENEFITS OF MEMBERSHIP

- ◆ Members receive the STELLA, our monthly newsletter.
- ◆ Each member is automatically a member of the Astronomical League, the only nation-wide organization for amateur astronomers.
- ◆ Use of the observing site at Weeping Water, NE
- ◆ The opportunity to borrow one of several club-owned telescopes.
- ◆ Organized trips to local observatories, planetariums and museums.
- ◆ Significant savings on subscriptions to **Sky & Telescope** and **Astronomy** magazines.
- ◆ Savings on astronomy books and printed materials.

ANNUAL MEMBERSHIP DUES

Regular/Family
\$25.00

Junior/Student
\$10.00

Newsletter Only
\$10.00

Send your check to:
The OAS
c/o Bill Bond
12835 Aurora Plz,
Lot 237
Omaha, NE 68164