



General Meeting of the Omaha Astronomical Society  
Friday, August 4th at 7:30 PM  
Durham Science Center, Room 169, UNO Campus  
Program: See Page 3

## The Nebraska Star Party Impressions of a Newcomer

As a newcomer to the experience called the Nebraska Star Party (NSP), my wife and I were unsure of what we were about to experience. We knew at the start there would only be a few people there that we knew. However as we soon found out, at an event like NSP 13, that really doesn't matter as many of the people you meet are now your new friends. The people you meet; young and old, rich and poor, those with small refractor telescopes and those with large Dobsonian telescopes, and even those with really, really, gigantic binoculars; all of these people come together for one thing, the love of amateur astronomy. Well maybe more than one thing, they also come together for something else, something that was evident from the first day at NSP, they come to renew old friendships, and make new ones. They talked about astronomy, their kids, and the Nebraska Star Parties from the past, all the while including us, the newcomers in the conversation.

Even when the weather looks bad and it threatens to storm, that does not seem to bother these people in the slightest; and that is because they can talk about all those things that I just mentioned on the observing field, or sitting in chair behind their cabin overlooking Merritt Reservoir.

These same people will gladly assist any newbie to astronomy to get their bearings (understand the equipment they have & how to navigate in the skies), and then turn around and be equally as quick to pull a prank on an old friend. They come from all over country, for the Nebraska in Nebraska Star Party only has to do with where this event is held, not where the attendees are from. We meet folks from Texas, Florida, Illinois, and Alabama just to name a few. I showed a father and his two young kids a couple of the Messier objects, and in talking to him I learned that he was on his way from Ontario to northern California; he had read about NSP while reading an astronomy magazine over lunch, so he decided to go out of his way to bring his kids to Merritt to see NSP, its people and its dark skies. We also met a man and his dog from Utah, and even a dog named Sirius.

So this is what I would tell you, if you have a chance to go to a star party any star party, for a day or for a week, do it, just do it! I believe that you will find, just as my wife Sharon and I did, that the folks you meet there are just friends that were waiting to meet you.

So good luck, and clear skies.

Mark Weiss  
Nebraska Star Party Newcomer

**August Club Star Party,  
August 19, 2006  
OAS Club Site, Weeping Water**

Omaha Astronomical Society is a member of the NASA Night Sky Network

# Events and Stuff Section

## August Meeting Presentation

Astronomy for Beginner  
Observing Series.

Eyepieces by John Johnson

## August Sky Calendar

2nd First Quarter Moon  
9th Full Moon  
15th Last Quarter Moon  
23rd New Moon

## New Members

None

## Recent Observing Awards

None

## Good August Observing Dates to Observe at the Club Site or other good location

Friday 18 August , last quarter moon  
Saturday 19 August , last quarter moon  
Friday 25 August , new moon  
Saturday 26 August , new moon

## Mahoney Public Star Parties

**August 18, 2006**

September 15, 2006

All Friday evenings from Twilight On the Golf Driving Range of the Mahoney State Park Ashland, NE

Visit the club web site at:

**[www.OmahaAstro.com](http://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 send an e-mail to:

**[oas.mkw@cox.net](mailto:oas.mkw@cox.net)**

## Some August Sky Items

As we observe in August there is only one of the naked eye planets still visible in the evening sky, and that is Jupiter. Jupiter while still easy to find, as the brightest object in the southwestern sky, it will be history by midnight after the middle of August. There will be three other planets out there to view if you know where to look. Uranus will be hanging out in Aquarius, while Neptune will be in Capricornus. If you are looking for challenge and have access to the maps you will need, try finding Pluto, which is in Serpens Cauda, shining at magnitude 14.

If you like the naked eye planets than you will need to get up early as Venus, Saturn, and Mercury will be in your morning sky. Look for the three of them and a thin crescent on the morning of the 22 of August low in the east-northeast before sunrise (30 to 60 minutes).

Also remember that August is the month for the Perseid Meteor, which peaks on the night of the 12/13, making things hard to see will be the moon, which will be 80% illuminated on that night. The radiant for the Perseids will be in the northeastern sky after midnight. Remember while the Perseids peak on the 12<sup>th</sup> of August, they are active from the end of July until late August. There is however another meteor shower to consider, while it does not receive the attention of the Perseids, it is one to consider as its peak will be on the night of the 17/18, and it is the Kappa Cygnid's. Its radiant lies between Cygnus & Draco, and Cepheus & Lyra.

# OAS Meeting Minutes 7 July 06

Durham Science Building, UNO, Rm. 169.

**Meeting** called to order at 7:30 p.m. by VP Mark Weiss for an absent Al Dorn.

There was no roof top observing the night of the meeting.

There were four guests: Jim Meseya, Eli Velasquez, Jan Miller, and Jonathan Garcia. Total people present: approximately 40.

**Minutes** of June OAS Meeting read by: Eric Balcom. Motion made to accept the minutes were Bill Bond and seconded by Clark Cheney.

**Treasurer's Report.** June balance of \$5,512.71.

**Outreach** Eric Balcom for an absent John Johnson.

## Future Star Party Events:

1. Mahoney State Park 07/14/2006.
2. NSP 13 Merritt Reservoir July 22 – 28, 2006.
3. Whispering Hills Winery Carson, IA 8/19/2006. Rain date 8/26/2006.
4. La Vista Papillion School District. Ann Danner, Program Director, contacted John Johnson to ask if the OAS would sponsor 12 Star Parties beginning on 8/24/2006 and go through September and October 2006. These will be held at the 4-H Camp south of Gretna, NE. They will be held on the Monday and Wednesday of each week except for Labor Day week in early September. Those interested in participating should contact John Johnson. More information will be forthcoming at the August 2006 OAS Meeting.
5. OAS Telescope Loan Program **Changes?**

### **None**

6 inch Dobsonian	Nina and Clete Baker
6 inch Newtonian	Keith Jones
8 inch SCT	Rita Corell
8 inch Dobsonian	Joe Alvarado
13 inch Dobsonian	Chris Jewell
Binoculars, 11x80	Gary Grimes.

**Awards** Clark & Deb Cheney said that two awards could be given but the recipients were not at the Meeting. One award certification is pending.

**Observing** Clark & Deb Cheney also stated that it is a good time to get out and observe Jupiter this month. Two members used the Weeping Water, NE, Astro Park in June 2006 to do some observing.

## Old Business

### 1. Election of Astronomical League Executive Officers>

The OAS voted unanimously that the following be voted into their respective Offices that they are running in. They are:

Terry Mann – President  
Carrol Iorg – Vice-President  
Mary Sutter – Treasurer

2. The Club voted that a Sympathy Card should be purchased as soon as possible for John Johnson, whose Mom passed away earlier that day. Rita Corell said that she would go to a card shop during the Break Time of the Meeting to purchase a card. It was passed around during the Program Part of the Meeting.

OAS PAC Banquet Tony Schism, OAS Coordinator of this event, made a progress report. He stated that he had been in contact with Mark Dahmke, PAC Coordinator in Lincoln, NE. The Banquet location will be at the SAC Museum, Sunday 10/15/2006 at 6:30p.m. The current price is around \$10 per person. The responsibility of attendees is to clean up the area after the event. Any one with ideas of who should cater the food in should contact Tony. (614-4738)

## New Business

Astronomy League Dues OAS Treasurer Bill Bond said that the annual AL (Astronomical League) Membership dues from the OAS are due. Cost is \$10 for the OAS and \$5 each OAS Member. Total cost will be \$460.00 with 90 members in the Club. Words were spoken by several people as to the benefits of continuing to be AL members. Deb Cheney made a motion to continue payment and Tony Schism seconded the motion. The motion carried by a voice vote (one dissenting vote was heard).

Motion made to close meeting by Howard Bohm, seconded by Clark Cheney. Time: 8:05 pm. Next meeting will be Friday 8/4/2006 at the UNO Physics Building Room 169.

### Program:

### Observing (Telescope) Accessories and more about Magnification and Aperture in Telescopes.

By Eric Balcom

Minutes by Eric Balcom and Kim Moss-Allen

Book Review of:  
The Perfect Machine -- Building the Palomar  
Telescope by Ronald Florence  
By Clete Baker

The early years of the 20th century were marked by unbridled enthusiasm, evidenced in architecture, music, art, literature, and nowhere more than in science. This was the era in which men like George Hale, building on foundations laid by their predecessors at the close of the 19th century, were free to envision ever greater superlatives in astronomy. Lick, Hooker, Yerkes; prior to the market crash in 1929 it was actually easy to sway donors to invest in schemes of such grandiose proportion that their modern counterparts could never hope to duplicate in today's more sceptical environment. One such dream was that of casting and polishing an enormous 200 inch mirror ... fully double that of the then largest block of glass ever cast residing in the Hooker telescope on Mt. Wilson, near Los Angeles.

In *The Perfect Machine*, author Ronald Florence captured the enthusiasm of that dream and the men who saw it through despite numerous setbacks. It is the story of the construction of the 200 inch Hale Telescope atop Mt. Palomar in Southern California, the very epitome of "Big Science" which saw its peak during the first decades of the 20th century, and the likes of which will probably never be seen again; the resources for big science having since become far larger than any small group of visionaries, now requiring significant fractions of the gross national product of entire nations to press onward.

Florence begins his narrative by building a complete backdrop to place the reader firmly in the midst of this exciting time in which, at every turn, private investors are eager to associate their names with superlative achievements in science. He then proceeds to follow Hale and his colleagues from the "giant eye's" conception through the great depression with its sudden, looming threat to the project's funding, and the catastrophic failure of the first attempt to cast the giant mirror at Corning's New York works. With continued funding always in jeop-

ardy, Florence guides the reader through the near failure of the second attempt and, of course, its eventual success, followed by a celebrated journey across the continent. Following the death of its leading proponent and a hiatus brought about by World War II, others picked up the ball to see the project through to completion. The mirror was finally readied, the complexities of mounting and guiding such a massive piece with the required precision solved in both design and construction, and the dome to house it was eventually built, but not without several more tenuous episodes in which lack of funds threatened to ring the death knell for the project. First conceived in the early 1920s, it wasn't until January 26, 1949, and more than ten years after the death of progenitor George Hale, that Edwin Hubble exposed the first official plate with this gigantic, newly minted wonder.

The author is painstakingly thorough in his research, offering footnotes which outline both sides when accounts collide, but deferring to written documentation wherever possible, which is annotated in a comprehensive listing of archives and interviews. A comprehensive index makes the book useful as a reference, but it's best appreciated for the story Florence so skillfully weaves.

The visitor center at Palomar tells a marvelous story of the technology employed. It includes many firsts: technology invented exclusively for the purpose of creating the world's largest eye into the universe. Not until the push to put a man on the moon some decades later would the amount of novel invention aimed at a single challenge be eclipsed. As a youngster growing up in Oceanside, some 7000 feet below and a mere 30 miles distant from the Palomar observatory, I had numerous opportunities for day trips to the mountain, as well as a stay in the county schools' camp just across the floor of the high mountain valley from its dome, where every sixth grader in San Diego County was obliged to spend one week of the school year immersed in environmental studies. It was here that I got my first glimpse of the heavens through a small reflector. I'll never forget the sight of the rings of Saturn there in the camp

parking lot. It was here, too, that I first encountered the superlatives of the Perfect Machine; at the time it reigned as the Largest Telescope In The World. The Whole World! And here it was nearly in my back yard.

While climbing across the concrete mockup of the 17-foot mirror in the visitor's gallery or gazing up at the massive horseshoe reposing in the dome, I had a vague grasp of the enormity of the project and how special the results were, which has given way to awe now that I wrestle with my own miniscule 10-inch optics. What the visitor center doesn't tell as well, and what I had not grasped in my youth, was how special were the numerous people who made it happen.

The Perfect Machine is the perfect companion to my own aging recollection of the nuts and bolts that make up the Palomar observatory, one that refreshes that recollection and deepens the appreciation for the accomplishments of Hale, his contemporaries and predecessors as well as his successors. It's a story of advancing science through thick and thin, through plenty and paucity, through amazing technological breakthroughs and horrendous failures. It is a book that no ardent amateur will want to put down.

## Astronomy Quiz August 2006

1. What **planet** has an axial tilt most like Earth's?
2. Match: A. meteoroid B. meteor C. meteorite  
A. The streak of light we see trailing behind a meteoroid.  
B. It is smaller than an asteroid and larger than a speck of dust.  
C. A meteoroid that has landed on Earth (or other body.)
3. What is **libration**?
4. How much of the **moon's surface** can we see from Earth?
5. What is unusual about the star **R Carinae**?
6. Why would anyone say, "**I eat green caterpillars**?"
7. What **moon** in our solar system is considered the most "densely cratered" object known?

8. This **constellation** consists mainly of 2 stars. The name of the Beta star will translate literally as "little bleary-eyed one with filth in the corner of the eye." The Alpha star is only 11.4 light years away, has a magnitude of 0.4 and has a white dwarf companion. Which constellation is it?
9. **What** was discovered in 2004 and just "visited" earth on June 26<sup>th</sup>, 2006?
10. September 2006 is a good time to look for this planet in the constellation Aquarius. Which **planet** is it?
11. **Who** said (and what is she **describing**), "The scene is so incredibly beautiful – the corona, the prominences, and 360 degrees around us, 'sunset'."
12. How far away is **2003 UB313**, the "10<sup>th</sup> planet"?

## Outreach Time Again

Well once again we are at the start of our busiest time of the year, school outreach. For those of you looking for an easy certificate program to work toward, this is the time of year for you. Each school event that we do is over two hours long. Remember that a two hour event is the minimum amount required of face to face time.

As of this time we have ten events scheduled for the Papillion-Lavista school district, plus two more events at Mahoney state park, and one at the Hitchcock Nature Center in Crescent, Iowa. These are just the events already scheduled, there are usually a few more that we do this time of year, so we can probably expect some more outreach events.

So once again I ask that you consider helping out with even one event if that's all that you have time for, as every bit of help is important. We try to have an average of five scopes at each of these events, so we have both a variety of telescopes and a number of scopes that can be observing several different items.

So lets get out there for the kids!

By Mark Weiss

## Astronomy Quiz Answers

1. Earth's axis is tilted at 23.4 degrees (in other words the angle between our equator and the plane in which we orbit the sun.) **Mars** has the closest axial tilt at 25.2 degrees.
2. **A-b B-a C-c**
3. Libration is a small oscillation in the **moon's orbit**. It lets us see **more than half** of the moon's surface even though the moon always has the same side facing us. We see parts of the "far side" at different times of the month.
4. About **59%**, thanks to libration.
5. It is a **long period variable**. In a period of 309 days it will go from magnitude **3.9** to **10** and back again!
6. It's a memory aid or "mnemonic" to help you remember Jupiter's 4 largest **satellites**: **I=Io, E(at)=Europa, G(reen)=Ganymede, C(aterpillers)=Callisto**.
7. Jupiter's **Callisto**
8. This is **Canis Minor**, the Little Dog. The Beta star is Gomezia. The Alpha star is Procyon, meaning "before the dog" because it rises before Sirius (the Dog Star.)
9. **2004 XP14, a large asteroid** about a half mile across, passed by Earth (over the US west coast) on Monday, June 26<sup>th</sup>. At its closest, it was about 269,000 miles from Earth, just a little farther than the moon.
10. **Uranus**. It's at opposition September 8<sup>th</sup> and actually is the most distant planet you can see with the unaided eye.
11. This is from **Jackie Beucher** (AL Exec. Secretary) describing her view of totality of the **solar eclipse** on March 29<sup>th</sup>, 2006.
12. **90 AU**. Roughly 90 times the distance from the Earth to the sun.

## Notice to Club Members

It is time to start thinking about this years elections. Each year we elect people to the following offices;

President  
Vice-President  
Treasurer  
Program Chair  
Outreach Coordinator  
Secretary

## Club Officers

**President:** Al Dorn 291-5595  
al1@ditol.com

**Vice President:** Mark Weiss 291-5322  
mweiss4@cox.net

**Treasurer:** Bill Bond 491-4135  
Bill.bond1@cox.net

**Secretary:** Kim Moss-Allen 291-7887  
dallen@novia.net

**Program Chair:** Eric Balcom 491-3502  
ecbalcom@msn.com

**Outreach Coordinator:** John Johnson 333-5460  
jwjohnson@oppd.com

**Stella Editor:** Mark Weiss 291-5322  
mweiss4@cox.net

## 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

## 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.

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Please send related correspondence to: STELLA, c/o Omaha Astronomical Society,  
P O Box 540424, Omaha, NE 68154  
email: stella@omahaastro.com

