



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

COLD WEATHER OBSERVING

Reason to do cold weather observing:

1. Longer observing sessions without staying up all night.
2. Crisp, clear skies with less moisture in the air.
3. None of those pesky bugs.
4. Constellations and other objects that are Not visible any other time of the year.

You can stay comfortable and warm for a night of winter viewing, if you are willing to put the in a bit of extra time planning.

1. Get the items you will need to stay warm Ready now; before the really cold weather arrives.
2. Prepare Early; it will take longer to prepare for a cold weather observing session.
3. Dress Properly.

DRESS IN LAYERS

1. The first reason to layer your clothing is to trap dead air in between the layers of clothing. It is this trapped air that makes insulation work, exactly the same as the dead air trapped in between the fiberglass insulated walls in your home or foam insulated coolers you use to keep your food cool.

2. The second reason to dress in layers is to have an effective and easy way to control your body temperature. How many of you go out into the cold with a heavy expedition type jacket and pants like Nanook of the North, only to start sweating as soon as you start to set up your equipment. Layering your clothing allows you to take off or put clothing on as your activities change. Of course you will add more clothing as you settle in to do some serious observing and you will take layers off as you increase your activities.
3. Of critical importance when dressing for cold weather survival: avoid seams at the point where clothing meets. Make sure each layer of clothing interleaves and generously overlaps the previous layer. Make sure shirts, underwear and socks are extra long (6" more than seems necessary is usually good) for tucking in. Loosing heat in seams (when bending over for example) can quickly lead to feeling cold!
4. Tip: go to the bathroom BEFORE dressing! It's not easy to take care of business through 3 to 4 layers of clothing!
5. Wind gear is important at keeping warm air trapped inside your clothing. Wind gear can be any type of outer garment that blocks the flow of cold air into your insulated dead air space. The one exception is rain gear that does not allow moisture to escape to the outside often trapping the moisture inside your clothing to a point that your layering becomes wet and ineffectual.

**December Club Star Party,
December 8th, 2007
OAS Club Site, Weeping Water**

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

Events and Stuff Section

December Meeting Presentation Annual OAS Gathering

New Members

None

Good December Observing Dates to Observe at the Club Site or other good dark sky location

Friday 7 December 07, New moon
Saturday 8 December 07, New moon

Mahoney Public Star Parties

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

Done for 2007

Recent Observing Awards

None

December Sky Calendar

1st Last Quarter Moon
9th New Moon
17th First Quarter Moon
23rd Full Moon

OAS Meeting Minutes

November 2nd, 2007

The **meeting** came to order at 7:36 PM. We will be doing rooftop observing tonight. The Secretary read the **October minutes**. Clete Baker motioned to accept and Sharon Weiss seconded. We had 1 guest and 51 people total in attendance.

John Macy gave the **Treasurer's report**, with October income of **\$270**, including \$170 in donations from various groups for Outreach. Expenses were **\$605.61** including \$194 for calendars and \$250 for annual insurance on our observing site, Astropark, at Weeping Water, with a club balance of **\$4278.30**.

Old Business

Outreach and Events---None on the calendar for November. John Johnson told about a new style in speaking to a group of kids. They were inside for the first part of the star talk for about ½ hour and then took groups out to look through the scopes. It worked well for him at the October events.

Club Telescopes—If you would like to check out a telescope see Bob Dunn or any OAS officer for more information.

6" Dobsonian, silver, checked out
6" Dobsonian, black, AVAILABLE
8" SCT, Alec Anderson
13 " Dobsonian, Keith Jones
Binoculars, 11x80, Bill Bond

Observing—Same planets, new comet! Do not miss this opportunity to check out Comet 17P Holmes in *Perseus*. It should normally have a magnitude of about 17 and is currently around 3, making it a naked eye object, even in Omaha. It looks like a fuzzy star near Mirfak, or alpha Persei. Although apparently tailless, its coma is impressive. **Astropark** use (at least 2).

Report from Vice President—Astropark is in great shape for cool weather observing. It is mowed for the last time this season and the Port-a-John is winterized.

Calendars ---Beautiful, color astronomy calendars were available to those who pre-ordered last meeting. John Macy sold all he had and will order about 10 more in time for the December meeting.

New Business

Holiday Party. Don't miss the good food, good fun and good door prizes at the OAS Holiday Party! A sign up sheet was passed around at the meeting so people could sign up to let us know what food or drinks they wanted to bring. Also, we have door prizes already, but if you have an astronomically themed item that you would like to donate, go ahead and bring it!

Quicken---John Macy will order Quicken with his (substantial) student discount, should be here soon.

501c3 Status---We again had some discussion about getting this federal tax status. Without it we cannot technically tell people who donate goods or money to OAS that they can consider that tax deductible. We are still a non-profit, educational organization but in order to make ourselves more attractive to organizations or individuals to receive donations, grants, telescopes, etc. we need the 501c3 federal tax status. It will cost us up to \$500, but that is a one time fee only. Motion was made to seek the status for the club by Gary Grimes, seconded by Howard Boem and passed.

Astropark ---the Club goal of studying the need to keep and maintain the Society's observing site needs to be extended. Motion was passed to extend it to February of 2008 by Bob Dunn, seconded by Sharon Weiss and passed.

Next meeting will be same location, **December 7th, 2007, 7:30.** Motion to adjourn Ed Sikorski, seconded by Gary Grimes and passed.

Tonight's program: **Observing Comet Holmes from the Rooftop Observatory**

Minutes by OAS Secretary
Kim Moss-Allen

Astronomy Quiz December 07

1. In 1782, John Goodrich was the first to realize that Algol was actually what?

2. Match the following terms: A) Quiet sun, B) Active sun to these descriptions: C) prominences, solar flares, sunspots or D) photosphere, chromosphere, solar spectrum.

3. What is proper motion?

4. In 1971 Mariner 9 explored Mars and, from orbit, discovered what about the northern and southern hemispheres?

5. Most features on Venus are named after real or imaginary women, but not this mountain range. What is it?

6. In 1963, this Dutch American astronomer discovered these objects, they appear almost like stars but are far more distant than any observed individual stars and have an enormous "red shift." Who is this and what did he discover?

7. What does red shift indicate?

8. The intensely bright visible surface of a star (or our sun) is the photosphere. What is the name of a brighter spot on our sun?

9. According to the "Titus-Bode" theory there should be a planet between Mars and Jupiter at about 2.8 AU. (Earth is at 1 AU, Mars at 1.5 and Jupiter at 2.8) Why isn't there one?

10. The *terrestrial* planets include Mercury, Venus, Earth and Mars, the others are the *gas giants*. What is another term for the gas giants?



OAS Club Officers

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Answers to the November Quiz

1. Vulcan was the planet said to exist in an extremely hot orbit between the sun and Mercury, according to 19th century astronomers.
 2. Periastron is the closest approach to each other in the orbits of two stars in a binary system.
 3. According to heavens-above.com Comet 17P/Holmes was at magnitude 2.9 as of October 28th, 2007. The increase in brightness is a mystery so far.
 4. Pickering's Triangle is a part of the Veil Nebula in Cygnus, the Swan.
 5. Uranus' rings are a) "black as tar."
 6. True, most comets are made up of about 1/2 water.
 7. Almach is a nice double star system in Andromeda. The stars are about 2nd and 5th magnitude and blue and orange.
 8. This is describing M37 in Auriga, the Charioteer.
 9. This is Perseus, the Hero.
 10. Alvan Graham Clark discovered Sirius B in 1862 while testing a new 18" objective refracting telescope for his father, Alvan Clark.
 11. Maria Mitchell made the first telescopic discovery of a comet in 1847.
- Escape velocity for Mars is 5.0 km/sec. It's much lower than Earth's and Venus' because it has less mass, therefore less gravity.

References: *Astronomy Magazine*, October, 2007; "Astronomical Objects for a Public Viewing Session", by Steve Coe; Notes on "Outer Solar System", by Eric Balcom; "Planetary Radio, Oct.25, '07; [Space and Astronomy Handbook](#), Joseph A. Angelo, Jr.

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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.

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

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