

**IO - November 2008**

Issue 2008-11  
Eugene Astronomical Society

Eugene Astronomical Society  
Annual Club Dues \$25  
President: Sam Pitts - 688-7330  
Secretary: Jerry Oltion - 343-4758  
Additional Board members:  
Jacob Strandlien, Tony Dandurand,  
Tommy Lightning Bolt.

[www.eugeneastro.org](http://www.eugeneastro.org)

EAS is a proud member of:

**The Astronomical League**  
The World's Largest Federation of Amateur Astronomers



## NEXT MEETING: NOVEMBER 10TH (Note that this is a *Monday*)

### Where Are They? Why Life on Mars Might Be a Bad Thing

by Mel Bartels

With the discovery of water on Mars by the *Phoenix* Mars Lander comes the very real prospect that life once existed on Mars. Such a wonderful discovery will impact science; indeed we will know that we are not alone in the Universe. Surprisingly it could mean that intelligent life is very rare.

Join Mel Bartels as he explains this controversial view and discusses the latest in the search for extra-terrestrial life.

A member of the space age generation, Mel Bartels has been looking “up” since the 1960s. Mel has been a member of EAS since 1972.

Interests in deep sky observing and cold camera astrophotography turned to large thin mirror grinding when he met John Dobson in 1980, and was given a night on John’s 24" at Crater Lake. Mel has ground mirrors up to 30" in size, led several mirror making classes, and conducted a Telescope Optics Workshop in Bellingham, Washington where half a dozen people figured 16" mirrors.

Mel ran the Amateur Telescope Makers listserv for six years, a worldwide group dedicated to sharing and advancing the art of telescope making. Since 1990, Mel has worked on computer control of motorized telescopes, and developed a freely distributed control system that is in use worldwide.

In addition, Mel continues developing innovative mounting designs, recently inventing the TriDob.

The International Astronomical Union honored Mel by naming asteroid 17823 Bartels for his contributions to amateur astronomy.

A former musician and teacher, Mel earns his living as a software architect.

At the meeting we’ll also have our usual information sharing between members. Come and enjoy the wonders of the night sky with the Eugene Astronomical Society.

# REMEMBER THAT WE NOW MEET AT EWEB

## 500 E. 4th Avenue in Eugene.

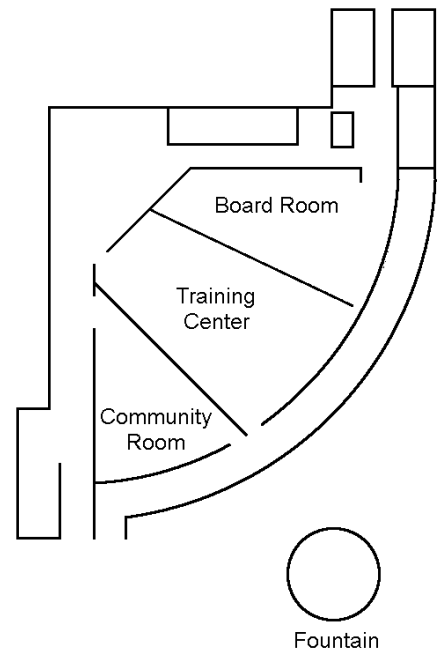
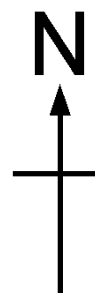
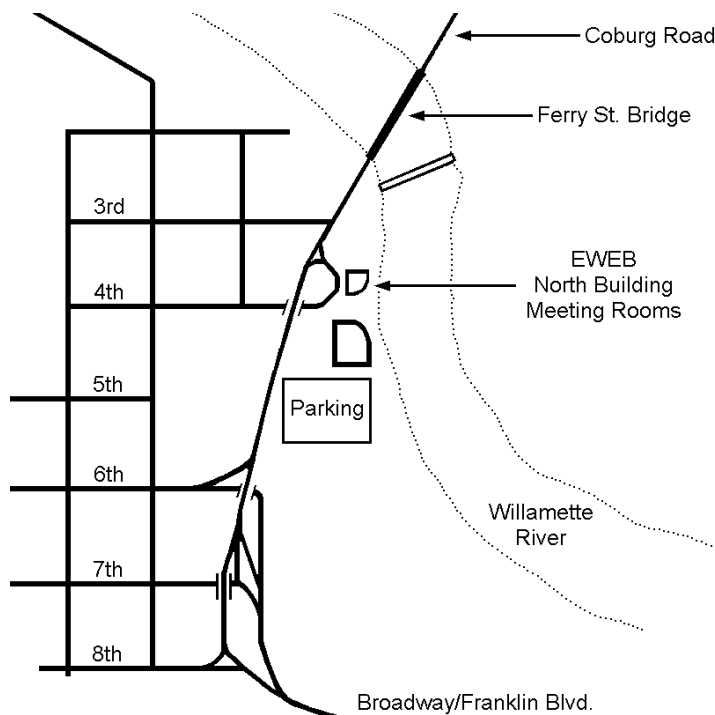
OUR NEXT MEETING WILL BE ON MONDAY, NOVEMBER 10TH AT 7:00 IN THE NORTH BUILDING'S COMMUNITY ROOM. This is in the semicircular building to the north of the fountain at EWEB's main campus on the east end of 4th Avenue.

### Meeting dates and times for the rest of the year:

November 10 (**Monday**) in Community Room

December 18 (**Thursday**) in Community Room

Join the EAS mail list at <http://eugeneastro.org/mailman/listinfo/org.eugeneastro.general>



EWEB is located at 500 E. 4th Avenue.

EAS meets in the first room in the semicircular building to the north of the fountain.

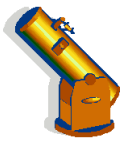
**CASTLE STORAGE**

Unit \_\_\_\_\_  
Code \_\_\_\_\_

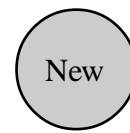
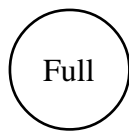
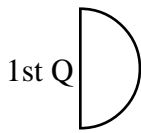
120 S. Danebo • Eugene, OR 97402 • 541.607.3800

### Thank You Castle Storage

Board member Tommy Lightning Bolt was instrumental in getting a storage unit from the owners of Castle Storage for EAS to store its telescopes and equipment. EAS would like to thank Castle Storage for their generosity and support for our group. Please give them a call if you need a storage space, and tell your friends. They are great people and offer secure and quality units.



# Observing in November



November 5	November 12	November 19	November 27
Mercury Rise: 5:49 AM	Mercury Rise: 6:23 AM	Mercury Rise: 6:57 AM	Mercury Rise: 7:34 AM
Venus Set: 6:51 PM	Venus Set: 6:58 PM	Venus Set: 7:08 PM	Venus Set: 7:23 PM
Mars Set: 5:18 PM	Mars Set: 5:05 PM	Mars Set 4:53 PM	Mars Set: 4:41 PM
Jupiter Set: 8:55 PM	Jupiter Set: 8:33 PM	Jupiter Set: 8:11 PM	Jupiter Set: 7:48 PM
Saturn Rise: 2:08 AM	Saturn Rise: 1:44 AM	Saturn Rise: 1:19 AM	Saturn Rise: 12:50 AM
Uranus Set: 2:16 AM	Uranus Set: 1:48 AM	Uranus Set: 1:20 AM	Uranus Set: 12:49 AM
Neptune Set: 11:49 PM	Neptune Set: 11:22 PM	Neptune Set: 10:55 PM	Neptune Set: 10:24 PM
Pluto Set: 7:59 PM	Pluto Set: 7:32 PM	Pluto Set: 7:05 PM	Pluto Set: 6:35 PM

All times: Pacific Standard Time (Nov 2, 2008-March 8, 2009) = UT -8 hours or U.S. Pacific Daylight Time (March 8-November 1, 2009) = UT -7 hours.

Daylight savings time ends. Move clocks back one hour

Date	Moonrise	Moonset	Sunrise	Sunset	Twilight Begin	Twilight End
11/1/2008	11:50	20:08	07:50	18:02	06:12	19:39
11/2/2008	11:38	20:04	06:51	17:00	05:13	18:38
11/3/2008	12:17	21:06	06:52	16:59	05:14	18:37
11/4/2008	12:49	22:10	06:54	16:58	05:15	18:36
11/5/2008	13:16	23:17	06:55	16:56	05:16	18:35
11/6/2008	13:40		06:56	16:55	05:18	18:34
11/7/2008	14:01	00:24	06:58	16:54	05:19	18:33
11/8/2008	14:21	01:32	06:59	16:53	05:20	18:32
11/9/2008	14:42	02:43	07:00	16:52	05:21	18:31
11/10/2008	15:05	03:56	07:02	16:51	05:22	18:30
11/11/2008	15:32	05:13	07:03	16:50	05:23	18:29
11/12/2008	16:06	06:35	07:04	16:48	05:24	18:28
11/13/2008	16:50	07:58	07:06	16:47	05:26	18:27
11/14/2008	17:47	09:16	07:07	16:46	05:27	18:27
11/15/2008	18:56	10:24	07:08	16:46	05:28	18:26
11/16/2008	20:13	11:18	07:10	16:45	05:29	18:25
11/17/2008	21:32	11:59	07:11	16:44	05:30	18:24
11/18/2008	22:49	12:30	07:12	16:43	05:31	18:24
11/19/2008		12:56	07:13	16:42	05:32	18:23
11/20/2008	00:02	13:17	07:15	16:41	05:33	18:23
11/21/2008	01:11	13:37	07:16	16:41	05:34	18:22
11/22/2008	02:19	13:57	07:17	16:40	05:35	18:22
11/23/2008	03:25	14:17	07:18	16:39	05:37	18:21
11/24/2008	04:32	14:40	07:20	16:39	05:38	18:21
11/25/2008	05:38	15:06	07:21	16:38	05:39	18:20
11/26/2008	06:43	15:38	07:22	16:37	05:40	18:20
11/27/2008	07:46	16:17	07:23	16:37	05:41	18:20
11/28/2008	08:43	17:03	07:24	16:36	05:42	18:19
11/29/2008	09:34	17:57	07:26	16:36	05:43	18:19
11/30/2008	10:15	18:57	07:27	16:36	05:44	18:19

## Other Items of Interest This Month

All month: Venus steadily rising in evening sky  
 Mercury visible in morning sky during first week of the month  
 11/2 Daylight savings time ends  
 11/3 Crescent Moon 2° from Jupiter  
 11/6 Moon 1° north of Neptune  
**11/7 First Quarter Friday star party**  
 11/16 Asteroid Juno passes near M16  
 11/30 Venus and Jupiter within 2° with crescent moon 8° away

## For Current Occultation Information

Visit **Derek C. Breit's** web site  
**"BREIT IDEAS Observatory"**

<http://www.poyntsource.com/New/Regions/EAS.htm>

Go to Regional Events and click on the Eugene, Oregon section. This will take you to a current list of Lunar & asteroid events for the Eugene area. Breit continues to update and add to his site weekly if not daily. This is a site to place in your favorites list and visit often.

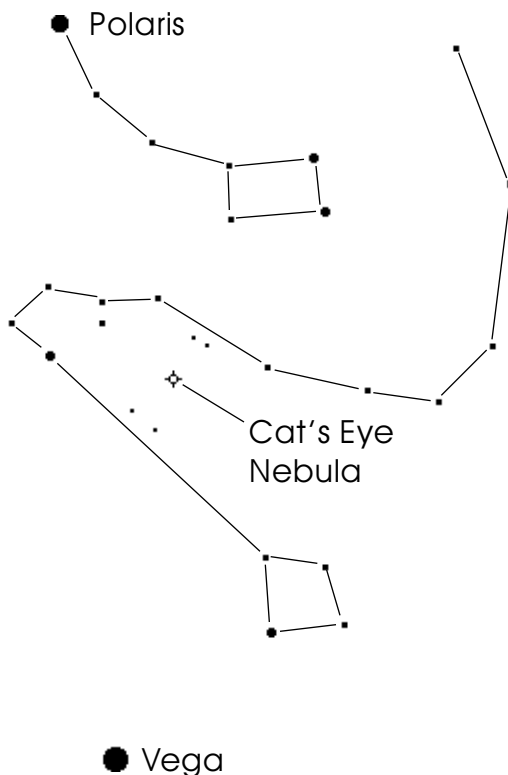
All times are for Eugene, Oregon Latitude 44° 3' 8" Longitude 123° 5' 8" for listed date

## Observing Highlight: The Cat's Eye Nebula

Halfway between Vega and Polaris lies the neck of Draco, the Dragon. One of the prettiest of the dragon's jewels has to be NGC 6543, better known as the the Cat's Eye Nebula. Discovered in 1786 by William Herschel, the Cat's Eye is one of the most complex planetary nebulae known. It has an outer set of evenly spaced concentric rings surrounding a multi-lobed interior, all of which has been pierced by two jets making a break for interstellar space.

Doppler studies show that the outer rings were ejected at a rate of one every few centuries while the parent star was at the end of its red giant phase. The asymmetry of the interior is less well understood, but the prevailing theory is that a binary companion is transferring mass to the primary star, and the accretion disk prevents a symmetrical outflow of the resulting stellar wind (which is blowing about 20 trillion tons of stellar material into space per second).

An amateur telescope can't match the Hubble for detail, but the Cat's Eye is still a rewarding target in even a modest scope. It's relatively bright for a planetary nebula — 8.1 magnitude — and while its distance of 3,300 light-years makes it fairly small, it shows a distinctly elongated form at 100x or greater.



NGC 6543, the Cat's Eye Nebula

To find the Cat's Eye Nebula, look for the flattened head of Draco, about 2/3 of the way toward Vega from Polaris and a little to the west. Follow the body of Draco as it snakes northeastward and then southwestward between Lyra and the Little Dipper. The Cat's Eye lies right inside the curve of the neck, roughly halfway between delta and zeta Draconis. Look for four 5th-magnitude stars that form a long trapezoid between the two loops of Draco's neck. Draw an X between those stars, and look for the Cat's Eye in the middle of the X. At low power it will look almost stellar, but it won't quite come into focus like the surrounding stars will. Crank up the power and enjoy the view!

For cheaters with go-to scopes, if it's not already in your database the right ascension is 17h58m33s and the declination is +66°37m59s.

## November Star Parties

The only scheduled star party for November is the regular First Quarter Friday on November 7th at the College Hill Reservoir, 24th and Lawrence in Eugene. The party officially starts at 7:00, but people will probably start showing up at dusk, which is more like 5:30 now that we're back on standard time.

First Quarter Fridays are meant to be informal, fun gatherings for EAS members and the general public. Bring a telescope and have fun observing and sharing the view with whoever shows up.

## October Star Party Report

The EAS put on two star parties in October, our regular First Quarter Friday on October 10th at the College Hill Reservoir, and another one the following night at the Mount Pisgah Arboretum. The First Quarter Friday went very well, with lots of telescopes and lots of public eager to look through them. The Moon was well past first quarter, so it dominated the sky pretty well, but people kept asking to see more of it, and indeed it seemed especially beautiful that night, with Schiller and Shickard standing out in stark contrast in the southern highlands and Kepler and Aristarchus doing the same in the Ocean of Storms. Jupiter also provided a constant attraction as observers watched Europa approach and eventually transit the planet.

On Saturday the weather proved less cooperative, but Sam Pitts was ready with a slide show that gave people a tour of the sky with emphasis on how to find things. The clouds finally relented and gave everyone a chance to practice what they had just learned, and several people kept club members hopping as they asked to see many of the objects that Sam had shown them in his slide show.

We set up in the upper parking lot this year, rather than on the top-level road as we've done in past years. That proved to be a good move, since it gave us better horizons in all directions (and thus gave us more sucker holes to peek through while we waited for the clouds to drift off).

There weren't a whole lot of people (maybe 20?), but they went home happy, and that's what counts.

## World Wide Star Count

It's time for the 2008 Great World Wide Star Count, an international event encouraging everyone, astronomers and non-astronomers alike, to measure their local light pollution and report their observations online. This Windows to the Universe citizen science program will continue until November 3rd.

This year participants are asked to observe the constellation of Cygnus and report the limiting magnitude visible from their location. Charts showing how many stars can be seen at various limiting magnitudes make this observation simple and painless (except for the crick in your neck from looking nearly straight up).

Complete information on how to participate is available on the World Wide Star Count website at <http://www.windows.ucar.edu/starcourt/>

## Undoing the Dew

November observing is notorious for dew. When the Pleiades start to look like the Hubble photograph through your 8" dob, it's tempting to take out your handkerchief and give the secondary and/or the eyepiece a swipe, but that's probably not the best idea. You can install expensive dew heaters on your scope, but dew is such a seasonal problem it's hard to justify the money for something you'll only need a few times a year. Fortunately there's an equally simple solution that only costs about \$15 and does a surprisingly good job: a 12-volt hair dryer. These little hot air blowers are ridiculously inefficient for drying hair, but they're perfect for drying off your optics, and their gentle heat won't thermally shock anything or cook your coatings. Most of us with tracking motors or go-to scopes already have a 12-volt battery right there at the base of our scopes, so it's a simple matter to plug in the hair dryer and blast away the dew. A minute or so of warm air will knock the dew off for half an hour or longer.



Gordon Landers zaps the dew away with a 12-volt dryer

R.V. supply stores sell 12-volt dryers for about \$15. The one in the photo came from K.C. Trailer on Hwy 99.

## The Wait for Extraterrestrial Intelligence

There's a new international organization gearing up to assist in the search for extraterrestrial intelligence. Reasoning that ETs are probably more capable than we are of achieving the ability to communicate or travel over interstellar distances, the WETI Institute proposes that we simply wait to be contacted. From their website we learn:

The mission of the WETI Institute is to understand and explain the origin, nature and prevalence of intelligent life in the universe. The WETI Institute has chosen an entirely novel approach to achieve that goal. Instead of actively searching for extraterrestrial intelligence, the idea is to simply WAIT — until the others find us.

Waiting is a notoriously underappreciated method in our efforts to search for extraterrestrial intelligence. It is cheaper and less stressful than any other type of research. It is also environmentally friendly and does not cause global warming, terrorism or nuclear conflicts. The WETI Institute has assembled an assorted group of professionals to explore the benefits of waiting for our understanding of life in the Universe. Combining the expertise from a wide range of disciplines — astrophysics, biology, neurology, psychology, philosophy — our objective is to set a new gold standard for scientifically meaningful waiting.

We assume we are conducting the most profound waiting in human history — waiting to know our beginnings and our place among the stars. Numerical simulations have shown that events that will occur with a certain finite probability at any given time will eventually occur with certainty, if only we wait long enough. This is strong evidence for the universal validity of our waiting approach, and it has profound implications for all fields of human endeavor.

We do not need to invoke science, however. When you've lost a companion in a large crowd, the best strategy is not to run around looking for the other person, but to remain in place and wait for them to find you. It would be outlandishly foolish to give up one's own known position to reach the unknown position of another person, who might have wandered off from that position already anyway. And since, in a philosophical sense, both humans and extraterrestrials are lost in a huge and very empty crowd called outer space, the very same logic applies there.

Mankind has always felt the urge of actively doing something of extraordinary relevance. By doing so, we have caused a great deal of grief and disaster. The WETI Institute proposes to abandon our reckless anthropocentric ambition, and to strive for a more humble approach of letting the universe explore us instead.



## How to participate

In the near future we will offer a computer program for download that will make use of the idle time of your computer to very efficiently wait in the background. Modern computers can wait several million times each second. By exploiting this currently unused waiting potential we will collectively create the biggest waiting power ever applied to any problem on Earth. No network connection is necessary, since the aliens will have ways to contact the WETI@home application through universal hacking tools.

## Join the WETI Effortless Action Committee

Interested scientists as well as laymen are invited to join WETI's Effortless Action Committee. You will instantly receive an attractive Certificate of Membership suitable for framing. To join, visit the WETI website at: <http://weti-institute.org>

## About us

The WETI Institute is a private, nonprofit organization dedicated to scientific research, education and public outreach. The members of the organization operate from six base stations, located in strategically important countries distributed all over the globe. All base stations are selected to provide a peaceful environment that is pleasing for the human eye and thus ideal for our endeavour. The infrastructure of the WETI institute, or, more precisely, the lack thereof, is hosted in Berlin/Germany.

As of today, the WETI Institute is exclusively driven by curiosity, perseverance, and the odd few minutes of accidental waiting for public transport. In order to be able to sustain our efforts, the Institute welcomes support from private foundations or other groups/individuals interested in WETI.

The WETI Institute is part of OPEU, the Organization for the Passive Exploration of the Universe.

## Daylight Savings Time Ends November 2nd

Remember to set your clocks back one hour on the morning of November 2nd. From November 2nd until March 8th, 2009, we're on Standard time again. Subtract 8 hours from Universal Time to get our local time here in Eugene.

## Dues are Due!

EAS membership runs from October thru September. That means it's time to pay your club dues again. If you haven't paid already, please mail your dues to the Eugene Astronomical Society, PO Box 7264, Eugene, OR 97401. Dues are \$25. Make your checks payable to Eugene Astronomical Society, or just EAS if your pen is low on ink.

## Hubble Servicing Mission Delayed

After years of wrangling over the expense of a final servicing mission to repair failing instruments, gyros, and batteries, the Hubble Space Telescope finally won a reprieve, only to have it taken away by a last-minute failure.

The 11-day STS-125 mission by Atlantis, scheduled for launch on October 14th, would have installed fresh batteries, replaced gyroscopes, and installed the Wide Field Camera 3 and the Cosmic Origins Spectrograph. However, in late September the data formatting unit died. All science data passes through this unit before it can be transmitted to Earth. Although it has a backup unit, if the backup were to fail, the Hubble would be dead in space. Therefore NASA postponed the servicing mission until early 2009 so this unit can be replaced as well.



The Hubble Space Telescope

Servicing Mission 4 will be the last Shuttle mission for the Hubble Space Telescope. Over the course of five spacewalks, astronauts will install two new instruments, (Wide Field Camera 3 and the Cosmic Origins Spectrograph), repair two instruments that have failed (the Advanced Camera for Surveys and the Space Telescope Imaging Spectrograph) and perform other component replacements that should keep the telescope functioning at least into 2014.

The backup unit — a radiation-hardened 486 computer — has been started, but as might be expected in a system that has been dormant for 18 years, there have been glitches that prevent an immediate return to normal function for the telescope. Hubble managers are confident that they can get it running again and continue doing science with the telescope before the servicing mission. When the astronauts do get there, they plan to replace both the primary and the backup computers with more modern units that should last well beyond the Hubble's expected lifetime.