

# IO - December 2011

Issue 2011-12  
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,  
John Loper.

PO Box 7264  
Springfield, OR 97475  
[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: Thursday, December 22nd Swap Meet & Potluck Get-Together

Our December meeting will be a chance to visit and share a potluck dinner with fellow amateur astronomers, plus swap extra gear for new and exciting equipment from somebody else's stash. Bring some food to share and any astronomy gear you'd like to sell, trade, or give away.

We will have on hand some of the gear that was donated to the club this summer, including mirrors, lenses, blanks, telescope parts, and even entire telescopes. Come check out the bargains and visit with your fellow amateur astronomers in a relaxed evening before Christmas.

We also encourage people to bring any new gear or projects they would like to show the rest of the club. The meeting is at 7:00 on December 22nd at EWEB's Community Room, 500 E. 4th in Eugene.

## Next First Quarter Fridays: December 2nd and 30th

Our November star party was clouded out, along with a good deal of the month afterward. If that sounds familiar, that's because it is: I changed the date in the previous sentence from October to November and left the rest of the sentence intact. Yes, our autumn weather is predictable. Here's hoping for a lucky break in the weather for our two December star parties. At least we have two chances this month.

First Quarter Fridays are laid-back opportunities to do some observing and promote astronomy at the same time. Mark your calendar and bring your scope to the College Hill Reservoir (24th and Lawrence in Eugene) and share the view with whoever shows up.

## Dues Are *Way* Past Due!

EAS membership runs from October 1 through September 31, so it's past time to renew if you haven't already. Dues are still just \$25/year, and include membership in the Astronomical League as well as the EAS. (That's where your *Reflector* magazine comes from, and where our observing awards come from.) Your dues also help us pay our liability insurance and to keep our telescope lending program going. We had over 50 members last year, and it would be great to see all of us renew for another year.

If you haven't renewed already, please send your \$25 dues to the Eugene Astronomical Society, P.O. Box 7264, Springfield, OR 97475. Make checks payable to Eugene Astronomical Society.

# November Meeting Report

Our November meeting was cancelled due to a scheduling conflict for the EWEB meeting room we use. Our next meeting will be on Thursday, December 22nd, at 7:00 PM in the EWEB north building's Community Room. This is the first room in the semicircular building to the north of the fountain at EWEB's main campus on the east end of 4th Avenue.



## Discounted Magazine Subscriptions

One of the benefits of EAS membership is a club discount on subscriptions to *Sky & Telescope* and *Astronomy* magazines. The clubmember rate for *Sky & Telescope* Magazine is \$32.95 for one year or \$65.90 for two years. The clubmember rate for *Astronomy* magazine is \$34 for one year or \$60 for two years. This is the rate for new subscriptions or renewals. New subscriptions have to go through the club secretary (Jerry Olton) to qualify for the discounted rate, so contact Jerry if you want to start a new subscription. *Sky & Telescope* allows you to renew at the club rate on your own, but *Astronomy* requires renewals to go through the club secretary as well. For more information, contact Jerry at j.olton at sff.net or 541-343-4758.

For ongoing discussion of astronomical topics and impromptu planning of telescope outings, join the EAS mail list at [http://eugeneastro.org/mailman/listinfo/general\\_eugeneastro.org](http://eugeneastro.org/mailman/listinfo/general_eugeneastro.org)

## Telescope Lending Library

The EAS has several telescopes available for members to borrow. Check out the telescope lending page on our website to see the many scopes in our lending program, and contact Tony Dandurand, our lending coordinator, to arrange to check out one of these excellent scopes.

Tony can be reached via email at tdandurand at comcast.net or by phone at 541-726-8147.

## Thank You Castle Storage

For the last four years, Castle Storage has generously provided EAS a place 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 storage units.



**CASTLE STORAGE**

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

120 S. Danebo • Eugene, OR 97402 • 541.607.3800

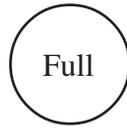
# Birthday Stars

At star parties it's fun to show people their "birthday stars," stars whose light began its journey toward us when the person was born. Here's a list of some good candidates. Note that the stars for some years are relatively obscure. That's because there aren't any bright stars at the appropriate distance.

| <u>Age</u> | <u>Star</u>                   | <u>Distance</u> | <u>Magnitude</u> | <u>Age</u> | <u>Star</u>              | <u>Distance</u> | <u>Magnitude</u> |
|------------|-------------------------------|-----------------|------------------|------------|--------------------------|-----------------|------------------|
| 4          | Alpha Centauri                | 4.4             | 0                | 53         | Xi Pegasi                | 53              | 4.2              |
| 6          | Barnard's Star                | 6               | 5.9              | 54         | Beta Cassiopeiae         | 54.5            | 2.3              |
| 8          | Wolf 359                      | 7.8             | 13.4             | 55         | Tau <sup>1</sup> Hydrae  | 55.8            | 4.6              |
| 9          | Sirius                        | 8.6             | -1.4             | 56         | Xi Ophiuchi              | 56.7            | 4.4              |
| 10         | Epsilon Eridani               | 10.5            | 3.7              | 57         | 58 Ophiuchi              | 57.2            | 4.9              |
| 11         | Procyon                       | 11.4            | 0.4              | 58         | Delta Leonis             | 57.7            | 2.6              |
| 12         | Tau Ceti                      | 11.9            | 3.5              | 59         | 70 Virginis              | 59.1            | 5.0              |
| 13         | Kruger 60                     | 13.1            | 9.8              | 60         | Delta Equuli             | 59.9            | 4.5              |
| 14         | Van Maanen's Star             | 14.1            | 12.4             | 61         | Mu Virginis              | 60.9            | 3.9              |
| 15         | Gliese 876                    | 15.3            | 10.2             | 62         | Eta Serpentis            | 61.8            | 3.2              |
| 16         | Keid (α <sup>2</sup> Eridani) | 16.5            | 4.4              | 63         | Omicron Aquilae          | 63.2            | 5.1              |
| 17         | Altair                        | 16.8            | 0.8              | 64         | Alpha Trianguli          | 64.1            | 3.4              |
| 18         | Sigma Draconis                | 18.8            | 4.7              | 65         | Aldeberan                | 65.1            | 0.9              |
| 19         | Eta Cassiopeiae               | 19.4            | 3.5              | 66         | Alpha Arietis            | 65.9            | 2.0              |
| 20         | 36 Ophiuchi                   | 19.5            | 4.3              | 67         | 13 Ceti                  | 67.0            | 5.2              |
| 21         | Xi Bootes                     | 21.9            | 4.5              | 68         | Tau Cygni                | 68.3            | 3.7              |
| 22         | Chi Bootes                    | 22.1            | 4.7              | 69         | 40 Leonis                | 69.0            | 4.8              |
| 23         | HR753 (Gliese 105)            | 23.4            | 5.8              | 70         | Zeta Leporis             | 70.2            | 3.6              |
| 24         | 107 Piscium                   | 24.4            | 5.2              | 71         | Sigma Cor. Borealis      | 70.7            | 6.0              |
| 25         | Vega                          | 25.0            | 0.0              | 72         | Epsilon Cygni            | 72.1            | 2.5              |
| 26         | Chi Draconis                  | 26.3            | 3.6              | 73         | Mu Cygni                 | 73.06           | 4.5              |
| 27         | Beta Canum Venaticor.         | 27.3            | 4.2              | 74         | 39 Leonis                | 74.1            | 5.8              |
| 28         | Chi <sup>1</sup> Orionis      | 28.3            | 4.4              | 75         | Alpha Cor Borealis       | 74.7            | 2.2              |
| 29         | Gamma Leporis                 | 29.3            | 3.6              | 76         | Omega Draconis           | 76.5            | 4.8              |
| 30         | Kappa <sup>1</sup> Ceti       | 29.9            | 4.8              | 77         | Regulus                  | 77.5            | 1.4              |
| 31         | 61 Ursa Majoris               | 31.1            | 5.3              | 78         | Mizar                    | 78.2            | 2.2              |
| 32         | 12 Ophiuchi                   | 31.9            | 5.8              | 79         | 37 Ceti                  | 78.9            | 5.1              |
| 33         | SAO 16230                     | 33              | 6.5              | 80         | 7 Andromedae             | 79.9            | 4.5              |
| 34         | Pollux                        | 33.7            | 1.2              | 81         | Alioth                   | 80.9            | 1.8              |
| 35         | Zeta Herculis                 | 35.2            | 2.8              | 82         | Beta Ophiuchi            | 81.9            | 2.8              |
| 36         | Denebola                      | 36.2            | 2.1              | 83         | Zeta Aqluilae            | 83.3            | 3.0              |
| 37         | Arcturus                      | 36.7            | -0.1             | 84         | Eta Ophiuchi             | 84.1            | 2.4              |
| 38         | Lambda Serpentis              | 38.3            | 4.4              | 85         | Gamma Bootis             | 85.2            | 3.0              |
| 39         | Delta Capricorni              | 38.6            | 2.8              | 86         | Tau <sup>3</sup> Eridani | 86.2            | 4.1              |
| 40         | 85 Pegasi                     | 40.5            | 5.8              | 87         | Delta Corvi              | 87.9            | 3.1              |
| 41         | Lambda Aurigae                | 41.2            | 4.7              | 88         | Epsilon Ceti             | 88.2            | 4.8              |
| 42         | Capella                       | 42.2            | 0.1              | 89         | Zeta Sagittarii          | 89.1            | 2.6              |
| 43         | 58 Eridani                    | 43.4            | 5.5              | 90         | 15 Pegausi               | 90.2            | 5.5              |
| 44         | Theta Ursa Majoris            | 43.9            | 3.2              | 91         | 38 Geminorum             | 91.1            | 4.7              |
| 45         | Gamma Cephei                  | 44.9            | 3.2              | 92         | Omega Andromedae         | 92.3            | 4.8              |
| 46         | 26 Draconis                   | 46              | 5.2              | 93         | Algol                    | 92.8            | 2.1              |
| 47         | Eta Cephei                    | 46.8            | 3.4              | 94         | Lambda Geminorum         | 94.3            | 3.6              |
| 48         | Alderamin                     | 48.8            | 2.5              | 95         | Gamma Ophiuchi           | 94.8            | 3.8              |
| 49         | Eta Leporis                   | 49.1            | 3.7              | 96         | Beta Ceti                | 95.8            | 2.0              |
| 50         | Delta Aquilae                 | 50.1            | 3.4              | 97         | Apha Andromedae          | 97.1            | 2.2              |
| 51         | Castor                        | 51.6            | 1.6              | 98         | SAO141665                | 98              | 4.5              |
| 52         | 104 Tauri                     | 51.8            | 4.9              | 99         | Nu Draconis              | 99              | 4.1              |
|            |                               |                 |                  | 100        | Alkaid (Eta UMa)         | 100.7           | 1.8              |



# Observing in December



| December 2            | December 10           | December 17           | December 24           |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Mercury Behind Sun    | Mercury Rise: 6:23 AM | Mercury Rise: 5:54 AM | Mercury Rise: 5:59 AM |
| Venus Set: 6:20 PM    | Venus Set: 6:36 PM    | Venus Set: 6:52 PM    | Venus Set: 7:10 PM    |
| Mars Rise: 11:34 PM   | Mars Rise: 11:20 PM   | Mars Rise: 11:05 PM   | Mars Rise: 10:49 PM   |
| Jupiter Set: 4:12 AM  | Jupiter Set: 3:38 AM  | Jupiter Set: 3:09 AM  | Jupiter Set: 2:41 AM  |
| Saturn Rise: 3:39 AM  | Saturn Rise: 3:08 AM  | Saturn Rise: 2:43 AM  | Saturn Rise: 2:18 AM  |
| Uranus Set: 1:34 AM   | Uranus Set: 1:02 AM   | Uranus Set: 12:35 AM  | Uranus Set: 12:08 AM  |
| Neptune Set: 10:41 PM | Neptune Set: 10:11 PM | Neptune Set: 9:44 PM  | Neptune Set: 9:17 PM  |
| Pluto Set: 6:37 PM    | Pluto Set: 6:07 PM    | Pluto Set: 5:40 PM    | Pluto Behind Sun      |

All times: Pacific Standard Time (Nov 6, 2011-March 10, 2012) = UT -8 hours or U.S. Pacific Daylight Time (March 13-November 5, 2011) = UT -7 hours.

| Date       | Moonrise | Moonset | Sunrise | Sunset | Twilight<br>Begin | Twilight<br>End |
|------------|----------|---------|---------|--------|-------------------|-----------------|
| 12/1/2011  | 12:05    | 23:49   | 07:27   | 16:36  | 05:44             | 18:19           |
| 12/2/2011  | 12:29    |         | 07:28   | 16:35  | 05:45             | 18:19           |
| 12/3/2011  | 12:52    | 00:51   | 07:29   | 16:35  | 05:46             | 18:18           |
| 12/4/2011  | 13:15    | 01:51   | 07:30   | 16:35  | 05:47             | 18:18           |
| 12/5/2011  | 13:40    | 02:51   | 07:31   | 16:34  | 05:48             | 18:18           |
| 12/6/2011  | 14:08    | 03:51   | 07:32   | 16:34  | 05:48             | 18:18           |
| 12/7/2011  | 14:40    | 04:51   | 07:33   | 16:34  | 05:49             | 18:18           |
| 12/8/2011  | 15:18    | 05:51   | 07:34   | 16:34  | 05:50             | 18:18           |
| 12/9/2011  | 16:02    | 06:48   | 07:35   | 16:34  | 05:51             | 18:18           |
| 12/10/2011 | 16:53    | 07:42   | 07:36   | 16:34  | 05:52             | 18:18           |
| 12/11/2011 | 17:51    | 08:30   | 07:37   | 16:34  | 05:53             | 18:19           |
| 12/12/2011 | 18:54    | 09:12   | 07:38   | 16:34  | 05:53             | 18:19           |
| 12/13/2011 | 20:00    | 09:49   | 07:39   | 16:34  | 05:54             | 18:19           |
| 12/14/2011 | 21:08    | 10:21   | 07:39   | 16:35  | 05:55             | 18:19           |
| 12/15/2011 | 22:17    | 10:51   | 07:40   | 16:35  | 05:55             | 18:19           |
| 12/16/2011 | 23:27    | 11:18   | 07:41   | 16:35  | 05:56             | 18:20           |
| 12/17/2011 |          | 11:45   | 07:42   | 16:35  | 05:57             | 18:20           |
| 12/18/2011 | 00:38    | 12:13   | 07:42   | 16:36  | 05:57             | 18:21           |
| 12/19/2011 | 01:52    | 12:44   | 07:43   | 16:36  | 05:58             | 18:21           |
| 12/20/2011 | 03:06    | 13:20   | 07:43   | 16:36  | 05:59             | 18:21           |
| 12/21/2011 | 04:22    | 14:02   | 07:44   | 16:37  | 05:59             | 18:22           |
| 12/22/2011 | 05:34    | 14:53   | 07:45   | 16:37  | 06:00             | 18:22           |
| 12/23/2011 | 06:41    | 15:52   | 07:45   | 16:38  | 06:00             | 18:23           |
| 12/24/2011 | 07:38    | 16:59   | 07:45   | 16:39  | 06:00             | 18:24           |
| 12/25/2011 | 08:26    | 18:09   | 07:46   | 16:39  | 06:01             | 18:24           |
| 12/26/2011 | 09:05    | 19:19   | 07:46   | 16:40  | 06:01             | 18:25           |
| 12/27/2011 | 09:38    | 20:28   | 07:46   | 16:41  | 06:02             | 18:25           |
| 12/28/2011 | 10:06    | 21:33   | 07:47   | 16:41  | 06:02             | 18:26           |
| 12/29/2011 | 10:31    | 22:37   | 07:47   | 16:42  | 06:02             | 18:27           |
| 12/30/2011 | 10:55    | 23:39   | 07:47   | 16:43  | 06:02             | 18:28           |
| 12/31/2011 | 11:18    |         | 07:47   | 16:44  | 06:03             | 18:28           |

## Items of Interest This Month

### 12/2 First Quarter Friday Star Party

12/2 Callisto passes beneath Jupiter

12/5 Io shadow transit 5:54 - 8:04 pm.

12/6 Moon near Jupiter

12/10 Lunar eclipse just before dawn

12/12 Io shadow transit 7:50 - 9:59 pm.

12/19 Jupiter's moons dance in early evening

12/20 Europa shadow transit 5:15 - 7:39 pm.

12/21 Winter solstice

12/26 3 of Jupiter's moons line up vertically around 7:30 pm.

12/27 Europa & Ganymede shadows transit and Io is occulted while Callisto crosses over pole 6:05 - 10:15 pm

### 12/30 First Quarter Friday Star Party

## 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' Longitude 123° 06' for listed date