

# IO - July 2013

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, July 25th How to Build a Telescope by Jerry Oltion

Last month Sam Pitts gave a talk on what equipment is out there for amateurs to buy. This month Jerry Oltion will talk about building your own telescope. It's surprisingly easy and affordable, and there are several different designs to choose from. Or you can design your own and join the growing group of proud owners of "funny looking telescopes."

Afraid to grind a mirror? You can have one made, or buy one already finished. But don't discount your own ability. John Dobson calls mirror grinding "caveman work," not just because of the labor involved. Anybody with patience and even a little bit of skill can succeed at it, and the feeling of satisfaction you get when looking at the stars with a mirror you made yourself is like none other.

You can build a lot more than just the telescope, too. You can build the mount, whether it be a simple Dobsonian or a fancier trackball or a highly accurate equatorial. You can build your own finders, camera mounts, even eyepieces.

If you've hesitated to build your own gear because you've heard it's hard, then come let Jerry clear away that fear and replace it with enthusiasm.

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 Thursday, July 25th at EWEB's Community meeting room, 500 E. 4th in Eugene. (NOTE: due to uncertainty about the EWEB meeting rooms, our meeting location may be subject to change. Check our email list or our website for up-to-date information.)

## Next First Quarter Friday: July 12th

June's First Quarter Friday was a success. The sky was clear and we had half a dozen scopes, one or two of which were with people not yet members of the club, and we had maybe 50 people there to look through them. Saturn was a big hit, of course, and M13. Surprisingly, M51 looked good enough to show off this time, too. (Having it straight overhead helped.)

Here's hoping for a clear night on July 12th. If Friday is clouded out, we'll try again on Saturday the 13th.

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. Here's the schedule thru 2013:

July 12 (21% lit)	August 16 (80% lit)	September 13 (67% lit)
October 11 (53% lit)	November 8 (38% lit)	December 6 (24% lit)

# June Meeting Report: What's Available Nowadays?

At our June 27th meeting, Sam Pitts gave a talk on what sort of equipment is available to amateur astronomers nowadays. Basic dobsonians have remained excellent deals over the years, with very good 8" scopes going for as little as \$360 new. On the upper end, the advent of new technology has made yesterday's top-end gear surprisingly affordable. Photographic gear in particular has benefitted from the explosion in innovation and interest in the field. Sam showed us examples of many different types of scopes, mounts, eyepieces, camera gear, and various other must-have gadgets. Toward the end of his talk he led us on a tour of top-end gear that most of us can only lust after. It was a grand opportunity to dream!

Our next meeting will be on Thursday, July 25th, at 7:00 PM at EWEB's community meeting 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. (NOTE: due to uncertainty about the EWEB meeting rooms, our meeting location may be subject to change. Check our email list or our website for up-to-date information.)

Here's our meeting schedule through the end of 2013. We meet on the 4th Thursday of each month except November. EWEB has given us the same room (the Community room) every time this year.

July 25    August 22    September 26    October 24    November 21    December 26

## Dark-Sky Star Party at Dexter State Park August 3rd

Our fifth annual Dark Sky Star Party, sponsored by the State Park Service with scopes and expertise provided by the Eugene Astronomical Society, will be held on Saturday, August 3rd at Dexter State Park, about 15 miles southeast of Eugene on Highway 58. The site is right at the lower end of Dexter Reservoir, and just across the highway from the town of Dexter itself. It has wonderful wide-open views in all directions, and sky dark enough to reveal the Milky Way.

The next page is a flyer that you can — and should! — print out and photocopy and post at work and wherever else you can think of that's appropriate. Always ask permission before posting flyers, but do get out there and post them. The farther we spread the word, the more people will come to the party, and the more people who will understand the value of dark sky.

The party will start at dusk, which should be around 9:00. Get there early to set up and learn where everything is. We'll be setting up in the grass to the east of the first parking lot.

We'll be giving away two telescopes this year, so interest should be even higher than usual. We need volunteers to direct parking, run the information table, help put red filter material on flashlights, and so on. We'll coordinate things via the email list, and hopefully between us all we'll anticipate everything we need and have a smooth party.

The main thing is to have lots of club members there with telescopes! Bring yours, and help show people how beautiful the deep, dark sky can be.





# Dark Sky Star Party August 3, 2013 Dexter State Park

15 miles S.E. of Eugene on HWY 58

Come see the wonders of the  
night sky far from city lights

We bring the telescopes,  
You bring curiosity and enthusiasm!

Free telescopes given to two lucky youngsters  
(Ages 8-18, no purchase necessary, must be present to win).

**Starts at dusk (9:00) - Admission: FREE**

Dress warmly. Please cover flashlights with red filter material  
to preserve night vision. We will have filters on hand if you need one.

Sponsored by Oregon State Parks and the Eugene Astronomical Society  
For more information, visit [www.eugeneastro.org](http://www.eugeneastro.org)



## Aurora Visible May 31st

On the night of Friday, May 31st, Bill Murray, Frank Szczepanski, Bob Moser, Jerry Oltion, and some of Jerry's neighbors went up to Eagle's Ridge to view the passing asteroid (1998 QE2). The weather was iffy with light clouds drifting past, but we got the job done, impressing our observers with a tiny dot moving slowly across the starfield.

Then about 10:00 Frank noticed that the northern horizon had sprouted a light dome to rival the one over Eugene/Springfield. It grew stronger as we watched, and eventually showed a couple of the unmistakable pillars of an auroral display. Bill already had his camera mounted on his scope, so he swung it to the north and took this beautiful shot. We didn't see the colors by naked eye, but Bill's photo captured them beautifully. The red is definitely aurora, and the greenish glow in the lower right is aurora as well. The yellow streamers to the left are clouds lit by the Eugene/Springfield sky glow. (Note how much darker the clouds are on the right side of the image where there's no light pollution.)

This is a 50-second exposure at f/6.3 and iso 1600, taken with a Canon EOS Rebel T4i.



### Thank You Castle Storage

For the last six 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.



# Milky Way Over Eagle's Ridge

Alan Gillespie took this great photo of the Milky Way rising over Eagle's Ridge on the night of June 3rd, and got an unexpected bonus when his flash fired at the end of the exposure. It caught Dan Rinnan in the act of looking at M101, and Jerry Olton checking his star chart for the next object to turn to.

It was an excellent night out. The three of them stayed until nearly dawn, checking out the Virgo galaxy cluster and comet Panstarrs and asteroid 1998 QE2 and dozens of other objects. The star of the evening was undoubtedly M101, which with the aid of Howard Banich's excellent article in the June issue of *Sky & Telescope* revealed its many knots of nebulosity and several of its faint companion galaxies.



Dan Rinnan and Jerry Olton observing at Eagle's Ridge. Photo copyright © 2013 by Alan Gillespie

## Eagle's Ridge Site Temporarily Closed

EAS members and a couple of guests eager for another good night out were in for a rude surprise on June 7th when they arrived at the turnoff and found the road gated and locked. They went on up the main road to another, smaller site and had an okay evening, but they quickly dewed up and then a lenticular cloud formed over Mt. June and totally covered the site. They bailed out, only to find the sky crystal clear just a few miles down the road. It just wasn't fated to be a good night

Jerry checked with the BLM and found that the road closure is only temporary while they store equipment being used in road repairs. With luck it'll be open for the early July dark phase of the Moon.



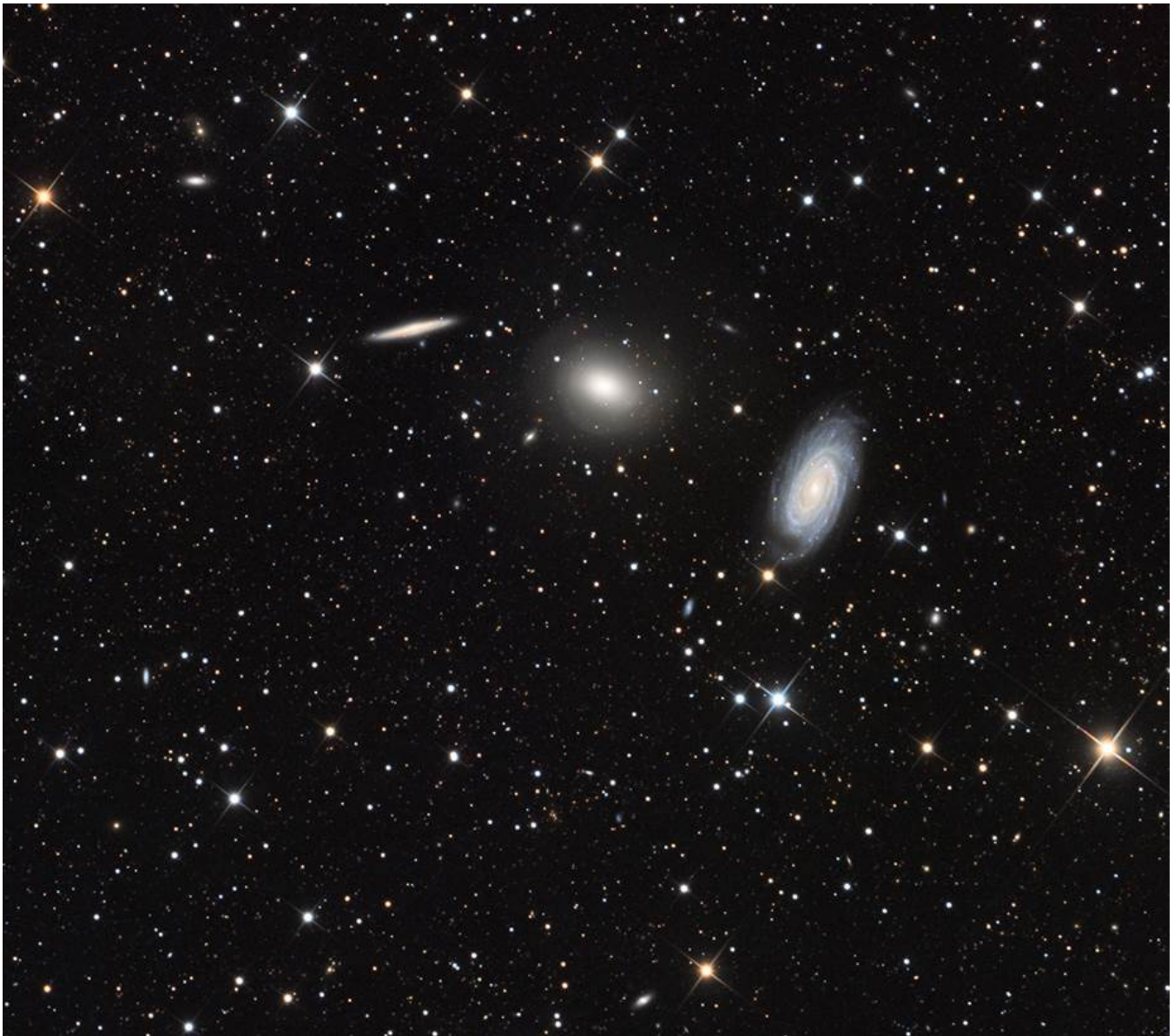
# The Draco Group Galaxy Sampler

Brandt Schram captured a beautiful sampler of galaxy types in Draco in early June. He's got an edge-on spiral, an elliptical, and a barred spiral.

Brandt said of this image: "I've been trying to take advantage of the clear nights and have managed to capture 24 hours of CRGB data of the Draco group, NGC 5981, 5982 and 5985 (from left to right). I think NGC 5985 is one of my favorite (barred) spirals and imagine the Milky Way looks similar. It is also classified as an active Seyfert galaxy. While the three galaxies are close from our vantage point they vary in distance (from us) from about 110 to 135 Million light-years and are not interacting.

"The sub-frames were 30 minutes each for Clear (12 hours) and 15 minutes each for color (4 hours each). It is really painful when a plane or satellite wanders through those long frames. I'm messing around with my guiding parameters and the star shape has suffered but I'm tired of this target and moving on."

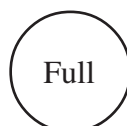
These galaxies are visible in most any scope and quite impressive in apertures of 10 inches or better. They live in the inside bend of Draco's long body where it curves around the bowl of the Little Dipper.



NGC 5981, 5982, and 5985. Photo copyright © 2013 by Brandt Schram



# Observing in July



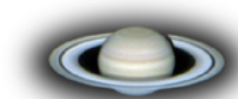
July 8	July 15	July 22	July 29
Mercury Lost in Sun	Mercury Rise: 5:23 AM	Mercury Rise: 4:47 AM	Mercury Rise: 4:29 AM
Venus Set: 10:29 PM	Venus Set: 10:23 PM	Venus Set: 10:15 PM	Venus Set: 10:06 PM
Mars Rise: 4:06 AM	Mars Rise: 3:58 AM	Mars Rise: 3:52 AM	Mars Rise: 3:46 AM
Jupiter Rise: 4:37 AM	Jupiter Rise: 4:16 AM	Jupiter Rise: 3:55 AM	Jupiter Rise: 3:35 AM
Saturn Set: 1:41 AM	Saturn Set: 1:13 AM	Saturn Set: 12:46 AM	Saturn Set: 12:19 AM
Uranus Rise: 12:34 AM	Uranus Rise: 12:06 AM	Uranus Rise: 11:35 PM	Uranus Rise: 11:07 PM
Neptune Rise: 11:09 PM	Neptune Rise: 10:41 PM	Neptune Rise: 10:13 PM	Neptune Rise: 9:45 PM
Pluto Set: 5:31 AM	Pluto Set: 5:02 AM	Pluto Set: 4:34 AM	Pluto Set: 4:06 AM

All times: Pacific Standard Time (Nov 3, 2013-March 9, 2014) = UT -8 hours or U.S. Pacific Daylight Time (March 10-November 2, 2013) = UT -7 hours.

Date	Moonrise	Moonset	Sunrise	Sunset	Twilight Begin	Twilight End
7/1/2013	01:15	15:13	05:33	20:59	03:10	23:22
7/2/2013	01:46	16:13	05:34	20:59	03:11	23:21
7/3/2013	02:21	17:11	05:35	20:59	03:12	23:21
7/4/2013	02:59	18:05	05:35	20:58	03:13	23:20
7/5/2013	03:42	18:56	05:36	20:58	03:14	23:19
7/6/2013	04:29	19:41	05:37	20:58	03:16	23:18
7/7/2013	05:21	20:22	05:37	20:57	03:17	23:17
7/8/2013	06:16	20:58	05:38	20:57	03:18	23:16
7/9/2013	07:14	21:31	05:39	20:56	03:20	23:15
7/10/2013	08:13	22:01	05:40	20:56	03:21	23:13
7/11/2013	09:13	22:28	05:40	20:55	03:23	23:12
7/12/2013	10:14	22:55	05:41	20:55	03:24	23:11
7/13/2013	11:17	23:23	05:42	20:54	03:26	23:10
7/14/2013	12:21	23:52	05:43	20:53	03:27	23:08
7/15/2013	13:26		05:44	20:53	03:29	23:07
7/16/2013	14:34	00:23	05:45	20:52	03:31	23:05
7/17/2013	15:43	01:00	05:46	20:51	03:32	23:04
7/18/2013	16:52	01:42	05:46	20:50	03:34	23:02
7/19/2013	17:57	02:33	05:47	20:50	03:36	23:00
7/20/2013	18:57	03:34	05:48	20:49	03:37	22:59
7/21/2013	19:49	04:42	05:49	20:48	03:39	22:57
7/22/2013	20:33	05:56	05:50	20:47	03:41	22:55
7/23/2013	21:11	07:12	05:51	20:46	03:43	22:54
7/24/2013	21:45	08:27	05:52	20:45	03:45	22:52
7/25/2013	22:17	09:40	05:53	20:44	03:46	22:50
7/26/2013	22:47	10:50	05:54	20:43	03:48	22:48
7/27/2013	23:17	11:57	05:55	20:42	03:50	22:46
7/28/2013	23:48	13:02	05:57	20:41	03:52	22:44
7/29/2013		14:04	05:58	20:39	03:54	22:43
7/30/2013	00:22	15:03	05:59	20:38	03:56	22:41
7/31/2013	00:59	15:59	06:00	20:37	03:57	22:39

## Items of Interest This Month

Last really good month for Saturn  
 Pluto at opposition, best view of the year  
 Scorpius and Sagittarius coming into view  
 7/3 Venus passes through Beehive Cluster  
 (only 25° from Sun, so hard to see cluster)  
**7/12 First Quarter Friday Star Party**  
 7/15 Moon within 1° of Spica  
 7/15 Lunar Elvis visible tonight?  
 7/16 Moon 3° from Saturn  
 7/21 – 22 Venus 1.2° from Regulus. Good  
 opportunity to find a star in daytime.



## For Current Occultation Information

Visit Derek C. Breit's web site: <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.

All times are for Eugene, Oregon, Latitude 44° 3' Longitude 123° 06' for listed date