

# IO - April 2013

Issue 2013-04  
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)  
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**The Astronomical League**  
The World's Largest Federation of Amateur Astronomers



## Next Meeting: Thursday, April 25th Pine Mountain & U of O Astronomy & Outreach by Scott Fisher

Dr. Scott Fisher joined the University of Oregon last November with an assignment to teach astronomy on campus and also to establish a new outreach program with Pine Mountain Observatory. Scott has worked with the Gemini telescope on Mauna Kea and for the National Science Foundation in D.C., and has done extensive outreach work as well. He will be speaking to us about his experiences and about outreach possibilities at Pine Mountain, plus Pro-Amateur research opportunities. Come listen to Scott's experiences and find out how to become part of the larger community of astronomers worldwide.

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, April 25th at EWEB's Community meeting room, 500 E. 4th in Eugene.

## Next First Quarter Friday: April 19th

March's First Quarter Friday was our first successful star party since August, but it made up for the others with a comet and some very nice action among Jupiter's moons. We had about 50 people total, including some club members we hadn't seen in a while, with four telescopes and several pairs of binoculars.

The comet led us all on a merry chase, dropping into the west not far behind the Sun. We gathered on the east side of the College Hill Reservoir to look for it over the roofs of the houses to the west, and eventually spotted it about a half hour after sunset. It was surprisingly visible in binoculars once we found it, with a bright nucleus and nice wide tail. We could make out the separate dust tail and ion tail pretty distinctly. It was just barely visible to the naked eye as twilight gave way to darkness.

At Jupiter, Callisto was passing over Jupiter's north pole, and later on Ganymede crossed onto the planet, so people could watch the moons move over the course of just a few minutes. The Orion Nebula looked great, even from town, and we were having fun comparing open clusters all over the sky.

Let's do it again this month! If Friday is clouded out, we'll try again on Saturday the 20th.

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:

April 19 (66% lit)	May 17 (50% lit)	June 14 (35% lit)
July 12 (21% lit)	August 16 (80% lit)	September 13 (67% lit)
October 11 (53% lit)	November 8 (38% lit)	December 6 (24% lit)

## March Meeting Report: A Tour of the Night Sky

At our March 28th meeting, Sam Pitts gave us a comprehensive overview of the many wonders visible in the night sky. He talked about the various ways to appreciate the stars, from naked-eye observations to binoculars to telescopes, and he showed us great examples of the progress in our ability to record our observations, starting with film, moving to digital cameras, and on CCDs. The steady progression of sensitivity of our recording techniques was really amazing, evoking a real appreciation for the frustration-filled efforts of film photographers and an equal appreciation of how much better our modern technology can do today.

Sam sprinkled his talk with images he has taken over a long span of years, showing us the various spots in the sky where interesting objects lurk, then revealing what they look like to the eye and through photographic equipment. Many of the images were jaw-dropping in their amount of detail, including one of protostar jets in the Pelican Nebula that rival a shot taken with a 90-inch research telescope.

The audience went home that night with stars in their eyes, despite the cloudy spring weather. Thanks, Sam!

## New Telescope Makers in Our Midst

Jonathan Sanchez joined our club in January and has already begun making his own telescope. He picked up one of the 6.75" blanks from our storage unit and bought some grit and dived right in. He's well on his way to making an f/6 mirror, which should give him a killer planetary scope later this summer.

Jonathan's interest encouraged Jerry Oltion to restart a stalled mirror project of his own, and the two of them have been getting together to grind and polish with Mike Curtin, who has been steadily working on an 8" mirror for the past year or so. Add that to the beautiful (teak!) dob that Brandt Schram just finished building last month, and we'll have at least four new home-built scopes this summer to share the view through. Those elusive photons don't stand a chance!



Jonathan Sanchez starts his first mirror.

## Private Dark-Sky Site Needed

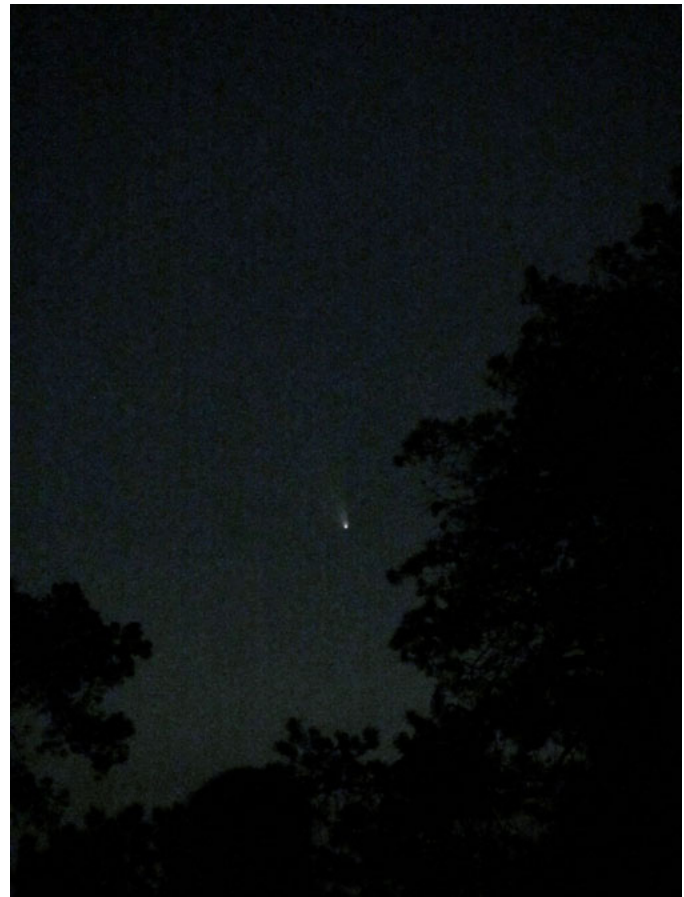
The last few attempts to observe at Eagle's Rest and Eagle's Ridge have been interrupted by late-night parties and worse. It has become clear that we need a private dark-sky site where we can observe without this kind of intrusion. If anyone knows of a likely site or has any ideas on how to find such a site (preferably to the south of the Eugene/Springfield light dome and with some elevation to it), please let us know on the general email list or email Jerry Oltion at [j.oltion \(at\) sff.net](mailto:j.oltion@sff.net).

## Alan Captures Comet and More

At our March 15th First Quarter Friday star party, Alan Gillespie managed to capture a great photo of comet C/2011 L4 PanSTARRS as it played peekaboo with clouds and trees. This was a 1.0 second exposure at f/6.1, ISO 3200, 70mm (392 effective Focal Length), and it captures very well what the comet looked like through binoculars that night.

On the same night Alan shot several frames of the south and south-west sky to make the wide-field shot below. This was the result of 11 exposures of 20 seconds each at f/3.2, ISO 100, 5mm (28mm effective focal length). The photos were taken from 7:41 pm thru 7:49 pm from the College Hill Reservoir and stacked with DeepskyStacker. No further processing went into the image.

Both images are saved here at medium resolution so you can zoom in a bit.



Comet PanSTARRS. Photo © 2013 by Alan Gillespie



The winter sky stretching from Orion on the left through Taurus to the Moon on the right. Photo © 2013 by Alan Gillespie



# Tony Dandurand Refinishes 6" Dob for Giveaway

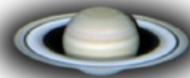
A few weeks ago, the club received a donation of an older Orion 6" F8 Dobsonian telescope. We already have a similar telescope in our lending program, so after a bit of discussion the board decided we would give this scope away at our annual Dark Sky Star Party at Dexter this summer. (We will also be giving away another brand new 8" Orion dob at this star party, like we did last year, so spread the word.)

Tony Dandurand cleaned up the dust and grime covering this long-stored scope, cleaned and center-spotted the mirror, added a 30mm finder scope, and collimated it as best he could. With a single stalk secondary mirror holder and a loose helical focuser,



precise collimation is elusive, but with six inches of aperture and an F8 focal ratio, images with the included 25 and 10mm eyepieces are pretty decent.

So, with an Orion dob, a Meade finder, and Celestron eyepieces, it's an all-American classic. Hopefully this old scope will see plenty of use in the hands of a new young astronomer and his or her family.



## Thank You Castle Storage

For the last five 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.

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## NGC 3718 and Friends

In early March Brandt Schram had enough clear nights at his observatory in central Oregon to capture about 14 hours of light from NGC 3718, a highly disturbed galaxy in Ursa Major. This galaxy forms an interacting pair with NGC 4753 about 150,000 light-years to its left. The galaxy pair is roughly 52 million light years from us.

Far beyond them, the Hickson Group 56 can also be seen clustered just below NGC 3718. Hickson Group 56 consists of five interacting galaxies and lies over 400 million light-years away.

This image was shot using a clear filter (no NIR blocking) and the regular RGB filters.

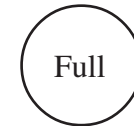
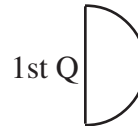


NGC 3718 and companions. Photo © 2013 by Brandt Schram





# Observing in April



April 2	April 10	April 18	April 25
Mercury Rise: 6:03 AM	Mercury Rise: 5:56 AM	Mercury Rise: 5:50 AM	Mercury Rise: 5:46 AM
Venus Set: 7:44 PM	Venus Set: 8:05 PM	Venus Set: 8:26 PM	Venus Set: 8:45 PM
Mars Set: 7:56 PM	Mars Behind Sun	Mars Behind Sun	Mars Rise: 6:11 AM
Jupiter Set: 12:47 AM	Jupiter Set: 12:22 AM	Jupiter Set: 11:55 PM	Jupiter Set: 11:34 PM
Saturn Rise: 9:45 PM	Saturn Rise: 9:11 PM	Saturn Rise: 8:36 PM	Saturn Rise: 8:06 PM
Uranus Behind Sun	Uranus Rise: 6:17 AM	Uranus Rise: 5:46 AM	Uranus Rise: 5:19 AM
Neptune Rise: 5:32 AM	Neptune Rise: 5:01 AM	Neptune Rise: 4:30 AM	Neptune Rise: 4:03 AM
Pluto Rise: 2:35 AM	Pluto Rise: 2:04 AM	Pluto Rise: 1:32 AM	Pluto Rise: 1:05 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
4/1/2013	01:03	10:37	06:53	19:40	05:13	21:20
4/2/2013	02:00	11:40	06:51	19:41	05:11	21:22
4/3/2013	02:49	12:48	06:50	19:42	05:09	21:23
4/4/2013	03:30	13:57	06:48	19:44	05:07	21:25
4/5/2013	04:07	15:06	06:46	19:45	05:05	21:26
4/6/2013	04:39	16:14	06:44	19:46	05:03	21:28
4/7/2013	05:09	17:21	06:42	19:47	05:00	21:30
4/8/2013	05:37	18:27	06:41	19:48	04:58	21:31
4/9/2013	06:06	19:32	06:39	19:50	04:56	21:33
4/10/2013	06:36	20:35	06:37	19:51	04:54	21:34
4/11/2013	07:08	21:36	06:35	19:52	04:52	21:36
4/12/2013	07:43	22:35	06:34	19:53	04:50	21:38
4/13/2013	08:22	23:30	06:32	19:54	04:48	21:39
4/14/2013	09:05		06:30	19:56	04:45	21:41
4/15/2013	09:53	00:20	06:29	19:57	04:43	21:43
4/16/2013	10:45	01:05	06:27	19:58	04:41	21:44
4/17/2013	11:41	01:45	06:25	19:59	04:39	21:46
4/18/2013	12:39	02:21	06:24	20:01	04:37	21:48
4/19/2013	13:40	02:54	06:22	20:02	04:35	21:50
4/20/2013	14:42	03:24	06:20	20:03	04:33	21:51
4/21/2013	15:47	03:53	06:19	20:04	04:30	21:53
4/22/2013	16:54	04:22	06:17	20:05	04:28	21:55
4/23/2013	18:04	04:51	06:15	20:07	04:26	21:57
4/24/2013	19:16	05:23	06:14	20:08	04:24	21:58
4/25/2013	20:29	05:59	06:12	20:09	04:22	22:00
4/26/2013	21:42	06:41	06:11	20:10	04:20	22:02
4/27/2013	22:50	07:30	06:09	20:11	04:17	22:04
4/28/2013	23:52	08:27	06:08	20:13	04:15	22:06
4/29/2013		09:30	06:06	20:14	04:13	22:08
4/30/2013	00:45	10:39	06:05	20:15	04:11	22:09

## Items of Interest This Month

Saturn starts rising at a decent hour this month  
 Comet PanSTARRS near Andromeda Galaxy  
 during first week of April, just after sunset  
 4/2 Europa shadow transit 10:18 – 12:46  
 4/9 All four moons close in on Jupiter at once  
 4/10 Io shadow transit 7:59 – 10:12  
 4/13 and 4/14 Crescent Moon near Jupiter  
 4/17 Io shadow transit 9:55 – 12:08  
**4/19 First Quarter Friday Star Party**  
 4/20 Ganymede transits 8:04 – 10:34 (difficult  
 to spot against clouds, but possible)  
 4/22 (early AM) peak of Lyrid Meteor shower  
 4/22 Io and Europa pass one another 8:10 PM  
 4/23 Moon occults mag 4.7 Chi Virginis 7:51  
 PM. Reappearance 8:56 PM  
 4/24 Moon very close to Spica  
 4/28 Saturn at opposition  
 4/27 Europa shadow transit 7:21 – 9:50  
 Toward end of month: Venus becomes visible  
 in evening

## 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