

# IO - June 2015

Eugene Astronomical Society  
Annual Club Dues \$25  
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EAS is a proud member of:

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

Issue 2015-06  
Eugene Astronomical Society



## Next Meeting Thursday, June 18th Observing Tips and Tricks by Dave Kasnick NS45 President

Dave Kasnick is the president of the Night Sky 45 astronomy club in Salem and a long-time observer. He has agreed to come to Eugene and talk to us about the tips and tricks he has learned for a successful observing session. Come hear how they do it at the 45th parallel.

At our meetings 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, June 18th at the Science Factory planetarium. Come early to visit before the program starts.

## Next First Quarter Friday: June 26th

Our May 22nd star party was an abbreviated affair, with only two scopes and maybe a dozen people to look through them at the Moon, Jupiter, and Venus as they peeked out through sporadic gaps in the clouds. Saturday's backup day was even worse, so this month was a near-total miss. Let's hope June treats us better.

Our next star party is on June 26th. 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 for the rest of 2015. Star parties start at dusk or 6:00, whichever is later.

June 26 (75% lit)	July 24 (60% lit)
August 21 (43% lit)	September 18 (28% lit)
October 23 (84% lit)	November 20 (70% lit)
December 18 (55% lit)	

## 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 Frank Szczepansky, our lending coordinator, to arrange to check out one of these excellent scopes.

Frank can be reached via email at [frszcz@gmail.com](mailto:frszcz@gmail.com) or by phone at 541-556-3427.

You can also contact Jerry Oltion at [j.oltion@sff.net](mailto:j.oltion@sff.net) or 541-343-4758.

# May 21st Meeting Report: Astrophotography

At our May 21st meeting, Jeff Phillips showed us how he has been getting the fabulous new astrophotos that he's been taking recently. In the past he's been using small telescopes with a basic Philips TouCam and the free Registax program to stack frames from videos into single images, but this year he's using a newer, more modern camera and different software on a C-11 telescope, and the upgrade has shown some incredible results. He's making stacked images of Jupiter that rival those of Christopher Go, the acknowledged master of the field.

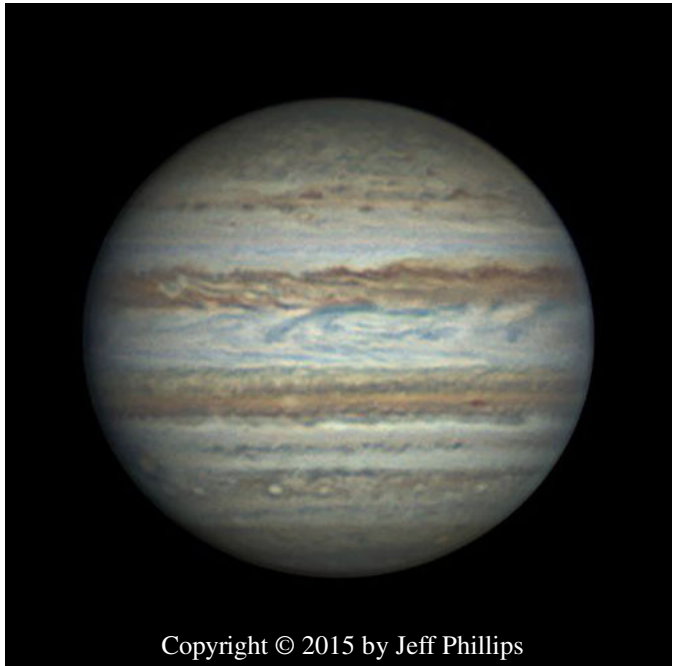
Jeff's talk was lively and informative, and his images blew us away again and again. Here are just a couple that he took recently.

For those of us interested in the particulars, Jeff uses the abovementioned C-11 SCT telescope on a Losmandy G-11 mount, a ZWO ASI120MC color camera, Firestacker camera software, AutoStakkert 2 for image stacking, Registax 6.1 for post-stack processing, and Astro Image Deconvolution Studio Plus for further image sharpening. He also sometimes uses WinJupos, a program that allows multiple pictures to be "derotated" and stacked (a necessity when taking more than a few minutes of images of Jupiter, because Jupiter rotates so fast).

Thanks, Jeff, for a wonderful program, and thanks for sharing all these amazing images with us. You're inspiring a bunch of us to get out there and take some of our own!

## Thank You Castle Storage

For the last several 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.



Copyright © 2015 by Jeff Phillips



Io, Callisto and Great Red Spot. Copyright © 2015 by Jeff Phillips



# EAS Helps Donate Mount to Science Factory

Over a year ago the Science Factory received a beautiful 90mm Coronado solar scope as a donation, but they had no mount to put it on. We asked around locally to see if anyone had a decent mount they could donate, but nobody had one sturdy enough to hold such a hefty scope so we searched farther afield. A “wanted” ad on the Astromart website led to a donation of a Celestron CG-5 Advanced GT mount from Barbara Foster and John Mosley of Utah, who agreed to send us the mount for the price of postage. John worked at planetariums in Salt Lake City and Los Angeles for 35 years, so he was especially happy to see this mount go to a planetarium.

The only hitch: the mount’s electronics wouldn’t power up anymore. We figured we could always turn it into a manual mount if necessary, but when it arrived the problem turned out to be a simple switch failure, and the switch only needed to be cleaned rather than replaced. The mount is up and running again and has been given to the Science Factory, where it’s the perfect match for the solar scope.

Bill Basham donated a power supply and a long video cable that will let them use the mount without batteries and pipe the signal from a webcam indoors to a monitor so many Science Factory guests can see real-time images of the Sun at once.

The day we donated it, it got its first customers. A father and daughter were visiting the Science Factory and we offered them a look. Both were amazed by the view of solar prominences, surface granulation, and sunspots. This should be a great asset to the Science Factory for many years to come.



Planetarium Director Haley Sharp, Bill Basham, and a father and daughter enjoying the solar scope on donated mount.

## Camp Clewox Star Party Report

The May 2nd star party at Camp Clewox in Florence went off pretty well. Bruce Hindrichs started everyone out with a slide show that began small and expanded outward to larger and larger scales, revealing the enormous size of the Universe we live in. The Girl Scouts were attentive and full of good questions, including “If all the other planets’ moons have names, why is our moon just ‘Moon?’”

As dusk settled, we moved outside to the telescopes. Bruce had his scope there, as did Wade Richardson and Jerry Oltion. With only three telescopes for about 60 kids and a dozen or so parents and counsellors, we were kept hopping, but we managed to show everyone Jupiter, Venus, Mizar and Alcor before the kids had to trundle off to bed. We showed some of the counsellors more objects, including M82 in Wade’s 17.5" scope and the Moon just rising through a gap in the trees.

Not many objects viewed, but many, many kids excited by what they saw. It was a success by anybody’s standards. Plus Bruce, Wade, and Jerry each took home a box of Girl Scout cookies. Yum!



The viewing field at Camp Clewox

## U of O Science Fair May 9th

On May 9th Jim Kiely set up an astronomy exhibit at the University of Oregon’s science fair. Jim reports: “Went well. Kids and parents enjoyed exhibit. Kids were interested (some) and we’re cool. Much candy distributed w/info.” Thanks, Jim, for representing EAS at this event!

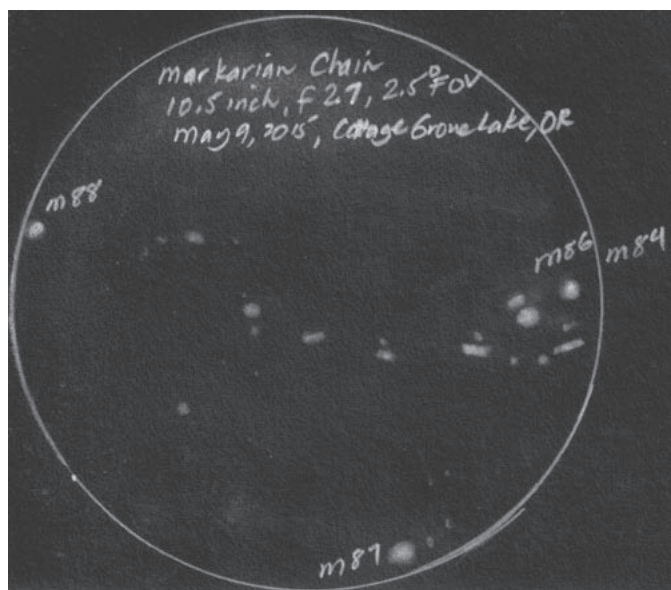


## Star Party at Sky Camp May 27th

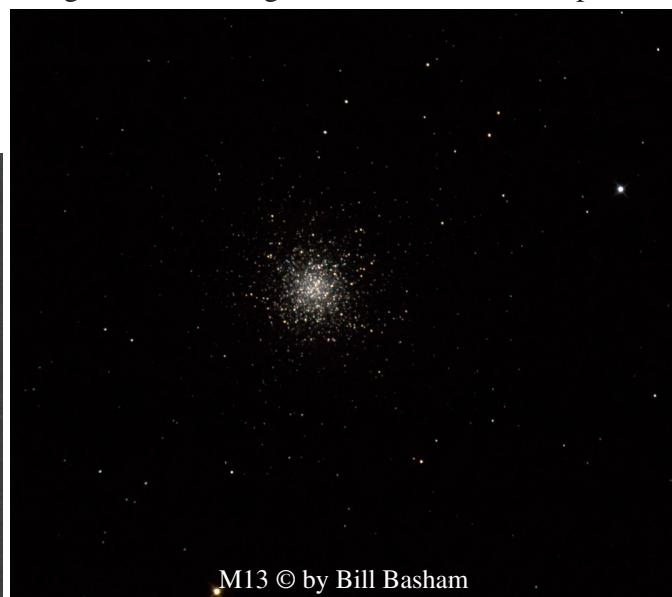
The EAS helped Springfield's Two Rivers/Dos Rios School hold a star party on May 27th at Sky Camp, on the peninsula in the middle of Fall Creek Reservoir. The sky cooperated and the party went well. Bob Andersen reports: "There were 4 telescopes at Sky Camp. Frank, Wade, John, and myself were there. We looked at the Moon, Venus and Jupiter. Frank found Saturn between a couple trees, but that was after all the fifth graders left. Wade found M3, again after all the kids left. I think it went well; they seemed to enjoy looking through the telescopes."

## More Photos and Sketches

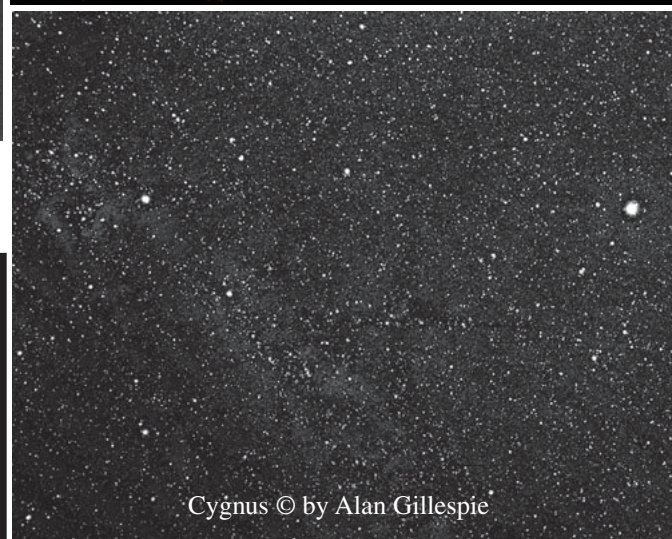
May wasn't the best month for observing, with clouds obscuring most of the dark lunar phase, but EAS members still managed to get some time under the stars and record what they saw. Bill Basham got a good shot of M13, showing it remarkably close to how it looks through the eyepiece of an 8" or 10" scope. Mel Bartels sketched Markarian's Chain of galaxies in Virgo as seen through his 10" wide-field scope. And Alan Gillespie got a rich-field shot of Cygnus with no scope at all; just a camera on an equatorial mount. Great images, all!



Markarian's Chain © by Mel Bartels

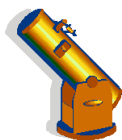


M13 © by Bill Basham

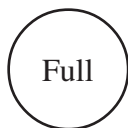


Cygnus © by Alan Gillespie

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)



# Observing in June



June 2, 9:19 AM	June 9, 8:42 AM	June 16, 7:05 AM	June 24, 4:02AM
Mercury lost in Sun	Mercury Rise: 5:04 AM	Mercury Rise: 4:39 AM	Mercury Rise: 4:21 AM
Venus Set: 12:10 AM	Venus Set: 12:03 AM	Venus Set: 11:49 PM	Venus Set: 11:32 PM
Mars lost in Sun	Mars lost in Sun	Mars lost in Sun	Mars lost in Sun
Jupiter Set: 12:59 AM	Jupiter Set: 12:35 AM	Jupiter Set: 12:10 AM	Jupiter Set 11:38 PM
Saturn Set: 5:16 AM	Saturn Set: 4:47 AM	Saturn Set: 4:18 AM	Saturn Set: 3:45 AM
Uranus Rise: 3:12 AM	Uranus Rise: 2:45 AM	Uranus Rise: 2:18 AM	Uranus Rise: 1:47 AM
Neptune Rise: 1:47 AM	Neptune Rise 1:20 AM	Neptune Rise: 12:52 AM	Neptune Rise: 12:21 AM
Pluto Rise: 10:53 PM	Pluto Rise: 10:25 PM	Pluto Rise: 9:57 PM	Pluto Rise: 9:25 PM

All times Pacific Daylight Time (March 8 – October 31, 2015 = UT -7 hours) or Pacific Standard Time (November 1, 2015 – March 12, 2016 = UT -8 hours)

Date	Moonrise	Moonset	Twilight Begin	Sunrise	Sunset	Twilight End
6/1/2015	19:54	05:11	03:15	05:33	20:48	23:07
6/2/2015	20:53	05:54	03:14	05:32	20:49	23:08
6/3/2015	21:48	06:43	03:13	05:32	20:50	23:10
6/4/2015	22:40	07:40	03:11	05:31	20:51	23:11
6/5/2015	23:26	08:42	03:10	05:31	20:51	23:12
6/6/2015		09:48	03:09	05:30	20:52	23:13
6/7/2015	00:07	10:57	03:09	05:30	20:53	23:15
6/8/2015	00:45	12:07	03:08	05:30	20:53	23:16
6/9/2015	01:19	13:17	03:07	05:29	20:54	23:17
6/10/2015	01:53	14:27	03:06	05:29	20:55	23:18
6/11/2015	02:26	15:38	03:06	05:29	20:55	23:19
6/12/2015	03:01	16:48	03:05	05:29	20:56	23:20
6/13/2015	03:39	17:56	03:05	05:29	20:56	23:21
6/14/2015	04:20	19:02	03:04	05:29	20:57	23:22
6/15/2015	05:06	20:03	03:04	05:29	20:57	23:22
6/16/2015	05:57	20:58	03:04	05:29	20:58	23:23
6/17/2015	06:52	21:47	03:04	05:29	20:58	23:23
6/18/2015	07:49	22:29	03:03	05:29	20:58	23:24
6/19/2015	08:49	23:06	03:03	05:29	20:59	23:24
6/20/2015	09:48	23:39	03:03	05:29	20:59	23:24
6/21/2015	10:47		03:04	05:29	20:59	23:25
6/22/2015	11:45	00:09	03:04	05:30	20:59	23:25
6/23/2015	12:43	00:37	03:04	05:30	20:59	23:25
6/24/2015	13:40	01:04	03:05	05:30	20:59	23:25
6/25/2015	14:39	01:31	03:05	05:31	21:00	23:25
6/26/2015	15:38	02:00	03:06	05:31	21:00	23:25
6/27/2015	16:38	02:31	03:06	05:31	21:00	23:24
6/28/2015	17:39	03:06	03:07	05:32	20:59	23:24
6/29/2015	18:39	03:47	03:08	05:32	20:59	23:23
6/30/2015	19:37	04:33	03:09	05:33	20:59	23:23

## Items of Interest This Month

- Jupiter and Venus grow closer all month until a spectacular conjunction on June 30th (only 1/3° apart)
- 6/3 Double shadow transit (Ganymede and Io) 9:56 – 11:14 PM
- 6/6 Venus at greatest eastern elongation (45°)
- 6/10 Ganymede and Io transit 9:30 onward, Io shadow transit 10:51 – Jupiter set (12:30)
- 6/13 & 14 Venus near Beehive Cluster
- 6/21 Summer solstice 3:28 PM. Longest day of the year (Sun is up for 15.5 hours)
- 6/23 Io and Callisto pass one another 9:20 PM
- 6/24 Latest twilight. Mercury at greatest western elongation (visible in morning sky)
- 6/25 Europa shadow transit 7:24 – 10:16 PM  
Io and Europa pass one another 9:53 PM
- 6/26 First Quarter Friday Star Party**  
Io shadow transit 9:10 – 11:28 PM (Jupiter will have just set at the end.)
- 6/27 Latest sunset of the year (9:00 PM)
- 6/30 Jupiter and Venus within 0.3°

