

Eugene Astronomical Society



www.eugeneastro.org

# IO - May 2019

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



Next Meeting Thursday, May 16th 7:00 p.m.

## A 3D Printed Mount and What's Up in Summer by Robert Asumendi and Jerry Oltion

May's club meeting will be a two-parter. First, Robert Asumendi will talk about his latest 3D printing project: an altitude-azimuth pier mount that he built for the binocular scope that he largely 3D printed last summer. He discovered that the scope sits too low on a standard Dobsonian mount, to the point where it's uncomfortable to use at low angles. He wanted a mount that would hold the scope higher, but could also be adjusted to keep the eyepiece height more constant in different parts of the sky. He has built just such a mount, and at a fraction of the cost of a commercial version. At our meeting, he will tell us how he did it.

After Robert's talk, Jerry Oltion will take us on a tour of the night sky visible this time of year. After the winter we've had, pretty much everything looks new and different. Jerry will remind us of some old favorites and show us a few new things to look for in the late spring and early summer sky.

Club meetings are held at the Eugene Science Center planetarium, 2300 Leo Harris Parkway in Eugene (behind Autzen Stadium). Meetings start at 7:00 sharp. Come early to visit and get a seat.

## Next First Quarter Friday: May 10th

Our April 12th star party was a surprise success. The sky cleared in the late afternoon and stayed clear for two hours after sunset, long enough for us to assemble with 7 telescopes and show the sights to a couple of dozen guests. The Moon was in perfect first quarter, and the straight wall in Mare Nubium was as big and bold as ever. The recent rains left the air very transparent, so everything looked crisp and clear. Even the Orion Nebula, low in the west this time of year, looked good in a narrowband filter.

We gained two new members at the star party: Aaron and Jim Wright. Welcome!

Our next star party will be May 10th. 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 the year. Star parties start at dusk or 6:00, whichever is later. (8:45 in May.)

May 10 (34% lit)  
 August 9, (75% lit)  
 November 1 (28% lit)

June 7 (27% lit)  
 September 6 (61% lit)  
 December 6 (76% lit)

July 12 (86% lit)  
 October 4 (44% lit)

# April 18th Meeting Report

## “What’s in a Name?” by Andy Edelen

At our April 18th meeting, Andy Edelen showed us why a star like Rasalgethi has so many alternate names. (Alpha Herculis, 64 Hercules, HR 6406, HD 156014, SAO 102680, BD +14 3207, HIP 84345, STF 2140, ADS 10418, WDS 17146+1423, and TYC 0990-2133-1, just to name a few.) The reasons go back to the very first astronomers who cataloged the stars. Each cataloger had their own system of designating stars, with Johann Bayer using Greek letters in his *Uranometria*, John Flamsteed using numbers in his *Historia Coelestis Britannica*, and others using initials to designate the catalog name and further numbers for additional stars. Thus we have the Harvard Revised Photometry (HR) catalog, the Henry Draper (HD) catalog, the Smithsonian Astrophysical Observatory catalog (SAO) and so on.

Then for non-stellar objects we have the New General Catalog (NGC), the Index Catalog (IC), the Principal Galaxy Catalog (PGC), and many, many more.

Andy’s talk was informative and fun, and it gave us a greater appreciation for all the myriad lists of astronomical objects. Thanks, Andy, for a great talk!

## Asteroid 1999 KW4 Close Pass May 26-29

Every now and then we get to watch the solar system in action, with motion detectable in real time. Jupiter’s moons put on a good show, especially during shadow transits when we can watch the inky dark spot sweep across the face of the planet. Lunar and solar eclipses highlight our own planet and moon’s orbital motion. But every now and then we get a rarer and in many ways more exciting opportunity: the chance to watch an asteroid whiz past the Earth.

Whenever one comes close, news articles always illustrate their stories with artists’ renditions of giant asteroids smashing into the Earth, but their fearmongering, like your neighbor’s porch light, hides the true beauty of the event. When a big one makes a close pass, we can watch it in our telescopes. It’s just a tiny speck of light (“asteroid” means “star-like,” after all) moving past a bunch of other tiny specks, but it’s a solar system object in motion!

Like most exciting astronomical phenomena, the best view will be from the southern hemisphere. The asteroid will be south of our horizon during closest approach. But we’ll get a look at it the day after, and it should remain visible in an 8" or larger scope for a few more days. It will be about 12th magnitude; not bright, but easily detectable from a dark-sky site.

[www.earthsky.org](http://www.earthsky.org) has a decent article on it (without the obligatory Earth-smashing illustration!), and even offers some rudimentary charts, but your best bet is to use SkySafari if you have it. SkySafari will give you a real-time update on the asteroid’s position, and even highlight its path for you. It will remain low in the south, cruising through Hydra and Sextans into Leo, but it should be quite a sight even so.

We’ll undoubtedly have an out-of-town asteroid viewing party if the weather cooperates. Come out and watch the solar system in action!



### Thank You Storage Junction

Storage Junction has donated the use of a storage unit for us to hold our loaner telescopes when they’re not in use. EAS would like to thank Storage Junction for their generosity and support for our group. Please give them a call if you need a storage space, and tell your friends. Storage Junction is located at 93257 Prairie Road (at the intersection of Hwy 99 and Hwy 36, 3 miles south of Junction City) Phone: 541-998-5177

# New Email List Address: [eugeneastro@groups.io](mailto:eugeneastro@groups.io)

As with any software upgrade, the switchover to our new website brought with it some unintended consequences. One of those consequences was a restriction on how many emails we could send from the [eugeneastro.org](http://eugeneastro.org) domain. Our new hosting server has a 300-email-per-hour limit. We have 231 members on our “general” email list, so whenever someone posts a message there, the mail server sends out 231 emails. If the mail server gets another incoming email within an hour, it sends out 231 more emails...but only 69 of them make it through the gateway before the door is slammed shut for the hour. The remaining 162 emails bounce back to our email server. This caused the email server to disable the subscriptions of the addresses that bounced.

We have disabled the disabling of subscriptions, but there’s no fix for the 300-emails-per-hour limit. So Robert Asumendi, our webmaster, has found a different solution: We’re migrating our email discussion list to a new host that doesn’t impose a limit.

The new host is called “groups.io.” Our new group email address is [eugeneastro@groups.io](mailto:eugeneastro@groups.io). That address should replace [general@eugeneastro.org](mailto:general@eugeneastro.org) in your address list as the address you send group emails to.

You must join groups.io first in order to post! You probably already got an email asking you to join, but if not, go to our website ([www.eugeneastro.org](http://www.eugeneastro.org)) and click on the “Mailing List” link at the top of the page. That will take you to the page where you sign up. Just type in your email address there and hit “Subscribe” and your subscription request will be sent to Robert and to Jerry, who will approve your subscription as long as you’ve been nice to them lately. ;-)

Groups.io is actually a much better system than the old one. It can get around Google and Yahoo’s idiotic filtering of incoming group emails, so you will actually see your posts return via the email list when you send one out. It will automatically trim photos to 1024 x 1024 pixels so you won’t get hit with huge emails if someone forgets to trim their photos on the originating end. It will also archive posts and photos, although there is a storage limit on photos so we’ll probably be trimming the archive on a monthly basis.

This changeover should solve the email list problem and provide us with a reliable discussion forum. Don’t miss out! Subscribe now, while you’re thinking about it.

Since the newsletter only goes out once a month, we’re leaving that list unchanged, so you don’t have to do anything to keep receiving the newsletter.

## Solar SUN-days are On Again

With the advent of good weather (finally!), we’ve resumed our highly popular weekly solar viewing parties. We meet at Alton Baker Park every clear Sunday from noon to 2:00 and show people the Sun through our hydrogen-alpha solar scopes and when there are any sunspots, through our white-light filtered regular scopes. Jerry Oltion also shows people his sundials, describes how they work, and sends people home with a sundial on a business card.

We also make an analemma mark every Sunday at noon (1:00 daylight savings time). We started this project last summer and continued it as well as possible (which wasn’t actually all that possible) through the winter, so we have about half an analemma marked out now. With a little luck we should be able to rough the whole thing in by August or so, and then we can try to talk the park service into letting us make it permanent with brass markers. Right now we’re just using silver Sharpie to mark (and remark and re-remark) the points.

Solar SUN-days are great fun! Come join the party whenever it’s clear on Sunday afternoon.

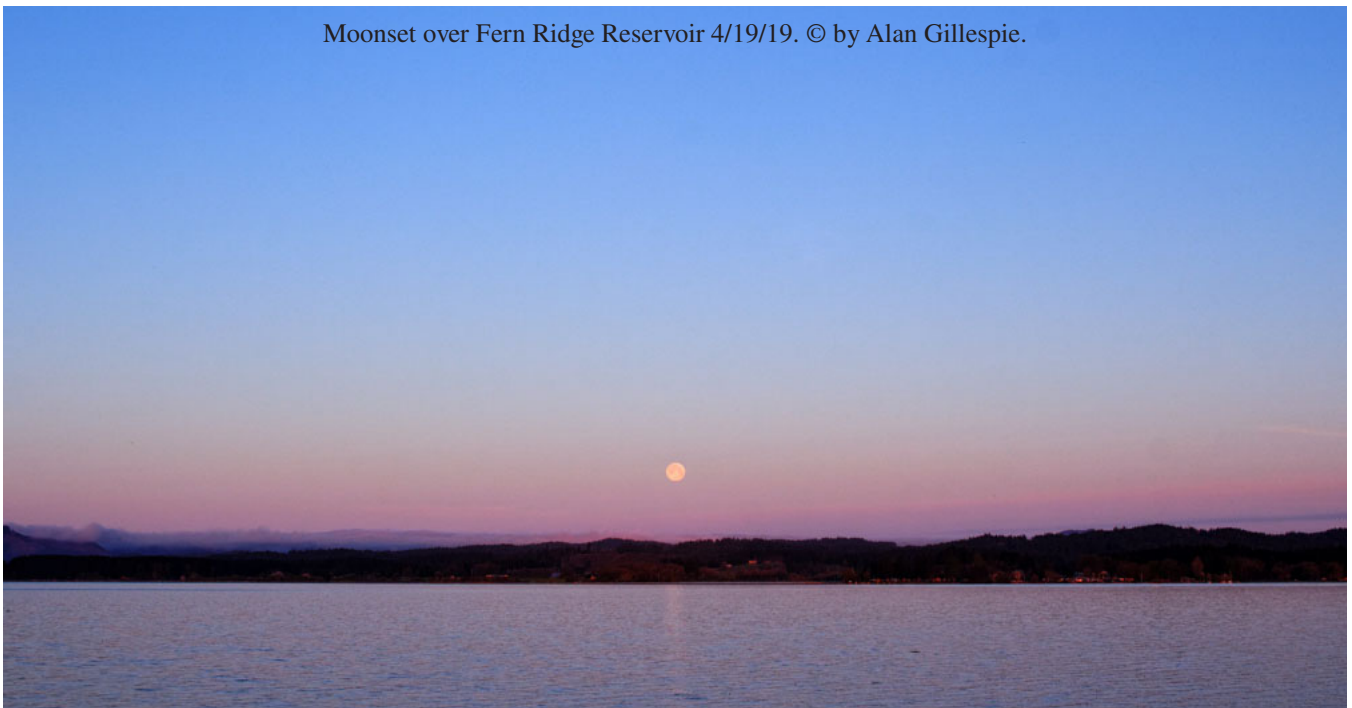
## Gallery

April was nearly a bust for observing and for photography, but Alan Gillespie managed to get a few great shots, including one that proves summer (and clear sky) is fast approaching. Thanks, Alan!

Three Sisters at dawn 3/31/19. © by Alan Gillespie.



Moonset over Fern Ridge Reservoir 4/19/19. © by Alan Gillespie.





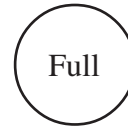
Full Moon 4/19/19. © by Alan Gillespie.



Cygnus (a sure sign of summer!) rising above the trees at Eagle's Rest 4/27/19. © by Alan Gillespie.



# Observing in May



May 4, 3:46 PM	May 11, 6:12 PM	May 18, 2:11 PM	May 26, 9:34 AM
Mercury Rise: 5:29 AM	Mercury Rise: 5:29 AM	Mercury lost in Sun	Mercury lost in Sun
Venus Rise: 5:06 AM	Venus Rise: 4:57 AM	Venus Rise: 4:49 AM	Venus Rise: 4:42 AM
Mars Set: 11:38 AM	Mars Set: 11:31 AM	Mars Set: 11:24 AM	Mars Set: 11:14 AM
Jupiter Rise: 11:24 PM	Jupiter Rise: 10:54 PM	Jupiter Rise: 10:23 PM	Jupiter Rise: 9:48 PM
Saturn Rise: 1:19 AM	Saturn Rise: 00:51 AM	Saturn Rise: 00:23 AM	Saturn Rise: 11:47 PM
Uranus Rise: 5:37 AM	Uranus Rise: 5:11 AM	Uranus Rise: 4:44 AM	Uranus Rise: 4:14 AM
Neptune Rise: 4:01 AM	Neptune Rise: 3:34 AM	Neptune Rise: 3:06 AM	Neptune Rise: 2:35 AM
Pluto Rise: 1:32 AM	Pluto Rise: 1:04 AM	Pluto Rise: 00:37 AM	Pluto Rise: 00:05 AM

All times Pacific Daylight Time (March 10 - Nov. 2, 2019 = UT -7 hours) or Pacific Standard Time (November 3, 2019 - March 8, 2020 = UT -8 hours)

Date	Moon Rise	Moon Set	Twilight Begin	Sun Rise	Sun Set	Twilight End
5/1/2019	05:03	17:00	04:10	06:04	20:16	22:10
5/2/2019	05:27	18:02	04:08	06:03	20:17	22:12
5/3/2019	05:52	19:06	04:06	06:01	20:18	22:14
5/4/2019	06:18	20:12	04:04	06:00	20:19	22:16
5/5/2019	06:48	21:19	04:02	05:59	20:20	22:18
5/6/2019	07:23	22:27	04:00	05:57	20:22	22:20
5/7/2019	08:04	23:32	03:58	05:56	20:23	22:22
5/8/2019	08:53		03:56	05:55	20:24	22:24
5/9/2019	09:51	00:33	03:54	05:53	20:25	22:26
5/10/2019	10:56	01:27	03:52	05:52	20:26	22:27
5/11/2019	12:06	02:13	03:50	05:51	20:27	22:29
5/12/2019	13:19	02:53	03:48	05:50	20:29	22:31
5/13/2019	14:33	03:27	03:46	05:49	20:30	22:33
5/14/2019	15:46	03:58	03:44	05:47	20:31	22:35
5/15/2019	16:59	04:27	03:42	05:46	20:32	22:37
5/16/2019	18:12	04:55	03:40	05:45	20:33	22:39
5/17/2019	19:24	05:25	03:38	05:44	20:34	22:41
5/18/2019	20:34	05:57	03:37	05:43	20:35	22:43
5/19/2019	21:42	06:33	03:35	05:42	20:36	22:45
5/20/2019	22:44	07:13	03:33	05:41	20:37	22:46
5/21/2019	23:40	08:00	03:31	05:40	20:38	22:48
5/22/2019		08:51	03:30	05:40	20:39	22:50
5/23/2019	00:28	09:47	03:28	05:39	20:40	22:52
5/24/2019	01:09	10:45	03:26	05:38	20:41	22:54
5/25/2019	01:44	11:45	03:25	05:37	20:42	22:55
5/26/2019	02:14	12:45	03:23	05:36	20:43	22:57
5/27/2019	02:41	13:45	03:22	05:36	20:44	22:59
5/28/2019	03:06	14:46	03:20	05:35	20:45	23:00
5/29/2019	03:30	15:48	03:19	05:34	20:46	23:02
5/30/2019	03:54	16:51	03:17	05:34	20:47	23:04
5/31/2019	04:19	17:56	03:16	05:33	20:48	23:05

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

## Items of Interest This Month

- Good month for observing asteroids Pallas and Ceres. Pallas is in Coma Berenices — lots of guide stars to help zero in on it.
- 5/6 Peak of Eta Aquariid meteor shower.
- 5/7 Red Spot transits 00:32 AM
- 5/10 First Quarter Friday star party.** Moon is just exiting the Beehive Cluster at dusk. Moon occults 6th magnitude star at 12:06 AM Saturday morning. Io shadow transit from Jupiter rise (10:52 PM) until 1:02 AM.
- 5/15 Io and Europa swap positions midnight to 1:00.
- 5/18 - 5/19 Mars near M35. (The other side of the planet gets to see Mars in the middle of the cluster.)
- 5/19 Red Spot transits 00:24 AM
- 5/20 Europa shadow transit from Jupiter rise until 11:56 PM.
- 5/26 Io shadow transit from Jupiter rise to 11:19 PM.
- 5/26-29 (or so) Asteroid 1999 KW4 makes a close pass by the Earth. Should be visible in medium-large scopes.
- 5/29 (night of 28th) Europa shadow transit 00:03 AM to 2:30 AM.