

Eugene Astronomical Society



www.eugeneastro.org

IO - March 2019

Eugene Astronomical Society
 Annual Club Dues \$25
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 Oggie Golub, Jim Murray, Ken Martin.

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EAS is a proud member of
 The Astronomical League



Next Meeting Thursday, March 21st 7:00 p.m.

Sundials by Jerry Oltion

When Dan Beacham started our Solar SUN-Day star parties, he probably didn't expect to create an entirely new hobby for Jerry. But that's what happened. Jerry thought it would be fun to set up a sundial to show people how to tell time by the Sun along with showing them the Sun itself. He even had an old sundial that he'd gotten from his in-laws back in Wyoming. Trouble was, it wouldn't tell time worth a darn. Jerry set out to find out what was wrong with it (or with him), and that led him on a merry search that proved fascinating as well as educational.

It turns out there are many different kinds of sundials, and some designs are better at telling time than others. In fact, the typical garden-style sundial is probably the worst design of them all, especially the round brass ones with the embossed lines and frilly gnomon (the pointy bit). Those often don't work at all.

At our March 21st meeting, Jerry will show you what he has learned and he'll show you some of the sundials he has created. He'll also show you slides of innovative and beautiful sundials from around the world. And he'll tell you what that figure-8 in the Pacific Ocean on most world globes is for. Come learn how to tell time the sophisticated way!

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: March 15th

Our February 15th star party was clouded out, and so was our backup on the 16th. Typical for winter.

Our next attempt will be March 15th. 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. (7:45 in March.)

March 15 (68% lit)
 June 7 (27% lit)
 September 6 (61% lit)
 December 6 (76% lit)

April 12 (54% lit)
 July 5 (19% lit)
 October 4 (44% lit)

May 15 (68% lit)
 August 9, (75% lit)
 November 1 (28% lit)

February 21st Meeting Report

Sky Safari Demonstration

At our February 21st meeting, Jerry Oltion and Dan Beacham gave a demonstration of Sky Safari, the planetarium program that is rapidly becoming the most-used astronomy software anywhere. The reason for its popularity is easy to see: it's packed full of useful features that let you use it at home or out in the field, essentially replacing paper maps, catalogs, and observing lists.

Jerry started with a general overview of the program and how to set it up for maximum usability as a star map. He showed how to switch coordinate systems from equatorial (standard star map projection) to horizon mode (what you actually see in the sky at any given moment), how to adjust the number of stars you see on the screen to match what you see in the sky (or in the telescope eyepiece), how to identify objects, search for them, zoom in on them, etc. He used the time function to run forward in time to view an upcoming Jupiter moon shadow transit and the conjunction of Saturn and Jupiter on December 21st of 2020. (It's going to be a spectacular conjunction. Mark your calendars.)

The rest of the group kept him busy with questions, which he answered as best he could. The program has many bells and whistles, which in this case is a good thing, but it means very few people know how to use all its capabilities.

Indeed, for controlling a telescope with Sky Safari Jerry turned it over to Dan, who has been doing that for some time now. Dan showed us how he could connect his iPad to his Celestron mount via wireless, and use Sky Safari to align the scope and direct it to any part of the sky. It was both eerie and cool to watch the telescope slew this way and that with Dan clear across the room, sweeping his fingers across his iPad screen.

The meeting went long as Dan and Jerry answered yet more questions, eventually winding down about 9:00.

Also at this meeting, we gained three new members: Mark Wetzel, Kae Ellingsen, and Stephen Parkinson. Welcome! We're now up to 83 paid members, which may be a record.

Trivia Night Benefit for Science Center

As part of the fundraising effort to help the Science Center purchase new seats and other upgrades to the planetarium, the Eugene Astronomical Society is hosting a Trivia Night on Monday, March 18th at Roaring Rapids Pizza, 4006 Franklin Blvd. Andy Edelen will emcee the event, which will consist of ten rounds of ten questions each, covering ten categories. Tickets cost \$20 (remember, it's a benefit!) or \$100 for teams of 6. Also, Roaring Rapids will donate 40% of the proceeds for food ordered during the contest.

Doors open at 5:00, and the contest starts at 6:00. Come well before 6:00 to get a seat and join your team and order food and drink.

Register ahead of time with Andy at <realitypolice77@gmail.com>. This will be a super-fun event for a good cause, and the more people who participate the more fun it will be. See you there!



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

Gallery: February was pretty much a bust for observing and for photography, with clouds and rain most of the month and a record-setting snowstorm to cap things off. Alan Gillespie managed to get these two great shots in the last days of January.



Venus (left), The old Moon in the new Moon's arms, and Jupiter (upper right) on January 31st. Photo © by Alan Gillespie



Leo setting on the morning of January 29th. Photo © by Alan Gillespie



Observing in March

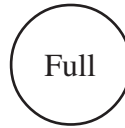


New

1st Q



Full



Last Q



March 6, 8:04 AM	March 14, 3:27 AM	March 20, 6:43 PM	March 27, 9:10 PM
Mercury Set: 7:21 PM	Mercury lost in Sun	Mercury lost in Sun	Mercury Rise: 6:16 AM
Venus Rise: 5:00 AM	Venus Rise: 5:58 AM	Venus Rise: 5:55 AM	Venus Rise: 5:50 AM
Mars Set: 11:10 PM	Mars Set: 00:08 AM	Mars Set: 00:05 AM	Mars Set: 00:02 AM
Jupiter Rise: 2:16 AM	Jupiter Rise: 2:47 AM	Jupiter Rise: 2:26 AM	Jupiter Rise: 2:00 AM
Saturn Rise: 4:03 AM	Saturn Rise: 4:33 AM	Saturn Rise: 4:11 AM	Saturn Rise: 3:45 AM
Uranus Set: 9:53 PM	Uranus Set: 10:23 PM	Uranus Set: 10:01 PM	Uranus Set: 9:36 PM
Neptune lost in Sun	Neptune lost in Sun	Neptune lost in Sun	Neptune Rise: 6:27 AM
Pluto Rise: 4:21 AM	Pluto Rise: 4:51 AM	Pluto Rise: 4:27 AM	Pluto Rise: 4:00 AM

All times Pacific Standard Time (November 4, 2018 - March 9, 2019 = UT -8 hours) or Pacific Daylight Time (March 10 - Nov. 2, 2019 = UT -7 hours)

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

Items of Interest This Month

Good month for observing asteroid 3 Juno.

Last half of month: good for zodiacal light in west before moonrise.

3/1 Tiny crescent Moon passes $1/2^\circ$ from Saturn in late morning. Maybe possible to find Saturn by day if you can find the Moon.

3/8 Io shadow transit 4:47 – 6:59 AM.

3/10 Daylight savings time begins.

3/12 Moon enters Hyades, occults 3.8 mag Δ^1 Tauri at 11:01 PM and 4.8 mag Δ^2 Tauri at 11:17 PM.

3/14 Straight Wall visible on Moon (in Mare Nubium).

3/15 First Quarter Friday star party.

3/16 Asteroid 3 Juno passes close to Π^1 Orionis.

3/18 Moon and Regulus 2° apart at Moonrise

3/20 Spring begins 2:58 PM.

3/24 Io shadow transit 4:03 – 6:14 AM.

3/27 – 4/4 Mars cruises past the Pleiades. Closest on 3/31 (3° SSE).

4/1 Europa shadow transit 3:37 – 6:00 AM.

Ganymede shadow transit 4:53 – 7:02 AM. (Double shadow transit 4:53 – 6:00 AM.)

All times are for Eugene, Oregon Latitude $44^\circ 3'$ Longitude $123^\circ 06'$