

# IO – February 2018

## The Newsletter of the Eugene Astronomical Society

PO Box 7264  
Springfield, OR 97475

Next Meeting: *Thursday, February 15*

### **Celestial Parallels: An Exploration of Star Patterns Across Time and Space**

by Larry Deckman

Larry Deckman is one of our star presenters. His slide shows pack the auditorium and wow everyone with beautiful images and insightful observations.

This program will examine ancient star patterns that help us become more familiar with the night sky. Using star lore and exploring some of the skies' most amazing sights, we'll see how the heavens provide a memorable clock for reckoning time and season. If you already recognize Orion and the Big Dipper, you're halfway there! Suitable for all ages.

While there is no charge for admission, all donations at this meeting will be given to the Science Factory (now the Eugene Science Center), so if you have a few bucks to spare for the folks who host our meetings month after month, now's the time to drop it in the bucket.

(summary by Jerry Olton)

## EAS

### **President**

Diane Martin (541-554-8570)

### **Secretary**

Jerry Olton (541-343-4758)

### **Additional Board members**

Jim Murray

Oggie Golub

Andy Edelen

Annual Club Dues \$25

Meetings at 7:00 at the  
Eugene Science Center



EAS is a proud member of the  
Astronomical League

## First Quarter Friday Report

Our First Quarter Friday for January was clouded and rained out, as was our Saturday backup date. Rats! Our next First Quarter Friday will be on February 23rd.

First Quarter Fridays have been scheduled for 2018. The chosen dates are:

February 23 (49% lit)	March 23 (40% lit)	April 20 (27% lit)	May 18 (15% lit)
June 15 (6% lit)	July 20 (60% lit)	August 17 (45% lit)	September 14 (29% lit)
October 12 (15% lit)	November 9 (5% lit)	December 14 (44% lit)	

## January 31<sup>st</sup> Lunar Eclipse Report

Our lunar eclipse party at the Eugene Science Center was quite a success, with more than 100 members of the public braving the chill and the fog to watch the Moon pass into the Earth's shadow in the wee hours of January 31<sup>st</sup>. About a dozen EAS members were there with a handful of telescopes; the Register-Guard and at least one local TV station were there as well. The Science Center kept its doors open for moonwatchers to warm up and to watch a live NASA feed of the eclipse in the planetarium. Although the fog made watching the first half of the eclipse difficult—and the second half was obscured by clouds—everyone involved seemed to have a lot of fun watching the Moon disappear!

We'll get another total lunar eclipse in almost exactly a year; the next one is on January 20<sup>th</sup>, 2019. This one's at a better hour, too: from 7:33 to 10:50 PM, with totality from 8:41 to 9:43 PM. Mark your calendars!



## A New Scope for A Newcomer

By Jerry Olton

At our January 18th telescope workshop, 9-year-old Junia Clark brought a scope and asked for our help in teaching her how to use it. The scope was a tiny desktop model that looked more like a finder mounted on three Bic pens than a real telescope. Andy Edelen gamely offered her as much advice as he could, but the thought of anyone actually trying to do astronomy with such a small scope made us both shudder...and it also reminded me that Jeff Phillips had donated a couple of 4.5" Newtonians to the club with the hope that someone would build Dobsonian bases for them and give them away to deserving kids.

I could think of no more deserving kid than Junia. She was clearly interested in astronomy and hoped to learn as much as she could about it. So I told her to hang tight for a couple of weeks and I would get her a better scope. The very next day I began cutting wood and building the base. I got it together over the next week and asked Junia's friend, Lori, who had accompanied her to the meeting, what Junia's favorite color was. Turquoise! So I mixed blue and green and yellow paints together until I got a color that looked as close to turquoise as I could get it, and painted the wooden parts that color. I had to make a dust cap for the front of the tube, so I painted that turquoise, too.

The result was a surprisingly pretty telescope. And small! It's about the size of a Starblast or an Astroscan. The focal length is only 500mm, so the tube is only 18.5 inches long. The mirror is spherical rather than parabolic, but it gives surprisingly good images up to about 50x. So I included a 25mm eyepiece (20x) and a 10mm eyepiece (50x). A red-dot finder completed the package.

Two weeks to the day after the club meeting, Kathy and I met Junia and her family and her friend Lori at the Science Factory again, and we presented her with the telescope. We gave her a quick lesson in how to use it, and because it was too cloudy for stars she aimed it across the street at the stadium and was able to read the EXIT signs on the outside stairwells. She and her family were very excited, and I was grinning like a fool myself. To be able to make someone that happy was a moment I will remember for the rest of my life.

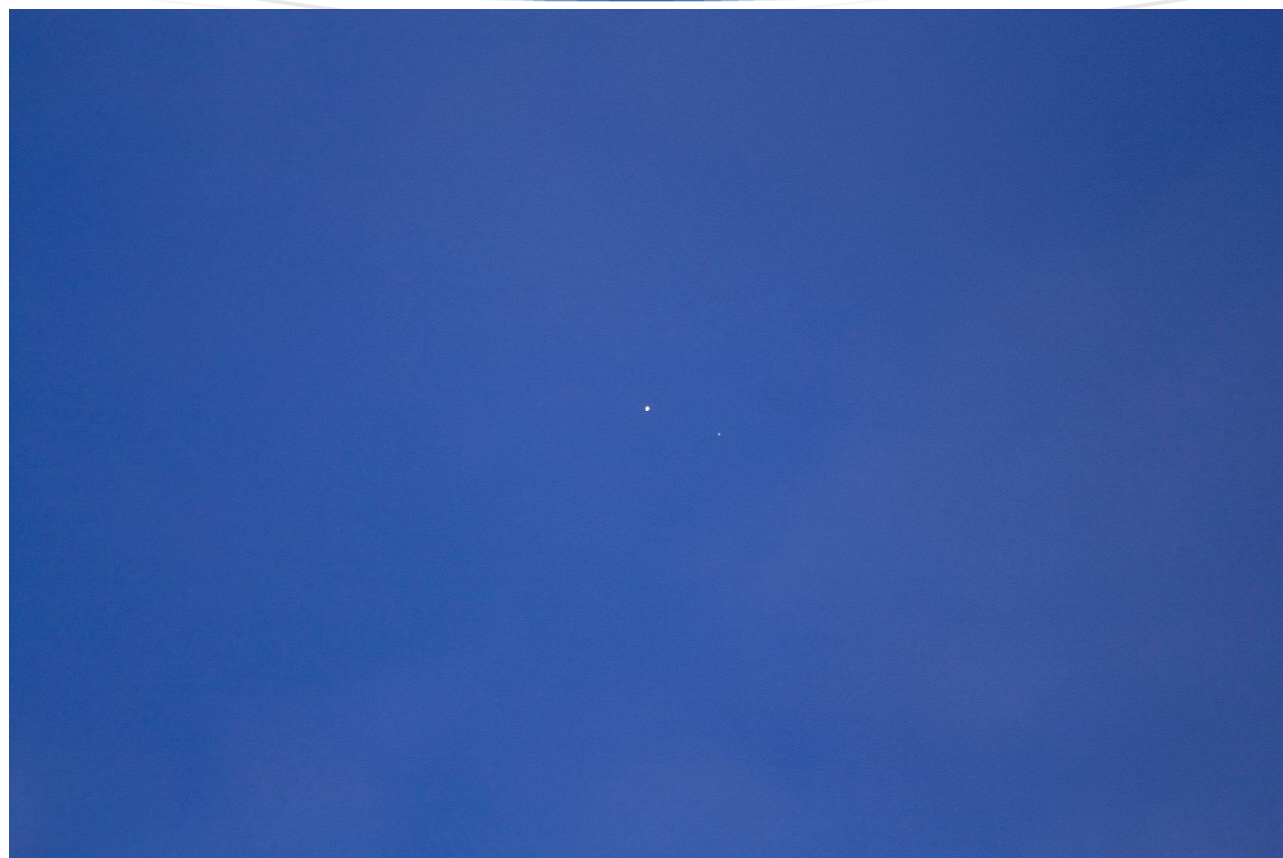
Junia plans to bring the scope to our next meeting on February 15th so everyone can see it. She may even join the club. And she hopes to bring it to some of our star parties whenever she gets the chance. It's my hope that this will fan the spark of her interest into a life-long passion for astronomy and for science in general.

When her family asked how they could repay us for our gift, I replied that the best way to pay it back was to pay it forward, to help someone else whenever they have the opportunity. Junia promised that she would do that, and I sincerely believe she will. Not all that long ago I was in her shoes, bringing in my first telescope that I couldn't get to work properly and asking for help. Several club members responded and turned what could have been a hobby-killing experience into a joyous path of discovery that has enriched my life beyond measure. It's my hope that we have done the same now for Junia.

My thanks to Jeff Phillips for donating the scope to the club, and to the club as a whole for putting me into a position where I could pay it forward like this.



Jerry Olton and Junia Clark with Junia's new telescope.



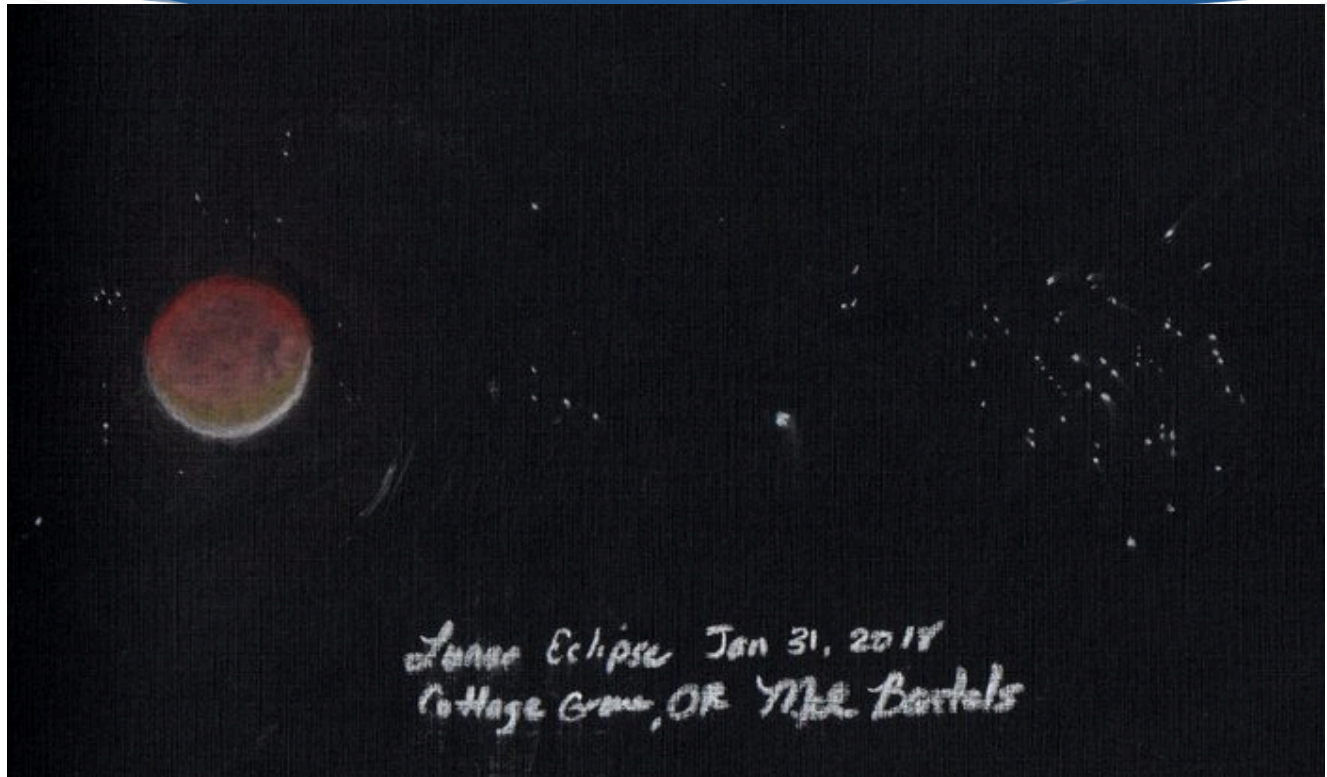
Above: The Jupiter/Mars conjunction, January 6th. Below: Crescent Moon and cirrus clouds, January 14th. *Photos by Alan Gillespie.*







Lunar eclipse progression, January 31<sup>st</sup>. *Photos by Jeff Phillips.*



The eclipsed Moon and the Beehive Cluster. *Sketch by Mel Bartels (above); photo by Russ Milton (below).*





Blood Moon. *Photo by Russ Milton.*





Above: Galactic cluster M46 and planetary nebula NGC 2438 (on lower left edge of cluster).

Below: the Flame and Horsehead Nebulae. *Photos by Bill Basham.*





M42, the Great Orion Nebula. *Photo by Bill Basham.*

## Sun & Moon rise and set for February

Date	Moon Rise	Moon Set	Twilight Begin	Sun Rise	Sun Set	Twilight End
2/1/2018	19:09	08:20	05:51	07:30	17:23	19:02
2/2/2018	20:21	08:57	05:50	07:29	17:24	19:03
2/3/2018	21:31	09:29	05:49	07:27	17:26	19:04
2/4/2018	22:38	10:00	05:48	07:26	17:27	19:06
2/5/2018	23:43	10:29	05:47	07:25	17:28	19:07
2/6/2018		10:58	05:46	07:24	17:30	19:08
2/7/2018	00:45	11:28	05:44	07:22	17:31	19:09
2/8/2018	01:45	12:01	05:43	07:21	17:33	19:10
2/9/2018	02:43	12:37	05:42	07:20	17:34	19:12
2/10/2018	03:38	13:18	05:41	07:18	17:35	19:13
2/11/2018	04:30	14:03	05:40	07:17	17:37	19:14
2/12/2018	05:18	14:53	05:38	07:16	17:38	19:15
2/13/2018	06:01	15:47	05:37	07:14	17:39	19:17
2/14/2018	06:40	16:45	05:36	07:13	17:41	19:18
2/15/2018	07:15	17:45	05:35	07:11	17:42	19:19
2/16/2018	07:46	18:47	05:33	07:10	17:44	19:20
2/17/2018	08:16	19:50	05:32	07:08	17:45	19:22
2/18/2018	08:44	20:54	05:30	07:07	17:46	19:23
2/19/2018	09:12	21:59	05:29	07:05	17:48	19:24
2/20/2018	09:41	23:06	05:27	07:04	17:49	19:25
2/21/2018	10:13		05:26	07:02	17:50	19:27
2/22/2018	10:48	00:13	05:24	07:01	17:52	19:28
2/23/2018	11:30	01:22	05:23	06:59	17:53	19:29
2/24/2018	12:18	02:30	05:21	06:57	17:54	19:31
2/25/2018	13:14	03:34	05:20	06:56	17:56	19:32
2/26/2018	14:19	04:33	05:18	06:54	17:57	19:33
2/27/2018	15:29	05:26	05:17	06:52	17:58	19:34
2/28/2018	16:42	06:11	05:15	06:51	18:00	19:36



### 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





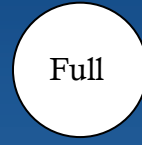
# Observing In February



Last Q



New

1<sup>st</sup> Q

Full

Feb 7, 7:54 AM	Feb 15, 1:04 PM	Feb 23, 00:09 AM	Mar 1, 4:51 PM
Mercury lost in Sun	Mercury lost in Sun	Mercury lost in Sun	Mercury Set: 6:55 PM
Venus Set: 6:04 PM	Venus Set: 6:25 PM	Venus Set: 6:46 PM	Venus Set: 7:02 PM
Mars Rise: 2:48 AM	Mars Rise: 2:41 AM	Mars Rise: 2:33 AM	Mars Rise: 2:27 AM
Jupiter Rise: 1:28 AM	Jupiter Rise: 00:59 AM	Jupiter Rise: 00:30 AM	Jupiter Rise: 00:07 AM
Saturn Rise: 4:56 AM	Saturn Rise: 4:28 AM	Saturn Rise: 3:59 AM	Saturn Rise: 3:37 AM
Uranus Set: 11:12 PM	Uranus Set: 10:42 PM	Uranus Set: 10:11 PM	Uranus Set: 9:50 PM
Neptune Set: 7:32 PM	Neptune Set: 7:02 PM	Neptune Set: 6:33 PM	Neptune lost in Sun
Pluto Rise: 5:54 AM	Pluto Rise: 5:24 AM	Pluto Rise: 4:53 AM	Pluto Rise: 4:30 AM

All times Pacific Standard Time (November 5, 2017 - March 10, 2018 = UT -8 hours) or Pacific Daylight Time (March 11 - Nov. 3, 2018 = UT -7 hours)

## Items of Interest This Month

Zodiacal light at its most prominent this month and next after evening twilight.

Comet C/2016 R2 Panstarrs near the Pleiades this month.

**2/8:** Moon between Mars and Jupiter in morning before dawn

**2/10:** Mars nearest Antares ( $5^\circ$  north). It's still pretty close several days before and after.

**2/23: First Quarter Friday star party**

**2/28:** Moon misses Regulus by  $1/2^\circ$  8–9:00 PM

**Early March:** Mercury and Venus visible near one another in evening sky

**Mid-March:** Mercury at its highest in the evening for this year

