Issue 2016-09

IO – September 2016

The Newsletter of the Eugene Astronomical Society

PO Box 7264
Springfield, OR 97475

Next Meeting: *Thursday, September 15*

Beneficial & Efficient Artificial Outdoor Nighttime Lighting

By David W. Ingram, International Dark-Sky Association

(Summary by Rick Kang)

David will be doing a presentation at our September meeting to help us work toward improving lighting in our community. He will likely touch on topics such as lighting technologies and fixtures, safety issues, energy use and economics, and all the implications of how better lighting promotes healthier living for humans and wild animals, yet can preserve views of the natural night sky for everyone to enjoy. All these factors point to how "good lighting" benefits everyone; proper lighting involves full cutoff shielding so that the light is thrown downward toward the ground where it does the most good, and the glare of the actual bulb filament is fully shielded. This will be an interactive presentation where we can bring up local lighting problems and discuss possible solutions. David invites all astronomers plus strongly encourages general public from community to attend; local government officials and private contractors/builders are encouraged to attend.

EAS members are encouraged to e-mail photos illustrating bad outdoor lighting from their neighborhoods so that David can include them in his presentation. David's e-mail address is ingramdw@hotmail.com.

EAS

President
Diane Martin (541-554-8570)

Secretary
Jerry Oltion (541-343-4758)

Additional Board members
Jacob Strandlien,
John Loper,
Mel Bartels

Annual Club Dues $25
Meetings at 7:00 at the Science Factory, Eugene.

EAS is a proud member of the Astronomical League

First Quarter Friday: September 9

Our August 12th First Quarter Friday was a great success. The Perseid meteor shower drew many extra people, and a nice warm night didn't hurt, either. We had probably 50-75 people and half a dozen telescopes. Jerry brought his binocular scope and had a line behind it most of the night, mostly looking at the Moon and Saturn. KMTR news showed up to do a news segment on us, and while they called us the Eugene "Astrological" Society in their first newscast, they got it right later on. Several bright Perseids pierced the skyglow, and people were still lying back on blankets and enjoying the show well past midnight.

Dorris Ranch Star Hike

EAS members Bruce Hindrichs, Bob Anderson, Cheryl Ernst, and Andy Edelen led about 30 interested participants in the Dorris Ranch Star Hike on the evening of August 12. Cheryl and Bob led the hike, introducing the hikers to various naked-eye sights (constellations, planets, and an amazing ISS pass), at the end of which Bruce and Andy provided telescopic views of Mars and Saturn. The sky didn't cooperate—it was pretty overcast—but the hike participants enjoyed what they did get to see. Some even stayed until nearly midnight!

Membership Dues are Due!

EAS membership runs from *October* thru *September*. If you haven't renewed already, please bring your payment to the meeting or mail your dues to the Eugene Astronomical Society, PO Box 7264, Springfield, OR 97475. Dues are still the same low $25 they've been for years. Make your checks payable to Eugene Astronomical Society.

August 8th Meeting Report

Our August 18th meeting was the second of our two-part program on the eclipse of August 21, 2017. Mel Bartels and Jerry Oltion talked about advance planning, specifically "Where are you going to observe this event from?" Most hotels in the eclipse path are already booked and campgrounds are either booked or not open for reservations yet. There are two major festivals being planned, one in Madras and one farther east. The latter, despite having 10,000 people on their Facebook page saying they'll attend, is sited south of the eclipse path, so we don't know what's up with that. Surely 10,000 people aren't going to try to drive north into the path on eclipse day...are they? You might not want to be anywhere near that site. Or I-5, either, as everyone from Eugene tries to drive north as well.

Wanda Walker reported on her recent trip to central Oregon to look for observing sites, and Jean Grendler showed us photos of a site north of Salem that her family will make available to a small group. Jerry reported that he had given up on the idea of attending the Oregon Star Party (too many days of camping required, and too much driving on crowded roads) in favor of taking his chances on the coast, which should be easier to reach, more comfortable, and less crowded. The tradeoff: nearly double the chance of clouds.

The final take-home message was: whatever your plan, you should be making it soon. And have a plan B in case clouds, traffic, or some other snafu makes your plan A unworkable.

After Mel and Jerry's talk, Joe Earp presented some photos of the 2012 annular eclipse that he took which show oddly distorted trees in the foreground. He has been searching for the reason why those photos could show such an odd phenomenon, and offered a theory that the alignment of the Moon and Sun caused ripples in the aether which his camera captured. Much lively discussion ensued, but no real consensus was reached. However, later that evening Bill Basham discovered the "rolling shutter" phenomenon which mimics what Joe recorded, so that's a strong possibility.

We had four people join the club at this meeting, and a fifth took an application to mail in later. We're now up to 71 members.

Oregon Star Party Wrap-Up

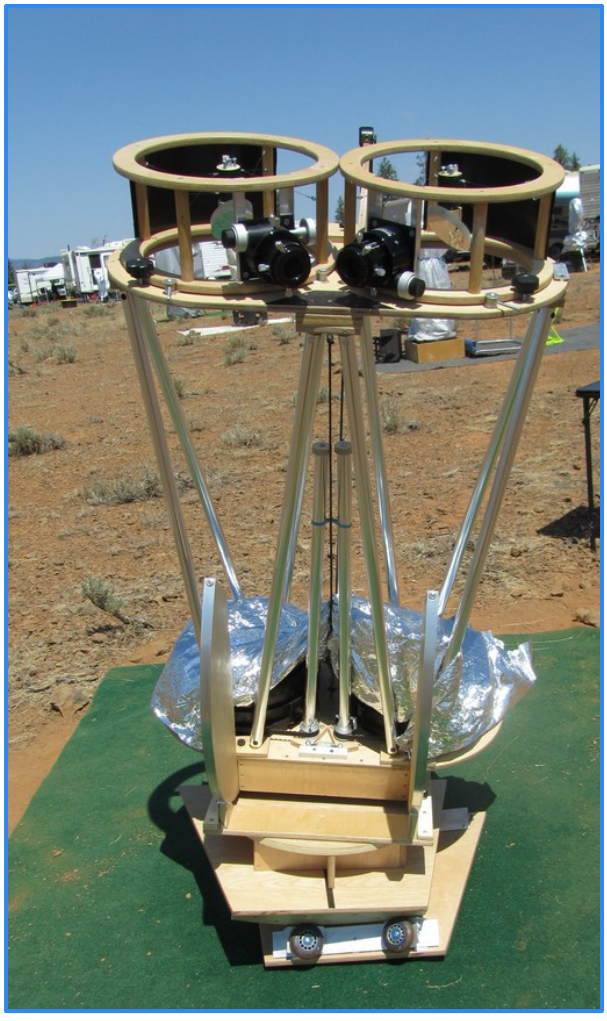
This year's Oregon Star Party was held August 2-7 at Indian Trail Spring in the Ochoco National Forest. Among the approximately 600 attendees were several members of EAS.

The weather throughout the week was mostly conducive to observing. Tuesday and Wednesday nights were clear but cold; daytime temperatures in the low 80s yielded to nighttime temperatures in the upper 30s and 40s, necessitating heavy winter gear and chemical hand warmers! Thursday was altogether warmer, with some nighttime clouds drifting along the eastern horizon much of the night—the clouds left most of the sky uncovered, although their presence was a nuisance to anyone trying to catch an early-morning glimpse of Orion or the other winter constellations.

The clouds carried over into Friday, increasing as the day went on. Friday night was completely clouded out, although we had an impressive lightning storm along the eastern horizon to make up for a little bit of the disappointment. Friday afternoon featured Mel Bartels' telescope walkabout, with Mel leading the attendees around the star party grounds to see the latest innovations and intriguing projects in telescope building.

Above: Howard Banich and his home-built 28" Dobsonian.

Saturday afternoon featured the yearly door prize drawings—Kathy and Jerry won a copy of Albert Highe's *Engineering, Design and Construction of Portable Newtonian Telescopes*, and Andy won a huge coffee-table book called *Cosmos: A Field Guide*. The 8-inch Orion Dobsonian telescope that EAS donated was the star party's grand prize.



Above: Jonathan Dubay's 10-inch f/5 binoculars, atop a homemade tracking platform.

Saturday night was the last night of observing at OSP, and was a mixed bag in terms of conditions. There were leftover clouds from the previous night, although they stayed mostly to the east and southeast and fairly low in the sky; there was still the occasional bright flash of lightning in the southeast. The sky transparency the entire week had been a bit below average for OSP, and this trend continued Saturday—the naked-eye Milky Way was stunning, but several long-time attendees commented that eyepiece views had a little less "pop" than at some past star parties. That said, attendees could still observe all night four of the five nights, and there were no nearby forest fires to smoke out the gathered observers.

Next year's OSP coincides with the August 21 total solar eclipse—be sure to register early!

Enjoy the photos on the next few pages from the OSP walkabout (photos by Mel Bartels, Barbara Bajec, and Mark Thorson).

OSP Photos

Left: Don Peckham's 8" Tensegrity telescopes. This telescope breaks down to fit in a piece of carry-on luggage.

Right: EAS' Jerry Oltion and Randy Biederwell describe the making of the club's equatorial tracking platforms.

Right: Jerry and Randy demo Orion, EAS' home-made 14.7" Dobsonian.

Left: Jerry fields questions about the tracking platforms.

Above: stargazers and the crescent Moon the last night at OSP.

Right: The summer Milky Way in its OSP splendor.

Photos by Bill Basham.

A note to EAS from OSP organizer Candace Pratt:

From: "Candace Pratt"

Subject: Thank you from the Oregon Star Party

Dear Jerry,

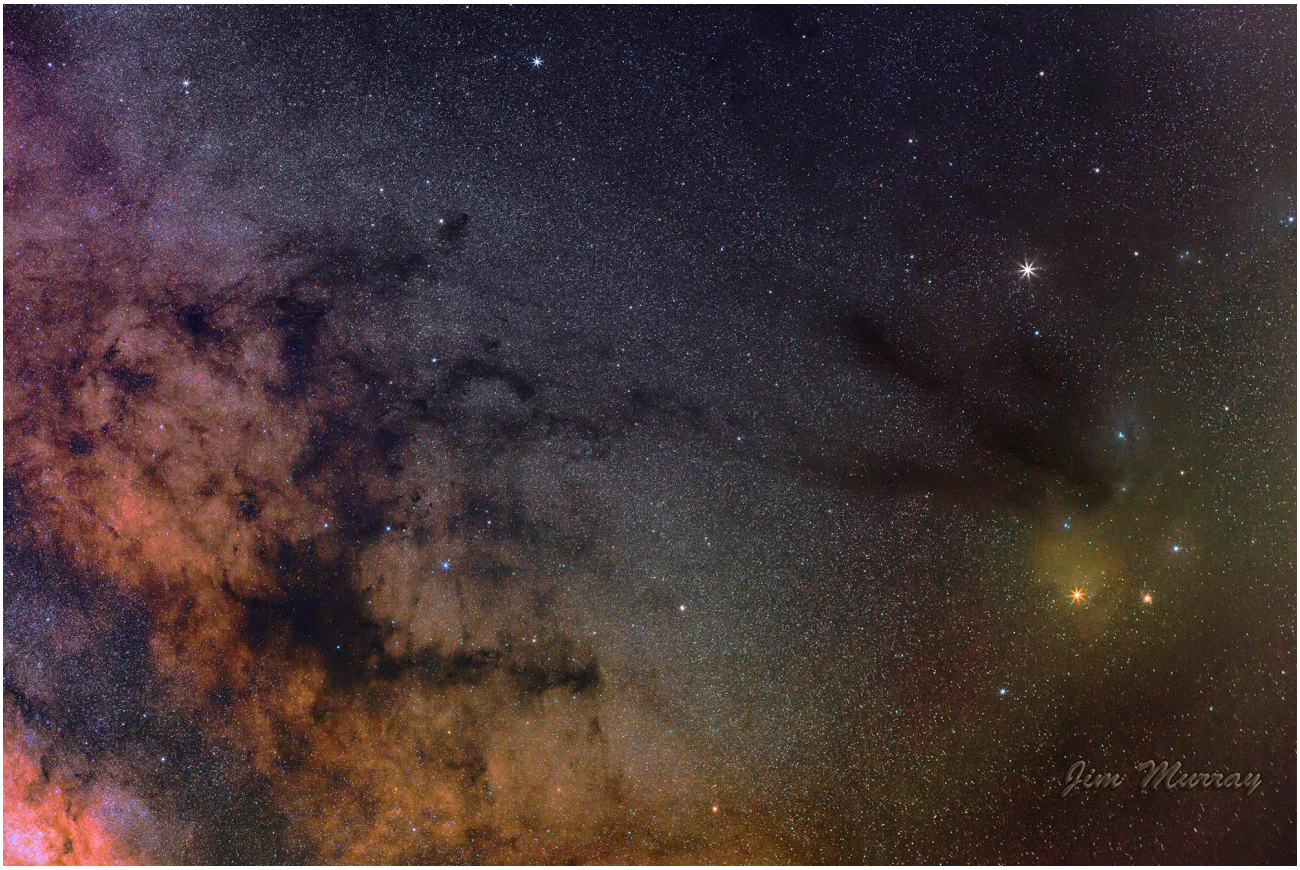
I would like to extend a sincere thank you to the Eugene Astronomical Society for donating the grand prize of an 8" Meade dobsonian. Many thanks from the OSP organizing committee and the 600+ attendees.

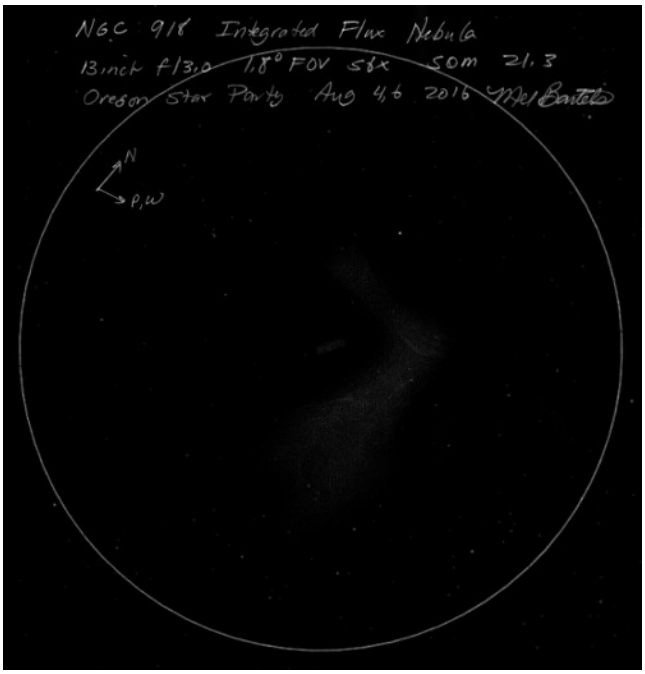
The winner of the OSP grand prize (an 8" Orion telescope donated by EAS).

EAS Members' Gallery

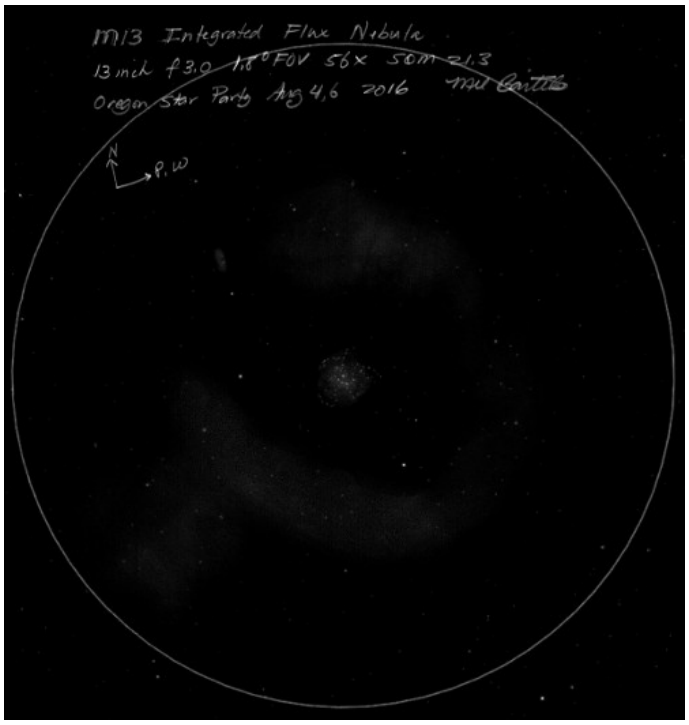
Above: Orion rising over the Three Sisters. *Photo by Alan Gillespie.*

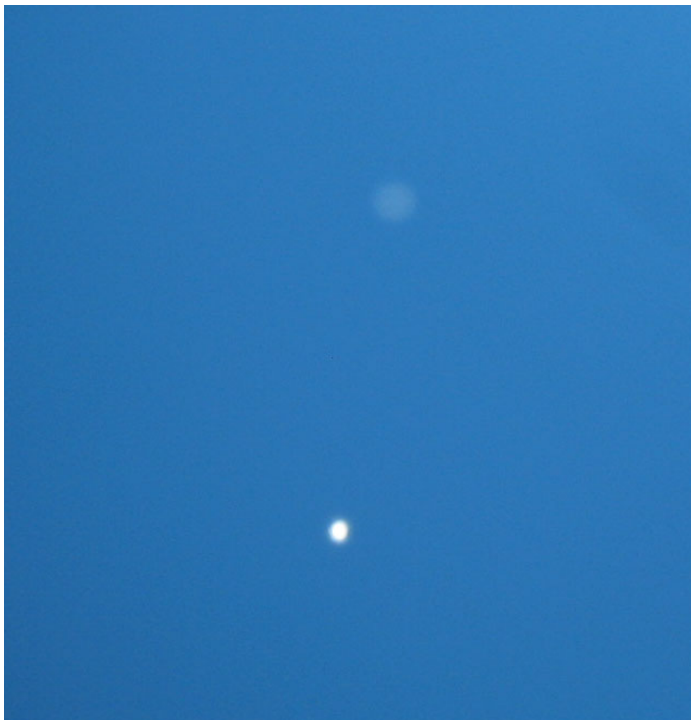
Below: The Rho Ophiuchi Region as seen from Eureka Ridge. *Photo by Jim Murray*.





Above left: Integrated flux nebula in the NGC 6723/Corona Australis region. Above right: Integrated flux nebula surrounding spiral galaxy NGC 918 (Aries). Bottom left: Integrated flux nebula in the region of M13, the Great Globular Cluster in Hercules. *Sketches by Mel Bartels*. Bottom right: Venus and Jupiter, photographed in a single eyepiece field on August 27th. *Photo by Jerry Oltion.*





Sun & Moon rise and set for September

Date	Moon Rise	Moon Set	Twilight Begin	Sun Rise	Sun Set	Twilight End
9/1/2016	06:54	20:04	04:53	06:36	19:47	21:30
9/2/2016	07:55	20:33	04:55	06:37	19:45	21:28
9/3/2016	08:55	21:01	04:56	06:39	19:44	21:26
9/4/2016	09:54	21:29	04:58	06:40	19:42	21:23
9/5/2016	10:53	21:58	04:59	06:41	19:40	21:21
9/6/2016	11:50	22:29	05:01	06:42	19:38	21:19
9/7/2016	12:47	23:04	05:02	06:43	19:36	21:17
9/8/2016	13:42	23:43	05:04	06:44	19:35	21:15
9/9/2016	14:36		05:05	06:45	19:33	21:13
9/10/2016	15:28	00:26	05:06	06:47	19:31	21:10
9/11/2016	16:16	01:16	05:08	06:48	19:29	21:08
9/12/2016	17:01	02:11	05:09	06:49	19:27	21:06
9/13/2016	17:43	03:12	05:11	06:50	19:25	21:04
9/14/2016	18:21	04:18	05:12	06:51	19:23	21:02
9/15/2016	18:58	05:28	05:13	06:52	19:22	21:00
9/16/2016	19:33	06:40	05:15	06:53	19:20	20:58
9/17/2016	20:08	07:53	05:16	06:55	19:18	20:56
9/18/2016	20:44	09:07	05:18	06:56	19:16	20:54
9/19/2016	21:23	10:21	05:19	06:57	19:14	20:52
9/20/2016	22:05	11:34	05:20	06:58	19:12	20:50
9/21/2016	22:52	12:43	05:22	06:59	19:10	20:48
9/22/2016	23:44	13:48	05:23	07:00	19:09	20:46
9/23/2016		14:46	05:24	07:01	19:07	20:44
9/24/2016	00:40	15:37	05:26	07:03	19:05	20:42
9/25/2016	01:40	16:22	05:27	07:04	19:03	20:40
9/26/2016	02:41	17:00	05:28	07:05	19:01	20:38
9/27/2016	03:43	17:35	05:29	07:06	18:59	20:36
9/28/2016	04:45	18:06	05:31	07:07	18:58	20:34
9/29/2016	05:46	18:35	05:32	07:08	18:56	20:32
9/30/2016	06:46	19:03	05:33	07:10	18:54	20:30

STORAGE JUNCTION

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

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Observing In September

New | 1st Q | Full | Last Q

Sept 1, 2:03 AM	Sept 10, 11:21 AM	Sept 18, 2:27 AM	Sept 24, 8:41 PM
Mercury lost in Sun	Mercury Rise: 7:21 AM	Mercury Rise: 6:08 AM	Mercury Rise: 5:37 AM
Venus Set: 8:42 PM	Venus Set: 8:29 PM	Venus Set: 8:17 PM	Venus Set: 8:09 PM
Mars Set: 11:32 PM	Mars Set: 11:18 PM	Mars Set: 11:07	Mars Set: 11:00
Jupter Set: 8:31 PM	Jupiter Set: 8:00 PM	Jupiter Lost in Sun	Jupiter Lost in Sun
Saturn Set: 11:39 PM	Saturn Set: 11:05 PM	Saturn Set: 10:34 PM	Saturn Set: 10:12 PM
Uranus Rise: 9:18 PM	Uranus Rise: 8:42 PM	Uranus Rise: 8:10 PM	Uranus Rise: 7:46 PM
Neptune Set: 6:48 AM	Neptune Set: 6:11 AM	Neptune Set: 5:39 AM	Neptune Set: 5:15 AM
Pluto Set: 2:08 AM	Pluto Set: 1:32 AM	Pluto Set: 1:01 AM	Pluto Set: 00:37 AM

Items of Interest This Month

Last good month for Saturn

Latter part of month: Good time for zodiacal light before sunrise

9/2 Neptune at opposition, visible all night

9/8-9/9 Asteroids Ceres and Melpomene within a degree of each other in Cetus

9/9 First Quarter Friday star party

9/22 Autumn begins 7:21 AM

9/28 Mercury at greatest western elongation (highest in morning sky before dawn) 18° from Sun