Issue 2018-10

IO - October 2018

Eugene Astronomical Society
Annual Club Dues $25
President: Diane Martin 541-554-8570
Secretary: Jerry Oltion 541-343-4758
Additional Board members:
Andrew Edelen, Oggie Golub, Jim Murray.

PO Box 7264
Springfield, OR 97475
www.eugeneastro.org

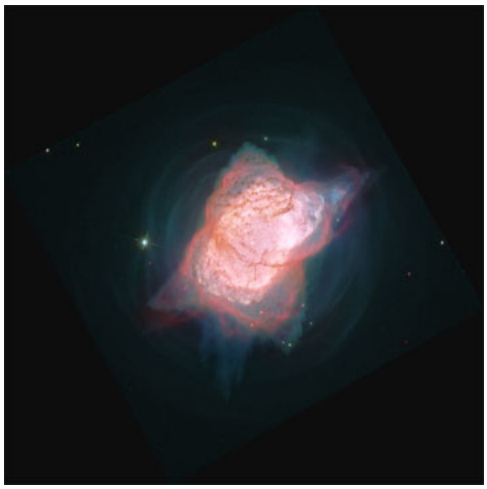
EAS is a proud member of The Astronomical League

Next Meeting Thursday, October 18th, 7:00 p.m.

Forgotten Gems of the Fall Sky
by Andy Edelen

At our October meeting Andy Edelen will present "Forgotten Gems of the Fall Sky." There are way more cool objects to look at in the autumn than just the Pleiades and the Andromeda Galaxy, and Andy knows a bunch of them. Come learn some of the more exotic yet still spectacular sights to look for when Pegasus stands overhead and Auriga is rising in the east.

Our meetings are held in the Science Center planetarium in Eugene. Meetings start promptly at 7:00, so come a little early to visit and get a seat.



NGC 7027 in Cygnus.
Photo courtesy Wikimedia Commons

NGC 7479 in Pegasus.
Photo courtesy Wikimedia Commons

Next First Quarter Friday: October 12th

Our September 14th star party went on despite some fairly persistent clouds. We still had half a dozen telescopes and 40-50 people to look through them. Venus never made it out of the muck, but Jupiter, Saturn, Mars, and the crescent Moon all provided nice views.

Our next First Quarter Friday will be October 12th. 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 2018. Star parties start at dusk or 6:00, whichever is later. (About 6:45 in October.)

October 12 (17% lit) November 9 (6% lit) December 14 (46% lit)

September 20th Meeting Report

The New Planetarium Projecter
Presented by Haley Sharp

At our September 20th meeting, planetarium director Haley Sharp showed us what the new projection system would do. In a word: Wow! From the moment the lights went down, we were blown away by the incredible graphics and the amazing capabilities of the new equipment.

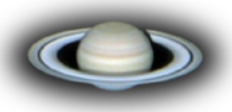
The new system, the Digitarium Æthos 4K, uses two projectors instead of just one. They aim outward and upward from opposite sides of the dome, covering a full hemisphere with no visible distortion and no seam where the two images overlap. The projectors are much brighter than the old one, and the resolution is much higher. Stars look like round dots, and the Milky Way is a diffuse glow of light, looking as realistic as the sky several miles out of town.

From the moment the lights went down, there was a murmur of voices as people in the audience remarked to one another how realistic the view looked, and there was a forest of raised hands, not from people asking questions but from people pointing out familiar objects to one another. There's the Andromeda Galaxy! There's Delphinus! There's the Magellanic Clouds!

Haley showed us the view from various points on Earth, and showed us constellation lines and drawings from various cultures throughout history. Then she launched us into space and gave us a tour of the backside of the Moon, a close flyover of Mars, and a lunar eclipse (complete with shadows of the Earth and Moon outlined so we could see them lining up). Then she zoomed out into our galaxy until our familiar constellations were just a tight ball of stars and squiggly lines in a tiny spot of the Milky Way. When we zoomed back home, it felt like we were in a Star Wars spaceship going into warp drive.

The entire setup is controlled with an iPad and an Xbox 360 hand controller. Haley ran it like a teenager, which is to say very well. Both controllers are wireless, so she could move around the dome while running the show, and now that the projectors are in alcoves at opposite sides of the dome she could stand right in the middle of the room. That's right: no more projector in the way when a speaker wants to get out in front of the audience.

It was a great demonstration of a great system, and Haley wants us to know that it's available for use during our own programs. So let's start thinking in terms of high-definition audio-visual experiences to augment our slide shows. Thank you, Haley!



Dues are Due!

EAS membership runs from October thru September. If you haven't paid already, please 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.

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

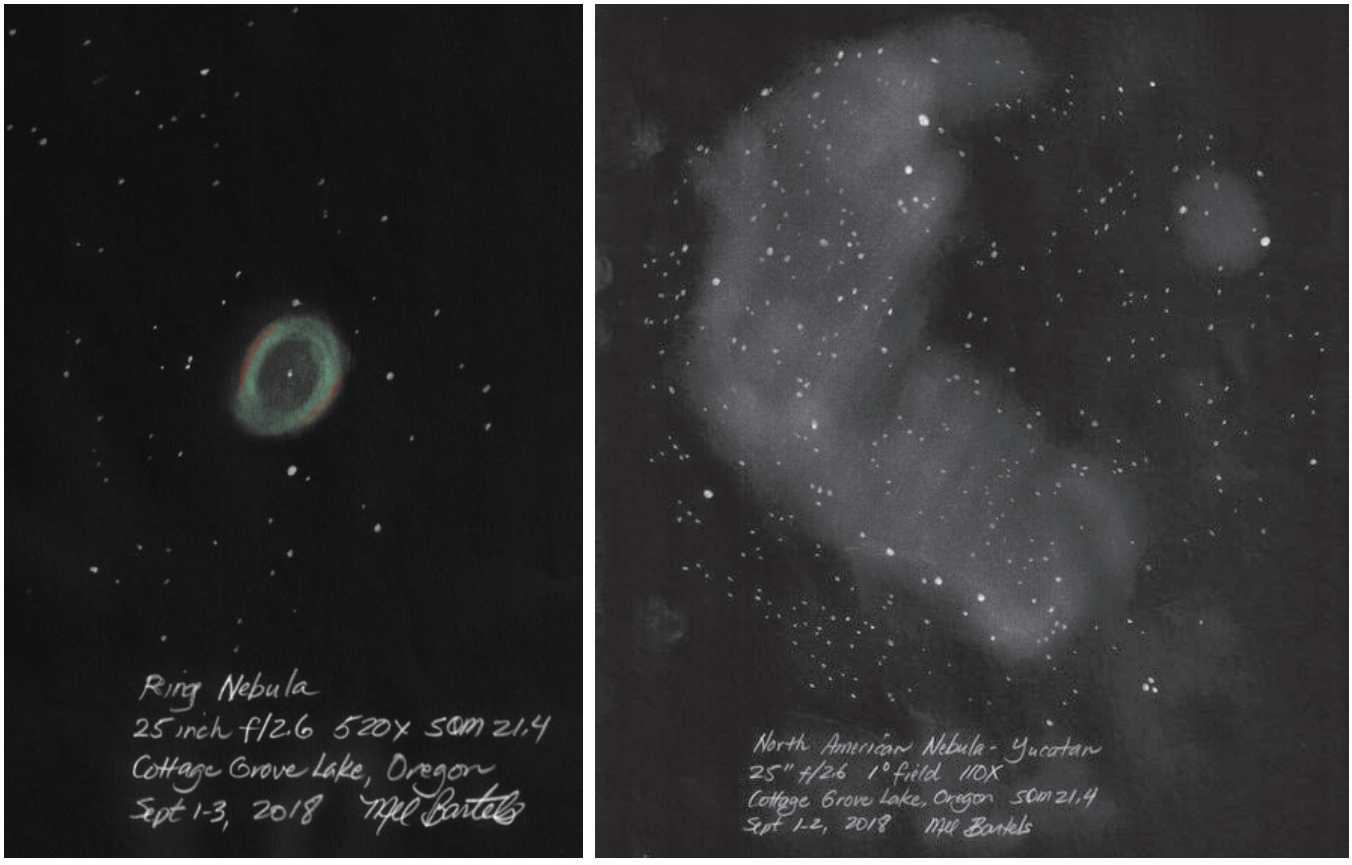
Photo and Sketch Gallery

September gave us some good opportunities for astrophotography and for sketching. Here are some of the ones that club members have shared via our email list. All images are scaled to display well at up to 200% magnification, so zoom in.

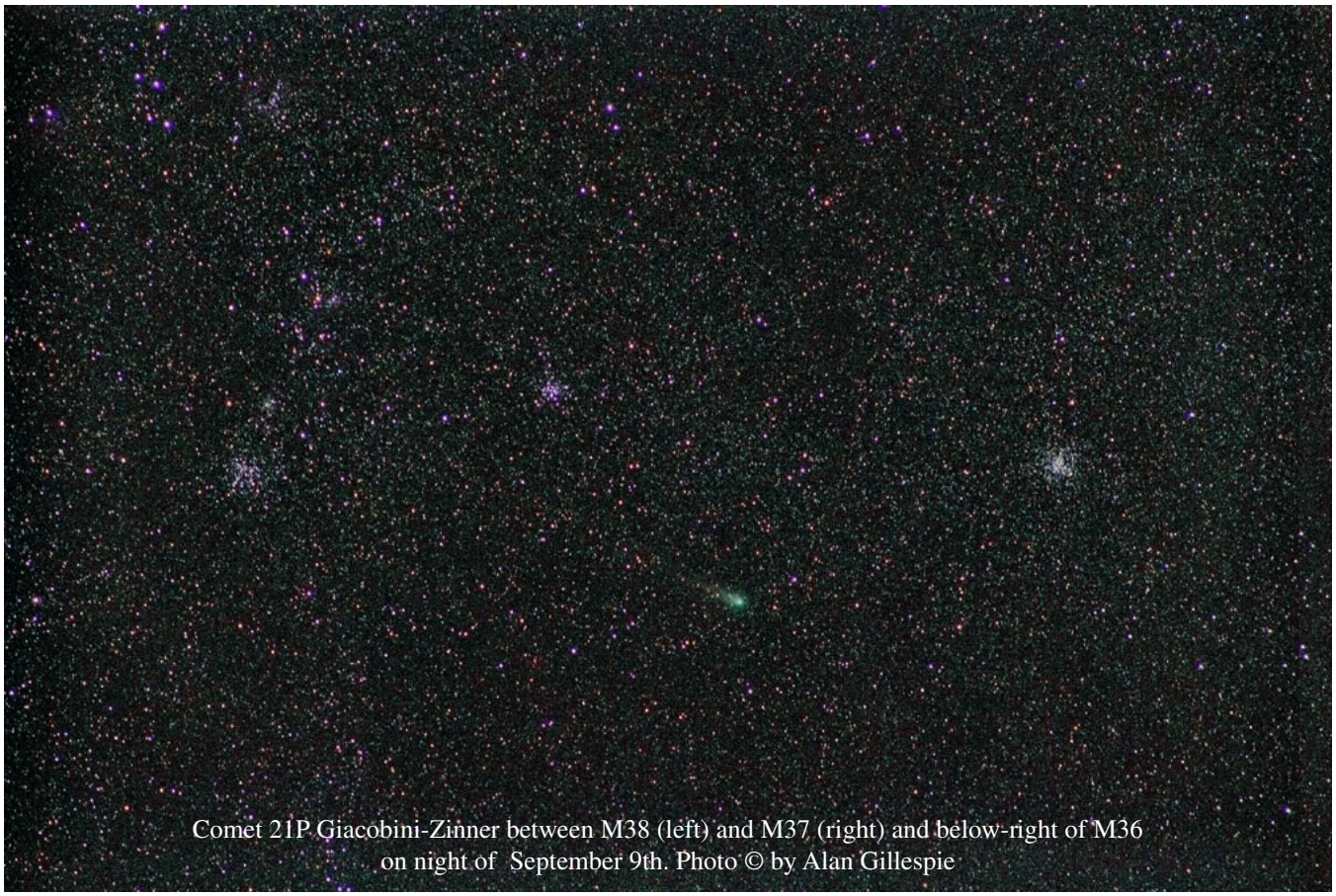
Sunrise between North and Middle Sisters. Photo © by Alan Gillespie

Moonset over Belt of Venus. Photo © by Alan Gillespie

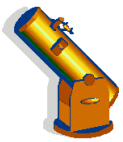
Mel Bartels has been sketching everything he sees through his new 25" scope. Here we see the Ursa Minor Dwarf Galaxy with Integrated Flux Nebula nearby (top lert), the western Veil Nebula (top right), the Ring Nebula with a hint of color (bottom left), and the "Mexico and Yucatan" section of the North America Nebula (bottom right). Sketches © by Mel Bartels



NGC 6946, The Fireworks Galaxy. Photo © by James Pelley



Comet 21P Giacobini-Zinner between M38 (left) and M37 (right) and below-right of M36
on night of September 9th. Photo © by Alan Gillespie



Observing in October

Last Q New 1st Q Full

Oct 2, 2:45 AM	Oct 8, 8:47 PM	Oct 16, 11:02 AM	Oct 24, 9:45 AM
Mercury Set: 7:11 PM	Mercury Set: 7:06 PM	Mercury Set: 7:00 PM	Mercury Set: 6:55 PM
Venus Set: 7:22 PM	Venus lost in Sun	Venus lost in Sun	Venus lost in Sun
Mars Set: 1:38 AM	Mars Set: 1:29 AM	Mars Set: 1:20 AM	Mars Set: 1:12 AM
Jupiter Set: 8:38 PM	Jupiter Set: 8:18 PM	Jupiter Set: 7:51 PM	Jupiter Set: 7:25 PM
Saturn Set: 11:06 PM	Saturn Set: 10:44 PM	Saturn Set: 10:14 PM	Saturn Set: 9:45 PM
Uranus Rise: 7:35 PM	Uranus Rise: 7:11 PM	Uranus Rise: 6:38 PM	Uranus Set: 7:42 AM
Neptune Set: 5:08 AM	Neptune Set: 4:43 AM	Neptune Set: 4:11 AM	Neptune Set: 3:39 AM
Pluto Set: 00:21 AM	Pluto Set: 11:54 PM	Pluto Set: 11:22 PM	Pluto Set: 10:51 PM

All times Pacific Daylight Time (March 11 - Nov. 3, 2018 = UT -7 hours) or Pacific Standard Time (November 4, 2018 - March 9, 2019 =UT -8 hours)

Date	Moon Rise	Moon Set	Twilight Begin	Sun Rise	Sun Set	Twilight End
10/1/2018	23:34	14:03	05:34	07:10	18:53	20:29
10/2/2018		15:02	05:35	07:11	18:51	20:27
10/3/2018	00:34	15:55	05:36	07:13	18:49	20:25
10/4/2018	01:42	16:41	05:38	07:14	18:48	20:23
10/5/2018	02:53	17:20	05:39	07:15	18:46	20:22
10/6/2018	04:07	17:55	05:40	07:16	18:44	20:20
10/7/2018	05:21	18:27	05:41	07:17	18:42	20:19:
10/8/2018	06:34	18:57	05:43	07:19	18:40	20:16
10/9/2018	07:46	19:27	05:44	07:20	18:39	20:14
10/10/2018	08:56	19:58	05:45	07:21	18:37	20:13
10/11/2018	10:04	20:31	05:46	07:22	18:35	20:11
10/12/2018	11:09	21:07	05:48	07:24	18:33	20:09
10/13/2018	12:11	21:47	05:49	07:25	18:32	20:08
10/14/2018	13:08	22:32	05:50	07:26	18:30	20:06
10/15/2018	13:59	23:21	05:51	07:27	18:28	20:04
10/16/2018	14:44		05:52	07:28	18:27	20:03
10/17/2018	15:24	00:14	05:54	07:30	18:25	20:01
10/18/2018	15:59	01:11	05:55	07:31	18:23	19:59
10/19/2018	16:30	02:09	05:56	07:32	18:22	19:58
10/20/2018	16:58	03:10	05:57	07:34	18:20	19:56
10/21/2018	17:25	04:11	05:58	07:35	18:18	19:55
10/22/2018	17:52	05:14	06:00	07:36	18:17	19:53
10/23/2018	18:18	06:19	06:01	07:37	18:15	19:52
10/24/2018	18:47	07:25	06:02	07:39	18:14	19:50
10/25/2018	19:19	08:33	06:03	07:40	18:12	19:49
10/26/2018	19:55	09:42	06:04	07:41	18:11	19:48
10/27/2018	20:38	10:51	06:05	07:43	18:09	19:46
10/28/2018	21:29	11:58	06:07	07:44	18:08	19:45
10/29/2018	22:27	12:59	06:08	07:45	18:06	19:44
10/30/2018	23:32	13:54	06:09	07:47	18:05	19:42
10/31/2018		14:41	06:10	07:48	18:04	19:41

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

Items of Interest This Month

10/4 Moon rises near Beehive cluster in early morning.

10/9 Peak of Draconid meteor shower.

10/11 Thin crescent Moon and Jupter within 3° at sunset.

10/12 First Quarter Friday star party.

10/14 Moon within 2° of Saturn.

10/17 Algol at minimum brightness 9:50 - 11:50 PM.

10/20-22 Peak of Orionid meteor shower.

10/23 Uranus at opposition.

10/26 Moon in Hyades all night. Many occultations.

10/29 daytime: Mercury and Jupiter within 3° of each other, 21° east of Sun. Possible to see both in daylight. BE CAREFUL not to get the Sun in the view!

10/31 Moon rises near Beehive cluster again in early morning.