Issue 2017-03

IO – March 2017

The Newsletter of the Eugene Astronomical Society

PO Box 7264
Springfield, OR 97475

Next Meeting: *Thursday, March 16*

Optics workshop

At this month's EAS meeting, John Walley will discuss optical flat processing and testing, complete with a demonstration. (If anyone has a clean diagonal to have tested, bring it to the meeting!

John will also demonstrate the building of eyepieces, using multiple configurations of lenses.

Both topics will be presented from the standpoint of a home craftsman working with simple tools and materials.

EAS

President
Diane Martin (541-554-8570)

Secretary
Jerry Oltion (541-343-4758)

Additional Board members
Jim Murray
John Loper
Andy Edelen

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 Report

Our First Quarter Friday for March 3rd was clouded out. Anyone remember the last one that *wasn't* clouded out? Good times, man.

Note that we have a second opportunity at First Quarter Friday in March, on March 31. This also means that there's none in April (so at least we can say we weren't clouded out in April).

The remainder of our First Quarter Fridays for 2017 are:

March 31 (21% lit)
July 28 (35% lit)
November 24 (34% lit)
May 5 (80% lit)
September 1 (83% lit)
December 29 (87% lit)
June 2 (66% lit)
September 29 (69% lit)
June 30 (51% lit)
October 27 (52% lit)

March, June, and September have two FQFs each, while April and August have none; this is due to the timing of the Moon cycle.

February Meeting Report

Our February meeting featured an entertaining presentation by Larry Deckman. "Deep Among the Star Groups" made a heroic figure the focus of each season's constellations (winter: Orion; spring: Böotes; summer: Ophiuchus; autumn: Perseus), using these figures as a means of discussing the entirety of the seasons' skies. As always, Larry put on a great show, offering even seasoned observers something new to think about, and the Science Factory planetarium was SRO.

Thanks, Larry!

March Observing Highlight: Leo's Forgotten Gem

For amateur astronomers, spring is the season for hunting galaxies: they're by far the most numerous type of deep-sky object regardless of season, but many of the most impressive northern-hemisphere examples can be found in fields and clumps and clusters from the obscure constellation Lynx all the way through Virgo and Hydra. Among these springtime multitudes of island universes are 33 (or 34, depending whether you count M102 as a separate galaxy and not a recount of M101) of Messier's 110 objects, and a host of other bright, obvious galaxies that Messier might easily have catalogued.

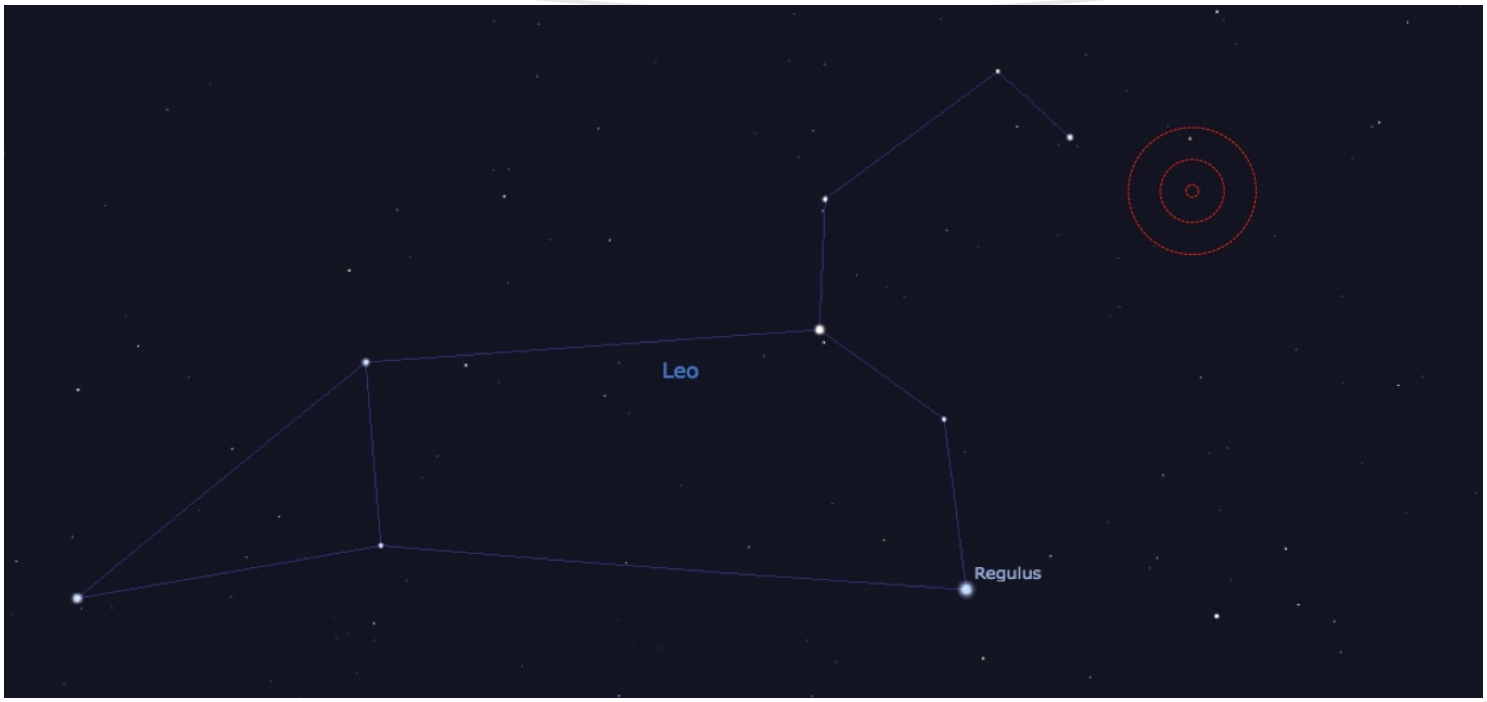
Perhaps none of these deserves Messier status as much as NGC 2903. This barred spiral is easy to find in the Lion's nose and easy to see in small telescopes and even finderscopes. It's well placed for observing on March evenings, with the Lion rising before sunset and the galaxy itself crossing the meridian just after 11 PM at mid-month; NGC 2903 can be seen all night in March.

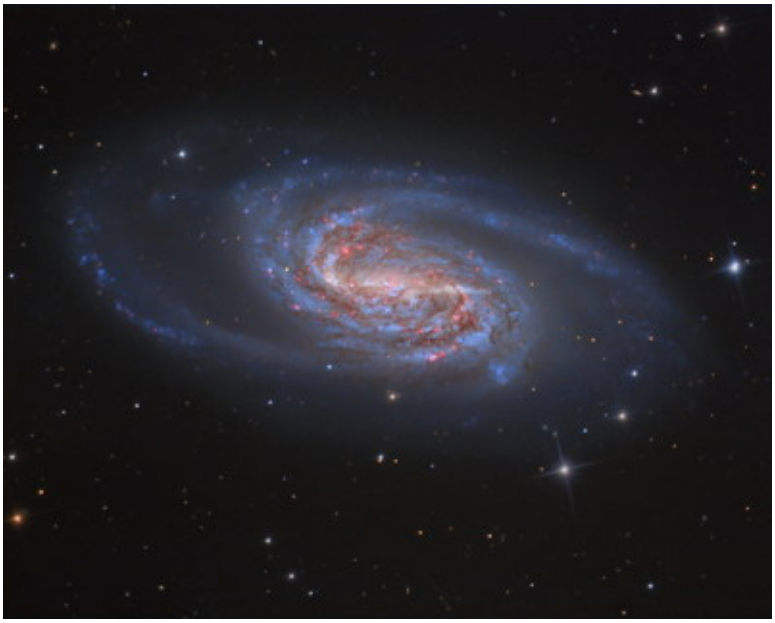
The galaxy is actually pretty easy to find. Start by locating the Sickle of Leo, the "backward question mark" that usually marks the head and neck of the Lion and terminates in the first-magnitude star Regulus. Leo's head actually ends west of the other end of the Sickle, at the star Alterf (or Lambda Leonis), so follow the Sickle around from Regulus and then jump from the Sickle's tip to the brightest star just west of the Sickle. NGC 2903 lies just under 1.5 degrees (about three Moon-widths) due south of this star, forming a not-quite right triangle (as opposed to a not-quite-right triangle) with Alterf and Epsilon Leonis, the star at the tip of the sickle.

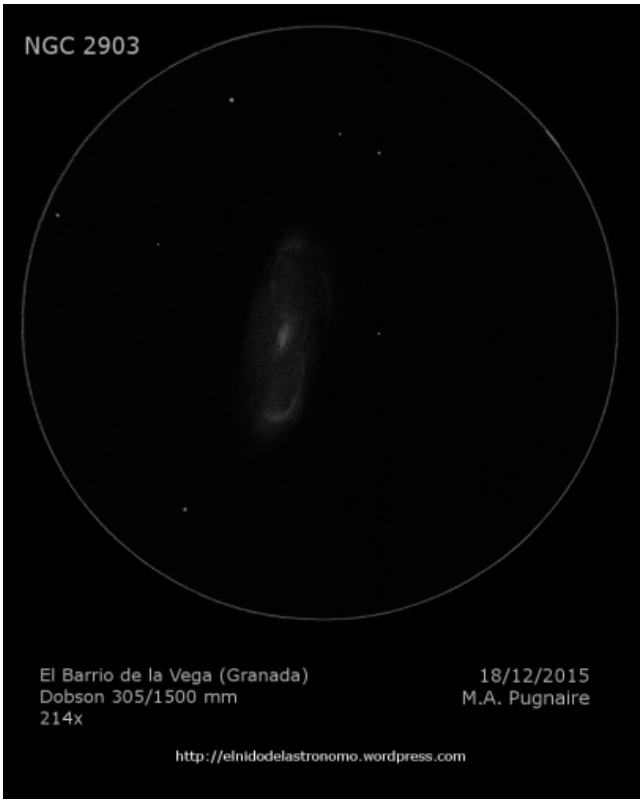
In a 6-inch telescope, NGC 2903 is a bright glowing patch about 8 arcminutes by 4, with a bright nucleus and large core region; in a 12-inch scope this grows to 10 arcminutes by 5. A mid-sized scope will show traces of spiral structure in the galaxy's outer halo, with some mottled texture and glimpses of brighter patches in the arms; one of these patches has its own NGC number (NGC 2905). A couple of very faint stars may be found amid the halo.

NGC 2903 is unusual among the spring galaxies for being one of the few nearby galaxies unassociated with any of the major spring galaxy groups. It's a galaxy very similar to our own in luminosity, type, and size; like the Milky Way, NGC 2903 has a central bar, although its spiral arms are likely more loosely-wound than those of our own galaxy. NGC 2903 lies about 31,000,000 light-years away from us.

There are five Messier galaxies in Leo: M65, M66, M95, M96, and M105. NGC 2903 is as fine a target as any of these. Don't just pass this one by in favor of the better-known Leo Trio to the east; the next time you're observing in Leo, be sure to spend a few minutes with this lonely-but-beautiful island universe.







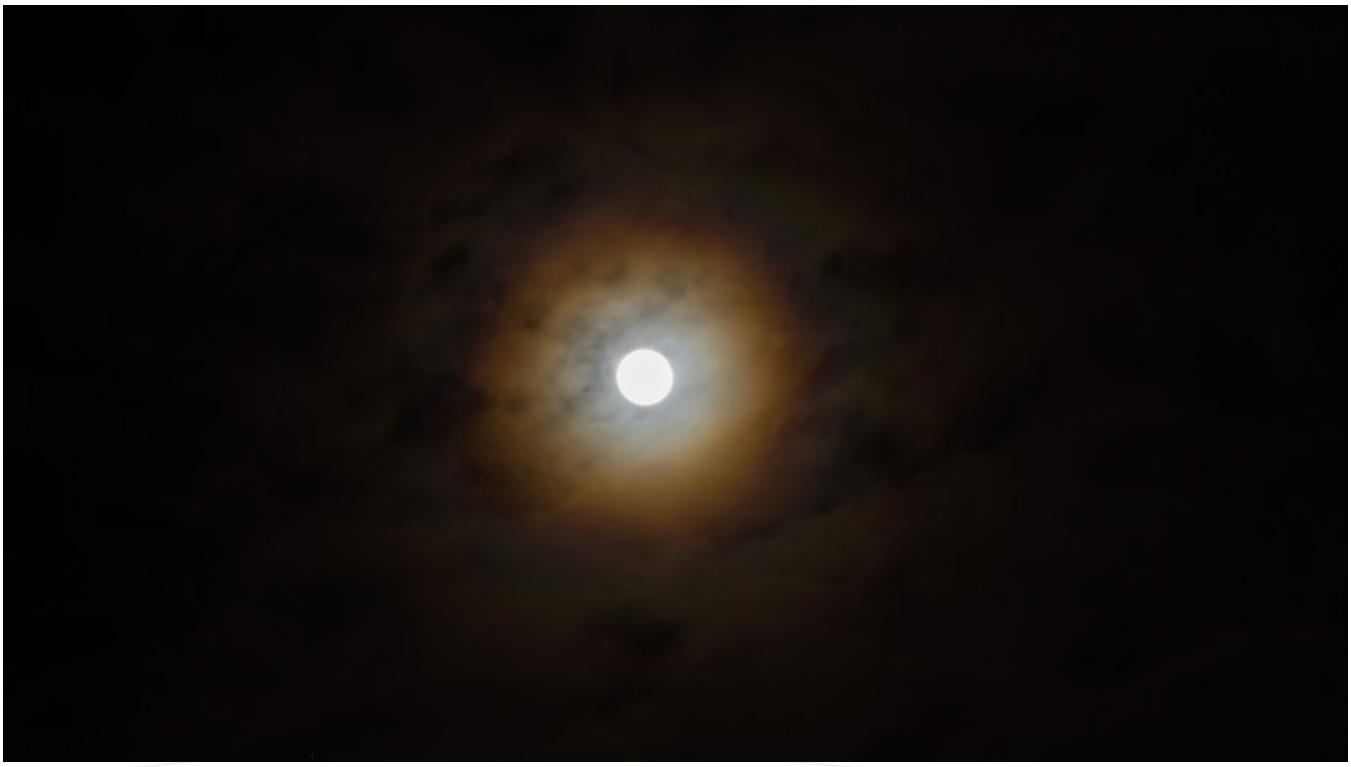
Top: Finder chart for NGC 2903.

Left: NGC 2903. *Image courtesy Tony Hallas*. Right: NGC 2903, as it appears in a 12" telescope at 214x. *Sketch by Migue Pugnaire*.

EAS Members' Gallery

Above: The Moon, March 10th. *Photo by Alan Gillespie.*

Below: Moon and halo, February 10th. *Photo by Bill Basham.*



The Moon, Mars, Uranus, and Venus. *Photo by Alan Gillespie.*

Sun & Moon rise and set for March

Date	Moon Rise	Moon Set	Twilight Begin	Sun Rise	Sun Set	Twilight End
3/1/2017	08:40	21:52	05:13	06:49	18:01	19:37
3/2/2017	09:15	23:03	05:11	06:47	18:03	19:39
3/3/2017	09:53		05:09	06:45	18:04	19:40
3/4/2017	10:35	00:13	05:08	06:44	18:05	19:41
3/5/2017	11:22	01:21	05:06	06:42	18:06	19:42
3/6/2017	12:15	02:24	05:04	06:40	18:08	19:44
3/7/2017	13:14	03:22	05:02	06:38	18:09	19:45
3/8/2017	14:17	04:13	05:01	06:37	18:10	19:46
3/9/2017	15:22	04:57	04:59	06:35	18:12	19:48
3/10/2017	16:28	05:36	04:57	06:33	18:13	19:49
3/11/2017	17:33	06:11	04:55	06:31	18:14	19:50
3/12/2017	19:37	07:42	05:53	07:29	19:15	20:52
3/13/2017	20:40	08:11	05:51	07:28	19:17	20:53
3/14/2017	21:41	08:40	05:50	07:26	19:18	20:54
3/15/2017	22:40	09:08	05:48	07:24	19:19	20:56
3/16/2017	23:39	09:38	05:46	07:22	19:20	20:57
3/17/2017		10:10	05:44	07:20	19:22	20:59
3/18/2017	00:36	10:46	05:42	07:19	19:23	21:00
3/19/2017	01:31	11:25	05:40	07:17	19:24	21:01
3/20/2017	02:24	12:08	05:38	07:15	19:25	21:03
3/21/2017	03:13	12:57	05:36	07:13	19:26	21:04
3/22/2017	04:00	13:52	05:34	07:11	19:28	21:06
3/23/2017	04:42	14:51	05:32	07:09	19:29	21:07
3/24/2017	05:21	15:54	05:30	07:08	19:30	21:08
3/25/2017	05:57	17:00	05:28	07:06	19:31	21:10
3/26/2017	06:31	18:10	05:26	07:04	19:33	21:11
3/27/2017	07:04	19:21	05:24	07:02	19:34	21:13
3/28/2017	07:38	20:34	05:22	07:00	19:35	21:14
3/29/2017	08:12	21:47	05:19	06:59	19:36	21:16

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 March

1st Q | Full | Last Q | New

March 5, 3:32 AM	March 12, 7:54 AM	March 20, 8:58 AM	March 27, 7:57 PM
Mercury lost in Sun	Mercury Set: 7:42 PM	Mercury Set: 8:35 PM	Mercury Set: 9:11 PM
Venus Set: 8:43 PM	Venus Set: 9:09 PM	Venus Set: 8:17 PM	Venus lost in Sun
Mars Set: 9:42 PM	Mars Set: 9:41 PM	Mars Set: 9:40 PM	Mars Set: 9:39 PM
Jupiter Rise: 9:04 PM	Jupiter Rise: 9:33 PM	Jupiter Rise: 8:57 PM	Jupiter Rise: 8:25 PM
Saturn Rise: 2:35 AM	Saturn Rise: 3:08 AM	Saturn Rise: 2:38 AM	Saturn Rise: 2:11 AM
Uranus Set: 9:14 PM	Uranus Set: 9:49 PM	Uranus Set: 9:20 PM	Uranus Set: 8:54 PM
Neptune lost in Sun	Neptune Rise: 7:13 AM	Neptune Rise: 6:43 AM	Neptune Rise: 6:16 AM
Pluto Rise: 4:04 AM	Pluto Rise: 4:37 AM	Pluto Rise: 4:06 AM	Pluto Rise: 3:39 AM

Items of Interest This Month

MARCH

Venus showing distinct phase, going from 68% to 56% lit this month.
Last month for Venus in the evening sky for the rest of the year.
Best month for Mercury all year
Good month for zodiacal light in the west an hour or so after sunset.

3/12 Daylight savings time starts 2:00 AM

3/12 Europa & Ganymede pass 10:15 PM. Callisto crosses S. pole.

3/16 Ganymede shadow transit 11:35 PM - 2:04 AM

3/17 Io shadow transit 10:16 PM - 12:28 AM

3/20 Vernal equinox 3:29 AM.

3/20 Ganymede, Io, Callisto form nearly equilateral triangle 10:00 - 11:00 PM

3/22 Europa shadow transit (the difficult one) 10:23 PM - 12:52 AM

3/25 Io shadow transit 12:10 AM on 26th - 2:22 AM.

3/29 Callisto, Europa, and Io make similar triangle to 3/20 apparition 9:00 - 10:00 PM