

Antares



The Newsletter of the Kansas Astronomical Observers

Meeting time: **April 20, 2019** **3:00 pm**

Location: **Great Plains Nature Center (GPNC)**

Speaker: **Dr. Bharat Ratra**
Topic: **Expanding Universe**

KAO Website: <http://www.kaowichita.com>
The Night Sky Network: <http://www.nightsky.jpl.nasa.gov>
The Astronomical League: <http://www.astroleague.org>

If you have comments or suggestions for an article in the newsletter, e-mail them to:
kevin.l.kight@gmail.com *Please begin the subject line with "Antares"

Current Club Officials

President:	Jerelyn Ramirez	jerelyn.ramirez@gmail.com
Vice-President:	Tony Haidai	thaidai@cox.net
Treasurer:	Paul Ramirez	ramirezpm2@gmail.com
Newsletter/Media:	Kevin Kight	kevin.l.kight@gmail.com

Next Month's Meeting: May 18 @ 7:30pm, Lake Afton Public Observatory (LAPO)

Club Updates:

Call for Meeting Speakers:

For those members that wish to create and present during a club meeting, or that have a suggestion for a guest speaker during the fall and winter meetings, contact the Club Vice-President: Tony Haidai (thaidai@cox.net)

Newsletter Items for Publication:

Please submit items for publication prior to the 10th of each month to be included in that month's newsletter.

Club T-shirts available:

Club T-Shirts are always available to all club members year around. (or anyone who wants to support the club) \$10 each, indicate size and quantity to Jerelyn Ramirez or Paul Ramirez by email or at club meetings / outings.

June Meeting Special Announcement:

The June Club Meeting has been moved to June 22nd. The meeting will still be held at LAPO at the same time of 7:30 p.m.. The reason for the change; this year the Symphony in the Flint Hills (SFH) is holding their event on June 15, our scheduled club night. Several club members (including the President and Treasurer) participate in this all day event which is scheduled to take place in Chase County.

This was brought up at our January meeting and was put to a vote to move our scheduled time a week later rather than cancel, or have someone else facilitate the meeting.

Normally the SFH hold their annual signature event on the second weekend of June without conflicting with our scheduled meeting. This is their 14th annual signature event and this will be our 13th invitation to this event. It is unknown why the SFH has made this change.

Another reminder will be sent out as the June meeting draws closer. The calendar has been updated to reflect the change. You can log onto [NSN](#) or navigate to our [KAO website](#) for this information. This will also be posted on our facebook page.

Club Membership Update:

We have added a new club member to our roster:

Christopher Rippel from Great Bend KS

Our membership is currently at 48 for 2019.

March Club Meeting:

See addendum for a short summary about the March club meeting.

From the Desk of Jerelyn Ramirez:

Sadly, the Messier Marathon was canceled once again this year. This is the second year both the scheduled Marathon and backup event were canceled due to weather.

There was a Webinar on March 26 where Dr. Zolensky talked about NASA's Astromaterials Collections which ranged from Apollo Moon rocks, to Antarctic Meteorites, to samples from a comet and more! Their curation facilities, located at the NASA Johnson Space Center, house NASA's past - and future - extraterrestrial samples.

You can watch this Webinar about the [NASA's Astromaterials Collections](#). It's just less than an hour long. It was pretty interesting. Just click on the link and press play. Good stuff.

Attached is a free copy of the StarGazers Almanac for 2019 for those that would like to have one.

The Moon calendar worksheet is a fun project to assemble. The instructions are easy enough to follow. You just need scissors, scotch tape, a pencil, and a brass fastener. A paper hole punch would be good to have as well. You can find the brass fasteners at your favorite office supply store. This Moon calendar lets you track the phases of the Moon all year round.

Just a note: The Moon Calendar needs to be printed as a two sided document before you cut it out. It will make more sense when you do. I printed it on heavier stock to take the abuse of being handled when being used.

Solar and Planetary Items:

Moon Phases:

Last Quarter: March 27

New Moon: April 5

First Quarter: April 12

Full Moon: April 19

Last Quarter: April 26

New Moon: May 5

First Quarter: May 11

Full Moon: May 18

Planets:

Mercury – Visible in the morning in Pisces; Rising approximately 6:00 am

Venus – Visible in the morning in Pisces; rises approximately 5:45am

Mars – Visible after sunset West in Taurus; setting approximately 11:40 pm

Jupiter – Visible in the morning in Ophiuchus; rises approximately 12:40 am

Saturn – Visible in the morning in Sagittarius; rises approximately 2:30 am

Uranus – Hidden in Solar Glare

Neptune – Visible in the morning in Aquarius; rises approximately 5:20 am

- Lyrid Meteor Shower peaks April 22-23

Comets:

Listed below are comets possibly visible in telescopes from the Wichita area (approximately cutoff at magnitude 15; if available the observed magnitude is used in favor of the JPL prediction). Magnitudes shown are approximate predictions for mid-month. Links are provided for additional information:

<http://cometchasing.skyhound.csom/>

No known comets this month

Event Reports:

If you've participated in a club event, please submit an event report to be included here by the 10th of each month. It doesn't have to be anything formal, just a brief description about the event and how it went. Credit will be given unless you request to be kept anonymous.

Upcoming Regional Events:

See NSN for latest information

Symphony in the Flint Hills – June 15

Chase County, Host:Irma's Pasture

Time: 10:00 AM - 11:00 PM

This year is the 14th Annual Signature Event at the Symphony in the Flint Hills and will be held in Chase County. The theme this year is Ad Astra. The host ranch is Irma's Pasture in Bazaar, Kansas. The private ranchland in Chase County is owned by Mike Stout, board chair for Symphony in the Flint Hills, and his brother, Joe Stout.

This year's theme will shine the spotlight on the state's motto "Ad Astra," with region-wide activities that tie to Jump!Star, a multi-faceted arts program developed by artist George Ferrandi with support from the National Endowment for the Arts.

This is an all day event. Telescopes are set up for solar viewing while educational outreach presentations are held inside the educational tent before the concert begins. This is a collaboration with the Salina Astronomy Club. At the conclusion of the concert patrons come by for some evening viewing. Jupiter will be in the southeast sky at sunset in Ophiuchus about 8° from the two days from Full Moon to the west. Saturn will be rising on the eastern horizon around 10:30 p.m. about an hour before the end of evening twilight.

Please contact the SFH Team Leader Jerelyn Ramirez for questions, your volunteer assignment, parking passes, and other information regarding this event.

See NSN for details and updates

MSRAL 2019 – June 14-16

Rockhurst University, 1100 Rockhurst Road Kansas City, MO 64110

MSRAL event is being held this year in Kansas City, MO, hosted by The Astronomical Society of Kansas City.

There will be speakers, Vendors, and an Astrophotography Contest.

For more information go to www.msral.org

Fall River Star Party – August 2-3

Fall River State Park, Casner Creek Campgrounds

Come join us at the annual Fall River event. Join us for an evening of dark skies and deep space viewing. Jupiter and Saturn will be featured this night too.

Camping is available for all who want to come out for some dark sky viewing. Come for the dark skies and the fellowship. A dinner is planned before the Saturday event for all who attend.

See NSN for details

Upcoming KAO/Public Events:

See NSN for latest information and new events as they are added

Cub Scouts Pack 515 – April 26

Lake Afton Public Observatory (LAPO), 25000 West 39th South, Goddard, KS 67052

This is a private event for Cub Scout Pack 515. They may be working on their Astronomy Belt Loop and Astronomy Pin.

Cub Scout Pack 515 are interested to learn an outreach program where they would have the opportunity to learn more about the observatory, astronomy and more.

See NSN for details and volunteer info

Saint Mary's Academy – May 9

Saint Mary's Academy, 200 E Mission Street, Saint Marys, KS 66536

We will be discussing the OSIRIS-REx mission to the asteroid Bennu. This mission will be bringing a sample of the asteroid back to Earth for analysis.

See NSN for details and volunteer info

Kick-Off Party – May 20

Mulvane Public Library, 408 N. 2nd Ave., Mulvane, KS 67110

The Mulvane Public Library is hosting a Kick-Off Party with informational booths to promote business or events. The Kansas Astronomical Observers has been invited to set up an astronomy educational booth for the event. There will be some hands on activities and visual aids to enhance your astronomy experience.

See NSN for details and volunteer info

Mulvane Family Mulvane Public Library – June 7

Mulvane Public Library, 408 N. 2nd Ave., Mulvane, KS 67110

The Mulvane Public Library is hosting an event for family with the theme on Space...a Universe of Stories. Come and learn about our Solar System.

See NSN for details and volunteer info

In the Moonlight – June 10

Pottawatomie Wabunsee Regional Library, 306 N 5th Street, Saint Marys, KS 66536

Have you seen the Moon up close? Craters, lunar features, and lunar landing sites are awesome up close. Come by the library in Saint Marys. We will set up on the south parking lot. Experience some lunar fun.

See NSN for details and volunteer info

Augusta Library– June 28

Robert Shryock Park, 2923 Ohio Street, Augusta, KS 67010

Please come on out to the Robert Shryock Park in Augusta for some awesome observing. The park is located north on Ohio Street. We will have some before the sun set activities. After the sun sets we will be able to see through the telescope at Jupiter high in the sky, and Saturn rising in the east.

We will attempt to locate an asteroid in the asteroid belt; (1) Ceres.

See NSN for details and volunteer info

Coldwater Library Summer Reading (Universe of Stories theme) – July 10

Coldwater Library, 221 E. Main, Coldwater, KS 67029

This would be an indoor event at the Coldwater Public Library and preferably in the morning. Any educational emphasis on the universe, the night sky, etc. that could help children learn about the world above us. Pictures or any other type of material would be appreciated for them to learn as well. Of course, if you have any recommended books on the subject, those suggestions would be appreciated as well. This year's theme is "Universe of Stories" which is very fitting with it being the 50th anniversary of the Apollo 11 moon landing. So, anything would be very helpful.

See NSN for details and volunteer info

Astro Fest 2019 – August 10

Lake Afton Public Observatory (LAPO), 5000 West 39th South, Goddard, KS 67052

Time: 3:00 PM – 1:00AM (Setup 10:00 AM)

This is a collaboration with LAPO. Solar activities during the day with other activities through out the day. Having telescopes for the visitors to share with them the wonders of the night sky. This night is three days after a first quarter Moon. Yes it is a lot of Moon, but most visitors have never looked through a telescope and the Moon is always a huge hit. There will be a nice terminator to visually see some depth to some craters. This is also the 50 year Anniversary of the Apollo lunar landing missions. All six landing sites should be visible, you can point them out with your telescope.

This is the second annual event to promote the observatory. To make this astronomy party a success we need volunteers. They plan to stay open till 1:00 a.m.

So lets help out LAPO by kicking off this astronomy party.

See NSN for details and volunteer info

Volland Store – August 24

The Volland Store, 24098 Volland Rd, Alma, KS 66401

We have been invited to help host an event at the Volland Store in Alma Kansas. Dark skies are on the agenda where we can observe Jupiter and Saturn. Even Urnaus and Neptune will be up for a showing if conditions are right. What about a few comets, there is the possibility a couple will be close enough to catch a glimpse of these fast moving solar system objects.

See NSN for details and volunteer info

Featured Article:



This article is distributed by NASA Night Sky Network

The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.org to find local clubs, events, and more!

Mars the Wanderer

By David Prosper

April's skies find Mars traveling between star clusters after sunset, and a great gathering of planets just before sunrise.

Mars shows stargazers exactly what the term “planet” originally meant with its rapid movement across the evening sky this month. The ancient Greeks used the term *planete*, meaning *wanderer*, to label the bright star-like objects that travelled between the constellations of the zodiac year after year.

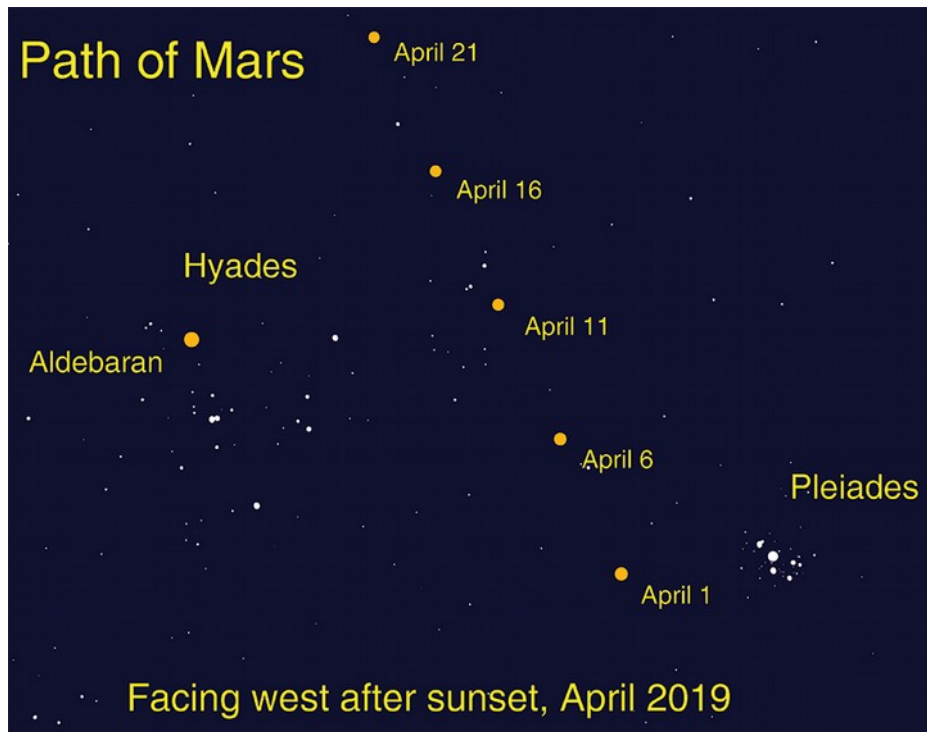
You can watch Mars as it wanders through the sky throughout April, visible in the west for several hours after sunset. Mars travels past two of the most famous star clusters in our night sky: the **Pleiades** and **Hyades**. Look for the red planet next to the tiny but bright Pleiades on April 1st. By the second week in April, it has moved eastward in Taurus towards the larger V-shaped Hyades. Red Mars appears to the right of the slightly brighter red-orange star **Aldebaran** on April 11th. We see only the brightest stars in these clusters with our unaided eyes; how many additional stars can you observe through binoculars?

Open clusters are made up of young stars born from the same “star nursery” of gas and dust. These two open clusters are roughly similar in size. The Pleiades appears much smaller as they are 444 light years away, roughly 3 times the distance of the Hyades, at 151 light years distant. Aldebaran is in the same line of sight as the Hyades, but is actually not a member of the cluster; it actually shines just 65 light years away! By comparison, Mars is practically next door to us, this month just a mere 18 light minutes from Earth - that's about almost 200 million miles. Think of the difference between how long it takes the light to travel from these bodies: 18 minutes vs. 65 years!

The rest of the bright planets rise before dawn, in a loose lineup starting from just above the eastern horizon to high above the south: **Mercury**, **Venus**, **Saturn**, and **Jupiter**. Watch this month as the apparent gap widens considerably between the gas giants and terrestrial planets. Mercury hugs the horizon all month, with Venus racing down morning after morning to join its dimmer inner solar system companion right before sunrise. In contrast, the giants Jupiter and Saturn move away from the horizon and rise earlier all month long, with Jupiter rising before midnight by the end of April.

The **Lyrids** meteor shower peaks on April 22nd, but sadly all but the brightest meteors will be washed out by the light of a bright gibbous Moon.

You can catch up on all of NASA's current and future missions at nasa.gov



*Caption: The path of Mars between the Pleiades and Hyades in April.
Image created with assistance from Stellarium.*