

# Antares

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## The Newsletter of the Kansas Astronomical Observers

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Meeting time: July 21, 2018 7:30 pm

Location: **Lake Afton Public Observatory**

Speaker: **None Schedule**  
Topic: **N/A**

**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](mailto:kevin.l.kight@gmail.com) \*Please begin the subject line with "Antares"

### **Current Club Officials**

<b>President:</b>	<b>Jerelyn Ramirez</b>	<a href="mailto:jerelyn.ramirez@gmail.com">jerelyn.ramirez@gmail.com</a>
<b>Vice-President:</b>	<b>Tony Haidai</b>	<a href="mailto:thaidai@cox.net">thaidai@cox.net</a>
<b>Treasurer:</b>	<b>Paul Ramirez</b>	<a href="mailto:ramirezpm2@gmail.com">ramirezpm2@gmail.com</a>
<b>Newsletter/Media:</b>	<b>Kevin Kight</b>	<a href="mailto:kevin.l.kight@gmail.com">kevin.l.kight@gmail.com</a>

**Next Month's Meeting: August 18 at Lake Afton Public Observatory**

# **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, contact Club Vice-President: Tony Haidai ([thaidai@cox.net](mailto:thaidai@cox.net))

## **Newsletter Items for Publication:**

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

## **New Club T-shirts available:**

New club T-shirts are available for \$10 each. They are lime green and made from 50% cotton and 50% polyester. See addendum for more information.

## **Club Membership Update:**

There are currently 58 members of the KAO.

New members are:

- Richard Dunkin from Bloomington MN
- Krystal Groshans from Derby KS
- Bharath Rao from Andover KS
- Michael Vanderburg from Ponca City OK
- Kevin Yale from Wichita KS

## **June Club Meeting:**

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

# **From The Desk of the President:**

## **Notice of club changes up for a vote**

### **First item up for a vote:**

#### **Club membership dues needs to be modified from:**

*For Multi-Member Family Households:*

\$20 for the Primary Adult Member with or without AL Membership

\$20 for the Second Adult Member with AL Membership or

\$15 without AL Membership.

All children must be sponsored by a Primary Adult Member;

*Children are 17 and under dues are;*

\$10 with AL Membership or,

\$5 without AL Membership.

### **Change to:**

*For Multi-Member Family Households:*

\$20 for the Primary Adult Member

\$15 for the second Adult Member

All children must be sponsored by a Primary Adult Member;

*Children are 17 and under dues are;*

\$10 with AL Membership

### **Reason for the change:**

Dues for the Astronomical League are \$5 per member if 95% or more of Society participation in League Membership.

Dues for the Astronomical League are \$7.50 per member if less than 95% of Society participation in League Membership.

This made a difference of \$110 more for our membership dues to the Astronomical League. At the time of our payment to the Astronomical League we had 53 club members and 3 members had opted out of the Astronomical League. This put us at 94% membership participation with the Astronomical League. When the proposal, at the top of the page, was brought up for a vote at the beginning of the year, it was not yet realized how much this would financially impact our club membership to the Astronomical League.

Prorating dues beginning on June 1<sup>st</sup> to \$10 for all members will remain the same. This is for all adults and children. \$10 will be a fixed rate on June 1<sup>st</sup> till the end of the year for all new memberships.

We now have 57 club members, and to carry a vote we must have a quorum of 11 members or more in attendance to vote, which is 20% of membership according to our bylaws.

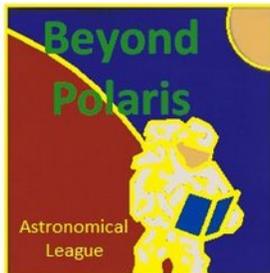
## Second item up for a vote:

50% discount on annual dues for a new member after they complete the Astronomical League's Beyond Polaris Program. It has to be established the new member is a beginner / novice astronomer. This discount only applies for one year after the completion of the program beginning at the first of the year when our dues are due.

- The Beyond Polaris is an adult version of the Sky Puppies Program, and was added to the Astronomical League Program list in 2017, Sky Puppies was added in 2003.
- The Sky Puppies Program can only be earned by children 10 years old or younger. These children are not required to be a club member or a member-at-large with the Astronomical League. If these children are not a member of the Astronomical League they must be mentored by someone who is a member of the Astronomical League.
- Proof of age is required to earn this award.



## The reason for this discounted perk:



This is an attempt to retain new beginner members to our club. Many new members leave after one year of membership because they feel a little overwhelmed with the astronomy language and knowledge. Beyond Polaris is an observing program that was designed for anyone who enjoys looking at the sky but has no astronomy background. Their main interest is to better understand the constellations, their stories, name a few stars and then to share this information with family and friends.

Both the Beyond Polaris and Sky Puppies Program are great introductory programs and can help nurture and retain new members. Novices come to our meetings not looking for how they can contribute to our club, but how we can help them become better, more knowledgeable astronomers. They feel let down and don't return to meetings or renew their membership after they become members. By offering this discounted perk for new beginner members may help them become more experienced astronomers and nurture our club's future.

Novice members must complete this program within the first 2 years of being a member to qualify for the 50% discount.

To carry a vote we must have a quorum of 11 members or more in attendance to vote on this proposal, which is 20% of membership according to our bylaws.

# Solar and Planetary Items:

## **Moon Phases:**

**Last Quarter:** July 6  
**New Moon:** July 12  
**First Quarter:** July 19  
**Full Moon:** July 27

## **Planets:**

**Mercury** – Visible in the West after Sunset in Cancer; Sets approximately 10:20 pm  
**Venus** – Visible in the West After Sunset in Leo; Sets approximately 11:10 pm  
**Mars** – Visible in the South before Sunrise in Capricornus rises approximately 10:30pm  
**Jupiter** – Visible in the West in Libra. Setting approximately 2:20 am  
**Saturn** – Visible throughout the night, transiting approximately 12:50 am in Sagittarius  
**Uranus** – Visible in the morning; rising at 1:50 am in Aries  
**Neptune** – Visible in the morning, rising approximately 12:00 am in Aquarius

## Comets:

Listed below are comets possibly visible in telescopes from the Wichita area (approximately cutoff at magnitude 11). Magnitudes shown are approximate predictions for mid-month. Links are provided for additional information:

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

**21P/Giacobini-Zinner:** An evening comet in Cygnus moving into Cassiopeia.  
Magnitude 11

<https://theskylive.com/21p-info>

# Event Reports:

If you've participated in a club event, please submit an event report to be included here by the 10<sup>th</sup> 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.

## **Libraries Rock Event:**

See addendum for a short summary about the Libraries Rock event held on June 15<sup>th</sup>.

## **Four Winds Family Camp Event:**

See below for an event report from one of the volunteers at the Four Winds Event held on June 23<sup>rd</sup>.

*I arrived at Four Winds just after 8 p.m. to find both Paul and John already there. We set up our three scopes at about 8:15 to 8:30 and were ready at about a quarter to 9. I had my Meade 10 inch on its pier mount, I think Paul had his 14 inch Newtonian on a Dobsonian mount, John also had a Newtonian on a Dobsonian mount, though I do not know what size it was. We had about 2 dozen people looking through our scopes, mostly youngsters and some parents and other siblings. They all had lots of questions.*

*The viewing sight was windless and humid, there were fireflies and the sky was lightly clouded to the South and East, getting more extensive to the North and West. At around half past 9 to a quarter to 10, we started to have condensation issues with the Telrad glass misting up.*

*We all started by looking at the moon as it was an obvious target before the sun was fully down, transferring to Jupiter, which was the next available target in the east. I found my initial attempts to view Jupiter difficult as it was still light enough to overpower my Telrad. I later set up on Venus once the sky had darkened enough and the cloud cover had reduced at around a quarter past 9. I managed to show a close pair of stars (one orange/yellow and one blue/green) that I mistook for Alberio whilst trying to view Vega. I finally got Vega just before we called it a night, as we most of those who were present had already left. I do not know which other objects Paul and John looked at after the Moon and Jupiter.*

*Jon Marshall-Potter*

# Upcoming Regional Events:

## **Fall River Star Party**

Friday, August 10- Saturday, August 11

**Fall River State Park & Campgrounds, Fall River, KS 67047**

(7:30 PM - 11:59 PM)

Come join us at the annual Fall River event. Join us for an evening of dark skies and deep space viewing. Mars and Saturn will be featured this night with Jupiter and Venus setting in the west just after sunset.

# Upcoming KAO/Public Events:

## **Lake Afton Public Observatory Star Party – July 21**

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

(1:00 pm – 1:30 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 two days after a first quarter Moon.

LAPO is looking to schedule this type of astronomy party maybe twice a year to promote the observatory. To make this astronomy party a success we need volunteers. This event will begin before the club meeting. We will still hold the meeting but we'll keep the meeting short. They plan to stay open till 1:00 a.m.

Lake Afton Public Observatory Proudly Presents

# ASTROFEST 2018

July 21 1:00 pm - July 22 1:00 am  
12 hours of Stargazing on  
The Sun - Venus - The Moon - Jupiter - Mars - Saturn

With a special appearance of soldiers from the 501st Legion!  
These troopers, stranded due to the schemes of rebel scum,  
will join us for the evening as they attempt to locate a  
Star Destroyer in orbit

**Also featuring:**  
Telescope workshops  
Games & Hands-On Activities  
Astronomy Presentations  
Lunar Astrophotography  
A Photo Booth  
Food Trucks

25000 W 39th S,  
Goddard, KS  
67052

See [LakeAfton.com](http://LakeAfton.com)  
for more details!

**Food will be catered to the area. See NSN Calender for details.**

## **The Opposition of Mars – July 28**

**Saint Marys High School**, 312 East Lasley Street, Saint Marys, KS 66536

(8:30 PM)

**Setup Time:** 7:30 PM

The Opposition of Mars is coming to a neighborhood near you. What this means is when Mars enters opposition, it will be on the opposite side of the Earth from the Sun in a straight line. "In addition, this year, Mars will reach what is called "perihelic opposition". Perihelion refers to the point in Mars' orbit when it's closest to the sun. Therefore, when Mars is closest to the sun, it is even closer to Earth during opposition". Mars will be larger and brighter than normal, and no, it will not be as large as the Moon. Mars will be about 35 million miles away at this time, closer than normal, but still pretty far away.

Bring your smart phone and you will be allowed to take photos of this awesome event through the telescope. Other planets will be showcased too.

## **Mars Closest Approach at the Winfield Winery – August 4**

**Saint Marys High School**, 312 East Lasley Street, Saint Marys, KS 66536

(8:00 PM-12:00 AM)

**Setup Time:** 7:00 PM

The Wheat State Wine Co. in Winfield is hosting a star party presenting Mars at its closest approach. Mars will be its closest to Earth since 15 years ago. No, Mars will not be larger than the Moon, but it will be larger than you would normally see it. Earth travels almost twice around our Sun before Mars makes one trip around the Sun. Make no mistake, even though Mars will be closer to the Earth it will still be over 35 million miles away. There will be other planets to see this night, Saturn, Jupiter, and Venus will be low on the western horizon. You can purchase your tickets for this event by following this [Winfield Winery](#) link.

**See NSN Calender for details.**

## **Heights Astronomy Night – November 15**

**Heights High School**, 5301 N Hillside, Wichita, KS

(7:30 PM - 9:00 PM )

**Setup Time:** 7:00 PM

Heights Astronomy Night at the Heights High School in Wichita Kansas. Come on out to the 6th Annual Astronomy Night. The Kansas Astronomical Observers will be providing telescopes for viewing the night sky. What will we see; well the first quarter Moon will be on display high in the sky right near the planet Mars, both in the constellation Aquarius. If we are lucky we can catch Saturn to the west before it sets in the constellation Sagittarius.

This event is open to all visitors. Come one come all, all are welcome.

If we have clouded out skies we will set up inside and have the visitors look at the telescopes up close and discuss other astronomy related topics.

See NSN Calender for details.

# Featured Article:

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A Close-Up View of Mars

By Jane Houston Jones and Jessica Stoller-Conrad

In July 2018, skywatchers can get an up close view of Mars—even without a telescope! In fact, on July 31, Mars will be closer to Earth than it has been in 15 years.

Why is that?

Like all the planets in our solar system, Earth and Mars orbit the Sun. Earth is closer to the Sun, and therefore it races along its orbit more quickly. Earth makes two trips around the Sun in about the same amount of time that Mars takes to make one trip.

Sometimes the two planets are on opposite sides of the Sun and are very far apart. Other times, Earth catches up with its neighbor and passes relatively close to it. This is called Mars's closest approach to Earth, and it's happening this year on July 31. The Moon will be near Mars on that night, too!

Keep in mind that even during its closest approach, Mars is still more than 35 million miles away from Earth. That's really far. So, Mars won't appear as big as the Moon in the sky, but it will appear bigger than it usually does.

July and August will be a great time to check out Mars. Through a telescope, you should normally be able to make out some of the light and dark features of the Red Planet—and sometimes even polar ice. However, a huge Martian dust storm is obscuring these features right now, so less planetary detail is visible.

There is another important Mars date in July: Mars opposition. Mars opposition is when Mars, Earth and the Sun all line up, with Earth directly in the middle. This event is happening on July 27 this year.

Although you may see news focusing on one of these two dates, Mars will be visible for many months. For about three weeks before and three weeks after opposition and closest approach, the planet will appear the same size to a skywatcher.

From July 7 through September 7 Mars will be the third brightest object in the sky (after the Moon and Venus), shining even brighter than Jupiter. The best time to view Mars

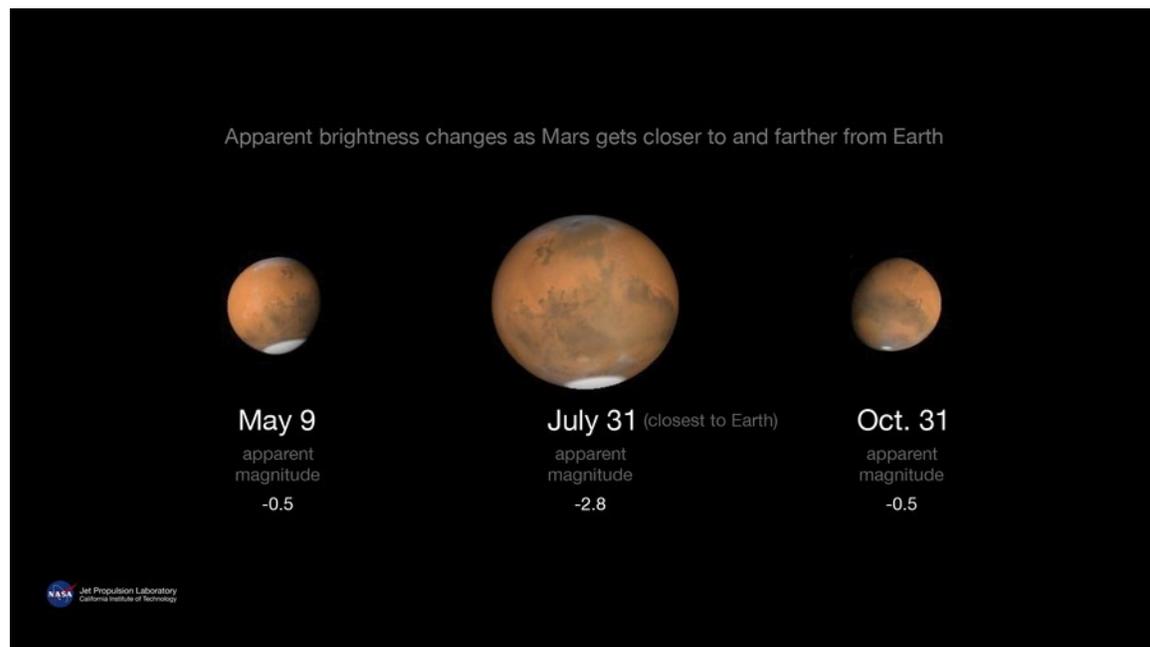
during this time is several hours after sunset, when Mars will appear higher in the sky.

Mars will still be visible after July and August, but each month it will shrink in size as it travels farther from Earth in its orbit around the Sun.

In other sky news, there will be a partial solar eclipse on July 13, but it will only be visible from Northern Antarctica and southern Australia. On July 27 (beginning at 20:21 UTC), a total lunar eclipse will be visible in Australia, Asia, Africa, Europe and South America. For those viewers, Mars will be right next to the eclipsing Moon!

If you're wanting to look ahead to next month, prepare for August's summer Perseid meteor shower. It's not too early to plan a dark sky getaway for the most popular meteor shower of the year!

You can catch up on NASA's missions to Mars and all of NASA's missions at [www.nasa.gov](http://www.nasa.gov)



*Caption: In 2018, Mars will appear brightest from July 27 to July 30. Its closest approach to Earth is July 31. That is the point in Mars' orbit when it comes closest to Earth. Mars will be at a distance of 35.8 million miles (57.6 million kilometers). Credit: NASA/JPL-Caltech*