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The Shoreline Observer
February 2025

CLUB NOTES

In this issue:

Dear Members,

I am happy we are able to leave behind us a long, cloudy, snowy and cold January. February looks already much brighter and days are getting noticeable longer.

I am happy with the response on the Tuesday membership observing night, at which ten (10) people showed interest.

Despite the fact that we missed the occultation of Mars in January, we hope to be able to see on the night of February 5 the occultation of stars in the Pleiades.

We still have going on the parade of planets with Venus at -4.8 magnitude shining bright in the West.

On February 1 at 7 pm, Mike Long will present at Hemlock Nature Center on the latest results of the James Webb Space Telescope.

February 13 is our next membership meeting where we take advantage of having access to the new digital Planetarium of Macatawa Bay school and have an evening show prepared.

We discussed with the School principal plans for an upgrade of the Planetarium room as well as the office. This will come into fruition over the first half of 2025.

Also plans are established to make a small Museum and have SAAA display items there.

Enjoy our latest newsletter and clear skies!
Regards,
Karl Rijkse
President, SAAA

Calendar and Upcoming Events

Public Observing

When Weather Permitting Every FRI evening starting between 6:30 and 7PM.

Where Hemlock Crossing Public Observatory, 8115 W Olive Rd, West Olive, MI 49460, USA

Description The observatory is open from our start time until 11 PM (weather and clear sky permitting, see note after October 14th). There are no entry fees. Please be aware that the park gate closes automatically at 8 PM sharp, therefore visitors must arrive before 8 PM to enter the park. You will be able to leave as you wish.

Visible night sky objects: planets, the Moon, deep sky objects like galaxies, star clusters and planetary nebulae.

February Club Lecture

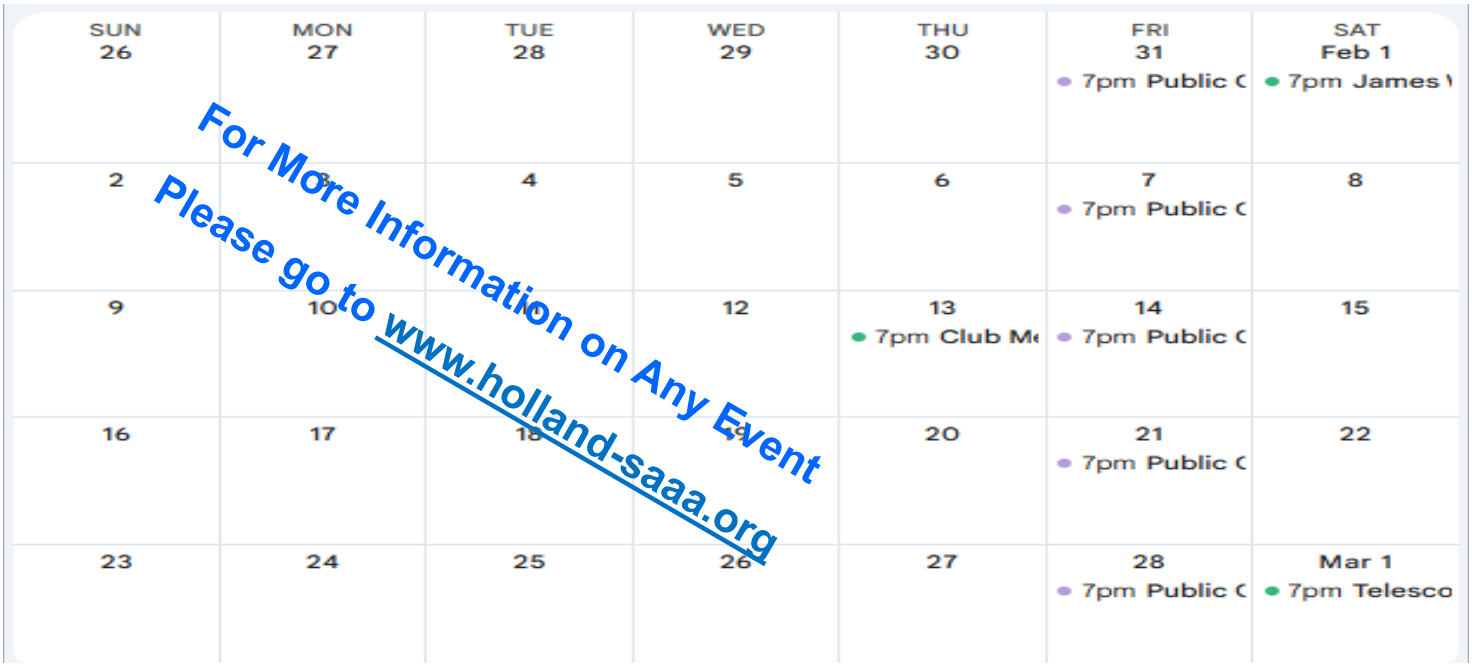
Please make plans to join Mike Long on Saturday, February 1st, 7PM, at Hemlock Crossing County Park Nature Center for a presentation on The James Webb Telescope.

The James Webb Telescope launched a little over three years ago continues to make exciting and amazing discoveries of our universe, the results of which are constantly changing as well as increasing our knowledge of the cosmos and our place in it. This presentation will cover a brief history of the space observatory, and how it gathers and transmits information.

Looking Ahead: March 3/1 Club Lecture

Did you receive a telescope for Christmas? Do you have a telescope stored inside a closet? If so, do you need help assembling and using it? Come to this workshop with your scope and we will get you all set up to enjoy the beauty of the Universe.

February 2025



What's Up in the Sky – February, 2025
By Peter Burkey

It's Venus

If you venture out any time after sunset and look to the southwest, you will be sure to spot a very bright light high over the horizon. Several friends have asked me about it so I thought I would satisfy everyone's curiosity and confirm your suspicions by telling you that it is indeed the planet Venus.

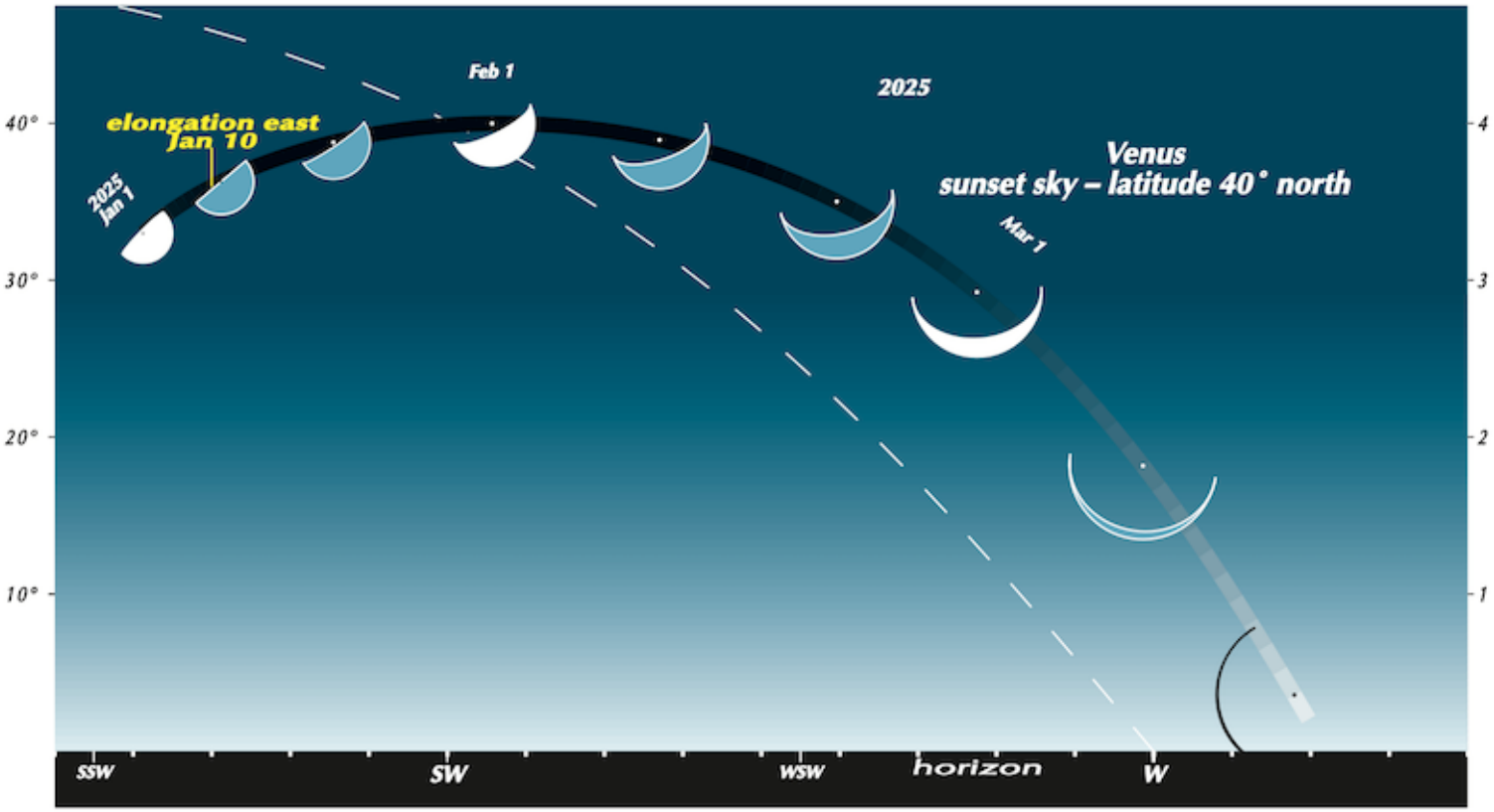
Venus has played quite an important role in human history. In the ancient tradition of attributing that which is unexplained to the "gods", Venus was named after the goddess of love and beauty. All the planets had special significance to early civilizations because they did not follow the normal behavior of everything else in the sky, Sun and Moon notwithstanding. The visible planets demonstrated god-like behavior, being seen in different locations at different times of year. Being one of the brightest objects in the sky, Venus has been revered by civilizations throughout recorded history.

Besides her historical significance, Venus has played an important role in the history of science. It was the first planet to have its positions plotted in the sky, almost four thousand years ago. In the middle ages, Galileo's observations of the phases of Venus offered evidence of a Sun-centered, not Earth-centered system.

Due to its close approaches to Earth, it was an early target for planetary exploration. When Mariner 2 made its close flyby in 1962, it marked the first time any planet had been visited by a spacecraft. Venus also became the first planet to have a spacecraft from Earth land on its surface when Venera7 did so in 1970.

Venus is the planet with the highest surface temperature (over 850 degrees F) not because of its close proximity to the Sun, but because of global warming. Its atmosphere is about 98% carbon dioxide which traps most the heat from the Sun and creates a runaway warming cycle.

Transits of Venus, when the planet travels directly between the Sun and Earth and appears as a black dot moving across the face of the Sun, are relatively rare events. The last one occurred in 2012 but the next one won't be until 2117. There is some historical significance to this event. In 1768 Captain Cook sailed to Tahiti to observe a transit of Venus.



This Month in Club History

February 1991

JUPITER'S MOONS AND THE SPEED OF LIGHT

Soon after Isaac Newton published his theory of Universal Gravitation, the astronomers of the day devoted much of their time to measuring the orbits of the planets and their moons in order to provide the necessary data to test the theory. Although most of the figures fit the equation beautifully, some of the observed positions of the moons of Jupiter did not match those predicted by the new law. In fact, the moons seemed to be behind in their orbits when Jupiter was farthest from Earth and ahead in their orbits when Jupiter was nearest. At first this was thought to be a contradiction of the theory, but the explanation is very simple and beautiful. It takes some time (about 1/2 hr) for light to travel fro Jupiter to the earth and when Jupiter is farther, the time is a little more, when it is neared, the time is a little less. Therefore, the moons appear to be a little ahead or a little behind, depending on whether they are closer to or farther from the earth. These observations showed that light traveled at a finite speed, and furnished the first estimate of the speed of light. This work was done in 1656.

Contributed by Peter Burkey

What Star am I?

I'm one of the largest stars known
(Sol would be a dwarf next to me!)
I carry a well known address
(My location just can't be missed)
I resemble a gem in the February night
(The Hunter displays me like a trophy!)
What star am I?

If you think you know the answer, send it to Peter Burkey (consult your membership directory) to either his email or cell phone. The answer will appear here next month.

NASA's Photo of the Day!

https://apod.nasa.gov/apod/astropix.html features the photo of the day. Each day a different image or photograph of our fascinating universe is featured, along with a brief explanation written by a professional astronomer.

Hyperlink is hot (CTRL/CLICK)
Editor's Note: Their photos are copyrighted.

This Month in Astronomy History

On This Day ...

Feb 1: Shuttle Columbia breaks apart during reentry killing all 7 astronauts - 2003
Feb 6: First untethered spacewalk made by Bruce McCandless - 1984
Feb 15: Galileo Galilei born - 1564
Feb 18: Pluto discovered - 1930
Feb. 20: John Glenn is first American to orbit Earth - 1962
Feb. 24: Detection of first pulsar (by Jocelyn Bell in 1967) is announced - 1968

Kids Corner

https://spaceplace.nasa.gov/ A place where kids and grown-ups have fun with chnology.

NASA Climate Kids: It's all about climate.
https://climatekids.nasa.gov/

SciJinks: It's all about weather! https://scijinks.gov/

Kids, you know which are our 8 planets, but can you name our dwarf planets? For more, see Spaceplace NASA.

Ceres: Dwarf planet Ceres is the largest object in the asteroid belt between Mars and Jupiter, and it's the only dwarf planet in the inner solar system.

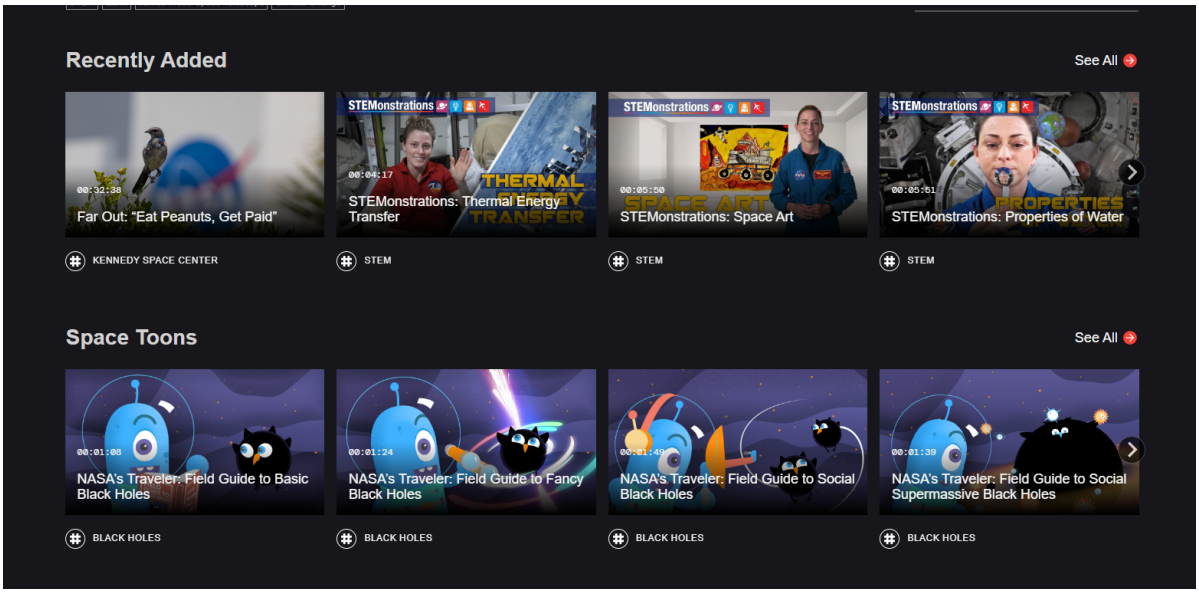
Pluto: Pluto was long considered our solar system's ninth planet. It was reclassified as a dwarf planet in 2006 by the International Astronomical Union.

Haumea: Haumea was nicknamed Santa by one discovery team. It is oval-shaped, and is one of the fastest rotating large objects in our solar system.

Makemake: Makemake is slightly smaller than Pluto, and is the second-brightest object in the Kuiper Belt, while Pluto is the brightest.

Eris: The discovery of Eris helped trigger the debate in the scientific community that led to the decision to clarify the definition of a planet.

Additional Sharing for Kids on https://plus.nasa.gov/topics/kids/



Club Photos

President Karl Rijkse supplied a couple of his photos and the Orion nebula, on left, and the horse head nebula on right.

Both pictures 20 minute exposure on his Seestar S50.

Photos by Mike Cortright

(Above) M33 - Triangulum Galaxy
(Right) IC 1396 - Elephant Trunk Nebula

Kid's Corner Extra: Phases of the Moon

From https://spaceplace.nasa.gov


Moon phase cycle, from 1 day to 28 days old (totally dark)

Why does the Moon look different throughout the month?

The Moon has "phases." That means it looks a little different to us each night during its one-month orbit of our planet. We describe how the Moon looks with terms such as "Full Moon," "First Quarter," and "New Moon" (which we can't really see, because the side that is lit faces away from us).

The Moon has no light of its own. Moonlight is sunlight bouncing off the Moon's surface. As the Moon orbits Earth, the Sun lights up whatever side of the Moon is facing it. To the Sun, it's always a full Moon!

Space Month at Freedom Village

One of our members, John Dillbeck, wanted to show his project at Freedom Village. There was an empty display window available, so he set up an astronomical display featuring some general astronomy photos and objects, as well as pictures of extraterrestrial objects he has collected.

Selling Equipment?

If you want to sell your telescope or other astronomy equipment, we will provide space here, on this page of our newsletter.

Any member interested in selling their astronomy equipment to other members they can do this via the Newsletter. SAAA will not be otherwise involved or responsible for any bidding/selling transactions. The member should list the asking price, a picture and phone number to be reached at in order to be contacted directly. Please send to Barb/Editor (barbwbrown@hotmail.com) seven (7) days before the end of any month in order to be included in the next month's issue.

Keyholder Schedule

Members, please see our membership roster for contact information in order to schedule for the Keyholder in order to schedule an Observatory private tour.

JAN 26-FEB 1	Michael Long
FEB 2-8	James Reier
FEB 9-15	Harold Reitsema
FEB 16-22	Karl Rijkse
FEB 23-MAR 1	Frank Roldan

Have you missed a copy, or lost one, or just want to browse old issues of Astronomical League's *Reflector*?
Astronomical League's quarterly *Reflector* magazine:
https://www.astroleague.org/reflector/

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Not sure received your copy of Reflector, or, looking for a past issue?
Digital copies of the Astronomical League's quarterly Reflector magazine can be found at:

https://www.astroleague.org/reflector/