



CLUB NOTES

In this issue:

- Club Notes
- The Night Sky: February
- Calendar and Events
- Kid's Corner
- Club History Moment
- Featured Photo
- Member Information

The next SAAA membership meeting will be held on Thursday, February 8, at 7 pm in the planetarium as usual.

Following our usual format, we will start with ten or fifteen minutes of socializing to get reacquainted, then set up the chairs for our planetarium programs. The main program will be a presentation by Lindsey Smith entitled "Thoughts on the 2017 Eclipse". We are still looking for a volunteer to present the constellation of the month. I know this can be a challenge for those who do not have a library of information on the constellations so I am forwarding a link that you might find helpful: <https://www.constellation-guide.com/constellations-by-month/february-constellations/>

Let's have a good turnout for this month's meeting as we prepare for April's solar eclipse. More on that later.

Peter
Peter Burkey
President, SAAA



The Night Sky: February

Planets often appear in our night sky as added attractions to the beauty of the stars. This month is a prime example as the southern sky will be home to the largest planet, Jupiter. Located roughly half-way between the southwest horizon and the zenith, it can be spotted on any clear night.

This will be a perfect opportunity to observe Jupiter's moons as they orbit the planet. On February 2, note the close pair of Io and Europa just to the left (east) of the planet. Watch the moons change positions from night to night - binoculars or a small telescope will be needed.

Saturn will also be visible, but more difficult to observe due to its close proximity to the horizon. As soon as darkness falls, see if you can spot the planet just above the western horizon. (look about one fist high)

For you morning people, Venus will put on a pretty nice show prior to sunrise. However, this will be a more challenging observation for lakeshore residents as the planet will appear close to the eastern horizon throughout the month. If you're out and about roughly 40 minutes before sunrise, you have a good chance of spotting it. Binoculars will be useful. By about 7:20 am, see if you can spot both the crescent Moon (lower right of Venus) and Mars (lower left).

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.

This is also one of the best times of the year for observing winter constellations. As soon as darkness falls, simply look to the south and locate the constellations Orion, Canis Major and Minor, Gemini, Auriga, and Taurus. Add to your experience by also viewing the two nearby open clusters, the Hyades and Pleiades.

The Abrams Sky Calendar will be very helpful for locating and identifying these objects, giving you a better appreciation for what's up in the sky. *[Editor's note regarding Abrams Sky Calendar, information about this is on the last page]*

-PB

Calendar and Upcoming Events



Public Observing

When Weather Permitting Every FRI evening 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 above after October 14th). There are no entry fees. Please be aware that the park gate closes automatically at 10 PM sharp, therefore visitors must arrive before 10 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.

Next Club Meeting

When Thu, February 8th, 7pm – 9pm

Where Planetarium at Mac Bay School (map is linked on our Website: www.holland-saaa.org)

Upcoming Events

SAAA events

Today February 2024 Print Week Month Agenda

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	Feb 1	2	3
					7pm Public Obs	
4	5	6	7	8	9	10
				7pm Club Meeti	7pm Public Obs	7pm OSIRIS-RE
11		13	14	15	16	17
					7pm Public Obs	
18	19	20	21	22	23	24
					7pm Public Obs	
25	26	27	28	29	Mar 1	2
					8pm Public Obs	

Events shown in time zone: Eastern Time - New York Calendar

*For More Information on Any Event
Please go to www.holland-saaa.org*



Space Place: <https://spaceplace.nasa.gov/> A place where kids and grown-ups have fun with space and technology.

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



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

Club History Moment: From January 1990

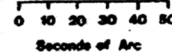
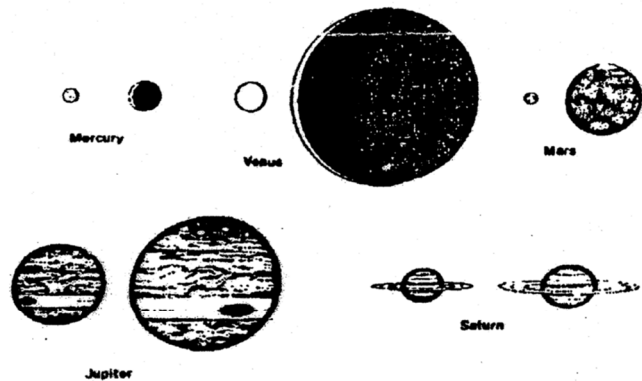
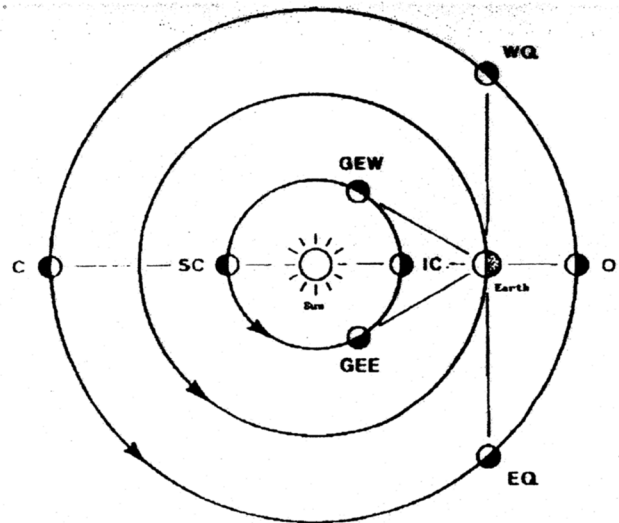
Planets

Have you ever wondered what *superior conjunction* meant? How about *greatest elongation east*? The following diagrams have been reprinted from the *Observers Handbook 1990*. The first diagram shows the positions of inferior planet (those closer to the sun than the earth) and superior planets (those farther from the sun than the earth) which merit special vocabulary terms.

When a superior planet is at *opposition* (O), the earth is directly between it and the sun (or at least as close between them as their orbits allow!). The planetary diameter will also appear at its widest as seen from an observer on the earth (see adjacent diagram). The planet is said to be at *conjunction* (C) when the sun is between that planet and the earth and it will appear smaller to an observer on the earth. Note that the difference in apparent planetary diameter between conjunction and opposition is negligible for Uranus and Neptune. That is because of the extreme distance between those planets and

earth. When a superior planet is at *eastern quadrature* (EQ) it is in the evening sky (i.e. it is east of the sun along the ecliptic). The converse is true for *western quadrature* (WQ).

An inferior planet is at its largest (as seen from earth) when it is just before or just after *inferior conjunction* (IC), or when it is between the sun and the earth. Of course, only a thin crescent can be seen at that time (see diagram below). An inferior planet is at its greatest apparent separation from the sun (as seen from the earth) when it is at a *greatest elongation east* (GEE; evening sky) or *greatest elongation west* (GEW; morning sky).



HEMLOCK CROSSING PUBLIC OBSERVATORY - PUBLIC ATTENDANCE 2023 Page 1 of 2

DATE	CANCELLED WEATHER	EVENT/ TOUR	VISITORS		
			ADULTS	YOUTH	CHILDREN
JAN					
6	X				
13	X				
14			37	5	5
15		X	30	0	0
20	X				
27	X				
FEB					
3	X				
10	X				
11			50	3	3
17			3		
24	X				
MAR					
3	X				
10	X				
11			19	5	2
17	X				
24	X				
27		X	2	1	
APR					
7			98	17	35
8			38	0	10
12		X	6	0	0
13		X	10	0	0
14			29	8	8
21	X				
28	X				
MAY					
5			19	1	6
9			3	0	10
12	X				
13			32	0	4
15		X	10	0	16
19	X				
26			28	11	8
JUN					
2	X				
9			12	0	7
10		X	14	2	12
16			14	3	4
20		X	9	0	5
23	X				
25			7	3	3
30	X				
SB TOT	18	6	470	59	138

DATE	CANCELLED WEATHER	EVENT/ TOUR	VISITORS		
			ADULTS	YOUTH	CHILDREN
JUL					
6		X	3	0	2
7	X				
8		X	32	0	3
9		X	7	0	2
11			7	0	7
14	X				
18			10	0	0
21			40	10	0
28	X				
29			7	0	0
AUG					
4			43	7	5
11			7	0	1
12			150	30	10
18			20	5	5
25	X				
SEP					
1			39	6	15
8			6	0	1
9			29	4	7
12		X	3	0	0
15			37	3	10
18		X	2	1	0
22			10	1	9
29			23	7	10
OCT					
6	X				
12		X	11	0	0
13	X				
14	X	X	0	0	0
20	X				
23		X	10	0	0
27	X				
NOV					
3	X				
10	X				
11			6	0	2
17			30	5	15
24			27	5	13
SB TOT	11	8	450	84	136

Friday Public Open House	Summer Saturday Public Observing	Private Tour
After Monthly Saturday Public Lecture	Special Event	Unscheduled Visitors

DATE	CANCELLED WEATHER	EVENT/ TOUR	VISITORS		
			ADULTS	YOUTH	CHILDREN

DEC					
1	X				
8		X	250	27	70
15	X				
22	X				
29			13	0	3

GRAND TOTAL	32	16	1292	170	328
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Friday Public Open House	Summer Saturday Public Observing	Private Tour
After Monthly Saturday Public Lecture	Special Event	Unscheduled Visitors



Photograph above:
Mike Cortright ©
 Please see our website for
 more of Mike's work.
[https://www.holland-
 saaa.org/](https://www.holland-saaa.org/)

January 17, 2024

**HEMLOCK CROSSING PUBLIC OBSERVATORY
 2023 VOLUNTEER HOURS BY SAAA MEMBERS**

Public Events	
Friday Nights Public Observing	184
Post second Saturday night lectures	26
Special Events/Events	41
Student Projects	6
Sub Total	257
Maintenance & Improvements	
Maintenance	58
Improvements	14
Sub Total	72
SAAA Presentations at Nature Education Center	
8 presentations @ 1.5 hours ea.	12
Sub Total	12
Grand Total	341

Note: Above hours do not include:
 1. Training of Observatory Operators
 2. Travel to and from Observatory

Publication Information

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Editor is appointed by the SAAA board. Email: barbwbrown@hotmail.com Previous Issues of our newsletters are found on our website at: [Holland-saaa.org](https://www.holland-saaa.org/)