Skylights

Newsletter of the Astronomical Society of Northern New England

MAR 2023

Member of NASA's Night Sky Network

Astronomical League

ASNNE MISSION

ASNNE is an incorporated, non-profit, scientific and educational organization with three primary goals:

1) To have fun sharing our knowledge and interest with others.

2) To provide basic education in astronomy and related sciences to all who are interested.

3) To promote the science of Astronomy.

What's Up In March

By Bernie Reim

The month of March always marks the beginning of spring for us in the northern hemisphere. Even though it has been a very mild winter, one of the warmest on record, it is always nice to welcome spring back officially along with the ever lengthening days. That will happen at exactly 5:24 p.m. EDT on Monday the 20th.

The vernal equinox also marks the minute that the sun on the ecliptic crosses the celestial equator on an upward trajectory. Everyone on Earth except for the poles will experience the sun rising due east and setting due west on that day. The only other day that this will happen is the autumnal equinox. Within a few days of that day the days will also be exactly 12 hours long for everyone on Earth except for the poles. That is because we orbit the sun in a slight ellipse and not a circle and we are tilted with respect to the ecliptic at just under 23.5 degrees.

It should be much more inviting to go outside at night this month. The highlights include a very close conjunction of our two brightest planets, Venus and Jupiter on March 1, a close conjunction of Jupiter and Mercury on the 27th, Saturn returning to the morning sky, Comet C/2022 E3 (ZTF) still being visible as it passes through Taurus, Eridanus the River, and Orion, an opposition of the dwarf planet Ceres and the second asteroid to be discovered, Pallas, and more chances to see the zodiacal light in the middle of this month near New moon.

Venus has been catching up with Jupiter at the rate of one degree per day all of last month. They will be just half a degree apart on the first of this month in Pisces the Fish, which is the width of the full moon. The moon appears to move eastward all the time against the fixed background of stars at the rate of half a degree per hour, which means that it is traveling around us at 2,000 miles per hour. That can only really be appreciated when the moon is occulting a star or planet or when the shadow of the moon races over you at that speed at the start of a total solar eclipse like the one I saw on August 21 of 2017. After that Venus will continue to climb higher even as Jupiter sinks lower, separating them at the rate of one degree per day for all of March.

A fairly close conjunction of our two brightest planets, Venus and Jupiter, occurs about every year. The last good one was on May 1 of last year, just before all 7 of the planets lined up in order in the morning sky for most of the month of June. Notice that Venus is just under 2 magnitudes, or 6 times brighter than Jupiter. Through a telescope you would also see that Venus is now 85% lit by the sun and getting less illuminated even as it is getting brighter because it is getting closer to Earth until June when it reaches inferior conjunction. They recently found another 13 small moons of Jupiter, so it is up to 92 while Saturn is up to 83. They will find many more since there are thousands of small objects in orbit around these two large planets because of their strong gravitational fields.

Watching this conjunction unfold all last month was similar to watching Saturn and Jupiter getting closer every day during November and December of 2020 leading up to their closest conjunction in 800 years happening right on the winter solstice that year. They were just one tenth of a degree apart that day, easily visible in the same field of view in a telescope. Of course it was cloudy for us that day, but I did see and photograph them the next night when they were still less than a quarter of a degree apart. They get fairly close every 20 years.

Mercury returns to the western evening sky late this month and it will form a nice conjunction with Jupiter on the 27th, half an hour after sunset. Uranus will be just over one degree to the left and above Venus, but you would need at least a pair of binoculars to see it.

Then Mars continues to get a little fainter and smaller each night since it is well past its opposition last December and has been tracking in its normal eastward motion since January 12. We are leaving it a little farther behind each night in our

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What's Up "*Continued from page 1*"

respective orbits around the sun. Notice that the red planet will still shine brighter than the nearby orange star named Aldebaran, marking the eye of Taurus the Bull, at 0.9 magnitude. Mars will fade to match Aldebaran by the end of March.

Mars crosses eastward into Gemini on the 26th. It will be just 1.1 degrees north of the nice open cluster M35 on the 29th. That will be a nice view of that cluster and the conjunction in binoculars. There are two other open star clusters in Gemini nearby, visible in binoculars.

Saturn returns to our morning sky around the middle of this month and it will rise 75 minutes before dawn by the 31st. Saturn has moved eastward into Aquarius after spending more than 2 years in Capricorn. It orbits the sun once every 29 years and is always moving at 6 miles per second around the sun, or over 3 times slower than we are at 18.6 miles per second, just 10,000 times slower than the speed of light.

Comet C/2022 E3 (ZTF) is getting fainter but is still visible in binoculars or a telescope this month when the moon is not too bright, between the 10th and the 23rd. It passed right by Mars in Taurus on the 10th of last month and it will pass just to the right of a nice spiral galaxy called NGC 1637 on March 10. Then it continues through Eridanus the River and will approach Rigel in Orion by the end of the month. It will fade to 10th magnitude by then, or 100 times fainter than the brightest it reached at perigee last month on Groundhog Day. Then it may or may not return to our vicinity of the solar system for another 50,000 years, when it last visited us during the Stone Age.

The dwarf planet Ceres, the first asteroid to be discovered in 1801, will reach opposition on the 21st, just after spring starts. Then Pallas, the second asteroid to be discovered and also officially a dwarf planet at 340 miles in diameter, or about the distance across Arizona, will be at its best near Sirius in Canis Major, the brightest star in our sky, on the first of March.

You can still see the faint glow of the zodiacal light this month from the 10th to the 23rd with no moonlight to interfere. Look for it about an hour after sunset in the west. It is also called the false dusk. It is called the false dawn when it happens an hour before sunrise in the east in October and November. This torus of dust along our ecliptic plane is always there, but it is best seen when the angle of the ecliptic is the steepest with our horizon. It will appear as a very subtle ghostly glow forming a haystack or pyramid about 20 degrees into the sky. It is caused by sunlight bouncing off trillions of tiny dust particles from eon's worth of debris from passing comets which settled into the orbital plane of our solar system. The next meteor shower is not until April 22, Earth Day, but you can still see some dust from thousands of comets combined this month.

The annual International Earth Hour happens on Saturday, March 25th this year from 8:30 to 9:30 pm local time. Started in 2007 in Sydney, Australia, it has now grown to 190 countries and thousands of cities and millions of people. Many major cities will shut non essential lights off during that hour. That makes it a great time to look at the sky from normally light-polluted areas for that one hour. The point is not just to save a little energy for that hour, but to unite in solidarity across the globe and become more aware of how we can solve many of the major problems facing us now much more effectively as we work together on them with a common goal in mind so that the earth and all of its inhabitants benefit over the long term instead of just a few individuals benefitting over the short term.

You can participate by just shutting off the lights in your homes and workplaces along with all non essential appliances for that hour or you can extend your participation well beyond that by learning to eat more sustainably, travel more responsibly, saving more water and food, becoming more energy efficient, and many more long term habits that you can develop by starting during that one hour of enhanced awareness. This is the biggest hour for the earth each year and we can all use that hour to begin to restore and reconnect to the one earth that sustains all of us by actively joining the world's largest movement for nature. We owe the earth at least that for all the wonderful services it has provided for us for millions of years with its clean air and water, trees and plants, oceans and coral reefs, fish and plankton, and countless other benefits that we are not even aware of until they get degraded to the brink of extinction.

March 1. Venus passes half a degree north of Jupiter.

March 3. The moon is at apogee or farthest from Earth today at 252,207 miles.

March 4. Sir Patrick Moore, a famous English astronomer, was born on this day in 1923.

March 6. The German optician and physicist Joseph von Fraunhofer was born on this day in 1787. He invented the spectroscope and discovered 574 dark absorption lines from the sun in 1814 that he used to make the best quality lenses for telescopes in the world at the time. It would take until 1860 to discover what caused those lines and what elements the sun is made of, bringing us closer to all of the stars and a better understanding of their true nature.

March 7. Full moon is at 7:40 a.m. EST. This is also known as the Sap, Crow, Worm, or Lenten moon.

March 12. Daylight Saving Time begins at 2 am.

March 13. Percival Lowell was born on this day in 1855. Clyde Tombaugh discovered Pluto using a 13 inch telescope at the Lowell Observatory in Flagstaff, AZ on February 18, 1930. William Herschel discovered the planet Uranus on this day in 1781.

March 14. Albert Einstein was born on this day in 1879. Last quarter moon is at 10:08 p.m.

March 16. Caroline Herschel was born on this day in 1750. She worked well with her brother William and discovered 8 comets. They were both accomplished musicians.

March 19. The moon passes 4 degrees south of Saturn this morning.

March 20. The vernal equinox is at 5:24 p.m. EDT.

March 21. The dwarf planet Ceres is at opposition this morning. New moon is at 1:23 p.m.

March 22. The moon passes half a degree south of Jupiter tonight.

March 24. The moon passes 0.1 degrees south of Venus tonight.

March 25. International Earth Hour is today from 8:30 to 9:30 pm.

March 28. The moon passes 2 degrees north of Mars. Mercury passes 1.5 degrees north of Jupiter. First quarter moon is at 10:32 p.m.

March 31. Descartes was born on this day in 1596. ★

Moon Phases

Mar 7
Full

Mar 14
Last Quarter

Mar 21
New

Mar 28
First Quarter

Moon Data

Mar 3
Moon at apogee

Feb 19
Moon at perigee

Saturn 4° north of Moon

Mar 22
Jupiter 0.5° north of Moon

Mar 24
Venus 0.1° north of Moon

Uranus 1.5° south of Moon

Mar 28
Mars 2° south Of Moon

Mar 31
Moon at apogee

OBSERVER'S CHALLENGE* – March, 2023

by Glenn Chaple

NGC 2841 Galaxy in Ursa Major (Magnitude 9.2, Size 8.1' X 3.5')

As a result of his systematic sky sweeps made during the latter part of the 18th century, William Herschel discovered some 270 galaxies in Ursa Major. One of the brightest - at magnitude 9.2 and a definite "Messier miss" - is the spiral galaxy NGC 2841. Herschel discovered it on the night of March 9, 1788. Unaware if its true nature, he identified it as a very large nebula (Class I in his *Catalogue of Nebulae and Clusters of Stars*) and wrote, "Very bright, large, very much extended 151 degrees, very suddenly much brighter in the middle, equals a star of 10th magnitude."

NGC 2841 is located about 2 degrees west-southwest of the 3rd magnitude star theta (θ) Ursae Majoris at the 2000.0 coordinates, RA $9^h22^m02.7^s$ and Dec $+50^\circ58'35.3"$. Star-hoppers can work their way from theta to NGC 2841 by referring to the accompanying finder charts.

Bright enough to be glimpsed in 7X50 binoculars as a 9th magnitude "star" under dark-sky conditions, NGC 2841 is an easy target in small scopes. On the evening of May 3, 1976, I saw it as a hazy oval patch at 30X with a 3-inch f/10 reflector. In the same field less than a half degree north-northwest was a wide double star that I later identified as ARN 71 (magnitudes 6.2 +7.9, separation 231 arcseconds). Recently, I returned to NGC 2841 with a 10-inch, f/5 reflector. I saw the same oval patch that I had glimpsed with the 3-inch – this time much brighter and punctuated by a bright center. There was no hint of the surrounding spiral structure that appears in images of NGC 2841.

Red shift studies place NGC 2841 at a distance of some 46 million light years. Its true diameter is around 150,000 light years.

*The purpose of the Observer's Challenge is to encourage the pursuit of visual observing. It is open to anyone who is interested. If you'd like to contribute notes, drawings, or photographs, we'd be happy to include them in our monthly summary. Submit your observing notes, sketches, and/or images to Roger Ivester (rogerivester@me.com). To find out more about the Observer's Challenge, log on to rogerivester.com/category/observers-challenge-reports-complete.

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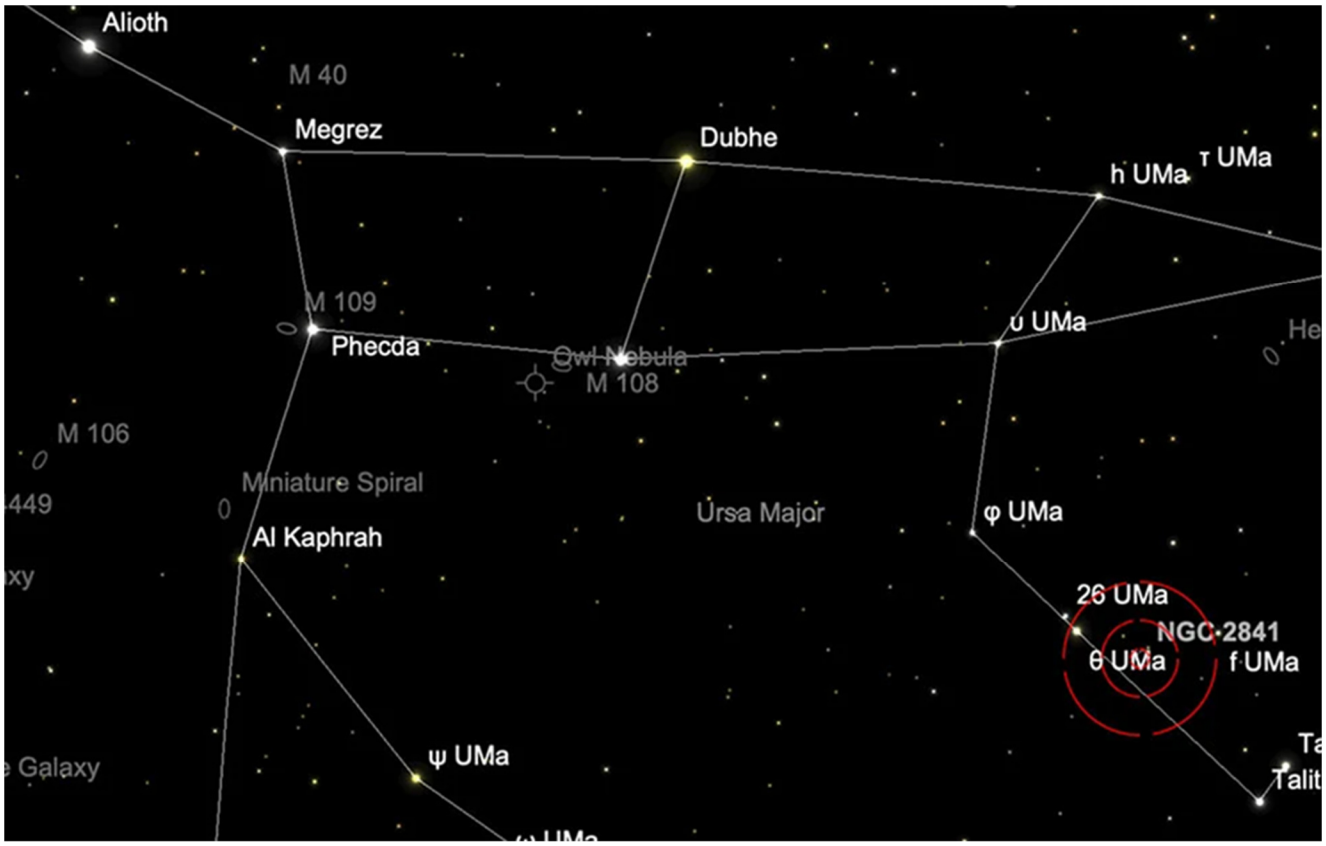
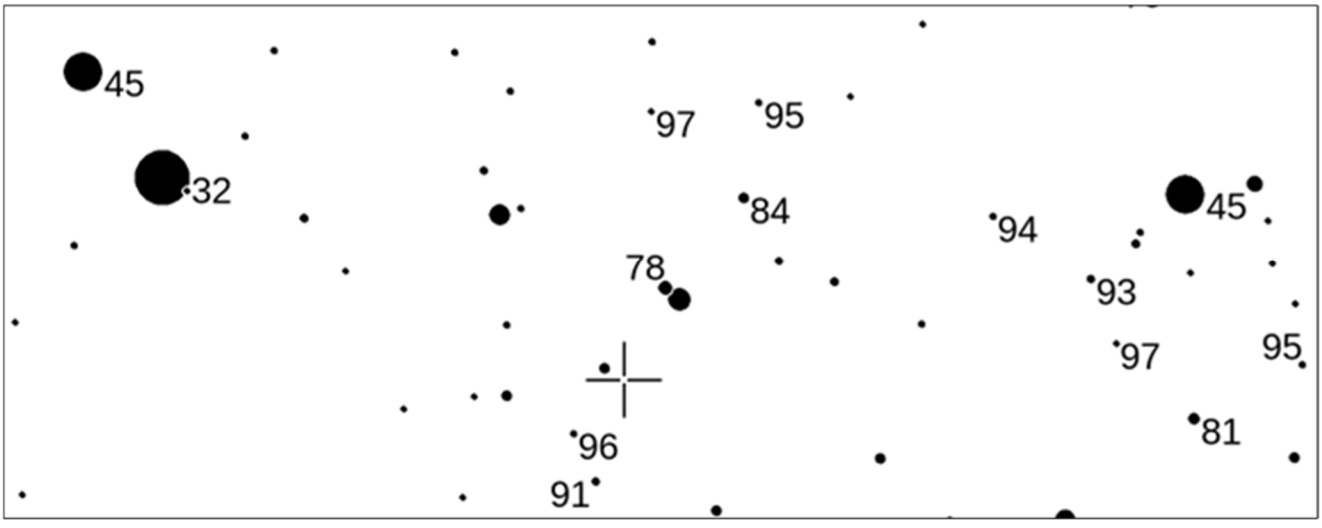
NGC 2841 Finder Chart

Chart from deepskycorner.ch



Finder chart from AAVSO Variable Star Plotter (VSP). Numbers indicate stellar magnitudes, decimals omitted. The magnitude 3.2 star is Theta (θ) Uma; the magnitude 4.5 star is 26 Uma. Stars shown to 10th magnitude in this 5 by 2 degree field. North is up.



"Continued on page 5 "

NGC 2481 Image

Mario Motta, MD. (ATMoB) "Taken from Gloucester with my 32 inch F6.5 scope, with ZWO ASI6200 camera. 1 hours of Lum, then 45 min each of R/G/B filters. "

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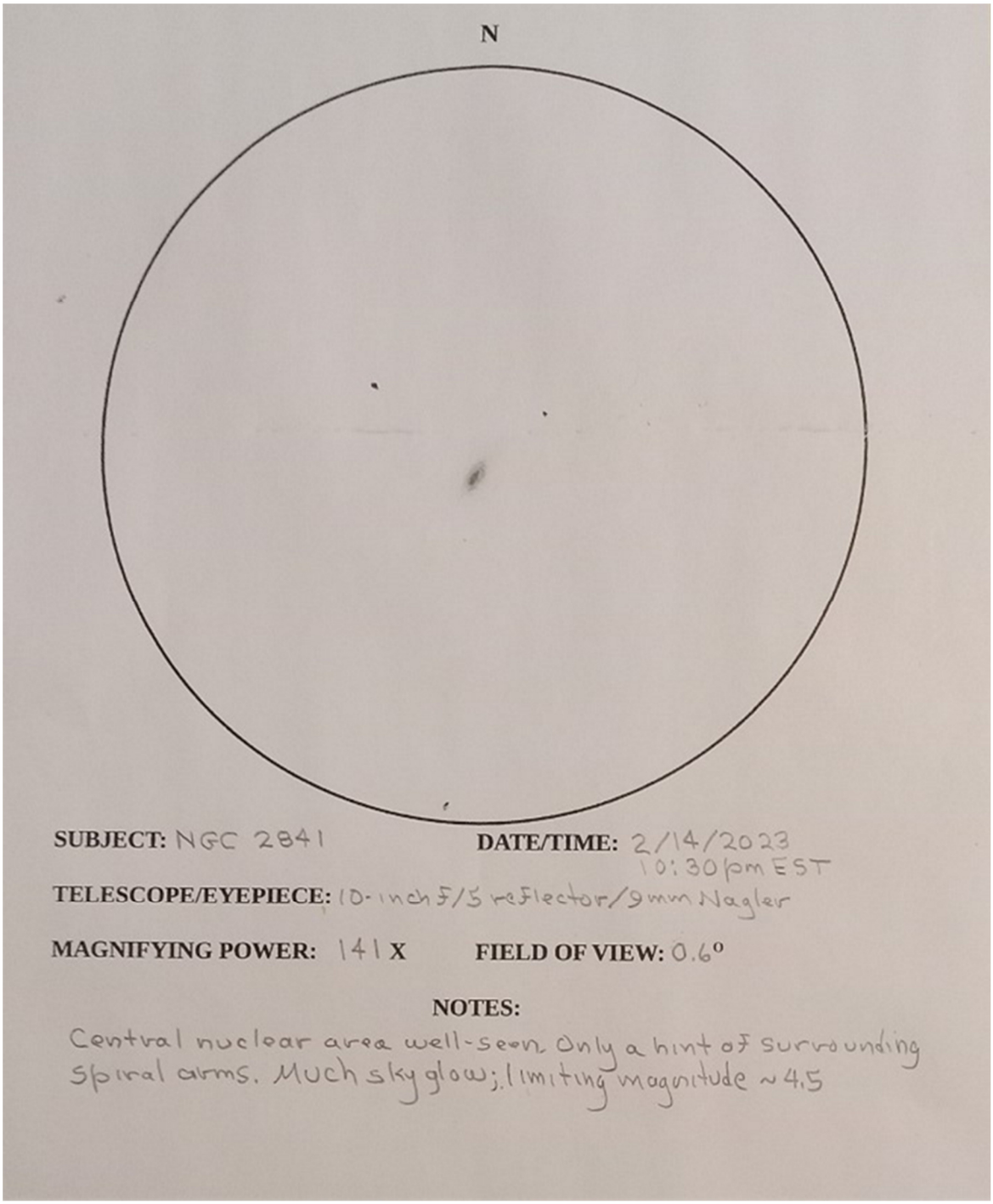
NGC 2841 Sketch

Glenn Chaple (ATMoB)



Principal Meteor Showers in 2023

January 4
Quadrantids

April 22
Lyrids

May 6
Eta Aquarids

July 30
Delta Aquarids

August 12
Perseids

October 9
Draconid

October 21
Orionids

November 9
Taurids

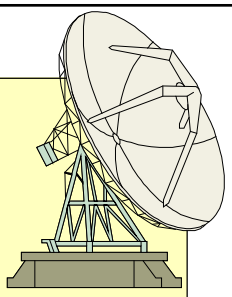
November 18
Leonids

November 26
Andromedids

December 14
Geminids

December 22
Ursids

Note: Dates are for maximum



Got any News?

Skylights Welcomes Your Input.

Here are some suggestions:

Book reviews -- Items for sale -- New equipment -- Ramblings -- Star parties -- Observing -- Photos.

Benefits of Membership

- Attend our monthly meetings and club star parties
- Our Monthly Newsletter: *Skylights*
- Discounts on *Sky & Telescope. and Astronomy magazine subscriptions*
- Automatic subscription to the Astronomical League's quarterly newsletter, *The Reflector*
- With proper training, access to the equipment at ASNNE's Talmage Observatory at Starfield.
- By special arrangement, free admission to the Southworth Planetarium at USM in Portland

Enjoy sharing your interest and have fun learning about Astronomy!

Our Club has Merchandise for Sale at: www.cafepress.com/asnne

All money raised goes to our operating fund.
Any design can be put on any item.

Contact David Bianchi dadsnorlax@yahoo.com for further details.

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!

Spot the Morning and Evening Star: Observe Venus

By David Prosper

Venus is usually the brightest planet in our skies, and is called "Earth's Twin" due to its similar size to Earth and its rocky composition. However, Venus is a nightmare version of our planet, featuring a thick, crushing atmosphere of acidic clouds, greenhouse gasses, howling winds, and intense heat at its surface.

This rocky inner world's orbit brings it closer to Earth than any of the other planets, and is the second closest to the Sun after Mercury. Like Mercury, Venus orbits between our planet and the Sun, so Earth-based observers can observe Venus in the morning before sunrise, or in the evening after sunset – but never high in the sky in the middle of the evening, unlike the outer planets. Since Venus is so striking in its twilight appearances, the planet features heavily in sky mythologies worldwide. Venus's bright morning and evening appearances are the origin for its dual nicknames: the Morning Star, and the Evening Star. Some ancient astronomers never made the connection, and assumed the Evening Star and Morning Star were two unrelated objects! Observers can even spot Venus during the daytime, if the sky is very clear and the planet is bright enough. Venus also has phases, similar to the Moon and Mercury. Galileo's observations of Venus's phases helped turn the astronomy world upside down in the early 1600s, and you can see them yourself using a telescope or even a surprisingly low-power pair of binoculars. **Warning**: Please be very careful when observing Venus with a telescope in the early morning or daytime. Never allow the Sun to enter your instrument's field of view, as you could be permanently blinded.

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Venus's other moniker of "Earth's Twin" is a bit misleading. In terms of their surface temperatures and atmospheres, Venus and Earth are extremely different! The surface of Venus is warmer than that of Mercury, despite Mercury being many millions of miles closer to the Sun.

While Mercury is still a scorching 800 degrees Fahrenheit (427 degrees Celsius), Venus is even hotter: 900 degrees Fahrenheit (482 degrees Celsius). The vast amount of carbon dioxide in the thick Venusian atmosphere acts as an insulating blanket that retains much of the Sun's heat, creating the runaway greenhouse effect that dominates its present-day climate. The Venusian surface is a crushing 90 Earth atmospheres on top of its absurd temperatures. These extreme conditions mean that the mission life of any past Venusian robotic landers were measured in **hours** at best – and usually minutes! However, conditions in Venus's upper atmosphere may be much more hospitable, with temperatures and pressures at 30 miles (50 km) above the surface that are much more Earth-like in temperature and pressure. Studies of the Venusian atmosphere, including seasonal appearances of dark streaks and faint signals of suggestive chemistry, intrigue researchers with the possibility that some sort of life may persist in its clouds. But far more evidence is needed to confirm such a claim, since non-biological factors like volcanism and other processes could also be the source for these signals.

Venus's thick sulfuric acid clouds block direct visual observations of its surface from optical telescopes on Earth. Multiwavelength observations from space probes show evidence of active volcanoes and possibly some sort of plate tectonics, but followup missions will be needed to confirm the presence of active volcanism, plate tectonics, and any possible signs of life. In order to do so, NASA is sending two new missions to Venus by the end of this decade: the orbiter **VERITAS**, which will map the surface in high detail and study the chemistry of its rocks and volcanoes, and **DAVINCI+**, which will study its atmosphere and possible tectonic surface features via a "descent sphere" that will plunge into Venus's clouds. Follow their development and discover more about Venus at solarsystem.nasa.gov/venus, and of course, continue your exploration of the universe at nasa.gov.

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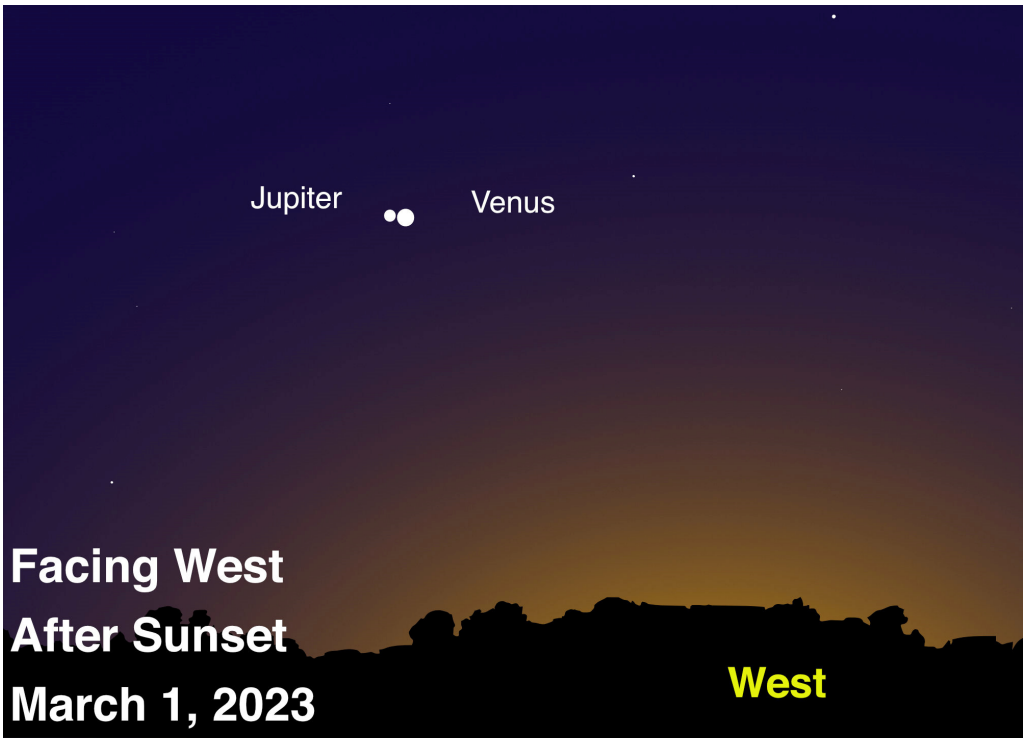
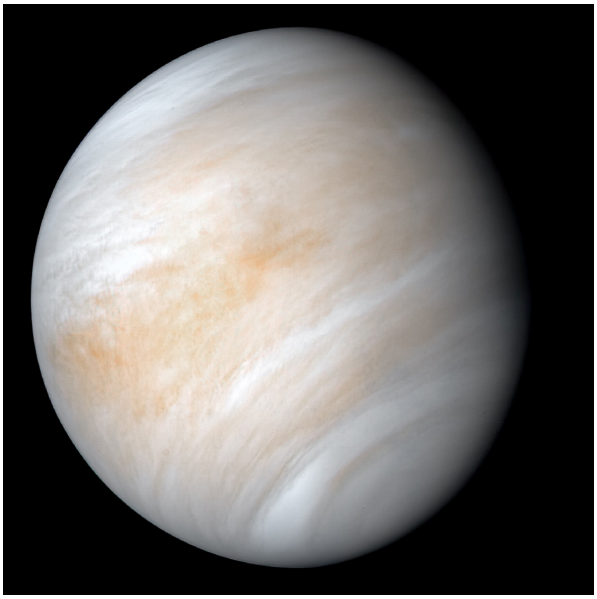


Venus and Jupiter continue to move closer together in the evening sky this month. Jupiter will continue its descent towards the horizon while Venus will continue to climb and will be visible in the evenings though mid-summer of 2023. It's a great year for Venus fans! *Image created with assistance from Stellarium*



The top layers of Venus's cloud pop in this contrast-enhanced image, reprocessed with modern techniques from Mariner 10 data. *Credit: NASA/JPL-Caltech*

Source: https://solarsystem.nasa.gov/resources/2524/newly-processed-views-of-venus-from-mariner-10/

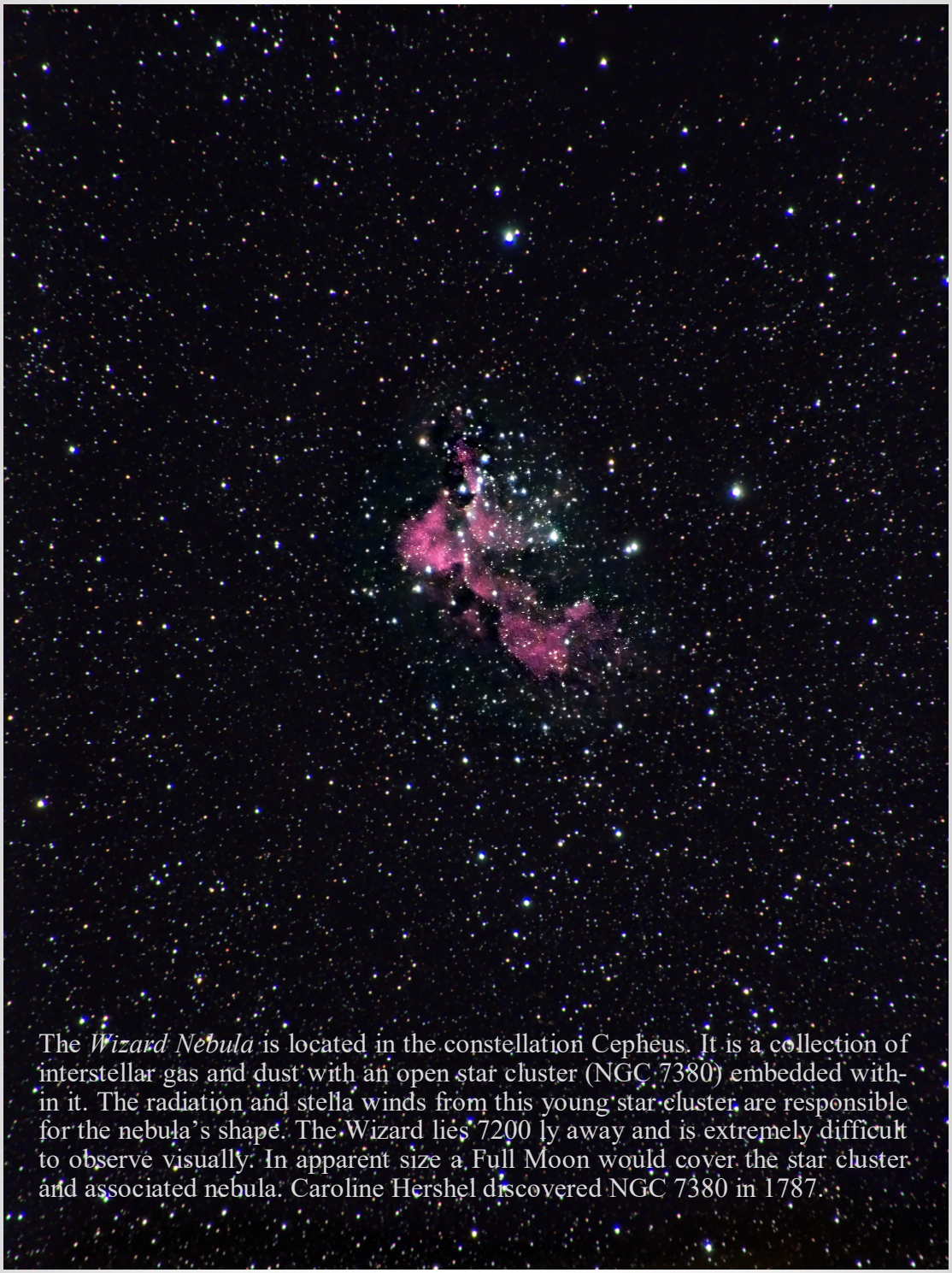
Point and Shoot Camera Astroimaging (no telescope)

Canon Powershot SX50 HS

Image & write-up submitted by Paul Kursewicz

Wizard Nebula (NGC 7380)

RAW mode, FL 1200mm, f/3.5, ISO 5000, 1min x 110L x 20D, Baader Filter, 10-19-22



The *Wizard Nebula* is located in the constellation Cepheus. It is a collection of interstellar gas and dust with an open star cluster (NGC 7380) embedded within it. The radiation and stella winds from this young star cluster are responsible for the nebula's shape. The Wizard lies 7200 ly away and is extremely difficult to observe visually. In apparent size a Full Moon would cover the star cluster and associated nebula. Caroline Hershel discovered NGC 7380 in 1787.

The Frigid Moon & Sky 2-3-23

Submitted by Paul Kursewicz

The coldest day of the year! On this night my thermometer read -14ºF with a windchill of -30ºF. A very clear night, but very strange. While looking at the Moon I noticed that the entire sky had a hazy pale yellow hue to it. Never seen that before. My pictures could only capture the haze near to the Moon due to the Moon's high contrast and brightness. I've seen my share of Moon Haloes, but this was not like that. Nor could I get focus.

Astronomical Society of Northern New England (ASNNE) Meeting Notes of

3 February 2023

Record Note: At the time of this Meeting, the actual temperature, not accounting for wind chill, was -12°F (yes; minus!). I first came to this area in 1965, and this is the coldest I remember it being. Not surprisingly, many Members elected not to venture out tonight.

Business Meeting: The Business Meeting was called to order at 7:15 pm by President Ian Durham.

Directors Present: Ian Durham, President
Bernie Reim, Vice-President
Carl Gurtman, Secretary
Gary Asperschlager, Director

Plus: David Bianchi, ASNNE E-Mail Manager

Others Present: There were an additional five people physically present. An additional seven people participated on Zoom.

Treasurer's Report: Ian, wearing his Treasurer's hat, reported on our finances. We have approximately $5,000 on hand. Ian noted that we are dependent on fees brought in from presentations at for-profit campgrounds to break even. While it seems that this will continue at least into this summer, Ian considers that this is not a healthy state of affairs. In summary:

Major fixed costs (per annum):

Insurance:	$1,000
Group io:	$ 200
Post office box:	$ 400

Adding in the New School "rental", and web page costs, our annual fixed costs are about $2,000 per year. And there are always unanticipated costs, such as the repairs occasioned by the latest storm damage.

Our only dependable income is the dues; paid by approximately forty members, which yields $1,600 per year. We will have to either raise dues - which hasn't happened in quite a while, or continue with our for-profit presentations.

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Old Business:

Storm Damage: The last storm did significant damage to the Talmage Observatory at Starfield. Although the Observatory itself was unharmed, the shed at the Observatory had its door torn off, and the port-a-potty was blown over, and its top is missing. Ron had gone to the Observatory, and reported this damage to us. ASNNE owns the port-a-potty.

Ron effected temporary repairs to the shed door, and up-righted the port-a-potty. What remains to be done is permanent repairs to the shed door, a power wash-down of the port-a-potty, and its top replaced.

New Business:

For-Profit Presentations: Carl spoke regarding the presentations at the "glamp-grounds". There are usually three people who do the majority of the presentations, and several helpers. ASNNE needs several more people to step forward. A few can be presenters, and more helpers are always welcome. More presenters means any unforeseen problem will not derail us, and helpers need not be experts. The helpers provide continuity, and help carry the presentations along.

April suggested that we should consider speaking to people interested in astrology. Topics could include the common origin of astronomy and astrology, or, highlight their differences.

Speakers: Carl reported that he had reached out to Professor Elizabeth McGrath at Colby, to see if she would be willing to return and speak to us again. She has not yet responded. In the near future, he will also contact the UNH professors who spoke to us. Carl requested that others contact people they know to try and obtain speakers.

There was a discussion about Presenters who can only speak to us via Zoom. This has been done is the past, and quite successfully. Carl stated that in his opinion, a Zoom speaker is quite acceptable, but our first choice should always be an in-person Presenter.

Regular Meeting:

Directors Present: Ian Durham, President

Bernie Reim, Vice President

Carl Gurtman, Secretary

Gary Asperschlager, Director

Plus: David Bianchi, ASNNE E-Mail Manager

As before (see above), there were a total of 10 people physically present, and seven on Zoom.

President Ian Durham called the Regular Meeting to order at 8:12 pm.

"Continued on page 15"

"What's Up?":

Bernie gave his usual thorough, comprehensive, and complete discussion of what's in store for us in the skies of February, named after the Latin word “februum” which means

purification. Groundhog Day is on the second of this month, and marks the half-way point between the winter solstice and the spring equinox. There are four cross-quarter

days, marking the half way points of our four seasons. Groundhog Day is known as Candlemas in the Christian tradition, and as Imbolc in the Celtic tradition

The days continue to get longer by 3 minutes each day

We will have one last chance to see all 7 of our planets in the sky on the first of this month, 6 of them in the evening and Mercury in the morning. Of course, only five are naked-eye visible. Venus will pass very close to Jupiter on the last day of this month. Then Jupiter will continue to sink even as Venus continues to

climb higher until summer starts.

There will be two asteroids at their best, Ceres and Pallas. There will also be three comets visible this month with binoculars, the brightest of which, Comet

C/2022 E3 (ZTF) will pass very close to Mars in Taurus on the 10th, and it may even become visible without binoculars. The other two comets are another

ZTF comet (C/2020V2), passing through Cassiopeia and Perseus not far from the first ZTF comet, and then Comet 96P/Machholz low in the morning sky just below the Summer Triangle and Aquila the Eagle.

The last remaining highlight this month will be the Zodiacal Light. Look for it starting around the middle of this month with no moonlight to interfere with its subtle glow. Look for a cone-shaped glow aligned with the ecliptic, low on the western horizon about an hour after sunset. This faint light is caused by sunlight reflecting off solar system debris left by ancient comets in the ecliptic plane of our solar system.

Watch Venus and Jupiter carefully all month as the much faster-moving Venus is rapidly catching up with the king of the planets at a rate of exactly one degree per day. They begin 29 degrees apart and they will be just one degree apart in Pisces the Fish on the last day of this month, low in the western evening sky

Bernie then covered "What Happened on this Day. . .", and the names of this month's moon.

Bernie's excellent presentation, in its entirety, can be found, this month, and every month, in *Skylights*, ASNNE's professional-quality newsletter; editor, Paul Kursewicz. Skylights may be found at: http://www.asnne.org/newsletter.php

[I had to leave the Meeting at this point, so any additional information about what happened subsequently will be most welcome. Thanks; Carl.]

Presentation: Ian gave a Presentation, with slides, of his trip to Australia.

Astroshorts: Several Members provided Astroshorts.

Next Meeting:

ASNNE's next Meeting will be on Friday, 3 March, 2023 at 7:30 pm at the New School in Kennebunk, Maine. There will be a short Business Meeting prior to the Regular Meeting, at 7:00 pm, at the same location. As always, all Members are always welcome at the Business Meeting.

Respectfully submitted,

Carl Gurtman

Club Meeting & Star Party Dates

Date	Subject	Location
Mar 3	**ASNNE Club Meeting:** **Business Meeting starts prior to Club meeting.** **Club Meeting (in house & on Zoom): 7:30-9:30PM** **Guest Speaker: Ms Lauren Rock** will be our guest Speaker **via Zoom**. She owns a tour company called *Dynamic Escapes*, which offers astronomy related tours. In her presentation she will be showing photos from these astronomy focused tours. **Bernie Reim** - What's UP **Astro Shorts:** (news, stories, jokes, reports, questions, photos, observations etc.)	**The New School, Kennebunk, Me.**
Last Month	**Last month we met at The New School and had several members attending via Zoom. Bernie presented his What's Up article. After that, Ian gave a presentation with photos of his trip to Australia. Several club members contributed to Astro Shorts.**	
TBD	**Club/Public Star Party:** Dependent on the weather and if there is any interest in Winter (cold nights) observing.	**Talmage Observatory at Starfield West Kennebunk, Me.**

Directions to ASNNE event locations

Directions to The New School in Kennebunck [38 York Street (Rt1) Kennebunk, ME]

For directions to The New School you can use this link to the ASNNE NSN page and then click on "get directions" from the meeting location. Enter your starting location to generate a road map with complete directions. It works great. http://nightsky.jpl.nasa.gov/club-view.cfm?Club_ID=137

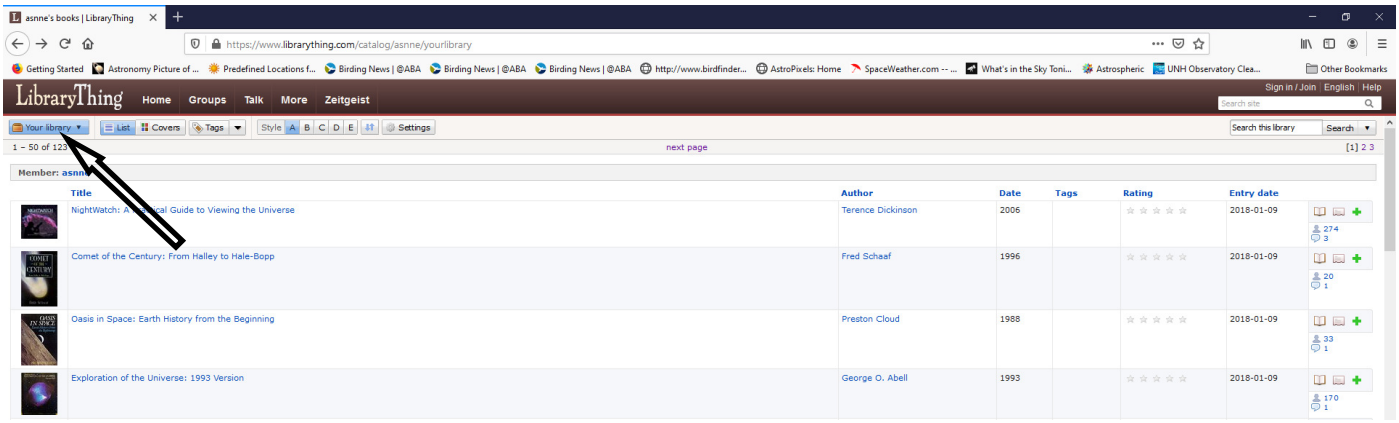
Directions to Talmage Observatory at Starfield [Alewive Road, Kennebunk, ME]

From North:
Get off turnpike at exit 32, (Biddeford) turn right on Rt 111. Go 5 miles and turn left on Rt 35. Go 2 miles on Rt 35 over Kennebunk River to very sharp 90 degree left turn. The entrance to the Starfield Observatory site is at the telephone pole at the beginning of the large field on the left. Look for the ASNNE sign on the pole.

From South:
Get off the turnpike at exit 25 in Kennebunk. After toll both turn right on Rt 35. Go up over the turnpike and immediately turn right on Rt 35. About 4 miles along you will crest a hill and see a large field on your right. Continue until you reach the end of the field. Turn right into the Starfield Observatory site at the last telephone pole along the field. Look for the ASNNE sign on the pole. If you come to a very sharp 90 degree right turn you have just passed the field.

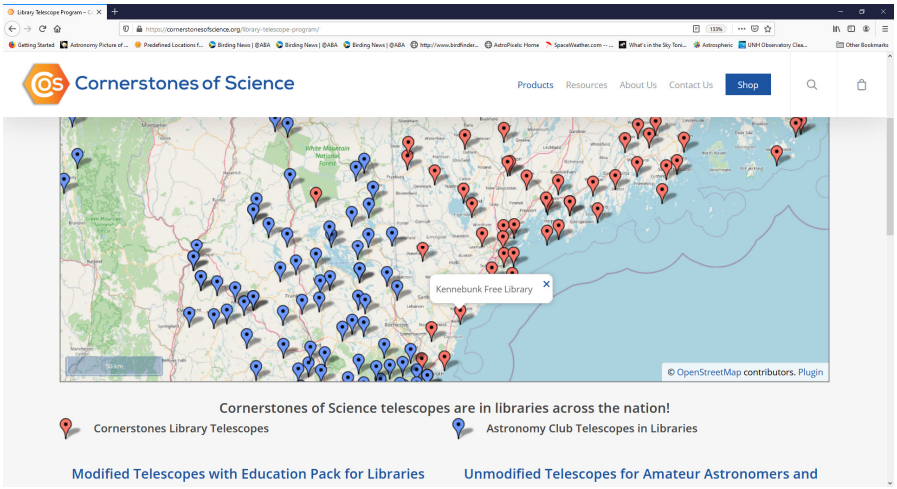
Astronomy Club & Library Resources

Our club has a library of astronomy books which are stored at The New School in Kennebunk, Maine (our monthly club meeting location). To request a book(s), contact one of the club officers. A listing of books is provided here: https://www.librarything.com/profile/asnne . After clicking on the link, a window will open. Click on "Your library" near the upper left corner (as shown by the arrow below). Then scroll down to the end of the page to go to the next page.



Would you like to borrow a telescope? While many astronomy clubs may have a scope to lend out, there are also many libraries which have telescopes for their guests to use. Here are a couple of links.

The following link will bring up an active map (see screen shot below) of the USA showing the libraries which have telescopes to lend out: https://cornerstonesofscience.org/library-telescope-program/



The below link will show a list of known participating library locations for the state of Maine.
https://www.librarytelescope.org/locations/usa/maine

To join **ASNNE**, please fill out the below membership form. *Checks should be made payable to: Astronomical Society of Northern New England (A.S.N.N.E).* For more details, please visit our website: **http://www.asnne.org**

Astronomical Society of Northern New England
P.O. Box 1338
Kennebunk, ME 04043-1338

2023 Membership Registration Form

(Print, fill out and mail to address above)

Name(s for family): _____

Address: _____
City/State: _____ Zip code: _____

Telephone # _____

E-mail: _____

Membership (check one):
Individual $35 _____ Family $ 40 _____ Student under 21 years of age $10 _____ Donation_____

Total Enclosed_____

Tell us about yourself:
1. Experience level: Beginner____ Some Experience ____ Advanced_____

2. Do you own any equipment? (Y/N) And if so, what types?

_____
3. Do you have any special interests in Astronomy?

_____
4. What do you hope to gain by joining ASNNE?

_____
5. How could ASNNE best help you pursue your interest in Astronomy?

_____
6. ASNNE's principal mission is public education. We hold many star parties for schools and the general public for which we need volunteers for a variety of tasks, from operating telescopes to registering guests to parking cars. Would you be interested in helping?
Yes_____ No_____

7. ASNNE maintains a members-only section of its web site for names, addresses and interests of members as a way for members to contact each other. Your information will not be used for any other purpose. Can we add your information to that portion of our web site?

Yes_____ No_____