

Skylights

Newsletter of the Astronomical Society of Northern New England



APR 2025

Skylights Editor:
Paul Kursewicz



Member of NASA's
Night Sky Network



**Astronomical League
Member**

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 April

By Bernie Reim

The month of April is named for the Latin "aprilis" which means to open. That is what the buds of leaves and flowers will start to do this month for us here in this part of the northern hemisphere. Even though the second half of March has been much warmer than usual, April should be even warmer as the days are getting longer and the sun is reaching higher and higher in the sky approaching its highest point for the year on June 21.

Even though the great parade of planets that was with us for most of the winter has finally broken up, there will still be several interesting highlights to look for this month including the first good meteor shower of the year on April 22, which is also Earth Day each year.

Only Mars, Jupiter, and Uranus remain as the evening planets. However, the three planets that we lost last month have already turned up again in our morning sky now. That would be Mercury, Saturn, and Venus. Mercury and Saturn will appear side by side a couple degrees apart very low in the eastern morning sky half an hour before sunrise during the middle of this month. Brilliant Venus will be just 7 degrees above the pair, forming a nice trio of planets before the sun rises. Notice that Mercury is about 100 times fainter than Venus and Saturn is fully 200 times fainter.

There will be a faint comet visible in Leo called 29P/Schwassmann-Wachmann. It will only reach 11th or 12th magnitude, so it will be a challenge even for a good 8-inch telescope. There will be an asteroid named Flora that will be at opposition in Leo. It will reach 10th magnitude and pass very close to 3 galaxies in Leo called the Leo Triplet. Those 3 galaxies are fairly close to us, about 30 million light years, closer than the Virgo cluster of 2000 galaxies that are 55 million light years away.

When you see those three galaxies in the Leo Triplet through a telescope, be aware that their light left there during a very critical time on Earth when a mass extinction was taking place at the Eocene-Oligocene transition. This was not as major as the Permian mass extinction 250 million years ago or the Cretaceous-Tertiary mass extinction that killed off our beloved dinosaurs along with 75% of all species on Earth 65 million years ago due to an asteroid about 6 miles across that hit the earth just off the Yucatan Peninsula in the Gulf of Mexico. It left a crater about 100 miles wide and 10 miles deep. It was only found about 40 years ago since it was under water.

About two thirds of all the mammals on the African and Arabian peninsulas were killed off during this Eocene-Oligocene mass extinction due to severe weather changes from warm and swampy conditions to cold and icy conditions.

It would be very interesting if there is an advanced alien civilization on any of those galaxies in the Leo Triplet that has good enough telescopes to see details on Earth since they would see exactly how this extinction happened. It would be even more interesting if an advanced civilization in a galaxy like NGC 4845 in Virgo or NGC 3972 in Ursa Major had these advanced telescopes because those 2 galaxies are about 65 million light years away. This civilization could see exactly what transpired to kill off the dinosaurs. Now we can only surmise and put together the

clues, but we are not certain of all the details. Even more amazing is the fact that they would see this large asteroid hit the earth right now, since our past from 65 million years ago is their NOW, since that is the distance to those two galaxies. The only problem is that it would take that long again for them to get that message back to us along with the great detailed images of what really happened.

Jupiter is still nice and high in Taurus near the orange star Aldebaran. The King of the Planets starts the month by setting around 1 am and by the end of April it will be only 24 degrees high and it will set an hour before midnight.

Notice that Jupiter is getting a little fainter each evening since we are getting farther ahead of it in our orbit around the sun. Jupiter still shines at minus second magnitude, or about 8 times fainter than Venus. A waxing crescent moon will pass close to Jupiter on the second and again on the 30th of this month. Try to photograph this since the Pleiades and the Hyades star clusters are also close by.

Mars is 70 degrees high in the southern sky in Gemini as the month starts. It still forms a nice triangle with Castor and Pollux in Gemini, but it will line up with those 2 bright stars on the tenth. Even though Mars is getting a little fainter and farther away each night, it still has a distinctly orange hue and it is still brighter than Castor the mortal twin and Pollux the immortal twin. Mars is also moving in its normal eastward motion again and it will cross into the next constellation to the east, Cancer, on the 12th. The red planet will be just two degrees northwest of the Beehive open star cluster in Cancer by the end of this month. It will set by 2:30 am at the end of April.

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What's Up "Continued from page 1"

Venus will be visible in the morning sky low in the east before sunrise all month. After a week or so Mercury and Saturn will rise around 5:30 am about 10 degrees below Venus.

The major highlight for this month is the Lyrid Meteor shower. It will be favorable this year since the waning crescent moon will not rise until 4 am to spoil the show. You can expect about 20 meteors per hour at a good dark sky site. They will all seem to emanate from Lyra near its brightest star, Vega. The shower is active from the 14th to the 30th, but it will peak on Tuesday morning the 22nd. The Lyrids are caused by the earth passing through the debris trail of Comet Thatcher each year at this time. Comet Thatcher only orbits the sun once every 416 years.

I just came back from camping out under the stars in Everglades National Park for two perfect nights in early March. This is one of 11 National Parks that are also designated Dark Sky parks, thereby offering unspoiled glimpses of nature during the day AND the night. I attended a trained ranger's presentation under the crystal clear and pitch-black night sky from Flamingo Bay at the very southern tip of Florida. She played some live clarinet music for everyone present that night which added a very moving aural dimension to the already stunning visual dimension of this sky in the middle of nowhere as the remaining land in Florida turned into water.

The winter Milky Way was clearly visible to the left of Orion and the Winter Hexagon. We were surrounded by all kinds of wildlife and plants and trees that we would never encounter in Maine and many rare bird species like wood storks, roseate spoonbills, and Pelicans along with an Osprey nest close by. The sunsets were long and stunning, very different from Maine in winter. It was 100 miles south of Miami, so this city only caused a tiny dome of light low on the northern horizon. Canopus, the second brightest star in the sky after Sirius was visible well below Sirius along with many other constellations that we can't see up here in New England. Polaris was only 25 degrees high, since that was my latitude just north of the Tropic of Cancer. This was truly a nearly tropical paradise. We need to do everything we can to preserve and protect our rare remaining true wilderness areas in this country along with our real inheritance of the dark night sky that all 8 billion of us on Earth have the right to see and enjoy.

April 1. On this day in 1997 Comet Hale-Bopp was at perihelion, or closest to the sun. This comet was visible to the naked eye for over half a year and was truly a once-in-a-lifetime comet. There was another very bright once-in-a-lifetime comet that graced our skies for many months exactly one year earlier, Comet Hyakutake.

April 2. The moon passes 6 degrees north of Jupiter this evening. Mars passes 4 degrees south of Pollux in Gemini this evening.

April 3. John Harrison was born on this day in 1693. He was the English clockmaker that invented the marine chronometer that enabled us to finally precisely determine longitude in 1773, which was surprisingly late in our history since we were able to determine latitude for thousands of years just using Polaris.

April 4. First quarter moon is at 10:15 p.m. EDT.

April 5. The moon passes 2 degrees north of Mars this evening.

April 7. The Compton Gamma Ray observatory was launched on this day in 1991, about one year after the Hubble Space Telescope was launched. These two great space telescopes were half of a whole family of 4 space telescopes covering a wide range of the electromagnetic spectrum to let us learn much more about our universe than we could with just optical ground-based telescopes.

The Spitzer Space Telescope, which looked at the sky in infrared wavelengths of light, was launched on August 25 of 2003. The fourth one was the Chandra X-ray telescope, launched in July of 1999 and is still up there working well along with the Hubble. Spitzer ended its mission on January 30 of 2020 and Compton ended its mission in June of 2000.

April 8. David Rittenhouse, a brilliant American astronomer, instrument maker and patriotic leader of the Revolutionary War era was born on this day in 1732. There is a great park in Philadelphia named in his honor, Rittenhouse Square.

April 10. Venus is stationary, ending its retrograde or westward motion that started on March 1 this year. It spends 40 days and nights in retrograde every 18 months. The midpoint of this retrograde marks its inferior conjunction with the sun.

April 11. Halley's Comet was at perihelion on this day in 1986. I first saw it on November 8 of 1985, which was Edmund Halley's birthday in 1656.

April 12. Full moon is at 8:22 p.m. This is also known as the Pink, Fish, Grass, or Egg moon. This will also be a micro moon since it will be at apogee or farthest from Earth less than one day later. A supermoon at perigee is about 12% larger than a micro moon at apogee. The moon always looks much larger on the horizon than when it is high overhead, even if it is a micro moon.

April 12. On this day in 1961 Yuri Gagarin became the first human to orbit the earth. John Glenn became the first American to orbit the earth on February 20 of 1962.

April 14. Christiaan Huygens, a Dutch astronomer, was born on this day in 1629. The probe we landed on Titan, the largest moon of Saturn and the second largest moon in our solar system, was named in his honor.

April 15. Leonardo Da Vinci was born on this day in 1452. He painted the Mona Lisa and the Last Supper and he was also a great inventor with many novel ideas way ahead of his time like parachutes and helicopters.

April 16. Mars is at aphelion, or farthest from the sun at 155 million miles today.

April 20. Last quarter moon is at 9:36 p.m. EDT.

April 22. The Lyrid meteor shower peaks this morning. This is also Earth Day every year. The first one was on this day in 1970, right after that iconic image of the earth from half way to the moon was taken by Apollo 11 in July of 1969. We now had a much more accurate view of what the earth really looks like and the fact that all of its boundaries and divisions are man-made since the earth is one very complex and well-functioning planet. This also marked the beginning of the modern environmental movement with the Clean Water and Clean Air Act.

April 24. The moon passes 2 degrees south of Venus this morning. The moon also passes 2 degrees north of Saturn this morning.

April 25. The moon passes 4 degrees north of Mercury this morning. The Hubble Space Telescope was deployed on this day in 1990. It is still working now, 35 years later, although not as well as it was during its peak.

April 27. Venus is at greatest brilliancy for the year at magnitude minus 4.8 this morning. New moon is at 3:31 a.m. EDT.

April 28. Eugene Shoemaker was born on this day in 1928. He was an American astronomer and geologist. He discovered several comets including Shoemaker-Levy 9 that broke into 21 pieces and smashed into Jupiter at the rate of one piece every 6 hours from July 16 to July 22 of 1994. I saw several of these earth-sized black marks caused by the one-kilometer-sized chunks of this comet a few hours after they hit Jupiter since they hit on the far side and then rotated into view. Venus passes 4 degrees north of Saturn this morning.

April 30. The moon passes 5 degrees north of Jupiter this evening. Carl Gauss was born on this day in 1777. Frances Wright, an American astronomer who taught celestial navigation at Harvard to naval officers, was born on this day in 1897. She developed methods to observe comets and meteors and wrote 3 books on celestial navigation.

Moon Phases

Apr 4
First Quarter

Apr 12
Full

Apr 20
Last Quarter

Apr 27
New

Moon Data

Apr 1
Uranus 5° south
of Moon

Apr 2
Jupiter 6° south
of Moon

Apr 5
Mars 2° south
of Moon

Apr 13
Moon at apogee

Apr 24
Venus 2° north
of Moon

Saturn 2° south
of Moon

Apr 25
Neptune 1.9° south
of Moon

Apr 27
Moon at perigee

Mar 30
Moon at perigee

Observer's Challenge – April, 2025

by Glenn Chaple

NGC 3893 and NGC 3896 – Galaxy Pair in Ursa Major

NGC 3893: Magnitude 10.5; Size 4.5' X 2.8'

NGC 3896: Magnitude 13.6; Size 1.4' X 0.9'

This month and next, the Observer's Challenge will feature galaxy pairs in Ursa Major. This month's galactic two-some is comprised of the 10th magnitude spiral NGC 3893 and its 13th magnitude lenticular partner NGC 3896. William Herschel discovered them on February 9, 1788 and cataloged them as Class II (Faint Nebulae) objects.

NGC 3893 is located at the 2000.0 coordinates RA 11^h48^m38^s and DEC +48°42'39", about one degree north-northeast of the golden yellow 4th magnitude star chi (χ) Ursae Majoris. In my 10-inch f/5 reflecting telescope at 139X under magnitude 5 skies, it appeared as a roundish glow, bright enough to be seen with direct vision. There was no sign of NGC 3896, which lies 4 arc-minutes further southeast at RA 11^h48^m56^s, DEC +48°40'28". Under dark skies, NGC 3893 should be visible in a 4 to 6-inch scope, while NGC 3896 will require twice that aperture.

NGC 3893 and 3896 are about 50 to 55 million light years distant. The former has a calculated diameter of around 75,000 light years, some three times larger than NGC 3896.

NGC 3893/3896 Finder Chart (the skylive.com)



“Continued on page 4”

NGC 3893/3896 Image

Mario Motta, MD (ATMoB)

“This one took effort, I captured the galaxy in Lum with my 32 inch this past December from Gloucester, but did not have enough night to get it in color.

I tried down here in Florida, but it lacks the detail of the 32 inch as it is only 4.5 by 2,4 arc minutes, thus needs the 32 inch for detail. But.. I then used a process in pixinsight to combine images from 2 different optical systems, and it worked.

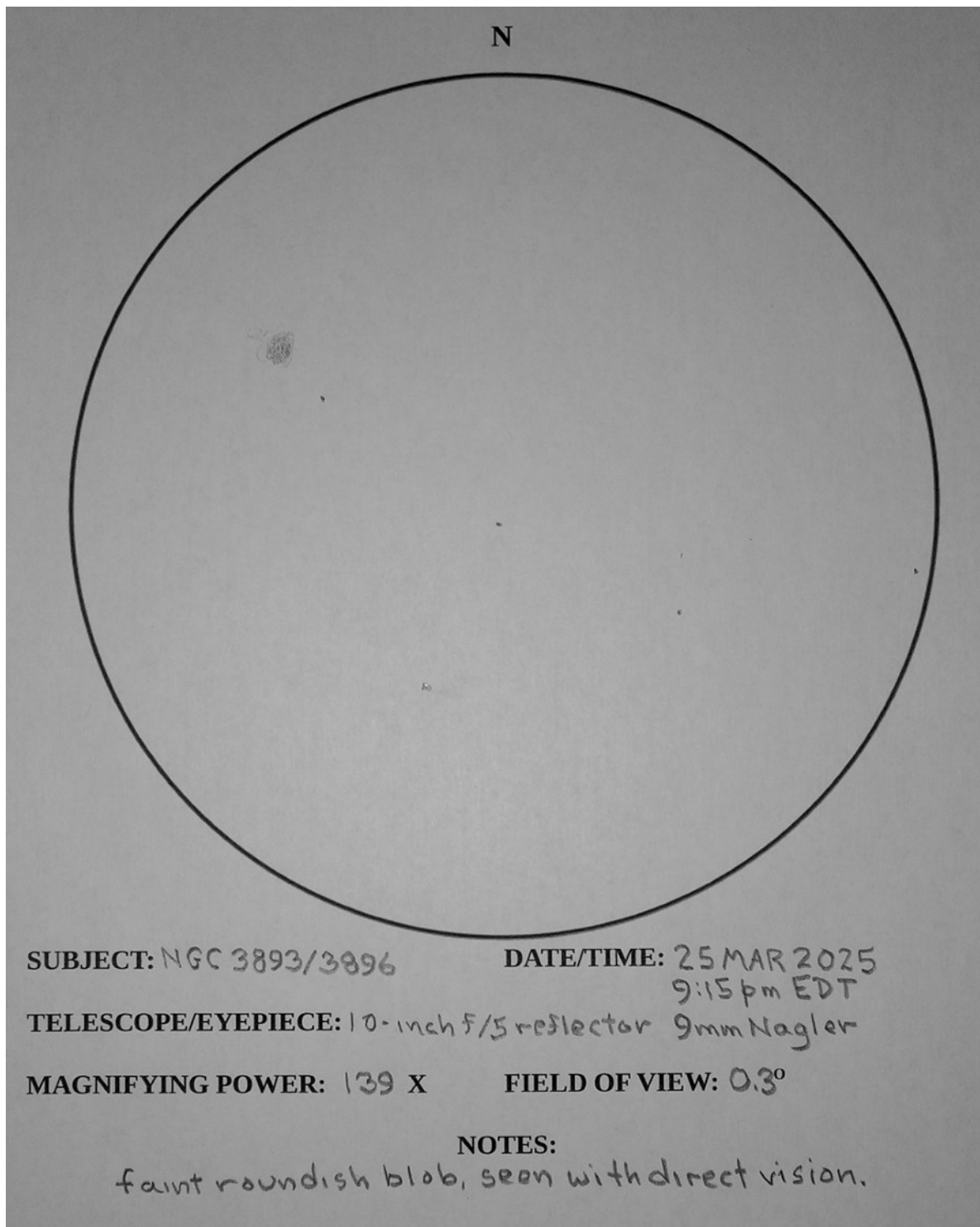
So.. lum from 32 inch scope with about 75 minutes lum ZWO 6200 camera, then RGB from C14 scope in Florida again ZWO 6200, (about 70 min total), processed then combined with dynamic alignment tool in Pixinsight. Note NGC 3896 close by to the immediate southeast.”



“Continued on page 5 ”

NGC 3893 Sketch

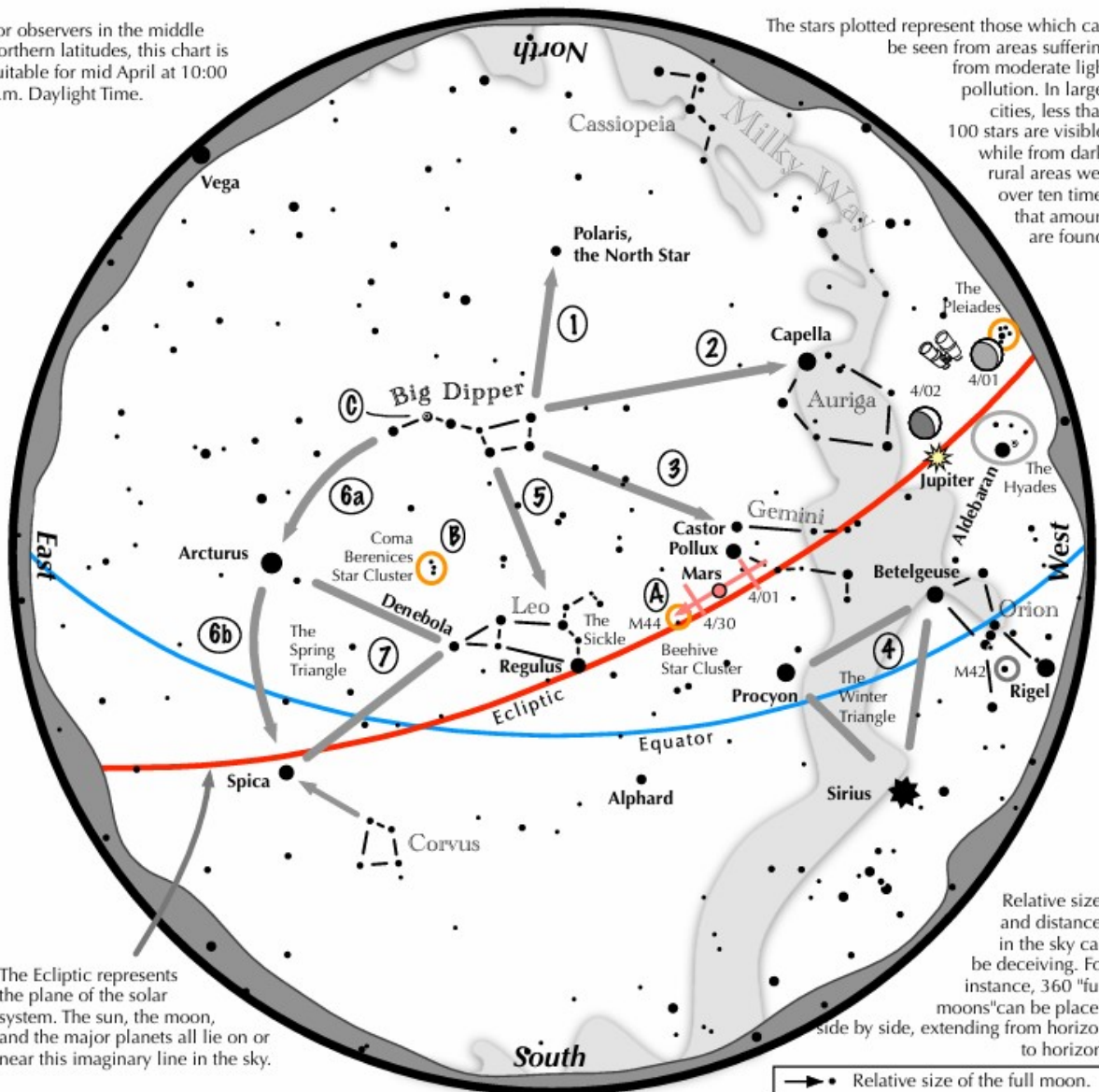
Glenn Chaple (ATMoB)



Navigating the April Night Sky, Northern Hemisphere

For observers in the middle northern latitudes, this chart is suitable for mid April at 10:00 p.m. Daylight Time.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

→ • Relative size of the full moon.

Navigating the April night sky: Simply start with what you know or with what you can easily find.

- 1 Extend an imaginary line north from the two stars at the tip of the Big Dipper's bowl. It passes Polaris, the North Star.
- 2 Draw another imaginary line west across the top two stars of the Dipper's bowl. It strikes Capella low in the northwest.
- 3 Through the two diagonal stars of the Dipper's bowl, draw a line pointing to the twin stars of Castor and Pollux in Gemini.
- 4 Look in the west-southwest for the bright Winter Triangle stars of Sirius, Procyon, and Betelgeuse.
- 5 Directly below the Dipper's bowl reclines the constellation Leo with its primary star, Regulus.
- 6 Follow the arc of the Dipper's handle. It first intersects Arcturus, then continues to Spica.
- 7 Arcturus, Spica, and Denebola form the Spring Triangle, a large equilateral triangle.

Binocular Highlights

- A: M44, a star cluster barely visible to the naked eye, lies to the southeast of Pollux.
 B: Look nearly overhead for the loose star cluster of Coma Berenices.
 C: In the Big Dipper's handle shines Mizar next to a dimmer star, Alcor.

Duplication allowed and encouraged for all free distribution.



Astronomical League
www.astroleague.org

Principal Meteor Showers in 2025

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

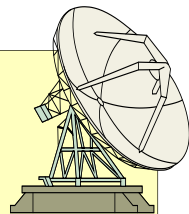
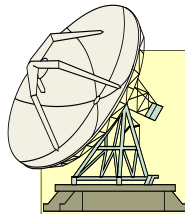
December 22
Ursids

Note: Dates are for maximum

MEMBERSHIP DUES

Membership fees are for the calendar year beginning in January and ending in December. **Dues (see page 17 for prices) are payable to the treasurer during November for the upcoming year.** New members who join during or after the month of July shall pay half the annual fee, for the balance of the year. Checks should be made payable to the Astronomical Society of Northern New England (A.S.N.N.E.). If you would like to mail in your dues, use the form on page 17. Or you can use PayPal via asnne.astronomy@gmail.com

A Member who has not paid current dues by the January meeting will be dropped from membership, (essentially a two-month grace period.) Notice of this action shall be given to the Member by the Treasurer. Reinstatement shall be by payment of currently due dues.



Got any News?

Skylights Welcomes Your Input.

Here are some suggestions:

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

Our club has Merchandise for Sale at: <https://www.cafepress.com/shop/ASNNE/products>



**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

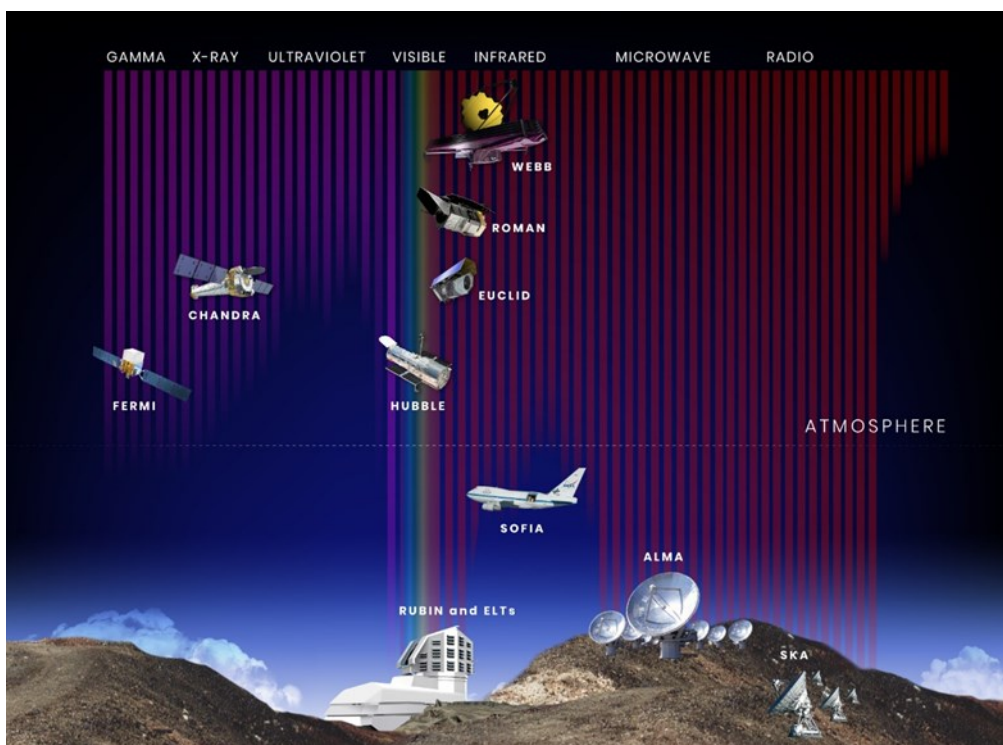
The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.org to find local clubs, events, and more!

April's Night Sky Notes: Catch the Waves!

By Kat Troche

The Electromagnetic Spectrum

If you've ever heard the term "radio waves," used a microwave or a television remote, or had an X-ray, you have experienced a broad range of the electromagnetic spectrum! But what is the [electromagnetic spectrum](#)? According to Merriam-Webster, this spectrum is "*the entire range of wavelengths or frequencies of electromagnetic radiation extending from gamma rays to the longest radio waves and including visible light.*" But what does **that** mean? Scientists think of the entire electromagnetic spectrum as many types of light, only some that we can see with our eyes. We can detect others with our bodies, like infrared light, which we feel as heat, and ultraviolet light, which can give us sunburns. Astronomers have created [many detectors](#) that can "see" in the full spectrum of wavelengths.



This illustration shows the wavelength sensitivity of a number of current and future space- and ground-based observatories, along with their position relative to the ground and to Earth's atmosphere. The wavelength bands are arranged from shortest (gamma rays) to longest (radio waves). The vertical color bars show the relative penetration of each band of light through Earth's atmosphere. Credit: NASA, STScI

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Telescope Types

While multiple types of telescopes operate across the electromagnetic spectrum, here are some of the largest, based on the wavelength they primarily work in:

- **Radio:** probably the most famous radio telescope observatory would be the Very Large Array (VLA) in Socorro County, New Mexico. This set of 25-meter radio telescopes was featured in the 1997 movie *Contact*. Astronomers use these telescopes to observe protoplanetary disks and black holes. Another famous set of radio telescopes would be the Atacama Large Millimeter Array (ALMA) located in the Atacama Desert in Chile. ALMA was one of eight radio observatories that helped produce the first image of supermassive black holes at the center of M87 and Sagittarius A* at the center of our galaxy. Radio telescopes have also been used to study the microwave portion of the electromagnetic spectrum.

Infrared: The James Webb Space Telescope (JWST) operates in the infrared, allowing astronomers to see some of the earliest galaxies formed nearly 300 million years after the Big Bang. Infrared light allows astronomers to study galaxies and nebulae, which dense dust clouds would otherwise obscure. An excellent example is the [Pillars of Creation](#) located in the [Eagle Nebula](#). With the side-by-side image comparison below, you can see the differences between what JWST and the Hubble Space Telescope (HST) were able to capture with their respective instruments.



NASA's Hubble Telescope captured the Pillars of Creation in 1995 and revisited them in 2014 with a sharper view. Webb's infrared image reveals more stars by penetrating dust. Hubble highlights thick dust layers, while Webb shows hydrogen atoms and emerging stars. You can find this and other parts of the Eagle Nebula in the Serpens constellation. Credit: NASA, ESA, CSA, STScI, Hubble Heritage Project (STScI, AURA)

“Continued on page 10”

Visible: While it does have some near-infrared and ultraviolet capabilities, the Hubble Space Telescope (HST) has primarily operated in the visible light spectrum for the last 35 years. With over 1.6 million observations made, HST has played an integral role in how we view the universe. [Review Hubble's Highlights here.](#)



The Crab Nebula, located in the Taurus constellation, is the result of a bright supernova explosion in the year 1054, 6,500 light-years from Earth. Credit: X-ray: NASA/CXC/SAO; Optical: NASA/STScI; Infrared: NASA/JPL/Caltech; Radio: NSF/NRAO/VLA; Ultraviolet: ESA/XMM-Newton

X-ray: Chandra X-ray Observatory was designed to detect emissions from the hottest parts of our universe, like exploding stars. X-rays help us better understand the composition of deep space objects, highlighting areas unseen by visible light and infrared telescopes. This image of the [Crab Nebula](#) combines data from five different telescopes: The VLA (radio) in red; Spitzer Space Telescope (infrared) in yellow; Hubble Space Telescope (visible) in green; XMM-Newton (ultraviolet) in blue; and Chandra X-ray Observatory (X-ray) in purple. You can view the breakdown of this multiwavelength image [here](#).

Try This At Home

Even though we can't see these other wavelengths with our eyes, learn how to create multiwavelength images with the [Cosmic Coloring Compositor](#) activity and explore how astronomers use representational color to show light that our eyes cannot see with our [Clues to the Cosmos](#) activity.

Point and Shoot Camera Astro-Imaging (no telescope)

Canon PowerShot SX50 HS

Submitted By Paul Kursewicz

Venus & Mercury

RAW Mode, FL 193mm, f/5.6, ISO 400, 1 sec, 3-10-25



7:31pm



At 7:31pm I captured this rare conjunction of Venus and Mercury when they were just 16 degrees above the horizon. The conjunction took place over several nights, but the best time to have seen it was on March 10th, when Venus and Mercury were visible about half an hour after sunset and remained in view for around 45 minutes. A bit earlier in the evening when Mercury was not visible yet, I zoomed in my camera lens and was surprised to have captured Venus in its waning crescent phase (see inset top left of my photo). Although, it's a bit overexposed. Venus was in its waning crescent phase from January 13, 2025, to March 22, 2025.

“Continued on page 12”

Point and Shoot Camera Astro-Imaging (no telescope)

Canon PowerShot SX50 HS

Submitted By Paul Kursewicz

Total Lunar Eclipse

RAW Mode, FL 1200mm, f/6.5, ISO 400, 1 sec, 3-14-25

2:39 am



On March 14th the full *Worm Moon* passed through Earth's shadow. *Totality* began at 2:26am and ended at 3:31am. I took this image 13 minutes after the start of totality. Red isn't the only color. There is also turquoise, shown here near the 2 o'clock position in my photo. Its source is ozone. During a lunar eclipse, some of the light illuminating the Moon passes through Earth's ozone layer. Ozone absorbs red light and actually makes the passing light ray bluer. This faint color only shows up near the beginning and ending of totality.

"Continued on page 13"

Point and Shoot Camera Astro-Imaging (no telescope)

Canon PowerShot SX50 HS

Submitted By Paul Kursewicz

Total Lunar Eclipse

JPEG Mode, FL 819mm, f/5.6, ISO 6400, 1/4 sec, Handheld Night Scene, 3-14-25

3:12 am



I took this image around mid-totality using the camera's *Night Scene* setting. This particular eclipse was very rare in that, it happened on Pi π Day March 14th (3.14), marks the moment when the Moon is at its full phase, which occurs when it is 3.14 radians (180 degrees) from the Sun in ecliptic longitude. A *Blood Worm Moon* on Pi Day only comes along every 300-400 years. During the totality phase the Moon was passing through the constellation Leo. The brightest star farthest from the Moon is 89 Leo, at mag 5.75. The other bright star is at mag 6.45, and the dim star next to it is at mag 8.00.

Club Meeting & Star Party Dates

Date	Subject	Location
Apr 4	<p><u>ASNNE Club Meeting:</u></p> <p>Business Meeting starts prior to Club meeting.</p> <p>Club Meeting (in house & on Zoom): 7:30-9:30PM</p> <p>Guest Speaker: This month's guest speaker will be Eric Levin. Eric will talk about Cosmic Expansion — a <i>New Look</i> at the Hubble Constant and the Cosmic Microwave Background.</p> <p>Bernie Reim - "What's UP"</p> <p>Astro Shorts: (news, stories, jokes, reports, questions, photos, observations etc.)</p>	The New School, Kennebunk, Me.
Last Month	Last month 12 members met at The New School and 4 on Zoom. Our president read "What's Up." Astro shorts were shared. Peter Gillette showed some of his pictures. The meeting adjourned around 9:10pm.	
<u>TBD</u>	Club/Public Star Party: TBD	Talmage Observatory at Starfield West Kennebunk, Me.

Directions to ASNNE event locations

Directions to The New School in Kennebunk [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 [Alewife 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:

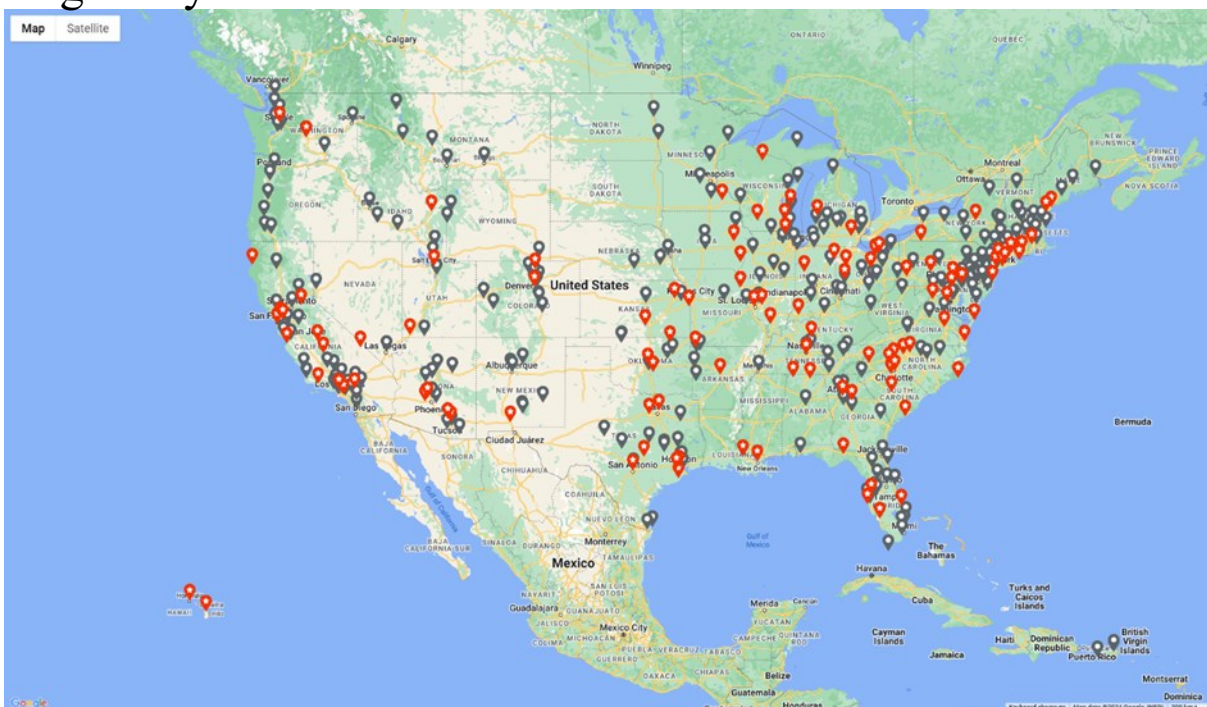
Get off the turnpike at exit 25 in Kennebunk. After toll both turn right on Rt 35. Go up over the turnpike and immediately turn right on Rt 35. About 4 miles along you will crest a hill and see a large field on your right. Continue until you reach the end of the field. Turn right into the Starfield Observatory 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.

NSN also hosts archived video trainings on these toolkits and other topics via its YouTube channel and a [monthly webinar series](#) with scientists from various institutions worldwide. Lastly, a monthly segment called [Night Sky Notes](#) is produced for clubs to share with their audiences via newsletters and mailing lists.

Sharing the Universe

In 2007, a National Science Foundation grant funded further research into astronomy club needs. From that came three club resources: the [Growing Your Astronomy Club](#) and Getting Started with Outreach video series, an updated website with a national calendar, and club and event coordination. Now, you can find [hundreds of monthly events](#) nationwide, including virtual events you can join from anywhere.

Night Sky Network: Current and Future

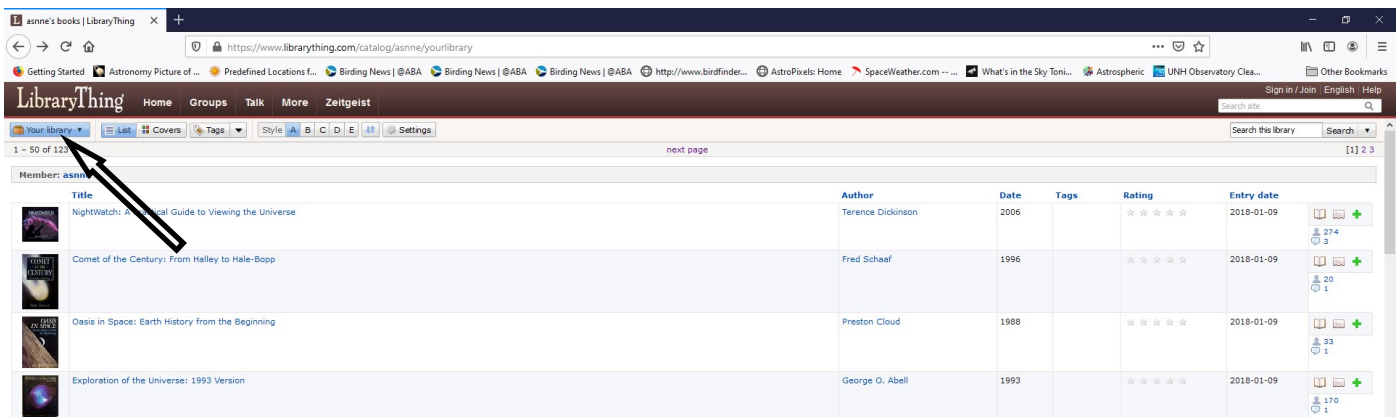


Map of Night Sky Network clubs within the United States as of November 2024

As of November 2024, NSN has over 400 clubs as far north as Washington State, west as Hawaii, and south as far as Puerto Rico. Astronomy clubs worldwide share the wonder of the day and night sky with their communities, and the Night Sky Network is happy to support US clubs with public engagement tools. Through their outreach efforts, member clubs have reached more than 7 million people to date, and the community is still going strong. Find an upcoming star party near you on our [new public website](#).

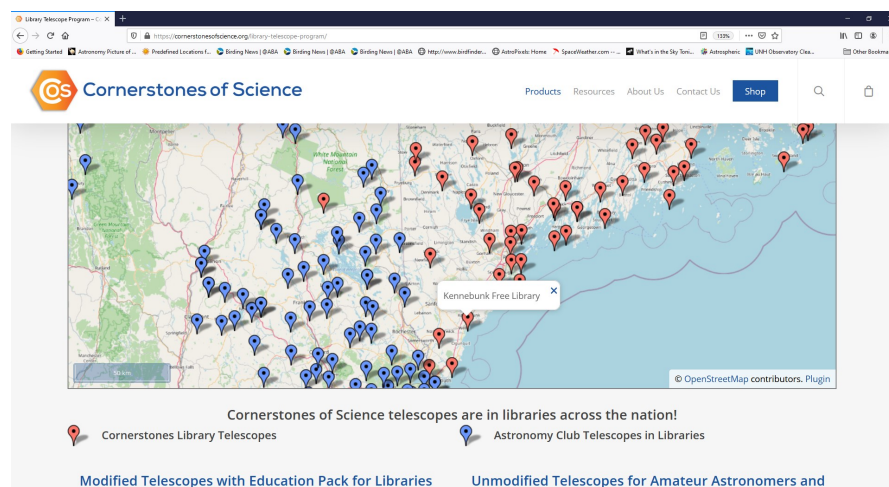
Astronomy Club & Library Resources

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

2025 Membership Registration Form

(Print, fill out and mail to address above) or Use PayPal via asnne.astronomy@gmail.com

Name(s for family): _____

Address: _____

City/State: _____ Zip code: _____

Telephone # _____

E-mail: _____

Membership (check one):

Individual \$50 _____ Family \$ 60 _____ 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 _____

