

Skylights

Newsletter of the Astronomical Society of Northern New England



OCT2025

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 October

By Bernie Reim

The month of October always marks the first full month of fall for us in the northern hemisphere. Autumn will bring with it a slow and gradual transformation of our lush green summer landscape into the dramatic and memorable flaming foliage for which New England is so famous. This is also a great time to get outside under the night sky as the days are getting shorter and cooler and the weather is still mostly clear.

We all need to experience more of the night's ongoing and completely natural wonders which are especially needed in today's hectic times on Earth. We sometimes forget that we are all important parts of this continually unfolding and changing natural drama of our greater environment about which we still know so little.

Just as the surface of part of the earth was being transformed into a tender green half a year ago when spring started, it is once again being transformed into a myriad of vibrant colors as the leaves lose their green chlorophyll and activate their colored pigments as they wrap up their productive summer season and prepare for their dormant period in winter. Each leaf is part of a remarkably efficient process that we have not yet completely figured out.

The vast celestial vault above our limited terrestrial view is also being slowly transformed as the top of the Winter Hexagon begins to appear once again above our Eastern horizon before 10 pm and we say a long good bye to summer as Scorpius and Sagittarius finally disappear below our southwestern horizon.

Notice that any given star will rise 4 minutes earlier each night, so that the whole sky seems to move ahead two hours each month. The sky will look the same on the first of October at 10 pm as it does on the first of November at 8 pm and the first of December at 6 pm. The later you stay up, the farther into the next season you are seeing. That is why it is always a surprise to see the top of the Winter Hexagon, a star named Capella in Auriga, already clear the eastern horizon a little after 10 pm during late summer while the Summer Triangle is still above the western horizon. We will not completely lose the Summer Triangle until after winter starts. The Summer Triangle, consisting of Vega in Lyra, Deneb in Cygnus, and Altair in Aquila the Eagle is roughly opposite the Winter Hexagon in our sky.

The highlights for this month include a nice conjunction of Mercury and Mars low in the western evening sky half an hour after sunset in Libra on the 19th when they will be less than 2 degrees apart.

Saturn is still close to its best for the year and now rises just before sunset. Jupiter is getting closer and brighter and is rising earlier each night in Gemini. The moon will occult some of the stars in the Pleiades for different parts of this country. We will be able to see some of these occultations here from the East Coast. That will happen about 11 pm on Thursday, October 9.

To top off some nice highlights this month we have Comet Lemmon passing through Boötes near the Big Dipper during the last 2 weeks this month. It should become visible in a pair of binoculars since it should reach 8th magnitude. Then you have the elusive 31 ATLAS that many people are talking about since this is only the third comet from outside our solar system that has ever been spotted from Earth. The other two were Oumuamua and Comet Borisov. Then you have a favorable year for viewing the Orionid Meteor Shower since there will be no moon to interfere with one of nature's greatest shows next to eclipses and the Aurora Borealis.

Mars has been slowly dropping lower into our evening sky on its way to conjunction with the sun next month. Before that happens, Mercury will join the Red Planet very low in the western evening sky. They will be at their closest on the 19th. You may need a pair of binoculars and a clear western horizon to say farewell to Mars for the year. Then keep watching as a slender waxing crescent moon joins the pair on the 23rd.

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What's Up "Continued from page 1"

Although Saturn reached opposition last month and is now slowly getting smaller again as it is drifting farther away from us, the Ringed Planet is still very close to its best and brightest for the year in Aquarius. Notice that the angle of the tilt of its rings will decline a little from 1.5 degrees down to just half a degree. Two more nice transits of Titan, its largest moon at 3000 miles in diameter, will occur.

Brilliant Venus continues to rise a little later each morning as it is getting farther away from us also. It starts the month in Leo and crosses into Virgo by the 9th. It is joined by the waning crescent moon on the 19th when it will rise at 5:30 a.m. and be nearly fully illuminated by the sun.

As opposed to Saturn, Mars, and Venus which are all getting a tiny bit fainter and smaller each night, Jupiter is still getting closer and brighter. It starts the month rising just after midnight in Gemini and it will end the month by rising around 11 pm. Shining at magnitude minus 2.2, it is only about 4 times fainter than Venus, the brightest object in our sky after the sun and the moon. Jupiter will also undergo some nice transits of its moons this month, so look for that in a telescope. The first one is on October 4th at 4 am. Europa and Io will perform a double transit that day. That day in 1957 is also when the first satellite ever made by humans was launched Sputnik 1.

The waning gibbous moon will occult or cover up some of the stars in the Pleiades open star cluster in Taurus. It will start around 11 pm on the evening of Thursday the 9th and last for a couple of hours. Check for more details based on your location as to exactly which stars in the Pleiades will be occulted. The first one to be covered is called Electra. In mythology the Pleiades are the daughters of the Titan Atlas who were turned into stars to escape the hunter Orion.

I remember watching an extremely rare graze occultation of the moon over the Pleiades once about 30 years ago. The sunlight streaming through the valleys on the moon made one of the Pleiades appear as if it were blinking on and off instead of just being suddenly covered like it will be this time. You would need a pair of binoculars to see this occultation this month. The star will be covered by the bright part of the moon, but then it will reappear later from behind the dark limb of the moon, which will give it more contrast and be much easier to see. While you are watching all of this, remember that the moon is always traveling about 2000 mph around the earth even while all of these other motions are going on. The Earth-moon system is actually orbiting a common center of gravity called the barycenter which is located about 1000 miles below the surface of the 8000-mile-in-diameter Earth.

In real life the Pleiades are an open star cluster of about 500 stars located about 400 light years away. That means that the light from this interesting star cluster that looks like a miniature Little Dipper, even though it only covers about 1 degree of the sky instead of 20 degrees like the real Little Dipper, left there about the same time that Galileo turned the

first telescope to the heavens and discovered all kinds of hard-to-believe things like the moons of Jupiter forming a mini solar system, the rings of Saturn, sunspots on the sun, the phases of Venus, and many more.

Comet Lemmon was discovered this January using the Mt. Lemmon survey in Arizona. This comet came in from the Oort's cloud were most of our comets come from. This is a huge shell of trillions of comets that surrounds our entire solar system stretching from 2000 to 200,000 astronomical units. One astronomical unit is 93 million miles which is the average distance between the earth and the sun or just over 8 minutes at the speed of light. The outer edge of the Oort's cloud is about one light year away, which is 6 trillion miles.

Comet Lemmon is passing through Boötes the Herdsman now just above the bright orange star named Arcturus. A good way to orient yourself in the sky for much of the year is to follow the arc of the Big Dipper to Arcturus and then speed on to Spica, which is the brightest star in Virgo on the ecliptic. The saying goes "Arc to Arcturus and speed on to Spica".

Look for this comet closer to new moon. It could reach as bright as 8th magnitude, so maybe you will be able to see it with just a good pair of binoculars. Its nucleus is about a mile across.

Now we get to the far more interesting comet that many people are talking about, Comet 3I Atlas. That is not 31, but 3I. The 3 stands for only the third comet ever seen that came in from another solar system and not from the Oort's cloud or orbiting any of our outer planets. The first one was Oumuamua in 2017 and the second one was Comet Borisov in 2019. The letter I stands for "Interstellar" since it did not originate in our own solar system like almost all of the other comets do.

Comet 3I Atlas will be closest to the sun, or perihelion, in late October and closest to Earth in December at 170 million miles or inside the orbit of Mars. Understanding the orbit of this extremely rare comet is a whole lesson in math and conic sections. The hyperbolic orbit of this rare comet follows one of the 4 conic sections. If you slice through a cone parallel to the flat ground you would get a circle with an eccentricity of 0. If you slice through at any angle, you would get an ellipse whose eccentricity can go from anything just above 0 to just below 1. If it reaches one, it becomes a parabola. Then if you slice

Comet 3I ATLAS was discovered on July 1 of this year by an automated telescope whose purpose is to discover comets low on the horizon that people could miss. It stands for Asteroid Terrestrial Impact Last Alert System, which is rather ominous-sounding for a mere telescope that could actually save our lives!

It turns out that Comet 3I ATLAS is heavier and larger than either of the first two interstellar objects that have visited us. Its nucleus is about 3 miles

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Moon Phases

Oct 6
Full
11:47 am
Harvest Moon

Oct 13
Last Quarter
2:12 pm

Oct 21
New
8:25 am

Oct 29
First Quarter
12:20 pm

Moon Data

The Moon
is **Waxing** from
Oct 1 to Oct 6
and from
Oct 22 to Oct 31
During this time
the sunlit portion
of the Moon is
oriented towards
West and grows
each night until the
next Full Moon.

The Moon
is **Waning** from
Oct 8 to Oct 20
During this time
the sunlit portion
of the Moon is
oriented towards
East and decreases
each night, until it
disappears at the
next New Moon.

What's Up "Continued from page 2"

across and it weighs about 33 billion tons. It is traveling at 130,000 miles per hour, or twice the speed that we are always traveling around the sun. The JWST has already seen high levels of carbon monoxide and carbon dioxide along with water and water ice and carbonyl sulfide (OCS) in its coma. It also found pure nickel without the usual iron that other comets and asteroids have. It is about 8 billion years old, or nearly twice as old as anything in our own solar system. On top of all that strange chemistry, comets like this one may actually be vehicles to transfer life from one star to another and even possibly seed new planets. To me that would make it even more interesting than if it were some kinds of an alien spaceship sent into our solar system to investigate! We could be watching an amazing natural process that does not require any aliens to explain it.

The last major highlight this month is a favorable display of the annual Orionid Meteor Shower. It is active from October 2nd right through November 7, but the peak on Tuesday morning on the 21st around 5 am nicely coincides with the new moon, which happens just 3 hours later. Due to that fact, you can expect about 20 meteors per hour from a dark sky site away from any light pollution.

This meteor shower is caused by tiny sand-grained particles of dust and ice in the trail of the most famous of all comets, Halley's. Normally we would only pass through a comet's dust and debris trail once each year, if at all, but we actually pass through the trail of Halley's comet twice, on October 21 AND May 4, which results in the Eta Aquarid meteor shower in spring.

Find a wide-open field with a good view of at least the southern sky as far away from any light as you can get. All of these meteors will emanate from a point in the sky in Orion just above the red giant star Betelgeuse, hence the name Orionids. You can see them anywhere in the sky, but they will all originate from this part of the sky. To see the most meteors look about 45 degrees away from the radiant. Then keep scanning the sky. You can also photograph them by setting a camera on a tripod and leaving the shutter open for a few minutes with a wide-angle lens.

Most of these tiny pieces of Halley's comet will burn up about 60 miles high in our sky. That is about the distance from Portland to Augusta, but straight up. That is called the Karman line, where space begins and the sky turns black because there are no more air molecules to scatter out the sunlight. That is also where many of the northern lights take place in our sky. The International Space Station orbits at about 250 miles high, or another 4 times higher. It orbits about 35 times faster than a jet plane and is about 35 times higher.

Find a good, dark, open sky site and be prepared with a lawn chair or blanket if needed and settle in to enjoy a spectacle of nature that can really connect you to the vast cosmos always above us if you let it and understand it.

Oct. 1. On this day in 1897 the Yerkes 40-inch refractor was dedicated. Designed by Geroge Ellery Hale it was the largest telescope in the world at the time. He also designed the next 3 large telescopes, each one being the largest in the world at the time. His last one was the famous 200-inch reflector at Mt. Palomar that was dedicated in 1948.

Oct.2 Mercury passes 1.9 degrees north of Spica in Virgo.

Oct. 3. Dwarf planet Ceres is at opposition in Cetus the Whale the morning.

Oct.4. On this day in 1957 Sputnik 1 was launched, marking the start of the space age.

Oct. 5. The moon passes 5 degrees north of Saturn today. Neil deGrasse Tyson was born on this day in 1958.

Oct. 6. The moon passes 3 degrees north of Neptune this morning. Notice that Neptune is still visible just to the left and above Saturn through a telescope. Full moon is at 11:48 p.m. EDT. This one is the famous Harvest Moon because it is a day closer to the fall equinox than the September full moon was.

Oct. 7. Neils Bohr was born on this day in 1885. He was one of the early pioneers in the quantum mechanics revolution, which made a lot of our modern technology possible.

Oct. 9. Kepler's supernova was first seen on this day in 1604 in Ophiuchus the Serpent-Bearer. It was about 20,000 light years away. This was a Type 1A supernova. It remained visible to the naked eye for about 18 months after that time.

Oct. 13 Last quarter moon is at 2:13 p.m. The moon passes 4 degrees north of Jupiter.

Oct. 14. Pluto is stationary, ending its retrograde motion today in Aquarius which began on May 4. It takes Pluto 248 years to complete just one orbit of the sun even though it is traveling at 10,600 miles per hour. That is about 6 times faster than the average bullet and still about 7 times slower than we move around the sun. Pluto spends just over 20 years in each of the 12 zodiac constellations.

Oct. 15. Asaph Hall, an American astronomer who discovered both of the moons of Mars, Phobos and Deimos, was born on this day in 1829. Thomas Bopp, an American amateur astronomer who co-discovered the brightest recent comet, Hale-Bopp back in 1996, was born on this day in 1949.

Oct. 16. The moon passes 1.2 degrees north of Regulus today.

Oct. 19. The Indian-American astronomer Subrahmanyan Chandrasekhar was born on this day in 1910. He won the 1983 Nobel prize in physics and discovered the limit at which a Type 1A supernova like Kepler's supernova always has to explode as matter from a nearby red giant feeds onto the surface of a white dwarf. That limit is 1.4 solar masses. Once we know that we can use this type of supernova to figure out the distance to galaxies billions of light years away because a supernova becomes about as bright as the entire galaxy it resided in when it explodes. The moon passes 4 degrees south of Venus this morning.

Oct. 21. Mercury passes 2 degrees south of Mars this evening low in the southwestern sky. The Orionid meteor shower peaks. New moon is at 8:25 a.m. EDT.

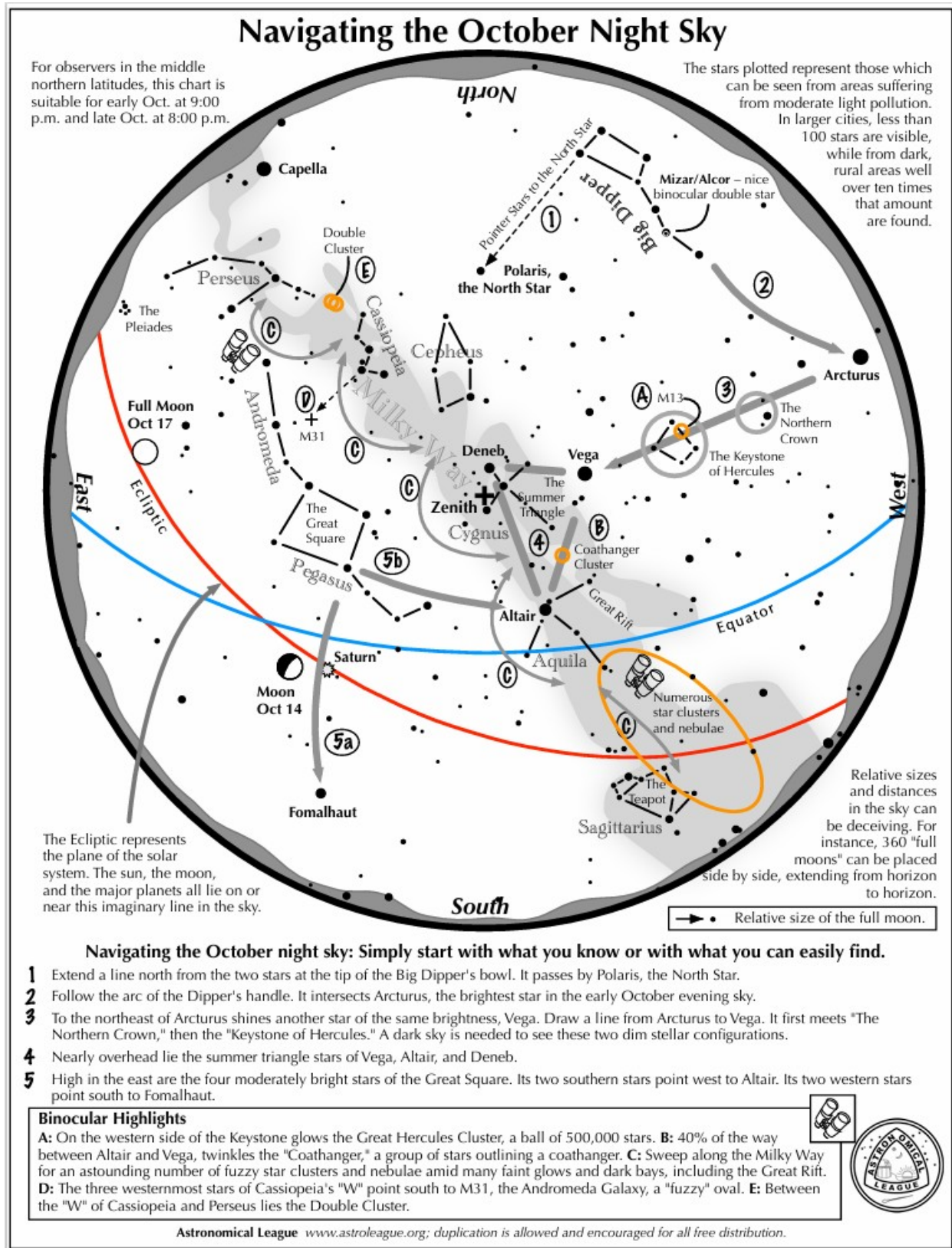
Oct. 22. Karl Jansky was born on this day in 1905. He was an American physicist and radio engineer. He found radio waves from an extraterrestrial source and started radio astronomy.

Oct. 23. The moon passes near Mercury and Mars tonight.

Oct. 24. The moon passes half a degree south of Antares tonight.

Oct. 29. First quarter moon is at 12:21 p.m. Mercury is at greatest eastern elongation from the sun today.

Oct. 31. Venus passes 4 degrees north of Spica this morning. ★



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

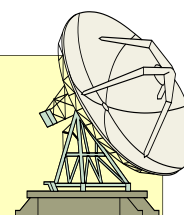
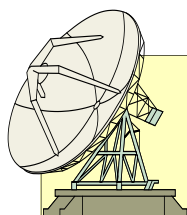
December 22
Ursids

Note: Dates are for maximum

MEMBERSHIP DUES

Membership fees are for the calendar year beginning in January and ending in December. **Dues (see page 18 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 18. 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!

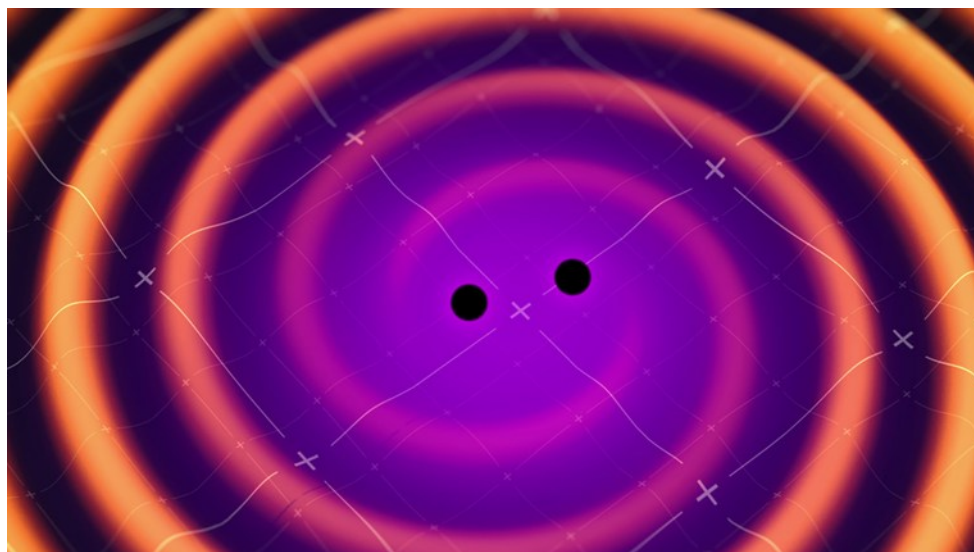
October's Night Sky Notes: Let's Go, LIGO!

by Kat Troche

September 2025 marks ten years since the first direct detection of gravitational waves as predicted by Albert Einstein's 1916 theory of General Relativity. These invisible ripples in space were first directly detected by the Laser Interferometer Gravitational-Wave Observatory (LIGO). Traveling at the speed of light (~186,000 miles per second), these waves stretch and squeeze the fabric of space itself, changing the distance between objects as they pass.

Waves In Space

Gravitational waves are created when massive objects accelerate in space, especially in violent events. [LIGO detected the first gravitational waves](#) when two black holes, orbiting one another, finally merged, creating ripples in space-time. But these waves are [not exclusive to black holes](#). If a star were to go supernova, it could produce the same effect. Neutron stars can also create these waves for various reasons. While these waves are invisible to the human eye, [this animation](#) from NASA's Science Visualization Studio shows the merger of two black holes and the waves they create in the process.

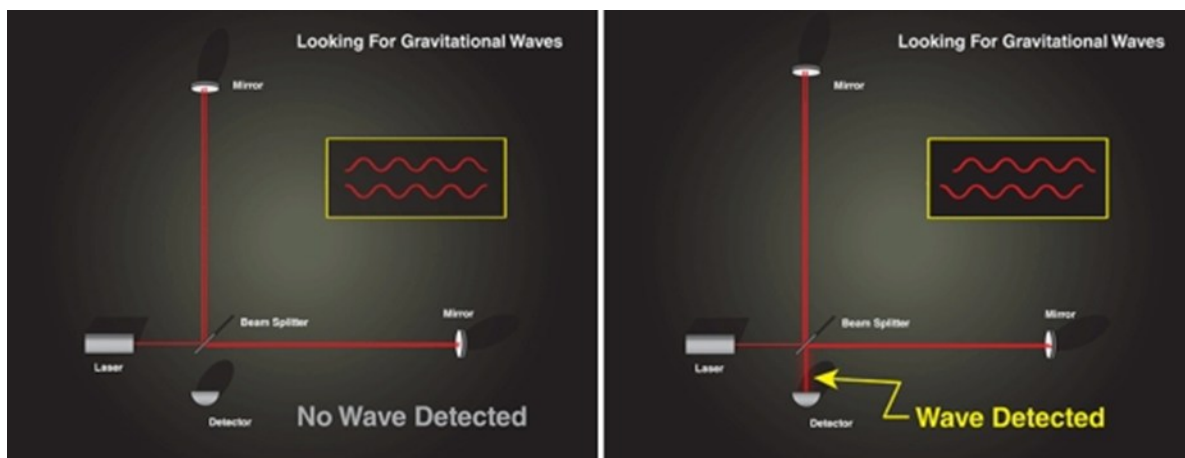


Two black holes orbit around each other and generate space-time ripples called gravitational waves in this image. Credit: NASA's Goddard Space Flight Center Conceptual Image Lab

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How It Works

A gravitational wave observatory, like LIGO, is built with two tunnels, each approximately 2.5 miles long, arranged in an "L" shape. At the end of each tunnel, a highly polished 40 kg mirror (about 16 inches across) is mounted; this will reflect the laser beam that is sent from the observatory. A laser beam is sent from the observatory room and split into two, with equal parts traveling down each tunnel, bouncing off the mirrors at the end. When the beams return, they are recombined. If the arm lengths are perfectly equal, the light waves cancel out in just the right way, producing darkness at the detector. But if a gravitational wave passes, it slightly stretches one arm while squeezing the other, so the returning beams no longer cancel perfectly, creating a flicker of light that reveals the wave's presence.



Still images of how LIGO (Laser Interferometer Gravitational-Wave Observatory) detects gravitational waves using a laser, mirrors, and a detector. You can find the animated version [here](#). Image Credit: NASA

The actual detection happens at the point of recombination, when even a minuscule stretching of one arm and squeezing of the other changes how long it takes the laser beams to return. This difference produces a measurable shift in the interference pattern. To be certain that the signal is real and not local noise, both LIGO observatories — one in Washington State (LIGO Hanford) and the other in Louisiana (LIGO Livingston) — must record the same pattern within milliseconds. When they do, it's confirmation of a gravitational wave rippling through Earth. We don't feel these waves as they pass through our planet, but we now have a method of detecting them!

“Continued on page 8”

Get Involved

With the help of two additional gravitational-wave observatories, [VIRGO](#) and [KAGRA](#), there have been [300 black hole mergers detected in the past decade](#); some of which are confirmed, while others await further study.

While the average person may not have a laser interferometer lying around in the backyard, you can help with two projects geared toward detecting gravitational waves and the black holes that contribute to them:

[Black Hole Hunters](#): Using data from the [TESS satellite](#), you would study graphs of how the brightness of stars changes over time, looking for an effect called gravitational microlensing. This lensing effect can indicate that a massive object has passed in front of a star, such as a black hole.

[Gravity Spy](#): You can help LIGO scientists with their gravitational wave research by looking for glitches that may mimic gravitational waves. By sorting out the mimics, we can train algorithms on how to detect the real thing.

You can also use gelatin, magnetic marbles, and a small mirror for a more hands-on demonstration on how gravitational waves move through space-time with JPL's [Dropping In With Gravitational Waves](#) activity!

STARFEST 2025 MEMORIES



On Thursday & Friday the ASNNE crew installed a new pulley and cable system.

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"Continued on page 11"



"Continued on page 12"



Yuri Freeman far right in white preparing to give us his presentation.

Astro-Imaging with a Dwarf3 Smartscope

Heart Nebula & Fish Head Nebula

During Starfest Peter was instructing me on using the Dwarf3. The picture below is one of my test images. The Dwarf3 stacked and processed 11 subs of one minute each. No additional editing. No Dwarf Labs.



I used the PNG file above and then photo processed it with PixInsight, Photoshop, Siril, and AstroSurface. The result is shown below. I am really pleased with the result. Just 11 minutes of total exposure time. Mind you, that this was taken through a 35mm lens. The Heart Nebula is the large nebulosity filling up center stage. The Fish Head Nebula is the small bright nebulosity in the upper right.



Public Outreach Star Party

Cliff House

Submitted by Gary Asperschlager

Here are a couple photos from star parties at the Cliff House. One is Bern with his laser (and Marty in the background) and the other is Andrew with his Dob and a family.



Public Outreach Star Party

Talmage Observatory

Submitted by Paul Kursewicz

In August around 20 people showed up at our observatory for a public star party. Rick, Wayne, and I hosted the event. Below are some early arrivals.



Club Meeting & Star Party Dates

Date	Subject	Location
Oct 3	<u>ASNNE Club Meeting:</u> Business Meeting starts prior to Club meeting. Club Meeting (in house & on Zoom): 7:30-9:30PM Guest Speaker: We do not have a guest speaker this month. Bernie Reim's - "What's UP" Astro Shorts: (news, stories, jokes, reports, questions, photos, observations etc.)	The New School, Kennebunk, Me.
Last Month	Last month we had our annual Starfest weekend at the Observatory. Our guest speaker was Yuri Freeman. Bernie's What's Up article was read after the presentation. We had a Raffle, a BBQ and good weather for great observing. And, a new pully and cable system installed for the roof of our observatory.	
TBD	Club/Public Star Party: Weather permitting.	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:

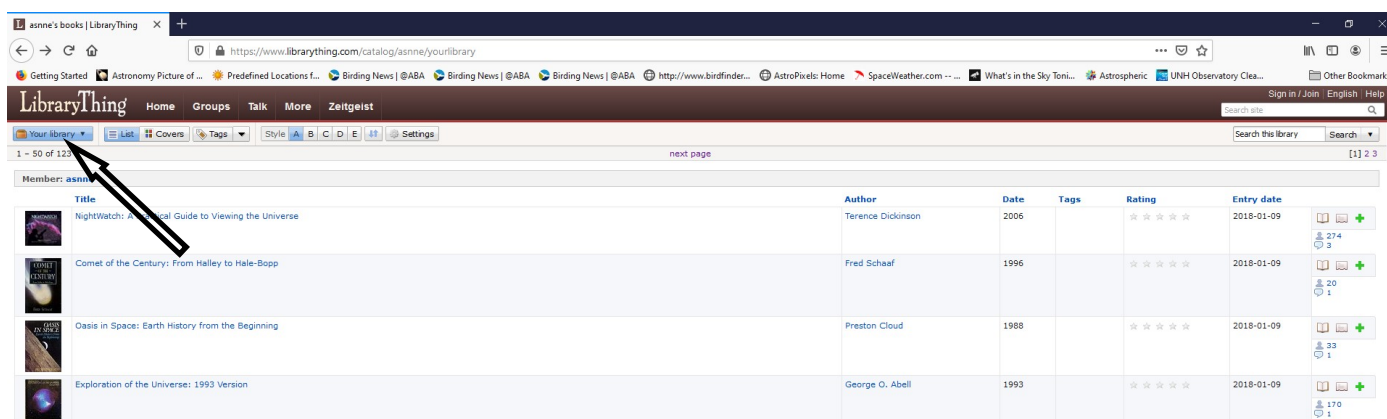
Get off turnpike at exit 32, (Biddeford) turn right on Rt 111. Go 5 miles and turn left on Rt 35. Go 2 miles on Rt 35 over Kennebunk River to very sharp 90 degree left turn. The entrance to the Starfield Observatory site is at the telephone pole at the beginning of the large field on the left. Look for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

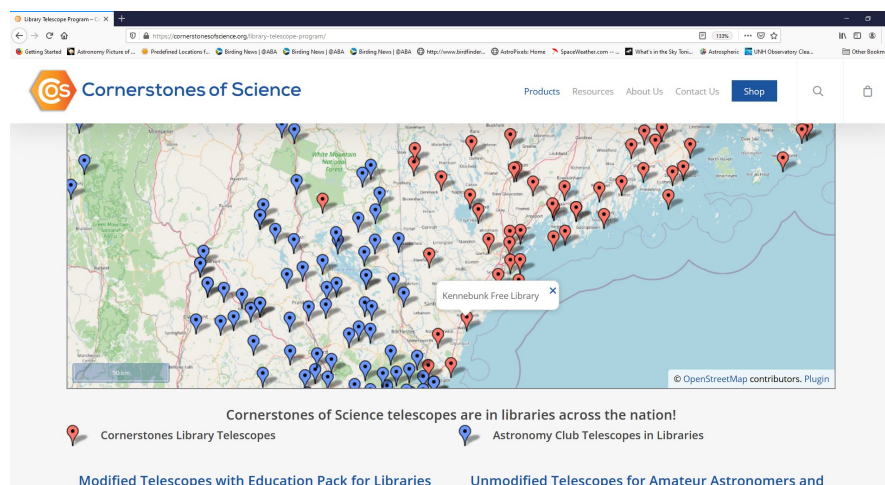
Astronomy Club & Library Resources

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 201
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 _____

