

Skylights

Newsletter of the Astronomical Society of Northern New England



AUG 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 August

By Bernie Reim

The month of August is named for Augustus Caesar. Both July and August have 31 days because they are named after Roman emperors. We start this month celebrating the midpoint of summer on August 1, one of the four cross-quarter days between the equinoxes and solstices. This day is also known Lammass Day, a Christian holiday celebrated in some English speaking countries. The word means "loaf-mass".

It has been a rainy and humid summer so far, but hopefully August will turn out much nicer with the traditional Bermuda High pressure system keeping out more of the rain. There are many interesting highlights to observe in the mid summer skies this month. The "star" of the month will be the planet Saturn since it will reach its opposition on the 27th when it will rise at sunset and not set until sunrise and shine at its best and brightest as it is also closest to Earth. The other major highlights include a favorable Perseid Meteor shower close to new moon that could approach 100 meteors per hour from a dark sky site on the 12th and 13th, and not one but two super moons including a blue moon and the closest super moon of the year on the 30th. Then we have some lesser highlights like losing Venus in the evening sky early this month just to have it return to our morning sky on the 21st showing a large and very thin crescent shape in a telescope. Mars and Mercury will have a close conjunction around the middle of the month very low in the western evening sky. Then we have an asteroid called Eunomia, named for the Greek personification of law and order, at opposition in Sagittarius near a large globular star cluster containing nearly half a million stars named M22 along that arm of the Milky Way near the center of our galaxy. The last highlight is a fairly bright comet at 8th magnitude named Comet Lemmon visible with binoculars in Libra early this month and a fainter 10th magnitude comet named 103P/Hartley 2 which will pass just below the Andromeda Galaxy and into Perseus this month.

Saturn reaches opposition every 54 weeks. That is when a superior planet is closest to earth and directly opposite the sun from Earth, causing it to rise at sunset and not set until sunrise. All the superior planets reach their oppositions in the midpoint of their retrograde loops, or westward moving loops they trace in our sky as seen against the fixed background of stars.

This motion is an optical illusion since we are all orbiting the sun continuously in a counterclockwise direction as seen from above our solar system. No planet ever actually stops and reverses direction for a while, but it certainly looks that way. Saturn started its retrograde or westward motion back on June 17 and it will return to its normal eastward motion on November 4.

Saturn will get as close as 746 million miles from us on the 27th, compared to its average distance of 835 million miles. Light travels 671 million miles in one hour, so that is about an hour and 12 minutes away. Jupiter is just under half a billion miles away or about half as far as Saturn. Then Uranus is about twice as far away as Saturn, but it only marks the halfway point in our solar system if you still include Pluto which averages about 35 astronomical units from the sun or 3.5 billion miles, or over 5 hours at the

speed of light. Saturn's rings are only tilted at about 7 degrees now and they will seem to completely disappear in 2025 as they will be edge-on to our view from Earth. That happens every 29.5 years, since that is how long it takes the ringed planet to orbit the sun. That last happened in 1996 when Saturn looked similar to Jupiter since its famous rings were no longer visible through a telescope.

Even with Saturn at its best, Jupiter will still be nearly 3 magnitudes or 15 times brighter than Saturn. Jupiter begins the month rising around midnight and ends the month rising around 10 pm. It will go into retrograde in Taurus early next month on September 4, reach opposition on November 2, and end its retrograde on December 3 of this year. The king of the planets will be close to a last quarter moon on the 8th and just 16 degrees from the Pleiades open star cluster in Taurus. Jupiter is still getting a little closer and brighter each night and you can see one or more of its 4 large Galilean moons with just a pair of binoculars.

Venus will pass through inferior conjunction with the sun on the 13th when it will disappear for about a week and then return to our morning sky. It is a very large and thin crescent now since it is so close to Earth. This arrangement leads to transits across the face of the sun, or mini eclipses, if Earth, Venus, and the sun are perfectly aligned at inferior conjunction. That only happens 8 years apart with a following gap of 121.5 years and then two more transits 8 years apart with the next gap lasting only 105.5 years. I was lucky enough to see both of the last 2 transits of Venus, on June 8 of 2004 and June 5 of 2012. The next one will be in 2117.

"Continued on page 2"

Inside This Issue

Club Contact List	pg. 2
Moon Data Observer's Challenge	pg. 3-5
Meteor Showers in 2023 Club Merchandise for Sale	pg. 6
Super Blue Sturgeon Moon	pg. 7,8
Astro-imaging with a Point & Shoot	pg. 9
Club Star Party 7-22-23	pg. 10
Astronomy Shoppe	pg. 11
Telescope for Sale	pg. 12
Club Meeting Minutes for July	pg. 13-16
Club Info & Directions to ASNNE	pg. 17
ASNNE Club & Library Resources	pg. 18.
Become a Member	pg. 19

Club Contacts

Officers:

President:

Ian Durham
idurham@anselm.edu

Vice President:

Bernie Reim
berniereim@kw.com

Secretary:

Carl Gurtman
cgurtman@maine.rr.com

Treasurer:

Ian Durham
idurham@anselm.edu

Board of Directors:

Gary Asperschlagger
gasperschlagger@gmail.com

Larry Burkett
larrybu32@yahoo.com

Keith Brown
silverado93@twc.com

Star Party

Co-ordinator:

Carl Gurtman
cgurtman@maine.rr.com

Skylights Editor:

Paul Kursewicz
pkursewicz@myfairpoint.net

Website Manager:

Paul Kursewicz
pkursewicz@myfairpoint.net

NASA Night Sky Network

Co-ordinator:

Joan Chamberlin
starladyjoan@yahoo.com

JPL Solar System Ambassador:

Joan Chamberlin
starladyjoan@yahoo.com

E-mail coordinator

David Bianchi
dadsnorlax@yahoo.com

What's Up "Continued from page 1"

Mars continues to slowly sink lower into our western evening sky as it continues to get fainter and smaller and farther away from Earth. It is 240 million miles away now and it will be at its smallest and dimmest around the end of this year. Its last opposition was December 8 of last year and its next opposition will not be until January 15 of 2025. It reaches opposition every 26 months and can get as close as 35 million miles away, or only 3 minutes at the speed of light. At it's farthest, Mars is about half an hour away, so that is the delay time for our remote controlled rovers like Curiosity and Perseverance and the Ingenuity helicopter drone.

Mercury will be visible below and to the right of Mars very low in the western evening sky half an hour after sunset for the first 3 weeks of this month. Mars will be very close to a thin waxing crescent moon on the evening of Friday the 18th. Mercury will reach greatest eastern elongation from the sun on the 9th, but it will still not be very high in our sky.

The major highlight of this month is a favorable showing of the Perseid Meteor shower. You can expect more than one meteor per minute from a dark sky site since the moon will be a thin waning crescent rising at 1:30 am on the 12th and 2:30 am on the 13th. It will be new on the 16th, a few days after the Perseids. Caused by Comet Swift-Tuttle, which orbits the sun every 133 years and is in an eleven to one orbital resonance with Jupiter, the Perseids are usually the second best shower of each year right behind the December 13th Geminids.

These meteors are quite fast, hitting our upper atmosphere at the edge of space about 62 miles high at 37 miles per second, which is twice as fast as the earth is always orbiting the sun. They are tiny, about the size of a grain of sand and even less dense, but the ionization energy they generate at that great speed translates into those very bright streaks of light, most of which last less than one second. All of the meteors will originate from Perseus the Hero below the circumpolar constellation of Cassiopeia the Queen, but the best place to look is about 45 degrees away from this radiant, which is in Cygnus the Swan and the rest of the summer triangle which nicely frames the summer Milky Way.

August 1. Full moon is at 2:32 pm EDT. This is also known as the Grain, Green Corn, or Sturgeon moon. This is also a super moon since it is less than one day from perigee at 1:52 am on the second of August.

August 3. The moon passes 2 degrees south of Saturn this morning. On this day in 2004 the MESSENGER spacecraft was launched to Mercury. It got there on March 18 of 2011 and was allowed to crash into the planet on April 29 of 2015 when it ran out of fuel. This was the first spacecraft to orbit Mercury and not just fly past it. It is very difficult to orbit Mercury because of its proximity to the sun which generates strong gravitational fields so spacecraft have to perform many perfectly planned flybys as they slowly spiral into an orbit around our first planet. It takes as long to do that as it takes to get all the way out to Saturn, nearly one billion miles away, which is 7 years. The next spacecraft to orbit Mercury, BepiColombo, launched on 10/20/2018 will not get there until 2025. We learned that Mercury has large amounts of water ice in shaded craters near its poles, similar to what we discovered on our moon.

August 4. On this day in 2007 the Phoenix mission was launched to Mars. It got there on May 25 of 2008 and studied the planet for 5 months. It landed farther north on Mars than any other spacecraft. It dug down about a foot into the Martian surface and verified the presence of water ice along with sending back over 25,000 pictures. It also discovered perchlorates, which can be food for some microbes and poison for others. Perchlorates are used in rocket fuel, explosives, and fireworks.

August 6. The Curiosity Rover landed on Mars on this day in 2012 and it is still working. It found evidence of ancient lakes on Mars with the right chemistry to support living microbes along with methane in its thin atmosphere, about 100 times thinner than ours on Earth. Mars may even have had fresh, drinkable water for millions of years. The Perseverance Rover was launched July 30 of 2020 and got there 2/18/21. Its little helicopter drone named Ingenuity made its first flight on 4/19/2021, just 118 years after the Wright Brothers first flight on December 17 of 1903. We got to the moon 66 years later, but we were flying around on another planet, 400 times farther away than the moon 118 years later.

August 8. The moon passes 3 degrees north of Jupiter this morning. Last quarter moon is at 6:28 a.m.

August 9. Mercury is at greatest eastern elongation from the sun today.

August 12. Margaret Burbridge was born on this day in 1919. In the 1950's this British-American astronomer was one of the founders of stellar nucleosynthesis, showing exactly how we and everything else is not only poetically made of star stuff as Carl Sagan said, but actually and physically also. She went on to work on galaxy rotation curves and quasars and even developed the faint object spectrograph for the Hubble Space Telescope.

August 13. The Perseid meteor shower peaks this Sunday morning. It will happen for several weeks before and after this date. Venus is at inferior conjunction this morning.

August 16. New moon is at 5:38 a.m.

August 17. On this day in 2006, the Voyager 1 space craft made it out to 100 astronomical units into our solar system, more than twice as far away as Pluto. It was launched on 9/5/1977, after Voyager 2 which was launched on 8/20/1977. Voyager 1 overtook Voyager 2 on December 15 of 1977 and it first got to the heliopause or the edge of our solar system at about 123 a.u. out in 2013. That is more than 3 times the distance to Pluto.

August 18. The moon passes near Mars and Mercury this evening.

August 22. The X-15 experimental jet set a height record of 354,000 feet or 67 miles high on this day in 1963. That is just beyond the edge of space which is called the Kármán line and is 100 km or 62 miles above the surface of Earth. That is where most of the meteors burn up and the northern lights take place. Above that line it is all black even with a bright sun because there are no more air molecules to scatter any sunlight.

August 24. First quarter moon is at 5:57 a.m. The moon passes 1.1 degrees north of Antares this evening.

August 25. On this day in 2003 the Spitzer Space Telescope was launched. It was the last one of the family of 4 great space telescopes that started with the Hubble Space Telescope in April of 1990, The Compton Gamma Ray telescope in April of 1991, and the Chandra X-ray telescope in July of 1999. Only two of them are still up there, the Hubble and Chandra.

August 27. Saturn is at opposition.

August 28. On this day in 1789 William Herschel discovered the 6th largest moon of Saturn, Enceladus. This moon has a warm salty ocean with organic matter under its icy surface.

August 30. The moon passes 2 degrees south of Saturn. Full moon is at 9:36 p.m. This is the closest super moon of the year since its perigee happens less than 10 hours earlier. This is also a blue moon since it is the second full moon of this month.



Moon Phases

Aug 1, 30
Full

Aug 8
Last Quarter

Aug 16
New

Aug 24
First Quarter

Moon Data

Aug 2
Moon at perigee

Aug 3
Saturn 2° north
of Moon

Aug 4
Neptune 1.5° north
of Moon

Aug 8
Jupiter 3° south
of Moon

Uranus 3° south
of Moon

Aug 16
Moon at apogee

Aug 18
Mars 2° south
of Moon

Mercury 7° south
of Moon

Aug 30
Moon at perigee

OBSERVER'S CHALLENGE* – June 2023 (for August)

by Glenn Chaple

NGC 5774/5 Galaxies in Virgo (NGC 5774 Magnitude 12.1, Size 3.0' X 2.4'; NGC 5775 Magnitude 11.4, Size 4.2' X 1.0')

About 2 degrees northeast of the 4th magnitude star 109 Virginis is the interacting galactic pair NGC 5774 and NGC 5775. Both are spirals, the former being somewhat face-on, while the latter is basically edge-on. Their difficulty for visual observation is evidenced by the fact that the brighter of the two, NGC 5775, was designated as a Class III object (Very Faint Nebulae) by William Herschel, who discovered it in 1786. The even fainter NGC 5774 remained undetected until the mid-1800s when the Irish engineer/astronomer Bindon Stoney spotted it with William Parson's great 72-inch reflecting telescope (the "Leviathon of Parsonstown").

While NGC 5774/5 can be captured visually with today's smaller but optically superior instruments, you'll need reasonably dark skies if you expect to view them with an 8 to 10-inch scope. Start with the brighter NGC 5775, which is located at 2000.0 coordinates RA 14^h53^m57.7^s, Dec +3°32'40.1". If you find it, NGC 5774 should appear as a fainter roundish glow 4.5 arc-minutes to its northwest.

Even knowing exactly where to look directly or with averted vision, I saw neither with my 10-inch f/5 reflector under magnitude 5 suburban skies. Most guides assign NGC 5775 a magnitude of around 11.4. However, *Burnham's Celestial Handbook* gives it a magnitude of 12.3, which would be more in keeping with a Class III Herschel object (and a handy excuse for my being unable to see it with my 10-inch!). Greg Crinklaw's Skyhound website (observing.skyhound.com) agrees with Burnham's magnitude for NGC 5775 and lists NGC 5774's as 12.8. Suffice it to say, these galaxies will challenge the experienced visual observer.

*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

"Continued on page 4"

NGC 5774 Finder Chart



NGC 5775 Finder Chart



“Continued on page 5”

Photo submitted by Mario Motta



Hi, attached is the June object of the month, NGC5774-5.

An Interesting interacting pair, for the imagers it was difficult to process, due to the relative brightness of 5775 vs 5774. Either 5774 was dim or 5775 was blown out too bright when processing. I finally solved it by creating individual digital masks for each galaxy, then optimally processing each of them. It will be interesting if visual observers note the brightness difference (I did not to this point get a chance to observe visually).

These galaxies are 70 MLY away in Virgo, and are an interacting pair. Looking closely you can see a spiral arm on N5774 being pulled out and flowing into 5775, took some teasing digitally to preserve this detail in my image. This is similar to the interaction in M51. Also, N5775 is well known to have an intense "vertical" magnetic field around the galaxy as seen with the radio VLA,

This image was taken with Lum, R/G/B, and a touch of Ha. about 5 hours imaging in all, then processed in pixinsight with special processing to bring out the faint detail, especially in N5774.

Taken with my 32 inch F6.5 telescope, and ZWO ASI6200 camera

Mario Motta

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

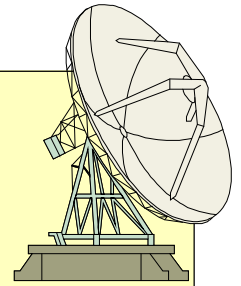
December 14
Geminids

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!

Super Blue Sturgeon Moon

Vivian White

On August 1st, catch a **full Moon** rising in the east just 30 minutes after sunset. We are seeing the entire sunlit side of the Moon as it is nearly (but not quite) in line with the Sun and Earth. The *Farmers' Almanac* calls this month's Moon the "Sturgeon Moon", for the time of year when this giant fish was once abundant in the Great Lakes. Cultures around the world give full Moons special names, often related to growing seasons or celebrations.

As the Moon rises later and later each night, the bright sunlit part appears to get smaller or "wane" - we call this a waning **gibbous Moon**. About a week later, on August 8th, we see only one half of the Moon alight. At this phase, the Moon rises around midnight and sets around noon. Have you ever seen the Moon in the daytime? You may notice this phase towards the southwest in the morning sky. Hold up a ball or egg beside it and see how the Sun lights up the same part.

By August 16th, the Moon has gone through its crescent phase and is now only showing its dark side towards the Earth. Did you know the **dark side** and the **far side** of the Moon are different? The Moon always shows the same face towards Earth due to the gravitational pull of Earth, so the far side of the Moon was only viewed by humans for the first time in 1968 with the Apollo 8 mission. However, the dark side is pointed at us almost all the time. As the Moon orbits the Earth, the sunlit side changes slowly until the full dark side is facing us during a **new Moon**. When the Moon is just a small crescent, you can sometimes even see the light of an **Earthshine** reflecting off Earth and lighting up the dark side of the Moon faintly.

Then as the Moon reappears, making a waxing (or growing) **crescent Moon**, best seen in the afternoons. By the time it reaches the first quarter on August 24th, we see the other half of the Moon lit up. At this point, the Moon passes through Earth's orbit and marks the spot where the Earth was just 3 hours prior. It takes the Earth about 3 hours to move the distance between the Moon and Earth.

The Moon on August 30th is referred to as a blue moon. **Blue moons** are not actually blue in color of course; it refers to the second full Moon in any month. Since it takes 29.5 days to complete the cycle from full to new and back to full, most months will see only one. But occasionally, you'll fit two into one month, hence the phrase "once in a blue moon." We see a blue moon about once every 3 years on average - next in May 2026. In addition, this full Moon appears larger in the sky than any other full Moon this year - an unofficial **supermoon**. A supermoon appears larger than average because it is closer in its slightly elliptical orbit. The difference in apparent size between the smallest and largest full Moon is about the size difference between a quarter and a nickel. Even at its largest, you can always cover the whole Moon with your pinky extended at arm's length.

Follow the Moon with us this month and keep a Moon journal if you like - you may be surprised what you discover! moon.nasa.gov/moon-observation

"Continued on page 8"



Image of waning crescent Moon shown next to a ball on a stick that is lit by the Sun on the same side as the Moon, with trees and a blue sky in the background. Try this with an egg or any round object when you see the Moon during the day! Credit: Vivian White



[Earthshine as seen from the International Space Station](#) with the sun just set - Astronaut Photograph IS-S028-E-20073 was taken on July 31, 2011, and is provided by the ISS Crew Earth Observations Facility and the Earth Science and Remote Sensing Unit, Johnson Space Center

Point and Shoot Camera Astro-imaging (no telescope)

Canon Powershot SX50 HS

Image & write-up submitted by Paul Kursewicz

North America & Pelican Nebula

RAW mode, FL 269mm, f/3.5, ISO 1600, 6 x 3min, 6-12-18 (re-edited on 7-21-23)



I took this image back in 2018 and recently re-edited it using techniques and software that were not known to me then. It's been greatly improved. The **North America Nebula** is an emission nebula in the constellation Cygnus. The remarkable shape of the nebula resembles that of the continent of North America. The bright orange star just to its left is Deneb, the head of the Northern Cross. The **Pelican Nebula** is just to the lower right of the North America Nebula. These are part of the same interstellar cloud of ionized hydrogen. The distance of the nebula complex is 1,800 light years and its absolute size would be 100 ly.

Club Star Party 7-22-23

Ten people attended the club star party. Skies were partly cloudy and a bit hazy, but we were still able to do viewing. Several bright meteors graced the sky and the ISS passed overhead around 10:40pm. Using the 16-inch Meade Dave and I (maybe someone else) were able to see the "Propeller" in globular cluster M13 using averted-vision. But we were unsuccessful in seeing the "edge on ring" that is associated with the Saturn Nebula (a very tiny planetary in Aquarius that was very low in the horizon).



Astronomy Shoppe

<http://ASTRONOMY-SHOPPE.COM>

3 Elm Street Plaistow, NH

WALK-INS – by appointment only (call 603 382 0836)



Last month my wife and I went to an outdoor evening concert in Plaistow, NH. While walking around in the park I noticed that there was an observatory in someone's backyard. So I ventured over there to check things out. It turned out to be the "Astronomy Shoppe." I believe we brought our 16-inch Meade mirror here to be cleaned. And recently, Dave forwarded an email to the club from the Astronomy Shoppe making us aware of them hosting an astronomy camp in western Maine. Visit their website to learn more as well as seeing what other kind of things that they have offer. It may be the only walk-in (by appointment only) astronomy shop in New England.

Telescope for Sale

Hello,

About 10 years ago, I was working on putting together a 12.5" truss tube reflector based off Dave Kriege's dob book. I have the box made of baltic birch, the mirror from Discovery Telescopes, 6061 aluminum truss tubes, mirror mount (custom made), secondary. I lost steam on it after some life changing events and never got back at it. I was an active member of ASNNE in the mid-late 90's, but the only name I recognize on your newsletter roster now is Paul K's.

Anyway, I retired in December and we're preparing to sell our house in May and move full time into a 41' diesel coach and tour North America for a few years. That being said, I'm considering selling this works in the making if I could get a fair price for the materials. I don't have a price in mind, but can get some pictures together, but if there were someone interested, the best thing might just be for them to email me and we could setup a time they could swing by and see what I have and make an offer. If it doesn't work out, I'll store things with a few other things we'll leave behind and perhaps resume it once we settle down. We are, however trying to minimize what we store.

If there's any interest in from a club member, they can contact me at mainuh858@yahoo.com Of course, being retired, I'm fairly flexible on time with a little advance notice.

Thanks in advance.

Don Lockhart

Cumberland, Maine

[Astronomical Society of Northern New England \(ASNNE\) Membership Meeting](#)

[Minutes of 2 July 2023](#)

Business Meeting: The Business Meeting was called to order at 7:06 pm by President Ian Durham.

Directors Present: Ian Durham, President & Treasurer
Bernie Reim, Vice-President
Carl Gurtman, Secretary
Gary Asperschlager, Director
Ron Burk, Director
Bern Valliere, Director

Plus: David Bianchi, ASNNE E-Mail Manager
Paul Kursewicz, *Skylights* Editor

Others Present: There were an additional five people present at the Business Meeting.

Treasurer's Report: The Treasurer had nothing new to report.

Secretary's Report: The previous Minutes had been e-mailed out. There were no comments. The Secretary's Report was accepted.

Old Business:

We provided an update on items discussed at last month's Business Meeting: For 2024, a dues increase; \$50 per single person; \$60 per family.

Ron has a lead on our redundant Cub Cadet mower. The Board authorized him to sell it for \$250.

The Board had agreed to sell some of the telescopes that have been donated to us; giving Member's 'First Refusal' rights. Ian suggested that we perform an inventory first; and then decide what to keep and what to sell. The Board agreed.

Remove Port-a-Potty, and save cost of cleaning. It seems the best way to remove the Port-a-Potty is to disassemble it with a Sawzall. We will rent one for Starfest. At tonight's Meeting, we agreed NOT to rent a Port-a-Potty for our Annual Bar-B-Que.

Drop annual Astronomical League Membership. This would entail no longer receiving *Reflector*. After discussion tonight, the Board agreed that there was enough Member interest in *Reflector* to maintain Astronomical League Membership.

“Continued on page 14”

Review paying the State of Maine an annual tax filing charge. Some Directors reported that the non-profits they file tax for, do not pay such a charge. It turns out that there is no tax filing fee, but there is an annual Maine non-profit report filing fee of \$35. (Result of Carl's on-line review.)

Review ways to sign-up for Membership, not using paper forms and mailing checks. If this is accomplished, we can eliminate our PO Box, which costs us \$460 annually. Action: Ian

Contact other "glamp-grounds" in the area, and actively market our Presentations. Action: Carl

Ian reiterated that some people buy food for Starfest, and then present receipts for reimbursement. This adds up. In general; people should contribute goods for Starfest, and in any case, permission must be received before making any purchases.

Refreshments: Anyone who would like to bring Refreshments to our Meetings is encouraged to do so, but the Club will not pay for them.

Carl has all of his old ASNNE Meeting Minutes. But he does not know how to upload them to our "io" account. Educate Carl on how to upload the past Minutes. Action: Ian

New Business:

Volunteers and E-Mail Responses: David, as our ASNNE E-Mail Manager, is the person who receives all e-mail addressed to us, including, of course all inquiries about Open Observing Sessions, and requests for Star Parties. David then e-mails our Membership, asking for Member support at our events. Or, in the case of requests for information, an appeal for a knowledgeable Member to respond to the questioner. Previously the usual response was **Nothing!** However, at the end of June's Regular Meeting, Members came forward and David received the needed Member support for the upcoming Events. At tonight's Business Meeting, David went through all of the upcoming Events, which included some new ones. One new request was for a hands-on session at the Talmage Observatory at Starfield for the [Massabesic Adult and Community Education](#) Program. David proposed Wednesday, 18 October, 2023 at 6:00 pm for that. No rain date. To discuss with Eleanor Chow, our point-of-contact. Action: Carl.

David should never agree to holding any event, unless and until he has a cadre of dependable Members to support it. Carl reported that he had sent out a Press Release regarding the Public Open Observing nights.

Barbeque at The Talmage Observatory at Starfield:

The Board decided that the August Meeting will take place at The Talmage Observatory at Starfield. This will be our Annual Barbeque. People should plan on arriving between 5:00 and 6:00 pm. ASNNE will provide the gas grills. People should bring their own food, plus some. We won't have Alyson to co-ordinate, unfortunately. There will NOT be a Port-a-Potty. While the Barbeque is not publicized as a Event for the General Public, Members are encouraged to

bring as many family and friends as they wish.

The Business Meeting was adjourned at 7:30 pm.

Regular Meeting:

Regular Meeting: The Regular Meeting was called to order at 7:50 pm by President Ian Durham.

Directors Present: Ian Durham, President & Treasurer

Bernie Reim, Vice-President

Carl Gurtman, Secretary

Gary Asperschlager, Director

Ron Burk, Director

Bern Valliere, Director

Plus: David Bianchi, ASNNE E-Mail Manager

Paul Kursewicz, *Skylights* Editor

Others Present: There were total of 16 people physically present, and an additional two people participated on Zoom.

Old & New Business:

There was a reiteration of business conducted earlier. The August Barbeque was announced, and the new dues structure emphasized. Plans for the Port-a-Potty announced.

David went through his list of upcoming Private and Public Observing Events. David was requested to send out an e-mail to the Membership, listing those Events.

Presentation:

There was no Presentation at this Meeting.

“Continued on page 16”

"What's Up?":

Prior to his "What's Up?" Presentation, Bernie recommended a book, *Infinite Powers*, which describes how calculus is the language of the universe. Bernie also described the discussion about space junk orbit around the Earth that took place on his radio show. There are currently 4,000 working satellites, and many inactive ones. Objects greater than 10 centimeters number about 40,000, and, there are in total, an estimated 200,000,000 (!!) pieces of space junk. Also, of note, Saturn now has a total of 145 moons!

Bernie gave his usual thorough, comprehensive, and complete discussion of what's in store for us in the skies of July, a month named for Julius Caesar.

Because 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]. Since "What's Up?" already exists in print. I will no longer excerpt it in the ASNNE Minutes. *Skylights* may be found at: <http://www.asnne.org/newsletter.php>

Astroshorts:

There were a few Astroshorts.

Of especial note, David projected many excellent astro-photographs that Paul K. had taken with his point-and-shoot camera. Paul's camera is used without a telescope, and is mounted on a tracking device. A series of relatively short photographs is taken, reviewed by Paul, outliers rejected, and stacked by software, informed by Paul's experience. Comparing earlier shots taken by Paul with later ones, it is very obvious how his experience has improved the quality of his more recent photographs.

Next Meeting:

ASNNE's next Meeting will be our Annual Barbeque, on Friday, 4 August, 2023, starting between 5:00 and 6:00 pm at The Talmage Observatory at Starfield.

Respectfully submitted,

Carl Gurtman

Club Meeting & Star Party Dates

Date	Subject	Location
<u>Aug 4</u>	<p><u>ASNNE Club Meeting:</u></p> <p>Our club meeting will not be at The New School this month. We will be having our annual BBQ/Picnic and meeting at Talmage Observatory at Starfield. Two gas grills are available. Bring your own food and drinks, might be a good idea to bring a chair also. Time: Between 5pm and 6pm. If it's raining that day we'll have our meeting at The New School.</p> <p>Bernie Reim - What's UP</p> <p>Astro Shorts: (news, stories, jokes, reports, questions, photos, observations etc.)</p>	Talmage Observatory at Starfield West Kennebunk, Me.
Last Month	<p>Last month we met at The New School and had several members attending via Zoom. We did not have a guest speaker. Bernie did "What's Up" and that was followed by astro shorts. David went on-line to the Powershotters website and showed many of Paul Kursewicz's astro images taken with his point-and-shoot camera.</p>	
<u>August 18,19</u>	Club/Public Star Party: Dependent on the weather.	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:

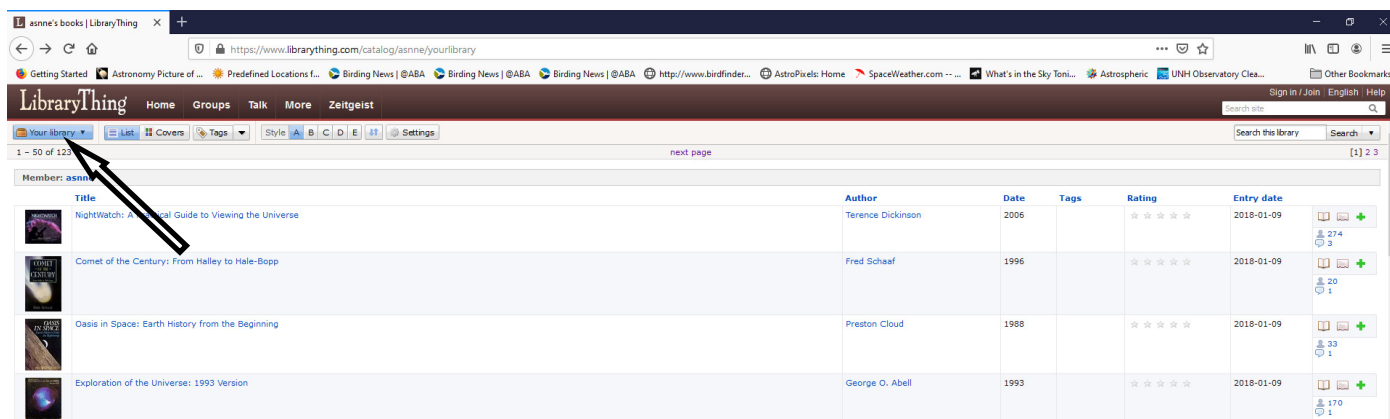
Get off turnpike at exit 32, (Biddeford) turn right on Rt 111. Go 5 miles and turn left on Rt 35. Go 2 miles on Rt 35 over Kennebunk River to very sharp 90 degree left turn. The entrance to the Starfield Observatory site is at the telephone pole at the beginning of the large field on the left. Look for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

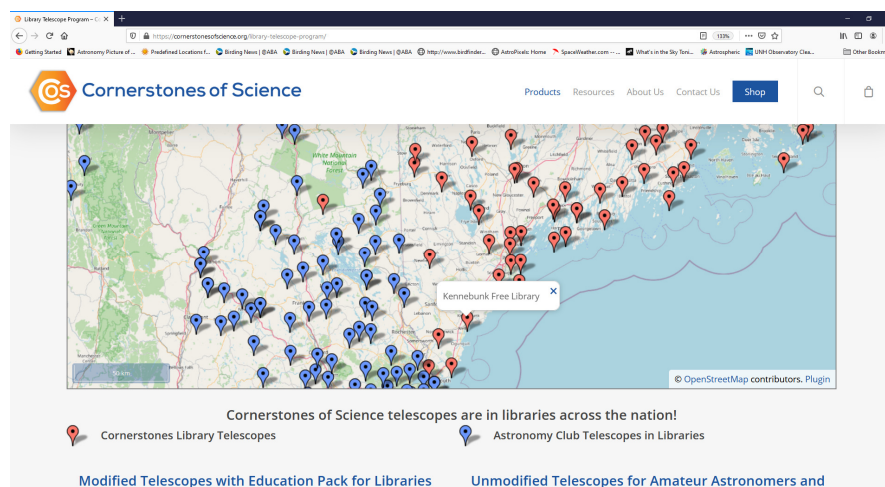
Astronomy Club & Library Resources

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/asmne> . 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 _____

