



the Skyscraper

vol. 49 no. 8
August 2022

AMATEUR ASTRONOMICAL SOCIETY OF RHODE ISLAND * 47 PEEPTOAD ROAD * NORTH SCITUATE, RHODE ISLAND 02857 * WWW.THESKYSCRAPERS.ORG

In This Issue:

- 2 President's Message
- 3 Remembering Dave Hurdis
- 4 Skylights: August 2022
- 5 The Arrival of the Dog Days
- 6 Star Party Update
- 6 Lunatic's Corner:
Vallis Schröteri
- 7 NASA Wants its
Cockroaches Back
- 8 NASA Night Sky Notes:
Artemis 1: A Trip Around
the Moon – and Back!
- 9 Planetary Nebula in Aquila:
NGC 6772
- 11 The Sun, Moon &
Planets in August
- 12 June Reports
- 14 August Starry Scoop

An Astronomical Odyssey to West Virginia

A presentation by Steve Hubbard
Saturday, August 6 at Seagrave Observatory
& via Zoom, 7:00pm EDT

Meeting presentation will also be conducted over Zoom. Contact Linda Bergemann (L.Bergemann@aol.com) for Zoom Meeting link and information.

6 PM: Socializing

7 PM: Short Business Meeting followed by Presentation

A couple of years ago while perusing the event calendar in Amateur Astronomy magazine, I happened upon a listing for the Green Bank West Virginia Star Quest.

I'd never been to this part of the country and I looked at their web site. I saw what looked like a great event with dark skies and a very interesting location. I decided to go, but ultimately had to wait a couple of years before getting there because of COVID.

Finally, this year I and my traveling companion, fellow Skyscraper Bob Horton, made the trek to Green Bank, home of the Green Bank Observatory and the largest steerable radio dish in the world.

We had a great time, met some wonderful people, viewed through some very dark

skies and learned a lot more about radio astronomy than I knew before.

This talk will be a remembrance of this trip and will hopefully encourage more Skyscraper members to consider going with us to the Green Bank Star Quest next year (June 21-24, 2023).

Steve Hubbard has been a member of Skyscrapers since 1972 or 73 (the exact date is lost to the mists of time), ever since he discovered its existence as a teenager. Steve has built telescopes, traveled to far-off places to see observatories or Solar eclipses, and currently has a 14-inch SCT in his backyard for imaging and a 6-inch refractor for travel.

Seagrave Memorial Observatory Open Night

Saturdays,
August 6 & August 20

AstroAssembly

Saturday, October 1

[www.theSkyscrapers.org/
astroassembly2022](http://www.theSkyscrapers.org/astroassembly2022)



Green Bank Telescope by Bob Horton

President's Message

by Linda Bergemann

AstroAssembly is on my mind this month. AstroAssembly is a tradition of which Skyscrapers is very proud. This year will mark seventy years since the first "Amateur Astronomical Convention of the Skyscrapers" was held on August 2 & 3, 1952. Through the years, we have welcomed many notable speakers, including well-known astronomers, astrophysicists, scientists, and even astronauts. This annual event brings together amateurs from all over the New England area to reconnect with old friends, learn something new and just have an enjoyable day. It is also our primary fundraising event for the year.

Second Vice President Francine Jackson is leading the effort on this year's AstroAssembly, scheduled for Saturday, October 1. The theme will be the Sun and the Moon. This all-day event will include at least one morning speaker, several afternoon speakers, and an evening speaker. An optional deli lunch will be available for advance purchase, and we will break for dinner on your at a local eatery. All activities will take place at Seagrave Memorial Observatory. Details of the program and registration information will be available soon, if not already available.

Now, we need your help to make this a successful event, for our guests and for Skyscrapers. First, we are soliciting items for door prizes and possibly a raffle. If you have any new or gently used astronomy-related

items that you would like to donate, please contact Kathy Siok at kathys5@cox.net.

Beyond prizes, we will need a number of volunteers throughout the day on October 1. Parking attendants will be needed to safely pack as many cars as possible into our lot and overflow area; one or two people will be needed to tend to the refreshment area throughout the day; one or two to pick up and consolidate the trash during the day; and others to help with many small jobs will invariably arise that day. This is a team effort. Please consider volunteering for one of these jobs for a few hours on October 1.

Working together is the best way to get to know your fellow members of Skyscrapers. Contact Bob Janus, senior Trustee, at rsjanus52@gmail.com to help with parking and trash; Kathy Siok at kathys5@cox.net to help with refreshments; or Francine Jackson at francine_jackson@brown.edu to help with other miscellaneous tasks.

I encourage you to attend AstroAssembly 2022 on Saturday, October 1. Learn something new. Meet some new people. Or, just have a pleasant day. Mark your calendar now and watch for our formal announcement. I hope to see you there!



AstroAssembly, October 1, 1955



The Skyscraper is published monthly by Skyscrapers, Inc. Meetings are held monthly, usually on the first or second Friday or Saturday of the month. Seagrave Memorial Observatory is open every Saturday night, weather permitting.

Directions

Directions to Seagrave Memorial Observatory are located on the back page of this newsletter.

Submissions

Submissions to *The Skyscraper* are always welcome. Please submit items for the newsletter no later than **August 15** to Jim Hendrickson, 1 Sunflower Circle, North Providence, RI 02911 or e-mail to jim@distantgalaxy.com.

E-mail subscriptions

To receive *The Skyscraper* by e-mail, send e-mail with your name and address to jim@distantgalaxy.com. Note that you will no longer receive the newsletter by postal mail.

President

Linda Bergemann

1st Vice President

Edward Walsh

2nd Vice President

Francine Jackson

Secretary

Angella Johnson

Treasurer

Laura Landen

Members at Large

Steve Brown

Michael Corvese

Trustees

Bob Janus (Senior)

Steve Hubbard

Richard Doherty

Observatory Committee Chairperson

Steve Siok

Program Committee Chairperson

Michael Corvese

Outreach Chairperson

Linda Bergemann

Librarian

Dave Huestis

Assistant Librarian

Weston Ambrose

Historian

Dave Huestis

Editor

Jim Hendrickson

Astronomical League Correspondent (ALCor)

Jeff Padell

Upcoming Events

August 6 - 7:00pm, Monthly Members Meeting, Seagrave Observatory, 47 PeepToad Rd., N. Scituate, RI

August 12 - 8:00-9:30pm - River Bend Farm, 287 Oak St., Uxbridge, MA
Contact: Francine Jackson

August 18 - 8:00-9:00pm Observing at the Waterfire Arts Center, 475 Valley St., Providence, RI
Contact: Francine Jackson

August 20 - 9:00-11:00pm - Public Observing at Seagrave, 47 PeepToad Rd., N. Scituate, RI
Contact: Steve Siok

August 25 - 7:30-9:30pm - Chase Farm Park, 667 Great Rd., Lincoln, RI
Contact: Francine Jackson

August 26 - 8:30-10:00pm - Border's Farm, 31 North Rd., Foster, RI
Contact: Bob Horton

August 26-28 - Skyscrapers' Camping and Observing Weekend, Sumner, ME
Contact: Michael Corvese

Volunteers are always needed and welcome. Please reach out to the contact person for volunteer opportunities.

Remembering Dave Hurdis

by Mercedes A. Rivero H.

As many of you know, on May 31, 2022, Skyscrapers, Inc. lost a dear member, David A. Hurdis. Dave was born in Providence, RI, on March 13, 1941; he was married to Carolyn Steere Hurdis (1941–2021), and had three children and five grandchildren.

Dave earned his B.Sc. (1962) and M.Sc. (1964) degrees in chemical engineering at the University of Rhode Island (URI), and his Ph.D. (1973) in mechanical engineering (fluid dynamics) at the Catholic University of America. His professional career took him to NASA's Goddard Space Flight in Maryland, other institutions, and to the Naval Underwater Warfare Center in Rhode Island.

Dave also had many interests in science, engineering and the natural world. He served as president of Skyscrapers, Inc. (2000–2002), and chair of the membership committee in 2002. Dave was a member of the American Association of Variable Stars Observers (AAVSO), where he served as treasurer in 2006–2008; he studied NSVS 5222076, a double-mode RR Lyrae star, and presented his findings at AAVSO annual meetings (2009–2011) and in JAAVSO (AAVSO's journal, volumes 37, 38 and 40).

At the Osher Lifelong Learning Institute (OLLI) at URI, Dave not only took courses, he taught courses as well. The most recent course he enrolled into was "All about Alice," fall 2021. He taught "Exploration of the universe" in fall 2015 and 2016, and was scheduled to teach "Solar system astronomy" in spring 2020 (all courses were canceled by OLLI because of COVID).

Dave participated in "Chaos," a book discussion group consisting mostly of retired engineers and scientists. Quoting one of the group's members: "He was the go-to guy in astronomy and fluid mechanics, based on his education and experience, and he was very generous with his time as the

unofficial leader of the group in the last few years. He is greatly missed."

On a personal note: after Dave and I found out that we lived relatively close to each other, we often carpooled to Skyscrapers's monthly meetings. Carolyn, his late wife, and I became X-country ski buddies.

Dave will be remembered with fondness by all of us.



Skyscrapers Presentations on YouTube

Many of our recent monthly presentations on Zoom have been recorded and published, with permission, on the Skyscrapers YouTube channel. Go to the URL below to view recent presentations.

<https://www.youtube.com/c/SeagraveObservatorySkyscrapersInc>

Skylights: August 2022

by Jim Hendrickson

August brings some welcome changes for skywatching: nights are getting longer and cooler, and for the first time in nearly six months, we have bright planets in our evening sky, as both Saturn and Jupiter are visible before midnight.

The number of hours of darkness noticeably increases through August, with the last 8pm sunset occurring on the 4th. The Sun will set before 8pm until May 17, 2023. The last 6am sunrise occurs on the 20th, and the Sun continues to rise later than this time until March 14, 2023.

The waxing crescent Moon appears just 4° north of Spica on the 3rd, and reaches its first quarter phase on the 5th. At moonset on the 7th, the waxing gibbous is just 4° to the right of Antares in Scorpius.

The Full Sturgeon Moon occurs on the 11th, when it will pass 4.3° south of Saturn, in Capricornus. It is evident that the Moon lies south of the ecliptic by its position relative to Saturn.

The waning gibbous Moon rises at the same time as Jupiter, about 9:30pm, on the 14th. After midnight, the Moon passes just 2.5° south of Jupiter.

The last quarter Moon occults Uranus at 11:40am on the 18th. As this is a daytime event, it will require specialized equipment and skill to observe the event. However, before dawn, you can see Uranus 2.5° east of the Moon.

On the 19th, the Moon passes between Mars and the Pleiades cluster in Taurus. On the 25th, it is 4.2° from the Beehive cluster, M44, in Cancer, 6.6° above Venus, and 3.7° west of dwarf planet Ceres.

An opportunity to spot the very old 28.7-day Moon occurs on the 26th, when the 0.9% illuminated crescent rises an hour before the Sun, and is visible 6° northeast of Venus.

The Moon becomes new on the 27th, and returns to the evening sky near Mercury on the 28th and 29th. On the 30th, the beautifully illuminated crescent Moon with visible Earthshine will be just 5° from Spica in Virgo.

Mercury is in the evening sky all month, reaching its greatest elongation of 27° on the 27th, but unfortunately this will be a “low” apparition of the innermost planet due to the shallow angle of the ecliptic with respect to the western horizon during evening hours this time of year. At no time

during August will Mercury be visible more than 55 minutes after sunset.

You may spot Mercury just 0.9° north of Regulus on the 3rd. The one-day-old waxing crescent is 10° to the right of Mercury on the 28th, and a day later, it is 5.5° above it.

Venus is in Gemini in early August, and is beginning to rise noticeably later with each passing morning. On the 2nd, it rises just before 4:00am, but by the 8th, it rises more than 10 minutes later. By the end of the month, it will rise at about 5:00am. Venus crosses the ecliptic, heading north, on the 2nd, and passes just 1° north of planetary nebula NGC 2392 (Caldwell 39) on the 4th. Venus is 6.5° S of Pollux on the 6th.

Venus forms a line with the Gemini twins Pollux and Castor on the 11th, and, after crossing into Cancer, shines brilliantly on the outskirts of the Beehive Cluster, M44, on the 17th and 18th.

With Venus now over 1.5 AU away, and with diminishing apparent elongation from the Sun, it shows an indistinct gibbous phase, just over 10 arcseconds in a telescope.

Mars begins the month in Aries, and now rises before midnight. Mars is just 1.3° north of Uranus on the 2nd, making our solar system’s 7th planet easy to find with binoculars or a small telescope. The color contrast between ruddy Mars and teal Uranus can be quite striking in a telescope. Mars is over 170x brighter than Uranus. At 19.82 AU from Earth, Uranus is 17x farther away than Mars, at 1.13 AU. Mars shows an 8.4 arcsecond disk compared to Uranus’ 3.6”.

Beginning during the second week of August, Mars begins to pass near the Pleiades cluster in Taurus, and towards the end of the month, passes near the Hyades cluster. On the 30th and 31st, it lies along the line between Aldebaran and the Pleiades.

Mars reaches its western quadrature point, 90° west of the Sun, on the 27th, and now shines at magnitude 0 and shows a gibbous disk nearly 10 arcseconds across.

Jupiter, in Cetus, rises just after 10:30pm in early August, and 8:30pm at the end of the month. When the Moon is out of view, Jupiter is the most prominent object during the dark hours, until Venus rises at the beginning of twilight. As we approach Jupiter’s opposition next month, the giant planet is just over 4 AU away, and shows a staggeringly large 48 arcsecond disk. Its

Events in August

- 2 Mars 1.3° S of Uranus
- 3 Mercury 0.9° N of Regulus
- 5 **First Quarter**
- 6 Venus 6.5° S of Pollux
- 11 Uranus Western Quadrature
- 11 **Full Sturgeon Moon**
- 11 Moon 4.5° S of Saturn
- 14 Saturn Opposition
- 15 Moon 2.5° S of Jupiter
- 18 Moon 2.7° W of Uranus
- 18 Venus 0.5° S of M44
- 18 **Last Quarter**
- 19 Moon 2.0° N of Mars
- 22 4 Vesta Opposition (mag. 7.4)
- 24 Uranus Stationary
- 25 Moon 6.7° NW of Venus
- 27 Mars Western Quadrature
- 27 **New Moon**
- 27 Mercury Greatest Elongation East (27°)
- 29 Moon 5.6° NE of Mercury

Ephemeris times are in EDT (UTC-4) for Seagrave Observatory (41.845N, 71.590W)

disk should even be evident in binoculars, and even the smallest telescopes will show some of its cloud features.

Jupiter’s easiest-to-observe feature though, is not on the planet itself, but its four large Galilean moons. They shine at magnitude 6, can be seen in binoculars, and their changing positions can be seen on a nightly, and sometimes even hourly basis. Its moons Io, Europa, Ganymede, and Callisto complete orbits of Jupiter in 1.8 days, 3.5 days, 7.2 days, and 16.7 days, respectively.

Saturn reaches opposition on August 14, and now rises during evening twilight, in Capricornus. Like Jupiter, Saturn has a number of moons that can be observed with a telescope. Titan, the largest moon, orbits Saturn once every 16 days (just a day shorter than Jupiter’s Callisto) and at magnitude 8.5 can be seen with small telescopes. Saturn has a number of smaller moons that can be seen with an 8-inch telescope. These include Tethys, Dione, Rhea. Saturn’s outermost mid-sized Moon, Iapetus, can also be observed fairly easily with a 6-inch telescope, but it is easier to observe only when it is to the west of Saturn. This is due to its leading hemisphere being darker than its trailing hemisphere, resulting in its trailing hemisphere being brighter by about 2 magnitudes. Iapetus is at its brightest when it is near its maximum western elongation with respect to Saturn, which occurs on August

8, when Iapetus is 9.4 arcminutes from Saturn. Its best visibility occurs within a week on either side of this, and happens once during its 79-day orbit. The next best opportunity to observe Iapetus at its brightest occurs during the second half of October.

Uranus, in Aries, reaches its western quadrature point on the 11th. The seventh planet has moved a bit farther east since last year, and can now be found about a degree west of the midway point of a line connecting Bharani (41 Arietis) and Omicron Tauri. However, Uranus is now getting close enough to the Pleiades cluster that it is becoming easy to use that object as a starting point. About 9° southwest of the Pleiades, you will find 4th magnitude Botein (Delta Arietis). From this star, Uranus is just 3° to the south-southwest, and forms the end of a shallow zig zag line with 6th magnitude stars 53 and 54 Arietis in between. Uranus is slightly brighter than these stars, and its small positional change with respect to them should make it stand out.

Neptune crosses the border from Pisces into Aquarius on the 12th, and is about 5° south of the eastern edge of the Circlet asterism, and ¼ of the way along a line between Jupiter and Saturn.. At magnitude 7.8, Neptune is visible in telescopes and binoculars, and lies at a distance of 29.17 AU.

Dwarf planet Pluto is well-placed for viewing, having reached opposition last month. Its magnitude 14.3 glow can be found, with a large telescope, just over 2° west-southwest of globular cluster M75 in Sagittarius.

Asteroid 4 Vesta, shining at magnitude 6.1, is moving west-southwestward in southern Aquarius, and reaches its opposition on the 14th. Throughout much of August, Vesta makes the apex of a shallow isosceles triangle with Fomalhaut and Saturn as the base. On the 8th, it is just 2.5° north of planetary nebula NGC 7293 (Caldwell 63).

Asteroid 3 Juno, at 1.5 AU away, shines at magnitude 8.6 in Pisces. In early August, it is just 2° south of magnitude 3.7 Gamma Piscium, the westernmost star of the Circlet asterism. It continues moving south-southwest, approximately in a line towards Lambda Aquarii.

Early August features the annual Perseids meteor shower. Although the shower peaks on August 11-12, it is actually active for several weeks, from late July through the third week of August. It can often be productive in the days leading up to the peak, which this year coincides with a Full Moon, so early August and a few days past peak present the better opportunities to see some.

Comet C/2017 K2 PanSTARRS continues to move southward from Ophiuchus into Scorpius. In early August it passes 2.5° east of the globular cluster M107. Later in the month, it enters the claws of Scorpius, passing within a degree of Acrab (Beta Scorpius) on the 23rd, and Dschubba (Delta Scorpii) on the 31st. The comet is expected to continue shining at about 8th magnitude.

You've probably heard a lot about the Dog Days the past few weeks, as it tends to be a phrase thrown about when the weather gets unpleasantly hot and humid, but the fact is that the Dog Days are not a meteorological phenomenon, but an astronomical one. The phrase references when the Dog Star, Sirius, begins to appear in the dawn sky. At our latitude, this occurs around the second week of August. You'll need a clear southwestern horizon free of fog or haze. Try observing every morning until you see it. How early can you spot Sirius? By the 15th it should be visible, and each subsequent morning it will become higher and easier to see. Note that Sirius is the last star in the Winter Hexagon to rise, and although the weather may be warm now, we're reminded by the stars that the cooler weather is not far away.

The Arrival of the Dog Days

by Francine Jackson

We're starting to get into the hottest part of the year, familiarly known as the "Dog Days," when temperatures can sometimes reach over 100 degrees F. Thankfully, many people today have air conditioning, but in July, 1911, temperatures reached way over the 90s for days, causing the deaths of 211 people in New York alone.

The actual term Dog Days has nothing to do with your furry housemate, but with the position of the brightest star in the nighttime sky: Sirius. Our ancestors noticed that this star rose just before the Sun -heliacal rising - in July and August, during the hottest time of year. The name "Sirius" is ancient Greek for "glowing," or "scorching." To the ancient Egyptians, it meant more than the temperature: At this time of year, the snows would melt on the mountains, and the waters would join with the Nile, causing its banks to flood, bringing relief to

the farms along its banks. Also, it was noted that, right before Sirius, there was another star that appeared just a bit before Sirius, al-

most like a reminder that Sirius was soon to appear. This star became known as the one that rises before Sirius, or Procyon.



Sirius and Procyon appear in the predawn sky in mid-August. Stellarium image

Star Party Update

North Scituate Library
Wednesday, July 12, 2022
By Linda Bergemann

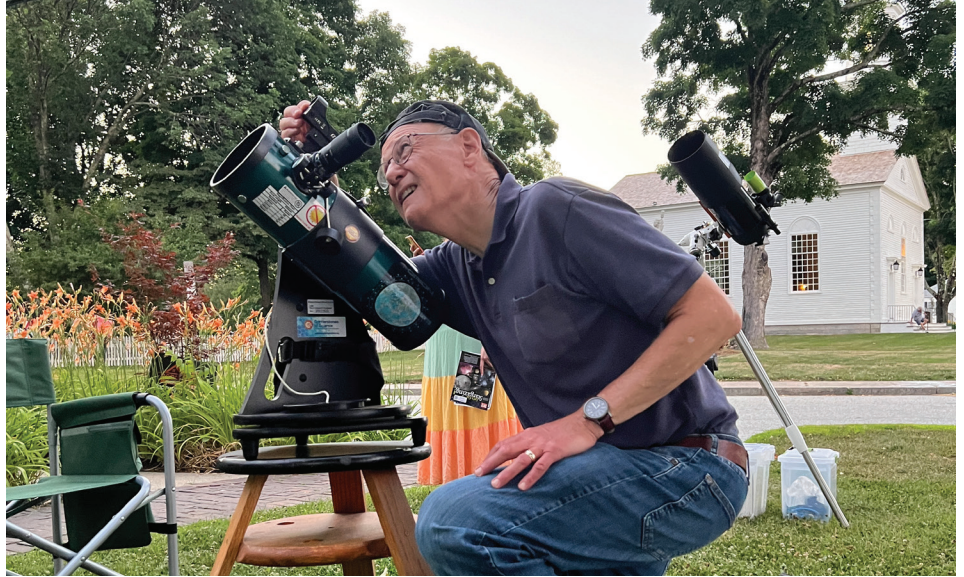
Just prior to this event, we were informed by the library that our planned observing location would be in use for an open air concert, and we would observe from the library property instead. Since our plan was to observe only the moon, location and lighting didn't really matter as long as the moon was visible. Our leader, Bob Janus, selected a location on the front lawn of the library, directly across the street from the town's gazebo and set up his telescope. Jim Hendrickson arrived and set up his telescope, and librarian Hannah Sullivan contributed the library's telescope. Visitors began arriving as we were setting up. Most stayed the entire time chatting with us and each other. During much of our time there, we were entertained by the Jesse Liam Band playing in the gazebo across the street.

River Bend Farm, Uxbridge, MA
Friday, July 12, 2022
By Jim Hendrickson

The second River Bend Farm stargazing event of 2022 took place on Friday, July 22, and once again, the event received no support or promotion from the park. Bob Janus, Francine Jackson, and Jim Hendrickson set up around 8pm for observing, beginning just after 8:30pm. This date was chosen for its dark sky conditions, as the Moon was a waning crescent, and Saturn wouldn't rise until late evening.

One park visitor came by to talk for a few minutes before dark, and friends Ruth and Marc from North Smithfield came and stayed to observe with us.

Bob set up his 6-inch SCT, and Francine and Jim brought their 4-inch and 3-inch re-



fractors.

Of all our nights at River Bend, this was probably the clearest and most transparent, despite warm and humid conditions. Several fireflies could also be seen flickering away near the treeline east of the observing field.

A low pass of the International Space Station was observed during twilight.

We took advantage of the unusually clear skies to explore some sights in Scorpius,

including Antares and M4, and Ptolemy's Cluster, M7. We attempted to find comet C/2017 K2 PanSTARRS in Ophiuchus with our small refractors, with no luck.

Views of Vega and the Double Double, M11, the Coathanger cluster were enjoyed by those in attendance, and concluded the session at about 9:30pm. The next River Bend night has been scheduled for Friday, August 12.



Lunatic's Corner: Vallis Schröteri

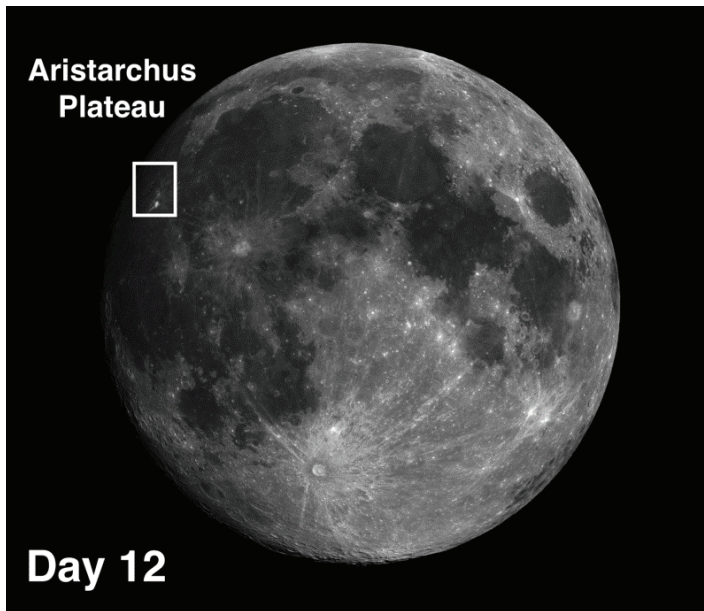
by Michael Corvese

This month's lunar feature is Vallis Schröteri or in English, Schröter's Valley. The valley is named for Johann Schröter, a German lawyer and astronomer who lived from 1745-1816. Schröter graduated from law school in 1767 and practiced law for 10 years before obtaining a position with King George III in Hanover, Germany as his Secretary of the Royal Chamber. While in

this position, Schröter had the pleasure of meeting two of William Herschel's brothers sparking his interest in astronomy. At age 39, he resigned his position to pursue astronomy more professionally, having been inspired by William Herschel's discovery of Uranus in 1781.

Schröter quickly gained a good reputation for his detailed planetary and lunar

observations, which he published in professional journals of the day. He made systematic drawings of Mars, Jupiter, and Saturn and extensively sketched the surface of Mars. Schröter also published an important, early work on the topography of the moon, while establishing an albedo scale for lunar features that was later popularized by English astronomer Thomas Elger. He



was the first to recognize a phase anomaly in Venus where the concavity of the crescent does not agree with predicted geometry. It is named the “Schröter Effect”. Besides Vallis Schröteri, a lunar crater, a smaller lunar rille, and a crater on Mars is named for him. In 1813, his work was disrupted by the Napoleonic Wars when French forces burned his books and papers and destroyed his observatory. When he died in 1816, it was said that he never recovered from the great loss of his work and observatory.

Vallis Schröteri is located on the Aristarchus plateau in the northwest quadrant of the moon. The plateau itself is an inter-

esting feature in that it is a raised, rectangular structure in the middle of Oceanus Procellarum and is home to craters Herodotus and Aristarchus (the brightest feature on the moon). Its origin is still a mystery, but it may have been raised by the Imbrium impact.

The valley begins just north of crater Herodotus, at a feature called the Cobra Head, a 6-mile-wide opening to a rare volcanic vent on top of a 2km high dome. From there, the rille runs north, turns to the west, and then turns back to the south where it tapers to a width of less than 1km. Vallis Schröteri is the longest sinuous rille

on the lunar surface, snaking for about 100 miles and was a major contributor of lava to Oceanus Procellarum. Vallis Schröteri is best seen near lunar day 12 and lunar day 23 and is easily visible in small telescopes. In larger scopes, one might be able to detect a second, inner rille about halfway through the main valley. When the moon is almost full or just past third quarter, Vallis Schröteri is an intriguing target that you will not want to miss.

Michael Corvese is a confirmed lunatic of many years regardless of his recent interest in lunar observing.

NASA Wants its Cockroaches Back

by Francine Jackson

Can this be true? NASA is actually looking to retrieve cockroach carcasses?

Apparently, after the return of Apollo 11, several milligrams of returned Moon dust were fed to three cockroaches, and other small creatures, to test whether bringing back samples of lunar materials could pose any threat to terrestrial life. The result seemed to show no evidence of harmful agents. The roaches were sent to the University of Minnesota, where they were dissected by a staff entomologist.

However, somehow the roaches and leftover Moon dust were never returned to NASA, but were kept by the scientist at her home. Her daughter sold them, and they are now being sold by an unknown party.

NASA is now asking the company to stop the sale of these materials, which could actually sell for \$400,000, stating that, All

Apollo samples. . . belong to NASA, and no person, university or other entity has. . . permission to keep them after analysis, destruction, other use. . . especially for sale

or individual display.” It is said the present owner is working with NASA to return the roaches and lunar material back to the federal government.



Artemis 1: A Trip Around the Moon – and Back!

by David Prosper

We are returning to the Moon - and beyond! Later this summer, NASA's Artemis 1 mission will launch the first uncrewed flight test of both the Space Launch System (SLS) and Orion spacecraft on a multi-week mission. Orion will journey thousands of miles beyond the Moon, briefly entering a retrograde lunar orbit before heading back to a splashdown on Earth.

The massive rocket will launch from Launch Complex 39B at the Kennedy Space Center in Florida. The location's technical capabilities, along with its storied history, mark it as a perfect spot to launch our return to the Moon. The complex's first mission was Apollo 10 in 1968, which appropriately also served as a test for a heavy-lift launch vehicle (the Saturn V rocket) and lunar spacecraft: the Apollo Command and Service Modules joined with the Lunar Module. The Apollo 10 mission profile included testing the Lunar Module while in orbit around the Moon before returning to the Earth. In its "Block-1" configuration, Artemis 1's SLS rocket will take off with 8.8 million pounds

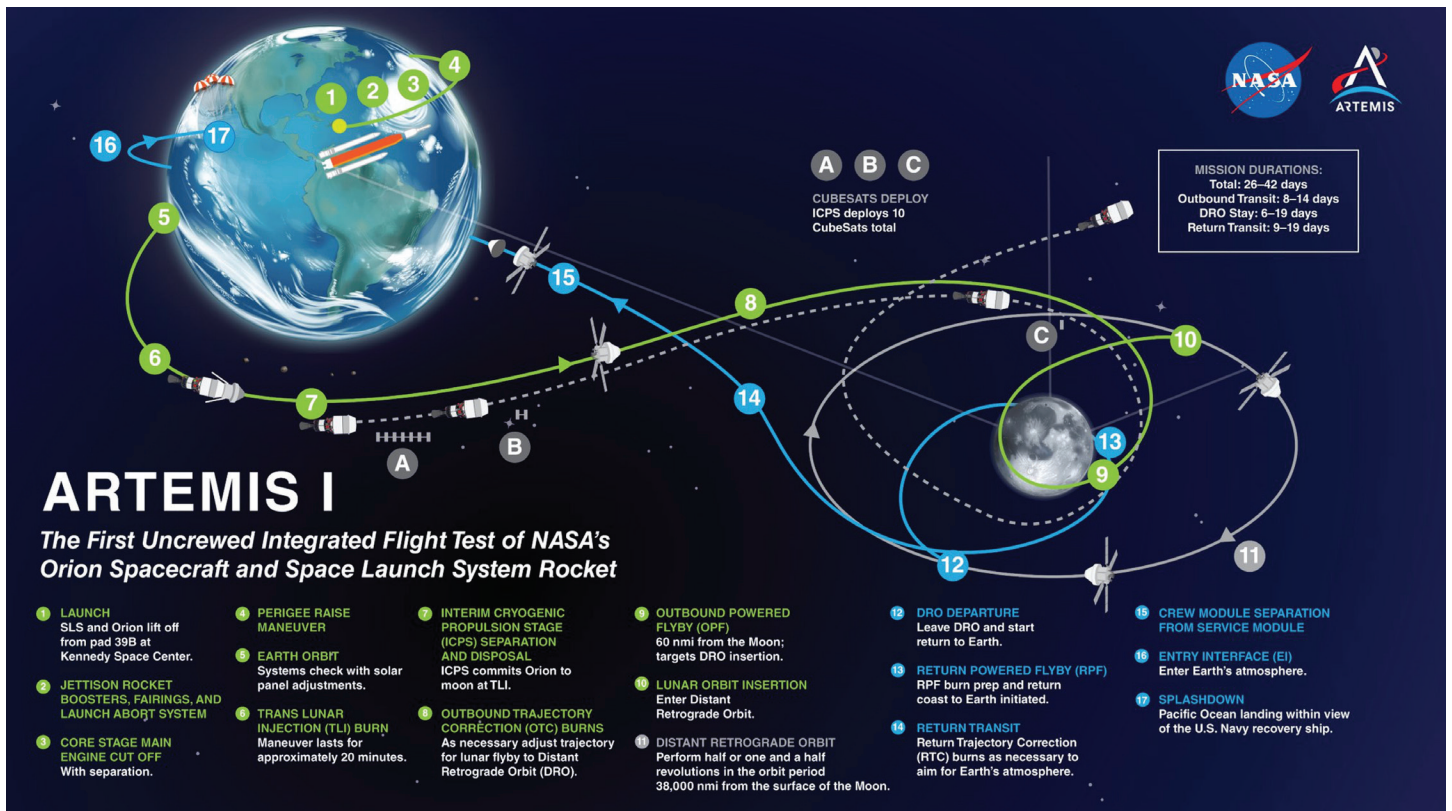
of maximum thrust, even greater than the 7.6 millions pounds of thrust generated by the legendary Saturn V, making it the most powerful rocket in the world!

Artemis 1 will serve not only as a test of the SLS and the Orion hardware, but also as a test of the integration of ground systems and support personnel that will ensure the success of this and future Artemis missions. While uncrewed, Artemis-1 will still have passengers of a sort: two human torso models designed to test radiation levels during the mission, and "Commander Moonikin Campos," a mannequin named by the public. The specialized mannequin will also monitor radiation levels, along with vibration and acceleration data from inside its mission uniform: the Orion Crew Survival Suit, the spacesuit that future Artemis astronauts will wear. The "Moonikin" is named after Arturo Campos, a NASA electrical engineer who played an essential role in bringing Apollo 13's crew back to Earth after a near-fatal disaster in space.

The mission also contains other valu-



Full Moon over Artemis-1 on July 14, 2022, as the integrated Space Launch System and Orion spacecraft await testing. Photo credit: NASA/ Cory Huston Source: <https://www.nasa.gov/image-feature/a-full-moon-over-artemis/>



Follow along as Artemis 1 journeys to the Moon and back! A larger version of this infographic is available from NASA at: [nasa.gov/image-feature/artemis-i-map](https://www.nasa.gov/image-feature/artemis-i-map)

able cargo for its journey around the Moon and back, including CubeSats, several space science badges from the Girl Scouts, and microchips etched with 30,000 names of workers who made the Artemis-1 mission possible. A total of 10 CubeSats will be deployed from the Orion Stage Adapter, the ring that connects the Orion spacecraft to the SLS, at several segments along the mission's path to the Moon. The power of SLS allows engineers to attach many secondary "ride-along" mission hardware like these CubeSats, whose various missions will study plasma propulsion, radiation effects on mi-

croorganisms, solar sails, Earth's radiation environment, space weather, and of course, missions to study the Moon and even the Orion spacecraft and its Interim Cryogenic Propulsion Stage (ICPS)!

If you want to explore more of the science and stories behind both our Moon and our history of lunar exploration, the Night Sky Network's Apollo 11 at 50 Toolkit covers a ton of regolith: [bit.ly/nsnmoon!](https://bit.ly/nsnmoon) NASA also works with people and organizations around the world coordinating International Observe the Moon Night, with 2022's edition scheduled for Saturday, October 1:

moon.nasa.gov/observe. Of course, you can follow the latest news and updates on Artemis 1 and our return to the Moon at nasa.gov/artemis-1



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.gov to find local clubs, events, and more!

Planetary Nebula in Aquila: NGC 6772

by Glenn Chaple for LVAS

(Magnitude 12.7; Size 70" X 56")

The July Observer's Challenge featured the bright planetary nebula NGC 6210 in Hercules. This month, we visit another planetary nebula- one that, to put it bluntly, isn't so bright. NGC 6772 is about the same size as M57, the Ring Nebula (70" X 56" to 86" X 62"), but is 4 magnitudes fainter (12.7 to 8.8). To see it visually, you'll need a dark sky, reasonably large aperture scope, and (highly recommended) a nebula filter.

NGC 6772 is located in the southwest corner of Aquila at 2000.0 coordinates RA 19h14m36.4s, Dec -20°42'25.0". Star-hoppers can find their way here by beginning 3 degrees southwest at 3rd magnitude lambda (λ) Aquilae (see Finder Chart B).

William Herschel may have overlooked NGC 6210, but his capable eye spotted NGC 6772 on the night of July 21, 1784. He described it as "very faint, round, nearly of equal light throughout, about 1' in diameter, In the midst of numberless stars of the Milky Way,"

This planetary nebula proved to be a challenge when I tackled it on the night of June 25, 2022, with a 10-inch f/5 reflector. A limiting naked eye magnitude of 5 didn't help. I was unable to see anything with an unfiltered view, Placing an O-III filter into a 13mm eyepiece brought out an extremely elusive rosy glow that I could only detect with averted vision. As Herschel had noted 238 years earlier, it was immersed in a field littered with faint stars.

Sources ascribe a distance of 4000-4200

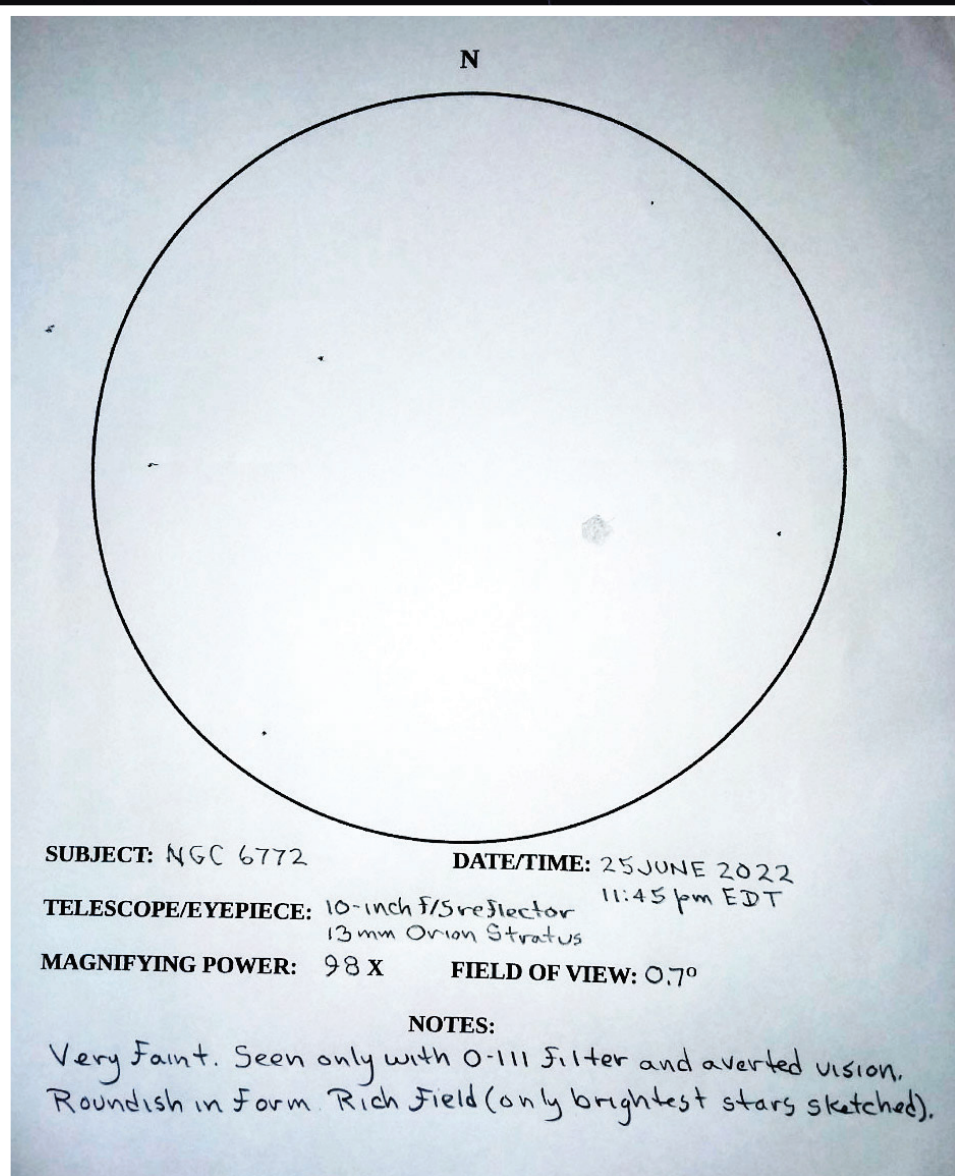
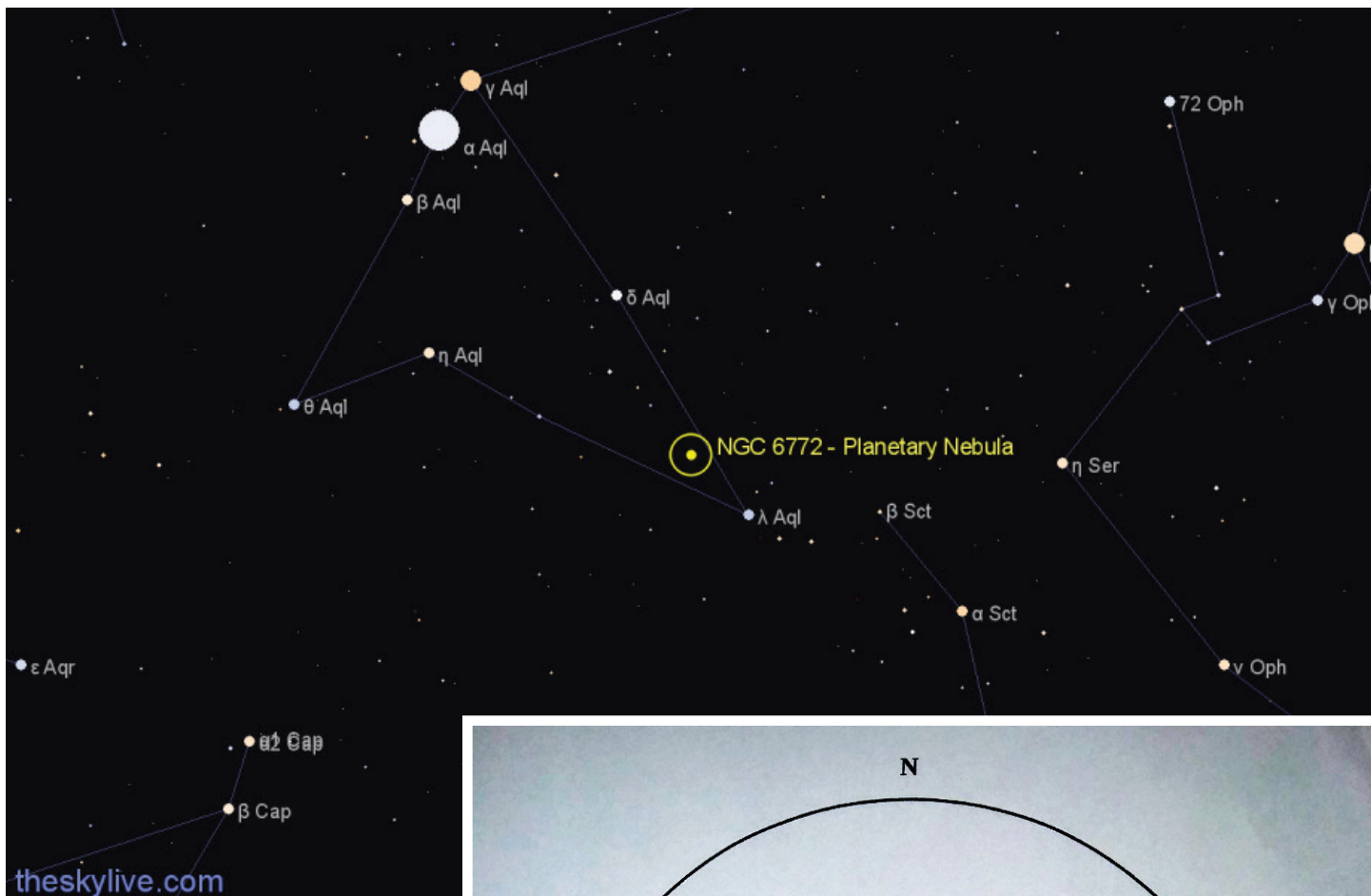


Image by Mario Motta, MD (ATMoB) taken with H alpha, S2, and O3 filters 1 hour each. With 32 inch scope, ASI 6200 camera.

light years to this planetary. Its true diameter may be in the order of 1.5 light years.

The purpose of the Observer's Challenge is to encourage the pursuit of visual observing. It is open to everyone who is interested. If you'd like to contribute notes, drawings, or photographs, we'll 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 or access past reports, log on to rogerivester.com/category/observers-challenge-reports-complete.



The Sun, Moon & Planets in August

This table contains the ephemeris of the objects in the Solar System for each Saturday night in August 2022. Times in Eastern Daylight Time (UTC-4) . Ephemeris times are for Seagrave Observatory (41.845N, 71.590W).

Object	Date	RA	Dec	Const	Mag	Size	Elong	Phase(%)	Dist(S)	Dist(E)	Rise	Transit	Set
Sun	6	9 04.0	16 45.3	Cnc	-26.8	1892.1	-	-	-	1.014	05:45	12:52	19:57
	13	9 30.6	14 43.9	Leo	-26.8	1894.2	-	-	-	1.013	05:52	12:51	19:49
	20	9 56.8	12 31.0	Leo	-26.8	1896.6	-	-	-	1.012	05:59	12:49	19:39
	27	10 22.5	10 08.4	Leo	-26.8	1899.3	-	-	-	1.011	06:06	12:47	19:28
Moon	6	15 10.7	-18 50.9	Lib	-12.1	1932.8	97° E	56	-	-	15:04	19:52	00:32
	13	22 31.0	-15 27.5	Aqr	-12.7	1965.6	166° W	99	-	-	20:44	02:01	07:28
	20	4 15.8	22 06.0	Tau	-11.6	1779.9	81° W	42	-	-	23:44	07:30	15:25
	27	10 12.0	15 27.4	Leo	-6.2	1798.9	6° W	0	-	-	06:06	13:10	20:03
Mercury	6	10 20.6	11 21.8	Leo	-0.3	5.5	19° E	80	0.424	1.215	07:26	14:10	20:52
	13	10 59.9	6 29.4	Leo	-0.1	6.0	23° E	72	0.450	1.131	07:56	14:21	20:45
	20	11 33.1	1 49.3	Leo	0.1	6.5	26° E	64	0.465	1.038	08:18	14:26	20:33
	27	12 00.1	-2 20.0	Vir	0.3	7.2	27° E	54	0.465	0.938	08:31	14:25	20:17
Venus	6	7 39.3	21 39.2	Gem	-3.8	10.7	21° W	93	0.720	1.575	04:01	11:28	18:54
	13	8 15.4	20 16.6	Cnc	-3.8	10.6	19° W	95	0.719	1.601	04:16	11:36	18:56
	20	8 50.9	18 25.3	Cnc	-3.8	10.4	17° W	96	0.719	1.624	04:32	11:44	18:56
	27	9 25.7	16 08.3	Leo	-3.8	10.3	15° W	97	0.719	1.645	04:48	11:51	18:54
Mars	6	3 17.1	16 29.4	Ari	0.1	8.5	82° W	85	1.396	1.105	00:00	07:04	14:09
	13	3 34.7	17 38.2	Tau	0.1	8.8	85° W	85	1.401	1.066	23:45	06:54	14:04
	20	3 51.8	18 39.3	Tau	0.0	9.1	87° W	85	1.406	1.027	23:30	06:44	13:57
	27	4 08.4	19 32.9	Tau	-0.1	9.5	90° W	85	1.412	0.987	23:16	06:33	13:50
1 Ceres	6	8 40.2	23 45.1	Cnc	8.5	0.3	9° W	100	2.581	3.578	04:51	12:27	20:02
	13	8 53.5	23 06.2	Cnc	8.6	0.3	12° W	100	2.578	3.560	04:40	12:12	19:45
	20	9 06.7	22 24.5	Cnc	8.6	0.4	15° W	100	2.576	3.537	04:29	11:58	19:27
	27	9 19.7	21 40.3	Cnc	8.7	0.4	19° W	100	2.573	3.508	04:17	11:43	19:09
Jupiter	6	0 33.9	2 03.8	Cet	-2.5	45.7	125° W	99	4.959	4.308	22:11	04:20	10:30
	13	0 33.0	1 55.7	Cet	-2.6	46.6	132° W	99	4.958	4.224	21:43	03:52	10:01
	20	0 31.5	1 44.1	Cet	-2.6	47.4	139° W	100	4.958	4.149	21:15	03:23	09:31
	27	0 29.5	1 29.3	Cet	-2.7	48.2	146° W	100	4.957	4.084	20:46	02:53	09:00
Saturn	6	21 41.3	-15 13.0	Cap	0.3	18.7	171° W	100	9.872	8.869	20:22	01:28	06:34
	13	21 39.3	-15 23.8	Cap	0.3	18.7	178° W	100	9.870	8.857	19:49	00:54	05:59
	20	21 37.3	-15 34.4	Cap	0.3	18.7	174° E	100	9.868	8.861	19:20	00:25	05:29
	27	21 35.3	-15 44.7	Cap	0.3	18.7	167° E	100	9.867	8.879	18:52	23:55	04:59
Uranus	6	3 05.7	17 03.4	Ari	5.8	3.6	85° W	100	19.692	19.758	23:46	06:52	13:58
	13	3 06.1	17 04.8	Ari	5.8	3.6	91° W	100	19.691	19.640	23:19	06:25	13:31
	20	3 06.2	17 05.5	Ari	5.7	3.6	98° W	100	19.690	19.522	22:51	05:57	13:03
	27	3 06.3	17 05.5	Ari	5.7	3.6	105° W	100	19.689	19.406	22:24	05:30	12:36
Neptune	6	23 43.8	-3 04.3	Psc	7.8	2.3	138° W	100	29.916	29.149	21:39	03:30	09:21
	13	23 43.3	-3 07.9	Psc	7.8	2.3	145° W	100	29.916	29.077	21:12	03:02	08:53
	20	23 42.7	-3 11.8	Aqr	7.8	2.4	152° W	100	29.915	29.017	20:44	02:34	08:25
	27	23 42.1	-3 16.1	Aqr	7.8	2.4	159° W	100	29.915	28.969	20:16	02:06	07:56
Pluto	6	19 57.8	-22 52.8	Sgr	14.3	0.2	163° E	100	34.579	33.607	19:07	23:41	04:15
	13	19 57.1	-22 55.1	Sgr	14.3	0.2	156° E	100	34.584	33.653	18:39	23:13	03:46
	20	19 56.5	-22 57.2	Sgr	14.4	0.2	150° E	100	34.589	33.712	18:11	22:45	03:18
	27	19 56.0	-22 59.1	Sgr	14.4	0.2	143° E	100	34.593	33.784	17:43	22:17	02:50

June Reports

by Angella Johnson

Minutes- Skyscrapers Executive Committee Meeting via Zoom Monday June 27, 2022 | 7PM

Meeting called to order at 7:05 PM by President Linda Bergemann

Present: Linda Bergemann, Michael Corvese, Francine Jackson, Laura Linden, Steve Siok, Kathy Siok, Bob Janus, Ed Walsh, Dave Huestis, Jim Hendrickson, Jeff Padell, Richard Doherty, Angella Johnson | Total:13

Agenda Items:

Open Action Items

20" Dobsonian (Linda Bergemann)-Completed-purchased for \$700

16" Meade Repair (Bob Janus)-Mark Munkacsy & Bob Napier were successful in fixing the motor drive. It is now ready for operation. It is recommended that Mark, Bob and Jeff operate the telescope.

Equipment Inventory (Bob Janus)-Jim Crawford to send email to Bob and Linda which will allow access to the inventory.

Astronomical League Dues (Jeff Padell)-Completed - Check mailed and a spreadsheet with all members has been forwarded.

Change of Registered Agent (Laura Linden)- Completed

Auditors Report- Bob Napier and Jim Crawford will send a report to Linda by the end of the month. Kathy offered to assist Linda and Laura with consolidating the Quicken files.

5-year Plan (Linda Bergemann)- projects the completion of a five year plan by the end of the year.

Officer Reports

Monthly Meetings- Ed Walsh

July 9-Margaret Geller, Astrophysicist at the Harvard-Smithsonian Center for Astrophysics. Dr. Geller is a pioneer in mapping the nearby universe. Her long-range scientific goals are to discover what the universe looks like and understand how it came to have the rich patterns we observe today. [via Zoom]

Sept 3-Scott Kenyon (Astrophysicist who studies the formation of stars and planetary systems). The title of Scott's presentation: Pluto's Revenge

Ed will send a list of speakers for the rest of the year to Linda.

Linda initiated a discussion on December's meeting and the venue: Community Center or Seagrave. It was suggested that the December meeting be in person at

the Community Center followed by three months(January, February, March) of on-line meetings. Bob Janus will check on availability of the center for December 3rd or 10th. Laura offered to be an alternate contact. Dave noted that the group was locked out last year and wants to avoid a repeat.

AstroAssembly- Francine Jackson

Six potential Speakers-

Michael Corvese: Moon program

Jeff Padell: Sun

Bob Horton: 2024 Eclipse expedition

Brian Taylor (Mystic Planetarium): Artemis and its use in public education

John Briggs: 2023 Eclipse expedition

Joe Rao (broadcast meteorologist in the Northeast)

Jim Hendrickson: Photo Contest

Finances-Laura Linden

Treasurer's Report - attached

Program committee-Michael Corvese

Solar Observing day was a success. Future plans include the following:

July 6--North Scituate Library Star Party

July 21--Water Fire

August 5--Daisy Scouts

August 25-- Chase Farm Park

August 26-28--Tentative Camping Trip

Tentative workshops: Astrophotography and Optics Cleaning

Steve Siok initiated a discussion on whether the observatory should be open every week and the challenges of finding members willing to volunteer. Steve will work on a schedule.

Trustees- Bob Janus

A total of three roofing companies have inspected the roof but have not submitted a quote. In the interim there is a need to discuss how to protect the Alvin Clark telescope and mount. Steve Siok mentioned that there are experienced members who should be available to work with the roofer to come up with a plan on how to protect the telescope.

The gas tubing needs to be elevated and not on the ground for safety reasons.

Unfinished Business

Refreshments- There is a need for volunteers to assist with setting up refreshments and cleaning up afterwards. There was a brief discussion about whether to have refreshments or to have them only during special events.

New Business

Plaque for Memorial Garden Proposal (Linda)

Linda made a motion that we purchase a bronze plaque for the memorial garden at a cost of about \$400. Motion seconded by

Laura Landen. After a short discussion, the EC voted to propose to the membership at the next meeting (see attached)

Radio JOVE Proposal (Ed)

Ed proposed taking a vote to move forward with the purchase of a Radio JOVE kit at a cost of \$215. After discussion, the EC voted to propose to the membership at the next meeting.

RIEEA (Rhode Island Environmental Association) Event Proposal (Michael)

RIEEA requested a private event at Seagrave Memorial Observatory for their Board members. Perhaps a wine and cheese reception, followed by observing. It was discussed and decided that Mike move forward with discussions with RIEEA. Francine is a member of the association and offered to assist.

"Good of the Organization"

Next Executive Committee Meeting: July 25,, 2022

Ad-journed: 8:35PM by Linda Bergemann

Respectfully Submitted,

Angella Johnson

July 1, 2022

Cash Flow

4/1/2022 through 6/27/2022

Category	4/1/2022-6/27/2022
INFLOWS	
Astronomical League Membership Co... Donation	75.00
Amazon Smile Donation	25.50
Misc Donation	141.00
TOTAL Donation	166.50
Dues	
Family	240.00
Regular	750.00
Senior	450.00
TOTAL Dues	1,440.00
Misc Income	
Interest Inc	32.95
Sale of Items	1,560.08
TOTAL Misc Income	1,593.03
Shipping	65.79
TOTAL INFLOWS	3,340.32
OUTFLOWS	
Astronomical League Membership Ex...	194.00
Domain Name	152.94
Misc Expenses	293.80
Outreach	340.10
PayPal Fee	60.79
Refreshment Expense	209.91
Shipping Exp	91.58
Trustee Expense	
Property Maintenance	210.62
TOTAL Trustee Expense	210.62
Utilities	
Electric	89.62
Internet	159.98
Pest Control	96.00
Porta-John	685.00
Quicken	111.26
TOTAL Utilities	1,141.86
TOTAL OUTFLOWS	2,695.60
OVERALL TOTAL	644.72



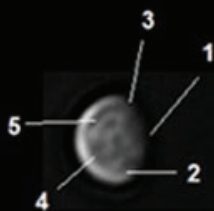
Milky Way over Stellafane
by Bob Horton

Mercury July 4, 2022

Gregory T. Shanos Sarasota, Florida USA
Meade LX200GPS 250mm fl 2500mm f/10
ZWO ASI 290 MM monochrome camera
Vernonscope 1.25x barlow 3300mm f/13
resampled 1.75x

Magnitude: -1.0
Diameter: 5.6"
Phase: 82%
Altitude: 26°
Seeing: 9/10 Very Good
Transp: 5/10 Ave Daylight
Resolution: 0.18"
De: 4.8°
Ds: 0.0°
Ls: 38°

- 1 - Waters rayed crater / Lugus Planitia
- 2 - Bartok rayed crater
- 3 - Degas Rayed crater / Sobkou Planitia
- 4 - Tolstoj Dark floor crater
- 5 - Budh Planitia



11h 49.1m UT
CM: 129.9°

Baader 685nm IR longpass filter



Messenger Image
blurred at CM: 129.9°

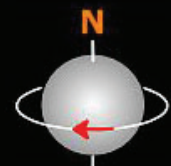


Image processing & surface identification by Frank J. Melillo ALPO Mercury Section Director

STARRY SCOOP

Editor: Kaitlynn Goulette



WHAT'S UP

This month provides a wonderful opportunity to observe our Milky Way galaxy, which is a barred spiral that we view from within. This edge-on view resembles a fuzzy, cloud-like band that arcs across our sky. It is most noticeable in the Sagittarius and Scorpius region, stretches through Cygnus, and continues to Cassiopeia. Under dark skies, the Milky Way is easily visible and can be spotted under suburban skies as well. All throughout this area, a simple pair of binoculars reveals a medley of galactic artifacts.

This month is an excellent time for planet viewing in our evening sky. Saturn rises at about sunset all month and reaches opposition mid-August. At this time, Saturn is a superb telescopic object with an apparent size of 18.8 arcseconds. The tilt of its rings provides us with a great opportunity to observe the Cassini Division. About an hour and a half behind Saturn, Jupiter rises above the horizon to join the "Ringed Planet" in the sky. Through a backyard telescope, the details of Jupiter are extraordinary. Its features, including the cloud bands and the Great Red Spot, always have astronomers reveling. The four Galilean moons are easily spotted as they "dance" around the "Jovial One" and their orbital motion can be detected in a mere hour of observing.

The Perseid meteor shower runs annually from July 17th to August 24th. It peaks this month on the night of August 12th, into the morning of August 13th. The Perseids are one of the best meteor showers to observe, producing up to 100 meteors an hour. This year the full moon washes out the dimmer meteors during the peak time, so be sure to catch it during the week leading up to the 12th. The Perseid meteor shower occurs when the earth travels through the debris left behind by Comet Swift-Tuttle. Meteors radiate from the constellation Perseus but can appear anywhere in the sky. For best viewing, find yourself under dark skies away from light pollution.

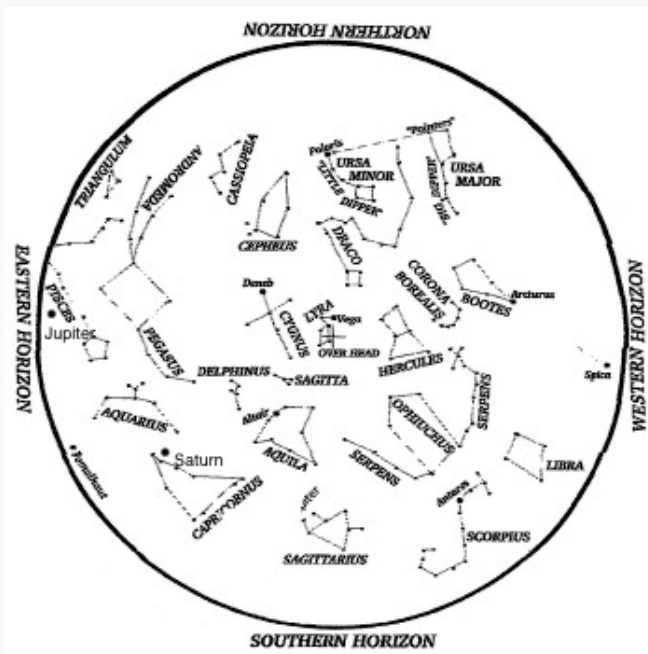
Five years ago on August 21st, the "Great American Eclipse," as it was dubbed by the media, turned day into night along the path of the moon's shadow as it sped across the nation. Millions of astronomers traveled to see this rare event that spanned 14 states, with millions more watching livestreams from home. With my family,

I traveled to the path of totality in Clarksville, Tennessee. This was my first total solar eclipse, and I will never forget the astounding minutes of totality or the people with whom I experienced it. While my family and I were driving home from the event, we started planning the next eclipse we hope to attend. A total solar eclipse occurs when the new moon passes between the sun and earth, casting a shadow on the earth's surface. The next total solar eclipse visible from America will occur in 2024.

August 5th marks the 10-year anniversary of the Curiosity rover landing on Mars. This car-sized rover landed in the Gale Crater using the latest technology, which consisted of parachutes, rockets, and a tether. Curiosity's mission was to search for signs that the Red Planet was ever able to support microbial life. It studied the planet's geology and climate. This rover was originally planned to last two years but has continued to operate until this day.

AUGUST'S SKY

- 12: Full Moon, Supermoon**
- 12-13: Perseid Meteor Shower Peak**
- 14: Saturn Reaches Opposition**
- 27: New Moon**



Credit: Roger B. Culver

Hold star map above your head and align with compass points.

OBSERVATIONS

While on vacation, my family visited the Frosty Drew Observatory in Charlestown, Rhode Island. We arrived about two hours before sunset and toured their science center and observatory, which houses their new 24-inch telescope. We also attended a presentation about the James Webb Space Telescope (JWST). It was a great experience to learn about the details of the JWST and its capabilities just days after its first images were released.

We had the opportunity to view the sun through the observatory's 102mm dedicated hydrogen-alpha solar telescope. This telescope focuses on the hydrogen-alpha wavelength of light and allows us to view the sun in great detail. With it, we can observe solar flares, spicules, filaments, plage, prominences, sunspots, and more. On this day, the sun wasn't too active, though we viewed several sunspots, as well as plage and a few small prominences. Sunspots appear as darker patches, or spots, on the sun's surface. They're cooler than the rest of the sun but are still a sweltering 6,500 degrees Fahrenheit. Plage are brighter areas on the sun's surface found around sunspots and active regions. In the future, we'll be seeing more activity on the sun because it's approaching solar maximum.

As the night progressed, we had the opportunity to observe through several other telescopes located in the Observatory Courtyard. We viewed many double stars, including Delta Cephei, which is the prototype of the Cepheid class of variable stars, along with Mizar, the first double star known. We also observed star clusters located throughout the sky. The globular cluster M4, located in the south, appeared as a ball of glitter against the blackness of space.

If you ever find yourself in this area, I highly recommend visiting the Frosty Drew Observatory.

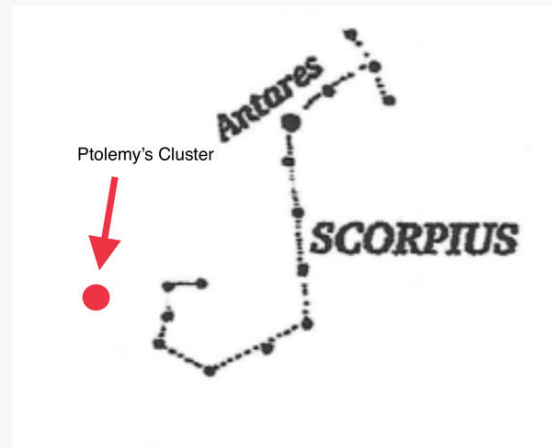


The purpose of the Starry Scoop is to communicate current astronomy and space events. If you want to share your observations or get digital copies of the Starry Scoop, contact starryscoop@gmail.com. Clear skies!

OBJECT OF THE MONTH

The featured object for the month of August is Messier 7 (M7), commonly called Ptolemy's Cluster. This open star cluster is estimated to be about 980 light-years away and has a diameter of about 25 light-years. M7 is the southernmost Messier object and is one of only a few Messier objects that haven't been photographed by the Hubble Space Telescope. It's a very pronounced cluster in the sky and has been known since the days of antiquity.

Ptolemy's Cluster can be found near the stinger of the Scorpion in the southern sky. It is easily seen with the naked eye, and binoculars enhance the view. Under dark skies, it appears more than twice the apparent size of the full moon. Use the map below to help you find it.



Ptolemy's Cluster



Frosty Drew Observatory
Charlestown, Rhode Island

Directions to Seagrave Memorial Observatory

From the Providence area:

Take Rt. 6 West to Interstate 295 in Johnston and proceed west on Rt. 6 to Scituate. In Scituate bear right off Rt. 6 onto Rt. 101. Turn right onto Rt. 116 North. Peeptoad Road is the first left off Rt. 116.

From Coventry/West Warwick area:

Take Rt. 116 North. Peeptoad Road is the first left after crossing Rt. 101.

From Southern Rhode Island:

Take Interstate 95 North. Exit onto Interstate 295 North in Warwick (left exit.) Exit to Rt. 6 West in Johnston. Bear right off Rt. 6 onto Rt. 101. Turn right on Rt. 116. Peeptoad Road is the first left off Rt. 116.

From Northern Rhode Island:

Take Rt. 116 South. Follow Rt. 116 thru Greenville. Turn left at Knight's Farm intersection (Rt. 116 turns left) and follow Rt. 116. Watch for Peeptoad Road on the right.

From Connecticut:

- Take Rt. 44 East to Greenville and turn right on Rt. 116 South. Turn left at Knight's Farm intersection (Rt. 116 turn left) and follow Rt. 116. Watch for Peeptoad Road on the right.
- or • Take Rt. 6 East toward Rhode Island; bear left on Rt. 101 East and continue to intersection with Rt. 116. Turn left; Peeptoad Road is the first left off Rt. 116.

From Massachusetts:

Take Interstate 295 South (off Interstate 95 in Attleboro). Exit onto Rt. 6 West in Johnston. Bear right off Rt. 6 onto Rt. 101. Turn right on Rt. 116. Peeptoad Road is the first left off Rt. 116.



47 Peeptoad Road
North Scituate, Rhode Island 02857