The President’s Message
By Sue Rose

Many thanks to Jason C who, once again, served up a great astronomical speaker menu for us in May. Mr. Don M, originator of the Messier Marathon which we discuss each March, joined us from AZ to discuss how it came about and how best to perform the feat while encouraging everyone to go out at any time and see as much as you can. It was a great presentation. We are way ahead of him since we instituted many categories of Messier observations even as small as only 5 in 1 night. Anyone can do that. You can. If you need help, just ask. All the material you need is in the io online files. Go for it. On May 17, Dr. Larry Wasserman from Lowell Observatory joined us to discuss the intricacies and significance of asteroid occultation timings. I had never heard that the Plutonian atmosphere had been discovered prior to the New Horizons flyby. It was discovered in an occultation. NASA needed to know more about the size and reflectivity (albedo) of Ultima Thule before the flyby. Occultations once again provided the information. Nothing short of amazing. We also learned that AOSer John E was involved with that effort in San Antonio. Way to go John!. AOS is grateful to both gentleman for taking time away from their Sunday activities to provide such interesting presentations for us.

On June 7, Dr. Alan Calder of Stony Brook University will discuss the bright red star, right arm of Orion, Betelgeuse. What has been going on with this star the last 9 months? Lots of speculation. We are looking forward to hearing what Dr. Calder has to tell us.

Unfortunately, the City of Stars tour that our own Activities Director, Linda P, had planned for April was canceled. Do you know about all the astronomical objects hidden in plain sight within NYC? Linda will provide a virtual tour to show us what we missed on June 21.

Would anyone be interested in...
taking an astronomy course together online in the same way we have our meetings? Each class is about an hour and we can discuss it as a group. Let me know.

Since normal summer travel will most likely be restricted and/or reduced, we will break with tradition and hold meetings on July 5 and August 2. We will not make a final determination about our yearly picnic until we see how the general situation pans out. Stay tuned.

While we await return to normal activities, don’t forget to take your Globe at Night observations right from home, no travel or permits required. Fill out your forms at www.Globeatnight.org.

All AOS members will be sent a private invitation to attend any upcoming meetings. This is for your use only. If you know of anyone else who would like to attend, please send their email to our Secretary, Bill B, at AOSSecretary@aosny.org, and they will be sent an invitation. Please DO NOT send your invitation to others. This is so we can monitor the number of attendees (we have a limit of 100), and to ensure that the only people who participate are those we were expecting, not like the difficulties that have arisen from other meeting services. We have also been invited to attend online meetings of ASLI, AAA and UACNJ. Details will be posted on the hotline as they are received. Use of the hotline will be extremely vital during these times of confinement so make sure that you have access. If you do not, please let Bill B know.

Till we meet again, online or in person, stay safe and healthy.

Friends are like stars.
You don’t always see them,
but you know they are always there!

Observatory News

AOS Susan Rose Observatory in Southold at the Custer Institute is closed

Sagamore Hill Observatory - closed

Jones Beach - No public or member observing during construction

"Keep your eyes on the stars and your feet on the ground."
—Theodore Roosevelt

Stargazing Permits New York State Stargazing Permits are not available until Labor Day.

Naked Eye Moon

Bill C

In case you are looking for something to do, take the naked eye Lunar observing challenge: https://eclipse2017.nasa.gov/naked-eye-lunar-observing-challenge

Here is the checklist:

**Naked Eye Lunar Observing Challenge**

**Waxing Crescent Moon**

Primary naked eye feature:
- Mare Crisium

**First Quarter Moon**

Primary naked eye features:
- Mare Crisium
- Mare Serenitatis and Mare Tranquillitatis combined

**Full Moon**

Primary naked eye features:
- Mare Crisium
- Mare Serenitatis and Mare Tranquillitatis combined
- Mare Imbrium
- Copernicus ray system
- Tycho ray system

For additional information, check out this article from Sky & Telescope.

Also useful for the Astronomical League Lunar Observing Award.

**Free Astronomy Magazine Sky Guide**

Astronomy Magazine has provided their Sky Guide 2020, a month by month description of
astronomical events, free download here. Get your copy today.

What's a Constellation?
What's an Asterism?

Posted May 5, 2020 by Andy Briggs in Astronomy Essentials

Both constellations and asterisms are patterns of stars. What's the difference? Sometimes several stars in different constellations join together to form a large asterism. That’s true of the Summer Triangle asterism, which is made of 3 bright stars – Vega, Deneb and Altair – in 3 different constellations. Image via our friend Susan Gies Jensen in Odessa, Washington.

What are constellations and asterisms?

A constellation is a recognized pattern of stars in the night sky. The word is from the Latin constellacio, meaning a set of stars. There are 88 official constellations. Many are very old. They’re a link between us and our ancestors, a projection of human imagination into the cosmos: ancient people looked at the stars and thought they saw mythical beings, beasts and cultural touchstones among the stars. On the other hand, most asterisms are relatively new. Most are small patterns within a constellation, although some are large patterns made of bright stars from several constellations. There’s nothing official about asterisms, but people on all parts of Earth still love them and enjoy them.

Stars in a constellation all lie at different distances from the Earth. For example, the three stars comprising the constellation of Triangulum are between 35 and 127 light years away. While a constellation may look as if all of its stars are the same distance away, in reality that is only because, as we now know, stars vary in size and brightness, so two stars which appear to be the same brightness in the sky are actually separated by vast distances. This means that an alien astronomer on a planet a hundred light years from Earth would know very different constellations, because they would see the night sky from a completely different perspective.

The Plough, for example, (also known as the Big Dipper or King Charles’ Wain) is a pattern of seven stars within the constellation of Ursa Major, the Great Bear. It is undoubtedly the most famous asterism in the sky, and not least because of its usefulness as a signpost for other stars and constellations. In the southern hemisphere, five stars comprise the Southern Cross, an asterism within the constellation of Crux. Sometimes, asterisms comprise stars of more than one constellation: for example, the glorious Summer Triangle, so prominent in the northern hemisphere sky between June and September, comprises stars in Cygnus, Lyra and Aquila. In Sagittarius there is the famous “teapot” asterism, inside which lies the location of the centre of our Milky Way galaxy.

There is no hard and fast rule for what constitutes an asterism: usually it’s a group of prominent stars in a simple pattern that are among the first that people recognise when they are learning their way around the sky.

Many constellations are well-known: Orion, Ursa Major, Cassiopeia, Cygnus, the famous star patterns one learns first when bitten by the bug of astronomy. But perhaps the most recognised are those that comprise the star signs of the zodiac: Aries, Libra, Pisces, Virgo and the eight others which had a special significance for astrologers, more than two thousand years ago when the first astrological charts were drawn by the Babylonians (although the history of the zodiac may go back further). The twelve constellations of the zodiac had a special significance because, together, they comprise the path through the heavens that the Sun appears to follow during one year. Of course, we now know that the Sun does not follow this path, that it is the Earth which is moving and not the Sun. We also know that since the first astrological charts were created, a gradual tilting of the Earth's axis, causing an effect known as the precession of the equinoxes, means that the Sun now appears to pass though a thirteenth constellation of the zodiac: that of Ophiuchus, the serpent-bearer. This has had the knock-on effect of changing the dates when the Sun “passes through” each zodiacal constellation, so that, for example, Ophiuchus occupies most of the days in the calendar where the astrological sign of Sagittarius resides, and Aquarius largely occupies the space where Pisces is. Although this does of course invalidate the dates of the astrological star-signs seen in the horoscopes of tabloid newspapers, as well as the dates of the supposed star sign which people are “born under”, it should be remembered that the astrological zodiac has little resemblance to the actual constellations which the star signs
represent: astrology simply divides the 360-degree heavens into twelve equal segments, without regard for how many degrees each constellation actually spans in the sky. This means that an astrological star sign can encompass more than one constellation, and therefore the astrological zodiac should be seen as largely symbolic rather than factual. It has nothing to do with the real Universe.

It was the Greeks and Romans who, between them, first recognised and named the constellations of the northern hemisphere, listed around the second century AD, although doubtless prehistoric humans had created their own constellations long before them. Indeed, each human culture has seen its own mythology and creation stories in the stars since time immemorial. Not surprisingly, the Greeks and Romans saw the heroes, heroines and beasts from their mythologies in the sky: Pegasus, Orion, Taurus, Cassiopeia and many others. The first list of constellations we know of appears in Ptolemy’s 2nd-century Almagest, which was his treatise on the apparent motions and stars and planets, and which established a geocentric view of the Universe which was to persist for 1200 years. While the Greeks and Romans bequeathed us the names of the northern hemisphere constellations, it was Arabs who were the first to name the individual stars comprising each: Islamic scholars were the first to systematically map the skies. Many of these Arabic star names have survived until today: Aldebaran, Alcor, Altair, Algol. The prefix “Al-” is a sure indication of an Islamic name: it simply means “the”. Hence, for example, Aldebaran - “The follower”, because it appears to follow the Hyades star cluster that makes up the head of the constellation of Taurus, the bull.

Certain constellations have acquired special significance over the millennia because of their appearance marking the onset of seasons, telling ancient peoples when to sow or reap their crops, when to collect food or animal skins. Because of the Earth’s orbit around the Sun, different constellations become visible at different times of the year. For example, in the northern hemisphere the appearance of Orion in the early morning sky warns of the onset of autumn, that temperatures will shortly start to drop. The rising of the Summer Triangle to prominence in the northern sky is a harbinger of summer. Thus, to ancient cultures constellations were more than just patterns: they marked the passing of the seasons, of the years, of life itself.

The 48 constellations of the northern hemisphere, and their boundaries, were formally recognised by the International Astronomical Union in 1928 and the official list published in 1930. The story of the constellations of the southern hemisphere, however, is a little more complicated. Many of these were named by Italian, Dutch and Portuguese explorers of the 14th to 16th centuries. So as constellations there are objects and beasts associated with the great seafaring voyages of that epoch: Telescopium, the telescope; Octans, the octant; Dorado, the swordfish; Vela, the ship’s sails; Hydrus, the sea serpent. But explorers and observers often proposed different constellations with conflicting names, often to please their patrons. It was not until the 19th century that the current list of southern constellations was agreed and adopted.

From an observer’s perspective, from sunset to dawn the sky appears to revolve around one fixed point in the sky. This location in the heavens is what the Earth’s axis points at and is called the celestial pole. In the northern hemisphere, Polaris (the pole star) lies very close to the celestial pole, whereas in the southern hemisphere there is no bright star marking the location. Those constellations which revolve around the celestial pole yet do not dip below the horizon during the night, due to their proximity to it, are known as circumpolar constellations. In other words, for an observer these constellations will never set. There are five of these in the northern hemisphere: Ursa Major, Ursa Minor, Draco, Cassiopeia and Cepheus. The southern constellation has three: Crux, Centaurus and Carina.

The constellations are not difficult for a budding astronomer to learn. There are many excellent resources and planetarium-type programs available free online. It is certainly worth learning to recognise the constellations, even if sometimes one strains to see what the ancients did!

See the Astronomical League Asterism Observing Program at https://www.astroleague.org/content/asterism-observing-program.

See the Astronomical League Constellation Hunter Observing Program at https://www.astroleague.org/al/obscubs/consthunt/const.html.

Remote Telescope Technology Available To All

https://www.itelescope.net/ is a large community of members dedicated to remote internet astronomy. There are 19 telescopes available to the public located in North America, Spain, Australia and Chile.
This recently developed system allows anyone, anywhere to take astronomical images of the night sky for the purposes of education, scientific research and astrophotography. Enjoy the skies of the Southern and Northern Hemispheres from the comforts of home.

**Observing In Your Own Words**  
Sue Rose

I received this request from the Astronomical League, of which all AOSers are members. That’s how you get observing awards and the Reflector magazine.

Please respond to our hotline as well as to John. I think it would be an excellent learning experience for all of us and lead to good conversation.

We want to engage people in our hobby, and especially reach newcomers.

People who have recently entered the hobby often ask what the more experienced observers have found to be particularly interesting.

Will you please describe what you think someone who is considering or has just begun the Messier Program would like to observe. (It doesn’t need to be an object on the Messier list, however.) It could be a memorable or a favored object of yours. Please think of... how to find it what to expect at the eyepiece feelings it invoked when you viewed it and, most importantly, why someone would like to observe it and what would they like to know?

Please mention any pertinent equipment used. Smaller apertures might be more relatable to Messier seekers than large Dobsonians. Perhaps the ideal, general aperture should be 8-inches?

- Feel free to submit descriptions of more than one object
- Feel free to submit a sketch or image of the object
- It could be either a deep sky object, a solar system object, or an activity such as following the period of a variable star, viewing an asteroid occupation, or watching Jupiter’s or Saturn’s moons move in their orbits over a few nights.

And all this should be expressed in no more than 250 words! In many instances, less would be better.

Please know that it might be edited for length or prose. It is meant to be used in posts on the AL Facebook page to highlight our hobby and to encourage others to pursue amateur astronomy, but it might also be used in other AL promotional media.

Please include:
Your Name
MO number
City and State (optional)
Club name (optional)
Any AL volunteer positions you have held (optional)

Please submit your entries to John Goss, goss.john@gmail.com.

Thanks for taking your time to do this!

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Some exciting news: astronomers have discovered a black hole in our cosmic backyard!

Using the 2.2-meter telescope at the La Silla Observatory in Chile, an international team of researchers found a black hole located just 1,000 light years from Earth. That might sound like an enormous distance - and it is - but it’s quite nearby in astronomical terms. It’s a mere one percent of the diameter of our home galaxy, the Milky Way.

The astronomers were studying a binary star system known as HR 6819. But to their surprise, the data revealed that the two stars are also in a gravitational dance with a third unseen companion—a black hole. Based on the motions of the visible stars, they deduce that the black hole must have a mass at least four times that of our Sun.

What makes this discovery exciting is that it suggests a vast population of black holes might be hidden throughout the Milky Way. “If you find one that is very close to you, and you assume you’re not special, then they must be out there everywhere,” says Thomas Rivinius, who led the investigation.

If you’d like to know more, just click on any of the links below:
The Atlantic
National Geographic
Discover Magazine
European Southern Observatory
Celestial Observer
June 2020

Moon by Steve B

NGC 4565 by Rich H

M101 by Rich H

ISS by Nancy R

Moon Sketches by Bill C

M61 Supernova by Dennis W

AOS Member Photos
Summer Triangle Corner: Vega

David Prosper and Vivian White

If you live in the Northern Hemisphere and look up during June evenings, you’ll see the brilliant star Vega shining overhead. Did you know that Vega is one of the most studied stars in our skies? As one of the brightest summer stars, Vega has fascinated astronomers for thousands of years.

Vega is the brightest star in the small Greek constellation of Lyra, the harp. It’s also one of the three points of the large “Summer Triangle” asterism, making Vega one of the easiest stars to find for novice stargazers. Ancient humans from 14,000 years ago likely knew Vega for another reason: it was the Earth’s northern pole star! Compare Vega’s current position with that of the current north star, Polaris, and you can see how much the direction of Earth’s axis changes over thousands of years. This slow movement of axial rotation is called precession, and in 12,000 years Vega will return to the northern pole star position. Bright Vega has been observed closely since the beginning of modern astronomy and even helped to set the standard for the current magnitude scale used to categorize the brightness of stars. Polaris and Vega have something else in common, besides being once and future pole stars: their brightness varies over time, making them variable stars. Variable stars’ light can change for many different reasons. Dust, smaller stars, or even planets may block the light we see from the star. Or the star itself might be unstable with active sunspots, expansions, or eruptions changing its brightness. Most stars are so far away that we only record the change in light, and can’t see their surface.

NASA’s TESS satellite has ultra-sensitive light sensors primed to look for the tiny dimming of starlight caused by transits of extrasolar planets. Their sensitivity also allowed TESS to observe much smaller pulsations in a certain type of variable star’s light than previously observed. These observations of Delta Scuti variable stars will help astronomers model their complex interiors and make sense of their distinct, seemingly chaotic, pulsations. This is a major contribution towards the field of astroseismology: the study of stellar interiors via observations of how sound waves “sing” as they travel through stars. The findings may help settle the debate over what kind of variable star Vega is. Find more details on this research, including a sonification demo that lets you “hear” the heartbeat of one of these stars, at: bit.ly/DeltaScutiTESS

Interested in learning more about variable stars? Want to observe their changing brightness? Check out the website for the American Association of Variable Star Observers (AAVSO) at aavso.org. You can also find the latest news about Vega and other fascinating stars at nasa.gov.
Vega possesses two debris fields, similar to our own solar system’s asteroid and Kuiper belts. Astronomers continue to hunt for planets orbiting Vega, but as of May 2020 none have been confirmed. More info: [bit.ly/VegaSystem](bit.ly/VegaSystem) Credit: NASA/JPL-Caltech

Can you spot Vega? You may need to look straight up to find it, especially if observing after midnight.
What’s Up, Doc? †
June 2020

Dr. Aaron B. Clevenson, Director, Insperity Observatory in Humble ISD

This document tells you what objects are visible this next month for many of the Astronomical League Clubs. If you are working on one of the more advanced clubs, then I assume that you are tracking where your objects are all the time. I have concentrated on the common and starter level clubs. This information is based on 9 PM.

Naked-Eye Clubs

**Meteors** – any night, any time, anywhere, the darker the sky the better.

<table>
<thead>
<tr>
<th>Shower</th>
<th>Duration</th>
<th>Maximum</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>June Lyrids</td>
<td>6/10 to 6/21</td>
<td>6/15 &amp; 6/16</td>
<td>Moderate</td>
</tr>
<tr>
<td>June Aquilids</td>
<td>6/2 to 7/2</td>
<td>6/16 &amp; 6/17</td>
<td>minor</td>
</tr>
<tr>
<td>June Bootids</td>
<td>6/22 to 7/2</td>
<td>6/27</td>
<td>minor</td>
</tr>
<tr>
<td>Corvids</td>
<td>6/25 to 7/3</td>
<td>6/27 &amp; 6/28</td>
<td>minor</td>
</tr>
<tr>
<td>Tau Herculis</td>
<td>5/19 to 6/19</td>
<td>6/9 &amp; 6/10</td>
<td>minor</td>
</tr>
<tr>
<td>Ophiuchids</td>
<td>5/19 to 7/2</td>
<td>6/20 &amp; 6/21</td>
<td>minor</td>
</tr>
<tr>
<td>Theta Ophiuchids</td>
<td>5/21 to 6/16</td>
<td>6/10 &amp; 6/11</td>
<td>minor</td>
</tr>
<tr>
<td>Sagittarids</td>
<td>6/10 to 6/16</td>
<td>6/10 &amp; 6/11</td>
<td>minor</td>
</tr>
<tr>
<td>Phi Sagittarids</td>
<td>6/1 to 7/5</td>
<td>6/18 &amp; 6/19</td>
<td>minor</td>
</tr>
<tr>
<td>Chi Scorpiids</td>
<td>5/6 to 7/2</td>
<td>5/28 &amp; 6/5</td>
<td>minor</td>
</tr>
<tr>
<td>Omega Scorpiids</td>
<td>5/19 to 7/11</td>
<td>6/3 to 6/6</td>
<td>minor</td>
</tr>
<tr>
<td>June Scutids</td>
<td>6/2 to 7/29</td>
<td>6/27 &amp; 6/28</td>
<td>minor</td>
</tr>
<tr>
<td>Arietids</td>
<td>4/14 to 6/24</td>
<td>6/7</td>
<td>DAYLIGHT</td>
</tr>
<tr>
<td>Zeta Perseids</td>
<td>5/20 to 7/5</td>
<td>6/13 &amp; 6/24</td>
<td>DAYLIGHT</td>
</tr>
<tr>
<td>Veta Taurids</td>
<td>6/5 to 7/18</td>
<td>6/29 &amp; 6/30</td>
<td>DAYLIGHT</td>
</tr>
</tbody>
</table>

**Constellations, Northern Skies** – any night, any time, anywhere, the darker the sky the better.

Last Chance this cycle: Lynx, Canis Minor, Cancer, Hydra, Antlia.

Transit Ursa Major, Canes Venatici, Coma Berenices, Virgo, Corvus.

New arrivals: Draco, Lyra, Hercules, Ophiuchus, Serpens, ,upus.

Binocular Clubs

**Binocular Messier** – Monthly highlights include:

- Easy – 3, 4, 5, 10, 12, 13, 44, 67, 92.
- Medium – 15, 19, 40, 49, 53, 63, 64, 80, 81, 82, 83, 94.

**Deep Sky Binocular** – Monthly highlights include (by Astronomical League numbers):

5, 34, 38, 42, 43, 45, 46, 47, 50, 56.

Other Clubs

**Messier**

In addition to those listed under Binocular Messier, check out: 57, 91, 98.

**Caldwell**

1, 2, 3, 4, 5, 6, 7, 12, 15, 21, 25, 26, 29, 32, 35, 36, 38, 39, 40, 45, 48, 52, 53, 59, 60, 61, 66, 77, 80, 83.

**Double Star** (by Astronomical League numbers):

1, 9, 10, 11, 12, 14, 15, 16, 17, 18, 20, 22, 23, 25, 26, 29, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 48, 50, 51, 52, 54, 56, 57, 58, 59, 65, 66, 67, 68, 69, 70, 71, 74, 86, 87, 91, 92, 93, 94, 96, 100.
Other Clubs (of the Solar System)

**Solar System** – These are the tasks that can be done this month:
- Venus, Mars, Ceres, Jupiter, Saturn, Uranus, Neptune, and Pluto are morning “stars” this month.
- Sun – Any clear day is a good time to get those sunspots, if there are any to be seen.
- Sunset 2024 mid-month.

**Moon:**
- The Maria requirement can be done any time the moon is visible. Look before 6/14 or after 6/28 for the fullest views.
- The Highlands requirement can be done at the same time.
- The Crater Ages requirement is best done on 6/27, or 6/28.
- The Scarps requirement is best done on 6/29.
- Occultations occur all the time, the bright ones can be found on the internet. Objects disappear on the East side of the moon.

**Asteroids** – Course Plotting and Measuring Movement requirements can be done at any time on any asteroid. See above to identify the bright ones this month.

**Mercury** is in Gemini and sets at 2137 mid-month.

**Lunar**

Key timings are indicated below:
- New, 6/21 4 days, 6/25 7 days, 6/28 10 days, 6/1 14 days, 6/5
- Old moon in new moons arms – before 0242 on 6/24, ~10 % illuminated. (72 hr > New)
- New moon in old moons arms – after 0242 on 6/18, ~10 % illuminated. (72 hr < New)
- Waxing Crescent – before 1842 on 6/22, ~4 % illuminated. (40 hr > New)
- Waning Crescent – after 0242 on 6/19, ~4 % illuminated. (48 hr < New)

**The Astronomical League Observing Programs:**

- **Analemma**
- **Binocular Double Star**
- **Comets**
- **Dark Sky Advocate**
- **Flat Galaxy**
- **Herschel 400**
- **Lunar**
- **Meteor**
- **Planetary Nebulae**
- **Southern Skies Binocular**
- **Universe Sampler**
- **ARP Peculiar Galaxies**
- **Binocular Messier**
- **Constellation Hunter – North**
- **Deep Sky Binocular**
- **Galaxy Groups & Clusters**
- **Herschel II**
- **Lunar II**
- **NEO**
- **Planetary Transit**
- **Southern Skies Telescope**
- **Urban**
- **Asterisms**
- **Caldwell**
- **Constellation Hunter – South**
- **Double Star**
- **Galileo**
- **Herschel II**
- **Local Galaxy Group & Neighborhood**
- **Master Observer**
- **Open Clusters**
- **Planetary Transit**
- **Southern Skies Telescope**
- **Variable Star**
- **Asteroids**
- **Carbon Star**
- **Dark Nebulae**
- **Earth Orbiting Satellites**
- **Globular Clusters**
- **Mars**
- **Messier**
- **Outreach**
- **Sky Puppy**
- **Stellar Evolution**
- **Planetary Transit**

* - Although these clubs are not detailed in this “What’s Up Doc?” handout, you can get information on many of their objects by using the “What’s Up Tonight, Doc?” spreadsheet (version 4.1). To get your copy, talk to the Doc, Aaron Clevenson, by sending an email to aaron@clevenson.org. It is also available on the club website.

† - “What’s Up Doc?” is used with permission from Warner Bros. Entertainment Inc.

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**Insperity Observatory, 2505 S. Houston Avenue, Humble, TX:** www.humbleisd.net/observatory
June 21 Stonehenge Will Livestream the Summer Solstice This Year (Video)

In a typical year, thousands of people would be making plans right now to flock to Stonehenge in Wiltshire, England for its annual summer solstice celebration. However, as you are already very well aware, this year isn’t very typical. This year, English Heritage announced it would not be holding an in-person event. But fear not pagans and travelers alike, because they have a plan to bring the celebration to you. “We have consulted widely on whether we could have proceeded safely and we would have dearly liked to host the event as per usual, but sadly, in the end, we feel we have no choice but to cancel,” Stonehenge director Nichola Tasker shared in a statement. In its place, Tasker said, the organization will instead hold a livestream so people all over the world can still take part in the celebration. “We hope that our [livestream] offers an alternative opportunity for people near and far to connect with this spiritual place at such a special time of year and we look forward to welcoming everyone back next year,” he said.

For the uninitiated, let us be the first to tell you this is a very big deal. As Travel + Leisure previously reported, in 2015, about 23,000 people attended the summer solstice event. For a few, it is a mere tourist moment, but for many involved, it is a sacred pagan event. “In this ancient world, the changing of the seasons and the cyclical nature of growth, death, and rebirth were the most essential truths, upon which the balance of life itself was hung,” CNN reported in 2019. “And it’s this powerful connection to the pagan past that still draws people to the site today.” The stones, English Heritage explained, were erected sometime around 2500 BC, and “were carefully aligned to line up with the movements of the sun. If you were to stand in the middle of the stone circle on midsummer’s day, the sun rises just to the left of the Heel Stone, an outlying stone to the north-east of the monument. Archaeological excavations have found a large stone hole to the left of the Heel Stone and it may have held a partner stone, the two stones framing the sunrise.” On midwinters day, the entire thing is reversed, showing that the builders likely had intent when constructing the stones. “The whole layout of Stonehenge is therefore positioned in relation to the solstices, or the extreme limits of the sun’s movement,” the group explained. “The solstice axis is also marked by the Station Stones which are positioned in a rectangle on the edge of the surrounding circular ditch, with the short sides of the rectangle on the same alignment as the sarsen stones.”

While it’s most certainly disappointing for pagans to not be able to celebrate in person, at least this year, the pagan-curious, and home-bound travelers alike can join in the online celebration too. Follow the livestream on June 21 on English Heritage’s social channels and share in the revelry from anywhere.