

Here are some key dates for stargazing and planet-watching in 2021:

January

Jan. 23 will be a good time to look for Mercury in the night sky, since the planet will be at its greatest eastern elongation,

when it appears farthest from the setting sun. Look for it shortly after sunset above the western horizon.

Viewed through a telescope, about half of the planet will be illuminated.

February

On Feb. 18, the moon and Mars will be in close conjunction, starting around 6 p.m. Look for them above the southwestern horizon.

They'll be a bit too far apart to both fit into the field of a telescope, but you can look for them with binoculars or the naked eye.

March

On March 9, about 4:44 a.m., about 1 hour and 44 minutes before dawn, the moon and Saturn will be in close conjunction.

Look above the southeastern horizon.

Daylight saving time will begin on March 14, meaning clocks in Maryland will jump forward one hour at 2 a.m.

March 20 brings the vernal equinox, which arrives at 4:27 a.m. At that moment, the sun's light is cast equally

on the Northern and Southern hemispheres, meaning nearly equal amounts of day and night throughout the world.

It also marks the start of spring.

March 28 brings the first of four "super moons" of 2021. With this and other super moons, the moon becomes full around the same time

it is near its closest point to Earth in its elliptical orbit, so it looks slightly larger and brighter than usual.

April

The Lyrid meteor shower will peak in Baltimore on the night between April 21 and 22.

The best time to view the shower will be between 4 a.m. and 5 a.m. on April 22, when up to 18 meteors per hour

could be visible in the pre-dawn sky.

You don't need any special equipment to see the shower, which is named after the constellation Lyra.

As with any meteor shower, astronomers recommend that you find a location away from city lights

and look up in the direction of the radiant —

in this case, the point in the constellation Lyra from which meteors will appear to emerge.

April 26 will be the second super moon for the year. This moon has been called the Pink Moon, Grass Moon and Egg Moon.

May

The Eta Aquarid meteor shower will peak in Baltimore on the night between May 5 and 6,

when up to 50 meteors per hour could streak across the night sky. The best time to view the shower will be between 3 a.m. and 4 a.m. on May 6.

The Eta Aquarid shower, which is named after the brightest star in the Aquarius constellation, is actually created by debris from Comet Halley,

which won't be visible from Earth again until 2061.

The first of two partial lunar eclipses visible from Baltimore will take place on May 26. About 5:45 a.m.,

the eclipse will be at a maximum for Baltimoreans.

At this time, Earth's shadow will be cast on the moon, but it won't cover it completely, and could be difficult to make out.

Astronomers recommend going to a high point to view it since the moon will be near the horizon.

The May 26 moon is also considered a super moon, so the full moon will appear larger and brighter.

June

On June 10, a partial solar eclipse will be visible from Baltimore from 5:39 a.m. until 6:29 a.m. During this time,

the moon will cover a part of the sun's face. The best time to view it — when the moon is closest to the sun's center — is at 5:47 a.m.,

and astronomers recommend you go to a high point, since the sun will be close to the horizon.

The earliest sunrises of the year will take place on June 13 and 14, right around 5:29 a.m.

June 20 is the summer solstice — the longest day of the year. About 11:31 p.m., the North Pole will be tilted closest to the Sun.

June 24 is the year's final super moon. It's also known as the Strawberry Moon or Rose Moon.

June 27 brings the latest sunset of the year, at 8:37 p.m.

July

On July 5, the Earth will be at its aphelion — its farthest point from the sun — at 6:27 p.m.. At that point,

the two bodies will be separated by some 94.5 million miles.

On July 12, Venus and Mars will appear close together, with Venus shining brighter and Mars more faintly.

Look for them at about 8:50 p.m. above the western horizon.

August

The night of Aug. 2 will be a good opportunity to view and photograph Saturn, which will be illuminated at its closest point to Earth.

It will appear in the constellation Capricornus, above the southeastern horizon.

With a medium-sized telescope, you'd be able to see Saturn's rings and some of its brighter moons.

It'll be at its highest point in the sky around midnight.

The Perseid meteor shower, which could bring up to 150 meteors per hour to the skies over Baltimore,

will peak on the night between Aug. 12 and 13.

Weather permitting, astronomers predict excellent visibility for the shower throughout the night, between about 9:30 p.m. and 5 a.m.

This shower occurs when Earth passes through space debris from the Comet Swift-Tuttle, and it appears to emanate from the constellation Perseus.

On Aug. 19, a fully illuminated Jupiter will be closest to Earth. It will appear in the constellation Capricornus,

above the southeastern horizon. With a medium-sized telescope, you'd be able to make out some of the details of the giant planet's cloud bands, and with a pair of good binoculars, you may be able to make out its larger moons. It'll reach its highest point in the sky around midnight.

On Aug. 22, there will be a blue moon, the third of four full moons in a single season.

There are four full moons in a season about once every 2.7 years.

September

The night of Sept. 14 will be a good time to view Neptune, since the planet will be closest to Earth.

It'll appear in the constellation Aquarius, above the southeastern horizon.

It'll be at its highest point in the sky around midnight.

Since Neptune is far from Earth, it will only appear as a tiny blue dot without the help of a telescope.

The autumnal equinox will occur on Sept. 22, at 2:11 p.m. At this time, the sun will shine directly on the equator,

meaning daytime and nighttime will be nearly equal throughout the world.

October

The Draconid meteor shower will peak on the night between Oct. 8 and 9. The best time to observe the shower will be between 8 p.m.

on Oct. 8 and 3 a.m. on Oct. 9. This shower is named after the constellation Draco, the Dragon, and

occurs as the Earth passes through debris left behind by a comet called 21P/Giacobini-Zinner.

November

Nov. 4 will be a good opportunity to see Uranus in the night sky, because it will be closest to Earth, but

you'll likely need a telescope to make it out. The planet will appear in the constellation Aries and be visible for much of the night.

Daylight saving time will end at 2 a.m. Nov. 7.

The Leonid meteor shower will peak on the night between Nov. 17 and 18, when up to 15 meteors per hour could appear in the sky.

The best time to view it will be in the early morning hours on Nov. 18. The Leonid shower occurs when Earth passes through debris

left by the Comet Tempel-Tuttle, which takes about 33 years to orbit the sun. It originates from the constellation Leo.

The year's second partial lunar eclipse above Baltimore will take place on Nov. 19.

During this event, the Earth's shadow will darken part of the moon. The best time to see it is about 4 a.m. on Nov. 19,

when the moon will be closest to the center of the shadow.

December

The year's earliest sunsets will be on Dec. 6 and 7, at 4:43 p.m.

At the peak of the Geminid meteor shower on the night between Dec. 13 and 14, observers in Baltimore may see up to 120 meteors per hour streak across the sky.

The best time to view the shower will be between 3 a.m. and 6 a.m. on the 14th. Unlike most other meteor showers,

the Geminids are associated with an asteroid (rather than a comet) — the 3200 Phaethon.

The winter solstice, also known as the first day of winter, is Dec. 21 at 10:50 a.m. At this time, the South Pole of the Earth will be tilted closest to the Sun.

This day is the shortest of the year, at about 9 hours and 24 minutes in Baltimore.

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