

# Venus and Its Moon-like Phases

- a May 2023 Sky Event from the [Astronomy Club of Asheville](#)

For any of you who have observed cloud-enshrouded Venus up close with the optical aid of binoculars or a small telescope, you may have noticed a peculiar thing. Its planetary disk is not usually full, and it even appears as a distinct crescent shape at times. This phenomenon is also true of our solar system's other and smaller inner planet – Mercury.

So, what is going on here? We Earthlings see the inner planets Venus and Mercury from a unique vantage point as these speedier planets orbit around the Sun. When Venus is at “superior conjunction” (position 1), it is blocked by the Sun and invisible to us on Earth.

As Venus orbits counterclockwise about the Sun toward position 2, it displays a waning gibbous phase in the early evening sky that gradually shrinks to a “quarter” phase when it reaches “greatest eastern elongation”.

Past position 2, Venus wanes into a crescent phase that most observers find quite amazing. As it approaches “inferior conjunction” (position 3) with the Sun, Venus is again invisible to us Earthlings.

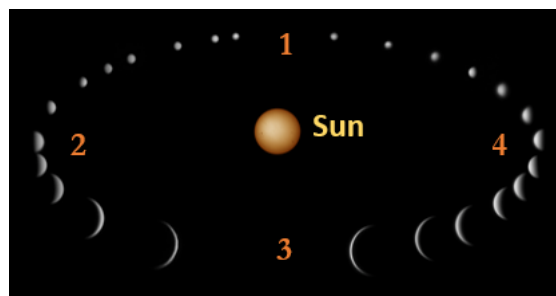
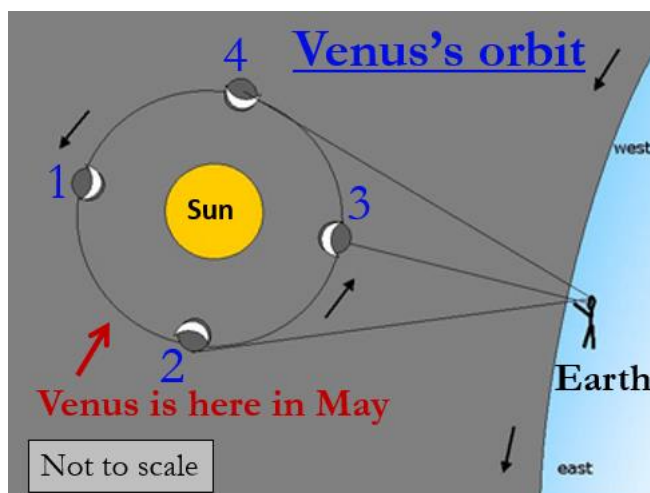
Beyond position 3, Venus moves into our dawn skies, and this process reverses itself – as it waxes from a narrow crescent to a gibbous phase again.

Venus is between positions 1 & 2 during May 2023 – a waning gibbous that is approaching “greatest eastern elongation”, position 2, on June 4<sup>th</sup>.

**This month Venus is displaying a diminishing disk phase to us, as it approaches a crescent shape that will become more apparent in June. Yet Venus is brightening in the evening sky as seen from Earth!** Its magnitude increases from -4.1 on May 1<sup>st</sup> to -4.3 on May 31<sup>st</sup> – some 20% brighter in just 30 days. This is explained by the fact that Venus is approaching 22 million miles closer to Earth this month and thus appearing larger in size from our vantage point, with more surface area illuminated, despite its apparent narrower shape.

The above illustration shows the relative sizes and phases of Venus as seen from Earth – while it orbits counterclockwise about the Sun.

Click on the [animation at this web link](#) to observe an illustration of this concept.



*Not to Scale*