Astronomy Club of Asheville May 2024 Highlight The Full Moon Hides the Star Antares

On **May 23rd**, during evening twilight and the onset of nighttime darkness, the full Moon will occult the red supergiant star Antares in the constellation Scorpius, the Scorpion.

Because moonrise occurs at 9:10 p.m. local time here in the Asheville area, the Moon will be a mere 1° above the SE horizon at first contact (9:22 p.m.), and only 9° degrees above the horizon at second contact -- some 51 minutes later. You will need an unobstructed view low to the SE horizon to watch this occultation. Using binoculars or a small telescope will increase your chances of observing it.



Antares disappearance at 9:22 p.m.



Antares reappearance at 10:13 p.m.

Approximate timings for this 51-minute Antares occultation in the Asheville, NC region:

9:22 p.m. EDT	1 st contact and beginning of Antares' disappearance
10:13 p.m EDT	2 nd contact and the beginning of Antares' reappearance

Find out more about the star Antares on page 2.

More about the star Antares...

Antares is the brightest star in the constellation Scorpius and one of the brightest stars visible in Earth's night skies. It is located along the ecliptic, some 550 light years away from our Sun.

The word Antares comes from the Greek and means "rival (ant) of Ares", and Ares is the Greek word for Mars. Translated for us, Antares is the "rival of Mars" (the planet) -- its ruddy color rivals that of Mars. And, because Antares is located along the ecliptic (the approximate path of the planets across our sky), Mars passes (every couple of years) very near its rival in our skies – presenting the two reddish objects side by side. The last conjunction of these two rivals was in December 2023, and the next one will be in November 2025.



The sun is a mere dot in this image when compared in size to the giant Antares star.

As a red supergiant star, Antares is around 850 times the diameter of the sun, and, if it was placed in the center of our solar system, it would reach beyond the orbit of Mars.

Like most large stars, Antares will live fast and die young. Its life will end with a rapid collapse of its enormous mass – some 11-14 times the mass of our sun – that will cause an immense supernova explosion. This will ultimately leave a rather small, but very dense, neutron star or possibly a stellar black hole.***