



The Southern Delta Aquariids and Alpha Capricornids Burn

KEEP ADDING TINY twigs to a fledgling fire, and it will eventually bloom into a blaze of heat and light. **On the night of July 29–30, two modest meteor showers combine to spark a lively night of meteor-watching.** The primary player is the annual Southern Delta Aquariid shower, which peaks at around 25 meteors per hour. Members spurt from the radiant located just east of the star Skat, or Delta (δ) Aquarii.

Given the shower's relatively southern declination, observers in the tropics have the best view. From a latitude of 40° north, the radiant culminates at an altitude of around 35° at around 3:00 a.m. local daylight time. The shower is rich in fainter meteors and best observed from a dark sky between midnight and 4 a.m. Fortunately, the waxing crescent Moon will be out of the picture when activity is strongest. The Southern Delta Aquariids zip across the heavens at the modest speed of 40 kilometers per second (90,000 mph) and generally don't leave persistent trains.

The shower originates from something known as the 96P/Machholz Complex — a mixed bag of eight meteor showers, two comet groups, and the asteroid 2003 EH1. Comet 96P orbits the Sun every 5.3 years and last reached perihelion in 2023. Particles ejected

▲ Both the **Southern Delta Aquariids** and **Alpha Capricornid meteor showers** complement each other as they reach maximum on the same night, July 29–30. Their radiants lie in the same general region of the sky, but each shower displays its own characteristic meteors.

from the comet's nucleus between 20,000 and 10,000 BC ultimately gave rise to the Southern Delta Aquariids, making each luminous streak you see a timeline to the remote past.

Let's add a few more twigs to the fire: The Alpha Capricornids peak at the same time as the Southern Delta Aquariids, but at a modest rate of just 5 meteors per hour. However, what they lack in quantity they make up for in quality — the Alpha Capricornids are known for producing slow-moving fireballs. The radiant is also a little higher for mid-northern latitudes, located about $3\frac{1}{2}^\circ$ northeast of Alpha (α) Capricorni. The shower is the spawn of Comet 169P/NEAT, which next comes to perihelion in September 2026.

In addition to these two displays, late July is also when the first Perseids make their appearance as the shower ramps up to its August 12th maximum. Add in an average of five or six sporadics per hour, and there should be enough meteors to kindle a modest blaze of activity in the predawn sky.***