



## A Meteor Shower for Warm Nights - the Southern Delta Aquariids

**I'M EMBARRASSED** to admit I've never intentionally looked at the Southern Delta Aquariid meteor shower. I've seen a few members fly by over the years and casually traced them back toward Aquarius but have never given the shower its due. This month, I have no excuses. **While the stream is active from mid-July to mid-August, the peak occurs on the morning of July 30th.** With the new Moon falling on the 28th, the timing is just about ideal.

Because the shower's radiant is located in southern Aquarius a few degrees west of Delta ( $\delta$ ) Aquarii, observers in the tropics get the best view and might see 25 meteors per hour between midnight and dawn. But there's no need to sniff if you live at mid-northern latitudes, where the radiant culminates due south at about  $30^\circ$  altitude shortly after 3 a.m. local daylight-saving time.

Up to a dozen meteors per hour may scratch the sky from a dark site. Be patient and enjoy the light show as the Milky Way wheels westward and Saturn, Jupiter, and Mars parade slowly across the south. Just don't forget to bring the bug spray.

The Southern Delta Aquariid shower is rich in faint meteors because the

particles are dust-size and enter the atmosphere at a relatively moderate speed of 40 kilometers (25 miles) per second. The display's origins can be traced back to a comet that broke up about 9,500 years ago. From that chaos, Comet 96P/Machholz arose, along with near-Earth asteroid 2003 EH1 (responsible for the Quadrantid meteor shower), and the Marsden and Kracht comet groups. Material shed by Comet 96P is responsible for both the Southern Delta Aquariids and the Daytime Arietids, and plays a hand in the Quadrantids as well. The meteor flash you witness may be momentary, but the particle that produced it has a deep and tangled past.

There are several minor showers active around the same time as the Aquariids, including the Alpha Capricornids, which peak on the same date. Although they contribute just five meteors per hour, the Alpha Capricornids are known for slow-moving fireballs, with a few streaks brighter than Venus. The radiant lies about  $3^\circ$  northeast of Alpha ( $\alpha$ ) Capricorni and culminates a couple of hours earlier than the radiant for the Aquariids. If you're fortunate, you'll get to sample both meteor streams during your early morning outing.