Eta Aquariid Meteor Shower Peaks on the night of May 4/5, 2020

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Sky & Telescope

Hello, Halley!

TWICE A YEAR, first in May and again in October, Earth plows through a trail of dust and bits of rock ejected by the famous Halley's Comet along its orbital path and we witness a meteor shower. The May encounter stokes the Eta Aquariid display, while October's produces the Orionids.

The Eta Aquariids are active from mid-April until late May but reach their peak on the night of May 4–5, with 10–30 meteors per hour visible from the Northern Hemisphere and 30–50 from the Southern. The two rates are due to the altitude of the radiant — it's low in the southeastern sky for northern observers but well-placed for those at tropical latitudes. Also, if you live at a mid-northern latitude, dawn begins early, quenching the display just as it begins to heat up.

This year the shower could be more active than usual. Gravitational nudging from Jupiter causes the Eta Aquariid peak rate to vary over a roughly 12-year cycle, with stronger activity possible from 2020 to 2022.

The Eta Aquariids are fast, often bright meteors that frequently leave persistent streaks of glowing, ionized air in their wake. That's the good news. Now for the bad. A 91%-full Moon in Virgo will cut the number of visible meteors by at least half.

Go out anyway. Twilight at mid-northern latitudes begins shortly after 4 a.m. local daylight-saving time, so plan your observing session for between 3:30 and 5 a.m. You'll know you're seeing a Halley fragment if you can mentally trace the meteor's path back toward the radiant, indicated in the chart below.

Comet Halley is one of the darkest objects in the solar system. If you hammered out a chunk of the comet it would look just like a piece of charcoal. What a wonderful twist then that these black fragments incandesce to light as they meet their demise.