NASA's Ingenuity helicopter sees a beautiful sunset on Mars

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Martian sunset taken by Ingenuity. Credit: NASA / JPL-Caltech

Sunsets provide some of the most beautiful natural imagery anywhere on Earth. People flock from all over to see sunsets at specific places at specific times, such as when they perfectly align down a street in Manhattan. But sunsets on other planets wouldn't be nearly as spectacular.

You wouldn't even be able to see it on Venus, where the sulfuric acid

clouds would completely obscure the event. And on Mercury, it would take excruciatingly long, not to mention its sheer intensity would blind you if you tried to watch it. The gas giants farther out in our solar system suffer from the same problem as Venus—their clouds obscure their surface completely.

Then there's Mars. The red planet has a sparse enough atmosphere that the sun does make it through to the surface, and its rotational speed is close enough to Earth's that something like the approximation of a sunset on Earth happens every 24.5 hours. We've started to collect various images of these events from our robotic vanguards that we've sent to explore. And now, one of the newest members of that group provides a new image that shows just how similar Martian sunsets are to those on Earth.

Ingenuity, the helicopter that launched with the Perseverance rover and has now been on Mars for almost two years, has completed over 45 flights at the time of writing. Some of those flights have even been captured by Perseverance, which occasionally also catches glimpses of its airborne companion on the ground awaiting its next go-around.

On February 22, 2023, the day of its 45th flight, Ingenuity captured an image of the sun as it approached a dune on the Martian horizon. It used its high-resolution color camera, in which the sun appears almost white, as it would in space. An artifact of the image-capturing process makes it look like actual sunbeams are falling onto the dune's surface.

There are plenty of other pictures of sunsets on Mars, some of which we have reported on here. But there's also something new and different about each one that crops up. Until people travel to the Red Planet for the first time, our robotic emissaries will be our only way to experience these phenomena. Hopefully, Ingenuity will be able to provide even more before the end of its mission.

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