A Comet’s Brush With Mars

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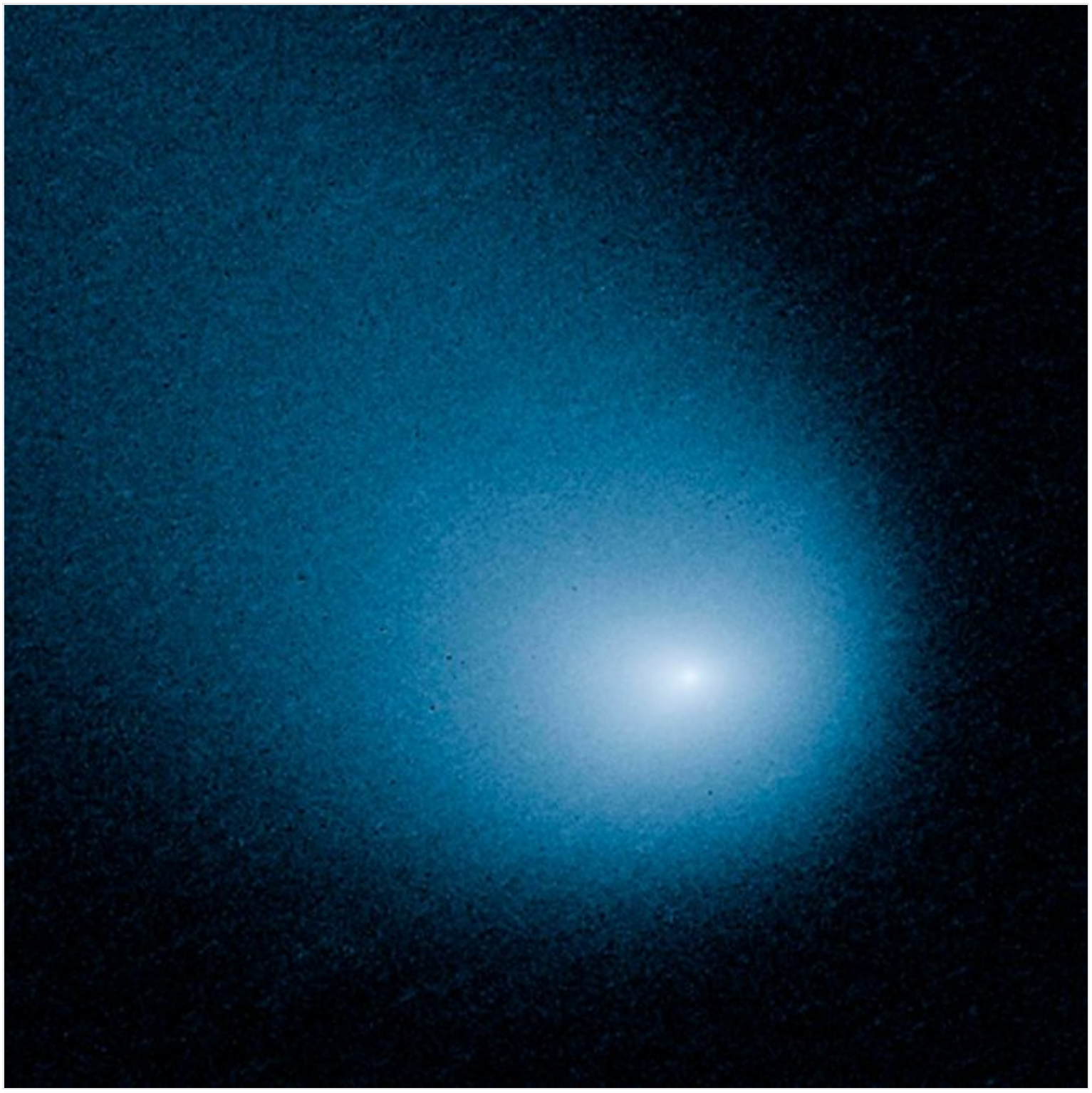

Comet C/2013 A1, also known as Siding Spring, passed 87,000 miles from Mars on Sunday — or 10 times closer to the planet than any known comet has come to Earth, NASA said. Credit NASA, ESA, and Jian-Yang Li of Planetary Science Institute

WASHINGTON — A comet the size of a small mountain whizzed past Mars on Sunday, dazzling space enthusiasts with the once-in-a-million-years encounter.

The comet, known as Siding Spring (C/2013 A1), made its closest encounter with Mars on Sunday at 2:27 p.m. E.D.T., racing past the Red Planet at a breakneck 126,000 miles per hour.

At its closest, Siding Spring was 87,000 miles from Mars — less than half the distance between Earth and our moon.

“Signal confirming closest approach has just been received,” the European Space Agency said on Twitter.

Before the comet passed, it could be seen in space racing toward the brightly illuminated Red Planet, trailed by a cloud of debris.

Scientists said the comet's passing offered a unique chance to study its impact on Mars's atmosphere.

"What could be more exciting than to have a whopper of an external influence like a comet, just so we can see how atmospheres do respond?" said Nick Schneider, the remote sensing team leader from NASA's Maven mission to Mars. "It's a great learning opportunity."

NASA's fleet of Mars-orbiting satellites and robots on the planet's surface were primed for the flyby of the comet, hoping to capture the rare event and collect a trove of data to study.

"Mars Odyssey hard at work now to image #MarsComet Siding Spring, after closest approach & before dust tail hits," NASA said on Twitter, referring to one of its robotic spacecraft.

The ball of ice, dust and pebbles is believed to have originated billions of years ago in the Oort Cloud, a distant region of space at the outskirts of the solar system.

The comet is around one mile wide and is only about as solid as a pile of talcum powder.

As it hurtled through space it created a meteor shower and shed debris — mostly dust and pebbles — which scientists had feared could damage valuable spacecraft.

"All it takes is a little tiny grain of sand traveling at that speed and you've got damage to solar arrays, or your propulsion line or critical wires," Dr. Schneider said.

Before the comet entered Mars's orbit, NASA moved its Mars Reconnaissance Orbiter, Mars Odyssey and Maven to avoid damage by the comet's high-speed debris.

"#MarsComet flyby not over yet. Mars passes thru dust tail… while orbiters #duckandcover on far side," the agency said on Twitter.

The comet has traveled more than one million years to make its first pass by Mars, and will not return for another million years, after it completes its next long loop around the sun.

The comet was discovered by Robert McNaught at the Siding Spring Observatory in Australia in January 2013.

Its flyby of Mars is not likely to be visible to sky watchers on Earth.

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