

Mars helicopter Ingenuity spots Perseverance rover from the air

NASA's Mars helicopter Ingenuity managed to snap a photo of the agency's Perseverance rover from the air on Sunday (April 25), providing an unprecedented view of a robotic explorer on the surface of another world.

"Oh hey, there I am! Never thought I'd be the subject of another photographer on Mars. Great capture by the #MarsHelicopter team," Perseverance's handlers said via the rover's official @NASAPersevereTwitter account on Tuesday evening (April 27), when the photo was released.

NASA's Pathfinder lander photographed the first-ever Mars rover, Sojourner, on the Red Planet back in 1997. But both of those robots were firmly on the ground.

The 4-lb. (1.8 kilograms) chopper was about 279 feet (85 meters) from Perseverance when it took the photo, flying at an altitude of about 16.5 feet (5 m), NASA officials said in a photo description.

The milestone occurred during Ingenuity's third flight on Mars, its most ambitious sortie to date. Ingenuity traveled much faster and farther on Sunday than it had previously, covering about a total distance of about 330 feet (100 m).

Ingenuity is a technology demonstration designed to show that aerial exploration is possible on Mars. The rotorcraft carries no science instruments but is paving the way for future Mars helicopters that could gather lots of data on their own and also serve as scouts for rovers and human pioneers on the Red Planet, NASA officials have said.

Ingenuity and Perseverance landed together inside Mars' 28-mile-wide (45 kilometers) Jezero Crater on Feb. 18. The helicopter deployed from the car-sized rover's belly six weeks later and took to the skies for the first time on April 19, performing the first-ever powered, controlled flight by an aircraft on a world beyond Earth.

The Ingenuity team aims to pack two more flights into the helicopter's month-long flight window, which closes in early May. And there won't be an extension of that window; Perseverance, which has been documenting and supporting Ingenuity's work, needs to start focusing on its own life-hunting, sample-gathering mission soon.

Those final two hops will likely be even more complex and ambitious than Sunday's sortie, for the team wants to push the little robot's limits. Ingenuity project manager MiMi Aung, of NASA's Jet Propulsion Laboratory in Southern California, said earlier this month that she'd like the helicopter to travel about 2,000 feet (600 m) on its fifth and final flight, if possible.

That would be quite a journey — one that Ingenuity would hopefully document with many more gorgeous photos from the air.