

NASA MARS HELICOPTER MAKES FIRST FLIGHT ON ANOTHER PLANET

Relevant for: Science & Technology | Topic: Space Technology & related matters

Rare feat: A video grab, left, shows Ingenuity flying over the surface of Mars and, right, its shadow on the surface. AFP-

NASA successfully flew its tiny helicopter Ingenuity on Mars early on Monday, the first powered flight on another planet and a feat a top engineer called “our Wright brothers’ moment.”

At 3:34 a.m. Eastern Time (0734 GMT), the 1.8 kg rotorcraft lifted off, hovered 10 feet above the Martian surface, then came back to rest after 39.1 seconds.

Data and images from the autonomous flight were transmitted 278 million km back to Earth where they were received by NASA’s array of ground antennas and processed more than three hours later.

Engineers were tensely watching their screens at the Jet Propulsion Laboratory in California, where the mission had been designed and planned for the past six years.

They broke into applause as one of them read off a checklist of tasks Ingenuity had achieved and concluded: “Ingenuity has performed its first flight — the first flight of a powered aircraft on another planet.”

Ingenuity quickly sent back a black-and-white image from its downward pointing navigation camera, showing its bug-like shadow cast on the surface.

Then came a choppy colour video from the Perseverance rover showing Ingenuity on the ground, in flight.

“We’ve been talking so long about our Wright brothers’ moment on Mars, and here it is,” said lead engineer MiMi Aung.

The first powered flight on Earth was achieved by the Wright brothers in 1903 in North Carolina. A piece of fabric from that plane has been tucked inside Ingenuity in honour of that feat.

NASA had originally planned the flight for April 11 but postponed it over a software issue that was identified during a planned high-speed test of the aircraft’s rotors. The issue was resolved with a software update and tweak in coding.

Tech demonstration

Ingenuity travelled to Mars attached to the underside of Perseverance, which touched down on the planet on February 18 on a mission to search for signs of extraterrestrial life.

Ingenuity’s goal, by contrast, is to demonstrate its technology works, and it won’t contribute to Perseverance’s science goals.

END

CrackIAS.com