

## NASA's Mars Helicopter scouts ridgeline for Perseverance science team

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NASA's Ingenuity Mars Helicopter scouted this ridgeline near the ancient river delta in Jezero Crater because it is of interest to Perseverance rover scientists. Enlarged at right is a close-up of one of the ridgeline's rocky outcrops. The image was captured on April 23, during the rotorcraft's 27th flight. Credit: NASA/JPL-Caltech

NASA's Ingenuity Mars Helicopter recently surveyed an intriguing ridgeline near the ancient river delta in Jezero Crater. The



images—captured on April 23, during the tiny helicopter's 27th flight—were taken at the request of the Perseverance Mars rover science team, which wanted a closer look at the sloping outcrop.

"Ingenuity not only provides imagery from an aerial perspective, but allows our team to be two places at once on Mars," said Ken Farley of Caltech, Perseverance's project scientist. "Sending the rover to survey and prospect in one location while launching the helicopter to survey another hundreds of meters away is a great time-saver. It can also help us explore areas the rover will never visit, as in this case."

The ridgeline, which the science team calls "Fortun Ridge" after a parish in Norway, is a geologic feature of interest because data collected from orbit, and at a distance by Perseverance, indicates it is the boundary between the two major rock units on the crater floor.

Previous images suggest tilted layers of rock in this area of Mars are uncommon (unlike on Earth, where plate tectonics and earthquakes cause tilting). The science team will also have an opportunity to compare the Flight 27 images of this feature with data collected by both Ingenuity and Perseverance of an angled ridgeline nicknamed "Artuby" in the "South Séítah" region of the crater. Comparing Ingenuity's shots of the two angled ridgelines may help team scientists better understand the history of the <u>crater floor</u>, and possibly, the forces that were at play in this part of Jezero Crater billions of years ago.

This recent science-oriented foray by Ingenuity follows scouting the helicopter performed to view the backshell and parachute that helped the Perseverance rover safely land on Mars with Ingenuity attached to its belly. Those images have the potential to help ensure safer landings for future spacecraft such as the Mars Sample Return Lander, which is part of a multi-mission campaign that would bring Perseverance's samples of Martian rocks, <u>atmosphere</u>, and sediment back to Earth for detailed



analysis.

## **More information:** For more information about Ingenuity: <u>mars.nasa.gov/technology/helicopter/</u>

Provided by Jet Propulsion Laboratory

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