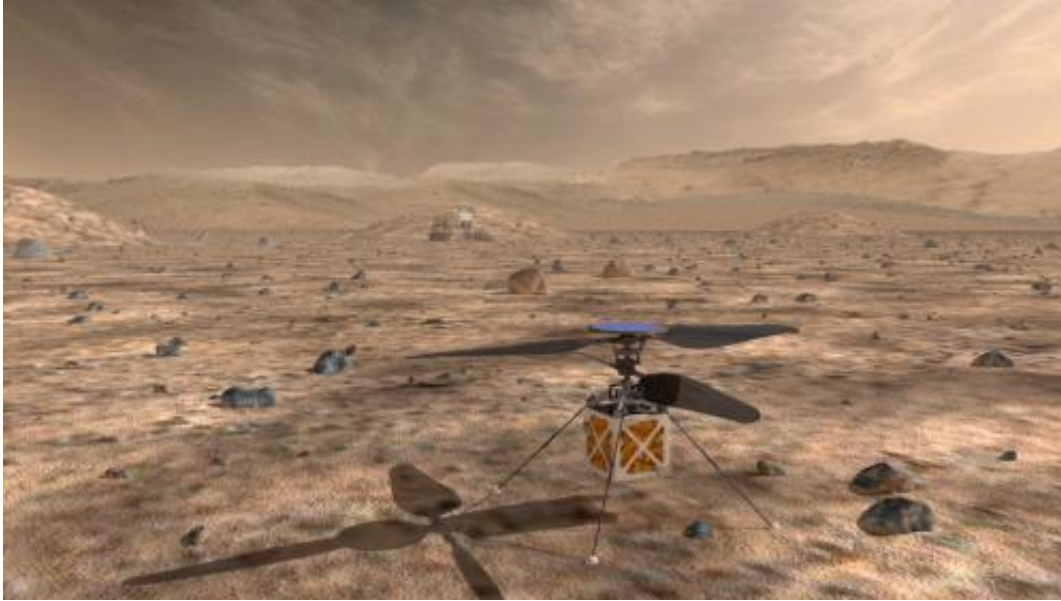


Helicopter could be 'scout' for Mars rovers

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A proposed helicopter could triple the distances that Mars rovers can drive in a Martian day and help pinpoint interesting targets for study. Credit: NASA

Getting around on Mars is tricky business. Each NASA rover has delivered a wealth of information about the history and composition of the Red Planet, but a rover's vision is limited by the view of onboard cameras, and images from spacecraft orbiting Mars are the only other clues to where to drive it. To have a better sense of where to go and what's worth studying on Mars, it could be useful to have a low-flying scout.

Enter the Mars Helicopter, a proposed add-on to Mars rovers of the

future that could potentially triple the distance these vehicles currently drive in a Martian day, and deliver a new level of visual information for choosing which sites to explore.

The helicopter would fly ahead of the rover almost every day, checking out various possible points of interest and helping engineers back on Earth plan the best driving route.

Scientists could also use the helicopter images to look for features for the rover to study in further detail. Another part of the helicopter's job would be to check out the best places for the rover to collect key samples and rocks for a cache, which a next-generation rover could pick up later.

The vehicle is envisioned to weigh 2.2 pounds (1 kilogram) and measure 3.6 feet (1.1 meters) across from the tip of one blade to the other. The prototype body looks like a medium-size cubic tissue box.

The current design is a proof-of-concept technology demonstration that has been tested at NASA's Jet Propulsion Laboratory, Pasadena, California.

Provided by NASA

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