

2020's final Mars mission poised for blastoff from Florida

July 29 2020, by Marcia Dunn



A United Launch Alliance Atlas V rocket that will launch to Mars arrives at Space Launch Complex 41 at the Cape Canaveral Air Force Station, Tuesday, July 28, 2020, in Cape Canaveral, Fla. The rocket scheduled to launch on Thursday will land on Mars in February 2021 and the Mars 2020 rover, named Perseverance, will study Martian geology. (AP Photo/John Raoux)

The summer's third and final mission to Mars—featuring NASA's most elaborate life-hunting rover—is on the verge of liftoff.

The rover Perseverance will follow China's rover-orbiter combo and a United Arab Emirates orbiter, both launched last week. It will take the [spacecraft](#) seven months to reach Mars after traveling 300 million miles.

Once on the surface, Perseverance will scrounge for evidence of past microscopic life in an ancient lakebed, and gather the most promising rock samples for future pickup. NASA is teaming up with the European Space Agency to return the samples to Earth around 2031.

This unprecedented effort will involve multiple launches and spacecraft—and cost more than \$8 billion.

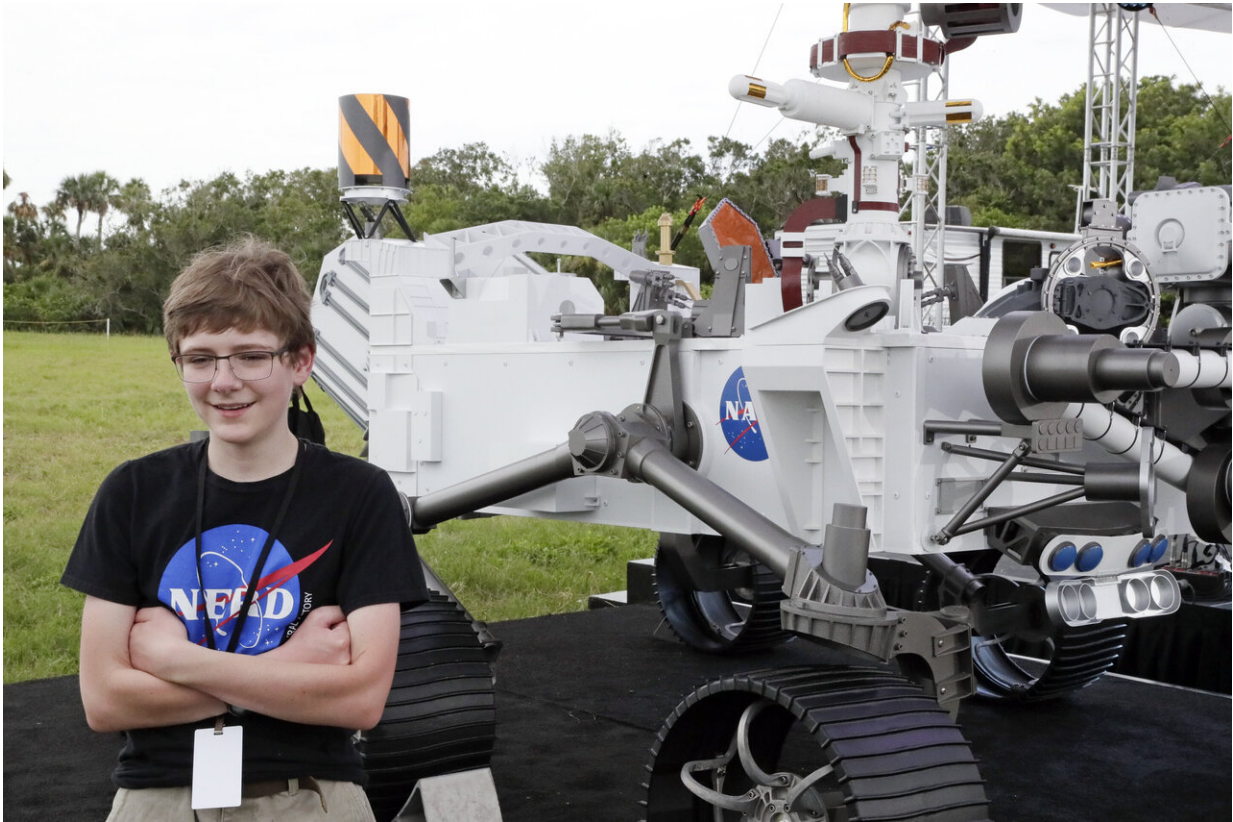
"We don't know if life existed there or not. But we do know that Mars at one point in its history was habitable," NASA Administrator Jim Bridenstine said on the eve of launch.

The U.S. remains the only country to land successfully at Mars. If all goes well next February, Perseverance will become the ninth U.S. spacecraft to operate on the Martian surface.

First things first, though: Good flying weather is forecast for United Launch Alliance's Atlas V rocket. The Denver-based rocket maker and its heritage companies have launched all of NASA's Mars missions, beginning with the Mariners in 1964.



A United Launch Alliance Atlas V rocket stands ready for launch on pad 41 at the Cape Canaveral Air Force Station, Wednesday, July 29, 2020, in Cape Canaveral, Fla. The mission will send the Mars rover named Perseverance, to study the red planet. (AP Photo/John Raoux)



Alexander Mather, of Burke, Va. stands next to a model of the Mars 2020 rover he named in a contest during a news conference at the Kennedy Space Center Tuesday, July 28, 2020, in Cape Canaveral, Fla. Mather, submitted the winning entry in NASA's "Name the Rover" essay contest, making the case to name the Mars 2020 rover "Perseverance." (AP Photo/John Raoux)



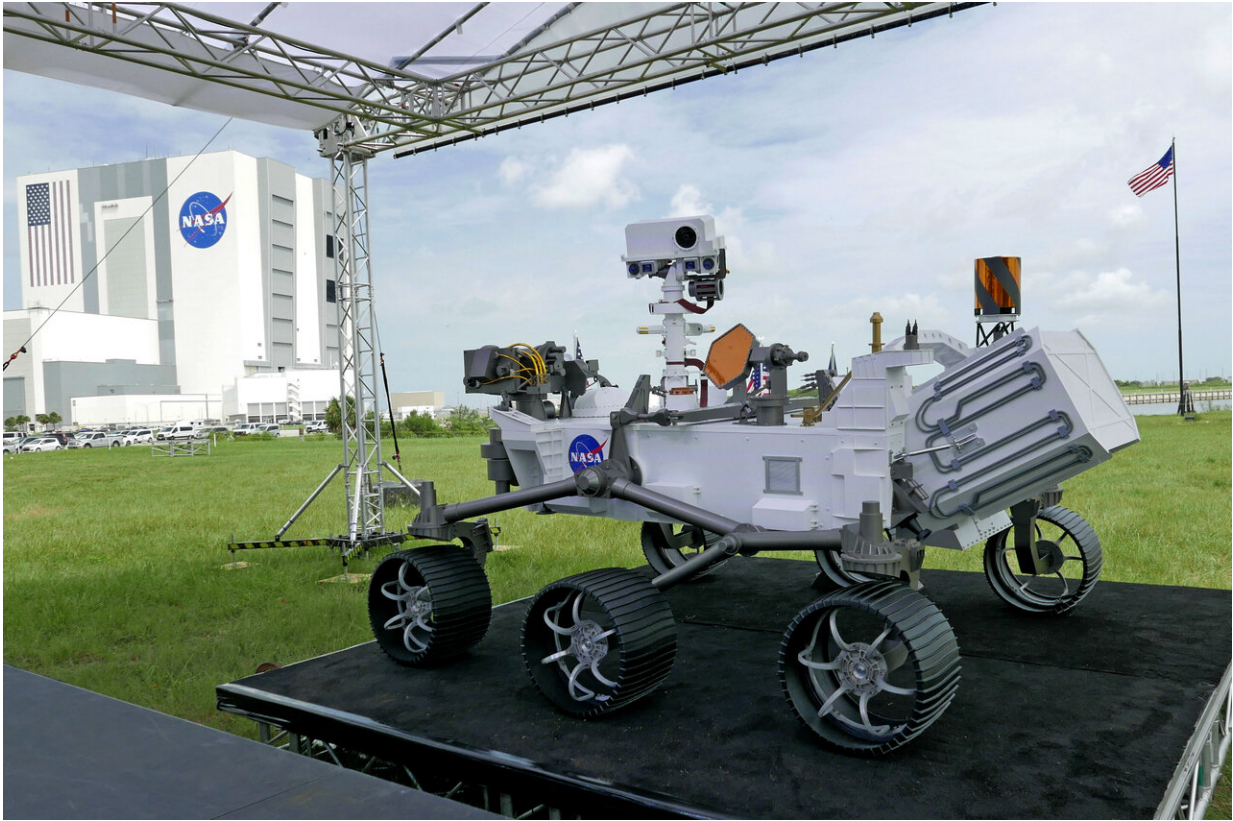
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NASA Administrator Jim Bridenstine make remarks about the Mars 2020 launch during a news conference at the Kennedy Space Center Wednesday, July 29, 2020, in Cape Canaveral, Fla. A United Launch Alliance Atlas V rocket launch scheduled for Thursday will transport a rover to Mars to study the planet. (AP Photo/John Raoux)



A replica of the Mars rover Perseverance is displayed outside the press site before a news conference at the Kennedy Space Center Wednesday, July 29, 2020, in Cape Canaveral, Fla. United Launch Alliance Atlas V rocket launch scheduled for tomorrow will transport the rover to Mars. (AP Photo/John Raoux)



A United Launch Alliance Atlas V rocket that will launch to Mars leaves the vertical integration facility, left, as it rolls out to Space Launch Complex 41 at the Cape Canaveral Air Force Station, Tuesday, July 28, 2020, in Cape Canaveral, Fla. The rocket scheduled to launch on Thursday will land on Mars in February 2021, the Mars 2020 rover, named Perseverance, will study Martian geology. (AP Photo/John Raoux)

ULA chief executive Tory Bruno said Perseverance is arguably the most sophisticated and most exciting of all the Mars missions.

"We are literally chomping at the bit to take this nuclear-powered dune buggy out to Mars," he said earlier this week.

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