

NASA's Mars 2020 rover goes coast-to-coast to prep for launch

February 13 2020



On Feb. 11, 2020, Mars 2020 Assembly, Test and Launch Operations Manager David Gruel watched as members of his team loaded NASA's next Mars rover onto an Air Force C-17 at March Air Reserve Base in Riverside, California. The rover was flown to Cape Canaveral, Florida, in preparation for its July launch. Credit: NASA/JPL-Caltech

NASA's next Mars rover has arrived in Florida to begin final preparations for its launch to the Red Planet this July. Two Air Force

C-17 Globemaster cargo planes carrying the Mars 2020 rover as well as the cruise stage, descent stage and Mars Helicopter touched down at NASA's Kennedy Space Center at about 3 p.m. EST (12 p.m. PST) today, completing a 2,300-mile (3,700-kilometer) trip that began yesterday at NASA's Jet Propulsion Laboratory in Pasadena, California.

"Our [rover](#) has left the only home it has ever known," said John McNamee, Mars 2020 project manager. "The 2020 family here at JPL is a little sad to see it go, but we're even more proud knowing that the next time our rover takes to the skies, it will be headed to Mars."

Assembly, test and launch operations for Mars 2020 began in January 2018. The first piece of hardware that would become part of the rover arrived on the clean room floor of JPL's Spacecraft Assembly Facility's High Bay 1 a few months later.

The rover's aeroshell—its protective covering for the trip to the Red Planet—arrived at Kennedy this past December. Early on Feb. 11, the rover, cruise stage, descent stage and mission support equipment headed in four police-escorted trucks to the U.S. Air Force's March Air Reserve Base, where they were loaded aboard the two waiting C-17s.

Within hours of arriving at the Shuttle Landing Facility at Kennedy Space Center, the 11 pallets of Mars 2020 spacecraft will be transported to the same spacecraft processing facility that in 2011 handled NASA's Curiosity rover, which is currently exploring Mars' Gale Crater. Later this week, the Mars 2020 assembly, test and launch operations team will begin testing the components to assess their health following the cross-country flight.

After months of final assembly and additional testing, Mars 2020 should be enclosed in its aeroshell for the final time in late June. It will be delivered to Cape Canaveral Air Force Station's Launch Complex 41 to

be integrated with the United Launch Alliance Atlas V rocket that will hurl it toward Jezero Crater in early July.

Mars 2020 will collect and store rock and [soil samples](#) in sealed tubes and will search for signs of past microbial life, characterize the planet's climate and geology, and pave the way for human exploration.

Subsequent missions, currently in the planning stages, will return to Jezero Crater, gather the samples collected by Mars 2020 and return them to Earth for the sort of in-depth study that only a full-size lab can provide.

JPL is building and will manage operations of the Mars 2020 rover for NASA. NASA's Launch Services Program, based at the agency's Kennedy Space Center in Florida, is responsible for launch management.

More information: For information on NASA's Mars 2020 mission, visit:

mars.nasa.gov/mars2020/

Provided by Jet Propulsion Laboratory

Citation: NASA's Mars 2020 rover goes coast-to-coast to prep for launch (2020, February 13) retrieved 24 April 2024 from

<https://phys.org/news/2020-02-nasa-mars-rover-coast-to-coast-prep.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.