

NASA rules out April for Artemis I launch, could target May

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NASA mission managers updated Artemis I progress ahead of the March rollout of the massive Space Launch System rocket and Orion spacecraft to Kennedy Space Center's Launch Pad 39-B for what the agency calls a wet dress rehearsal.

While it's targeting March 16 at 6 p.m. for the 322-foot-tall rocket to make the 4.2-mile journey to the pad, the agency will need a month or more for testing and a rollback to the Vehicle Assembly Building before NASA signs off on a [launch attempt](#). So an April launch window has been taken off the board.

"April is not a possibility. We're still evaluating the tail end of May," said Tom Whitmeyer, NASA's deputy associate administrator for exploration systems development. "But I want to be really careful once again, being straightforward with you. You know, we really need to get through this next few weeks here, see how we're doing."

The next possible windows for launch are from May 7-21, June 6-16 and June 29-July 12.

The majority of work inside the VAB is done ahead of the wet dress rollout, Whitmeyer said, including the last major hardware testing that involved the installation of the explosives on the vehicle that would be used in the event of an abort launch scenario.

"By completing that test that gives us the opportunity to close out the vehicle and prepare it for roll," he said. "If you go from the nautical motif, it's kind of getting the ship ready to go on a journey."

Mike Bolger, NASA Exploration Ground Systems program manager at Kennedy Space Center said Artemis I on the mobile transport weighs more than 17 million pounds, and will tower up to more than 400 feet sitting atop the crawler.

"It's really going to be a sight," he said of the nearly 11 hour trip during which the crawler will top out at .82 mph. "It's the cruising speed if you will. ... The next time when we roll and we actually roll out for launch we'll refer to that 4 mile trip the first 4 miles of NASA's return to the

moon."

The uncrewed flight is the first in the Artemis program with a crewed Artemis II flight planned no earlier than May 2024. That will send astronauts on orbit around the moon as well, but not land. It isn't until Artemis III that NASA looks to return humans, including the first woman, to the lunar surface. NASA Administrator Bill Nelson last year said that mission could happen no earlier than 2025.

But before Artemis I can launch it has to make it through the pad test. Once at the launch pad, the mobile launcher will get hooked up but not ready for the actual wet dress rehearsal activities for about two weeks.

The essential part of the test is the filling and draining of the core stage with 730,000 gallons of super-cooled liquid hydrogen and liquid oxygen while simulating a countdown, but without lighting the engines. How long it's on the pad is dependent on a lot of factors including weather, but best-case scenarios have it away from the VAB for about 30 days.

Artemis I mission manager Mike Sarafin said teams have already begun the early phases of the flight readiness review process for launch.

"We continue to get ready to fly across the board and the team will be ready to fly when the flight hardware is ready," he said.

When it does launch, the mission could last either four or six weeks. The plan is to send Orion farther into space than any other human-rated spacecraft has ever traveled—280,000 miles away, which is 40,000 miles beyond the moon. The SLS rocket will surpass the power of the Saturn V rockets of the Apollo program, producing 8.8 million pounds of thrust at liftoff.

"You know, we do fly a very energetic vehicle it's very large vehicle

under challenging conditions through ascent and through deep space and entry and splashdown and the team has its hands around the risk that's ahead of us."

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