

NASA's Artemis I launch likely slipping to August with retry of pad test in June

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NASA officials gave an update Thursday on the status of the Artemis I moon rocket launch saying it likely is targeting early- to mid-June before it rolls back out to the launch pad for a wet dress rehearsal at Kennedy Space Center.

NASA Administrator Bill Nelson suggested last week that August would be the earliest for a [launch attempt](#), and NASA's Jim Free, the associate administrator for the Exploration Systems Development Mission Directorate, confirmed that.

"As we've been saying, we'll set that official launch date after we get through wet dress," Free said. "But you know based on some of historical challenges from similar programs over the years and the schedule performance we've seen thus far, we are looking at a couple of launch periods through the August time frame."

One of the previously announced launch windows runs from July 26 to Aug. 9.

NASA rolled the Space Launch System rocket topped with the Orion spacecraft to KSC's Launch Pad 39-B back in mid-March and attempted to run through a simulated countdown along with the filling and draining the core and upper stages with 730,000 gallons of super-cooled liquid hydrogen and liquid oxygen.

The three previous attempts led to three scrubs as NASA encountered a variety of issues, mostly on the mobile launcher on which the Artemis I hardware sits, although there was one 3-inch valve that malfunctioned, and the only way NASA could fix it would be to do that back in the Vehicle Assembly Building, which is where it is now. NASA managers said they have already replaced the valve, and noted a small piece of rubber was the reason it was malfunctioning, and are now trying to determine from where the rubber came. The valve itself was fine.

One of the major issues during the tests was the flow of gaseous nitrogen, which is imperative for safety on the pad as it helps reduce the risk of fire. The supplier of that gas, Air Liquide, is taking the time for upgrade its flow lines so it can properly support the 575 million-pound,

322-foot-tall rocket. It expects to be done with its work by Monday, and NASA managers said they were targeting a roll back to the [launch pad](#) soon after.

Free said pushing the potential launch date further into summer will give NASA the opportunity to do two wet dress rehearsals if necessary.

"We are optimistic that we only need one more based on everything we've been able to do thus far to fine-tune our tanking procedures, but we also be realistic and up-front with you that it may take more than one attempt to get the procedures where we need them for a smoother launch count that gives us the best chance of making our launch windows when we get to launch day," Free said.

When it launches, the rocket will become the most powerful to lift off from Earth, producing 8.8 million pounds of thrust. Artemis I is an uncrewed flight that will 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 mission could last either four or six weeks when Orion returns to Earth for a splashdown in the Pacific Ocean near the coast of California.

Originally to have launched in 2016, the SLS and Orion hardware have seen numerous cost and production delays, which have had a [domino effect](#) on future Artemis missions.

NASA now plans the crewed Artemis II flight, which will take humans in an orbit around the moon without landing, no earlier than May 2024. The Artemis III mission, which would use a Human Landing System, contracted to SpaceX using a version of its Starship spacecraft, will bring two astronauts, including the first woman, to the lunar surface. That mission is now planned for no earlier than 2025.

Despite the delay in Artemis I, Nelson this week said that 2025 is still the target for Artemis III.

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