

Europe's Ariane 6 rocket successfully completes hot-fire test

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The hot-fire test at Europe's Spaceport in French Guiana 'simulated a complete launch sequence'

The European Space Agency's Ariane 6 rocket has successfully completed a dress rehearsal, test-firing its engine in preparation for a maiden voyage scheduled for 2024.

The final results of Thursday's ignition test, which involved firing up the

Vulcain 2.1 engine and running it for more than seven minutes, will not be released until November 30, pending a full analysis.

But manufacturer ArianeGroup already called the rehearsal "successfully completed".

The hot-fire test at Europe's Spaceport in French Guiana "simulated a complete launch sequence and thus validated the entire flight phase of Ariane 6's core stage," it said in a statement.

ArianeGroup CEO Martin Sion praised the team for the "real industrial feat", but added that "a few additional tests", notably fault tolerance, were needed before the rocket was ready for launch.

Pier Domenico Resta, head of engineering for the Ariane launch system, told AFP that the "fundamental question will be determining whether we need to repeat the test".

The launch at around 5:30 pm Kourou-time (2030 GMT) on Thursday was a few minutes behind schedule due to a "slight" anomaly which was fixed by the teams at the site, the ESA said.

The test had initially been planned for October 3, but was postponed due to a problem with the hydraulics in the thrust vector control system of the main engine.

Ariane 6's first launch had initially been planned for 2020, but was delayed several times due to the Covid-19 pandemic and technical problems.

The rocket's workhorse predecessor, the Ariane 5, blasted off for the last time in July after 27 years of launches.

With the smaller Vega C grounded following a launch failure in December and Russia withdrawing space cooperation in response to sanctions over Moscow's war in Ukraine, the ESA has been left without an independent way to blast missions into space until it can get the Ariane 6 ready.

The launcher market, meanwhile, has been increasingly dominated by billionaire Elon Musk's US firm SpaceX.

"This test is a key milestone that comes after years of design, planning, preparation, construction and hard work by some of Europe's very best space engineers," said Josef Aschbacher, director general of the ESA.

"We are back on track to re-establish Europe's autonomous access to space."

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