

# Ariane 6: Launch system tests progressing well

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Work is ongoing at Europe's Spaceport in French Guiana to validate the performance of the Ariane 6 launch vehicle and its ground infrastructure as a complete system. Seen here is the test model of Ariane 6 on its launch pad during recent exercises. Credit: ESA/CNES/Arianespace/Optique video du CSG/S Martin

Teams preparing Ariane 6 for its inaugural flight successfully completed for the first time a launcher preparation and countdown sequence, on 18 July at Europe's Spaceport in Kourou, French Guiana.

Representatives of ESA, Ariane 6 prime contractor ArianeGroup and launch base prime contractor and test conductor CNES completed important objectives for system qualification and performed a series of actions fully representative of a launch chronology.

The launch simulation included the removal of the mobile gantry, the chill-down of ground and launcher fluidic systems, the filling of the upper and core stage tanks with [liquid hydrogen](#) ( $-253^{\circ}\text{C}$ ) and [liquid oxygen](#) ( $-183^{\circ}\text{C}$ ), and at the end of the test, the successful completion of a launch chronology up to the ignition of the Vulcain 2.1 engine thrust chamber by the ground system.

During the 26-hour exercise, the teams successfully tested many degraded and contingency modes, demonstrating that the launcher and the launch base fit correctly.

Operational procedures, lower and upper stages, avionics, software, launch base and control bench worked correctly together, and the performance of the full launch system was measured with excellent results.

The last part of the test—a short ignition of the Vulcain 2.1 engine—had to be postponed to the next test session as time ran out. The teams are now working towards continuing the exercise, in preparation for a long duration hot firing test later this summer.

The project team is confident about the progress of the test campaign, in light of the results of the 18 July tests.

"The tests which were conducted on 18 July mark a critical achievement on the road to the inaugural flight and were an overall success with key objectives completed.

"I want to thank and congratulate the teams from ESA, ArianeGroup and CNES for their outstanding work and tremendous cooperation," said Josef Aschbacher, ESA Director General and chair of the Ariane 6 Task Force.

Provided by European Space Agency

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