



arianeGROUP

Press release

The Ariane 6 first stages on their way to Kourou

Bremen, Les Mureaux, January 4, 2022

-
- **The Ariane 6 core stage and upper stage intended for the combined tests on the launch pad in French Guiana have left the ArianeGroup sites in Les Mureaux and Bremen and begun their journey to Europe's Spaceport.**
 - **These stages will be integrated by ArianeGroup in the Launcher Assembly Building (BAL) to create the central core for the Ariane 6 combined tests model.**
 - **The combined tests are a crucial step in the development of Ariane 6: for the first time, the rocket and its new launch pad will be tested together and the Vulcain 2.1 motor will be hot-fired.**
 - **Pictures of the two stages can be downloaded [HERE](#)**
-

The Ariane 6 core stage and upper stage are now en route to Europe's Spaceport. After final assembly at ArianeGroup's Les Mureaux site and completion of all its functional acceptance tests, the core stage was taken to the French port of Le Havre. The ship then sailed to Bremen, Germany, to load the upper stage – assembled and inspected on-site by ArianeGroup – before setting sail for French Guiana. The two stages are scheduled to arrive at Europe's Spaceport in French Guiana in January.

This first Ariane 6 specimen is intended for combined testing of the rocket with its new launch pad, built under the supervision of the French space agency CNES.

"This first meeting between the new European rocket and its launch pad is a decisive step in the development of Ariane 6," said Franck Huiban, Head of Civil Programs at ArianeGroup. "The teams at ESA, CNES and ArianeGroup are working flat-out to prepare the combined tests in French Guiana, including the core stage hot-firing tests conducted directly on the launch pad. At the same time, they are preparing for the upper stage hot-firing tests to be carried out with DLR at Lampoldshausen site in Germany. The success of these tests will demonstrate the robustness and efficiency of the Ariane 6 launch system. It is essential to anticipate all possible risks and complete all the checks in conditions as close as possible to those of the actual launch, to maximize the chance of success of the Ariane 6 inaugural flight. The stages of the first flight model are already being integrated in our plants in France and Germany."

When they reach Europe's Spaceport, these combined tests stages will be integrated horizontally in Ariane 6's new Launcher Assembly Building. Once the upper stage is integrated with the core stage, Ariane 6 will be brought to a vertical position, then installed inside its mobile gantry, before being fitted with its solid rocket boosters. This is a major change with respect to Ariane 5, because Ariane 6 receives its solid rocket boosters and upper composite (including the fairing and payload) directly on the launch pad, inside the mobile gantry. For the combined tests, as the boosters do not



arianeGROUP

Press release

need to be fired, they will be filled with an inert material, but will reproduce the actual weight and dimensions and enable the testing of the operations involved in docking with the launcher.

Ariane 6 will not lift off during the combined tests, but the main stage will be hot-fire tested and the Vulcain 2.1 engine will be ignited several times on the launch pad, which will serve as a test bench.

The purpose of the combined tests is to test all the interfaces and correct communications between the Ariane 6 launcher and the ground facilities of the new Ariane 6 Launch Base. The flight software and tank filling and drainage operations will also be tested, as they are vital to ensure a smooth launch sequence.

The combined tests between the launcher and the launch pad are scheduled to begin in April 2022.

In parallel with the combined tests in French Guiana, another specimen of the Ariane 6 upper stage called the Hot Firing Model (HFM) will be hot-fire tested on the DLR site in Lampoldshausen, Germany. The tests will more specifically address the APU (Auxiliary Power Unit), an innovative system which enhances the versatility of Ariane 6.

About ArianeGroup

ArianeGroup develops and supplies innovative and competitive solutions for civil and military space launchers, with expertise in all aspects of state-of-the-art propulsion technologies. ArianeGroup is lead contractor for ESA's Ariane 5 and Ariane 6 launch vehicles, responsible for both design and the entire production chain, up to and including marketing by its Arianespace subsidiary, as well as for the missiles of the French oceanic deterrent force. ArianeGroup and its subsidiaries enjoy a global reputation as specialists in the field of equipment and propulsion for space applications, while their expertise also benefits other industrial sectors. The group is a joint venture equally owned by Airbus and Safran, and employs approximately 7,600 highly qualified staff in France and Germany. Its 2020 revenues amounted to 2.7 billion euros.

Press Contacts:

Astrid EMERIT - T. +33.6.86.65.45.02 astrid.emerit@ariane.group