



Kourou, July 5, 2023, 23-13

Press release

A FRANCO-GERMAN SUCCESS FOR THE FINAL ARIANE 5 MISSION

- The 117th and final Ariane 5 launch, operated by Arianespace, placed two telecommunications satellites in orbit: Heinrich-Hertz-Satellit for the German government and SYRACUSE 4B for the French Armament General Directorate (DGA).
- Europe's Ariane 5 heavy-lift launcher, for which ArianeGroup is the lead contractor, is taking its place in the annals of history and leaves an exceptional heritage of expertise and reliability to its successor Ariane 6.
- Ariane 6 will now take over from Ariane 5, in carrying out Europe's institutional space missions and responding to the growing demands of the commercial market.

On July 5, 2023 at 7:00 p.m. local time, Ariane 5, operated by Arianespace, lifted off flawlessly from Europe's spaceport in Kourou, French Guiana, carrying Heinrich-Hertz-Satellit for the German government and SYRACUSE 4B for the French Ministry of Defence.

The Heinrich-Hertz-Mission is the first dedicated German telecommunications satellite-based mission that will be used to conduct research and to test new technologies and telecommunications scenarios. The technologies on board are meant to respond smartly and flexibly to future challenges, to support future telecommunications scenarios and to be adapted from Earth to address new technical requirements and market needs. The mission is managed by the German Space Agency on behalf of the German Federal Ministry for Economic Affairs and Climate Action (BMWK) and with the participation of the German Federal Ministry of Defence (BMVg). The Heinrich-Hertz-Satellit was mainly developed and built by OHB System.

The SYRACUSE 4B satellite is part of the SYRACUSE IV program carried out under the leadership of the DGA in collaboration with the French Air and Space Force, and for the Space Command (CdE). Together with SYRACUSE 4A, it will enable French armed forces to remain permanently connected when they are deployed on operations. At sea, in the air, or on land, the armed forces need powerful and secure communications systems to be able to exchange information with their command center. Thanks to state-of-the-art equipment including an anti-jamming antenna and a digital onboard processor, SYRACUSE 4B will be fully protected against the most severe military threats. It will help guarantee French national sovereignty while also supporting NATO operations. Airbus Defence and Space and Thales Alenia Space joined forces to develop the SYRACUSE 4A and SYRACUSE 4B satellites so that the program could benefit fully from their combined expertise.

"This 117th and last Ariane 5 mission is emblematic in several respects. Ariane 5 has just deployed two telecommunications satellites, SYRACUSE 4B and Heinrich-Hertz-Satellit, for France and Germany, the first two contributors to the Ariane program," said Stéphane Israël, CEO of Arianespace. "This mission is also emblematic of Ariane 5's ability to perform dual launches, which constitutes the very core of its success, with 197 satellites placed in geostationary orbit out of a total of 239 satellites deployed. Over its career, Ariane 5 has served 65 institutional and commercial customers from 30 countries. Ariane 5's success heralds a promising career for Ariane 6."

This launch also marks the end of the remarkable career of the HM7 upper stage engine, which flew on the first Ariane 1 and on the final Ariane 5. It helped power Ariane launchers 228 times, without ever failing. This veteran of spaceflight has been a crucial element in the European space adventure. It will be replaced on Ariane 6 by the re-ignitable Vinci engine.

"Ariane 5 is now taking its place in the annals of global space history. This final successful mission demonstrates once again its supreme reliability in the service of European autonomy and rounds off an exceptional career distinguished by a succession of technological and industrial achievements. I share the emotion of all the employees at ArianeGroup, Arianespace, the French and European space agencies CNES and ESA, and all our European partners, who have contributed to its success over the course of these 27 years," said Martin Sion, CEO of ArianeGroup. "Together we are now taking up the challenge of Ariane 6, the beneficiary of the experience acquired with Ariane 5. It will be able to evolve and play a full role in guaranteeing independent, sustainable access to space for Europe, in a context of major strategic, economic and environmental challenges, to meet the needs of its institutional and commercial customers."

Leading up to its inaugural flight, Ariane 6 is currently passing a series of key milestones in Europe and in French Guiana. Even more versatile and competitive, Ariane 6 will carry out its first missions with a rapid production ramp-up, supporting Europe's institutional missions and meeting the swiftly growing demands of the commercial market.

The Ariane 5 heavy-lift launcher is an ESA program carried out in cooperation between public institutions and industry across 12 European partner states.

ArianeGroup is the lead contractor for the development and production of the Ariane family of launchers. It is responsible for Ariane 5 and Ariane 6 preparation operations up to lift-off. ArianeGroup is at the head of a vast industrial network of more than 600 companies, including 350 small and medium-size enterprises (SMEs). ArianeGroup delivers a flight-ready launcher on the launch pad to its subsidiary Arianespace, which markets and operates Ariane 5 from Europe's spaceport in French Guiana. During Ariane 5 launch campaigns, Arianespace works closely with the French space agency (CNES), the design authority for the launcher and responsible for the satellite preparation facilities and the launch base.

THE LAUNCH AT A GLANCE

347th Launch operated by Arianespace		More than 1,150 satellites launched by Arianespace	2 nd Iaunch operated by Arianespace in 2023
This launch was carried out on July 5, 2023 from the European Spaceport in Kourou, French Guiana, at 7:00 p.m. local time (10:00 pm UTC)		117th and last Ariane 5 launch from the European Spaceport	7,680 kg Total payload carried by the launcher for this mission
91 [™] and final consecutive launch with nominal operation of the Vulcain 2 main- stage engine		117 th and final consecutive launch with nominal operation of the solid boosters	157th and final consecutive launch with nominal operation of the HM7B upper- stage engine
Press Contacts	About Arianespace		
Cyrielle Bouju		e uses space to make life better on Earth by providing launch services for all types of satellites into all orbits.	
Tel.: +33 6 32 65 97 48 c.bouju@arianespace.com	It has orbited over 1, 100 satellites since 1980. Arianespace is responsible for operating the new-generation Ariane 6 and Vega C launchers, developed by ESA, with respectively ArianeGroup and Avio as industrial primes. Arianespace is headquartered in Evry, near Paris, and has a technical facility at the Guiana Space Center in French Guiana, plus local offices in Washington, D.C., Tokyo and Singapore. Arianespace is a subsidiary of ArianeGroup, which holds 74% of its share capital, with the balance heldby 15 other shareholders from the Ariane and Vega European launcher industry, and ESA and CNES as censors.		
Astrid Emerit	About ArianeGroup		
Tel.: +33 6 86 65 45 02	ArianeGroup is lead contractor for civil and defense space launcher systems, responsible for the design and the entire production process of Europe's Ariane 5 and Ariane 6, including marketing and operation by its Arianespace subsidiary, as well as for the design, manufacture, and operational condition maintenance of the missiles of the French oceanic deterrent force. Internationally recognized for its innovative, competitive solutions, ArianeGroup has expertise in all aspects of state-of-the-art space propulsion technologies. ArianeGroup and its subsidiaries also offer their specialist skills in space equipment, services, space surveillance, and critical infrastructure to benefit other industrial sectors. Equally owned by Airbus and Safran, the group employs more than 8,000 highly qualified staff in France and Germany. Its 2022 revenues arrounted to €2.4 billion.		
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