

# Hermeus Teams with NASA on Development of High-Speed Commercial Aircraft

**HERMEUS**, the aerospace company developing Mach 5 aircraft, has a Space Act Agreement (SAA) with NASA for research and development of high-speed aircraft.

NASA has a long history with hypersonic planes. Its most recent hypersonic aircraft was the X-43, an experimental aircraft that flew Mach 9.6 in 2004. Before that was the X-15, a piloted rocket-plane, which flew Mach 6.7 in 1967. Now, 17 years after X-43's record-breaking flight, Hermeus is teaming with NASA to commercialize high-speed flight technology NASA has been exploring for decades.

Under the agreement, NASA will evaluate technological maturity and exchange subject matter expertise. Both organizations will collaborate on the development of aircraft concepts of operation, including analysis of high-Mach thrust performance, thermal management, integrated power generation, and cabin systems.

This partnership reflects NASA's investment in drastically increasing how fast people move around the planet through the development of commercial high-speed flight. "High-speed flight represents the next frontier in commercial passenger travel and has the potential to radically impact how people interact. NASA looks forward to working with Hermeus towards that faster future," said Chuck Leonard, Project Manager of NASA's Hypersonic Technology Project (HTP). The project focuses on sustaining hypersonic competency for national needs while advancing fundamental hypersonics research.

This further indicates US governmental interest in Hermeus' vision of Mach 5 commercial flight. In 2020, Hermeus was selected by the US Air Force to study how

Hermeus' Mach 5 aircraft can support the objectives of the Presidential and Executive Airlift Directorate, whose fleet includes Air Force One.

Hermeus is committed to transforming the global transportation network with the fastest commercial aircraft, and the research done with this partnership will be key to getting there quickly. The technical solutions developed by NASA and Hermeus under this partnership will be applied directly and tested on Hermeus' GE J85 jet engine, which will be the core of the turbine-based combined cycle (TBCC) for their first series of aircraft. Over the coming months and using their Series A funding, Hermeus will modify this engine to be Mach 5 capable, utilizing lessons learned from its nine-month demonstration engine test campaign.

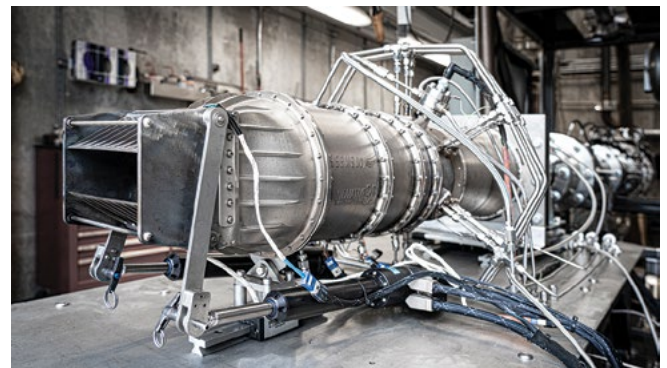
"NASA has been at the forefront of developments in high-speed flight since its creation in 1958," said Michael Smayda, Founder and Chief Product Officer at Hermeus. "We are excited to partner with NASA as we develop the technology to revolutionize long-distance air travel."

## ABOUT HERMEUS

Hermeus is a venture-backed startup with the long-term vision of transforming the global human transportation network with Mach 5 aircraft. At Mach 5, travel is not just supersonic, it's hypersonic. At these speeds—over 3,000 miles per hour—flight times from New York to London will be 90 minutes rather than seven hours. Mach 5 aircraft have the potential to create an additional four trillion dollars of global economic growth per year, unlocking significant resources that can be utilized to solve the world's great problems. ●



*The Halcyon prototype: This Commercial Passenger Hypersonic Aircraft has a titanium alloy primary structure and 4,600 mile range*



*A Hermeus Mach 5 Prototype Engine  
(Photos used with permission from Hermeus)*