



Successful first subscale test flight for Heart ES-19 electric aircraft

Gothenburg, Dec. 20, 2021 - December 17th marked another milestone in the development of pioneer electric aircraft Heart ES-19. For the first time, a scale model of the plane took flight at the Heart Aerospace HQ's at Säve Airport in Gothenburg, Sweden.

Watch the plane in flight here: [Heart ES-19 subscale test flight](#)

"The most dramatic thing about the test flight was how undramatic it was. The plane performed exactly as we predicted - soaring effortlessly through the air, with a precision take-off and landing. This test flight validated what we already knew - that the ES-19 aerodynamic design is inherently stable and safe", says Anders Forslund, founder and CEO of Heart Aerospace.

The test flight took four and a half minutes. The aircraft flew with an average speed of 125 km/h (77mph/68 kn) and a maximum speed of 150 km/h (93 mph/ 80 kn). The take off and landing speed was 85 km/h (53mph/45 kn).

With a wingspan of 4.6m, the Heart ES-19 model aircraft is built in scale 1:5 according to the exact dimensions of the full-scale ES-19 aircraft. However, the manufacturing materials are different: Whereas the full-scale ES-19 will be made primarily from aluminum, the subscale model was constructed from a mix of carbon fiber and fiberglass composites. The onboard systems, including the electric motors, were entirely off-the-shelf. However, a full-scale demonstrator of the ES-19 drivetrain has already been in ground testing for more than a year.

"We're not looking to reinvent the wheel. A lot of start-ups are presenting very novel aircraft architectures, spending several years in subscale testing just to demonstrate the basic functionality of the aircraft. We've avoided these pitfalls by relying on a conventional aircraft architecture", says Forslund. "We can devote almost all our resources to the formal development - bringing this aircraft through certification and into commercial service."

This subscale demonstrator was supported by the Swedish Innovation Agency Vinnova, as a part of the research project "Elise - Electric Aviation in Sweden".

Heart Aerospace is developing the world's first fully electric passenger airliner for commercial use. The first test flights of the full-scale version of the Heart ES-19 are planned for 2024. By 2026, the plane will enter into service for commercial short-haul flights.



About Heart Aerospace

Heart Aerospace is an electric airplane company based in Gothenburg, Sweden. Founded in Gothenburg, Sweden, in 2018, the company is a spin-off from the Elise research program funded by the Swedish Government through the Swedish Innovation Agency Vinnova. Heart participated in the Y combinator startup accelerator in 2019, and closed its seed round in 2019 with lead investments from EQT Ventures and Norrsken Foundation. In 2021, United Airlines and Mesa Airlines made a purchase order for 200 ES-19 aircraft with an option for an additional 100 aircraft. The airlines also made large investments in the company, and in conjunction with the order, Heart Aerospace announced the closing of its Series A round, led by Breakthrough Energy Ventures.

Heart Aerospace is one of the founding members of the Nordic Network for Electric Aviation, together with airlines, airport operators and other stakeholders across the Nordic countries. In 2020, Heart was awarded a €2.5M grant from the European Investment Council as part of the European Green Deal. More information about Heart Aerospace can be found at <https://heartaerospace.com/>