Otto Aviation’s Celera 500L Achieves a Total of 55 Successful Test Flights

The most recent test flight was completed using Sustainable Aviation Fuel

Yorba Linda, Calif. – Nov. 17, 2021 – Otto Aviation has officially concluded Phase One testing of its Celera 500L aircraft with 55 total successful test flights and roughly 51 hours of flight time. The Celera 500L is the most fuel-efficient, commercially viable business aircraft in the world.

The final Phase One test flight was flown using Sustainable Aviation Fuel, further validating the Celera 500L’s potential to revolutionize sustainable air travel in an aircraft that already has 80% lower fuel consumption than comparable aircraft. All test flights have validated the aircraft’s operating performance goals.

The Otto Aviation team used industry standard flight test performance methods that aided in refining the statistical certainty of the prototype performance. The most recent flights took place from July to November. Several flights reached airspeeds of over 250 mph at altitudes up to 15,000 feet which projects to an airspeed of 460 mph at 50,000 feet.

During test flights, the team was able to visualize the laminar flow state with a precision infrared camera mounted on a chase aircraft, quantifying extensive laminar flow capability on external surfaces. The team also tested wing and fuselage surfaces for laminar flow robustness and gathered additional test data supporting the development work for the production vehicle.

Through a collaboration with Cal Poly’s BLDS team (Boundary Layer Data System), Otto Aviation was able to quantify the skin friction state of the wing and fuselage surfaces utilizing a series of Preston-type, pitot-static tubes. Additionally, Otto Aviation was able to collect data from custom-built boundary layer rakes to measure the cumulative effect of laminar friction on the airflow around the wing and fuselage.

“The data from our first phase of test flights shows that we are on the path to achieving our goals for the aircraft,” said William Otto Jr., CEO of Otto Aviation. “We couldn’t be more excited in this step toward our mission of having a production aircraft in 2025 and we look forward to beginning the next phase of development where we will take the aircraft to higher altitudes and higher speeds.”

Interested parties can visit www.ottoaviation.com to learn more. To view Phase One test flight footage, click here.

About Otto Aviation:
Founded in 2008, Otto Aviation is redefining private aviation. The groundbreaking Celera 500L aircraft will forever change the way people and parcels fly. The company is ushering in a new era by using its advanced technology and design to address the challenges within the aviation industry. These breakthroughs make the convenience of private aviation accessible to both business and leisure travelers everywhere. To learn more, visit www.ottoaviation.com.

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