Aircelle's development of world's first electrical thrust reverser system has passed a major milestone with the qualification of software for the version used on Airbus' A380 jetliner.

This qualification clears the way for Aircelle's Electrical Thrust Reverser Actuation System (Electrical TRAS) to be certified for the A380's first delivery later this year, followed by the startup of commercial airline operations.

Aircelle's electrical TRAS marks a major evolution in the design and operation of thrust reversers, which are complex and flight critical systems used to decelerate the speed of jetliners during landing.

The Electrical TRAS replaces older generation hydraulically-driven thrust reversers, thereby simplifying the design, reducing weight, increasing safety, simplifying equipment maintenance and eliminating the need to use corrosive hydraulic fluid. In addition, electric motors and actuators are utilized instead of the more complex and maintenance-intensive hydraulic systems found on traditional thrust reverser units.

Development of the electrical TRAS has been underway at Aircelle since the 1990s, and the company holds the aerospace industry's only patent for such a system. Maturity tests were run on a dedicated test bench in severe operating conditions, which enabled vital feedback to be collected during conditions representative of in-service operations.

"The electrical TRAS software's qualification is one of the final steps in readying this new system for airline service, and it underscores Aircelle's leadership role in thrust reverser systems," said Chairman and Chief Executive Officer Jean-Claude Lepage. "This milestone is the direct result of our company's expertise in the field, and our commitment to innovation and excellence."

The Electrical TRAS will be fitted on all Airbus A380s, with the system used on both the Rolls-Royce Trent 900 and Engine Alliance GP 7000 jet engines offered for the 555-seat airliner.