
Embraer and Collins Aerospace Demonstrate Innovated Ice Protection System

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A collaboration between Embraer and Collins Aerospace has culminated in the demonstration of an advanced ice protection system utilizing More Electric Aircraft (MEA) technology.

On July 20, the two companies began its flight test campaign in Gavião Peixoto, [Brazil](#), for its carbon nanotube electro thermal heating technology (CNT).

The CNT ice protection system was installed on the vertical stabilizer of an Embraer Phenom 300E prototype, the world's "best-selling light jet for 10 consecutive years," according to the company.

"We are very encouraged by the recent test results, and we are convinced that this innovative technology will meet our ambitious technological and sustainability roadmap," said Luís Carlos Affonso, senior vice president engineering, technology development and corporate strategy at [Embraer](#). "We are glad to have [Collins](#) on this journey to explore further partnership opportunities that will help create a net zero carbon aviation industry."

Embraer and Collins Aerospace's collaboration was created with one goal in mind—net-zero carbon emissions by 2050.

"This electrothermal CNT technology is more energy efficient, lighter and uses greener manufacturing processes than current systems, and we believe it will become the future standard for ice protection—including those in more electric aircraft designs," said Dr. Mauro Atalla, senior vice president, engineering and technology for Collins Aerospace.

"Collaborations such as the one between Collins and Embraer are helping innovations like this come to market more quickly."

According to Embraer, the CNT technology offers significant advantages over traditional metallic heaters, such as lowering energy consumption by 25 percent. The technology is also expected to be significantly lighter, more resilient, and longer lasting.

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