

Tiny technology. Big breakthrough. UTC Aerospace Systems is changing the industry with its lightest ice protection systems ever.

NEWS PROVIDED BY

UTC Aerospace Systems →

Jan 19, 2017, 09:00 ET

CHARLOTTE, N.C., Jan. 19, 2017 /PRNewswire/ -- UTC Aerospace Systems, a unit of United Technologies Corp. (NYSE: UTX), has obtained an exclusive license from Metis Design Corp. to a carbon nanotube (CNT) heater based technology for aircraft electrothermal ice protection. This technology was co-developed by Metis Design Corp. and the Department of Aeronautics and Astronautics at the Massachusetts Institute of Technology. This technology supports the aerospace industry's growing need for more durable, lightweight, damage-tolerant and low-power ice protection systems. Aircraft ice protection systems remove or prevent ice from accumulating on the leading edges of wings, stabilizers, and engine nacelles. Once implemented on aircraft, UTC Aerospace Systems' electrothermal ice protection systems with CNT technology will deliver uniform heat distribution, enhanced damage tolerance and improved fatigue resistance in a lightweight system.

"Thin layers of carbon nanotubes have several emerging and exciting aerospace applications. This technology strengthens UTC Aerospace Systems capability to deliver the most innovative solutions for aircraft ice protection systems," said Dr. Mauro Atalla, Vice President, Engineering and Technology, Sensors & Integrated Systems, UTC Aerospace Systems. "CNT technology is ideally suited for our ice protection product line, and we have already seen positive customer feedback from testing conducted at our icing wind tunnel. Metis Design has developed this technology over several years and has demonstrated its feasibility in several projects."



UTC Aerospace Systems' Sensors & Integrated Systems business is a leading supplier of pneumatic de-icing, ice detection and electrothermal ice protection, with a presence on hundreds of aircraft types. The use of electrothermal ice protection systems is expected to grow as new aircraft become "more electric," which will result in a shift away from energy-inefficient bleed air systems. Products built with CNT enable the use of lightweight heaters, have lower thermal inertia and increased damage tolerance compared to traditional electrothermal systems. "I am excited to add CNT capabilities to our de-icing offering, enhancing our innovative product solutions for our customers," said Justin Keppy, President, Sensors & Integrated Systems, UTC Aerospace Systems.

Metis Design is a technical consulting firm that focuses on structural health monitoring and multifunctional materials. Integration of the new systems with CNT technology will take place at the UTC Aerospace Systems facility in Uniontown, Ohio, with support from Metis Design in Boston and the United Technologies Research Center in East Hartford, CT.

UTC Aerospace Systems designs, manufactures and services integrated systems and components for the aerospace and defense industries. UTC Aerospace Systems supports a global customer base with significant worldwide manufacturing and customer service facilities. Follow the company on Twitter: @UTCAeroSystems.

United Technologies Corp., based in Farmington, Connecticut, provides high-technology systems and services to the building and aerospace industries. To learn more about UTC, visit the website at www.utc.com or follow the company on Twitter: @UTC.

SOURCE UTC Aerospace Systems

Related Links

<http://www.utcaerospacesystems.com>

