

Nano Science, Technology and Industry Scoreboard

## Zentek Provides Update on Icephobic Technology for Drones

2023-05-20 Zentek Ltd. reported successful drone testing, where thrust was maintained under calibrated icing conditions of freezing drizzle and freezing rain in an outdoor, real-world environment.

Further to its press release dated September 19, 2022, <u>Zentek Ltd.</u>, a graphene technology development and commercialization company, reports successful drone testing, where thrust was maintained under calibrated icing conditions of freezing drizzle and freezing rain in an outdoor, real-world environment. The drone with Zentek's icephobic coating applied to the propeller blades hovered under the outdoor icing rig and, on all tests conducted, maintained flight until the end of the battery life of the drone. The same drone with uncoated propeller blades rapidly lost the ability to maintain flight.

These tests were done by a qualified 3rd party and is expected to satisfy the TransportCanada requirement for anti-icing equipment. The current regulations for civilian drone operations in <u>Canada</u> as per TransportCanada regulations state the following:

901.35 (1) No pilot shall operate a remotely piloted aircraft system when icing conditions are observed, are reported to exist or are likely to be encountered along the route of flight unless the aircraft is equipped with de-icing or anti-icing equipment and equipment designed to detect icing.

Zentek is not aware of any de-icing or anti-icing equipment that has met the requirements by TransportCanada to date and, therefore, Zentek's icephobic technology could solve an important challenge to permit drone operation in <u>Canada</u> during conditions that could lead to ice accretion.

The Company is now consulting with TransportCanada to propose Zentek's passive ice

accretion technology as a potential means of compliance to satisfy the requirements of regulation 901.35 (1) noted above as well as working to find a collaborator that could provide equipment designed to detect icing.

"Our technology could solve an important challenge for the drone industry not only in <u>Canada</u> but in all countries where icing conditions exists and make drone operation hazardous" said Greg Fenton, CEO of Zentek. "Not only is this a good business opportunity for Zentek, but it is also a real opportunity to demonstrate that nanomaterials can solve real world problems."

Read the <u>original article</u> on ACCESSWIRE.