FIRST FREIGHTER MODIFIED WITH AEROSHARK ENTERS SCHEDULED SERVICE

News / Airlines, Maintenance / Trainings

World first cargo aircraft modified with the fuel-saving AeroSHARK surface technology entered scheduled service in Frankfurt. After SWISS has been transporting passengers since October with the first Boeing 777-300ER modified in this way, Lufthansa Cargo is now premiering this technology in airfreight with their first 777F. The modification, jointly developed by Lufthansa Technik and BASF, enables both types of Boeing 777 to achieve fuel and emissions savings in the order of one percent. The AeroSHARK modification was carried out in mid-January as part of a scheduled maintenance layover for the freighter and was completed well before its end. Now that maintenance has also been completed, the aircraft has returned to active service.

AeroSHARK is a surface film that mimics the microscopic structure of shark skin. It consists of ribs around 50 micrometers in size - the so-called riblets. If the airflow on the fuselage and engine nacelles of the Boeing 777F is optimized in this way, significant fuel savings can be achieved. For Lufthansa Cargo's aircraft, Lufthansa Technik estimates fuel savings of about one percent. Extrapolated to Lufthansa Cargo's entire 777 fleet, this will result in annual savings of more than 4,000 metric tons of kerosene and nearly 13,000 metric tons of CO_2 emissions, equivalent to

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approximately 53 one-way/direct cargo flights from Frankfurt to Shanghai.

Dorothea von Boxberg, Chairwoman of the Executive Board and CEO of Lufthansa Cargo, commented: "We are proud to be able to operate our entire freighter fleet even more efficiently in the future thanks to sharkskin technology and to further reduce the carbon footprint of our modern fleet. Our investments for the introduction of AeroSHARK bring us closer to our goal of being 100 percent CO2 neutral in the air by 2050; on the ground, we would like to achieve this goal as early as 2030."

Gradually, the AeroSHARK modification will now be used on Lufthansa Cargo's entire 777 freighter fleet to make these eleven aircraft more fuel-efficient and lower in emissions. SWISS is also having its entire subfleet of twelve Boeing 777-300ERs modified with AeroSHARK. Here, the second and third aircraft have already been modified and will soon be back in scheduled service.

In December of last year, Lufthansa Technik obtained a Supplemental Type Certificate (STC) from the European Aviation Safety Agency (EASA) for two types of Boeing 777, paving the way for the serial application of AeroSHARK to the 777 fleets of the launch customers, which has now begun.

Lufthansa Technik and BASF also intend to systematically develop AeroSHARK for additional aircraft types and larger surface areas to support airlines around the world even better in achieving their emissions targets. In initial model calculations, the sharkskin technology in its maximum expansion stage could even avoid CO2 emissions in the order of up to three percent.

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