



PEARL 10X ENGINE TOOK TO THE SKIES FOR THE FIRST TIME

News / Business aviation, Manufacturer



Rolls-Royce has successfully kicked off the flight test campaign for its latest aero engine for the business aviation market, the Pearl 10X, on the company's dedicated Boeing 747 flying testbed. The engine has been selected by French aircraft manufacturer Dassault to exclusively power its brand-new flagship aircraft, the Falcon 10X. The start of flight testing is an important milestone for the Pearl 10X programme and for Rolls-Royce as it focuses on growing in the business aviation market.

The Pearl 10X is the newest member of the state-of-the-art Pearl engine family and the first Rolls-Royce engine ever to power a Dassault business jet. The French aircraft manufacturer's selection of the Pearl 10X for its new top product is further evidence of Rolls-Royce's position as the leading engine manufacturer in business aviation. Based in Tucson, Arizona, USA, pilots and flight test engineers will put the engine through its paces over the coming months. The flight test programme will include engine performance and handling checks at various speeds and altitudes, inflight relights, tests of the nacelle's anti-icing system and fan vibration tests at various altitudes.

So far, the development programme on the ground has included the rigorous testing of the new ultra-low emissions ALM combustor, which is compatible with 100% Sustainable Aviation Fuel and

the new accessory gearbox, which allows for higher additional power extraction. The engine, which surpassed its target thrust levels on the very first test run, will be the most powerful business aviation engine in the Rolls-Royce portfolio.

Philipp Zeller, Senior Vice President Dassault, Business Aviation, Rolls-Royce, said: "We are excited to enter into this important next phase of the engine development programme with the start of our flight test campaign. All the tests completed to date confirm the reliability of the engine and show it will meet the performance requirements to power Dassault's flagship, the Falcon 10X."

The programme is advancing at pace and has successfully accumulated more than 2,300 testing hours, both on the Advance 2 demonstrator and the Pearl 10X engine configuration. The Pearl 10X features the Advance2 engine core, the most efficient core available across the business aviation sector, and combines it with a high-performance low-pressure system, resulting in a superior thrust of more than 18,000lbf.

Compared to the last generation of Rolls-Royce business aviation engines, the Pearl 10X offers a 5% higher efficiency, while delivering outstanding low noise and emissions performance. The result is an engine that offers a market-leading combination of power and efficiency. This combination will enable customers and operators to have premium airport accessibility and fly ultra-long-range connections, whilst also being able to travel close to the speed of sound.

07 APRIL 2024

ARTICLE LINK:

<https://virginia.50skyshades.com/news/manufacturer/pearl-10x-engine-took-to-the-skies-for-the-first-time>