

Nonstop flight from Singapore to New York

Concentrated expertise: FERCHAU AVIATION supports development of Airbus A350 XWB-900 ULR.

Bristol, 5th December 2018 – The world's currently longest nonstop flight goes from Singapore to New York – a distance of over 9,500 miles. The A350 XWB-900 ULR, the newest widebody aircraft from Airbus, covers this distance in just under 19 hours, thanks to a variety of innovative technological features and the use of advanced materials.

Airbus A350 XWB-900 ULR is developed from the A350 XWB-900. A slightly modified wing re-twist, extended winglets, and optimised flap track fairings provide for improved aerodynamics and, in combination with more fuel-efficient engines, bring about a significant increase in the aircraft's operating range and passenger capacity.

As a permanent technical consultant to the Airbus engineering team, FERCHAU AVIATION has substantially contributed to the improvements. This was only made possible by a multi-functional team that was able to draw upon a broad range of expertise in demonstrating the airworthiness of the new variant. The latest analysis methods and tools were used to exploit the existing margin in the wing structure, taking into account the modified service profile regarding the aircraft's periods of duty.

Usually, a single design loop for a wing of the A350 XWB-900 would take several years. But thanks to the extensive expertise of the FERCHAU specialists, the new design was approved within less than six months. Since the improvements were to be implemented in all future models of the A350 XWB-900, a series of tests had to be performed for diverse design loads, including the associated structural modifications. All this was also finalized in the same six-month period, so the design verification could be submitted on time and the aircraft could go into service as planned.

The successful cooperation in the development of the A350 XWB-900 ULR and its sister variants impressively proves the importance of high-quality engineering and shows that a detailed analysis can provide significant cost savings, since

production and development costs were limited to the described structural modifications.

FERCHAU Engineering GmbH, AVIATION division

The internationally operating FERCHAU division AVIATION specializes in engineering services for the air travel and aerospace industries and in general engineering. Currently, more than 1,000 developers, engineers, hardware and software professionals and project managers are employed at 16 locations in Germany, England, France, India and Spain. In 2017 the AVIATION division generated sales of over 79 million euros.

FERCHAU Engineering GmbH currently employs more than 8,100 engineers, IT consultants, technicians and draughtspersons in over 100 branches and locations and over 100 technical offices and project groups (as at 31 December 2017). FERCHAU operates in seven areas, including machinery and plant construction, electrical engineering, automotive technology, IT, aviation and aerospace, as well as shipbuilding and marine engineering.

Member of the FERCHAU AVIATION GROUP

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