



# SMART LANDER - ATR AND SAFRAN DEVELOP A GROUNDBREAKING SERVICE TO ANALYSE HARD LANDINGS

News / Manufacturer



ATR and Safran Landing Systems have developed 'Smart Lander', an innovative landing gear diagnostics service that uses state-of-the-art knowledge in data analysis to optimise the manufacturer's response times in the event of hard landings, and enable aircraft to be quickly returned to service.

This innovative service, the first of its kind in the aviation industry, relies on machine learning technology. Based on hundreds of thousands of hard landing simulations, Smart Lander issues recommendations to operators on the maintenance actions to be taken according to the hardness of the landing and to the load level sustained by the landing gear. Aircraft can subsequently be permitted to continue their commercial operations or alternatively, be sent to a maintenance base. This process takes less than an hour, compared to over a week previously.

David Brigante, ATR Senior Vice-President Customer Support and Services, stated: "Our former process could take up to 10 to 20 working days. It required analyses from both the ATR Design Office and Safran Landing Systems to decide whether the aircraft was fit to return to service. With Smart Lander, we will be able to massively reduce our response

**times, therefore boosting aircraft availability, reducing costs for customers and enhancing customer satisfaction, while maintaining the same level of analysis quality.”**

Patrick Joyez, Technical Director at Safran Landing Systems, said: “We have been working hand in hand with ATR, capitalising on our joint know-how regarding landing gear and the operations performed by ATR to develop this health-monitoring service, analysing the condition of the landing gear based on Safran’s expertise in harnessing data. Smart Lander is a true breakthrough in terms of landing load analysis, which will offer real value to ATR operators.”

By considerably reducing the response times required for returning the aircraft to service after a hard landing, Smart Lander will offer undeniable advantages to both ATR and its customers in terms of man-hours, aircraft availability and customer satisfaction.

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