



PRESS RELEASE

GROUP

Paris, June 21, 2023

Michelin launches Air X Sky Light, a major breakthrough innovation on the aircraft tire market

- Michelin Air X SKY LIGHT, a new generation aircraft tire that is lighter and longer lasting, offering better performances while guaranteeing the same level of safety.
- A tire that is the result of several breakthrough innovations, in terms of architecture, use of materials, and manufacturing.
- An initial dimension developed to fit the future Dassault Falcon 10X, heralding a range extended to commercial aviation as a whole

With Air X Skylight, Michelin is launching at the 54th Paris Air Show, a new radial tire technology intended for commercial aviation, a world first. Lighter than previous generations, its weight has been reduced by 10-20%. This major weight saving is accompanied by better performances over the long term (Landing Per Tread (LPT) and also allows for reducing maintenance and transport costs. The lifespan of the Air X SKY LIGHT will be 15 to 20% longer than its old-generation equivalent.

A new tire meeting air transport decarbonization aims

Weight is an extremely major constraint for aircraft: every kilogram counts.

On future aircraft, but also on current aircraft that are retrofitted, the weight reduction actually represents a substantial fuel saving, with less CO2 emissions as well. For example, the weight savings on a Narrow Body aircraft, such as an Airbus A320 or Boeing 737, could represent 75 kg on the main gear. On Wide Body aircraft, such as an Airbus A350 or Boeing 777, the savings could reach up to 250 kg on the main gear. Consequently, for a fleet of 40 long-haul aircraft, the weight reduction in the tires alone could allow for saving USD 900,000 in jet fuel per year and represent a reduction in CO2 emissions of 3,400 metric tons. For a fleet of 100 medium-haul aircraft, the jet fuel savings would be USD 600,000, with a reduction of 2,200 metric tons of CO2 over one year*.

In order to design Air X SKY LIGHT, Michelin started with a full and standardized life cycle assessment for a tire, from an environmental angle: this approach demonstrates that the weight is by far the parameter with the most impact (90 to 98%), and that this occurs during the usage phase. Carrying a tire at high altitude naturally consumes a lot of energy. On a landing gear, the tires can weigh from under 50 kg to over 2,000 kg, so reducing the weight is a major challenge.



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Michelin Air X SKY LIGHT, a tire resulting from several major breakthrough innovations

Air X SKY LIGHT is the result of multiple breakthrough innovations, in terms of architecture, the materials used, and the manufacturing processes.

It's crown architecture and an optimized footprint thus extending the lifespan by 15-20% compared to the previous generation tires.

These performances are made possible by the use of ultra-resistant casing materials as well as latest-generation hybrid cables and fabrics. The increasing integration of ever more sustainable materials is in line with the Michelin Group's aim to use 100% sustainable materials by 2050.

Lastly, on an industrial level, innovative manufacturing processes have been developed within the Michelin factory at Bourges, which is dedicated to the Group's aeronautics activities.

The new Air X SKY LIGHT tire is also 100% compatible with the PresSense connected tire offer developed in partnership with Safran.

A launch on the Dassault Aviation's Falcon 10X, heralding a range extended to commercial aviation

The 1st dimension has been developed to equip the future Dassault Aviation's Falcon 10X, the test flights for which are planned for the coming months, according to the schedule set out by Dassault Aviation.

Michelin Air X SKY LIGHT is aimed at the commercial aviation market. The choice of the next tire dimensions will be defined with regard to the priorities of airlines and aircraft manufacturers. The development of a new dimension takes between 2 and 3 years and is subject to extremely demanding homologation and certification rules.

The successive dimensions may therefore be fitted to new aircraft, as well as forming the subject of retrofit agreements on existing aircraft, in cooperation with the aircraft manufacturers, the airlines and the aeronautical authorities.

Michelin has over 50 years' experience serving the global commercial and regional aviation industry. Michelin supplies bias tires, radial tires, and inner tubes to its customers across the globe, in various applications: commercial and regional airlines, general aviation, and military aviation. Michelin has created partnerships with the biggest constructors and companies in the world (Airbus, Boeing, Bombardier, Comac, Dassault, Embraer, Gulfstream, Hondajet, Lockheed Martin, Pilatus, Textron, etc.)



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About Michelin

Michelin, the leading mobility company, is dedicated to sustainably enhancing its clients' mobility; designing and distributing the most suitable tires, services, and solutions for its clients' needs; providing digital services, maps, and guides to help enrich trips and travels and make them unique experiences; and developing high-technology materials that serve a variety of industries. Headquartered in Clermont-Ferrand, France, Michelin is present in 175 countries, has 132,200 employees and operates 67 tire production facilities which together produced around 167 million tires in 2022. (www.michelin.com)

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