

**TOGETHER,  
LET'S MAKE THE WORLD  
FLY BETTER\*!**

*\*in an "all-sustainable" way.*

**COMMERCIAL**





# MICHELIN AIRCRAFT

## IT'S MORE THAN A TIRE

### A BRAND RENOWNED FOR SAFETY AND QUALITY

For **more than a century**, Michelin Aircraft has been helping to meet the challenges of the aviation industry.

The Group has been a **pioneer** in introducing **new technologies** to answer the needs of human mobility.

For the commercial market, Michelin Aircraft develops a tire for each aircraft with its specific technical requirements.

We **respond to customers' needs** with innovative solutions that reduce costs, increase load capacity, lighter tires and foster sustainable development.



**1898**


Foundation of  
the **Aéro-Club  
de France**, with  
André Michelin

**1908**

First MICHELIN's  
**aero challenge**  
prize to foster  
aero mobility

**1916**

Construction of  
the **worlds' first  
hard runway**  
in Clermont-  
Ferrand



***Michelin, as your preferred partner, delivers the most reliable and customized support, and innovates to grow your business sustainably.***

***Did you know?***

*Almost 2000 Breguet-Michelin aircrafts were built at Michelin's first plant between 1915 and 1919.*

**1981**

*First radial tire*

**2001**

*NZG—Near Zero Growth Radial Technology*

**2019**

*First connected tire*

**2023**

*MICHELIN AIR X SKY LIGHT:  
a new generation of tires*



**MICHELIN AIRCRAFT**

**IT'S MORE THAN A TIRE**

**A WORLD-RENOWNED  
SPECIALIST SUPPORT**

*Beyond a high-performance offer,  
Michelin Aircraft builds lasting  
relationships based on **trust**,  
**safety** and **quality**.*



**Michelin, as your preferred partner, delivers the most reliable and customized support, and innovates to grow your business sustainably.**

We deliver exceptional and **reliable support**, thanks to **dedicated teams**:



**Customer Service** <sup>(1)</sup>



**Field Engineers** <sup>(2)</sup>



**Sales Force** <sup>(2)</sup>

This **customized approach** contributes to **customers' satisfaction**.

We address customers' needs **worldwide**, thanks to Customer Services, Key Account Managers, and Customer Engineers Support.



(1) France, China, USA, Brazil and Thailand

(2) Australia, France, China, USA, Thailand, Japan, UAE and Brazil

### **Tire Performance Review**

Usage conditions influence the tire performance

Manoeuvring / Braking / Ambient temperature / Load & speed / Flight routes / Touch down / Altitude / Wheel positions / Pilot practices



# MICHELIN AIRCRAFT

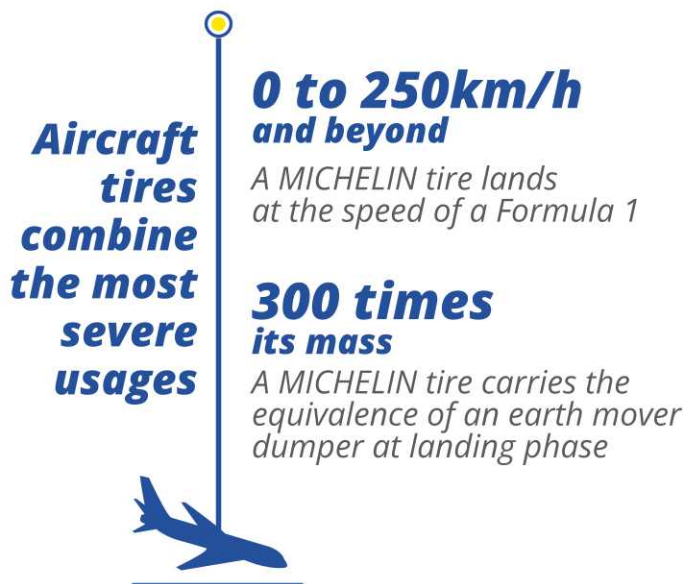
## IT'S MORE THAN A TIRE

### A SUSTAINABLE INNOVATION

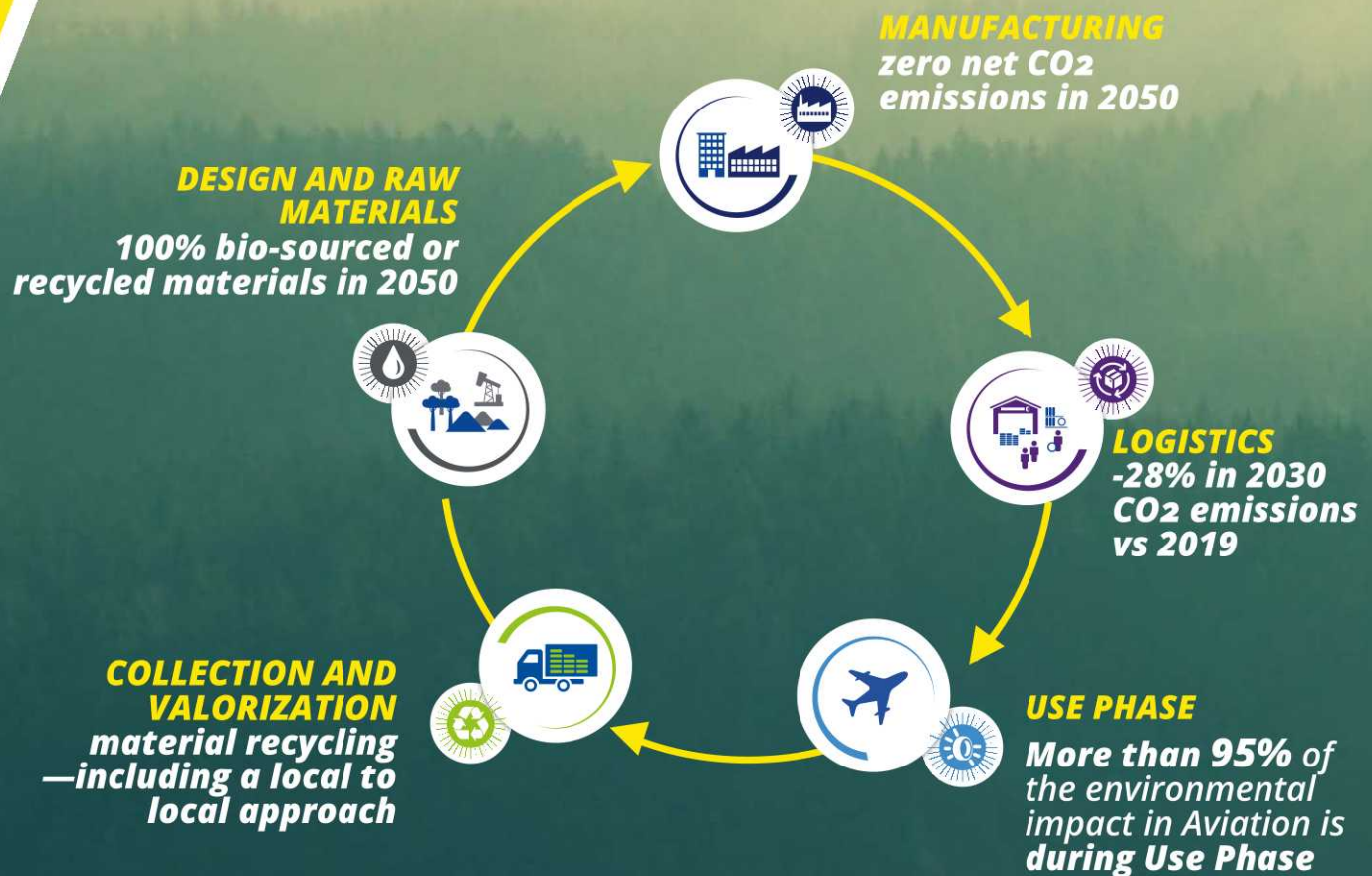
There is an extraordinary concentration of technologies in aircraft tires that require the **most demanding precision** in both design and manufacture. Few manufacturers are capable to meet the **extreme aircraft conditions**.

The tires need, in some aircraft applications, to be able to handle temperatures of **-55°C** for multiple hours in long-haul flights, and then up to **200°C** when it goes from **0 to 250 km/h and beyond**, in a fraction of a second during landing.

During airworthiness and approval tests, they must be able to demonstrate that they can withstand being **inflated to 4 times the nominal pressure without blow-out** (64 bar).



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For the conception of our tires, MICHELIN Aircraft relies on the **Life Cycle Assessment methodology—LCA**.



Michelin has been recognized for its **Sustainable development** by major manufacturers.



# MICHELIN Air X Sky Light

## THE NEXT GENERATION OF TIRES

MICHELIN is supporting the transformation of aviation to make it more sustainable towards a decarbonized aviation—net zero CO<sub>2</sub> in 2050, by developing a new generation of radial tires with a new performance profile:

-  **10% to 20% lighter than previous generations of tires.**  
Reduce fuel consumption and thus CO<sub>2</sub> emissions.
-  **10% to 20% Landings Per Tread (LPT) performance.**  
Decreases the number of tires required for operations, maintenance needs, and cuts time on the ground.

**Safety first**  
Ensures the same level of safety.



**Savings**  
Light weight  
= less fuel burnt.  
Increased lifespan  
= less tire dismantling.



**Less CO<sub>2</sub> emissions**  
Every kilogram of jet fuel burnt releases over 3.16 tons of CO<sub>2</sub> equivalent into the atmosphere. Less fuel burnt = less CO<sub>2</sub> emissions.





**A BREAKTHROUGH INNOVATION  
A COMBINATION OF INNOVATIVE  
TECHNOLOGIES IN A SMART DESIGN**

**New summit construction**

*Protection embedding hybrid technologies with an optimized footprint design increasing skid available to be worn out.*

**New bead area conception**

*A breakthrough bead design, leading to much lighter solution.*

**Sidewall optimized structure**

*Embedding new materials.*



**It is more than a tire**

*A foundation to accelerate the deployment of future Michelin innovations to reduce the environmental impact of the tire.*



**AIRBUS**

**ATR**

**BOEING**

**COMAC**

**← EMBRAER**




**MICHELIN EQUIPS  
ALL AIRCRAFTS  
MANUFACTURERS**





# **MICHELIN** Air X **OUR REFERENT RADIAL TIRE**

## **MICHELIN** **RADIAL TECHNOLOGY**

-  Reduction in fuel burn due to **tire weight savings**.
-  Reduction of maintenance cost due to the improved **tire Landings Per Tread**.
-  Reduction of early/unscheduled removals due to the **tire resistance** to tears and cuts.

### **More Landings**

Extra strong radial casing design. Flexible radial casing reduces tread squirm.



### **Labor Savings**

Fewer tire changes due to more landings.



### **Fuel Savings**

Lightweight radial design = measurable savings and increased range.



### **Weather Protection**

Special sidewall compounds for longterm ozone and UV light protection.



### **Resistance to Foreign Object Damage (FOD)**

Ultra-Strong Radial Technology.

# **MICHELIN** Air

## **OUR MOST POPULAR BIAS TIRE**

MICHELIN Air tires are designed to provide long tire life, help reduce **maintenance costs** and designed for **rough landing conditions**. MICHELIN Air tires benefit from MICHELIN **retreading expertise**: some of our tires are retreadable up to 7 times.

### **Long Tire Life**

Highly-durable rubber compounds.



### **Weather Protection**

Special sidewall compounds for long term ozone and UV light protection.



### **Wet Handling**

Designed to provide excellent hydroplane resistance.



### **Outstanding Stability**

Extra-strong sidewalls for enhanced nose landing gear safety.



### **Exceptional Balance**

Exclusive manufacturing process results in built-in balance for smooth taxiing and even tire wear.










# **MICHELIN AIRCRAFT**

## **IT'S MORE THAN A TIRE**

### **A SOLUTION FOR EVERY NEED**

-  You buy the tires new or retreaded.
-  You pay a unique price for a tire, whether retreaded or new.
-  You pay according to your landings.

You will always benefit from the best technical expertise to support your operations.

### **CUSTOMIZED OPTIONS\***

\* non exhaustive

**TAILOR-MADE  
INVENTORY  
MANAGEMENT**

**SPECIFIC LOGISTIC  
CONDITIONS**  
(Including adapted Incoterms  
& Express delivery)

**SPECIFIC  
PACKAGING**

**TIRE  
RE-CERTIFICATION\*\***  
\*\*except for North America

**TIRE CLEANING  
FOR RETREAD  
ACTIVITY**

**ON SITE AND  
E-LEARNING  
TRAININGS**

For more options **to address your specific needs, contact your sales representative.**





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***TIRE  
STORAGE***

***TIRE  
PERFORMANCE  
REVIEWS***



Contact us:



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