

Cutting Carbon Emissions for Global Airlines

As airlines set out to achieve their sustainability goals, Intelsat is helping them get there with new technology—and the power of stronger connections.



The Time is Now

Climate change impacts are being felt around the world. There's no better moment than now to step up and make a difference.

Real Impacts of Fossil Fuel-burning Aircraft

939 kg of carbon into atmosphere

How much a flight from London (LHR) to Dubai (DXB) releases



7.6%

That's how much emissions must drop per year from 2020 to 2030 to limit global warming to below 2°C.

Source: UN Environment Programme, 2020

Net Zero

The aviation industry has committed to net zero carbon emissions by 2050.

Source: IATA, Fly Net Zero

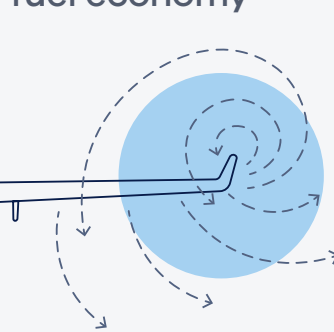
Paths to Sustainability

There are many attainable ways for airlines to positively impact climate issues, all fueled by critical updates to technology and systems.



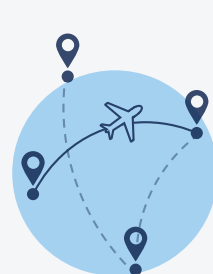
Improve engine and aircraft design

Lower weight and drag for fuel economy



Shift speed to lessen fuel consumption guided by Flight Management Systems' Cost Index

Real-time information to optimize flight routes



Making a Difference With Low Drag Technology

Using inflight connectivity (IFC) solutions, Intelsat is helping airlines reduce CO₂ emissions.

Antenna Type	Conventional	Intelsat ESA
Height	40 cm	9 cm
Weight	200kg	125kg
Fuel burn/hour*	~26 lbs	~11 lbs

* based on estimates

A Smarter Way to Connect Passengers

The new electronically steered antenna (ESA) is intentionally built, prioritizing component reuse and recycling. Its line-replaceable unit modular panels can be repaired and reused, and any upgrades to extend life can be repacked in existing enclosures.

Reuse | Recycle | Repackage | Repair | Extend life | Minimize drag | Reduce fuel consumption

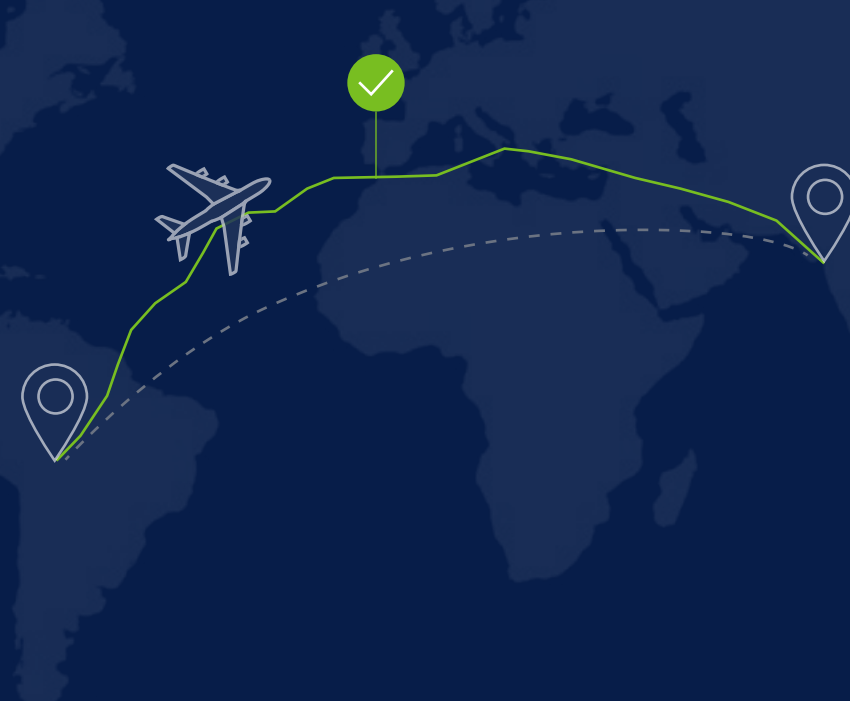
Optimize in Real Time

Putting Intelsat's connectivity technology to use allows airlines to optimize flights enroute—rather than only pre-flight.

When applying these optimizations to the world's fleet, it's possible to save:

>450M gallons of fuel

4.5M tons of CO₂



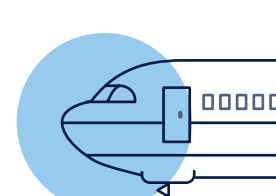
The Flight Path to Reaching Sustainability Goals

There's more than one way to do good.



Good for the Planet

Less drag and weight means less fuel. And less CO₂.



Good for Airlines

NASA analysis of 1,600 Alaska Airlines flights found that alternative trajectories could save the airline:



Good for Passengers

Deliver exceptional inflight connectivity experiences, pole to pole, gate to gate.

>1 million gallons of fuel

>110,000 minutes of flight time

\$5.15 million annually

Low latency
<100 ms

High-throughput
275 Mbps

Intelsat's inflight connectivity technology can help airlines drive impact against climate change, and realize a sustainable path forward in the industry.