



FACT SHEET: CLIMATE CHANGE

The aviation industry recognizes the need to address the global challenge of climate change and adopted a set of ambitious targets to mitigate CO₂ emissions from air transport:

GOAL 1

PRE-2020 AMBITION

1.5% ANNUAL
AVERAGE FUEL
EFFICIENCY
IMPROVEMENT
FROM 2009 TO
2020.

T O I

GOAL 2

IN LINE WITH THE NEXT
UNFCCC COMMITMENT PERIOD

STABILISE NET
AVIATION CO₂
EMISSIONS AT
2020 LEVELS
WITH CARBON-
NEUTRAL
GROWTH.

T O I + M

GOAL 3

ON THE 2°C PATHWAY

REDUCE
AVIATION'S NET
CO₂ EMISSIONS
TO 50% OF WHAT
THEY WERE IN
2005, BY 2050.

T O I



NEW CABIN
EQUIPMENT SAVES
WEIGHT AND CO₂



RETRO-FITTING
WINGTIP DEVICES
ON 8,300 AIRCRAFT
HAS CUT 56 MILLION
TONNES OF CO₂



FLIGHT CREWS BENEFIT
FROM LIGHTER LOADS WITH
TABLET COMPUTERS INSTEAD
OF HEAVY FLIGHT MANUALS

THE ROLE OF MARKET-BASED MEASURES

The aviation industry is confident that **T** technology, **O** operations and **I** infrastructure measures will provide long-term solutions for aviation's sustainable growth. However, the industry recognizes that some form of **M** market-based measure (MBM) may be needed to fill any remaining emissions gap.

Any MBM applied to aviation must be global in scope, preserve fair competition, and take account of different types and levels of operator activity. The safe, orderly and efficient functioning of today's air transport system relies on a high degree of uniformity in regulations, standards and procedures. The use of unilateral measures undermines this foundation.

ICAO WORK ON MARKET-BASED MEASURES

In 2013, the 38th ICAO Assembly concluded with a milestone resolution on climate change. In Assembly Resolution A38-18, the 191 members States of ICAO formally decided to develop a global market-based measure for international aviation, effective from 2020. The Assembly requested that the ICAO Council finalize the work on the possible options for a global MBM scheme. The results of the Council's work are to be presented, for decision, at the 39th Session of the Assembly in 2016.

In order to advance the work, the ICAO Council set up an ad hoc group, the Environment Advisory Group (EAG). At the request of the EAG, ICAO's Committee for Aviation Environmental Protection (CAEP) also established the Global MBM Technical Task Force (GMTF). While the EAG focuses on the political aspects of a global MBM, the GMTF is dedicated to technical questions and analysis in support of discussions in EAG.

A CO₂ STANDARD FOR AIRCRAFT

ICAO is developing a certification standard for CO₂ emissions from aircraft. The standard will set limits to the CO₂ emissions from aircraft in relation to their size and weight. The aim is to reach an agreement on a fully developed standard at the next plenary meeting of ICAO's Committee for Aviation Environmental Protection in 2016.

SOME FACTS ON AVIATION AND CLIMATE CHANGE

- Air transport accounts for 2% of global man-made CO₂ emissions. In 2014, flights worldwide produced 724 million tonnes of CO₂; globally (IATA)
- Air transport's relative contribution has not increased in the past 20 years and is not expected to increase beyond 3% by 2050 (IPCC, ATAG)
- Today's aircraft are 80% more efficient than the first jet aircraft (IATA).
- Since the year 2000, industry fuel efficiency has improved 32.6% and CO₂ tonnes per thousand tonne kilometres performed has improved from 1.35 to 0.91 (IATA, ATAG)
- Airlines have continued to improve their fuel efficiency performance between 2009-2014, securing an average annual improvement of 2.4%.
- In 2014, compared to 2013, fuel efficiency for total systemwide services (in litres per 100 RTK) improved by 1.4%.

Sources:

1. ATAG, www.atag.org/facts-and-figures.html
2. IPCC, *Aviation and the Global Atmosphere (1999)*, www.ipcc.ch/ipccreports/sres/aviation
3. EEA, www.eea.europa.eu/data-and-maps/figures/energy-efficiency-progress-in-transport-2
4. IEA, *Transport energy and CO₂ (2009)*, www.iea.org/publications
5. IATA, *World Air Transport Statistics (2015)*, 59th edition