To represent, lead and serve the airline industry

CAAFI Biennial General Meeting

Alternative Jet Fuel under International Aviation Climate Change Policy

Robert Boyd – Manager, Environment

To represent, lead and serve the airline industry
Aviation has a strong track record on improving efficiency

AVIATION EFFICIENCY IMPROVEMENT OUTPERFORMS THE WIDER ECONOMY

SINCE 1990, AVIATION EFFICIENCY HAS IMPROVED AT ALMOST TWICE THE RATE OF EFFICIENCY IN THE WIDER ECONOMY.

GLOBAL ECONOMY:
26% IMPROVEMENT
CO₂ PER $ GDP

AVIATION:
49% IMPROVEMENT
CO₂ PER RTK

80% IMPROVEMENT IN AIRCRAFT CO₂ EMISSIONS PER SEAT SINCE 1950s

SOURCE: IATA Economics and World Resources Institute

www.aviationbenefits.org
Tackling the climate challenge

3 GLOBAL GOALS

4 PILLARS OF CLIMATE ACTION
Setting the strategic direction

<table>
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<tr>
<th>GOAL 1</th>
<th>GOAL 2</th>
<th>GOAL 3</th>
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<tr>
<td><strong>PRE-2020 AMBITION</strong></td>
<td><strong>IN LINE WITH THE NEXT UNFCCC COMMITMENT PERIOD</strong></td>
<td><strong>ON THE 2°C PATHWAY</strong></td>
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<td>1.5% ANNUAL AVERAGE FUEL EFFICIENCY IMPROVEMENT FROM 2009 TO 2020.</td>
<td>STABILISE NET AVIATION CO₂ EMISSIONS AT 2020 LEVELS WITH CARBON-NEUTRAL GROWTH.</td>
<td>REDUCE AVIATION’S NET CO₂ EMISSIONS TO 50% OF WHAT THEY WERE IN 2005, BY 2050.</td>
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Making tactical improvements across the system

TECHNOLOGY
OPERATIONS
INFRASTRUCTURE
MARKET-BASED MEASURE
MARKET-BASED MEASURE

Through new technology, improved operational measures and more efficient infrastructure, the industry has avoided 8.5 billion tonnes of CO₂ since 1990.

Emissions trajectory if we were still operating at the same efficiency levels as in 1990.

Savings already achieved.

GOAL 2: CNG2020

GOAL 3: -50%

Where emissions would be if efficiency does not improve from today.

With constant efficiency improvement through the pillars of technology, operations and infrastructure.

With gradual introduction of radical new technologies and sustainable alternative fuels.
Aviation’s global market-based measure has been agreed

Historic decision at ICAO Assembly
Nearly all 191 ICAO States supported ‘CORSIA’

Industry was instrumental in agreement
Seven years since industry set goals and started pushing for a global MBM
Aviation’s global market-based measure has been agreed

- Addresses increase in CO2 emissions from international civil aviation above 2020 levels
- The market-based measure applying to CO2 emissions from international aviation
- Complements a broader package of measures to achieve CNG2020
- Phased-implementation to address principles of Common but Differentiated Responsibilities (CBDR) and Special Circumstances and Respective Capabilities (SCRC)
ICAO has considered three MBM options

- Global levy
- Global emissions trading scheme
- Global offsetting
How does CORSIA work?

<table>
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<tr>
<th>PILOT PHASE</th>
<th>FIRST PHASE</th>
<th>SECOND PHASE</th>
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<td>VOLUNTARY</td>
<td>MANDATORY</td>
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<td>65 States have volunteered to be part of the scheme from 2021 (more States are encouraged to volunteer).</td>
<td>Exemptions for: Small Islands, Least Developed Countries, Land-locked Developing Countries and States which have less than 0.5% of air traffic (although they can still volunteer).</td>
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- Operators in the States included will offset emissions based on the average CO₂ growth of the aviation sector.
- Operators will offset based on average CO₂ growth of the sector.
- Offset obligations shift to include over 20% of individual operator growth.
- Offset obligations shift to be over 70% based on individual operator growth.

**OVER 80% OF THE GROWTH IN AIR TRAFFIC CO₂ AFTER 2020 WILL BE OFFSET**
Which States are included in the first (voluntary) phases?

As of 12 October 2016, 66 States have volunteered to be part of CORSIA from the start.
Route-based approach means market distortion is limited.
How will offsetting work for aviation?