Sustainable Aviation Fuel in the context of CORSIA

Alternative Fuel Symposium
Singapore 16\textsuperscript{th} Nov 2018
Robert Boyd
To represent, lead and serve the airline industry
“Carbon Offsetting and Reduction Scheme for International Aviation” (CORSIA)
- Aim is to address **growth in CO\textsubscript{2} emissions** from international civil aviation above 2020 levels
- Applies to **international flights only**
- Alternative fuels should be recognized under this scheme (38\textsuperscript{th} Assembly)
CORSIA represents a significant policy change for aviation.
How does it work? Offsetting…

Each company must compensate for emissions above its baseline with emission reductions achieved elsewhere or sustainable aviation fuel.
CORSIA OFFSETTING
CURRENT AS OF 7 NOVEMBER 2018

- **75%+** OF POST-2020 GROWTH IN CO₂ EMISSIONS COVERED
- **76%** INTERNATIONAL AVIATION ACTIVITY IN INCLUDED STATES
- **ALL INTERNATIONAL FLIGHTS NEED TO REPORT EMISSIONS FROM 2019**

**STATES VOLUNTEERING FROM 2021**
**EXPECTED TO JOIN FROM 2027** (Forecast)
**STATES EXPECTED TO BE EXEMPT**
(LDCs, LLDCs, SIDS, low levels of activity)
### 3 year cycles and SAF

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<td>2019-2020</td>
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#### PILOT PHASE

**Voluntary**

States are volunteering to be part of the scheme from 2021 (more States are encouraged to volunteer).

Operators flying routes between volunteering States will offset emissions based on the average CO₂ growth of the aviation sector.

#### FIRST PHASE

**Mandatory**

With 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).

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.

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**Over 80% of the growth in air traffic CO₂ after 2020 will be offset**
Information collection from the aeroplane operator to report to the State

Aeroplane operator A

Production (who / when)

Batch (number / mass)

Sustainability CoC

SAF type (feedstock, conversion process, Jet A1/Avgas)

Logistic information / blender / neat fuel info / mass

SAF:CAF ratio / mass claimed

Reporting State
How does the airline perform the SAF accounting?

- The emissions reductions that an operator can claim from sustainable aviation fuels will be proportional to the life cycle emissions benefits of the alternative fuels used.

- Certified by a CORSIA Approved Sustainability Certification Scheme
  - SAF should achieve at least 10% GHG reduction over life cycle taking into account core life cycle assessment (LCA) and induced land use change (ILUC)
  - SAF should not be made from biomass obtained from land with high carbon stock

- Sustainability is an on-going discussion

Emissions reduction = 3.16 * GHG benefit

Emission factor for Jet A-1
What might CORSIA cost?

- The potential carbon offsetting purchases needed under CORSIA is estimated by ICAO to be 2.6 billion tonnes from 2021-2035
- Low = $5 USD/tonne CO2
- Medium = $15 USD/tonne CO2
- High = $25 USD/tonne CO2

Source: IATA Environment estimate for illustrative purposes
CORSIA SARPs

Annex 16, Volume IV
- International standards and recommended practices (SARPs)
- To be implemented by ICAO member states in accordance with Chicago Convention
- Adopted on 27 June 2018
- Became effective on 22 Oct 2018