

Update on ICAO CAEP Fuels Task Group (FTG)

To: ASCENT Advisory Board Meeting
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U.N. International Civil Aviation Organization (ICAO)

- ICAO sets standards and recommended practices for civil aircraft to enable our global aviation system
- General Assembly of 193 ICAO Member States
 - Meets every three years (this cycle sets the pace of ICAO work)
 - Assembly approves/endorsees work conducted in the previous three years and sets forth commitments and future work by ICAO
 - Resolution – method by which the Assembly makes policy and commitments
- ICAO Council
 - 36 member states with permanent representatives
 - ICAO Council conducts day-to-day oversight of ICAO work program; meets for two week voting sessions four times per year
- ICAO five Strategic Objectives:
 1. Safety
 2. Air Navigation Capacity and Efficiency
 3. Security & Facilitation
 4. Economic Development of Air Transport
 5. Environmental Protection
- ICAO Committee on Aviation Environmental Protection (CAEP)
 - Standing Committee of the Council to conduct environmental technical work



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ICAO “Carbon Offsetting & Reduction Scheme for International Aviation” (CORSIA)



- CORSIA is a Global Carbon Offsetting Scheme
 - Not a carbon tax or emissions trading scheme
 - Offsetting to help international aviation meet Carbon Neutral Growth goal (relative to 2020 baseline)
 - Offsets required from 2021-2035
 - Applies to Aircraft Operators, International Operations Only
 - Exemptions for aircraft $\leq 5,700$ kg, operators with $\leq 10,000$ metric tons CO₂, and humanitarian, medical, firefighting flights
 - Country-by-country implementation, with reporting to and determinations by ICAO
- CORSIA Eligible Fuels (CEF) can be used by an airline to reduce their offsetting requirements

Alternative Fuels and CORSIA

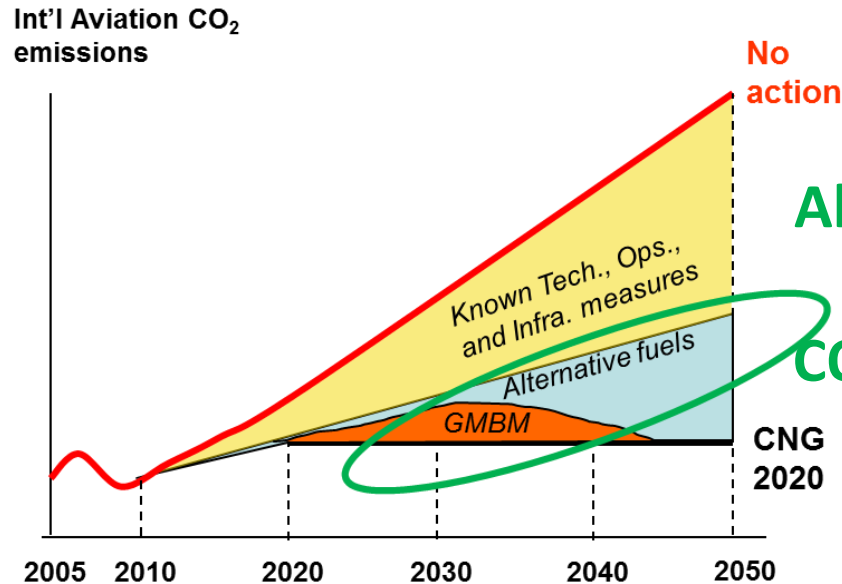
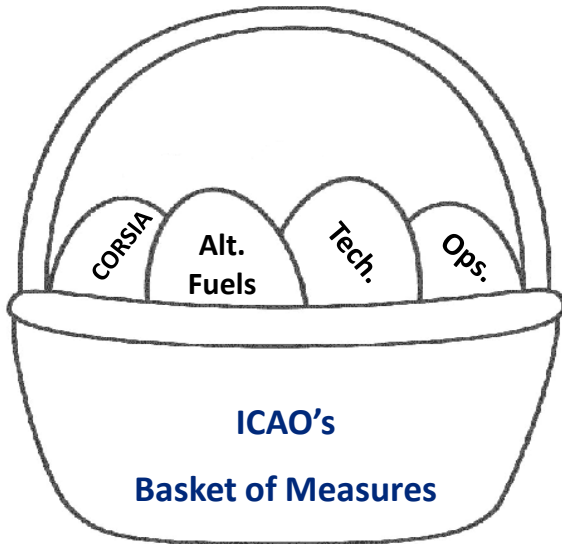
$$ER_y = FCF * \left[\sum_f MS_{f,y} * \left(1 - \frac{LS_f}{LC} \right) \right]$$

CORSIA Eligible Fuels provide a secondary means to comply with CORSIA

1. Offsetting
2. Claiming Emissions Reductions from CEF

$$ER_y = FCF * \left[\sum_f MS_{f,y} * \left(1 - \frac{LS_f}{LC} \right) \right]$$

Life cycle emissions value for a CORSIA eligible fuel



Alternative Fuels + CORSIA are Key



Update on ICAO CAEP Fuels Task Group (FTG)



- FTG agreed to conduct its CAEP/12 work program tasks in five subgroups.
- Held two meetings in Montreal: FTG/1 (2-3 May 2019), and FTG/2 (16 -20 Sep 2019)
- Held one meeting In Abu Dhabi: FTG/3 (9-13 Feb, 2020)



Subgroup	Task Number	Task Title
ILUC	S.01.01	Computation of induced land use change emissions for SAF for use in CORSIA
	S.01.02	Low ILUC risk practices
	S.03	Co-processing of esters and fatty acids in petroleum refineries – just ILUC calculation
	S.04.02	Methodology refinements – ILUC
Core LCA	S.01.03	Feedstocks classification
	S.02	Computation of default core LCA emission values for SAF for use in CORSIA
	S.03	Co-processing of esters and fatty acids in petroleum refineries – methodology for conducting LCA and default core LCA values
	S.04.01	Methodology refinements – core LCA
Emission Reductions	S.04.03	Methodology refinements – Emission Credits
	S.11	Double counting
	S.12	ILUC Permanence
All FTG	S.05	CORSIA Package Updates
Sustainability	S.06	Sustainability criteria
	S.07	SCS Requirements
Technology and Production	S.08	Technology evaluation
	S.09	Fuel Production Evaluation
	S.10	Guidance on Potential Policies and Coordinated Approaches for the Deployment of SAF



FTG key activities (1 of 2)

- **Core LCA default values:** carrying forward progress on Sustainable Aviation Fuels (SAF)
- **ILUC regional values:** developing an approach to generate induced land-use change (ILUC) regional values for countries beyond those currently covered.
- **Sustainability Criteria:** completed SAF criteria (presented to ICAO Council in January); ongoing investigation of application of sustainability criteria to LCAF
- **LCAF:** defining the methodology for lower carbon aviation fuels (LCAF) for both LCA and sustainability; held workshop on LCAF technologies with external specialists.

FTG key activities (2 of 2)

- **Emissions Reductions:** assessing potential emissions reduction credits (Landfill and Recycling Emissions Credits, LEC & REC) for waste pathways beyond Municipal Solid Waste (MSW)
- **Permanence:** work on the question of where negative ILUC can come from, and “permanence” of carbon capture
- **Fuel production assessment:** building on previous work and leveraging ASCENT techno economic analysis (TEA).
- **Policy Options:** continue analysis of policy options to foster CEF deployment and produce guidance material.

SCSEG

- The Sustainability Certification Scheme Evaluation Group
 - Evaluate fuel SCS for participation in CORSIA
- Recommended by CAEP SG/1 in December and approved by Council in January
- Co-chairs from U.S. and Spain
- Invitation to apply posted by ICAO on February 26
 - <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-SCS-evaluation.aspx>
- First round of applications due by April 30
- SCSEG meeting June 15

CORSIA Eligible Fuels Resources



- **CORSIA Framework and Eligibility Requirements for SCS**
- **CORSIA Sustainability Criteria**
- **CORSIA Default LCA Values**
- **CORSIA Methodology for Calculating Actual LCA Values**

The screenshot shows the ICAO website page for CORSIA Eligible Fuels. The page title is "CORSIA Eligible Fuels". The main content area contains a table of five ICAO documents, each with a cover image and a brief description. The documents are:

Document Title	Availability
CORSIA Eligibility Framework and Requirements for Sustainability Certification Schemes	This ICAO document will become available following approval by the ICAO Council.*
CORSIA Approved Sustainability Certification Schemes*	
CORSIA Sustainability Criteria for CORSIA Eligible Fuels	
CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels**	
CORSIA Methodology for Calculating Actual Life Cycle Emissions Values	

*Sustainability Certification Schemes interested in being evaluated should follow the application process described [here](#).

**The CORSIA Supporting Document "CORSIA Eligible Fuels - Life Cycle Assessment Methodology" provides technical information and describes ICAO processes to manage and maintain the ICAO document "CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels".

<https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx>





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