



WORKING PAPER

CONFERENCE ON AVIATION AND ALTERNATIVE FUELS

Mexico City, Mexico, 11 to 13 October 2017

Agenda Item 4: Defining the ICAO vision on aviation alternative fuels and future objectives

INDUSTRY POSITIONS ON THE PROPOSED ICAO VISION

(Presented by Airports Council International (ACI), Civil Air Navigation Services Organisation (CANSO), International Air Transport Association (IATA)¹, International Business Aviation Council (IBAC), International Coordinating Council for Aerospace Industries Associations (ICCAIA))

SUMMARY

The aviation industry has taken a proactive approach to address its contribution to the urgent global challenge of climate change. In 2009, the industry set three ambitious goals to reduce CO₂ emissions from international aviation and put in place a four pillar strategy to achieve those goals. The commercial deployment of sustainable aviation fuels remains a fundamental element of that strategy.

Action by the Conference is in paragraph 5.

1. INTRODUCTION

1.1 Airports Council International (ACI) is the global trade representative of the world's airports, serving 623 members operating 1,940 airports in 176 countries. The Civil Air Navigation Services Organisation (CANSO) is the global voice of air traffic management representing the interests of over 80 air navigation service providers supporting over 85% of world air traffic. The International Air Transport Association (IATA) represents, leads and serves the airline industry with current membership totalling 278 airlines representing 83% of scheduled traffic. The International Business Aviation Council (IBAC) represents the interests of the global business aircraft operator community, comprised of approximately 35,000 aircraft. The International Coordinating Council for Aerospace Industries Associations (ICCAIA) is the international organisation of aerospace industry associations, engaged in the design, development, manufacture and in-service support of aeronautical and space products and technologies.

1.2 In 2009, the civil aviation industry committed to a set of high-level carbon emissions reduction goals, namely:

¹ The Arabic, Chinese, French, Russian and Spanish versions have been provided by IATA.

- an average improvement in fuel efficiency of 1.5% per year from 2009 to 2020;
- a cap on net aviation CO₂ emissions from 2020 (carbon-neutral growth); and
- a reduction in net aviation CO₂ emissions of 50% by 2050, relative to 2005 levels.

Meeting these goals continues to rely on the engagement of both industry and governments to achieve critical aviation infrastructure and technology advances including sustainable aviation fuels (SAF).

1.3 While considerable improvements are expected in the coming decades in aircraft and engine technology, operations and infrastructure, it is unlikely that they will be sufficient to meet the above goals, considering the expected growth in air traffic volume. SAF, with lower lifecycle greenhouse gas (GHG) emissions than conventional jet fuel, are seen as the necessary complement to support the 2020 goal and achieve the 2050 goal. Unlike land transport operators, for the foreseeable future, aircraft operators do not have sustainable energy alternatives to liquid jet fuel. Thus, it is critical that aircraft operators are able to utilise SAF to reduce emissions.

1.4 Resolution A39-3 adopted by the 39th Session of the ICAO Assembly decided to implement the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) as part of a broader basket of measures to address aviation's CO₂ emissions;

1.5 ICAO Assembly Resolution A39-3 affirms the preference for the use of SAF that provide environmental benefits within the aviation sector and requested that a methodology be developed to ensure that airlines' offsetting requirements under CORSIA can be reduced through the use of SAF.

2. ICAO VISION

2.1 The industry strongly supports the work of ICAO in facilitating the communication of SAF initiatives and information-sharing for SAF development and deployment, including the sharing of information and best practices related to the development of supply chains for SAF and technical modelling within CAEP and urges ICAO to continue to focus on that role.

2.2 While appreciating ICAO's interest in establishing aspirational visions for SAF use in international aviation, we urge that any ICAO initiative in this regard take into account the fact that States and industry have the primary role in the development and deployment of SAF and that a number of significant commercial, geographic, economic and other factors will come into play as to when and where SAF is deployed.

2.3 The industry strongly supports the work of ICAO in developing the CORSIA framework and appreciates that CORSIA can play an important complementary role in advancing the commercial deployment of SAF.

2.4 To the extent that ICAO Member States wish to express an aspirational goal to reflect their willingness to partner with industry to advance SAF deployment, the industry believes that there should be focus on identifying pathways for achieving an aspirational 2025 goal of 5 million tonnes of SAF in international aviation representing approximately a 2% share of international aviation fuel demand. These pathways should clearly articulate the policy drivers linked to achievement.

2.5 While we respect the proposal to consider a long-term aspirational vision for SAF deployment, the industry believes too much uncertainty exists at present, particularly with respect to the current costs of SAF, to be able to define properly a specific volume of SAF to be used for the longer term. For that reason, we believe it would only be appropriate to consider defining a mid-term SAF aspirational goal, including identification of pathways for striving toward the goal, once progress and achievement of an aspirational 2025 goal can be assessed.

2.6 The industry notes that during the CAEP/10 cycle a trends analysis was performed and data from the Alternative Fuels Task Force, Fuel Production Assessment Task Force showed that the achievement of up to a 100% replacement of kerosene demand from SAF could conceivably be possible, but is highly contingent on a number of considerations not under the control of the industry, including societal choices, policy frameworks, competition for feedstocks and, most importantly, pricing.

2.7 In addition, by 2025, there will be the opportunity to assess the effectiveness of the policies put in place by States, as well as the technical and commercial evolution of SAF production.

3. **JOINT INDUSTRY POSITION**

3.1 The signatories of this Working Paper confirm that the civil aviation industry:

- 1) strongly supports the broader ambitions within the global community to address climate change and to safeguard sustainable development;
- 2) recognises the significant achievements of the industry towards its ambitious CO₂ mitigation targets, in particular in surpassing the 1.5% annual fuel efficiency improvement goal since 2010;
- 3) recognises the active contribution and commitment of the industry to the historic ICAO CORSIA agreement in 2016;
- 4) renews the industry's commitment to the global aviation sector's three climate action goals;
- 5) endorses the continuing efforts of aircraft operators and other industry stakeholders to develop, test and deploy into commercial operations cost competitive SAF which conserve an ecological balance by avoiding the depletion of natural resources, as an important element of the industry's overall approach to address CO₂ emissions from aviation;
- 6) appreciates the continuing efforts of the manufacturers of airframes and engines to support the international certification processes for SAF;
- 7) endorses industry's commitments to promote globally harmonised sustainability and accounting standards for SAF; and
- 8) calls upon governments urgently to develop and implement constructive and supportive policy to remove commercial barriers, reduce the unit cost and accelerate the deployment of drop-in SAF consistent with the industry's environmental objectives, including the creation of the appropriate regulatory

framework to assist access to debt and equity capital in order to facilitate the development of necessary production facilities.²

4. **POLICY RECOMMENDATIONS**

4.1 The industry strongly supports an array of policy approaches for consideration by governments in the development of SAF³ and urges ICAO to encourage Member States to put in place policy frameworks that strongly incentivize SAF development, production and use. Such policies could include:

- 1) providing loan guarantees and capital grants for production facilities including support for brokering aviation off-take agreements;
- 2) allowing SAF to compete on an equal basis with those used for land transport through equivalent or magnified public incentives;
- 3) encouraging simplified and streamlined accounting methods for the use of SAF in order to minimise logistic costs;
- 4) supporting SAF demonstration plants and supply chain research and development;
- 5) implementing policy to de-risk investments into SAF production plants including legislative certainty over a period of time sufficient to attract investment in new production facilities;
- 6) developing fiscal incentives for projects and partnerships involved in early stage plant development;
- 7) providing support to the alternative jet fuel specification review and approval process, which is administered by ASTM International and which provides the standards for alternative jet fuel specification acceptance around the world; and
- 8) developing a harmonised transport and energy policy including inter-department coordination, including agriculture, transport, energy and military agencies.

5. **ACTION BY CAAF/2**

5.1 The CAAF/2 is invited to:

- a) note the joint industry position set out at paragraph 3 above;
- b) support ICAO's role in facilitating the communication of SAF initiatives and information-sharing for SAF development and deployment, including the sharing of information and best practices related to the development of supply chains for SAF;

² Please note that at its 73rd Annual General Meeting held in Cancun on 5-6 June 2017, IATA's member airlines unanimously adopted a Resolution on sustainable alternative fuel which included many of these points. That Resolution is set out at Appendix A.

³ Many of these suggested policy approaches are included in the IATA AGM Resolution referred to above.

- c) encourage Member States to put in place policy frameworks that strongly incentivize SAF development, production and use;
- d) consider the policy recommendations contained in paragraph 4 above and how they can be applied effectively by States; and
- e) accept that the policy focus should be directed towards pathways that support achievement of an aspirational 2025 SAF goal and that a longer term vision be considered once achievement of this goal can be assessed.

APPENDIX



73rd IATA ANNUAL GENERAL MEETING

**RESOLUTION ON THE COMMERCIAL DEPLOYMENT OF
SUSTAINABLE ALTERNATIVE FUEL FOR AVIATION**

Whereas at the 66th IATA AGM in 2010, IATA member airlines adopted a Resolution which endorsed three ambitious goals for addressing CO₂ emissions, namely:

- An average improvement in fuel efficiency of 1.5% per year between 2010 and 2020;
- A cap on net aviation CO₂ emissions from 2020;
- A reduction in net aviation CO₂ emissions of 50% by 2050 relative to 2005 levels.

Whereas that same Resolution recognised that success in managing aviation CO₂ emissions depends on governments incentivising technological research and development of better airframes and engines as well as Sustainable Alternative Fuels for aviation (SAF), while also providing modern airport and airspace infrastructure;

Recalling that the 39th Session of the ICAO Assembly in 2016 adopted Resolution A39-3 which decided to implement the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) as part of a broader basket of measures to address aviation's CO₂ emissions;

Recognising that ICAO Assembly Resolution A39-3 affirms the preference for the use of SAF that provide environmental benefits within the aviation sector and requested that a methodology be developed to ensure that airlines' offsetting requirements under CORSIA can be reduced through the use of SAF;

Resolution

The 73rd IATA Annual General Meeting:

1. Strongly supports the broader ambitions within the global community to address climate change and to safeguard sustainable development;
2. Recognises the significant achievements of its member airlines towards the industry's ambitious CO₂ mitigation targets, in particular in surpassing the 1.5% annual fuel efficiency improvement goal since 2010;
3. Recognises the active contribution and commitment of member airlines to the historic ICAO CORSIA agreement in 2016;
4. Renews the industry's commitment to the global aviation sector's three climate action goals;

5. Endorses the continuing efforts of its member airlines and other industry stakeholders to develop, test and deploy into commercial operations cost competitive SAF which conserve an ecological balance by avoiding the depletion of natural resources, as an important element of the industry's overall approach to address CO₂ emissions from aviation;
6. Appreciates the continuing efforts of the manufacturers of airframes and engines to support the international certification processes for SAF;
7. Endorses member airlines' commitments to promote globally harmonised sustainability and accounting standards for SAF;
8. Calls upon governments urgently to develop and implement constructive and supportive policy to remove commercial barriers, reduce the unit cost and accelerate the deployment of drop-in SAF consistent with the industry's environmental objectives, including the creation of the appropriate regulatory framework to assist access to debt and equity capital in order to facilitate the development of necessary production facilities;
9. Sets forth at Appendix I a series of recommended policy approaches for consideration by governments in the development of SAF.

Appendix I

RECOMMENDED GOVERNMENT POLICY APPROACHES TO SUPPORT COMMERCIAL DEPLOYMENT OF SAF

- a. Providing loan guarantees and capital grants for production facilities including support for brokering aviation off-take agreements.
- b. Allowing SAF to compete on an equal basis with those used for land transport through equivalent or magnified public incentives.
- c. Encouraging simplified and streamlined accounting methods for the use of SAF in order to minimise logistic costs.
- d. Supporting SAF demonstration plants and supply chain research and development.
- e. Implementing policy to de-risk investments into SAF production plants including legislative certainty over a period of time sufficient to attract investment in new production facilities.
- f. Developing fiscal incentives for projects and partnerships involved in early stage plant development.
- g. Developing a harmonised transport and energy policy including interdepartment coordination, including agriculture, transport, energy and military agencies.