



WORKING PAPER

ASSEMBLY — 40TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 16: Environmental Protection – International Aviation and Climate Change — Policy and Standardization

BUSINESS AVIATION ACTIVITIES ON THE USE OF SUSTAINABLE AVIATION FUEL

(Presented by the International Business Aviation Council (IBAC))

EXECUTIVE SUMMARY

In its desire to achieve the goals of the Business Aviation Commitment on Climate Change, business aviation has launched initiatives to promote the use of sustainable aviation fuel (SAF), an important technology that will help the sector meet its long-term, aspirational goal of halving international carbon emissions by 2050 relative to 2005 levels. A series of information and demonstration events, together with the publication of an Operator's User Guide, have sought to improve understanding and awareness of SAF and to encourage the increased production of SAF and its uptake by business aircraft operators.

Action: The Assembly is invited to:

- a) Recognize and support the efforts made by the business aviation sector to raise awareness of SAF and to encourage an increase in the production and wider use of SAF; and
- b) Request that ICAO facilitate and that Member States implement appropriate policies, including incentives, to encourage (i) the production and blending of SAF in greater quantities and (ii) the consumption of SAF by aircraft operators in order for business aviation to make further, meaningful progress toward its long-term, aspirational goal to reduce carbon emissions.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objectives – Environmental Protection
<i>Financial implications:</i>	Not applicable
<i>References:</i>	<ul style="list-style-type: none">• Doc 10075, <i>Assembly Resolutions in Force</i> (as of 6 October 2016)• The Business Aviation Commitment on Climate Change• The Business Aviation Commitment on Climate Change – update• Business Aviation Guide on Sustainable Aviation Fuel• https://www.futureofsustainablefuel.com/

¹ Arabic, Chinese, English, French, Russian and Spanish versions provided by IBAC.

1. INTRODUCTION

1.1 In 2009, the business aviation² community under the auspices of the International Business Aviation Council (IBAC) and the General Aviation Manufacturers Association (GAMA), representing business aircraft operators, turboprop manufacturers, and service providers, published the Business Aviation Commitment on Climate Change (BACCC). This commitment set out three key goals towards the reducing business aviation's impact on climate change: improving fuel efficiency two percent per year from 2010 until 2020; carbon neutral growth from 2020; and reducing CO₂ emissions 50 percent by 2050 relative to 2005 levels.

1.2 These goals would be achieved through four key mechanisms: the development of new technology, which includes sustainable aviation fuel (SAF); improvements in infrastructure; more efficient operations; and market-based measures.

1.3 In an update of the BACCC by IBAC and GAMA prior to the 39th ICAO Assembly, the business aviation industry showcased through case studies the differing activities it had undertaken to meet the challenges of its original 2009 commitment, which included the early adoption of SAF by one original equipment manufacturer (OEM).

2. BUSINESS AVIATION AND SUSTAINABLE AVIATION FUEL

2.1 Following the 39th Assembly, the business aviation industry launched efforts to increase awareness of and encourage the production and uptake of sustainable aviation fuels within the sector.

2.2 The sector's initial activity was to undertake a wide-ranging consultation process to gauge the level of understanding of SAF and how the business aviation sector could increase the level of its use to support the BACCC goals. A key conclusion from the consultation indicated that a fundamental education process would need to be launched, with the aim to increase awareness and acceptance of SAF within the sector.

2.3 Following the consultation process and recognizing the need for the widest outreach possible across the sector, several business aviation associations formed a coalition to educate the overall business aviation community including operators, service providers, general aviation airports and fixed-base operators (FBOs) to facilitate the wider use of SAF within the business aviation industry through a variety of mechanisms.

2.4 The coalition is comprised of IBAC, GAMA, the National Business Aviation Association (NBAA), the European Business Aviation Association (EBAA), and the National Air Transportation Association (NATA). Since its inception, the coalition's membership has widened to include original equipment manufacturers (OEMs), Jet A and Jet A1 fuel delivery suppliers and SAF suppliers.

2.5 With the support and interest of the Air Transport Action Group (ATAG) and the Commercial Aviation Alternative Fuel Initiative (CAAFI), the coalition developed The Business Aviation Guide on SAF. The extensive guide, tailored to business aircraft operators and FBOs, sought to ease

² Business aviation is comprised of international general aviation operators that use aircraft for business purposes (e.g., owner-operated and corporate operators) and certain operators considered international commercial air transport (e.g., on-demand charter companies).

concerns and demystify the use of SAF for operators that would want to use the fuel and for FBOs that would supply it. The Guide is supported by a dedicated website with further resources and other information on SAF. The Guide was launched at the May 2018 European Business Aviation Conference and Exhibition (EBACE) in Geneva, Switzerland, to much acclaim, where the heads of the coalition associations also publicly pledged through a declaration to work together in order to advance the development and use of SAF within the sector.

2.6 Following the launch of the guide, the coalition set about organizing and hosting SAF demonstration events. The first was held in January 2019 at Van Nuys Airport (KVNY) in Los Angeles, United States, one of the world's busiest general aviation airports with 231,000 annual operations supporting diverse private, business and government aviation needs. The coalition was joined by local civic leaders and industry stakeholders who expressed their support. Three demonstration flights for the press were held during the event, and more than two hundred operators utilized the available SAF fuel that day.

2.7 The second event was held at TAG Farnborough Airport (EGLF) outside of London, United Kingdom, in May 2019 on the eve of EBACE 2019. It was designed to fuel aircraft flying to Geneva to be part of the static display at the convention. Furthermore, to supplement the Farnborough event, the coalition arranged to make fuel available at three other strategic locations for aircraft flying to Geneva: Caen – Carpiquet in France (LFRK); Stockholm Arlanda Airport (ESSA) in Sweden; and Republic Airport outside of New York (KFRG). As a result, 27 aircraft made use of the SAF availability on their way to Geneva to participate in the EBACE static display.

2.8 Central to these two events held in 2019 has been the desire of the coalition to supplement the *SAF Guide* through a wider education process. To this end, technical panels at each demonstration event and at EBACE 2019 sought to demystify the use of SAF for business aircraft operators. Industry experts representing operators, OEMs, and fuel producers and suppliers participated on the panels, answering questions and interacting directly with aircraft users, aircraft management companies, FBOs, industry officials and members of the press.

3. CHALLENGES AND NEXT STEPS

3.1 Business aviation and the SAF coalition will continue to hold demonstration events; look for opportunities to increase the understanding and education on SAF use; and source supply of SAF where it is desired by operators.

3.2 These demonstration events and the use of SAF within business aviation are not without challenges, including sufficient supply of SAF at reasonable prices relative to those of traditional aviation fuel. IBAC recognizes the support that ICAO brings to the central issue of sustainability and the implementation of a basket of measures which includes an increased focus on SAF. However, policies and incentives implemented by national governments to encourage the wider production and use of SAF will be critical to igniting efforts to produce and consume SAF at levels that would make both production and consumption economically reasonable as well as environmentally meaningful.

3.3 The business aviation sector, similar to commercial airlines, has real-time SAF implementation issues ranging from low-level production quantities to higher costs against already small margins. In addition, business aircraft operators face difficulties related to the geographic availability of SAF, given that they tend to serve more remote or underserved locations. Incentives toward product cost

and facility infrastructure would directly address these central issues and enable the far-flung business aviation community, which includes a global fleet of more than 22,200 turbofan aircraft, serving regions around the world to fully take advantage of SAF.

3.4 Looking toward the future, ICAO and Member-State support will be key to lowering aviation's dependency on fossil fuels and reducing CO₂ output while also supporting business aviation's capacity to achieve its commitments to reduce its climate-change contributions.

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