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DE AVIAÇÃO GERAL

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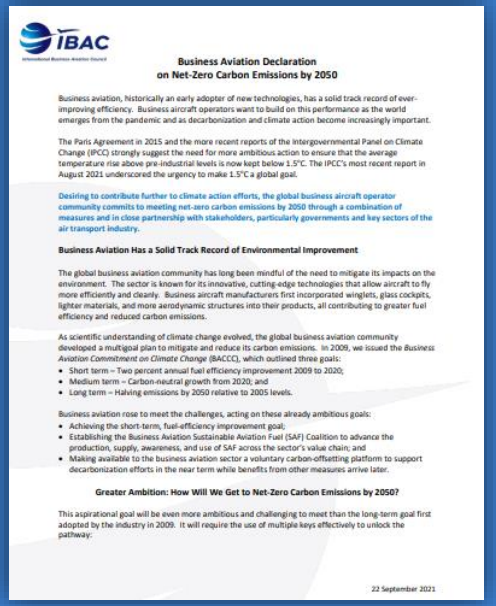
Business Aviation Declaration on Net-Zero Carbon Emissions by 2050 – IBAC, 09/22/2021



IBAC

Business Aviation Declaration on Net-Zero Carbon Emissions by 2050

Business aviation, historically an early adopter of new technologies, has a solid track record of ever-improving efficiency. Business aircraft operators want to build on this performance as the world emerges from the pandemic and as decarbonization and climate action become increasingly important.

The Paris Agreement in 2015 and the more recent reports of the Intergovernmental Panel on Climate Change (IPCC) strongly suggest the need for more ambitious action to ensure that the average temperature rise above pre-industrial levels is now kept below 1.5°C. The IPCC's most recent report in August 2021 underscored the urgency to make 1.5°C a global goal.

Desiring to contribute further to climate action efforts, the global business aircraft operator community commits to meeting net-zero carbon emissions by 2050 through a combination of measures and in close partnership with stakeholders, particularly governments and key sectors of the air transport industry.

Business Aviation Has a Solid Track Record of Environmental Improvement

The global business aviation community has long been mindful of the need to mitigate its impacts on the environment. The sector is known for its innovative, cutting-edge technologies that allow aircraft to fly more efficiently and cleanly. Business aircraft manufacturers first incorporated winglets, glass cockpits, lighter materials, and more aerodynamic structures into their products, all contributing to greater fuel efficiency and reduced carbon emissions.

As scientific understanding of climate change evolved, the global business aviation community developed a multigoal plan to mitigate and reduce its carbon emissions. In 2009, we issued the *Business Aviation Commitment on Climate Change* (BACCC), which outlined three goals:

- Short term – Two percent annual fuel efficiency improvement 2009 to 2020;
- Medium term – Carbon-neutral growth from 2020; and
- Long term – Halving emissions by 2050 relative to 2005 levels.

Business aviation rose to meet the challenges, acting on these already ambitious goals:

- Achieving the short-term, fuel-efficiency improvement goal;
- Establishing the Business Aviation Sustainable Aviation Fuel (SAF) Coalition to advance the production, supply, awareness, and use of SAF across the sector's value chain; and
- Making available to the business aviation sector a voluntary carbon-offsetting platform to support decarbonization efforts in the near term while benefits from other measures arrive later.

Greater Ambition: How Will We Get to Net-Zero Carbon Emissions by 2050?

This aspirational goal will be even more ambitious and challenging to meet than the long-term goal first adopted by the industry in 2009. It will require the use of multiple keys effectively to unlock the pathway:

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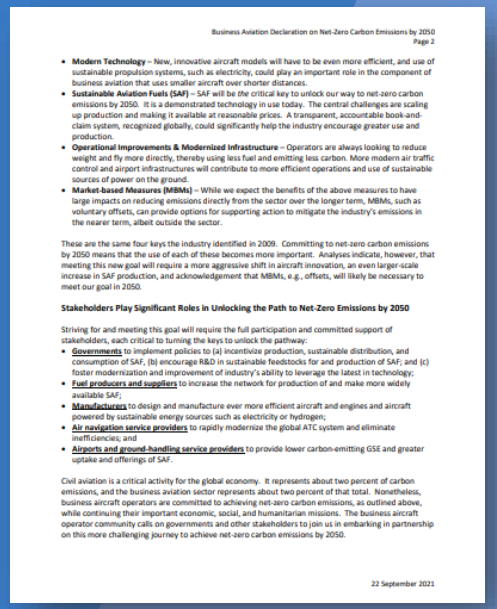

- **Modern Technology** – New, innovative aircraft models will have to be even more efficient, and use of sustainable propulsion systems, such as electricity, could play an important role in the component of business aviation that uses smaller aircraft over shorter distances.
- **Sustainable Aviation Fuels (SAF)** – SAF will be *the* critical key to unlock our way to net-zero carbon emissions by 2050. It is a demonstrated technology in use today. The central challenges are scaling up production and making it available at reasonable prices. A transparent, accountable book-and-claim system, recognized globally, could significantly help the industry encourage greater use and production.
- **Operational Improvements & Modernized Infrastructure** – Operators are always looking to reduce weight and fly more directly, thereby using less fuel and emitting less carbon. More modern air traffic control and airport infrastructures will contribute to more efficient operations and use of sustainable sources of power on the ground.
- **Market-based Measures (MBMs)** – While we expect the benefits of the above measures to have large impacts on reducing emissions directly from the sector over the longer term, MBMs, such as voluntary offsets, can provide options for supporting action to mitigate the industry's emissions in the nearer term, albeit outside the sector.

These are the same four keys the industry identified in 2009. Committing to net-zero carbon emissions by 2050 means that the use of each of these becomes more important. Analyses indicate, however, that meeting this new goal will require a more aggressive shift in aircraft innovation, an even larger-scale increase in SAF production, and acknowledgement that MBMs, e.g., offsets, will likely be necessary to meet our goal in 2050.

Stakeholders Play Significant Roles in Unlocking the Path to Net-Zero Emissions by 2050

Striving for and meeting this goal will require the full participation and committed support of stakeholders, each critical to turning the keys to unlock the pathway:

- **Governments** to implement policies to (a) incentivize production, sustainable distribution, and consumption of SAF, (b) encourage R&D in sustainable feedstocks for and production of SAF; and (c) foster modernization and improvement of industry's ability to leverage the latest in technology;
- **Fuel producers and suppliers** to increase the network for production of and make more widely available SAF;
- **Manufacturers** to design and manufacture ever more efficient aircraft and engines and aircraft powered by sustainable energy sources such as electricity or hydrogen;
- **Air navigation service providers** to rapidly modernize the global ATC system and eliminate inefficiencies; and
- **Airports and ground-handling service providers** to provide lower carbon-emitting GSE and greater uptake and offerings of SAF.

Civil aviation is a critical activity for the global economy. It represents about two percent of carbon emissions, and the business aviation sector represents about two percent of that total. Nonetheless, business aircraft operators are committed to achieving net-zero carbon emissions, as outlined above, while continuing their important economic, social, and humanitarian missions. The business aircraft operator community calls on governments and other stakeholders to join us in embarking in partnership on this more challenging journey to achieve net-zero carbon emissions by 2050.

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IBAC

International Business Aviation Council

AfBAA
AFRICAN BUSINESS AVIATION ASSOCIATION

AsBAA
Asian Business Aviation Association

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ABAA
Australian Business Aviation Association Inc.

BBGA

BAOA

CBAA·ACAA
Canadian Business Aviation Association
Association canadienne de l'aviation d'affaires

EBAA

EBAA
FRANCE

GBAA

ubgaa

IBAA
ITALIAN BUSINESS AVIATION ASSOCIATION

JBAA
Japan Business Aviation Association
一般社団法人 日本ビジネス航空協会

MEBAA™

NBAA

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Desiring to contribute further to climate action efforts, **the global business aircraft operator community commits to meeting net-zero carbon emissions by 2050** through a combination of measures and in **close partnership with stakeholders, particularly governments and key sectors of the air transport industry.**

Civil aviation represents about 2% of carbon emissions, and **the business aviation sector represents about 2% of that total**.

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Business Aviation Commitment on Climate Change (BACCC) goals:

- ✓ **Short term** – 2% annual fuel efficiency improvement 2009 to 2020
- ✓ **Medium term** – Carbon-neutral growth from 2020
  - ✓ Business Aviation Sustainable Aviation Fuel (SAF) Coalition for production, supply, awareness, and use of SAF
- ✓ **Long term** – Reduce emissions by 2050 relative to 2005 levels
  - ✓ Voluntary carbon-offsetting platform

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- ✓ **Modern Technology: sustainable propulsion systems** - e.g.: electricity & hydrogen.
- ✓ **Sustainable Aviation Fuels (SAF) scaling up production and making it available at reasonable prices.**
- ✓ **Operational Improvements & Modernized Infrastructure** - reduce weight and fly more directly, modern air traffic control and airport infrastructures.
- ✓ **Market-based Measures (MBMs)** - voluntary offsets.

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Stakeholders' roles in unlocking to unlock the pathway:

- ✓ **Governments to implement policies to:**
  - (a) incentivize production, sustainable distribution, and consumption of SAF,
  - (b) encourage R&D in sustainable feedstocks for and production of SAF; and
  - (c) foster modernization and improvement of industry's ability to leverage the latest in technology;
- ✓ **Fuel producers and suppliers** to increase the network for production of and make more widely available SAF;
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