ICAO CAEP (Committee on Aviation and Environmental Protection) Meeting Overview

We would like to acknowledge the support of IBAC Industry Partner Bombardier, Member Association NBAA, and the following organisations and their individual experts that contributed to the CAEP Working Groups and meetings: Dassault, Embraer, Gulfstream, Honeywell, Pilatus, Textron, Williams International, Pratt and Whitney Canada, and GAMA. Their individual support is invaluable in ensuring that business aviation has a platform to contribute to the proceedings and safeguard its interests within the civil aviation space.

The ICAO CAEP/12 meeting capped three years of technical work on a range of environmental matters and set the work programme for the next three years. Between the triennial CAEP events, there are annual Steering Groups held to chart progress. CAEP is a technical committee of the ICAO Council. CAEP assists the Council in formulating new policies and adopting new Standards and Recommended Practices (SARPs) related to aircraft noise, emissions, and wider aviation environmental impacts. The results of CAEP/12 will be reported to the ICAO Council for its review and recommendation to the Assembly, which takes place this fall.

IBAC is a recognised International Observer Organisation to ICAO and as such is very active within CAEP. IBAC is supported by a group of Technical Advisors from the industry, who contribute to the work of CAEP through the defined Working Groups (WGs) ensuring that the interests of business aviation aircraft operators are considered.

The Working Groups within CAEP are as follows:

- WG1 – Aircraft Noise
- WG2 – Aircraft Operations
- WG3 – Aircraft Emissions
- WG4 – CORSIA – Carbon Offsetting and Reduction Scheme for International Aviation
- FTG – Fuels Task Group
- FESG – Forecast and Economic Analysis Support Group
- MDG – Modelling and Database Group
- ACCS – Aviation Carbon Calculator Support Group
- ISG – Impacts and Science Group
- SCSEG – Sustainability Certification Schemes Evaluation Group
- LTAG-TG – Long-Term Aspirational Goal – Task Group

CAEP/12 Overview

Industry Achievements in the cycle

- Feasibility study of a Long-Term Aspirational Goal (LTAG) for reduction of carbon emissions from international aviation – Perhaps the central project during this cycle, the study was completed, and CAEP approved the final report. Interestingly, the findings strongly align with those that underpin the recently re-issued *Business Aviation Commitment on Climate Change*.
- Supersonic exploratory study completed for noise, emissions, and fuel burn for notional supersonic aeroplanes
- WG/1 – Subsonic noise standard evaluated to explore possible revision
- Updating of procedures to be able to account for new entrants in terms of emerging technologies within WG2 and WG1, in addition the WG/4 efforts to account for new entrants to the CORSIA

- WG/3 – Development of subsonic foundational combustion science
- Progress on fuels life-cycle assessments for Sustainable Aviation Fuel (SAF) and Low-Carbon Aviation Fuel (LCAF)

Industry well prepared and effective throughout CAEP/12 meeting

- Industry was well prepared for discussions.
- Five Industry papers submitted by IBAC (all joint with either ICCAIA or IATA) were well received by CAEP Member States.
- Industry advocated concerns and proposed solutions to Member States, and the work of CAEP largely encompassed the views of IBAC and other industry partners.
- The next CAEP cycle (CAEP/13) is expected to be challenging given the levels of future work proposed should the Council and Assembly agree on the proposed work programme.

Future Work within the CAEP/13 Cycle (next three years)

Dual standard-setting process approved (CO_2 emissions & noise SARP for subsonic aircraft):

- There will be a need to understand interdependencies between different emissions outputs.
- This work will require large amounts of data and strong coordination between WGs and participants.

Work on supersonic Landing/take-off cycle (LTO), both noise and emissions Standard and Recommended Practices (SARPs)

Recognition and studies of Emerging Technology Aircraft (ETA)

New subsonic full-flight and LTO NOx metric development for a SARP to be adopted in CAEP/14

- Driven by a desire to improve the CAEP/8 SARP structure currently used

Long-Term Aspirational Goal:

- Feasibility study completed and approved
- However, there may be a need to support the CAEP with any additional information required by the ICAO Council prior to the 41st Assembly to be held later in 2022
- Contributions to these requirements by Assembly/Council

Non-CO_2 emissions effects on climate

Familiar position and concerns for business aviation to ensure the sector's aircraft are not overwhelmed by larger aircraft concerns and any requirements agreed for the dual standard-making process. The next three-year work cycle (CAEP/13) is expected to be intensive and will stretch resources for IBAC and our industry colleagues.

ICAO will publish its triannual Environment Report prior to the General Assembly later this year. IBAC is preparing an article for publication in the report on its updated long-term goal of net zero carbon emissions by 2050, as announced in September in the declaration updating the *Business Aviation Commitment on Climate Change*.