

Overview of Climate Goals and ICAO's Work on a Long-Term Aspirational Goal for International Aviation (LTAG)

By ICAO Secretariat

Introduction

The 2010 International Civil Aviation Organization Assembly adopted the existing global aspirational goals for the international aviation sector of 2% annual fuel efficiency improvements and carbon neutral growth from 2020. The establishment of these global goals changed the shape and the pace of the aviation response to climate change. Since then, much has happened in the aviation industry with regards to climate change action, with multiple commitments for further action from ICAO Member States and industry partners. This special supplement provides an overview of the current aviation goals related to climate, and describes the ICAO's work on the feasibility of a long-term global aspirational goal for international aviation (LTAG).

Commitments by States and Industry

In 2009, the world's major aviation industry associations, including the Airports Council International (ACI), the Civil Air Navigation Services Organization (CANSO), the International Air Transport Association (IATA), the International Business Aviation Council (IBAC), and the International Coordinating Council of Aerospace Industries Associations (ICCAIA) announced their collective commitment to reduce aviation carbon emissions by 50 per cent by 2050 compared to 2005 levels. In light of recent

scientific findings and in support of the 1.5°C temperature goal, in 2021 the aviation industry had further raised their level of ambition and collectively committed to achieve net-zero carbon emissions by 2050¹. This would be supported by accelerated efficiency measures, energy transition, and innovation across the aviation sector and in partnership with governments around the world.

Several ICAO Member States have also committed towards the decarbonization of aviation, including 39 ICAO Member States which are signatories of the "International Aviation Climate Ambition Coalition"², and 37 Member States (27 EU Member States and 10 other Member States of the European Civil Aviation Conference (ECAC)), which are the signatories of the "Toulouse Declaration" in support of the goal of carbon neutrality in the air transport sector by 2050³.

LTAG overall process

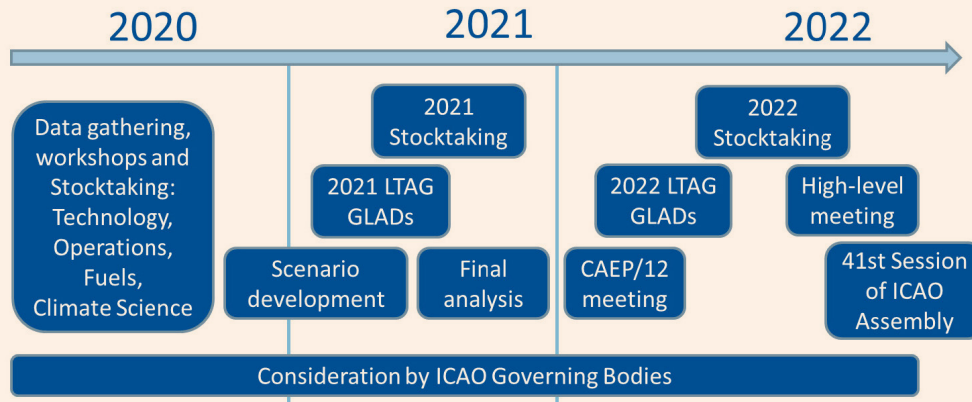
Following the request of the 40th ICAO Assembly in 2019 and in line with that momentum on climate change action, ICAO made dedicated efforts to explore the feasibility of a long-term global aspirational goal (LTAG) for international aviation, including data collection and information sharing; technical assessment of aviation CO₂ emissions reduction scenarios with analyses of costs and necessary investments; consultation and dialogues among stakeholders; and

1 Commitment to Fly Net Zero: <https://aviationbenefits.org/FlyNetZero>

2 International Aviation Climate Ambition Coalition: COP 26 declaration: International Aviation Climate Ambition Coalition - GOV.UK (www.gov.uk)

3 Toulouse Declaration: <https://presidence-francaise.consilium.europa.eu/en/news/european-aviation-summit/>

ICAO LTAG process and timeline



engagement of high-level representatives to facilitate decision. The overall ICAO process and timeline related to LTAG during the triennium is illustrated in the Figure above.

Data Collection and Information Sharing

As part of the ICAO LTAG work, the 2020 and 2021 ICAO Stocktaking events were convened in September 2020⁴ and September 2021⁵, respectively, for data collection and information sharing on aviation in-sector CO₂ emissions reductions. Further details on the Stocktaking Events are provided in article “ICAO Stocktaking on Aviation in-sector CO₂ Emissions reductions” in Chapter 4 of ICAO Environmental Report 2022.

Additionally, with a view to providing one single source of information that is frequently updated to access all the latest CO₂ reduction innovations for aviation, ICAO developed a series of Tracker Tools⁶. They provide the latest information on aviation CO₂ emissions reduction initiatives, and are updated from three streams – technology, operations and fuels, as well as on aviation net zero initiatives. Further information on these trackers are provided in article “ICAO Aviation CO₂ Reduction Initiative Trackers” in Chapter 4 of ICAO Environmental Report 2022.

The ICAO CAEP LTAG Report

Over the last two years, the ICAO Committee on Aviation Environmental Protection (CAEP) undertook its technical work on the feasibility study on LTAG. It has focused on the attainability and readiness of aviation in-sector CO₂ reduction measures, including innovative aircraft technologies, operations and fuels, as it would be necessary to assess the in-sector CO₂ reduction potentials before considering the need and extent of any complementary measure.



The LTAG report, which was unanimously approved at the CAEP/12 meeting in February 2022, consolidates cumulative efforts of over 280 experts over nearly 2 years of intensive work. The LTAG report is available on the ICAO website⁷, and includes scenarios that highlight the potential for substantial CO₂ reductions from innovative aircraft technologies, operations, and fuels, with the assessment of required costs and investments. More details on the LTAG report and its results are provided in the following articles of this special LTAG supplement to ICAO Environmental report 2022.

4 2020 Stocktaking website: <https://www.icao.int/Meetings/Stocktaking2020/Pages/default.aspx>

5 2021 Stocktaking website: <https://www.icao.int/Meetings/Stocktaking2021/Pages/default.aspx>

6 ICAO Tracker Tools website: Aviation CO₂ emissions reduction initiatives - Tracker Tool ([icao.int](https://www.icao.int))

7 ICAO LTAG report website: <https://www.icao.int/environmental-protection/LTAG/Pages/LTAGreport.aspx>

LTAG consultative process

As part of the consultative process on LTAG among ICAO Member States and stakeholders, ICAO organized the LTAG Global Aviation Dialogues (GLADs) as a series of five regional events held both in May 2021⁸ and March/April 2022⁹. The goals and objective so of these events were to share information and raise awareness on the LTAG process and technical analyses, as well as to allow for the exchange of views and expectation to facilitate further LTAG work and decision-making.

The GLADs supported the well-informed deliberations at the High Level Meeting on LTAG (HLM-LTAG), held in July 2022 (more details on HLM-LTAG are provided in a dedicated article “High-level meeting on the feasibility of a long-term aspirational goal for international aviation CO2 emissions reductions” of this special supplement. The GLADs participants also exchanged views on possible building blocks for LTAG considerations, such as: scientific

understanding and context, expected potential contribution of technology, operations and fuels, and the level of LTAG ambition. The participants also discussed on possible means of implementation, expected support to ICAO Member States with action plans, roadmaps, and ways of monitoring progress (more details on GLADs are provided in the a dedicated article “Global Aviation Dialogues (GLADs)” of this special supplement).

Conclusion

Aviation is moving to address its responsibilities on the climate crisis. ICAO is steadily following up on these developments, with the extensive work associated with the feasibility of a long-term global aspirational goal for international aviation. The LTAG deliberations at the ICAO 41st Assembly will be of crucial importance to consolidate the aviation’s efforts towards decarbonization.

8 2021 GLADs website: <https://www.icao.int/Meetings/2021-ICAO-LTAG-GLADS/Pages/default.aspx>

9 2022 GLADs website: <https://www.icao.int/Meetings/2022-ICAO-LTAG-GLADS/Pages/default.aspx>