International Civil Aviation Organization

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WORKING PAPER

HIGH-LEVEL MEETING ON THE FEASIBILITY OF A LONG-TERM ASPIRATIONAL GOAL FOR INTERNATIONAL AVIATION CO_2 EMISSIONS REDUCTIONS (HLM-LTAG)

Montréal, 19 to 22 July 2022

Agenda Item 1: CO_2 emissions reduction scenarios and options for LTAG
Agenda Item 4: Conclusions and Recommendations of the Meeting

LEVEL OF LTAG AMBITION (BUILDING BLOCK 3)

(Presented by the ICAO Secretariat)

SUMMARY

This paper presents the ICAO work on the feasibility of an LTAG since the 40th Session of the Assembly, with a focus on the level of ambition through the information sharing and consultative process by the ICAO Stocktaking and Global Aviation Dialogues (GLADs), as well as the commitments by the aviation industry and other stakeholders.

Action by the Meeting is in paragraph 5.

1. INTRODUCTION

1.1 As part of the consultative process among States and stakeholders, ICAO organized the LTAG Global Aviation Dialogues (GLADs) as a series of five regional events both in May 2021[1] and March/April 2022[2], to share information and raise awareness on the LTAG process and technical analyses, as well as allowing for the exchange of views and expectation to facilitate further work.

1.2 For the data collection and information sharing on aviation in-sector CO_2 emissions reductions, ICAO organized the 2020 and 2021 ICAO Stocktaking events in September 2020[3] and September 2021[4], respectively. During these events, States, industry leaders, researchers and innovators shared their ambitious plans, solutions and policies for carbon emissions reduction from international aviation, including measures from technology, operations and fuels.

1.3 In addition, ICAO developed a series of Tracker Tools[5], where all the latest information on aviation CO_2 emissions reduction initiatives is updated from three streams – technology, operations and

[1] 2021 GLADs website: https://www.icao.int/Meetings/2021-ICAO-LTAG-GLADS/Pages/default.aspx
[2] 2022 GLADs website: https://www.icao.int/Meetings/2022-ICAO-LTAG-GLADS/Pages/default.aspx
[3] 2020 Stocktaking website: https://www.icao.int/Meetings/Stocktaking2020/Pages/default.aspx
[4] 2021 Stocktaking website: https://www.icao.int/Meetings/Stocktaking2021/Pages/default.aspx
[5] ICAO Tracker Tools website: Aviation CO2 emissions reduction initiatives - Tracker Tool (icao.int)

fuels, as well as on aviation net zero initiatives. These trackers provide one single source that is frequently updated to access all the latest CO_2 reduction innovations for aviation (HLM-LTAG-WP/8 refers).

1.4 This paper highlights the views expressed, and the commitments made, by Member States and aviation industry stakeholders, regarding the levels of CO_2 reduction ambition for international aviation, which have been captured through the LTAG GLADs, ICAO Stocktaking and Tracker Tools.

2. LTAG GLOBAL AVIATION DIALOGUES (GLADS)

2.1 During the 2022 LTAG Global Aviation Dialogues (GLADs) (HLM-LTAG-IP/3 refers), representatives of States and stakeholders raised questions as well as provided views, regarding the level of LTAG ambition, which were compiled by the Secretariat and made publically available on the LTAG GLADs website[6].

2.2 While the findings of the LTAG report (HLM-LTAG-WP/4 and IP/2 refer) were well received and most participants recognized the importance of taking action to address international aviation CO_2 emissions, there were a number of questions raised and associated views expressed during the GLADs. It was clarified that, due to the cross-national-boundary nature of international transport, emissions from international aviation and maritime are not included as part of the Nationally Determined Contributions (NDCs) of individual States under the Paris Agreement, and these are addressed globally as a sector by ICAO and the International Maritime Organization (IMO), respectively.

2.3 While States recognized the need for action by all sectors, including aviation, and some States already expressed their readiness to commit to ambitious goals, several States expressed concerns on the potential costs for implementing the actions required for achieving an ambitious goal, mainly in light of the state of the aviation industry and general economic situation in their States due to the COVID-19 pandemic. On the cost impacts assessment in the LTAG report and on who would bear the costs, it was clarified that the LTAG analysis was undertaken at a global level without attributing costs to individual States, as LTAG would be a collective goal of the global international aviation sector and it would not set obligations in the form of emission reduction goals to individual States. Once a decision on LTAG is made, States will be contributing to the collective goal differently, and the level of international aviation activity, the cost and many other specificities and implications might be different for individual States. It was also clarified by the aviation industry that they have already committed to an ambitious goal but that achieving the goal would require cooperation and engagement by the governments.

2.4 It was also clarified that the costs, the needs for financing, and the needs for capacity building would all depend on the measures selected by each State. For example, regarding the future aircraft technologies, aircraft research and development programmes, the required investments will not be applicable to all States, but to those States that have aircraft manufacturers and/or certification authorities. There may also be differences in the operational measures that are available in different States, and also in the potential rate at which such measures will be rolled out from region to region. Regarding fuels, while there is significant production potential for sustainable fuels in all regions, the precise nature of such potential may vary from region to region. For example, some regions may be looking to move into cryogenic hydrogen, others may have more availability of biomass, while others may be more interested in municipal waste and the infrastructure to support the avenue. All these show the variations, by which States may contribute to the achievement of LTAG differently.

[6] 2022 GLADs website: https://www.icao.int/Meetings/2022-ICAO-LTAG-GLADS/Pages/default.aspx

2.5 A number of participants in the GLADs also expressed concern regarding the different circumstances and readiness levels of individual States in their capacity to respond to the challenges associated with climate change. They emphasized the critical need to provide necessary means of implementation to support States having particular needs, in particular to developing countries, including for the planning and implementation of specific aviation CO_2 reduction measures identified in their State Action Plans (HLM-LTAG-WP/6 refers), and the provision of other means of implementation such as the establishment of partnerships and cooperation among States and stakeholders to facilitate access to capacity building and financial resources (HLM-LTAG-WP/7 refers).

3. COMMITMENTS BY STATES AND INDUSTRY

3.1 Prior to the 2010 ICAO Assembly that adopted the existing global aspirational goals for the international aviation sector of 2% annual fuel efficiency improvements and carbon neutral growth from 2020, the world's major aviation industry associations, including Airports Council International (ACI), Civil Air Navigation Services Organization (CANSO), International Air Transport Association (IATA), International Business Aviation Council (IBAC) and 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.

3.2 In light of recent scientific findings and in support of the 1.5°C temperature goal, the aviation industry has further raised their level of ambition in 2021, and collectively committed to achieve net-zero carbon emissions by 2050[7], which would be supported by accelerated efficiency measures, energy transition and innovation across the aviation sector and in partnership with governments around the world.

3.3 The ATAG Waypoint 2050 Report[8] further explains possible scenarios on which the industry would use technology, operations, infrastructure, sustainable aviation fuels, complemented by out-of-sector measures to reach the specific goal of 2050 net zero carbon emissions from aviation, covering both domestic and international air transport. The Report assesses the cost for the implementation of these measures and the need for substantial investment in R&D and financing for the implementation of production facilities for cleaner energy sources. The industry highlights that although these costs are significant, they would not an impediment for the sector's future development.

3.4 Since the 40th Session of the ICAO Assembly, several States have already committed towards the decarbonization of aviation, including:

a) 28 Member States (from ICAO APAC, EUR-NAT, NACC, ESAF, WACAF regions), which are signatories of the "International Aviation Climate Ambition Coalition", which was launched at the UNFCCC COP26 side event organized by the United Kingdom, supporting the adoption by ICAO of an ambitious long-term aspirational goal for international aviation consistent with limiting the global average temperature increase to 1.5°C, and in view of the aviation industry's commitment toward net zero CO_2 emissions by 2050[9]. In this regard, during the COP26, the United States also announced its Aviation Climate Action Plan to achieve net zero emissions by 2050; and

[7] Commitment to Fly Net Zero: https://aviationbenefits.org/FlyNetZero
[8] ATAG Waypoint 2050 Report: https://aviationbenefits.org/environmental-efficiency/climate-action/waypoint-2050/
[9] International Aviation Climate Ambition Coalition: COP 26 declaration: International Aviation Climate Ambition Coalition - GOV.UK (www.gov.uk)

b) 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 2050[10].

3.5 As described above, the ICAO Tracker Tools include a specific "Tracker" on aviation net zero initiatives, providing specific information that highlights the level of ambition and commitments made by Member States and stakeholders.

4. MESSAGES FROM UNITED NATIONS AND YOUTH

4.1 Also related to the ambition expected for the aviation industry's goals, on the International Civil Aviation Day on 7 December 2020, the UN Secretary-General welcomed the commitments to net-zero emissions made by members of the aviation community, and urged the entire sector to commit to net zero by 2050[11]. In addition, on the International Civil Aviation Day on 7 December 2021[12], the UN Secretary-General highlighted that climate commitments by the aviation sector are not aligned with the 1.5°C temperature goal, and adopting a new set of ambitious targets that commit to net zero by 2050, with interim goals and credible implementation plans, must be an urgent priority for the next ICAO Assembly.

4.2 In addition, during the ICAO Stocktaking in September 2021, a call was made for the global youth to come together under an umbrella organization in order to engage with ICAO. The Global Youth Engagement – Facilitation Session[13] was held in October 2021 and served to further this call for the global youth, with the aim of establishing an independent Youth Umbrella Group that would be open to all and aimed at global representation. ICAO is currently facilitating the forming this independent youth group, to enable the active engagement with ICAO on aviation environmental matters, which could provide ICAO an opportunity to bring new ideas, solutions and views to reduce aviation's carbon footprint.

5. ACTION BY THE HLM-LTAG

5.1 The HLM-LTAG is invited to:

a) recognize the different circumstances among States in their capacity to respond to the challenges associated with climate change, and the need to provide necessary support to States having particular needs, in particular to developing countries, by facilitating access to financial resource, technology transfer and capacity building;

b) recognize that the achievement of an ambitious CO_2 emissions reduction goal for international aviation requires the active engagement and cooperation of States and the industry, while also recognizing the commitments by several States on the levels of CO_2 emissions reduction ambition for international aviation, as well as the aviation industry's collective commitment to achieve a long-term goal net-zero carbon emissions by 2050 in support of the 1.5°C temperature goal;

[10] Toulouse Declaration: https://presidence-francaise.consilium.europa.eu/en/news/european-aviation-summit/
[11] https://www.icao.int/Newsroom/Pages/UNSG-MESSAGE-ON-INTERNATIONAL-CIVIL-AVIATION-DAY.aspx
[12] https://www.un.org/press/en/2021/sgsm21060.doc.htm
[13] https://www.icao.int/Meetings/youth4aviation/Pages/default.aspx

c) note that the use of aviation in-sector CO_2 emissions reduction measures (technology, operations and fuels) will be preferred for the achievement of an LTAG, which could be complemented by out-of-sector measures to fill any emissions gap if required; and

d) use the information contained in this paper, bearing in mind the nature of collective ICAO global aspirational goals for the international aviation sector, for consideration of possible outcomes of the HLM-LTAG related to the LTAG Building Block 3: *Level of LTAG Ambition*, including the possible formulation below:

"ICAO and its Member States with relevant organizations will work together to strive to achieve a collective long-term global aspirational goal (LTAG) for international aviation of ***xxx (level of ambition by year 20yy)***, noting the collective commitment already taken by the aviation industry to achieve net-zero carbon emissions by 2050, in support of the 1.5°C temperature goal, while recognizing that an LTAG is a collective global aspirational goal and it does not attribute specific obligations in the form of emissions reduction goals to individual States.".

— END —