



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

**REPORT ON THE FEASIBILITY OF A LONG-TERM  
ASPIRATIONAL GOAL (LTAG) FOR INTERNATIONAL CIVIL AVIATION  
CO<sub>2</sub> EMISSION REDUCTIONS**

**Appendix B1** Background



**ICAO COMMITTEE ON AVIATION ENVIRONMENTAL PROTECTION  
MARCH/2022**

## APPENDIX B1

### BACKGROUND

#### 1. INTRODUCTION

1.1 During the 40th Session of ICAO Assembly (24 September to 4 October 2019), ICAO Member States requested the Council to continue to explore the feasibility of a long-term global aspirational goal (LTAG) for international civil aviation, through conducting detailed studies assessing the attainability and impacts of any goals proposed, including the impact on growth as well as costs in all countries, especially developing countries, for the progress of the work to be presented to the 41st Session of the ICAO Assembly (Assembly Resolution A40-18, operative paragraph 9, refers to Attachment E).

1.2 Initial discussions on the feasibility analysis of LTAG took place at the 218th Session of the Council, in November 2019. The following information was provided to the Council for its consideration: *“Based on previous experience, it is of paramount importance that the process to construct the basis for consideration of options for a long-term global aspirational goal for international aviation should: be built upon reliable scientific and technical information on the latest innovative technologies; be transparent and inclusive; and provide necessary capacity building that allows full participation in the process. Therefore, it is envisaged that a consultative process similar to the Global Aviation Dialogues (GLADs) which was used in the case of CORSIA, be followed to facilitate the work on a long-term global aspirational goal. It is also important that the ongoing ICAO bodies / processes would be fully engaged in the work for consideration of options for a long-term global aspirational goal. For example, the ICAO stock-taking process for the 2050 ICAO Vision on Sustainable Aviation Fuels is focusing on one element in the basket of measures, and similar parallel processes for other elements (aircraft technologies and operational improvements) could be used.”*

1.3 The 2019 CAEP Steering Group meeting (2 to 6 December 2019, Johannesburg, South Africa) considered the best way the work of the Committee could help the LTAG assessment process. The CAEP agreed to recommend the establishment of a CAEP LTAG Task Group (CAEP LTAG-TG) to provide technical support, through CAEP, to the 219th Session of the Council in exploring the feasibility of a LTAG. CAEP also recommended Terms of Reference (TORs) for the CAEP LTAG-TG, including its mandate, tasks and composition. In general, it was agreed that the CAEP LTAG-TG would undertake:

- a) data gathering from internal and external sources in a transparent and inclusive manner;
- b) development of in-sector emissions reduction scenarios from technology, operations and fuels based on the data gathering; and
- c) an impact analysis of the scenarios, including possible options and an implementation roadmap for a LTAG.

1.4 At the 219th Session of the Council, on 13 March 2020, the Council agreed to the CAEP recommendations regarding the organization of work to assess the feasibility of a LTAG, with modifications to the TORs for the CAEP LTAG-TG. The TORs for LTAG-TG are provided in Attachment A.

## 2. CAEP LTAG-TG ACTIVITIES

2.1 CAEP has since established the LTAG-TG, led by a Chairperson (the CAEP Member of Japan), supported by two co-Chairpersons (the CAEP Members of the Netherlands and Saudi Arabia).

2.2 The CAEP LTAG-TG held its first conference call on 9 April 2020, and agreed on its work programme (Attachment B), initially developed by CAEP in accordance with the LTAG Framework, as well as the initial timeline for deliverables (Attachment C).

2.3 In considering the LTAG-TG TORs, and the main tasks outlined therein, as approved by the Council, the LTAG-TG initially created 3 sub-groups including Technology sub-group, Operations sub-group and Fuels sub-group under the LTAG-TG to examine: i) reductions from technology improvements; ii) reductions from operational improvements; iii) reductions from fuel; and iv) scenario development, respectively. Each sub-group was managed by two co-Leads: Technology sub-group (experts nominated by Canada and the U.S.), Operations sub-group (experts nominated by UAE and EU) and Fuels sub-group (experts nominated by Spain later (replaced by Italy) and the U.S.). The LTAG-TG structure is presented in Attachment D. Regarding scenario developments, the LTAG-TG deferred their decision to create the Scenario Development sub-group whose work began after the CAEP Steering Group 2 (CAEP SG2) later in 2020 in order that the LTAG-TG could initially focus on the work on data gathering. On the other hand, the LTAG-TG decided to start defining the co-Leads and how to progress the work prior to the CAEP SG2.

2.4 Each Technology, Operation and Fuel sub-group has gathered data from internal sources (ICAO and CAEP) and external Groups (New stakeholder and through workshops and stocktaking) to:

- a) both identify and evaluate existing, foreseen, and innovative in-sector measures (technology, fuels and operations, and their enablers) that could potentially contribute to reducing CO<sub>2</sub> emissions from international civil aviation;
- b) understand the latest consensus climate science primarily based on IPCC reports and ISG;
- c) include information from Member States on their experiences.

2.5 The CAEP LTAG-TG and its sub-groups accelerated their work through frequent web meetings toward their final report to CAEP/12 after the CAEP Steering Group in October 2020 (SG2020).

2.6 Based on the endorsement of SG2020, the Scenario subgroup led by two co-leads (experts nominated by China and the United Kingdom) was established to develop integrated in-sector scenarios of technology, fuels, and operations that represent a range of readiness and attainability. Additionally, in order to estimate the costs associated with the scenarios in detail in line with the TORs, the Cost-Estimation Adhoc group led by an expert nominated by the U.S. was created in February 2021.

2.7 In order to check consistency between the MDG models and inputs from the LTAG-TG, notional inputs of scenarios for technologies, fuels and operations were prepared and provided to the MDG as a Sample Problem analysis.

2.8 Coordinations with the CAEP Impacts and Science Group (ISG) were made in accordance with the new work programmes agreed by SG2020. Through this coordination it was deemed unnecessary to hold a climate science workshop and decided that the better way for ISG to inform the LTAG-TG work was through a written report. The ISG provided to the LTAG-TG in April 2021 the ISG draft report

regarding allowed emission of carbon dioxide for limiting global mean temperature increase to 1.5 or 2 degrees. The ISG finalized and provided the ISG report in consideration with IPCC Report's sixth assessment report published in August 2021 to the LTAG-TG in October 2021 for reviewing LTAG-TG results compared with the latest consensus scientific knowledge.

2.9 Sub-groups for Technologies, Fuels, Operations and Scenarios Development coordinated closely and developed an initial version of integrated in-sector scenarios of technology, fuels, and operations that represent a range of readiness and attainability (LTAG.03)..

2.10 While the task of the CAEP LTAG-TG was to explore the feasibility of a long-term global aspirational goal for international civil aviation CO<sub>2</sub> emissions reductions (LTAG), intensive discussion took place concerning how much disaggregation to global, regional and state levels were considered in the analysis and how cost impacts in all countries especially developing countries were addressed.

2.11 Furthermore, while LTAG-TG was supposed to provide its final report to the CAEP/12 in 2022, the LTAG-TG considered it beneficial to provide in advance the draft contents of the final report to SG2021 for their feedback.

2.12 LTAG-TG supported ICAO on outreach activities in support to the development of LTAG, including ICAO LTAG-GLADs (the ICAO Global Aviation Dialogues on LTAG) which were held in 5 regions in May 2021.

2.13 Most work items of the CAEP LTAG-TG had progressed as planned. The CAEP LTAG-TG work programmes, the overall process of LTAG and the time line of LTAG-TG, the structure of the CAEP LTAG-TG and Assembly Resolution A40-18 are described in Attachment B, Attachment C, Attachment D and Attachment E respectively.

2.14 Each sub-group for Technologies, Fuels, Operations and Scenarios advanced their tasks under a leadership of each co-Leads and expected outcomes and coordination were achieved.

2.15 The CAEP LTAG-TG continuously collaborated and coordinated with the MDG/FESG for the final analysis of the integrated scenario to understand those impacts on CO<sub>2</sub> emissions. The costs associated with the scenarios and economic impacts on aviation growth, noise and air quality, in all countries especially developing countries, were considered, and the results was also placed in the context of an analysis of achieving the current ICAO aspirational goals and the latest consensus scientific knowledge (LTAG.03 and LTAG.04).

2.16 The CAEP LTAG-TG prepared the final report that explores the feasibility of an LTAG, which includes CAEP recommendation to the Council including options and roadmaps for their realization (LTAG.05).

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**ATTACHMENT A****TERMS OF REFERENCE FOR THE CAEP TASK GROUP TO EXPLORE THE FEASIBILITY  
OF A LONG-TERM ASPIRATIONAL GOAL (CAEP LTAG-TG)****1. MANDATE OF CAEP LTAG-TG**

The CAEP LTAG-TG shall provide technical support, through CAEP, to the Council, in the exploration of the feasibility of a long-term global aspirational goal for international civil aviation CO<sub>2</sub> emissions reductions (LTAG) including options and roadmaps for their realization, for Council consideration in accordance with A40-18, in particular paragraph 9.

**2. TASKS OF CAEP LTAG-TG**

- 1) Propose the timeline and develop the inputs, including a defined methodology, that are needed to explore the feasibility of a LTAG.
- 2) Gather data from internal sources (ICAO and CAEP) and external groups (new stakeholders and through workshops and stocktaking) to:
  - both identify and evaluate existing, foreseen, and innovative in-sector measures (technology, fuels and operations, and their enablers) that could potentially contribute to reducing CO<sub>2</sub> emissions from international civil aviation;
  - understand the latest consensus climate science primarily based on IPCC reports and ISG;
  - include information from Member States on their experiences.

The work on data gathering should be transparent and inclusive.

Develop scenarios to create combined in-sector scenarios of technology, fuels, and operations that represent a range of readiness and attainability. The scenarios will utilize findings from the data gathering exercise and include a range of forecasts in future air transport demand. The work should be placed in the context of an analysis of achieving the current ICAO aspirational goals (i.e. two percent annual fuel efficiency improvement and carbon neutral growth from 2020).

Conduct final analysis of the scenarios to understand those impacts on CO<sub>2</sub> emissions including relating this to the actual 2020 levels. The costs associated with the scenarios and economic impacts on aviation growth, noise and air quality, in all countries especially developing countries, will be considered, and the results will be placed within the context of the latest consensus scientific knowledge.

- 3) Prepare the progress reports of the feasibility study of an LTAG for CAEP review and recommendation to the Council.

- 4) Draft the final report that explores the feasibility of an LTAG, which includes CAEP recommendation to the Council including options and roadmaps for their realization.
- 5) Support ICAO on outreach activities in support to the development of LTAG, including in the planning and definition of deliverables and expectations from outreach activities.
- 6) Undertake any other tasks as decided by the CAEP in order to facilitate the feasibility study of an LTAG.

### 3. COMPOSITION OF CAEP LTAG-TG

3.1 The composition of the CAEP LTAG-TG should take into account the competency and expertise of members as a group, as well as the need for balanced geographical representation. The composition should consider ICAO policies on gender balance.

3.2 The CAEP LTAG-TG consists of experts nominated by CAEP Members and Observers who are willing to substantially contribute to the tasks outlined in paragraph 2 above.

3.3 The CAEP LTAG-TG work is led by two CAEP-Members nominated by CAEP, unless otherwise agreed by CAEP.

3.4 The work will be supported by the CAEP Secretariat and relevant Working Group Focal Points.

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## ATTACHMENT B

CAEP/12 Task Number	Short Title	Description	Deliverable	Deliverable Date
<b>LTAG.01</b>	Planning and timeline	Propose the <b>timeline</b> and develop the inputs, including a defined methodology, that are needed to explore the feasibility of a LTAG.	Overall Report	SG2020 with possible updates
<b>LTAG.02</b>	Data Gathering	<p><b>Data gathering</b> from internal sources (ICAO and CAEP) and external groups (new stakeholders and through workshops and stocktaking) to:</p> <ul style="list-style-type: none"> <li>• both identify and evaluate existing, foreseen, and innovative in-sector measures (technology, fuels and operations, and their enablers) that could potentially contribute to reducing CO<sub>2</sub> emissions from international civil aviation;</li> <li>• understand the latest consensus climate science primarily based on IPCC reports and ISG.</li> <li>• include information from Member States on their experiences.</li> </ul> <p>The work on data gathering should be transparent and inclusive.</p>	A report to CAEP-SG2 on the results of the data gathering process on in sector reductions, following a defined methodology, including the latest information primarily from the IPCC and ISG on consensus climate science, and the States Action Plans.	CAEP SG2020

<b>LTAG.03</b>	Scenario development	Scenario development to create <b>combined in-sector scenarios</b> of technology, fuels, and operations that represent a range of readiness and attainability. The scenarios will utilize findings from the data gathering exercise and include a range of forecasts in future air transport demand. The work should be placed in the context of an analysis of achieving the current ICAO aspirational goals (i.e. two percent annual fuel efficiency improvement and carbon neutral growth from 2020).	A report to CAEP-SG3 on scenarios of combinations of technology, fuels and operations and future air transport demand.	SG2021
<b>LTAG.04</b>	Final Analysis	<b>Final Analysis of the scenarios</b> to understand those impacts on CO <sub>2</sub> emissions including relating this to the actual 2020 levels. The costs associated with the scenarios and economic impacts on aviation growth, noise and air quality, in all countries especially developing countries, will be considered, and the results will be placed within the context of the latest consensus scientific knowledge.	A final report for CAEP/12 to present to 225th Council that explores the feasibility of a long term aspirational goal and develop options for consideration.	CAEP/12
<b>LTAG.05</b>	Progress Reports	Prepare the <b>progress reports</b> of the feasibility study of an LTAG for CAEP review and recommendation to the Council.	Progress Report	SG2020 SG2021
<b>LTAG.06</b>	Draft Final Report	Draft the <b>final report</b> that explores the feasibility of an LTAG, which includes CAEP recommendation to the Council including <b>options and roadmaps</b> for their realization.	Draft the final report	CAEP/12



<b>LTAG.07</b>	Support to ICAO process	Support ICAO on <b>outreach activities</b> in support to the development of LTAG, including in the planning and definition of deliverables and expectations from outreach activities.	Support to ICAO	Ongoing
<b>LTAG.08</b>	Other tasks	Undertake any other tasks as decided by the CAEP (in principle based on requests by the ICAO Council) in order to <b>facilitate the feasibility study</b> of an LTAG.	Ad-hoc	Ongoing

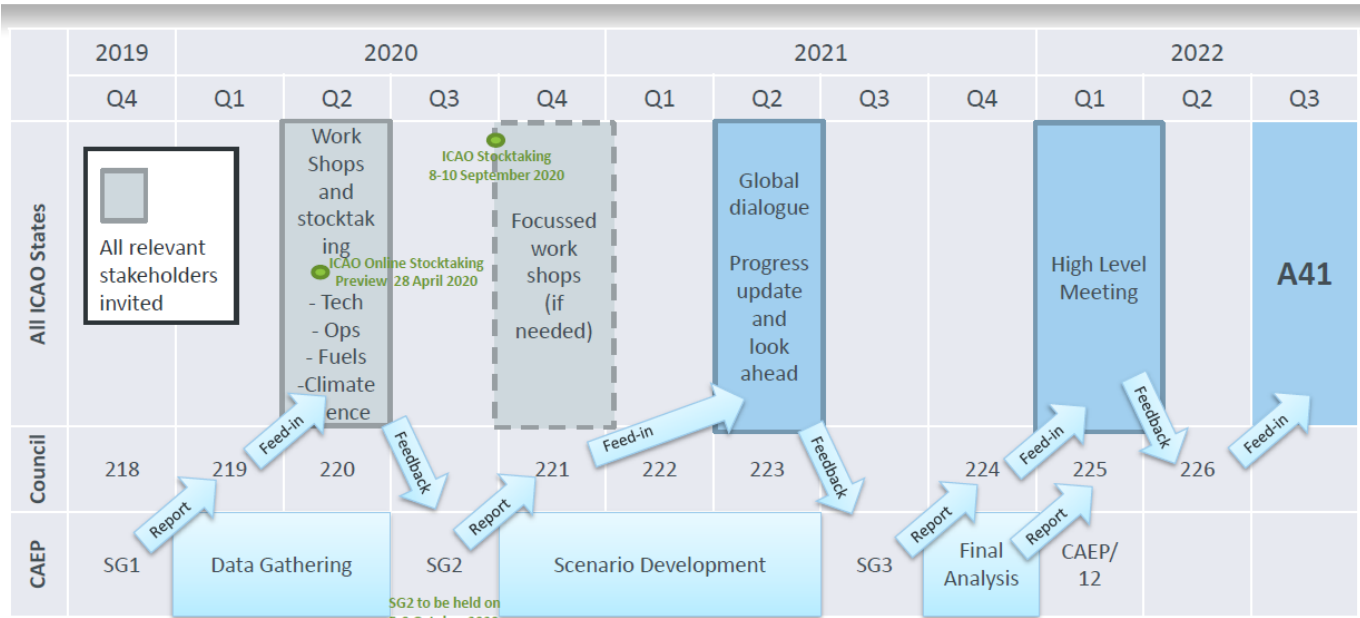
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ATTACHMENT C



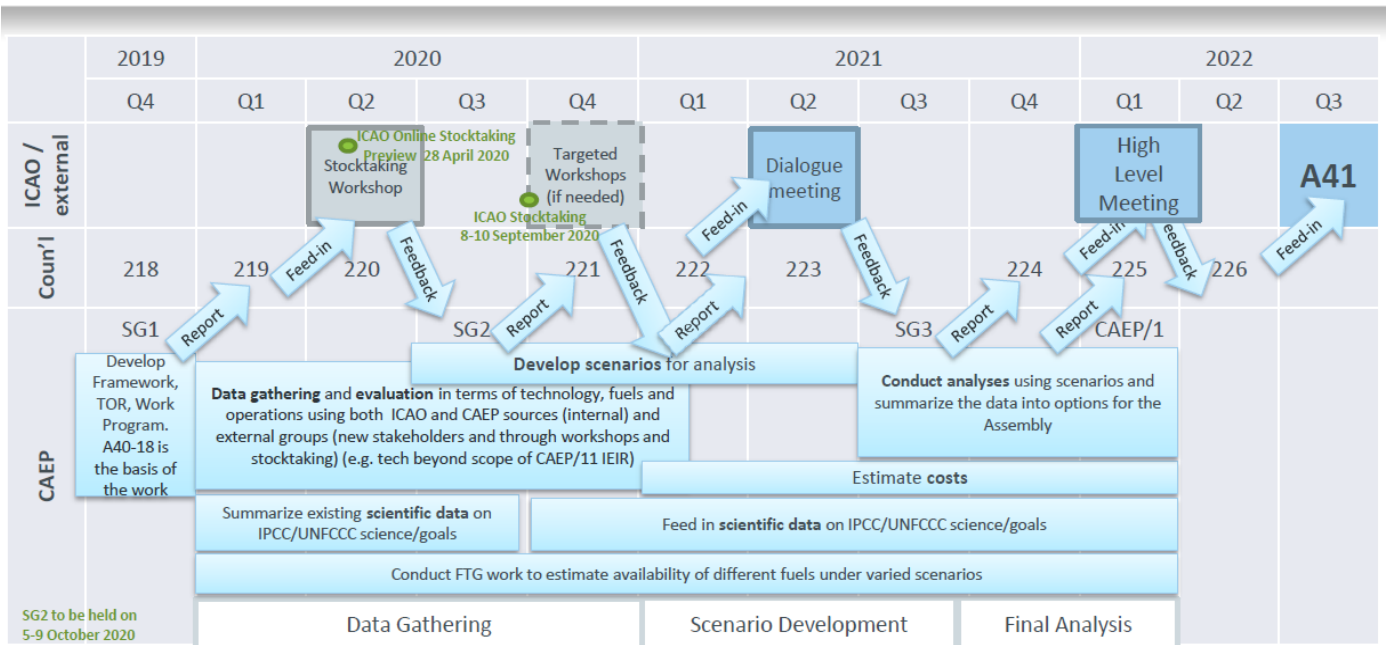
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Overarching Process

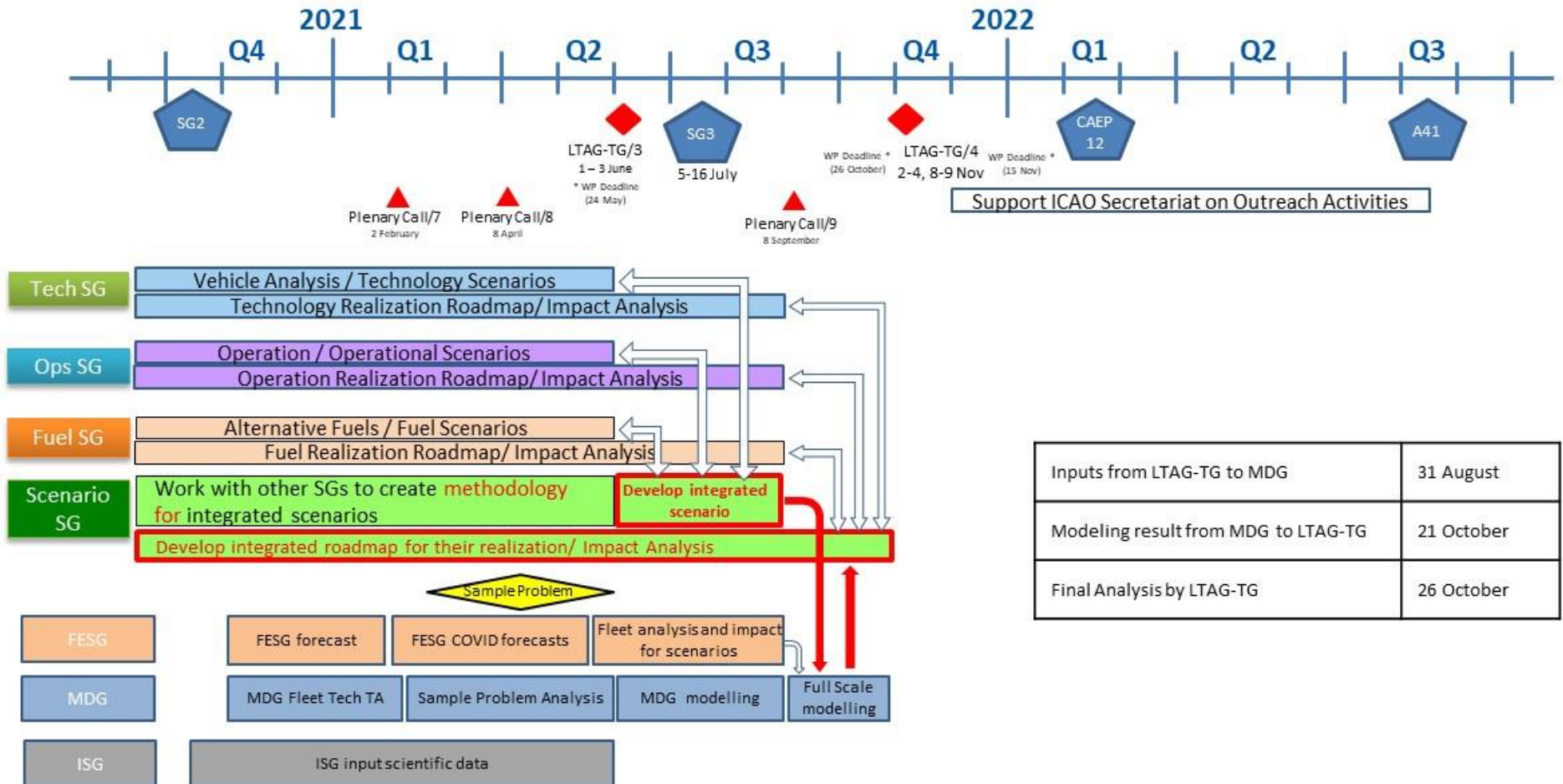


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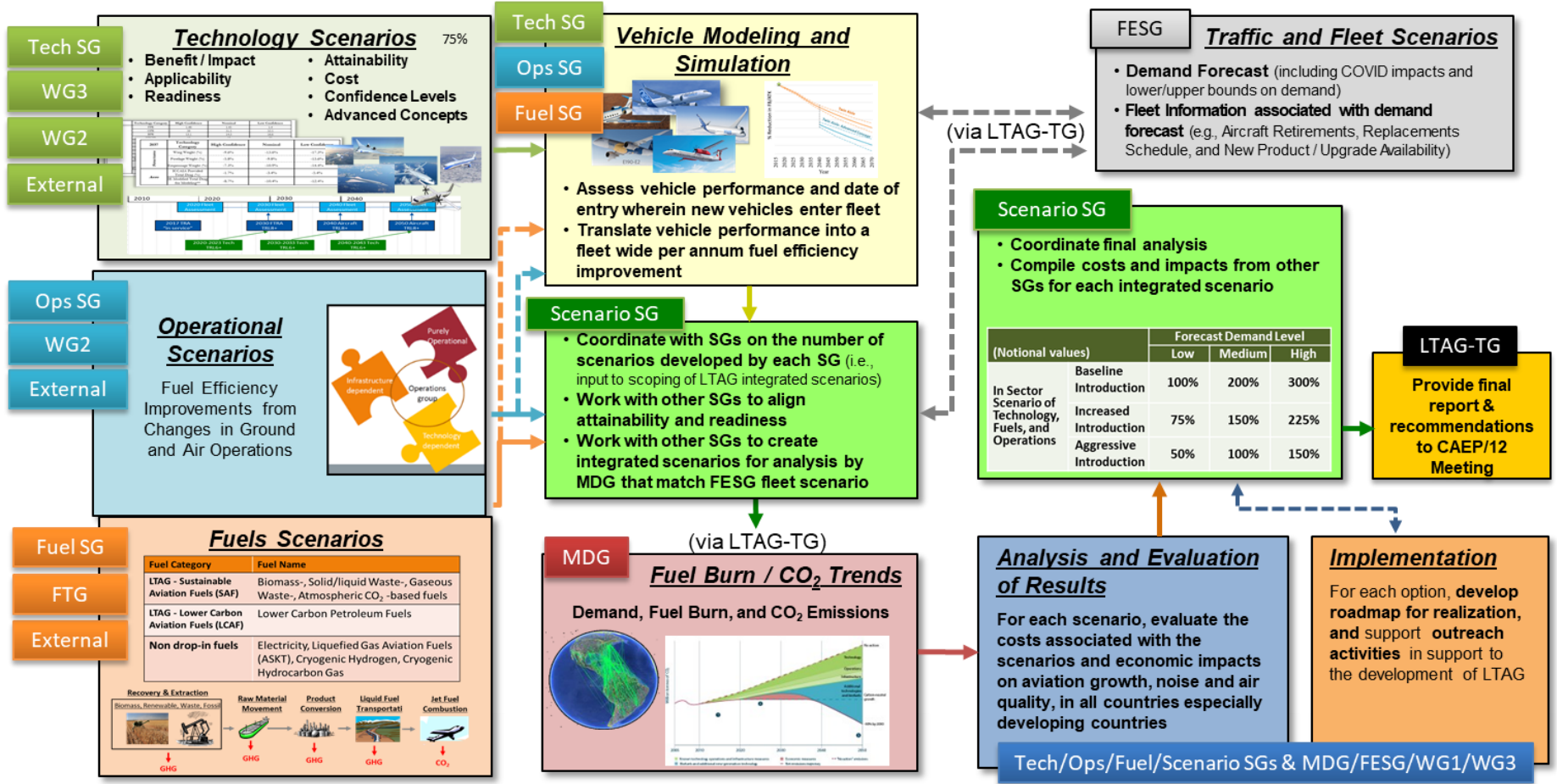
CAEP Process



**CAEP LONG TERM ASPIRATION GOAL TASK GROUP (LTAG-TG) TIMELINE**

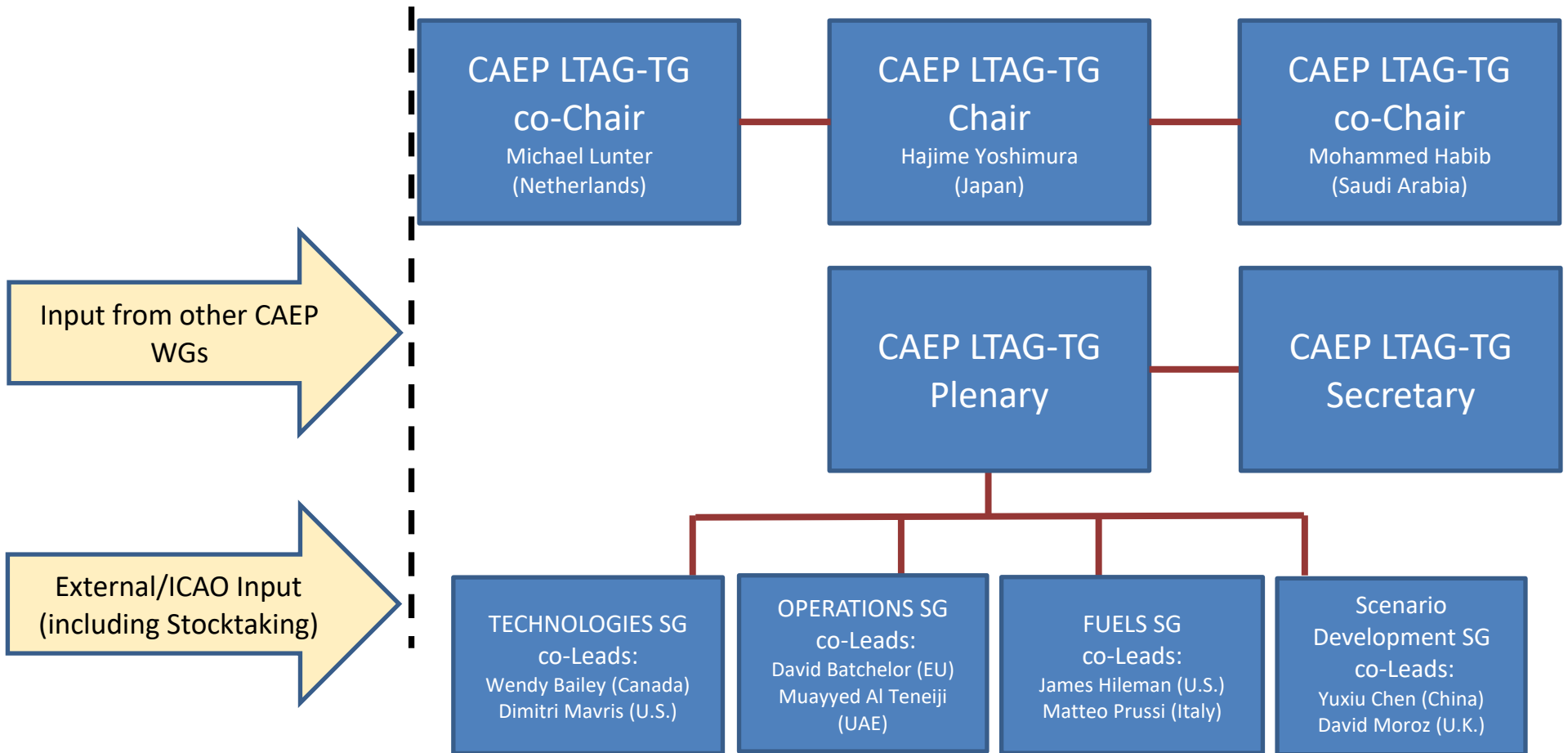


**KEY INTERACTIONS DURING OVERALL MODELING PROCESS**



**ATTACHMENT D**

**CAEP LONG TERM ASPIRATION GOAL TASK GROUP (LTAG-TG) STRUCTURE**



**ATTACHMENT E****RESOLUTION A40-18: CONSOLIDATED STATEMENT OF CONTINUING ICAO POLICIES AND PRACTICES RELATED TO ENVIRONMENTAL PROTECTION - CLIMATE CHANGE**

Whereas ICAO and its member States recognize the critical importance of providing continuous leadership to international civil aviation in limiting or reducing its emissions that contribute to global climate change;

Reemphasizing the vital role which international aviation plays in global economic and social development and the need to ensure that international aviation continues to develop in a sustainable manner;

Acknowledging that the work of the Organization on the environment contributes to 14 of the 17 United Nations Sustainable Development Goals (SDGs), including SDG 13 “Take urgent action to combat climate change and its impacts”;

Whereas a comprehensive assessment of aviation’s impact on the atmosphere is contained in the special report on Aviation and the Global Atmosphere, published in 1999, which was prepared at ICAO’s request by the Intergovernmental Panel on Climate Change (IPCC);

Whereas the IPCC special report recognized that the effects of some types of aircraft emissions are well understood, it revealed that the effects of others are not, and identified a number of key areas of scientific uncertainty that limit the ability to project aviation’s full impacts on climate and ozone; the Organization will update the information contained in the IPCC special report;

Acknowledging that international aviation emissions, currently accounting for less than 2 per cent of total global CO<sub>2</sub> emissions, are projected to increase as a result of the continued growth of air transport;

Whereas the ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC) is to achieve stabilization of greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;

Whereas the Kyoto Protocol, which was adopted by the Conference of the Parties to the UNFCCC in December 1997 and entered into force on 16 February 2005, calls for developed countries (Annex I Parties) to pursue limitation or reduction of greenhouse gases from “aviation bunker fuels” (international aviation) working through ICAO (Article 2.2);

Whereas the Paris Agreement, which was adopted by the Conference of the Parties to the UNFCCC in December 2015, enhances the implementation of the UNFCCC including its objective, and aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;

Recognizing the global aspirational goals for the international aviation sector of improving fuel efficiency by 2 per cent per annum and keeping the net carbon emissions from 2020 at the same level, as adopted by the ICAO Assembly at its 37th Session in 2010 and reaffirmed at its 38th and 39th Sessions in 2013 and 2016, as well as the

work being undertaken to explore a long-term global aspirational goal for international aviation in light of the 2 °C and 1.5 °C temperature goals of the Paris Agreement;

Recognizing that the aspirational goal of 2 per cent annual fuel efficiency improvement is unlikely to deliver the level of reduction necessary to stabilize and then reduce aviation's absolute emissions contribution to climate change, and that goals of more ambition are needed to deliver a sustainable path for aviation;

Affirming that addressing GHG emissions from international aviation requires the active engagement and cooperation of States and the industry, and noting the collective commitments announced by Airports Council International (ACI), Civil Air Navigation Services Organisation (CANSO), International Air Transport Association (IATA), International Business Aviation Council (IBAC) and International Coordinating Council of Aerospace Industries Associations (ICCAIA) on behalf of the international air transport industry, to continuously improve CO<sub>2</sub> efficiency by an average of 1.5 per cent per annum from 2009 until 2020, to achieve carbon neutral growth from 2020 and to reduce its carbon emissions by 50 per cent by 2050 compared to 2005 levels;

Recalling the UNFCCC and the Paris Agreement and acknowledging its principle of common but differentiated responsibilities and respective capabilities, in light of different national circumstances;

Also acknowledging the principles of non-discrimination and equal and fair opportunities to develop international aviation set forth in the Chicago Convention;

Recognizing that this Resolution does not set a precedent for or prejudice the outcome of negotiations under the UNFCCC or the Paris Agreement, nor represent the position of the Parties to those agreements;

Noting that, to promote sustainable growth of international aviation and to achieve its global aspirational goals, a comprehensive approach, consisting of a basket of measures including technology and standards, sustainable aviation fuels, operational improvements and market-based measures to reduce emissions is necessary; Acknowledging the significant technological progress made in the aviation sector, with aircraft produced today being about 80 per cent more fuel efficient per passenger kilometre than in the 1960's;

Welcoming the adoption of the CO<sub>2</sub> emissions certification Standard for aeroplanes by the Council in March 2017;

Recognizing the work being undertaken to consider the environmental aspects of aircraft end-of-life such as through aircraft recycling;

Recognizing that air traffic management (ATM) measures under the ICAO's Global Air Navigation Plan contribute to enhanced operational efficiency and the reduction of aircraft CO<sub>2</sub> emissions;

Welcoming the assessment of the environmental benefits of the Aviation System Block Upgrades (ASBUs) completed for Block 0 and Block 1, and the results of the first global horizontal flight efficiency analysis;

Welcoming the convening of the ICAO Seminars on Green Airports in November 2017 and May 2019;

Noting that the first Conference on Aviation and Alternative Fuels in November 2009 (CAAF/1) endorsed the use of sustainable aviation fuels, particularly the use of drop-in fuels in the short to midterm, as an important means of reducing aviation emissions;

Also noting that the CAAF/1 established an ICAO Global Framework for Aviation Alternative Fuels (GFAAF) through which progress has been registered, with six pathways for the certification of sustainable aviation fuels to date, and more airports regularly distributing such fuels;

Further noting that the second Conference on Aviation and Alternative Fuels in October 2017 (CAAF/2) adopted recommendations and approved a declaration, including the 2050 ICAO Vision for Sustainable Aviation Fuels, as a living inspirational path for a significant proportion of aviation fuels to be substituted with sustainable aviation fuels by 2050;

Recognizing that the technological feasibility of drop-in sustainable aviation fuels is proven and that the introduction of appropriate policies and incentives to create a long-term market perspective is required;

Acknowledging the need for such fuels to be developed and deployed in an economically feasible, socially and environmentally acceptable manner and the progress achieved in the harmonization of the approaches to sustainability;

Recognizing that sustainability criteria, sustainability certification, and the assessment of life cycle emissions of such fuels are considered as part of work for the implementation of Carbon Offsetting and Reduction for International Aviation (CORSA);

Acknowledging the need to explore and facilitate the civil aviation sector's access to renewable energy including through its cooperation with the Sustainable Energy for All (SE4ALL) initiative, as part of the Organization's contribution to SDG 7 "Ensure access to affordable, reliable, sustainable and modern energy for all"; Recalling that Assembly Resolution A37-19 requested the Council, with the support of member States, to undertake work to develop a framework for market-based measures (MBMs) in international aviation, including further elaboration of the guiding principles listed in the Annex to A37-19, and that the guiding principles were elaborated as listed in the Annex to Assembly Resolutions A38-18 and A39-2, which are reproduced in the Annex to this Resolution;

Noting that, consistent with Assembly Resolution A39-2, a substantial strategy for capacity building and other technical and financial assistance was undertaken by the Organization, in line with the No Country Left Behind (NCLB) initiative, to assist the preparation and submission of States' action plans, including the holding of regional seminars, the development and update of ICAO Doc 9988, Guidance on the development of States' Action Plans on CO<sub>2</sub> Emissions Reduction Activities, an interactive web-interface, the ICAO Fuel Savings Estimation Tool (IFSET), the ICAO Environmental Benefits Tool (EBT) and a Marginal Abatement Cost (MAC) curve tool;

Welcoming that, as of June 2019, 114 member States that represent more than 93 per cent of global international air traffic voluntarily prepared and submitted action plans to ICAO;

Recognizing the different circumstances among States in their capacity to respond to the challenges associated with climate change and the need to provide necessary support, in particular to developing countries and States having particular needs;

Affirming that specific measures to assist developing States as well as to facilitate access to financial support, technology transfer and capacity building should be initiated as soon as possible;



Recognizing the assistance provided by ICAO in partnership with other organizations to facilitate Member States' action to reduce aviation emissions, as well as continuous search for potential assistance partnerships with other organizations;

Recognizing the importance of work being undertaken to identify the potential impacts of climate change on international aviation operations and related infrastructure; and

Recognizing the progress made by ICAO in its implementation of the Climate Neutral UN initiative and the significant support provided by ICAO to the initiative, in particular through the development of the ICAO Carbon Emissions Calculator, to support the assessment of emissions from passengers travelling by air and welcoming its expansion to add air cargo emissions;

The Assembly:

1. Resolves that this Resolution, together with Resolution A40-17: Consolidated statement of continuing ICAO policies and practices related to environmental protection – General provisions, noise and local air quality and Resolution A40-19: Consolidated statement of continuing ICAO policies and practices related to environmental protection – Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), supersede Resolutions A39-1, A39-2 and A39-3 and constitute the consolidated statement of continuing ICAO policies and practices related to environmental protection;
2. Requests the Council to:
  - a) ensure that ICAO exercise continuous leadership on environmental issues relating to international civil aviation, including GHG emissions;
  - b) continue to study policy options to limit or reduce the environmental impact of aircraft engine emissions and to develop concrete proposals, encompassing technical solutions and market-based measures, and taking into account potential implications of such measures for developing as well as developed countries; and
  - c) continue to cooperate with organizations involved in policy-making in this field, notably with the Conference of the Parties to the UNFCCC;
3. Reiterates that:
  - a) ICAO should continue to take initiatives to promote information on scientific understanding of aviation's impact and action undertaken to address aviation emissions and continue to provide the forum to facilitate discussions on solutions to address aviation emissions; and
  - b) emphasis should be on those policy options that will reduce aircraft engine emissions without negatively impacting the growth of air transport especially in developing economies;
4. Resolves that States and relevant organizations will work through ICAO to achieve a global annual average fuel efficiency improvement of 2 per cent until 2020 and an aspirational global fuel efficiency improvement rate of 2 per cent per annum from 2021 to 2050, calculated on the basis of volume of fuel used per revenue tonne kilometre performed;
5. Agrees that the goals mentioned in paragraph 4 above would not attribute specific obligations to individual States, and the different circumstances, respective capabilities and contribution of developing and developed States to the concentration of aviation GHG emissions in the atmosphere will determine how each State may voluntarily contribute to achieving the global aspirational goals;
6. Also resolves that, without any attribution of specific obligations to individual States, ICAO and its Member States with relevant organizations will work together to strive to achieve a collective medium-term global aspirational goal of keeping the global net carbon emissions from international aviation from 2020 at the same level,

taking into account: the special circumstances and respective capabilities of States, in particular developing countries; the maturity of aviation markets; the sustainable growth of the international aviation industry; and that emissions may increase due to the expected growth in international air traffic until lower emitting technologies and fuels and other mitigating measures are developed and deployed;

7. Recognizes the many actions that ICAO Member States have taken and intend to take in support of the achievement of the collective aspirational goals, including air traffic management modernization, acceleration of the use of fuel-efficient aircraft technologies, and the development and deployment of sustainable aviation fuels, and encourages further such efforts;

8. Agrees to review, at its 41st Session, the goal outlined in paragraph 6 above in light of progress towards the goal, studies regarding the feasibility of achieving the goal, and relevant information from States;

9. Requests the Council to continue to explore the feasibility of a long-term global aspirational goal for international aviation, through conducting detailed studies assessing the attainability and impacts of any goals proposed, including the impact on growth as well as costs in all countries, especially developing countries, for the progress of the work to be presented to the 41st Session of the ICAO Assembly. Assessment of long-term goals should include information from Member States on their experiences working towards the medium term goal;

(The rest of the information is omitted)

— END —